



Transportation Systems Management & Operations

D4 TSM&O STANDARD OPERATIONS PROCEDURES

Attachment II



1.0 Document Control

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Document History

Version #	Date	Author / Reviewer / Editor	Changes
1.0	04/25/2024	Dee McTague / Yana Neishlos	Initial Draft
1.1	5/06/2024	Dee McTague / Yana Neishlos	Dee McTague has modified the text

ABOUT SOPs

The Florida Department of Transportation District Four Regional Traffic Management Center (RTMC) uses this system to document all procedures used by the Transportation Systems Management & Operations (TSM&O) Program. The TSM&O Standard Operating Procedures (SOPs) are organized into the following sections.

#	Section Name	Author / Reviewer (consultant)	FDOT Reviewer / Approver
1.0	Document Control	RTMC Project Manager / Technical Writer	TSM&O Resource Manager
2.0	Staffing	RTMC Project Manager / Technical Writer	TSM&O Resource Manager
3.0	Office Administration	Office Manager / RTMC Project Manager	TSM&O Resource Manager
4.0	RTMC Freeway Operations	RTMC Supervisors / RTMC Operations Manager	TSM&O Freeway Engineer
5.0	Severe Incident Response Vehicle (SIRV)	SIRV Manager/ SIRV Assistant	TSM&O Incident Management Program Manager
6.0	Safety Service Patrol (Road Rangers)	TIM Coordinator / RTMC Project Manager	TSM&O Incident Management Program Manager
7.0	Information Technology (IT)	IT Support Manager / Technical Writer	TSM&O IT Manager
8.0	ITS Maintenance	ITS Maintenance Managers: AMS & Freeway (PBC, BC)	TSM&O Resource Manager
9.0	Emergency Response Plan (ERP)	RTMC Project Manager	TSM&O Freeway Engineer
10.0	Arterial Management Program (AMP)	RTMC Supervisor (AMP) / RTMC Assistant Manager (AMP)	TSM&O Arterial Program Manager

#	Section Name	Author / Reviewer (consultant)	FDOT Reviewer / Approver
11.0	Managed Lanes Network	RTMC Assistant Manager (Express Lanes) / Managed Lanes Coordinator	TSM&O Freeway Engineer

Note. Section 9.0, the Emergency Response Plan (ERP), is to be followed for sudden and unforeseen emergencies that cause the necessary evacuation of the RTMC. This ERP contains specific instructions for all the above-mentioned groups that operate at the RTMC, in the event of any emergency evacuation.

THE DOCUMENTATION PROCESS

SOPs and ERP Maintenance

Standard Operating Procedures must be reviewed and updated at least semi-annually to ensure they are as efficient and effective as possible to conform to the status of TSM&O deployment, software systems, and RTMC policy.

All SOPs are updated by a group manager or assistant from the consultant company responsible for the section. The list above shows the role responsible for managing and updating material contained in each SOP section.

Roles Involved

Author:	This is the individual(s) that produced/reviewed the content.
Reviewer / Editor:	This is the individual responsible for reviewing and approving the content to ensure adherence to and compliance with established organizational standards prior to submission to FDOT for approval.
FDOT Reviewer / Approver	This is the TSM&O staff member responsible for reviewing and approving the content to ensure adherence to and compliance with established organizational standards

SOP Schedule

The consultant Public Outreach Coordinator is responsible for notifying authors to update the SOPs semi-annually (currently due in June and December).

Note. Section 9.0 Emergency Response Plan must be prioritized and finalized by May 31, 2024, in preparation for Hurricane Season.

Format and Layout

See the link below for clarification:

[Template SOP1.docx](#)



2.01 Consultant Staffing

Overview

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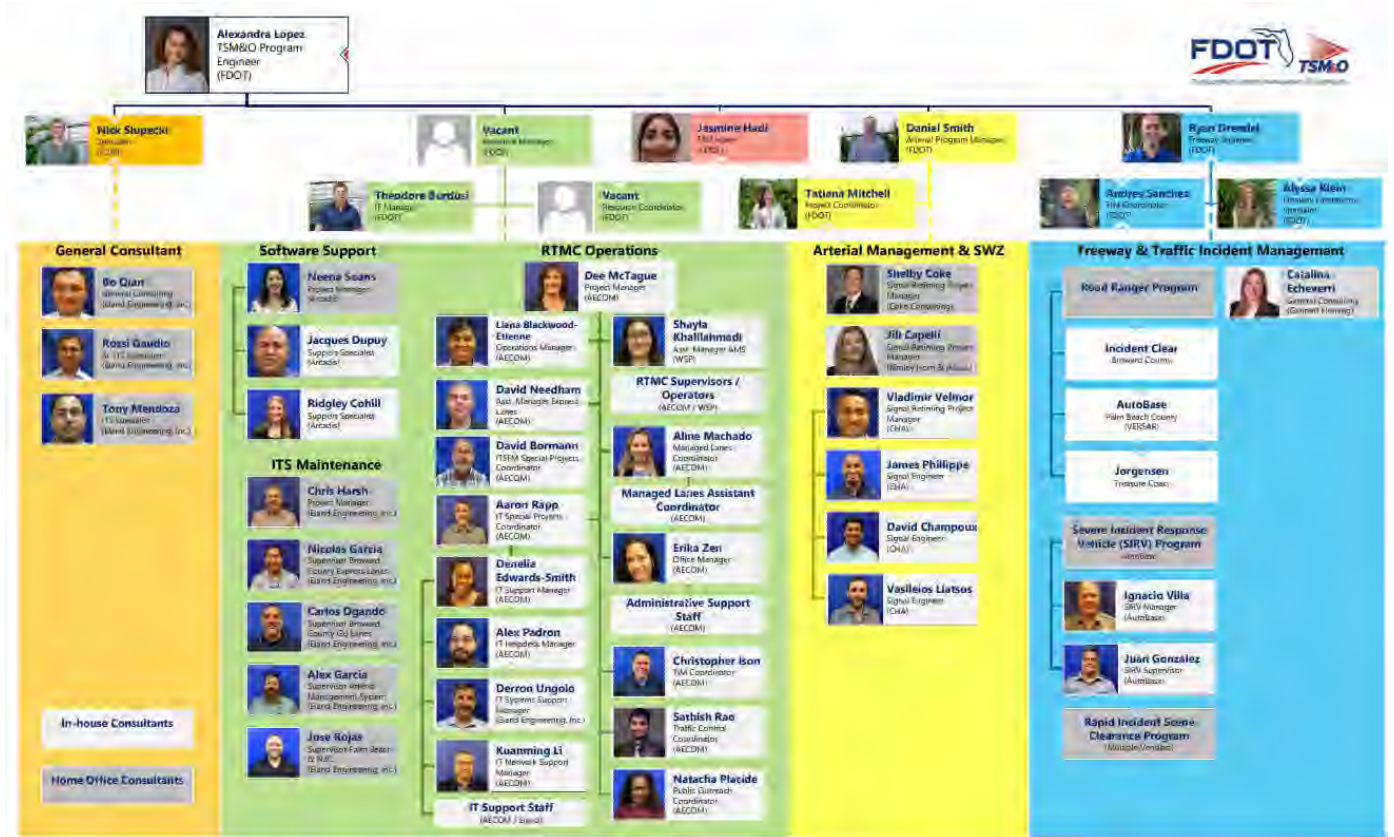
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DESCRIPTION / OVERVIEW

This section provides an organizational chart and reporting structure of Regional Transportation Management Center (RTMC) staff positions within the District Four TSM&O RTMC.

Detailed job descriptions are found further on.



HIRING STAFF

Objective

To provide guidance on the process to be followed when hiring new employees.

Office Personnel

The hiring manager is responsible for posting positions and initial screening of resumes. Once potential candidates have been identified, the following steps should be followed:

- The first interview is conducted by the hiring company and should cover technical knowledge.
- Successful candidates may be scheduled for a behavioral interview and, depending on the position, the TSM&O Project Manager may want to observe.
- Once a candidate has been selected, the hiring company must propose the candidate to FDOT TSM&O Resource Manager (or delegate) in writing for approval.
- The request must include a resume containing, at a minimum, the following information:
 - Speak, write, and understand English fluently.
 - Current driver's license in accordance with the Florida Motor Vehicle Code.
 - Minimum age of 18 years old.
 - Education, certifications, diploma(s), degree(s), professional affiliation(s).
 - Minimum of the last three employment positions unless having worked less after graduating high school or college.
- FDOT will provide written justification if the candidate is not approved.

Control Room Staff

RTMC Operations Manager is responsible for screening resumes and conducting interviews for control room staff.

Candidate Approved.

Once a candidate has been selected for hire, a request for approval should be sent to FDOT TSM&O Resource Manager (or delegate) along with a copy of the resume with the same information as stated above for office staff.

Candidate not Approved.

If the candidate is not approved, FDOT TSM&O Resource Manager will respond in writing with justification.



2.02 RTMC

Operations Staff

Job Descriptions

Document History

Version #	Date	Author	Changes
1.0	04/10/2024	Yana Neishlos	Initial Draft

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CONTROL ROOM OPERATIONS PERSONNEL

Description

Personnel whose primary work location is inside the Regional Transportation Management Center (RTMC) control room shall be considered Control Room Operations Personnel.

Personnel will be qualified as outlined in the four major work group categories, with six position-specific classifications dependent upon qualifications as described in the major work group categories.

Major Work Groups & Classifications

Operations, Express Lanes Ramp Metering

Work Group Qualification & Responsibilities

<i>Freeway Operations Work Group-qualified Operator</i>	<ul style="list-style-type: none"> – Principal monitoring of the freeway management systems (FMS) roadways and possesses strong familiarity of the district's freeway system. – Monitors the freeway status using closed circuit television (CCTV) cameras, Road Ranger service patrols, detector data, etc. to include detecting, confirming, updating, and responding to scheduled and unscheduled traffic and incident management events, congestion, and travel time imbalances in the geographical coverage area. – Enters scheduled and unscheduled events/congestion into SunGuide® software. – Disseminates information using Intelligent Transportation System (ITS) devices, website, and Florida 511 system. – Coordinates with other control room staff, law enforcement, and external agencies in response to incidents. – Dispatches Road Ranger service patrols and Severe Incident Response Vehicles (SIRV) to motorists, events; to assist law enforcement in a timely manner. – Detects, confirms, and reports equipment faults affecting control room equipment and RTMC system field equipment. Coordinates with maintenance staff as needed.
<i>Arterial Operations Work Group-qualified Operator</i>	<ul style="list-style-type: none"> – Principal monitoring of the arterial management systems roadways having strong familiarity of the district's arterial system. – Monitors the arterial network status using CCTV, Road Ranger service patrols (future), detector data, Bluetooth devices, etc. to include detecting, confirming, updating, and responding to scheduled and unscheduled traffic and incident management events on the arterial network, congestion, travel time imbalances in the geographical coverage area. – Enters scheduled/unscheduled events/congestion into SunGuide® software. – Disseminates information using ITS devices, website, and Florida 511 system. – Coordinates with other control room staff, law enforcement, and external agencies in response to incidents. – Dispatches Road Ranger service patrols and SIRVs to motorists, events, and to assist law enforcement in a timely and efficient manner. – Coordinates with signal timing staff and county or city/municipality staff as required to adjust signal timing as needed in response to scheduled and unscheduled events. – Detects, confirms, and reports equipment faults affecting control room equipment and RTMC system field equipment. – Coordinates with maintenance staff as needed.

Work Group Qualification & Responsibilities

Express Lanes Work Group The Express Lanes Work Group-qualified Operator:

- Must have two years' experience as an RTMC Operator 1 having a strong familiarity of the district's freeway and arterial systems and express lanes network.
- To be the primary operator of the Express Lanes Pricing Software in the latest version of the SunGuide® software or other software as directed.
- Monitor I-95 and I-75 (express and general-use lanes) and work with District Six TMC.
- Responsible for closely coordinating with 595 Express during reversal operations and in response to any closures and assuring the status of the system is accurate.
- Manages events in the express lanes.
- Monitors field devices along I-95 (express and general-use lanes) and report failures.
- Closely coordinates/supports all express lanes operations.
- Prepares/assists with preparation of express lanes reports including, but not limited to, daily debriefing and shift change report.
- Sends executive notification e-mails in the absence of a supervisor or shift leader.

Ramp Metering Work Group The Ramp Metering Work Group-qualified Operator:

- Must have one year's experience as an RTMC Operator 2, having a strong familiarity with the district's freeway and arterial systems as well as the express lanes network.
- To be the primary operator of the district's ramp metering software.
- The group requires excellent judgement and situational awareness of ramp metering impacts to the freeway system, arterial network, and express lanes, and a close working relationship with the DEPARTMENT's signal maintaining agencies.

RTMC Operators

RTMC Operator 1

Operator Role Description / Qualification

RTMC Operator 1

- All aspects of the Freeway Operations Work Group AND/OR Arterial Operations Work Group.
- Recommended by the VENDOR'S RTMC Project Manager
- Approved by the DEPARTMENT's Project Manager, if qualified, and the position is required for RTMC Operations as determined by the DEPARTMENT's Project Manager.
- Must meet all classification requirements within ninety (90) days placement into this classification at the discretion of the VENDOR'S Project Manager and the DEPARTMENT's Project Manager.

Senior RTMC Operator 1

- Fills a position of RTMC Operator 1 for at least a year.
- Demonstrates good judgement and a high level of understanding and requires minimal supervision.
- A promotion to Senior RTMC Operator 1 – to be at the discretion of the VENDOR'S RTMC Operations Manager and approved by the DEPARTMENT's Project Manager

Operator	Role Description / Qualification
	<p>if the position is required for RTMC Operations as determined by the DEPARTMENT's Project Manager.</p> <ul style="list-style-type: none"> - Must meet all classification requirements within ninety (90) days placement into this classification at the discretion of the VENDOR'S Project Manager and the DEPARTMENT's Project Manager.

RTMC Operator Responsibilities

- Principal monitoring of the roadways including detecting, confirming, updating, and responding to scheduled and unscheduled traffic and incident management events, congestion, and travel time imbalances in the geographical coverage area with monitoring and/or surveillance capabilities.
- Will act like a 911 dispatcher within a call center environment.
- Monitor traffic status (by CCTV, Road Ranger and by graphical user interface [GUI] display/detector data.), scheduled events, active events, equipment fault status, etc.
- Manage events/congestion using the RTMC GUI and its devices, both electronic (e.g., website server, incident detection algorithms) and in the field (e.g., vehicle detection stations, CCTV cameras, Dynamic Message Signs [DMS]).
- Dispatch Road Rangers to motorists, events, other activities to assist in a timely manner.
- Log all activities into SunGuide and ensure the quality of information is complete and concise.
- Detect, confirm, and track equipment faults affecting control room equipment (e.g., central system, computers, CCTV monitors, and large screen display units) and RTMC system field equipment (e.g., CCTV, Microwave Vehicle Detection System [MVDS], DMS).
- Coordinate with other operations staff with regards to external agency communications and general control room coordination, and other control room staff from other agencies to obtain a full understanding of all control room activity status.
- Inform emergency services of traffic events.
- Will assist the RTMC Operations Shift Leader in informing emergency services of traffic events in the geographical coverage area of the RTMC. These events vary in scope and the methods of the operator response to notify emergency services.
- Ascertain the level of response required and contact the appropriate services using phone contacts supplied in the standard operating procedures.
- Assist RTMC Operations Shift Leader to generate data collection reports to include monthly reports, telephone logs, operator performance, severe incident reports, SIRV data / other reports requested.
- Fill in as RTMC Operations Shift Leader as required to meet contract requirements.
- All other tasks assigned.

RTMC Operator 2

Operator	Role Description & Qualifications
<i>RTMC Operator 2</i>	<ul style="list-style-type: none"> - Qualified in all aspects of the Freeway Operations Work Group AND the Arterial Operations Work Group AND the Express Lanes Work Group. - To be recommended by the VENDOR'S RTMC Project Manager and approved by the DEPARTMENT's Project Manager if qualified, and the position is required for RTMC Operations as determined by the DEPARTMENT's Project Manager.

Operator	Role Description & Qualifications
Senior RTMC Operator 2	<ul style="list-style-type: none"> - Must meet all classification requirements within ninety (90) days placement into this classification at the discretion of the VENDOR'S Project Manager and the DEPARTMENT's Project Manager. - Acts as RTMC Operator 2 for at least a year and has demonstrated good judgement and a high level of understanding and requires minimal supervision. - A promotion to Senior RTMC Operator 3 → at the discretion of the VENDOR'S RTMC Operations Manager and approved by the DEPARTMENT's Project Manager if the position is required for RTMC Operations as determined by the DEPARTMENT's Project Manager. - Must meet all classification requirements within ninety (90) days placement into this classification at the discretion of the VENDOR'S Project Manager and the DEPARTMENT's Project Manager.

RTMC Operator 2 Responsibilities

It is an extension of the RTMC Operator 1 position to include these additional responsibilities.

- Primary operator of the Pricing Subsystem (PS) in the latest version of the SunGuide Software or other software as directed.
- Monitoring of I-95 and I-75 (express and general use lanes) and coordinating closely with District 6 TMC.
- Manage events in the express lanes.
- Handle all calls/inquiries related to the express lanes and conduct research as requested.
- Monitor field devices along I-95 (express and general use lanes) and report failures.
- Ensure breaks and meals are covered by Shift Supervisors/Lead Operators/ or Assistant TMC Manager.
- Closely coordinate and support all express lanes operations.
- Prepare or assist with preparation of express lanes reports including, but not limited to, daily debriefing and shift change report.
- Send Executive Notification emails in the absence of supervisor or shift leader.
- Fill in as Shift Leader as needed to fill contract requirements.
- All other duties as assigned.

RTMC Operator 3

Operator	Role Description & Qualifications
RTMC Operator 3	<ul style="list-style-type: none"> - Qualified in all aspects of the Freeway Operations Work Group AND the Arterial Operations Work Group AND the Express Lanes Work Group AND the Ramp Metering Work. - To be recommended by the VENDOR'S RTMC Project Manager and approved by the DEPARTMENT's Project Manager if qualified, and the position is required for RTMC Operations as determined by the DEPARTMENT's Project Manager.

Operator	Role Description & Qualifications
<p><i>Senior RTMC Operator 3</i></p>	<ul style="list-style-type: none"> - Must meet all classification requirements within ninety (90) days placement into this classification at the discretion of the VENDOR'S Project Manager and the DEPARTMENT's Project Manager. - Acts as a RTMC Operator 3 for at least one year and demonstrated a good judgement and a high level of understanding and requires minimal supervision. - A promotion to Senior RTMC Operator 4 → at the discretion of the VENDOR'S RTMC Operations Manager and approved by the DEPARTMENT's Project Manager if the position is required for RTMC Operations as determined by the DEPARTMENT's Project Manager. - Must meet all classification requirements within ninety (90) days placement into this classification at the discretion of the VENDOR'S Project Manager and the DEPARTMENT's Project Manager. - There will be at a minimum one year in a position to be placed in a position of senior operator status. There will be no minimum time requirement to be classified into RTMC Operator 2, 3, or 4 statuses. Placement into RTMC Operator 2, 3, and 4 shall be at the recommendation of the VENDOR'S RTMC Operations Manager and approved by the DEPARTMENT's Project Manager if the position is required for RTMC Operations as determined by the DEPARTMENT's Project Manager.

RTMC SHIFT LEADER

Description

Operations Shift Leader	<ul style="list-style-type: none"> – Central contact for two-way communications flows with external agencies including those by voice, mail, fax, internet, and other electronic data. – Will assist RTMC Operations Supervisor to coordinate information flows within the control room and facilitate response to disasters and high-profile special events impacting traffic, as directed. – A “people”-oriented service position that requires the ability to work well in a group environment.
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Knowledge, Skills, And Abilities

#	Skills Description
1.	Two (2) years’ experience in the operations in a RTMC or of a facility like a RTMC. <ul style="list-style-type: none"> a. Understanding of TSM&O principles. b. Good leadership and interpersonal skills. c. Understand management concepts. d. Ability to clearly communicate technical information in layman’s terms. e. Ability to work alternate work schedules and be on-call 24 hours/day. f. Skilled in the use of advanced traffic management system (ATMS) applications. g. Ability to write reports and correspondence. h. Ability to coordinate real-time activities and priorities. i. Direct experience with the day-to-day operations of a similar center.
2.	Facilitate the information exchange between control room operators ensuring that all operators are aware of relevant information pertaining to their respective systems.
3.	Act as the RTMC Operations Supervisor in their absence, handling the guidance and responses from operators and directing communications to Emergency Management System (EMS) services.
4.	Fully trained in all control room systems, the Operations Shift Leader is also capable of stepping in during peak times to assist other operations and thereby even out the peak resource loading and fill in during break periods to create a seamless environment.
5.	Monitor and report internal and external system irregularities: graphical user interface (GUI), CCTV, website, Video Display System (VDS), DMS, monitors, or video key switch.

#	Skills Description
6.	External interface communications include: <ul style="list-style-type: none">a. <i>Police and other emergency agencies:</i> Provides general information and organizes emergency assistance if required by transferring to a control room operator.b. <i>Media:</i> Provides non-confidential information if requested.c. <i>Public Transportation:</i> Responds to inquiries.d. <i>Outside Source Generation:</i> Receives information on related roadwork, major accidents, etc. that could affect RTMC boundaries.e. <i>Special Event Generators:</i> Receives information on special events and conveys information on response details as requested.
7.	Assist RTMC Operations Supervisor with report data generation to include monthly reports, telephone logs, operator performance, severe incident reports, SIRV data, and any other reports that are requested.
8.	Responsible for daily scheduling of all breaks for control room staff to ensure that there are always two operators in the control room, Monday to Friday, 6 a.m. to midnight.
9.	Ensure that all data generated and disseminated by the control room is concise and timely including DMS messaging, text messaging, website messaging, and any other communications from control room staff.
10.	Facilitate the proper usage of Road Ranger dispatching to include resource allocation to events, data collection of all activities, and proper quality assurance during Road Ranger assists being monitored by CCTV.
11.	Performs all other tasks assigned by the DEPARTMENT.

OPERATIONS SUPERVISOR

Description

RTMC Operations Supervisor	<ul style="list-style-type: none"> – Responsible for the administration and direct supervision of the control room staff including intern students. – Will make decisions pertaining to the control room operations requiring a high degree of experience and judgment. – Must facilitate the smooth and balanced operation of the control room.
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Knowledge, Skills, And Abilities

#	Skills Description
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- | | |
|----|---|
| 1. | Two (2) years' experience in the operations in a RTMC or of a facility like a RTMC. <ol style="list-style-type: none"> a. Understanding TSM&O and traffic engineering principles. b. Good leadership and interpersonal skills. c. Good understanding of key management concepts. d. Ability to clearly communicate technical information in layman's terms. e. Ability to work alternate work schedules and be on-call 24 hours/day. f. Skilled in the use of ATMS applications. g. Ability to write reports, correspondence, and manuals. h. Ability to coordinate real-time activities and priorities. i. Direct experience with the day-to-day operations of a similar center. j. Experience in public speaking. |
| 2. | Administrative functions, e.g., shift scheduling, liaison with the RTMC management, hiring, training, and public relations. |
| 3. | Continuous supervision of 24 hours/day, 7 days/week operations being on-call outside normal shift and at other selected times. |
| 4. | Facilitate operations by guiding critical control room operation decisions, developing special events response plans, guidance during severe events, and generating severe event response reports. |
| 5. | Coordinate control room activities by assisting in managing responses to disasters and high-profile special events and accommodating the data needs of special agencies and third parties, etc. |
| 6. | Responsible for day-to-day monitoring and balancing of the control room activities, direction, and incentives among staff, and developing team atmosphere. |

#	Skills Description
7.	Develop ideas on system implementation, operational improvements (e.g., modifications in software, hardware, field equipment, operations, and coordination procedures, etc.), to increase the efficiency of the control room operations.
8.	<ul style="list-style-type: none">– Balance work loads of control room staff by instructing staff to assist others as required, by assigning reporting tasks during less busy times,– Ensuring that staff resources are utilized efficiently.
9.	Present operational staff with an understanding of their role in the overall context of transportation systems, providing them with incentives to perform day-to-day tasks.
10.	Develop a training program, guidelines, and standards for the RTMC Operators to use and be tested on using a graduated staffing structure.
11.	Assist in conducting tours for external groups visiting the RTMC. The groups may include foreign dignitaries, government officials, and other individuals who wish to visit the RTMC. The tours consist of information handouts, slide show presentations, and a physical tour of the facility.
12.	Performs all other tasks assigned by the DEPARTMENT.

ASSISTANT OPERATIONS MANAGER

These guidelines provide a responsibilities' overview within the District Four TSM&O Regional Transportation Management Center.

Description / Responsibilities

RTMC
Assistant
Operations
Manager

- reports to and assists the RTMC Manager with daily operations activities of the RTMC in accordance with the SOGs, protocols, and policies. This position will be responsible for technical writing of documentation in the RTMC to include, but not limited to: SOGs, training materials for all RTMC staff, advertising material, and other documentation as assigned by RTMC management or by the DEPARTMENT.

Knowledge, Skills, Abilities

#	Skills Description
1.	<p>Bachelor's degree: Bachelor of Arts or Bachelor of Science or Business Administration, or the equivalent of three (3) years' experience in operations of a facility like the RTMC.</p> <ul style="list-style-type: none"> a. Understanding of TSM&O and traffic engineering principles. b. Good leadership and interpersonal skills c. Has a good understanding of key management concepts. d. Ability to clearly communicate technical information in layman's terms. e. Ability to work alternate work schedules and be on-call 24 hours/day. f. Skilled in the use of Windows operating system. g. Ability to write technical reports, correspondence, manuals, and advertising materials. h. Ability to coordinate real-time activities and priorities. i. Direct experience with the day-to-day operations of a similar center. j. Experience in public speaking and coordinating media events.
2.	<ul style="list-style-type: none"> – Provides project management support. – Supports the development and implementation of the TSM&O Strategic Business Plan.
3.	<p>Assists in the day-to-day management of the RTMC staff and resources including problem resolution concerning RTMC operations.</p>
4.	<ul style="list-style-type: none"> – Participates in periodic Traffic Incident Management (TIM) and Southeast Florida Regional TMC Operations Committee (SEFRTOC) meetings. – Ensures appropriate interagency coordination.

#	Skills Description
5.	Provides RTMC tours, presentations, and answers to media and other requests.
6.	Ensures performance of daily maintenance checks of the system and all ITS field devices.
7.	Assists in development and maintenance of the inventory database for the RTMC equipment.
8.	Prepares monthly reports of performance measures for operators and supervisors.
9.	Assists in preparing a monthly report on the performance of the system based on predefined measures of effectiveness.
10.	Assists in the semi-annual update of the SOPs to conform to the status of the TSM&O deployment, software systems, FDOT policy, RTMC policy, and industry standards.
11.	<ul style="list-style-type: none">– Assists in development of training materials and the quarterly update of training materials to conform to updates in the SOPs.– Modifies training materials as necessary because of system and employee performance analysis.
12.	Assists in training operators and certification process documentation.
13.	Coordinates ITS field devices repair and maintenance activities with the FDOT ITS Maintenance Manager.
14.	Provides adequate staff coverage of TSM&O.
15.	Leads the RTMC marketing team with all public outreach and advertising efforts and creates a budget for these requirements.
16.	Writes all technical documents for the RTMC including, but not limited to: RTMC SOP, training manuals, and SEFRTOC SOG.
17.	Performs all other tasks assigned by the DEPARTMENT.

OPERATIONS MANAGER

Description

These guidelines provide an overview of the RTMC Operations/Staff Manager responsibilities within the District Four TSM&O Regional Transportation Management Center.

Responsibilities

The RTMC Operations Manager manages the daily operations activities of the RTMC in accordance with the SOPs, protocols, and policies, and is responsible for the overall operations and functionality of the RTMC.

Knowledge, Skills, And Ability

#	Skills Description
1.	<p>Bachelor's degree in engineering or business administration and the equivalent of five (5) years' experience in the operations of a facility similar to the RTMC.</p> <ul style="list-style-type: none"> a. Understanding of TSM&O and traffic engineering principles. b. Good leadership and interpersonal skills. c. Has a good understanding of key management concepts. d. Ability to clearly communicate technical information in layman's terms. e. Ability to work alternate work schedules and be on-call 24 hours/day. f. Skilled in the use of Windows operating system. g. Ability to write technical reports and correspondence. h. Ability to coordinate real-time activities and priorities. i. Direct experience with the day-to-day operations of a similar center.
2.	The RTMC Operations Manager is responsible for the project management of the CONTRACT and the TSM&O Strategic Business Plan.
3.	Day-to-day management of the RTMC staff and resources, including problem resolution concerning RTMC operations.
4.	Ensures that RTMC operations are conducted within the design parameters, SOPs, FDOT policies, and industry standards.
5.	Participates in periodic TIM meetings and ensures appropriate interagency coordination.
6.	Participates in periodic SEFRTOC meetings and ensures appropriate interagency coordination.

#	Skills Description
7.	Responsible for the RTMC public relations activities such as the RTMC marketing efforts, RTMC tours, and presentations.
8.	Attends meetings as directed by the DEPARTMENT to include TIM, South Florida ITS Coalition, and others as directed.
9.	Prepare monthly reports of performance measures for operators and supervisors.
10.	Determines and uses existing measures of effectiveness for the RTMC in terms of efficiency and effectiveness in providing transportation management, traveler information, and incident management. Prepares a monthly report on the performance of the system based on these measures of effectiveness.
11.	Oversees semi-annual update of the SOP manuals to conform to the current status of the TSM&O deployment, software systems, FDOT policy, RTMC policy, and industry standards.
12.	Develops training materials and the quarterly update of training materials to conform to updates in the SOP manuals.
13.	Modifies training materials as necessary because of system and employee performance analysis.
14.	Trains operators and certification process documentation.
15.	Ensures adequate staff coverage of TSM&O.
16.	Performs all other tasks assigned by the DEPARTMENT.



2.03 RTMC

IT Staff

Job Descriptions

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IT SUPPORT MANAGER

Position Overview

These guidelines provide an overview of the RTMC IT Support Manager's responsibilities within the District Four TSM&O Regional Transportation Management Center.

- Accountable for the top-level support of all desktops, servers, and network systems within the RTMC and TSM&O associated facilities.
- Supports final management of all customized applications and system resources used within the RTMC including, but not limited to, the specialized video wall, including maintenance of TSM&O facility computer hardware, video wall, software, and network systems.
- Management and assistance of TMC staff in applying off-the-shelf software to improve the overall performance of database management, analysis, interpretation, and dissemination functions, including the continual improvement process of streamlining better efficiency of IT equipment to further TSM&O operational goals of lane management.
- All aspects of IT within the RTMC and TSM&O associated facilities and direct management of the TSM&O IT department including the human resources staffing.
- Will assist the DEPARTMENT's Project Manager with strategic business decisions concerning the TSM&O networks as well as ensuring deliverables of metric-specific resources on a weekly, monthly, quarterly, and yearly basis.

Knowledge, Skills, And Abilities

- Bachelor's degree in computer science, information management, network management, or similar technology field.
- Twelve (12) years' experience in ever increasing IT responsibility roles including five (5) years' experience in operation of a facility like the RTMC with similar responsibilities.
- Five (5) years' experience utilizing SolarWinds applications; five (5) years' experience managing a multi-site, geo-disbursed software-defined datacenter with five (5) years' specific experience with VMWare vSphere products including at least five (5) years' Storage Area Network administration, five (5) years' EMC SAN, and five (5) years' Direct Microsoft Exchange, Messaging, Active Directory, and Proxy Server Management.
- Possess professional technical certifications: active CCNA, active VCP6_DCV, and MCSA (2012 or later).
- Obtained an IT Service Management certification (e.g. ITIL, COBIT, ITSM) and a LEAN Management certification (e.g. Lean Bronze, Six Sigma LEAN).
- Good leadership and interpersonal skills.
- Has a good understanding of key management concepts.
- Ability to:
 - Clearly communicate technical information in layman's terms.
 - Work alternate work schedules and be on-call 24 hours/day.
 - Generate technical reports, correspondence, produce manuals and advertising materials.
 - Coordinate real-time activities and priorities.
- Understanding of TSM&O and traffic engineering principles.
- Master level of hands-on technical expertise in multiple disciplines.

Position Requirements in Detail

1. Hires/oversees expert IT staff within the RTMC and TSM&O associated facilities in pursuit of continual operational goals; facilitates business among external system development contractors and interagency human resources required to collaborate in conjunction with IT staff.
2. Ensures system security is restricted to authorized users within RTMC and TSM&O facilities.
3. Analyzes RTMC system needs, evaluates new solutions to replace old systems; ensures the compatibility with existing computer hardware and software to include costing out and purchase of new equipment and software utilizing best practices within the IT field.
4. Provides technical support to the computer systems utilized by managers; each DEPARTMENT to ensure compatibility in the TMC technology ecosystem.
5. Identifies major computer hardware issues; notifies RTMC Operations Manager when event status level warrants.
6. Provides training for RTMC personnel concerning IT etiquette and protocol.
7. Manages computer system supply parts; ensures a proper level of replacement hardware is available.
8. Develops user manuals and training documents for IT systems in RTMC for easy access by all users.
9. Maintains current IT Helpdesk software system including integration efforts with existing SolarWinds enterprise applications; provides monthly reports as identified by FDOT Operations Manager.
10. Maintains detailed records of IT hardware; provides quarterly inventory reports for FDOT Operations Manager.
11. Maintains detailed records of master desktop system images, being continually updated/used within the RTMC; provides quarterly reports to the FDOT Operations Manager.
12. Maintains detailed records of master system virtual machine template images being continually used within the RTMC; provides quarterly reports to the FDOT Operations Manager.
13. Prepares and reviews technical training documents for staff.
14. Updates SOP semi-annually to keep up with current hardware and software used in the RTMC.
15. Coordinates ITS field device repair/maintenance activities with FDOT ITS Maintenance Manager.
16. Maintains a secure database with sensitive documentation, encryption keys, and privileges password resources within the RTMC.
17. Maintains existing SolarWinds enterprise IT security monitoring platform, providing real-time tracking and monitoring of anomalies within the RTMC network.
18. Creates plans for long-term disaster recovery options for the DEPARTMENT emergency operations center, including long-term data retention of ITS data as per Florida Statutes.
19. Designs, implements an enterprise level, active directory, exchange, and file sharing environment.

20. Provides continual upgrade, security, management, and implementation of all software updates / entitlements paid for by the DEPARTMENT and used with any software and hardware within the RTMC, including but not limited to over 300+ virtual machines spread across 30+ ESX hosts, 25 physical servers, over 400+ accessory servers from workstations, laptops, to specialized appliance equipment.
21. Ensures the complete physical and logical RTMC security including establishment, review, and modification of standards to maintain security and accessory locations and buildings within the district connecting RTMC resources.
22. Provide management of the existing Barco distributed video management system; maintains upgrades, issue management, and feature developments within the system as requested by the DEPARTMENT.
23. Perform all other tasks assigned by the DEPARTMENT.

Special Mission

IT Strategic Plan for the TSM&O program.

Develop and manage an IT Strategic Plan for the TSM&O program. The plan will focus on IT resources to achieve an efficient, secure, and integrated IT program to support the TSM&O systems and shall be updated annually and tracked monthly. The plan update to be submitted within a year of the issuance of the initial LOA. Annual updates shall be submitted within a year each year thereafter. Quarterly meetings to be held by RTMC IT Support Manager, the DEPARTMENT Project Manager, the District's ITS Program Manager, the District's Information Technology Services Manager from the Office of Information Technology, and the District TSM&O Engineer to go over the status of the IT Strategic Plan. The RTMC IT Support Manager to provide summary meeting minutes within five (5) business days after the end of the previous quarter for review and approval by the DEPARTMENT. The Plan and quarterly update meetings to include and cover, but not limited to the following:

- Assess the current state of the DEPARTMENT's TSM&O IT infrastructure.
- Recommendations for improvements regarding IT architecture, policies, standards, effectiveness, efficiency, security, procurement, governance, and program planning.
- Provision of analysis of the DEPARTMENT's TSM&O IT Infrastructure: Current State Analysis, Needs Assessment, Gap Analysis with opportunities, risks for the next five years.
- Performance metrics recapping TSM&O IT: status, maturity, efficiency, and security.
- 5-year expense and services summary to implement the plan and a budget tracking summary for the current budget vs. spending summary.

Quarterly Inventory Compliance

Each quarter (or as requested by the department), equipment operated and controlled by the IT department to maintain 100% accuracy within the DEPARTMENT's inventory management system. Quarterly audit control to be performed confirming the location and availability of all devices is accurately present within their set locations specified through District Four. A report is to be created from the DEPARTMENT's inventory management system and provided to the DEPARTMENT. The report to be provided before the 5th working day after the end of the previous quarter in the calendar year.

All Desktop Images	<p>Due to the changes in policies/procedures over the past 6 years, since the contract was written, this item is superseded by the Desktop/Server Patching requirement.</p> <p>All desktop images maintained by the IT department shall be updated quarterly (within the 2nd week of the quarter) to resolve system/security issues. Also, the desktop images must maintain a running change log of updates for the life of the image up to five (5) years posted, available for review. Change logs must be provided before the 10th working day after the end of the previous quarter in the calendar year.</p>
Devices within the RTMC	<p>Must have active anti-virus and EndPoint (currently Apex One) monitoring protection installed, updated monthly. Monthly reports to be provided to show anti-virus and EndPoint protection compliance for installation of applications on all machines, while continual monitoring and updating of said applications each month. The baseline for this performance measure will be a 97% compliance rate for both installation of anti-virus and EndPoint protection as well as 97% update compliance—report to be provided before the 5th working day of the next month.</p>
Malware Client Signature Report	<p>This requirement is superseded by Apex One anti-virus program above.</p> <p>Devices managed by the RTMC IT department to have the database and signature files updated within a rolling 30-day period to protect against malware. The baseline is based upon reports that are generated monthly. Calculated measures will be at 97% compliance for both client signature reports and database updates report, to be provided before the 5th working day of next month.</p>
Layer 3 Availability	<p>Monthly and annual availability of Layer 3 switches with ITS data having availability of two nines (99%) average against the average of Layer 3 switches. The baseline is based upon reports to be created showing the individual availability of each Layer 3 switch and the switch monthly availability will be averaged together to form a monthly availability number that must be higher than 99 %. The report to be provided before the 5th working day of next month.</p>
VMWare Templates:	<p>This item is similar to the Desktop Images item above. VMware Templates are updated per server patching policies. This item is superseded by the workstation/server patching policies we have in place.</p> <p>VMware templates maintained by the IT department to be updated monthly (within the 2nd week of the month) to resolve any system or security issues. Moreover, VMware templates must maintain a running change log of updates for the life of the image up to five (5) years posted and available for review. The baseline for this performance measure to be "met expectations" or "has not met expectations." Change logs must be provided before the 5th working day of the next month.</p>
Operational Work Tickets	<p>Work tickets, both closed and opened in each month, to be tracked, and reported. The baseline for this performance measure will be "met expectations" or "has not met expectations." Report to be provided before the 5th working day of the next month.</p>
Desktop and Server Patching	<p>Monthly security patching for Windows-based machines upon approving updates daily, weekly, and monthly. Desktop patching will occur weekly and server patching will occur monthly. Updates are tested and applied to all machines within the network controlled by the IT department within the RTMC. The baseline is based upon reports that will be created that show the status of each desktop and server with corresponding patches in a percentage format. In a rolling 30-days, desktops must have 98% of patches applied;</p>

Disaster Data
Planning

servers to have 97% of patches applied. Report to be provided before the 5th working day of the next month.

The system that we, Exagrid, no longer provides monthly replication reports like this line item's intention originally was. Instead, daily reports are sent to the system team with the status of replication. If anomalies are identified, corrective action is taken immediately, instead of a month after-the-fact.

Monthly data backup migration to the DEPARTMENT's disaster site within the Treasure Coast. The IT DEPARTMENT will provide a monthly report showing the amount of data being saved remotely in the event of data recovery needed. The baseline for this performance measure will be "met expectations" or "has not met expectations." Report must be provided before the 5th working day of the next month.

IT NETWORK SUPPORT MANAGER

Position Overview

These guidelines provide an overview of the RTMC IT Network Support Manager responsibilities within the District Four TSM&O Regional Transportation Management Center.

Reporting to the IT Support Manager, the ideal candidate will be an experienced Cisco Network Engineer in a high-performance, service-oriented environment. Primary duties include responsibility for installation, configuration, and maintenance of LAN and WAN Cisco-related hardware as well as testing, documentation, and implementation of new technologies related to communication equipment installations and upgrades.

Knowledge, Skills, and Abilities

- Ten (10) years' experience with WAN / WLAN / LAN technologies, peripherals, and architecture including five (5) years' experience in the operations of a facility similar to the RTMC with similar responsibilities.
- Excellent knowledge of the following networking concepts: TCP/IP, PPP, VRRP, HSRP, BGP, IGRP/EIGRP, NAT, QoS, RSTP, MSTP, SNMP, WAAS, VOIP.
- Ten (10) years' experience in deploying and maintaining complex wireless controller systems including background in Cisco wireless equipment.
- Ten (10) years' experience in deploying and maintaining Ethernet routers, switches, firewalls, unified threat management appliances, network load balancers, wireless controller, and voice communication equipment; including a specific specialized background in Cisco products for all the equipment.
- Ten (10) years' experience in deploying and maintaining complex unified communications platforms specifically utilizing Cisco equipment.
- Experience in WAN acceleration technologies, LAN technologies, and routing such as EIGRP, Cisco SSL, and multi-vendor VPN deployments.
- Campus switching technologies.
- Security protocols such as Radius, SSH, and TACACS.
- Deploy and maintain IDS/IPS and the ability to parse activity logs.
- DNS, DHCP, NTP, SNMP, and syslog.
- Working knowledge of Microsoft Active Directory.
- Network: configuration management tools monitoring tools.
- Hold active two out of three of any of the following CCNPs concentrations: CCNP Routing and Switching, CCNP Security, or CCNP Collaboration.

Position Requirements in Detail

1. Install, configure, support, monitor, test, optimize, and troubleshoot deployment challenges, integration, and implementation of new hardware and software in a moderate-to complex network environment related to the development of a SD-WAN and distributed LAN systems.
2. Install, configure, support, monitor, test, optimize, troubleshoot issues affecting deployment, integration, and implementation of a regional enterprise Cisco Telephone platform used by multiple agencies.
3. Install, configure, support, monitor, test, optimize, troubleshoot problems as for deployment, integration, implementation of new hardware and software running a geo-disbursed wireless data delivery system.
4. Act as a project team lead, working with cross-functional teams for enterprise initiatives.
5. Provide Tier 2 and Tier 3 support for wired and wireless network devices.

6. Implement migration strategies, risk mitigation plans, test plans, and disaster recovery plans.
7. Support network standards, processes, and security at RTMCs including documentation and administration of equipment.
8. Maintain a professional demeanor when liaising with internal and external customers / Conduct assessment of technology costs, benefits, and risks to develop and deliver total solutions.
9. Develop proposals for management and regional network teams.
10. Evaluate, test, and document technology and solutions aligned with client business initiatives.
11. Perform functions, per RTMC IT Support Manager, to include any routine and non-routine functions.
12. Advise with proposal development solution design.
13. Rotational on-call to provide 24x7x365 support for network escalations.

IT SYSTEMS SUPPORT MANAGER

Position Overview

These guidelines provide an overview of the RTMC IT Systems Support Manager responsibilities within the District Four TSM&O Regional Transportation Management Center.

Primary duties include installation, configuration, and maintenance of Windows servers, clusters, and related software along with testing, documentation, and implementation of new technologies related to software installations and upgrades.

This position is also responsible for developing and maintaining backup and system recovery procedures.

Knowledge, Skills, and Abilities

- Bachelor's degree in computer science or similar technology field.
- Ten (10) years' experience in ever increasing IT responsibility roles including two (2) years' experience in the operations of a facility like the RTMC with similar responsibilities. Four (4) additional years' experience can be substituted (bringing total experience to 14 years) for a bachelor's degree in ever increasing IT responsibility roles.
- Five (5) years' direct Microsoft Exchange, Active Directory, Group Policy, DFS, DNS, NTFS, Windows Server 2012, Microsoft Clusters and VMware vCenter management in geo-disbursed Software Defined Datacenter. Five (5) years' VMware and Windows patch management. Two (2) years' experience utilizing SolarWinds applications and Enterprise Backup Systems.
- Five (5) years' experience building, repairing, maintaining Enterprise grade servers, desktops, and laptops.
- Troubleshooting Microsoft-related issues, and knowledge of applicable privacy and security laws and regulations.
- Strong communication skills, both oral and written.
- Strong interpersonal relationship skills.
- Conduct research into Microsoft network issues and determine appropriate resolutions.
- Present ideas and resolutions in common and technical terminology.
- Highly analytical and problem-solving ability.
- Self-motivation and ability to prioritize tasks appropriately.
- Understanding of networking infrastructure is also beneficial.

Position Requirements in Detail

1. Plans, implements, and incorporates upgrades to internal production client systems, personal computer, and Microsoft network software.
2. Maintains printers, desktop personal computers, laptops, copiers, fax machines, servers, and miscellaneous hardware for the facility.
3. Performs on-site analysis, diagnosis, and resolution of complex Microsoft network problems for end users; recommends and implements corrective hardware and software solutions, including off-site repair.
4. Supports development, implementation of Microsoft networking projects, new technology installations.
5. Collaborated with the Helpdesk on deployment of personal computers, laptops, and tablets.

6. Keeps abreast of new hardware/software technologies and conducts upgrade/enhancement recommendations, as required.
7. Makes recommendations concerning projects feasibility based on extensive Microsoft networking knowledge.
8. Builds and maintains system images utilized in a VMWare environment.
9. Performs long-term backup retention of all data within the RTMC and maintains data, as per public record requirements within the Florida Statutes.
10. Installs new application updates on RTMC IT management resources and firmware code to resolve incompatibility issues.
11. Clearly communicate technical information in layman's terms.
12. Flexible work schedules / on-call 24 hours/day.
13. Rotational on-call to provide 24x7x365 support for technical escalations.
14. Performs additional tasks as assigned by RTMC management team and by the DEPARTMENT.

IT SECURITY SUPPORT MANAGER

Position Overview

These guidelines provide an overview of the RTMC IT Network Security Manager responsibilities within the District Four TSM&O Regional Transportation Management Center.

The RTMC IT Security Manager position is responsible for the security of all computer systems within the TMC(s) and networked field devices.

Knowledge, Skills, and Abilities

- Bachelor's degree in computer information management (with a concentration of IT Security) or similar degree, and three (3) years' experience within an enterprise environment responsible for IT Security; or a combination of 8 years' ever-increasing IT security management responsibilities. A Security+ can be substituted for 1 year of experience, and a CISM can be used to replace 5 years' experience.
- Possess IT industry recognized network security specific professional certifications.
- Understanding of TSM&O principles.
- Good leadership and interpersonal skills.
- Has a good understanding of key management concepts.
- Clearly communicate technical information in layman's terms.
- Work alternate work schedules and be on-call 24 hours/day.
- Create daily, weekly, monthly, and yearly reports regarding system availability and help desk calls.
- Coordinate real-time activities and priorities.
- Direct experience with the day-to-day operations of a similar center.

Position Requirements in Detail

1. Maintains a high-level security for all computer devices connected to multiple computer networks associated with the DEPARTMENT's District Four TSM&O Program.
2. Inventories computer system hardware parts quarterly to ensure RTMC compliance at 100%.
3. Daily monitoring of the RTMC Helpdesk system for automated alerts and resolve as necessary.
4. Provides formal user training with basic computer security, as required.
5. Installs and loads security-related functions of a new workstation, including communications link to the network systems.
6. Creates weekly network security report.
7. Ensures daily backups are available for critical systems if systems need to be restored.
8. Daily monitoring, management, and administration of the RTMC SolarWinds Monitoring Platform to comply with 100 percent system availability and to resolve security issues.
9. Daily monitoring management and administration of the RTMC existing customized security control software applications to provide physical, local security mechanisms for systems within the district.

10. Provides end-to-end management of the DEPARTMENT public key infrastructure and accessory resources for encrypting security data communication within the RTMC.
11. Secures and recommends enhancements for IT software used to monitor, track, and maintain the RTMC technology ecosystem including responding to security incidents as they occur according to set policies and IT governance rules.
12. Performs any additional tasks as assigned by RTMC management team and by the DEPARTMENT.

IT DESKTOP ANALYST

Position Overview

These guidelines provide an overview of the RTMC IT Desktop Analyst responsibilities within the District Four TSM&O Regional Transportation Management Center.

The RTMC IT Desktop Analyst position is responsible for entry-level support of all computer systems within the TMC(s). This position will also include the responsibility of handling first response calls to the Helpdesk (phone, e-mail, and online), logging the initial call, and detailing the response given to each caller.

Knowledge, Skills, and Abilities

- Secondary education in computer science or the equivalent of one (1) year of experience in desktop support or similar responsibilities.
- Understanding TSM&O principles.
- Good interpersonal skills.
- Clearly communicate technical information in layman's terms.
- Work alternate work schedules and be on-call 24 hours/day.
- Create daily, weekly, monthly, and yearly reports regarding system availability and Helpdesk calls.
- Coordinate real-time activities and priorities.
- Direct experience with the day-to-day operations of a similar center.

Position Requirements in Detail

1. Troubleshoots original call via phone contact; replies in person when problem cannot be fixed remotely.
2. Inventories all computer system hardware parts monthly to ensure RTMC is operating at 100%.
3. Performs routine and non-routine functions as directed by the RTMC IT Support Manager.
4. Informally trains users in basic computer skills when needed.
5. Installs and loads all functions of a workstation, including communications link to the network systems.
6. Creates weekly report on Helpdesk calls and responses to include fixed and outstanding items with details on the replacement parts required.
7. Daily monitoring of BARCO Video Wall to comply with 100 percent system availability.
8. Daily monitoring video feeds from partners to ensure feeds are displayed on the BARCO video wall.
9. Daily monitoring of SMART SunGuide® website to ensure all functions are operational.
10. Weekly patch management and anti-virus monitoring of desktop computers.
11. Performs additional tasks as assigned by RTMC management team and by the DEPARTMENT.

IT DESKTOP SUPPORT MANAGER

Position Overview

These guidelines provide an overview of the RTMC IT Desktop Support Manager responsibilities within the District Four TSM&O Regional Transportation Management Center.

Knowledge, Skills, and Abilities

- Bachelor's degree in computer science or similar technology field.
- Five (5) years' experience in similar IT responsibility roles including two (2) years' experience in the operations of a facility like the RTMC with similar responsibilities.
- Five (5) years' direct experience with Windows Client systems (Windows 7, 8.1 and 10), two (2) years' experience utilizing centralized anti-virus platforms.
- Five (5) years' experience building, repairing, and maintaining desktops and laptops.
- Troubleshooting Microsoft related issues, knowledge of applicable privacy and security laws and regulations.
- Strong communication skills, both oral and written.
- Strong interpersonal relationship skills.
- Ability to conduct research into Microsoft issues and determine appropriate resolutions.
- Ability to present ideas and resolutions in common and technical terminology.
- Highly analytical and problem-solving ability.
- Self-motivation and ability to prioritize tasks appropriately.
- Understanding of networking infrastructure is also beneficial.

Position Requirements in Detail

1. Primary duties: installation, configuration, and maintenance of desktop, laptops, and video distribution system (VDI) systems, and related software as well as testing, documentation, and implementation of new technologies related to software installations and upgrades. Conduct developing and maintaining endpoint security including patching and virus scans, maintaining system images and accessory equipment utilized by the RTMC.
2. Plans, implements, applies upgrades to production desktops, printers, laptops, and client systems.
3. Maintains the software application database and accessory hardware for running the BARCO video wall management system.
4. Performs on-site analysis, diagnosis, resolution of complex Microsoft desktop problems for end users; implements corrective hardware and software solutions, including off-site repair.
5. Supports development and implementation of accessory equipment used throughout the RTMC.
6. Monitors life cycle management of all tickets related to the Helpdesk system.
7. Performs daily, weekly, and monthly preventative maintenance of shared offices, equipment resources, and equipment used to run the RTMC Control Room and disaster recovery sites.
8. Makes recommendations regarding system automation improvements based on extensive IT knowledge.

9. Builds and maintains desktop images used through the centralized imaging system powered by Smart Deploy.
10. Assists with a quarterly inventory of all RTMC equipment utilized by the IT department and end users.
11. Installs new application updates on RTMC IT management resources and firmware code to resolve incompatibility issues.
12. Clearly communicate technical information in layman's terms.
13. Work alternate work schedules and be on-call 24 hours/day.
14. Rotational on-call to provide 24X7X365 support for technical escalations.
15. Performs any additional tasks as assigned by RTMC Management team.
16. Performs all other tasks assigned by the DEPARTMENT.

IT DESKTOP ANALYST LEAD

Position Overview

These guidelines provide an overview of the RTMC IT Desktop Analyst Lead responsibilities within the District Four TSM&O Regional Transportation Management Center.

The RTMC IT Desktop Analyst Lead position is responsible for the entry-level support of all computer systems within the TMC(s). This position will also include the responsibility of handling first response calls to the Helpdesk (phone, e-mail and online), logging the initial call, and detailing the response given to each caller.

Knowledge, Skills, and Abilities

- Secondary education in computer science or the equivalent or two (2) years of experience in desktop support or similar responsibilities.
- Taking courses to attain professional certifications to include MCSA or Network+ or A+.
- Understanding TSM&O principles.
- Good leadership and interpersonal skills.
- Has a good understanding of key management concepts.
- Clearly communicate technical information in layman's terms.
- Work alternate work schedules and be on-call 24 hours/day.
- Create daily, weekly, monthly, and yearly reports for system availability and Helpdesk calls.
- Coordinate real time activities and priorities.
- Direct experience with the day-to-day operations of a similar center.

Position Requirements in Detail

1. Troubleshoots original call via phone contact; replies in person when problem cannot be fixed remotely.
2. Performs routine and non-routine functions as directed by the RTMC IT Support Manager.
3. Inventories all computer system hardware parts monthly to ensure RTMC is operating at 100%.
4. Provides formal user training with basic computer skill, as required.
5. Installs and loads all functions of new workstation when purchased, to include the communications link to the network systems.
6. Creates weekly report on all Helpdesk calls and responses to include detailed fixed and outstanding items for the replacement parts required.
7. Conducts daily backups for critical systems; ensures backups are available for systems restore.
8. Daily monitoring of BARCO Video Wall to comply with 100 percent system availability.
9. Daily monitoring of video feeds from partners to ensure a display is on the BARCO Video Wall.
10. Daily monitoring of SMART SunGuide® website to ensure all functions are always operational.
11. Weekly patch management and anti-virus monitoring of all desktop computers.

12. Performs any additional tasks as assigned by RTMC Management team.
13. Performs all other tasks assigned by the DEPARTMENT.

IT RESOURCE COORDINATOR

Position Overview

These guidelines provide an overview of the RTMC IT Resource Coordinator responsibilities within the District Four TSM&O Regional Transportation Management Center.

The RTMC IT Resource Coordinator position supports the RTMC IT Director with day-to-day business matters within the TMC. This position's responsibilities include assisting with back-office data entry, document processing administration, scheduling, and inventory management for the IT department back office. This position is located at the RTMC within the IT department wing of the RTMC.

Knowledge, Skills, and Abilities

- Two (2) years' experience in a position of similar requirements or equivalent.
- Understanding of office principles.
- Good interpersonal skills.
- Clearly communicate information regarding the TSM&O program and RTMC to all tours and visitors.
- Work alternate work schedules and be on-call 24 hours/day.
- High level of skill in the use of all Windows based applications.
- Compile meeting minutes and file all materials based on ISO 9001 standards.
- Coordinate real time activities and priorities.
- Proficiency in all office-related equipment.

Position Requirements in Detail

1. Supplies administrative support services to the RTMC and assumes the role as an administrative liaison with internal and/or external sources.
2. Performs routine office or clerical support tasks according to established procedures set by the RTMC IT Director. Examples of work performed may include data entry management, reporting data proofing, sorting, and distributing quality control reports.
3. Work performed may also include composing routine correspondence, preparing routine reports, scheduling meetings, or appointments, maintaining files, or transcribing dictation.
4. Prepares documents using Microsoft applications, formats, proofs, and edits for errors.
5. Assists in managing the RTMC Inventory Control system including updating system documentation and procedures.
6. Assists in after hour call routing in the event of a major emergency and/or issue that requires proper resource response.
7. Trained and certified as an RTMC Operator to assist in coverage of control room when required by RTMC Management.
8. Assists with all Computer Severe Incident Response documentation on a daily basis.
9. Performs all other tasks assigned by the DEPARTMENT.

NETWORK ADMINISTRATOR

Position Overview

These guidelines provide an overview of the RTMC Network Administrator responsibilities within the District Four TSM&O Regional Transportation Management Center.

Primary duties include administration maintenance of LAN and WAN Cisco related hardware as well as testing, documentation, and implementation of new technologies related to communication equipment installations and upgrades in conjunction with the RTMC IT Support Manager.

Knowledge, Skills, and Abilities

- Active CCNET or associate degree with a concentration in networking and three (3) years' experience with WLAN / LAN technologies and peripherals. Or hold a CCNA or a bachelor's degree with a concentration in computer networking technology and one (1) year of experience with WLAN / LAN technologies.
- Knowledge of the following networking concepts: TCP/IP, PPP, VRRP, HSRP, BGP, IGRP/EIGRP, NAT, QoS, RSTP, MSTP, SNMP, WAAS, VOIP, EIGRP.
- Security protocols such as Radius, SSH, and TACACS.
- 6DNS, DHCP, NTP, SNMP, and syslog.
- Basic knowledge of Microsoft Active Directory.
- Network: Configuration management tools and Monitoring tools.

Position Requirements in Detail

1. Support, monitor, test, optimize, and troubleshoot problems pertaining to deployment, integration, and implementation of new hardware and software in a Cisco network environment related to the development of a SD-WAN and distributed LAN systems.
2. Support, monitor, test, optimize, and troubleshoot issues relating to Cisco Telephone platform used by multiple agencies.
3. Support, monitor, test, optimize, and troubleshoot issues affecting Cisco wireless controllers.
4. Provide Tier 2 support for all wired, and wireless, network devices.
5. Support network standards, processes, and security at RTMC sites including proper documentation and administration of equipment.
6. Maintain a professional demeanor when dealing with internal customers.
7. Perform functions as directed by the RTMC IT Support Manager to include any routine and non-routine functions.
8. Rotational on-call to provide 24X7X365 support for network escalations.

SYSTEMS ADMINISTRATOR

Position Overview

These guidelines provide an overview of the RTMC Systems Administrator responsibilities within the District Four TSM&O Regional Transportation Management Center.

Primary duties include administration maintenance of LAN and WAN Cisco related hardware as well as testing, documentation, and implementation of new technologies related to communication equipment installations and upgrades in conjunction with the RTMC IT Support Manager.

Knowledge, Skills, and Abilities

- Active CCNET or associate degree with a concentration in networking and three (3) years' experience with WLAN / LAN technologies and peripherals / CCNA or a bachelor's degree with a concentration in computer networking technology and one (1) year of experience with WLAN / LAN technologies.
- Knowledge of the following networking concepts: TCP/IP, PPP, VRRP, HSRP, BGP, IGRP/EIGRP, NAT, QoS, RSTP, MSTP, SNMP, WAAS, VOIP, EIGRP.
- Security protocols such as Radius, SSH, and TACACS.
- 6DNS, DHCP, NTP, SNMP, and syslog.
- Basic knowledge of Microsoft Active Directory.
- Network Configuration management tools.
- Network Monitoring tools.

Position Requirements in Detail

1. Support, monitor, test, optimize, and troubleshoot issues relating to deployment, integration, and implementation of new hardware and software in a Cisco network environment associated with development of a SD-WAN and distributed LAN systems.
2. Support, monitor, test, optimize, and troubleshoot issues connected to the Cisco Telephone platform used by multiple agencies.
3. Support, monitor, test, optimize, and troubleshoot problems concerning Cisco wireless controllers.
4. Provide Tier 2 support for all wired, and wireless, network devices.
5. Support network standards, processes, and security at RTMC sites including documentation and administration of equipment.
6. Maintain a professional demeanor when liaising with internal customers.
7. Perform routine and non-routine functions as directed by the RTMC IT Support Manager.
8. Rotational on-call to provide 24X7X365 support for network escalations.



2.04 Support Staff Job Descriptions

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Document History

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1.0	04/24/2024	Yana Neishlos	Initial Draft

PROJECT MANAGER

Description & Responsibilities

These guidelines provide an overview of the RTMC Project Manager responsibilities within the District Four TSM&O Regional Transportation Management Center.

RTMC
Project
Manager

- Ensures that the requirements of CONTRACT are met daily at all times.
- Responsible for the operations activities of the RTMC are in accordance with the SOPs, protocols, and policies, and for the overall operations and functionality of the RTMC.
- Will meet quarterly or as otherwise directed by the DEPARTMENT with the DEPARTMENT Project Manager, District Four TSM&O Program Engineer, and other traffic operations staff to discuss the status of the TSM&O Operations Strategic Business Plan, freeway and arterial operations issues, and discuss new areas of TSM&O operations including, but not limited to, recommendations from the VENDOR regarding performance of the arterials and freeways, ways to improve mobility and safety, and other high-level discussion topics as required.

Knowledge & Skills

1. Bachelor's degree in engineering or technical discipline, or Master of Business Administration and the equivalent of three (3) years' project management experience or five (5) years' experience in the operations / management of a facility similar to the RTMC.
 - a. Possesses good leadership and interpersonal skills.
 - b. Has an excellent understanding of key management concepts.
 - c. Creates project schedules in Microsoft Windows applications.
 - d. Ability to clearly communicate technical information in layman's terms.
 - e. Ability to work alternate work schedules and be on-call 24 hours/day.
 - f. Skilled in the use of all Windows operating systems.
 - g. Ability to write technical reports and correspondence.
 - h. Ability to coordinate real-time activities and priorities.
 - i. Possesses direct experience with the day-to-day operations of a similar center.
 - j. Has knowledge and ability to create monthly invoice and project status budget reports.
2. Manages team operations by directing and coordinating activities consistent with established goals, objectives, and policies.
3. Follows directions set by FDOT Project Manager and the DEPARTMENT.
4. Performs project-related assignments to include planning, organizing, and developing complicated tasks as assigned by the DEPARTMENT.
5. Able to use and apply extensive knowledge of project management theories and practices.
6. Has direct oversight of project professionals and staff.
7. Implements processes to ensure attainment of the TSM&O Strategic business plan for growth and reliability.
8. Provides direction and structure for operating units.
9. May participate in developing policy and strategic plans.
10. Ensures that all products created, or new ideas introduced meet quality standards and objectives of the RTMC.
11. Recommends changes, reviews progress, and approves work products for the RTMC team.

12. Oversees development of policies, procedures, and objectives for marketing of the DEPARTMENT's products and services.
13. Prepares and produces all invoices, progress reports, and other documents submitted to the DEPARTMENT monthly. This time is not billable.
14. Ensures the proper level of staffing as always required by the DEPARTMENT.
15. Attends meetings as directed by the DEPARTMENT to include Traffic Incident Management, Southeast Florida Regional RTMC Operations Committee (SEFRTOC), South Florida ITS Coalition, and others as directed.
16. Oversees and participates in creation of the RTMC Annual Report and ensures that the document meets DEPARTMENT standards. Develops, updates, and implements the TSM&O Operations Strategic Business Plan.
17. Implements all other tasks assigned by the DEPARTMENT.

SPECIAL PROJECTS COORDINATOR

Description & Responsibilities

These guidelines provide an overview of the RTMC Special Projects Coordinator responsibilities within the District Four TSM&O Regional Transportation Management Center.

The RTMC Special Projects Coordinator shall be responsible for high-level technical coordination and support between the DEPARTMENT and other local, state, and federal agencies to include but not limited to:

- Federal Highway Administration
- Department of Homeland Security
- Federal Bureau of Investigation
- National Weather Service
- National Hurricane Center
- Other state departments of transportation
- Florida Department of Law Enforcement
- Florida Highway Patrol
- All local and county agencies within District Four

Knowledge & Skills

1. Bachelor's degree in engineering or the equivalent of 5 years' project management experience or 10 years' experience in the operations / management of a facility similar to the RTMC.
 - a. Understands TSM&O and traffic engineering principles.
 - b. Possesses good leadership and interpersonal skills.
 - c. Has an excellent understanding of key management concepts.
 - d. Creates project schedules in Microsoft Windows applications.
 - e. Able to clearly communicate technical information in layman's terms.
 - f. Skilled in the use of all Windows operating systems.
 - g. Ability to write technical reports and correspondence.
 - h. Ability to coordinate real time activities and priorities.
 - i. Possesses direct experience with the day-to-day operations of a similar center.
2. The RTMC Special Projects Coordinator WILL NOT be required to hold a national security clearance.
3. The RTMC Special Projects Coordinator shall be responsible for detailed and high-level technical coordination and support of internal DEPARTMENT programs to include but not limited to:
 - TSM&O
 - ATMS
 - Construction Project Monitoring Program
 - Fleet Monitoring Program
 - I-75 Express
 - I-95 Express
 - I-595 Express
 - Statewide 511 System
 - Traffic Operations Safety Program
4. Shall report directly to the DEPARTMENT Project Manager and the VENDOR Project Manager.

5. Shall participate in all required meetings with FDOT staff as delegated by the DEPARTMENT Project Manager.
6. Shall have the ability to effectively communicate highly technical information to a wide variety of audience types in written and oral formats.
7. Shall create necessary project-related performance measures in compliance with the TSM&O program's existing performance measurement framework.
8. Shall perform all other tasks to support TSM&O operations as required by the DEPARTMENT Project Manager.

PUBLIC OUTREACH COORDINATOR

Description & Responsibilities

These guidelines provide an overview of the RTMC Public Outreach Coordinator responsibilities within the District Four TSM&O Regional Transportation Management Center.

RTMC Public Outreach Coordinator	The RTMC Public Outreach Coordinator is responsible for overseeing development and implementation of all RTMC training programs required to keep all RTMC staff knowledgeable in the DEPARTMENT's policies and goals relating to all operations conducted as part of the DEPARTMENT's TSM&O Program. The RTMC Public Outreach Coordinator is responsible for management of all strategic public relations, public outreach and marketing, advertising, and communication services programs for the TSM&O Program.
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Knowledge & Skills

1. Bachelor's degree in media communications or public administration, or the equivalent of 5 years professional experience in media/public relations. Possesses good leadership and interpersonal skills.
 - a. Fluent in English
 - b. Knowledge of principles, methods and practices applied in design and implementation of public information, community outreach, community organizing, and promotional and marketing programs.
 - c. Able to and available to speak on camera and to various media outlets.
 - d. Able to clearly communicate technical information in layman's terms.
 - e. Able to write technical reports and correspondence.
2. Plans, manages, and coordinates a District-wide strategic public outreach program in cooperation with FDOT partners to meet the strategic goals and objectives of the DEPARTMENT.
3. Oversees and administers the DEPARTMENT's Public Outreach Committee, including all meetings, tours, presentations, advertisement programs, periodical development, and Public Outreach Plan goals and objectives; may participate in developing policy and strategic plans.
4. Oversees and administers public relations, marketing, advertising, and public outreach of vendors and Contractors.
5. Works with vendors, Contractors, and FDOT staff to establish clear and measurable goals and objectives for improving the DEPARTMENT's communications, marketing, advertising, and public affairs/relations activities, and efforts while increasing public awareness of the DEPARTMENT's goals, objectives, and services.
6. Coordinates and serves communications and activities between the DEPARTMENT and the public, school groups, civic and professional organizations, FDOT vendors, roadway users, and industry vendors, while serving as a public representative of FDOT. At a minimum, responsibilities will include organizing, scheduling, and leading SMART SunGuide® RTMC tours.
7. Reviews, edits, and approves the creative and production process of all FDOT information materials; recommends and oversees marketing research activities for the DEPARTMENT.

8. Prepares recommended presentation materials, speeches, and public speaking engagements for DEPARTMENT staff and assists in coaching staff and vendors on handling media and public speaking engagements and inquiries.
9. Works closely with District Public Information Offices and assists with responses to public inquiries concerning issues relating to the DEPARTMENT.
10. Maintains interaction and communication exchange with counterparts from regional and state transportation partners to compare industry trends, policies, and procedures; maintains active presence within industry related organizations, as directed by the DEPARTMENT.
11. Attends meetings as directed by the DEPARTMENT to include FDOT staff meetings, South Florida ITS Coalition Marketing/Outreach Subcommittee meetings, and others as necessary as directed.
12. Prepares and submits an annual summary within one year after LOA issuance that summarizes the tours and activities facilitated by the RTMC Public Outreach Coordinator and recommendations for improving the TSM&O Operations Contract Public Outreach activities.
13. Performs all other tasks assigned by the DEPARTMENT.

PROJECT ADMINISTRATOR

Description & Responsibilities

These guidelines provide an overview of the RTMC Project Administrator responsibilities within the District Four TSM&O Regional Transportation Management Center.

The RTMC Project Administrator ensures that the financial requirements of CONTRACT are always met daily.

Knowledge & Skills

1. Bachelor's degree in business administration or a technical field, or the equivalent of 5 years' project administrative experience.
2. Has good leadership and interpersonal skills.
3. Has an excellent understanding of key management concepts.
4. Creates project schedules in Microsoft Windows applications.
5. Able to clearly communicate technical information in layman's terms.
6. Skilled in the use of all Window operating systems.
7. Able to write technical reports and correspondence.
8. Possesses knowledge and ability to create monthly invoices and project status budget reports.
9. Follows direction set by FDOT RTMC Operations Manager and the DEPARTMENT.
10. Performs project-related assignments to include the planning, organizing, and developing of complicated tasks as assigned by the DEPARTMENT.
11. Able to use and apply extensive knowledge of project management theories and practices.
12. Prepares and produces all invoices, progress reports, and other documents submitted to the DEPARTMENT monthly. The time to prepare the invoice is not billable.
13. Prepares and submits an annual summary within one year after LOA issuance that summarizes the major projects the RTMC Project Administrator worked on and recommendations for improving the administrative functions of this contract.

MANAGED LANES COORDINATOR

Description & Responsibilities

These guidelines provide an overview of the Managed Lanes Coordinator responsibilities within the District Four TSM&O Regional Transportation Management Center.

Serve as Managed Lanes Coordinator for the District's TSM&O Program projects, including but not limited to congestion management, TSM&O, incident management, traveler information, maintenance and construction management, and support of TSM&O projects.

Knowledge, Skills, and Abilities

1. Four-year degree in an Engineering discipline.
2. Able to coordinate and lead multi-disciplinary meetings, including developing and delivering presentations to large and small groups.
3. Skilled at establishing relationships and working with others.
4. Able to coordinate multi-disciplinary resources and document progress of various activities in a concise and effective manner.
5. Self-motivated.
6. Possesses knowledge of and skilled in task management and scheduling.
7. Able to communicate effectively, both verbally and in writing, with different levels of the organization.
8. Intermediate level knowledge of Microsoft Word, Excel, and PowerPoint as well as common computer applications.
9. Able to always maintain a professional demeanor and appearance.
10. Collection and analysis of information and data.
11. Preparation of operations plans and documents.
12. Review of plans, documents, and calculations performed by others.
13. Coordinate closely and act as liaison with outside partners/agencies to ensure the efficient incorporation of objectives through the project delivery process.
14. Assist in developing, utilizing, and managing a performance reporting system for current and future critical networks defined by the managed lanes program.
15. Prepare and submit regular reports on the status of the district's managed lanes project deployments and performance trends pertaining to the operations of managed lanes.
16. Coordinate with other department of transportation offices within the district.

TRAFFIC CONTROL COORDINATOR

Description & Responsibilities

These guidelines provide an overview of the Traffic Control Coordinator responsibilities within the District Four TSM&O Regional Transportation Management Center.

The RTMC Traffic Control Coordinator reports to the DEPARTMENT's Project Manager and assists and supports the RTMC Signal Systems Manager of Palm Beach County with the daily operational activities of the RTMC in accordance with SOPs, protocols, and policies.

Knowledge & Skills

1. Bachelor's degree in science or engineering with course work in Civil/Traffic/Transportation Engineering, with at least two (2) years' experience in the traffic engineering industry or in the operations of an RTMC facility.
2. Understanding of traffic signal systems, traffic controller operation, TSM&O, and traffic engineering principles.
3. Knowledge of traffic signal analysis programs, such as SYNCHRO, HCS, etc.
4. Good communication skills and ability to work as a team member.
5. Ability to make independent decisions on a routine basis.
6. Ability to work alternate work schedules.
7. Skilled in the use of Windows operating system.
8. Ability to write technical reports and correspondence.
9. Ability to coordinate real-time activities and priorities.
10. Responsible for day-to-day monitoring of the traffic signal system and CCTV and DMS systems for arterial street network.
11. Works closely with the DEPARTMENT's RTMC Operations staff in managing incident-related congestion on the arterial street network and functions as an extension of the County staff at the RTMC.
12. Aids the County with the day-to-day operations of the RTMC.
13. Monitors operations of the traffic signal system at the RTMC, tracks system alarms, and generates signal system operations reports.
14. Monitors CCTV and DMS systems for arterial street network traffic conditions recommends actions to improve performance.
15. Assists the County staff in conducting travel-time delay runs and signal system fine-tuning activities, and reports results and effects of signal retiming efforts. Provides direction and structure for operating units.
16. Works in coordination with the DEPARTMENT's RTMC operations staff in managing congestion on arterial network caused from freeway incidents.
17. Participates in periodic Traffic Incident Management (TIM) and SEFRTOC meetings.
18. Assists in preparing monthly reports on the performance of the signal system based on predefined measures of effectiveness.
19. Performance monitoring, cost/benefit reporting, and benchmarking of the Palm Beach County TSM&O network.
20. Performs all other tasks assigned by the DEPARTMENT.

TRAFFIC INCIDENT MANAGEMENT COORDINATOR

Description & Responsibilities

These guidelines provide an overview of the Traffic Incident Management Coordinator responsibilities within the District Four TSM&O Regional Transportation Management Center.

The FDOT TIM Coordinator work includes participation in program planning, performance data analysis, meeting coordination, preparation of technical correspondence and reports, contacts with and/or appearances before local officials, civic and community groups, public agencies, etc., to promote and implement Traffic Incident Management (TIM) activities for the client. The incumbent will work full-time in Fort Lauderdale, Florida.

- Oversees, coordinates, and assists in developing procedures for implementing, administering, and evaluating TIM plans or programs.
- Serves as liaison with federal, state, and local agencies in matters concerning the coordination of TIM related plans and services; travels/drives as required and follows prescribed safety requirements.
- Collects, organizes, analyzes, and prepares performance reports of TIM related data, programs and information systems.
- Monitors/coordinates agencies participating in plans and programs and aids officials in matters relating to the plans and programs.
- Develops, coordinates, implements, and conducts training.
- Reviews and prepares correspondence, reports, studies, gives briefings and makes presentations regarding program activities.

Knowledge & Skills

Minimum Requirements

1. Bachelor's Degree and/or demonstrated equivalency of experience in law enforcement, fire rescue, emergency response, or emergency management.
2. 5+ years' experience in traffic incident management (TIM), emergency response management or other traffic/transportation management related activities.
3. Experience with establishing plans and setting objectives and goals that support overall business strategy/results, anticipating and adjusting for problems/roadblocks.
4. Develops, and implements policies, procedures, and technical information.
5. Speaks to present images and ideas in a clear, concise, organized, and interesting manner to optimize audience understanding and keep the group focused.
6. Plans, and coordinates multiple projects to meet short- and long-term deadlines.

Preferred Qualifications

Knowledge of the following theory, principals, practices and/or content; plus, all applicable laws, rules, regulations and/or policies and procedures:

- Traffic Incident Management, including NIMS.
- Manual on Uniform Traffic Control Devices (MUTCD).
- Highway Safety Practices.
- Traffic Control and Safety Procedures.
- Intelligent Transportation Systems (ITS).
- Florida Highway System.

TSM&O DATA ANALYST

Description & Responsibilities

These guidelines provide an overview of the TSM&O Data Analyst responsibilities within the District Four TSM&O Regional Transportation Management Center.

The TSM&O Data Analyst will be responsible for developing, managing, and implementing a District TSM&O Performance Management Plan for improving the district's ability to analyze and report data it collects as part of its TSM&O program. The District TSM&O Performance Management Plan will also include ways to integrate and use TSM&O data with other data sets, including but not limited to data collected and used as part of the DEPARTMENT's safety program, the District's Maintenance Office, and other offices within FDOT. TSM&O data includes data collected as part of its TSM&O program and data collected by its partners, such as traffic signal system data, data from the transit agencies, data from the law enforcement agencies, etc.

The DEPARTMENT will NOT provide workspace for this position; however, access to all available data resources will be provided to help perform data analysis tasks.

The District TSM&O Performance Management Plan will be updated and submitted monthly to the District TSM&O Program Engineer and the DEPARTMENT's Project Manager. Updates will reflect implementation status and recommendations to formalize and improve the District's TSM&O performance management program.

The District's TSM&O performance management program shall align with the DEPARTMENT's defined vision and the objectives of this AGREEMENT. Objectives and recommendations associated with improving the quality of the District's TSM&O data collection methods, systems, TSM&O field device quantities, placement, and maintenance of these devices and systems will be developed by the VENDOR as part of this District TSM&O Performance Management Plan. At minimum, the plan will document VENDOR's future endeavors.

Knowledge & Skills

1. Bachelor's degree in mathematics, Economics, Computer Science, Information Management, or Statistics.
2. Meet performance reporting requirements for the DEPARTMENT as part of this CONTRACT, SOGs, and new reporting requirements for the DEPARTMENT throughout the duration of this CONTRACT.
3. Possess technical expertise in statistics, data models, database design development, data mining, and segmentation techniques.
4. Steps for establishing an ongoing performance monitoring program that provides the DEPARTMENT with actionable (pro-active information improving an undesired condition) safety and mobility trends and patterns on the arterials and freeways.
5. Recommendations for new performance measures, visualizations, and data analysis techniques to be used in existing reports on the video wall and in any new reports needed.
6. Instructions for how to interpret and analyze the results.
7. Implementation of the performance monitoring program and recommendations.
8. Recommendations for ways to minimize staff resources associated with the performance monitoring program, including automation and other efficiency related recommendations.
9. Plan for identifying errors in TSM&O data sets, the cause, and recommendations for correcting these errors. Recommendations from the implementation status of the District TSM&O Performance Management Plan will be reflected in the TSM&O Operations Strategic Business Plan.
10. Ability to analyze all TMC, TSM&O and traffic data.
11. Ability to present data sets in easily understood ways for high profile groups, management and/or non-engineering audiences.

12. Skills: Data mining and data auditing; Hypothesis testing; Basic statistical skills.
13. Experience with machine learning.
14. Data visualization and communication skills.
15. TSM&O Data Analyst responsibilities include:
 - a. Conduct full lifecycle analysis to include requirements, activities, and design.
 - b. Develop analysis and reporting capabilities for the DEPARTMENT.
 - c. Monitor performance and quality control plans to identify improvements.
 - d. Interpret data and analyze results using statistical techniques.
 - e. Provide ongoing reports.
 - f. Develop and implement databases, data collection systems, data analytics, and other strategies that optimize statistical efficiency and quality.
 - g. Identify, analyze, and interpret trends or patterns in complex data sets.
 - h. Work with management to prioritize business and information needs.
 - i. Locate and define new process improvement opportunities.
 - j. Identify discrepancies in large traffic data sets and troubleshoot causes of discrepancies.

OFFICE MANAGER

Description Responsibilities

These guidelines provide an overview of the RTMC Office Manager responsibilities within the District Four TSM&O Regional Transportation Management Center.

The RTMC Office Manager position is responsible for supporting day-to-day business matters within the TMC. This position also includes the responsibility of handling all tour requests, yearly budgeting, distribution of all meeting minutes, and overseeing the RTMC front desk staffing and operations.

Knowledge & Skills

1. Three (3) years' experience in an office management position or equivalent.
2. Understanding of office and business principles.
3. Good interpersonal skills.
4. Ability to clearly communicate information regarding the TSM&O program and RTMC to all tours and visitors.
5. Ability to work alternate work schedules and be on-call 24 hours/day.
6. High level of skill in the use of all Windows-based applications.
7. Ability to write reports and meeting minutes, create scheduling, and file all materials based on ISO 9001 standards.
8. Ability to coordinate real-time activities and priorities.
9. Proficiency of all office-related equipment.
10. Coordinates and directs administrative support functions for the RTMC and implements policies and procedures for production of documents, workflow, filing, ordering of supplies, records maintenance, and other clerical services.
11. Assists in decision process for hiring, terminating, promoting, or evaluating office personnel.
12. Monitors budget, accounting, or time records.
13. Establishes policies and procedures for document development, retention, and disposition, and determines records identification system for information management storage and retrieval.
14. Determines and establishes record formats and storage methods and confers with management regarding record management needs.
15. Member of RTMC marketing team and assists in all coordination of activities to include the production of materials, advertisements, and public outreach.
16. Provides all office supplies, to include consumable and non-consumable products, and all production equipment and supplies.
17. Coordinates with Broward County in all meeting room reservations and assures that the proper setup of all meeting rooms meets the needs of the group using the rooms.
18. Performs all other tasks assigned by the DEPARTMENT.

ADMINISTRATIVE ASSISTANT

Description & Responsibilities

These guidelines provide an overview of the RTMC Administrative Assistant responsibilities within the Broward SMART SunGuide Regional Transportation Management Center.

RTMC Administrative Assistant position is responsible for supporting the RTMC Office Manager with day-to-day business matters within the TMC, including managing phone calls, faxes, and e-mails sent to the RTMC main contact addresses to the public. This position occupies the RTMC front desk and signs all visitors in and contacts the individual the visitor is scheduled to see.

Knowledge & Skills

1. Two (2) years' experience in a position of similar requirements or equivalent.
2. Possesses an understanding of office principles.
3. Possesses good interpersonal skills.
4. Ability to clearly communicate information regarding the TSM&O Program and RTMC to all tours and visitors.
5. Ability to work alternate work schedules and be on-call 24 hours/day.
6. Possesses a high level of skill in the use of all Windows-based applications.
7. Ability to write meeting minutes and file all materials based on ISO 9001 standards.
8. Ability to coordinate real-time activities and priorities.
9. Is proficient in all office-related equipment.
10. Supplies administrative support services to the RTMC and assumes the role as an administrative liaison with internal and/or external sources.
11. Performs routine office or clerical support tasks according to established procedures. Examples of work performed may include sorting and distributing mail, photocopying, filing, posting, or proofing data, or answering telephone calls and recorded messages.
12. Work performed may also include composing routine correspondence, preparing routine reports, scheduling meetings, or appointments, arranging travel, screening, and directing incoming calls, providing information, maintaining files, or transcribing dictation.
13. Prepares documents using Microsoft applications, formats, proofs, and edits for errors.
14. Ensures the cafeteria is properly stocked with supplies and is kept orderly.
15. Daily verifying that all material quantities in the RTMC lobby are at the appropriate levels.
16. Trained and certified as a RTMC Operator to assist in coverage of control room when required by RTMC management.
17. Prepares and submits an annual report within one year after LOA issuance that summarizes the administrative activities in planning, coordinating, implementing, and controlling the functions of various sections of the RTMC and recommendations for improving the RTMC administrative activities.
18. Assists with all SIRV documentation and filing daily.
19. Performs all other tasks assigned by the DEPARTMENT.



2.05 Personnel Matters

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Document History

Version #	Date	Author	Changes
1.0	04/24/2024	Yana Neishlos	Initial Draft

DRESS CODE AND PERSONAL APPEARANCE

Objective

To provide the policy regarding the dress code and personal appearance requirements for all RTMC personnel.

Policy

The dress code policy pertains to all employees within all positions of the District Four TSM&O RTMC and should be in accordance with the following standards:

Control room staff are required to wear a uniform shirt supplied by the company. Attire may include suits, dresses, skirts, dress pants, khakis, or unless otherwise requested by management, neat jeans (no rips or embellishment).

Jogging attire, tank/halter tops, and flip flops are not deemed acceptable at any time.

At all times, employees should keep in mind appointments with customers, suppliers, vendors or scheduled tours and dress accordingly.

CODE OF CONDUCT

Objectives

To establish policy and procedures for the business conduct of RTMC personnel of the District Four TSM&O Regional Transportation Management Center; to ensure all behavioral matters are properly addressed, documented, and processed.

Responsibilities

Employees are responsible for adhering to established business conduct policies and always behave in a professional manner.

Supervisors are responsible for ensuring that:

1. Employees act in a professional manner.
2. Employees adhere to established business conduct policies.
3. The necessary counseling and issue resolution procedures are followed when employees fail to adhere to established rules and business conduct policies.

Procedures

If you become aware of another employee's behavior or actions which you believe are inappropriate, illegal, problematic, or in any way inhibit or affect your job performance or the RTMC work environment, you should discuss such behavior or actions with your RTMC supervisor or manager.

RTMC management will promptly, thoroughly, and confidentially investigate all reasonable concerns and, where necessary, appropriate corrective action will be taken.

You should not discuss such actions or behavior with other RTMC employees. Your discussions on such matters with other employees may – in and of itself – create an unacceptable work environment for which you will be held responsible and for which you may be disciplined in accordance with the District Four TSM&O RTMC disciplinary policy.

DRUG-FREE WORKPLACE

Description	Guidelines for governing substance abuse of RTMC personnel of the District Four TSM&O Regional Transportation Management Center (RTMC).
Objective	To establish policy, guidelines, and procedures for substance abuse within the District Four TSM&O RTMC.
<p>Policy- Opening Statement</p> <p>District Four TSM&O RTMC and consultant companies: committed to providing a safe work environment and to fostering the well-being and health of its employees. That commitment is jeopardized when a District Four TSM&O RTMC employee illegally uses drugs or alcohol on the job, or possesses, distributes, or sells drugs in the workplace. Therefore, District Four TSM&O RTMC has established the following policy:</p> <p>Violation Statement</p> <p>It is a violation of RTMC policy for any employee to possess, sell, trade, or offer for sale illegal drugs or otherwise engage in the illegal use of drugs, intoxicants*, or alcohol on the job. It is a violation of RTMC policy for anyone to report to work under the influence of illegal drugs or alcohol-that is, with illegal drugs, intoxicants*, or alcohol in his/her body. It is a violation of the RTMC policy for anyone to use prescription drugs illegally. However, nothing in this policy precludes the appropriate use of legally prescribed medications. Violations of this policy are subject to disciplinary action up to and including termination of employment.</p> <p>It is the responsibility of the management to counsel employees whenever they see changes in performance or behavior that suggests an employee may be under the influence of alcohol or drugs. Although it is not the management's job to diagnose personal problems, management should encourage such employees to seek help and advise them about available resources for getting help. Resource lists will be available to management during training sessions held throughout the year.</p>	
Supervisor/ Management Responsibility & Training	District Four TSM&O RTMC consultant companies will provide drug and alcohol awareness information to all employees. This will include the RTMC policy on drug and alcohol abuse, hazards of drug and alcohol abuse, and the availability of counseling and treatment through the respective Employee Assistance Program (EAP).
Employee Education	District Four TSM&O RTMC consultants will provide drug and alcohol awareness information to all employees. This will include the RTMC and company policies on drug and alcohol abuse, hazards of drug and alcohol abuse, and the availability of counseling and treatment through the employee assistance program (EAP).
Co-Worker Responsibility	Employees share responsibility for maintaining a safe work environment and should encourage co-workers who use alcohol or other drugs in the workplace to seek help.

Employee
Assistance Program
(EAP)

The companies recognize that drug and alcohol abuse can be successfully treated and are committed to helping employees suffering from these problems, while holding them responsible for their own recovery. The consultant companies offer an employee assistance program (EAP) benefit for employees and their dependents. The scope of this benefit is providing information and referral numbers to the employee. If the EAP determines a referral to a treatment provider is necessary, an employee is responsible for the full cost of these services.

Closing Statement

The intent of this policy is to offer a helping hand to those who need it while sending a clear message that illegal drug use and alcohol abuse are incompatible with employment at the District Four TSM&O RTMC.

ISSUE RESOLUTION PROCESS

Issue Resolution

The issue resolution process is intended to identify, mitigate, and resolve issues of poor employee performance as well as those who have violated the established RTMC rules, guidelines, and procedures.

Consultant staff will follow guidance provided by their respective companies.



2.06 Office Guidelines

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Document History

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GENERAL RULES AND GUIDELINES

Description & Overview

General rules and guidelines of the District Four TSM&O Regional Transportation Management Center (RTMC).

General RTMC guidelines are always in place to maintain professionalism. The commission or omission of any act which constitutes a violation of any of the regulations, directives, policies or procedures contained herein may be grounds for disciplinary action.

General Guidelines

- All RTMC personnel shall acquaint themselves with the RTMC Standard Operating Procedures and Regulations and Rules contained herein. A plea of ignorance will not be relief from any responsibility for compliance.
- All RTMC personnel will always be held accountable for their conduct and shall not conduct themselves in any manner which could bring discredit upon the RTMC or FDOT or any of its partners.
- No RTMC personnel shall wantonly or maliciously make false reports about the organization or about any other personnel either as an offense of or to create a disturbance, or to bring any personnel into discredit.
- No RTMC personnel shall knowingly make false reports regarding any of the RTMC services or programs at any time.
- No RTMC personnel shall knowingly falsify a SunGuide report.
- There shall be no gambling with any type of playing cards, instruments, or devices for money or articles of value on RTMC property.
- Literature or any other material, regardless of its media, which is of an offensive nature or explicit sexual content, is not permitted on RTMC property.
- No profanity or foul language will be allowed; proper office etiquette shall always be maintained.

Business Conduct

All District Four TSM&O RTMC personnel will present a professional image as we regularly interact with the public, other agencies, and the Broward County Traffic Engineering Division (BCTED).

If you become aware of another employee's behavior or actions being inappropriate, illegal, problematic, or in any way inhibit or affect your job performance or the RTMC work environment, you should discuss such behavior or actions with your RTMC Supervisor or Managers.

RTMC management will investigate all reasonable concerns confidentially. Appropriate corrective action will be taken, if deemed necessary. This should not be discussed with other RTMC employees.

Discussions on such matters with other employees may create an unacceptable work environment for which you will be held responsible, and which you may be disciplined in accordance with the RTMC issue resolution and disciplinary process.

Media Inquiries

All media inquiries must be directed to a member of the FDOT RTMC Management Team or to the public information office.

At no time should any RTMC staff personnel provide any information to a member of the media other than the information provided by the SunGuide response plan text alert messaging system. Intentional statements to the media, true or false, other than as specified in this paragraph, may result in termination.

Sharing Workspace

The District Four TSM&O RTMC is set up as an “open plan” office in which multiple workers or departments work together while sharing the same office space.

In a shared workspace environment, it's important to remember that there needs to be certain rules of etiquette, consideration and respect shown towards others to make this arrangement function efficiently. When sharing a workspace, there are some guidelines that should be adhered to, to allow everyone to be as productive and as harmonious as possible.

- Monitor the volume of your conversation. Be sensitive to the volume when speaking. Consider lowering your voice whenever speaking in person or on the telephone.
- Keep personal conversations (telephone and in-person) brief. It's important to be mindful that others are nearby and that this is a place of business.
- Personal conversations should be appropriate for the workplace and kept brief or should be held outside the shared workspace. Personal cell phone calls are not permitted in the control room.
- Always keep your personal workspace clean and neat. Use discretion when displaying personal items such as family photos and mementos so as not to overdo, clutter or obstruct your work area.
- Keep visits to shared workspaces brief and to a minimum. Show consideration for colleagues while visiting other shared workspaces by keeping conversations low, brief, and work related.

SECURITY AND USE OF IT RESOURCES

Refer to the link below for more information:

[District 4 TSM&O Collaboration Portal \(Partner Site\) - 7.01 Scope of Services & Policies.pdf - ListView \(sharepoint.com\)](#)

PROTECTION OF PRIVACY POLICY

Description & Overview

Guidelines	Outline the procedure for protecting the privacy of the public and illustrate the use of information collected within the District Four TSM&O Regional Transportation Management Center (RTMC) coverage area.
Protection of Privacy Policy	<p>Addresses the usage of CCTV camera images; but not used for this purpose alone. Due to the ability for public viewing on the District Four TSM&O RTMC website, usage of CCTV cameras is the most visible and remains the highest concern regarding the dissemination of personal information.</p> <p>This policy creates a set of specific rules. When implemented, it will enable employees to meet a high standard of professionalism in managing personal information profiles.</p> <p>CCTV camera images are viewed on video monitors in the RTMC to allow RTMC Operators to detect, verify, manage, and document traffic events. RTMC uses data to provide accurate roadway information to the motoring public. This policy defines individual privacy rights and establishes the rules that must be followed to protect an individual's right to privacy.</p>

RTMC Program Policy

As per the policy of the RTMC Program - CCTV Cameras will be used solely for observing the roadways for traffic monitoring, incident detection, and incident identification in the field of view of the devices associated with the roadway environment.

The Privacy Policy is based upon two principles:

- That An Individual Has a Right to Control His/her Own Personal Information.
- That Standards and Controls in the Collection, Retention, Use, And Disclosure of Personal Information Are Mandatory.

These principles are important to RTMC Operations because they apply to the collection, use, and disclosure of any personal information collected by everyday operations with or without CCTV cameras. CCTV cameras are important to RTMC Operations, as they permit RTMC Operators to:

- Scan and detect incidents.
- Confirm reported incidents by Road Rangers and Road Watchers.
- Verify Construction, Maintenance, and Special Event status, both starting and ending times.
- Collect information for determining the appropriate response plans.

While performing these tasks, it is important for RTMC Operators to be sensitive and compliant with this policy.

The following features of CCTV will assist with this compliance:

Features	Description
Zooming	<ul style="list-style-type: none"> • CCTV cameras must not be zoomed in during routine traffic monitoring; license plates and persons should not be identifiable. • When personal injuries or hazardous materials spills are suspected in a traffic accident, zoom in to collect the information required by FHP and EMS Operators, and • It is critical that the operator takes affected CCTV cameras off any external video feeds that will exclude the camera from being viewed by the public. • Return the camera immediately to a wide-angle view to observe traffic conditions. • Return cameras back to the normal tour.
Video Recording	The RTMC does not record CCTV images.
Release Of Personal Information to Police Services	<ul style="list-style-type: none"> • Advise the RTMC Operations Supervisor or RTMC Manager of any request for the release of personal information by any Police Department. If either the RTMC Operations Supervisor or RTMC Manager is on-site at that time of the request, have the request directed to them. • If police are conducting a law enforcement investigation and request access to information, they should be advised that the RTMC does not record any video from the CCTV cameras. • Police requests to zoom in cameras to collect (personal) information should be referred to the RTMC Operations Supervisor for assistance, or through the RTMC Manager. • Police will be required to provide a search warrant should they wish to conduct any form of law enforcement surveillance; if this situation arises, copy the "warrant" and forward this to the RTMC Manager.
RTMC Incident Information Policy	It is the policy of the RTMC Program that the collection of all Incident Information is used solely for disseminating traffic information to our stakeholders. Stakeholders are considered the following, but not all-encompassing, radio stations, television stations, newspaper reporters, traveler information agencies, and to motorists.
Road Rangers	<p>During a typical day, a Road Ranger may assist more than 20 motorists requiring some form of aid. The varying degrees of assistance may require the dispatch of Police, Ambulance, Fire, or a rotational Tow Company to come to their location on the roadways. The collection of specific information required by these services is only to be used in their dispatch and not disseminated to other sources. The following items are recorded in the SunGuide software with each dispatch entry:</p> <ul style="list-style-type: none"> • Type of Event. • Location. • Make, Model, and Color of Vehicle. • License Plate Number and State of origin. • Injury (if applicable).
FHP	The same guidelines apply to FHP as to Road Rangers information collection. All information received shall be recorded in the SunGuide software for use in dispatching the appropriate response.

BUILDING AND SECURITY MANAGEMENT

Objective

To establish policy, guidelines, and procedures for the security of the FDOT District Four TSM&O Regional Transportation Management Center.

Building Security Policy

Staff working at the 2300 West Commercial Boulevard, Fort Lauderdale, are issued a magnetic card pass for the doors to the building, their work areas and other areas based on their level of responsibility.

Passes are the property of the Florida Department of Transportation and must be returned when an employee is no longer working at this location. In the event of a lost card, the Administrative Assistant will be notified immediately. The Administrative Assistant (or RTMC Manager) will update the system.

Operators must request permission from the RTMC Manager if they show guests to the control room. Operators will not be permitted guests during their shift.

RTMC System Security Policy

The RTMC central system and subsystems are password protected against accident or intentional misuse of the system. Operators are issued and/or asked to set their own personal passwords. You must choose passwords which are easy to remember, but strong enough not to be guessed easily by others.

If you suspect that someone else has become aware of one of your passwords, notify your supervisor as soon as possible so that the password can be changed.

BOMB THREAT SAFETY

Overview

In an office setting, violence can range from horseplay and harassment to bomb threats and terrorism. While unfounded bomb scares far outnumber the real thing, workplaces have been targeted. Staff must be aware of bomb-threat procedures in case of potential threats.

Protection and awareness are key factors in assuring that we are safeguarded in the proper way.

Protection and Awareness

Security is everyone's responsibility. The following are basic rules to safeguard against attacks:

- Don't leave doors or gates open or unlocked.
- Direct all visitors to the front desk for a visitor badge (after-hours security).
- Watch for items or equipment which are out of place.
- Follow all security procedures, particularly rules of access.
- If something is different, uncomfortable, or scary, let your supervisor or security know.

Suspicious Packages

The most likely way we may receive a bomb is through delivery. The following are things to be aware of when accepting packages:

- Wrong or incorrect address.
- Deficient or excessive postage.
- Receipt from a company you have never heard of.
- No return addresses.
- The outside of the package is oily or stained.

If in doubt, get away from the suspicious package and notify other staff. You should then notify the security guard at (954) 847-2786 and notify the manager. Furthermore, you should contact 911 from the desk phone and provide them with the address location and the description of the emergency.

Phone Threats

Most bomb threats are phoned in. If you receive a threat, it's important that you remain calm in order to keep the caller on the line. The Emergencies Notification Form 500-000-003 can be found on IntraSMART and should be used whenever a threat is received. While on the line, get another person to call 911. Also, write down the caller's caller ID information.

Important: Do not hang up the phone, even if the caller has; as calls can often be traced!!!

Written Threats

If a written threat is received, notify your supervisor/manager immediately. You should contact the security guard at (954) 847-2786. Call 911 from a desk phone and provide them the address location and type of emergency.

Notify

If you receive a threat, attempt to make someone nearby aware so that they can begin the notification process. In addition to contacting 911, a supervisor or manager should be notified immediately; after hours, security should be called on (954) 847-2786.

Officials will assess the threat and make the decision about whether to evacuate and/or initiate a search for a bomb.

Important: Do not use cell phones or two-way radios during any threat!!

RTMC EVACUATION PLAN

Description & Overview

<p>Guidelines</p>	<p>To manage the process of an evacuation within the District Four TSM&O Regional Transportation Management Center (RTMC) coverage area.</p>
<p>The District Four TSM&O RTMC</p>	<p>Responsible for the safe and continued operation of both RTMC facilities at all times.</p> <p>In the case of the TSM&O RTMC building evacuation, the following evacuation plan is to be carried out by any personnel present on the property at the time of the e evacuation. Evacuation could take place for several reasons, including but not limited to:</p> <ul style="list-style-type: none"> • Fire • Fire drill. • Hurricane • Bomb threat. • Other emergency issues <p>While the control room is the central focus, employees in the control room area at the time of the evacuation are requested to carry out the Control Room evacuation plan.</p> <p>The procedure has been designed with the understanding that at no time should personnel be placed in imminent danger. Safe evacuation takes precedence over all else.</p>

Procedures

The steps for managing and implementing an RTMC evacuation are as follows:

- Stay calm.
- Identify the personnel present in the RTMC at the time the evacuation is issued. This could include anywhere from two to forty employees, depending upon the day/time of the evacuation.
- Those with offices shall take all personal items including cellular phones and chargers, close office doors (DO NOT LOCK), and exit the building.
- Those staff members who are present in the control room at the time the evacuation is issued, shall complete the following safely:
- Identify which employees are present in the control room and/or RTMC.
- Lock computers (Ctrl Alt Delete or Windows Key + L)
- If safe to do so:
- Forward desk phone to lead desk handheld.
- Gather EVACUATION KIT between consoles 1 and 2. Also take:
 - Sonin Handheld Radios
 - Chargers

Exit the Building

Upon evacuation of the RTMC, ALL staff will meet in the parking lot area adjacent to the flagpole along Commercial Blvd.

- During all evacuations, the most senior Control Room Operations staff member is the person in charge. This person shall take roll call once the evacuation is complete and shall check all rooms (if safe) in case there is a staff member not present.
- The manager on call shall be notified if not during business hours.
- No one shall use the elevator under any circumstances.



3.01 Office Guidelines

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FRONT DESK

Overview

These procedures outline the responsibilities associated with the RTMC front desk within the District Four TSM&O Regional Transportation Management Center (RTMC).

Procedures

Morning

- Walk through the kitchen and make sure all supplies are replenished. (Liquid creamer, utensils, etc.)

Daytime

- Answer and transfer incoming phone calls.
- Sort mail and packages for their recipients.
- All other tasks assigned by the Department.

Evening

- Cisco IP phone does not need to be changed to a night setting.
- Lock the doors to the supply room, and any offices are still open.
- Daily, restock the supply room copier/printer, and any office printer that needs paper and/or ink.

VISITOR BADGE SYSTEM

Overview

These procedures outline the required steps for visitor access to the District Four TSM&O Regional Transportation Management Center (RTMC).

Policy

All visitors (non-RTMC staff members) will require visitor badges upon entrance into the TSM&O RTMC.

Badges must be worn and visible always. Those found without a badge will be re-directed to an on-duty administrative RTMC staff member to obtain one.

Three various levels of visitor badges are available:

Level 1	Blue	Access to office area and control room only
Level 2	Orange	**ESCORTED access to the server room, behind video wall, control room and office area
Level 3	Green	**UNESCORTED access to the server room, behind video wall, control room and office area

**Requires approval by an FDOT Project Manager or Operations Manager

Procedures

Upon entrance into the TSM&O RTMC visitors will be required to stop at the security desk and sign the Florida Department of Transportation (FDOT) visitor's log. Soft copies of the visitor's log will be kept for 3 years in the Badge folder under Admin in the Share drive located:

N:\Administrative\Badges\Badge & Security Access Card\Visitor Badge\Log

If access to the office area, control room or server room is needed, a visitor badge must be issued. The following information must be provided:

- | | |
|--|--|
| <ul style="list-style-type: none"> • Date • Name • Company/Agency • Program • Staff member visiting | <ul style="list-style-type: none"> • Purpose of visit • Time in/out • Level of badge needed. • Guest's cellular phone number (for Level 2 or 3 Visitor Badges) |
|--|--|

Note.

- If a guest is an FDOT employee and has a visible FDOT ID badge, a visitor badge is not required to access the office area.
- If a staff member pre-plans a tour, meeting, or other event; a visitor badge request form must be completed. Level 2 or 3 badges must be pre-approved by an FDOT Project Manager or Operations Manager. After the Visitor Badge Request form has been completed, the on-duty administrative staff member will provide the appropriate visitor badge.

The following information will need to be provided for the Visitor Badge Request Form:

- Requestor

- Current Date
- Purpose
- Time from and to
- Number of attendees
- Date
- Company(s)
- Number of badges for each level
- Guest's cellular phone number (for Level 2 or 3 Visitor Badges)
- Signatures
- Approval (if applicable)

Additional information should be recorded in the designated area at the bottom of the form.

The IT Department must be notified of all requests to restricted areas (i.e. video wall, server room, telephone room) to coordinate access into those areas.

Doors leading into restricted areas must remain closed always.

MEETINGS

Overview

These procedures outline the required steps for setting up and attending meetings within the District Four TSM&O Regional Transportation Management Center (RTMC).

Procedures

Setting up Meetings

Administrators set up one-time or recurring meetings in the Outlook D4-RTMC Large Conference Room Calendar. Other outside groups may request the large conference room, but RTMC Operations has priority for using the meeting room.

When creating a meeting in the Outlook D4-RTMC Large Conference Room Calendar, add meeting name, date, time, and name of requestor. For outside groups, add the requestor's telephone number also. If a meeting conflicts with a previously scheduled meeting, request a meeting room from the Broward County administrator on the second floor. Do not invite any attendees through the meeting reservation. Send a separate email to the meeting organizer.

The D4-RTMC Large Conference Room can be booked using the rooms featured on the calendars. When you are searching for a room, type D4-RTMC Large Conference Room.

Attending Meetings

Attend any meetings requested by client to provide meeting minutes to attendees:

1. Set up the conference room.
2. Use monitor to display meeting agenda.
3. Take notes and prepare minutes.
4. Distribute the minutes to attendees within three days.

NEWS ARTICLES AND ANNOUNCEMENTS

Overview

These procedures outline the required steps for news articles and announcements within the TSM&O Regional Transportation Management Center (RTMC).

Procedures

Monitor and track traffic-related news on local and national news websites. Save any relevant transportation news story in PDF format in the Admin Drive under News Articles.

N:\News Articles

SECURITY ACCESS CARDS

Broward

To request a security access card or access card changes, do the following:

1. Complete the Security ID/Access form located in the Admin Share Drive:
N:\HR\EMPLOYEE INFO & NEW HIRE FORMS\ (3) BC and PBC Request Forms\BC

Please note that the following fields are required:

- | | |
|-----------------------|---|
| - CARDHOLDER NAME | - CONTRACTOR EMAIL |
| - COMPANY | - CONTRACTOR'S DFLE BACKGROUND CHECK ATTACHED |
| - WORK TEL.# | - CONTRACTOR ID/ACCESS BADGE |
| - WORL CELL# | - ACCESS AREAS |
| - EMPLOYEE SUPERVISOR | - HOURS |

Note: To complete the form, the cardholder, and supervisor must provide their signatures before submission.

2. Once you complete the form, it will be sent to BCTED staff **Larry Jennings** for further processing.

Note: If you happen to misplace your security access card, permanent card, or temporary card, please be aware that there is a replacement fee of **\$15** that will be charged. It is essential to always keep track of your card to avoid any unnecessary expenses.

Palm Beach/Vista

To request a security access card or access card changes, do the following:

1. Complete the **PBC Access Card Request Contractor Form** and **PBC Access Card Request Project Information** form located in the Admin Share Drive:
N:\HR\EMPLOYEE INFO & NEW HIRE FORMS\3) BC and PBC Request Forms\PBC
Please note that the following fields are required:

PBC Access Card Request Contractor Form

- Requesting User Group
- Card to Be Issued To: Name, Phone, Title, Normal Work Schedule
- Reason for Request: select Contractor/Vendor/Temp Staff and add Company Name
- Requested Access Levels:
 - ✓ General Access: VO EPW Administration access VO EPW Administration access
 - ✓ Server Room Access (IT/Maintenance Staff): VO EPW ITS 3 access and VO EPW Administration access.

PBC Access Card Request Project Information

- Project Number
 - Project Name
 - Facility Type
 - Start Date / End Date
 - Contracting Company
 - Contracting Company Address
 - Contractor Contact
 - Contractor Phone
 - How many individuals will be sent for unescorted access.
2. Once the form is complete, it will be sent to the Office Manager in the Palm Beach County Engineering and Public Works Department for authorization.
 3. The Office Manager will return the form via email with the authorized signatures.
 4. New hire could then call 561-233-0750 to schedule an appointment for fingerprints for the new badge.

Location:
2633 Vista Parkway
West Palm, FL 33411

COPIER

Overview

These procedures outline the required steps for submitting the copier meter reading, ordering supplies and tracking color copies print codes within the District Four TSM&O Regional Transportation Management Center (RTMC).

Procedures

Meter Reading

Toshiba meter readings are submitted automatically on the last day of each month.

Supplies

Supplies are included in the contract and are requested as needed.

Note: An 11x17 document is equivalent to 2 pages.

MEDIA EQUIPMENT

OVERVIEW

These procedures outline the required steps for the management of the media equipment within the TSM&O Regional Transportation Management Center (RTMC).

PROCEDURES

Media equipment inventory, which includes projector, camera, and video camera, is kept in a locked filing cabinet in a second-floor cubicle. Admin staff is to keep track of usage and charging batteries.

All media equipment is to be signed out by the requesting user in the media equipment usage log.

- Name
- Item being used
- Reason of request
- Using equipment inside the TMC building (Y/N)
- Time Out
- Time In

BUILDING MAINTENANCE REQUEST

Overview

These procedures outline the required steps for submitting a building maintenance request within the TSM&O Regional Transportation Management Center (RTMC).

Procedures

The County maintains the RTMC building.

- Complete an electronic building maintenance request form.
- Submit it to the Broward County Administrative Officer. The maintenance request document is located on the network at: N:\Administrative\Maintenance Requests.

ORDERING SUPPLIES

Overview

These procedures outline the required steps for ordering supplies within the TSM&O Regional Transportation Management Center (RTMC).

Procedures

On a monthly basis:

- Create a supply list
- Send it to the TSM&O Resource Manager.

The TSM&O Resource Manager will request approval to purchase. Once approval to purchase is obtained, an FDOT employee will place the order.

Note. Office administration is responsible for (collecting) providing a packing slip/ proof of payment for RTMC office supplies purchases. Scan into the system and send it to the FDOT employee who placed the order.

WATER FUND

Overview

These procedures outline the required steps for the water fund at the TSM&O Regional Transportation Management Center (RTMC).

Procedures

1. Stock water bottles weekly.

There should always be always at least a shelf and a half of bottled waters (36 bottles) available in the refrigerator. If there are less than (36 bottles), add a case of bottled water and send email to the Office Manager indicating:

- Date / Time
- # bottles of waters available
- + 35 bottles of water added.
- Total bottles of water now available

Note. Each shelf holds 24 bottles of water.

2. Collect money and add the amount to the daily log.
3. Fill out inventory tracking sheet.
4. Send an e-mail notification to the RTMC office manager, who adds the collected amount in the earnings and purchases spreadsheet.
5. Buy supplies at BJs. Enter the amount in the earnings and purchases spreadsheet every month.

EMPLOYEE LOUNGE

Overview

These procedures outline the required steps for maintaining supplies in the employee lounge within the TSM&O Regional Transportation Management Center (RTMC).

Procedures

Check paper products, utensils, coffee, creamer, and sugar supplies daily in the employee lounge.

- Coffee drawers should be kept completely full always.
- Extra coffee supplies such as coffee filters, sugar, powdered creamer and stir sticks should always be available in the cabinet above the coffee machine.
- If monthly kitchen supplies are not received by the 5th of each month, an email should be sent to the responsible consultant company.

Consultants at the RTMC currently pay for the following supplies:

I-595 Express	Paper cups, plates, and plastic utensils
AECOM / WSP	Coffee, tea, hot chocolate, and powder creamer
Arcadis	Canisters of sugar, Equal and Sweet-n-Low
Auto Base	(12 quarts) Creamer the first Monday of each month
Eland	(12 quarts) Creamer the third Monday of each month

Building maintenance is responsible for general cleaning of the kitchen. Water and coolers are stored in the employee lounge closet.

COORDINATE STAFF EVENTS

Overview

These procedures outline the required steps to coordinate staff events within the TSM&O Regional Transportation Management Center (RTMC).

Procedures

The administration group performs the following tasks for the RTMC.

- Coordinate staff holiday lunches.
- Coordinate monthly birthday cakes.
- Coordinate team building activities.

Each month:

- Send out an e-mail birthday announcement listing birthdays for the month and the dates the birthdays occur.
- Schedule the birthday cake gathering for the last Friday of each month.
- On the day of the monthly birthday gathering:
 - ✓ buy a birthday cake at Publix with money from the bottled water fund.
 - ✓ Send out an e-mail invitation reminder the day of the gathering to all RTMC staff.

All supplies used during RTMC gatherings should be stored in the buffet cabinets in the kitchen or in the kitchen closet once the gathering is over.

A beverage cooler should be emptied and stored with its cover in the kitchen closet after each gathering.

HURRICANE SUPPLIES

Overview

These procedures outline the required steps for Hurricane Supplies within the TSM&O Regional Transportation Management Center (RTMC).

Procedures

Emergency supplies are kept in a large, locked rolling tool bin stored in a locked cabinet behind the videowall (Room 139). An administrative assistant can provide the combination for the locks.

ADMIN NETWORK FILES

OVERVIEW

These procedures outline the required steps for accessing Admin network files within the TSM&O Regional Transportation Management Center (RTMC).

PROCEDURES

Administrator files and materials are stored in a folder called "Admin Files" on the network N: drive.



3.02 Human Resources

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NEW HIRE PROCEDURES

Overview

These procedures outline the required steps for the hiring of RTMC Staff within the TSM&O Regional Transportation Management Center (RTMC).

Policy

Before being hired, all RTMC staff must be approved by the Department in writing.

All staff spending greater than 50% of their time in the control room must obtain Joint Task Force (JTF) Security Clearance.

Procedures

Note. All forms referenced herein can be found on N:\HR, which is a restricted folder.

Pre-hire

During the screening process, all potential candidates should be advised of the above policies and asked if they can comply.

Prior to presenting an Offer of Employment

1. Have the candidate complete the JTF Security Clearance process (see below).
2. Confirm that you have the candidate's resume and that it contains the following information:
 - a. Speak, write, and understand English fluently.
 - b. Current driver's license (get a copy).
 - c. Minimum of 18 years old.
 - d. Education, certifications, diplomas, and professional affiliations.
 - e. Minimum of the last three employment positions (unless having worked for fewer employers).
3. Send an email to the Department's Project manager for approval with the following attachments:
 - a. Resume.
 - b. Copy of driver's license.
4. Candidate may be hired after approval.

Offer Letter

Be sure to include the following in all offer letters to operators:

Please note that this offer is contingent on the successful verification of the information you provided during the interview process, successful completion of RTMC Operator training and certification (if applicable) and JTF Security Clearance.

Joint Task Force (JTF) Security Clearance Process

The Statewide Law Enforcement Radio system (SLERS) in the control room makes it necessary for all staff who spend >50% of their time in the control room, to obtain JTF Security Clearance.

The application package shall consist of five forms:

1. JTF Authorization Release of Information (1b).
2. JTF Security Clearance Application (1c).
3. Security Level Request.
4. Non-disclosure Agreement.
5. Electronic Fingerprint Confirmation Form.

Electronic fingerprinting of SLERS Security Clearance applicants must be completed at a Florida Drivers License Office (see <http://www.flhsmv.gov/offices/>). Appointments may be scheduled through Florida Highway Safety and Motor Vehicles Online Appointment System (<https://nqapflhsmv.nemogappointment.com/>). On the appointment page, select (6. CDL Written/Endorsement/Exam/Hazmat/Fingerprint).

All applicants must have in their possession at the time of printing the above-referenced forms along with a photo ID. NO EXCEPTIONS.

When completed, all forms must be submitted to the JTF Security Manager for review. Scan the package and email completed forms to your SLERS Administrator for submission.

<https://services.flhsmv.gov/JTF2/Account/Login?ReturnUrl=%2FJTF2%2F>

(username and password required).

Security Clearance Denial Reasons

1. The applicant has been convicted of a felony offense.
2. The applicant is currently on probation for any offense or has charges pending (felony or misdemeanor).
3. The applicant has been convicted of a misdemeanor offense involving any type of theft, violence or drug offenses within the past three years.
4. The applicant has been convicted of a crime involving domestic violence or currently has a restraining order involving domestic violence or threats.
5. The applicant has been arrested for any charge involving resisting arrest, battery or assault on a law enforcement officer.
6. The applicant is wanted for any criminal offense.
7. The applicant is illegally residing in or is not approved to work in the United States.
8. The identification of adverse intelligence information the applicant.
9. At the discretion of the Security Manager, based on any other adverse information regarding the applicant.

Hire

After the client approves the candidate, and an offer of employment has been made by the Hiring Manager and accepted by the candidate, a start date of employment must be given to the RTMC Human Resource liaison.

As soon as the start date of employment is provided, the RTMC Human Resource Liaison will:

1. Notify the contracting company's human resources department to follow the company's procedure for new hires.
 - The new hire will need to complete the required FDOT Computer Security Awareness CBT (TRACK) and send a copy of the certificate to the RTMC Human Resource Liaison.
<http://wbt.dot.state.fl.us/ois/CSATRACKwBT/index.htm>
 - New-hire and consultant Project Manager will need to complete and sign the FDOT Acceptable Use Agreement and return to the RTMC Human Resource Liaison.

N:\HR\FDOT_Consultant Training Requirements_AUA\AUA

2. The RTMC Human Resource liaison will complete two documents for the new hire:

- a. Service Desk Portal - New Hire Request.
- b. Email request for a security access card.

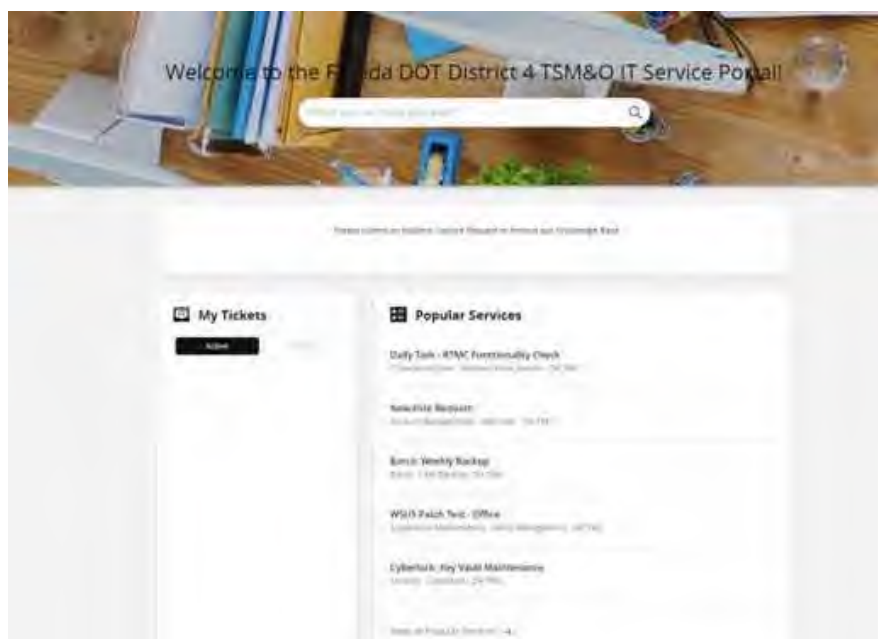
The Security ID-Access Badge Form, a copy of the security clearance, and a Florida driver's license are delivered via email to the Broward County Traffic Engineering Department.

For the Hiring Manager Folder

- Service Desk Portal - complete before the new hire's start date.
- All user requests for adding/changing/deleting a user goes through the Service Desk portal located here:

<https://floridadot.samanage.com/welcome.portal>

- Users log-in with same log-on credentials as their PC.
- Select "New Hire Request" located under Popular Services.



- Complete the required fields on the right column and click "Request Item." Use the **New User Request Form template** for reference. The document is located in this folder: N:\Management\SOP\Documents for Admin SOP
- The form will go through the various administrators' approval procedures after being submitted.

The user account will be created, updated, or cancelled in accordance with your request once all approvals have been received. Any issues that come up must be resolved before account modification can move forward.

- CJIS Online Security Training: <https://www.cjisonline.com/>.

RTMC Operations Manager will create an account in CJIS Online Security Training as part of the JTF Security clearance. *Employees will need to have an email address available. Training must be completed within 90 days of JTF Security Clearance Approval.

Effective 10/15/2020

Consultant management and office staff will sign in and use Microsoft Teams application (signed in with the FDOT email) every day that they work and use it to collaborate through meetings, the chat features, and making calls.

EMPLOYMENT TERMINATION PROCEDURES

Overview

These procedures outline the required steps for employment termination of RTMC Staff within the TSM&O Regional Transportation Management Center (RTMC).

Procedures

Voluntary Terminations

Prior to the employee's last day, the manager will notify HR liaison, IT department, and TSM&O Resource Manager of the employee's last day.

HR liaison will submit a ticket in the Service Desk Portal to disable account, network email and voice mail account.

If the employee has a DIVAS account, an email will be sent to the TSM&O Program Engineer requesting the account to be deactivated. The TSM&O Program Engineer will notify the Central Office.

On the employee's last day, the manager will meet with the employee, collect all company property (security access card, ID, laptop, telephone, etc.) and return to HR liaison.

IT department will cancel all network access.

HR liaison returns building security access cards to Broward County Traffic Engineering Division office manager.

Involuntary Terminations

A manager will work with an HR Manager to ensure proper documentation is in place to facilitate employee's exit.

HR liaison will submit a ticket in the Service Desk Portal to disable account, network email and voice mail account and provide a list of all company property to be collected. Some items on the list may not be applicable due to the involuntary nature of the employee's termination.

If the employee has a DIVAS account, an email will be sent to the TSM&O Program Engineer requesting the account to be deactivated. The TSM&O Program Engineer will notify the Central Office.

IT department will cancel network access. HR liaison returns building security access cards to Broward County Traffic Engineering Division office manager.

Distribute Departure E-mail Announcement

If appropriate notification e-mail will be sent to relevant contacts within the company.

Update Distribution Lists

- Telephone Directory.
- Birthday Calendar.
- MS Outlook Distribution Lists (If applicable).
- MS Outlook Meeting Invitations (If applicable).
- Inventory List - assigned equipment.
- Security Access Cards Spreadsheet.

CONTRACTOR ON-BOARDING PROCEDURES

Overview

These procedures outline the required steps for contractor onboarding within the TSM&O Regional Transportation Management Center (RTMC).

Procedures

The **FDOT Project Manager** will provide a date for the contractor on-boarding. The **Office Manager** will create a calendar invite in Microsoft Outlook, insert the agenda listed below, and invite everyone involved.

Agenda: Day 1

During your first day, you can anticipate the following activities to be provided.

Contractor On-boarding

Project

Company

Date

Time

Location

D4 TMC, 1st-floor conference room (2300 W. Commercial Blvd, Fort Lauderdale, FL 33309)

#	Task	Description
1.	ID Badge photoshoot	– As an essential responsibility, the Administrative Assistant must take photographs of all employees for their identification badges.
2.	Welcome / TMC Video	– The Public Outreach Coordinator will address a welcome speech and present the TMC Video.
3.	TSM&O Program Engineer Expectations	– The roles of the TSM&O Program Engineer and TSM&O Resource Manager will be thoroughly discussed, and their expectations will be clearly outlined.
4.	Building Tour	– The control room tour, including the videowall and server room (if applicable), will be conducted by either the Operations Manager or the Maintenance Manager .
5.	New Hire Paperwork/Office Policy	The Office Manager will be responsible for performing the following tasks:

#	Task	Description
	(ID badge, security access card, email)	Hand out and review any required documents.
	Note. List of required documents to review:	<ul style="list-style-type: none"> • Emergency Response Plan • SOP • ITS Inventory Procedure <p>Hand out ID badges and security access cards (if available) to each employee.</p>
6.	IT Orientation	<p>The IT Support Manager will be responsible for conducting training on the following topics:</p> <hr/> <p>A. Network Login</p> <ul style="list-style-type: none"> • Username • Password <hr/> <p>B. Password Rules</p> <p>How to change a password</p> <hr/> <p>C. Resource Access</p> <ul style="list-style-type: none"> • File share resource. • Access methods • Personal/home folder • Public folder • Software access <hr/> <p>D. Helpdesk</p> <p>Creating helpdesk ticket</p> <hr/> <p>E. Printing</p> <p>I. SunGuide network</p> <p>F. Email usage</p> <p>J. Network Security</p> <p>G. Internet usage</p> <p>K. General PC usage and responsibility</p> <p>H. ITS network</p>
7.	MIMS/SunGuide Orientation (If Applicable)	<p>Software Support Manager</p> <p>Responsible for the following activities: MIMS/SunGuide.</p> <p>Obtain information for staff on contract.</p> <ul style="list-style-type: none"> • Names • Contact information, telephone numbers, and email. • Responsibilities • Contact Hierarchy <hr/> <p>The contractor</p> <p>To be provided with laptops used on contract ## days before scheduled training for formatting in prep for training.</p> <p>IT and Software Support staff will:</p> <ul style="list-style-type: none"> – Verify the hardware specifications for the proposed laptop. – Ensure network and application user accounts, email, and staff equipment (laptops, tough books, tablets) are set up before formal training, confirming

#	Task	Description
		<p>that a new contractor is provided all necessary manufacturer software.</p> <ul style="list-style-type: none"> - Install and test all components required for the use of MIMS
	Conduct training on the following topics:	<ul style="list-style-type: none"> • MIMS Trouble Tickets • MIMS Maintenance Services and Tickets • MIMS Inventory Management • MIMS User Configurations
		<ul style="list-style-type: none"> - MIMS Maintenance Technician, Maintenance Supervisor/Manager, and Maintenance Administrator functionality. - The contractor will review and confirm with the FDOT Maintenance Manager the means of remote communication between the laptops and the FDOT D4 network (e.g., Verizon wireless accounts, FDOT WAN, etc.). - Identify seating locations for Contractor's staff within the Broward and PB TMC. - Number of staff to be working from the TMC. - Number of FDOT workstations required.
8.	Operations/Maintenance	<p>The Operations Manager will be responsible for the following activities:</p>
	Operations	<p>Review SOP Section for (Operations / MIMS) Provide the contractor with a list of relevant TMC contacts. Summarize contractual work priority/response times</p>
	Construction Contractors	<p>Project-related outreach will be given to construction contractors.</p>

CONTRACTOR OFF-BOARDING PROCEDURES

Overview

These procedures outline the required steps for contractor off-boarding within the TSM&O Regional Transportation Management Center (RTMC).

Policy

The manager reviews and completes the termination check list. The termination checklist is located in the human resource network drive (N:).

Procedures

Description	Dates	
<p>Actions Required Prior to Employees Last Day of Employment</p> <p>Initial box, Date, or mark "NA" if not applicable.</p>	<p>Tasked To:</p>	<p>Date Completed:</p>
<p>Voluntary Terminations</p> <p>Request a letter of resignation from the employee to include employee's last day of employment and reason why they are leaving if they are willing.</p>		
<p>Involuntary Terminations</p> <p>Work with HR Manager to ensure proper documentation is in place and to facilitate employee's exit. Some items below may not be applicable due to the involuntary nature of the employee's termination.</p>		
<p>Schedule Employee Final Exit Meeting</p> <p>Schedule a meeting with exiting employee (schedule near or on employee's last day of employment).</p>		
<p>Contact IT Department</p> <p>Notify the IT department to process cancellation of network e-mail, and voice mail accounts. Notify IT department to deactivate company issued cell phone accounts.</p>		
<p>Notify Department/Team</p> <p>Notify department or project team of employee's formal departure. Delegate appropriate back-up resources as needed.</p>		
<p>Cancel Accounts</p> <p>Cancel network access.</p>		

Description	Dates	
-------------	-------	--

Final Day of Employment

Tasked
To:

Date
Completed:

Distribute Departure E-Mail Announcement

If appropriate send notification e-mail to relevant contacts within the company.

Update Distribution Lists

- Telephone Directory
- Birthday Calendar
- MS Outlook Distribution Lists (If applicable)
- MS Outlook Meeting Invitations (If applicable)
- Inventory List - assigned equipment.
- Security Access Cards Spreadsheet
- Emergency Contact List
- FDOT DIVAS Account (If applicable)
- Workplace Contingency Plan (If applicable)

CYBERLOCK ACCESS CARD / ACCESS KEY POLICY

[District 4 TSM&O Collaboration Portal \(Partner Site\) - 7.13 CyberLock.pdf - ListView \(sharepoint.com\)](#)

AUTOMATED ACCESS REQUEST FORM (AARF) REQUESTS

New User/Account Request

Here you will have a process for creating a new user / new account.

Overview

This SOP Section outlines the steps for the Florida Department of Transportation District Four (FDOT D4) Regional Transportation Management Center (RTMC) Office Manager to create an Automated Access Request Form (AARF) request for a new hire in the FDOT Technology Request System.

The following sections are provided in this document:

- Acceptable Use Agreement (AUA) Form and Security Awareness Computer Based Training (CBT) Certificate
- Access the AARF
- Enter Request/Person Information
- Select Statewide Access Items
- Enter Request Routing Information
- Enter the DOT Project Manager's Information, Consultant Company's Information, Consultant Representative's Information, and the Project information
- Attach the AUA Form and Security Awareness CBT Certificate
- Review Request Information & Submit for Approval for New User

Procedures

Acceptable Use Agreement (AUA) Form and Security Awareness Computer Based Training (CBT) Certificate

1. All new users must complete the AUA Form and Security Awareness CBT requirements below. OIT cannot finalize a new user request without a signed AUA form and a Security Awareness CBT certificate.
 - a. FDOT Form 325-060-08b, AUA – Consultant/Outside Agency.

The AUA form can be found at the following link: [Procedural Document Library \(fdot.gov\)](#).

The form must be physically signed in ink (it cannot be signed with a copy and paste digital signature in the form of a picture) and submitted to the RTMC Office Manager.
 - b. Security Awareness CBT Certificate.

The Security Awareness CBT can be found at the following link: <https://www.fdot.gov/cybersecurity/it-resources/computer-security-cbt>.

The certificate must be printed upon completion of the Security Awareness CBT and submitted to the RTMC Office Manager.
2. The AUA form and the Security Awareness CBT certificate must be scanned into a single PDF file and attached to the request (5 pages total), as outlined in the [Attach the AUA Form and Security Awareness CBT Certificate](#) section of this document.

Access AARF

Steps / Screenshots

1. Click the following link to access the FDOT Employee Portal: [E-Forms \(sharepoint.com\)](#).
2. Click **AARF and IRR Requests**



Figure 1. FDOT Employee Portal - AARF and IRR Requests.

3. In the Technology Request System,
Click **Automated Access Request Form (AARF)**



Figure 2. Automated Access Request Form (AARF).

Steps / Screenshots

4. Hover your mouse over **Create Request**.
Click **New User/Account**

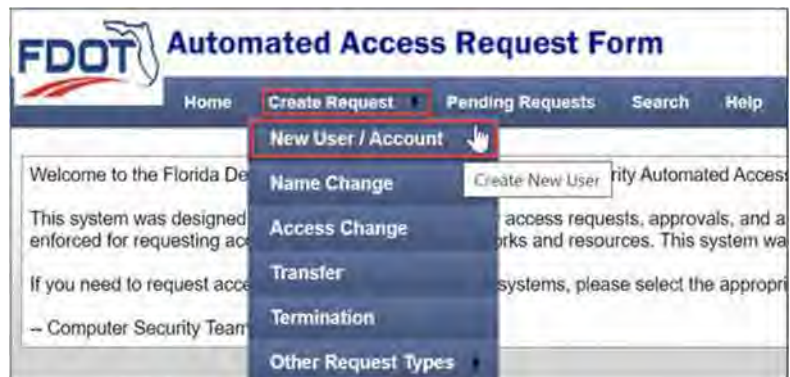


Figure 3. Figure 3. Create Request > New User/Account.

Enter Request/Person Information

1. Click the down arrow next to Cost Center (CC) Number and select 462 for Traffic Operations
2. Enter the user's First Name
3. Enter the user's Last Name
4. Enter the user's phone number.
5. Enter the initiator's phone number.
6. Select **Consultant/Contractor** for *Account Type*
7. Click **Continue**.

Figure 4. Request/Person Information.

Select Statewide Access Items

1. **Important:** For Severe Incident Response Vehicle (SIRV) personnel only, Select **Office 365-Policy Exemption** (directly under Office 365-Cloud Only) in addition to the selections below.
2. Select **Acceptable Use Agreement – AUA (+)**
3. Select **Office 365-Cloud Only**
4. Click **Continue.**



Figure 5. Statewide Access Items.

Enter Request Routing Information

Steps / Screenshots

1. Enter the supervisor's **First Name**
2. Enter the supervisor's **Last Name**
3. Click *the magnifying glass*
4. Click **Select**

Selected Request Type: NewUser for [redacted]

* Required Field

Request Routing Information

Search for Supervisor:

First Name: [redacted] Last Name: [redacted] [magnifying glass icon]

Supervisor*:

	UserLogin	FullName
[Select]	DOT\	

Cost Center Manager*: [redacted] (DOT\ [redacted])

Security Coordinators:

Coordinator Name
[redacted] (DOT\ [redacted])
[redacted] (DOT\ [redacted])
[redacted] (DOT\ [redacted])

Cancel Previous Continue >

Figure 6. Request Routing Information.

5. Click **Continue**

Selected Request Type: NewUser for [redacted]

* Required Field

Request Routing Information

Supervisor*: [text box] [Change](#)

Cost Center Manager*: [redacted] (DOT\ [redacted])

Security Coordinators:

Coordinator Name
[redacted] (DOT\ [redacted])
[redacted] (DOT\ [redacted])
[redacted] (DOT\ [redacted])

Cancel Previous Continue >

Figure 7. Request Routing Information - Continue >.

Enter the DOT Project Manager's Information, Consultant Company's Information, Consultant Representative's Information, and the Project information

Note. The DOT Project Manager's name is pre-populated from the Supervisor selection in the [Enter Request Routing Information](#) section above.

Selected Request Type: NewUser for [redacted]

* Required Field

DOT Project Manager

Consultant Augments Staff

Name: * [redacted] Phone: * [redacted] 1

E-mail Address: * [redacted] 2

Consultant Company

Company Name: * Eland Engineering, Inc. 3 Vendor #: [redacted] 4

Consultant Representative

Name: [redacted] 5 Title: Director of Operations 6

E-mail: [redacted] 7 Phone: [redacted] 8

Project

Project #: [redacted] 9

Start Date: [redacted] End Date: 6/30/2023 10

Project Manager/Professional Service Unit Authorization:

Authorized Services and Programs (Include the location of access and include the address if connectivity is not from a DOT Office or District):

[redacted]

[redacted]

Cancel Previous Continue > 11

Figure 8. DOT Project Manager, Consultant Company, Consultant Representative, and Project Information.

1. Enter the DOT Project Manager's phone number
2. Enter the DOT Project Manager's e-mail address
3. Enter the consultant's company name.
4. Enter the consultant's vendor #.
5. Enter the consultant representative's name.
6. Enter the consultant representative's title.
7. Enter the consultant representative's e-mail address.
8. Enter the consultant representative's phone number.
9. Enter Project #.
10. Enter the Project end date.
11. Click Continue.

Note. In the example above, the consultant is an Eland Engineering, Inc. employee, but the AECOM Project # will be entered.

Note. There are no selections or entries to make in the next step.

Click **Next**.



Figure 9. Next.

Attach the AUA Form and Security Awareness CBT Certificate

Note. The AUA form the Security Awareness CBT certificate must scanned into a single PDF file and attached to the request (5 pages total).

Steps / Screenshots

1. Click **Add Attachment**.



Figure 10. AUA - Add Attachment.

Steps / Screenshots

2. Click **Choose File**

Request Addendums

Supplemental Information

User ID:
User Name:

Acceptable Use Agreement - AUA (+)
Effective 11/9/2020 a DocuSign version of the AUA is available. IT IS NOW MANDATORY ON ALL USERS WITH ACCESS TO HAVE THE AUA ON FILE. New AUA documents must be attached to the Addendum and is no longer required to be attached the Final Review Page. The form numbers are 325-060-08a for Employee/Staff Aug and 325-060-08b for Consultant/Outside Agency

Effective Date: 9/9/2022

Attach supplemental file below.
[Add Attachment](#)

Choose File No file chosen [Upload File](#)

Indicate original in route or fax has been sent instead of the attachment.

Note: This application requires an additional access form. Please complete the appropriate form, scan and attach it to this request. Attaching the form will allow the Application Coordinator to begin processing the request for access immediately. If you do not have access to a scanner, fax the completed form to (850) 412-8200. Forward the original form to the Application Coordinator.

Cancel & Return to Request Core **Continue**

Figure 11. AUA - Choose File.

3. – Click *the file name*.
– Click **Open**.

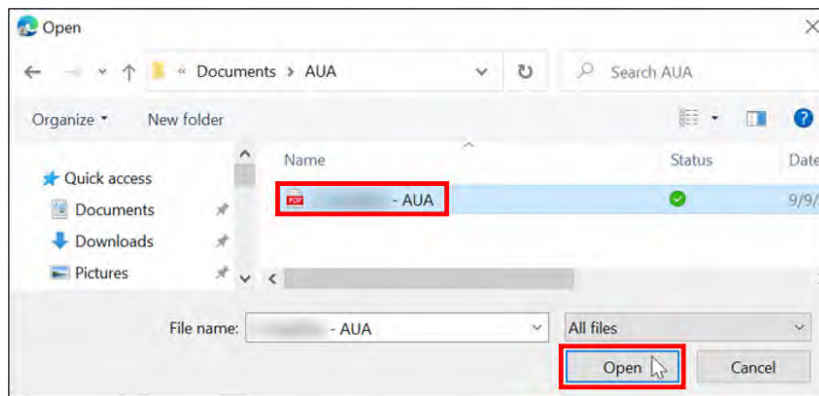


Figure 12. File > Open.

Steps / Screenshots

4. Click **Upload File**.

Request Addendums

Supplemental Information

User ID:
User Name:

Acceptable Use Agreement - AUA (+)
Effective 11/9/2020 a DocuSign version of the AUA is available. IT IS NOW MANDATORY ON ALL USERS WITH ACCESS TO HAVE THE AUA ON FILE. New AUA documents must be attached to the Addendum and is no longer required to be attached the Final Review Page. The form numbers are 325-060-08a for Employee/Staff Aug and 325-060-08b for Consultant/Outside Agency

Effective Date: 9/9/2022

Attach supplemental file below.
[Add Attachment](#)
Choose File: - AUA.pdf [Upload File](#)

Indicate original in route or fax has been sent instead of the attachment.

Note: This application requires an additional access form. Please complete the appropriate form, scan and attach it to this request. Attaching the form will allow the Application Coordinator to begin processing the request for access immediately. If you do not have access to a scanner, fax the completed form to (850) 412-8200. Forward the original form to the Application Coordinator.

[Cancel & Return to Request Core](#) [Continue](#)

Figure 13. Upload File.

5. Click **Preview Attachment** and confirm that all required documents have been uploaded.

Click **Continue**.

Request Addendums

Supplemental Information

User ID:
User Name:

Acceptable Use Agreement - AUA (+)
Effective 11/9/2020 a DocuSign version of the AUA is available. IT IS NOW MANDATORY ON ALL USERS WITH ACCESS TO HAVE THE AUA ON FILE. New AUA documents must be attached to the Addendum and is no longer required to be attached the Final Review Page. The form numbers are 325-060-08a for Employee/Staff Aug and 325-060-08b for Consultant/Outside Agency

Effective Date: 9/9/2022

Attach supplemental file below.
[Add Attachment](#)
[Preview Attachment](#)

Indicate original in route or fax has been sent instead of the attachment.

Note: This application requires an additional access form. Please complete the appropriate form, scan and attach it to this request. Attaching the form will allow the Application Coordinator to begin processing the request for access immediately. If you do not have access to a scanner, fax the completed form to (850) 412-8200. Forward the original form to the Application Coordinator.

[Cancel & Return to Request Core](#) [Continue](#)

Figure 14. Preview Attachment.

Review Request Information & Submit for Approval for New User

Note. Once the request has been submitted to the Supervisor, the Initiator can no longer make any changes to the request.

Review all the information for accuracy.

Once you have verified and confirmed the information entered,

- Click **Approve and Submit to Supervisor.**

View Addendums

Review Request Information & Submit for Approval for New User

[Click Here to Access the User Information - Employee](#)
[Click Here to Access the User Information - QAD User](#)

Base Request Information

Type of request:	New User	District:	District 1
CC Number:	462	Effective Date:	6/12/2023 12:00:00 AM
CC Name:	[TRAFFIC OPERATIONS]		

User Information:

Name:	User ID:
User's Phone:	Initiator's Phone:
Email Address:	
Account Type: Consultant/Contractor	

Access Requested:

<input checked="" type="checkbox"/> Acceptable Use Agreement - AUA (+)	<input checked="" type="checkbox"/> Office 365-Cloud Only
--	---

[View Addendums](#)

Access After Approval:

<input checked="" type="checkbox"/> Acceptable Use Agreement - AUA (+)	<input checked="" type="checkbox"/> Office 365-Cloud Only
--	---

DOT Project Manager:

Name:	Phone:
Email Address:	

Consultant Company:

Company Name:	Vendor ID:
---------------	------------

Consultant Representative:

Name:	Title: Director of Operations
Email:	
Phone:	

Project:

Project #:

Caution: Dates extending beyond 2026 display incorrectly, but the data is stored correctly.

Start Date:	End Date: 6/30/2023 12:00:00 AM
-------------	---------------------------------

Project Manager/Professional Service Unit Authorization:
Authorized Services and Programs (include the location of access and include the address if connectivity is not from a DOT Office or District):

Request Routing Information

Supervisor: (DOT)

Cost Center Manager: (DOT)

Security Coordinators:

Coordinator Name	(DOT)
(DOT)	(DOT)
(DOT)	(DOT)

Add Justification / Special Instructions

NOTE: Original or scanned form is required for all new Users.
(Attach Printed Form)

Cancel
← Modify Request
Approve and Submit to Supervisor

Figure 15. Review Request Information & Submit for Approval for New User.

Termination Request

Here you will create a request for termination.

Overview

This SOP Section outlines the steps for the Florida Department of Transportation District Four (FDOT D4) Regional Transportation Management Center (RTMC) Office Manager to create an Automated Access Request Form (AARF) request for a termination (to remove all system access for a user that no longer works for FDOT D4 Transportation Systems Management and Operations (TSM&O)), in the FDOT Technology Request System. The following sections are provided in this document:

- Access the AARF
- Request/Person Information
- Request Routing Information
- Review Request Information & Submit for Approval for Termination

Procedures

Access the AARF

Steps / Screenshots

1. Click the following link to access the FDOT Employee Portal: [E-Forms \(sharepoint.com\)](#).
2. Click AARF and IRR Requests



Figure 16. FDOT Employee Portal - AARF and IRR Requests.

Steps / Screenshots

3. In the Technology Request System,
 - Click **Automated Access Request Form (AARF)**



Figure 17. Automated Access Request Form (AARF).

4.
 - Hover your mouse over **Create Request**
 - Click **Termination**

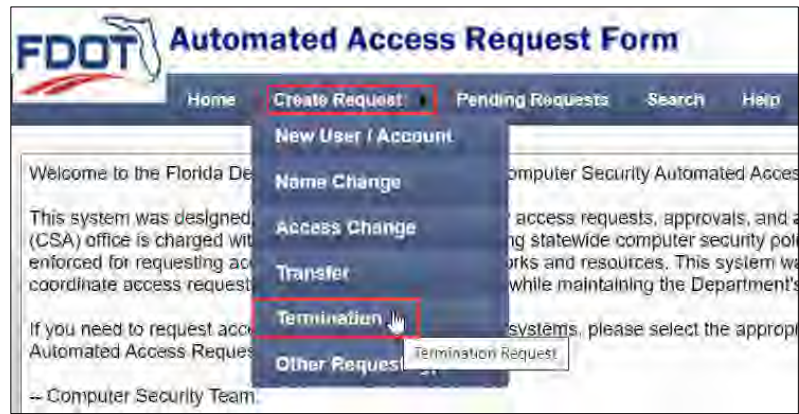


Figure 18. Create Request > Termination.

Request/Person Information

Steps / Screenshots

1.
 - Enter the **First Name** and **Last Name**
 - Click **Find**

Selected Request Type: Termination for [redacted]

* Required Field
[Request/Person Information](#)

Request:
 Select Existing AARF User:

First Name: **OR UserID:** **Find**

Last Name:

User:

Cancel **Continue >**

Figure 19. Request/Person Information.

2. Click **Use**

Selected Request Type: Termination for [redacted]

* Required Field
[Request/Person Information](#)

Request:
 Select Existing AARF User:

First Name: **OR UserID:** **Find**

Last Name:

	Name	User ID	Email
Use			@dot.state.fl.us

User:

Cancel **Continue >**

Figure 20. Select Existing AARF User.

Steps / Screenshots

- Click **Continue**

Selected Request Type: Termination for [redacted]

* Required Field

Request/Person Information

Request:
 Type of request: Termination District: District 4
 CC Number: * 462 Effective Date: * 9/13/2022 AM

User:
 First Name: * [redacted] Last Name: * [redacted]
 User's Phone: () - Initiator's Phone: * () -
 User ID: [redacted] Email Address: [redacted]@dot.state.fl

Account Type: *
 Employee/OPS Generic/Service
 Consultant/Contractor Outside Agency

Cancel Continue >

Figure 21. Continue.

Request Routing Information

Review the information on the **Request Routing information** screen.

Steps / Screenshots

- Click **Continue**

Selected Request Type: Termination for [redacted]

* Required Field

Request Routing Information

Supervisor*: [redacted] (DOT\ [redacted]) [Change](#)

Cost Center Manager*: [redacted] (DOT\ [redacted])

Security Coordinators:

Coordinator Name	
[redacted]	(DOT\ [redacted])
[redacted]	(DOT\ [redacted])
[redacted]	(DOT\ [redacted])

Cancel Previous Continue >

Figure 22. Request Routing Information.

Steps / Screenshots

2. Click **Next**

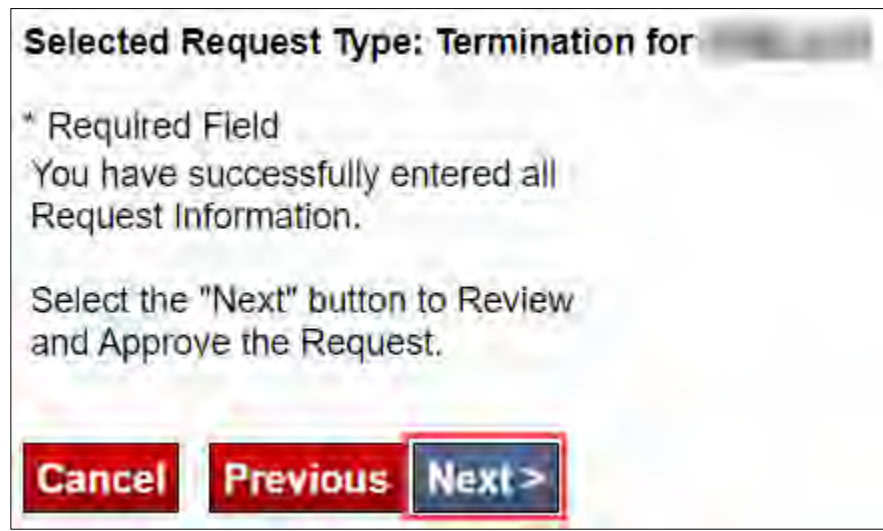


Figure 23. Next.

Review Request Information & Submit for Approval for Termination

Review all the information for accuracy.

Once you have confirmed that all the information entered is correct,

- Click **Approve and Submit to Supervisor**

View Addendums

Review Request Information & Submit for Approval for Termination

[DocuSign Acceptable Use Agreement - Ems/Avg](#)
[DocuSign Acceptable Use Agreement - DW/Geo](#)
[Save Request Information](#)

Type of request:	Termination	District:	District 4
CC Number:	462	Effective Date:	8/13/2022 12:00:00 AM
CC Name:	[TRAFFIC OPERATIONS]		

User Information

Name:	[REDACTED]	User ID:	[REDACTED]
User's Phone:	[REDACTED]	Initiator's Phone:	[REDACTED]
Email Address:	[REDACTED]		
Account Type:	Consultant/Contractor *		

Access Removed:

<input checked="" type="checkbox"/> Acceptable Use Agreement - AUA (*)	<input checked="" type="checkbox"/> Email
<input checked="" type="checkbox"/> Mailbox	<input checked="" type="checkbox"/> Network Access

Access After Approval:

DOT Project Manager

* Consultant Augments Staff

Name:	[REDACTED]	Phone:	[REDACTED]
Email Address:	[REDACTED]		

Consultant Company

Company Name:	Eland Engineering, Inc.	Vendor #:	[REDACTED]
---------------	-------------------------	-----------	------------

Consultant Representative

Name:	[REDACTED]	Title:	Director of Operations
Email:	[REDACTED]	Phone:	[REDACTED]

Project

Project #:

Caution: Dates extending beyond 2030 display incorrectly, but the data is stored correctly.

Start Date:	5/14/2018 12:00:00 AM	End Date:	6/30/2023 12:00:00 AM
-------------	-----------------------	-----------	-----------------------

Project Manager/Professional Service Unit Authorization:
 Authorized Services and Programs (Include the location of access and include the address if connectivity is not from a DOT Office or District):

Request Routing Information

Supervisor: [REDACTED] (DOT: [REDACTED])

Cost Center Manager: [REDACTED] (DOT: [REDACTED])

Security Coordinators:

Coordinator Name
[REDACTED] (DOT: [REDACTED])
[REDACTED] (DOT: [REDACTED])
[REDACTED] (DOT: [REDACTED])

Add Justification | Special Instructions

[\[Watch Printed Form\]](#)

Cancel < Modify Request Approve and Submit to Supervisor

Figure 24. Review Request Information & Submit for Approval for Termination.

Office 365 Cloud Only – Generic/Service Account Request

Here is the information to create a request for an Office 365 Cloud Only – Generic/Service Account.

This section describes the process to create a request for an Office 365 Cloud Only (Resources & Shared Mailbox) Generic/Service Account.

Overview

This SOP Section outlines the steps for the Florida Department of Transportation District Four (FDOT D4) Regional Transportation Management Center (RTMC) Office Manager to create an Automated Access Request Form (AARF) request for an Office 365 Cloud Only accounts.

Requests for Office 365 Cloud Only accounts processed within the Automated Access Request Form (AARF) system to be used for Resources (Rooms/Equipment) or Shared Mailboxes present minimal risk. As such, there is a blanket Information Security Manager (ISM) approval for Office 365 Cloud Only (Resources and Shared Mailbox) Generic Service Accounts valid through August 31, 2023.

For this blanket approval to be utilized, the AARF requests must meet all the conditions outlined in steps 6. - 13 in the [Enter Request/Person Information](#) section of this document. Anything that does not meet this format will be processed as a standard generic service account and sent to FDOT-OIT InfoSec for approval.

The following sections are provided in this SOP Section:

- Access the AARF
- Enter Request/Person Information
- Select Statewide Access Items and Optional Access Items
- Request Routing Information
- Request Addendums / Supplemental Information
- Review Request Information & Submit for Approval for New User.

Procedures

Access the AARF

Steps / Screenshots

1. – Click the following link to access the FDOT Employee Portal: [E-Forms \(sharepoint.com\)](#).
 - Click AARF and IRR Requests



Figure 25. FDOT Employee Portal - AARF and IRR Requests.

2. In the Technology Request System,
 - Click **Automated Access Request Form (AARF)**.



Figure 26. Automated Access Request Form (AARF).

Steps / Screenshots

3. Hover your mouse over **Create Request**.

- Click **New User/Account**.

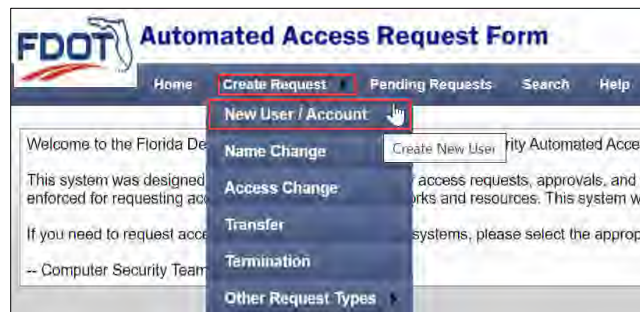


Figure 27. Create Request > New User/Account.

4. – Enter **Request/Person Information**

- Click the down arrow next to Cost Center (CC) Number. Select 462 for Traffic Operations.
- Enter the *user's First Name*.
- Enter the *user's phone number*.
- Enter the *initiator's phone number*.
- Select **Generic/Service for Account Type**.
 - ✓ Computer Names: Enter N/A
 - ✓ Exception Request: Select **Yes**
 - ✓ Exception Request Justification: Enter Account excluded from RACF Repository (Figure 4).
 - ✓ Mail-in Account: Select **Yes**.
 - ✓ Account Owner(s): *Enter the First Name and Last Name for the owner of the resource/shared mailbox.*

The screenshot shows the 'Request/Person Information' form. Key fields and annotations include:

- Request:** Type of request: New User, District: District 4
- CC Number:** 462 (annotated with 'This field automatically populates with Service Account.')
- Effective Date:** 0/15/2022
- User:** First Name: Mailbox Title, Last Name: Service Account (annotated with 'This field is pre-populated from the First Name field.')
- User's Phone:** (annotated with '4')
- Initiator's Phone:** (annotated with '4')
- Account Type:** Employee/OPS, **Generic/Service** (selected), Consultant/Contractor, Outside Agency
- Interactive Logon:** Yes (selected), No
- Computer Names:** N/A (annotated with '3')
- Exception Request:** Yes (selected), No (annotated with '4'). Justification: Account excluded from RACF Repository (annotated with '5').
- Application Name:** Mailbox Title (annotated with '6')
- Mail-in Account:** Yes (selected), No (annotated with '7')
- Password Expire:** Yes (selected), No
- Account Disabled:** Yes (selected), No
- Restrict Internet:** Yes (selected), No
- Account Owner(s):** First Name: (annotated with '8'), Last Name: (annotated with '9'). Note: 'Should be set to the owner of the resource/shared mailbox. This person is used as a contact for any questions, issues, or concerns.'
- Enter Security Groups or Users with knowledge of this account:** M365 Administrators; other applicable person(s) (annotated with '10')
- Requested AD Logon Name/ID:** (annotated with '11')
- Log on Hours:** 24 x 7 (annotated with '12')
- Describe Account Use:** (annotated with '13')
- Permissions:** None - account is not in AD (annotated with '14')
- Buttons:** Cancel, Continue (annotated with '15')

Figure 28. Request/Person Information.

- Click the blue magnifying icon: search for the Account Owner.
- Select the appropriate *Account Owner* from the populated list.
- Enter Security Groups or Users with knowledge of this account: M365 Administrators; another applicable person(s)

- Log on Hours: 24 x 7
- Permissions: None – account is not in AD

Click **Continue**.

Request Routing Information

Steps / Screenshots

1. Enter the District Account Owner's **First Name**.
2. Enter the District Account Owner's **Last Name**.
3. Click the *magnifying glass*.
4. Click **Select**.

Selected Request Type: NewUser for [redacted]

* Required Field

Request Routing Information

Search for Supervisor:

First Name: [redacted] Last Name: [redacted]

Supervisor*: [Select] DOT\ [redacted]

UserLogin	FullName
DOT\ [redacted]	[redacted]

Cost Center Manager*: [redacted] (DOT\ [redacted])

Security Coordinators:

Coordinator Name
(DOT\ [redacted])
(DOT\ [redacted])
(DOT\ [redacted])

Buttons: Cancel Previous Continue >

Figure 30. Request Routing Information.

5. Click **Continue**.

Selected Request Type: NewUser for [redacted]

* Required Field

Request Routing Information

Supervisor*: [redacted] Change

Cost Center Manager*: [redacted] (DOT\ [redacted])

Security Coordinators:

Coordinator Name
(DOT\ [redacted])
(DOT\ [redacted])
(DOT\ [redacted])

Buttons: Cancel Previous Continue >

Figure 31. Request Routing Information - Continue >.

Steps / Screenshots

6. **Note.** There are no selections or entries to make in the next step.
- Click **Next**.

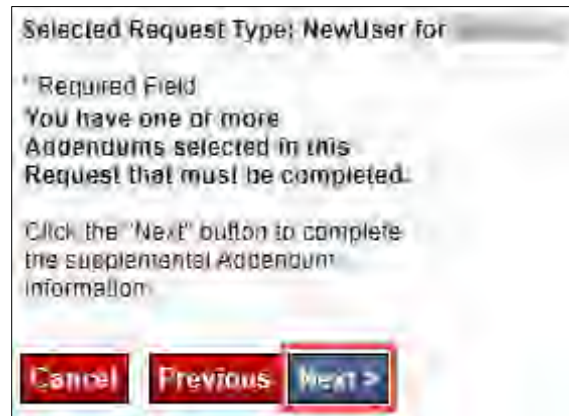


Figure 32. Next.

Request Addendums / Supplemental Information

Enter the Owner and description information in the supplemental text box.

- Click **Continue**.

Request Addendums

Supplemental Information

User ID: _____

User Name: Mailbox Title Service Account

Mail-in database - Generic Accounts ONLY

Use with Generic or Service Accounts ONLY. Does not require a license for O365. If Cloud-Only account, DO NOT also select the "Email" item. If an AD account is used, please also select the "Email" item. Please indicate the Owner and description information in the supplemental text box that follows.

Effective Date: 9/15/2022

Cancel & Return to Request Core
Continue

Figure 33. Request Addendums / Supplemental Information.

Review Request Information & Submit for Approval for New User

Note. Once the request has been submitted to the Supervisor, the Initiator can no longer make any changes to the request.

Review all the information for accuracy.

Once you have validated all the entries,

- Click **Approve and Submit to Supervisor.**

The screenshot shows a web form with the following sections and fields:

- Request Information:** Includes fields for Request ID, Request Type, Request Status, Request Date, and Requester Name.
- User Information:** Includes fields for User Name, Email Address, and Department.
- Account Information:** Includes fields for Account Type, Initials, and Password.
- Approval Information:** Includes fields for Requester Name, Request Date, and Request Description.
- Buttons:** At the bottom, there are three buttons: 'Cancel', 'Verify Request', and 'Approve and Submit to Supervisor'.

Figure 34. Review Request Information & Submit for Approval for New User.

Transfer Request from Office 365 Cloud Only Account to FDOT Active Directory Account

This section describes how to create a Transfer Request from Office 365 Cloud Only Account to FDOT Active Directory Account.

Overview

This SOP Section outlines the steps for the Florida Department of Transportation District Four (FDOT D4) Regional Transportation Management Center (RTMC) Office Manager to create an Automated Access Request Form (AARF) request to transfer a user's Office 365 Cloud Only account to an FDOT Active Directory (AD) account in the FDOT Technology Request System.

Since the AARF does not include a data transfer request, a separate request for a data transfer must be submitted via email to Outlook Admin. The following sections are provided in this document:

- Acceptable Use Agreement (AUA) Form and Security Awareness Computer Based Training (CBT) Certificate
- Access the AARF
- Enter Request/Person Information
- Select Statewide Access Items
- Review Request Routing Information
- Review the DOT Project Manager's Information, Consultant Company's Information, Consultant Representative's Information, and the Project Information
- Attach the AUA Form and Security Awareness CBT Certificate
- Review Request Information & Submit for Approval for Transfer
- Request a Data Transfer

Procedures

Acceptable Use Agreement (AUA) Form and Security Awareness Computer Based Training (CBT) Certificate

All users requiring an Office 365 Cloud Only account transferred to an FDOT AD account must complete AUA Form and Security Awareness CBT certificate requirements below. OIT cannot finalize a request for transferring an end user's Office 365 Cloud Only account to an FDOT AD account without a signed AUA form and a current Security Awareness CBT certificate.

FDOT Form 325-060-08b, AUA – Consultant/Outside Agency

The AUA form can be found at the following link: [Procedural Document Library \(fdot.gov\)](#).

The form must be physically signed in ink (it cannot be signed with a copy and paste digital signature in the form of a picture) and submitted to the RTMC Office Manager.

Security Awareness CBT Certificate

- If current within one year, submit the Security Awareness CBT Certificate to the RTMC Office Manager.
- If it has been longer than a year since the user's previously uploaded CBT certificate, the user must retake the Security Awareness CBT.

The Security Awareness CBT can be found at the following link: <https://www.fdot.gov/cybersecurity/it-resources/computer-security-cbt>.

The certificate must be printed upon completion of the Security Awareness CBT and submitted to the RTMC Office Manager.

The AUA form and the Security Awareness CBT certificate must be scanned into a single PDF file and attached to the request (5 pages total), as outlined in the [Attach the AUA Form and Security Awareness CBT Certificate](#) section of this document.

Access the AARF

Steps / Screenshots

1.
 - Click the following link to access the **FDOT Employee Portal**: [E-Forms \(sharepoint.com\)](#).
 - Click **AARF and IRR Requests**.



Figure 35. FDOT Employee Portal - AARF and IRR Requests.

2. In the Technology Request System,
 - Click **Automated Access Request Form (AARF)**.



Figure 36. Automated Access Request Form (AARF).

Steps / Screenshots

3. – Hover your mouse over **Create Request**
- Click **Transfer**.



Figure 37. Create Request > Transfer.

Enter Request/Person Information

Steps / Screenshots

1. Enter the user's **First Name**
2. Enter the user's **Last Name**
3. Click **Find** (Figure 4).



Figure 38. Request/Person Information.

4. Click **Use** to select the account to be transferred.



Figure 39. Select the Account.

Steps / Screenshots

5. – Click the **down arrow** next to **Cost Center (CC) Number**
 - Select **462** for Traffic Operations
6. Click **Continue**

Selected Request Type: Transfer for [redacted]

* Required Field
Request/Person Information

Request:
 Type of request: Transfer District: District 4
 CC Number: 5 462 v Effective Date: * 9/16/2022 [calendar icon]
 [dropdown] : [dropdown] AM [dropdown]

User:
 First Name: * [redacted] Last Name: * [redacted]
 User's Phone: ([redacted]) [redacted] - [redacted] Initiator's Phone: * ([redacted]) [redacted] - [redacted]
 User ID: [redacted] Email Address: [redacted]@dot.state.fl

Account Type: *
 Employee/OPS Generic/Service
 Consultant/Contractor Outside Agency

Cancel Continue > 6

Figure 40. Select CC Number.

Review Request Routing Information

Review the **Request Routing** Information.
Click **Continue**

Selected Request Type: Transfer for [redacted]

* Required Field

Request Routing Information

Supervisor*: [redacted] (DOT\ [redacted]) [Change](#)

Cost Center Manager*: [redacted] (DOT\ [redacted])

Security Coordinators:

Coordinator Name
[redacted] (DOT\ [redacted])
[redacted] (DOT\ [redacted])
[redacted] (DOT\ [redacted])

Cancel **Previous** **Continue >**

Figure 42. Request Routing Information.

Review the DOT Project Manager’s Information, Consultant Company’s Information, Consultant Representative’s Information, and the Project Information

Steps / Screenshots

1. Review the **DOT Project Manager’s** information, **Consultant Company’s** information, **Consultant Representative’s** information, and the **Project** information.
2. Click **Continue**

Figure 43. DOT Project Manager, Consultant Company, Consultant Representative, and Project Information.

3. **Note.** There are no selections or entries to make in the next step.
 - Click **Next**.

Figure 44. Next.

Attach the AUA Form and Security Awareness CBT Certificate

Note: The AUA form the Security Awareness CBT certificate must scanned into a single PDF file and attached to the request (5 pages total).

Steps / Screenshots

1. Click **Add Attachment**.

Request Addendums

Supplemental Information

User ID:
User Name:

Acceptable Use Agreement - AUA (+)
Effective 11/9/2020 a DocuSign version of the AUA is available. IT IS NOW MANDATORY ON ALL USERS WITH ACCESS TO HAVE THE AUA ON FILE. New AUA documents must be attached to the Addendum and is no longer required to be attached the Final Review Page. The form numbers are 325-060-08a for Employee/Staff Aug and 325-060-08b for Consultant/Outside Agency

Effective Date: 9/16/2022

Attach supplemental file below:
[Add Attachment](#)
[Preview Attachment](#)

Indicate original in route or fax has been sent instead of the attachment

Note: This application requires an additional access form. Please complete the appropriate form, scan and attach it to this request. Attaching the form will allow the Application Coordinator to begin processing the request for access immediately. If you do not have access to a scanner, fax the completed form to (850) 412-8200. Forward the original form to the Application Coordinator.

Cancel & Return to Request Core **Continue**

Figure 45. Add Attachment.

Steps / Screenshots

2. Click **Choose File**.

Request Addendums

Supplemental Information

User ID:
User Name:

Acceptable Use Agreement - AUA (+)
Effective 11/9/2020 a DocuSign version of the AUA is available. IT IS NOW MANDATORY ON ALL USERS WITH ACCESS TO HAVE THE AUA ON FILE. New AUA documents must be attached to the Addendum and is no longer required to be attached to the Final Review Page. The form numbers are 325-060-08a for Employee/Staff Aug and 325-060-08b for Consultant/Outside Agency.

Effective Date: 9/16/2022

Attach supplemental file below:
[Add Attachment](#)
 No file chosen [Upload File](#) [Preview Attachment](#)

Indicate original in route or fax has been sent instead of the attachment.

Note: This application requires an additional access form. Please complete the appropriate form, scan and attach it to this request. Attaching the form will allow the Application Coordinator to begin processing the request for access immediately. If you do not have access to a scanner, fax the completed form to (850) 412-8200. Forward the original form to the Application Coordinator.

Figure 46. Choose File.

3.
 - Click **the AUA file**
 - Click **Open**.

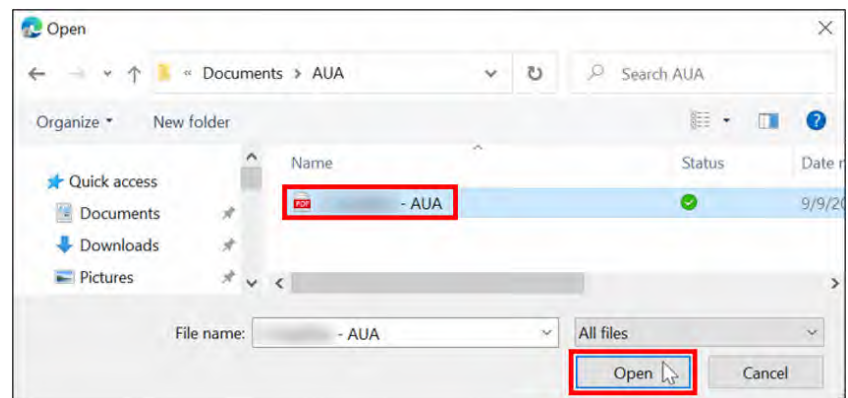


Figure 47. AUA File > Open.

Steps / Screenshots

4. Click **Upload File Preview Attachment**.

Request Addendums

Supplemental Information

User ID:
User Name:

Acceptable Use Agreement - AUA (+)
Effective 11/9/2020 a DocuSign version of the AUA is available. IT IS NOW MANDATORY ON ALL USERS WITH ACCESS TO HAVE THE AUA ON FILE. New AUA documents must be attached to the Addendum and is no longer required to be attached the Final Review Page. The form numbers are 325-060-08a for Employee/Staff Aug and 325-060-08b for Consultant/Outside Agency.

Effective Date: 9/16/2022

Attach supplemental file below:
[Add Attachment](#)
 - AUA.pdf **Upload File Preview Attachment**

Indicate original in route or fax has been sent instead of the attachment.

Note: This application requires an additional access form. Please complete the appropriate form, scan and attach it to this request. Attaching the form will allow the Application Coordinator to begin processing the request for access immediately. If you do not have access to a scanner, fax the completed form to (850) 412-8200. Forward the original form to the Application Coordinator.

Cancel & Return to Request Core **Continue**

Figure 48. Upload File Preview Attachment.

5.
 - Click **Preview Attachment**
 - Confirm that all required documents have been uploaded.
 - Click **Continue**.

Request Addendums

Supplemental Information

User ID:
User Name:

Acceptable Use Agreement - AUA (+)
Effective 11/9/2020 a DocuSign version of the AUA is available. IT IS NOW MANDATORY ON ALL USERS WITH ACCESS TO HAVE THE AUA ON FILE. New AUA documents must be attached to the Addendum and is no longer required to be attached the Final Review Page. The form numbers are 325-060-08a for Employee/Staff Aug and 325-060-08b for Consultant/Outside Agency.

Effective Date: 9/16/2022

Attach supplemental file below:
[Add Attachment](#)
Preview Attachment

Indicate original in route or fax has been sent instead of the attachment.

Note: This application requires an additional access form. Please complete the appropriate form, scan and attach it to this request. Attaching the form will allow the Application Coordinator to begin processing the request for access immediately. If you do not have access to a scanner, fax the completed form to (850) 412-8200. Forward the original form to the Application Coordinator.

Cancel & Return to Request Core **Continue**

Figure 49. Preview Attachment.

Review Request Information & Submit for Approval for Transfer

Note. Once the request has been submitted to the Supervisor, the Initiator can no longer make any changes to the request.

Review all the information for accuracy.

Once you have confirmed that all the information entered is correct,

- Click **Approve and Submit to Supervisor.**

The screenshot shows a web form titled "Review Request Information & Submit for Approval for Transfer". The form is divided into several sections:

- Base Request Information:** Includes fields for "Type of request" (Transfer), "District" (District 4), "CC Number" (482), "Effective Date" (9/16/2022 12:00:00 AM), and "CC Name" ([TRAFFIC OPERATIONS]).
- User Information:** Includes fields for "Name", "User ID", "User's Phone", "Initiator's Phone", "Email Address" (@dot.state.fl.us), and "Account Type" (Consultant/Contractor *).
- Access After Approval:** A section with checkboxes for "Acceptable Use Agreement - AUA (+)", "Manframe", "Email", and "Network Access", all of which are checked.
- DOT Project Manager:** Includes fields for "Name", "Phone", and "E-mail Address" (@dot.state.fl.us).
- Consultant Company:** Includes fields for "Company Name" (Eland Engineering, Inc.) and "Vendor #".
- Consultant Representative:** Includes fields for "Name", "Title" (Director of Operations), "E-mail", and "Phone".
- Project:** Includes "Project #", a caution note about dates, "Start Date" (5/14/2018 12:00:00 AM), "End Date" (6/30/2023 12:00:00 AM), and a section for "Project Manager/Professional Service Unit Authorization" with instructions to include location and address.
- Request Routing Information:** Includes dropdown menus for "Supervisor", "Cost Center Manager", and "Security Coordinators" (with a "Coordinator Name" dropdown).
- Bottom Bar:** Contains a blue button "Add Justification | Special Instructions", a link "(Attach Printed Form)", and a red-bordered navigation bar with buttons: "Cancel", "< Modify Request", and "Approve and Submit to Supervisor".

Figure 50. Review Request Information & Submit for Approval for Transfer.

Request a Data Transfer

- Send an email to the Outlook Administrator at outlook.administrator@dot.state.fl.us to request a data transfer (e.g., OneDrive, Outlook mail, Teams information, etc.).

Refer to the example email below to the Outlook Administrator.

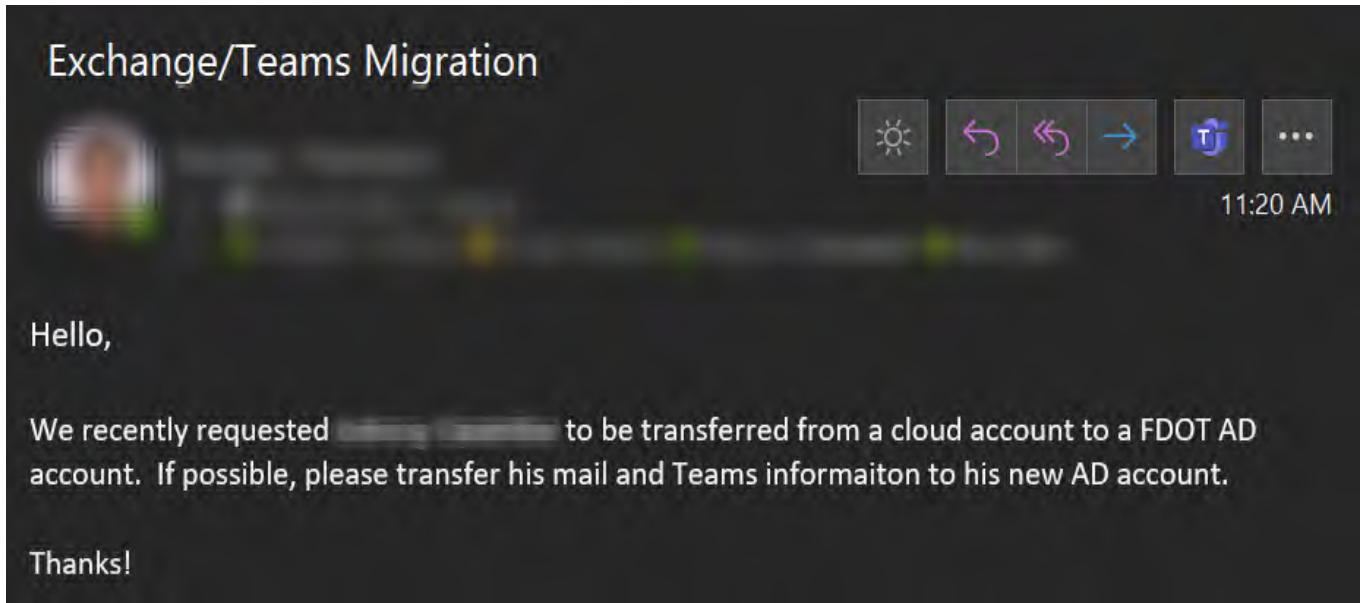


Figure 51. Example Email to the Outlook Administrator.

INFORMATION RESOURCE REQUESTS (IRRS)

Overview

This SOP Section outlines the steps for authorized Florida Department of Transportation District Four (FDOT D4) Transportation Systems Management and Operations (TSM&O) personnel to create Information Resource Requests (IRRs) for all computer and technology-related product requests. An IRR for a Microsoft 365 Visio license is used as an example in the procedures below. A list of previously submitted and approved IRRs is provided in Table 1. The following sections are provided in this document:

- Access the IRR Form
- Create a New IRR
- Enter the General Information
- Enter the Justification
- Previously Submitted and Approved IRRs

Procedures

Access the IRR Form

1. Click the following link to access the **FDOT Employee Portal**. [E-Forms \(sharepoint.com\)](#)
2. Click **AARF** and **IRR Requests**.



Figure 52. FDOT Employee Portal - AARF and IRR Requests

3. In the Technology Request System,
 - Click **Information Resource Request (IRR)** (Figure 2).



Figure 53. Information Resource Request (IRR)

Create a New IRR

Click **New Request**



Figure 54. New Request.

Note. There is no action required in the next step, unless you need to make changes to the **Review Area, Fiscal YR, or Funding Source** fields.

Submitter		Phone	Requestor		Phone
<input type="text"/>		<input type="text"/>	<input type="text"/>		<input type="text"/>
Paying Org CD	Review Area	Fiscal YR	Funding Source	Created On	Submitted On
<input type="text"/>	D4	FY22-23	OPERATING	10/28/2022	

TRAFFIC OPERATIONS

Figure 55. Review Area, Fiscal YR, and Funding Source.

The **Review Area, Fiscal YR, and Funding Source** fields are automatically populated, as shown in the example above

Enter the General Information

Steps / Screenshots

1. – 1. Click the **down arrow** under **Prod Type**.
- 2. Select **Software**.

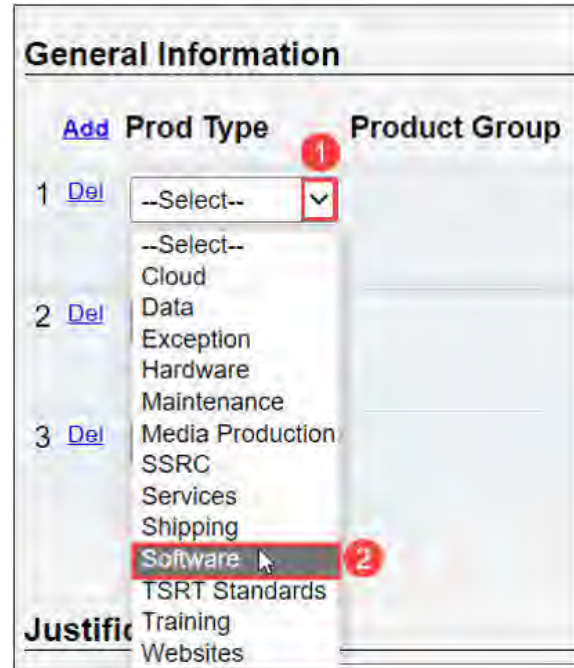


Figure 56. Prod Type > Software.

2. Click the **down arrow** under **Product Group**.
3. (3-4) Select **Non Standard Resource**.

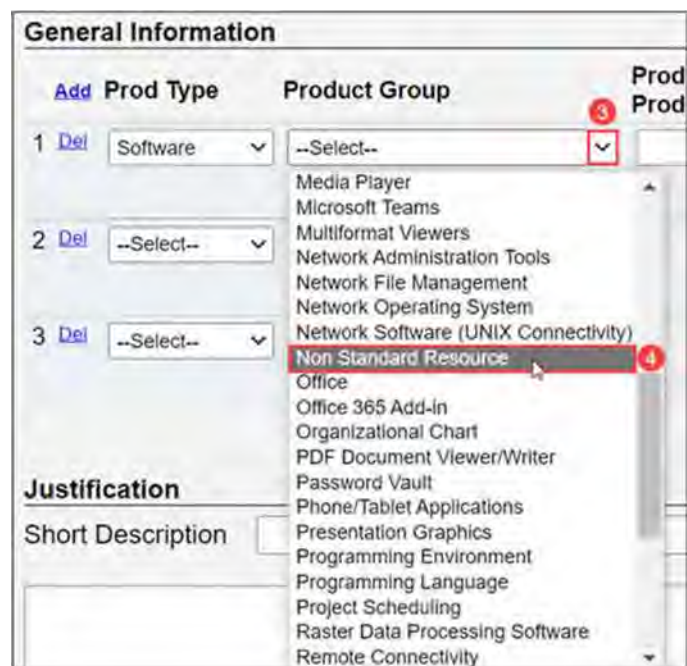


Figure 57. Product Group > Non Standard Resource.

Steps / Screenshots

4.
 5. Enter **M365 Visio** in the Product/Product Desc box
 6. Enter **1** under the **Qty/UOM** box

General Information						
	Prod Type	Product Group	Product/ Product Desc	Qty/ UOM	Cost/ Recurrence	Total
1 Del	Software	Non Standard Resource	M365 Visio	1	\$0.00	
					ONE TIME	

Figure 58. Product Description > Qty/UOM.

Enter the Justification

1. Enter the **Short Description**, as shown below

Justification	
Short Description	M365 Visio License for D4 TSM&O
<p>D4 TSM&O needs an M365 license for _____ to create flow charts, diagrams, and update organizational charts for the D4 TSM&O program.</p>	
<p>Save as Draft Send to Requestor Submit for Review Cancel</p>	

Figure 59. Enter Justification and Submit for Review.

2. Enter additional information in the box under Short Description.
3. Click **Submit for Review**



3.03 FDOT

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Document History

Version #	Date	Author	Changes
1.0	05/22/2024	Yana Neishlos	Initial Draft

ACCEPTING SUBPOENAS

Overview

These procedures outline the required process if someone is attempting to serve a subpoena on FDOT as the agency.

Procedures

If someone attempts to serve a subpoena on FDOT as the agency (not naming an individual, but only FDOT, or "records custodian" etc.), it should be refused. They should be directed to serve the Secretary of FDOT in Tallahassee.

If they show up at the TMC, attempt to contact the Paralegal Specialist / Administrative Assistant in Legal at (954) 777-4529 for further directions.

Subpoenas of specific named people should be accepted by the person named. That person can contact the Legal Department for assistance.

HANDLING A PUBLIC RECORDS REQUEST

That's what we do when someone asks to see or get a copy of our records.

Requests for records:

Contact Charles Wilson

Call the General Counsel's Office extension for assistance

D4 Public Records Coordinator → (954) 777-4512

Charles.wilson@dot.state.fl.us

Suggestions

DO NOT ASK FOR THE PERSON'S NAME.

DO NOT MAKE THEM FILL OUT PAPERWORK OR WRITE ANYTHING DOWN.

DO NOT ASK THEM WHY THEY WANT THE RECORDS.

Say: "OK, I'll get someone who can help you with that."

If the requestor wants you to get copies or thinks you should be handling it alone, it is ok to say:

"I'm sorry, I can't leave my desk to look for records or make copies. Please let me get someone who can assist you."

Acceptable responses

1. "What records are you looking for?"
2. Write down the description; read back to them.
3. Either (whichever is correct):
 - "I don't think I have any records like that, but I will get your request to someone who will know if and where we have records like that."
 - Or (if you think you do have what they want)
 - "I will look for that."
4. Did you want to check back with me?" (Give your contact information to them.)
 - "Or we can make arrangements to have a copy sent to you or available for you to pick up."
5. The lawyers may need to help to make sure nothing is exempt/confidential.
 - If the requestor chooses to go to the office to retrieve the records, then they will need to follow normal security protocol and sign in as a visitor. They cannot be guaranteed a program area employee is currently available to immediately handle their response.
 - If they do not want to sign in as a visitor, tell them to remain in the lobby and someone will come to assist them.
 - If the citizen is using a camera, please be conscious that the citizen may do so if no personal or exempt information is in the area or compromised.

Filming

If someone comes to an FDOT Department building and wants to film, please do the following:

1. Always be polite. Smile.
2. Let the camera person know they are welcome to film outside and inside the lobby only.

3. Let the camera person know they need an appointment with someone in the building before they can enter beyond the lobby.
4. Call an FDOT Manager and Billy Canedo, Communications Manager Office: (954) 777-4302; Mobile: (954) 405-6028 or email at guillermo.canedo@dot.state.fl.us.

People wanting to film government buildings often want to elicit a negative reaction from the staff, and then go post that film on social media to make organizations look non-compliant, and government workers seem disgruntled. Don't take the bait. Be professional, courteous, and be welcoming but firm.



3.04 Marketing

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Version #	Date	Author	Changes
1.0	05/23/2024	Yana Neishlos	Initial Draft

STAFF OVERVIEW

Overview

The role of the Public Outreach Coordinator is crucial in managing tasks and projects involving the FDOT TSM&O management team, the FDOT Public Information team, and the RTMC outreach team. The Public Outreach Coordinator reports to both the TSM&O Resource Manager and the RTMC Project Manager, who provide assignments and expect regular updates.

The managers provide necessary guidance and support. They do not micromanage day-to-day activities. Moreover, the Public Outreach Coordinator maintains direct collaboration with the FDOT District Four Public Information Officer (PIO) and FDOT District Four PIO's Assistant.

All graphic design projects, both ongoing and completed, are stored in the Graphic Design folder located at N:\Outreach\Graphic Design. These files serve as the central repository for all design-related initiatives.

OPERATIONS

Award Nominations

Each year the client (FDOT TSM&O) does the following:

- Has several award nominations that must be submitted to district, local, state, and national organizations. The client
- Maintains a spreadsheet of the potential award nominations and the year they could be submitted.
- Allocates higher priority to some nominations over others.
- Is open to discuss the importance of specific awards.

Award announcements are submitted under the client's name. Hence, the call for nominations is sent directly to the client. The client will pass this information to the Public Outreach Coordinator. Nevertheless, it is recommended to have nomination timelines already noted within the marketing outreach files.

Awards that are sought each year include:

- Productivity Awards (<http://www.floridataxwatch.org/prudpa.aspx>, timeframe of September-December),
- ITS Florida (<http://www.itsflorida.org/> timeframe July-September),
- TSM&O Awards (<https://transportationops.org/tsmoaward>),
- Roadway Safety Awards (<https://www.roadwaysafety.org/awards/apply>, timeframe of March-June).

Other awards, (e.g., *ITE Florida* and *ITS America*) are submitted only when noteworthy nominations are identified. "Fun awards" like the *ITS FL calendar contest* are also entered, but do not follow a strict schedule.

All content for award nomination should be reviewed and approved by TSM&O leadership (typically the Resource Manager/FDOT Project Manager and the TSM&O Engineer) prior to its submission.

Working files are maintained on the Outreach drive in (*N:\Private\Outreach\PUBLIC OUTREACH\Award Files*). Final copies of the nomination and submission confirmation must be saved in (*N:\Private\Outreach\PUBLIC OUTREACH\Award Files*) as well.

As a tool for the marketing outreach team, a tracker was developed in the (*N:\Private\Outreach\MARKETING\Award Files*). A tracker serves as a quick reference for client questions on past submissions and results. The information saved in this tracker includes organization, nomination topic, results of submission and location in server drives. This tracker should always be up to date.

Managed Lanes Public Information

The role of the Public Outreach Coordinator varies within each managed lanes project.

1. When invited, the Public Outreach Coordinator is responsible for representing the RTMC in all public information (PIO) meetings regarding managed lanes, at times – with the Managed Lanes Coordinator. Meetings are scheduled by the District Four PIO and/or other partner agencies.
2. Currently the Public Outreach Coordinator holds a supportive role within the 95 Express Phase 3 and the Ramp Signaling project. Public inquiries, entered through the 95 Express Website, are filtered to IssueTrak software, and assigned to the appropriate department for completion.

At District Four PIO's direction, media events relating to managed lanes will take place at the RTMC. The control room can be used as a background. RTMC is equipped with a podium used during media/news conferences.

For up-to-date project maps, the Construction PIO for each project should be contacted for printing. Managed Lanes media events will have various spokespersons, based on the project expertise.

During project construction, the two likely spokespersons will be:

- Construction PIO for that specific project
- District Four PIO as support.

Upon completion of construction, spokesperson's duties will likely be assigned to an FDOT representative or Project Manager. If an FDOT representative is not a spokesperson, the Public Outreach Coordinator or District Four PIO can fill the role.

All files for the Public Outreach Coordinator's role on all Managed Lanes projects are kept in: *N:\Management\Managed Lanes\Public Information and Outreach*.

TSM&O Annual Report

The Annual Report is published each year in July/September. It is based on the calendar year and not the FDOT fiscal year. The process starts in late October with content recommendations by client and consultant staff.

By early January or early February, the Annual Report theme and outline should be completed. The TSM&O Engineer must be included in all decisions and will make the final selection of theme, design, and content, after discussing with TSM&O leadership.

Past examples include Customer Service, Managed Lanes and Road Rangers.

The publication, editing, and design of the Annual Report is coordinated by the Public Outreach Coordinator and the assigned Graphic Designer. However, each department head is responsible for submitting content. The content is then collected and edited for grammar. Content collection begins in February.

Once topics are approved, the cover design can be started. The cover should tie into the theme and the planned content. While the cover is being developed by the Graphic Designer, all content contributors should be notified of the first deadline. These contributors also include those that will be running reports for the BC-Ratio section (i.e., *IBI Group*). Both Freeway and Arterial statistics should be compiled from January 1-December 31 of the past year and again immediately after the first of the year. This helps identify any trouble areas early on. An outline of the distribution of responsibilities in the Annual Report is available here: *N:\Outreach\PUBLIC OUTREACH\Annual Reports*.

- All working **content** files for the Annual Report should be stored here: *N:\Outreach\PUBLIC OUTREACH\Annual Reports*.
- All working **design** files for the Annual Report should be stored here: *N:\Outreach\Graphic Design\1. Graphic\Annual Reports*.

The final print and web version of the report must be saved and uploaded to the *FDOT D4 Traffic* website upon approval. Printed copies of the report will be distributed upon request of the client. After publication, the Public Outreach Coordinator is responsible for announcing the completion of the Annual Report to the TSM&O Engineer. If requested, the TSM&O Engineer may ask the Public Outreach Coordinator to draft an announcement email to the District Four employee distribution list, notifying RTMC and all District Four staff of the newest Annual Report publication.

Dynamic Message Sign (DMS Graphics)

At times the Public Outreach Coordinator works closely with IBI Group's SunGuide software representative to update and/or create graphics needed for regular amber and/or full color DMS within District Four.

The Public Outreach Coordinator may be asked to locate high-res interstate/arterial shields. When requested, large sized shields are available for download through Wikipedia. The Public Outreach Coordinator should download these image files as JPGs and convert them into small PNGs and resize them to the appropriate dimensions for DMSs. For exact pixel dimensions, please reference document labeled "Graphic Design Task and Responsibilities" *N:\Outreach\PUBLIC OUTREACH\Public Outreach Staff Positions\Graphic Designer*.

RECURRING MANAGEMENT DUTIES

Weekly Reports

Each week a list of completed tasks must be submitted to the RTMC Operations Manager. The RTMC Operations Manager compiles activities of all departments and submits it as a single report to the client. Activities are due no later than 10 a.m. each Monday morning. The activities should be in enough detail to document project progress/accomplishments, but not longer than a few sentences per project. Toward the end of the year all reports from that specific year should be saved in (N:\Private\Outreach\PUBLIC OUTREACH\Weekly Reports- Week in Reviews) for the client's records.

Meetings

Periodically the Public Outreach Coordinator will be asked to set up meetings when the RTMC Office Manager is not available. These guidelines outline the required steps for setting up and attending meetings within the RTMC.

Set up the conference room.

1. Use the projector and laptop to display meeting agenda.
2. Take notes and prepare minutes.
3. Distribute the minutes to attendees within three days.

Semi-Annual SOP Review

The TSM&O Program Standard Operating Procedures (SOPs) must be reviewed twice a year to confirm that all procedures and responsibilities are up to date. The Public Outreach Coordinator is responsible for coordinating this review with the department heads and is not responsible for the actual review of all SOPs or substantial amounts of writing, unless directed by the client. The deadline to complete reviews and publishing is the end of March and end of September. The Public Outreach Coordinator should give ample notice to department heads of these deadlines.

All SOPs are published on the District Four TSM&O SharePoint Collaboration

Portal: <https://fdot.sharepoint.com/sites/D4-EXT-TSMO> and are considered living documents. Some SOPs are revised on an ongoing basis throughout the year (i.e. Operations and IT) while other SOPs are relatively static, so they are only checked during the semi-annual review (e.g. Administration).

During the semi-annual review,

- Updates and edits should be made to the live SharePoint page by the author(s), a.k.a. department heads. Notice is given to the reviewer(s) for their inspection of formatting and minor grammar.
- The role is designated for the Public Outreach Coordinator.
- Lastly, the approver(s), selected as the FDOT Project Managers, provide a final review and approval of the SOP.

Social Media Content Creation and Coordination

The Public Outreach Coordinator will be tasked to provide a few contents for social media on a regular basis, maybe once or twice a month. Regular coordination and communication between the Public Outreach Coordinator and the FDOT District Four Public Information Officer (PIO) are crucial for efficient content creation, review, approval, and posting processes.

Creates content related to the following topics:

- Employee Highlight
- Events

- Achievements
- Road Ranger
- SIRV (Severe Incident Response Vehicle)
- FL511 (Florida's 511 Traveler Information System)
- Safety reminders, and other relevant subjects

Content Creation Process Guidelines

To ensure effective content creation, the following guidelines should be followed:

- Gather information about relevant topics for social media content.
- Develop engaging and informative content according to the FDOT content calendar.
- Ensure that the content aligns with the FDOT District Four's goals and objectives.
- Consider the target audience and utilize appropriate language and tone.
- Create visual assets or coordinate with the designated agency to gather the necessary supportive materials.
- Submit the content to the FDOT District Four PIO for review, approval, and posting. Include Grace Ducanis, Communications Officer, in all submission.

The Public Outreach Coordinator should maintain records of content creation, approvals, posting schedules, and social media impressions for future reference and reporting purposes. Toward the end of the year all social media tracking reports from that specific year should be saved (N:\Private\Outreach\PUBLIC OUTREACH\social media – current year folder) for the client's records.

Annual Social Media Campaigns

The Public Outreach Coordinator is tasked with developing social media campaigns throughout the year. These campaigns include:

- Move Over, Florida! Month in January
- Crash Responder Safety Week in November

For a comprehensive list of all campaigns organized by the Florida Department of Transportation (FDOT), you can visit the following link: <https://www.fdot.gov/Safety/campaigncalendar.shtm>

Note: The Public Outreach Coordinator must follow any additional guidelines or procedures provided by the FDOT District Four Public Information Officer (PIO) or higher authorities.

Counting Social Media Impressions

The Public Outreach Coordinator's responsibility includes monitoring and documenting the performance of various social media campaigns undertaken by FDOT District Four. This includes campaigns initiated by the district as well as those shared during the FL511 Media Day event. To gather accurate impression data, the designated personnel will be contacted and requested to provide the necessary information.

To obtain the impressions for any social media campaign shared on FDOT District 4's social media platform, it is required to submit a request to the FDOT PIO (Public Information Officer). They will be responsible for compiling and providing the relevant data.

For media events specifically involving FL511, the request for impression data should be directed to the contracted agency responsible for managing FL511. This will ensure the accurate collection of impressions related to these events.

By centralizing the process through the respective channels, the Public Outreach Coordinator can effectively track and record all social media campaign impressions, facilitating comprehensive reporting and analysis.

WEBSITES

FDOT D4 – Duties

FDOT D4 Traffic Website Updates (formerly SMART SunGuide)

The public website, <https://www.fdotd4traffic.com/>, is maintained by IBI Group, the TSM&O software support team. The IT department does not do any work on this site. The Public Outreach Coordinator is responsible for routinely updating content and file links. The Public Outreach Coordinator does not need to worry about any website coding or back-end development. This is done by the software support team.

During the large-scale updates:

Revamps, or complete re-designs, the Public Outreach Coordinator is responsible for leading the website design. The Public Outreach Coordinator will select, illustrate, and present the new color theme, layout, content, and formatting in a mock design. These selections/recommendations must be approved by FDOT TSM&O leadership.

During routine monthly updates:

The Public Outreach Coordinator will review each page of the website using the static content update checklist: (N:\Private\Outreach\PUBLIC OUTREACH\Websites\Static Content Updates). Each page should be checked carefully. Some departments will send in requests for updates (such as monthly reports to be added), while others may need to be prompted from time to time. When reviewing the site page by page, the Public Outreach Coordinator will notify which departments need to submit updated information for the website.

These updates along with any documents should be organized into an email request by the Public Outreach Coordinator and sent to the software support team.

This email should be organized by page link, listing each change to be made as well as providing any files to be attached. Allow at least one business week for the software team to complete the requested updates. The Public Outreach Coordinator will be notified that the updates are completed.

Upon receipt, the Public Outreach Coordinator should review the changes and respond with approval or indicate if further changes are required. Once all changes are completed, the new content will be published on the public website.

FDOT D4 Traffic Website Inquiries

The District Four TSM&O public website has a feedback form which generates an email to the internal distribution list "TMC Info." This list consists of several people including Marketing/Outreach, Operations, Administration and Software support. If changes must be made to the list, a helpdesk ticket should be created and brought to the attention of the software support team.

The Public Outreach Coordinator is responsible for replying to any inquiries within 48 business hours. Should the Public Outreach Coordinator be unavailable to answer these inquiries (such as when on vacation), a backup should be designated. This is usually the RTMC Operations Manager.

All inquiries should be added to the "FDOT D4 Traffic Website Inquiries Log" under: (N:\Outreach\PUBLIC OUTREACH\Websites).

It is important to add all contact information received on the inquiry. The original inquiry along with the response and possible notes should also be recorded. For frequently asked inquiries, response templates have been created. These templates can be found under: (N:\Outreach\PUBLIC OUTREACH\Websites\Response Templates).

FDOT D4 Traffic Website Analytics Report

Each month a report is compiled detailing the impressions/views of the TSM&O public website. The Public Outreach Coordinator is responsible for creating this report and submitting it to the Office Manager and AECOM Project Administrator, in time for the monthly invoice.

The monthly website report should include automatically generated statistics, accessible through Google Analytics. By default, the statistics of the current week will only be displayed.

To change the date timeframe,

- Select the calendar menu at the top of the page,
- Select the desired start and end dates.

The Public Outreach Coordinator is responsible for pulling reports detailing overviews for the following categories: Audience, Behavior, Goals, Devices, Pages, and Sources.

For ease, each report has been saved as a custom template through Google Analytics. Each report will be downloaded individually as a PDF and then combined as one document. Monthly reports are saved here: *N:\Outreach\PUBLIC OUTREACH\Websites\Google Analytics Reports*.

To access Google Analytics, the following email must be used smartsunguide.rtmc@gmail.com. No other email accounts are granted admin rights.

For assistance on login and/or password, contact IBI Group.

595 Express

595Express.info Website Updates

The 595 express website, [www.http://595express.info](http://595express.info), is maintained by the TSM&O software support team. The Public Outreach Coordinator should not be concerned about any website coding or development. It is the responsibility of the software support team. The Public Outreach Coordinator is responsible for collaborating with the District Four PIO on occasional updates. These updates are minor due to the 595 Express Lanes being in operation for several years. Some updates include changes to the FAQs page and the documents page. The 595express.info website is an FDOT website and must follow protocols and format of FDOT websites.

If updates are necessary, they should be organized into an email request to the software support team. This email should be organized by page, listing each update that needs to be made as well as providing any files that need to be attached. The Public Outreach Coordinator will be notified that changes are available for review and should respond with approval or indicate that further changes are required.

Once all changes are complete, the new content will be published on the website.

595Express.info Website Inquiry Response

The 595express.info website has a contact us form which generates an email to the corresponding agency. The 595 Express Concessionaire PIO or the Public Outreach Coordinator is responsible for replying to any inquiries within 48 business hours on tolling violations, general toll inquires and other questions.

The response email should include the District Four PIO and the 595-project office, so they have confirmation that the original email was answered. Should the Public Outreach Coordinator be unavailable to answer these inquiries (such as when on vacation), a backup should be designated. This is usually the Managed Lanes Coordinator. All inquiries that come through the feedback form on the website should be documented in management drive: *(N:\Private\Management\Managed Lanes\PIO Inquiries\595 Inquiries)*.

95Express.com Website Inquiry Response

The 95Express.com website has a contact us form where motorists submit inquiries relating to any category (hybrids, carpool, tolling, construction, express bus etc.). Each category is assigned a responsible agency for replying to the inquiry.

Previously the 95Express.com inquiries were tracked individually by district. Past recorded inquiries can be found here: *N:\Management\Managed Lanes\Public Information and Outreach* under "Inquiry Database."

Once an "issue" was responded to and closed, corresponding files were converted to PDFs and saved here: *N:\Management\Managed Lanes\Public Information and Outreach\Inquiry Files*.

Starting 2019, all 95Express.com inquiries are filtered through IssueTrak software. The software mimics the 95 Express websites contact us form and consolidates each responsible agencies' inquiries onto one platform. The Public Outreach Coordinator and The Managed Lanes Coordinator each have user accounts, with the Freeway Operations Manager being copied on all correspondence. Only 2 accounts were granted to the District Four RTMC. A separate account is held by the District Four PIO. Inquiry responses and correspondence for all agencies (Transit, D6, D4, SunPass, SFCS) will all be tracked through IssueTrak, thus no records need to be kept any longer through the internal "Inquiry Database."

All inquiries must be answered within 2 business days. Updates to individual inquiries and their response must be tracked through private notes in IssueTrak. Once the inquiry is resolved, the inquiry ticket must be closed through IssueTrak.

OUTREACH

This section describes the various duties for the Outreach.

Writing and Design Style Guide

All written and designed materials must follow the RTMC Style Guide. All marketing, outreach or award materials should be written in simple and concise language. For reference the Public Outreach Coordinator should review the Governor's Plain Language Initiative found under: (N:\Outreach\PUBLIC OUTREACH\Style Guide). The Florida Department of Transportation also follows the Associated Press (AP) Style Book. The Public Outreach Coordinator should have a copy of the most current edition of the AP Style Book to appropriately reference certain items such as addresses, directions, cities, titles etc. If a hard copy is not available, the Public Outreach Coordinator may use the AP Style Book website <https://www.apstylebook.com/>.

Per the District Four Public Information Office, the District Four TSM&O Regional Transportation Management Center can also be referred to as the "D4 TSM&O RTMC". If any marketing materials are designed by the Graphic Designer, they must use the official FDOT colors, the following guidelines should be referenced for an exact match.

Blue		Red	
Hexadecimal	#1F4283	Hexadecimal	#D72E2A
RGB	R31 G66 B131	RGB	R215 G46 B42
CMYK	C100 M85 Y19 K5	CMYK	C10 M96 Y97 K1
PMS Uncoated	Pantone 280 U	PMS Uncoated	Pantone 1795 U
PMS Coated	Pantone 294 C	PMS Coated	Pantone 032C

Publishing Frequency

Bi-Monthly TSM&O Disseminator Newsletter Articles

Every two months, the TSM&O Disseminator, a statewide newsletter, is published by FDOT Central Office. This newsletter is a collection of articles from the FDOT districts and Central Office. The contact person for the newsletter is Lauren Bamford; her contact information can be found under the file labeled "Contacts" in: (N:\Outreach). The call for articles goes directly to the TSM&O Engineer or to the Public Outreach Coordinator. If sent to the client, it will then be forwarded onto the Public Outreach Coordinator. Article requirements and due dates are provided within the original email. To see samples of past issues, visit <https://www.fdot.gov/traffic/its/projects-deploy/disseminator.shtm>.

Ideas for Disseminator articles can be generated at management meetings or through department discussions. Article topics for the Disseminator should be mentioned to the TSM&O Engineer prior to drafting and submission. Prior to submission, the Public Outreach Coordinator should verify that an FDOT employee was referenced at the bottom of the article, as a person of contact.

Quarterly TIM Responder Newsletter Articles

Every quarter, the Florida Traffic Incident Management (TIM) Responder, a statewide newsletter, is published by FDOT Central Office. It is a collection of articles from the FDOT districts and Central Office. The contact person for the newsletter is Shawn Kinney. His contact information can be found under the file labeled "Contacts" in: (N:\Outreach). The call for articles goes directly to the TSM&O Incident Management Program Manager. It is the responsibility of the Incident Management Program Manager to brainstorm, collect and/or write noteworthy articles. The Public Outreach Coordinator will aid in reviewing and/or grammar editing.

Article requirements and due dates are provided within the original email. To see samples of past issues, visit <http://www.floridatim.com/TIMresponder.htm>

Note. Topics for articles should focus on incident management strategies, updates, and/or special training. Topics relating to vendor-specific activities or contract renewals will not be considered.

Once an article and topic are identified by the Incident Management Program Manager:

- It is forwarded to the Public Outreach Coordinator and TSM&O Engineer for review.
- The TSM&O Engineer must provide approval prior to submission.

Managed Lanes/Ramp Signaling Outreach

As Managed Lanes projects and Ramp Signaling strategies come on-line for TSM&O/RTMC Operations, the Public Outreach Coordinator will assist in developing outreach plans, strategies, and materials. Social media campaigns are managed by the District Assistant PIO. The Public Outreach Coordinator provides suggestions for content development and execution.

Months prior to the go-live of any project, if enforcement and/or safety training is needed for incident responders or elected officials, the Public Outreach Coordinator may be asked to provide assistance. The Managed Lanes Coordinator and Traffic Incident Management Coordinator should be included.

Outreach Tours

Tours can be requested by various groups including businesses, school groups, professional organizations, and individuals. The Administrative Assistant is available to assist, if necessary, especially in large groups. All tours include a viewing portion of the outreach video in the large conference room, followed by a tour of the control room. Depending on the type of tour requested, a visit to the server room, Broward County Sign and Signal Shop, or participation from Road Ranger and Severe Incident Response Vehicles (SIRV) may be arranged. If the guests are affiliated with a government agency or high priority, the client should be given the option to take part in the tour, not only to be a spokesperson but also to answer delicate questions.

The Public Outreach Coordinator can assist with taking photographs when appropriate. Prior to all tours, a staff email notification should be sent one to three days before the scheduled date. This allows Maintenance and IT Departments to have scheduled staff on site in case of device or video wall malfunctions.

For reference, please review the staff notification template found in: (N:\Outreach\PUBLIC OUTREACH\Tours). Due to large tour group requests and/or tours involving several presenting agencies, it is recommended to create a schedule. An excel template can be found in: (N:\Outreach\PUBLIC OUTREACH\Tours), labelled as "TMC Tour Schedule Template."

Outreach Events

Several school groups and government agencies often extend outreach invitations to the RTMC.

Public Outreach Coordinator (POC):

- May receive information by phone or email. The invitation information should be forwarded to the client, to receive approval for participation.
- **Important:** POC may contact agencies requesting participation in community events, specifically Touch-A-Truck events, but always receive approval from TSM&O Resource Manager / FDOT Project Manager.

- If approved, the POC will prepare marketing materials and outreach packages for the event. Depending on the size of the event, the Administrative Assistant may also attend, however they must receive approval from the Office Manager beforehand. All tours and events should be tracked for impressions/outreach to measure the strength public awareness, using the "Impressions Trackers" in (N:\Outreach\PUBLIC OUTREACH\Tours\Outreach Impressions Tracking).

Outreach Inventory Logs

The Public Outreach Coordinator (POC):

- Frequently collaborates with Florida 511's marketing consultant to assist in the education and awareness of the program. In return, Florida 511 provides a large inventory of outreach/giveaway items at the request of the client or POC. The items are distributed at community outreach events or internal tours.
- Keeps an accurate count of each item and the events where the items are distributed. An inventory count should be conducted every month and saved here: *N:\Outreach\PUBLIC OUTREACH\Outreach Inventory Logs*. Only when updated, the log should be submitted monthly to the TSM&O Resource Manager and the Florida 511 Marketing Consultant, for their records.
- May ask the Florida 511 marketing consultant for additional supplies, if an inventory for an item is low. Due to the consultant's limited budget, the POC's request can be denied. Thus, it is recommended to order one large batch at the beginning of the fiscal year and disperse the items accordingly.

Note. SIRV department also allocates a portion of their contract budget to purchase outreach items for the Public Outreach Coordinator's usage. However, the Public Outreach Coordinator does not track the inventory of these items.

Media Inquiries and Media Events

Media calls received at the TSM&O RTMC should be directed to the Public Outreach Coordinator or FDOT District Four PIO, if the Public Outreach Coordinator is not there. If the media is requesting a tour or interview, the client should be notified immediately. Depending on the topic, the client may absorb the role of spokesperson for the media request. Filming may be conducted in the control room or the large conference room.

Note. Media should never interview any operators, admin staff or incident responders (SIRV/Road Rangers) UNLESS approved by the client and the FDOT District Four PIO.

The District Four PIO must always be notified of any media inquiry. This can be done through phone or email but must include the following information:

- Who made contact?
- What agency do they represent?
- What is the nature of the request?
- What was the TMC response?

It is best to provide this information prior to granting interviews, if possible. This information is important to District Four PIO and is included in the daily report written for the Central Office. Prior to all media visits, a staff email notification should be sent two to three days prior to the scheduled date. This allows the Maintenance and IT Departments to have schedule staff on site in case of device malfunctions. For reference, review the staff notification template found in: (N:\Outreach\PUBLIC OUTREACH\OUTREACH EVENTS). The notice should go to the "D4-RTMC-All" email list.

If a media event is hosted at the RTMC, the 595 Express Operations Manager and the Broward County Traffic Engineering Department Assistant Director should be copied. If the event is at the Palm Beach TMC, the Palm Beach County Traffic Engineering Department director should also be copied.

For large media events, with several new stations in attendance, it is recommended to block off or reserve parking spots.

To reserve an area of the parking lot:

- The Public Outreach Coordinator must receive approval from the TSM&O Resource Manager and the Broward County Traffic Engineering Department Assistant Director.
- Cones can be borrowed from SIRV to facilitate parking.
- A parking map should also be sent to media and RTMC staff, prior to the event.

Presentations

Presentations will be made at the request of the client. Depending on the topic, the client may have a sample presentation readily available. If not, an original presentation will be created and saved under (*N:\Outreach\PUBLIC OUTREACH\Presentations*). It is important for the Public Outreach Coordinator to save each presentation, as this allows for future reference of any presentations that may be revised or reused by the client. If presentations are publicly given at significant events (i.e. press conferences or as a formality to an organized group of city/county/state elected officials) the District Four PIO is required to be notified. The following information must be given to the District Four PIO for central office reporting purposes:

- Name of speaker
- Topic of presentation
- Type of audience
- Date, time, and location.

Brochures, Newsletters and Fact Sheets

The Public Outreach Coordinator is responsible for creating and updating all brochures and newsletters for the TSM&O Regional Transportation Management Center. Every year, the Public Outreach Coordinator meets with each individual department head to review their marketing materials. See the list below:

- SIRV Brochure.
- RISC Brochure.
- Road Ranger Brochure.
- Traveler Information Brochure
- Traffic Management Brochure
- Incident Management Brochure.
- TSM&O Brochure.

If updates are required, the Public Outreach Coordinator collaborates with the department head to edit the content, images, or layout. The Public Outreach Coordinator can brainstorm new design templates and printing techniques.

Brochures and Newsletters are designed in Adobe InDesign. The Public Outreach Coordinator keeps all working design files here: *N:\Outreach\Graphic Design\1. Graphic\Brochures and Fact Sheets*.

Logos

To remain consistent with all internal and external branding, the Public Outreach Coordinator keeps a record of all high-res logos (JPGs and PNGs) that the TSM&O RTMC uses in presentations, handouts and/or marketing materials. All logos are kept here: *N:\Outreach\Graphic Design\3. Logos*.



4.01 Control Room Management

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Document History

Version #	Date	Author	Changes
1.0	04/25/2024	Yana Neishlos	Initial Draft

CONTROL ROOM RULES & GUIDELINES

Overview

The control room is a high-profile area and the focal point for the Broward RTMC. This central position results in a certain number of tours and meetings in the RTMC and warrants guidelines to maintain professionalism. The commission or omission of any act violating any of the regulations, directives, policies, or procedures contained herein will be grounds for disciplinary action.

Policy

- No food or drinks are allowed in the control room; only bottled water in a clear container with a cap is permitted. (Please see a supervisor to request a container if no approved one is available.)
- Control room telephones are not to be used for sending or receiving personal calls except for emergencies.
- Personal cell phones are not to be used in the control room but may be used during breaks outside the control room unless specifically directed to do otherwise by an appropriate supervisor. This includes texting and the use of smartphones and smartwatches.
- Personal headsets and earbuds (wired or wireless) are PROHIBITED in the control room.
- Other forms of electronic communications or the use of personally owned equipment such as a PC or video game are not permitted within the control room.
- The highest professionalism and diligence in operations are mandatory during tours or meetings in the control room. Visitors may include government officials, visitors from different states and countries, Traffic Incident Management Team members, and other groups and individuals.
- RTMC Operators, while on duty, are not allowed visits from friends except during break periods. A supervisor or manager must approve visits. Visitors are not permitted in the control room unless a supervisor or manager approves.
- Standard Operating Procedures (SOP), reference materials, and equipment are to be kept neatly in place and readily available at each workstation.
- All workstations must be maintained orderly, including mouse, mouse pads, keyboards, pens, note pads, and RTMC manuals.
- Any work-related items must be appropriately stored in cabinets and drawers when not in use.
- No additional equipment shall be added to any work areas, e.g., portable heaters or personal fans.
- At the end of each shift, straighten up the workstation to help prepare the next RTMC Operator for their shift. Since the workstations are shared, it is essential to clean up the mess.
- Personal business shall be conducted while on break.
- No profanity or foul language will be allowed. Proper office etiquette shall be maintained. Business conversations must be conducted at a low volume. Otherwise, silence shall be maintained to avoid interfering with other workstation performance.
- Sleeping or assuming the attitude of sleep while on duty is not permitted. If you cannot stay awake, immediately contact the RTMC Operations Supervisor or the RTMC On-Call Manager.
- Appropriate disciplinary action will be taken if an employee is determined to violate this SOP, including termination upon the first occurrence, depending on the circumstances. A repetitive occurrence, regardless of circumstance or time frame, will result in termination.
- Downloading files, listening to music, watching TV, and playing games are prohibited.
- Unauthorized screen savers or wallpaper shall not be displayed on workstation computers.
- Removal of the panels at any workstation is not permitted. These panels should be removed only by authorized personnel to maintain the computer network and other equipment.
- The RTMC Operator must come to work in uniform (black, green, and blue FDOT TSM&O logo shirt) and with a neat and professional appearance. The attire must be business casual. Business casual attire is defined as skirts, dress pants, khakis, or neat jeans (no rips or tears) with dress shoes; no hats, hoodies, or flip-flops are allowed. Jogging attire and tank or halter tops are not acceptable.
- Use of Broward County Traffic Engineering Division equipment or space is not allowed without written permission.

- Access to upstairs restrooms outside regular business hours will be allowed when the downstairs ones are unavailable.
 - Access will only be allowed from the front of the building near the front door. There will be an after-hours second-floor sign-in sheet at the security desk. All personnel accessing the second floor after regular Monday-Friday duty hours will sign this logbook. Ensure you allow enough time to come to the front, sign in, and get upstairs.
 - There must be a legitimate reason to access the second floor after hours – such as restroom use when the first-floor restrooms are being serviced.

I hereby acknowledge receipt and understanding of the Control Room Rules and Guidelines.

Printed name: _____

Signature: _____ **Date:** _____

ATTENDANCE POLICY

Purpose & Scope

To define and establish the standard guidelines and expectations for personnel to report to duty as scheduled at their appointed time and location, remain on duty for their scheduled shift, and accurately manage hours worked.

This procedure applies to all Transportation Management Center (TMC) personnel. Under federal, state, or local law, employees who need a leave of absence must follow the company's leave policies as outlined in the Employee Handbook.

Definitions

Occurrence	An occurrence is equal to each of the following: one absence, one tardy, one unapproved early departure, one unauthorized extended break, six timeclock errors, and four no-call/no-shows.
Absence	When an employee misses one or more consecutive scheduled workdays
Approved Absence	Documented pre-approval of time off from work
Early departure	Leaving one's shift before the completion of the scheduled shift
No Call/No Show	When an employee does not report their absence to their supervisor before the start of their shift and does not report to work for the duration of their scheduled shift
Tardy	Failure to report to work at the start of the scheduled shift

Policy

Absence Reporting Policy

Employees are expected to follow these absence and tardy reporting procedures:

- a. **Each workday missed** because of an illness must be called into the employee's on-duty supervisor. The only exception to this rule will be if the employee's initial call provided the duration of his/her leave from his/her physician.
- b. **Employees must exercise due diligence** to notify the on-duty supervisor or control room as early as possible if they are to be tardy. The notification does not negate the resulting occurrence.
 - If you are on your way to work, and you are less than 30 minutes late call the control room
 - If you have not left your house or current location and will be 30 or more minutes late, you must contact the supervisor on duty or the on-call supervisor to let them know that you will be late. Email and text messages are not acceptable means of contact.
- c. **Holidays:** If on an actual or observed holiday, an employee misses a scheduled shift, departs early, or arrives late, the employee will be required to provide a doctor's note or other suitable documentation substantiating the absences or the occurrence will automatically receive a Written Warning regardless of the number of occurrences.
- d. **Unapproved Leave Requests:** If the employee requests leave and it is denied, then does not report to work for that scheduled shift, departs early, or arrives late, the employee will be required to provide a doctor's note or other suitable documentation substantiating the absence or the occurrence will automatically receive a Written Warning regardless of the number of occurrences.

- e. **No call/No show:** An employee who does not arrive for a scheduled shift and fails to contact their supervisor-on-duty before the start of the shift to explain the absence will be considered a "No call/No show." This is a serious offense and will result in the following escalating disciplinary process:

Single Day of No Call/No Show	3 Occurrences	Step 1: Verbal
	6 Occurrences	Step 2: Written Warning
	9 Occurrences	Step 3: Final Written Warning
	12 Occurrences	Step 4: Termination

- f. **Job Abandonment:** An Employee who is absent for three consecutive shifts without notifying his/her supervisor will be considered to have voluntarily resigned from his/her employment and will be released from employment.
- g. **Absence Due to Illness:** Management may request a doctor's note for absences lasting three shifts/days or longer in duration or instances of suspected abuse of the policy.

Disciplinary Policy

For this policy, a single "occurrence" is defined as:

- a. Use of Paid Time Off that is not called in a minimum of eight (8) hours before the shift, except where due to unexpected illness or emergency that prevented the employee from calling out before the start of the shift so long as the employee provides acceptable documentation and notice as soon as practical.
- b. Reporting late any time after the employee's designated shift start time regardless of contacting the supervisor (two tardy = an occurrence).
- c. Unexcused absences on holidays.
 - Holiday absences will result in one "occurrence" on the employee's record and are also subject to the immediate disciplinary measures in previous section C.
- d. Failing to report for work for a shift that the employee requested leave for, which was denied.
 - Failing to report to work for a shift that the employee requested leave for and was denied will result in one "occurrence" on the employee's record and is also subject to the immediate disciplinary measures stated in section D.
- e. No call/no show for one's assigned shift
 - A no-call/no-show will result in one "occurrence" on the employee's record and is also subject to the immediate disciplinary measures stated in the previous section E.
- f. Unplanned early departure, regardless of getting approval from a manager or supervisor (two earlier departures = an occurrence).
- g. An unauthorized extended break or lunch period (2 unauthorized extended breaks = an occurrence).

New Hire Training Period

The initial training period covering the first 45 days of employment is critical. New employees may accrue no more than three (3) occurrences during the training period. A fourth occurrence during the training period may result in termination of employment. The occurrences accumulated during the training period are treated the same way as those the employee may accumulate following the training period. All occurrences received during the training period carry over after the training period ends.

Occurrences for tardy and early departure will be dropped from the employee's record six months from the date of the occurrence. Occurrences for missed shifts will be dropped from the employee's record 12 months from the date of the occurrence.

Employees are responsible for maintaining awareness of their occurrences. Upon request, supervisors will provide a current tally for an employee.

Disciplinary Process

Disciplinary action because of violating this policy will follow the below Disciplinary Process. Occurrences are counted over a rolling six-month period. Each occurrence will be dropped from the employee's record six months from the date of the occurrence.

- a. Verbal Warning at three occurrences
- b. Written Warning at six occurrences
- c. A Final Written Warning at nine occurrences
- d. Termination at 12 occurrences

Shifts And Scheduling

To provide coverage 24 hours a day, seven days a week, Operators are scheduled to work two 12-hour and two 8-hour shifts per week, a straight 8-hour shift five days a week, or a combination of the two schedules on a rotating basis. Swing shifts are defined as the evening work shifts and are integrated into the schedule (8-hour shifts) as required. Overtime is based on operational needs, and prior management approval is required.

Operators should be advised that shift start and end times and scheduled days are subject to change based on business needs.

Occurrence	Details
Breaks & Lunch	<ul style="list-style-type: none"> • 8-hour shifts: two 15-minute breaks • 12-hour shifts: three 15-minute breaks • Lunch is 30 minutes: Unless given prior approval by a manager, everyone is required to take lunch. (You are required to clock out when leaving for lunch and clock back in when returning.) <p>The shift leader is responsible for scheduling breaks and lunches. The schedule will be based on workload and will not be permitted during the high peak hours of 6:00 AM to 9:00 AM and 3:45 PM to 6:30 PM unless approved by a shift leader, supervisor, or manager. All breaks and lunches must be taken as scheduled and may not be taken at the start or end of a shift or used to make up time without prior approval from a manager or supervisor. Everyone is encouraged to take breaks as scheduled; if you opt to remain at your workstation during a 15-minute break, the Shift Leader will cover your radio during that time.</p>
Timekeeping	<p>Operators are responsible for clocking in and out using the Time Clock device at the start and end of the shift and the start and end of the meal break.</p> <p>Operators are responsible for accurately completing a weekly timesheet and submitting the form on time. Timesheets must be submitted to supervisors for review by Thursday of each week. Each operator is responsible for entering the hours daily as they work them according to company procedures and printing them for supervisor review upon completion.</p> <p>Operators will be rated on their ability to adhere to clocking in and out of their shifts and lunches during their quarterly and annual performance reviews. Failure to clock in or out for lunches or shifts will result in timeclock errors; six timeclock errors are counted as an occurrence.</p>

Occurrence	Details
	<p>IMPORTANT: Failure to adjust your timesheet when you arrive late and leave early is considered falsification of a timesheet; falsification of a timesheet is grounds for disciplinary action, up to and including termination of employment per company policy.</p>
<p>Reporting for Duty</p>	<p>Operators will report to the control room, ready to work, by the scheduled start of the work shift unless otherwise authorized by an appropriate supervisor. All shifts begin on the hour, and you will be considered tardy if you are not clocked in and available to work at the start of the shift.</p> <p><i>Examples.</i> You are scheduled to work at 6:00 AM and you clock in at 6:02 AM, 6:06 AM, or 6:16 AM – you are considered tardy. You are scheduled to work at 10:00 PM, clock in at 9:59 PM, and arrive in the control room at 10:10 PM – you are considered tardy.</p>
<p>Working a Full Shift</p>	<p>Operators are expected to remain for their entire shift unless excused by a supervisor or manager. If an employee needs to leave before the end of their assigned shift due to illness or other circumstances, the employee must seek the approval of his/her supervisor or designated alternate before leaving.</p> <p>A 30-minute overlap is in place for all shifts to allow outgoing operators to debrief those relieving them. In the event, the incoming operator is late/absent or at the request of a supervisor, operators may be required to remain at their workstations until the next shift is available to begin; at a minimum, operators are required to remain at their workstations until the end of their scheduled shift.</p>
<p>Note</p>	<p>You are still on the clock and working until the scheduled end of your shift. You are not permitted to leave the building until you have clocked out.</p>
<p>Shift Swaps</p>	<p>Shift swap requests can be arranged with other RTMC Operators through the scheduling software. All shift swap requests must be approved by a supervisor and may not require any employee to work more than 12.5 consecutive hours without prior approval.</p>
<p>Availability Status</p>	<p>Operations personnel shall have a proper telephone service so that they may be called into the RTMC with the least possible delay. Supervisors shall be provided with these telephone numbers, as well as any changes that may occur during employment.</p> <p>The work schedule will be made available electronically to operators as early as possible. In the event an employee is unable to work a shift according to the assigned schedule, it is the responsibility of the employee to attempt to arrange a swap with another employee. If a swap is not possible, the employee must notify the supervisor so that other arrangements can be made to cover the shift.</p>
<p>Call Outs</p>	<p>When you call out or arrive late for your shift (partial or full shift) it impacts your teammates and RTMC operations. When you are calling out for part of your shift (e.g., 12-hour shift scheduled, but you cannot make it at the scheduled time). The management team will review the schedule and try to cover your full shift. If Management is successful in finding someone to cover the full shift, management will call you back and you will be required to take PTO for the full shift.</p>
<p>Overtime and Extra Hours</p>	<p>Operators may be required, under certain conditions, to remain past their regularly assigned schedule to work more than 40 hours per week. Staff volunteering to work overtime (OT) must get official approval from the supervisor. Operators may not volunteer for overtime and expect compensation without appropriate authorization.</p>

Planned Leave Request

The following summarizes the vacation and absence policies:

- Management will attempt to grant all operators vacation at the time they request it. However, adequate staffing must always be maintained.
- Vacation time **MUST** be scheduled in advance with prior written approval and following established protocols. When conflicts occur, they will be resolved as much as possible. Except for requests for time off on or near holidays, preference will generally be given to the operator who makes the earliest request.
- For vacation/PTO time to be approved, operators **MUST** have accrued enough PTO; it is your responsibility to track available time.

To maintain adequate staffing and in fairness to all, requests for time off during holidays and holiday weekends will be decided on a case-by-case basis.

- To apply for vacation or planned absences, or to inquire as to what dates/times may be available, the operator should contact a supervisor or manager.
- All requests for time off should be submitted in the schedule software program.
- Requests for leave of 1 to 2 days must be submitted one calendar week in advance; requests for leave of 3 to 4 days must be submitted a minimum of two calendar weeks in advance and leave of 5 days or more must be submitted four calendar weeks in advance. Travel arrangements should not be made until the time-off request has been approved by a supervisor or manager.
- All PTO requests are granted for a specific period. Operators who foresee being unable or unwilling to return to work at the end of the leave period should apply for other eligible leave, including an extension of the current leave. Operators who do not return to work at the end of the approved leave period will be considered no-call/no-show and subject to disciplinary action according to this policy.

Unplanned Leave Request

Unplanned leave is defined as a period of unscheduled absence resulting from unforeseen circumstances, including personal illness, injury, and family emergency. Operators unable to report as assigned due to illness, injury, or other special circumstances shall notify the supervisor at least 8 hours before the start of the work shift whenever possible. In the event the immediate supervisor is not available, the next available in-line supervisor or on-call supervisor shall be notified. Voice mail, text messages, and email messages will not substitute for direct contact.

A minimum of a 4-hour notice should be provided to allow time to contact a replacement if needed. Failure to notify a supervisor or manager no later than 30 minutes after the scheduled start time may be considered unexcused.

Appropriate documentation or approval from a manager and/or Human Resources is required for the following:

- Any unplanned absence exceeding 2 working days.
- Any absence when more than 2 single non-consecutive days are taken within the same two-week period (i.e., the third single day requires documentation).
- Before or after public holidays.
- Absence during periods when a PTO request was denied.

Misuse of unplanned leave shall be grounds for disciplinary action as follows:

Total # of Days Absent (Rolling 12-month period)	6 days	Step 1: Verbal Warning
	9 days	Step 2: Written Warning
	12 days	Step 3: Final Written Warning
	15 days	Step 4: Termination

I hereby acknowledge receipt and understanding of this Attendance Policy.

Printed name: _____

Signature: _____

Date: _____

CONTROL ROOM STAFFING

Overview

Workload and contractual requirements necessitate that minimum staffing levels be always maintained in the District Four TSM&O Regional Transportation Management Center (RTMC) control room, which includes providing a management program and staffing plan for 24 hours per day, 7 days per week operations of the RTMC.

All five counties in District Four are actively monitored and managed from one control center, located at the Regional Traffic Management Center (RTMC) in Broward County.

Policy

The RTMC must have at least six operators, Monday through Friday, during day shift operations, six operators during the overnight, holiday, and weekend operations, and one Express operator per shift. Combinations of these operators are required to monitor the five counties in District Four to facilitate appropriate accountability and highway management.

Maximum staffing levels at the RTMC will consist of the following:

Days	Time	Broward	Palm Beach	Treasure Coast	Shift Leader	EL Operator	AMS Operator
Mon-Fri	6 AM - 10:30 PM	2	2	1	1	2	2*
Mon-Fri	10 PM – 6:30 AM	2	1	1	1	2	
Sat-Sun	6 AM – 6:30 PM	2	1	1	1	2	
Sat-Sun	6 PM - 6:30 AM	2	1	1	1	2	
Holidays	24/7	2	2	1	1	2	

Policy Exceptions

There may be times when operations in RTMC do not have the recommended staffing levels needed to operate efficiently and effectively because of callouts, personal time off, etc. If this occurs, the following guidelines should be applied:

- Supervisors will contact off-duty operators to assist with coverage; or
- Supervisors will assist with coverage for breaks and lunches; or
- Supervisors and/or the Assistant RTMC Manager will be required to assist with coverage.

Every effort must be made to maintain minimum staffing, up to and including the presence of a supervisor or manager when needed.

If at any time the minimum staffing requirement cannot be maintained due to unforeseen circumstances, the RTMC Manager must be notified ASAP.

At no time should there be only four operators scheduled for a shift in the RTMC.

SHIFT SHUT-DOWN PROCEDURES

Overview

The RTMC operates on a 24/7 work schedule. These shifts change procedures to ensure that RTMC Operators are aware of tasks to be completed at the end of their shift. In addition, these procedures outline the necessary steps required should a severe event be ongoing at the end of a shift.

Completing all the shift change tasks will prepare RTMC Operators for a structured end to their shift. It is highly recommended that some items be prepared and performed earlier in the shift so that the operator will not be rushed and forget items if it gets busy at the end of the shift.

The RTMC Operators are responsible for ensuring that:

- All the shift procedures are followed.
- The required documentation is completed.
- Each shift follows the established guidelines and procedures.

Procedures

Shift Change

- Confirm that all logs and the Shift Report are completed and available for the next shift. Make sure the shift report is signed.
- Update all incidents in SunGuide to reflect their status.
- Check all open Help Desk/Trouble Tickets and update any status changes.
- Contact all Road Rangers within assigned beats to verify their status and make sure the AVL log is updated.
- VLC/BARCO remains in "active" status (top row of computers).
- Advise the incoming operator of all active events in their beat.
- Log out of all computer workstations.
- Remain at the workstation until the incoming operator is seated and prepared to work.
- Clock out using the time clock outside the control room's southeast door.

***** Safety Patrol Units ARE NOT TO BE put on stand-by during shift change.**

Operators must be relieved systematically to ensure that communication on the radio is continuous. You are not to log off at your station until your relief is at the console prepared to start working. The last 30 minutes of your shift is not free time. You should not log off at the end of your shift if there is no relief. As the incoming person is logging on, put the radio on speaker and take the information.

DO NOT TELL the rangers to stand by because you are cleaning the station or because you are not logged in. If the lead is logged on the lead can assist.

Documentation

When the shift is completed, the Shift Report must be updated to reflect all occurrences and issues that arose during the shift. Make sure to note any last-minute relevant information.

QUALITY CONTROL

Overview

Quality Control can be defined as "the actions performed to ensure the desired level of quality of a product, service, or process." The goal of high quality is reached by careful planning, proper use of equipment, continued inspection, and corrective action as required. By assessing the quality errors which occur in the RTMC, there is an opportunity to eliminate steps that do not add value and to improve the efficiency of those that do.

The Quality Control process is an essential task of RTMC Operations. To function most efficiently, the errors which occur in day-to-day tasks need to be identified, collected, reviewed, addressed, and ultimately corrected. The RTMC has established and developed an effective six-phase process to ensure the quality of our data and service to the public.

Policy

The following process should be used when evaluating the quality control within the RTMC:

Identification

Error identification within the RTMC is separated into nine categories: Data Entry, DMS, HAR, Email, Road Ranger, FLATIS, RISC, Interagency Event, and Miscellaneous. As with many Quality Control processes, the errors which were established to identify were based upon the overall impact on the RTMCs service level. Overall, there are more than 30 possible error types. The following is a breakdown of evaluated errors:

Data Entry

- Event Type: Selecting incorrect event type. For example, selecting Debris on Roadway, when the incident was a Disabled Vehicle.
- Organization: Selecting the incorrect managing TMC. This applies to the Palm Beach and Treasure Coast Coverage Areas.
- Location: Selecting the wrong location. For example, selecting North when an incident is South.
- Status: Selecting the incorrect status of the event. For example, the event was created as 'Confirmed' when the notifying agency was external (FHP, Road Watcher, or Motorist).
- Vehicle Information: Failing to input vehicle description and tag, in conjunction with failure to enter a comment as to why the information was unavailable.
- Lane Blockage: Selecting the wrong lane blockage. For example, selecting a shoulder lane instead of a travel lane blockage.
- Injury: Failing to document injuries.
- Fatal: Failing to document fatalities.
- HAZMAT: Failing to document whether the incident was a HAZMAT.
- Fire: Failing to document whether the incident involved a fire. (This does not apply to "Vehicle Fire" events.)
- Rollover: Failing to document if the incident involved a rollover vehicle.
- Emergency Vehicles: Failing to document why the incident is an emergency vehicle even if linked to a primary event.
- Police Activity: Failing to document why the incident is a police activity event if linked to a primary event.
- FHP Incident Number: Failing to input the corresponding FHP Incident Number. Additionally, input the incorrect FHP Incident number for an event.
- Notifications: Failing to document the notification, update, and/or final follow-up with partnering agencies.
- Connecting Primary/Secondary Incidents: Incorrectly attaching a Primary incident to a Secondary Incident.
- Active Time < 2 Minutes: Failing to make the incident active within 2 minutes of confirmation.
- CCTV ID: Failing to document the camera when the event is within camera view.

- CCTV Preset: Failing to document camera preset.
- Conditions: Failing to document road conditions, weather, and lighting.
- Media: Failure to notify media and follow-up. (If applicable.)
- PIO: Failure to notify PIO and follow-up. (If applicable.)

DMS/ADMS

- Activate: Failing to activate a message.
- Incorrect Message: Selecting the wrong message. For example, this could be the wrong location and/or incorrect lane blockage. *****Critical*****
- Incorrect Sign(s): Selecting the wrong sign(s). For example, using 95NB23, when the incident location is I 95 N at Exit 20-Hollywood Blvd (which is beyond the incident). *****Critical*****
- Timeliness: Failing to post signs for an incident that requires signing within five minutes after the incident becomes confirmed or failing to comment on why the device was not active within the time allotted.
- Available- But Not Used: Failing to utilize all applicable signs for an incident. (This error could be a Critical Error depending on the circumstances of the event.)
- ADMS: Failing to use both arterial signs at one location. For example, if arterial HILL810EB9 is being used then so should HILL810WB9.
- Update: Failing to update all signs to reflect the changes and/or location. *****Critical*****
- Removal: Failing to remove all applicable messages. *****Critical*****

HAR

- Message: Activating the HAR with the incorrect location, incorrect date, or the incorrect travel lane that is affected without correcting the message within five minutes of activation.
- Message Number: Failing to document the message number.
- Pronunciation: Misspelled words will cause the text-to-speech to pronounce words incorrectly. For example, activating the message with a mispronounced word due to a spelling typo.
- Station: Activating the wrong HAR stations. For example, activating I-75 Stations for an incident on I-95.
- Beacons: Activating the incorrect beacons for an incident and/or not using the beacons for an incident. For example, NB beacons are activated for a SB incident, or no beacons are used.
- Timeliness: Failing to activate HAR message with beacons within five minutes after the incident is confirmed.
- Deactivation: This includes deactivating HAR when the incident cleared, and/or turning off beacons, and/or resetting the construction messages.
- Update: Failing to update the message with changes, additions, or failing to comment on the reason why updating did not occur.
- Reset: Failing to reset the HAR.

SunGuide Alert Email

- Notification: Failing to send out SunGuide Alert email.
- Groups: Selecting the incorrect email group and/or leaving a group out of the email.
- Incorrect Level: Selecting incorrect level. For example, the incident has one left lane blocked and the email is sent out as a Level 3.
- Incorrect Message: Sending out an incorrect message. For example, by failing to update the location of an incident or lane blockage and subsequently the message contains inaccurate information.
- Timeliness: Failing to send a message for an incident within five minutes after confirmation of the incident.
- Update: Failing to update email with any changes or additions.
- Failure to Clear: Failing to send a clear message.

FLATIS

- Activate: Failing to send message to FLATIS system.

- Update: Failing to update FLATIS with the current information and/or every 30 minutes throughout the incident.
- Removal: Failure to remove the message from the FLATIS system.

RISC

- Email: Failure to send out RISC email.
- Email Information: Failure to document in email or event any of the following: the activation time, the arrival time, the notice to proceed time, contractor information, ETA of the contractor, and/or clearance time. If the operator is unable to obtain the times, then comments are required in the event.

Interagency Events

- Event Number: Failure to enter the other agency's event number.
- Event Type: Failure to enter the type of event that the other agency is managing.
- Location Description: Failure to enter the location description into the comments field or failing to document that the 511 information was accurate.
- Notifier: Failure to document the notifier's name.

Road Ranger/SIRV

- Dispatch: Failing to dispatch the Road Ranger without any explanation in the comment section.
- Dispatch Time: Failing to dispatch the Road Ranger within three minutes.
- Status at Event: Failing to update Road Ranger Activities and/or status throughout the incident.
- Activity: Assigning the wrong activity to a Road Ranger.
- SIRV: Failing to dispatch SIRV unit.
- SIRV Time: Failing to dispatch SIRV within 3 minutes.

Miscellaneous

- Failure to Notify: Failing to notify applicable agencies and/or on-call Manager.
- Comments: Failing to include any relevant comments regarding the incident. For example, instead of just activating messages to say "traffic must exit" because of the event, comments should specify where the traffic is being diverted to.
- Infrastructure Damage: Failing to document infrastructure damage.
- Infrastructure Notification: Failing to notify the appropriate asset maintenance company.
- FHP HSMV Number: Failure to enter FHP HSMV number (if applicable).
- Floodgate: Failure to use floodgate for extended full closures, diversions, etc. (If applicable). Comments are required to support the reason for not utilizing a floodgate.
- Floodgate: Failure to remove floodgate.
- Clearing Responders: Failing to clear all Emergency Responders when Road Ranger clears the scene during a lane blockage event.

All errors are up for discussion. If an Operator makes comments in the event explaining why standard procedures or actions were not followed, then those potential errors may not be issued.

If any error is corrected within 5 minutes of initial action, then no error will be issued. Every error given to Operators will not be discussed. Supervisors are looking for trends, patterns, and/or critical errors.

Collection

During the collection phase, the RTMC Operations Supervisor and/or Manager utilize a variety of reports which are generated from the SunGuide system. These reports are generated and collected weekly. Overall, there are 25 reports which can be generated from the SunGuide system. Three are used during the Quality Control process. The RTMC currently collects data on incidents with active travel lane blockages. These

have been identified as the greatest event type which has a significant impact on the service level delivered. See below for a list of reports currently used to aid in the RTMC Quality Control Management:

- Event Detail Chronology
- Event Response
- QA Report

The RTMC Operations Supervisor and/or Manager can access and generate a report for each of the above areas by implementing the following:

Event Chronology

Under the Reports menu in SunGuide, input the weekly range of desired filters, and click the Chronology button. The report will open in another window, displaying the detailed history of all the incidents occurring in the time range specified. Once the report is displayed, click the Print button located on the top toolbar to receive a hard copy.

Event Response

Under the Reports menu in SunGuide, input the weekly range desired filters, and click the Event Response button. The report will open in another window displaying the RTMC response times and a detailed priority level breakdown. Once the report is displayed, click the Print button located on the top toolbar to receive a hard copy.

QA Report

Under the Reports menu in SunGuide, input the weekly range desired filters, and click the QA Report button. The report will open in another window displaying the agency's response summaries with missing times. Once the report is displayed, click the Print button located on the top toolbar to generate a hard copy.

Review

The review process is the next phase which is conducted during the Quality Control process. During this phase, the RTMC Operations Supervisor/and or Manager evaluates the previously indicated reports by assessing specific factors collected in each of the reports.

- The Event Detail Chronology report analysis is an integral part of the QC process, where the RTMC Operation Supervisor and/or Manager review each aspect of an incident. This analysis allows the evaluator to clearly detect an error and correctly document this inaccuracy.
- The Event Response report shows how quickly the RTMC responds to an event. By comparing the event type to the total event response time, the evaluator can determine whether the incident was managed in a correct and timely fashion.
- The DMS reports depict how well the DMS signs were utilized to manage the incident(s). By evaluating the number of events and messages used, the evaluator can conclude whether the RTMC Operators are using the devices efficiently and effectively.
- The QA report provides a snapshot view of the missing times associated with an agency's response. The reason for the missing times is primarily a data entry error.

Data Collection

After the review is conducted, the RTMC Operations Supervisor and/or Manager will input errors into an MS Access Database which provides the ability to enter, query, and report specific RTMC error trends. Reports are generated every week. The report lists the RTMC Operator, incident number, date, error type, and comments for the reason for the error. This report includes graphs and charts to visually depict error trends within the RTMC.

In addition to the QC weekly reports, a monthly report is generated providing a summary review of the error rate within the past month. As with the weekly report, the monthly report is submitted with graphs and charts

to visually depict error trends within the RTMC, but more on a larger time scale. These reports are submitted monthly to be filed in the RTMC's ISO Filing System.

Feedback

After the review is conducted, the RTMC Operations Supervisor and/or Manager will group the errors by RTMC Operator. The initial feedback sessions are conducted with the RTMC Lead Operators. This session includes a review of all the RTMC Operator error levels and specific trends they should be aware of. In addition, suggestions and scenarios are provided to assist the RTMC Lead Operator in piloting the RTMC Control Room.

After the initial feedback session is conducted with the RTMC Lead Operators, the RTMC Operations Supervisor and/or Manager provides a list of incident reports to the RTMC Lead Operator to review and address with the RTMC Operator that generated the error. This list is determined by a trend level, where once a trend has been detected, the RTMC Operations Supervisor and/or Manager intervenes and provides a direct training solution to the error. A QC error trend is a consistent number of errors that occur in the same category and specific error type.

Correction

With more than 30 possible errors, 8 are correctable. These possible errors do not have an impact on the RTMC response time or service level but are considered procedural errors. These can be corrected by using the Audit menu item located in SunGuide, SIRV Event Administration, and by reopening events to correct the data. The following is a list of errors that are corrected, and the utility used to correct the error:

Data Entry

- Event Location and Congestion: Audit
- Event Status: Audit
- Event Type: Audit
- Lane Blockage: Audit
- Responder Times: Audit
- Vehicles Involved: Audit
- Notification Agency and Contacts: Audit
- Vehicle Dispatch: Audit

Road Ranger

- Dispatch Time: SIRV Event Administration
- Incorrect Use of Void: SIRV Event Administration
- Status at Event: SIRV Event Administration
- Wrong Truck Number: SIRV Event Administration
- Activity: SIRV Event Administration

Once all the preceding steps have been completed, the Quality Control evaluation, documentation, and correction process have been completed. Using this process ensures that all areas of the RTMC data are reviewed and represented accurately. This not only provides insight into minor data entry errors but also a possible improvement to the procedures used within the RTMC Control Room.

ERGONOMICS AT THE WORKSTATION

Overview

Millions of people work with computers every day. There is no single "correct" posture or arrangement of components that will fit everyone. However, there are some things to consider when setting up a computer workstation or performing computer-related tasks. The following are suggestions for things everyone can do to help minimize the chance of ergonomic issues arising.

Policy

Ergonomics at the Workstation:

- Be conscious that hands, wrists, and forearms are straight, in-line, and roughly parallel to the floor.
- Make sure your head is level or bent slightly forward, forward-facing, and balanced. Generally, it is in line with the torso.
- Shoulders are relaxed and upper arms hang normally at the side of the body.
- Elbows stay close to the body and are bent between 90 degrees and 120 degrees.
- Feet are fully supported by floor or footrest. Adjust your chair, if necessary, since workstations are shared at the Broward RTMC.
- Be sure your back is fully supported with appropriate lumbar support when sitting vertically or leaning back slightly.
- The thighs and hips are supported and generally parallel to the floor.
- Knees are about the same height as the hips with the feet slightly forward.
- Regardless of how good your working posture is, working in the same posture or sitting still for prolonged periods is not healthy. Take your breaks as an opportunity to move around. You should change your working position frequently throughout the day in the following ways:
 - Make small adjustments to your chair or backrest.
 - Stretch your fingers, hands, arms, and torso regularly.
 - Stand up and walk around for a few minutes periodically.
 - Keep the pointer/mouse close to the keyboard.
 - Alternate hands with which you operate the pointer/mouse.
 - Use keyboard shortcuts to reduce extended use.
 - Put the keyboard directly in front of you.
 - Your shoulders should be relaxed, and your elbows close to your body.
 - Your wrists should be straight and in line with your forearms.



4.02 Communication Systems

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Document History

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1.0	04/25/2024	Yana Neishlos	Initial Draft

COMMUNICATION PROTOCOLS

Overview

The RTMC uses specific communication standards when coordinating with Road Rangers, external agencies, and emergency agencies.

Policy

The following guidelines should be followed when communicating with the RTMC's various associates:

Incoming Phone Calls

The RTMC Operator is responsible for answering all telephone calls within three rings.

There are four telephone lines within the Control Room: three for the RTMC coverage area in Broward County and one for the Northern Three Counties area.

The following guidelines have been implemented to provide the best service to those agencies: There are eight consoles, and each console has its internal extensions.

- When the following phone numbers are called (954) 847-2775, 2776, or 2777, all numbers ring in the Control Room. The call can be answered from any of the workstation phones.
- The Express Lanes Console can be reached at 954-847-1993.

Console 5	Palm Beach 1	1005	Console 12		1012
Console 6	Palm Beach 2	1006	Console 15	Lead	1015
Console 7	N3C	1007	Console 16	Phase 2	1016
Console 10	Broward	1010	Console 17	Express Lanes	1017
Console 11	Fleet (I-75)	1011			

- Calls for the Treasure Coast and Palm Beach County areas have a distinct ringtone, different from the normal phone calls in the control room.
- When answering any of the telephone lines, the RTMC Operator should respond in the following manner: "Road Ranger Services, this is _____ or, District 4 TSM&O RTMC, this is _____"
- The RTMC Operator should respond to the caller in the highest professional manner.
- The RTMC Operator should answer the phone using the handset and not by speaker.

After the telephone rings three times at the Treasure Coast workstations, the line is automatically forwarded to one of the Broward County workstations. At no time should any of the phone lines go unanswered.

Signal Codes

The Signal or S-Code series are code words that represent specific phrases in voice communication about radio transmissions. Currently, over 100 S-codes are used. The RTMC uses the following S-codes when dispatching and communicating:

#	Signal Code	Details
1.	S-3	Hit and Run
2.	S-4	Vehicle Crash
3.	S-7	Fatality
4.	S-16	Obstruction/Debris
5.	S-23	Pedestrian
6.	S-76	Disabled Vehicle

10 Codes

The 10-Code series, a.k.a. 10 signals, are code words used to represent common phrases in voice communication, particularly in radio transmissions. Currently, there are 200 10-codes in usage. The RTMC uses the following 10-Codes when dispatching and communicating:

#	Code	Details
1.	10-4	Acknowledgment
2.	10-7	Off Duty
3.	10-8	On Duty (Patrolling)
4.	10-9	Repeat
5.	10-10	Break
6.	10-19	Go to base
7.	10-20	Location
8.	10-23	Standby

#	Code	Details
9.	10-33	Emergency
10.	10-45	Call by phone
11.	10-48	Did you receive?
12.	10-51	En route
13.	10-52	ETA
14.	10-54	Negative
15.	10-66	Cancel
16.	10-70	Need wrecker
17.	10-97	On scene
18.	10-98	Cleared

NATO Phonetic Alphabet

The NATO Phonetic Alphabet assigns code words to the letters of the English alphabet. These code words make critical combinations of letters pronounced and understood by those who transmit and receive voice messages by radio or telephone. It is regardless of their native language, especially when the safety of navigation or people is essential.

Dispatching

When dispatching the Road Rangers or SIRV Units, the RTMC Operator must use the call sign that refers to the area the operator covers. If an RTMC Operator covers Broward County, they should use "Broward" as the call sign.

The following communication protocol should be used:

- "Broward to Truck X.". This call sign eliminates any confusion distinguishing our center from other counties.
- In addition to the call sign protocol, the RTMC Operator must use the 10-Code series and the NATO Phonetic Alphabet when dispatching.

When a roadside assistance call is received, it must be dispatched immediately. Even if a Road Ranger is assisting at an event, the dispatcher shall alert them about pending events and assign them to the event. The RTMC Operators are responsible for updating the Road Ranger on the pending events and alerting them about the urgency to respond to an assignment.

On certain occasions, a Road Ranger must respond to an event in another beat.

- First, select a Road Ranger that is within close distance of the event location.
- Alert a Road Ranger about an assignment and update them as necessary.

Sometimes, no Road Rangers can respond to an event due to shift changes, meals/breaks, fuel, and inspections. If a call is received from FHP, or an event is detected via CCTV, and we do not have a Road Ranger to respond, make a notation in the Comments section of the event in SunGuide. Ensure you note the time and reason when specifying a comment.

Road Ranger Phone Calls

Communication between the RTMC Operator and Road Ranger must be made primarily through the Zello Radio system, as phone calls can delay the response to the Road Ranger. Phone calls also prevent the RTMC Operator from making or receiving other emergency calls. The only case where a Road Ranger should use the telephone is when their radios are not working or there is an emergency.

When receiving a phone call from a Road Ranger:

- First, ask if they have an emergency or a problem with their radio.
- If there is no emergency or problem with the radio, advise them that information can no longer be taken over the phone and request that they contact you on the radio.
- If there is an emergency, document the information and follow RTMC standard procedures.
- If there is a problem with the radio, check the Road Ranger's portable and mobile radios while they are on the phone. During this step, have the Road Ranger change to another frequency to determine whether the problem is a channel or radio-specific problem.
- If the phone calls persist, contact the RTMC Operations Supervisor.

Fire Rescue Calls

Communication between the RTMC Operator and the Fire Rescue workers must be made primarily through Fire Rescue Radio. We are using the Miramar Fire Rescue Radio to communicate with the different fire rescue departments for 75 general use and Express Lanes.

Follow the following guidelines when the RTMC receives a call from the Fire Rescue Unit.

Fire rescue will call to confirm incidents via CCTV and inquire which route is the best route to the scene. You will:

- Obtain all the necessary information, such as location and direction, and confirm if the facility is 75 Express or 75 GU.
- Search cameras to see if you can confirm the location of the incident.
- Once confirmed, brief fire rescue on all the necessary information.
 - Exact location.
 - Any lane blockage.
 - If you can see vehicles involved
- When you confirm the incident, inquire with fire rescue about what location they are coming from to provide the best possible route to get to the scene (e.g., nearest exit or entrance to the incident).

Fire rescue will address the TMC as **75 Ops**, and the agencies that will utilize the Miramar Fire-Rescue radio for events on 75 Express are:

- BSO – Weston
- Davie
- Miramar
- Pembroke Pines
- Sunrise

RADIO COMMUNICATIONS POLICY

Overview

It is the policy of District Four TSM&O RTMC to provide clear and concise oral and written communications to all RTMC and FDOT personnel, Road Rangers, and law enforcement agencies. The RTMC has a 24-hour, 2-way radio communication capability that provides continuous communication between the RTMC and the Road Ranger drivers. The RTMC Operations Supervisor and Lead Operator shall directly supervise all communications. The RTMC Operations Supervisor and Lead Operator are responsible for ensuring that all communications comply with RTMC policies and procedures.

Policy

A. Federal Communications Commission Rules and Regulations – Use of radio

1. All Road Ranger radio operations shall be conducted in accordance with Federal Communications Commission (FCC) rules and regulations. The RTMC is authorized to transmit communications related to public safety and incident management, the protection of life and property, and other communications essential to RTMC activities. False calls, false or fraudulent distress signals, superfluous, unidentified communications, and obscene, indecent, and profane language are prohibited.
2. Communications personnel shall promptly and professionally answer all calls on the RTMC communications system using RTMC-approved communications procedures.

B. Call Signs – Road Ranger Units and RTMC communications

1. The call sign shall be broadcast clearly and distinctly, as this identifies the transmitting station. Failure to comply may result in disciplinary action.
2. Employees using mobile radios shall properly identify themselves at the start of a transmission or series of transmissions. When calling a Road Ranger unit, all communications personnel will identify their call sign (Broward) and the identification number of the Road Ranger unit being contacted (406).

C. Multiple Unit Incidents

1. All Road Ranger units shall only be dispatched from the RTMC or SIRV Operator.
2. If a Road Ranger unit is asked to work an incident outside his beat or his communications channel, the unit shall be asked to switch his radio to the appropriate common channel being used.
3. You must say your call sign whenever switching to a working channel.
4. Only Road Ranger units, Supervisors, and RTMC personnel working on the incident shall be on the working channel.
5. The Road Ranger working the incident must let the RTMC Operator know when he clears the incident and that he will be switching back to his designated channel and returning to his route.
6. When back on his designated channel, a Road Ranger must state his call sign and "clear for action" or "10-98".

D. Answering the Radio

1. The priority of RTMC Operators dispatching Road Rangers is to monitor and respond to radio traffic.
2. When a call is received, it shall be responded to promptly.
3. Evaluate the priority of the radio traffic before handling any other activity.
4. Calls may be placed on "stand by" only during heavy radio traffic conditions, provided they are not high-priority calls.

E. Radio Dispatcher

1. Only pertinent information shall be broadcast, and all dispatches shall be read using the proper format and stated as briefly as possible, using the appropriate ten-code and dispatch signals.
2. Questions concerning the need to dispatch certain messages shall be referred to the Operations Supervisor or Lead Operator.
3. Messages of significant importance shall be broadcast to all in-service Road Ranger units.
4. Emergencies, such as calls for backup, shootings, violent crimes in progress, large-scale civil disturbances, disasters, etc., require immediate response by the RTMC. Communication personnel receiving a report of this nature or any other life-threatening situation shall broadcast an alert tone at all frequencies and pause for five seconds before broadcasting the information. The alert tone before a broadcast will signal the Road Ranger unit that important information is forthcoming.
5. All pertinent information relating to the broadcast dispatch shall be broadcast by communications personnel to the appropriate Road Ranger unit.
6. RTMC Operators shall not dispatch Road Rangers to any incidents of a violent nature or to investigate any suspicious activity. Local law enforcement shall be notified instead.

F. Monitoring Techniques

1. The RTMC Operators are responsible for continuously monitoring all primary and secondary radio channels at all base stations.
2. RTMC Operators shall ensure that the volume controls are always properly adjusted to avoid missing important radio traffic. The volume controls shall be checked at the beginning of each shift and periodically throughout the shift, especially during long periods of silence.
3. RTMC Operators shall monitor the channel before broadcast to ensure it is clear before transmitting. Operators should wait approximately 15 to 30 seconds between each attempt to contact a Road Ranger unit unless circumstances dictate otherwise.
4. Before new RTMC Operators can operate efficiently, they must adapt physically and mentally to the radio room environment.
 - a. New RTMC Operators must physically adapt to the various sound sources, such as multiple radio frequencies, telephones, intercoms, and RTMC personnel.
 - b. New RTMC Operators must mentally adapt to the recognition and interpretation of radio signals such as carriers, voices, and station/mobile identifications.
 - c. New RTMC Operators must be able to both physically and mentally adapt and acquire the ability to multitask operations.
 - d. During this adaptation period, new RTMC Operators must consciously listen when monitoring the radio. As time progresses, the operator's subconscious develops a selective listening ability in which the recognition and interpretation of radio transmission becomes automatic and effortless.
5. When two or more operators are working, and it becomes necessary for one of them to leave the console unattended, another operator shall be advised to monitor the other console. The operator leaving the position must brief the remaining operator of the ongoing activity and status of Road Ranger units.

G. Voice Techniques

Using proper voice techniques during radio communications significantly enhances the clarity of the message and understanding by the receiving party. Communications personnel must be aware they are constantly being monitored.

1. Effective and professional voice techniques can be achieved by developing four primary voice characteristics:
 - a. Quality
 - b. Volume
 - c. Pitch
 - d. Rate

2. The desired voice quality should display a positive impression, alertness, enthusiasm, confidence, calmness, a businesslike approach, and a readiness to serve. The voice should not sound unprofessional, particularly when under stress. Proper enunciation and pronunciation (i.e., words spoken clearly and distinctly) significantly improve the ability of the receiver to copy the contents of a message and eliminate needless repetition.
3. The desired voice volume should not be too loud or too low. An excessively loud voice does not increase the volume. Instead, it may distort the signal and create a higher pitch. Communications personnel must guard against the natural tendency to lower the volume of their voice as they speak. Normal conversational volume is usually sufficient.
4. Communications personnel should use moderate pitch level changes in their voice as they speak. A monotone voice is unacceptable. Communications personnel should develop a pitch that is not too high or low. A high-pitched voice may be improved by talking slower and at a lesser volume. A low-pitched voice may be improved by talking louder and using distinct enunciation.
5. Normal non-radio speech is between 80 to 100 words per minute. Communications personnel must remember that the pace at which messages are delivered is important to understand their contents. Generally, a speaking rate of 40 words per minute is preferred for radio communications.

H. Radio Courtesy

Communications personnel shall always conduct themselves on the radio as models of efficiency and professionalism. Courtesy can best be expressed by tone and manner of presentation rather than by the content of the message.

1. Unnecessarily lengthy tone alerts, argumentative tone, and unnecessary radio traffic are breaches of operating procedure and may prevent urgent radio traffic from being heard.
2. Frequencies must be monitored closely before transmitting to avoid interrupting traffic in progress. When another employee or station is using a frequency, do not attempt to talk over their communication on the same frequency.

I. International (NATO) Phonetic Alphabet

1. The International Phonetic Alphabet shall be used by communications personnel when spelling is required. Letters will be broadcast as "A-Alpha", not "A as in Alpha" or any other form. Refer to Exhibit A for the International Phonetic Alphabet.

J. Transmitting Numbers

In voice communications, numbers are grouped and read in a series of three, counted from left to right. The number 5428749 would be read over the radio as 542-874-9. The "series of three" rule also applies where letters are used in combination with numbers.

The Vehicle Identification Number (VIN) B1RH542178 would be read as "Bravo one Romeo – Hotel five four - two one seven - eight". An exception to the "series of three" rule is the transmission of telephone numbers and Social Security Numbers. They are broadcast as they appear.

K. Correct Pronunciation of Numbers

Pronouncing numbers clearly and distinctly during radio transmissions will eliminate misunderstanding of numbers.

L. Use of Identification Numbers

All Road Rangers are assigned identification numbers. The identification number assigned is the truck number. These are always used in broadcasting. The identification number allows for confidentiality and brevity.

An identification number of 403 would be read as "four zero three" not "four hundred and three" or "four o three". An identification number of 420 would be read as "four two zero" not "four two o".

M. Approved Ten Signals and Dispatch Codes

The RTMC utilizes the 10 signals and dispatch codes the Joint Task Force has approved for use in State Law Enforcement communications centers. Ten signals must be used to communicate effectively over the radio. Refer to Exhibit B for the list of 10 codes.

N. Radio Console Operating Procedures

Radio console operating procedures are necessary to ensure the most efficient and uniform operation among the RTMC radio communications staff.

Microphone Technique/Operation.

- a. Depress the transmit switch on the console and pause for the tone identifier to transmit. This will eliminate fragmented or incomplete transmissions.
- b. Speak into the headset in a normal tone of voice.
- c. For additional console operations, refer to the Radio Console User's Manual.

O. Road Ranger Radio Procedures

1. Whenever a Road Ranger vehicle equipped with a communications radio is being operated, the Road Ranger shall ensure that the radio is operational and monitor the designated frequency.
2. If the radio communications system fails, Road Ranger Supervisors and company owners must submit updated emergency contact numbers to the RTMC.
3. Road Rangers shall monitor the channel before they broadcast to ensure it is clear before transmitting. Unless circumstances dictate otherwise, they should wait approximately 15 to 30 seconds between each attempt to contact an RTMC Operator unit.
4. All Road Rangers shall advise the RTMC of all changes in their service status. Road Rangers shall monitor radio traffic and will, when necessary or directed, hold all radio traffic to a minimum.
5. When a Road Ranger advises they are going to assist a stranded motorist, they shall notify the RTMC of the following before they assist:
 - a. Location (i.e., I-95 south of Commercial).
 - b. Direction (NB, SB, etc.).
 - c. Vehicle Location (right shoulder, left shoulder, ramp, live lane).
 - d. Vehicle Information (Description and Tag Number).
6. Road Ranger shall immediately notify RTMC when clear for action.

P. Operator Radio Procedures

If no contact is made between the RTMC and a Road Ranger within fifteen (15) minutes after being advised by radio that a Road Ranger is going to assist a stranded motorist, the RTMC Operator shall attempt to contact the Road Ranger originating the call. The Road Ranger's welfare shall be checked every fifteen (15) minutes after initial contact until the assistance is cleared.

1. If two attempts to contact the Road Ranger have failed, the RTMC Operator shall immediately dispatch the nearest available Road Ranger unit to the last location given by the Road Ranger performing the assist and notify the RTMC Operations Supervisor, Lead Operator, and/or Road Ranger Supervisor.
2. If no Road Ranger unit is available, the RTMC Operator shall utilize the closest available resource (FHP, Fire Rescue, local law enforcement, etc.) by telephone or other means of immediate communication as well as notification to the RTMC Operations Supervisor, Lead Operator or Road Ranger Supervisor.



4.03 Documentation & Reporting

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Document History

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1.0	04/29/2024	Yana Neishlos	Initial Draft

AIDS AND BINDERS

Overview

There are many useful aids and binders located in the TMC control room to assist RTMC Operators with their day-to-day activities within RTMC. Here is a list of quick reference books on their purpose and use.

Quick Reference Books

General List

Located at each RTMC Operator's console, there are Quick Reference Books that contains the following, among the other procedural, contact, and operational information:

RTMC Mission Statement	Exit number and state road number reference for all major roadways within Broward, Dade, Palm Beach, Martin, St. Lucie, and Indian River County including Florida's Turnpike	Map of US-27
RTMC Operations Schedule	DMS Locations w/CCTV and Presets	On-Call Contact Information.
FDOT Telephone Directory	Map of Interstate 95 in Palm Beach County	Maintenance
Frequently Used Numbers	Map of the I-595/I-95 Interchange Coverage Area	Maps of Road Ranger and Beats
FHP 10 Codes/Signal Codes	Map of Turnpike	Emergency Notification/Procedure Reference

Miscellaneous Quick Reference Handbook

Located at the Lead Operator Workstation, this handbook contains information on the usage of Floodgates-Web Banners, Vehicle Alerts, Full Closures, and Alley Closures – Fog Visibility.

Highway Advisory Radio System User Manual

The manual provides information on both the Platinum Workstation and Platinum Client software applications. The Platinum Client software module controls and manages a network of HAR stations and flashing beacons.

RISC Binder

This binder was created to guide operators during an RISC incident containing up-to-date information. The RISC binder is placed on top of the console between the Lead consoles 15 & 16. Operators find the following:

- RISC Activation Log to fill out (extra copies for reference purposes)
- The current contractor rotation information, including previous RISC activations.
- Vendors contact information.
- An overview of RISC

Palm Beach County & Treasure Coast (N3C) Reference Books

Located at each Palm Beach and Treasure Coast workstation, there are quick reference books about those coverage areas. They include general information regarding notifications and device usage for those areas. Binders contain reference guides to assist the Operator in managing these coverage areas:

- Notifications sheet
- Important phone numbers for Palm Beach, Martin, St. Lucie, and Indian River Counties
- Florida Turnpike and I-95 Exits
- Camera Locations
- Road Ranger Beats
- Cross County Mile Markers/Mile Posts
- Vehicle Alert Management.

Among the reference materials, several other laminated guides will assist operators (i.e., HAR and Beacons Locations, Camera Locations, Signal Code/Ten Codes, etc.).

Note. RTMC operators should not remove any pages from these binders unless otherwise directed by a lead operator and/or supervisor. Any updates or changes to these binders will be the responsibility of the lead operator and/or supervisor to ensure the consistency of all binders.

SHIFT REPORTS

Overview

Shift Reports are one of the essential reports the RTMC uses. It communicates all relevant details of the just completed shift to the upcoming shift. It is the responsibility of the RTMC Operator to continuously update and maintain the accuracy of the shift report. The reports are accessible from the Public Drive at P:\Shift Report.

Policy / Procedure

There are six main sections to the shift report:

#	Section Name	Details
1.	Shift Change Information	On many occasions, the RTMC Operator will be asked to relay miscellaneous information to the upcoming shift. This area of the shift report should be updated to reflect any relevant shift change information.
2.	Active Events	This section summarizes active events at the time of shift change. This area should reference the Event ID and relevant details regarding the status of the event.
3.	Interagency Events	This section summarizes active events where the RTMC is assisting other agencies with highway messaging for traffic-related events that occur in their coverage area.
4.	Roadwork Events	This section summarizes the roadwork events that are currently in progress, which can be scheduled or emergency roadwork.
5.	Helpdesk Tickets Opened / Closed	Help desk tickets are used to document issues related to internal applications, hardware, or software. This includes SunGuide-related issues, problems with workstations, joystick problems, etc. If a ticket is open for any such issue, then it needs to be documented in this section. The newly created ticket should have the word OPENED by the newly created ticket, with a summary of the problem. If the issue is resolved on the same shift, the ticket information can be removed from the Shift Report. If the issue is resolved on the following shift, the ticket information should be removed from that shift's report. Supervisors are responsible for providing additional information for anything greater than 30 days.
6.	MIMS Tickets Opened / Closed	Field Device issues are documented here pertaining to equipment failures in the field. This includes, but is not limited to, Dynamic Message Signs, CCTV, Detectors, Highway Advisory Beacons, or Stations, etc. If a ticket is open for any such issue, it must be documented in this section. The newly created ticket should have the word OPENED by the newly created ticket, including a problem summary. If an issue is resolved on the same shift, the ticket information can be removed from the Shift Report. If the issue is resolved on the following shift, the ticket information should be removed from that shift's report. Supervisors are responsible for providing additional information for anything greater than 30 days.

At the start of each shift, the RTMC Operator must review all areas of the shift report and discuss discrepancies with the RTMC Operator they are relieving. Likewise, at the end of each shift, the RTMC Operator is required to review all areas of the shift report and discuss any areas requiring clarification with the RTMC Operator at the beginning of their shift.

LEAD REPORTS

Overview

At the end of every shift, a Lead RTMC Operator will create an email titled LEAD REPORT for shift ___, (day of the week), (date dd/mm/yy). This Lead Report email will be addressed to the other Lead Operators, Supervisors, and Managers. There are five sections to the Lead Report:

#	Section Name	Details
1.	Personnel Issues.	Any deviation from the regular schedule should be mentioned here. This includes: <ul style="list-style-type: none"> • Lateness. • Unplanned Absence. • Swapped Shifts. • Any control room conflict. • Irregular behavior by an RTMC Operator.
2.	Weather Conditions	A quick note summarizing the weather conditions during the shift can be a benefit to have on record. This is critical in times of a tropical disturbance or major downpour. Fog/visibility issues should also be mentioned.
3.	New Policies/Procedures	It is critical that the following shifts be advised of new policies and procedures daily. This part of the Lead Report must complement the regular emails sent out with the new procedures and/or any mention on the Control Room Whiteboard. This section may include new SOPs, workarounds, and troubleshooting tips.
4.	Field Equipment Errors	It is imperative that information regarding critical field equipment errors is communicated to the on-call manager as soon as possible. To facilitate this process, this section was added to the Lead Report debriefing. The information required for any field equipment error is the following: <ul style="list-style-type: none"> • Type of Field Equipment involved. • Description of Error • Time On-Call Manager was notified.
5.	Log/Report Reviews	This section was carried over from the preceding Debriefing format. Here, we find the documented Lead Operator's review of the logs and reports received or filled out during the shift including: <ul style="list-style-type: none"> • Road Ranger Schedule. • Shift Reports.

Other

The OTHER section is meant to encompass anything else that may be of relevance to operators on the relieving shifts. This may include device failures, RTMC issues, visitors, media broadcasts, Critical DMS Errors, Critical HAR Errors, HAR beacon checks, and anything else that may be of interest to the team.



4.04 Computer Applications & Systems

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Document History

Version #	Date	Author / Editor	Changes
1.0	04/29/2024	Yana Neishlos	Initial Draft

SUNGUIDE

Overview

The RTMC uses SunGuide, the statewide ITS software, to collect, store, and disseminate information about incidents on the freeway networks. SunGuide is a modular system comprising several integrated subsystems allowing incident management, data collection, and field device control.

The main objectives of SunGuide event management are:

- Traffic Event and Incident Management
- Dispatch Road Rangers and Severe Incident Response Vehicles (SIRV)
- Reporting and Tracking Impact on Roadways
- Incident Email Alert Notifications
- Posting DMS where applicable
- Posting FLATIS Notification.

Policy / Procedures

Here is a breakdown of the various subsystems that comprise the fully integrated SunGuide system:

#	Subsystem	Description
1.	AVL/RR	Automated Vehicle Locator/Road Ranger (AVLRR) Subsystem is primarily used to track Road Ranger and SIRV Operator activity.
2.	C2C	<ul style="list-style-type: none"> • Center to Center (C2C) Subsystem is currently used to communicate with the 511 FL-ATIS system. Both incident data and Floodgate recording files are sent via the C2C module. • The C2C system may also share data between Traffic Management Centers. • District 6 and District 4 share TSS data via C2C to compute TVT between Miami-Dade and Broward counties on I-75 and I-95.
3.	CCTV	Closed-Circuit Television (CCTV) Subsystem controls CCTV cameras in the SunGuide RTMC coverage area.
4.	DMS	Dynamic Message Sign (DMS) Subsystem controls the DMS devices in the SunGuide RTMC coverage area.
5.	EM	The Event Manager (EM) subsystem controls the main graphic user interface for RTMC Operators who use SunGuide.
6.	IDS	The Incident Detection System (IDS) subsystem coordinates TSS Alerts, Weather Alerts, and Third-Party Notification Alerts. This automated system compares stored video data with real-time video to detect stopped vehicles that could be disabled, abandoned, or part of a crash scene. Other types of detection systems may be implemented in future enhanced releases of SunGuide.
7.	MAS	Message Arbitration System (MAS) Subsystem organizes incident information to be posted on DMS signs.
8.	RS	Report Subsystem allows incident and device data to be retrieved using various filters and queries such as dates, times, and device types.

#	Subsystem	Description
9.	SAS	Schedule Action Subsystem – This allows messages to be created and posted on the DMS board during a scheduled time.
10.	TSS	The Transportation Sensor Subsystem (TSS) collects and organizes data from vehicle detection sensors in the SunGuide RTMC coverage area.
11.	TVT	The Travel Time (TVT) Subsystem coordinates and calculates the creation of Travel Times posted on DMS based on TSS data.
12.	VS	Video Switching (VS) subsystem allows for control of CCTV video on RTMC monitors through the V-Brick system.

SYSTEM REVIEW

Overview

All RTMC Operators are responsible for conducting a complete system review of all software and hardware at the start of their shift. This review will include and is not limited to SunGuide, DMS, CCTV devices, and all software and communication devices. Any system malfunction must be reported to RTMC Management.

The importance of this system review at the start of the shift is to alert and dispatch the necessary personnel to address these issues before the day's rush hour or peak periods occur. One of the performance measures of Operations is always to have the highest level of equipment in a state of readiness. Operations cannot afford to have a time when they cannot alert motorists of events they may face during their travels because of these malfunctions.

Policy

RTMC Operators are required to check the readiness of each system and log any malfunctions or changes in the Help Desk Portal and the Equipment section of the Shift Report. The information required in this report is date/time, system, device, error, notified personnel, and any general comments. Entering data into the Help Desk Portal will create a work order distributed to the appropriate personnel.

If the malfunction(s) is system-wide, an immediate call to RTMC Management is required. Once notified, an Operator shall continue daily shift activities using the available systems.

At the shift change, each RTMC Operator should be debriefed by the RTMC Operator to be relieved of all equipment status and any maintenance performed during their shift. Also, the RTMC Operator must alert the oncoming shift if planned maintenance activities are scheduled during their shift.

Documentation

When completing a system review, it is required to update the Shift Report to reflect any issues, including error specifics, remedial action attempted, what personnel have been contacted, and the time the issue was resolved (if applicable).

WEB SITES

Overview

The RTMC uses various websites to assist with day-to-day activities within the Control Room. Each site provides valuable information, enabling the RTMC Operators to manage their responsibilities effectively.

Procedures

The following websites are currently utilized within the RTMC:

- FDOTD4Traffic.com
- IntraSMART
- FL511
- FHP Event List
- IVDS

#	Website	Description
1.	FDOTD4Traffic	The SunGuide RTMC main website contains many areas, such as real-time traffic information, which benefits the motoring public and participating agencies. The website also has valuable information on our Road Ranger, TIM, and SEFRTOC groups and the Performance Measures of the RTMC.
2.	INTRASMART	IntraSMART is the RTMC internal website or Intranet. Through this portal, the user can access the SunGuide Event Management System, valuable links to websites, and critical internal links, such as the employee calendar, department schedules, Help Desk Portal, MIMS, and Webmail.
3.	FL511	The FL511 site is an essential resource of the RTMC. By periodically checking this site, the RTMC Operator can check live traffic alerts and information in surrounding counties. In addition, the RTMC Operator can access cameras located in surrounding counties to create a route to get from one place to another. This also allows the view of any traffic issues that may affect the route.
4.	FHP EVENT LIST	The FHP Event list provides valuable information related to incidents that FHP has responded to. The site's primary purpose is to inform Operators of possible events and to obtain the FHP Incident Numbers to associate RTMC incidents to those FHP assisted.
5.	IVDS	The Interagency Video Distribution System (iVDS) site allows RTMC partner agencies to view our active events. Since this site mirrors the RTMC Event List, it is crucial that the quality of the data being presented is entered correctly and checked regularly. The RTMC Operator should ensure that dispatch times, comments, and general specifics associated with an event are always accurate. URL: https://ivds.smartsunguide.com/#/login

MIMS

Overview

The Maintenance and Inventory Management System (MIMS) is used to automate, centralize, and streamline the maintenance of ITS devices (CCTV, DMS, HAR, TSS) and respective SunGuide subsystems. MIMS was designed to maximize system uptime and be the technological glue that ties together operations and maintenance staff.

Policy

Upon detecting a new ITS Device failure, a MIMS Trouble Ticket will be created through the Intra-Smart website.

In the top panel of icons on the Intra-Smart website,

- Click on the MIMS icon,
- Then, log in using your Operator login and password information from SunGuide.

Operators will:

- Click on the MIMS tab to view the current MIMS ticket,
- Check ticket status,
- Create a Trouble Ticket.

Tickets must be created, and devices flagged as "not operational" whenever unavailable. A ticket should not be opened only when instructed by an Ops manager/supervisor or directly by the client.



Creating a Ticket

To open a MIMS ticket for a device that is in "Error" status:

1. After logging into MIMS.
2. Click on TASKS.
3. Click on TROUBLE TICKETS.
4. On the left side, click (green button): **ADD NEW TICKET** (add Trouble Tickets will pop up).
5. **ASSET CATEGORY** Click on the drop-down box (pick a category).
6. Click on the Tab **ADD ASSET(s)** (Green button).
7. Select Inventory will pop up; **SEARCH** or **ENTER** the device's name.
8. Scroll through the list of devices and highlight them. Click **OK**.
9. **Issue/Task Description:** Click on the reason for the device error/failure.
10. **Issue/Task Comment:** Type in a small description of the problem.
11. **Weather Condition:** Click on the weather conditions when the device error/failure occurs.
12. Click **Save** when complete.

Add Trouble Ticket

Device filters

Devices Only

Contract Group

Serial Number

Inventory Tracking #

Asset Category

Template

Location Category

Location

Add Devices

Operational?

Submitting Group

Managing Group

Issue Description (1)

Work Priority

Priority

- Emergency**
 - Only with exact message
 - Multiple elements down due to cabinet being struck (circuited)
 - Multiple CCTV's not responding on message area (BIS for example)
 - Circuit over/ with Load
- Urgent**
 - Express failures are urgent and if 4 or 3 or more devices should be upgraded to Emergency
 - 3 or more CCTV devices
- Priority**
 - Failed not (over) emergency or urgent but have reports to the Department's operations
 - Old failure via Priority and if it is 5 or more devices and should be upgraded to Urgent
 - First alarm - discrete
 - Single device message
 - Truck SWING
- Routine**
 - Old (BIS) failure not (over) emergency, urgent or priority
 - Device can be used
 - Continuous
 - Only one
 - High but longer but still operate

[selectable] - switch (not ping)	TSB	FLOD00197501 - 125853 CA-01 (158)	
[selectable] - connected CMS server and vlt	CCTV	1140-CCTV (CCTV)	
[selectable] - Redacted Camera, verified Cpe	CCTV	11570-CCTV (CCTV)	

Save **Cancel**

Select Inventory

ID	Name	Category	Tracking Number	Asset Template	Status	Contract Group	Operational Status
16702	16702_Venick 9170-4200-0002	CCTV	MT501533	Venick 9170-4200-0002	in-use	Broward ITS Maintenance	Unknown
12495	2757-CCTV	CCTV		Device-CCTV	in-use	US27 North Project	Unknown
12495	2759-CCTV	CCTV		Device-CCTV	in-use	US27 North Project	Unknown
12493	2753-CCTV	CCTV		Device-CCTV	in-use	US27 North Project	Unknown
12494	2755-CCTV	CCTV		Device-CCTV	in-use	US27 North Project	Unknown
✓ 12491	2749-CCTV	CCTV		Device-CCTV	in-use	US27 North Project	Unknown
12492	2751-CCTV	CCTV		Device-CCTV	in-use	US27 North Project	Unknown
12489	2745-CCTV	CCTV		Device-CCTV	in-use	US27 North Project	Unknown
12490	2747-CCTV	CCTV		Device-CCTV	in-use	US27 North Project	Unknown
12487	2741-CCTV	CCTV		Device-CCTV	in-use	US27 North Project	Unknown
12488	2743-CCTV	CCTV		Device-CCTV	in-use	US27 North Project	Unknown
12505	2774-CCTV	CCTV		Device-CCTV	in-use	US27 North Project	Unknown
12503	2772-CCTV	CCTV		Device-CCTV	in-use	US27 North Project	Unknown
12501	2758-CCTV	CCTV		Device-CCTV	in-use	US27 North Project	Unknown
12502	2770-CCTV	CCTV		Device-CCTV	in-use	US27 North Project	Unknown
12499	2764-CCTV	CCTV		Device-CCTV	in-use	US27 North Project	Unknown
12500	2766-CCTV	CCTV		Device-CCTV	in-use	US27 North Project	Unknown
12497	2761-CCTV	CCTV		Device-CCTV	in-use	US27 North Project	Unknown
12498	2763-CCTV	CCTV		Device-CCTV	in-use	US27 North Project	Unknown
12506	2775-CCTV	CCTV		Device-CCTV	in-use	US27 North Project	Unknown
12482	2731-CCTV	CCTV		Device-CCTV	in-use	US27 North Project	Unknown

Total Records: 580 (Selected Record: 1) (Records Displayed: 586)

OK Cancel

Asset filters

Contract Group: Palm Beach ITS Maintenance

Tracking #:

Asset Category: CCTV Template:

Location Category: Location:

Asset(s) Selected: **0570-CCTV - CCTV - in-use**
Device-CCTV Palm Beach ITS Maintenance

Submitting Group: Palm Beach ITS Maintenance

Issue/Task Description: Intermittent Video

Issue/Task Comment: Video cutting in and out

Managing Group: Palm Beach ITS Maintenance

Estimated Time in Hours: 0

Weather Conditions:

Asset(s) Operational?

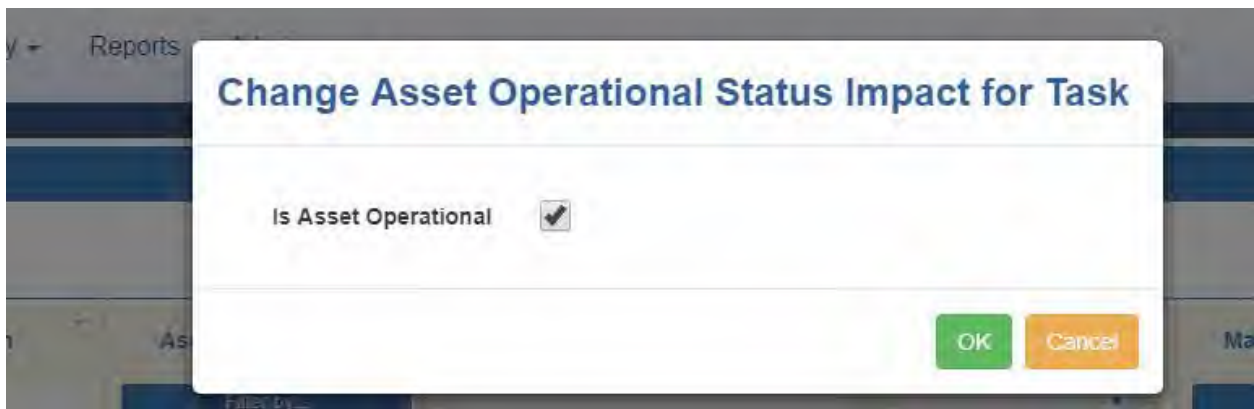
Maintenance

Maintenance requires Ops to click check box for them to close a ticket.

Under trouble ticket:

1. Click on **IN PROGRESS**.
2. Highlight: **TICKET WITH CHECK BOX**.
3. Click on **CHANGE OPERATIONAL STATUS** (so Maintenance can close the ticket).
4. Click on **ASSETS CURRENTLY OPERATIONAL**.
5. Click: **OK**.

ID	Priority	Status	Issue Description	Asset Category	Asset Name	Asset Operational	Managing Group	Current Owner
7697	Routine	Unresolvable	Communication Failure	DMS	MIRASWBFB	...	Brinwald ITS Maintenance	MIR C
7706	Routine	Unresolvable	Communication Failure	DMS	PIREZZIVBF	...	Brinwald ITS Maintenance	Woff C
8130	Priority	Resolved	No Communication DMS	DMS	SRJ4W5	...	ISS Dallas ITS Maintenance	Arman
8081	Priority	Unresolvable	No Communication DMS	DMS	HALL8888B	...	ISS Dallas ITS Maintenance	Arman
8850	Priority	In Progress	No Communication DMS	DMS	BROWN42BY	...	ITS Phase 3A1	Arman
9195	Priority	In Progress	Intermittent Video	CCTV	Q279-CCTV	...	ISS Phase 3A1	Arman
9138	Priority	Unresolvable	No Video	CCTV	Q279-CCTV	...	ISS Phase 3A1	Arman
2205	Routine	Resolved	Unknown Error TSB	TSB	FUG455126JH88	...	N3C ITS Maintenance	Frank S
30212	Routine	Resolved	Camera not functioning	HAR	H899NB1V	...	N3C ITS Maintenance	Frank S
3372	Routine	Resolved	No Video	CCTV	1390-CCTV	...	N3C ITS Maintenance	Brin C
3327	Routine	Resolved	No Communication TSB	TSB	PLDAD95191	...	N3C ITS Maintenance	Frank S
31328	Routine	Resolved	General Fault	HAR	HT806	...	N3C ITS Maintenance	Frank S



Its Field Device Damage

If a field device is hit by a vehicle or is damaged by other means, making the device inoperable, the RTMC Operator should notify ITS Maintenance immediately.

RTMC Operators should not notify FDOT Maintenance of any field device damage. ITS Maintenance can be contacted during business hours and non-business hours.

Documentation

After a MIMS trouble ticket is created or closed in SunGuide, the information must also be logged in the Shift Report.



4.05 Detection & Monitoring

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Document History

Version #	Date	Author / Editor	Changes
1.0	30/04/2024	Yana Neishlos	Initial Draft

ROAD RANGER DETECTIONS AND MONITORING

Overview

The Road Ranger Mission is to provide free highway assistance during incidents to reduce delays and improve safety for the motoring public and responders. The service patrol concept began in December 1999 and is known today as the Road Rangers. The service is free courtesy of the Florida Department of Transportation and its partners. The program was initially used for the management of vehicle incidents in construction zones and has since expanded to all types of incidents. It has become one of the most effective elements of the Department of Transportation's Incident Management program. The benefits of the program have been as follows:

- The reduction of accidents.
- The reduction of incident duration by assisting the Florida Highway Patrol.
- Assistance to disabled or stranded motorists.
- The removal of road debris.

The information provided by Road Rangers supplies the RTMC Operators with the necessary data required to enter traffic events in SunGuide. In the event an Operator cannot confirm an event via CCTV, the Road Ranger becomes the main source for confirmed incident information.

Broward RTMC is responsible for dispatching and monitoring the activities of the Road Ranger service in Broward, Palm Beach, Martin, St. Lucie, and Indian River Counties which operates 24 hours/7 days a week.

Policy

The first step requires the RTMC Operator to collect and log specific information obtained from the Road Ranger in SunGuide. This data is critical to incident management, when displaying messages on the DMS signs. The collected data is used to dispatch applicable additional services to the on-scene incident.

Once the Road Ranger arrives on the scene, they will verify and indicate the following areas of information that will be updated in SunGuide:

Type of Incident.	Direction.	Notified By.	Road Ranger Activity.	HazMat.	
Location of Incident	Proximity to Exit.	Contact Name.	Lane Closures.	Fire.	Vehicle information (Make, model, color, tag information).
Road Name.	Exit.	Dispatched To.	Injuries.	Additional Services Required (FHP, Rotational Tow, Fire, Ambulance, etc.)	

The above areas of confirmed information collected from the Road Rangers on site allow the RTMC to disseminate information. The RTMC can then inform FHP and other agencies as required. While on-site at active incidents/assists, the Road Ranger is required to inform the RTMC Operators of any changes in the incident. These changes may include the lane block pattern, severity of the incident, additional services required, and duration changes based on information from on-scene incident responders.

With the above information entered in SunGuide, the RTMC Operators can locate the event via CCTV (if CCTV view is available), post messages on the DMS signs, and then notify appropriate agencies of the active incident and its severity. For all events detected, document the camera used to view the incident and preset

in SunGuide. Upon the conclusion of their required on-site presence, the Road Ranger is required to inform the RTMC Operator of their departure and the final status of the incident. This will enable the RTMC Operator to take the appropriate actions needed for incident management requirements.

Providing Confirmation Numbers

Each event handled in conjunction with an Operator and a Road Ranger has a confirmation number automatically assigned by SunGuide. It is the responsibility of the Operator to provide the event confirmation number to the Road Ranger once all the pertinent information regarding the event has been received.

If a disabled vehicle requires cloning into an abandoned vehicle, the Road Ranger would receive two confirmation numbers. One for the attempted service provided to the disabled vehicle, the other for tagging the vehicle as abandoned. If the motorist is to be transported by the Road Ranger to the nearest exit, an Operator may provide the confirmation number on both the disabled and the abandoned to the Road Ranger before the transport, so that the Road Ranger need not return to the vehicle to tag as abandoned.

Gas Policy

Road Rangers are contracted to assist disabled vehicles that are out of fuel. Whenever a Road Ranger reports a disabled vehicle that is out of fuel, the Road Ranger must provide the vehicle information (make, model, color, and license plate) before providing fuel. The TMC Operator must verify the vehicle's license plate information to ensure that the motorist has not received fuel within the last thirty (30) days. The Road Ranger will provide one (1) gallon of gas to disabled vehicles in areas where gas stations are accessible. In Broward, the Road Rangers will issue gas when they feel it is necessary to help get the motorist on their way.

TMC Operators should not deny a vehicle fuel if any of the following criteria apply:

- If the vehicle is blocking a travel lane.
- If the vehicle is at a location that does not have immediate access to an exit ramp or a gas station within one (1) mile.
- If the vehicle does not have any prior history of receiving fuel.
- If the vehicle has not received fuel within the last thirty (30) days.

If the disabled vehicle has a prior history of receiving fuel, the Road Ranger should ask the motorist to attempt to start the engine of the vehicle to ensure that the vehicle is completely fuel. If the vehicle does not have any prior history of receiving fuel, the Road Ranger should not ask the motorist to attempt to start their engine and provide the vehicle fuel.

If after entering the disabled vehicle's license plate number in SunGuide, the TMC Operator receives notice that the vehicle's plate is flagged for being a repeated fuel offender; it will be at the discretion of the road ranger to decide whether fuel will be provided to the vehicle.

Interstate 75, also known as Alligator Alley in Broward County, has only one gas station located at Mile Marker 50. Therefore, whenever a motorist runs out of fuel in this area, their options are limited. TMC Operators should not deny a fuel request to any disabled vehicles that are broken down on Alligator Alley/I-75; this rule also applies to those motorists who are repeated offenders. Since the Broward RTMC's coverage area of Alligator Alley/I-75 is approximately thirty (30) miles, (Mile Marker 19 through Mile Marker 49), with one (1) access to a gas station at Mile Marker 50, the Road Ranger has the flexibility to give a disabled vehicle enough gas to make it to the next exit – the one (1) gallon gas restriction rule does not apply in this area.

Dispatching

Following are these guidelines for dispatching Road Rangers both in the general use and express lanes:

- Dispatch the closest (if known), Road Ranger, on the beat to an event.
 - If all Road Rangers on the beat is busy, call the Roaming supervisor and assign him/her to the event.
 - If the Roaming supervisor is busy, he/she must coordinate with other personnel and send an available party. It is his/her responsibility, not the TMC's.

- Express Lanes Road Rangers are only responsible for events in the Express Lanes.
 - If both are busy or you need additional resources to respond to an Express Lanes incident, call the Roaming Supervisor and he/she will respond or arrange the necessary resources.

- General Purpose Road Rangers are only responsible for events in the General-Purpose Lanes.
 - If both are busy or you need additional resources to respond to an incident in the general use lanes, call the Roaming Supervisor and he/she will respond or arrange the necessary resources.

- If a Road Ranger responds to an event (i.e., he arrives) he must be given an event number even if the motorist does not require assistance.

- If a Road Ranger requests Long Term MOT, call and request long-term MOT (no need to wait for SIRV).

- YOU MUST INCLUDE DETAILED NOTES IN SUNGUIDE!!!!!!

Roaming Road Ranger

The Roaming Road Ranger will patrol the entire Road Ranger coverage area seven days per week, including weekends. If a Road Ranger must be pulled from another beat for assistance in an event, the Roaming Road Ranger should be pulled first. While on duty, their responsibilities are:

- Observing and monitoring the Road Rangers during the performance of their duties, including the immediate correction of any observed Road Ranger errors. When errors are detected by an RTMC Operator, they shall make the Road Ranger aware of the issue and then follow Standard Operating Procedures regarding Road Ranger procedural errors. The Operator shall notify the Roaming Road Ranger for their response.
- Responding to all blocked lane events to lend assistance and supervision to all Road Rangers. RTMC Operators are to notify the Roaming Road Ranger of any lane blockage event.
- Helping any disabled vehicle encountered during their patrol. Like the Road Rangers, a Roaming Road Ranger shall continue assisting with any shoulder blockage even while responding to a lane blockage event.
- Availability as a last resort to respond to shoulder events received to FHP, CCTV, etc. only if all other resources have been exhausted, such as Road Rangers from other beats.

Treasure Coast Road Rangers

The Treasure Coast, Road Rangers operate 24 hours/ 7 days a week. There are eight trucks and a roaming supervisor on the highway in the tri-county area during these hours.

FHP DETECTIONS AND MONITORING

Overview

*FHP or *347 is a cellular phone program used by motorists to report drunk drivers, traffic crashes, stranded or disabled motorists, or any suspicious incidents occurring on Florida roadways. Motorists who dial *FHP from their cellular phones can contact the nearest FHP station free of charge, courtesy of participating Florida cellular phone companies. There are over 1,000 signs placed at strategic locations throughout Florida to inform motorists of the program.

Policy

An FHP-detected event requires the RTMC Operator to collect and log specific information into the SunGuide software. This information is critical to incident management, specifically in dispatching Road Rangers and, if the events warrant, displaying messages on the DMS signs. The collected information is also used to dispatch applicable additional services to the incident scene if needed.

The following are guidelines for FHP-detected event management:

- When the RTMC receives a call from FHP, the RTMC Operator should write down all information received from the FHP Dispatcher.
- The RTMC Operator should obtain the following from the FHP Dispatcher:
 - Type of Incident.
 - Location of Incident.
 - Road Name.
 - Lane Closure Information.
 - Vehicle Information (Make, Model, Tag Number).
 - Additional Information (Injuries, HazMat, Fire, etc.).
- Enter the event information as “Unconfirmed” into SunGuide.
- Attempt to locate the event on a corresponding CCTV (if applicable). Use the camera to collect information and details of the incident and document them in SunGuide.
- Dispatch a Road Ranger to the area, if applicable.
- For all events detected, document the camera that the event can be seen on and preset in SunGuide.
- Follow standard incident management procedures.
- If an FHP disabled vehicle event is verified via CCTV and is made active, then the vehicle drives away before assistance arrives, the event type is to be changed to “other” and a notation is made in comments. However, if the vehicle is disabled (hood up, motorist changing tire), and the vehicle drives away after the motorist completes work on the vehicle, the event may be closed with the event type remaining as “disabled” and a notation made in the comments.

CCTV DETECTIONS AND MONITORING

OVERVIEW

CCTV cameras are to be used to determine the details of traffic events in the RTMC geographical coverage area. In addition, they are a useful tool for detecting and verifying incidents and damage to the roadway. When monitoring CCTV cameras, care must be taken to comply with the Protection of Privacy Policy.

The Protection of Privacy Policy predominantly addresses the usage of CCTV camera images but is not meant solely for this purpose. Use of the CCTV cameras is the most visible and remains the highest concern regarding the dissemination of personal information. This policy establishes the guidelines that must be followed to protect an individual's right to privacy. The RTMC Operator must read, understand, and sign the Protection of Privacy form before the use of the CCTV system (see Figure 1-2 Protection of Privacy Form). Failure to follow these guidelines and those contained in the Protection of Privacy form may result in disciplinary action, including and up to termination.

POLICY

As a general policy, District Four RTMC does not record video images. For purposes of training staff or when freeway operations analysis is being performed, the RTMC Operators may record video images with the approval of the RTMC Operations Manager. This approval should in no way distract from the primary functions noted below. Recording for any other purpose without the approval of the RTMC Operations Manager is not permitted.

The following are guidelines for CCTV traffic monitoring:

- For routine monitoring, use the predefined presets which have been identified as the ideal tour views.
- At least twice per hour, or more frequently when time permits, the Operator is required to scan the complete RTMC geographical coverage area from one end to the other, including travel lanes, shoulders, and on/off ramps. The RTMC Operator should scan for:
 - Traffic incidents.
 - Disabled Vehicles.
 - Scheduled Traffic events.
 - Damage to infrastructure.
 - Vandalism and/or theft of infrastructure.
 - Pedestrians in areas that should not be present.
- Whenever cameras are not being used for scanning, return them to the first preset programmed in the tour (Preset 1). This preset has been established as the ideal camera focus and is directed to view as much of the traveled roadway as possible.
- Look for a traffic event or the following visual clues indicating a traffic event:
 - Very light flow or no flow at locations and times when the heavier flow is expected.
 - All or most vehicles change lanes at a particular location.
 - Vehicles slowing or stopping at a particular location.
- Periodically check areas where queues typically build-up, including bottlenecks, busy on-ramps, and known construction areas.

If you see some of these indicators of a traffic event, but cannot locate the event using CCTV, investigate more thoroughly using:

- Other RTMC agency cameras.
- Road Rangers.
- Florida Highway Patrol.
- If an incident is detected:
 - Use the camera to collect information and details of the incident and document the camera and preset used. Do not zoom in too close to avoid invading public privacy.
 - Enter data into SunGuide.
 - If assistance is needed at the scene, contact the appropriate authorities.
 - If the incident meets DMS posting requirements, immediately put up the applicable message on the appropriate sign(s).
 - If the incident meets HAR posting requirements (full closures or lane blockages >30 minutes), immediately put up the applicable message on the Highway Advisory Software.
 - Once the required data has been collected, entered, and DMS posted, scan the entire area looking for secondary accidents. Make sure to zoom out, check shoulders, and pan the camera around to view cars approaching the scene.
 - If a secondary accident occurs, follow standard incident management procedures and notify the appropriate authorities.
 - Monitor other cameras in the area for congestion.
 - While managing the incident, maintain the camera focus on the area until all responding agencies (i.e., Road Ranger, FHP, EMS, and Fire Rescue) have departed.
- If an Operator is in the process of scanning the roadways and a call is received either from a Road Ranger, FHP, FDOT personnel, etc., ensure you return the camera to the first preset programmed in the tour.
- For all events detected, document the camera used and preset in SunGuide. Maintain the camera focus on the vehicle while also zooming out far enough to monitor the rest of the roadway. Do not just focus specifically on the event.
- Do not direct the camera towards a light source, the sun, or highway luminaries. This can damage the camera after prolonged or repeated occurrences.
- If a disabled vehicle is detected and entered as active, and the vehicle drives away before RTMC assistance, the event type is to be changed to "other" and a notation is made in comments indicating such. The event is then to be closed in the system. If the vehicle was obviously disabled (hood is up on the vehicle, motorist changing tire, etc.), then proceeds to drive away before RTMC assistance, the event will still be closed out and a notation made in comments indicating exactly what was viewed on the camera. However, here, the event type may remain as "disabled."
- Do not zoom into serious injury or fatality crashes unless it is essential for traffic management procedures or at the request of Management. In cases where RTMC Operations need to zoom into a fatality or serious injury scene, the camera ID will be disabled from the public website via the SunGuide Software or by IT.

Figure 1-2 Protection of Privacy Form

I have read and understood the policy/guidelines established in Section 1.4 Protection of Privacy Policy and will follow them to the best of my abilities.

Printed Name: _____

Signature: _____

Date: _____

District 4 Regional Transportation Management Center

MOTORIST CALLS

Overview

*FHP or *347 is a cellular phone program used by motorists to report non-emergency events such as drunk/reckless drivers, road debris, and stranded or disabled motorists on Florida highways. Motorists who dial *FHP from their cellular phones can contact the nearest FHP station free of charge, courtesy of participating Florida cellular phone companies.

Policy/Procedures

When answering calls forwarded by the *FHP (*347) lines, you must exercise excellent listening skills and learn to use patience to deal with people who may be upset or angry. You must also possess the ability to answer the call while fielding radio calls and be able to control the conversation politely and professionally. It is not only what is said, but also how it is said. Motorists calling the RTMC expect to receive prompt, courteous, and professional service. The impression you make when answering the telephone reflects on the RTMC and FDOT.

In the event an irate caller becomes belligerent and verbally abusive, offer to transfer them to a supervisor. If a supervisor is not available, offer to take their name and phone number and have an RTMC Supervisor/Manager contact them during regular business hours. If the caller still wants immediate assistance, politely inform them that you will now transfer the call to the Florida Highway Patrol.

Please be reminded that even though the Road Ranger service is a free service, you should never say "it's a free service to motorists." A much better way to respond is, "I'm sorry, the Road Ranger is (on another call, at an accident, etc.) and it is currently hard to say how long before he gets to you."

As with any other incoming call to the RTMC, it is the responsibility of the operator to answer promptly, within three rings. When answering calls received on the motorist assistance line, the phone is to be answered "Road Rangers Service, this is _____ speaking, how may I help you?"

While most calls will be to request Road Ranger assistance, occasionally you may get reports on these issues:

- Vehicle accidents.
- Disabled vehicles seen on the highway.
- Debris in the roadway.
- Pedestrians on the roadway.
 - Ask for the name of the person and telephone number reporting the incident. If a caller is not involved and wishes to remain anonymous, do not persist in obtaining the name. Continue gathering other pertinent information.
 - Enter the Reported Location information (county, roadway, direction, reference, etc.).
 - Enter Event Status (event type and event status).
 - Most new events will be created with the event status as "UNCONFIRMED" until the vehicle can be found on CCTV, or a Road Ranger arrives.
 - Enter the Vehicle Involved (color, make, model, license plate number, state).
 - If a motorist does not know their tag number, DO NOT instruct them to exit the vehicle to obtain the information.
 - Enter Actions taken (false alarms, existing event, new event).
- You are required to make every effort to locate the motorist on camera while the motorist is on the line to assist with putting the motorist at ease.
- Select the Notifying Agency, which will be 'Motorist'.
- Dispatch a Road Ranger to the motorist.

- Follow standard incident management procedures.
- If a motorist reported a disabled vehicle event is verified via CCTV and made active and the vehicle drives away before assistance arrives, make a note in the comments, close the event and cancel the Road Ranger or FHP.

Common questions from the motorist:

- What is the estimated time of arrival for assistance? Explain to the motorist that a Road Ranger will be dispatched immediately upon hanging up the phone with them and that the roadways are continuously patrolled. Tell them assistance will arrive as soon as a Road Ranger can reach them safely.
- Why can't I receive immediate assistance? Explain to the motorist that Road Ranger assistance is provided free of charge, courtesy of FDOT. If they would like, they may contact a tow company or FHP for a rotation tow at their expense.
- Should I exit my vehicle? It is not suggested that a motorist leave their vehicle at any time. However, if there is a situation where a vehicle is inoperable in an unsafe area (for example, in a center lane or in a travel lane located around a bend or where oncoming traffic would have an obstructed view of the vehicle), then you may communicate to the motorist that they may exit their vehicle if they feel it is safe to do so in order to get to a location where they feel safer.
- I do not know where I am. If the motorist doesn't know their location, ask them to look around to see if they can locate an exit sign, exit number, or landmark to assist you with locating them.
- When in doubt – Certain circumstances may occur where you are unsure how to assist the motorist, such as a report of a drunk driver, or a pedestrian, or if you are unable to locate the motorist via CCTV or Road Ranger. In these circumstances, the call should be transferred to FHP for assistance.

To transfer calls to FHP dispatch:

Inform the motorist you will be transferring the call to Florida Highway Patrol and that they will listen to music for a short time. Assure them that you will remain on the line until the call is picked up. Advise them that if they should be disconnected, they should call back on *347.

- Select the "transfer" button on the telephone (this will place the motorist on hold while you dial FHP).
- When FHP picks up, identify yourself and advise the dispatcher of the type of call you will be transferring.
- Select the "transfer" button again to send the call.

Calls from motorists located on roadways other than Broward, Palm Beach, Martin, St. Lucie, and Indian River Counties:

- 595 Express - Take the information from the motorist and contact 595 Express LLC RTMC to have them take ownership of the event for a response.
- Miami-Dade County – Take the information from the motorist and contact District Six office and relay the information to them to handle the event.
- Florida's Turnpike/Sawgrass Expressway SR 869 – Take the information from the motorist and contact Florida's Turnpike Pompano RTMC and relay the information to them to handle the event.
- Collier County – Transfer the call to FHP.
- Other roadways in Broward, Palm Beach, Martin, St. Lucie, and Indian River Counties that are non-emergency situations (e.g., State Road 84) – Direct the caller to contact local police or a tow truck service.
 - Broward Sheriff's Office 954-765-4321 (non-emergency).
 - Palm Beach Sheriff's Office 561-995-2800 (non-emergency).
 - Martin County Sheriff's Office 772-220-7000 (non-emergency).
 - Saint Lucie County Sheriff's Office 772-462-7300 (non-emergency).
 - Indian River County Sheriff's Office 772-569-6700 (non-emergency).
- For all emergency calls – direct the caller to hang up and dial 9-1-1.

OTHER DETECTION SYSTEMS

Overview

Florida's Turnpike Enterprise, FDOT District Six, 595 Express LLC, and other partners may call the RTMC with information on events detected. These events may be located within or outside the RTMC coverage area. At times, events outside the RTMC coverage area are important to document because they may have an impact on our partnering agencies or districts bordering the RTMC coverage area.

Policy

As with any other incoming call to the RTMC, it is the responsibility of the Operator to answer promptly, within three rings. When a call is received from FDOT District Six, Florida's Turnpike, and 595 Express LLC, the RTMC Operator should respond in the highest professional manner possible.

- The RTMC Operator is required to collect and log specific information into SunGuide software all information received from Florida's Turnpike, 595 Express LLC, or others. This information is critical to incident management, specifically in dispatching Road Rangers and, if the event warrants, displaying a message on DMS signs. The collected information is also used to dispatch applicable additional services to the incident scene if needed.
- The RTMC Operator should obtain the following from Florida's Turnpike, FDOT District 6, and 595 Express LLC:
 - Name of Dispatcher.
 - Type of Incident.
 - Location of Incident.
 - Road Name.
 - Direction.
 - Proximity to Exit.
 - Exit.
 - Lane Closure Information.
 - Vehicle Information (Make, Model, Tag Number).
 - Additional Information (Injuries, HazMat, Fire, etc.).
- Enter the "Unconfirmed" event information into SunGuide.
- Dispatch a Road Ranger and attempt to locate the event on a corresponding CCTV. If possible, use the camera to collect information and details of the incident and document them in SunGuide. For all events viewed on camera, document the camera, and preset in SunGuide.
- Follow standard incident management procedures.
- If Florida's Turnpike Enterprise, District Six, or 595 Express LLC, disabled vehicle event is verified via CCTV and is made active, then the vehicle drives away before assistance arrives, the event type is to be changed to "other" and a notation made in comments. However, if the vehicle is disabled (hood up, motorist changing tire), and the vehicle drives away after the motorist completes work on the vehicle, the event may be closed with the event type remaining as "disabled."



4.06 Event Evaluation

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Document History

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1.0	04/30/2024	Yana Neishlos	Initial Draft

PERSONAL INJURY or PUBLIC SAFETY CONCERN

Overview

The first step in managing an Active Traffic Event (ATE) detected in the RTMC coverage area is to determine the severity of the event. The most critical thing to determine when evaluating event severity is whether there is personal injury or risk to public safety so that the appropriate emergency agencies are advised.

In practice, it is not always possible to evaluate event severity thoroughly and accurately. If personal injuries or public risk are suspected but cannot be confirmed, proceed as if they had been confirmed, advising the emergency agencies that are contacted of any assumptions that have been reported to the RTMC.

Procedures

The following are indications to look for when evaluating the severity of an event:

Personal Injuries

- When a vehicle has been involved in an accident, assume there is personal injury if:
 - The vehicle has rolled.
 - An occupied vehicle is on fire.
 - The passenger compartment is crushed or dented.
 - A pedestrian or cyclist has been hit.
 - A passenger has been thrown from the vehicle.
 - A passenger is obviously bleeding.
 - No passengers have left the vehicle, and one or more are not moving.
 - Someone appears to be trying to help or move a passenger.
- For an occupied vehicle that does not appear to have been in an accident, assume a medical emergency if:
 - The vehicle pulls over or stops erratically and the driver appears to be in medical distress.
- A pedestrian on the freeway walking in a travel lane without regard for his or her own safety.

Risk To Public Safety

Consider any of the following on-street situations a risk to public safety:

- An individual in a dangerous position outside of a vehicle, such as:
 - Attempting to repair a vehicle in a travel lane, particularly without an emergency vehicle's warning lights or an equivalent level of protection.
 - An individual attempting to cross a freeway or walking on a freeway.
 - A cyclist on a freeway.
- A vehicle that is a hazard to other road users, e.g.:
 - A stopped or slow-moving vehicle on the freeway requires other motorists to stop suddenly or swerve to avoid it.
 - A stopped vehicle in a location where it is known that there is insufficient stopping or passing sight distance under the

- conditions at the time, such as around a curve or just over an overpass.
 - A vehicle that is being operated in an unsafe manner, including excessive speed, or with frequent, non-signalized lane changes.
 - A vehicle or roadside fire.
- A spill of hazardous material, such as:
 - Fluid leaking from a vehicle following an accident could be considered hazardous.
 - If a tanker truck is leaking its contents, look for identification of the substance written on the vehicle. Refer to the Emergency Response Guidebook located at each Operator station to identify the placard on the side of the truck.
- Other circumstances that pose an immediate risk to public safety.

PRIORITY LEVELS

Overview

Some events in the RTMC coverage area will involve personal injury, the risk to public safety, or extensive lane blockage. These events will warrant the assistance of a Road Ranger and/or additional responding agencies, such as the Florida Highway Patrol.

There are two classification levels used in the RTMC. When assigning a severity level classification, you must consider the total number of travel lanes at the location of the incident. The SunGuide software automatically generates the Incident Severity depending on the impact to traffic or the total number of travel lanes affected.

Procedure

Level 2 Intermediate

This event is categorized as impact to the traveled roadway which is estimated to be less than 2 hours with lane blockages, but not a full closure of the roadway. Some general examples of a Level 2 priority event are:

- An event detected on a traveled roadway via a CCTV and lane blockage is visible.
 - An event detected by a Road Ranger on the scene with lane blockage and does not have an estimated clearance time.
 - An event involving injuries with impact on travel lanes being blocked.
-

Level 3 Major

This event is categorized as impact to the traveled roadway which is estimated to be more than 2 hours and/or the roadway is fully closed in any single direction. The main distinction of a Level 3 priority event is the likeliness of significant area-wide congestion. Some general examples of a Level 3 priority event are:

- An event with an impact on the traveled roadway is estimated to be more than two hours.
 - An event where a Traffic Homicide Investigator is called to the scene.
 - An event with full traveled roadway lane blockage (i.e., all lanes) in any single direction.
 - An event involving a fatality, even if there are no lanes affected.
 - A Rapid Incident Scene Clearance (RISC) event.
 - An event involving an overturned large commercial vehicle (i.e., tractor-trailer, dump truck, tanker, etc.).
 - An event involving a HAZMAT spill.
-

On many occasions, the level of priority for an incident will escalate to the next level. However, an incident will never decrease. There will be unique and unusual incidents not easily classified at a specific level. In the event the RTMC Operator is unsure about the classification, refer to the RTMC Operations Supervisor for clarification and final judgment.

Within SunGuide, the event severity is computed automatically by the system and cannot be modified by an operator. The severity is determined based on the following:

- Minor: Lane blockage less than a ½ hour.
- Intermediate: Lane blockage between a ½ hour and 2 hours.
- Major: Lane blockage over 2 hours or a full closure (a “full closure” means all travel or exit lanes blocked).

UNIQUE AND UNUSUAL INCIDENTS

Overview

Unique or unusual events are defined as traffic events that are not typical in characteristic of common incidents documented in the RTMC. To ensure a quick and efficient response, guidelines, and procedures for handling unique or unusual types of incidents are outlined for operations. Following these guidelines will help result in improved safety and to ensure that all incidents are properly handled, documented, and processed in support of the overall mission of the RTMC.

With the events of September 11, 2001, still in all our memories, and other terrorist events happening around the world, the responsibility of the RTMC has vastly increased. The RTMC will assist at its maximum, in the unlikely event that another incident of similar severity happens. This guideline will also address other events considered abnormal, e.g., protests and suicides. Because of the infrequency of these types of occurrences, it is important for the Operator to notify RTMC Management immediately upon detection or being notified of an incident that falls under this scope.

Procedure

Whether or not an event fits this guideline, two criteria should be considered: personal injury or public safety risk. These two characteristics of an event are independent. Hence, a particular event may have one, both, or neither characteristic. Events declared by the RTMC Operations staff to be "September 11th" incidents require special attention. Contact the RTMC Operations Supervisor at once and provide the following information:

- The date and Time event was detected/reported and verified.
- Type of Event (i.e. protest, suicide, terrorist, chemical spill, natural disaster).
- Roadway and location.
- Lane block pattern.
- What was involved (buildings, bridges, ships, trains)
- Emergency vehicles on the scene.
- Estimate the duration of the event.
- Who was contacted and/or notified.
- External devices are currently available and being used for the event.

If the RTMC Operations Supervisor and RTMC Manager are not available, contact the ITS Operations Project Manager and follow the above briefing outline. After contact is made, the Operator may be instructed to contact the FDOT District 4 Public Information Officer (PIO) with the event information.

With the preceding information, the RTMC Operator will enter all applicable information in SunGuide as event type "Other". After the data has been entered, the next step is to obtain approval from the RTMC Management to create a Level 3 Incident Email Alert Notification.

These emergency notifications are intended to alert partnering agencies that a traffic event has occurred and to give them the option to respond to the situation earlier than normal.

Documentation

All unique or unusual incidents will require the information to be entered into SunGuide, the printing of the SunGuide event chronology, and documentation in the Shift Report.

EVENT STATUS GROUPS

Overview

When assigning a status group to an event or incident, it is important to notify the agency of the occurrence. An incident is an occurrence that involves travel lane blockage. An event that does not involve travel lane blockage, however, can very well have an impact on traffic patterns, such as a disabled vehicle on a shoulder. There are six status groups into which the RTMC categorizes events into:

- Active (Both with and without travel lane blockage).
- Unconfirmed.
- Unresolved.
- Closed.
- False Alarm.
- VOID.

Procedures

ACTIVE (WITH TRAVEL LANE BLOCKAGE)	An active event with travel lane blockage is an “incident” and has been confirmed via Road Ranger, CCTV, or SIRV Unit. The RTMC Operator must have this confirmation from one of these units before making the event active.
ACTIVE (WITHOUT TRAVEL LANE BLOCKAGE)	An active event with no travel lane blockage has been confirmed via Road Ranger, CCTV, or SIRV Unit. These events have a lane obstruction on the shoulder of the roadway. RTMC Operator must receive this confirmation from one of these units before making the event active.
UNCONFIRMED	An unconfirmed event can be an “incident” or “event”. These occurrences have not been verified by a Road Ranger, CCTV, or SIRV Unit. Once the unconfirmed event is verified, it moves to an Active category depending on the travel lane blockage. Also used for: <ul style="list-style-type: none"> • Move Over Messaging. • PSA’s. • Interagency events. • Events that are not required to be posted on the public website.
UNRESOLVED	An unresolved event is one that the RTMC has managed and assisted, but the vehicle remains on the shoulder. Once the vehicle is removed from the shoulder, the status will be changed to Closed.
CLOSED	A closed event is one that the RTMC has managed and assisted, and the vehicle is no longer obstructing any lanes. Once the vehicle is moved into the closed status, the event can no longer be accessed from the Event List window.
FALSE ALARM	A false alarm event is one that the RTMC attempted to locate, but the dispatch location was not found. An example of this would be FHP calling in an accident, the RTMC dispatches the Road Ranger, but the Road Ranger was unsuccessful in locating the accident. The incident also is not visible via CCTV.
VOID	A void event is one that was created in error. An example of an event with a void status would be creating a duplicate event in the SunGuide system.

Status Change

Many situations arise during the life cycle of an event. On certain occasions, an event will move from one status group to another. There are several scenarios of this. Below is an example of a change in event status:

An FHP Operator calls in a **disabled vehicle** located in the left lane. The event is entered into SunGuide with an **"Unconfirmed"** status. The RTMC Operator is unable to confirm the incident via CCTV, The RTMC Operator dispatches a Road Ranger to verify the lane blockage.

Once the Road Ranger confirms the blockage, the RTMC Operator moves the event into **"Active."**

The Road Ranger assists with the "Incident" by moving the vehicle to the shoulder. Once the vehicle has been moved to the shoulder, if the Road Ranger clears the scene without the disabled vehicle being able to drive off, the RTMC Operator moves the incident into **"Unresolved."**

The RTMC Operator continuously monitors the event and dispatches a Road Ranger to check on the vehicle. The Road Ranger updates the operator stating that the vehicle is being towed away. Once the vehicle has been towed, the RTMC Operator moves the event into "Closed" status.

SECONDARY INCIDENTS

Overview

The Federal Highway Administration reports that approximately 20 percent of all incidents are secondary in nature¹. Secondary incidents in high-speed traffic can be severe, even fatal. Secondary crashes that are severe can occur at the boundary between free-flowing, highway-speed traffic and stopped traffic at the end of a traffic queue. As such, it is important to monitor the traffic queue and provide advance warning to approaching motorists as the length of the queue grows.

A crash that occurs because of the congestion or distraction from a prior incident is referred to as a “secondary crash.” An incident is considered “secondary” if it occurs upstream from the primary incident and is within the duration and queue of the primary incident.

More specifically, a “secondary crash” is the result of unplanned incidents (starting at the time of detection) for which a response or intervention is taken, where a collision occurs either within the incident scene or within the queue (which could include the opposite direction) resulting from the original incident including, but not limited to:

- Rapid backward queue formation (as vehicles suddenly stop to avoid the first crash).
- Driver distraction (rubbernecking).
- Emergency vehicle maneuvers.
- Queues occurring in the opposite direction of the incident.
- On arterials when the queue extends off the highway.

Non-recurring congestion resulting from incidents is also considered a secondary event.

Policy

To reduce the chance of secondary crashes, it is the responsibility of the incident response team to direct traffic and remove obstructions from the crash scene as efficiently and safely as possible. By clearing the roadway, the crash will create less of a distraction to drivers allowing them to focus on driving.

Traveler information systems such as Dynamic Message Signs, Highway Advisory Radio, 511, email text alerts, and the FDOT D4traffic website also help by informing drivers of crashes, providing them with the information that traffic is slowing ahead, and providing the opportunity to avoid the situation through rerouting.

It is the responsibility of the RTMC to continually monitor the end of the traffic queue in both directions and provide regular updates via email text alert and 511. (In the future, DMS will also be used to report queue length). As the queue extends beyond the sight of the incident response team (Road Rangers and Severe Incident Response Vehicle), the RTMC is responsible for providing regular updates to them so that maintenance of traffic (MOT) can be upgraded as needed.

Creating and Monitoring a Secondary Event

Once an incident is determined as “secondary,” a new event is created in SunGuide by pressing “CLONE EVENT.” The system will then create a new event linked to the primary.

- If the primary event is a fatality or involves injuries, then the secondary event does not need to reflect the state of injury.
- If the secondary event is an accident, the accident shall be handled in the same as any other event, except being linked to the primary.

¹ Federal Highway Administration Office of Operations Webpage, "Traffic Incident Management," www.ops.fhwa.dot.gov/aboutus/one_pagers/tim.htm.

- The image is only relevant if you do not clone the event, but another event has been created separately and you go ahead and link the event to one from the drop menu.

Event Details

FHP Incident #:

Event Type: Other Hazmat Fire Rollover

Nearest CCTV: Preset: Timestamp:

Disable VisioPad detection while event is active

There are currently no vehicles involved.

Link to Primary Event: N/A

Secondary Event:

Injuries:

SAE Description:

Comments

Operator:

Event History

Date	Description
01/12/2011 13:42:05	747738-Disabled Vehicle, Broward on I-95 Southbound, Ramp To Exit 28D, I-595 W
01/12/2011 13:42:05	747731-Abandoned Vehicle, Broward on I-95 Northbound, Beyond Exit 26, SR-814, Atlantic Blvd
01/12/2011 13:42:05	747739-Other, Broward on I-75 Southbound, At Mile Marker 41
01/12/2011 13:42:05	747742-Abandoned vehicle, Broward on I-95 Northbound, Before Exit 19, SR-824, Pembroke Rd



4.07 External Communication Systems

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1.0	04/30/2024	Yana Neishlos	Initial Draft

DMS MESSAGING

Overview

The following procedures will assist in the creation of DMS/Arterial DMS messages and ensure all messages are properly selected, documented, and disseminated in support of the overall mission of the RTMC.

The Eighty-five (85) Dynamic Message Signs (DMS) are electronically illuminated signs that are strategically placed in locations along I-95, I-75, and the Broward RTMC coverage area of I-595. These signs are controlled by the RTMC through the SunGuide software. These signs provide motorists with real-time traffic information related to lane-blocked events, traffic delays, construction, emergency operations, etc.

The forty-eight (48) Arterial Dynamic Message Signs (ADMS) in Broward and Palm Beach County are located along Interstate 75 and 95 corridors. The ADMS displays incident messages informing drivers when the lanes are blocked on the highway. The ADMS are located on most of the major arterial routes approaching I-95 and on Pines Boulevard and Miramar Parkway approaching I-75.

Procedures

Activate

There is a seven-step process to activate DMS signs. Here are the basic instructions:

- Enter the information in SunGuide.
- Read the sign message in the response plan (rather than just checking to see that the proper signs are chosen).
- Verify which signs are being chosen for the event (review the DMS search radius to make certain it makes sense for the event).
- Verify that if one Arterial DMS (ADMS) is selected the opposite ADMS at that location is also selected.
- Activate the plan.
- Review the public website.
- Check the DMS if visible via CCTV or verify with a Road Ranger if not visible via CCTV.

*** Note in the event comments the signs and message were indeed checked.**

- DMS messages are posted when there is a lane blockage, for Vehicle Alerts, and approved special events and public service announcements.
- Whenever possible, SunGuide response plans must be used to generate DMS Messages. If there is no response plan, messages must be selected from the approved message library.
- RTMC Operator is required to obtain approval from the RTMC Lead Operator. If the RTMC Lead Operator is not available, approval should be obtained from the RTMC Operations Supervisor and/or RTMC Manager before the submission of the message posting.
- DMS messages are not posted when an event has not been confirmed via Closed Circuit Television (CCTV), Road Ranger, or a SIRV Unit.

Monitor

- Upon activation, Operators must verify that the signs are activated. Verification is done via CCTV (if applicable), public website, and the SunGuide queue manager.
- Once a DMS has been activated and posted, the RTMC Operator will monitor the sign(s) to ensure the correct message is displayed, and there are no failures and/or errors.
- The sign(s) shall be monitored until the event has been cleared.

- When possible, use CCTV to confirm that messages on signs are accurate.

Update

- Update event information promptly.
- The integrity and accuracy of the DMS rely primarily on timely updates of information.

Blank

- Once the RTMC Operator has received confirmation of Event Clear, the DMS shall be immediately blanked.
- Monitor the sign status and the website to ensure that all messages have been removed from the signs. Verify via CCTV, public website, and the SunGuide queue manager that the signs have been blanked.
- In cases where the sign fails or is in error status and cannot be seen via CCTV, operators should dispatch a Road Ranger to verify that the sign is blank.

Multiple Event Signing

DMS selection is determined by the sign location in relation to the lane blockage.

- **Two incidents** - one located on I-95 **Northbound at Commercial** with one right lane blocked and the other located on I-95 Northbound beyond Commercial with two right lanes blocked, the DMS sign for both events are located on I-95 Northbound before Oakland Park Blvd.

Since the DMS sign is located closer to the incident at Commercial, the RTMC would sign for this event and once it clears, sign for the other one located beyond Commercial.

- **Two Incidents** – One located **northbound at Sunrise Blvd** with the right lane blocked and the other located beyond Sunrise Blvd with all lanes blocked: on the nearest DMS approaching the events, the RTMC will message for the most serious event, all lanes blocked event.
- **Two Incidents with the same location** – One located **southbound** at Broward Blvd with the left lane blocked and the other at the same location with the right lane blocked: the RTMC will message for the left lane blocked event on the nearest DMS.
- **Two Incidents with the same location** – One located **northbound** at Griffin Rd with the left lane blocked and the other at the same location with two right lanes blocked: on the nearest DMS approaching the scene, the RTMC will message for the two right lanes event being that it has the larger impact to traffic.

If signing up for a Silver Alert or pre-messaging for construction that will occur in the future, a current lane closure will take precedence.

Two Phase-Messaging

The capability of a DMS to alternate between two separate messages allows the RTMC to get the maximum information to the motorist on the road in a quick, efficient manner. This allows great flexibility and freedom when signing up for multiple events or giving more detail to the motorist on a single event.

Careful review of proposed messages by RTMC Operators is critical to ensure that unclear or conflicting messages are not displayed. This method of displaying messages also requires greater diligence on the part of the RTMC Operator, in that as events are updated, they are handled accurately.

Currently, the RTMC uses two-phase messaging for Vehicle Alerts, reporting how many miles ahead there is any lane blockage, and merging Express Lanes with GU events.

DMS Critical Errors

A Critical DMS Error occurs when the contents of the message displayed are incorrect. Examples of critical errors are signs activated in the wrong direction, spelling errors on the sign, unusual characters, signs posted beyond the event location, failing to blank the sign after the event has cleared, wrong message on the sign, and using incorrect abbreviations of words. When it is discovered that a DMS is still active with a lane blockage message after the event was closed, or any other Critical DMS Errors, the following procedures must be followed:

- Immediately blank or clear the sign.
- Notify the RTMC Operations Supervisor as soon as possible and provide a description of the error.
- If the sign does not respond to the RTMC Operators' request, refer to Section 4.11.03 - DMS Equipment Failure.

Multiple DMS critical message errors that are the direct result of an operator's failure to follow procedure will result in the Operator being given an Issue Resolution and possibly further disciplinary actions.

Documentation

When a DMS sign fails or goes into error status, you must log such information in your comments, update the lead and create a MIMS ticket if one hasn't been created. If a ticket has already been created update your comments with the MIMS ticket number that was created.

Abbreviations on DMS

It is always preferable that words be spelled out in DMS messages to reduce confusion for motorists who may interpret abbreviations differently. The list of acceptable abbreviations that can be presented to motorists is shown in Section 1A.14 of the MUTCD.

Word	Abbreviation	Prompt Required	Typical Prompt Format
Access	ACCS	Yes	ACCS (Road)
Afternoon/Evening	PM		
Ahead	AHD	Yes	(ACCIDENT) AHD
Alternate	ALT		
Avenue	AVE, AV		
Bicycle	BIKE		
Blocked	BLKD	Yes	(LANE) BLKD
Boulevard	BLVD		
Bridge	BRDG	Yes	(BRIDGE NAME) BRDG
Center	CNTR		
Chemical	CHEM	Yes	CHEM (SPILL)
Circle	CIR		
Clear	CLR		
Condition	COND	Yes	(TRAFFIC) COND
Congestion	CONG	Yes	(TRAFFIC) CONG
Construction	CONST	Yes	CONST (AHEAD)
Court	CT		
Crossing	XING		
Delay	DLY		
Downtown	DWNTN	Yes	DWNTN (TRAFFIC)
Drive	DR		
East	E or EB	Yes	E (street name)
Eastbound	EB or E-BND		
Emergency	EMERG or EMER		
Enter, Entrance	ENTR		
Exit	EXT	Yes	(NEXT) EXT
Express	EXP	Yes	EXP (LANE)
Expressway	EXPWY		

Word	Abbreviation	Prompt Required	Typical Prompt Format
Freeway	FWY		
Friday	FRI		
Hazardous	HAZ	Yes	HAZ (DRIVING)
Hazardous Material	HAZMAT		
High Occupancy Vehicle	HOV		
Highway	HWY		
Information	INFO		
Lane	LN		
Left	LFT		
Maintenance	MAINT		
Major	MAJ	Yes	MAJ (ACCIDENT)
Mile(s)	MI	Yes	(number) MI
Miles Per Hour	MPH	Yes	(number) MPH
Minor	MNR	Yes	MNR (ACCIDENT)
Minute(s)	MIN	Yes	(number) MIN
Monday	MON		
Morning/Late Night	AM		
North	N	Yes	N (street name)
Northbound	NB, North, or N-BND		
Parking	PRKG or PKING		
Parkway	PKWY		
Pedestrian	PED		
Right	RHT		
Road	RD		
Roadwork	RDWK	Yes	RDWK (AHEAD)
Route	RTE		
Saturday	SAT		
Service	SERV		
Shoulder	SHLDR	Yes	(ON) SHOULDER
South	S	Yes	S (street name)
Southbound	SB, South, or S-BND		
Street	ST		
Sunday	SUN		
Temporary	TEMP		
Thursday	THURS		
Traffic	TRAF		
Travelers	TRAVLRS		
Tuesday	TUES		
U.S. Numbered Route	US		
Vehicle(s)	VEH	Yes	(DISABLED) VEH
Warning	WARN		
Wednesday	WED		
West	W		
Westbound	WB, WEST, or W-BND		

SUNGUIDE ALERTS

Overview

SunGuide Alerts are text or email messages containing real-time Sun-Guide-based Lane closure and vehicle alert information. These messages are sent to partner agencies and are available to the public by subscription. SunGuide Alerts – are one of the most visible External Communication Systems provided by the RTMC. As such, great care should be taken when creating and sending them.

Notification

The RTMC generates the contents of the SunGuide Alert Notifications through the Response Plan Email editor.

The screenshot shows the SunGuide Alert Notification Editor interface. It is divided into several sections:

- Subject:** A drop-down menu with "Select..." and a "Restore Default Message" button.
- Title:** A text field containing "Crash:".
- Location:** A text field containing "BC 95 NB Exit 318 Beyond OAKLAND PARK BLVD W".
- Body:** A large text area containing "Right Lane (of 6 Lanes) Blocked, Right Shoulder Blocked."
- Sensitive:** A checkbox labeled "Sensitive:".
- Footer:** A text field containing "Reported at 08/09/2021 10:52:23 AM Last Updated at 08/09/2021 10:52".
- All Email Groups:** A list box containing "95 Express 3B1", "95 Express 3B2", "Bridge Strike", "Broward 95 Express Level 3", and "Broward Construction".
- Selected Email Groups:** An empty list box.
- Selected Email Addresses:** An empty list box.
- Addresses in Selected Email Groups:** A table with columns "Email Address", "Group Name", and "Sens.". The table is currently empty.

At the bottom right, there are "Save" and "Cancel" buttons.

There are several fields in the Response Plan E-Mail Editor that can be modified. To maintain the integrity of the service, RTMC Operators must take great care verifying the accuracy of the information before sending:

- Select the appropriate Subject from the drop-down list in SunGuide:
 - Cleared.
 - Congestion Cleared.
 - Active Level 2.
 - Active Level 3.
 - Active Level 2: Update.
 - Active Level 3: Update.
 - [Incident Alert] AMBER Alert.
 - [Incident Alert] LEO Alert.
 - [Incident Alert] Silver Alert.
 - [Incident Alert] RISC Activation.
- The Title field should only be changed for Vehicle Alerts (AMBER, LEO, SILVER) or if the event type is Other when it should read Medical Emergency, Police Activity, Brush Fire, etc.
- The appropriate event level and county must be selected from the following All E-mail Groups drop-down list in D4 SunGuide:

- Broward Construction.
- Broward Level 2.
- Broward Level 3.
- Broward SIRV*.
- D4 Hazmat**.
- D4 Vehicle Alerts.
- District 6.
- IT Testing.
- Indian River Construction.
- Indian River Hazmat***.
- Indian River Level 2 Initial Cleared.
- Indian River Level 2 Update.
- Indian River Level 3 Initial Cleared.
- Indian River Level 3 Update.
- Martin County Construction.
- Martin Level 2 Initial Cleared.
- Martin Level 2 Update.
- Martin Level 3 Initial Cleared.
- Martin Level 3 Update.
- Palm Beach Construction.
- Palm Beach Level 2 Initial and Clear.
- Palm Beach Level 2 Update.
- Palm Beach Level 3 Initial and Clear.
- Palm Beach Level 3 Update.
- Palm Beach SIRV****.
- RISC Activation.
- St. Lucie Construction.
- St. Lucie Level 2 Initial Cleared.
- St. Lucie Level 2 Update.
- St. Lucie Level 3 Initial Cleared.
- St. Lucie Level 3 Update.

*Broward SIRV email group is added to all Level 2 & Level 3 SunGuide-Alerts in Broward County, for the INITIAL notification on all Level 2 & 3 incidents. You are not required to add the Broward SIRV to any update or clearance emails.

**D4 Hazmat should be sent along with any other related email group when the event involves a hazmat-related incident. This applies to Broward, Palm Beach, Martin, and St. Lucie County areas. For hazmat-related events, it is only required to add the D4 Hazmat email group to the INITIAL email and the CLEARANCE email.

***Indian River Hazmat should be sent along with any other related email group when the event involves a hazmat-related incident in Indian River County. For hazmat-related events, it is only required to add the Indian River Hazmat email group to the INITIAL email and the CLEARANCE email.

**** Palm Beach SIRV email group is added to all Level 2 & Level 3 SunGuide-Alerts in Palm Beach County, for the INITIAL notification on all Level 2 & 3 incidents. You are not required to add the Palm Beach SIRV to any update or clearance emails.

The email group Public is automatically selected for all SunGuide Alerts that are sent out. The only time an Operator would remove the Public from the SunGuide Alert is for RISC events and alerts that contained sensitive information.

- Messages must be updated as significant changes occur, such as:
 - Change in lane blockage.
 - Congestion extends to the next reference location.
 - Event clearance.

- Insignificant updates are unnecessary as it is more important to get real-time information out to the motoring public.
- Important details should be added to the Sensitive portion of the email to provide additional information to our internal partners and management.

Each message must be reviewed for accuracy and should be rejected if incorrect. The Operator has the authority to reject any such message. In the event the system is not generating the proper message, a supervisor or on-call manager must be notified.

DMS TRAVEL TIME MESSAGES

Overview

Wherever possible, the default display on Dynamic Message Signs shall be a travel time display. Currently, the Broward RTMC is displaying travel times.

95SB28 SB South beyond Sunrise Blvd.	95NB108 NB North at MM 108.5	75NB06 NB South of Miramar Pkwy.
95SB31 SB South beyond Oakland Park Blvd.	95NB136 NB North at MM 136	75NB12.3 NB South of Griffin Rd.
95SB38 SB South beyond Copans Rd.	95NB145 NB North at MM145.5	75NB16 NB South of I-595
95SB40 SB South before Sample Rd.	95NB18 NB North before Hallandale Beach	75NB22 NB South of US-27
95SB42.7 SB South before Hillsboro Blvd.	95NB24 NB North before Griffin Rd	75SB10 SB North of Pines Blvd.
95SB47 SB South before Glades Rd.	95NB27 NB North at Broward Blvd.	75SB14.1 SB North of Griffin Rd.
95SB53 SB South before Atlantic Ave.	95NB31 NB North before Oakland Park Blvd.	75SB20 SB North of I-595
95SB59 SB South before Gateway Blvd.	95NB33 NB North at Cypress Creek Road	75SB24 SB North of US-27
95SB66 SB South beyond Southern Blvd.	95NB38 NB North before Copans Rd	75SB37 SB at MM 37
95SB72 SB South beyond 45th St.	95NB40 NB North Beyond Sample Rd.	75SB46 SB at MM 46
95SB97 SB South at MM 97.5	95NB53 NB North beyond Atlantic Ave.	
95SB122 SB South at MM 122.5	95NB66 NB North beyond Forest Hill Blvd.	
95SB130 SB South at MM 130.5	95NB72 NB North beyond Palm Beach Lakes Blvd.	
95SB139 SB South at MM 139	95NB95 NB North at MM 95	
95SB148 SB South at MM 148.5		
95SB158 SB South at MM 157.5		

The list above will be expanded as additional devices are brought online.

Policy

Travel time messages will be preempted with other messages, based on MAS priority, as follows:

1. Conditions that require motorists to act or alter their driving, such as emergency events including evacuations or closures required by FDOT, the State Emergency Operations Center (SEOC), or Homeland Security.
2. Traffic incidents, hazardous and/or uncommon road conditions, severe weather conditions, and work zone activities.
3. Vehicle Alerts (AMBER/Missing Child/Silver/Purple/Blue).

Travel time messages are automatically generated, updated, and displayed on DMS by SunGuide and should not require operator intervention. As with any DMS message, it is the responsibility of the operator to monitor the system's proper functionality, and that the information displayed on the DMS is accurate based on current traffic conditions.

Procedures

Monitoring

At the start of each shift and hourly throughout the shift, operators are responsible for verifying that the travel time messages are posted, and the information displayed on the DMS is accurate based on current traffic conditions. In the event of an incident within proximity to the travel time segments, it's especially important to confirm that the messages are updating properly.

In the event, inaccurate information is detected, immediately blank the appropriate sign by right-clicking on the DMS icon in the SunGuide map and selecting "Disable Travel Time Messages for this Device." Wait approximately five (5) minutes and enable travel time messages by following the same steps. If the information is still inaccurate do a print screen of the sign, disable it, and create a detailed help desk ticket.

Travel times should be disabled if there is a prolonged full closure (disable segment upstream of the incident). Do not disable DMS.

Note: Under no circumstances should anyone disable the entire travel time system without the permission of a supervisor.

Troubleshooting

Travel times not displayed on any signs: Right-click on the SunGuide map and select "Travel Times." Confirm that the system is not disabled. If the Travel Time screen does not appear, notify a supervisor, and create a detailed help desk ticket.

Travel times not displaying on individual sign(s): Right-click on the DMS icon for the appropriate sign on the SunGuide map, click on TVT Message Generation, and confirm that the travel time messages have not been disabled. If they have been disabled, select 'On' and confirm a message is properly displayed.

As with all device failures, create Help Desk tickets for problems that cannot be corrected using the above steps. In the event the entire Travel Time system is down, contact the on-call manager.

FLORIDA 511 TRAVELER INFORMATION

Overview

Florida's Statewide 511 Web system gives real-time travel reports on all Florida interstate highways; toll roads, including Florida's Turnpike, Greater Miami Expressway roads, and Central Florida Expressway Authority roads; and other major metropolitan roadways. The statewide system provides information on roadway conditions, such as commuter travel times, construction, lane closures, crashes, congestion, and severe weather affecting traffic. Motorists can access traffic, transit, travel times, airports, seaports, or request a specific roadway, city, or county. The 511 mobile app is a planning tool that provides directions to any destination in Florida with travel time and alternate routes on most roadways throughout the state.

History

The U.S. Department of Transportation petitioned the FCC in 1999 for a three-digit dialing code to make it easier for motorists to access travel information. The FCC assigned 511 to the transportation community on July 21, 2000, replacing more than 300 different traffic information phone numbers.

Florida's first 511 system went live in June 2002 in Central Florida. The Southeast Florida system went live in July 2002. The 511 Tampa Bay system was launched in September 2004. The first-generation Statewide Florida system launched in November 2005. The Northeast Florida 511 system launched in October 2006 and Southwest Florida 511 launched in April 2007. The new, next-generation, bilingual Statewide 511 system launched in early 2009, combining all the regional systems.

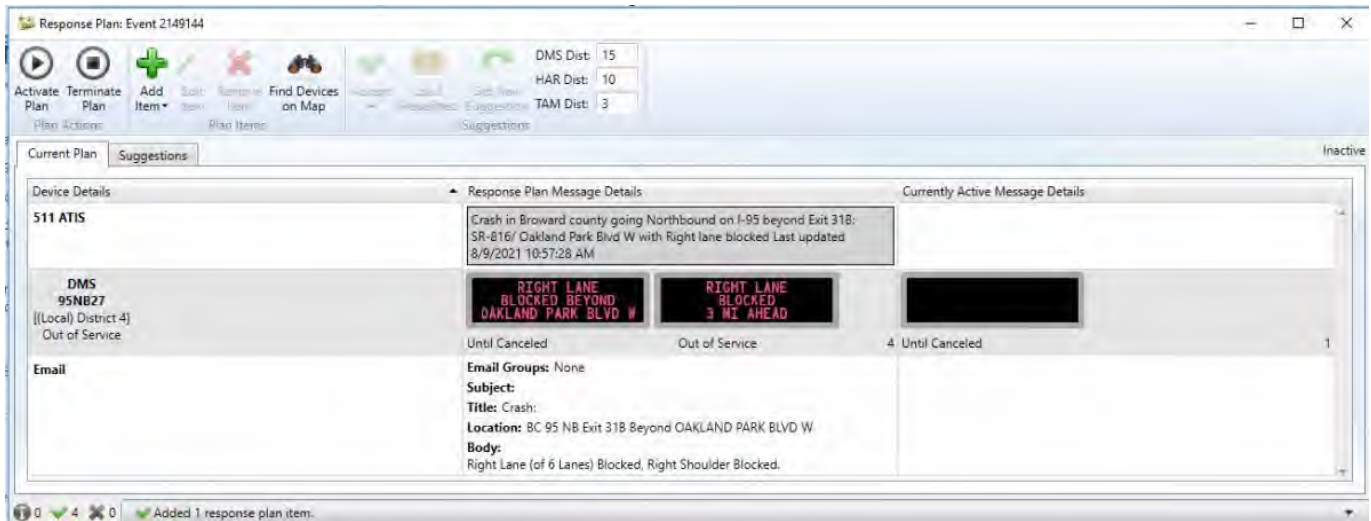
Policy

The Broward RTMC is Florida's Statewide 511 content provider for I-95, I-75 in Broward, Palm Beach, Martin, St. Lucie, Indian River Counties, and for the RTMC coverage areas of I-595. Active Level II and III events must have a 511 FLATIS message published to Web Site, and unpublished when lane blockage and congestion have cleared.

- | | | |
|----|--------------------|--|
| 1. | Data Entry | Upon activation of a Response Plan in SunGuide, data is sent to the FL511.com website via SunGuide's Center-to-Center (C2C) communications mechanism. |
| 2. | Confirmation | Only confirmed (Active) incidents will have a response plan created for them and be approved to be sent to 511 FLATIS. |
| 3. | Content Management | All appropriate Event Management Fields will be filled out for the incidents. Note that failure to fill out the proper fields may prohibit the event data from being carried through the C2C and into the 511 FLATIS. |
| 4. | Verification | <ul style="list-style-type: none"> – All incidents should be verified via the RPG when they are added or removed from the response plan. – The personalized Web site service should be used to immediately verify that incidents have been added to the system. Operators should sign up for a personalized account pertinent to their area and be timed to deliver messages to them during their operations shift. – Within five (5) minutes of approving a response plan, operators shall verify that incidents are being added and removed on the Web site (www.fl511.com). |

Note that there may be times when the number of events being entered may prohibit an operator from checking after entering each event. In such cases, the operator should, within 30 minutes of the first entry, perform a sampling and verify

the entered incidents altogether to ensure they are being displayed and played appropriately on the systems.



Congestion

The RTMC will be reporting both **Recurring** and **Non-Recurring** Congestion to provide real-time traffic information to users of the Florida 511 Traveler Information system. Recurring congestion is everyday congestion volume in the morning or evening rush hours. Non-recurring congestion may be an effect of any nearby distraction viewable from the roadway, even if no travel lanes are blocked. Fires, severely damaged vehicles on the shoulder, a traffic stop, opposite directional congestion from an incident (NB event – SB congestion), or a multi-phase DMS sign can all cause congestion.

Reporting Congestion Procedures

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. Congestion from an accident is handled as normal. | <p>The header of the congestion defaults to the incident location and reports the congestion to the nearest exit behind the tail of the congestion. Therefore, the congestion is reported from “AT” to “AT”. Send out the necessary Email/FLATIS updates pertaining to the event. Post ‘Shoulder’ within the event and ‘Slow Traffic Ahead’ message within 2 miles of the tail.</p> |
| <ol style="list-style-type: none"> 2. Congestion from on-looker delays (non-recurring) is created as a Congestion event and linked to the primary event, depending upon the amount of congestion. | <p>Initially report as point congestion and then extend the tail as necessary; reporting “AT” to “AT” (exit to exit). Sent out FLATIS only and post ‘Slow Traffic Ahead’ message within 2 miles of the tail.</p> |
| <ol style="list-style-type: none"> 3. Congestion from rush hour (recurring) between the hours of 0600 hrs – 0900 hrs and 1600 hrs – 1900 hrs will be handled as non-recurring congestion (#2) but is to be created using CCTV as the notifying agency. | <p>Only send out FLATIS. Slow traffic ahead messaging is not required for recurring congestion. If there are multiple congestion events, i.e. Hillsboro congested, free flowing at SW10, congested at Sample, then two events are to be created and just use the location as the congestion point. Send individual FLATIS to reflect this.</p> |

Examples.

- Crash with congestion (congestion based on crash - same direction) – no change in Event Management.
- On-looker delays (congestion based on an incident in opposite direction) – Create congestion event, post FLATIS; update every 30 minutes – Recurring.
- On-looker delays (congestion based on an incident in opposite direction) – Create congestion event, post FLATIS (update every 30 minutes), and post 'Slow Traffic Ahead' if DMS is within 2 miles of tail – non-recurring.
- Crash/disabled (no lane blockage – congestion building up) – add congestion to the event and only send the FLATIS alert; update every 30 minutes. Post shoulder within the event and '**Slow Traffic Ahead**' – depending on the situation.

Travel Times and CCTV

Travel time (TvT) segments, CCTV images, and DMS displays are available on and/or the FL511.com website. There will be occasions when CCTV may need to be blocked to protect privacy. Also, Travel Time Segments downstream of a Level III incident such as a full closure or long-term multi-lane blockage event may need to be disengaged. Mechanical problems may also compromise the accuracy of travel time.

TvT segments can be blocked from SunGuide. The only travel times displayed on FLATIS are those that begin with a BC/ PB/ MC/ SL/ IR. TvT segments beginning with XX are not being sent to 511 FLATIS. Should a TvT segment or CCTV need to be disabled, the RTMC Operator must immediately confirm that they have been removed from the FL511 website.

DMS

The FL511.com website will also be displaying DMS Messages pulled directly from the SunGuide system. It is critical to periodically check active DMS to assure the accuracy of this function.

30 Minute Updates

All events in SunGuide (except for long-term construction) must be updated approximately every 30 minutes to update the time on the 511 FLATIS website. These updates include congestion events during rush hour. The objective here is to prevent active incidents from appearing to be stale or old on our 511 system. 511 users are expecting to see current information and this effort will help us to achieve that.

District 2

District 2 has operators dedicated to reviewing all statewide feedback messages coming into FLATIS. Feedback calls are messages received from motorists, who sometimes report things that are not on the 511 system or just voice their complaints. District 2 operators will take down the information and notify the appropriate District to give them a "heads-up" just in case the feedback message may have been missed. The operator will then follow up no more than ½ hour later to determine if the incident had been addressed.

District 2 provides this service to the other districts voluntarily to assist and assure information is posted. The object is to capture any feedback messages that may have slipped through the cracks. This service is a 24/7 operation with additional staff during the daylight hours on weekdays and weekends.

If an RTMC Operator receives a call from District 2 Operator about an incident, not in the system, the RTMC Operator should look for it via CCTV. If an RTMC Operator receives a call from a District 2 Operator about something already in the system, let them know that you are aware of the incident.

511 FLOODGATE and WEB BANNER MESSAGES

Overview

Florida's Statewide 511 Advance Traveler Information System is the state's official source for real-time traffic information. These reports are generated by pulling information directly from the SunGuide database combining or concatenating, a bank of pre-recorded words that include locations, event types, lane blockage, and time last updated – it then puts back together to make complete sentences, also known as “concatenated speech.” The text is mirrored on the www.fl511.com website by a similar procedure.

There are times when data entry into SunGuide, and thus messages on the 511 systems, cannot provide the level of information or sense of urgency required for certain situations. Floodgate / Web Banner messages are designed to fill this need. These messages are distinguished from incident data associated with Event Manager (EM) locations by the fact that they impact a larger area such as an entire roadway, county, region, or the whole state and they may not have a specific associated EM location.

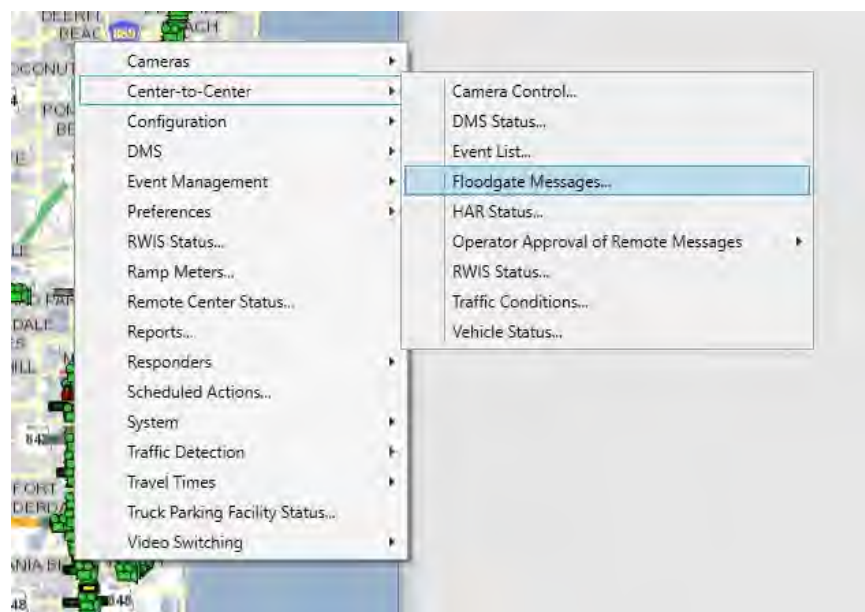
Procedure

When to Post a Banner (examples):

- Full Closure of a Roadway
- Alligator Alley Closures
- Special Events
- Heavy Rain Conditions
- Closures of arterial cross streets near highways

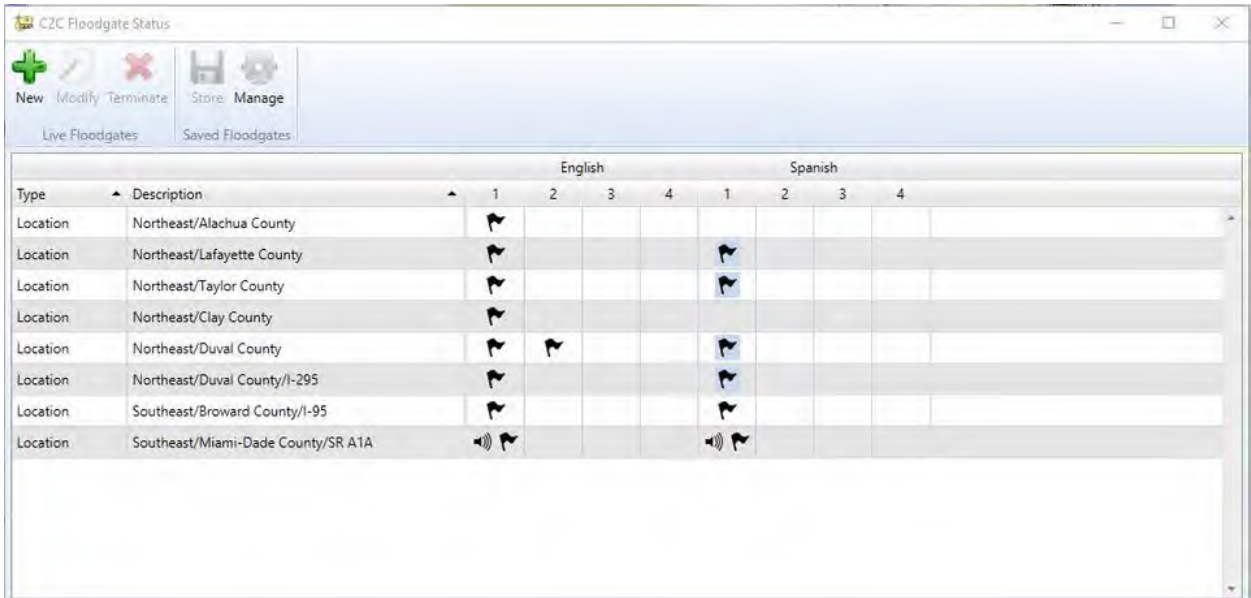
To access the Floodgate System,

- Right-click on the Operator Map in SunGuide
- Select the Center-to-Center
- Select Floodgate Messages.



Before Posting a Floodgate / Banner Message, Confirm That the Content Qualifies:

- Is the message of such importance that it should not be missed by a Florida 511 user by navigating through the Web site?
- Is there a message on the system already regarding this issue?
- Check the Floodgate Status (right-click in Operator Map –Center 2 Center) listings to see what else is on the system right now.



- Coordinate with other RTMCs to avoid duplicate or conflicting messages.
- Only after completion of the above steps should you continue to compose and place the message.

Where to Place Floodgate / Banner Messages

Floodgate and banner messages can be placed at numerous levels or locations in the system-based on the audience you wish to reach. These include:

- Statewide** – **Statewide Floodgate/Banner messages are placed by District 2. Broward RTMC needs to coordinate with District 2 to ensure messages are placed when needed.

- Location – Region
– County
– Roadway

- Full Roadway – The operator will select the appropriate roadway.

- Entity – The operator will select the Entity (business) that the event applies to.

Select Floodgate Location:

- Select **Southeast Region**** for events that pertain to all of District 4, District 6, MDX, 595 Express, and Palm Beach Vista SunGuide. Messages placed here will precede reports for those roadways.
- Vehicle Alerts are recorded at this level.

**Florida's Turnpike is also included in the Southeast Region.

Select County:**

The District 4 RTMC, 595 Express LLC, and Florida's Turnpike are included in Broward County. Messages placed here will precede reports for those roadways.

**The county is only selected when the event pertains to that county only.

English and **Spanish** voice and banner messages must be posted.

Contact another RTMC for assistance if no Spanish speakers are available to record.

Entering the Floodgate

Select Floodgate Number:

Up to four floodgates can be recorded per language (English and Spanish) at a single level.

The screenshot displays a software interface for configuring floodgates. It is divided into several sections:

- Floodgate Type:** Includes radio buttons for Statewide, Location (selected), Full Roadway, and Entity.
- Language:** Includes radio buttons for English (selected) and Spanish.
- Region:** A dropdown menu set to Southeast.
- County:** A dropdown menu set to Broward County.
- Roadway:** A dropdown menu set to -- None --.
- Floodgate Number:** Includes radio buttons for First Available (selected), Slot 1, Slot 2, Slot 3, and Slot 4.
- Target Floodgates:** A list box with a Description column and buttons for 'Remove Selected Floodgate' and 'Remove All'.
- Floodgate Details:** A section with a note: 'The following settings apply to both the English and Spanish messages:'. It contains:
 - Call Settings:** Checkboxes for 'Allow barge-in' and 'End call after message'.
 - Severity:** A dropdown menu set to Minor.
 - Associated Event:** A dropdown menu.
 - Comment:** A text area.
- Public Messages:** A section for configuring messages, including:
 - 511 Message:** A sub-section with 'Message Audio' controls (record, play, stop) and 'Length: No recording'.
 - Message Text:** A large text area.
 - Website Banner:** A sub-section with 'Banner Text'.

At the bottom, there is a red error message: 'Please select at least one target floodgate'. Navigation buttons include 'Add Floodgate', 'Clear All Values', 'Send Floodgates', and 'Cancel'.

Select Roadway:

When recording a Floodgate for a specific incident occurring on one of the roadways covered by District 4 RTMC.

- Once the level is selected, settings and audio files can be saved/uploaded.
- Associate event to the corresponding event.
- "Banner text" is the text published on the public website.
- Need both English and Spanish for 511 Floodgate Message and Website Banner.

Banner Text appears as an Alert on the www.FL511.com web site.

The screenshot shows the Florida 511 website interface. At the top, there's a navigation bar with 'Florida 511' logo and 'Florida's Official Source for Real-Time Traffic Information'. Below that, a red banner displays an alert: 'Alerts: I-75/US 90 Bridge: Please allow with caution due to high winds'. The main section is titled 'TRAFFIC EVENTS' and features a 'Filter' section with dropdown menus for Region (Southeast), County (Miami-Dade), Roadway (Florida Turnpike), Direction (N), Type (Incidents), and Severity (Major). Below the filters is a table of traffic events with columns for Region, County, Roadway, Direction, Type, Severity, Description, Start Time, Last Updated, and Camera Image. Two events are visible: one on the Florida Turnpike north ramp to Exit 25 (I-75/US 90) and another multi-vehicle crash on Palm Beach on I-95 south at Exit 56. A camera image thumbnail is shown on the right side of the table.

RECORDING A FLOODGATE

The Logitech ClearChat USB headset is connected to the SunGuide C2C system. The District 4 RTMC is currently configured to record Floodgate messages on every workstation except for Console 1, which uses its speakers to sound Visio-Pad Alerts.



- Read the message a few times before you record.
- Speak S-L-O-W-L-Y. If you have read the message at normal conversational speed, you went too fast. It feels weird to speak that slowly but it is MUCH easier to understand as a recording over the phone.
- Start speaking the second you press the record button.
- Make sure to listen to the recording before you save it.

CRASH - DEBRIS - POLICE ACTIVITY

English Template:

< Roadway/Direction > is < Condition > <proximity/Cross Street> due to <Event Type>. <Recommendation>.

Example: I-95 northbound is closed at Sample Road to a crash. Avoid the area, use an alternate route.

Spanish Template:

< Carretera/Direccion > esta < Condicion > <Proximidad/Interseccion> debido a <Tipo de evento>. <Recomendacion>.

Ejemplo: La carretera Interestatal 95 en dirección Norte esta cerrada en el cruce con Sample Road a un accidente. Evite la zona, use ruta alterna.

ACTIVE ROAD WORK - BRIDGE WORK

English Template:

< Roadway/Direction > is < Condition > <proximity/Cross Street> due to construction. <Recommendation>.

Example: I-75 northbound has a full closure at Sheridan Street due to construction. Use caution. Expect delays in the area.

Spanish Template:

< Carretera/Direccion > esta < Condicion > < Proximidad/Interseccion > debido a construccion. <Recomendacion>.

Ejemplo: La carretera Interestatal 75 en dirección Norte tiene un carril cerrado en el cruce con la calle Sheridan, debido a construccion. Se recomienda manejar con precaucion. Se esperan retrasos en el area.

HEAVY RAIN (Washout Floodgate)

During periods of heavy rain (identified by seeing rain conditions on almost all the RTMC CCTV), the Floodgate message system should be used to maintain information on FLATIS.

The RTMC will temporarily stop publishing congestion events and instead record the following generic message on the Broward County-level Floodgate Message and Web Banner Text:

English: Wet roads and rainy conditions may cause intermittent slow traffic in Broward County. Please use caution.

Spanish: Carreteras mojadas y condiciones de lluvia pueden ocasionar una disminucion en la velocidad del trafico en el condado de Broward. Por favor manejar con precaucion.

Monitor the rainy conditions. Resume normal reporting guidelines when conditions improve.

PRE-EVENT MESSAGES

English Template:

On <Date and Time>, < Roadway/Direction > <proximity/Cross Street> will be < Condition > due to scheduled construction. <Recommendation>.

Example: On Monday, August 3, at 10 pm, I-95 northbound at State Road 112 will be closed due to scheduled construction. Motorists should use caution. Expect delays in the area.

Spanish Template:

En el/a las/a la <Fecha/Hora>, < Carretera/Direccion > < Proximidad/Interseccion > estara < Condicion > debido a construccion programada. <Recomendacion>.

Ejemplo: El lunes 3 de Agosto, a las 10:00pm, la carretera interestatal 95 en dirección norte sera cerrada en el cruce con la carretera estatal 112, debido a construcción programada. Se recomienda manejar con precaucion. Se esperan retrasos en el area.

SPECIAL EVENTS

English Template:

< Roadway/Direction > is < Condition > <proximity/Cross Street> due to <Event description>. <Recommendation>.

Example: SR-826 north is closed at SW 8 Street due to a marathon. Use an alternate route.

Spanish Template:

< Carretera/Direccion > esta < Condicion > < Proximidad/Interseccion > debido a <Descripcion del evento>. <Recomendacion>.

Ejemplo: La Carretera Estatal 826 en dirección Norte esta cerrada en el cruce con la calle SW 8 debido a un maraton. Use ruta alterna.

VISIBILITY

English Template:

< Roadway/Direction > is < Condition > <proximity/Cross Street> due to <Briefly Describe Event >. <Recommendation>.

Example: On I-75 both directions are closed from SR-826 to Miami Gardens Drive due to brush fires and smoke. Use an alternate route.

Spanish Template:

La <Carretera, en español y/o inglés> en direccion <Dirección> esta <Condición> <Proximity> en el cruce con la <Intersección> debido a <Describe el Evento Brevemente >. <Recomendación>

Ejemplo: La carretera Interestatal 75 en ambas direcciones esta cerrada desde la Carretera Estatal 826 hasta la carretera Miami Gardens Drive, debido a incendio forestal y humo. Use ruta alterna.

EVACUATION

English Template:

< Roadway/Direction > is < Condition > <proximity/Cross Street or Region> due to <Briefly Describe Event >. <Briefly describe the evacuation plan provided by the county or state EOC>. <Recommendation>.

Example: US-1 South is closed through the Florida Keys due to an approaching hurricane. Non-resident evacuation is underway for Monroe County. Travel to the Florida Keys is not recommended.

Spanish Template:

< Roadway/Direction > is < Condition > <proximity/Cross Street or Region> due to <Briefly Describe Event >. <Briefly describe the evacuation plan provided by the county or state EOC>. <Recommendation>.

Ejemplo: La carretera US-1 en direccion sur esta cerrada en los Cayos de la Florida. Evacuacion de no-residentes en el Condado de Monroe en progreso. No se recomienda viajar a los Cayos.

MOVE OVER DMS MESSAGING

Overview

The “Move Over Law” requires all motorists approaching an emergency vehicle with lights flashing to change lanes away from the emergency vehicle if traveling on a multi-lane roadway and if able to do so safely.

If the driver is unable to move over or is traveling on a single-lane roadway, the driver is required to slow to a speed that is 20 miles per hour less than the posted speed limit when the posted speed limit is 25 miles per hour or greater; or travel at five miles per hour when the posted speed limit is 20 miles per hour or less.

To further educate the public and to enhance the safety of emergency responders along our roadways, the RTMC will remind motorists to move over, via DMS sign messages when approaching emergency vehicles such as Law Enforcement, Fire Rescue, and Road Rangers/SIRV.

Procedures

Anytime an emergency vehicle with lights flashing is detected/confirmed stopped on a shoulder, the nearest DMS (if within 2 miles) should be lit with the following message (**Base Libraries/PSA/Safety**

Messages/Safety15):

MOVE OVER FOR
EMERGENCY VEHICLES
IT'S THE LAW

Time permitting, if you detect a police traffic stop (especially during nighttime hours), not requiring a SunGuide event, you should create an event in SunGuide as follows and through a response plan post a DMS:

- Event type: **PSA**
- Location and shoulder blockage
- Unconfirmed status
- No email
- No FLATIS
- 2-mile radius
- Change message to Base Libraries/PSA/Safety Messages/Safety15
- Priority 50

Note that ‘time permitting’ means that active lane blockage events take precedence.

For events where the DMS is just before an event with emergency vehicles on the scene, but they are not blocking any lanes, The **Move Over Message** should be activated.

For N3C/Palm Beach SunGuide operations, the Move Over message can be found in the DMS Message Library, in the following directory:

Base Libraries – Broward RTMC N3C – PSAs – Move Over a Lane

Once posted, normal DMS monitoring, and reporting procedures should be followed.

DMS MESSAGING for LEFT SHOULDER BLOCKAGE

Overview

DMS for left shoulder blockage is to inform approaching motorists and to provide a margin of safety to the disabled vehicle (not to be used in place of Move Over for Emergency Vehicles when an emergency vehicle with lights flashing is present).

Procedure

RTMC operators will post messages for left shoulder blockage using the SunGuide RPG when a disabled vehicle with a motorist present (or suspected to be present) is detected/confirmed stopped on a left shoulder close to traffic. Only the nearest DMS (if within 2 miles) should be lit.

PSA MESSAGING

Overview

A Public Service Announcement (PSA) is a message that may be posted on Dynamic Message Signs (DMS) for the public interest. PSAs are intended to raise awareness or educate the public about an issue that pertains to roadway safety.

Public information messages that assist the Department in improving highway safety and reducing congestion may be used. These messages shall only be displayed when any of the following conditions are met:

- The display of the message will have a positive effect on highway safety and congestion in the area.
- The total duration of any such highway safety message shall not exceed two hours per day at any DMS location and shall not be displayed during peak-hour travel periods.
- 'Drunk Driving' messages should not be used for daytime PSAs unless otherwise specified by management.

This section provides a listing of approved standard safety messages to be displayed on permanently mounted Dynamic Message Signs.

The message display must be approved by the State Traffic Engineer before displaying the message. A library of acceptable standard messages is included in the **Traffic Engineering Manual (TEM), Topic No. 750-000-005**, and below.

Policy

During daily peak traffic periods, messages shall be used to advise motorists of unusual road conditions (e.g. accidents, lane blockages, and abnormal congestion) and not Public Service Announcements.

During non-peak hours, PSAs are displayed for two hours a day. The messages are displayed at different times of the day, each day. PSAs should not be displayed during the hours of 6 am to 9 am, and 4 pm to 7 pm.

Once messages are posted, normal DMS monitoring, and procedures should be followed. The PSA messages are currently located under a Pre-Defined Plan in the DMS Library.

The following are the 41 DMS signs that will be used for normal schedule PSAs (normally Out-Of-Area template):

95SB157	95SB148	95SB139	95SB130	95SB122	95SB97	95SB82	95SB72
95SB66	95SB59	95SB53	95SB47	95SB42	95SB35	95SB26	95SB19
95NB154	95NB145	95NB136	95NB127	95NB108	95NB95	95NB77	95NB72
95NB66	95NB59	95NB53	95NB46	95NB40	95NB33	95NB23	95NB18
869SB01	595WB10	75SB24	75SB20	75SB14	75SB10	75NB16	75NB12
75NB06							

RTMC Operators should be cognizant that there are times when other incidents that affect the roadway will take precedence over Public Service Announcements. These incidents are as follows:

- An incident with lane(s) blockage.
- Vehicle Alerts (Amber, LEO).
- Messaging for closures on other Roadways and Arterials.
- Emergencies (Hurricane Evacuations, Fog, Fires, etc).

Procedures

Broward RTMC will be called upon to sign for Public Service Announcements (PSAs) and operators will use SunGuide to create and use these messages.

Broward RTMC Operators are to follow the following steps to sign for a PSA:

1. Create a PSA event. (Put it in a location. Pick a location on either end of the county.)
2. Leave the incident in "unconfirmed" status so the information is not displayed on the public website.
3. Click **Save and Get Response**.
4. Click **Set as Response**
5. Click **Load Predefined Plan**
6. Select the applicable Pre-define Message Plan.
7. Click **View Plan** → Verify that the correct messages are being used.
8. Remove the SunGuide Alert (email) and FLATIS.
9. Activate Plan.
10. Verify DMS via CCTV, Queue Manager, and Website.

The PSAs are only active for two hours a day and should be blanked when the two-hour timeframe has elapsed. The PSAs will be activated on the DMS during the following times:

- Sunday - Thursday 11 am – 1 pm
- Fridays & Saturdays 9 pm – 11 pm

Approved Standard Safety Messages for Display On Permanently Mounted DMS

The message display must be approved by the State Traffic Engineer before displaying the message. A library of acceptable standard messages is included in the **Traffic Engineering Manual (TEM), Topic No. 750-000-005** and at this link:

<https://www.fdot.gov/traffic/trafficservices/dms>

Note:

- DUI messages are only posted during the nights and weekends.
- Messages related to weather are to be displayed during heavy rainstorms when no active iNWS warnings are being displayed.

Public Safety Campaign

Public Safety Campaign messages (i.e., Motorcycle Safety, Work Zone Awareness) will be included on at least 50% of the Dynamic Message Signs that we use for daily Public Safety Messages unless otherwise stated (i.e., the request is for a certain percentage of signs or all signs).

When messaging for Public Safety Campaigns in all District 4 areas, the following parameters will be followed:

No ADMS used unless specifically requested. Follow the normal schedule PSA's (out of area template) * see above.

Include the following DMS signs below:

95SB31	95SB38	95NB27	95NB31	595EB11	75NB22
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DMS MESSAGING REQUESTS

Overview

It is the policy of the Florida Department of Transportation to designate the use of DMS along the state highway system (SHS for managing travel, controlling, and diverting traffic, identifying current and anticipated roadway and environmental conditions, or regulating access to specific lanes or the entire roadway.

The default display on dynamic message signs shall be a travel time display. Travel time messages can be preempted with other messages as needed in the following order:

1. Conditions that require motorists to act or alter their driving, such as emergency events including evacuations or closures required by FDOT, the State Emergency Operations Center (SEOC), or Homeland Security.
2. Traffic incidents, hazardous and/or uncommon road conditions, severe weather conditions, and work zone activities.
3. Amber Alert.
4. Missing Child Alert
5. Law Enforcement Officer (Blue) Alert.
6. Silver Alert.
7. Purple Alert
8. Special Events.
9. Public information messages which assist the Department in improving highway safety and reducing congestion. These messages shall only be displayed when all the following conditions are met:
 - a. Display of the message will have a positive effect on highway safety and congestion in the area.
 - b. The message is a supplement to a specific national, statewide, regional, or highway safety media campaign on the same topic.
 - c. The total duration of any such highway safety campaign message shall not exceed two hours per day at any DMS location, shall not be displayed during peak travel periods, shall not last more than two weeks, and shall not exceed three times per year.

In addition to the guidelines outlined in 6 a-c, the following must be considered when requesting public information messages on the DMS.

The use of DMS for the display of general public information, advertisements, and non-essential messages is prohibited.

The MUTCD 2003 Edition states that “Internet addresses and telephone numbers with more than four characters may be shown on changeable message signs made for viewing only by pedestrians, bicyclists, occupants of parked vehicles or drivers of vehicles on low-speed roadways where engineering judgment indicates that drivers can reasonably safely stop out of the traffic flow to read the message.”¹

As such, Internet addresses and telephone numbers exceeding four characters may not be displayed on DMS along the State Highway System.

Procedures For Requesting Messages

1. All message requests must be received a minimum of seven days before the requested start date. Requests should be sent to: D4-RTMC-OperationsOperatorsSupervisors@dot.state.fl.us and include the following information:
 - a. Name, contact information (including telephone number), and agency of the requestor.
 - b. Details of the specific special event the messages are supplementing.
 - c. Requested start/end dates and times.

¹ Manual on Uniform Traffic Control Devices, 2003 Edition, P 2A-2, Section 2A.06

2. Message requests will be considered based on the guidelines outlined in the previous section. Once it has been determined that the messaging request meets the requirements, a proposed messaging plan will be developed by the TMC Operations team with the following:
 - a. DMS Messages.
 - b. Dates and Times.
 - c. DMS Locations.

3. All the information will then be forwarded to the District Traffic Operations Office for approval. Messages determined to be out of the parameters outlined in this document or that cannot be conveyed effectively and succinctly on the DMS will not be forwarded.

4. Upon approval, the requestor will be notified, and DMS messages posted according to the plan. Notification will also be sent for unapproved requests.

HAR MESSAGING

Overview

Travelers Information Stations, also known as Highway Advisory Radios, are systems that can be used to provide motorists with pertinent and up-to-the-minute travel information through their car radios.

Messages are transmitted through low power AM roadside transmitters. Messages will typically be less than a minute. However, longer messages are acceptable when there is more extensive information to broadcast. Drivers approaching a HAR are advised of its existence by advanced highway signs which tell motorists where to tune their AM radio. These signs are equipped with beacons that can be activated when circumstances require them.

These guidelines outline policies and procedures for the effective operation and management of the Florida Department of Transportation (FDOT), District Four highway advisory radio (HAR) system.

The HARs and related equipment operated by the Broward RTMC shall be used for traffic and incident management and information purposes only. This includes, but is not limited to, posting messages related to emergency road conditions, routine construction messages, hazardous weather conditions, general traffic congestion, and hazardous environmental conditions. No one, including RTMC Operators and their supervisors, shall use the system for any other purpose.

FCC Regulations** Regarding the Use of Highway Advisory Radio

The FCC call sign must be broadcast every 30 minutes, at a minimum.

No music is allowed on these frequencies.

Travelers Information Stations shall transmit only non-commercial voice information about traffic and road conditions, traffic hazard and travel advisories, directions, availability of lodging, rest stops and service stations, and descriptions of local points of interest. It is not permissible to identify the commercial name of any business establishment whose service may be available within or outside the coverage area. However, announcements concerning departures/arrivals and parking areas at the air, train, and bus terminals may include the trade name identification of the carriers.

**These regulations are not all-inclusive, but rather are those that pertain specifically to RTMC Operators.

Currently, no HARS are being used or activated in Broward or Palm Beach County.

Device Locations - Treasure Coast Emergency Beacons

I-95 Northbound		I-95 Southbound	
NB Near MM91	0905/60	SB Near MM100	0995/60 (unable to view)
NB Near MM99	0995/61 (unable to view)	SB Near MM107	1085/60
NB Near MM106	1060/60 (unable to view)	SB Near MM114	1146/60
NB Near MM114	1130/60	SB Near MM119	1200/60
NB Near MM122	1220/60	SB Near MM128	1280/60
NB Near MM126	1250/60	SB Near MM130	1310/60

I-95 Northbound			I-95 Southbound	
NB Near MM129.5	1290/60		SB Near MM134	1355/60
NB Near MM133	1330/60 (unable to view)		SB Near MM141	1410/60 (unable to view)
NB Near MM143	1430/60 (unable to view)		SB Near MM151	1520/60
NB Near MM152	1520/60 (unable to view)		SB Near MM159	1590/60

Policy

Incident Messages

A HAR Incident Message will be created by the TMC for all Level 2 and Level 3 events on I-95, in Martin, St. Lucie, and Indian River County.

HAR Incident messages will be created only for level 2 mainline events exceeding 30 minutes and any Level 3 mainline and exit ramp events along with serious interagency events, like full closures. Incident messages are intended to alert and inform motorists of emergency conditions on the highway. Used properly, incident messages can significantly assist motorists in making informed travel decisions. Incident messages must be timely and accurate. During incidents, messages should be updated every 30 minutes (60 minutes or as directed by a manager for long-term closures), even if no new information is available, to update the time stamp.

Message templates have been developed according to the following elements:

#	Message	Purpose	Examples
1.	Short Station Identification	FCC rules require this to be broadcast, at a minimum, every 30 minutes	You are tuned to the highway advisory radio system, broadcasting at 1660 on your AM dial, a service of the FDOT District Four.
2.	Time statement	Indicate when the message was last updated including time, day of week, and date.	Today is INSERT DAY / DATE / TIME.
3.	Location of Incident	Provide motorists with sufficient information to make informed travel decisions.	Northbound on I-95 beyond Exit 146
4.	Problem Statement	Brief problem statement and severity.	<ul style="list-style-type: none"> • Lanes are blocked... • Alligator Alley is closed... • A hurricane warning has been issued...

#	Message	Purpose	Examples
5.	Reason to follow advisory.	Advisory may provide delay when not following the advisory or some other consequences with	With congestion to beyond SR 60
6.	Give the advisory (if not implied)	Only if a specific action is required. Mostly, the advisory is implied given the problem statement.	<ul style="list-style-type: none"> • Use alternate routes... • Merge left...

Note. Whenever incident messages are broadcast the appropriate emergency beacons must be activated.

Diversions will only be recommended for severe conditions when management has determined that such an action is necessary. When a diversion strategy is implemented, the HAR message should be used to provide the alternate route as clearly and concisely as possible. See below:

Message Element	Info Unit
To Naples	1
Take US 27 South	2
To Krome Avenue	3
Make a right on Krome Avenue	3, repeated
To US 41 West / Tamiami Trail	4
To Fort Myers	5
Take US 27 North	6
To State Road 80 West	7

Instructions requiring 10 or more units of information should never be broadcast. When giving the instructions, consider the mix of familiar and unfamiliar motorists. When appropriate include **Exit** numbers to tell drivers where to exit the highway and or the distance traveled (e.g., XX miles to SR 80).

It is in violation of FCC regulations to use business names as landmarks.

An effective HAR message will contain all the elements described in the previous section in the most concise manner. Because the range of a HAR system is limited, messages must convey maximum information in a minimum amount of time. Generally, incident messages should be limited to 60 seconds or less.

Non-Incident Messages

FDOT permanent HAR shall always broadcast. When there are no incidents to report, messages should provide motorists with useful information, i.e., upcoming construction affecting the route or approved public service announcements (PSA).

Message templates have been developed according to the following elements:

Message	Purpose	Examples
1. Long Station Identification	FCC rules require this to be broadcast, at a minimum, every 30 minutes.	You are tuned to the highway advisory radio system, broadcasting at 1660 on your AM dial, a service of the Florida Department of Transportation, District 4...
2. Construction Message Intro	Indicate when a message was last updated, day-of-week, and the date. These messages should be changed weekly at a minimum.	The Florida Department of Transportation District Four announces traffic advisories beginning (Day, Date). Speeding fines in the construction zones are doubled when workers are present. Motorists are urged to drive with caution through the work zones and adhere to posted detour signs and speed limits.
3. Date to Date Construction Report	Provide information on upcoming/ongoing construction projects.	Two lanes on I-95 northbound will be closed between 11 PM and 5 AM for scheduled roadwork...
4. PSA or Special Event Information	Provide public service messages to support ongoing campaigns/events.	Such as Move Over or Move It law.

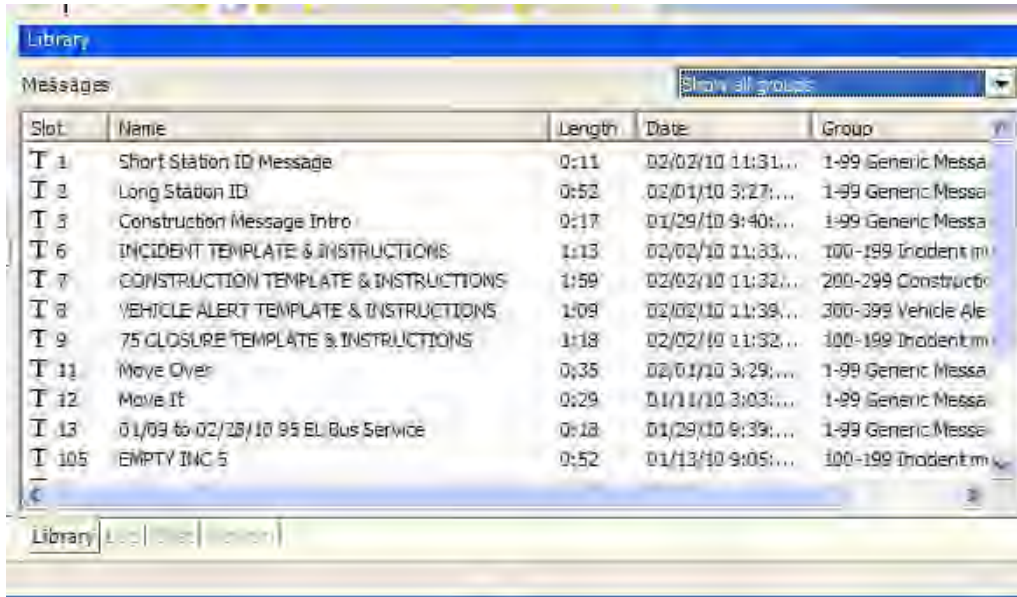
Procedures

Message Library

The message library contains a list of messages and message templates available for use or previously used. When adding messages to the library, it's important to use the proper group.

The message library is organized by the following groups:

- 001 – 099 Generic Messages
- 100 – 199 Incident Messages
- 200 – 299 Construction Messages
- 500 – 599 Templates



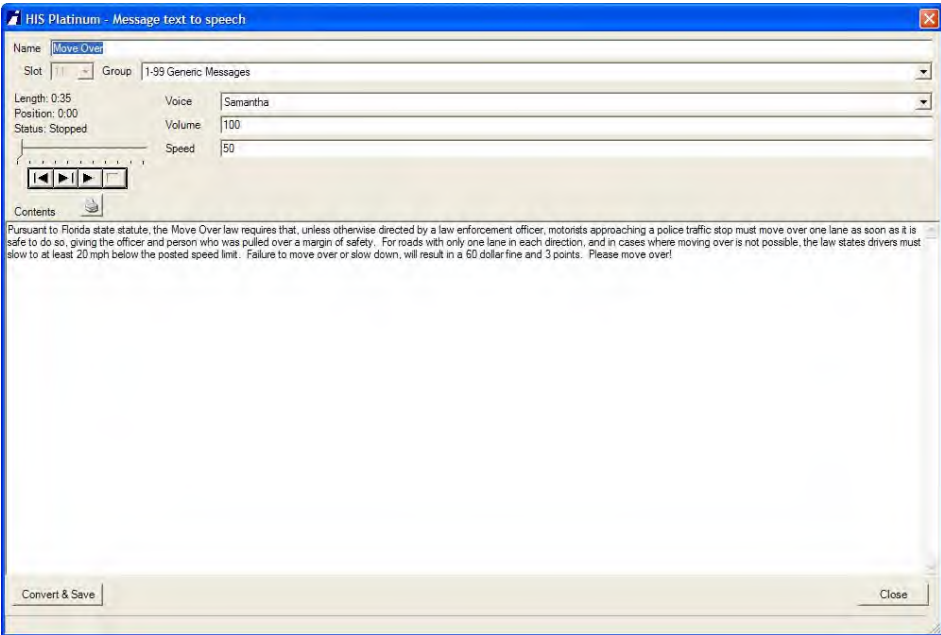
The first number in each group contains the instructions and a template to be used for that group. To ensure consistency in messages, empty messages are created for each of the different groups.

Double-click and follow the instructions.

- Open the appropriate template (incident, construction, vehicle alert) by
- Copy the template and paste it into the next available slot for the group.

The following instructions show how to complete the message process:

#	Steps / Screenshots
1.	<p>The message name should be in the following format:</p> <p>Date, Event Number, Location, Operator Initials</p> <p><i>Example: 1/1/2011 - #743132 – I95 NB at Oakland Park – OP</i></p> <p>Other non-incidents should be labeled with a brief description of the event and the operator's initials.</p>
2.	<p>Select the appropriate voice: "Tom" for Incidents. "Samantha" for non-incidents.</p>
3.	<ul style="list-style-type: none"> - Edit the template to fit the event. - Select "Convert & Save" from the bottom of the window. <p>Once converted,</p> <ul style="list-style-type: none"> - Listen to the message using the controls on the left side of the window. <p>If you're satisfied with the way the message sounds,</p> <ul style="list-style-type: none"> - Close it and follow the steps for adding it to a playlist. <p>Note. There may be occasions when you must spell a word the way it sounds to get the system to pronounce it properly. If such:</p> <ul style="list-style-type: none"> - Send an email to the supervisors so that the word can be added to the dictionary for the future.

#	Steps / Screenshots
4.	<p>Click Close.</p> 

Playlists

The Playlists on the right side of the library window are used to send messages to the HAR transmitters. Playlists must always include the appropriate station identification message (“Short Station ID” for incidents and vehicle alerts, “Long Station ID” for pre-construction and generic). Once you have created your message, drag, and drop it to the appropriate playlist and before sending it to the HAR, preview by right clicking the playlist and selecting Preview.

- 1001 – (Start Date to End Date) Pre-Construction (ALL HARS)
- 1002 – Pre-Construction (95 HARS)
- 1003 – Pre-Construction (75 HARS)
- 1004 – Generic (Generic Messages)
- 1005 – Incident (ALL HARS)
- 1006 – Incident (95 HARS)
- 1007 – Incident (75 HARS)
- 1009 – N3C Construction (N3C HARS)
- 1010 – N3C Incident (95 HARS)
- 1011 – N3C Vehicle Alerts

Pre-construction playlists are for broadcasting pre-event information as contained on the construction reports. Active construction should be broadcast using the incident playlists.

To update the message as conditions, change:

- Double-click the message in the message library (not the playlist).
- Make the necessary changes; Convert & Save.
- Select no when prompted to update the devices.

- In the event you inadvertently select 'yes', simply proceed by selecting Next, Next & Save in the subsequent pop-up windows and then follow the instructions for sending messages to the HAR
- Listen to the message.
- If you're satisfied with the message
- o Select **Close**.

Follow the instructions for sending messages to the HAR.

Sending Messages to the HAR

Once you've previewed the playlist (or message when updating) and are satisfied with the contents, messages are sent to the HAR as follows:

- Hold the left mouse button down to drag the new playlist.
- Drop the playlist on the appropriate HAR group, listed under Device Groups in the Node window (see below).
- If your software is not setup to drag and drop playlist messages onto the HAR group chosen, ,
 - Right-click on the HAR Group, and then click "Playlist."
- Select the playlist from the drop-down menu next to the category Playlist.
- Confirm the proper playlist number in the window that opens, and then click "Next."
- Select Save to send the messages to the devices.



Device Status Icons

The following overlays are used to indicate the status of the transmitters:

Transmitter Icon



Device is disabled and will be ignored.



Device is waiting for communication resource to connect.



The system is attempting to connect to the device.



The system attempted to connect to the device but failed.



The system is currently communicating with the device.



The device has suffered a general hardware failure – update was not successful.



The device has suffered a script failure – the update was not successful.



The device is transmitting a playlist.



The device is transmitting in synchronized mode.



The device is transmitting in auxiliary mode (generally weather radio).



The application has not attempted to communicate with the device.



The bold items are the state the transmitters should be in at most times.

Emergency Beacons

Emergency beacons should be activated for active lane blockage when messages are being broadcast on the HAR. Select the beacons to activate according to the roadway and direction of travel.

**Beacon
Icon**



Will be flashing when the beacon is turned on.

To see the beacons on the map,

- Click on the icon of Globe with the magnifying glass^{***}, located on the Map tool bar,
- Select N3C Beacons (Treasure Coast).

^{***}You can also toggle Treasure Coast transmitters by clicking on the Globe with the magnifying glass.

- Transmitters are activated in groups, so that they remain synchronized.
- Beacons are activated individually.

Critical Errors

The RTMC considers a highway advisory radio critical message error when the 'text-to-speech' words of the message broadcast are incorrect. Some examples are incorrect date and time, wrong location, activation of the wrong HAR beacons or stations, not deactivating the HAR message after a lane closure event has cleared, failing to deactivate an expired message, and not utilizing the HAR for a lane closure event.

Following are the guidelines for responding to a critical error:

- Immediately terminate the broadcasting message.
- Correct the error and rebroadcast the message.
- If the operator is unable to correct the error, notify the RTMC Operations Supervisor as soon as possible and provide a description of the error.

Documentation

In the event of a HAR critical error, Operators are required to log the error into the Lead Report and the Shift Report with the details of the error.



4.08 Event Management

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Document History

Version #	Date	Author	Changes
1.0	05/01/2024	Yana Neishlos	Initial Draft

INCIDENT MANAGEMENT PROTOCOL

Overview

In an atmosphere as busy and ever-changing as the RTMC, it is not possible to outline each procedure for each incident that will arise on the roadways. Therefore, the following is a basic procedure to be used when managing a standard traffic incident within the RTMC. Please refer to the remaining procedures located within the Operations Standard Operating Procedures (SOPs) for further information on each step.

Policy/Procedure

- Receive/Collect Information.
- Input Information into SunGuide.
- Dispatch Road Ranger (if not already on scene).
- Dispatch SIRV.
- Once confirmed, make the event Active in SunGuide (if not already active).
- Locate via CCTV and enter the camera number and preset into the system.
- Notify Emergency Agencies (if necessary).
- Generate Response Plan.
- Check DMS, Email, and 511 FLATIS.
- Activate Response Plan.
- Activate HAR.
- Notify External Agencies.
- Monitor Changes/Request Updates from Road Ranger.
- Update Information in SunGuide.
- Generate Response Plan.
- Check DMS, Email, and 511 FLATIS.
- Activate Response Plan.
- Update Emergency and External Agencies.

Once lane blockage has been confirmed clear:

- Update Information in SunGuide.
- Generate Response Plan.
- Check DMS, Email, and 511 FLATIS
- Activate Response Plan.
- Remove HAR.
- Update Emergency and External Agencies.
- Monitor Congestion.

PRIORITIZING MULTIPLE EVENTS

Overview

There will be times when multiple events will require the attention of the Operator. Therefore, a need to prioritize activities and handle each task in turn exists. At any given time RTMC operators are required to handle incidents that need attention. The RTMC Operators must be aware of all the messaging devices available on the roadway, enabling them to prioritize incidents that can be messaged in the surrounding area.

The Level 2 and Level 3 priority event guidelines outline the process to determine the level of severity that the Operator is managing. The event that receives the DMS sign is the event the motorist would encounter first, regardless of the number of lanes closed, unless the second event has a full roadway closure. If two events occur in the same location, the event in a left travel lane will take precedence over the event in a right travel lane, and lane blockage events take priority over pre-messaging for construction or special events. With these processes in place, the below considerations and order will enable the Operator to prioritize multiple Active Traffic Events (ATE) and make the correct judgment on handling ongoing incidents.

Procedures

There are five main considerations when prioritizing corridor events:

- Personal injury and risk to the public.
- The severity of the event (e.g., full closure).
- Proximity.
- Impact on other traffic in both directions of travel.
- Significance of event changes, i.e., a change in the lane block pattern or clearance of the incident.

The following priority scheme has been established for handling types of traffic management tasks in an order that is most consistent with RTMC objectives:

1. Assess the degree of risk to public safety and advise emergency agencies.
 - Investigate detected and reported events promptly, and immediately assess whether the incident involves personal injury or public risk.
2. Report these to the appropriate emergency agency immediately.
 - Evaluate event severity and send messages for severe events.
 - Send messages using the appropriate devices for freeway closures, arterial closures, and ramp closures immediately.
3. Detect and send messages for changes in event severity.
 - Send messages for a road that has closed or re-opened.
4. Detect and send messages for new lane-blocking incidents and congestion.
5. Detect and send messages for significant changes to traffic events.
 - Freeway congestion increases to overwhelm an exit or reduces clear access to an exit.
 - Clearance of congestion from a lane-blocking incident.
 - Movement of an incident to a new location.
 - Always place a cancellation call with the appropriate emergency agencies if a previously reported event clears before emergency services arrive on the scene.
6. Detect and send messages for any other traffic incidents and traffic event changes.
 - When two incidents are occurring simultaneously, the Operator shall sign for the geographically closest event first, unless the second event has a full roadway closure within the county or near a county line.

Examples:

1. Two incidents – one located at I95 North at Commercial with one right lane blocked and the other located on I95 North beyond Commercial with two right lanes blocked, the DMS sign for both events are located on I95 North before Oakland Park Blvd (95NB31). Since the DMS sign is located closer to the incident at Commercial, the RTMC would sign for this event and once it clears, sign for the other event located beyond Commercial.
2. Two incidents – I-95 northbound has 4 left lanes blocked at Pembroke Rd, and a full closure at Sheridan St, the DMS on northbound 95 before Hallandale Beach (95NB18) should be used to warn about the full closure NOT 4 left lanes at Pembroke Rd.

Note. The exception for full closures should be limited to within the county or proximity to the Broward, Palm Beach, Martin, St. Lucie, and Indian River County lines.

- If signing for a Vehicle Alert or pre-messaging for construction that will occur in the future, a current lane closure will take precedence. It is important to be aware of the priorities of the DMS message in relation to what other messages are in the MAS queue to ensure that the most relevant messages are displayed correctly.
- If two events are occurring in the same location, one in the left travel lane and one in the right travel lane, the left lane incident will take precedence.
- If two events are occurring in the same location, one with the left travel lane blocked and the other has the two right lanes blocked, then the event with the two right lanes will take precedence. The theory is that motorists should be informed of the event that has the most lanes affected.

ROAD RANGER EVENT MANAGEMENT

Overview

There are many responsibilities and activities for a Road Ranger to complete. Although it is the responsibility of the Road Ranger to manage these responsibilities, the RTMC assists by monitoring the event activities and ensuring the safety of the Road Ranger and the motorist they are assisting.

This document includes information on Road Ranger schedules; rotation tow; abandoned vehicles; debris incidents; driving on the shoulder and in an HOV lane; FHP disabled vehicles; incidents with injuries and/or fatality; missing/malfunctioning equipment; Road Ranger accident involvement; Maintenance of Traffic (MOT); and procedural errors documentation.

Policy

Schedule

The Road Ranger schedule is set up according to shifts. Every time a new shift starts and finishes, it is necessary to update the Road Ranger schedule in SunGuide on the AVL/RR. When building the schedule, it is important to make sure the correct Driver, Truck, Beat, and Radio is accurately input.

It is imperative to enter the scheduled times associated with each Road Ranger immediately upon notification of their status. This is important to ensure the accuracy of their schedules. The correct times are needed for all Road Ranger activities, such as Breaks, Meals, Fueling, Patrolling, etc.

Broward County Road Ranger schedule is received every week from Incident Clear. Palm Beach Road Ranger schedule is every week from Autobase. Treasure Coast Road Ranger schedule is received every week from Jorgensen.

Rotation Tow

If a motorist does not have a cell phone, a Road Ranger can allow the motorist to use their cell phone to call *FHP to request a Rotation Tow. The FHP Dispatcher will get the required information directly from the motorist. The Road Ranger is required to notify the RTMC that a Rotation Tow has been requested by the motorist.

Abandoned Vehicles

The Road Ranger will notify the RTMC of all abandoned vehicles. The RTMC Operator will provide the Road Ranger with the Event confirmation number. This number, along with the date, time, and Road Ranger Truck Number, will be marked on the rear window of the vehicle (or side window if it is a convertible). The Road Ranger is to provide the necessary information.

- Location.
- Tag Number.
- Last 4 of VIN (for verification).
- Vehicle description (for verification).
- If there is no TAG attached to the vehicle the Road Ranger needs to provide the whole VIN to ensure the vehicle is not stolen.

The RTMC may ask for Road Ranger assistance with updating the status of abandoned vehicles in the system, particularly in cases where the vehicle may not be visible via CCTV.

Accidents

The Road Ranger will notify the RTMC of all accidents detected. The RTMC Operator will provide the Road Ranger with the event confirmation number following the collection of all necessary information. It is the

responsibility of the Road Ranger to report any changes in the event to the RTMC, particularly when it involves lane blockage. It is a performance measure of the RTMC Operator to document said changes into the SunGuide system, and update any external communications, such as DMS signs, text messaging, or contacting another RTMC.

Many accident scenes will require the Road Ranger to set up maintenance of traffic (for MOT see MOT section below). Specific guidelines must be followed by the Road Ranger when setting MOT for safety reasons.

Debris

The Road Ranger will inform the RTMC of the type, and location of debris. If the debris cannot be safely handled by one Road Ranger, the RTMC will dispatch a second Road Ranger to assist. If necessary, a temporary MOT may be set up to safely retrieve the debris. It is the responsibility of both the RTMC Operator and the Road Ranger to make certain the debris is disposed of properly. In addition, the Road Ranger is required to notify the RTMC if assistance from any Asset Management is required.

The RTMC shall contact Jorgensen and VERSAR, and if the debris is large and/or bulky and seems to be accumulating. Such large debris could be defined as bumpers, sofas, grills, mattresses, etc. Documentation in comments is required whenever an Asset Management Company is notified about such debris. The event may then be closed following regular procedures.

Disabled Vehicles

The Road Ranger will notify the RTMC of all disabled vehicles detected, including services provided. In the event a Road Ranger decides to transport a motorist to the next exit due to an unsuccessful repair, the Road Ranger will communicate such to the RTMC before making the transport. The RTMC Operator will then provide the Road Ranger with two confirmation numbers. The first number will represent the unsuccessful repair and transport of the disabled vehicle. The second number will be a cloned event number representing the now abandoned vehicle. The Road Ranger will mark the abandoned vehicle with a confirmation number.

Driving On the Shoulder / HOV Lane to Reach an Incident

Road Ranger Operators shall not use shoulders during normal patrolling unless responding to a specific emergency request and it allows a Road Ranger Vehicle to reach the destination faster.

Road Ranger Operators shall request permission from the RTMC or a Law Enforcement Officer to travel on the shoulder. The Road Ranger shall not exceed a speed limit of 15MPH while traveling on the shoulder.

Note. Requests to use the shoulder should come from FHP.

FHP Disabled Vehicles

On certain occasions, it will be necessary to assist a disabled FHP patrol vehicle. Requests made by FHP for Road Ranger assistance on the freeway will be handled by the RTMC and a Road Ranger will be dispatched. Requests made by FHP for Road Ranger assistance off the freeway will be referred to Superior Towing.

Injuries: Fatality

To prevent the possibility of an invalid fatality notification, the following scenarios will need to take place when handling reports of fatalities:

- Road Ranger confirms a report of fatality received from FHP or Fire Rescue on the scene.
- The operator confirms fatality with FHP via a landline.
- SIRV Unit on the scene confirms fatality.
- Upon confirmation of fatality, a Level 3 Incident Email Alert Notification will be sent out. A Level 3 Incident SunGuide Alert is sent out whether there are lanes that are blocked or not.

Missing/Malfunctioning Equipment

In the event of missing and/or malfunctioning Road Ranger equipment, the RTMC Operator is required to notify the Road Ranger Supervisor. This will ensure the equipment issue is documented and handled appropriately.

Road Ranger Accident

If a Road Ranger is involved in an accident, the following procedure must take place:

- Enter the incident with the event type of "Crash" into SunGuide.
- Under the Vehicle Information section, select "Road Ranger" for the Make of the vehicle.
- Notify the RTMC Operations Supervisor.
- During normal business hours and after hours, notify the RTMC Operations Supervisor and the Road Ranger Supervisor.
- Off-hours notify the On-call Supervisor if a Road Ranger is injured. Send an email to the TSM&O Program Manager and the RTMC Operations Manager.
- Manage the incident like any other accident.
- Send Executive Notification email.

Whenever a Road Ranger is involved in an incident, send the TSM&O Incident Management Program Manager, and the Asset Management contractor supervisor an email with the date, time, location, and description of what happened.

- Put Road Ranger Involved Incident in the subject line,
- ATTACH the SunGuide chronology report and copy the Supervisors and Managers.

Road Ranger Safety

Maintenance Of Traffic (MOT)

It is the RTMC Operators' responsibility to ensure, when visually possible, that the Road Rangers set up their MOT in a proper manner. This requires that upon the arrival of a Road Ranger to an event such as an accident, disabled vehicle, etc., the Road Ranger take the following action to set up MOT:

On The Shoulder

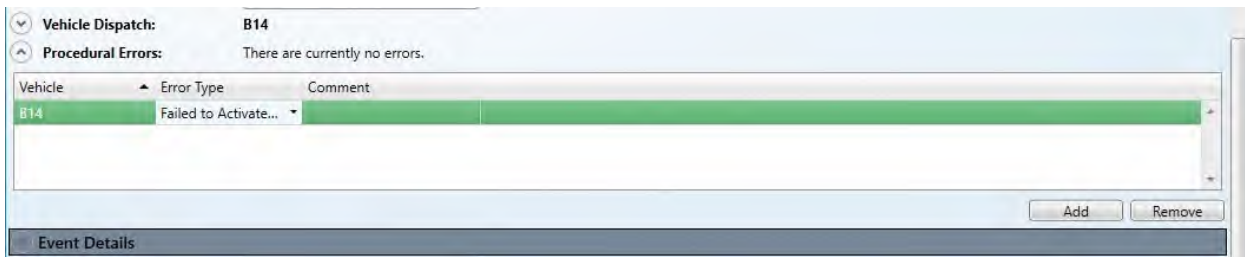
- Park 30 to 50 feet behind the incident.
- Display Caution (four points).
- Set up cones.
- Turn wheels away from traffic.

Lane Closure

- Park 30 to 50 feet behind the incident.
- Display the Arrow in the direction they want traffic to flow.
- Set up cones.
- Turn wheels away from traffic (if applicable).

If these procedures are not being followed, contact the Road Ranger and advise them of the error/issue. Additionally, contact the Roaming Road Ranger Supervisor. After you advise the Road Ranger, update SunGuide to reflect the occurrence.

- To indicate a Road Ranger procedure error, click on the "Procedural Error" subsection hyperlink within SunGuide, located under the Vehicles Dispatch section.
- Select the "Vehicle, Error Type" and provide Comments (see picture below).



- Notify an RTMC supervisor during normal working hours or if available a Road Ranger supervisor.

Procedural Errors Documentation

The RTMC Operator shall document the error and forward an email to the Asset Management Company, the Freeway Operations Manager and copy the Supervisors and Managers. The operator should alert the Road Ranger Supervisor and Roaming Road Ranger to alert them of the error on the same day/shift the error occurred. This will allow the opportunity for the Road Rangers to receive immediate feedback on the error and correct the procedure so that safety issues do not arise.

Road Ranger Beats

In Broward County, there are a total of 8 Road Ranger Beats. The morning Road Ranger Beats starts from (5 AM to 130 PM) and (6 AM to 230 PM). The afternoon Road Ranger Beats starts from (1 PM to 930 PM) and (2 PM to 1030 PM). Overnight Road ranger Beats are from (9 PM to 530 AM) and (10 PM to 630 AM).

Road Rangers Transporting Motorist

Due to safety issues, Road Rangers are not to transport motorists, not even to the nearest exit unless at the request of an FHP trooper on scene. If requested by FHP dispatch, please let the dispatcher know that transport will not occur until a trooper arrives. If need be, the Road Ranger can remain on scene to provide safety for the motorist until the trooper arrives.

In Palm Beach County there are a total of 4 Road Ranger Beats. The morning Road Ranger Beats starts from (5 AM to 1 PM) and (6 AM to 1 PM). The afternoon Road Ranger Beats starts from (1 PM to 9 PM) and (2 PM to 9 PM). Overnight Road ranger Beats is from (9 PM to 5 AM).

In the Northern Three Counties, there are a total of 8 Road Ranger Beats. The morning Road Ranger Beats starts from (5 AM to 130 PM) and (6 AM to 230 PM). The afternoon Road Ranger Beats starts from (1 PM to 930 PM) and (2 PM to 1030 PM). Overnight Road Ranger beats are from (930 PM to 6 AM).

ROADWORK EVENT MANAGEMENT

Overview

Roadwork can have a major impact on the flow of traffic on the highway. There are two basic types of roadwork that are relevant to the District 4 RTMC:

- Scheduled Roadwork.
- Emergency Roadwork.

Scheduled Roadwork

FDOT District Four subcontracts roadwork projects to construction/engineering firms. Types of roadwork done by these contractors can include projects such as repaving, milling and resurfacing, overpass (bridge) renovation/repair, guardrail installation/repair, landscaping, light pole installation/repair, and even new road construction.

The contractor for each roadwork project submits details of their project to the District Four FDOT Public Information Office (PIO). The PIO compiles details for each roadwork project and disseminates the information to public safety agencies and local media via a press release called the Broward County Traffic Impact Report, I-595 Express Corridor Traffic Impact Report, and the Treasure Coast Traffic Impact Report. The District 4 RTMC receives these press releases every week. The following information is included for each construction project:

- Location.
- Traffic Impact (dates, times, and lane blockage info).
- General Description of work.
- Completion Date.

To avoid major disruptions of traffic, contractors typically try to schedule major roadwork in the nighttime hours between 10:00PM and 6:00AM. Other types of work may be scheduled in the daytime hours between 9:00AM and 3:00PM. For some projects, however, roadwork will continue day and night until completed.

Emergency Roadwork

Another type of roadwork relevant to the Broward RTMC is the repair work needed after an incident has damaged infrastructure. This is referred to as Emergency Roadwork.

Jorgensen is responsible for repairing infrastructure damage and long-term MOT in Broward on I-95, I-595 and I-75 up to US27. For I-75, the Asset Management firm responsible for emergency roadwork is Jorgensen from US-27 West (including the entrance and exit ramps). For I-95 in Martin, St. Lucie and Indian River County, the Asset Management firm that is responsible for infrastructure and long-term MOT is Jorgensen.

Note. In areas considered active construction zones you will follow the specific guidelines provided regarding infrastructure damage repairs and/or Long-Term MOT.

On occasions, RTMC would aid with roadwork events. It is done by dispatching a Road Ranger to verify the roadwork and by posting information on Dynamic Message Signs (DMS).

Non-emergency, unscheduled roadwork in a known construction zone should be classified as ROADWORK-SCHEDULED.

Procedure

#	Steps and Details
1.	Create SunGuide Event: <ul style="list-style-type: none"> – Accurately record notifier and contact (FDOT Maintenance, CCTV, D4 Road Ranger, etc.). – Set to Active once confirmed.
2.	DMS: <ul style="list-style-type: none"> – Post messages with the maximum number of lanes blocked. If a sign is in the middle of the construction, do not use it. – When there is an active incident that is located beyond the roadwork, post all applicable sign(s) before the roadwork for the roadwork event and the sign at the roadwork for the event beyond the roadwork. – If the event closes all lanes, and the roadwork does not, sign for a full closure.
3.	Send the email message out. <ul style="list-style-type: none"> – Select Level 3 for all scheduled roadwork. – Select the correct county CONSTRUCTION group as recipient. – Send and Confirm email through RPG.
4.	Review and Publish FLATIS through RPG.
5.	Enter OTHER as the activity for assigned Road Ranger and include a Comment indicating detection of incident.
6.	Notify appropriate agencies: <ul style="list-style-type: none"> – 595 Express LLC (all D4 highways if applicable 95/75/869 and 595 EB). – District 6 (northbound mainline). – Turnpike (if applicable).
7.	Monitor the roadwork throughout the incident (see MONITORING section below).
8.	Once the roadwork is complete: <ul style="list-style-type: none"> – Blank the signs. – Update SunGuide. – Send the cleared county CONSTRUCTION email. – Remove, or unpublish 511 FLATIS. – Update agencies on clearance of closures. – Provide the event confirmation number to the Road Ranger. – Close the event.

Monitoring

Due to the length of roadwork events and the possibility that the lane blockage pattern may change without notification from contractors, it is critical that the RTMC continuously monitor all events for any changes that may occur and that messages are updated in timely manner:

- At least once an hour, the RTMC Operator is required to monitor the event via CCTV or Road Ranger to confirm no changes to lane blockage pattern.
In addition, an Operator should monitor traffic before, at, and beyond the roadwork incident.
- With every event checked on,
 - ✓ Confirm with the verification resource (CCTV or assigned Road Ranger) and
 - ✓ Record in the comment section indicating the confirmed location and whether there were any changes to the lane blockage.
- Unsafe practices on the part of the contractor should be recorded and reported (see Safety section).
- If changes have occurred, → Click, and refer to SOP → [RESPOND to CHANGES in EVENTS](#).

Safety

While monitoring the status of roadwork events, RTMC Operators should document/report any unsafe practices on the part of the contractor. For example:

- Insufficient/improper MOT creating a dangerous situation for motorists and/or workers.
- Construction vehicles travelling in the wrong direction.
- Working without proper safety equipment.

The RTMC Operator is responsible for the following:

- Shall document the error in SunGuide,
- Contact the on-call person for the contractor,
- Take a screen shot from the CCTV and,
- Send an email to the specific construction project manager or CEI for the project.

511 Reporting

- You must update any long-term construction daily, so that the 511 website is updated within every 24-hour period.
- You may just use the republish option –
 - ✓ Right click on map, EM,
 - ✓ Republish event from the drop menu; ensure that you send the alert when you take over the event or make an update to the chronology.

If no updates are made, then the update alert will be sent based on the last time stamp entered in SunGuide.

Documentation

All roadwork event details must be recorded in SunGuide. In addition, the Shift Report should be updated to reflect all applicable details relating to the event.

UNRESOLVED EVENTS

Overview

Unresolved Events These are the events that have been responded to and managed by the RTMC but the vehicles associated with the event are located on a roadway shoulder and do not impede traffic flow or pose a risk to the motoring public.

Although the responsibility of updating the status of unresolved events falls mainly on the overnight shift to maintain it is expected that all RTMC Operators continuously check the status of these events. Below are the general guidelines for managing unresolved events.

Policy

It is important that each shift checks on vehicles that have been left in unresolved status. Periodically checking the unresolved events should be a smoother process if camera numbers and presets were properly recorded in all events viewed via CCTV. If the event cannot be viewed via CCTV, the Operator should contact a Road Ranger to check the status of the unresolved event and document the results in the comments section.

The following guidelines will assist the Operator with prioritizing the unresolved events while reviewing:

- Begin with the event types other than abandoned. These events must be updated to reflect whether the vehicle has been abandoned or not. All unresolved disabled vehicles and accidents must be removed or should be cloned to abandoned status within six (6) hours.
- After the non-abandoned event types are updated, continue checking the unresolved events list.
- Start with the oldest events, (top of the list) and work toward the most recent events (bottom of the list).
- These events should be checked every two hours during each shift, and before and after each break and lunch.
- If the vehicle is not occupied, the event type changes to Abandoned. If the vehicle started out occupied and initially was a disabled vehicle, the event type gets cloned to Abandoned.
- Click **Clone event** button to clone the vehicle to Abandoned.
- Provide the Event ID number to the Road Ranger. This number will be written on the vehicle's rear window, along with the Road Ranger truck number, and date/time of marking.

It is the responsibility of the RTMC Operator to notify FHP when an abandoned vehicle has been left on a roadway shoulder for more than 72 hours.

- Notifications to FHP should only occur on weekdays, during the first shift, but not during peak hours.
- The FHP Dispatcher will submit a request for an FHP Officer to tag the vehicle.

When an event is already placed in unresolved status and the lanes get blocked or were blocked before getting unresolved, we do not make that event active and do not place responders back on the event.

If you need to block an existing unresolved event, or you need to make an existing unresolved event that had previous lane blockage active (for whatever reason), ensure you are creating a NEW event and linking it as a secondary. This only applies to events when there is a lane blockage involved. Failure to do so will result in an operator error.

Documentation

When an unresolved event has been updated, it is required to document all details in SunGuide. Specifically, a comment should be added reflecting the status of the event.

HURRICANE PREPAREDNESS

Overview

The hurricane season in South Florida

It runs from June 1 through November 30. History has taught us that South Florida can be strongly affected by hurricane activity. The intensity of a hurricane is expressed in terms of categories (1-5). A category 4 hurricane would, on average, be expected to cause 100 times the damage of a Category 1 storm. There is a difference between a hurricane watch and a hurricane warning. A hurricane watch issued for the area indicates the possibility that hurricane conditions could be experienced within 36 hours. A hurricane warning issued for the area indicates that sustained winds of at least 74 mph are expected within 24 hours or less.

During any storm, debris such as signs, roofing material, and small items left outside become flying missiles and could end up in our roadways. Precautions must be taken before, during, and after the storm to assure the safety of all. These are the procedural preparations pre- and after-storm procedures.

Procedures

Preparation

Upon notification of a hurricane watch and/or warning for the area, the following steps should be taken:

#	Steps and Details		
1.	Pay attention to weather reports and patterns.		
2.	Have a current copy of all emergency telephone numbers.		
3.	Make certain there are ample supplies for all Road Ranger trucks.		
4.	<table border="0"> <tr> <td style="vertical-align: top;"> Road Ranger pickup trucks will carry extra fuel and water. Tow trucks do not have room. </td> <td style="vertical-align: top;"> <ul style="list-style-type: none"> – The contractor will provide 68 additional five-gallon containers for the pickup trucks and 48 cases of bottled water. – Inspections should be as complete as possible on all trucks to ascertain that regular supplies on all trucks are sufficient. – Make certain there are ample hurricane supplies for the RTMC. – Make certain your home and family are prepared. </td> </tr> </table>	Road Ranger pickup trucks will carry extra fuel and water. Tow trucks do not have room.	<ul style="list-style-type: none"> – The contractor will provide 68 additional five-gallon containers for the pickup trucks and 48 cases of bottled water. – Inspections should be as complete as possible on all trucks to ascertain that regular supplies on all trucks are sufficient. – Make certain there are ample hurricane supplies for the RTMC. – Make certain your home and family are prepared.
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IMPORTANT: Once sustained winds exceed 35mph, all Road Ranger service trucks will come off the roads.

Staffing

#	Steps and Details
1.	All shifts for Road Rangers and RTMC Operators will remain on duty 24/7 for as long as it is safe. (Until sustained winds exceed 35mph).
2.	The RTMC and FHP will be staffed during the storm as follows: <ul style="list-style-type: none"> – RTMC:4 Operators and 1 Supervisor (at a minimum)
3.	Regular operations will resume as FHP redeploys.
4.	For those who will be staying at the RTMC during the storm, make certain to prepare your disaster supply kit ahead of time. <ul style="list-style-type: none"> – Pack everything in airtight containers. – Keep supplies all together in a backpack, duffel bag, or other easy-to-carry receptacles. – Plan on supplies lasting anywhere from 3 to 14 days. – Date everything so that you know when anything needs replacement.

Area Evacuations

If there is an area evacuation in order, traffic conditions could change drastically, making our jobs very busy. Evacuation does not just include coastal communities but also mobile home parks in all locations.

- NO emergency resources will be available once sustained tropical storm-force winds arrive (35 mph).
- 511 and other RTMCs shall be notified as soon as roads have been closed.

After The Storm

Upon notification/verification of redeployment, District 4 RTMC Operators will:

- Direct all Road Rangers and SIRV Operators to watch for power lines that could be entangled in debris or disabled/abandoned vehicles.
- Direct all Road Rangers NOT to drive through or walk through flooded areas.
- Watch for debris on the roadway and caution Road Rangers that debris could contain sharp objects.
- Continually monitor all cameras via CCTV.
- Issues detected must be disseminated promptly. After the storm, there is the possibility of flooding and tornado activity.

Inquiries

District 4 RTMC Operators may address any inquiries from the public received via *FHP by providing the information that roads have been closed once the announcement has been made.

No alternate route information shall be communicated.

AMBER (FDLE) ALERT EVENT MANAGEMENT

Overview

In 2000, the Florida Department of Law Enforcement (FDLE), along with our state, local, and private partners, developed a plan to establish the Florida AMBER Alert.

The AMBER Alert

It provides law enforcement with a tool to quickly and effectively notify the general public of critical information regarding a child who has been abducted and is endangered. It is disseminated to the public through the Emergency Alert System (EAS) by broadcasting the alert on television and radio in addition to the Florida Department of Transportation's (FDOT) highway Dynamic Message Signs (DMS) and other highway advisory methods and/or Department of Lottery's (DOL) lottery machines.

In 2003, as part of the Florida AMBER Plan, FDLE also established the Missing Child Alert. This alert can be used when a child is missing, and law enforcement has reason to believe that their life is in danger, but there is no indication that the child has been abducted.

Together these tools provide Florida's residents and visitors with information that can help to save the life of a child and keep their communities safe.

Policy

The following defines the criteria for the activation of an AMBER Alert; guidelines used when activating and terminating the alert; available resources; and the message format.

Criteria for AMBER Alert Activation

- The child must be under 18 years of age.
- There must be a clear indication of an abduction.
- The law enforcement agency's preliminary investigation must conclude that the child's life is in danger.
- There must be a detailed description of the child, abductor, and/or vehicle to broadcast to the public.
- The activation must be recommended by the local law enforcement agency of jurisdiction.

Criteria for Missing Child Alert Activation

- The child must be under 18 years of age.
- The law enforcement agency's preliminary investigation must conclude that the child's life is in danger.
- Descriptive information and a photograph of the child must be available.
- The agency of jurisdiction must approve the issuance of the Missing Child Alert.

Activation

- The local law enforcement agency will contact the FDLE Missing Endangered Persons Information Clearinghouse (MEPIC) at 1-888-356-4774.
- The FDLE works in conjunction with the local law enforcement agency of jurisdiction to determine if the information is to be broadcast on a regional or statewide basis.
- The FDLE, working in conjunction with the local law enforcement agency of jurisdiction, prepares information for public distribution.
- The FDLE ensures, based on its content, that the information is broadcast through the EAS, DMS (requires license plate information), lottery machines, wireless emergency alert (WEA), email through www.missingchildrenalert.com, and other appropriate resources.

Procedures

Upon receipt of AMBER or Missing Child Alert Activation email/fax from RTMC District 5:

- Confirm activation area.

Create an AMBER Alert Event in SunGuide (a request has been made to add a Missing Child Alert event type).

- It is imperative to enter the vehicle information into the "Vehicles" section of SunGuide. The tag alert feature will notify the RTMC Operator if a duplicate tag has been entered.

DMS: When the District 4 RTMC is within the Area of Activation – select a previous AMBER or Missing Child Alert message from the Pre-Defined Plan library, copy the message, change vehicle information to a specific vehicle, and make sure to hit enter twice to create two-phase messaging. Information should be typed EXACTLY as it appears on the FAX/EMAIL. If you feel an error has been made on the fax/emailed request, you must notify the on-call Manager.

- Confirm that the phases are set for 3 seconds.

DMS: When the District 4 RTMC is outside of the Area for Activation, follow the same procedures as above except only the following list of select DMS signs will be used:

	Name	Location	CCTV	Other
	595EB11	E of I-95 N	5014	
X	595WB10	W of US 1	5016	
	595WB09	W of I-95 S	5013	
X	75NB06	S of Miramar	7005	
	75NB12	S of Griffin	7011	
X	75NB16	S of 595	7014	
	75NB22	S of US 27	7021	
X	75SB24	N of US 27	7025	
X	75SB20	Before 595	7019	
	75SB14	N of Griffin	7013	
X	75SB10	N of Pines	7009	
X	95NB18	S of Hallandale	9014	
X	95NB23	S of Griffin	9020	
	95NB27	S of Broward	9027	
	95NB31	S of Oakland	9030	
X	95NB33	At Cypress	9034	

	95NB38	S of Copans	9038	
X	95NB40	S of SW 10th	9038	
X	95SB42	N of Hillsboro	9046	
	95SB40	N of Sample	9043	
	95SB38	S of Copans	9039	
X	95SB35	N of Cypress	9036	
	95SB31	S of Oakland	9031	
	95SB28	S of Sunrise	9028	
X	95SB26	At Davie	9026	
	95SB21	N of Sheridan	9020	
X	95SB19	S of Pembroke	9017	
X	869SB01	S of Sunrise	8001	

There are twelve DMS located in Palm Beach County.

	Name	Location	CCTV	Other
	95NB46	AT MM 46.6	0460	
	95NB53	AT MM 53.7	0535	
	95MB59	AT MM 59.5	0590	
	95NB66	AT MM 66.4	0660	
	95NB72	AT MM 72	0715	
	95NB77	AT MM 77.9	0770	
	95SB82	AT MM 82.0	0820	
	95SB72	AT MM 72.4	0730	
	95SB66	AT MM 66.9	9967	
	95SB59	AT MM 59.5	0600	
	95SB53	AT MM 53.7	0545	
	95SB47	AT MM 46.8	9947	

All the Northern Three Counties 12 DMS devices will be utilized for the Amber Alert for In Area and Out of Area.

Name	Location	CCTV	County
95NB95	At MM 95	0950	MARTIN
95NB108	At MM 108.5	1085	MARTIN
95NB127	At MM 127.5	1275	ST. LUCIE
95NB136	At MM 136	1355	ST. LUCIE
95NB145	At MM 145.5	1450	INDIAN RIVER
95NB154	At MM 154.5	1535	INDIAN RIVER
95SB97	At MM 97.5	0980	MARTIN
95SB122	At MM 122.5	1235	MARTIN
95SB130	At MM 130.5	1310	ST. LUCIE
95SB139	At MM 139	1400	ST. LUCIE
95SB148	At 148.5	1490	INDIAN RIVER
95SB157	At 157.5	1580	INDIAN RIVER

Notify SEFRTOC partners according to normal operating procedures. (Partners include District Six, Florida's Turnpike, 595 Express LLC, and District One and AMP.)

RTMC sends AMBER or Missing Child ALERT– Email Group will be sent as a District 4 Vehicle Alert.

Email text alert should read as follows (follow the grid):

CHILD ABDUCTION or MISSING CHILD
ALERT
CALL *347

Vehicle description, state & tag

- Floodgate: Statewide and multi-regional floodgate messages will be done by District 5. If it is one or two regions, the individual districts will be responsible.
- DMS and website should be monitored throughout the duration of the AMBER Alert Event.
- REMEMBER: Lane blockage incidents take precedence over AMBER Alert Messages.
- FDLE will follow the same activation steps listed above if additional activation is required containing revised vehicle information and/or broadcast area.
- Once FDLE is informed that the offender has been captured or the child has been found, the FDLE will immediately contact the Florida Highway Patrol Shift Commander at (407) 737-2200 and FDOT District 5 at (407) 736-1900 to cancel the alert. The FHP Shift Commander in Orlando is then responsible for relaying the cancellation information to the Shift Commander at the FHP Communications Centers that were originally notified. The Orlando RTMC will then notify all other RTMC staff statewide that the AMBER Alert has been canceled and messages can be removed from the DMS and Floodgate.

Termination

- RTMC receives a fax/email cancellation message from Orlando RTMC.
- RTMC receives verbal cancellation notification from Orlando RTMC. If the verbal cancellation is not received, the RTMC contacts Orlando RTMC for confirmation of cancellation.
- Unless requested for a longer duration, AMBER alert information will be posted for a maximum of 24 hours; Missing Child alert information will be posted for a maximum of 6 hours.
- RTMC updates the event in SunGuide.
- RTMC blanks all AMBER or Missing Child Alert messages from DMS.
- RTMC sends AMBER ALERT– Email Group will be sent as a Broward Vehicle Alert Incident Email Alert and Martin, St. Lucie, Indian River Vehicle Alert Notification (send all three in the same alert and not three individual) cancellation of AMBER Alert.
- Cleared text alert must read as follows:

THIS AMBER ALERT (or MISSING CHILD ALERT) HAS BEEN CANCELLED
Vehicle description, state & tag
- RTMC notifies SEFRTOC partners (Florida's Turnpike, District Six, and 595 Express LLC)
- RTMC closes the event in SunGuide.

Documentation

All AMBER and Missing Child Alerts must be documented in SunGuide, on the Shift Report, and in the Debrief. Be sure to indicate the type of alert (AMBER or Missing Child) in the comments.

LEO ALERT EVENT MANAGEMENT

OVERVIEW

The Florida Department of Law Enforcement (FDLE), in conjunction with the Florida Department of Transportation (FDOT) and the Florida Highway Patrol (FHP), has established the Florida LEO Alert Plan.

The purpose of the Florida LEO Alert Plan is to broadcast critical information of a suspect who has killed or seriously injured a law enforcement officer and if not apprehended immediately would pose a significant risk to the public. The information would be broadcast in a timely manner to the public via FDOT's highway Dynamic Message Signs (DMS) and other highway advisory methods. In the event the suspect is seen or if anyone has knowledge of the identity of the suspect, that information can be provided immediately to the investigating law enforcement agency.

The Florida LEO Alert Plan can assist in dramatically increasing the chances of capturing the suspect rapidly before fleeing the State of Florida.

Procedures

Activation Criteria

To activate the alert, the following four criteria must be met:

- The suspect killed or critically injured a law enforcement officer.
- The law enforcement agency's investigation must conclude that the suspect pose a serious public risk.
- There must be a detailed description of the suspect's vehicle to broadcast to the public (photos when available).
- The activation must be recommended by the local law enforcement agency of jurisdiction.

Note. To activate FDOT's Dynamic Message Signs, enough vehicle description information along with a complete or partial tag number to benefit a broadcast on the signs must be available.

Activation Process

The activation process must be followed in order:

- The local law enforcement agency will call the Florida Department of Law Enforcement / Florida Fusion Center (FFC) desk located in Tallahassee, Florida. The FFC desk is staffed 24/7 and is the point of contact for LEO Alerts.
 - An on-call Special Agent Supervisor will work in conjunction with the local law enforcement to ascertain whether the case meets the criteria and to offer additional help if needed.
 - An on-call FDLE FFC analyst will work in conjunction with the FDLE FFC duty officer if the request comes in after hours.
- The FDLE will work in conjunction with the local law enforcement agency of jurisdiction to determine if the information is to be displayed on FDOT's DMS regionally or statewide.
- The FDLE will work in conjunction with the local law enforcement agency of jurisdiction to prepare information (i.e. suspect and/or vehicle, contact information) for public distribution using the approved format.
- FDLE will provide the approved template to be used including vehicle description, tag number and any other identifier.
- If FDLE determines that the FDOT DMS is to be used, then the FDLE will contact FHP Communications Center Shift Commander located in Orlando, Florida at (407)737-2200 to alert duty officers and other call takers of the LEO Alert. The FDLE will then fax/email/email all available information concerning the LEO Alert to the FHP Communications Center in Orlando at (407)737-

2217. The FHP Shift Commander in Orlando is then responsible for relaying all information via telephone and fax/email/email to the other Shift Commanders at the appropriate FHP Communications Centers in the regions where the activation is occurring.

- The FDLE will then contact FDOT's Orlando.
- Regional Transportation Management Center (RTMC) by calling (407)736-1900 to develop the content of the message to be utilized. FDLE will then fax/email/email the actual DMS message to the Orlando RTMC at (407)736-1918, using the following format.

Phase 1

LEO ALERT

CALL *347

Phase 2

<color> <make> <model>

FL TAG XYZ 123

- The Orlando RTMC staff will relay the request to the appropriate RTMC staff in the State to activate the Florida LEO Alert Plan. The FDOT will then display the message until the suspect is captured or for a maximum of six hours. FDOT will display the alert message on all requested DMS unless a traffic emergency occurs that requires an individual or group of DMS to display a motorist safety message. FDOT will record a brief LEO Alert message on the 511 System. The 511 System is used only when the DMS is displayed.

Upon receipt of LEO Alert Activation fax/email/email from RTMC District 5:

- Confirm activation area.
- Create LEO Alert event in SunGuide (as Vehicle Alert).
 - o It is imperative to enter the vehicle information into the "Vehicles" section of SunGuide. The tag alert feature will notify the RTMC Operator if a duplicate tag has been entered.
- DMS: for activating DMS when the District 4 RTMC is within the Area of Activation, select a LEO Alert message from the Pre-Defined Message Library. Change vehicle information to specific vehicle and make sure to hit enter twice to create two phase messaging. Information should be typed EXACTLY as it appears on the FAX/EMAIL. If you feel an error has been made on the fax/emailed request, you must notify the on-call Manager.
- DMS: Is activated per District in area or out of area.

	Name	Location	CCTV	Other
	595EB11	E of I-95 N	5014	
X	595WB10	W of US 1	5016	
	595WB09	W of I-95 S	5013	
X	75NB06	S of Miramar	7005	
	75NB12	S of Griffin	7011	
X	75NB16	S of 595	7014	
	75NB22	S of US 27	7021	
X	75SB24	N of US 27	7025	
X	75SB20	Before 595	7019	
	75SB14	N of Griffin	7013	
X	75SB10	N of Pines	7009	
X	95NB18	S of Hallandale	0170	
X	95NB23	S of Griffin	0225	
	95NB27	S of Broward	0275	
	95NB31	S of Oakland	0295	
X	95NB33	At Cypress	0335	

	95NB38	S of Copans	0370	
X	95NB40	S of SW 10th	0405	
X	95SB42	N of Hillsboro	0430	
	95SB40	N of Sample	0400	
	95SB38	S of Copans	0370	
X	95SB35	N of Cypress	9036	
	95SB31	S of Oakland	0305	
	95SB28	S of Sunrise	0280	
X	95SB26	At Davie	0270	
	95SB21	N of Sheridan	9020	
X	95SB19	S of Pembroke	9017	
X	869SB01	S of Sunrise	8001	
	US1NB	At 595	NA	Non-working

There are 12 DMS in the Northern Three Counties.

Name	Location	CCTV	County
95NB95	At MM 95	0950	MARTIN
95NB108	At MM 108.5	1085	MARTIN
95NB127	At MM 127.5	1275	ST. LUCIE
95NB136	At MM 136	1355	ST. LUCIE
95NB145	At MM 145.5	1450	INDIAN RIVER
95NB154	At MM 154.5	1535	INDIAN RIVER
95SB97	At MM 97.5	0980	MARTIN
95SB122	At MM 122.5	1235	MARTIN
95SB130	At MM 130.5	1310	ST. LUCIE
95SB139	At MM 139	1400	ST. LUCIE
95SB148	At 148.5	1490	INDIAN RIVER
95SB157	At 157.5	1580	INDIAN RIVER

- Notify SEFRTOC partners according to usual procedure (Florida's Turnpike, District Six, 595 Express LLC and District One)
- RTMC sends a LEO ALERT– Email Group will be sent as a D4 Vehicle Alert
- Email text alert should read as follows:
 - LAW ENFORCEMENT ALERT
 - LOOK FOR VEHICLE
 - Vehicle description, state & tag
 - CALL *FHP
- Floodgate: Statewide and multi-regional floodgate will be done by District 5. If it is one or two regions, the individual districts will be responsible.
- DMS and website should be monitored throughout the duration of the LEO Alert event.
- REMEMBER: Lane blockage incidents take precedence over LEO Alert messages.
- FDLE will follow the same activation steps listed above if an additional activation is required containing revised vehicle information and/or broadcast area.
- Once FDLE is informed that the suspect has been captured, FDLE will immediately contact the FHP Shift Commander at (407)737-2200 and FDOT at (407)736-1900 to cancel the alert. The FHP Shift Commander in Orlando is then responsible for relaying the cancellation information to the Shift Commanders at the FHP Communications Centers that were originally notified. The Orlando RTMC will then notify all other RTMC staff statewide that the LEO Alert has been cancelled and messages can be blanked from the DMS, HAR and 511.

Termination

- RTMC receives an email/email cancellation message from RTMC.
- RTMC receives verbal cancellation notification from RTMC. If the verbal cancellation is not received, the RTMC contacts RTMC for confirmation of cancellation.
- Unless requested for a longer duration, alert information will be posted for a maximum of 6 hours.
- RTMC updates the event in SunGuide.
- RTMC blanks all LEO Alert messages from DMS.
- RTMC sends a D4Vehicle Alert Incident Notification notifying cancellation of the LEO Alert. Cleared text alert must read as follows:

THIS LEO ALERT HAS BEEN CANCELLED

Vehicle description, state & tag

- RTMC notifies SEFRTOC partners (SunGuide RTMC, Florida's Turnpike, District Six, 595 Express LLC and District One).
- RTMC closes the event in SunGuide.

Documentation

All LEO Alerts must be documented in SunGuide, on the Shift Report and in the Debrief.

Review Process

All LEO activation will be brought before a special committee of state agency partners and law enforcement representatives to ensure that the program's goals are being met and that each activation meets the criteria and is conducted in a timely manner.

Other Resources

- Local media outlets.
- Local Crimes Stoppers.

**For more information about the Florida LEO Alert Plan
Please contact the FDLE Florida Fusion Center Desk at
1-850-410-7645 or 1-800-342-0820**

SILVER ALERT EVENT MANAGEMENT

Overview

The Florida Department of Law Enforcement (FDLE), in conjunction with the Department of Transportation (DOT), the Department of Highway Safety and Motor Vehicles' Florida Highway Patrol (FHP), has established the FLORIDA Silver Alert.

The purpose of the Silver Alert is to broadcast vehicle information of a missing elderly person who suffers from irreversible deterioration of intellectual faculties. In the event the missing person's vehicle is seen or if anyone has knowledge of the whereabouts of the missing person, that information can be provided immediately to the investigating law enforcement agency.

The Silver Alert can assist in dramatically increasing the chances of the safe return of the missing elderly person.

Procedures

Activation Criteria

- The person must be 60 years and older; or the person must be 18-59 and law enforcement has determined the missing person lacks the capacity to consent and that the use of dynamic message signs may be the only possible way to rescue the missing person.
- The person suffers from an irreversible deterioration of intellectual faculties (e.g. Alzheimer's disease or dementia) that has been verified by law enforcement.
- The person is driving a motor vehicle with an identified tag.
- Local law enforcement has determined that the person's disappearance poses a credible threat to his/her welfare and safety.

Activation Process

The activation process must be followed in order:

1. The local law enforcement agency will call the FDLE Missing Endangered Persons Information Clearinghouse (MEPIC) at 1-888-356-4774.
2. The FDLE will work in conjunction with the local law enforcement agency of jurisdiction to determine if information is to be broadcast regionally or statewide.
3. The FDLE will work in conjunction with the local law enforcement agency of jurisdiction to prepare vehicle information using the approved DOT format.
4. FDLE will contact FDOT's Orlando Regional Transportation Management Center (RTMC) by calling 407-736-1900 to alert personnel of the Silver Alert. FDLE will fax/email the actual DMS Message to the Orlando RTMC to 407-736-1918, using the attached format.
5. The Orlando RTMC staff will relay the request to appropriate RTMC staff in the State to activate the Florida Silver Alert. The DOT will display the message until the missing elderly person is recovered or for a maximum of 6 hours. DOT will display the alert message on all requested DMS unless a traffic emergency occurs that requires an individual or group of DMS to display a motorist safety message.
6. FDLE will contact the Florida Highway Patrol Communications Center Shift Commander in Orlando at 407-737-2200 to alert duty officers and other call takers of the Silver Alert. The FDLE will then fax/email all available information concerning the missing elderly person to the FHP Communications Center in Orlando at 407-737-2217. FHP Shift Commander in Orlando is then responsible for relaying all information via telephone and fax/email to the appropriate to the Shift Commanders at appropriate FHP Communications Centers in the regions where the activation is occurring.

FDLE will follow the same activation steps listed above if an additional activation is required containing revised vehicle information and/or broadcast area.

Once FDLE is contacted that the elderly person has been recovered, the FDLE will immediately contact the Shift Commander at FHP and DOT at 407-737-2200, to cancel the Silver Alert. The FHP Shift Commander in Orlando is responsible for relaying cancellation information to Shift Commanders at FHP Communications Centers that were previously notified.

- The Orlando RTMC staff will relay the request to the appropriate RTMC staff in the State to activate the Florida SILVER Alert Plan. The FDOT will then display the message until the missing person is found or for a maximum of six hours. FDOT will display the alert message on all requested DMS unless a traffic emergency occurs that requires an individual or group of DMS to display a motorist safety message. FDOT will record a brief SILVER Alert message on the 511 System. The 511 System is used only when the DMS is displayed.

Upon receipt of SILVER Alert Activation fax/email from RTMC District 5:

- Confirm activation area.
- Create SILVER Alert event in SunGuide (as Vehicle Alert).
 - o It is imperative to enter the vehicle information into the "Vehicles" section of SunGuide. The tag alert feature will notify the RTMC Operator if a duplicate tag has been entered.
- DMS: for activating DMS when the District 4 RTMC is within the Area of Activation, select previous SILVER Alert messages from the Pre-Defined Message Library, change vehicle information to specific vehicle, and make sure to hit enter twice to create two phase messaging. Information should be typed EXACTLY as it appears on the FAX/EMAIL. If you feel an error has been made on the fax/emailed request, you must notify the on-call Manager.

Phase 1

SILVER ALERT

CALL *347

Phase 2

<color> <make> <model>

FL TAG XYZ 123

- DMS: When the District 4 RTMC is outside of the Area of Activation, follow the same procedures as above, except only the following list of select DMS signs will be used.

	Name	Location	CCTV	Other
	595EB11	E of I-95 N	5014	
X	595WB10	W of US 1	5016	
	595WB09	W of I-95 S	5013	
X	75NB06	S of Miramar	7005	
	75NB12	S of Griffin	7011	
X	75NB16	S of 595	7014	
	75NB22	S of US 27	7021	
X	75SB24	N of US 27	7025	
X	75SB20	Before 595	7019	
	75SB14	N of Griffin	7013	
X	75SB10	N of Pines	7009	
X	95NB18	S of Hallandale	170	
X	95NB23	S of Griffin	235	
	95NB27	S of Broward	275	
	95NB31	S of Oakland	295	
X	95NB33	At Cypress	0335	

X	95NB33	At Cypress	0335	
	95NB38	S of Copans	0365	
X	95NB40	S of SW 10th	0405	
X	95SB42	N of Hillsboro	0410	
	95SB40	N of Sample	0405	
	95SB38	S of Copans	0370	
X	95SB35	N of Cypress	0340	
	95SB31	S of Oakland	0295	
	95SB28	S of Sunrise	0280	
X	95SB26	At Davie	0270	
	95SB21	N of Sheridan	0225	
X	95SB19	S of Pembroke		
X	869SB01	S of Sunrise	0280	

- DMS: For activations in the Northern Three Counties, In Area and Out of Area events will be handled in the same manner. Select a previous AMBER Alert message from the Pre-Define library, copy message, change vehicle information to specific vehicle, and make sure to hit enter twice to create a two-phase message. If you feel an error has been made on the fax/email request, you must notify the on-call Manager. All the Northern Three Counties twelve DMS devices will be utilized for the Amber Alert.

There are twelve DMS located in Palm Beach County.

	Name	Location	CCTV	Other
	95NB46	AT MM 46.6	0460	
	95NB53	AT MM 53.7	0535	
	95MB59	AT MM 59.5	0590	
	95NB66	AT MM 66.4	0660	
	95NB72	AT MM 72	0715	
	95NB77	AT MM 77.9	0770	
	95SB82	AT MM 82.0	0820	
	95SB72	AT MM 72.4	0730	
	95SB66	AT MM 66.9	9967	
	95SB59	AT MM 59.5	0600	
	95SB53	AT MM 53.7	0545	
	95SB47	AT MM 46.8	9947	

There are twelve DMS in the Northern Three Counties.

Name	Location	CCTV	County
95NB95	At MM 95	0950	MARTIN
95NB108	At MM 108.5	1085	MARTIN
95NB127	At MM 127.5	1275	ST. LUCIE
95NB136	At MM 136	1355	ST. LUCIE
95NB145	At MM 145.5	1450	INDIAN RIVER
95NB154	At MM 154.5	1535	INDIAN RIVER
95SB97	At MM 97.5	0980	MARTIN
95SB122	At MM 122.5	1235	MARTIN
95SB130	At MM 130.5	1310	ST. LUCIE
95SB139	At MM 139	1400	ST. LUCIE
95SB148	At 148.5	1490	INDIAN RIVER
95SB157	At 157.5	1580	INDIAN RIVER

- Notify SEFRTOC partners according to usual procedure (Florida's Turnpike, District Six, 595 Express LLC, and District One).
- RTMC sends SILVER ALERT notification – Email Group will be sent as a D4 Vehicle Alert.
- Incident Email Alert Notification. Email text alert should read as follows:

LOOK FOR VEHICLE

Vehicle description, state & tag

CALL *FHP

Floodgate: Statewide and multi-regional floodgate messages will be done by District 5. If it is one or two regions, the individual districts will be responsible.

- DMS and website should be monitored throughout the duration of the SILVER Alert event.
- REMEMBER: Lane blockage incidents take precedence over SILVER Alert messages.
- FDLE will follow the same activation steps listed above if an additional activation is required containing revised vehicle information and/or broadcast area.
- Once FDLE is informed that the missing person has been found, the FDLE will immediately contact the FHP Shift Commander at (407)737-2200 and FDOT at (407)736-1900 to cancel the alert. The FHP Shift Commander in Orlando is then responsible for relaying the cancellation information to the Shift Commanders at the FHP Communications Centers that were originally notified. The Orlando RTMC will then notify all other RTMC staff statewide that the SILVER Alert has been cancelled; messages can be blanked from the DMS and 511.

Termination

- RTMC receives a fax/email cancellation message from RTMC.
- RTMC receives verbal cancellation notification from RTMC. If the verbal cancellation is not received, the RTMC contacts RTMC for confirmation of cancellation.
- Unless requested for a longer duration, alert information will be posted for a maximum of 6 hours.
- RTMC updates the event in SunGuide.
- RTMC blanks all SILVER Alert messages from DMS.
- RTMC sends SILVER ALERT notification – Email Group will be sent as a D4 Vehicle Alert cancellation of Silver Alert.

THIS SILVER ALERT HAS BEEN CANCELLED

Vehicle description, state & tag

- RTMC notifies SEFRTOC partners (595 Express LLC, Florida's Turnpike, District Six and District One).
- RTMC closes the event in SunGuide.

Documentation

All SILVER Alerts must be documented in SunGuide, on the Shift Report and in the Debrief.

ALLIGATOR ALLEY CLOSURES

Overview

Wildfire and fog closures are examples of events occurring along the Alligator Alley portion of I-75 in Broward and Collier Counties, and result in lengthy road closures. Disseminating useful information to motorists on a regional basis is a critical part of responding to these closures.

Procedure

Detection

Upon notification of impending road closures on I-75 northbound at US 27 in Broward County:

- Enter all information into the SunGuide software according to incident management protocol. If encountering fog or wildfires, → Select event type "visibility."
- Utilize CCTV 7022 to monitor/confirm the closure.
- Dispatch a Road Ranger and Severe Incident Response Vehicle (SIRV) to obtain verification and to coordinate with Asset Management Contractor and Florida Highway Patrol on scene.

Verification And Signs

Once the location of the closure is verified as being at US 27:

- Change the status of the event to "active."
- Generate a response plan through SunGuide and post DMS signs. NOTE: DMS initial signs will report ONLY road closure until floodgate messaging is initiated (RPG generated).
- Send out an initial Level 3 email alert.

Notification Of Outside Agencies

Florida's Turnpike Pompano, I-595 LLC, and District Six SunGuide TMC shall be contacted to request assistance with signing.

Floodgate Messaging

The SOUTHEAST Floodgate on the Statewide 511 FL-ATIS system will report:

I-75 is closed at US 27 due to [ENTER EVENT TYPE]. For possible alternate routes, say I-75 and then Broward.

If there are additional closures reported on the alternate routes, a manager should be contacted for additional guidance.

Floodgates will be recorded on I-75 Broward location with two possible alternate route scenarios. These messages are in the floodgate store.

Alternate route with NB and SB US-27 Open:

Possible alternate route to Naples:

TAKE US 27 SOUTH AND MAKE RIGHT ONTO KROME AVENUE THEN RIGHT ONTO US 41 WEST
- TAMIAMI TRAIL.

Possible Alternate route to Fort Myers:

TAKE US 27 NORTH TO SR 80 WEST>

Alternate route with NB US-27 Closed:

Possible alternate route to Naples:

TAKE US 27 SOUTH AND MAKE RIGHT ONTO KROME AVENUE THEN RIGHT ONTO US 41 WEST - TAMIAMI TRAIL.

Possible Alternate route to Fort Myers:

TAKE SR-869, SAWGRASS EXPRESSWAY, TO FLORIDAS TURNPIKE NORTHBOUND. EXIT AT SR-80 WEST>

Monitoring/Updates

Upon notification of floodgate messaging, RTMC Operators will:

- | | |
|---|--|
| <ul style="list-style-type: none"> - Dial 511 and verify that the floodgate message is active. | <p>Say, Broward, (floodgate should be active) > Press 751# Closure will be reported again > When asked if you would like additional information, → Say Yes (alternate route information should be active).</p> |
| <ul style="list-style-type: none"> - Once the floodgate has been posted: | <p>Edit the DMS from the RPG-generated message to the following. (Check 511). The two-phase message should only be implemented on 75NB16, 75NB22, and 869SB01.</p> <p>Notify District Six, 595 Express, and Florida's Turnpike Enterprise to advise that we are posting the following message.</p> |
| <ul style="list-style-type: none"> - Continually monitor the status of the incident and alternate routes via: | <p>the FHP website, FHP dispatchers, Road Rangers, and SIRV on scene.</p> |
| <ul style="list-style-type: none"> - Changes in incident status and problems detected on the alternate routes must be disseminated promptly. | |
| <ul style="list-style-type: none"> - If an issue is reported on the alternate routes, the on-call manager must be notified, as this will result in a change to the pre-determined plan, as listed within this SOG section. | <p>NB 75 [Phase 1]
 ALLIGATOR ALLEY [Phase 2]
 CLOSED AT US 27
 CHECK 511 FOR INFO</p> |

Inquiries

Broward RTMC Operators must address any inquiries from the public received via *FHP by providing the same alternate route suggestions as the 511-floodgate message. General alternate routes are US 41/Tamiami Trail to the south and SR80 to the north. Be advised that limited or no information regarding conditions on the suggested alternates is available to the RTMC and caution must be used in providing suggested alternates.

FOG VISIBILITY EVENTS

Overview

According to a study by the Center for Urban Transportation Research (CUTR), fog is one of the most serious meteorological limitations to visibility.

The extreme variability of fog, especially in its density and location, creates a hazard for motorists.

Fog can affect both day and night driving conditions because light, both natural and manmade, is retro reflected, (refracted and deflected by the water droplets of the fog) and will veil objects from sight. Fog is measured by visibility in miles and is considered severe (or heavy) when visibility is 1/4 mile or less.

Fog advisory messages can provide motorists with useful information about a specific problem along their route, allowing motorists to change their speed or path in advance of the problem.



Procedure

Detection

At the discretion of the Lead Operator, Broward RTMC personnel may take the initiative to post DMS messages warning motorists of reduced visibility conditions due to fog or smoke. Reduced visibility conditions may develop quickly, so it is preferred that operators act under these conditions rather than allow a reduced visibility condition to go unaddressed. It is better to err on the side of caution (i.e. post messages).

If you detect what you perceive to be serious fog and/or smoke conditions during normal CCTV monitoring, take the following actions:

There are three (3) scenarios where RTMC personnel will implement a **reduced visibility** messaging plan:

- | | |
|------------------------------|--|
| When directed by FHP: | <ul style="list-style-type: none"> • Contact NWS. • Districts (1,5,6, 595, and Turnpike) if in their area. • Total Traffic (Metro). • Post signs. |
| Via CCTV: | <ul style="list-style-type: none"> • Contact FHP. • Districts (1,5,6, 595, and Turnpike) if in their area. • NWS. • Total Traffic (Metro). • Post Signs. |
| NWS: | <ul style="list-style-type: none"> • Districts (1, 5,6, 595, and Turnpike) if in their area. • FHP. • Floodgate. • Total Traffic (Metro). • Post Signs for the relative area. |

Both offices of NWS have been given IVEDDS access as well as access to the RWIS network, so if an operator needs to notify the NWS about fog/smoke they can refer the person to the camera images.

Verification

Reports received from FHP and/or NWS should be verified.

- Enter all information into the SunGuide software as "Visibility."
- Determine whether conditions are localized or county-wide and message accordingly.

Messaging

Post DMS messages from the predefined plan manager according to the location:

- Countywide.
- Western county – Alligator Alley.

LOW VISIBILITY
USE CAUTION

No incident alert email FLATIS should be sent due to the incomplete location for messaging initiated by the RTMC).

Notification of Outside Agencies

Florida's Turnpike Enterprise and District 1, (the Alley area), 595 LLC, District 5, (N3C area), and District 6 are to be notified that District 4 is messaging for fog or smoke.

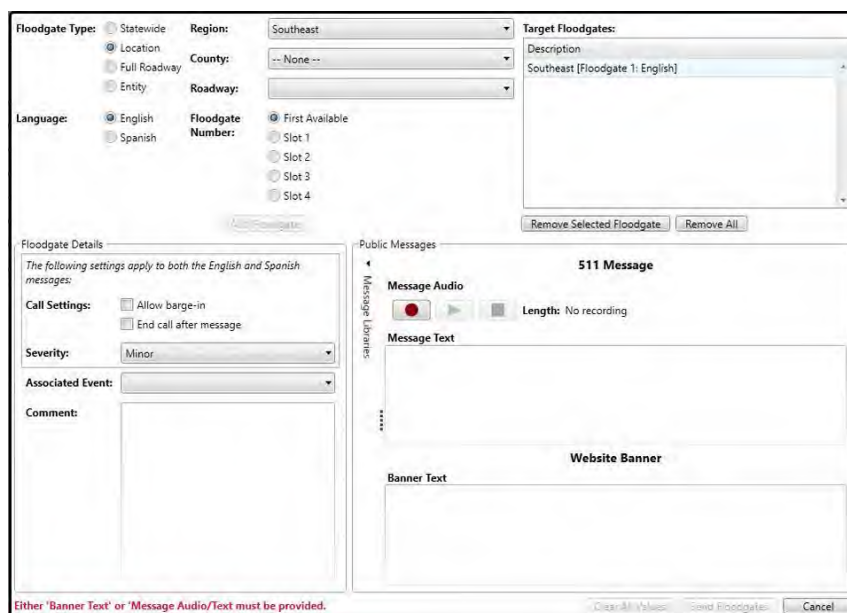
A Floodgate is only activated when there is an actual Fog Advisory from the NWS.

For National Weather Service (NWS) advisories, a 511 FLATIS floodgate message should be created to report the fog in the same format used by NWS (www.noaa.gov).

Example: A dense fog advisory has been issued for (area) until XX:XX. Please reduce your speed and use caution.

Floodgate Locations:

If an advisory is District wide = Southeast.



The screenshot shows a software window for configuring a floodgate message. It is divided into several panels:

- Floodgate Type:** Radio buttons for Statewide, Location (selected), Full Roadway, and Entity.
- Language:** Radio buttons for English (selected) and Spanish.
- Region:** Dropdown menu set to Southeast.
- County:** Dropdown menu set to -- None --.
- Roadway:** Empty dropdown menu.
- Floodgate Number:** Radio buttons for First Available (selected), Slot 1, Slot 2, Slot 3, and Slot 4.
- Floodgate Details:**
 - Call Settings:** Checkboxes for Allow barge-in and End call after message.
 - Severity:** Dropdown menu set to Minor.
 - Associated Event:** Empty dropdown menu.
 - Comment:** Text area.
- Target Floodgates:** A list box containing "Southeast [Floodgate 1: English]".
- Public Messages:**
 - 511 Message:**
 - Message Audio:** Includes a play button and a "Length: No recording" indicator.
 - Message Text:** A large text area.
 - Website Banner:** A text area.
 - Banner Text:** A text area.

At the bottom of the window, a red error message reads: "Either 'Banner Text' or 'Message Audio/Text' must be provided." Buttons for "Cancel Floodgate", "Save Floodgate", and "Cancel" are visible at the bottom right.

If advisory is Western County-Alligator Alley = Southeast > Broward.

Floodgate Type: Statewide Location Full Roadway Entity

Region: Southeast

County: Broward County

Language: English Spanish

Floodgate Number: First Available Slot 1 Slot 2 Slot 3 Slot 4

Target Floodgates:

Description
Southeast/Broward County [Floodgate 1: English]

Floodgate Details

The following settings apply to both the English and Spanish messages:

Call Settings: Allow barge-in End call after message

Severity: Minor

Associated Event:

Comment:

Public Messages

511 Message

Message Audio Length: No recording

Message Text

Website Banner

Banner Text

Either "Banner Text" or "Message Audio/Text" must be provided.

If advisory is in the Treasure Coast area = Southeast > Martin, St. Lucie, or Indian River.

Floodgate Type: Statewide Location Full Roadway Entity

Region: Southeast

County: St. Lucie County

Language: English Spanish

Floodgate Number: Slot 1 Slot 2 Slot 3 Slot 4

Target Floodgates:

Description
Southeast/Indian River County [Floodgate 1: English]
Southeast/Martin County [Floodgate 1: English]
Southeast/St. Lucie County [Floodgate 1: English]

Floodgate Details

The following settings apply to both the English and Spanish messages:

Call Settings: Allow barge-in End call after message

Severity: Minor

Associated Event:

Comment:

Public Messages

511 Message

Message Audio Length: No recording

Message Text

Website Banner

Banner Text

Either "Banner Text" or "Message Audio/Text" must be provided.

Highway Advisory Radio (HAR)

(HAR, with beacons, is only activated when there is an actual Fog Advisory from the NWS).

For National Weather Service (NWS) advisories, a 511 FLATIS floodgate message should be created to report the fog in the same format used by NWS (www.noaa.gov).

Example: A dense fog advisory has been issued for (area) until XX:XX. Please reduce your speed and use caution.

Monitoring/Updates

Fog

Fog advisories must be monitored like other events. As conditions change DMS messages should be removed from the signs. In most cases, county wide advisories will need to be downgraded to the western portion of the county.

Continually monitor the status of the fog via CCTV cameras and Road Rangers. National weather service advisories do not qualify as real-time information as they often expire long after the fog has lifted.

If an alert is received and camera was verified, and no fog is visible,

- Create an event and add comments that no fog is visible.

Smoke / Fire

Smoke and fire incidents present several types of unique dangers and hazards including visibility and actual fires along roadsides endangering life and property plus environmental and breathing issues that would affect motorists and first responders.

Detection

At the discretion of the Lead Operator, Broward RTMC personnel may initiate posting DMS messages and warning motorists of reduced visibility conditions due to smoke. Reduced visibility conditions may develop quickly. Hence, it is preferred that operators act under these conditions rather than allow a reduced visibility condition to go unaddressed.

Procedure

- | | |
|------------------------------|--|
| When directed by FHP: | <ul style="list-style-type: none"> • Contact NWS. • Districts (1,5,6, 595, and Turnpike) if in their area. • Total Traffic (Metro). • Post signs. • |
| Via CCTV: | <ul style="list-style-type: none"> • Contact FHP • Districts (1,5,6, 595, and Turnpike) if in their area. • NWS • Total Traffic (Metro) • Post Signs |
| NWS: | <ul style="list-style-type: none"> • Districts (1, 5,6, 595, and Turnpike) if in their area. • FHP. • Floodgate. • Total Traffic (Metro). • Post Signs for relative area. |

Notification Of Outside Agencies

Many external agencies rely on information provided by the RTMC to respond to incidents effectively and efficiently. The RTMC operator will contact the asset management company located for such area for all incidents requiring and emergency response to include long term.

ENTER DATA IN SUNGUIDE

Overview

The District 4 RTMC uses SunGuide, the statewide ITS software, as the primary means of storing and disseminating information about incidents on the freeway networks. Through various input screens, information about incidents is entered by the RTMC Operator. The following procedure should be used when inputting new and maintaining existing events:

Procedure

Data Preparation

There are three guidelines for entering data into SunGuide: Input, Update, and Monitor.

- Input all traffic-related events accurately and concisely.
- Update events as conditions warrant:
 - ✓ Notification, arrival, and departure of responders.
 - ✓ Lane blockage pattern.
 - ✓ Closure and termination of the event.
- Monitor active events regularly and frequently.

To enter event information into SunGuide, the following information needs to be obtained:

- Event Type.
- Notifying Agency and Contact.
- Event Location.
- Lane Blockage.
- Event Conditions.
- Specific Attributes.
- Vehicle Information.

Event Detected

Once an event has been detected and the preceding information has been obtained, begin entering the data into SunGuide. The system utilizes primarily drop-down lists, sub-forms, and checkboxes which enable easy event data entry. Enter a new event using the following process:

#	Process & Details
1.	<p>Located on the top of the main screen,</p> <ul style="list-style-type: none"> – Click Create Event. <p>You will be directed to a new window, which will prompt you for the following for Add Event.</p> <ul style="list-style-type: none"> – Event Type (i.e., Crash, Disabled Vehicle, Debris). – Notifying Agency (i.e., FHP, Road Ranger, CCTV). – Notifying Contact (i.e., 911, B01, 9035). – Status (Unconfirmed, Active). – County. – Roadway (I-95, I-595, I-75, 95Exp etc.). – Directions (Northbound, Southbound, Eastbound, Westbound). – Reference Point (Commercial, Oakland, etc.). – Offset (Before, At, Beyond, Ramp to, Ramp from).
2.	<p>After the preceding information is entered,</p> <ul style="list-style-type: none"> – Click Add Event button. <ul style="list-style-type: none"> – Event Location (County, Road, Direction, Relationship to Exit, Exit, Proximity to Exit). – Lane Blockage (i.e., Left Shoulder, Left Lane, Center, Right Lane, Right Shoulder).

Process & Details

The user will be directed to the Event Detail window, which will contain the specifics of the event.

- Enter the details in the following order:

- Vehicle Involved (Color, Make, Model, Tag ID, State).
- CCTV and preset.
- Primary/Secondary Events (if applicable): see Section 3.X.X.
- Injuries (if applicable).
- Weather Conditions (Pavement, Precipitation, Wind, Visibility, Illumination).
- Comments (Additional Event Details – purpose: to allow an operator to record information that cannot be recorded elsewhere on the Event Details screen.

OPERATOR: Document Operator comments related to the event with this comment field.

RISC: Must be used to record all RISC related details / activities including times, contacts, etc.

MANAGER: Operator will document Manager related comments or instructions with this field.

FL 511 ERROR: An error/failure is detected on the IVR or website. For IVR issues - record the number you called from and the path you followed with error details.

ROAD RANGER: Document Road Ranger issues under this comment field.

595 Express: Used only to record information management; must be aware of such as wrong event location, untimely updates, failure to notify, etc.

INFRASTRUCTURE DAMAGE: Anytime there is roadway/infrastructure damage recorded in an event with details of who was contacted, etc.

AUDIT REQUESTED: Used only when the system does not reflect actual data correctly; can affect Performance Measure integrity due to system problems or other uncontrollable circumstances.

RISC: Must be used to record RISC-related details/activities including times, contacts, etc.

HSMV NUMBER: This number is provided by the SIRV unit for all major events.

After the preceding information is entered,

- Click **Save**. The Event Detail window will refresh.

3. All Road Rangers and SIRV activities, dispatches, arrivals, cancellations, and departures are managed in this section. The section will expand and prompt for the following:

Enter the *dispatch information*.

- Click **Vehicles Dispatch** link located under the Reporting and Dispatch section.

- *Vehicle* (Road Ranger or SIRV Unit Truck Number).
- *Status:* at departure, it may be set to Patrolling, Meal, Break).
- *Activity* (i.e., Debris, Flat Tire, Fuel, Jump).
- *Timestamp* (Dispatch, Arrive, Depart, Cancel).

- Click **Save Event**.

4. Update the **Responder Status:**

- Click the applicable agency row and status column.

Make sure the times are accurate.

5. If applicable,

- Click **Save Event** to get the DMS and Email Notification Alerts. The **Save and Suggested Response Plan** will appear.

Process & Details

6.
 - Generate the appropriate devices by setting a radius.
 - Click Get New Suggestion.
 - Click **Set as Response** once you have determined the appropriate devices or defined plan.

7. Response PLAN Editor allows the operator to add, edit, remove devices, edit, or remove email, add, or remove FLATIS, and add a message plan.
 - Click **Activate Plan** to activate the Response Plan.

8. Throughout the event,
 - Input additional event details in the Comments section.

9. Click Save Changes each time an event has been updated.

Ongoing Event Monitoring

Changes

Events must be continuously monitored and updated as conditions change. When a notifying and/or responding agency informs the RTMC of changes, the RTMC Operator is required to immediately update the information in SunGuide. This ensures the accuracy of the event data and ultimately the integrity of the system.

To modify an event in SunGuide,

- Click on the event located in the Event List window.

Make the necessary changes.

Click **Save** each time you make a change to an event.

Once an event has been confirmed clear, review the **Event Detail** screen to ensure all required and relevant information has been entered.

Closing

Before closing an event, ascertain that all applicable agencies have been notified and documented correctly. By ensuring the Event Detail is complete, the user ensures the data is consistent and reflected accurately in the RTMCs Performance Measures.

Process

To change the status of an event or to close an event in SunGuide:

1. Click *the event located* in the **Event List** window.
2. Change the Status located under **Administrative Details** to reflect the current position of the event (*Unconfirmed, Active, Closed, Unresolved, False Alarm, Void*).
3. Review the event details. Make the necessary changes.
4. Click **Save**.

Additional Functions

The following are additional functions within SunGuide that the RTMC Operator will use daily.

Block / Unblock CCTV Images

On occasions, it is necessary to block a camera image feed from public viewing. This feature becomes a vital feature of SunGuide when the incident involves injuries, and the images are sensitive to the general public. The RTMC Lead Operator is required to block any necessary CCTV cameras on behalf of the RTMC Operator. The RTMC Operator has system privileges to do this task. To block a camera, follow the proceeding steps:

1. Right-click the map and bring up the camera blocking menu.
2. Locate the camera that is to be blocked.
3. Click **Block** located at the top menu of the page.

To unblock a camera, follow these steps:

1. Locate the camera that is to be unblocked.
2. Click **Unblock** located on the Camera Blocking menu.

ROAD RANGERS / SIRV

Located on the top menu bar, there is a Responder Status option, which allows the RTMC Operator to set up the Road Ranger/SIRV Units schedule.

There are three shifts that the Road Rangers use and two that the SIRV Unit uses. To modify the Road Ranger/SIRV Units schedule, follow the proceeding steps:

New Schedule

Go to the AVL/RR Vehicle Status Menu.

1. Select any category to be changed.
2. Click **Change state**. A user will be directed to a new page that you can change.
3. Select **Status** (*Patrolling, end shift, departed*).
4. Select *the Status, e.g., Patrolling*.
5. Select the Driver field to correspond with the Vehicle number.
6. Select the **Beat**.
7. Select the **Radio**.
8. Click **Change State** button.
9. Repeat until all trucks have been entered.

Road Ranger schedule is utilized and updated through Microsoft Teams.

Modify Existing Schedule

1. Select any category to be changed.
Click **Change state** and the user will be directed to a new page that you can change.
2. Select **Status** (Patrolling, end shift, departed).
3. Select a specific status, e.g., **Patrolling**.
4. Select the **Driver** field to correspond with the Vehicle number.
5. Select the **Beat**.
6. Select the **Radio**.
7. Click **Change State**.
8. Repeat until all trucks have been entered.

Reports

Located on SunGuide Map, there is a Section that says Reports which offers the RTMC Operator the ability to search and analyze event details and trends. Within the Report window, there are a series of filters that can be used to narrow the search parameters.

There are seven (7) categories of reports which make up a variety of report types. The following are some of the report types:

• Event List.	• Event Level Report.	• RR Admin Details.
• Event Details.	• Event Lane Blockage.	• RR Cost Savings.
• Event Summary Report.	• DMS Report.	• SIRV.
• Event Chronology.	• Road Ranger Activity Report.	• QA Report.
• Event Response.	• Road Ranger Admin.	• Notification Contacts.
• Agency Response Times Report.	• RR Admin Summary.	• Performance Measures Reports Manager.

There are many occasions where printing a hard copy report is required. To access a report, follow the proceeding steps:

1. Click **Category** for the type of report you would like to look up. The user will see a drop-down list that lists all the report types.
2. Click *the type of report* you require. A window will pop up on the right with search parameters. Narrow the search parameters by setting filters, by the *range of events, location, and event properties*.
3. After the filters are set,
 - Click the desired report type listed to the left of the filters.
4. Click to decide *how you would like your report generated (i.e. PDF, Word, or Excel)*

The user will be directed to the SunGuide Map, where the report will appear, and you can either view and/or print the report.

Audit

This section is used to modify event details. Examples of event details that can be changed are:

- Road Ranger Status,
- Time Reported to the RTMC,
- Notifying Agency/Contact, and,
- Event Location.

Preferences

This portion of SunGuide allows the RTMC Operator to create page refresh preferences.

The RTMC Operator can indicate the exact time the Event List is refreshed. In addition, the RTMC Operator can receive a warning on events that have lapsed the indicated time allowance.

RESPOND to CHANGES in EVENTS

Overview

Once an event has been detected and entered SunGuide, it warrants constant monitoring until it has cleared. Different types of event changes warrant different responses, including follow-up, phone calls to partner agencies, modification of data in SunGuide, and approving and sending updated Incident Email Alert Notifications. Some examples of event changes are:

- Event Clearance.
- Changes in Location/Lane Blockage.
- The arrival of Responding Agencies.
- Increase in Event Severity.
- Change in event type (example: disabled to abandoned).

Procedures

Follow these standard protocols when responding to event changes:

- Modify the event details in SunGuide.
- Update DMS Message Plan.
- Send updated Incident Email Alert Notification.
- Notify all applicable responding/surrounding agencies, including, Road Rangers, SIRV, FHP, EMS, Fire, Tow, Turnpike, GMX, and 595 Express LLC.

Certain changes to traffic events are more significant to act upon immediately than others. If there are questions regarding the event management, request assistance from the Lead or Senior Operator or RTMC Operations Supervisor.

Changes in the Event Type

There will be times when an event type will need to be amended. See examples below:

- Disabled to Abandoned.
- Accident to Abandoned.
- Debris to Accident.

There are times when a disabled vehicle will be cloned to abandoned, and times when a disabled event will get changed to an abandoned event type.

Disabled To Abandoned Vehicle

After a Road Ranger attempts or provides any type of service to a Disabled Vehicle and is unsuccessful, the incident is CLONED to an Abandoned once the motorist has left the scene, abandoning his/her vehicle.

Note. If a Road Ranger is transporting the motorist to the nearest exit, thus abandoning the vehicle, the incident is CLONED, and the Road Ranger will receive two confirmation numbers.

1. The first for the attempt to repair the vehicle/transport.
2. The second is for the disabled (the cloned event number).

The cloned number shall be given to the Road Ranger before he/she transports.

If a Road Ranger arrives at an alleged disabled, but the vehicle is abandoned,

- Then, the vehicle is CHANGED to Abandoned

- Accident To Abandoned Vehicle** If one vehicle from an accident becomes abandoned, the event may be CLONED. The cloned event then needs to have the event type CHANGED to an abandoned vehicle. However, the event with the accident confirmation number must first be closed. The vehicle is to be tagged with the cloned event number. If there are multiple vehicles involved, they must each be marked with an individual abandoned number. Each of these events will be created and linked to the primary accident event number.
- Debris To Accident** If DEBRIS in the roadway causes an accident, the event may be CLONED to an ACCIDENT. However, the cloned event needs to have the event type CHANGED to the accident. The original event of debris can be closed once the dispatched Road Ranger has arrived, received the proper activity of debris, and departs from the incident. The cloned event would contain all the pertinent information from the accident, including Road Ranger activity information.

RISC PROCEDURES

Overview

The purpose of the RISC Program is to expedite the safe clearance of major incidents from the highways using heavy-duty, specialized equipment. This program is put in place in conjunction with Florida's "Open Roads Policy," which states that the roadways will be cleared as soon as possible with the goal of all agencies that incidents be cleared within ninety (90) minutes of the arrival of the first responding officer.

The RISC program offers financial incentives to qualified companies to respond to and clear major incidents such as large vehicle crashes, rollovers, fires, and cargo spills within a specified period.

RISC Binder

A RISC binder was created to guide operators during RISC incidents. It will have updated information. The RISC binder is located on the top of Console Four. In the binder, operators will find the following:

- RISC Activation Log to fill out, (extra copies for reference purposes).
- The current contractor rotation information, including previous RISC activations.
- RISC vendors contact information.
- RISC overview.

Procedure

RISC is activated by other agencies along with Florida Highway Patrol including District 4.

- In areas where SIRV responds, a SIRV operator can recommend RISC be activated.
- In Indian River County, the Sheriff's Office, Fellsmere Police Department, and fire rescue agencies have been trained and authorized to recommend RISC.
- In the future, other agencies in N3C will be given the same training and be authorized to recommend activation.

Once requested, follow the normal activation procedure, including notifying FHP Dispatch that RISC has been activated, and providing the name of the vendor and ETA.

Responsibilities

*When dispatching SIRV to a potential RISC please make them aware of the situation. During normal business hours alert a manager or supervisor of the potential RISC calls just as you did before.

RISC dispatch for all of District 4 (Broward, Palm Beach, Martin, St. Lucie, and Indian River Counties) will be done by the Broward RTMC.

Broward RTMC is responsible for incident management and RISC dispatching for RISC events occurring in Broward, Palm Beach, Martin, St. Lucie, and Indian River Counties. The RISC Activation log should be followed closely and filled out with all the available information as it pertains to the incident.

If you can view a RISC event on camera, provide as many details as possible to the RISC vendor. The vendor rotations are tracked on paper by the Contractor Rotation segment sheet. A contractor Rotation system will be used. Operators must have the Contractor Rotation list available when contacting Management. Management is working on an electronic rotation sheet, and it will be available in the future.

The vendor rotation for RISC is kept in a binder near the Lead/Phase II Console. You should notify the Lead or the Supervisor on duty as soon as RISC has been requested. If there is no supervisor on duty and you have questions, contact the on-call Supervisor.

All times must be accurately recorded in SunGuide using the comment type "RISC" as well as on the RISC Activation Log.

No Rush

Do not panic and try to do everything too fast. The RISC activation log will also serve as a checklist to assure that all points are covered. Please contact the Supervisor on Duty or the on-call Supervisor for all RISC activations or if you have any questions.

Note.

- SIRV will be dispatched to ALL RISC activations within the SIRV response area regardless of the time of day or incident level.
- Road Rangers should be dispatched according to normal operating procedures.

Calls and Alerts

1. Call from FHP

- a. Get all the following information from the dispatcher:

Incident details:

- Location. For RISC requests on US 27 see section RISC Response US 27 below.
- Type of incident.
- Lane blockage.
- Vehicles involved.
- Is there a spill of any type (e.g., cargo, fuel, HAZMAT).
- Requests for additional equipment.

- b. Name of the dispatcher and call-back number.
 c. Name of Trooper on scene.
 d. Ask the dispatcher if there is a specific area where the contractor should stage or any routing instructions for arriving at the incident.
 e. Advise the dispatcher that you will call the contractor and call back with the name and ETA of the contractor.

2. Initial Call to Contractor

Do the following:

- a. Determine the appropriate vendor from the location and rotation.
 b. Call the contractor (all vendors have provided a 24/7 telephone number) and use the following script:
 "This is (your name) with FDOT District Four calling to initiate the Rapid Incident Scene Clearance (RISC) contract."
 c. Provide the location, details of the incident, and additional equipment requested by FHP (if any).
 d. RTMC will then ask the contractor for an estimated time of arrival (ETA) and quote the time RISC was activated (the time of the initial call to the vendor).

In the event, a call goes unanswered, leave a message with your name, telephone number, and current time. Advise that you are calling from FDOT District 4 to activate RISC on (provide roadway). The vendor shall respond to RTMC requests for vehicle recovery and clearance services as soon as possible, but no later than fifteen (15) minutes from initial contact. If the vendor has not responded within fifteen 15 minutes of the initial call, the next available vendor will be contacted by the RTMC.

- e. Vendor MAY NOT transfer requests to another vendor. If a vendor cannot respond, a vendor must notify the RTMC who will contact the next vendor on the list and move the original vendor to the bottom of the rotation list.
 f. If no vendors are available within the segment, RTMC should contact the next closest vendor from another segment (response time will be adjusted accordingly).

3. RISC Email Alerts

- a. Once the contractor has been called, a RISC activation email must be sent from SunGuide (This email is in addition to the normal incident email).
 - Select RISC Activation as the subject line.
 - REMOVE Public from the list of recipients.
 - Select RISC Activation as the email group.
 - BODY OF EMAIL: Activated at (time AM or PM), Contactor Name, requested at (time 60-minute clock started AM or PM), and ETA: XX minutes.
- b. RISC email alerts should not be limited to the beginning and end of the RISC incident but should be sent when there is a relevant important action that has taken place. (Examples: additional equipment needed, fatal, crossover, any important information that upper management should know).

4. Call back to FHP

Contact the dispatcher who originally called and provide the name of the vendor dispatched and their ETA.

Update the Supervisor on duty or the on-call Supervisor.

5. Arrival

- a. The vendor shall arrive at the scene with two recovery wreckers and a recovery support vehicle within one hour (60 minutes) from initial contact.
- b. The 60 minutes begins with the initial call requesting RISC activation.
- c. Requests for additional equipment (trucks and heavy equipment) shall not increase the time required by the vendor to perform services.

Send an updated RISC email alert when there is an Official Arrival time and/or a Notice to Proceed (including stop/start time if applicable).

6. Timekeeping

The RTMC is the official timekeeper for the RISC contract. All times and details will be tracked in SunGuide under the comment type RISC and in the RISC activation log.

- a. Initial request from FHP.
- b. Initial call to contractor.
- c. Time the contractor called back (if applicable).
- d. Estimated time of arrival.
- e. When the vendor is en-route to the incident scene.
- f. When the vendor arrives at the incident scene.
- g. When the vendor is given Notice to Proceed.
- h. When all travel lanes are cleared.

Send an updated RISC email alert when all lanes have opened or there is a clearance time.

*****Important: The clearance time and all lanes open may be different, if so, a separate email alert is required for both. *****

For a RISC event in the Martin, St. Lucie, Indian River Counties (N3C), Broward RTMC will be responsible for the following:

1. Standard Event Management (i.e., DMS, HAR, RISC emails and updates, notifications).
2. Contacting RISC Contractor and follow-up.
3. Complete RISC Activation Log.

RISC Events on US 27

Broward County

Contact the next-in-line RISC vendor from Segment 5 to request a response.

- If they choose not to respond, continue down the list (do not move a vendor to the bottom of the list if they do not want to respond to US 27).
- Once you identify a vendor willing to respond, follow normal RISC procedures, including the dispatch of SIRV.
- If you are unable to identify a vendor willing to respond, notify FHP that no one is available.

Palm Beach County

Contact the next-in-line RISC vendor from Segment 8 to request a response.

- If they choose not to respond, continue down the list (do not move a vendor to the bottom of the list if they do not want to respond to US 27).
- Once you identify a vendor willing to respond, follow normal RISC procedures; contact Tom Mangan to determine if SIRV should be dispatched. If no SIRV is dispatched, make a note and RISC timekeeping will be reliant on communication with the vendor and FHP.
- If you are unable to identify a vendor willing to respond, notify FHP that no one is available.

MOTORCADE EVENT MANAGEMENT

Overview

The following guidelines are established to provide consistency between the Broward Regional Transportation Management Center and other SEFRTOC members in the management of possible mainline or entrance/exit ramp closures in coordination with the police-escorted motorcade for a VIP. VIPs may include celebrities, politicians, or sports teams.

Policy

Information Gathering

If possible, gather as much information as possible from the Florida Highway Patrol before the visit. Specific information regarding the location and time of any closures in coordination with the visit of VIP may not be made public until a few hours prior, if at all, for security reasons.

When a VIP travels into the area, they will arrive either by motorcade from the north or arrive at an airport. In either case, identifying where the traffic is blocked off to allow the motorcade to travel undisturbed is an important step in coordinating an RTMC Response.

Full Closure vs. Rolling Roadblock

In a rolling roadblock, a police escort will stop or slow lanes down and intermittently close entrance ramps. This will clear the way for the VIP and prevent traffic from disturbing the motorcade. Given the geo-coded location based SunGuide system, it is only possible to enter Full Closures as an active traffic event. No event should be entered for a Rolling Roadblock, other than the resulting congestion.

Data Entry into SUNGUIDE

Only full sustained closures of the mainline highway will be entered as an active traffic event into SunGuide.

The Event Type should be "Police Activity."

511 FLATIS

- To keep the location of the VIP confidential, Floodgate messages will not include specific times or locations of possible ramp closures or mainline closures.
- Floodgate messages/web banner texts should only be created for full sustained closures of the mainline highway.

The messages should take the following format:

- ✓ *"All (direction)-bound lanes of (roadway) are closed at (location) due to police activity. Please avoid the area and seek an alternate route."*
- ✓ *"Direccion (rumbo) esta cerrado a la altura de (cruce) debido e actividad policial. Evite la zona y busque una ruta alterna."*

Interagency Notification

An effort should be made by the responding SEFRTOC Manager or designee to keep all SEFRTOC partners informed of the location of the VIP Motorcade in real-time via email or phone if possible.

Congestion

- Diligently monitor congestion that can build up because of rolling roadblocks or after the reopening of a road closure related to the Motorcade.
- Normal congestion data entry procedures are to be applied.

Documentation

Calls from local, state, or federal law enforcement or other agencies should be logged in each RTMC phone log and documented in the shift report and Lead Report debriefing.

POLITICAL OFFICIAL VISITS EVENT MANAGEMENT

Overview

The District Four RTMC will receive notice of high-level visits (president, vice-president, etc.) from the Secret Service. This notification, typically by email, will vary on the number of details regarding the length of the visit and specific locations. The amount of time we receive notice on the visit may also vary.

The responsibility of the RTMC will be to provide safety and privacy to the while they travel. While FHP administers the rolling road closures, the RTMC will disable cameras to the public and partner agencies. To support national security, the RTMC will not record the closure as an incident. This means that message signs will not be used, and alerts will not be sent out during the travel time, plus a buffer of 15 minutes before and after. The only party outside of RTMC management that will know the cause of the closures is the District Four Secretary.

Policy

If the RTMC receives no notice of the visit from the Secret Service, the road closures will be treated as a normal incident.

Lane blockage events occurring on the non-affected roadway or occurring in the opposite direction will continue to follow standard operating guidelines for active traffic-related events.

Responsibilities

- The FDOT Operations Manager will email the Secret Service request to the District Secretary and the RTMC's intended actions.
- The RTMC IT Manager will coordinate shutting off cameras to external sources including the website (<https://www.fdotd4traffic.com/#/app/discover>), District Six Network Access Point (NAP), IVDS, 511, BSO, and ITS WAN. The IT Manager will give courtesy notification of this shut-off to 511 and District Six. The public website (<https://www.fdotd4traffic.com/#/app/discover>) will have a statement that camera images are temporarily unavailable.
- The RTMC Manager will coordinate a pause in signing, alerts, etc. for the duration of the closure plus a 15-minute buffer before and after. The RTMC Manager will notify FHP commanders of our intended actions. The RTMC Manager will ensure that I-595 Express operations follow the same procedures.

Documentation

Calls from local, state, or federal law enforcement or other agencies should be documented in the shift report and Lead Report debriefing.

HURRICANE WARNING EVENT

Overview

Hurricanes can impact traffic conditions on the roadway network, significantly reducing safety and increasing travel times.

A Hurricane Warning can provide motorists with useful information about the possibility of encountering this serious weather event along their planned route. This advance warning will allow motorists to act, such as changing their route to avoid encountering the event.

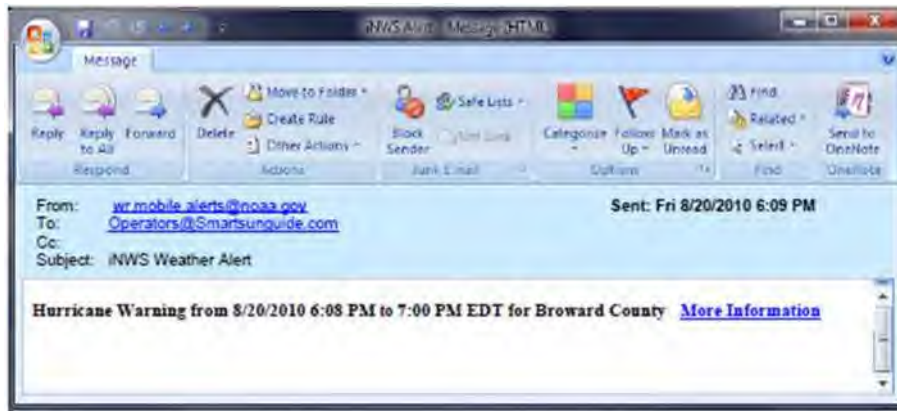
With the present system configuration, messages will be posted by the operator based on information obtained from weather alerts provided by: the National Weather Service's Mobile Decision Support Services (NWS- MDSS) <http://inws.wrh.noaa.gov>.

Only weather warnings are to be posted, not weather watches.

Procedures

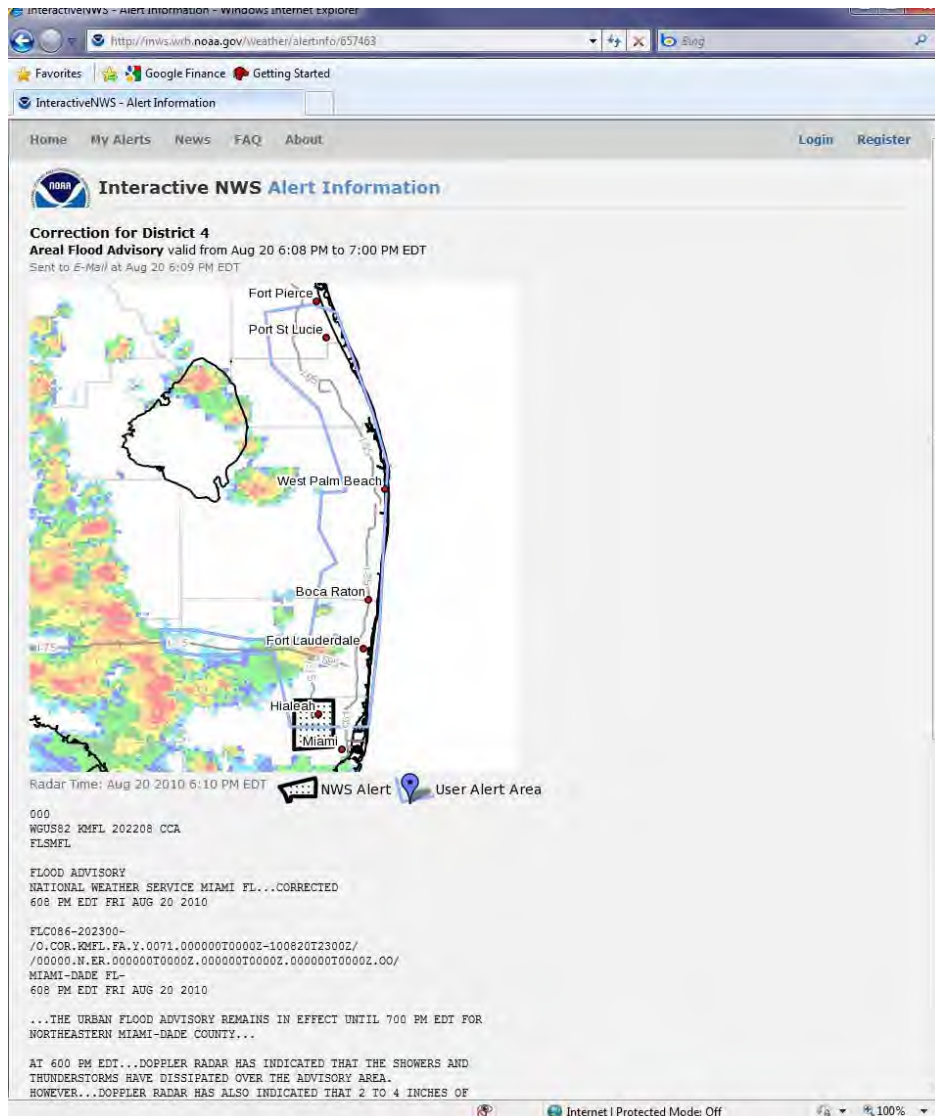
When an alert is received, take the following actions:

1. Open the email alert in Microsoft Outlook. See the example email alert in the figure below.



2. Click **More information** link in the email alert; this will open the web page with more details on this Interactive NWS Alert.

Example alert information web page:



3. Examine the detailed description of the alert, as shown on the above example.
 Verify the event is in the District Four area of interest (Counties of Broward, Palm Beach, Martin, St. Lucie, and Indian River).
4. Upon verification, capture the screen shot of the alert along with the associated text.
5. Within the folder:

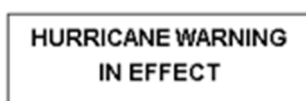
PUBLIC/STORM EVENTS

6. Create a new folder using the following naming convention:
DATE_SUNGUIDE EVENT NUMBER_TYPE OF WARNING
7. Save the event screen shot to the new folder.

Monitor the Hurricane Warning

To monitor the Hurricane Warning,

1. Log onto <http://miami.cbslocal.com/zoom-radar> or <http://wptf.com/weather>.
2. Check the local TV channels or the Weather Channel for coverage of the Hurricane Warning. If the storm is covered,
 - Place the TV video on the wall with closed captioning on.
3. Create a weather event in SunGuide - (until the notifications are automated)
 - Categorize as "Weather Event" and,
 - Select appropriate notifier.
4. Select all signs within the warning area.
5. Response Plans.
 - Use response plans to add DMS, and,
 - Select appropriate message from the library (Base Library > Weather Alerts)
6. For the signs within the warning area:



7. HAR messages and beacons should be selected in both directions approaching and within the warning area using the appropriate message from the template library.

Note. Message will be the same on all transmitters and should match the format of the National Weather Service.

For Hurricane Warnings, the time should be removed from the message.
8. Remove email and FL-ATIS.
9. Observe CCTV camera video in the region of the event and record any significant observations in the SunGuide event.

Notification Of Outside Agencies

- Appropriate SEFRTOC partners are contacted to be advised of the action taken.

Floodgate Messaging

A 511 FLATIS Floodgate message should be created to report the Hurricane Warning pursuant to the format used by the National Weather Service.

<http://www.srh.noaa.gov/mfl/ghwo>

Example:

"A Hurricane Warning has been issued for (region*) until xx:xx. Please use caution."

(*example for region: **"portions of Broward County"**).

Floodgate Locations:

If the advisory is area wide:

- Region = Southeast
- County = None

Floodgate Status Floodgate Messages	
Select Floodgate	<input type="radio"/> Statewide <input checked="" type="radio"/> Location <input type="radio"/> Full Roadway <input type="radio"/> Entity
Floodgate number	<input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4
Region:	Southeast <input type="button" value="V"/>
County:	NONE <input type="button" value="V"/>
Roadway:	<input type="button" value="V"/>
English • Spanish <input type="button" value="v"/>	
Southeast [Floodgate 1: English]	
Common Settings	Common settings apply to both English and Spanish messages Associated event and Comment will be logged, but not sent to C2C
Call Settings:	<input type="checkbox"/> Allow barge in <input type="checkbox"/> End call after message
Severity:	Minor <input type="button" value="V"/>
Associated event:	SELECT
Comment:	<input type="text"/>

If the advisory is for a specific county:

- Region = Southeast
- County = Broward, Palm Beach, Martin, Saint Lucie, Indian River

Floodgate Status Floodgate Messages	
Select Floodgate	<input type="radio"/> Statewide <input checked="" type="radio"/> Location <input type="radio"/> Full Roadway <input type="radio"/> Entity
Floodgate number	<input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4
Region:	Southeast <input type="button" value="V"/>
County:	Broward <input type="button" value="V"/>
Roadway:	NONE <input type="button" value="V"/>
English • Spanish <input type="button" value="v"/>	
Broward County [Floodgate 1: English]	
Common Settings	Common settings apply to both English and Spanish messages Associated event and Comment will be logged, but not sent to C2C
Call Settings:	<input type="checkbox"/> Allow barge in <input type="checkbox"/> End call after message
Severity:	Minor <input type="button" value="V"/>
Associated event:	SELECT
Comment:	<input type="text"/>

Monitoring/Updates

Hurricane Warnings must be monitored like other events; conditions can change very quickly.

Continually monitor conditions via the Weather Channel and map on the video wall. In some cases, a regional warning may move to another region. As conditions change, messages should be updated.

When the Hurricane warning is no longer in effect, the messages should be removed from the DMS signs, HAR and Floodgate.

Remove the TV and weather map from the video wall.

Note. To receive these weather alerts, operators must subscribe to the following services at: The National Weather Service Mobile Decision Support Services (NWS MDSS) <http://inws.wrh.noaa.gov>.

PURPLE ALERT EVENT MANAGEMENT

Overview

The Florida Department of Law Enforcement (FDLE), in conjunction with the Department of Transportation (DOT), the Department of Highway Safety and Motor Vehicles' Florida Highway Patrol (FHP), established Florida's Purple Alert Plan on July 1, 2022.

The purpose of the Purple Alert is to broadcast vehicle information of a missing person 18 years of age or older who does not qualify for a state level Silver Alert. In the event the missing person's vehicle is seen or if anyone has knowledge of the whereabouts of the missing person, that information can be provided immediately to the investigating law enforcement agency.

The Purple Alert can assist dramatically in increasing the chances of the safe return of the missing person with a mental or cognitive impairment.

Procedures

Activation Criteria

- A person must be 18 years of age or older and does not qualify for a state level Silver Alert; law enforcement has determined the missing person lacks the capacity to consent and that the use of dynamic message signs may be the only possible way to rescue the missing person.
- A person suffers from an intellectual or developmental disability, brain injury, or another physical /mental / emotional disability unrelated to substance abuse; however, no sign of Alzheimer's disease or dementia.
- Local law enforcement has determined that the person's disappearance poses a credible threat to his/her welfare and safety.

Activation Process

The activation process must be followed in order:

#	Steps / Details
1.	The local law enforcement agency will call the FDLE Missing Endangered Persons Information Clearinghouse (MEPIC) at 1-888-356-4774.
2.	FDLE will work in conjunction with the local law enforcement agency of jurisdiction to determine if information is to be broadcast regionally or statewide.
3.	FDLE will work in conjunction with the local law enforcement agency of jurisdiction to prepare vehicle information using the approved DOT format.
4.	FDLE will contact FDOT's Orlando Regional Transportation Management Center (RTMC) by calling 407-736-1900 to alert personnel of the Purple Alert. FDLE will fax/email the actual DMS Message to the Orlando RTMC to 407-736-1918, using the attached format.
5.	The Orlando RTMC staff will relay the request to appropriate RTMC staff in the State to activate the Florida Purple Alert. The DOT will display the message until the missing person is recovered or for a maximum of 6 hours. DOT will display the alert message on all requested DMS unless a traffic emergency occurs that requires an individual or group of DMS to display a motorist safety message.
6.	FDLE will contact the Florida Highway Patrol Communications Center Shift Commander in Orlando at 407-737-2200 to alert duty officers and other call takers of the Purple Alert. FDLE will then fax/email all available information concerning the missing person to the FHP Communications Center in Orlando at 407-737-2217. FHP Shift Commander in Orlando is then responsible for relaying all information via telephone

Steps / Details

and fax/email to the appropriate to the Shift Commanders at appropriate FHP Communications Centers in the regions where the activation is occurring.

FDLE will follow the same activation steps listed above if an additional activation is required containing revised vehicle information and/or broadcast area.

Once FDLE is contacted that the missing person has been recovered, the FDLE will immediately contact the Shift Commander at FHP and DOT at 407-737-2200, to cancel the Purple Alert. The FHP Shift Commander in Orlando is responsible for relaying cancellation information to Shift Commanders at FHP Communications Centers that were previously notified.

The Orlando RTMC staff will relay the request to the appropriate RTMC staff in the State to activate the Florida Purple Alert Plan. The FDOT will then display the message until the missing person is found or for a maximum of six hours. FDOT will display the alert message on all requested DMS unless a traffic emergency occurs that requires an individual or group of DMS to display a motorist safety message. FDOT will record a brief Purple Alert message on the 511 System. The 511 System is used only when the DMS are displayed.

When Purple Alert Activation Received

Upon receipt of Purple Alert Activation fax/email from RTMC District 5:

1. Confirm activation area.

2. Create Purple Alert event in SunGuide (as Vehicle Alert).

It is imperative to enter the vehicle information into the "Vehicles" section of SunGuide. The tag alert feature will notify the RTMC Operator if a duplicate tag has been entered.

3. DMS: for activating DMS
Phase 1
 PURPLE ALERT
 CALL *347
Phase 2
 <color> <make>
 <model>
 FL TAG XYZ 123

When the Broward RTMC is within the Area of Activation,
 – Select previous Purple Alert messages from the Pre-Defined Message Library, change vehicle information to specific vehicle, and,
 – Ensure to hit enter twice to create two phase messaging.
 Information should be typed EXACTLY as it appears on the FAX/EMAIL. If you feel an error has been made on the fax/emailed request, you must notify the on-call Manager.

4. DMS: When the RTMC is outside of the **Area of Activation**,

Follow the same procedures as above, except only the following list below of select DMS signs will be used.

See the table below relating to item 4.

	Name	Location	CCTV	Other
	595EB11	E of I-95 N	5014	
X	595WB10	W of US 1	5016	
	595WB09	W of I-95 S	5013	
X	75NB06	S of Miramar	7005	
	75NB12	S of Griffin	7011	
X	75NB16	S of 595	7014	
	75NB22	S of US 27	7021	
X	75SB24	N of US 27	7025	
X	75SB20	Before 595	7019	
	75SB14	N of Griffin	7013	
X	75SB10	N of Pines	7009	
X	95NB18	S of Hallandale	170	
X	95NB23	S of Griffin	235	
	95NB27	S of Broward	275	
	95NB31	S of Oakland	295	
X	95NB33	At Cypress	0335	
	95NB38	S of Copans	0365	

	Name	Location	CCTV	Other
X	95NB40	S of SW 10th	0405	
X	95SB42	N of Hillsboro	0410	
	95SB40	N of Sample	0405	
	95SB38	S of Copans	0370	
X	95SB35	N of Cypress	0340	
	95SB31	S of Oakland	0295	
	95SB28	S of Sunrise	0280	
X	95SB26	At Davie	0270	
	95SB21	N of Sheridan	0225	
X	95SB19	S of Pembroke		
X	869SB01	S of Sunrise	0280	

5. DMS: For activations in the Northern Three Counties. In Area and Out of Area events will be handled in the same manner.

- Select a previous AMBER Alert message from the Pre-Define library,
- Copy message,
- Change vehicle information to specific vehicle,
- Ensure to hit enter twice to create a two-phase message.

If you feel an error has been made on the fax/emailed request, you must notify the on-call Manager. All the Northern Three Counties twelve DMS devices will be utilized for the Amber Alert.

6. There are twelve DMS located in Palm Beach County.

Name	Location	CCTV	Other
95NB46	AT MM 46.6	0460	
95NB53	AT MM 53.7	0535	
95MB59	AT MM 59.5	0590	
95NB66	AT MM 66.4	0660	
95NB72	AT MM 72	0715	
95NB77	AT MM 77.9	0770	
95SB82	AT MM 82.0	0820	
95SB72	AT MM 72.4	0730	
95SB66	AT MM 66.9	9967	
95SB59	AT MM 59.5	0600	
95SB53	AT MM 53.7	0545	
95SB47	AT MM 46.8	9947	

7. There are twelve DMS in the Northern Three Counties.

Name	Location	CCTV	County
95NB95	At MM 95	0950	MARTIN
95NB108	At MM 108.5	1085	MARTIN
95NB127	At MM 127.5	1275	ST. LUCIE
95NB136	At MM 136	1355	ST. LUCIE
95NB145	At MM 145.5	1450	INDIAN RIVER
95NB154	At MM 154.5	1535	INDIAN RIVER
95SB97	At MM 97.5	0980	MARTIN
95SB122	At MM 122.5	1235	MARTIN
95SB130	At MM 130.5	1310	ST. LUCIE
95SB139	At MM 139	1400	ST. LUCIE
95SB148	At 148.5	1490	INDIAN RIVER
95SB157	At 157.5	1580	INDIAN RIVER

8. Notify SEFRTOC partners according to usual procedure (Florida's Turnpike, District Six, 595 Express LLC, and District One).

9. RTMC sends PURPLE ALERT notification – Email Group will be sent as a D4 Vehicle Alert.

10. Incident Email Alert Notification. Email text alert should read as follows:

LOOK FOR VEHICLE

Vehicle description, state & tag

CALL *FHP

- Floodgate: Statewide and multi-regional floodgate messages will be done by District 5. If it is one or two regions, the individual districts will be responsible.
- DMS and website should be monitored throughout the duration of the Purple Alert event.
- REMEMBER: Lane blockage incidents take precedence over Purple Alert messages.
- FDLE will follow the same activation steps listed above if an additional activation is required containing revised vehicle information and/or broadcast area.
- Once FDLE is informed that the missing person has been found, the FDLE will immediately contact the FHP Shift Commander at (407)737-2200 and FDOT at (407)736-1900 to cancel the alert. The FHP Shift Commander in Orlando is then responsible for relaying the cancellation information to the Shift Commanders at the FHP Communications Centers that were originally notified. The Orlando RTMC will then notify all other RTMC staff statewide that the Purple Alert has been cancelled; messages can be blanked from the DMS and 511.

Termination

- RTMC receives a fax/email cancellation message from RTMC.
- RTMC receives verbal cancellation notification from RTMC. If the verbal cancellation is not received, the RTMC contacts RTMC for confirmation of cancellation.
- Unless requested for a longer duration, alert information will be posted for a maximum of 6 hours.
- RTMC updates the event in SunGuide.
- RTMC blanks all Purple Alert messages from DMS.
- RTMC sends PURPLE ALERT notification – Email Group will be sent as a D4 Vehicle Alert cancellation of Purple Alert.

THIS PURPLE ALERT HAS BEEN CANCELLED

Vehicle description, state & tag

- RTMC notifies SEFRTOC partners (595 Express LLC, Florida's Turnpike, District Six and District One).
- RTMC closes the event in SunGuide.

Documentation

All Purple Alerts must be documented in SunGuide, on the Shift Report and in the Debrief.

DMS MESSAGING for ROADWAY DEBRIS

Overview

Road debris is a road hazard. It can impact travel conditions by potentially causing congestion, traffic accidents or traffic-related injuries. It is important for RTMC Operators to inform motorists of debris hazards by proactively and effectively utilizing the Dynamic Message Signs (DMS).

This section establishes procedures for posting debris-related messages when there is debris in the travel lanes and motorists are driving over the debris. Debris that completely blocks a lane is to be managed like all other lane blockage events.

The purpose of posting debris messages is to inform motorists of the potential hazard. Roadway debris should be treated like any other event within the SunGuide Software.

Note. This SOP is intended as a guideline. Roadway debris can include anything from tire tread to gravel to furniture. Each debris event may need to be managed differently. Therefore, it will be up to the Operator to determine the appropriate response.

Procedures

Operators shall post messages for any travel lanes impeded by roadway debris. Debris messages will only be posted on the DMS when travel lanes are open, and motorists can still drive in the affected lane or lanes.

Example. If there is gravel or dirt in a travel lane, although it is debris in the roadway, motorists can drive through it without changing lanes. Operators should handle any roadway debris in the following manner:

- Upon confirmation of debris affecting the flow of traffic (CCTV or Road Ranger on scene), Operators shall **create** a debris event in SunGuide.
Select the location and the lanes that are affected.
- Using the message library (located under Base Libraries > Debris), **Select** and post the debris message on the DMS that is the nearest to the debris event (within five miles and on the same roadway). The message should be one phase according to the following example:



- For more rural areas such as Alligator Alley and Treasure Coast, where the reference location is a Mile Marker:



- For debris events near the nearest DMS, the following alternate message should be used:



- If a debris message is posted, it is the responsibility of the Operator to monitor the debris via CCTV until it has been removed.
- Upon arrival of the Road Ranger, if it's necessary to close the travel lanes to remove the debris. The event will be managed as a lane blockage event. And the DMS message should be updated to reflect the lanes that are closed.
- No email or FLATIS will be necessary unless the lanes are blocked.

In cases where the roadway debris gets pushed from lane to lane, it will be up to the Operator managing the event to determine if a debris message is necessary.

Again, any time travel lanes are blocked by a Road Ranger or any other means to remove the debris, the message on the DMS must be updated to reflect the lane blockage.

INTERAGENCY EVENT MANAGEMENT

Overview

An Interagency Event is an event where Broward RTMC District Four, upon request, assists SEFRTOC partners; Florida's Turnpike Enterprise, District Six, SunGuide RTMC, I-595 Express LLC, Miami-Dade Expressway, and other bordering districts of District Four with highway messaging for traffic related events that occur in their coverage area.

Procedure

When an RTMC Operator is notified by another bordering Traffic Management Center of a traffic related event with lane blockage that may affect the motorists of District Four, the following questions should be asked:

- What is the location?
- What lanes are blocked?
- What type of event?
- Name of the Operator whose notifying?
- Does the agency request message assistance?

If an agency or district request message assistance, a 'New Event' will be created in SunGuide by clicking **Add Event**. The event type will be **Interagency Coordination**.

1. Select the appropriate notifying agency and notifying contact.
 - The event status will be set to **unconfirmed**.
 - The RTMC Operator will complete the 'Event Location' field and the 'Lane Blockage' field,
2. Click **Save, Get Response**.

If an agency or district contacts the RTMC regarding an event on their roadway but does not require message assistance (notification purpose only),

- the RTMC Operator is not required to create an interagency event.

Confirmation

Prior to RTMC Operator's usage of any devices for messaging for interagency events, they must confirm the location via www.fl511.com website. The location received from the other agency's operator and the actual location on the website must match before activating devices. Upon confirming the two locations matches,

- RTMC Operator will copy the location description from the www.fl511.com website and,
- Enter it under the 'Comment' field in SunGuide. (See picture below).

Region	County	Roadway	Direction	Type	Severity	Description	Start Time	Last Updated
Southeast	Miami-Dade	I-95	S	Congestion	Minor	Traffic congestion in Miami-Dade County on I-95 South, from North Miami/Bal Harbour/NW 125 St to NW 62 St/Dr Martin Luther King Jr Blvd. Last updated at 10:47 AM.	8/9/21, 10:46 AM	8/9/21, 10:47 AM

SunGuide Comment Example:

"Location confirmed on 511 website"

Or

Confirmed location 511 website: I-95 North beyond Exit 12C US-441

If a location provided by the other agency does not match the one published on the 511 Website,

- the RTMC Operator will immediately contact the other agency to validate the location. This procedure will ensure that we are providing our motorists with the accurate message on our signs.

- DMS** The closest Dynamic Message Sign (DMS) entering the other agency's coverage area should be utilized to inform motorists of the approaching event. The DMS message created by the RTMC should be similar, if not the same as the other agency's DMS message. Depending on the severity of the event and the impact on District Four roadways (i.e. congestion, diversions), it may be necessary to activate multiple Dynamic Message Signs within Broward County.
- It is up to RTMC Operator to decide on the appropriate number of signs activated for the interagency event. If the RTMC Operator is unable to decide on all signs to be activated or the appropriate message to use on the sign, the operator should check with a Lead Operator, Supervisor, and/or Manager.
- Arterial Dynamic Message Signs (ADMS) can be utilized to message for interagency events. It is up to RTMC Operator to determine if the ADMS is needed. It is important that the RTMC Operator considers the lanes affected, the type of event, and the distance of the ADMS from the lane blockage event.
- HAR** The Highway Advisory Radio (HAR) will only be activated for interagency full closures events in the Northern 3 Counties if all lanes are blocked and/or traffic detours. If an agency specifically requests RTMC assistance for the HAR, the RTMC Operator should notify the on-duty/on-call Supervisor and/or Manager for guidance.
- Email** The RTMC will not send out SunGuide email alerts for Interagency Events. The emails will be sent by the notifying agency.
- FLATIS** The RTMC will not publish a FLATIS incident for Interagency Events. The FLATIS will be published by the notifying agency.
- CCTV** If an interagency event is located within the RTMC camera's view, the RTMC operator will document it in SunGuide.
- Documentation** The RTMC Operator should document in the SunGuide Event Chronology any relevant comments regarding the interagency event, including but not limited to the following:
- Interagency Event Number
 - Interagency Event Type
 - Interagency Notifier's Name

SPECIAL EVENT MANAGEMENT

Overview

On occasions, the RTMC will be requested to assist with events outside the norm of standard event management, known as **Special Events**. These types of events can be located throughout the District Four RTMC Coverage area (Broward, Palm Beach, Martin, St. Lucie, or Indian River Counties) or within the adjoining Districts (District Six – Miami Dade County; District One – Collier County, District Five – Brevard County, 595 Express, or the Florida's Turnpike).

Special Events can be a one-time event, or it can be recurrent -- weekly, monthly, or annually. They typically have set dates, times, and predetermined sections of the roadway or highway that will be affected. Therefore, the RTMC should develop a plan based on the information provided by the press release for the event, the entity sponsoring the event, the Florida Highway Patrol, the Sherriff's Office, or other Transportation Management Centers.

Once the RTMC is informed about a Special Event and if the RTMC can assist, a DMS message plan and Highway Advisory Radio message plan will be developed to include the "pre" messages, the "day of" messages, and the "during" messages.

Procedure

Upon request, the RTMC will develop a plan that utilizes the following:

- Dynamic and/or Arterial Dynamic Message Signs,
- Highway Advisory Radio (HAR),
- Closed Circuit Televisions (CCTV), and/or,
- Florida 511 Floodgate System.

It may be sufficient for the RTMC to utilize one or more ITS devices prior to the actual event, the day of the event, and during the event depending on the details of the event and the expected road closures.

An Operator will create an event in SunGuide as a **Special Event**, as follows:

1. Select the appropriate notifying agency,
2. Notify contact, and then,
3. Set the status as **Unconfirmed**.

When the event is located within the Broward RTMC District Four coverage area and there are road closures, the RTMC Operator will create an event in SunGuide as a **Special Event** and set status as **Active**.

- Email and FLATIS will only be used when the event has confirmed road closures within the Broward RTMC coverage area.
- If necessary, the email alerts may require editing in the subject line, i.e. Toys for Tots.

The location of the event should be set to the location of the closure or the nearest location of District Four coverage area.

DMS

In most special events, the RTMC will put a message plan together for the event using only the Dynamic Message Signs. If applicable or if deemed necessary, the RTMC can utilize the message boards for two-phase messaging.

Supervisors can create a pre-defined message plan within SunGuide to assist operators with activating the appropriate signs and messages for the event.

An operator can find these pre-defined plans as follows:

1. Right-click on the GUI map with SunGuide, then,

2. Click **Event Management**, and then,
3. Select **Predefined Message Plans**.

The Predefine Message Plan may include a "PRE", "DAY", and/or "DUR" message plan, which would require the DMS/ADMS updated to reflect the precise activity of the event.

CCTV

When the Special Event is within the camera coverage of the RTMC, the Operator will monitor the event from start to finish.

HAR & FLOODGATE

The RTMC will utilize the HAR and Floodgate Banner for major closures within the RTMC District Four coverage area. Otherwise, for events within other adjoining districts or highways, other Traffic Management Centers will be responsible for activation of those devices (if applicable).

If the RTMC is requested to utilize the HAR and/or Floodgate Banner for special events in adjoining counties or districts, that decision will be made on a case-by-case basis.

The RTMC can update the HAR and/or Floodgate to reflect the current activity of the event.

Documentation

The RTMC Operator should document any activities relevant to the Special Event within SunGuide. This includes:

- Traffic-related incidents that happen within the event,
- Contact names,
- Changes in the event, or,
- Problems with devices.

The following Special Events are previous events that have occurred throughout the years:

- Dolphins Cycling Challenger
- Toys in the Sun Run
- Winter Fest Boat Parade

***** Each special event will be different. Therefore, no permanent plan is in place for managing these events.**

FATALITY EVENT MANAGEMENT

Overview

A road-traffic fatality is defined in the United States as a person who dies immediately or within 30 days of a crash on a public road involving a vehicle with an engine, the death being the result of the crash. Even if a driver has a non-fatal heart attack that leads to a road-traffic crash that causes death, it is considered a road-traffic fatality.

It is the responsibility of the RTMC District Four Operations to manage each traffic related fatality according to protocol and procedures, which includes managing the impact to traffic as well as respecting the privacy of victims and their families. All fatality events are to be managed as Level 3 events, even if there are no lanes affected.

Procedure

Upon notification of a possible traffic fatality:

1. Create an Unconfirmed event in SunGuide software:
 - Select the Event Type,
 - Notify Agency, and,
 - Notify Contact
2. Then:
 - Dispatch Road Ranger to respond to the scene.
 - Notify FHP (if necessary).
3. Then:
 - During **normal business hours**, notify Severe Incident Response Vehicle (SIRV) of lane blockage events.
 - **After hours**, SIRV units are only notified upon confirmation of the fatality and/or any Level 3 event***.

******The SIRV unit should be dispatched to fatality events whether there are lanes blocked or not.**

4. Upon confirmation of the event via CCTV or Road Ranger,
 - Change the event status to Active in the SunGuide software.
5. If there are any lanes blocked or an impact to traffic,
 - Operators will manage the event by following standard incident management procedures (DMS, HAR, FLATIS, SunGuide-Alerts).
 - A Level 3 email alert is still required even if there are no lanes blocked or any impact on traffic. When the event is cleared, a clear SunGuide-Alert email is required.

An event is fatal only when the RTMC receives confirmation from the Florida Highway Patrol or SIRV.

CCTV

If a fatal event is being monitored via CCTV, the RTMC will respect the privacy of the victim and victim's family by not zooming into the traffic homicide investigation scene.

If it becomes necessary to concentrate the camera on the traffic homicide investigation scene, the RTMC will block the camera feed for that location. Hence, it is important that any direct monitoring should only be as required, and for as short a time as possible.

The cameras should be used to monitor the related impact to traffic and scene management.

TRAFFIC DIVERSION EVENT MANAGEMENT

Overview

A traffic diversion is the rerouting of traffic around a planned or unplanned area of prohibited or reduced access. It sometimes occurs following a serious traffic incident. If an incident is "major" (closing all or multiple lanes), it may be appropriate for traffic to be diverted off the highway to assist in preventing long term congestion.

The RTMC is responsible for managing the original traffic event and any other closures that may result.

Procedures

The following are the procedures for managing incidents that require diversions, regardless of whether the event is before, beyond, or at a different exit. Operations will use "traffic must exit" for all full closures.

Upon initial notification and confirmation of a lane blockage incident, normal traffic event management procedures should be followed.

Message Type	Details
Mainline DMS	<ul style="list-style-type: none"> If FHP decides to close the road and divert traffic, in most cases the diversion will be located at the exit before the original event. For example, a full closure Northbound on I-95 beyond Commercial Blvd and the northbound traffic is being diverted to Commercial Blvd, operators will leave the location the same in the original event, generate the response plan, and group edit all on-system mainline DMS to reflect the diversion:



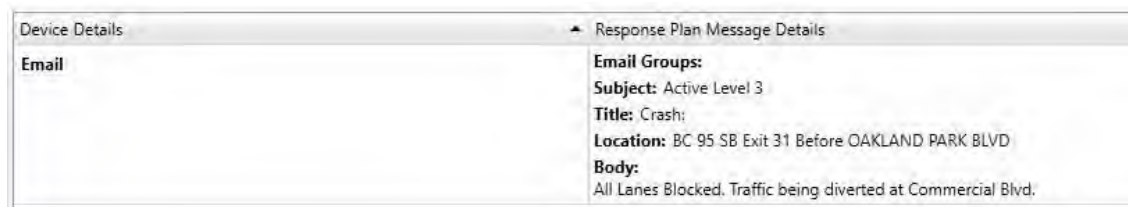
Arterial DMS:	The ADMS at the location of the closure, i.e. Commercial Blvd, would reference the entrance ramp being closed (if applicable):
----------------------	--



Arterial DMS messages for entrance ramp closures are in the message library as:

Base Libraries – D4Library – Arterial Messages

Email:	The email will include the lanes that are closed and should be manually edited to reflect the diversion; using the following phrase: Traffic being diverted at." (see below).
---------------	---



FLATIS:	Normal traffic event management procedures will apply.
----------------	--

Message Type	Details
HAR:	The HAR will be activated on all HAR stations and all HAR Beacons approaching the closure will be lit. The message on the HAR will inform motorists of the closure and any diversions related to the lane blockage event. The following is the template Diversion messages are saved in the SunGuide message library as: <u>Base Libraries – Traffic Must Exit</u>
Arterial DMS:	There will be no change in the ADMS approaching Commercial Blvd. They will reflect the original closure, that is Northbound beyond Commercial Blvd.
For a traffic diversion:	<i>Today is (day, date). This message is being recorded at (Time). On (Highway) (Direction) at (Interchange), all lanes are blocked. (Northbound/Southbound) traffic is being diverted at (Interchange and Exit Number). Please proceed with caution and expect delays. Updated information will be provided as it becomes available. This message will repeat.</i>
Floodgate:	The Floodgate banner will be like the HAR message, unless there are specific instructions that reroute traffic to alternate routes.
TVT:	Travel times should be disabled for the section of highway where the diversion is located.

If the diversion is lifted before the lanes reopen at the original lane blockage event location, Operations will:

- Remove all information regarding the diversion and
- Manage the original lane blockage event according to normal traffic event management procedures.

At no time should the incident location be changed, nor should a secondary event be created unless there is a diversion in the opposite direction.

WRONG WAY DRIVER EVENT MANAGEMENT

Overview

A wrong way driver is an extremely dangerous situation and can result in a very serious injury crash. A wrong way driver (WWD) can result from driver unfamiliarity with an area, intoxicated drivers, and drivers who are disoriented due to a medical condition. Knowledge of such an occurrence by a motorist even a few minutes before coming across a WWD can be critical. In most cases, the Florida Highway Patrol receives calls regarding a wrong way driver several minutes before a crash occurs. Following are the procedures the RTMC will follow upon notification of a wrong way driver by FHP, the FHP radio, Wrong Way Event Detection System (refer to the WWED User Guide at the bottom of this SOP Section), or CCTV.

Procedures

Create an Event

1. Notify FHP dispatch if detected by CCTV or Wrong Way Event Detection System.
2. If you receive a call from FHP dispatch regarding the WWD,
 - Create a SunGuide event and pass it on to whomever is working in that area.
 - Create the event as "Wrong Way Driver."
 - Enter the event information as "Unconfirmed" into SunGuide.
 - Once the event has been created and you select add event.
 - The response plan will automatically activate, and signs will be posted within a 10-mile range.
 - Add more signs if needed.

WRONG WAY
DRIVER REPORTED
USE EXTREME CAUTION

3. Notify all Road Rangers and provide wrong way driver location information.
4. Attempt to find/follow Wrong Way Driver on camera and advise FHP of location.

If the vehicle crashes,

- Clone the event, and,
- Change the type to "**Crash**" and work as a normal incident.

If the vehicle is stopped, exits or reverses on the highway,

- Make detailed notes in the comments, and,
- Close the event. Comments should include all information you have available such as where the vehicle entered/exited, distance traveled, etc.

Road Ranger

Wrong-way drivers are usually impaired and do not make sound decisions. Wrong-way driver incidents typically occur at night and happen quickly.

Drivers who travel the wrong way on one-way highways generally fall into one of these categories:

- Intoxicated (alcohol or drugs, including prescription drugs).
- Confused older drivers.
- Purposeful acts including attempts to commit suicide and criminals attempting to elude police.
- Inattentive or inexperienced drivers mistaking an off-ramp for an on-ramp.
- Mental defect or disease.
- GPS providing incorrect, inaccurate, or confusing information.

Road Ranger Field Procedures

1. When notified of a wrong-way driver in your area:

- Immediately report your location and direction of travel.
-

- Assist FHP as directed.
-

- If the wrong-way driver is approaching you in your lanes,
 - Use extreme caution.
 - Do not drive in the left lane (Lane 1). Wrong-way drivers generally keep right (your left).
 - Watch for headlights, especially at overpasses.
 - Stop in a safe spot in a protected area; warn approaching motorists if you can.
 - Do not stop in a travel lane or on the left shoulder.
-

- If the wrong-way driver is behind you,
 - Prepare to reverse direction at the next opportunity and
 - Prepare to assist at an incident scene.
-

2. If you see a wrong-way driver:

- Notify the TMC.
-

- Get to the right shoulder and stop.
 - Stop in a safe spot in a protected area.
 - warn approaching motorists if you can.
 - Do not stop in a travel lane or on the left shoulder.
-

- Try to alert the wrong-way driver by using emergency lighting and sounding your horn.
-

3. General Road Ranger Driving Safety

- Drive in the right-hand lane of travel.
 - When passing or coming to the crest of an overpass/hill look ahead for a wrong-way driver making sure the lane is clear.
 - Assume when in the left lane (Lane 1) that you may come upon a wrong-way driver.
 - Stay vigilant and pay attention to what is ahead of you.
 - Avoid allowing distractions to take your attention off the road ahead.
-

WWED User Guide v1.2.1

Operations View

The Operations tab is the landing page for the WWED and features a map with the icons for detector error, stale detector data, wrong way detection, and WWD event. Each icon can be clicked to display additional details.



Detector Error – detector reporting that it is in an error state. These detectors are ignored when determining consecutive wrong-way detections.



Stale Detector Data – last reported detector data is over 15 minutes old.

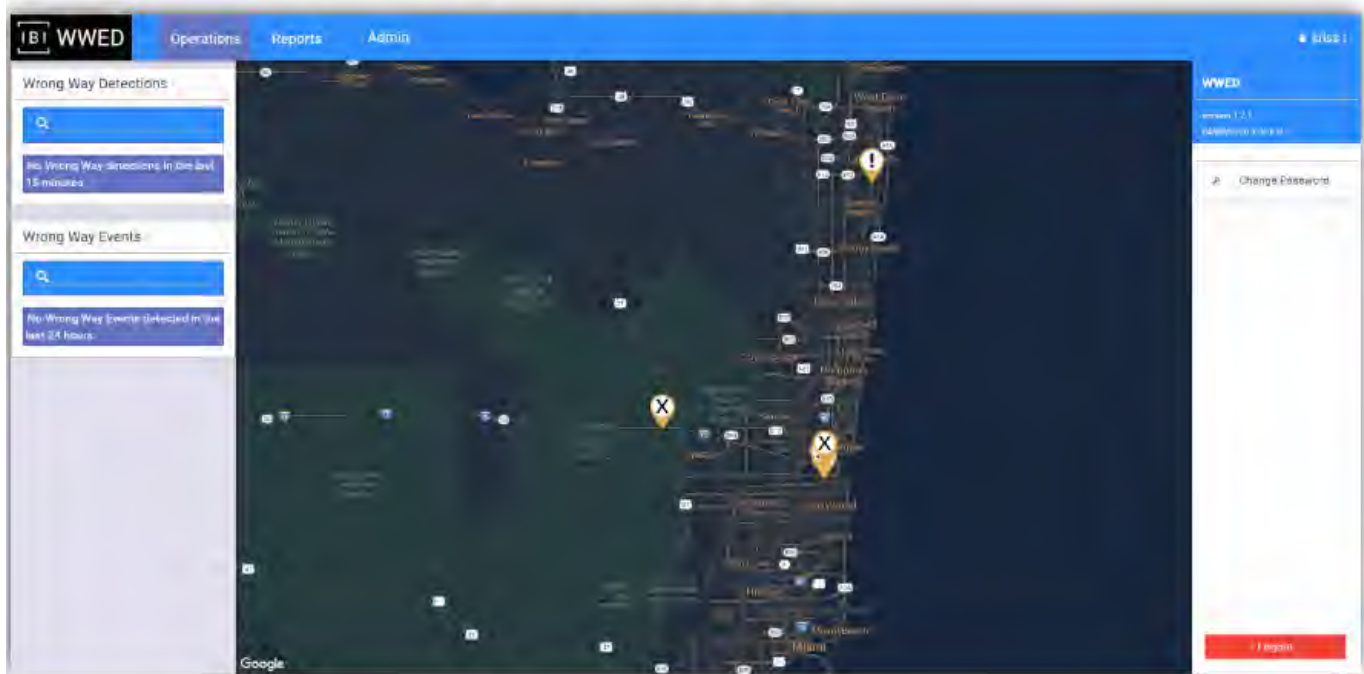


Wrong Way Detection – a single detector reporting a wrong-way detection.



WWD Event – two or more consecutive upstream wrong-way detections within a configured time period. Indicates a suspected WWD event and generates a visual and audio alert, that the user will be prompted to acknowledge.

The right side of the Operations view can be shown or hidden by clicking on the three dots next to the username and allows a user to change their password or log out.



The left side of the Operations view features all wrong way detections in the last 15 minutes, and all WWD events in the last 24 hours. A user can click on a WWD event to view additional details.

WWED Event 113 | Created: 4/22/20, 5:35 PM | Acknowledged: 4/22/20, 5:35 PM - kriss | Last Updated: 4/22/20, 5:35 PM - kriss

Detectors	Map
I-95 MP 042.8 Northbound <small>Name: FL04095W042.8</small> <small>Link: FL04095W042.8 (5:35 PM)</small>	
I-95 MP 044.0 Northbound <small>Name: FL04095W044.0</small> <small>Link: FL04095W044.0 (5:35 PM)</small>	
I-95 MP 044.0 Southbound <small>Name: FL04095S044.0</small> <small>Link: FL04095S044.0 (5:35 PM)</small>	
Closest Cameras	
0435-CCTV I-95 S of Palmetto 0440-CCTV I-95 N at Palmetto 0450-CCTV I-95 S of Glades CCTV-KRISS I-95 by Kriss	

Confirmation: Notes:

Outcome:

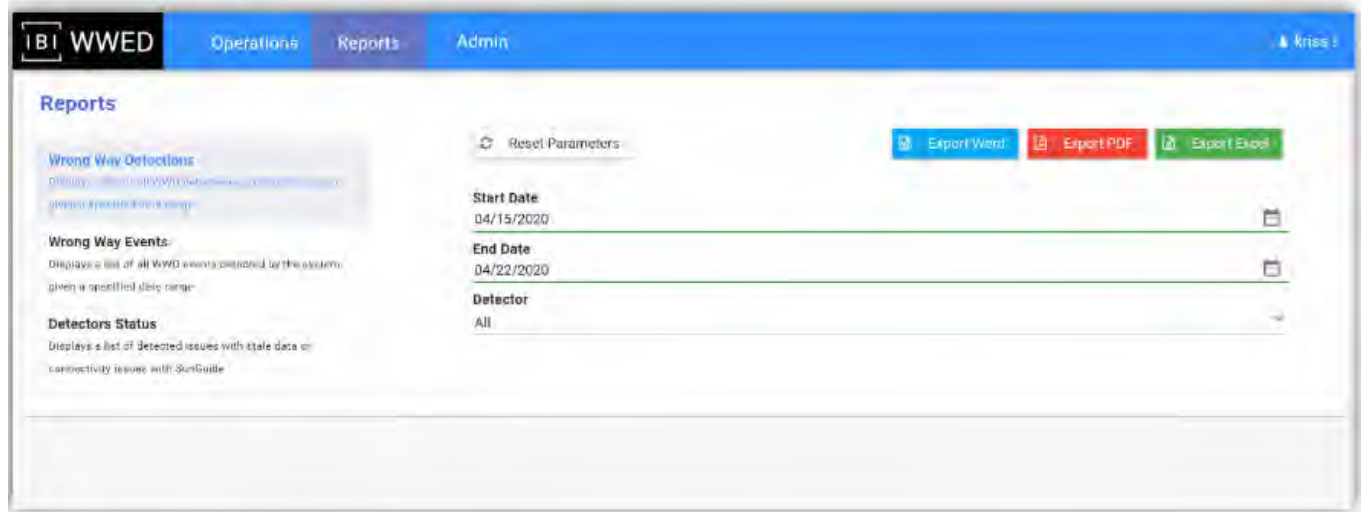
Managed Event #:

Event Ended At:

From the details, a user can view involved CCTVs and detectors, select confirmation and outcome options (from a preconfigured list), associate a SunGuide event ID, enter the time the event ended, and add any additional notes relevant to the event.

Reports View

The Reports view allows a user to select one of three reports and select the input parameters to generate a report in Word, Excel, or PDF format.



WIND ADVISORY EVENT

Overview

Wind Advisories are issued by the National Weather Service when the following conditions are expected:

- Sustained winds of 31 to 39 mph for an hour or more, and/or,
- Wind gusts of 46 to 57 mph for any duration.

Weather events such as Wind Advisories can impact traffic conditions on the roadway network, significantly reducing safety and increasing travel times.

A Wind Advisory can provide motorists, especially those operating large commercial or recreational vehicles, with useful information about the possibility of encountering wind gusts along their planned route. This advance warning will allow motorists to act, such as changing their route to avoid encountering the event.

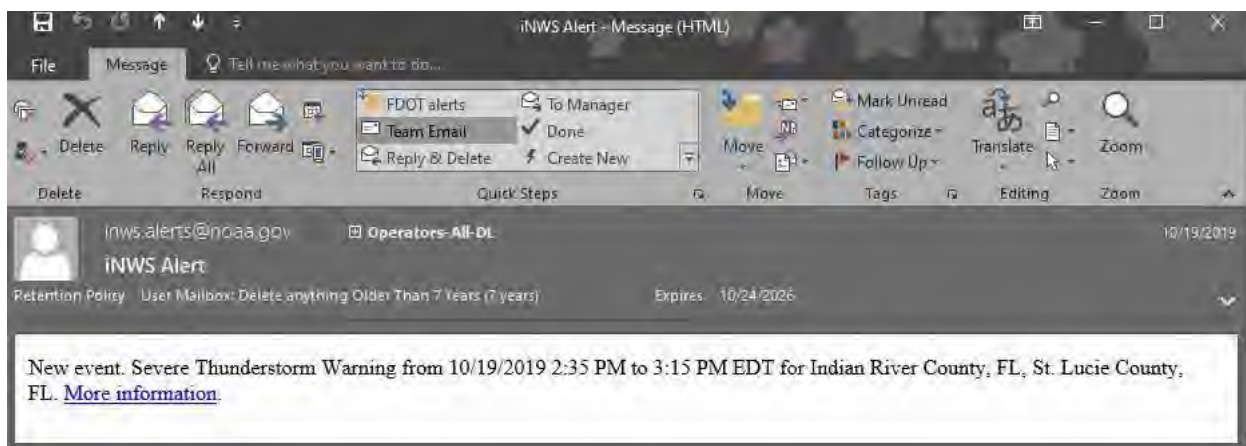
With the present system configuration, messages will be posted by the operator based on information obtained from weather alerts provided by: the National Weather Services Mobile Decision Support Services (NWS- MDSS) www.noaa.gov.

Procedures

When an alert is received, take the following actions:

Steps / Screenshots

1. Open the email alert in Microsoft Outlook. See the example email alert in the figure below.
2. Click **More information** – the link in the email alert; this will open the web page with more details on this Interactive NWS Alert.




Steps / Screenshots

Example Alert Information Web Page

New event: Severe Thunderstorm Warning for St. Lucie County, FL, Indian River County, FL
Sent via Email at 2:35 pm EDT, Oct 19th 2019

Radar valid at 3:15 pm EDT, Oct 19th 2019

 NWS Alert  User Alert Area

FLC061-111-191915-
(O.NEW.KMLB.SV.W.0072.191019T1835Z-191019T1915Z)

BULLETIN - IMMEDIATE BROADCAST REQUESTED
Severe Thunderstorm Warning

3.
 - Examine the detailed description of the alert, as shown on the above example. Verify the event is in the District Four area of interest (Counties of Broward, Palm Beach, Martin, St. Lucie, and Indian River).
 - Upon verification, capture the screen shot of the alert along with the associated text.
4. Within the folder: **PUBLIC/STORM EVENTS**
 - Create a new folder using the following naming convention: DATE_SUNGUIDE EVENT NUMBER_TYPE OF WARNING
 - Save the event screen shot to the new folder.

#	Steps / Screenshots
5.	Create a weather event in SunGuide- (until the notifications are automated) Categorize as "Weather Event" and select appropriate notifier.
6.	<p>Select signs in both directions:</p> <ul style="list-style-type: none"> – Two within the advisory area (one in each direction), and if possible, – Two approaching the area (also one in each direction). <p>It may not always be possible to choose four signs due to the location or size of the warning area. For example, a warning at or near the county line will not permit a sign approaching the area. Operators will need to use their discretion in selecting the areas for each message.</p>
7.	<ul style="list-style-type: none"> – Use response plans to add DMS and select appropriate message from the library (Base Library > Weather Alerts). <hr/> <ul style="list-style-type: none"> – For the signs within the warning area: <div style="text-align: center; border: 1px solid black; padding: 10px; width: fit-content; margin: 10px auto;"> <p>CAUTION WIND ADVISORY IN EFFECT</p> </div>
8.	Remove Email and FL-ATIS. https://www.noaa.gov/
9.	Observe CCTV camera video in the region of the event and record any significant observations in the SunGuide event.

Notification Of Outside Agencies

Not necessary for Wind Advisories

Monitoring/Updates

Continually monitor conditions via the Weather Channel and map on the video wall. Also monitor the NWS advisories and observe the conditions with CCTV.

In some cases, a regional warning may move to another region. As conditions change, messages should be updated.

When the warning is no longer in effect, the messages should be removed from all DMS signs.

Note. To receive these weather alerts, operators must subscribe to the following services at:

The National Weather Services Mobile Decision Support Services (NWS MDSS)

<http://www.noaa.gov/>.



4.09 Notification

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Document History

Version #	Date	Author	Changes
1.0	05/01/2024	Yana Neishlos	Initial Draft

NOTIFY EMERGENCY AGENCIES

Overview

Occasionally, events will warrant informing emergency agencies to respond to an incident. The following are guidelines for reporting incidents to emergency agencies. Refer to the RTMC telephone directory for contact information and telephone numbers.

Policy

I-95, I-75, I-595, & FLORIDA'S TURNPIKE

Contact Florida Highway Patrol. Once FHP is notified, FHP will contact the following additional relevant emergency agencies:

- Emergency Medical Service (EMS)
- Fire Department
- Medical Examiner

Offices	Details
Arterial Events	<ul style="list-style-type: none"> • Contact the appropriate city or town emergency services when required. • Contact Florida Highway Patrol to report every traffic incident, especially those with higher priority like personal injury or risk to public safety. Once the appropriate city or town emergency service is contacted and/or FHP is contacted, the following additional relevant emergency agencies will be notified: <ul style="list-style-type: none"> ○ Emergency Medical Service (EMS) ○ Fire Department ○ Medical Examiner
Public Information Office (PIO)	<p>The FDOT District Four Public Information Office (PIO) manages media and public inquiries about events on our highways.</p> <p>Level 3 events require notifying PIO about the event. Entry ramp or exit ramp events that will clear up quickly do not need to be included. Full closures, fatalities, HAZMAT, and all other Level 3 events should result in PIO being notified about the event. They must be notified when an event occurs and when it has cleared up.</p> <p>The hours of operation are 7:00 am – 5:30 pm Monday - Friday. During afterhours and weekends, leave a message.</p> <p>When applicable, notify SEFRTOC partners regarding events where personal injury and public safety are factors. In addition, when warranted, send an Emergency Text Notification.</p>
Metro Networks	<p>Metro Networks requires notification for all Level 2 and Level 3 events (includes updates) in Broward, Palm Beach, Martin, St. Lucie, and Indian River Counties.</p>

Offices	Details
Emergency Operations Center (EOC) – Palm Beach County	The Emergency Operations Center (EOC) requires notification for Level 3 events and vehicle fires.
State Warning Point	State Warning Point requires notification for HAZMAT events – 25 Gallons or more (Fuel/ Oil/ Detergent/ Chlorine/ Soaps) or any event in which a spill has entered a storm drain.
Information To Provide	<ul style="list-style-type: none"> • Operator name and department (District Four TSM&O RTMC). • An accurate, precise description of the incident location, including the roadway, direction, lanes, and distance from nearest reference location (exit).

Example: I-95 Northbound, about ¼ miles south of Commercial in the right lane. A description of the incident, includes:

- Lane block pattern (left lane; 2 left lanes, 3 left lanes, etc.)
- Number of vehicles involved and vehicle descriptions (make, model, tag number).
- Number of people involved.
- Number of injured persons.
- The possibility of a hazardous materials spill.
- Need for fire or ambulance, based on observations.
- Apparent risks due to inadequate passing and stopping sight distance.
- Any hazardous goods indication visible on involved vehicles.
- Any tow trucks, FDOT vehicles or other non-involved vehicles on scene.

Documentation

All calls and/or notifications must be recorded in SunGuide, if applicable. If there's not an area in SunGuide to indicate the RTMC notified the emergency agency, documentation should be made in comments as to who made the notification: (e.g., RTMC notified the agency, or the agency notified the RTMC).

NOTIFY EXTERNAL AGENCIES

Overview

Occasionally, events will warrant informing agencies other than those responsible for emergency response. The following are guidelines for which agencies are notified for specific types of events. Refer to the RTMC Telephone Directory for contact information and telephone numbers.

Policy

Surrounding TMC Operations

Other regional TMC Operation Centers perform similar functions that the SMART SunGuide RTMC performs. District Six Miami SunGuide TMC, Florida's Turnpike Enterprise (FTE), and 595 Express all operate on a 24-hour schedule. To assist these surrounding TMCs, the Broward RTMC advises them of severe events detected on Broward roadways which may have a traffic impact and have the potential to extend into their coverage area and monitoring range.

Broward

- Southbound events on I-95 have the potential to impact the Turnpike coverage area.
- Northbound events on I-95 have the potential to impact the Turnpike coverage area.
- Northbound events on I-95 have the potential to impact District Six coverage area.
- East/Westbound events on 595 have the potential to impact FTE coverage area.
- I-75.

Palm Beach / Treasure Coast (N3C)

- Southbound events on I-95 have potential to impact adjoining counties / regions including Florida's Turnpike Enterprise and District 5.
- Northbound events on I-95 have potential to impact adjoining counties including Florida Turnpike Enterprise and Broward County.

When a notification is made regarding any event to another RTMC, it is imperative to continuously update that center of changes and clearance of such event.

Southern Traffic Incident Exchange (STIX)

The Southern Region Incident Management Information Exchange program, known as the Southern Traffic Incident eXchange (STIX) Program, establishes interstate incident notification, information sharing, and inter-jurisdictional/inter-disciplinary coordination across state lines in Florida, Georgia, North Carolina and South Carolina to improve transportation regional safety, enhance traffic and incident management activities, and increase mobility by improving traffic and/or incident-related communication among the southern states.

The central communication hub and our point of contact for the STIX Program is in GDOT's Atlanta RTMC. The STIX Program is part of the larger I-95 Corridor Coalition that extends from Maine to Florida. (<http://www.i95coalition.org>).

Please contact STIX if the following occurs:

Closure on a major limited access freeway occurs for 8 hours or more (I-95, I-75, or on the Broward RTMC coverage areas of I-595).

- Please provide the following info when you call STIX (404) 635-8000:
 - State and City (South Florida, Fort Lauderdale).
 - Location (roadway, direction of travel, proximity, and cross street).
 - Nature of the problem (for example: Crash, Disabled, Vehicle Fire, etc.).
 - Additional important info (for example: overturned commercial vehicle with a fire).
-
- Please obtain the necessary information for any STIX incidents.
 - Check with an on-duty supervisor or senior co-worker to determine if the information was sent via email containing the incident information, or a phone call (both methods are acceptable).
 - Verify incident meets criteria.
-
- Lane blocking incident in proximity to a state/regional line.
 - At least 2-hour clearance time (if no time provided assume it is a 2-hr. clearance).
 - If incident does not meet the criteria, then we do not declare it is a STIX incident.
 - If the notification of a STIX incident is received via e-mail, you must acknowledge receipt of the event and state the action that has been/is taken by replying to All within 20 minutes of the time the notification was received.
 - Enter the NaviGator (The states added to Navigator and can be selected as the county)
 - Identify impacted TMC's
 - Email impacted TMC's using the required format.
 - Continue updating the NaviGator event and the impacted TMC's for the duration of the incident.
 - Once incident is clear, review the incident to ensure all necessary information has been documented

Broward County Traffic Engineering Department (BCTED)

During working business hours, notify BCTE Traffic Signal Department of events which the RTMC expects, or observes, to influence significant diversion onto the roadways within their coverage area. Before notifying the BCTE of an observation, first report this information to the RTMC Operations Supervisor or Manager. If RTMC Management is not available, continue to notify the signal department. If an error occurs after hours, BCTE signal department calls are routed to the Broward Sheriff's Office for traffic signal dispatching malfunctions.

Any issues during after-hours that is not signal related send email to d4.bopsinquiry@dot.state.fl.us.

On **weekends**, between the hours of **8AM and 8 PM**, if the Broward County Map on the RTMC Video Wall shows all intersections **red**, the following list of BCTED employees can be used to notify the County of this malfunction.

Feel free to call one of the following personnel, in the order shown, till you can make contact with one of the employees:

Name	Phone #
Steve Bertelli	954.882.8223
Alex Vickers	954.258.3066
Charlie Zhu	954.816.5384
Yves d'Anjou	954.336.3530
Scott Brunner	954.658.6623

Palm Beach County Traffic Engineering Department (PBCTED)

Palm Beach County Traffic Engineering shall be contacted at the start and end of all Level 2 and Level 3 incidents to include updates. Palm Beach County Traffic Engineering shall only receive notification updates when their services are requested for an incident.

Normal Hours contact: Computer Room (561) 478-5761 Operator (561) 684-4030

Primary After Hours: Jason Hoel (561) 512-1444 or (561) 387-3436 or Home (561) 439-8438

Secondary After Hours: Jack Hoffman (561) 684-4020 or (561) 758-5797

Email: jhoffman@co.palm-beach.fl.us

Boca Raton Traffic Engineering Department (BRTED)

The city of Boca Raton Traffic Engineering shall be contacted at the start and end of Level 3 Incidents that may impact traffic on arterials in Boca Raton. Level 3 incidents on I-95 between the Broward County line and Linton Boulevard (Exit 51) are generally considered to fit the notification criteria. However, Level 3 incidents involving full I-95 northbound closures of 30 minutes or more require BRTE notification. BRTE shall only receive notification updates when their services are requested for an incident.

Martin County Traffic Engineering Department (MCTED)

Martin County Traffic Engineering Department shall be notified for all Level 3 incidents that impact traffic on I-95 in Martin County for any incidents that may affect traffic on arterial roadways, during normal business hours (0800 – 1700hrs).

MCTED	Office - 772.288.5528	Alternate – 772.463.2867	Fax – 772.288.5453
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ST. LUCIE Public Works

St. Lucie Public Works shall be notified for all Level 3 incidents to include updates on I-95 that may affect arterial roadways and exit and entrance ramps (such as diversions).

Indian River County Traffic Engineering Department (IRCTED)

Indian River County Traffic Engineering shall be notified at the start and end of Level 3 Incidents that impact traffic on I-95 in Indian River County and for any incidents that may affect traffic on arterial roadways, 24/7.

IRCTED	Office - 772.226.1188	Alternate – 772.532.7344
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Total Traffic Network (TTN) - formerly Metro Networks

TTN provides traffic information to almost all the media outlets in Palm Beach County, Martin County, St Lucie County, and Indian River County. TTN should be contacted when any incident affects traffic on I-95.

TTN's regular operating hours are from 5:00 a.m. 9:00 p.m. Monday through Saturday, although there is usually someone available in the office during the overnight hours from Saturday evening through Monday morning starting at 9:00 pm - 5:00 a.m.

TTN, along with TV stations WPTV Channel 5 and WPEC Channel 12, has secondary control of the Palm Beach County traffic cameras. Through a messaging system, the agencies coordinate the operation of the cameras. This number is used for Broward, Palm Beach, and N3C.

TTN	Office - 954.894.7230	Nextel 159*19436*5
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Railroad Agencies – TRI-RAIL

While conducting routine scans of the geographical coverage area, there are numerous areas where the railroad tracks can be viewed. Although reporting or scanning of these areas does not fall under the RTMC jurisdiction, awareness, and observation of abnormal events on the railroad should be reported. These observations should be reported to your RTMC Operations Supervisor or Manager. This would allow them to determine whether a call is warranted.

Animal Control - Broward

If a stray or injured animal is seen on the roadway, advise the Broward County Animal Control. If an alligator is seen on the roadway, advise the Department of Fish and Wildlife- Gator Hotline.

Animal Control – Palm Beach

If a stray or injured animal is seen on the roadway, advise the Palm Beach County Animal Care and Control Division.

Animal Control – St Lucie

If a stray or injured animal is seen on the roadway, advise the Public Service Answering Point (PSAP).

Documentation

When notifying an external agency, it is required to document the details in SunGuide and record the occurrence in the Shift Report. When entering the details in SunGuide, it is necessary to indicate whether the external agency notified the RTMC or the RTMC notified the external agency.

NOTIFY SEVERE INCIDENT RESPONSE VEHICLE

Overview

Some events will warrant informing SIRV for severe incident response. The following are guidelines to notify SIRV, including on-duty and off-duty notification instructions, RTMC notifying SIRV, and SIRV notification to the RTMC:

Policy

On Duty

There are SIRV Units on duty in Broward and Palm Beach County patrolling the highway (including Express) Monday through Friday between 6AM and 10PM.

The following are when SIRV is notified during the on-duty schedule:

- Level 2 and level 3 incidents.
- Any incident where there may be a possibility of lane blockage or other highway infrastructure damage.
- An event involving a Fatal, even if no lanes are affected.

Off Duty

The SIRV Team is off duty between the hours of 10 pm and 6 am and on weekends. During those hours, the SIRV Unit is placed on call primarily for Level 3 events. Nevertheless, if a specific request from ANY law enforcement agency is received in the off hours you must contact the on-call SIRV operator or Iggi Vila before refusing to dispatch (of course, log all details in SunGuide comments).

The following are when SIRV is notified during the off-duty schedule:

For Level 3 events. The main distinction of a Level 3 priority event from a Level 2 event is the likeliness of significant area-wide congestion. See below for some general examples of a Level 3 priority event.

- An event with impact to the traveled roadway estimated to be more than two hours.
- An event with full traveled roadway lane blockage (i.e., all lanes) in any single direction.
- An event involving a fatality.
- An event involving an overturned large commercial vehicle (i.e., tractor trailer, dump truck, tanker)
- An event involving a HAZMAT spill.

Note: *SIRV does not get contacted for a Vehicle Alert (AMBER, LEO, Silver).

RTMC Notifications

The RTMC will first notify SIRV via the cellular telephone. If unable to reach the on-call SIRV person, please leave a message. If this call is unsuccessful and the SIRV Operator does not return a message within 5 minutes, please contact the supervisor, Ignacio Vila.

Once notifications have been made, the SIRV Unit will evaluate the incident based on the information gathered from the RTMC and on scene Road Rangers. The SIRV Unit will determine if a response will be beneficial in releasing Road Rangers from the scene or expediting roadway clearance. The SIRV Unit will then notify the RTMC of their response status (responding or not responding).

SIRV Notifications

If a SIRV operator calls to report they are not handling or responding to an event, please manage the process in the following manner:

- Select District Four as Notifying Agency and SIRV under Notifier Contact.
- Select the Type of event.
- Select Unconfirmed as the Status.
- Do not dispatch the SIRV truck or give any activity regarding the event.
- Dispatch the appropriate Road Ranger and follow the incident management protocol.

SIRV units can be sent to areas they do not normally cover, e.g., other counties or arterial roadways.

Authorization can be obtained from the following three people:

1. SIRV Manager (Ignacio Vila) – first point of contact 24/7.
2. TMC Manager (Liana Blackwood-Etienne) - - only if the SIRV Manager can't be reached 24/7.
3. TSM&O Incident Management Program Manager (Andres Sanchez) - - only if the first two can't be reached and only Monday – Friday 8am – 5pm.

If the person in charge at the TMC feels a SIRV response would be helpful outside of their assigned areas, do not hesitate to call for authorization.

Secondary Response Unit

On some occasions, SIRV will arrive before a Road Ranger and will be considered the secondary respond unit. In such cases, SIRV will provide additional assistance to help with the incident clearance. When arriving on a scene as a secondary responder, the SIRV staff will perform the following:

- Contact the RTMC.
- Contact the Road Ranger and/or Road Ranger Supervisor.
- Deploy additional MOT equipment.
- Obtain times, responders on scene, and what services were provided.
- Continuously update the RTMC on the progression of the incident.

Documentation

When notifying a SIRV Unit, it is required to document the details in SunGuide and document the occurrence in the Shift Report.

NOTIFY RTMC MANAGEMENT

Overview

Generally, RTMC Operations will manage events like those that have been handled in the past. However, if a severe or unusual event occurs that has a significant traffic impact during a shift, it is important to bring it to the attention of the RTMC Operations Supervisor and/or RTMC Manager. The necessary information is disseminated by sending a high-profile email. This will provide them with information needed to handle inquiries that typically come from senior management, elected officials, the media, and the public following such significant events. It will also include guidelines for when to contact management during regular business hours and when to contact management during off-peak hours.

Policy / Procedure

During normal business hours, when there is an unusual and/or unscheduled event that has a significant impact on the geographical coverage area, perform all necessary traffic management steps, then advise the RTMC Operations Supervisor and/or RTMC Manager of the event.

- Date and Time event was detected/reported and verified.
- Type of Event (i.e. vehicle rollover, jack-knife tractor trailer truck).
- Roadway and location.
- Lane block pattern.
- Vehicles and/or pedestrians involved.
- Emergency vehicles on the scene.
- Estimation of the duration of the event.
- Who was contacted/notified.
- External devices currently available and being used for the event.
- Any information that was obtained from other sources about the expected duration of the event or the nature of the event.

Any such notification shall be carried out by the Lead or senior Operator that is on duty at the time of the occurrence. If no Lead or Senior Operator is on duty at the time of the occurrence, proceed directly to notifying the On-Call Supervisor.

Documentation

If notifying RTMC Management, the call must be documented in the SunGuide Event Report (if applicable) and in the Shift Report.

NOTIFY ASSET MANAGEMENT

Overview

Many external agencies rely on information provided by the Broward RTMC to respond to incidents effectively and efficiently. Asset management companies assist other responders during major incidents requiring long-term MOT and/or where there is roadway damage or fuel spills. The RTMC in conjunction with Florida Highway Patrol and SIRV will advise the appropriate asset management company when required.

Policy / Procedure

RTMC Operators should proactively look for roadway/property damage and not rely solely on direct requests from Road Ranger, SIRV, or FHP. It is especially important during the overnight and weekend hours to be aware of information relayed over the FHP radio and to follow up with FHP to obtain necessary information if unable to view via CCTV.

Asset Maintenance Contractors

- Jorgensen:
 - I-95 from the Miami Dade county line to the Palm Beach County line
 - I-75 from Miami Dade/Broward County Line to Collier County lines including US-27 (Entrance and Exit ramp),
 - I-595 from Eller to 95
- VERSAR covers the exit ramps entering and exiting I-595 and US-1 mainline East to Eller Dr.
- VERSAR: Palm Beach County
- VERSAR: US-27 / Belle Glade
- Jorgensen: Martin St. Lucie and Indian River counties.
- Construction contractors: on a case-by-case basis (should be documented on the whiteboard in the control room).

Emergency Response

RTMC Operators will contact the appropriate asset management company for all incidents requiring emergency response as defined in the Emergency Roadway Issues portion of this SOP section and/or at the request of FHP or SIRV.

- For incidents on I-95, I-595, during normal office hours, contact Jorgensen via Jorgensen contact lists (the call tree). Incidents in the 95 Express construction limits → contact Jorgensen via on-call schedule.
- For after-hour emergencies, contact Jorgensen (954.626.3590).
- For incidents occurring on I-75 west of US-27 and the exit ramp NB/SB at US-27, Ferroval will be contacted via phone 24/7. Contact numbers are Collier/Lee/Broward - (239) 234-6500.
- For incidents on US-27 / Belle Glade: Contact Louis Berger at 888-323-5534
- For incidents located on Exit Ramps entering and exiting 595 AT US-1 and Mainline East to Eller Drive Contact Louis Berger - 888-323-5534
- After normal business hours (5pm – 7am), holidays, and weekends, RTMC operators should call the on-call service number (239) 479-7700 and the on-call person. (On-call schedule will be provided by DBI weekly and will be updated on the on-call board in the control room).

Note. For incidents with SIRV on-scene, requests for Maintenance response will always be initiated by SIRV.

Non-Emergency Response

During normal business hours (Monday – Friday 7 AM to 5:30 PM) RTMC Operators should contact the appropriate asset management company for all reports of roadway/property damage and the on-call list

should be utilized after hours. Other non-emergency reports that are off the roadway on local roads after hours and weekends will be provided to FDOT maintenance via email by a supervisor or manager as outlined in the Reporting section of this document.

If you are unable to determine whether damage viewed via CCTV warrants an emergency response, first contact FHP if they are or have been on the scene. –

Maintenance must be notified, even if advised that the Road ranger states of no damage.

West Palm Beach

VERSAR – Louis Berger shall be notified of all crashes involving damage to infrastructure (barriers, bridges, guardrail, etc.), safety hazards created from live animals on I-95 and for all Level 2 and 3 incidents involving substantial fuel spills (>10 gallons), overturned tractor-trailers, and when traffic control/diversion equipment is needed.

Calls to the project centralized Hotline number will be routed through a 24/7 outside service provider (OSP). The OSP will dial the primary, alternate, and contingent team dispatchers in succession until the line is answered.

After hours (4pm to 7am) Callout Rules Hotline.

Important: Allow the phone to ring until answered (approximately 20 secs) this will allow the OSP to cycle through dispatchers. If the hotline number is unanswered, call the Project Manager (Nicholas Moffo) directly.

Notify Satish (AECOM) **561-681-4335** during working hours Mon – Fri. 7:00am – 6:00pm for incidents that can affect ramp operations (mainline congestion, entrance, exit ramps and/or intersection incidents) in Palm Beach County.

Palm Beach Emergency Operations Center (EOC)

Operators should contact the Palm Beach Emergency Operations Center for all lane blockage events (Level 3) incidents and vehicle fires.

Notification of Crashes in Palm Beach Work Zones

Crashes in Work Zones (Construction areas) on I-95 shall be reported directly to the I-95 Public Information Officer, Peter Dobbins. Peter will communicate the information to the appropriate construction personnel.

Jorgensen – Martin County, St Lucie and Indian River

Jorgensen shall be notified of all crashes involving damage to infrastructure (barriers, bridges, guardrail, fencing for cattle ranches etc.). Any request for dead animal removal on the I-95 corridor is to be made through Jorgensen. Live and / or injured animals should be reported through ESF-17 for Martin County and through PSAP for St Lucie County.

Long-term MOT requests can be made directly through the RTMC.

Emergency Roadway Issues

RTMC Operators should contact the necessary Asset Maintenance Contractor 24 hours a day, seven days a week for all the following emergency roadway issues.

Vehicle Fire:

- If there is a vehicle fire of any size in the travel lanes, paved shoulders or anywhere under a bridge, this is to be considered an Emergency Roadway Issue and you must notify the correct Asset Maintenance Company.



Delineator

- Delineator is protruding into the roadway, gore (apex), or paved shoulder.



Signs

Single post sign

- Down on DOT property
- Leaning into the roadway or paved shoulder



Multi-post sign

- Down on DOT property
- Leaning into the roadway or paved shoulder



Overhead signs

- Hit by vehicle.
- Panel or light dangling over traffic



Guardrail

- Damaged railing or posts protruding into the roadway, paved shoulder or sidewalk
- Vehicle through the guardrail (breach)
- Oncoming section of guardrail (end treatment) damaged
- Guardrail strike



Concrete

- Damage to Barrier Wall
- Strike to Barrier Wall



Concrete (cont'd)

- Concrete broken off wall and laying on the paved shoulder or roadway
- Vehicle through the wall (breach)



Bridge wall or support

- Concrete broken off of wall caused by a crash
- Concrete burned caused by crash or vandalism
- Concrete cracked caused by crash



Bridge Damage

- Bridge Hit
- Vehicle Fire in the vicinity of a bridge



Attenuator

- Damage to attenuator



Barrel Attenuators

(Crash Barrels)

- Damage to barrel attenuators (crash barrels)



Lighting

- Single light out does not require call-out / Circuit out / Pole Down or Leaning / Paved Shoulder
- Roadway



Flooding

- Lane(s) flooded
- Paved Shoulder flooded



Debris

- In paved shoulder or roadway, unless FHP will handle.



Manhole Cover – Open in pavement: Pavement Damage

- Pothole
- Pavement Undermined due to Shoulder Washout
- Pavement damaged due to Vehicle Fire



Fuel Spill

- Rupture of gas or diesel tanks due to an accident
- Accident involving a tanker



Other Issues

Vandalism

- Graffiti or other damage to FDOT property (if in the act notify FHP first)
- Theft of FDOT property out of pull-boxes or light posts (if in the act notify FHP first)



Documentation

Normally, all calls are documented in the RTMC shift report. You should capture a print screen of the CCTV camera showing the damage. The images should be named with the event number and date (Ex: 57904 1-29-09) and saved in P:\Shift Report\Infrastructure Damage.

In SunGuide: the following procedure applies to ALL reports of roadway/property damage whether an emergency or not and regardless of a call-out if requested. For the follow-up documentation, comments on the damage and notifications made are entered in the incident using comment type - Infrastructure Damage. It is selected from the drop-down list.

The following is a list of the minimum information that should be recorded in the event:

- Who was contacted and at what time / Emergency or non-emergency (note if you are unsure)
- Type of damage (be specific) / Whether FHP or SIRV requested immediate FDOT response.

FHP CAD number or case number (obtained from FHP dispatch) must be recorded on all incidents involving roadway/property damage. An exception to this would be damage detected during normal monitoring of the roadway that doesn't involve an active traffic event.

Reporting

A manager or supervisor is responsible for running the Event List Infrastructure Damage Report daily for Broward, Palm Beach, Martin, St Lucie, and Indian River County.

NOTIFY TRANSIT

Overview

TMC Operations Staff shall notify Miami-Dade Transit (MDT) dispatch via the telephone (305-375-1243) for all incidents with major infrastructure and/or travel lanes blocked that are estimated to exceed more than 2 hours on I-95 between 595 and the Miami-Dade County line. This notification is for incidents having a major impact on traffic in the area. This will affect buses traveling between Broward and Miami-Dade.

Policy

- MDT Dispatch shall be called when long term MOT is needed for a long-term incident.
- Morning Rush hour (6am-9am) for both Express and GU events.
- Afternoon Rush hour (4pm – 7pm) for both Express and GU.
- Any major or long-term EL or GU events outside of rush hour.

The majority of SB Express Lanes are outside the project limits. There may be times when long term MOT is needed for SB entrance within the project limits. If such a situation arises Jorgensen will respond to long term MOT if called.

Broward County transit number is 954-357-8353 and they would like information on the following scenarios.

- Morning Rush hour (6am-9am) for both Express and GU events.
- Afternoon Rush hour (4pm – 7pm) for both Express and GU.
- Any Major or Long-Term EL Or GU Events Outside Of Rush Hour.

Documentation

When notifying Jorgensen, it is required to document the details in SunGuide and document the occurrence in the shift report.

NOTIFY FDOT EXECUTIVE MANAGEMENT

Overview

Florida Department of Transportation (FDOT) Executive Management must be notified for all incidents meeting the following criteria using the procedure set forth below:

- Any interstate highway crash involving the death of five or more persons (per Procedure 850-005-001-j).
- Any fatality or serious injury to an FDOT Employee or contractor performing work along the roadway.
 - Note: To avoid violating privacy laws, do not include injury details (if known).
- Any time an FDOT Employee or contractor performing work along the roadway is transported via ambulance with unknown injuries.
 - Specify in comments that the extent of injuries is UNKNOWN; update Executive Notification once additional information is available.
- Any fatality in an FDOT work zone.
- Any interstate highway crash involving multiple vehicles where fog or smoke is involved.
- Any interstate highway crash involving more than 10 vehicles in a chain reaction collision (per 850-005-001-j).
- Any wrong way driving crashes on limited access facilities, including ramps.
- Any bus crashes (includes school bus) with fatalities or injuries (modified 850-005-001j).
 - FDOT PIO must be notified immediately if a school bus is involved and advised if children are present (if known).
- Any incident that causes an interstate highway to be closed for an estimated duration of more than one hour (modified 850-005-001j).
 - All lanes are blocked including shoulders.
 - Do not make notifications for a ramp being closed.
- All bridge failures or closures (per 850-005-001-j) (Not Scheduled Events).
- Wildfires that close a limited access facility.
 - All lanes are blocked including shoulders.
 - Do not make notifications for a ramp being closed.

D4RTMC Executive-Notification

Procedure

A supervisor or manager will be the first line for sending this email using the SunGuide generated template (example below); in absence of a supervisor or manager, a Lead Operator. This does not have to be done while busy providing initial response to a major incident but should be done as soon as you possibly can.

SunGuide will automatically generate an Executive Email notification when certain criteria are met and/or when a Comment Type 'Executive Notification' is added. This system generated notification will be sent to all supervisors and Lead Operators. The person responsible for sending the Executive Notification email will need to make the necessary changes to the message before forwarding.

If an incident meets the criteria for Executive Notification and SunGuide does not automatically generate an email, you must go into the event and enter a comment type 'Executive Notification.'

We are required to use the SunGuide generated notification.

Executive Email notifications shall be sent for:

- Initial notification of the event.
- Updates.

- Significant change in status (i.e., reopening of a travel lane for a facility that was completely closed, closure of additional travel lanes, etc.).
- Requests made by FDOT Executive Leadership or the FDOT Emergency Management Watch Officer.
- Every 2 hours (even if there are no changes).
- Final clearance of the event.

For Initial Notifications:

1. The Subject Line shall read: Event Type, Facility Name, Direction, Location, and County.
2. Notifications will be sent to: Executive-Notification-DL (found in the corporate directory).
 - Before sending, expand the list by selecting the + (if you forget this step, DO NOT RESEND TO CORRECT).
3. The red portions are the ONLY portions of the email that the TMC/RTMC fills out and that can be changed. Other than the red portions, do not change the template.
4. If the fatality occurs in an FDOT work zone, identify the related information in the "Narrative".
5. If any portion of the notification template is unknown or unavailable, SunGuide will state *This data is not recorded currently* in the associated field. The RTMC does not need to wait until all notification fields are known to send the Email.
6. These Executive Email notifications should not be sent for Scheduled Road Work and Special Events.

If Executive Leadership or the FDOT Emergency Management Team needs additional info, they may request information over the phone or request that an Email notification be sent out using the template.

Important to note that this notification is going to Executive Management at FDOT and will include your phone number and email address so please be prepared to answer questions should you be contacted. Advise others in the control room that the email has been sent in case a call is received.

These Executive Emails will include the start and clearance Emails and major updates (e.g., a full closure has partially opened, information previously unavailable or unconfirmed is now confirmed).

TEMPLATE (note that the body of the email is double spaced)

Subject Line: Event Type/Description, Facility Name, Direction, Location, and County.

Time of Incident: **24 Hour Date/Time – MM/DD/YYYY 00:00:00**

Incident Type: **Crash**

Location: **Facility name, Direction of Travel, SunGuide EM location of event with qualified At, Beyond, Before and County**

Mile Marker:

Facility Status: **All lanes & shoulders blocked.**

Duration of Closure: **XX Hours XX Minutes or 0 Minutes if there is no Closure.**

Fatalities: **XX**

Injuries: **XX**

Number of Vehicles: **XX**

Types of Vehicles: **Car, SUV, Bus, etc.**

Narrative: **The account of what took place before and during the incident including response actions. This information should be recorded in the event using Comment Type (Executive Notification)**

SunGuide Event #: **XXXXXX**

Please direct all questions to **the <Insert Title> at (XXX) XXX-XXXX or (email address).**

UPDATES

For Update Notifications (example below):

1. The Subject line will remain the same.
2. The distribution will remain the same.
3. The first text in the body of the email shall be: **UPDATE** (above the first line).
4. Only the information being updated will change and shall be highlighted.
5. See below for an update example (indicating a change in facility status).

UPDATE TEMPLATE EXAMPLE

Subject Line: Event Type/Description, Facility Name, Direction, Location, and County.

UPDATE



Time of Incident: **24 Hour Date/Time – MM/DD/YYYY 00:00:00.**

Incident Type: **Crash.**

Location: Facility name, Direction of Travel, SunGuide EM location of event with qualified At, Beyond, Before and County

Facility Status: **All lanes & shoulders blocked.**



Duration of Closure: **XX Hours XX Minutes or 0 Minutes if there is no Closure.**

Fatalities: **XX**

Injuries: **XX**

Number of Vehicles: **XX**

Types of Vehicles: **Car, SUV, Bus, etc.**

Narrative: **The account of what took place before and during the incident including response actions. This information should be recorded in the event using Comment Type (Executive Notification).**

SunGuide Event #: **XXXXXX**

Please direct all questions to **the <Insert Title> at (XXX) XXX-XXXX or (email address).**



4.10 Regional Coordination

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Document History

Version #	Date	Author/ Editor	Changes
1.0	05/02/2024	Yana Neishlos	Initial Draft

OVERVIEW

The Southeastern Florida Regional TMC Operations Committee (SEFRTOC) was formed in 2003 by the South Florida Regional ITS Coalition, an organization that brings together municipal, county, and regional state agencies to ensure compatible implementation and operation of Intelligent Transportation Systems (ITS) throughout the region.

The mission of SEFRTOC is to facilitate regional mobility in Southeast Florida through coordinated Transportation Management Center Operations.

There are five agencies besides the District 4 RTMC that participate in the SEFRTOC mission:

1. Miami-Dade District 6 SunGuide TMC.
2. Florida's Turnpike Enterprise – Pompano TMC.
3. Miami-Dade Expressway Authority TMC (MDX).
4. 595 Express LLC.
5. District 1

These agencies along with the District 4 RTMC play a vital role in regional South Florida transportation management.

The objective of SEFRTOC members is to further the objectives of the South Florida Regional ITS Coalition by leading initiatives related to day-to-day operations and to establish a regional approach to ITS operations and incident management through coordinated communication, decision-making and planned resource sharing.

PARTNER AGENCY DMS NOTIFICATION

Overview

Within the RTMC, there will be times when it will be necessary to contact a partner agency to request activation of their DMS sign(s) to assist with public awareness with managing an incident. The following guidelines are to be followed in these instances.

Policy – Broward County

Contact 595 Express LLC

595 Express LLC to be contacted for any lane blockage event SB I-95 south of I-595, NB I-95 north of I-595, NB I-75 west of I-595, SB I-75 south of I-595, and on all the District 4 RTMC coverage areas of I-595.

Contact District 6

If the response plan chooses:

- 95NB18 (NB 95 before Hallandale Beach Blvd), contact District 6 requesting that they activate signs.
- 75NB06 (NB before Miramar), contact District 6 requesting that they activate signs.

Contact District 1

District 1 SWIFT TMC should be contacted if there is a major SB or NB event on I-75 (Alligator Alley) or if there is a closure due to fog / wildfires.

Contact Florida's Turnpike Enterprise

No response plan is required for notifications to the Florida Turnpike. Please use the following scenarios when determining when to contact the Florida Turnpike.

- If any lanes are blocked on NB I-75 from Miami Gardens to before Royal Palm Blvd CONTACT DISTRICT 6 AND FLORIDA TURNPIKE REQUESTING THAT THEY ACTIVATE SIGNS.
- If all lanes are closed on SB I-75 toward Miami or NB I-75 toward Alligator Alley, if all lanes are blocked anywhere on NB I-95 before Broward or anywhere on SB I-95 at or beyond Griffin Road CONTACT FLORIDA TURNPIKE and 595 EXPRESS REQUESTING THAT THEY ACTIVATE SIGNS.
- If all lanes are closed on ramp from WB I-595 to SB I-75 toward Miami CONTACT FLORIDA TURNPIKE AND 595 EXPRESS REQUESTING THAT THEY ACTIVATE SIGNS.
- If all lanes are closed on ramps from EB I-595 to NB I-95 or SB I-95 CONTACT FLORIDA TURNPIKE AND 595 EXPRESS REQUESTING THAT THEY ACTIVATE SIGNS.

Whenever notification to any of the partner agencies is made for assistance with lane blockage events, advise the agency of the location of the incident, lanes blocked and that DMS assistance is requested.

Policy – Treasure Coast (Martin, St Lucie, And Indian River)

Contact Florida's Turnpike Enterprise

Florida's Turnpike TMC to be contacted for assistance with DMS message activation for full road closures and projected Level 3 incidents on I-95 north and south in any of the three Northern Counties. Locations are:

- I-95 Exit 87 Indiantown (Turnpike exit 116).
- I-95 Exit 110 Martin Highway (Turnpike exit 133).
- I-95 Exit 129 Okeechobee Rd (Turnpike exit 152).
- I-95 Exit 147 SR60 (Turnpike exit 193).

Contact District 5

All I-95 southbound incidents in N3C that will / may have regional impact.

Documentation

When contacting a partner agency for DMS assistance, it is required to document all details in SunGuide to include the name of the operator spoken to and event number.

ADJOINING COUNTIES EVENT MANAGEMENT

Overview

There are many occasions where the RTMC will assist adjoining counties, such as Miami-Dade. The assistance can range from dispatching a Road Ranger to posting DMS messages.

Procedures

Road Ranger Dispatch

In the event there is an incident which occurs in an adjoining county and requires additional Road Ranger assistance from the TMC, the Operator should use the following geographical parameters with dispatching of the Road Ranger.

<i>Broward:</i>	Dispatch up to one mile north of Hillsboro Blvd.
<i>Palm Beach:</i>	Dispatch up to one mile south of Palmetto Road.
<i>595 Express:</i>	Assist to 441 WB and ramp assistance for crash events.
<i>Miami-Dade:</i>	Dispatch up to one mile south of Ives Dairy Road.
<i>Collier:</i>	Dispatch up to one mile north of the Broward / Collier County line.
<i>Brevard County:</i>	Dispatch (upon request) up to Exit 173.

Ramp Closures

For full ramp closures, the RTMC will sign for events:

For full ramp closures on I-595:	<ul style="list-style-type: none"> • SR441 for 595 WB. • Flamingo Road for EB. • Ramp to Turnpike EB/WB
For full ramp closures - south of Broward County (Miami-Dade), the RTMC will sign for southbound events for the following exits:	<ul style="list-style-type: none"> • Ives Dairy Road. • Miami Gardens. • Golden Glades.
For partial ramp closures - south of Broward County (Miami-Dade), the RTMC will sign for southbound events at:	Ives Dairy Road.

Incident Email Alert Notifications

When posting DMS messages SB before Ives Dairy (in Miami-Dade County—be sure to remove 511 FLATIS as D6 will handle FLATIS) that District 4 Road Rangers respond to or as directed by a supervisor or Manager.

Documentation

When the RTMC has responded to and/or posted DMS messages for an adjoining county incident, it is required to log all relevant details into SunGuide.

FLORIDA'S TURNPIKE ENTERPRISE

Overview

Florida's Turnpike (FTE) was originally constructed in 1957. It is responsible for all operations on every FDOT-owned and operated toll road and bridge. This represents about 600 miles of roadway and 80 percent of all toll facilities in Florida. FTE strives to ensure every customer who travels these toll roads and bridges receives first class service on every trip.

Locations & Staffing

- The Turnpike Operations Center MM65 in Pompano Beach, FL is the central facility for verification, dissemination and management of Turnpike traffic incidents and issues in South Florida.
- Turnpike Operations Center Team Members work closely with Florida Highway Patrol Troop K, FDOT Districts, and service providers, traffic media, Turnpike Construction and Maintenance personnel, the Public Information Office, other agencies to provide accurate and timely information to FTE Customers
- Intelligent Transportation System field devices are operated to enhance safety, services, and traffic flow for Turnpike Customers.
- More than 325 CCTV cameras provide traffic monitoring capability.
- The 113 DMS, ten HAR transmitters, and 22 advisory signs with flashing beacons are operated from the TMC for information dissemination.
- Florida's Turnpike Enterprise TMC Team Members dispatch the Safety Patrol/Road Rangers via SLERS and Zello radio systems.
- Florida's Turnpike Enterprise TMC Team Members use the SunGuide application software to document all incident information, to activate ITS devices (DMS) and monitor FTE via CCTV pan-tilt-zoom cameras.
- Florida's Turnpike Enterprise TMC Team Members dispatch the Turnpike's Rapid Incident Scene Clearance (RISC) contractors to large vehicle accidents and are the official timekeeper for the incentive/disincentive program.
- The existing Turnpike Road Rangers' AVL system is integrated with both Florida's Turnpike Enterprise TMC facilities. The current AVL system provides Florida's Turnpike Enterprise TMC with Road Rangers location information enabling more efficient response to incidents on the Turnpike by dispatching the closest available mobile asset(s).
- Florida's Turnpike Enterprise TMC has permanent staffing at the FHP Troop K, Lake Worth Dispatch Center. Two full-time FHP Dispatch TMC Team Members are committed to the FHP Dispatch Center, thus improving service to Turnpike customers. As liaisons between FHP and the TMC, FHP Dispatch TMC Team Members work in conjunction with the Turnpike's TMCs and facilitate sharing of incident status information between FHP and the TMCs.
- Real-time Website traffic updates and selects video images via Florida's Turnpike website – floridasturnpike.com.

Interaction & Coordination

There are many occurrences where interaction and coordination with FTE is necessary. Since FTE roadways run through Broward County and is one of the TMCs SEFRTOC partners, there are many occasions where the need to share resources, such as Road Ranger assistance or posting Dynamic Message Signs (DMS) are necessary.

Florida's Turnpike Traffic Management Centers operate 24/7 through the operation of two locations: Pompano and Orlando Traffic Management Centers. The overnight hours (10 pm to 6 am) are managed by both facilities. If the need arises to contact Florida's Turnpike's TMC, please use the land line phone numbers, either (407) 264-3363 or (954) 934-1370, to reach the TMC operations staff.

If the attempt is made to contact the TMC utilizing the Turnpike's TMC cell phone numbers on the night of the control room being closed, the call will likely not be received or returned until the next morning.

All radio communications via 450 MHz or 800 MHz systems will be maintained in their current state and unaffected. In addition, when you call the TMC, the operator you are speaking to may be in the other facility from which you think you may be calling.

GREATER MIAMI EXPRESSWAY

The Greater Miami Expressway (GMX) is a public agency created in 1994 by the state of Florida and the Miami-Dade County Commission. GMX oversees and maintains five expressways: State Road 924, State Road 112, State Road 836, State Road 874, and State Road 878.

The Greater Miami Expressway TMC functions as an incident management center. The TMC coordinates incident response between Road Rangers, FDOT District 6, Florida Highway Patrol, Fire Rescue, and other partners on GMX roadways. The GMX Operations Center monitors traffic, identifies and manages incidents and dispatches Road Ranger Service Patrols.

The GMX TMC also assists in the coordination of Rapid Incident Scene Clearance (RISC) Contractor's to large vehicle accidents.

There are certain occurrences where interaction and coordination with GMX is necessary. Since GMX is one of the RTMCs partners, there may be an occasion where the need to share resources, such as posting Dynamic Message Signs (DMS).

I-595 EXPRESS LLC

Overview

On July 31, 2009, the I-595 Express Project concessionaire, I-595 Express, LLC, assumed responsibility for the operation and maintenance of the 10.5-mile long I-595 construction corridor from west of 136th Avenue to east of State Road 7.

This responsibility includes adhering to the Florida Department of Transportation's (FDOT) Incident Management Standard Operating Procedures (SOP).

The following will be in operation 24 hours a day, 7 days a week for the next 35 years.

Monitoring from the District 4 Regional Transportation Management Center (RTMC)

The concessionaire will be responsible for operating and monitoring the traffic cameras in the I-595 corridor. The I-595 Express, LLC traffic operators will work out of FDOT District Four's TSM&O RTMC. From the TMC, located at 2300 West Commercial Boulevard in Fort Lauderdale, they will monitor traffic conditions, dispatch Road Rangers, respond to traffic incidents and coordinate Intelligent Transportation System (ITS) programs in the corridor. They will always provide two operators on duty and additional operators during peak travel times (morning and afternoon rush hours) and during express lanes switching operations. The I-595 Express, LLC traffic operators will also share real-time data through the Interagency Video and Event Data Distribution System (iVDS), and 511.

I-595 Express Road Ranger Service

The concessionaire will provide Road Ranger service vehicles to assist motorists within the I-595 project corridor. I-595 Road Rangers also will clear disabled vehicles from the travel lanes, remove roadway debris and assist the Florida Highway Patrol (FHP) and other responders during traffic incidents. The I-595 Express Road Rangers will roam through the corridor on a 30-minute cycle and will carry supplies and equipment, like the existing FDOT Road Rangers, including Automated Vehicle Location (GPS) and wireless data connectivity to the RTMC.

Rapid Incident Scene Clearance (RISC)

The Rapid Incident Scene Clearance (RISC) program's role is to clear quickly and efficiently much larger and more critical incidents from I-595. This service focuses on the clearance of large vehicles such as trucks and semi-tractor trailers that have been involved in an incident and are blocking lanes or otherwise affecting traffic flow. (Consistent with Florida Open Roads Policy).

Severe Incident Response Vehicle (SIRV)

As another level of incident management, the Severe Incident Response Vehicle (SIRV) team provides an immediate FDOT Incident Command presence at the scene of incidents within the I-595 corridor that are too large and/or severe for the RISC program to handle on its own. The program's purpose is to provide immediate presence at all severe incidents such as those resulting in multiple lane closures lasting longer than two hours or full highway closure.

I-595 Reversible Express Lanes Blockage (REL)

I-595 Express consists of three tolled, reversible Express Lanes. The reversible lanes will typically be open on weekdays to eastbound traffic between 4:00AM and 1:00PM and for westbound drivers between 2:00PM and 2:00AM. The Express Lanes will normally be closed between 1:00PM and 2:00 PM and between 2:00AM and 4:00AM for routine maintenance. On

weekends, the Express Lanes will normally be open in the eastbound direction only.

595 Express has 4 DMS within the REL. There are two at the 1.3 Mile Marker (East of Flamingo) on both Eastbound and Westbound sides. The other two are located at mile marker 6.2 (East of University) on both the Eastbound and Westbound sides. We are only to sign for events within the REL when the incident is BEFORE their first DMS. Any events that are beyond their first DMS will not be signed for; they can utilize their own DMS for that. If there happens to be a major incident beyond their first DMS, I-595 will then shut down the REL at the point of entry, and then we will sign for the closure. As for DMS messaging we will NOT be using reference points but will sign for what lanes are blocked.

Examples

Below are examples of the messaging format that should be used.

EB travel	Right Lane on REL before Flamingo sign:	<ul style="list-style-type: none"> • SB86901 – I-595 EXPRESS – RIGHT LANE BLOCKED • I-75 signs – I-595 EXPRESS RIGHT LANE BLOCKED
EB or WB travel	Right Lane on REL between University and Flamingo signs:	*NO SIGNS
WB travel	Right Lane on REL blocked before University sign:	<p>I-595 / I-95 DMS – I-595 EXPRESS - RIGHT LANE BLOCKED</p> <p>Events Westbound, operators will utilize the I-95 signs and events Eastbound, I-75 signs will be utilized.</p>

The above information only applies to the reversible express lanes (REL). Procedures for general purpose lane closures on I-595 remain the same.

SWIFT SUNGUIDE

Overview

FDOT District 1's Southwest Interagency Facility for Transportation (SWIFT) SunGuide Center in Ft. Myers, FL is the hub of real-time traffic operations for I-75 in Southwest Florida. The two-story building houses the department's operations staff (including 511), the team handling regional traffic and incident management, and the department's regional Office of Motor Carrier Compliance.

Florida Highway Patrol Troop F and FHP dispatch also occupy the building. This 49,800 square foot facility is designated the Joseph P. Bertrand Building, named for the FHP trooper who died in the line of duty in 1967 in Fort Myers.

ITS Operation

- I-75 through Collier and Lee Counties (MM51- MM143).
- 24/7/365.
- 26 dynamic message signs (Amber and Silver Alerts if law enforcement requests assistance).
- 79 closed-circuit TV cameras to monitor traffic conditions.
- 111 vehicle sensors.
- 2 roadway weather information systems.
- Enhanced safety cable barrier system along Alligator Alley in Collier County.
- SunGuide centralized computer system and video wall in the SWIFT SunGuide Center's control room.

Dispatching emergency resources to an incident on I-75 brings the full system into play.

Staff can focus cameras on the incident to determine better who and how many first responders are needed. FHP can direct its response based on firsthand information about the scene.

Motor Carrier Compliance officers can respond to incidents involving trucks. Staff can send Road Rangers in the vicinity to assist with traffic control. Roadside sensors will communicate whether traffic is slowing, for example, and camera images can confirm how traffic is reacting.

Operations staff can immediately program messages on signs preparing drivers to slow or stop for conditions ahead and recommending alternate routes. With ITS in place, highway lanes open to traffic faster.

Secondary incidents that often create extended delays in traffic are reduced.

FLL AIRPORT

Overview

Fort Lauderdale/Hollywood international airport, a general aviation airport serves as the needs of 26.9 million passengers and the general aviation community throughout South Florida.

Through collaboration between FDOT/RTMC TSM&O and Broward County Aviation Department (BCAD), the following process is intended to improve airport-condition communications via DMS to customers using FDOT Highways to drive to the airport.



Procedure

BCAD AOCC will contact the RTMC and identify as an AOCC Agent from Fort Lauderdale-Hollywood International Airport.

Operator must request contact name and telephone number of the person calling.

The AOCC Agent will briefly explain the nature of scenario and identify which of the following messages they would like posted.

Warning Signs

Message	
Predefined Plan	FLL AIRPORT – ROADWAY CONGESTION
Message	
Predefined Plan	<p>FLL AIRPORT – GARAGES FULL</p> <ul style="list-style-type: none"> • Create an event type INTERAGENCY in SunGuide. Include details of the request along with contact information in comments. • Select the appropriate predefined plan to post messages on FL DMS 1 and FL DMS2 (on US-1) and then 595EB11. • Follow-up every two hours if no call is received to cancel messages.

Note. Messages have been formatted in the pre-defined plans, so two-phase on smaller signs.



4.11 Failures & Maintenance

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Document History

Version #	Date	Author/ Editor	Changes
1.0	05/02/2024	Yana Neishlos	Initial Draft

SYSTEM FAILURES

Overview

The RTMC requires the reliable performance of all subsystems including DMS, CCTV, TSS, Computer Hardware, Software Applications, and Communications. An effective failure management plan begins with a maintenance program that deals with the prevention of problems and the rapid resolution when malfunctions occur. It is therefore critical to minimize system downtime.

Procedures

Maintenance is categorized as follows:

<i>Preventive Maintenance:</i>	Scheduled actions to keep equipment in good working condition.
<i>Remedial Maintenance:</i>	Addresses known malfunctions with low priority.
<i>Emergency Maintenance:</i>	Responds to and repairs critical system failures.

In most cases, RTMC Operators will notice an equipment error first, and therefore have a critical role in the maintenance of the system's equipment. It is the RTMC Operator's responsibility to report equipment failures and problems to the RTMC Management to minimize equipment downtime. Equipment failure information is communicated to the RTMC through various means, depending upon the severity and operational impact of the failure.

In general, the steps for managing and reporting a system failure are:

<i>Evaluate the impact of the failure:</i>	<ul style="list-style-type: none"> Identify the problem. Date and time error occurred or was discovered. Note any other equipment problems that might be related.
--	--

<i>Take corrective action:</i>	<ul style="list-style-type: none"> Follow troubleshooting procedures in place for known faults. For failures that significantly impair operations, contact RTMC Management immediately.
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<i>For issues dealing with ITS Devices such as DMS, HAR, CCTV, or TSS:</i>	Create a MIMS Ticket in SunGuide.
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<i>For all other issues including the video wall, network connectivity, local system applications:</i>	<p>Open an internal help desk ticket:</p> <ul style="list-style-type: none"> Access the help desk link from the internal Intra-SMART RTMC home web page: support@floridadot.samanage.com
--	--

ITS Field Device Damage

In the event a field device is hit by a vehicle or is damaged by other means; making the device inoperable, the RTMC Operator should notify ITS Maintenance immediately. RTMC Operators should not notify Asset Maintenance of any field device damage. ITS Maintenance can be contacted during business hours and non-business hours.

Documentation

When an equipment failure has been detected and/or reported, it is required to document all details in affected events in SunGuide. In addition, the Shift Report should be updated to reflect failed devices and any necessary comments.

SUNGUIDE FAILURES

Overview

If the SunGuide software system is not operating correctly, traffic events cannot be logged, and Dynamic Message Sign (DMS) plans and Incident Email Alert Notifications will not be generated. Different circumstances can result in the system not functioning properly. These include problems with computer hardware and errors in the software.

The impact these database problems can have on roadway monitoring can range from relatively minor to serious. Entire system crashes generally require quick notification, while system errors are usually reported via an Internal Service Desk Ticket and documented in the Shift Report.

Procedures

In general, the steps for managing and reporting a SunGuide problem or failure are:

- | | |
|--|--|
| <i>Evaluate the impact of the failure:</i> | <ul style="list-style-type: none"> • Determine the malfunction: workstation or software. • Determine which operational function(s) and other devices are impaired. • For minor problems not impairing operation: <ul style="list-style-type: none"> – Log the details, – Continue working on the system. |
|--|--|

-
- | | |
|---|---|
| <i>Take corrective action as appropriate:</i> | <ul style="list-style-type: none"> • Follow troubleshooting procedures for known faults. • Attempt to clear the problem by: <ul style="list-style-type: none"> – Exiting the SunGuide and reopening, – Restart the computer workstation. |
|---|---|

-
- | | |
|---|---|
| <i>Notify the RTMC Operations Supervisor of occurrence:</i> | <ul style="list-style-type: none"> • Depending on the severity of the problem and time of the day, the on-call RTMC Operations Supervisor will contact the appropriate personnel to ensure the issue is addressed. • Upon the direction of the on-call RTMC Operations Supervisor, the Operator may be requested to open an Internal service desk ticket. • In most cases, errors occurring in SunGuide are managed by the RTMC Network Administrator. |
|---|---|

For system crashes occurring after hours, the on-call RTMC Network Administrator will respond immediately. System bugs will generally be addressed the next business day.

Documentation

When a SunGuide error has been detected and/or reported, it is required to document all details. In addition, the Shift Report should be updated to reflect the occurrence, including error specifics, remedial action attempted, what personnel have been contacted, and the time the equipment became operational (if applicable).

DMS EQUIPMENT FAILURE

Overview

Dynamic Message Signs (DMS) are the most visible component of the RTMC. The operational status of a sign is critical and can affect the motorist's overall perception of RTMC Operations. Various sign and message problems can be caused by the SunGuide System and/or by failures of the electronic and/or mechanical components of a sign. The RTMC Operators will usually be the first to detect either condition.

The RTMC considers a critical DMS operational failure when a DMS message does not respond to the request of the RTMC Operator. Some examples are when a DMS does not activate, the message does not blank or clear, there is an unscheduled loss of communication to the sign, there is an unscheduled system failure not rectified within a few minutes, and failure of both primary and secondary lamps.

Procedures

In the event an operator experiences a critical DMS failure, follow the steps below with guidance from a Lead/Senior Operator. All the following steps shall be followed prior to contacting the on-call ITS Maintenance.

Impact and Failure

It is essential to evaluate the impact of the failure, by periodically checking the GUI map, scanning for sign colors. This will help alert the user that there is an issue with a particular sign.

Refer to the icon legend for color definitions (located under preferences). The following determinations should be addressed to evaluate the impact of the failure.

- Has control of the sign been lost?
 - If yes - has the sign reverted to an innocuous default display?
and/or
 - Has the software or hardware posted an incorrect message, with no apparent reason or has pixels stuck open or closed making the message erroneous?

- Have multiple signs adjacent to one another become disabled simultaneously?
 - If yes - → IN THIS CASE CONTACT THE ON-CALL ITS MAINTENANCE IMMEDIATELY.
 - Determine and document which signs are affected, when it was noticed that the signs became disabled, and the number of devices involved.

Shift Leader Notification

You must notify the Shift Leader and take corrective action as appropriate.

- If the color determination in the icon legend indicates an issue, go to the detailed status section.
- If the detailed status section displays the error:
 - Create a MIMS trouble ticket in SunGuide with as many details and references to the issue as possible, including detailed status information.
- If the error information is NOT in the detailed status,
 - Go to the MAS queue, look for signs with a failed status – they will be outlined in red.
- If the message indicates 'failed' in the MAS queue,
 - Ensure that all signs show either **'failed'** (outlined in red) or **'completed'** (outlined in green).
- If the message still does not initiate,
 - Create a MIMS trouble ticket in SunGuide with all details about the issue as possible, including the unsuccessful attempt to resend the message through the MAS queue.

- If the sign is blank, but the message is indicated on the public website,
 - notify the Shift Leader (or senior operator on duty).

On-Call Maintenance

You should notify ON-CALL ITS MAINTENANCE when:

- If after the above steps have been executed, a sign does not appear to be communicating with or responding to the SunGuide system and a critical message cannot be displayed or an erroneous message cannot be removed.
- Multiple signs adjacent to one another become disabled simultaneously.
- Upon direction from the ON-CALL ITS MAINTENANCE, you may be asked to create a MIMS trouble ticket in SunGuide.

Documentation

When a DMS failure has been detected and/or reported, a MIMS ticket must be submitted and the information added to the shift report.

CCTV VIDEO SYSTEM FAILURE

Overview

The CCTV video system is a critical component of the RTMC operations. The CCTV video system includes cameras, field equipment controlling cameras, single-channel and multi-channel transmission equipment, both central hardware and software managing both the video switch and camera control system, and monitors.

CCTV is used to detect, verify, and monitor traffic incidents and congestion, and determine the severity of traffic incidents so that appropriate emergency agencies can be advised. A malfunction with the CCTV video system can range from minor to severe. An example of a minor error would be a bouncing camera whereas an example of a severe malfunction would be the loss of all video images. This type of malfunction would result in the total impairment of monitoring ability.

Procedures

Impact of Failure

You must **evaluate** the impact of the failure.

- Determine the exact error, such as: a blurred video image, blank monitor, flickering, etc.
- Determine all devices affected.
- Test other cameras and/or monitors.
- For loss of camera control:
 - Determine whether another operator is controlling the camera and note whether cameras appear to move without instruction to do so.
 - Review field maintenance activities by checking the daily Shift Report for scheduled maintenance and using cameras to look for maintenance trucks near the RTMC field devices.
 - Determine whether there has been a loss of electricity by using surrounding cameras to look for FPL company trucks or other power failures in the vicinity.
 - Determine whether there has been damage to the RTMC field devices by using adjacent cameras.

Evaluate whether **multiple cameras** are affected by an issue simultaneously.

- If such, → Contact the on-call its maintenance.

You must take the **correct actions** listed below:

- Notify the RTMC Operations Supervisor on duty of occurrence during business hours.
- Upon direction of the RTMC Operations Supervisor, you may be requested to create a MIMS Trouble Ticket.
- If required,
 - Aid the attending ITS Maintenance technician by troubleshooting the malfunctioning equipment.

After hours, the **RTMC on-call manager** should be notified if multiple cameras have been affected simultaneously.

Rebooting the Camera

If a CCTV camera turns to black and white mode and remains that way in the daytime as well, the following steps may be taken by a Shift Leader as a possible fix to the issue. NOTE: The following procedure needs to be completed from the Supervisor workstation only.

- Open the SunGuide software and check the **Operational Status** of the camera. If it shows a status other than **Active**,
 - Use the **Set Status** button to set it to active.
- From Lead Operator Console 15/16 and (Supervisor Console 19/20),
 - Use the joystick to select the camera that is displaying in black and white.
- Confirm that the camera is now displayed on monitor 322.
- On the joystick,
 - Key in 97 and press the Shift and Preset keys. The shift key is the up arrow that is one key left and two down from the preset key.
 - Press shift first, and while holding down shift,
 - Press the preset key (like using Shift on a PC keyboard to get an upper-case letter).
- The camera will now reboot. When the camera comes back up, it should be in color.

If this process is performed at night, it may stay black and white. The procedure should then be repeated in the morning when it is brighter outside.

Re-Labeling CCTV

When power has been lost to a camera, the following instructions are to be followed on **how to re-title the camera and reset the compass**.

Prior to carrying out this task, you are required to have the advanced camera permissions on SunGuide and are to have the specific camera (CCTV) that you are going to be working on, visible on your console monitor – see number 21 (face camera NORTH).

On-screen menu terminology:

- AP – ENTER
- AI – PAGE UP

1. Using SunGuide, select the required camera (CCTV) using the map or the 'camera control' option – select 'Advanced'.
2. The **'Camera Control'** menu opens.
3. Change the menu display time to 4 minutes.
4. Using page up/page down (the directional arrows to the right on the camera control menu) – a menu appears on the monitor/camera (CCTV).
5. Using up/down (the directional arrows to the left on the camera control menu) – moves the cursor up/down on the monitor/camera (CCTV).

****Please note that scrolling through the camera menu is a slow process****

6. Scroll down to 'Source Titling' and press 'Enter'.
7. This brings up the **'Display Controller'**.
8. Scroll to **'All Titles'** and ENABLE the titles, using the left/right directional arrows on the left side of the camera control menu.
9. Scroll down to **'Enable Titles'** and this brings up the page **'Display Controller Enable Title Text'**, →

Select **'Enter'**.

10. All titles should show **DISABLED**, except for **'Camera Title'** and **'Compass'**.
11. Page back up once and you return to the **'Display Controller'** menu (this is within the Source Titling menu).
12. Scroll down to 'Camera Title', → Press **'Enter'**.
13. Type in the camera number and location in the following format: **"Number__ Road _ Location"**
Carry this out, per the directions stated on the monitor/camera (CCTV).
14. Page back up to the **'Display Controller'** menu.
15. Scroll down to **'Title Layout'**.
16. Change the title to read **'Compass'**.
17. Scroll down once → Select **'Modify Location'**. This determines where the compass reading will show on the monitor/camera (CCTV).
18. Page back up to **'VFT Program Menu'**.
19. Scroll up to **'System Settings'**.
20. Using the camera console/keypad, rotate the camera **to face NORTH**.
21. Scroll down to **'Zero Compass'** and follow on-screen instructions.
Make sure the camera is **facing NORTH**, prior to zeroing the compass.

Documentation

When a CCTV video system failure has been detected and/or reported, you must document all details in SunGuide.

In addition, the Shift Report should be updated to reflect the occurrence, including the following:

- Error specifics,
- Remedial action attempted,
- Personnel staff members contacted,
- Environmental conditions,
- Time the equipment became operational (if applicable).

TSS DETECTOR FAILURE

Overview

The Transportation Sensor Subsystem (TSS) allows the RTMC to view traffic conditions through data collected from Vehicle Detection Sensors (VDS) in the field. Types of data collected by TSS Detectors include speed, occupancy, and volume information by lane.

The RTMC considers a VDS operational failure when a detector icon or lane is any color other than green, which indicates an Active Detector or Normal Lane.

Procedures

In the event an Operator experiences a TSS Detector operational failure, follow the proceeding steps with guidance from a Lead/Senior Operator. All the following steps shall be taken prior to contacting an on-call manager.

Impact of Failure

Evaluate the impact of the failure. By periodically checking the GUI map, scanning for TSS Detector colors will alert the user that there is an issue with a particular TSS Detector.

Refer to the icon legend for color definitions (located under preferences).

Green – Active Detector

Grey – Out of Service Detector

Blue – Error Detector*

Red – Failed Detector

*Error Detector--If the detector icon turns Blue, the detector could either change to red or green—it's in a limbo status and will not remain blue.

TSS Lane Colors

Similarly, RTMC Operators should periodically scan for TSS Lane colors to alert the user that there is an issue with one or more TSS detectors.

Refer to the icon legend for color definitions (located under preferences).

Normal Lane – Green

Near-Alarm Lane – Yellow

Alarmed Lane – Red

Error Lane – Blue

Failed Lane – Light Blue

Out-of-service Lane – Grey

Non-TSS Lane –



Documentation

When a TSS Detector Failure has been detected and/or reported by creating a MIMS Trouble Ticket in SunGuide. Documentation must be added to the Shift Report as well.

AFTER HOURS EQUIPMENT FAILURES

Overview

If any of the RTMC systems should experience a failure after hours, procedures shall be followed to make certain that the failure has gone through the suggested troubleshooting procedure according to the respective SOG section. If a decision is made to contact the on-call ITS Maintenance for assistance, troubleshooting efforts must be completed and all efforts documented that the steps taken have been unsuccessful. Procedures shall then be followed to make certain that any event is still being handled to the best of the ability of the RTMC.

Procedures

In the event an after traditional business hours issue, error, and/or failure with a system or device are experienced, and troubleshooting the issue has not been successful, follow the proceeding steps:

Impact of Failure

<i>DMS:</i>	Determine what other signs can be used to compensate for the failure.
<i>CCTV:</i>	Determine what other adjacent cameras can be used to compensate for the failure. Document whether a two-mile or more segment of roadway cannot be visually monitored, or a critical location cannot be viewed due to camera failures. Communicate any such failure to the on-call its maintenance immediately.
<i>Operator Workstation:</i>	If a computer hardware or software application fails, use another console.

After-Hours Telephone Issues

The following procedure should be followed by FDOT when there is an interruption of telephone service for the RTMC building after 5:00 pm weekdays or on weekends. This procedure should not be followed for voice mail issues. Voicemail is a non-emergency issue, and the problem will be resolved on the next business day.

You will evaluate and test the issues below:

<i>What telephone services are not working?</i>	Is another phone having the same problem?
<i>Can you transmit a call to an external phone number?</i>	<ul style="list-style-type: none"> • Test by placing a phone call from an internal extension to an outside phone number. • Please make a note of signals received. For example, a fast-busy signal is heard. • Determine if another phone is having the same problem.
<i>Can you receive a call from an external phone number?</i>	<ul style="list-style-type: none"> • Test by placing a phone call from a cell phone to your internal phone extension. • Please make a note of signals received. <p>Example: AT&T message indicates that the circuit is down.</p>
<i>How long has the telephone service been interrupted?</i>	Ensure the phone service has been interrupted for at least 10 minutes before contacting the IT On-Call. In the past, the AT&T circuits have come back online after a short interval.

Furthermore, contact the IT On-Call Supervisor and provide as much information as possible.

ITS Field Device Damage

In the event a field device is hit by a vehicle or is damaged by other means, making the device inoperable, the RTMC Operator should notify ITS Maintenance Miller Electric, Transfield in N3C- and FDI in Palm Beach immediately. RTMC Operators should not notify FDOT Maintenance of any field device damage. ITS Maintenance can be contacted during business hours and non-business hours.

Building Issues – Air Conditioning

In the event the air conditioning system in the RTMC Control Room is not working or if it appears to be warmer than usual in the control room, the RTMC Operator should notify IT Personnel immediately, during business and non-business hours.

Even when the vents start blowing loudly, and it does not appear to be cool in the control room, the RTMC Operator should notify IT immediately.

Documentation

When a system or equipment failure has been detected and/or reported, you must document all details in affected events in SunGuide.

In addition, the Shift Report should be updated to reflect the occurrence, including error specifics, remedial action attempted, what personnel have been contacted, and the time the equipment became operational (if applicable).

FAILURE OF OTHER AGENCIES' EQUIPMENT

Overview

Often, RTMC Operators will be notified or detect via Closed Circuit Television (CCTV) cameras problems with equipment or structures that are the responsibility of external agencies. If the detected issue, please notify Asset Maintenance.

Procedure

When an external agency's equipment failure has been detected, follow the steps below:

FDOT MAINTENANCE or ASSET MANAGEMENT COMPANIES

You should notify and report the following details to the responsible asset maintenance contractor (e.g., Jorgensen, VERSAR,).

- Debris on the roadway.
- Large potholes.
- Structural damage (concrete barriers, guardrails, support columns, etc.).
- HAZMAT.
- Water Main Break.
- Sewer Back-Up.
- Any other problem observed which might have an impact on public safety and/or traffic flow.

Railway

Report incidents on the railway to the Tri-Rail and CSX. Refer to the RTMC Telephone Directory for current contact information.

Utilities

- If possible, determine which utilities have been affected.
- Report incidents involving utilities to the appropriate utility company. Refer to the RTMC Telephone Directory for current contact information.

Documentation

When a failure of an external agency's equipment has been detected and/or reported, it is required to document all details in affected events in SunGuide.

In addition, the Shift Report should be updated to reflect the occurrence, including error specifics, remedial action attempted, what personnel have been contacted, and the time the equipment became operational (if applicable).

TRAFFIC SIGNAL FAILURE

OVERVIEW

The RTMC provides limited coverage of signalized intersections throughout its geographical coverage area via Road Ranger patrol information and Closed-Circuit Television (CCTV) monitoring. There will be situations where RTMC Operators are informed of failed traffic signals or traffic signals for which operation could be improved.

Procedures

The following are a set of guidelines to be used when reporting traffic signal problems.

Information Gathering

Collect Information including:

- Location.
- Type of Failure and/or Concern.
- Impact.
- Notification Source.
- Date and Time.

Impact of Failure

Evaluate the impact of the failure or concern.

- Is all power lost to a signalized intersection?
- Is a signalized intersection in "flash" mode?
- Do the delays at a signalized intersection appear uncommon and result in significant, unusual congestion?
- If congestion from a signalized off-ramp extends on the freeway, or a signal timing appears to result in unnecessary delays, note the following:
 - At this time of day the problem occurs.
 - The extent and duration of the problem.
 - Whether traffic clears each cycle or experiences multiple cycle delays.
 - Whether vehicles moving on the other phases at the intersection clear each cycle.
 - Whether construction or maintenance are temporarily reducing lanes.

BCTED Personnel

Advise BCTED Personnel.

- During business hours, call BCTED immediately to advise of failure.
- Send an email to BCTED, advising them of any signal failures.
- For uncommon signal operations resulting in delays, advise the RTMC Operations Supervisor.
- For recurring, less critical signal timing concerns, send an e-mail to the RTMC Operations Supervisor, stating observations for the problem.

After-Hours Notifications

After-Hours notifications of Traffic Signal failures

(or when BCTED offices are closed for county observed holiday) are to be made directly to the Broward Sheriff's Office (BSO) Dispatch at (954) 765-5124.

Traffic Signal Malfunctions – Palm Beach County

Operators may receive notification of traffic signal malfunctions during their shifts. Some traffic signal malfunctions include flashing, out completely, bulbs out, timing problems, etc. Traffic signal malfunctions should be relayed to the proper agency when they occur. All contact information is listed on the "ITMS Agency Contact List".

- The Boca Raton Traffic Engineering contact should be notified of all traffic signals in the town of Boca Raton.
- The Palm Beach Traffic Engineering contact should be notified of all other traffic signals in Palm Beach County.

Documentation

When a traffic signal failure has been detected and/or reported, it is required to document all details in affected events in SunGuide.

In addition, the Shift Report should be updated to reflect occurrence, including error specifics, remedial action attempted, what personnel have been contacted, and the time the issue was resolved (if applicable).

INTERNET FAILURES

Overview

In the event the Internet connection fails at the RTMC, the error will primarily be recognized by the RTMC Operators. They will therefore have a critical role in the resolution. It is the responsibility of the RTMC Operator to report Internet failures and problems to the RTMC Operations Supervisor, so that downtime can be minimized.

Every effort shall be made to first troubleshoot the situation, such as attempting to reconnect or restarting computers.

Procedures

In general, the guidelines for managing and reporting an Internet failure are:

- Identify the error.
 - Date and time error occurred or was discovered.
 - Screenshot of error message.

- Take corrective action
 - Notify the RTMC Operations Supervisor or On-Call Manager.

- Open an Internal Service Desk Ticket if possible.

- Every hour, check the status of the Internet connection. Continue to check the status throughout the duration of your shift.

The following should be taken into consideration with the event management when the RTMCs Internet connection is lost:

- Incident Email Alert Notifications should not be generated.
If you attempt to send these messages when the Internet connection is lost, they will queue up and all go down at the same time as service is restored.
- Critical notifications will need to be made via the landline or cell phone (e.g., SIRV, other Districts).

Documentation

When an Internet failure has been detected and/or reported, it is required to document all details in SunGuide.

Be sure to include comments stating specifics about the issue and how it affected the event.

In addition, the Shift Report should be updated to reflect the occurrence, including:

- Error specifics,
- Remedial action attempted,
- Personnel staff that has been contacted,
- The time the Internet came back up (if applicable).

WEBSITE FAILURES

Overview

The RTMC uses various websites to assist with the day-to-day activities within the Control Room. It is therefore critical to minimize website downtime. The following websites are currently utilized within the RTMC:

- FDOTD4Traffic.com Public Website.
- Intra-SMART.
- My Florida 511.
- FHP Event List.
- Interagency Video and Event Distribution System (IVEDS).
- MIMS.

RTMC Operators will usually notice a website error first, and therefore have a critical role in the resolution. It is the responsibility of the RTMC Operator to report website failures and problems to RTMC Management, so that website downtime can be minimized.

Procedures

In general, the steps for managing and reporting a website error are:

1. Identify the error:
 - Date and time error occurred or was discovered.
 - Screenshot of error message.
2. Open an Internal Service Desk Ticket if possible.

Documentation

When a website failure has been detected and/or reported, it is required to document all details in SunGuide.

In addition, the Shift Report should be updated to reflect the occurrence, including:

- Error specifics,
- Remedial action attempted,
- Personnel staff that has been contacted,
- The time the Website became operational (if applicable).

511 FL-ATIS FAILURES

Overview

The RTMC is Florida's Statewide 511 content provider for I-95, I-75, in Broward, Palm Beach, Martin, St. Lucie, and Indian River County and for the RTMC coverage areas of I-595.

Active Level II and III events must have a 511 FLATIS message published to the Web Site, and unpublished when lane blockage and congestion has cleared. Messages sent to the 511 FLATIS system should be posted no later than 5 minutes from publishing to the 511 website at www.FL511.com website.

There are 4 critical processes that can potentially fail when dealing with 511 FL-ATIS:

1. SunGuide Response Plan Generator (RPG) publish.
2. SunGuide Response Plan Generator (RPG) un-published.
3. Post to www.FL511.com web site.
4. Remove from www.FL511.com web site.

Procedures

In general, here are the steps for managing and reporting 511 FL-ATIS problem or failure.

Impact of Failure

You should evaluate an impact of failure, as follows:

Determine whether it is the **SunGuide RPG, the FL511.com web site, or a combination** of any of these that has failed.

For **minor problems** not impairing operation,

- Log the details,
- Continue to work on the system.

Major problems may need additional steps to be rectified.

Minor problems

- Information is entered incorrectly (wrong location).
- Delay in posting (less than 15 minutes).

Major problems

- IVR is not reachable (multiple cell carriers or land lines).
- Information is not published at all.
- Properly entered information appears incorrect.
- Delay in posting (greater than 15 minutes).

Corrective Action

You should take corrective action as appropriate.

- Re-publish or un-publish through the response plan.
- Wait 5 minutes and re-check FL511 web site.
- If the system is still not functioning correctly, contact another FDOT district such as District 6 SunGuide RTMC, District 2 – Jacksonville RTMC, District 5 – Orlando RTMC.
 - Determine whether the problem is isolated to our district or widespread around the state.
 - If problem is widespread, have Assistant RTMC Manager, RTMC Manager, or Database Administrator create a 511 FL-ATIS JIRA LTS Ticket if it has not been created already.

Notifying Management

- Upon direction of the On-Call RTMC Operations Supervisor, the Operator may be requested to open an Internal Service Desk ticket.
- Depending on the severity of the problem and time of the day, the On-Call RTMC Operations Supervisor will send an email regarding the issue and if the issue was addressed.
 - RTMC Assistant Manager.
 - RTMC Manager.

Documentation

When a 511 FLATIS system error has been detected and/or reported, the details must be documented in the affected events using Comment Type: "511".

In addition, the Shift Report should be updated to reflect the occurrence, including:

- Error specifics,
- Remedial action attempted,
- Personnel staff that has been contacted,
- The time the equipment became operational (if applicable).

511 FL-ATIS Failures should also be included on a Lead Report if a lead was available on the shift.

ITS FIELD DEVICE SECURITY MONITORING

Overview

There are over 200 ITS field cabinets with communications equipment along the highways monitored by the RTMC.

Additionally, copper wire thefts have been prevalent along FDOT right-of-way. Maintaining physical and electronic security is part of the ITS Units' responsibilities to always keep all equipment operational. Each of the field cabinets has security monitoring devices that trigger automated alerts.

If an intrusion or suspicious situation is detected, TMC Operations staff will assist in the process to notify the appropriate ITS Unit staff and/or law enforcement to investigate.

Procedures

Normal business hours (M-F 8 am-5 pm)

ITS Maintenance will receive and be dispatched to all alarms received from locations where there is no maintenance crew; operators need not take any action unless requested to do so.

Upon notification of an alarm by maintenance staff, TMC operations will:

1. Use the master table document to check appropriate CCTV/preset at the field cabinet.
2. If suspicious activity is observed, contact FHP to respond.
3. Notify ITS Maintenance of activity observed.

If suspicious activity is observed or personal safety is in question wait for law enforcement's arrival before approaching the scene.

4. Continue monitoring until given the all-clear by a supervisor or ITS Maintenance.

All Other Times

ITS Maintenance will notify TMC Operations of all maintenance and repair with the location of work, cabinet openings, and other activities that would affect ITS equipment during non-business hours.

If a cabinet alarm is received by RTMC Operations and no ITS Maintenance work has been reported, the TMC Operator will:

1. Notify ITS Maintenance that you have received an alarm.
2. Use the master list provided to check appropriate CCTV at the field cabinet.
3. If suspicious activity is observed and/or multiple device outages have occurred in the area, contact FHP to respond.
4. After contacting FHP, notify the RTMC supervisor to advise of suspicious activity.
5. Continue monitoring until given the all-clear by a supervisor or ITS Maintenance.
6. Submit MIMS ticket to document cabinet alarm and actions taken by selecting the CCTV as the device and Field Cabinet Alarm as the problem. Document the reported preset and actions taken in the body of the MIMS ticket.
7. Document on Shift Report and Lead Debrief.

Suspicious Activity (no alarm)

Copper wire theft from electrical utility boxes, cell phone towers, etc.; can be hard to detect and often occur in the cover of night. Any vehicle – even ones like an ITS maintenance truck – can be used. TMC staff should be on the lookout and report any suspicious activity immediately to supervisors and/or law enforcement.

If at any time suspicious activity is detected by CCTV without an alarm (e.g., person at the cabinet, unrecognized vehicle, equipment intrusion, theft, vandalism):

1. Contact FHP dispatch immediately. If possible, record the video – if not get lots of screenshots.
2. In addition, contact BSO and local PD to increase the chances of someone arriving.
3. Dispatch a Road Ranger, but only to get a description and plate number from the vehicle. **UNDER NO CIRCUMSTANCES SHOULD A ROAD RANGER APPROACH A THIEF.**
4. Notify ITS Maintenance staff.
5. Create a SunGuide event and record details of all the steps you took to record an official record.
6. Protection of privacy does not apply, if you can zoom in and get details of the subject, subject's vehicle, etc. get all you can.
7. Continue monitoring until given the all-clear by ITS Maintenance, law enforcement, or a supervisor.
8. Document on Shift Report and Lead Debrief.

SUNGUIDE SWITCH OVER

Overview

If the SunGuide software system is not operating correctly, traffic events cannot be logged, and Dynamic Message Sign (DMS) plans and Incident Email Alert Notifications will not be generated.

Different circumstances can result in the system not functioning properly. These include problems with computer hardware and errors in the software. If the system crashes or needs updating, operations will be switched over to the TIMSO system which is the same version of SunGuide.

Procedures

In general, the steps for switching over to the TIMSO system:

- If we have a lane blocking incident, we will conclude the incident prior to switchover.

- Post a SYSTEM MAINTENANCE floodgate message for the district (SE) – Load from floodgate store, the third message from the bottom (pre-recorded)

- Log into TIMSO (I.P> address 10.179.19.14).

- Password will be the same as your username.

- If you get the following **"Trust not granted"** when logging in, do the following:
 - Go to TOOLS.
 - INTERNET OPTIONS.
 - SECURITY.
 - TRUSTED SITES.
 - Click on SITES.
 - Uncheck "REQUIRE SERVER..."
 - Click ADD.
 - Click CLOSED.
 - Ok.

- Refresh page.

Use the CCTV SUBSYSTEM and/or console joysticks to rotate cameras. FLATIS will have to be removed from the RPG when activating a lane blockage event.

A maintenance floodgate will be posted to cover why incidents aren't being posted on 511. During this process, operators will coordinate with other districts if any major incidents should occur.

STREETLIGHT OUTAGES

Overview

It is the responsibility of all RTMC Operators to conduct a complete scan of the streetlights on the freeway system, in the area they are responsible for, once a night during the overnight shift. The importance of this review is to identify and report streetlight outages to responsible parties to ensure a safe, well-lit transportation system for our customers.

Procedures

Follow the same procedures for event information and reporting as for Infrastructure Damage for outages along the freeway system; this procedure does not override what is already in place.

A single light out does not require an event.

Entering Information in SunGuide

The following procedure applies to ALL reports of street-light outages whether an emergency or not and regardless of whether a call-out was requested.

To provide follow-up documentation of streetlight outages to Asset Management and the client, all relative comments and any notifications made must be entered in the incident using comment type - Streetlight Out which can be selected from the drop-down list.

The following is a list of the minimum information that should be recorded in the event:

- Approximate location of the outage; from XX location to XX location.

Reporting

A manager or supervisor is responsible for running the Event List Infrastructure Damage Report daily.

Broward

FDOT

Name	Email address
Darlene Williams	Darlene.williams@dot.state.fl.us
Ken Roberts	Kenneth.roberts@dot.state.fl.us
Margie Torres	margarita.torres@dot.state.fl.us
Tom Reynolds	Thomas.reynolds@dot.state.fl.us

DBI

Name	Email address
Gerald Kleynhaus	gkleynhaus@dbiservices.com
John Figueroa	jfigueroa@dbiservices.com
Marie Simpson	msimpson@dbiservices.com
Mike Cowart	mcowart@dbiservices.com

Palm Beach**FDI**

Name	Email address
Paul Watt	pwatt@floridadrawbridges.com
Hans Alce	halce@floridadrawbridges.com
Hernan Garcia	hgarci@floridadrawbridges.com
Elizabeth Castro	ecastro@floridadrawbridges.com

Reporting (Martin and St Lucie)

A manager or supervisor is responsible for running the Event List Infrastructure Damage Report daily.

This report is to be sent to the following individuals:

Kristy Keeler: kristy.keeler@dot.state.fl.us

Reporting (Indian River)

A manager or supervisor is responsible for running the Event List Infrastructure Damage Report daily.

This report is to be sent to the following individuals:

Tim Fowler: fowlert@transfieldservices.com

Art Brown: browna@transfieldservices.com

Section 5.0 SIRV Operations

1.0 General

1.1 Severe Incident Response Vehicle (SIRV) Program Overview

The SIRV Program began as a Pilot Project on January 01, 2005. The SIRV Program was placed into the permanent work program in February 2008. The program is now conducted in Broward and Palm Beach Counties by the Florida Department of Transportation (FDOT) District Four Traffic Operations Division. This program was designed to help mitigate delays caused by severe traffic incidents and to increase the safety of emergency responders. It is critical that FDOT be on an incident scene as quickly as possible. This program provides an immediate FDOT presence at all Level 3 incidents 24 hours a day seven days a week. It also provides responses to Level 2 incidents in the General Use Lanes during peak travel times from 6am to 7pm Monday thru Friday and in the Express Lanes on I-75 and I-95 from 6am to 10pm Monday thru Friday.

The primary objectives of the SIRV program are:

1. To ensure the establishment of a safe work zone for all responders, while facilitating the safe, efficient flow of traffic around the event.
2. To assist all responding agencies in safely reopening the roadway as quickly as possible to meet the 90-minute goal of the State of Florida's Open Roads Policy.

RESPONSIBILITY

The SIRV vehicle serves as an FDOT incident command station with the staff responsible for coordination and communication between incident response team members, the Transportation Management Center and FDOT. SIRV provides extra maintenance of traffic (MOT) devices, spill mitigation supplies as well as roadway repair supplies and equipment.

When not in the field SIRV staff will coordinate with responding agencies to conduct severe incident debriefings and prepare debriefing summary reports. They will also perform Quality of Service audits, vehicle and personnel inspections for the Road Ranger Service Patrol Program. They participate in Broward, Palm Beach and Regional Traffic Incident Management Meetings. They also develop training modules and train Road Rangers and TMC personnel.

VEHICLE SPECIFICATIONS

The SIRV vehicles are one and a half ton trucks. They are diesel fueled dual-wheel truck cab and frame with a covered utility body. They are equipped with an emergency light system to facilitate emergency responses. There are two telescoping high-intensity floodlights on the front of the utility bodies and work lights on the sides and rear. A multi-function arrow board system is installed on the roof of the bodies. A computer docking station in the cab allows the staff to use a laptop computer during incident command.

EQUIPMENT

SIRV Staff shall each be assigned a ~~FIRSTNET~~ cellular telephone with Push-To-Talk (PTT) capabilities. Each SIRV vehicle shall be equipped with a ~~Panasonic Tough-Book~~ ruggedized laptop computer, MOT equipment, extra fuel, fuel spill mitigation supplies, roadway repair supplies, fire suppression equipment, bio-hazard supplies and drinking water.

STAFF

Present staffing includes:

- A full time SIRV Operations Manager.
- A full time SIRV Express Lanes Supervisor.
- A full time Administrative Assistant.
- Full, part time, and reserve SIRV Operators.

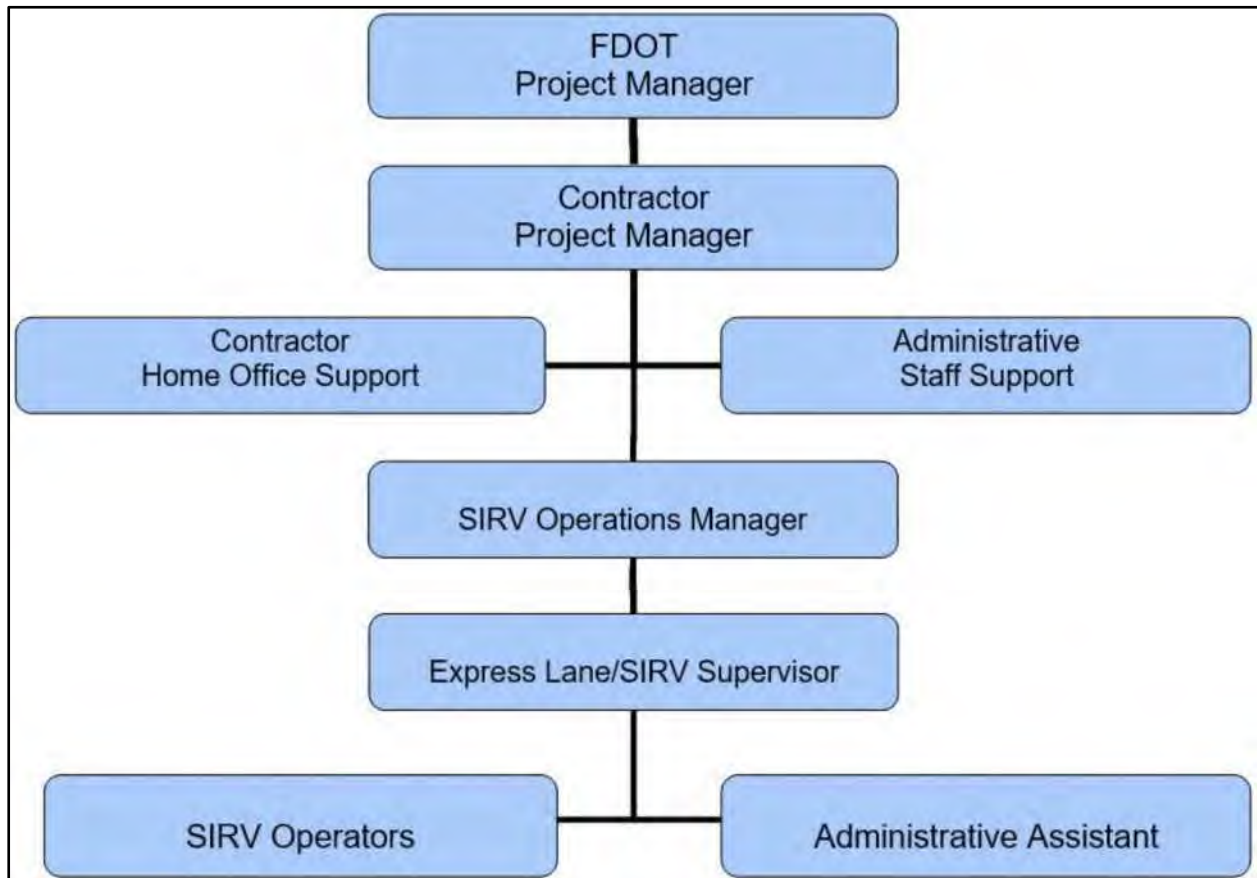
Including the Operations Manager and the Express Lane/SIRV Supervisor, all SIRV operators have previous Fire Rescue, Law Enforcement and/or military experience.

TRAINING

SIRV operators are trained and qualified in at least the following areas:

- National Incident Management and Command (NIMS).
- Advanced Management of Traffic.
- Incident Clearance Procedures.
- Severe Incident Documentation.
- Emergency Vehicle Operation.
- First Responder.

1.2 SIRV Organization Chart



1.3 Rules of Conduct

DESCRIPTION

A SIRV Operator requires a high degree of cooperation and respect from the public and other agencies they come in contact with.

PURPOSE

This section will govern conduct of the program as a whole.

SIRV Operators are the most conspicuous representative of FDOT at any incident or event to which they respond. Proper conduct is not an additional duty imposed on Operators, but is inherent in the profession. Since any neglect of or divergence from this standard of conduct reflects unfavorably on the program and fellow employees, it is incumbent on all personnel to conduct themselves in an exemplary manner, maintaining the highest standards of performance, efficiency, and competence.

DEFINITIONS

DISCIPLINE - A form of training dependent for its success on the ability of superiors to train subordinates to obey and conform to SIRV policy, procedures and rules.

EMPLOYEE INTERVIEW FORM - An interview form is a written record of an employee interview (oral) conducted by a supervisor or manager to inform an employee that undesirable conduct or performance has been noted. The interview form has as its objective improved performance or attitude on the part of the employee.

LETTER OF REPRIMAND - A formal, written notice to an employee, characterized by an account of conduct which is not in keeping with the SOP of the SIRV Program. It will also indicate that an employee, who repeats or persists in such conduct, may face a more severe form of disciplinary action.

IMPLEMENTATION PROCESS

Any Manager can discipline a subordinate under their authority. Such discipline may consist of an employee interview form, letter of reprimand, suspension from duty with or without pay, or dismissal. Appeals to any discipline can be taken to the next level above the issuing manager.

PROHIBITED CONDUCT

1. Failure to be present for duty as scheduled.
2. Being an accessory to a disciplinary offense.
3. Divulging information without authority.
4. Failure to account for any money or property received or found on duty.
5. Failure to report any theft or loss of or damage to any SIRV Program or FDOT property.
6. Carelessly, negligently, or intentionally causing waste, loss or damage to any SIRV Program, FDOT and/or third party property is prohibited.
7. Failure to obey a lawful and ethical order of a superior.
8. Disobedience of any rule, order or directive.
9. Falsification of an official report.
10. Untruthfulness, discourtesy, insolence or use of vulgar, obscene or offensive language.
11. Making a false complaint or statement.
12. Being unfit for duty.
13. Consuming intoxicating beverages on duty.
14. Unlawful use of a controlled substance.
15. Possession of a firearm or other weapon in a SIRV truck or in the workplace.
16. Disrespect to a superior.
17. Failure to follow the chain of command.

18. Insubordination by word, act or deed.
19. Refusal to give name upon request of any person.
20. Use of abusive or insulting language.
21. Doing or committing any act which delays return to duty.
22. Failure to know or follow a rule, order or directive governing the SIRV Program.
23. Engaging in conduct unbecoming a SIRV Operator.
24. Misusing SIRV Program or FDOT Property.
25. Conduct prejudicial or disruptive to the good of the Program or FDOT.
26. Indulging in a practice or habit resulting in a physical or mental inability to perform SIRV duties.
27. Failure to answer questions of a superior concerning Program administration matters or conduct relating to the performance of duties.
28. Incompetence, general inefficiency or unsatisfactory performance.
29. Sleeping while on duty.
30. Failure to promptly respond to a call for service.
31. Neglect of personal appearance or dress.
32. Neglecting to wear proper uniform on duty.

1.4 SIRV Personnel Policies

OBJECTIVE

To produce an employee who can perform required duties in a safe, skillful and professional manner.

POLICIES

Sick / Late

SIRV Operators who call in sick must contact the Express Lane / SIRV Supervisor or, if the Express Lane / SIRV Supervisor is not available, the SIRV Manager as soon as possible before their shift begins. The Express Lane / SIRV Supervisor or SIRV Manager will make arrangements for a replacement operator. If a SIRV operator will be late for their shift, they will notify the TMC supervisor and give an estimated time for reporting to duty. Any such notification must be made telephonically. Emails or text messages are not acceptable.

Grooming/Attire

The SIRV staff will have a neat and well groomed appearance. Hair will be worn off the collar. Facial hair will be neatly trimmed. No jewelry other than a watch and wedding band will be worn. Women can wear post only earrings.

The SIRV field uniform will be as follows: Dark blue polyester dress pants or the dark blue BDU pants, the short or long sleeve grey button up dress shirt, black socks, and black safety-toed work boots. When not in the field either a black plain leather or patent leather military type shoe may be worn. When off duty and driving the SIRV vehicle the Operator must wear a shirt with a collar, long pants and have their FDOT identification card displayed.

Uniform Issuance

Uniforms will be ordered and supplied during the first few days of employment. Worn out uniforms shall be submitted to the SIRV Manager to be replaced on an as needed basis.

Uniform Types

Uniform pant types are dark blue slacks or utility pants. Uniform shirts are short sleeve or long sleeve grey button up dress shirts. Each employee must have at least one pair of dress slacks and one long sleeve dress shirt.

Employees receive:

- Five grey button-up short-sleeve shirts.
- One grey button-up long-sleeve shirts.
- Five pair of dark blue BDU pants.
- One pair of dark blue dress pants.
- One FDOT baseball cap.
- One safety vest.
- One rain suit.
- One yellow ANSI class 3 winter jacket.

Complaints

Complaints filed against a SIRV Operator will be investigated by the Express Lane / SIRV Supervisor, the SIRV Manager, the Contractor Program Manager or the FDOT Project Manager.

Complaints from SIRV Operators will be submitted to the SIRV Manager in a To, From, Subject, Date memo format. The SIRV Manager will determine if the complaint will be investigated or forwarded to the proper agency for investigation.

REQUIREMENTS

Pre Hiring Requirements

- National Incident Command Systems (NIMS).
- Basic Hazardous Materials Training.

New Employee Training

1. Clinical/Theory Training

- 40 hours in class.
- 40 hours in field.
- 14 days being on call.

2. Additional Trainings

- Advanced Maintenance of Traffic Courses.
- Emergency Vehicle Operations Course (EVOC training).
- First Responder Training.
- SHRP2 Training.
- Any other training deemed necessary by the FDOT Project Manager.

3. Issued SIRV Operator Equipment

- A ~~FIRSTNET~~ cellular telephone with Push-To-Talk (PTT) capabilities.

EQUIPMENT

Damage to SIRV equipment or vehicles must be immediately reported to the SIRV Manager. The SIRV Operator will report circumstances of the damage on an AutoBase Incident Report. The SIRV Manager will forward damage memos and reports to the Contract Manager for follow-up. The Administrative Assistant will keep a vehicle damage log for each truck. Whoever reports any vehicle damage will be responsible for making sure the damage is placed into the log. The damage log will list the vehicle number, date of the damage, date of repair, reporting Operators name and the Law Enforcement case number if applicable.

SIRV Vehicle Crashes

Purpose:

The purpose of this policy is to give the employees, supervisors and managers a flow chart for direction in SIRV Vehicle crash reporting.

Policy:

The employee's supervisor will be notified immediately following any crash. The Express Lane / SIRV Supervisor or SIRV Manager may respond to any minor non injury crash. The Express Lane / SIRV Supervisor or SIRV Manager will respond to any crash involving injuries to anyone involved in the crash. It will be the responsibility of the involved employee to insure that his immediate supervisor is made aware of the incident. If the employee is injured and unable to

make such notification, then the RTMC Dispatcher Supervisor will make the notification to the Express Lane / SIRV Supervisor or SIRV Manager.

The appropriate law enforcement agency will be notified to complete a traffic crash investigation on all crashes. Photos of the crash scene and all sides of any vehicles involved in the crash will be taken. Any paperwork received from law enforcement or any other agency along with scene photos will be submitted to the SIRV Administrative Assistant for processing. The employee will submit an AutoBase Incident Report to the SIRV Manager detailing the facts of the crash.

1.5 Office Administration

PURPOSE

To become familiar with the day to day operation of SIRV in and out of the office.

POLICIES

Office Supplies

Requests for office supplies will be made to the SIRV Administrative Assistant. The Administrative Assistant will make sure the supplies requested are authorized and then place an order with an authorized supplier.

Laptop Operation

A laptop computer will be provided for each SIRV Vehicle. The computers will be used only for SIRV related activities.

Report Submission

An incident report is to be completed on every incident to which SIRV arrives.

Incident reports should be completed immediately after the incident or before the end of the operators shift. All incident reports must be completed within 24 hours of the incident. Any exception to this must be approved by the SIRV Manager. If an operator will be off for more than one day, then overtime may be approved by the Express Lane / SIRV Supervisor or the SIRV Manager to complete any reports before leaving.

Once a report is finished, an e-mail will be sent to the Express Lane / SIRV Supervisor, SIRV Manager and SIRV Administrative Assistant, letting them know the report has been submitted. The Express Lane / SIRV Supervisor, SIRV Manager and SIRV Administrative Assistant will review the recorded information. Any incorrect or incomplete reports will be returned to the SIRV Operator for correction to ensure accuracy.

Attendance of Meetings

The SIRV Manager or their designee is required to attend the bi-weekly SIRV Management Meeting.

A SIRV representative is required to attend the following meetings:

- Road Ranger Contractor Meetings.
- Bi-Weekly Contract Meetings.
- Traffic Incident Management (TIM) Meetings (Broward, Palm Beach, Treasure Coast and any Joint TIM Meetings).

Photo Download and Filing

The SIRV staff may utilize their FDOT / AutoBase issued Cell phone to photograph a scene at the request of the TMC or any other responding agency. All photos must be forwarded to the Express Lane / SIRV Supervisor, SIRV Manager and SIRV Administrative Assistant and will be erased when they are no longer needed by the SIRV staff.

1.6 Media Relations

PURPOSE

Guidelines to follow when in contact with media related agencies on incidents that occur where SIRV is involved and/or present.

PROCEDURES

When on a scene the SIRV Operator will be the main point of contact for the FDOT Media Relations Specialist. The FDOT Media Relations Specialist is located at 3400 W. Commercial Blvd. Fort Lauderdale, telephone (954) 777-4090. The TMC staff will be responsible for making notifications to the FDOT Media Relations Specialist as per their SOP. SIRV staff will provide any requested information to the FDOT Media Relations Specialist either directly via telephone or through dispatch.

It is understood that SIRV staff may interact with the media while on a scene. Media contact will be confined to explaining the duties and responsibilities of the SIRV as it relates to that specific incident. Information requests concerning traffic conditions and closures shall be directed to the FDOT Media Specialist.

At no time will the SIRV staff offer the media an opinion on the cause of an incident, supply tag numbers or detailed descriptions of vehicles involved in an incident. SIRV staff will not discuss information gathered from other agencies on a scene. Media will be advised that questions

pertaining to incident investigations and rescue efforts must be directed to the agencies performing such activities.

Any requests for an interview when not on a scene will be forwarded to both the SIRV Contract Manager and the FDOT SIRV Project Manager.

1.7 SIRV Operation Schedule

PURPOSE

Guidelines of how the SIRV Team operates. To maintain consistent coverage at all times.

PROCEDURES

The Broward SIRV Operating Schedule is as follows:

- Monday through Friday except FDOT Holidays (and also falls on contractor's holidays).
 - I-95
 - Express Lanes (XP): Two SIRV Operators patrolling 6:00 AM to 10:00 PM, also assisting in General Use Lanes.
 - I-75
 - Express Lanes: One SIRV Operator patrolling 6:00 AM to 10:00 PM, , also assisting in General Use Lanes.
- Floater:
 - One SIRV Operator will be available to respond to events as required anywhere in Broward county.
- Arterials:
 - One SIRV Operator will patrol Arterial Roadways as designated by FDOT from 6:00 AM to 7:00 PM.

Weekends and FDOT Holidays - one SIRV Operator will be On-Call for all Level 3 and RISC events.

Patrol Locations and Hours

- During high volume traffic times - 6am to 9am and 4pm to 7pm – one GU SIRV Operator will be available to respond county wide, as needed. The Operators will stage their vehicles at a predetermined location for the quickest response to incidents in their assigned areas.
- From 9am to 4pm and from 7:00 PM to 10:00 PM the Operators will be available to respond to incidents in Broward County. During this time, the SIRV operators will be no more than one mile from their assigned patrol area unless otherwise instructed.

- The XP SIRV Operators will either remain in the Express Lanes or Stage in a location that provides quick access to the Express Lanes. The SIRV Operator assigned to the I-95 Express Lane will neither patrol nor stage any farther north than the Broward Park & Ride, unless approved by the SIRV Manager or the Express Lane / SIRV Supervisor.
- The Arterial SIRV Operator will remain in the arterial areas designated by FDOT, unless approved by the SIRV Manager or the Express Lane / SIRV Supervisor.

The Palm Beach SIRV Operating Schedule is as follows:

- Monday through Friday except FDOT Holidays (and also falls on contractor's holidays).
 - General Use Lanes: Two SIRV Operators will be on-duty from 6:00 AM to 7:00 PM.
 - Express Lanes: One SIRV Operator will be on-duty from 6:00 AM to 10:00 PM.
- Weekends and FDOT Holidays - one SIRV Operator will be On-Call for all Level 3 and RISC events.

Patrol Locations and Hours

- During high volume traffic times - 6am to 9am and 4pm to 7pm – all SIRV Operators will be patrolling or staging in pre-determined locations.
- From 9am to 4pm and from 7:00 PM to 10:00 PM the Operators will be available to respond to incidents in Palm Beach County. During this time, the SIRV operators will be no more than one mile from their assigned patrol area unless otherwise instructed.

1.8 Road Ranger Inspections

PURPOSE

Guidelines to prepare and execute weekly inspections of the Road Ranger Service Patrol.

PROCEDURES

- SIRV Operators are ultimately responsible for completing inspections of Road Rangers who are assigned to the SIRV Operators working area and shift. Every Road Ranger and every Road Ranger vehicle on the day and evening shift will be inspected twice monthly. Once during the first two weeks of the month and once during the second half.
- Pre inspection paperwork consists of determining what Road Rangers and Vehicles are on duty and need inspection. A list of previously inspected personnel and vehicles will be maintained by each SIRV Operator and a master inspection list will be maintained by the SIRV Administrative Assistant or manager.

- Once the inspections are completed for the shift, the SIRV Operator will send a finalized inspection email to the Administrative Assistant, Express Lane / SIRV Supervisor, SIRV manager and all other SIRV Operators. Each SIRV Operator will be responsible for keeping an updated list of completed inspections. The inspection email will consist of the truck number, type of truck, Road Ranger's name, and date of inspection and any violations or comments that were found.
- The SIRV Operator will inquire as the availability of certain vehicles for inspection and request the RTMC to have the Road Ranger respond to a specified location in the Road Ranger's assigned beat for the inspection. The inspections shall not be conducted on the highway or on the shoulders of the highway.
- The inspections shall not be conducted between the hours of 6:00 AM to 9:00 AM or 4:00 PM to 7:00 PM.
- The RTMC will notify the SIRV Operator when a vehicle is in route or delayed.
- SIRV will notify RTMC of a trucks arrival at inspection.
- Perform the inspection documenting the results in the computer in the SIRV Mobile APP.
- Advise a Road Ranger Supervisor immediately if any violations are found.
- SIRV will notify RTMC of the departure of a truck upon completion of inspection.

If a vehicle or driver needs to be removed from the road, immediately notify a Road Ranger supervisor and the RTMC.

A driver may be removed from the road for the following reasons:

- Smells as if they had been drinking an alcoholic beverage or appears intoxicated.
- If he/she is unable to produce a valid Florida drivers license of the proper class.
- Concealed weapon/firearms have been found in the vehicle.

A vehicle may be removed from service for the following reasons:

- If there are defective equipment violations the driver could be cited under the Florida State Statutes.
- Not having at least one properly charged fire extinguisher onboard.
- The tow trucks' winch or boom is not operational.
- Safety lights, arrow board, radio or telephone are not operational.
- Missing equipment or supplies that are necessary to clear debris from the roadway or an incident scene.

When an inspection is complete the SIRV Operator will notify the RTMC and request another vehicle for inspection.

Any vehicle will immediately be cleared from inspection if it is needed for anything other than an off the roadway disabled vehicle.

Inspection Paperwork

Once the inspections have been received by the SIRV Administrative Assistant and have been reviewed and finalized, the SIRV Administrative Assistant will produce a report for the Road Ranger Contractor Meetings.

SCHEDULING

Broward County Inspections

- Check driver and vehicle list for drivers/vehicles that require inspections. Each driver and each vehicle needs to be inspected twice monthly with the priority of getting all the Road Ranger Trucks inspected.
- Decide where the inspections will be conducted. The following are the recommended locations but can be changed due to location and availability of trucks. The inspections shall not be conducted on the highway or on the shoulders of the highway.
 - Beats 1, 4, 9 & 12 should be done at the Sheridan Street Park & Ride.
 - Beats 2 & 10 should be done at either the Broward Blvd. Park & Ride or the Cypress Creek Rd. Park & Ride.
 - Beats 3, 3a & 11 should be done at the Cypress Creek Rd. Park & Ride.
 - Beats 5 & 13 should be done at the parking area on the eastside of the Alligator Alley Toll Plaza
 - Beat 6 should be done at either the parking area on the eastside of the Alligator Alley Toll Plaza or the Publix parking lot at the intersection of Griffin Rd. and Volunteer Rd.
 - Beats 7 & 14 should be done at the Publix parking lot at the intersection of Griffin Rd. and Volunteer Rd.
 - Beats 8 & 15 (Roaming Supervisor) should be done at whichever of the above locations is most convenient for the Supervisor

Treasure Coast Inspections

- Check driver and vehicle list for drivers/vehicles that require inspections. Each driver and each vehicle needs to be inspected twice monthly with the priority of getting all the Road Ranger Trucks inspected.
- Decide where the inspections will be conducted. The following are the recommended locations but can be changed due to location and availability of trucks. The inspections shall not be conducted on the highway or on the shoulders of the highway.

- Beats 1 and 2 should be done at MM 96 (Hobe Sound) CR 708 under the bridge of I-95.
- Beats 3 and 4 should be done at MM 110 (Martin Highway) SR 714 under the bridge of I-95.
- Beats 5 and 6 should be done at MM 129 (Okeechobee Road) SR 70 one block west of I-95 at Peters Road in the large parking lot to the North of Burger King.
- Beats 7 and 8 should be done at MM 138 (Indrio Road) SR 614 under the bridge of I-95.
- The inspections shall not be conducted between the hours of 6:00 AM to 9:00 AM or 4:00 PM to 7:00 PM.

I-595 Inspections

- Check driver and vehicle list for drivers/vehicles that require inspections. Each driver and each vehicle needs to be inspected once quarterly with the priority of getting all the Road Ranger Trucks inspected.
 - The inspections shall be conducted at the I-595 Road Ranger base located at: 10404 SR-84 Davie, Fl. 33325.

1.9 Post Incident Analysis

PURPOSE

Guidelines to perform and lead Post Incident Analysis (PIA) meetings after an incident has occurred.

PROCEDURES

Post Incident Analysis (PIA)

PIA's will be conducted on level 3 incidents, RISC incidents and any other incident as requested by the FDOT Project Manager or SIRV Manager.

SIRV Operators may be asked to prepare and conduct two types of PIA's. One is called agency specific PIA and the second is called a full scale incident PIA.

Agency specific or (mini) PIA's deal with only one agency and may be handled while on a scene directly with the agency and personnel involved. They may also be done soon after an incident by meeting with the agency and personnel involved. A mini PIA narrative report must be done

to outline the reason for the PIA and the outcome. All mini PIA narratives are to be completed within 24 hours of the incident, unless otherwise approved by SIRV Manager.

SIRV Operators may be required to complete a full scale PIA on selected incidents. Full scale PIA's are done to find out what worked well on a scene and also to find out what could have been done better.

After any PIA is completed the SIRV Operator may be asked to review the incident at a Traffic Incident Management (TIM) meeting.

A full scale SIRV PIA consists of the following:

- 1. A complete incident timeline:** This is a total time line from when the incident was first recorded by any agency up to the final time any agency departed the scene.
- 2. Agency specific timelines:** This is a timeline for every agency on the scene. This includes when each individual piece of equipment or vehicle or agency supervisor arrived and departed.
- 3. Individual lane closure time lines:** This is the time each individual lane was closed and opened. This also includes what caused the lane to close and what enabled it to open.
- 4. A narrative:** A description of the incident and what occurred during agencies responses and clearance efforts.
- 5. The PIA conclusion:** List lessons learned.

1.10 Public Outreach

PURPOSE

Guidelines to perform Public Outreach related events for SIRV.

PROCEDURES

Public Outreach

All public outreach activities will be coordinated with the RTMC Public Outreach Coordinator and if need be, the FDOT District Four Traffic Incident Management Coordinator. SIRV Outreach will be geared toward incident responders and internal (FDOT) customers. A second area of outreach is aimed at the general public and RTMC tours.

Outreach will consist of but not be limited to fliers, incident demonstrations, public speaking events, informational talks, media visits and community events. For participation in community outreach events, the FDOT TSM&O Incident Management Program Manager and FDOT TSM&O Resource Manager, must give approval prior to any arrangements. Once approval is given, it is the responsibility of the Public Outreach Coordinator to arrange attendants, outreach materials and marketing collateral.

1.11 SIRV Reports

DESCRIPTION

These guidelines are to govern how the SIRV team will document incidents they respond to while on duty.

PROCEDURES

A SIRV incident report will be completed in the SIRV Mobile APP for every event upon which a SIRV Operator arrives. Reports are completed to provide information necessary to document and explain time savings and document on scene events for use during Post Incident Analysis.

The SIRV Operator is responsible for capturing the times and activities of every agency on a scene. SIRV Operators will gather information from each agency's incident commander or person in charge. If the report cannot be completed by the end of the shift, then it shall be completed within 24 hours of the event. Any exception to this must be approved by the Express Lane / SIRV Supervisor or the SIRV Manager.

All reports will be submitted via the SIRV Mobile Application. Upon submitting a report, the SIRV Operator will send an email containing the date, time and incident number of the submitted report to the Express Lane / SIRV Supervisor, SIRV Manager and SIRV Administrative Assistant. The SIRV Manager and Administrative Assistant will review the report. After review the report, any errors or concerns will be addressed with the SIRV Operator for correction. All corrections must be completed and resubmitted by the end of the SIRV Operator's next shift. Any exception to this must be granted by the Express Lane / SIRV Supervisor or the SIRV Manager.

1.12 Position Descriptions

PURPOSE

To describe the responsibilities assigned to each position within the SIRV Program.

POSITION DESCRIPTIONS

SIRV Manager

Duty:

- Monday – Friday variable hours. Saturday – Sunday as needed.
- Will be available 24 hours a day, 7 days a week via cellular telephone.
- May respond to any incident they deem necessary.
- Will respond to any incident as requested by the FDOT Project Manager or an RTMC Manager.

Administration:

- Reviews scheduling of SIRV Operators.
- Reviews and approves ordering of supplies.
- Arrange for equipment repair.
- Arrange vehicle repair and maintenance.
- Review timesheets.
- Review expense reports.
- Review incident reports.
- Prepare monthly report.

Meetings/Training:

- Attend local and state TIM Meetings.
- Schedule Post Incident Analysis Debriefings.
- Attend weekly and monthly SIRV Meetings.
- Conduct Outreach presentations.
- Make other presentations as necessary.
- Attend local, state and national transportation meetings, seminars and conventions as necessary.
- Conduct Training for SIRV Operators, TMC personnel and Road Rangers.
- Inspect each SIRV vehicle and each operator monthly.

Express Lane / SIRV Supervisor

- Schedules SIRV Operators.
- Forwards PTO requests to SIRV Manager and Administrative Assistant.
- First point of contact for SIRV Operators inquiries.
- Performs inspections on SIRV trucks on a bi-weekly basis.
- Sends supply requests to SIRV Manager.
- When directed, may order supplies and restock storage unit.
- Schedules vehicle maintenance and repairs.
- Assists with SIRV Operator training.
- May be used as acting SIRV Manager during absence of the Manager.
- Attend Meetings as directed by the SIRV Manager.

SIRV Operator

- Adhere to SOP Policies and Guidelines.
- Keep track of work schedule and assignments.
- Be in assigned patrol area during patrol hours.
- Attend TIM meetings as requested.
- Prepare for and attend Post Incident Analysis meetings as requested.
- Attend training and other events as requested by SIRV Management.
- Assist with training as requested.
- Keep assigned vehicle clean and in good working order.
- When on call be able to be en route to an incident in the SIRV vehicle within 15 minutes of being notified.
- When on call will take the SIRV vehicle home to expedite any off duty call out response. If the vehicle cannot be kept at home, then it may be placed at an acceptable location near the home.
- Inspect assigned SIRV vehicle daily and at shift change for damage and working condition.
- When changing operators, complete an equipment and supply check list to ensure all equipment and supplies are in place.
- Ensure the SIRV trucks never have less than half a tank of fuel.
- Ensure the SIRV Trucks are never left with less the three quarters of a tank at the end of their shift.
- Check the engine oil level every time a truck is fueled.
- Check the air pressure in all six tires every time a truck is fueled.
- Immediately after an incident, advise the Express Lane / SIRV Supervisor or SIRV Manager of any supplies that were consumed.

- Advise the Express Lane / SIRV Supervisor about any supplies taken from the storage unit.
- Advise the Express Lane / SIRV Supervisor of any equipment in need of repair or replacement.
- Advise the Express Lane / SIRV Supervisor if the SIRV truck is in need of maintenance or repair.

Administrative Assistant:

- Prepare and process weekly payroll.
- Review and collate all receipts.
- Review all daily, weekly and monthly documents for accuracy and completeness.
- Maintain SIRV Personnel Files.
- Keep minutes at all required meetings.
- Any other administrative tasks as determined by the SIRV Operations Manager.

1.13 PTO Policy

PURPOSE

It is recognized that personal time off is essential to an employee’s wellbeing and job performance. Employees are encouraged to wisely use their accumulated PTO. The purpose of this SOP is to coordinate staff coverage and grant personal time off when necessary in accordance with contract obligations. To provide procedures for the use of leave time and to ensure all transactions and leave requests are properly authorized, documented and processed. You are reminded it is not advisable to pay for any reservations until your PTO has been approved and you have a copy of the signed approved request in your possession. These guidelines supplement the AutoBase PTO policy found in Section 4.2 (Personal Time Off (PTO) Benefits) of the AutoBase Employee’s Handbook.

Personal Time off (PTO) Vacation Requests

Employees are responsible for:

- Verifying they have enough accrued leave prior to requesting any PTO.
- Accurately completing a PTO Request Form and submitting it to the Express Lane / SIRV Supervisor.

Express Lane / SIRV Supervisor is responsible for:

- Ensuring that adequate staffing will be available prior to submitting the employees PTO Request Form to the Express Lane / SIRV Supervisor.

- Verifying that an employee requesting PTO has or will have accrued a sufficient amount of leave to cover the request prior to authorizing the PTO.

The Express Lane / SIRV Supervisor will attempt to grant SIRV employees PTO at the time they desire to take it, however, adequate staffing must be maintained at all times. Therefore, PTO MUST be scheduled and approved in writing in advance. PTO will be granted on a first come first serve basis. In fairness to all employees, requests for PTO on Holidays and during Holiday Weekends will be decided by the Express Lane / SIRV Supervisor on a case by case basis.

Due to manpower constraints, unless approved by the SIRV Operations Manager or Express Lane / SIRV Supervisor, only two SIRV Operators from each County may be on PTO at a time.

In order to give the scheduling supervisor enough time to provide for adequate staffing, the following minimum PTO request lead times will be required. A PTO request of 1 day or less will be granted as manpower permits. For a leave of 2 days in duration, a 7-day minimum advanced notice is required. For a request of 3 to 4 days, a 14-day minimum advanced notice is required. For a leave of 5 or more days, a 28-day minimum advanced notice is required.

Illness PTO

If an operator calls in ill, they must either use PTO or approved leave without pay on their timesheet to cover the work time missed.

Leaves of Absence

Requests for a leave of absence will be handled on a case by case basis.

1.14 Computer Usage Policy

PURPOSE OF POLICY

The purpose of this policy is to set guidelines for using the provided laptop appropriately while on duty.

PROCEDURES

A ruggedized laptop computer is assigned to each SIRV truck in Broward and Palm Beach Counties. The laptop computers will be used by the SIRV Operators for SIRV business purposes only.

The purpose of the computers is to allow the SIRV Operators to:

- Complete and submit their daily paperwork to include:
 - Weekly Timesheets.
 - Individual Expense Reports.
 - Vehicle Checklists.
 - Mileage reports.
 - Weekly Call Logs.
- Complete and submit SIRV reports.
- Complete and submit Road Ranger Inspections.
- Any other functions as requested and/or approved by the FDOT Project Manager, the Express Lane / SIRV Supervisor or the SIRV Manager.

1.15 Injury Reporting Policy

PURPOSE OF POLICY

To provide procedural guidelines to be followed in the event of an on-the-job injury.

PROCEDURES

If an employee suffers any on-the-job injury, regardless of the type or seriousness, the employee is to report the injury immediately to the SIRV Manager or his designee. The employee will complete a SIRV Incident Reporting Form detailing how and when the injury occurred and what part of the body is affected. If deemed necessary, the SIRV Manager or his designee may conduct an investigation into the circumstances of the injury.

The SIRV Manager or his designee shall immediately forward a Supervisor's Memo detailing the circumstances of the injury and the result of any investigation to the Regional Vice President (RVP) and the Human Resource (HR) Manager for AutoBase Inc. The employee's SIRV Incident Reporting Form shall be attached to the Supervisor's Memo.

The SIRV Manager or his designee will ensure the employee receives prompt medical treatment if necessary. In the event an employee seeks or obtains medical treatment, all documents pertaining to said treatment must be submitted to the SIRV Manager or his designee within 24 hours of being seen by a medical professional. The SIRV Manager or his designee shall then forward any and all such documentation to AutoBase's RVP and HR Manager. Any follow-up visits or treatments shall likewise be documented and submitted.

If the affected employee is unable to work for any period of time as a result of an on-the-job injury, the employee shall be required to provide the SIRV Manager or his designee with written

authorization from a medical professional prior to returning to work. Said authorization shall immediately be forwarded to AutoBase's RVP and HR Manager.

1.16 Computer Operating Policy

PURPOSE OF POLICY

To properly use the systems installed on the laptop and provide best practices for using the laptops.

PROCEDURES

Using your laptop

Your laptop should normally be used wirelessly via the mobile hotspot installed in each SIRV vehicle using your cached credentials to access SunGuide. The laptop is to be used for preparation and submission of all required weekly SIRV documents and for SIRV Reports and to access your Smartsunguide email account. The internet shall be utilized for work purposes only.

Cached Credentials

1. If this is the first time you have used your laptop you must establish your cached credentials BEFORE being able to use it wirelessly. If you are uncomfortable with using this procedure on your own, or encounter any unexpected results then please open a ticket and contact the IT department to work on this with you. Here is the procedure to establish cached credentials:

- a. Bring your laptop to the Broward office.
- b. Plug in an Ethernet network cable that is on the SunGuide (field.net domain) network.
- c. Login to the computer but do NOT connect to Verizon.
- d. Log in to your Smartsunguide account.
- e. Once successfully logged into Smartsunguide, you may log off. When logging off, IT recommends you click Start à Log Off.
- f. Logoff the Laptop.
- g. Unplug the Ethernet cable.
- h. Once back in a SIRV vehicle, you should now be able to log in once again via the vehicle's mobile hotspot.

Troubleshooting

2. The computer can hold up to 10 cached credentials. Over time with normal use your credentials may eventually be bumped off the list when you become # 11 in which case you may find yourself unable to login wirelessly. In this case, you can repeat the procedure to establish cached credentials again. If you are uncomfortable with using this procedure on your own, or encounter any unexpected results then please open a ticket and contact the IT department to work on this with you.

2.0 Communications & Responsibilities

2.1 SIRV Radio Communications

DESCRIPTION

District Four SIRV is prepared to respond to any type of severe incident occurring on the highways in Broward and Palm Beach Counties 24 hours a day 7 days a week. SIRV will also respond to events in Martin, St. Lucie and Indian River Counties as directed by the SIRV Manager or the FDOT Project Manager. The TSM&O Regional Transportation Management Center (RTMC) is most often the contact point for a response from the Severe Incident Response Vehicle Team. The RTMC is responsible for dispatching all District Four SIRV units. Upon request, SIRV may also respond to District Six and District One.

PURPOSE

This section will advise the type of equipment provided to SIRV Operators as well as the operational channels used when communicating. It will also detail how calls for service are evaluated and dispatched. SIRV Operators are issued one portable radio. The radio is used to communicate within the FDOT District Four network.

Communications with the FDOT District Four RTMC

SIRV Staff shall each be assigned a ~~FIRSTNET~~ cellular telephone with Push-To-Talk (PTT) capabilities which are used to communicate within the FDOT District Four network.

The following Talk Groups have been programed into the District Four SIRV mobile and portable radios:

Broward County Talk Groups

- 75
- 75 - Express
- 95
- 95 – Express

Palm Beach County Talk Groups

- PB 1
- PB 2

Treasure Coast (Martin, St. Lucie and Indian River Counties) Talk Group

- N3C

Other Talk Groups

- SIRV Only
- SIRV+Control Room
- X-1 RISC
- X-2 RISC

The TSM&O RTMC will determine which Talk Groups will be used for dispatching and special operations within FDOT District Four. The RTMC will also determine what 10 codes and signals will be acceptable for use on the radio system. The FIRSTNET cellular telephone PTT feature will be used as the primary source of radio communication. The FIRSTNET cellular phone feature will be used as a backup source.

Communications with Broward County and Treasure Coast (Martin, Saint Lucie and Indian River County)

When a Palm Beach SIRV unit is dispatched to work an incident being handled by either a Broward County or Treasure Coast Dispatcher they will use the appropriate Talk Group to communicate with the dispatchers and Incident Management responders.

When a SIRV Operator is conducting Treasure Coast Road Ranger Inspections they will use the assigned Talk Group for Road Ranger trucks operating in that area.

The TSM&O RTMC will determine which Talk Groups will be used for dispatching and special operations within FDOT District Four. The RTMC will also determine what 10 codes and

signals will be acceptable for use on the radio system. The FIRSTNET cellular telephone PTT feature will be used as the primary source of radio communication.

Call Prioritization

Any Lane Blockages on the highway including:

- Lane blockage with a HAZMAT situation.
- Lane blockage based on largest percentage of lanes blocked.
- Lane blockage off the freeway affecting a ramp.
- As requested and approved by RTMC Management.
- Highway infrastructure damage not affecting traffic.
- RISC activations.
- As requested by another Agency.

2.2 SIRV Notifications

DESCRIPTION

These guidelines are to govern how any form of communication will be done and how the notifications are made from the TMC to the SIRV operators on and off duty.

RESPONSIBILITIES

On Duty Notifications

- SIRV will be notified on all level 2 and level 3 incidents.
- SIRV will be notified of any incident where there may be a possibility of lane blockage or highway infrastructure damage.
- SIRV will be notified by the RTMC first via radio second by cellular telephone.
- If an operator cannot be contacted, then the SIRV manager must be immediately notified.

On Call Notifications (After Hours)*

Notifications will be made for the following incidents via cell phone:

- Level 3 Incidents (not to include planned roadwork construction).
- Traffic crash with a fatality.
- Any time there is damage to any part of the roadway which includes a bridge, concrete wall or guardrail that causes lane blockage.
- When requested by another agency and approved by an RTMC Manager.
- Any overturned commercial truck.

***NOTE: If an operator cannot be contacted then the SIRV manager must be immediately notified.**

SIRV Duties When Not Responding to Calls

- Road Ranger Inspections – Broward and Palm Beach County fleets will be inspected twice a month (Once in the first two weeks and the other in the last two weeks of the month). The Treasure Coast fleet will be inspected once a month.
- Conduct routine maintenance of the SIRV truck, to include washing/cleaning the interior and exterior of the truck and compartments, restocking supplies and equipment, checking the fluid levels and tire wear and pressures.
- Field inspections as necessary will be done to observe and evaluate the Road Rangers providing service.
- Provide inspection reports of the Road Ranger Service Patrol to the Administrative Assistant and SIRV Manager.
- Attend weekly Road Ranger Contractor Meetings to provide updates on the Road Ranger Service Patrol and other SIRV project issues.
- Conduct post incident analysis (PIAs) debriefings on necessary incidents by arranging and facilitating the debriefing meetings with all involved agencies of the incident, gather feedback from agencies, critique response and recommend improvements.
- Attend local and regional Traffic Incident Management Team meetings.

Written Communications

All policies, standard operating guideline procedures, written orders, memorandums, requests and bulletins must be documented and submitted in writing. All orders, memorandums and bulletins are issued by the FDOT Program Manager or their designee.

2.3 SIRV Vehicle Operations

PURPOSE

To become familiar with the everyday operation of the SIRV trucks and equipment that will be used on a daily basis.

PROCEDURES

Vehicle Specifications

A one and one half ton truck body with an 85-inch cab to axel ratio supporting an 11-foot utility body. The truck shall have a turbo charged diesel engine. It shall be equipped with flashing amber lights on both sides and facing forward with flashing amber and red on the back, an air horn and two telescoping high intensity work lights. There shall also be work lights mounted on the sides and rear of the utility body. There must be jumper cable terminals attached front and rear.

Vehicle Operations

The SIRV Operator shall operate the vehicle in a safe manner at all times. Under normal non-emergency operating conditions, the Operator will strictly adhere to all traffic laws and drive defensively in a safe and courteous manner. Headlights will be used both day and night to maximize visibility.

When dispatched to a Severe Incident the SIRV Operator will be authorized to use the shoulders under the following conditions:

- The shoulders will only be used in cases where traffic is such that there is no other way to reach the crash/event other than by driving on the shoulders.
- All emergency lights shall be activated while driving on the shoulders.
- Although the siren shall not be used, use of the air horn is permitted.
- While driving on the shoulders, the operators shall not drive in excess of 15 mph.
- The shoulders shall only be utilized where and when the shoulders are of sufficient width to accommodate the SIRV vehicle.
- Four-way flashers will not be used while the vehicle is in motion, as it will interfere with brake lights and turn signal operations.

SIRV Operators shall be authorized to disregard regulations governing direction or movement or turning in specified directions after carefully considering or weighing the risks of injury and/or damage to property. SIRV Operators shall not, however, drive a SIRV vehicle in reverse, whether in a traffic lane or on the shoulder, unless operating inside an area that has been properly closed by MOT.

SIRV Operators shall not drive across open travel lanes to cross from one shoulder to the other.

SIRV Operators shall be authorized to disregard the laws governing the parking of vehicles under ordinary circumstances, except that the vehicle shall not block access to a fire hydrant or fire scene, or in any way obstruct the passage of fire apparatus.

The vehicle should be strategically parked to protect incident scenes with emergency lights, four-way flashers and the arrow board activated.

Non-Emergency Parking

The SIRV will only be parked in a properly marked parking space or loading zone of an appropriate size for the vehicle. If necessary and where there is sufficient space, the SIRV may be parked across several parking spaces with cones at each corner of the vehicle. At no time will

the SIRV be parked in a prohibited parking area or parked in a manner that would prohibit free movement of other vehicles.

SIRV Vehicle Damage

A SIRV vehicle damage log for each vehicle will be kept by the Administrative Assistant within the SIRV drive. If upon inspecting a SIRV vehicle the operator finds damage they shall immediately check the damage log to see if the damage has been reported. If the damage has not been logged, the Operator will immediately report the damage to the SIRV Manager and prepare a SIRV Incident Report Form documenting the damage. The SIRV Manager will investigate the cause of the damage.

If a SIRV vehicle is damaged due to a crash or some criminal activity while on or off duty, a law enforcement report must be done. The SIRV Manager must immediately be notified and photographs must be taken. The Operator will complete a SIRV Incident Report Form detailing the incident and submit it to the SIRV Manager with the law enforcement report. The SIRV Manager will then have the Administrative Assistant document the damage on the vehicles damage report log.

Off Duty Use of SIRV Vehicles

SIRV Operators may be assigned to drive SIRV Vehicles while off duty. At least one SIRV Operator from each covered county will be on call after normal working hours with a vehicle assigned to them for immediate emergency response.

Additional SIRV Operators whom are not on call may have vehicles assigned to them during off duty hours for the chance additional vehicles are required for emergency response.

On Call

The on call SIRV Operator must have a vehicle pre-positioned at a pre-determined location to insure responding to emergency requests within 15 minutes of being notified of such response. An on call Operator may use the vehicle for personal transportation needs within their assigned County to have it immediately available to meet the 15 minute response requirement.

Not On Call

Depending on vehicle availability and as determined by the SIRV Manager, Operators may be allowed to participate in the pre-positioned vehicle staging to and from work program. SIRV Operators participating in this program may only use the vehicle when traveling to and from work assignments, and must agree that they will be available for call-outs in the event of a major incident when the primary on-call operator is working another event. SIRV Operators who

choose to use this method of vehicle assignment must agree to the staging location of the vehicle and also agree to be reachable off duty on either their work or personal cellphone in the event the vehicle needs to be placed into service. All other SIRV personnel will need to know the staging location of this vehicle so it can be picked up for use when necessary.

SIRV Operators who do not wish to participate in the off duty non-on call truck staging will not be allowed to drive the vehicles to and from work. They will be responsible to provide their own transportation to pick up a SIRV vehicle at a location specified by the SIRV Manager or the SIRV County Supervisor to report to their work assignments.

2.4 Incident Types and Procedures

PURPOSE

To be able to identify types of incidents on the highways and know how to mitigate clearance properly and efficiently.

TYPES OF INCIDENTS

Fluid Cargo Spills

Minor Fluid Spills

1. Ask on scene Road Ranger to advise the type and size of spill.
2. If the spill is 25 gallons or less, then continue with minor spill policy.
3. Advise the Maintenance Supervisor of situation by telephone ASAP.
4. Upon arrival contact Incident Commanders and receive a briefing on the situation. Advise Incident Commanders of FDOT's clean up plan. Update Maintenance Supervisor as necessary.
5. Assist Fire Rescue in containing spill to prevent environmental damage primarily and roadway damage secondarily.
6. If spill can be contained and mitigated using onboard supplies, do so, and advise the Maintenance Supervisor.
7. After spill has been cleaned up place absorbent either into the plastic barrel or bag absorbent material in the Construction Grade bags in SIRV. Either Maintenance or the responsible party will dispose of the gathered material.

Major Fluid Spills

If the spill is of a size or nature that cannot be completely mitigated and cleaned up by SIRV.

1. See steps 1-4 above.
2. Ascertain from Law Enforcement and /or Fire Rescue who is the party responsible for the spill. (This is NOT necessarily the person who will be charged with the accident, it is the driver of the vehicle whose load has spilled.)
3. If that person is still on the scene find out if they have made arrangements to have the spill cleaned up. Ask for the name and telephone number of the company that will be responding. Contact that person/company by telephone and get an estimated time of arrival for the clean up crew. Advise the Maintenance Supervisor of this information.
4. If the arrival time of the clean up contractor is excessively long, discuss with the Maintenance Supervisor the possibility of FDOT contacting a cleanup company.
5. Monitor the situation and utilize onboard supplies as needed to attempt to minimize the spill.
6. When the Maintenance Supervisor arrives accompany them to the scene. Find out their assessment and response plan. Advise Incident Commanders and the TMC of any changes.
7. If the clean-up appears to be long term, then ask the Maintenance Supervisor about the use of FDOT long term MOT.
8. Report to the RTMC arrivals and departures of agencies.

Solid Cargo Spills

1. Contact the Maintenance Supervisor ASAP and advise them of the situation. Type of vehicle involved, type and amount of cargo spilled as well as number of lanes effected.
2. Upon arrival on scene check and adjust MOT as required and request additional Road Rangers as needed.
3. Upon arrival update the Maintenance Supervisor of the situation if necessary and advise if you have a recommendation for additional equipment.

4. Contact on scene Incident Commanders and get a briefing on the situation. Try to find out if any arrangements for clean up have been made by the responsible company or driver. Advise Incident Commanders of FDOT's clean up plan. Advise the Maintenance Supervisor of any changes.
5. If cleared by Law Enforcement and Fire Rescue Commanders, direct Road Rangers to begin cleanup, attempting to open one lane at a time if possible.
6. Advise TMC of situation, any notifications you have made and what the clearance procedures will be. Update the TMC as equipment and personnel arrive or depart.
7. When the Maintenance Supervisor arrives accompany them to scene. Find out what their assessment is and their response plan. Advise Incident Commanders and the TMC of any changes.
8. If the clean-up appears to be long term, then request the Maintenance Supervisor provide long term MOT.

Highway Infrastructure Damage

- Bridges
- Metal guardrails
- Concrete barriers
- Concrete Walls
- Roadway asphalt
- Burned or gouged roadways
- Fluid Spills damaging the roadway

While Enroute

1. If confirmed, notify Maintenance Supervisor by telephone of damage reported to you.
2. If NOT confirmed, notify the Maintenance Supervisor of the possibility of damage to infrastructure.

Upon Arrival

1. Contact Incident Commanders on scene for information update.
2. Survey the situation.
3. Advise the Maintenance Supervisor of the situation. Damage can range from something of a minor nature that does not require immediate repair or major damage requiring the immediate response of equipment and personnel.
4. If damage is RTMC property such as DMS/ITS equipment advise the TMC Manager. Also photograph the damage and file them in the Public/ATMS folder identifying the picture by date and location.
5. Check with Incident Commanders to ascertain if they are finished with the scene and repairs can be initiated.
6. Minimize the problem (i.e. - road ranger vehicles can be used to push large chunks of concrete and guardrail off the roadway).
7. If minor repairs can be completed by SIRV Operator, advise the Maintenance Supervisor and complete repairs.
8. Advise RTMC of situation, any notifications you have made and what the clearance procedures will be. Update the TMC as equipment and personnel arrive and depart.
9. When the Maintenance Supervisor arrives, accompany them to the scene. Find out what their assessment is and their response plan.
10. Advise Incident Commanders and the TMC of any changes.
11. If clean up and repairs appear to be long term, ask the Maintenance Supervisor about use of FDOT long term MOT.
12. Advise RTMC when repairs are completed, and lane/roadway are re-opened.

Other Jurisdiction and Off Duty Assistance

SIRV Operators drive highly recognizable officially marked State of Florida FDOT emergency response vehicles. These vehicles are not always driven on the assigned patrol areas of the

intrastate highway. The vehicles are driven on State arterial roads as well as smaller secondary roads to arrive at work assignments and off duty staging locations for emergency call out response. With this in mind, there will be times when an Operator may be required to stop and render assistance at lane blocking crashes or other incidents either off duty or out of assigned patrol areas.

If an off duty SIRV Operator is operating a marked SIRV vehicle and must stop to render necessary assistance at an incident, they will be reverted to on duty status and be compensated for their time on a scene. The following policy establishes procedures for providing assistance to other jurisdictions and providing assistance in off duty situations.

On Duty Other Jurisdictions Assists

- Notify dispatch of your location, incident type and request assistance as needed.
- Be prepared to use your cellphone to request local assistance via 911
- Secure the scene, assist injured people and provide other services as necessary.
- You do not have the same authority to clear crash vehicles from lanes as on the Intrastate.
- You can move non crash disabled vehicles with driver permission
- Provide necessary information to other responders
- Notify your respective County SIRV Supervisor about the incident
- Keep personal notes on the incident as dispatch will not open a chronology or document anything for you for incidents off the interstate.
- Return to patrol as soon as possible
- Prepare and submit a SIRV Incident Report for the assist

Off Duty Other Jurisdictions Assists

- If you are off duty en route to your assigned patrol area or to your vehicle drop off location, you may stop at any lane blocking incident you encounter where your assistance is necessary.
- Notify dispatch of your location, incident type and request assistance as needed.
- Be prepared to use your cellphone to request local assistance via 911
- Secure the scene, assist injured people and provide other services as necessary.
- You do not have the same authority to clear crash vehicles from lanes as on the Intrastate.
- You can move non crash disabled vehicles with driver permission
- Provide necessary information to other responders
- Notify your respective County SIRV Supervisor about the incident and overtime

- Keep personal notes on the incident as dispatch will not open a chronology or document anything for you for incidents off the interstate.
- Depart the scene as soon as possible thereby returning to off duty status
- Prepare and submit a SIRV Incident Report for the OJ assist
- Make sure you put in for the time worked on your timesheet.

Off Duty assigned area assists

- If you are off duty en route to your assigned patrol area or to your vehicle drop off location, you may stop at any lane blocking incident you come across where your assistance is necessary.
- Handle the incident as if you were on duty
- Notify your respective County SIRV Supervisor about the incident and overtime
- Log the time worked on your timesheet.

2.5 Scene Safety

PURPOSE

To ensure all SIRV Team Operators have an understanding of policies and procedures to be safe on the highways during incidents on the highways.

PROCEDURES

On Scene

Upon arrival to a scene the first thing the SIRV operator will do is make contact with the Road Ranger. SIRV will give the Road Ranger any supplies necessary to enhance scene protection. If necessary, SIRV will assist the Road Ranger. If no Road Ranger is present, then SIRV will begin scene protection procedures. SIRV will then evaluate the need for additional Road Rangers and road closures.

Once the scene is secure, SIRV will evaluate the actual incident scene. If Law Enforcement or Fire Rescue is on the scene, SIRV will make contact with their respective scene commanders or officers in charge. SIRV will not enter the incident scene until the SIRV Operator has spoken with Law Enforcement or Fire Rescue to learn the status of any ongoing investigation or Rescue/HazMat process.

Only after receiving clearance from Fire and Law Enforcement can SIRV begin physical scene clearance procedures.

Vehicles containing injured persons will not be moved until the injured persons are removed. If the injured persons are severely or critically injured (as reported by Fire Rescue) then the vehicles will not be moved until instructed to do so by Law Enforcement.

Cone Placement for Scene Safety

Lane Tapers:

- 200 feet long per lane.
- Cones are to be 25 - 40 feet apart with an offset of two feet.
- It should take 6 - 9 cones to taper one lane.
- At night, flares, **chemical or electronic**, must be placed in front of the cones on the taper.

Easy Lane Taper:

- Start at the end of the buffer.
- For 40 foot spacing, align cones with the skip lines in the roadway, offsetting each cone 2 feet over from the previous, or; for 25 foot spacing, walk 8 paces and place the cone, maintaining an offset of 1.5 feet per cone.
- Continue this until lane is tapered off. Then place two cones in the shoulder to block it at the beginning of the taper.

If a second or third lane needs to be tapered, then just start from the end of the first taper and continue on in the same way.

Buffers:

- The buffer space shall be a minimum of three car-lengths (60 feet) before the last vehicle stopped behind the incident.
- For end of queue management, there should be an incident scene sign or Road Ranger with a properly worded DMS sign $\frac{1}{4}$ of a mile before the end of the queue.

On Scene Checklist

Upon your arrival:

- Notify RTMC of your arrival.
- Make contact with Road Rangers and Road Ranger Supervisor.
- Give Road Ranger additional MOT as necessary.
- Assign a Road Ranger with a DMS Board to end of queue.
- Make sure MOT is set as close to standards as possible.
- Make sure RTMC knows # of lanes closed.
- Make contact with Fire Commander.
- Get their name and incident number.

- Inquire as to the status of any ongoing rescue and Has-Mat situation.
- Offer Assistance (absorbent).
- See if you can get an estimated clearance time.
- Ask what notifications they have made and note them.
- If there is a Haz-Mat situation, then make sure the TMC is notified and FDOT Maintenance is called.
- Make contact with FHP Commander or Trooper in charge.
- Get name and incident case number.
- Ask about the status of the investigation and clearance time.
- Find out what notifications they have made (such as FDOT or ICA, Medical Examiners Office or Wrecker Company) and note them.

Debris Removal

Regardless of the type or location of a roadway, road debris is safety hazard that must be dealt with to ensure the safety of all motorists. Different agencies utilize different tactics for the removal of debris, based on the landscape, number of lanes, volume of traffic, lighting conditions and resources available. Not every method will work in every situation. What is the same in every situation is that the task must be accomplished quickly, efficiently and, above all, safely.

Tactics:

Outside Lane – For small debris, such as ladders and tire fragments, one SIRV may be sufficient. The driver will block the lane with their vehicle, activate all emergency lighting and raise the arrow board. Only after ensuring it is safe to do so, the driver will carefully exit their vehicle and remove the debris from the lane, leaving it on the shoulder. The driver can then get back in the truck and depart, making sure to advise the TMC to notify maintenance of the debris for removal.

For larger debris, such as a spilled load, that may require the material to be pushed using a broom or a shovel and will take longer to remove from the roadway, the SIRV will need to deploy appropriate MOT past the end of the debris to establish a work zone so that they may safely work to remove the debris to the shoulder.

Center Lane(s) – Because traffic will be passing on both sides, the dangers to the responders will be greatly increased. Whenever possible, two SIRV should respond and the tactics for the safe removal of the debris will be different. If no other SIRV is available, employ the assistance of a Road Ranger (RR). With emergency lights activated and arrow board raised, the first truck to arrive shall block the lane in which the debris is located. The second truck, again with emergency lights activated and arrow board raised, shall block an adjacent lane. The arrow

board on the truck to the left shall direct the oncoming traffic to move left, and the arrow board on the truck on the right shall direct oncoming traffic to move right. For small debris, the driver to the right will exit his vehicle between the two trucks, retrieve the debris and secure in one or both of the trucks. Once the debris is secured, both vehicles shall depart at the same time.

If no assistance is available, the SIRV shall block the lane with their vehicle, activate all emergency lighting and raise the arrow board. Only after ensuring it is safe to do so, the driver will carefully exit their vehicle and remove the debris from the lane and secure the debris in the truck, departing immediately upon securing the debris.

For larger debris, such as furniture and other items than cannot safely be secured on the trucks appropriate MOT shall be deployed, closing the affected lane and all lanes between the affected lane(s) and the closest shoulder. All arrow boards shall display the appropriate arrow directing traffic to move in the desired direction. Once the debris is moved to the shoulder, the MOT shall be collected and all trucks should depart at the same time.

For spilled loads, such as gravel, trash, landscaping refuse, etc., appropriate MOT shall be deployed, closing the affected lane and all lanes between the affected lane(s) and the closest shoulder. All arrow boards shall display the appropriate arrow directing traffic to move in the desired direction. Working from the lane farthest from the shoulder and towards the shoulder, push the debris into the adjacent lane, clearing one lane at a time. The MOT shall be modified to open each lane as it is cleared.

NOTE: AT NO TIME AND UNDER NO CIRCUMSTANCES shall a SIRV operator enter or remain in any travel lane on foot that is not protected by appropriate MOT. Any SIRV Operator doing so will be subject to disciplinary action, up to and including termination.

2.6 On Scene Procedures

OBJECTIVE

To ensure that incident scenes are handled professionally and properly.

PROCEDURES

SIRV as a Secondary Response Unit

When arriving on a scene as a secondary responder, the SIRV staff will contact the on scene Road Ranger or Road Ranger Supervisor, deploy additional MOT equipment, and obtain all pertinent information, such as arrival and departure times of agencies, what agencies were on scene, and what services have been provided.

SIRV will also release any Road Rangers from the scene that are no longer needed. Unless, however, long-term MOT has been established, at least one Road Ranger must remain on the scene for the duration of the lane blockage. Contact Fire Rescue Incident Commander to inquire about any Haz-Mat situations, injury severity, estimated clearance time, and also offer any assistance.

SIRV will gather Fire Department's name, case number, notification, arrival and departure times, equipment (trucks) on scene, type of HazMat and debriefing contact information. In addition to the Fire Department, SIRV will also contact Law Enforcement Incident Commander or Lead Investigator. SIRV will obtain estimated clearance times from Law Enforcement Officer and offer assistance.

SIRV will also need to obtain all Law Enforcement Officers' names and case numbers that were on scene, times, description of the incident and debriefing contact information.

SIRV is to contact the towing service and obtain the towing company name, times and debriefing contact information.

If there is a HazMat situation or any kind of spill larger than SIRV can handle and there is an environmental clean up on the scene, SIRV will obtain environmental agency name, times and debriefing information.

In case of a fatality the SIRV operator will contact the on-scene Medical Examiner or body removal service representative, obtain what ME or body removal company was on scene, times and debriefing information.

If there is any infrastructure damage SIRV is to contact the proper maintenance provider and obtain the maintenance supervisors' name and times.

SIRV Response without Road Rangers

SIRV activations may occur during times when road rangers are not available. When a SIRV unit is activated during this time, the operator's main concern upon arrival at an incident is protection of responders and the incident scene. The operator will evaluate the scene and deploy necessary on board maintenance of traffic (MOT) equipment to deal with the situation. Once MOT is in place the operator or another assigned responder must stay with the MOT to monitor traffic activities and the need for MOT adjustment. At no time will any MOT be left unattended. Once the operator is relieved of MOT duties they can respond to the actual scene to make contacts and determine further needs.

2.7 Jurisdictional Boundary Procedures

PURPOSE

The purpose of this policy is to provide guidance to SIRV Operators when involved in incidents occurring within other jurisdictions or on the boundaries of other jurisdictions.

GENERAL

The SIRV intrastate highway working area in Broward County is bordered by five other highway jurisdictions: Palm Beach County to the North, Miami Dade County (FDOT District Six) to the South, Collier County (FDOT District One) to the West, along with the Eastern and Western borders with the I595 Express LLC Project and The State Road 869 (Sawgrass Expressway) ramps where they intersect with I-75 and I-595.

Due to patrol zone requirements, some Road Ranger response areas overlap into the four jurisdictions covered under FDOT and the Sawgrass Expressway. SIRV will be dispatched and provide Limited First Responder services in these multi-jurisdictional Road Ranger Patrol areas. There are no multi-jurisdictional Road Ranger patrol areas with the borders of Collier County or the I595 Express LLC Project.

The SIRV intrastate highway working area in Palm Beach County is bordered by Broward County to the South and Martin County to the North.

Due to patrol zone requirements, some Road Ranger response areas overlap into the other Counties. If a SIRV Operator is providing service in anywhere in District Four they shall provide full service as usual. If SIRV responds to an incident in Miami-Dade or Collier County, they shall provide, at minimum, Limited First Responded Services.

Limited First Responder services are defined as MOT deployment, spill containment and or minor spill mitigation up to 25 gallons, minor asphalt repair, assisting in vehicle removal as well as updating the Regional Transportation Management Center (RTMC) as to the status of the incident and need for a response from the proper jurisdiction.

Upon the approval of a SIRV Manager or any RTMC Manager, the SIRV may be dispatched to assist other jurisdictions on State Roads. SIRV may then provide any of our services as requested by the other jurisdiction.

If SIRV is a first responder to an incident in the I595 Express LLC Project area our duties will be limited to scene safety with MOT, fire suppression, first aid and spill containment. The SIRV

Operator will advise their FDOT dispatcher of the location and nature of the incident and notify them that SIRV will be switching to the I595 Express LLC dispatch channel to work the incident. SIRV will then advise the I-595 dispatcher of their location and nature of the incident. They will also advise the dispatcher of what their involvement has been and keep the dispatcher updated until the I595 Express LLC Road Rangers or SIRV Unit arrives.

Broward Boundaries

On I-95

The Northern SIRV boundary for I-95 is the Broward / Palm Beach County Line with full services provided Northbound from the boundary line up to Linton Blvd., or as requested by a Manager.

The Southern SIRV boundary for I-95 is the Broward / Miami Dade County Line with limited first responder services provided Southbound from the boundary line up to Ives Dairy Road.

On I-75

The Southern SIRV boundary for I-75 is the Broward / Miami Dade County Line with limited first responder services provided Southbound from the boundary line up to Miami Gardens Drive

The Northern SIRV boundary for I-75 is the Broward / Collier County Line at Mile Marker 50. Any services north of the County line must be requested from another agency and approved by either a SIRV or RTMC Manager.

With State Road 869 (Sawgrass Expressway)

The SIRV boundary on the ramps to and from State Road 869 (Sawgrass Expressway) is the concrete overpass at SW 8 Street. This overpass is located between West Sunrise Blvd and the interchange for both I-75 and I-595. SIRV jurisdiction starts on the South side of the overpass and continues Southbound. Limited First Responder services are provided Northbound from the boundary line up to Sunrise Blvd.

With I595 Express LLC

All boundaries with I595 Express LLC have been marked with "T" type reflective delineators. Unless SIRV is on scene as a first responder, they will not respond to incidents in the I595 Express LLC jurisdiction unless requested and properly approved.

1. East Side

- Westbound I-595 SIRV jurisdiction stops where the concrete portion of the Pond Apple Creek Bridge ends which is West of I-95 and before the State Road 7 exit ramp.
- Eastbound ramp from I-595 to N/B I-95 SIRV jurisdiction starts on the ramp at the Western edge of SW 26 Terrace.
- Eastbound on I-595 SIRV jurisdiction starts on both the main line and the E/B ramp to S/B I-95 at the point where the ramp and the mainline are divided by a wall at the widest part of the apex.

2. West Side

- Ramp from the Sawgrass Expressway to W/B I-75 SIRV jurisdiction stops where the ramp merges onto N/B I-75 and W/B I-595 ramp.
- Ramp from the Sawgrass Expressway to E/B I-595 SIRV jurisdiction stops at the East side base of the flyover where the concrete roadway portion meets asphalt.
- Ramp from W/B I-595 to N/B Sawgrass Expressway SIRV jurisdiction starts where the asphalt roadway portion of the ramp meets the concrete portion of the ramp flyover.
- Ramp from W/B I-595 to S/B I-75 SIRV jurisdiction starts where the asphalt roadway portion of the ramp meets the concrete portion of the ramp flyover.
- Ramp from W/B I-595 to Weston Road and SR-84 SIRV covers this ramp from where it separates from I-595 to where it merges onto SR-84.
- Ramp from W/B I-595 to N/B I-75 SIRV jurisdiction starts at the beginning of the apex where it merges onto I-75.
- Ramp from S/B I-75 to E/B I-595 SIRV jurisdiction ends at a point just east of the N/B lanes of I-75 that run below the ramp.

Palm Beach Boundaries

On I-95

The Northern SIRV boundary on I-95 is the Palm Beach / Martin County Line with limited first responder services provided north of that location

The Southern SIRV boundary on I-95 is the Palm Beach / Broward County Line with full responder services provided in Broward County to Atlantic Blvd. or as requested by a Manager.

Jurisdictional Disputes

SIRV will respond to any incident they are dispatched to regardless of jurisdiction. If a SIRV Operator suspects the incident is outside of SIRV response areas they will communicate this to the dispatcher but continue to the incident. A RTMC Manager will be the person who determines jurisdiction for FDOT District Four SIRV Units.

Once on scene, the SIRV Operator will communicate their observations to the RTMC Manager so jurisdiction can be determined. Until proper jurisdiction is determined, the SIRV Operator will handle an event as if it is in their jurisdiction. If the SIRV Operator is told to continue handling the incident and they feel the decision was not proper, they will take photographs of the scene to properly document the location. After clearing the incident they will submit the photographs and a To / From memo explaining their opinion about the jurisdiction to the SIRV Manager for follow-up.

2.7 SIRV Operator Responsibilities on RISC Calls

PURPOSE

The purpose of this policy is to provide guidance to SIRV Operators with regard to FDOT District Four's Rapid Incident Scene Clearance (RISC) Program.

GENERAL

The purpose of the RISC Program is to expedite the safe clearance of major incidents from the highways using heavy duty, specialized equipment. This program is put in place in conjunction with Florida's "Open Roads Policy," which states that the roadways will be cleared as soon as possible with the goal of all agencies that incidents be cleared within 90 minutes of the arrival of the first responding officer.

The RISC program offers financial incentives to qualified companies to respond to and clear major incidents such as large vehicle crashes, rollovers, fires and cargo spills within a specified period of time.

FDOT District Four has instituted a RISC Program in the entire District including the areas covered by SIRV. Although the Florida Highway Patrol (FHP) is responsible for making the final determination for initiating a RISC call out, the SIRV Operator will need to work closely with FHP to assist in making this determination.

In order for a SIRV Operator to assist FHP in making a decision to activate RISC, a SIRV Operator must be familiar with FHP's RISC activation criteria and procedures. The criteria and activation policy are as follows:

EVENTS, CRASHES OR TRAFFIC INCIDENTS FOR RAPID INCIDENT SCENE CLEARANCE

1. Tractor Trailer Combinations (DOT Class 8)

- Rollover blocking one or more travel lanes.
- Multiple truck crash.
- Lost Load on or affecting the travel lanes.
- Load Shifted on or affecting a travel lane.
- Lost tandems or split trailer on or affecting a travel lane.
- Truck fire with tires burned off or cargo spilled.
- Major impact with or on top of a barrier wall, guard rail or with a bridge support.

2. Trucks over 16,000 lbs. (DOT Class 5, 6 & 7)

- Rollover blocking one or more travel lanes.
- Lost load on or affecting the travel lanes.
- Load shifted on or affecting a travel lane.
- Truck fire with tires burned off or cargo spilled.
- Major impact with or on top of a barrier wall, guard rail or with a bridge support.

3. Motor Homes and Motor Coaches (DOT Class 5 and 6)

- Rollover blocking one or more travel lanes.
- Fire with tires burned off.
- Major impact with or on top of a barrier wall, guard rail or with a bridge support.

4. Busses (16 passenger or more, DOT Class 6, 7 & 8)

- Rollover blocking one or more travel lanes.
- Fire with tires burned off or burned luggage on the roadway.
- Major impact with or on top of a barrier wall, guard rail or with a bridge support.

5. Aircraft

- Any incident involving an aircraft effecting the travel lanes.

6. Large yacht type boats

7. Mobile Homes, Modular Homes, or Modular Buildings

NOTE: In addition, any complex or extended incident where vehicles cannot be easily towed from the scene or are creating a hazard to traffic may be candidates for using the “Vendor” as directed by the Department.

FLORIDA HIGHWAY PATROL RISC ACTIVATION PROCEDURES

1. Arrival

When a Trooper arrives on the scene of a possible RISC activation, use the RISC Criteria descriptions on the reverse side to determine if notification should be made.

2. Notification

Notify Lieutenant as soon as possible to respond for verification.

From time of notification, the RISC Responder has 60 minutes to arrive. Dispatch will notify the BCRTMC to make RISC Responder notification.

3. RISC Responder Arrival

When RISC providers arrive, they must arrive with three separate units:

- A 50 ton rated (or higher) wrecker.
- A 50 ton rated (or higher) rotator wrecker.
- Support truck and/or trailer combination.

When all three arrive, notify dispatcher that RISC has arrived. This time interval is critical to RISC Responders making a claim for incentive payments.

All three vehicles must have a current “Authorized RISC Recovery Vehicle” sticker located on the driver's side of the vehicle. A RISC vehicle without the RISC Certification Sticker on the side is not authorized for recovery, and as such, the RISC Responder HAS NOT arrived with required equipment.

4. Notice to Proceed

The Lieutenant or Trooper on scene will give the RISC Responder authorization to proceed. Once the RISC Responder is given a "Notice To Proceed", they have 90 minutes to clear the roadway so that traffic can resume.

5. Clearance

When vehicles are removed and debris is cleared from the roadway; so that the highway can be opened to traffic, notify dispatch. This time interval is critical to RISC Responders making a claim for incentive payments.

SIRV OPERATOR RESPONSIBILITIES

- SIRV will be dispatched to **ALL** RISC activations within the SIRV response area regardless of the time of day or incident level.
- SIRV may also be dispatched to RISC activations outside their response area when approved by a SIRV, TMC or FDOT Manager.
- SIRV Operators will work with FHP to assist them in making a decision to activate RISC.
- The TMC Dispatcher will advise SIRV when RISC has been activated by FHP.
- SIRV Operators will examine each piece of wrecker company equipment as it arrives to see if it is properly decal as a RISC response vehicle.
- SIRV Operators will notify dispatch as each piece of RISC equipment arrives. Such notification will include the type of equipment and truck number.
- If additional non wrecker equipment is required, the SIRV Operator will notify dispatch. The SIRV Operator will then also notify dispatch when each piece of additional equipment arrives.
- SIRV Operators will notify dispatch when FHP has given the notice to proceed. They will also notify dispatch when notice to proceed has been suspended and then restarted.
- SIRV Operators will notify dispatch when the RISC provider has cleared all lanes even if the lanes remain closed for reasons beyond the control of the RISC provider.
- **SIRV will provide the TMC with updates as status changes occur, and every 15 minutes when no status changes have occurred.**
- SIRV Operators will take photographs at the incident to include the responding vehicles and equipment, the involved vehicle(s), the recovery process, any infrastructure damage, the traffic queue, and anything else they deem noteworthy.
- SIRV Operators reports will include all of the RISC response equipment along with their times for notification, dispatch, arrival and clearance.
- The report will also have the time that the RISC provider had the lanes cleared. This is not always the time the lanes were opened as other agencies may keep lanes closed after the RISC provider has completed their job.
- A copy of the finalized SIRV report will be given to the TIM coordinator to be included in their RISC post incident analysis.

3.0 Emergency Operations

3.1 Hurricane Procedures

PURPOSE

To govern the process of what to do in case of a hurricane or severe weather incident.

PROCEDURES

Preparedness

When a hurricane watch has been issued, SIRV staff will ensure that the SIRV trucks are fully equipped and fueled up at the end of each shift. When an evacuation is ordered, two SIRV trucks in each of Broward and Palm Beach County will be on duty patrolling the highways. Work hours and locations may vary and will be determined by the FDOT Freeway Operations Manager or their designee. Truck assignments will be determined by the SIRV Operations Manager and will be based on the type of evacuation called for. SIRV staff that are required to work during and after the storm will report for work with enough uniforms, food and water to last a 48-hour period. The main focus of SIRV before a storm is to facilitate the movement of traffic out of an evacuation area.

SIRV Call Prioritization during Evacuations

The first responsibility of SIRV is to respond to lane blockages affecting evacuation traffic flow. If there is more than one blockage in the evacuation direction, then the blockage restricting a higher percentage of travel lanes will be handled first. Secondly, the SIRV will respond to non evacuation direction lane blockages. Thirdly, the SIRV will assist with Road Ranger calls as needed.

During Storm Activity

Once evacuations are complete and roadways are clear all SIRV trucks will be fully fueled and stocked with extra supplies. Once driving conditions become hazardous (as determined by SIRV Operators) both trucks will respond to their during storm shelter locations. While at their shelters, SIRV staff will keep abreast of traffic conditions.

Storm Recovery

As the storm subsides, SIRV Operators will determine when conditions have improved enough to resume operations. At this point, unless otherwise directed by FDOT Management, SIRV trucks will return to patrolling the highways. At that time two of the off duty SIRV Operators will report to work as soon as possible to relieve Operators that worked during the storm. SIRV Operators reporting for work after the storm will bring with them enough uniforms, personal

gear, food and water to last at least 48 hours. Work hours from that point on will be determined by one of the following; the FDOT SIRV project Manager, the RTMC Manager or the SIRV Operations Manager.

Each SIRV truck will have an after storm assigned patrol area. The first responsibility of SIRV will be responding to reported lane blockages. Lane blockage responses will be prioritized by the percentage of lanes blocked. When not on a call, SIRV will check all directions of their assigned highways for infrastructure damage and blockages. SIRV Operators will report any infrastructure damage or blockages to the TMC.

When all roadways have been checked and blockages have been cleared SIRV will assist Road Rangers with calls for service as needed until normal operations are resumed.

Section 6.0 Road Rangers

1.0 Introduction

The Florida Department of Transportation, hereafter referred to as the Department or FDOT, desires to provide Road Ranger Service Patrol services to motorists stranded with disabled vehicles within District Four on the entire I-95 corridor beginning at the Miami-Dade County line and extending to the Brevard County line; portions of the I-595 corridor from I-75 to NW 136 Ave and from State Road 7 to Port Everglades; the entire I-75 corridor from the Miami-Dade County line to mile marker 50 (west of the Alligator Alley Toll Plaza); and, any other areas within District Four as designated by the Department.

The Road Ranger Service Patrol services, as outlined in their Road Ranger Service Patrol Standard Operating Procedures and as agreed to in the Open Roads Policy, shall also include assisting the District Four Regional Transportation Management Centers (RTMCs) with traffic and incident management to reduce traffic congestion and delays caused by non-recurring events.

The services to be provided shall include, but not be limited to, patrolling I-95, I-75 and I-595, clearing disabled vehicles from travel lanes, changing flat tires, jump-starting batteries, removing minor non-hazardous spills and debris from the highway, and assisting the Florida Highway Patrol and the Severe Incident Response Vehicle (SIRV) during incidents. See Section F herein for more detailed information.

DESCRIPTION

This Standard Operating Procedures is produced to provide the Service Patrol Vehicle Operators with information for correctly performing their job responsibilities. It contains sections on the General Requirements of this position, Safety, Radio Communications, Reports, Supervision, and Training.

GLOSSARY

AVL: Automatic Vehicle Location

Contract: The agreement by the CONTRACTOR to meet or exceed the requirements of this document in its entirety, including any portions prior to this Exhibit and any appendices attached hereafter.

CONTRACTOR: The individual, partnership, corporation, or business entity engaged for hire.

Corridor: Any freeway in District 4, including all on-ramps and off-ramps providing access to and from said freeways. The Interstate 595 corridor shall also include all DEPARTMENT or RTMC requested assistance for State Road (SR 84).

Express Lanes: Toll lanes located in FDOT District Four with connections to the regional express lanes network.

DMS: Dynamic Message Sign(s).

FDOT or DEPARTMENT: Florida Department of Transportation; including the Department Project Manager for this Contract.

FHP: Florida Highway Patrol

IM: Incident Management

LEO: Law Enforcement Officer

ORP: Open Roads Policy; See Attachment JH herein.

Operator: See Service Patrol Vehicle Operator.

RTMC: Regional Transportation Management Center. Any reference to the RTMC is an operation supported by the DEPARTMENT.

Road Ranger Service Patrol: The name of the FDOT program, which offers free roadside assistance to motorists and other services as described herein.

SIRV: Severe Incident Response Vehicle program.

Scope of Services: This Exhibit in its entirety, including any appendices attached hereafter.

Service Patrol Vehicle: All vehicles, as required and described herein, which shall by contract be provided and maintained by the CONTRACTOR, that are to be utilized to meet the Scope of Services of this Contract.

Service Patrol Vehicle Operator: A hired driver or employee of the CONTRACTOR; possessing all required license; trained by the CONTRACTOR as a driver / operator of the

CONTRACTOR'S vehicles and has satisfactorily completed the FDOT District Four online Road Ranger training program; also referred to as Operators.

Service Patrol Vehicle Operator Supervisor: Also referred to as Supervisor; see Section 7.2 of the Scope of Services.

SLERS: Statewide Law Enforcement Radio System. A common communications system (radio) for State Law Enforcement, authorized by the Florida Legislature for the Department of Management Services.

SOP: Road Ranger Service Patrol Standard Operating Procedures

TIM: Traffic Incident Management

MISSION

Service Patrol Mission

Provide free highway assistance services during incidents to reduce delay and improve safety for the motoring public and responders.

RTMC Mission

Lead an integrated operation to proactively monitor and control the surface transportation system within FDOT District Four.

Open Roads Policy

It is the goal of all responding agencies that all incidents be cleared from the roadway within 90 minutes of the first responding officer. Refer to Attachment G herein for the full description of the policy.

2.0 Safety Rules and Regulations

DESCRIPTION

Service Patrol Vehicle Operators shall follow the following safety rules and general regulations.

RULES

Driver Safety

All Service Patrol Vehicle Operators will wear their seat belt while operating a Service Patrol Vehicle.

Driving Safety

Obey all traffic laws regarding vehicle movement, lane changes, merging, speed, etc.

Service Patrol Vehicles are not to travel on the shoulders or in HOV lanes during normal patrol conditions, unless:

- Responding to a specific emergency request.
- At the direction of law enforcement and/or the RTMC.
- Shoulder usage shall be used with extreme caution at low speeds, ranging from 10 to 15 mph.

Stop on the highway only to provide services described herein.

Scene Safety

Service Patrol Vehicle Operators should be aware that the nature of their job assignment on interstate highways exposes them to the hazards of moving traffic, traffic congestion, obstructions, and debris. Driving in these conditions is dangerous and always requires attention to traffic conditions. When out of the vehicle, Operators are more vulnerable to injury.

Remain alert and always monitor approaching traffic.

Exercise caution and safety at all times, while on a traffic/incident scene.

When Service Patrol Vehicles are stopped on the shoulder, or behind a vehicle in lanes of traffic, they shall leave allow a large gap between their vehicle and the vehicle they are servicing to prevent injury. The recommended interval is 30-50 feet.

All Service Patrol Vehicle lighting, including but not limited to warning/strobe light bar, spotlight, flashers and arrow board shall be utilized while on scene during an event.

Warning/Strobe light bars shall be used in conformance with the Florida Motor Vehicle Code and only in the following circumstances:

- When merging or exiting from traffic lanes to an incident site.
- To warn traffic when performing services specified herein.

Service Patrol Vehicle Operators shall:

- Conduct a visual check in the rear-view mirrors and by looking out the windows, before exiting the vehicle for approaching vehicles.

- After exiting the truck, stay away from traffic. Approach vehicles on the non-traffic side for safety.
- Wear required orange safety vests with reflective striping, at all times while outside the Service Patrol Vehicle. Vests must be ANSI Class 3 rating and/or reflective rain suit.
- Always place maintenance of traffic (MOT) before servicing the motorist's vehicle.
- Not turn their back to traffic and always monitor approaching traffic.
- Use extreme caution in moving all disabled vehicles.
- Use all tools, towing devices, and other equipment safely. Safety equipment is provided to prevent injury.
- Take your time. Use caution! Rushing on a scene can lead to injuries. When rushing, you tend not to look up.

During inclement weather, lightning can be dangerous.

- Stay inside your vehicle.
- Avoid wide open areas.
- Avoid trees, utility poles, and light poles.
- Avoid contact with metal (example: guardrails)

Inclement weather and darkness can also reduce an approaching driver's view of objects through their windshield (Rain, worn windshield wiper blades, and glare from headlights and emergency lighting).

REGULATIONS

VIOLATION OF ANY OF THE FOLLOWING REQUIREMENTS SHALL CONSTITUTE GROUNDS FOR IMMEDIATE TERMINATION OF THE EMPLOYEE.

THE CONTRACTOR MUST REPORT ANY VIOLATIONS TO THE FDOT PROJECT MANAGER, IN WRITING.

Service Patrol Vehicle Operators will not possess or consume any alcoholic beverage while on duty.

Any Service Patrol Vehicle Operator reporting for duty that shows evidence of having been drinking or being intoxicated will not be allowed to go on duty and operate a Service Patrol Vehicle.

Service Patrol Vehicle Operators will not possess or consume any controlled substance while on duty. Service Patrol Vehicle Operators who need to take prescription medication due to an illness

or diagnosed medical condition will immediately notify the Service Patrol Vehicle Operator Supervisor. The Service Patrol Vehicle Operator Supervisor may need to determine from the prescription bottle or contacting the Service Patrol Operator's physician if the Service Patrol Vehicle Operator can safely operate equipment and drive a motor vehicle before being allowed to go in service. Any Service Patrol Vehicle Operator reporting for duty that shows evidence of being under the influence of controlled substances will not be allowed to go on duty and operate a Service Patrol Vehicle.

No Service Patrol Operator is authorized to carry firearms or other weapons either on their person or in the Service Patrol Vehicle, except for a utility knife or a "Leatherman" type utility tool containing a knife.

Note: The use of red or blue flashing or revolving lights, or a police siren, is prohibited under this contract and by Florida Statute.

Service Patrol Vehicle Operators will not accept payment of any type for any type of service rendered.

3.0 General Requirements

1. Project Area

The Project Area is defined as the entire I-95 corridor in District 4 beginning at the Miami-Dade County line and extending to the Brevard County line; portions of the I-595 corridor from I-75 to NW 136 Ave and from State Road 7 to Port Everglades; the entire I-75 corridor from the Miami-Dade County line to mile marker 50 (west of the Alligator Alley Toll Plaza); and, any other areas within District Four as designated by the Department.

See Attachment A which contains a breakdown of the shifts, shift times, number of vehicles required per shift, and the length of the shifts.

2. Hours of Service

Service Patrol Vehicles operating in Broward, Palm Beach, (Martin, St. Lucie, and Indian River counties referred to as the Treasure Coast) will operate 24 hours per day, seven days per week, including Department observed holidays for the term of the Contract.

The hours of services during holidays may vary from the weekdays/normal hours of services and shall be adjusted at the Department's discretion.

The Department reserves the right to adjust the shift times and the number of Service Patrol Vehicles required per shift, to meet the Department's needs.

3. Service Patrol Vehicle Beats

Service Patrol Vehicles shall operate in designated patrol beats as determined by the Department, which may vary, based on need.

Service Patrol Vehicles will normally enter and exit at the nearest interchange, rest area, or designated paved crossovers. Crossing the median shall always be avoided, unless directed to do so by the Department or a Law Enforcement Officer.

The Service Patrol Vehicles shall continuously patrol their respective beats in their designated loops, unless otherwise specified herein or directed by the Department.

4. Drop Locations/Emergency Stopping Sites

Some Service Patrol Vehicle Beats may have designated emergency stopping sites.

An emergency stopping site is a designated space on the exit ramps for parking a disabled vehicle, if the roadside shoulder is not of sufficient width.

In some circumstances, an emergency stopping site may not exist, but the shoulder will be wide enough for dropping a vehicle.

The Department will determine these locations with the assistance of the Contractor.

a. Broward County - See Attachment E. <https://fldot.sharepoint.com/sites/D4-EXT-TSMO/SitePages/Attachment-E-Emergency-Stopping-Sites.aspx>.

b. Palm Beach County - See Attachment E. <https://fldot.sharepoint.com/sites/D4-EXT-TSMO/SitePages/Attachment-E-Emergency-Stopping-Sites.aspx>.

5. Beat Adjustments

At any time during the Contract's term, the Department reserves the right to adjust Service Patrol Vehicle Beat locations to better accommodate demand for service.

The Department will advise the Contractor of any required adjustment to a beat location in writing forty-eight (48) hours prior to the effective date of adjustment.

If an emergency warrants, the Department reserves the right to temporarily reassign Service Patrol Vehicles to patrol.

If an emergency warrants, the Department reserves the right to temporarily reassign Service Patrol Vehicles to patrol locations outside a beat or project area, including another county within the District 4 area.

As a result of regular established patrol beats, Service Patrol Vehicle Operators will patrol to the next exit after leaving their assigned county jurisdiction. If a Service Patrol Vehicle Operator encounters a motorist outside their jurisdiction, including during their lunch or fueling travel, they will stop and provide the same services they normally provide. If a vehicle cannot be moved from the road, or if the event will be prolonged, the Service Patrol Vehicle Operator will notify the RTMC, and request the assistance of a Service Patrol Vehicle Operator or FHP Trooper from the adjoining county jurisdiction or local law enforcement, if appropriate. They shall remain on scene until they are relieved by the responding unit.

6. Authorized Service Patrol Vehicle Stops

Service Patrol Vehicle Operators shall not stop continuous patrolling of their designated Service Patrol Beat without the authorization of the Department. Authorized stops shall include, but are not limited to:

- a. Assisting stranded motorist with minor repairs.
- b. Removing disabled vehicles from travel lanes.
- c. Removing small spills and debris from the travel lanes.
- d. Assisting Law Enforcement Officers, SIRV Operators, or other public responding agencies with incident site traffic management.
- e. Rest (15 minutes) or meal (30 minutes) period.
- f. Bathroom break (15 minutes).
- g. Re-fueling Service Patrol Vehicle.

NOTE: Rest and meal periods shall be postponed or interrupted at the discretion of the Department if the services of the Service Patrol Vehicle Operator are needed.

7. Authorized Leave from Service Patrol Beat

Service Patrol Vehicles shall not leave their designated Beat without the authorization of the Department. Authorized leave shall include, but not be limited to:

- a. Mechanical failure of the Service Patrol Vehicle. In this instance a backup vehicle shall be put into service within a 60-minute time frame.
- b. Replenish supplies or refuel at the nearest facility not to exceed two miles from beat. The vehicle leaving the beat for obtaining the fuel or supplies, may do so no more than once per shift, and must return to service within 30 minutes.

1. Service Patrol Vehicle fuel supply will not be allowed to go below $\frac{1}{4}$ tank before refueling.

c. Response to an order from Law Enforcement Officer, SIRV Operator, or Fire Department Official or the RTMC.

d. Provide a Service Patrol Vehicle Operator a lunch period of no longer than 30 minutes and two rest periods of no longer than 15 minutes each. Such periods shall not be between the hours of 6:00 – 9:00 a.m. and 3:00 – 6:00 p.m., on any working day.

e. To bypass a queue to reach an incident or lane blockage.

f. To change Operators.

e. Inclement Weather – Service Patrol Operators shall ask permission to stop patrolling due to inclement weather or poor visibility (Fog, Rain, Hail, Hurricane, and Tropical Storms). The RTMC Operator will not deny this request and ask the Road Ranger to find a safe location to monitor radio traffic. Once the inclement weather has subsided the Operator shall begin patrolling. The Operator personnel will inform the RTMC Operator that patrolling has resumed.

Note: Service Patrol Vehicle Operators shall notify and get clearance from the RTMC when a request is made to leave the beat by another agency.

Note: The RTMC needs to authorize any rest or meal periods before the Service Patrol Vehicle Operator leaves their beat.

8. Service Patrol Vehicle Operator Shift Changes

Service Patrol Vehicle Operators shall not leave their shifts until they receive authorization from the Department.

When a Service Patrol Vehicle Operator receives a request for service or assistance from either the Department or a Law Enforcement Officer near the end of the Operator's shift, the Service Patrol Vehicle Operator shall respond. The Department shall pay the Contractor for the extended period. The rate of payment shall be the established hourly contract rate and shall be calculated to the nearest one-half hour ($\frac{1}{2}$ hour).

The required services shall be made prior to making shift change.

9. Maintenance of Service Patrol Vehicles

The Service Patrol Vehicles shall be kept neat and clean, and shall be maintained in conformance with this Contract, the requirements of the Motor Vehicle Code, applicable Florida Statutes, Rules of the Department of Highway Safety and Motor Vehicles, and applicable County Ordinances.

10. Florida Highway Patrol Towing Service Rotation System

If a motorist does not request a specified towing service, repair facility, or individuals to assist them, the Service Patrol Vehicle Operator shall contact the Department to request that towing service be provided through the FHP towing service rotation system, OR if a motorist does not have a cell phone, a Service Patrol Vehicle Operator shall allow the motorist to use their cell phone to call *FHP to request Rotation Towing. The FHP Dispatcher will get the required information directly from the motorist. The Service Patrol Vehicle Operator is required to notify the RTMC that a Rotation Tow has been requested by the motorist. In no case, shall the Operator directly contact a tow provider for services for a motorist.

4.0 Service Patrol Vehicle Operator Duties and Responsibilities

4.01 Abandoned Vehicles

DESCRIPTION

When an abandoned vehicle is observed, the Service Patrol Vehicle Operator shall contact the RTMC and report the vehicle's location, make, color, body type, license plate number, and whether it is impeding traffic. The RTMC shall provide the information to the FHP.

Service Patrol Vehicle Operators shall visually inspect the interior of the vehicle and report anything unusual or suspicious to the RTMC.

If the abandoned vehicle is impeding traffic, or is considered to be a potential safety hazard, the Service Patrol Vehicle Operator shall call the RTMC, to request the assistance of FHP, or permission to move the abandoned vehicle to the shoulder.

Towing

1. DO NOT communicate to a motorist that they may leave their vehicle without risk of being towed by FHP.
2. By law, the motorist has up to six hours to remove the vehicle provided it is in a safe location.
3. However, FHP may tow vehicles at ANY TIME if it is deemed to be in an unsafe location, looks suspicious, has been vandalized, and/or for construction needs.

Reporting Requirement

The Service Patrol Vehicle Operator will notify the RTMC of all abandoned vehicles. The RTMC will create the event in SunGuide. The Road Ranger will annotate the abandoned vehicle

tag with the date, time, and Service Patrol Vehicle Truck Number and place on the rear window of the vehicle. The RTMC may ask for Service Patrol Vehicle Operator assistance with updating the status of abandoned vehicles in the system, in cases where the vehicle may not be visible via closed circuit television (CCTV) camera.



4.02 Crashes

When dispatched to a crash call, the Service Patrol Vehicle Operator will respond as quickly as possible. When arriving, they will check for injuries and advise the RTMC.

After reporting to the RTMC, the Service Patrol Vehicle Operator will attempt to remove vehicles from the roadway when no injuries are reported. If injuries are reported, the Service Patrol Vehicle Operator will not move any vehicles.

The Service Patrol Vehicle Operator will then set up MOT as appropriate to ensure safety on the scene. The Service Patrol Vehicle Operator shall follow all directions of Law Enforcement personnel.

Reporting Requirement

The Service Patrol Vehicle Operator will notify the RTMC of all crashes detected. The RTMC will provide the Service Patrol Vehicle Operator with the event confirmation number following the collection of all necessary information. It is the responsibility of the Service Patrol Vehicle Operator to report any changes in the event to the RTMC, particularly when it involves lane

blockage. It is a performance measure of the RTMC to document said changes into the SunGuide software system, and update any external communications, such as DMS signs, text messaging, or contacting 511 traveler information services or another RTMC.

Many crash scenes will require the Service Patrol Vehicle Operator to set up maintenance of traffic (See MOT section below). For safety reasons, specific guidelines must be followed by the Service Patrol Vehicle Operator when setting up their MOT.

Fatality Reporting

To prevent the possibility of an invalid fatality notification, at least one of the following scenarios will need to take place when handling reports of fatalities:

1. Service Patrol Vehicle Operator confirms report of fatality received from FHP or Fire Rescue on the scene.
2. The RTMC confirms the fatality with FHP via landline.
3. SIRV Unit on the scene confirms fatality.

4.03 Advice to Motorists

Motorists shall be initially advised, prior to providing services, the following:

Moving, fueling, servicing their vehicle, or calling a towing service is being provided free of charge as a courtesy by the Florida Department of Transportation.

Once the vehicle is cleared from travel lanes, Service Patrol Vehicle Operators may only attempt minor repairs not to exceed approximately 15 minutes.

Should repairs not prove possible within the 15 minute time frame due to their complexity, the motorist shall be allowed up to three telephone calls of three minutes duration each, using the Service Patrol Vehicle Operator's cellular telephone, to make arrangements for further service, towing, or transportation.

All costs for further service, towing, or transportation must be paid by the motorist. If the motorist requests the assistance of a motor club, the operator will provide the motorist with the use of a cellular phone.

Note: Under no circumstances shall a Service Patrol Vehicle Operator accept any compensation for services performed under this Contract from a motorist.

Note: Under no circumstances shall the Contractor or the Service Patrol Vehicle Operator provide or recommend any towing, repair service, or facility to the disabled motorist.

4.04 Animals

After clearing the animal from the travel lane, the Service Patrol Vehicle Operator shall call and report the location, type, and condition of injured or dead animals to the RTMC.

1. Dead animals will be removed by FDOT Maintenance.
2. Live animals, RTMC will contact Animal Control.

4.05 Assistance to Law Enforcement Personnel

The Service Patrol Vehicle Operator shall assist Law Enforcement Personnel when requested.

Any request by Law Enforcement Officials to assist beyond the limits of this scope of services shall be authorized by the Department. If such an incident occurs, contact the RTMC for further instructions.

Service Patrol Vehicle Operators shall follow the instruction of, and obey the orders of, Law Enforcement personnel.

On occasion Service Patrol Vehicle Operators may be involved in incidents or witness actions or events that can assist law enforcement in traffic crash investigations or other emergency personnel on-scene with response. Consequently, Service Patrol Vehicle Operators shall honor all requests from Law Enforcement for information or witness statements to assist with traffic crash investigations.

4.06 Assistance to Motorists

The Service Patrol Vehicle Operators shall provide prompt, courteous, and skillful assistance to motorists as follows:

1. Move the disabled vehicle from traffic lanes.
2. Change flat tires. Note: Some aluminum wheels have steel spares that require special lug nuts.
3. Provide jump-starts.
4. Provide up to one gallon of fuel. If a motorist requests fuel, a Service Patrol Vehicle Operator will request that the motorist attempt to start the vehicle to determine if fuel is needed.
 - If vehicle does start, fuel will not be dispensed.
 - If vehicle does not start, enough fuel (up to one gallon) will be dispensed to allow the motorist to reach the closest fueling location.
5. Provide water.
6. Assist motorist with mechanical failures and perform minor repairs where feasible if they can be remedied quickly (maximum 15 minutes).

WARNING! Do not stand between vehicles! Watch approaching traffic at all times! Monitor traffic while servicing a vehicle under the hood.

High end vehicles should not be serviced for any mechanical issues. Most dealers provide their own towing and repair service. Fuel servicing may be accomplished. Examples of high-end vehicles include but not limited to:

- Aston Martin
- Bentley
- Ferrari
- Lamborghini
- Maserati
- Porsche
- Rolls Royce
- Teslas and any other all electric vehicles
- BMW

- Mercedes
- All Convertibles

The size of Commercial Vehicles and motorhomes limit the amount of service you can provide. Most have roadway assistance plans for tires or towing. Set up MOT, offer use of cell phone, water, and hold a flashlight.

Note: The Contractor or Service Patrol Vehicle Operators shall not charge any fees, accept any gratuities, recommend secondary towing service, or recommend repair/body shops.

VIOLATION OF THIS REQUIREMENT SHALL LEAD TO GROUNDS FOR IMMEDIATE TERMINATION OF THE EMPLOYEE FROM THIS CONTRACT.

4.07 Clearing, Clean-up, and Debris Removal

Clear lanes of all disabled vehicles encountered in the Service Patrol Vehicle Beat by removing them to the shoulder or Emergency Stopping Sites on an exit ramp. See Emergency Stopping Sites, Attachment E.

Use appropriate containers to store small debris collected from travel lanes or at the incident sites during clean up. They shall return it to the Contractor's yard. The Contractor will dispose of the collected material at the Contractor's discretion.

Notify the RTMC of any debris or obstructions on the roadway or paved shoulder area too large for the Service Patrol Vehicle Operator to remove. The RTMC will notify DOT Maintenance. Service Patrol Vehicle Operators shall not be required to handle hazardous material.

REPORTING REQUIREMENT

The Service Patrol Vehicle Operator will inform the RTMC of the type, and location of debris. If the debris cannot be safely handled by one Service Patrol Vehicle Operator, the RTMC will dispatch a second Service Patrol Vehicle Operator to assist. If necessary, temporary MOT may be set up to safely retrieve the debris. In addition, the Service Patrol Vehicle Operator is required to notify the RTMC if assistance from FDOT Maintenance is required.

4.08 Disabled Vehicles

The Service Patrol Vehicle Operator shall offer services to stranded motorists even if the motorist's vehicle is already pulled out of the travel lane.

Disabled vehicles shall be removed from the travel lanes, with the least delay practicable, by moving them to the shoulder area or emergency stopping site. Use extreme caution in moving all disabled vehicles.

If the vehicle is not able to be moved under its own power, the Service Patrol Vehicle Operator shall contact the RTMC. The RTMC shall contact FHP for rotation towing service, or towing service as requested by the motorist. Motorists may make their own towing arrangements.

Rotation towing service or other towing service requested by the motorist shall be at the motorist's expense. Should a motorist refuse to allow a disabled vehicle to be cleared from the travel lanes; the Service Patrol Vehicle Operator shall contact the RTMC for assistance. The RTMC shall contact FHP and the Service Patrol Vehicle Operator shall setup appropriate maintenance of traffic (MOT) using arrow board, cones, flares, etc. to warn motorists of hazard, and will remain on the scene until FHP personnel arrive. The Service Patrol Vehicle Operator shall not attempt to move such disabled vehicles until directed to do so by the FHP.

All disabled vehicles that are relocated shall be parked with the wheels turned away from the roadway and the parking brake set if possible. If a disabled vehicle is encountered while responding to a crash, the Service Patrol Vehicle Operator will notify the RTMC of the vehicle's location so another Service Patrol Vehicle Operator can respond.

REPORTING REQUIREMENT

The Service Patrol Vehicle Operator will notify the RTMC of all disabled vehicles detected, including service(s) provided. In the event of an unsuccessful repair, motorists will only be transported during emergency situations following emergency transport guidelines. During emergency transport of motorist's, the Service Patrol Vehicle Operator will communicate with the RTMC prior to making the transport. The RTMC will then provide the Service Patrol Vehicle Operator with two confirmation numbers. The first will represent the unsuccessful repair and transport for the disabled vehicle. The second will be a cloned event number representing the now abandoned vehicle. The Service Patrol Vehicle Operator will mark the abandoned vehicle with the confirmation number.

FHP Disabled Vehicles

On certain occasions, it will be necessary to aid a disabled FHP patrol vehicle. Requests made by FHP for Service Patrol Vehicle Operator assistance on the freeway will be handled by the RTMC, and a Service Patrol Vehicle Operator will be dispatched. Requests made by FHP for Service Patrol Vehicle Operator assistance off the freeway will be referred to an FHP designated tow company.

4.09 Emergency Transport of Motorists

Transport of motorists will only take place in emergency situations and shall follow guidelines established by the DOT and or the contractor such as but not limited to the Guidelines and Practices for Safety Service Patrol during COVID-19 (see Attachment J <https://fldot.sharepoint.com/sites/D4-EXT-TSMO/SitePages/Attachment-J-Guidelines-and-Practices-for-Safety-Service-Patrol-during-COVID-19.aspx>)

If the Road Ranger is the first to arrive at the scene, they will assess the situation and communicate their observations back to the RTMC. If the motorist is experiencing a medical emergency, the Road Ranger will request EMS/EMTs.

Symptomatic and Asymptomatic COVID-19 is not a medical emergency. Do not transport motorists except when conditions exist that put the motorist at greater risk for injury or death. These conditions include but are not limited to:

- Motorist or passengers that appear to have a non-emergency medical condition or injury that could deteriorate because of being stopped for an extended period.
- Motorist(s) or passengers that appear to have a low tolerance to extreme temperatures (hot or cold) and unable to use their vehicle's HVAC system.
- Motorist(s) or passengers that are elderly, expectant mothers, have accompanying infants or small children.
- Disabled vehicle is being towed and motorist is unable to make own arrangements to travel to safe location.
- Natural or manmade disasters affecting the location of the disabled vehicle.
- The location of the disabled vehicle is in an area that puts motorists at a higher risk (Left/Narrow shoulder, construction zone, line of sight obstruction, rural/remote area) of being struck by another vehicle.

The Road Ranger on scene will coordinate with the RTMC to make the final determination of whether any of the exceptions apply or if there are other conditions that warrant the transport of the motorist. The Road Ranger shall transport the motorist a reasonable distance off the nearest

exit that has facilities. Motorists may be dropped at a nearby gas station, convenience store, or some other location that has a phone. At night, an open business is suggested. The safety of both the motorist and the Service Patrol Operator shall always be considered as a priority of any emergency transport.

4.10 Hazardous Material Incidents

Service Patrol Vehicle Operators shall not be required to handle hazardous material but may assist if directed to do so. However, Service Patrol Vehicle Operators may respond to events, not knowing that such a condition exists. On arrival, any hazardous material spills shall be reported immediately to the RTMC.

Remember SAFETY!

1. Describe the type of spill, amount of spill, and location of the spill, and if it is draining toward the side of the road, or a drainage gutter.
2. If the spill can be handled safely, fuel, oil, or coolant can be contained with some spill absorbent. Advise the RTMC what action you are taking. See Vehicle Spill Guidelines, Attachment F. <https://fldot.sharepoint.com/sites/D4-EXT-TSMO/SitePages/Attachment-F-Vehicle-Fluid-Spill-Mitigation-Guidelines.aspx>
3. If possible, stop the leak at the source. Contain and limit the spill from spreading.
4. Sweep material off the travel lanes.
5. Apply a second application if necessary.

Severe Incident Response Vehicle (SIRV) Operators will respond to these types of incidents and assess the situation. They have more specialized spill equipment.

SIRV will contact the Department of Environmental Protection if any spills are over 25 gallons and are likely to run into environmental resources like storm drains, lakes, canals, or soil.

DO NOT TAKE ACTION if the spill is on a large scale. Service Patrol Vehicle Operators do not have the resources to make a difference. Service Patrol Vehicle Operators will evacuate the area to the best of their ability. Stay clear of the area. Any ignition source (hot engine, battery, wire short) can ignite it.

DO NOT TAKE ACTION if the Service Patrol Vehicle Operator sees a cloud of smoke or vapor. Smoke can be a fire about to ignite or could be the release of a hazardous gas or other substance. Service Patrol Vehicle Operators will evacuate the area to the best of their ability. Stay clear of the area. Stay up-wind from the smoke or vapor.

DO NOT ENCOUNTER any unknown liquid spill, solid substance, or gas. Let professionals handle these incidents.

If the vehicle has a placard, sticker, or sign on the front, rear, or side of truck, Service Patrol Vehicle Operators can use the Emergency Response Guidebook in the Service Patrol Vehicle to determine the cargo. Report cargo information to the RTMC. WARNING: Sometimes drivers do not post the placards. If not sure, STAY AWAY.

4.11 Maintenance of Traffic (MOT)

The Service Patrol Vehicle Operator shall protect crash scenes, disabled vehicles, large debris, or other miscellaneous items using maintenance of traffic techniques including, but not limited to:

- Emergency lighting on Service Patrol Vehicle (overhead lights, emergency flashers).
- Service Patrol Vehicle placement on the highway to protect a lane or shoulder.
- Portable, roof mounted arrow board with "Four Points" or "Arrow" display.

DUTIES

1. Service Patrol Vehicles shall be parked upstream, prior to any crash, disabled vehicle, spill, or debris, to give warning to motorists prior to entering the incident area.
2. Service Patrol Vehicles shall be parked so that the arrow board is perpendicular, or at a right angle, to approaching traffic. If the truck/sign is parked at an angle, the high intensity portion of the lighted sign will not be facing approaching motorists. This can result in reduced lighting effect and difficulty in reading the sign message.
3. If an incident occurs on a curve, the Service Patrol Vehicle Operator can request a second Service Patrol Vehicle on the shoulder before the curve, for additional advanced warning and increased visibility.
4. If an incident occurs on the downgrade side of an overpass or bridge, the Service Patrol Vehicle Operator can request a second Service Patrol Vehicle on the top of the overpass or bridge for additional advanced warning and increased visibility.

5. If an incident is not to be cleared immediately and results in an extended length traffic queue, the Service Patrol Vehicle Operator will request a second or additional Service Patrol Vehicle to respond to the end of the queue for additional advanced warning and increased visibility to motorists. The Service Patrol Vehicle Operator will take up a position on the appropriate shoulder and move the Service Patrol Vehicle forward or backward to remain in the area of the end of the queue.

6. Service Patrol Vehicle Operators shall activate the arrow board using only pre-programmed displays.

7. Any customization for a unique event must be approved through the RTMC before it is displayed. If approval is not obtained, use an approved display(s) that meets the conditions of the event. When placing cones or flares for MOT, verify while behind the Service Patrol Vehicle, that the arrow board is working properly and showing the proper display. If not, make an immediate change. Cones and/or flares should be placed in a configuration to:

- Provide a tapered lane change.
- Define the work area around an object.

GUIDELINES

The Service Patrol Vehicle Operator shall take the following action to set up MOT (see Attachment H to this SOP for sample diagrams - [https://fldot.sharepoint.com/sites/D4-EXT-TSMO/SitePages/Attachment-H-Sample-Maintenance-of-Traffic-\(MOT\)-Diagrams.aspx](https://fldot.sharepoint.com/sites/D4-EXT-TSMO/SitePages/Attachment-H-Sample-Maintenance-of-Traffic-(MOT)-Diagrams.aspx)):

On the Shoulder

- Park 30 to 50 feet behind the incident.
- Turn your wheels away from traffic.
- Display Caution (four points).
- Set up all cones necessary to meet minimum requirements of event condition.

Lane Closure

- Park 30 to 50 feet behind the incident.
- Turn your wheels away from traffic.
- Display Arrow in the direction you want traffic to flow.
- Set up all cones necessary to meet minimum requirements of event condition.

End of MOT

- Provide a cone taper that gradually widens back to the original lane width, at the end of the MOT, to indicate to motorists that the lane detour configuration is over.
- If available, place an additional truck with arrow board near the opening taper with flashing four points or arrow sign.
- If available, place a Service Patrol Vehicle Operator at the opening taper to wave the motorists out of the incident area onto open highway.

Taking Down MOT

- Start at the farthest MOT cone or flares, watching for oncoming traffic at all times:
 - Retrieve them in reverse order, working back toward the Service Patrol Vehicle.
 - Move each one to the shoulder, and then retrieve them in reverse order, working back toward the Service Patrol Vehicle.
- Keep facing toward traffic so you can monitor vehicle movement.
- Stow your cones and any other equipment.
- Safely enter your vehicle while monitoring traffic.
- Do not turn off your lighting until you safely re-enter traffic.

Note: The use of flares should be avoided at a close distance to a hazardous or flammable material spill. Flares may be used downwind from this type of spill.

On nighttime calls, do not leave the Service Patrol Vehicle high beam headlamps on. Oncoming traffic can be blinded by the glare. If the Service Patrol Vehicle is within an incident scene, and the revolving roof lights will not be needed to provide warning to motorists, turn them to the flashing mode to eliminate additional glare. Remember, motorists cannot avoid what they cannot see! DO NOT turn your back to traffic at night for any reason!

4.12 Moving Disabled Vehicles from Traffic Lanes

The Service Patrol Vehicle Operator shall use an appropriate method of moving disabled vehicles from the traffic lanes. Vehicles can be towed, dragged, or pushed from the roadway to the shoulder. Training for these operations shall be conducted by the Contractor.

- Wheel or boom lift. Utilize correct lifting points when using hydraulic lifting devices.
- Drag Chain attached to damaged vehicle wheel or frame point.

- Pushed with Service Patrol Vehicle rubber coated front bumper.

A push bumper is designed to push a vehicle only for limited distances to reduce a safety hazard. Be prepared to explain to the motorist that you cannot push them down the highway to an exit or into a service station. Motorists may even ask you to push them to their home. Be polite but stay in control, and remember that your role is to reduce the potential of a secondary incident. Usually, a suitable relocation site is nearby-just make sure you and the motorist agree on the location to which you will push the vehicle.

- Do not push a vehicle that has bumper misalignment, previous damage, or an obstruction such as a trailer hitch, tire carrier or a ladder. If possible, photograph the vehicle's bumper before and after pushing it.
- Do not push a vehicle if you cannot see ahead of it.
- Before you start to push:
 - Tell the driver what you want them to do.
 - Confirm that the driver understands you.
 - Advise exactly where you want the driver to go.
 - Remind the driver that steering and braking will be hard but will work.
 - Advise the driver not to hit the brakes hard or abruptly.
 - Make sure the driver can hear your instructions. The driver side window should be open.
- Make sure the vehicle's:
 - Ignition key is in the "on" position.
 - Transmission is in "neutral."
 - Parking brake is "off."
- Approach the disabled vehicle to be pushed slowly. Make gentle contact.
- Check traffic.
- Advise the driver that you will start pushing.
- Push slowly, maintaining a shallow angle.
- Back off before the driver brakes.
- Advise the driver when to stop.
- Instruct the driver to set the parking brake and secure the vehicle.

Note: Always inspect area on motorist vehicle before you intend to push and notify motorist of pre-existing damage. After the push, re-inspect and notify motorist of any new damage.

Note: Liability and repair for damages to vehicles are the responsibility of the Contractor. The Operator shall use all safety precautions and procedures considered appropriate.

Vehicles disabled due to crashes that do not include injuries may be moved from the roadway to the shoulder. Vehicles disabled due to crashes, with injured occupants, shall not be moved except when directed by Law Enforcement Officials.

4.13 I-95 Express Lanes Quick Clearance Procedures

PROCEDURES

To expedite the clearance of both travel lane and shoulder blocking events within the 95 EL, the following quick clearance procedures have been established (all MOT will be set-up as directed in Attachment I - <https://fdot.sharepoint.com/sites/D4-EXT-TSMO/SitePages/Attachment-I-Sample-Maintenance-of-Traffic-Express-Lanes-Diagrams.aspx>).

- A vehicle is considered to be blocking a travel lane if any part of the vehicle is on or within the travel lane pavement markings.
- Towing shall be performed using a Flat bed or Tow vehicle unless they are unavailable. In such case a RRSP vehicle may relocate a vehicle to the right shoulder if it can be done in a safe manner.
- Abandoned vehicles in the 95 EL shoulder (legally parked) will be removed in the safest and quickest manner. When vehicles are relocated from EL and transported to the ESS, Incident Management (IM) personnel will provide Emergency Stop Site (ESS) (see Attachment E - <https://fdot.sharepoint.com/sites/D4-EXT-TSMO/SitePages/Attachment-E-Emergency-Stopping-Sites.aspx>) location, vehicle make, model, and license to the RTMC. Subsequently, the FHP Trooper will request rotational tow to pick up all abandoned vehicles or those without an owners' request tow at the designated ESS.
- A disabled vehicle in the 95 EL shoulder (left only) that cannot be expediently repaired or should existing shoulder width not allow for its safe repair, shall be relocated to either the right shoulder or ESS.

Service Vehicle Response to Express Lanes (EL) - The RTMC will dispatch a minimum of two Service Vehicles in response to any reported traffic incident occurring within the Express Lanes. The Service Vehicle personnel arriving first shall:

- Notify the RTMC upon arrival.
- Assess the situation of the disabled vehicle and determine how to clear the incident.
- Request additional Service Patrol backup or agency response from the RTMC as needed.
- Secure the scene by setting up temporary MOT, as needed, until vehicle can be removed.

- Service Patrols are permitted to cross the double white lines and delineators to bypass traffic congestion when responding to incidents and removing vehicles from 95 EL.
- If backup is needed, upon arrival, the Service Patrol Vehicle(s) will reposition themselves as needed to allow the tow truck to hook up the disabled vehicle(s) as the other Service Patrol vehicle provides additional backup and MOT behind the incident. The vehicle shall be removed from the EL facility as safely and quickly as possible prior to offering assistance services. Assistance services shall only be offered prior to vehicle removal if the services will result in more immediate incident clearance.

Express Lane Configuration - The Express Lanes are to be considered a separate facility alongside the General Purpose lanes. The following scenarios reference the 95 Express facility. When referring to incidents occurring within the Express Lanes, the lane closest to the median barrier wall shall be "95 Express Lane #1" and the lane next to the express lane markers (ELM) shall be referred to as "95 Express Lane #2."

Note: The General Purpose Lanes of I-95 are those lanes outside of the 95 Express facility. These lanes shall be referred to as "I-95 Lane #1, I-95 Lane #2, etc...." and shall be counted beginning to the right of the 95 Express facility and ending at the right shoulder of I-95.

4.14 Notifications

Notify the RTMC, and other agencies as directed, for the following:

- Crashes, emergencies, law enforcement situations, or for rotation towing of vehicles.
- Verified fires.
- Large spilled loads or large debris, or other situations as appropriate.

4.15 Patrolling

Service Patrol Vehicle Operators shall continuously patrol their designated beat, seeking disabled vehicles, stranded motorists, debris in the roadway, spilled loads, vehicle crashes, and obstructions to traffic and other potential hazards.

By scanning ahead, look for the following indications of an event:

- Unusual amount of flat tire calls in one area (debris, sinkhole).
- Vehicles suddenly shifting out of one lane.

- Brake lights on multiple vehicles.
- Smoking tires.

4.16 Verifying Roadway DMS Signs

Because some roadway DMS signs cannot be visually verified by the RTMC for proper operation because of viewing obstructions, lighting, weather, etc., or because of technical difficulties, Service Patrol Vehicle Operators may be dispatched to verify that a roadway DMS:

- Is lit (on) or blank (off).
- Has the proper indicated message that needs to be verified.
- Is malfunctioning with scrambled lighting sequences.

Service Patrol Vehicle Operators will check the information as reported by the RTMC (working, not working, no signal), respond to the area, then advise the roadway DMS status back to the RTMC.

4.17 Customer Comment Card

The Service Patrol Vehicle Operator shall provide a Customer Comment Card to every stranded individual they assist.

See Customer Comment Card, Attachment B - <https://fldot.sharepoint.com/sites/D4-EXT-TSMO/SitePages/Attachment-B-Customer-Comment-Card.aspx>.

4.18 Damage to Motorist Property

If a Service Patrol Vehicle Operator causes damage to a motorist's vehicle during towing, dragging, or pushing, they will:

1. Immediately inform the motorist.
2. Immediately notify the RTMC.
3. Request the Service Patrol Vehicle Operator Supervisor respond.

Damage will be noted in the Service Patrol Vehicle Operators daily log.

The Contractor shall repair, at Contractor's expense, any damage caused to the Department's or motorist's property while performing service under this Contract.

4.19 Service Patrol Vehicle Crash

In the event that a Service Patrol Vehicle Operator is involved in a crash, the following procedure must take place:

1. Immediately activate your emergency equipment.
2. The Service Patrol Vehicle Operator will immediately notify the RTMC by radio, so that other Service Patrol Vehicle Operators can respond, if needed.
3. The Service Patrol Vehicle Operator Supervisor will immediately respond.
4. If uninjured, the Service Patrol Vehicle Operator will safely exit the vehicle, wearing an approved traffic safety vest, and check for injuries in any other involved vehicle.
5. Move vehicles from the traffic lanes if there are no injuries.
6. Notify the RTMC of any injuries, number of injured, types of injuries.
7. Set up MOT.
8. If injured, the Service Patrol Vehicle Operator will remain seated in the truck with the seat belt on. Turn on the vehicle's emergency lighting.

Otherwise, manage the incident as any other crash.

5.0 Service Patrol Vehicle Requirements

The following are service patrol vehicle requirements that must be adhered to daily prior to operating a vehicle or are required to have during patrol and what to do if there is a malfunction or equipment failure:

5.01 Service Patrol Vehicle Operator Daily Inspections

Prior to the beginning of each shift, the Service Patrol Vehicle Operator shall inspect each patrol vehicle and its associated equipment, accessories and parts, to ensure they meet all specifications and requirements contained herein. Any problems or deficiencies will be reported immediately.

Any deficiencies noted during these inspections will be corrected immediately prior to deploying the Service Patrol Vehicle to their designated beat.

5.02 Missing/Malfunctioning Equipment

While on duty, in the event of missing and/or malfunctioning Service Patrol Vehicle equipment, the Service Patrol Vehicle Operator is required to notify the Service Patrol Vehicle Operator Supervisor. Based on the severity of the equipment failure in question, the Service Patrol Vehicle shall be considered unavailable for routine beat patrol and a backup Service Patrol Vehicle shall be put into service within 60 minutes for notification.

5.03 Inspection of Service Patrol Vehicles by the Department

DESCRIPTION

All Service Patrol Vehicles, Operators, and their associated equipment, accessories and parts shall be subject to periodic inspection by the Department.

Service Patrol Vehicle inspections are conducted by Severe Incident Response Vehicle (SIRV) Operators or Department designated inspector. Vehicles are selected at random intervals and locations. SIRV Operators or inspector will instruct the RTMC to dispatch a selected vehicle to a location within, or near the operating beat of the vehicle.

REQUIREMENTS

Inspections will be conducted for, but not limited to:

- Operator appearance, uniform, and grooming.
- Vehicle cleanliness, proper markings in good condition, vehicle components, and all vehicle and emergency lighting.
- Properly operating radio and pc tablet; possession of cellular phone in working condition.
- All required tools, replenishment fluids, and other equipment in good condition, and the proper number of cones, flares, fire extinguisher, and other safety devices in good condition.

Upon completion of the inspection, the inspector will record the results in the Computer-based Service Patrol Vehicle Inspection Report and notify the Service Patrol Vehicle Operator of the results.

Any unsafe or poorly maintained vehicles, or improperly equipped vehicles, as determined by the Department shall be removed immediately from service and replaced at no cost to the Department.

The Contractor shall replace Service Patrol Vehicle(s) removed from service within 60 minutes of receiving notification to do so from the Department.

See Service Patrol Vehicle Inspection Report, Attachment C - <https://fldot.sharepoint.com/sites/D4-EXT-TSMO/SitePages/Attachment-C-Road-Ranger-Inspection-Report.aspx>.

5.04 Service Patrol Vehicle/Tool Box Requirements

REQUIREMENTS

Each Service Patrol Vehicle shall, at a minimum, have a toolbox containing:

- Screwdrivers:
 - Standard 1/8, 3/16, 1/4, 5/16 (1 each).
 - Phillips head #1 and #2 (1 each).
 - Star Driver (1 set).
- Needle nose pliers (1 pair).
- Adjustable rib joint pliers, two (2) inch minimum capacity (1 pair).
- Adjustable wrenches:
 - Eight (8") inch (1 each).
 - Twelve (12") inch (1 each).
- Five (5) pound hammer (1 each).
- Rubber mallet (1 each).
- Electrical tape (20 yards).
- Duct tape (20 yards).
- Tire pressure gauge (1 each).
- Mechanic's wire (25 ft roll).
- Bolt cutters – twenty (18") inch or larger (1 pair).
- Wire cutting pliers (1 pair).
- Complete set of open end and box wrenches (both metric and standard).

5.05 Service Patrol Vehicle Accessories/Parts Requirements

REQUIREMENTS

Each Service Patrol Vehicle shall, at a minimum, have the following accessories and parts:

- Diesel fuel (minimum 5 gallons) - In approved product marked can or tanks.
- Unleaded gasoline (minimum 5 gallons) - In approved product marked can or tanks.
- First aid kit (First Responder Kit, fully stocked with minimum accessories below):
 - Absorbent compress dressings (5 x 9 inches) (two each).
 - Adhesive bandages (25 total of assorted sizes below).
 - Small (mini).
 - Medium
 - Large.
 - Knee & Elbow.
 - Finger & Knuckle.
 - Adhesive cloth tape (10 yards x 1 inch) (one roll each).
 - Antibiotic ointment packets (approximately 1 gram) (five each).
 - Antiseptic wipe packets (five each).
 - Aspirin (81 mg each) (two packets each).
 - Blanket (space blanket) (one each).
 - Breathing barrier (with one-way valve) (one each).
 - Instant cold compress (one each).
 - Non-latex gloves (size: large) (two pair each).
 - Hydrocortisone ointment packets (approximately 1 gram each) (two each).
 - Scissors (1 pair each).
 - Roller bandage (3 inches wide) (one each).
 - Roller bandage (4 inches wide) (one each).
 - Sterile gauze pads (3 x 3 inches) (five each).
 - Sterile gauze pads (4 x 4 inches) (five each).
 - Oral thermometer (non-mercury/non-glass) (one each).
 - Triangular bandages (two each).
 - Tweezers (one pair each).
 - First aid instruction booklet (one each).
- Fire extinguisher, twenty (20 lb) pound Dry Chemical ABC (2 each) - Meeting all safety requirements, if seal is broken unit shall be tested, resealed, and certified.
- Pry bar, minimum thirty-six (36") inches in length (1 each).

- Radiator water (5 gallons).
- Four (4") inch x six (6") inch x twelve (12") inch wood blocks (2 each).
- Twenty (24") inch wide street broom (1) each.
- Shovels, Square-end (1 each).
- Highway wet flares, thirty (30) minute burn minimum (24 each).
- Cones, thirty-six (36") inch reflectorized (16 each).
- Hydraulic floor jack, two (21/2) ton (1 each).
- Air compressor, 125-psi capacity, capable of inflating tires of vehicles and operating impact wrench, (one each).
- Air operated impact wrench with sockets to fit all vehicles (metric and standard), one each.
- Lug wrenches (metric and standard) to fit all vehicles, one each.
- Large flashlight and spare batteries (1 set).
- Jump Box minimum 400 cranking amps
- Funnel, multi-purpose, flexible spout (2 each).
- Trash can, five (5) gallon (1 each).
- Five (5) gallon absorbent material for liquid spills equivalent to or exceeding the brand name "Speedy Dry" (2 each).
- Drinking water for motorists: individually sealed bottles, minimum 16-ounces, (12 each).
- Towing Straps or Chains and J-Hook.
- Minimum of 20 Department approved Comment Cards at the beginning of each shift (see Attachment B for sample - <https://fldot.sharepoint.com/sites/D4-EXT-TSMO/SitePages/Attachment-B-Customer-Comment-Card.aspx>).
- Copy of Emergency Response Guidebook (ERG) or ERG Application.

5.06 Communications Equipment Requirements

REQUIREMENTS

Cellular Telephones

1. The Contractor shall provide each Service Patrol Vehicle Operator with an operational cellular telephone. The cellular phones are to be made available to motorists to make up to three local area telephone calls. The cellular phones are also to be used for communications between Service Patrol Vehicle Operators and the RTMC should the two-way radio system become non-functional.

2. The Contractor must submit any change in the Operator's issued cellular phone number to the RTMC immediately after any change.

3. The Contractor shall be responsible for all costs associated with the cellular phones throughout the term of this Contract.

4. The RRSP Operators will use cellphones for the InService App to communicate with the RTMC and SunGuide for logging into and out of service, including breaks and beginning and ending shifts and or entering event comments.

Public Address System

Each Service Patrol Vehicle, including back-up vehicles, shall be equipped with an external speaker and public address system with one hundred watts output. The PA system shall only be used while assisting a motorist or as directed by the Department. The Service Patrol Vehicle Operators are expected to use the PA system in a professional manner. No profane language shall be used.

The PA system "siren modes" may not be used by Service Patrol Vehicle Operators, for any reason. The unauthorized use of an emergency vehicle "siren" may result in termination.

6.0 Radio Communications

Radio Communications are essential to the performance and success of our mission. They are regulated by the Federal Communications Commission (FCC) and strict adherence to professional conduct is mandatory.

Radio Communications establish a vital link between the RTMC and the Service Patrol Vehicle Operators. It is used for dispatching calls, verifying detection, providing vehicle and motorist information, providing situation updates, requests for additional assistance, additional equipment, and clearance information. It gives the RTMC "operational awareness" of events and changing conditions.

6.01 Communications Language

The Department conducts its official business in English. Consequently, all radio communication between the Service Patrol Vehicle Operators and the RTMC will be conducted in English.

6.02 Communications Policy

The first step requires the RTMC to collect and log specific information obtained from the Service Patrol Vehicle Operator in SunGuide.

Once the service Patrol Vehicle Operator arrives on scene, they will verify and indicate the following areas of information that will be updated in SunGuide:

- Type of Incident
- Location of Incident
- Road Name
- Direction
- Proximity to Exit (Name)
- Exit (Name)
- Notified By
- Contact Name
- Dispatched To
- Road Ranger Activity
- Zone
- Anticipated Clearance Time
- Lane Closures
- Injuries
- HazMat
- Fire
- Additional Services Required (FHP, Rotational Tow, Fire, Ambulance, etc.)
- Vehicle information (Make, model, color, tag information)

The above areas of confirmed information, collected from the Service Patrol Vehicle Operators on site, allows the RTMC to disseminate information. The RTMC can then inform FHP, 511, and other agencies as required. While on site at active incidents/assists, the Service Patrol Vehicle Operator is required to inform the RTMC of any changes in the incident. These changes can range from lane block pattern, severity of the incident, additional services required, and duration changes based on information from on scene incident responders.

With the above information entered into SunGuide, the RTMC can locate the event via CCTV (if CCTV viewing is available), post messages on the DMS signs, and then notify appropriate agencies of the active incident and its severity.

Upon the conclusion of their on-site presence, the Service Patrol Vehicle Operator is required to inform the RTMC of their departure and the final status of the incident. This will enable the RTMC to take the appropriate actions necessary for incident management requirements.

6.03 Providing Confirmation Number

Each event that is managed by the RTMC has a confirmation number automatically assigned by SunGuide™. It is the responsibility of the RTMC to provide the event confirmation number to the Service Patrol Vehicle Operator once all the pertinent information regarding the event has been received.

Example: In the event a disabled vehicle needs to be cloned into an abandoned vehicle, the Service Patrol Vehicle Operator would receive two confirmation numbers. One for the attempted service provided to the disabled, the other for tagging the vehicle as abandoned. If the motorist is to be transported following the emergency transport guidelines by the Service Patrol Vehicle Operator to the nearest exit, the Operator may provide said confirmation number on both the disabled and the abandoned to the Service Patrol Vehicle Operator before the transport, so that the Service Patrol Vehicle Operator need not return to the vehicle to tag as abandoned.

6.04 Federal Communications Commission Rules and Regulations Including Use of Radio

All Service Patrol Vehicle Operator radio operations shall be conducted in accordance with Federal Communications Commission (FCC) rules and regulations. The RTMC is authorized to transmit communications related to public safety and incident management, the protection of life and property, and other communications essential to RTMC activities. False calls, false or fraudulent distress signals, superfluous, unidentified communications, obscene, indecent, and profane language are prohibited.

6.05 Call Signs – Road Ranger Units and RTMC Communications

All call signs shall be broadcast clearly and distinctly, as this identifies the transmitting station. Failure to comply may result in disciplinary action.

At the start of a transmission or series of transmissions, employees using mobile radios shall properly identify themselves. When calling the RTMC, Service Patrol Vehicle Operators will identify themselves using their truck number.

The Broward Regional Transportation Management Center (RTMC) will be referred to as "Broward."

Service Patrol Vehicles will be referred to by truck number. Truck 406 is District 4, Truck 6. For radio purposes, this truck would be referred to as "Truck 6."

Service Patrol Vehicle Operator Supervisors will be assigned to Truck 401 (Pickup Truck).

Severe Incident Response Vehicles (SIRV) will be referred to by number. Example, "SIRV1."

6.06 Service Patrol Vehicle Operator Radio Procedures

PROCEDURES

1. Whenever a Service Patrol Vehicle is being operated that is equipped with a communications radio, the Service Patrol Vehicle Operator shall ensure that the radio is operational and shall monitor the designated frequency.
2. Service Patrol Vehicle Operators shall monitor the channel before they broadcast on it to ensure the channel is clear. Service Patrol Vehicle Operators shall monitor the channel before they broadcast on it to ensure the channel is clear.
3. Service Patrol Vehicle Operators shall monitor the channel before they broadcast on it to ensure the channel is clear before transmitting and should wait approximately 15 to 30 seconds between each attempt to contact the RTMC unless circumstances dictate otherwise.
4. All Service Patrol Vehicle Operators shall advise the RTMC of all changes in service status. Service Patrol Vehicle Operators shall monitor radio traffic and will, when necessary or directed to do so, hold all radio traffic to a minimum.
5. When a Service Patrol Vehicle Operator advises they are going to assist a stranded motorist, notify the RTMC of the following before the assist:
 - Location (i.e., I-95 south of Commercial)
 - Direction (NB, SB, etc.)
 - Vehicle Location (right shoulder, left shoulder, ramp, live lane)
6. Service Patrol Vehicle Operator shall immediately notify RTMC when clear for additional calls or returning to patrol.

Answering the Radio

- The first priority of Service Patrol Vehicle Operator is to monitor and respond to radio traffic.
- When a call is received, it shall be responded to promptly.
- Evaluate the priority of the radio traffic before handling any other activity.

- Calls may be placed on "stand by" by the RTMC only during heavy radio traffic conditions, provided they are not high priority calls.

Radio Dispatches

- Only pertinent information shall be broadcast, and all communications shall be read using the proper format and stated as briefly as possible, using the appropriate ten-code and dispatch signals.
- All radio transmissions will be spoken in English, no other languages may be used.
- Messages of significant importance shall be broadcast to all in-service Service Patrol Vehicle Operators.
- The RTMC, during emergency situations, such as Service Patrol Vehicle Operator calls for backup, shootings, violent crimes in progress, large scale civil disturbances, disasters, etc., requires immediate response. RTMC personnel receiving a report of this nature or any other life-threatening situation shall broadcast an alert tone on all frequencies and pause for five seconds before broadcasting the information. The alert tone before a broadcast will signal the Service Patrol Vehicle Operator that important information is forthcoming.
- All pertinent information shall be broadcast from the appropriate Service Patrol Vehicle Operator.
- Service Patrol Vehicle Operators will communicate by radio, updating any appropriate information on the call before exiting the truck.
- The RTMC shall not dispatch Service Patrol Vehicle Operators to any incidents of a violent nature or to investigate any suspicious activity. Local law enforcement shall be notified instead.

Monitoring Techniques

- It is the responsibility of the Service Patrol Vehicle Operators to continuously monitor all base station primary and secondary radio channels.
- To avoid missing important radio traffic, Service Patrol Vehicle Operators shall ensure that the volume controls are always properly adjusted. The volume controls shall be checked at the beginning of each shift and periodically throughout the shift, especially during long periods of silence.
- Service Patrol Vehicle Operators shall monitor the channel before they broadcast on it to ensure the channel is clear before transmitting and should wait approximately 15 to 30 seconds between each attempt to contact the RTMC unless circumstances dictate otherwise.

- Before new Service Patrol Vehicle Operators can operate efficiently, they must adapt physically and mentally to the radio environment, such as highway noise and traffic conditions.

Voice Techniques

- Effective and professional voice techniques can be achieved by developing four primary voice characteristics.
 - Quality
 - Volume
 - Pitch
 - Rate
- The desired voice quality should display a positive impression, alertness, enthusiasm, confidence, calmness, businesslike approach and a readiness to serve. The voice should not sound unprofessional at any time, particularly when under stress. Proper enunciation and pronunciation (i.e., words spoken clearly and distinctly), greatly improve the ability of the receiver to copy the contents of a message and eliminate needless repetition.
- The desired voice volume should not be too loud or too low. An excessively loud voice does not increase the volume; instead, it may distort the signal and create a higher pitch. Communications personnel must guard against the natural tendency to lower the volume of their voice as they speak. Normal conversational volume is sufficient.
- Communications personnel should use moderate pitch level changes in their voice as they speak. A monotone voice is unacceptable. Communications personnel should develop a pitch that is not too high or low. A high-pitched voice may be improved by talking slower and at a lesser volume. A low-pitched voice may be improved by talking louder and using distinct enunciation.
- Normal non-radio speech is between 80 to 100 words per minute. Communications personnel must remember that the pace at which messages are delivered is important to understanding their contents. Generally, a speaking rate of 40 words per minute is preferred for radio communications.

Radio Courtesy

- Unnecessarily argumentative tone and unnecessary radio traffic are considered to be breaches of operating procedure and may prevent urgent radio traffic from being heard.
- Frequencies must be monitored closely before transmitting in order to avoid interrupting traffic in progress. When another employee or station is using a frequency, do not attempt to talk over their communication on the same frequency.

International (NATO) Phonetic Alphabet

- The International Phonetic Alphabet shall be used by communications personnel when spelling is required. Letters will be broadcast as "A-Alpha", not "A as in Alpha" or any other form. See International Phonetic Alphabet, Attachment D - <https://fldot.sharepoint.com/sites/D4-EXT-TSMO/SitePages/Attachment-D-NATO-Phonetic-Alphabet,-Signal-and-Ten-Codes.aspx>.

Transmitting Numbers

- In voice communications, numbers are grouped and read in series of three, counted from left to right. The number 5428749 would be read over the radio as 542 874 9. The "series of three" rule also applies where letters are used in combination with numbers. The Vehicle Identification Number (VIN) B1RH542178 would be read as "Bravo one Romeo – Hotel five four - two one seven - eight." An exception to the "series of three" rule is the transmitting of telephone numbers and Social Security Numbers. They are broadcast as they appear.

Correct Pronunciation of Numbers

- Pronouncing numbers clearly and distinctly during radio transmissions will eliminate misunderstanding.

Use of Identification Numbers

- All Service Patrol Vehicle Operators are assigned identification numbers. The identification number assigned is the truck number. These are always used in broadcasting. The identification number allows for confidentiality and brevity.
- An identification number of 403 would be read as "four zero three" not "four hundred and three" or "four o three." An identification number of 420 would be read as "four two zero" not "four two o".

Approved Ten Signals and Dispatch Codes

- The RTMC utilizes the ten signals and dispatch codes which have been approved by the Joint Task Force for use in State Law Enforcement communications centers. Ten-signals must be used to communicate effectively over the radio. See Ten Codes and Dispatch Signals, Attachment D - <https://fldot.sharepoint.com/sites/D4-EXT-TSMO/SitePages/Attachment-D-NATO-Phonetic-Alphabet,-Signal-and-Ten-Codes.aspx>.

RTMC Radio Procedure

- If no contact is made between the RTMC and a Service Patrol Vehicle Operator within 15 minutes after being advised by radio that a Service Patrol Vehicle Operator is going to assist a stranded motorist, the RTMC shall attempt to contact the Service Patrol Vehicle Operator originating the call. The Service Patrol Vehicle Operator's welfare shall be checked every 15 minutes after initial contact until the assist is cleared.
- In the event that two attempts to contact the Service Patrol Vehicle Operator have failed, the RTMC shall immediately dispatch the nearest available Service Patrol Vehicle Operator to the last location given by the Service Patrol Vehicle Operator performing the assist and notify the RTMC Operations Supervisor, Lead Operator and/or Service Patrol Vehicle Operator Supervisor.
- If no Service Patrol Vehicle Operator is available, the RTMC shall utilize the closest available resource (FHP, Fire Rescue, local law enforcement, etc.) by telephone or other means of immediate communications as well as notification to the RTMC Operations Supervisor, Lead Operator and/or Service Patrol Vehicle Operator Supervisor.

6.07 Road Ranger Phone Calls

Communication between the RTMC and Service Patrol Vehicle Operator must be made primarily through the two-way radio system. The main reason is that phone calls can delay the response to the Service Patrol Vehicle Operator. The phone calls also prevent the RTMC from making or receiving other emergency calls. The only case where a Service Patrol Vehicle Operator should use the telephone is when their radios are not working and/or there is an emergency.

7.0 Supervision

7.01 Service Patrol Vehicle Operator Supervisor

DESCRIPTION

A roaming Service Patrol Vehicle Operator Supervisor will patrol the entire Service Patrol Vehicle Operator coverage area 24 hours per day, seven days per week in Broward, Palm Beach, Martin, St. Lucie, and Indian River counties.

DUTIES

Their duties will include the following:

1. Observing and monitoring the Service Patrol Vehicle Operators during the performance of their duties, including the immediate correction of any observed Service Patrol Vehicle Operator errors. When errors are detected by the RTMC, they shall make the Service Patrol Vehicle Operator aware of the issue, and then following Standard Operating Procedures regarding Service Patrol Vehicle Operator procedural errors, the RTMC shall notify the Service Patrol Vehicle Operator Supervisor for their response. Document any procedural errors that are reported, or that they witness.
2. Responding to all blocked lane events to lend assistance and supervision to all Service Patrol Vehicle Operators. The RTMC will notify the Service Patrol Vehicle Operator Supervisor of any lane blockage event.
3. Aiding any disabled vehicle encountered during their patrol. As with the Service Patrol Vehicle Operators, the Service Patrol Vehicle Operator Supervisor shall not stop to assist any shoulder blockage event if they are responding to a lane blockage event.
4. Availability, as a last resort, to respond to shoulder events received from FHP, CCTV, etc., only if all other resources have been exhausted, such as Service Patrol Vehicle Operators from other beats.
5. The Service Patrol Vehicle Operator Supervisor is responsible for making sure that Service Patrol Vehicle fuel replenishment is not being abused by Operators. Fuel shall NOT be purchased for any other reasons other than Service Patrol Vehicle replenishment and fuel supplies in canisters for motorist assistance. UNAUTHORIZED FUEL PURCHASES WILL BE CAUSE FOR IMMEDIATE TERMINATION FROM CONTRACT.
6. Supervisors are required to carry replenishment supplies for Service Patrol Vehicle Operator vehicles, including but not limited to, additional fuel, water, flares, cones, first aid supplies, fire extinguisher, trash bags, spill absorbent, drinking water, and comment cards.

If Service Patrol Vehicle Operator Supervisors are notified by a Service Patrol Vehicle Operator during their shift of missing equipment or malfunctioning equipment, the Service Patrol Vehicle Operator Supervisor will attempt to replenish the missing equipment or authorize the Service Patrol Vehicle to return to the garage for immediate repairs. The Service Patrol Vehicle Operator Supervisor will receive authorization from the RTMC prior to any Service Patrol Vehicle leaving a beat for such cases.

8.0 Training

ORIENTATION

All Operators shall be required to satisfactorily complete a mandatory orientation within the first two weeks after hire. The Department will provide each new hire with a mandatory orientation not to last longer than eight hours (one working day). All orientation sessions will be conducted at the Department's RTMC. The orientation will include classroom training portion covering an overview of Road Ranger procedures, an introduction to radios, and participation in the RTMC control room to learn about ITS devices and daily RTMC operations.

8.01 Mandatory Training

DESCRIPTION

Prior to any Road Ranger Service Patrol services being rendered all Service Patrol operators and supervisors shall be trained and certified in the topics described below. All training and certification shall be at the CONTRACTOR'S expense unless noted otherwise.

1. National TIM Emergency Responder Training - All Service Patrol operators and supervisors shall complete the in-person four (4) hour FHWA/SHRP2 National TIM Responder Training within two (2) weeks of hire. Training shall be provided by a certified TIM trainer, or they shall take the web-based training offered by the National Highway Institute (NHI) until an in-person class is available.
2. Basic Red Cross First Aid within two (2) weeks of hire
3. Cardiopulmonary Resuscitation (CPR)
4. FDOT District Four Road Ranger Standard Operating Procedure (SOP) familiarization. The vendor must adhere to the most current version of the SOP and all subsequent approved versions thereafter. Orientation - Within two (2) weeks of hire, RRSP operators and supervisors shall complete an orientation provided by the DEPARTMENT at the RTMC.
5. A minimum of 40 hours of "ride along" training is required with an experienced operator within the (2) weeks of hire.
6. SLERS training and certification (Joint Task Force (JTF) prescribed), shall be required for all CONTRACTOR supervisors and operators.

8.02 Subsequent Training

The DEPARTMENT reserves the right to require additional special training for Road Ranger Service Patrol operators and supervisors at any time. The CONTRACTOR shall be reimbursed for hours spent in DEPARTMENT requested special training at the operator and supervisor contracted hourly rate.

9.0 System Security

OBJECTIVE

1. Define the role and responsibility of the Service Patrol Vehicle Operator.
2. Recognize suspicious activities and objects.
3. Observe and report relevant information.
4. Minimize harm to yourself and others.

9.01 Critical Assets and Facilities

1. Roads and Bridges.
2. Tunnels.
3. Major Intersections/Interchanges.
4. Traffic Management Centers.
5. Inter-Modal Connections (transit, ferry, airports, seaports, etc.).

9.02 DOT System Vulnerability

Conditions within the transportation system make it a "soft target."

1. Easily Accessible.
2. Approach from any direction.
3. undefended, no security.
4. Inadequate lighting.
5. Abandoned vehicles.

9.03 DOT System Risks

1. Ongoing threat to our national security and transportation infrastructure.
2. Attacks may vary by type of weapon and delivery method.
3. Risk can be managed by reducing vulnerability.
4. Heightened awareness is required by the Service Patrol Vehicle Operator.

9.04 Highway Watch

Roadway sector's national safety and security program that uses the skills, experiences, and "road smarts" of America's transportation workers to help protect the nation's critical infrastructure and the transportation of goods, services, and people.

9.05 Service Patrol Vehicle Operator's Role

1. Be alert while on patrol.
2. Know the assigned area.
3. Note suspicious activities and objects.
4. Report things that don't seem to be right to the RTMC.

9.06 Signs of Suspicious Activity

1. Where someone is and what time they are there.
2. What are they doing?
3. Are they pacing or do they appear nervous?
4. Are they staring, watching, or taking notes?
5. Quickly leaving an area.
6. Measuring or pacing off distances.
7. Taking photos or readings with GPS.
8. Carrying a suspicious package.
9. Abandoning a package.
10. Stopping or parking near bridges.
11. Parking overloaded vehicle or trailers under bridges.
12. Vehicle has no markings, stickers, or logos; parked near the ITS devices or cabinets.
13. Same vehicle observed at several strategic locations.

9.07 Suspicious Object Recognition

- a. Packages
 1. Out of place.
 2. Next to bridge footings/piers.
 3. Fueling locations.
 4. In or behind trash containers, vending machines.
- b. Devices placed as above
 1. Wires.
 2. Batteries.
 3. Clocks and/or timers.
- c. Substances
 1. Chemical, biological, radiological (CBR).
 2. Liquid or vapor.
 3. Bacteria or fungus.
 4. Conventional explosive.

9.08 Actions to Take When Observing Suspicious Objects

1. Remain calm and advise the RTMC as soon as possible.
2. Limit time you are exposed.
3. Distance yourself from the source.
4. Protect yourself and others by shielding, relocation, and evacuation.
5. Avoid using radios/cell phones near suspicious devices.
6. DO NOT touch, cover, or move the object.

9.09 Actions to Take When Observing Suspicious Persons

1. Observe – Pay attention to their appearance.
2. Observe – What are they doing.
3. General Inquiry – Ask if they need help, see what their answers are.
4. Withdrawal – Friendly exit, return to truck.
5. Notification – Contact the RTMC if there's no reason for them to be where they are.

9.10 Recognition of Dangerous Activity

1. When a weapon is observed in the vehicle, this is defined as a Dangerous Activity.
2. Observe, but do not challenge the person.
3. Do not make any comments about the weapon.
4. Remain calm. Pretend you do not notice.
5. Exit the area as soon as possible. Do not rush away, letting an individual know the Service Patrol Vehicle Operator may have seen something.
6. Notify the RTMC of their appearance, type of vehicle, tag number, location, and direction of travel.

9.11 Road Ranger Safety During Perceived Threats

If you perceive a threat, report it to the RTMC:

1. DO NOT approach threatening people.
2. DO NOT approach people in suspicious vehicles.
3. DO NOT be confrontational.
4. DO NOT try to detain or hold a person by any means.

10.0 Hurricane Preparedness

The Contractor shall make resources available for all activities described herein for providing services during a hurricane evacuation or other emergency situation to assist with traffic maintenance requests, as directed by the Department.

Responsibilities shall include keeping the evacuation routes clear of debris or disabled vehicles and keeping all lanes open, including emergency lanes.

Road Ranger Service Patrol Vehicles are expected to remain in operation and Operators continue to patrol their designated patrol beats during hurricane evacuations until sustained wind speeds reach 35 mph and/or the DEPARTMENT or FHP determines it to be unsafe for vehicles to remain on the roadways. Road Ranger Service Patrol Vehicles shall resume operations when FHP redeploys.

The Contractor is responsible for contacting the RTMC prior to giving authorization for Operators to discontinue patrolling services.

During hurricane evacuations, emergency situations or during special events, the Contractor may be asked to expand the designated Contract coverage area to provide disabled vehicle assistance until such time as normal traffic operations has resumed.

10.01 Objective of Hurricane Preparedness

1. Provide information to ensure your safety.
2. Define roles and responsibilities before, during and after a hurricane.
3. Define staffing needs and expectations in the event of a hurricane.

10.02 Watches and Warning

- a. Hurricane Watch - Indicates the possibility that you could experience hurricane conditions within 36 hours.
- b. Hurricane Warning - Indicates that sustained winds of at least 74 mph are expected within 24 hours.

10.03 Actions to Take Before the Storm

1. Pay attention to weather reports and patterns.
2. Have a current copy of all emergency telephone numbers.
3. Make sure your home and family are prepared.
4. Make sure there are ample supplies for each truck and at base.
5. Service Patrol Vehicle pick-up trucks will carry extra fuel and water. Tow trucks do not have room.
6. Supervisors carry additional supplies to re-supply trucks on road.
7. Service Patrol Vehicle Operator staffing levels will be determined by the Department.
8. Service Patrol Vehicles will remain on duty, for as long as it is safe.
9. Secure area for dangerous winds - small items left outside become flying missiles in hurricanes, ending up on the highways. Remove or secure items that can become debris such as signs, roofing material, etc.
10. Prepare a Disaster Supply Kit
 - a. Pack everything in air-tight containers.
 - b. Keep supplies together in a backpack, duffel bag, etc.
 - c. Plan supplies to last 3-14 days.
 - d. Date everything so you know when to replace.
11. Prepare for Evacuations
 - a. Keep in mind that if there is an evacuation order, traffic conditions could change drastically, making our jobs busy.
 - b. Be prepared to assist with Emergency Shoulder Use (ESU) by making sure shoulders are safe to drive on with all vehicles and debris removed.
 - c. Evacuation does not just include communities near the east coast but includes mobile home parks in all locations.
 - d. No emergency or assistance resources are to remain on the roads once sustained tropical storm force winds arrive.
12. Full shifts will work until winds exceed 35 mph.
13. Service Patrol Vehicles will then come off the road to a designated stand-by location.
14. Normal operations will resume once FHP re-deploys, when winds drop below 35 mph.

10.04 After the Storm

1. Report damage to roadway, bridges, light poles, guide signs, etc., to RTMC.
2. Remove road debris when safe to do so. Pull debris to the paved shoulder, or onto the grass shoulder if possible.
3. Be aware of downed power lines. DO NOT drive through or walk through flooded areas. Electricity can travel through water AND through the ground.
4. Watch for debris containing sharp objects.
5. Flooding may be an issue. Report locations.

11.0 Media Relations

It is possible during the course of your shift that an incident may occur that will cause media reporters to be on scene. The Department would like to conduct interviews in the most professional manner, which reflects favorably on the Department and its Contractors. On-scene circumstances can result in Service Patrol Vehicle Operators experiencing stress, sorrow, anger, or other emotions. The following guidelines are established to insure proper reporting to media sources.

1. Service Patrol Vehicle Operators are not authorized to make media statements or grant interviews, at any time, without the express permission of the Department. Media sources are defined as television, radio, newspaper, or magazine reporters.
2. Any request for an interview will be forwarded immediately through the Service Patrol Contractor, to the Department.
3. The Department and the Service Patrol Contractor will confer on the nature of the incident and the Service Patrol Vehicle Operator's involvement before deciding to grant an interview.
4. The Department and the Service Patrol Contractor may arrange an interview at the Regional Transportation Management Center, in a controlled atmosphere, where the Department can "showcase" the positive aspects of the Department, the Service Patrol Contractor, and the RTMC.

11.01 Ride Alongs

The Department may request Service Patrol Operators to conduct a "ride-along" with new RTMC staff or members of the media to facilitate the training of RTMC Control Room Staff or in response to a media request.

Requests for a ride-along shall be coordinated with the Service Patrol Contract Manager (or designee) together with the FDOT Project Manager to take place such as not to negatively impact service to the project area.

Table of Attachments

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[Attachment B Customer Comment Card](#)

[Attachment C Road Ranger Inspection Report](#)

[Attachment D NATO Phonetic Alphabet, Signal and Ten Codes](#)

[Attachment E Emergency Stopping Sites](#)

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[Attachment G State of Florida Department of Transportation And Florida Highway Patrol Open Roads Policy](#)

[Attachment H Sample Maintenance of Traffic \(MOT\) Diagrams](#)

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[Attachment J Guidelines and Practices for Safety Service Patrol during COVID-19](#)



7.01 Scope of Services & Policies

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Document & Version History

Version #	Date	Author	Changes
1.0	12/13/2023	Yana Neishlos	Initial Draft
1.1	3/14/2024	Yana Neishlos	Combined 7.00 with 7.01 as one inclusive document under 7.01

IT DEPARTMENT OVERVIEW

These Standard Operating Procedures (SOPs) in Section 7 are followed by the Information Technology (IT) group at the Florida Department of Transportation (FDOT) District 4 building at 2300 W. Commercial Blvd, Fort Lauderdale, FL 33309. The SOP includes policies, processes, standards, plans, and procedures for managing IT resources, devices, software, and employee use of equipment.

The IT department, headquartered at the TSM&O RTMC, has a broad range of responsibilities for the District Four ITS program.

The IT department for District Four is responsible for all systems within the TSM&O RTMC building. Systems at the Vista Center have also been included in that description along with TIMSO within the Treasure Coast.

There are several annex FDOT buildings where equipment is located, ranging from Fort Lauderdale, as well as parts of Palm Beach.

The IT department is not officially responsible for anything physically located outside of these buildings. However, a partnership and a coordinated hand-off of responsibilities is required by the ITS program outside of these two buildings.

SCOPE OF SERVICES

There are many Cisco core switches physically located outside of the building at hub sites throughout District Four.

Responsibilities

To be closely defined, these would be the maintenance contractors' responsibility, as the current maintenance contractor for District Four. However, the IT department is fully responsible for all configuration of the Cisco core switches. The IT department also assists in troubleshooting of field-related problems. Into this mix of responsibilities also comes the software contractors, responsible for the SunGuide deployments within District Four.

Oftentimes the source of an apparent SunGuide problem can turn out to be SunGuide itself, the servers that SunGuide runs on, the network (either internal or external to the building), and finally the field devices. Due to the challenges to track down the root cause of such problems, the IT group assists with troubleshooting of problems of this type.

In addition, the IT department is involved in the planning and implementation of major ITS deployments. ITS deployments are largely field based in nature, with minimal systems installed in house. However, the network design (including the field network) must be in place in conjunction with the IT department. Hand-off and testing at the completion of major ITS deployments is the final step of that process, often involving many hours of work from the IT department.

Security IT Resources

Network Security falls under the IT department's responsibilities.

Due to the multitude of doorways leading to our network, one department must take responsibility for all. Security has a direct impact on all the IT department functions.

However, it includes things like:

- Establishing end-user policies for e-mail and Internet usage,
- Requirements for communicating to other districts and outside agencies,
- Policies on configuration of PCs,
- Laptops and Servers,
- Restrictions on network usage,
- Password requirements,
- Network designs.

In addition, included are things like recommending that door sensors be placed on file cabinets.

It is these policies and processes that keep the network operational and secure. Many of these processes are described in this IT SOP.

INTRODUCTION – POLICIES

You will find here the included policies for Florida Department of Transportation Policy that outline the network setup, access, remote access, and applications on the ITS system.

- Policies outlined:
- Section 7.01.01: Security and Use of IT Resources
 - Section 7.01.02: FDOT Topic No. 325-060-020 Security and Use of Information Technology Resources
 - Section 7.01.03: ITS TMC IT SOP
 - Section 7.01.04: FDOT Topic No. 325-000-002, Chapter 2, Access to the Department's Information Technology Resources
 - Section 7.01.05: FDOT Topic No. 325-000-002, Chapter 11, Electronic Device and Media Sanitization

- Features covered:
- Passwords
 - Using personal devices on the network.
 - Using the network only for RTMC-related activity, not personal Internet use.
 - Approved applications.
 - Change management checklists.

It is the responsibility of the IT Support Manager to guarantee that TSM&O RTMC policies meet or exceed those set out in this document.

SECURITY AND USE OF INFORMATION TECHNOLOGY RESOURCES

This policy outlines regulations regarding the security and use of Information Technology (IT) resources, including e-mail and internet by TSM&O RTMC personnel. Information technology resources include computer hardware and devices, software, networks, connections, applications and data.

Florida Department of Transportation policy, [Topic No. 325-060-020 Security and Use of Information Technology Resources](#) (SOP Section 7.01.02), with E-mail, Internet, and Anti-Virus Software is included with this policy. SMART SunGuide RTMC personnel are required to be familiar with this policy.

The RTMC IT Support Manager, the primary point of contact, replaces all references to the Chief Information Officer (CIO), Information Security Manager (ISM), and Office of Information Technology (OIT) in this policy.

The internet is a worldwide network of computers with vast amounts of information. Users are cautioned when reading articles with offensive, sexually explicit, and inappropriate material. In general, it is unavoidable. Even innocuous search requests may lead to sites with highly offensive content. Moreso, your e-mail address may lead to unsolicited e-mail with offensive content. We use the internet at our own their own risk. Florida Department of Transportation District Four TSM&O Regional Transportation Management Center, hereafter referred to as the RTMC, is not responsible for material viewed or downloaded from the internet.

Access and Disclosure

The RTMC reserves the right to access, review, download, print, copy, delete, modify, or disclose the contents of a user's electronic communications at its sole discretion.

Internet Use and Company Computer Network

The computer network is the property of the RTMC; to be used for business purposes.

Users are provided with network access when doing their jobs. Also, certain employees ("Users") may be provided with internet access through the computer network. Users have a responsibility to use the RTMC's computer resources and the internet in a professional, lawful, and ethical manner. Abuse of the computer network or the internet, may result in disciplinary action, including possible termination, and civil and/or criminal liability.

Computer Network Use Limitations

Factors	Details
Prohibited Activities	<p>Without prior written permission from the RTMC, the computer network may not be used to disseminate, view, or store commercial or personal advertisements, solicitations, promotions, destructive code (e.g., viruses, Trojan horse programs, etc.) or any other unauthorized materials. Occasional personal use of the computer is permitted if such use does not a) interfere with the users or any other employee's job performance; b) have an undue effect on the computer or the RTMC network's performance; c) or violate any other policies, provisions, guidelines, or standards of this agreement or any other of the RTMC. Further, always, users are responsible for the professional, ethical, and lawful use of the computer system. Personal use of the computer is a privilege that may be revoked at any time.</p>
Illegal Copying	<p>Users may not copy material protected under copyright law or allow that material to be copied. You are responsible for complying with copyright law and applicable licenses that apply to software, files, graphics, documents, messages, and other material for download or use. You may not agree to a license or download any material for which a registration fee is charged without first obtaining the express written permission of the RTMC.</p>
Communication Of Trade Secrets	<p>Unless authorized, Users are prohibited from sending, transmitting, or otherwise distributing proprietary information, data, trade secrets or other confidential information belonging to the RTMC. Unauthorized dissemination of such material may result in severe disciplinary action and substantial civil and criminal penalties under state and federal Economic Espionage laws.</p>
Accessing Internet	<p>To ensure security and avoid the spread of viruses, users accessing the internet through a computer attached to the RTMC's network must do so through an approved internet firewall or other security device. Bypassing the RTMC's computer network security by accessing the internet directly by modem or other means is strictly prohibited unless the computer you are using is not connected to the RTMC's network.</p>
Frivolous Use	<p>Computer resources are not unlimited. Network bandwidth and storage capacity have finite limits. Network Users have a responsibility to conserve these resources. As such, the User must not deliberately perform acts that waste computer resources or unfairly monopolize resources to the exclusion of others. These acts include, but are not limited to, sending mass mailings or chain letters, spending excessive amounts of time on the internet, playing games, engaging in online chat groups; uploading, or downloading large files, accessing streaming audio and/or video files, or otherwise creating unnecessary loads on network traffic associated with non-business-related uses of the internet.</p>

Factors	Details
Virus Detection	Files obtained from sources outside the RTMC, including disks brought from home, files downloaded from the internet, newsgroups, bulletin boards, or other online services; files attached to e-mail, and files provided by customers or vendors, may contain dangerous computer viruses that may damage the RTMC's computer network. Users should never download files from the internet, accept e-mail attachments from outsiders, or use disks from non RTMC sources, without first scanning the material with the RTMC-approved virus checking software. If you suspect that a virus has been introduced into the RTMC's network, notify the IT department immediately.

Privacy

Factors	Details
No Expectation of Privacy	Employees are provided with computers and internet access to do their jobs. There will be no privacy in any data employees manage, send, or receive using the RTMC's computer equipment. The computer network is the property of the RTMC and may be used only for company purposes.
Waiver Of Privacy Rights	An employee waives a right of privacy in any data managed, sent, or received using the company's software equipment. User consents to allow RTMC personnel access and review all materials managed, sent, or received by User through any RTMC network or internet connection.
Monitoring Of Computer and Internet Usage	The RTMC has the right to monitor and log all aspects of its computer system including, but not limited to internet visited, chat and newsgroups, file downloads, and all communications sent and received by users.
Blocking Sites with Inappropriate Content	The RTMC has the right to utilize software to identify and block access to internet sites containing sexually explicit or other material deemed inappropriate in the workplace.
Password Security	Individual access rights to the RTMC's communications systems and employees' passwords must be associated with an account issued in the name of an authorized user. The protection of an individual's password is a prime responsibility of a password owner. If something is authored from a password-protected system, it is presumed that an owner of the password is the author.
Inappropriate Use	Prohibited uses of the RTMC's communications systems include the following:

Factors	Details
	<ul style="list-style-type: none"> • Accessing, viewing, transmitting, or storing obscene or other inappropriate material such as pornography or email chain letters. • Engaging in unlawful or unethical communication including communication that is defamatory, obscene, harassing, or gambling. • Use of passwords to gain access to another user's information without proper authorization. • Knowingly introducing a computer virus or worm. • Developing or using programs which attempt to bypass system security mechanisms or to obtain unauthorized access to system resources or to interfere or disrupt system users or resources. • Excessive personal use of the RTMC communications systems. • Downloading files, listening to music, watching TV, and playing games. • Unauthorized screen savers or wallpapers.

Abuse is possible.

Hence, a good judgment and a commonsense approach must be used. It is inappropriate to use any resource which will interfere with the timely performance of normal work duties, cast disrespect or adverse reflection upon the RTMC or FDOT, reduce public confidence, support a personal business or outside employment, support political or religious activities, or detract from the RTMCs routine functions.

FDOT Topic No. 325-060-020 - Document Update

Section 7.01.01 References the FDOT Policy for Security and Use of Information Technology Resources.

This document is updated on a regular basis and can be found at the following link: [FDOT Topic No. 325-060-020, Security and Use of Information Technology Resources](#).

TMC INFORMATION TECHNOLOGY POLICIES

Introduction

The Florida Department of Transportation's (FDOT) traffic management centers (TMC) operate Florida's state roadways. Each TMC is equipped with mission critical assets that must be protected from unauthorized and inappropriate access, usage, and theft. The TMC's standard operating procedures (SOPs) are responsible for implementing ways to protect these assets. Several relevant policies and statutes are critical for explicit inclusion into the TMC SOPs statewide. They are listed in the following subsections along with implementation guidance for the TMC to comply with the relevant policies and statutes.

This policy guidance applies to: Intelligent Transportation System (ITS) facilities and ITS information technology resources. A TMC is a building housing at least one FDOT owned workstation permanently connected to the ITS Network for purposes of operating the Freeway Management System.

ITS Information Technology Resources are computer hardware, software, networks, devices, connections, applications, and data owned, operated, leased, or managed by the ITS operations.

Control Policy Statement	Implementation Controls Requirement
--------------------------	-------------------------------------

Physical Access Control

Rule Chapter 60GG-2, Information Technology Security, Florida Administrative Code (F.A.C.), requires that: information technology resources be protected by physical controls; agencies implement procedures to manage physical access to information technology facilities; and physical access to central information resource facilities be restricted to authorized personnel.

Also, [Topic No. 325-060-020, Security and Use of Information Technology Resources](#), requires that: information be created and maintained in a secure environment and safeguards be established to ensure the integrity and accuracy of Department information that supports critical functions of the department.

The TMC shall implement building and other access controls to protect the TMC and other assets.

Internet Monitoring

In accordance with Topic No. 325-060-020, Security and Use of Information Technology Resources, employees are prohibited from using IT resources for accessing, sending, storing, creating, or displaying inappropriate materials including, but not limited to gambling, illegal activity, sexually explicit materials, or materials

TMC shall implement controls for Internet access. Controls shall restrict access to inappropriate materials as defined above. A commercial web-filtering product

Control Policy Statement	Implementation Controls Requirement
that include profane, obscene, or inappropriate language, or discriminatory, racial, or ethnic content.	configured to deny access to these sites shall be in place as one of these controls.

Public Records Law

Chapter 119, Florida Statutes (F.S.) defines a public record as "all documents, papers, letters, maps, books, tapes, photographs, films, sound recordings, data processing software, or other material, regardless of the physical form, characteristics, or means of transmission, made or received pursuant to law or ordinance or in connection with the transaction of official business by any agency.

In addition, all state, county, and municipal records are open for personal inspection and copying by any person.

Providing access to public records is a duty of each agency." Topic No. 325-060-020, Security and Use of Information Technology Resources prohibits the use of non-departmental email systems (i.e., Gmail, AOL, Yahoo-mail) through the Department's network.

Password Complexity

Rule Chapter 60GG-2, F.A.C., defines a complex password as having at least 8 characters and being comprised of at least 3 of the following categories: uppercase English letters, lowercase English letters, numbers 0-9, and non-alphanumeric characters.

The rule also states that user accounts will be authenticated, at a minimum, by a complex password.

TMC shall implement controls requiring complex passwords to comply with the requirements in Rule Chapter 60GG-2 F.A.C at a minimum.

Disaster Recovery Plans

Rule Chapter 60GG-2, F.A.C., states that "each agency shall document disaster recovery plans that address protection of critical IT resources and provide for the continuation of critical agency functions in the event of disaster."

TMC shall have a Disaster Recovery Plan in place that defines the continual traffic operation if the primary TMC facility is no longer able to operate traffic.

Adherence To District IT Resource Usage Policy

Rule Chapter 60GG-2, F.A.C., states that "each agency is responsible for establishing an information security program that

[Topic No. 325-060-020, Security and Use of Information](#)

Control Policy Statement	Implementation Controls Requirement
<p>includes security policies, procedures, standards, and guidelines." The information security program ensures administrative, operational, and technical controls sufficiency to reduce to an acceptable level risks to the confidentiality, availability, and integrity of agency information and information technology resources. Topic No. 325-060-020, Security and Use of Information Technology Resources "applies to all Department information technology resources that access, process, or have custody of data.</p> <p>This includes all owned, leased, and contracted services involving mainframe, distributed processing, and networking environments. Department information technology resources are intended to be used for department business." Everyone with authorized access to the Department's IT resources must follow the policy, information security standards and procedures.</p>	<p>Technology Resources fulfills Rule Chapter 60GG-2, F.A.C.</p> <p>TMC staff shall be furnished with this policy and will sign and date a statement indicating they have read and will follow this policy. Completion of annual computer training addressing these computer security issues also meets the intent.</p>

FDOT Topic No. 325-000-002, Chapter 2 - Access to the Department's Information Technology Resources (Document Update)

Section 7.01.01 references the FDOT Policy for Accessing the Department's Information Technology Resources. This document is updated on a regular basis and can be found at the following link: [FDOT Topic No. 325-000-002, Chapter 2, Access to the Department's Information Technology Resources](#).

7.01.05 FDOT Topic No. 325-000-002, Chapter 11, Electronic Device and Media

Section 7.01.01 references the FDOT Policy for Accessing the Department's Information Technology Resources. This document is updated on a regular basis and can be found at the following link: [FDOT Topic No. 325-000-002, Chapter 11, Access to the Department's Information Technology Resources](#).



7.02 TSM&O NETWORK OVERVIEW

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Document Version History

Version #	Date	Author	Changes
1.0	12/14/2023	Yana Neishlos	Initial Draft

TSM&O NETWORK OVERVIEW

There are currently two networks used in the RTMC.

One network is directly connected to the FDOT headquarters and is for the use of FDOT employees.

The other network carries the Office and SunGuide traffic. The office portions of the network permit e-Mail and Internet access, while the SunGuide portions of the network do not.

Office and SunGuide networks are separated from each other through their IP addressing schemes, by residing in separate Active Directory domains and using separate VLANs.

FDOT

Overview

PCs in use by FDOT employees in the RTMC connect directly to the FDOT District Four headquarters network at 3400 W. Commercial. The RTMC IT group does not support or manage these computers in any way. FDOT employees who use these computers to connect to the FDOT network must put in their own help desk tickets for any support to the FDOT.

The RTMC does have devices within 3400 W. Commercial that are supported directly by the RTMC personnel, however, these devices are located on a dedicated network connecting back to the RTMC controlled and managed by the IT Department.

Consultant Offices

The office portion of the network includes all VLANs used for internal corporate business applications. The distinguishing feature of this portion of the network is that its users may access e-Mail and the Internet. Computers on this network are almost universally on the Smartsunguide.com domain.

SUNGUIDE

The SunGuide portion of the network includes all VLANs used to support the SunGuide application. It is intended to be separated from the office network. However, for practicality there remain a very few controlled access points to the Office network. The distinguishing feature of this portion of the network is that its users may NOT access e-Mail and the Internet. Computers on this network are almost universally on the Field.net domain.

The SunGuide network also carries a great deal of video and other data traffic from the multitude of cameras, traffic detectors, electronic traffic notification display signs, image detection, and more sources installed in the ITS service area.

IP Address Numbering Plan for IT

The IP address numbering plan is in a document stored in the N: drive.

N:\System Documents\IP Addresses.

VLANs

All IP Address information is controlled through a secure IP Address database within the RTMC Monitoring system.

This system is located at: <https://solarwinds.smartsunguide.com>.

VIDEO

Currently, District Four has standardized on the use of MPEG2 multicast video, using VBrick encoders and decoders with a small exception of MPEG4 multicast video from Impath Encoders and IP cameras utilizing H.264.

The ITS also displays video from other networks, such as MPEG4 and Impath currently used by District Six.

District Four shares video with several other locations:

- District Six
- District Four main office at 3400 Commercial Blvd
- Broward County Sheriff's Office
- Trafficland
- 595 Express
- Florida's Turnpike

COMPUTER NAMING STANDARDS

Due to the sensitivity of the information in this document, it is only accessible by IT personnel at the following link: [DOCX File viewer | Microsoft Teams.](#)

Place sensitive documents such as “Computer Naming Standards” in  [IT Documents](#) folder.



7.03 NETWORK ACCESS

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Version #	Date	Author	Changes
1.0	12/14/2023	Yana Neishlos	Initial Draft

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NETWORK AND ACCOUNT ACCESS – EMPLOYEE STATUS

For the creation of a new user ID, the proper request form must be electronically signed and approved by the employee's manager a FDOT representative, and the RTMC IT Support Manager.

There are types of users who are given access to the RTMC network:

- Permanent employees.
- Internal contractors.
- External contractors.

Users requiring wireless access can connect to the FDOT On Ramp wireless network.

Permanent Employees

A permanent employee is a full-time employee who works at the RTMC usually every day of the week. These users are permitted access to the RTMC network in accordance to their respective scopes of work. For a new employee, use the following:

- New User Ticket Request, located at: https://support.smartsunguide.com/catalog_items/952373-new-hire-request.

The ITS Program Manager must OK this user access to the VPN, with a signed form to permit the user access to the VPN. New employees are also provided a 20-30-minute personal orientation to get familiar with the security implications of their access to the computers and network and. Also, they will get chance to answer questions about their responsibilities in this matter.

Internal Contractors

Internal contractors work onsite at the RTMC for the most work week. They are granted access to the RTMC network in accordance with their respective scopes of work.

For a new internal contractor, use the following:

- New User Ticket Request, at: https://support.smartsunguide.com/catalog_items/952373-new-hire-request.

The TSM&O Resource Manager must approve this user access to the VPN, with a signed form to permit the user access to the VPN. New internal contractors go for a 20 – 30-minute personal orientation to get familiar with the security implications of their access to the computers and network and, to allow them to answer questions and clarify their responsibilities in this matter.

These rules apply when a permanent employee (internal contractor) is granted network access:

1. Network ID and password are set to expire every 45 days.
2. When an ID is set to expire or the employee is no longer working for the DOT, the Office Manager must notify the IT group without delay.

External Contractors

An external contractor works at the RTMC only as needed for the scope of their tasks. These rules apply when an external contractor is given access to the network:

1. Network ID is set to expire every 30 days, for Active Directory.
2. For access approval to the VPN, a contractor must contact TSM&O IT Group to be granted access. The TSM&O Resource Manager must OK user access to the VPN.

Access Control

- FDOT TSM&O Resource Manager shall be responsible for authorizing access to information.
- IT Department shall review access rights periodically based on risk, access account change activity, and error rate.
- Workers shall be authorized access to agency information technology resources based on the principles of "least privilege" and "need to know."
- IT Department will assure access to information media is limited to authorized workers.
- Access authorization shall be promptly removed when the user's employment is terminated or access to the information resource is no longer required.
- Wireless access to an internal network shall require user-authentication.
- Only IT Support Manager approved wireless devices, services, and technologies may be connected to the internal network.
- Procedures for granting remote access shall be documented.
- Users may remotely connect computing devices to the internal network only through approved, secured remote access methods.
- Remote access client connections shall not be shared; used only by an authorized user.
- Only authorized information technology resources may connect to the internal network.
- Only IT Department approved managed mobile storage devices are authorized to store data.
- No privately-owned devices (e.g., MP3 players, thumb drives, printers) shall be connected to information technology resources without documented authorization from the IT Support Manager.
- Mobile computing devices shall be issued to and used only by authorized users.
- Mobile computing devices shall require user authentication.
- Workstations and mobile computing devices shall have enabled a screensaver secured with a complex password and with the automatic activation feature set at no more than 15 minutes.

The IT Department shall monitor for unauthorized information technology resources connected to the internal network.

Identification and Authentication

- ITS Unit computer users shall have unique user accounts.
- Where technology permits, user accounts shall be authenticated at a minimum by a complex password.
- The IT Support Manager shall ensure accounts with administrative rights are created, maintained, monitored, and removed in a manner that protects information technology resources.
- The ITS Unit shall not use vendor-supplied default passwords.
- Administrative account activities shall be traceable to an individual.

Upon leaving the Department or RTMC as a contractor a maximum of 30 days an account will be kept online, including email account access as well as profile and personal usage. All files required for continual operations must be taken over by the immediate supervisor of the said personnel leaving before 30 days is up.

NETWORK USER ACCOUNTS & PASSWORDS

Network user accounts are maintained in Active Directory within each of the domains (smartsunguide.com and field.net).

Periodic Review of Accounts

Every six months, IT group prints a list of active accounts. This list is reviewed by the RTMC Office Manager and the RTMC ITS Program Manager to verify active users for the following accounts:

- Active directory / iVEDS / SunGuide
- E-mail addresses / Telephone directory/voice mail / VPN access

Computer Passwords

Computer passwords at the RTMC are governed by the following rules. Passwords are needed for system security and are used to track user activity. Users are responsible for their passwords.

Minimum Complex Password Requirements

For all accounts within District Four TSM&O Unit these minimum complex password requirements are:

1. Must be a minimum of 14 characters in length.
2. Must be different from the last 24 passwords used.
3. Must contain at least one character from three of the following four categories:
 - a. Uppercase English characters (A-Z).
 - b. Lowercase English characters (a-z).
 - c. Numbers (0-9).
 - d. Non-alphanumeric special characters (~!@#\$%^&* _ - + = ` | \ () { } [] : ; " ' < > , . ? /).
4. Must not contain the User Account (User ID) or parts of the User's Full Name (First & Last Name) that exceed two consecutive characters.
5. Must be changed every 60 days.

Password Management Database

System Passwords are stored on a Password Management Database. The Password Management Database is configured in a high available active/passive configuration. All passwords are stored in real time on the primary database with a 1-minute delay for replication purposes to a disaster site in Fort Pierce. The database has 2-factor authentication, and full audit trail history of who, what, and when was a password resource active. The password manager has Federal Information Processing Standard (FIPS) 140-2 compliance capability. All passwords are encrypted with 256Bit Advanced Encryption Standard (AES) encryption both at the application and database level.

The password manager can verify that passwords within its database are in fact meeting the complexity requirements.

All workstations and laptops have been configured to automatically and lock after 15 minutes of non-use. Users are required to re-enter a username and password combination to unlock.

Users requiring wireless access can connect to the FDOT ONRAMP wireless network.

OKTA SELF-SERVICE FOR NEW USERS

Overview

This SOP Section outlines the steps for new users to register their Okta Self-Service account. The procedures provided below are → setting up the multifactor authentication (MFA) factors, entering a secondary email, choosing a forgot password question, and choosing a security image. The Okta Verify application on the user's mobile device is required for setting up the Okta Verify, SMS Authentication, and Voice Call Authentication MFA factors.

Steps / Screenshots

Sign into Okta

- 1.a Click the following link to access the Okta website: <https://smartsunguide.okta.com>.

Note.

The UserPrincipalName (UPN) format (i.e., username@domain.com) is required, when entering your username in the username field to sign into Okta.

- 1.b Using the UPN format,
- Enter your SMART SunGuide credentials.
 - Click **Sign in**.



Figure 1. Okta Sign-in Page

Steps / Screenshots

Set Up Okta Verify.

2.a On the **Set up multifactor authentication** screen,

- Click **Configure factor**.

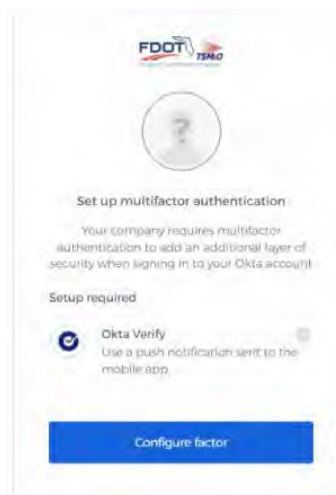


Figure 2. Okta Verify Setup Screen

2.b Download the Okta Verify app onto your mobile device:

- **iPhone** - Download **Okta Verify** from the App Store.
- **Android** - Download **Okta Verify** from the Google Play Store.

2.c Once the **Okta Verify** app has been downloaded on your mobile device,

- Select **iPhone** or **Android** for your mobile device type.
- Click **Next**.

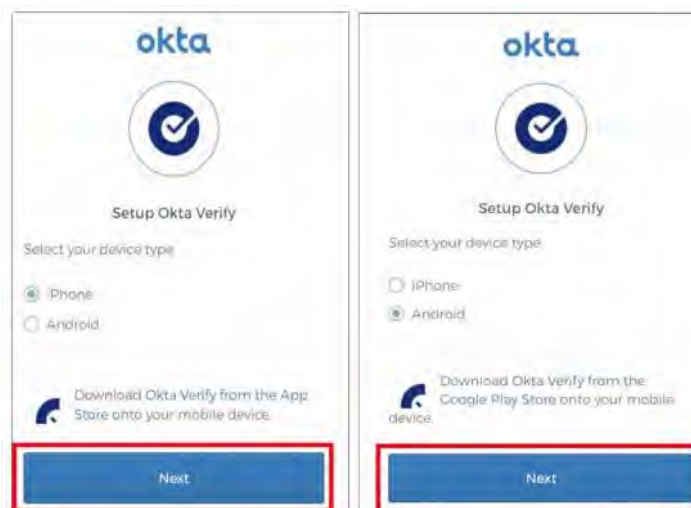


Figure 3. Okta Verify Setup - Mobile Device Type

2.d Open the Okta Verify app on your mobile device:

- Click **Add Account**.
- Select **Organization for account type**.

Steps / Screenshots

- Click **Scan a QR Code**.

- 2.e With your mobile device, scan the QR code on the **Setup Okta Verify** screen.



Figure 4. Scan the QR Code

- 2.f At the **Account Added** screen on your mobile device, → Click **done**.

Set Up SMS Authentication.

- 3.a Under Extra Verification,
- Click **Set up** next to SMS Authentication.

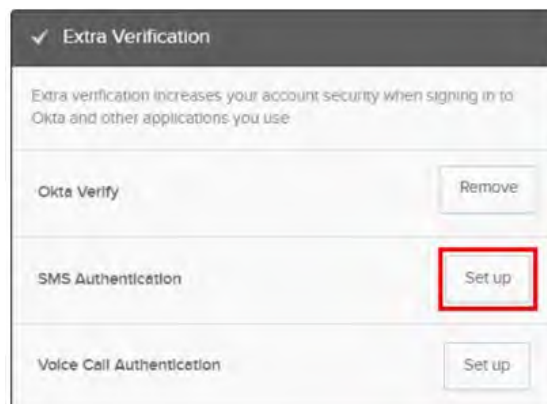


Figure 5. Set Up SMS Authentication

Steps / Screenshots

- 3.b On the Set up multifactor authentication screen,
- Click **Setup**.



Figure 6. SMS Authentication Set Up Screen

- 3.c On the Receive a code via SMS to authenticate screen,
- Enter your phone number.
 - Click **Send code**.



Figure 7. Receive a Code via SMS to Authenticate Screen

- 3.d
- Enter the **code** from the text message that was sent to your mobile device.
 - Click **Verify**.

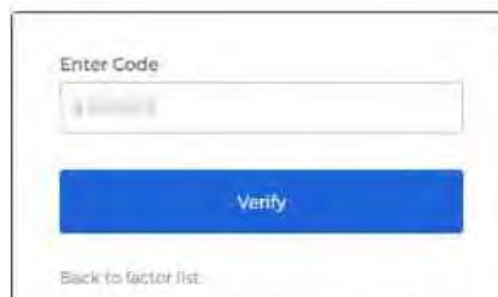


Figure 8. SMS Authentication Code

Steps / Screenshots**Set Up Voice Call Authentication.**

- 4.a Under Extra Verification,
- Click **Set up** next to *Voice Call Authentication*.

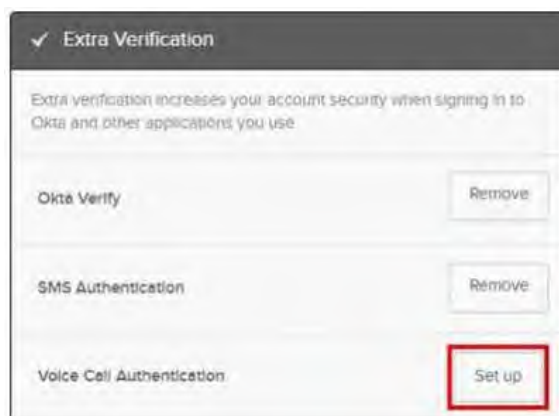


Figure 9. Set Up Voice Call Authentication

- 4.b On the Set up multifactor authentication screen,
- Click **Setup**.



Figure 10. Voice Call Authentication Set Up Screen

#	Steps / Screenshots
---	---------------------

- 4.c
- Enter your phone number.
 - Click **Call**.

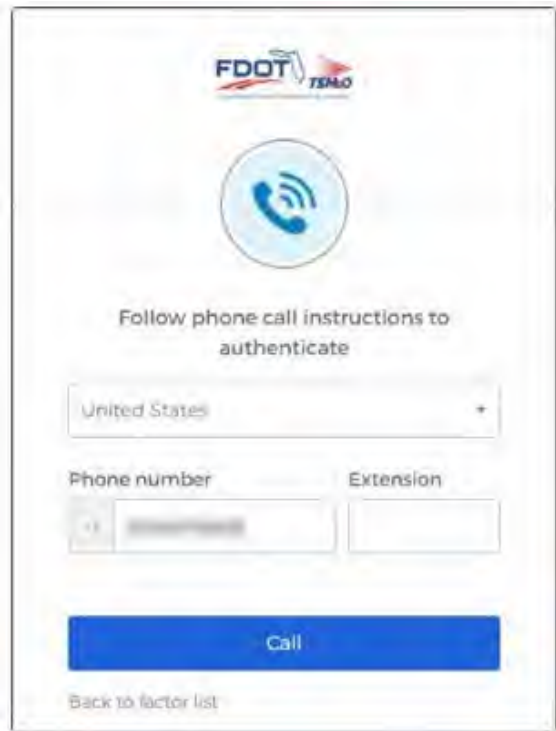


Figure 11. Follow Phone Call Instructions to Authenticate

- 4.d
- Answer the call from the Okta phone verification system,
- Enter the code provided.
 - Click **Verify**.

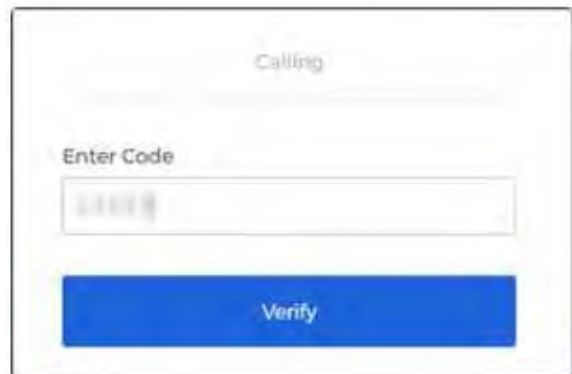


Figure 12. Voice Call Authentication Code

Enter a secondary email

- 5.a
- Enter a secondary **email**.
 - Select a **forgot password question**.
 - Select a **security image**.

5.b Choose a **forgot password question**.

5.c Enter the **answer** to the forgot password question.

5.d Choose a **security image**.

5.e Click **Create My Account** to complete the additional security options.

The screenshot shows a registration form with the following elements:

- Step 1:** A text input field for "Secondary email" with a red box around it. Below it is a checkbox labeled "I don't have a secondary email".
- Step 2:** A dropdown menu for "Choose a forgot password question" with a red box around it. The selected question is "What is the food you least liked as a child?".
- Step 3:** A text input field for "Answer" with a red box around it.
- Step 4:** A grid of 12 security images with a red box around it. The images include the Golden Gate Bridge, a sunflower, a green field, a bridge at night, a stone archway, a person in a field, a green abstract image, a blue abstract image, a building, a sunset, a road, and a dark abstract image.
- Step 5:** A "Create My Account" button with a red box around it.

Figure 13. Secondary Email, Forgot Password Question, and Security Image

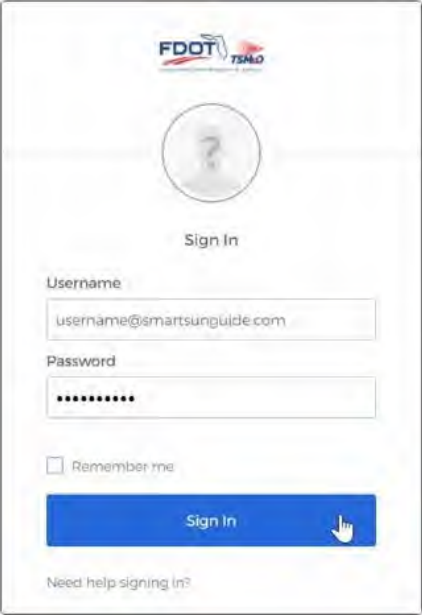

OKTA SELF-SERVICE FOR EXISTING USERS

This SOP Section includes the procedures for existing users to edit their Okta Self-Service account:

- Setting up the multifactor authentication (MFA) factors,
- Entering a secondary email,
- Selecting a forgotten password question, and,
- Selecting a security image.

The Okta Verify application on the user's mobile device is required to set up the Okta Verify, SMS Authentication, and Voice Call Authentication MFA factors.

Sign Into Okta - Account Settings

#	Steps / Screenshots
1.	<p>Note. The UserPrincipalName (UPN) format (i.e., username@domain.com) is required when entering your username in the username field to sign into Okta.</p>
2.	<p>Using the UPN format, enter your SMART SunGuide credentials.</p> <ul style="list-style-type: none"> – Click Sign in.
	
	<p><i>Figure 14. Okta Sign In Page</i></p>
3.	<p>Once signed in,</p> <ul style="list-style-type: none"> – Click the down arrow next to your account name. – Click Settings.
	
	<p><i>Figure 15. Okta Account Settings</i></p>

Steps / Screenshots

- Click **Edit Profile** button in the upper right corner of the screen.

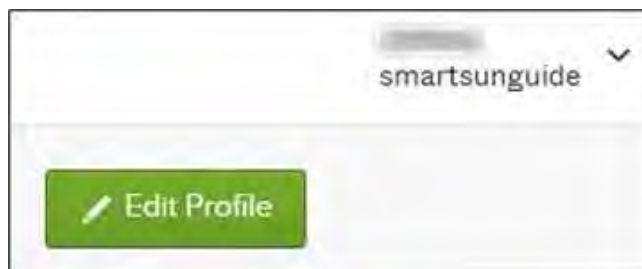


Figure 16. Edit Profile

- If prompted,
 - Enter your password.
 - Click **Verify**. Otherwise → Proceed to the next section.

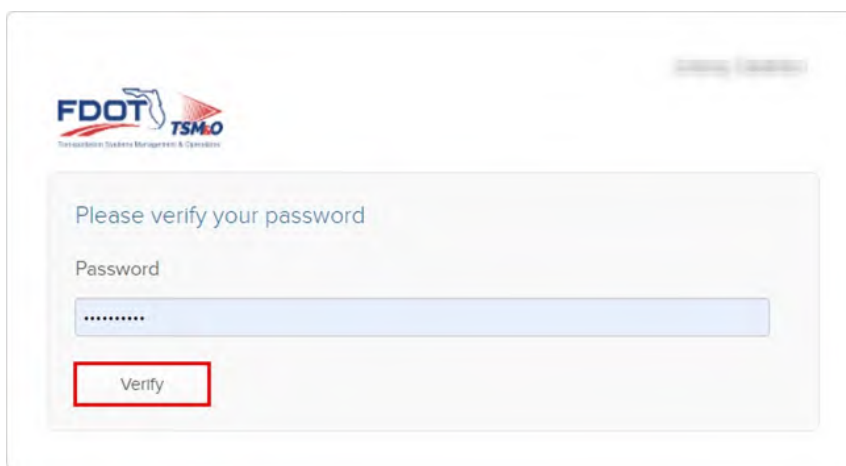


Figure 17. Verify Your Password

Set Up Okta Verify

Steps / Screenshots

- Under **Extra Verification**,
 - Click **Set up** next to **Okta Verify**.

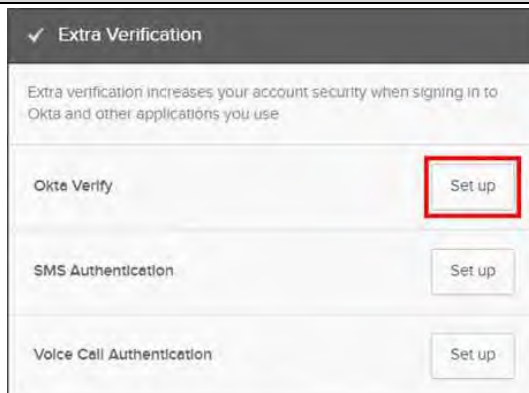


Figure 18. Set Up Okta Verify

Steps / Screenshots

2. If prompted,
 - Enter your password.
 - Click **Verify**. Otherwise → Proceed to step 3.

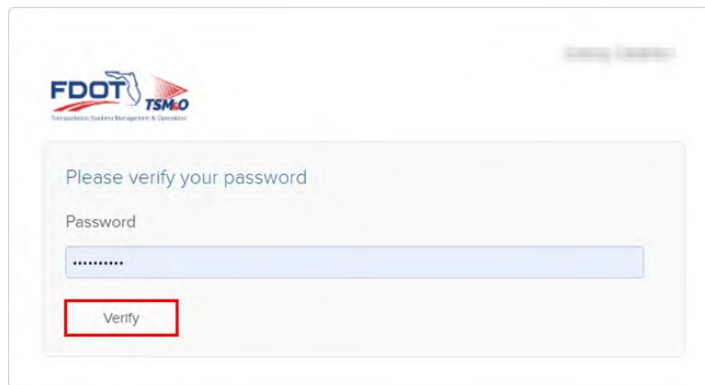


Figure 19. Verify Your Password

3. On the **Set up multifactor authentication** screen,
 - Click **Configure factor**.

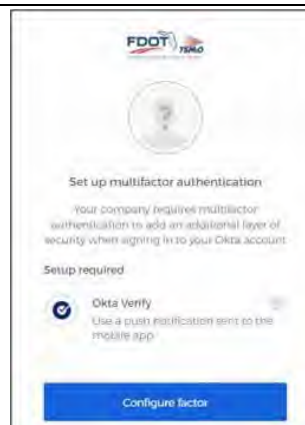


Figure 20. Okta Verify Set Up Screen

4. Download the **Okta Verify app** onto your mobile device:
 - a. **iPhone** – Download Okta Verify from the App Store.
 - b. **Android** – Download Okta Verify from the Google Play Store.
 5. Once the **Okta Verify** app has been downloaded on your mobile device,
 - Select iPhone or Android for your mobile device type,
 - Click **Next**.
-

Steps / Screenshots

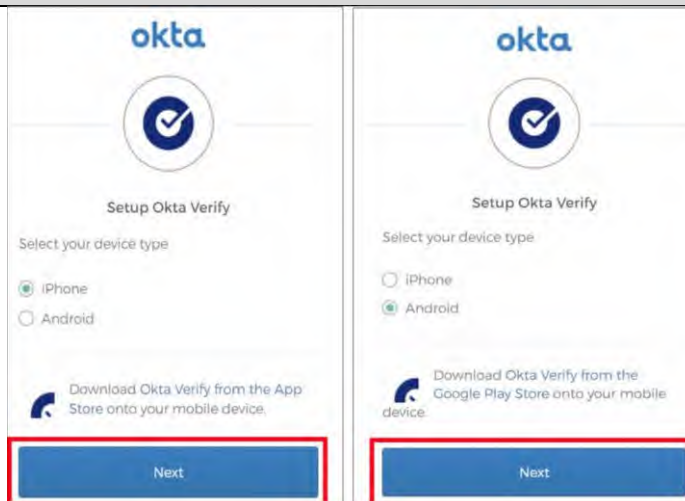


Figure 21. Okta Verify Setup - Mobile Device Type

6. Open the **Okta Verify** app on your phone:
 - a. Click **Add Account**.
 - b. Select **Organization** for account type.
 - c. On the **Do You Have Your QR Code?** screen,
 - Click **Yes, Ready to Scan**.

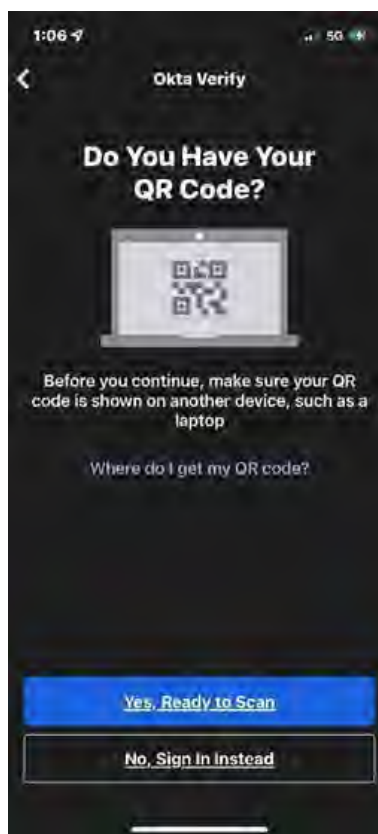


Figure 22. Yes, Ready to Scan

Steps / Screenshots

7. With your mobile device,
 - Scan the QR code on the Setup Okta Verify screen.



Figure 23. Scan the QR Code

8. At the **Account Added** screen on your mobile device,
 - Click **Done**.

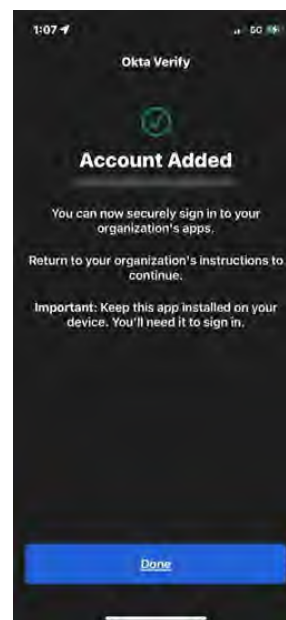


Figure 24. Okta Verify Account Added

Set Up SMS Authentication

Steps / Screenshots

- Under **Extra Verification**,
 - Click **Set up** button next to **SMS Authentication**

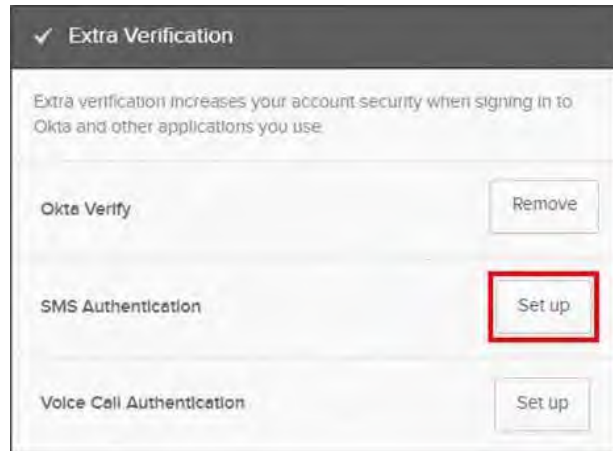


Figure 25. Set Up SMS Authentication

- On the **Set up multifactor authentication** screen,
 - Click **Setup**.

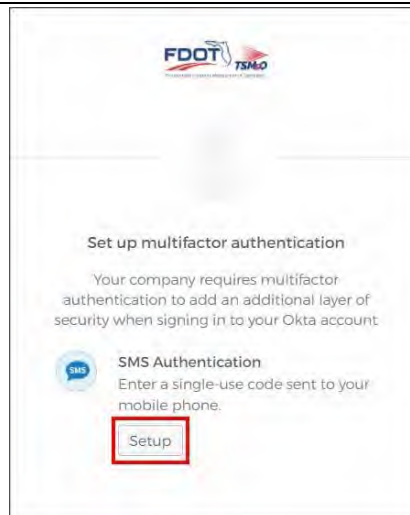


Figure 26. SMS Authentication Set Up Screen

- On the **Receive a code via SMS to authenticate** screen,
 - Enter your phone number.
 - Click **Send code**.

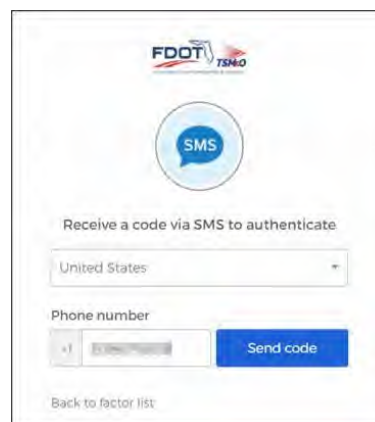


Figure 27. Receive a Code via SMS to Authenticate Screen

Steps / Screenshots

- Enter the **code** from the text message sent to your mobile device.
 - Click **Verify**.

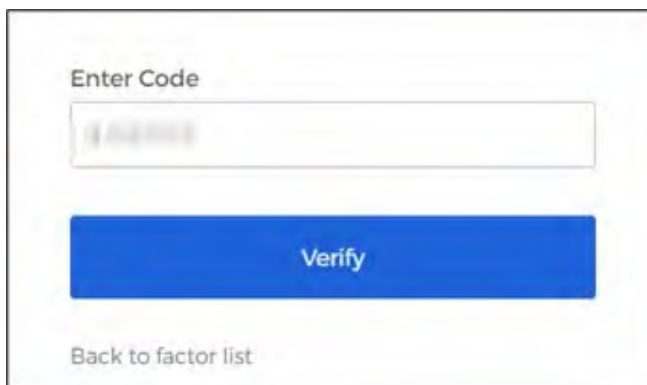


Figure 28. SMS Authentication Code

Set Up Voice Call Authentication

Steps / Screenshots

- Under **Extra Verification**,
 - Click **Set up** next to *Voice Call Authentication*.

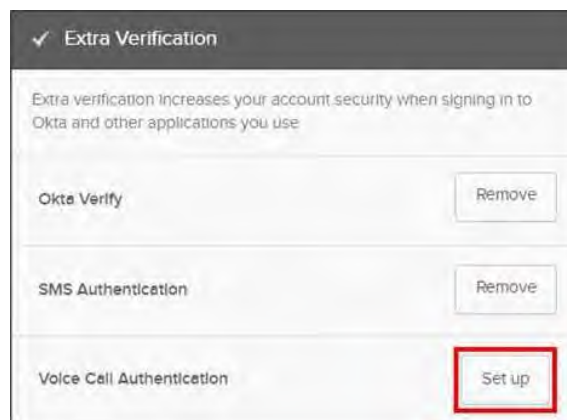


Figure 29. Set Up Voice Call Authentication

- On the **Set up multifactor authentication** screen,
 - Click **Setup**.



#	Steps / Screenshots
---	---------------------

Figure 30. Voice Call Authentication Set Up Screen

3. Enter your **phone number**.
 - Click **Call**.

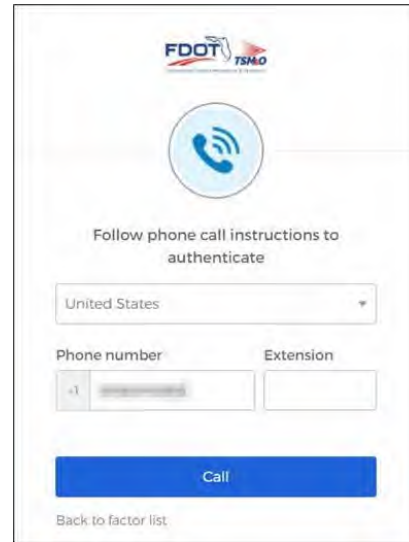


Figure 31. Follow Phone Call Instructions to Authenticate

4. Answer the call from the Okta phone verification system.
 - Enter the code provided.
 - Click **Verify**.

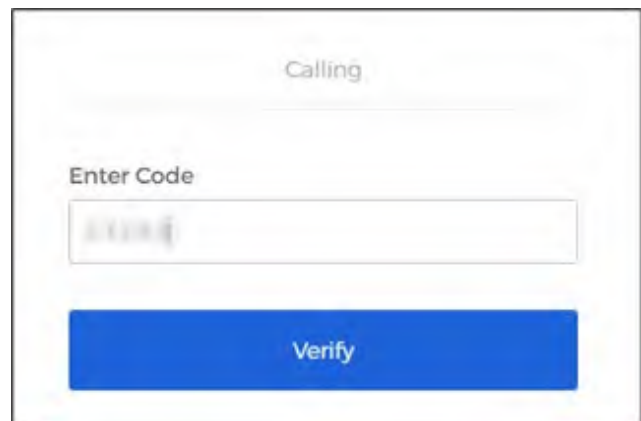


Figure 32. Voice Call Authentication Code

Select a Forgotten Password Question

#	Steps / Screenshots
---	---------------------

1.
 - Click **Edit** next to **Forgotten Password Question**.
 - Then, perform step a. or b. below.



Figure 33. Edit Forgotten Password Question

Steps / Screenshots

- 2.a Select a **stock question**:
1. Click the **down arrow**.
 2. Select a **stock question**.
 3. Enter your **answer**.
 4. Click **Save**.

Figure 34. Forgotten Password Stock Question

- 2.b Select a **custom question**,
1. Click the **down arrow**.
 2. Select **Create your own security question**.
 3. Enter your **custom security question**.
 4. Enter your **answer**.
 5. Click **Save**.

Figure 35. Forgotten Password Custom Question

4. Your saved **forgotten password question** will appear in Okta Self-Service.

Figure 36. Examples of Saved Forgotten Password Questions

Select a Security Image

Steps / Screenshots

1. Click **Edit** next to **Security Image**.



Figure 37. Edit Security Image

2.
 - Select a **security image**.
 - Click **Save**.



Figure 38. Select a Security Image

3. Your saved **security image** will appear in Okta Self-Service.



Figure 39. Example of Saved Security Image

OKTA: RESET YOUR PASSWORD OR UNLOCK YOUR ACCOUNT

Here is the process for resetting your Active Directory (AD) account password or unlocking your AD account with Okta Self-Service. The UserPrincipalName (UPN) format (i.e., username@domain.com) is required when entering your username in the username field to sign to Okta, reset your password, and unlock your account.

Reset Your Password

Steps / Screenshots

1. Click the following link to access the Okta website: <https://smartsunguide.okta.com>.
2. Click **Need help signing in?**

The screenshot shows the Okta sign-in interface. At the top, there is a logo for FDOT TSMLO. Below the logo is a circular image of a road leading to a horizon under a blue sky. Underneath the image is the text 'Sign In'. Below this, there are two input fields: 'Username' and 'Password'. The 'Username' field contains a blurred text. Below the password field is a 'Remember me' checkbox. A large blue button labeled 'Sign In' is positioned below the checkbox. At the bottom of the page, there are four links: 'Need help signing in?', 'Forgot password?', 'Unlock account?', and 'Help'. The 'Need help signing in?' and 'Forgot password?' links are highlighted with red boxes and numbered 1 and 2 respectively.

Figure 40. Forgot Password?

3. Enter your **username** for the **smartsunguide.com** or **field.net** domains.

- a. **Smartsunguide.com** domain.
- Using the UPN format (i.e., username@domain.com), enter your username.
 - Click **Reset via SMS** or **Reset via Email**.

Figure 41. Reset Password for the Smartsunguide.com Domain

- b. **Field.net** domain.
- Using the UPN format (i.e., username@domain.com),
- Enter your **username**.
 - Click **Reset via SMS** or **Reset via Email**.

Figure 42. Reset Password for the Field.net Domain

4. Follow the instructions provided to change your password.

Unlock Your Account

Steps / Screenshots

1. Click the following link to access the Okta website: <https://smartsunguide.okta.com>.

2. Click **Need help signing in?**
Click **Unlock account?**

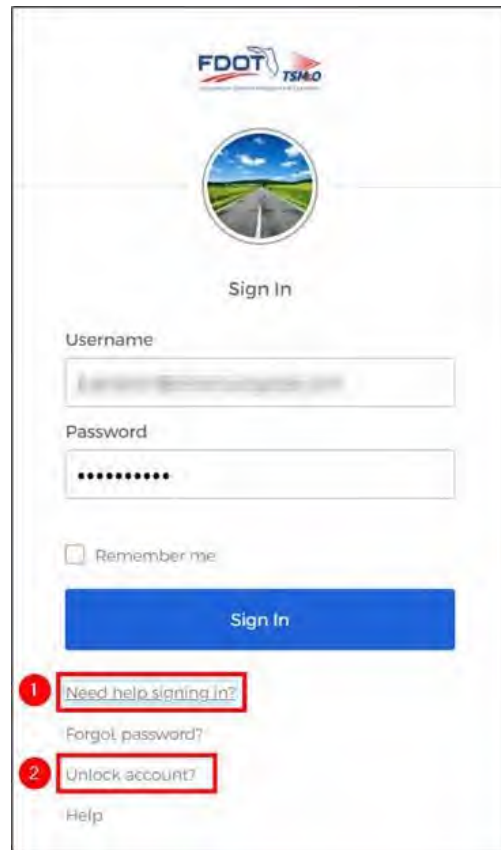


Figure 43. Unlock Account?

3. Enter your **username** for the **smartsunguide.com** or **field.net** domains.

- a. **Smartsunguide.com** domain.

- Using the UPN format (i.e., username@domain.com), enter your **username**.
- Click **Send SMS** or **Send Email**.

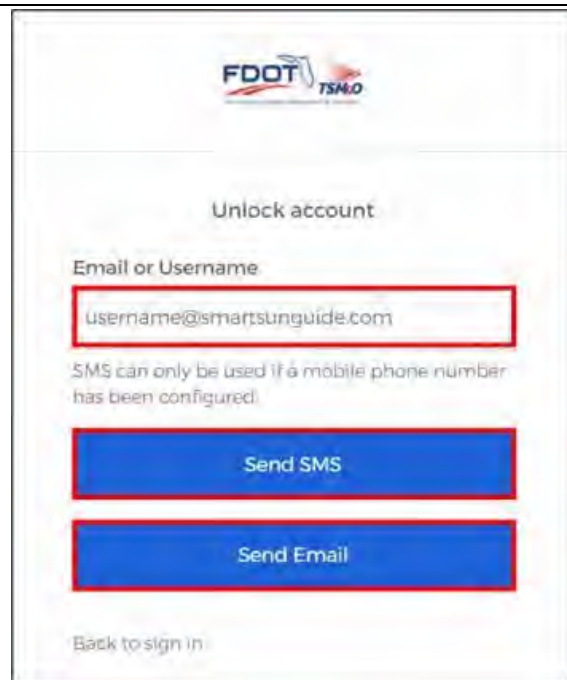
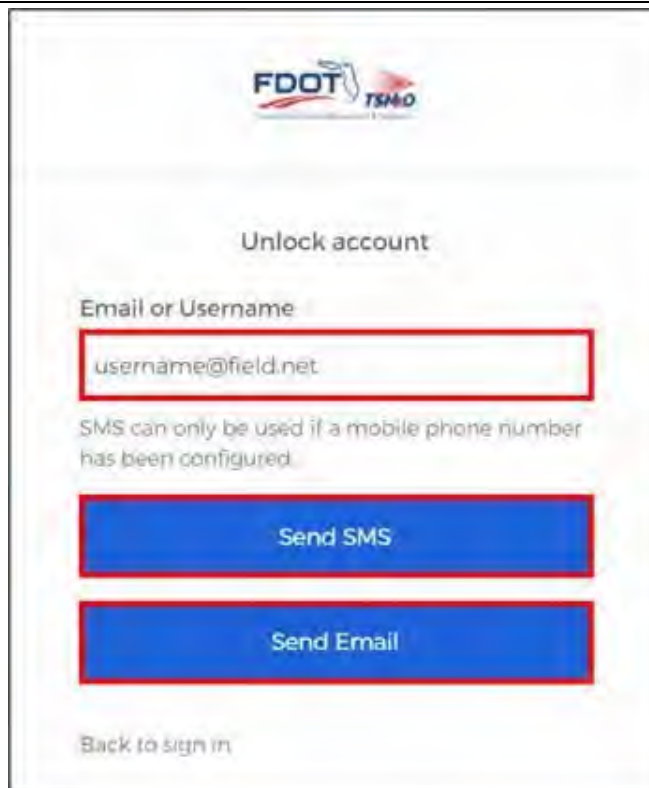


Figure 44. Unlock Account for the Smartsunguide.com Domain

- b. Using the UPN format (i.e., username@domain.com),
- Enter your **username**.
 - Click **Send SMS**
- or
- **Send Email**.



FDOT TSMO

Unlock account

Email or Username

username@field.net

SMS can only be used if a mobile phone number has been configured.

Send SMS

Send Email

[Back to sign in](#)

Figure 45. Unlock Account for the Field.net Domain

VPN CONNECTION

The RTMC uses Cisco AnyConnect VPN software and Cisco ASA firewalls to permit access into the network. This SOP Section outlines the steps for users to connect to the D4 Network via VPN.

Request VPN Access

#	Steps / Screenshots
1.	To request VPN access, a helpdesk ticket needs to be created for new users or existing users and approved by the IT Support Manager.
1.a	The new user's Supervisor must submit the New-Hire Request to the RTMC Office Manager (currently, Erika Zen).
1.b	The existing user's Supervisor must submit the Access Change Request to the RTMC Office Manager.
2.	The IT department must add the user to the "Remote_User" AD security group to be permitted to use VPN.

Okta Self-Service

1. New users must register their Okta Self-Service account in accordance with SOP Section [7.03.05.01 Okta Self-Service for New Users](#).
2. Existing users must ensure that the MFA factors are set up in accordance with SOP Section [7.03.05.02 Okta Self-Service for Existing Users](#)

Install And Open the Cisco ANYCONNECT Client


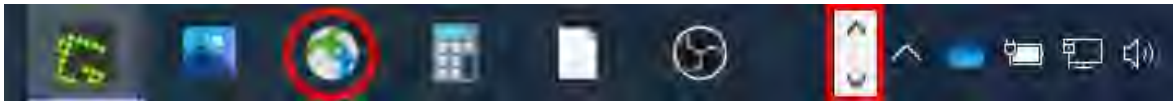
Step #	Process / Screenshots
1.	The new or existing user must install the Cisco AnyConnect client on their PC by accessing the URL provided by the IT department.
2.	Click Cisco AnyConnect icon located in your taskbar. Note. If the Cisco AnyConnect icon does not appear on your taskbar, perform step a. or b. below. Otherwise, proceed to step 3.
	
	<p><i>Figure 46. Cisco AnyConnect Icon</i></p>
2.a	<ul style="list-style-type: none"> – Click up/down arrow to scroll up/down on the taskbar. – Click Cisco AnyConnect icon.
	

Figure 47. Scroll Up/Down to Find the Cisco AnyConnect Icon

Step #	Process / Screenshots
--------	-----------------------

- | | |
|-----|--|
| 2.b | <ul style="list-style-type: none"> – Click up arrow to show hidden icons. – Click the Cisco AnyConnect icon. |
|-----|--|

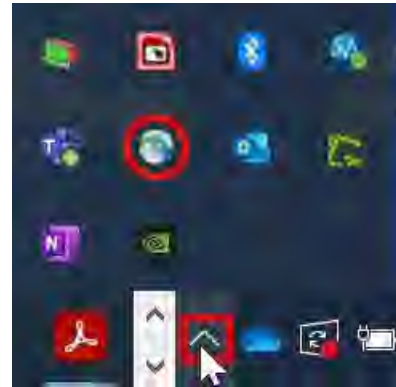


Figure 48. Hidden Icons to Find the Cisco AnyConnect Icon

- | | |
|----|--|
| 3. | <ul style="list-style-type: none"> – Enter the VPN tunnel information that you were provided by the IT department. – Click on Connect. |
|----|--|



Figure 49. Cisco AnyConnect

- | | |
|----|--|
| 4. | Enter your username and password . |
|----|--|



Figure 50. Sign Into Cisco AnyConnect

- | | |
|-----|--|
| 4.a | Username: First initial followed by last name (e.g., jdoe). |
| 4.b | Password: Same password that you currently use to log in to your Windows account. |
| 5. | Click OK . |

Step # Process / Screenshots

Note. Users not previously set up one or more of the MFA factors will be prompted to select a factor to enroll in.

If necessary,

Perform the procedures in the **ENROLL MFA FACTORS TO LOG IN TO CISCO ANYCONNECT** section below.

Otherwise,

- skip the **ENROLL MFA FACTORS TO LOG IN TO CISCO ANYCONNECT** section below and
- proceed to the **LOG IN TO CISCO ANYCONNECT WITH MFA FACTORS ENROLLED** section.



Figure 51. Select a Factor to Enroll In

Enroll MFA Factors to log in to CISCO ANYCONNECT

Process / Screenshots

1. Enroll in 1 – Call

- 1.a
- Enter.
 - Click **Continue**.



Figure 52. Enroll in 1 - Call

Process / Screenshots

- 1.b
- Enter your **phone number** and,
 - Click **Continue**.

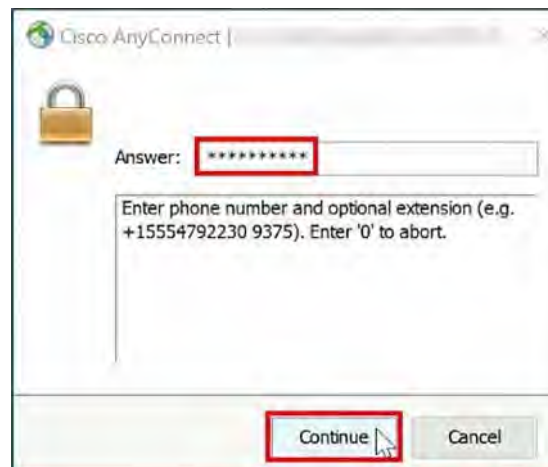


Figure 53. Enter Your Phone Number

- 1.c
- Answer the call from the Okta phone verification system,
 - Enter verification **code** provided,
 - Click **Continue**.



Figure 54. Enter the Verification Code

- 1.d
- Enter **0**
 - Click **Continue** to enroll in another authentication factor.

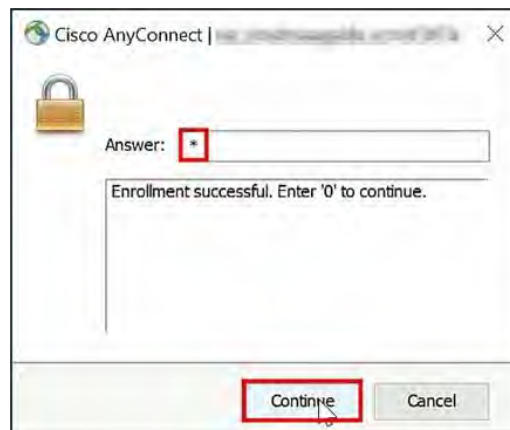


Figure 55. Call Enrollment Successful

#	Process / Screenshots
---	-----------------------

2.	Enroll in 2 - Push
----	--------------------

- | | |
|-----|---|
| 2.a | <ul style="list-style-type: none"> - Enter 1. - Click Continue. |
|-----|---|

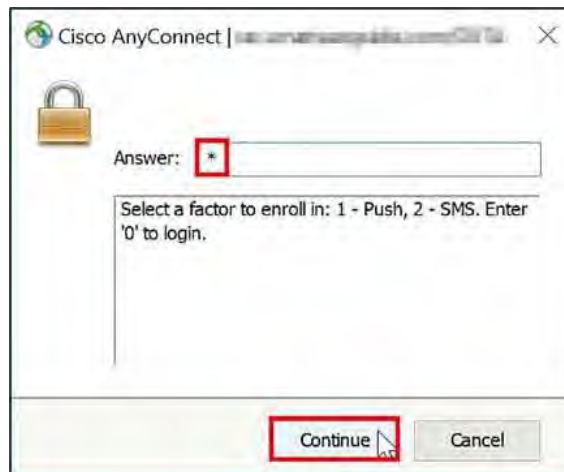


Figure 56. Enroll in 2 - Push

- | | |
|-----|---|
| 2.b | <ul style="list-style-type: none"> - Enter your mobile device number. - Click Continue. |
|-----|---|



Figure 57. Enter Your Mobile Device Number

- | | |
|-----|---|
| 2.c | <p>When you arrive at the screen,</p> <p>Follow the instructions sent to your mobile device via text message.</p> |
|-----|---|



Figure 58. Instructions sent to your mobile device via text message

Process / Screenshots

1. On your mobile device,
 - Click the *link* provided.

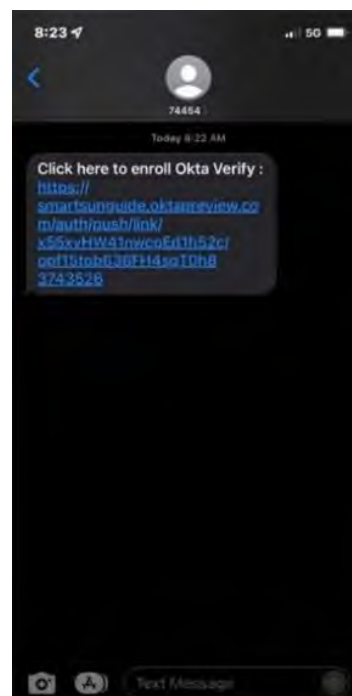


Figure 59. Enroll Okta Verify

2. On your mobile device,
 - Click **Get Started**.

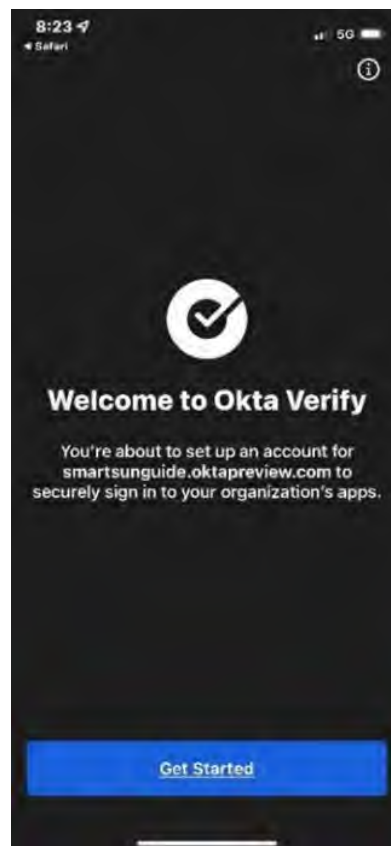


Figure 60. Welcome to Okta Verify

Process / Screenshots

3. On your mobile device → Click **Done**.

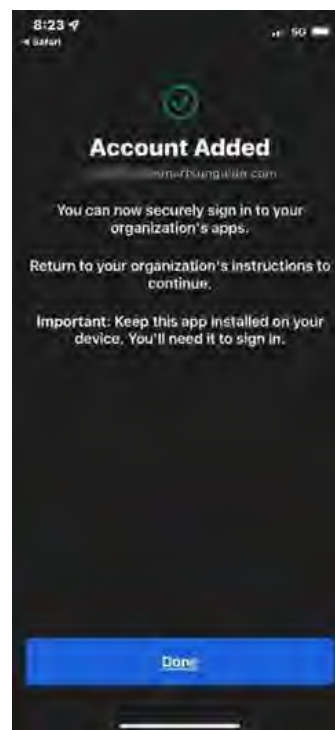


Figure 61. Account Added

4. Enter **0**.

- Click **Continue** to enroll in another authentication factor.



Figure 62. Push Enrollment Successful

#	Process / Screenshots
---	-----------------------

3.	Enroll in 3 - SMS
----	-------------------

- | | |
|-----|--|
| 3.a | <ul style="list-style-type: none"> – Enter 1 in the <i>Answer</i> box. – Click Continue. |
|-----|--|

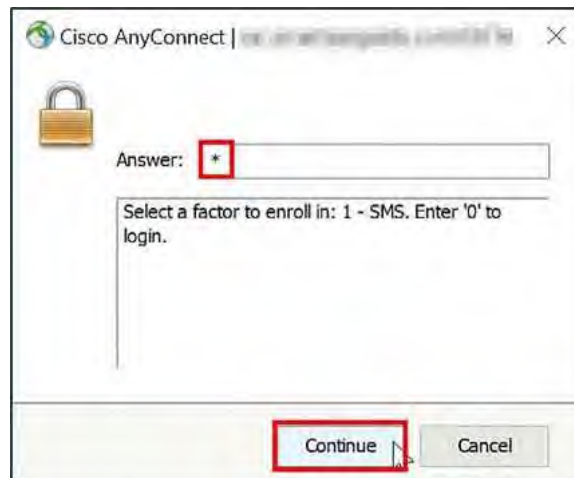


Figure 63. Enroll in 3 - SMS

- | | |
|-----|---|
| 3.b | <ul style="list-style-type: none"> – Enter your mobile device number. – Click Continue. |
|-----|---|

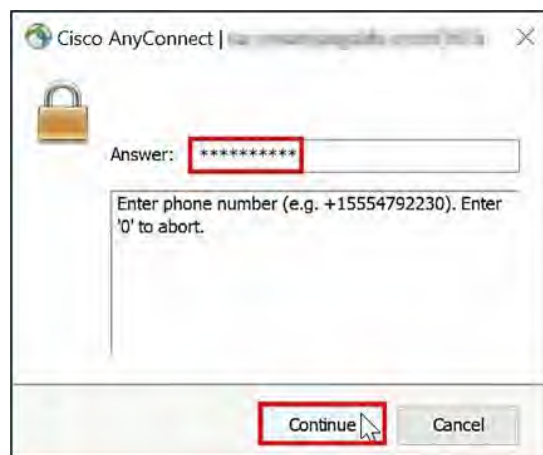


Figure 64. Enter Your Mobile Device Number

- | | |
|-----|--|
| 3.c | <ul style="list-style-type: none"> – Enter the verification code from the text message sent to your mobile device. – Click Continue. |
|-----|--|

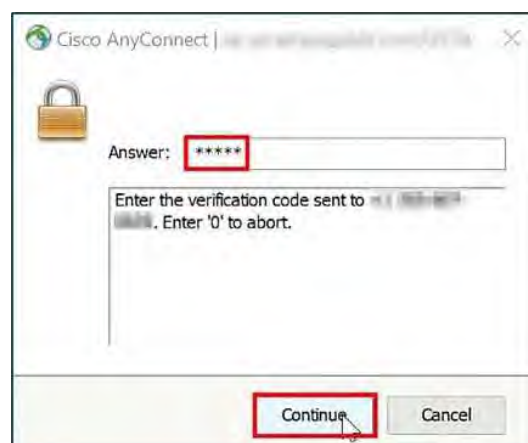


Figure 65. Enter the Verification Code

#	Process / Screenshots
---	-----------------------

- | | |
|-----|---|
| 3.d | <ul style="list-style-type: none"> – Enter 0 – Click Continue to log in. |
|-----|---|

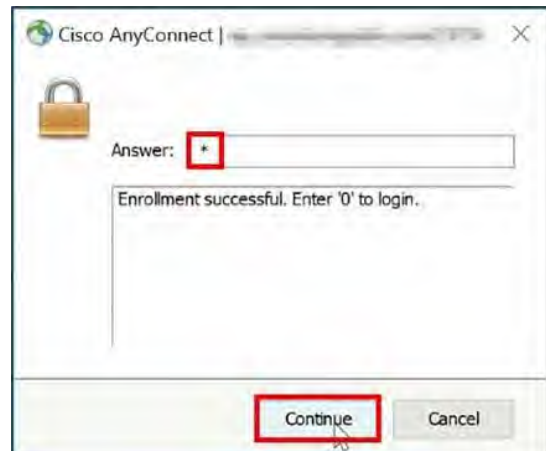


Figure 66. SMS Enrollment Successful

- | | |
|----|--|
| 4. | <ul style="list-style-type: none"> – In the acknowledgement and consent screen – Click Accept. |
|----|--|

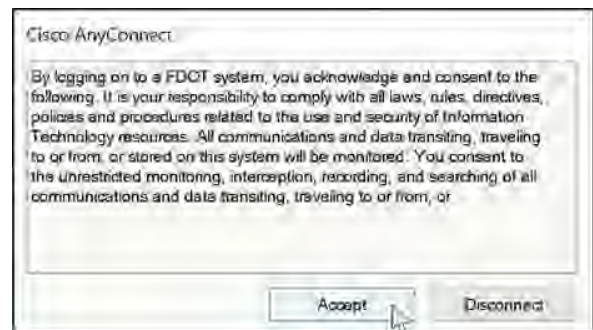


Figure 67. Cisco AnyConnect Acknowledgement and Consent Screen

Log In to CISCO ANYCONNECT with MFA Factors Enrolled

#	Steps / Screenshots
---	---------------------

- | | |
|----|---|
| 1. | <p>Select an authentication factor from the options provided.</p> <ul style="list-style-type: none"> a. Enter 1 to receive a phone call from the Okta phone verification system. b. Enter 2 to receive a push notification via the Okta Verify app. c. Enter 3 to receive a code via SMS. |
|----|---|

Steps / Screenshots

2. Click **Continue**.

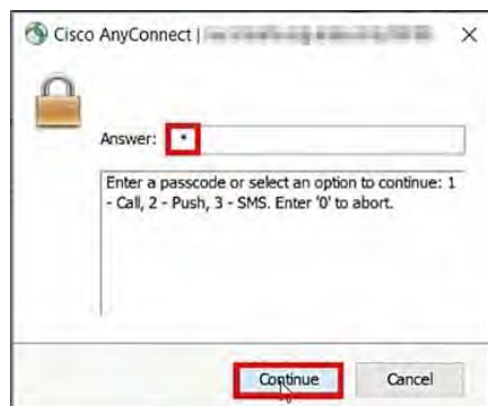


Figure 68. Select an Authentication Factor

3. Perform step a., b., or c. below, based on your **authentication factor** selection above:

3.a 1 – Call

1. Answer the call from the Okta phone verification system.
2. Enter the **code** provided.
3. Click **Continue**.

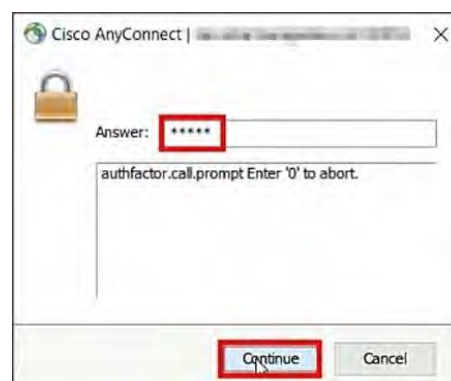


Figure 69. Voice Call Authentication

3.b 2 – Push

1. On your mobile device, open the **push notification** from the Okta Verify app.

Steps / Screenshots

2. Click **Yes, it's me.**

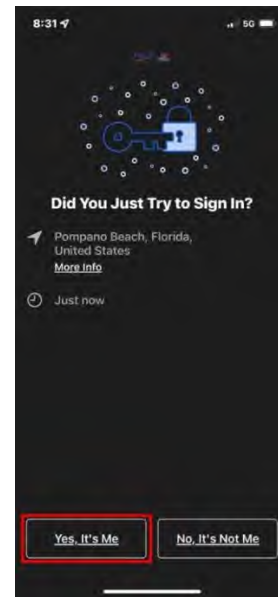


Figure 70. Okta Verify - Mobile Device Push Notification

3.c 3 – SMS

1. Enter the **code** from the text message that was sent to your mobile device.

2. Click **Continue.**



Figure 71. SMS Authentication

4. In the acknowledgement and consent screen,

- Click **Accept.**

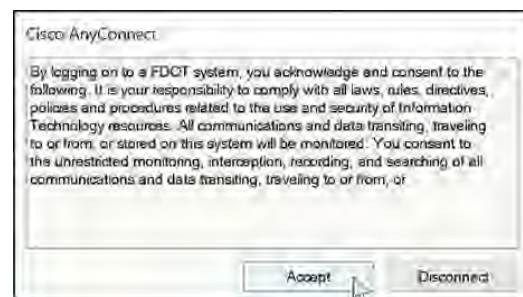


Figure 72. Cisco AnyConnect Acknowledgement and Consent Screen



7.04 Network Security

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Version #	Date	Author	Changes
1.0	12/19/2023	Yana Neishlos	Initial Draft

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SECURITY MEASURES

There are various security measures in place including:

- Password Manager Database / SolarWinds Orion Monitor / Trend Micro Apex One
- Trend Micro Deep Security / Cisco UTM / Umbrella DNS Web Filter.

Important Factors

The following factors are significant.

Security Considerations	Details
Windows Update	Security patches and windows updates: applied automatically at each workstation and server by the Patch Management Team. There is no set schedule determined. Patches and updates are applied to small control environment first. Then – to the greater PC population after no ill affect takes place. Updates are downloaded from Windows Software Update Services Repositories.
Domain Administrator Account	The domain administrator account is granted to three users. Individuals who need the permissions equivalent to a domain administrator will be granted; these permissions are essential for that person's job duties and, approved at the discretion of the IT Support Manager.
Local Accounts	Workstations are configured with the built-in administration account disabled, and a custom administration user configured on each workstation. Multiple groups are added via GPO to grant users the administration access. These rights are documented in active directory.
Windows Domain Controllers – Domain Controller (DC) Servers	<ul style="list-style-type: none"> • Smartsunguide.com servers RODC's for its internet facing proxy servers. DCs are formatted as per naming standards within SharePoint. • Field.net holds identical number of DC's as smartsunguide.com with exception of 2 RODC's.
Backup And File Restoral	Backups are using Unitrends Enterprise Backup software.
Legal Banner	<p>These are the banner that users see when log-on is applied through group policy. The popup, FDOT Computer Usage Policy displays the following message, and a clickable button for the user to acknowledge the policy:</p> <p><i>By logging on to a FDOT computer, you acknowledge your responsibility to comply with all laws, rules, directives, policies, and procedures related to the use and security of information technology resources.</i></p> <p><i>Unauthorized use is strictly prohibited. You are hereby on notice that you should have no expectation of privacy as to your use of Department information technology resources as all data is potentially subject to Florida's public records law.</i></p>

Personal Electronic Devices on the Network / Internet Use

No personal electronic devices are permitted to be plugged into or otherwise connected to the RTMC ITS network. The RTMC does not allow operators in the control room any personal use of the Internet, and other users may only use the Internet for their job needs and a very limited personal use.

Prohibited Use of Personal Electronic Devices

To keep the TMC Intelligent Transportation Systems network free of viruses, adware, spyware, or malware, no employee is allowed to connect any personal electronic device to TMC owned PCs or laptops.

1	Do not plug any electronic device into a USB drive on any desktop or laptop –	Cell phones and other devices with internal and memory cards may contain dormant viruses that can enter and damage the ITS network. To charge a cell phone or other device, use a wall outlet. Using a USB connection to charge a personal electronic device is not permitted.
2.	Do not →	Copy any music, photograph, or video files to any TMC desktop, laptop, or network location unless directly applicable for work usage.
3.	Only the use of company-provided USB drives is allowed for TMC PCs or laptops.	Do not use company-provided USB drives in non-company provided PCs or laptops. One should not take your USB drive to your home computer (where there could be a virus) and then bring it back to the TMC.

Examples of personal electronic devices that may not be plugged into a TMC USB drive:

- iPods and other audio or video players.
- Cell phones with USB connections.
- Digital cameras.
- Thumb drives, or other portable memory sticks or hard drives.
- Any other removable memory storage.

Computer Viruses

- Do not send or receive personal e-mail through the Smart SunGuide e-mail.
- Use the computer in the break room for personal use of the Internet.
- Never plug a personal electronic device into a TMC desktop or laptop.

SYSTEM CONSIDERATIONS

System Uptime	The most critical system is SunGuide, and its uptime is the best effort at 99.9%. System monitoring is done by SolarWinds Orion, which sends immediate notices if downtime is detected.
Assigning IP Addresses	<p>IP addresses for network devices are documented in a spreadsheet kept in the IP Address Management Database. It an important database containing the IP addresses of all devices and machines on the ITS system. It contains current IP addresses, and addresses assigned to contractors working on new projects. It is a confidential database; should only be viewed by the IT network manager and network administrators.</p> <p>For contracts, opened for bidding, FDOT may assign a contractor IP addresses to be provided. When a project is under way, the contractor will request FDOT to provide specific IP addresses.</p> <p>Warning. IP addresses assignments (especially to contractors) must be documented immediately. This task is mandated (cannot be delegated) by the TMC IT Support Manager or IT Network Manager.</p>
Installing Or Updating Software	Windows updates with the WSUS server, and antivirus definitions to an already existing antivirus installation. VMWare uses Update Manager. All other updates are installed manually or through central management consoles depending on the software.
Intra-SMART	<p>Intra-SMART is the internal website. Any updates to the website are made by an IT department. The request for updates will be made by the operations management department through the helpdesk ticket system on an as needed basis.</p> <p>Requests made by anyone other than operations management should be sent to and approved by the operations management department.</p>
SMART SUNGUIDE.COM	<p>SMARTSunGuide.com is the public website. Updates are made by the SunGuide Administrator. Updates' requests are done by the marketing department monthly via email.</p> <p>Requests made by anyone other than the marketing department should be first sent to the marketing department.</p>
Antivirus Software	The RTMC uses Trend Micro Apex One as the endpoint protection solution for workstations and Trend Micro Deep Security as the enterprise protection solution for servers within the District 4 ITS network.
Network Monitoring Server	Reserved for future use.

WEB FILTERING

RTMC

RTMC has a highly secure web filtering solution. It utilizes a cluster of proxy servers to maintain web filtering within the RTMC network, along with secure DNS transactions to protect against DNS poisoning using hardened DNS forwarders.

The Cisco ASA firewall used for the control point of all Internet traffic prevents private DNS requests from being utilized.

DHCP polices route traffic for guest and contractor accounts through specific network locations to ensure all devices within the RTMC are controlled.

VPN

The RTMC uses Cisco AnyConnect VPN software and Cisco ASA firewalls to permit access into the network.

To request access, a helpdesk ticket needs to be created and approved by the IT Support Manager.

The user must be added to "Remote_User" AD security group for the use of VPN.

The user must have the VPN Anyconnect client installed on the machine and the link to connect will be given by the IT department.

INFORMATION SYSTEM MONITORING

This SOP Section provides the Florida Department of Transportation (FDOT) District Four (D4) Intelligent Transportation Systems (ITS) Information System Monitoring policies, information on Security Definitions Updates for monitoring applications, and the procedures for alerts received from the Cybersecurity & Infrastructure Security Agency (CISA) and the FDOT Office of Information Security Management (ISM) for a priority 1 notification of a security issue.

The FDOT D4 ITS environment incorporates different platforms and tools to monitor the network infrastructure. Assets are monitored at discrete intervals to identify potential cybersecurity events.

Scope

All information systems and assets are monitored to identify potential cybersecurity events on the District 4 ITS network.

Facilities and Data Centers

- Broward Regional Transportation Management Center (RTMC)
- Palm Beach Satellite Transportation Management Center (STMC)
- Treasure Coast STMC

Data Centers have restricted physical access. Door access control systems are installed at each facility. Device cabinets and buildings are controlled by CyberLock key-centric access control system.

Monitoring Controls

- SolarWinds Network Performance Monitor
- SolarWinds Event Manager
- Cisco Identity Services Engine
- Trend Micro Workload Security & ApexOne-as-a-Service
- Okta Adaptive Multifactor Authentication
- Okta Lifecycle Management
- Tenable IO
- CyberAudit-Web Enterprise
- Cisco Adaptive Security Appliance with FirePower
- Cisco Umbrella
- Milestone XProtect Video Monitoring System

Confidentiality-Integrity-Availability (CIA) Triad of Information Security

The CIA triad represents these three key principles of information security below. Source: Rule 74-2.001, Florida Administrative Code (F.A.C.).

- | | |
|------------------------|---|
| Confidentiality | <ul style="list-style-type: none"> • Preserving authorized restrictions on information access and disclosure, including means for protecting personal privacy and proprietary information. |
|------------------------|---|

Integrity

- The principle that assures information remains intact, correct, authentic, accurate and complete. Integrity involves preventing unauthorized and improper creation, modification, or destruction of information.

Availability

- Ensuring timely and reliable access to and use of information.



Figure 1. CIA Triad of Information Security

Policies

Network

1.	The SolarWinds Network Performance Monitor	It assesses the availability of network devices and components. Resources are manually configured with required information for each node to be monitored. Alert policies are set in place to notify all stakeholders of performance degradation.
2.	The SolarWinds Event Manager	It aggregates logs from various devices and platforms. Rule sets are configured for a continuous analysis and detection of anomalies across the network infrastructure. Changes to rules are manually performed based on recommendations received from the US Department of Homeland Security, Florida Department of Law Enforcement Office of Statewide Intelligence, and the CISA.
3.	The Cisco Identity Services Engine	It facilitates identity and access control for network devices. Enterprise policies are enabled to enforced compliance and streamline service operations. Compliance policies are manually updated based on Microsoft Security update releases and recommendations received from the CISA.

Operating Systems

1.	The SolarWinds Network Performance Monitor	It detects performance issues and performs multiple validations against servers and workstations. Resources are manually configured with the required information for each node to be monitored. Alert policies are set in place to notify all stakeholders if a performance degradation occurs.
2.	Trend Micro Workload Security and ApexOne-as-a-Service	It monitors, maintains the security posture of endpoint devices, including threat defense, machine behavioral analysis, vulnerability intelligence. Threat pattern and intrusion prevention rules are automatically updated on connected agents directly from Trend Micromanagement engine. It is configured to perform real-time and scheduled scans, malicious codes and unauthorized mobile codes that are blocked, quarantined, or removed upon detection.

- 3. Tenable IO It scans the entire infrastructure and identifies security risks at scheduled intervals. Identified vulnerabilities are remediated in accordance with the FDOT D4 Vulnerability Management Plan.

Applications

- 1. Application Control policies Set, monitored using Trend Micro Workload Security and ApexOne-as-a-Service. Trend Micro manages and automatically updates security definition libraries. Security definitions are scheduled to automatically download; applied immediately to agents. Anti-malware and anti-spyware signatures are automatically updated and stored in the Trend Micro cloud libraries. They are configured to perform real-time and scheduled scans, malicious codes and unauthorized mobile codes that are blocked, quarantined, or removed upon detection.

- 2. Web applications Scanned at discrete intervals by Tenable IO to identify security risks. Identified vulnerabilities are remediated by the application developer, per the FDOT D4 Vulnerability Management Plan guidelines.

Procedures

- 1. Alerts concerning confirmed malicious cyber activity and exploits shared from the FDOT ISM and the CISA are reviewed by the ITS Information Security Team.
- 2. Once reviewed, all necessary stakeholders are notified and are provided with the recommended actions to minimize security risk.
- 3. Remediations are performed according to the given risk of impact and likelihood of occurrence.
 - a. Critical (1) Vendor provided updates that clearly remediates cybersecurity vulnerabilities are tested within 7 days of release, and then applied.
(2) Monitoring and detection controls that require manual configuration are updated immediately after notification.
 - b. High (1) Vendor provided updates that clearly remediates cybersecurity vulnerabilities are tested within 14 days of release, and then applied.
(2) Monitoring and detection controls that require manual configuration are updated immediately after notification.

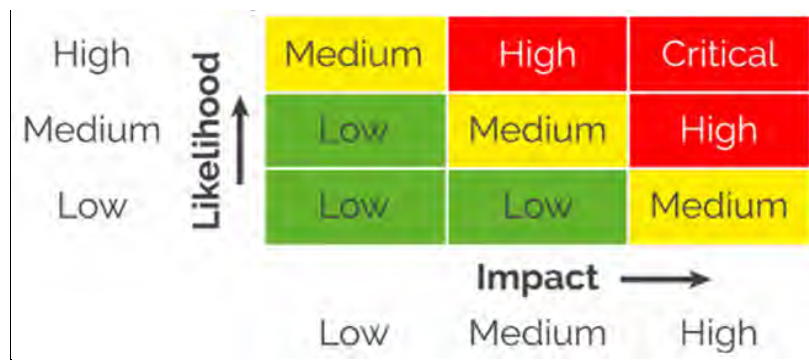


Figure 2. Cybersecurity Risk Matrix

VULNERABILITY PROJECT MANAGEMENT

A vulnerability that requires actions from multiple stakeholders to resolve it, becomes a vulnerability project, which should be tracked for remediation by the Vulnerability Project Manager through coordination with stakeholders. The procedures for resolving vulnerability projects are provided below.

Security Team

1. The Security Team identifies vulnerabilities in the environment within Tenable.IO and performs research to determine what it takes to fix them.
2. If an identified vulnerability requires actions from multiple stakeholders to remediate it, the Security Team creates a SolarWinds Service Desk Security Vulnerability incident and assigns it to the Vulnerability Project Manager.

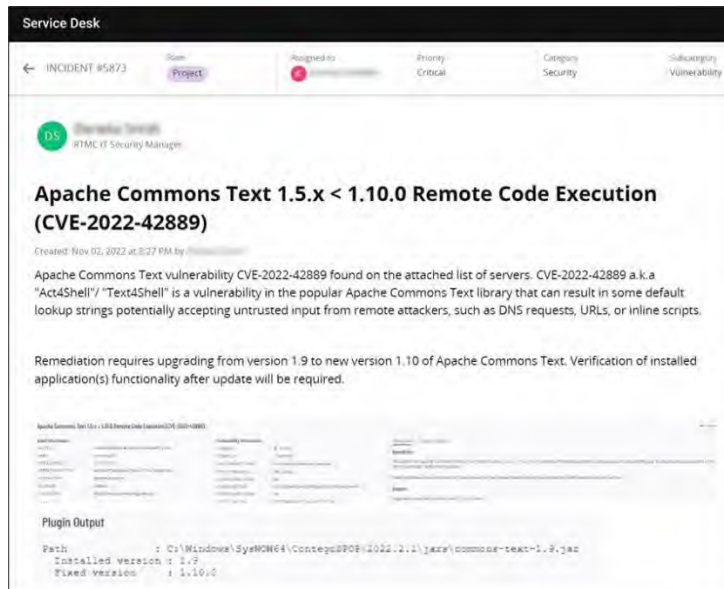


Figure 3. A SolarWinds Service Desk Security Vulnerability Incident

3. The SolarWinds Service Desk Security Vulnerability incident includes the following information:
 - a. Description of the vulnerability.
 - b. Solution for the vulnerability.
 - c. List of machines affected by the vulnerability.
 - d. Any other supporting information.

Stakeholders

1. Each stakeholder creates a change order or incident, as applicable, within the SolarWinds Service Desk and attaches the Security Vulnerability incident in the related tab.

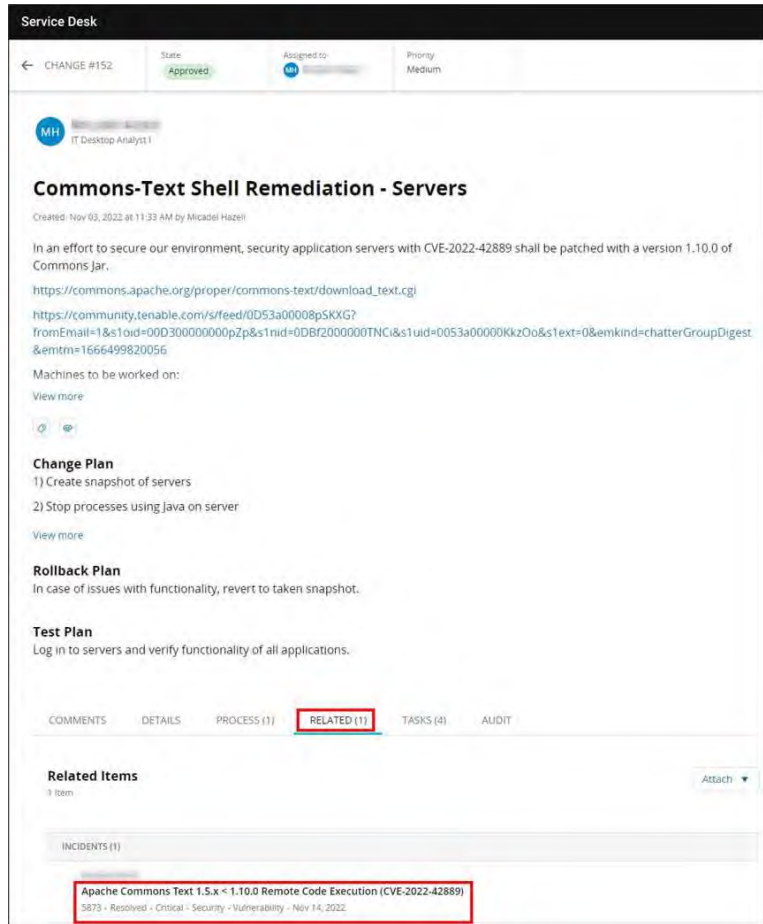


Figure 4. Change Order Related to the Vulnerability Project Incident

2. Change order(s)/incident(s) include the following information, as applicable:
 - a. Requester's name or email address.
 - b. Descriptive title.
 - c. Justification for the need of the change order.
 - d. Tags and/or attachments.
 - e. Change plan.
 - f. Rollback plan.
 - g. Test plan.
 - h. Details.
 - i. Related items.

Vulnerability Project Manager

1. The Vulnerability Project Manager coordinates with all stakeholders responsible for applying the necessary solution for remediation to the machines affected by the vulnerability and tracks the project progress from the time it is created until it is resolved.
2. Upon verification of the vulnerability been remediated on all affected machines, the Vulnerability Project Manager changes the SolarWinds Service Desk Security Vulnerability incident from Project to Resolved, as shown.

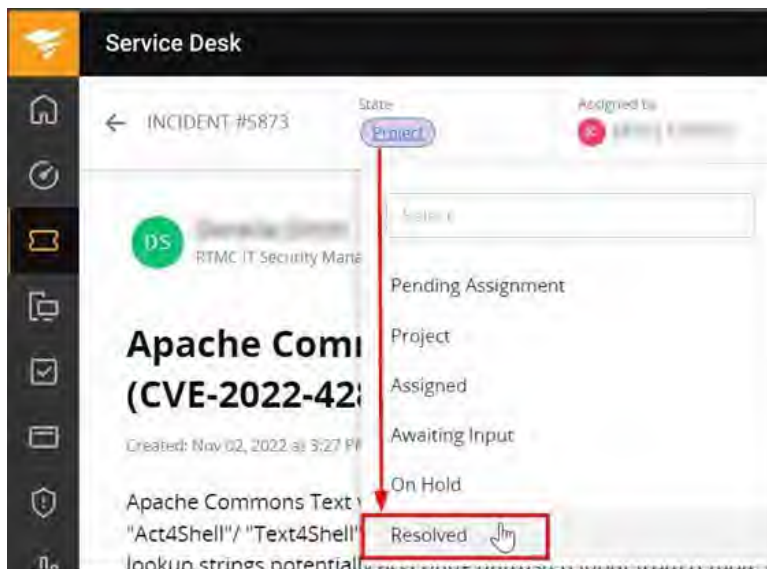


Figure 5. Vulnerability Project Resolved

SECURITY

Domain Administrator Account

A domain administrator account access is granted to three users. Individuals requiring permissions equivalent to a domain administrator will be granted it provided permissions are necessary to execute that person's job duties and, at the discretion of the IT Support Manager.

Personal Electronic Devices on the Network / Internet Use

No personal electronic devices are permitted to be plugged into or otherwise connected to the RTMC ITS network. The RTMC does not allow operators in the control room any personal use of the Internet, and other users may only use the Internet for their job needs and a very limited personal use.

Web Filtering / VPN

RTMC has a highly secure web filtering solution. It utilizes a cluster of proxy servers to maintain web filtering within the RTMC network, along with secure DNS transactions to protect against DNS poisoning using hardened DNS forwarders.

The Cisco ASA firewall used for the control point of all Internet traffic prevents private DNS requests from being utilized. DHCP polices route traffic for guest and contractor accounts through specific network locations to ensure all devices within the RTMC are controlled.

The RTMC uses Cisco AnyConnect VPN software and Cisco ASA firewalls to permit access into the network.

To request access, a helpdesk ticket needs to be created and approved by the IT Support Manager. The user must be added to "Remote_User" AD security group to be permitted to use VPN.

The user must have the VPN Anyconnect client installed on the machine and the link to connect will be given by the IT department.

INFORMATION SYSTEM MONITORING

Overview

This SOP Section provides the Florida Department of Transportation (FDOT) District Four (D4) Intelligent Transportation Systems (ITS) Information System Monitoring policies, information on how the security definitions for the monitoring applications are updated, and the procedures for alerts received from the Cybersecurity & Infrastructure Security Agency (CISA) and the FDOT Office of Information Security Management (ISM) for a priority 1 notification of a security issue.

The FDOT D4 ITS environment incorporates different platforms and tools to and monitor the network infrastructure. Assets are monitored at discrete intervals to identify potential cybersecurity events.

Scope

Information systems, assets are identified for potential cybersecurity events on the District 4 ITS network.

Facilities and Data Centers

- Broward Regional Transportation Management Center (RTMC)
- Palm Beach Satellite Transportation Management Center (STMC) / Treasure Coast STMC

Data Centers have restricted physical access. Door access control systems are installed at each facility. Device cabinets and buildings are controlled by CyberLock key-centric access control system.

Monitoring Controls

- SolarWinds Network Performance Monitor / SolarWinds Event Manager
- Cisco Identity Services Engine / Trend Micro Workload Security & ApexOne-as-a-Service
- Okta Adaptive Multifactor Authentication / Okta Lifecycle Management / Tenable IO
- CyberAudit-Web Enterprise / Cisco Adaptive Security Appliance with FirePower
- Cisco Umbrella / Milestone XProtect Video Monitoring System

Confidentiality-Integrity-Availability (CIA) Triad of Information Security

The CIA triad represents the following three key principles of information security:

- **Confidentiality:** Preserving authorized restrictions on information access and disclosure, including a protection of personal privacy and proprietary information. (Source: Rule 74-2.001, F.A.C.)
- **Integrity:** The principle that assures information remains intact, correct, authentic, accurate and complete. Integrity involves preventing unauthorized and improper creation, modification, or destruction of information. (Source: Rule 74-2001, F.A.C.)
- **Availability:** Ensure timely reliable access and use of information. (Source: Rule 74-2.001, F.A.C.)



Figure 6. CIA Triad of Information Security

Policies Implemented

Network

SolarWinds Network Performance Monitor: assesses the availability of network devices and components. Resources are manually configured with required information for each node to be monitored. Alert policies will notify stakeholders of performance degradation.

SolarWinds Event Manager: aggregates logs from various devices and platforms. Rule sets are configured to continuously analyze and detect anomalies across the network infrastructure. Changes to rules are manually performed based on recommendations received from the US Department of Homeland Security, Florida Department of Law Enforcement Office of Statewide Intelligence, and the CISA.

Cisco Identity Services Engine: facilitates identity and access control for network devices. Enterprise policies enforce compliance and streamline service operations. Compliance policies are manually updated based on Microsoft Security update releases and recommendations received from the CISA.

Operating Systems

SolarWinds Network Performance Monitor: detects performance issues and performs multiple condition checks against servers and workstations. Resources are manually configured with required information for each node to be monitored. Alert policies are set in place to notify all stakeholders of performance degradation.

Trend Micro Workload Security and ApexOne-as-a-Service: monitor and maintain the security posture of endpoint devices, including threat defense, machine behavioral analysis, and vulnerability intelligence. Threat pattern and intrusion prevention rules are automatically updated on connected agents directly from Trend Micromanagement engine. Configured to perform real-time and scheduled scans, malicious codes and unauthorized mobile codes are blocked, quarantined, or removed upon detection.

Tenable IO: scans the infrastructure and identifies security risks at scheduled intervals. Vulnerabilities are remediated as in the FDOT D4 Vulnerability Management Plan.

Applications

Application Control policies: set and monitored using Trend Micro Workload Security and ApexOne-as-a-Service. Trend micromanages and automatically updates security definition libraries. These definitions are scheduled to download at once; immediately applied to agents. Anti-malware and anti-spyware signatures are updated and stored in the Trend Micro cloud libraries. Configured to perform real-time and scheduled scans. Malicious and unauthorized mobile are blocked, quarantined, or removed upon detection.

Web applications: scanned at isolated intervals by Tenable IO to identify security risks. Vulnerabilities are remediated by the application developer, per FDOT D4 Vulnerability Management Plan guidelines.

Procedures

1. Alerts concerning confirmed malicious cyber activity and exploits shared from the FDOT ISM and the CISA are reviewed by the ITS Information Security Team.
2. Once reviewed, all necessary stakeholders are notified and are provided with the recommended actions to minimize security risk.
3. Remediations are performed according to the given risk of impact and likelihood of occurrence.

- | | |
|-----------------|--|
| Critical | <ul style="list-style-type: none"> • Vendor provided updates that remediates cybersecurity vulnerabilities are tested within 7 days of release, and then applied. • Monitoring and detection controls requiring manual configuration are updated immediately after notification. |
|-----------------|--|

High

- Vendor provided updates that clearly remediates cybersecurity vulnerabilities are tested within 14 days of release, and then applied.
- Monitoring and detection controls that require manual configuration are updated immediately after notification.

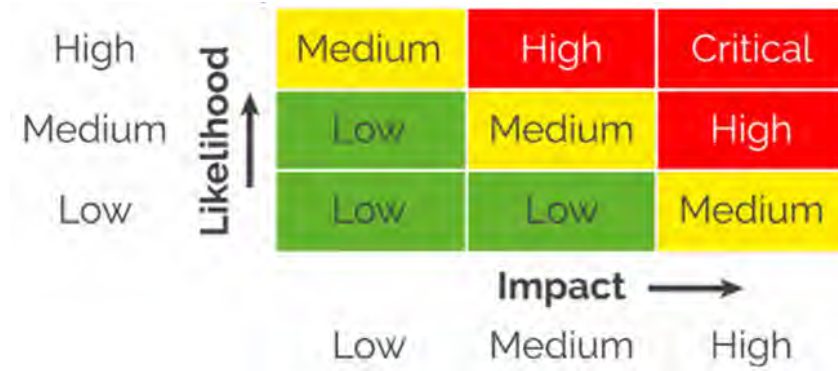


Figure 7. Cybersecurity Risk Matrix

VULNERABILITY PROJECT MANAGEMENT

Overview

A vulnerability requiring resolution from multiple stakeholders, becomes a vulnerability project, which will be tracked for remediation by the Vulnerability Project Manager by coordination with stakeholders. The procedures to resolve vulnerability projects are provided below.

Procedures

Security Team

Steps / Screenshots

1. The Security Team identifies vulnerabilities in the environment within Tenable IO and conducts the research for the fixes.
2. If an identified vulnerability requires remediation from multiple stakeholders, a Security Team creates a SolarWinds Service Desk Security Vulnerability incident and assigns it to the Vulnerability Project Manager, as shown in the example in Figure 3.

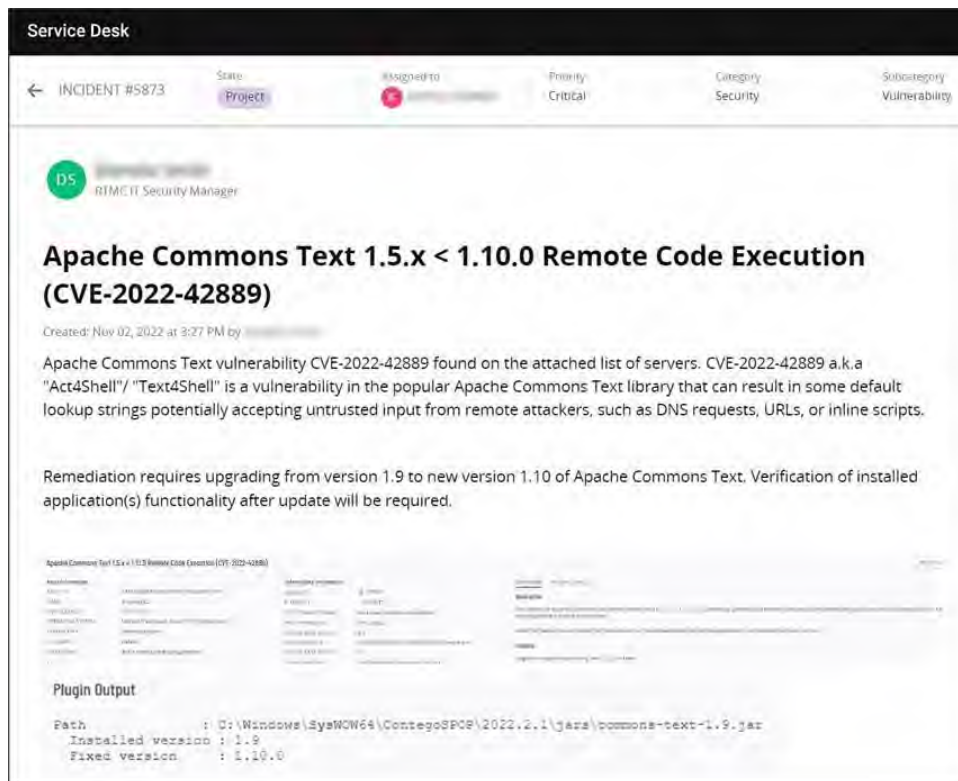


Figure 8. Example of a SolarWinds Service Desk Security Vulnerability Incident

3. The SolarWinds Service Desk Security Vulnerability incident includes the following information:

Steps / Screenshots

- a. Description of the vulnerability.
- b. Solution for the vulnerability.
- c. List of machines affected by the vulnerability.
- d. Any other supporting information.

Stakeholders

Steps / Screenshots

- 1. Each stakeholder creates a change order or incident, as applicable, within the SolarWinds Service Desk and attaches the Security Vulnerability incident in the related tab

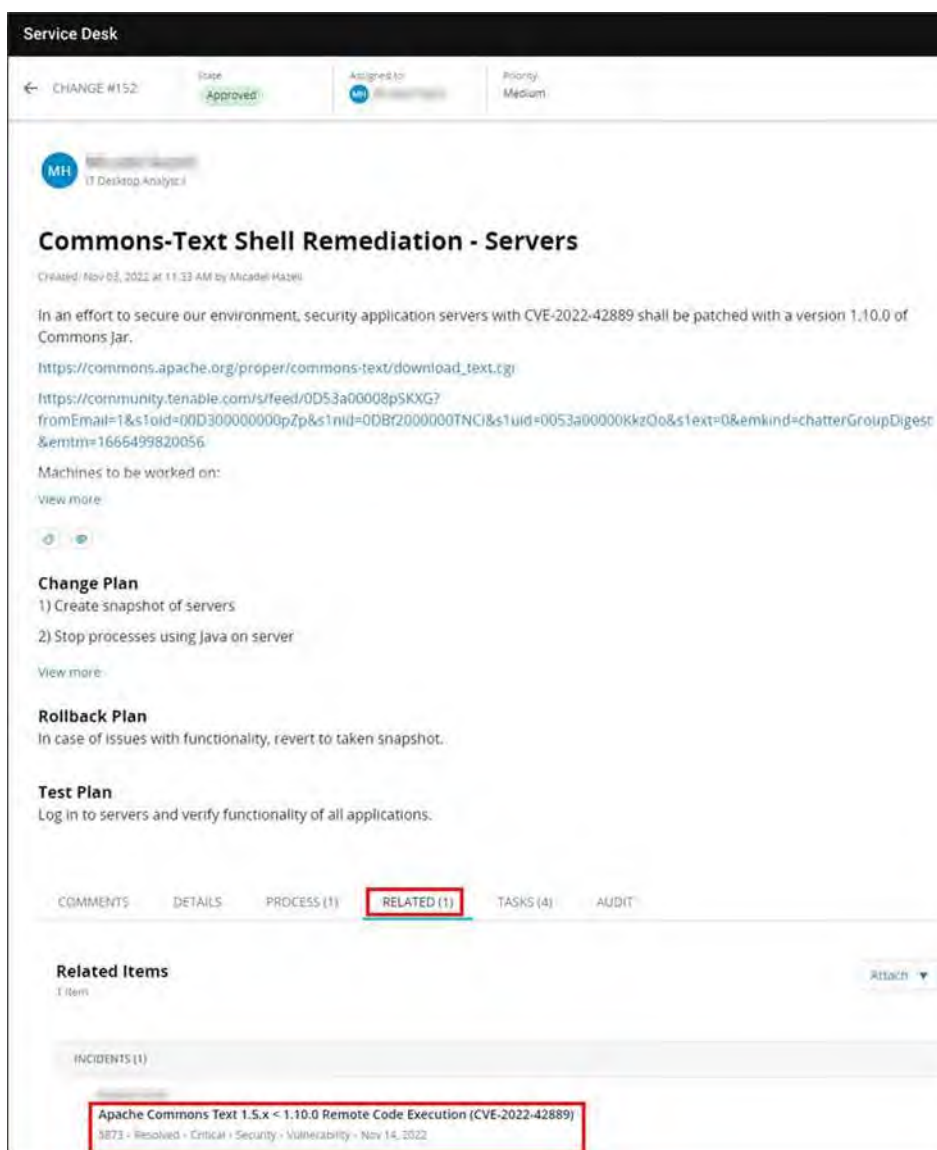


Figure 9. Change Order Related to the Vulnerability Project Incident

Steps / Screenshots

2. Change order(s)/incident(s) include the following information, as applicable:
 - a. Requester's name or email address.
 - b. Descriptive title.
 - c. Justification for the need of the change order.
 - d. Tags and/or attachments.
 - e. Change plan.
 - f. Rollback plan.
 - g. Test plan.
 - h. Details.
 - i. Related items

Vulnerability Project Manager

Steps / Screenshots

1. A Vulnerability Project Manager coordinates with all stakeholders responsible for a solution for remediation to the machines affected by the vulnerability and tracks the project progress from the time it is created until it is resolved.
2. After verifying that a vulnerability is remediated on affected machines, a Vulnerability Project Manager changes the SolarWinds Service Desk Security Vulnerability incident from **Project to Resolved**

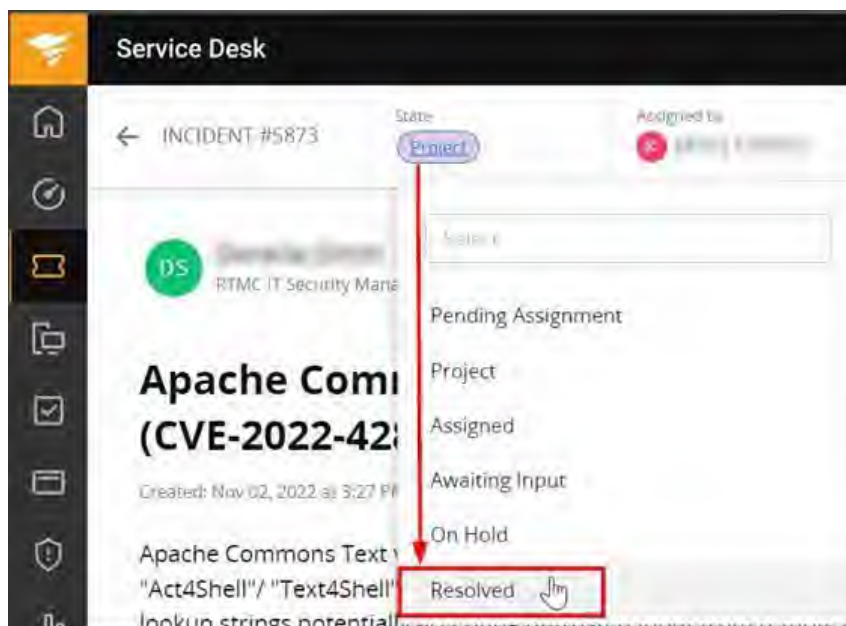


Figure 10. Vulnerability Project Resolved

TENABLE REMEDIATION SCAN GUIDE

Click [here](#) for detailed steps and screenshots

Overview

This document serves as a guide for starting, creating, saving, launching, and completing a remediation scan in Tenable.io. Assets affected by a vulnerability appear in the Active state in Tenable. Once the necessary steps are performed by the stakeholder(s) to remove the vulnerability from the affected asset, a remediation scan must be performed on the previously affected asset within Tenable for the vulnerability to be removed and for the state to change from Active to Fixed. The remediation steps are similar for servers and workstations. Plugin ID 168877 (vulnerability from an outdated version of Microsoft Edge) and asset VISWKS07 will be used as an example throughout this guide.

A remediation scan can be started after the necessary steps are performed by the stakeholder(s) to remove the vulnerability from the affected asset.



Figure 11. Microsoft Edge Vulnerability Removed from Asset VISWKS07

A remediation scan can easily be started from a vulnerability page. Or,



Figure 12. Start a Remediation Scan from the Vulnerability Page

from an asset page

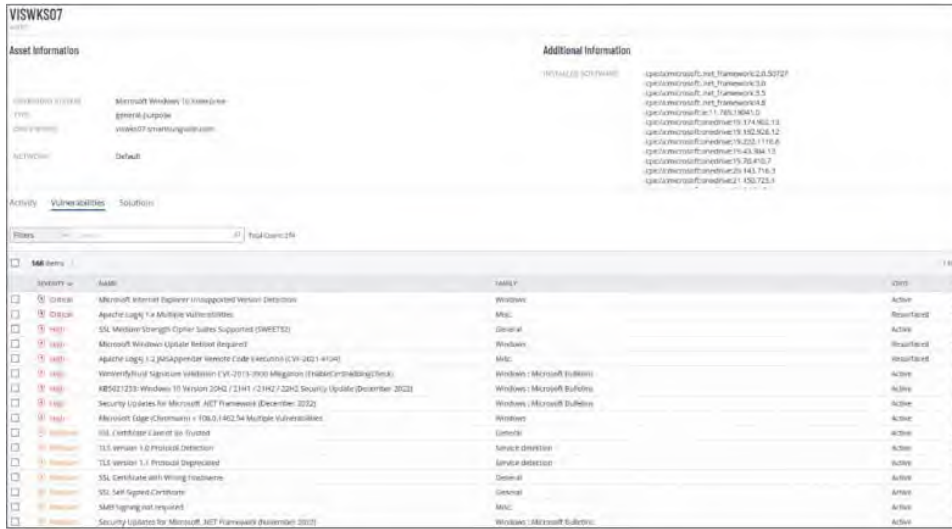


Figure 13. Start a Remediation Scan from the Asset Page

Here, asset VISWKS07 is affected by Plugin ID 168877.



Figure 14. Asset VISWKS07 Affected by Plugin ID 16887

Start a Remediation Scan

Perform step 1. or 2. below to start a remediation scan.

Then, proceed to the Create, Save, And Launch a Scan section. 1.

Start the Process

Steps / Screenshots

1. To start a remediation scan from the **asset page**:

- Click **Actions**
- Select **Launch Remediation Scan**.



Figure 15. Asset Page > Actions

Steps / Screenshots

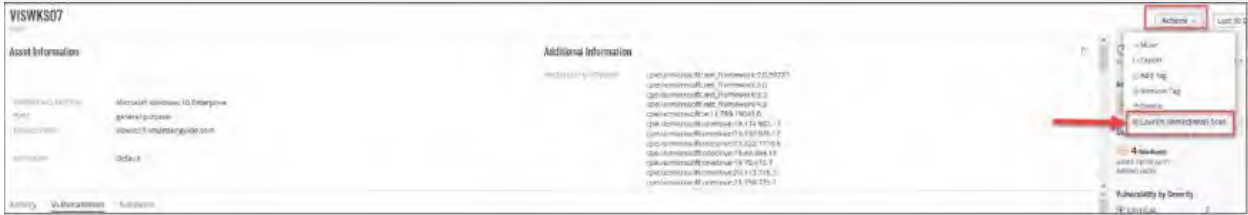


Figure 16. Asset Page > Actions > Launch Remediation Scan

To start a remediation scan from the **vulnerability page**,

2.
 - Click on **Actions**.
 - Select **Launch Remediation Scan**.



Figure 17. Vulnerability Page > Actions

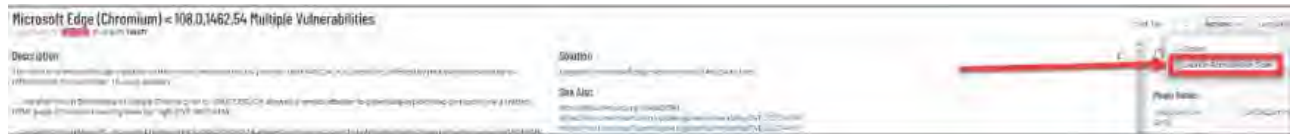


Figure 18. Vulnerability Page > Actions > Launch Remediation Scan

Create, Save, Launch a Scan

Perform steps 1. – 5. below to create a scan.

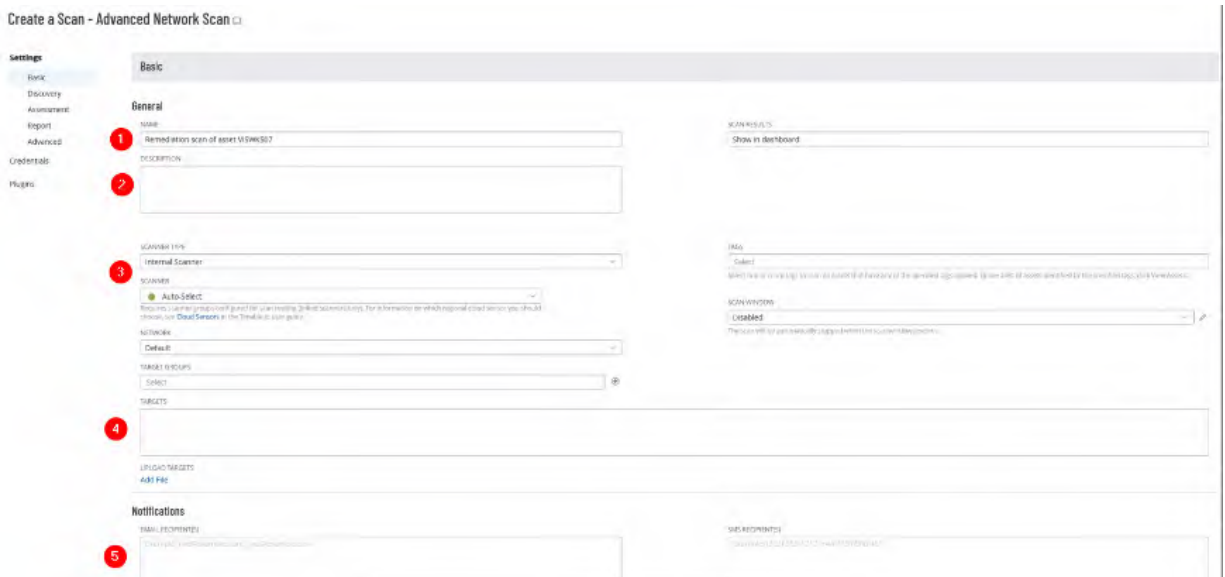


Figure 19. Create a Scan

Then, perform step 6. to launch it.

Steps / Screenshots

1. Name. This field will automatically be filled.
 - a. If the remediation scan is started from the asset page, it will **read Remediation scan of asset VISWKS07**.



Figure 20. Remediation Scan Started from the Asset Page

- b. If the remediation scan is started from the vulnerability page, it will **read Remediation scan of plugin 168877**.



Figure 21. Remediation Scan Started from the Vulnerability Page

2. **DESCRIPTION.** You can write a description of what you are doing in this field. It is helpful when different scans are performed.



Figure 22. Description

3. SCANNER TYPE.

- Click the drop-down menu for **SCANNER**.
- Select Internal Scanners.



Figure 23. Scanner

Steps / Screenshots

- a. **Credentials.** It is done for the scanner to have appropriate access to assets.
- On the left-hand side of the screen,
- Click **Credentials**.

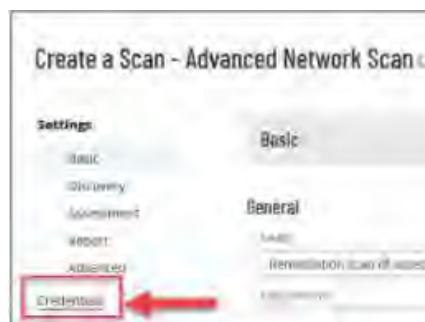


Figure 24. Credentials

- Click the + button next to **Add Credentials**.



Figure 25. Add Credentials

- b. On the right-hand side of the screen,
- Click the down arrow next to **MANAGED CREDENTIALS** to expand the menu options.
- When you scan an asset on the **smartsunguide** domain,
 - Select **SmartSunGuide LDAPAccount**.

When you scan an asset on the field domain,

- Select **Field LDAP Account**.

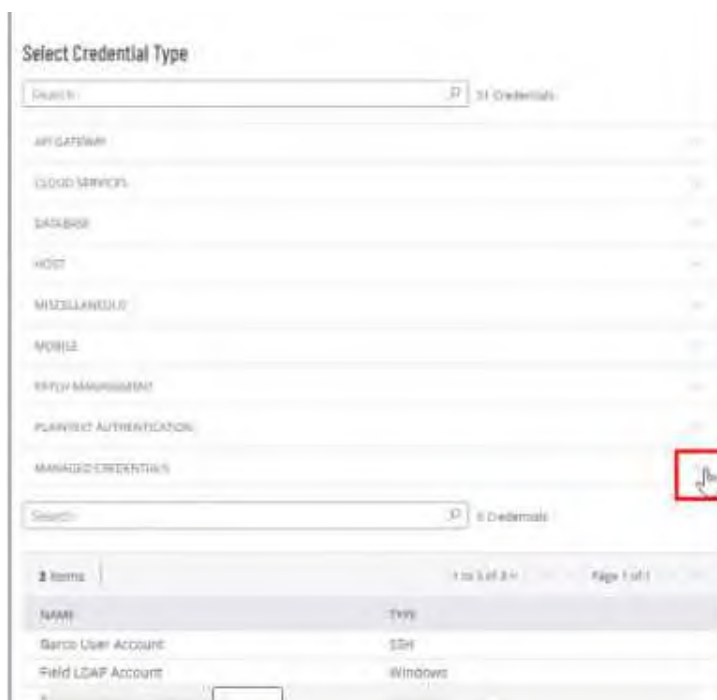


Figure 26. Managed Credentials

Steps / Screenshots

- c. Here, **SmartSunGuide LDAP Account** is selected.



Figure 27. SmartSunGuide LDAP Account

4. **Targets.** These are the assets that will be covered in the scan.



Figure 28. Targets

- If launching a remediation scan from the asset page, its IP address will be auto-filled in this field.
- If launching a remediation scan from the vulnerability page, this field will be filled with the IP addresses of all assets listed in the vulnerability page.
- You can add or remove IP addresses here as you choose.

5. **Notifications.** In this field, you can enter your email address or that of others, to receive a notification.



Figure 29. Notifications

- The email will have the scan results and other information pertaining to what the scan found.

Steps / Screenshots

- b. You must return to Tenable for full details, when verifying if a certain vulnerability is eliminated from a particular asset.

6. At the bottom right-hand side of the page,

Click **Save & Launch**. You will navigate back to your **Remediation Scans** page.

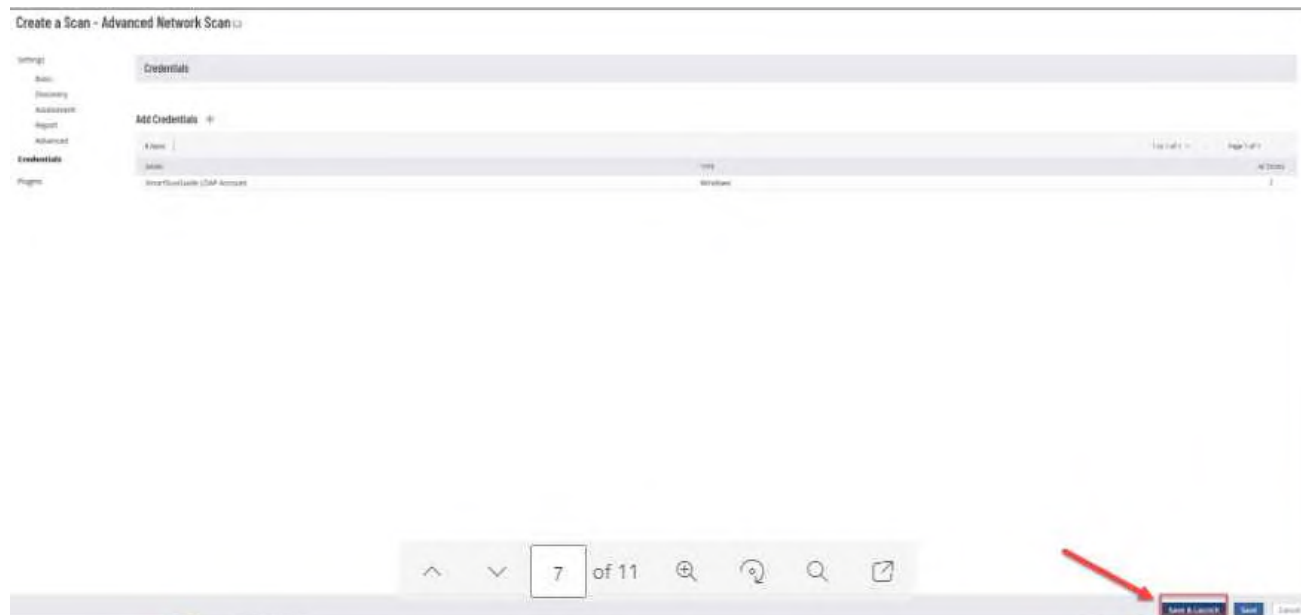


Figure 30. Save & Launch

Complete a Remediation Scan

Allow some time for the scan to complete. Completion time varies depending on how many machines are scanned as well as whether other scans are performed at the same time.

Steps / Screenshots

1. In the Remediation Scans page, you'll see the launched scan with a **Pending** status.

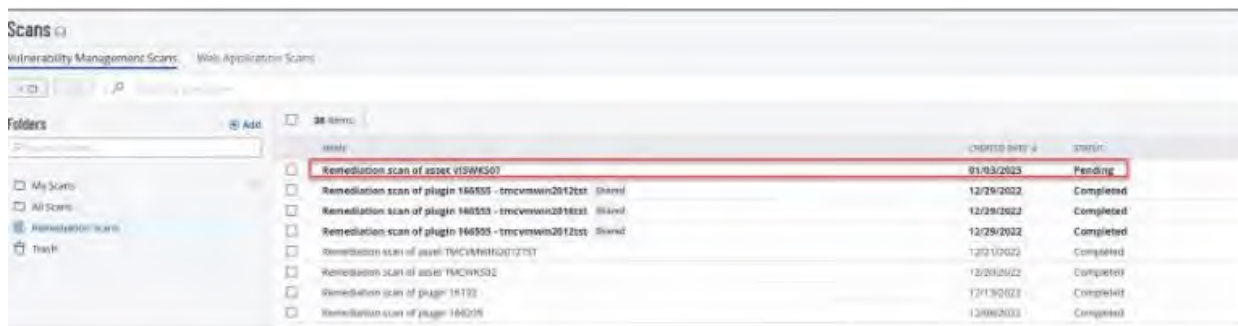


Figure 31. Remediation Scans Page – Status: Pending

2. Once the scan status is changed to **Completed**,
Click it to view the details (e.g., scan duration and number of vulnerabilities).

Steps / Screenshots

(1) Compare the following screenshots, depicting the Microsoft Edge vulnerability before the remediation scan was performed.

Severity	Name	Family	State	CWE
Critical	Microsoft Internet Explorer Unsupported Version Detection	Windows	Active	1
Critical	Apache Log4j 1.x Multiple Vulnerabilities	Misc.	Resolved	1
High	SSL Medium Strength Cipher Suites Supported (CVE-2022-0772)	General	Active	2
High	Microsoft Windows Update Reboot Required	Windows	Resolved	1
High	Apache Log4j 2.2 JMSAppender Remote Code Execution (CVE-2021-4104)	Misc.	Resolved	1
High	VeriSign Signature Validation CVE-2019-3806 Mitigation (EnableCertPaddingCheck)	Windows - Microsoft Bulletins	Active	1
High	KB5021233: Windows 10 Version 20H2 / 21H1 / 21H2 / 22H2 Security Update (December 2022)	Windows - Microsoft Bulletins	Active	1
High	Security updates for Microsoft .NET Framework (December 2022)	Windows - Microsoft Bulletins	Active	1
High	Microsoft Edge (Chromium) - CVE-2022-08727 Multiple Vulnerabilities	Windows	Active	1
Medium	SSL Certificate Cannot Be Trusted	General	Active	2
Medium	TLS Version 1.0 Protocol Disabled	Service Detection	Active	3
Medium	TLS Version 1.1 Protocol Disabled	Service Detection	Active	2
Medium	SSL Certificate with Wrong Issuance	General	Active	1
Medium	SSL Self-Signed Certificate	General	Active	1
Medium	SMB Signing not required	Misc.	Active	1
Medium	Security updates for Microsoft .NET Framework (November 2022)	Windows - Microsoft Bulletins	Active	1

Figure 35. Vulnerabilities List Before Remediation Scan

(2) Return to the asset page, away from the Scan section of Tenable, for the list of pending vulnerabilities on the asset in question, after the remediation scan was performed.

(3) The Microsoft Edge vulnerability no longer appears in the vulnerabilities list.

Severity	Name	Family	State	CWE	YPR
Critical	Microsoft Internet Explorer Unsupported Version Detection	Windows	Active	1	
Critical	Apache Log4j 1.x Multiple Vulnerabilities	Misc.	Resolved	1	8.4
High	SSL Medium Strength Cipher Suites Supported (CVE-2022-0772)	General	Active	2	5.1
High	Microsoft Windows Update Reboot Required	Windows	Resolved	1	
High	Apache Log4j 2.2 JMSAppender Remote Code Execution (CVE-2021-4104)	Misc.	Resolved	1	7.4
High	VeriSign Signature Validation CVE-2019-3806 Mitigation (EnableCertPaddingCheck)	Windows - Microsoft Bulletins	Active	1	7.9
High	KB5021233: Windows 10 Version 20H2 / 21H1 / 21H2 / 22H2 Security Update (December 2022)	Windows - Microsoft Bulletins	Active	1	8.8
High	Security updates for Microsoft .NET Framework (December 2022)	Windows - Microsoft Bulletins	Active	1	7.4
Medium	SSL Certificate Cannot Be Trusted	General	Active	2	
Medium	TLS Version 1.0 Protocol Disabled	Service Detection	Active	3	
Medium	TLS Version 1.1 Protocol Disabled	Service Detection	Active	2	
Medium	SSL Certificate with Wrong Issuance	General	Active	1	
Medium	SSL Self-Signed Certificate	General	Active	1	
Medium	SMB Signing not required	Misc.	Active	1	

Figure 36. Vulnerabilities List After Remediation Scan

(4) Perform a search for Fixed vulnerabilities and see that the Microsoft Edge vulnerability appears in the list of fixed vulnerabilities.

Steps / Screenshots



Figure 37. Search for Fixed Vulnerabilities

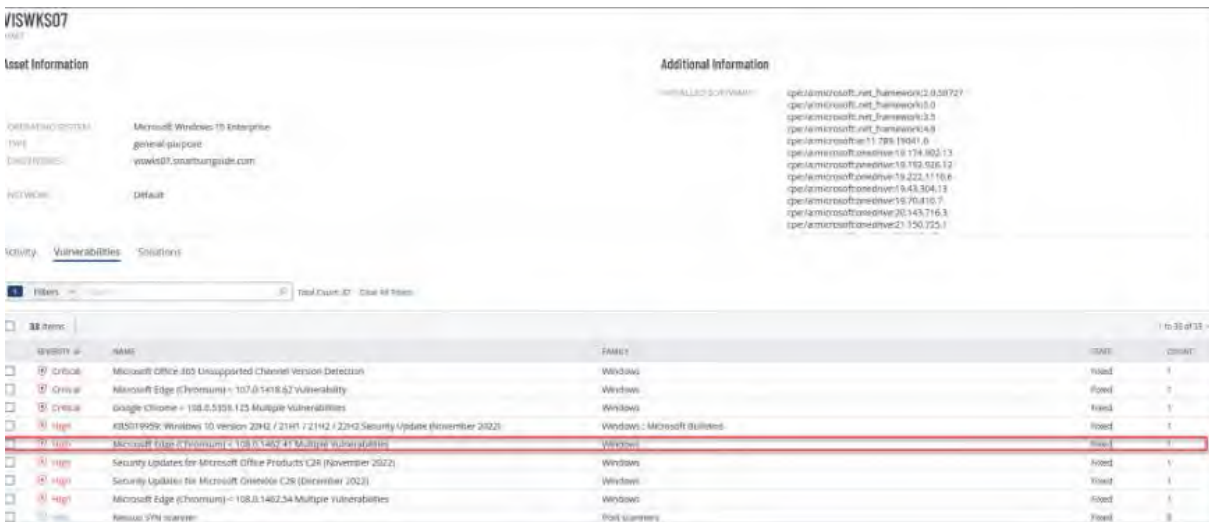


Figure 38. Fixed Vulnerabilities List



7.05 Network Backup and Recovery

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Document History

Version #	Date	Author	Changes
1.0	12/19/2023	Yana Neishlos	Initial Draft

BACKUP

Four Levels of Backups

1. **Email:** The Exchange system managing all e-mails is setup in a database availability group. Three separate copies of the Exchange database are stored on three separate systems. Two are located within the TMC, and the one – within TIMSO. The TIMSO Database is stored within the Enterprise Backup System. A Journaling rule is enabled to keep e-mails for seven years per Florida State Statue standards. E-mails used for public record are stored on a database, isolated from other user databases to prevent data corruption.
2. **Configurations, database files:** Configurations, database files for an application running a preset configuration that can back up the configuration via FTP, SFTP, or SSH, is automatically saved to the SFTP server running in the TMC. This server replicates configuration files to a remote site within TIMSO. Both the TMC SFTP and TIMSO SFTP Server are backed up via separate backup appliances that store the information long term to tape.
3. **File Share:** District Four utilizes a DFS cluster to house multiple copies of the same file across geographic locations housed on different servers. Each server tracks changes through a native Microsoft Volume Shadow service to provide self-service recovery by individual users within the Windows subsystem. But, servers, housing the same file, are saved independently, and backed up to disk archive through our backup server.
4. **Physical and Virtual Servers:** Physical and virtual servers are backed up twice through the backup appliance in the TMC and TIMSO for redundancy and fast recovery time for files. Cold Archive Storage is used for long-term backups more than a year old.

Backups Scenarios

1. **Lost / corrupted file(s) on a file server** District Four IT Department to perform a file level recovery through Microsoft Shadow Copy Service. If unavailable, → refer to file level backups on one of three file servers and restore from tape backup.
2. **Corrupted application and / or Operating System located on a server(s) providing services.** District Four: restore virtual machine(s) configuration(s) to its previous state from a virtual machine recovery point. If it is a physical server, District 4 will perform a recovery through restoring at a previous point in time through a recovery point within its backup appliance subsystem from the TMC or TIMSO that holds a copy of its system state.
3. **Complete destruction or failure of the TMC** District Four has developed a limited functionality hot site to provide baseline services of email, file, print, and SunGuide access through its Fort Pierce disaster recovery site. Services are live; replicated in real time to enable users' functions in case of a complete TMC failure. Based on the TMC damage, then a decision to be made to start with recovery from District Four ITS backup systems to new hardware. If a new hardware is not available, recovery to existing hardware a case-by-case scenario will be decided based upon immediate and long-term needs of the Department for data access.

BACKUP DATA RULES AND REQUIREMENTS

Purpose

This document establishes the baseline rules and requirements for the backup of data and servers throughout the FDOT District Four TSM&O environment unless otherwise noted in the Exceptions table. Moreso, the document establishes roles and responsibilities for FDOT District Four TSM&O staff as it relates to data backup.

Practice

[FDOT Topic No. 325-060-020](#), Section 7, Protection Against Loss, states all data and software essential to the continued operation of critical agency functions shall be mirrored to an off-site location or backed up regularly with a current copy stored at an offsite location. TSM&O has developed a standard process for backing up and retention of data and systems at the datacenters.

In addition, this document establishes roles and responsibilities for TSM&O staff for:

- Local backups
- Replicated data
- Data Restoration
- Troubleshooting
- Problem resolution
- Communication

As infrastructure or operational requires changes, it is common to reassess the provisions of this document. Reviews and updates shall occur bi-annually and in accordance with the Method and Practice Process.

Exceptions must be approved by District Four TSM&O managers or above and documented in the Exceptions Table located at the end of this document.

Method

Data Categories

Data is classified into five (5) data categories:

Category	Details	Examples
System Data	Consists of the server operating system and its extensions. Data is typically restored by restoring the entire virtual machine or rebuilding the machine from original installation media.	Operating systems, applications used to manage the servers.
Infrastructure Data	Supports the Local Area Network (LAN) and its users. If loss occurs, data will have special requirements for backup and recovery.	The installation and configuration files (not databases) for DNS, Active Directory, SQL Server.
Static Data	Static data does not change. It is copied from original media, e.g., CD, DVD, or original electronic source to LAN file server storage.	Usage: providing access to application installation files, service packs, and software updates not accessible via the Internet. Data is never modified.

Category	Details	Examples
User Data1	Staff requires this data to support operations and processes of the Department. User data is required to complete specific tasks and staff's daily work. Data type is modified regularly; essential to the operation of the Department.	It exists in various file formats. It is stored in shared folders, within other programs or databases such as security logs, SharePoint or stored on LAN file servers.
Exceptional Data1	Exceptional Data is data identified by the data owner as requiring special attention for the purpose of backup or recovery.	Data are CADD final plans requiring longer retention; it is sensitive; requires isolation and explicit permissions; email/messaging data subject to public record retention regulations.

User Data1

1 It is not the responsibility of the TSM&O to differentiate between User and Exceptional data. It is the responsibility of the data owner to notify TSM&O IT of data classified as Exceptional and to document a backup/recovery plan.

Exceptional Data1

Minimum Data Backup Requirements (Frequency)

User Data

Backup of user data is required daily to include databases containing user data or are necessary for data restoration. Backups of user data combined with system and infrastructure data shall ensure complete recovery of user data and a recovery of individual files. At the least, full backups must be performed weekly. Incremental backups must be performed between full backups for the user data to be restored from a daily point-in-time between full backups. User data backups are stored offsite.

System and Infrastructure Data

Incremental backups of all system and infrastructure data shall occur daily, and as necessary for changes to the environment. A full backup (or image) of all system and infrastructure data shall occur once a week or as changes are made to the infrastructure. System and infrastructure backups shall be stored offsite.

Static Data

No backup is required; however, a backup may be created for the purpose of faster recovery.

Exceptional Data

Data owners are responsible for creating a plan for backup and recovery.

Technical Support: Roles & Responsibilities

Local/ Replication Backup Site Responsibilities and Support

- At least two staffers shall be designated as primary and secondary technical support to ensure that all backups adhere to standard requirements. The designees shall be trained to perform data backup functions for each location.
- TSM&O IT staff are responsible for:

- configuring local backup, copy jobs, daily monitoring and resolving backup/copy failures. TSM&O IT staff will contact the backup software vendor to troubleshoot software related issues.
- monitoring all backup server hardware, operating systems, and backup software including the required system support software, i.e., antivirus.
- all restoration requests for their district staff.

Backup Scheduling

Backup administrators shall schedule backups according to manufacturer specifications of load and efficiency. Not all backups can run at once. Backups should be run in “non-peak” hours, from 7pm until 7am, or unless otherwise appropriate to schedule during the day, due to low usage on an asset.

Performance & Maintenance Requirements

Technical support staff for server backups shall adhere to the following requirements pertaining to onsite and offsite storage, retention, verification and logging, documentation, media, and software.

Onsite & Offsite Storage

The full backup (any classification of data) shall be digitally replicated to the replication backup site.

Retention

Backup data (any classification of data) shall be retained offsite for a minimum period of six months. This is a minimum requirement, and any further retention requirements is a decision made at the discretion of the D4 TSM&O management.

Verification & Logging

Backup integrity shall be verified. Designated D4 TSM&O IT technical support shall perform a test restore to a temporary directory of their choosing.

Documentation

Information concerning file server backups shall be thoroughly documented: “The IT Support Manager is responsible and accountable for ensuring the documentation includes sufficient information and details to enable competent staff to perform the same duties using that documentation.”

Documentation shall include the following items:

- Technical staff members responsible for backups (primary and backup).
- Instructions for performing the backup and restoration.
- Monitoring, testing, and verification procedures.
- Method for scheduling and recording the server backups.
- Backup method (Local Area Network or Wide Area Network).

Software Standards

The standard software for backup, retention, and software used for any specific backup purpose not defined in this document shall be limited.

Exceptions

Requestor	Approver	Approved	Date	Description Exception	Expiration

APPENDIX: BACKUP DOCUMENTATION

Backup Software

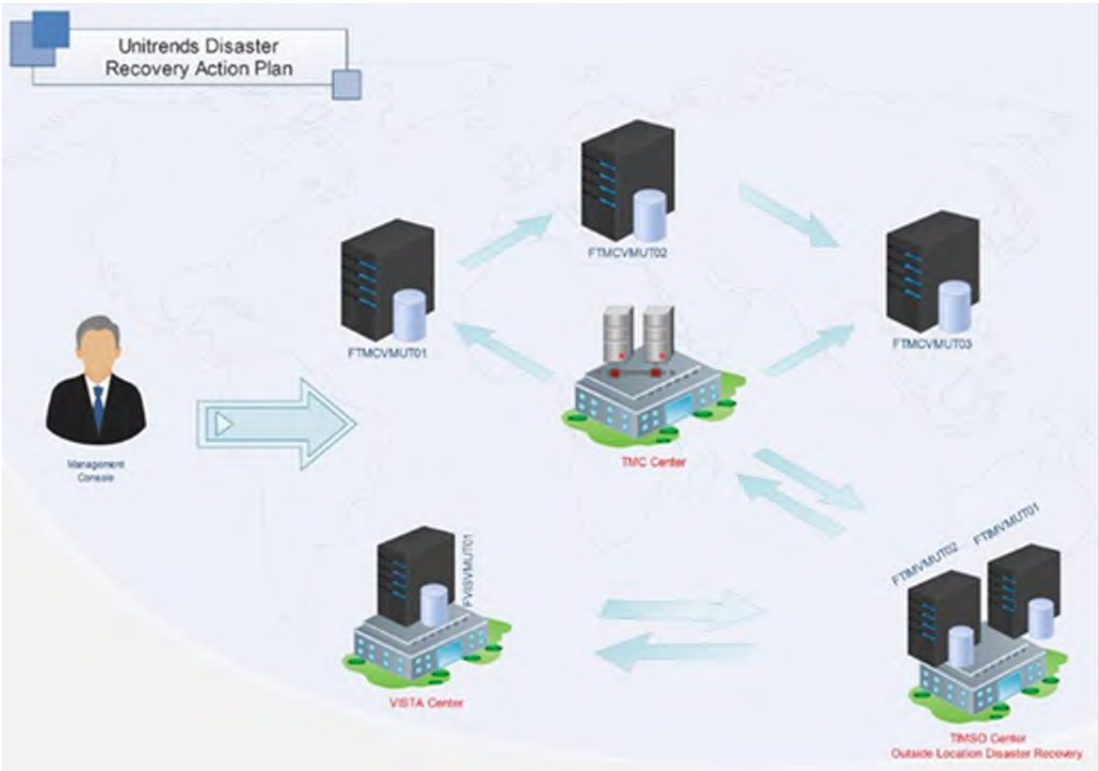
The current software being used is "Unitrends" backup. This runs on a virtual appliance in the D4 TSM&O VMware environment.

FTMCVMUT04 – Test Environment	
FTMCVMUT01 – Backup Target	Broward TMC
FTMCVMUT02 – Backup Target	
FTMCVMUT03 – Backup Target	
<hr/>	
FTIMVMUT01 – Backup Target	TIMSO Treasure Coast
FTIMVMUT02 – Backup Target	
<hr/>	
FVISVMUT01 – Backup Target	Palm Beach Ops Center

Backup Locations

The following locations are used for backups, with subsequent replication site info.

1. *Broward TMC* 2300 W. Commercial Blvd, Fort Lauderdale, FL 33309 Replication Site – TIMSO Treasure Coast
2. *TIMSO Treasure Coast* 3601 Oleander Ave, Fort Pierce, FL 34982 Replication Site – Broward TMC
3. *Palm Beach Operations Center* 7900 Forest Hill Blvd, West Palm Beach, Florida 33413 Replication Site – TIMSO Treasure Coast



Backup Testing Procedures

1. Backup testing will be conducted by the following designated personnel.
 - IT Server Manager
 - IT Server Administrator
2. Backup Verification will be conducted by the following designated personnel: IT Support Manager
3. Backup testing will happen every 6 months, and will contain the following items:
 - A file restore from the Share Drive (N: Drive), to be documented on the “Backup Test After-Action.”
 - A bare-metal restore, of a System and Infrastructure Data node, of non-significant value (i.e. no Domain Controllers or databases), to be documented on the “Backup Test After-Action.”
 - Backups, from both above types, will occur using both the primary and replication locations.
 - The “Backup Test After-Action will be submitted to the Verification designee within 24 hours of the completion of the test.
 - The verifier will test the “restores” for all aspects.
 - Functionality
 - Integrity
 - Performance
 - Accessibility
 - Accuracy
4. Any testing issues will be documented in the “After-Action Report” and a ServiceDesk ticket will be created for resolution. The ticket number will also be documented with all related Change Orders for resolution.

DISASTER RECOVERY PLAN MANUAL

Introduction

This document details the policies and procedures of FDOT District 4 TSM&O IT in the event of a disruption to critical IT services or damage to IT equipment or data. These processes will ensure that those assets are recoverable to the right level and within the right timeframe to deliver a return to normal operations, with minimal impact on the business.

Plan Objectives

- Reduce overall risk.
- Create a rapid response to outages.
- Provide contact details to key personnel.
- Provide example scenarios.
- Define communication to users and managers.

Plan Scope

This plan will incorporate all aspects of the D4 TSM&O IT environment and their disaster recovery capabilities and procedures. The contact information within this document will remain updated on a regular basis for any scenario where it will be used.

Service Recovery Point Objective (RPO) And Recovery Time Objective (RTO) Targets

RPO designates the variable amount of data lost or will have to be re-entered during network downtime. Commonly designated as the frequency of backups performed (i.e., daily backups = 24 hours, database backups = 1 hour).

RTO designates the amount of real time that can pass before the disruption begins to impact the flow of normal business operations. It is commonly designated as the amount of time the application or system can be down before causing interruption in business operations.

IT Service	Scenario	RPO	RTO	Priority
SunGuide	Server Failure	24 hours	15 minutes	Medium
Production Network	Fibre Cut/Equipment Failure	Indefinite	Instant	High
VMWare Virtual Environment	Server Failure/Location Disaster	24 hours	15 minutes	High
Internet Circuit	Cut/Loss of Service	Indefinite	Instant	High
Databases	Server Failure/Data Integrity	1 Hour	Instant	Medium
Cisco ASA	Equipment Failure/Loss of Power	Indefinite	Instant	High

IT Service	Scenario	RPO	RTO	Priority
SAN	Equipment Failure	24 hours	4 Hours	Medium

Backup Strategy

Refer to the "Backup Data Rules and Requirements" document for details.

Testing Schedule

The DR plan will be tested in its entirety once every 6 months.

Recovery process for IT service will be tested once every 6 months.

Plan Review

The DR plan itself will be formally reviewed once every 12 months and in response to regular testing.

Revision History

Version	Date	Revision details
1.0	02/24/2020	Initial Revision
2.0	02/10/2021	Updated the "Service RPO and RTO targets" and "Failover Capabilities" sections.
3.0	09/8/2021	Updated the "Internal Contacts" section and key contacts in the "DR Plan for Damage to Servers" and "DR plan for Damage to SAN" sections.

Roles and Responsibilities

The following individuals are to assume responsibility for restoring IT services when the DR plan is activated:

Internal Contacts

Name	Job role	Contact details	DR process owned
Aaron Rapp recovery	IT Support Manager	RTMC, (954) 789-3478	Backup and data
Derron Ungolo recovery	IT Server Manager	RTMC, (954) 294-9448	Backup and data
Kuanming Li	IT Network Manager	RTMC, (954) 654-8407	Network Redundancy

External Contacts

Name	Organization	Contact details	DR process owned
Crown Castle Fiber Support	Crown Castle – Circuit ID VDP-0000138662 (FTLDFLFMH13)	(855) 93-FIBER	Network Circuit (Backup) RTMC
Comcast Business Support	Comcast – Account # 963195163	(800) 391-3000	Network Circuit (Primary) TIMSO
AT&T Support	AT&T – Account # 831-000-6324 541 / Router ID: 902744286	(855) 971-6681	Network Circuit (Primary) RTMC

Incident Response

The DR plan is to be activated when one or more of the following criteria are met:

- Activated by IT Support Manager.
- Activated by TSM&O Management.
- Activated by FDOT District Management.

The person discovering the incident must notify the following DR stakeholders, who collectively assume responsibility for deciding which - if any - aspects of the DR plan should be implemented, and for establishing communication with employees, management, partners, and customers.

- Theodore Burdusi, (954) 847-2797
- Nicole Forest, (954) 847-2631
- Dee McTague, (954) 691-5340

DR Procedures

Depending on the incident, and on the number and nature of the IT services affected, one or more of the following DR procedures may be activated by the DR team:

DR Plan for Damage to Servers

Scenario	Damage to servers at RTMC office
Possible causes	Fire, flooding, wind damage
IT services and data at risk	Email Systems, SunGuide, Databases, SAN, VMWare Virtual Environment
Impact	Internal/external communications lost; incident response affected
Plan of action	<ul style="list-style-type: none"> • Identify issue, coordinate initial response. • Remove damaged servers from data center.

- Evaluate damage.
- Establish data recovery targets and timeframes.
- Send courier for damaged servers.
- Share images after data recovery

Key Contacts Aaron Rapp
Derron Ungolo
Theodore Burdusi

DR Plan for Damage to SAN

Scenario	Damage to SAN at RTMC office
Possible causes	Fire, flooding, wind damage
IT services and data at risk	Email Systems, SunGuide, Databases, SAN, VMWare Virtual Environment
Impact	Internal and external services lost; incident response affected
Plan of action	<ul style="list-style-type: none"> • Identify issue, coordinate initial response. • Contact Dell Support for response. • Remove damaged drives/module. • Evaluate damage/failure. • Establish data recovery targets and timeframes
Key contacts	<ul style="list-style-type: none"> • Aaron Rapp • Derron Ungolo • Theodore Burdusi

Failover Capabilities

<u>IT Service</u>	<u>Primary</u>	<u>Secondary</u>
SunGuide	RTMC	TIMSO
Production Network	Layer 3 Failover / Multiple Routes	Layer 3 Failover / Multiple Routes
VMWare Virtual Environment	RTMC	TIMSO

Appendices

Alternate Work Locations

Site	Address	Contact details	Facilities available
Broward RTMC	2300 W. Commercial Blvd. Fort Lauderdale, FL 33309	(954) 847-2785	Server Room, Offices, Network connection, Servers
Treasure Coast TIMSO	3601 Oleander Ave. Fort Pierce, FL 33411		Server Room, One Office, Control Room, Network connection, Servers
Palm Beach Operations Center	7900 Forest Hill Blvd. West Palm Beach, FL 33413	(954) 593-8788	Server Room, Office, Control Room, Network Connection

Notification Procedures

In the event of a DR activation, an email will be sent out to the following distribution list:

Everybody-All-DL@smartsunguide.com. The email will include the following information, at a minimum:

- The location of the disaster.
- The services impacted.
- Restoration plan details and failover status.
- Estimated time of restoration.

Updates will be sent out at regular intervals until the completion of the DR plan.

DR ACTIVITIES RECORDS

Date	Activity	Outcome	Actions



7.06 Remove Outlook Mailbox From PC

Table of Contents

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EMAIL BACK-UP AND RECOVERY	20
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VIEW MEETINGS IN THE LARGE CONFERENCE ROOM	29

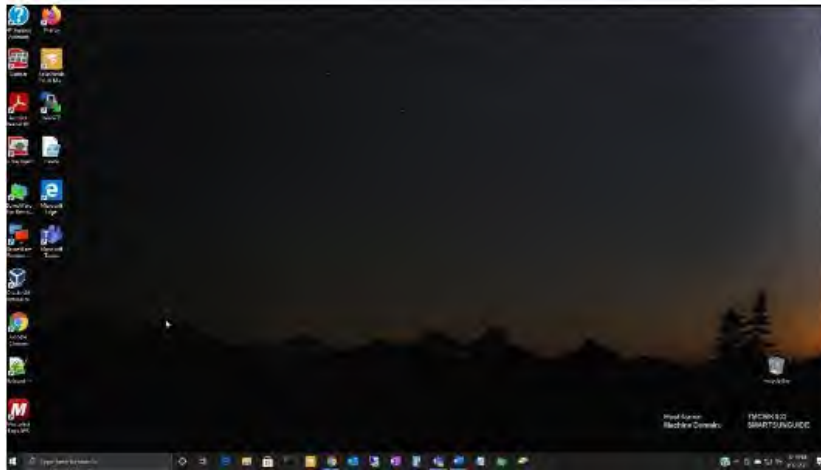
Document Version History

Version #	Date	Author	Changes
1.0	2/20/2023	Yana Neishlos	Initial Draft

REMOVE OUTLOOK MAILBOX FROM PC

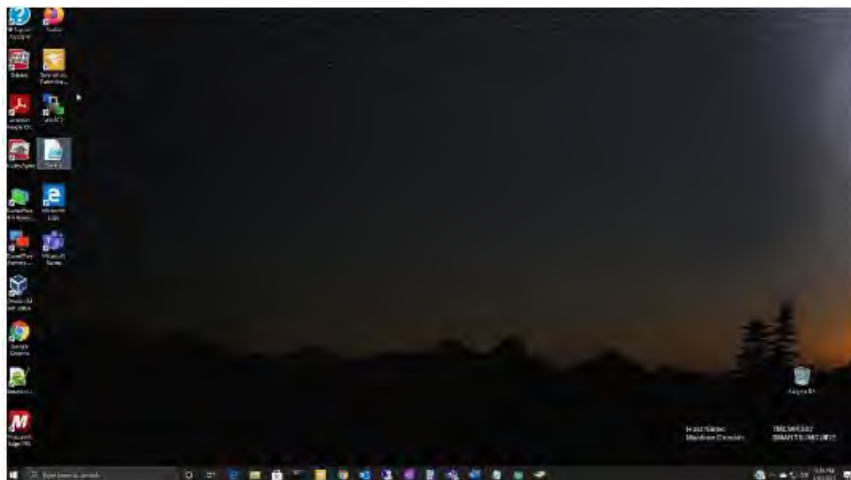
#	Steps / Screenshots
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1. Close the Outlook Application.



2. Contact the IT Office at the D4 RTMC to obtain the script.

You must delete script.



3. After closing Outlook, → Go to the **Delete script** → Right-click on it.

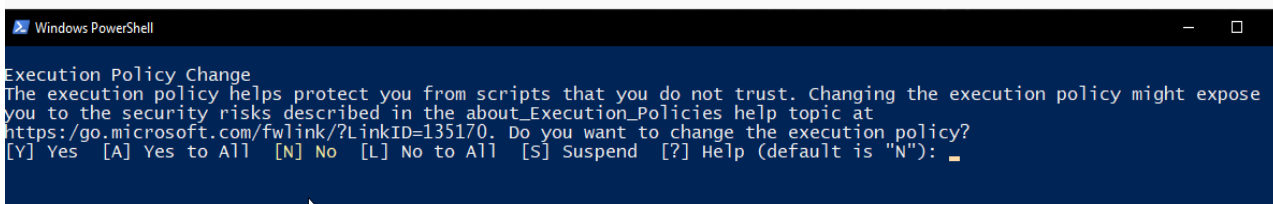
Steps / Screenshots

4. Right-click to delete script.

Select the option **Run with PowerShell**.

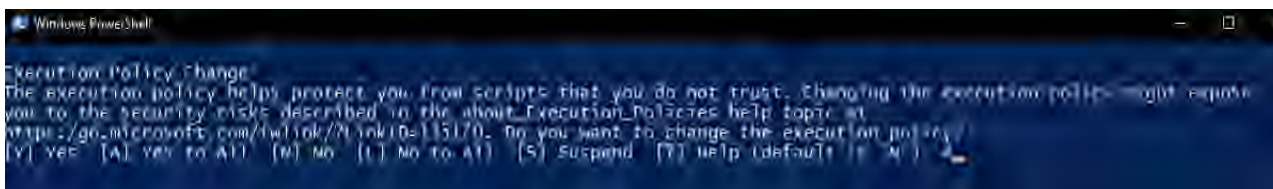


5. After selecting the option, two things will happen. The script will run and give you a PowerShell prompt or it will simply run, and nothing will open on your screen. If you get the prompt it should look like below.



6. If you are prompted via PowerShell, you must type in the letter "A" for the option that says.

7. After typing in option "A" and pressing enter. The script will run and close itself out.



Steps / Screenshots

8. Right-click the script.

Run as PowerShell again. This time it should not ask you to enter in anything and should briefly run, and disappear.

9. Click **Start the Outlook application**.

10. The mailbox should be cleared.

You should be prompted to sign in now.



Sign in

Email or phone

[Can't access your account?](#)



FDOT OUTLOOK SETUP INSTRUCTIONS

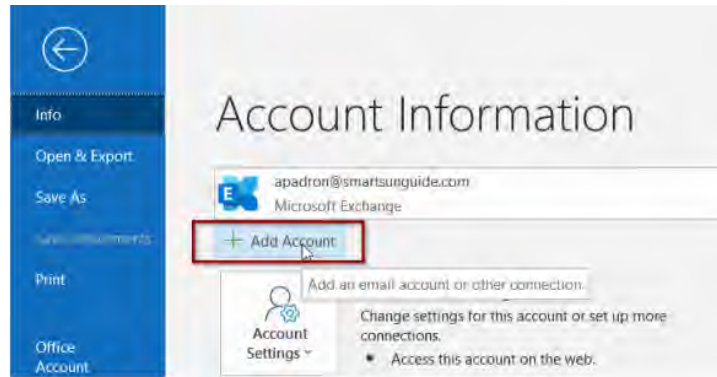
Here, you can find the instructions on how to add your Office 365 FDOT email account to your Outlook application. If you have any further questions, please submit a support ticket.

This document will cover the steps to login within Outlook on Workstation using your FDOT account.

Steps / Screenshots

1. Within Outlook,

- Click **File**.
- Click **Add Account**.

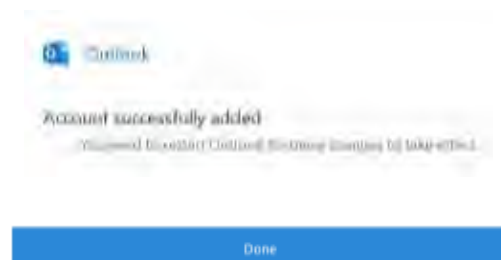


2. Fill in your FDOT email address and password into the provided fields.



3. Once you have successfully filled in your login information, you will see this prompt.

- Ensure you completely close Outlook.
- Then, re-open.



4. Your default web browser will automatically open a link to assist you with your mobile account access.

Steps / Screenshots

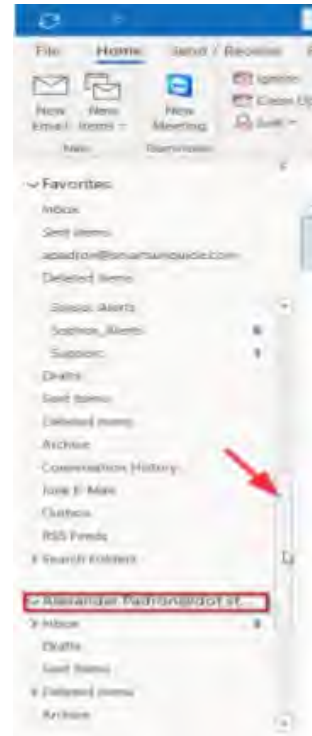


When you re-launch outlook, it could take a minute or two to load your new profile into Outlook.



Steps / Screenshots

5. Once outlook is done opening, locate your new mailbox by scrolling down on the left side of the application as shown below:



If you need any further assistance, please email support@floridadot.samanage.com and we will be able to assist you as soon as possible.

You can also still access your email while waiting for support. To do so, login using your FDOT email account on www.Outlook.com in order to access the web version of your outlook profile.

RESET YOUR FDOT EMAIL PASSWORD

Steps / Screenshots

1. On Intrasmart,

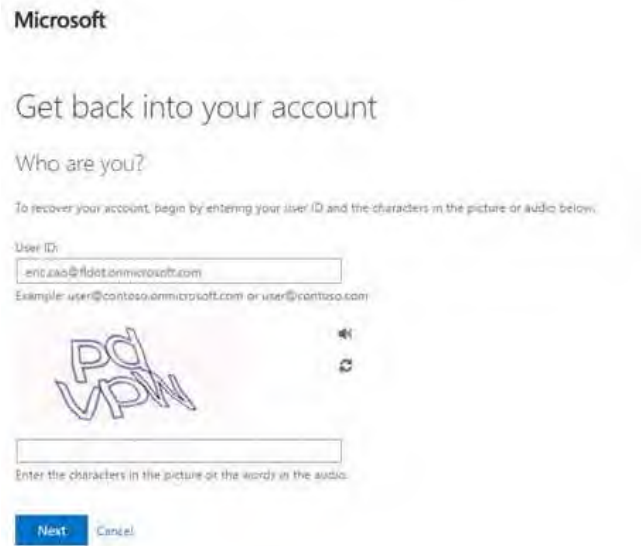
Go to Broward Resources
→ Click **FDOT Outlook Web**.



2. Select "Forgot my password".



3. Enter in your email in the "User ID" box and the characters in the text box below.



Steps / Screenshots

4. Enter your phone number and wait for the text message.

Microsoft

Get back into your account

verification step 1 > Choose a new password

Please choose the contact method we should use for verification:

Text my mobile phone

Call my mobile phone

In order to protect your account, we need you to enter your complete mobile phone number (*****14) below. You will then receive a text message with a verification code which can be used to reset your password.

Enter your phone number

Next

Cancel

5. Enter the verification code from the received text message.

Microsoft

Get back into your account

verification step 1 > choose a new password

Please choose the contact method we should use for verification:

Text my mobile phone

Call my mobile phone

We've sent you a text message containing a verification code to your phone.

Enter your verification code

Next Try again Contact your administrator

Cancel

6. Enter your new password and type it again in the bottom text box to confirm your new password.

Microsoft

Get back into your account

verification step 1 ✓ > choose a new password

* Enter new password:

Password strength

* Confirm new password:

Finish Cancel

SELF-PASSWORD RESET FOR OUTLOOK EMAIL



Steps / Screenshots

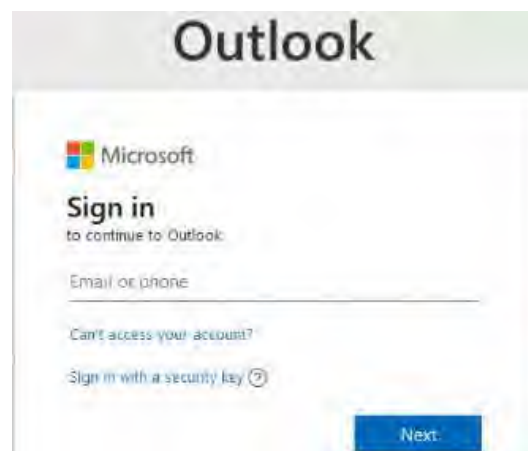
1.
 - Open your browser.
 - Go to the intrasmart website at <https://intrasmart.smartsunguide.com>.
 - Click the **Broward Resources** Tab on the Intrasmart website.



2.
 - Click down the options under **Broward Resources** until you see **FDOT Outlook Email** → Click it.

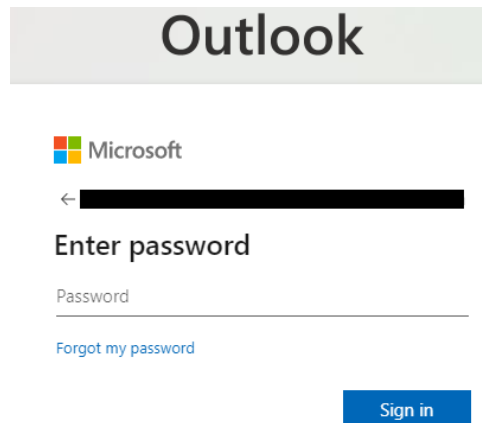
It should take you this site on your right.

- Enter in your FDOT email (Where it says **Email or phone**).
- Click **Next**.



Steps / Screenshots

3.
 - Enter your FDOT email's password.
 - Click **Sign in**.



4. To approve the sign in request on your mobile device,

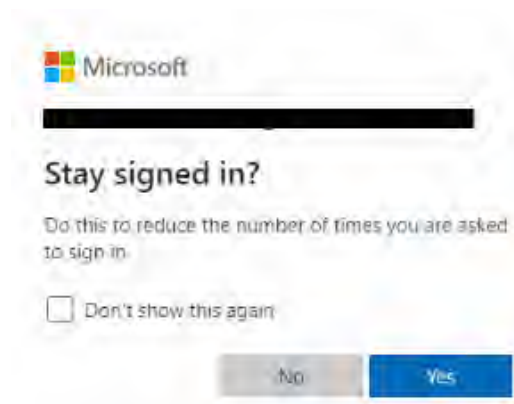
You would have had to set up your email account on the Microsoft Authenticator App already.



5. After successfully approving, it should take you to a page to **Stay Signed In**.

It does not matter which option you choose.

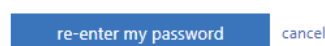
Click **Yes**.



6. It will take you to a new page that will request you to re-confirm your password.
 - Click **re-enter my password**.
 - Type in your password.

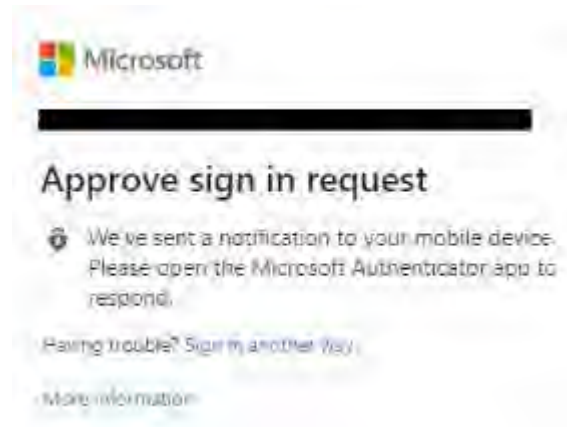
confirm your current password

In order to keep your security information private, we need you to re-enter your current password on the next page.



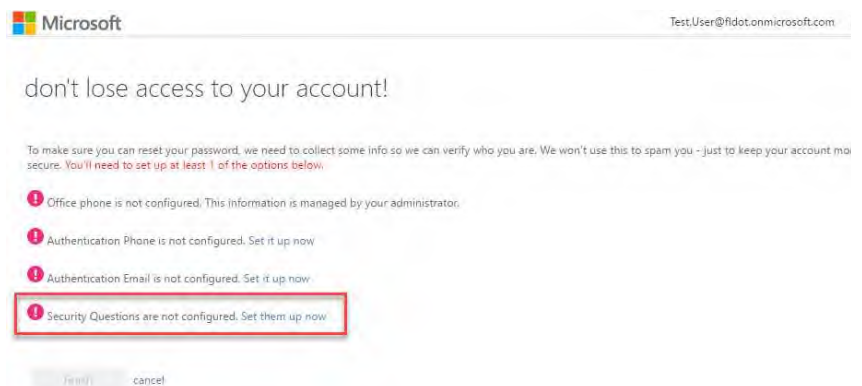
Steps / Screenshots

7. It will ask you to approve on the Microsoft Authenticator App once more.



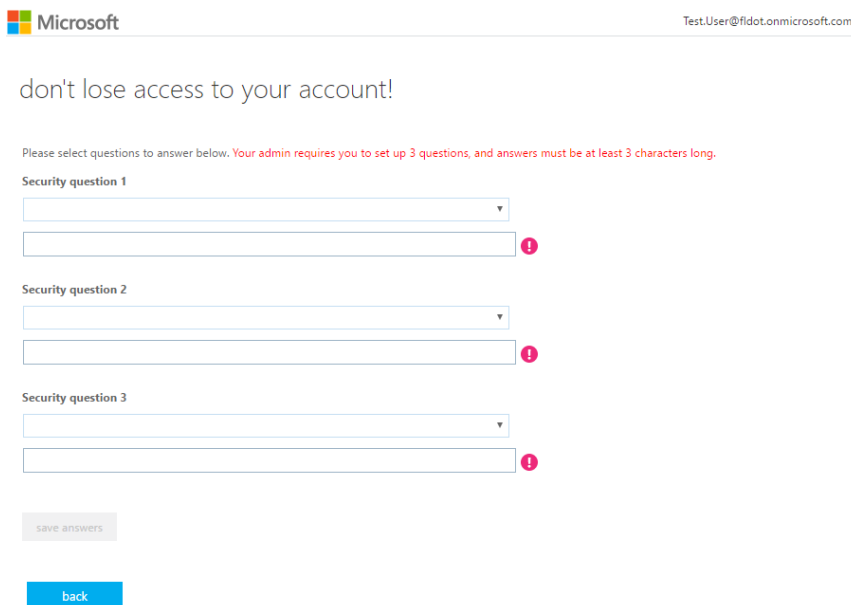
8. It will take you to this page on your right and to verify the recovery options.

- Confirm that the information already listed on the page is correct, i.e., your phone #.
- Preferably, → configure and use **Security Questions**, as shown.



9. – Click **Set them up now**. The Security Question Configuration screen will appear on your right.
- Pick at least three security questions from the pre-defined security questions box as shown below.

In what city was your father born?
 In what city was your first job?
 What city were you in on New Year's 2000?
 What is your father's middle name?
 What is your favorite food?
 What is your mother's middle name?
 What school did you attend for sixth grade?
 What was the make and model of your first car or motorcycle?
 What was the name of the first school you attended?
 What was the name of the hospital in which you were born?
 What was the name of your childhood hero?
 What was the name of your favorite stuffed animal?
 What was the name of your first pet?
 What was your childhood nickname?
 What was your first job?
 When you were young, what did you want to be when you grew up?



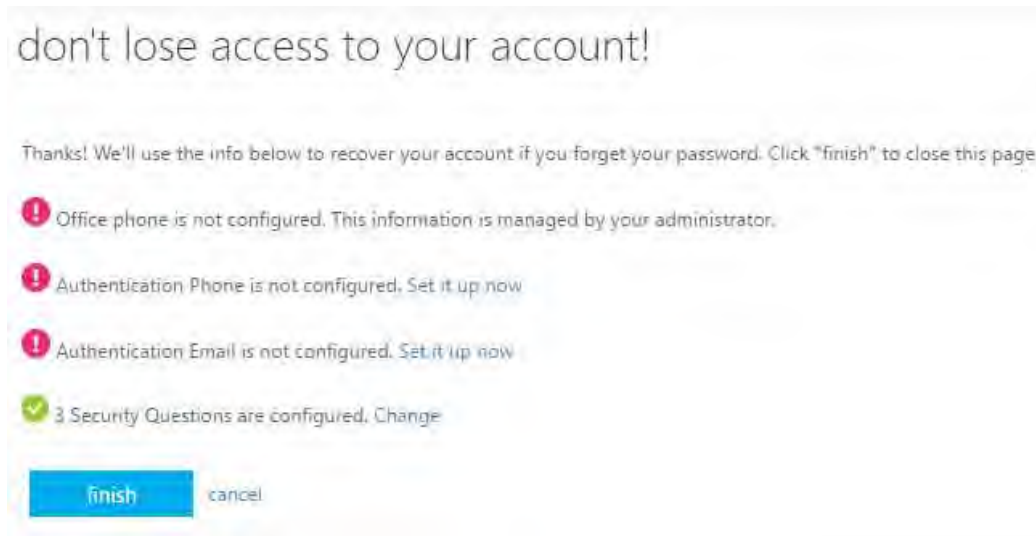
10. Once you have setup your questions,
- Click **Save Answers**.

Steps / Screenshots

It will take you back to the main account information screen.

There should be a green check mark next to the method you verified.

- Click **Finish**.



11. It should log you into to your Outlook email.

You can view your mailbox.

If that is not the option you see, you may see this page on your right instead.

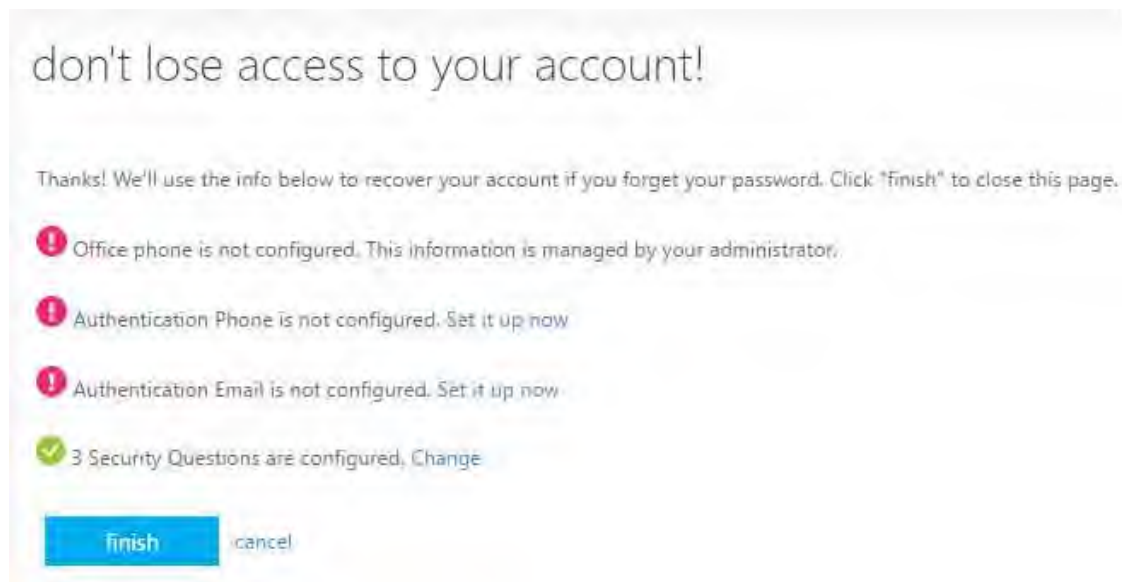
If you do → Select an option.

It will log you into your Outlook email.



Steps / Screenshots

12. This screen below will appear every 180 days to verify that the information you put in is still current.

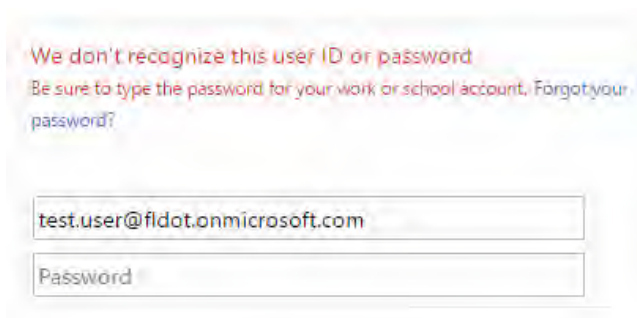


13. If you wish to change these questions or answers → access the link below to go directly to the webpage to change them.

<https://go.microsoft.com/fwlink/?LinkId=309629&tenantIdentifier=db21de5d-bc9c-420c-8f3f-8f08f85b5ada>

14. With this in place, you now have two ways to reset your password.

A) On the main login screen, if you input your password wrong, you will see an error item with the ability for you to hit the “Forgot your password?” link.



B) Go directly to the link for password resets which is located below:

<https://passwordreset.microsoftonline.com/>

Steps / Screenshots

15. Once you are on the password reset screen,
- Enter your User ID (login) and the text box captcha code.

16. After entering a valid User ID and Captcha code,
- You will be taken to the account verification screen.

Input the security identifier that you have chosen (In this case security questions).

17. You will then be taken to the choose new password screen.
- Enter a new password which you will use to login:

OUTLOOK MOBILE SETUP

Steps / Screenshots

1. Locate the Outlook Mail app within the Google Play Store or the Apple App Store.
 - Download and install the app.
 - Click Get Started once you have launched the app.



2. Click **Add Account**.



3. Fill in your FDOT email account.

Click **Continue**.



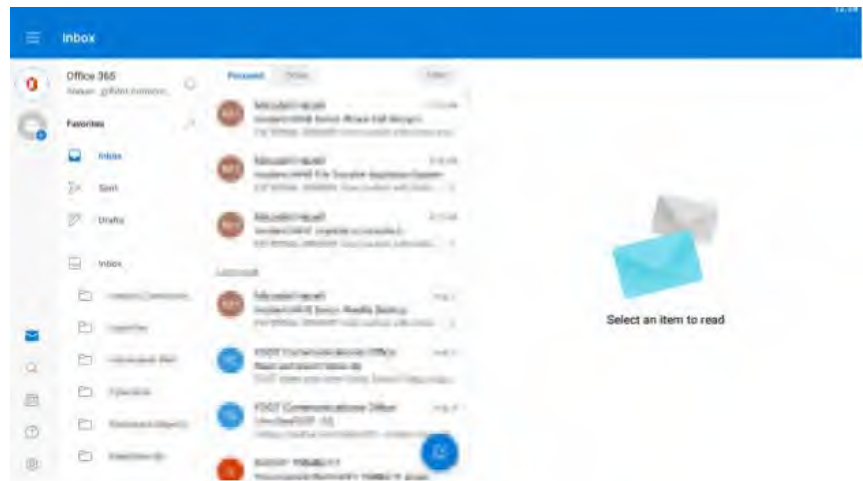
4. Fill in your account password.



Steps / Screenshots

5. Once your password has been entered, you will be redirected over to your mailbox as the messages start loading onto your device.

If you need additional support, you should open a support ticket.



EMAIL BACK-UP AND RECOVERY

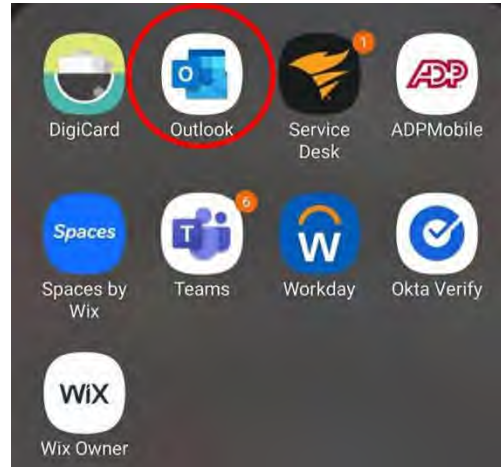
All email functionality and backup and recovery options reside with FDOT Central Office OIT.

REMOVE DOT EMAIL FROM SIRV PHONES

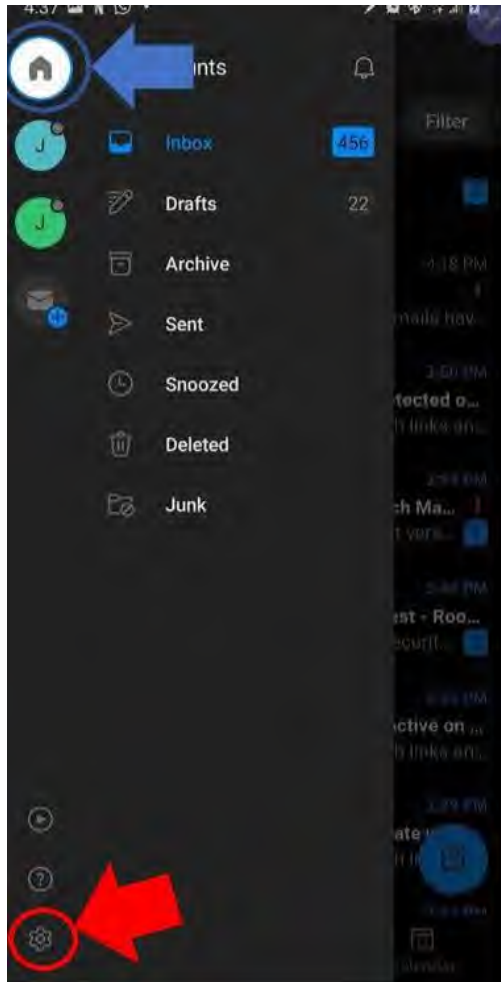
Remove DOT Email from XP8 Phones as following:

Steps / Screenshots

1. Open Outlook on your device.

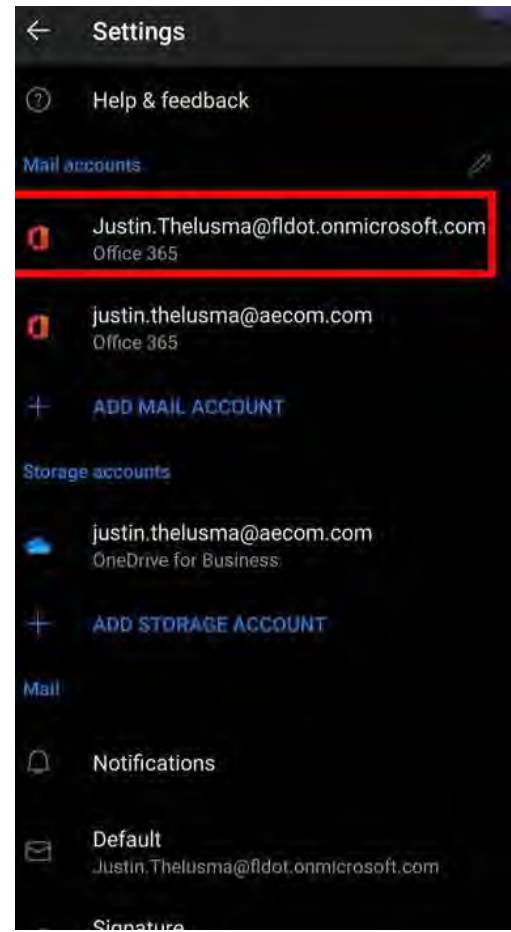


2. Select the Home Icon in the top left corner and press the settings button in the bottom left corner



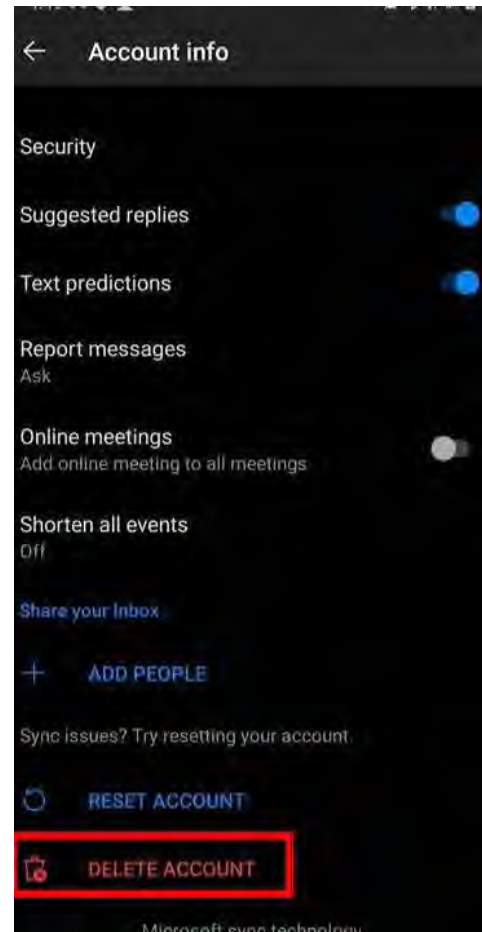
Steps / Screenshots

3. Select the account that needs to be deleted.



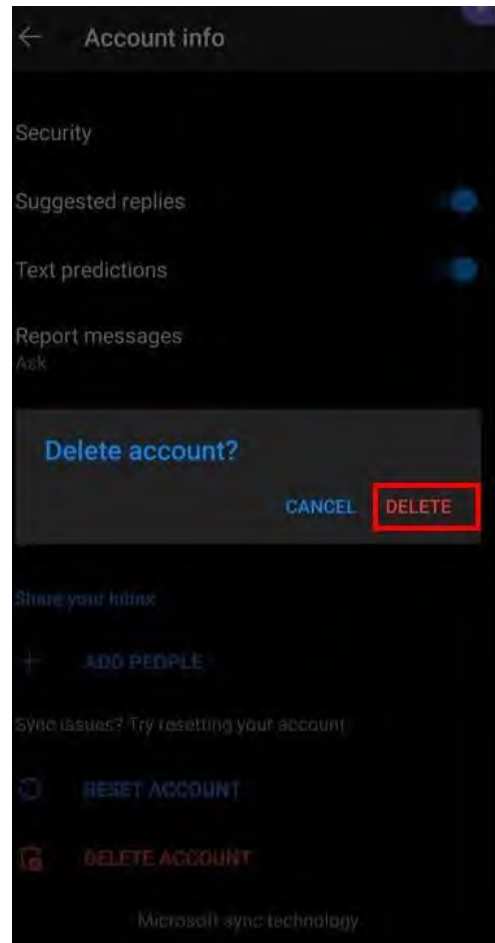
Steps / Screenshots

4. Scroll down to the bottom of this page and press the delete button.



Steps / Screenshots

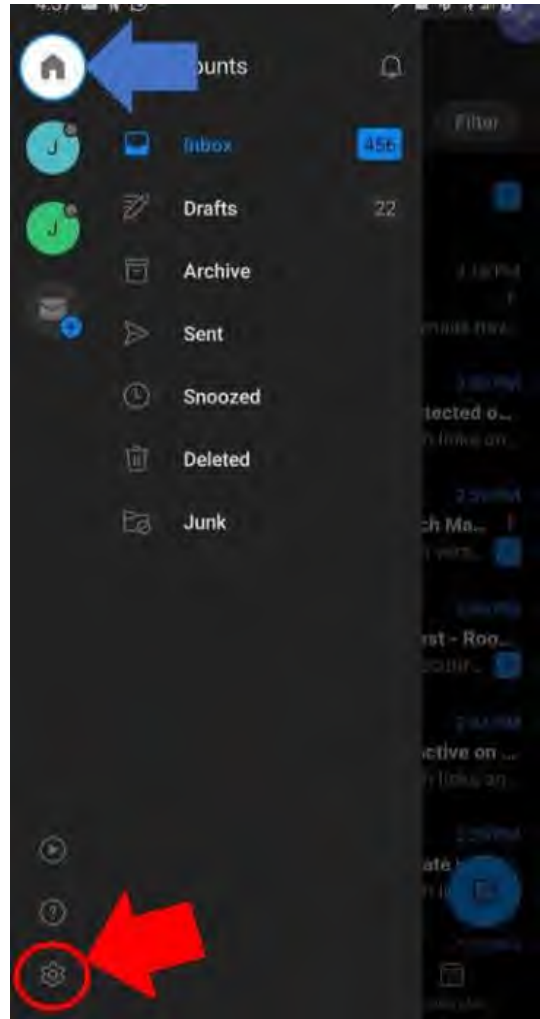
5. Press the delete button a second time when prompted.



Now the account has been removed, RESTART THE DEVICE then add the email back to outlook.

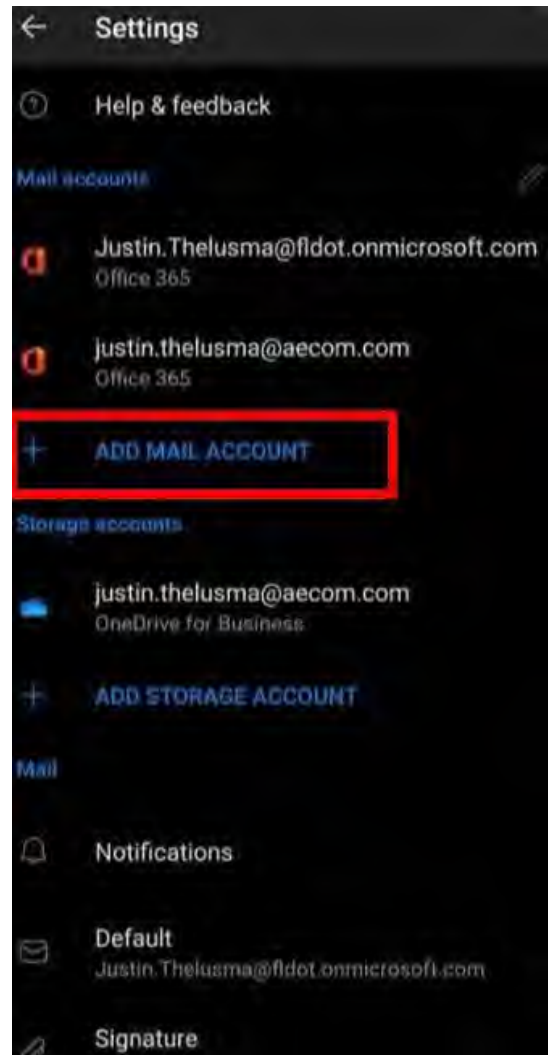
Steps / Screenshots

6. Add the email back to Outlook by returning to the settings



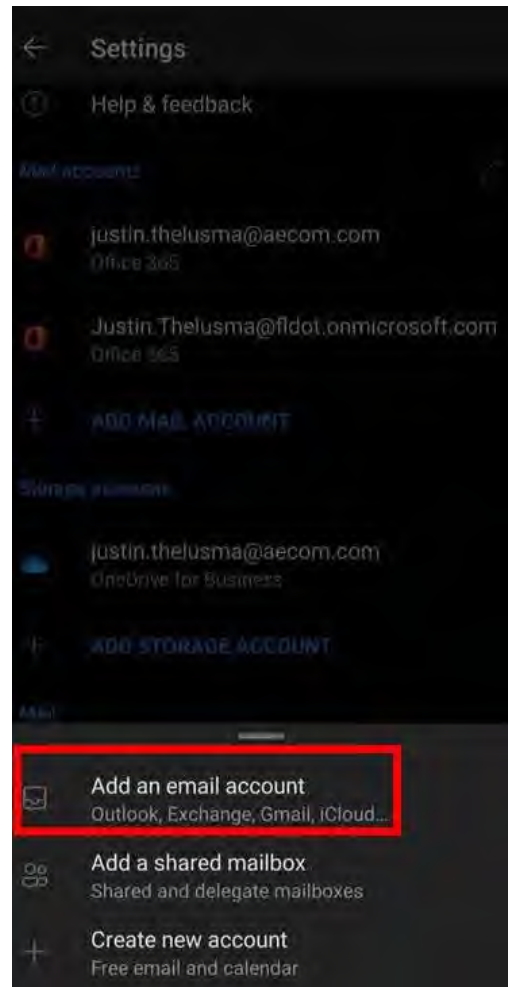
Steps / Screenshots

7. Press the add email button



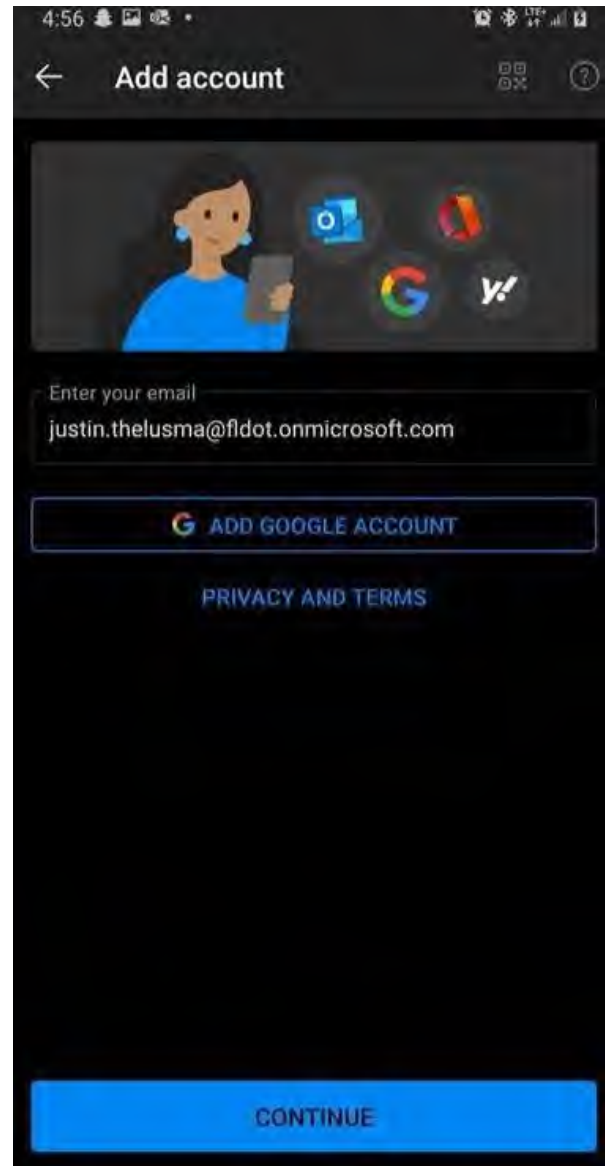
Steps / Screenshots

8. Select **Add an email account**



Steps / Screenshots

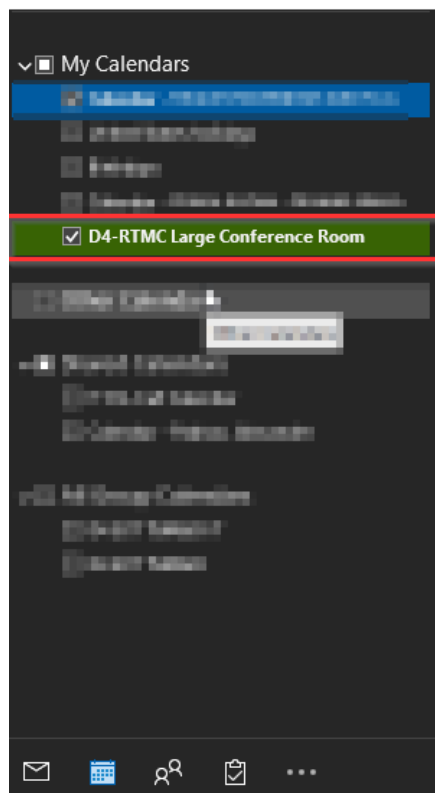
9. Input your DOT email address. The format is Firstname.Lastname@fldot.onmicrosoft.com



After inputting your password, the process is complete, and your email should be back on your phone. If you have any questions or concerns during this process, please call the IT help desk at 954-847-2733.

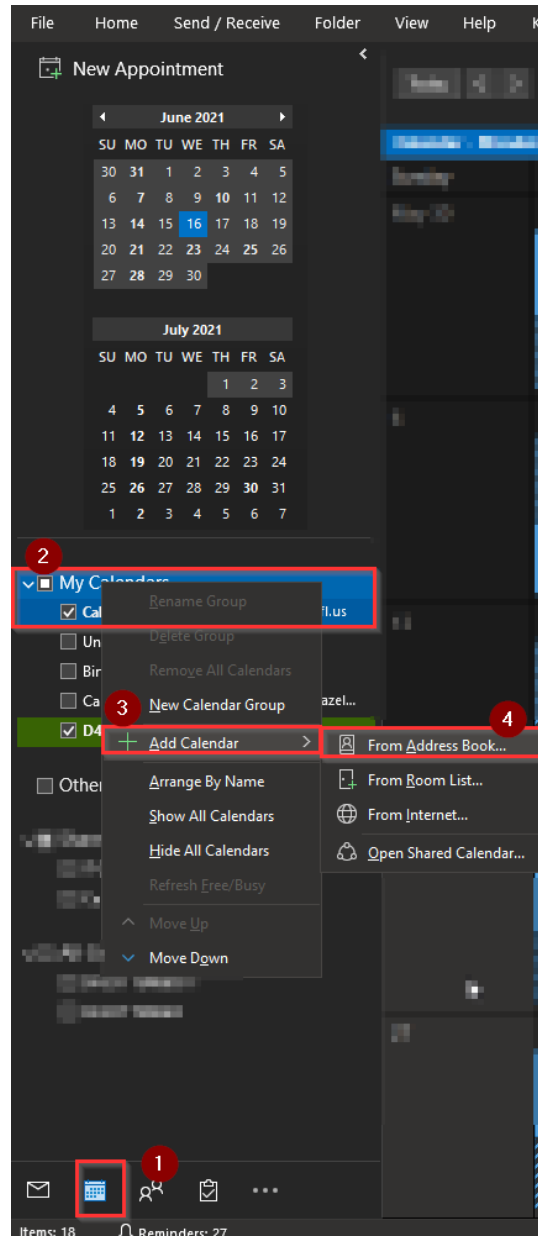
VIEW MEETINGS IN THE LARGE CONFERENCE ROOM

You should now see **"D4-RTMC Large Conference Room"**



1. First navigate to outlook and select the calendar icon lower left-hand corner of the application
2. Right click **My Calendars**.
3. Select **Add Calendar**.

4. Select "From Address Book"





7.08 Physical Security

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Document History

Version #	Date	Author	Changes
1.0	02/28/2024	Yana Neishlos	Initial Draft
1.1	5/23/2024	William Murray	Document Revision

OVERVIEW

In District 4, several solutions exist to manage the physical security of buildings and structures that contain ITS infrastructure. These solutions can be found in the RTMC, TIMSO, Roadside Hubs, ITS Cabinets, Eland Office, and Lake Worth FHP. This SOP will outline the existing solutions managed by the RTMC IT Department and the relevant workflows involving third parties such as ITS Maintenance.

Physical Security Devices

Axis Camera	Network video dome cameras are used for surveillance of assets at all locations.
Room Alert Device	IT and facilities environment monitoring hardware.
ARXYS Server	Physical server (host) that contains virtual servers.
CyberKey Vault	Cabinet, which programs and dispenses electronic keys with customized access privileges based on time, date, and authority level.
Web Authorizer	Communication devices that serve as the interface between CyberLock hardware and CyberAudit management software.

Physical Security Applications

Boring Lab	The Boring Toolbox is an extension of Milestone XProtect Management client to perform bulk operational maintenance support service.
CyberLock	An electronic access control system that manages lock access permissions with auditing capability.
Milestone	Milestone XProtect video management software manages IP cameras and digital video recordings.
Room Alert Manager	Management solution to discover and monitor Room Alert devices.

PHYSICAL SECURITY DEVICES & VMWARE INVENTORY

Due to the sensitivity of the information in this document, it is only accessible by IT personnel at the following link: [7.08 Physical Security_SD.pdf](#)

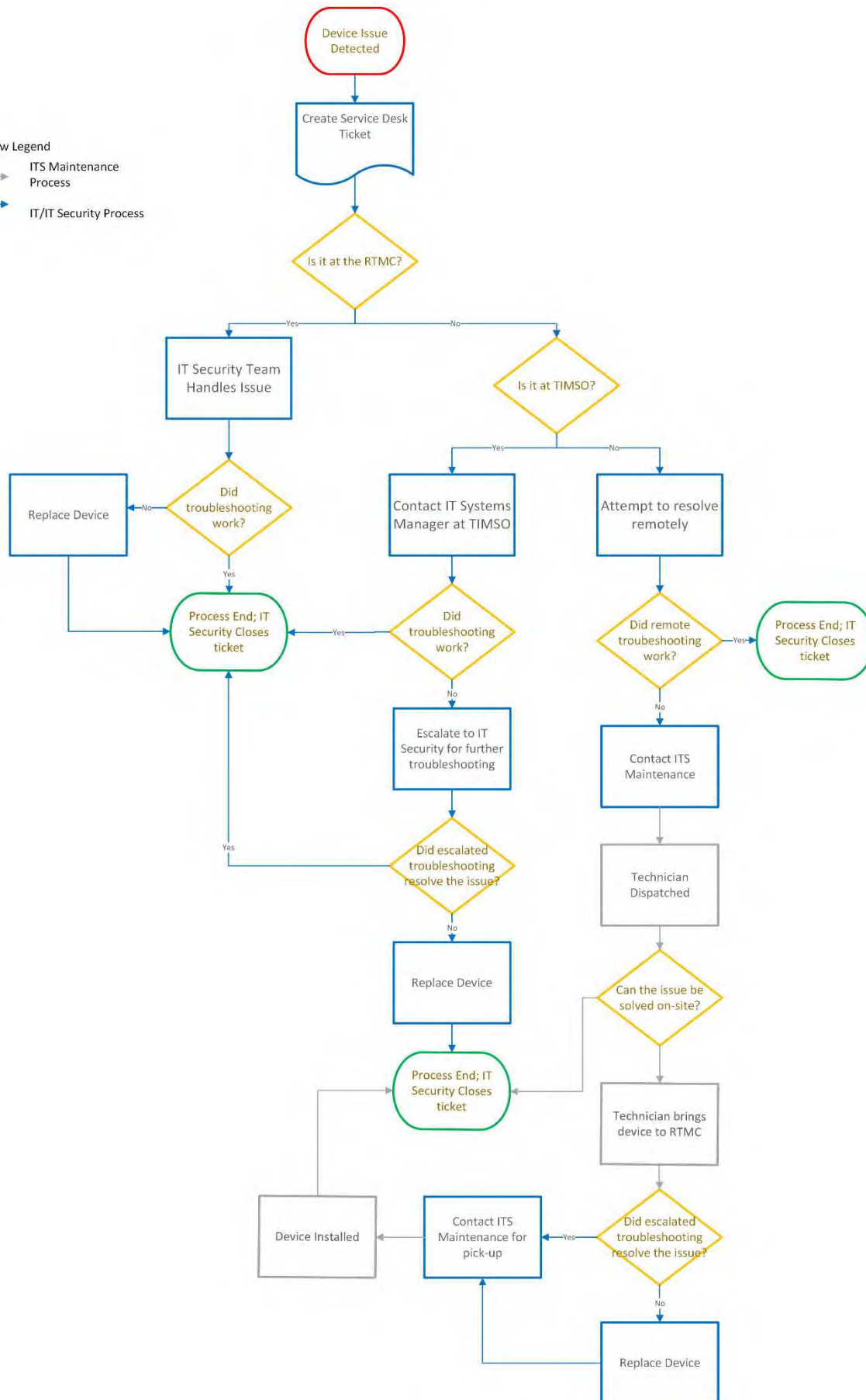
Sensitive documents, such as 7.08 Physical Security are placed in [District 4 TSM&O Collaboration Portal \(Partner Site\) - PDF - IT Documents - ListView \(sharepoint.com\)](#) folder.

MAINTENANCE OF SYSTEMS

Due to the various locations of these systems, the RTMC IT Department relies heavily on ITS Maintenance personnel to troubleshoot, install, and remove Room Alert devices, CyberLock Web Authorizers, CyberLocks, and Security Cameras.

An example scenario for a maintenance request is like the following:

1. The IT Security Team notices a Room Alert device is no longer reporting environment data.
2. The IT Security Team contacts ITS Maintenance while simultaneously creating a Service Desk ticket.
3. ITS maintenance responds and dispatches a technician to troubleshoot.
4. If the technician can rectify the issue, no further action will be taken.
5. If the issue is not resolved on-site, the device will be brought to the RTMC to be further troubleshot by the IT Security Team.
6. Upon successfully completing further troubleshooting, IT Security contacts ITS maintenance again for retrieval.
7. A technician picks up the device and installs it in its original location.
8. Functionality is verified, and the ticket is then closed.





7.09 Broward RTMC

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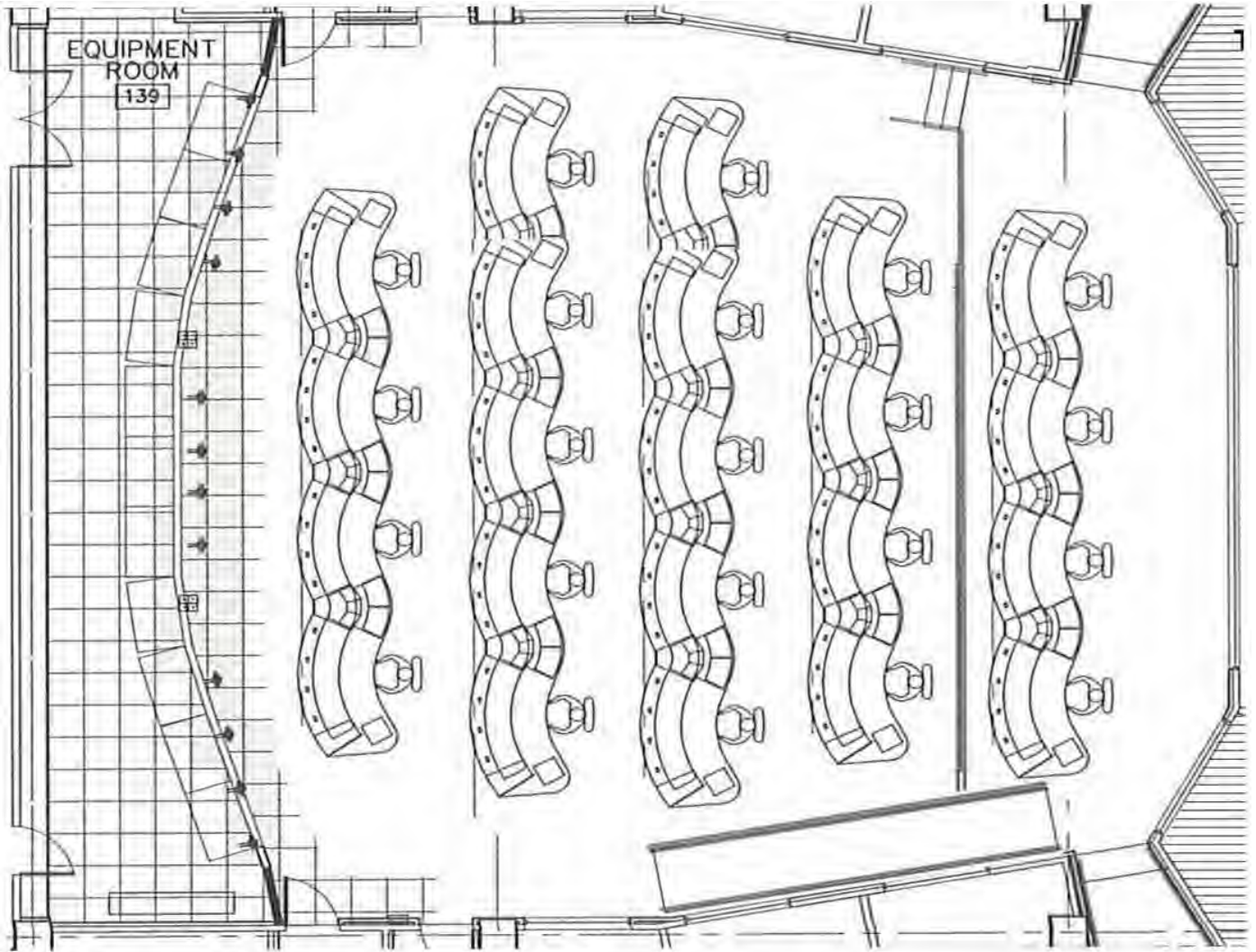
Version #	Date	Author	Changes
1.0	12/20/2023	Yana Neishlos	Initial Draft

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CONTROL ROOM

The Control Room, FDOT section is divided into twenty-two (22) consoles total. Sixteen (16) of which having access to both SunGuide and Office network.



CONTROL ROOM CNNECTIONS

le	Device Connected	Console Port #	Closet Patch Panel # / Port #	4507 Blade # / Port #	3750 Port #
#001	SG PC	217	Patch 2 / Port 1	B6/P1	
#001	C2	218	Patch 2 / Port 2	B6/P2	
#001	C3	219	Patch 2 / Port 3	B6/P3	
#001	Vbrick	220	Patch 2 / Port 4	B6/P4	
#001	NONE	221	Patch 2 / Port 5	B6/P5	
#001	Joystick / MOXA	222	Patch 2 / Port 6	B6/6	
#001	NONE	223	Patch 2 / Port 25	N/A	
#001	NONE	224	Patch 2 / Port 26	N/A	
#001	NONE	225	Patch 2 / Port 27	N/A	
#001	NONE	226	Patch 2 / Port 28	N/A	
#001	NONE	227	Patch 2 / Port 29	N/A	
#001	Office PC	228	Patch 2 / Port 30	N/A	G1/0/1
#002	Joystick / MOXA	229	Patch 2 / Port 7	B6/P13	
#002	Smart Extender	230	Patch 2 / Port 8	B6/P14	
#002	Clear	231	Patch 2 / Port 9	B6/P15	
#002	C3	232	Patch 2 / Port 10	B6/P16	
#002	C2	233	Patch 2 / Port 11	B6/P17	

le	Device Connected	Console Port #	Closet Patch Panel # / Port #	4507 Blade # / Port #	3750 Port #
#002	SG	234	Patch 2 / Port 12	B6/P18	
#002	NONE	235	Patch 2 / Port 31		
#002	NONE	236	Patch 2 / Port 32		
#002	BARCO TEST	237	Patch 2 / Port 33	N/A	G1/0/8
#002	IT300002P	238	Patch 2 / Port 34	N/A	G1/0/7
#002	IT300003P	239	Patch 2 / Port 35	N/A	G1/0/6
#002	Office PC	240	Patch 2 / Port 36	N/A	G1/0/2
#003	BC	BC	BC	BC	BC
#004	BC	BC	BC	BC	BC
#005	SG	157	Patch 1 / Port 25	B7/P13	
#005	C2	158	Patch 1 / Port 26	B7/P14	
#005	C3	159	Patch 1 / Port 27	B7/P15	
#005	Vbrick	160	Patch 1 / Port 28	B7/P16	
#005	NONE	161	Patch 1 / Port 29	B7/P17	
#005	JoyStick / MOXA	162	Patch 1 / Port 30	B7/P18	
#005	NONE	163	Patch 1 / Port 31	N/A	
#005	NONE	164	Patch 1 / Port 32	N/A	
#005	NONE	165	Patch 1 / Port 33	N/A	

le	Device Connected	Console Port #	Closet Patch Panel # / Port #	4507 Blade # / Port #	3750 Port #
#005	NONE	166	Patch 1 / Port 34	N/A	
#005	Office PC	167	Patch 1 / Port 35	N/A	G1/0/11
#005	HPLaserJet 400	168	Patch 1 / Port 36	N/A	G1/0/10
#006	NONE	169	Patch 1 / Port 1	B7/P1	
#006	SG	170	Patch 1 / Port 2	B7/P2	
#006	C3	171	Patch 1 / Port 3	B7/P3	
#006	C2	172	Patch 1 / Port 4	B7/P4	
#006	Vbrick	173	Patch 1 / Port 5	B7/P5	
#006	MOXAM	174	Patch 1 / Port 6	B7/P6	
#006	NONE	175	Patch 1 / Port 7	N/A	
#006	NONE	176	Patch 1 / Port 8	N/A	
#006	NONE	177	Patch 1 / Port 9	N/A	
#006	NONE	178	Patch 1 / Port 10	N/A	
#006	NONE	179	Patch 1 / Port 11	N/A	
#006	Office PC	180	Patch 1 / Port 12	N/A	G1/0/9
#007	NONE	181	Patch 1 / Port 13	B7/P25	
#007	SG	182	Patch 1 / Port 14	B7/P26	
#007	C2	183	Patch 1 / Port 15	B7/P27	

le	Device Connected	Console Port #	Closet Patch Panel # / Port #	4507 Blade # / Port #	3750 Port #
#007	C3	184	Patch 1 / Port 16	B7/P28	
#007	Vbrick	185	Patch 1 / Port 17	B7/P29	
#007	MOXAM	186	Patch 1 / Port 18	B7/P30	
#007	NONE	187	Patch 1 / Port 19	N/A	
#007	NONE	188	Patch 1 / Port 20	N/A	
#007	NONE	189	Patch 1 / Port 21	N/A	
#007	NONE	190	Patch 1 / Port 22	N/A	
#007	NONE	191	Patch 1 / Port 23	N/A	
#007	Office PC	192	Patch 1 / Port 23	N/A	G1/0/17
#008	BC	BC	BC	BC	BC
#009	BC	BC	BC	BC	BC
#010	NONE	97	Patch 2 / Port 13	B6/P25	
#010	JoyStick / MOXA	98	Patch 2 / Port 14	B6/P26	
#010	Vbrick	99	Patch 2 / Port 15	B6/P27	
#010	C3	100	Patch 2 / Port 16	B6/P28	
#010	SG	101	Patch 2 / Port 17	B6/P29	
#010	C2	102	Patch 2 / Port 18	B6/P30	
#010	NONE	103	Patch 2 / Port 19	N/A	

le	Device Connected	Console Port #	Closet Patch Panel # / Port #	4507 Blade # / Port #	3750 Port #
#010	NONE	104	Patch 2 / Port 20	N/A	
#010	NONE	105	Patch 2 / Port 21	N/A	
#010	NONE	106	Patch 2 / Port 22	N/A	
#010	NONE	107	Patch 2 / Port 23	N/A	
#010	Office PC	108	Patch 2 / Port 24	N/A	G1/0/19
#011	C2	109	Patch 4 / Port 19	B3/P37	
#011	SG	110	Patch 4 / Port 20	B3/P38	
#011	C3	111	Patch 4 / Port 21	B3/P39	
#011	NONE	112	Patch 4 / Port 22	B3/P40	
#011	Vbrick	113	Patch 4 / Port 23	B3/P41	
#011	JoyStick / MOXA	114	Patch 4 / Port 24	B3/P42	
#011	NONE	115	Patch 4 / Port 43	N/A	
#011	NONE	116	Patch 4 / Port 44	N/A	
#011	NONE	117	Patch 4 / Port 45	N/A	
#011	NONE	118	Patch 4 / Port 46	N/A	
#011	NONE	119	Patch 4 / Port 47	N/A	
#011	Office PC	120	Patch 4 / Port 48	N/A	G1/0/20
#012	C2	121	Patch 4 / Port 13	B3/P25	

le	Device Connected	Console Port #	Closet Patch Panel # / Port #	4507 Blade # / Port #	3750 Port #
#012	C3	122	Patch 4 / Port 14	B3/P26	
#012	SG	123	Patch 4 / Port 15	B3/P27	
#012	Vbrick	124	Patch 4 / Port 16	B3/P28	
#012	NONE	125	Patch 4 / Port 17	B3/P29	
#012	JoyStick / MOXA	126	Patch 4 / Port 18	B3/P30	
#012	NONE	127	Patch 4 / Port 37	N/A	
#012	NONE	128	Patch 4 / Port 38	N/A	
#012	NONE	129	Patch 4 / Port 39	N/A	
#012	NONE	130	Patch 4 / Port 40	N/A	
#012	NONE	131	Patch 4 / Port 41	N/A	
#012	Office PC	132	Patch 4 / Port 42	N/A	G1/0/18
#013	BC	BC	BC	BC	BC
#014	BC	BC	BC	BC	BC
#015	SG	49	Patch 4 / Port 1	B3/P1	
#015	C1	50	Patch 4 / Port 2	B3/P2	
#015	C2	51	Patch 4 / Port 3	B3/P3	
#015	NONE	52	Patch 4 / Port 4	B3/P4	
#015	NONE	53	Patch 4 / Port 5	B3/P5	

le	Device Connected	Console Port #	Closet Patch Panel # / Port #	4507 Blade # / Port #	3750 Port #
#015	JoyStick / MOXA	54	Patch 4 / Port 6	B3/P6	
#015	NONE	25	Patch 4 / Port 25	N/A	
#015	NONE	26	Patch 4 / Port 26	N/A	
#015	NONE	27	Patch 4 / Port 27	N/A	
#015	NONE	28	Patch 4 / Port 28	N/A	
#015	NONE	29	Patch 4 / Port 29	N/A	
#015	Office PC	30	Patch 4 / Port 30	N/A	G1/0/3
#016	C2	61	Patch 3 / Port 7	B4/P13	
#016	SG	62	Patch 3 / Port 8	B4/P14	
#016	C1	63	Patch 3 / Port 9	B4/P15	
#016	Vbrick	64	Patch 3 / Port 10	B4/P16	
#016	NONE	65	Patch 3 / Port 11	B4/P17	
#016	JoyStick / MOXA	66	Patch 3 / Port 12	B4/P18	
#016	NONE	67	Patch 3 / Port 31	N/A	
#016	NONE	68	Patch 3 / Port 32	N/A	
#016	NONE	69	Patch 3 / Port 33	N/A	
#016	NONE	70	Patch 3 / Port 34	N/A	
#016	NONE	71	Patch 3 / Port 35	N/A	
#016	Office PC	72	Patch 3 / Port 36	N/A	G1/0/22

le	Device Connected	Console Port #	Closet Patch Panel # / Port #	4507 Blade # / Port #	3750 Port #
#017	JoyStick / MOXA	73	Patch 1 / Port 37	B7/P37	
#017	SG	74	Patch 1 / Port 38	B7/P38	
#017	Vbrick	75	Patch 1 / Port 39	B7/P39	
#017	NONE	76	Patch 1 / Port 40	B7/P40	
#017	NONE	77	Patch 1 / Port 41	B7/P41	
#017	NONE	78	Patch 1 / Port 42	B7/P42	
#017	NONE	79	Patch 1 / Port 43	N/A	
#017	NONE	80	Patch 1 / Port 44	N/A	
#017	NONE	81	Patch 1 / Port 45	N/A	
#017	NONE	82	Patch 1 / Port 46	N/A	
#017		83	Patch 1 / Port 47	N/A	G1/0/15
#017	Office PC	84	Patch 1 / Port 48	N/A	G1/0/16
#018	595	595	595	595	595
#019	C3	1	Patch 3 / Port 1	B4/P1	
#019	SG	2	Patch 3 / Port 1	B4/P2	
#019	C2	3	Patch 3 / Port 1	B4/P3	
#019	NONE	4	Patch 3 / Port 1	B4/P4	

le	Device Connected	Console Port #	Closet Patch Panel # / Port #	4507 Blade # / Port #	3750 Port #
#019	NONE	5	Patch 3 / Port 1	B4/P5	
#019	JoyStick / MOXA	6	Patch 3 / Port 1	B4/P6	
#019	NONE	7	Patch 3 / Port 25	N/A	
#019	NONE	8	Patch 3 / Port 26	N/A	
#019	NONE	9	Patch 3 / Port 27	N/A	
#019	NONE	10	Patch 3 / Port 28	N/A	
#019	Printer HP1600	11	Patch 3 / Port 29	N/A	G1/0/5
#019	Office PC	12	Patch 3 / Port 30	N/A	G1/0/4
#020	C2	13	Patch 3 / Port 13	B4/P25	
#020	SG	14	Patch 3 / Port 14	B4/P26	
#020	C3	15	Patch 3 / Port 15	B4/P27	
#020	Vbrick	16	Patch 3 / Port 16	B4/P28	
#020	NONE	17	Patch 3 / Port 17	B4/P29	
#020	JoyStick / MOXA	18	Patch 3 / Port 18	B4/P30	
#020	NONE	19	Patch 3 / Port 37	N/A	
#020	NONE	20	Patch 3 / Port 38	N/A	
#020	NONE	21	Patch 3 / Port 39	N/A	
#020	NONE	22	Patch 3 / Port 40	N/A	

le	Device Connected	Console Port #	Closet Patch Panel # / Port #	4507 Blade # / Port #	3750 Port #
#020	NONE	23	Patch 3 / Port 41	N/A	G1/0/23
Closet	Office PC	24	Patch 3 / Port 42	N/A	G1/0/24
#021	595	595	595	595	595
#022	595	595	595	595	595

SHARING SPACE AT THE RTMC

Access

We share space at the RTMC with Broward County and other groups. Therefore, IT staff members require workspaces and shared areas free of clutter, and never use equipment (such as tables and carts) that don't belong to us.

There are three shared spaces that affect IT:

- Server room (room 166).
- Behind the video wall (room 139).
- Telephone room (room 159/160).

The telephone equipment in room 159 is the demarcation for ISP's. This room is not to be used by the IT staff, except in the case of connecting to any of the equipment there. Any connection to the AT&T or CrownCastle equipment may only be done through the access hole in wall. A telephone contractor who needs access to the room must be always accompanied by an IT employee. Equipment in room 160 belongs to the IT group, but the room is also shared with Broward County.

In the large server room (166), only the four rows of server racks on the north side belong to the RTMC, including tables along the northwest corner. Except for the electrical panel in the room, the IT group should never enter the space that belongs to Broward County.

Beyond the main server room is the radio room, which contains a shared rack of radios. Equipment is stored in the cabinets along the east wall, which belongs exclusively to the IT group.

The following staff members have key card access to these rooms:

- FDOT Staff.
- AECOM IT and Maintenance Staff.
- Broward County Traffic Engineering Staff.
- 595 Express IT Staff.

If an outside contractor needs access to a server or telephone room, follow FDOT policy regarding visitors. Approved guests must be always accompanied by a member of the IT staff.

Housekeeping for Shared Spaces

Organization

Keeping shared spaces organized is important for the safety of employees and security of equipment; respect for those who share the space; and professional appearance.

These are the expectations set forth by the FDOT. These areas will be inspected on a regular basis with a report going to the IT Manager and ITS Operations Manager.

Behind the video wall

Keep the floor and carts always clear in this room. All loose equipment must be stored in the cabinet where it belongs.

Server Room

- Area must be kept clean and organized.
- Food is not allowed.

- Boxes and trash cannot be stored. Full trash containers will be placed outside the server room for county maintenance staff to empty.
- Equipment must be stored in cabinets behind video wall, not left in the server room.
- At all times, the corridor space along the wall along the east side must remain completely open, to give access to Broward users.
- No equipment should ever be left on the open shelves across from the cabinets in the radio room.



7.10 Vista Center

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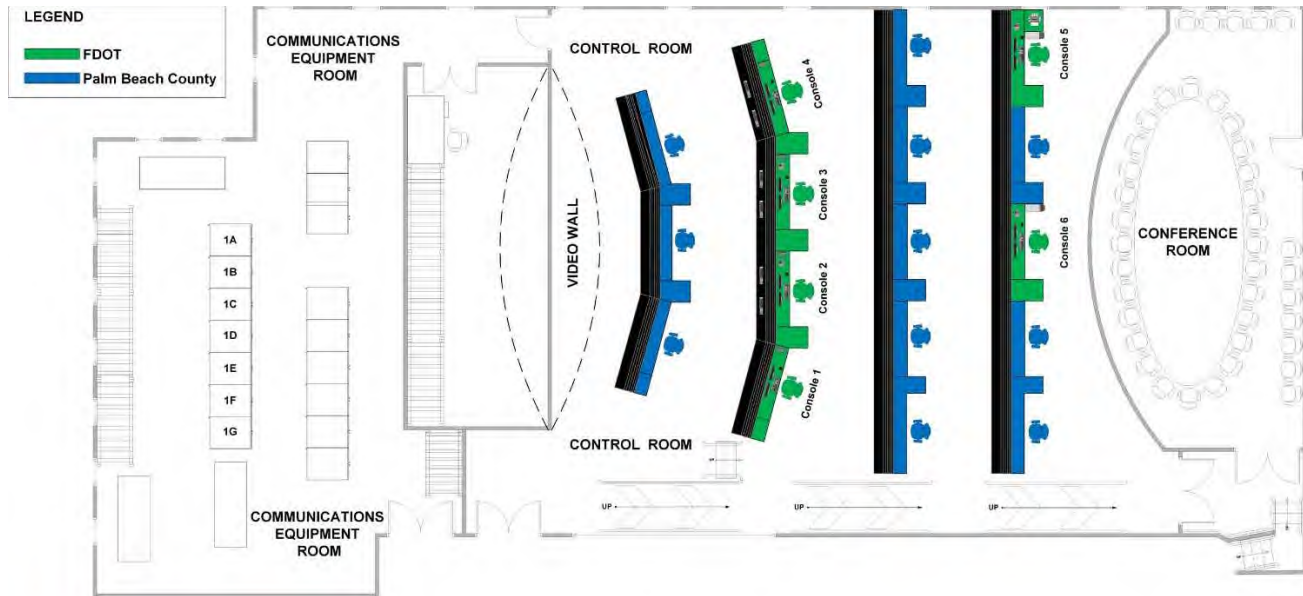
Version #	Date	Author	Changes
1.0	12/20/2023	Yana Neishlos	Initial Draft

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CONTROL ROOM

The Vista Center Control Room is used as a work area for the Palm Beach Maintenance and IT Department. The second row from the main screen contains equipment directly attached to the RTMC and two of the workstations in the fourth row are used by RTMC Operations. All other items within the control room are not used by FDOT.



ITS CENTER

Click on the link below to view the Floor Plan.

[7.10.01 ITS Center \(sharepoint.com\)](#)



7.11 Treasure Coast TMC

Document History

Version #	Date	Author	Changes
1.0	12/20/2023	Yana Neishlos	Initial Draft

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TREASURE COAST TMC

FDOT D4 TSM&O utilizes the Traffic Incident Management Support Office (TIMSO) facility located at 3601 Oleander Avenue, Fort Pierce, FL, 34982 as a backup TMC to the Broward RTMC, which is approximately 100 miles away.

TIMSO is designed for limited FDOT D4 TSM&O ITS Operations in case of a catastrophic event, containing a Data Center equipped with a High Availability (HA) duplicate system and networking equipment. The critical computer system and network equipment at TIMSO are connected to the building UPS and generator for redundant power. IT Staff is responsible for bringing TIMSO to a state of readiness, as instructed by the Crisis Assessment Team (CAT).

The CAT members list is maintained by the RTMC Operations Manager. Upon determination by the CAT that the Broward RTMC is closed due to a major emergency, staff will report to TIMSO. RTMC operations will be run from the TIMSO control room with redundant SunGuide software that will support CCTV, DMS, and HAR. Operators will be assigned a console and monitors for CCTV control. TIMSO workstations will duplicate many functions and abilities of the Broward RTMC.

Click on the link below to view the floor plan:

[7.11.00 Treasure Coast TMC \(sharepoint.com\)](#)

TSM&O BUILDING AND OPERATIONS CENTER BUILDING CABLE CONNECTIONS

Due to the sensitivity of the information included in this document, it is only accessible by IT personnel at the following link: [DOCX File viewer | Microsoft Teams](#).



7.14 Server Room Physical Devices

Document History

Version #	Date	Author	Changes
1.0	2/27/2024	Yana Neishlos	Initial Draft

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Server Name	Serial #	Asset Tag	Make	Model	Rack #	Purpose	Operating System	Apps	SAN or Internal Storage	Warranty Exp.
TMCVHOSTDMZ01	2M291606N0	HW329768	HP	DL380 G10	3C	VMware Host	VMware ESXi, 7.0.3	N/A	SAN	5/23/2024
TMCVHOSTDMZ02	2M291606N8	HW329772	HP	DL380 G10	3C	VMware Host	VMware ESXi, 7.0.3	N/A	SAN	5/23/2024
TMCVHOSTDMZ03	2M290902QX	HW334616	HP	DL380 G10	3C	VMware Host	VMware ESXi, 7.0.3	N/A	SAN	5/23/2024
TMCVHOSTDMZ04	2M290902QN	HW334615	HP	DL380 G10	3C	VMware Host	VMware ESXi, 7.0.3	N/A	SAN	5/23/2024
LABHOST01	MXQ5290136	HW333350	HP	DL380 G9	3C	VMware Host (Lab)	VMware ESXi, 8.0.1	N/A	Internal	EXPIRED
LABHOST02	MXQ54906CW	HW333354	HP	DL380 G9	3C	VMware Host (Lab)	VMware ESXi, 8.0.1	N/A	Internal	EXPIRED
TMCVHOSTSGAPP01	MXQ24407Y6	HW406536	HP	DL380 G10	3D	VMware Host	VMware ESXi, 7.0.3	N/A	SAN	12/4/2025
TMCVHOSTSGAPP02	MXQ24407Y7	HW406537	HP	DL380 G10	3D	VMware Host	VMware ESXi, 7.0.3	N/A	SAN	12/4/2025
TMCVHOSTSGAPP03	MXQ24407Y8	HW406535	HP	DL380 G10	3D	VMware Host	VMware ESXi, 7.0.3	N/A	SAN	12/4/2025
TMCVHOST01	2M291301ZL	HW329769	HP	DL380 G10	3E	VMware Host	VMware ESXi, 7.0.3	N/A	SAN	5/23/2024
TMCVHOST02	2M291606N9	HW329764	HP	DL380 G10	3E	VMware Host	VMware ESXi, 7.0.3	N/A	SAN	5/23/2024
TMCVHOST03	2M2920034G	HW329770	HP	DL380 G10	3E	VMware Host	VMware ESXi, 7.0.3	N/A	SAN	5/23/2024
TMCVHOST04	2M291606N6	HW329765	HP	DL380 G10	3E	VMware Host	VMware ESXi, 7.0.3	N/A	SAN	5/23/2024
TMCVHOST05	2M291606N4	HW329766	HP	DL380 G10	3E	VMware Host	VMware ESXi, 7.0.3	N/A	SAN	5/23/2024
TMCVHOST06	2M291606N3	HW329767	HP	DL380 G10	3E	VMware Host	VMware ESXi, 7.0.3	N/A	SAN	5/23/2024
TMCVHOST07	2M291606N5	HW329771	HP	DL380 G10	3E	VMware Host	VMware ESXi, 7.0.3	N/A	SAN	5/23/2024
D4SG09	USE121N93T	HW340196	HP	DL380 G7	3H	SELS	Windows Server 2012	SunGuide	Internal	EXPIRED
D4SG10	USE121N942	HW340197	HP	DL380 G7	3H	SELS	Windows Server 2012	SunGuide	Internal	EXPIRED

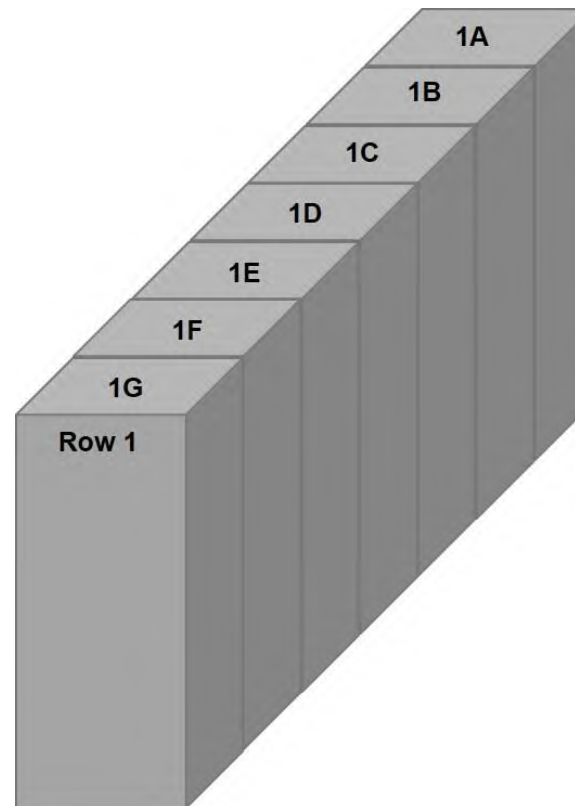
OTHER RTMC SERVER ROOM PHYSICAL DEVICES

Device	Device Name	Serial #	Asset Tag	Make	Model	# of Ports	Transfer Speed	Rack #	Storage	Warranty Exp.
SAN	XIOTMC02	FNM00180201292	HW306574	DELL EMC	EXTREM IO SAN	N/A	N/A	3G	N/A	1/10/2025
SAN	RTMC-PowerStoreSAN	1BB0BD3	HW399861	DELL EMC	PowerStore 1000T	N/A	N/A	3G	N/A	5/13/2024
SAN	TMC-EXAGRID	AVTA223106392	HW406488	Exagrid	084TSN22	N/A	N/A	3G	N/A	10/4/2025

VISTA CENTER PHYSICAL SERVERS

The figure on the right provides a visual representation of the Vista Center server room racks.

There is one row with seven racks, labeled A-G. All Vista Center physical servers are in rack 1B.

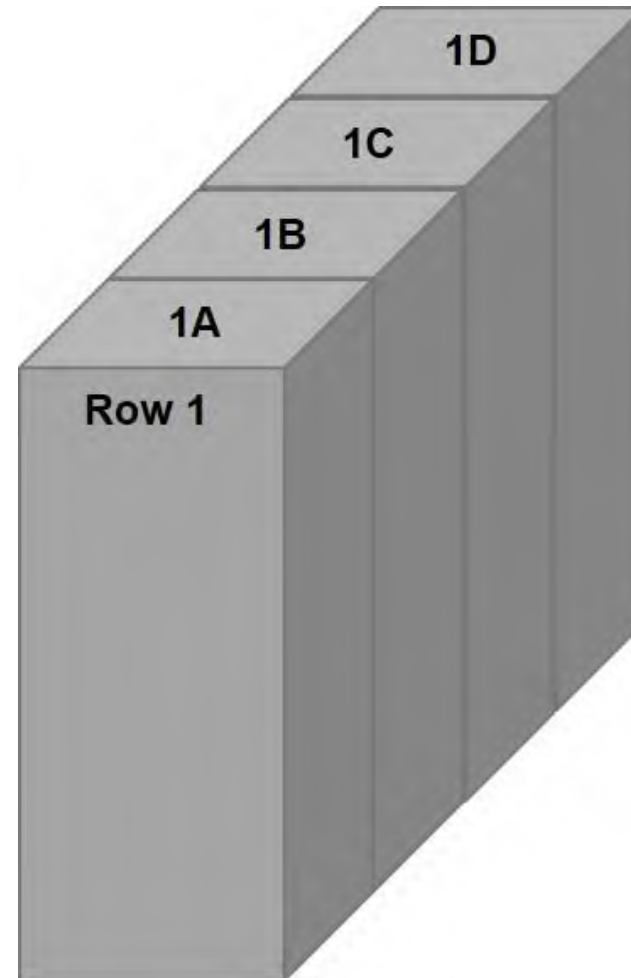


Server Name	Serial #	Asset Tag	Make	Model	Rack #	Purpose	Operating System	Apps	SAN or Internal Storage	Warranty Exp.
VISVHOST01	MXQ11713SW	HW399585	HP	DL360 G10	1B	Host	VMware ESXi, 7.0.3	N/A	Internal	8/1/2024
VISVHOST02	MXQ11713SV	HW399589	HP	DL360 G10	1B	Host	VMware ESXi, 7.0.3	N/A	Internal	8/1/2024
VISVHOST03	MXQ11713ST	HW399857	HP	DL360 G10	1B	Host	VMware ESXi, 7.0.3	N/A	Internal	8/1/2024
FVISVHUT01	2M293501Z9	HW334145	HP	DL360 G10	1B	Backup	VMware ESXi, 7.0.3	N/A	Internal	EXPIRED

TIMSO PHYSICAL SERVERS

The figure below provides a visual representation of the TIMSO server room racks. There is one row with four racks, labeled A-D.

All TIMSO physical servers are in rack # 1D.



Server Name	Serial #	Asset Tag	Make	Model	Rack #	Purpose	Operating System	Apps	SAN or Internal Storage	Warranty Exp.
TIMVHOST01	MXQ11712T9	HW399868	HP	DL360 G10	1C	Host	VMware ESXi, 7.0.3	N/A	Internal	7/31/2024
TIMVHOST02	MXQ11712T6	HW399866	HP	DL360 G10	1C	Host	VMware ESXi, 7.0.3	N/A	Internal	7/31/2024
TIMVHOST03	MXQ11712T7	HW399869	HP	DL360 G10	1C	Host	VMware ESXi, 7.0.3	N/A	Internal	7/31/2024
TIMVHOST04	MXQ11712T4	HW399865	HP	DL360 G10	1C	Host	VMware ESXi, 7.0.3	N/A	Internal	7/31/2024
TIMVHOST05	MXQ11712T5	HW399867	HP	DL360 G10	1C	Host	VMware ESXi, 7.0.3	N/A	Internal	7/31/2024
TIMVHOST06	MXQ11712T8	HW399870	HP	DL360 G10	1C	Host	VMware ESXi, 7.0.3	N/A	Internal	7/31/2024
FTIMPHDB02	2M29090319	HW334421	HP	DL380 G10	1D	SQL	Windows 2016	SQL	Internal	6/10/2022
FTIMVHUT02	MXQ63002V5	HW306336	HP	DL380 G9	1D	Backup	VMware ESXi, 7.0.3	Unitrends	Internal	9/30/2022

OTHER TIMSO SERVER ROOM PHYSICAL DEVICES

Device	Device Name	Serial #	Asset Tag	Make	Model	# of Ports	Transfer Speed	Rack #	Storage	Warranty Exp.
SAN	TIMSO-PowerStoreSAN	1BBZ9D3	HW399862	DELL	PowerStore 1000T	N/A	N/A	1C	N/A	5/13/2024
SAN	TIMSO-EXAGRID	AVTA223106389	HW406489	EXAGRID	084TSN22	N/A	N/A	1C	N/A	10/4/2025



7.15 Networks

Document History

Version #	Date	Author	Changes
1.0	2/28/2024	Yana Neishlos	Initial Draft

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NETWORKS

Note. Due to the sensitivity of the information in this document, it is only accessible by IT personnel at the following link: [7.15 Networks SD.pdf](#).

Sensitive documents, such as “Networks” are placed in

[District 4 TSM&O Collaboration Portal \(Partner Site\) - IT Documents - ListView \(sharepoint.com\)](#).

Overview

There are network devices in place at the RTMC, TIMSO, Vista Center, HUB buildings, D4 HQ, Lake Worth, Powerline, and ELAND. A list of all network devices and application used in each location is provided in this SOP Section.

Network Devices

Cisco Adaptive Security Appliance (ASA)	Security device that combines firewall, antivirus, intrusion prevention, and VPN capabilities.
Cisco Router	Provides intent-based networking for the WAN, LAN, and cloud. Guides and directs network data, using packets that contain various data types.
Cisco Switch	Facilitates the sharing of resources by connecting all computers, wireless access points, printers, and servers on the network.
Wireless LAN Controllers	Manages wireless network access points for wireless devices connecting to the network.

Network Devices Application

Cisco Unified Communications Manager (CUCM)	Private Branch Exchange (PBX) application that provides call control and session management.
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NETWORKS – PHYSICAL DEVICES and VMWARE

RTMC Network Devices

Device	Serial #	Model #	Asset Tag	Location	Rack #	Warranty Exp.
Cisco Switch	FGE21502Z7F	Cisco C6807-XL	HW378519	Server Room	2B	9/1/2020
Cisco Switch	FGE21492Y95	Cisco C6807-XL	HW378520	Server Room	2D	9/1/2022
Cisco Switch	FXS2422Q2JU	Cisco C9407R (X86)	HW329972	Server Room	1E	12/2/2030
Cisco Switch	JAE242625EB	C9200L-48P-4X	HW329775	Server Room	1F	10/7/2030
Cisco Switch	JAE242625DJ	C9200L-48P-4X	HW329776	Server Room	1F	10/7/2030
Cisco Switch	JAE242625NT	C9200L-48P-4X	HW329773	Server Room	1F	10/7/2030
Cisco Switch	JAE242625EN	C9200L-48P-4X	HW329774	Server Room	1F	10/7/2030
Cisco Switch	JAE242608WV	C9200L-48T-4X	HW329805	Server Room	1F	10/6/2030
Cisco Switch	JAE242608LR	C9200L-48T-4X	HW329850	Server Room	1F	10/5/2030

Device	Serial #	Model #	Asset Tag	Location	Rack #	Warranty Exp.
Cisco Switch	FOC2426L8J3	C9500-40X	HW329870	Control Room	N/A	10/25/2030
Cisco Switch	FOC2428L0N8	C9500-40X	HW329871	Control Room	N/A	10/25/2030
Cisco Switch	JAE242622BP	C9200L-48T-4X	HW329804	Server Room	3E	10/6/2030
Cisco Switch	JAE242608MS	C9200L-48T-4X	HW329802	Server Room	3F	10/6/2030
Cisco Switch	JAE24252KAU	C9200L-48T-4X	HW329848	Server Room	3G	10/5/2030
Cisco Switch	FOC2422R1C3	N3K-C3172TQ-10GT	HW329854	Server Room	3E	10/16/2021
Cisco Switch	FOC2422R1AB	N3K-C3172TQ-10GT	HW329856	Server Room	3E	10/16/2021
Cisco Switch	FOC2422R18L	N3K-C3172TQ-10GT	HW329852	Server Room	3E	10/16/2021
Cisco Switch	FOC2422R197	N3K-C3172TQ-10GT	HW329853	Server Room	3E	10/16/2021
Cisco Switch	FOC2422R0JH	N3K-C3172TQ-10GT	HW329865	Server Room	3E	9/26/2021

Device	Serial #	Model #	Asset Tag	Location	Rack #	Warranty Exp.
Cisco Switch	FOC2422R0KU	N3K-C3172TQ-10GT	HW329866	Server Room	3E	9/26/2021
Cisco ASA	FCH21477EJU (FTX2201W0Y B)	ASA5545	HW315970	IT Phone Room	1B	12/28/2022
Cisco ASA	FCH21477ELG (FTX2201W0Y D)	ASA5545	HW315969	TIMSO	1A	12/28/2022
Cisco Wireless Controller	FCH2419L0DW	AIR-CT5520-K9	HW329806	Server Room	3G	10/14/2023
Cisco BE7K	WMP242200NS	BE7M-M5-K9	HW329867	Server Room	3D	10/27/2023
Cisco BE7K	WMP242200NN	BE7M-M5-K9	HW329868	Server Room	3D	10/27/2023
Cisco Switch	JAE24252K7X	C9200L-48T-4X	HW329849	Server Room	1H	10/5/2030
Cisco Switch	JAE24252K4W	C9200L-48T-4X	HW329847	Server Room	1H	10/5/2030

Device	Serial #	Model #	Asset Tag	Location	Rack #	Warranty Exp.
Cisco Secure Network Server	WZP24180KM7	SNS-3615-K9	HW329885	Server Room	3E	TBD
Cisco Router	FLM242611RV	ISR4461/K9		Server Room	2B	1/1/2021
Cisco Switch	FOC2421L928	WS-C3560CX-12PD-S	HW329831	Control Room	N/A	9/25/2030
Cisco Switch	FOC2421L97L	WS-C3560CX-12PD-S	HW329832	Control Room	N/A	9/25/2030
Cisco Switch	FOC2506L2DZ	WS-C3560CX-12PD-S	IT300440	Control Room	N/A	
Cisco Switch	FOC2421L95H	WS-C3560CX-12PD-S	HW329833	Control Room	N/A	9/25/2030
Cisco Switch	FOC2421L936	WS-C3560CX-12PD-S	HW329830	Control Room	N/A	9/25/2030
Cisco Switch	FOC2421L91Y	WS-C3560CX-12PD-S		Control Room	N/A	9/25/2030
Cisco Switch	FOC2421L921	WS-C3560CX-12PD-S	HW329839	Control Room	N/A	9/25/2030

Device	Serial #	Model #	Asset Tag	Location	Rack #	Warranty Exp.
Cisco Switch	FOC2421L90K	WS-C3560CX-12PD-S	HW329836	Control Room	N/A	9/25/2030
Cisco Switch	FOC2421L92K	WS-C3560CX-12PD-S	HW329844	Control Room	N/A	9/25/2030
Cisco Switch	FOC2421L930	WS-C3560CX-12PD-S	HW329827	Control Room	N/A	9/25/2030
Cisco Switch	FOC2421L94Q	WS-C3560CX-12PD-S	HW329841	Control Room	N/A	9/25/2030
Cisco Switch	FOC2421L91U	WS-C3560CX-12PD-S	HW329840	Control Room	N/A	9/25/2030
Cisco Switch	FOC2421L942	WS-C3560CX-12PD-S	HW329829	Control Room	N/A	9/25/2030
Cisco Switch	FOC2421L92W	WS-C3560CX-12PD-S	HW329843	Control Room	N/A	9/25/2030
Cisco Switch	FOC2421L8YP	WS-C3560CX-12PD-S	HW329828	Control Room	N/A	9/25/2030
Cisco Switch	FOC2421L92C	WS-C3560CX-12PD-S	HW329835	Control Room	N/A	9/25/2030
Cisco Switch	JAE242628HV	C9200L-48T-4X	HW329803	Server Room	1D	10/6/2030

Device	Serial #	Model #	Asset Tag	Location	Rack #	Warranty Exp.
Cisco Switch	JAE24221ZVT	C9200L-24T-4X	HW329810	Server Room	3C	10/7/2030
Cisco Router	FLM242611S0	ISR4461/K9		Server Room	3C	1/1/2021

RTMC Network VMs

Note. The VMs below are sitting on physical machines (RTMC-BE7K1 and RTMC-BE7K2).

Virtual Server Description	Application
CUCM Publisher	CUCM
CUCM Subscriber	CUCM
CUCM Subscriber	CUCM

Vista Center Network Devices

Device	Serial #	Model #	Asset Tag	Location	Rack #	Warranty Exp.
Cisco Switch	FXS2422Q2DB	C9407R	HW329971	Vista Center	1A	12/2/2030

TIMSO Network Devices

Device	Serial #	Model #	Asset Tag	Location	Rack #	Warranty Exp.
Cisco Switch	FXS2422Q2D9	C9407R	HW329970	TIMSO	1A	12/2/2030
Cisco Router	FJC2428D10H	ISR4451-X/K9	HW329874	TIMSO	1A	1/14/2021
Cisco Wireless Controller	FCH2419L08X	AIR-CT5520-K9	HW329845	TIMSO	1A	10/14/2023
Cisco Secure Network Server	WZP24180KLW	SNS-3615-K9	HW329886	TIMSO	1A	
Cisco BE7K	WMP242200NW	BE7M-M5-K9	HW329869	TIMSO	1A	10/27/2023
Cisco Switch	FOC2422R18N	N3K-C3172TQ-10GT	HW329851	TIMSO	1C	10/16/2021
Cisco Switch	FOC2422R18M	N3K-C3172TQ-10GT	HW329855	TIMSO	1C	10/16/2021
Cisco Switch	FOC2413U09P	C9300-24UB-E		TIMSO	1C	9/30/2030
Cisco Switch	FOC2511R0F5	N3K-C3172TQ-10GT	HW399879	TIMSO	1C	5/27/2022
Cisco Switch	FOC2527R2DE	N3K-C3172TQ-10GT	HW399916	TIMSO	1C	10/23/2022

HUB Buildings Network Devices

Device	Serial #	Model #	Location	Warranty Exp.
Cisco Switch	FXS2435Q0VG	C9606R	Airport/I-95/ I-595 Hub	1/30/2031
Cisco Switch	FXS2431Q159	C9606R	Turnpike/I-595 Hub	12/12/2030
Cisco Switch	FXS2431Q156	C9606R	I-75 Hub	12/12/2030
Cisco Switch	FXS2440Q006	C9606R	Turnpike/Hillsboro Hub	4/2/2031
Cisco Switch	FXS2431Q14V	C9606R	Miramar Hub	12/12/2030
Cisco Switch	FXS2431Q158	C9606R	I-95/Hollywood Hub	12/12/2030
Cisco Switch	FXS2431Q15D	C9606R	I-95/Commercial Hub	12/12/2030
Cisco Switch	FXS2435Q0VP	C9606R	PGA BLVD	1/27/2031
Cisco Switch	FXS2435Q0VN	C9606R	Atlantic Avenue	1/27/2031
Cisco Switch	FXS2431Q15N	C9606R	N3C Hub 3 / Fellsmere Road	12/12/2030
Cisco Switch	FXS2431Q157	C9606R	N3C Hub 2 / Okeechobee Road	12/12/2030
Cisco Switch	FXS2431Q14T	C9606R	N3C Hub 1 / Kanner Highway	12/12/2030

Device	Serial #	Model #	Location	Warranty Exp.
Cisco Switch	FGE224856YF	C6807-XL	I-95/Palmetto Hub	

Network Devices at D4 HQ, Lake Worth, Powerline, Palm Beach Operations, and ELAND

Device	Serial #	Model #	Asset Tag	Location	Warranty Exp.
Cisco Router	FLM242611RX	ISR4461/K9		ELAND	1/1/2021
Cisco Switch	FOC2413U096	C9300-24UB-E		ELAND	9/30/2030
Cisco Switch	FOC2426W00S	C9300-48UB-E		ELAND	10/6/2030
Cisco Switch	FOC2413U09Y	C9300-24UB		Powerline FDOT	9/30/2030
Cisco Switch	FOC2114Z28R	WS-C2960CX	IT300424	Powerline FDOT	
Cisco Switch	FOC2413U09U	C9300-24UB	IT300435	Palm Beach Operations	9/30/2030
Cisco Router	FLM242611RY	ISR4461/K9		Lake Worth	1/1/2021

Device	Serial #	Model #	Asset Tag	Location	Warranty Exp.
Cisco Switch	JAE24410SNS	C9200L-24T-4X		Lake Worth	TBD
Cisco Router	FLM242611RZ	ISR4461/K9		D4 HQ	1/1/2021
Cisco Switch	FCW2412D0E0	C9300-24UB-E		D4 HQ	9/30/2030
Cisco Switch	JAE24221G6T	C9200L-24T-4X	HW32981 1	D4 HQ	10/7/2030
Cisco Switch	FOC26357W3 5	C9200L-24P-4X	HW4064 92	D4 HQ	
Cisco Switch	FOC2635807T	C9200L-24P-4X	HW4064 91	D4 HQ	
Cisco Switch	FOC2638BJ6G	C9200L-48P-4X	HW4064 71	D4 HQ	

AMS Hub Devices

Device	Serial #	Model #	Location	Warranty Exp.
Cisco Switch	FXS2443Q2BE	C9606R	Oakland Park Blvd/441	1/20/2022
Cisco Switch	FXS2440Q049	C9606R	US1/Oakland Park Blvd	1/21/2022

Device	Serial #	Model #	Location	Warranty Exp.
Cisco Switch	FXS2443Q2F3	C9606R	University Drive/Broward	1/20/2022
Cisco Switch	FXS2443Q2DZ	C9606R	Sunrise/441	1/20/2022
Cisco Switch	FXS2440Q00K	C9606R	Sunrise/US1	1/21/2022
Cisco Switch	FXS2441Q0L9	C9606R	Griffin Rd/441	3/17/2031
Cisco Switch	FXS2444Q0Y3	C9606R	University Drive/Pines Blvd	4/8/2031
Cisco Switch	FXS2431Q16G	C9606R	Hollywood/US1	12/12/2030
Cisco Switch	FXS2431Q14S	C9606R	Hallandale/441	12/12/2030

NETWORKS – CRITICAL SYSTEMS

This SOP Section describes what happens if failure occurs on the network devices listed below, which include switches, physical servers, and VMs that are essential to the operations of D4 TSM&O.

Critical Network Devices

Network Device Name	If the RTMC Network Device Fails
RTMC	The in-house field core network consists of two Cisco 6807-XL switches with Virtual Switching Systems (VSS) setup. The Control Room, SunGuide, and the field side connect to these two core switches. If they go down, the RTMC network goes down and becomes isolated.
OfficeCore	All office PCs connect to this switch, which cross connects to the two switches above. If it goes down, internet and email access will be lost.
ASA5545	ASA5545 (backup ASA firewall) takes over.
WLC5520	WLC5520 backup wireless controller WLC5520 takes over.
ITSWAN-4661	D4 will be isolated. The other Districts/Central Office will not see us.

Critical Physical Servers

The RTMC manages an Enterprise Phone System utilizing a Cisco Call Manager Multi-Site. The phone system consists of three Cisco BE7K servers (two in the RTMC and one in TIMSO), which provide the phone calls for the Operators and office users at TIMSO, Vista, Lake Worth, Powerline, Palm Beach Operations, and Eland.

The phone system also includes two Primary Rate Interface (PRI) circuits (one AT&T at the RTMC and one Comcast at TIMSO) for redundancy. The RTMC utilizes a dedicated PRI line strictly for voice, along with over 100 DID numbers for the primary circuit at the RTMC, with a secondary PRI line with 20 DID numbers at TIMSO.

Critical VMs

Note. The VMs below are sitting on physical servers.

VM Name / Description	IF VM Fails
CUCM Publisher	In case of a potential crash, the Publisher on the CUCM must be manually shut down. With the two CUCM Subscribers up and running, the CUCM will keep working, but no changes can be made.

Florida Department of Transportation
DISTRICT FOUR TSM&O REGIONAL TRANSPORTATION MANAGEMENT CENTER
STANDARD OPERATING PROCEDURES

IT

Software Whitelists

Software Request Form for Desktops

7.16.01

OVERVIEW

A list of all whitelisted software, including the version number and vendor for FDOT D4 TSM&O desktops is provided at the end of this form. Personnel that require any other software not whitelisted to do their job, must complete a software request form and submit it for approval.

SOFTWARE REQUEST DETAILS

1. **Employee Printed Name:**
- a. **Title:**
- b. **Email:**
- c. **Department:**
- d. **Supervisor:**
2. **Software Name:**
- a. **Expected Software Use:**
- b. **Software Vendor/Developer:**
- c. **Operating System Compatibility:**
- d. **Third Party Plugin/Software Requirement:**
- e. **Third Party Plugin/Software Vendor:**
- f. **Software Support Maintenance Partner:**

Employee Signature: _____

Date: _____

Florida Department of Transportation
DISTRICT FOUR TSM&O REGIONAL TRANSPORTATION MANAGEMENT CENTER
STANDARD OPERATING PROCEDURES

IT

Software Whitelists

Software Request Form for Desktops

7.16.01

SOFTWARE REQUEST FORM APPROVAL PROCESS

1. The requester completes and submits the software request form to the RTMC IT Support Manager via email for review and to approve or deny the request.
 - a. If the software request is denied, the RTMC IT Support Manager notifies the requester via email.
 - b. If approved, the RTMC IT Support Manager submits the software request form to the TSM&O IT Manager for review and to approve or deny the request.
 - (1) If the software request is denied, the TSM&O IT Manager notifies the requester via email.
 - (2) If approved, the TSM&O IT Manager submits the software request form to the TSM&O Resource Manager for final review and to approve or deny the request.
 - (a) If the software request is denied, the TSM&O Resource Manager notifies the requester via email.
 - (b) If approved, the TSM&O Resource Manager notifies the group (requester, RTMC IT Support Manager, and the TSM&O IT Manager) via email of the final status of the software request.
2. The requestor submits the approved software request form to the IT Department via email.
3. The IT Department contacts the requestor to schedule the software installation.

Florida Department of Transportation
DISTRICT FOUR TSM&O REGIONAL TRANSPORTATION MANAGEMENT CENTER
STANDARD OPERATING PROCEDURES

IT

Software Whitelists

Software Request Form for Desktops

7.16.01

SOFTWARE WHITELIST FOR DESKTOPS

Software	Version	Vendor
7-Zip	22.01 and later	7-Zip
Access Rights Manager	21.4.1.3	SolarWinds
Acrobat Reader	22.002.20191 and later	Adobe
AMD Software	22.8.2	Advanced Micro Devices, Inc.
AVTECH Device Discover Utility	4.3.2 and later	AVTECH Software
Barco DisplayAgent		Barco
Barco ProServer		Barco
Barco Sidebar	3.10.0.0117 and later	Barco
Cisco AnyConnect Secure Mobility Client	4.10.05111	Cisco Systems
Cisco ASDM-IDM	1.9.02	Cisco Systems
Cisco Webex Meetings	42.8.4 and later	Cisco Systems
CyberLink	2.21.3	Videx Inc.
Dameware Mini Remote Control	12.2.3 and later	SolarWinds
daVinci Resolve	18.0.10003	Blackmagic Design
DYMO ID	1.4.658.45027 and later	Sanford, L.P.
Folder Sizes	9.5 and later	Key Metric Software
Google Chrome	105.0.5195.54 and later	Google LLC
Greenshot Image Editor	1.2.10.6	Greenshot
Heyna	14.4 and later	System Tools Software
Kofax Power PDF Standard	3.10.6687	Kofax Inc.
Microsoft Edge	104.0.1293.70 and later	Microsoft
Microsoft Office 365	16.0.14701.20262 and later	Microsoft
Microsoft Office Professional Plus 2016		Microsoft
Microsoft Teams	1.5.00.21668	Microsoft Corporation
Microsoft Visio	16.0.15601.20088	Microsoft Corporation
Milestone xProtect Management Client	20.2.1 and later	Milestone Systems
Milestone xProtect Smart Client	20.2.2352.1 and later	Milestone Systems
Mozilla Firefox	104.0.2 and later	Mozilla
Mutualink Edge	7.2.3.2800	Mutualink
Nessus Agent	10.1.4.20122 and later	Tenable Inc.

Version: 1.0

Click or tap to enter a date.

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Florida Department of Transportation
DISTRICT FOUR TSM&O REGIONAL TRANSPORTATION MANAGEMENT CENTER
STANDARD OPERATING PROCEDURES

IT	Software Whitelists	Software Request Form for Desktops	7.16.01
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Software	Version	Vendor
Notepad++	7.8.8 and later	Notepad++ Team
OBS Studio	27.0.0	OBS Project
PowerShell	7.1.5.0	Microsoft
PuTTY	0.73.0.0	Simon Tatham
SmartDeploy Client		SmartDeploy
SmartSensor Manager HD	21.2.505.255	Wavetronix LLC
SolarWind Patch Manager Console	120.2.50032.6 and later	SolarWinds
SolarWinds Agent	2020.2.50025.6 and later	SolarWinds
SolarWinds Orion Network Atlas	1.23.50016.0	Solarwinds Worldwide, LLC.
SolarWinds SEM Agent		SolarWinds
SunGuide Operator Map	8.0.0.7464 and later	SunGuide
The Boringlab Toolbox	5.22.0720 and later	The Boring Lab
TightVNC	2.8.59.0 and later	GlavSoft LLC.
Trend Micro Apex One Security Agent	14.0.11676 and later	Trend Micro
VLC media player	3.0.16 and later	VLC media player
Vmware Remote Console	12.0.2	Vmware, Inc.
WinSCP	5.17.1 and later	Martin Prikryl
Zebra Printing	1.1.9.1290 and later	Zebra Technologies Corporation
Zoom	5.11.3 and later	Zoom Video Communications

Florida Department of Transportation
DISTRICT FOUR TSM&O REGIONAL TRANSPORTATION MANAGEMENT CENTER
STANDARD OPERATING PROCEDURES

IT

Software Whitelists

Software Request Form for Servers

7.16.01

OVERVIEW

A list of all whitelisted software, including the version number and vendor for FDOT D4 TSM&O servers is provided at the end of this form. Personnel that require any other software not whitelisted to do their job, must complete a software request form and submit it for approval.

SOFTWARE REQUEST DETAILS

1. **Employee Printed Name:**
- a. **Title:**
- b. **Email:**
- c. **Department:**
- d. **Supervisor:**
2. **Software Name:**
- a. **Expected Software Use:**
- b. **Software Vendor/Developer:**
- c. **Operating System Compatibility:**
- d. **Third Party Plugin/Software Requirement:**
- e. **Third Party Plugin/Software Vendor:**
- f. **Software Support Maintenance Partner:**

Employee Signature: _____

Date: _____

Florida Department of Transportation
DISTRICT FOUR TSM&O REGIONAL TRANSPORTATION MANAGEMENT CENTER
STANDARD OPERATING PROCEDURES

IT

Software Whitelists

Software Request Form for Servers

7.16.01

SOFTWARE REQUEST FORM APPROVAL PROCESS

1. The requester completes and submits the software request form to the RTMC IT Support Manager via email for review and to approve or deny the request.
 - a. If the software request is denied, the RTMC IT Support Manager notifies the requester via email.
 - b. If approved, the RTMC IT Support Manager submits the software request form to the TSM&O IT Manager for review and to approve or deny the request.
 - (1) If the software request is denied, the TSM&O IT Manager notifies the requester via email.
 - (2) If approved, the TSM&O IT Manager submits the software request form to the TSM&O Resource Manager for final review and to approve or deny the request.
 - (a) If the software request is denied, the TSM&O Resource Manager notifies the requester via email.
 - (b) If approved, the TSM&O Resource Manager notifies the group (requester, RTMC IT Support Manager, and the TSM&O IT Manager) via email of the final status of the software request.
2. The requestor submits the approved software request form to the IT Department via email.
3. The IT Department contacts the requestor to schedule the software installation.

Florida Department of Transportation
DISTRICT FOUR TSM&O REGIONAL TRANSPORTATION MANAGEMENT CENTER
STANDARD OPERATING PROCEDURES

IT

Software Whitelists

Software Request Form for Servers

7.16.01

SOFTWARE WHITELIST FOR SERVERS

Software	Version	Vendor
Boring Server Complete	5.21.0322	The Boring Lab
Ecava IntegraXor	9.2.1001.19	Ecava
IP Video Transcoding	5.12.4.1 or later	IP Video Trans
MaxView Server	1.9.0.755	Intelight
Microsoft Edge	104.0.1293.70 and later	Microsoft
Microsoft SQL Server 2014		Microsoft
Milestone xProtect	20.21.4122 and later	Milestone Systems
Nessus Agent	10.1.4.20122 and later	Tenable Inc
NetTime		
Okta AD Agent	3.8.0 and later	Okta
Okta RADIUS Agent	2.17.2 and later	Okta
Password Manager Pro	12.1.0 and later	Manage Engine
PowerShell	7.1.5.0	Microsoft
RoomAlert Manager	2.3 and later	AVTECH Software
SolarWinds Access Rights Manager	21.4.1.3 and later	SolarWinds
SolarWinds Agent	2020.2.50025.6 and later	SolarWinds
SolarWinds Log Forwarder for Windows	1.1.19	SolarWinds
SolarWinds Orion		SolarWinds
SolarWinds Patch Manager	120.2.50032.6 and later	SolarWinds
SunGuide Operator Map	8.0.0.7464 and later	Sunguide
Tableau Server 2021.4	20221.22.0616.1738 and later	Tableau Software
TimeTrax Sync	3.0.18.6	Pyramid Technologies, LLC
Trend Micro Workload Security Agent	20.0.5394 and later	Trend Micro
Umbrella Connector		Cisco Systems Inc.
Unitrends Agent	10.5.8.1.6848 and later	Unitrends
VMware Tools	12.1 and later	Vmware
WinGate Proxy	9.4 and later	WinGate
WOWZA		WOWZA
Microsoft SQL Server 2016	15.0.18410.0 and later	Microsoft
Cyberlock	9.5.18 or later	Videx

Version: 1.0

Click or tap to enter a date.

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7.17 SunGuide and RTMC Software

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- Configure A Computer to Access SunGuide4
- Access SunGuide.....4
- SMART SUNGUIDE IDS.....5

Document History

Version #	Date	Author	Changes
1.0	12/20/2023	Yana Neishlos	Initial Draft

SETUP SUNGUIDE ON A COMPUTEROVERVIEW

Configure A Computer to Access SunGuide

1. The computer should be on a SunGuide network segment. To confirm get the IP Address of the computer and compare to the IP Numbering Plan document for reference.
2. Login using an account which includes the permissions to install and configure software.
3. Navigate to <https://intrasmart.smartsunguide.com> and go to the APPS section of the page and click on SunGuide. Follow onscreen prompts to install.

Access SunGuide

1. Click on Start and type in SunGuide and click on the on-screen search result.
2. Click Operator Map when loaded.
3. Login using your assigned username and password.

SMART SUNGUIDE IDS

The Software Contractor creates and manages SunGuide network IDs.

The Supervisor of the user submits requests for new employees or to change the status for current employees who already have an ID located within the helpdesk application.

This request is then approved by the managers and sent to the IT Department and Software Contractor for creation.



7.19 VMware Virtual Environment

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Document History

Version #	Date	Author	Changes
1.0	2/28/2024	Yana Neishlos	Initial Draft

VMware VIRTUAL ENVIRONMENT

Due to the sensitivity of the information in this document, it is only accessible by IT personnel at the following link:

[7.19 VMWare Virtual Environment - Virtual Server Lists_SD.pdf](#).

Sensitive documents, such as “VMware Virtual Environment” are placed in

[District 4 TSM&O Collaboration Portal \(Partner Site\) - IT Documents - ListView \(sharepoint.com\)](#).

A separate list for all RTMC, Vista Center, TIMSO virtual servers to include the backup frequency and most recent restoration test date for each virtual server / machine is provided in this SOP Section.

RTMC VMware Virtual Environment – ftmcmva03.field.net

Server Name	Cluster	Server Role	Managed By	Patched By	Powered On / Off	CPUs	Backup Frequency
BarcoWall01_Smartsunguide.com	TMC	TMC BARCO Wall	Desktop Support	Desktop Team	On	2	Daily
BarcoWall02_Smartsunguide.com	TMC	TMC BARCO Wall	Desktop Support	Desktop Team	On	2	Daily
BarcoWall03_Smartsunguide.com	TMC	TMC BARCO Wall	Desktop Support	Desktop Team	On	2	Daily
BarcoWall04_Smartsunguide.com	TMC	TMC BARCO Wall	Desktop Support	Desktop Team	On	2	Daily
BarcoWall05_Smartsunguide.com	TMC	TMC BARCO Wall	Desktop Support	Desktop Team	On	2	Daily
BarcoWall06_Smartsunguide.com	TMC	TMC BARCO Wall	Desktop Support	Desktop Team	On	2	Daily
BarcoWall07_Smartsunguide.com	TMC	TMC BARCO Wall	Desktop Support	Desktop Team	On	2	Daily
BarcoWall08_Smartsunguide.com	TMC	TMC BARCO Wall	Desktop Support	Desktop Team	On	2	Daily
BarcoWall09_Smartsunguide.com	TMC	TMC BARCO Wall	Desktop Support	Desktop Team	On	2	Daily
BarcoWall10_Smartsunguide.com	TMC	TMC BARCO Wall	Desktop Support	Desktop Team	On	2	Daily
BarcoWall11_Smartsunguide.com	TMC	TMC BARCO Wall	Desktop Support	Desktop Team	On	2	Daily

Server Name	Cluster	Server Role	Managed By	Patched By	Powered On / Off	CPUs	Backup Frequency
BarcoWall12_Smartsunguide.com	TMC	TMC BARCO Wall	Desktop Support	Desktop Team	On	2	Daily
FTMCVMAP01_OTM	TMC	OTM Website Connection for District 6. Jump server to District 6 SELS Application. Used by Alana & Dee.	Server Team	Server Team	On	2	Daily
FTMCVMAP02_Okta	TMC	Okta Application Server	Security Team	Security Team	On	2	Daily
FTMCVMAP04_WWD	TMC	Wrong Way Detection	IBI Team	IBI Team	On	8	Daily
FTMCVMAP05_SIRVAPP	TMC	SIRV Application Server	IBI Team	IBI Team	On	8	Daily
FTMCVMAP07_US27VSLs	TMC	Variable Speed Limit application on US 27	Server Team / David Needham	Server Team	On	4	Daily
FTMCVMAP08_SunGuideTestEnvironment	TMC	Sunguide Application Test Environment Server	IBI Team	IBI Team	On	8	Daily
FTMCVMAP09_SunGuideTestEnvironment	TMC	Sunguide Application Test Environment Server	IBI Team	IBI Team	On	8	Daily
FTMCVMAP10_WebProxy	TMC	Web Proxy Server	IBI Team	IBI Team	On	8	Daily
FTMCVMAP11_TOQC	TMC	TOQC Application Server	IBI Team	IBI Team	On	2	Daily
FTMCVMAP12_RampSignaling	TMC	Ramp Signaling Application Server	IBI Team	IBI Team	On	6	Daily
FTMCVMAP13_US27VSLs	TMC	Variable Speed Limit application on US 27	Server Team / David Needham	Server Team	On	4	Daily
FTMCVMAP14_MIMS	TMC	MIMS Application Server	IBI Team	IBI Team	On	8	Daily
FTMCVMAP15_RAMP-API	TMC	Ramp API Server	IBI Team	IBI Team	On	2	Daily

Server Name	Cluster	Server Role	Managed By	Patched By	Powered On / Off	CPUs	Backup Frequency
FTMCVMAP16_US27	TMC	US27 Snapshots Server	IBI Team	IBI Team	On	8	Daily
FTMCVMAP17_AMSSnapshots	TMC	AMS Snapshots Server	IBI Team	IBI Team	On	10	Daily
FTMCVMAP18_RoadRangerApplication	TMC	Road Ranger Application Server	IBI Team	IBI Team	On	6	Daily
FTMCVMAP19_IBITestEnvironment	TMC	IBI Application Test Environment Server	IBI Team	IBI Team	On	8	Daily
FTMCVMAP20_ELSTestEnvironment	TMC	ELS Pricing System Test Environment Server	IBI Team	IBI Team	On	4	Daily
FTMCVMAP21_SELSTestEnvironment	TMC	SELS Test Environment Server	IBI Team	IBI Team	On	4	Daily
FTMCVMAP22_595Report	TMC	595 Reporting System Server	IBI Team	IBI Team	On	4	Daily
FTMCVMAP23_SELSI75	TMC	SELS I75 Cluster Node 1	IBI Team	IBI Team	On	4	Daily
FTMCVMAP24_ELSI95	TMC	ELS Pricing System Server	IBI Team	IBI Team	On	8	Daily
FTMCVMAP25_Snapshots	TMC		IBI Team	IBI Team	On	10	Daily
FTMCVMAP26_SELSI75	TMC	SELS I75 Cluster Node 2	IBI Team	IBI Team	On	4	Daily
FTMCVMAP27_TimeControl	TMC	TimeControl- Controls the wall clocks in the TMC used by Desktop Support	Server Team	Server Team	On	4	Daily
FTMCVMAP29_Generators	TMC	Generators Web Server	Server Team	Server Team	On	4	Daily
FTMCVMAP30_AMSTestEnvironment	TMC	AMS Test Environment Application Server	IBI Team	IBI Team	On	4	Daily
FTMCVMAP31_SNAPS	TMC		IBI Team		On	4	Daily

Server Name	Cluster	Server Role	Managed By	Patched By	Powered On / Off	CPUs	Backup Frequency
FTMCVMAP32_SICE	TMC	SICE Server	Server Team	Server Team	On	2	Daily
FTMCVMAP33_HAR	TMC		IBI Team	IBI Team	On	8	Daily
FTMCVMAP34_DisplayControl	TMC	Display Control	Desktop Support	Desktop Team	On	4	Daily
FTMCVMAP35_KOHLER	TMC		Desktop Support	Server Team	On	2	Daily
FTMCVMARM01_ARMCollector	TMC		Security Team	Security Team	On	2	Daily
FTMCVMDB01_MYSQL	TMC	IT Database	IT Team	IT Team	On	8	Daily
FTMCVMDB02_MYSQL	TMC	IT Database	IT Team	IT Team	On	8	Daily
FTMCVMDC01_DC	TMC	Domain Controller	Server Team	Server Team	On	4	Daily
FTMCVMDC02_DC	TMC	Domain Controller	Server Team	Server Team	On	4	Daily
FTMCVMDC03_DC	TMC	Domain Controller	Server Team	Server Team	On	4	Daily
FTMCVMDC04_DC	TMC	Domain Controller	Server Team	Server Team	On	4	Daily
FTMCVMSQL01_SunGuide	IBI	SELS I75 MySQL cluster node 2	IBI Team	IBI Team	On	32	Daily
FTMCVMSQL02_SunGuide	IBI	Sunguide Application SQL Server	IBI Team	IBI Team	On	32	Daily
FTMCVMUT01_UEB	Backup	Unitrends Backup Application Server	Server Team	Server Team	On	12	Daily
FTMCVMUT02_UEB	Backup	Unitrends Backup Application Server	Server Team	Server Team	On	12	Daily
FTMCVMUT03_UEB	Backup	Unitrends Backup Application Server	Server Team	Server Team	On	12	Daily
FTMCVMUT04_UEB	Backup	Unitrends Backup Application Server	Server Team	Server Team	On	4	Daily
FTMCVMVA03_vCenter	TMC	VMware vCenter Server Appliance	Server Team	Server Team	On	2	Daily
FTMCVMVA04_Cyberlock	TMC	Cyberlock Application Host	Security Team	Security Team	On	2	Daily

Server Name	Cluster	Server Role	Managed By	Patched By	Powered On / Off	CPUs	Backup Frequency
FTMCVMVW01_CMSServer	TMC	CMS Image for virtual box and VMware	Desktop Support	Desktop Support	On	8	Daily
FTMCVMVW02_CMSServer	TMC	CMS Image for virtual box and VMware	Desktop Support	Desktop Support	On	8	Daily
TMCVASEM01_SecurityEventMgr	TMC	Security Event Manager	Security Team	Security Team	On	6	Daily
TMCVMAP04_Intrasmart	TMC	Intrasmart Application Server (TIMSO) internal web server	IBI Team	Server Team	On	4	Daily
TMCVMAP08_BaslerElectric	TMC		Server Team	Server Team	On	2	Daily
TMCVMAP09_KMS	TMC	Key Management Server	Server Team	Server Team	On	4	Daily
TMCVMAP12_Intrasmart	TMC	Intrasmart NLB node 2. internal web server	Server Team	Server Team	On	4	Daily
TMCVMAP14_Website	TMC	Proxy Server between Sunguide Applications and Smartsunguide.com Website	IBI Team	IBI Team	On	12	Daily
TMCVMAP15_BSO	TMC		Server Team	Server Team	On	8	Daily
TMCVMAP18_BSO	TMC		Server Team	Server Team	On	8	Daily
TMCVMAP19_Solarwinds NTM	TMC	Solarwinds Network Topology Manager	Server Team	Server Team	On	2	Daily
TMCVMAP20_DMZWifi DHCP Server	TMC	DHCP server for the guest network (DMZ)	Server Team	Server Team	On	2	Daily
TMCVMAP22_SmartDeploy	TMC	SmartDeploy	Server Team	Server Team	On	4	Daily
TMCVMAP25_NessusSensor	TMC	Tenable Vulnerability Scanner	Security Team		On	2	Daily
TMCVMAP26_D4Snapshots	TMC	D4 Snapshots	IBI Team	IBI Team	On	32	Daily
TMCVMAP29_Okta	TMC	Okta Application Server	Security Team	Security Team	On	2	Daily

Server Name	Cluster	Server Role	Managed By	Patched By	Powered On / Off	CPUs	Backup Frequency
TMCVMAP30_SolarWindsService Desk	TMC	SolarWinds Service Desk	Desktop Team	Server Team	On	4	Daily
TMCVMAPPTST01_Software Team Test Environment	TMC	Software Team Test Environment	Software Team	Software Team	On	4	Daily
TMCVMAR01_AccessRightsMgr	TMC	Solarwinds Access Rights Manager	Security Team	Security Team	On	2	Daily
TMCVMBDS01_BeaconDashboard	TMC		Server Team	Server Team	On	8	Daily
TMCVMCA01_CertificateAuthority	TMC	Certificate Authority Server (Subordinate CA)	Server Team	Server Team	On	2	Daily
TMCVMCA02_CertificateAuthority	TMC	Certificate Authority Server	Server Team	Server Team	On	2	Daily
TMCVMD4SG07_Web Server	DMZ	Web Server	Software Team	Software Team	On	4	Daily
TMCVMD4SG08_Web Server	DMZ	Web Server	Software Team	Software Team	On	4	Daily
TMCVMDAMEWARE01_Dameware Application	TMC	Dameware Application	Desktop Team	Desktop Team	On	2	Daily
TMCVMDB01_ITSQL	TMC	IT SQL Database (Part of AlwaysOn Cluster)	Server Team	Server Team	On	4	Daily
TMCVMDB02_ITSQL	TMC	IT SQL Database (Part of AlwaysOn Cluster)	Server Team	Server Team	On	4	Daily
TMCVMDC01_DC	TMC	Domain Controller (Smartsunguide Domain)	Server Team	Server Team	On	6	Daily
TMCVMDC02_DC	TMC	Domain Controller (Smartsunguide Domain)	Server Team	Server Team	On	8	Daily

Server Name	Cluster	Server Role	Managed By	Patched By	Powered On / Off	CPUs	Backup Frequency
TMCVMDC03_DC	TMC	Domain Controller (Smartsunguide Domain)	Server Team	Server Team	On	2	Daily
TMCVMDFS01	TMC	Distributed File Server	Server Team	Server Team	On	4	Daily
TMCVMDHCP01	TMC	DHCP Server	Server Team	Server Team	On	2	Daily
TMCVMELS59501_ELS595	Sunguide Applications		Software Team	Software Team	On	2	Daily
TMCVMELS59502_ELS595	Sunguide Applications		Software Team	Software Team	On	2	Daily
TMCVMELSI9501_ELSI95 Application	Sunguide Applications		Software Team	Software Team	On	2	Daily
TMCVMELSTST01_ELSTestEnvironment	Sunguide Applications		Software Team	Software Team	On	4	Daily
TMCVMEVIS01_EdgeVisTestServer	TMC				On	4	Daily
TMCVMFP01_PrinterServer	TMC	Print Server	Server Team	Server Team	On	4	Daily
TMCVMFP02_SFTP	Backup	SFTP NLB Node 2	Server Team	Server Team	On	8	Daily
TMCVMFSG01_Freeway Sunguide	Sunguide Applications	Sunguide Application	Software Team	Software Team	On	2	Daily
TMCVMFSG02_Freeway Sunguide	Sunguide Applications	Sunguide Application	Software Team	Software Team	On	2	Daily
TMCVMFSG03_Freeway Sunguide	Sunguide Applications	Sunguide Application	Software Team	Software Team	On	2	Daily
TMCVMIM01_HPDesktopManagement	TMC	HP Desktop Management	Desktop Team	Desktop Team	On	2	Daily
TMCVMNAVISET01_Display Control	TMC	Naviset Monitor Display Application	Desktop Team	Desktop Team	On	2	Daily
TMCVMNVR01	TMC	Milestone Application ARXYS NVR	Security Team	Security Team	On	2	Daily

Server Name	Cluster	Server Role	Managed By	Patched By	Powered On / Off	CPUs	Backup Frequency
TMCVMNVR02_SmartWall	TMC		Security Team	Security Team	On	2	Daily
TMCVMNVR03_RecordingServer	TMC		Security Team	Security Team	On	2	Daily
TMCVMOTM01_OTM Application	TMC		Server Team	Server Team	On	2	Daily
TMCVMRMALERT01_Room Alert	TMC	Room Alert Application	Security Team	Security Team	On	6	Daily
TMCVMUSD01_SolarwindsDB	TMC	Solarwinds Database Server	Server Team	Server Team	On	12	Daily
TMCVMUSD02_SolarwindsDB	TMC	Solarwinds Database Server	Server Team	Server Team	On	12	Daily
TMCVMUSDSCAN01_Solarwinds Service Desk Scanner	TMC	Solarwinds Service Desk Scanner	IT Team				Daily
TMCVMSELSI7501_SELSI75 Application	Sunguide Applications		Software Team				
TMCVMSELSI7502_SELSI75 Application	Sunguide Applications		Software Team				
TMCVMSELSTST01_SELSTestEnvironment	Sunguide Applications		Software Team				
TMCVMSEM01_SecurityEventManager	TMC	Security Event Manager	Security Team	Security Team	On	2	Daily
TMCVMMSG01_SunGuideAMS	TMC	Sunguide AMS Application Server	Software Team	Software Team	On	8	Daily
TMCVMMSG02_SunGuideAMS	TMC	Sunguide AMS Application Server	Software Team	Software Team	On	8	Daily
TMCVMMSG03_SunGuideAMS	TMC	Sunguide AMS Application Server	Software Team	Software Team	On	8	Daily
TMCVMMSGIDS01_Bling Bling	DMZ	SunGuide Incident Detection System Module	Server Team	IBI Team	On	4	Daily

Server Name	Cluster	Server Role	Managed By	Patched By	Powered On / Off	CPUs	Backup Frequency
TMCVMSM01_PasswordManager	TMC	Password Manager Application Server	Security Team	Security Team	On	1	Daily
TMCVMSM02_PasswordManager	TMC	Password Manager Application Server	Security Team	Security Team	On	4	Daily
TMCVMSMTP01_SMTP	TMC	SMTP Relay Server	Server Team	Server Team	On	2	Daily
TMCVMSNAPS01_SNAPS	TMC		Software Team	Software Team	On	2	Daily
TMCVMSO01_SolarwindsOrionPoller	TMC	Solarwinds Poller	Server Team	Server Team	On	24	Daily
TMCVMSO02_SolarwindsOrionPoller	TMC	Solarwinds Poller	Server Team	Server Team	On	8	Daily
TMCVMSO03_SolarwindsAdditionalWebServer	TMC	Solarwinds Web Server	Server Team	Server Team	On	8	Daily
TMCVMSP01_SolarwindsPatchManagement	TMC	SolarWinds Patch Management	Desktop Support	Server Team/Desktop Team	On	6	Daily
TMCVMSP02_SolarwindsWsus	TMC	SolarWinds WSUS server	Desktop Support	Server Team/Desktop Team	On	6	Daily
TMCVMCRM_Site Recovery Manager	TMC	VMware Site Recovery Manager	Server Team	Server Team	On	4	Daily
TMCVMSVRTST_Security Team Test Server	TMC	Security Team Test Server	Security Team	Security Team	On	2	Daily
TMCVMTAB01_Tableau	TMC		Software Team	Software Team	On	2	Daily
TMCVMTE01_IT	TMC	Terminal Server	Desktop Team	Desktop Team	On	2	Daily
TMCVMTS02_3400	TMC	3400 Terminal Server	Server Team	Server Team	On	4	Daily
TMCVMTS03_MaintenanceRDS	TMC	Maintenance Terminal Server	Server Team	Server Team	On	8	Daily

Server Name	Cluster	Server Role	Managed By	Patched By	Powered On / Off	CPUs	Backup Frequency
TMCVMTS04_MaintenanceRDS	TMC	Maintenance Terminal Server	Server Team	Server Team	On	8	Daily
TMCVMTS05_SirvRDS	TMC	SIRV Terminal Server	Server Team	Server Team	On	8	Daily
TMCVMTS06_SirvRDS	TMC	SIRV Terminal Server	Server Team	Server Team	On	8	Daily
TMCVMTVIS01_TrafficVision	TMC		IT Team	IT Team	On	2	Daily
TMCVMUA01_OpenDNS	TMC	Open DNS	Server Team	Server Team	On	1	Daily
TMCVMUA02_OpenDNS	TMC	Open DNS	Server Team	Server Team	On	1	Daily
TMCVMUA03_OpenDNS	TMC	Open DNS	Server Team	Server Team	On	1	Daily
TMCVMUA04_OpenDNS	TMC	Open DNS	Server Team	Server Team	On	1	Daily
TMCVMUA05_OpenDNS	TMC	Open DNS	Server Team	Server Team	On	1	Daily
TMCVMUA06_OpenDNS	TMC	Open DNS	Server Team	Server Team	On	1	Daily
TMCVMUA07_OpenDNS	TMC	Open DNS	Server Team	Server Team	On	1	Daily
TMCVMUA08_OpenDNS	TMC	Open DNS	Server Team	Server Team	On	1	Daily
TMCVMUA09_OpenDNS	TMC	Open DNS	Server Team	Server Team	On	1	Daily
TMCVMUA10_OpenDNS	TMC	Open DNS	Server Team	Server Team	On	1	Daily
TMCVMUC01_UmbrellaConnector	TMC	Cisco Umbrella Connector Server	Server Team	Server Team	On	2	Daily
TMCVMUC02_UmbrellaConnector	TMC	Cisco Umbrella Connector Server	Server Team	Server Team	On	2	Daily
TMCVMVA16_ESRS	TMC	ESRS Server	Server Team	Server Team	On	1	Daily
TMCVMVA17_NTPServer	TMC	NTP Server	Server Team	Server Team	On	2	Daily
TMCVMVA29_NessusWebApp	TMC	Tenable Web Application Scanner	Security Team	Security Team	On	4	Daily
TMCVMVA30_Nessus Scanner	TMC	Tenable Core	Security Team	Security Team	On	4	Daily
TMCVMVEEAM01_Veeam Backup & Recovery Server	TMC	Veeam Backup & Recovery Console	Server Team	Server Team	On	4	Daily

Server Name	Cluster	Server Role	Managed By	Patched By	Powered On / Off	CPUs	Backup Frequency
TMCVMVEEAMONE01_Veeam One	TMC	Veam One Application	Server Team	Server Team	On	8	Daily
TMCVMVG04_IPVideoTranscoder	TMC	IP Video Camera Transcoder Software Application Host	Security Team	Security Team	On	25	Daily
TMCVMVG05_IPVideoTranscoder	TMC	IP Video Camera Transcoder Software Application Host	Security Team	Security Team	On	16	Daily
TMCVMVG06_IPVideoTranscoder	TMC	IP Video Camera Transcoder Software Application Host	Security Team	Security Team	On	16	Daily
TMCVMVG07_IPVideoTranscoder	TMC	IP Video Camera Transcoder Software Application Host	Security Team	Security Team	On	16	Daily
TMCVMVG08_IPVideoTranscoder	TMC	IP Video Camera Transcoder Software Application Host	Security Team	Security Team	On	16	Daily
TMCVMVG09_IPVideoTranscoder	TMC	IP Video Camera Transcoder Software Application Host	Security Team	Security Team	On	16	Daily
TMCVMVG10_IPVideoTranscoder	TMC	IP Video Camera Transcoder Software Application Host	Security Team	Security Team	On	8	Daily
TMCVMVG11_IPVideoTranscoder	TMC	IP Video Camera Transcoder Software Application Host	Security Team	Security Team	On	4	Daily
TMCVMVMS01_VMSGateway	TMC	VMSGateway	IT Team	IT Team	On	2	Daily
TMCVMVMS02_VMSGateway	TMC	VMSGateway	IT Team	IT Team	On	2	Daily
TMCVMVPXYDMZ01_Veeam Proxy Server	DMZ	Veeam Backup & Recovery Proxy	Server Team	Server Team	On	2	Daily
TMCVMVPXYDMZ02_Veeam Proxy Server	DMZ	Veeam Backup & Recovery Proxy	Server Team	Server Team	On	2	Daily

Server Name	Cluster	Server Role	Managed By	Patched By	Powered On / Off	CPUs	Backup Frequency
TMCVMVPXYHOST01_ Veeam Proxy Server	TMC	Veeam Backup & Recovery Proxy	Server Team	Server Team	On	6	Daily
TMCVMVPXYHOST02_ Veeam Proxy Server	TMC	Veeam Backup & Recovery Proxy	Server Team	Server Team	On	6	Daily
TMCVMVPXYHOST03_ Veeam Proxy Server	TMC	Veeam Backup & Recovery Proxy	Server Team	Server Team	On	6	Daily
TMCVMVPXYHOST04_ Veeam Proxy Server	TMC	Veeam Backup & Recovery Proxy	Server Team	Server Team	On	6	Daily
TMCVMVPXYHOST05_ Veeam Proxy Server	TMC	Veeam Backup & Recovery Proxy	Server Team	Server Team	On	6	Daily
TMCVMVPXYHOST06_ Veeam Proxy Server	TMC	Veeam Backup & Recovery Proxy	Server Team	Server Team	On	6	Daily
TMCVMVPXYHOST07_ Veeam Proxy Server	TMC	Veeam Backup & Recovery Proxy	Server Team	Server Team	On	6	Daily
TMCVMVPXYSGAP01_ Veeam Proxy Server	Sunguide Applications	Veeam Backup & Recovery Proxy	Server Team	Server Team	On	6	Daily
TMCVMVPXYSGAP02_ Veeam Proxy Server	Sunguide Applications	Veeam Backup & Recovery Proxy	Server Team	Server Team	On	6	Daily
TMCVMVPXYSGAP03_ Veeam Proxy Server	Sunguide Applications	Veeam Backup & Recovery Proxy	Server Team	Server Team	On	6	Daily
TMCVMVSPHEREREP_vCenter Replication Appliance	TMC	vCenter Replication Appliance	Server Team	Server Team	On	4	Daily
TMCVMVW01	TMC	CMS Server	Desktop Team	Desktop Team	Off	8	Daily
TMCVMVW02	TMC	CMS Server	Desktop Team	Desktop Team	Off	8	Daily
TMCVMWINPXY01_Wingate Proxy	TMC	Wingate Application Proxy Server	Server Team	Server Team	On	2	Daily
Windows 10 Enterprise Image – BASE (SmartDeploy)	TMC	Windows 10 Enterprise Image - BASE (SmartDeploy)	Desktop Team	Desktop Team	Off	4	Daily

Server Name	Cluster	Server Role	Managed By	Patched By	Powered On / Off	CPUs	Backup Frequency
Windows 10 Enterprise Image - Control Room Internet	TMC	Windows 10 Enterprise Image - Control Room Internet	Desktop Team	Desktop Team	Off	4	Daily
Windows 10 Enterprise Image - IT (SmartDeploy)	TMC	Windows 10 Enterprise Image - IT (SmartDeploy)	Desktop Team	Desktop Team	Off	4	Daily
Windows 10 Enterprise Image - Maintenance (SmartDeploy)	TMC	Windows 10 Enterprise Image - Maintenance (SmartDeploy)	Desktop Team	Desktop Team	Off	4	Daily
Windows 10 Enterprise Image - Office (SmartDeploy)	TMC	Windows 10 Enterprise Image - Office (SmartDeploy)	Desktop Team	Desktop Team	Off	4	Daily
Windows 10 Enterprise Image - SIRV Laptop	TMC	Windows 10 Enterprise Image - SIRV Laptop	Desktop Team	Desktop Team	Off	4	Daily
Windows 10 Enterprise Image - VDU	TMC	Windows 10 Enterprise Image - VDU	Desktop Team	Desktop Team	Off	4	Daily
Wowza	DMZ		Software Team	Software Team	On	2	Daily
Wowza01	DMZ		Software Team	Software Team	On	8	Daily
Wowza02	DMZ		Software Team	Software Team	On	8	Daily
Wowza03	DMZ		Software Team	Software Team	On	8	Daily
Wowza04	DMZ		Software Team	Software Team	On	8	Daily
WSUS Test Environment - IT Department	TMC						

Server Name	Cluster	Server Role	Managed By	Patched By	Powered On / Off	CPUs	Backup Frequency
WSUS Test Environment - Office (Windows 10)	TMC						

TIMSO VMware Virtual Environment – FTIMVMVA05.field.net

Virtual Server / Machine Name	Cluster	Role	Managed By	Patched By	Powered On / Off	CPUs	Backup Frequency
FTIMVMAP01_SunGuide	TIMSO	Sunguide Application Server	IBI Team	IBI Team	On	4	Daily
FTIMVMAP02_SunGuide	TIMSO	Sunguide Application Server	IBI Team	IBI Team	On	4	Daily
FTIMVMAP03_SunGuide	TIMSO	Sunguide Application Server	IBI Team	IBI Team	On	4	Daily
FTIMVMAP04_SunGuide	TIMSO	Sunguide Application Server	IBI Team	IBI Team	On	4	Daily
FTIMVMAP05_Okta	TIMSO	Okta Application Server	Security Team	Security Team	On	2	Daily
FTIMVMAP06_SolarWinds	TIMSO	Solarwinds Application Server	Server Team	Server Team	On	4	Daily
FTIMVMAP07_MIMS	TIMSO	MIMS Application Server	IBI Team	IBI Team	On	4	Daily
FTIMVMAP12_SELSI75	TIMSO	SELS I75	IBI Team	IBI Team	On	4	Daily
FTIMVMDB01_i75MYSQL	TIMSO	i75MYSQL	IBI Team	IBI Team	On	8	Daily
FTIMVMDC01_DC	TIMSO	Domain Controller (Field Domain)	Server Team	Server Team	On	4	Daily
FTIMVMDC02_DC	TIMSO	Domain Controller (Field Domain)	Server Team	Server Team	On	2	Daily
FTIMVMUT01_UEB	Backup	Unitrends Backup Application Server (TIMSO)	Server Team	Server Team	On	16	Daily
FTIMVMUT02_UEB	Backup	Unitrends Backup Application Server (TIMSO)	Server Team	Server Team	On	12	Daily
FTIMVMVA05_VCenter	TIMSO	VMware vCenter Server	Server Team	Server Team	On	2	Daily

Virtual Server / Machine Name	Cluster	Role	Managed By	Patched By	Powered On / Off	CPUs	Backup Frequency
FVISVMDC01_DC	VISTA	Domain Controller (Field Domain)	Server Team	Server Team	On	4	Daily
FVISVMDC02_DC	VISTA	Domain Controller (Field Domain)	Server Team	Server Team	On	4	Daily
FVISVMUT01_UEB	VISTA	Unitrends Backup Application Server	Server Team	Server Team	On	12	Daily
TIMVMAP03_TrendMicro	TIMSO	Trend Micro Application Server	Security Team	Security Team	On	8	Daily
TIMVMAP04_Okta	TIMSO	Okta Application Server	Security Team	Security Team	On	2	Daily
TIMVMAP08_Intrasmart	TIMSO	Intrasmart Application Server (TIMSO) internal web server	Server Team	Server Team	On	2	Daily
TIMVMDB01_ITSQL	TIMSO	IT SQL Database (Part of AlwaysOn Cluster)	Security Team	Security Team	On	4	Daily
TIMVMDBI7501_I75MYSQL	TIMSO	I75MYSQL	Software Team	Software Team	On	2	Daily
TIMVMDBSG01_Sunguide Database	TIMSO	Sunguide Database	Software Team	Software Team	On	2	Daily
TIMVMDC01_DC	TIMSO	Domain Controller (Field Domain)	Server Team	Server Team	On	2	Daily
TIMVMDC02_DC	TIMSO	Domain Controller (Field Domain)	Server Team	Server Team	On	2	Daily
TIMVMDFS01_DFS	TIMSO	DFS Server (smartsunguide)	Server Team	Server Team	On	4	Daily
TIMVMDHCP01_DHCP	TIMSO	DHCP Server	Server Team	Server Team	On	2	Daily
TIMVMFP01_PrintServer	TIMSO	Print Server (TIMSO)	Server Team	Server Team	On	4	Daily

Virtual Server / Machine Name	Cluster	Role	Managed By	Patched By	Powered On / Off	CPUs	Backup Frequency
TIMVMFSG01_Sunguide Application	TIMSO	Sunguide Application	Software Team	Software Team	On	2	Daily
TIMVMFSG02_Sunguide Application	TIMSO	Sunguide Application	Software Team	Software Team	On	2	Daily
TIMVMHPESUM01_HPE SUM	TIMSO	HP Software Update Manager	Server Team	Server Team	On	4	Daily
TIMVMMMAINT01_Maintenance Team Applications	TIMSO	Maintenance Team Application Server	Desktop Team	Desktop Team	On	2	Daily
TIMVMMIMS01_MIMS Application	TIMSO	MIMS Application	Software Team	Software Team	On	2	Daily
TIMVMSELSI7501_SEL75 Application	TIMSO		Software Team	Software Team	On	2	Daily
TIMVMSKYHLTH01-VMware Skyline Health	TIMSO	VMware Skyline Application	Server Team	Server Team	On	4	Daily
TIMVMMSM01_PasswordManager	TIMSO	Password Manager Application Server	Security Team	Security Team	On	1	Daily
TIMVMMSM02_PasswordManager	TIMSO	Password Manager Application Server	Security Team	Security Team	On	8	Daily
TIMVMSRM_Site Recovery Manager	TIMSO	VMware Site Recovery Manager Application	Server Team	Server Team	On	4	Daily
TIMVMUA01_OpenDNS	TIMSO	Cisco Open DNS	Server Team	Server Team	On	1	Daily
TIMVMUA02_OpenDNS	TIMSO	Cisco Open DNS	Server Team	Server Team	On	1	Daily

Virtual Server / Machine Name	Cluster	Role	Managed By	Patched By	Powered On / Off	CPUs	Backup Frequency
TIMVMUA03_OpenDNS	TIMSO	Cisco Open DNS	Server Team	Server Team	On	1	Daily
TIMVMUC01_UmbrellaConnector	TIMSO	Cisco Umbrella Connector Application Server	Server Team	Server Team	On	2	Daily
TIMVMVA04_Nessus	TIMSO	Nessus (Tenable) Application Server	Security Team	Security Team	On	4	Daily
TIMVMVA05_NTPServer	TIMSO	NTP Server	Server Team	Server Team	On	2	Daily
TIMVMVEEAM01_Veeam Backup & Recovery Server	TIMSO	Veeam Backup & Recovery Console	Server Team	Server Team	On	4	Daily
TIMVMVPXYHOST01_Veeam Proxy Server	TIMSO	Veeam Backup & Recovery Proxy	Server Team	Server Team	On	6	Daily
TIMVMVPXYHOST02_Veeam Proxy Server	TIMSO	Veeam Backup & Recovery Proxy	Server Team	Server Team	On	6	Daily
TIMVMVPXYHOST03_Veeam Proxy Server	TIMSO	Veeam Backup & Recovery Proxy	Server Team	Server Team	On	6	Daily
TIMVMVPXYHOST04_Veeam Proxy Server	TIMSO	Veeam Backup & Recovery Proxy	Server Team	Server Team	On	6	Daily
TIMVMVPXYHOST05_Veeam Proxy Server	TIMSO	Veeam Backup & Recovery Proxy	Server Team	Server Team	On	6	Daily
TIMVMVPXYHOST06_Veeam Proxy Server	TIMSO	Veeam Backup & Recovery Proxy	Server Team	Server Team	On	6	Daily
TIMVMVSPHEREP_vCenter Replication Appliance	TIMSO	vSphere Replication Application	Server Team	Server Team	On	4	Daily

Virtual Server / Machine Name	Cluster	Role	Managed By	Patched By	Powered On / Off	CPUs	Backup Frequency
VISVMAP01_OktaPreview	VISTA	Okta Application Server	Server Team	Server Team	On	2	Daily
VISVMDC01_DC	VISTA	Domain Controller (Smartsunguide Domain)	Server Team	Server Team	On	4	Daily
VISVMDC02_DC	VISTA	Domain Controller (Smartsunguide Domain)	Server Team	Server Team	On	4	Daily
VISVMDHCP01_DHCP	VISTA		Server Team	Server Team	On	2	Daily
VISVMFP01_PrintServer	VISTA	Print Server (VISTA)	Server Team	Server Team	On	4	Daily
VISVMSM01_PasswordManager	VISTA	Password Manager Application Server	Server Team	Server Team	On	1	Daily
VISVMUA01_OpenDNS	VISTA	Cisco Open DNS	Server Team	Server Team	On	1	Daily
VISVMUA02_OpenDNS	VISTA	Cisco Open DNS	Server Team	Server Team	On	1	Daily
VISVMUA03_OpenDNS	VISTA	Cisco Open DNS	Server Team	Server Team	On	1	Daily
VISVMUC01_UmbrellaConnector	VISTA	Cisco Umbrella Connector Application Server	Server Team	Server Team	On	2	Daily
VISVMVPXYHOST01_VeeamProxy Server	VISTA	Veeam Backup & Recovery Proxy	Server Team	Server Team	On	6	Daily
VISVMVPXYHOST02_VeeamProxy Server	VISTA	Veeam Backup & Recovery Proxy	Server Team	Server Team	On	6	Daily
VISVMVPXYHOST03_VeeamProxy Server	VISTA	Veeam Backup & Recovery Proxy	Server Team	Server Team	On	6	Daily

VMware VIRTUAL ENVIRONMENT – CRITICAL SYSTEMS

There are many applications that run on VMs, which are essential to the operations of D4 TSM&O. Provided below is a list of all critical VMs that are managed by the IT Department. If failure occurs on the VMs at the RTMC, the applications will continue to operate through VMs at the disaster recovery center (TIMSO).

VM Description	If the RTMC VM Fails
TMCVMVEEAM01	TIMVMVEEAM01 takes over.
FTMCVMAP14_MIMS	MIMS will continue to run on FTIMVMAP07.
FTMCVMAP23_SELSI75	SELS runs on these two VMs for redundancy. If failure occurs on both VMs, FTIMVMAP12 takes over.
FTMCVMAP26_SELSI75	
FTMCVMDB01_MYSQL	SELS runs on MYSQL on these two VMs for redundancy. If failure occurs on both VMs, FTIMVMDB01 takes over.
FTMCVMDB02_MYSQL	
TMCVMAP07_TrendMicro Deep Security	It will re-route to the management virtual server in TIMSO (TIMVMAP03) to get definition updates.
TMCVMAP07_TrendMicro ApexOne	It will re-route to the appliance in TIMSO (TIMVMAP07) to get definition updates.
TMCVMFP01_PrinterServer	TIMVMFP01 takes over.
TMCVMAP04_Intrasmart	Intrasmart runs on these two VMs for redundancy. If failure occurs on both VMs, TIMVMAP08 takes over.
TMCVMAP12_Intrasmart	
FTMCVMAP02_Okta	FTIMVMAP05_Okta takes over. If AD Agents are not available, the integrated applications (field domain) will be inaccessible.
TMCVMAP29_Okta	TIMVMAP04_Okta takes over. If AD Agents are not available, the integrated applications (smartsunguide domain) will be inaccessible.
TMCVMAP25_NessusSensor	TIMVMVA04 takes over.
TMCVMNTP01_NTPServer	TIMVMNTP01_NTP Server takes over.
TMCVMSM01_PasswordManager	TIMVMSM01 takes over.
TMCVMSM02_PasswordManager	We can still access passwords on the read only version in TIMSO (TIMVMSM02). However, changes of any kind (e.g., grant new passwords or permissions) cannot be made.
TMCVMDFS01	This DFS server replicated to TIMVMDFS01
FTMCVMAP04	WWD (Wrong Way Driving Detection)
FTMCVMVA03_vCenter	FTIMVMVA05_VCenter takes over.
TMCVMUA01_OpenDNS	TIMVMUA01_OpenDNS takes over.
TMCVMUA02_OpenDNS	TIMVMUA02_OpenDNS takes over.
TMCVMUA03_OpenDNS	TIMVMUA03_OpenDNS takes over.
TMCVMUC01_UmbrellaConnector	TIMVMUC01_UmbrellaConnector takes over.
FTMCVMAP11_TOQC	The IT department takes a daily snapshot of it to recover the ADAPT, DART, TOQC, and WWD applications.
FTMCVMAP14_MIMS	MIMS will continue to run on FTIMVMAP07.

VM Description	If the RTMC VM Fails
FTMCVMAP33_HAR	The IT department takes a daily snapshot of it to recover the HAR software.
WOWZA01	The video stream from the Sidebar application, which is transcoded on the WOWZA website for public access, runs on these four VMs for redundancy. The IT department takes a daily snapshot of them for recovery, in case of failure.
WOWZA02	
WOWZA03	
WOWZA04	

NIC TEAMING in VMware – TMC

Create Link Aggregation Group (LAG) Group for TMC-Field-DS

Steps / Screenshots

1.

- Click `ftmcmvva03.field.net`.
- Click Networking.



Figure 1. `ftmcmvva03.field.net` > Networking

2. (1) Click the down arrow next to **ftmcmvva03.field.net**
- (2) Click the down arrow next to **TMC**
-
- (3) Click **TMC-Field-DS**
- (4) Click **Configure**
- (5) Click **LACP**
- (6) Click **NEW**.

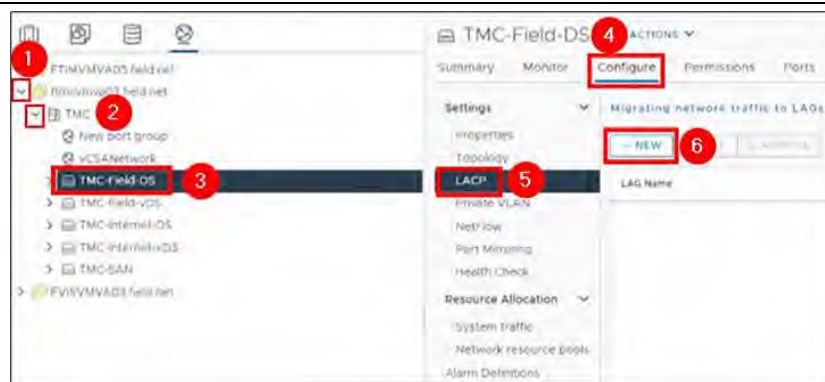


Figure 2. `TMC-Field-DS` > Configure > LACP > NEW

3. Enter the following information in the New LAG window, as shown in Figure 3:

- Name: `LAG_1`
 - Number of ports: 2
 - Mode: Active
 - Load balancing mode: Source and destination Mac address
 - Timeout mode: slow
- Click **OK**. Timeout mode: slow



Number 3. New LAG – LAG_1

Steps / Screenshots

4. (1) Click the down arrow next to **TMC-FIELD-DS**
- (2) right Click **TMC_FIELD_MGMT_100**
- (3) Click **Edit Settings**

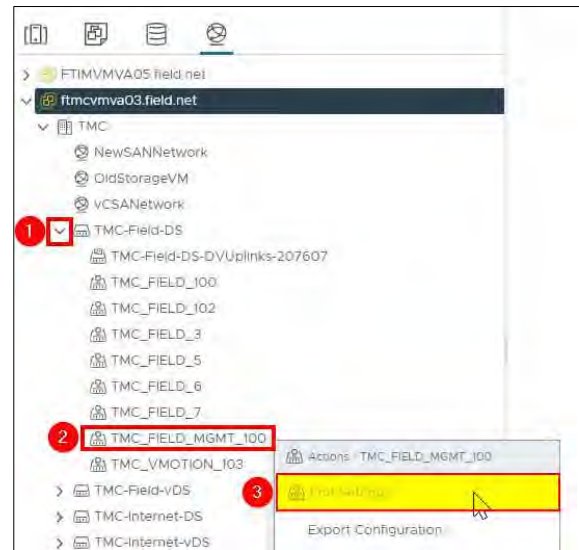


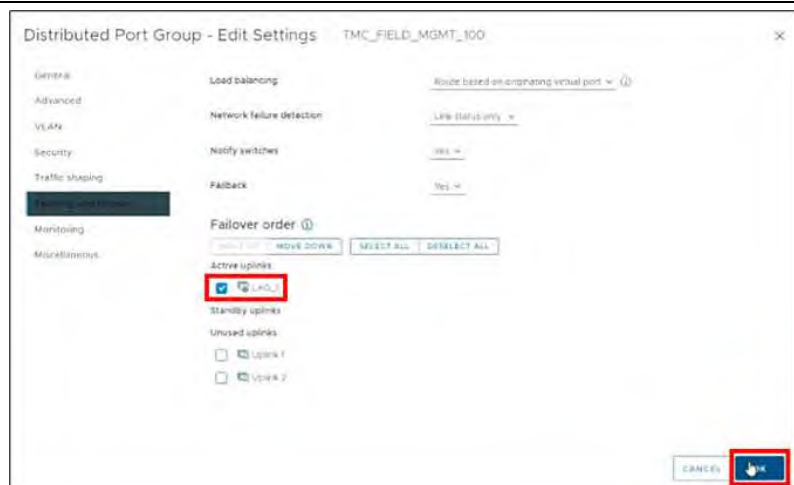
Figure 4. TMC-Field-DS > TMC_FIELD_MGMT_100 > Edit Settings

5.
 - Click Teaming and Failover
 - Move **Uplink 1** and **Uplink 2** to Unused uplinks.



Figure 5. Move Uplink 1 and Uplink 2 to Unused Uplinks.

- 6
 - Move **LAG_1** to Active uplinks.
 - Click **OK**.



Steps / Screenshots

Figure 6. Move LAG_1 to Active Uplinks

Configure tmcvhost01

Configure tmcvhost01 – vmnic2

Steps / Screenshots

1. (1) Click **host and clusters**,
- (2) Click the down arrow next to **TMC Cluster**,
- (3) Click **tmcvhost01.smartsunguide.com**,
- (4) Click **Configure**,
- (5) Click **Physical adapters**,
- (6) Click **vmnic2**

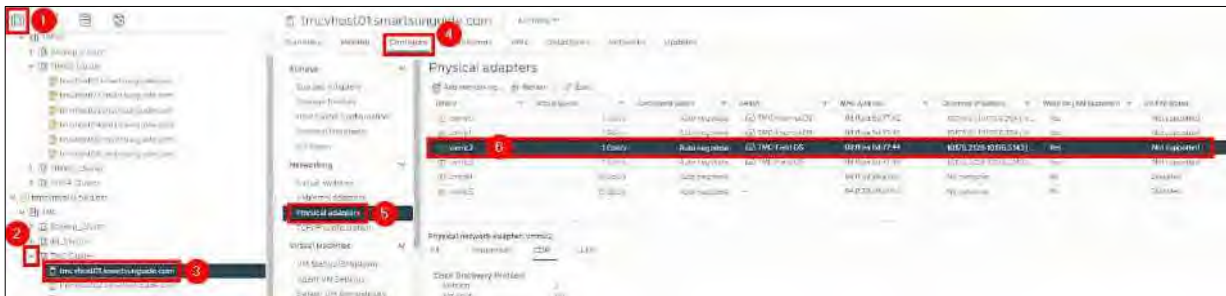


Figure 7. Configure tmcvhost01 - vmnic2

2. Click the **CDP** tab to find the Device ID and Port ID (Switch # and Port #), which will be provided to the Network Manager.
 - Device ID: **Switch # 1**
 - Port ID: **Port # 1**

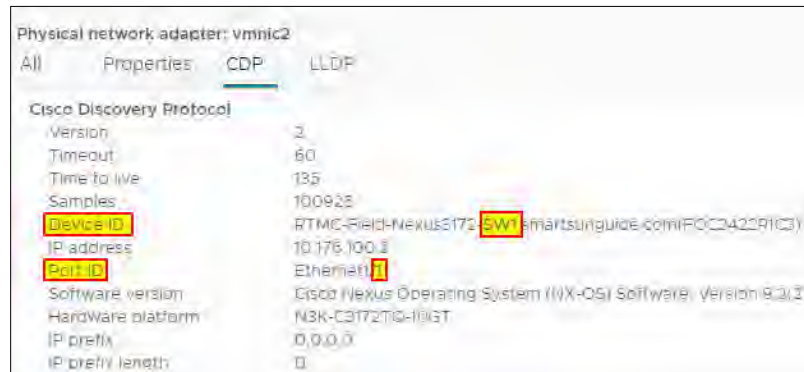


Figure 8. vmnic2 Device ID and Port ID.

3.
 - On the physical switch, the Network Manager will down the port connected to **vmnic2**.
 - Confirm that the port is down.

Device	Speed	Configured Speed	Switch	MAC Address	Observed IP Ranges	Wake on LAN Supported	SR IOV Status
vmnic0	1 Gbps	Auto negotiate	TMC-Internet-DS	08:00:27:8c:77:42	10.176.63.10-176.6.254.1	Yes	Not supported
vmnic1	1 Gbps	Auto negotiate	TMC-Internet-DS	08:00:27:8c:77:43	10.176.6.1-10.176.6.254.1	Yes	Not supported
vmnic2	Down	Auto negotiate	TMC-Field-DS	08:00:27:8c:77:44	10.176.3.128-10.176.3.143	Yes	Not supported
vmnic3	1 Gbps	Auto negotiate	TMC-Field-DS	08:00:27:8c:77:45	10.176.3.128-10.176.3.143	Yes	Not supported
vmnic4	10 Gbps	Auto negotiate	—	94:1b:78:e6:41:6c	No networks	No	Disabled
vmnic5	10 Gbps	Auto negotiate	—	94:1b:78:e6:41:6d	No networks	No	Disabled

Figure 9. Confirm that the Port is Down.

Steps / Screenshots

On the physical switch, the Network Manager will place the port connected to **vmnic2** in the LACP/EtherChannel configuration.

4.
 - Click networking,
 - Right Click **TMC-Field-DS**,
 - Click Add and Manage Hosts

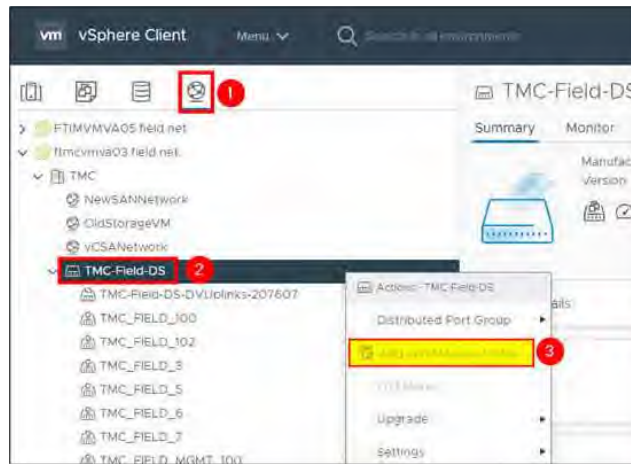


Figure 10. Add and Manage Hosts.

5.
 - Select Manage host networking and,
 - Click **NEXT**

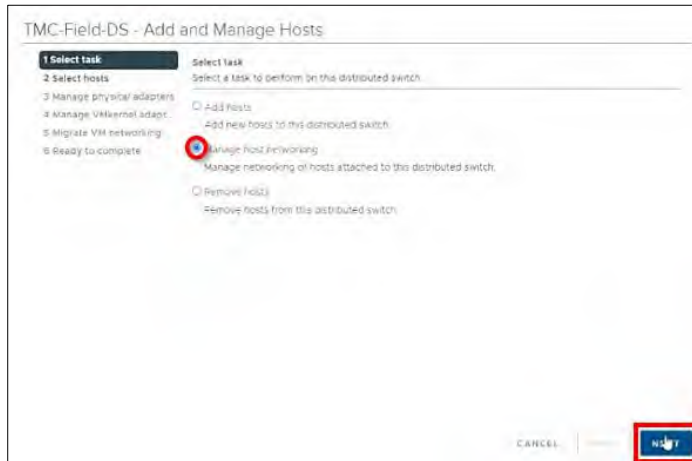


Figure 10. Select Task

6.
 - Click Attached hosts → check the box next to tmcvhost01.smarsunguide.com,
 - Click **OK**.

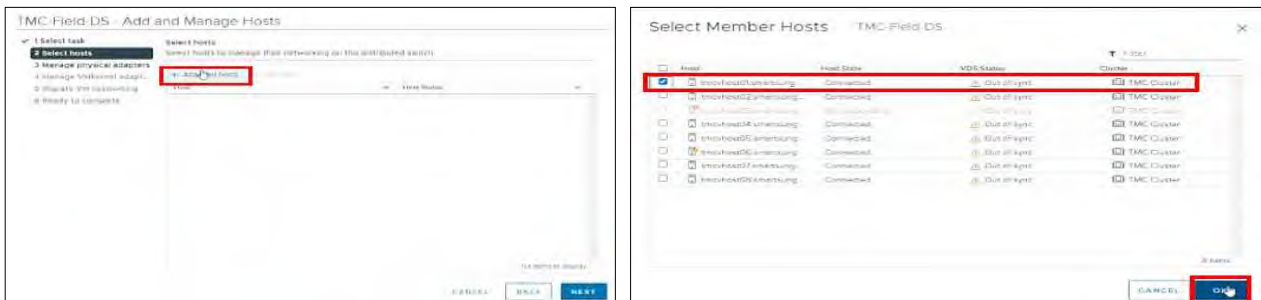


Figure 11. Select Member Host

Steps / Screenshots

7. Click **NEXT**

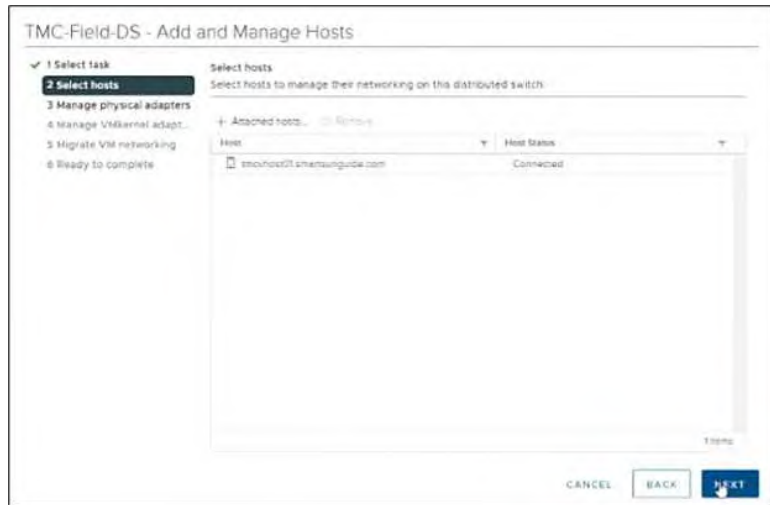


Figure 12. Select Host.

8. Add **vmnic2** to one of the LAG Uplinks as follows:

- Select **vmnic2**.
- Click Assign uplink.
- Select LAG_1-0.
- Click **OK**.

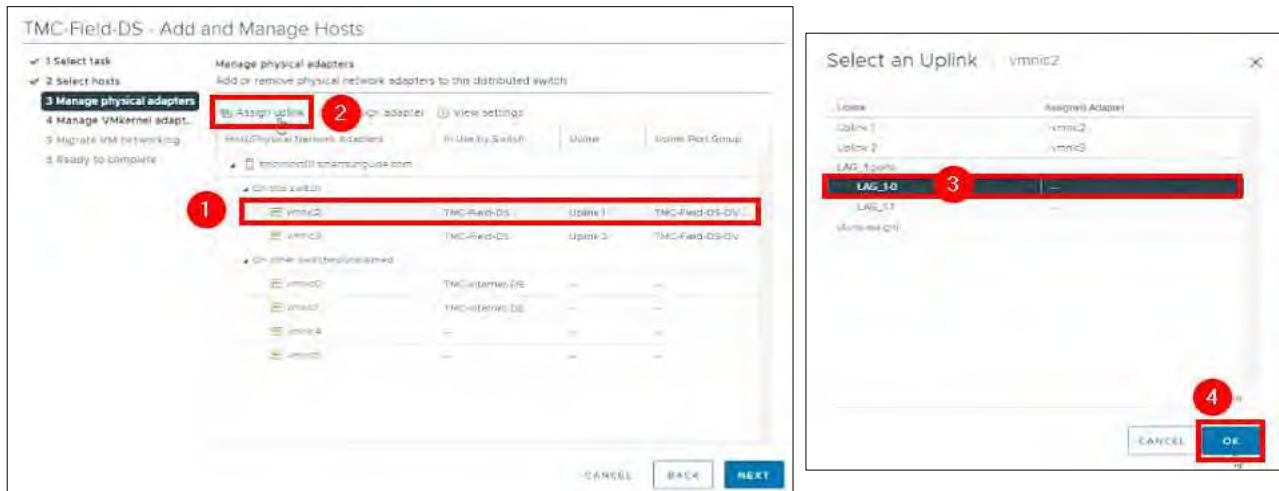


Figure 13. Manage Physical Adapters – Select an Uplink

Steps / Screenshots

9. Click **NEXT**.

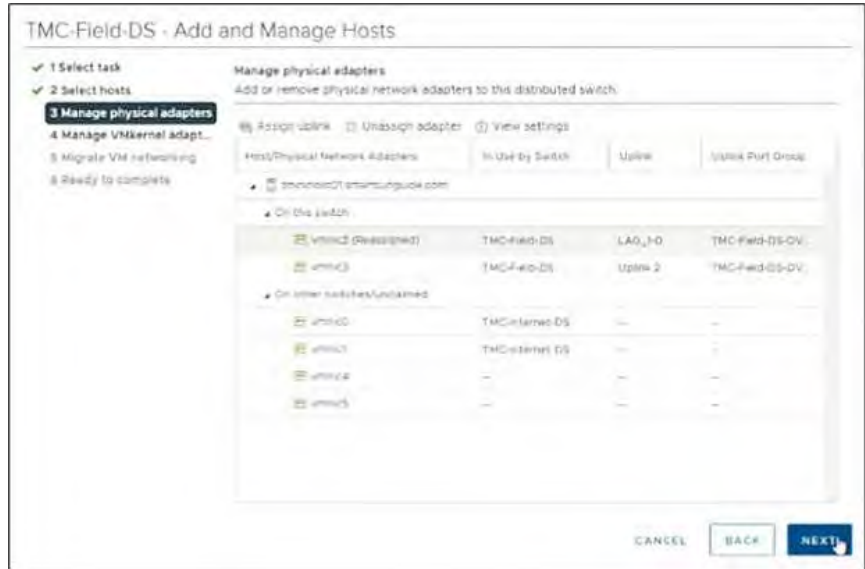


Figure 14. Manage Physical Adapters

10. Click **NEXT**.

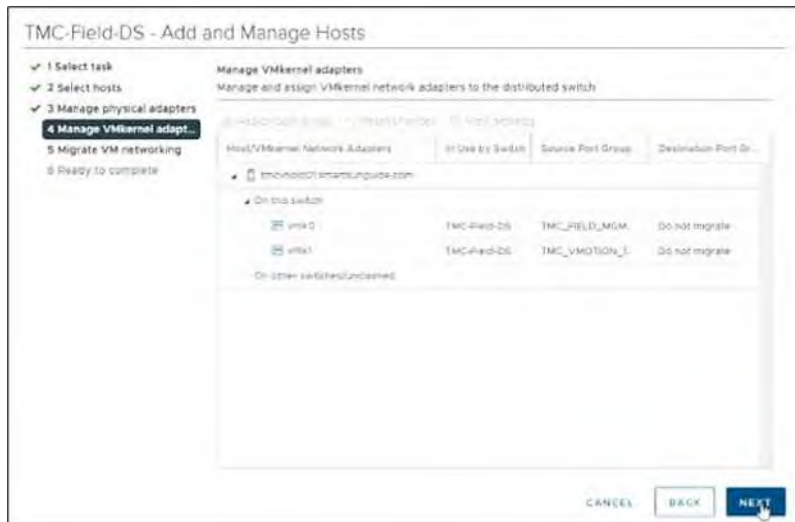


Figure 15. Manage VMkernel Adapters

Steps / Screenshots

11. Click **NEXT**.

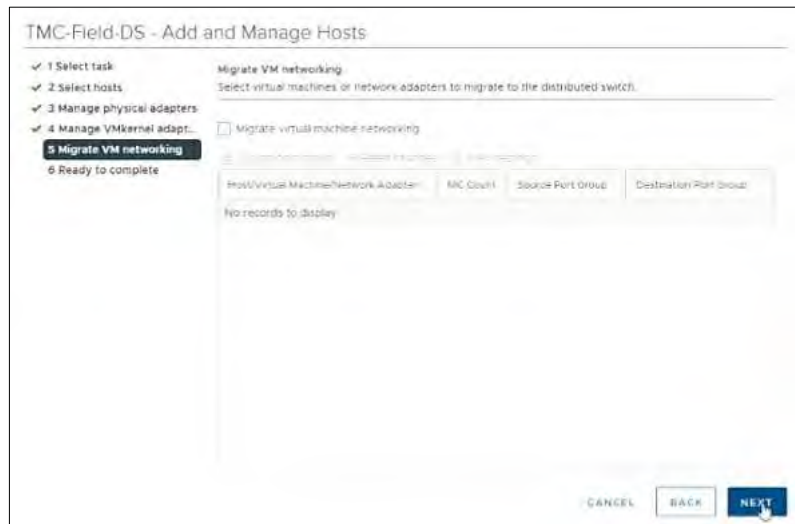


Figure 16. Migrate VM Networking

12. Click **FINISH**.

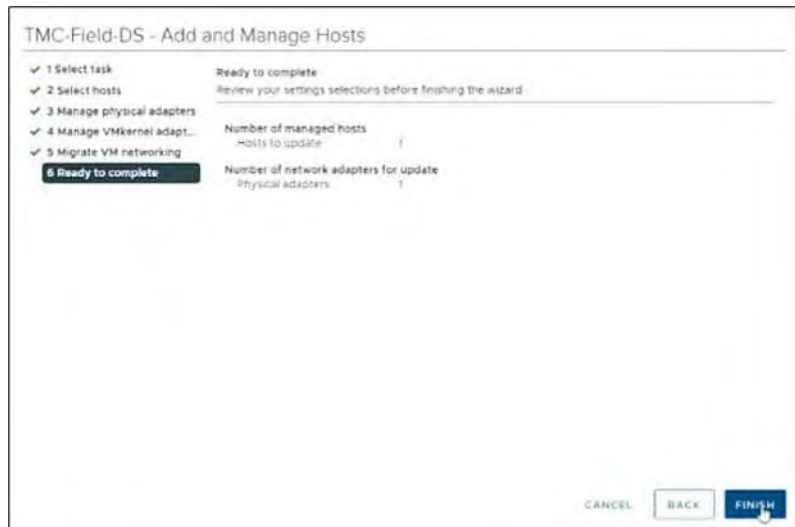


Figure 17. Ready to Complete

The Network Manager will bring the port back up.

1. Go back **Physical adapters** and wait for port to come back up.

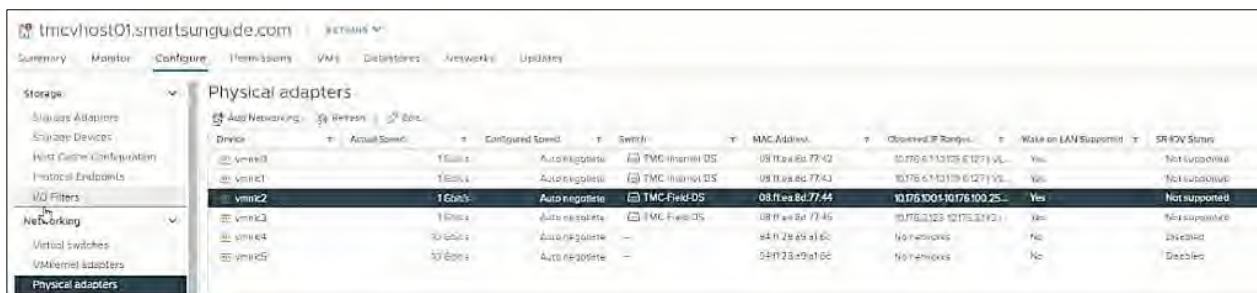


Figure 18. Wait for Port to Come Back Up

- Click the **All** tab and wait for networks to appear.



Figure 19. Wait for Networks to Appear

Configure tmcvhost01 – vmnic3

Steps / Screenshots

- (1) Click host and clusters,
 - (2) Click the down arrow next to **TMC Cluster**,
 - (3) Click tmcvhost01.smartsunguide.com,
 - (4) Click Configure,
 - (5) Click Physical adapters,
 - (6) Click **vmnic3**.



Figure 20. Configure tmcvhost01 - vmnic3

- Click the **CDP** tab to find the Device ID and Port ID (Switch # and Port #), which will be provided to the Network Manager (22).
 - Device ID: **Switch # 2**
 - Port ID: **Port # 1**

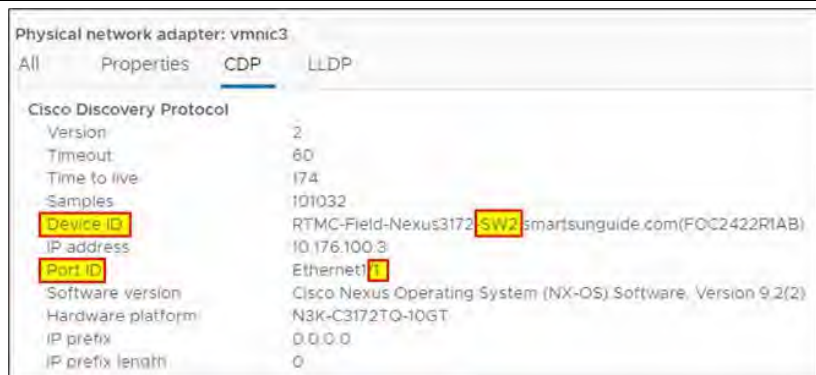


Figure 21. vmnic3 Device ID and Port ID

On the physical switch → Network Manager will down the port connected to **vmnic3**.
 Confirm that the port is down.

Steps / Screenshots

Device	Actual Speed	Configured Speed	Switch	MAC Address	Observed IP Ranges	Wake-on-LAN Supported	SR-IOV Status
vmnic0	1.6Gb/s	Auto negotiate	TMC-Internet-DS	08:00:8c:77:43	10.176.53.10,176.6.127.1 VL	Yes	Not supported
vmnic1	1.6Gb/s	Auto negotiate	TMC-Internet-DS	08:00:8c:77:43	10.176.53.10,176.6.127.1 VL	Yes	Not supported
vmnic2	1.6Gb/s	Auto negotiate	TMC-Field-DS	08:00:8c:77:44	10.176.100.5-10.176.100.25	Yes	Not supported
vmnic3	Down	Auto negotiate	TMC-Field-DS	08:00:8c:77:45	10.176.100.54-10.176.100.7	Yes	Not supported
vmnic4	10 Gb/s	Auto negotiate	-	94:1f:26:a9:a1:6c	No networks	No	Disabled
vmnic5	10 Gb/s	Auto negotiate	-	94:1f:26:a9:a1:6c	No networks	No	Disabled

Figure 22. Confirm that the Port is Down

On the physical switch → Network Manager will place the port connected to **vmnic3** in the LACP/EtherChannel configuration.

- (1) Click **networking**,
 - (2) Right Click **TMC-Field-DS**,
 - (3) Click Add and Manage Hosts

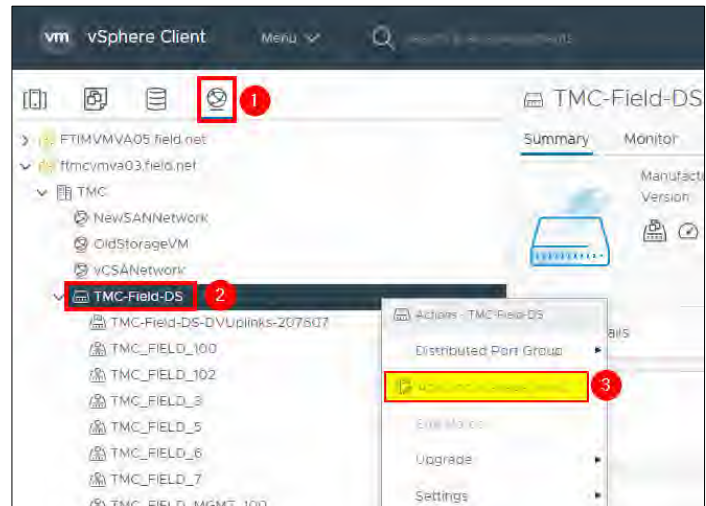


Figure 23. Add and Manage Hosts.

- Select Manage host networking.
 - Click **NEXT**

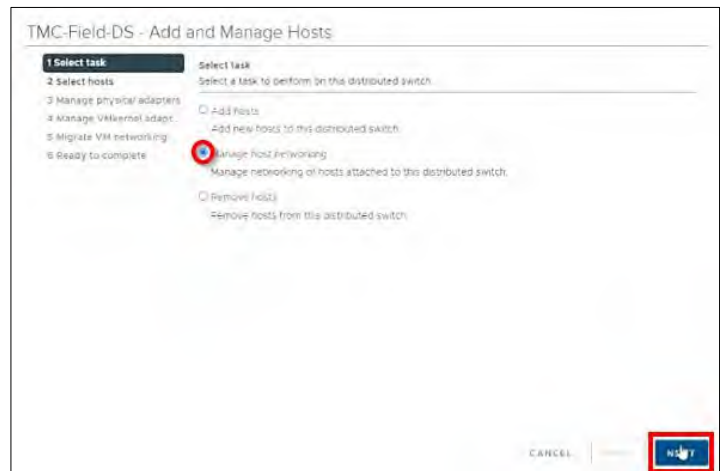


Figure 24. Select Task

- Click Attached hosts → check the box next to `tmcvhost01.smarsunguide.com`,

Steps / Screenshots

- Click **OK**.

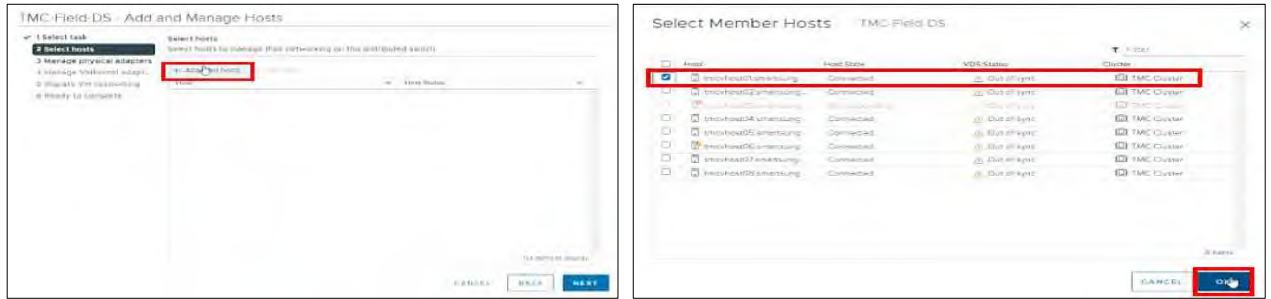


Figure 25. Select Member Host

- 6. Click **NEXT**

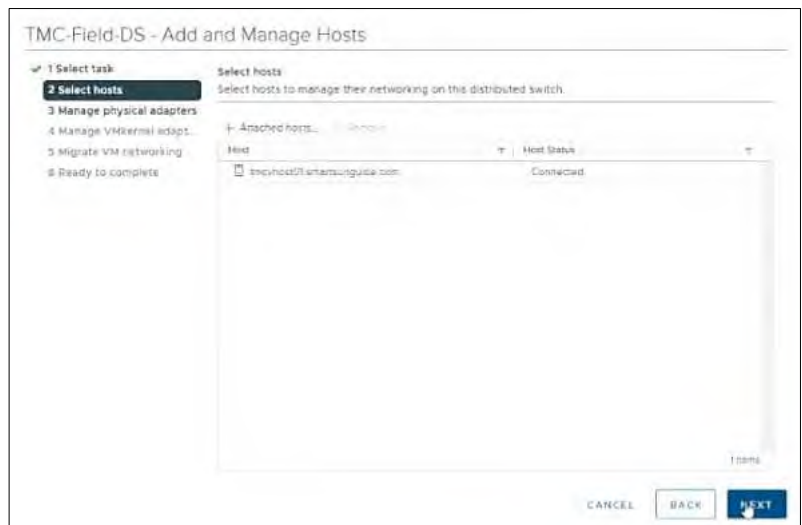


Figure 26. Select Host

- 7.
 - Add **vmnic3** to one of the LAG uplinks:
 - (1) Select **vmnic3**
 - (2) Click Assign uplink
 - (3) Select **LAG_1-1**
 - (4) Click **OK**.

Steps / Screenshots

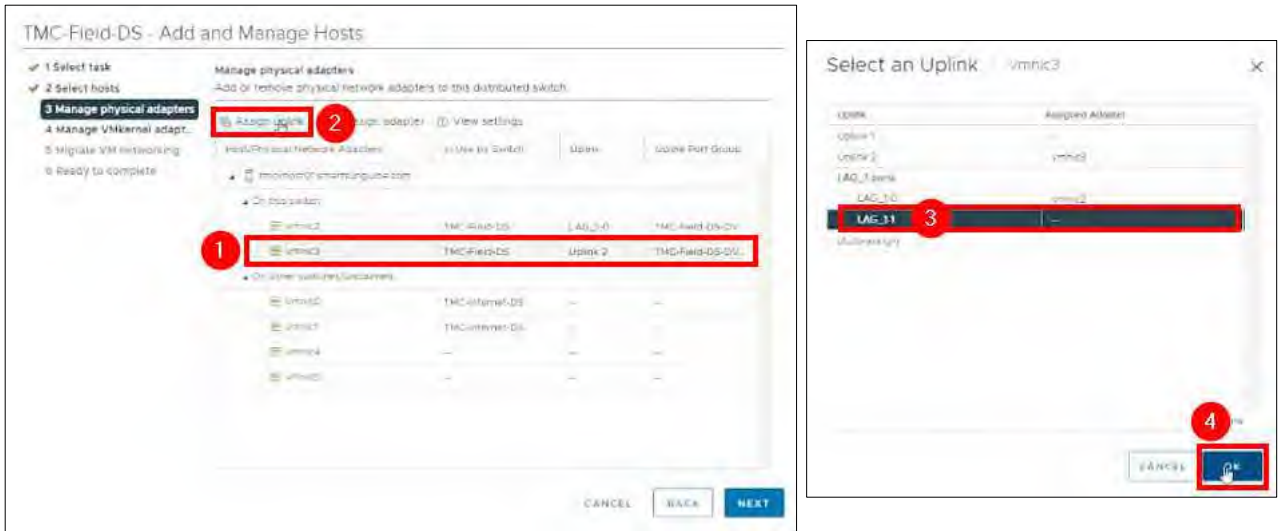


Figure 27. Manage Physical Adapters – Select an Uplink

- 8. —
- Click NEXT
-

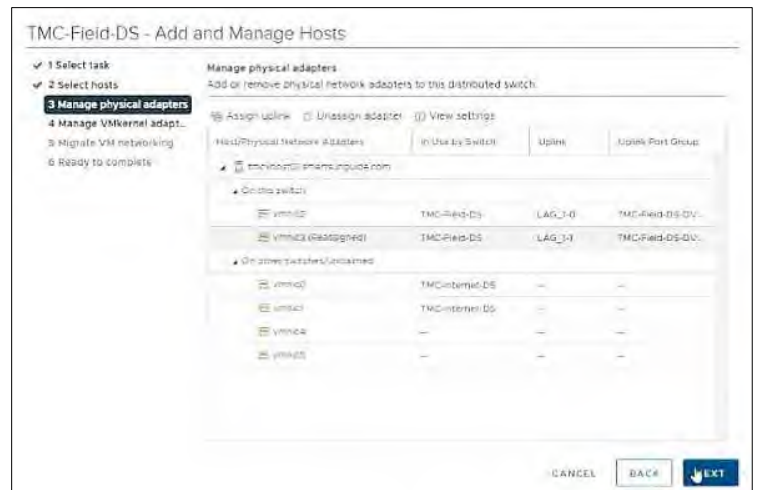


Figure 28. Manage Physical Adapters

Steps / Screenshots

- 9. -
- Click **NEXT**

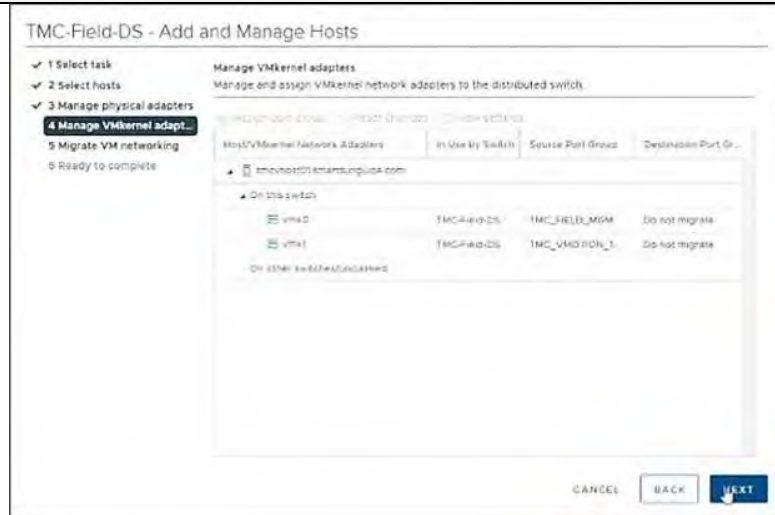


Figure 29. Manage VMkernel Adapters

- 10. -
- Click **NEXT**

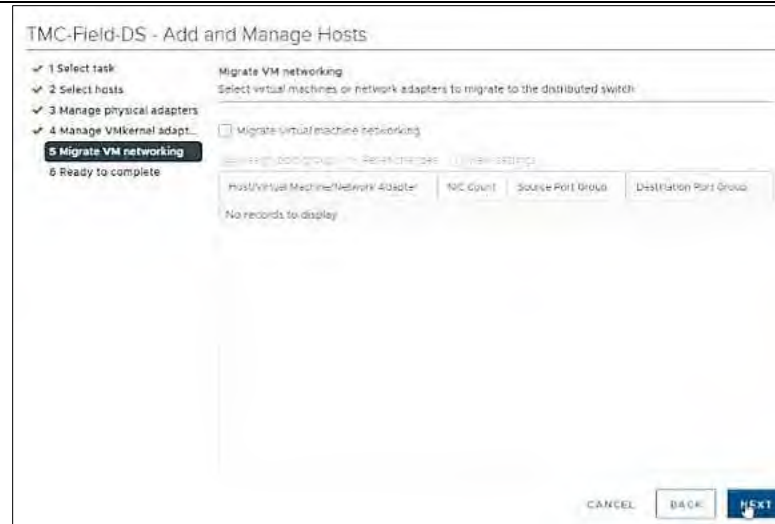


Figure 30. Migrate VM Networking

- 11. -
- Click **FINISH**



Figure 31. Ready to Complete

Steps / Screenshots

The Network Manager will bring the port back up. Go back **Physical adapters**; wait for port to come back up.

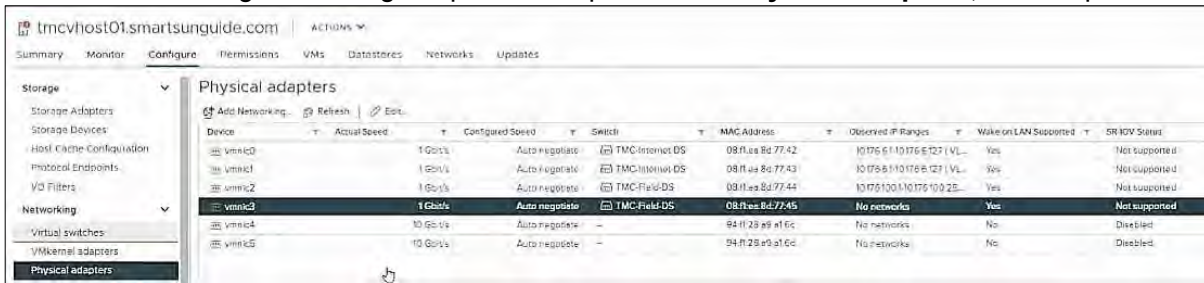


Figure 32. Wait for Port to Come Back Up

12. Click **All** tab and wait for networks to appear.

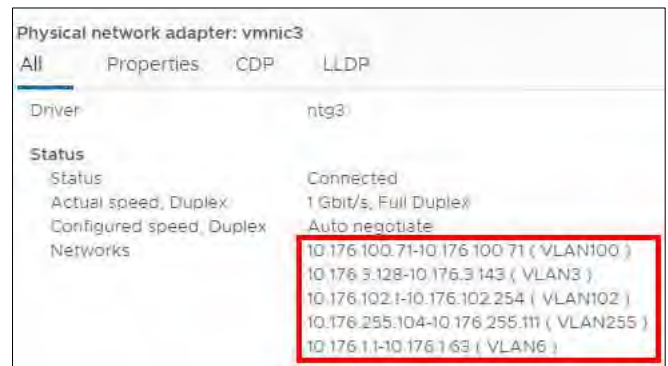


Figure 33. Wait for Networks to Appear

Configure tmcvhost02

1. Refer to steps 1 and 2 in the **Configure tmcvhost01** procedures.
2. Configure **vmnic2** and **vmnic3** on **tmcvhost02** in accordance with steps 1 and 2 of the **Configure tmcvhost01** procedures.

Configure tmcvhost03

Configure tmcvhost03 – vmnic2

#	Steps / Screenshots
---	---------------------

- (1) Click host and clusters,
 - (2) Click the down arrow next to **TMC Cluster**,
 - (3) Click tmcvhost03.smartsunguide.com,
 - (4) Click **Configure**,
 - (5) Click Physical adapters, and,
 - (6) Click **vmnic2**.

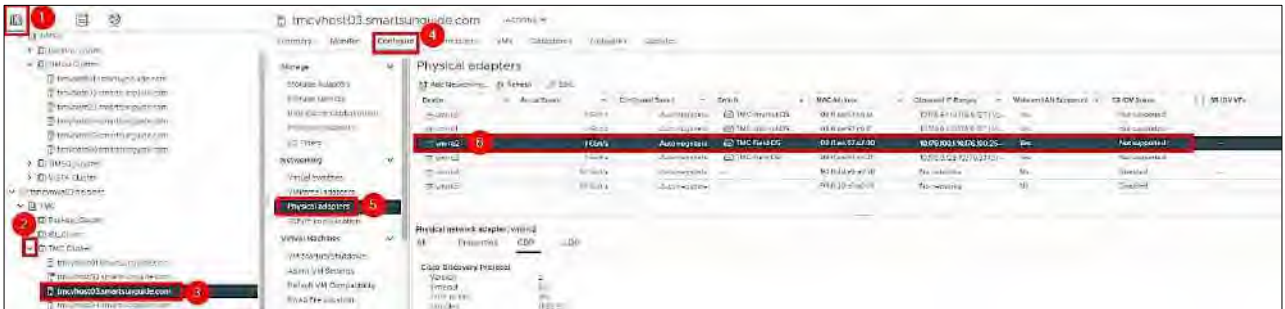


Figure 34. Configure tmcvhost03 - vmnic2.

- (1) Click networking,
 - (2) Right Click **TMC-Field-DS**,
 - (3) Click Add and Manage Hosts.

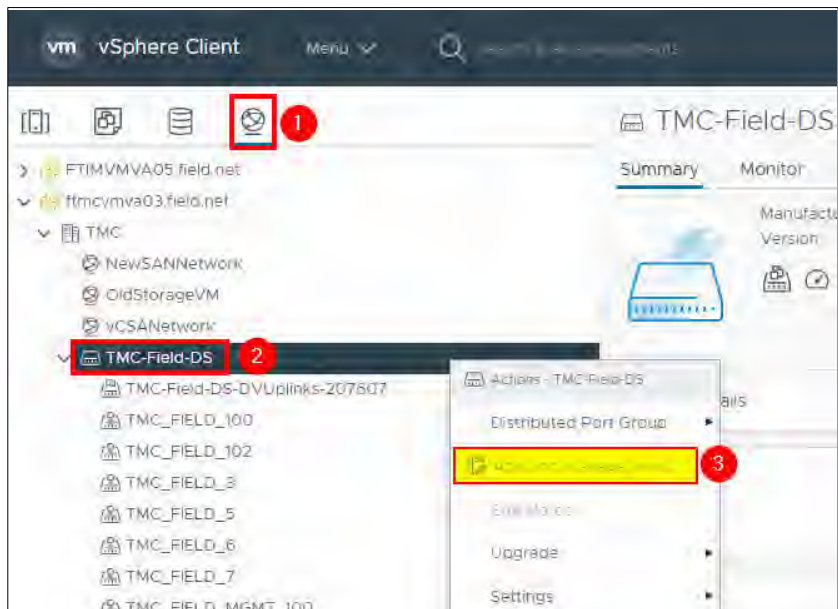


Figure 35. Add and Manage Hosts.

Steps / Screenshots

3.
 - Select Manage host networking.
 - Click **NEXT**.

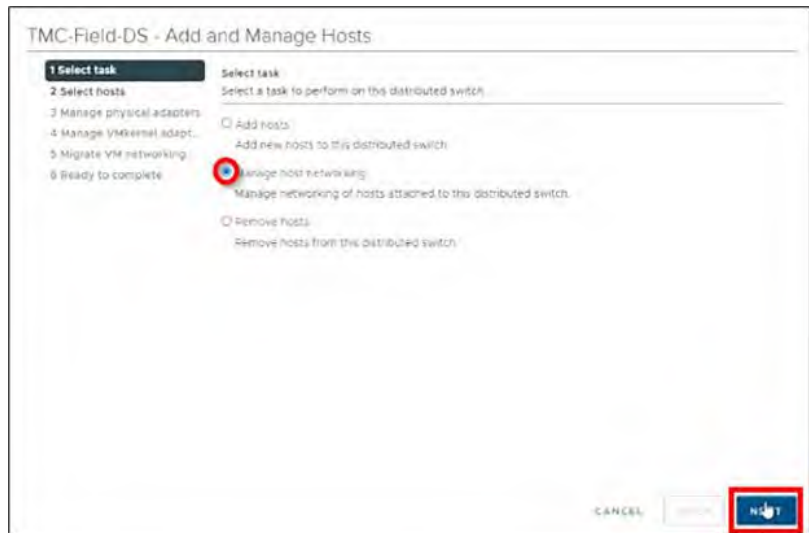


Figure 36. Select Task.

4.
 - Click Attached hosts.
 - Check the box next to tmcvhost03.smarsunguide.com, and,
 - Click **OK**.

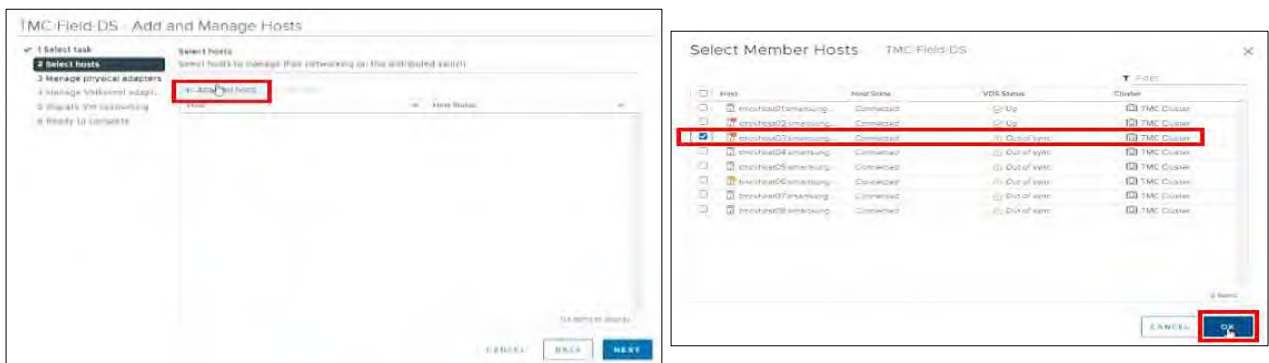


Figure 37. Select Member Host

5. Click **NEXT**.

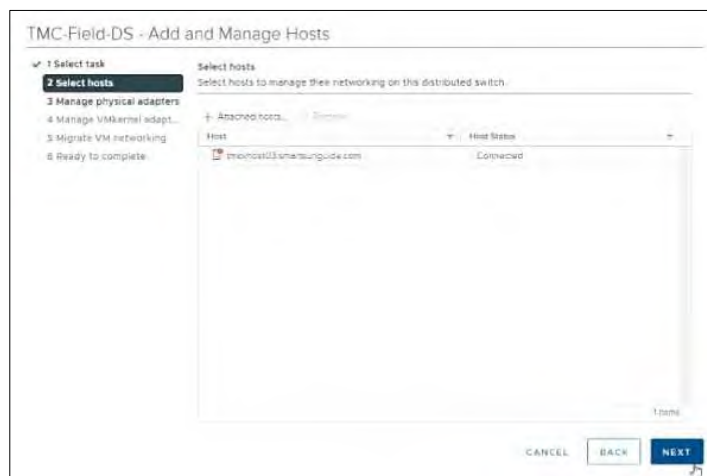


Figure 38. Select Host

Steps / Screenshots

6. (1) Select **vmnic3**
 (2) Click Assign **uplink**
 Add **vmnic3** to one of the LAG uplinks.
 (3) Select **LAG_1-1**
 (4) Click **OK**

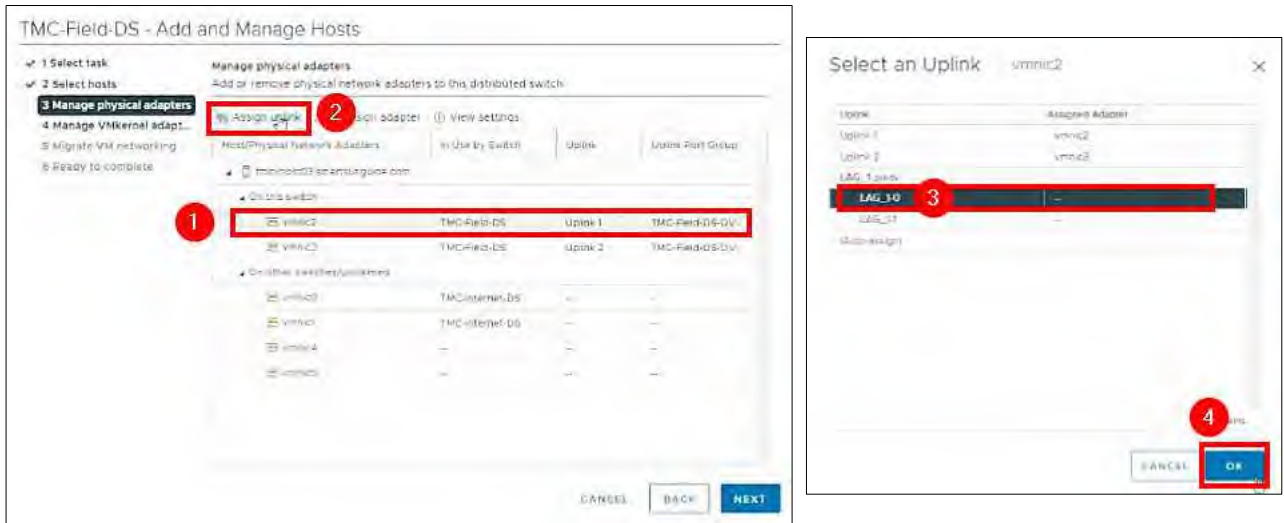


Figure 39. Manage Physical Adapters – Select an Uplink

7. Click **NEXT**.

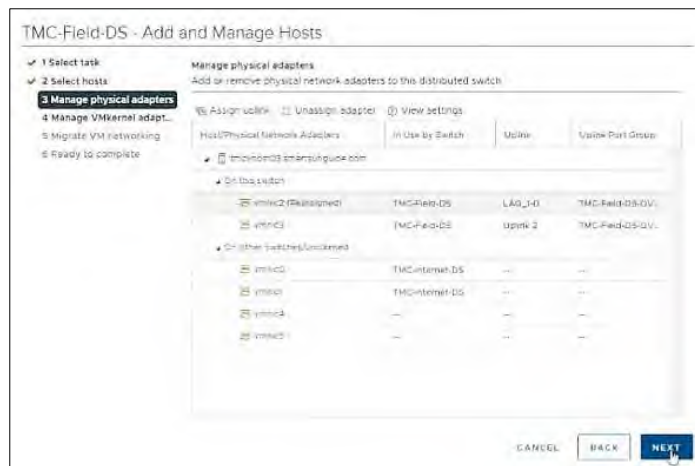


Figure 40. Manage Physical Adapters

Steps / Screenshots

8. Click **NEXT**.

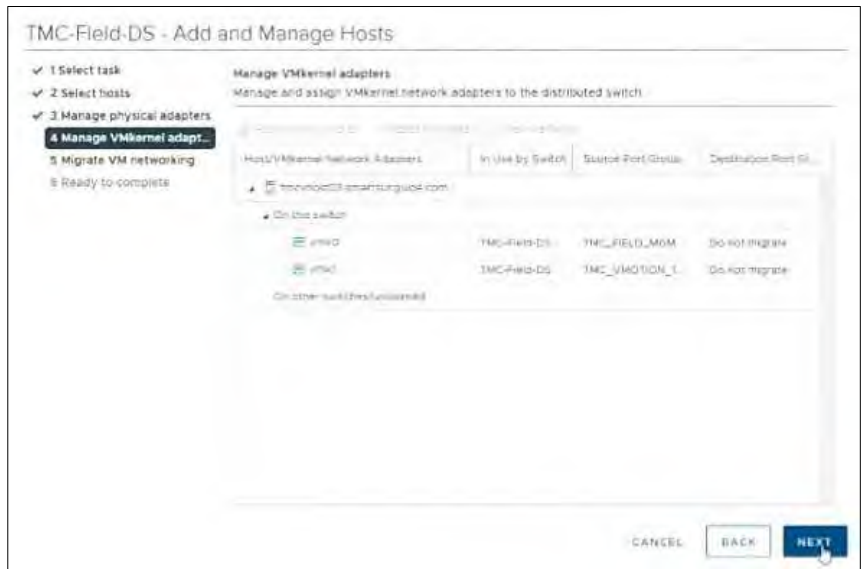


Figure 41. Manage VMkernel Adapters.

9. Click **NEXT**.

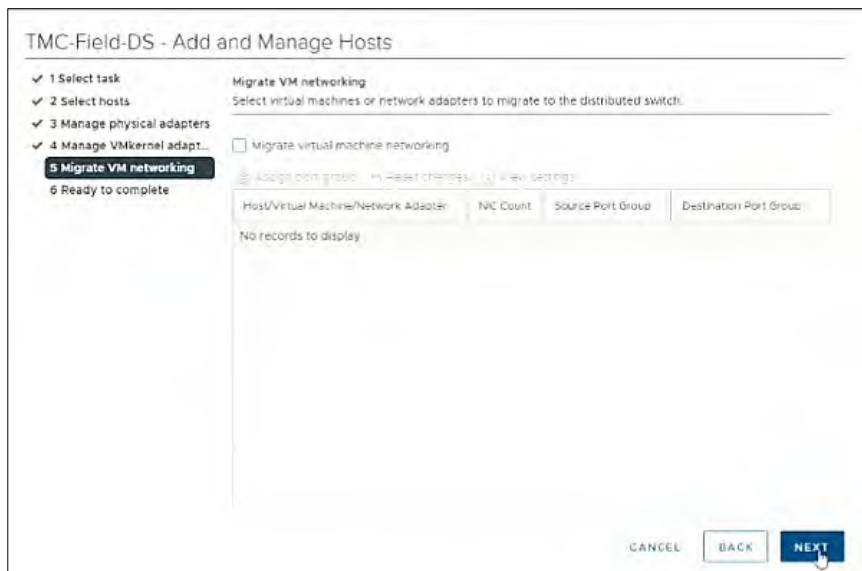


Figure 42. Migrate VM Networking

Steps / Screenshots

10. Click **FINISH**.

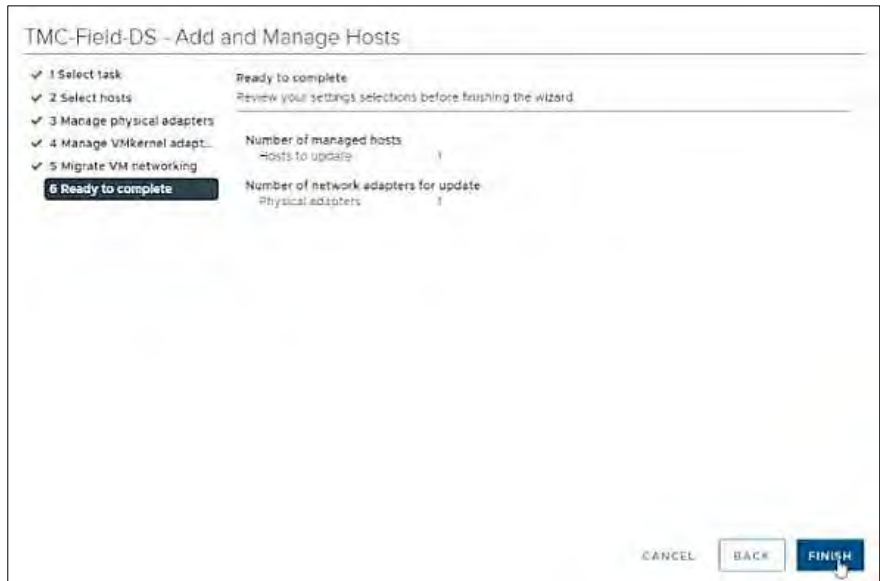


Figure 43. Ready to Complete.

11. Click the **CDP** tab to find the Device ID and Port ID (Switch # and Port #), to be provided to the Network Manager.

- Device ID: **Switch # 1**
- Port ID: **Port # 3**

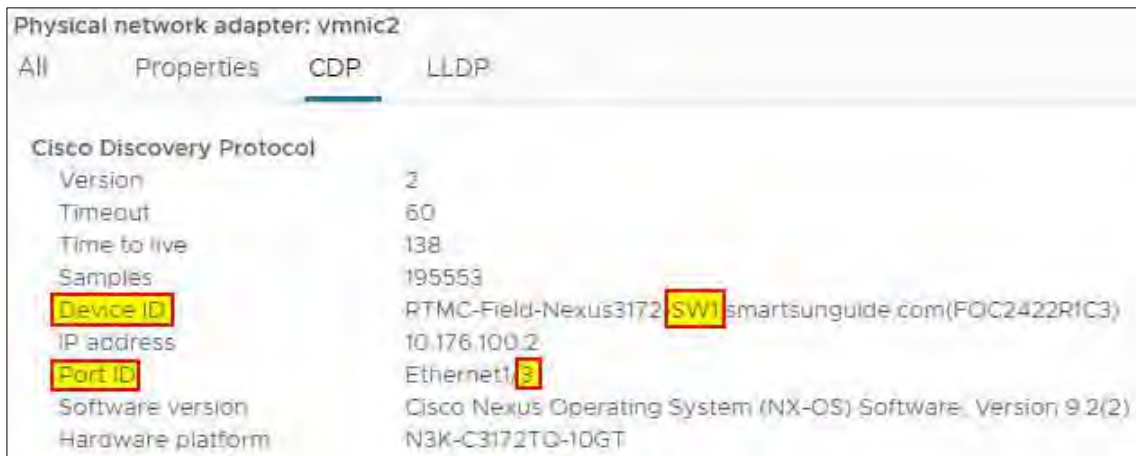


Figure 44. vmnic2 Device ID and Port ID

On the physical switch, the Network Manager will place the port connected to **vmnic2** in the LACP/EtherChannel configuration.

Configure tmcvhost03 – vmnic3

Steps / Screenshots

1.
 - (1)Click host and clusters,
 - (2)Click the down arrow next to TMC Cluster,
 - (3)Click tmcvhost03.smartsunguide.com,
 - (4)Click Configure,
 - (5)Click Physical adapters,
 - (6)Click vmnic3.
 - (7)Click the CDP tab to find the Device ID and Port ID (Switch # and Port #), to be provided to the Network Manager.

Device ID: **Switch # 2**

Port ID: **Port # 3**

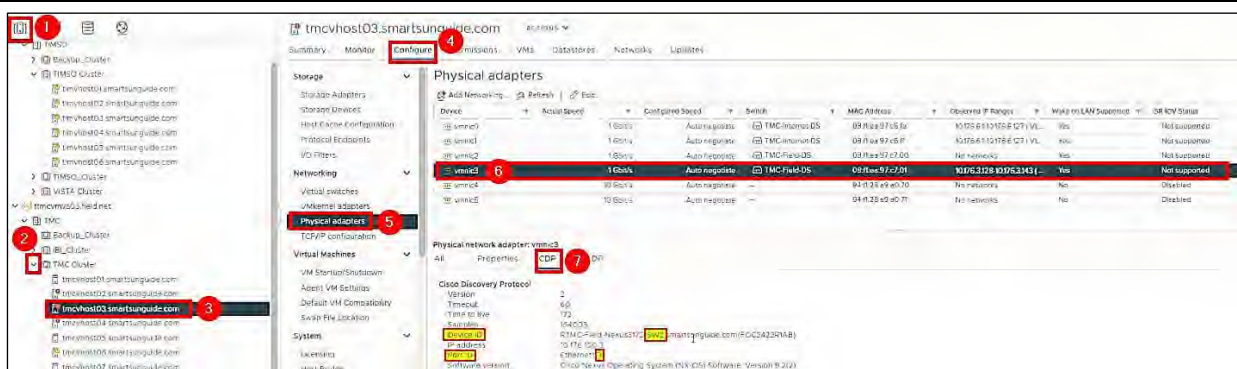


Figure 45. Configure tmcvhost03 – vmnic3.

2. On the physical switch, the Network Manager will down the port connected to **vmnic3**. Confirm that the port is down .

Device	Actual Speed	Configured Speed	Switch	MAC Address	Observed IP Ranges	Wake on LAN Supported	SRIOV Status
vmnic0	1 Gbit/s	Auto negotiate	TMC-Internal-DS	08:00:27:12:15:1a	10.175.6.110,175.6.127.1 VL...	Yes	Not supported
vmnic1	1 Gbit/s	Auto negotiate	TMC-Internal-DS	08:00:27:12:15:1b	10.175.6.110,175.6.127.1 VL...	Yes	Not supported
vmnic2	1 Gbit/s	Auto negotiate	TMC-Field-DS	08:00:27:12:15:1c	No networks	Yes	Not supported
vmnic3	Down	Auto negotiate	TMC-Field-DS	08:00:27:12:15:1d	10.176.3.128,10.176.3.143 (-)	Yes	Not supported
vmnic4	10 Gbit/s	Auto negotiate	-	94:00:25:00:00:00	No networks	No	Disabled
vmnic5	10 Gbit/s	Auto negotiate	-	94:00:25:00:00:01	No networks	No	Disabled

Figure 46. Confirm that the Port is Down.

Steps / Screenshots

3. On the physical switch, the Network Manager will place the port connected to **vmnic3** in the LACP/EtherChannel configuration.

- Click networking,
- Right-click **TMC-Field-DS**,
- Click Add and Manage Hosts.

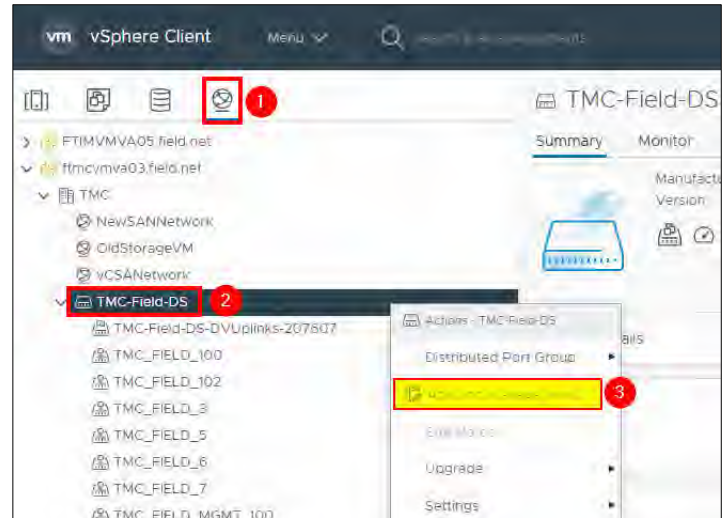


Figure 47. Add and Manage Hosts.

4. - Select **Manage host networking**.
 - Click **NEXT**.

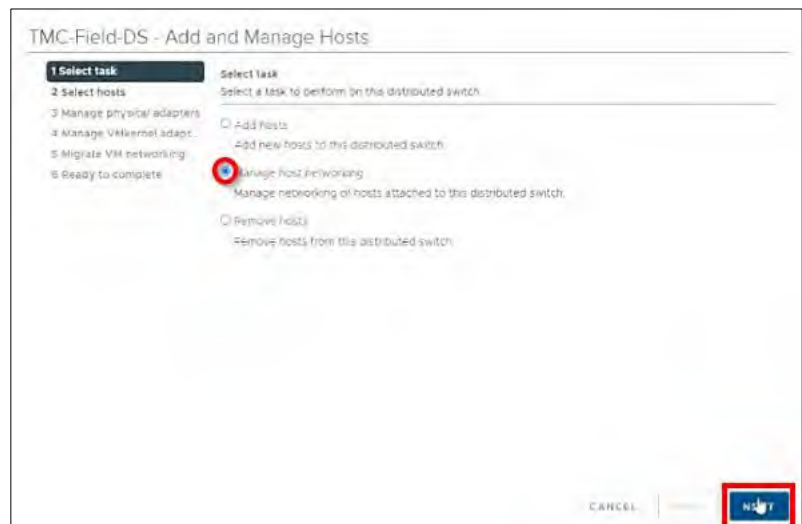


Figure 48. Select Task.

Steps / Screenshots

5.
 - Click Attached hosts,
 - Check the box next to tmcvhost03.smarsunguide.com,
 - Click **OK**.

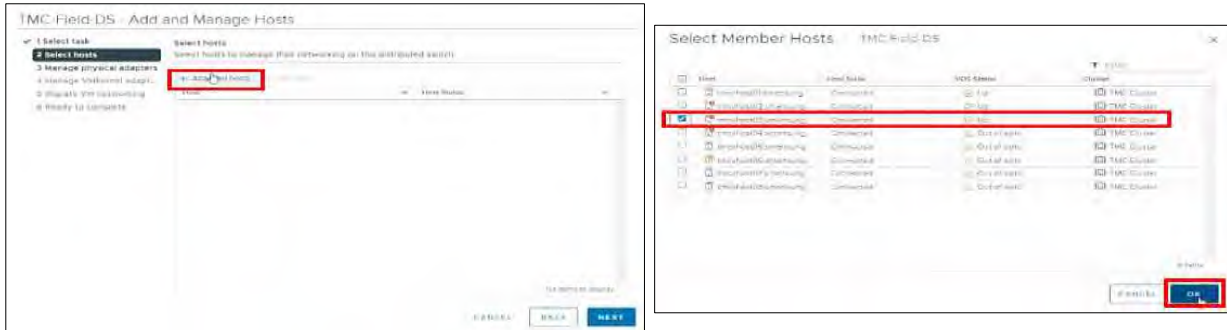


Figure 49. Select Member Host.

6. Click **NEXT**

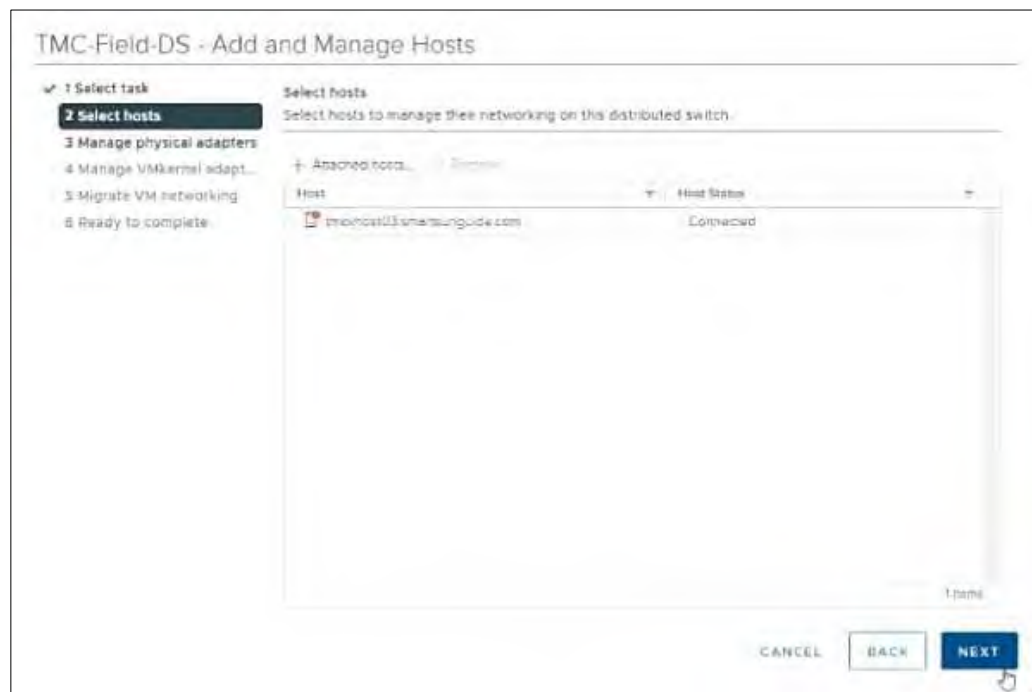


Figure 50. Select Host.

7.
 - Add vmnic3 to one of the LAG uplinks by selecting vmnic3 and clicking on Assign uplink.
 - Select **LAG_1-1** and
 - Click **OK**.

Steps / Screenshots

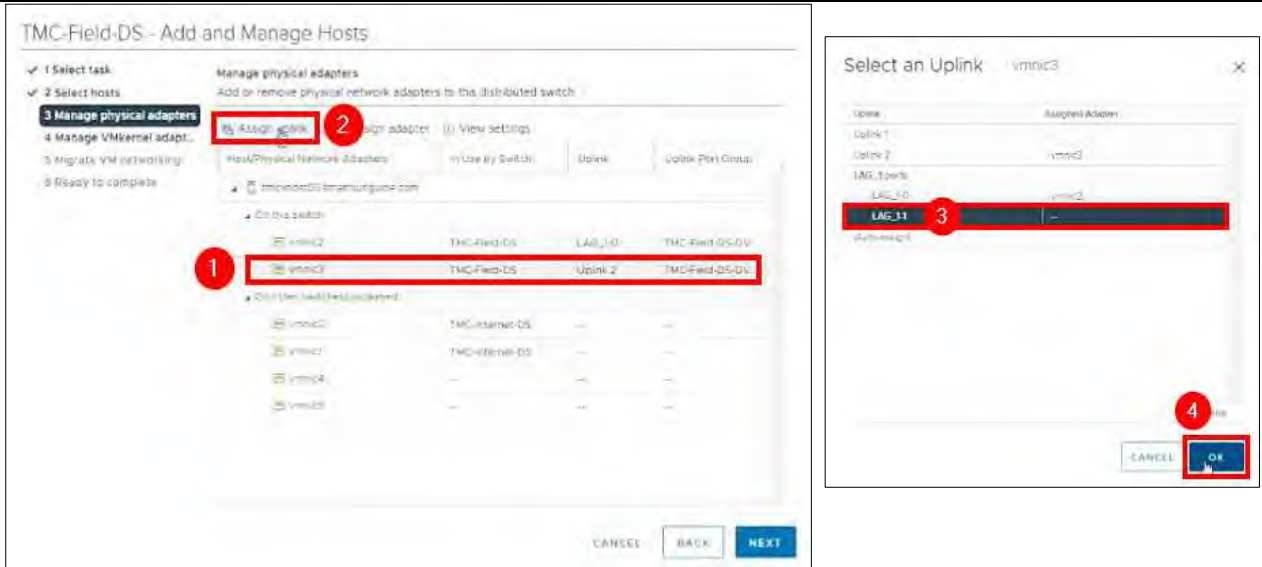


Figure 51. Manage Physical Adapters – Select an Uplink.

8. Click **NEXT**.

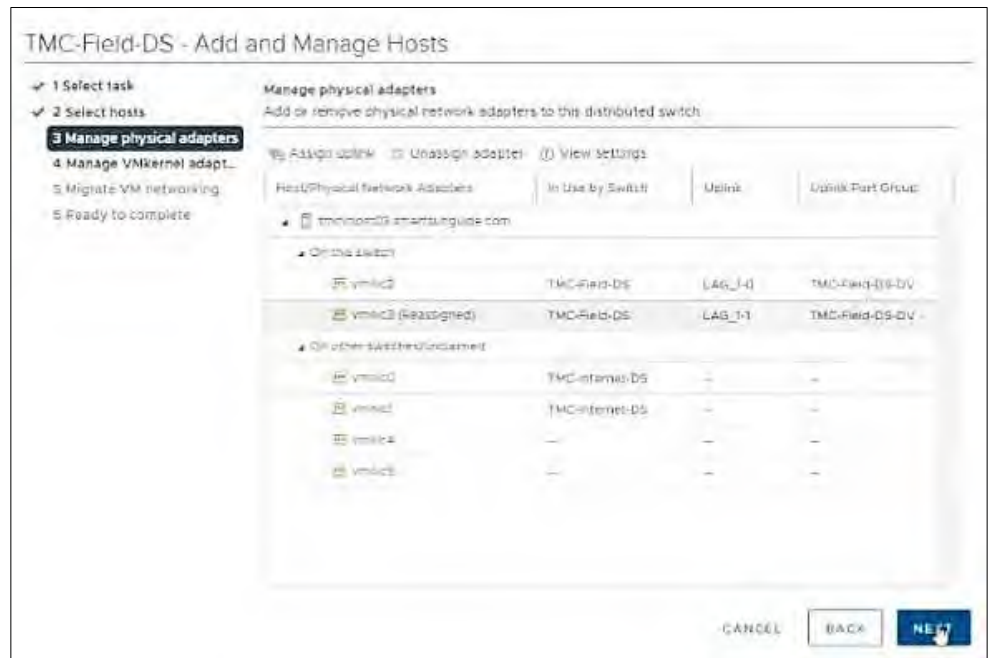


Figure 52. Manage Physical Adapters.

Steps / Screenshots

9. Click **NEXT**.

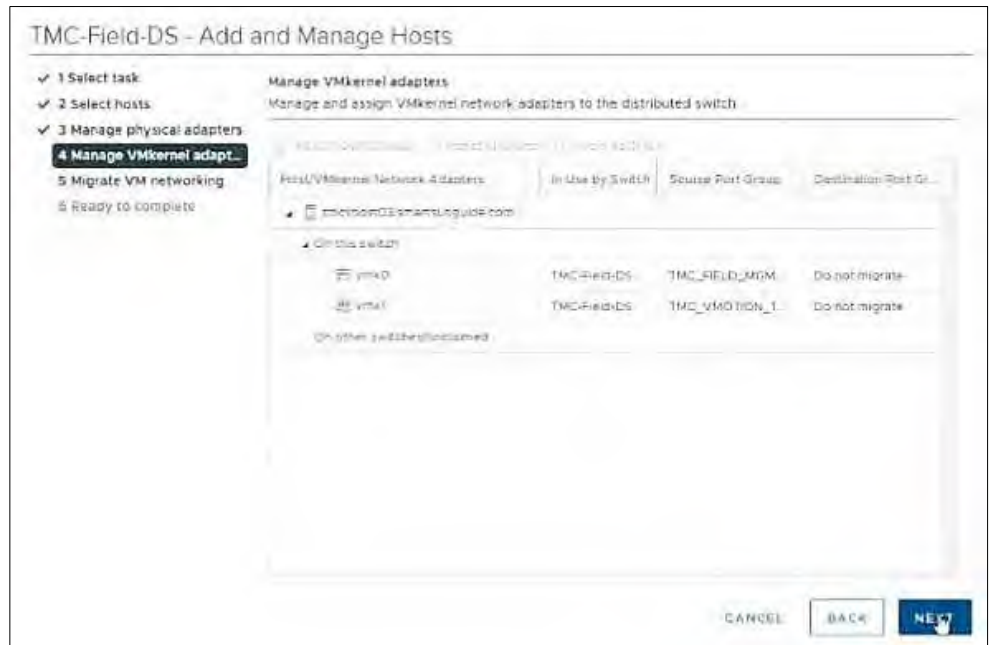


Figure 53. Manage VMkernel Adapters.

10. Click **NEXT**.

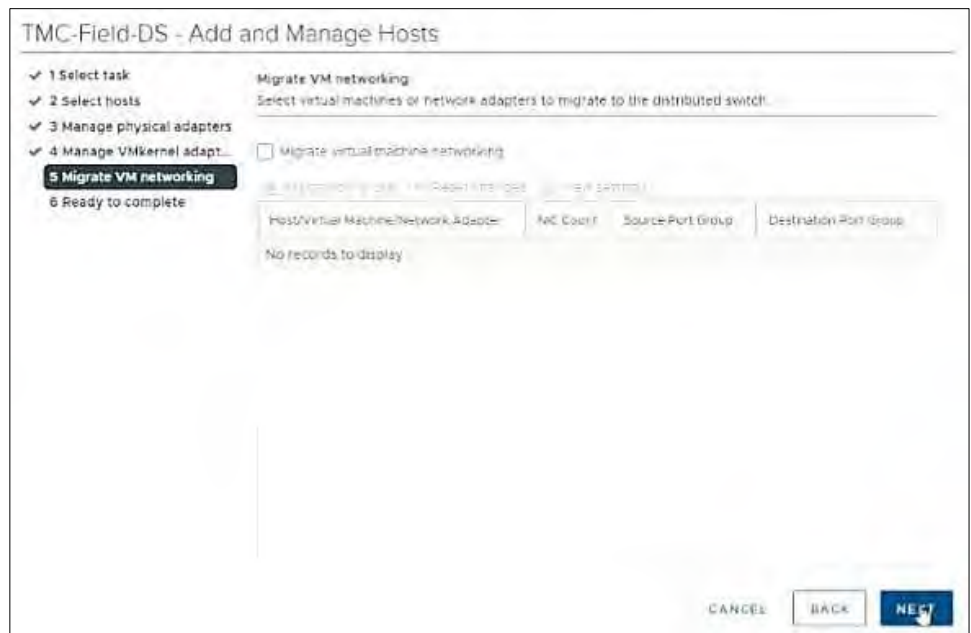


Figure 54. Migrate VM Networking.

Steps / Screenshots

11, Click **FINISH**.

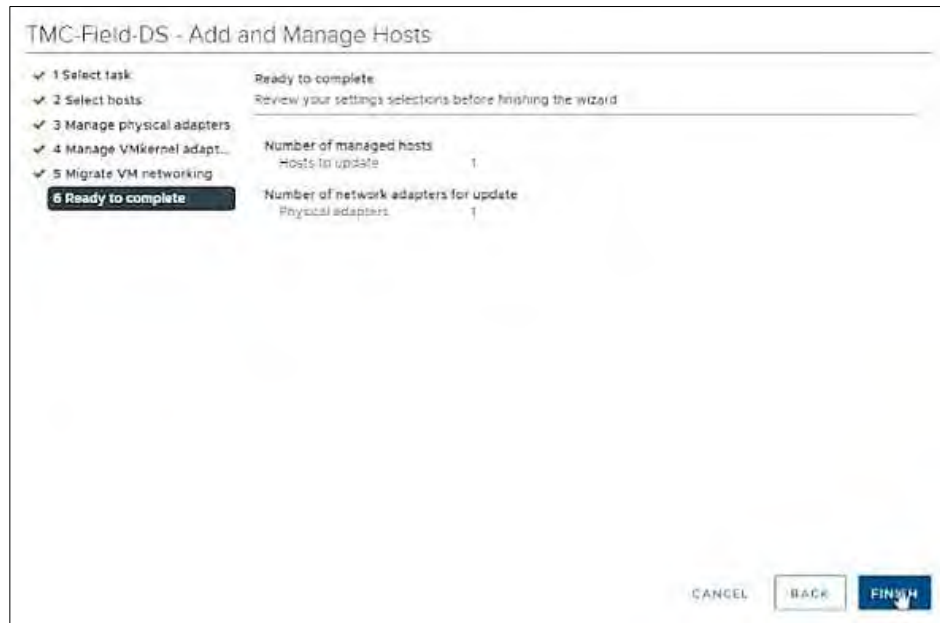


Figure 55. Ready to Complete.

12. The Network Manager will bring the port back up.

Go back **Physical adapters** and wait for port to come back up,

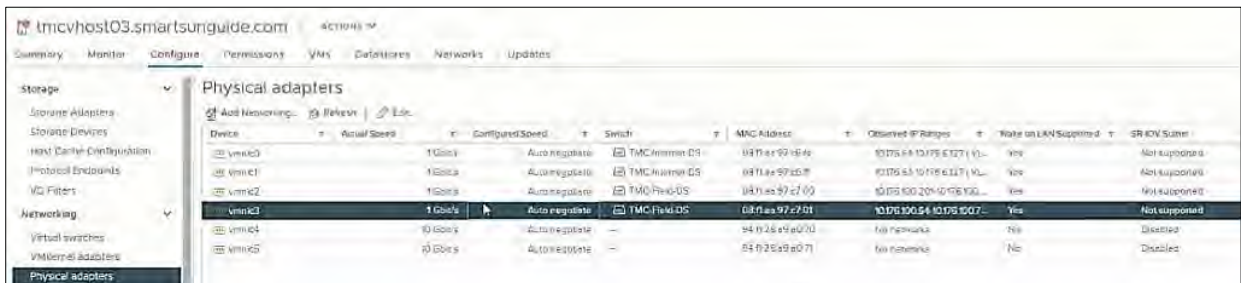


Figure 56. Wait for Port to Come Back Up.

13. Click the **All** tab and wait for networks to appear.

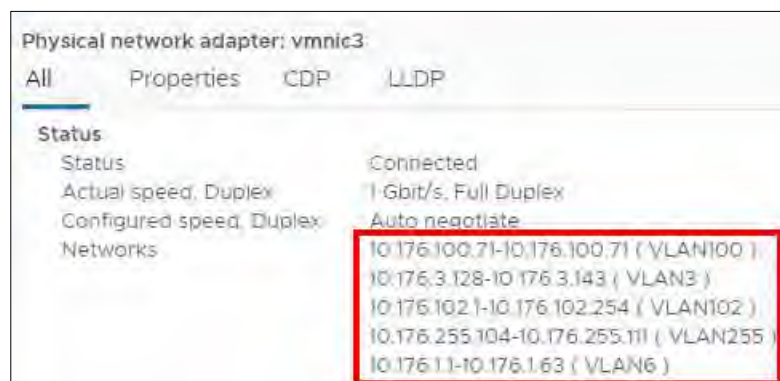


Figure 57. Wait for Networks to Appear.

Configure tmcvhost04 – tmcvhost08

1. Refer to steps 1 and 2 in the **Configure tmcvhost03** procedures.
2. Configure **vmnic2** and **vmnic3** on **tmcvhost04, tmcvhost05, tmcvhost06, tmcvhost07, tmcvhost08** in accordance with steps 1 and 2 of the **Configure tmcvhost03** procedures.

Edit Distributed Port Groups for TMC-Field-DS

Perform steps 1 to 3 below to change the Teaming and Failover for all distributed port groups to use the LAG instead of the uplinks.

#	Steps / Screenshots
1	<ul style="list-style-type: none"> – (1) Click Networking, – (2) Click the down arrow next to TMC-Field-DS, – (3) Right-click one of the distributed port groups, – (4) Click Edit Settings.

Figure 58. Edit Distributed Port Groups for TMC-Field-DS

2	<ul style="list-style-type: none"> – Click Teaming and Failover, – Move Uplink 1 and Uplink 2 to Unused uplinks.
---	--

Steps / Screenshots

Figure 59. Move Uplink 1 and Uplink 2 to Unused Uplinks.

- 3
- Move **LAG_1** to Active uplinks.
 - Click **OK**.

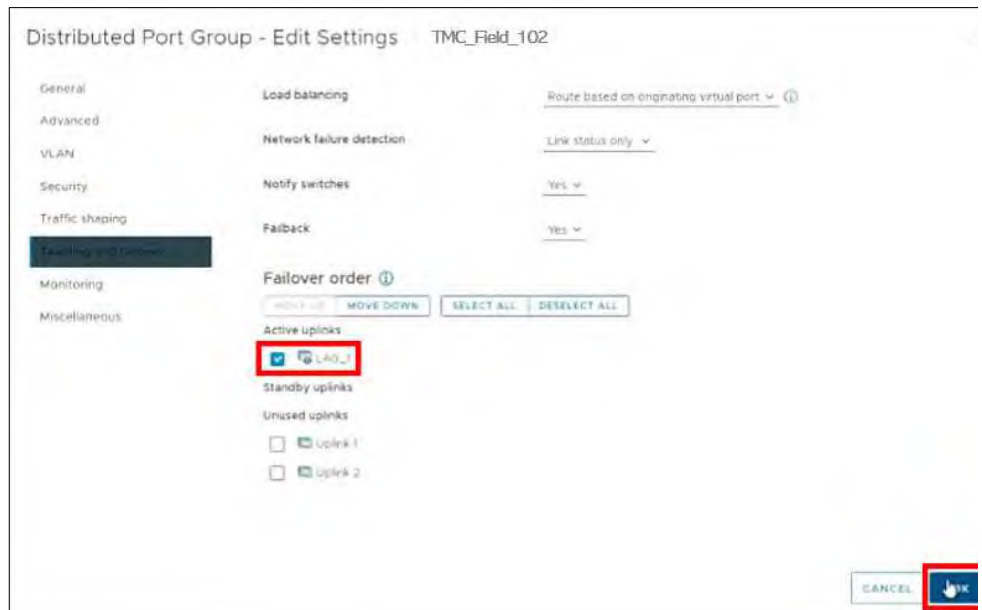


Figure 60. Move LAG_1 to Active Uplinks.

Repeat steps 1 to 3 above on all other distributed port groups under TMC-Field-DS.

Create Link Aggregation Group (LAG) Group for TMC-Internet-DS

Steps / Screenshots

1.
 - (1) Click `ftmcmvma03.field.net`
 -
 - (2) Click Networking.



Figure 61. `ftmcmvma03.field.net` > Networking.

2.
 - (1) Click the down arrow next to `ftmcmvma03.field.net` and
 - (2) Click the down arrow next to **TMC**.
 - (3) Click TMC-Internet-DS,
 - (4) Click Configure,
 - (5) Click **LACP**,
 - (6) Click **NEW** .

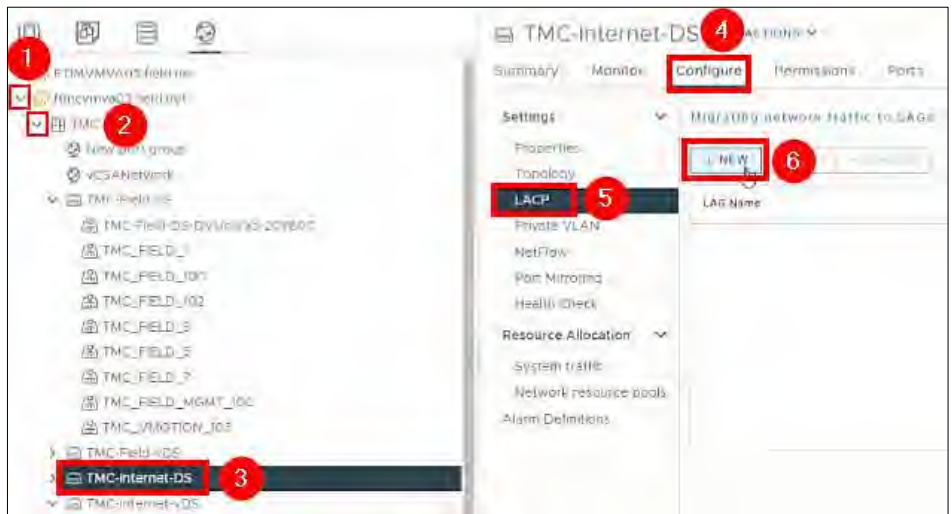


Figure 62. TMC-Internet-DS > Configure > LACP > NEW.

3.
 - Enter the following information in the **New LAG** window:
 Name: **LAG_1**
 Number of ports: **2**
 Mode: **Active**
 Load balancing mode: Source and destination Mac address
 Timeout mode: **slow**
 - Click **OK** .

Steps / Screenshots

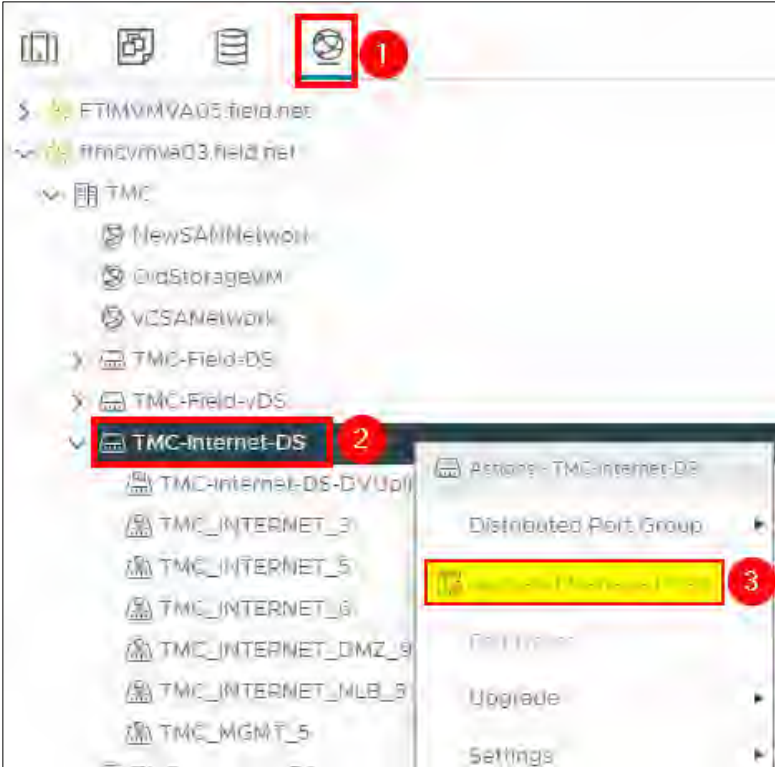
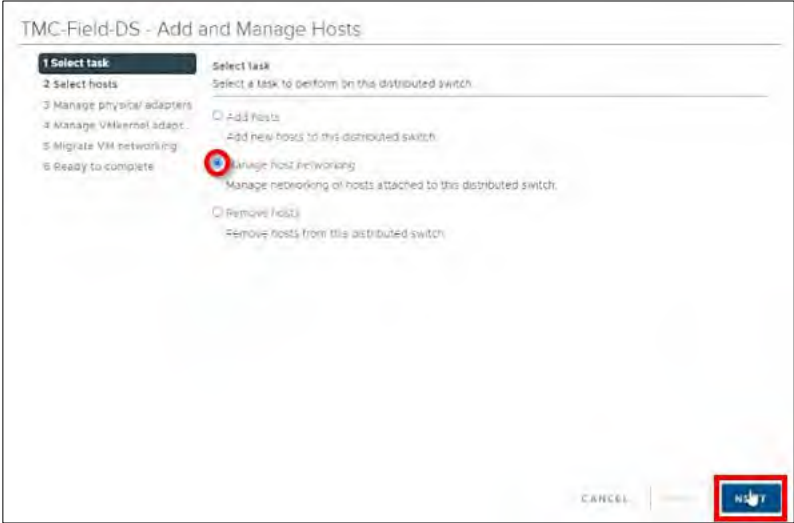


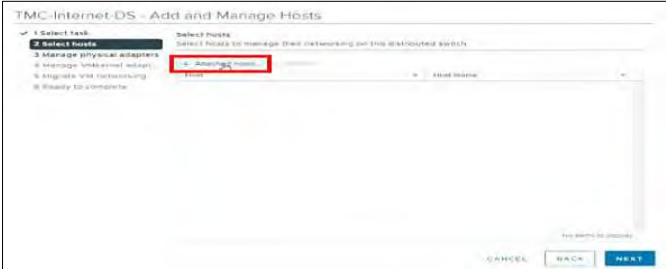

Figure 63. New LAG – LAG_1.


Configure tmcvhost01 – tmcvhost08

#	Steps / Screenshots
1.	– Configure vmnic0 and vmnic1 on all hosts (tmcvhost01 – tmcvhost08).

#	Steps / Screenshots																																																												
	<p>The Network Manager configures the ports for vmnic0 and vmnic1 on all TMC hosts .</p> <p><i>Table 1. TMC Hosts & Physical Adapters - Switch and Port Numbers.</i></p> <table border="1"> <thead> <tr> <th>Host</th> <th>Physical Adapters</th> <th>Switch #</th> <th>Port #</th> </tr> </thead> <tbody> <tr> <td rowspan="2">tmcvhost01</td> <td>vmnic0</td> <td>1</td> <td>1</td> </tr> <tr> <td>vmnic1</td> <td>2</td> <td>1</td> </tr> <tr> <td rowspan="2">tmcvhost02</td> <td>vmnic0</td> <td>1</td> <td>2</td> </tr> <tr> <td>vmnic1</td> <td>2</td> <td>2</td> </tr> <tr> <td rowspan="2">tmcvhost03</td> <td>vmnic0</td> <td>1</td> <td>3</td> </tr> <tr> <td>vmnic1</td> <td>2</td> <td>3</td> </tr> <tr> <td rowspan="2">tmcvhost04</td> <td>vmnic0</td> <td>1</td> <td>4</td> </tr> <tr> <td>vmnic1</td> <td>2</td> <td>4</td> </tr> <tr> <td rowspan="2">tmcvhost05</td> <td>vmnic0</td> <td>1</td> <td>5</td> </tr> <tr> <td>vmnic1</td> <td>2</td> <td>5</td> </tr> <tr> <td rowspan="2">tmcvhost06</td> <td>vmnic0</td> <td>1</td> <td>6</td> </tr> <tr> <td>vmnic1</td> <td>2</td> <td>6</td> </tr> <tr> <td rowspan="2">tmcvhost07</td> <td>vmnic0</td> <td>1</td> <td>7</td> </tr> <tr> <td>vmnic1</td> <td>2</td> <td>7</td> </tr> <tr> <td rowspan="2">tmcvhost08</td> <td>vmnic0</td> <td>1</td> <td>8</td> </tr> <tr> <td>vmnic1</td> <td>2</td> <td>8</td> </tr> </tbody> </table>	Host	Physical Adapters	Switch #	Port #	tmcvhost01	vmnic0	1	1	vmnic1	2	1	tmcvhost02	vmnic0	1	2	vmnic1	2	2	tmcvhost03	vmnic0	1	3	vmnic1	2	3	tmcvhost04	vmnic0	1	4	vmnic1	2	4	tmcvhost05	vmnic0	1	5	vmnic1	2	5	tmcvhost06	vmnic0	1	6	vmnic1	2	6	tmcvhost07	vmnic0	1	7	vmnic1	2	7	tmcvhost08	vmnic0	1	8	vmnic1	2	8
Host	Physical Adapters	Switch #	Port #																																																										
tmcvhost01	vmnic0	1	1																																																										
	vmnic1	2	1																																																										
tmcvhost02	vmnic0	1	2																																																										
	vmnic1	2	2																																																										
tmcvhost03	vmnic0	1	3																																																										
	vmnic1	2	3																																																										
tmcvhost04	vmnic0	1	4																																																										
	vmnic1	2	4																																																										
tmcvhost05	vmnic0	1	5																																																										
	vmnic1	2	5																																																										
tmcvhost06	vmnic0	1	6																																																										
	vmnic1	2	6																																																										
tmcvhost07	vmnic0	1	7																																																										
	vmnic1	2	7																																																										
tmcvhost08	vmnic0	1	8																																																										
	vmnic1	2	8																																																										

#	Steps / Screenshots	
2.	<ul style="list-style-type: none"> - (1) Click networking, - (2) Right-click TMC-Field-DS, - (3) Click Add and Manage Hosts. 	 <p style="text-align: center;">Figure 64. Add and Manage Hosts.</p>
3.	<ul style="list-style-type: none"> - Select Manage host networking. - Click NEXT . 	 <p style="text-align: center;">Figure 65. Select Task.</p>

#	Steps / Screenshots
4.	<ul style="list-style-type: none"> - Click Attached hosts, - Check the box next to all TMC hosts (tmcvhost01 – tmcvhost08), - Click OK. <div style="display: flex; justify-content: space-around; margin-top: 20px;">   </div> <p style="text-align: center; margin-top: 10px;"><i>Figure 66. Select Member Hosts.</i></p>

5.	<p>Click NEXT .</p> <div style="margin-top: 20px;">  </div> <p style="text-align: center; margin-top: 10px;"><i>Figure 67. Select Hosts</i></p>
----	---

Assign Uplinks to the Hosts

Assign uplinks for tmcvhost01

- (1) Click **vmnic0**
- (2) Click Assign uplink
- (3) Select **LAG_1-0**
- (4) Click **OK**
- (5) Click **vmnic1**
- (6) Click Assign uplink
- (7) Select **LAG_1-1**
- (8) Click **OK**.

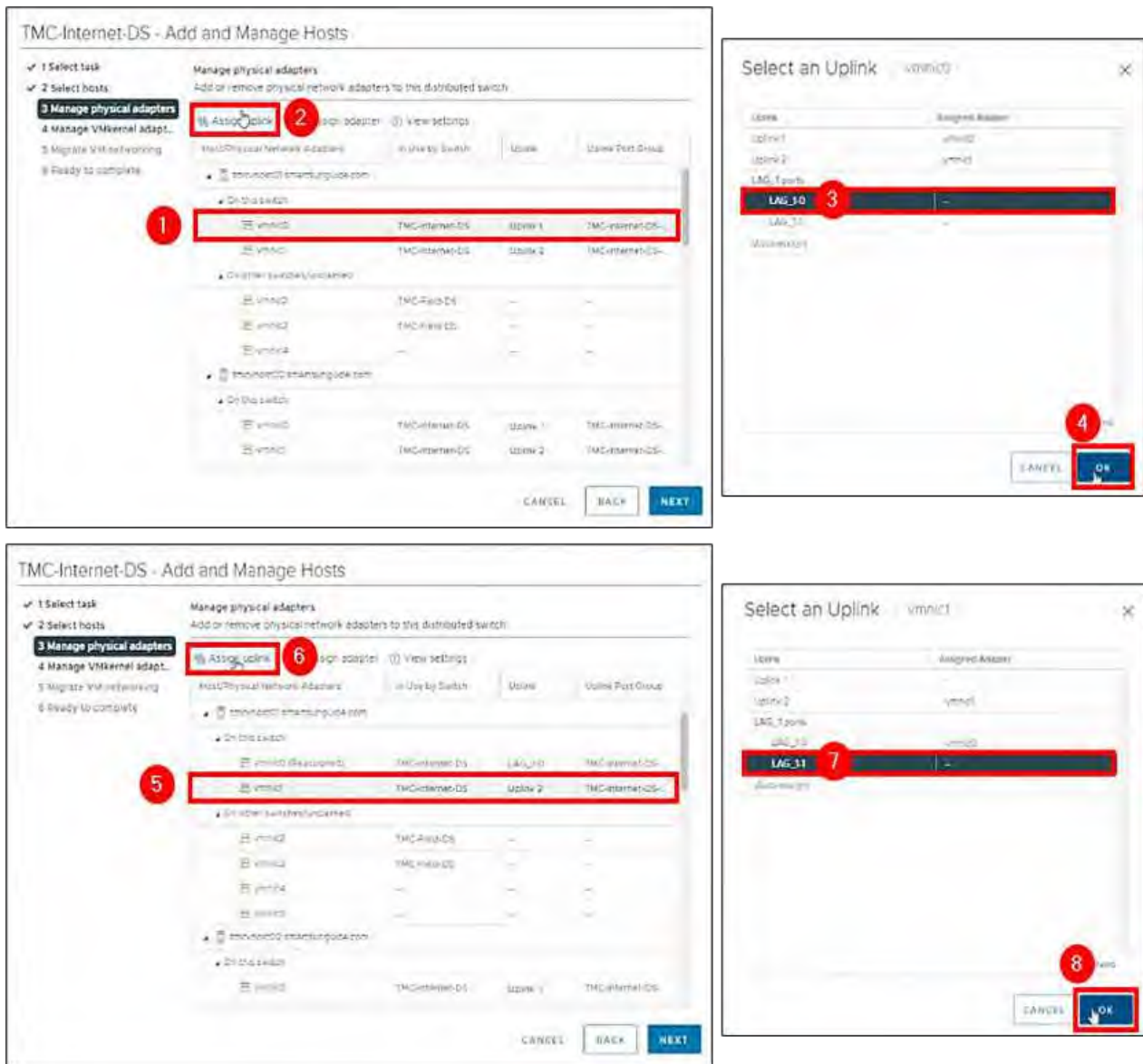


Figure 68. Manage Physical Adapters – Assign Uplinks for tmcvhost01.

Assign uplinks for tmcvhost02

Scroll down to **tmcvhost02**.

- (1) Click **vmnic0** and
- (2) Click Assign uplink
- (3) Select **LAG_1-0** and
- (4) Click **OK**.
- (5) Click **vmnic1** and
- (6) Click Assign uplink
- (7) Select **LAG_1-1** and
- (8) Click **OK**.

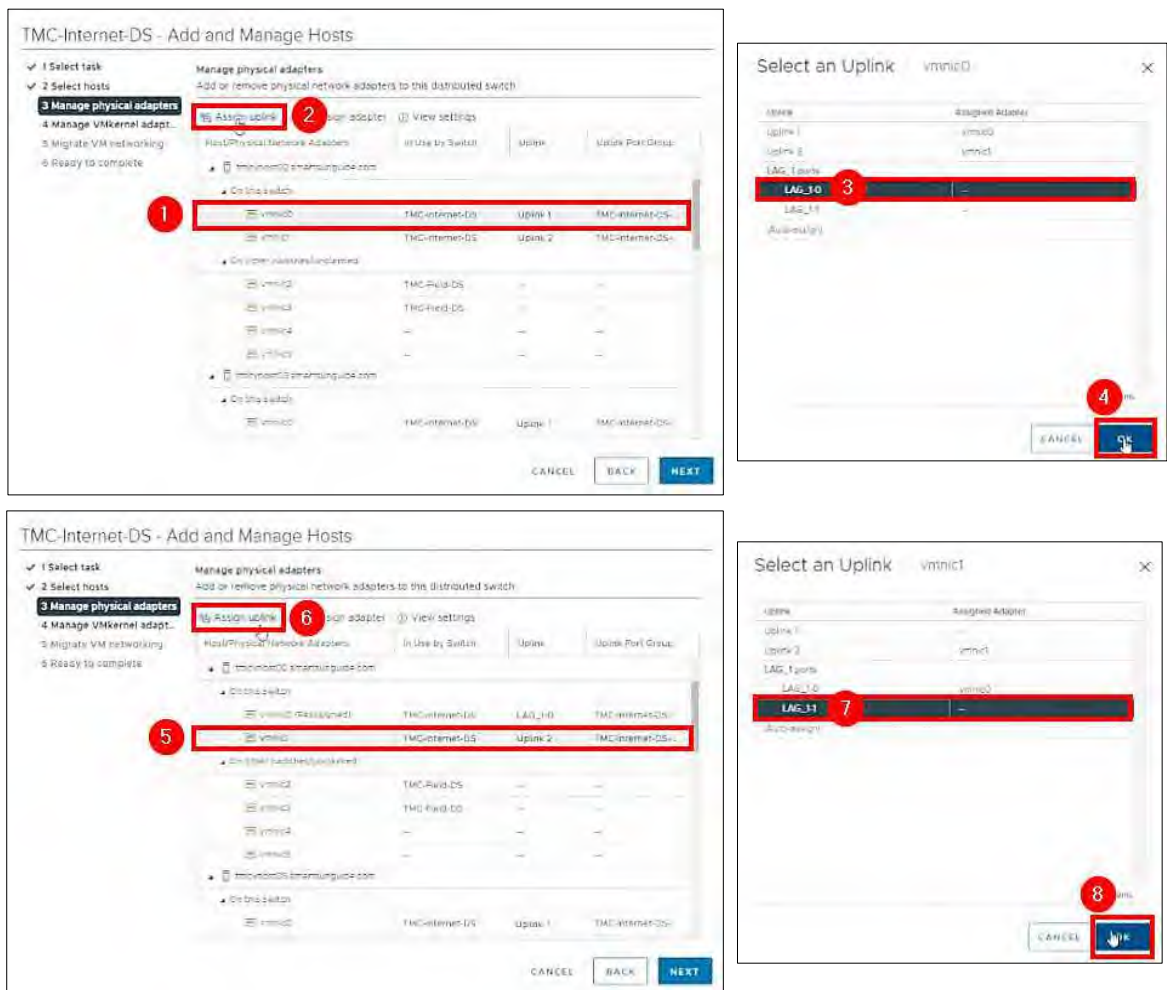


Figure 69. Manage Physical Adapters – Assign Uplinks for tmcvhost02

Assign uplinks for tmcvhost03

Scroll down to **tmcvhost03**.

- (1) Click **vmnic0**
- (2) Click Assign uplink .
- (3) Select **LAG_1-0**
- (4) Click **OK**.
- (5) Click **vmnic1**
- (6) Click Assign uplink
- (7) Select **LAG_1-1**
- (8) Click **OK**.

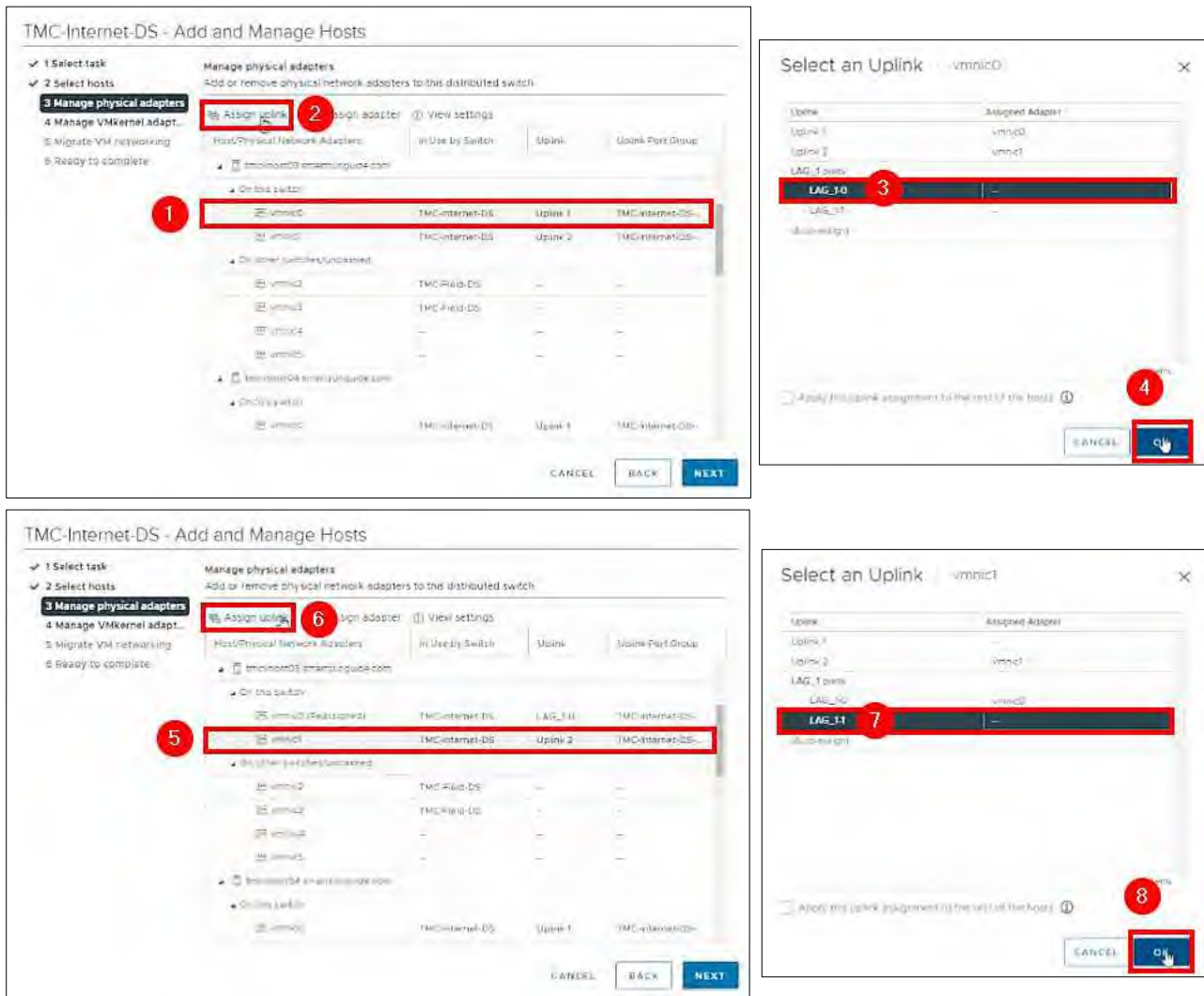


Figure 70. Manage Physical Adapters – Assign Uplinks for tmcvhost03.

Assign uplinks for tmcvhost04

Scroll down to **tmcvhost04**.

- (1) Click **vmnic0**
- (2) Click Assign uplink
- (3) Select **LAG_1-0**
- (4) Click **OK**
- 5) Click **vmnic1**
- 6) Click Assign uplink
- (7) Select **LAG_1-1**
- (8) Click **OK**.

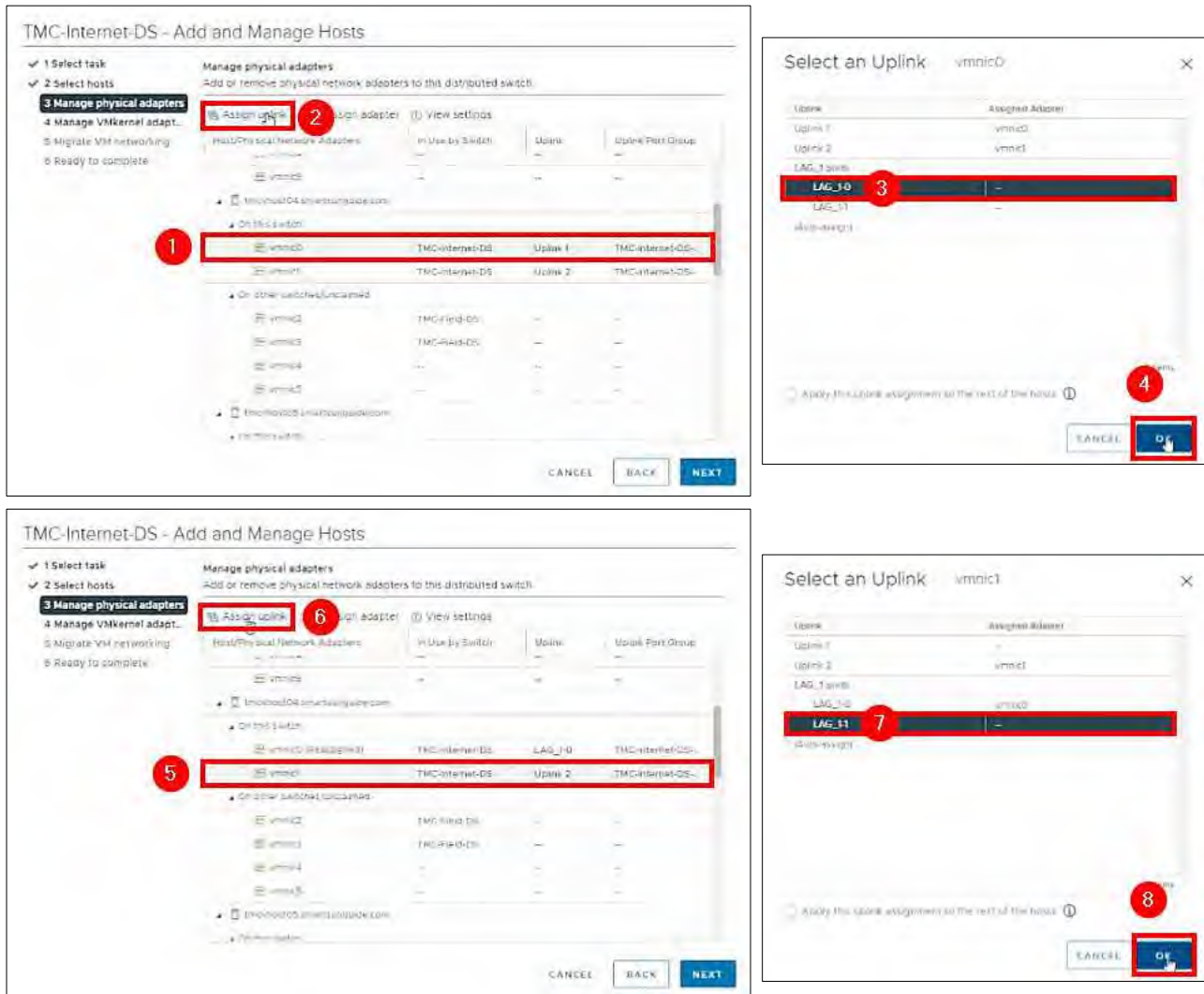


Figure 71. Manage Physical Adapters – Assign Uplinks for tmcvhost04.

Assign uplinks for tmcvhost05

Scroll down to **tmcvhost05**.

- (1) Click **vmnic0** and
- (2) Click **Assign uplink**.
- (3) Select **LAG_1-0**
- (4) Click **OK**.
- (5) Click **vmnic1**
- (6) Click **Assign uplink**
- (7) Select **LAG_1-1**
- (8) Click **OK** .

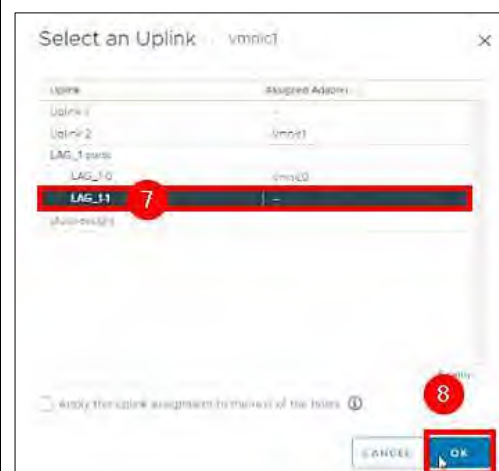
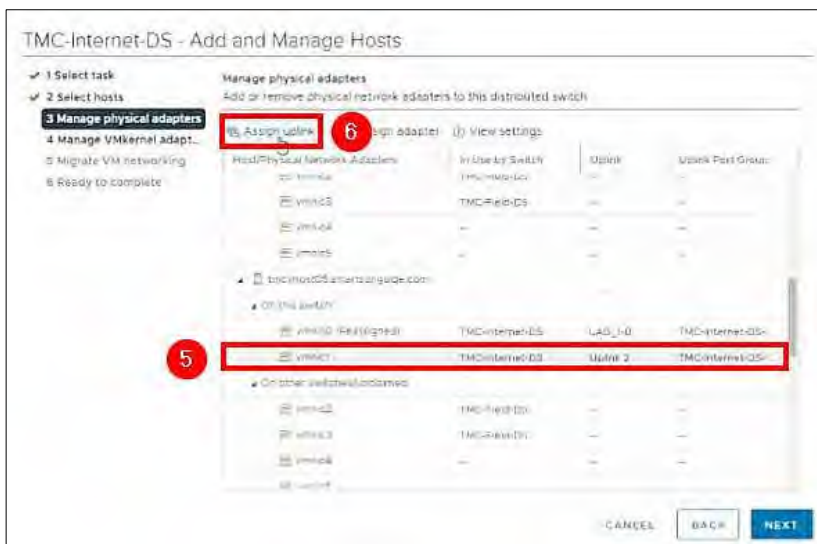
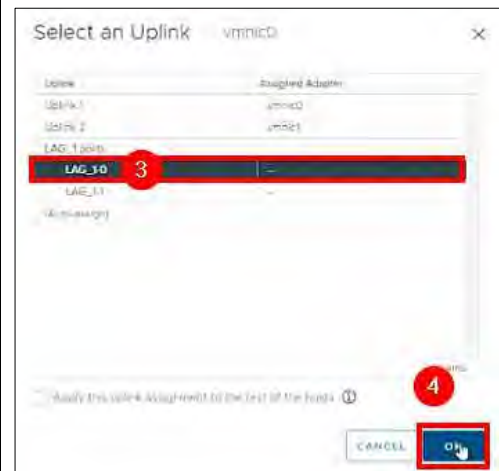
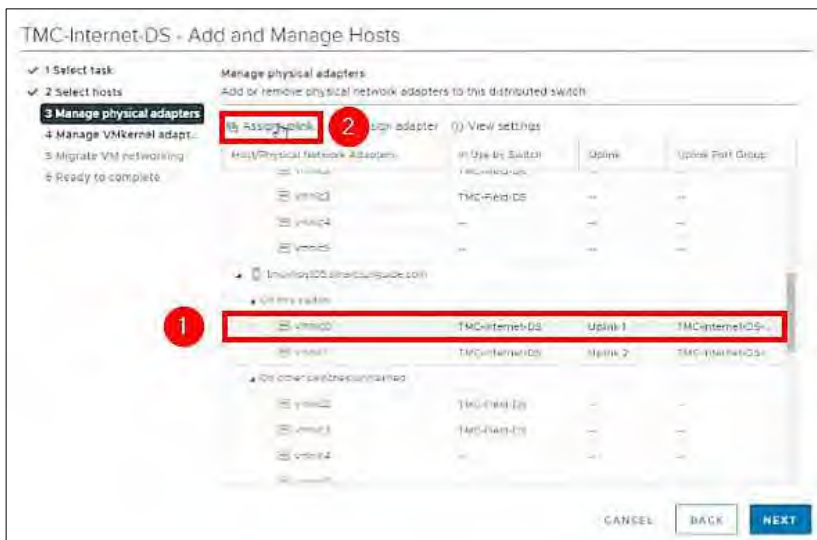


Figure 72. Manage Physical Adapters – Assign Uplinks for tmcvhost05.

Assign uplinks for tmcvhost06

Scroll down to **tmcvhost06**.

- (1) Click **vmnic0**
- (2) Click **Assign uplink**
- (3) Select **LAG_1-0**
- (4) Click **OK**
- (5) Click **vmnic1**
- (6) Click **Assign uplink**
- (7) Select **LAG_1-1**
- (8) Click **OK**.

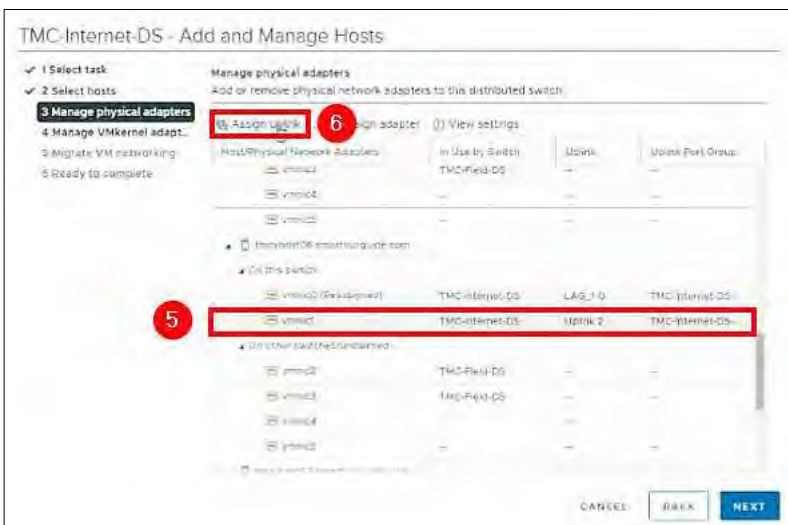
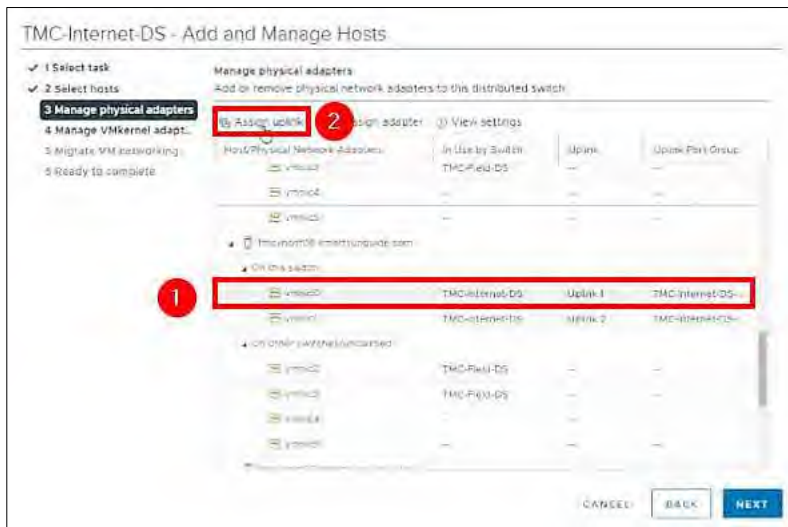


Figure 73. Manage Physical Adapters – Assign Uplinks for tmcvhost06.

Assign uplinks for tmcvhost07

Scroll down to **tmcvhost07**.

- Click **vmnic0**.
- Click Assign uplink.
- Select **LAG_1-0**.
- Click **OK**.
- Click **vmnic1**.
- Click Assign uplink.
- Select **LAG_1-1**.
- Click **OK**.

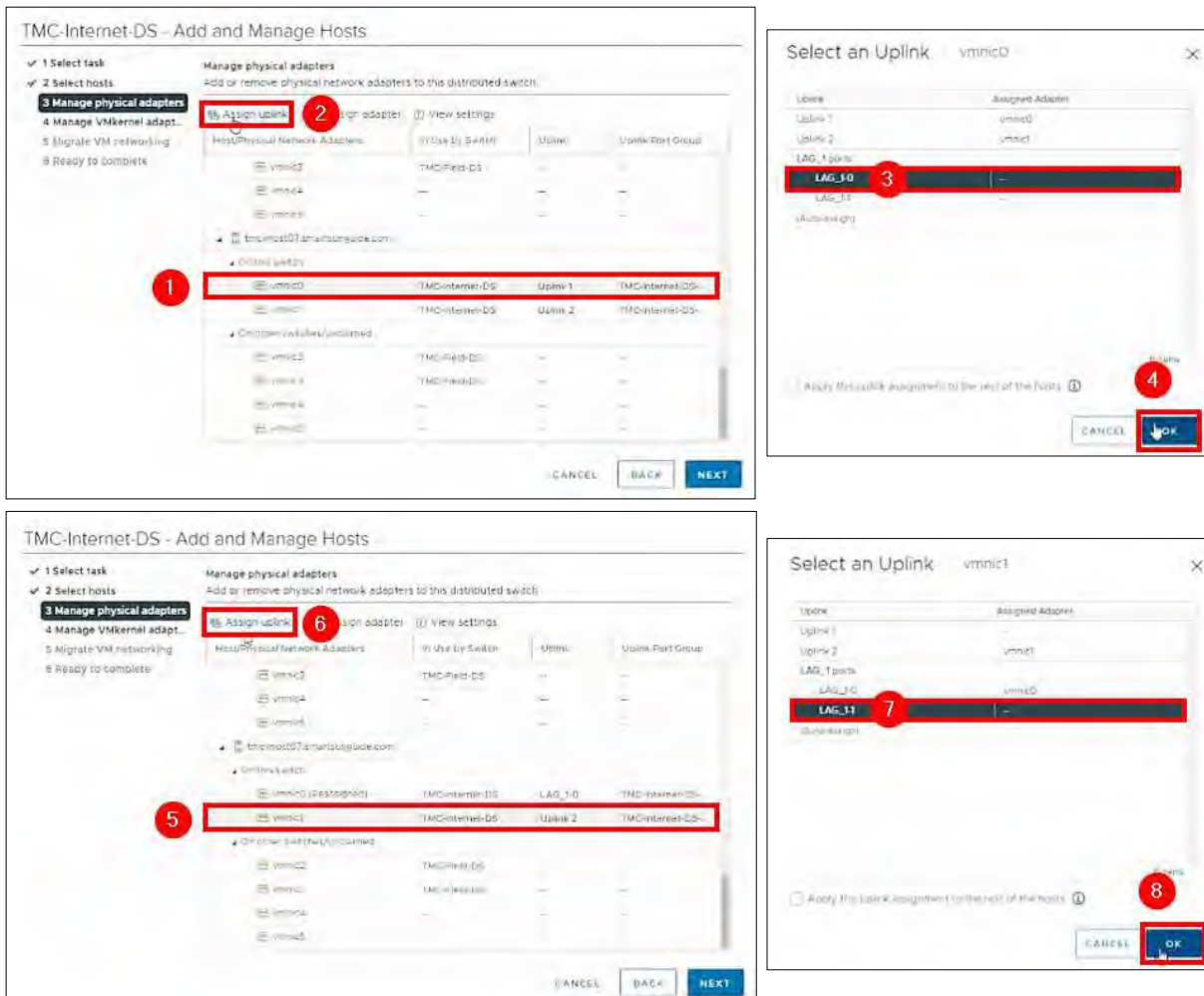


Figure 74. Manage Physical Adapters – Assign Uplinks for tmcvhost07.

Assign uplinks for tmcvhost08
 Scroll down to **tmcvhost08**.

- Click **vmnic0** and
- Click **Assign uplink**.
- select **LAG_1-0** and
- Click **OK**
- Click **vmnic1** and
- Click **Assign uplink**.
- Select **LAG_1-1**
- Click **OK**

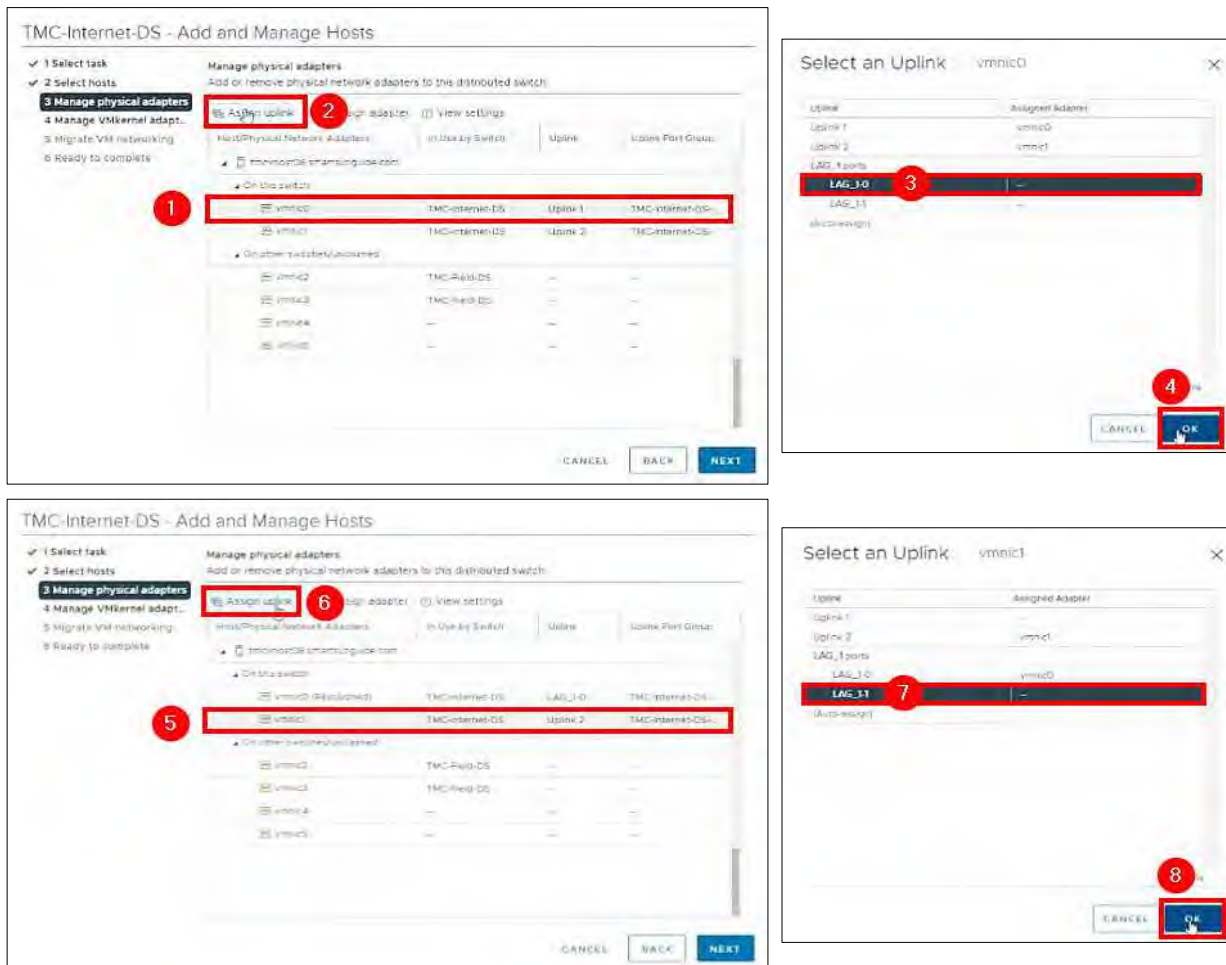


Figure 75. Manage Physical Adapters – Assign Uplinks for tmcvhost08.

Complete following Links Assigning

1. Click **NEXT**.

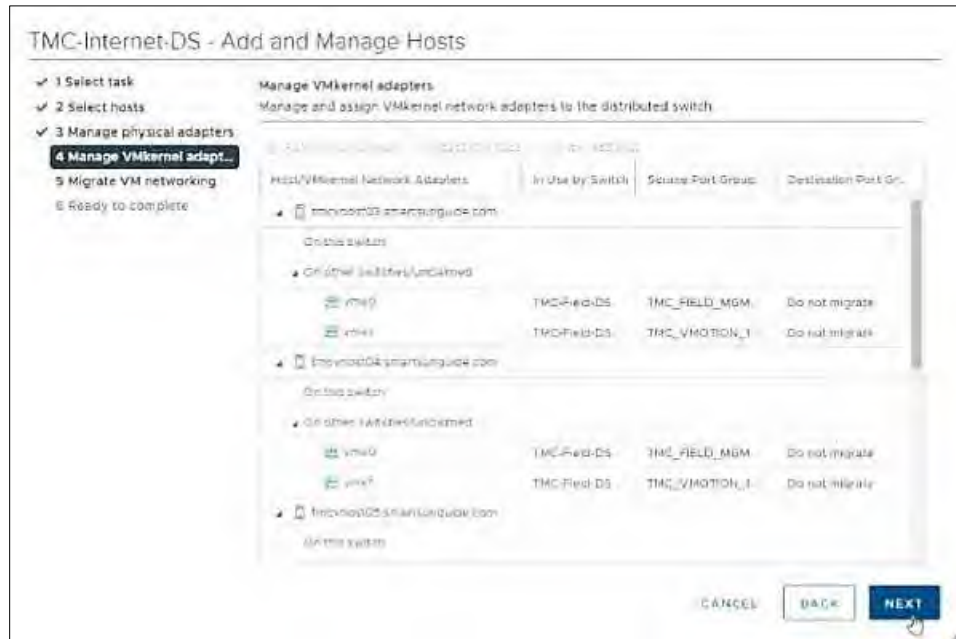


Figure 76. Manage VMkernel Adapters.

2. Click **NEXT**.

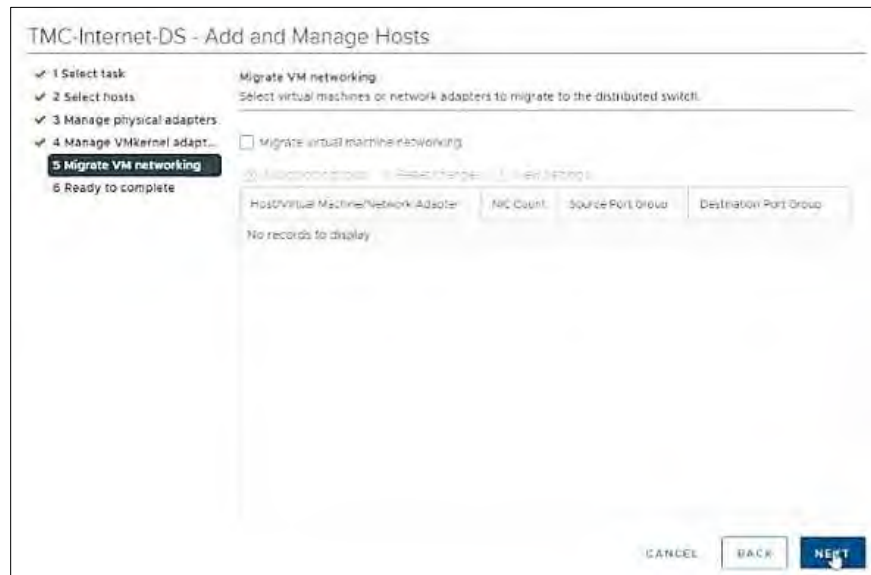


Figure 77. Migrate VM Networking.

3. Click **FINISH**.

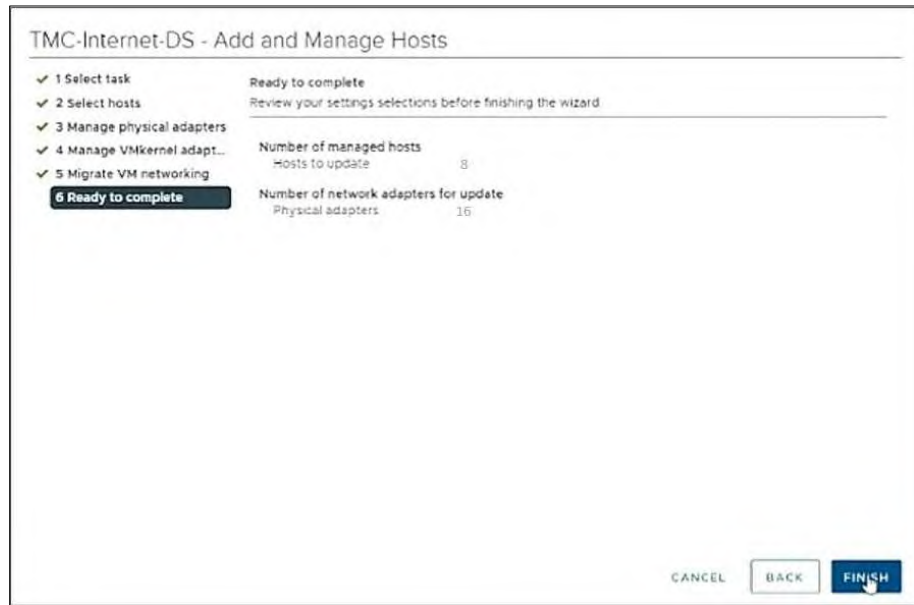


Figure 78. Ready to Complete.

Edit Distributed Port Groups for TMC-Internet-DS

Perform steps a – c below, to change the **Teaming and Failover** for all distributed port groups to use the LAG instead of the uplinks.

1.
 - Click Networking
 - Click the down arrow next to **TMC-Internet-DS**
 - Right-click one of the distributed port groups
 - Click Edit Settings.

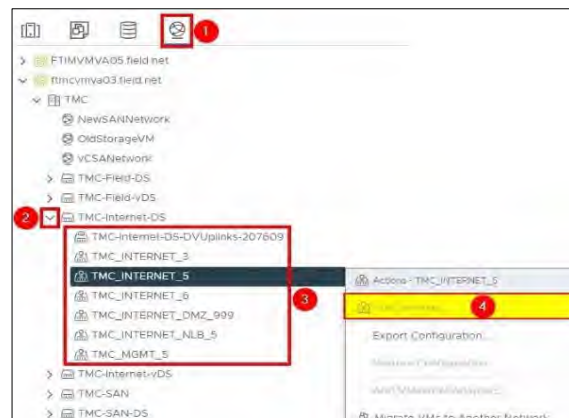


Figure 79. Edit Distributed Port Groups for TMC-Internet-DS.

2.
 - Click Teaming and Failover
 - Move **Uplink 1** and **Uplink 2** to Unused uplinks.



Figure 80. Move Uplink 1 and Uplink 2 to Unused Uplinks.

3.
 - Move **LAG_1** to Active uplinks
 - Click **OK**.

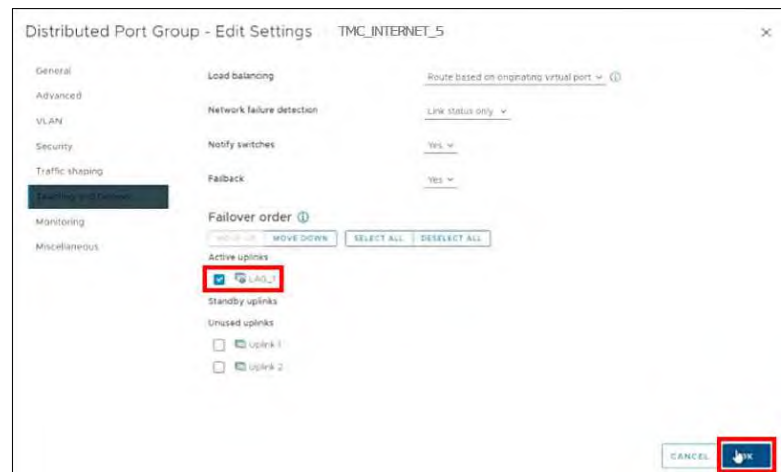


Figure 81. Move LAG_1 to Active Uplinks.

Repeat steps 1-3 above on all other distributed port groups under TMC-Internet-DS.

NIC TEAMING in VMware – TIMSO

Create Link Aggregation Group (LAG) for TIMSO-DS

Note. Only one LAG is needed for the distributed switch. Each host at TIMSO will have four ports.

Steps / Screenshots

1.
 - (1) Click FTIMVMVA05.field.net
 - (2) Click **Networking**



Figure 82. FTIMVMVA05.field.net > Networking

2.
 - (1) Click the down arrow next to **FTIMVMVA05.field.net**.
 - (2) Click the down arrow next to **TIMSO**.
 - (3) Click **TIMSO-DS**
 - (4) Click **Configure**
 - (5) Click **LACP**
 - (6) Click **NEW**.

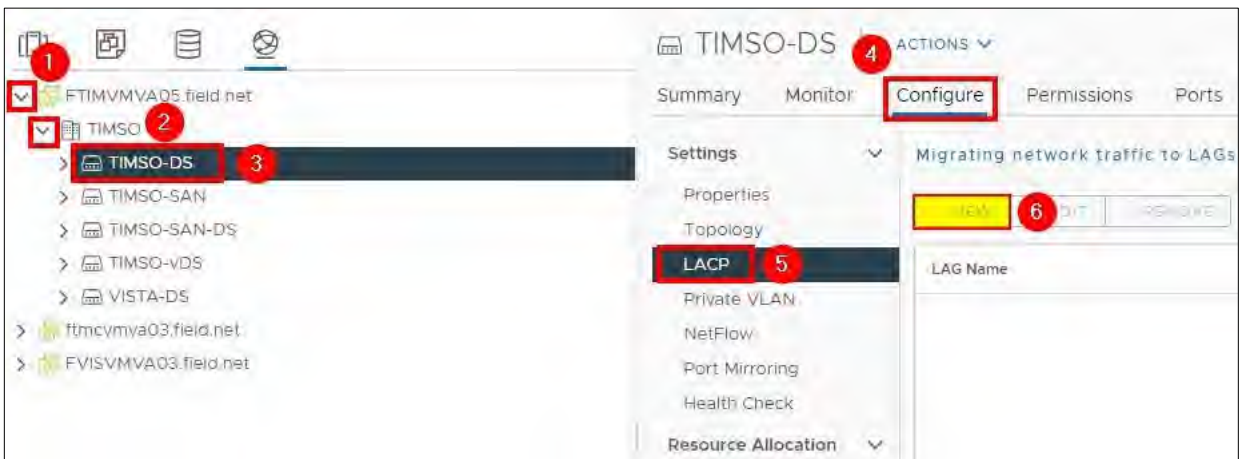


Figure 83. FTIMVMVA05.field.net > Networking > TIMSO-DS > Configure > LACP > NEW

3. Enter the following information in the **New LAG** window.
 - Name: LAG_1
 - Number of ports: 4
 - Mode: Active
 - Load balancing mode: Source and destination MAC address
 - Timeout mode: **slow**

Steps / Screenshots

Click **OK**.



Figure 84. New LAG – LAG_1

4.
 - Click the down arrow next to **TIMSO-DS**,
 - Right Click **TIMSO_MGMT_919**,
 - Click Edit Settings.

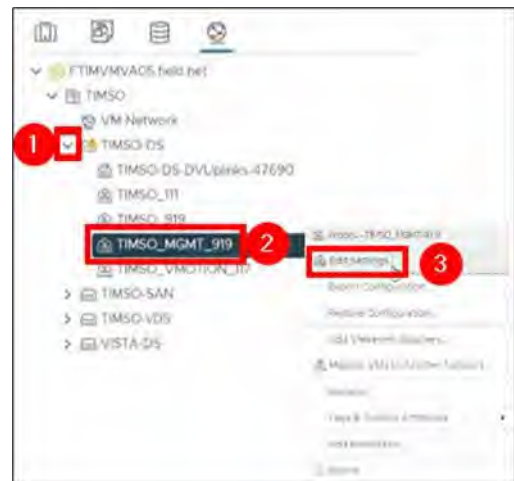


Figure 85. TIMSO-DS > TIMSO_MGMT_919 > Edit Settings

5.
 - Click Teaming and failover.
 - Move **Uplink 1** and **Uplink 2** to Unused uplinks.
 - Move **LAG_1** to Active uplinks.
 - Click **OK**.

Steps / Screenshots

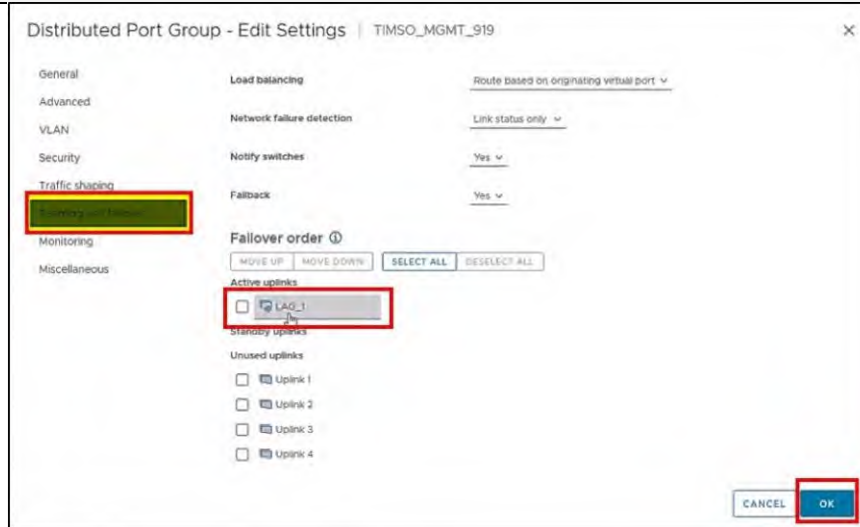


Figure 86. Move Uplink 1 and Uplink 2 to Unused Uplinks.

Configure timvhost01

This configuration differs from *timvhost02 – timvhost06*. It has a standard switch on it instead of a distributed switch.

Configure timvhost01 – vmnic5

Steps / Screenshots

1. Migrate **vmnic5** to the distributed switch while it is changed to the LAG group.
 - (1) Click host and clusters,
 - (2) Click the down arrow next to TIMSO Cluster,
 - (3) Click *timvhost01.smartsunguide.com*,
 - (4) Click Configure,
 - (5) Click Physical adapters,
 - (6) Click *vmnic5*.

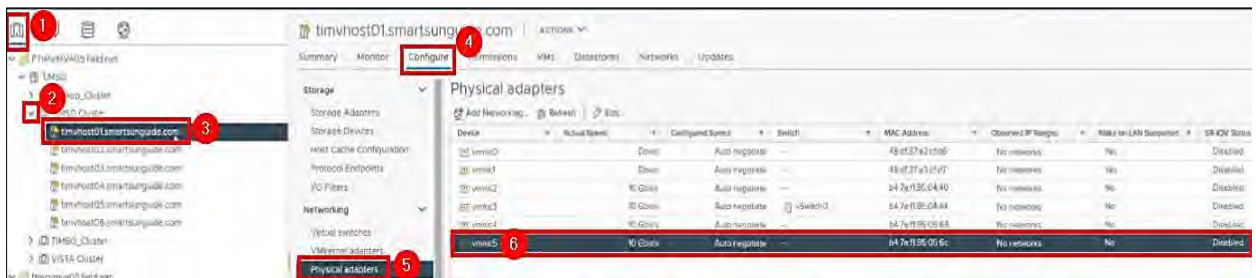


Figure 87. Configure timvhost01 - vmnic5

Steps / Screenshots

- Click the **CDP** tab to find the Device ID and Port ID (Switch # and Port #), to be provided to the Network Manager:

Device ID: **Switch # 2**
 Port ID: **Port # 9**

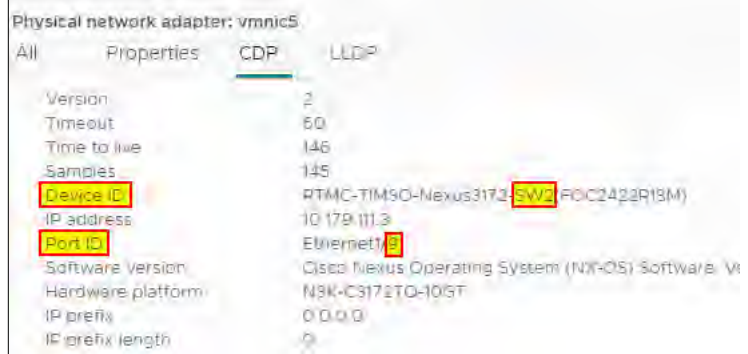


Figure 88. vmnic5 Device ID and Port ID.

- On the physical switch, the Network Manager will down the port connected to **vmnic5**.

Confirm that the port is **Down**.



Figure 89. Confirm that the Port is Down

- On the physical switch, the Network Manager will place the port connected to **vmnic5** in the LACP/EtherChannel configuration.

- (1) Click Virtual switches,
- (2) Click the ellipses next to MANAGE PHYSICAL ADAPTERS,
- (3) Click Migrate Networking.

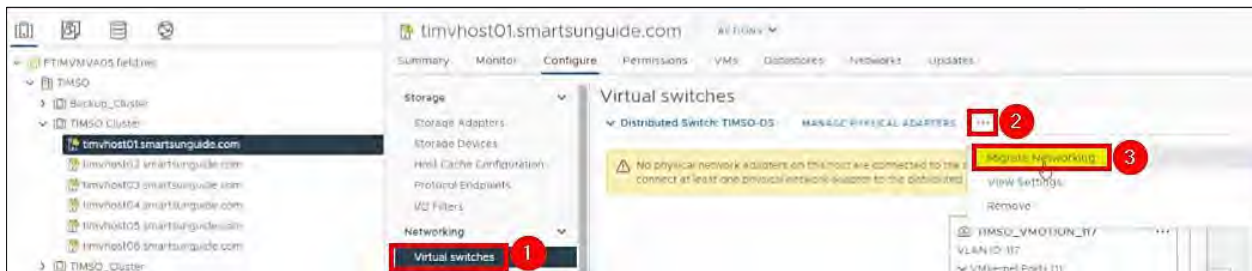


Figure 90. Migrate Networking

- (1) Select **vmnic5**
 - (2) Click Assign uplink.

Add **vmnic5** to one of the LAG uplinks.

- (3) Select **LAG_1-3**
- (4) Click **OK**.

Steps / Screenshots

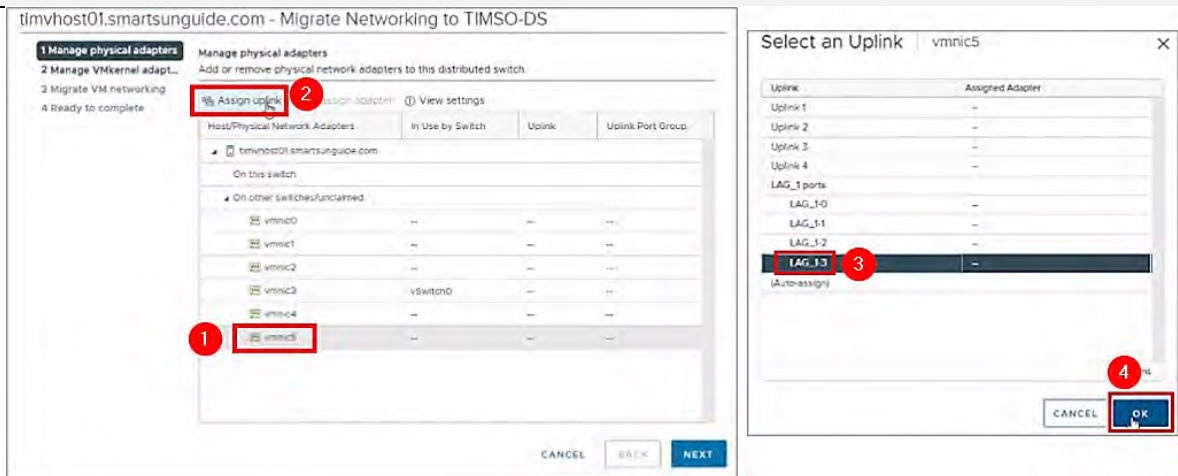


Figure 91. Manage Physical Adapters – Select an Uplink.

6. Click **NEXT**.

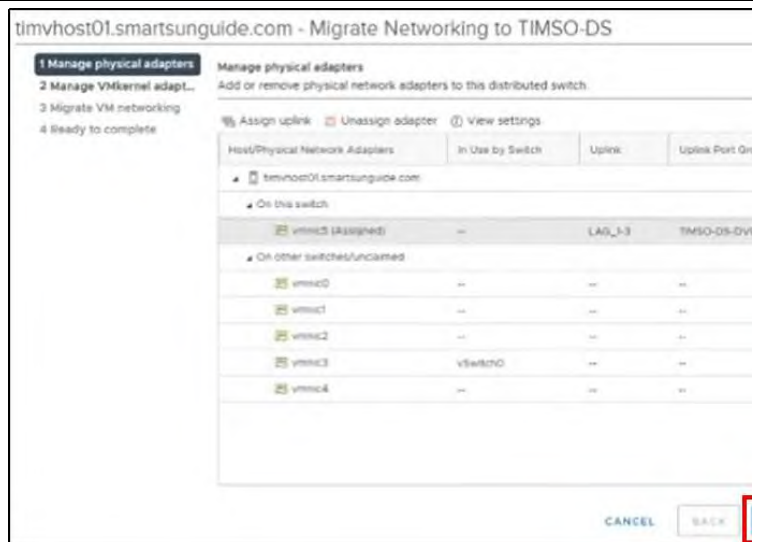


Figure 92. Manage Physical Adapters.

7.
 – Click **vmk0**
 – Click **Assign port group**.



Figure 93. Manage VMkernel Adapters - Assign Port Group.

Steps / Screenshots

- 8.
 - Click TIMSO_MGMT_919
 - Click **OK**.

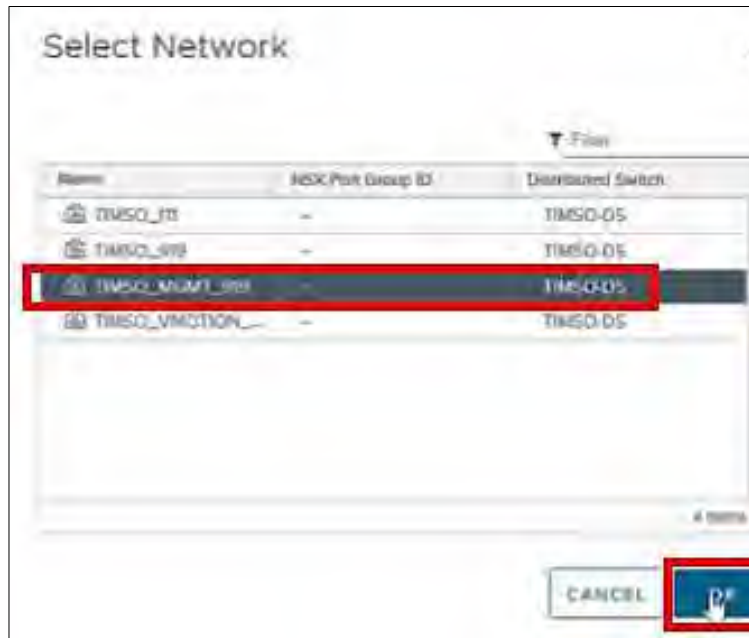


Figure 94. Select Network - TIMSO_MGMT_919

- 9. Click **NEXT**.



Figure 95. Manage VMkernel Adapters.

Steps / Screenshots

10. Click **NEXT**.



Figure 96. Migrate VM Networking

11. Click **FINISH**.



Figure 97. Ready to Complete

The Network Manager will bring the port back up.
Go back **Physical adapters**. Wait for the port to come back up.



Figure 98. Wait for Port to Come Back Up.

Steps / Screenshots

- 1 Click the **All** tab.
- 2 Wait for networks to appear.

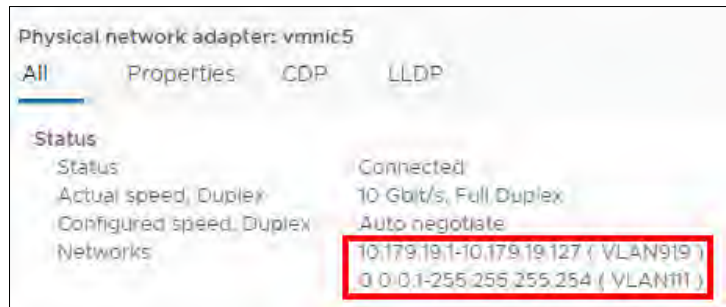


Figure 99. Wait for Networks to Appear.

Configure timvhost01 – vmnic4

Steps / Screenshots

1.
 - (1) Click host and clusters,
 - (2) Click the down arrow next to TIMSO Cluster,
 - (3) Click timvhost01.smartsunguide.com,
 - (4) Click Configure,
 - (5) Click Physical adapters,
 - (6) Click vmnic4.

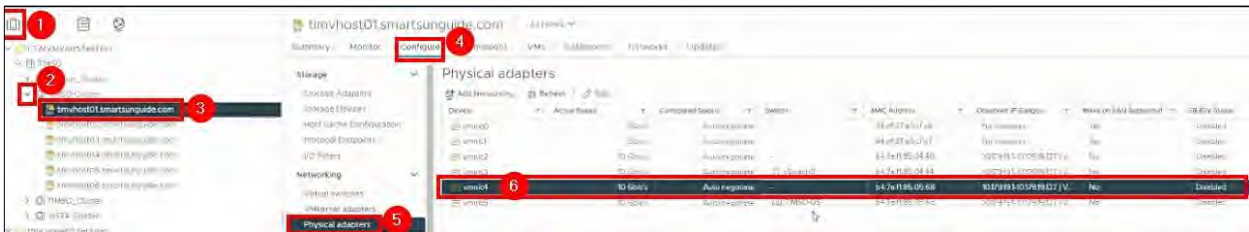


Figure 100. Configure timvhost01 – vmnic4

2. Click the **CDP** tab to find the Device ID and Port ID (Switch # and Port #), to be provided to the Network Manager.

Device ID: **Switch # 1**

Port ID: **Port # 9**

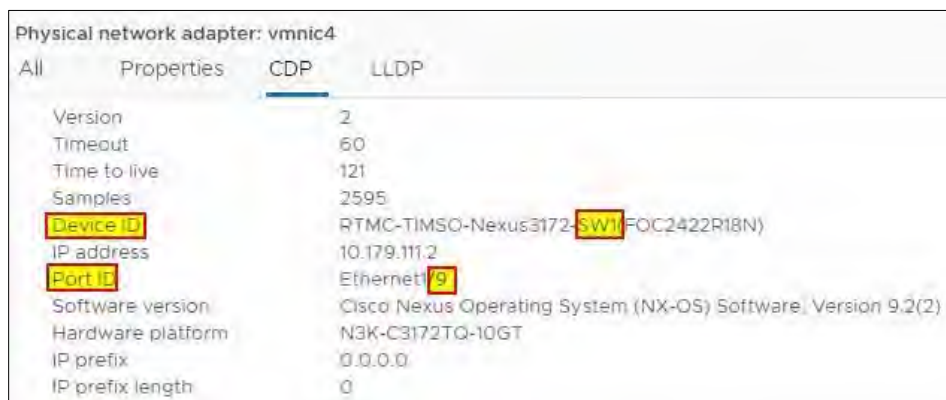


Figure 101. vmnic4 Device ID and Port ID

Steps / Screenshots

3. On the physical switch, the Network Manager will down the port connected to **vmnic4**. Confirm that the port is Down.

Device	Actual Speed	Configured Speed	Switch	MAC Address	Observed P. Rings	Wake on LAN Supported
vmnic0	Down	Auto negotiate	-	18:01:37:e3:d3:c6	No network	Yes
vmnic1	Down	Auto negotiate	-	48:01:37:03:c1:c7	No network	Yes
vmnic2	10 Gbps	Auto negotiate	-	b4:7e:f1:85:04:40	10.179.19.110:179.19.127 (V...	No
vmnic3	10 Gbps	Auto negotiate	vSwitch0	b4:7e:f1:85:04:44	10.179.19.110:179.19.127 (V...	No
vmnic4	Down	Auto negotiate	-	b4:7e:f1:85:05:68	10.179.19.110:179.19.127 (V...	No
vmnic5	10 Gbps	Auto negotiate	TIMSO-DS	b4:7e:f1:85:05:6e	10.179.19.110:179.19.127 (V...	No

Figure 102. Confirm that the Port is Down.

On a physical switch, the Network Manager will place the port connected to **vmnic4** in the LACP/EtherChannel configuration.

4.
 - (1) Click networking,
 - (2) Right-click **TIMSO-DS**,
 - (3) Click Add and Manage Hosts.

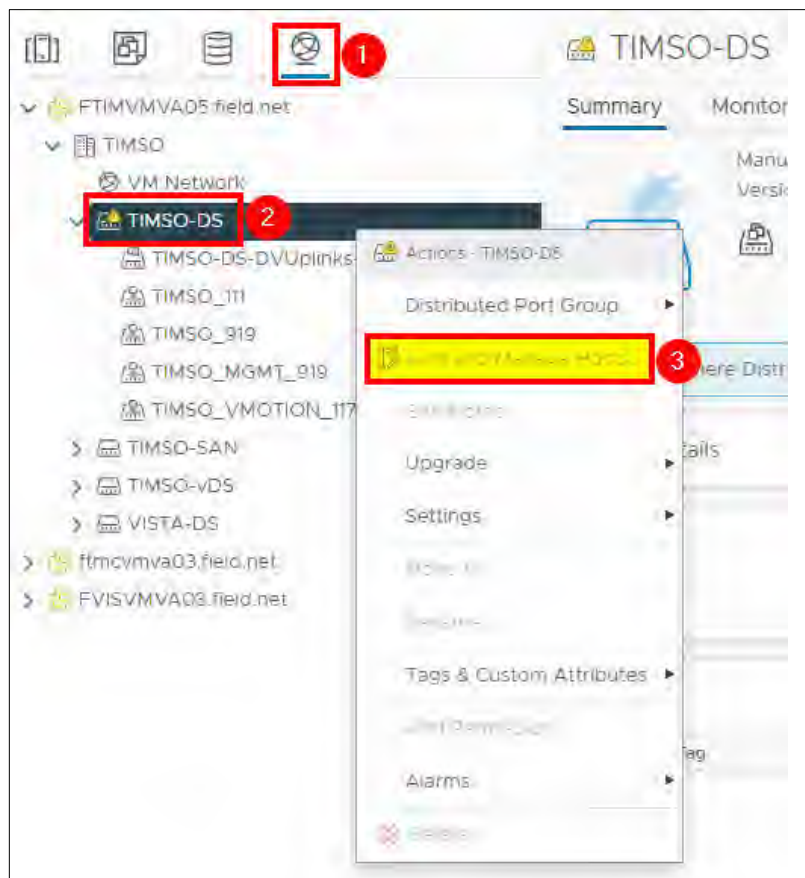


Figure 103. Add and Manage Hosts.

5.
 - Select Manage host networking
 - Click **NEXT**.

Steps / Screenshots

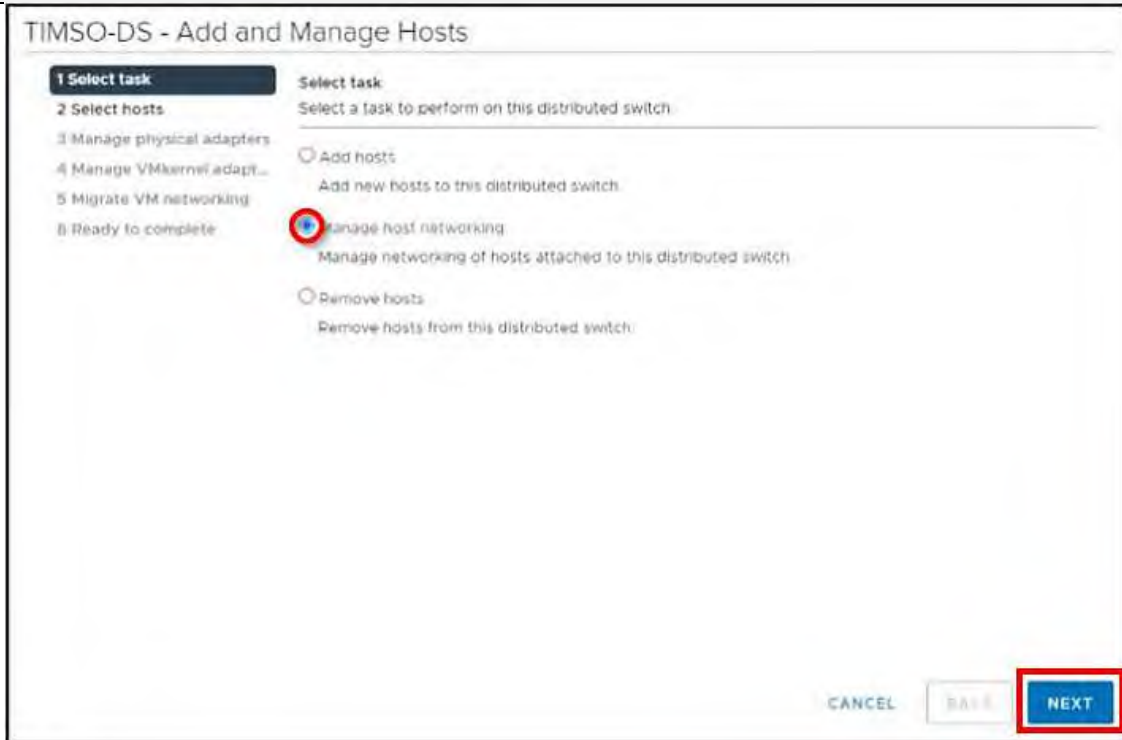


Figure 104. Select Task.

6.
 - Click Attached hosts,
 - Check the box next to timvhost01.smarsunguide.com,
 - Click **OK**.

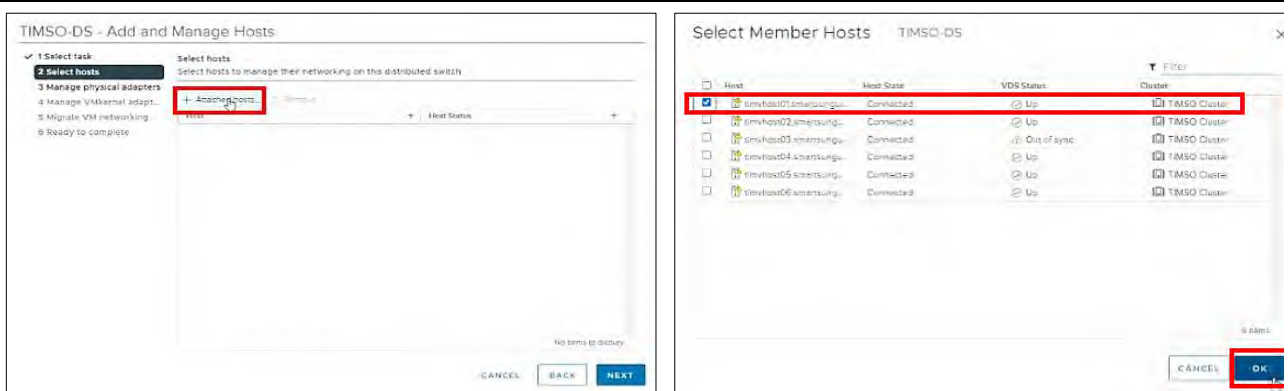


Figure 105. Select Member Host.

Steps / Screenshots

7. Click **NEXT**.

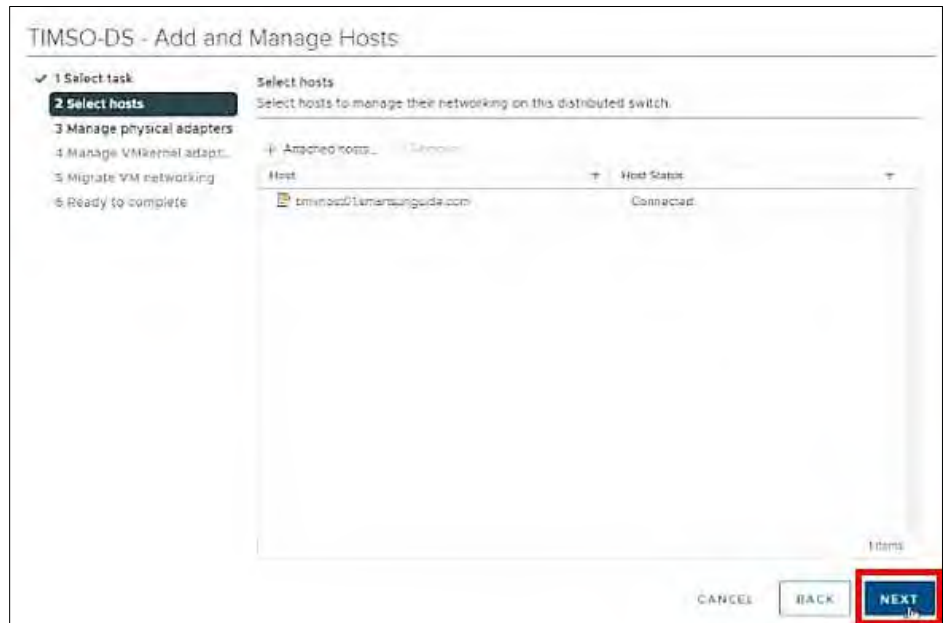


Figure 106. Select Host.

- 8.
- (1) Select **vmnic4** and
 - (2) Click Assign uplink

Add **vmnic4** to one of the LAG uplinks by.

- (3) Select **LAG_1-2**
- (4) Click **OK**.

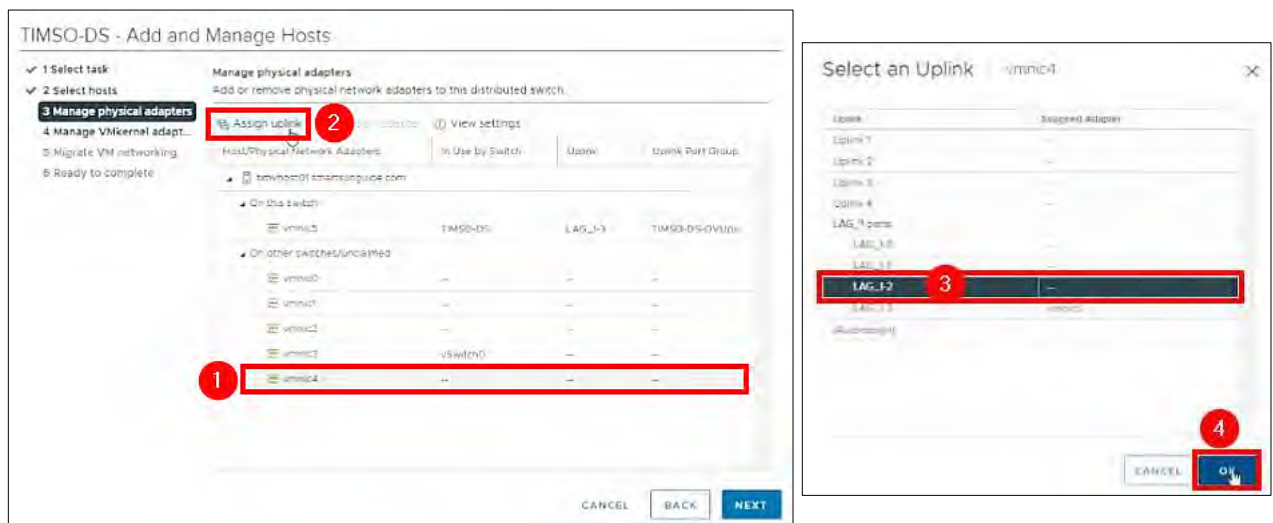


Figure 107. Manage Physical Adapters - Select an Uplink.

Steps / Screenshots

9. Click **NEXT**.

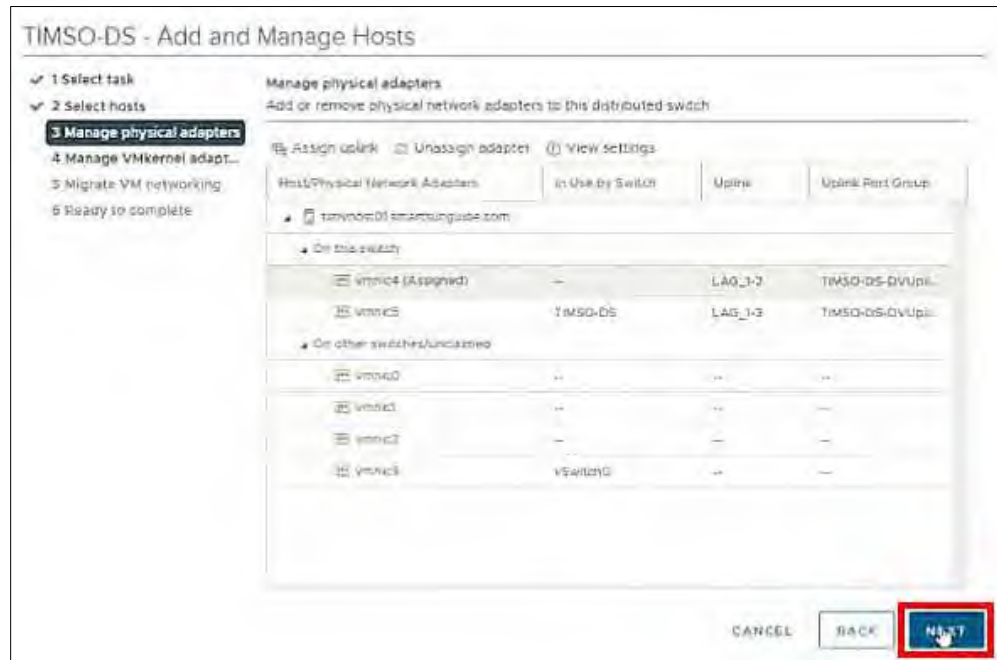


Figure 108. Manage Physical Adapters.

10. Click **NEXT**.

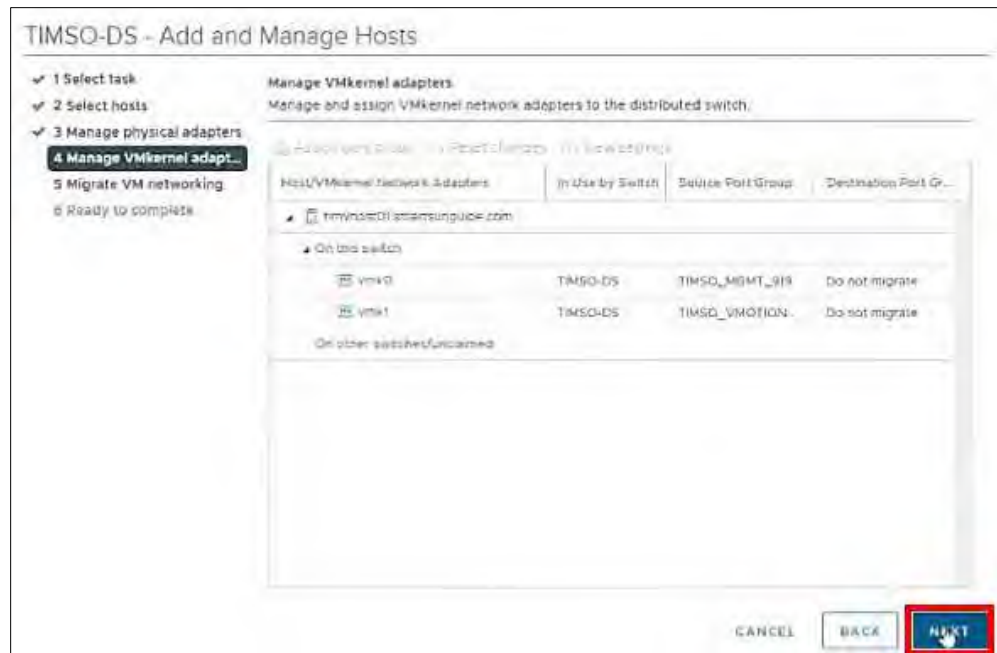


Figure 109. Manage VMkernel Adapters.

Steps / Screenshots

11. Click **NEXT**

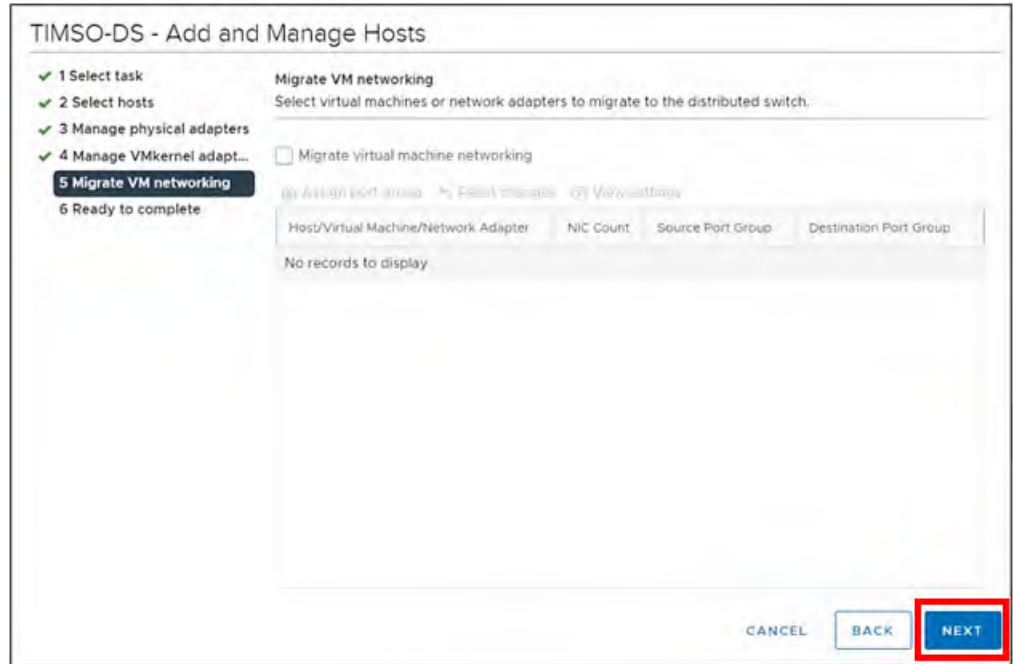


Figure 110. Migrate VM Networking.

12. Click **FINISH**.

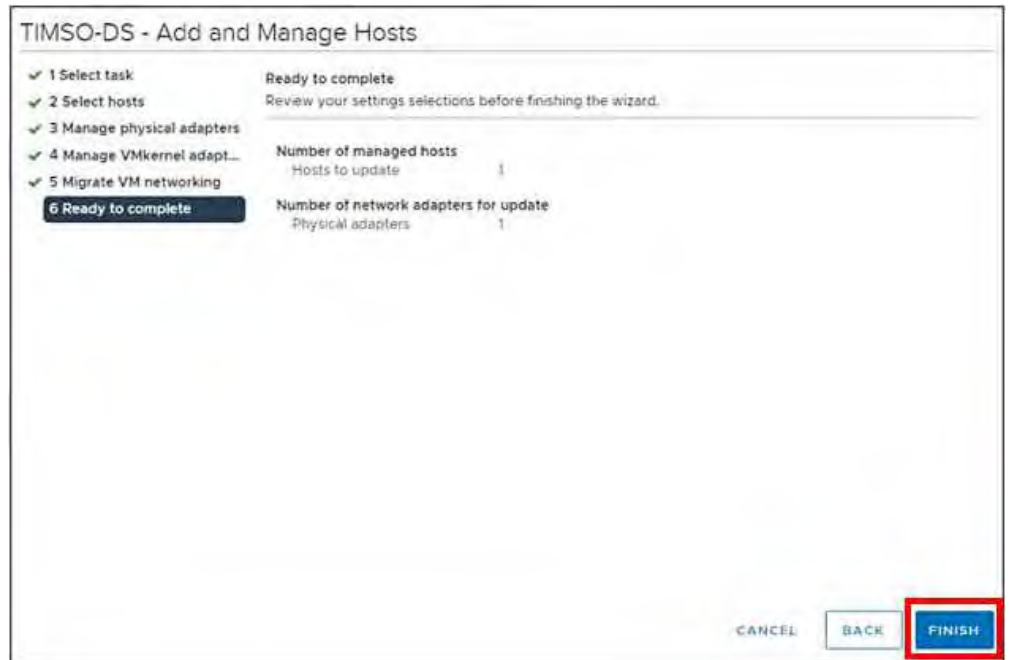


Figure 111. Ready to Complete.

The Network Manager will bring the port back up. Go back **Physical adapters**. Wait for port to come back up.

Steps / Screenshots



Figure 112. Wait for Port to Come Back Up.

- Click the **All** tab and wait for networks to appear.

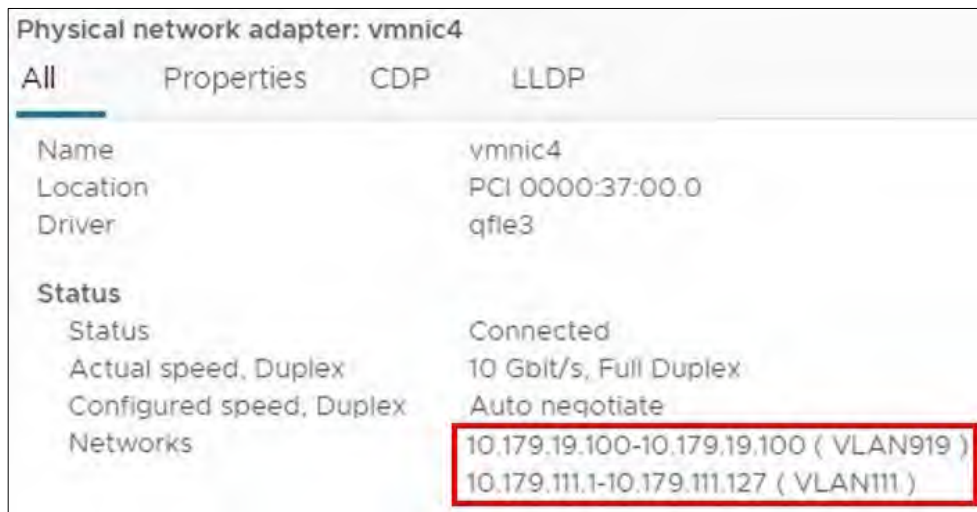


Figure 113. Wait for Networks to Appear.

Configure timvhost01 – vmnic3

Steps / Screenshots

- (1) Click host and clusters,
 - (2) Click the down arrow next to TIMSO Cluster,
 - (3) Click timvhost01.smartsunguide.com,
 - (4) Click Configure,
 - (5) Click Physical adapters,
 - (6) Click vmnic3.

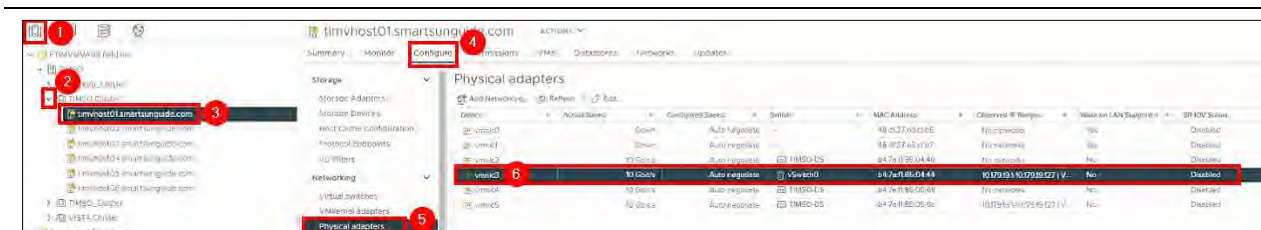


Figure 114. Configure timvhost01 – vmnic3.

Steps / Screenshots

- Click the **CDP** tab to find the Device ID and Port ID (Switch # and Port #), which will be provided to the Network Manager.

Device ID: **Switch # 1**

Port ID: **Port # 3**

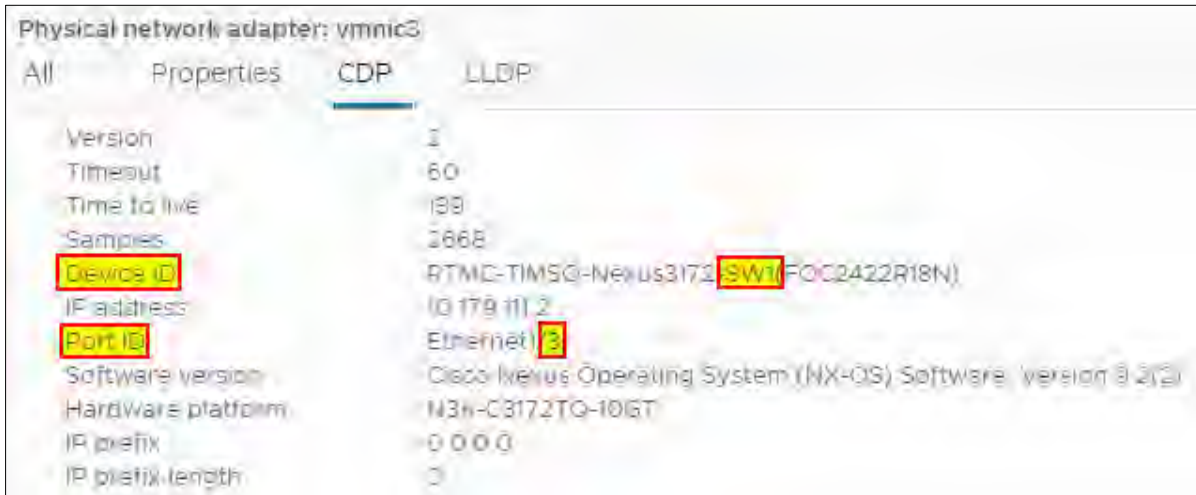


Figure 115. vmnic3 Device ID and Port ID.

On the physical switch, the Network Manager will down the port connected to **vmnic3**. Confirm that the port is **down**.

Device	Actual Speed	Configured Speed	Switch	MAC Address	Observed IP Range	Wake on LAN Supported	SR IOV Status
vmnic0	Down	Auto negotiate		18:03:73:01:06	No network	Yes	Disabled
vmnic1	Down	Auto negotiate		18:03:73:01:07	No network	Yes	Disabled
vmnic2	10 Gbps	Auto negotiate	TIMSG-05	04:2a:11:25:04:40	No network	Yes	Disabled
vmnic3	Down	Auto negotiate	vSwch0	b4:7a:11:25:04:41	10.179.19.100-10.179.19.100	No	Disabled
vmnic4	10 Gbps	Auto negotiate	TIMSG-05	18:7e:11:25:05:68	No network	No	Disabled
vmnic5	10 Gbps	Auto negotiate	TIMSG-05	04:7a:11:25:05:6c	10.179.19.101-10.179.19.127	No	Disabled

Figure 116. Confirm that the Port is Down.

Steps / Screenshots

3. On the physical switch, the Network Manager will place the port connected to **vmnic3** in the LACP/EtherChannel configuration.

- (1) Click **networking**,
- (2) Right-Click **TIMSO-DS**,
- (3) Click Add and Manage Hosts.

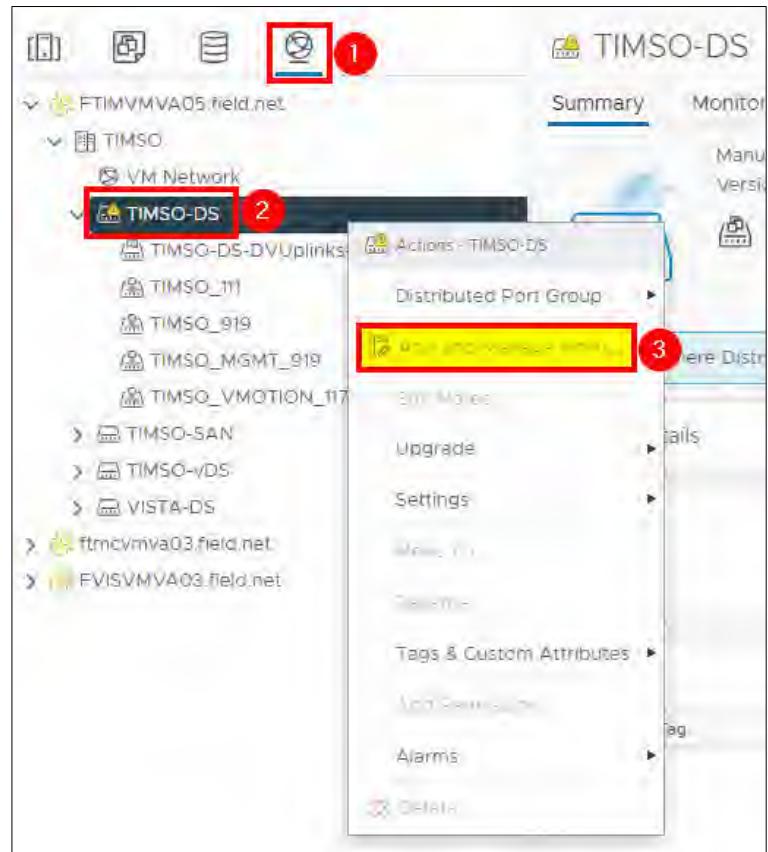


Figure 117. Add and Manage Hosts.

- 4.
- Select Manage host networking
 - Click **NEXT**.

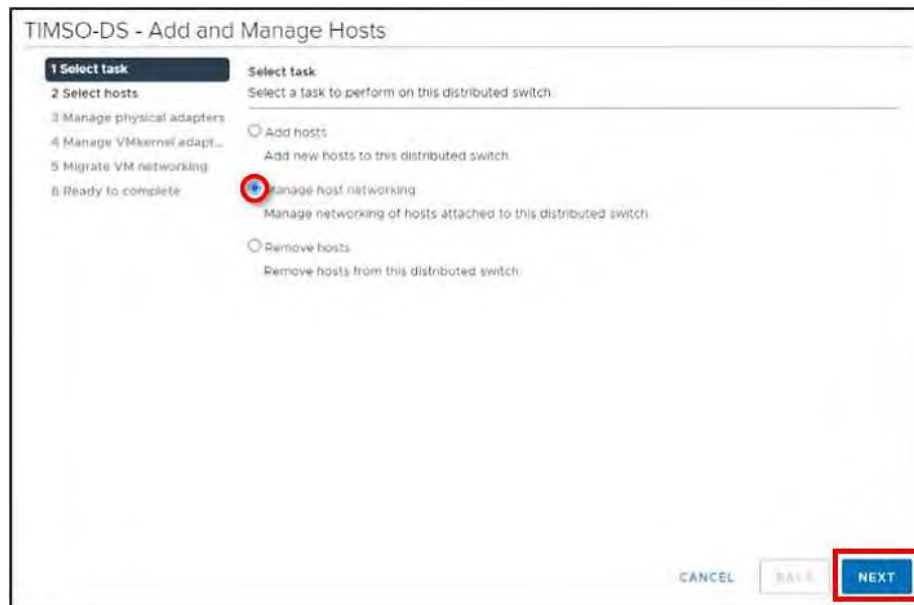


Figure 118. Select Task.

Steps / Screenshots

5.
 - Click Attached hosts,
 - Check the box next to timvhost01.smarsunguide.com,
 - Click **NEXT**.

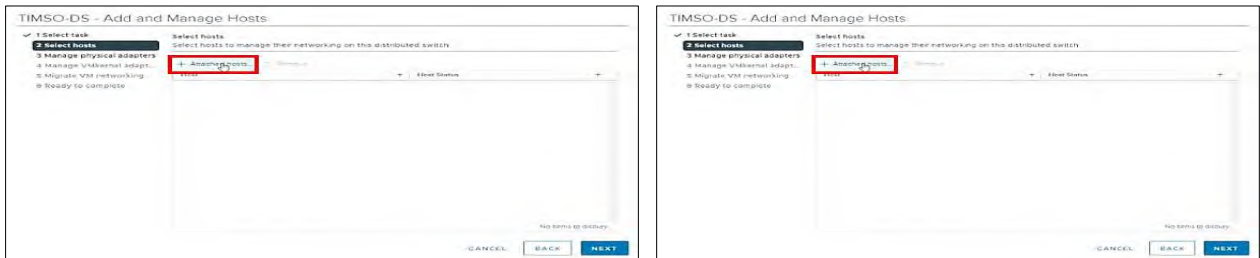


Figure 119. Select Member Host.

6. Click **NEXT**.

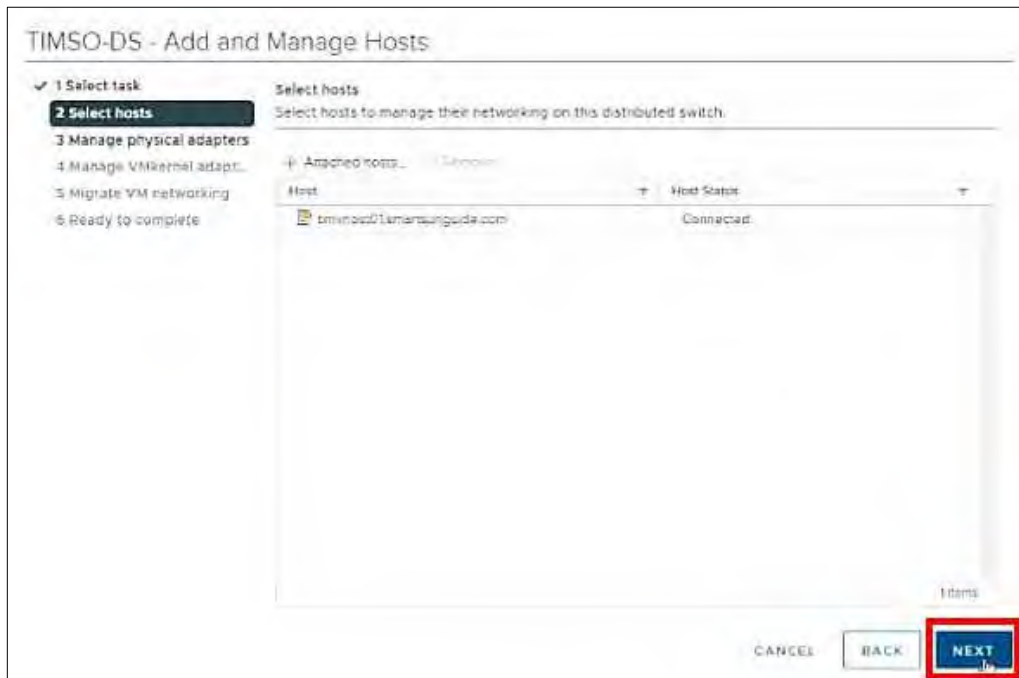


Figure 120. Select Host.

7.
 - Select **vmnic3**
 - Click Assign uplink.

Add **vmnic3** to one of the LAG uplinks.

- Select **LAG_1-1** and
- Click **OK**.

Steps / Screenshots

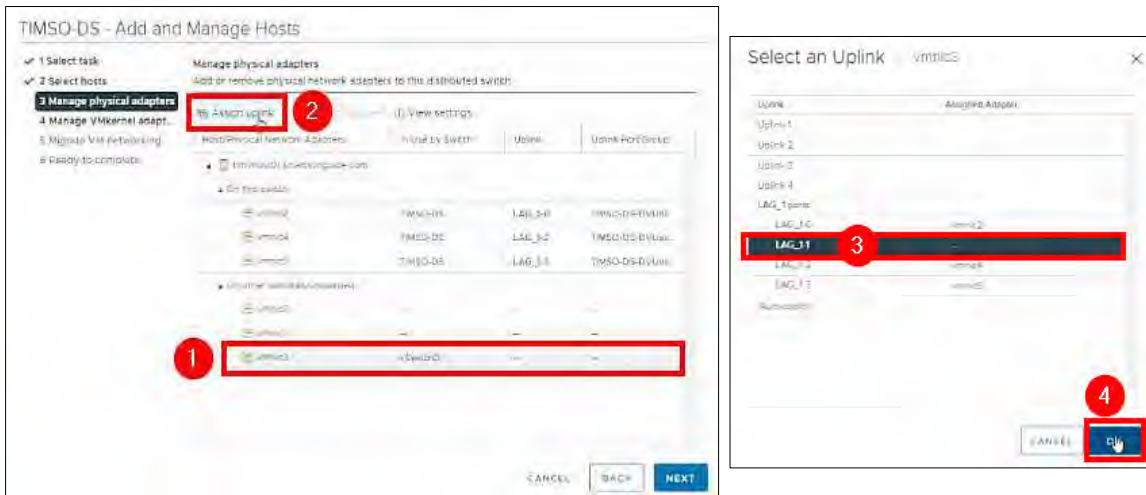


Figure 121. Manage Physical Adapters – Select an Uplink.

8. Click **NEXT**.

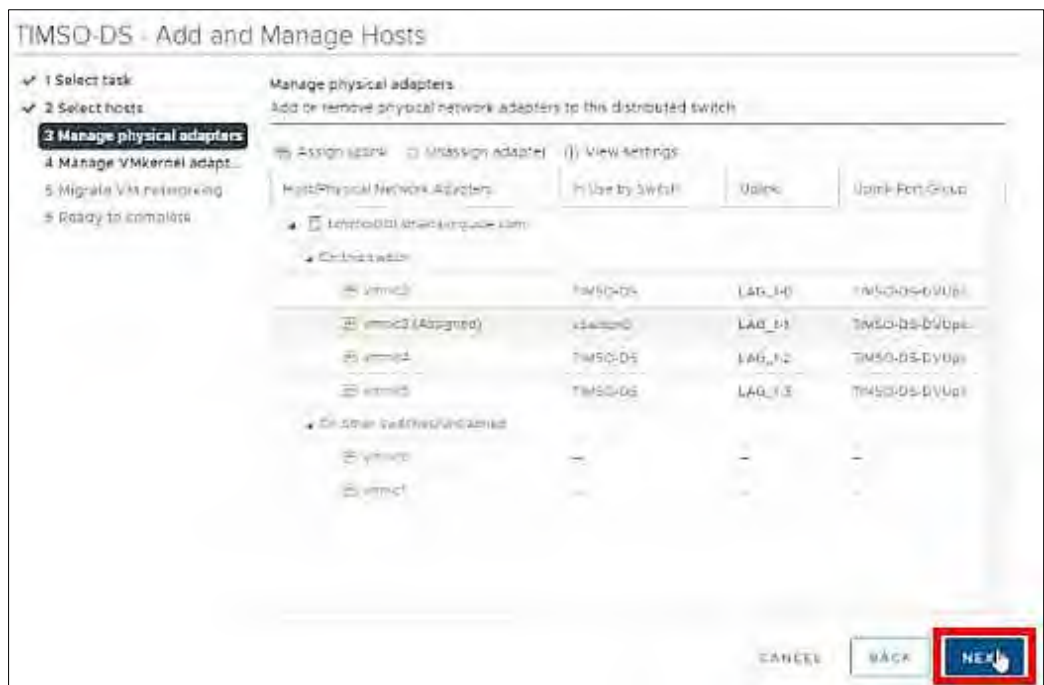


Figure 122. Manage Physical Adapters.

Steps / Screenshots

9. Click **NEXT**.

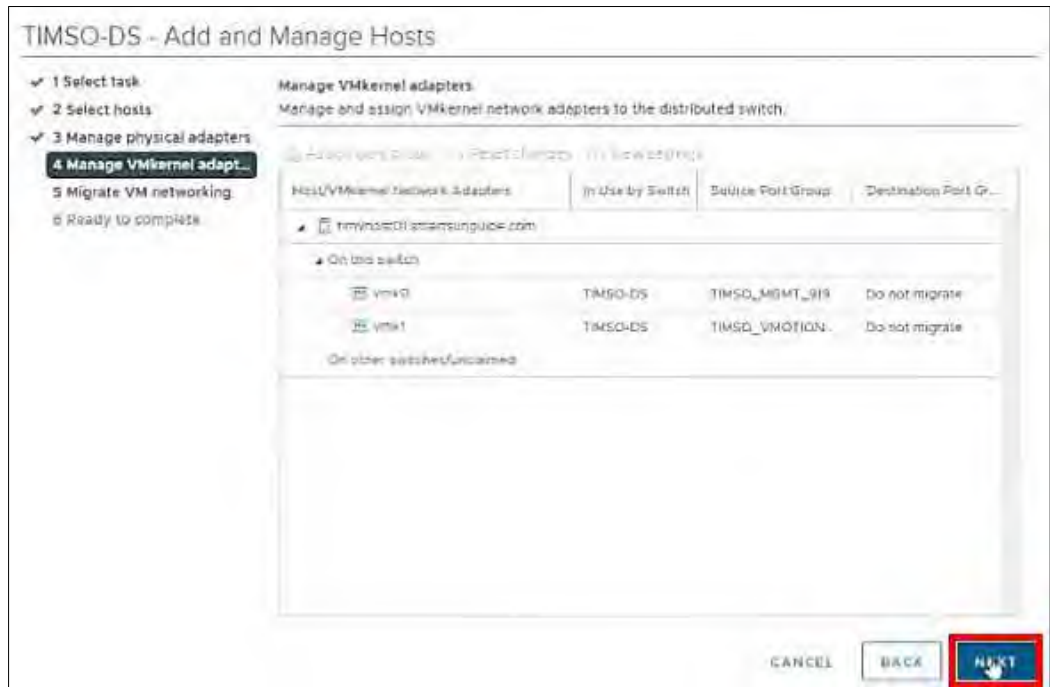


Figure 123. Manage VMkernel Adapters.

10. Click **NEXT**.

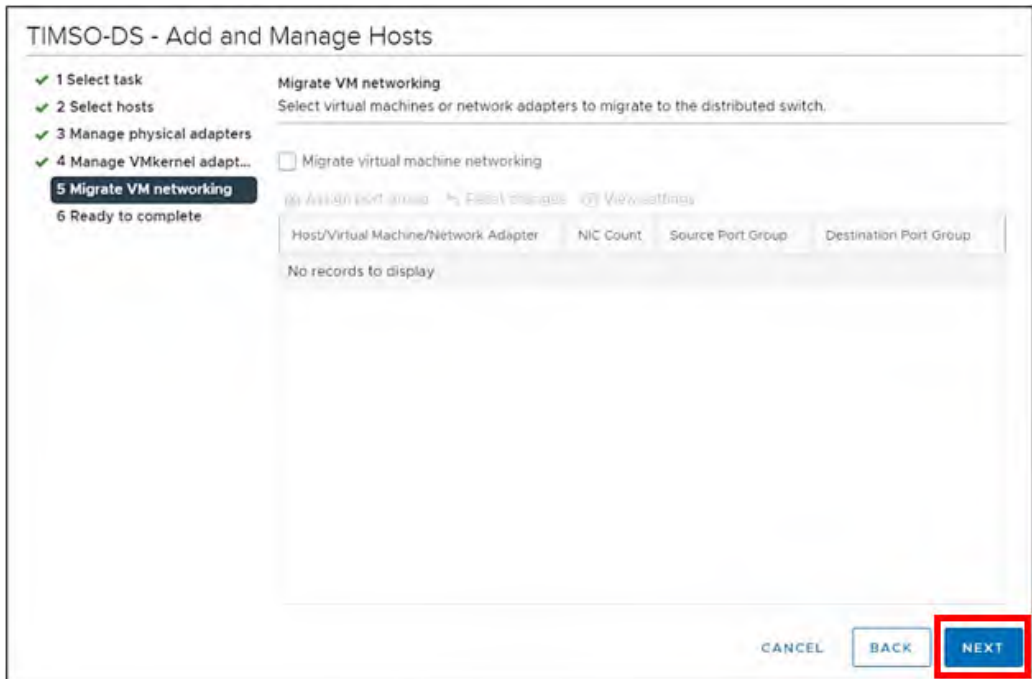


Figure 124. Migrate VM Networking.

Steps / Screenshots

11. Click **FINISH**.

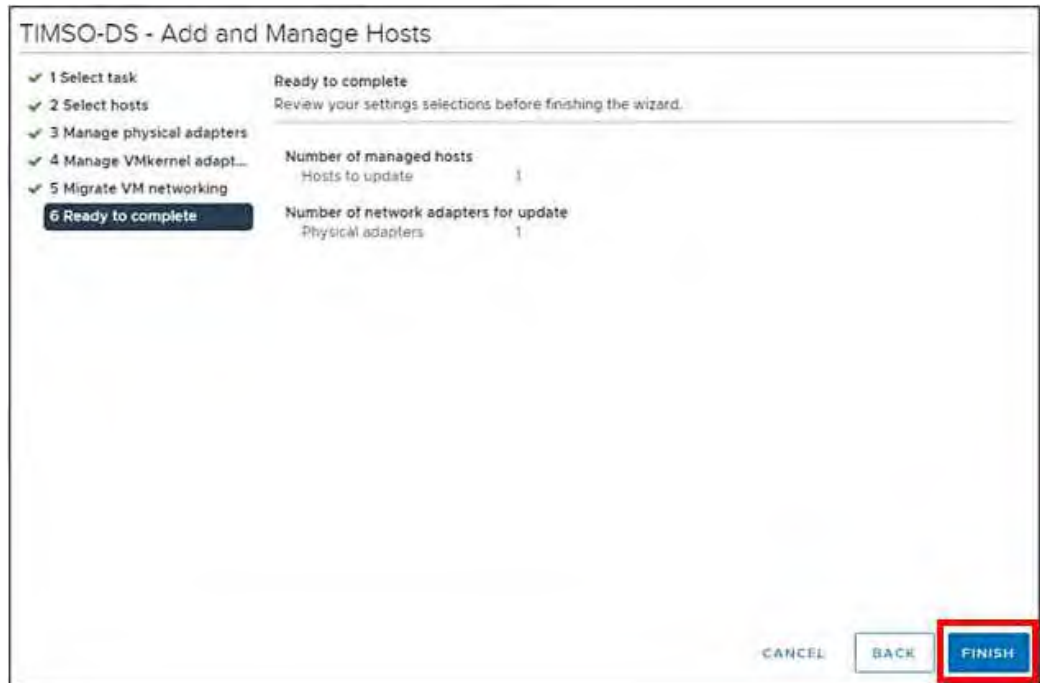


Figure 125. Ready to Complete.

The Network Manager will bring the port back up. Go back **Physical adapters**. Wait for port to come back up,



Figure 126. Wait for Port to Come Back Up.

Click the **All** tab and wait for networks to appear.

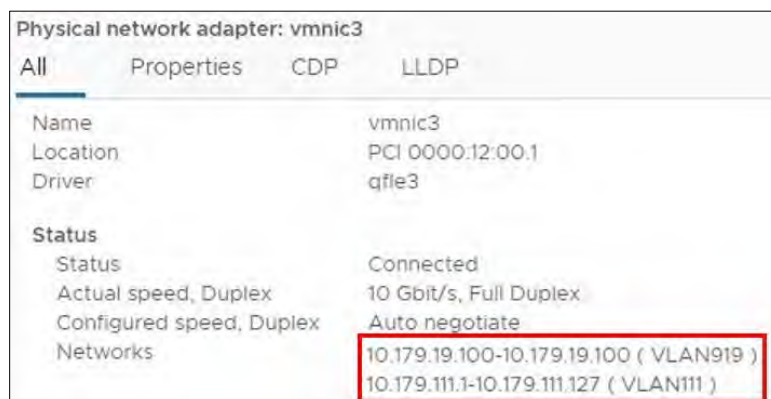


Figure 127. Wait for Networks to Appear.

Configure timvhost01 – vmnic2

Steps / Screenshots

1.
 - (1) Click host and clusters,
 - (2) Click the down arrow next to TIMSO Cluster,
 - (3) Click timvhost01.smartsunguide.com,
 - (4) Click Configure,
 - (5) Click Physical adapters,
 - (6) Click vmnic2.

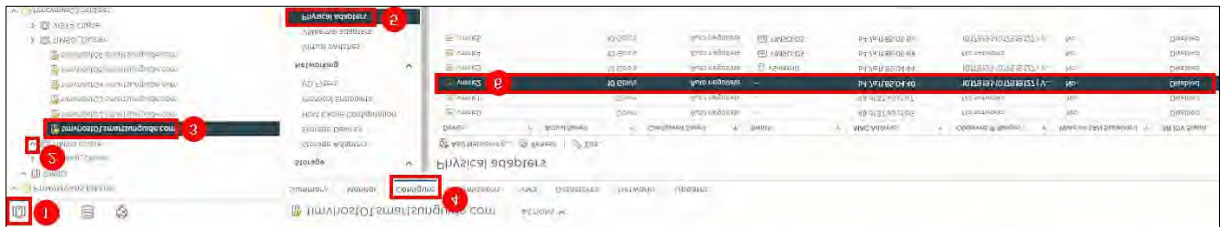


Figure 128. Configure timvhost01 – vmnic2.

2. Click the **CDP** tab to find the Device ID and Port ID (Switch # and Port #), to be provided to the Network Manager.
 - Device ID: **Switch # 2**
 - Port ID: **Port # 3**

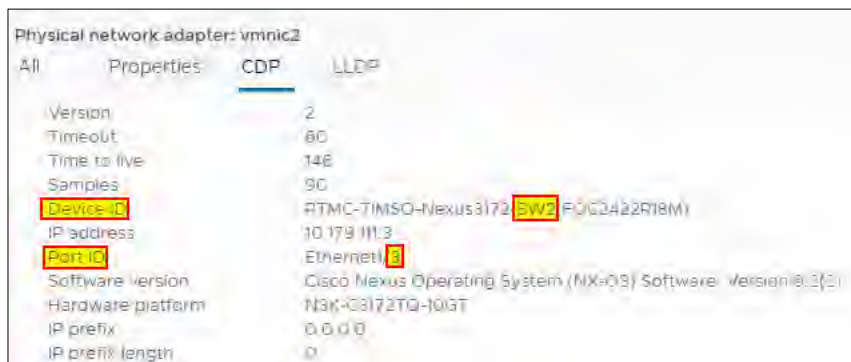


Figure 129. vmnic2 Device ID and Port ID.

3. On the physical switch, the Network Manager will down the port connected to **vmnic2**. Confirm that the port is **down**.

Device	Actual Speed	Configured Speed	Switch	MAC Address	Observed IP Ranges	Wake on LAN Supported	SR-IOV Status
vmnic0	Down	Auto negotiate	–	48:c7:03:03:08	no networks	Yes	Disabled
vmnic1	Down	Auto negotiate	–	48:c7:03:03:07	no networks	Yes	Disabled
vmnic2	Down	Auto negotiate	–	b4:7e:f8:05:04:40	10.179.131.10-179.19.127 (V...	No	Disabled
vmnic3	10 Gbps	Auto negotiate	vSwitch0	b4:7e:f8:05:04:44	10.179.131.10-179.19.127 (V...	No	Disabled
vmnic4	10 Gbps	Auto negotiate	TIMSO-DS	b4:7e:f8:05:05:08	no networks	No	Disabled
vmnic5	10 Gbps	Auto negotiate	TIMSO-D5	b4:7e:f8:05:05:0c	10.179.131.10-179.19.127 (V...	No	Disabled

Figure 130. Confirm that the Port is Down.

Steps / Screenshots

4. On the physical switch, the Network Manager will place the port connected to **vmnic2** in the LACP/EtherChannel configuration.

(1) Click networking,

(2) Right-Click **TIMSO-DS**,

(3) Click Add and Manage Hosts.

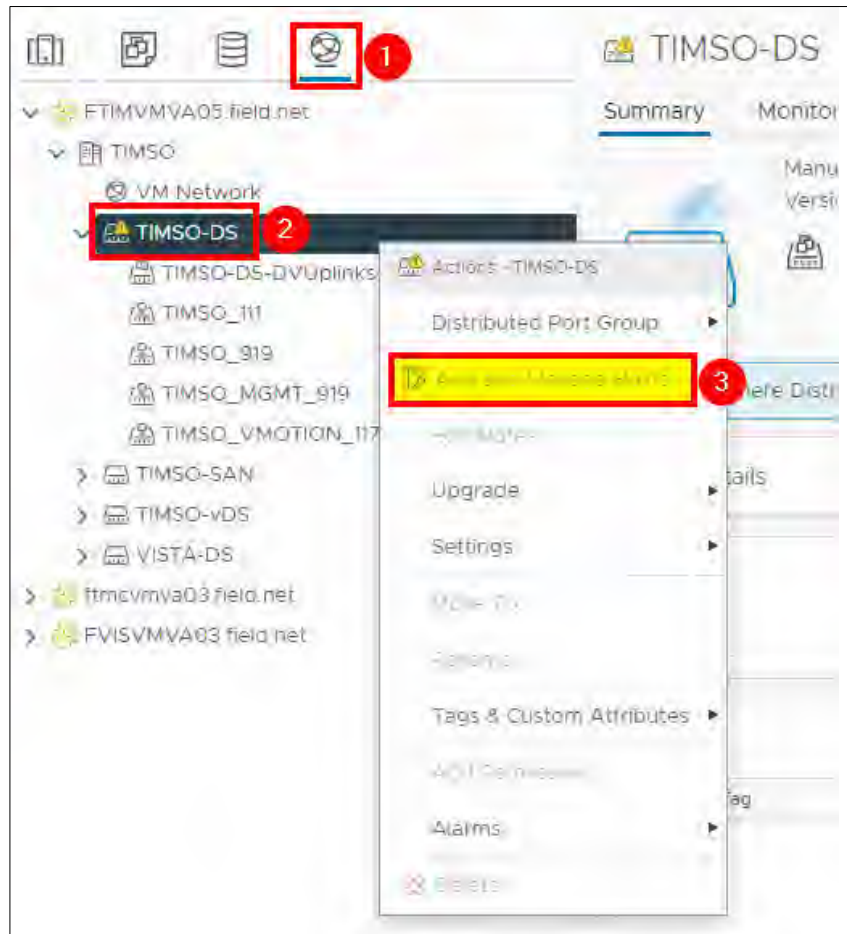


Figure 131. Add and Manage Hosts.

- 5.
 - Select Manage host networking
 - Click **NEXT**.



Figure 132. Select Task.

Steps / Screenshots

6.
 - Click Attached hosts,
 - Check the box next to timvhost01.smarsunguide.com,
 - Click **OK**.

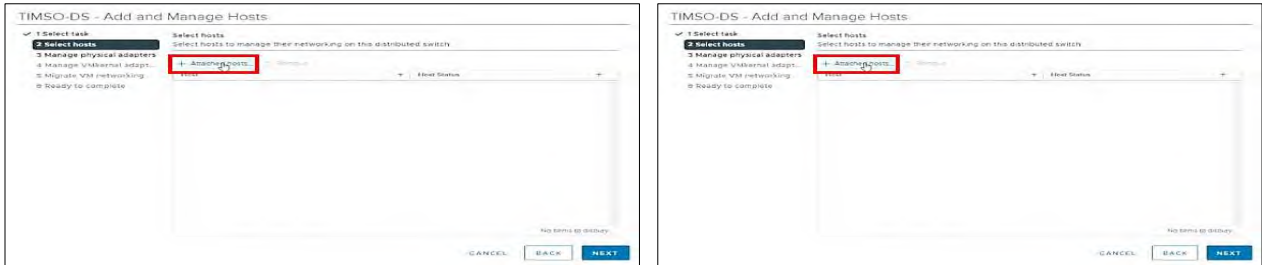


Figure 133. Select Member Host.

7. Click **NEXT**.

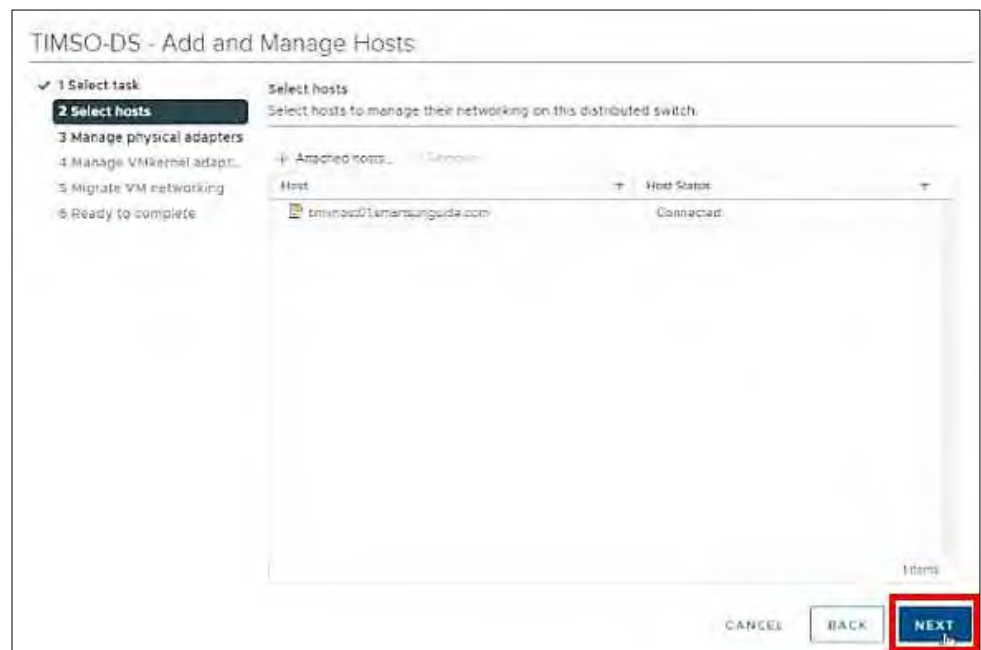


Figure 134. Select Host.

8.
 - (1) Select vmnic2.
 - (2) Click Assign uplink.

Add **vmnic2** to one of the LAG uplinks.

- (3) Select LAG_1-0
- (4) Click **OK**.

Steps / Screenshots

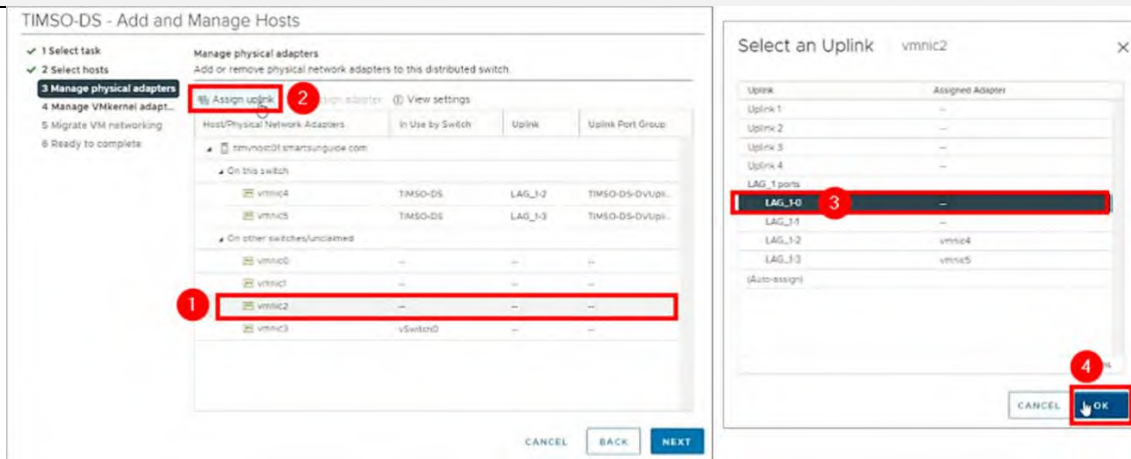


Figure 135. Manage Physical Adapters – Select an Uplink.

9. Click **NEXT**.

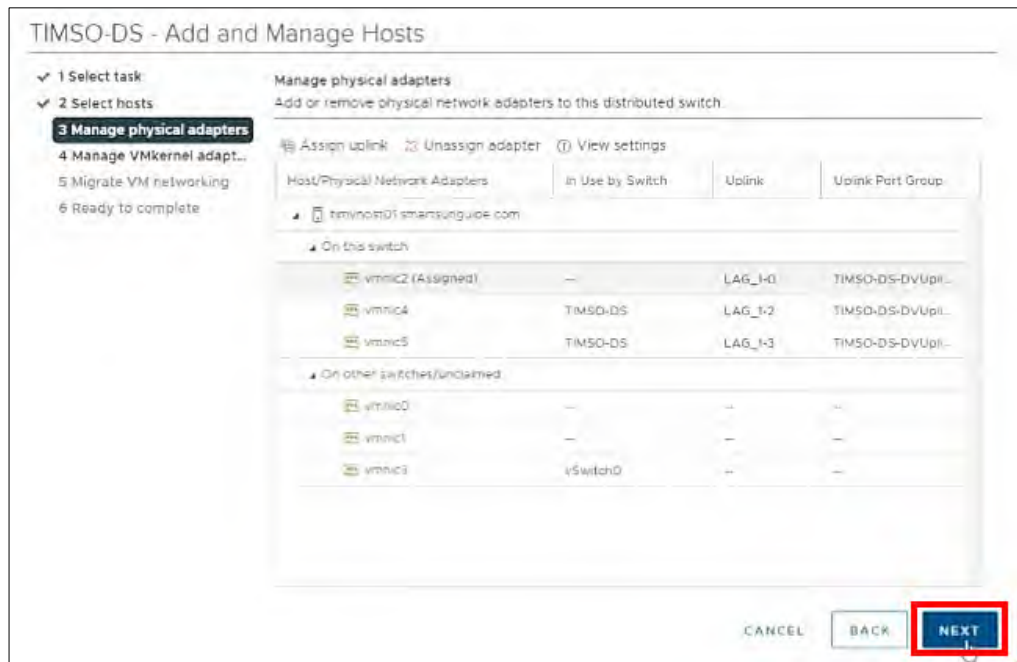


Figure 136. Manage Physical Adapters.

Steps / Screenshots

10. Click **NEXT**.

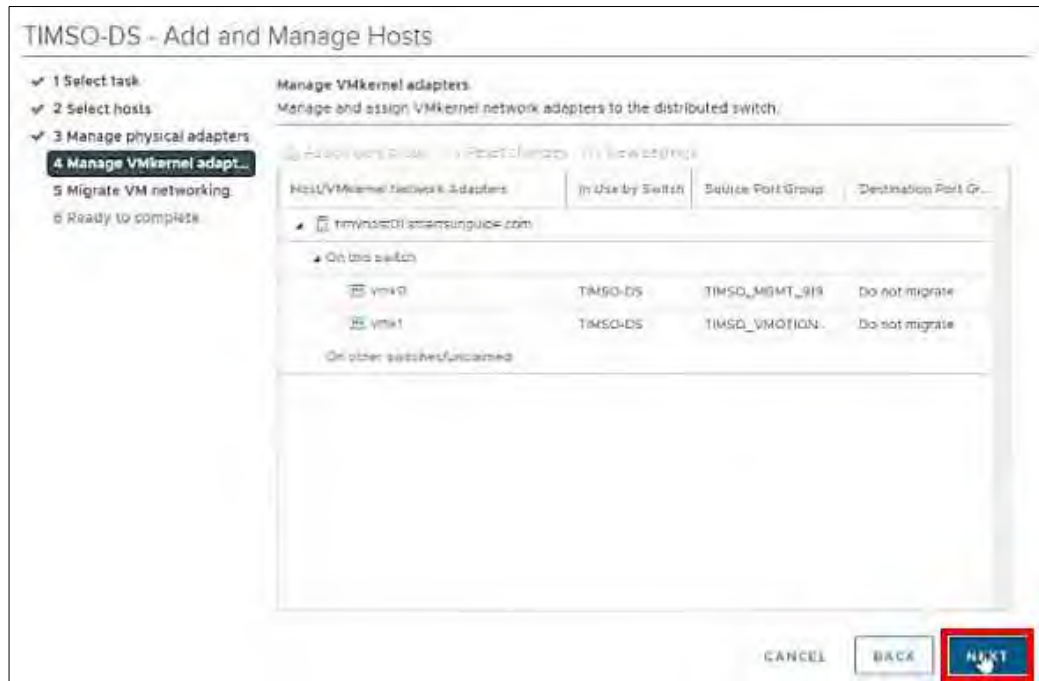


Figure 137. Manage VMkernel Adapters.

11. Click **NEXT**.

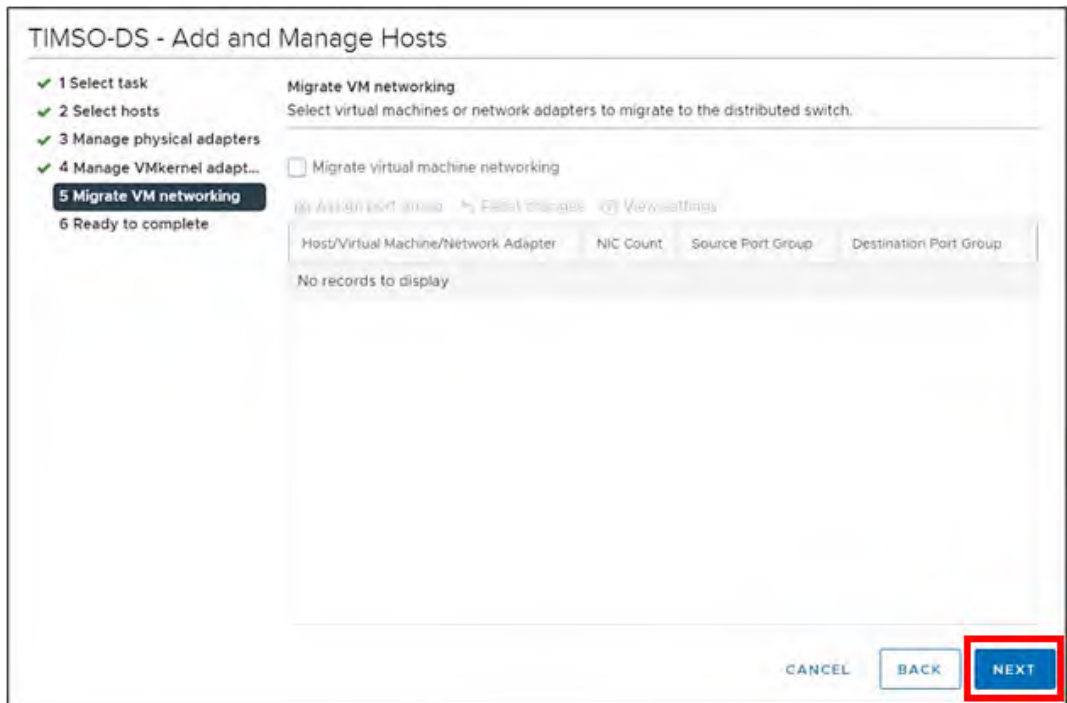


Figure 138. Migrate VM Networking.

Steps / Screenshots

12. Click **FINISH**.

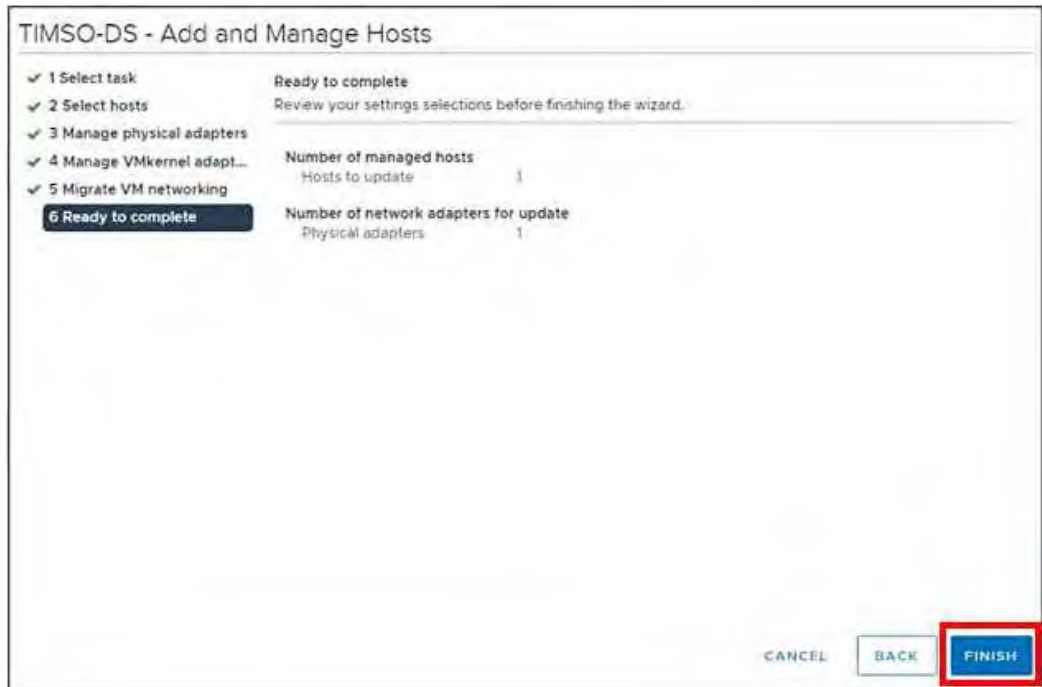


Figure 139. Ready to Complete.

The Network Manager will bring the port back up. Go back **Physical adapters**. Wait for port to come back up.



Figure 140. Wait for Port to Come Back Up.

Steps / Screenshots

13. Click the **All** tab and wait for networks to appear,



Figure 141. Wait for Networks to Appear.

Configure timvhost04

Configure timvhost04 – vmnic2

Steps / Screenshots

1.
 - (1) Click host and clusters,
 - (2) Click the down arrow next to TIMSO Cluster,
 - (3) Click timvhost04.smartsunguide.com,
 - (4) Click **Configure**,
 - (5) Click Physical adapters,
 - (6) Click **vmnic2**.

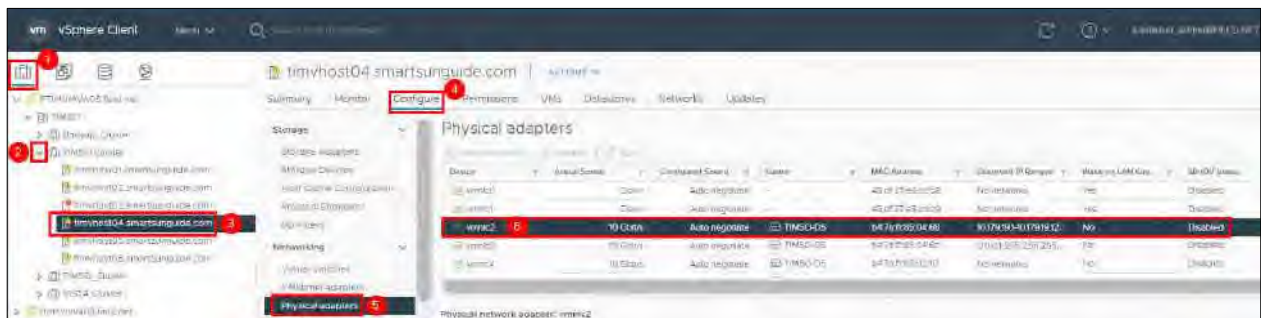


Figure 142. Configure timvhost04 - vmnic2

2. Click the **CDP** tab to find the Device ID and Port ID (Switch # and Port #), to be provided to the Network Manager.

Device ID: **Switch # 2**

Port ID: **Port # 6**

Steps / Screenshots

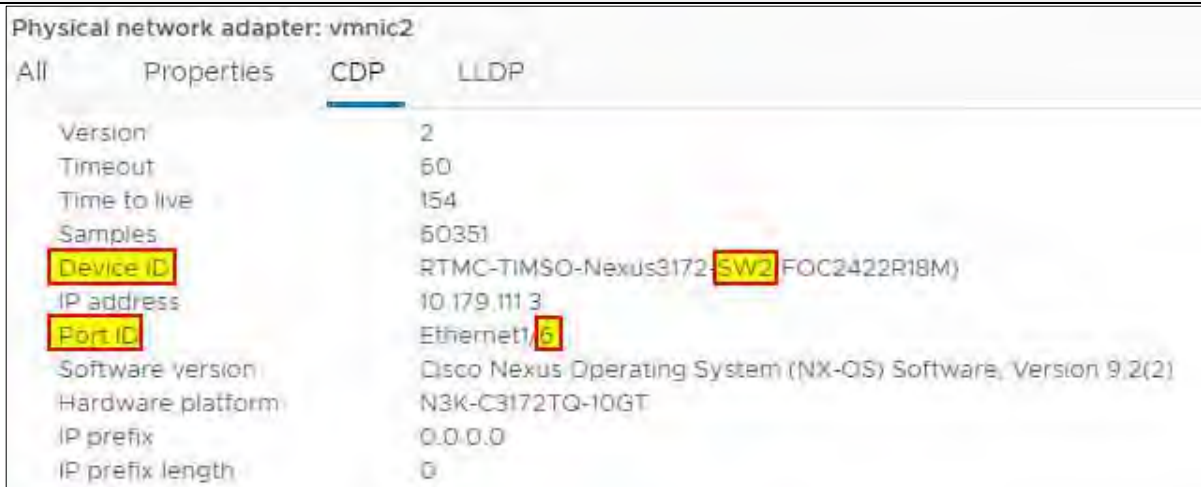


Figure 143. vmnic2 Device ID and Port ID

- On the physical switch, the Network Manager will down the port connected to vmnic2. Confirm that the port is **Down**.



Figure 144. Confirm that the Port is Down

- On the physical switch, the Network Manager will place the port connected to vmnic2 in the LACP/EtherChannel configuration.

- (1) Click **networking**,
- (2) Right-click **TIMSO-DS**,
- (3) Click **Add and Manage Hosts**.

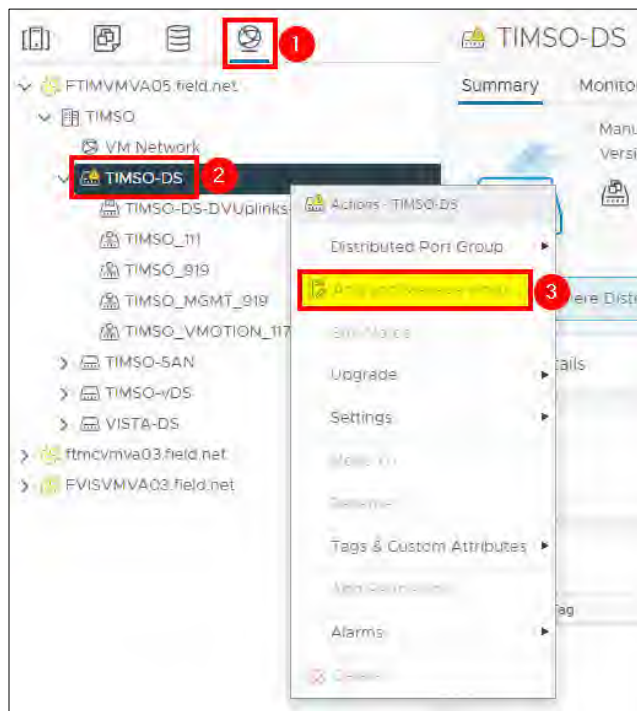


Figure 145. Add and Manage Hosts.

Steps / Screenshots

5.
 - Select Manage host networking
 - Click **NEXT**.

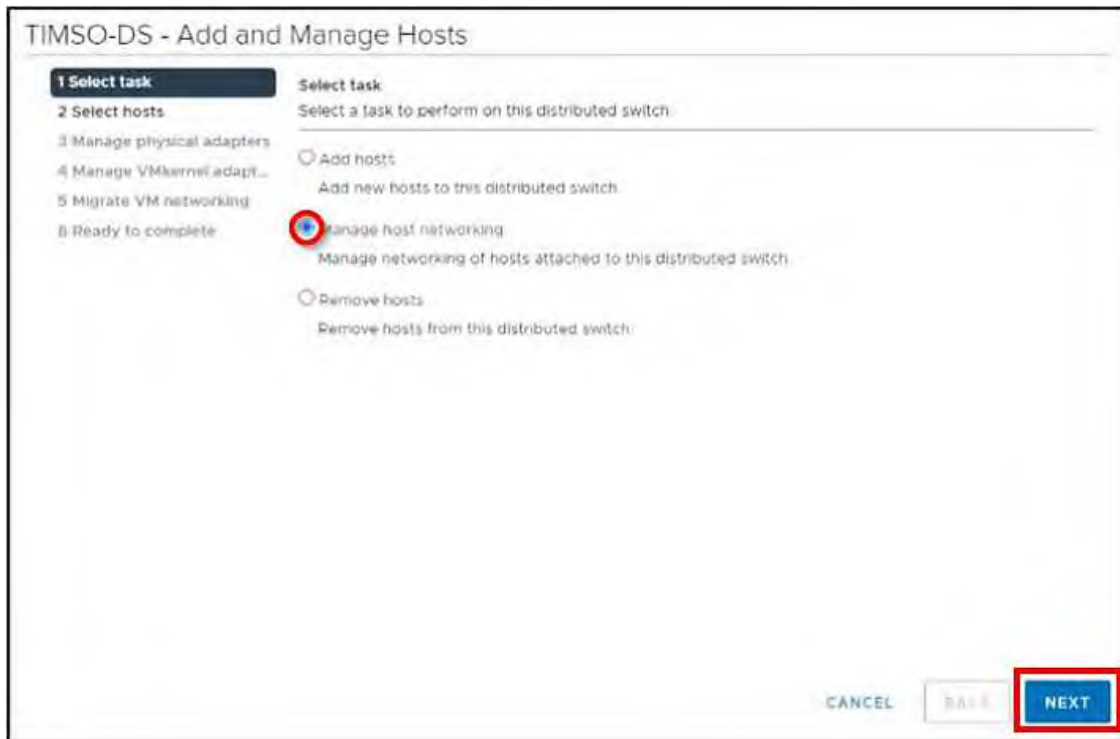


Figure 146. Select Task.

6.
 - Click Attached hosts,
 - Check the box next to timvhost04.smarsunguide.com,
 - Click **OK**.

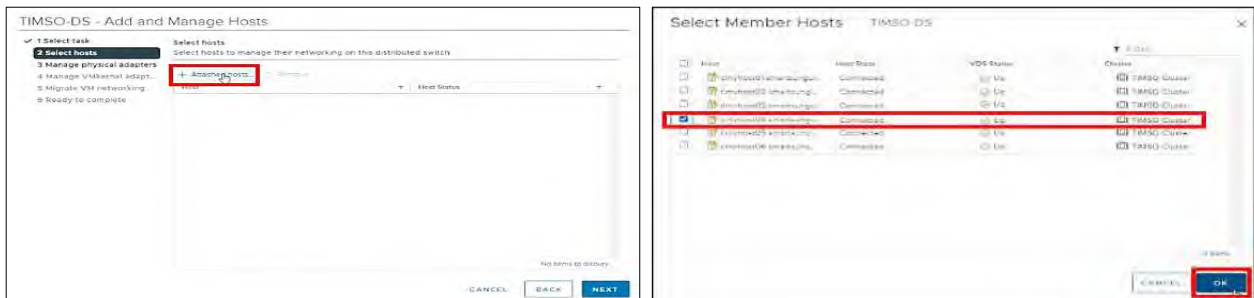


Figure 147. Select Member Host.

Steps / Screenshots

7. Click **NEXT**.

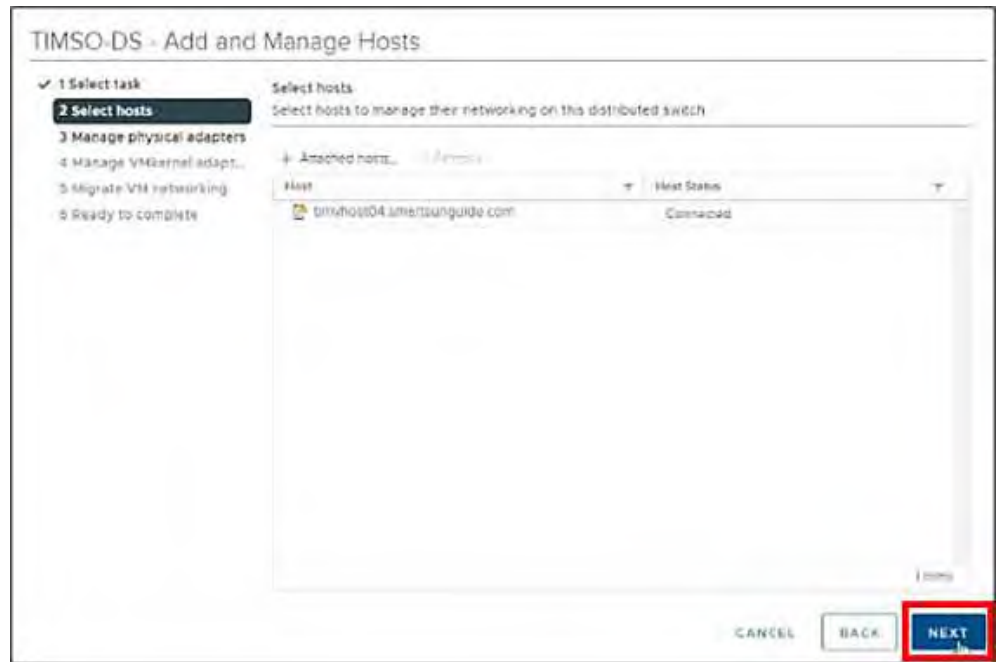


Figure 148. Select Host

- 8.
- (1) Select **vmnic2** and
 - (2) Click Assign uplink.

Add **vmnic2** in one of the LAG uplinks.

- (3) Select the **LAG_1-0**
- (4) Click **OK**.

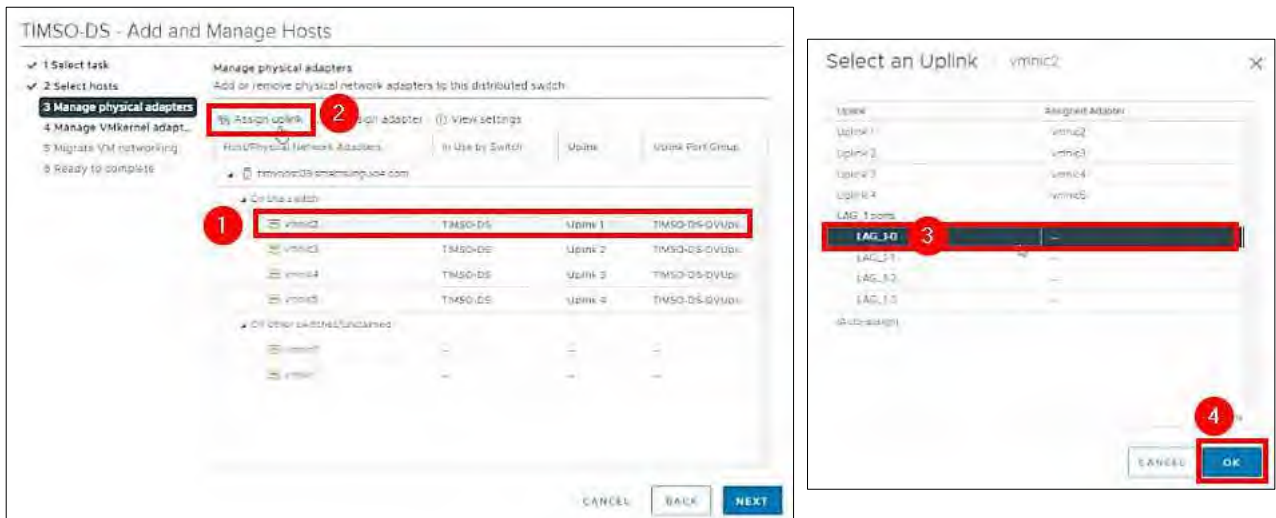


Figure 149. Manage Physical Adapters – Select an Uplink

Steps / Screenshots

9. Click **NEXT**.

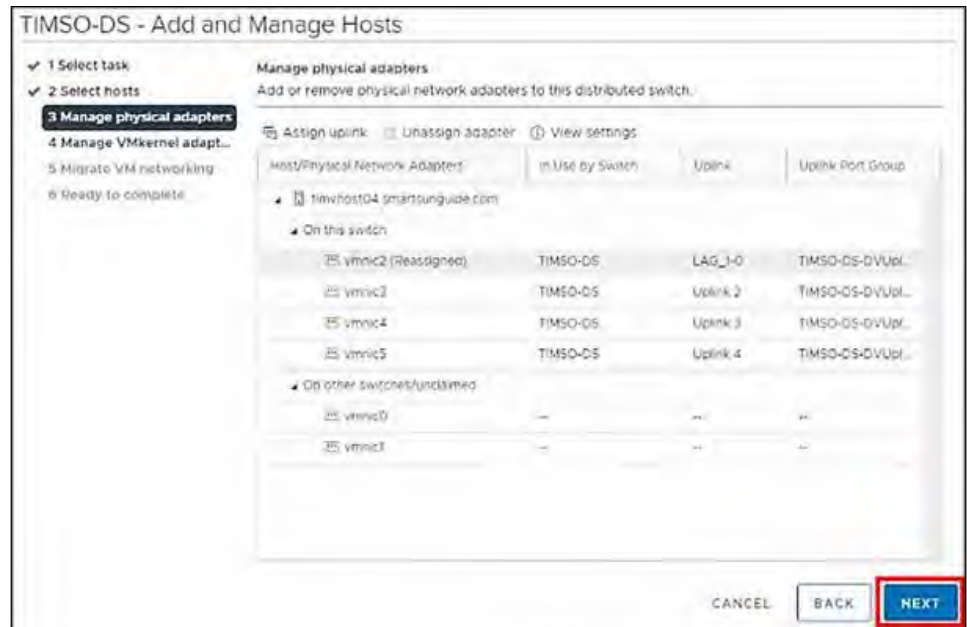


Figure 150. Manage Physical Adapters

10. Click **NEXT**.

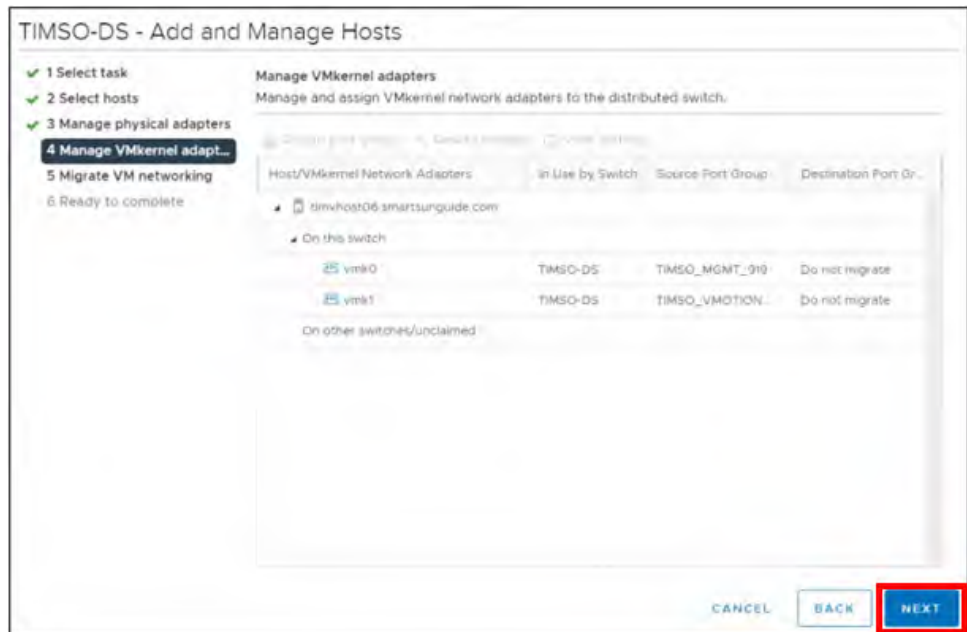


Figure 151. Manage VMkernel Adapters

Steps / Screenshots

11. Click **NEXT**.

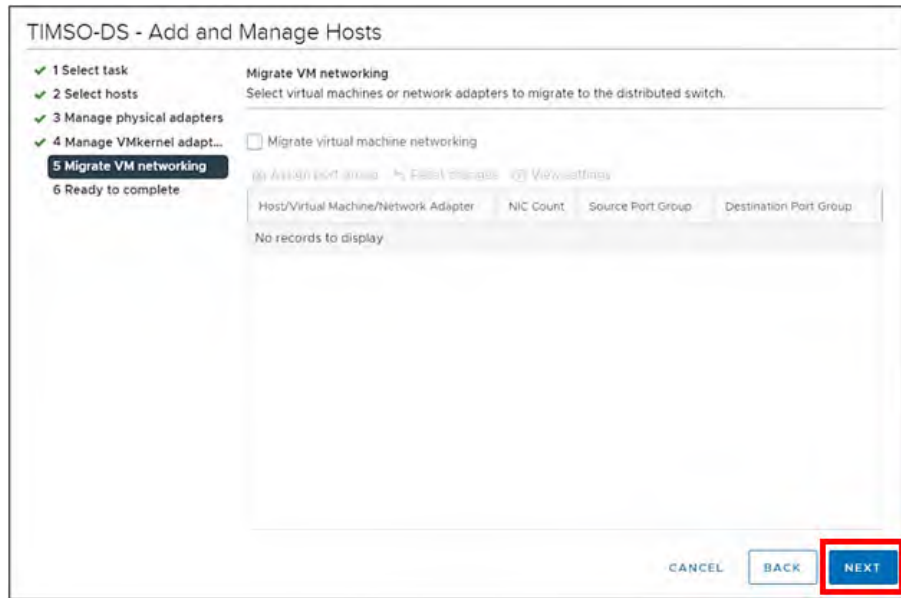


Figure 152. Migrate VM Networking

12. Click **FINISH**.

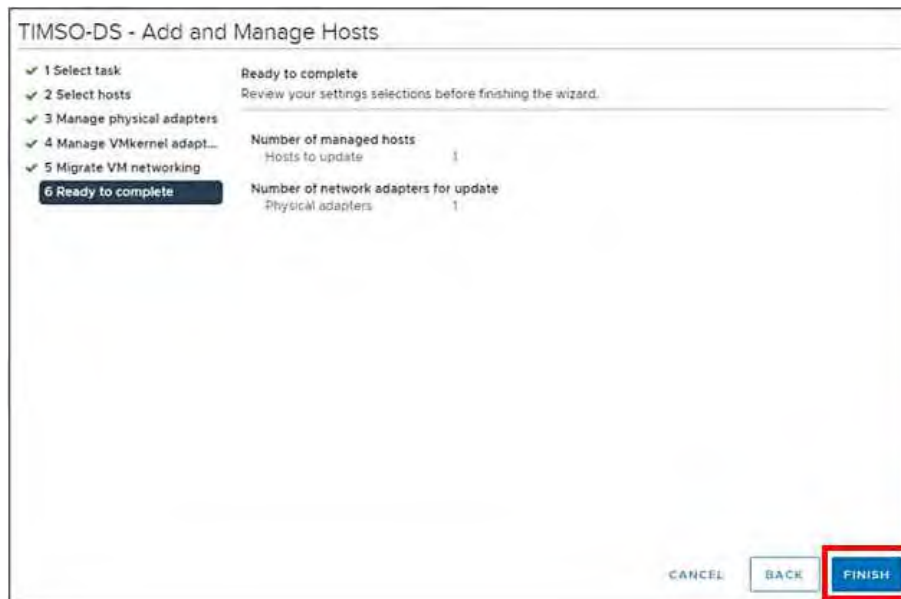


Figure 153. Ready to Complete

The Network Manager will bring the port back up. Go back **Physical adapters**. Wait for port to come back up.

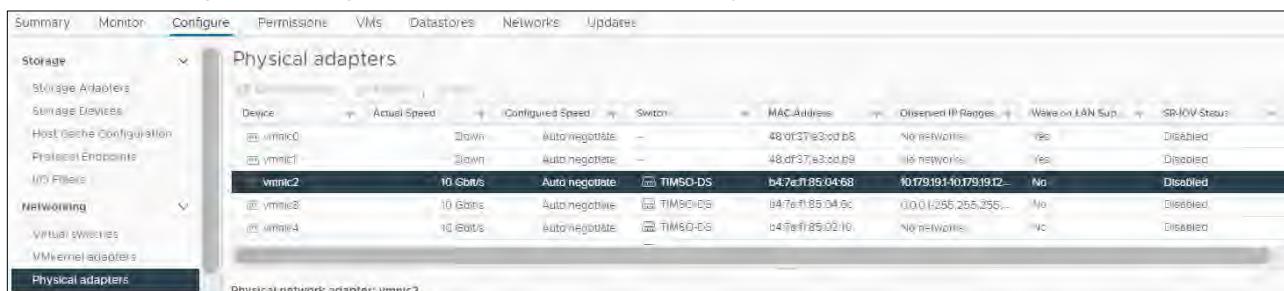


Figure 154. Wait for Port to Come Back Up

Steps / Screenshots

13. Click the **All** tab and wait for networks to appear.

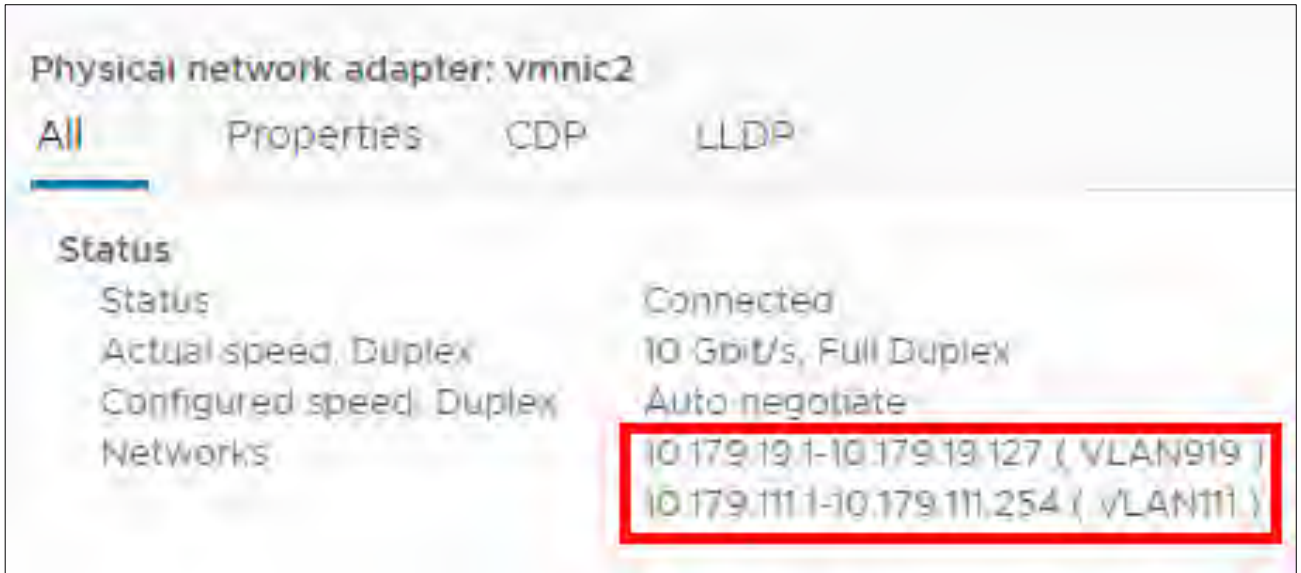


Figure 155. Wait for Networks to Appear

Configure timvhost04 – vmnic3

Steps / Screenshots

1.
 - (1) Click host and clusters,
 - (2) Click the down arrow next to TIMSO Cluster,
 - (3) Click timvhost04.smartsunguide.com,
 - (4) Click Configure,
 - (5) Click Physical adapters,
 - (6) Click vmnic3.

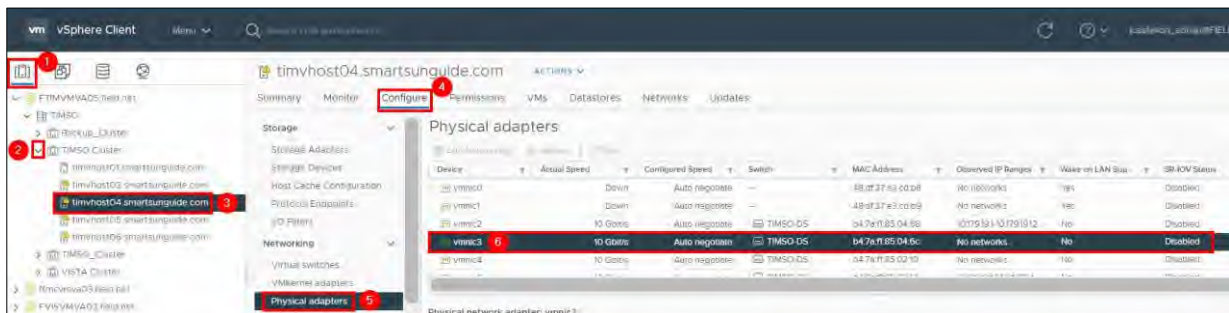


Figure 156. Configure timvhost04 – vmnic3

2. Click the **CDP** tab to find the Device ID and Port ID (Switch # and Port #), to be provided to the Network Manager.
 - Device ID: **Switch # 1**
 - Port ID: **Port # 6**

Steps / Screenshots



Figure 157. vmnic3 Device ID and Port ID

- On the physical switch, the Network Manager will down the port connected to vmnic3. Confirm that the port is **Down**.

Device	Actual Speed	Configured Speed	Switch	MAC Address	Observed IP Ranges	Wake on LAN Supported	SRIOV Status
vmnic0	Down	Auto negotiate	-	82:c0:37:e3:cc:4c	None	No	Disabled
vmnic1	Down	Auto negotiate	-	82:c0:37:e3:cc:4d	None	Yes	Disabled
vmnic2	10 Gbps	Auto negotiate	TIMSO-DS	14:7e:f1:85:02:00	None	No	Disabled
vmnic3	Down	Auto negotiate	TIMSO-DS	b4:7e:f1:85:02:04	10.179.100.10-179.100.100.100	No	Disabled
vmnic4	0 Gbps	Auto negotiate	TIMSO-DS	14:7e:f1:85:18:08	10.179.100.10-179.100.100.100	No	Disabled
vmnic5	10 Gbps	Auto negotiate	TIMSO-DS	b4:7e:f1:85:18:0c	10.179.100.10-179.100.100.100	No	Disabled

Figure 158. Confirm that the Port is Down

- On the physical switch, the Network Manager will place the port connected to vmnic3 in the LACP/EtherChannel configuration.

- (1) Click networking,
- (2) Right-click **TIMSO-DS**,
- (3) Click Add and Manage Hosts.

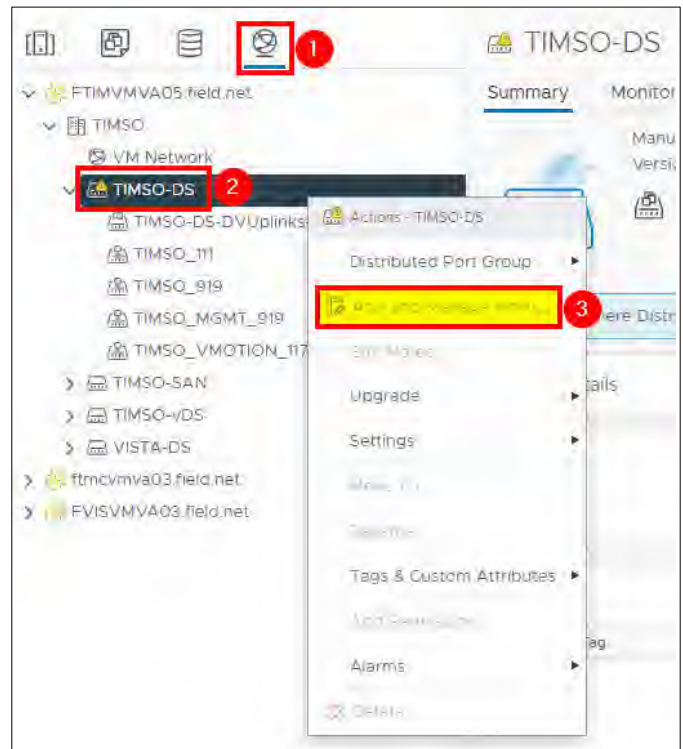


Figure 159. Add and Manage Hosts

Steps / Screenshots

5.
 - Select Manage host networking and
 - Click **NEXT**.



Figure 160. Select Task

6.
 - Click Attached hosts,
 - Check the box next to timvhost04.smarsunguide.com,
 - Click **OK**.

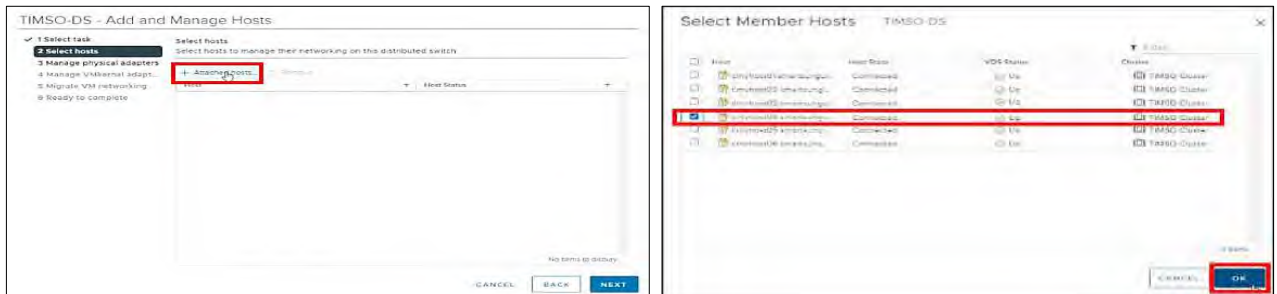


Figure 161. Select Member Host

Steps / Screenshots

7. Click **NEXT**.

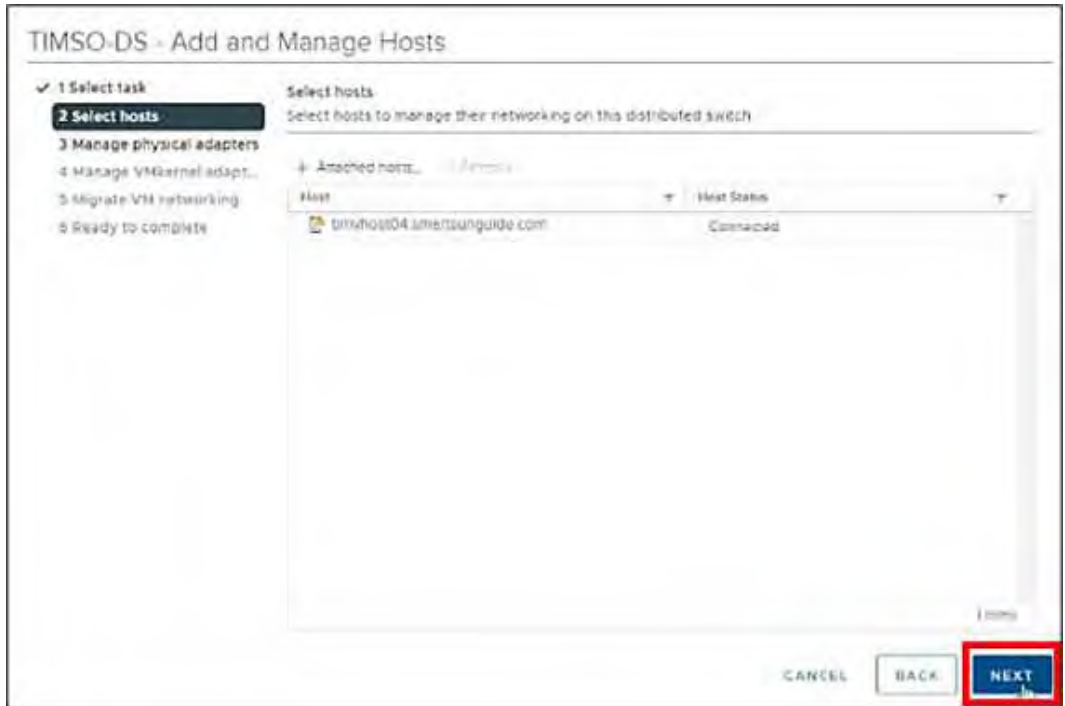


Figure 162. Select Host

- 8.
 - (1) Select **vmnic3**
 - (2) Click Assign uplink

Add **vmnic3** in one of the LAG uplinks.

- (3) Select the **LAG_1-1**.
- (4) Click **OK**.

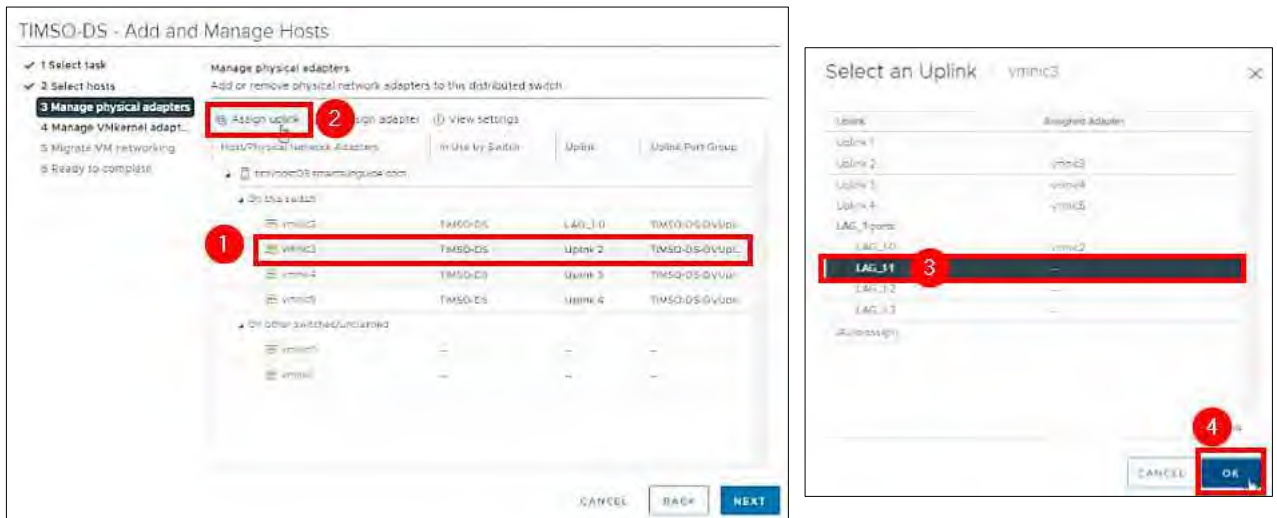


Figure 163. Manage Physical Adapters – Select an Uplink.

Steps / Screenshots

9. Click **NEXT**.

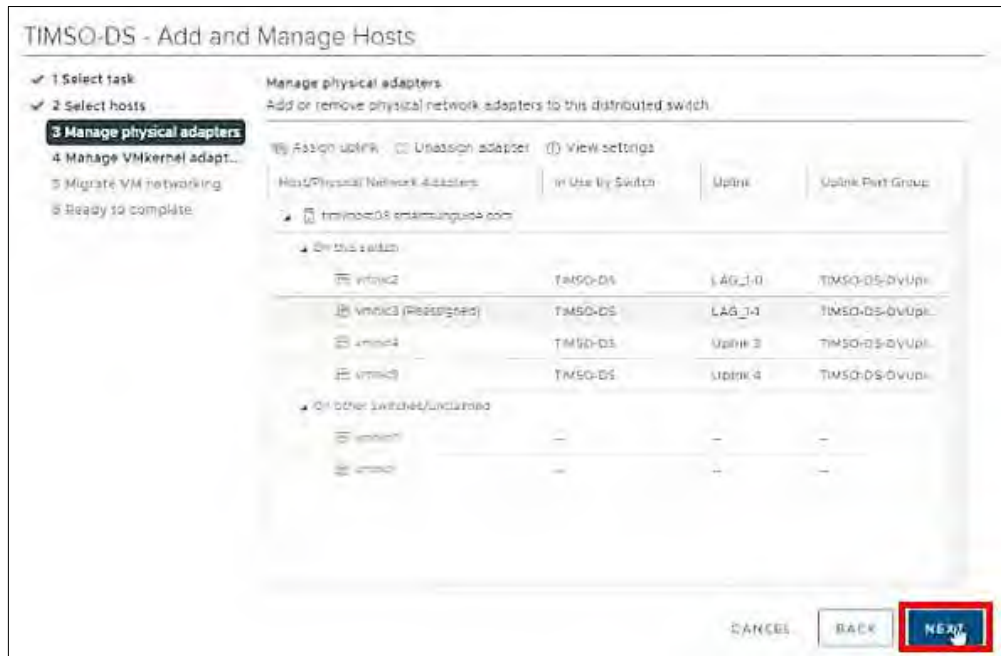


Figure 164. Manage Physical Adapters

10. Click **NEXT**.

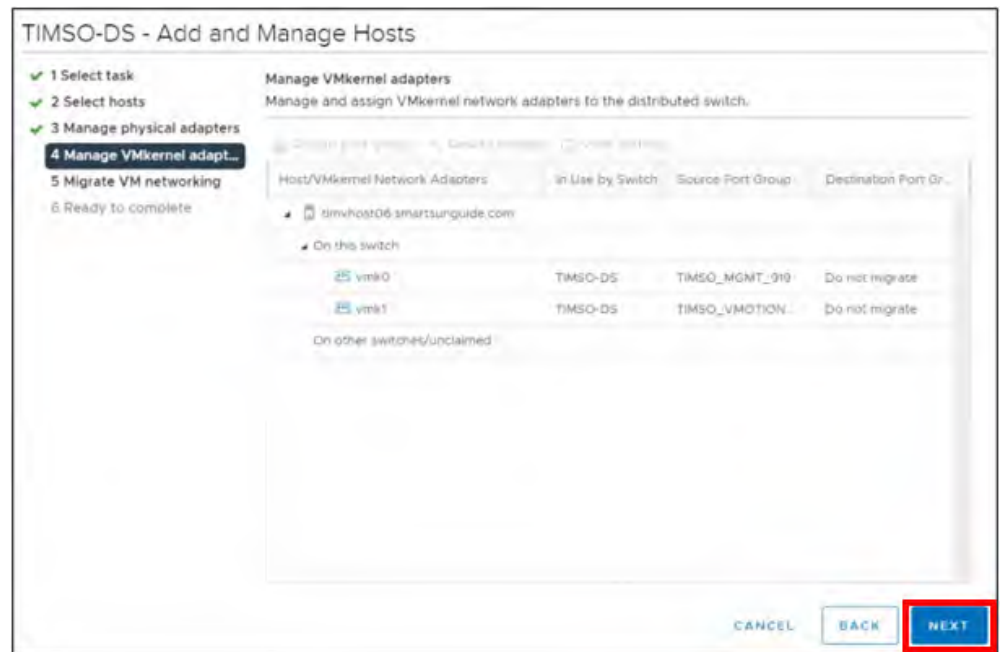


Figure 165. Manage VMkernel Adapters

Steps / Screenshots

11. Click **NEXT**

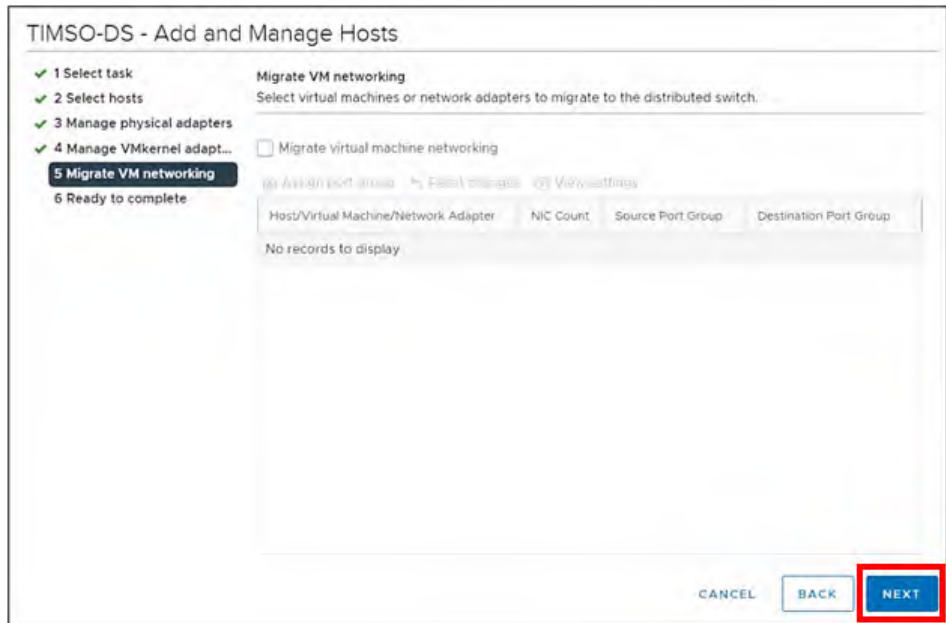


Figure 166. Migrate VM Networking

12. Click **FINISH**.

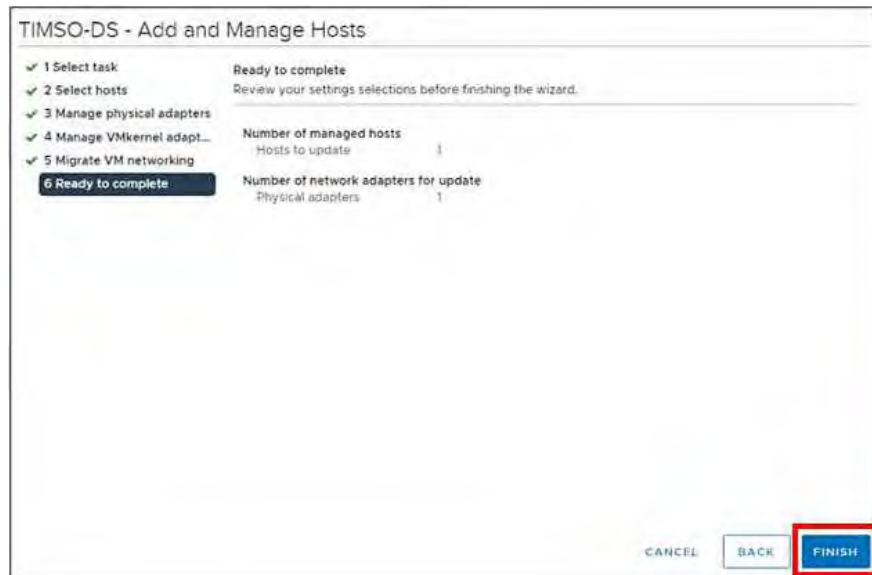


Figure 167. Ready to Complete

The Network Manager will bring the port back up. Go back **Physical adapters**. Wait for port to come back up.

Physical adapters

Add Networking... Refresh Edit...

Device	Actual Speed	Configured Speed	Switch	MAC Address	Observed IP Ranges	Wake on LAN Sup...	SR-IOV Status
vmnic0	Down	Auto negotiate	--	48:df:37:e3:cd:b8	No networks	Yes	Disabled
vmnic1	Down	Auto negotiate	--	48:df:37:e3:cd:b9	No networks	Yes	Disabled
vmnic2	10 Gbit/s	Auto negotiate	TIMSO-DS	b4:7a:ff:85:04:68	10.179.19.1-10.179.19.12...	No	Disabled
vmnic3	10 Gbit/s	Auto negotiate	TIMSO-DS	b4:7a:ff:85:04:6c	No networks	No	Disabled
vmnic4	10 Gbit/s	Auto negotiate	TIMSO-DS	b4:7a:ff:85:02:10	No networks	No	Disabled

Figure 168. Wait for Port to Come Back Up.

Steps / Screenshots

13. Click the **All** tab and wait for networks to appear.

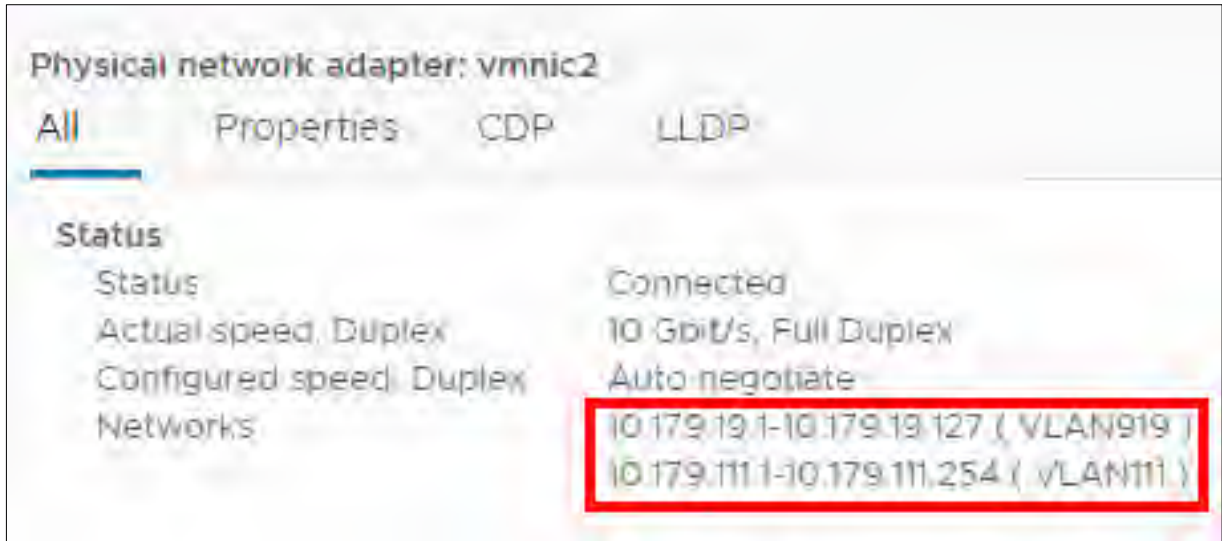


Figure 169. Wait for Networks to Appear

Configure timvhost04 – vmnic4

Steps / Screenshots

1.
 - (1) Click host and clusters,
 - (2) Click the down arrow next to TIMSO Cluster,
 - (3) Click timvhost04.smartsunguide.com,
 - (4) Click Configure,
 - (5) Click Physical adapters,
 - (6) Click vmnic4.

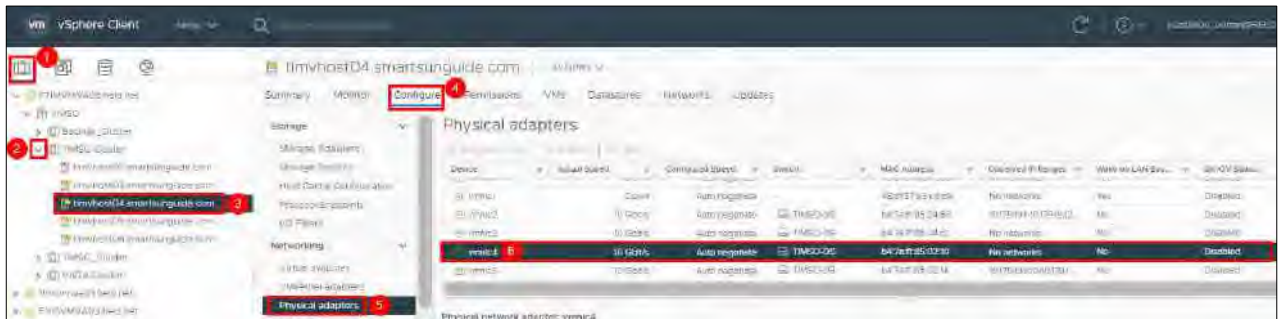


Figure 170. Configure timvhost04 – vmnic4

2. Click the **CDP** tab to find the Device ID and Port ID (Switch # and Port #), to be provided to the Network Manager.
 - Device ID: **Switch # 1**
 - Port ID: **Port # 12**

Steps / Screenshots

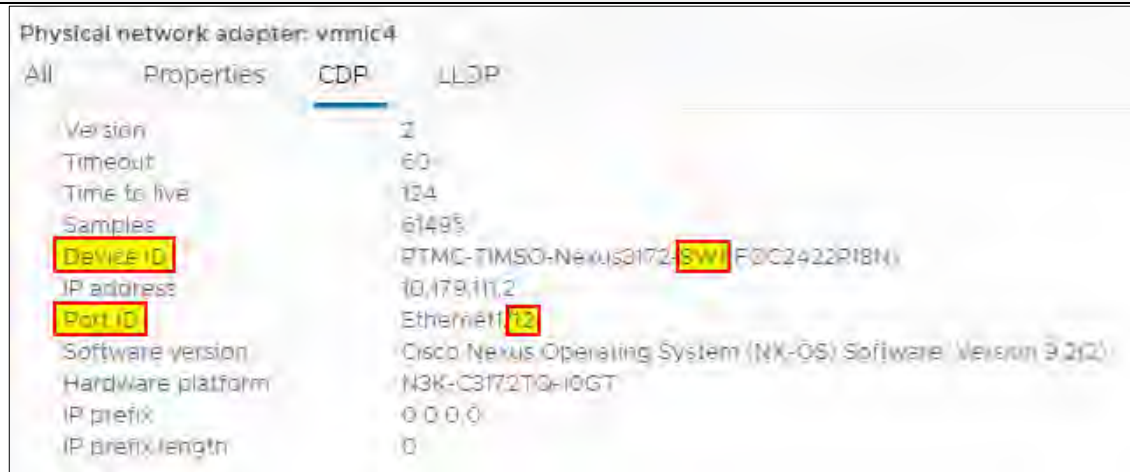


Figure 171. vmnic4 Device ID and Port ID

- On the physical switch, the Network Manager will down the port connected to vmnic4. Confirm that the port is **Down**.

Device	Actual Speed	Configured Speed	Switch	MAC Address	Observed IP Range	SNMP on LAN Supported	SR-IOV Status
vmnic0	Down	Auto negotiate		98:c1:37:b4:c0:c1	No networks	Yes	Disabled
vmnic1	Down	Auto negotiate		98:c1:37:b4:c1:c1	No networks	Yes	Disabled
vmnic2	Down	Auto negotiate	TIMSO-DS	e4:7a:1f:85:02:00	10.179.13.100-10.179.13.100	No	Disabled
vmnic3	Down	Auto negotiate	TIMSO-DS	e4:7a:1f:85:02:04	No networks	No	Disabled
vmnic4	Down	Auto negotiate	TIMSO-DS	e4:7a:1f:85:16:38	10.179.13.100-10.179.13.100	No	Disabled
vmnic5	Down	Auto negotiate	TIMSO-DS	e4:7a:1f:85:1b:3c	10.179.13.100-10.179.13.100	No	Disabled

Figure 172. Confirm that the Port is Down

- On the physical switch, the Network Manager will place the port connected to vmnic4 in the LACP/EtherChannel configuration.

- (1) Click **networking**,
- (2) Right-click **TIMSO-DS**,
- (3) Click Add and Manage Hosts.

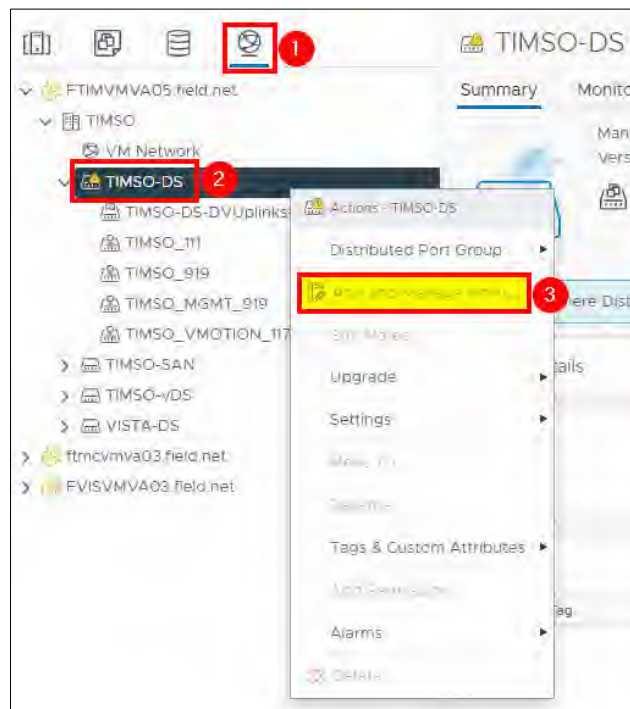


Figure 173. Add and Manage Hosts

Steps / Screenshots

5.
 - Select Manage host networking and
 - Click **NEXT**.



Figure 174. Select Task

6.
 - Click Attached hosts,
 - Check the box next to timvhost04.smarsunguide.com,
 - Click **OK**.

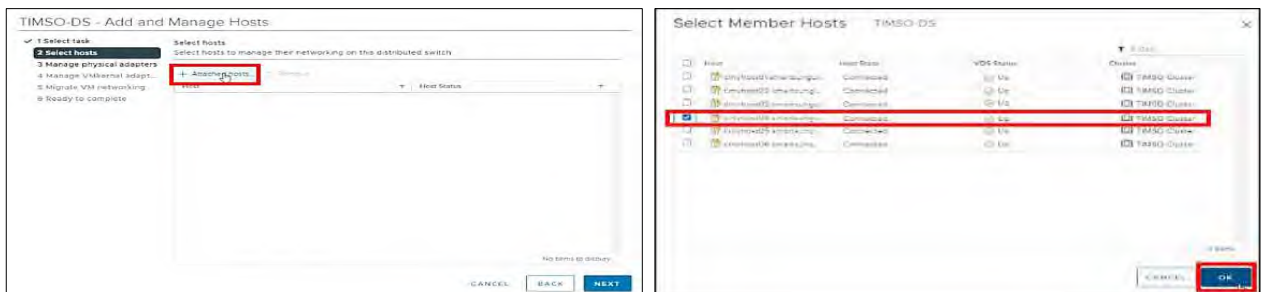


Figure 175. Select Member Host

Steps / Screenshots

7. Click **NEXT**.

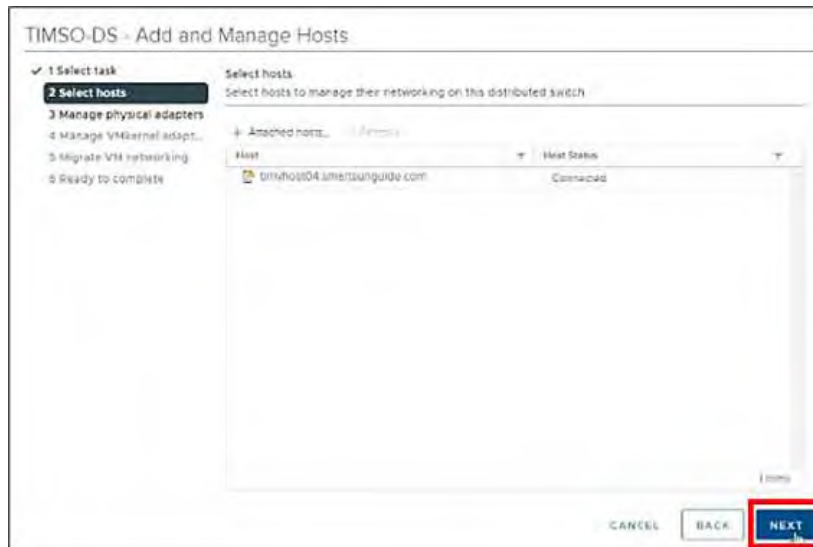


Figure 176. Select Host.

- 8.
 - Select **vmnic4** and
 - Click Assign uplink.

Add **vmnic4** in one of the LAG uplinks.

- (3) Select the **LAG_1-2** and
- (4) Click **OK**.

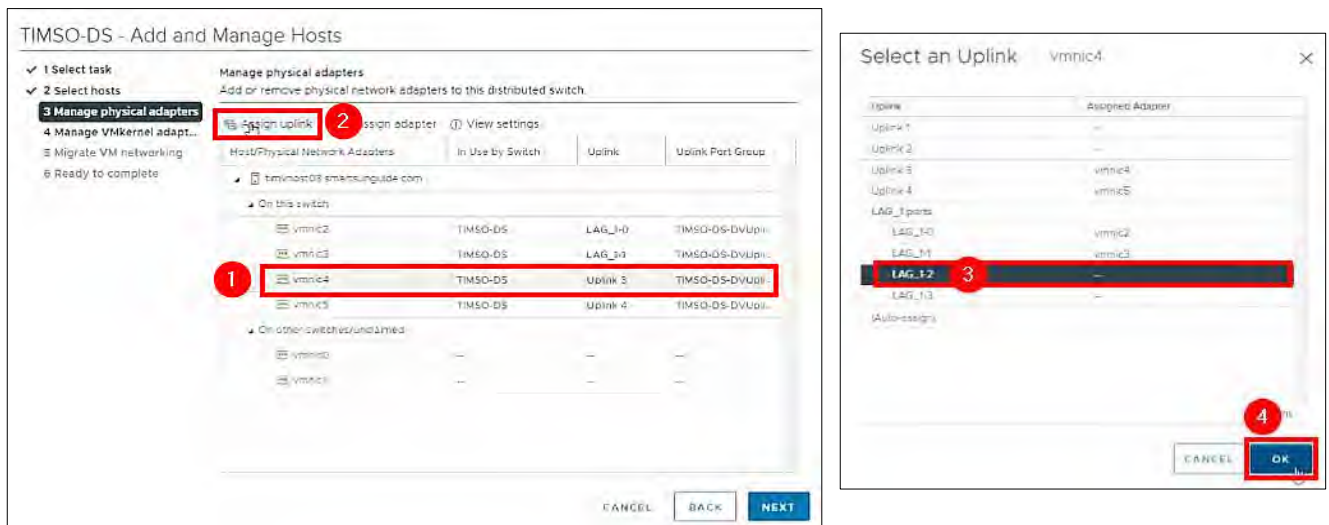


Figure 177. Manage Physical Adapters – Select an Uplink.

Steps / Screenshots

9. Click **NEXT**.

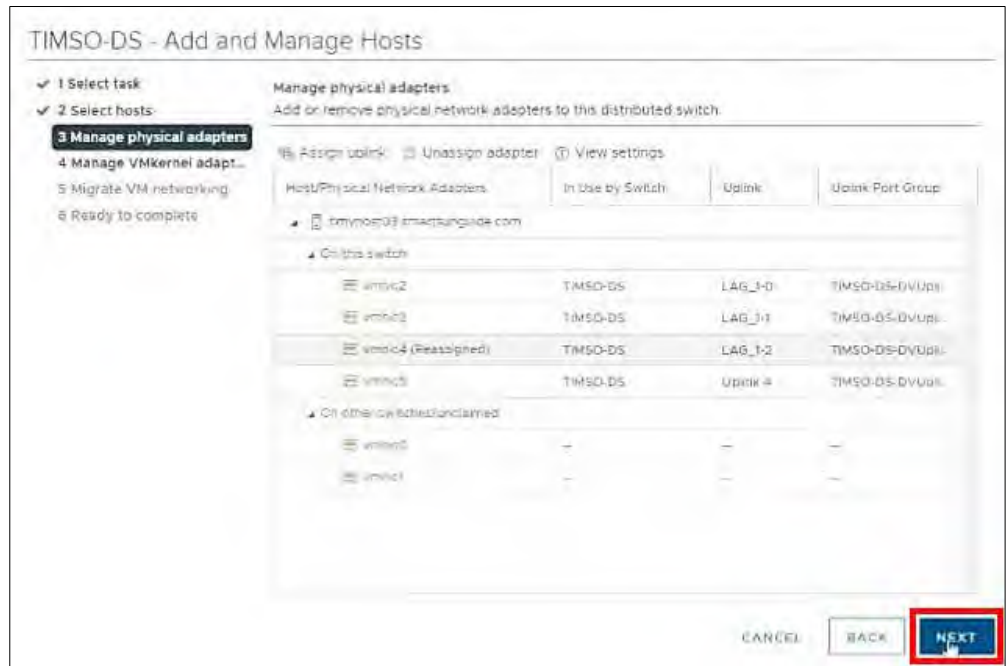


Figure 178. Manage Physical Adapters.

10. Click **NEXT**.

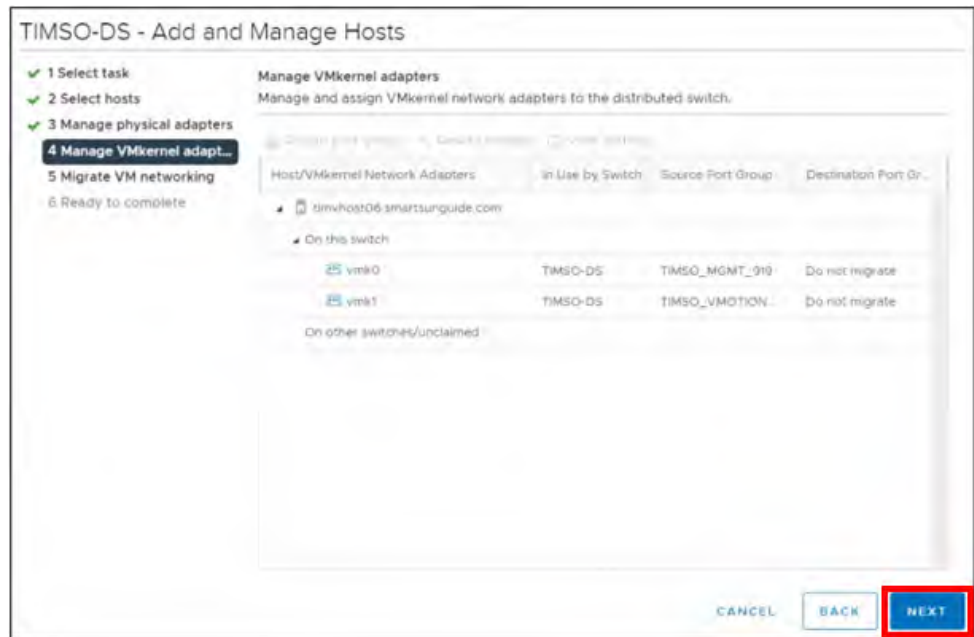


Figure 179. Manage VMkernel Adapters.

Steps / Screenshots

11. Click **NEXT**.

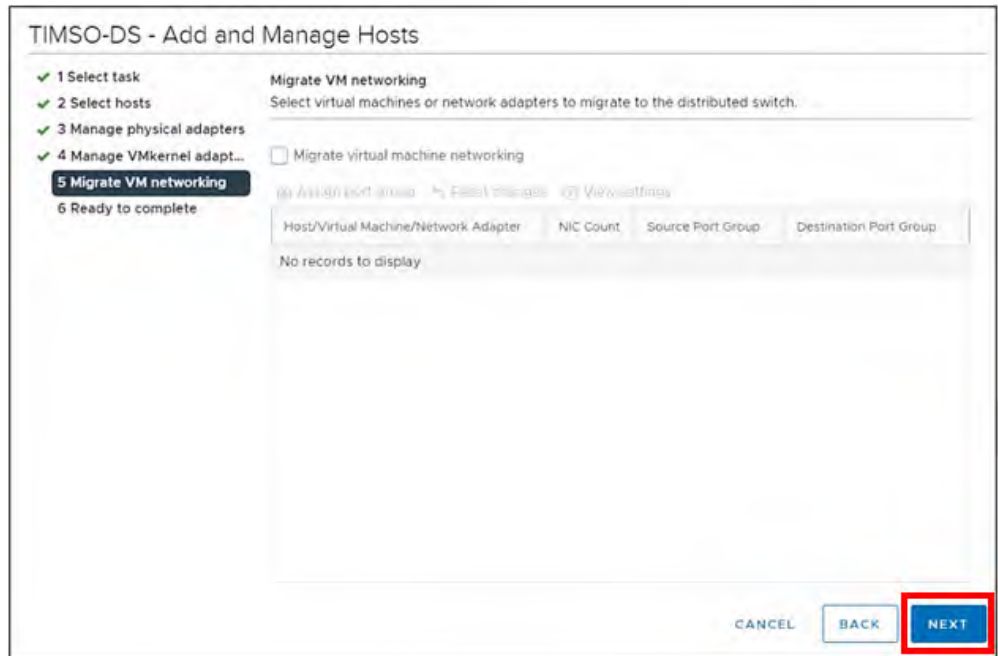


Figure 180. Migrate VM Networking.

12. Click **FINISH**.

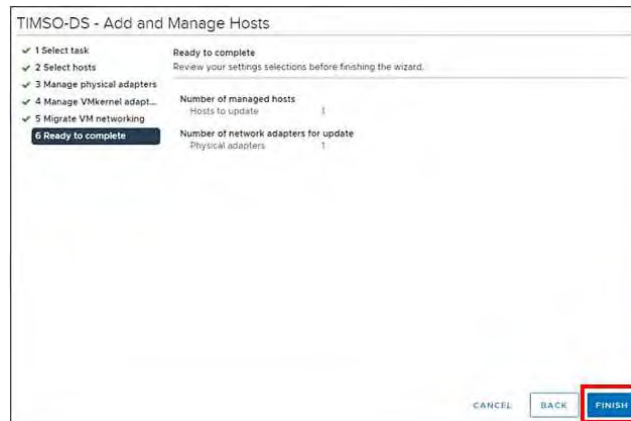


Figure 181. Ready to Complete.

The Network Manager will bring the port back up. Go back **Physical adapters**. Wait for port to come back up,

Device	Actual Speed	Configured Speed	Switch	MAC Address	Observed IP Ranges	Wake on LAN Sup...	SR-IOV Status
vmnic0	Down	Auto negotiate	--	48:df:37:e3:cd:b9	No networks	Yes	Disabled
vmnic1	10 Gbit/s	Auto negotiate	TIMSO-DS	b4:7a:ft:85:04:68	10.179.19.1-10.179.19.12...	No	Disabled
vmnic2	10 Gbit/s	Auto negotiate	TIMSO-DS	b4:7a:ft:85:04:6c	No networks	No	Disabled
vmnic3	10 Gbit/s	Auto negotiate	TIMSO-DS	b4:7a:ft:85:02:10	No networks	No	Disabled
vmnic4	10 Gbit/s	Auto negotiate	TIMSO-DS	b4:7a:ft:85:02:14	10.179.19.100-10.179.1...	No	Disabled
vmnic5	10 Gbit/s	Auto negotiate	TIMSO-DS				

Figure 182. Wait for Port to Come Back Up.

Steps / Screenshots

13. Click the **All** tab and wait for networks to appear.

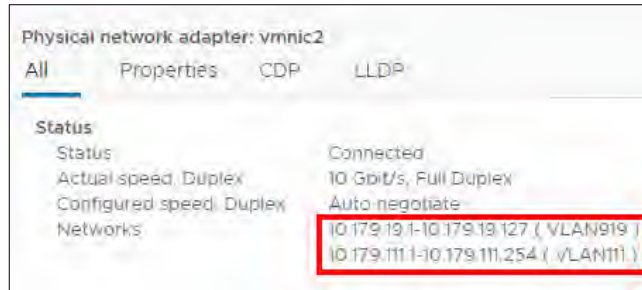


Figure 183. Wait for Networks to Appear

Configure timvhost04 – vmnic5

Steps / Screenshots

1.
 - (1) Click host and clusters,
 - (2) Click the down arrow next to **TIMSO Cluster**,
 - (3) Click timvhost04.smartsunguide.com,
 - (4) Click **Configure**,
 - (5) Click Physical adapters,
 - (6) Click **vmnic5**.

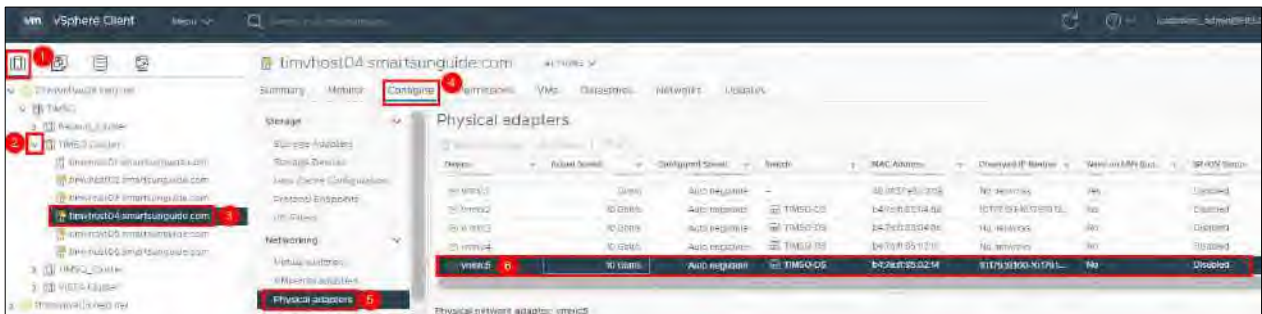


Figure 184. Configure timvhost04 – vmnic5.

2. Click the **CDP** tab to find the Device ID and Port ID (Switch # and Port #), to be provided to the Network Manager.

- Device ID: **Switch # 2**
- Port ID: **Port # 12**

Steps / Screenshots

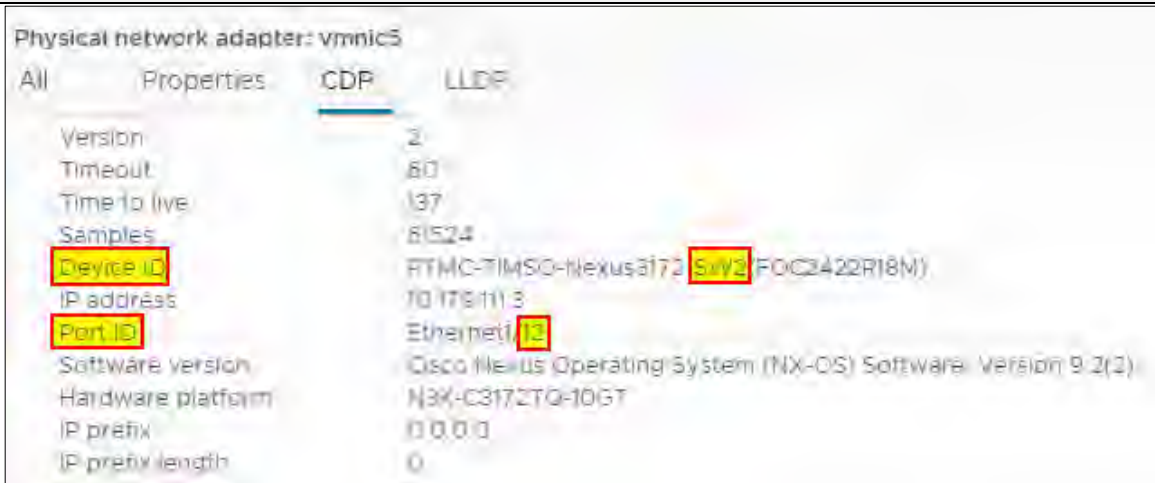


Figure 185. vmnic5 Device ID and Port ID.

- On the physical switch, the Network Manager will down the port connected to vmnic5. Confirm that the port is **Down**.

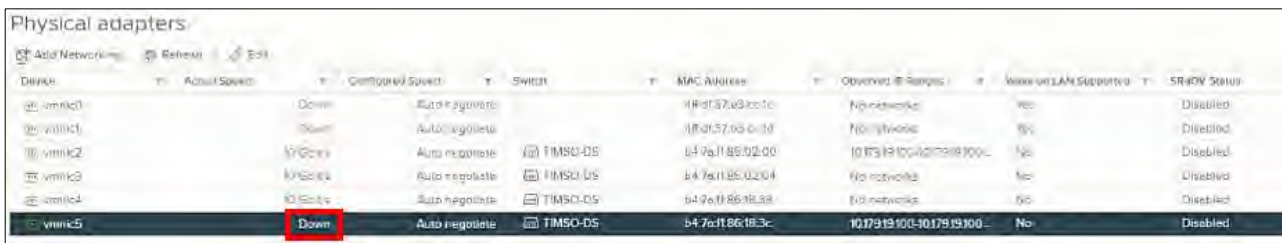


Figure 186. Confirm that the Port is Down

- On the physical switch, the Network Manager will place the port connected to vmnic4 in the LACP/EtherChannel configuration.
 - (1) Click **networking**,
 - (2) Right-Click **TIMSO-DS**,
 - (3) Click Add and Manage Hosts.

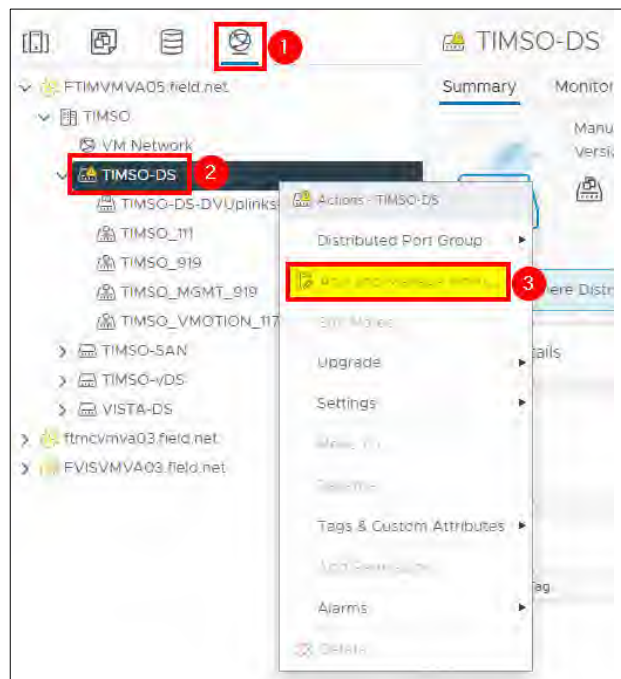


Figure 187. Add and Manage Hosts.

Steps / Screenshots

5.
 - Select Manage host networking
 - Click **NEXT**.



Figure 188. Select Task.

6.
 - Click Attached hosts,
 - Check the box next to timvhost04.smarsunguide.com,
 - Click **NEXT**.

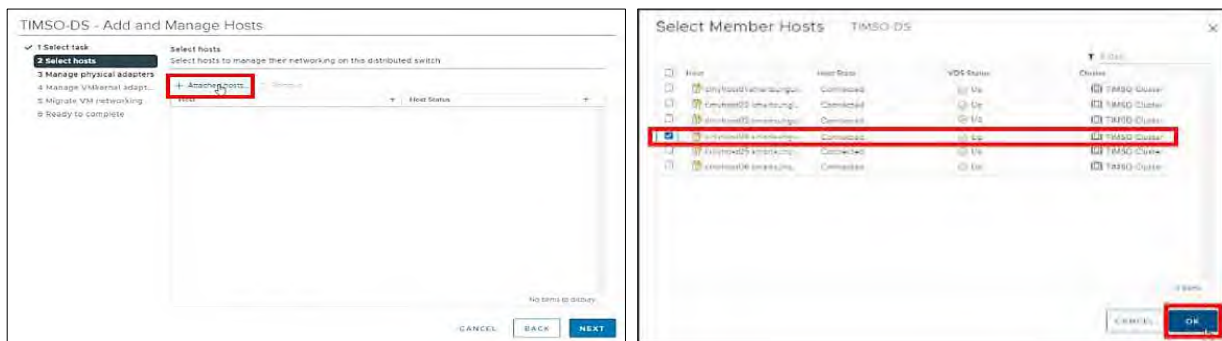


Figure 189. Select Member Host.

7. Click **NEXT**.

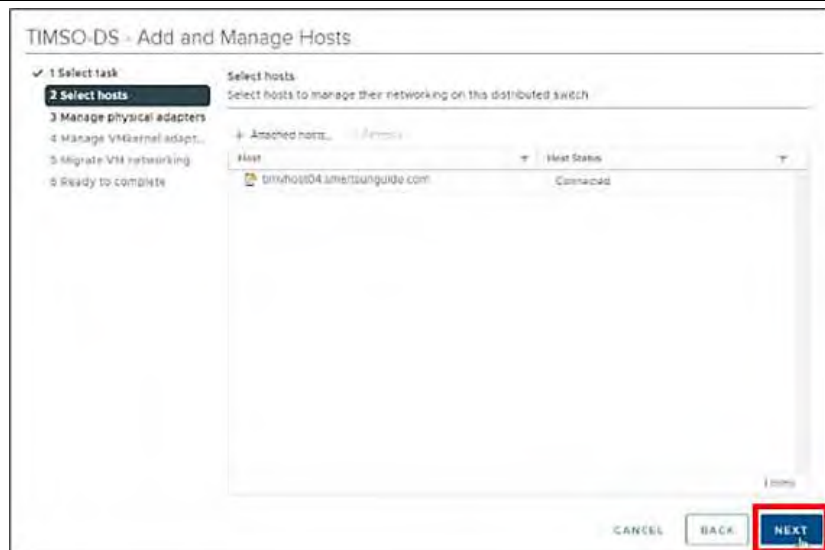


Figure 190. Select Host.

Steps / Screenshots

8.
 - Select **vmnic5** and
 - Clicking Assign uplink.

Add **vmnic5** in one of the LAG uplinks by.

- Select the **LAG_1-3**
- Click **OK**.

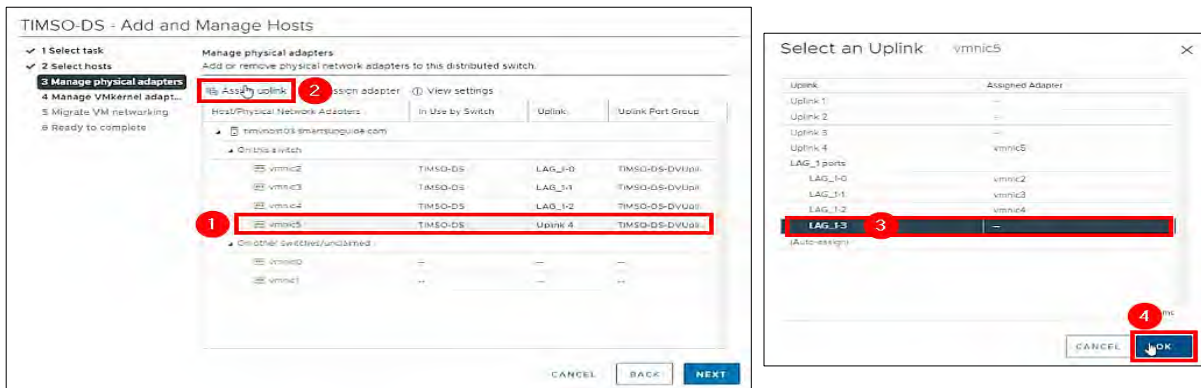


Figure 191. Manage Physical Adapters – Select an Uplink

9. Click **NEXT**.

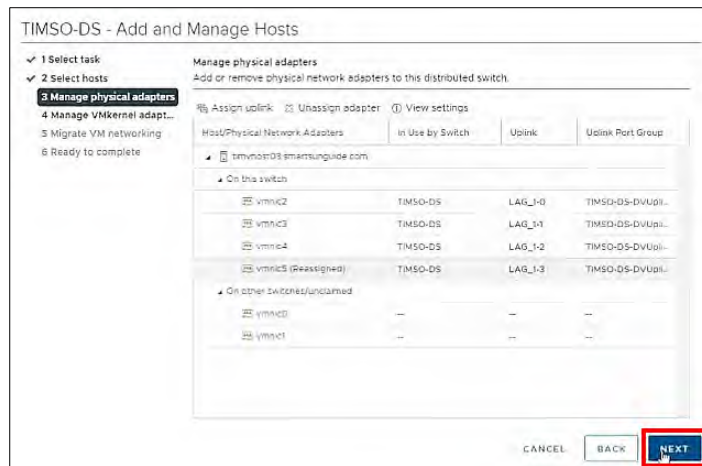


Figure 192. Manage Physical Adapters

Steps / Screenshots

10. Click **NEXT**.

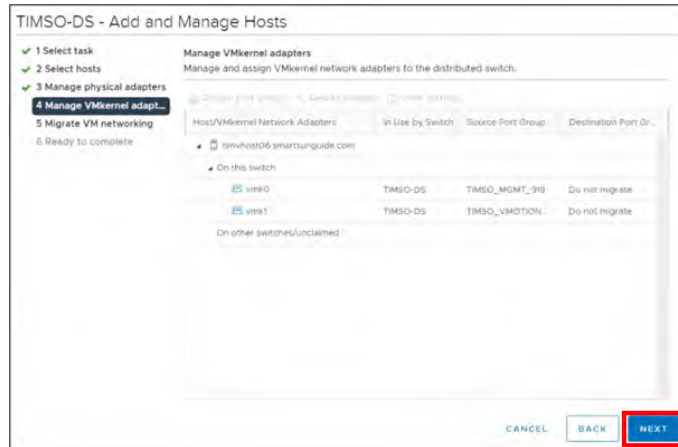


Figure 193. Manage VMkernel Adapters.

11. Click **NEXT**.

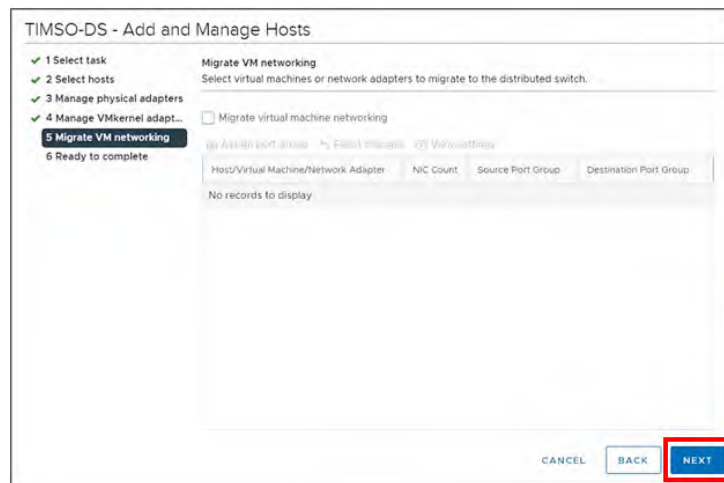


Figure 194. Migrate VM Networking.

12. Click **FINISH**.

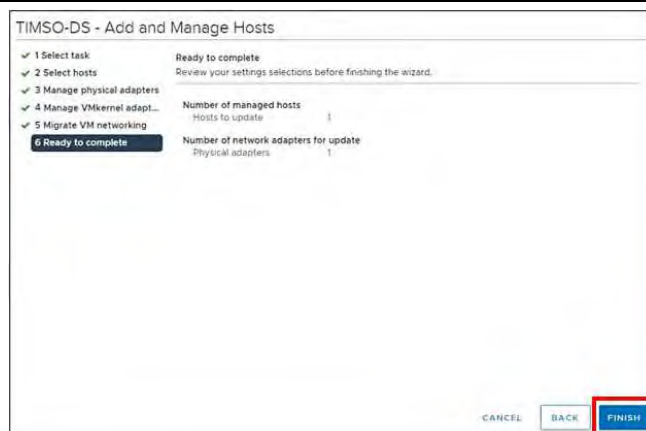


Figure 195. Ready to Complete

The Network Manager will bring the port back up. Go back **Physical adapters**. Wait for port to come back up,

Steps / Screenshots

Physical adapters

Add Networking... Refresh Edit...

Device	Actual Speed	Configured Speed	Switch	MAC Address	Observed IP Ranges	Wake on LAN Sup...	SR-IOV Status
vmnic1	Down	Auto negotiate	--	48:df:37:e3:cd:b9	No networks	Yes	Disabled
vmnic2	10 Gbit/s	Auto negotiate	TIMSO-DS	b4:7a:fi:85:04:68	10.179.19.1-10.179.19.12...	No	Disabled
vmnic3	10 Gbit/s	Auto negotiate	TIMSO-DS	b4:7a:fi:85:04:6c	No networks	No	Disabled
vmnic4	10 Gbit/s	Auto negotiate	TIMSO-DS	b4:7a:fi:85:02:10	No networks	No	Disabled
vmnic5	10 Gbit/s	Auto negotiate	TIMSO-DS	b4:7a:fi:85:02:14	10.179.19.100-10.179.1...	No	Disabled

Figure 196. Wait for Port to Come Back Up.

- Click the **All** tab and wait for networks to appear.

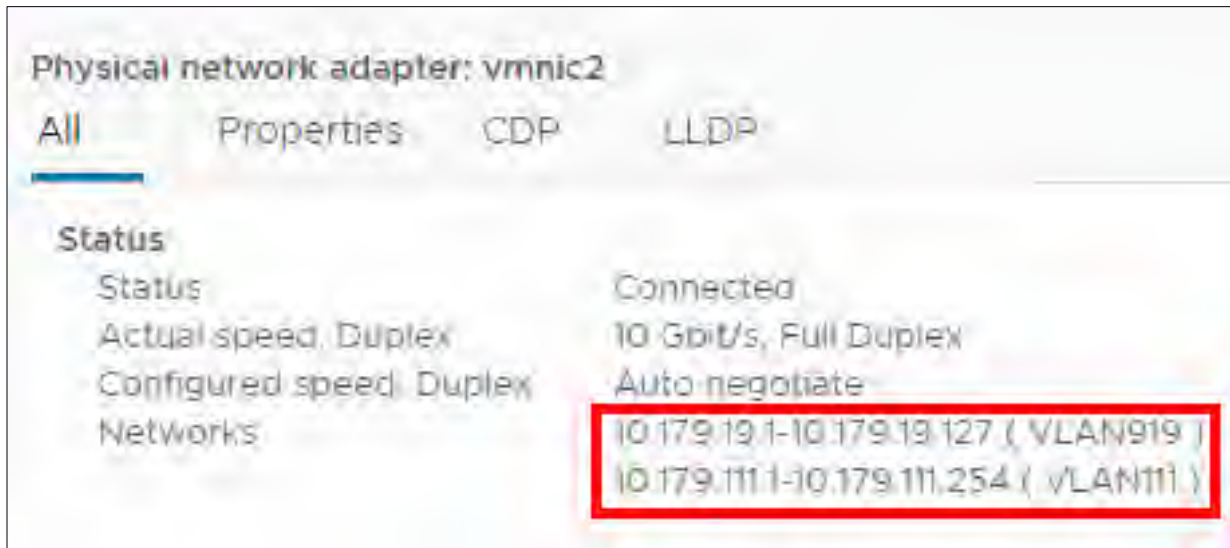


Figure 197. Wait for Networks to Appear

Configure timvhost02, timvhost03, timvhost05, timvhost06

- Refer to steps 1 – 4 in the **Configure timvhost04** procedures.
- Configure **vmnic2 – vmnic5** on **timvhost02, timvhost03, timvhost05, timvhost06** in accordance with all the steps (1 – 4) of the **Configure timvhost04** procedures.

Edit Distributed Port Groups for TIMSO-DS

Perform steps below, to change the **Teaming and Failover** on all distributed port groups to use the LAG instead of the uplinks.

1. (1) Click **Networking**,
- (2) Click the down arrow next to **TIMSO-DS**,
- (3) Right-click one of the distributed port groups,
- (4) Click Edit Settings.

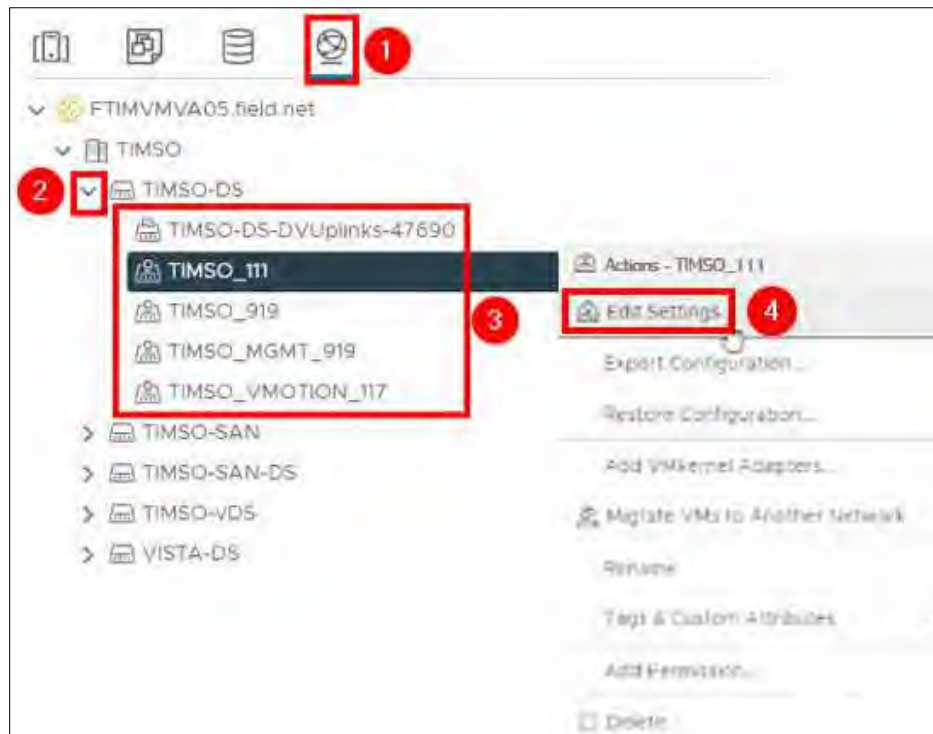


Figure 198. Edit Distributed Port Groups for TIMSO-DS

2. Click Teaming and Failover, move Uplink 1 and Uplink 2 to Unused uplinks.



Figure 199. Move Uplink 1 and Uplink 2 to Unused Uplinks.

3.
 - Move **LAG_1** to Active uplinks.
 - Click **OK**.

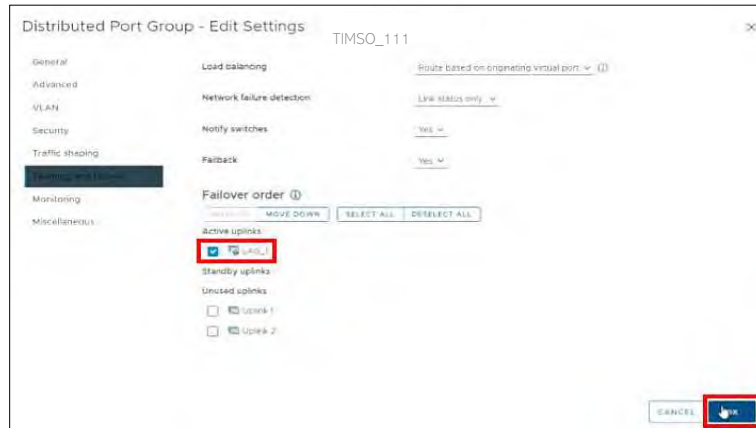


Figure 200. Move LAG_1 to Active Uplinks.

Repeat steps above on all other distributed port groups under TIMSO-DS.

ADD an iSCSI ADAPTER to a HOST

ESXi Configuration: Disk.DiskMaxIOSize = 1024

1. Click `tmcvhost02.smartsunguide.com`,
 - Click **Configure**, **Advanced System Settings**,
 - Click **Edit**.

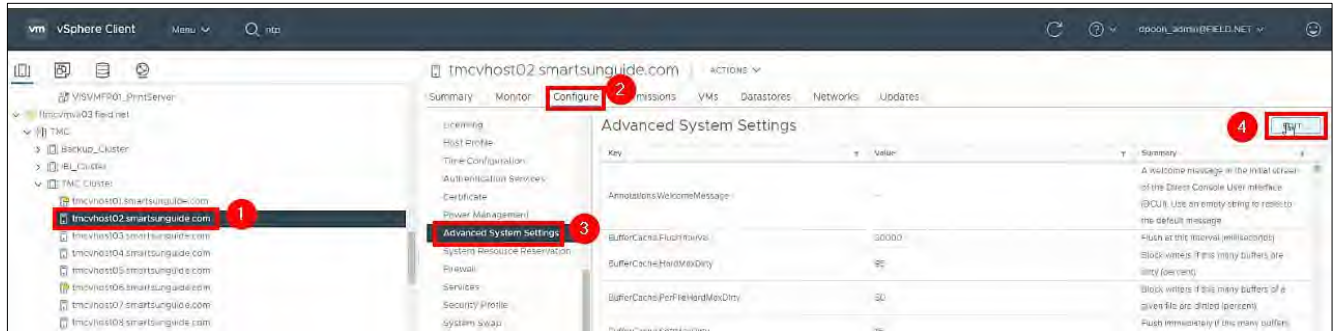


Figure 201. Access Edit Advanced System Settings

2.
 - (1) Enter **Disk.DiskMaxIOSize** in the filter line,
 - (2) Change the value to **1024**,
 - (3) Click **OK**.

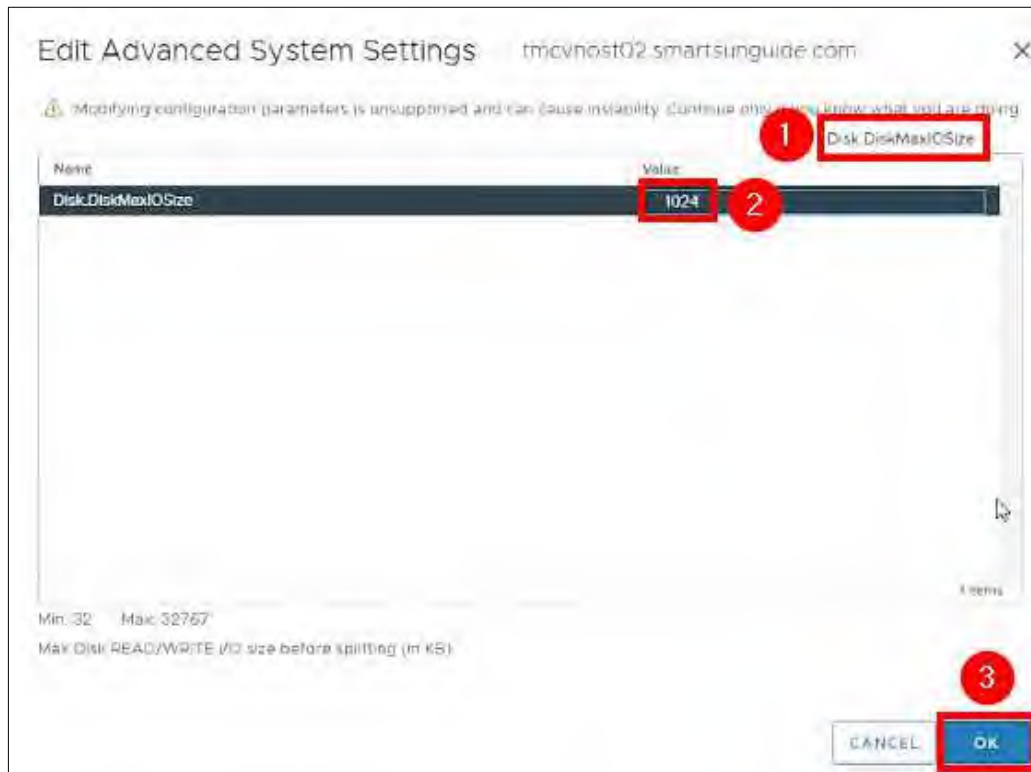


Figure 202. Edit Advanced Systems

3.
 - Click **Storage Adapters**
 - Click **Add Software Adapter**.



Figure 203. Add Software Adapter.

4. With Add Software iSCSI Adapter selected,
 - Click **OK**.



Figure 204. Add Software iSCSI Adapter

Repeat steps above for all other TMC hosts.

CREATE a NEW DISTRIBUTED SWITCH

- # Steps / Screenshots
1.
 - (1) Click **Networking**,
 - (2) Right-click **TMC**,
 - (3) Click Distributed Switch,
 - (4) Click New Distributed Switch

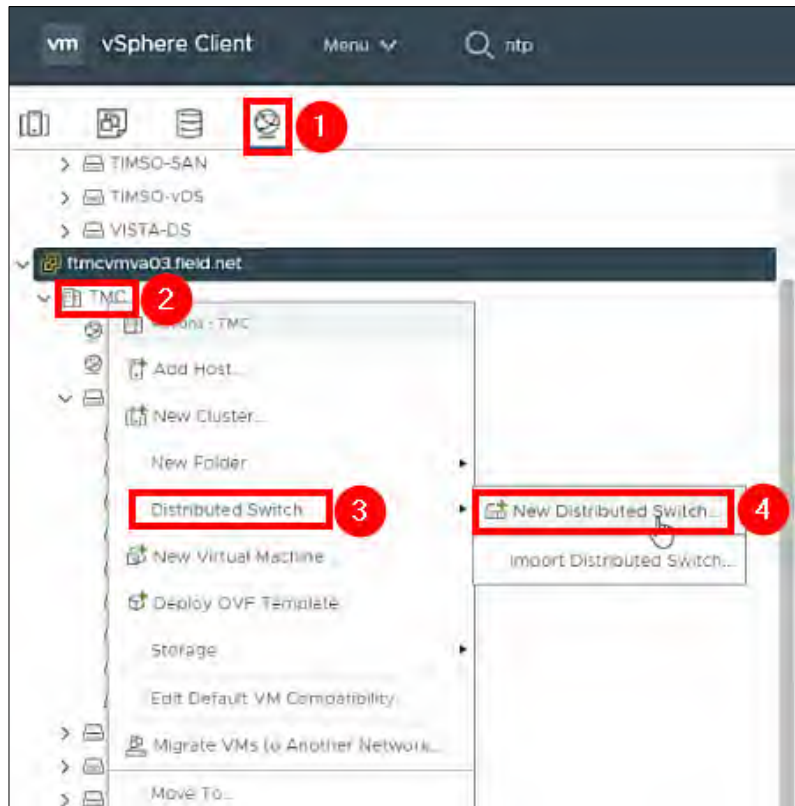


Figure 205. New Distributed Switch

2.
 - Enter **TMC-SAN-DS** in the **Name** field
 - Click **NEXT**.

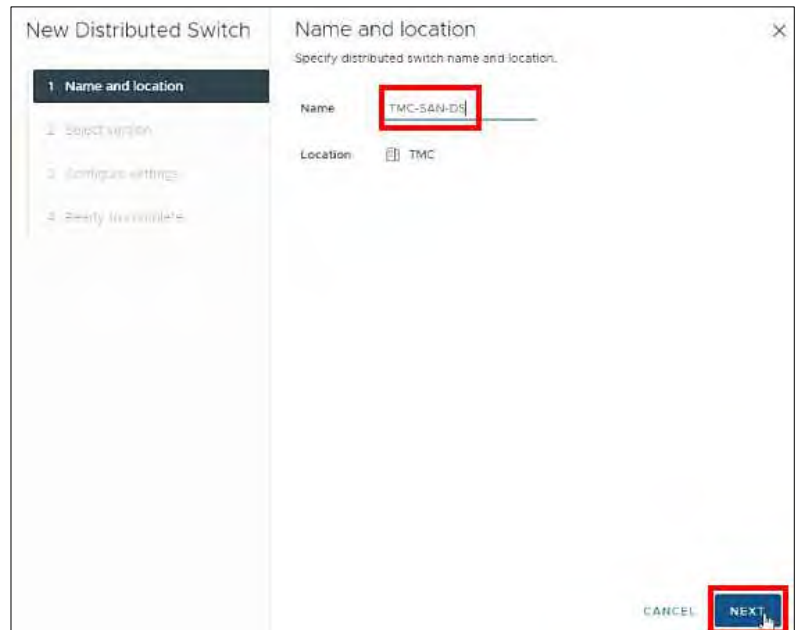


Figure 206. Name and Location.

Steps / Screenshots

3. Click **NEXT**.

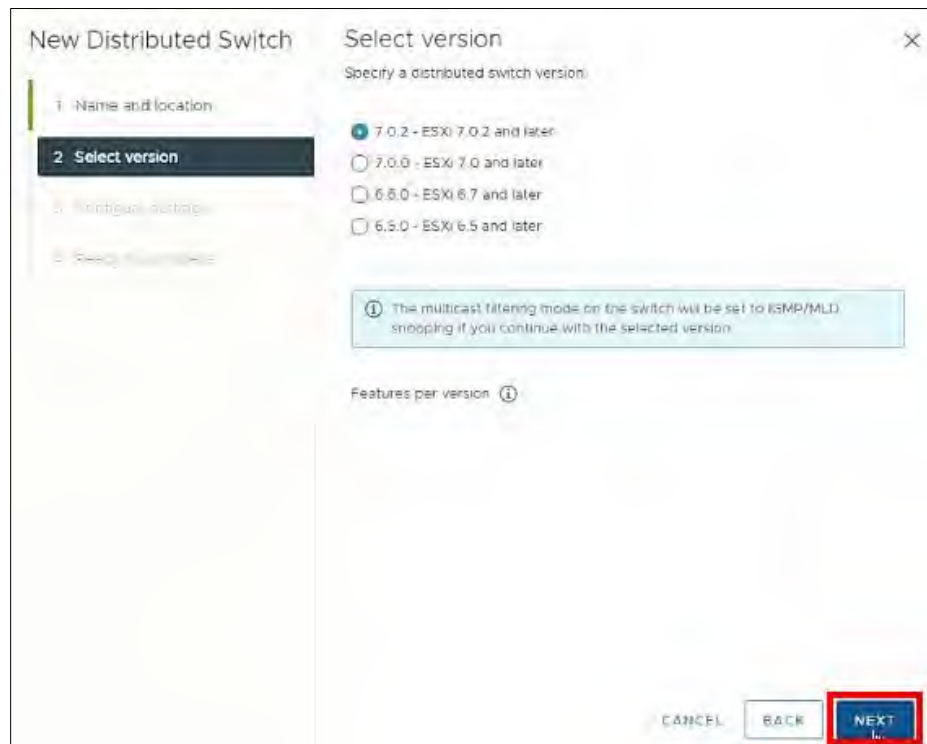


Figure 207. Select Version.

- 4.
- Enter **2** in the **Number of ports** field.
 - Enter **TMC_SAN_41** in the Port group name field.
 - Click **NEXT**.

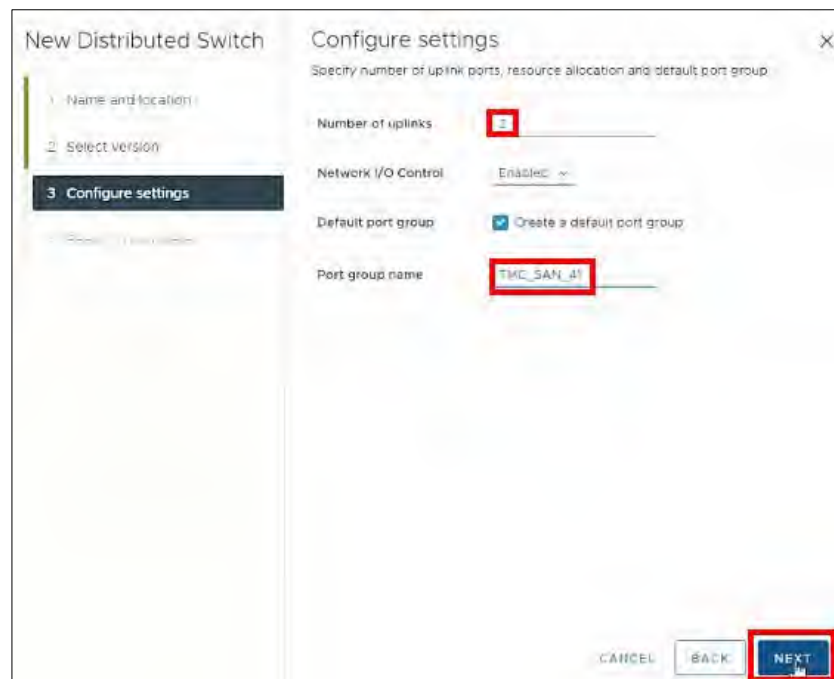


Figure 208. Configure Settings

Steps / Screenshots

5. Click **Finish**.



Figure 209. Ready to Complete.

ENABLE JUMBO FRAMES

Enable Jumbo Frames on the New Distributed Switch

Steps / Screenshots

1. In **vSphere**,
 - Right-Click **TMC-SAN-DS**,
 - Click **Settings**,
 - Select **Edit Settings**.

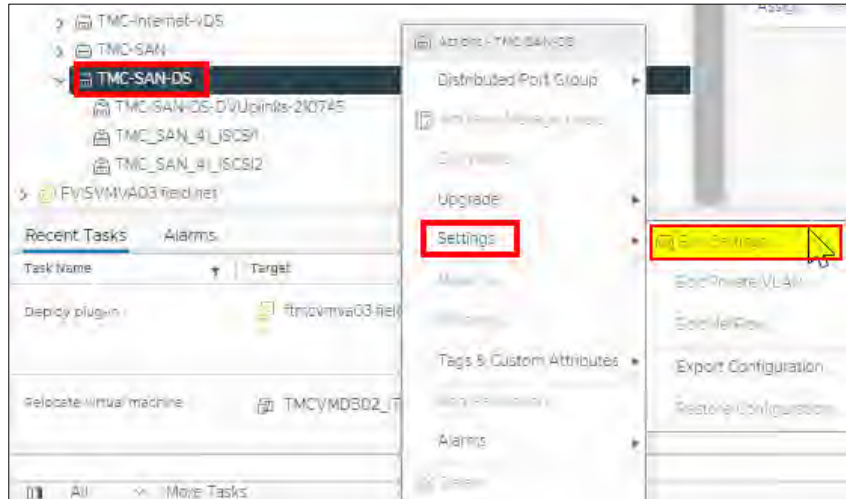


Figure 210. Edit Settings.

2.
 - Click **Advanced**
 - Change the size of the maximum transmission unit (MTU) to 9000 bytes,
 - Click **OK**.

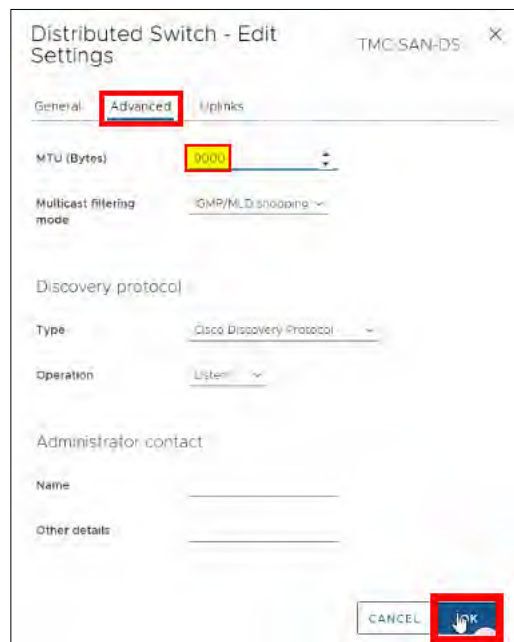


Figure 211. Advanced Settings.

Enable Jumbo Frames on the Cluster

1. In the RTMC-PowerStore SAN,
 - (1) Click Settings
 - (2) Click Cluster MTU.
2.
 - (3) Change the MTU size to **9000** bytes.
 - (4) Click **APPLY**.



Figure 212. Cluster MTU.

HOST GROUPS

Add Hosts to A Distributed Switch

#	Steps / Screenshots
---	---------------------

- (1) Click **Networking**,
 - (2) right Click **TMC_SAN_DS**,
 - (3) Click **Add and Manage Hosts**.

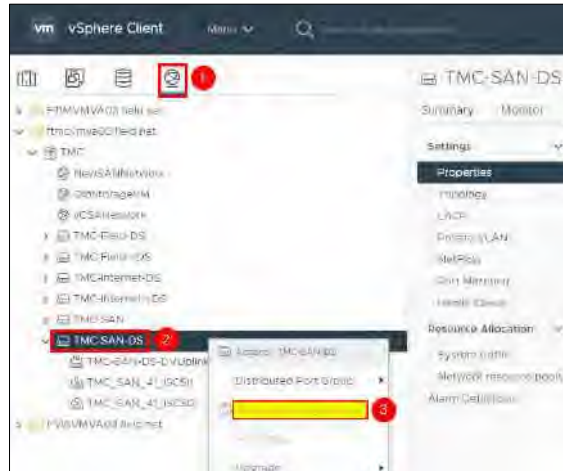


Figure 213. Add and Manage Hosts.

- Click **NEXT**.

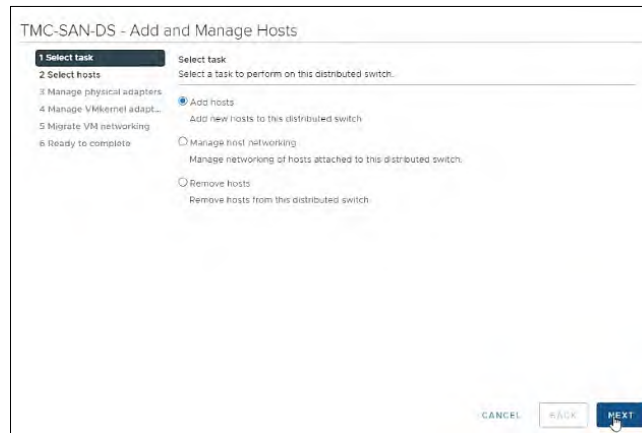


Figure 214. Select Task.

- Click **New Hosts**.

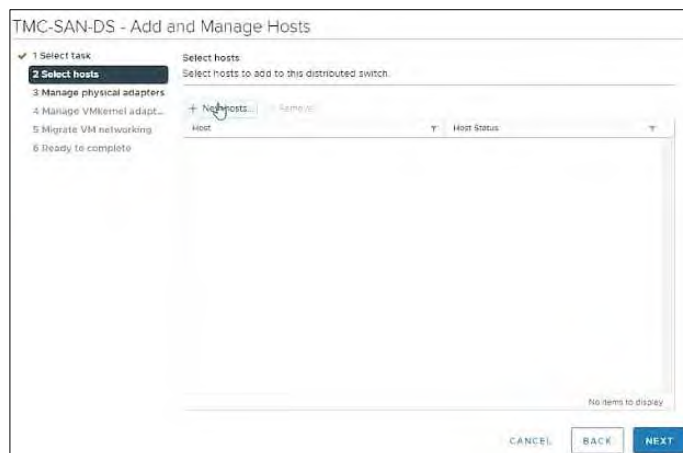


Figure 215. Select Hosts.

Steps / Screenshots

- 4.
 - Check the box next to **Host** to
 - Select all hosts.
 - Click **OK**.

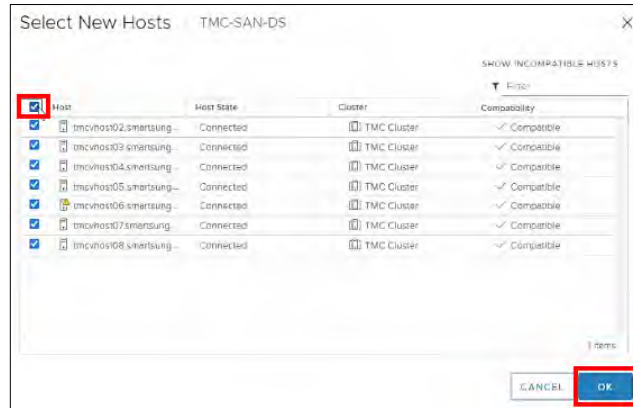


Figure 216. Select All Hosts.

- 5.
 - Click **NEXT**.

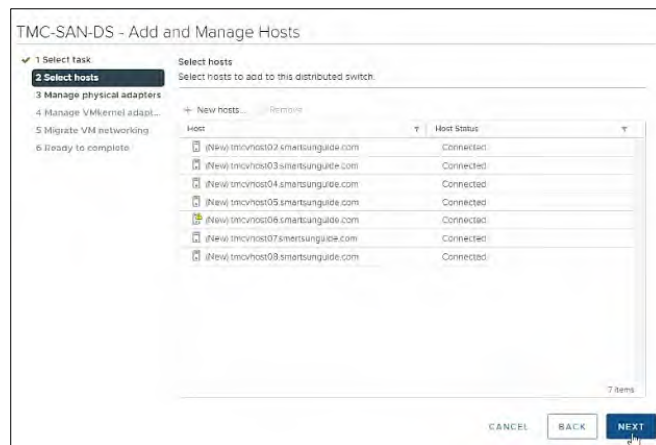


Figure 217. Hosts Selected.

- 6.
 - Continue clicking on **NEXT** until the **Ready to complete** window appears.
 - Click **FINISH**.

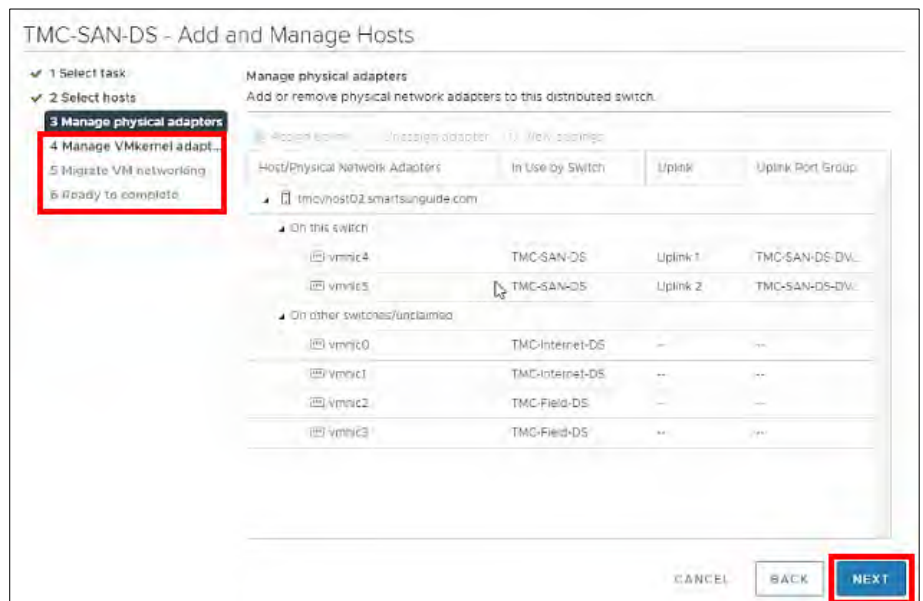


Figure 218. Complete Add and Manage Hosts.

Create A Host Group

1.
 - In the **RTMC-PowerStoreSAN**,
 - Click **Hosts & Host Groups**,
 - Click **ADD HOST GROUP**.



Figure 219. Identify & Add Host Group.

2.
 - Enter the Host Group Name,
 - Select **iSCSI**,
 - Click **Create**.

Add Host Group

Creating a host group will cause all members of the group to function as one. Access to volumes will only be assigned to the entire host group, not to individual hosts within the group.

Host Group Name

Description (Optional)

Host Group Members
 Choose the protocol type you would like to use for your new host group and select which hosts you want to be included.
 iSCSI Fibre Channel

Available Hosts
Hosts with mapped volumes cannot be added to a host group and are not listed.

<input type="checkbox"/>	Name ↑	OS

Figure 220. Add Host Group.

ADD VMKernel ADAPTERS

Add VMkernel Adapters to the Hosts – TMC_SAN_41_iSCSI1

Steps / Screenshots

1.
 - (1) Click Hosts and Clusters,
 - (2) Click the down arrow next to **TMC Cluster**,
 - (3) Click tmcvhost02.smartsunguide.com,
 - (4) Click **Configure**,
 - (5) Click VMkernel adapters,
 - (6) Click Add Networking.

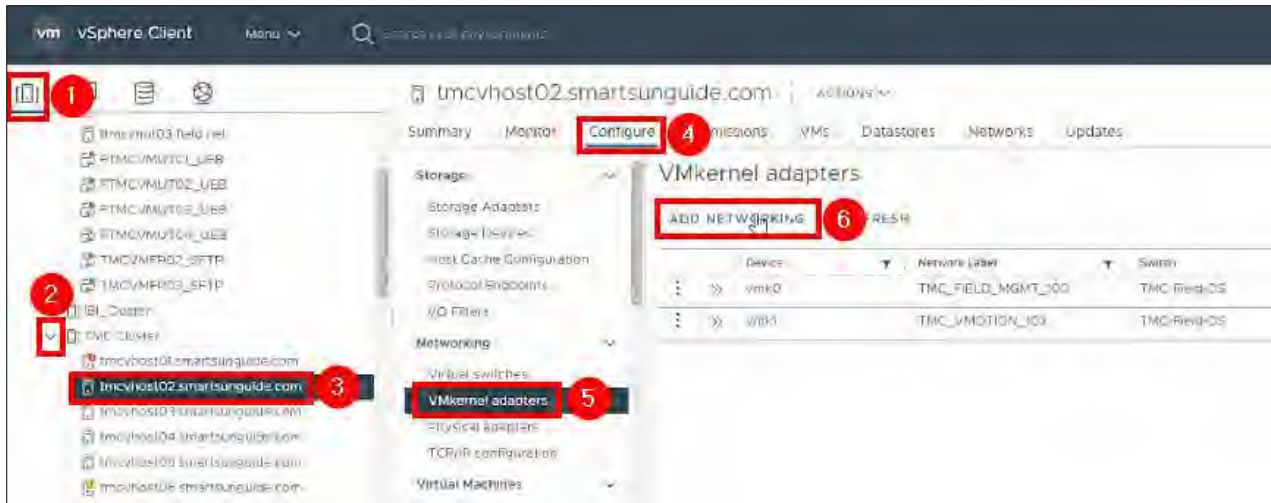


Figure 221. Add Networking.

2. Click **NEXT**.



Figure 222. Select Connection Type.

Steps / Screenshots

3. Click **Browse**.

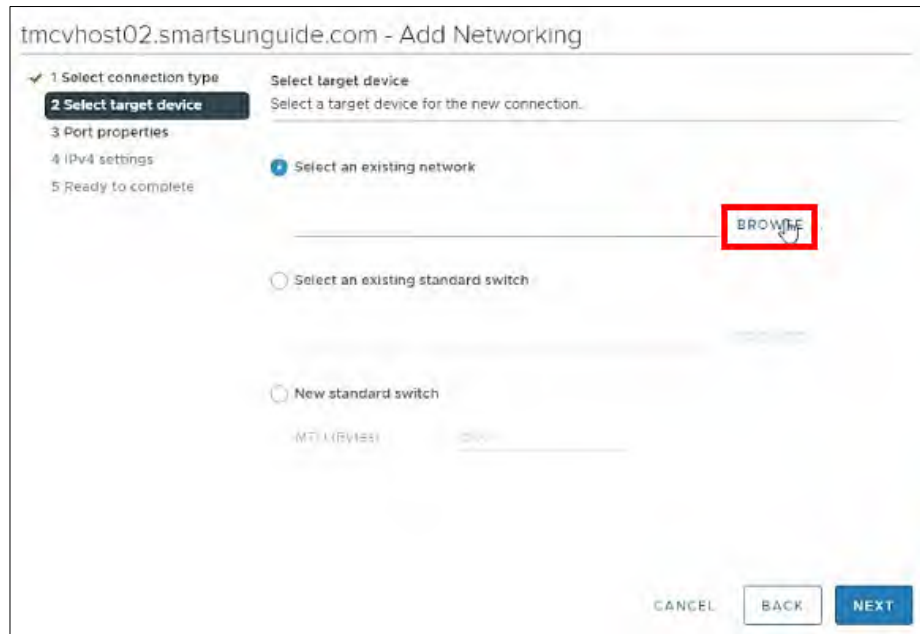


Figure 223. Browse.

4. – Select **TMC_SAN_41_iSCSI1**
 – Click **OK**.



Figure 224. Select Network – TMC_SAN_41_iSCSI1.

Steps / Screenshots

5. Click **NEXT**.

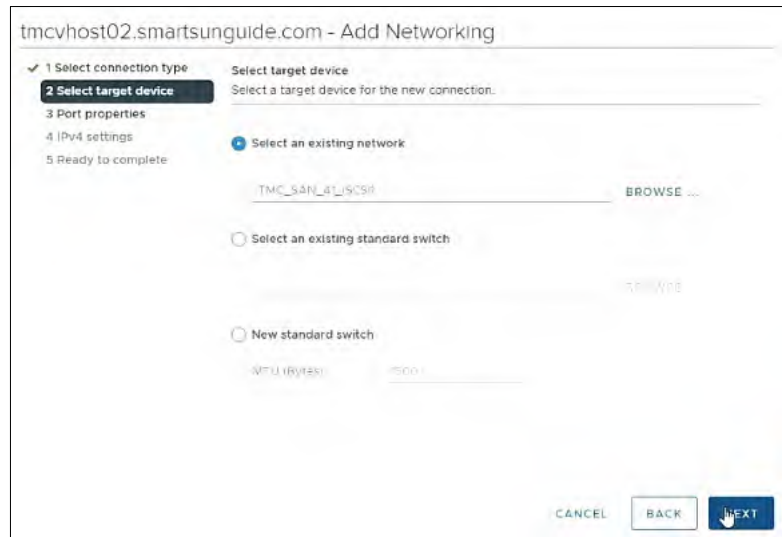


Figure 225. Select Target Device.

6. Click **NEXT**.



Figure 226. Port Properties.

Steps / Screenshots

- 7.
 - Select Use static IPv4 settings,
 - Enter the **IPv4 address**,
 - Enter the **Subnet mask**,
 - Click **NEXT**.

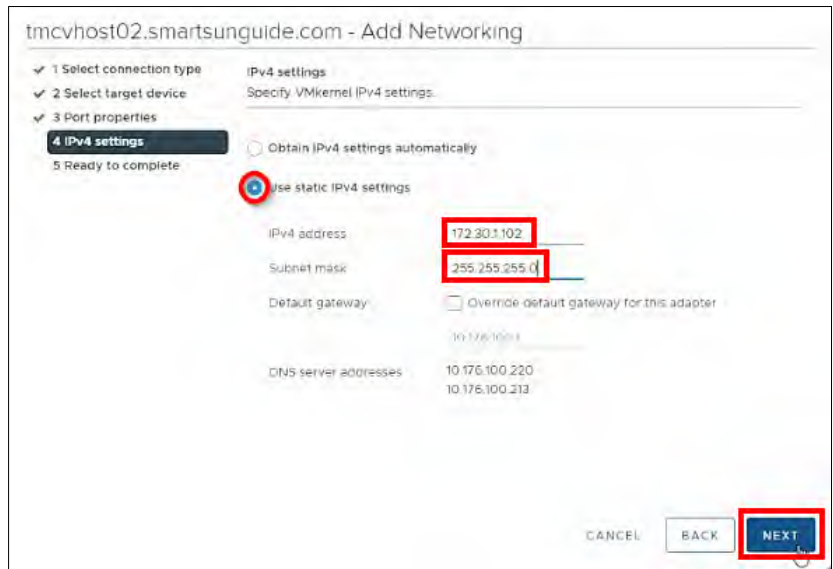


Figure 227. IPv4 Settings.

- 8. Click **FINISH**



Figure 228. Ready to Complete.

Add VMkernel Adapters to the Hosts – TMC_SAN_41_iSCSI2

Steps / Screenshots

1.
 - (1) Click Hosts and Clusters,
 - (2) Click the down arrow next to **TMC Cluster**,
 - (3) Click tmcvhost02.smartsunguide.com,
 - (4) Click Configure,
 - (5) Click VMkernel adapters,
 - (6) Click Add Networking.

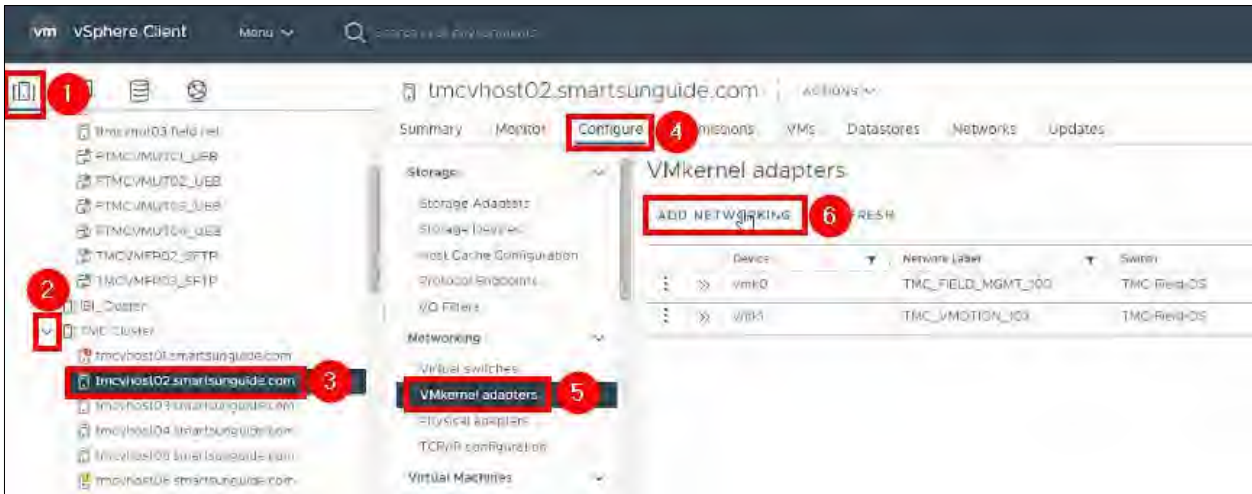


Figure 229. Add Networking.

2. Click **NEXT**.



Figure 230. Select Connection Type.

Steps / Screenshots

3. Click **Browse**.

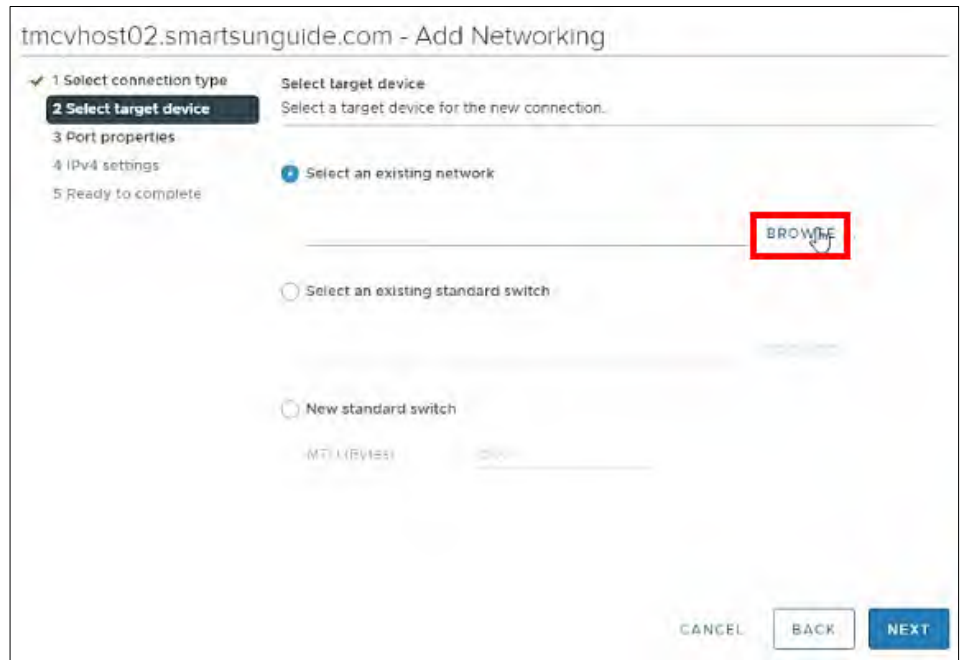


Figure 231. Browse.

4.
 - Select **TMC_SAN_41_iSCSI2**
 - Click **OK**.

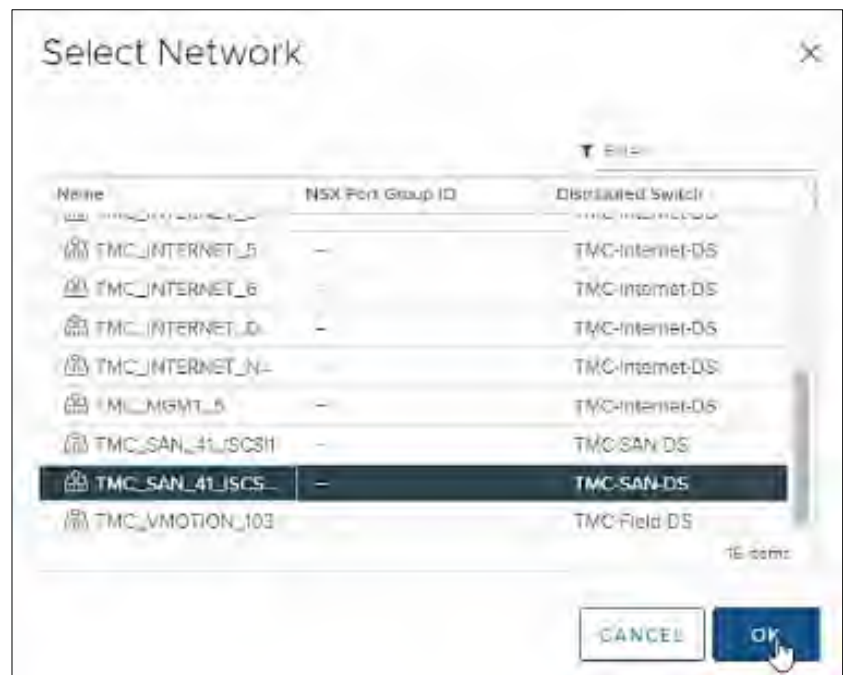


Figure 232. Select Network - TMC_SAN_41_iSCSI2.

Steps / Screenshots

5. Click **NEXT**.

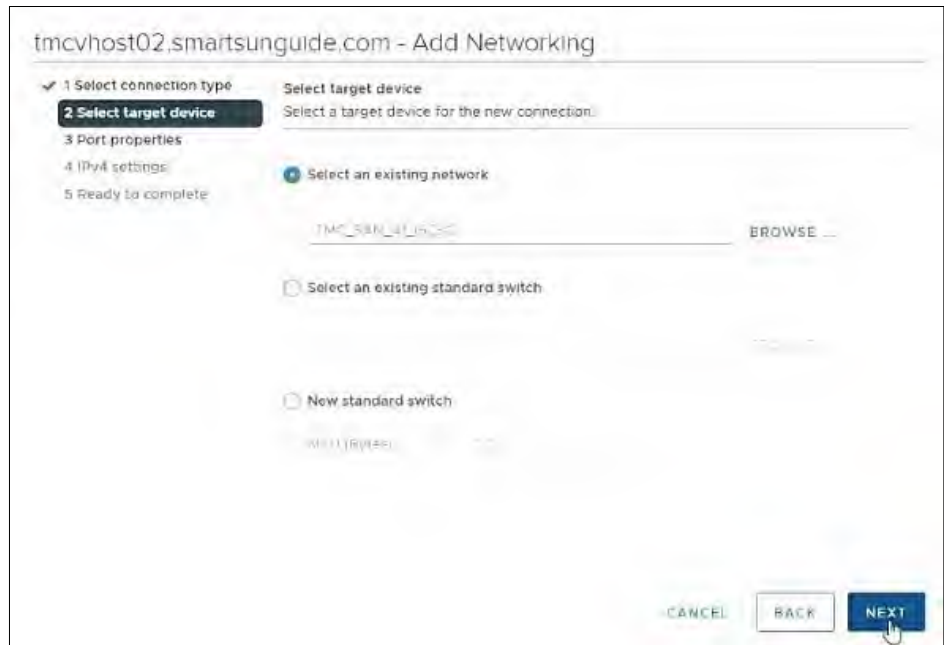


Figure 233. Select Target Device.

6. Click **NEXT**.



Figure 234. Port Properties.

7.
 - Select Use static IPv4 settings,
 - Enter the **IPv4 address**,
 - Enter the **Subnet mask**,
 - Click **NEXT**.

Steps / Screenshots

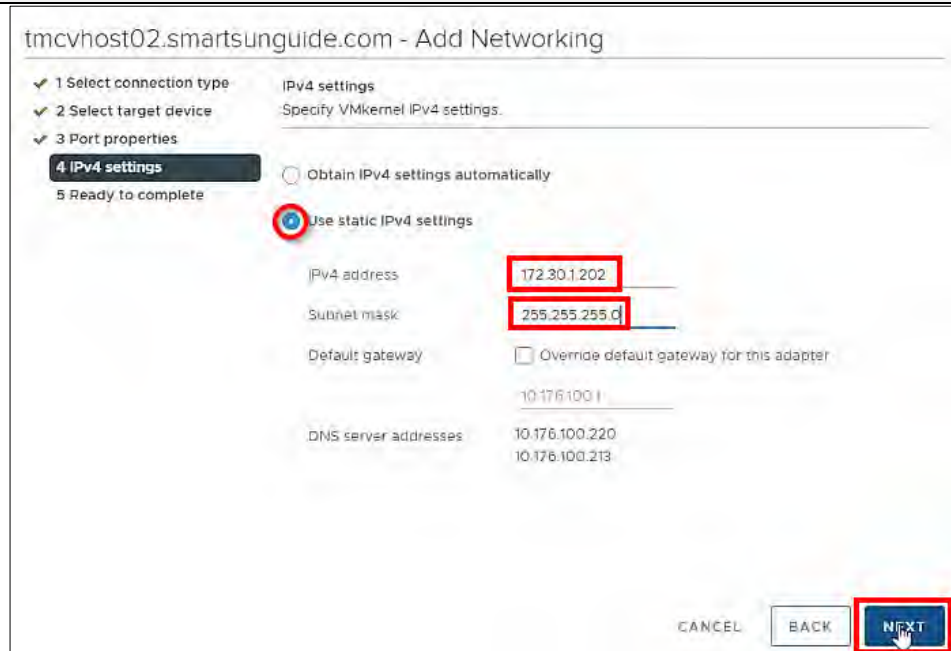


Figure 235. IPv4 Settings.

8. Click **FINISH**.



Figure 236. Ready to Complete.

Add Storage Adapters to the Hosts

Steps / Screenshots

1. – Enable **SSH** on all TMC hosts and execute the Putty command below on all **TMC** hosts:

```
esxcli storage nmp satp rule add -c tpgs_on -e "PowerStore" -M PowerStore -P VMW_PSP_RR -O iops=1 -s VMW_SATP_ALUA -t vendor -V DellEMC -o disable_action_OnRetryErrors
```

Figure 237. Putty Command.

2. – (1) Click hosts and clusters,
– (2) Click the down arrow next to **TMC Cluster**,
– (3) Click `tmcvhost02.smartsunguide.com`,
– (4) Click Configure,
– (5) Click Storage Adapters,
– (6) Click `vmhba64`,
– (7) Click Dynamic Discovery,
– (8) Click **Add**.

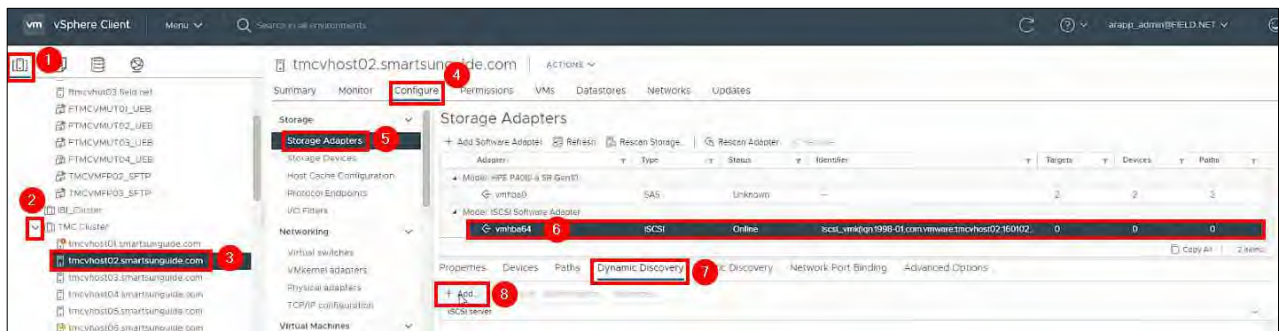


Figure 238. Add Storage Adapters.

3. – Enter the iSCSI Server
– and Click **OK**.

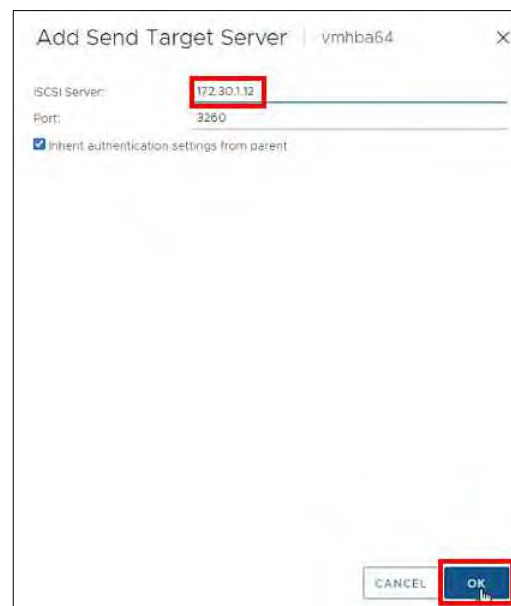


Figure 239. Enter iSCSI Server.

Steps / Screenshots

4. Click **Rescan Storage**.

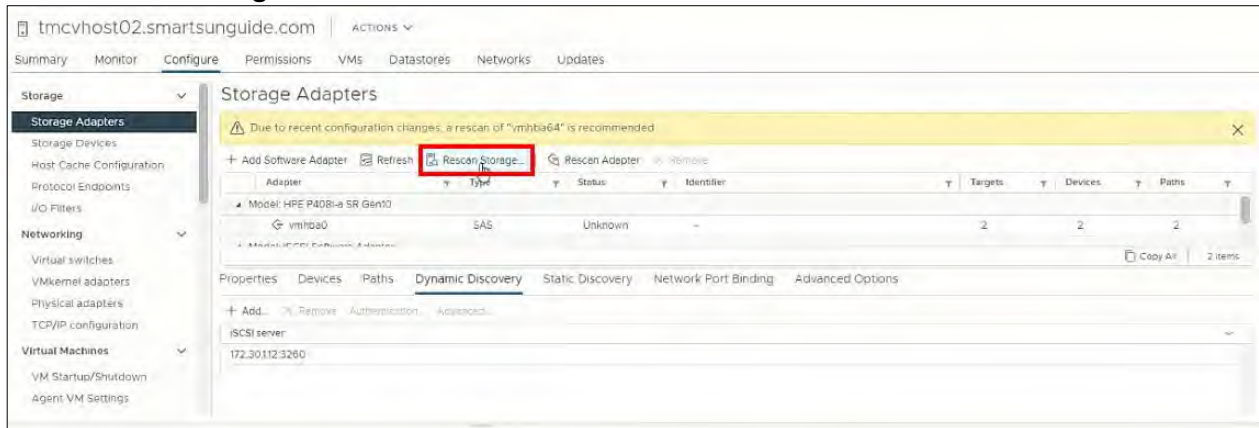


Figure 240. Rescan Storage.

5. Click **OK**.



Figure 241. Scan for New Storage Devices and Scan for New VMFS Volumes

6. In the RTMC-PowerStoreSAN,
 – Click **Compute**,
 – Click **Hosts & Host Groups**.

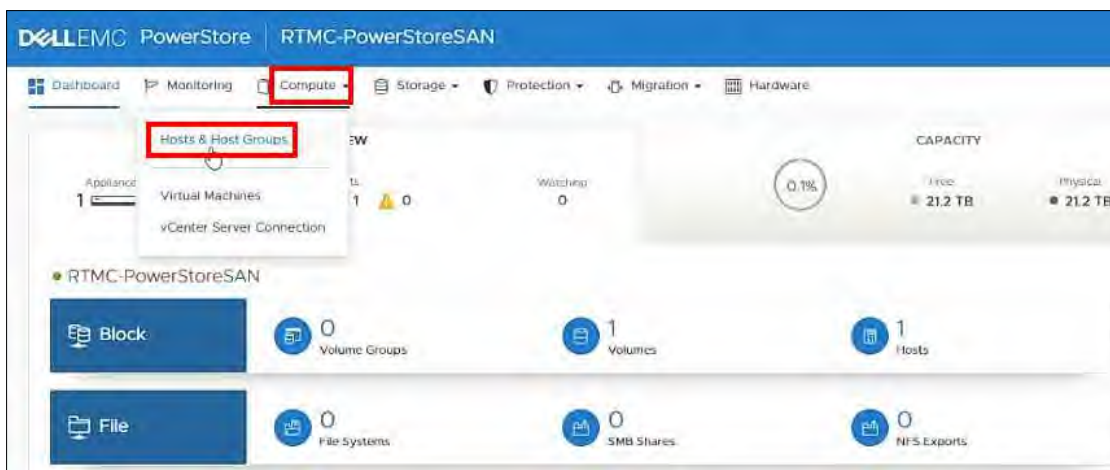


Figure 242. RTMC-PowerStoreSAN – Compute – Hosts & Host Groups.

Steps / Screenshots

7. Click **ADD HOST**.



Figure 243. Add Host.

- 8. – Enter the **Host Friendly Name**,
- Click the down arrow under **Operating System**,
- Select **ESXi**,
- Click **NEXT**.

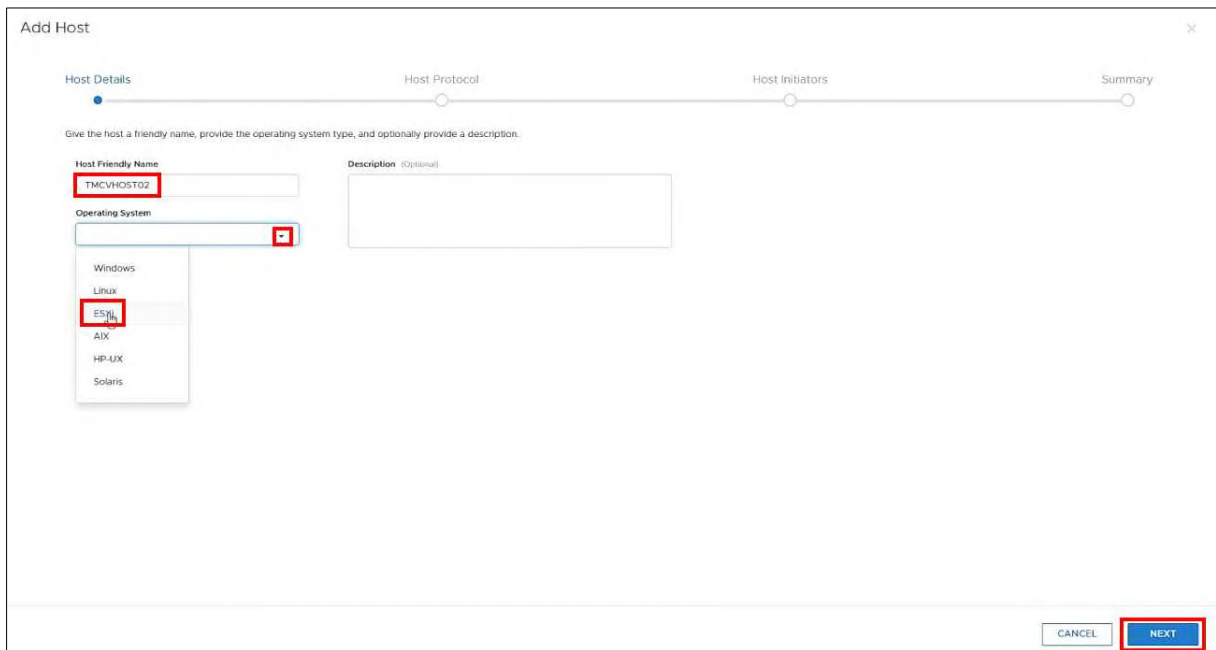


Figure 244. Host Friendly Name and Operating System

Steps / Screenshots

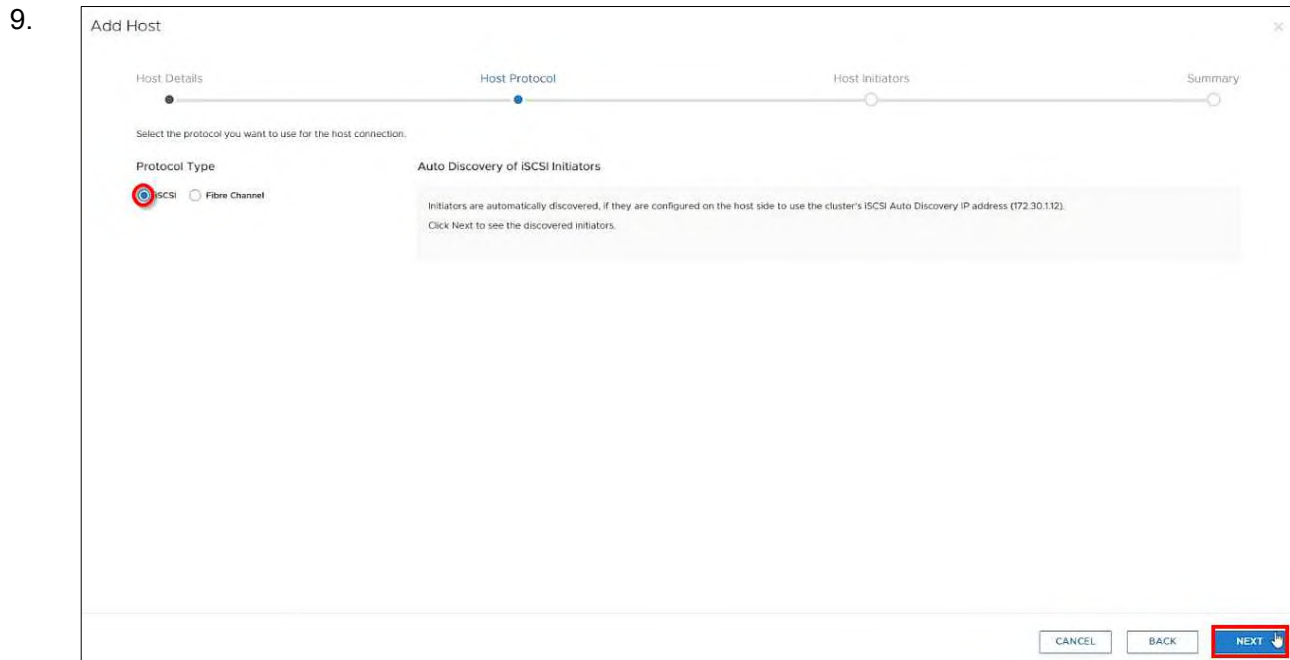


Figure 245. Protocol Type

- 10.
- Select **iSCSI** and Click **NEXT**.
 - Check the box next to **iqn...** and
 - Click **NEXT**.

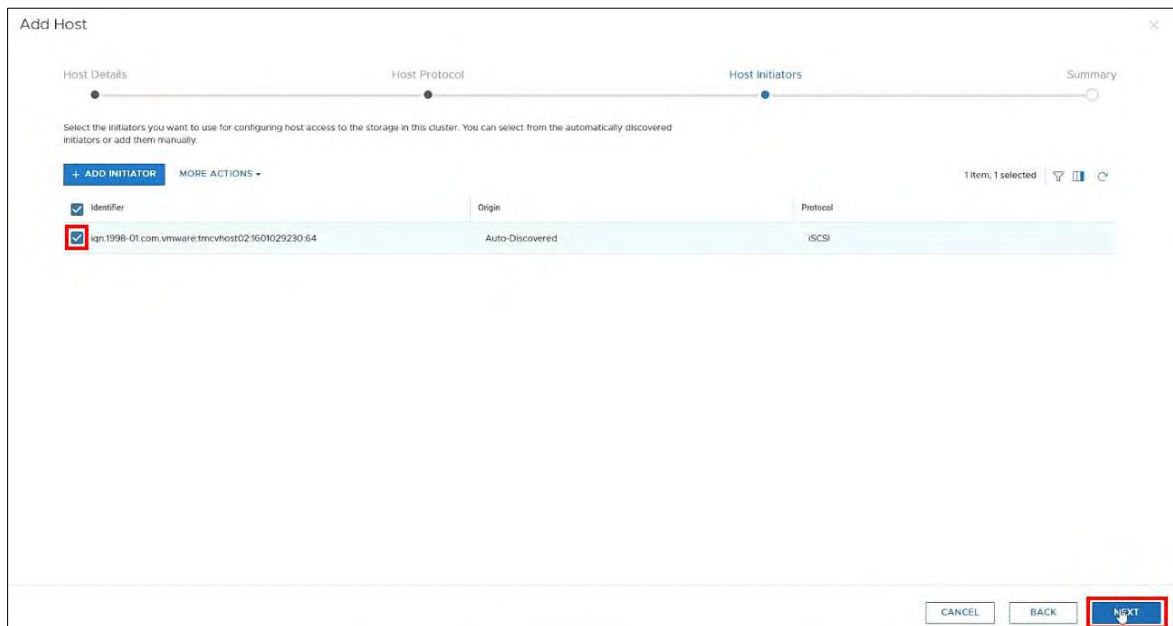


Figure 246. Select Identifier.

Steps / Screenshots

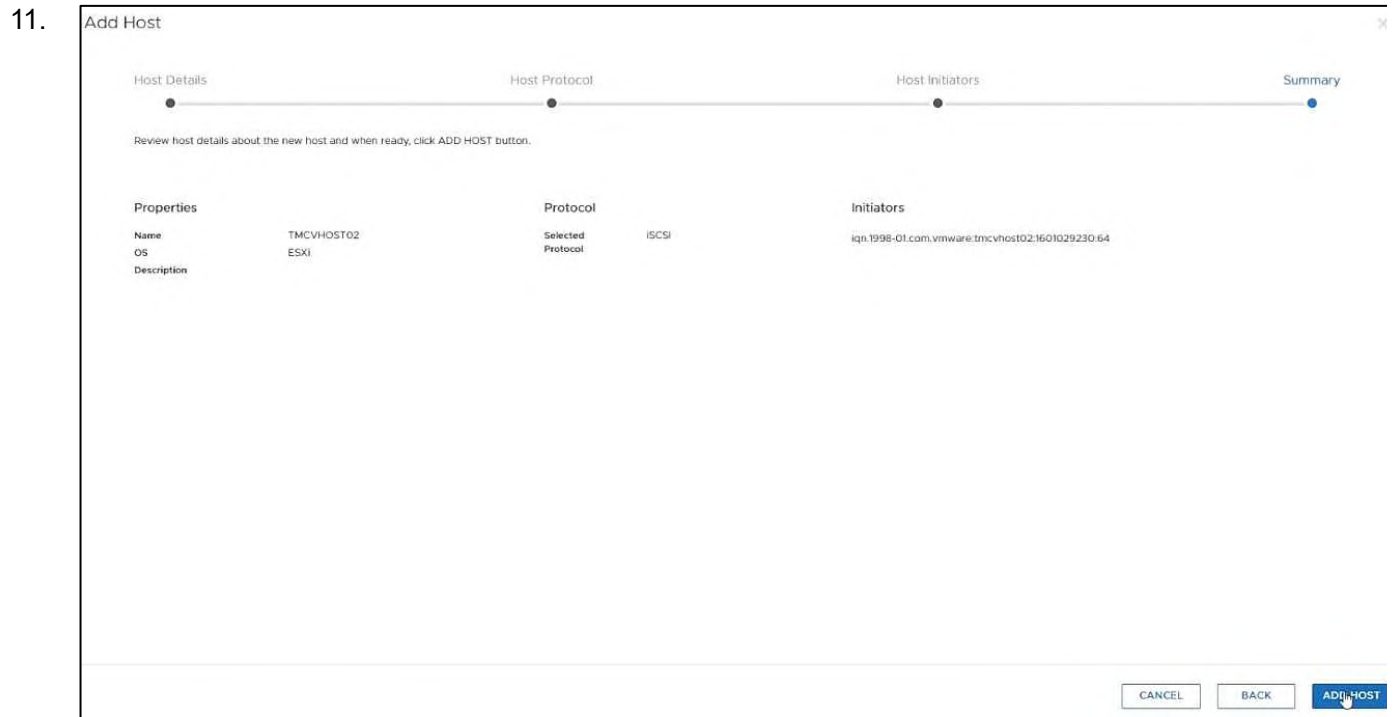


Figure 247. Add Host

12. – Click **ADD HOST**.
- Check the box next to **TMCVHOST**
 - Click **ADD HOST**.

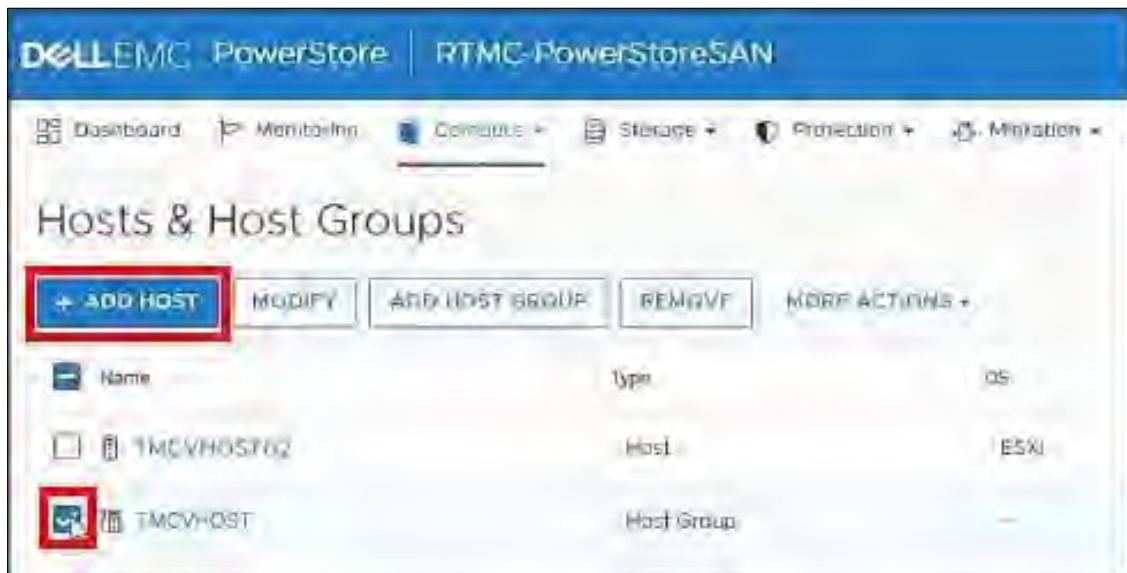


Figure 248. Add Host.

Steps / Screenshots

- 13. – Click **ADD HOST**.

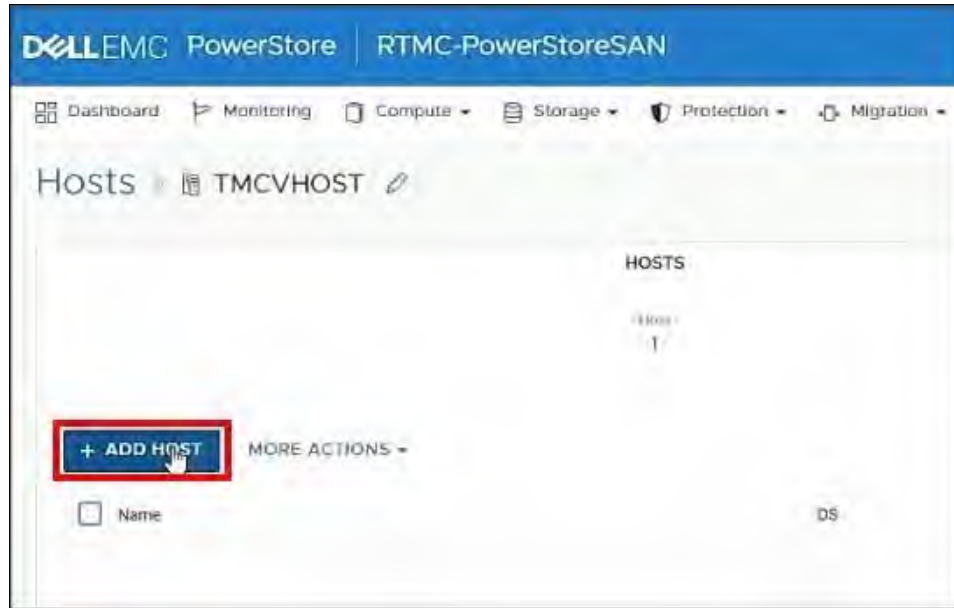


Figure 249. Add Host

- 14. – Check the box next to **TMCVHOST02**
- Click **ADD**.

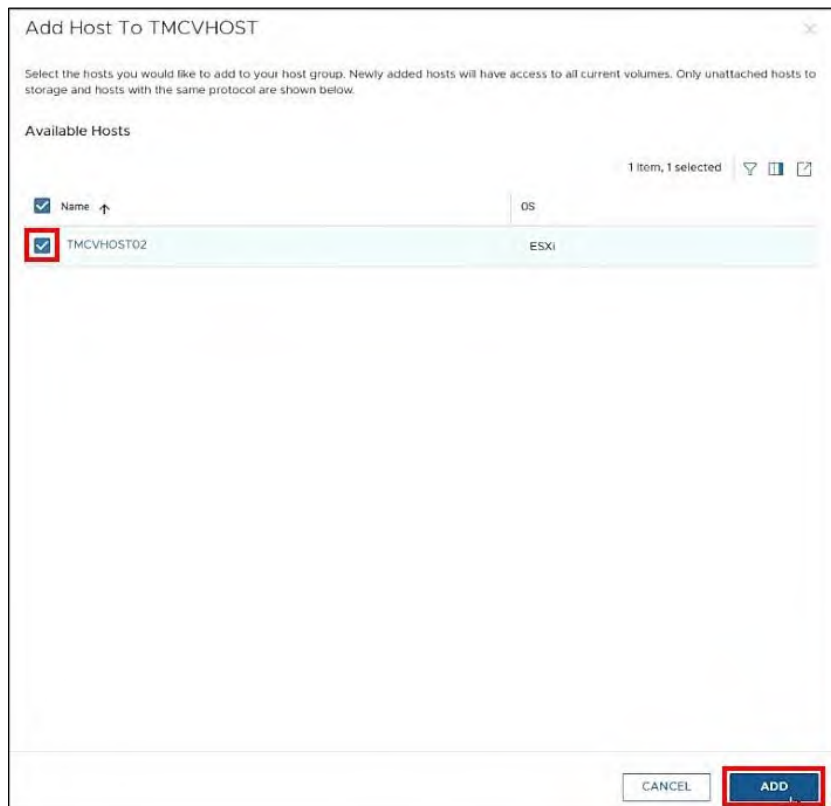


Figure 250. Add Host to TMCVHOST

Steps / Screenshots

- 15. – Click **Storage**
- Click **Volumes**.

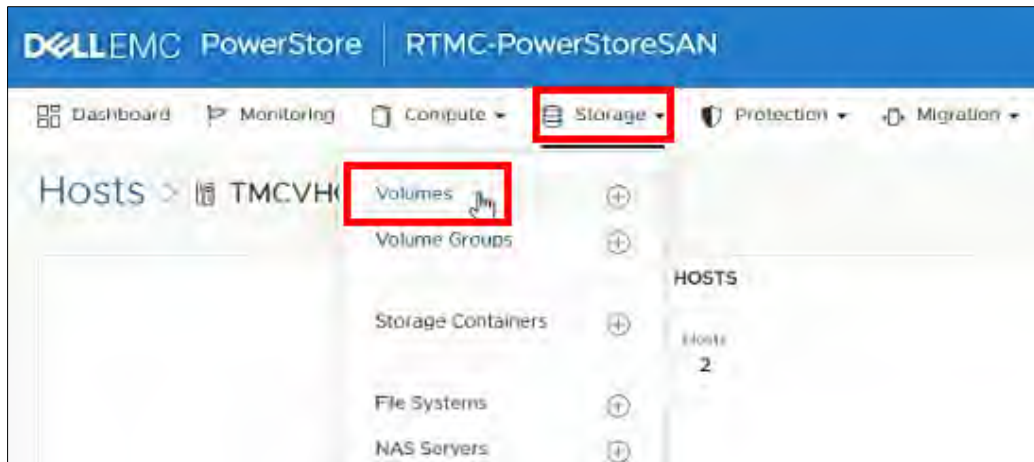


Figure 251. Storage > Volumes.

- 16. – (1) Check the box next to **test**,
- (2) Click MORE ACTIONS,
- (3) Click **Map**.

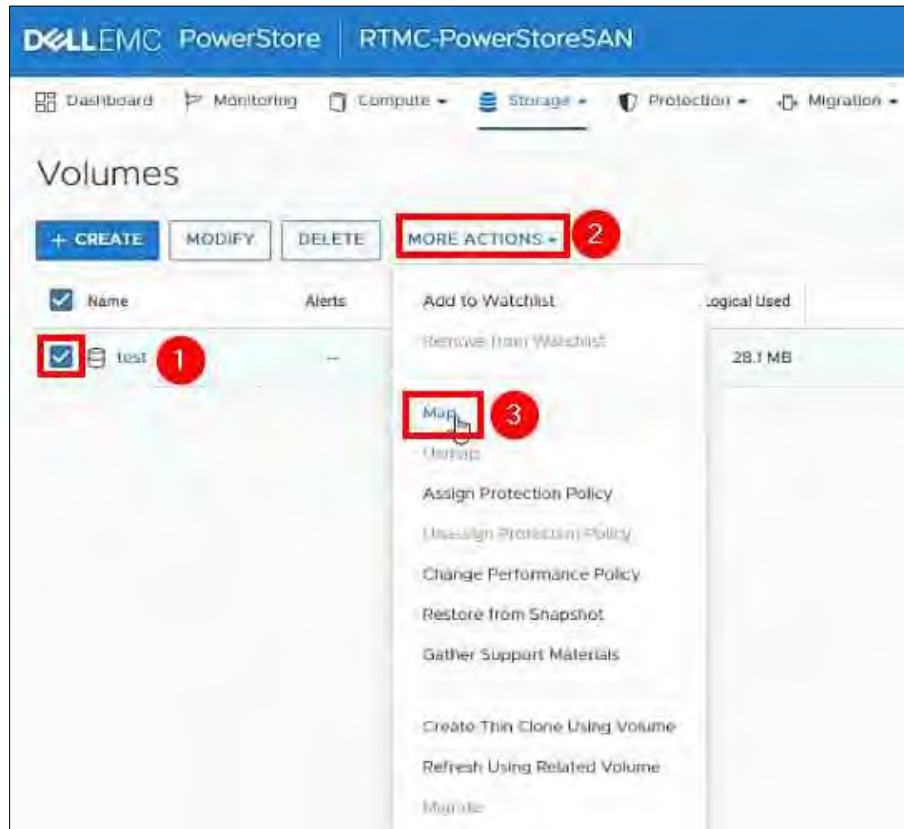


Figure 252. Storage > Volumes > Test > More Actions > Map

Steps / Screenshots

17. – Check the box next to **TMCVHOST**
- Click **APPLY**.

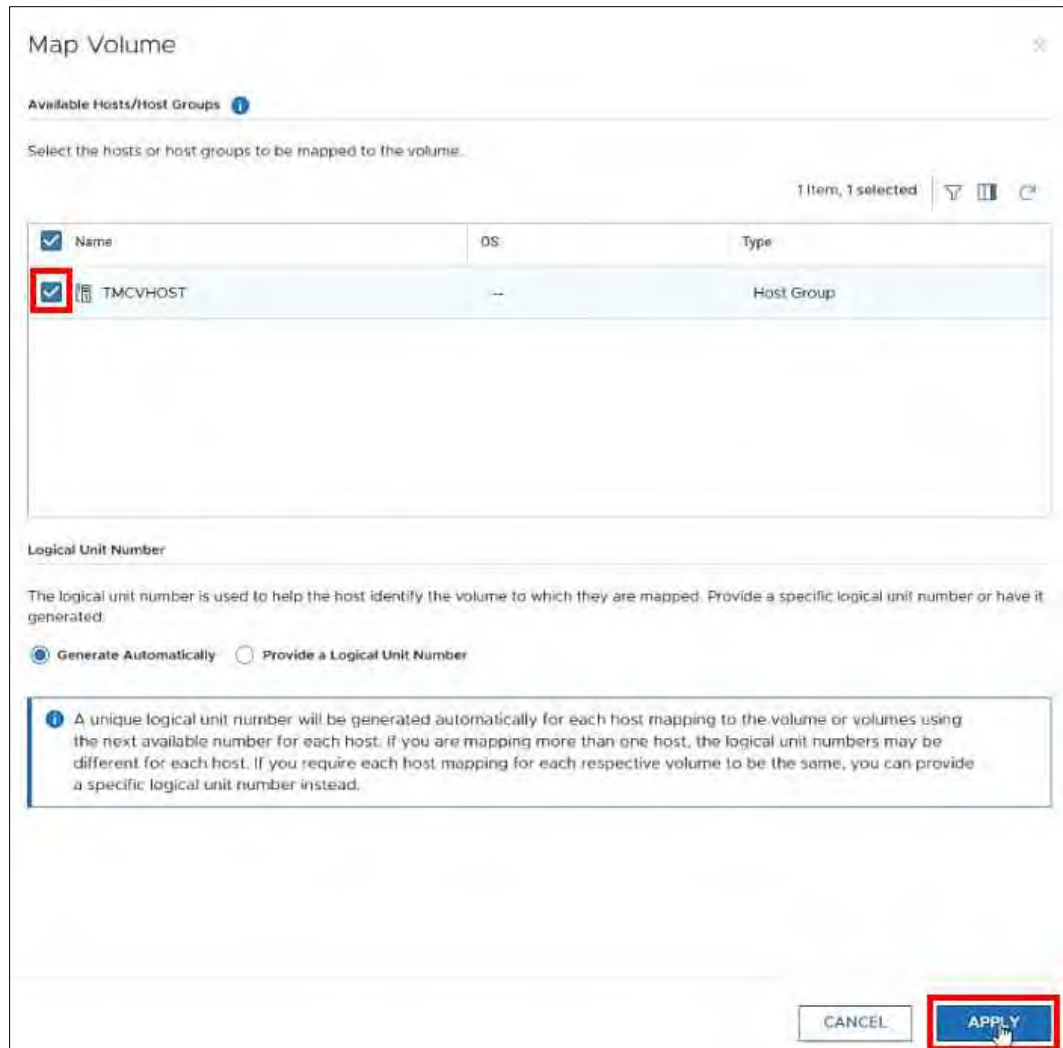


Figure 253. Map Volume

18. – Go back to vSphere,
 - (1) Click hosts and clusters,
 - (2) Click the down arrow next to **TMC Cluster**,
 - (3) Click **tmcvhost02**,
 - (4) Click **Configure**,
 - (5) Click Storage Adapters,
 - (6) Click Rescan Storage.

Steps / Screenshots

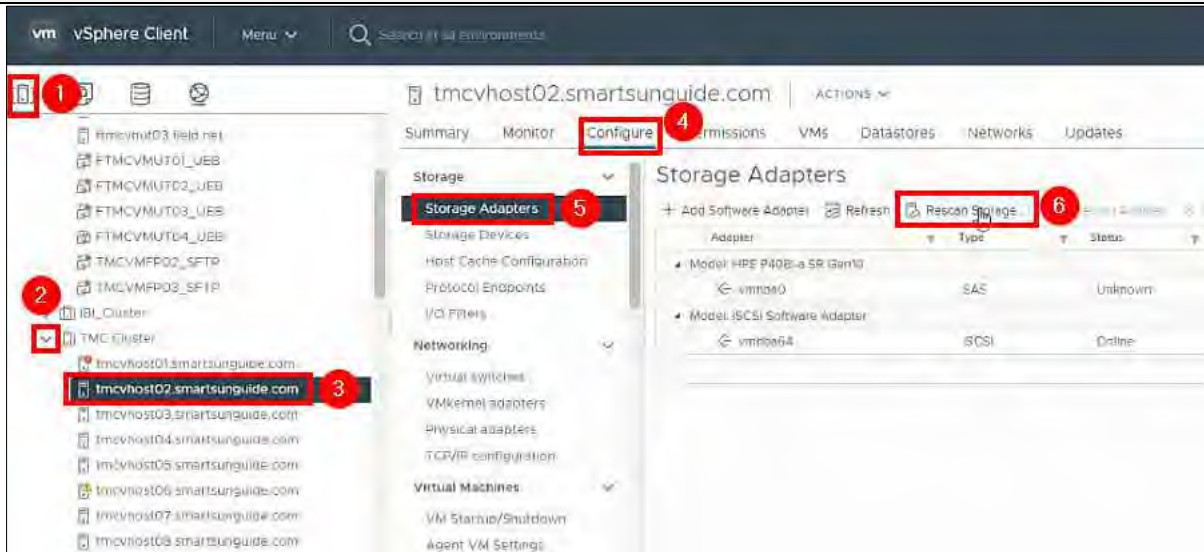


Figure 254. Rescan Storage

19. – Click OK.



Figure 255. Rescan Storage

20. – Click **Datastores** and verify that the **test** datastore appears.

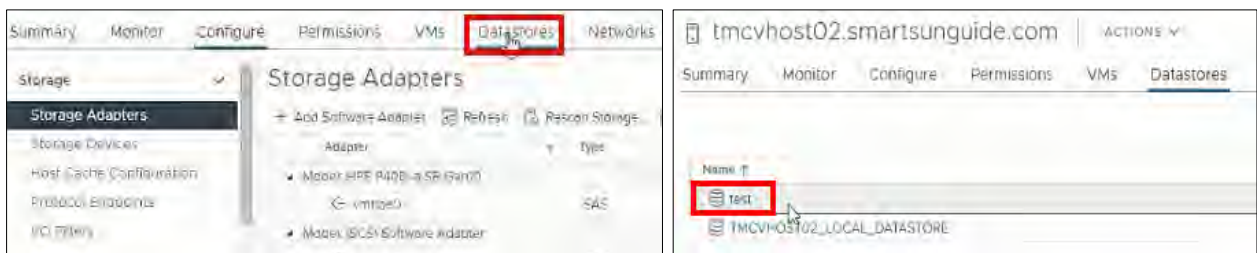


Figure 256. Datastores > Test.

Steps / Screenshots

21.
 - (1) Click **storage**,
 - (2) Click the down arrow next to **TMC**,
 - (3) Click **test**,
 - (4) Click **Configure**,
 - (5) Click **Connectivity and Multipathing**,
 - (6) Select **tmcvhost02**,
 - (7) Verify that the **Path Selection Policy** is set to **Round Robin (VMware)**.

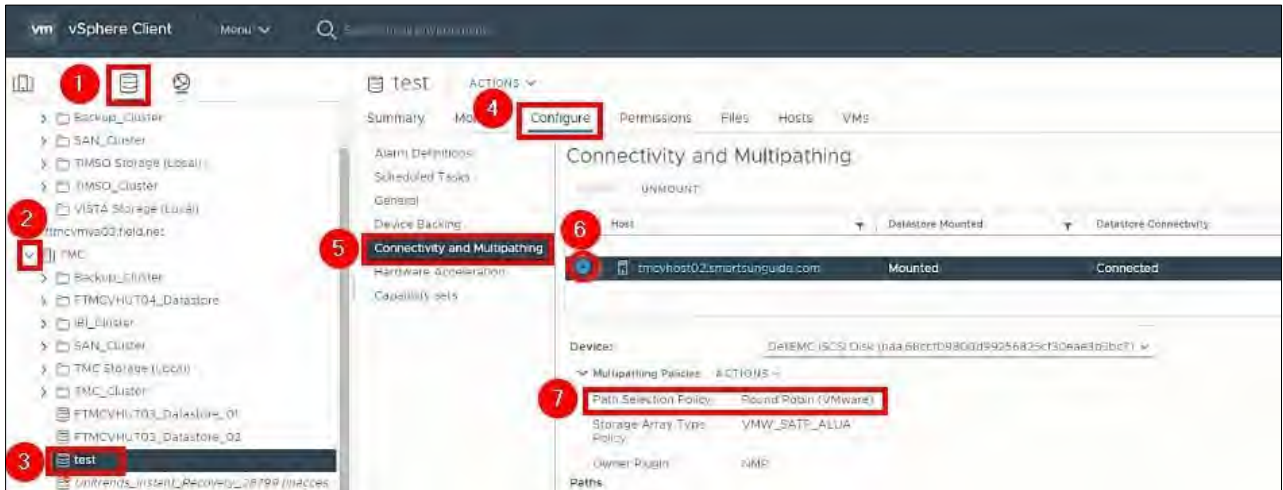


Figure 257. Path Selection Policy - Round Robin VMware

22. Repeat the following procedures for all other TMC hosts:

Add VMkernel Adapters to the Hosts - TMC_SAN_41_iSCSI1

Add VMkernel Adapters to the Hosts - TMC_SAN_41_iSCSI2

Add Storage Adapters to the Hosts

CREATE NEW STORAGE VOLUMES, CONTENT LIBRARIES, DATASTORE

Create a New Storage Volume – ContentLibraryTMC

Steps / Screenshots

1. In the **RTMC-PowerStoreSAN**,
 - Click **Storage** and
 - Select **Volumes**

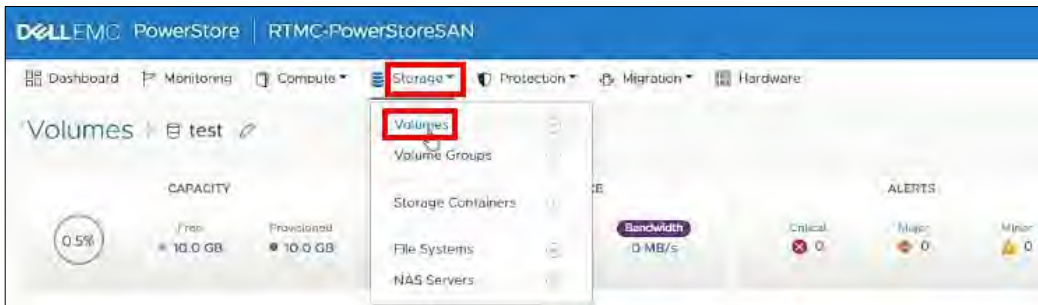


Figure 258. Storage > Volumes.

2. Click **Create**.



Figure 259. Create Storage Volume.

3.
 - Enter the **volume name** (ContentLibrary_TMC),
 - Change the **size** to 500 GB,
 - Click **NEXT**.

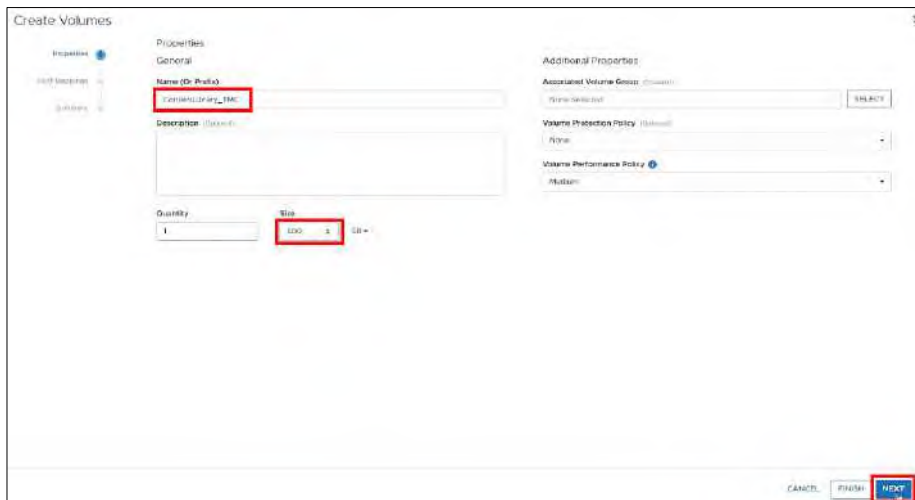


Figure 260. Properties.

Steps / Screenshots

4. – Check the box next to **TMCVHOST** and
- Click **NEXT**.

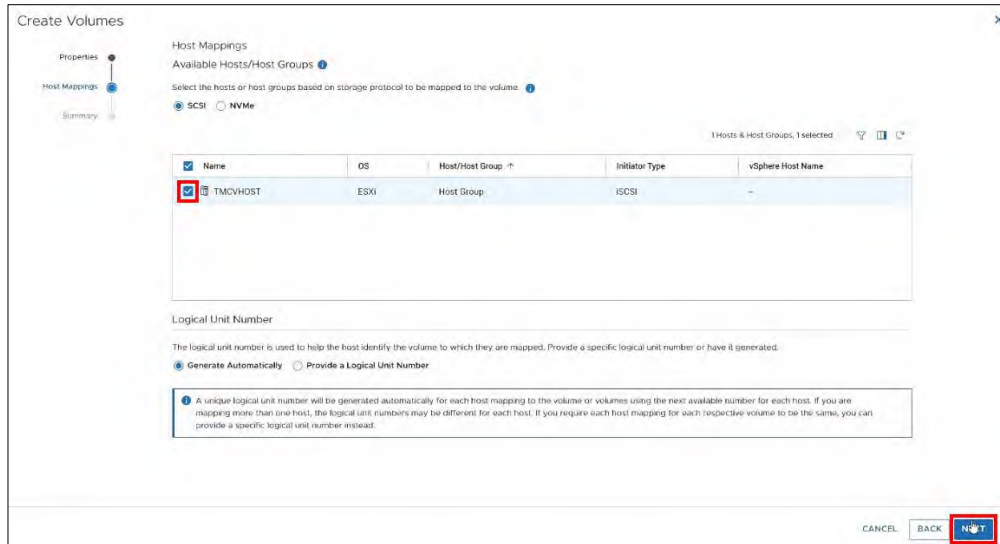


Figure 261. Host Mappings.

5. Click **CREATE**.



Figure 262. Summary.

Add a New Host

1. In the **RTMC-PowerStoreSAN**,
 - Click Compute,
 - Click Hosts & Host Groups.



Figure 263. Compute > Hosts & Host Groups.

2. Click **ADD HOST**.



Figure 264. Add Host.

Enter Host Details

Steps / Screenshots

1.
 - Enter the Host Friendly Name, Operating System, Description,
 - Click **NEXT**.

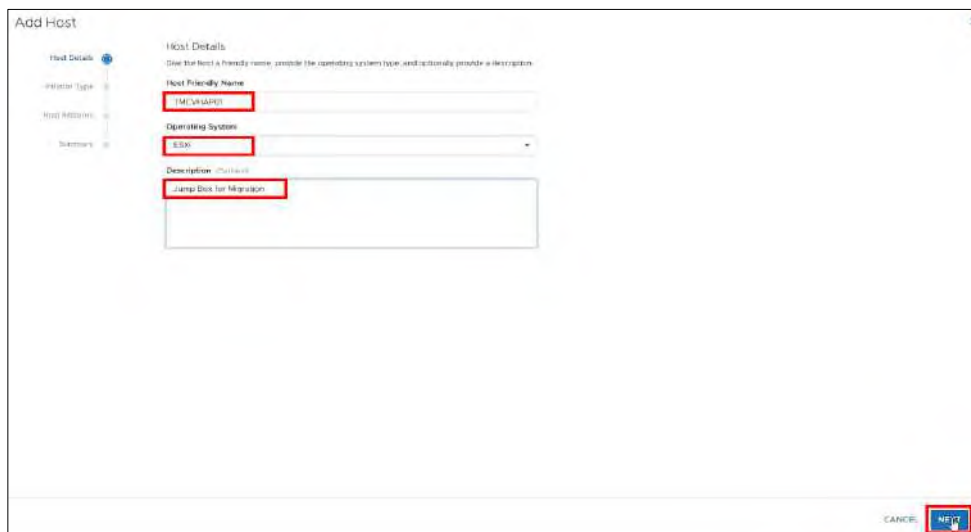


Figure 265. Host Details

Steps / Screenshots

2.
 - Select **iSCSI** and
 - Click **NEXT**.

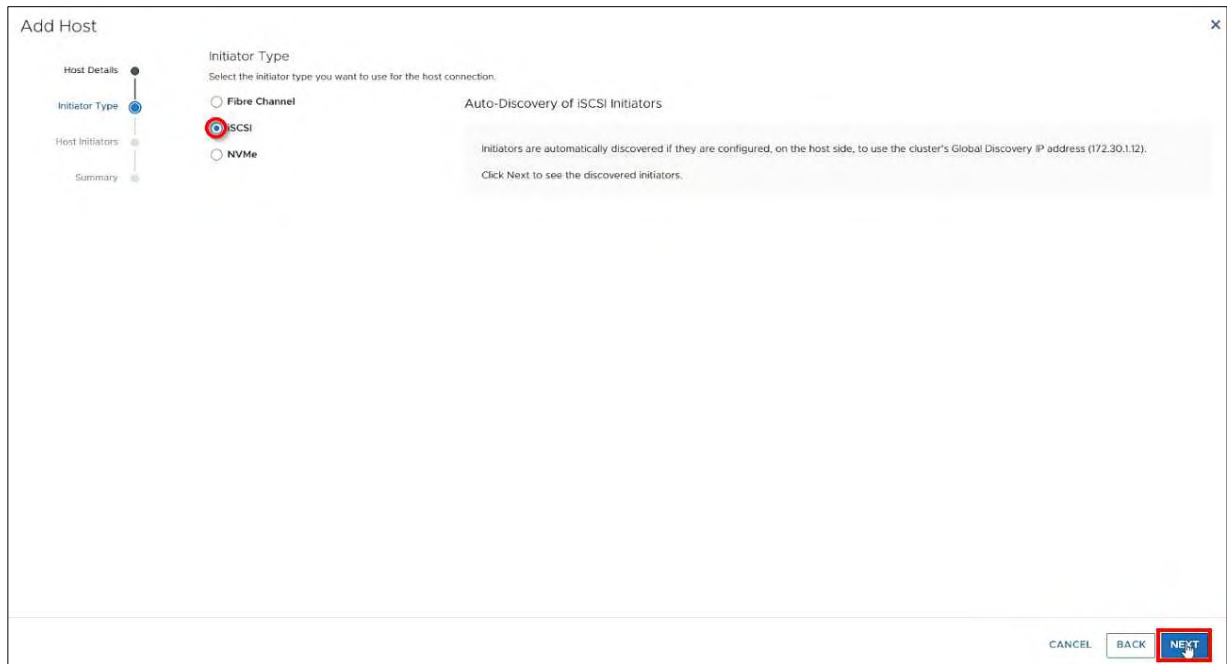


Figure 266. Initiator Type.

3.
 - Check the box next to **iqn...**
 - Click **NEXT**.

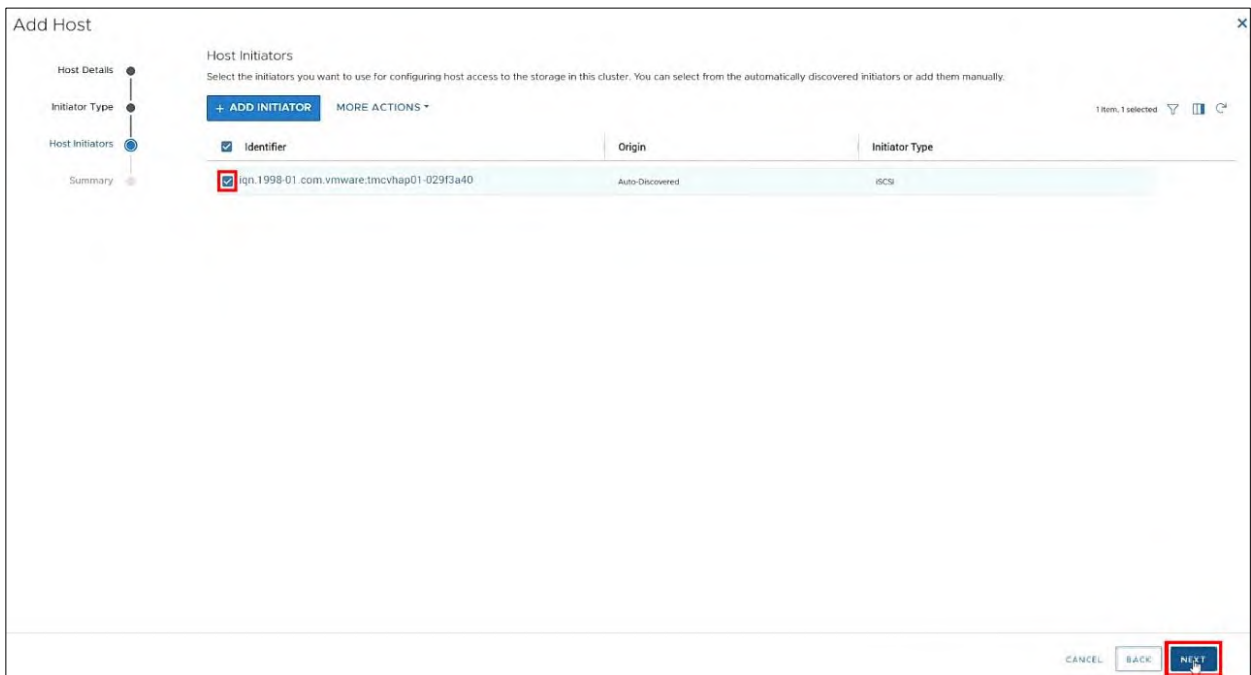


Figure 267. Select Identifier

Steps / Screenshots

4. – Click **ADD HOST**.

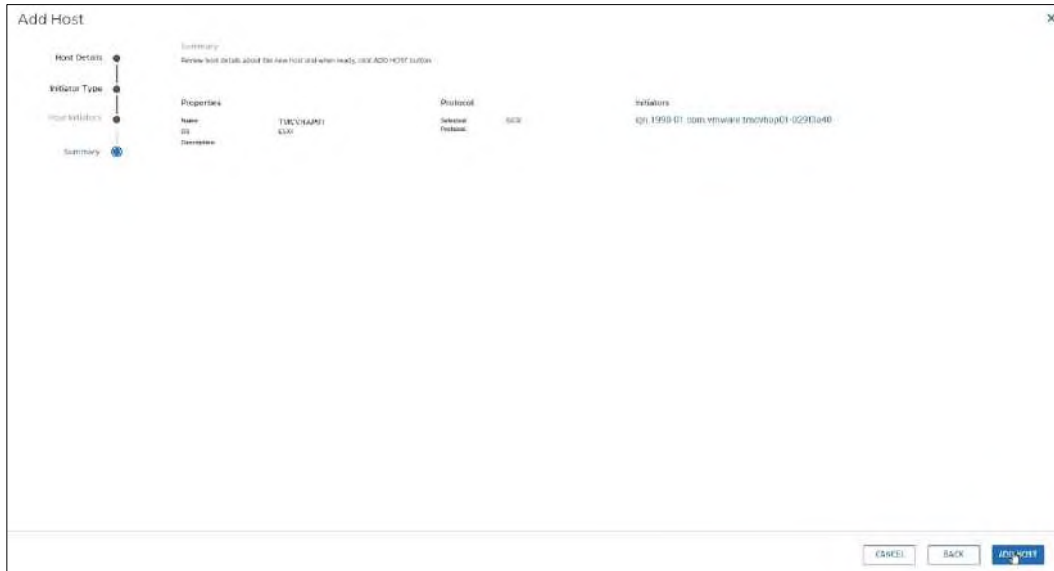


Figure 268. Add Host.

Create a New Storage Volume – VMDatastore_TMC

Steps / Screenshots

1. In the RTMC-PowerStoreSAN,
 - Click Storage,
 - Select **Volumes**.

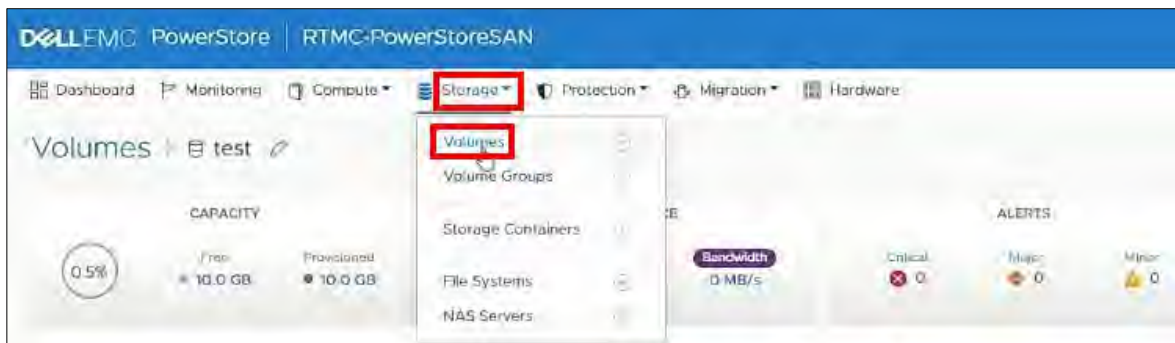


Figure 269. Storage > Volumes

2. – Click **Create**.

Steps / Screenshots



Figure 270. Create Storage Volume

3.
 - Enter the **volume name** (VMDatastore_TMC),
 - Change the **size** to 10 TB,
 - Click **NEXT**.

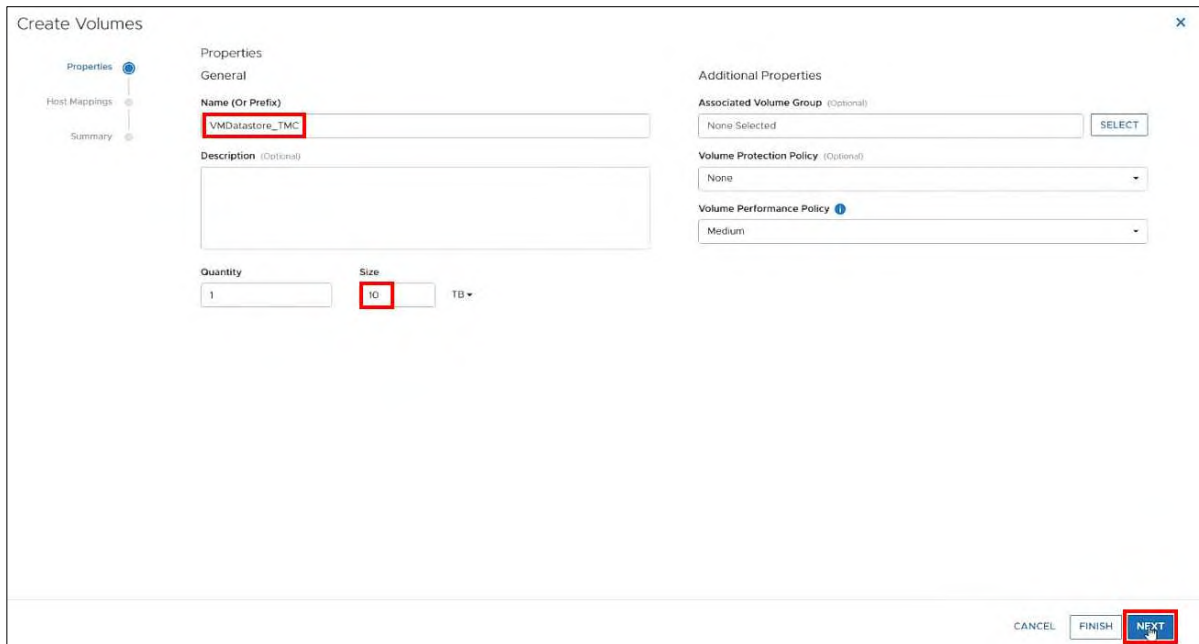


Figure 271. Properties.

4.
 - Check the boxes next to **TMCVHOST** and **TMCVHAP01**
 - Click **NEXT**.

Steps / Screenshots

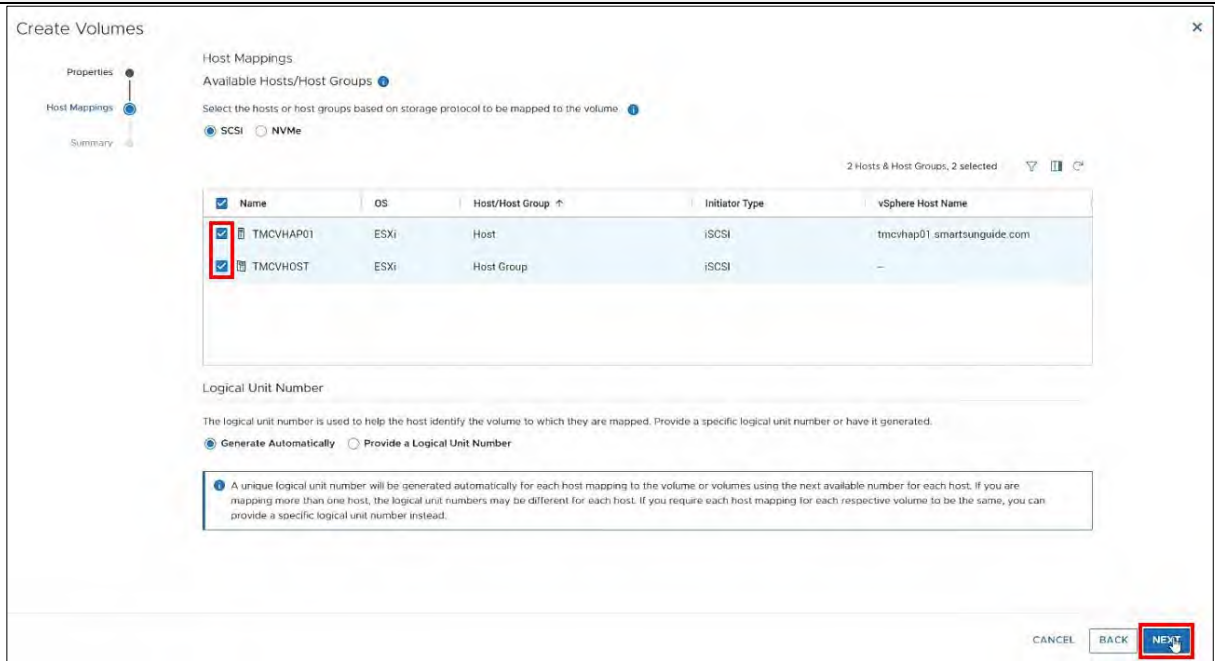


Figure 272. Host Mappings.

5. Click **Create**.



Figure 273. Summary

6.
 - Click **hosts and clusters**,
 - Right-click **TMC Cluster**,
 - Click **Storage**,
 - Click **Rescan Storage**.

Steps / Screenshots

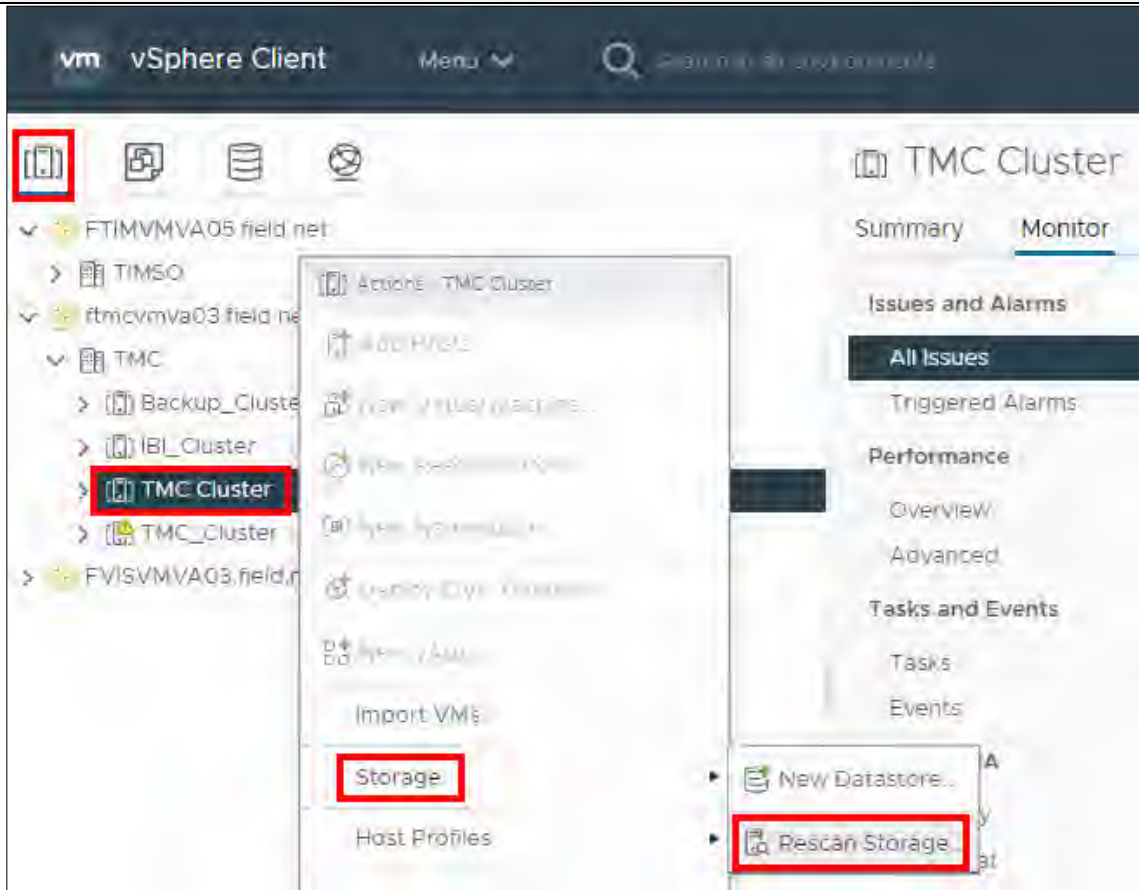


Figure 274. TMC Cluster > Rescan Storage

7. Click **OK**.



Figure 275. Rescan Storage

Create a New Storage Volume Group

- In the RTMC-PowerStoreSAN,
 - Click **Storage** and
 - select Volume Groups.



Figure 276. Storage > Volume Groups.

- Click **Create**.



Figure 277. Create Volume Group.

- Enter the **volume group name** (ProductionDatastores)
 - Click **CREATE**.

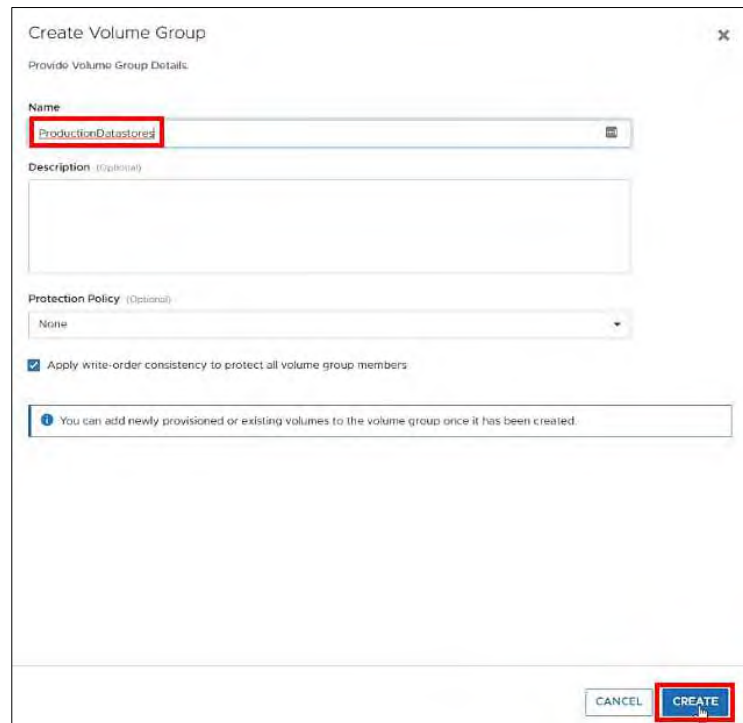


Figure 278. Volume Group Details.

Create a New Storage Folder

1. – (1) In vSphere → Click Storage,
- (2) Right-Click **TMC**,
- (3) Select **New Folder**,
- (4) Click New Storage Folder.

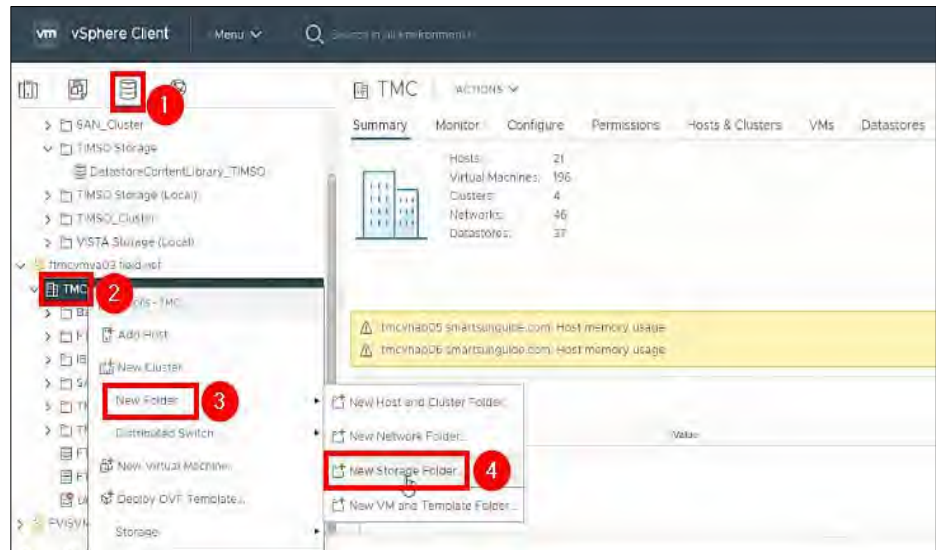


Figure 279. New Storage Folder.

2. – Enter the new **storage folder name** (TMC Storage)
- Click **OK**.



Figure 280. New Storage Folder Name.

Create a New Datastore- DatastoreContentLibrary_TMC

Steps / Screenshots

- Click **storage**,
 - Right-Click **TMC Storage**,
 - Click New Datastore.

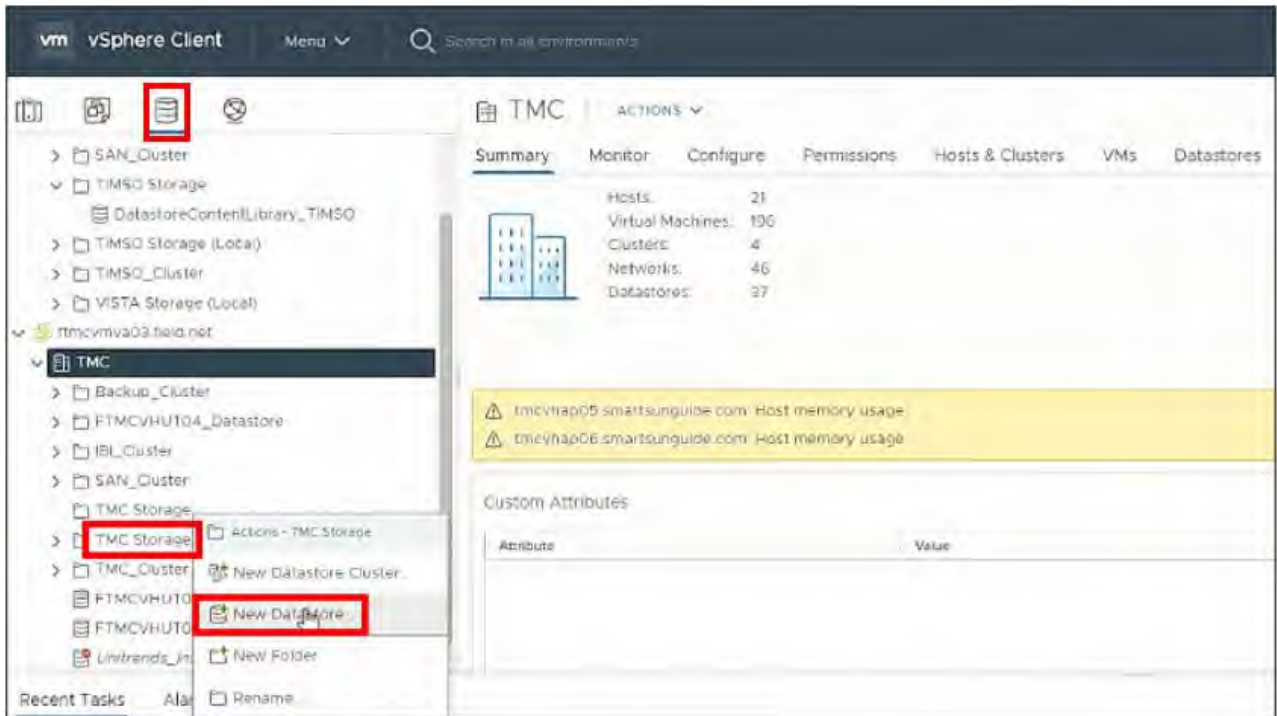


Figure 281. New Datastore.

- Click **NEXT**.

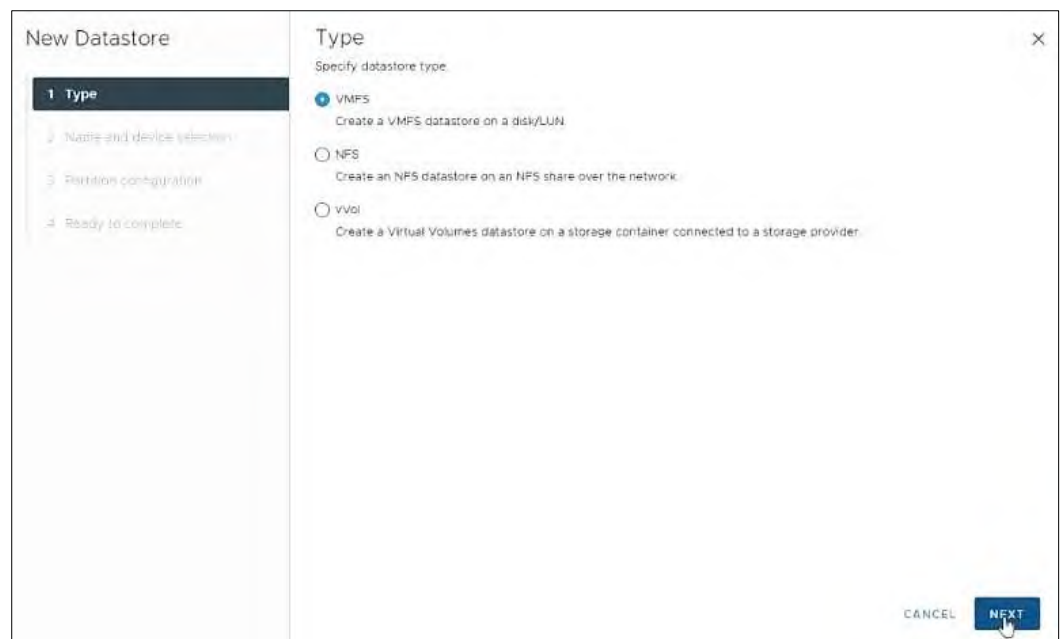


Figure 282. Datastore Type.

Steps / Screenshots

3.
 - Enter the new **datastore name** (DatastoreContentLibrary_TMC),
 - Select a **host**,
 - Click the circle next to **DellEMC iSCSI Disk**,
 - Click **NEXT**.

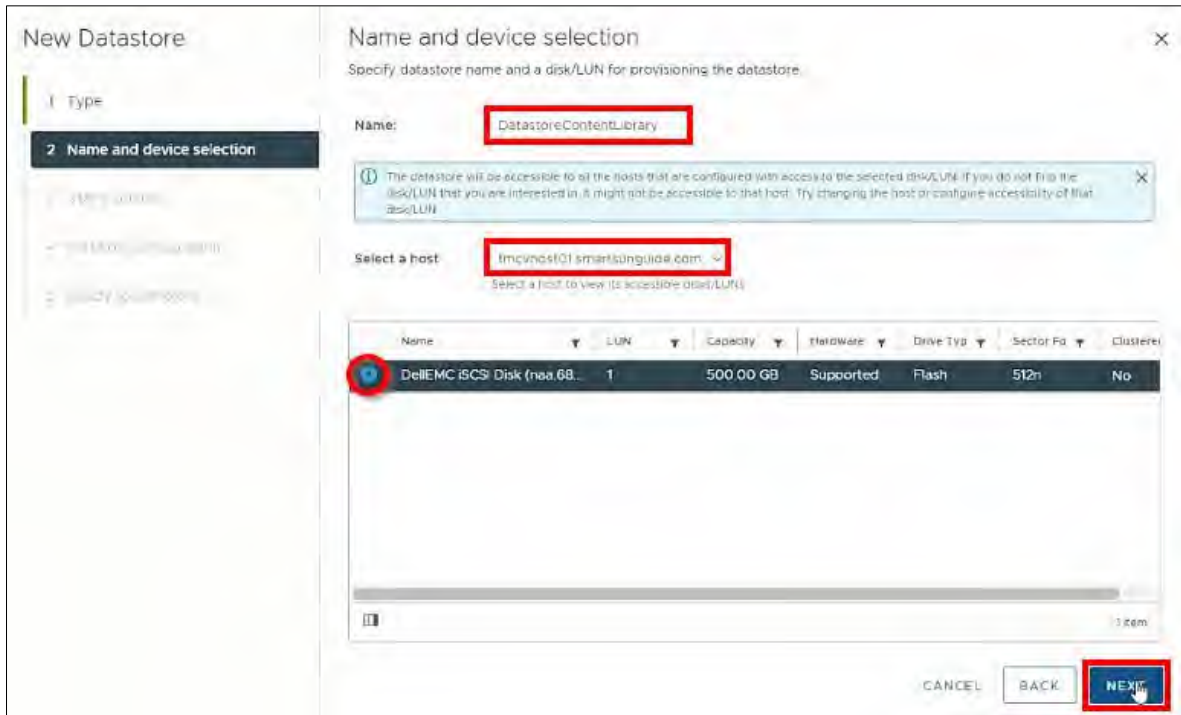


Figure 283. Name and Device Selection.

4. Click **NEXT**.



Figure 284. VMFS Version.

Steps / Screenshots

5. Click **NEXT**.

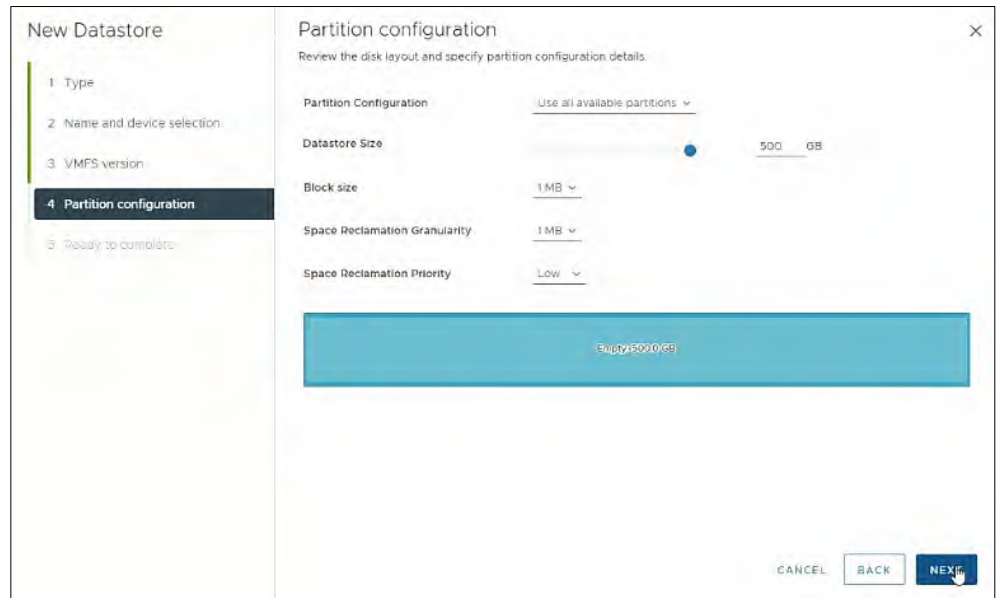


Figure 285. Partition Configuration.

6. Click **FINISH**.

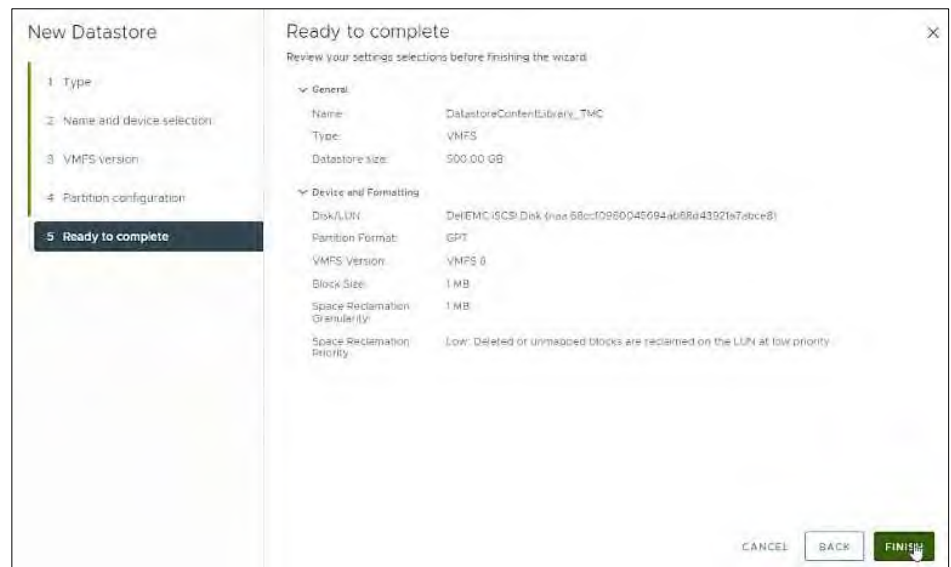


Figure 286. Ready to Complete.

7.
 - Click **hosts and clusters**,
 - Right-click **TMC Cluster**,
 - Click **Storage**,
 - Click **Rescan Storage**.

Steps / Screenshots

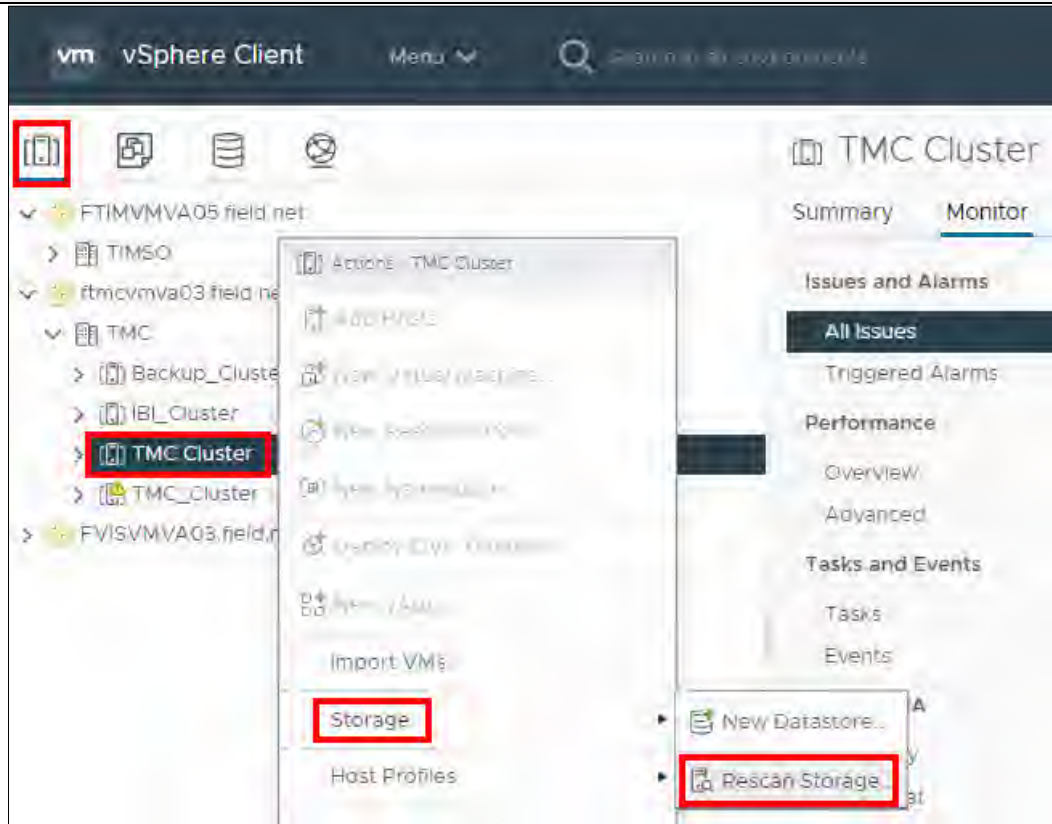


Figure 287. TMC Cluster > Rescan Storage.

8. Click **OK**.



Figure 288. Rescan Storage.

Create a New Content Library – TMC

Steps / Screenshots

1.
 - Click **Menu**
 - Select Content Libraries

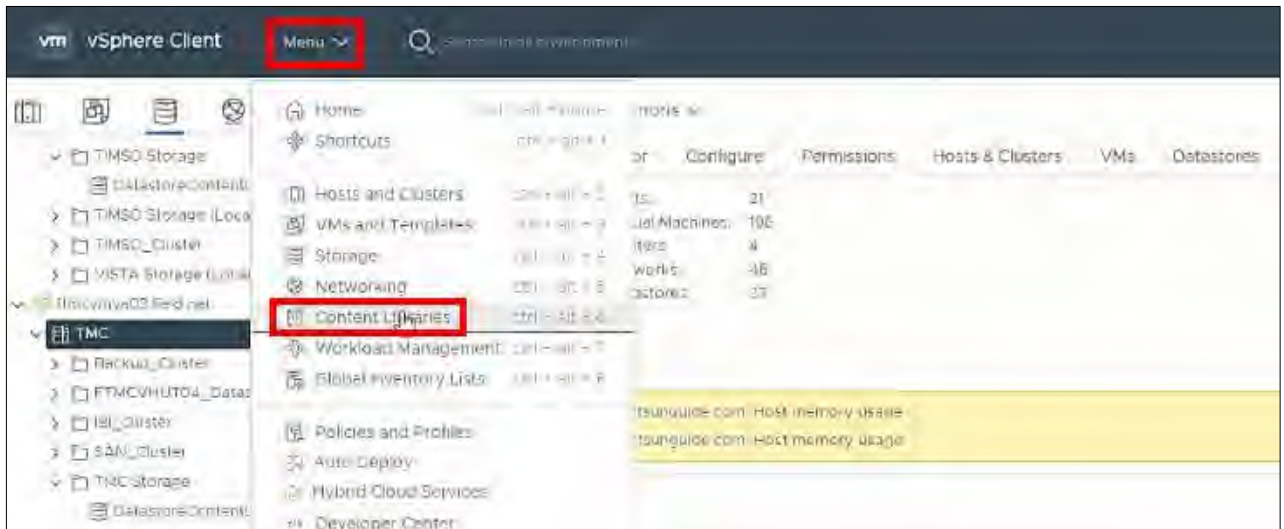


Figure 289. Menu > Content Libraries

2. Click **Create**.

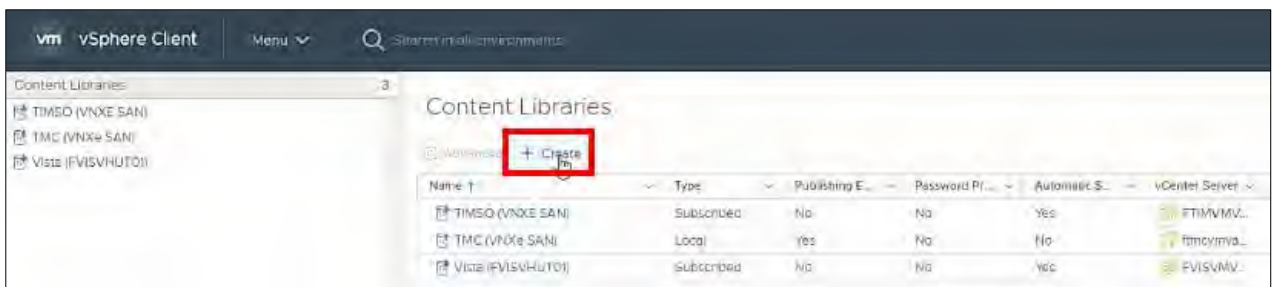


Figure 290. Create Content Library

Steps / Screenshots

3.
 - Enter the new **content library name** (TMC_ContentLibrary),
 - Select the vCenter server,
 - Click **NEXT**.

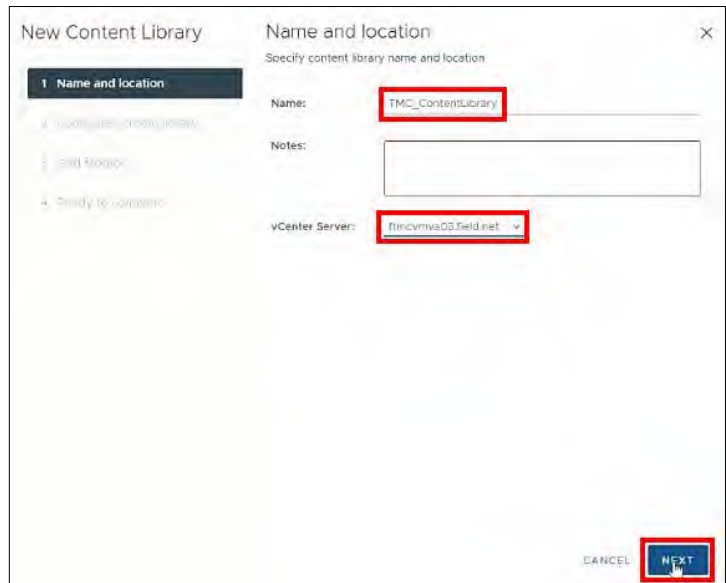


Figure 291. Name and Location.

4.
 - Check the box next to **Enable publishing**
 - Click **NEXT**.

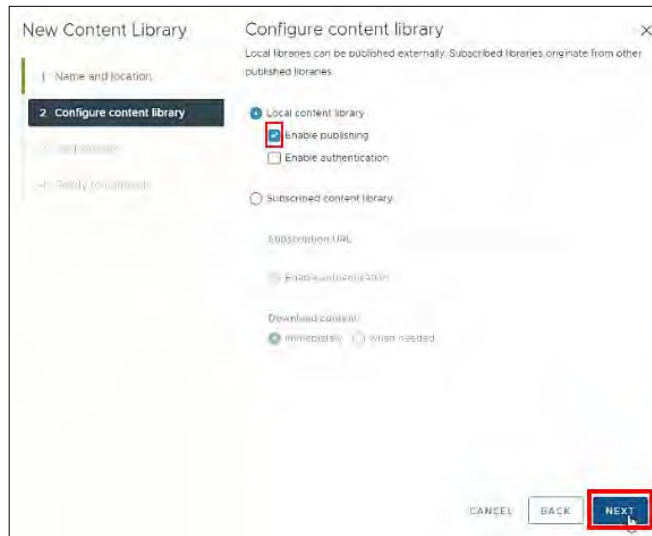


Figure 292. Configure Content Library.

Steps / Screenshots

5.
 - Scroll down,
 - Select DatastoreContentLibrary_TMC
 - Click **NEXT**.

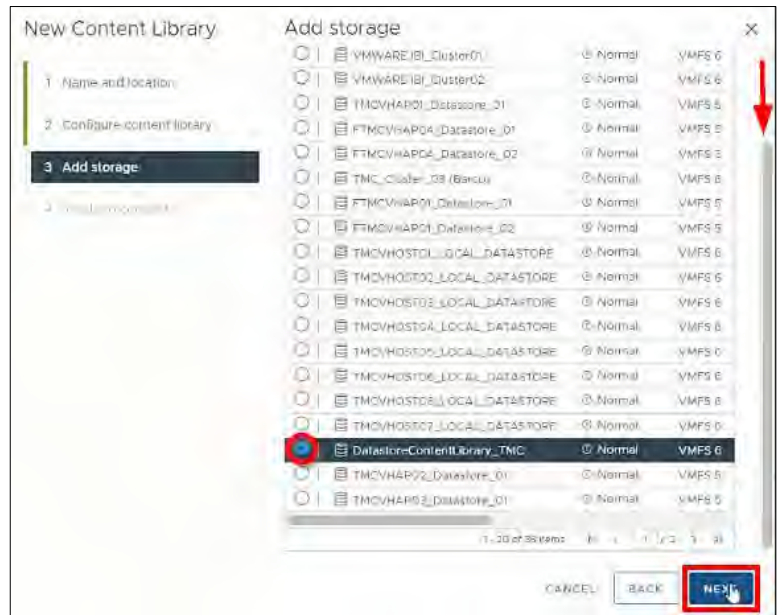


Figure 293. Add Storage.

6. Click **FINISH**.

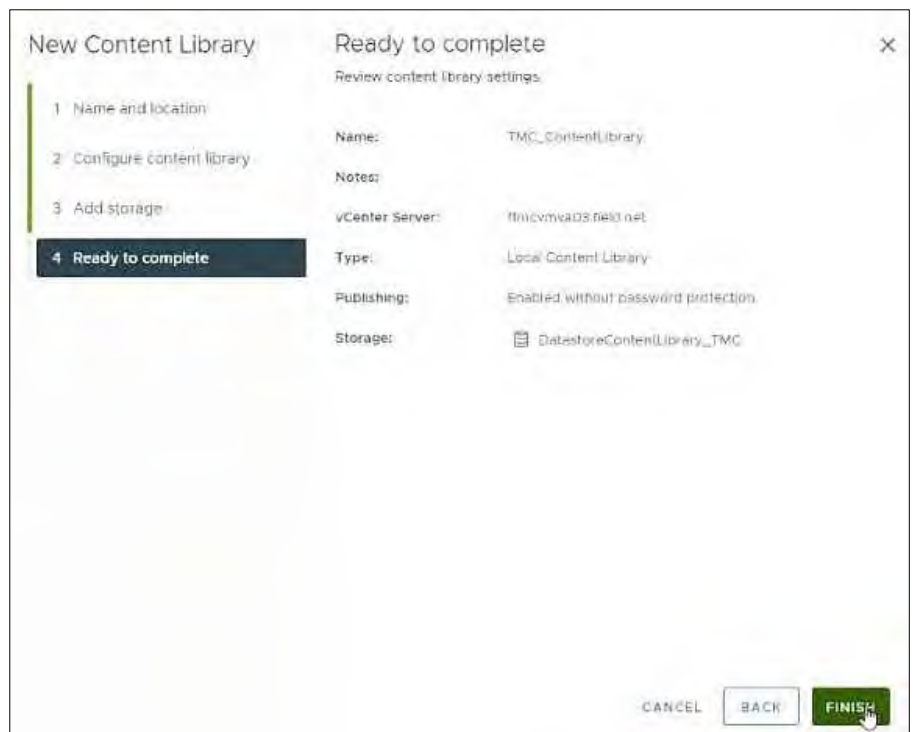


Figure 294. Ready to Complete.

7.
 - Click TMC_Content Library,
 - Click **Summary**,
 - Click **COPY LINK** to capture the subscription URL.

Steps / Screenshots

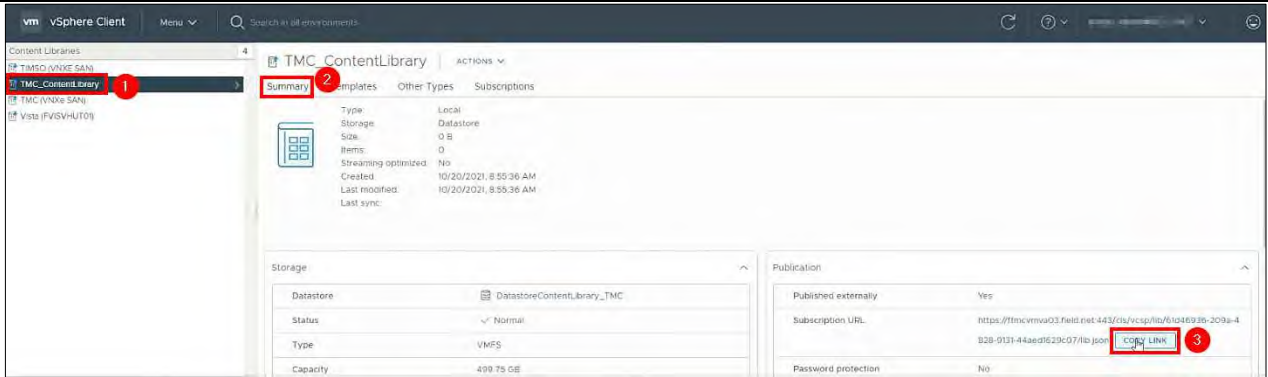


Figure 295. TMC_Content Library - Subscription URL.

Create a New Content Library – TIMSO

Steps / Screenshots

1. Click **Create**.



Figure 296. Create Content Library

2.
 - Enter the new **content library name** (TIMSO_ContentLibrary),
 - Select vCenter server,
 - Click **NEXT**.

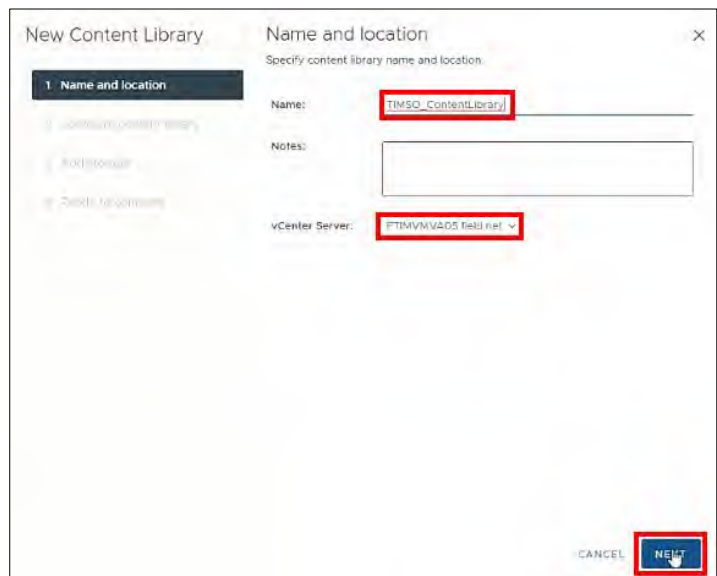


Figure 297. Name and Location.

Steps / Screenshots

3. – Select Subscribed content library,
- Paste the TMC_Content Library - Subscription URL,
- Click **NEXT**.

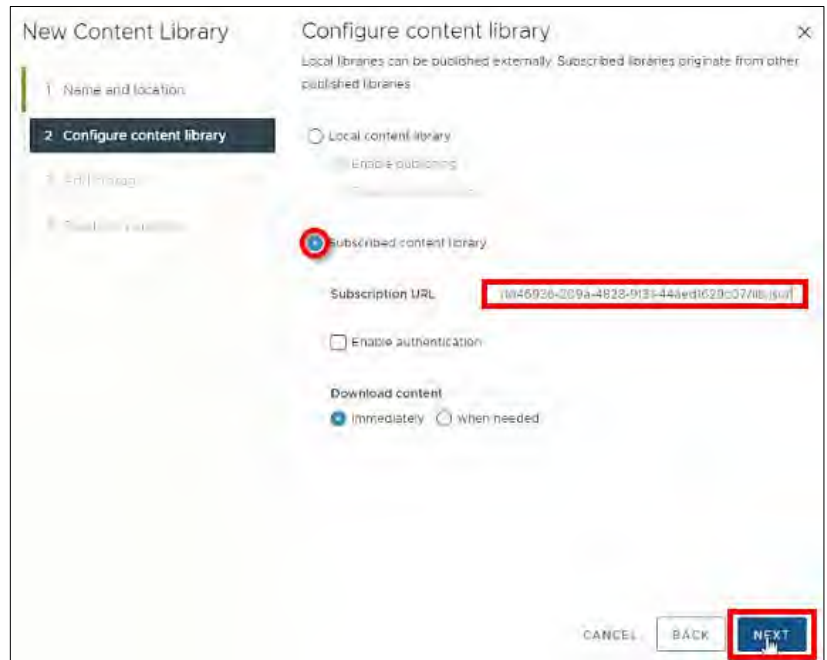


Figure 298. Configure Content Library.

4. – Scroll down,
- Select **DatastoreContentLibrary_TIMSO**,
- Click **NEXT**.

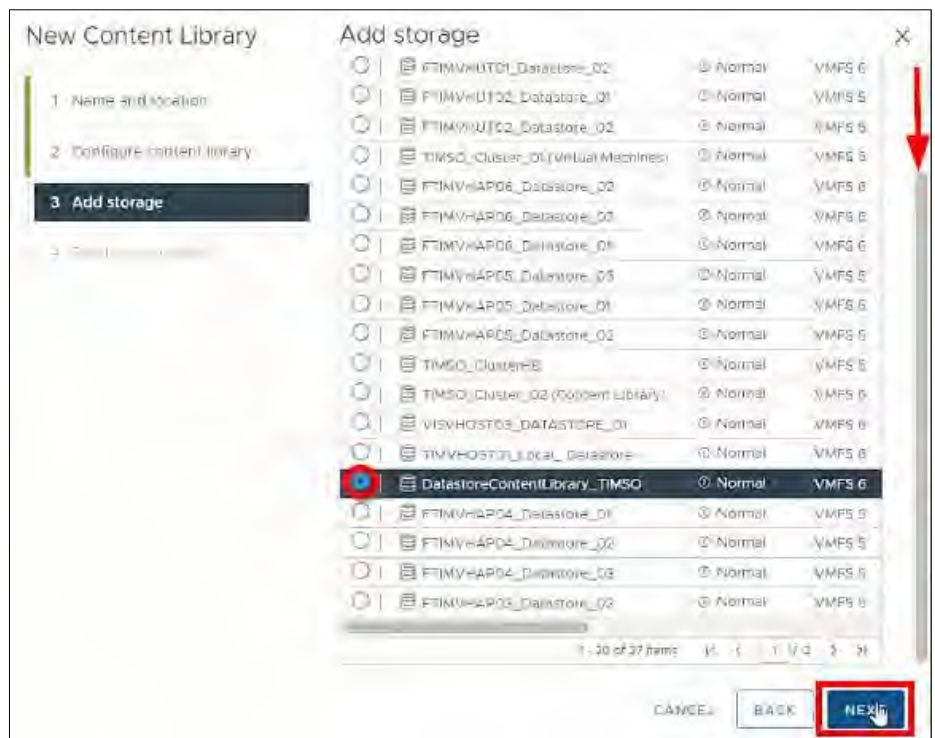


Figure 299. Add Storage.

Steps / Screenshots

5. Click **FINISH**.

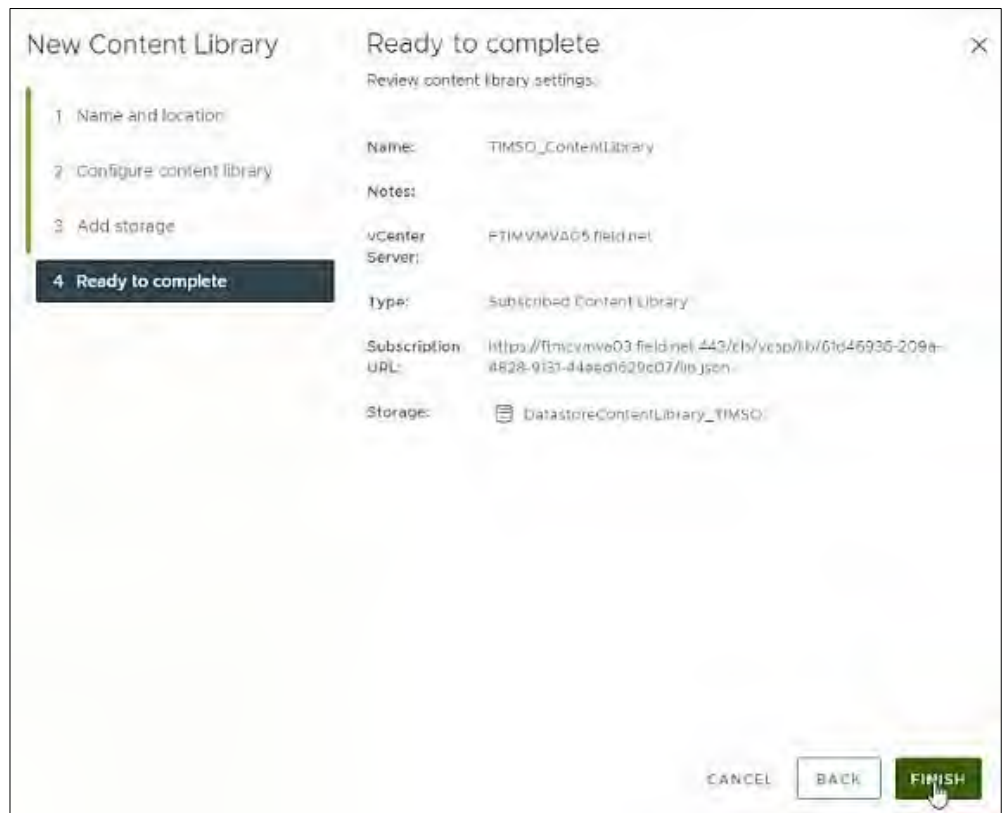


Figure 300. Ready to Complete.

Create a New Datastore – DatastoreVM_TMC

Steps / Screenshots

1.
 - Click **Storage**,
 - Right-Click **TMC Storage**,
 - Click **New Datastore**.

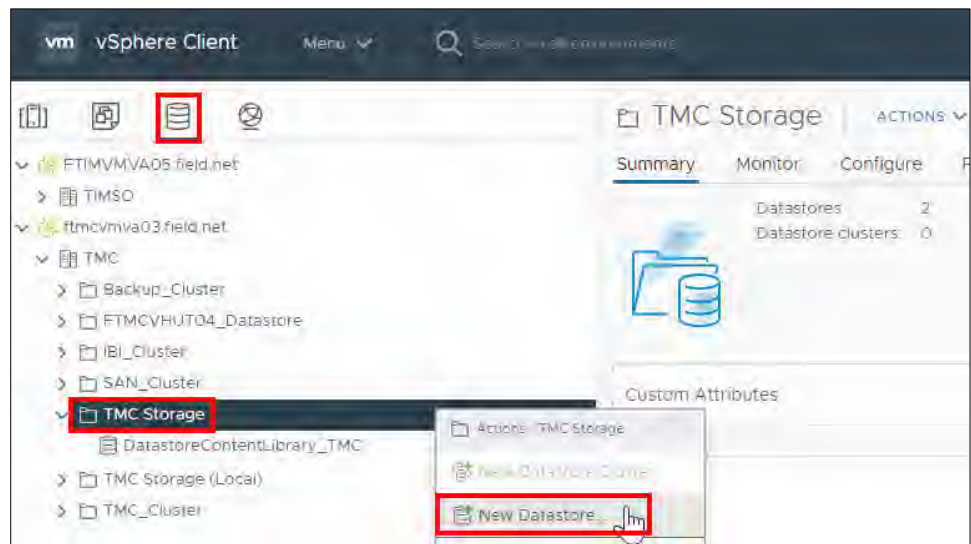


Figure 301. New Datastore.

Steps / Screenshots

2. Click **NEXT**.

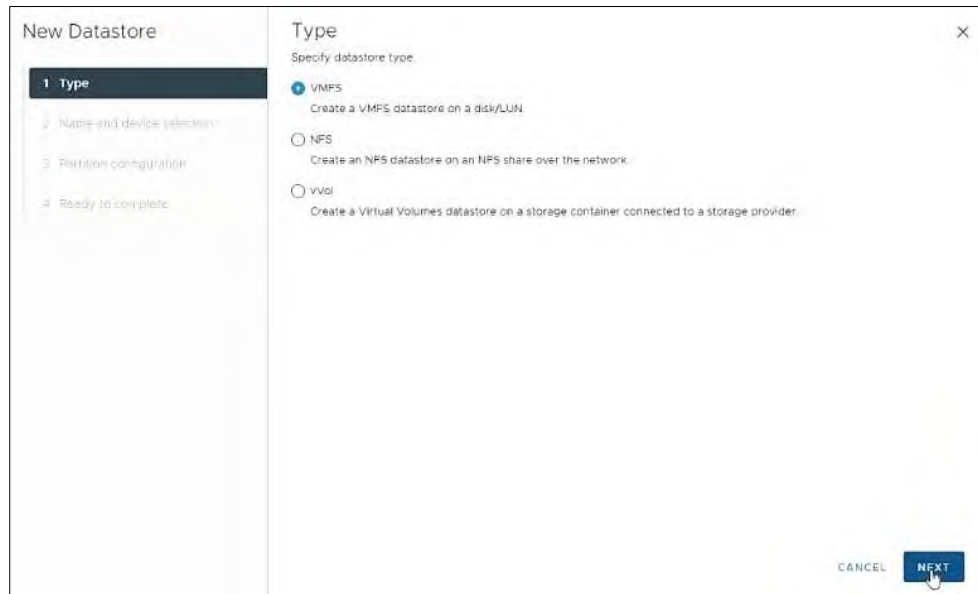


Figure 302. Datastore Type.

- 3. – Enter the new **datastore name** (DatastoreVM_TMC),
- Select a **host**,
- Click the circle next to **DellEMC iSCSI Disk**,
- Click **NEXT**.

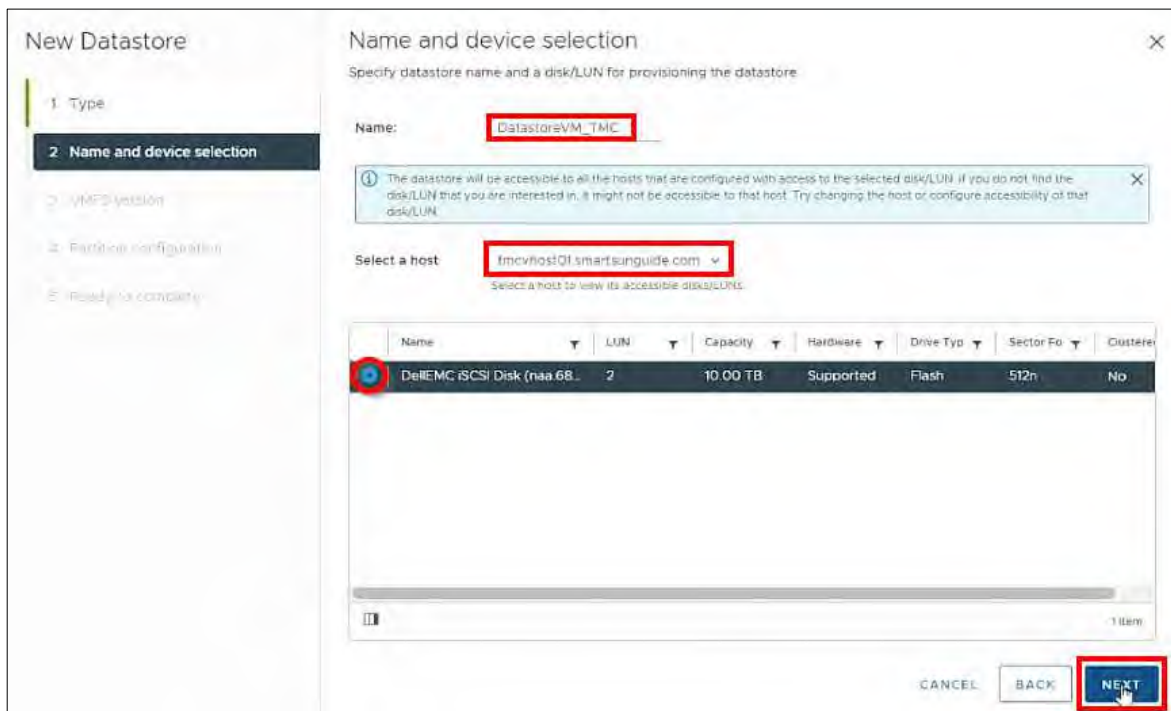


Figure 303. Name and Device Selection.

Steps / Screenshots

4. Click **NEXT**.



Figure 304. VMFS Version.

5. Click **NEXT**.

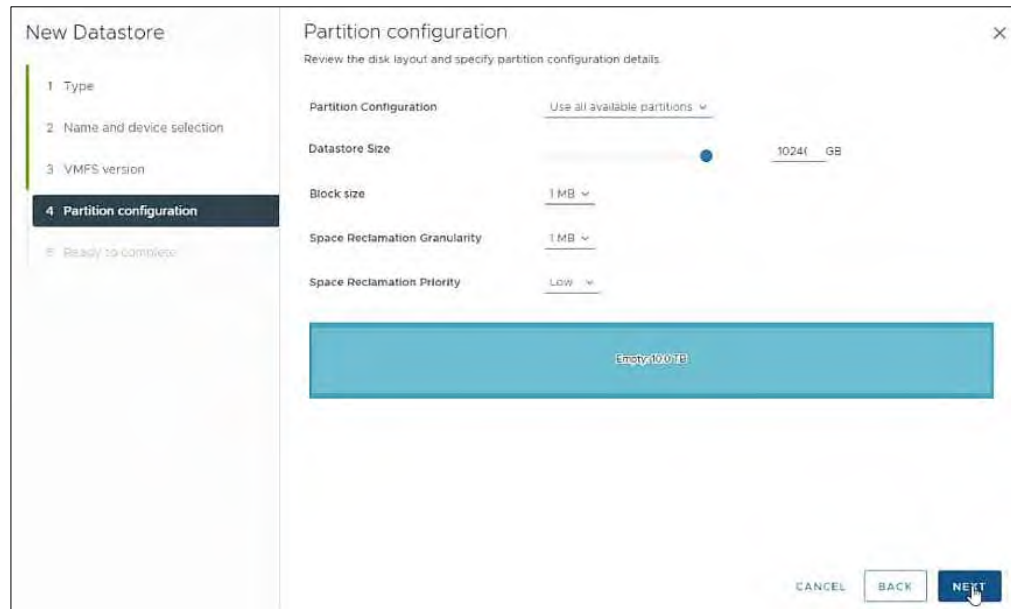


Figure 305. Partition Configuration.

Steps / Screenshots

6. Click **FINISH**.

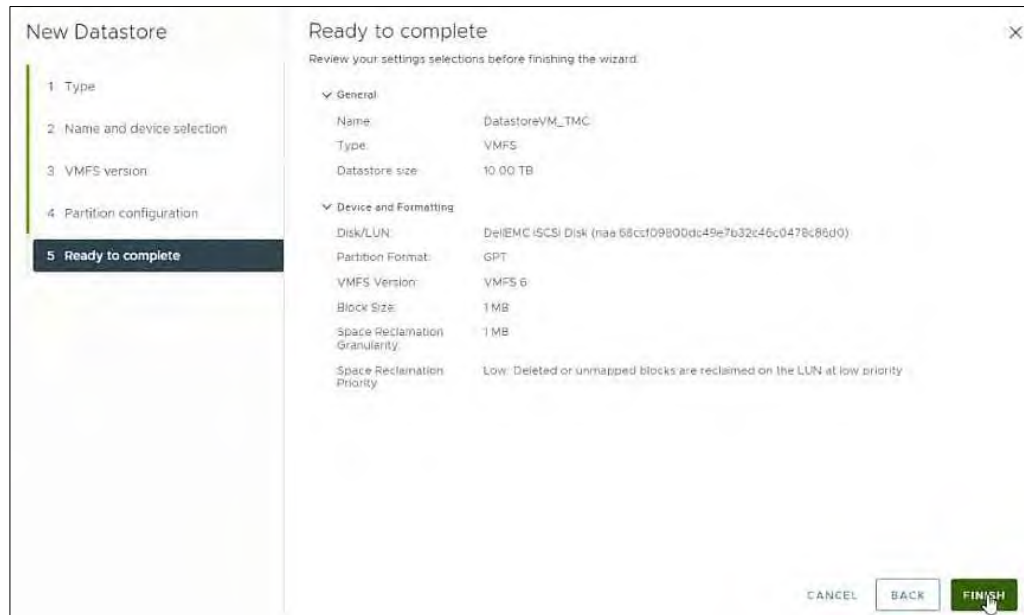


Figure 306. Ready to Complete.

- 7. – Click hosts and clusters,
- Right-Click **TMC Cluster**,
- Click **Storage**,
- Click Rescan Storage.

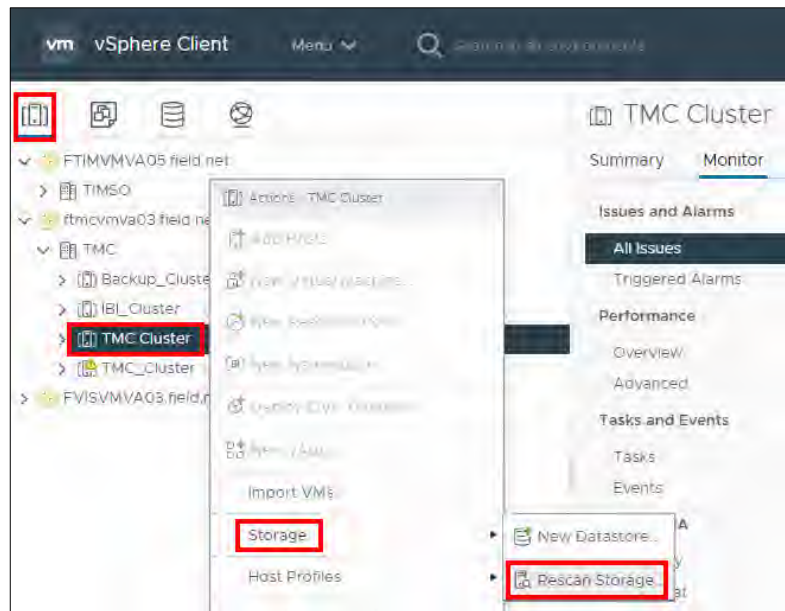


Figure 307. TMC Cluster > Rescan Storage.

Steps / Screenshots

8. Click **OK**.



Figure 308. Rescan Storage.

MIGRATE VMs to a NEW DATASTORE with vMOTION

Note: These procedures cannot be performed by one person, but with a minimum of two people.

Migrate (Compute Only) Virtual Machines (VMs)

1.
 - (1) Click hosts and clusters,
 - (2) Click ftmcvhap02,
 - (3) Click Configure,
 - (4) Click VMkernel adapters,
 - (5) Verify that **VMotion-01** is enabled.

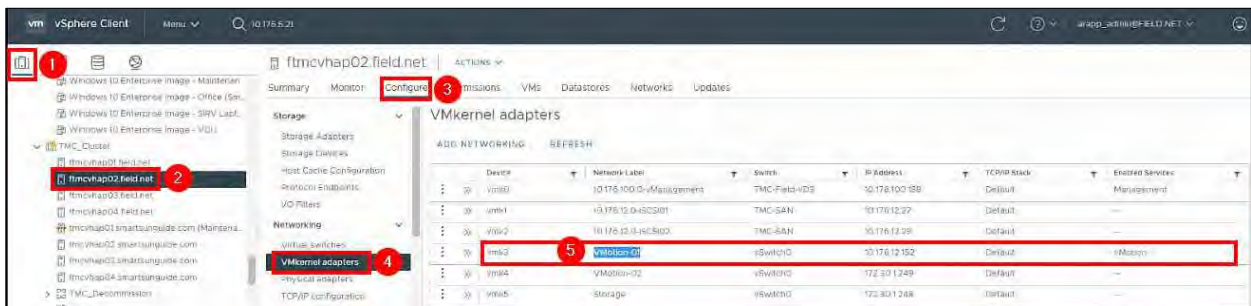


Figure 309. VMotion-01 Enabled

2. Perform a compute migration of VMs into **ftmcvhap02**.

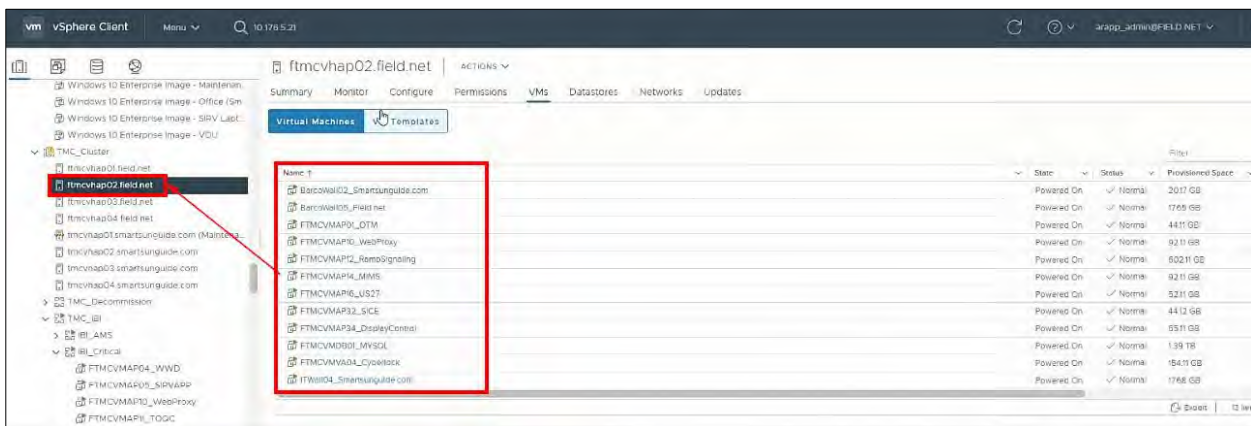


Figure 310. Compute Migration of VMs.

Migrate Storage Only

Steps / Screenshots

1.
 - (1) Click hosts and clusters,
 - (2) Click ftmcvhap02,
 - (3) Click Configure,
 - (4) Click VMkernel adapters,
 - (5) Click the three dots next to vmk4,
 - (6) Click Edit.

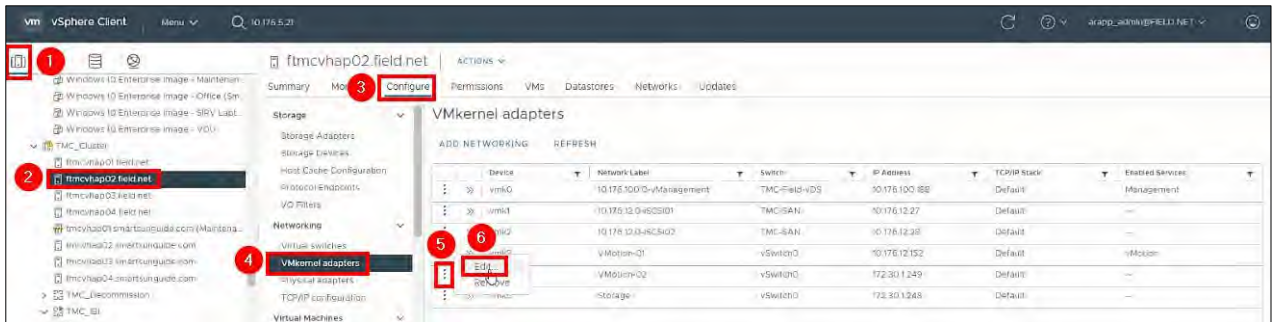


Figure 311. Edit VMkernel Adapters

2.
 - Check the box next to **vMotion**
 - Click **OK**

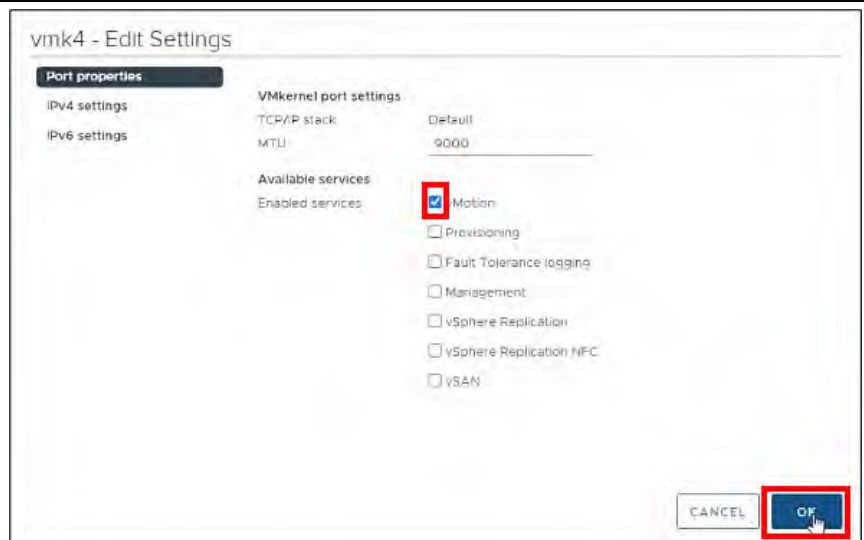


Figure 312. Port Properties - Select vMotion

Steps / Screenshots

3. Verify that VMotion-02 is enabled.

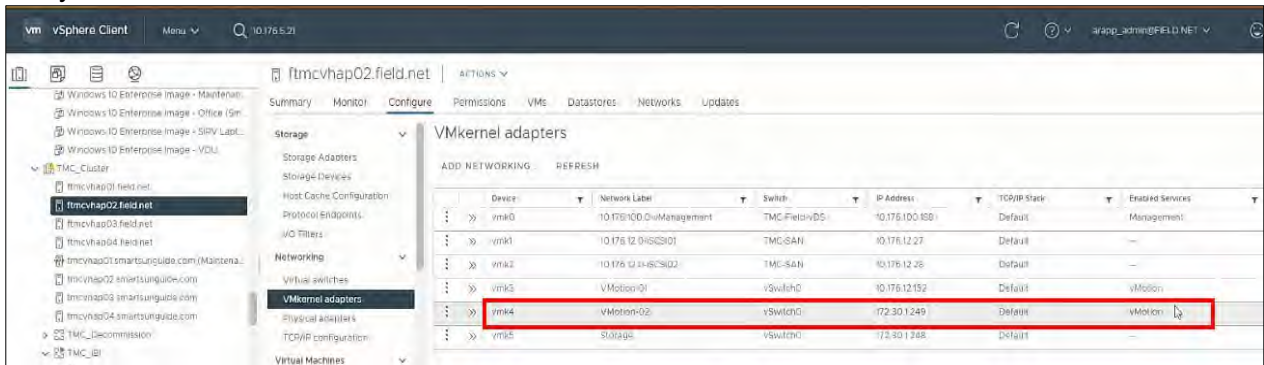


Figure 313. VMotion-02 Enabled.

- 4.
- (1) Click **VMs** and highlight all VMs listed.
 - (2) Right click →
 - (3) Select **Migrate**.

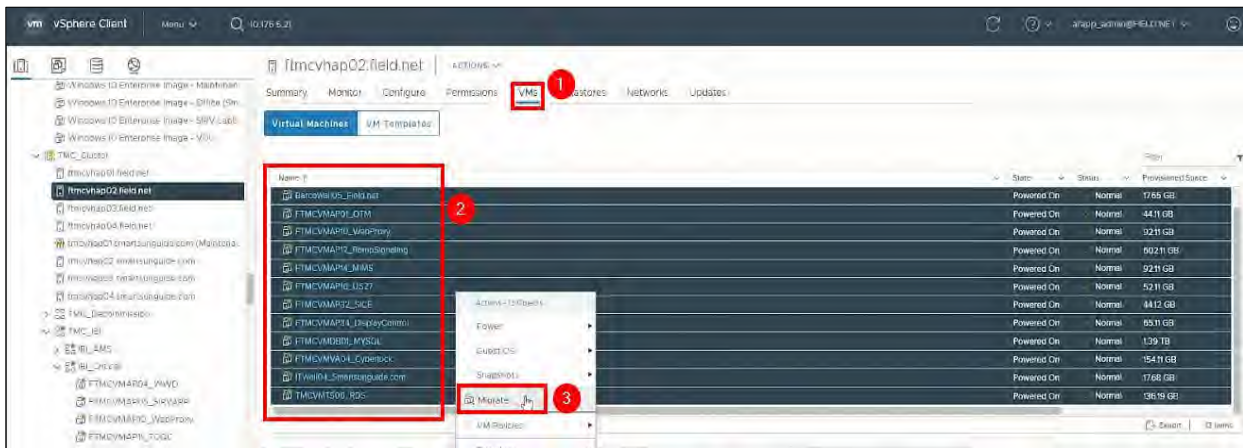


Figure 314. Migrate VMs.

5. Click **YES** to confirm the migration of all VMs listed



Figure 315. Confirm Migration

- 6.
- Select Change storage only.
 - Click **NEXT**.

Steps / Screenshots

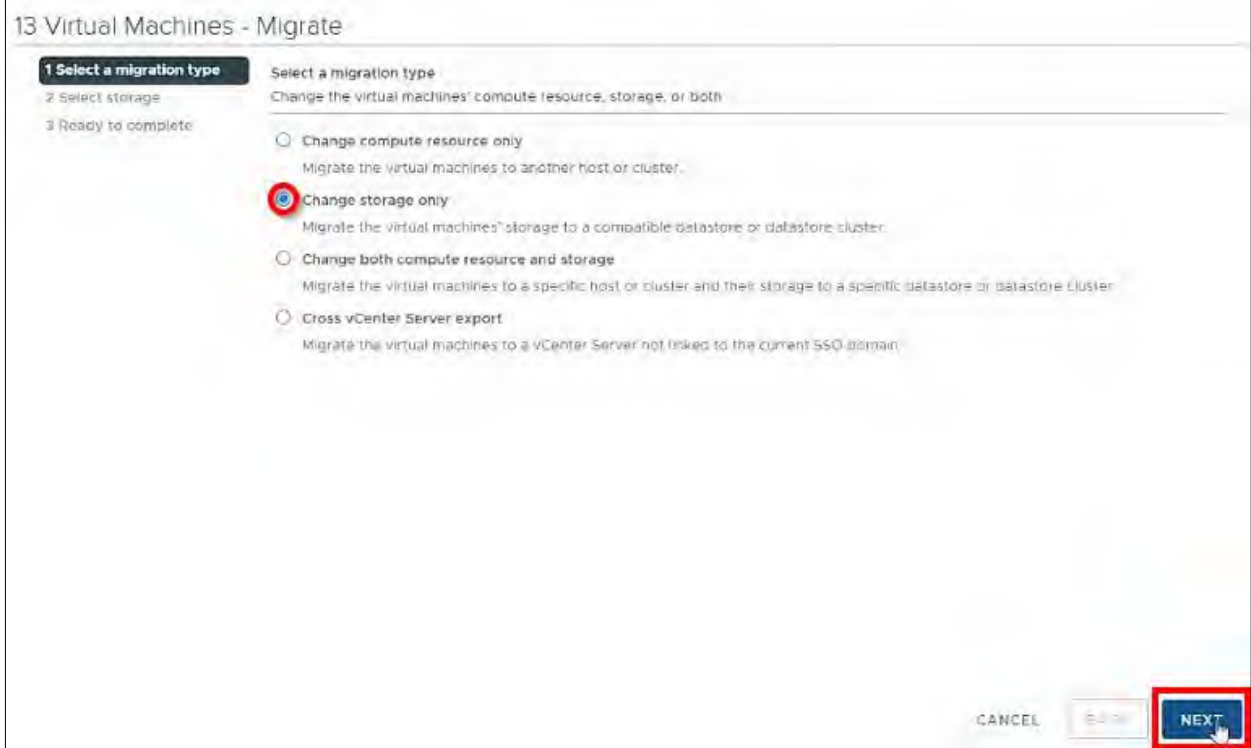


Figure 316. Change Storage Only

- Select the new datastore **DatastoreVM_TMC**.
 - Click **NEXT**.

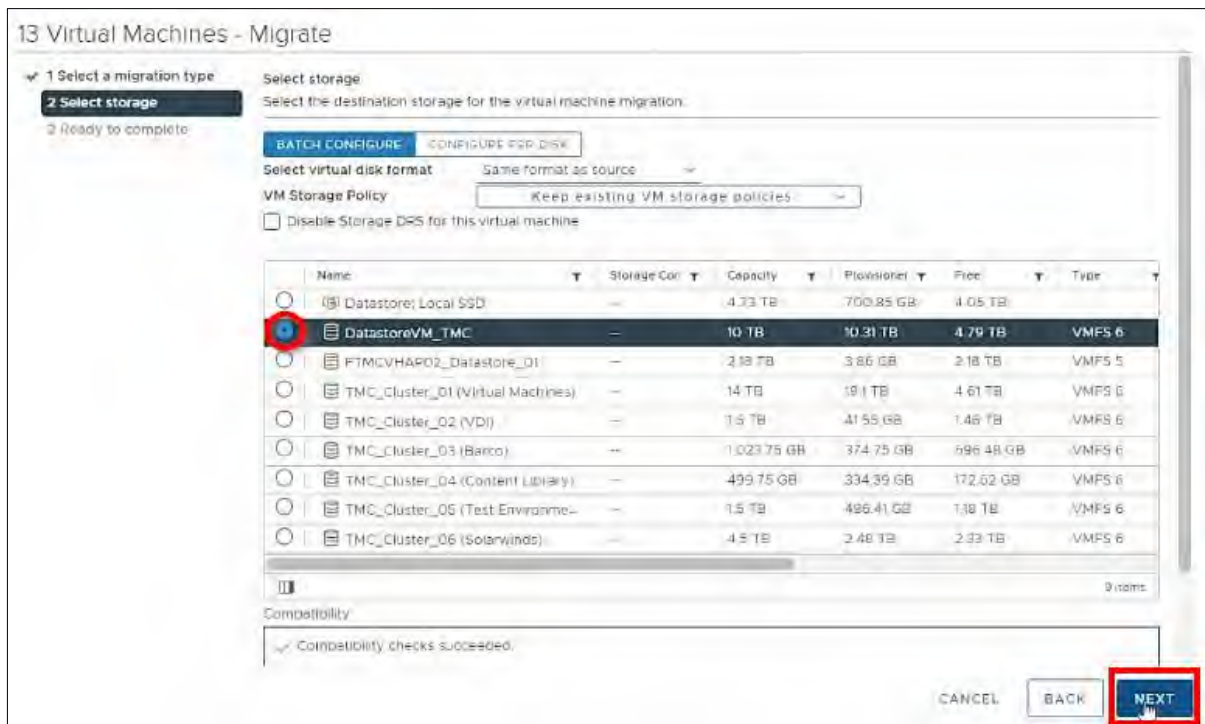


Figure 317. Select DatastoreVM_TMC

Steps / Screenshots

8. Click **FINISH**.

Figure 318. Ready to Complete

9. Repeat the following procedures for all other TMC hosts:

- Migrate (Compute Only) Virtual Machines (VMs)
 - Migrate Storage Only
-



7.22 Video Wall Configuration

Document History

Version #	Date	Author	Changes
1.0	12/20/2023	Yana Neishlos	Initial Draft

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VIDEO WALL CONFIGURATION

The RTMC manages a multi-site enterprise video wall system. This Video Wall system consist of over 60 Individual Video Wall Displays.

1. The Primary wall → Used by the RTMC Control Room; consists of 44 x 70" Rear LED Projection Engines creating a single Display.
2. Two secondary Walls within the RTMC Control Room → Consists of 12 x 55" UniSee panels in a 6 x 2 layout.
3. One Backup Video Wall System → At the Treasure Coast location - consists of 14 x 50" LED Monitors clustered together.
4. One Annex Video Wall out of Palm Beach → Consists of 8 x 50" LED Monitors; clustered together used by Palm Beach Operations.
5. Three Separate Accessory Video Wall Systems → Consists of 4 x 55" 4k LED Monitors each used by Broward Maintenance and the IT Department.
6. Fifty-two Individual Video Wall Displays → Spread throughout the RTMC, Fort Lauderdale, Palm Beach, and Treasure Coast.

All devices are controlled by Centralized Clusters of Control Servers capable of managing all devices on the private RTMC TSM&O Video Network.

All Hardware, Software, Development, and Administration falls on the IT Department.



7.23 Barco Configuration

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Document History

Version #	Date	Author	Changes
1.0	3/14/2024	Yana Neishlos	Initial Draft

INTRODUCTION

Barco Sidebar is a standard application for images. If need to install separately, go to <https://10.176.3.238>.

Sidebar, control panel and display agent are java runtime applications pulled from the server based upon the java applet. Running the applet and clicking on next-next-finish will install the program.



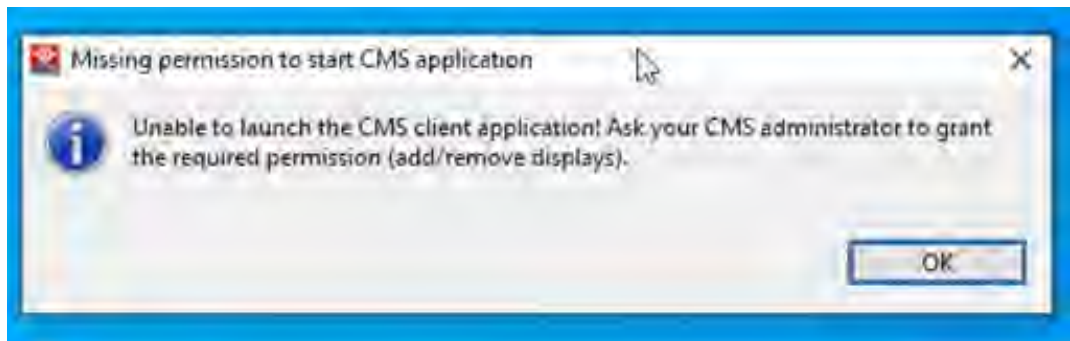
Individual customizations of roles and rules are based upon the naming standards and user creation rules, which can be found in the SolarWinds Service Desk at the following links:

Add a User to the Barco Control Panel

Barco accounts are automatically created for users when they log into their computers and launch Sidebar for the first time.

Steps / Screenshots

1. Users will receive a message stating that *they are missing permissions when Sidebar first opens*. Hence, a user will either be calling someone from the IT Team, or they will be visiting the IT Office to relay that they are unable to view anything within Sidebar.

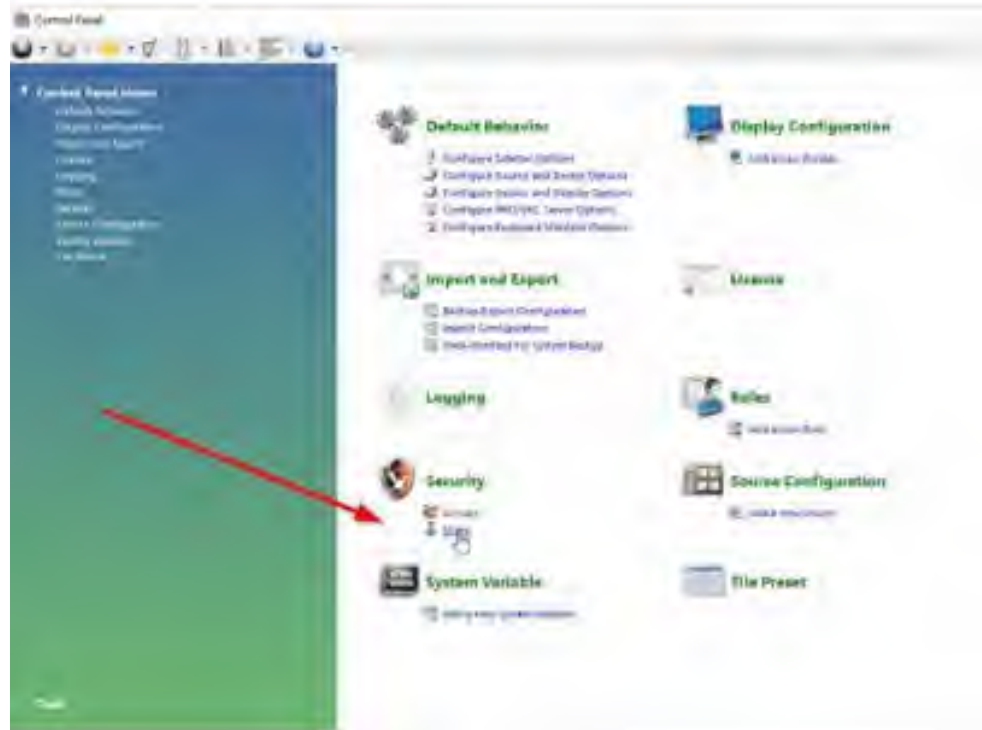


2. Open **Control Panel**.



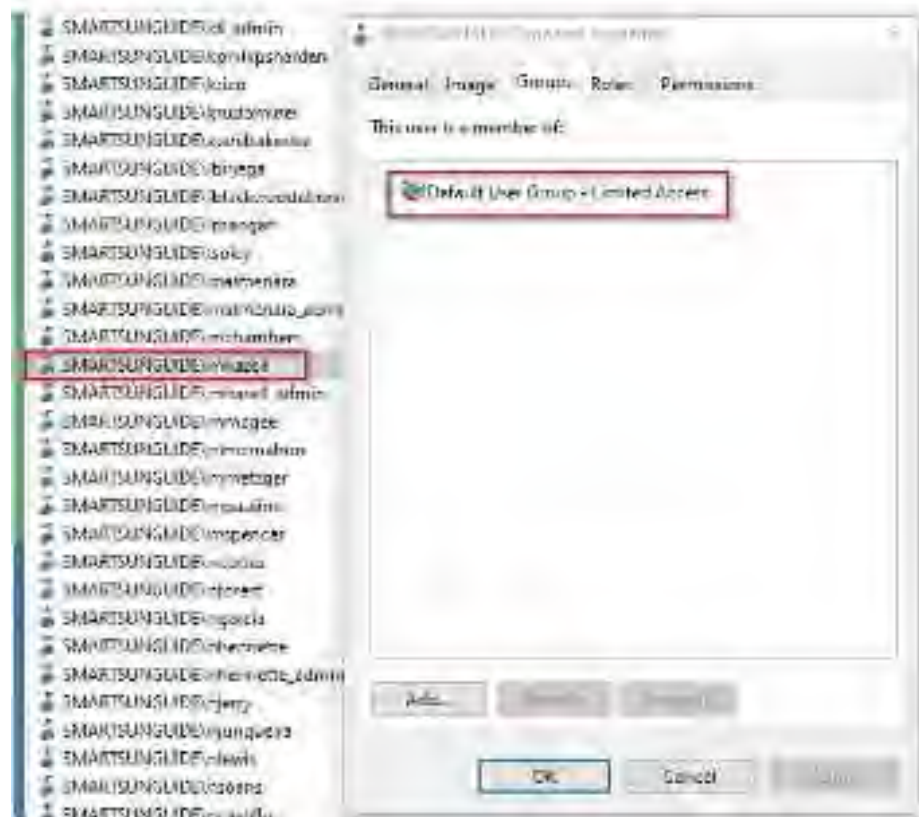
Steps / Screenshots

3. Within Control Panel, locate **Users** under the **Security** category.



4.
 - Right-click on the user in question
 - Select Properties.

By default, new users in the system will be assigned the **Default User Group - Limited Access.**

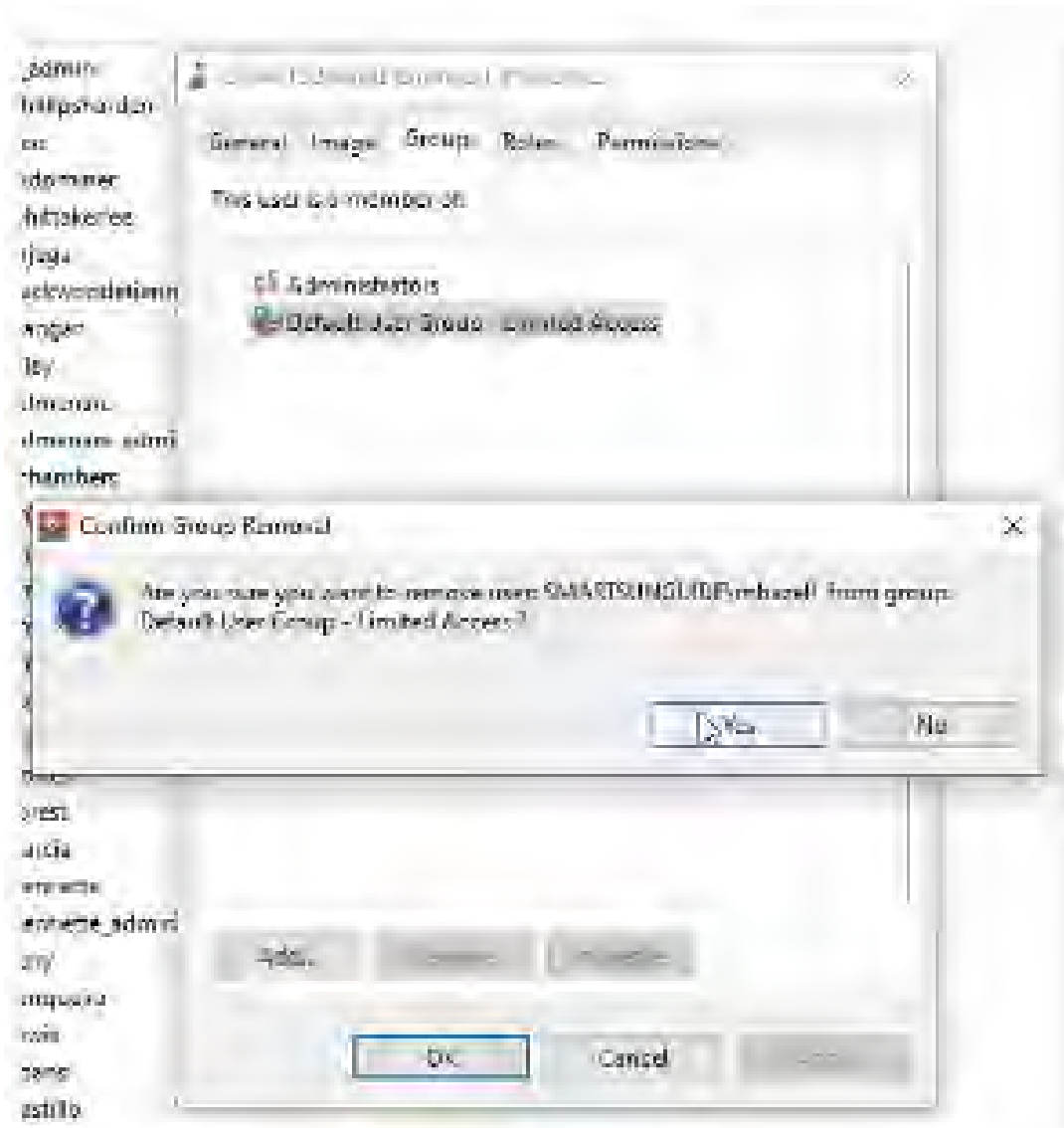


Steps / Screenshots

5.
 - Select **Add** on the lower-left corner.
 - Pick the **roles** that match the new users' department.

If not sure which one to pick, → reach out to the Barco Admin or the Department Manager.

- Highlight the Defualy User Group Role and select Remove.



At this point, the user should be able to:

- Launch Sidebar,
- Select roles,
- Use the application without error.

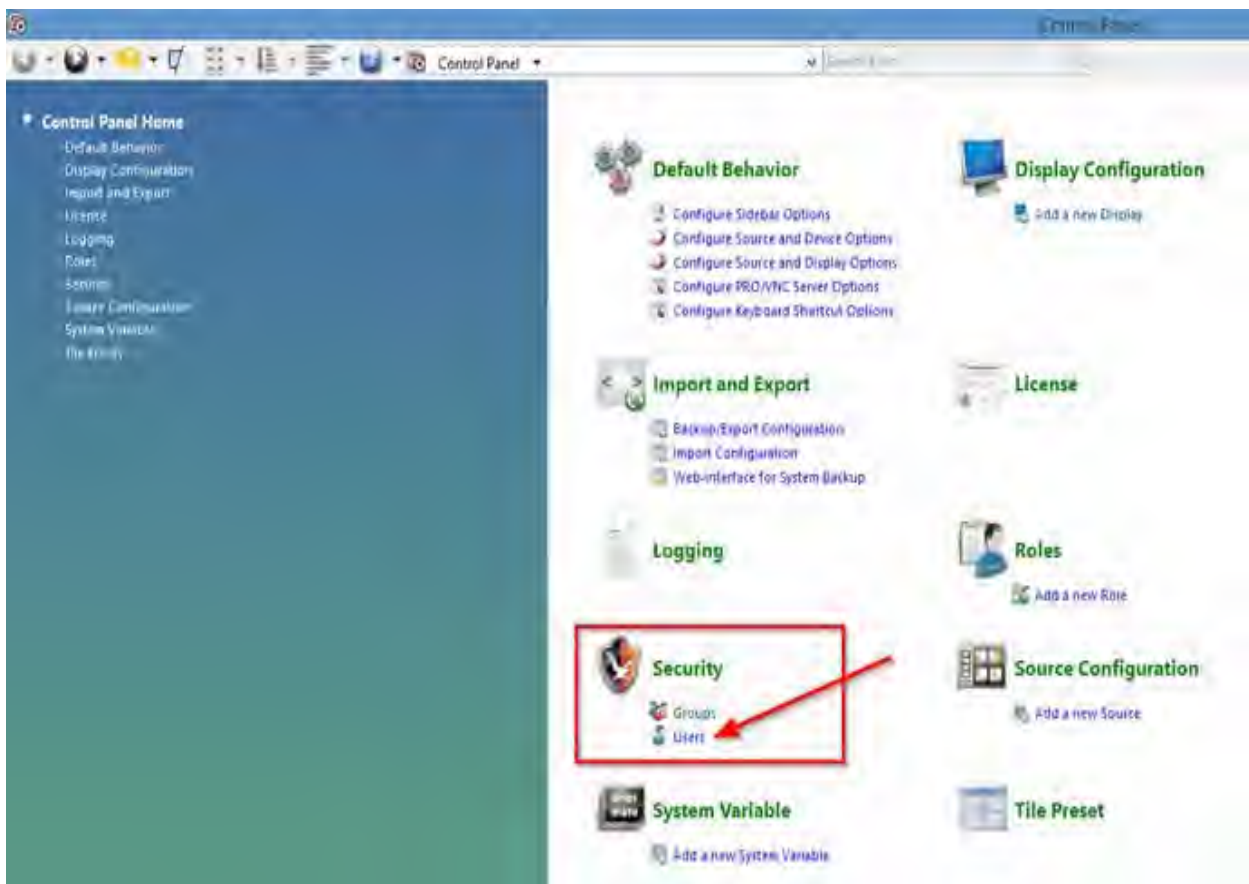
Delete / Remove a User from the Barco Control Panel

Steps / Screenshots

1. Locate the **Barco Control Panel** application and launch



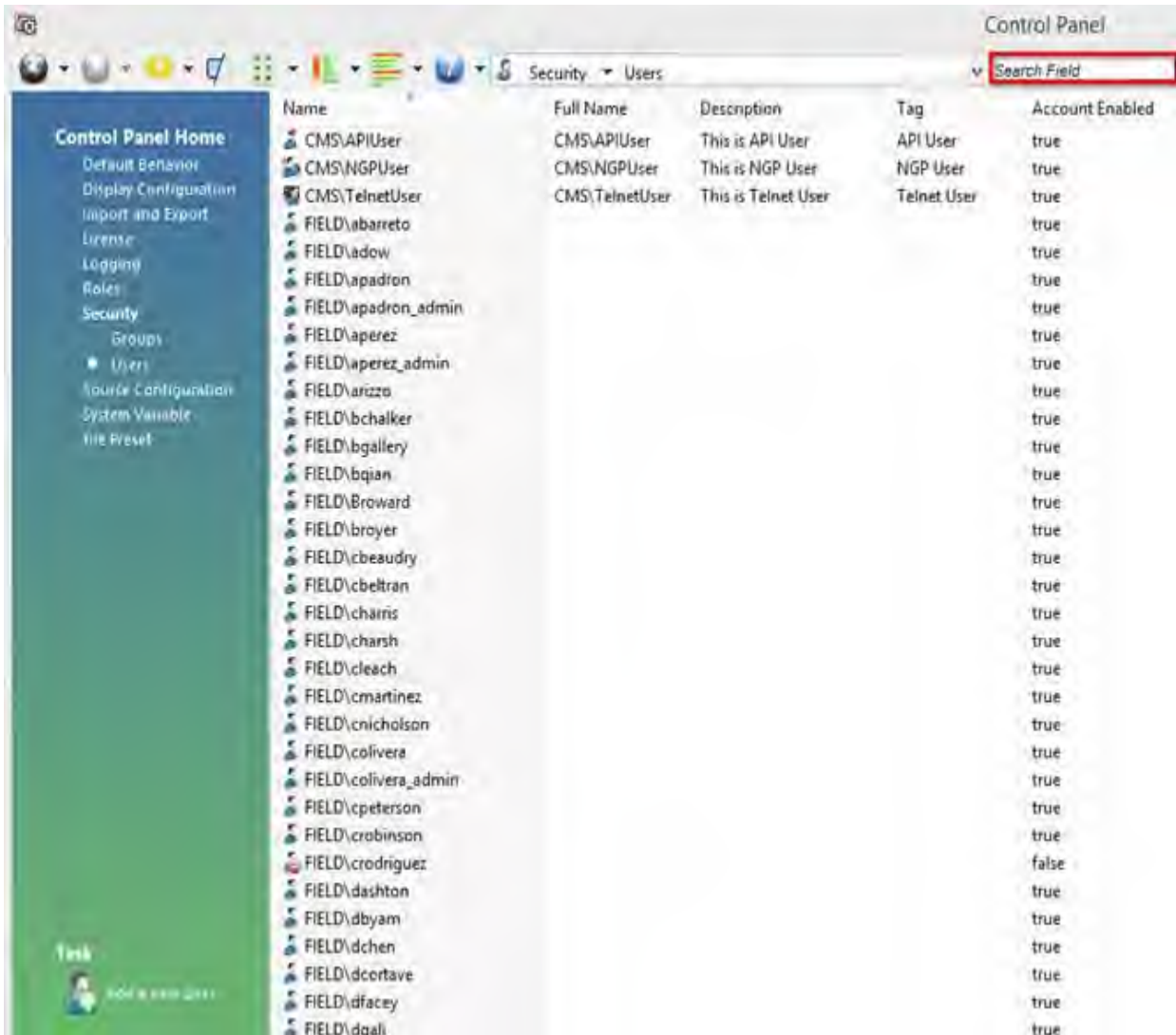
2. Once the application has opened,
 - Find **Security** category.
 - Click **Users** under the **Security** category. (It takes a moment to open.)



Steps / Screenshots

- Once the user list populates, you will see a large list of all user accounts linked with the Barco system.

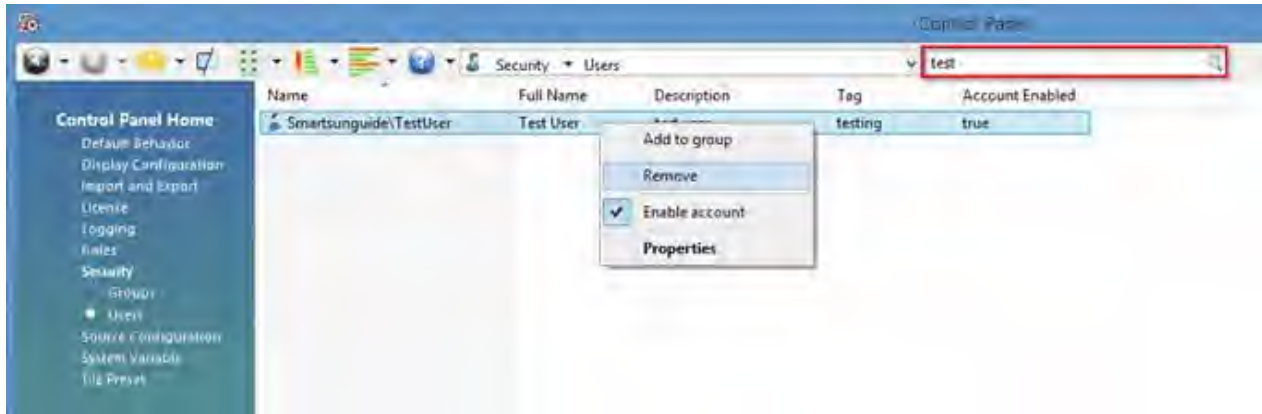
Locate the user to be removed from the list. (If you cannot find the user, look for a search button on the top-right of the current window).



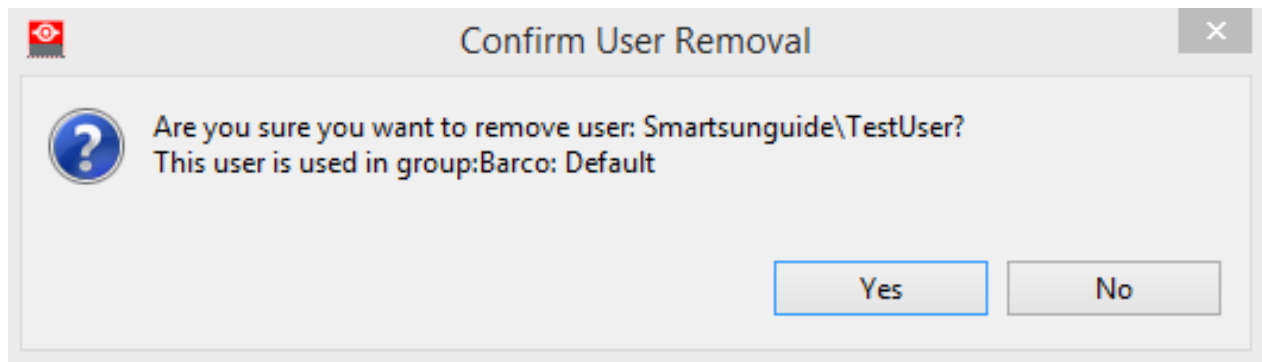
Steps / Screenshots

- 4.
- Right-click the user's account
 - Click **Remove** option.

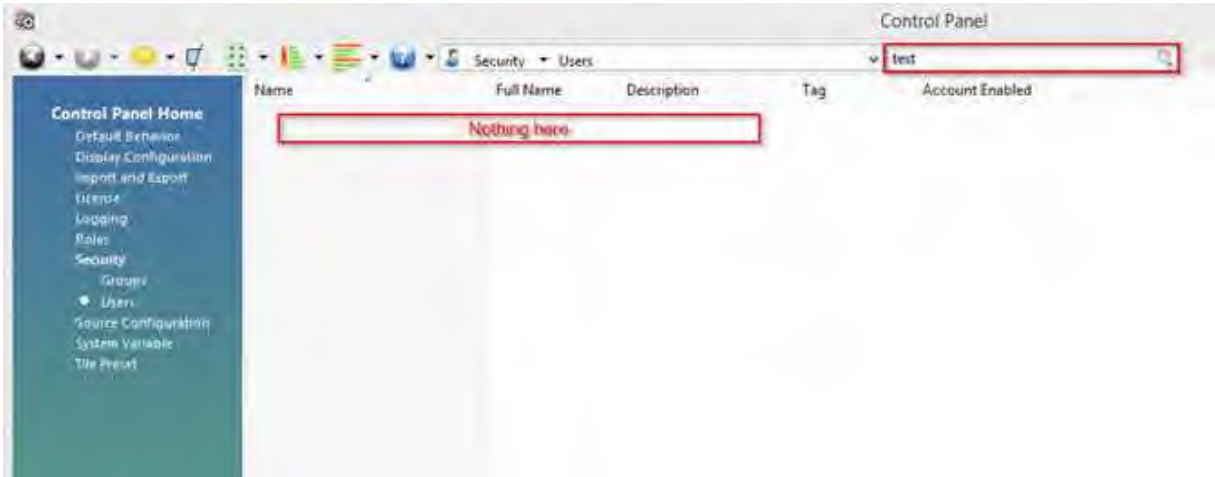
Note. Be sure to remove both domain accounts for user. This example only shows Smartsunguide for testing.



-
5. See this prompt.
- Select "Yes" to completely remove the user account entry.



No additional prompts will appear. You will notice that the account is no longer present.



BARCO DEMARCATION RULES for non-TMC HARDWARE (NTH)

When the Barco Video Distribution system is utilized by personnel outside of the users within the TMC the following rules apply.

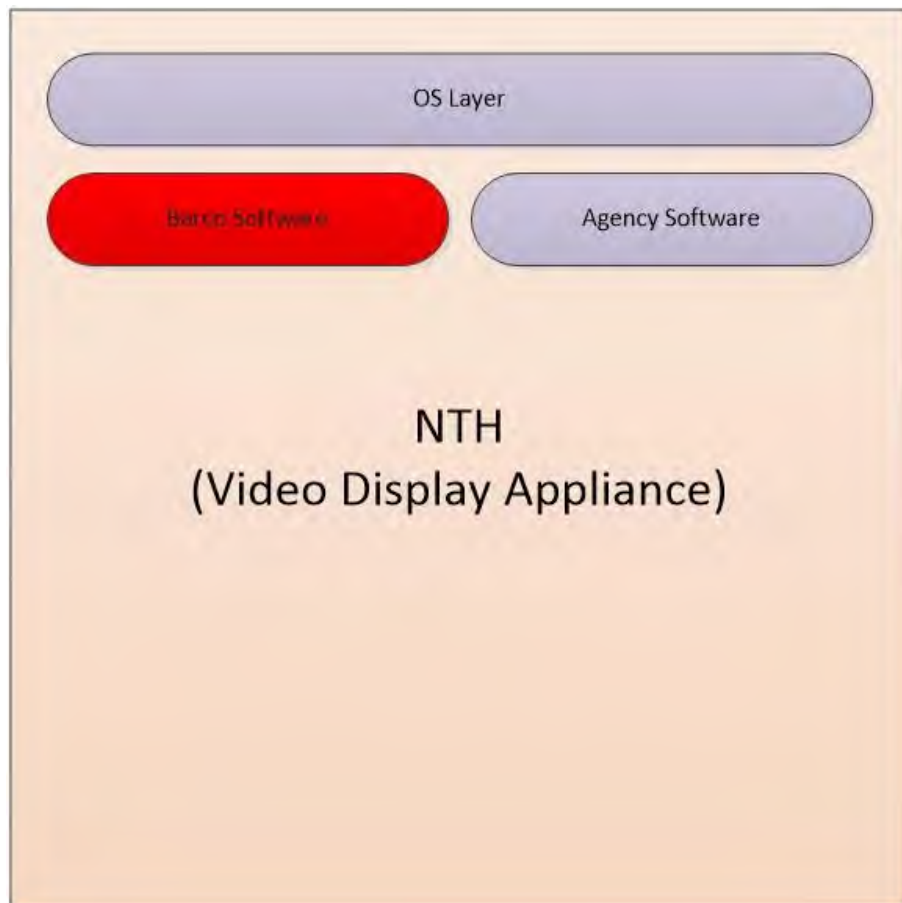
Here are the four steps (click each of these internal cross-reference links for details) of Responsibility Demarcation and details:

1. Maintenance
2. Barco Initial Installation
3. Barco continual servicing
4. Barco Upgrading Servicing and Common Troubleshooting.

Maintenance

When NTH is utilized by NTH personnel, only the Barco Software on the NTH is responsible for TMC personnel to troubleshoot.

The Agency or non-TMC personnel providing the hardware is responsible for repairing any physical defects within the NTH, as well as providing installation and maintenance of anything related to separate agency software (e.g., endpoint software) including the underlaying operating system (e.g., windows licenses, security and maintenance). The personnel managing the NTH will be responsible for the physical installation, location and maintenance of any day-to-day tasks per their own configuration rules of the NTH equipment.



Barco Initial Installation

RTMC personnel will assist any NTH personnel with the installation and training of the Barco software with NTH personnel. Instructions will be provided on basic usage, instruction on understanding the management of expectations of the system. This includes any questions fielded for feature requests, how-to-dos, changes or additions to the system.

RTMC personnel will provide “best effort” availability of the system and is not entitled or obligated in any type of guaranteed contract of services. All NTH personnel have the understanding that such equipment is provided as a gesture of cooperation between RTMC and NTH personnel, and no such productivity or production task will be tied to any type of day-to-day utilization of such system that is dependent on the continual functioning and services needs of the RTMC staff.

The NTH personnel will be responsible for the day-to-day usage of the Barco software on their system and will be expected to (independently with their own staff), control and interact with their NTH using the software independent of assistance from RTMC personnel.

Barco continual servicing

All NTH personnel requests listed in steps 2 ([Barco Initial Installation](#)) are not binding contractually or otherwise required to be fulfilled by anyone within the RTMC, but instead provided out of gesture of good-will and cooperation between the 2 groups. If such request cannot be fulfilled (due to technical limitation, IT governance rules within the RTMC, or prioritization of needs of the RTMC being greater), communication will be provided to any liaison person of NTH personnel to inform them of inability to accommodate their requests.

All resources viewable within the Barco system are prioritized for the TMC operations (including VISTA and TIMSO), maintenance and IT staff to assist in the completion of their contractual goals.

Any deviations in availability of resources outside of these three locations will be investigated for potential resolution, however, are not prioritized nor obligated in any way contractually or otherwise to have a resolution.

Barco Upgrading Servicing and Common Troubleshooting

When a new version of the Barco application comes up, a scheduled upgrade will occur. The RTMC will assist in any installation issues like step 1 ([Maintenance](#)) working in conjunction with NTH personnel, however, if modifications to NTH equipment causes incompatibility issues with the newer version of the Barco software, the RTMC will let the NTH personnel know the issue.

The NTH personnel will be responsible for making changes to allow such compatibility with the Barco system to occur again.

The Barco system is designed to be a self-repairing system, however, there will be times when NTH equipment may need to be reset, rebooted or have other basic performance tasks accomplished to establish or fix. This will be the responsibility of NTH personnel and not RTMC personnel.

BARCO NTH PERSONNEL

The following list is the current responsible parties representing NTH personnel that utilize equipment linked to the primary Barco Video Wall System.

Information below is the list of positions/personnel that are responsible for handling/maintaining all demarcation work described in SOP Section BARCO DEMARCATION RULES for non-TMC HARDWARE (NTH).

It is the job of the responsible party listed below to ensure any user training, contact with help, and potential feature requests are funneled through the appropriate list of positions below. All TSM&O personnel will refer all work required to be performed by NTH to one of the parties listed below.

Any communications | questions about current issues | outages | problems | changes within the Barco System can be communicated through Barco-Support-DL@smartsunguide.com. Communication will be returned at the earliest convenience of the IT personnel within the TMC.

The TMC IT department will prioritize any issues that are impacting the general and major functionality of the system to help restore communication if IT department is partially responsible (per demarcation requirements of SOP Section 7.23.01).

If an emergency response is required, RTMC IT Support Manager can be contacted at 954-847-2794. Emergencies are classified as complete system down status.

- | | |
|---|---|
| 1. FDOT 3400 (and Accessory buildings) Equipment: | Responsible Contact Party: FDOT AMS/FMS Specialist IT Manager. |
| 2. Broward County: | Responsible Contact Party: Broward County Traffic Manager Center Network Administrator. |
| 3. Broward Sherriff Office: | Responsible Contact Party: BSO Homeland Security Coordinator. |

BARCO INSTRUCTIONS

Overview

This SOP Section provides the procedure for changing video feeds using Sidebar through Remote Desktop Connection (RDP). This procedure is applicable to users without a smartsunguide.com account.

However, physical computer access on the smartsunguide network is required.

Procedure

Steps / Screenshots

1. In the computer search field:
 - Enter "remote desktop"
 - Click **Open** to access RDP app.

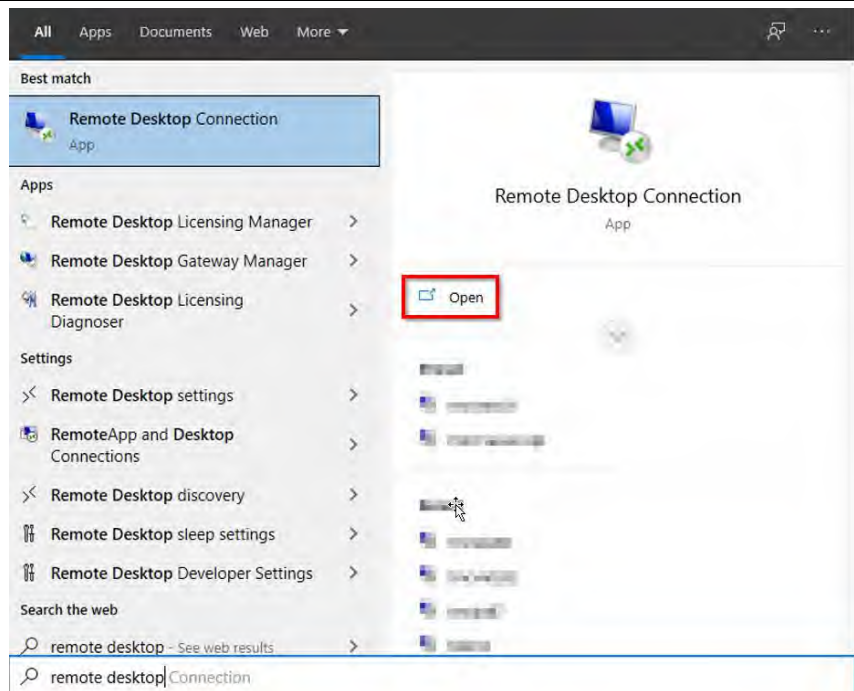


Figure 1. Accessing the RDP App

2. In the "Computer" field,
 - Enter tmcvmts02.smartsunguide.com
 - Click Connect

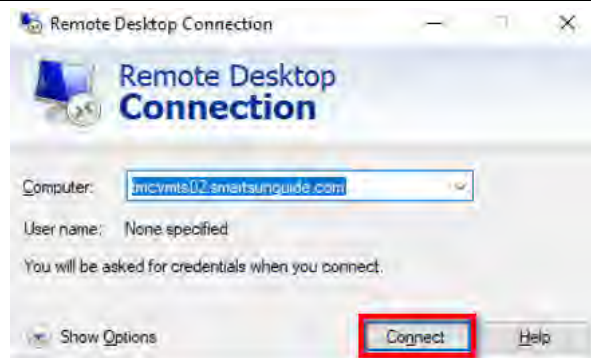


Figure 2. RDP Connection

Steps / Screenshots

- 3, Log in to the SmartSunguide domain as follows:
 - Enter the credentials below:
 Username: SmartSunguide/Barco_3400
 Password: Sidebar!!!
 - Click **OK**.

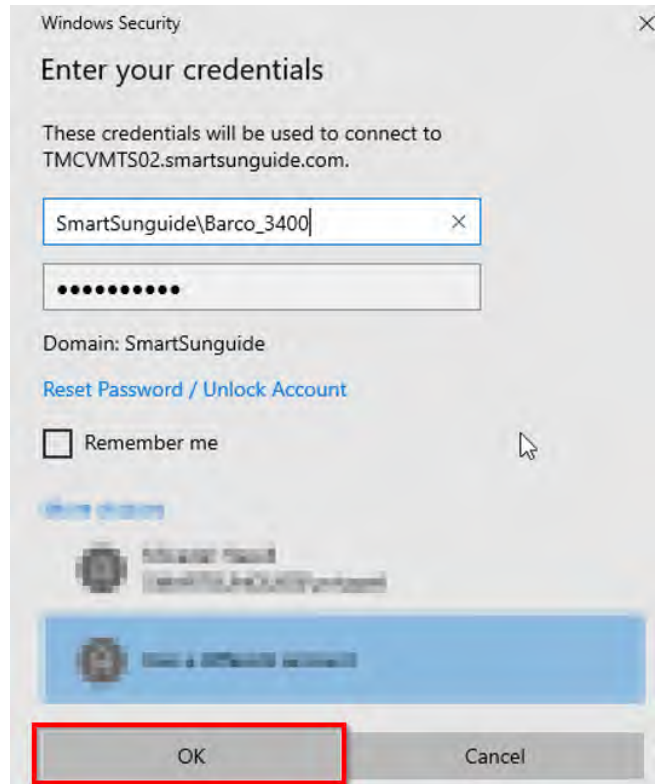


Figure 3. Logging in to the SmartSunguide Domain

4.
 - Double-click on the Barco Sidebar icon
 - Open the application



Figure 4. Opening the Barco Sidebar Application

5. If the roles are not already activated,
 - Select all roles.
 - Click **Apply**.

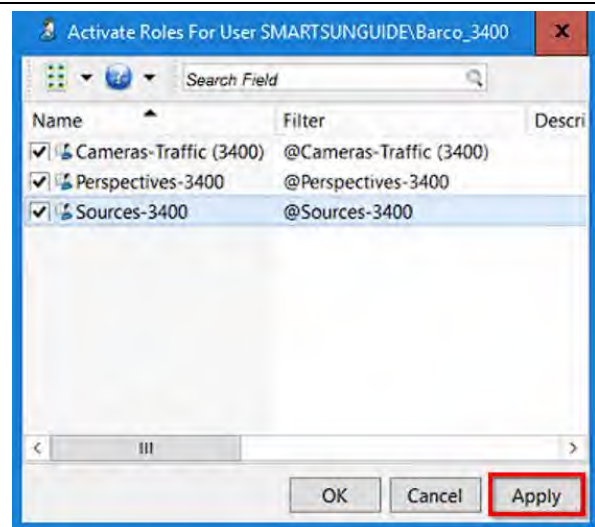


Figure 5. Activating All Roles

Steps / Screenshots

6. Open your perspective only



Figure 6. Opening Your Perspective

Steps / Screenshots

7. Under sources, drag any cameras you would like into your perspective view.

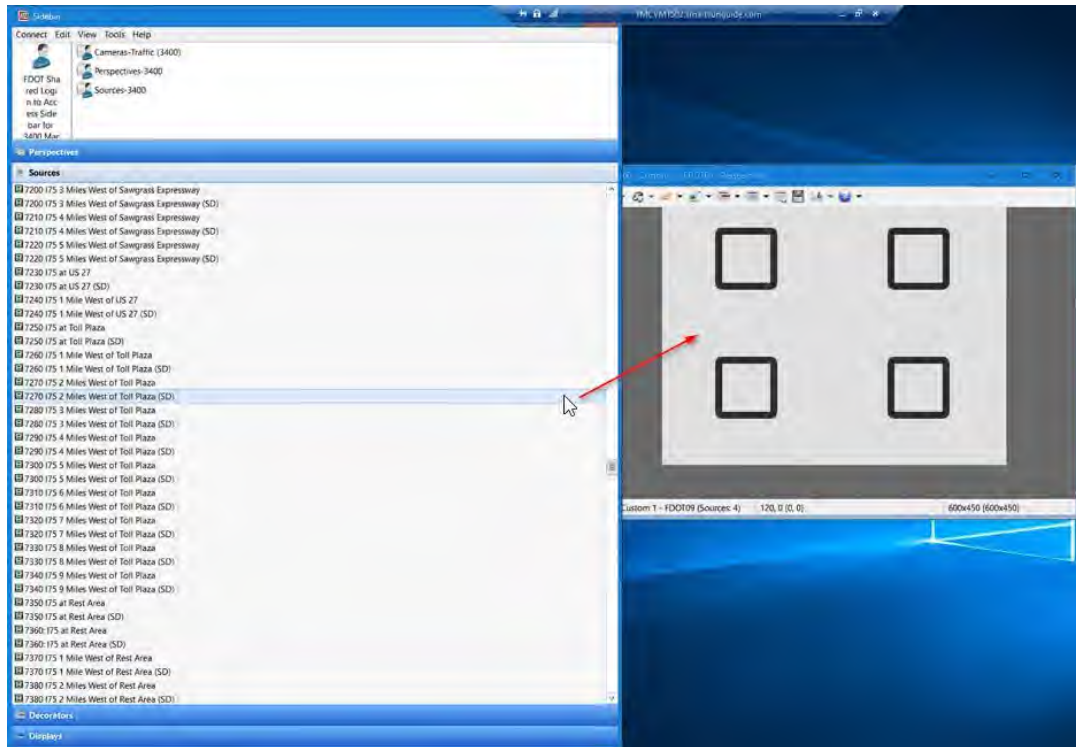


Figure 7. Dragging Cameras to Your Perspective View

8. If your display is not showing your perspective,
- Activate your personal view under **displays** (your display only)

Select **personal**:

- Right-click your display.



7.24 Periodic Tasks

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1.0	12/20/2023	Yana Neishlos	Initial Draft

PERIODIC TASKS

The following list is periodic tasks required by the IT Department to perform.

1. Monthly updates occur on all Virtual Machine templates.
2. Quarterly updates occur on all Smart Deploy Images.
3. Twice a day checks of the small and large conference room equipment.
4. Daily check of projectors within the control room.
5. Weekly patch management of all Windows endpoints.
6. Quarterly Firmware Updates on all Desktops, Laptops, Servers and Printers.
7. Daily, Weekly and Monthly Check of Antivirus EndPoint Status.



7.25 Notifications and Help Desk

Document History

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1.0	12/21/2023	Yana Neishlos	Initial Draft

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TROUBLESHOOTING

Overview

For systematic problems, create a case file where issues are documented. These standards apply to the use of any kind of server.

1. When console-type access is needed to a server, these are the only approved methods:
 - Physically at the server console/KVM.
 - Use IP KVM.
 - Use Microsoft Remote Desktop feature.
 - Use HP ILO.
2. When finished, immediately log off the server. Do not intentionally leave the server logged on or "X" out of the RDP session.
3. Avoid using the Internet on the server, whenever possible. If you need to research a problem, do it from another location.
4. Do not load the SunGuide Application/SunGuide Map from any server (including the SunGuide servers).
5. Do not load any unnecessary tools on the server. To clarify, if you could load it on your workstation and accomplish the same task, it was unnecessary to load it on the server. An example of this is Wireshark. If you wanted to monitor the data to and from the server, load Wireshark on your workstation and port monitor the server. Do not load Wireshark on the server itself.
6. No end-user software should be loaded on a server. For example, it would be acceptable to load the files to install Office on a network share, but it would not be acceptable to load Office itself on the server as an executable application.

SUNGUIDE

In general, IBI takes care of SunGuide issues, but there are times when no one from IBI Group is available. IT is responsible for the server itself, so at times the responsibilities may blur.

JOYSTICK CONFIGURATION

Cluster Administrator

Check for the MCP Group on the appropriate clustered server in Palm Beach or Broward (depending on which joystick needs to be repaired) and on that MCP Cluster Service:

1. Notify the operator/s you are taking down the joystick(s).
2. Take the MCP Cluster Group offline.
3. Once it is offline, move the group (which will bring it up on the other server of the cluster) or bring group online where it is.

If after 5 minutes, the service is not yet fully offline:

- Notify Jacques DuPuy of what is happening.
 - Login to the actual server and either 1) stop the service in Services manager or 2) kill the process tree in Task manager for the MCP. This will take the service fully offline back in Cluster Administrator.
4. Once it is online, wait 5 minutes before telling the operator to try the joystick/s again. If that does not work, then try reconfiguring the individual joystick (below).

Enter the configuration (CONFIG) mode of the Joystick

1. Power-ON the Joystick.
2. Immediately and simultaneously press the keys at the TOP LEFT and BOTTOM LEFT on the keyboard.

Reset the Joystick to Mfr. Defaults

Press the BLUE PLAY key while in CONFIG mode.

Configure the Joystick for use with SunGuide

1. Press the BLUE RECORD button while in CONFIG mode.
2. Select RS232 mode
Press ENTER.
3. Power cycle and enter CONFIG mode again.
4. Press the BLACK REWIND key.
5. Select RS232 and 38400
Press ENTER.
6. Power cycle and enter CONFIG mode again.
7. Press the BLACK FAST FORWARD key.
8. Turn OFF sound
Press ENTER.
9. Power cycle and enter CONFIG mode again.
10. Press the BLUE CAMERA key to the LEFT of the Joystick.
11. Select REPEAT MODE
Press ENTER.
12. Power Cycle one last time.

BROWARD COUNTY BUILDING ISSUES

For an alarm such as for a UPS, security, or fire system, in an area of the RTMC not controlled by RTMC employees, report the problem immediately to Broward County employees.

FORCE IMMEDIATE UPDATE OF GAL AND COPY TO OUTLOOK

Force Update of Global Address List (GAL)

1. On mail server, in System Manager
Click to expand Recipients > **Offline Address Lists**.
2. Right-click **Default Offline Address List**, and,
Select **Rebuild**.

You will receive a message stating the rebuild may take some time however, due to the size of our system it runs very quickly.

Force Outlook to download the updated Global Address List (GAL)

1. Click **Tools à Send/Receive à Download Address Book**.
2. Uncheck selection **Download changes since last send/repair**.
3. Ensure **Full Details** and **Global Address List** are selected.
4. Click **OK**.

SYNCHRONIZING LAPTOPS

For laptops that only occasionally connect to the network for synchronization, here is the procedure:

1. Logon **OFF NETWORK**.
2. Connect the network Ethernet Cable.
3. Once connected, logoff the computer. This starts the sync running.
4. When the computer logs off, you are done.

HELP DESK ISSUES

Help Desk Support – Process

The following process is used for regular and after hours help desk support. The notification to the IT group comes when Operations creates a help desk ticket, or a MIMS ticket for a field device issue.

This procedure is valid 24/7 but works best when the IT analyst is onsite.

1. In all cases, Operations opens a help desk ticket or a MIMS ticket to report field devices issues.
2. If this is a serious issue (as defined in the Operations SOP), an operator contacts the on-duty supervisor.
3. If a supervisor cannot fix the problem or provide a reasonable workaround, a supervisor calls the on-duty IT employee.
4. An IT employee determines the nature of the problem and arranges for repairs personally. If the problem needs to be referred to another department, an IT employee contacts an on-call contact for either Maintenance or the software contractor.

If an on-call contact does not answer, Operations calls the supervisor, being a backup contact.

5. An IT employee is responsible for the incident until it is either resolved or successfully taken over by another party. A voicemail is not considered a successful handoff.

Prioritizing Problems

For most daily issues, Operations gets priority for help with equipment and devices.

Other IT support that is time-sensitive may also need to be dealt with as soon as possible, such as an employee who needs help setting up a teleconference call.

When on Call

IT staff members rotate weekly for on-call duty support. If a user requests support, an on-call IT staff member must respond within two hours. IT support staff members may require coming to the RTMC on short notice after hours and weekends.

Staff coverage should be always maintained for user support at the RTMC. If any member of the IT staff is out sick, an IT Support Manager must arrange and ensure that an IT staff member will always be in the office for early and late hours.



7.26 Purchasing

Document History

Version #	Date	Author	Changes
1.0	12/21/2023	Yana Neishlos	Initial Draft

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OPERATING CAPITAL OUTLAY (OCO)

General purchase rules	Purchases must be physical assets over \$1,000.
Examples of past purchases	Servers, switches, and generally something that gets an asset tag. Items can be returned to 3400 at the end of its life.
Purchasing process	<p>Purchases should be made as soon as possible, as needed, using the following process:</p> <ul style="list-style-type: none"> • The FDOT Traffic Ops Office Manager determines if funds are available. • The IT Department writes a justification and obtains three quotes. • The justification and three quotes are sent to the FDOT Traffic Ops Office Manager. • The FDOT Traffic Ops Office Manager obtains approval to make purchase for anything over \$100. • If an IRR is needed, the District TSM&O Resource Manager submits it. • Once everything is approved, the order is placed with a purchase card (Pcard) by the TMC Office Manager or through ARIBA (online purchasing system) by the FDOT Traffic Ops Office Manager (depends on Pcard purchase limit). • The IT Department must notify the TMC Office Manager when the order has arrived at 2300 or 3400 and provide the packaging slip.
# of quotes required	Three.
Vendors to get quotes from	<p>Quotes should be from vendors on state contracts, if possible. If products are only available from one vendor, use the FDOT Documentation for items not purchased from state contract form. The TMC Office Manager can request this from the FDOT Traffic Ops Office Manager. The form must be signed by the District TSM&O Resource Program Manager under Request made by and by the District Traffic Operations Engineer under Cost Center Manager.</p> <p>In addition to completing the form, documentation must be obtained and kept with the paperwork from at least 2 additional vendors stating they do not carry the product.</p>
Money available each year	There is no set amount available from year to year. Amount provided is based on need.

	<p>Amount needed must be determined by June 15 prior to the start of the new fiscal year. Additional money can be obtained throughout the fiscal year if needed, if other departments are not using it.</p> <p>In order to capitalize on this opportunity, IT should have a wish list ready well in advance of the end of the fiscal year (July 1 – June 30). Prices for items on the wish list should be overestimated in order to cover the possible increase in prices in the coming year or the chance that an upgraded (more expensive) model becomes available.</p>
Staff in charge of ordering	The FDOT Traffic Ops Office Manager makes all orders through ARIBA. The TMC Office Manager should always follow up on the order. IT should remain in contact with the vendor. IT should notify the TMC Office Manager of product arrival and provide the packing slip.
Written justification requirements	Written justification is required for every item purchased. About one paragraph per item is sufficient. It should define why the item is critical and the consequences of not being approved to purchase it.
HW tags requirements	Yes, an HW tag is required.
IRR requirements	Yes, an IRR is required.
IT's contact for purchase	TMC Office Manager.
Purchasing time frame	Pcard purchases must be ordered/received by June 15. ARIBA purchases must be received by June 30. Both are preferred to occur much earlier in the fiscal year.
Shipping address	Everything should ship to 3400 unless it is a large item requiring a forklift (e.g. servers). The FDOT Traffic Ops Office Manager will make sure OIT is aware of ordered items. If shipping to the TMC, provide serial numbers and packing list with request for HW tags ASAP.

EXPENSE

General purchase rules	Purchases must be for items under \$1,000 ordered by Pcard or through ARIBA.
Examples of past purchases	Copy machine rental, MetroEthernet, travel, office supplies, toner, website domain names, miscellaneous IT items, software (cost doesn't matter, can be over \$1,000), furniture if under \$1,000, replacement computers/laptops.
Purchasing process	<p>Purchases should be made as needed, and without delay, using the following process:</p> <ul style="list-style-type: none"> • The FDOT Traffic Ops Office Manager determines if funds are available. • The IT Department writes a justification and obtains three quotes. • The justification and three quotes are sent to the FDOT Traffic Ops Office Manager. • The FDOT Traffic Ops Office Manager obtains approval to make purchase for anything over \$100. (If under \$100 it doesn't need approval.) • If an IRR is needed, the District TSM&O Resource Manager submits it. • Once everything is approved, the order is placed with a Pcard by the TMC Office Manager or through ARIBA by the FDOT Traffic Ops Office Manager (depends on Pcard purchase limit). • The IT Department must notify the TMC Office Manager when the order has arrived at 2300 or 3400 and provide the packaging slip.
Number of quotes required	Three if it is a larger IT purchase. If it is smaller (like cables), no quotes are needed but an IRR and justification are still required.
Vendors to get quotes from	State contract vendors must be used for IT stuff. Office Depot can be used for office supplies.
Money available each year	Budget has to be provided in advance of the fiscal year. Budget cuts occur frequently.
Staff in charge of ordering	The TMC Office Manager can help with Pcard purchases. The FDOT Traffic Ops Office Manager must complete ARIBA purchases.
Written justification requirements	Written justification is required for any IT materials. About one paragraph per item is sufficient. It should define why the item is critical and the consequences of not being approved to purchase it.
HW tags requirements	Yes, HW tags are required for any IT materials.

IRR requirements	Yes, an IRR is required for any IT materials.
IT's contact for purchase	TMC Office Manager.
Purchasing time frame	Pcard purchases must be ordered/received by June 15. ARIBA purchases must be received by June 30. Both are preferred to occur much earlier in the fiscal year.
Shipping address	Can ship to the TMC if it doesn't need an HW tag.

SERVICES

General purchase rules	Funds used to purchase any type of service. Purchase is made through ARIBA or Pcard (depending on card limit).
Examples of past purchases	Software license renewal, support costs, maintenance updates, anti-virus, extended warranties (Beware of buying extensions. Make sure it adds to the existing contract and doesn't double up service.) lawn care, carpet cleaning.
Purchasing process	<p>Purchases should be made as soon as possible, as needed, using the following process:</p> <ul style="list-style-type: none"> • The FDOT Traffic Ops Office Manager determines if funds are available. • The IT Department writes a justification and obtains three quotes. • The justification and three quotes are sent to the FDOT Traffic Ops Office Manager. • The FDOT Traffic Ops Office Manager obtains approval to make purchase for anything over \$100. • If an IRR is needed, the District TSM&O Resource Manager it. • Once everything is approved, the order is placed with a Pcard by the TMC Office Manager or through ARIBA by the FDOT Traffic Ops Office Manager (depends on Pcard purchase limit). • The IT Department must notify the TMC Office Manager when the order has arrived (an email has been received advising that the new service contract is active) at 2300 or 3400.
# of quotes required	Three
Vendors to get quotes from	State contractors must be used.
Money available each year	<p>Money available each year is largely based on what was available the previous year or based on need.</p> <p>Amount needed must be determined by June 15 prior to the start of the new fiscal year. Additional money can be obtained throughout the fiscal year if needed, if other departments are not using it.</p>
Staff in charge of ordering	The TMC Office Manager and the FDOT Traffic Ops Office Manager.

Written justification requirements	<p>Written justification is required. About one paragraph per item is sufficient. It should define why the item is critical and the consequences of not being approved to purchase it. Because these are recurring items, simply cut and paste the justification from the previous year.</p> <p>Note. There is a general objection to buying more than one year at a time unless it can be proved that there are significant savings in a multi-year contract.</p>
HW tags requirements	Since these are services, HW tags do not apply.
IRR requirements	Yes, an IRR is required for any IT materials.
IT's contact for purchase	TMC Office Manager
Purchasing time frame	Pcard purchases must be ordered/received by June 15. ARIBA purchases must be received by June 30. Both are preferred to occur much earlier in the fiscal year.
Shipping address	Shipping occurs via email. IT must be constantly in touch with the TMC Office Manager and Program Manager for any confirmation emails. If no emails are received, confirmation can be obtained by calling the vendor and asking for a verbal confirmation.

FDOT REPLACEMENT MONEY

General purchase rules	This funding is to purchase a replacement for an item already owned. The item must fill the same need, but it doesn't have to be an exact match (e.g. can be an upgrade).
Examples of past purchases	Furniture, dynamic message signs, Visio pad machines, servers.
Purchasing process	<p>Purchases must be made without delay using the following processes:</p> <hr/> <p>A. Work with the FDOT TSM&O Resource Manager.</p> <hr/> <p>B. <ul style="list-style-type: none"> • FDOT Traffic Ops Office Manager determines if funds are available. • IT Department writes a justification and obtains three quotes. • The justification and three quotes are sent to FDOT Traffic Ops Office Manager. • FDOT Traffic Ops Office Manager obtains approval to make purchase for anything over \$100. • If yes for IRR, District TSM&O Resource Manager submits it. • Once approved, an order is placed through ARIBA by FDOT Traffic Ops Office Manager. <p>IT Department must notify the TMC Office Manager when the order has arrived at 2300 or 3400 and provide the packaging slip.</p> </p>
Number of quotes required	Three quotes or the FDOT TSM&O Resource Manager can put out an advertisement and see who responds.
Vendors to get quotes from	Quotes must be obtained from a state approved vendor. Responses to advertisements can be from anyone.
Money available each year	Varies each year.
Staff in charge of ordering	FDOT Traffic Ops Office Manager for quotes. FDOT TSM&O Resource Manager for advertisements.

Written justification requirements It is required. One paragraph per item is sufficient. It must define critical reason for a purchase and the consequences of disapproval.

HW tags requirements - Yes HW tags are required, and IT will be returning an equivalent number of old HW tags to OIT.

IRR requirements - Yes IRR is required.

IT's contact for purchase FDOT TSM&O Resource Manager.

Purchasing time frame By fiscal year-end (June 30).

Shipping address If it is a large item, ship it to the TMC. If it is a small item, ship it to 3400.

TSM&O RESOURCE PROJECTS

General purchase rules	This funding can be used to purchase anything. It can include products, services, hardware or software.
Items of past purchases	For projects on highways- SolarWinds, servers, software, firewall, network access control, video wall upgrades.
Purchasing process	
# of quotes required - none	Items are purchased directly through the contractor.
Vendors to get quotes from	The contractor chooses the vendor.
Money available each year	It varies. IT must discuss needs with TSM&O Resource Manager well in advance for requested items.
Staff in charge of ordering	The contractor that wins the bid.
Written justification requirements	Requests included in TSM&O Resource contract. Prime contractors in charge. Watch for vendor's ownership.
HW tags requirements	Generally, no HW tags are required because the item is part of ITS on the road. Check with the TSM&O Resource Manager for exceptions.
IRR requirements - none	Check with TSM&O Resource Manager for exceptions.
IT's contact for purchase	FDOT TSM&O Resource Manager.
Purchasing time frame	It is decided by a prime contractor for purchases.
Shipping address	Items can be shipped to the TMC or wherever IT finds most convenient to ship.

AECOM SPECIAL SERVICES

General purchase rules Funding can be used to purchase items outside of other categories.

Examples of past purchases Projectors, blinds, libraries.

Purchasing process

- IT Support Manager, FDOT client discuss needs. Determine that this is the only way to procure.
- Write a letter to FDOT Operations Manager with 2 quotes, recommending the cheaper option.
- AECOM Operations Project Administrator signs and delivers the letter to the FDOT Operations Manager.
- FDOT Operations Manager issues AECOM a notice to proceed.
- AECOM Project Administrator orders through AECOM procurement.
- AECOM Project Administrator informs AECOM approvers about the purchase for FDOT; it will be fully reimbursed.
- IT must review the order if the quote was not used.
- AECOM Project Administrator includes expense in monthly invoice to FDOT once items are received.

of quotes required Two

Vendors to get quotes from Any vendor may be used. AECOM strongly prefers one already on their approved list.

Money available each year FDOT Operations Manager will advise of amount available for the fiscal year (July 1 – June 30).

Staff in charge of ordering

- AECOM Operations Project Administrator
- AECOM procurement office

Written justification requirements

HW tags requirements No HW tags are required, only IT tags.

IRR requirements No IRR is required.

IT's contact for purchase The FDOT client and AECOM Project Administrator

Purchasing time frame Purchases are fiscal year based (July 1 – June 30)

Shipping address Orders **must** be shipped to the TMC and labeled as AECOM to an AECOM staff person. Do not ship to 3400.

FDOT WORK PROGRAM MONEY

General purchase rules	Purchase cost is unlimited, depending on the state funding. The best to manage funds is to maintain a "wish list" when funding becomes available.
# of quotes required	Three.
Vendors to get quotes from	State contract vendors.
Staff in charge of ordering	TMC Program Manager.
Written justification requirements	Written justification is required.
HW tags requirements	Yes, HW tags are required for any IT materials.
IRR requirements	Yes, an IRR is required for any IT materials.
IT's contact for purchase	TMC Program Manager.
Shipping address	Can ship to the TMC if it doesn't need an HW tag.



7.27 Inventory Procedures

Document History

Version #	Date	Author	Changes
1.0	12/21/2023	Yana Neishlos	Initial Draft

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INVENTORY PROCEDURES OVERVIEW

These guidelines outline the required steps for tracking the FDOT ITS equipment inventory within the District Four TSM&O Regional Transportation Management Center (RTMC).

Receiving Equipment from OIT

1. When equipment is received from OIT, ensure that an HW decal is properly affixed to the equipment.
2. Configuration of equipment received must be documented on the RTMC New PC Form by the IT Department. The RTMC New PC Form can be found in the D4 EXT TSM&O IT Property channel at: [DOCX File viewer | Microsoft Teams](#).

Receiving Equipment - except for OIT

All ITS equipment with a unit cost of \$5,000 or more requires an HW tag.

Exception Property

As defined by the FDOT procedure on Tangible Personal Property ([Topic No. 350-090-310](#)), exception property items with a value of less than \$5,000, are considered "attractive" and subject to risk of being stolen, or are covered by a lost or stolen insurance policy in accordance with the FDOT procedure on Property Insurance ([Topic No. 010-000-020-i](#)).

The exception property items listed below require an HW tag and must be recorded in the FLAIR Property Subsystem regardless of the unit cost.

- Workstations (i.e., laptops and personal computers).
- Digital Cameras.
- Monitors (larger than 32").

Note. "The property record for the number assigned to the central processing unit (CPU) may include the value of the monitor and any upgrades valued at \$1,000 or more that are added to the computer. Any components that are included in the value of the computer must be noted in the description field in FLAIR and provided in the description field on the bar code decal.

Property Items with A Value under \$5,000

District 4 TSM&O IT and Maintenance Departments track the following department owned equipment categories when HW tags are not required:

- Cisco IP Phone Wired and Wireless Phones.
- LCD Monitors (all types under 5,000 USD).
- VisioPad Analyzers.
- vBrick Decoders.
- Rack Mounted KVM Switches.
- Voice Routers.
- Room Alert Environment Analyzers.
- Printers.
- UPS (all types under 5,000 USD).
- Cameras (all types under 5,000 USD).
- Camcorders (all types under 5,000 USD).
- Projectors (all types under 5,000 USD).
- Cisco Wireless Routers.
- Video Wall Removable Parts.
- Field UPS Devices (all types under 5,000 USD).
- Layer 2 Field Switches.

All equipment that falls in the above categories is assigned a unique ITS tracking tag that starts with IT (Information Technology) or MT (Maintenance) and are entered in the Maintenance and Inventory Management System (MIMS).

FDOT / ITS PROPERTY TRANSFER

The IT Department uses MIMS to accurately track the location and party responsible for all FDOT equipment with an NH/HW tag and ITS equipment with an IT/MT tag.

1. When transferring equipment between contractors, all equipment should be received from the original contractor in full. All items must be checked and validated for resubmission to the new contractor.
2. IT Department updates MIMS to reflect the new location/owner and notifies the TSM&O Resource Manager of the changes via email.
3. The equipment is transferred to a new contractor.
4. When IT Department removes NH/HW equipment from service and prior to returning it to OIT, if not immediate, the equipment should be stored in a secure locked location.

RTMC INVENTORY PROCESS

Inventory Locations		Address	Phone
RTMC		2300 W. Commercial Boulevard, Fort Lauderdale, FL 33309	(954) 847-2785
TIMSO	FDOT Treasure Coast Operations Center	3601 Oleander Avenue, Fort Pierce, FL 34982	(561) 681-4380
FHP	Lake Worth Regional Communications Center	Turnpike Mile Marker 94, Lake Worth, FL 33416	(772) 742-8399
FDOT	Maintenance Yard	5548 Powerline Road, Fort Lauderdale, FL 33309	(954) 776-4300
Palm Beach Operations	Maintenance Yard	7900 Forest Hill Boulevard, West Palm Beach, FL 33413	(561) 432-4966
Vista Center		2300 N Jog Road, West Palm Beach, FL 33411	

1. Inventory is conducted twice a year starting on the first Friday of January and July and should be completed by the second Friday of the same month.
2. The Unit Custodian is responsible for overseeing the inventory process through coordination with the IT Support Manager. IT staff is responsible for conducting the actual inventory scanning.
3. Once the schedule has been received by the Unit Custodian and IT staff has been identified, the Unit Custodian will check the availability of an FDOT employee for transportation in the FDOT vehicle.
4. IT Support Manager is responsible for sending emails to the RTMC Operations Manager as follows:
 - a. Initial: A detailed plan once a schedule has been established.
 - b. Each day of inventory: Percentage complete and the plan for the following day.
 - c. Completion: Final report indicating percentage found and list of missing items (if any).

Note. Once scanning of a location is complete, data from scanner should be uploaded into MIMS.

FDOT INVENTORY SCANNING – FDOT INTERNAL (NH/HW AND IT TAGGED)

1. FDOT staff is responsible for obtaining a scanner and logging in using FDOT credentials.
2. Prior to starting inventory, IT staff generates a MIMS report to show the last location of all equipment to be scanned.
3. IT staff is to scan all equipment that has either a silver FDOT NH/HW tag and/or a white IT200## tag. (Note: Not all items will have both stickers. Scan a sticker that is affixed to the item or both if applicable.)
4. Equipment that cannot be located should be reported to the IT Support Manager to determine if it has been moved. If an IT Support Manager cannot locate the equipment, verify current location with the party that received the equipment. If an item has been moved, rescan the item and change the location in MIMS on the scanner to reflect the correct location
5. Once all equipment has been scanned, print another report from MIMS to document that all equipment has been properly located.
6. If an item cannot be located, it must be documented on the report and followed up with the last responsible party in MIMS and referred to the FDOT TSM&O Resource Manager.

EQUIPMENT ISSUES

Lost Equipment

1. All equipment, misdirected from its proper location, can and must be recuperated.
2. All equipment deemed lost must be reported to the TSM&O Resource Manager immediately.

Note. The IT Department Manager will be assigned PC equipment that has not been assigned to a specific user or location.

Inventory Change Control

Changes made to an IT-managed inventory, (e.g., servers, databases) must be noted and stored. Use the following process to keep a record of the equipment location.

<p>Equipment Tracking Process</p> <p>This process monitors equipment locations, which will help with the year-end inventory.</p>	
1.	If a laptop or other item is taken out of a truck or office temporary, the lending party must have the borrower sign off for temporary responsibility by utilizing the equipment signoff sheet, which can be found in the D4 EXT TSM&O IT Property channel at: PDF File viewer Microsoft Teams .
2.	All relevant information needs to be supplied on the equipment signoff sheet.
3.	When the item is returned to its original location, the equipment signoff sheet is updated.
4.	Store the original equipment signoff sheet in a file.
<p>For permanently transferring a piece of equipment from one contractor to another, see: FDOT / ITS Property Transfer section.</p> <p>Note. The inventory is not updated if the equipment is only temporarily located away from where it belongs permanently.</p>	
<p>Moving Equipment</p> <p>If equipment changes locations, update the item's permanent location in one of the following:</p>	
1.	<ul style="list-style-type: none"> • Handheld scanner.
2.	<ul style="list-style-type: none"> • Inventory software (MIMS).
<p>Note. For NH/HW and IT/MT tagged items, if the equipment owner changes, MIMS needs to be updated (see FDOT / ITS Property Transfer section).</p>	

Retiring It Tagged Equipment Within RTMC	
1.	When a piece of equipment that has an IT tag needs to be retired, the IT Department will retire it in MIMS (pending approval) and send a list of the retired equipment via e-mail to the FDOT TSM&O Resource Manager for review.
2.	Once approved, the TSM&O Resource Manager will permanently retire the equipment in MIMS.
3.	The part may be discarded by the IT Department.
Note. All electronic devices and media must be sanitized prior to disposal. Refer to SOG Section 7.27.01.	
Process For Returning Nh Tagged Equipment to OIT	
OIT is not responsible for surplus of HW tagged equipment (see Surplus of HW Tagged Equipment below).	
1.	IT Department receives new equipment from FDOT OIT (see section receiving Equipment from OIT). <ul style="list-style-type: none"> Identify placement of new equipment and install.
2.	IT Department gathers old equipment for return to FDOT OIT. <ul style="list-style-type: none"> IT Department must confirm configuration of equipment to be returned. All equipment that is set to be returned to OIT must be approved by the TSM&O Resource Manager. Once approval is obtained, the TSM&O Resource Manager will return to OIT
3.	Provide list of equipment to FDOT TSM&O Resource Manager for approval prior to sending back to OIT.
4.	Once approved, email the NH numbers of the equipment being returned to OIT (currently Pam Zain) and copy the TMS&O Resource Manager. <ul style="list-style-type: none"> IT Department coordinates with OIT to return equipment.
5.	Prior to returning, IT Department must scan the equipment (3400 (surplus) and update in MIMS.
6.	Once the equipment is inspected and cleared for return, pictures must be taken of the entire piece of equipment showing that none of the components are missing using the RTMC Surplus PC Returned form. RTMC Surplus PC Form can be found in the D4 EXT TSM&O IT Property channel at: DOTX File viewer Microsoft Teams .

Surplus of NH/HW Tagged Equipment

1. The IT Staff will fill out form no. 350-090-05, Certification of Surplus Property for the equipment that will be 'surplused' (with the information in steps a.-d. below only), print, scan, and submit it to the RTMC IT Support Manager via e-mail for approval. The Certificate of Surplus Property form can be found in the D4 EXT TSM&O IT Property channel at: [PDF File viewer | Microsoft Teams](#).
 - a. Inventory Control # (Column 2). This will either be the FDOT/FLAIR asset tag number or the serial number. If the FDOT/FLAIR number is missing, enter the serial number.
 - b. QTY (Column 3). Enter a numeric value for the quantity per line number.
 - c. Description of Property (Column 4). Enter the description of the property as it appears in MIMS.
 - d. Cond (Column 6). Enter one of the following condition codes (alpha character only) for the property:

• E – Excellent	• F – Fair	• S – Scrap
• G – Good	• P – Poor	
2. Once approved, RTMC IT Support Manager will save the Certification of Surplus Property form on D4 EXT TSM&O IT Property channel and submit it to the TSM&O Resource Manager for completion.
3. FDOT TSM&O Resource Manager will complete the form, to include obtaining the proper signatures, and upload it to the D4 SharePoint site for advertisement to other Districts in the State that equipment is available for use.
4. This advertisement will be posted for 2 weeks. After expiration, TSM&O Resource Manager will coordinate with the Surplus Property Coordinator for pickup of the property and complete form no. [350-090-06, Surplus Property Receipt](#).
5. Once the property is removed from the building, IT Department can decommission it from MIMS.

Note: All electronic devices and media must be sanitized prior to surplus. Refer to SOG Section 7.27.01.

REFERENCES

- Topic No. 325-000-002 Transportation Technology Manual, Chapter 11, Electronic Device and Media Sanitization - SOG Section 7.01.05
- Topic No. 350-090-310 Tangible Personal Property Procedure - SOG Section 7.27.02
- Intelligent Transportation Systems (ITS) Inventory Management Guidance Document - SOG Section 7.27.03
- Topic No. 010-000-020 Property Insurance Procedure SOG Section 7.27.05

ELECTRONIC MEDIA and DEVICE SANITIZATION PROCESS

Process Overview

The [Electronic Device and Media Sanitization Process](#) document ensures compliance with the Florida Department of Transportation (FDOT) Transportation Technology Resource User's Manual (Topic No. 325-000-002), [Chapter 11 Electronic Device and Media Sanitization](#). This process applies to FDOT District 4 (D4) Transportation Systems Management and Operations (TSM&O).

Electronic Media and Device Sanitization Process document shall be used to ensure compliance for the sanitization of electronic media and devices exists under FDOT D4 TSM&O's area of responsibility. The document is regularly updated and found at the following link: [Electronic Media and Device Sanitization Process](#).

Electronic Media and Device Sanitization Definitions

Degaussing	The exposing of magnetic media to a strong magnetic field in order to disrupt the recorded magnetic domains. Degaussing can be an effective method for purging damaged media, for purging media with exceptionally large storage capacities, or for quickly purging diskettes. Any degausser equal to the Garner Products HDTD-8200 degausser, issued to the Department's OIT Offices, shall be used for this task. This type degausser renders magnetic media and devices inoperable after degaussing.
Disposal	The act of discarding media or devices from Department use in a manner short of destruction. FDOT Topic No. 350-090-005 Surplus Property Disposal Procedure, defines the practices that shall be followed for the proper disposal of electronic media vice properties.
Destruction	The highest level / ultimate form of sanitization. The result will ensure that media cannot be reused as originally intended; information is impossible to recover or expensive. Physical destruction can be accomplished with a variety of methods, i.e., disintegration, incineration, pulverization, shredding, melting, sanding, d chemical treatment.
Erase	Process will render magnetically stored information or data irretrievable by normal means.
Reimage	The process of removing and deleting any previously stored data and software on a computer and reinstalling, in its place, pre-configured operating system and software.
Return Merchandise or Material Authorization (RMA)	A transaction whereby the recipient of a defective product arranges its return to the supplier to have the product repaired or replaced or to receive a refund or credit for another product from the same retailer or corporation.
Sanitizing	Using a utility that provides a minimum of three passes of overwriting all addressable locations with a character, its complement, then a random character and verifying. DOD 5220.22-M requirements accomplish this. This includes erasing data and/or reformatting magnetic tape media. FDOT D4 TSM&O Unit will utilize Active@Killdisk Enterprise to accomplish this task.

Surplus	Electronic media and devices that are no longer used by the Department and shall not be owned by the Florida Department of Transportation. These items are typically donated, or RMA returns to other entities or organizations outside the Florida Department of Transportation or are destroyed to prevent further use.
Transfer	Changes in ownership of electronic media and devices from one Cost Center to another Cost Center. This can be within or across Districts. Ownership of transferred items always remains within the Florida Department of Transportation's chain of custody.

Devices Exempt from Process

Some ITS Devices only collect data that is subject to public record and therefore are not subject to sanitization. This device list must be updated when new devices utilized within ITS come online that conform to the previous statement. These devices are:

- Closed-circuit television (CCTV)
- Encoders
- Decoders
- Video Walls
- Media Converters
- Vehicle Detection Systems (VDS)
- Terminal Servers for field devices
- Dynamic Message Signs (DMS)
- Signal Controllers
- Signal Cabinet Equipment
- Adaptive Signal Control Equipment

FDOT TOPICS and GUIDELINES

FDOT Topic No. 350-090-310 Tangible Personal Property Procedure

Section 7.27.00 references the FDOT Procedure for Tangible Personal Property. This document is updated on a regular basis and can be found at the following link: [FDOT Topic No. 350-090-310 Tangible Personal Property Procedure](#).

FDOT ITS Inventory Management Guidance

Purpose and References

This document defines requirements regarding accountability and reporting related to ITS tangible personal property and infrastructure assets within the Florida Department of Transportation.

The references are:

- Tangible Personal Property, Office of Comptroller and General Accounting, [Topic No. 350-090-310](#).
- ITS Maintenance Scope of Services.

Procedures

Tangible Personal Property

- For control, ITS equipment within a Transportation Management Center (TMC) or TMC backup site operated by FDOT, excluding any warehouse area will be considered tangible personal property and will follow [Topic No. 350-090-310](#). A Transportation Management Center is a building housing at least one FDOT owned workstation permanently connected to the ITS Network for purposes of operating the Freeway Management System.
- Video wall items must be tagged individually due to requirement that the property group records only contain items purchased within one fiscal year.
- Property items valued under \$5,000 and not considered Exception Property ([Topic No. 350-090-310](#)) are not required to be recorded in the FLAIR Property Subsystem for control or tracking purposes. Districts can record these items in the FLAIR Property Subsystem for control and tracking purposes on an optional basis.
- Tangible personal property must be disposed of in accordance with Surplus Property Disposal, (Office of Support Services [Topic No. 350-090-005](#)).

Infrastructure Assets

- ITS equipment outside the Transportation Management Center (TMC) or TMC back up site operated by FDOT, including any warehouse area will be considered as infrastructure and shall be inventoried with the District's Maintenance Management Inventory Database at least once each fiscal year. A Transportation Management Center is a building housing at least one FDOT owned workstation permanently connected to the ITS Network for purposes of operating the Freeway Management System.
- District Maintenance Management Inventory Database device records must include but are not limited to:
 - Device location, number, and type.

- Model and serial number.
- Manufacturer.
- Ownership date.
- The Facility Management System database will generate reports with the above information.
- Infrastructure assets, being surplus, must be documented. A review team composed of two employees must certify infrastructure as surplus using Form No. 350-090-05. Property serial numbers shall be used for inventory and surplus control. Certification forms must be completed for all surplus property and must contain as much detailed information about the property as possible. A property disposition file must be maintained for all surplus property. The file will contain records reflecting the disposition of all items of property. The method of disposition must be noted for each item. A detailed list of property delivered to recycling operators, landfill operations, or placed in dumpster or scrap bins should be maintained with receipts signed by a witness as supporting documentation for disposal.

ITS Equipment/Systems List

In TMC or TMC backup site with HW tag (items on ITS Network):	<ul style="list-style-type: none"> ● Video wall system (controller, video wall display, bulb) ● Workstation system ● Servers ● Video encoders/decoders ● Mobile devices (Tablet, Smartphone, Radio)
In TMC or TMC backup site with NH tag (Items on OIS network):	<ul style="list-style-type: none"> ● Workstation system ● Servers
Field Infrastructure (Tracked through District Maintenance Management Inventory Database)	<ul style="list-style-type: none"> ● Roadway <ul style="list-style-type: none"> – CCTV – Traffic Detection Systems – RWIS – DMS – HAR – Field Hub – Ramp Metering System (Signal, controller, detection) – Field Switch – Generator
	<ul style="list-style-type: none"> ● Warehouse (spare parts, spare units, generators)

FDOT Topic No. 350-090-005 Surplus Property Disposal Procedure

Sections 7.27.01 and 7.27.03 reference the FDOT Procedure for Surplus Property Disposal.

This document is updated on a regular basis and can be found at the following link: [FDOT Topic No. 350-090-005 Surplus Property Disposal Procedure.](#)

RMA PROCEDURES FOR ITS DEVICES

Overview and Procedures

This SOP Section outlines the steps for sending an ITS device out for RMA, receiving a repaired ITS device from a vendor, and receiving a replaced ITS device from a vendor.

The procedures below are separated by the tag type (i.e., IT, NH, or HW) affixed to the ITS devices. IT tagged ITS devices have a white decal affixed to them; and NH/HW tagged ITS devices have a silver decal affixed to them.

IT Tagged ITS Devices

Sending an IT Tagged ITS Device out for RMA

- A.**
 1. The IT Workstation team removes the decal from the ITS device.
 2. The IT Workstation team sends the ITS device to the vendor for RMA.

Receiving a Repaired IT Tagged ITS Device

- B.**
 1. When a repaired ITS device is received from a vendor, the IT Workstation team sends an email notification to the IT Security Manager, requesting a new decal with the same information that was on the old decal.
 2. The IT Workstation team properly affixes the new decal to the repaired ITS device and updates MIMS accordingly.

Receiving a Replaced IT Tagged ITS Device

- C.**
 1. When a replaced ITS device is received from a vendor, the IT Workstation team sends an email notification to the to the IT Security Manager, requesting a new decal with new information that matches the new or refurbished ITS device.
 2. Once the new decal is received, the IT Workstation team properly affixes it to the replaced ITS device, and updates MIMS accordingly, to include decommissioning the old decal.

NH/HW Tagged ITS Devices

Sending an NH/HW Tagged ITS Device out for RMA

1. The IT Workstation team sends an email notification to the TSM&O Resource Manager, which includes all pertinent information for the ITS device that needs to be sent out for RMA (e.g., device name, decal info, etc.).
- A. 2. The TSM&O Resource Manager responds to the email, to let the IT Workstation team know that the ITS device can be sent out for RMA.
3. The IT Workstation team removes the decal from the ITS device and retains it for delivery to the TSM&O Resource Manager.
4. The IT Department sends the ITS device to the vendor for RMA.

Receiving a Repaired NH/HW Tagged ITS Device

- B. 1. When a repaired ITS device is received from a vendor, the IT Workstation team sends an email notification to the TSM&O Resource Manager, requesting a new decal with the same information that was on the old decal.
2. The IT Workstation team properly affixes the new decal to the repaired ITS device, and updates MIMS accordingly.

Receiving a Replaced NH/HW Tagged ITS Device

- C. 1. When a replaced ITS device is received from a vendor, the IT Workstation team sends an email notification to the TSM&O Resource Manager, requesting a new decal with new information that matches the new or refurbished ITS device.
2. Once the new decal is received, the IT Workstation team properly affixes it to the replaced ITS device, and updates MIMS accordingly.
3. The TSM&O Resource Manager decommissions the old decal in MIMS.

TSM&O PROPERTY TRACKING STANDARDS

Overview

As stated in Section 2.4 of the FDOT procedure on Tangible Personal Property, [Topic No. 350-090-310](#), “Occasionally, a District, Office, or the Turnpike Enterprise may determine that additional property items with values under \$5,000 should be recorded in the FLAIR Property Subsystem for control or tracking purposes. These types of property items should be limited in number. They should only be recorded in the FLAIR Property Subsystem unless there is a better way to track the property.”

These Standards outline the required steps for tracking the following FDOT D4 TSM&O property items by TSM&O property decals in the local Maintenance Inventory Management System (MIMS):

- Property items that are not tracked by FDOT property decals.
- Property items with a purchase value above \$300 and below \$5,000.
- Property items below \$300 but are considered to have an attractive value.

Standards

Property Decals

Upon procurement of IT devices, the TSM&O Purchasing Agent performs the following:

- Identifies assets to be tracked by FDOT property decals.
- Submits the necessary requests to create and print the FDOT property decals.
- Submits assets that are not be tracked by FDOT property decals to the IT Support Manager.

Inventory Database

Properties are to be entered in the local MIMS. Assets are to be approved and the status is to be updated to reflect the correct standing of use.

Property Tracking

All property items not tracked by FDOT property decals and have a purchase value over \$300 and below \$5,000, are to be tracked by TSM&O property decals. Some property items with a purchase value below \$300, but having an attractive value, must also be tracked by TSM&O property decals.

The list of property items with an attractive value, includes but is not limited to:

- Monitors (31 inches and below).
- Laptops.
- Bluetooth headphones.
- Workstations and other easily removable networking devices.

Property deployed or moved should be audited with the local inventory system; a location should be modified to reflect the current location. A yearly property audit is performed using MIMS and the FDOT Property Audit System.



7.28 Emergency Procedures

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1.1	5/07/2024	Aaron Rapp / Yana Neishlos	Shutdown Plan included
1.2	5/29	Aaron Rapp / Yana Neishlos	Included IT ON-CALL standard operating procedures from 7.18.04

EMERGENCY PROCEDURES

Coronavirus Scenarios

If telecommuting is required, the following scenarios and procedures will be used to instruct and inform both management, and personnel, on the steps to take to achieve each scenario.

Items in bold will be considered "pre-requisites" to executing the plan and are not resources currently on-hand. This plan references the "TMC Operations Plan: Continuing Operations under Corona Virus Threat."

Scenario A

In this scenario, it is expected that operations continue, but spread among other offices within the Broward RTMC.

- 2 Stations in Control Room
- Room 110
- Room 112
- Room 114
- Room 115
- Room 116

When activated, the IT department will setup stations with the following configuration:

1. Workstation
 - HP 705G4 R7
 - Image
 - SunGuide
 - Sidebar
 - Outlook
2. Use existing monitors. (Minimum of two.)
3. Handheld Radio.
4. Configure existing video wall monitors for primary incidents.

Scenario B

Setups for Scenario B are identical to Scenario A, but with less required stations.

Scenario C

It is expected that operations continue, but with "Operators" working from their homes.

If activated, the following will take place. A 24-hour lead time will be required, after resource procurement, for this plan.

1. Decision will be made whether all 30 operators will receive devices.

If an answer is **Yes**, see **1.a**. If answer is **No**, see **1.b**.

- a. All 30 operators will receive equipment.

- 21 laptops will be purchased.
- 10 handheld radios will be purchased.
- Once laptops are received, they will be labeled and imaged with the following:
- Outlook
 - SunGuide Terminal Server Shortcut
 - Cisco VPN
 - Copy of VPN instructions on desktop
 - Copy of Terminal Server instructions on desktop
- Handheld radios will be provisioned with FirstNet and labeled with phone number.
- SunGuide terminal servers (coronavirus.smartsunguide.com), will be turned on. 16GB of additional RAM will be added.
- Barco Wall and IT Wall Servers will be shut down in VMware.
 - Barco XX
 - IT Wall XX
- Once laptops are ready, a log will be created to track which laptops and their owners/operators.
- Once added to the log, the Operator will login to the machine using their Smartsunguide credentials.
- A handheld radio will be assigned and logged to each operator.
- After successful login, IT staff will ensure their login works before they depart.
- Once the above configurations are completed, an Operator will receive further instructions from the Operations Management.

- b. Equipment will be distributed in the same configuration as **1(a)**, except only allowing the maximum amount of equipment on hand. (i.e., 9 laptops and 15 radios, would result in 9 operators receiving equipment.)

- Operators are expected to use their home internet to conduct business.
- Schedules and shifts will be created by Operations Management.

2. In either event, the helpdesk hunt group will be altered to ring all IT department phones at once. The helpdesk phone number will be included in the VPN instructions on the desktop.

THE HURRICANE IMPACT PLAN

Introduction

The Hurricane Impact plan is a comprehensive document that describes the series of critical action steps to be executed in the event of an impending hurricane. This plan serves as a strategic blueprint, offering clear and decisive guidance and response to this formidable natural disaster. The plan will ensure the safety and well-being of our personnel and the safeguarding of our valuable assets.

Purpose

The Hurricane Impact plan provides a comprehensive roadmap for the TSM&O IT Department to follow in the event of an impending hurricane. Its primary objective is to guarantee the seamless continuity of our critical operations, even in the face of the imminent threat posed by a hurricane.

Scope of Hurricane Plan

The development of this Hurricane Impact plan is tailored for the TSM&O IT Department to ensure the operational continuity during hurricane events. This plan is a dynamic and responsive document, tied to the ever-evolving track forecast cone of an approaching hurricane.

Definitions – Track Forecast Cones

Track Forecast Cone

The "forecast cone" is the graphical representation illustrating the likely path of the central point of a tropical cyclone that displays its anticipated movement and **trajectory**¹.

5-Day Track Forecast Cone²

IT Department will implement a temporary suspension of all Change Orders across all areas of its responsibility. During this period, regular Change Orders, involving the planned modifications and updates, will not be processed. Emergency Change Orders, pertaining to critical and time-sensitive issues, will be permitted.

3-Day Track Forecast Cone³

CyberKey access will be extended to a duration of seven days. Hence, users with CyberKeys will have an extended window of seven days to access secured areas before requiring reauthorization.

¹ <https://www.nhc.noaa.gov/aboutcone.shtml>

² <https://www.nhc.noaa.gov/gtwo.php?basin=atlc&fdays=5>

³ <https://www.nhc.noaa.gov/gtwo.php?basin=atlc&fdays=2>

FULL DATACENTER POWER SHUTDOWN TECHNICAL PLAN

This document will be used for a full datacenter power shutdown at the District 4 RTMC.

Assumptions

The following services/applications will not be available during this shutdown.

• Test FHP/Davie Fire Radio (TEST THIS)	• FDOTD4Traffic.com	• Arterial Cameras
• InService App	• MIMS (internal/external)	• ITS WAN connection
• InService Manager	• iVDS	• RTMC VPN
• InService MOT	• External API that BSO uses to view cameras	• SMTP Server
• InService SIRV	• TOQC	• Maxview
• SIRV App	• SELS/ELS	• SIEM
• 595express.info	• TrafficCast viewing of cameras	• WWED
	• SolarWinds Orion	

The Emergency Operations Center (EOC) at District 4 HQ will be available for Operational needs during this outage.

The remaining services will be moved to the Treasure Coast Operations Center datacenter through the below procedures.

The following items will be set up at the EOC to facilitate the operators and services to be run from there:

- 6 Operator stations with 2 monitors
- 1 Virtual Host that will house the CMS Pro server for the EOC video wall.
- 1 Cisco phone per operator

A VCenter host will be moved down to the EOC and run on VLAN 3. This will house the CMS Pro server for the EOC video wall.

A Cisco switch will be configured for use at the EOC for workstations and phones.

Timeline

1. Outage #1 (Test Outage) – Sunday, November 12th
2. Saturday, November 11th @ 08:00 - Move operators to EOC. Set them up and verify things are working as intended. The Workstation team will send a notification to RTMC IT Support Manager of completion.
3. Saturday, November 11th @ 09:00 - Shutdown procedures will begin.
4. Saturday, November 11th @ 10:30 - After shutdown procedures have been completed, verification will begin and be documented. Any assumptions that behave differently than expected will be thoroughly investigated and resolutions will be investigated.
5. Saturday, November 11th @ 12:00 - Startup procedures should be started. Application verification will be performed.

6. Saturday, November 11th @ 14:00 - Move operators back from EOC. Set them up and verify things are working as intended. The Workstation team will send a notification to RTMC IT Support Manager of completion.
7. Outage #2 (Main Outage) – Friday, January 12th – Monday, January 15th
8. Friday, January 12th @ 08:00 – Setup workstations, VCenter Host, and other appropriate items at the EOC. Setup will be completed, and configurations verified by the end of the business day.
9. Friday, January 12th @ 19:00 – Move operators to EOC. Set them up and verify things are working as intended. The Workstation team will send a notification to RTMC IT Support Manager of completion.
10. Friday, January 12th @ 20:00 – Shutdown procedures will begin.
11. Friday, January 12th @ 22:00 – After shutdown procedures have been completed, verification will begin and be documented. Any assumptions that behave differently than expected will be thoroughly investigated and resolutions will be investigated. Monitoring will begin.
12. Friday, January 12th @ 00:00 – Monitoring of operators, applications, services, and status of electrical work will begin. Monitoring will continue throughout the outage window.
13. Monday, January 15th @ 13:00 – Startup procedures should be started. Application verification will be performed.
14. Monday, January 15th @ 16:00 – Move operators back from EOC. Set them up and verify things are working as intended. The Workstation team will send a notification to RTMC IT Support Manager of completion.

Project Team

Project teams comprises the following individuals:

- District 4 TSM&O Program Engineer
- District 4 TSM&O Resource Manager
- District 4 TSM&O Information Technology Manager
- RTMC Project Manager
- RTMC Assistant Manager (AECOM)
- RTMC Assistant Manager (WSP)
- RTMC Outage Project Manager
- RTMC IT Support Manager

Communication Plan

There are several stakeholders that should be informed of this outage.

The Outage Project Team will remain on all communications regarding the outage.

Prior to the Outage

For a planned outage, the following procedures will be used.

1. **One week**, or more, prior to the outage, the TSM&O Resource Manager will ensure a notification is sent to all FDOT District Program Engineers, informing them of the outage, impacted areas, and the timeline for the outage.
2. **One week, or more**, prior to the outage, the TSM&O Resource Manager will ensure a notification is sent to the following stakeholders, informing them of the outage, what will be affected, and the timeline for the outage.

TERL	D4 HQ Facilities
Tolls Email List	ITS Maintenance
District 4 Management	Central Office ITS
Total Traffic Networks Contacts	The people requiring it - This notification will include instructions on changes in work schedules, VPN Access instructions, and work locations during the outage.

3. **Three days** prior to the outage, an RTMC Manager will ensure a notification is sent to the following stakeholders, informing them of the outage, impacted areas, and the timeline for the outage, including procedural changes required during this outage.
 - a. Districts 1, 5, 6, and Turnpike.
 - b. Road Ranger Project Managers
 - c. SIRV Project Managers
 - d. FHP Regional Communications Center
4. **One hour** prior to the shutdown, the RTMC Outage Project Manager will send a notification to all the previous stakeholders in steps 1-3, notifying them that the outage is about to take place.
5. If any of the outage assumptions or timelines change during the outage duration, the RTMC Outage Project Manager will alert the previous stakeholder list of those changes.
6. When notification is received that the outage is ending, the RTMC Outage Project Manager will notify the project team, as well as the following lists → **Turnpike Email List**

This notification will recall all appropriate project members to standby for “**Startup Procedures**”.

After the Outage Procedures' Completion

After startup procedures are completed and service restoration has been verified, the RTMC Outage Project Manager will send a notification to all previous stakeholders in steps 1-3, notifying them that the outage has been completed and all services should be available.

Sample Communication:

FDOT District 4 TSM&O Notification

Name of Notification	RTMC Outage #2
Date and Time of Outage	Friday, January 12th, 2024 7:00 PM - Tuesday, January 16 th , 2024 2:00 AM
Services that will be affected	<u>The following will be unavailable:</u> 595Express.info Website FDOTD4Traffic.com Website iVDS/DIVAS ITS WAN Connection MIMS RTMC VPN Viewing of D4 cameras from anywhere outside the D4 network (exception: D6).
Operational Changes	<u>The following operational changes will be required:</u> <ol style="list-style-type: none"> 1. The main number of (954) 847-2777 should continue to function; however, if issues are being experienced with this number, please try (772) 742-8394. 2. All ITS related activities, including testing and integration, shall not take place during this outage timeframe. I TS activities can resume after receiving confirmation from District 4 that the outage has been completed.

Relocation Procedures

One hour prior to the start of the shutdown procedures, the RTMC IT Support Manager will coordinate with the IT team and the Operations team to move all necessary operators to the EOC.

To Be Completed 48 Hours before Shutdown

- Moving SunGuide to TIMSO
- Putting in ticket to AT&T to forward main phone number to backup phone number
- Move CMS Pro backup server to temporary host at EOC.
- Failover ITSQL instance to node in TIMSO
- Failover Milestone Recording Server. SRM: Management Server move
- Move FSMO roles to TIMSO
- Move the primary ISE to TIMSO

After the Shutdown

The following are the systems to be tested after a Shutdown:

Sending and Receiving phone calls to Control Center	IntraSmart	DNS (Including Cisco Umbrella connection)	ISE
FMS SunGuide Application	SELS/ELS	VCenter	Password Manager – Read-Only
Internet Connectivity	Sidebar	Storage Shares	FHP/Davie Fire Radio
Zello	Barco Wall	VPN Connection	Arterial Cameras

After the Startup

The following are the systems/applications to be tested after a Startup:

Sending and Receiving phone calls to Control Center	vCenter	DNS (Including Cisco Umbrella connection)
FMS SunGuide Application	File Shares	Password Manager Pro
AMS SunGuide Application	VPN Connection	Milestone xProtect
Zello	IntraSmart	Comcast Cable
SELS/ELS	Printing	Internet Connectivity
Sidebar	Wireless Access	ISE
Barco Wall	Cyberlock	IntraSmart
		FHP/Davie Fire Radio

Shutdown Procedures

Phase	IT Department	Procedural Steps
0	Applications	<p>Ensure SELS/ELS are posted at \$0.00 tolls and ready for shutdown.</p>
1	Network	<p>Cisco Unified Communication Manager (CUCM)</p> <p>In case of a potential crash, the Publisher on the CUCM must be manually shut down. With the two CUCM Subscribers up and running, the CUCM will keep working, but no changes can be made. The steps below can be completed in 3-5 minutes.</p> <ol style="list-style-type: none"> 1) SSH to Call Manager 2) Use OS admin for the CUCM. 3) Issue command: utils system shutdown. <p>Wireless Controller</p> <ul style="list-style-type: none"> – Log into the CIMC
1	Workstations	<ol style="list-style-type: none"> 4) Ensure that the main Video Wall in the Control Room is safely powered down via controller. <p>Power down the following:</p> <ul style="list-style-type: none"> – All unused consoles to reduce power consumption. – All NEC monitors throughout the building to reduce power consumption. – All Barco NDNs throughout the environment to reduce power consumption. <p>Ensure the Intrasmart website is hosted from Timso server. Intrasmart DNS entry needs to have IP of Timso Intrasmart server.</p> <p>After replication, → refresh Intrasmart website to confirm site functionality.</p>
1	Database Admin.	<p>Failover SunGuide to TIMSO.</p> <p>Export SELS/ELS databases. Import to TIMSO instance of applications. Confirm this process is completed before continuing.</p>
1	Security	<ol style="list-style-type: none"> 5) Okta Active Directory. <ul style="list-style-type: none"> – Ensure that the service is running on the agent server at TIMSO. <p>Internet communication to Okta tenant https://smartsunguide.okta.com is required.</p> <p>Okta Radius.</p> <ul style="list-style-type: none"> – Ensure the service is running on the agent server at TIMSO. <p>Internet communication to Okta tenant https://smartsunguide.okta.com is required.</p> <ul style="list-style-type: none"> – Password Manager.

Phase	IT Department	Procedural Steps
0	Applications	<p>Ensure SELS/ELS are posted at \$0.00 tolls and ready for shutdown.</p> <ul style="list-style-type: none"> – Verify that the read-only Password Manager server has service running and that it can access the encryption key located on the Distributed File System (DFS) – Edit Key file to point to path of encryption Key on DFS <p>Login to backup password manager system.</p> <p>The Password Manager is Okta tenant dependent. If communication with Okta fails:</p> <ul style="list-style-type: none"> – Bypass Security Assertion Markup Language (SAML) Single Sign-On (SSO) – Login with local database credentials. – ITSQL Instance. – Execute a SQL command to perform a graceful failover to the replica located at TIMSO, before gracefully shutting down the replicas at the RTMC. – Milestone Recording Server. – Verify failover of the recording server to the server located at TIMSO. – Shutdown of the ISE. <p style="padding-left: 40px;">a) Move from Primary to Secondary</p> <p>NOTE: The Milestone Management server is located at the RTMC, and the database is on ITSQL Instance. To access the database, a Management server needs to be put in place at TIMSO.</p>
1	Servers	<p>Transfer the Domain Flexible Single Master Operation (FSMO) Roles to TIMSO</p> <ul style="list-style-type: none"> 6) Determine the current location of the FSMO roles by using the netdom query fsmo command. Sample output below: 7) Transfer all FSMO roles to TIMSO.
1	Servers	<p>Start Powering Down Systems</p> <p>CAUTION: Do not shutdown the storage until all other systems have been powered down.</p> <p>NOTE: All databases (where applicable) must be gracefully shut down prior to the server being powered down (SQL instances to be attached).</p> <ul style="list-style-type: none"> • ITSQL • SolarWinds Orion <ul style="list-style-type: none"> 8) Ensure that all relevant SunGuide databases are transferred to TIMSO and confirm functionality with the Applications Team. <p>Ensure that all needed applications are transferred to TIMSO and confirm functionality with the application owners.</p>

Phase	IT Department	Procedural Steps
0	Applications	<p>Ensure SELS/ELS are posted at \$0.00 tolls and ready for shutdown.</p> <ol style="list-style-type: none"> Okta Radius (Security). Okta Active Directory (Security). Password Manager Read-Only (Security). Milestone Recording Server (Security). DFS (Password Manager Dependent) (Security and Servers). Network Time Protocol (NTP) (Servers). Cisco Umbrella OpenDNS (Security).
		<p>Before proceeding to Phase 2, the DRC must confirm functionality of all SunGuide databases with the Applications Group as well as confirm functionality of all needed applications with the application owners, as outlined in steps 1. & 2. above.</p>
2	Servers	<ol style="list-style-type: none"> Log in to vSphere and begin performing a graceful shutdown of all systems. Once all systems on a particular host are down, log in to the ILO of that host and gracefully shutdown the host. <p>Note. Record which host the local vCenter is hosted on. This host and the vCenter appliance will be the last to go down and the first to come up post-disaster.</p> <ol style="list-style-type: none"> Log in to the storage array's and perform a shutdown.
2	Workstations	Power down all remaining consoles.
2	Database Admin.	Shutdown two servers.
2	All Depts.	<p>Unplug power from wall on all critical systems.</p> <ul style="list-style-type: none"> Barco Wall Console Devices Office Machines Host Servers SAN Physical Servers Switches/Routers
		<p>At this point we are either on generator power with sufficient UPS power remaining or we are on Florida Power & Light (FP&L) power. We cannot proceed if on generator power with no UPS charge to support a switch back.</p>

Post Disaster Restoration Procedures

Phase	IT Department	Procedural Steps
3	Network	If the internet access is not automatically restored at the RTMC or Vista Center, the routing entries from the IP routing table on the Cisco Core switch at TIMSO will need to be cleared by entering the following command: clear ip route * .
3	Servers	<ul style="list-style-type: none"> – Manually power on the storage arrays and wait several minutes for initialization. – Log in to the ILO of the host that contains vCenter and power it on. This process can also be done by physically powering each host, if needed. – Check each host to ensure it is properly connecting to the storage. – Log in to vCenter and verify that all systems are powered on. – Coordinate with the application owners to ensure that all applications are working properly.
3	Workstations	<ol style="list-style-type: none"> 1. Start up all workstations. 2. Start up all Barco NDNs throughout the environment. 3. Start up all NEC monitors throughout the building. 4. Start up the main Video Wall in the Control Room. 5. Verify connectivity to applications.

Post Test Outage After-Action Items

- TIMSO DNS scopes were not included on the DHCP Scopes. Added those. Work has already been done.
- DNS Settings in virtual center. Could not access VCenter in TIMSO.
- Addressed MAC addressing to manual in VCenter.
- Shutdown ISE in the TMC before domain controllers.
- Working on IPKVM in accessing the ISE's.
- The setup at the EOC was done very well.
- Firewall at TIMSO was a problem. Replace that firewall at TIMSO. Too small.
- Need to add static route from D4 to D6 network and vice versa before shutdown of core field switch, add to procedure.
- Communicate with FHP with new phone number.
- Encountered an issue with MFA authentication once TMC radius was brought down.
- Lost multicast with 595 after we came online. ***
- Add construction contracts to communication plan, send to construction engineers, Broward ops, treasure coast, PBC.

Post Main Outage After-Action Items

1. What did we intend to accomplish (what was our strategy)?

Answer: We intended to continue operations that TSM&O has during a UPS replacement that needed to happen at the RTMC in district 4.

2. What did we do (how did we execute relative to our strategy)?

Answer: We came up with a plan on how to do that using the EOC. We came up communication plans.

- a. We knew needed to verify assumptions by performing a test outage. Documented that during outage.
- b. We documented a procedure for powering down and powering on systems.
- c. Good. Information that was sent. There weren't a lot of emails or phone calls going back and forth.
- d. Greg – The teams' ability to come up with a plan was done very well. Planned out very well in a very little amount of time.
- e. Troubleshooting – system integrated devices that have been networked for a while don't like to be turned off. When they come back, it's not positive what will happen when they come back on.
- f. Timeline – resumption of tolls. No way to know that. Though we were close. Estimated 7pm and brought it back up at 5pm. Had to bring SELS/ELS down fully.
- g. Thank you to the Arcadis team for the tolling tables. When we were back again, it was extremely helpful for the hyper care office. Made their job a lot easier.

Have SELS process mirrored.

WORKSTATIONS – IT ON-CALL STANDARD OPERATING PROCEDURE (SOP)

Purpose

This document outlines the standard operating procedures relating to the structure and usage of the IT On-Call schedule hosted within the Microsoft Teams environment. The document serves as an instructional tool for all departments to understand how the IT Department On-Call schedule works.

How to Access

The IT On-Call schedule is accessible on Microsoft Teams under the name "**IT On Call Schedule.**" This schedule is regularly updated to include the names and contact details of IT staff members currently on call.

Reference for Operations

Operations personnel should consult the "**IT On Call Schedule**" in Teams to identify the designated IT On-Call Emergency Technical Support Personnel for any given period.

If Emergency IT support is required, Operations should make the initial contact with the designated IT On-Call Technical Support Personnel.

Recommended contact Path for Operations

If Operations is unable to reach the designated IT On-Call technician, the following steps should be followed:

1. Contact the previous week's IT On-Call Technical Support Personnel. (Reference IT On-Call Schedule within Teams for contact details)
2. Contact the upcoming week's IT On-Call Technical Support Personnel. (Reference IT On-Call Schedule within Teams for contact details)
3. If both contacts are unreachable, contact the Desktop Manager.
4. If all three contacts are unreachable, contact the IT Support Manager.

Ticket Creation

Operations is responsible for creating a support ticket in the IT ticketing system, detailing the issue at hand. If Operations is unable to create the ticket, the contacted IT personnel will initiate the ticket creation process. There are two methods available for creating a ServiceDesk ticket.

- Login to ServiceDesk portal to create a ticket. URL: <https://support.smartsunguide.com/>
- Send an email to support@floridadot.samanage.com. The subject of the email is the ticket title. The body of the email is the ticket details.

Initial Troubleshooting

The designated IT On-Call Technical Support Personnel will perform remote troubleshooting upon receiving the support ticket. If the issue cannot be resolved remotely, the IT On-Call Technical Support Personnel will assess the severity of the issue and, if deemed critical, arrange to visit the Traffic Management Center (TMC) for further troubleshooting.

On-Site Troubleshooting (if required)

In cases where on-site troubleshooting is necessary, the designated IT On-Call Technical Support Personnel will promptly visit the TMC for a hands-on resolution.

Coordination with Operations or relevant personnel on-site may be required to facilitate access and provide additional information.

Workaround Documentation

If a workaround is implemented to address the reported issue, the IT On-Call technician must document all relevant details and comments on the associated support ticket.

This documentation ensures that the IT team can follow up promptly the following business day for a comprehensive resolution.

Communication Protocol

Effective communication between Operations and IT is vital. All updates, progress, and resolution details should be promptly communicated through the support ticket.

Regular updates on the support ticket will ensure a smooth handover of information for any follow-up actions during normal business hours.

Post-On-Call Review

At the end of the on-call shift, the IT On-Call technician:

- Should review and update the support ticket,
- Ensure that all relevant information is documented for future reference.
- Communicate and address any outstanding issues or tasks for the IT team during the next business day.

Note. This SOP is subject to periodic review and updates. Any changes to the IT On-Call schedule or procedures will be communicated promptly to all relevant stakeholders.



7.34 Security Software

Document History

Version #	Date	Author	Changes
1.0	12/28/2023	Yana Neishlos	Initial Draft

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PASSWORD MANAGER

Password Manager Secondary Read-Only Server Configuration

Steps / Screenshots

1. On the Secondary server, → Uninstall the old version of Password Manager Pro (if installed).
2. Install a new version of Password Manager, currently running on a Primary server (versions must be the same).
3. Create a Data Replication Pack for High Availability in Primary server:
 - Stop the Password Manager Pro service on the Primary server (and Secondary server, if running). Ensure that the postgres process of PMP is NOT running.
 - Open an elevated command prompt; navigate to the **M:\ManageEngine\PMP\bin** directory.
 - Execute command **HASetup.bat FQDN of PMP Primary Server FQDN OF PMP Secondary Server**.

To run this script → Pass the fully qualified domain names of the host where the PMP Primary and Secondary servers are installed as command line arguments.

Example. If a Primary server is running at **primary-server in the domain zohocorpin.com** and the Secondary server is running at **secondary-server in the domain zohocorpin.com**:

execute the above script as follows:

In Windows: **HASetup.bat primary-server.zohocorpin.com secondary-server.zohocorpin.com**

```
M:\ManageEngine\PMP\bin>HASetup.bat TMCVMSM02.smartsunguide.com TIMVMSM02.smartsunguide.com
Creating high availability slave package.
Database server successfully started...
Going to update Secondary server details.....
Secondary server details updated.
Going to clear rr_pending_changes table entries.....
rr_pending_changes table entries cleared.
Database server already running.
Shutdown completed....
Adding PostgreSQL data.....[Completed]
Adding imported images.....[Completed]
Adding SSHD CLI API data.....[Completed]
Adding PostgreSQL configuration files.....[Completed]
High availability slave package HAPack.zip is available in M:\ManageEngine\PMP\scripts\..\replication directory.
Move and extract the zip file under PMP installation directory of TIMVMSM02.smartsunguide.com (secondary server).
```

This will create a replication package named "**HAPack.zip**" under the **M:\ManageEngine\PMP\replication** folder and contains the database package for the Secondary.

4. Start the Password Manager Pro service on the Primary server.

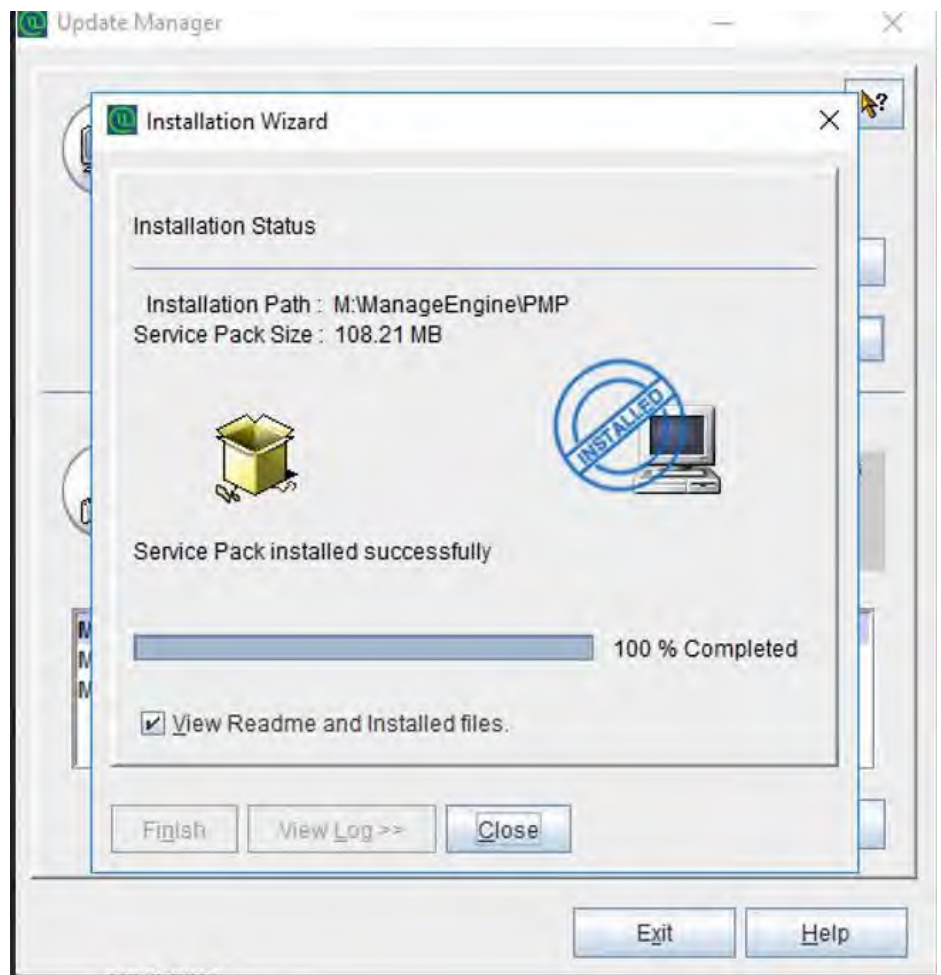
#	Steps / Screenshots
5.	Copy the "HAPack.zip" replication package, place it in the machine where the PMP Secondary server installation is running, and unzip it.
6.	Place the extracted folders under the M:\ManageEngine\PMP folder only. It will overwrite the existing data files.
7.	After extracting "HAPack.zip" in the PMP Secondary server, navigate to the " /conf" folder, edit "manage_key.conf" and ensure the location of the pmp_key.key: \\tmcvmcl03-namen\Share_Drive\Software\Security\Password Manager Pro Key\8600\pmp_key.key.
8.	Copy the Conf/server.xml file and .pfx file (Keystore file) from the Primary server to M:\ManageEngine\PMP\Conf folder of the Secondary server.
9.	Change the <i>Password Manager Pro</i> service logon account (Due to the sensitivity of the information in this document, it is only accessible by IT personnel at the following link 7.34 Security Software SD.pdf). Sensitive documents, such as "Security Software", are placed in PDF - IT Documents folder.
10.	Start the Password Manager Pro service.

Update To Password Manager Pro

#	Steps / Screenshots
1.	Login with Password Manager service account: (Due to the sensitivity of the information in this document, it is only accessible by IT personnel at the following link 7.34 Security Software SD.pdf). Sensitive documents, such as "Security Software" are placed in PDF - IT Documents folder.
2.	Disable antivirus on server.
3.	Stop Password Manager Pro service - both primary and secondary Read-Only Server.
4.	Exit Password Manager Pro service on the tray icon.
5.	On the elevated command prompt, execute M:\ManageEngine\PMP\bin\ StopDB.bat .
6.	<ul style="list-style-type: none"> – Backup the entire Password Manager Pro installation folder. – Store it in some other location (Zip entire Folder).
7.	Ensure all postgres tasks have ended.
8.	On the elevated command prompt, → Execute M:\ManageEngine\PMP\bin\ UpdateManager.bat .

Steps / Screenshots

9. – Click **Browse**.
- Select the .ppm file - [downloaded](#).
- Install.



Note. Upgrade to each newer upgrade-pack one at a time.

- 10 Start the Password Manager Pro service.

TREND MICRO DEEP SECURITY- MANAGING APPLICATION CONTROL

Overview

Application Control is one of Deep Security's security features, in place to prevent unrecognized and unauthorized software changes from altering the servers covered by the respective policy. However, if updates/changes are made to a server while maintenance mode is inactive, it can result in high administrator workloads, while causing Application Control to stop functioning.

Procedures

If any updates/changes are planned, → Enable maintenance mode before completing the process below, to prevent issues with this feature.

1. Verify that a server is not compromised from an external or third-party attack: examine the machine's processes and security events. It is to determine the cause of Application Control's failure. This may be due to updates/changes to a machine while maintenance mode is inactive.

If a software triggers that this alert is not removed, Application Control will ignore it once this entire process has been completed. It will not appear in the "Actions" tab. If executed, the system will not create logs or alerts until the machine is rebooted.

2. Disable/schedule updates, including automatic ones, to prevent re-occurrence. Maintenance mode should be enabled for the scheduled updates to occur. In the case of manual Windows Updates from IT staff change requests, maintenance mode should be turned on during the patching process.

To turn on **Maintenance** mode:

- Navigate to the upper toolbar in Deep Security
- Select **Computers**, → Right-click the desired machine.
- Select **Actions**.
- Turn on **Maintenance** Mode.

3. **Application Control** should now be reset on the affected machine(s). As such:

- Select the machine(s): double-click them to open the full computer details.
- Select **Application Control** tab: Under **Configuration** dropdown → Select **Off**.
- Once the Agent has acknowledged the reset → turn Application Control **on** again by navigating to the same dropdown mentioned above.
- Select **On**.

At times, an agent may not automatically acknowledge it during the reset process. Hence, alerts are displayed. Then,

- Clear the warnings for the machine(s) experiencing this issue, and, after a brief period,
- Re-enable Application Control as mentioned above.

UPGRADES

Upgrade Trend Micro Deep Security Manager

Note. Before proceeding with the steps below, a change request must be submitted and approved. Please ensure the change request is complete, and then – you can proceed.

Steps / Screenshots

1. The first step is to verify that the current DSM version is compatible with the intended version update. [This documentation](#) can assist in determining version compatibility.

If the current version is not compatible with the intended installation version:

- Upgrade to the latest possible version (see above link), and,
- Proceed from there.

All these steps are applicable to any version installation.

2. Notify the IT team of impending changes. Users and admins may experience downtime or difficulty during the implementation of the changes.



Figure 1. Notify the IT Team of Impending Changes

3. Turn on maintenance mode for servers that will be updated.
 - Navigate to the machines in Deep Security.
 - Right-click the desired machine.
 - Select **Actions**.
 - Click **Turn On Maintenance Mode**.



Figure 2. Turn on Maintenance Mode

4. Create snapshots in vCenter for the same machines that will be updated. These will be used as restore points if there are unforeseen complications with the update process.

Steps / Screenshots

Figure 3. Create Snapshots

5. Back up the DSM manager on the database server. Like the snapshot, this will serve as a failsafe in the event any issues occur. Depending on access rights, this will be done by another member of the IT team.
 - Open SQL Server Management Studio on the DB server.
 - Navigate to **Databases** → TrendMicroDeepSecurity
 - Right-click,
 - Select **Tasks** → **Back Up**. From there, make any adjustments as needed, e.g., save location, and back up the database.

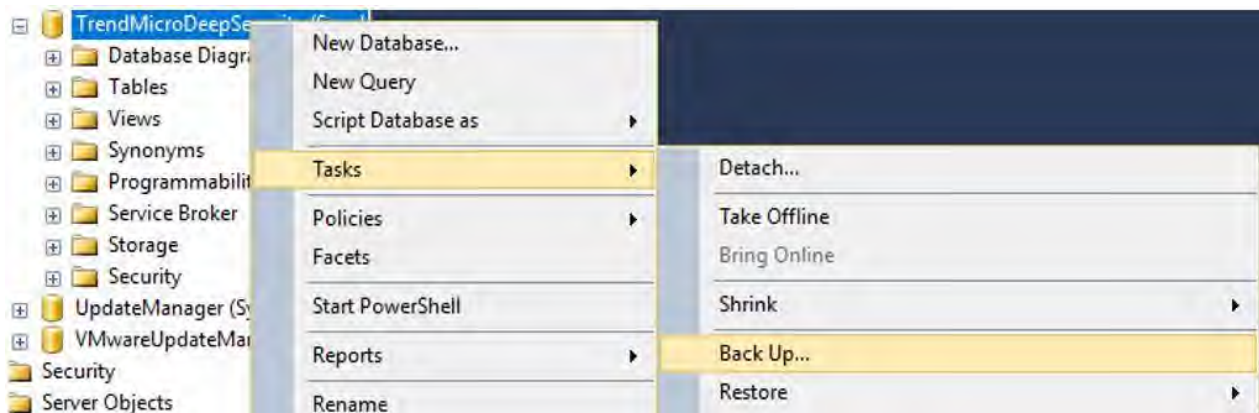


Figure 4. Back up the DSM Manager on the Database Server

6. Once the steps above are complete, → Stop all manager nodes to be updated, → Start installing on the first node.

Note. Do not run the installer on multiple nodes simultaneously, as this can corrupt the database, which must be restored with the database backup above.

Once the first node has completed updating, → Upgrade the next node. Continue the update process.

- The first node will take over as a primary while other nodes are being upgraded; as it will be the only available manager, performance may be noticeably reduced during this time.

Steps / Screenshots

For a list of manager software required for this update → Click the link below:

<https://help.deepsecurity.trendmicro.com/software.html>

- Run the application on the manager node to start the installation process.
- Ensure that the current version is compatible with the update.

Manager Windows

Software	Release Type	Build	Reason	Release Date	Download
 Deep Security Manager 20.0.482 for Windows-x64 (20 LTS Update 2021-08-25)	LTS	20.0.482	Update	Aug 25, 2021	
 Deep Security Manager 20.0.463 for Windows-x64 (20 LTS Update 2021-07-22)	LTS	20.0.463	Update	Jul 22, 2021	

Figure 5. Manager Software Required

7. Once all manager nodes are upgraded → Verify: all Trend Micro related applications and features are still functional.
 - If operational → Monitor Deep Security alerts for update-related issues within relays and nodes.
 - For unforeseen errors → Identify the cause; revert snapshots, database backups as needed.
 - Check related log files to identify schema changes or other errors that occurred.
8. If the update was successful and no issues have been detected, → Perform a brief testing → Delete snapshots if desired.

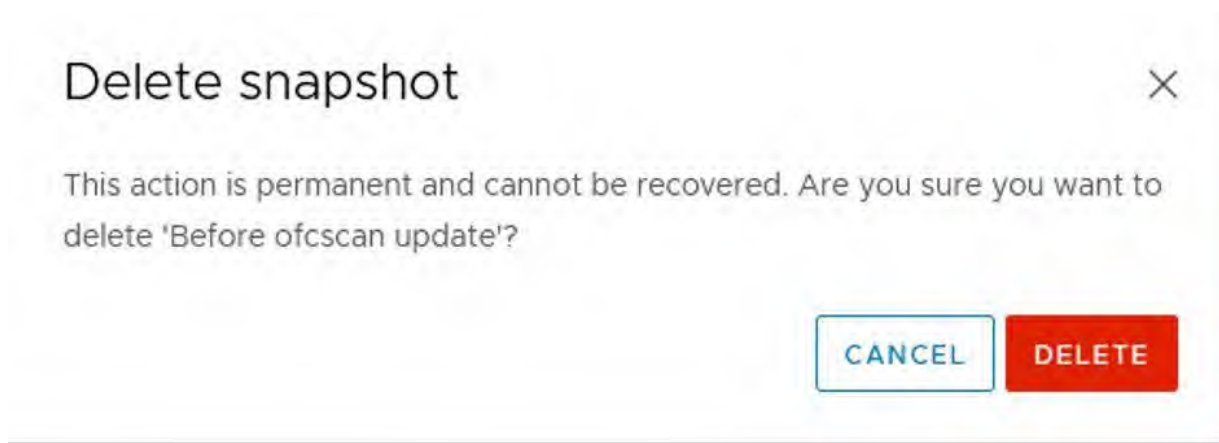


Figure 6. Delete Snapshots

9. For further documentation, refer to the links below:

- [Deep Security On-Premise Manager Upgrade](#)
- [Deep Security On-Prem Manager Installation](#)

AVTECH Room Alert Manager Upgrade

1. Download update <https://account.roomalert.com/downloads> (support credentials located in Password Manager Pro).
2. Disable Antivirus agent.
3. Execute installer.
4. Follow the on-screen prompts to upgrade Room Alert Manager at path **E:\AVTECH Room Alert Manager**.
5. Once complete, verify firmware for each device and update <https://avtech.com/articles/164/>.
 - To the right of the screen for each device, select the ellipsis to view the available options for that device.
 - Select **Update Firmware**.
 - Browse to <http://roomalert.smartsunguide.com:9393/> and login.

CONFIGURE OKTA RADIUS

Steps/Screenshots

1. Login to Okta tenant as Admin.

2. Navigate to **Security > Multifactor**.

3. Configure **Factor Types**.

4. Create **Cisco ASA VPN RADIUS** application.
 - a. Navigate to **Applications > Applications > Browse App Catalog**.

 - b. Search **Cisco ASA VPN (RADIUS)**.

 - c. Select **Add**.

5. Install and configure the **RADIUS Agent**.
 - a. In Okta tenant, navigate to **Settings > Downloads > Okta RADIUS Server Agent**.

 - b. On the server, run the **Okta RADIUS installer**.

 - c. Proceed through the installation wizard to the "**Important Information**" and "**License Information**" screens.

 - d. Choose the Installation folder and click the **Install** button.

 - e. In the **Okta RADIUS Agent Configuration** screen,

Enter your **RADIUS Shared Secret key** and **RADIUS Port number**.

Steps/Screenshots

- f. In the **Register Okta RADIUS Agent** screen, enter Subdomain <https://smartsunguide.okta.com>.

- g. Click the **Next** button to continue to an **Okta Sign In** page.

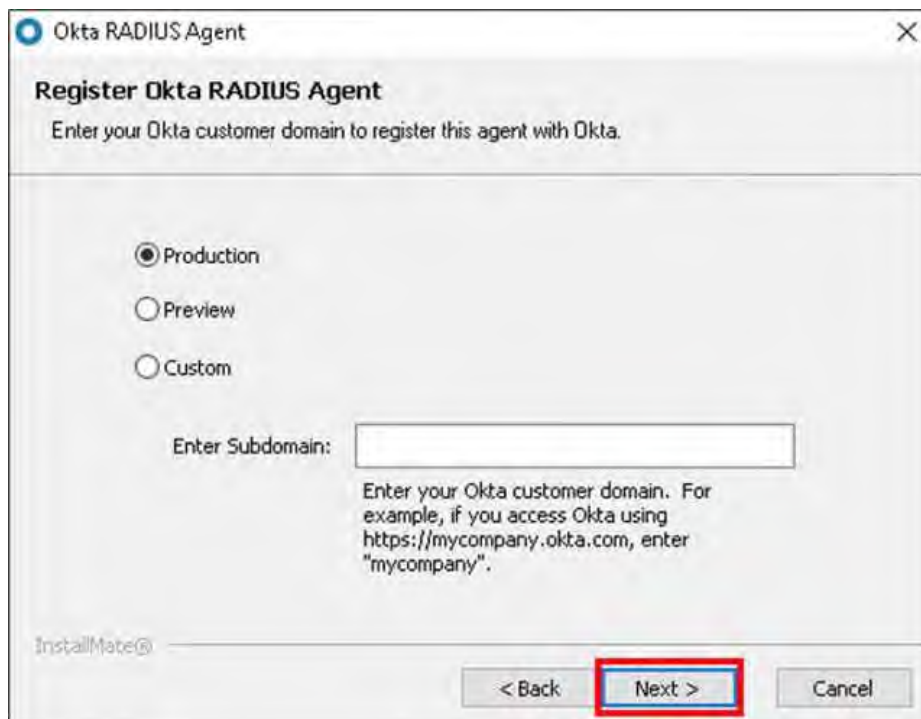


Figure 7. Register Okta RADIUS Agent

- h. Sign in with service specific Okta account **Okta Admin-Service** on the Sign In screen.
- i. Click **Allow Access** button.
- j. The confirmation screen appears. Click the **Finish** button to complete the installation.
- k.
 - Complete configuration of RADIUS app from Step 4 in Okta
 - Configure the RADIUS Agent port, shared secret, and advanced RADIUS settings.

Steps/Screenshots

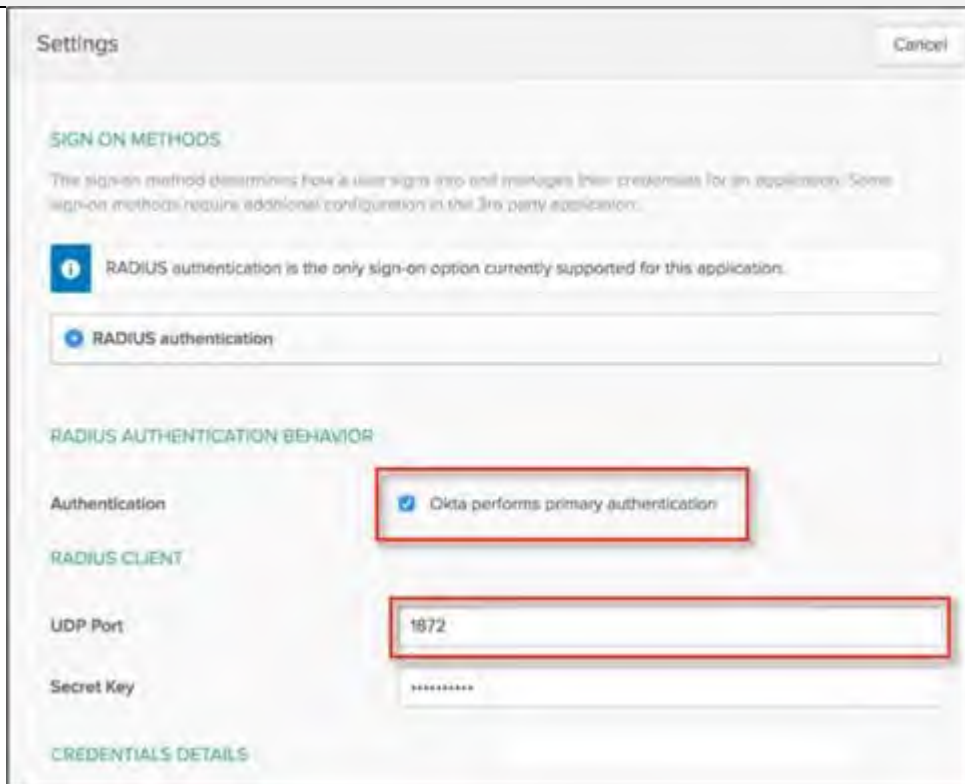


Figure 8. Radius Authentication

INTEGRATE OKTA RADIUS WITH CISCO ASA

Add AAA Server Group

1. Log in to **Cisco Adaptive Security Device Manager (ASDM)**.
2. Navigate to **Configuration > Remote Access VPN > AAA/Local users > AAA server groups**.
3. Click **Add** to create a new group.
4. **Add AAA Server Group** dialog displays.
5. Leave the **default settings** except for the following:
 - a. **AAA Server Group** – Create a name to identify the group for the MFA server.
 - b. **Protocol** – select **RADIUS**.
6. Click **OK**.



Figure 9. Add AAA Server Group

7. Select the server group just created.
8. Under **Servers in the Selected Group**, → Click **Add**.

Add AAA Server

1. Specify the following, leaving all other fields unchanged.:
 - a. **Interface Name** – Select **Inside**.
 - b. **Server Name or IP Address** – Specify the IP address of the Okta RADIUS Agent.
 - c. **Timeout** (seconds) – **60** seconds.
 - d. **Server Authentication port** – Enter the required port number. E.g., Port 1812.
 - e. **Server Accounting Port** – 1646. This value is not used; must be entered for setup.
 - f. **Retry Interval** – Leave default at **60** seconds.
 - g. **Server Secret Key** – Provided secret defined when setting up the app in Okta.
 - h. **Common Password** – Leave blank.
 - i. Uncheck **Microsoft CHAPv2 Capable** (important).
2. Click **OK**.

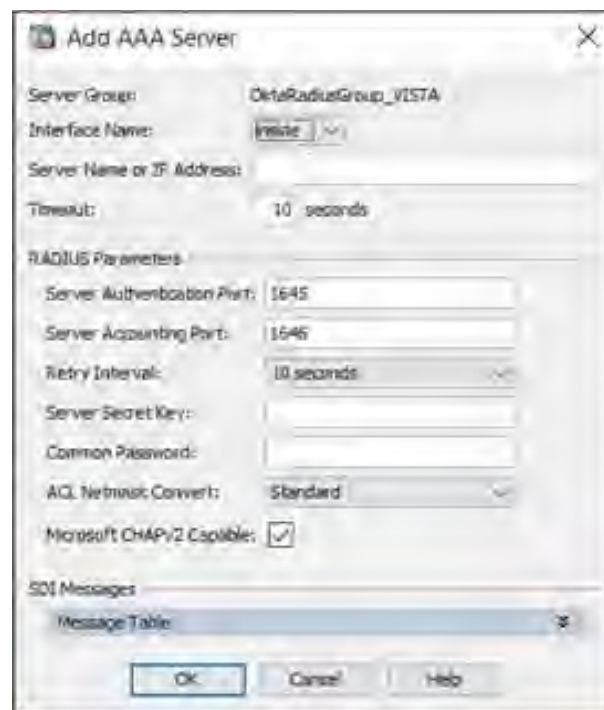


Figure 10. Add AAA Server

3. Click **APPLY** to save the configuration.

Modify IPsec (IKEv2) Connection Profile

1. Click **Configuration**.
2. Select **Remote Access VPN**.
3. Expand **Network (Client) Access**.
4. Select **IPsec (IKEv2) Connection Profiles**.
5. Select **Connection Profile** → Click **Edit**.
6. Under **User Authentication**,
 - Select **Server Group**
 - Click **OK**.

The screenshot shows the configuration window for an IPsec (IKEv2) Connection Profile. The left sidebar shows a tree view with 'Basic' selected. The main area contains several sections:

- Name:** OktaPreview_AnyConnect
- IKE Peer Authentication:** Includes checkboxes for 'Preshared K...', 'Enable Certificate Authentication', and 'Enable peer authentication using EAP (If this is enabled, only Certificate is allowed for Local Authentication)'. There is also a checkbox for 'Send an EAP Identity request to the client'.
- Mobike RRC:** Includes a checkbox for 'Enable Return Routability Check for mobike'.
- RSA Signature:** Includes a checkbox for 'Enable RSA Signature Hash'.
- IKE Local Authentication:** Includes a checkbox for 'Enable local authentication' and options for 'Preshared Key' and 'Certificate'.
- User Authentication:** This section is highlighted with a red box. It contains a 'Server Group' dropdown menu set to 'OktaRadiusGroup_VISTA', a 'Manage...' button, and a 'Fallback' checkbox for 'Use LOCAL if Server Group fails'.
- Client Address Assignment:** Includes 'DHCP Servers', radio buttons for 'None', 'DHCP Link', and 'DHCP Subnet', and 'Client Address Pools' set to 'IT_Anyconnect' with a 'Select...' button.
- Default Group Policy:** Includes a 'Group Policy' dropdown set to 'OKTA_AnyConnect' and a 'Manage...' button. Below it, a note states '(Following field is an attribute of the group policy selected above.)' and a checkbox for 'Enable IKEv2 Protocol'.

At the bottom, there is a 'Find:' field, 'Next' and 'Previous' buttons, and an 'OK' button highlighted with a red box, along with 'Cancel' and 'Help' buttons.

Figure 11. Edit IPsec Remote Access Connection Profile

SECURITY EVENT MANAGER DEPLOYMENT

Due to the sensitivity of the information included in this document, it is only accessible by IT personnel at the following link: [DOCX File viewer | Microsoft Teams](#).

Overview

This SOP Section includes the following procedures:

- *Deploy a SEM Appliance*
-

- *Activate a SEM License*
- *Deploy a SEM Agent Remotely to Endpoint Machines* Deploy a SEM Agent Remotely to Endpoint Machines
- *Verify a SEM Agent Connection*
- *Install a SEM Reports Application*
- *Connect a SEM Reports Application to Your Sem Database*

Deploy a SEM Appliance

1. Download the VMware ova file from <https://customerportal.solarwinds.com/>
2. Deploy the SEM open virtualization appliance.
3. Edit hardware requirements to match listed requirements for environment size [SEM 2021.1 system requirements \(solarwinds.com\)](#).
4. Start the SEM VM.
5. Open a web browser and connect to the SEM Console using the URL listed on the appliance console (e.g., <http://IPAddress>).
6. Enter default username (**admin**) and password (**password**), and then click Login.
7. Accept the terms of license agreement.
8. Enter and confirm your new password.
9. Enter your email address for contact and download verification.
10. Click **Start Using SEM**.

Activate a SEM License

Steps / Screenshots

1. Open the SEM appliance console.
2. Tab to **Advanced Configuration** on the main console screen → Press **Enter** for the command prompt.

```

SolarWinds Security Event Manager - 2021.4

The virtual appliance is successfully installed and running.

To monitor and configure SolarWinds Security Event Manager, use the
Security Event Manager Web Console or standalone Console application.

Hostname           : TMCUASEM01
IP Address         : 10.176.5.174
Web Console        : https://TMCUASEM01/
                   : https://10.176.5.174/

License            : SolarWinds Security Event Mgr (formerly LEM)-SEM500
Product Support Key : CBQFB-NZXUE-HNQH-U7K7-HXANS-W79F9

* Advanced Configuration          Use Arrow Keys to navigate
  Set Timezone (US/Eastern)       and <ENTER> to select your choice.
  
```

Figure 12. SolarWinds Security Event Manager - 2021.4.

3. Enter the username (**cmc**) and the default password (**password**).
4. At the **cmc>** prompt,
 - Type **appliance**,
 - Press **Enter**.

The prompt changes to **cmc::appliance>** to indicate you reached *appliance configuration* menu.

5. Type **activate**, → Press **Enter**. The Activation splash screen appears.
6. To go to the next screen, → Press **Enter**.
7. When prompted, → Select **Yes** to configure a static IP address for the SEM VM.
8. At the **cmc::appliance>** prompt,
 - Type **netconfig**,
 - Press **Enter**.

Follow the steps on your screen to configure the **Manager Appliance network** parameters.

Steps / Screenshots

9. Record the IP address assigned to SEM VM. Use this IP address for logging into SEM console.
10. When prompted to change the **hostname**, → Select **Yes** to specify a hostname.
11. As prompted to specify a list of IP addresses to access reports, → per SolarWinds: Select **Yes**.
12. Confirm your network configuration.
 - Type **viewnetconfig** at the **cmc::appliance>** prompt. → Follow the prompts to export the certificate to a network share.

An accessible network share is required. Once the export is successful, a following message appears: *Exporting CA Cert to \\server\share\SWICAer -hostname.crt ... Success.*

Deploy a SEM Agent Locally on Endpoint Machines

Steps

1. Configure exceptions in TrendMicro.
 - C:\Windows\system32\ContegoSPOP
 - C:\Windows\sysWOW64\contegoSPOP
 - **Turn off** any anti-malware or endpoint protection applications on host systems during the installation process, to prevent an impact on the process of *file transfer* installation to the hosts.
 - Extract the contents of the installer ZIP file to a local or network location.
2. Run the **.exe** file.
3. Click **Next** to start the installation wizard.
4. Accept the End User License Agreement if you agree. → Click **Next**.
5.
 - Specify a temporary folder on your computer to use for the installation process and
 - Click **Next**.

The default is C:\SolarWindsSEMMultiInstall.
6.
 - Enter the hostname of your SEM Manager in the Manager Host field.
 - Click **Next**. Do not change the default port values.
7. Select Get hosts automatically or Get hosts from file (One host per line), → Click **OK**.
8. Select the check boxes next to the computers to install a SEM Agent. → Click **Next**.
9. Confirm the list is correct. → Click **Next**.
10. Specify the Windows destination for the remote installation. → Click **Next**.

Steps

11. Specify whether you want to install **USB-Defender** with the **SEM Agent**, → Click **Next**.
The installer will include **USB-Defender** by default.
To omit this from the installation, → Clear the **Install USB-Defender** option box.
12. Confirm the settings on the **Pre-Installation Summary**. → Click **Install**.
13. Once the installer finishes, → Click **Next** to start the SEM Agent service.
14. Inspect the **Agent Log** for any errors. → Click **Next**.
15. Click **Done** to exit the installer.

Deploy a SEM Agent Remotely to Endpoint Machines

Steps / Screenshots

1. Download Remote Agent Installer from <https://customerportal.solarwinds.com/>.
2. Execute **SolarWinds-SEM-2021.4-Agent-WindowsRemoteInstaller.exe** as an administrator.



Figure 13. SolarWinds Security Event Manager Agent 2021.4 Remote Installer.

3. Accept the License Agreement.
4. Leave the temporary folder at default setting: C:\SolarWindsLEMMultiInstall.

Steps / Screenshots

5. - Enter the hostname or IP Address
- Leave ports to default settings.



Figure 14. IP Address/Hostname and Ports

6. Select text file with list of machines for agent install.

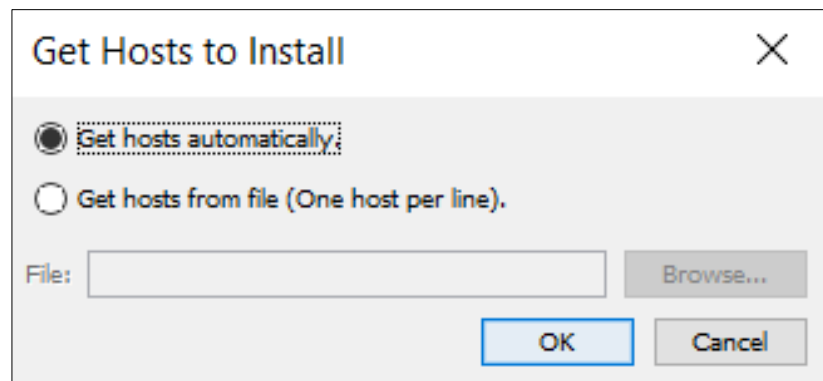


Figure 15. Get Hosts to Install.

7.
 - Specify whether you want to install **USB-Defender** with the **SEM Agent**.
 - Click **Next**.

The installer will include **USB-Defender** by default.

To omit this from the installation, → Clear the **Install USB-Defender** option box.

8. Confirm settings on the **Pre-Installation Summary**, → Click **Install**.
9. Once the installer finishes, → Click **Next** to start the SEM Agent service.
10. Inspect the **Agent Log** for any errors, → Click **Next**.
11. Click **Done** → Exit the installer.

Verify a SEM Agent Connection

Note: After you install the SEM Agent on your Agent nodes, verify that the Agent connected to the SEM Manager.

1. On the SEM Console, navigate to **Configure > Nodes**.
2. Under Refine results, click the Agent and Connected check boxes.
3. In the agent node list, ensure all connected nodes display a green check mark indicator.

Install a SEM Reports Application

Note. This installer also installs the Crystal Reports Runtime.

1. If necessary, copy the SolarWinds Security Event Manager installation folder to a local drive and open the folder
2. Right-click the file Install Next - SEM Reporting Software.exe, Select **Open**.
A dialog box appears prompting you to allow the app to make changes to your device.
3. Click **Yes** to continue.
4. The Welcome screen appears.
5. Click **Next**, to review the Requirements for Installation.
6. Click **Next**, → Click **Begin Install** to start the installation process.
7. When the **Installation Complete** dialog displays, → Click **Close**.

Connect a SEM Reports Application to Your Sem Database

When you enter a SEM Manager IP address into the SEM reports application, you create a connection between the reports application and the SEM database server running on the SEM Manager VM.

Before you start, you will need the IP address of the SEM VM and your SEM console login credentials.

1.
 - Right-click the **Reports application** icon on your desktop
 - Select Run as administrator.
 - Right-click the Reports shortcut → Select **Properties**.
 - Click **Advanced**
 - Select **Run as administrator** option.
 - Click **OK**.
 - In the reports Properties window → Click **OK**.

2. Click **Yes** in the antivirus dialog box → Continue.
3. Click **OK** in the information box → Create a list containing at least one Manager.
4. Enter the **hostname** or **IP address** of your SEM appliance in the **Manager Name** field.
5. Enter a **username** and a **password** used to log in to the SEM console.
6. *(Optional)* Select a **Use TLS connection** check box to use the transport layer security protocol for a secure connection.
7. Click **Test Connection** to verify the connection between the **SEM database server** and the **SEM reports application**.
8. A reports application pings the SEM database and verifies the connection. If a ping is successful, → **Ping Successful** displays in the dialog box.
9.
 - Click **Syslog Server (Host Name)** field to add the IP address to your SEM Manager list.
 - Click **Yes** to confirm.
10. Click **Close**.

The reports application is connected to your SEM database and displays on your screen.

INSTALLATIONS

Trend Micro Workload Security Agent – Installation

Steps / Screenshots

1, Sign to **Okta**.

- a. Click the following link to access the Okta website: <https://smartsunguide.okta.com>.

Note. The UserPrincipalName (UPN) format (i.e., username@domain.com) is required when entering your username in a username field to sign in to Okta, as shown below:

- b. Using the UPN format,
- Enter your SMART SunGuide credentials.
 - Click **Sign in**.

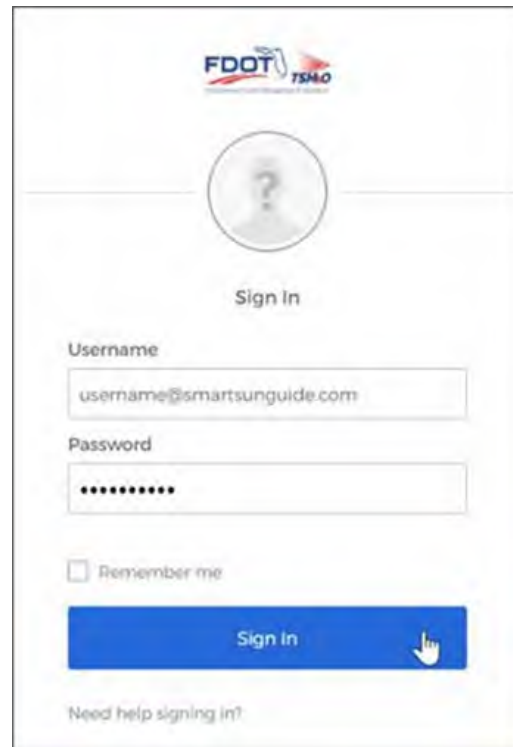


Figure 16. Okta Sign in Page

2. Once signed in,

- Click the **Trend Micro Workload Security Agent** app.

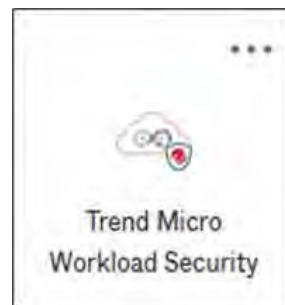


Figure 17. Trend Micro Workload Security App

Steps / Screenshots

Note. For air-gapped machines, perform step 3.b. Select that the proxies from the **Proxy to Contact Workload Security Manager** and **Proxy to Relay(s)** drop-down menus.

3.
 - Navigate to **Support** in the top right-hand corner of the screen.
 - Click the **down arrow**.

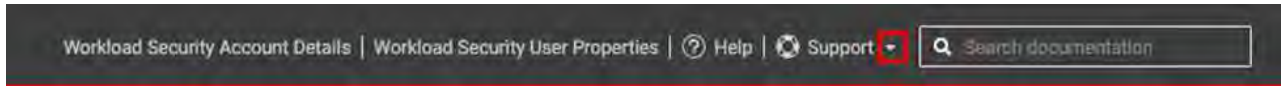


Figure 18. Trend Micro Workload Security Support

- a. Select **Deployment Scripts** from the drop-down menu.



Figure 19. Support > Deployment Scripts

- Select **OS Platform** from drop-down menu.
- Select **Security Policy** from the drop-down menu.
- Click **Save to File**.

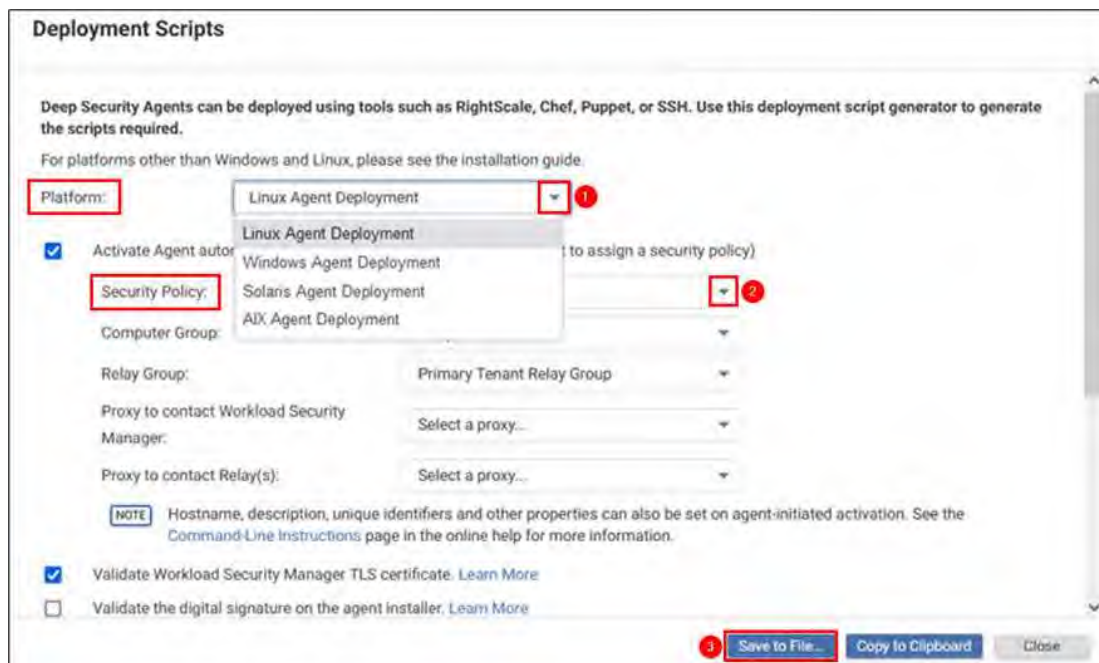


Figure 20. Deployment Scripts > OS Platform and Security Policy Selections

Steps / Screenshots

- b. Air-Gapped Machines. For a machine located on an isolated VLAN,
- Click **down arrow** next to **Support**.
 - Select **Deployment Scripts** from the drop-down menu.

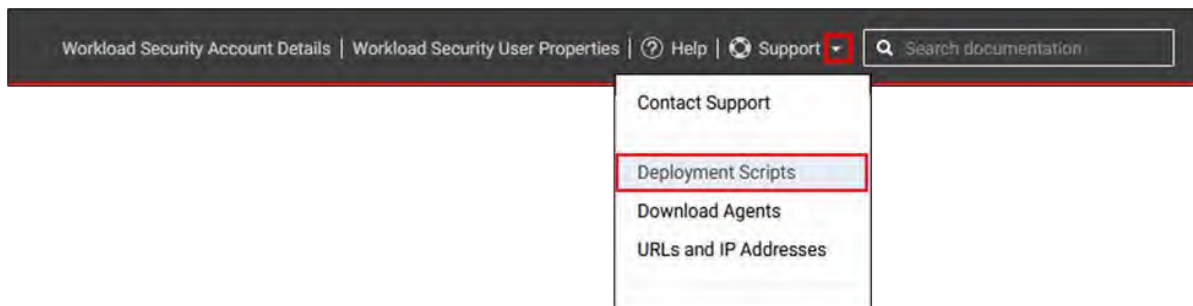


Figure 21. Trend Micro Workload Security Support > Deployment Scripts

- (1) Select **OS Platform** from the drop-down menu.
- (2) Select **Security Policy** from the drop-down menu.
- (3) Select a proxy from **Proxy to contact Workload Security Manager** drop-down menu.
- (4) Select the proxy from **Proxy to contact Relay(s)** drop-down menu.
- (5) Click **Save to File**.

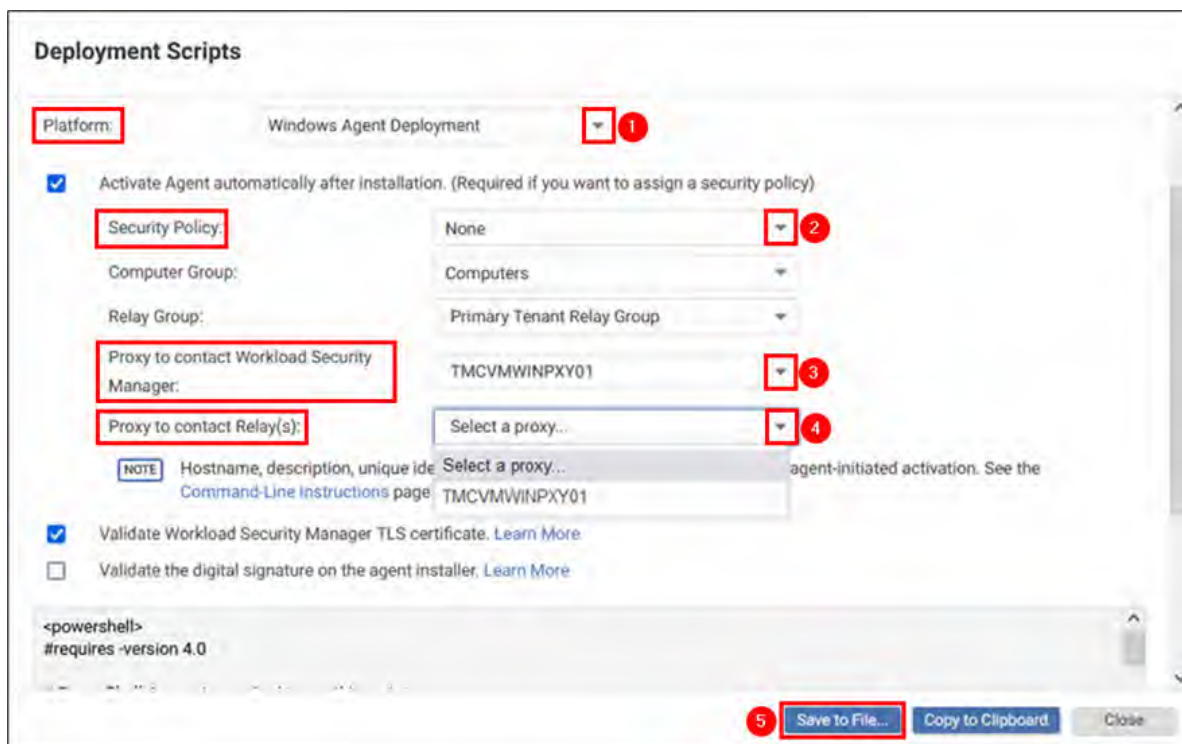


Figure 22. Deployment Scripts for Air Gapped Machines

Trend Micro Apexone Security Agent Installation

Steps/Screenshots

1 Sign to **Okta**.

- a. Click the following link to access the Okta website: <https://smartsunguide.okta.com>.

Note. The UserPrincipalName (UPN) format (i.e., username@domain.com) is required when entering your username in the username field to sign in Okta.

- b. Using the UPN format,
 - Enter your SMART SunGuide credentials.
 - Click **Sign in**.

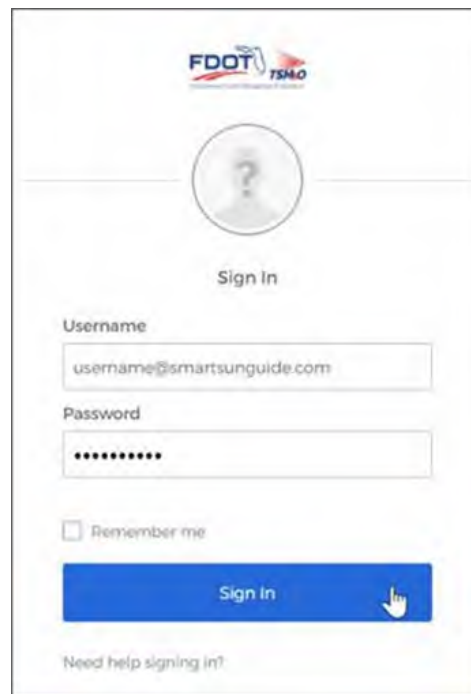


Figure 23. Okta Sign in Page

2. Once signed in,
 - Click the **Trend Micro ApexOne Security Agent** app.



Figure 24. Trend Micro ApexOne Security App

Steps/Screenshots

3. a. – Click **Administration** tab.
- Select **Security Agent Download** from the drop-down menu.



Figure 25. Administration > Security Agent Download

- b. – Select **Operating system**.
- Select **Installation mode**.
 - Select **Package type**.
 - Click **Download Installer**.

 A screenshot of the 'Security Agent Download' configuration page. The title is 'Security Agent Download'. Below the title, it says 'Specify your requirements for the Security Agent installation package.' There are four sections:

- Operating system:** Radio buttons for 'Windows 64-bit' (selected), 'Windows 32-bit', and 'Mac'.
- Installation mode:** Radio buttons for 'Full feature set' (selected) and 'Coexist' (with an info icon).
- Package type:** Radio buttons for 'Standalone' (selected, with an info icon) and 'Web installer' (with an info icon).
- Server:** A text field containing 'Apex One as a Service'.
- Note:** A text field containing '- To ensure that all Security Agents can prop'.

 At the bottom, there are two buttons: 'Download Installer' (blue) and 'Get Download Link' (grey).

Figure 26. Security Agent Download

SolarWinds Access Rights Manager (Arm) Client Installation

Steps / Screenshots

1. Execute **ARM Setup.exe** as an administrator.
 - a.
 - Select **Advanced Installation**
 - Click **Next**.

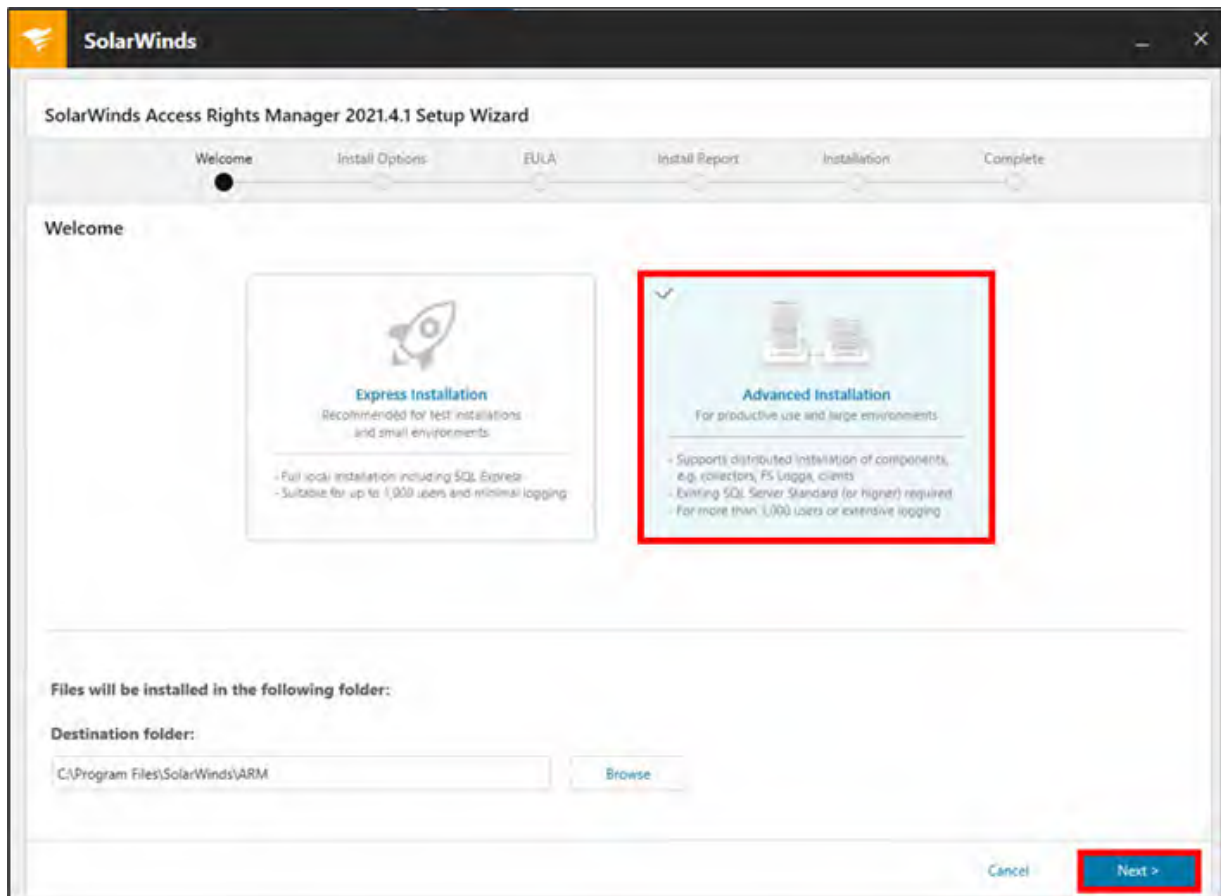


Figure 27. Advanced Installation

- b.
 - Select **Custom Installation**; ensure that only **ARM Rich Client** and **ARM Configuration Client** are checked.
 - Click **Next**.

Steps / Screenshots

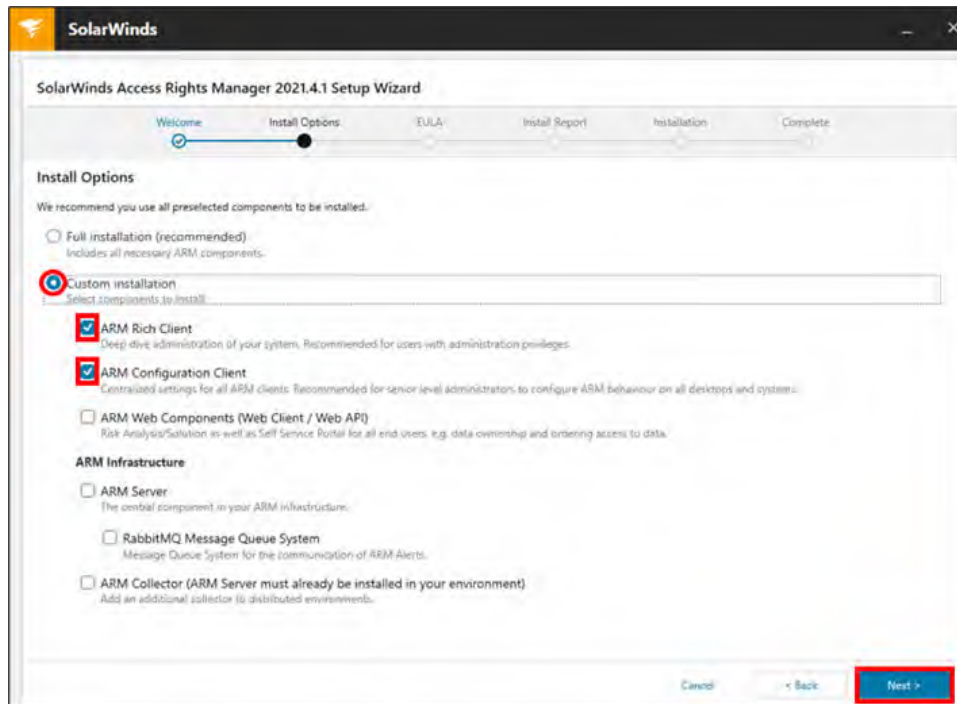


Figure 28. Custom Installation

c. Accept the **End User License Agreement** and Click **Next**.

Figure 29. End User License Agreement

Steps / Screenshots

- d. Verify the **System Check Results** and Click **Next**.

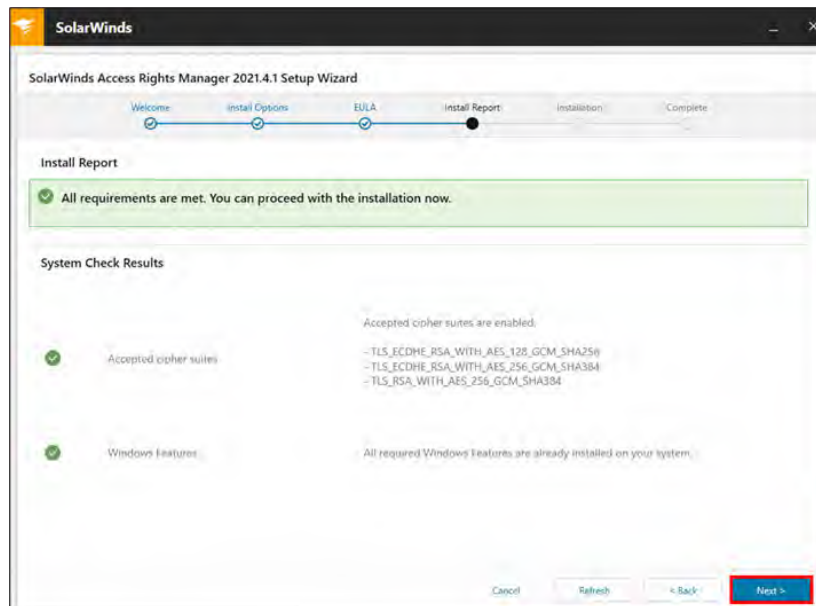


Figure 30. System Check Results

2. Once the installation is complete, launch the **ARM Client**.

- a. – Click the **Options** icon.
 – Enter the **ARM Server Fully Qualified Domain Name (FQDN)**.
 – Leave the default **port number** in place.

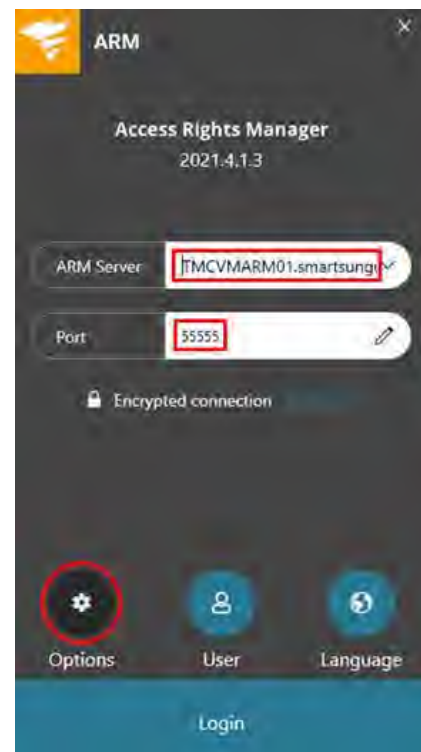


Figure 31. Options > ARM Server FQDN > Default Port Number

Steps / Screenshots

- b.
- Click the User icon.
 - Enter your admin account credentials.
 - Click **Login**.

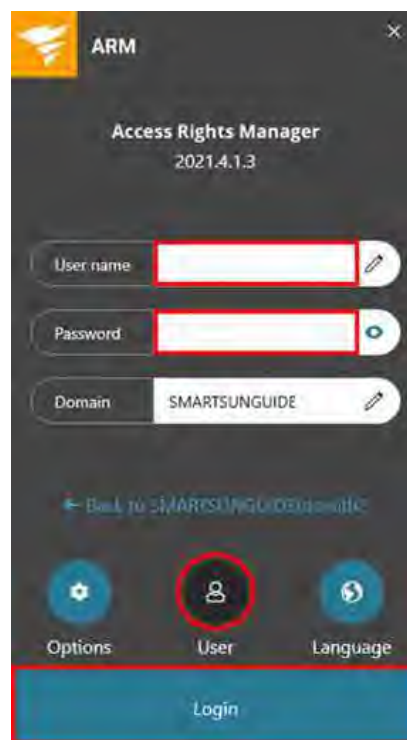


Figure 32. User > Admin Account Credentials > Login

SOLARWINDS SERVICE DESK AUTO PROVISIONING WITH OKTA

Service Desk Admin Authentication Token

Steps/Screenshots

1. Log in to the **SolarWinds Service Desk** tenant using the local administrator credentials (found in Password Manager).
2. Select **Setup** from the menu on the left-hand side of the screen.

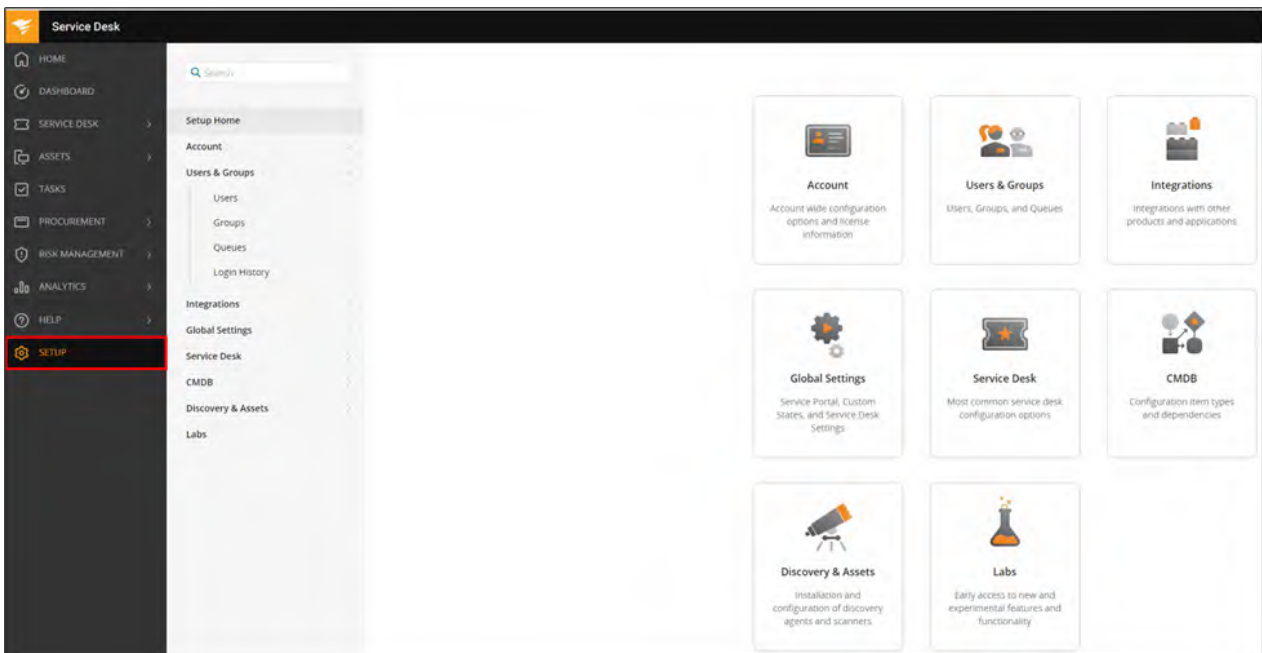


Figure 33. SolarWinds Service Desk Setup

Steps/Screenshots

3. – Click **Users**.

Then,

- Find and Select **admin** user.

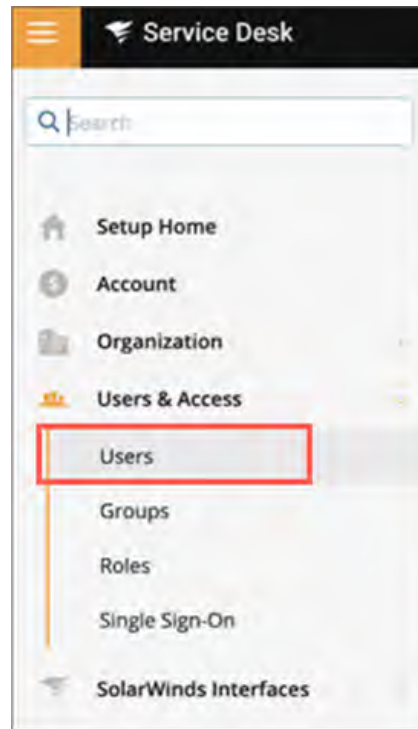


Figure 34. SolarWinds Service Desk Users

4. – Click **Show Token**.
- Copy the **Authentication Token**.



Figure 35. Show Token

Okta Provisioning Steps

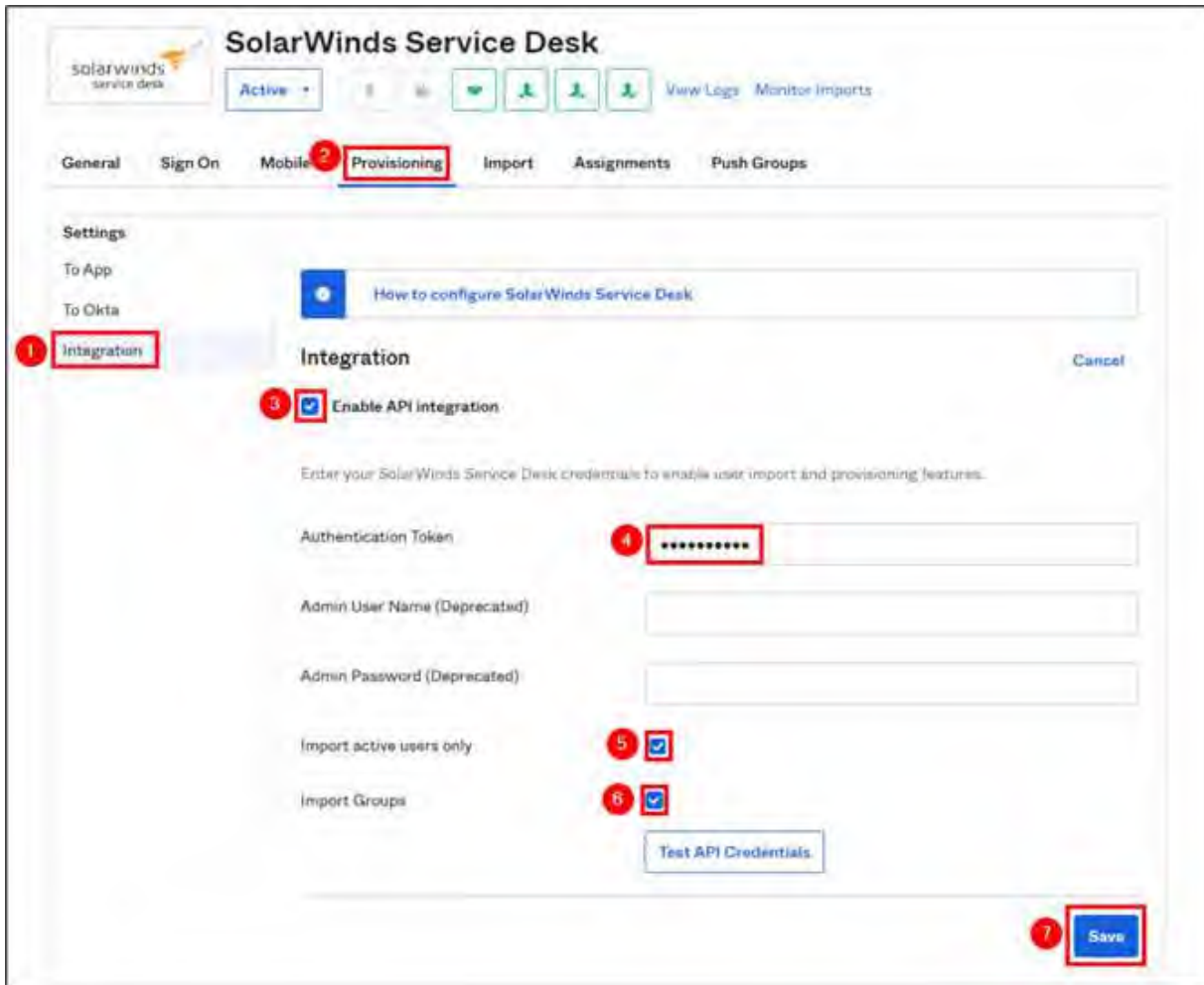


Figure 36. Okta Provisioning - Integration

#	Steps / Screenshots
1.	Navigate to Application and Click Integration .
2.	Click Provisioning tab.
3.	Check the box next to Enable API Integration .
4.	In the Authentication Token field, → Paste the Authentication Token that you copied in Step 1.d. above.
5.	Check the box next to Import active users only .
6.	Check the box next to Import Groups .
7.	Click Save .

Steps / Screenshots

8.
 - Click **To App**.
 - Select the **Provisioning** features you want to enable.
 - Click **Save**.

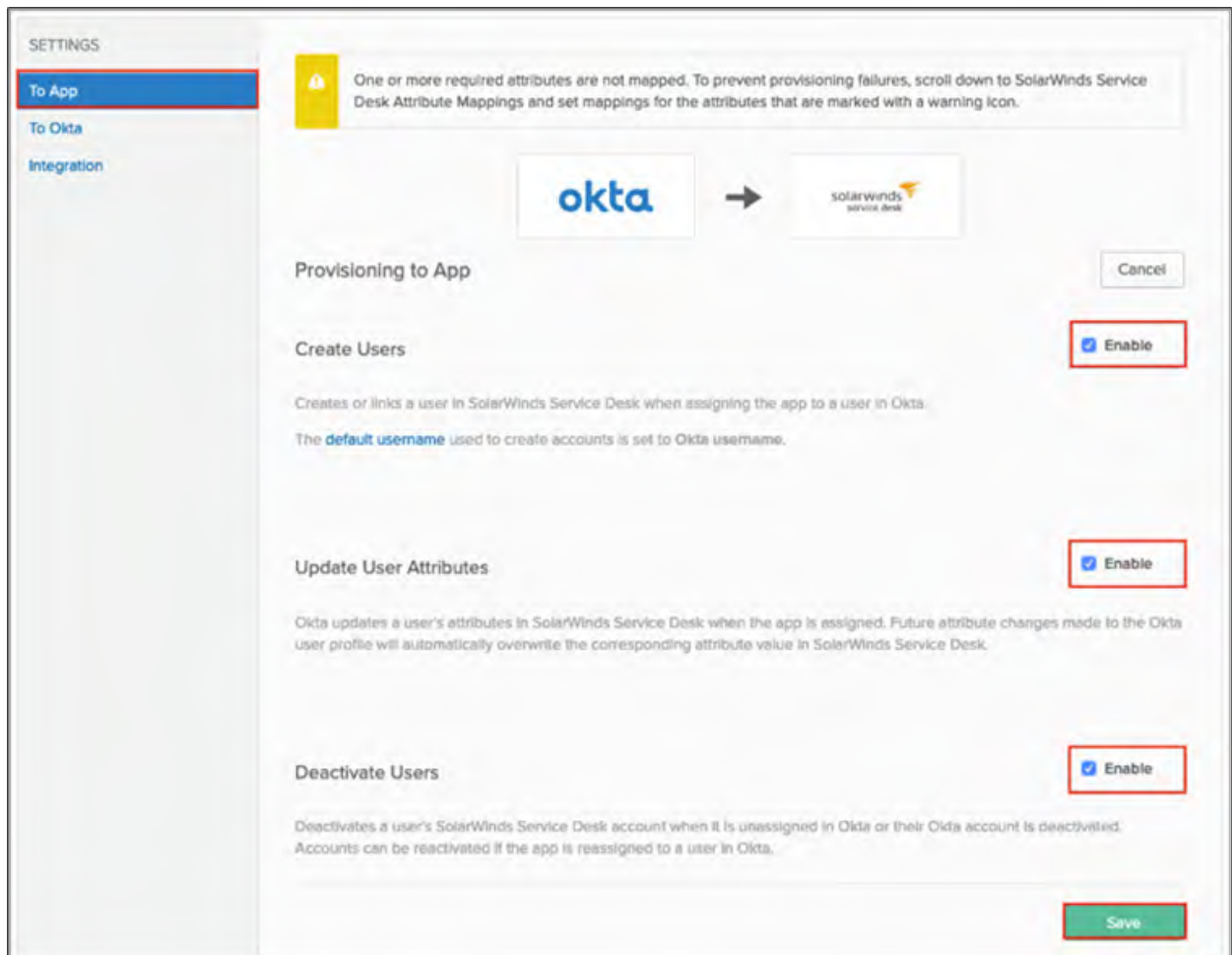


Figure 37. Okta Provisioning - To App

Assigning Users

Steps/Screenshots

1. Click the **Assignments** tab.
2.
 - Click **Assign**.
 - Select **Assign to Groups**.

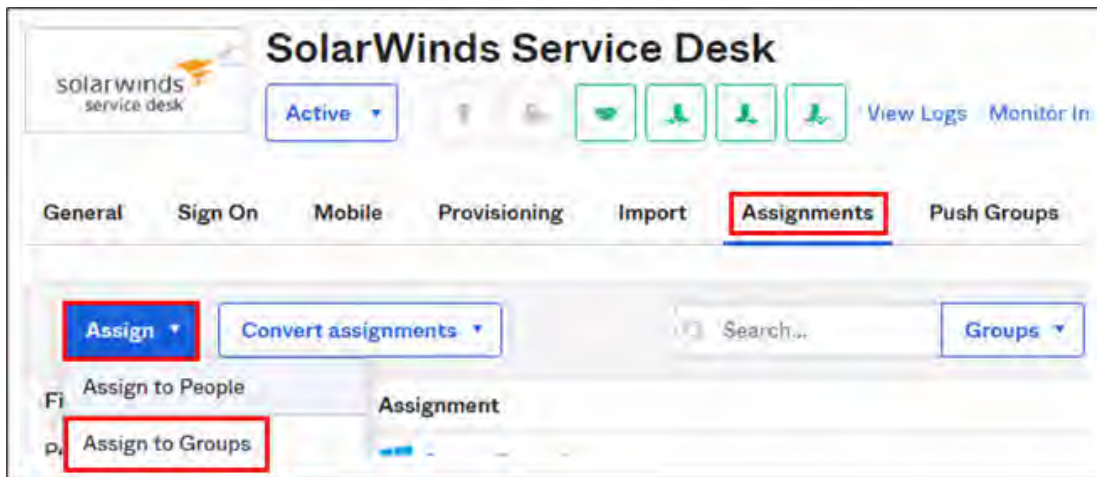


Figure 38. Assignments > Assign > Assign. to Groups

3. Select the appropriate AD Group.
4. Select the **User role**, **User site**, and **User department**.
5. Click **Save**.

 The screenshot shows a dialog box titled 'Edit Group Assignment'. It has a close button (X) in the top right corner. The form contains the following fields:

- Manager's email id: A text input field.
- User role: A dropdown menu with 'Administrator' selected (highlighted with a red box).
- User site: A dropdown menu with 'D4 TMC' selected (highlighted with a red box).
- User department: A dropdown menu with 'Information Technology' selected (highlighted with a red box).
- Email: A text input field.

 At the bottom right, there are 'Save' and 'Cancel' buttons. The 'Save' button is highlighted with a red box.

Figure 39. Edit Group Assignment

Steps/Screenshots

6. Repeat steps 2 - 5 above until you have completed all group assignments.

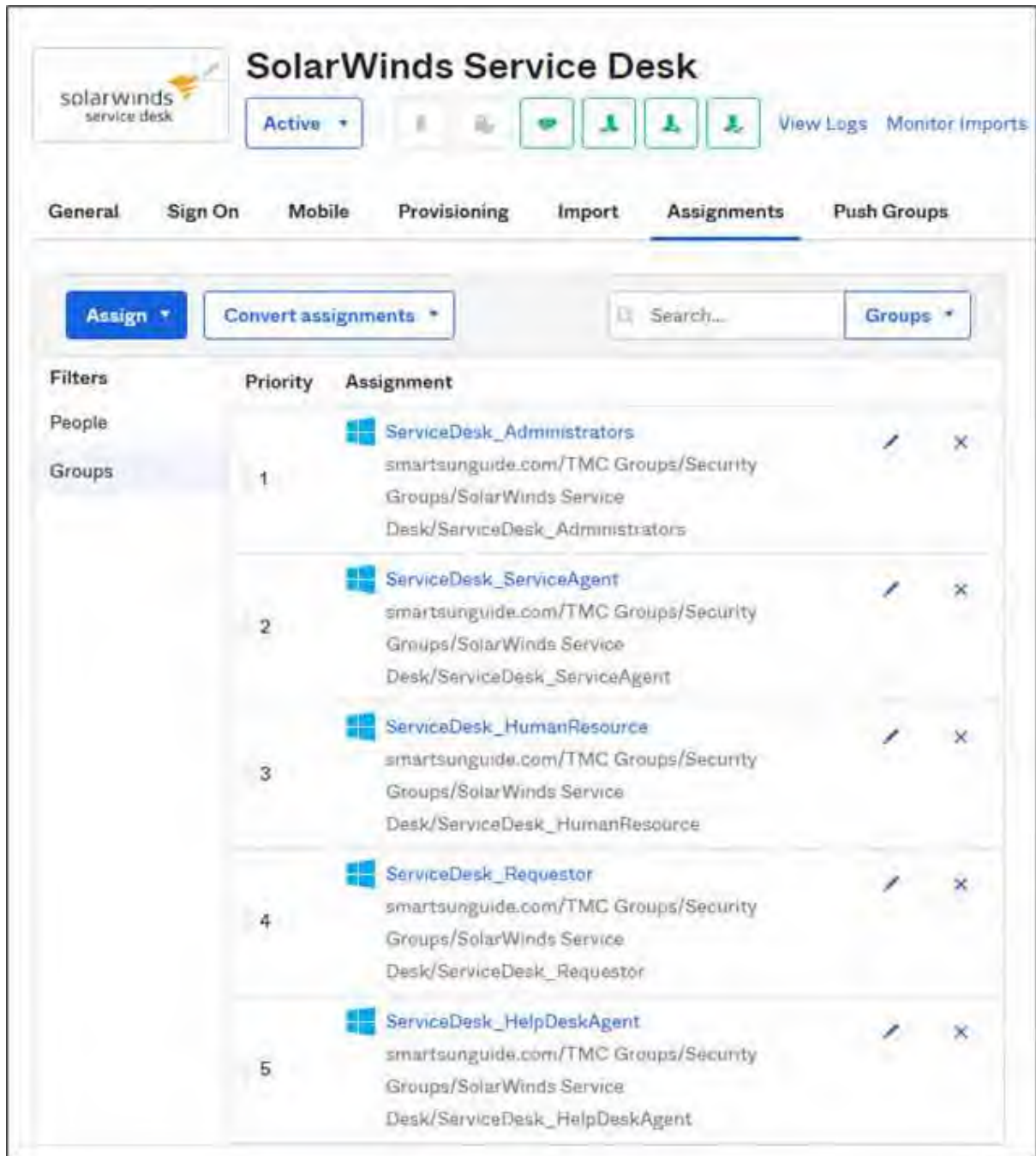


Figure 40. SolarWinds Service Desk Group Assignments

TREND MICRO WORKLOAD SECURITY AGENT- TURN ON MAINTENANCE MODE

Steps/Screenshots1. Sign to **Okta**.

- a. Click the following link to access the Okta website: <https://smartsunguide.okta.com>.

Note: The UserPrincipalName (UPN) format (i.e., username@domain.com) is required when entering your username in the username field to sign to Okta.

- b. Using the UPN format,

- Enter your SMART SunGuide admin credentials.
- Click **Sign in**.

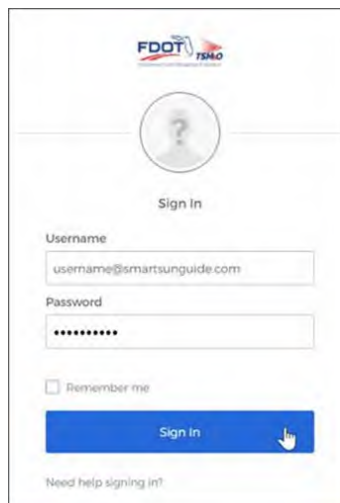


Figure 41. Okta Sign in Page

2. Once signed in,
Click **Trend Micro Workload Security Agent** app.

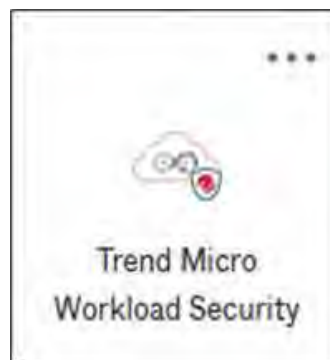


Figure 42. Trend Micro Workload Security App

- a. Click **Computers**.

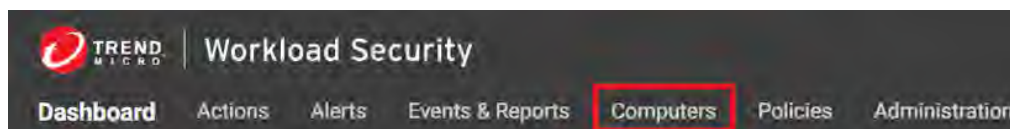


Figure 43. Workload Security > Computers

- b. From the list of computers → Select **server** you are going to patch.

Steps/Screenshots

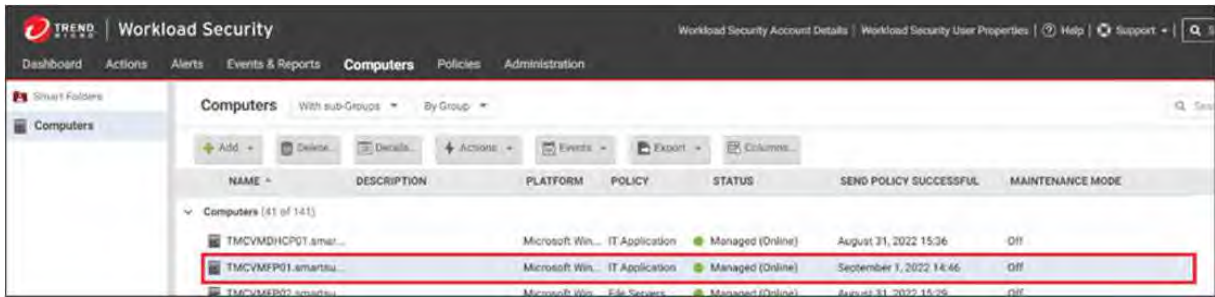


Figure 44. Select the Server

- (1) Right Click the **server**.
- (2) Click **ACTIONS**.
- 3) Click **Turn On Maintenance Mode**.
- 4) Select the **time duration** for the outage.

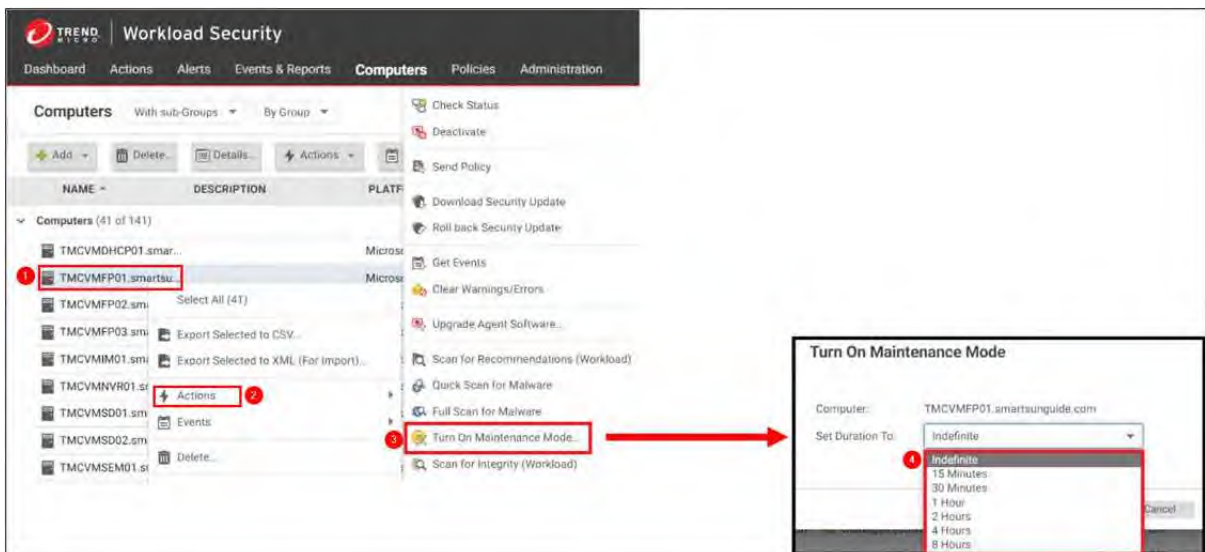


Figure 45. Turn On Maintenance Mode

Note. The server entry will change to **Start Requested** and then, -- to a **duration** you selected. Here, a duration was selected as **indefinite**.



Figure 46. Server Entry - Start Requested > Duration

- c. Prior to moving to the next server → Ensure the current server is not in **Maintenance Mode**.



7.35 Servers Software

Document History

Version #	Date	Author	Changes
1.0	2/08/2024	Yana Neishlos	Initial Draft

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UPGRADE THE SOFTWARE PACKAGE ON THE DELL EMC POWERSTORE SAN

Steps / Screenshots

1. In **RTMC-PowerStoreSAN**, Click **Settings**, Click **Upgrades**, check the box next to **2.01.1-1471924-retail**, and Click **HEALTH CHECK**.

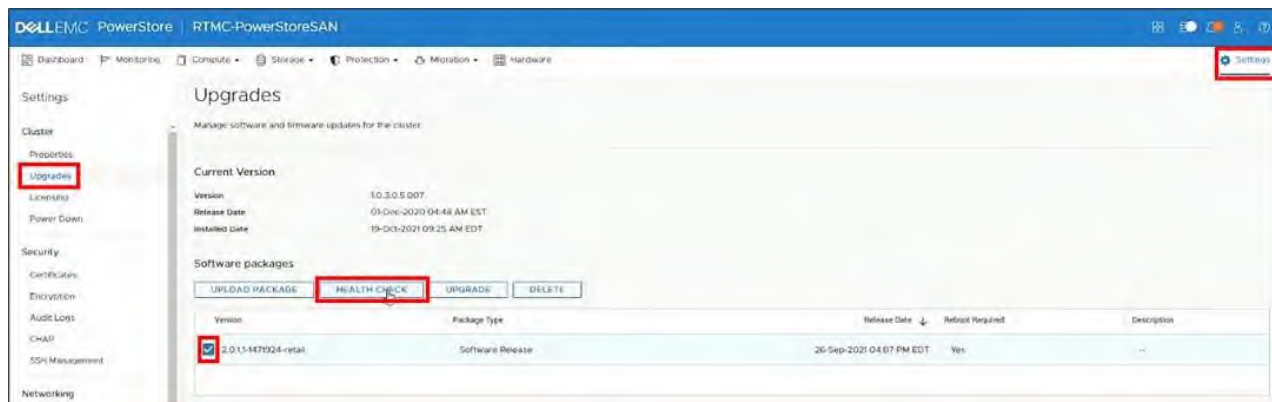


Figure 1. Perform Pre-Upgrade Health Check

2. Once the **Pre-Upgrade Health Check** is completed, → proceed to step 3.



Figure 2. Pre-Upgrade Health Check Completed

3. Check the box next to **2.01.1-1471924-retail**.
Click **UPGRADE**.



Figure 3. Pre-Upgrade Health Check Completed

Steps / Screenshots

4. Click **UPGRADE NOW**.

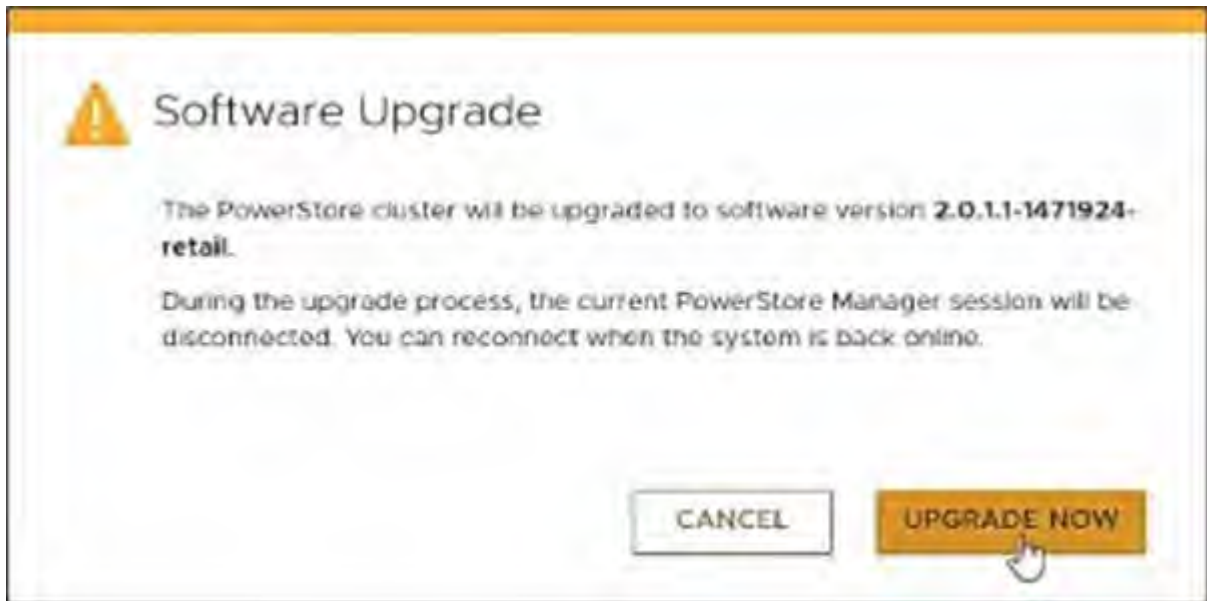


Figure 4. Software Upgrade



7.36 Workstations Software

Document History

Version #	Date	Author	Changes
1.0	12/28/2023	Yana Neishlos	Initial Draft

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MICROSOFT WINDOWS UPDATE MANAGEMENT

Overview

When Microsoft releases Windows updates, the IT Department deploys them to all applicable workstations (i.e., desktops and laptops).

To confirm functionality of all Windows updates prior to deployment, they are properly tested as outlined in the procedures below.

Procedures

Standard Updates

1. Newly released Windows updates for applicable desktop versions are deployed on virtual desktop test virtual machines. Once deployed, preliminary functionality testing is performed on pre-installed applications.
2. After an introductory testing is complete, Windows updates are approved and deployed on all IT staff workstations. A four-day lead time testing is performed on these workstations.
3. Once a functionality is confirmed on all IT workstations Windows updates are:
 - Deployed on Lead Operator workstations in the Control Room, and,
 - Tested for seven days.



Figure 1. Lead Operator Workstations

4. After seven days of a confirmed functionality, updates are deployed on all workstations.

Emergency Security Updates

1. Newly released security updates for applicable desktop versions are deployed on virtual desktop test virtual machines.

Once deployed preliminary functionality testing is performed on pre-installed applications.

2. After introductory testing is complete, security updates are approved and deployed on all IT staff workstations.

A two-day lead time testing is performed on these workstations.

3. Once functionality is confirmed on IT workstations, updates are deployed on Lead Operator workstations in the Control Room (Figure 1 above) and tested for five days.

4. After five days of confirmed functionality updates are deployed on all workstations.

SET UP THE MICROSOFT MANAGEMENT CONSOLE

Overview

Procedures below are provided for customers frequently using the Microsoft Management Console (MMC) as a single sign-on to the Windows administrative tools.

Instead of signing to these Windows administrative tools individually, you can get access to all of them by signing to the MMC with your SunGuide admin account credentials one time.

These procedures outline the steps to add/save the following frequently used Windows administrative tools to your Console Root (ToolBox):

- Active Directory for Domains and Trust
- Active Directory Sites and Services
- Active Directory Users and Computers
- Computer Management
- DFS Management
- DHCP
- DNS
- Local Users and Groups
- Patch Manager.

Procedures

Launch the Windows Console Root

Steps / Screenshots

1. – Press the **Windows+R** keys.
– Launch the “Run” command window.

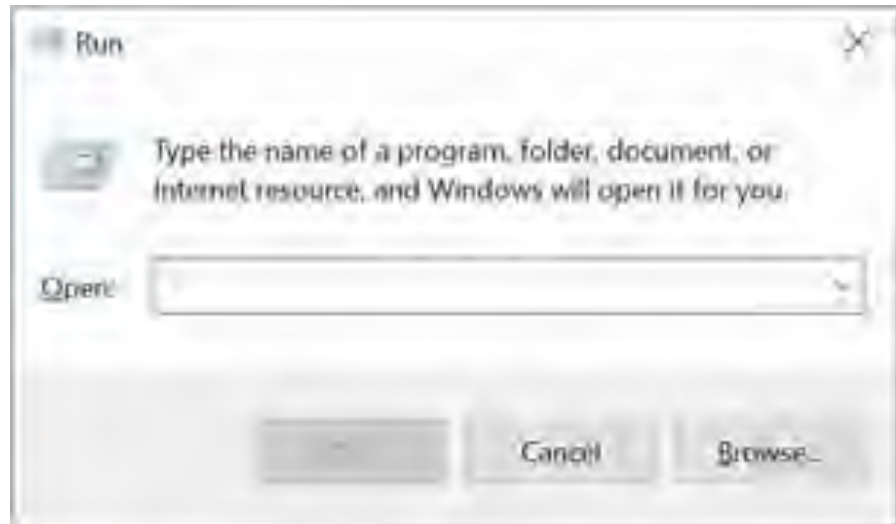


Figure 2. Launch "Run" Command Window

2. – Type “**mmc**” in the “Run” command window.
– Click **OK**.

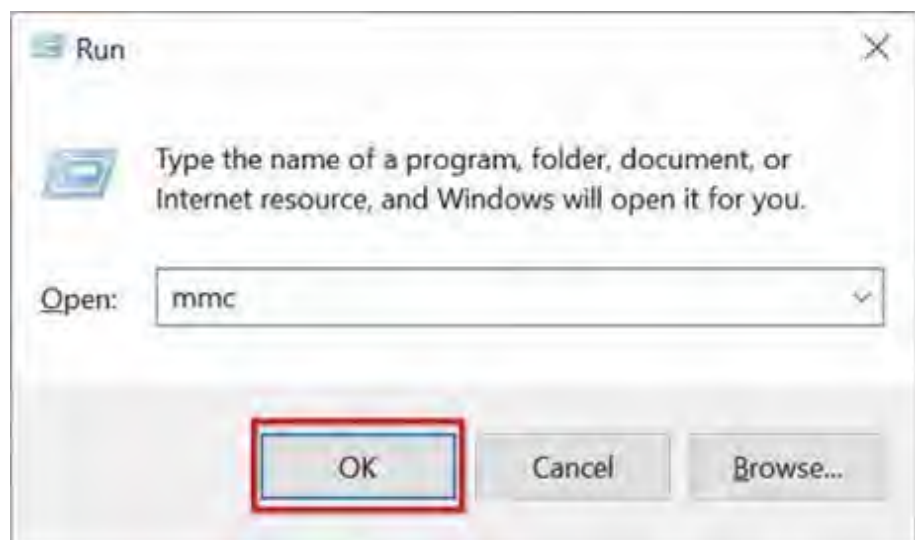


Figure 3. Type “mmc” in the "Run" Command Window

Steps / Screenshots

- Press the **Control+Shift+Enter** keys.
- Launch the MMC login screen: Enter your SunGuide admin account credentials to launch the Windows Console Root.

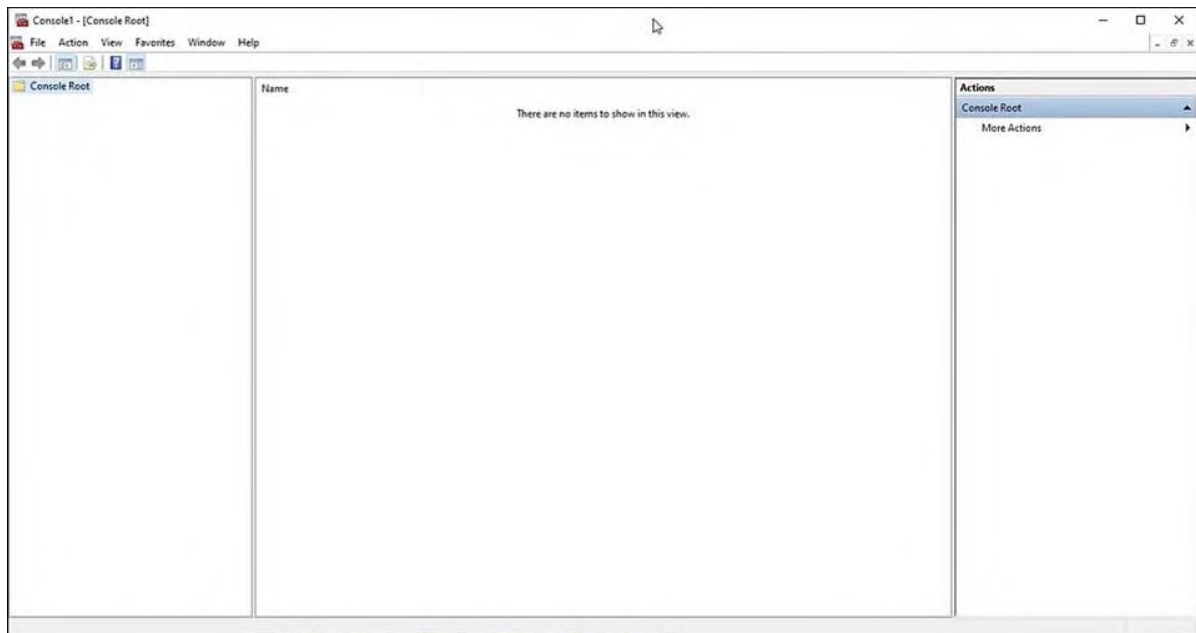


Figure 4. Windows Console Root

- Click **File**
- Select **Add/Remove Snap-ins** from the drop-down menu.
- Launch the Add or Remove Snap-ins window.

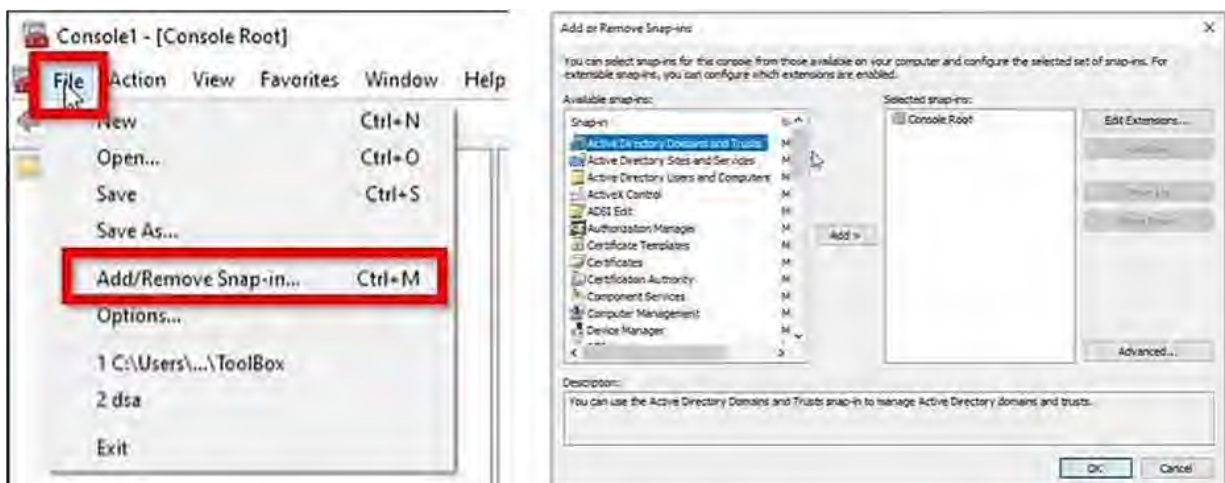


Figure 5. Add/Remove Snap-ins

Add/Remove Snap-Ins

Notes / Steps / Screenshots

Note.

The left-hand column lists the available snap-ins on a device.

The Console Root is on the right-hand column.

Perform the steps below to add frequently used IT administrative tools /snap-ins to the Console Root:



Figure 6. Available Snap-ins on a Device

1. Add **Active Directory for Domains and Trust, Active Directory Sites and Services, and Active Directory Users and Computers** to the Console Root.

- a.
 - Double-click **Active Directory for Domains and Trust.**
 - Add it to the Console Root.



Figure 7. Add Active Directory Domains and Trusts

Notes / Steps / Screenshots

- b. – Double-click on **Active Directory Sites and Services**
- Add it to the Console Root.

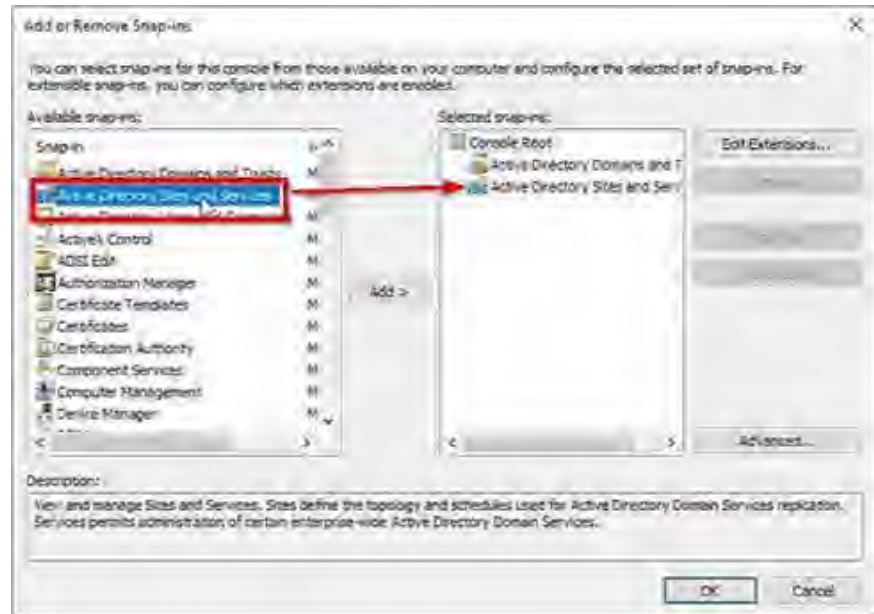


Figure 8. Add Active Directory Sites and Services

- c. – Double-click **Active Directory Users and Computers**
- Add it to the Console Root (Figure 9).

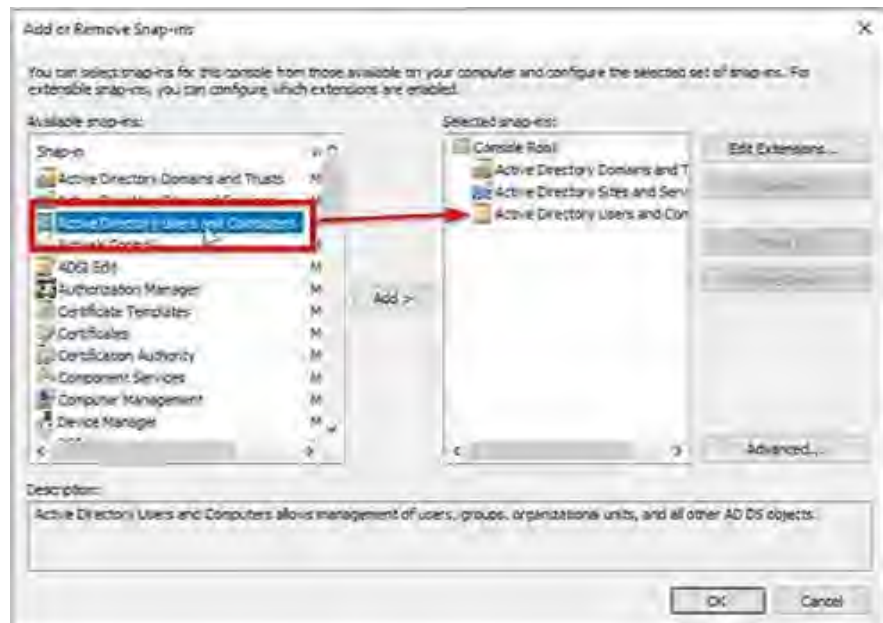


Figure 9. Add Active Directory Users and Computers.

Notes / Steps / Screenshots

2. Add Computer Management to the Console Root.

a. Double click on **Computer Management**.

b. In the **Computer Management** window,

- Select Local computer.
- Check the box to Allow a selected computer to be changed when launching from the command line (to switch between a local computer and another computer).

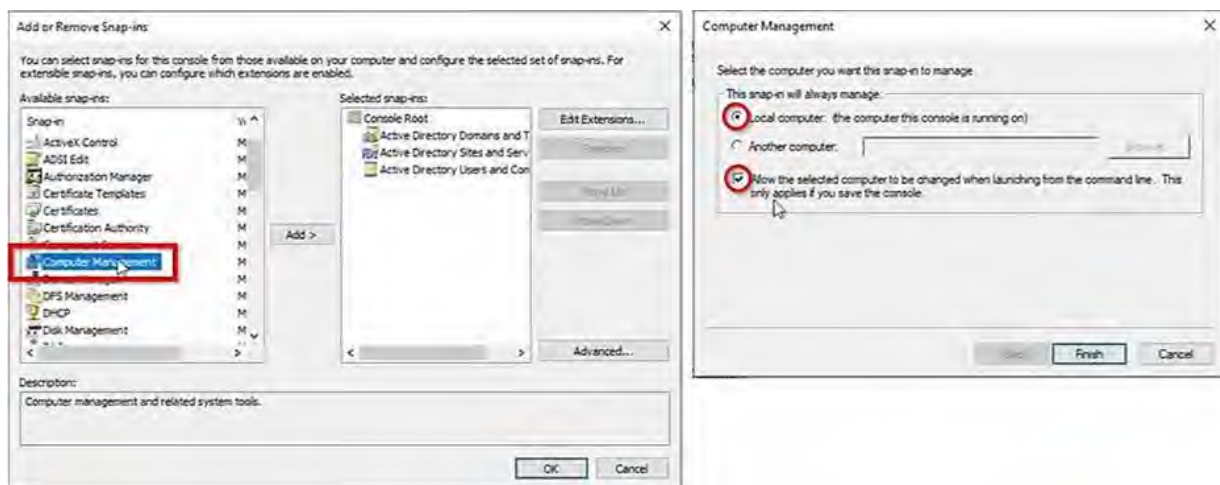


Figure 10. Computer Management Selection

c. Click **Finish** to close the Computer Management window and add Computer Management to the Console Root.

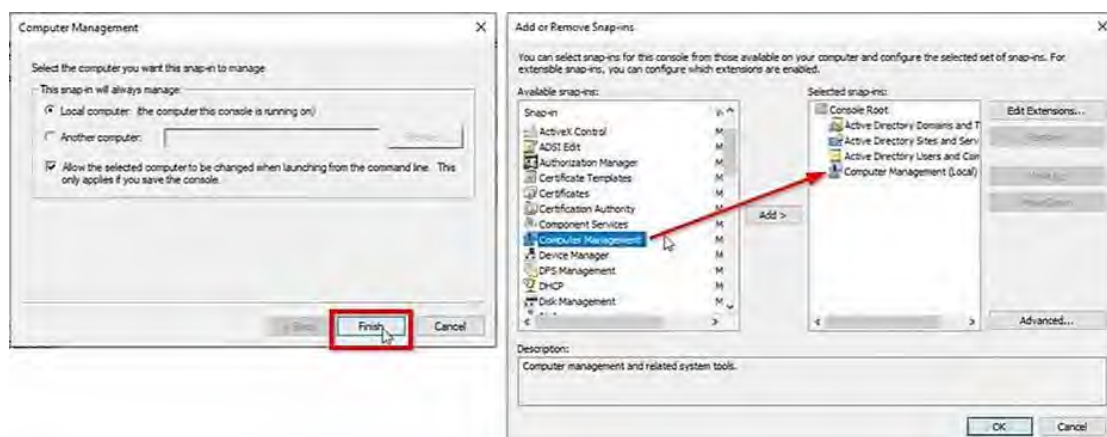


Figure 11. Add Computer Management

Notes / Steps / Screenshots

3. Add DFS Management, DHCP, and DNS to the Console Root.

- a. – Double click on **DFS Management**
- Add it to the Console Root.



Figure 12. Add DFS Management

- b. – Double-click **DHCP**.
- Add it to the Console Root.

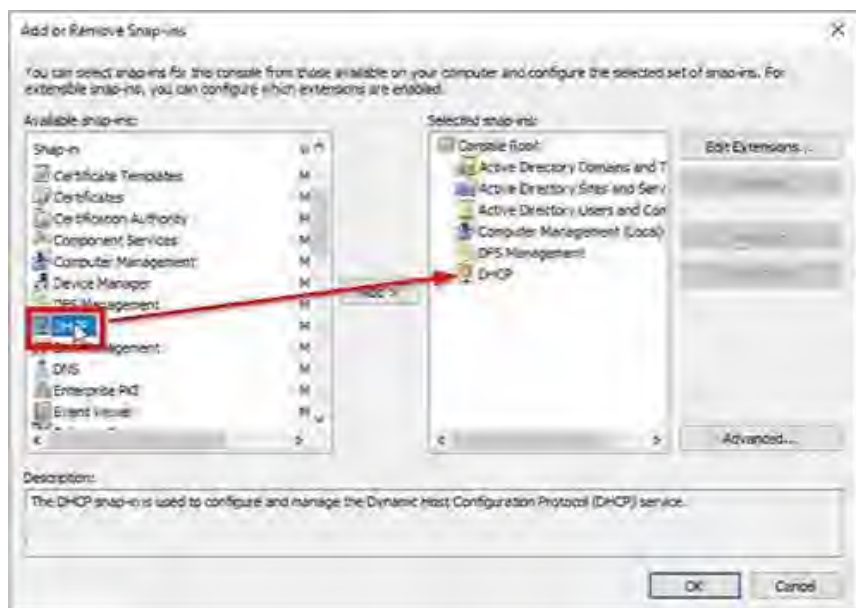


Figure 13. Add DHCP

Notes / Steps / Screenshots

- c. – Double click on **DNS**
- Add it to the Console Root.

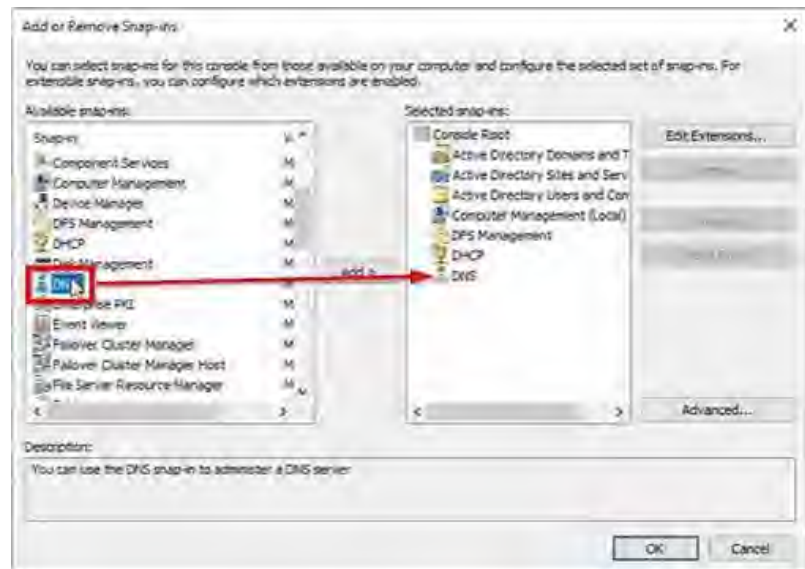


Figure 14. Add DNS

4. Add **Local Users and Groups** to the Console Root.

- a. Double-click **Local Users and Groups**.
- b. In the **Choose Target Machine** window,
- Select **Local computer**, and,
 - Check the box to **Allow the selected computer to be changed when launching from the command line** (to switch between a local computer and another computer).

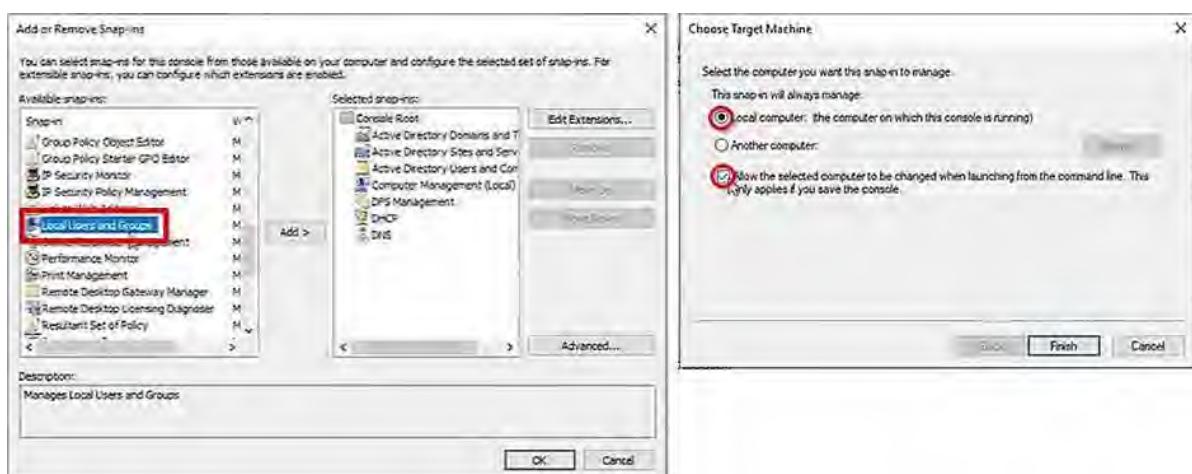


Figure 15. Local Users and Groups Options

Notes / Steps / Screenshots

- c.
 - Click **Finish** to close the Choose Target Machine window, and,
 - Add Local Users and Groups to the Console Root.

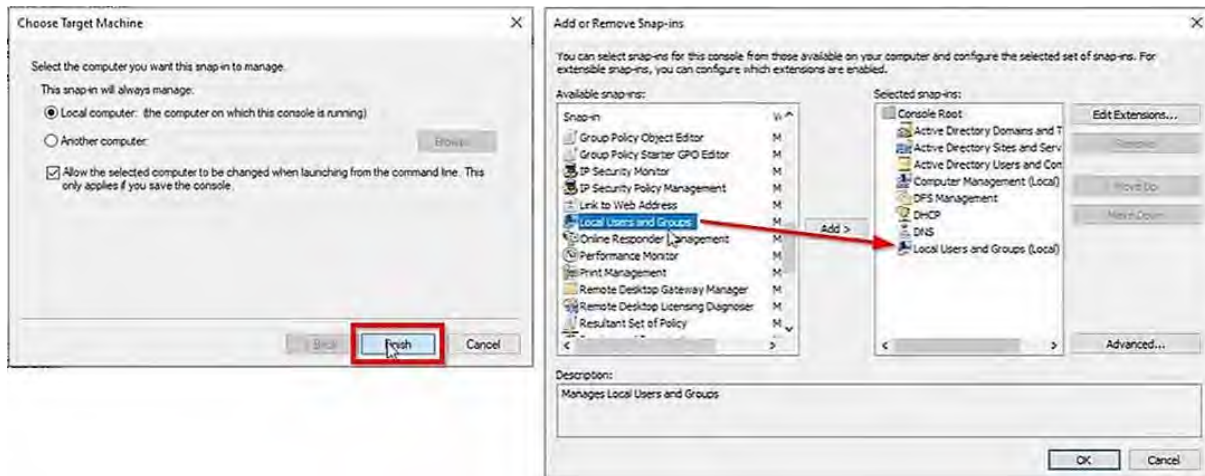


Figure 16. Add Local Users and Groups

5. Add Print Management to the Console Root.

- a. Double click on **Print Management**.
- b. In the **Specify Print Server** field of the Configure Print Management window,
 - Enter TMCVMFP01
 - Click **Add to List**.

Notes / Steps / Screenshots

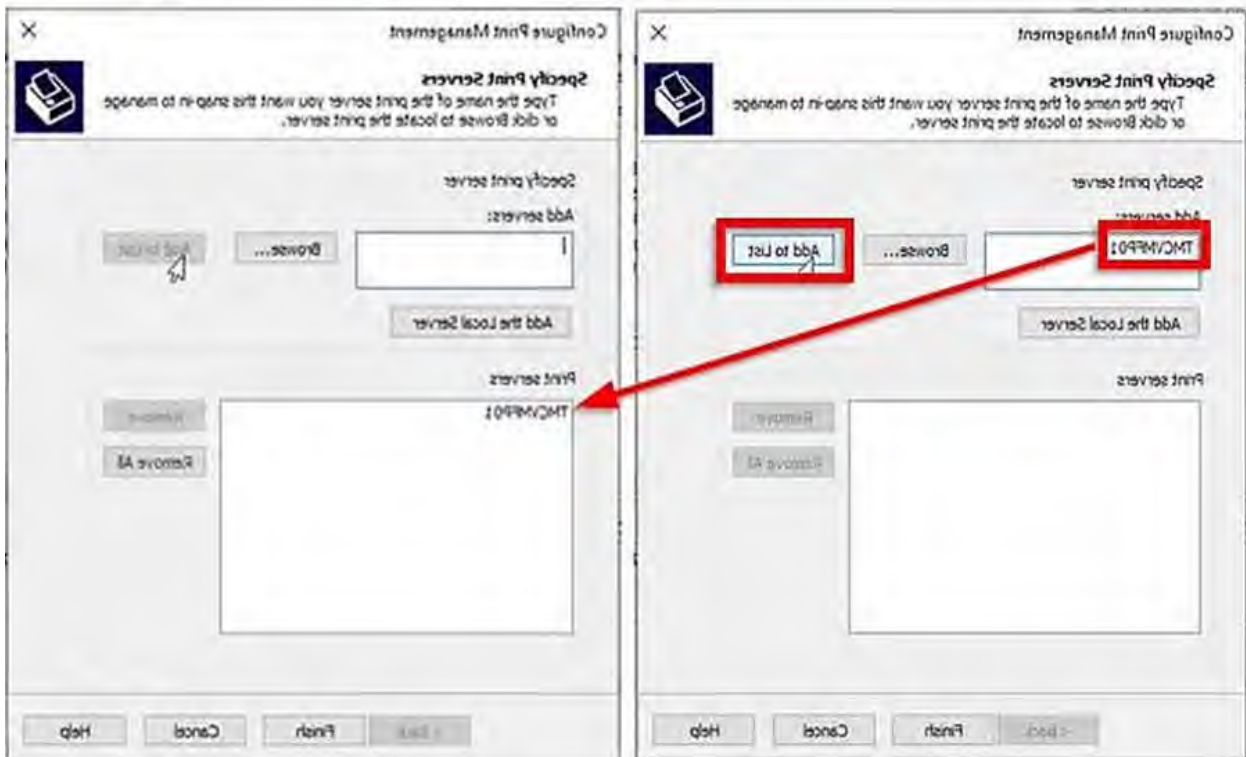
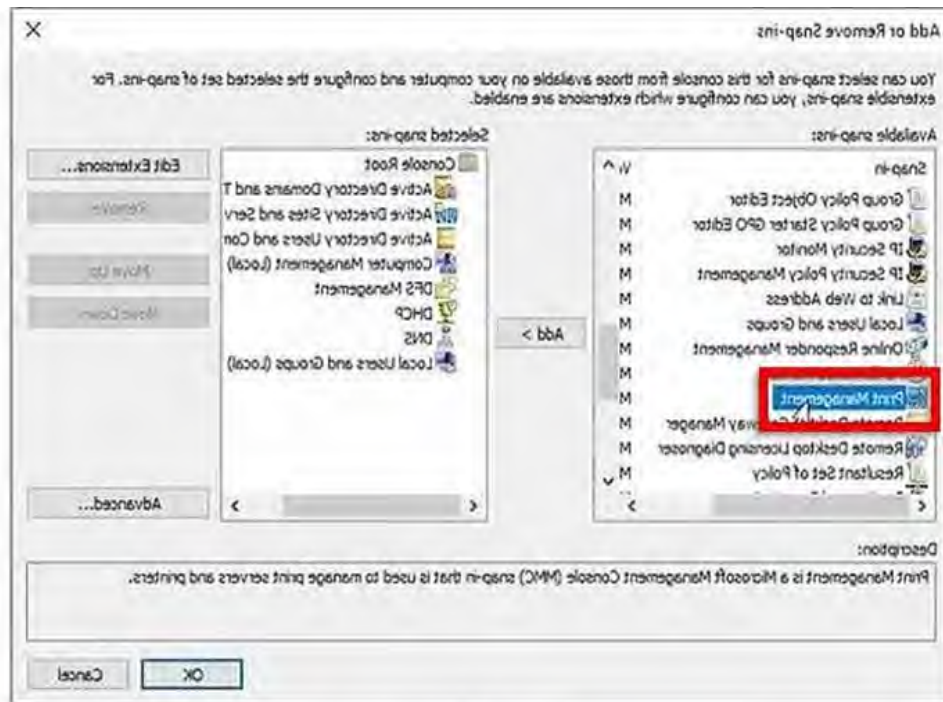


Figure 17. Add Print Server

Notes / Steps / Screenshots

- c.
 - Click **Finish** to close the Configure Print Management window, and,
 - Add **Print Management** to the Console Root.

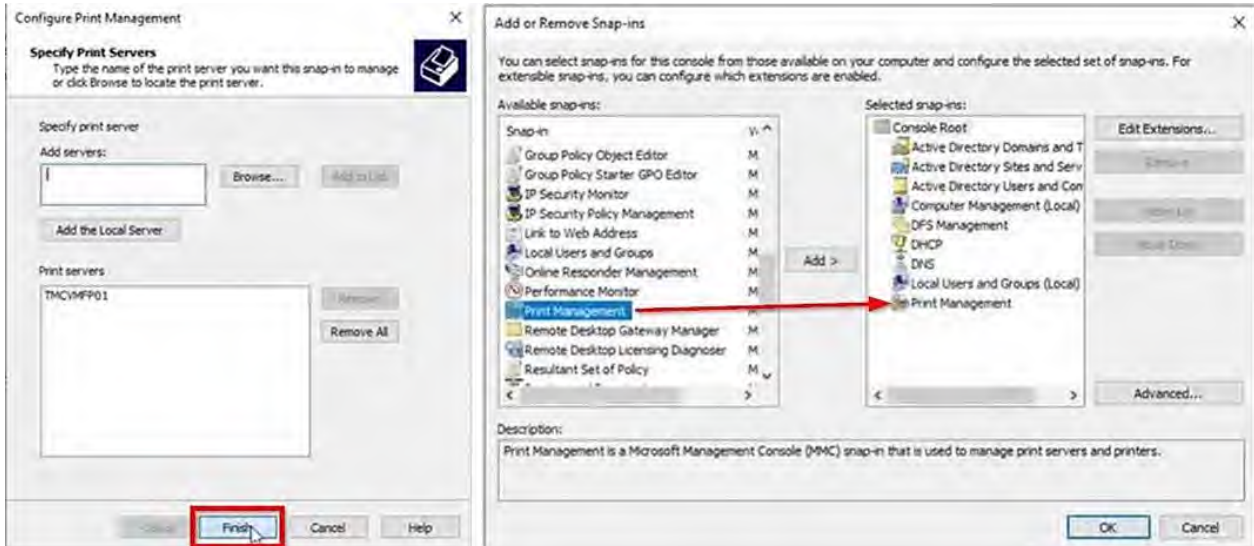


Figure 18. Add Print Management

6. Add **Patch Manager** to the Console Root.

- Double-click **SolarWinds Patch Manager**
- Add it to the Console Root.

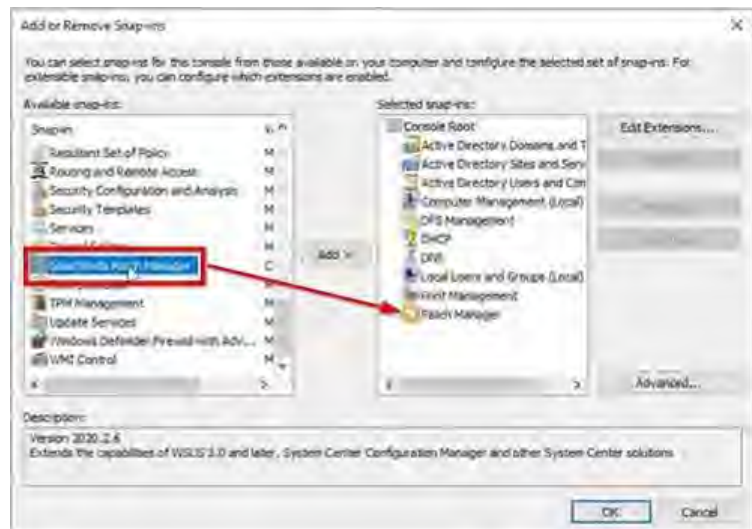


Figure 19. Add Patch Manager

Notes / Steps / Screenshots

7. Add selected snap-ins under the Console Root.

- a. Click **OK** to close the **Add or Remove Snap-ins** window.

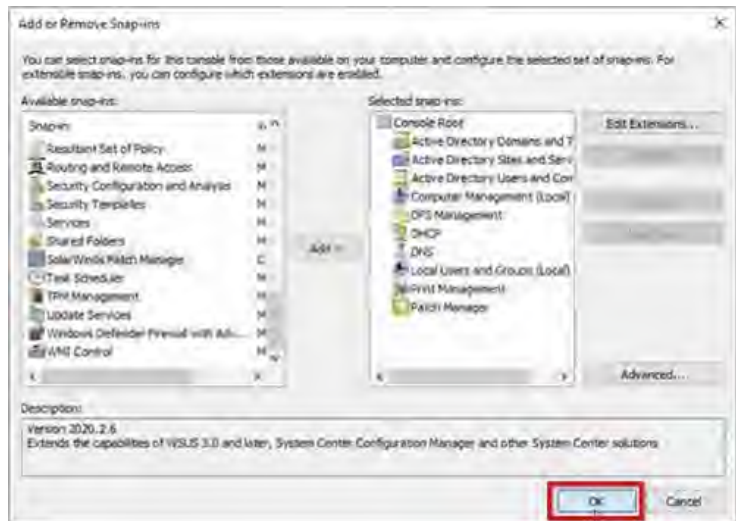


Figure 20. Close the Add or Remove Snap-ins Window

- b. The selected snap-ins are added under the **Console Root**.

You are signed to all of them with your single sign-on SunGuide admin account credentials.

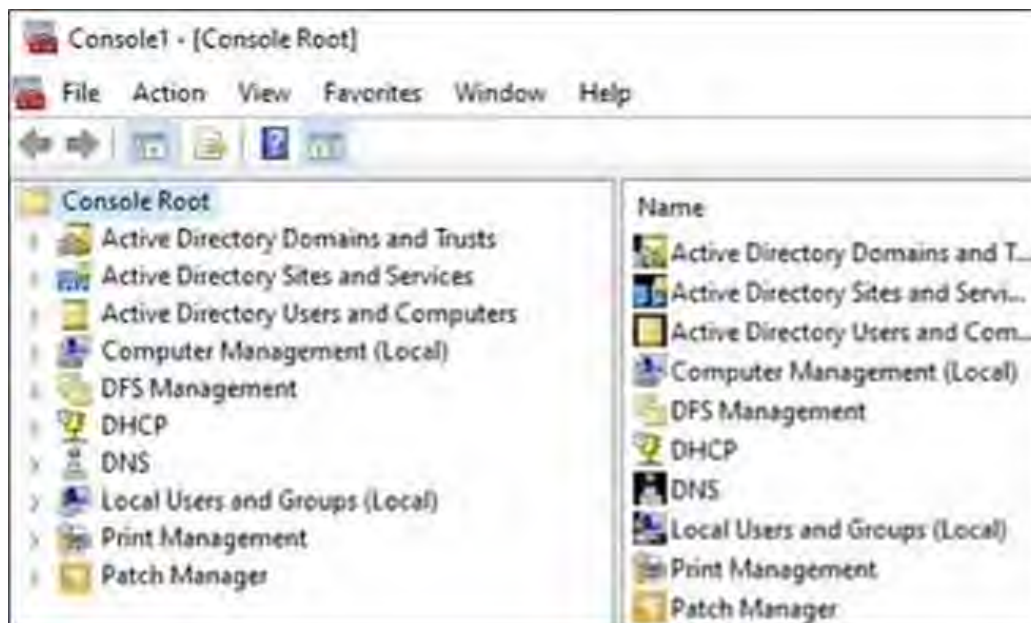


Figure 21. Snap-ins Added Under the Console Root

Save the Console Root Under Standard User > Downloads Folder

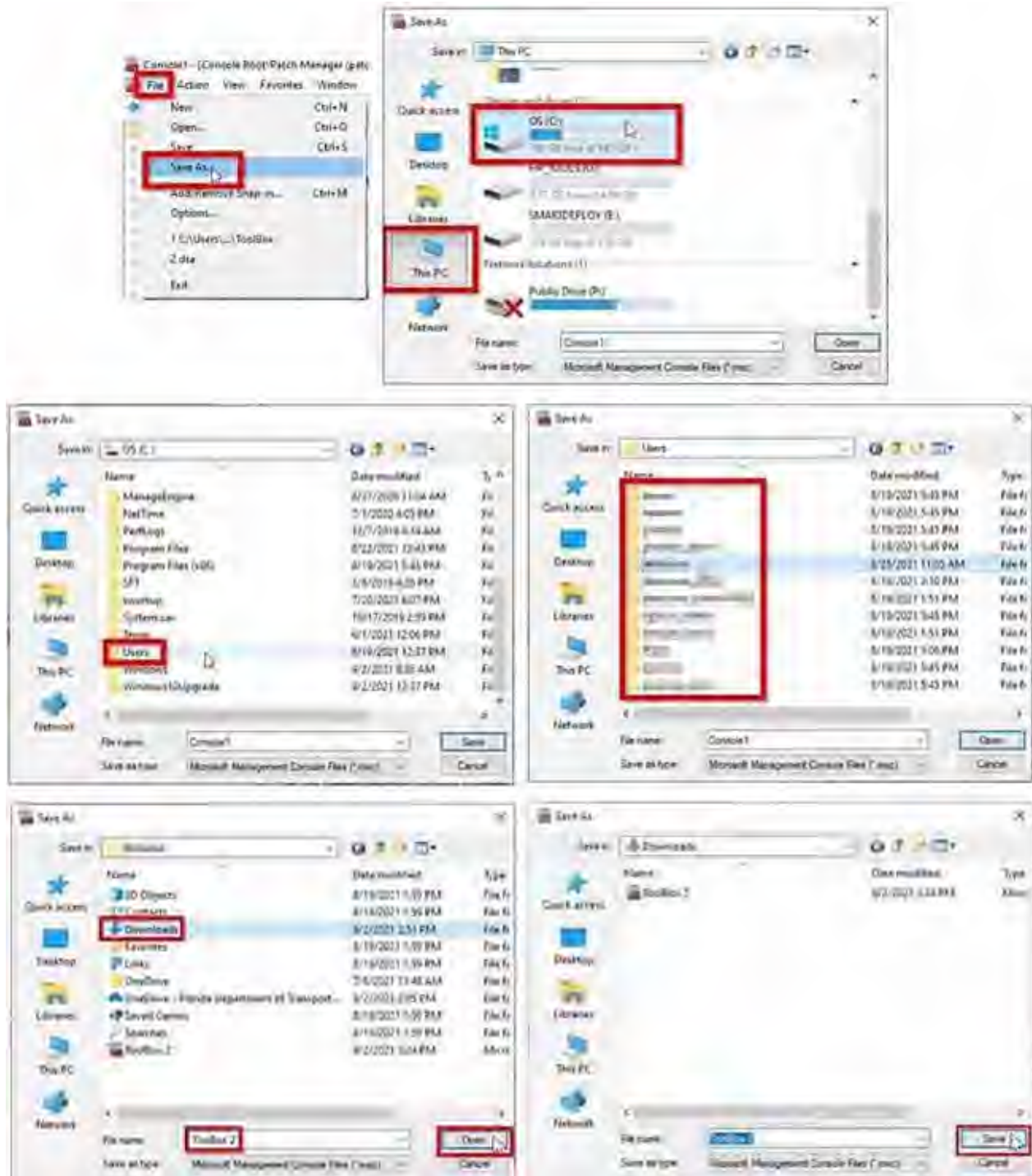


Figure 22. Save the Console Root under the Standard User > Downloads Folder

Refer to the Figure 22 above and complete the following procedure below:

1. – Click **File**
– Select **Save As**.

2.
 - Click **This PC**
 - Click **OS (C:)**
3. Click the **Users** folder.
4. Select your user folder.
5.
 - Click **Downloads**
 - Enter a name in the **File name** field.
 - Click **Open**.
6. Click **Save**.

Save the Console Root in Common Desktop

1.
 - Press the **Windows+R** keys.
 - Launch the “Run” command window.

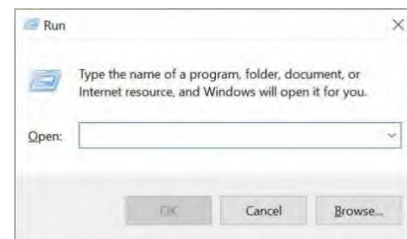


Figure 23. Launch "Run" Command Window

2.
 - Type “**shell:common desktop**” in the “Run” command window
 - Click on **OK**.

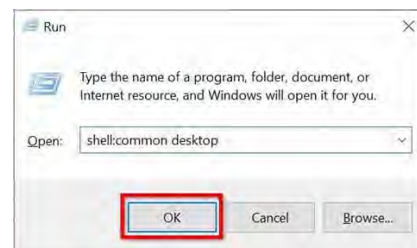


Figure 24. "shell:common desktop

Note: When launching your Toolbox from the saved location:

Right-click, and,

Select **Run as Administrator** with your SunGuide admin account credentials.

Otherwise, added Windows administrative tools / snap-ins will not be accessible with a single sign-on, as needed.

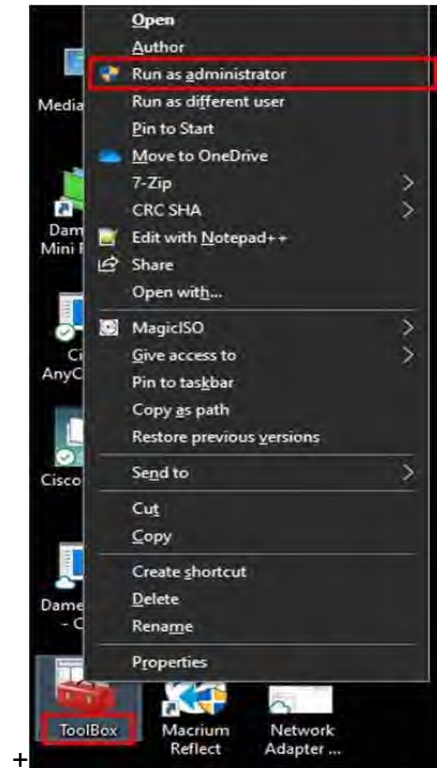


Figure 25. Run as Administrator



7.41.00 High-Profile Visiting Dignitary Plan

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Document Version History

Version #	Date	Author	Changes
1.0	2/07/2024	Yana Neishlos	Initial Draft

INTRODUCTION

The High-Profile Visiting Dignitary Plan is a comprehensive set of protocols and strategies to manage the visit of a distinguished member of the Presidential Office of the United States of America.

The primary objective of this plan is to ensure that all pertinent action steps are clearly delineated and coordinated among all involved parties.

Purpose

The plans will ensure that all necessary advanced preparations are in place, thus minimizing the potential for any unforeseen disruptions or challenges during the visit.

Scope

The High-Profile Visiting Dignitary Plan is developed for TSM&O Operations and affiliated agencies.

Action steps will involve reducing the visibility of the transportation route used during the visit of the High-Profile Visiting Dignitary.

BLOCK CCTV on IVDS, DIVAS and FL511

- iVDS - Internet Video Distribution System
- DIVAS - Data Integration and Video Aggregation System
- FL511 – Florida 511 Travel Information System.

ID	Name	Description	Agency	Center	County	Highway	Blockage	Ext. Blockage	Status	Snapshot
1	0534-CCTV	0534 MP 53.4 (N of Stirling Rd)	I-95 Express	District 4	Broward	TPKE	Open		Active Streaming	Recent
2	0539-CCTV	0539 MP 53.9 (Drifflin Rd)	I-95 Express	District 4	Broward	TPKE	Open		Active Streaming	Recent
3	0540-CCTV	0540 MP 54.2 (S of I-595)	I-95 Express	District 4	Broward	TPKE	Open		Active Streaming	Recent
6	0571-CCTV	0571 MP 57.1 (S of Broward Blvd)	I-95 Express	District 4	Broward	TPKE	Open		Active Streaming	Recent
7	0581-CCTV	0581 MP 58.1 (E of Sunrise Blvd)	I-95 Express	District 4	Broward	TPKE	Open		Active Streaming	Recent
8	3087-CCTV	3087 MP 87.7 (E of US-441)	I-95 Express	District 4	Broward	I-95	Open		Active Streaming	Recent
10	3091-CCTV	[not provided]	I-95 Express	District 4	Broward	I-95	Open		Active Streaming	Recent
11	5710-CCTV	5710 MP 1.0 (SR RP B&MP from SR-84 Eastbound)	I-95 Express	District 4	Broward	I-95	Open		Active Streaming	Recent
12	5713-CCTV	5713 MP 1.3 (Sawgrass Exp)	I-95 Express	District 4	Broward	I-95	Open		Active Streaming	Recent
13	5714-CCTV	5714 MP 1.4 (S&L Connector from Sawgrass Exp)	I-95 Express	District 4	Broward	I-95	Open		Active Streaming	Recent
14	5716-CCTV	5716 MP 1.6 (E of Sawgrass Exp)	I-95 Express	District 4	Broward	I-95	Open		Active Streaming	Recent

1. Login to the user interface.
2. For a user with sufficient permissions:
 - a. Select one or more cameras in the grid.
 - b. Click the 'Block' or 'Unblock' buttons to block or unblock those cameras, respectively.
3. Once all desired cameras are selected → Complete the blockage → Click **Save**.

Block Broadcast to Media Stations

- Block communication to all media outlets and TV Stations including [TrafficLand](#) Incorporated.
- Contact District VI ITS and request to shut down the uplink for the duration of the visit:

Name	Contact
Thomas Miller	Thomas.Miller@sunguide.info
Juan Lopez	Juan.Lopez@sunguide.info
Alex Mirones	Alex.Mirones@sunguide.info

DMS Messages

The Operations Center will ensure that no messages will be displayed on the DMS signs along the motorcade route throughout the duration of the visit.



Acronyms & Glossary of Terms

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Document & Version History

Version #	Date	Author	Changes
1.0	12/13/2023	Yana Neishlos	Initial Draft

The List of Acronyms

A - L

Acronym	Description
AARF	Automated Access Request Form
ACL	Access Control List
AD	Active Directory
ADAPT	Active Device and Performance monitor Dashboard
ADMS	Arterial Dynamic Message Signs
AMS	Arterial Maintenance System
AOR	Area of Responsibility
ASA	Adaptive Security Appliance
ATIS	Advanced Traveler Information System
ATMS	Advanced Traffic Management System
AUA	Acceptable Use Agreement
AVI	Automatic Vehicle Detection
BCT	Broward County Transit
BCTED	Broward County Traffic Engineering Department
CAB	Change Advisory Board
CAD	Computer Aided Dispatch
CADD	Computer Aided Drafting and Design
CCTV	Closed-Circuit Television
CD-ROM	Compact Disk - Read Only Memory
CFX	Central Florida Expressway Authority
CIA	Confidentiality, Integrity, and Availability
CIO	Chief Information Officer

Acronym	Description
CISA	Cybersecurity & Infrastructure Security Agency
CITS	Contract Invoice Transmittal System
CMDB	Configuration Management Database
CPU	Central Processing Unit
COBIT	Control Objectives for Information and Related Technologies
COOP	Continuity of Operations Plan
COTS	Commercial-off-the-Shelf
CPM	Certified Public Manager
CPU	Central Processing Unit
CSAR	Computer Security Access Request
CUCM	Cisco Unified Communications Manager
CVSS	Common Vulnerability Scoring System
D4	District Four
DART	Data Analysis and Reporting Tool
DDoS	Distributed Denial of Service
DFS	Distributed File System
DHCP	Dynamic Host Configuration Protocol
DHS	Department of Homeland Security
DID	Direct Inward Dialing
DISM	District Information System Manager
DMS	Dynamic Message Sign
DMZ	Demilitarized Zone
DNS	Domain Name System
DOD	Department of Defense
DOT	Department of Transportation

Acronym	Description
DR	Disaster Recovery
DVD	Digital Video Disk
ELS	Express Lane System
EOC	Emergency Operations Center
ESRI	Environmental System Research Institute
ESU	Emergency Shoulder Use
F.A.C.	Florida Administrative Code
F.S.	Florida Statute
FDOT	Florida Department of Transportation
FHP	Florida Highway Patrol
FION	Florida ITS Operations Network
FIPS	Federal Information Processing Standards
FL511	Florida 511
FLAIR	Florida Accounting Information Resource
FLATIS	Florida's Advanced Traveler Information System
FLL	Fort Lauderdale-Hollywood International Airport
FMS	Freeway Maintenance System
FP&L	Florida Power & Light
FSMO	Flexible Single Master Operation
FTA	File Transfer Appliance
FTE	Florida Turnpike Enterprise
FTP	File Transfer Protocol
GAL	Global Address List
GB	Gigabyte

Acronym	Description
GIS	Geographic Information Systems
GPS	Geographic Positioning System
GUI	Graphical User Interface
HAR	Highway Advisory Radio
HARB	Highway Advisory Radio Beacon
HART	Highway Advisory Radio Transmitter
HD	High Definition
HOT	High-Occupancy Toll
HOV	High Occupancy Vehicle
HQ	Headquarters
HTTPS	Hyper Text Transfer Protocol Secure
HW	Highway
IaaS	Infrastructure as a Service
ICMP	Internet Control Message Protocol
IP	Internet Protocol
IPS	Intrusion Prevention System
IRR	Information Resource Request
iSCSI	Internet Small Computer Systems Interface
ISE	Identity Services Engine
ISM	Information Security Manager
ISP	Internet Service Provider
IT	Information Technology
ITIL	Information Technology Infrastructure Library
ITS	Intelligent Transportation Systems
ITSFM	ITS Facility Management

Acronym	Description
iVDS	Internet Video Distribution System
iVEDDS	Interagency Video Event Data Distribution System
KVM	Keyboard, Video Monitor, and Mouse
LAN	Local Area Network
LCD	Liquid Crystal Display
LDAP	Lightweight Directory Access Protocol
LED	Light-Emitting-Diode

M - Z

Acronym	Description
MDM	Mobile Device Manager
MDX	Miami-Dade Expressway Authority
MFA	Multifactor Authentication
MIMS	Maintenance and Inventory Management System
MOT	Maintenance of Traffic
MT	Maintenance
MTTR	Mean Time to Respond
MUTCD	Manual of Uniform Traffic Control Devices
MVDS	Microwave Vehicle Detection System
NAS	Network Attached Storage
NAT	Network Address Translation
NH	Non-Highway
NIC	Network Interface Card
NIST	National Institute of Standards and Technology
NMS	Network Management Systems

Acronym	Description
NTH	Non TMC Hardware
NTP	Network Time Protocol
OCO	Operating Capital Outlay
OIT	Office of Information Technology
OOB	Out-of-Band
OS	Operating System
OSPF	Open Shortest Path First
P3	Public-Private Partnership
PBX	Private Branch Exchange
PC	Personal Computer
PCMCIA	Personal Computer Memory Card International Association
PDA	Portable Digital Assistant
PIO	Public Information Office
PMR	Property Management Report
PMRS	Property Management Report System
PRI	Primary Rate Interface
PTR	Property Transfer Receipt
PTZ	Pan-Tilt-Zoom
RA	Room Alert
RACF	Resource Access Control Facility
RAID	Redundant Array of Independent Disks
RAM	Random Access Memory
RAS	Remote Access Server
RDP	Remote Desktop Protocol
RFC	Request for Change

Acronym	Description
RFID	Radio Frequency Identification
RISC	Rapid Incident Scene Clearance
RITIS	Regional Integrated Transportation Information System
RMA	Return Merchandise or Material Authorization
ROM	Read-Only Memory
RPO	Recovery Point Objective
RSTP	Rapid Spanning Tree Protocol
RTMC	Regional Transportation Management Center
RTO	Recovery Time Objective
RWIS	Road Weather Information Systems
SaaS	Software as a Service
SAML	Security Assertion Markup Language
SAN	Storage Area Network
SCP	Secure Copy Protocol
SCSI	Small Computer System Interface
SDLC	Software Development Life Cycle
SERFTOC	Southeast Florida Regional TMC Operations Committee
SELS	Statewide Express Lanes Software
SES	Select Exempt Service
SFRTA	South Florida Regional Transportation Authority
SFTP	Secure File Transfer Protocol
SIRV	Severe Incident Response Vehicle
SKU	Stock Keeping Unit
SLA	Service Level Agreement
SMART	System Management for Advanced Roadway Technologies

Acronym	Description
SMS	Senior Management Service
SMTP	Simple Mail Transfer Protocol
SNMP	Simple Network Management Protocol
SOG	Standard Operating Guidelines
SOP	Standard Operating Procedure
SQL	Structured Query Language
SSH	Secure Shell
SSO	Single Sign-On
STMC	Satellite Transportation Management Center
STP	Spanning Tree Protocol
TAC	Technical Assistance Center
TB	Terabyte
TCP	Transmission Control Protocol
TFTP	Trivial File Transfer Protocol
TIM	Traffic Incident Management
TIMSO	Traffic Incident Management Support Office
TMC	Transportation Management Center
TOQC	TMC Operations Quality Control
TSM&O	Transportation Systems Management and Operations
UC	Unified Communications
USB	Universal Serial Bus
UPS	Uninterruptible Power Supply
VDS	Vehicle Distribution Systems
VDU	Virtual Display Unit / Video Display Unit
VID	Video Incident Detection

Acronym	Description
VLAN	Virtual Local Area Network
VM	Virtual Machine
VMS	Video Management System
VOIP	Voice Over Internet Protocol
VPN	Virtual Private Network
VPR	Vulnerability Priority Rating
WAN	Wide Area Network
WSUS	Windows Server Update Services
WWD	Wrong Way Driver
WWW	World Wide Web

Glossary of Terms

Term	Description
Access	An ability to acquire, read, write, or delete data or information; make use of an information technology resource; enter a room or facility. (Source: Rule 71A-1.002, F.A.C.)
Access Point	A station that transmits and receives data e.g., a wireless access point. (Source: Rule 71A-1.002, F.A.C.)
Active Directory	<p>A Microsoft service, a central component of the Windows® operating system platform. A directory service:</p> <ul style="list-style-type: none"> – Provides a place to store information about network-based entities, e.g., applications, files, printers, and people. – Provides a consistency to name, describe, locate, access, manage, and secure information on information resources. – Acts as the main switchboard of the network operating system. It is the central authority that manages identities and brokers, the relationships among the distributed information resources to work together. – Supplies fundamental network operating system functions. – Must be synchronized with the management and security mechanisms of the operating system to ensure the network integrity and privacy. <p>It is critical to define/maintain the network infrastructure, system administration, and control user experience of the Department information systems.</p>
Active Directory Domain	A single security boundary of a Windows-based computer network. There are multiple domains; they can span more than one physical location. On a standalone workstation, a domain is a computer itself. Every domain has its own security policies and security relationships with other domains. When multiple domains are connected by trust relationships and share a common schema, configuration, and global catalog, they constitute a domain tree. Multiple domain trees can be connected to create a forest.
Active Directory Group	A Windows group that simplifies security by allowing access rights to be granted to a group of people rather than individuals.
Application	A computer-based information system; supports a specific business function of the Department. An application includes both manual and computerized procedures for source transaction origination, data processing, record keeping, and report preparation.
Authentication	A process to validate credentials for claiming a digital identity. (Source: Rule 74-5.001, F.A.C.)
ATMS	Advanced Traffic Management Systems. ATMS deployment along arterials within Broward and Palm Beach County includes the city of Boca Raton.

Term	Description
Broward County Advanced ITS	A combination of arterial DMS, highway advisory radio (HAR), road weather information systems (RWIS) and a wireless redundant communications system (Voice over IP).
Broward RTMC	Broward Regional Transportation Management located at Florida Department of Transportation District Four.
Broward Phases I and II	This phase took place in 2006-2007. This portion of the Broward ITS deployment included Palm Beach TMC construction, northern counties satellite control room design, and the development of detailed design as requests for proposals for Palm Beach and northern county deployments. .
Broward Phase II	This phase took place in 2007. This portion of the Broward ITS deployment included development and execution of memorandums of understanding for sharing fiber with local agencies as part of Palm Beach and Northern Counties ITS, and the northern counties satellite control room installation. .
Browser	A computer program or a software application allowing a user Web access and display of documents.
Change Management	A method to monitoring and controlling change within the project.
File Transfer Protocol (FTP)	A protocol commonly used in the moving files over a network or the Internet without a using a web browser.
511/FLATIS	Florida 511 is the Florida DOT telephone traffic information system. 511 is part of Florida's Advanced Traveler Information System (FLATIS) program that is operated under the SunGuide Software.
Hypertext Markup Language (HTML)	A primary coding language to create web pages and parts of web applications; HTML code – for a browser to produce the final appearance of a web page or web application.
Hypertext Transport Protocol (HTTP)	A protocol to move files across a network, primarily HTML; intended to be viewed/interpreted by a browser.
I-595	This portion of the ITS and new express/toll lanes along I-595; to be designed, constructed, and managed by I-595 Express LLC, in a public-private partnership with the FDOT for a 35-year period.
I-75 Safety Project	This initiative along I-75 in Alligator Alley uses speed and smoke detectors, along with speed warning messages for motorists to drive safer, slower along this portion of I-75.
I-95 Express	<p>The opening of this toll express lane on I-95 occurred in three phases.</p> <p><i>Phase 1A</i> – open; runs northbound on I-95 from I-195/SR-112 to the Golden Glades area north of 151st Street in Miami-Dade County.</p> <p><i>Phase 1B</i> - opened for tolling in 2010; runs southbound on I-95 from south of Miami Gardens Drive/NW 186th Street to north of I-395/SR-836; this phase</p>

Term	Description
	<p>has extended the northbound express lanes to the south from north of I-195/SR 112 to I-395/SR-836.</p> <p><i>Phase II</i> – has extended the express lanes for a continuous facility between I-395/SR-836 in Miami-Dade County and Broward Boulevard in Broward County. With anticipated project funding, Phase II - under construction from September 2010; open to traffic in Spring 2012.</p>
Least Privilege	<p>The principle grants the minimum possible privileges to permit a legitimate action to enhance data protection and functionality from faults and malicious behavior.</p>
Multifactor Authentication	<p>An authentication using two or more different factors. Factors include something one knows (e.g., password or personal identification number), something one has (e.g., cryptographic identification device, token), or something one is (e.g., physical location, biometric). (Source: Rule 74-5.001, F.A.C.)</p>
Northern Three Counties	<p>These counties include Martin, St Lucie, and Indian River.</p>
Northern Counties ITS Deployment	<p>This portion of the implementation of the northern counties ITS along I-95 in Martin, St Lucie, and Indian River counties – completed in 2010.</p>
Palm Beach ITS Deployment Phases A and B	<p>The Palm Beach County ITS deployment is divided into two phases along I-95: Phase A, south of PGA Boulevard, and Phase B to the north. As of 2010, the design is complete for Phase A, with 85% of the underground infrastructure constructed, and 30% of field devices installed. Scheduled completion for Phase A - September 2010, and February 2012 for Phase B.</p>
Remote Access	<p>Any access to an agency’s internal network through a network, device, or medium that is not controlled by the agency (such as the Internet, public phone line, wireless carriers, or other external connectivity). Remote access example: a virtual private network client connection (Source: Rule 71A-1.002, F.A.C.).</p>
Sanitizing	<p>Using a utility that provides a minimum of three passes of overwriting all addressable locations with a character, its complement, a random character and verifying. DOD 5220.22-M requirements accomplish this. This includes erasing data and/or reformatting magnetic tape media.</p>
TIMSO	<p>Traffic Incident Management Support Office, located in Fort Pierce.</p>
Virtual Private Network	<p>A communications network tunneled through another communications network. (Source: Rule 71A-1.002, F.A.C.)</p>
Web Application	<p>An application, hosted on a separate server and accessed via a Web Browser, vs. applications installed on a user's computer.</p>

Section 8.0 Maintenance

8.01 ITS Maintenance

8.01.00 ITS Maintenance Overview

The objective of maintenance services is to ensure continuous (24 x 7 x 365) system operation and functionality of all components of the D4 ITS system. The maintenance vendor will be evaluated periodically based on a system uptime matrix. The vendor will be required to perform new device and infrastructure installations as needed and requested by the DEPARTMENT, all system support, routine and periodic maintenance, and failed or destroyed component replacement.

The Vendor shall be on-call on a 24 x 7 x 365 basis to respond to emergency repair and/or replacement work, including but not limited to hurricane warning situations for both GPL and EL.

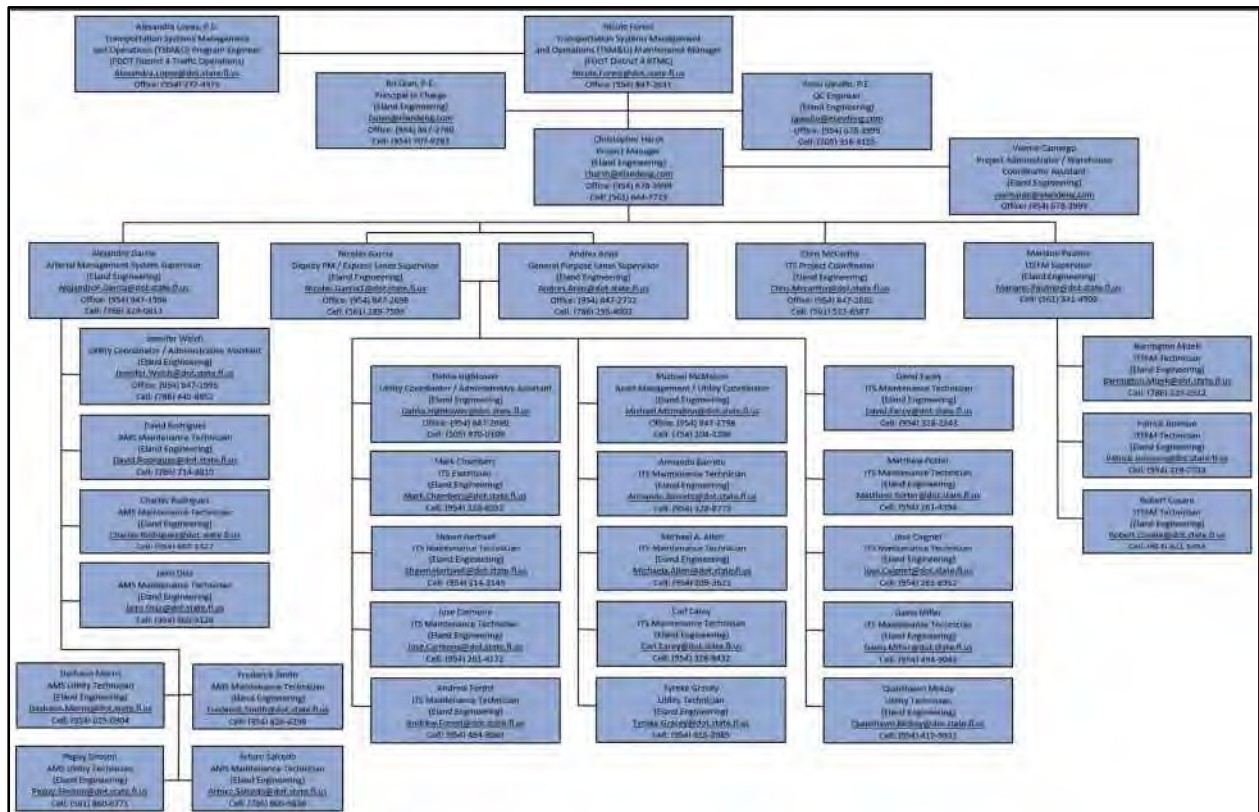
The VENDOR shall maintain at all times staffing levels required in the Contract Scope to ensure services under the contract are met. The staff assigned by the VENDOR shall be fully certified by the manufacturer on the deployed device model, qualified and trained to handle all required activities. Normal priority service calls are to be handled during normal business hours.

All labor, materials and incidentals required to execute and complete the maintenance requirements, include the following, but not limited to:

- Project Management / Contract Administration
- Inventory Control Documentation
- Device Documentation Management
- Diagnostics and Troubleshooting Work
- Technical Systems Support
- Routine and Periodic Maintenance
- Device Installations and Calibration
- Repairs and Parts Replacement
- Emergency Response Repair
- Software and Firmware Revision Maintenance
- Electrical Work: Inspection, Repairs, New Installation, and Grounding
- Fiber Optic Work: Inspection, Repairs, New Installation, Fusion Splicing,
- Terminations, OTDR / Fiber Testing
- Conduit Work: Repair, Replacement, Installation, Directional Boring

- Generators: Storage, Placement, Maintenance, Re-fueling
- Data and Communications Cabling
- Maintenance and Inventory Management System (MIMS)
- Fiber Management System: FiberTrak

8.01.01 ITS Maintenance Organizational Chart



8.01.02 Operation Schedule and Holidays

The VENDOR'S On site Project Management and Utility Services Staff shall be dedicated on this job at a minimum of 8 work hours per day, five days per week.

The on-site staff shall work in shifts to cover the daily rush hours between 8:00 AM to 5:00 PM. The Project Supervisor shall be responsible to arrange the transfer/transition of personnel between shifts.

The VENDOR'S primary maintenance staff shall maintain a weekend, evening and holiday on-call list.

The VENDOR'S primary maintenance staff shall be on call during all weekends and statutory State holiday hours. The State holidays are:

- New Year's Day
- Martin Luther King, Jr. Day
- Memorial Day
- Independence Day
- Labor Day
- Veterans Day
- Thanksgiving Day
- Day after Thanksgiving
- Christmas Day

8.02 Maintenance and Inventory Management System (MIMS)

8.02.00 MIMS Overview

The Maintenance and Inventory Management System (MIMS) is used to automate, centralize, and streamline the maintenance of ITS devices and respective SunGuide subsystems. MIMS was designed to facilitate the maximization of system uptime and to be the technological glue that ties together operations and maintenance staff.

MIMS automates the dispatch of technicians for preventive and responsive maintenance activities, track maintenance activities and parts inventory in near real time and, provide representative reports for maintenance activities and inventory management.

MIMS is compliant with SunGuide software. MIMS allows technicians to remotely communicate with SunGuide in near real time allowing the exchange of data related to trouble tickets, preventive maintenance tickets, GPS receiver position data (from the Technician's laptop) and parts inventory.

8.02.01 Trouble Tickets

Upon receiving notification of assignment to a MIMS ticket the assigned technicians will open the ticket in MIMS and log in accordingly. At no time shall a technician have a ticket in progress for more than one site location, except when multiple site location failures are diagnosed to be associated with the same issue under resolve.

Before a technician can resolve a Trouble Ticket, all inventory entries must be completed, the issue must be cleared with operations to confirm the device is functional from the operations center and a descriptive entry will be written that describes the corrective actions required to resolve the stated failure.

If at the physical site of the current trouble ticket when resolved and there is no additional trouble tickets assigned, the technician shall refer to the Preventive maintenance tickets and complete any PMs that are currently scheduled for that location before continuing to their next task unless task priority dictates otherwise.

When a trouble ticket is placed in any other state than resolved, any adjustments made to the inventory will be entered; a description will be written that describes the reason for not completing the repair, a description of the next action to be taken and the person to complete that action. There will also be included the projected date of completion of the next action to be taken and the projected completion date of resolving the open ticket.

8.02.02 Preventive Maintenance (PM) Tickets

Preventive Maintenance Tickets will be generated in MIMS 20 days prior to the Scheduled date of the assigned PM.

The technician assuming the responsibility of the PM shall not have any other MIMS tickets in a state of progress whether the primary or associated Technician.

Before a PM ticket is placed in the complete state, all inventory entries will be completed, a description of any anomalies will be documented and operational status will be confirmed with the operation center.

8.02.03 Project Report

Bi-WEEKLY REPORTS

The Vendor shall generate the weekly status reports utilizing the MIMS and present in the weekly project meeting. This report shall include detailed descriptions of all services performed and the results of testing conducted during the report period and shall be a collection of events, data, calculations, decisions, instructions, notifications, circumstances, and work performed each day. The weekly status report shall include but not be limited to the following information:

- All repair services information including the location, date and time of each failure;
- Description of failure or issue and impacts;

- Failure reporting time;
- Failure reporting source i.e. TMC operations or IT staff;
- Technician responding;
- Arrival time at device location;
- Repair completion time;
- Major or minor repair;
- Routine or non-routine repair;
- Actions taken (successful or otherwise);
- Parts used: type, model, serial and inventory control number;
- Action for replaced parts i.e. in-house repair, return to factory;
- MOT submittal and deployment information;
- General system status and/or potential issues;
- General notes;
- Preventive maintenance work details;
- Miscellaneous work details;
- Test results for work performed;
- And any other information as deemed necessary by the Department.

MONTHLY REPORTS

Provide a summary of all work performed by the VENDOR and the status of that work over a month period. The Monthly report shall include but not be limited to the following information:

- Monthly average ITS maintenance device availability for ITS subsystems e.g.
- CCTV cameras, DMS, VDS, RSS, RWIS, network devices, etc.;
- All repair services information including the location, date and time of each failure;
- Description of failure or issue and impacts;
- Failure reporting time;
- Failure reporting source i.e. TMC operations or IT staff;
- Technician responding;
- Ticket acknowledgement time;
- Arrival time at device location;
- Repair completion time;
- Major or minor repair;
- Routine or non-routine;
- Actions taken (successful or otherwise);
- Parts used: type, model, serial and inventory control number;
- Action for replaced parts i.e. in-house repair, return to factory;
- MOT submittal and deployment information;

- Photo documentation with date and time picture taken shown when requested by the Department;
- General system status and/or potential issues;
- General notes;
- Preventive maintenance work details;
- Miscellaneous work details;
- Special Projects;
- ITSFM updates;
- Inventory updates;
- Vandalism or theft activity updates;
- Vendor Staffing and personnel updates;
- Test results for work performed;
- And any other information as deemed necessary by the Department.

8.02.04 Inventory Control

The supervisor shall utilize the MIMS to create an inventory and to enter and track all ITS assets and parts.

The MIMS will allow a technician to view and access the ITS devices parts inventory.

Maintain and store the ITS equipment or spare parts, in District Four TSM&O RTMC or other location(s) approved by DEPARTMENT'S Project Manager.

Ensure the ITS equipment or spare parts are neatly and securely placed inside the shelf. No devices or parts shall be laid on the ground behind the video wall in the District Four TSM&O RTMC.

All spare parts or equipment not installed and operating shall be stored at the storage area dedicated to this project as approved by DEPARTMENT'S Project Manager.

All parts or equipment that has been brought back from a site after a service should be labeled with the Equipment information tag, providing the date that the service was performed, location, serial number of part installed, serial number of the part removed, model number, problem with the part with the reason for replacement and initials of the technician who performed the service.

All parts should be tested before sending in for repair or if discontinue before sending to be retired.

Label the major system components with DEPARTMENT approved barcode standard to provide automatic identification of inventory parts or equipment.

Maintain and inventory all equipment and tools. Ensure that all warranties remain valid on all equipment for the duration of the contract. Perform all the preventive work specified by the manufacturer within the periods specified by the manufacturer for all equipment. An approved vendor as per the equipment specification requirements shall calibrate all electronic maintenance and measurement equipment.

Maintain and have readily available an up to date inventory of all the equipment and/or parts. The inventory shall contain, but not be limited to, at a minimum:

- Manufacturer
- Model number
- Descriptive name
- Manufacturer serial number
- Current location and condition (new, used or damaged).
- Available for use
- Location of site, if applicable
- Date of purchase
- Date of retirement
- Warranty status if applicable

8.02.05 Diagnostic and Troubleshooting

At detection of a new ITS Device failure, a MIMS Trouble Ticket will be created in SunGuide by the TMC operator.

The Vendor shall verify an "unconfirmed" trouble ticket entry, i.e., changing the ticket status to "unresolved", thereby dispatching one or more technicians to resolve the failure.

The Vendor shall select a work priority when confirming a trouble ticket. The list of work priorities shall be based on D4 ITS Maintenance Contract requirements, including:

- Emergency
- Urgent
- Priority
- Route

Upon logging into MIMS, the technician will be presented with a list of troubled tickets to which they have been dispatched, and a current list of all "unresolved", "in-progress", "resolved" and "unresolvable" trouble tickets.

Upon receiving the trouble ticket in MIMS, identify the problem and, if possible, perform minor repairs to fix the problem while at the site.

Investigate the cause for the failure of equipment and determine if the failure is related to a storm event, materials or workmanship, supplied power, leased communications, warranty covered failures, electrical and/or mechanical components, hardware or software failures, etc. The diagnostic results shall define the type of repair needed to restore the device(s) to 100% functional status.

The technician shall request ownership of an "unresolved" trouble ticket under the dispatched ticket tab. Once a technician has been granted ownership of a ticket, the status will be set to "in-progress". The technician shall be able to set the status of the ticket to "resolved" or "unresolvable", depending on the outcome of their ticket.

The technician shall enter comments into the active ticket, and select the description of the current weather conditions from the drop-down list.

The technician shall create a trouble ticket via MIMS when other device failures have been detected while on site.

Update the service ticket in MIMS to describe in detail the completed activities performed / services or any additional service needed at the site. Notify TMC operator if the device will be down for extended period of time.

The Technician shall update the status of the trouble ticket to "Resolved" via the MIMS, when the service is completed.

The Technician shall update the status of the trouble ticket to "Unresolvable" via the Maintenance Application (MIMS), when the service cannot be completed.

The Vendor shall verify with the TMC operator that the device(s) are operational and the trouble ticket(s) can be closed. If confirmed, the operator will change the operational status and the Supervisor shall close the trouble ticket by setting the status to "closed" after verifying the ticket status.

8.02.06 Work Priority

The maintenance staff shall respond to maintenance requests according to the priority assigned below unless directed otherwise by the Department in an individual request.

Work Priority	Description	Response Time
EMERGENCY	Emergency failures are failures that represent an immediate risk to the public, failures that cause a closure of the public travel-ways, or failures to the Communications network that render the ITS System inoperable.	Upon notification of an Emergency System failure by the Department, the Vendor shall respond and complete repairs or eliminate the instant danger within four (4) hours of the reported incident.
URGENT	Urgent failures are failures results in more than one device being down or unusable that are required for the complete operation of the ITS System.	Upon notification of an Urgent System failure by the Department, the Vendor shall respond and complete repairs or eliminate the instant danger within twelve (12) hours of the reported incident.
PRIORITY	Priority failures are failures of individual cameras, sensors, signs, etc. that are required for the complete operation of the ITS System.	Upon notification of a Priority System failure by the Department, the Vendor shall respond and complete repairs within 24 hours of the reported incident. The notification may be verbally by telephone.
ROUTINE	Routine failures are failures that, while requiring attention, are not adversely affecting the immediate operation of the ITS System.	Upon notification of a Routine System failure by the Department, the Vendor shall respond and complete repairs within 7 days or a longer timeframe approved by the Department's Project Manager of the reported incident.

8.03 Preventive Maintenance

8.03.00 Preventive Maintenance

Typical scheduled preventive maintenance includes system inspection and other activities recommended by equipment manufacturers to be performed at periodic intervals.

Review and expand as necessary the existing checklist every 6 months. Create the initial routine maintenance checklist for any new device type.

The Checklist shall contain the weekday and date of the proposed PM activity and periodic interval of the activity that shall be performed during a calendar year which will be performed within the month the PM is due.

The VENDOR will encounter minor and/or major device deficiencies on some of the devices while performing the PM services described above.

The minor deficiencies, such as, a device cable being unplugged, tripped circuit breaker, loose connector, shall be corrected as part of the PM services.

Report any major deficiencies such as, a device site with damaged equipment exposed to weather, exposed to power cords and safety hazards etc. Such deficiencies shall be corrected using the procedures established under ITS maintenance contract.

8.03.01 Preventive Maintenance – MIMS

The Maintenance Supervisor shall create the preventive maintenance service ticket via the Supervisor Tab in MIMS. The status of the ticket will be shown as "active" in MIMS.

Upon logging into MIMS, the technician will be presented with a list of troubled tickets, to which they have been dispatched, and a current list of all "unresolved", "in-progress", "resolved" and "unresolvable" preventive maintenance tickets within a set, configured time-range.

MIMS will allow a technician to request ownership of an "active" preventive maintenance ticket within their dispatched ticket tab. When the Technician takes the ownership of the ticket, the status will be set to "in-progress" by the technician via MIMS.

The Technician shall update the status of the preventive maintenance ticket to "complete" via MIMS, when the service is completed.

The Technician shall update the status of the preventive maintenance ticket to "unable to complete" via the Maintenance and Inventory Mobile Application (MIMA), when the service cannot be completed.

The Supervisor shall close the preventive maintenance ticket by set the status to "closed" after verifying the ticket status.

The Supervisor shall void a cancelled preventive maintenance ticket by set the status to "void".

8.03.02 Preventive Maintenance Description per System

DMS

Preventative maintenance (PM) on DMS should be carried out per the manufacturer's specifications. All items listed on the PM checklist (Appendix I) for DMS should be followed and recorded. If an issue is discovered during the PM process, the technician will document, all procedures completed to troubleshoot the site and any additional work completed beyond the specific items included on the PM checklist. Technicians will replace all non-working DMS, revise all serial numbers in the Maintenance and Inventory Management System (MIMS) and update device log documentation.

Generators

Preventative maintenance (PM) on generators should be carried out per the manufacturer's specifications. All items listed on the PM checklist (Appendix I) for generators should be followed and recorded. If an issue is discovered during the PM process, the technician will document, on the preventative issues log, all procedures completed to troubleshoot the site and any additional work completed beyond the specific items included on the PM checklist.

Currently District Four has portable and permanent mounted generators. Each month, preventative maintenance will be performed on these devices and will be run for a period of thirty minutes. A semi-Annual oil change and coolant change should be done once a year.

CCTV

Preventative maintenance (PM) on CCTV should be carried out per the manufacturer's specifications. All items listed on the PM checklist (Appendix I) for CCTV should be followed and recorded. If an issue is discovered during the PM process, the technician will document, all procedures completed to troubleshoot the site and any additional work completed beyond the specific items included on the PM checklist. Technicians will replace all non-working cameras,

revise all serial numbers in the Maintenance and Inventory Management System (MIMS) and update device log documentation.

Master Hub

Preventative Maintenance on Hubs should be carried out on a monthly basis and shall include:

- Visually check for physical damage
- Test burglar alarm (if present)
- Inspect the generator connections
- Clean and dust exterior and interior of cabinet building
- Inspect A/C system, replace filters if required
- Inspect light bulbs and replace if require
- Inspect fire extinguishers and replenish if require
- Check and lubricate doors and locks
- Inspect all conduits for proper mounting
- Inspect all conduits for environmental damage
- Check for broken & damaged pull boxes
- Inspect conduit and base seals
- Check fan and thermostat operation
- Check UPS functionality by simulating a power failure at the disconnect
- Inspect and check electronic / communication equipment
- Inspect and check cables and connectors
- Vacuum and dust Equipment Racks
- Inspect lighting system
- Apply pest control
- Perform an earth ground measurement to ensure the overall resistance is equal to or less than 5 ohms

MVDS

Preventative maintenance (PM) on MVDS should be carried out per the manufacturer's specifications. All items listed on the PM checklist (Appendix I) for MVDS should be followed and recorded. If an issue is discovered during the PM process, the technician will document, all procedures completed to troubleshoot the site and any additional work completed beyond the specific items included on the PM checklist. Technicians will replace all non-working MVDS, revise all serial numbers in the Maintenance and Inventory Management System (MIMS) and update device log documentation.

When conducting the volume calibration, one technician will use a tally counter and another will monitor the data from the laptop computer. Each travel lane will be monitored for ten minutes or

50 vehicles and documented with vehicle counts and speeds. For each lane, the manual counts should be compared with MVDS counts. When performing speed calibration one technician will use a speed measurement device and another technician will monitor the software and record speed readings accordingly. The manual speeds will be used as the ground-truth, against the MVDS speed measurement. All volume and speed verification will be documented and submitted to the Department for review.

RWIS

Preventative maintenance (PM) on RWIS should be carried out per the manufacturer's specifications. All items listed on the PM checklist (Appendix I) for RWIS should be followed and recorded. If an issue is discovered during the PM process, the technician will document, all procedures completed to troubleshoot the site and any additional work completed beyond the specific items included on the PM checklist. Technicians will replace all non-working RWIS, revise all serial numbers in the Maintenance and Inventory Management System (MIMS) and update device log documentation.

Wireless Devices

The technician shall perform the following preventive maintenance procedures for the wireless devices, including but not limiting to, VoIP routers, access points, wireless data radios and etc.

Wireless Data Communications Equipment

1. Check all communication equipment for proper operation
2. Check cable connections
3. Inspect equipment for environmental damage
4. Clean and dust equipment

AVI (Low Maintenance Device)

1. Visually check for physical damage
2. Inspect cable and connector
3. Inspect all conduits for proper mounting

4. Check for broken & damaged pull boxes
5. Ensure any reader antenna radomes are kept clean, free of any foreign substances.

Preventive Maintenance – BlueTOAD

1. Visually check for physical damage
2. Inspect cable and connector
3. Inspect all conduits for proper mounting
4. Check for broken & damaged pull boxes

8.04 Hurricane Response Action Plan

8.04.00 Hurricane Response Action Plan

For the duration of hurricane season, whenever a storm warning or watch is issued for the Broward, Palm Beach, Miami-Dade, and/or Monroe County areas, the Maintenance Vendor will continuously monitor reports from the national weather service. Concurrently, all ITS field device sites and cabinets will be inspected and tested and the maintenance staff will perform a system test with FDOT approval from the TMC, to verify proper operations.

The Vendor shall be familiar with the Department's Emergency Response Plan (ERP), Strategic Hurricane Emergency Management Plan (SHEMP), and will work with the Department to provide the information respective to ITS maintenance prior to, during and post hurricane as called for in the ERP and SHEMP.

The Department will coordinate a meeting prior to a hurricane event to request a state of readiness. At this meeting the maintenance supervisor will provide a working status of all ITS field devices, with a photo log if needed, of device sites that required special lock downs. The supervisor will also submit an up-to-date contact list with phone numbers for all primary and secondary contacts.

PRE-STORM Generators

During or prior to the ERP pre-hurricane event meeting, the Vendor will run each generator for a duration of ½ hour under full load to assure proper performance. If any generators require repair, the Department will be notified within 1 hour of discovery to generate an emergency work order to authorize the Vendor to have the generator repaired.

Each generator's fuel and oil levels will be checked to assure they are full. The Department will have available a reserve of diesel fuel to maintain generator operation post-storm. The Vendor will have available 100 gallons of gasoline for the smaller gasoline generators.

The Vendor shall secure the refueling service for the permanent generators that have been deployed along the freeways within the project limit.

ITS System Devices

All ITS field device sites and cabinets will be inspected including securing sites and testing for proper operation (in conjunction with the TMC).

Spare Parts

The Vendor will submit the current inventory of spare ITS components to the Department. In order to comply with the Department's HRAP it is expected that a minimum of 10% spares of all ITS field components be in inventory prior to the storm. If the current inventory is less than

10%, The Vendor will request a work order be generated to authorize the purchase of the additional devices. Once authorized, the additional devices will be purchased as soon as possible.

Once The Vendor and the Department agree that preparations are complete as per this document and the Department HRAP with regards to ITS maintenance, The Vendor will continue to monitor all field devices on a regular basis until wind speed reaches 35MPH; at which time the Department and The Vendor will take shelter from the storm.

Post-Storm

Once the storm has passed and the wind speed is 35MPH or less, The Vendor will contact the Department to obtain a status report of the field devices. Concurrently, The Vendor's Supervisor will meet with the Department at the TMC as per the SHEMP to put together a strategy to bring down systems back on line.

ITS SYSTEM DEVICE RESTORATION

Generators

For Generators in Broward County, the Department has deployed the underground power distribution and backup system. Perform daily inspection and ensure the power backup systems are in good operation conditions.

Site Inspection

Another crew will conduct a thorough inspection of each site to ascertain any damage to the device, communications equipment, or structure and document the inspection in the Hurricane inspection report, attached, along with photo log of any damages or deficiencies discovered.

Reporting

At the conclusion of each day, an inspection report will be submitted to the Department to allow work orders to be generated in a timely manner in order to begin repairing devices identified deficient during the post Hurricane inspection.

The following will be implemented as soon as a declaration of a State of Local Emergency is declared and wind speed reaches 35MPH or higher:

- 1) Halt all maintenance and construction activities being performed under the maintenance contract.
- 2) Terminate immediately any maintenance-of-traffic activities in order to provide maximum roadway capacity.
- 3) All technicians shall be on stand-by for immediate deployment once the storm passes and wind speed falls below 35MPH.
- 4) Post-storm, ensure that all travel lanes are clear from DMS system objects that could become collateral debris and be hazardous to motorists. This may require the use of tow trucks, cranes, dump trucks, loaders and other miscellaneous machinery.
- 5) A complete survey of the ITS DMS system shall be performed to evaluate damage to signs, controller cabinets and communication lines (fiber optic and telephone). Sign and/or structure repairs will be prioritized based on how critical each sign location is and as directed by the Department.

6) Spare Cameras, Detector Stations and fully equipped Cabinets should be readily available for replacement. At least two (2) complete units should be properly stored and ready to install and operate.

7) Total loss of signs and structures shall require replacement as soon as possible and as per the direction of the Department.

8.05 Asset Management - Fiber Optics

8.05.00 Asset Management - Fiber Optics

The VENDOR shall be responsible for the operation and maintenance of the DEPARTMENT'S Geographic Information System (GIS) and relational database based fiber optic network management software using FiberTrak, which allows the users to access all the critical information related to their complete Outside Plans (OSP) Fiber Optic infrastructure. The information can be accessed at a work station and displayed as real world engineering maps with a level of detail including splicing diagrams, device specifications and bandwidth allocations. Department currently store the network information data base on the third Vendor's Fiber Trak secure servers and the information is accessed by authorized personnel through the internet.

The VENDOR shall have the necessary equipment and personnel capable of performing various types of fiber optic repair needed in the field including, but not limited to: mid-span fusion fiber splicing, fiber trunk splicing, OTDR testing, fiber enclosure /fiber distribution panel installations, and terminations.

The VENDOR shall have the capability to install both open trench and directional bored conduit for new installation and replacement of damaged conduit.

After completion of fiber related work, the Vendor shall update FiberTrak database for any changes.

8.06 Utility Coordination

8.06.00 Utility Coordination

The maintenance vendor shall become a member of the Florida Sunshine State One Call.

The utility technician shall be responsible for identifying the underground location and delineating and marking on the ground of existing utilities, per the requests from Sunshine State One Call, VENDOR Project Supervisor, or FDOT Project Manager or designee.

The utility locates shall include, but not limited to, fiber optic cables, power cables, composite cables that constitute DEPARTMENT ITS underground utilities. The utility technician shall also meet with Utility Locates Requesting Party as necessary in the field to supplement marking ITS utilities. Whenever available, the utility technician shall assist the ITS Maintenance technician and electrician in performing the installing, maintaining, and repairing ITS devices.

The utility technician shall document and photograph the work performed on all utility locating and daily activities.

The utility technician shall be familiar with DEPARTMENT'S Utility Accommodation Manual and familiar with Florida State Sunshine One Call policies and procedures.

The Utility Coordinator / Administrative Assistant will supporting the day to day business matters regarding to maintenance services and utility locate coordination.

The VENDOR shall fully cooperate with all utility owners during activities, but not limited to, construction, installation or repair associated with maintenance activities.

The VENDOR shall call Sunshine One-Call a minimum of forty eight (48) hours and a maximum of ninety six (96) hours before any excavation work.

The VENDOR shall be responsible for coordinating and meeting with all utility companies having overhead or underground facilities in proximity with the VENDOR installations. The VENDOR shall be responsible for determining and performing any needed sub-surface utility engineering (SUE) work.

8.07 Maintenance of Traffic (MOT)

8.07.00 Maintenance of Traffic (MOT)

Maintenance of Traffic (MOT) shall include the planning, furnishing, installing, maintaining, and removing of traffic control and safety devices.

The need for lane closures shall be on a case-by-case basis as requested by the Maintenance Supervisor. Any request for a planned lane closure shall be submitted to the DEPARTMENT two (2) weeks in advance of the proposed lane(s) closure.

The VENDOR will be given a notification list by the DEPARTMENT containing all contacts that shall be notified of the lane(s) closure by the VENDOR.

The VENDOR shall coordinate with District Four TSM&O RTMC Operations on all MOT activity. MOT shall be deployed and function in accordance with Standard Index Series 600 of the DEPARTMENT'S Roadway and Traffic Design Standards, current edition.

The VENDOR shall have at least one individual on its staff throughout the term of this CONTRACT certified by the American Traffic Safety Services Association (ATSSA) as a Worksite Traffic Supervisor.

8.08 Safety Rules & Regulations

8.08.00 Safety Rules & Regulations

The maintenance staff shall utilize proper safety measures to ensure the proper protection for persons and property at all times.

All equipment used shall be maintained in a safe and efficient manner in accordance with all local, state and federal laws, safety organizations, regulations and guidelines pertaining to providing the required services.

Follow all safety requirements outlined in the National Electric Safety Code (NESC), the Occupational Safety and Health Administration (OSHA), and any Standards or practices for safe installation or maintenance of equipment.

Notify the DEPARTMENT immediately after any injury incurred by person(s) working on duty.

At the conclusion of a workday, the maintenance personnel must leave the work area so that no safety hazard is present.

Ensure all devices installed are properly registered with Sunshine One-Call.

Maintain the safety required and providing safety equipment and procedures for the protection of employees and the public throughout the area(s) that the maintenance services being performed / provided by the maintenance staff.

8.09 Project Vehicles

8.09.00 Project Vehicles

BUCKET TRUCK

The Vendor shall provide a bucket truck capable of reaching 40 ft height exclusively for the use of this project. The 40 ft. bucket truck shall be stationed at designated parking space in front of District Four TSM&O RTMC

In addition, provide the availability of a bucket truck capable of reaching 60 ft within 24 hours of the request by the Department.

OTHER VEHICLES

The Contractor shall provide maintenance and inspection vehicles to ITS Project Supervisor, ITS maintenance technicians, electrician, and utility technician. The vehicles shall be stationed at designated parking space in front of District Four TSM&O RTMC.

At least one of the vehicles shall be cargo van type vehicle equipped with all-wheel drive (AWD) and a trailer hitch.

At least one of the vehicles shall be pickup truck equipped with all-wheel drive (AWD) and a trailer hitch.

In addition, the Contractor shall provide the availability of a van or trailer accustomed for conducting the fiber optic fusing splicing and other similar type of work inside the van or trailer, within 4 hours of the request of the DEPARTMENT'S Project Manager or designee.

The vehicle(s) shall have adequate towing and hauling capabilities to carry out the tasks specified in this document.

All vehicles shall be equipped with in-vehicle GPS tracking unit.

All Contractor vehicles will have at a minimum the following markings; SunGuide logo, Vendor Logo and any other safety messages required for vehicles stopping on limited access facilities to conform to all safety agency regulations.

8.10 Laptop Procedures

8.10.00 Laptop Procedures

Technician Laptops

All users of the laptops shall be familiar and comply with FDOT District 4 computer and network policies.

Technician laptops are equipped with GPS and shall be powered up and connected to the SunGuide Computer network and MIMS for the entire work period.

8.99 Definitions, Acronyms, and Abbreviations

8.99.00 Definitions, Acronyms, and Abbreviations

APL	Approved Product List
AMS	Arterial Management System
ANSI	American National Standards Institute
CCTV	Closed Circuit Television
ATTS	Arterial Travel Time Systems
AVI	Automatic Vehicle Identification
BlueTOAD	Bluetooth Travel-time Origination and Destination (ATTS)
DMS	Dynamic Message Sign
CODEC	Coder/ Decoder
COMM	An abbreviation for “communication(s)”

CLS	Camera Lowering System
DMS	Dynamic Message Sign
EL	Express Lanes
FMS	Freeway Management System
FDOT	Florida Department of Transportation
GPL	General Purpose Lanes
HAR	Highway Advisory Radio
HART	Highway Advisory Radio Transmitter
IEEE	Institute of Electrical and Electronics Engineers
IP	Internet Protocol
ITS	Intelligent Transportation System
LAN	Local Area Network
LED	Light Emitting Diodes
MFES	Managed Field Ethernet Switch
MIMS	Maintenance and Inventory Management
MOT	Maintenance of Traffic
MVDS	Microwave Vehicle Detection System
MUTCD	Manual on Uniform Traffic Control Devices
NEMA	National Electrical Manufacturers Association
NTCIP	National Transportation Communication for ITS Protocol
QPL	Qualified Product List

OTDR	Optical Time Domain Reflectometer
RS232	Recommended Standard – 232C (a standard serial interface)
RS422	Serial Data Communications
RS485	Multipoint Communications Standard
RTMC	Regional Transportation Management Center
RWIS	Road Weather Information Systems
SHEMP	Strategic Hurricane Emergency Management Plan
SOG	Standard Operation Guidelines
SOP	Standard Operating Procedures
TCP/IP	Transmission Control Protocol/Internet Protocol
TMC	Transportation Management Center
VLAN	Virtual Local Area Network
UPS	Uninterruptible Power Service
WGU	Wire Grounding Units



9.0 Emergency Response Plan

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Document History

Version #	Date	Author	Changes
1.0	05/08/2024	Dee McTague	Initial Draft
1.0	5/24/2024	Dee McTague	RD Comments

Action Plan Objectives

This plan aims to make reducing/relocating/restoring operations during a hurricane a safe and smooth transition. This plan details action trigger points during severe weather, procedures that must be in place, and how damage will be assessed after the hurricane has passed. This plan will be reviewed by June 1 of each year for updates and to maintain familiarity.

To keep this document easy to use, it will only provide a basic plan to follow before/during/after a hurricane. The Crisis Assessment Team is responsible for deciding on matters unique to the situation.

Crisis Assessment Team

The Crisis Assessment Team (CAT) member list will be updated before the start of hurricane season. The CAT is responsible for monitoring weather conditions (www.nhc.noaa.gov), calling meetings, assigning tasks, and making decisions.

Position	Name	Role
1	Ryan Drendel	Freeway Management System Engineer
2	Theodore Burdusi	FDOT TSM&O Information Technology Manager
3	Dee McTague	Consultant RTMC Project Manager
4	Denelia Edwards	Consultant IT Support Manager
5	Alexandra Lopez	TSM&O Resource Manager (delegate)
6	Andres Sanchez	TSM&O Incident Management Program Manager
7	Nicolas Garcia	Consultant ITS Maintenance Manager
8	Jose Luis Rojas	Consultant ITS Maintenance Manager
9	Chris Harsh	ITS General Consultant
10	Daniel Smith	TSM&O Arterial Program Manager
11	Aaron Rapp	Consultant IT Special Projects Coordinator

The decision-making process upon receiving an emergency notification is as follows:

- If the entire team is unavailable, a quorum is unnecessary for decision-making.
- If no FDOT member is available, others in the group have the authority to make decisions.
- If all members are not available because of proximity, time of day, or telephone service issues, available team members decide a course of action.
- A team member, if unavailable, will not appoint a backup contact unless CAT deems it necessary.

Trigger Points

The following sections are to be used as a timeline for completing the incident action plan starting before the beginning of hurricane season.

The Crisis Assessment Team will determine which tasks must be done and by whom.

Prior to Hurricane Season (May 1)

Assigned to:	Task:	Date	Initial:
Management			
	Update the Crisis Assessment Team list.		
	D4 EM SOP: Send FDOT District Four Emergency Management Specialist the following (if changed from the previous year): Appendix 7, Vital Records and Appendix 10, ITS Essential Information		
	Current ITS essential staff contact list (names, addresses, and telephone numbers)		
	Contact information for Road Ranger and Severe Incident Response Vehicle (SIRV) contracts (names, telephone numbers, e-mail addresses, and number of trucks) in preparation for emergency contracts		
	Obtain a current copy of FDOT D4 EM SOP.		
All			
	Review the Hurricane Emergency Response plan and note any needed revisions.		

Start of Hurricane Season (June 1)

Assigned to:	Task:	Date complete:	Initial:
Administration			
Erika	Update employee contact database (should be done in real-time).		
	E-mail staff to confirm all current information and include an alternate e-mail address for those who don't receive work e-mail outside the office.		
Erika	Confirm that the supply of bottled water at the RTMC is sufficient (minimum of 10 cases on hand).		
Maintenance			
Alexandra	Conduct district-wide generator test.		
	Confirm renewal of fuel contract.		
	Provide a current copy of the Maintenance Hurricane Plans.		
IT			
Ted	Review and provide a report with the readiness of the TIMSO relocation plan.		
Management			
Ryan/Alexandra	Request iVDS logins for EOCs (District, Broward, Palm Beach, Martin, St. Lucie, Indian River, and Statewide); <i>new logins will be created annually.</i>		
	Provide EOCs with iVDS logins.		
	Obtain a current copy of the Road/Bridge Closure Form.		

5-day Forecast Cone

- Identify available CAT Team members and assign a leader.
- If the 5-day forecast begins over the weekend, the CAT Team Leader will begin communications outside the office.
- Hold initial preparation meeting.

Assigned to:	Task:	Date complete:	Initial:
Administration			
Erika	Generate call chain from the employee contact database.		
	Confirm enough water on hand.		
	Send Everbridge reminders to all consultant staff.		
IT			
Ted	Test the FDOT emergency phone system.		
	Prepare for possible relocation to TIMSO.		
Maintenance			
Alexandra	Verify all field generators and field UPS are operational and online.		
	Check all field generators for fuel and refill anything less than 75%		
	Check the RTMC's generator fuel level.		
Management			
Ryan	Emergency response plan:		
	Review the post-storm plan (e.g., no communication, physically checking on staff) and general checklist.		
Dee	Send Approaching Storm e-mail to essential staff (Appendix 1)		

Dee	Determine what staff will comprise the skeleton and relief crews. Review/revise work schedules accordingly (Appendix 2).		
Andres	Road Rangers / Severe Incident Response Vehicles:		
	Review emergency plans with contractors.		
	Assure Road Rangers/SIRV have a plan for getting fuel post-storm (be prepared for cash-only systems).		
Alexandra	Incoming storm prep:		
	Ask BCTED about the status of the generator.		
	Confirm vehicles, teams, vests, and zones for post-storm.		
Alexandra/Ryan	D4 EM SOP: Send FDOT D4 EOC the following:		
	List of ITS CAT members (names, e-mail addresses, and primary/alternate phone numbers).		
	The list of staff scheduled to remain at the RTMC throughout the storm.		
	Confirm that FDOT ITS staff is included on the district essential staff list		
	Obtain District EOC contact information for reporting emergencies post-storm.		

3-day Forecast Cone

- Have a follow-up preparation meeting for the Crisis Assessment Team to assign additional tasks.
- Coordinate a SEFRTOC conference call to discuss plans with neighboring Transportation Management Centers (Appendix 3).

Assigned to:	Task:	Date complete:	Initial:
Administration	Employee contact:		
Erika	Confirm with all staff the address they will stay at during/after the storm, so we know where to check on them. Confirm they want to be checked on.		
	Generate an easy-to-read staff checklist for post-storm.		
Alexandra	Ask BCTED about plans for security guard during storm and/or providing a master key.		
Ted	Adjust Cyberlock settings as directed by CAT team		
	TIMSO Access to Operations Staff		
	Confirm flashlights are charged and ready to use		
Maintenance			
Alexandra	Fuel up all vehicles.		
	Conduct a pre-hurricane inspection of all field devices, ensuring everything is attached correctly, stored, and locked.		
	Confirm contacts for fuel backup trucks.		
	Verify security at FDOT operations yards.”		
	Broward		
	Palm Beach		
	Treasure Coast		
Management			
Dee	Send Staff Advisory e-mails (Appendix 4)		
Andres	Finalize the Road Ranger plan with the contractor.		

Alexandra	Confirm the status of the building generator with BCTED.		
Ted	Confirm readiness of TIMSO and EOC.		
Alexandra	Confirm vehicles, teams, and equipment for post-storm		

State Declares an Emergency

- Decide when to send home skeleton crew to prepare themselves and their homes.

Hurricane Warning (48 hours)

At the discretion of the Crisis Assessment Team or direction from FDOT District Four Headquarters

- Issue curfew passes, vests, and radios.
- Update Cyberlock keys.
- Send home non-critical staff.

Pre-storm (48 hours to landfall)

- Continue to monitor conditions.
- Participate in scheduled teleconferences (EOC, SEFRTOC, etc.)
- Monitor ITS device status.
- Report on roadway conditions as requested by the District Office, Central Office, SEOC
 - <http://www3.dot.state.fl.us/trafficinformation/> (FDOT Traffic Count site)

FDOT Shoulder Use for Emergency Evacuation SOP

- Refer to the D4 Emergency Management SharePoint site: <https://fdot.sharepoint.com/sites/D4-EXT-DMO/D4-EM>

During Storm

District 4 Road Rangers

Road Ranger service patrol trucks will remain on duty, 24/7, on the Interstates in Broward, Palm Beach, Martin, St. Lucie, and Indian River Counties until sustained winds exceed 35mph and/or the Department / FHP determines it to be unsafe for vehicles to remain on the roadways. The RTMC must be contacted for authorization before discontinuing services.

Road Rangers shall make resources available as directed by the Department / RTMC for all activities described herein to provide services during a hurricane evacuation or other emergency to assist with traffic maintenance requests. Responsibilities shall include keeping the evacuation routes clear of debris or disabled vehicles and keeping all lanes open, including emergency lanes.

Sustained winds over 35 miles per hour (or when FHP pulls off the road)

- Remove all vehicles from the road (Road Rangers, SIRV, maintenance, etc.).

D4 EM SOP: As needed or if requested.

- Storm-related information may be posted on Dynamic Message signs (DMS), Highway Advisory Radio (on Treasure Coast only), and the Florida 511 website.
 - Road/lane closures
 - Shelter information
 - Curfews
 - Etc.
- Monitor and report on conditions observed via CCTV Cameras.
- At the request of the D4 ECO, pan, tilt, and zoom CCTV to view roadway conditions.
- Report noteworthy information received during scheduled regional meetings (D4, D6, D1, and Florida's Turnpike).

Storm has Passed and Daylight

D4 EM SOP Post Hurricane Damage Assessment

- Immediately following the storm, notify D4 ECO what ITS devices are not working to identify areas that will not be viewable via CCTV.
- At first light following the storm, RTMC staff will utilize CCTV to visually scan the state highway system, capture screenshots, and report damage to D4 ECO on the Road/Bridge Closure Form to assist in prioritizing recovery efforts (Appendix 6):
 - Open or closed, how many lanes and why.
 - Infrastructure Damage (signs, light poles, guardrail, etc.)
 - Debris
 - Sinkholes
 - Flooding
 - Etc.
- Updates are due at the District EOC for inclusion in 7 am and 3 pm (or as requested) reports; emergencies will be reported immediately.

Severe Incident Response Vehicle and Road Rangers

Road Ranger Service Patrol vehicles shall resume operations when FHP redeploys unless otherwise approved by the Department / RTMC.

Post-storm, when conditions are safe, Severe Incident Response Vehicle (SIRV) personnel will patrol the state highway system to assist in recovery:

- Before making any recovery effort (e.g., clearing debris from the roadway), picture documentation should be obtained, and conditions documented on the Road/Bridge Closure Form at the RTMC.

Management

- The skeleton crew and relief crew will commence communication.
- Relieve skeleton crew.
- Contact staff and open the office for their return.
- Survey damage in teams if needed.
- Schedule lessons learned meeting.

Pre-designated Locations

Operations during a hurricane will be accomplished from the Broward Regional Transportation Management Center (RTMC). Staff will be reduced to a skeleton crew during the hurricane.

The primary means of communication will be via day-to-day office tools (phones, computers, SMART SunGuide network, etc.).

Virtual-Emergency Operations Center

A virtual emergency operations center (EOC) will be established within the RTMC and used as the command post. The virtual EOC can be opened at any workstation to monitor hurricane conditions and manage staff.

Sites:

Florida Department of Emergency Management

<https://www.floridadisaster.org/dem/>

Broward County Emergency Management

<https://www.broward.org/Emergency/Pages/Default.aspx>

<https://www.broward.org/Hurricane/Pages/Default.aspx>

Palm Beach County Emergency Management

<https://discover.pbcgov.org/publicsafety/dem/Pages/default.aspx>

St. Lucie County Emergency Operations Center

<https://www.stlucieco.gov/departments-and-services/public-safety>

Martin County Emergency Management Agency

<https://www.martin.fl.us/EM>

Indian River County Emergency Services

<http://www.irces.com/>

Seminole Tribe of Florida Emergency Management

<http://www.stofemd.com/>

Florida Highway Patrol Traffic Page

<https://www.flhsmv.gov/florida-highway-patrol/traffic-incidents/>

NOAA Weather Radio

<http://www.nws.noaa.gov/nwr/>

National Weather Service

<http://www.weather.gov/>

National Hurricane Center

<http://www.nhc.noaa.gov/>

CBS Miami

<http://miami.cbslocal.com/>

Local 10 News

<http://www.local10.com/>

WSVN News

<http://www.wsvn.com/>

NBC 6 South Florida

<https://www.nbcmiami.com/>

Relocation of RTMC Operations

No one will stay at the Broward RTMC if the storm is a direct hit, coming in at a category 3 or higher, and/or if the Broward RTMC building sustains severe damage. **Refer to SOP Section 7.28 Emergency Procedures, Hurricane Impact Plan for IT shut-down procedures.**

Upon determination by the CAT Team that the Broward RTMC is closed due to a major emergency, staff will report to the Traffic Incident Management Support Office (TIMSO) **at 3601 Oleander Avenue, Florida DOT Maintenance Yard, Fort Pierce, St. Lucie County, Florida.** (Refer to Appendix 8 for directions and local resources) or the FDOT District Four Emergency Operations Center (EOC) **at 3400 West Commercial Boulevard, Fort Lauderdale,** as directed by FDOT Management.

RTMC operations will be run from either location using redundant SunGuide software that will support CCTV, DMS, and HAR. Operators will be assigned a console and monitors for CCTV control. The workstations will duplicate many functions and abilities of the Broward RTMC.

The following services/applications will not be available during relocation.

• Test FHP/Davie Fire Radio	• FDOTD4Traffic.com	• Arterial Cameras
• InService App	• MIMS (internal/external)	• ITS WAN connection
• InService Manager	• iVDS	• RTMC VPN
• InService MOT	• External API that BSO uses to view cameras	• SMTP Server
• InService SIRV	• TOQC	• Maxview
• SIRV App	• SELS/ELS	• SIEM
• 595express.info	• TrafficCast viewing of cameras	• WWED
	• SolarWinds Orion	

Major incidents should be reported to an operational TMC (Miami D6, Orlando D5 and/or Jacksonville D2). See Appendix 9 for FL511 contact information.

In the event of relocation, the CAT Team will identify staff and provide further guidance. The operations staff will be divided into shifts to provide 24-hour coverage. Each shift will include, at a minimum: 1 Operations Manager/Supervisor, 1- IT Administrator, and 2- TMC Operators.

In the event of relocation and at the direction of the CAT Team:

- Admin staff are responsible for ensuring there are enough pens, notepads, and other office supplies to last several days.
- Staff assigned to work at TIMSO or the EOC should bring an initial food and water supply for at least two days. There is a refrigerator and microwave at the D4 EOC for storing and preparing food.

NOTE: At this time there is no refrigerator or microwave available at the TIMSO facility; this will need to be addressed prior to any relocation occurring.

- Staff assigned to the TIMSO can expect to spend several days at the location, depending on the severity of the incident. They should pack enough clothing/personal items to last for several days or the duration of the assignment. There are three hotels in the downtown area and several other hotels along State Road 70 between Interstate 95 and Florida's Turnpike for overnight accommodations; however, alpha/bravo shifts and storm conditions may make it impossible to travel; therefore, staff should bring blankets and pillows for sleeping at the facility; cots or air mattresses will be available for use.

Note: At this time there are no cots or air mattresses available for staff to use.

Appendices

Appendix 1: Approaching Storm E-mail

You are receiving this e-mail because you are essential staff.

We are in the five-day cone of uncertainty for Hurricane _____. In preparation, we must identify staff willing to ride out the storm at the TMC and staff to provide relief once the storm has passed. The current forecast is for _____ in our area beginning _____. Please respond to the following list of questions ASAP!

1. If you are scheduled to work, are you ready and willing to ride out the storm at the RTMC if needed?
2. If you are not scheduled to work, should the need arise, do you volunteer to do so?
3. If you are scheduled to work (or volunteer), are you willing to adjust your schedule to arrive at the TMC at a time/day other than you usually do, should the forecast time require?
4. If you are not working during the storm, are you ready and willing to report to the RTMC and provide relief following the storm?
5. If relocation to TIMSO is necessary, are you ready, willing, and able to spend several days there?

We must have a minimum of two Operators, along with one or two managers and IT Staff, to ride out the storm so you will not be alone. Family cannot come to the TMC. If you plan on working, I suggest concentrating on personal preparedness immediately – fuel up vehicles, check your shutters, and ensure you have extra cash on hand. (If you are scheduled to work before the storm, you will be allowed time to complete personal preparedness.)

The relief crew must come to the RTMC at first daylight following the storm if it is safe. If you are not riding the storm out at the RTMC and have received this e-mail, you are part of the relief crew, and the Crisis Assessment Team will provide further instructions as the storm gets closer. If there is any reason you are unable to provide relief, please respond to this e-mail.

Again, you must respond to this ASAP so that planning can begin.

Appendix 2: Skeleton and Relief Crews

The skeleton crew will ride out the storm at the RTMC. The operator and IT positions will be identified/confirmed at the 5-day cone trigger point.

The group working during the storm will be responsible for monitoring the status of the BCTED generator. They will determine the zones that need to have a damage assessment completed. A CCTV assessment will be completed before the relief crew comes in. The skeleton crew will be ready to give assignments to the relief crew.

Position	Name	Role
1	Dee McTague	Consultant RTMC Project Manager
2		Assistant Consultant RTMC Manager
3	TBD	Operator
4	TBD	Operator
5	TBD	Operator
6		Consultant IT Staff
7		FDOT Representative

Skeleton Crew

The skeleton crew is responsible for bringing personal items. These items may include (but are not limited to): toothbrush, toothpaste, deodorant, shampoo, conditioner, shower soap, hairbrush, personal wipes, washcloth, bath towel, prescriptions, over-the-counter medicine, contact lens fluid, snacks, pillow, and blanket.

The relief crew (TB identified before the storm) will be required to report at first light once wind speeds are less than 35 mph and it is safe to do so. The relief crew will be given SERT passes at the last Crisis Assessment Team Meeting before the storm. If a curfew is implemented, the SERT pass will allow commuters to travel on the roadways. If they do not report immediately and do not contact the TMC via phone or other means, a team may be sent to check on them.

Position	Name	Role
1	Ryan Drendel	FDOT Freeway Management System Engineer
2		FDOT TSM&O Resource Manager
3	Daniel Smith	FDOT TSM&O Arterial Program Manager
4	Theodore Burdusi	FDOT TSM&O Information Technology Manager
5	Denelia Edwards	Consultant IT Support Manager
6	Aaron Rapp	Consultant IT Special Projects Coordinator
7	Kuanming Li	Consultant IT Network Support Engineer
8		Consultant RTMC Assistant Manager
9	Kifara Haul	Consultant RTMC Operations Supervisor
10	Rob Meisinger	Consultant RTMC Operations Supervisor
11		Consultant RTMC Operations Staff

Relief Crew

Appendix 3: SEFRTOC Coordination

The partners have agreed to the following meeting schedule to coordinate efforts during hurricane events. Each agency will contact its respective Public Information Office and EOC for critical updates before each scheduled call. Road Ranger project managers or delegates (D1, D4, D6, MDX, and Turnpike) will attend each teleconference.

Pre-Storm

E-mail to schedule the initial teleconference.

Storm Watch Teleconference:

- Toll suspensions
- EOC Activation
- Evacuation/Contra-Flow Plans
- Contact Information
- Status updates
- Staffing Levels
- Road Ranger Schedule/Level
- Traffic Operations Status (construction activities, signals)

Storm Warning Teleconference:

- Status Updates
- Agency Policy – Road Ranger cease operations
- Shelter Information
- Road Closures
- Diversion Routes

12 hours teleconference (should any area remain in a warning)

- Status Updates

Post-storm (within 12 hours or when Road Rangers are back in service)

Teleconference:

- Operations Level
- ITS Infrastructure
- Storm Damage
- Road Ranger Level
- Curfew
- Shelters
- Schedule
- Contact Information

All teleconferences will be scheduled for approximately 3 pm, depending upon conditions. All partners will provide a list of other planned conference calls during activations if known.

Appendix 4: Form Letter with Staff Advisories

The letter below is to be sent out by one of the members of the Crisis Assessment Team. It can be copied and pasted into an e-mail with the blanks filled in appropriately.

To all staff:

Please read the following carefully. As we are preparing for Hurricane ____ to make landfall, note the following:

- Upon being sent home, you are to check in with the TMC as soon as possible by calling ____ - ____ - _____. If you want someone to check on you or if you cannot contact the TMC, let your supervisor know before you go home.
- If you would like someone to check on you, and you do not plan on staying at your home, please send ____ the information about where you will be staying and an alternate telephone number to reach you.
- You will receive a call from the FDOT Ever Bridge Alert System (800-929-9276, SMS 89361, or 87844). You must respond, or the cycle will continue.
 - If you are a consultant and receive a notification you are unsure of, please get in touch with your supervisor immediately. Some notifications, like office closures, apply to FDOT staff and not necessarily to consultant staff.
- The TMC cannot be a shelter for you or your family. Only on-duty staff will be allowed to stay.
- Should the storm forecast change to a direct hit at category 3+, no one will stay at the TMC.
- The office will be reopened at first light after the storm has passed (look for good weather). You will be contacted.

If you have any questions about the storm or these procedures, contact one of the members of the Crisis Assessment Team: ____, ____, ____, ____, and _____. You will be notified by this team when the office is dismissing staff to go home and wait out the storm.

Appendix 5: Supply Shopping List

The FDOT TSM&O Resource Manager is only allowed to purchase supplies during a state-issued emergency – stock up whenever possible, so shopping is not a big issue during a storm.

The TMC Office Manager maintains a spreadsheet locally detailing severe weather supplies:

<N:\Administrative\Hurricane Related Information>

Items within the basic needs and batteries/flashlights categories are stored in the hurricane trunk, which is in the closet of the RTMC lounge. The remaining categories on the spreadsheet are to serve as a shopping list.

Appendix 6: ITS CCTV Post-Storm Damage Assessment

PROCEDURE

After a storm, hurricane, and/or other severe weather, the RTMC must determine whether an ITS device was damaged during the event. For this assessment, refer to the **CCTV Post-Storm Damage Assessment Sheet**.

Appendix 7: Vital Records

Broward TMC Building:

Broward County Traffic Engineering
2300 West Commercial Blvd
Fort Lauderdale, FL 333063

FDOT Contract #: AOA57 (JPA)

Broward County Point of Contact: Rasem Awwad P: 954-847-2602 E: rawwad@broward.org

Palm Beach TMC Building:

Palm Beach County Traffic Engineering
2300 N. Jog Rd
West Palm Beach, FL 33411

FDOT Contract #: API73 (JPA)

Palm Beach Point of Contact: Melissa Ackert P: 561-684-4030 E: MAckert@pbcgov.org

Traffic Incident Management Support Office (TIMSO)

FDOT
3601 Oleander Ave
Fort Pierce, FL 34982

Point of Contact: Alexandra Lopez P: 954-777-4376 E: alexandra.lopez@dot.state.fl.us

District Four ITS Field Devices:

FDOT Contact: Alexandra Lopez P: 954-777-4376 E: alexandra.lopez@dot.state.fl.us

ITS Maintenance Contractor:

Eland Engineering

Contract No. BE706 and BE805

Point of Contact: Chris Harsh: charsh@elandeng.com

Nick Garcia: Nicolas.Garcia1@dot.state.fl.us

Appendix 8: TIMSO Driving Directions and Local Resources**From Interstate 95**

Take Exit 126 for Midway Rd.

Take Midway Rd. East (CR 712) 4.5 mi.

Turn left on Oleander Ave 1.4 mi.

The destination will be on the left.

From Florida's Turnpike

Take exit 152 for SR-70 Ft. Pierce 0.3 mi.

Go east on SR 70 0.1 mi.

Make Right on Oleander Rd. 4.0 mi.

Proceed two miles to TIMSO on the right 2.0 mi.

Local Resources**Office Supplies**

The closet store to purchase office supplies is:

Staples, 2609 S. Federal Highway, Fort Pierce (772)466-0636

From the TIMSO, turn left on Oleander Avenue 1.0 mi.

Turn right on Edwards Road 0.5 mi.

Turn left on Federal Highway (U.S. 1) 0.7 mi

Staples is on the left side, in the Sabal Palm Plaza

Food/Water

There are several stores within three miles of the TIMSO where you can purchase food and water.

Publix, 2517 S. Federal Highway, in the Sabal Palm Plaza (772) 595-1700

From the TIMSO, turn left on Oleander Avenue 1.0 mi.

Turn right on Edwards Road 0.5 mi.

Turn left on Federal Highway (U.S. 1) 0.8 mi.

Publix is on the left side, in the Sabal Palm Plaza

Winn-Dixie, 4967 U.S. 1, in the Town South Plaza (772) 466-5308

From the TIMSO, turn right on Oleander Avenue 1.4 mi.

Turn left on Midway Road 0.5 mi.

Winn-Dixie is on the left side, in the Town South Plaza

7-Eleven (772) 464-2479

From the TIMSO, turn left on Oleander Avenue 1.1 mi.

7-Eleven is on the right side

Hotels

The closest hotels are:

Econo-Lodge, 3236 South U.S. 1, Fort Pierce (772) 461-2323

From the TIMSO, turn left on Oleander Avenue	1.1 mi.
Turn right on Edwards Road	0.5 mi.
Turn right on South U.S. 1	0.3 mi.

Econo-Lodge is on the left side.

Days Inn Fort Pierce Midtown, 3224 South U.S. 1, Fort Pierce (772) 465-7000

From the TIMSO, turn left on Oleander Avenue	1.1 mi.
Turn right on Edwards Road	0.5 mi.
Turn right on South U.S. 1	0.3 mi.

Days Inn is on the left side.

Other hotels are located along SR 70 near I-95 and the Turnpike. In an emergency, this area could be very congested. Here is a listing of the hotels in this area:

Holiday Inn Express, 7151 Okeechobee Road, Fort Pierce (772) 464-5000

From the TIMSO, turn left on Oleander Avenue	2.2 mi.
Turn left on SR 70/Virginia Avenue	4.3 mi.

Make a U-turn at State Road 713/South Kings Highway

Hampton Inn and Suites, 1985 Reynolds Dr., Fort Pierce (772) 828-4100

From the TIMSO, turn left on Oleander Avenue	2.2 mi.
Turn left on SR 70/Virginia Avenue	4.0 mi.
Turn left on Crossroads Parkway	476 ft.
Turn right on Reynolds Drive	

Comfort Suites, 6505 Metal Dr., Fort Pierce (772) 409-1420

From the TIMSO, turn left on Oleander Avenue	2.2 mi.
Turn left on SR 70/ Virginia Avenue	4.0 mi.
Turn left at Crossroads Parkway	0.1 mi.
Turn left at Reynolds Drive	0.2 mi.
Turn left on Metal Drive.	

Fairfield Inn and Suites, 6502 Metal Dr., Fort Pierce (772) 462-2900

From the TIMSO, turn left on Oleander Avenue	2.2 mi.
Turn left on SR 70/Virginia Avenue	4.0 mi.

Turn left at Crossroads Parkway	0.1 mi.
Turn left at Reynolds Drive	0.2 mi.
Turn left on Metal Drive.	

Must confirm information before relocation

Appendix 9: FL511 Contact Information

The FL511.com website has an Emergency Information Tab where emergency information can be posted. Examples of information that may be posted include road closures due to flooding or smoke and the distribution of information regarding shelter openings and closures due to evacuations in response to a hurricane or wildfire. Information must be developed and coordinated with the appropriate emergency operations center and the department's EOC.

The list of contacts below is available to add information to the Emergency Information page.

JoAnn Oerter	919-210-2162
IBI 24/7 Support Line	866-400-4983

Appendix 10: ITS Essential Information

By May 1 of each Year

Send FDOT District Four Emergency Management Specialist the following:

- Current ITS essential staff contact list with names, addresses, and telephone numbers (final list TBD before storm)

Name	Role	Mobile Number
Alexandra Lopez	TSM&O Program Manager	
Ryan Drendel	TSM&O FMS Engineer	
Daniel Smith	TSM&O Arterial Program Manager	
Theodore Burdusi	TSM&O IT Manager	
	TSM&O Resource Manager	
Andres Sanchez	TSM&O IM Program Manager	
Dee McTague	Consultant Project Manager	
Liana Blackwood	Consultant RTMC Operations Manager	
Shayla Khalilahmadi	Consultant Assistant RTMC Manager	
Leroy Soley	Consultant RTMC Operations Express Lanes Supervisor	
Jaahmal Riley	Consultant RTMC Operations Supervisor	
Kifara Haul	Consultant RTMC Operations Supervisor	
Rob Meisinger	Consultant RTMC Operations Supervisor	
Aaron Rapp	Consultant IT Special Projects Coordinator	
Denelia Edwards	Consultant IT Support Manager	
Kuanming Li	Consultant IT Network Support Engineer	
Nick Garcia	Consultant ITS Maintenance Managers	
Chris Harsh	ITS General Consultant	

(Essential Staff Worksheet dated 05/28/2024)

- Current contact information for Road Ranger and Severe Incident Response Vehicle (SIRV) contracts (names, telephone numbers, e-mail addresses, and how many trucks) in preparation for Emergency Contracts

Five days before landfall

Send FDOT District Four Emergency Coordination Officer (ECO) the following:

- List of ITS Crisis Assessment Team members (names, e-mail addresses, and primary and alternate telephone numbers)
- List of staff scheduled to remain at the RTMC throughout the storm (confirm that FDOT staff is included on Essential Staff list)

As needed or requested.

- Storm-related information may be posted on Dynamic Message signs (DMS), Highway Advisory Radio (HAR) and/or Florida 511 website and IVR by calling the RTMC at 954-847-2775
 - Road/lane closures
 - Shelter information
 - Curfews
 - Etc.
- RTMC will monitor and report on conditions observed via CCTV Cameras
- At the request of the D4 ECO, RTMC Operators will pan, tilt, and zoom CCTV to view conditions on roadways.
- RTMC will report noteworthy information received during scheduled regional meetings (D4, D6, D1, and Florida's Turnpike)

Post-Hurricane Damage Assessment

- Immediately following the storm, notify D4 ECO what ITS devices are not working to identify areas that will not be viewable via CCTV.
- At first light following the storm, RTMC staff will utilize CCTV to visually scan the state highway system, capture screenshots, and report damage to D4 ECO on Road/Bridge Closure Form (need most recent version) to assist in prioritizing recovery efforts:
 - Open or closed, how many lanes, and why.
 - Infrastructure Damage (signs, light poles, guardrail, etc.)
 - Debris
 - Sinkholes
 - Flooding
 - Etc.
- Updates are due at the District EOC for inclusion in 7 am and 3 pm reports (or as requested); emergencies will be reported immediately.

Severe Incident Response Vehicle and Road Rangers

Post-storm, when conditions are safe, Severe Incident Response Vehicle (SIRV) personnel will patrol the state highway system to assist in recovery:

- Before making any recovery effort (e.g., clearing debris from the roadway), picture documentation should be obtained, and conditions documented on the Road/Bridge Closure Form at the RTMC.



Transportation Systems Management & Operations

STANDARD OPERATING PROCEDURES

FDOT District 4 RTMC



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10.01 Arterial Management Program Overview

10.01.01 Control Room Management

This manual serves as the Standard Operating Procedures (SOP) for the Arterial Management Program (AMP) in FDOT District 4. Any issues not covered by this document should be addressed to the appropriate section of the FDOT District 4 RTMC SOP.

The Arterial Management Program (AMP) shall provide staff for the two existing TMCs within FDOT District 4. AMP staffing will not be required during weekends or Federal Holidays, unless determined by the FDOT Arterial Program Manager or designee. Both Broward AMP and Palm Beach AMP shall provide similar services and staffing levels.

FDOT District 4 AMP operates from the following locations:

- **Broward AMP – FDOT District 4 RTMC**
2300 West Commercial Blvd
Fort Lauderdale, FL 33309
Control Room: (954) 847-1976
- **Palm Beach AMP – Palm Beach County Vista ITS Center**
2300 North Jog Road
West Palm Beach, FL 33411
Control Room: (772) 742-8402

Staffing Levels

Broward AMP

The following applies to the FDOT D4 RTMC, unless otherwise specified by the FDOT Arterial Program Manager on a case-by-case or permanent basis:

- AMP shall be staffed with two RTMC Operators Monday through Friday from 6 AM to 6:30 PM.
- AMP shall be staffed with at least one AMP Engineer Monday through Friday from 7 AM to 6 PM.
- Outside AMP hours of operations, associated equipment and services may be operated and provided at the discretion of the RTMC Management, which operates 24/7/365.



Palm Beach AMP

The following applies to the Palm Beach County Vista ITS Center, unless otherwise specified by the FDOT Arterial Program Manager on a case-by-case or permanent basis:

- AMP shall be staffed with two RTMC Operators Monday through Friday from 7 AM to 7 PM.
- AMP shall be staffed with at least one AMP Engineer Monday through Friday from 7 AM to 6 PM.

For more information regarding RTMC rules and guidelines, please refer to *FDOT District 4 RTMC SOP Section 4.01 Control Room Management*.

10.01.02 Quality Control

Quality Control (QC) can be defined as the actions performed to ensure the desired level of quality of a product, service, or process. The goal of high quality is reached by careful planning, proper use of equipment, continued inspection, and corrective action as required. By assessing the quality errors which occur in the RTMC, there lies an opportunity to eliminate steps that do not add value and to improve the efficiency of those that do. The performance of each RTMC Operator is reviewed by RTMC Management on a monthly basis.

The QC process is an essential task of AMP Operations; errors which occur in day-to-day tasks need to be identified, collected, reviewed, addressed and corrected. In order to appropriately establish an effective quality control process, the RTMC has developed a process to ensure the quality of services and the information provided:

Identification

Error identification within the RTMC is separated into the following categories based on the overall impact to the RTMC's service level:

1. Data Entry

- Selecting the incorrect event type.
- Selecting the incorrect managing TMC.
- Selecting the wrong location.
- Selecting the incorrect event status.



- Failing to input vehicle description and tag (when information is available).
- Selecting the wrong lane blockage configuration.
- Failing to document any injuries and/or fatalities (when information is available).
- Failing to document whether the incident involved HAZMAT.
- Failing to document whether the incident involved a fire (not applicable to events originally input as "Vehicle Fire" events).
- Failing to document whether the incident involved a rolled-over vehicle (if applicable).
- Failing to input the corresponding FHP Incident Number (if applicable).
- Failing to document the notification, update, and/or final follow-up with partner agencies.
- Incorrectly or failing to attach a primary incident to a secondary incident and vice versa.
- Failing to make the incident active within 2 minutes of confirmation (for unconfirmed events only).
- Failing to document CCTV ID and/or preset (when information is available).
- Failing to document roadway, weather, and lighting conditions.
- Failure to notify applicable agencies and/or managers.
- Failing to include any relevant comments regarding the event.
- Failing to document infrastructure damage (when information is available).
- Failing to notify FDOT Maintenance (when applicable).
- Failing to clear all emergency responders before closing an event.
- Failing to notify media and follow-up (if applicable).
- Failing to notify PIO and follow-up (if applicable).

2. ADMS

- Failing to activate a message within 5 minutes of incident confirmation.
- Failing to verify the device is activated or deactivated.
- Selecting the wrong message.
- Selecting the wrong sign(s).
- Failing to post signs for an incident which requires signing within 5 minutes of the event becoming active; or failing to comment why the device was not active within the time allotted.
- Failing to utilize all applicable signs for an incident.
- Failing to update all applicable signs to reflect event changes.
- Failing to include applicable comments for an event.
- Failing to remove all applicable messages.



3. Email

- Failing to send out an email alert within 5 minutes of incident confirmation.
- Selecting the incorrect group and/or leaving a group out of an email.
- Sending out an incorrect message.
- Failing to send messages for an incident within five minutes after confirmation of incident.
- Failing to update email with any changes or additions.
- Failing to send cleared message.

4. FL 511

- Failing to send message to the FL 511 system within 5 minutes of incident confirmation.
- Failing to update FL 511 with current information and/or every 30 minutes throughout the incident duration.
- Failing to verify that the message is activated/deactivated on the FL 511 system.
- Failing to use floodgate for extended full closures, diversions, etc.
- Failing to remove floodgate.

5. Interagency Events

- Failing to document the other agency's event number.
- Failing to document the type of event that the other agency is monitoring.
- Failing to document the location description into the comments field.
- Failing to document the notifier's name.

All errors are up for discussion. If an RTMC Operator provides a comment in the event chronology to justify why standard procedures or actions were not adhered to, then those possible errors will not be issued. If any error is corrected within 2 minutes of initial action, then no error will be issued. Not all errors issued to RTMC Operators will be discussed.

Collection

During the collection phase, RTMC Management utilizes a variety of reports which are generated from the SunGuide system. There reports are generated and collected on a monthly basis. Overall, there are 25 reports which can be generated from the SunGuide system. Three are used during the QC process. The AMP currently collects data on incident with active travel lane blockages. These have been identified as the greatest event types which have a significant impact on traffic conditions. Operator compliance



will be evaluated, and feedback will be provided to each RTMC Operator to maintain proper performance. The following reports are used to aide in QC Management.

- Event Detail Chronology – detailed history of all incidents occurring in the specified time range.
- Event Response – response times and detailed priority level breakdown of all incidents occurring within the specified time range.
- DMS – detailed log of all messages displayed on the signs within a specified time range.

Review

During the review process, RTMC Management evaluates the previously indicated reports by assessing specific factors collected in each of the reports. All events documented by RTMC Operators shall be reviewed by management on a monthly basis, and an overview of all operator performance shall be conducted monthly.

- The Event Detail Chronology report analysis is an integral part of the QC process, where RTMC Management will review each aspect of an incident. This analysis allows the evaluator to clearly detect an error and correctly document them.
- The Event Response report shows how quickly the AMP responds to an event. By comparing the event type to the total event response time, the evaluator can determine whether the incident was managed in a correct and timely fashion.
- The DMS reports depict how well the signs were utilized to manage incidents. By evaluating the number of events and messages used, the evaluator can conclude whether the RTMC Operator is using the devices efficiently and effectively.

Data Collection

After the review is conducted, RTMC Management will input errors into an MS Excel Spreadsheet which provides the ability to enter, query, and report specific error trends. Operator compliance reports are generated on a monthly basis. The report lists the RTMC Operator(s), event number, date, error type, and comments for the reason of error. This report includes graphs and charts to visually depict error trends within the AMP.



Feedback

After the review is conducted, RTMC Management will distribute the operator compliance reports to each RTMC Operator. This report should be reviewed with each RTMC Operator and counseling shall be provided by management when necessary. This report is determined by a trend level, where once a trend has been detected, RTMC Management intervenes and provides a direct training solution to the error. In the event that an RTMC Operator does not improve performance, disciplinary action may be taken.

10.01.03 Aides and Binders

OVERVIEW

There are many useful aides and binders that help assist the RTMC Operators with their day-to-day activities. The following is a list of aides with information on their purpose and use.

AMP Operations Reference Guide

Located at each RTMC Operator console, there is a main directory which contains the following:

- SIRV Operator Schedule.
- FDOT Telephone Directory.
- County Telephone Directory – Broward and Palm Beach.
- Frequently Used Numbers.
- Exit number and state road number reference for all major roadways within Southeast Florida: Miami-Dade, Broward, and Palm Beach (including the Turnpike).
- ADMS locations with CCTV presets (when applicable).
- Map of FDOT District 4.
- Emergency Notification Procedure/Reference.
- Interagency Coordination Procedure.
- TMC Executive Notification Procedure.



Maps

Located at each RTMC Operator Console, there are a series of maps which detail the AMP coverage areas. These maps are separated by County.

10.02 Broward AMP Operations

10.02.01 Broward AMP Corridors

Broward AMP consists of several FDOT District 4 state roads that define the Arterial Management System (AMS) network with a deployment of Intelligent Transportation Systems (ITS) field devices.

The following state roads are currently monitored by dedicated RTMC Operators and AMP staff:

- SR 816 - Oakland Park Blvd: University Drive to US-1
- SR 838 - Sunrise Blvd: US-441 to US-1
- SR 842 - Broward Blvd: University Drive to US-1
- SR 818 - Griffin Road: University Drive to US-441
- SR 820 - Pines Blvd: Dykes Road to FL Turnpike
- SR 820 - Hollywood Blvd: FL Turnpike to US-1
- SR 824 - Pembroke Road: US-441 to US-1
- SR 858 - Hallandale Beach Blvd: US-441 to Three Islands Blvd
- SR 817 - University Drive: Miami-Dade County Line to Oakland Park Blvd
- SR 7 - US-441: Hallandale Beach Blvd to Commercial Blvd
- SR 5 - US-1: Miami-Dade County Line to Oakland Park Blvd

10.02.02 Broward AMP Shift Procedures

RTMC Operator Shift Start Up

Shift start-up procedures ensure that RTMC Operators are aware of existing traffic events, unexpected tasks to be completed during their shift, status of all equipment and systems, and any changes to AMP policies and procedures.

- Use designated consultant timeclock to clock-in upon arrival.
- If applicable, brief with RTMC Operator being relieved regarding any change in policy and active events.



- Proceed to log into all workstation computers at an available AMP console in the following order:
 - **Sidebar Video Wall (4 monitors along the top row):** This workstation computer is automatically signed in and displays a series of CCTV within AMP project limits.
 - **SMART SunGuide Network Computer (4 monitors along the bottom row):** This workstation computer is typically used to log all incidents currently monitored within AMP project limits using AMS SunGuide, verify email alerts, monitor the BlueTOAD speed map, create device-related and IT-related trouble tickets, and monitor other supplementary websites.
 - Log into the workstation computer using your personalized Windows account.
 - Click on AMS SunGuide icon to launch software.
 - Right-click anywhere on the SunGuide map to access the Event Management subsystem:
 - Hover mouse over the "Event List" option from the drop-down menu.
 - Add new events as detected and confirmed in real-time.
 - Monitor all active events and document 30-minute updates.
 - Click on the MS Outlook icon to access FDOT email.
 - Open BlueTOAD (<https://bluetoad.trafficcast.com>) and enter personalized login information.
 - Click on the "Speed Map" tab to open Broward coverage map:
 - Set "Refresh Interval" to 2 minutes.
 - Open the "Alarms" tab by right-clicking on the link to open in a separate tab and acknowledge alarms as received.
 - Open Google Maps (www.maps.google.com), select "Traffic" filter, and zoom in on the map to focus on AMP project limits.
 - Open Florida 511 (www.fl511.com) to monitor traffic information:
 - Click on the "Traffic Incidents" link and filter list to Broward County.
 - Click on the "Drawbridge Crossings" link and filter list to Broward County.
 - Verify that all AMP-related events are updated every 30 minutes.
 - Open Pulse Point (www.web.pulsepoint.org) to monitor information:
 - Click on the "Active Incidents" tab and focus on reports within AMP project limits.
 - Open Waze (www.waze.com) to monitor traffic information:



- Click on the "Live Map" link and focus the map on AMP project limits.
- You may also access other approved websites.

RTMC Operator Shift Close Out

The shut-down procedures herein ensure that RTMC Operators are aware of tasks to be completed at the end of their shift. In addition, this procedure will provide the necessary steps required should there be a severe event ongoing at the end of their shift.

- If applicable, brief the arriving RTMC Operator regarding any change in policy and active events.
- Verify active traffic events, applicable ADMS messages, and FL 511 information for accuracy.
- Update active events to reflect their current status.
- Log out of all computer applications and systems (SunGuide, BlueTOAD, etc.).
- Log off of all workstation computers (please do not shut down computers).
- Use timeclock to clock-out upon departure.

10.02.03 Broward AMP Software and Websites

The following systems and applications are at the disposal of the AMP staff to support their efforts in Active Arterial Management (AAM). The following policies should be applied when using these tools.

ATMS Infrastructure Preservation and Work Zone Monitoring

The Florida Department of Transportation (FDOT) has invested in ATMS infrastructure throughout the District and the preservation of this property is a priority for FDOT District 4. ATMS infrastructure includes miles of fiber optic cable, CCTV, ADMS, MVDS, Bluetooth Readers (BlueTOAD), PTMS, among many others. In order to preserve this infrastructure, a list of projects (with their locations) that can potentially damage ATMS Infrastructure will be provided by FDOT on a weekly basis. It is the responsibility of the RTMC Operators to be conscientious of these projects, their respective locations, monitor construction activities, as well as reporting any damage and the party responsible for the damage. In addition to monitoring for preservation purposes, it is important for the RTMC Operators to monitor project activity and the impacts on mobility. FDOT currently submits a weekly traffic report per county that includes information on all state roads (arterials and freeways). In addition, FDOT



will submit permit information and the Maintenance of Traffic (MOT) plans within the AMP corridors.

Proactive use of the CCTV system can assist in the protection of ATMS infrastructure while monitoring traffic conditions. The CCTV system is intended to ensure safety and mobility to the public and protect FDOT assets by preventing and detecting traffic incidents and infrastructure damages. If construction crews are detected in proximity of ATMS infrastructure along AMP corridors, RTMC Operators shall identify and record the time, date, and the name of the company or agency present on the field.

If network failure or damage of infrastructure is detected due to construction crews, the RTMC Operator shall position the camera overlooking the construction crew and their equipment to take a screen capture of this image while the contractor is present and proceed to notify RTMC Management immediately. This screen capture shall be emailed to the FDOT Arterial Operations Manager and RTMC Management with a description of the potential system failure or infrastructure damage, name of construction crew's company or agency, location, date and time of the event.

The CCTV system should only be used to identify incidents occurring within the defined operational area and it should not be used to monitoring outside its operational requirements. The RTMC Operator shall be aware that he/she is accountable for the operation of the CCTV system. Any use of the system that is frivolous or for private purposes or is inconsistent with the SOG is to be considered an act of misconduct.

Once the RTMC Operator has reported the network failure or damage of infrastructure done by a construction crew via email, the RTMC Operator shall cross-reference the weekly list of potential projects to identify if the work was an approved lane closure. The RTMC Operator will provide this information to RTMC Management and in turn, the AMS Maintenance Supervisor, RTMC IT Support Manager or designee, and FDOT Arterial Operations Manager. This information will be used by FDOT personnel to identify and locate the responsible party at fault.

It is the responsibility of the RTMC IT Support Manager or designee to follow the procedures indicated in the Troubleshooting section once notification has been received.

In 2016, FDOT deployed a statewide system to track all lane closure permits and associated contractor details. Although the Lane Closure Information System (LCIS) is still under development, some permit information may be available to the AMP staff for review. For more information on LCIS, please refer to the secured site: <https://lcis.dot.state.fl.us/>.



SunGuide Software

Both Broward AMP and Palm Beach AMP uses the SunGuide software system, the statewide ITS software platform, as the primary means of collecting, storing, and disseminating information about events on the arterial and freeway networks. SunGuide is a modular system comprised of several subsystems that are integrated to allow for event management, data collection, and field device control.

The main objectives of SunGuide are:

- Traffic Event and Incident Management.
- Dispatch Arterial Severe Incident Response Vehicle (SIRV) Operators when applicable.
- Reporting and Tracking Impacts on Roadways.
- Event Email Alert Notifications.
- Posting ADMS when applicable.
- Posting FL 511 Notifications.

RTMC Operators should refer to [SOP Section 4.04.01 SunGuide](#) for more information.

Administrators should refer to [SOP Section 7.02.03 SunGuide](#) for more information.

The following is a breakdown of the various subsystems that comprise the SunGuide software system.

- **AVLRR:** The Automated Vehicle Locator/Road Ranger subsystem is primarily used as a means to track Arterial SIRV Operator activity.
- **BlueTOAD:**
- **C2C:** The Center to Center (C2C) subsystem is currently used to communicate with the FL 511 and TrafficCast BlueTOAD systems. Both incident data and Floodgate recording files are sent via the C2C Module, as well as data collected by the BlueTOAD system. The C2C subsystem may also be used to share data between TMCs; however, the extent of this capability is not yet defined.
- **CCTV:** The Closed-Circuit Television subsystem allows for control of CCTV cameras on AMP corridors.
- **DMS:** The Dynamic Message Sign subsystem allows for control of the ADMS devices on AMP corridors.
- **EM:** The Event Manager subsystem controls the main graphic user interface for RTMC Operators to use SunGuide.



- **IDS:** The Incident Detection System subsystem coordinates systems for event/incident detection within SunGuide. This automated system compares real-time data to established thresholds to detect potential disruptions to traffic conditions.
- **MAS:** The Message Arbitration System subsystem organizes incident information to be posted on ADMS signs.
- **RCA:**
- **RISC:**
- **RS:** The Report System subsystem allows incident and device data to be retrieved using a variety of different filters and queries such as dates, times, and device types.
- **SAA:**
- **SAS:**
- **TSS:** The Transportation Sensor System subsystem collects and organizes data from vehicle detection sensors (such as MVDS, BlueTOAD, and PTMS devices) on AMP corridors.
- **TvT:** The Travel Time subsystem coordinates and calculates the creation of travel times which are posted on ADMS based on TSS data.
- **VS:** The Video Switching subsystem allows for control of CCTV video on AMP monitors through the V-Brick System. The VS subsystem is currently unavailable.

Closed Circuit Television

To increase real-time monitoring, surveillance, and firsthand incident detection directly from the TMC, FDOT District 4 AMP has installed several CCTV cameras throughout the AMP corridors. CCTV cameras are used for real-time traffic detection only and video feeds are NOT RECORDED.

As part of the day-to-day operational procedures, RTMC Operators are required to turn the CCTV cameras frequently for increased panoramic view and coverage of the roadway. Through the SunGuide interface, the CCTV vendor software allows RTMC Operators to also perform tours based on preset camera views. Presets are used to complement the RTMC Operator's physical and routine manipulation of the cameras.

Proactive use of CCTV cameras helps to improve the AMP's incident management productivity, dispatch, response times, and performance measures by providing early detection, incident verification, and increased visual coverage.

By using the SunGuide Camera Control and Video on Display, RTMC Operators can move a camera, check the operational status of the camera, store presets, and lock the camera preventing others from using the camera.



Video monitors in the TMC allow the operators to visually verify traffic incidents. CCTV cameras must be properly operated at all times to maintain agency performance and credibility. The public may be viewing still-frame images and video feeds from the media and/or internet on a regular basis. The following procedures shall be adhered to unless specific approval is granted by RTMC Management to alter.

When incidents have been verified via the monitors or when a report of an incident has been received, the RTMC Operators will determine what initial response is needed. After initial evaluation of the scene, the cameras will be used to monitor incident related congestion and lane blockage by incident responders. RTMC Operators may continue to control the cameras during the incident, and it may be necessary to zoom into the scene for more specific evaluation. If needed, RTMC Operators can block the camera via SunGuide to the FL 511 website and other external agencies.

Masks

Due to the proximity of AMP cameras to residential locations, camera "masks" should be placed over the camera feeds to protect civilian privacy. RTMC Operators should be mindful of these locations and report any new areas to be considered for censorship to RTMC Management. The vendor software or SunGuide should be used to create these masks where applicable.

Arterial Dynamic Message Signs

Motorists need to be informed of real-time incidents and confirmed lane blockage, such as crashes, disabled vehicles, and work zones so that they can consider alternate routes to avoid delays.

The messaging matrix is based on two main criteria: structure and content. It is critical to develop and use consistent messaging that will allow quicker recognition by passing motorists over time. Structure and content are based on what can be read by the lowest denominator, in this case, the motorist driving at the highest rate of speed. The message content must contain enough information that enables the motorist to make an informed decision, while still fitting on the sign.



Transportation Sensor Subsystem

FDOT District 4 AMP has deployed above ground roadway detectors. These detectors are strategically placed based on type and detection radius throughout the AMP corridors to detect incidents and variations in traffic conditions.

SunGuide allows RTMC Operators to view real-time average roadway speed and occupancy on the SunGuide Operator Map by translating data collected by the sensors into colored bands on the corresponding roadways. The operator may view the current traffic conditions for a specific link by double clicking on a link in the SunGuide Operator Map. The TSS Details panel will open and display the appropriate information for that particular device "link." The TSS Subsystem collects and stores this data and in conjunction with the TVT subsystem, provides travel time information.

The two types of devices deployed are as follows:

- Microwave Vehicle Detection Systems – MVDS
MVDS use constant microwaves to determine speed and occupancy within a programmed detection zone for up to eight lanes. Within the TSS Details panel for MVDS, the top number represents the "rolling average" and the bottom number represents the most recent value from the detector.
- Bluetooth Traffic Origin And Destination – BlueTOAD
BlueTOAD readers calculate the average speed off select Bluetooth-activated devices within vehicles. As a vehicle passes under one sensor and makes it to the next down the road, the BlueTOAD reader calculates the average travel time from the paired segment.

Websites

The AMP uses various websites to assist with day-to-day activities within the control room. Each of these sites provides useful information which enables the RTMC Operators to effectively manage their responsibilities. The following websites are utilized every day within the AMP:

IntraSMART

The IntraSMART website contains many resources and links to software applications that are useful to RTMC Operators. This website can only be accessed internally from the RTMC and designated areas.



- <https://intrasmart.smartsunguide.com/>

TrafficCast – BlueTOAD

The TrafficCast BlueTOAD website allows RTMC Operators to access traffic information collected by the BlueTOAD subsystem outside of SunGuide. It allows RTMC Operators to generate reports and monitor device functionality.

- <https://bluetoad.trafficcast.com/>

Pulse Point

The Pulse Point website contains a real-time list of incidents that require response from various local emergency responders. It allows RTMC Operators to scan the list for any active incident that may be impacting the AMP corridors.

- www.web.pulsepoint.org

Florida 511

The Florida 511 site is an essential resource of the AMP. By periodically checking this site, the RTMC Operators can verify current incident information posted to the site via the SunGuide Event Management System and check on live traffic alerts and information on the interstates surrounding the AMP corridors.

- <http://fl511.com>

Waze

The Waze site is another essential resource of the AMP which allows the RTMC Operators to check on live traffic alerts submitted by the public to investigate potential impacts on AMP corridors.

- <https://www.waze.com>

IVDS

The Internet Video Distribution System (IVDS) site allows AMP partner agencies to view active traffic events. Since this site mirrors the AMP event list, it is crucial that the quality of the data being presented is entered correctly and checked regularly. The RTMC Operator should ensure that dispatch times, comments, and general specifics associated with an event are completely accurate at all times.



- <https://ivds.smartsunguide.com>

Regional Integrated Transportation Information System (RITIS)

The Regional Integrated Transportation Information System (RITIS) website publishes traffic conditions and events similar to the SunGuide interface. The system reads real-time travel time information derived from Nokia HERE data from various probe vehicles along major roadways. Full utilization of the RITIS website is still under development.

- <https://ww.ritis.org>

Maintenance and Inventory Management System (MIMS)

The Maintenance and Inventory Management System (MIMS) application is used to automate, centralize and streamline the maintenance of ITS devices and respective AMP subsystems. MIMS was designed to facilitate the highest levels of system uptime and to be the liaison between Operations and Maintenance staff.

Upon detection of a new ITS device failure, a Trouble Ticket will be created through the MIMS application (<https://mims.smartsunguide.com>). A shortcut link to the MIMS application is available on the IntraSMART website under the MIMS tab. Click on the MIMS ITS link and proceed to log in using the login credentials provided by RTMC Management. Once logged in, click on the "Tasks" tab to view a list of current Trouble Tickets. If the affected ITS device is not listed, proceed to the bottom of the screen and click on the "Add New Ticket" button.

In the "Add New Ticket" screen, you will have the choice of selecting:

- Contract Group – always select the Broward AMS Maintenance group.
- Asset Filters – click on the "Add Asset(s)" button to expand the list of ITS devices.
- Asset(s) Selected – affected devices should be displayed after the selection has been made.
- Submitting Group – the Broward AMS Operations group will be pre-selected for RTMC Operators.
- Issue/Task Description – select the applicable failure/issue.
- Issue/Task Comment – describe the reported failure/issue.
- Estimated Time in Hours.
- Weather Conditions.
- Asset(s) Operational? – click on the checkbox if the reported issue will still allow you to utilize the device; do not click on the checkbox if the reported issue restricts you from utilizing the device.



Once all selections have been made, a Trouble Ticket shall be created, and an email notification will be sent to the maintenance group. Ownership of the Trouble Ticket will be transferred to the maintenance group for additional updates.

Voiding a Ticket

MIMS allows operations staff to void a trouble ticket if mistakes were made upon entry or a device becomes functional again. The creator of the ticket can void the ticket before it has been verified – when the ticket is still in the 'unconfirmed' state and has not yet been moved to the 'unresolved' state.

- Within the Unconfirmed Trouble Tickets list, the Void Ticket option will be available on the right-hand side of all Trouble Tickets the user has created.
- Selecting 'Void Ticket' will display the 'Void Trouble Ticket' panel.
- To void the relevant ticket, select an appropriate comment from the 'Status Change Description' drop down menu, add any additional comments within the 'Additional Comments' text box and select 'Void.'
- To close the 'Void Trouble Ticket' panel without voiding the ticket, select 'Cancel.'

ITS Field Device Damage

In the event a field device is hit by a vehicle or is damaged by other means, making the device inoperable, the RTMC Operator should notify AMS Maintenance immediately.

FDOT District 4 TSM&O ITS Service Portal

The FDOT District 4 TSM&O ITS Service Portal application is used to report any IT-related issues that may interfere with daily operations. The FDOT District 4 TSM&O ITS Service Portal tickets are submitted directly to the RTMC IT Support Manager or designee and are intended to be the liaison between Operations and IT staff.

A shortcut link to the FDOT District 4 TSM&O ITS Service Portal application is available on the IntraSMART website under the Apps tab. Upon detection of an IT-related issue (workstation computer failure, slow network speeds, etc.), the RTMC Operator should access the application and enter personalized login credentials to proceed. Once logged in, click on the "New Incident Ticket" tab to create a trouble ticket. If the affected device is not listed, proceed to the bottom of the screen and click on the "Create New Ticket" button.

In the "New Incident Ticket" screen, you will have the choice of selecting:



- Subject – provide a brief description of the reported failure/issue.
- Description – provide a detailed description of the reported failure/issue.
- Category – use the drop-down menu to select the type of failure/issue.
- Site – use the drop-down menu to select the office site where the failure/issue occurred.
- Department – use the drop-down menu to select the applicable Operations group.
- Attach files – upload any available files related to the failure/issue.

Once all selections have been saved, a trouble ticket will be created, and an email notification will be sent to the IT group.

SolarWinds

The SolarWinds network management software (NMS) was procured by FDOT to monitor ITS Device connectivity and network performance health. The software periodically (user definable) pings all network addresses to verify system communications are operational.

10.03 Palm Beach AMP Operations

10.03.01 Palm Beach AMP Corridors

Palm Beach AMP consists of several FDOT District 4 state roads and critical County roads that define the Arterial Management System (AMS) network with a deployment of Intelligent Transportation Systems (ITS) field devices. The following state roads are currently monitored by dedicated RTMC Operators and AMP staff:

- **SR 706 - Indiantown Road:** FL Turnpike to US-1
- **US-1 - A1A:** Indiantown Road to Martin County Line
- **SR 786 - PGA Blvd:** FL Turnpike to US-1
- **SR 850 - Northlake Blvd:** Military Trail to US-1
- **SR 809 - Military Trail:** Lake Worth Road to PGA Blvd
- **Palm Beach Lakes Blvd:** Okeechobee Blvd to US-1
- **SR 704 - Okeechobee Blvd:** Royal Palm Beach Blvd to Flagler Drive
- **Belvedere Road:** US-441 to US-1
- **SR 80 - Southern Blvd:** Seminole Pratt Whitney Road to Flagler Drive



- **SR 7 - US-441:** Lake Worth Road to Okeechobee Blvd
- **Jog Road:** Southern Blvd to Okeechobee Blvd
- **SR 5 - US-1:** Southern Blvd to Flagler Memorial Bridge
- **SR 808 - Glades Road:** US-441 to Jog Road
- **SR 7 - US-441:** Broward County Line to Clint Moore Road

10.03.02 Palm Beach AMP Shift Procedures

RTMC Operator Shift Start Up

- Use timeclock to clock in upon arrival.
- Proceed to log into the workstation computers at an available AMP console and password.
- On the SMART SunGuide network workstation computer:
 - Log into SunGuide and verify active traffic events for accuracy.
 - Open the pages from Google Chrome bookmarks to verify any pertinent events and monitor traffic conditions:
 - Google Maps (<https://www.google.com/maps>)
 - Open My Florida 511 website (<http://www.FL511.com>)
 - Open the FHP Website (<http://www.fhp.state.fl.us/traffic>)
 - Open Waze Map (www.waze.com)
- On the Palm Beach County workstation computer:
 - Log into Watchdog and VNC Viewer to view and control the two camera systems.
 - Log into ATMS.now using the provided username and password to verify traffic signal system health and run the Systems Health File.
 - Under the Device Uptime tab, select TSM&O ALL as the Flex Group, and click on Find Now to sort Traffic Signal Controllers by status.
 - Note any red or orange Controllers and document the number of current working controllers into spreadsheet.
 - Check all CCTV and BlueTOAD devices for operational status.

RTMC Operator Shift Close Out

The shut-down procedures herein ensure that RTMC Operators are aware of tasks to be completed at the end of their shift. In addition, this procedure will provide the necessary steps required should there be a severe event ongoing at the end of their shift.



- If applicable, brief the arriving RTMC Operator regarding any change in policy and active events.
- Log any active events, issues, and changes in policy into the Operator Log.
- Verify active traffic events, applicable ADMS messages, and FL 511 information for accuracy. Update active events to reflect their current status.
- Log out of all computer applications and systems (SunGuide, BlueTOAD, etc.).
- Log off of all workstation computers.
- Use time clock to clock-out upon departure.

Various Reports & Documents

RTMC Management may be tasked to complete various reports and documentation at the request of FDOT and county partners.

ATMS.now System Health

ATMS.now is advanced traffic signal management software held and maintained by both County Traffic Engineering Departments. Due to current access restrictions, Broward AMP staff cannot monitor the ATMS.now system. To aid the counties in monitoring their own system, and to manage the effects of system malfunctions to traffic conditions, RTMC Operators shall monitor and log information from the software daily. For more information on the ATMS.now software and procedures, please refer to **Appendix B – ATMS.now SOG**.

Signal Controller Field Alarms

- In Palm Beach, RTMC Operators shall log all critical field alarms that occur during their shift real-time within the Access Database TMC Operator Log and reported to Signal Retiming Engineer. Each alarm should be documented using the ID, signal location, date, time, Operator, alarm description, notified, action taken and comments.
- Critical Alarms are as follows:
 - Signals in flash (Orange Node)
 - Offline, Loss of Communication (Red Node)
 - Stuck Pedestrian Call Buttons (Magenta Node)
 - Malfunctioning detectors (Olive Node)



10.03.03 Palm Beach AMP Software and Websites

SunGuide Software

Effective February 2016, Palm Beach AMP transitioned to SunGuide software through a shared arrangement via remote access to Broward AMP's network. Although none of the ITS devices are connected to SunGuide, RTMC Operators document all incidents within AMP project limits in SunGuide's Event Management (EM) database.

FDOT D4 Palm Beach County Incident Log

Effective November 2016, Palm Beach AMP began using the FDOT D4 Palm Beach County Incident Log in addition to SunGuide software. This log is a Microsoft Access database intended to document all incidents in Palm Beach County (including areas outside of AMP project limits). All Palm Beach AMP staff utilize this log to track incident details and signal retiming activities. The data collected is incorporated into the automated dashboard report.

ITS Devices

RTMC Operators use vendor operations software for CCTV cameras, ADMS, MVDS, BlueTOAD and InSync to detect, monitor and disseminate incident information to the public.

Closed Circuit Television

To increase real-time monitoring, surveillance and firsthand incident detection directly from the TMC, Palm Beach County Traffic and FDOT have installed high tech Vicon Surveyor and Bosch CCTV cameras throughout the AMP corridors.

As part of the day-to-day operational procedures, RTMC Operators are required to turn the 68 AMP Network CCTV cameras frequently for increased panoramic view and coverage of the roadway. The Watchdog (23 cameras) and Bosch (44 cameras) Video Client CCTV control software allow Operators to also perform tours based on preset camera views. Presets are used to complement the Operator's physical and routine manipulation of the cameras.

Proactive use of CCTV cameras helps to improve the AMP's incident management productivity, dispatch, response times, and performance measures by providing early detection, incident verification, and increased visual coverage.



The following are all 67 of the CCTV deployed and utilized as part of the AMP with their associated County ID number, camera model, current & future IP addresses and device location:

Arterial Dynamic Message Signs

Motorists need to be informed of real-time incidents and confirmed lane blockage, such as crashes, disabled vehicles, and work zones so that they can consider alternate routes to avoid delays. Four ADMS were installed along the Southern Boulevard AMP corridor to disseminate information to motorists. Currently, AMP Signal Retiming Engineers are the primary users of the ADMS; however, utilization by RTMC Operators will be implemented in the future.

The messaging matrix is based on two main criteria: structure and content. It is critical to develop and use consistent messaging that will allow quicker recognition by passing motorists over time. Structure and content are based on what can be read by the lowest denominator, in this case, the motorist driving at the highest rate of speed.

The structure and content of the developed library matrix was based on using the ADMS for dual phase messaging. The message content must contain enough information that enables the motorist to make an informed decision, while still fitting on the sign.

The following are the four ADMS deployed and to be utilized as part of the AMP with their associated ID numbers, IP Address and locations:

Transportation Sensors

FDOT District 4 has deployed 24 above ground roadway detectors within the AMP Network and another 7 on Northlake Blvd. These detectors are strategically placed based on type and detection radius throughout the AMP Corridors to detect incidents and variations in traffic conditions.

Vendor software allows RTMC Operators to view real-time average roadway speed and occupancy on the GUI Map by translating data collected by the sensors into colored bands on the corresponding roadways. The operator may view the current traffic conditions for a specific link by clicking on a link in each GUI Map.

The devices deployed are as follows:



Microwave Vehicle Detection Sensors (MVDS)

MVDS use constant microwaves to determine speed and occupancy within a programmed detection zone for up to eight lanes. Within the TSS Details panel for MVDS, the top number represents the "rolling average" and the bottom number represents the most recent value from the detector.

The following are all of the MVDS deployed and utilized as part of the AMP with their associated ID numbers and locations:

BlueTOAD

BlueTOAD works off select Bluetooth activated devices within a vehicle traveling from one device's detection zone to another that are paired together. Currently, there are 43 BlueTOAD devices in Palm Beach County.

The following are all the BlueTOADs deployed and utilized as part of the AMP with their associated County ID numbers, locations and maintenance ownership responsibility. Note that 15 devices are currently hosted on the TrafficCast Server, and 28 devices are currently hosted on the Palm Beach County Server. The goal is to eventually host all on the same server, preferably on the Palm Beach County server.

InSync

InSync is an adaptive traffic control system that enables traffic signals to adapt to actual traffic demand, which works with existing traffic control cabinets and controllers.

Currently, InSync has been deployed on two corridor locations within Palm Beach AMP, including 11 devices in Downtown West Palm Beach and 13 devices on Northlake Blvd, totaling 24 devices.

TMC Video Wall

Control of the Palm Beach County Traffic Video Wall can be accessed by RTMC Operators via the Bosch Camera VNC Viewer System.

Websites



The AMP uses various websites to assist with day-to-day activities within the control room. Each of these sites provides useful information that enables the RTMC Operators to effectively manage their responsibilities. The following websites are utilized within the AMP:

FDOT District 4 TSM&O RTMC

The FDOT District 4 TSM&O RTMC main website contains many areas that are useful to the motoring public and participating agencies, such as real-time traffic information, useful information on road rangers, Traffic Incident Management (TIM) Teams, and Southeast Florida Regional TMC Operations Committee (SEFRTOC), and performance measures of the TMC.

- www.smartsunguide.com

TrafficCast – BlueTOAD

The BlueTOAD websites allows RTMC Operators to access traffic information collected by the BlueTOAD subsystem outside of SunGuide. It allows operators to generate reports, monitor device functionality, and create new content (nodes, pairs, OD studies, etc.). Also note that BlueTOAD system and data is critical for generating the "Travel Time Reliability Measures – AMP Network" Section 2 of the monthly Dashboard Report.

- TrafficCast BlueTOAD Server/Website <https://bluetoad.trafficcast.com/>
- Palm Beach County BlueTOAD Server IP Address: [172.25.20.51](https://bluetoad.trafficcast.com/) (Downtown WPB Units)

Note that the plan is to eventually have transfer all the TrafficCast BlueTOAD units over to the Palm Beach County Server.

ATMS.now

The ATMS.now advanced signal software is used by Palm Beach County to monitor and operate their extensive signal system from the TMC. The software allows Traffic Division staff to actively monitor all online signals' status and implement timing patterns remotely. A Memorandum of Understanding (MOU) has been developed to grant AMP staff varying levels of access to the software to aide County Traffic Division staff in monitoring the signal system. In March 2015, FDOT and various consultants developed a separate Standard Operating Guidelines (SOG) for ATMS.now. The ATMS.now SOG will be reviewed on an annual basis. For more information, please refer to Appendix B – ATMS.now SOG.

System Review



To ensure adequate functionality, it is the responsibility of all RTMC Operators to conduct a complete system review of all software and hardware at the start of their shift. Until the maintenance inventory database can be populated and fully developed, any system malfunction must be reported to RTMC Management and documented in the appropriate section of the Pass Down Log. RTMC Operators should note the date & time, system and/or device, error, notified personnel and any general comments.

If the malfunction(s) is a system wide issue, notify RTMC Management immediately and continue operations normally to the full extent possible.

10.04 Computer Applications and Systems

10.04.01 AMS SunGuide Software

Both Broward AMP and Palm Beach AMP uses the SunGuide software system, the statewide ITS software platform, as the primary means of collecting, storing, and disseminating information about events on the arterial and freeway networks. SunGuide is a modular system comprised of several subsystems that are integrated to allow for event management, data collection, and field device control.

The main objectives of SunGuide are:

- Traffic Event and Incident Management
- Dispatch Arterial Severe Incident Response Operators when applicable
- Reporting and Tracking Impacts on Roadways
- Event Email Alert Notifications
- Posting ADMS when applicable
- Posting FL 511 Notifications

RTMC Operators should refer to **SOP Section 4.0 – Operations** for more information.

Administrators should refer to **SOP Section 7.0 – IT** for more information.

The following is a breakdown of the various subsystems that comprise the SunGuide software system.

AVLRR

The Automated Vehicle Locator/Road Ranger subsystem is primarily used as a means to track Arterial SIRV Operator activity.

C2C

The Center to Center (C2C) subsystem is currently used to communicate with the FL 511 and TrafficCast BlueTOAD systems. Both incident data and Floodgate recording files are sent via the C2C Module, as well as data collected by the BlueTOAD system.

The C2C subsystem may also be used to share data between TMCs; however, the extent of this capability is not yet defined.

CCTV

The Closed Circuit Television subsystem allows for control of CCTV cameras on AMP corridors.



DMS

The Dynamic Message Sign subsystem allows for control of the ADMS devices on AMP corridors.

EM

The Event Manager subsystem controls the main graphic user interface for RTMC Operators to use SunGuide.

GUI Prefs

The Graphic User Interface Preferences subsystem collects data regarding each RTMC Operators' SunGuide display preferences.

HAR

The Highway Advisory Radio subsystem provides motorist with pertinent and current traveler information through their AM radios. The HAR subsystem is not available at this time.

IDS

The Incident Detection System subsystem coordinates systems for event/incident detection within SunGuide. This automated system compares real-time data to established thresholds to detect potential disruptions to traffic conditions.

MAS

The Message Arbitration System subsystem organizes incident information to be posted on ADMS signs.

RS

The Report System subsystem allows incident and device data to be retrieved using a variety of different filters and queries such as dates, times, and device types.

TSS

The Transportation Sensor System subsystem collects and organizes data from vehicle detection sensors (such as MVDS, BlueTOAD, and PTMS devices) on AMP corridors.

TVT

The Travel Time subsystem coordinates and calculates the creation of travel times which are posted on ADMS based on TSS data.

VS

The Video Switching subsystem allows for control of CCTV video on AMP monitors through the V-Brick System. The VS subsystem is currently unavailable.

VW

The Video Wall subsystem coordinates control of the TMC Video Wall inside the TMC control room.

10.04.02 VantageARGUS Software

The VantageARGUS software is available via the following website:

- <https://bluetoad.trafficcast.com>.

This website allows RTMC Operators to access traffic information collected by the BlueTOAD subsystem outside of SunGuide. It allows RTMC Operators to generate reports and monitor device functionality.



10.04.03 FDOT District 4 TSM&O ITS Service Portal

The FDOT District 4 TSM&O ITS Service Portal application is used to report any IT-related issues that may interfere with daily operations. The FDOT District 4 TSM&O ITS Service Portal tickets are submitted directly to the RTMC IT Support Manager or designee and are intended to be the liaison between Operations and IT staff.

A shortcut link to the FDOT District 4 TSM&O ITS Service Portal application is available on the IntraSMART website under the Apps tab. Upon detection of an IT-related issue (workstation computer failure, slow network speeds, etc.), the RTMC Operator should access the application and enter personalized login credentials to proceed. Once logged in, click on the “New Incident Ticket” tab to create a trouble ticket. If the affected device is not listed, proceed to the bottom of the screen and click on the “Create New Ticket” button.

In the “New Incident Ticket” screen, you will have the choice of selecting:

- Subject – provide a brief description of the reported failure/issue
- Description – provide a detailed description of the reported failure/issue
- Category – use the drop-down menu to select the type of failure/issue
- Site – use the drop-down menu to select the office site where the failure/issue occurred
- Department – use the drop-down menu to select the applicable Operations group
- Attach files – upload any available files related to the failure/issue

Once all selections have been saved, a trouble ticket will be created and an email notification will be sent to the IT group.

10.04.04 Maintenance and Inventory Management System (MIMS)

The Maintenance and Inventory Management System (MIMS) application is used to automate, centralize and streamline the maintenance of ITS devices and respective AMP subsystems. MIMS was designed to facilitate the highest levels of system uptime and to be the liaison between Operations and Maintenance staff.

Upon detection of a new ITS device failure, a Trouble Ticket will be created through the MIMS application (<https://mims.smartsunguide.com>). A shortcut link to the MIMS application is available on the IntraSMART website under the MIMS tab. Click on the MIMS ITS link and proceed to log in using the login credentials provided by RTMC Management. Once logged in, click on the “Tasks” tab to view a list of current Trouble Tickets. If the affected ITS device is not listed, proceed to the bottom of the screen and click on the “Add New Ticket” button.

In the “Add New Ticket” screen, you will have the choice of selecting:

- Contract Group – always select the Broward AMS Maintenance group
- Asset Filters – click on the “Add Asset(s)” button to expand the list of ITS devices



- Asset(s) Selected – affected devices should be displayed after the selection has been made
- Submitting Group – the Broward AMS Operations group will be pre-selected for RTMC Operators
- Issue/Task Description – select the applicable failure/issue
- Issue/Task Comment – describe the reported failure/issue
- Estimated Time in Hours
- Weather Conditions
- Asset(s) Operational? – click on the checkbox if the reported issue will still allow you to utilize the device; do not click on the checkbox if the reported issue restricts you from utilizing the device

Once all selections have been made, a Trouble Ticket shall be created and an email notification will be sent to the maintenance group. Ownership of the Trouble Ticket will be transferred to the maintenance group for additional updates.

Voiding a Ticket

MIMS allows operations staff to void a trouble ticket if mistakes were made upon entry or a device becomes functional again. The creator of the ticket can void the ticket before it has been verified – when the ticket is still in the ‘unconfirmed’ state and has not yet been moved to the ‘unresolved’ state.

- Within the Unconfirmed Trouble Tickets list, the Void Ticket option will be available on the right hand side of all Trouble Tickets the user has created.
- Selecting ‘Void Ticket’ will display the ‘Void Trouble Ticket’ panel.
- To void the relevant ticket, select an appropriate comment from the ‘Status Change Description’ drop down menu, add any additional comments within the ‘Additional Comments’ text box and select ‘Void.’
- To close the ‘Void Trouble Ticket’ panel without voiding the ticket, select ‘Cancel.’

ITS Field Device Damage

In the event a field device is hit by a vehicle or is damaged by other means, making the device inoperable, the RTMC Operator should notify AMS Maintenance immediately.

10.05 Event Detection, Evaluation, and Monitoring

10.05.01 Detection and Monitoring Plan

The following procedures ensure that the RTMC Operator is aware of traffic events, conditions, and device statuses. RTMC Operators are expected to remain at their workstations throughout the duration of their shift unless on break. During this time, RTMC Operators shall spend time monitoring the following computer applications and systems:



CCTVs

CCTV cameras are to be used to determine the details of traffic events along AMP corridors. In addition, they are a useful tool for detecting and verifying incidents and damage to the roadway. When monitoring CCTV camera feeds, care must be taken to comply with FDOT's Protection of Privacy Act.

The following are guidelines for CCTV traffic monitoring:

- For routine monitoring, use the predefined presets which have been identified as the ideal tour views.
- At least twice per shift, RTMC Operators are required to scan the complete coverage area for events/incidents.
- Whenever cameras are not being used for scanning, they should be returned to a relevant preset position.
- Look for the following visual clues indicating a traffic event:
 - Very light flow or no flow, at locations and times when heavy traffic is expected.
 - All of most vehicles changing lanes at a particular location.
 - Vehicles slowing or stopping at an unorthodox location.
 - Vehicles are unable to pass through a signalized intersection due to spillback caused by traffic congestion.
- Increase attention should be given to areas where queues typically build up, including bottlenecks, busy on ramps, and construction work zones.

ITS Field Device Security Monitoring

There are dozens of ITS field cabinets with thousands of dollars' worth of communications equipment along the AMP corridors monitored by the TMC. Additionally, copper wire thefts have been prevalent along FDOT right-of-way. Maintaining physical and electronic security is part of the ITS Devices' responsibilities to keep equipment operational at all times. If an intrusion or suspicious situation is detected, RTMC Operators will assist in the process to notify the appropriate staff and/or law enforcement to investigate.

If at any time suspicious activity is detected by CCTV, follow the proceeding steps:

1. Contact local police to respond.
2. Notify the AMS Maintenance Contractor and RTMC Management.
3. Continue monitoring until given the all clear by Maintenance, law enforcement, or a



supervisor.

4. Document on shift report and weekly reports, if applicable.

Fiber Cuts

Any time a series of multiple devices loses connectivity is generally indicative of a large power outage or a physical cut to the communication infrastructure. In the event of a sudden loss of connectivity to multiple devices in series occurs RTMC Operators should check for any power outages in the area using the FPL website (<http://www.fplmaps.com/>). If no outages are displayed, notify FDOT Maintenance immediately if connectivity is not reestablished after one hour.

Travel Time Subsystems (TTS)

All travel time subsystems are used to collect real-time traffic information, including speed, travel time, and occupancy. RTMC Operators should use the SunGuide Operator Map and programmed alarms to promote incident detection. RTMC Operators should look for the following signs of incidents:

- Sudden decrease in speed and/or occupancy.
- Rise in occupancy accompanied by a decline in speed.

All conditions and/or alarms should be verified via CCTV before logging any information into SunGuide.

TSS Alerts

SunGuide generates alarms based on established thresholds programmed for TSS devices to alert Operators of potential incidents. The TSS alarms are currently under beta-testing until validity of the alerts have been verified. Located on the right-hand side of the Event List in SunGuide, there is a section which is used for system alerts. When a threshold has been met, the system alerts section will display a blinking alert and emitting an audio sound. The system will list in chronological order from top to bottom, and how many minutes have lapsed since the initial detection.

When an alert is selected within the Alert Display, a pop-up window will appear. This pop-up window will contain the detected information and options to do the following:

- Create New Event



- Create Secondary Event
- Set Responder Arrival
- Dismiss as Already Detected
- Dismiss as False Alarm

Once an event has been handled with one of the above options, the event will be removed from the SunGuide system alerts section.

VantageARGUS Speed Map

Due to the density of TTS devices deployed along the AMP corridors, RTMC Operators will have the TrafficCast BlueTOAD speed map (<https://bluetoad.trafficcast.com>) open for better access to the speed pairs and reporting functionalities of this technology.

BlueTOAD Alerts in VantageARGUS

The VantageARGUS TrafficCast software generates alarms based on established thresholds programmed for BlueTOAD devices to alert Operators of potential incidents. Just as the SunGuide TSS alarms, a notification will be sent to the RTMC Operators when a threshold has been met (decreased speed or increased travel time). The BlueTOAD alerts will be sent via email and will need to be acknowledged under the Alarms section of the TrafficCast software.

Active Signal Timing Plan Adjustments

The ATMS.now signal software allows engineers to design and implement custom timing patterns in real-time. These plans can be used to accommodate increased traffic demands for a vast variety of events. While local responders are at the event scene to clear the event in an efficient and safe manner, engineers have the ability to remotely adjust adjacent traffic signals to balance out the decreased capacity induced by lane blockages.

RTMC Operators should notify RTMC Management and AMP Signal Retiming Engineer of all events for consideration for timing adjustments. It is up to the judgment of the AMP Signal Retiming Engineer whether or not a timing adjustment is necessary and/or beneficial to each situation. Only the AMP Signal Retiming Engineer shall have the ability to recommend BCTED to implement approved timing adjustments.

For Broward AMP events, Broward County Traffic Engineering Division (BCTED) must be notified via email for all Level 2 & Level 3 severity events. The following AMP Signal Retiming Engineers and BCTED staff must be included in the notifications:



- Vladimir Velmor: (954) 847-1991; vladimir.velasco@dot.state.fl.us
- Charlie Zhu: (954) 847-2724; czhu@broward.org
- Odane Samuels: (954) 847-2671; osamuels@broward.org

10.05.02 Event Evaluation

AMP Event Evaluation

The first step in managing an active traffic event (ATE) detected on the AMP corridors is to determine the severity of the event.

Personal Injury or Public Safety Concerns

The most critical thing to determine when evaluating event severity is whether there is personal injury or risk to public safety, so that the appropriate emergency agencies are advised. In practice, it is not always possible to thoroughly and accurately evaluate event severity. In the event that personal injuries or public risk are suspected but cannot be confirmed, proceed as if they had been confirmed, advising the emergency agencies that are contacted of any assumptions that have been reported to the TMC.

The following are indications to look for when evaluating the severity of an event:

Personal Injuries

When a vehicle appears to have been involved in a crash, assume there is a personal injury if:

- The vehicle has rolled over.
- An occupied vehicle is on fire.
- The passenger compartment is crushed or dented.
- A pedestrian or cyclist has been hit.
- A passenger has been thrown from the vehicle.
- A passenger is obviously bleeding.
- Any passengers have not left the vehicle, and one or more are not moving.
- Someone appears to be trying to help or move a passenger.

For an occupied vehicle which does not appear to have been in a crash, assume the incident is involving a medical emergency if:



- The vehicle pulls over or stops erratically and the driver appears to be in medical distress.

Risk to Public Safety

Consider any of the following on-street situations a risk to public safety.

- An individual in a dangerous position outside of a vehicle, such as:
 - Attempting to repair a vehicle in a travel lane.
 - An individual walking in the road (not crossing the street).
- A hazard to other road users:
 - A stopped vehicle or object in a travel lane.
 - A vehicle that is being operated in an unsafe manner.
 - A vehicle or roadside fire.
- Spills of hazardous materials:
 - Fluid leaked from a vehicle following an accident that could be considered hazardous.
 - If a tanker truck is leaking its contents, look for identification of the substance written on the vehicle. Refer to the AMP Operations Reference Guide located at each RTMC Operator console to identify the placard on the side of the truck.
- Other circumstances which pose an immediate risk to public safety.

Severity Levels

Some events will involve person injury, risk to the public safety or extensive lane blockage, and will warrant the assistance of multiple agencies, such as local police and fire and rescue. There are three classification levels used in the AMP. When assigning a severity level classification, it is important to take into consideration the total number of travel lanes at the location of the incident. (The SunGuide software automatically generates the Incident Severity depending on the impact to traffic or the total number of travel lanes affected.)

Level 1 – Minor

A Level 1 severity event is categorized as minor impact to a roadway. The AMP does not send email Incident Notification for Level 1 severity events. There is no need to alert RTMC Management of a Level 1 Incident. Examples are:

- A disabled vehicle located out of the travel lanes.
- An incident detected in travel lanes but is in the process of moving out of the roadway.
- An incident that is pre-planned (such as scheduled roadwork and special events).



- Reoccurring congestion.

Level 2 – Intermediate

A Level 2 severity event is categorized as impact to the traveled roadway which is estimated to be less than 2 hours with lane blockages, but not a full closure of the roadway. Examples are:

- Vehicle crash in a travel lane(s).
- An event involving injuries.

Level 3 - Major

A Level 3 severity event is categorized as impact to the traveled roadway which is estimated to be more than 2 hours and/or the roadway is fully closed in any single direction. The main distinction of a Level 3 event is the likeliness of significant area-wide congestion. Examples are:

- An event with a fatality.
- An event involving a HAZMAT spill.
- An event with full roadway blockage.

On many occasions the level of severity of an incident will escalate to the next level; however, incidents can never decrease in severity. In the event an RTMC Operator is unsure regarding the severity of an event, seek the judgment of RTMC Management.

Within SunGuide

Within SunGuide, an event's severity is computed automatically by the system and cannot be modified by an operator. Severity is determined by:

- Minor – lane blockage less than ½ hour.
- Intermediate – lane blockage between ½ hour and 2 hours.
- Major – lane blockage over 2 hours or a full closure.

Unique and Unusual Incidents

Unique or unusual events are defined as events which are not typical in characteristic to common incidents documented in the AMP. Due to the infrequency of these types of occurrences, it is of the utmost importance that the RTMC Operator notifies management immediately upon detection or being notified of an incident that falls under this scope. Examples are:

- Natural disaster.



- Terrorist activity.
- Suicide attempts.

Whether or not an event is determined after the evaluation to fit this guideline, two criteria should be involved: whether there is a personal injury and/or a public safety risk. In these instances, immediately contact the first available TMC Management Official and provide the following information:

- Date and time event was detected/reported and verified.
- Type of event.
- Location.
- Lane blockage.
- What is involved (vehicles, buildings, bridges, ships, trains).
- Emergency vehicles on scene.
- Estimation of event duration.
- Who was contacted and/or notified.
- External devices currently available and being used for the event.
 - Any CCTVs currently locked for this event should be unlocked.

After contacting management, the Operator may be asked to contact FDOT District 4 Public Information Office with the same information.

Following all pertinent notifications, the RTMC Operator shall input the event information into SunGuide or the Incident Management Database as an event type "Other." After the data has been entered, the next step is to obtain approval from the same manager to create a Level 3 Incident Email Alert Notification and a TMC Incident Executive Notification Email (to be completed by management). These notifications are intended to alert partnering agencies that a traffic event has occurred, and to give them the option to respond to the situation earlier than necessary.

Event Status Groups

There are six status groups in which the AMP categorizes events to. It is acceptable to change the status of an event as it progresses. The six status groups are:

Active (with travel lane blockage)

An active event with travel lane blockages is an event with lane blockage(s) that has been confirmed via CCTV or Arterial SIRV Operator. The RTMC Operator must have this confirmation from one of these sources before the event can be considered active.



Active (without travel lane blockage)

An active event without travel lane blockages is an event without lane blockage(s) that has been confirmed via CCTV or Arterial SIRV Operator. The RTMC Operator must have this confirmation from one of these sources before the event can be considered active.

Unconfirmed

An unconfirmed event is any event that has not been verified via CCTV or local responder. To avoid duplicate events reported in IVDS, all Interagency Coordination event types are to be categorized as unconfirmed. In addition, any event managed on roadways outside of the AMP project limits (listed as OTHER under the event location) are to be categorized as unconfirmed to avoid being reported in IVDS.

Unresolved

An unresolved event is one that the AMP has managed, but the vehicle remains. Once the vehicle is removed from the scene, its status should be changed to "closed." Abandoned vehicles are examples of unresolved events.

Closed

A closed event is one that the AMP has managed and all vehicles, including responders, have departed the scene. Once closed, the event cannot be accessed from the Event List window (SunGuide only).

Other

False Alarm

A false alarm event is one that the AMP attempted to locate, but was not found when notified by an outside source.

Void

A voided event is one that was created in error or the motorist did not require assistance.

Audit



An event in the audit status is currently being reviewed and/or amended to correct an error in the event details. This status is used primarily by management.

Secondary Events

A crash that occurs because of the congestion or distraction from a prior incident is referred to as a "secondary crash." An incident is considered secondary if it occurs upstream from the primary incident as is within the duration and queue of the primary incident. Examples include:

- Queue formation at the scene of the event.
- Driver distraction (rubbernecking).
- Emergency Vehicle maneuvers (vehicle placement).

Non-recurring congestion is the most common form of secondary event.

Proactive Action

To reduce the chance of secondary crashes, it is the responsibility of the incident response team on scene to direct traffic and removed obstructions from the area as efficiently and safely as possible. By clearing the roadway, the event will create less of a distraction to drivers.

Traveler information systems such as ADMS, 511, email and text alerts, and other websites help inform drivers of events, providing them with the opportunity to detour the affected area. It is the responsibility of the RTMC Operators to continually monitor the triggered traffic queues in all directions and provide regular updates for these systems.

Creating a Secondary Event

Secondary events of all kinds require their own event to be created and updated to reflect the appropriate information (i.e. crash vs congestion). Secondary Events should be linked to Primary Events using the appropriate fields.

In SunGuide only, the "Clone Event" option streamlines this process by making an exactly duplicate of the primary event.



10.06 Event Management

10.06.01 Incident Management Protocol

Due to the vast variety and severity of traffic incidents that may occur on the AMP corridors, it is impossible to provide strict procedures for each individual event. The following is a basic procedure to be used when managing a standard traffic incident. Please refer to these steps when managing traffic incidents.

Incident Management Protocol

Upon incident detection:

- Collect information from the notifying source or CCTV.
- Input the information into SunGuide.
- Upon verification of the incident, make the event Active within SunGuide if not already so.
- Enter the camera number and preset into the system (when applicable).
- Notify appropriate agencies.
 - Arterial SIRV Operator (when available).
 - Local emergency responders (when applicable).
 - AMP Signal Retiming Engineers.
 - FDOT D4's FMS, I-595 Express, and/or Florida Turnpike TMC if the event is reported on or near on/off ramps.
 - Local transit agencies (based on the severity of the lane blockage).
- Verify all information for accuracy.
- Generate Response Plan.
- Check ADMS, Email, and FL 511 (when applicable).
- Activate Response Plan.
- If necessary, notify County Engineering staff for timing adjustment consideration.
 - If timing changes are made, the RTMC Operator shall document the actions taken within the comments section of the event log.
- Update and confirm information and Response Plan to be consistent with real-time conditions.

Once lane blockage has been confirmed clear:

- Update information in SunGuide.
- Generate Response Plan.



- Check ADMS, Email, and FL 511 (when applicable).
- Terminate Response Plan.
- Update all previously notified agencies.
- Monitor secondary incidents/congestion.

*For more information regarding SunGuide input and Response Plans, please refer to [SOP Section 4.0 – Operations](#).

Data Entry

FDOT District 4 AMP currently uses different software for data entry purposes. AMP staff uses SunGuide (the statewide ITS software) as the primary means of storing and disseminating information about incidents on the arterial networks. Although Broward AMP has a direct connection established, Palm Beach AMP has remote access to the RTMC network to utilize the SunGuide software. In addition to SunGuide, Palm Beach AMP utilizes the FDOT D4 Palm Beach County Incident Log to document incident details and signal retiming activities for all incidents in Palm Beach County (including areas outside of AMP project limits). Through various input screens, information about incidents is entered by RTMC Operators. The following procedures should be used when inputting new and managing existing event entries.

SunGuide Data Entry Procedures

There are three guidelines with entering data into SunGuide: Input, Update, and Monitor:

- Input all traffic related events accurately and concisely.
- Update events as conditions change.
 - Notification, arrival, and departure of responders.
 - Lane blockage conditions.
 - Closure and termination of event.
- Monitor active events regularly and frequently.

To enter event information into SunGuide, the following information needs to be obtained:

- Event Type.
- Notifying Agency and Contact.
- Event Location.
- Lane Blockages.
- Event Conditions.
- Specific Attributes.
- Vehicle Information (when available).



Once an event has been detected and the preceding information has been obtained, being entering the data into SunGuide. The system utilizes primarily drop-down lists, sub forms, and check boxes which enable easy event data entry. Enter a new event using the following process:

- Located on the main screen, click the "Add Event." A new window will open where the following shall be input:
 - Event Type.
 - Notifying Agency.
 - Notifying Contact.
 - Status.
- After the preceding information is entered, click the "Create this Event" button. The Operator will be directed to the Event Detail window, which will contain the specifics of the event. Enter the details in the following order:
 - Event Location.
 - Lane Blockage.
 - Attributes (HAZMAT, Fire, Rollover).
 - Vehicle Involved (color, make, model, tag state and ID).
 - Primary/Secondary Events (if applicable).
 - Injuries (if applicable).
 - Weather Conditions.
 - Comments (Additional Event Details) – allow an Operator to record information that cannot be recorded elsewhere on the Event Details screen.
 - OPERATOR: Document all comments related to the event with this comment field.
 - MANAGER: RTMC Operators will document any Manager related comments or instructions within this field.
 - SIGNAL RETIMING: Document any signal timing adjustments conducted by AMP Engineers and/or County staff.
 - INFRASTRUCTURE DAMAGE: Any time there is roadway/infrastructure damage recorded in an event along with details of who was contacted, etc.
 - TRAFFIC SIGNAL OUTAGE: Any time traffic signals appear to have malfunctioned (signals are out, stuck in flash, etc.).
 - STREETLIGHTS OUTAGE: Any time a series of streetlights appear to be non-functioning.



- **AUDIT REQUEST:** Used only when system does not properly reflect actual data that can affect Performance Measure integrity due to system problems or other uncontrollable circumstances.
- After the preceding information is entered, click the "save" button. The Event Details window will refresh with all information logged.
- When applicable, the "Vehicles Dispatch" sub menu will be utilized to dispatch an available Arterial SIRV Operator.
- Update the Responder Table by clicking in the applicable agency row and status column. Make sure the times are accurate.
- If applicable, "Save, Get Response" to activate the Response Plan Generator for ADMS and Email Notification Alerts.
- Generate the appropriate devices by setting a radius, then select "Get New Suggestion." Click "Set as Response" once you determine the appropriate devices or defined plan.
- Response Plan Editor allows the operator to add, edit, remove devices, edit or remove email, add or remove FL 511, and add a message plan.
- Activate Plan will activate the Response Plan.
- Throughout the duration of the event, input additional event details in the Comments section.
- If any signal timing changes were implemented, log the details in the Comments section.
- Click the "Save Changes" button each time a new event is added.

It is imperative that events are continuously monitored and updated to reflect real-time conditions. When a notifying and/or responding agency informs the AMP of changes, the RTMC Operator is required to immediately update the information within SunGuide. This ensures the accuracy of the event data and ultimately the integrity of the system.

- To modify an event in SunGuide, simply click on the event located in the Event List Window.
- Make the necessary changes.
- Click the "Save" button each time you make a change.

FDOT D4 Palm Beach County Incident Log Data Entry Procedures

Like SunGuide, there are three guidelines with entering data into the FDOT D4 Palm Beach County Incident Log: Input, Update, and Monitor:

- Input all traffic related events accurately and concisely.
- Update events as conditions change.



- Notification, arrival, and departure of responders.
- Lane blockage conditions.
- Closure and termination of event.
- Monitor active events regularly and frequently.

To enter event information into the Access Database, the following information needs to be obtained:

- Access Database Incident # will generate automatically once an event is created.
- SunGuide Incident Number.
- Notifying AMP Engineers, Agencies and Contacts (via in person, phone call and/or email).
- Incident Begin Date (also Incident End Date when event is cleared).
- Incident Begin Time (also Incident End Time when event is cleared).
- Incident Type.
- Primary Roadway.
- Travel Direction.
- Secondary Roadway.
- Snap & Upload Screen Shot of Real Time Event.
- Number of Total Lanes.
- Number of Blocked Lanes.
- CCTV Number.
- Additional Blockage Comments.
- Signal Staff That Was Notified.
- Name of Person That Discovered the Event.
- Person That Documented the Event.
- Enter any Traffic Congestion Notes.
- Check the Box if Event is Located Within the AMP Network.

During the Event, the AMP Engineer must complete the Signal Timing Log section, as follows:

- ATMS ID
- Intersection Name
- Begin Time
- End Time
- Approach
- Movement
- Phase
- Total Lanes
- Blocked Lanes



- Incident Severity
- G/C (Before)
- G/C (After)
- Volume
- Signal Timing Recommendations

If signal timing changes are made in response to a particular traffic incident, enter the information in the comments section of SunGuide.

Once an event has been confirmed cleared, review the Event Detail screen to ensure all required and relevant information has been entered. Before closing an event, make certain all applicable agencies have been notified and documented correctly. By ensuring the Event Detail is complete, the user is enabling the data to be consistent and to accurately be reflected in the TMC's SunGuide Performance Measures.

- To change the status of an event or to close an event in SunGuide, simply click on the event located in the Event List Window.
- Change the Status located under Administrative Details to reflect the current position of the event – unconfirmed, active, closed, unresolved, false alarm, void.
- Review the event details. Make any necessary changes.
- Click the "Save" button.

The following are additional functions within SunGuide that the RTMC Operator will use on a daily basis:

Block CCTV Images

On some occasions, it is necessary to block a cameras' feed from public viewing. This feature becomes a vital feature of SunGuide when the incident involves injuries and the images are sensitive to the public. To block a camera:

- Click the "CCTV" button located on the top menu bar of the Event List Window. You will be directed to a new page which lists all of the AMP Cameras.
- Located the camera that is to be blocked.
- Click the "Block" button located to the right of the camera detail.

To unblock a camera:

- Click the "Block CCTV Images" button located on the top menu bar of the Event List Window. You will be directed to a new page which lists all of the AMP Cameras.
- Located the camera that is to be unblocked.



- Click the "Unblock" button located to the right of the camera detail.

Reports

Located on the top menu bar of the Event List Window, there is a Report feature which offers the RTMC Operator the ability to search and analyze event details and trends. Within the Report window, there are a series of filters that can be used to narrow the search parameters. There are seven categories of reports that make up a variety of report types:

- Connected Vehicle – currently not in use.
- Devices
- DMS, VSL, and Floodgates
- Event Management
- Performance Measures
- Traffic Detection
- Travel Times

There are many occasions where printing a hard copy report is required. To access a report, follow the proceeding steps:

- Click the "Reports" button located on the top menu bar of the Event List window. The user will be directed to a new page which lists all of the report types.
- Narrow the search parameters by setting filters, by the range of events, location, and event properties.
- After the filters are set, click the desired report type listed to the right of the filters.
- The user will be directed to a new window to view and/or print the report.

Audit

This section is used to modify event details. Some examples of event details that can be changed are Time Reported to the TMC, Notifying Agency/Contact, and Event Location.

Preferences

This portion of SunGuide allows the RTMC Operator to create page refresh preferences. The RTMC Operator can indicate the exact time the Event List is refreshed. In addition, the Operator can receive a warning on events that have exceeded the indicated time allowance.

*For more information on using SunGuide, please refer to [SOP Section 4.0 – Operations](#).

Changes in Incident Conditions



Once an event has been detected and entered into SunGuide, it warrants constant monitoring until it has cleared completely. Different types of event changes warrant different responses, including follow up phone call to partner agencies, event details modification, and approving and sending updated Incident information via FL 511, ADMS, and email alert notifications. Some examples of event changes are:

- Event clearance (when all debris, involved vehicles, and responders have cleared the scene).
- Changes in Location/Lane Blockage.
- Arrival of Responding Agencies.
- Increase in Event Severity.
- Change in event type (i.e. disabled vehicle to abandoned).

Follow these standard protocols when responding to event changes:

- Modify the event details within SunGuide.
- Update the ADMS Message using the Response Plan Generator, when applicable.
- Send updated Incident Email Alert Notification, when applicable.
- Notify all applicable responding/surrounding agencies including local police, fire/rescue, other TMCs, etc.

Some changes to traffic events are more significant to act upon immediately than others. Traffic events with the greatest threat to public safety should be addressed first, followed by this with the greatest effect and potential effect to traffic conditions.

Changes in Event Type

There will be times when an event type will need to be amended (i.e. Disabled Vehicle to Abandoned Vehicle). Follow the proceeding protocols when an event type requires revision:

- Disabled Vehicle to Abandoned Vehicle – After a motorist has left the scene of a Disabled Vehicle incident, the event type should be changed to "Abandoned Vehicle" until the motorist returns or the event is cleared.
 - Abandoned Vehicles Events over 72 hours in duration or posing an immediate threat to public safety should be reported to local law enforcement.
- Crash to Abandoned Vehicle – If a vehicle involved in a crash was left without a motorist there the crash event should be cloned and changed to "Abandoned Vehicle." Be sure to log this as a secondary event and tie it to the crash as the primary event.
- Debris on Roadway to Crash (and vice versa) – if a Debris on Roadway event causes a crash, the debris event should be cloned and the new event changed to a crash. Be sure



to link the two events together with the Debris event as the primary and the crash as the secondary.

- Mistaken Event Type – for any other reason the event type needs to be changed for any event, use the "Audit" feature of SunGuide.

10.06.02 Prioritizing Multiple Events

There may be times when multiple events will require the attention of one or more operators. Therefore, a need to prioritize activities and handle each task in turn exists. The below consideration and order will enable the RTMC Operator to prioritize multiple Active Traffic Events (ATE) and make the correct judgment on handling ongoing incidents.

There are five (5) main considerations when prioritizing traffic incidents:

- Personal injury and risk to the public.
- Severity of the Event (Level 1, Level 2, and Level 3).
- Proximity.
- Impact on traffic in any direction.
- Significance of incident changes.

The following priority scheme has been established for handling types of traffic management tasks in an order that is most consistent with the AMP objectives:

1. Access the degree of risk to public safety and advise emergency agencies.
 - Investigate detected and reported events promptly, and immediately assess whether the incident involves personal injury or public risk.
2. Report these to the appropriate emergency agency immediately.
 - Evaluate event severity.
 - Send messages using the appropriate systems for closures.
3. Detect and send messages for changes in event severity.
4. Detect and send messages for new lane blocking incidents and congestion.
5. Detect and send messages for significant changes to traffic incidents.



- Always place a cancellation call with the appropriate emergency agencies if an incident clears before emergency services arrive on scene.
6. Detect and send messages for any other traffic incidents and traffic event changes.

When two incidents are occurring simultaneously, the Operator shall sign for the geographically closest event first, unless the second event has a full roadway closure in close proximity to the AMP Corridors.

If signing for a Vehicle Alert or pre-messaging for a construction work zone, a current lane closure will take precedence. It is important to be aware of the priorities of the ADMS message in relation to what other messages are in the MAS queue to insure that the most relevant messages are displayed correctly.

If two events are occurring in the same location, the most severe incident will take precedent.

10.06.03 Roadwork Event Management

On many occasions, it will be necessary for AMP staff to manage active and anticipated construction work zones. Functions of AMP staff include displaying approved messages to ADMS, actively monitoring of roadwork via CCTV, monitoring traffic conditions using available traffic detection sensors, and coordination of implementing special traffic signal timing plans. There are generally three types of roadwork monitored and documented:

- Emergency Roadwork is unplanned work that requires physical repairs to roadway infrastructure such as the median, signs, traffic signals, etc.
- Scheduled Roadwork (as far as SunGuide can interpret) is all other detected roadwork along the AMP Project Limits. It includes everything from temporary lane closures for streetlight bulb replacement to indefinite closures for roadway construction projects.
- Smart Work Zones (SWZ) are special construction projects that are integrated with remote monitoring technology with or without data collections systems intended only for the duration of the construction. These SWZ may be outside current AMP Project Limits.

Procedures for proper Roadwork Event Management vary depending on how the event was detected or who provided notification; for general purposes however, the following guidelines should be followed:

Roadwork Event Management Protocol



Upon Detection:

- Create an active SunGuide event with all relevant information.
- Active ADMS (when applicable).
 - Post messages with the proper location and lane blockage information.
 - If a sign is located within the work zone limits, do not use it; only use signs that are located before the roadwork.
 - When there is an active traffic event beyond the roadwork, post all applicable sign(s) before the roadwork for the roadwork event, and the sign within the roadwork limits for the active traffic event.
 - If the active traffic event closes all lanes, priority should be given to the active traffic event over the roadwork.
 - If the active traffic event is located before the roadwork, sign for the active traffic event, rather than the roadwork, depending on the distance and significance of the active traffic event. Once the active traffic event clears, be sure to sign again for the roadwork incident.
 - If the active traffic event occurs within the roadwork incident, sign for the active traffic event, but include lane blockages created by the roadwork.
- FL 511 and Email Notifications.
 - Verify accuracy of the auto-generated FL 511 information.
 - Select the correct email group as recipient.
 - Confirm and send via the Response Plan Generator.
- Notify appropriate agencies.
 - AMP Signal Retiming Engineers.
 - FDOT D4 FMS, I-595 Express TMC, and/or Florida Turnpike TMC if the work zone is reported on or near on/off ramps.
- Monitor roadwork limits and update all incident information, ADMS, and FL 511 to reflect real-time conditions.
- Once the roadwork is cleared:
 - Blank all ADMS.
 - Update incident information within SunGuide.
 - Send message to the appropriate email group.
 - Remove FL 511 information.
 - Update notified agencies if applicable.
 - Close event.

Emergency and Scheduled Roadwork Monitoring



Due to the potential length of some roadwork events and the likelihood of varying lane blockage conditions without sufficient notification, the following procedures must be followed to ensure proper management of any and all roadwork incidents:

- At least once every 2 hours, RTMC Operators should visually inspect the full extent of the roadwork incident limits to confirm real-time conditions are up to date as well as to check for any secondary crashes/congestion around the limits.
- If changes have occurred since the last check, update the Incident Information, ADMS, and FL 511 accordingly.
- Continue monitoring the incident until it is completely cleared.

If the roadwork event is an expected long term (>1 day in duration) project with long term lane closures, the event should be left open within SunGuide. If the roadwork is long term but clears all obstructions (equipment, barricades, debris, etc.) by the end of the day from all roadways, shoulders, and sidewalks, the incident may be closed and reopened when blockages resume.

Smart Work Zone (SWZ) Monitoring

- Project Planning
 - AMP staff will be notified of the Smart Work Zones (SWZ) by the FDOT TSM&O Arterial Program Manager by email.
 - AMP staff shall review the scope of the work and generate a list of ITS devices available including the SWZ devices.
 - AMP staff shall create a project file in SharePoint collaboration site for each of the SWZ with the project details, timelines, effected area (area of influence) and contact information of the signal maintaining agencies concerned and the project contractor.
- Project Assessment and Design of SWZ Timing Plans
 - Assessment of operations that include traffic signal timing, development of SWZ Timing Plans with emphasis on critical movements and intersections within the area of influence.
 - Design SWZ Timing Plans and implementation schedule.
- RTMC Monitoring
 - CCTV monitoring for congestion and queues.
 - Arterial speeds, delays, travel times, and Travel Time Index (TTI) using BlueTOAD/RITIS/3rd party data.
 - Track secondary crashes/events (if any) in SunGuide.
 - Coordination with FDOT Construction and Safety offices.
 - Arterial Incident Management, where applicable.



- Project Reports
 - SWZ and Detour Rote Assessment (before and after).
 - Field reviews and modifications.
 - Generate SWZ project reports as requested by the FDOT TSM&O Arterial Program Manager using a combination of CCTV screenshots, RTMC Operator observations, and graphs with a brief summary of actions.

FL 511 Reporting

- RTMC Operators will need to update any long term construction on a daily basis, so that the statewide FL 511 website is updated within every 2-hour period.
- RTMC Operators may simply use the republish option – right click on map, EM, republish event from drop menu. RTMC Operators should be sure to send an alert when "taking over" an event from another operator or make an update to the incident chronology.
 - If no updates are made, then the update alert will be sent based on the last time stamp entered.

Documentation

It is required to document all roadwork event details within SunGuide. Details should include any mitigation efforts (ADMS messaging, traffic signal timing adjustments, etc.) details for all roadwork incidents.

10.06.04 Unresolved Events

Unresolved Events

Unresolved events can be defined as events that have been responded to and managed by the TMC, however, the vehicle(s) involved have since been moved (i.e., to the shoulder or median) so as to no longer effect traffic flow and/or pose as a risk to the public. Due to the limited incident responders available to patrol the AMP corridors, unresolved events are typically untracked. If future resources permit additional active patrol services, the following guidelines should be referenced when managing unresolved events:

Policy

It is important that each shift change the new RTMC Operator check on all unresolved incidents to confirm their current status. Using the saved camera and present information (when



applicable) should assist in this process. The following guidelines will assist the Operator with prioritizing all unresolved events while reviewing:

- Begin with the event types other than "Abandoned." These events need to be updated to reflect whether the vehicle has been abandoned or not. If the vehicle is not occupied, the event type should be changed to "Abandoned."
- After the non-abandoned vent types are updated, continue checking the unresolved events list in chronological order from oldest to newest.
- These events should be checked at least every hour during each shift, and before and after each break and lunch has been taken.
- All unresolved disabled vehicles and accidents must be removed or should be cloned to abandoned status within 6 hours.

It is the responsibility of the AMP to notify Local Police when an abandoned vehicle has been left on a roadway shoulder/median for more than 72 hours.

- Notification should not occur immediately, unless during a peak shift. If the 72-hour threshold occurs during a peak period, notify local police immediately following the peak period.
- Vehicles which have not been removed within 24 hours after notifying local police should be reported to RTMC Management.

Documentation

When an unresolved event has been updated, it is required to document all details in SunGuide. All Abandoned Vehicles reported to the local police should be included within the Shift Report.

10.06.05 Weather Events

Hurricane and Emergency Preparedness

The Hurricane Season for Florida runs from June through November. During any storm, heavy winds, rain, and storm surges may leave debris in the road. Precautions must be taken before, during, and after the storm to assure the safety of the traveling public and to provide the highest level of service possible. Depending on the nature of the storm, both Broward and Palm Beach operation centers may experience different impacts, and may need to adhere to their county-specific policy and procedures. RTMC Operators shall refer to the AMP Emergency Response Plan (updated annually, when necessary) for additional guidelines on how to handle



various emergency situations that may arise during the operational period. For more information, please refer to [SOP Section 9.0 – ERP](#).

Since an emergency such as a hurricane shall have a regional wide effect on traffic conditions, much of the public notification responsibilities associated with preparation shall be handled by the RTMC ITS Program. AMP staff should assist other TMC staff however possible. The following are preparation and after storm procedures to be followed:

Preseason

Before the beginning of the Hurricane Season (prior to June 1st), RTMC Management should complete the following:

- Ensure each AMP Console has an updated copy of the AMP Emergency Response Plan.
- Contact all RTMC Operators and see who would be available for pre, imminent, and post storm coverage.
- Check and restock TMC food/water supplies (should be stocked for up to 3 days).

Preparation

Upon notification of a severe storm watch and/or warning for the area, the following steps should be taken:

- Pay attention to weather reports and patterns.
- Have a current copy of all emergency telephone numbers readily available.
- Make certain there are ample hurricane supplies at the TMC.
- Schedule additional staffing at the TMC, as needed.

Storm Impact Imminent

As evacuations may be required for the region, FDOT may request that AMP staff remain at the TMC beyond working hours up to 24/7. Regular operations will continue for as long as it is safe (until sustained winds exceed 35 mph).

Once this threshold has been met, operations will shift from traffic facilitation to Infrastructure damage identification. RTMC Operators, for as long as the power remains, shall scan the AMP Corridors for any debris in the road and damage to any FDOT Infrastructure. After the storm, a report shall be submitted to the FDOT Project Manager.

After the Storm



Upon notification/verification of the redeployment, AMP staff on site shall:

- Check all devices for connectivity and errors; submit trouble tickets accordingly.
- Check the full project limits for debris on the roadway and notify the appropriate agencies.
- Issues detected must be disseminated in a timely fashion – potentials after the storm could include flooding and tornado activity.

Other Emergency Situations

FDOT may request similar support from the AMP Staff for other emergency situations such as wildfires and other unprecedented occurrences that are not covered within this document. In such an event, AMP Staff should act to the best of their ability to serve the public with safety as the number one concern.

Fog Visibility Events

The extreme variability of fog, especially in its density and location, makes it difficult for motorists to perceive and react quickly. Fog can affect both day and night driving conditions because light is retro-reflected and will veil objects from sight. Fog is measured by visibility in miles, and is considered severe when visibility is a quarter mile or less.

Fog advisory messages can provide motorists with useful information about a specific problem along their route. This information will allow motorists to change their speed or path in advance.

Detection

If RTMC Operator(s) detect what is perceived as serious fog conditions during normal CCTV monitoring, report the conditions to FHP for further action/monitoring. ADMS messages for fog will be posted only when requested by FHP. If a call is received from FHP, RTMC Operators are required to get the following information and record it in SunGuide.

- Name and position of person making request.
- Contact Number
- Agency

*The District 4 RTMC ITS Program should be notified to advise that FHP has made a request for signing.



Verification

Verify the National Weather Service (NWS) advisories online. Enter all information into SunGuide. Categorize as "Visibility" and as an "Unconfirmed" event. Utilize CCTV cameras to verify reported conditions and determine whether fog is localized or regional.

Once verified:

- Change the status of the event to "Active."
- Post ADMS messages from the predefined plan manager according to the location.

Monitoring/Updates

Fog Advisories must be monitored like any other event; as conditions change incident information and ADMS messages should be updated to reflect real-time conditions. National Weather Service advisories do not qualify as real-time information; only CCTV feeds should be used to verify real-time conditions.

Severe Weather

Weather events such as Tropical Storms, Hurricanes, Severe Thunderstorms, and Tornadoes can have heavy impacts on traffic conditions specifically in regards to travel times and safety. Advanced warning of severe weather conditions allows motorists to take action, such as detouring or delaying their trip.

Only weather warnings are to be posted, not weather watches. Weather warnings are imminent or occurring events and weather watches are favorable conditions for an expected event but not occurring. With the present system configuration, messages will be posted by the operator based on information obtained from weather alerts provided by the National Weather Service's Mobile Decision Support Services (NWS-MDSS) <http://inws.wrh.noaa.gov>

When an alert is received, take the following actions:

- Open the email alert in Microsoft Outlook and click the link for "more information." This will open the web page with more details on the alert. See the example of the alert in the figure below.

Examine the interactive map and detailed description of the alert and verify that the event is in



the area of the AMP Project Corridors. See the example of the map and description in the figure below.

- Upon verification of event in the area, create a weather event in SunGuide as "Weather" and select the appropriate notifier.
- Select signs in both directions for affected areas confirmed by CCTV feeds. If possible, choose two signs in each direction for within that area and two signs in each direction for approaching the area. Due to the location or size of the warning area, it may not always be possible to have four signs. Operators will need to select the appropriate number of signs at their own discretion.
- Use response plans to add ADMS and select appropriate message from the library for signs within and approaching the warning area.
- Remove email and FL 511 publication from the Response Plan.

Notification of outside agencies for severe weather conditions such as Severe Thunderstorms and Tornados isn't necessary.

Severe weather conditions must be monitored like other events as conditions can change very quickly:

- Continually monitor conditions using CCTV feeds and via weather information websites such as:
 - <http://wptbf.com/weather/radar>
 - <http://weather.miami.cslocal.com/US/FL/Miami.html>
- For the mentioned weather information websites, locate the interactive map and zoom into the location approximately in the center of the warning area.
- As conditions change, messages should be updated.
- When the warning is no longer in effect, the messages should be removed from all ADMS.
- Any incidents that occur during severe weather conditions should not be treated as secondary incidents to the weather event.

Tropical Storms and Hurricanes

For weather events such as Tropical Storms and Hurricanes, the aforementioned steps should be followed but some additional ones should be taken as well.

- HAR messages should be selected in both directions approaching and within the warning area using the appropriate message from the template library. Note that the



message will be the same on all the transmitters and should match the format of the NWS. For these warnings, the time should be removed from the message.

- Notification of outside agencies for these weather events is necessary. Appropriate partners are to be contacted or advised of the action taken.

*To receive these weather alerts, all RTMC staff should subscribe to the following services at The National Weather Services Mobile Decision Support Services (NWS-MDSS) <http://inws.wrh.noaa.gov>.

10.06.06 Interagency Coordination Events

Interagency Coordination involves an event where the AMP, upon request, assists other SEFRTOC partners and/or other bordering districts with messaging for traffic related events that occur within their coverage area. When an RTMC Operator is notified by another bordering TMC of an ATE with lane blockage that potentially can affect motorists along the arterial network, the following questions should be asked:

- What is the blockage?
- Where is the blockage?
- What type of event?
- Estimate congestion tail?
- Name and agency of notifying operator?
- Does the agency request assistance?
- ADMS messaging, Arterial SIRV Operator dispatch, signal timing adjustments, etc.

Upon notification, a new Interagency Coordination event should be created within SunGuide under an "unconfirmed" event status. If the agency requests assistance, all pertinent details should be documented in the event chronology. No FL 511 entry will be necessary unless assistance was requested.

10.06.07 Roadway Debris Events

Roadway debris can pose a major threat to public safety and traffic conditions; therefore, it is important for RTMC Operators to inform motorists of debris and notify appropriate agencies to clear the hazard(s). Clarification on the different types of debris that may require response is under review. Debris that is complete blocking at least one lane is to be managed like all other lane blockage events; however, due to the vast variety of materials covered by "debris," and



the situations they produce it is up to the RTMC Operator to determine the appropriate response.

RTMC Operators shall post messages for any travel lanes impeded by roadway debris. Debris messages will not be posted for debris within a closed lane (i.e. within a closed work zone) or debris that does not affect the motorists' ability to utilize that lane (i.e., dirt, gravel, etc.).

Upon confirmation of debris that may affect the flow of traffic, operators shall create an event within SunGuide. If applicable, select and post the debris message to ADMS upstream of the debris' location. RTMC Operators should then notify the appropriate local responder(s) and monitor the debris until it has been removed. When available, the Arterial SIRV Operator may be dispatched to assist with debris removal.

10.06.08 Police-Escorted Motorcades

The following guidelines are established in an effort to provide consistency between FDOT District 4 AMP and other SEFRTOC partnering TMCs in the management of possible roadway closures in coordination with the police-escorted motorcade for a VIP(s).

If possible, gather as much information as possible from local police and/or FHP prior to the event. Specific information regarding the location and time of any closures may be not be made public until a few hours prior, if at all for security reasons. When possible, identify where the traffic is blocked off to allow the motorcade to travel undisturbed so appropriate TMC responses can be prepared/made.

There are two types of accepted motorcade activities:

- Rolling Roadblock – a police escort will stop or slow lanes down and intermittently block roadways to clear the way for the VIP(s) and prevent traffic from disrupting the motorcade.
- Full Closure – police will preemptively close off full sections of roadways often for miles to ensure the highest level of security and will hold all traffic at strategic locations to prevent traffic from entering the blocked off corridors.

Due to the geo-coded location-based SunGuide system, it is only possible to enter full closures as an active traffic event. No events should be created for a rolling road block, other than resulting congestion; however, the event should be reported to RTMC Management for consideration for signal timing adjustments.



The proceeding steps should be followed for proper management of such events:

- Entry into SunGuide:
 - Only full sustained closures should be entered.
 - The event type should be logged as "Police Activity."
- FL 511:
 - In an effort to keep the location of the VIP confidential, messages should not include specific times nor locations of possible closures.
 - Only confirmed, sustained closures should be reported and should be reported only as "Police Activity."
- Consideration for Timing Changes:
 - Both rolling road blocks and full closures are technically considered Level 3 Events by the standards described previously. While only full closures should be submitted within SunGuide, both should be reported to RTMC Management.
- Congestion:
 - Monitor congestion that can build up as a result of motorcade activity.
 - Normal congestion data entry procedures are to be applied.

10.07 Notifications and Incident Response Plan

10.07.01 Emergency Agencies

Occasionally, events will warrant informing local responders such as law enforcement, maintenance, and other agencies to respond to an event. The following are guidelines for reporting events to emergency agencies. Refer to the AMP telephone directory for contact information for the appropriate agency.

Any and all available details about each event should be collected and verified (if possible) prior to notifying any local agencies. Only lane blockage events or events that present a threat to public safety should be reported.

I-95, I-75, I-595, & Florida's Turnpike



For any verified events located on any of the above and/or associated access ramps, contact the Florida Highway Patrol (FHP) and notify the appropriate TMC partner agency. Once FHP is notified, they shall contact Emergency Medical Services (EMS), Fire/Rescue, and/or the Medical Examiner if necessary.

To contact the Florida Highway Patrol (FHP), dial *FHP (*347) and provide the location of the event and any pertinent information.

Arterial Events

For Broward County, contact the applicable regional Public Safety Answering Points (PSAP); from there, the PSAP dispatchers shall contact the appropriate and necessary agencies to respond (does not include HAZMAT). Refer to the AMP Operations Reference Guide at each workstation console for specific contact information.

For Palm Beach County, contact the Palm Beach County Sherriff's Office Dispatch center; from there, they shall contact the appropriate and necessary agencies to respond (does not include HAZMAT).

Media

The FDOT Public Information Office (PIO) handles all media and public inquiries about events on Broward County roadways. The PIO should be notified and updated of the beginning and end of all Level 3 events, including full closures, fatalities, HAZMAT, and all other Level 3 events.

Their hours of operation are 7:00 AM – 5:30 PM Monday – Friday. During after hours, leave a message with the details of the event.

Emergency Operations Center (EOC)

The Emergency Operations Center (EOC) requires notification for Level 2 events, ONLY if FDOT Maintenance is needed after hours and for incidents that include long term MOT and/or infrastructure damage that is not within a construction zone.

The EOC should be notified for the following Level 3 events:



- Full Closures.
- Overturned tractor-trailers and busses.
- HAZMAT spills.

10.07.02 RTMC Management

If a severe or unusual event occurs that has a significant impact to traffic or poses a threat to public safety, it is important to bring it to the attention of RTMC Management. In general, RTMC Management should be notified of all Level 3 events.

During normal business hours, when there is an unusual and/or unscheduled event that has a significant impact on the geographical coverage area, perform all necessary traffic management steps, then advise RTMC Management with the following details:

- Time event was detected and verified.
- Type of event.
- Roadway and location.
- Lane blockage.

Outside of normal business hours, RTMC Management should be contacted only for High Profile Events.

High Profile Events & TMC Incident Executive Notifications

A High Profile Event is defined as any news worthy or unusual traffic related incident occurring on AMP Corridors; specifically, events that management should be made aware of. Some examples include multiple fatalities, shootings, major infrastructure damage, plane crashes, evacuations, and system-wide failures to name a few. High profile events should be managed according to standard event management protocol. RTMC Operators shall notify RTMC Management as soon as possible to determine if the event's criteria meets the criteria defined by the TMC Incident Executive Notification procedure established by FDOT Central Office. If the nature of the event is determined to meet the criteria, RTMC Management shall proceed to notify the executive staff with the following information:

- Time and date incident occurred.
- Event number.
- Short description of the event.
- Link to news story (if available).



Within 15 minutes, RTMC Management staff must acknowledge the event and their plan to act before being subject to penalties and/or disciplinary action.

Signal Timing Plan Library

To facilitate the efficiency of the Arterial Management Program's response to severe or unexpected incidents along AMP coverage areas, a Signal Timing Plan Library is in development. The Library will allow RTMC Management (through the use of ATMS.now) to implement appropriate timing plans to meet the demands of different events based on location, severity, and duration.

All timing plans shall be developed and approved through a combined effort of all AMP participating agencies.

Prior to the finalization of the signal timing library, AMP Operations Managers should evaluate each event and make the appropriate changes accordingly with the permission of County Traffic Staff.

10.07.03 FDOT Maintenance for Non-Routine Infrastructure Issues

The RTMC Operator should notify FDOT Maintenance of all incidents involving roadway or property damage and fuel spills. RTMC Operators should proactively look for roadway/property damage and not solely rely on outside sources.

If an issue is detected, RTMC Operators shall notify management of the situation. RTMC Management will proceed to notify the Broward Operations Center (954-776-4300) to direct the concern to the appropriate supervisor on-duty. Maintenance-related issues involve damage to infrastructure (barriers, bridges, median, etc.), substantial fuel spills (>10 gallons), overturned tractor-trailers, damage to state property, or when traffic control/diversion equipment is needed. Some examples are:

- Vehicle Fires
- Damaged Delineators
- Roadway signs and uprights
- Guardrail
- Median
- Bridge wall or support
- Bridge damage



- Fences
- Attenuators
- Lights and poles
- Flooding
- Debris in roadway
- Open manhole covers
- Pavement damage
- Fuel spill
- Vandalism

Traffic Signals

Traffic signal equipment is the property of the county. For any damage to traffic signal infrastructure including signal cabinets, signal heads, span wire, mast arms, uprights, etc. contact the appropriate County Traffic Division.

Broward County

After 5:00 PM, the Broward County Traffic Engineering Division (BCTED) on-call service personnel should be contacted instead of the supervisor.

[Broward County Traffic Engineering Division \(BCTED\)](#)

County System Operator/Timing Engineer: 954-847-2770 or by email at traffic@broward.org.

Palm Beach County

After 6:00 PM, the Palm Beach County Emergency Operations Center (561-712-6428) should be contacted instead of the supervisor.

[Palm Beach County Traffic Engineering](#)

ITS System Administrator (561) 681-4315 or by email at Rhendric@pbc.gov.

Documentation & Reporting



When possible, attempt to capture a screen shot of the CCTV feed showing the damage. Pictures should be saved on the designated shared network drive.

In order to provide follow-up documentation of roadway/property damage to FDOT Maintenance, all comments relative to the damage and any notifications made must be entered in the event details using comment type – Infrastructure Damage. At a minimum, the type of damage and who was contacted and at what time should be recorded.

10.07.04 External Agencies

Occasionally, events will warrant informing agencies other than those responsible for emergency response. The following are guidelines for which agencies are advised for specific types of events.

Surrounding TMC Operations

The surrounding TMC Operation Centers perform similar functions for the freeways as the AMP does for arterials. The FDOT District 4 SMART Regional TMC, I-595 Express LLC, Florida's Turnpike Enterprise (FTE), FDOT District 6 SunGuide TMC, and Miami-Dade Expressway Authority (MDX) all operate on a 24-hour schedule. To assist these surrounding TMCs, the AMP advises them of severe events detected on AMP roadways, which may have a traffic impact and have the potential to extend into their coverage area and monitoring range.

The appropriate TMC of those mentioned above should be contacted at the start and finish of all Level 2 events within ½ mile and Level 3 events within 1 mile of corresponding access ramps.

Railroad Agencies

While conducting routine scans of the AMP coverage area, there are numerous at grade rail road crossings visible. Due to the obvious risk to public safety and limited control over trains' progress, Railroad agencies should be notified immediately of the following:

- Any event directly on the railroad tracks
- Any event within the limits of the crossing gates
- Malfunctions of or damages to at grade crossing infrastructure (gates, lights, etc.)
- Suspicious activity or vandalism to tracks and other infrastructure (should also notify local law enforcement dispatch)

Contact Numbers:



- CSX Railroad: 1-800-232-0144
- Florida East Coast (FEC) Railroad: 1-800-342-1131

Transit Agencies

Each county's transit authority does what they can to provide accurate travel time and arrival information of all of their vehicles to their patrons. The appropriate transit authority for each county should be notified at the beginning and end of any Level 2 or Level 3 events detected along AMP Corridors.

Contact Numbers:

- Tri-Rail: 1-800-874-7245
- Broward County Transit (BCT): 954-357-8353

Animal Control

If a stray or injured animal is seen on the roadway that may pose a risk to public safety, contact the appropriate Animal Control Agency.

If an alligator is seen on the roadway, contact the Department of Fish and Wildlife – Gator Hotline.

Contact Numbers:

- Broward Animal Care & Control: 954-359-1313
- Palm Beach Animal Care & Control: 561-233-1200

Documentation

When notifying any agency, all calls and/or notifications must be recorded within the RTMC Operator Call Log. When entering the details, it is necessary to indicate whether the agency notified the TMC, or the TMC notified the agency. If the nature of the call is related to an incident being monitored in SunGuide, documentation should be made using the appropriate notification checkboxes within the event (when applicable) or under the comments section.

10.07.05 Regional Coordination

The South East Florida Regional TMC Operations Committee (SEFRTOC) was formed in 2003 by the Fourth Florida Regional ITS Coalition, an organization that brings together municipal,



county, and regional state agencies to ensure compatible implementation and operation of ITS throughout the region. The mission of SEFRTOC is to facilitate regional mobility in South East Florida through coordinated TMC Operations.

There are five agencies that participate in the SEFRTOC mission:

- FDOT District 4 TSM&O RTMC
- I-595 Express LLC
- Florida's Turnpike Enterprise (FTE) – Pompano TMC
- FDOT District 6 SunGuide TMC
- Miami-Dade Express Authority (MDX)

These agencies along with the AMP play a vital role in regional South Florida transportation system management. The objective of SEFRTOC members is to further the objectives of the South Florida Regional ITS Coalition by leading initiatives related to day to day operations and to establish a regional approach to ITS operations and event management through coordinated communication, decision making, and planned resource sharing.

Partner Agency DMS Notification

During AMP Operations, there will be times when it will be appropriate and necessary to contact a partner agency to request activation of their freeway DMS to assist with public awareness of an arterial event. The appropriate agency (based on location) should only be contacted for DMS Messaging based on the following criteria:

- Any full closures within three miles of a freeway access ramp.
- Any Level 3 Event within one mile of a freeway access ramp. If an event occurs within one mile of multiple freeways, contact all relevant agencies.
- Any Level 2 Event within ½ mile of a freeway access ramp.
- Any event on a freeway access ramp.

All event information should be accurate and verified prior to contacting any partnering agency TMC. Each TMC has their own priorities and traffic events and may not choose to post messages for arterial events. Regardless of their decision to post message, unless directed by that TMC, updates should be provided at least every 30 minutes to the appropriate agency and at the event conclusion. For more information, please refer to [SOP Section 4.0 – Operations](#).

Documentation



In addition to logging the event in SunGuide, any instances of partnering agency TMC coordination should be documented within the RTMC Operator Shift Report.

FDOT District 4 TSM&O RTMC

The FDOT District 4 TSM&O RTMC in Broward County serves as the primary location for the FDOT District 4 Freeway Management System (FMS) program. The Regional TMC also serves as home for the Broward County Traffic Engineering Division (BCTED), I-595 Express LLC, and the Broward AMP. Dozens of staff from the aforementioned and other agencies occupy the center 24/7/365 to provide the following services:

- Incident Management (detection, verification, and notification) communication center for the interstates within the five counties of FDOT District Four – Broward, Palm Beach, Martin, St. Lucie, and Indian River.
- Dispatch Road Ranger and Severe Incident Response Vehicle (SIRV) team in coordination with Florida Highway Patrol (FHP).
- Send incident text messages and e-mail alerts, generated incident reports, and update the statewide 511 system through the use of the SunGuide software.
- Notify traffic broadcast media of incidents and updates.
- Collect and provide incident information to FDOT District 4 Traffic Incident Management (TIM) Teams, SEFRTOC, and other agencies.
- Real-time electronic messaging on dozens of DMS along freeways and arterials.

There will be many occurrences where interaction and coordination with the FDOT District Four's FMS staff is necessary; the opportunity to share resources, such as posting to DMS & ADMS, shall be beneficial to the traveling public on both arterials and freeway network.

I-595 Express, LLC

On July 31, 2009, the I-595 Express Project concessionaire, I-595 Express, LLC, assumed responsibility for the operation and maintenance of the 10.5-mile-long I-595 construction corridor from west of 136th Ave to east of SR 7. This responsibility includes adhering to FDOT's incident management SOGs. The following will be in operation 24/7 for the next 35 years.

The concessionaire is responsible for operating and monitoring the traffic cameras in the I-595 Corridor. The I-595 Express staff works out of the FDOT District 4 FDOT District 4 TSM&O RTMC in Broward County and monitors traffic conditions dispatch Road Rangers to respond to traffic



incidents, and coordinate ITS programs on the corridor. I-595 Express staff share real-time data through the Internet Video Distribution System (IVDS) and FL 511.

The concessionaire will also coordinate with FDOT RISC contractors and coordinate the Severe Incident Response Vehicle (SIRV) team along the I-595 corridor. The SIRV program's purpose is to provide immediate FDOT Incident Command presence at all severe incidents that are too large and/or severe for the RISC program to handle on its own.

Florida's Turnpike Enterprise – Pompano TMC

Florida's Turnpike Enterprise (FTE) was originally constructed in 1957 and is responsible for all operations on every FDOT owned and operated toll road and bridge. This represents about 600 miles of roadway and 80% of all toll facilities in Florida. FTE strives to ensure every customer who travels these toll roads and bridges receives first class service on every trip.

The Turnpike Operations Center in Pompano Beach is the central facility for the monitoring, verification, dissemination and management of Turnpike traffic incidents and issues in South Florida. Team Members work closely with FHP, FDOT, and other agencies to provide accurate and timely information to Turnpike Customers.

Intelligent Transportation System (ITS) devices including CCTVs, DMS, Highway Advisory Radio (HAR) transmitters, and advisory signs are operated for the TMC for incident management and information dissemination.

Real time traffic information is provided as input into SunGuide by FTE TMC Operators via Florida's Turnpike website – www.floridasturnpike.com.

Due to the increased limited access of Florida's Turnpike, caution should be used in selecting ADMS to post messages for Turnpike incidents. Only ADMS approaching Turnpike access points should be used in the event of a severe incident.

FDOT District Six SunGuide TMC

The FDOT District Six SunGuide TMC primary functions are incident management and traveler information dissemination for Miami-Dade and Monroe counties. The FDOT District Six SunGuide TMC coordinates incident response between FDOT, FHP, Monroe County Sheriff's Office, Fire Rescue, and other partners within the region. FDOT District Six SunGuide Operations team primarily monitors traffic, identifies and manage incidents, dispatches Road



Rangers, disseminates traveler information (including travel times), and operates ramp meters and the I-95 Express Lanes. Traffic information from these primary functions is gathered, stored, and later reported using SunGuide. The FDOT District Six SunGuide TMC also assists in the coordination of Rapid Incident Scene Clearance (RISC) contractor to clear large vehicle incidents.

Miami-Dade Expressway (MDX) Authority

The Miami-Dade Expressway Authority (MDX) is a public agency created in 1994 by the state of Florida and the Miami-Dade County Commission. MDX oversees and maintains five toll-road expressways: SR 924, SR 112, SR 836, SR 874, and SR 878.

MDX functions as an incident management center collocated with FDOT District 6 at the SunGuide TMC. MDX staff coordinates incident response between Road Rangers, FDOT District 6, FHP, Fire Rescue, and other partners on MDX roadways. MDX also assists in the coordination of Rapid Incident Scene Clearance (RISC) contractor to clear large vehicle incidents.

10.08 System Failures

10.08.01 ITS Field Devices Damage

In the event a field device is physically damaged, the RTMC Operator shall notify RTMC Management to then file a MIMS ticket and notify FDOT Maintenance immediately.

Documentation

When an equipment failure has been detected and/or reported, it is required to document all details in affected events in SunGuide. In addition, the Shift Report should be updated to reflect occurrence, including error specifics, remedial action attempted, what personnel have been contacted, and the time the equipment became operational (if applicable).

10.08.02 SunGuide Failure

If the SunGuide software system is not operating correctly, traffic events cannot be logged, and ADMS plans and SMART Alerts will not be generated. Different circumstances can result in the system not functioning properly. These include problems with both the hardware and software.



Documentation

When an equipment failure has been detected and/or reported, it is required to document all details in affected events in SunGuide. In addition, the Shift Report should be updated to reflect occurrence, including error specifics, remedial action attempted, what personnel have been contacted, and the time the equipment became operational (if applicable).

The impact these database problems can have on operations can range in severity; entire system crashes generally require immediate notification, while system errors are usually reported via FDOT District 4 TSM&O ITS Service Portal.

In general, the steps for managing and reporting a problem or failure within SunGuide are:

- Evaluate the impact of the failure.
 - Determine whether it is the workstation or the software that is malfunctioning.
 - Determine which operational function(s) and other devices are impaired.
 - For minor problems that do not impair operation, log the details and continue to work on the system.
- Take corrective action as appropriate.
 - Follow troubleshooting procedures for known faults.
 - Attempt to clear the problem by:
 - Restarting SunGuide.
 - Restarting the computer.
- Notify RTMC Management of occurrence.
 - Depending on the severity of the problem and time of day, RTMC Management shall contact the appropriate personnel to ensure the issues is resolved.
 - Upon direction of RTMC Management, the Operator may be requested to open a FDOT District 4 TSM&O ITS Service Portal Ticket.
 - In most cases, errors which occur in SunGuide are managed by the RTMC IT Software Support staff or designee.

Documentation

When a SunGuide error has been detected and/or reported, it is required to document all details, including error specifics, remedial action attempted, what personnel have been contacted, and the time the equipment became operational (if applicable).



10.08.03 Network and Internet Failure

In the event the internet connection fails at any workstation, the error will likely be first recognized by the RTMC Operators. Upon losing connection, RTMC Operators should create a FDOT District 4 TSM&O ITS Service Portal ticket and notify RTMC Management immediately. The following should be taken into consideration when the internet connection is lost:

- Event Email Alert Notifications should not be generated.
- Critical notifications will need to be made via the landline phone.

When an internet failure has been detected and/or reported, RTMC Operators should report the conditions including duration within their Shift Report.

10.08.04 External Agencies' Equipment Failure

RTMC Operators will be notified or detect problems with equipment or structures that are the responsibility of a different agency. When an external agency's equipment failure has been detected, follow the proceeding steps:

- Notify and report the following details to FDOT Maintenance
 - Any associated debris within the roadway
 - Large potholes
 - Structural damage
 - HAZMAT
 - Flooding
 - Other problems which may affect public safety or traffic conditions
- Notify and report the following details to CSX and Tri-Rail
 - Malfunctioning crossing guard rails
 - Malfunctioning signals adjacent to at grade crossings
 - Any event/debris on an at grade crossing
 - Other problems which may affect public safety or traffic conditions
- Notify and report the following details to the appropriate utility company
 - Events involving contact with a utility line/structure
 - Malfunctioning utility lines (downed power lines, flooding water mains, etc.)
 - Other problems which may affect public safety or traffic conditions

When a failure of an external agency's equipment has been detected and reported, it is required to document all details in affected events within SunGuide. In addition, the Shift Report should be updated to reflect the occurrence, including specific details, remedial action attempted, personnel contacted, and the time the equipment became operational (if applicable).

Traffic Signal Failure

RTMC Operators should monitor the overall functionality and system health of the AMP Corridor's traffic signal network. Traffic signal malfunctions include flash, loss of power, bulbs



out, detector malfunctions, etc.* Traffic signal malfunctions should be relayed to the proper agency when they occur. When reporting traffic signal malfunctions, follow the proceeding steps:

- Collect appropriate information:
 - Intersection
 - Type of malfunction/failure
 - Impact to traffic conditions/public safety
 - Notification source
 - Date and time of detection
- Evaluate the impact of the failure/malfunction
 - Is all power lost to the intersection?
 - Is the signal in flash?
 - Does the signal appear to be collecting excessive congestion as a result?

During business hours, the corresponding county traffic division should be contacted immediately upon detection of a traffic signal malfunction or failure. For failures or malfunctions resulting in significant congestion, RTMC Management should be notified immediately.

1.1 95 EXPRESS LANES (EL) OVERVIEW

PURPOSE AND SCOPE

The purpose of this section is to provide an overview of the 95 Express Lanes (EL) program and the guidelines to support the program by the FDOT District Four SMART SunGuide TMC and District Six SunGuide TMC Operations staff.

PROJECT OVERVIEW

FDOT implemented EL along the I-95 corridor as part of an overall long-term strategy of integrated initiatives to improve the safety, throughput and reliability of mobility within southeast Florida. The EL were implemented by converting existing High Occupancy Vehicles (HOV) lanes to High Occupancy Toll (HOT) lanes.

The EL are located along I-95 between the SR 836/I-395 interchange (southern terminus in Miami-Dade County) and Broward Blvd (northern terminus in Broward County), covering a distance of approximately 22 miles (see [Figure 1](#)). Geographically, the EL traverses two FDOT districts: District Six, which includes all of Miami-Dade County and Monroe County, and District Four which includes all of Broward County, Palm Beach, Martin, St Lucie and Indian River Counties.

The 95 EL Project was initially deployed in two phases. Phase 1 (completed in January 2010) was the initial implementation of the EL within District Six, and Phase 2 (completed in October 2016) occurred in both District Six and District Four simultaneously. In Phase 1, the 95 EL facility was deployed from SR 836 to the Golden Glades Interchange (GGI). Phase 2 initially extended the 95 EL from the GGI to the Broward Boulevard Park-n-Ride Lot, however the District Four part of Phase 2 is now under construction as part of the Phase 3C project, which has temporarily reduced the EL to Stirling Road. Phase 3A-1 through 3B-2 will extend the EL through Broward County and into Palm Beach County. Phase 3A-2 and 3B-1 opened to traffic in November 2021, with static tolling being implemented. Phase 3A-1 and 3B-2 are scheduled for completion in October 2023, also implementing static tolling. See [Figure 2](#) for the extended corridor.



Figure 1 95 EL Project Map



Figure 2 95 EL Project Map

The 95 EL Project has implemented two types of tolling methods: Segment Based and Trip Based Tolling. Segment Based Tolling calculates toll amounts for the next downstream destination, whereas Trip Based Tolling combines toll amounts from two or more sequential downstream segments for a destination that is farther downstream. These toll amounts will vary depending on current traffic conditions in the EL. The toll will increase as the demand for the EL increases, to deter motorists from using the EL and try to maintain free flowing speeds (at approximately 45 mph or greater) at all times.

The EL also permits toll-exempt use by motorcycles, hybrid vehicles and registered buses, vanpools, and carpools (3+) (see Figure 3 for EL vehicle classification). A registration is required (through South Florida Commuter Services) to be exempt from tolls. Trucks (3 axles or more) are prohibited from using the EL unless assisting with event removal within the express lanes or unless directed by FHP. Other vehicles may use the EL by paying a variable toll.

The vehicle classification scheme breaks down all motor vehicles into 13 categories. [Figure 3](#) shows which vehicles are eligible and not eligible to utilize the express lanes. Vehicles that fall into Classes 1 through 5 are allowed to use express lane facilities and vehicles that fall into Classes 6 through 13 are not permitted. For safety and operational purposes, two axle vehicles towing a trailer will not be allowed.



Figure 3 EL Vehicle Classification

Facility Lane Configuration

The 95 Express Lanes are considered a separate facility, parallel to I-95 and separated by plastic tubular delineators or express lane markers (SELSs). When referring to incidents occurring within the Express Lanes, the lane closest to the median barrier wall shall be “Express Lane #1” and the lane next to the delineators (Express Lane Markers (ELM’s) / Plastic Poles) shall be referred to as “Express Lane #2,” when applicable. The General Use Lanes of I-95 are those lanes outside of the Express Lanes facility. These lanes shall be referred to as “I-95 Lane #1, I-95 Lane #2, etc...” and shall be counted beginning to the right of the Express Lanes facility and ending at the right shoulder of I-95 (see [Figure 4](#)).

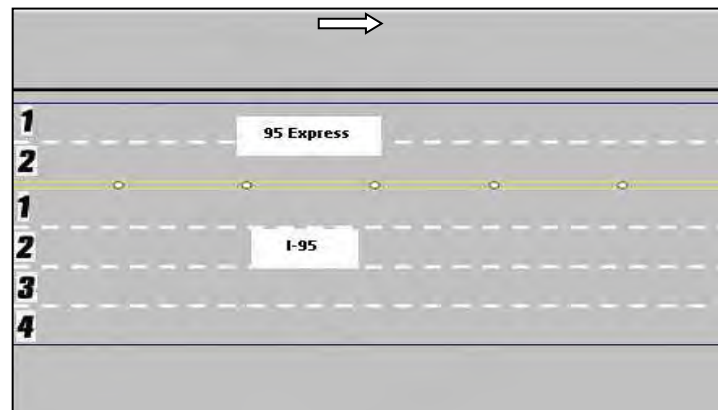


Figure 4 Lane Layout with Express Lanes

1.2 EL OPERATIONAL MODES

PURPOSE AND SCOPE

The purpose of this section is to describe the EL operational modes. The EL pricing strategy is considered dynamic and requires EL Operator monitoring. The following procedures were developed for the 95 Express pricing strategy.

OPERATIONAL MODES

The Express Lanes Module contained in Operations Task Manager (OTM) also known as the Statewide Express Lane Software (SELS) is the primary operator interface for EL Operators and controls the distribution of calculated toll amounts to the Turnpike and dynamic message signs (DMS) in the field. The software will recommend toll amounts to the EL Operator, who will then acknowledge the recommendations and subsequently confirm that the approved toll amounts have been used and posted correctly on the Toll Amount DMS. The EL Operator will also confirm that the Lane Status DMS are displaying the correct messages. The SELS has six operational modes available to the EL Operators for Segment Tolls, plus toll adjustment functionality for Segment and Trip tolls, and a start sequence. These include:

- **Time-of-Day**– Time-of-Day operating mode is an override mode and will be used when the EL facility is open, dynamic mode is unavailable (possibly due to lack of detector data), and traffic warrants the utilization of the toll stored in the Time-of-Day (TOD) Table. TOD operating mode only requires EL Operator interaction when switching from another operating mode to TOD mode. While in this mode, the tolls update automatically based on the operating tolls stored in the SELS Software TOD table. There is a schedule in SELS Software that causes SELS to use different TOD tables for weekdays and weekends/holidays. TOD can be configured to utilize automatic approval.
- **Manual** – Manual operating mode is an override mode that allows the EL Operator to set tolls manually by selecting from a predefined set of tolls. Toll amounts remain the same until the EL Operator chooses a new toll or mode. This mode will be used by the EL Operator typically when toll amounts are stuck due to Toll Amount Sign failure(s).
- **Dynamic** – Dynamic operating mode is the default mode that allows the operating toll amounts to be “adjusted” based on the real time responsive toll amount adjustment algorithm (described later in this section). Dynamic operating mode is the most commonly used operating mode and will be used until a situation arises that warrants a change in mode. In Dynamic mode, SELS will recommend a toll amount based on current traffic conditions. Dynamic mode can be configured to utilize automatic approval for changing toll amounts.
- **Closed** – Closed operating mode is an override mode that requires EL Operator interaction. Closed operating mode will be used when the EL facility is closed, and a zero-toll amount is charged. As the EL Operator changes the operating mode to closed, SELS will adjust the effective time to 10 minutes before the incident was confirmed by the EL Operator. The EL facility will be closed for an incident that results in a blocked travel lane within the EL and when traffic is diverted from the General Use Lanes (GU) to the EL because of an incident in the General Use Lanes. The diversion will be initiated by the Florida Highway Patrol (FHP) or FDOT.
- **Zero-Toll** – Zero Toll operating mode is an override mode that requires EL Operator interaction. It will be used when the EL are open, but a \$0.00 toll must be charged. This mode will be implemented by the EL Operator during evacuations, when the Governor has suspended tolls, and/or under the direction of FDOT.
- **Toll Adjustment** – Toll adjustments are retroactive toll reductions that require EL Operator interaction. An ongoing adjustment shall continually replace the toll amount until terminated by an operator. A finite adjustment allows the EL Operator to replace toll amounts for a specified interval in time utilizing beginning and ending times no later than the present time. EL Operators can implement either an on-going or finite adjustment for a segment or a trip.
 - Segment toll adjustments allow the EL Operators to go back in time (up to eight hours) and change the toll amount charged to customers to an amount less than or equal to that posted on the Toll Amount DMS. A toll adjustment will be applied when any Toll Amount DMS is unable to post the current toll amount. When any toll amount sign is blank, the minimum toll amount of \$0.50 will be charged. The toll adjustment does not change the tolls displayed on the Toll Amount DMS and only affects the toll charged to customers. Therefore, the current applicable toll amounts can be displayed on all operating Toll Amount DMS to manage demand, while the customers are only charged \$0.50.

- Trip toll adjustments are similar, except that the toll and effective time are chosen from a list of previous tolls in order to ensure that the tolls associated with each segment included in that trip are known. The list contains tolls effective up to eight hours in the past, except that any toll higher than a subsequent toll is not included and stops the search back in time for tolls to include in the list. For additional detailed procedures, refer to [Express Lanes Operational Procedures \(ELOP\)](#).
- **SELS Start-Up** – Upon SELS start-up or when publishing a corridor, the EL Operator must initialize the segment(s). The procedure was developed to assist the EL Operator to start the SELS Software in the correct mode, ensure the correct amount is being charged and posted, and to allow the EL Operator to set interim tolls for the time when the software was not running to ensure seamless operation for the EL motorist. The EL Operator can employ any mode upon start-up. For additional procedure details, refer to [Express Lanes Operational Procedures \(ELOP\)](#).

TOLL AMOUNT ADJUSTMENT LOGIC

The operational goal of the 95 Express Lanes is to provide free flow conditions along the facility. Under free flow conditions, vehicles are generally unimpeded and typically able to safely operate at speeds of 45 miles per hour or greater along an uninterrupted expressway segment. Real time responsive toll pricing is utilized to control traffic volumes in the EL in order to maintain free flow conditions.

The condition of traffic flow is defined as the Highway Capacity Manual (HCM) using an operational level of service (LOS). The LOS is a freeway facility is measured by traffic density (TD), which is a combination of speed and volume. TD is calculated as follows:

$$\text{Traffic Density (vehicles per mile per lane)} = \frac{\text{Volume (vehicles per hour per lane)}}{\text{Speed (miles per hour)}}$$

[Figure 5](#) depicts the relationship between LOS and TD, which is derived from the HCM. LOS A, B and C are considered to be free-flow conditions and should safely allow for maximum throughput in the EL. As conditions reach LOS D and E, traffic flow will begin to deteriorate, densities will begin to approach 45 vehicles per mile per lane (vpml) and travel speed will be reduced. For LOS F, densities are expected to be above 45 vpml and speeds will be reduced significantly.

LOS Table			
Level of Service	Traffic Density		Expected Traffic Conditions
	Min	Max	
A	0	11	Free-flow
B	12	18	Free-flow
C	19	26	Free-flow
D	27	35	Mild Congestion
E	36	45	Moderate Congestion
F	46	60	Severe Congestion

Figure 5 Level of Service and Traffic Density Relationship

The real time responsive toll amount adjustment logic utilizes concepts proven to be successful by other HOT facilities. The logic begins with an initial operating toll amount schedule and compares the initial toll amount to a calculated toll amount based on current traffic conditions. Current traffic conditions are determined by real time traffic data collected from EL detectors. The data collected are processed to exclude erroneous data and averaged before a TD is calculated. The TD is used to determine the toll amount needed to optimize traffic flow.

The TD calculations are averaged for each EL segment every 15 minutes to respond to current traffic conditions. The TD calculation is then rounded to a whole number.

The toll amount calculations use configurable settings. The two primary settings are LOS settings and change in TD (Delta TD Tables) settings. The LOS settings relate a TD range to a toll amount range, as shown in [Figure 6](#) for all of the currently approved Segment Level of Service Settings Tables.

LOS Table						
Level of Service	Traffic Density		Toll Amount		Toll Increment	Expected Traffic Conditions
	Min	Max	Min	Max		
A	0	11	\$0.50	\$0.50	\$0.00	Free-flow
B	12	18	\$0.50	\$2.00	\$0.25	Free-flow
C	19	26	\$2.00	\$5.50	\$0.50	Free-flow
D	27	35	\$5.50	\$9.50	\$0.50	Mild Congestion
E	36	45	\$9.50	\$11.75	\$0.25	Moderate Congestion
F	46	60	\$11.75	\$11.75	\$0.00	Severe Congestion

Figure 6 Sample Level of Service Table

The Delta settings relate a change in TD (ΔTD) to a change in toll amount (ΔTA). The steps for calculating the current toll amount are presented in [Figure 7](#). The TD calculated for the previous time period is subtracted from the TD for the current time period to determine the change in TD (ΔTD). Using the delta settings table, a toll change is determined. The toll amount change is added to or subtracted from the previous toll amount to determine the current toll amount. The current toll amount is compared to the maximum and minimum toll amounts in the LOS settings table ([Figure 6](#)).

If the current toll amount falls outside the maximum or minimum toll amounts for the corresponding TD, then the maximum or minimum toll amount, respectively, is applied. If the current toll amount falls within the maximum or minimum toll amounts, then the current toll amount is applied. For example, the previous toll amount is \$1.50, and the previous TD is 20. The current TD is 23. The current toll amount is calculated as follows:

$$\Delta TD = TD_t - TD_{t-1} = 23 - 20 = 3$$

Refer to example Delta Settings Matrix ([Figure 8](#)). A TD of 23 at ΔTD 3 yields a \$1.50.

The current toll amount falls within the toll amount ranges for a Level of Service C (TD=23). Therefore, a toll amount of \$3.00 is used.

Step 1: Calculate ΔTD
 The TD calculated for the previous time period (TD_{t-1}) is subtracted from the TD for the current time period (TD_t) to determine the change in TD (ΔTD)

$$\Delta TD = TD_t - TD_{t-1}$$

Step 2: Find ΔR based on ΔTD and TD_t
 Using the delta settings table, a rate change is determined
Refer to Delta Settings Matrix

Step 3: Calculate R_t

$$R_t = R_{t-1} + \Delta R$$

Figure 7 Current Toll Amount Calculations

SELS RE-OPEN PROCEDURE

The current EL recover from closure procedure in SELS addresses a race condition. SELS reduces the risk of toll amounts artificially decreasing when traffic starts flowing into an empty or low volume segment, by allowing a “normal” toll (time-of-day toll) check at the first calculation interval before dynamic tolling is fully restored. This means that when the EL come out of “closed” and a scheduled update is going to occur, this procedure minimizes the risk of implementing a low toll, so the EL may see a higher toll than current conditions might recommend when dynamic mode is first restored.

Figure 9, Toll Calculation during EL Recovery from Closure, demonstrates how the procedure works. In the figure: once the EL are reopened, the immediate effective toll amount (TA_i) will be either the Time-of-Day toll amount (TA_n) or the last calculated toll amount (TA_0), whichever is greater, and TD_i is either TD_0 or TD_n according to which toll amount is chosen. When a proposed scheduled interval of toll calculation starts, the toll amount for the first interval (TA_1) is calculated using current TD_1 , TD_i and TA_i , then this TA_1 is compared with TA_i , TA_1 will replace TA_i if $TA_1 < TA_i$. Dynamic tolling is recovered in the second scheduled interval.

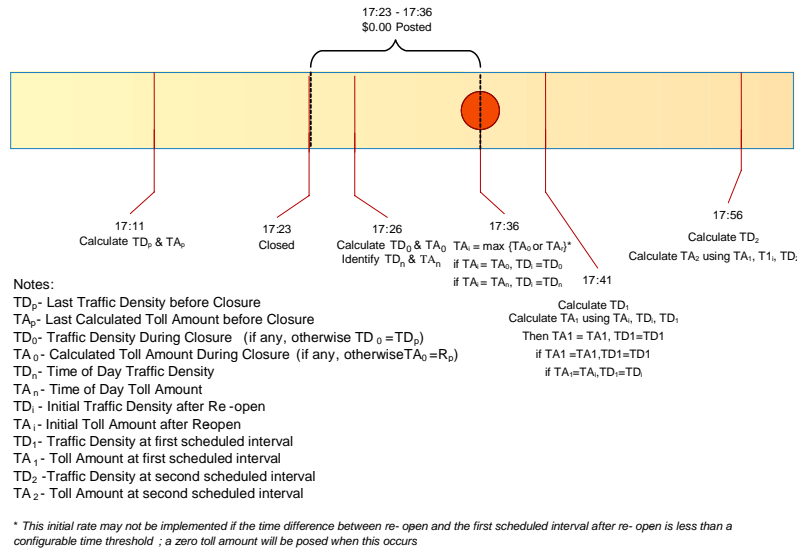


Figure 9 Toll Calculation during EL Recovery from Closure

TOLL SYSTEM INTERFACES

Express lane systems in Florida consist of two systems running in parallel, with the key interfaces between them. These two systems and the interfaces needed to support Express Lane operations are the Turnpike toll collection system and the District ITS and pricing system. The interactions between the two systems are shown in **Figure 10**. The Turnpike operates the toll collection system and is responsible for processing toll transactions through roadside toll equipment and back-office systems. The District is responsible for the management of the express lane traffic operations through the TMC.

The toll lane equipment is connected to the Turnpike Back Office through the Turnpike transaction host, while the ITS roadside equipment connects to the TMC. The ITS roadside components include traffic sensors deployed along the Express lanes, dynamic message signs (DMS) displaying Express Lane status and toll amounts, traffic control devices (such as gates), and closed-circuit television (CCTV) cameras for incident management.

The three key interfaces between the toll collection system and the ITS / pricing system are:

- Toll Amount Interface – This interface is used by the Turnpike to receive the final toll amount information from the TMC / Pricing System. This interface will be used for all Express lanes throughout the State.

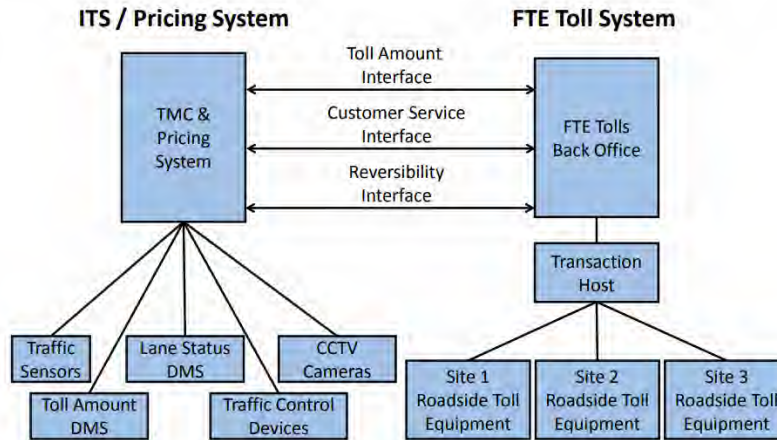


Figure 10 Typical Toll System Interfaces

- **Customer Service Interface** – This interface allows the Turnpike Customer Service Representatives to look at information that was posted on the toll amount DMS when customers have questions regarding transactions. The Turnpike also has an Interface Control Document that describes this interface.
- **Reversibility Interface** – This interface is used by the TMC to send a signal to the toll system to change the direction in which the toll point operates. This interface is only needed if the Express lane is a reversible system.

EXPRESS LANE SEGMENT

An Express lane segment is the distance between an entry point to the Express lanes and the next point of exit, see [Figure 11](#). If there are multiple entry points before an exit point, the segment is defined to be the distance between the first entry point, see [Figure 12](#). If there are multiple exit points following an entry point, the segment represents the distance between two successive exit points, see [Figure 13](#).

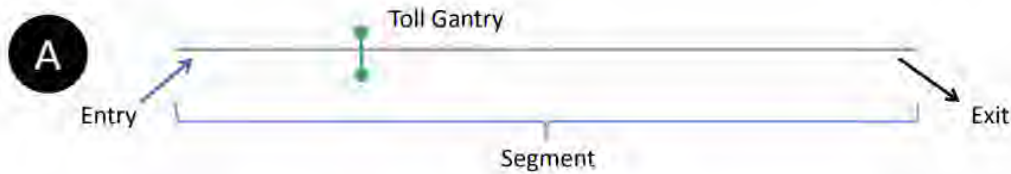


Figure 11

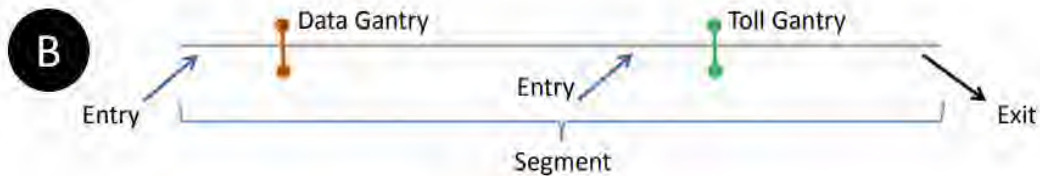


Figure 12

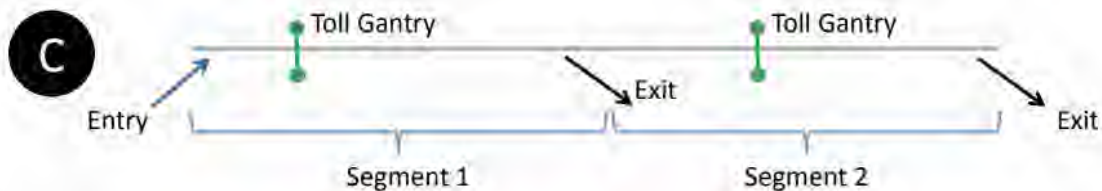


Figure 13

Gantries shall be placed between successive entries, between an entry point and an exit point, and between successive exits, unless the entry or exit points are spaced less than one mile apart or physical constraints prevent the placement of such structures.

Gantries placed between successive entry points (i.e. data gantries) do not charge a toll but rather collect data to accurately account for the time to travel from the toll amount DMS to the tolling point. All other gantries will charge the toll in effect at the time of entry. Every segment has only one toll gantry that charges a toll. The minimum toll is \$0.50 at each gantry where a toll is charged.

TRIP BUILDING

A tolling trip is comprised of one or more contiguous segments. [Figure 14](#) illustrates the six tolling trip possibilities of an example Express lane system, for a single direction on travel, which is composed of three segments. For longer Express lane systems that have more than three segments, trip building systems, consisting of no more than three segments, can be established in series with a decision point for the customer to stay in or get out of the Express lanes within the tolling trip. The linking of trip building systems together is shown in [Figure 15](#).

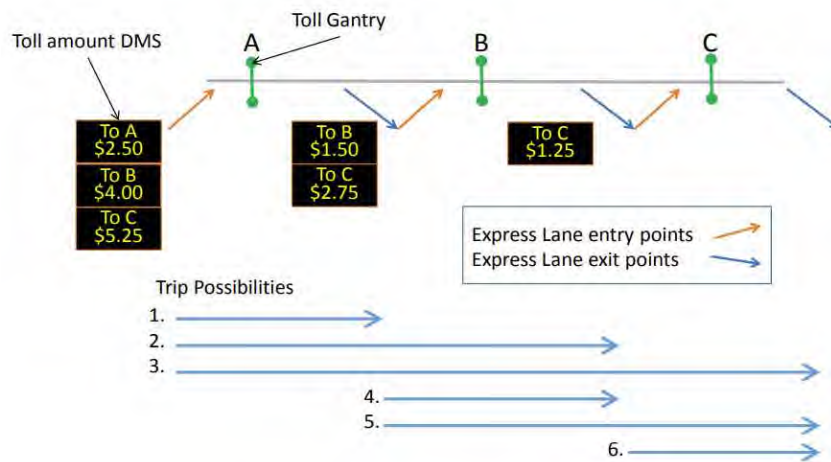


Figure 14 Trip Possibilities for a Three Segment Express Lane System

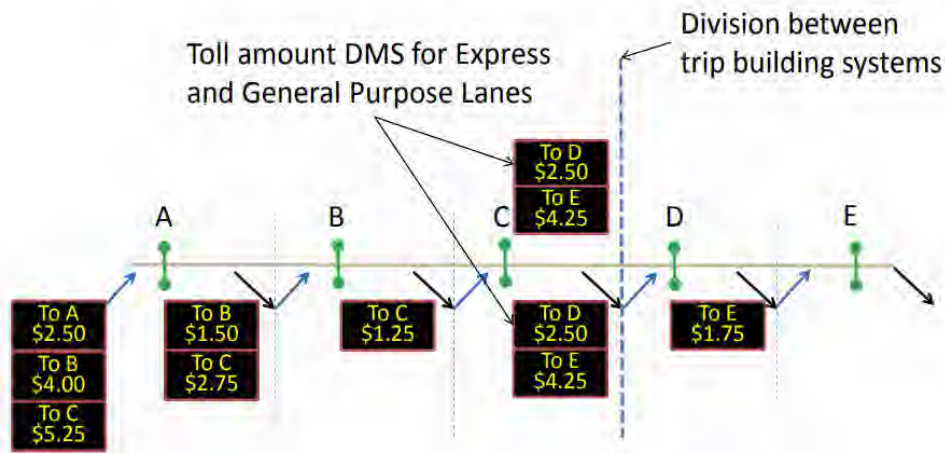


Figure 15 Linked Trip Building Systems

A customer in the General use lanes will see a toll amount DMS which displays the toll amount that will be charged to the customer for traveling to one or more destinations in the Express lanes/ Each possible Express lane exit in the current tolling trip, and the associated destination, is provided with the associated toll amount. The toll amount seen by the customer on the toll amount DMS is locked in upon entry to the Express lanes for travel to the destinations shown on the sign. Therefore, the customer will be charged no more than what is posted on the toll amount DMS for traveling to the destinations shown even if the toll amounts change after customers enter. If the toll amount is reduced after a customer has entered the Express lanes and while the customer is still in the Express lanes, the reduced toll amount will be charged.

Each of the Express lane segments within a tolling trip may have different toll amounts, which when added together, form the total trip toll amount. Even though the toll amount will be charged on a segment-by-segment basis, and reported as such on the customers statement, trip building is necessary to ensure that drivers who get into the Express lanes and travel through multiple segments pay the lower toll between what they see on the toll amount DMS and what is actually charged a the successive toll gantries within the tolling trip.

1.3 DISTRICT FOUR EL STAFFING AND SCHEDULING

PURPOSE AND SCOPE

The purpose of this section is to establish responsibilities and scheduling of the Express Program Manager and the Control Room Staff that cover the Express Lanes Shifts, referred to as EL Staff.

EXPRESS LANES PROGRAM MANAGER / COORDINATOR

The Express Program Manager works full time on-site at the SunGuide TMC to support all 95 Express and Ramp Signaling related activities.

The responsibilities of the Express Program Manager include, but are not limited to:

- Overseeing EL operations.
- Overseeing overall project performance to ensure it is meeting the intended results.
- Evaluating and analyzing project related performance metrics.
- Developing and implementing recommendations to mitigate performance measures degradation.
- Conducting and overseeing operational analyses.
- Providing projects related data and information to others (internal and external).
- Coordinating and supporting testing for all software, hardware and firmware upgrades/changes.
- Reviewing and updating operational parameters including but not limited to:
 - Express Time of Day, Level of Service, and Traffic Density Delta tables.
 - Ramp Signaling Central and Local Time of Day tables.
 - Ramp Signaling minimum and maximum metering rates.
- Representing the Department at meetings, workshops, presentations (including other Express Lanes deployments as the project lead and technical expert).
- Supporting public outreach/public information efforts.

EL STAFF RESPONSIBILITIES

District Four shall schedule a minimum of one Express Lanes Operator on-site at the SunGuide TMC at all times. The 24 hours per day/7 days per week (24/7) coverage requirement includes using the Shift Supervisors or alternate Express trained Operators to cover EL operations during breaks and approved leaves of absence. The responsibilities of the EL Staff are as follows:

- Primary operators of the Express Lanes Module (SELS).
- Monitor Express facilities and General Use Lanes within District limits.
- Verify toll amounts (per Segments and Trips) are displayed correctly every 15 minutes.
- Review failures in SELS and follow failure procedures.
- Observe, acknowledge and report all detector failures and report via the MIMS software application.
- Manage events in the Express Lanes, in accordance District Four ELOPS and training material.
- Primary Point of Contact for Express Lane events (to include interagency event for District Six and 595 Express LLC).
- Ensure shift change report for EL Operations is complete and accurate for each shift worked.
- Create and complete the SELS Shift debriefing report to incorporate activities for 595 Express, 75 Express, and 95 Express.
- Handle all calls/inquiries related to Express Lanes.
- Monitor 75 Express and 95 Express field devices along both facilities and field devices along the General Use Lanes throughout the Express limits and report failures via the MIMS software application.

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- Ensure breaks and meals are covered by Shift Supervisors or EL trained Operators.
- Closely coordinate and support Shift Supervisors and Fleet Operators.
- Prepare or assist with preparation of Express Lanes reports.
- Assist and/or perform research for TMC Management / Client.

1.4 DISTRICT FOUR ROAD RANGER/INCIDENT RESPONSE TEAM COORDINATION

PURPOSE AND SCOPE

The purpose of this section is to describe supplemental Road Ranger coordination procedures and policies and provide procedures for communicating with the Express Severe Incident Response Team. As agreed, by both districts, FDOT District Six shall handle all incident and event management for all events occurring in Miami-Dade County. FDOT District Four shall handle all incident and event management for all events occurring in Broward County.

INCIDENT RESPONSE TEAM OVERVIEW

Existing Incident Management

Existing FDOT D4 and D6 incident management efforts along the project corridor are managed from the respective FDOT SunGuide Transportation Management Center (TMC). These efforts include four key program elements; Traffic Incident Management (TIM) Teams, Road Rangers, Rapid Incident Scene Clearance (RISC), and Severe Incident Response Vehicle/Incident Response Vehicle (SIRV/IRV) Operations. These resources work closely with Asset Maintenance Contractors for extended incidents. The delineation mark for incident management services between D4 and D6 will be the Broward County/Miami Dade Countyline, to the south of the District; however, procedures are in place for each District to respond to the neighboring District upon request.

Traffic Incident Management (TIM) Teams

The Incident Management program provides incident management response as well as limited assistance to stranded motorists to reduce congestion and improve safety for emergency responders and the motoring public. The D4 TMC, in the interest of promoting Florida's "Open Roads Policy" and providing increased mobility on FDOT highways, provides Incident Management (IM) and Motorist Assistance (MA) services to improve safety, reduce delays, and mitigate secondary traffic incidents.

Both the D4 and D6 have established Traffic Incident Management (TIM) Teams. The TIM Teams consists of FDOT, Florida's Turnpike Enterprise (FTE), FHP (Florida Highway Patrol), tow companies, local police, local fire rescue, other regional TMCs, consultants, and asset maintenance companies. The District Four TMC TIM Team meets quarterly and there are bi-annual joint TIM meetings held among the D4 TMC and D6 TMC TIM Teams. Through the TIM Teams, both D4 TMC and 64 TMC have established excellent working relationships with the incident responders. The TIM Teams have helped to establish quick clearance policies and provide a forum to discuss issues which results in continuous improvement to incident response within the region.

Future - FDOT District Four will look into providing additional resources to clear events along the EL facility. As part of the enforcement plan, at least two FHP Troopers (6:00 AM to 10:00 PM, Monday through Friday) will be retained by FDOT through the Hireback program. In addition, one FDOT Severe Incident Response Vehicle (SIRV) Operator will support the existing Road Rangers and improve communications between the field and the TMC Operations. A flat bed tow truck will be required to assist with clearance of the EL.

Express Severe Incident Response Vehicle Operators

The SIRV operators will act as an FDOT incident coordinator on-scene for events impacting the traffic flow within the Express Lanes. They will assist responding agencies, coordinate maintenance of traffic (MOT) activities of the Road Rangers and provide liaison between other responding agencies and FDOT resources (such as FDOT Maintenance and/or its Asset Maintenance Contractor). The SIRV Operator will be the primary contact for the TMC Operators to ensure all response and clearance times are documented in the SunGuide Software. As needed, the SIRV operator will facilitate post-incident analysis meetings with other agencies. The SIRV operators will wear a uniform that portrays a professional appearance and assists with recognition in the field to new responders. A patch will be worn to communicate that the SIRV Operators represent FDOT. The SIRV operators will be trained and qualified in the following:

- Incident Management and Command
- Advanced Management of Traffic



- Incident Clearance Procedures
- Severe Incident Documentation
- Emergency Vehicle Operation
- First responder functions and responsibilities

Their hours for Express Lanes incident response are listed below:

- Monday through Friday (excluding FDOT approved / public holidays) – 6A through 10P.
- Out of hours 10P through 6A and weekends – on call (refer to weekly published schedule).

For out of hours response, the following criteria must be met:

- Any event lasting or expected to last 2 hours or longer.
- Any event involving a fatality.
- Any RISC event.
- Any event involving a large overturned commercial vehicle, such as a tractor-trailer, dump-trump, cement mixer, tanker, etc.
- Any event involving a large commercial vehicle, such as a tractor-trailer, dump-truck, cement mixer, tanker, etc. where the tires are burned off.
- Any event involving a Haz-Mat.

SIRV must also be notified for any crash involving injuries requiring transport to:

- Law Enforcement.
- Fire Rescue.
- Road Rangers.

Severe Incident Response Vehicle

The SIRV is a specially equipped and marked vehicle that is dispatched through the FDOT District Four SunGuide TMC. These vehicles are equipped with an amber strobe light system to facilitate emergency response. High intensity lighting and markings have been added to the truck to assist responders after sundown. A docking station in the driver’s compartment allows use of a laptop computer to support incident command activities. A statewide law enforcement radio system (SLERS) radio is provided to allow for direct communication with the FDOT District Four SunGuide TMC Operations Staff. In addition, the Severe Incident Response Vehicle carries maintenance of traffic and spill mitigation equipment such as cones, signs, flares, oil dry, and fuel absorbent.



Flat Bed Tow Truck

The flat bed tow truck is a 21 ft. carrier properly equipped for all types of vehicle towing and a four passenger cab (not including driver) to facilitate quick clearance of the lanes.

Florida Highway Patrol

FHP provide enforcement and coordinate the removal of an event from the Express Lanes. FHP is contacted when rotational tow is required either to remove a vehicle from the Express Lanes or to assist with removal of the vehicle from any other site after it has been relocated from the 95 Express Lanes.



Road Ranger Coordination

The Road Rangers are the FDOT freeway service patrol which is a free service provided by FDOT and is managed by each Districts TMC. The Road Rangers’ mission is to provide free highway assistance services during incidents to reduce delay and improve safety for the motoring public and responders. In Broward, Palm

Beach (D4) and Miami Dade (D6), Road Rangers patrol designated areas (beats) 24 hours a day, 7 days a week and 365 days a year. The Road Rangers provides the following services:

- Short-term maintenance-of-traffic (MOT) services during incidents.
- Assist in incident management and response.
- Clear disabled vehicles from travel lanes.
- Clear debris from travel lanes.
- Change flat tires.
- Jump-start vehicles and make minor repairs.
- Supply emergency gasoline, diesel, water.
- Provide stranded motorists two free local calls.
- Monitor abandoned vehicles and notify FHP

In Broward County, Road Ranger services along I-95 are currently provided through the Asset Maintenance Contract E4V68-R0 and Palm Beach is provided through contract E4U23. Asset Maintenance Contract E4V68-R0 (Incident Clear – Broward) began service on July 01, 2022 and Asset maintenance Contract E4U23 (Autobase – Palm Beach) began service on January 30, 2021. These contracts provide Road Ranger pick-up trucks that continuously patrol all I-95, I-75, and portions of I-595. The Road Rangers responds to incidents and stranded motorists along these corridors to help facilitate clearing the roadway.

The Road Ranger vehicle fleet within Broward / Palm Beach includes three different truck types: - Pickup trucks, pickup trucks (with debris clear) and flatbed trucks. The Road Ranger patrol beats for 75 EL and 95 EL project limits are as follows:

Monday through Friday 5:00 AM – 10:00 PM (staggered)

- I-95 Broward County (Ives Dairy Road to Davie Blvd / I-595 EB to Eller Drive / I-595 WB to US-441 / SR-7)
 - Two Pickup Trucks
- I-95 Broward County (SR-84 to Cypress Creek Road / I-595 EB to Eller Drive / I-595 WB to US-441 / SR-7)
 - Two Pickup Trucks
- I-95 Broward County (Commercial Blvd to Palmetto Park Rd)
 - Two Pickup Trucks
- I-95 Broward County EXPRESS LANES (Cypress Creek Rd to Glades Rd)
 - Two Pickup Trucks (same patrol as above entry)
- I-95 Broward County EXPRESS LANES (Ives Dairy Rd to Broward Park & Ride)
 - Three Pickup Trucks
- East Roving Supervisor
 - One Flatbed Truck
- Floating Patrol for I-95 (SR-84 to Palmetto Park Rd) and EXPRESS LANES (Cypress Creek Rd to Glades Rd)
 - Two Pickup Trucks
- I-95 Palm Beach County EXPRESS LANES (Hillsboro Blvd to Congress Ave)
 - One Pickup Truck
- County Supervisor
 - One Pickup Truck

Monday through Friday 10:00 PM – 6:00 AM, weekends and holidays (staggered)

- I-95 Broward County (Ives Dairy Road to Davie Blvd / I-595 EB to Eller Drive / I-595 WB to US-441 / SR-7)
 - One Pickup Truck
- I-95 Broward County (Cypress Creek Road / I-595 EB to Eller Drive / I-595 WB to US-441 / SR-7)
 - Two Pickup Trucks
- I-95 Broward County (Commercial Blvd to Palmetto Park Rd)

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- Two Pickup Trucks
- I-95 Broward County EXPRESS LANES (Cypress Creek Rd to Glades Rd)
 - Two Pickup Trucks (same patrol as above entry)
- I-95 Broward County EXPRESS LANES (Ives Dairy Rd to Davie Blvd)
 - Two Pickup Trucks
- County Supervisor
 - One Pickup Truck (with Debris Clear)
- I-95 Palm Beach County EXPRESS LANES (Hillsboro Blvd to Congress Ave)
 - One Pickup Truck
- County Supervisor
 - One Pickup Truck

The 95 Express Lanes are separated from the General Use lanes by solid double white pavement markings and plastic poles, also referred to as delineators or ELM's (Express Lane Markers). Road Rangers are designated as "Emergency Vehicles" by FDOT Secretary Order and are permitted to cross the solid double white lane lines and plastic poles when responding to and departing an event. This authorization was granted to Road Rangers in order to safely facilitate quick clearance of traffic incidents, especially those occurring within the Express Lanes facility.

A minimum of two Road Rangers will be dispatched. One of these two vehicles must be a flatbed truck during Peak Period (broken down into Peak East and Peak West). The Road Ranger arriving first will:

- Notify the TMC upon its arrival.
- Assess the situation.
- Communicate to the TMC whether the backup unit is still needed.
- Secure the scene by setting up temporary MOT and offer assistance, as needed, to the vehicle or motorist.

If the backup unit is needed, the Road Ranger vehicles will reposition themselves, as needed, to allow the flatbed truck to hook up the disabled vehicle as the other Road Ranger provides additional backup and maintenance of traffic (MOT) behind the incident.



- When relocating vehicles, a minimum of two vehicles is required.
- When relocating vehicles to the right shoulder, a minimum of three vehicles is required.
- The additional Road Ranger (or law enforcement unit) will be responsible for MOT in lane 1 of the General Use lanes, slowing and diverting traffic in this lane to allow the Road Rangers and other potential incident vehicles to cross the double white lines and plastic poles to enter the General Use lanes.
- Once all vehicles have exited the EL facility and entered lane 1 of the General Use lanes, the vehicle providing MOT in the General Use lanes will begin gradually escorting all incident vehicles to the right shoulder or Emergency Stop Site (ESS) along I-95.

Road Rangers shall be allowed to relocate any vehicle without the presence of law enforcement (FHP or other) to the nearest safe location, Emergency Stopping Site (ESS), or Broward Park and Ride. However, Road Rangers are not legally authorized to perform relocation of the vehicle without the vehicle owner's or law enforcement's consent.

Anytime a Road Ranger/SIRV Operator relocates a vehicle or requests FHP assistance, the TMC Operator shall provide FHP with the following information:

- Vehicle Description(s) (Make, Model, Color, License Plate and VIN)
Note: TMC Operator must advise FHP when the event is unable to be located by CCTV or when a Road Ranger is not on scene.

- Nature/Type of Event
- Location (Roadway, Direction of Travel, Proximity, and Cross Street)
- Injuries, if applicable

Dispatching Resources

The Express Lanes Operator is responsible for detecting, confirming, and dispatching the necessary resources to accommodate the nature of the event, such as Road Rangers, SIRV Operator and/or Flatbed Tow Truck. Communication will be maintained by the Express Lanes Operator with the resources dispatched pre, during, and/or post incident.

Quick Clearance Procedures

In order to expedite the clearance of both travel lane and shoulder blocking events within the Express Lanes, the following quick clearance procedures have been established:

- Vehicles blocking Express travel lanes are to be relocated to the General Use right shoulder, a designated Emergency Stop Site (ESS), or the Broward Park and Ride. Road Ranger vehicles equipped to safely move vehicles may do so, although some events may require a flatbed truck.
- Disabled vehicles located on the Express Lanes shoulder (left shoulder only) are to be relocated to the right shoulder of the General Use lanes, ESS, or Broward Park and Ride.
- Abandoned vehicles within the Express Lanes that are blocking a travel lane or deemed to be impeding traffic due to proximity of the travel lane shall be relocated to the nearest safe location. Prior to relocation the Express Lanes Operator shall notify FHP that the vehicle is being relocated. Once the vehicle has been relocated the EL Operator shall provide FHP with a follow-up notification informing FHP of the vehicle description (Make, Model, Color, and License Plate Number) and the location of the vehicle.
- Abandoned vehicles on the Express Lanes shoulder (legally parked) are to be marked with a grease pen on the rear window by a Road Ranger when it is first discovered and the Express Lanes Operator will notify FHP (or liaison) to log the initial discovery.
 - The markings include the time, date and Road Ranger truck number.
 - At the beginning of each Hireback (future) shift, the FHP Trooper sweeps the Express Lanes for disabled vehicles and calls for rotational tow if necessary.
 - The rotational tow will pick up the vehicle from the shoulder if they are able to respond within 30 minutes. If they are not able to respond within 30 minutes, the FHP Trooper will request TMC Operations dispatch resources to relocate the disabled vehicle to the General Use right shoulder, ESS, or Broward Park and Ride.
- Subsequently, the FHP Trooper will request rotational tow to pick up the vehicle at the designated relocation area.

Debris

Debris located within the Express Lanes shall be removed from the travel lanes by the Road Ranger/Road Ranger Supervisor using the DebrisClear System. Once the debris is clear, the Road Ranger/Road Ranger Supervisor shall notify the TMC. It is then the responsibility of the Express Lanes Operator to contact the Asset Maintenance Contractor (or project contractor) to dispose of the debris. If the debris is too large for the Road Ranger/Road Ranger Supervisor to remove, or if the removal puts the Road Ranger/Road Ranger Supervisor in an unsafe situation, then the TMC Operator shall contact the FDOT Asset Maintenance Contractor (or project contractor).

Asset Maintenance / Contractor within project limits (for LTMOT)

Asset Maintenance – The Asset Maintenance contractor is responsible for repair and maintenance of the Express Lanes, unless the limits fall within an active project, at which time the contractor assigned to the project is to respond (please refer to the Asset Maintenance spreadsheet for project limits). They respond to or acknowledge:

- Damage, property theft or vandalism to State owned infrastructure or equipment, including but not limited to guardrails, bridge abutments, crash barrels and pavement.
- Debris on the roadway.

- Severe incident with Long Term Maintenance of Traffic requirements (LTMOT). Typically estimated to have greater than one hour of lane blockage for Express Lanes management.

HARD CLOSURES FOR INDIVIDUAL SEGMENTS

All field resources patrol their assigned beats throughout their patrol.

- The SIRV unit and Flatbed shall provide on-scene management and event coordination for the primary incident.
- One Road Ranger Pickup truck shall be responsible for the closing of each assigned ingress point to the segment (from I-95 mainline).
- One Road Ranger Pickup truck shall be responsible for the closing at the end of the upstream segment to prevent motorists continuing their trip toward the incident scene (to I-95 mainline).
- Once the duration of an event has exceeded 60 minutes, then notify Asset Maintenance Contractor to relieve the Road Rangers and/or IRV.

HARD CLOSURES FOR SEGMENTS OUTSIDE OF DISTRICT FOUR LIMITS

District Four are supported by SEFRTOC partners for locations outside of their District limits, such as points of egress, supported by District Six. An example is listed below:

- D6 – One Road Ranger Pickup truck is responsible for closing at the end of 95 Express Segment 2N (destination Ives Dairy Rd), to force traffic out to the General Use mainline and prevent motorists from entering the downstream segment (3N).
- Once the duration of an event has exceeded 60 minutes, then notify Asset Maintenance Contractor to relieve the Road Rangers and/or IRV.

EVENT NOTIFICATIONS

FDOT District Six TMC and FTE (Pompano) TMC

It is extremely critical that both FDOT District Four have exceptional communication between the partner TMC's. As such, the EL Operator shall notify District Six TMC or FTE (Pompano) TMC when an event occurs within certain segments. See below for required notifications:

95 EXPRESS – District Six TMC

Segment 3N – Any lane blocked, the segment is closed, or significant congestion extends beyond the segment.
Segment 3S – Any lane blocked, the segment is closed, or significant congestion extends beyond the segment.

75 EXPRESS – District Six TMC

Segment 4N – Any lane blocked, the segment is closed, or significant congestion extends beyond the segment.
Segment 6N – Any lane blocked, the segment is closed, or significant congestion extends beyond the segment.

75 EXPRESS – FTE (Pompano) TMC

Segment 6N – Ingress from HEFT NB.
Segment 6N – Any lane blocked, the segment is closed, or significant congestion extends beyond the segment.

TRANSIT

TMC Operations Staff shall notify Miami-Dade Transit (MDT) dispatch via the telephone (305-381-8382) for all incidents with major infrastructure and/or travel lanes blocked that are estimated to exceed more than 2 hours within the 95 Express limits (all segments). This notification is for incidents having a major impact on traffic in the area that may affect buses traveling along the facility.

Broward County Transit (BCT) has expanded service to Miami-Dade County and shall only utilize the EL for AM (5:00 AM to 9:00 AM) or PM (3:00 PM to 7:00 PM) peak periods.

BCT and MDT also have existing procedures for a bus breakdown within the Express Lanes. The BCT and MDT will dispatch an agency supervisor to the scene and an additional bus to transfer the passengers. Even when a bus is located on the left shoulder, an additional lane will need to be blocked to safely transfer passengers. The following protocols with BCT and MDT have been established when a bus breakdown occurs in the EL.

- I. BCT or MDT discovers Bus Breakdown/Crash
 - The MDT or BCT should notify the TMC by telephone. The EL Operator should gather the following information from the BCT or MDT dispatcher:
 - Location of broken-down bus.
 - What resources were dispatched.
 - Other agencies notified, such as FHP.
 - Any other information regarding the event, such as type, expected duration, etc.
 - Once notified, the TMC will dispatch Road Rangers and the IRV to the scene and verify the location of the event via CCTV (if available). Once located, the TMC Express Lane Operator will notify the BCT or MDT Dispatch and provide the following information:
 - Confirmed location.
 - Dispatched resources.
 - CCTV # viewing the incident (this applies when MDT has access to CCTV).
- II. EL Operator Discovers Bus Breakdown/Crash
 - Once detected, the EL Operator shall notify the I-75 Fleet operator to dispatch Road Rangers and the SIRV unit to the scene and verify the location of the event via CCTV (if available). Once the event is verified, the EL Operator will notify BCT and / or MDT dispatch and provide the following information:
 - Confirmed location.
 - Dispatched resources.
 - Any other information regarding the event, such as type, expected duration, etc.
- III. Ongoing Coordination during Bus Breakdown/Crash
 - During the event, BCT and / or MDT will provide updates every 30 minutes until the event has cleared the roadway.
- IV. Other Events (Bus not involved)
 - The EL Operator will notify BCT and MDT for all Segment 3 events during peak periods on weekdays, Monday through Friday (6:00 AM – 9:00 AM) or PM (4:00 PM – 7:00 PM) only.
 - Any major or long-term EL or GU events outside of rush hour.

1.5 EL SOFTWARE APPLICATIONS

PURPOSE AND SCOPE

The purpose of this section is to provide the procedures for operating the SELS software applications.

EXPRESS LANE MODULE (SELS)

The EL Operator shall use SELS to determine and post the applicable toll amount, monitor traffic conditions in both the EL and GU Lanes, monitor EL detector status and generate reports. The EL Operator shall log onto SELS at the beginning of each shift and initiate the Roadway Operations View and Detector Status Monitor. The SELS will track, change modes, and post EL Toll Amount DMS messages, plus document the EL Operator actions for acknowledging and confirming the applicable toll amount. The EL Operator shall visually verify that the intended toll amounts are posted via CCTV screenshots before processing the SELS DMS Verification Form. [Figure 16](#) provides a sample screenshot of the Roadway Operation View. [Figure 17](#) provides a sample screenshot of the DMS Verification Form. [Figure 18](#) provides a sample screenshot of the Segment Mode/Toll Change pop-up.



Figure 16 Sample Screenshot of the 95 Express Corridor View



Figure 17 Sample Screenshot of the DMS Verification Form



Figure 18 Sample Screenshot of the Segment Mode / Toll Change pop-up

EXPRESS LANES OPERATIONAL PROCEDURES

Express Lanes Operational Procedures (Version 1)

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Location	Direction	Scenario	Comments	Response	Recovery
<p>95 Express Lanes Events – 95 Express SB entrance / ingress from Congress Ave.</p>	<p>SB</p>	<p>ENTRANCE / INGRESS FROM CONGRESS AVE / I-95 MAINLINE TO SEGMENT 10S BLOCKED</p>	<p>Use SB50 for incident management.</p> <p>At this time, this ingress is considered the beginning of the facility. With future expansion, this procedure will be updated to reflect the procedure of an ingress that is mid facility.</p> <p>Post the DMS through the segment if supporting a primary EL event.</p> <p>Refer to DMS messaging plan.</p>	<ol style="list-style-type: none"> 1. Dispatch incident responders. 2. In SELS Corridor View, click on the M within the Status Table for Segment 10S: <ul style="list-style-type: none"> ○ Choose Closed mode. ○ Select a D4 event. If the event is not available at the time of the override, select a Dummy event. ○ Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 3. Implement a hard closure. 4. Post messages using SunGuide predefined plan “10S - SB Express Lanes Closed - Segment 10S”. 5. If supporting a primary closure, repeat step 2. 6. Every 15 minutes verify that all EL DMS are displaying the correct messages. 	<ol style="list-style-type: none"> 1. Release the incident responders and open the entrance / ingress. 2. In the SELS Corridor View, click on the M within the Status Table for Segment 10S and re-submit the mode displayed (current) to update signs that were set ‘out of service’. 3. In SunGuide, terminate the response plan that was used for this closure. 4. Continue tolling a usual.


Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express SB before egress to Glades Rd. Segment 10S.	SB	ABANDONED VEHICLE, DEBRIS, DISABLED VEHICLE, OTHER, OR PEDESTRIAN EVENT OCCURS IN TWO LANE SECTION OF EXPRESS LANES SEGMENT 10S (BEFORE EXIT / EGRESS TO GLADES RD) BLOCKED	<p>A hard closure shall be implemented at any time based on safety concerns.</p> <p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers. Use SB50 for incident management.</p> <p>Refer to DMS messaging plan.</p> <p>There are two Toll Amount DMS located inside the Express Lanes (at YAMATO RD), with a destination of HILLSBORO BLVD and CYPRESS CRK RD. The TADMS are FLD4DOT95047.7SB-TR1/TR2 and FLD4DOT95047.2SB-TR1/TR2. If the TADMS are before the incident after 30 minutes or if a hard closure, 'CLOSED' is to be manually posted using group '95X SB 02 Internal Hill_Cyp' and place OOS.</p>	<p>If the event type is Abandoned Vehicle, Debris, Disabled Vehicle, Other, or Pedestrian:</p> <p>If the event is blocking all lanes, regardless of the event type follow the procedure that is shown on next page for Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding.</p> <p>If the event is not blocking all lanes and is expected to be cleared within 30 minutes:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. Normal tolling continues for the next 30 minutes. 3. Generate a response plan to notify motorists of the lane blockage. <p>Once the event exceeds 30 minutes, or if expected to exceed 30 minutes, or if all lanes are blocked:</p> <ol style="list-style-type: none"> 1. In SELS Corridor View, click on the  within the Status Table for Segment 10S: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 2. Post messages using SunGuide predefined plan "10S - SB Express Lanes Closed - Segment 10S". 3. Dispatch incident responders to implement a hard closure at the ingress / entrance to Segment 10S from Congress Ave mainline. 	<ol style="list-style-type: none"> 1. Release the incident responders and open the entrance / ingress from Congress Ave mainline. 2. If utilized, set group filter '95X SB 02 Internal Hill_Cyp' back to 'Active'. 3. In the SELS Corridor View, click on the  within the Status Table for Segment 10S: <ul style="list-style-type: none"> o Choose desired mode. o If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling a usual.



Location	Direction	Scenario	Comments	Response	Recovery
<p>95 Express Lanes Events – 95 Express SB before egress to Glades Rd. Segment 10S.</p>	<p>SB</p>	<p>CRASH, EMERGENCY VEHICLES, ROAD WORK EMERGENCY, POLICE ACTIVITY, OR FLOODING EVENT TWO LANE SECTION OF EXPRESS LANES SEGMENT 10S (BEFORE EXIT / EGRESS TO GLADES RD) BLOCKED</p>	<p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>Use SB50 for incident management.</p> <p>Refer to DMS messaging plan.</p> <p>There are two Toll Amount DMS located inside the Express Lanes (at YAMATO RD), with a destination of HILLSBORO BLVD and CYPRESS CRK RD. The TADMS are FLD4DOT95047.7SB-TR1/TR2 and FLD4DOT95047.2SB-TR1/TR2. Once the segment is hard closed, post ‘CLOSED’ manually using group filter ‘95X SB 02 Internal Hill_Cyp’ and place OOS.</p>	<p>If the event event type is Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding, and is not blocking all lanes, then:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. In SELS Corridor View, click on the  within the Status Table for Segment 10S: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 3. Generate a response plan and post messaging for a ‘SOFT (ONE LANE OF TWO) CLOSURE’. <p>Once the event exceeds 30 minutes (or if expected to exceed 30 minutes from the time of activation), or if all lanes are blocked:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to implement a hard closure at the entrance / ingress to Segment 10S from Congress Ave mainline. 4. Post messages using SunGuide predefined plan “10S - SB Express Lanes Closed - Segment 10S”. 	<ol style="list-style-type: none"> 1. Release the incident responders and open the entrance / ingress from Congress Ave mainline. 2. If utilized, set group filter ‘995X SB 02 Internal Hill_Cyp’ back to ‘Active’. 3. In the SELS Corridor View, click on the  within the Status Table for Segment 10S: <ul style="list-style-type: none"> o Choose desired mode. o If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling as normal.



Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express SB exit / egress to Glades Rd. Segment 10S.	SB	EXIT / EGRESS TO GLADES RD MAINLINE FROM SEGMENT 10S BLOCKED	<p>Use SB50 for incident management.</p> <p>If being supported by a secondary ingress event, then the segment should also be closed (in SELS) to the ingress event once it is hard closed.</p> <p>Refer to DMS messaging plan.</p>	<p>Regardless of event type:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders. 2. In SELS Corridor View, click on the M within the Status Table for Segment 10S: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 3. Post messages using SunGuide predefined plan “10S - SB Express Lanes Egress - Segment 10S”. 4. Dispatch incident responders to assist clearing the event and allow trapped vehicles to exit the Express Lanes. <p>Once the event exceeds 30 minutes, or if expected to exceed 30 minutes, or if all lanes are blocked):</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to implement a hard closure at the ingress / entrance to Segment 10S from Congress Ave mainline. 	<ol style="list-style-type: none"> 1. Release the incident responders and open the entrance / ingress from Congress Ave mainline. 2. In the SELS Corridor View, click on the M within the Status Table for Segment 10S: <ul style="list-style-type: none"> o Choose desired mode. o If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. 3. In SunGuide, terminate the response plan that was used for this closure. 4. Continue tolling a usual.



Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express SB at exit / egress to Glades Rd.	SB	ROADWORK WHEN CONTRACTORS MOT TAPER IMPEDES TOLLED SEGMENT	<p>This refers to when the MOT taper to force motorists out at the end of the tolled segment impedes or degrades the tolled segment.</p> <p>Refer to DMS messaging plan.</p> <p>The location must fall within the tolled segment limits.</p> <p>*Note – IM procedures differ from construction procedures due to length of MOT.</p> <p>There are two Toll Amount DMS located inside the Express Lanes (at YAMATO RD), with a destination of HILLSBORO BLVD and CYPRESS CRK RD. The TADMS are FLD4DOT95047.7SB-TR1/TR2 and FLD4DOT95047.2SB-TR1/TR2. ‘CLOSED’ is to be manually posted using group filter ‘95X SB 02 Internal Hill_Cyp’ and place OOS.</p>	<p>If the event impacts or degrades the throughput of the segment, then:</p> <ol style="list-style-type: none"> In SELS Corridor View, click on the  within the Status Table for Segment 10S: <ul style="list-style-type: none"> Choose Closed mode. Select a D4 event. If the event is not available at the time of the override, select a Dummy event. Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). Generate a response plan based upon length of taper. If taper length is significant enough to warrant ‘LEFT / RIGHT LANE BLOCKED or LEFT LANE BLOCKED MERGE RIGHT / RIGHT LANE BLOCKED MERGE LEFT, then post accordingly, otherwise post messaging for a ‘SOFT CLOSURE’ (Refer to DMS messaging plan) – Do not upgrade to a hard closure unless the contractor hard closes. Contractors MOT taper will divert traffic out to Glades Road. 	<ol style="list-style-type: none"> Set group filter ‘95X SB 02 Internal Hill_Cyp’ back to ‘Active’. In the SELS Corridor View, click on the  within the Status Table for Segment 10S: <ul style="list-style-type: none"> Choose desired mode. If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. In SunGuide, terminate the response plan that was used for this closure. Continue tolling a usual.

Location	Direction	Scenario	Comments	Response	Recovery
<p>95 Express Lanes Events – 95 Express SB beyond exit / egress to Glades Rd.</p>	<p>SB</p>	<p>ABANDONED VEHICLE, DEBRIS, DISABLED VEHICLE, OTHER, OR PEDESTRIAN EVENT OCCURS IN TWO LANE SECTION OF EXPRESS LANES BEYOND SEGMENT 10S (BEYOND EXIT / EGRESS TO GLADES RD)</p>	<p>A hard closure shall be implemented at any time based on safety concerns.</p> <p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>Motorists can use the exit / egress to Glades Rd mainline; therefore, the segment is open, but the trip to Hillsboro Blvd is not.</p> <p>Refer to DMS messaging plan.</p> <p>*For soft and hard closures post on DMS EL 47.6 SB 'EXPRESS LNS CLOSED / TRAFFIC MUST EXIT / TO GLADES RD'.</p>	<p>If the event type is Abandoned Vehicle, Debris, Disabled Vehicle, Other, or Pedestrian:</p> <p>If the event is blocking all lanes, regardless of the event type follow the procedure that is shown on next page for Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding.</p> <p>If the event is not blocking all lanes and is expected to be cleared within 30 minutes:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. Normal tolling continues for the next 30 minutes. 3. Generate a response plan to notify motorists of the lane blockage. <p>Once the event exceeds 30 minutes, or if expected to exceed 30 minutes, or if all lanes are blocked:</p> <ol style="list-style-type: none"> 1. Manually post 'CLOSED' on all the Toll Amount DMS, associated with the 95 Express SB Segment 9S, for segment to HILLSBORO BLVD and trip to CYPRESS CREEK using group filter '95X SB 02 Internal Hill_Cyp'. 2. Set the TADMS used to 'Out of Service'. 3. Verify that the 'CLOSED' message is on those TADMS. If not, place any back in service that do not have that message and repeat the process. 4. Generate a response plan and post messaging for a 'HARD CLOSURE'. 5. Dispatch incident responders to implement a hard closure at the exit / egress from Segment 10S to Glades Rd mainline (force motorists to mainline). 	<ol style="list-style-type: none"> 1. Release the incident responders and open at the exit / egress to Glades Rd mainline. 2. Set all the associated TADMS back to 'Active'. 3. In the SELS Corridor View, click on the  within the Status Table for Segment 9S and re-submit the mode displayed (current) to update signs that were set 'out of service'. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling as usual.

Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express SB beyond exit / egress to Glades Rd.	SB	CRASH, EMERGENCY VEHICLES, ROAD WORK EMERGENCY, POLICE ACTIVITY, OR FLOODING EVENT TWO LANE SECTION OF EXPRESS LANES BEYOND SEGMENT 10S (BEYOND EXIT / EGRESS TO GLADES RD)	<p>A hard closure shall be implemented at any time based on safety concerns.</p> <p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>Motorists can use the exit / egress to Glades Rd mainline; therefore, the segment is open, but the trip to Hillsboro Blvd is not.</p> <p>Refer to DMS messaging plan.</p> <p>*For soft and hard closures post on DMS EL 47.6 SB 'EXPRESS LNS CLOSED / TRAFFIC MUST EXIT / TO GLADES RD'.</p>	<p>If the event type is Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding, and is not blocking all lanes, then:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. Manually post 'CLOSED' on all the Toll Amount DMS, associated with the 95 Express SB Segment 9S, for segment to HILLSBORO BLVD and trip to CYPRESS CREEK using group filter '95X SB 02 Internal Hill_Cyp'. 3. Set the TADMS used to 'Out of Service'. 4. Verify that the 'CLOSED' message is on those TADMS. If not, place any back in service that do not have that message and repeat the process. 5. Generate a response plan and post messaging for a 'SOFT (ONE LANE OF TWO) CLOSURE'. <p>Once the event exceeds 30 minutes (or if expected to exceed 30 minutes from the time of activation):</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to implement a hard closure at the exit / egress from Segment 10S to Glades Rd mainline (force motorists to mainline). 2. Generate a response plan and post messaging for a 'HARD CLOSURE'. 	<ol style="list-style-type: none"> 1. Release the incident responders and open at the exit / egress to Glades Rd mainline. 2. Set all the associated TADMS back to 'Active'. 3. In the SELS Corridor View, click on the  within the Status Table for Segment 9S and re-submit the mode displayed (current) to update signs that were set 'out of service'. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling a usual.



Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express SB entrance / ingress from Glades Rd.	SB	ENTRANCE / INGRESS FROM GLADES RD / I-95 MAINLINE TO SEGMENT 9S BLOCKED	<p>Use SB47 for incident management.</p> <p>If supporting a primary EL event, then the segment should be closed (in SELS) to the ingress event once it is hard closed.</p> <p>Post the DMS through the segment if supporting a primary EL event.</p> <p>Refer to DMS messaging plan.</p>	<ol style="list-style-type: none"> 1. Dispatch incident responders. 2. Manually post ‘CLOSED’ on all the Toll Amount and Lane Status DMS, associated with the entrance / ingress to 95 Express SB Segment 8S, using group filter ‘95X SB 03 Ingress fm Glades’. 3. Set the TADMS and LSDMS to ‘Out of Service’. 4. Verify that the ‘CLOSED’ message is on those TADMS and LSDMS. If not, place any back in service that do not have that message and repeat the process. 5. Generate a response plan and from the message library post ‘EXPRESS LANES / CLOSED / DO NOT ENTER’. 6. If supporting a primary closure, then post messages using SunGuide predefined plan “9S – SB INGRESS SUPPORTING A PRIMARY – SEGMENT 9S” and in SELS Corridor View, click on the  within the Status Table for Segment 9S: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 7. Every 15 minutes verify that all EL DMS are displaying the correct messages. 	<ol style="list-style-type: none"> 1. Release the incident responders and open the entrance / ingress from Glades Rd mainline. 2. Set all the TADMS and LSDMS associated with 95 Express SB entrance/ ingress from Glades Rd mainline back to ‘Active’. 3. If supporting a primary closure, then the TADMS and LSDMS do not need to be placed ‘out of service’. 4. In the SELS Corridor View, click on the  within the Status Table for Segment 9S and re-submit the mode displayed (current) to update signs that were set ‘out of service’. 5. In SunGuide, terminate the response plan that was used for this closure. 6. Continue tolling a usual.


Location	Direction	Scenario	Comments	Response	Recovery
<p>95 Express Lanes Events – 95 Express SB at entrance / ingress from Hillsboro Blvd (where 2 x EL lanes meet ingress entrance / ingress from Hillsboro Blvd).</p>	SB	<p>AT ENTRANCE / INGRESS FROM HILLSBORO BLVD / I-95 MAINLINE WHEN EL AND INGRESS MEET TO MAKE THREE LANES / SEGMENT 9S BLOCKED</p>	<p>A hard closure shall be implemented at any time based on safety concerns.</p> <p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>Refer to DMS messaging plan.</p> <p>*Post on DMS EL 47.6 SB ‘EXPRESS LNS CLOSED / TRAFFIC MUST EXIT / TO GLADES RD’.</p> <p>*Post on DMS SB47 ‘EXPRESS LANES / CLOSED / DO NOT ENTER’.</p>	<p>If the event type is Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding and the event does not impede the entrance / ingress from Hillsboro Blvd (three lanes at ingress):</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. In SELS Corridor View, click on the  within the Status Table for Segment 9S: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 3. Generate a response plan and post messaging for a ‘SOFT (ONE LANE OF TWO) CLOSURE’. <p>Once event exceeds 30 minutes (or from the get-go if expected to exceed 30 minutes), or if all lanes are blocked:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to implement a hard closure at the exit / egress to Glades Rd (force motorists to mainline). 2. If emergency responders require the ingress to be hard closed, then dispatch a responder to close at the entrance / ingress from Glades Rd mainline. 3. Post messages using SunGuide predefined plan “9S - NB Express Lanes Closed - Segment 9S”. 	<ol style="list-style-type: none"> 1. If the entrance / ingress from Glades Rd mainline is hard closed, release the incident responders. 2. Release the incident responders and open at the exit / egress to Glades Rd 3. In the SELS Corridor View, click on the  within the Status Table for Segment 9S: <ul style="list-style-type: none"> o Choose desired mode. o If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. 4. In SunGuide, terminate the response plan that was used for this closure.


Location	Direction	Scenario	Comments	Response	Recovery
<p>95 Express Lanes Events – 95 Express SB before exit / egress to Hillsboro Blvd. Segment 9S.</p>	<p>SB</p>	<p>ABANDONED VEHICLE, DEBRIS, DISABLED VEHICLE, OTHER, OR PEDESTRIAN EVENT OCCURS IN TWO LANE SECTION OF EXPRESS LANES SEGMENT 9S (BEFORE EXIT / EGRESS TO HILLSBORO BLVD) BLOCKED</p>	<p>A hard closure shall be implemented at any time based on safety concerns.</p> <p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers. Use SB47 for incident management.</p> <p>Refer to DMS messaging plan.</p> <p>*If internal DMS EL 44.0 SB is before the incident, then add to the response plan (if using RPG).</p>	<p>If the event type is Abandoned Vehicle, Debris, Disabled Vehicle, Other, or Pedestrian:</p> <p>If the event is blocking all lanes, regardless of the event type follow the procedure that is shown on next page for Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding.</p> <p>If the event is not blocking all lanes and is expected to be cleared within 30 minutes:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. Normal tolling continues for the next 30 minutes. 3. Generate a response plan to notify motorists of the lane blockage. <p>Once the event exceeds 30 minutes, or if expected to exceed 30 minutes, or if all lanes are blocked:</p> <ol style="list-style-type: none"> 1. In SELS Corridor View, click on the  within the Status Table for Segment 9S: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 2. Post messages using SunGuide predefined plan “9S - SB Express Lanes Closed - Segment 9S”. 3. Dispatch incident responders to implement a hard closure at the entrance / ingress to Segment 9S from Glades Rd mainline. 4. Dispatch incident responders to implement a hard closure at the exit / egress from Segment 10S to Glades Rd mainline. 	<ol style="list-style-type: none"> 1. Release the incident responders and open the entrance / ingress from Glades Rd mainline. 2. Release the incident responders and open at the exit / egress to Glades Rd mainline. 3. In the SELS Corridor View, click on the  within the Status Table for Segment 9S: <ul style="list-style-type: none"> o Choose desired mode. o If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling a usual.


Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express SB before exit / egress to Hillsboro Blvd. Segment 9S.	SB	CRASH, EMERGENCY VEHICLES, ROAD WORK EMERGENCY, POLICE ACTIVITY, OR FLOODING EVENT TWO LANE SECTION OF EXPRESS LANES SEGMENT 9S (BEFORE EXIT / EGRESS TO HILLSBORO BLVD) BLOCKED	<p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>Use SB47 for incident management.</p> <p>Refer to DMS messaging plan.</p> <p>*If internal DMS EL 44.0 SB is beyond the location of the incident, post ‘EXPRESS LANES / CLOSED / DO NOT ENTER’ if both lanes are blocked or hard closure procedures are in place.</p>	<p>If the event type is Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding, and is not blocking all lanes, then:</p> <ol style="list-style-type: none"> Dispatch incident responders to assist with the event. In SELS Corridor View, click on the M within the Status Table for Segment 9S: <ul style="list-style-type: none"> Choose Closed mode. Select a D4 event. If the event is not available at the time of the override, select a Dummy event. Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). Generate a response plan and post messaging for a ‘SOFT (ONE LANE OF TWO) CLOSURE’. <p>Once the event exceeds 30 minutes (or if expected to exceed 30 minutes from the time of activation), or if all lanes are blocked:</p> <ol style="list-style-type: none"> Dispatch incident responders to implement a hard closure at the entrance / ingress to Segment 9S from Glades Rd mainline. Dispatch incident responders to implement a hard closure at the exit / egress from Segment 10S to Glades Rd mainline. Post messages using SunGuide predefined plan “9S - SB Express Lanes Closed - Segment 9S”. 	<ol style="list-style-type: none"> Release the incident responders and open the entrance / ingress from Glades Rd mainline. Release the incident responders and open at the exit / egress to Glades Rd mainline. In the SELS Corridor View, click on the M within the Status Table for Segment 9S: <ul style="list-style-type: none"> Choose desired mode. If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. In SunGuide, terminate the response plan that was used for this closure. Continue tolling a usual.



Location	Direction	Scenario	Comments	Response	Recovery
<p>95 Express Lanes Events – 95 Express SB exit / egress to Hillsboro Blvd. Segment 9S.</p>	<p>SB</p>	<p>EXIT / EGRESS TO HILLSBORO BLVD MAINLINE FROM SEGMENT 9S BLOCKED</p>	<p>Use SB47 for incident management.</p> <p>If being supported by a secondary ingress event, then the segment should also be closed (in SELS) to the ingress event once it is hard closed.</p> <p>Refer to DMS messaging plan.</p>	<p>Regardless of event type:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders. 2. In SELS Corridor View, click on the M within the Status Table for Segment 9S: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 3. Post messages using SunGuide predefined plan “9S - SB Express Lanes Egress - Segment 9S”. 4. Dispatch incident responders to assist clearing the event and allow trapped vehicles to exit the Express Lanes. <p>Once the event exceeds 30 minutes, or if expected to exceed 30 minutes, or if all lanes are blocked):</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to implement a hard closure at the entrance / ingress to Segment 9S from Glades Rd mainline. 2. Dispatch incident responders to implement a hard closure at the exit / egress from Segment 10S to Glades Rd mainline. Place Group Filter 95X SB 02 Internal Hill_Cyp OOS once hard closed. 	<ol style="list-style-type: none"> 1. Release the incident responders and open the entrance / ingress from Glades Rd mainline. 2. Release the incident responders and open at the exit / egress to Glades Rd mainline. 3. Set all the associated TADMS back to ‘Active’. 4. In the SELS Corridor View, click on the M within the Status Table for Segment 9S: <ul style="list-style-type: none"> o Choose desired mode. o If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. 5. In SunGuide, terminate the response plan that was used for this closure. 6. Continue tolling a usual.

Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express SB at exit / egress to Hillsboro Blvd.	SB	ROADWORK WHEN CONTRACTORS MOT TAPER IMPEDES TOLLED SEGMENT	<p>This refers to when the MOT taper to force motorists out at the end of the tolled segment impedes or degrades the tolled segment.</p> <p>Refer to DMS messaging plan.</p> <p>The location must fall within the tolled segment limits.</p> <p>*Note – IM procedures differ from construction procedures due to length of MOT.</p>	<p>If the event impacts or degrades the throughput of the segment, then:</p> <ol style="list-style-type: none"> In SELS Corridor View, click on the  within the Status Table for Segment 9S: <ul style="list-style-type: none"> Choose Closed mode. Select a D4 event. If the event is not available at the time of the override, select a Dummy event. Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). Generate a response plan based upon length of taper. If taper length is significant enough to warrant ‘LEFT / RIGHT LANE BLOCKED or LEFT LANE BLOCKED MERGE RIGHT / RIGHT LANE BLOCKED MERGE LEFT, then post accordingly, otherwise post messaging for a ‘SOFT CLOSURE’ (Refer to DMS messaging plan) – Do not upgrade to a hard closure unless the contractor hard closes. Contractors MOT taper will divert traffic out to Hillsboro Blvd. 	<ol style="list-style-type: none"> In the SELS Corridor View, click on the  within the Status Table for Segment 9S: <ul style="list-style-type: none"> Choose desired mode. If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. In SunGuide, terminate the response plan that was used for this closure. Continue tolling a usual.




Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express SB beyond exit / egress to Hillsboro Blvd.	SB	ABANDONED VEHICLE, DEBRIS, DISABLED VEHICLE, OTHER, OR PEDESTRIAN EVENT OCCURS IN TWO LANE SECTION OF EXPRESS LANES BEYOND SEGMENT 9S (BEYOND EXIT / EGRESS TO HILLSBORO BLVD)	<p>A hard closure shall be implemented at any time based on safety concerns.</p> <p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>Motorists can use the exit / egress to Hillsboro Blvd mainline; therefore, the segment is open, but the trip to Cypress Creek Rd is not.</p> <p>Refer to DMS messaging plan.</p> <p>*For soft and hard closures post on DMS EL 44.0 SB ‘EXPRESS LNS CLOSED / TRAFFIC MUST EXIT / TO HILLSBORO BLVD’.</p>	<p>If the event type is Abandoned Vehicle, Debris, Disabled Vehicle, Other, or Pedestrian:</p> <p>If the event is blocking all lanes, regardless of the event type follow the procedure that is shown on next page for Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding.</p> <p>If the event is not blocking all lanes and is expected to be cleared within 30 minutes:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. Normal tolling continues for the next 30 minutes. 3. Generate a response plan to notify motorists of the lane blockage. <p>Once the event exceeds 30 minutes, or if expected to exceed 30 minutes, or if all lanes are blocked:</p> <ol style="list-style-type: none"> 1. Manually post ‘CLOSED’ on all the Toll Amount DMS, associated with 95 Express SB Segment 8S, for trip to CYPRESS CREEK RD using group filter ‘95X SB 04 Bey Egress Hillsboro’. 2. Set the TADMS used to ‘Out of Service’. 3. Verify that the ‘CLOSED’ message is on those TADMS. If not, place any back in service that do not have that message and repeat the process. 4. Generate a response plan and post messaging for a ‘HARD CLOSURE’. 5. Dispatch incident responders to implement a hard closure at the exit / egress from Segment 9S to Hillsboro Blvd mainline (force motorists to mainline). 	<ol style="list-style-type: none"> 1. Release the incident responders and open at the exit / egress to Hillsboro Blvd mainline. 2. Set all the TADMS associated with the trips back to ‘Active’. 3. In the SELS Corridor View, click on the  within the Status Table for Segment 9S and re-submit the mode displayed (current) to update signs that were set ‘out of service’. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling a usual.



Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express SB beyond exit / egress to Hillsboro Blvd.	SB	CRASH, EMERGENCY VEHICLES, ROAD WORK EMERGENCY, POLICE ACTIVITY, OR FLOODING EVENT TWO LANE SECTION OF EXPRESS LANES BEYOND SEGMENT 9S (BEYOND EXIT / EGRESS TO HILLSBORO BLVD)	<p>A hard closure shall be implemented at any time based on safety concerns.</p> <p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>Motorists can use the exit / egress to Hillsboro Blvd mainline; therefore, the segment is open, but the trip to Cypress Creek Rd is not.</p> <p>Refer to DMS messaging plan.</p> <p>*For soft and hard closures post on DMS EL 44.0 SB ‘EXPRESS LNS CLOSED / TRAFFIC MUST EXIT / TO HILLSBORO BLVD’.</p>	<p>If the event type is Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding, and is not blocking all lanes, then:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. Manually post ‘CLOSED’ on all the Toll Amount DMS, associated with 95 Express SB Segment 8S, for trip to CYPRESS CREEK RD using group filter ‘95X SB 04 Bey Egress Hillsboro’. 3. Set the TADMS used to ‘Out of Service’. 4. Verify that the ‘CLOSED’ message is on those TADMS. If not, place any back in service that do not have that message and repeat the process. 5. Generate a response plan and post messaging for a ‘SOFT (ONE LANE OF TWO) CLOSURE’. <p>Once the event exceeds 30 minutes (or if expected to exceed 30 minutes from the time of activation):</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to implement a hard closure at the exit / egress from Segment 9S to Hillsboro Blvd mainline (force motorists to mainline). 2. Generate a response plan and post messaging for a ‘HARD CLOSURE’. 	<ol style="list-style-type: none"> 1. Release the incident responders and open at the exit / egress to Hillsboro Blvd mainline. 2. Set all the TADMS associated with the trips back to ‘Active’. 3. In the SELS Corridor View, click on the  within the Status Table for Segment 9S and re-submit the mode displayed (current) to update signs that were set ‘out of service’. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling a usual.

Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express SB beyond exit / egress to Hillsboro Blvd.	SB	SINGLE LANE SECTION OF EXPRESS LANES BEYOND SEGMENT 9S (BEYOND EXIT / EGRESS TO HILLSBORO BLVD) BLOCKED	<p>A hard closure shall be implemented at any time based on safety concerns.</p> <p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>Motorists can use the exit / egress to Hillsboro Blvd mainline; therefore, the segment is open, but the trip to Cypress Creek Rd is not.</p> <p>Refer to DMS messaging plan.</p> <p>*Post on DMS EL 44.0 SB 'EXPRESS LNS CLOSED / TRAFFIC MUST EXIT / TO HILLSBORO BLVD'.</p>	<p>Regardless of event type:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders. 2. Manually post 'CLOSED' on all the Toll Amount DMS, associated with 95 Express SB Segment 8S, for trips to CYPRESS CREEK RD using group filter '95X SB 04 Bey Egress Hillsboro'. 3. Set the TADMS used to 'Out of Service'. 4. Verify that the 'CLOSED' message is on those TADMS. If not, place any back in service that do not have that message and repeat the process. 5. Generate a response plan and post messaging for 'HARD CLOSURE'. <p>Once the event exceeds 30 minutes (or if expected to exceed 30 minutes from the time of activation):</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to implement a hard closure at the exit / egress from Segment 9S to Hillsboro Blvd mainline (force motorists to mainline). 	<ol style="list-style-type: none"> 1. Release the incident responders and open at the exit / egress to Hillsboro Blvd mainline. 2. Set all the TADMS associated with the trips back to 'Active'. 3. In the SELS Corridor View, click on the  within the Status Table for Segment 9S and re-submit the mode displayed (current) to update signs that were set 'out of service'. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling a usual.



Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express SB entrance / ingress from SW 10th St.	SB	ENTRANCE / INGRESS FROM SW 10th ST / I-95 MAINLINE TO SEGMENT 8S BLOCKED	<p>Use SB40 for incident management.</p> <p>Refer to DMS messaging plan.</p> <p>If supporting a primary EL event, then both segment 8S and 7S should be closed (in SELS) to the ingress event once it is hard closed (access to segment 7S is via 8S).</p> <p>Both internal DMS will be utilized (SB36.5 and SB32.1) to support the closed segments.</p>	<ol style="list-style-type: none"> 1. Dispatch incident responders. 2. Manually post ‘CLOSED’ on all the Toll Amount and Lane Status DMS, associated with the entrance / ingress to 95 Express SB Segment 8S, using group filter ‘95X SB 05 Ingress fm SW 10 St’. 3. Set the TADMS and LSDMS to ‘Out of Service’. 4. Verify that the ‘CLOSED’ message is on those TADMS and LSDMS. If not, place any back in service that do not have that message and repeat the process. 5. Generate a response plan and from the message library post ‘EXPRESS LANES / CLOSED / DO NOT ENTER’. <p>If supporting a primary closure:</p> <ol style="list-style-type: none"> 1. In SELS Corridor View, click on the  within the Status Table for Segments 8S and 7S: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 2. Post messages using SunGuide predefined plan “8S – SB INGRESS SUPPORTING A PRIMARY – SEGMENT 8S”. 3. Every 15 minutes verify that all EL DMS are displaying the correct messages. 	<ol style="list-style-type: none"> 1. Release the incident responders and open the entrance / ingress from SW 10th St mainline. 2. Set all the TADMS and LSDMS associated with 95 Express SB entrance/ ingress from SW 10th St mainline back to ‘Active’. 3. In the SELS Corridor View, click on the  within the Status Table for Segment 8S and 7S and re-submit the mode displayed (current) to update signs that were set ‘out of service’. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling a usual.

Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express SB before exit / egress to Cypress Creek Rd. Segment 8S.	SB	ABANDONED VEHICLE, DEBRIS, DISABLED VEHICLE, OTHER, OR PEDESTRIAN EVENT OCCURS IN TWO LANE SECTION OF EXPRESS LANES SEGMENT 8S (BEFORE EXIT / EGRESS TO CYPRESS CREEK RD) BLOCKED	<p>A hard closure shall be implemented at any time based on safety concerns.</p> <p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>Refer to DMS messaging plan.</p> <p>*If internal DMS EL 36.5 SB is before the incident, then add to the response plan (if using RPG).</p> <p>*On DMS EL 44.0 SB, post RPG generated message. After 30 minutes, ensure message is updated to post 'EXPRESS LNS CLOSED / TRAFFIC MUST EXIT / TO HILLSBORO BLVD'.</p>	<p>If the event type is Abandoned Vehicle, Debris, Disabled Vehicle, Other, or Pedestrian:</p> <p>If the event is blocking all lanes, regardless of the event type follow the procedure that is shown on next page for Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding.</p> <p>If the event is not blocking all lanes and is expected to be cleared within 30 minutes:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. Normal tolling continues for the next 30 minutes. 3. Generate a response plan to notify motorists of the lane blockage. <p>Once the event exceeds 30 minutes, or if expected to exceed 30 minutes, or if all lanes are blocked:</p> <ol style="list-style-type: none"> 3. In SELS Corridor View, click on the M within the Status Table for Segments 8S and 7S: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 2. Post messages using SunGuide predefined plan “8S - SB Express Lanes Closed - Segment 8S”. 3. Dispatch incident responders to implement a hard closure at the entrance / ingress to Segment 8S from SW 10th St mainline. 4. Dispatch incident responders to implement a hard closure at the exit / egress from Segment 9S to Hillsboro Blvd (force motorists to mainline). 	<ol style="list-style-type: none"> 1. Release the incident responders and open the entrance / ingress from SW 10th St mainline. 2. Release the incident responders and open the exit / egress to Hillsboro Blvd mainline. 3. In the SELS Corridor View, click on the M within the Status Table for Segment 8S and 7S: <ul style="list-style-type: none"> o Choose desired mode. o If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling a usual.

Location	Direction	Scenario	Comments	Response	Recovery
<p>95 Express Lanes Events – 95 Express SB before exit / egress to Cypress Creek Rd. Segment 8S.</p>	<p>SB</p>	<p>CRASH, EMERGENCY VEHICLES, ROADWORK, POLICE ACTIVITY OR FLOODING EVENT TWO LANE SECTION OF EXPRESS LANES SEGMENT 8S (BEFORE EXIT / EGRESS TO CYPRESS CREEK RD) BLOCKED</p>	<p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>As 7S has no ingress from I-95 mainline, access to 7S, from 8S, is to be considered as an ingress.</p> <p>Refer to DMS messaging plan.</p> <p>*Post on DMS EL 44.0 SB ‘EXPRESS LNS CLOSED / TRAFFIC MUST EXIT / TO HILLSBORO BLVD’.</p> <p>*If internal DMS EL 36.5 SB is beyond the location of the incident, post ‘EXPRESS LANES / CLOSED / DO NOT ENTER’ if both lanes are blocked or hard closure procedures are in place.</p>	<p>If the event type is Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding, and is not blocking all lanes, then:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. In SELS Corridor View, click on the  within the Status Table for Segments 8S: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 3. Generate a response plan and post messaging for ‘SOFT (ONE LANE OF TWO) CLOSURE’. <p>Once event exceeds 30 minutes (or from the get-go if expected to exceed 30 minutes), or if all lanes are blocked:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to implement a hard closure at the entrance / ingress to Segment 8S from SW 10th St mainline. 2. Dispatch incident responders to implement a hard closure at the exit / egress from Segment 9S to Hillsboro Blvd (force motorists to mainline). 4. In SELS Corridor View, click on the  within the Status Table for Segments 8S and 7S: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 3. Post messages using SunGuide predefined plan “8S - SB Express Lanes Closed - Segment 8S”. 	<ol style="list-style-type: none"> 1. Release the incident responders and open the entrance / ingress from SW 10th St mainline. 2. Release the incident responders and open the exit / egress to Hillsboro Blvd mainline. 3. In the SELS Corridor View, click on the  within the Status Table for Segment 8S (and 7S if hard closed): <ul style="list-style-type: none"> o Choose desired mode. o If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling a usual.



Location	Direction	Scenario	Comments	Response	Recovery
<p>95 Express Lanes Events – 95 Express SB exit / egress to Cypress Creek Rd. Segment 8S.</p>	<p>SB</p>	<p>EXIT / EGRESS TO CYPRESS CREEK RD MAINLINE FROM SEGMENT 8S BLOCKED</p>	<p>Use SB40 for incident management.</p> <p>If being supported by a secondary ingress event, then the segment should also be closed (in SELS) to the ingress event once it is hard closed.</p> <p>Refer to DMS messaging plan.</p>	<p>Regardless of event type:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders. 2. In SELS Corridor View, click on the  within the Status Table for Segment 8S: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 3. Post messages using SunGuide predefined plan “8S - SB Express Lanes Egress - Segment 8S”. 4. Dispatch incident responders to assist clearing the event and allow trapped vehicles to exit the Express Lanes. <p>Once event exceeds 30 minutes (or from the get-go if expected to exceed 30 minutes), or if all lanes are blocked:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to implement a hard closure at the entrance / ingress to Segment 8S from SW 10th St mainline. 2. Dispatch incident responders to implement a hard closure at the exit / egress from Segment 9S to Hillsboro Blvd (force motorists to mainline). Place Group Filter 95X SB 04 Bey Egress Hillsboro OOS once hard closed. 	<ol style="list-style-type: none"> 1. Release the incident responders and open the entrance / ingress from SW 10th St mainline. 2. Release the incident responders and open the exit / egress to Hillsboro Blvd mainline. 3. In the SELS Corridor View, click on the  within the Status Table for Segment 8S: <ul style="list-style-type: none"> o Choose desired mode. o If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling a usual.

Location	Direction	Scenario	Comments	Response	Recovery
<p>95 Express Lanes Events – 95 Express SB at exit / egress to Cypress Creek Rd.</p>	<p>SB</p>	<p>ROADWORK WHEN CONTRACTORS MOT TAPER IMPEDES TOLLED SEGMENT</p>	<p>This refers to when the MOT taper to force motorists out at the end of the tolled segment impedes or degrades the tolled segment.</p> <p>Refer to DMS messaging plan.</p> <p>The location must fall within the tolled segment limits.</p> <p>As 7S has no ingress from I-95 mainline, access to 7S, from 8S, is to be considered as an ingress, therefore in this scenario when forcing traffic to Cypress, no motorists can access 7S, therefore needing to close 7S (as well as 8S) in SELS to update the internal TADMS located at Atlantic Blvd. DMS 32.1-EL will also be utilized in the plan.</p> <p>*Note – IM procedures differ from construction procedures due to length of MOT.</p>	<p>If the event impacts or degrades the throughput of the segment, then:</p> <ol style="list-style-type: none"> In SELS Corridor View, click on the M within the Status Table for Segments 8S and 7S: <ul style="list-style-type: none"> Choose Closed mode. Select a D4 event. If the event is not available at the time of the override, select a Dummy event. Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). Generate a response plan based upon length of taper. If taper length is significant enough to warrant ‘LEFT / RIGHT LANE BLOCKED or LEFT LANE BLOCKED MERGE RIGHT / RIGHT LANE BLOCKED MERGE LEFT, then post accordingly, otherwise post messaging for a ‘SOFT CLOSURE’ (Refer to DMS messaging plan) – Do not upgrade to a hard closure unless the contractor hard closes. Contractors MOT taper will divert traffic out to Cypress Creek Rd. 	<ol style="list-style-type: none"> In the SELS Corridor View, click on the M within the Status Table for Segment 8S and 7S: <ul style="list-style-type: none"> Choose desired mode. If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. In SunGuide, terminate the response plan that was used for this closure. Continue tolling a usual.


Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express SB beyond exit / egress to Cypress Creek Rd.	SB	BEYOND EXIT / EGRESS TO CYPRESS CREEK RD BLOCKED (FORCE MOTORISTS OUT TO MAINLINE)	<p>This scenario is for secondary events only, to support a 7S hard closure (only point of entry into segment 7S).</p> <p>Refer to DMS messaging plan.</p> <p>*Post on DMS 36.5 SB ‘TRAFFIC MUST EXIT / TO / CYPRESS CRK RD’.</p>	<p>Once the primary event is hard closed:</p> <ol style="list-style-type: none"> Dispatch incident responders to implement a hard closure at the exit / egress from Segment 8S to Cypress Creek Rd mainline (force motorists to mainline). In SELS Corridor View, click on the  within the Status Table for Segment 7S: <ul style="list-style-type: none"> Add event. Choose Closed mode. Select a D4 event. If the event is not available at the time of the override, select a Dummy event. Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). Post messages using SunGuide predefined plan “7S - SB Express Lanes Egress - Segment 7S”. 	<ol style="list-style-type: none"> Release the incident responders and open at the exit / egress to Cypress Creek mainline. In the SELS Corridor View, click on the  within the Status Table for Segment 7S and re-submit the mode displayed (current) to update signs that were set ‘out of service’. In SunGuide, terminate the response plan that was used for this closure. Continue tolling a usual.


Location	Direction	Scenario	Comments	Response	Recovery
<p>95 Express Lanes Events – 95 Express SB before exit / egress to Sunrise Blvd. Segment 7S.</p>	<p>SB</p>	<p>ABANDONED VEHICLE, DEBRIS, DISABLED VEHICLE, OTHER, OR PEDESTRIAN EVENT OCCURS IN TWO LANE SECTION OF EXPRESS LANES SEGMENT 7S (BEFORE EXIT / EGRESS TO SUNRISE BLVD) BLOCKED</p>	<p>A hard closure shall be implemented at any time based on safety concerns.</p> <p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>*If internal DMS EL 32.1 SB is before the incident, then add to the response plan (if using RPG).</p> <p>Refer to DMS messaging plan.</p> <p>*On DMS EL 36.5 SB, post RPG generated message. After 30 minutes, ensure message is updated to post ‘EXPRESS LNS CLOSED / TRAFFIC MUST EXIT / TO CYPRESS CREEK RD’.</p> <p>There are two Toll Amount DMS located inside the Express Lanes (before OAKLAND), with a destination of BROWARD P&R. The TADMS are FLD4DOT95032.6SB-TR1 and FLD4DOT95031.7SB-TR1. If the TADMS are before the incident, after 30 minutes or if a hard closure, ‘CLOSED’ is to be manually posted using group 95X SB 07 Internal to P&R and place OOS.</p>	<p>If the event type is Abandoned Vehicle, Debris, Disabled Vehicle, Other, or Pedestrian:</p> <p>If the event is blocking all lanes, regardless of the event type follow the procedure that is shown on next page for Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding.</p> <p>If the event is not blocking all lanes and is expected to be cleared within 30 minutes:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. Normal tolling continues for the next 30 minutes. 3. Generate a response plan to notify motorists of the lane blockage. <p>Once the event exceeds 30 minutes, or if expected to exceed 30 minutes, or if all lanes are blocked:</p> <ol style="list-style-type: none"> 1. In SELS Corridor View, click on the M within the Status Table for Segment 7S: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 2. Generate a response plan and post messaging for a ‘HARD CLOSURE’. 3. Dispatch incident responders to implement a hard closure at the egress / exit to Cypress Creek Rd (force motorists to mainline). 	<ol style="list-style-type: none"> 1. Release the incident responders and open the exit / egress to Cypress Creek Rd mainline. 2. In the SELS Corridor View, click on the M for the Segment within the Status Table for Segment 7S: <ul style="list-style-type: none"> o Choose desired mode. o If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. 3. In SunGuide, terminate the response plan that was used for this closure. 4. Continue tolling a usual.

Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express SB before exit / egress to Sunrise Blvd. Segment 7S.	SB	CRASH, EMERGENCY VEHICLES, ROADWORK EMERGENCY, POLICE ACTIVITY OR FLOODING EVENT TWO LANE SECTION OF EXPRESS LANES SEGMENT 7S (BEFORE EXIT / EGRESS TO SUNRISE BLVD) BLOCKED	<p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>Refer to DMS messaging plan.</p> <p>*If internal DMS EL 32.1 SB is beyond the location of the incident, post ‘EXPRESS LANES / CLOSED / DO NOT ENTER’ if both lanes are blocked or hard closure procedures are in place.</p> <p>There is no ingress into 7S therefore the secondary closure has to be closed in SELS.</p> <p>There are two Toll Amount DMS located inside the Express Lanes (before OAKLAND), with a destination of BROWARD P&R. The TADMS are LD4DOT95032.6SB-TR1 and FLD4DOT95031.7SB-TR1. Once the segment is hard closed, post ‘CLOSED’ manually using group filter ‘95X SB 07 Internal to P&R’ and place OOS.</p>	<p>If the event type is Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding, then:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. In SELS Corridor View, click on the M within the Status Table for Segment 7S: <ol style="list-style-type: none"> a. Choose Closed mode. b. Select a D4 event. If the event is not available at the time of the override, select a Dummy event. c. Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 3. Generate a response plan and post messaging for a ‘SOFT (ONE LANE OF TWO) CLOSURE’. <p>Once the event exceeds 30 minutes (or if expected to exceed 30 minutes from the time of activation), or if all lanes are blocked:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to implement a hard closure at the exit / egress to Cypress Creek Rd (force motorists to mainline). 2. In SELS Corridor View, click on the M within the Status Table for Segment 7S: 3. Choose Closed mode. 4. Select a D4 event. If the event is not available at the time of the override, select a Dummy event. 5. Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 6. Post messages using SunGuide predefined plan “7S - SB Express Lanes Egress - Segment 7S”. 	<ol style="list-style-type: none"> 1. Release the incident responders and open the exit / egress to Cypress Creek Rd mainline. 2. In the SELS Corridor View, click on the M for the Segment within the Status Table for both Segment 7S: <ul style="list-style-type: none"> o Choose desired mode. o If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. 3. In SunGuide, terminate the response plan that was used for this closure. 4. Continue tolling a usual.



Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express SB exit / egress to Sunrise Blvd. Segment 7S.	SB	EXIT / EGRESS TO SUNRISE BLVD MAINLINE FROM SEGMENT 7S BLOCKED	Refer to DMS messaging plan.	<p>Regardless of event type:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders. 2. In SELS Corridor View, click on the  within the Status Table for Segment 7S: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 3. Post messages using SunGuide predefined plan “7S - SB Express Lanes Egress - Segment 7S”. 4. Dispatch incident responders to assist clearing the event and allow trapped vehicles to exit the Express Lanes. <p>Once the event exceeds 30 minutes, or if expected to exceed 30 minutes, or if all lanes are blocked):</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to implement a hard closure at the egress / exit to 2. Cypress Creek Rd (force motorists to mainline). Place Group Filter 95X SB 06 Internal Sunrise OOS once hard closed. 	<ol style="list-style-type: none"> 1. Release the incident responders and open the egress / exit to Cypress Creek Rd. 2. If utilized, set associated TADMS back to ‘Active’. 3. In the SELS Corridor View, click on the  within the Status Table for Segment 7S: <ul style="list-style-type: none"> o Choose desired mode. o If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. 4. In SunGuide, terminate the response plan that was used for this closure. Continue tolling as usual.



Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express SB at exit / egress to Sunrise Blvd.	SB	ROADWORK WHEN CONTRACTORS MOT TAPER IMPEDES TOLLED SEGMENT	<p>This refers to when the MOT taper to force motorists out at the end of the tolled segment impedes or degrades the tolled segment.</p> <p>Refer to DMS messaging plan.</p> <p>The location must fall within the tolled segment limits.</p> <p>*Note – IM procedures differ from construction procedures due to length of MOT.</p> <p>There are two Toll Amount DMS located inside the Express Lanes (before OAKLAND), with a destination of BROWARD P&R. The TADMS are LD4DOT95032.6SB-TR1 and FLD4DOT95031.7SB-TR1. 'CLOSED' is to be manually posted using group 95X SB 07 Internal to P&R and place OOS.</p>	<p>If the event impacts or degrades the throughput of the segment, then:</p> <ol style="list-style-type: none"> In SELS Corridor View, click on the M within the Status Table for Segment 7S: <ul style="list-style-type: none"> Choose Closed mode. Select a D4 event. If the event is not available at the time of the override, select a Dummy event. Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). Generate a response plan based upon length of taper. If taper length is significant enough to warrant 'LEFT / RIGHT LANE BLOCKED or LEFT LANE BLOCKED MERGE RIGHT / RIGHT LANE BLOCKED MERGE LEFT, then post accordingly, otherwise post messaging for a 'SOFT CLOSURE' (Refer to DMS messaging plan) – Do not upgrade to a hard closure unless the contractor hard closes. Contractors MOT taper will divert traffic out to Sunrise Boulevard. 	<ol style="list-style-type: none"> In the SELS Corridor View, click on the M within the Status Table for Segment 7S: <ul style="list-style-type: none"> Choose desired mode. If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. In SunGuide, terminate the response plan that was used for this closure. Continue tolling a usual.

Location	Direction	Scenario	Comments	Response	Recovery
<p>95 Express Lanes Events – 95 Express SB between exit / egress to Sunrise Blvd and entrance / ingress from Oakland Park Blvd.</p>	<p>SB</p>	<p>ABANDONED VEHICLE, DEBRIS, DISABLED VEHICLE, OTHER, OR PEDESTRIAN EVENT OCCURS IN TWO LANE SECTION OF EXPRESS LANES BEYOND SEGMENT 7S (BETWEEN EXIT / EGRESS TO SUNRISE BLVD AND ENTRANCE / INGRESS FROM OAKLAND PARK BLVD)</p>	<p>A hard closure shall be implemented at any time based on safety concerns.</p> <p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>Motorists can use the exit / egress to Sunrise Blvd mainline; therefore, the segment is open, but the trip to Park and Ride is not.</p> <p>Refer to DMS messaging plan.</p> <p>*This is a non-tolled area between segment 7S and 6S.</p> <p>* For soft and hard closures post on DMS EL 28.5 SB ‘EXPRESS LNS CLOSED / TRAFFIC MUST EXIT / TO SUNRISE BLVD’.</p>	<p>If the event type is Abandoned Vehicle, Debris, Disabled Vehicle, Other, or Pedestrian:</p> <p>If the event is blocking all lanes, regardless of the event type follow the procedure that is shown on next page for Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding.</p> <p>If the event is not blocking all lanes and is expected to be cleared within 30 minutes:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. Normal tolling continues for the next 30 minutes. 3. Generate a response plan to notify motorists of the lane blockage. <p>Once the event exceeds 30 minutes, or if expected to exceed 30 minutes, or if all lanes are blocked:</p> <ol style="list-style-type: none"> 1. Manually post ‘CLOSED’ on all internal Toll Amount DMS, associated with the 95 Express SB Segment 6S, for destination to PARK AND RIDE using group filter ‘95X SB 07 Internal to P&R’. 2. Set the TADMS used to ‘Out of Service’. 3. Verify that the ‘CLOSED’ message is on those TADMS. If not, place any back in service that do not have that message and repeat the process. 4. Generate a response plan and post messaging for a ‘HARD CLOSURE’. 5. Dispatch incident responders to implement a hard closure at the exit / egress from Segment 7S to Sunrise Blvd mainline (force motorists to mainline). 	<ol style="list-style-type: none"> 1. Release the incident responders and open at the exit / egress to Sunrise Blvd mainline. 2. Set all the associated TADMS back to ‘Active’. 3. In the SELS Corridor View, click on the  within the Status Table for Segment 6S and re-submit the mode displayed (current) to update signs that were set ‘out of service’. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling as usual.




Location	Direction	Scenario	Comments	Response	Recovery
<p>95 Express Lanes Events – 95 Express SB between exit / egress to Sunrise Blvd and entrance / ingress from Oakland Park Blvd.</p>	<p>SB</p>	<p>CRASH, EMERGENCY VEHICLES, ROADWORK EMERGENCY, POLICE ACTIVITY, OR FLOODING EVENT TWO LANE SECTION OF EXPRESS LANES BEYOND SEGMENT 7S (BETWEEN EXIT / EGRESS TO SUNRISE BLVD AND ENTRANCE / INGRESS FROM OAKLAND PARK)</p>	<p>A hard closure shall be implemented at any time based on safety concerns.</p> <p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>Motorists can use the exit / egress to Sunrise Blvd mainline; therefore, the segment is open, but the trip to Park and Ride is not.</p> <p>*This is a non-tolled area between segment 7S and 6S.</p> <p>Refer to DMS messaging plan.</p> <p>* For soft and hard closures post on DMS EL 32.1 SB ‘EXPRESS LNS CLOSED / TRAFFIC MUST EXIT / TO SUNRISE BLVD’.</p>	<p>If the event type is Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding, and is not blocking all lanes, then:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. Manually post ‘CLOSED’ on the internal Toll Amount DMS, associated with 95 Express SB Segment 6S, for destination to PARK AND RIDE using group filter ‘95X SB 07 Internal to P&R’. 3. Set the TADMS used to ‘Out of Service’. 4. Verify that the ‘CLOSED’ message is on those TADMS. If not, place any back in service that do not have that message and repeat the process. 5. Generate a response plan and post messaging for a ‘SOFT (ONE LANE OF TWO) CLOSURE’. <p>Once the event exceeds 30 minutes (or if expected to exceed 30 minutes from the time of activation):</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to implement a hard closure at the exit / egress from Segment 7S to Sunrise Blvd (force motorists to mainline). 2. Generate a response plan and post messaging for a ‘HARD CLOSURE’. 	<ol style="list-style-type: none"> 1. Release the incident responders and open at the exit / egress to Sunrise Blvd mainline. 2. Set all the associated TADMS back to ‘Active’. 3. In the SELS Corridor View, click on the  within the Status Table for Segment 6S and re-submit the mode displayed (current) to update signs that were set ‘out of service’. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling as usual



Location	Direction	Scenario	Comments	Response	Recovery
<p>95 Express Lanes Events – 95 Express SB at entrance / ingress from Oakland Park Blvd (where 2 x EL lanes meet entrance / ingress from Oakland Park Blvd).</p>	<p>SB</p>	<p>AT ENTRANCE / INGRESS FROM OAKLAND PARK BLVD / I-95 MAINLINE WHEN EL AND INGRESS MEET TO MAKE THREE LANES / SEGMENT 6S BLOCKED</p>	<p>A hard closure shall be implemented at any time based on safety concerns.</p> <p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>Refer to DMS messaging plan.</p> <p>*Post on DMS EL 32.1 SB ‘EXPRESS LNS CLOSED / TRAFFIC MUST EXIT / TO SUNRISE BLVD’.</p> <p>*Post on DMS SB31 ‘EXPRESS LANES / CLOSED / DO NOT ENTER’.</p>	<p>If the event type is Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding and the event does not impede the entrance / ingress from Oakland Park Blvd (three lanes at ingress):</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. In SELS Corridor View, click on the M within the Status Table for Segment 6S: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 3. Generate a response plan and post messaging for a ‘SOFT (ONE LANE OF TWO) CLOSURE’. <p>Once event exceeds 30 minutes (or from the get-go if expected to exceed 30 minutes), or if all lanes are blocked:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to implement a hard closure at the exit / egress to Sunrise Blvd (force motorists to mainline). 2. If emergency responders require the ingress to be hard closed, then dispatch a responder to close at the entrance / ingress from Oakland Park Blvd mainline. 3. Post messages using SunGuide predefined plan “6S - NB Express Lanes Closed - Segment 6S”. 	<ol style="list-style-type: none"> 1. If the entrance / ingress from Oakland Park Blvd mainline is hard closed, release the incident responders. 2. Release the incident responders and open the exit / egress to Sunrise Blvd mainline. 3. In the SELS Corridor View, click on the M within the Status Table for Segment 6S: <ul style="list-style-type: none"> o Choose desired mode. o If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling as usual.



Location	Direction	Scenario	Comments	Response	Recovery
<p>95 Express Lanes Events – 95 Express SB entrance / ingress from Oakland Park Blvd.</p>	<p>SB</p>	<p>ENTRANCE / INGRESS FROM OAKLAND PARK BLVD / I-95 MAINLINE TO SEGMENT 6S BLOCKED</p>	<p>Use SB31 for incident management.</p> <p>If supporting a primary EL event, then the segment should be closed (in SELS) to the ingress event once it is hard closed.</p> <p>Post the DMS through the segment if supporting a primary EL event.</p> <p>Refer to DMS messaging plan.</p>	<ol style="list-style-type: none"> 1. Dispatch incident responders. 2. Manually post ‘CLOSED’ on all the Toll Amount and Lane Status DMS, associated with the entrance / ingress to 95 Express SB Segment 6S, using group filter ‘95X SB 08 Ingress fm Oakland Park Blvd’. 3. Set the TADMS and LSDMS to ‘Out of Service’. 4. Verify that the ‘CLOSED’ message is on those TADMS and LSDMS. If not, place any back in service that do not have that message and repeat the process. 5. Generate a response plan and from the message library post ‘EXPRESS LANES / CLOSED / DO NOT ENTER’. 6. If supporting a primary closure, then post messages using SunGuide predefined plan “6S – SB INGRESS SUPPORTING A PRIMARY – SEGMENT 6S” and in SELS Corridor View, click on the  within the Status Table for the Segment 6S: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 7. Every 15 minutes verify that all EL DMS are displaying the correct messages. 	<ol style="list-style-type: none"> 1. Release the incident responders and open the entrance / ingress from Oakland Park Blvd mainline. 2. Set all the TADMS and LSDMS associated with 95 Express SB entrance/ ingress from Oakland Park Blvd mainline back to ‘Active’. 3. If supporting a primary closure, then the TADMS and LSDMS do not need to be placed ‘out of service’. 4. In the SELS Corridor View, click on the  within the Status Table for Segment 6S and re-submit the mode displayed (current) to update signs that were set ‘out of service’. 5. In SunGuide, terminate the response plan that was used for this closure. 6. Continue tolling as usual.


Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express SB before Broward Park and Ride 6S.	SB	ABANDONED VEHICLE, DEBRIS, DISABLED VEHICLE, OTHER, OR PEDESTRIAN EVENT OCCURS IN TWO LANE SECTION OF EXPRESS LANES SEGMENT 6S (BEFORE EXIT / EGRESS BROWARD PARK AND RIDE) BLOCKED	<p>A hard closure shall be implemented at any time based on safety concerns.</p> <p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers. Use SB31 for incident management.</p> <p>Refer to DMS messaging plan.</p> <p>*If internal DMS EL 28.5 SB is before the incident, then add to the response plan (if using RPG).</p>	<p>If the event type is Abandoned Vehicle, Debris, Disabled Vehicle, Other, or Pedestrian:</p> <p>If the event is blocking all lanes, regardless of the event type follow the procedure that is shown on next page for Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding.</p> <p>If the event is not blocking all lanes and is expected to be cleared within 30 minutes:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. Normal tolling continues for the next 30 minutes. 3. Generate a response plan to notify motorists of the lane blockage. <p>Once the event exceeds 30 minutes, or if expected to exceed 30 minutes, or if all lanes are blocked:</p> <ol style="list-style-type: none"> 1. In SELS Corridor View, click on the  within the Status Table for Segment 6S: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 2. Post messages using SunGuide predefined plan “6S - SB Express Lanes Closed - Segment 6S”. 3. Dispatch incident responders to implement a hard closure at the entrance / ingress to Segment 6S from Oakland Park Blvd mainline. 4. Dispatch incident responders to implement a hard closure at the exit / egress from Segment 7S to Sunrise Blvd (force motorists to mainline). 	<ol style="list-style-type: none"> 1. Release the incident responders and open the entrance / ingress from Oakland Park Blvd mainline. 2. Release the incident responders and open the exit / egress to Sunrise Blvd mainline. 3. In the SELS Corridor View, click on the  within the Status Table for Segment 6S: <ul style="list-style-type: none"> o Choose desired mode. o If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. 4. In SunGuide, terminate the response plan that was used for this closure. 6. Continue tolling a usual.

Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express SB before exit / egress to Broward Park and Ride. Segment 6S.	SB	CRASH, EMERGENCY VEHICLES, ROADWORK, POLICE ACTIVITY OR FLOODING EVENT TWO LANE SECTION OF EXPRESS LANES SEGMENT 6S (BEFORE EXIT / EGRESS TO BROWARD PARK AND RIDE) BLOCKED	<p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>Refer to DMS messaging plan.</p> <p>*Post on DMS EL 32.1 SB ‘EXPRESS LNS CLOSED / TRAFFIC MUST EXIT / TO SUNRISE BLVD’.</p> <p>*If internal DMS EL 28.5 SB is beyond the location of the incident, post ‘EXPRESS LANES / CLOSED / DO NOT ENTER’ if both lanes are blocked or hard closure procedures are in place.</p>	<p>If the event type is Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding, and is not blocking all lanes, then:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. In SELS Corridor View, click on the M within the Status Table for Segment 6S: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 3. Generate a response plan and post messaging for a ‘SOFT / HARD CLOSURE’. <p>Once event exceeds 30 minutes (or from the get-go if expected to exceed 30 minutes), or if all lanes are blocked:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to implement a hard closure at the entrance / ingress to Segment 6S from Oakland Park Blvd mainline. 2. Dispatch incident responders to implement a hard closure at the exit / egress from Segment 7S to Sunrise Blvd (force motorists to mainline). 3. Post messages using SunGuide predefined plan “6S - SB Express Lanes Closed - Segment 6S”. 	<ol style="list-style-type: none"> 1. Release the incident responders and open the entrance / ingress from Oakland Park Blvd mainline. 2. Release the incident responders and open the exit / egress to Sunrise Blvd mainline. 3. In the SELS Corridor View, click on the M within the Status Table for Segment 6S: <ul style="list-style-type: none"> o Choose desired mode. o If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling as usual.

Location	Direction	Scenario	Comments	Response	Recovery
<p>95 Express Lanes Events – 95 Express SB exit / egress to Broward Park and Ride. Segment 6S.</p>	<p>SB</p>	<p>EXIT / EGRESS TO BROWARD PARK AND RIDE SEGMENT 6S BLOCKED</p>	<p>Per ‘procedure per event type’, the protocol is to close the segment after 30 minutes, however for this scenario, unless the incident / congestion impedes the EL mainline, the segment is to remain open unless requested to be closed by FHP / Law Enforcement and/or FDOT personnel.</p> <p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>Refer to DMS messaging plan.</p> <p>If being supported by a secondary ingress event, then the segment should also be closed (in SELS) to the ingress event once it is hard closed (ingress from 6S).</p>	<p>Regardless of event type:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. In SELS Corridor View, click on the  within the Status Table for Segment 6S: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 3. Post messages using SunGuide predefined plan ‘6S - SB Express Lanes P&R - Segment 6S’. 4. If motorists can pass using either the gore or the shoulder, use the *response plan generated messages to notify motorists of the lane blockage. <p>* Edit the last line of the message from CLOSED to BLOCKED.</p> <p>Should the incident / congestion impede the 95 Express mainline, then:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to implement a hard closure at the ingress / entrance to Segment 6S from Oakland Park Blvd mainline. 2. Dispatch incident responders to implement a hard closure at the exit / egress from Segment 7S to Sunrise Blvd mainline (force motorists to mainline). 3. If segment is not already in a closed state, then in SELS Corridor View, click on the  within the Status Table for Segment 6S: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 4. Post messages using SunGuide predefined plan ‘6S - SB Express Lanes Egress P&R - Segment 6S’. 	<ol style="list-style-type: none"> 1. Release the incident responders and open the entrance / ingress from Oakland Park Blvd mainline. 2. Release the incident responders and open at the exit / egress to Sunrise Blvd mainline. 3. In the SELS Corridor View, click on the  within the Status Table for Segments 6S: <ul style="list-style-type: none"> o Choose desired mode. o If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling as usual.

Location	Direction	Scenario	Comments	Response	Recovery
<p>95 Express Lanes Events – 95 Express SB beyond exit / egress to Broward Park and Ride. Segment 5S.</p>	<p>SB</p>	<p>BEYOND EXIT / EGRESS TO BROWARD PARK AND RIDE SEGMENT 5S BLOCKED (CURRENT END OF FACILITY)</p>	<p>Phase 3C begins after Segment 6S, therefore this should not be relevant at this time.</p> <p>If being supported by a secondary ingress event, then the segment should also be closed (in SELS) to the ingress event once it is hard closed.</p> <p>Refer to DMS messaging plan.</p> <p>*For soft and hard closures post on DMS EL 32.1 SB 'TRAFFIC MUST EXIT / TO / SUNRISE BLVD.</p>	<p>Regardless of event type:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders. 2. In SELS Corridor View, click on the  within the Status Table for Segment 5S and 6S: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 3. Post messages using SunGuide predefined plan “5S - SB Express Lanes Closed - Segment 5S”. 4. Dispatch incident responders to assist clearing the event and allow trapped vehicles to exit the Express Lanes. <p>Once the event exceeds 30 minutes, or if expected to exceed 30 minutes, or if all lanes are blocked):</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to implement a hard closure at the ingress / entrance to Segment 6S from Oakland Park Blvd mainline. 2. Dispatch incident responders to implement a hard closure at the exit / egress from Segment 7S to Sunrise Blvd mainline (force motorists to mainline). 3. Generate a response plan and post messaging for a ‘HARD CLOSURE’. 	<ol style="list-style-type: none"> 1. Release the incident responders and open the entrance / ingress from Oakland Park Blvd mainline. 2. Release the incident responders and open at the exit / egress to Sunrise Blvd mainline. 3. In the SELS Corridor View, click on the  within the Status Table for Segments 5S and 6S: <ul style="list-style-type: none"> o Choose desired mode. o If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling as usual.

Location	Direction	Scenario	Comments	Response	Recovery
<p>Two lane section of 95 Express facility NB and SB.</p>	<p>SB</p>	<p>IF ALL GENERAL-USE LANES ARE CLOSED, ALL 95 EXPRESS LANES ARE OPEN AND TRAFFIC IS BEING DIVERTED INTO EXPRESS IN TWO LANE SECTION OF EXPRESS (ZERO TOLL MODE)</p>	<p>Only upon FHP / Law Enforcement request or implementation and/or FDOT approval, will traffic be diverted into the 95 Express Lanes.</p> <p>Resources such as Road Rangers, SIRV and/or Asset Maintenance should be informed to bleed traffic from the GU into 95 Express, around the incident, and then push traffic back into GU over the plastic poles using lane two of the Express Lanes. Express Lane one will remain for Express motorists that wish to continue within the facility.</p> <p>Per ‘procedure per event type’, the protocol is to close the segment after 30 minutes, however for this scenario, as the facility is being used to improve throughput and reduce congestion/reduce secondary incidents, the segment is to remain open unless requested to be closed by FHP / Law Enforcement and/or FDOT personnel.</p> <p>Refer to DMS messaging plan.</p> <p>Lane one would be used for EL and lane two would be for GU.</p>	<p>To improve throughput, and reduce the possibility of secondary incidents, the following procedure has been introduced when a FULL GU closure occurs parallel to the 95 Express Lanes:</p> <ol style="list-style-type: none"> 1. Dispatch responders to assist with the event by directing traffic from GU lanes into EL lane two, guiding them around the incident, and back into GU lanes. 2. In the SELS Corridor View, click on the  within the Status Table for the Segment adjacent to the GU closure: <ul style="list-style-type: none"> o Select ZERO TOLL. o Select a D4 event (GU). If the event is not available at the time of the override, add a comment to justify the mode change. o Ensure the effective time is set at 10 minutes before the event reported time (This is an automated adjustment in SELS). 3. Generate a response plan (do not update to soft or hard closure plan) to notify motorists of the lane blockage. 4. Continue with ZERO TOLL mode until all GU lanes are clear. 	<ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the  for the segment for which ZERO TOLL mode was in effect. <ul style="list-style-type: none"> o Select the desired mode. 2. In SunGuide, terminate the response plan that was used for this closure. 3. Continue tolling as usual.

Location	Direction	Scenario	Comments	Response	Recovery
Single lane section of 95 Express facility NB and SB.	SB	IF ALL GENERAL-USE LANES ARE CLOSED, ALL 95 EXPRESS LANES ARE OPEN AND TRAFFIC IS BEING DIVERTED INTO SINGLE LANE SECTION OF EXPRESS	<p>Only upon FHP / Law Enforcement request or implementation and/or FDOT approval, will traffic be diverted into the 95 Express Lanes.</p> <p>Resources such as Road Rangers, SIRV and / or Asset Maintenance should be informed to bleed traffic from the GU into 95 Express, around the incident, and then push traffic back into GU over the plastic poles.</p> <p>It is critical to ensure that traffic diverted into the EL is allowed to divert out of the EL immediately after traffic passes the lane closure or event.</p> <p>*On the internal EL DMS within the closest upstream segment, post 'TRAFFIC MUST EXIT (to the egress destination)'.</p>	<p>To improve throughput, and reduce the possibility of secondary incidents, the following procedure has been introduced when a FULL GU closure occurs parallel to the 95 Express Lanes:</p> <ol style="list-style-type: none"> 1. Dispatch responders to assist with the event by directing traffic from GU lanes into EL, guiding them around the incident, and back into GU lanes. 2. Dispatch incident responders to implement a hard closure at the closest exit / egress upstream from the closure. 3. Manually post 'CLOSED' on all the Toll Amount DMS associated with the trip tolls using the relevant group filter. 4. Set the TADMS used to 'Out of Service'. 5. Generate a response plan to notify motorists of the lane blockage using messaging on the internal EL DMS to force out at the closest egress. 6. Continue tolling as usual. 	<ol style="list-style-type: none"> 1. Release the incident responders and open at the point of closure. 2. Release the incident responders and open at the exit / egress. 3. Set all the TADMS associated with the trips back to 'Active'. 4. In the SELS Corridor View, click on the  within the Status Table for the upstream segment and re-submit the mode displayed (current) to update signs that were set 'out of service'. 5. In SunGuide, terminate the response plan that was used for this closure.

CONGESTION MANAGEMENT

The Express Lane Operator shall document both recurring and non-recurring congestion within the any of the Express Lane facilities in accordance with District Four Event Management Procedures. All congestion detected within the Express Lanes shall have “Congestion” events created with a FLATIS message being published to the Interactive Voice Recognition (IVR) system and Statewide 511 website. The Express Lanes Operator shall monitor the SELS Speed Graphs or the corridor map view to identify congestion and verify all congestion via CCTV or Road Ranger/SIRV.


Once the average Traffic Density (TD) for an Express Lanes segment is equal to or greater than 27 (currently configured to TD of 27) and/or the segment is 50% congested, SELS shall automatically request the “CONGESTED” message for the segment Lane Status DMS (LSDMS).


Once congestion has been reduced in the segment (less than 50%) or the TD drops below the configured threshold, then the “EXPRESS LANES OPEN” message will replace the previous ‘CONGESTED’ messaging. The Express Lanes Operator is to verify that the Lane Status DMS are posting the correct message.


MINIMUM SPEED TOLL (DYNAMIC TOLLING)

FLORIDA STATUE 338.166



If a customer’s average travel speed for a trip in an Express Lane falls below 40 miles per hours, the customer must be charged the mimimun Express Lane Toll. A customer’s Express Lane average travel speed is his or her average travel speed from the customer’s entry point to the customer’s exit point.


MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
Mode Change From Dynamic Or Time Of Day To Closed, Zero Toll Or Manual Mode		<ol style="list-style-type: none"> 1. In SELS Corridor View, click on the  of the segment that needs to be updated. 2. Select the new mode from the “Mode” dropdown list. <ul style="list-style-type: none"> o CLOSED and Zero Toll modes must be associated with a D4 event. Manual mode must either be associated with an event or a comment must be entered. If the event is not available at the time of the mode change, select a Dummy event from either District. 3. Check the “Approved” checkbox and then select “Submit”. 4. Verify that Lane Status and Toll Amount DMS are posting the correct message. 	

MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
Mode Change From Closed, Zero Toll Or Manual Mode To Dynamic Or Time Of Day Modes		<ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the  for the segment to be updated. 2. Select the new mode from the “Mode” dropdown list. <ul style="list-style-type: none"> o If previous mode was CLOSED, Zero Toll or Manual mode and was not associated with a D4 event, an event from either District must be selected before the mode can be changed. 3. Check the “Approved” checkbox and then select “Submit”. 4. Verify that Lane Status and Toll Amount DMS are posting the correct message. 	

MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
Recover From Express Lanes Closed.		<ol style="list-style-type: none"> 1. Verify that the TADMS and/or LSDMS are active. 2. In the SELS Corridor View, click on the  for the Segment within the Status Table <ul style="list-style-type: none"> o Choose desired mode o If the Closed mode was not originally associated with a D4 event, select an event from either district. An event must be selected before leaving Closed mode. o Verify that Lane Status and Toll Amount DMS are posting the correct message. 3. In SunGuide, terminate the response plan that was used for this closure. 4. Notify D6 TMC if relevant to closure. 	

MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
Toll Update Reminder Notification		<p>In the Toll Update Reminder alert, click on the “Acknowledge” button</p> <p>If user desires to remain in the current mode, check the “Approved” checkbox and then select “Submit”.</p> <p>To change mode:</p> <ol style="list-style-type: none"> 1. Select the new mode from the “Mode” dropdown list 2. Verify or select the Toll amount and the Lane Status DMS Message. 3. If required, select a D4 event from the dropdown lists (select Dummy event if real event is not yet available). 4. Check the “Approved” check box and click on the “Submit” button. 5. When the SELS DMS Verification form appears, verify that each Toll Amount and Lane Status DMS is showing the correct message. <ul style="list-style-type: none"> o If a message is incorrect, then ensure that an ITS Maintenance Module trouble ticket is open for this failure. 	


MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
Toll Adjustment For Segments (Finite AND ONGOING)		<p>Ongoing Adjustment:</p> <ol style="list-style-type: none"> 1. In SELS click on the  for the Segment within the Status Table. 2. Select the desired effective time 3. Select the desired Adjusted Toll 4. Associate an event or add a comment to justify the adjustment. 5. Submit the Ongoing Adjustment. 6. Continue tolling as usual. <p>Finite Adjustment:</p> <ol style="list-style-type: none"> 1. In SELS, click on the  for the Segment within the Status Table for the segment. 2. Select the desired effective time. 3. Check Finite Adjustment. 4. Select the desired Effective End. 5. Select the desired Adjusted Toll. 6. Associate an event or add a comment to justify the adjustment. 7. Submit the Finite Adjustment. 8. Continue tolling as usual. 	


MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
Implementing Toll Adjustment For Trip Tolls (Ongoing Only)		<p>Ongoing Adjustment</p> <ol style="list-style-type: none"> 1. In SELS Corridor View, click on the  for the Trip within the Status Table. 2. Select the desired Adjusted Time/Toll 3. Add a comment justifying the adjustment 4. Submit Ongoing Adjustment 5. Continue tolling as usual. 	


MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
Ongoing Toll Adjustment Reminder		1. When an ongoing toll adjustment reminder appears, select “Continue” if still applicable, or select “End” if not.	


MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
Ending Ongoing Adjustments		<ol style="list-style-type: none"> In the SELS Corridor View, click on the M for the segment with an ongoing adjustment in effect or any segment within a trip with an ongoing adjustment. Note: It is not possible to end a trip adjustment directly; it must be done via a segment included in that trip. Select the current mode and toll for the selected segment and submit the request (continue current active toll/mode). When the ongoing adjustment reminder appears, select End and submit. 	<p>If a Toll Adjustment was in effect prior to system restart, the interim toll will only present \$0.00, \$0.50, and latest Toll Adjustment amount.</p> <p>If Toll Adjustment is no longer required upon restart, then end the Toll Adjustment.</p>

MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Email	Attachments	Example Content Of Email
Retroactive Toll Adjustment Request Procedure	Alexandra Lopez Ryan Drendel David Needham Dee McTague Leroy Soley	Toll Chronology (SELS or ELS) for impacted segment / time	<p>A ‘descriptor’ event on ‘roadway’, ‘direction’ (facility – GU/EL), at ‘cross-street’, occurred on ‘day, date, time’.</p> <ul style="list-style-type: none"> Explanation of incident. Explanation of reasons why tolls should be recommended to be scratched. Fixed statement (example below).
<p>A fatality event on I-595 EB (general use lanes) at US-441 occurred on Saturday, 12/2 @10:52 PM.</p> <ul style="list-style-type: none"> The 595 team closed 595 Express at the Turnpike reversible lanes, forcing motorists onto a tolled facility. Florida’s Turnpike should be notified in case motorists complain about being forced onto a tolled roadway (there was no other egress available due to the fatality). <i>Note that motorists on 595 GU had the option to take US 441.</i> Tolling continued on 595 Express for the duration of the incident. Tolling should have been suspended since motorists were unable to reach the destination of I-95. <p>TOLL ADJUSTMENT: We are hereby requesting a retroactive toll adjustment on 595 Express EB from 12/02/2023 @ 10:42 PM (10 minutes before event creation) through 12/03/2023 @ 1:43 AM when the ramps were reopened.</p>			


MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
System Restart		<p>Complete and submit startup dialog for each segment.</p> <ol style="list-style-type: none"> Select desired interim toll. <ul style="list-style-type: none"> Interim toll options are limited to 0.00, \$0.50, and last effective Toll Amount. Select the lowest of those tolls that would have been used during the outage if the software had been operating. Select desired mode (Dynamic, TOD, Zero Toll, or Closed) <ul style="list-style-type: none"> If applicable, associate an event or add comments. If applicable, select desired toll amount (Manual or TOD Modes ONLY). Select desired Lane Status DMS Message Check the “Approved” checkbox and submit. Manually check if there was an ongoing adjustment before system restart. <ul style="list-style-type: none"> If yes, decide if Toll Adjustment is still needed. If needed, click on the  for the Segment within the Status Table. If not, continue normal operations. Continue tolling as usual. 	


MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
<p>TOLL SUSPENSION:</p> <p>Request To Open Express Lane Or Set Toll To \$0.00 For Emergencies Or Special Events.</p> <p>Most Likely Due to:</p> <p>Evacuation</p>		<p>Special approval is required TSM&O Program Manager, TSM&O Engineer-Freeways, and EOC (Jeannie Cann) will notify operations staff to implement.</p> <ol style="list-style-type: none"> In the SELS Corridor View, click on the  within the Status Table for the Segment, select Zero Toll mode and set the effective time at 10 minutes before the event reported time within SELS (default) <ul style="list-style-type: none"> The Zero Toll Override must be associated with a D4 event, if available. If no D4 event is available at the time of the override, select a Dummy event. 	

MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
SEGMENT CLOSURE AND RECOVERY FROM CLOSURE DURING TOLL SUSPENSION		<p>1. Search the section for Express Lanes Events in this document for the procedure that applies to the location of the blocking event. Follow the procedure.</p> <p>2. Notice that if the procedure calls for a toll adjustment it does not apply since mode was Zero Toll (\$0.00) before the event.</p> <p>RECOVERY</p> <p>1. When recovering from the closure, in SELS, click on the  for the Segment within the Status Table and:</p> <ul style="list-style-type: none"> o Choose desire mode. o If the Closed mode was not originally associated with a SunGuide event, select an event. An event must be selected before leaving Zero Toll mode. <p>2. In SunGuide, terminate the response plan for the event.</p>	


MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
Recover From Open Status (Zero Toll Mode)		<p>1. In SELS, click on the  for the Segment within the Status Table and:</p> <ul style="list-style-type: none"> o Choose desire mode o If the Zero Toll mode was not originally associated with a SunGuide event, select an event from D4, if available. An event must be selected before leaving Zero Toll mode. <p>2. In SunGuide, terminate the response plan associated with the toll suspension.</p>	



COMMON DMS PROCEDURES			
Scenario	Comments	Response	Recovery
DMS Verification		<ol style="list-style-type: none"> 1. Acknowledge the DMS Verification Notification. 2. Verify that each Toll Amount and Lane Status DMS is showing the correct message. 3. If a sign is correct, check Confirmed. If it is incorrect: <ul style="list-style-type: none"> o If there is already an open MIMS ticket for this DMS, do nothing. o If there is not an open MIMS ticket, follow the appropriate action for a stuck or blank sign. 4. After all signs have been reviewed, select “Completed” on the DMS Verification form. 	




COMMON DMS PROCEDURES			
Scenario	Comments	Response	Recovery
Post Messages Manually On Toll Amount DMS		<p>For each Toll Amount DMS on which a manual message is to be posted:</p> <ol style="list-style-type: none"> 1. Click on the Toll Amount DMS icon  for the sign to be changed. 2. Locate the desired sign in the Sign Control pop-up, using the TADMS name or the Destination. 3. In the New Message area, choose Toll Message, if posting a toll message, or “Configured Message”. 4. Double click in the message display area (black rectangle). 5. Select a message from the drop-down list. 6. Click on Send Message. 7. Set DMS status to ‘Out of Service’. 8. Verify that the message just posted is still on the sign. If not, set the Sign Active and repeat the process of posting the message, taking the sign ‘Out of Service’ and verifying. 	

COMMON DMS PROCEDURES			
Scenario	Comments	Response	Recovery
Post Messages Manually On Lane Status DMS		<p>For each Lane Status DMS on which a manual message is to be posted:</p> <ol style="list-style-type: none"> 1. Click on the Toll Amount DMS icon  for the sign to be changed. 2. In the New Message area, choose Status Message, if posting a lane status message, or “Configured Message”. 3. Double click in the message display area (black rectangle). 4. Select a message from the drop-down list. 5. Click on Send Message. 6. Set DMS status to ‘Out of Service’. 7. Verify that the message just posted is still on the sign. If not, set the Sign Active and repeat the process of posting the message, taking the sign ‘Out of Service’ and verifying. 	

COMMON DMS PROCEDURES			
Scenario	Comments	Response	Recovery
<p>If Operator CHOOSES A MANUAL MODE Toll That Is Higher Than The Correct Toll</p>		<ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the M for the Segment within the Status Table, select the correct mode and toll and submit. 2. *Wait until it is at least one minute after the effective time of the correct toll just requested and then click on the S for the Segment within the Status Table. 3. Check Finite Adjustment, choose \$0.50 for the toll, and set the effective time at 10 minutes before the effective time of the incorrect toll. 4. Set the Effective End Time at the current time, but at least one minute after the effective time of the correct toll that was requested above. 5. Associate an event or add a comment justifying the adjustment. 6. Submit the Adjustment. 7. In SELS, click on the S within the Status Table for each trip that includes the segment 8. From the Adjusted Time/Toll drop-down list, select the first (latest) toll that is equal to or lower than the desired (correct) trip toll. If no toll is available that is low enough, close this dialog and do not adjust the trip toll. 9. Associate an event or add a comment justifying the adjustment 10. Submit Adjustment 11. Repeat for each trip that includes the segment with the erroneous toll. 12. Continue tolling as usual. 	<p>*The delay in 'Step 2' is necessary to ensure that any time at which the incorrect toll was active, was covered by the adjustment. An adjustment's 'end time' cannot be set after the current time. If the dialog is opened before this time, the desired ending time will not be available.</p>



COMMON DMS PROCEDURES			
Scenario	Comments	Response	Recovery
If Operator CHOOSES A MANUAL MODE Toll That Is Less Than The Correct Toll		<ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the  for the Segment within the Status Table, select the correct mode and toll and submit. 2. Continue tolling as usual. 	

COMMON DMS PROCEDURES			
Scenario	Comments	Response	Recovery
DMS Subsystem Failure. Blank Or Stuck Messages		<ol style="list-style-type: none"> 1. Notify IT. 2. Open a MIMS ticket within the ITS Maintenance Module. (critical) 3. If one or several Segment Toll Amount signs are blank or have a message stuck on them: In SELS Corridor View, click on the  within the Status Table for each Segment with a Segment Toll Amount Sign that is blank or has a message stuck on it, <ul style="list-style-type: none"> o Set the toll to \$0.50 and set the effective time at 10 minutes before the failure was discovered. 4. SELS If one or several Trip Toll Amount signs are blank or have an incorrect toll stuck on them: In SELS Corridor View, click on the  within the Status Table for each Segment included in the trip, <ul style="list-style-type: none"> o Adjust the toll for each segment included in the trip to \$0.50 as in the step above. It is not necessary to adjust the trip toll, since all segments included in the trip are set to the minimum toll. 5. Continue the adjustment(s) until the DMS Subsystem is operational. 	<ol style="list-style-type: none"> 1. Resume normal tolling for all segments. 2. End ongoing adjustments.

COMMON DMS PROCEDURES			
Scenario	Comments	Response	Recovery
<p>DMS FAILURE AFFECTS ALL DMS IN ONE OR SEVERAL SEGMENTS.</p> <p>BLANK OR STUCK MESSAGES</p>	<p>If any EL Entrance must be closed due to a DMS failure, the *Maintenance Contractor shall perform the closure(s) and coordinate the closure(s) with the Control Room Staff.</p> <p>*If reported as a fiber cut or power outage, for example, or the outage is a result of scheduled maintenance, then the Maintenance Contractor is not required to perform a closure(s).</p> <p>Report any other devices (CCTV or Vehicle Detectors) that are failed.</p>	<ol style="list-style-type: none"> 1. Notify IT and open a MIMS ticket within the ITS Maintenance Module (critical). 2. If one or several Segment Toll Amount signs are blank or have an incorrect toll stuck on them: <ul style="list-style-type: none"> In SELS Corridor View, click on the  within the Status Table for each Segment with a Segment Toll Amount Sign that is blank or has a message stuck on it: <ul style="list-style-type: none"> ○ Choose Manual mode. ○ Set the toll to \$0.50. ○ Click the “Is an Override” checkbox. ○ Set the effective time as the effective time of the last toll. 3. If one or several Segment Toll Amount signs have a stuck ‘CLOSED’ message on it: <ul style="list-style-type: none"> ○ In SELS Corridor View, click on the  within the Status Table. ○ Set the toll to \$0.00 and set the effective time at 10 minutes before the failure was discovered. 4. If one or several Trip Toll Amount signs are blank or have an incorrect toll stuck on them: <ul style="list-style-type: none"> If all Trip Toll Amount signs are blank: <ul style="list-style-type: none"> ○ Take no action on the signs. 5. If one or several Trip Toll Amount signs have a toll stuck on them that is equal or higher than the recommended toll: <ul style="list-style-type: none"> ○ Take no action on the sign(s). 6. If one or several Trip Toll Amount signs have a toll stuck on them that is lower than the recommended toll: <ul style="list-style-type: none"> In SELS Corridor View, click on the  within the Status Table for each trip displaying an incorrect (low) toll, <ul style="list-style-type: none"> ○ Set the Trip toll equal to the toll stuck on the sign (if available). ○ If that trip toll is not available, submit an ongoing \$0.50 segment toll adjustment for each segment in the trip, effective 10 minutes before the sign was found to be stuck. 7. Continue the adjustment(s) until the DMS Subsystem is operational or the segments are closed due to an incident. 	<ol style="list-style-type: none"> 1. Resume normal tolling for all segments. 2. End ongoing adjustments.

COMMON DMS PROCEDURES

Segment Toll Amount Sign Failures

Scenario	Comments	Response	Recovery
<p>Failed Segment Toll Amount DMS. Message Is Blank</p>	<p>See special case for specific locations in the next page.</p> <p>For HEFT NB ramp to 75 Express Northbound: If any EL Entrance must be closed due to a DMS failure, the ITS Maintenance Contractor shall perform the closure(s) and coordinate the closure(s) with the Control Room Staff.</p>	<p>If one Segment Toll Amount DMS is blank at an entrance to the Express Lanes, and another is working for the same entrance:</p> <ol style="list-style-type: none"> 1. Continue tolling as usual. 2. Open a MIMS ticket (Critical Failure). <p>Note at least one Toll Amount DMS must be operational for each entrance to the Express Lanes.</p> <p>If all Toll Amount DMS at an entrance to the Express Lanes are blank:</p> <ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the  within the Status Table for the Segment, choose \$0.50 for the toll, and set the effective time at 10 minutes before the sign was found to be blank. 2. Associate an event or add a comment justifying the adjustment. 3. Open a MIMS ticket (Critical Failure). 4. Continue the ongoing adjustment after each toll update until at least one DMS is operational at the entrance, or the entrance is closed. 5. When entrance is closed or at least one sign is operational, end the adjustment and resume operation as usual. 	<p>Toll Amount DMS may be blank after contractor repairs it.</p> <ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the  within the Status Table for the Segment and set tolls as usual. 2. When the SELS DMS Verification form appears, verify that each Toll Amount and Lane Status DMS is showing the correct message. <ul style="list-style-type: none"> o If a message is not correct, then ensure that a MIMS ticket is open for the failure.



COMMON DMS PROCEDURES

Segment Toll Amount Sign Failures

Scenario	Comments	Response	Recovery
<p>Failed Segment Toll Amount DMS. Incorrect Toll Message(S) Stuck On Sign(S)</p>	<p>Stuck Trip Toll Amount DMS are handled differently. Procedures for Trip Toll Amount DMS have their own section in the next pages.</p> <p>For HEFT ramp to 75 Express Northbound: If any EL Entrance must be closed due to a DMS failure, the ITS Maintenance Contractor shall perform the closure(s) and coordinate the closure(s) with the Control Room Staff.</p>	<p>If the upstream Toll Amount DMS at an entrance to the Express Lanes has a stuck segment toll, but the corresponding downstream Toll Amount DMS is working:</p> <ol style="list-style-type: none"> 1. Continue tolling as usual. 2. Open a MIMS ticket (Critical Failure). <p>If the downstream Toll Amount DMS at an entrance to the Express Lanes has a stuck segment toll:</p> <ol style="list-style-type: none"> 1. If the stuck toll on the downstream sign is the same as, or higher than, the recommended toll, continue tolling as usual. 2. If the stuck toll on the downstream sign is lower than the recommended toll: <ul style="list-style-type: none"> ○ In SELS, click on the M within the Status Table for the Segment, select Manual mode, set the toll equal to the toll stuck on the sign, set the effective time at the effective time of the last toll. ○ Enter a comment explaining why Manual mode was used. ○ Continue using this procedure until the failure is resolved. 3. Open a MIMS ticket (Critical Failure). 4. If ramp is to be closed for repair, once hard closure is implemented, post CLOSED on associated DMS, and resume tolling as usual (segment is open). 	<p>Toll Amount DMS may be blank after contractor repairs it.</p> <ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the M within the Status Table for the Segment and set tolls as usual. 2. When the SELS DMS Verification form appears, verify that each Toll Amount and Lane Status DMS is showing the correct message. <ul style="list-style-type: none"> ○ If a message is not correct, then ensure that a MIMS ticket is open for the failure.



COMMON DMS PROCEDURES

Segment Toll Amount Sign Failures

Scenario	Comments	Response	Recovery
<p>Failed Segment INTERNAL Toll Amount DMS. Message Is Blank.</p> <p>75 Express NB before MGD – 1.9-TR1/2/3</p> <p>95 Express NB at Sunrise – 28.2-TR1/2 and 28.8-TR1/2 95 Express NB at Sunrise – 28.2-TR1/2 and 28.8-TR1/2 95 Express NB before Palmetto – 43.6-TR1 and 44.2TR1</p> <p>95 Express SB beyond Yamato – 47.2-TR1/2 and 47.7-TR1/2 95 Express SB at Atlantic – 35.4-TR1 and 35.9-TR1 95 Express SB beyond Commercial – 32.6-TR1 and 31.7-TR1</p>	<p>These internal Toll Amount DMS are for motorists that are already travelling inside the facility from an upstream location.</p>	<ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the  within the Status Table for the Segment, choose \$0.50 for the toll, and set the effective time at 10 minutes before the sign was found to be blank. 2. Open a MIMS ticket (Critical Failure). 3. Continue the adjustment after each toll update until the DMS is operational. 4. End the ongoing adjustment. 	<p>Toll Amount DMS may be blank after contractor repairs it.</p> <ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the  within the Status Table for the Segment and set tolls as usual. 2. When the SELS DMS Verification form appears, verify that each Toll Amount and Lane Status DMS is showing the correct message. <ul style="list-style-type: none"> o If a message is not correct, then ensure that a MIMS ticket is open for the failure.


COMMON DMS PROCEDURES

Segment Toll Amount Sign Failures

Scenario	Comments	Response	Recovery
<p>Failed Segment INTERNAL Toll Amount DMS. Message Is STUCK.</p> <p>75 Express NB before MGD – 1.9-TR1/2/3</p> <p>95 Express NB at Sunrise – 28.2-TR1/2 and 28.8-TR1/2 95 Express NB at Sunrise – 28.2-TR1/2 and 28.8-TR1/2 95 Express NB before Palmetto – 43.6-TR1 and 44.2TR1</p> <p>95 Express SB beyond Yamato – 47.2-TR1/2 and 47.7-TR1/2 95 Express SB at Atlantic – 35.4-TR1 and 35.9-TR1 95 Express SB beyond Commercial – 32.6-TR1 and 31.7-TR1</p>	<p>These internal Toll Amount DMS are for motorists that are already travelling inside the facility from an upstream location.</p>	<ol style="list-style-type: none"> 1. If the stuck toll is the same as or higher than the recommended toll, continue tolling as usual. 2. If the stuck toll is lower than the recommend toll, in the SELS Corridor View, click on the  within the Status Table for the Segment, choose Manual mode, set the toll equal to the toll stuck on the sign. 3. Enter a comment explaining why Manual mode was used. 4. Continue using this procedure until the failure is resolved. 5. Open a trouble ticket within the ITS Maintenance Module (critical). 	<p>Toll Amount DMS may be blank after contractor repairs it.</p> <ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the  within the Status Table for the Segment and set tolls as usual. 2. When the SELS DMS Verification form appears, verify that each Toll Amount and Lane Status DMS is showing the correct message. <ul style="list-style-type: none"> o If a message is not correct, then ensure that a MIMS ticket is open for the failure.


COMMON DMS PROCEDURES

Segment Toll Amount Sign Failures

Scenario	Comments	Response	Recovery
Failed Segment Toll Amount DMS. PIXEL FAILURE		<ol style="list-style-type: none"> 1. If failure makes messages unclear, blank the sign and set it out of service. Follow procedure “Failed Segment Toll Amount DMS. Message Is Blank” 2. If messages can be understood event through the pixel error, continue using the sign. 3. Open a trouble ticket within the ITS Maintenance Module. 	<p>Toll Amount DMS may be blank after contractor repairs it.</p> <ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the  within the Status Table for the Segment and set tolls as usual. 2. When the SELS DMS Verification form appears, verify that each Toll Amount and Lane Status DMS is showing the correct message. <ul style="list-style-type: none"> o If a message is not correct, then ensure that a MIMS ticket is open for the failure.



COMMON DMS PROCEDURES

Trip Toll Amount Sign Failures

Scenario	Comments	Response	Recovery
Failed Trip Toll Amount DMS (Blank)		<ol style="list-style-type: none"> 1. Open a MIMS ticket (Critical Failure). 2. Continue tolling as usual. 	<ol style="list-style-type: none"> 1. Click on the  within the Status Table for each Segment included in the trip. 2. Select the current mode and toll and submit. 3. If an ongoing adjustment reminder appears for one of these segments, select End and Submit.



COMMON DMS PROCEDURES

Trip Toll Amount Sign Failures

Scenario	Comments	Response	Recovery
<p>Failed Trip Toll Amount DMS (STUCK)</p>	<p>See special cases for specific locations in the next pages.</p> <p>If any EL Entrance must be closed due to a DMS failure, the ITS Maintenance Contract shall perform the closure(s) and coordinate the closure(s) with the Control Room Staff.</p>	<p>If the upstream Toll Amount DMS at an entrance to 95 Express has a stuck trip toll, but the corresponding downstream Toll Amount DMS is working:</p> <ol style="list-style-type: none"> 1. Continue tolling as usual. 2. Open a trouble ticket within the ITS Maintenance Module (critical). <p>If the downstream Toll Amount DMS at an entrance to 95 Express has a stuck trip toll:</p> <ol style="list-style-type: none"> 1. If the toll shown on the Trip Toll Amount DMS is equal to or higher than the requested toll, continue tolling as usual. 2. If the toll shown on the Trip Toll Amount DMS is stuck lower than the requested toll, in the SELS Corridor View, click on the  within the Status Table for the Trip, choose the Time/Toll at which the toll matches what is stuck on the Trip Toll Amount DMS (if available), add a comment explaining the reason for the adjustment and submit. If that trip toll is not available, submit an ongoing \$0.50 segment toll adjustment for each segment in the trip, effective 10 minutes before the sign was found to be stuck. 3. Open a MIMS ticket (Critical Failure). 4. At each toll update, continue the adjustment until the sign is fixed. 	<ol style="list-style-type: none"> 1. Click on the  within the Status Table for each Segment included in the trip. 2. Select the current mode and toll and submit. 3. If an ongoing adjustment reminder appears for one of these segments, select End and Submit.

COMMON DMS PROCEDURES

Segment Toll Amount Sign Failures

Scenario	Comments	Response	Recovery
Failed Segment Toll Amount DMS. Message Is STUCK	For HEFT ramp to 75 Express Northbound: If any EL Entrance must be closed due to a DMS failure, the ITS Maintenance Contractor shall perform the closure(s) and coordinate the closure(s) with the Control Room Staff.	<ol style="list-style-type: none"> 1. If the toll shown on the Trip Toll Amount DMS is equal to or higher than the requested toll, continue tolling as usual. 2. If the toll shown on the Trip Toll Amount DMS is stuck lower than the requested toll, in the SELS Corridor View, click on the  within the Status Table for the Trip, choose the Time/Toll at which the toll matches what is stuck on the Trip Toll Amount DMS (if available), add a comment explaining the reason for the adjustment and submit. If that trip toll is not available, submit an ongoing \$0.50 segment toll adjustment for each segment in the trip, effective 10 minutes before the sign was found to be stuck. 3. Open a MIMS ticket (Critical Failure). 4. At each toll update, continue the adjustment until the sign is fixed. 5. If ramp is to be closed for repair, once hard closure is implemented, post CLOSED on associated DMS, and resume tolling as usual (segment is open). 	<ol style="list-style-type: none"> 1. Click on the  within the Status Table for each Segment included in the trip. 2. Select the current mode and toll and submit. 3. If an ongoing adjustment reminder appears for one of these segments, select End and Submit.


COMMON DMS PROCEDURES

Lane Status DMS Failures

Scenario	Comments	Response	Recovery
Failed Lane Status And/or 3x18 EL IM DMS	Same if Lane Status DMS message is blank or has a message stuck up, including Closed or Open. If any EL Entrance must be closed due to a DMS failure, the ITS Maintenance Contractor shall perform the closure(s) and coordinate the closure(s) with the Control Room Staff.	<ol style="list-style-type: none"> 1. Open a MIMS ticket (Critical Failure). 2. Continue operating Express Lanes as usual. 	<ol style="list-style-type: none"> 1. Place sign back in service. 2. Manually post appropriate lane status message.

DETECTOR / TSS / MVDS FAILURES IN EXPRESS LANES

Detector / TSS / MVDS Failures

Scenario	Comments	Response	Recovery
Failed EL detector		<ol style="list-style-type: none"> 1. Open a MIMS ticket (5 or more in one direction is deemed a Critical Failure, otherwise priority). 2. Refer to the information below. If fewer than the specified number of detectors within a tolled segment of the Express Lanes are operational, then click on  within the Status Table for the Segment and select Time of Day mode (TOD). <ul style="list-style-type: none"> • Segment 5N: • Segment 6N: • Segment 7N: • Segment 8N: 7 detectors required. • Segment 9N: 2 detectors required. • Segment 10N: 3 detectors required. • Segment 6S: • Segment 7S: • Segment 8S: 6 detectors required. • Segment 9S: 2 detectors required. • Segment 10S: 4 detectors required. 	<ol style="list-style-type: none"> 1. If the number of operational detectors within the tolled segment is greater than or equal to the number specified in the 'response list' to the left: <ul style="list-style-type: none"> ○ At the next toll / mode update, select Time of Day mode. ○ At the subsequent toll / mode update, resume tolling.

DETECTOR / TSS / MVDS FAILURES IN EXPRESS LANES

Detector / TSS / MVDS Subsystem Failures

Scenario	Comments	Response	Recovery
Subsystem Failure		<ol style="list-style-type: none"> 1. Open MIMS tickets (Critical Failure). 2. When not in Closed, Manual or Zero Toll mode, use Time Of Day mode (TOD). 	<ol style="list-style-type: none"> 1. At the next toll / mode update, select Time Of Day mode (TOD). 2. At the subsequent toll / mode update, resume tolling.

SUNWATCH INTERFACE FAILURES		
Scenario	Procedure	Comments
FTE Toll Service Error	<ol style="list-style-type: none"> 1. Notify IBI representative. 2. If the error is a recoverable error, notify SunWatch (e-mail to SunWatch e-mail group). 3. If the error is an unrecoverable error, <ul style="list-style-type: none"> o Notify the TMC Manager and SunWatch (e-mail to SunWatch e-mail group) o Open a service desk ticket and include the IBI representative. Include actions taken and notification to SunWatch (critical). 4. Continue operating as usual until directed otherwise. <ol style="list-style-type: none"> 2. Verify and report on each shift debrief until full service resumes. 	<p>Complete, as best as possible, the Issue Report Form and include in the email to SunWatch</p> <p>Email to SunWatch includes FTE Toll Systems Manager and TransCore MMC.</p>
Recovery from unrecoverable FTE Toll Service Error	<ol style="list-style-type: none"> 1. IBI will advise if any special handling or further actions are required. 	

FTE - SunWatch Operations	
Phone:	877-786-3375
email:	tpksunwatchgroup@dot.state.fl.us
FTE - Toll Systems Project Manager:	
Phone:	407-264-3027
email(s):	greg.griffin@dot.state.fl.us
TransCore MMC:	
Phone:	321-281-4127
email(s):	orlmmc@transcore.com
	mitch.pabon@transcore.com
	esteban.gomez@transcore.com
	Ivan.DelCampo@transcore.com

FTE PLAZA INFORMATION (TOLL GANTRY)

(109410) Hallandale Northbound (Express Lanes) – District Four maintenance only maintain the D4 side of the building.
 (109420) Stirling Road Southbound (95 Express Lanes) – District Four maintenance only maintain the D4 side of the building.
 (109415 / 109426) SR 736 (95 Express Lanes) – Awaiting final MOU. Currently District Four have no responsibilities.
 (109431 / 109432) SR 838 (95 Express Lanes) – Awaiting final MOU. Currently District Four have no responsibilities.
 (109441) SR 870 Northbound (95 Express Lanes) – Awaiting final MOU. Currently District Four have no responsibilities.
 (109442) McNab Road Southbound (95 Express Lanes) – Awaiting final MOU. Currently District Four have no responsibilities.
 (109461) SR 814 Northbound (95 Express Lanes) – Awaiting final MOU. Currently District Four have no responsibilities.
 (109462) Lighthouse Point Southbound (95 Express Lanes) – Awaiting final MOU. Currently District Four have no responsibilities.
 (109463 / 109464) Camino Real (95 Express Lanes) – Awaiting final MOU. Currently District Four have no responsibilities.
 (109465) Spanish River Blvd. Northbound (95 Express Lanes) – Awaiting final MOU. Currently District Four have no responsibilities.
 (109466) Yamato Road Southbound (95 Express Lanes) – Awaiting final MOU. Currently District Four have no responsibilities.
 (108441 / 108442) Miramar (75 Express Lanes) – External power to the hub.
 (108461 / 108462) Pines (75 Express Lanes) – External power to the hub.
 (108481 / 108482) Griffin (75 Express Lanes) – External power to the hub.

FTE POC FOR SCADA RELATED COMMUNICATION

Name	Contact #	Email Address	Role	Notes
Brian Menard	Office: (561) 218-5816 Cell: (321) 436-0135	Brian.Menard@dot.state.fl.us or www.cai.io	TSE Southern Regional Supervisor	Primary Contact
Dave Carson	Mobile: (407) 367-9160 Office: (407) 302-2547	David.Carson@dot.state.fl.us	Distributed Controls Systems Analyst	Alternated Contact Cc on all related SCADA communications
Dan Walker	Mobile: 321-459-4621 Office: 407-264-3410	dan.walker@dot.state.fl.us	FTE Tolls Construction Manager	Cc on all related SCADA communications
Albert Bryant	Mobile: 786-288-9174	albert.bryant@atkinsglobal.com	FTE Tolls Field Engineer	Cc on all related SCADA communications

Greg Griffin	(407) 264-3027 Office (407) 497-7191 Mobile	greg.griffin@dot.state.fl.us	FTE Toll Systems PM	Cc on all related SCADA communications
FTE SunWatch Operations	Toll Free: 877-786-3375 Cell: 954-573-0192	TPKSUNWATCHGROUP@dot.state.fl.us	24 / 7 Toll Systems Monitoring Center	Cc on all related SCADA communications
DISTRICT FOUR MAINTENANCE FOR SCADA RELATED COMMUNICATION				
D4 Operations		d4-rtmc-operationsoperatorssupervisors@dot.state.fl.us d4-rtmc-leadoperators@dot.state.fl.us	District Four Operations	Cc on all related SCADA communications
D4 Broward		nicolas.garcia1@dot.state.fl.us	Project Manager (ELAND)	Forward all related SCADA communications per list on Page 86
D4 Broward		mark.chambers@dot.state.fl.us	Maintenance (ELAND)	Forward all related SCADA communications per list on Page 86
D4 N4C		jose.rojas@dot.state.fl.us	Maintenance (ELAND)	Forward all related SCADA communications per list on Page 86

EXAMPLE REPORTING FORM

Incident Reporting Form		
	'X' if applicable 'N/A' if not	Details
Incident Report #: --/--/----		
Incident Type (select one):		
A. Scheduled		
B. <input checked="" type="checkbox"/> Non-scheduled		
Facility or Toll Site(s) Affected: Examples: 95 Express and 75 Express		
Issue Description (select all that apply):		
A. <input checked="" type="checkbox"/> 95 Express directional schedule change (with reason for change)		
B. Express Lane (EL) facility or segment closure		
C. Zero toll assignments		
D. SELS outage (all dynamically tolled EL facilities – minus I-595 Express)		
E. <input checked="" type="checkbox"/> SL service outage (I-595 Express only)		
F. Loss of communications with FTE Back office system:		
a. Layer 1 disruption (fiber hit with general or specific location (if known at time of report))		
b. Layer 2 or 3 disruption (device description)		
c. Secure VPN connection unavailable (with system outage message received)		
Environment Affected (select one):		
A. <input checked="" type="checkbox"/> Test or;		
B. Production		
Notification Type:		
A. Email and / or;		
B. Phone call		
Services Affected:		
A. <input checked="" type="checkbox"/> Delivery of toll rates for dynamically tolled facilities		
B. <input checked="" type="checkbox"/> Delivery of toll rates 95 EL / 95 EL / 595 Express		
C. <input checked="" type="checkbox"/> Standard directional schedule (for 595 Express)		
Date & Start Time:		
A. <input checked="" type="checkbox"/> Date issue identified		
B. Time issue identified		
What's Being Done to Address the Issue:		
A. <input checked="" type="checkbox"/> Corrective actions being taken		
B. Who's performing the corrective actions		
C. Is FTE assistance required - which FTE functional area or team member(s)		
D. Who will inform SunWatch when corrective actions are complete		
E. Projected completion of corrective actions and / or restoration of network connectivity		
F. <input checked="" type="checkbox"/> Projected return to standard directional schedule (I-595 Express only)		
G. <input checked="" type="checkbox"/> None needed – notification is informational for scheduled event		

EXPRESS LANE MODULE OR OVERALL OTM FAILURES		
Scenario	Procedure	Comments
Tolling Task Failure – Toll calculation approval	<ol style="list-style-type: none"> 1. Notify IBI representative. 2. Open a service desk ticket and include the IBI representative (critical). 	
Tolling Task Failure – DMS verification prep.	<ol style="list-style-type: none"> 1. Notify IBI representative. 2. Open a service desk ticket and include the IBI representative (critical). 	
Recover from Tolling Task Failure	<ol style="list-style-type: none"> 1. IBI will advise if any special handling or further actions are required. 	

EXPRESS LANE MODULE OR OVERALL OTM FAILURES		
Scenario	Procedure	Comments
Express Lanes Module Failure	<ol style="list-style-type: none"> 1. Notify IBI representative. 2. Open a service desk ticket and include the IBI representative (critical). 	
OTM Failure	<ol style="list-style-type: none"> 1. Notify IBI representative. 2. Open a service desk ticket and include the IBI representative (critical). 	
Recover from Express Lanes Module or overall OTM Failure	<ol style="list-style-type: none"> 1. IBI will excuse the SELS restart procedure. 2. Continue to operate Express Lanes as usual. 	

IT MAINTENANCE OUTAGE (SCHEDULED AND / OR EMERGENCY)		
Scenario	Procedure	Comments
Scheduled SunGuide IT Maintenance	<ol style="list-style-type: none"> 1. IT Staff will contact the IBI team and Operations Management requesting the outage. 2. IBI team and Operations Management will request the anticipated duration of the outage. 3. Notify TMC Manager / Project Manager and include the client (FDOT). 4. TMC Manager or designee will either approve the outage and/or contact IT/ITS staff to discuss alternate times to perform the work. (Note: Scheduled outages shall only be permitted during non-peak times, 9A-4P or 7P-6A). 5. E-mail critical staff informing them of the outage. 6. E-mail SunWatch and associated team. 	<p>Note: All scheduled outages shall be performed during scheduled maintenance closures or when charging default (minimum) toll.</p> <p>If a planned outage is canceled, notify SunWatch of the cancellation (e-mail) in advance of the time when the outage was scheduled.</p>
Emergency SunGuide IT Maintenance	<ol style="list-style-type: none"> 1. IT Staff will contact the IBI team and Operations Management requesting the outage. 2. IBI team and Operations Management will request the anticipated duration of the outage. 3. Notify TMC Manager / Project Manager and include the client (FDOT). 4. TMC Manager or designee will either approve the outage and/or contact IT/ITS staff to discuss alternate times to perform the work. (Note: Scheduled outages shall only be permitted during non-peak times, 9A-4P or 7P-6A). 5. E-mail critical staff informing them of the outage. 6. E-mail SunWatch and associated team. 	
Recovery From Maintenance Outage.	<ol style="list-style-type: none"> 1. Resume operating Express Lanes as usual. 2. Notify TMC Manager / Project Manager or designee that we have resumed Operations (e-mail). 3. E-mail SunWatch and associated team. 	

OUT OF HOURS SELS FAILURES (Static Tolling)

How to recognize and report SELS failures (static \$0.50 minimum toll):

1. Should the SELS application via intrasmart, or the URL <http://i75sels/> generate a 'page cannot be displayed' instead of the login page, then report to Jacques or the IBI representative immediately. Please verify that this is not from an isolated console, but from all consoles as this indicates that the SELS application is down.
2. Observe the corridor view, as below.

Home > Express Lanes > Corridor (I-95) View

Top (SB) Direction, DMS Verification Request Sent to David Needham @ 07:51:00

Bottom (NB) Direction, DMS Verification Request Sent to David Needham @ 07:51:05

Traffic Data Update End Time: 10/15/2021 07:53

	I-95-SB		I-95-NB	
Destination	Cypress Creek Rd	Hillsboro Blvd	Cypress Creek Rd	
TD	-1	-1		
Toll	\$0.50	\$0.00	\$0.50	
Mode	Time of Day	Time of Day		
Next Update	08:00:00	08:00:00	08:00:00	
Last Confirm				
GP Avg	0	0		
EL Avg	0	0		

Communications and Tolling Tasks

MMS Tickets @ 07:51:05

Toll Calculation/Approval @ 07:51:05

Settings

Corridor Area: Whole Corridor

View: Map (Night)

Data: Speed

Smoothing: 1 Min

	I-95-SB		I-95-NB	
Destination	SW 10th St	Glades Rd	Glades Rd	
TD	-1	-1		
Toll	\$0.50	\$0.50	\$0.00	
Mode	Time of Day	Time of Day	Time of Day	
Next Update	08:00:00	08:00:00	08:00:00	
Last Confirm				
GP Avg	0	0	0	
EL Avg	0	0	0	

Map Legend

- >= 30 MPH
- < 30 MPH
- No Data
- No Detector

3. Verify MVDS (detector) data is being collected in SunGuide.
4. If 'No', open MIMS tickets via the maintenance module for MVDS (detectors) that are not operational.
5. *If 'Yes', verify the 'Communications and Tolling Tasks' in the top right corner of the corridor view. Also view the time of the 'Next Update' to see if data returns to the corridor.

Note that during overnight hours, server updates may cause the corridor to temporarily lose data. Allow for the 'Next Update' scheduled time to pass prior to action

Home > Express Lanes > Corridor (I-75) View Traffic Data Update End Time: 10/14/2021 13:54

Top (SB) Direction: DMS Verification Request Sent to David Needham @ 13:55:20 Bottom (NB) Direction: Scheduled Toll Update Auto-approved @ 13:45:03

	I-75-4S	I-75-6S	I-75-9S	I-75-13S	
Destination	NW 138th St	HEFT	NW 138th St	HEFT	NW 138th St
TD	-1	-1	-1	-1	-1
Toll	\$0.50	\$0.50	\$1.00	\$0.50	\$1.00
Mode	Time of Day	Time of Day	Time of Day	Time of Day	Time of Day
Next Update	14:00:00	14:00:00	14:00:00	14:00:00	14:00:00
Last Confirm					
GP Avg	0	0	0	0	0
EL Avg	0	0	0	0	0

Communications and Tolling Tasks

D4Tst.SunGuide: With Exceptions @ 13:55:18

FTE Toll Service: Success @ 13:55:18

Toll Calculation/Approval: Completed @ 13:45:03

Settings

Corridor Area: Whole Corridor

View: Map (Day)

Data: Speed

Smoothing: 1 Min

- If you see an error, which will be highlighted in 'red' (see above), click on the 'blue' text to open up to show the 'Databus Communications Recent XML Requests (2 hours)' page. From the top right drop menu select 'All Requests', see image below.

← → ↻ Not secure | i75selstest/dc/recentRequests.jsp?sgld=D4Tst&pOption=All&mOption=All

Databus Communication Recent XML Requests (2 Hours)

All Subsystems All Requests

Log ID	Request Time	Ref ID	SunGuide User	Subsystem	XML Request	Response Time	Response	Exception
38981	2021-10-14 13:40:29	OTM_SELSSERVICE_TSS_2	selsservice	tss	<?xml version="1.0" encoding="UTF-8"?><subscribeReq providerName="tss"><refid>OTM_SELSSERVICE_TSS_2</refid><icdVersion>1.0</icdVersion><username>selsservice</username><securityToken>PjyyEvm87AIAvhm</securityToken><detectorData>true</detectorData><mapDetectorData>true</mapDetectorData><linkUpdate>true</linkUpdate></subscribeReq>	2021-10-14 13:40:29	<subscribeResp xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" providerName="tss" providerType="tss"><refid>OTM_SELSSERVICE_TSS_2</refid><icdVersion>1.0</icdVersion><securityToken>PjyyEvm87AIAvhm</securityToken><data xsi:type="subscribeData"><detectorData>true</detectorData><mapDetectorData>true</mapDetectorData><linkUpdate>true</linkUpdate></data></subscribeResp>	N/A
38980	2021-10-14 13:40:28	OTM_SELSSERVICE_CCTV_2	selsservice	cctv	<?xml version="1.0" encoding="UTF-8"?><subscribeReq providerName="cctv"><refid>OTM_SELSSERVICE_CCTV_2</refid><icdVersion>1.0</icdVersion><username>selsservice</username><securityToken>VnSQEeO1vzju4ml7</securityToken><cameraData>true</cameraData></subscribeReq>	2021-10-14 13:40:28	<subscribeResp xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" providerName="cctv" providerType="cctv"><refid>OTM_SELSSERVICE_CCTV_2</refid><icdVersion>1.0</icdVersion><securityToken>VnSQEeO1vzju4ml7</securityToken><data xsi:type="subscribeData"><cameraData>true</cameraData></data></subscribeResp>	N/A
38979	2021-10-14 13:40:28	OTM_SELSSERVICE_TSS_1	selsservice	tss	<?xml version="1.0" encoding="UTF-8"?><authenticateReq providerName="tss"><refid>OTM_SELSSERVICE_TSS_1</refid><icdVersion>1.0</icdVersion><username>selsservice</username><password>qzqzTIBPCIQSIXRfzZuVA==</password></authenticateReq>	2021-10-14 13:40:29	<authenticateResp providerName="tss"><refid>OTM_SELSSERVICE_TSS_1</refid><icdVersion>1.0</icdVersion><securityToken>PjyyEvm87AIAvhm</securityToken><data xsi:type="authenticateData" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"><securityToken>PjyyEvm87AIAvhm</securityToken></data></authenticateResp>	N/A

- Within the 'Subsystem' column, if 'dms' or 'cctv' are displayed in 'black' type, then no 'out of hours' action is required. If they are displayed in 'red' type, then action will be required and Jacques is to be notified.

← → ↻ Not secure | i75selstest/el/corridorView.jsp?corId=1

• Home > Express Lanes > Corridor (I-75) View

Traffic Data Update End Time: 10/14/2021 13:54

Top (SB) Direction: DMS Verification Request Sent to David Needham @ 13:55:20

Bottom (NB) Direction: Scheduled Toll Update Auto-approved @ 13:45:03

	I-75-4S		I-75-6S		I-75-9S		I-75-13S		
Destination	NW 138th St	HEFT	NW 138th St	HEFT	NW 138th St	HEFT	Sheridan St	HEFT	HEFT
TD	-1	-1	-1	-1	-1	-1	-1	-1	-1
Toll	\$0.50	\$0.50	\$1.00	\$0.00	\$0.50	\$1.00	\$0.50	\$1.00	\$1.50
Mode	Time of Day	Time of Day	Time of Day	Time of Day	Time of Day	Time of Day	Time of Day	Time of Day	Time of Day
Next Update	14:00:00	14:00:00	14:00:00	14:00:00	14:00:00	14:00:00	14:00:00	14:00:00	14:00:00
Last Confirm									
GP Avg	0	0		0			0		
EL Avg	0	0		0			0		

Communications and Tolling Tasks

D4Tst SunGuide: With Exceptions @ 13:55:18

FTE Toll Service: Success @ 13:55:18

Toll Calculation/Approval: Completed @ 13:45:03

Settings

Corridor Area: Whole Corridor

View: Map (Day)

Data: Speed

Smoothing: 1 Min

8. If there is a failure with the 'FTE Toll Service' the following parameters are to be adhered to, as this is critical to Express Lanes Operations:
 - a. *Monday through Thursday before midnight, notify Jacques.
 - b. *Friday through business hours Monday, notify Jacques.

*The reason for the above timeframes is that we have 8 hours in which to send the tolls to the Turnpike.

9. Using the scroll on the right of the 'Communications and Tolling Tasks' verify that the 'Toll Calculation/Approval' and the 'DMS Verification Prep' both shows 'Completed' in 'green' text, along with an updated timestamp, also in 'green' text. If the next anticipated timestamp expires, monitor for several cycles and report via the 'service desk' application.

DISTRICT FOUR EXPRESS DELINEATOR MAINTENANCE

District Four and District Six will coordinate closure efforts to reduce the impact on the travelling public. Blanket approval has been granted to applicable contractors in both Districts for Monday night closures between 10pm and 5am for use as needed. The need for closure of the 95 Express lanes in a given District shall be determined by the Asset Maintenance (AM) Contractor associated with that District and their DOT Project Manager.

AM Contractor shall create a video depicting the delineator system present in each direction of travel every Thursday by 12:00pm. AM Contractor shall analyze the video identifying and documenting areas in each direction of travel that do not meet the following Contract Requirements:

EXPRESS LANES CRITERIA	
Deficiency Identification	Time Allowed/Criteria
a) Delineators do not match existing in color	Immediately upon identification
b) Delineator less than current Department standard height (from pavement surface to top of delineator)	Immediately upon identification
c) Delineators not meeting vertical tolerances	Immediately upon identification
d) Reflective sheeting not according to DOT Standard Specifications	Immediately upon identification
e) More than three consecutive delineators missing	Within 7 days or by next regularly scheduled repair whichever is less
f) More than a total of 100 delineators (not consecutive) missing in either direction	Within 7 days or by next regularly scheduled repair whichever is less

AM Contractor shall submit the video, a summary of their findings and intended course of action based on the Contract requirements every week to the Department Project Manager by no later than Thursday at 3pm. The intended course of action shall state whether the AM Contractor requests a closure for delineator maintenance for the following week. If delineators do not require maintenance, AM Contractor may request a closure for the following maintenance activities:

- Glare Screen replacements – all replacement shall be done in conjunction with a Southbound Express lanes closure; closure of one or both SB Express lanes shall be specified and justified by the AM Contractor.
- Drain/Barrier Wall inlet Cleaning – closure of one or both Express lanes in the applicable direction shall be specified and justified by the AM Contractor.

- Roadway Light pole pedestal Cleaning – closure of one or both Express lanes in the applicable direction shall be specified and justified by the AM Contractor.
- Replacement or repair of Roadway Lighting – closure of both Express lanes in the applicable direction is required.

If any of these requests are approved by the Department Project Manager, AM Contractor shall send Email notification by no later than 5:00pm the Friday before planned Monday closure date. AM Contractor shall use the template found in Attachment A for this email notification, stating proposed closure, subject to weather changes. Notification email recipients can be found in Attachment B.

AM Contractor shall send a final email notification by 2pm of the expected closure date confirming the closure of the express lanes. AM Contractor shall use the template found in Attachment A for this email notification. Notification email recipients can be found in Attachment B.

Prior to closing any Entrance Ramps or Exit Ramps to the 95 Express system, AM Contractor shall call the District Four TMC to request approval. AM Contractor shall only begin closures upon receiving approval. District Four TMC shall communicate closure details with District Six TMC to ensure consistent sign messaging.

*During active Express Lane projects, the appropriate contractor will be notified.

OPERATIONS DELINEATOR REVIEW AND REPORTING PROCESS		
Scenario	Procedure	Comments
	<ol style="list-style-type: none"> 1. Review the video links provided by the SIRV Operations Manager / Supervisor. 2. Take a screen capture of the missing / damaged delineators. 3. Create a SunGuide event, notating the following: <ul style="list-style-type: none"> o Event type 'other'. o Status, 'unconfirmed'. o Location of reported incident. o Under 'infrastructure damage' comments, provide a descriptive reference to the damage or missing poles. o Event status 'closed'. 4. Save the individual chronology reports, along with the images, onto the 'plastic pole weekly review' folder on the public drive. 5. Email to the respective Asset Maintenance contractor and FDOT representatives (see list below). 	<p>Any gaps of 5 (or more) consecutive delineators / plastic poles are deemed an emergency response by the TMC for the Asset Maintenance team (or contractors within a project area).</p> <p>Any significant gaps where a single pole or poles do not quite meet the above requirements is also considered an emergency response.</p> <p>Any correspondence should include that 'the condition is unsafe for motorists'.</p>

Asset Maintenance Broward County (Jorgensen)	
Email(s):	Nia_Mozley@royjorgensen.com
	Maritza_Tardi@royjorgensen.com
	Sebastian_Villegas@royjorgensen.com
FDOT	
Email(s):	alexandra.lopez@dot.state.fl.us
	alyssa.klien@dot.state.fl.us
	dani.goodwin@dot.state.fl.us
	andres.sanchez@dot.state.fl.us
	flavia.magalhaes@dot.state.fl.us
Asset Maintenance Palm Beach County (Versar)	
	Miguel.sosa@versar.com
	luz.barrios@versar.com
	jlugo@versar.com
FDOT	
Email(s):	alexandra.lopez@dot.state.fl.us
	alyssa.klien@dot.state.fl.us
	stephanie.torres@dot.state.fl.us
	andres.sanchez@dot.state.fl.us
	gideon.nancoo@dot.state.fl.us

GLOSSARY

Default Toll – The toll to be used when scheduled or calculated tolls are not available, and the facility is not open (Zero Toll). This is currently \$0.50.

Dynamic Mode – A toll setting mode in which current traffic conditions are used to determine the toll charged.

Effective Time – The time at which a toll becomes the toll in use for a segment or trip and not necessarily the time when it was requested or first appeared on Toll Amount signs.

Manual Override – This term refers to using Manual mode with a retroactive effective time to override previously requested tolls. This changes the toll posted on the signs as well as the toll sent to the Turnpike.

Toll Adjustment – A manual correction of the toll to be charged by the Turnpike (FTE). This correction is frequently retroactive to correct an incorrect toll or a toll inconsistent with that on signs, such as when the toll message on a sign is stuck or the sign is blank. This changes the toll charged by the Turnpike but does not change any signs. It is always less than or equal to the toll in effect.

Override vs. Adjustment – Overrides affect the tolls posted on signs as well as the tolls charged by SunPass. Adjustments affect the tolls charged by SunPass, but do not change the tolls posted on the signs. Both are frequently effective retroactively, such as when an incident closes the Express Lanes, to help compensate for people who may have been affected by the blockage that may have occurred after they enter the facility, to adjust tolls when a Toll Amount sign has failed or at other times when a driver may have seen a toll that may be higher than what should be charged. Retroactive overrides/adjustments are usually limited to become effective no earlier than 8 hours prior to the time at which they are submitted (configurable).

The 95 EL Project has implemented two types of tolling methods: Segment Based and Trip Based Tolling. Segment Based Tolling calculates toll amounts for the next downstream destination, whereas Trip Based Tolling combines toll amounts from two or more sequential downstream segments for a destination that is farther downstream. These toll amounts will vary depending on current traffic conditions in the EL. The toll will increase as the demand for the EL increases, to deter motorists from using the EL and try to maintain free flowing speeds (at approximately 45 mph or greater) at all times.

The EL also permits toll-exempt use by motorcycles, hybrid vehicles and registered buses, vanpools, and carpools (3+) (see Figure 3 for EL vehicle classification). A registration is required (through South Florida Commuter Services) to be exempt from tolls. Trucks (3 axles or more) are prohibited from using the EL unless assisting with event removal within the express lanes or unless directed by FHP. Other vehicles may use the EL by paying a variable toll.

The vehicle classification scheme breaks down all motor vehicles into 13 categories. [Figure 3](#) shows which vehicles are eligible and not eligible to utilize the express lanes. Vehicles that fall into Classes 1 through 5 are allowed to use express lane facilities and vehicles that fall into Classes 6 through 13 are not permitted. For safety and operational purposes, two axle vehicles towing a trailer will not be allowed.



Figure 3 EL Vehicle Classification

Facility Lane Configuration

The 95 Express Lanes are considered a separate facility, parallel to I-95 and separated by plastic tubular delineators or express lane markers (SELSs). When referring to incidents occurring within the Express Lanes, the lane closest to the median barrier wall shall be “Express Lane #1” and the lane next to the delineators (Express Lane Markers (ELM’s) / Plastic Poles) shall be referred to as “Express Lane #2,” when applicable. The General Use Lanes of I-95 are those lanes outside of the Express Lanes facility. These lanes shall be referred to as “I-95 Lane #1, I-95 Lane #2, etc...” and shall be counted beginning to the right of the Express Lanes facility and ending at the right shoulder of I-95 (see [Figure 4](#)).

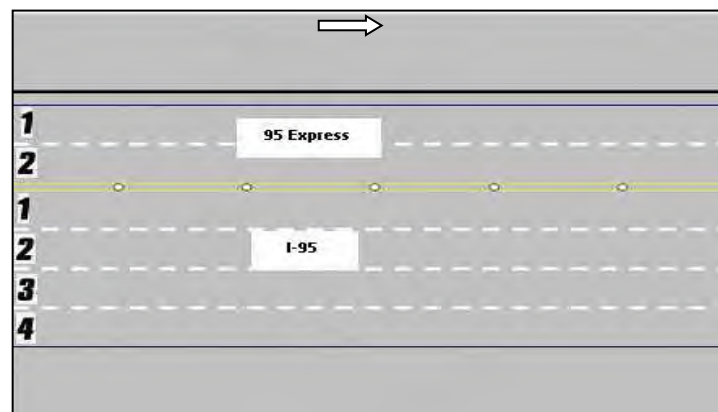


Figure 4 Lane Layout with Express Lanes

1.2 EL OPERATIONAL MODES

PURPOSE AND SCOPE

The purpose of this section is to describe the EL operational modes. The EL pricing strategy is considered dynamic and requires EL Operator monitoring. The following procedures were developed for the 95 Express pricing strategy.

OPERATIONAL MODES

The Express Lanes Module contained in Operations Task Manager (OTM) also known as the Statewide Express Lane Software (SELS) is the primary operator interface for EL Operators and controls the distribution of calculated toll amounts to the Turnpike and dynamic message signs (DMS) in the field. The software will recommend toll amounts to the EL Operator, who will then acknowledge the recommendations and subsequently confirm that the approved toll amounts have been used and posted correctly on the Toll Amount DMS. The EL Operator will also confirm that the Lane Status DMS are displaying the correct messages. The SELS has six operational modes available to the EL Operators for Segment Tolls, plus toll adjustment functionality for Segment and Trip tolls, and a start sequence. These include:

- **Time-of-Day**– Time-of-Day operating mode is an override mode and will be used when the EL facility is open, dynamic mode is unavailable (possibly due to lack of detector data), and traffic warrants the utilization of the toll stored in the Time-of-Day (TOD) Table. TOD operating mode only requires EL Operator interaction when switching from another operating mode to TOD mode. While in this mode, the tolls update automatically based on the operating tolls stored in the SELS Software TOD table. There is a schedule in SELS Software that causes SELS to use different TOD tables for weekdays and weekends/holidays. TOD can be configured to utilize automatic approval.
- **Manual** – Manual operating mode is an override mode that allows the EL Operator to set tolls manually by selecting from a predefined set of tolls. Toll amounts remain the same until the EL Operator chooses a new toll or mode. This mode will be used by the EL Operator typically when toll amounts are stuck due to Toll Amount Sign failure(s).
- **Dynamic** – Dynamic operating mode is the default mode that allows the operating toll amounts to be “adjusted” based on the real time responsive toll amount adjustment algorithm (described later in this section). Dynamic operating mode is the most commonly used operating mode and will be used until a situation arises that warrants a change in mode. In Dynamic mode, SELS will recommend a toll amount based on current traffic conditions. Dynamic mode can be configured to utilize automatic approval for changing toll amounts.
- **Closed** – Closed operating mode is an override mode that requires EL Operator interaction. Closed operating mode will be used when the EL facility is closed, and a zero-toll amount is charged. As the EL Operator changes the operating mode to closed, SELS will adjust the effective time to 10 minutes before the incident was confirmed by the EL Operator. The EL facility will be closed for an incident that results in a blocked travel lane within the EL and when traffic is diverted from the General Use Lanes (GU) to the EL because of an incident in the General Use Lanes. The diversion will be initiated by the Florida Highway Patrol (FHP) or FDOT.
- **Zero-Toll** – Zero Toll operating mode is an override mode that requires EL Operator interaction. It will be used when the EL are open, but a \$0.00 toll must be charged. This mode will be implemented by the EL Operator during evacuations, when the Governor has suspended tolls, and/or under the direction of FDOT.
- **Toll Adjustment** – Toll adjustments are retroactive toll reductions that require EL Operator interaction. An ongoing adjustment shall continually replace the toll amount until terminated by an operator. A finite adjustment allows the EL Operator to replace toll amounts for a specified interval in time utilizing beginning and ending times no later than the present time. EL Operators can implement either an on-going or finite adjustment for a segment or a trip.
 - Segment toll adjustments allow the EL Operators to go back in time (up to eight hours) and change the toll amount charged to customers to an amount less than or equal to that posted on the Toll Amount DMS. A toll adjustment will be applied when any Toll Amount DMS is unable to post the current toll amount. When any toll amount sign is blank, the minimum toll amount of \$0.50 will be charged. The toll adjustment does not change the tolls displayed on the Toll Amount DMS and only affects the toll charged to customers. Therefore, the current applicable toll amounts can be displayed on all operating Toll Amount DMS to manage demand, while the customers are only charged \$0.50.

- Trip toll adjustments are similar, except that the toll and effective time are chosen from a list of previous tolls in order to ensure that the tolls associated with each segment included in that trip are known. The list contains tolls effective up to eight hours in the past, except that any toll higher than a subsequent toll is not included and stops the search back in time for tolls to include in the list. For additional detailed procedures, refer to [Express Lanes Operational Procedures \(ELOP\)](#).
- **SELS Start-Up** – Upon SELS start-up or when publishing a corridor, the EL Operator must initialize the segment(s). The procedure was developed to assist the EL Operator to start the SELS Software in the correct mode, ensure the correct amount is being charged and posted, and to allow the EL Operator to set interim tolls for the time when the software was not running to ensure seamless operation for the EL motorist. The EL Operator can employ any mode upon start-up. For additional procedure details, refer to [Express Lanes Operational Procedures \(ELOP\)](#).

TOLL AMOUNT ADJUSTMENT LOGIC

The operational goal of the 95 Express Lanes is to provide free flow conditions along the facility. Under free flow conditions, vehicles are generally unimpeded and typically able to safely operate at speeds of 45 miles per hour or greater along an uninterrupted expressway segment. Real time responsive toll pricing is utilized to control traffic volumes in the EL in order to maintain free flow conditions.

The condition of traffic flow is defined as the Highway Capacity Manual (HCM) using an operational level of service (LOS). The LOS is a freeway facility is measured by traffic density (TD), which is a combination of speed and volume. TD is calculated as follows:

$$\text{Traffic Density (vehicles per mile per lane)} = \frac{\text{Volume (vehicles per hour per lane)}}{\text{Speed (miles per hour)}}$$

[Figure 5](#) depicts the relationship between LOS and TD, which is derived from the HCM. LOS A, B and C are considered to be free-flow conditions and should safely allow for maximum throughput in the EL. As conditions reach LOS D and E, traffic flow will begin to deteriorate, densities will begin to approach 45 vehicles per mile per lane (vpml) and travel speed will be reduced. For LOS F, densities are expected to be above 45 vpml and speeds will be reduced significantly.

LOS Table			
Level of Service	Traffic Density		Expected Traffic Conditions
	Min	Max	
A	0	11	Free-flow
B	12	18	Free-flow
C	19	26	Free-flow
D	27	35	Mild Congestion
E	36	45	Moderate Congestion
F	46	60	Severe Congestion

Figure 5 Level of Service and Traffic Density Relationship

The real time responsive toll amount adjustment logic utilizes concepts proven to be successful by other HOT facilities. The logic begins with an initial operating toll amount schedule and compares the initial toll amount to a calculated toll amount based on current traffic conditions. Current traffic conditions are determined by real time traffic data collected from EL detectors. The data collected are processed to exclude erroneous data and averaged before a TD is calculated. The TD is used to determine the toll amount needed to optimize traffic flow.

The TD calculations are averaged for each EL segment every 15 minutes to respond to current traffic conditions. The TD calculation is then rounded to a whole number.

The toll amount calculations use configurable settings. The two primary settings are LOS settings and change in TD (Delta TD Tables) settings. The LOS settings relate a TD range to a toll amount range, as shown in [Figure 6](#) for all of the currently approved Segment Level of Service Settings Tables.

LOS Table						
Level of Service	Traffic Density		Toll Amount		Toll Increment	Expected Traffic Conditions
	Min	Max	Min	Max		
A	0	11	\$0.50	\$0.50	\$0.00	Free-flow
B	12	18	\$0.50	\$2.00	\$0.25	Free-flow
C	19	26	\$2.00	\$5.50	\$0.50	Free-flow
D	27	35	\$5.50	\$9.50	\$0.50	Mild Congestion
E	36	45	\$9.50	\$11.75	\$0.25	Moderate Congestion
F	46	60	\$11.75	\$11.75	\$0.00	Severe Congestion

Figure 6 Sample Level of Service Table

The Delta settings relate a change in TD (ΔTD) to a change in toll amount (ΔTA). The steps for calculating the current toll amount are presented in [Figure 7](#). The TD calculated for the previous time period is subtracted from the TD for the current time period to determine the change in TD (ΔTD). Using the delta settings table, a toll change is determined. The toll amount change is added to or subtracted from the previous toll amount to determine the current toll amount. The current toll amount is compared to the maximum and minimum toll amounts in the LOS settings table ([Figure 6](#)).

If the current toll amount falls outside the maximum or minimum toll amounts for the corresponding TD, then the maximum or minimum toll amount, respectively, is applied. If the current toll amount falls within the maximum or minimum toll amounts, then the current toll amount is applied. For example, the previous toll amount is \$1.50, and the previous TD is 20. The current TD is 23. The current toll amount is calculated as follows:

$$\Delta TD = TD_t - TD_{t-1} = 23 - 20 = 3$$

Refer to example Delta Settings Matrix ([Figure 8](#)). A TD of 23 at ΔTD 3 yields a \$1.50.

The current toll amount falls within the toll amount ranges for a Level of Service C (TD=23). Therefore, a toll amount of \$3.00 is used.

Step 1: Calculate ΔTD
 The TD calculated for the previous time period (TD_{t-1}) is subtracted from the TD for the current time period (TD_t) to determine the change in TD (ΔTD)

$$\Delta TD = TD_t - TD_{t-1}$$

Step 2: Find ΔR based on ΔTD and TD_t
 Using the delta settings table, a rate change is determined
Refer to Delta Settings Matrix

Step 3: Calculate R_t

$$R_t = R_{t-1} + \Delta R$$

Figure 7 Current Toll Amount Calculations

SELS RE-OPEN PROCEDURE

The current EL recover from closure procedure in SELS addresses a race condition. SELS reduces the risk of toll amounts artificially decreasing when traffic starts flowing into an empty or low volume segment, by allowing a “normal” toll (time-of-day toll) check at the first calculation interval before dynamic tolling is fully restored. This means that when the EL come out of “closed” and a scheduled update is going to occur, this procedure minimizes the risk of implementing a low toll, so the EL may see a higher toll than current conditions might recommend when dynamic mode is first restored.

Figure 9, Toll Calculation during EL Recovery from Closure, demonstrates how the procedure works. In the figure: once the EL are reopened, the immediate effective toll amount (TA_i) will be either the Time-of-Day toll amount (TA_n) or the last calculated toll amount (TA_0), whichever is greater, and TD_i is either TD_0 or TD_n according to which toll amount is chosen. When a proposed scheduled interval of toll calculation starts, the toll amount for the first interval (TA_1) is calculated using current TD_1 , TD_i and TA_i , then this TA_1 is compared with TA_i , TA_1 will replace TA_i if $TA_1 < TA_i$. Dynamic tolling is recovered in the second scheduled interval.

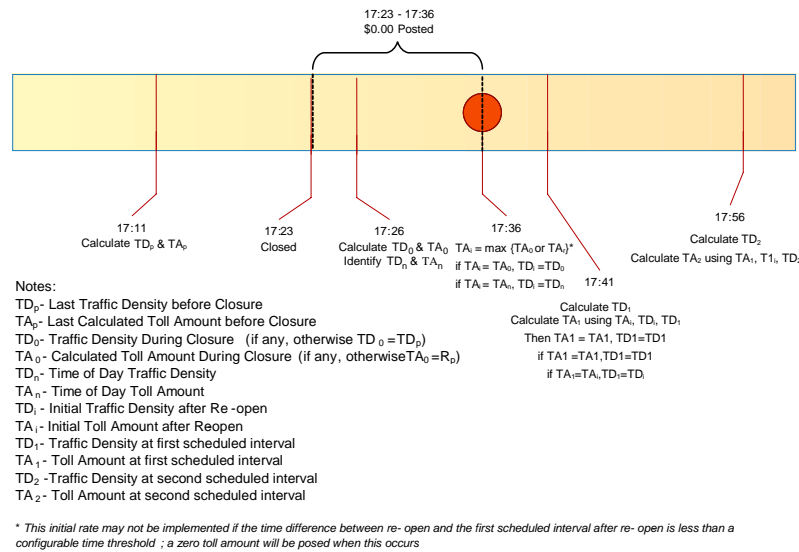


Figure 9 Toll Calculation during EL Recovery from Closure

TOLL SYSTEM INTERFACES

Express lane systems in Florida consist of two systems running in parallel, with the key interfaces between them. These two systems and the interfaces needed to support Express Lane operations are the Turnpike toll collection system and the District ITS and pricing system. The interactions between the two systems are shown in **Figure 10**. The Turnpike operates the toll collection system and is responsible for processing toll transactions through roadside toll equipment and back-office systems. The District is responsible for the management of the express lane traffic operations through the TMC.

The toll lane equipment is connected to the Turnpike Back Office through the Turnpike transaction host, while the ITS roadside equipment connects to the TMC. The ITS roadside components include traffic sensors deployed along the Express lanes, dynamic message signs (DMS) displaying Express Lane status and toll amounts, traffic control devices (such as gates), and closed-circuit television (CCTV) cameras for incident management.

The three key interfaces between the toll collection system and the ITS / pricing system are:

- Toll Amount Interface – This interface is used by the Turnpike to receive the final toll amount information from the TMC / Pricing System. This interface will be used for all Express lanes throughout the State.

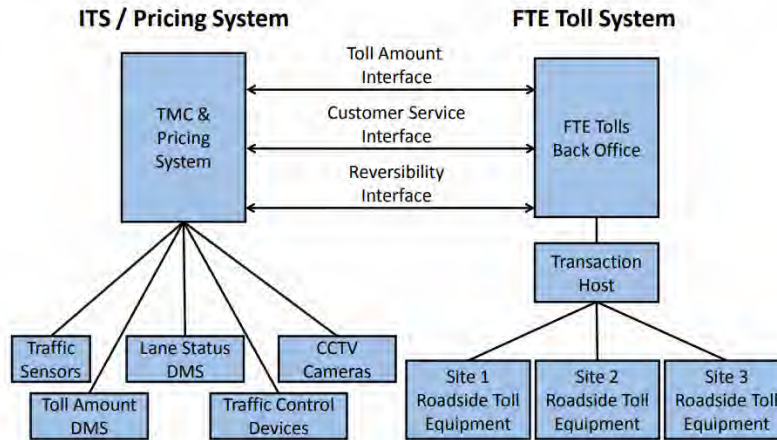


Figure 10 Typical Toll System Interfaces

- Customer Service Interface – This interface allows the Turnpike Customer Service Representatives to look at information that was posted on the toll amount DMS when customers have questions regarding transactions. The Turnpike also has an Interface Control Document that describes this interface.
- Reversibility Interface – This interface is used by the TMC to send a signal to the toll system to change the direction in which the toll point operates. This interface is only needed if the Express lane is a reversible system.

EXPRESS LANE SEGMENT

An Express lane segment is the distance between an entry point to the Express lanes and the next point of exit, see [Figure 11](#). If there are multiple entry points before an exit point, the segment is defined to be the distance between the first entry point, see [Figure 12](#). If there are multiple exit points following an entry point, the segment represents the distance between two successive exit points, see [Figure 13](#).

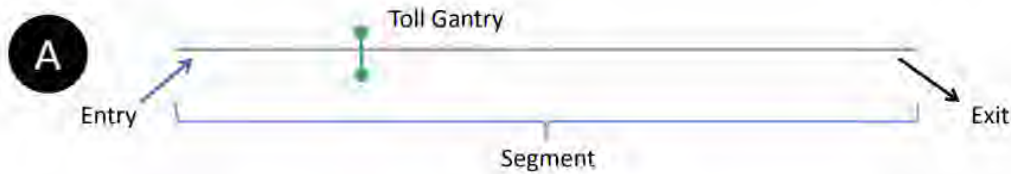


Figure 11

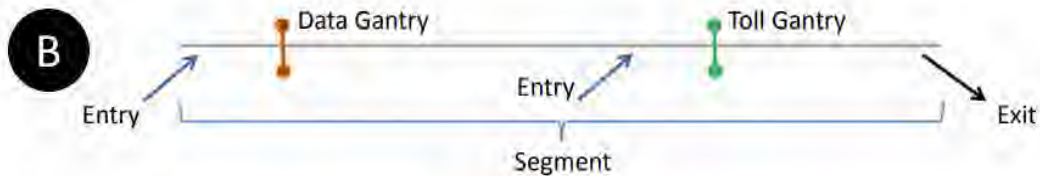


Figure 12

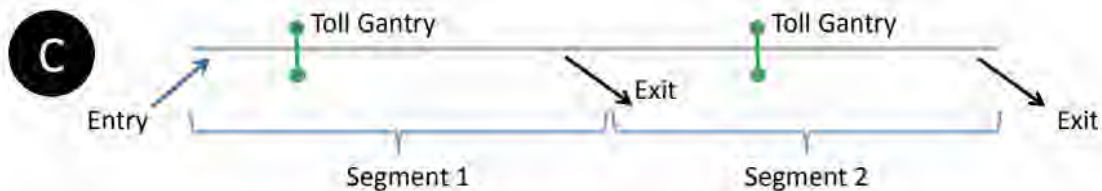


Figure 13

Gantries shall be placed between successive entries, between an entry point and an exit point, and between successive exits, unless the entry or exit points are spaced less than one mile apart or physical constraints prevent the placement of such structures.

Gantries placed between successive entry points (i.e. data gantries) do not charge a toll but rather collect data to accurately account for the time to travel from the toll amount DMS to the tolling point. All other gantries will charge the toll in effect at the time of entry. Every segment has only one toll gantry that charges a toll. The minimum toll is \$0.50 at each gantry where a toll is charged.

TRIP BUILDING

A tolling trip is comprised of one or more contiguous segments. [Figure 14](#) illustrates the six tolling trip possibilities of an example Express lane system, for a single direction on travel, which is composed of three segments. For longer Express lane systems that have more than three segments, trip building systems, consisting of no more than three segments, can be established in series with a decision point for the customer to stay in or get out of the Express lanes within the tolling trip. The linking of trip building systems together is shown in [Figure 15](#).

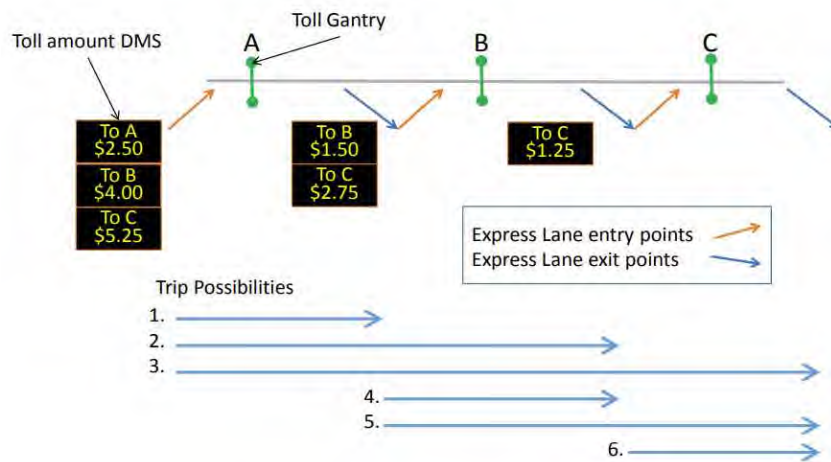


Figure 14 Trip Possibilities for a Three Segment Express Lane System

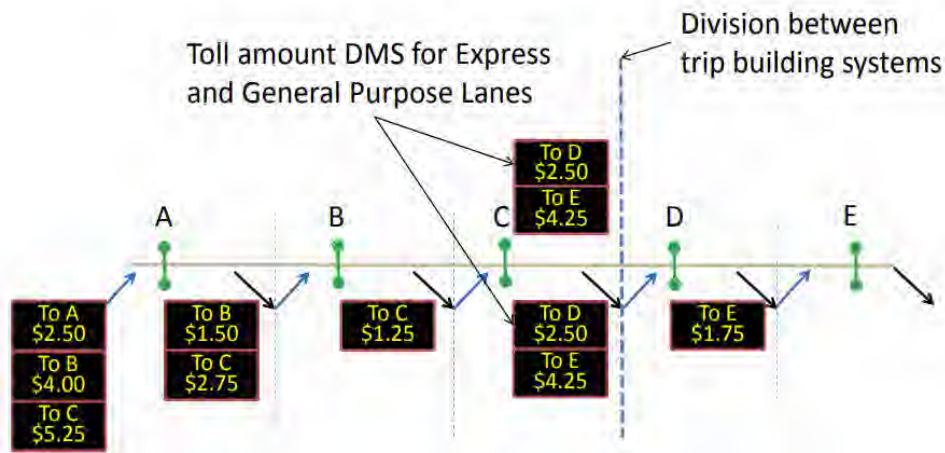


Figure 15 Linked Trip Building Systems

A customer in the General use lanes will see a toll amount DMS which displays the toll amount that will be charged to the customer for traveling to one or more destinations in the Express lanes/ Each possible Express lane exit in the current tolling trip, and the associated destination, is provided with the associated toll amount. The toll amount seen by the customer on the toll amount DMS is locked in upon entry to the Express lanes for travel to the destinations shown on the sign. Therefore, the customer will be charged no more than what is posted on the toll amount DMS for traveling to the destinations shown even if the toll amounts change after customers enter. If the toll amount is reduced after a customer has entered the Express lanes and while the customer is still in the Express lanes, the reduced toll amount will be charged.

Each of the Express lane segments within a tolling trip may have different toll amounts, which when added together, form the total trip toll amount. Even though the toll amount will be charged on a segment-by-segment basis, and reported as such on the customers statement, trip building is necessary to ensure that drivers who get into the Express lanes and travel through multiple segments pay the lower toll between what they see on the toll amount DMS and what is actually charged at the successive toll gantries within the tolling trip.

1.3 DISTRICT FOUR EL STAFFING AND SCHEDULING

PURPOSE AND SCOPE

The purpose of this section is to establish responsibilities and scheduling of the Express Program Manager and the Control Room Staff that cover the Express Lanes Shifts, referred to as EL Staff.

EXPRESS LANES PROGRAM MANAGER / COORDINATOR

The Express Program Manager works full time on-site at the SunGuide TMC to support all 95 Express and Ramp Signaling related activities.

The responsibilities of the Express Program Manager include, but are not limited to:

- Overseeing EL operations.
- Overseeing overall project performance to ensure it is meeting the intended results.
- Evaluating and analyzing project related performance metrics.
- Developing and implementing recommendations to mitigate performance measures degradation.
- Conducting and overseeing operational analyses.
- Providing projects related data and information to others (internal and external).
- Coordinating and supporting testing for all software, hardware and firmware upgrades/changes.
- Reviewing and updating operational parameters including but not limited to:
 - Express Time of Day, Level of Service, and Traffic Density Delta tables.
 - Ramp Signaling Central and Local Time of Day tables.
 - Ramp Signaling minimum and maximum metering rates.
- Representing the Department at meetings, workshops, presentations (including other Express Lanes deployments as the project lead and technical expert).
- Supporting public outreach/public information efforts.

EL STAFF RESPONSIBILITIES

District Four shall schedule a minimum of one Express Lanes Operator on-site at the SunGuide TMC at all times. The 24 hours per day/7 days per week (24/7) coverage requirement includes using the Shift Supervisors or alternate Express trained Operators to cover EL operations during breaks and approved leaves of absence. The responsibilities of the EL Staff are as follows:

- Primary operators of the Express Lanes Module (SELS).
- Monitor Express facilities and General Use Lanes within District limits.
- Verify toll amounts (per Segments and Trips) are displayed correctly every 15 minutes.
- Review failures in SELS and follow failure procedures.
- Observe, acknowledge and report all detector failures and report via the MIMS software application.
- Manage events in the Express Lanes, in accordance District Four ELOPS and training material.
- Primary Point of Contact for Express Lane events (to include interagency event for District Six and 595 Express LLC).
- Ensure shift change report for EL Operations is complete and accurate for each shift worked.
- Create and complete the SELS Shift debriefing report to incorporate activities for 595 Express, 75 Express, and 95 Express.
- Handle all calls/inquiries related to Express Lanes.
- Monitor 75 Express and 95 Express field devices along both facilities and field devices along the General Use Lanes throughout the Express limits and report failures via the MIMS software application.

- Ensure breaks and meals are covered by Shift Supervisors or EL trained Operators.
- Closely coordinate and support Shift Supervisors and Fleet Operators.
- Prepare or assist with preparation of Express Lanes reports.
- Assist and/or perform research for TMC Management / Client.

1.4 DISTRICT FOUR ROAD RANGER/INCIDENT RESPONSE TEAM COORDINATION

PURPOSE AND SCOPE

The purpose of this section is to describe supplemental Road Ranger coordination procedures and policies and provide procedures for communicating with the Express Severe Incident Response Team. As agreed, by both districts, FDOT District Six shall handle all incident and event management for all events occurring in Miami-Dade County. FDOT District Four shall handle all incident and event management for all events occurring in Broward County.

INCIDENT RESPONSE TEAM OVERVIEW

Existing Incident Management

Existing FDOT D4 and D6 incident management efforts along the project corridor are managed from the respective FDOT SunGuide Transportation Management Center (TMC). These efforts include four key program elements; Traffic Incident Management (TIM) Teams, Road Rangers, Rapid Incident Scene Clearance (RISC), and Severe Incident Response Vehicle/Incident Response Vehicle (SIRV/IRV) Operations. These resources work closely with Asset Maintenance Contractors for extended incidents. The delineation mark for incident management services between D4 and D6 will be the Broward County/Miami Dade Countyline, to the south of the District; however, procedures are in place for each District to respond to the neighboring District upon request.

Traffic Incident Management (TIM) Teams

The Incident Management program provides incident management response as well as limited assistance to stranded motorists to reduce congestion and improve safety for emergency responders and the motoring public. The D4 TMC, in the interest of promoting Florida's "Open Roads Policy" and providing increased mobility on FDOT highways, provides Incident Management (IM) and Motorist Assistance (MA) services to improve safety, reduce delays, and mitigate secondary traffic incidents.

Both the D4 and D6 have established Traffic Incident Management (TIM) Teams. The TIM Teams consists of FDOT, Florida's Turnpike Enterprise (FTE), FHP (Florida Highway Patrol), tow companies, local police, local fire rescue, other regional TMCs, consultants, and asset maintenance companies. The District Four TMC TIM Team meets quarterly and there are bi-annual joint TIM meetings held among the D4 TMC and D6 TMC TIM Teams. Through the TIM Teams, both D4 TMC and 64 TMC have established excellent working relationships with the incident responders. The TIM Teams have helped to establish quick clearance policies and provide a forum to discuss issues which results in continuous improvement to incident response within the region.

Future - FDOT District Four will look into providing additional resources to clear events along the EL facility. As part of the enforcement plan, at least two FHP Troopers (6:00 AM to 10:00 PM, Monday through Friday) will be retained by FDOT through the Hireback program. In addition, one FDOT Severe Incident Response Vehicle (SIRV) Operator will support the existing Road Rangers and improve communications between the field and the TMC Operations. A flat bed tow truck will be required to assist with clearance of the EL.

Express Severe Incident Response Vehicle Operators

The SIRV operators will act as an FDOT incident coordinator on-scene for events impacting the traffic flow within the Express Lanes. They will assist responding agencies, coordinate maintenance of traffic (MOT) activities of the Road Rangers and provide liaison between other responding agencies and FDOT resources (such as FDOT Maintenance and/or its Asset Maintenance Contractor). The SIRV Operator will be the primary contact for the TMC Operators to ensure all response and clearance times are documented in the SunGuide Software. As needed, the SIRV operator will facilitate post-incident analysis meetings with other agencies. The SIRV operators will wear a uniform that portrays a professional appearance and assists with recognition in the field to new responders. A patch will be worn to communicate that the SIRV Operators represent FDOT. The SIRV operators will be trained and qualified in the following:

- Incident Management and Command
- Advanced Management of Traffic



- Incident Clearance Procedures
- Severe Incident Documentation
- Emergency Vehicle Operation
- First responder functions and responsibilities

Their hours for Express Lanes incident response are listed below:

- Monday through Friday (excluding FDOT approved / public holidays) – 6A through 10P.
- Out of hours 10P through 6A and weekends – on call (refer to weekly published schedule).

For out of hours response, the following criteria must be met:

- Any event lasting or expected to last 2 hours or longer.
- Any event involving a fatality.
- Any RISC event.
- Any event involving a large overturned commercial vehicle, such as a tractor-trailer, dump-trump, cement mixer, tanker, etc.
- Any event involving a large commercial vehicle, such as a tractor-trailer, dump-truck, cement mixer, tanker, etc. where the tires are burned off.
- Any event involving a Haz-Mat.

SIRV must also be notified for any crash involving injuries requiring transport to:

- Law Enforcement.
- Fire Rescue.
- Road Rangers.

Severe Incident Response Vehicle

The SIRV is a specially equipped and marked vehicle that is dispatched through the FDOT District Four SunGuide TMC. These vehicles are equipped with an amber strobe light system to facilitate emergency response. High intensity lighting and markings have been added to the truck to assist responders after sundown. A docking station in the driver’s compartment allows use of a laptop computer to support incident command activities. A statewide law enforcement radio system (SLERS) radio is provided to allow for direct communication with the FDOT District Four SunGuide TMC Operations Staff. In addition, the Severe Incident Response Vehicle carries maintenance of traffic and spill mitigation equipment such as cones, signs, flares, oil dry, and fuel absorbent.



Flat Bed Tow Truck

The flat bed tow truck is a 21 ft. carrier properly equipped for all types of vehicle towing and a four passenger cab (not including driver) to facilitate quick clearance of the lanes.

Florida Highway Patrol

FHP provide enforcement and coordinate the removal of an event from the Express Lanes. FHP is contacted when rotational tow is required either to remove a vehicle from the Express Lanes or to assist with removal of the vehicle from any other site after it has been relocated from the 95 Express Lanes.



Road Ranger Coordination

The Road Rangers are the FDOT freeway service patrol which is a free service provided by FDOT and is managed by each Districts TMC. The Road Rangers’ mission is to provide free highway assistance services during incidents to reduce delay and improve safety for the motoring public and responders. In Broward, Palm

Beach (D4) and Miami Dade (D6), Road Rangers patrol designated areas (beats) 24 hours a day, 7 days a week and 365 days a year. The Road Rangers provides the following services:

- Short-term maintenance-of-traffic (MOT) services during incidents.
- Assist in incident management and response.
- Clear disabled vehicles from travel lanes.
- Clear debris from travel lanes.
- Change flat tires.
- Jump-start vehicles and make minor repairs.
- Supply emergency gasoline, diesel, water.
- Provide stranded motorists two free local calls.
- Monitor abandoned vehicles and notify FHP

In Broward County, Road Ranger services along I-95 are currently provided through the Asset Maintenance Contract E4V68-R0 and Palm Beach is provided through contract E4U23. Asset Maintenance Contract E4V68-R0 (Incident Clear – Broward) began service on July 01, 2022 and Asset maintenance Contract E4U23 (Autobase – Palm Beach) began service on January 30, 2021. These contracts provide Road Ranger pick-up trucks that continuously patrol all I-95, I-75, and portions of I-595. The Road Rangers responds to incidents and stranded motorists along these corridors to help facilitate clearing the roadway.

The Road Ranger vehicle fleet within Broward / Palm Beach includes three different truck types: - Pickup trucks, pickup trucks (with debris clear) and flatbed trucks. The Road Ranger patrol beats for 75 EL and 95 EL project limits are as follows:

Monday through Friday 5:00 AM – 10:00 PM (staggered)

- I-95 Broward County (Ives Dairy Road to Davie Blvd / I-595 EB to Eller Drive / I-595 WB to US-441 / SR-7)
 - Two Pickup Trucks
- I-95 Broward County (SR-84 to Cypress Creek Road / I-595 EB to Eller Drive / I-595 WB to US-441 / SR-7)
 - Two Pickup Trucks
- I-95 Broward County (Commercial Blvd to Palmetto Park Rd)
 - Two Pickup Trucks
- I-95 Broward County EXPRESS LANES (Cypress Creek Rd to Glades Rd)
 - Two Pickup Trucks (same patrol as above entry)
- I-95 Broward County EXPRESS LANES (Ives Dairy Rd to Broward Park & Ride)
 - Three Pickup Trucks
- East Roving Supervisor
 - One Flatbed Truck
- Floating Patrol for I-95 (SR-84 to Palmetto Park Rd) and EXPRESS LANES (Cypress Creek Rd to Glades Rd)
 - Two Pickup Trucks
- I-95 Palm Beach County EXPRESS LANES (Hillsboro Blvd to Congress Ave)
 - One Pickup Truck
- County Supervisor
 - One Pickup Truck

Monday through Friday 10:00 PM – 6:00 AM, weekends and holidays (staggered)

- I-95 Broward County (Ives Dairy Road to Davie Blvd / I-595 EB to Eller Drive / I-595 WB to US-441 / SR-7)
 - One Pickup Truck
- I-95 Broward County (Cypress Creek Road / I-595 EB to Eller Drive / I-595 WB to US-441 / SR-7)
 - Two Pickup Trucks
- I-95 Broward County (Commercial Blvd to Palmetto Park Rd)

- Two Pickup Trucks
- I-95 Broward County EXPRESS LANES (Cypress Creek Rd to Glades Rd)
 - Two Pickup Trucks (same patrol as above entry)
- I-95 Broward County EXPRESS LANES (Ives Dairy Rd to Davie Blvd)
 - Two Pickup Trucks
- County Supervisor
 - One Pickup Truck (with Debris Clear)
- I-95 Palm Beach County EXPRESS LANES (Hillsboro Blvd to Congress Ave)
 - One Pickup Truck
- County Supervisor
 - One Pickup Truck

The 95 Express Lanes are separated from the General Use lanes by solid double white pavement markings and plastic poles, also referred to as delineators or ELM's (Express Lane Markers). Road Rangers are designated as "Emergency Vehicles" by FDOT Secretary Order and are permitted to cross the solid double white lane lines and plastic poles when responding to and departing an event. This authorization was granted to Road Rangers in order to safely facilitate quick clearance of traffic incidents, especially those occurring within the Express Lanes facility.

A minimum of two Road Rangers will be dispatched. One of these two vehicles must be a flatbed truck during Peak Period (broken down into Peak East and Peak West). The Road Ranger arriving first will:

- Notify the TMC upon its arrival.
- Assess the situation.
- Communicate to the TMC whether the backup unit is still needed.
- Secure the scene by setting up temporary MOT and offer assistance, as needed, to the vehicle or motorist.

If the backup unit is needed, the Road Ranger vehicles will reposition themselves, as needed, to allow the flatbed truck to hook up the disabled vehicle as the other Road Ranger provides additional backup and maintenance of traffic (MOT) behind the incident.



- When relocating vehicles, a minimum of two vehicles is required.
- When relocating vehicles to the right shoulder, a minimum of three vehicles is required.
- The additional Road Ranger (or law enforcement unit) will be responsible for MOT in lane 1 of the General Use lanes, slowing and diverting traffic in this lane to allow the Road Rangers and other potential incident vehicles to cross the double white lines and plastic poles to enter the General Use lanes.
- Once all vehicles have exited the EL facility and entered lane 1 of the General Use lanes, the vehicle providing MOT in the General Use lanes will begin gradually escorting all incident vehicles to the right shoulder or Emergency Stop Site (ESS) along I-95.

Road Rangers shall be allowed to relocate any vehicle without the presence of law enforcement (FHP or other) to the nearest safe location, Emergency Stopping Site (ESS), or Broward Park and Ride. However, Road Rangers are not legally authorized to perform relocation of the vehicle without the vehicle owner's or law enforcement's consent.

Anytime a Road Ranger/SIRV Operator relocates a vehicle or requests FHP assistance, the TMC Operator shall provide FHP with the following information:

- Vehicle Description(s) (Make, Model, Color, License Plate and VIN)
Note: TMC Operator must advise FHP when the event is unable to be located by CCTV or when a Road Ranger is not on scene.

- Nature/Type of Event
- Location (Roadway, Direction of Travel, Proximity, and Cross Street)
- Injuries, if applicable

Dispatching Resources

The Express Lanes Operator is responsible for detecting, confirming, and dispatching the necessary resources to accommodate the nature of the event, such as Road Rangers, SIRV Operator and/or Flatbed Tow Truck. Communication will be maintained by the Express Lanes Operator with the resources dispatched pre, during, and/or post incident.

Quick Clearance Procedures

In order to expedite the clearance of both travel lane and shoulder blocking events within the Express Lanes, the following quick clearance procedures have been established:

- Vehicles blocking Express travel lanes are to be relocated to the General Use right shoulder, a designated Emergency Stop Site (ESS), or the Broward Park and Ride. Road Ranger vehicles equipped to safely move vehicles may do so, although some events may require a flatbed truck.
- Disabled vehicles located on the Express Lanes shoulder (left shoulder only) are to be relocated to the right shoulder of the General Use lanes, ESS, or Broward Park and Ride.
- Abandoned vehicles within the Express Lanes that are blocking a travel lane or deemed to be impeding traffic due to proximity of the travel lane shall be relocated to the nearest safe location. Prior to relocation the Express Lanes Operator shall notify FHP that the vehicle is being relocated. Once the vehicle has been relocated the EL Operator shall provide FHP with a follow-up notification informing FHP of the vehicle description (Make, Model, Color, and License Plate Number) and the location of the vehicle.
- Abandoned vehicles on the Express Lanes shoulder (legally parked) are to be marked with a grease pen on the rear window by a Road Ranger when it is first discovered and the Express Lanes Operator will notify FHP (or liaison) to log the initial discovery.
 - The markings include the time, date and Road Ranger truck number.
 - At the beginning of each Hireback (future) shift, the FHP Trooper sweeps the Express Lanes for disabled vehicles and calls for rotational tow if necessary.
 - The rotational tow will pick up the vehicle from the shoulder if they are able to respond within 30 minutes. If they are not able to respond within 30 minutes, the FHP Trooper will request TMC Operations dispatch resources to relocate the disabled vehicle to the General Use right shoulder, ESS, or Broward Park and Ride.
- Subsequently, the FHP Trooper will request rotational tow to pick up the vehicle at the designated relocation area.

Debris

Debris located within the Express Lanes shall be removed from the travel lanes by the Road Ranger/Road Ranger Supervisor using the DebrisClear System. Once the debris is clear, the Road Ranger/Road Ranger Supervisor shall notify the TMC. It is then the responsibility of the Express Lanes Operator to contact the Asset Maintenance Contractor (or project contractor) to dispose of the debris. If the debris is too large for the Road Ranger/Road Ranger Supervisor to remove, or if the removal puts the Road Ranger/Road Ranger Supervisor in an unsafe situation, then the TMC Operator shall contact the FDOT Asset Maintenance Contractor (or project contractor).

Asset Maintenance / Contractor within project limits (for LTMOT)

Asset Maintenance – The Asset Maintenance contractor is responsible for repair and maintenance of the Express Lanes, unless the limits fall within an active project, at which time the contractor assigned to the project is to respond (please refer to the Asset Maintenance spreadsheet for project limits). They respond to or acknowledge:

- Damage, property theft or vandalism to State owned infrastructure or equipment, including but not limited to guardrails, bridge abutments, crash barrels and pavement.
- Debris on the roadway.

- Severe incident with Long Term Maintenance of Traffic requirements (LTMOT). Typically estimated to have greater than one hour of lane blockage for Express Lanes management.

HARD CLOSURES FOR INDIVIDUAL SEGMENTS

All field resources patrol their assigned beats throughout their patrol.

- The SIRV unit and Flatbed shall provide on-scene management and event coordination for the primary incident.
- One Road Ranger Pickup truck shall be responsible for the closing of each assigned ingress point to the segment (from I-95 mainline).
- One Road Ranger Pickup truck shall be responsible for the closing at the end of the upstream segment to prevent motorists continuing their trip toward the incident scene (to I-95 mainline).
- Once the duration of an event has exceeded 60 minutes, then notify Asset Maintenance Contractor to relieve the Road Rangers and/or IRV.

HARD CLOSURES FOR SEGMENTS OUTSIDE OF DISTRICT FOUR LIMITS

District Four are supported by SEFRTOC partners for locations outside of their District limits, such as points of egress, supported by District Six. An example is listed below:

- D6 – One Road Ranger Pickup truck is responsible for closing at the end of 95 Express Segment 2N (destination Ives Dairy Rd), to force traffic out to the General Use mainline and prevent motorists from entering the downstream segment (3N).
- Once the duration of an event has exceeded 60 minutes, then notify Asset Maintenance Contractor to relieve the Road Rangers and/or IRV.

EVENT NOTIFICATIONS

FDOT District Six TMC and FTE (Pompano) TMC

It is extremely critical that both FDOT District Four have exceptional communication between the partner TMC's. As such, the EL Operator shall notify District Six TMC or FTE (Pompano) TMC when an event occurs within certain segments. See below for required notifications:

95 EXPRESS – District Six TMC

Segment 3N – Any lane blocked, the segment is closed, or significant congestion extends beyond the segment.

Segment 3S – Any lane blocked, the segment is closed, or significant congestion extends beyond the segment.

75 EXPRESS – District Six TMC

Segment 4N – Any lane blocked, the segment is closed, or significant congestion extends beyond the segment.

Segment 6N – Any lane blocked, the segment is closed, or significant congestion extends beyond the segment.

75 EXPRESS – FTE (Pompano) TMC

Segment 6N – Ingress from HEFT NB.

Segment 6N – Any lane blocked, the segment is closed, or significant congestion extends beyond the segment.

TRANSIT

TMC Operations Staff shall notify Miami-Dade Transit (MDT) dispatch via the telephone (305-381-8382) for all incidents with major infrastructure and/or travel lanes blocked that are estimated to exceed more than 2 hours within the 95 Express limits (all segments). This notification is for incidents having a major impact on traffic in the area that may affect buses traveling along the facility.

Broward County Transit (BCT) has expanded service to Miami-Dade County and shall only utilize the EL for AM (5:00 AM to 9:00 AM) or PM (3:00 PM to 7:00 PM) peak periods.

BCT and MDT also have existing procedures for a bus breakdown within the Express Lanes. The BCT and MDT will dispatch an agency supervisor to the scene and an additional bus to transfer the passengers. Even when a bus is located on the left shoulder, an additional lane will need to be blocked to safely transfer passengers. The following protocols with BCT and MDT have been established when a bus breakdown occurs in the EL.

- I. BCT or MDT discovers Bus Breakdown/Crash
 - The MDT or BCT should notify the TMC by telephone. The EL Operator should gather the following information from the BCT or MDT dispatcher:
 - Location of broken-down bus.
 - What resources were dispatched.
 - Other agencies notified, such as FHP.
 - Any other information regarding the event, such as type, expected duration, etc.
 - Once notified, the TMC will dispatch Road Rangers and the IRV to the scene and verify the location of the event via CCTV (if available). Once located, the TMC Express Lane Operator will notify the BCT or MDT Dispatch and provide the following information:
 - Confirmed location.
 - Dispatched resources.
 - CCTV # viewing the incident (this applies when MDT has access to CCTV).
- II. EL Operator Discovers Bus Breakdown/Crash
 - Once detected, the EL Operator shall notify the I-75 Fleet operator to dispatch Road Rangers and the SIRV unit to the scene and verify the location of the event via CCTV (if available). Once the event is verified, the EL Operator will notify BCT and / or MDT dispatch and provide the following information:
 - Confirmed location.
 - Dispatched resources.
 - Any other information regarding the event, such as type, expected duration, etc.
- III. Ongoing Coordination during Bus Breakdown/Crash
 - During the event, BCT and / or MDT will provide updates every 30 minutes until the event has cleared the roadway.
- IV. Other Events (Bus not involved)
 - The EL Operator will notify BCT and MDT for all Segment 3 events during peak periods on weekdays, Monday through Friday (6:00 AM – 9:00 AM) or PM (4:00 PM – 7:00 PM) only.
 - Any major or long-term EL or GU events outside of rush hour.

1.5 EL SOFTWARE APPLICATIONS

PURPOSE AND SCOPE

The purpose of this section is to provide the procedures for operating the SELS software applications.

EXPRESS LANE MODULE (SELS)

The EL Operator shall use SELS to determine and post the applicable toll amount, monitor traffic conditions in both the EL and GU Lanes, monitor EL detector status and generate reports. The EL Operator shall log onto SELS at the beginning of each shift and initiate the Roadway Operations View and Detector Status Monitor. The SELS will track, change modes, and post EL Toll Amount DMS messages, plus document the EL Operator actions for acknowledging and confirming the applicable toll amount. The EL Operator shall visually verify that the intended toll amounts are posted via CCTV screenshots before processing the SELS DMS Verification Form. [Figure 16](#) provides a sample screenshot of the Roadway Operation View. [Figure 17](#) provides a sample screenshot of the DMS Verification Form. [Figure 18](#) provides a sample screenshot of the Segment Mode/Toll Change pop-up.



Figure 16 Sample Screenshot of the 95 Express Corridor View



Figure 17 Sample Screenshot of the DMS Verification Form



Figure 18 Sample Screenshot of the Segment Mode / Toll Change pop-up

EXPRESS LANES OPERATIONAL PROCEDURES

Express Lanes Operational Procedures (Version 1)

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Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express NB entrance / ingress from SR-84.	NB	ENTRANCE / INGRESS FROM SR-84 / I-95 MAINLINE TO SEGMENT 5N BLOCKED	<p>At this time, this ingress is considered the beginning of the facility. With future expansion, this procedure will be updated.</p> <p>This is a single lane segment until Phase 3C completes the ultimate.</p> <p>This segment is temporarily configured with a ‘ghost’ gantry.</p> <p>If supporting a primary EL event, then the segment should be closed (in SELS) to the ingress event once it is hard closed.</p> <p>Post the DMS through the segment (or segments – 6N) if supporting a primary EL event.</p> <p>Refer to DMS messaging plan.</p>	<p>If supporting a primary closure for Segment 5N:</p> <ol style="list-style-type: none"> Dispatch incident responders. In SELS Corridor View, click on the  within the Status Table for the Segment 5N: <ul style="list-style-type: none"> Choose Closed mode. Select a D4 event. If the event is not available at the time of the override, select a Dummy event. Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). Implement a hard closure. Generate a response plan and from the message library, post ‘EXPRESS LANES / CLOSED / DO NOT ENTER’. <p>1. If supporting a primary closure for Segment 6N, then post messages using SunGuide predefined plan “5N – NB INGRESS SUPPORTING A PRIMARY – SEGMENT 6N” and in SELS Corridor View, click on the  within the Status Table for Segment 6N and 5N: <ul style="list-style-type: none"> Choose Closed mode. Select a D4 event. If the event is not available at the time of the override, select a Dummy event. Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). </p> <ol style="list-style-type: none"> Every 15 minutes verify that all EL DMS are displaying the correct messages. 	<ol style="list-style-type: none"> Release the incident responders and open the entrance / ingress from Broward Park and Ride. In the SELS Corridor View, click on the  within the Status Table for Segment 6N and re-submit the mode displayed (current) to update signs that were set ‘out of service’. Release the incident responders and open the entrance / ingress from SR-84 mainline. In the SELS Corridor View, click on the  within the Status Table for Segment 5N and re-submit the mode displayed (current) to update signs that were set ‘out of service’. In SunGuide, terminate the response plan that was used for this closure. Continue tolling as usual.



Location	Direction	Scenario	Comments	Response	Recovery
<p>95 Express Lanes Events – 95 Express NB Segment 5N.</p>	<p>NB</p>	<p>SINGLE LANE EXPRESS LANES SEGMENT 5N BLOCKED</p>	<p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>This is a single lane segment until Phase 3C completes the ultimate.</p> <p>This segment is temporarily configured with a ‘ghost’ gantry.</p> <p>Refer to DMS messaging plan.</p>	<p>Regardless of event type:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. Status Table for the Segment 5N: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 3. Generate a response plan and from the message library post ‘EXPRESS LANES / CLOSED / DO NOT ENTER’. <p>Once the event exceeds 30 minutes (or if expected to exceed 30 minutes from the time of activation), or if all lanes are blocked:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to implement a hard closure at the entrance / ingress to Segment 5N from SR-84 mainline. 	<ol style="list-style-type: none"> 1. Release the incident responders and open the entrance / ingress from SR-84 mainline. 2. In the SELS Corridor View, click on the  within the Status Table for Segment 5N: <ul style="list-style-type: none"> o Choose desired mode. o If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. 3. In SunGuide, terminate the response plan that was used for this closure. 4. Continue tolling as usual.



Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express NB exit / egress to Broward Park and Ride.	NB	EXIT / EGRESS TO BROWARD PARK AND RIDE FROM SEGMENT 5N BLOCKED	<p>This is NOT a destination. Per ‘procedure per event type’, the protocol is to close the segment after 30 minutes, however for this scenario, unless the incident / congestion impedes the EL mainline, the segment is to remain open unless requested to be closed by FHP / Law Enforcement and/or FDOT personnel.</p> <p>This segment is temporarily configured with a ‘ghost’ gantry.</p> <p>Refer to DMS messaging plan.</p>	<p>Regardless of event type:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders. 2. Continue tolling. 3. Generate a response plan and from the message library post ‘95 EXPRESS / RAMP TO PARK AND RIDE / CLOSED’. 4. Dispatch incident responders to assist clearing the event and allow trapped vehicles to exit the Express Lanes. <p>Should the incident / congestion impede the 95 Express mainline, then:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to implement a hard closure at the ingress / entrance to Segment 5N from I-95 mainline / SR-84. 2. In SELS Corridor View, click on the M within the Status Table for the Segment 5N: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 3. Generate a response plan and from the message library post ‘EXPRESS LANES / CLOSED / DO NOT ENTER’. 	<ol style="list-style-type: none"> 1. Release the incident responders and open the entrance / ingress from I-95 mainline / SR-84. 2. In the SELS Corridor View, click on the M within the Status Table for Segment 5N: <ul style="list-style-type: none"> o Choose desired mode. o If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. 3. In SunGuide, terminate the response plan that was used for this closure. 4. Continue tolling as usual.


Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express NB entrance / ingress from Broward Park and Ride.	NB	ENTRANCE / INGRESS FROM BROWARD P&R TO SEGMENT 6N BLOCKED	<p>There are no IM DMS for this ingress location.</p> <p>If supporting a primary EL event, then the segment should be closed in SELS and also post the DMS through the segment.</p> <p>Refer to DMS messaging plan.</p>	<ol style="list-style-type: none"> 1. Dispatch incident responders. 2. Continue tolling. 3. Manually post ‘CLOSED’ on all the Toll Amount and Lane Status DMS, associated with the entrance / ingress to 95 Express NB Segment 6N, using group filter ‘95X NB 02 Ingress fm Broward Park and Ride’. 4. Set the TADMS and LSDMS to ‘Out of Service’. 5. Verify that the ‘CLOSED’ message is on those TADMS and LSDMS. If not, place any back in service that do not have that message and repeat the process. 6. Generate a response plan and post email and FLATIS only (No IM DMS). 7. Dispatch incident responders to implement a hard closure at the ingress/entrance to Segment 6N from Park and Ride. 8. Every 15 minutes verify that all EL DMS are displaying the correct messages. 	<ol style="list-style-type: none"> 1. Release the incident responders and open the entrance / ingress from Broward Park and Ride. 2. Set all the TADMS and LSDMS associated with 95 Express NB entrance/ ingress from Broward Park and Ride back to ‘Active’. 3. In the SELS Corridor View, click on the  within the Status Table for Segment 6N and re-submit the mode displayed (current) to update signs that were set ‘out of service’. 4. In SunGuide, activate a clear response plan that was used for this closure. 5. Continue tolling as usual.


Location	Direction	Scenario	Comments	Response	Recovery
<p>95 Express Lanes Events – 95 Express NB beyond exit / egress to Broward Park and Ride. Segment 6N.</p>	NB	<p>ABANDONED VEHICLE, DEBRIS, DISABLED VEHICLE, OTHER, OR PEDESTRIAN EVENT OCCURS IN TWO LANE SECTION OF EXPRESS LANES SEGMENT 6N (BEYOND EXIT / EGRESS TO BROWARD PARK AND RIDE) BLOCKED</p>	<p>A hard closure shall be implemented at any time based on safety concerns.</p> <p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>*If internal DMS 28.3 NB is before the incident, then add to the response plan (if using RPG).</p> <p>Refer to DMS messaging plan.</p> <p>There are two Toll Amount DMS located inside the Express Lanes (at SUNRISE), with a destination of SW 10 ST and GLADES RD. The TADMS are FLD4DOT95028.2SB-TR1/TR2 and FLD4DOT95028.8SB-TR1/TR2. If the TADMS are before the incident after 30 minutes or if a hard closure, 'CLOSED' is to be manually posted using group '95X NB 03 Internal to SW 10 ST_Glades' and place OOS.</p>	<p>If the event type is Abandoned Vehicle, Debris, Disabled Vehicle, Other, or Pedestrian:</p> <p>If the event is blocking all lanes, regardless of the event type follow the procedure that is shown on next page for Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding.</p> <p>If the event is not blocking all lanes and is expected to be cleared within 30 minutes:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. Normal tolling continues for the next 30 minutes. 3. Generate a response plan to notify motorists of the lane blockage. <p>Once the event exceeds 30 minutes, or if expected to exceed 30 minutes, or if all lanes are blocked:</p> <ol style="list-style-type: none"> 1. In SELS Corridor View, click on the  within the Status Table for Segments 6N and 5N: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 2. Post messages using SunGuide predefined plan "6N - NB Express Lanes Closed - Segment 6N". 3. Dispatch incident responders to implement a hard closure at the ingress / entrance to Segment 6N and 5N from SR-84 mainline / Broward P&R (two points of closure). 	<ol style="list-style-type: none"> 1. Release the incident responders and open the entrance / ingress from SR-84 mainline / Broward P&R (two points of opening). 2. If utilized, set group filter 95X NB 03 Internal to SW 10 ST_Glades' back to 'Active'. 3. In the SELS Corridor View, click on the  within the Status Table for Segments 6N and 5N: <ul style="list-style-type: none"> o Choose desired mode. o If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling as usual.



Location	Direction	Scenario	Comments	Response	Recovery
<p>95 Express Lanes Events – 95 Express NB beyond exit / egress to Broward Park and Ride. Segment 6N.</p>	<p>NB</p>	<p>CRASH, EMERGENCY VEHICLES, ROAD WORK EMERGENCY, POLICE ACTIVITY, OR FLOODING EVENT TWO LANE SECTION OF EXPRESS LANES SEGMENT 6N (BEYOND EXIT / EGRESS TO BROWARD PARK AND RIDE) BLOCKED</p>	<p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>*If internal DMS 28.3 NB is beyond the location or if hard closure procedures are in place, then post ‘EXPRESS LANES / CLOSED / DO NOT ENTER’.</p> <p>Refer to DMS messaging plan.</p> <p>There are two Toll Amount DMS located inside the Express Lanes (at SUNRISE), with a destination of SW 10 ST and GLADES RD. The TADMS are FLD4DOT95028.2SB-TR1/TR2 and FLD4DOT95028.8SB-TR1/TR2. Once segment is hard closed, post ‘CLOSED’ manually using group filter ‘95X NB 03 Internal to SW 10 ST Glades’ and place OOS.</p>	<p>If the event type is Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding, and is not blocking all lanes, then:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. In SELS Corridor View, click on the  within the Status Table for Segments 6N and 5N: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 3. Generate a response plan and post messaging for a ‘SOFT (ONE LANE OF TWO) CLOSURE’. <p>Once the event exceeds 30 minutes (or if expected to exceed 30 minutes from the time of activation), or if all lanes are blocked:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to implement a hard closure at the ingress / entrance to Segment 6N and 5N from SR-84 mainline / Broward P&R (two points of closure). 2. Post messages using SunGuide predefined plan “6N - NB Express Lanes Closed - Segment 6N”. 	<ol style="list-style-type: none"> 1. Release the incident responders and open the entrance / ingress from SR-84 mainline / Broward P&R (two points of opening). 2. If utilized, set group filter 95X NB 03 Internal to SW 10 ST_Glades back to ‘Active’. 3. In the SELS Corridor View, click on the  within the Status Table for Segments 6N and 5N: <ul style="list-style-type: none"> o Choose desired mode. o If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling as usual.



Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express NB exit / egress to Oakland Park. Segment 6N.	NB	EXIT / EGRESS TO OAKLAND PARK BLVD MAINLINE FROM SEGMENT 6N BLOCKED	<p>If being supported by a secondary ingress event, then the segment should also be closed (in SELS) to the ingress event once it is hard closed (ingress from 6N and 5N respectively)</p> <p>Refer to DMS messaging plan.</p>	<p>Regardless of event type:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders. 2. In SELS Corridor View, click on the  within the Status Table for Segment 6N and 5N: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 3. Post messages using SunGuide predefined plan “6N - NB Express Lanes Egress - Segment 6N”. 4. Dispatch incident responders to assist clearing the event and allow trapped vehicles to exit the Express Lanes. <p>Once the event exceeds 30 minutes, or if expected to exceed 30 minutes, or if all lanes are blocked):</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to implement a hard closure at the ingress / entrance to Segment 6N from SR-84 mainline / Broward P&R (two points of closure). 	<ol style="list-style-type: none"> 1. Release the incident responders and open the entrance / ingress from SR-84 mainline / Broward P&R (two points of opening). 2. In the SELS Corridor View, click on the  within the Status Table for Segments 6N and 5N: <ul style="list-style-type: none"> o Choose desired mode. o If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. 3. In SunGuide, terminate the response plan that was used for this closure. 4. Continue tolling as usual.



Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express NB before exit / egress to Oakland Park Blvd. Segment 6N.	NB	ROADWORK WHEN CONTRACTORS MOT TAPER IMPEDES TOLLED SEGMENT	<p>This refers to when the MOT taper to force motorists out at the end of the tolled segment impedes or degrades the tolled segment.</p> <p>Refer to DMS messaging plan.</p> <p>The location must fall within the tolled segment limits.</p> <p>*Note – IM procedures differ from construction procedures due to length of MOT.</p> <p>There are two Toll Amount DMS located inside the Express Lanes (at SUNRISE), with a destination of SW 10 ST and GLADES RD. The TADMS are FLD4DOT95028.15NB-TR1/TR2 and FLD4DOT95028.84NB-TR1/TR2. 'CLOSED' is to be manually posted using group '95X NB 03 Internal to SW 10 ST_Glades' and place OOS.</p>	<p>If the event impacts or degrades the throughput of the segment, then:</p> <ol style="list-style-type: none"> In SELS Corridor View, click on the  within the Status Table for Segment 6N and 5N: <ul style="list-style-type: none"> Choose Closed mode. Select a D4 event. If the event is not available at the time of the override, select a Dummy event. Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). Generate a response plan based upon length of taper. If taper length is significant enough to warrant 'LEFT / RIGHT LANE BLOCKED or LEFT LANE BLOCKED MERGE RIGHT / RIGHT LANE BLOCKED MERGE LEFT', then post accordingly, otherwise post messaging for a 'SOFT CLOSURE' (Refer to DMS messaging plan) – Do not upgrade to a hard closure unless the contractor hard closes. Contractors MOT taper will divert traffic out to Oakland Park Blvd. 	<ol style="list-style-type: none"> Set group filter 95X NB 03 Internal to SW 10 ST_Glades' back to 'Active'. In the SELS Corridor View, click on the  within the Status Table for Segments 6N and 5N: <ul style="list-style-type: none"> Choose desired mode. If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. In SunGuide, terminate the response plan that was used for this closure. Continue tolling a usual.

Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express NB beyond exit / egress to Oakland Park Blvd.	NB	ABANDONED VEHICLE, DEBRIS, DISABLED VEHICLE, OTHER, OR PEDESTRIAN EVENT OCCURS IN TWO LANE SECTION OF EXPRESS LANES BEYOND SEGMENT 6N (BEYOND EXIT / EGRESS TO OAKLAND PARK BLVD)	<p>A hard closure shall be implemented at any time based on safety concerns.</p> <p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>Motorists can use the exit / egress to Oakland Park Blvd mainline; therefore, the segment is open, but the trip to SW 10 St is not.</p> <p>Refer to DMS messaging plan.</p> <p>*This is a non-tolled area between segment 6N and 7N.</p> <p>* For soft and hard closures post on DMS 28.3 NB 'EXPRESS LNS CLOSED / TRAFFIC MUST EXIT / TO OAKLAND PARK BLVD'.</p>	<p>If the event type is Abandoned Vehicle, Debris, Disabled Vehicle, Other, or Pedestrian:</p> <p>If the event is blocking all lanes, regardless of the event type follow the procedure that is shown on next page for Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding.</p> <p>If the event is not blocking all lanes and is expected to be cleared within 30 minutes:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. Normal tolling continues for the next 30 minutes. 3. Generate a response plan to notify motorists of the lane blockage. <p>Once the event exceeds 30 minutes, or if expected to exceed 30 minutes, or if all lanes are blocked:</p> <ol style="list-style-type: none"> 1. Manually post 'CLOSED' on all the internal Toll Amount DMS for trips to SW 10 ST and Glades Rd using group filter '95X NB 03 Internal to SW 10 St_Glades'. 2. Set the TADMS used to 'Out of Service'. 3. Verify that the 'CLOSED' message is on those TADMS. If not, place any back in service that do not have that message and repeat the process. 4. Generate a response plan and post messaging for a 'HARD CLOSURE'. 5. Dispatch incident responders to implement a hard closure at the exit / egress from Segment 6N to Oakland Park Blvd mainline (force motorists to mainline). 	<ol style="list-style-type: none"> 1. Release the incident responders and open at the exit / egress to Oakland Park Blvd mainline. 2. Set all the TADMS associated with the segment / trips back to 'Active'. 3. In the SELS Corridor View, click on the  within the Status Table for Segment 7N and re-submit the mode displayed (current) to update signs that were set 'out of service'. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling as usual.

Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express NB beyond exit / egress to Oakland Park Blvd.	NB	CRASH, EMERGENCY VEHICLES, ROAD WORK EMERGENCY, POLICE ACTIVITY, OR FLOODING EVENT TWO LANE SECTION OF EXPRESS LANES BEYOND SEGMENT 6N (BEYOND EXIT / EGRESS OAKLAND PARK BLVD)	<p>A hard closure shall be implemented at any time based on safety concerns.</p> <p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>Motorists can use the exit / egress to Oakland Park Blvd mainline; therefore, the segment is open, but the trip to SW 10 St is not.</p> <p>*This is a non-tolled area between segment 6N and 7N.</p> <p>Refer to DMS messaging plan.</p> <p>*Post on DMS 28.3 NB 'EXPRESS LNS CLOSED / TRAFFIC MUST EXIT / TO OAKLAND PARK BLVD'.</p>	<p>If the event type is Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding, and is not blocking all lanes, then:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. Manually post 'CLOSED' on all the internal Toll Amount DMS for trips to SW 10 ST and Glades Rd using group filter '95X NB 03 Internal to SW 10 St_Glades'. 3. Set the TADMS used to 'Out of Service'. 4. Verify that the 'CLOSED' message is on those TADMS. If not, place any back in service that do not have that message and repeat the process. 5. Generate a response plan and post messaging for a 'SOFT (ONE LANE OF TWO) CLOSURE'. <p>Once the event exceeds 30 minutes (or if expected to exceed 30 minutes from the time of activation):</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to implement a hard closure at the exit / egress from Segment 6N to Oakland Park Blvd mainline (force motorists to mainline). 2. Generate a response plan and post messaging for a 'HARD CLOSURE'. 	<ol style="list-style-type: none"> 1. Release the incident responders and open at the exit / egress to Oakland Park Blvd mainline. 2. Set all the TADMS associated with the segment / trips back to 'Active'. 3. In the SELS Corridor View, click on the  within the Status Table for Segment 7N and re-submit the mode displayed (current) to update signs that were set 'out of service'. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling as usual.



Location	Direction	Scenario	Comments	Response	Recovery
<p>95 Express Lanes Events – 95 Express NB at entrance / ingress from Sunrise Blvd (where 2 x EL lanes meet entrance / ingress from Sunrise Blvd).</p>	<p>NB</p>	<p>AT ENTRANCE / INGRESS FROM SUNRISE BLVD / I-95 MAINLINE WHEN EL AND INGRESS MEET TO MAKE THREE LANES / SEGMENT 7N BLOCKED</p>	<p>A hard closure shall be implemented at any time based on safety concerns.</p> <p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>Motorists can use the exit / egress to Oakland Park Blvd mainline; therefore, the segment is open, but the trip to SW 10 St is not.</p> <p>Refer to DMS messaging plan.</p> <p>*Post on DMS 28.3 NB ‘EXPRESS LNS CLOSED / TRAFFIC MUST EXIT / TO OAKLAND PARK BLVD’.</p> <p>*Post on DMS NB31 ‘EXPRESS LANES / CLOSED / DO NOT ENTER’.</p>	<p>If the event type is Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding and the event does not impede the entrance / ingress from Sunrise Blvd (three lanes at ingress):</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. In SELS Corridor View, click on the  within the Status Table for Segment 7N: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 3. Generate a response plan and post messaging for a ‘SOFT (ONE LANE OF TWO) CLOSURE’. <p>Once event exceeds 30 minutes (or from the get-go if expected to exceed 30 minutes), or if all lanes are blocked:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to implement a hard closure at the exit / egress to Oakland Park Blvd (force motorists to mainline). 2. If emergency responders require the ingress to be hard closed, then dispatch a responder to close at the entrance / ingress from Sunrise Blvd mainline. 3. Post messages using SunGuide predefined plan “ 4. ‘7N - NB Express Lanes Closed - Segment 7N’. 	<ol style="list-style-type: none"> 1. If the entrance / ingress from Sunrise Blvd mainline is hard closed, release the incident responders. 2. Release the incident responders and open at the exit / egress to Oakland Park Blvd mainline. 3. In the SELS Corridor View, click on the  within the Status Table for 7N: <ul style="list-style-type: none"> o Choose desired mode. o If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling as usual.



Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express NB entrance / ingress from Sunrise Blvd.	NB	ENTRANCE / INGRESS FROM SUNRISE BLVD / I-95 MAINLINE TO SEGMENT 7N BLOCKED	<p>Use NB31 for incident management.</p> <p>If supporting a primary EL event, then the segment should be closed (in SELS) to the ingress event once it is hard closed.</p> <p>Post the DMS through the segment if supporting a primary EL event.</p> <p>Refer to DMS messaging plan.</p>	<ol style="list-style-type: none"> 1. Dispatch incident responders. 2. Manually post 'CLOSED' on all the Toll Amount and Lane Status DMS, associated with the entrance / ingress to 95 Express NB Segment 7N, using group filter '95X NB 04 Ingress fm Sunrise Blvd'. 3. Set the TADMS and LSDMS to 'Out of Service'. 4. Verify that the 'CLOSED' message is on those TADMS and LSDMS. If not, place any back in service that does not have that message and repeat the process. 5. Generate a response plan and from the message library post 'EXPRESS LANES / CLOSED / DO NOT ENTER'. 6. If supporting a primary closure, in SELS Corridor View, click on the  within the Status Table for Segment 7N: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 7. Every 15 minutes verify that all EL DMS are displaying the correct messages. 	<ol style="list-style-type: none"> 1. Release the incident responders and open the entrance / ingress from Sunrise Blvd mainline. 2. Set all the TADMS and LSDMS associated with 95 Express NB entrance/ ingress from Sunrise Blvd mainline back to 'Active'. 3. If supporting a primary closure, then the TADMS and LSDMS do not need to be placed 'out of service'. 4. In the SELS Corridor View, click on the  within the Status Table for Segment 7N and re-submit the mode displayed (current) to update signs that were set 'out of service'. 5. In SunGuide, terminate the response plan that was used for this closure. 6. Continue tolling as usual.



Location	Direction	Scenario	Comments	Response	Recovery
<p>95 Express Lanes Events – 95 Express NB before entrance / ingress from Cypress Creek Rd. Segment 7N.</p>	<p>NB</p>	<p>ABANDONED VEHICLE, DEBRIS, DISABLED VEHICLE, OTHER, OR PEDESTRIAN EVENT OCCURS IN TWO LANE SECTION OF EXPRESS LANES SEGMENT 7N BLOCKED (BEFORE ENTRANCE / INGRESS FROM CYPRESS CREEK RD)</p>	<p>A hard closure shall be implemented at any time based on safety concerns.</p> <p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>Use NB31 for incident management.</p> <p>*Segment 7N has a data gantry.</p> <p>Refer to DMS messaging plan.</p> <p>*On DMS 28.3 NB, post RPG generated message. After 30 minutes, ensure message is updated to post 'EXPRESS LNS CLOSED / TRAFFIC MUST EXIT / TO OAKLAND PARK BLVD'.</p>	<p>If the event type is Abandoned Vehicle, Debris, Disabled Vehicle, Other, or Pedestrian:</p> <p>If the event is blocking all lanes, regardless of the event type follow the procedure that is shown on next page for Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding.</p> <p>If the event is not blocking all lanes and is expected to be cleared within 30 minutes:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. Normal tolling continues for the next 30 minutes. 3. Generate a response plan to notify motorists of the lane blockage. <p>Once the event exceeds 30 minutes, or if expected to exceed 30 minutes, or if all lanes are blocked:</p> <p>Once the event exceeds 30 minutes, or if expected to exceed 30 minutes, or if all lanes are blocked:</p> <ol style="list-style-type: none"> 1. In SELS Corridor View, click on the  within the Status Table for Segment 7N: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the 	<ol style="list-style-type: none"> 1. Release the incident responders and open the entrance / ingress from Sunrise Blvd mainline. 2. Release the incident responders and open the exit / egress to Oakland Park Blvd mainline. 3. In the SELS Corridor View, click on the  within the Status Table for 7N: <ul style="list-style-type: none"> o Choose desired mode. o If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling as usual.



			<p>Refer to DMS messaging plan.</p>	<p>time of the override, select a Dummy event.</p> <ul style="list-style-type: none"> ○ Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). <ol style="list-style-type: none"> 2. Post messages using SunGuide predefined plan “7N - NB Express Lanes Closed - Segment 7N”. 3. Dispatch incident responders to implement a hard closure at the entrance / ingress to Segment 7N from Sunrise Blvd mainline. 4. Dispatch incident responders to implement a hard closure at the exit / egress from Segment 6N to Oakland Park Blvd (force motorists to mainline). 	
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Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express NB before entrance / ingress from Cypress Creek Rd. Segment 7N.	NB	CRASH, EMERGENCY VEHICLES, ROAD WORK EMERGENCY, POLICE ACTIVITY, OR FLOODING EVENT TWO LANE SECTION OF EXPRESS LANES SEGMENT 7N BLOCKED (BEFORE ENTRANCE / INGRESS FROM CYPRESS CREEK RD)	<p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>Use NB31 for incident management.</p> <p>*Segment 7N has a data gantry.</p> <p>Refer to DMS messaging plan.</p> <p>*Post on DMS 28.1 NB ‘EXPRESS LNS CLOSED / TRAFFIC MUST EXIT / TO OAKLAND PARK BLVD’.</p>	<p>If the event type is Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding, and is not blocking all lanes, then:</p> <ol style="list-style-type: none"> Dispatch incident responders to assist with the event. In SELS Corridor View, click on the M within the Status Table for Segment 7N: <ul style="list-style-type: none"> Choose Closed mode. Select a D4 event. If the event is not available at the time of the override, select a Dummy event. Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). Generate a response plane and post messaging for ‘SOFT (ONE LANE OF TWO) CLOSURE’. <p>Once the event exceeds 30 minutes (or if expected to exceed 30 minutes from the time of activation):</p> <p>Once event exceeds 30 minutes (or from the get-go if expected to exceed 30 minutes), or if all lanes are blocked:</p> <ol style="list-style-type: none"> Dispatch incident responders to implement a hard closure at the entrance / ingress to Segment 7N from Sunrise Blvd mainline. Dispatch incident responders to implement a hard closure at the exit / egress to Oakland Park Blvd (force motorists to mainline). Post messages using SunGuide predefined plan “7N - NB Express Lanes Closed - Segment 7N”. 	<ol style="list-style-type: none"> Release the incident responders and open the entrance / ingress from Sunrise Blvd mainline. Release the incident responders and open the exit / egress to Oakland Park Blvd mainline. In the SELS Corridor View, click on the M for the Segment within the Status Table for Segment 7N: <ul style="list-style-type: none"> Choose desired mode. If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. In SunGuide, terminate the response plan that was used for this closure. Continue tolling as usual.



Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express NB at entrance / ingress from Cypress Creek Rd (where 2 x EL lanes meet entrance / ingress from Cypress Creek Rd).	NB	AT ENTRANCE / INGRESS FROM CYPRESS CREEK RD / I-95 MAINLINE WHEN EL AND INGRESS MEET TO MAKE THREE LANES / SEGMENT 8N BLOCKED	<p>A hard closure shall be implemented at any time based on safety concerns.</p> <p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>Motorists can use the exit / egress to Oakland Park Blvd mainline; therefore, the segment is open, but the trip to SW 10 St is not.</p> <p>Refer to DMS messaging plan.</p> <p>*Post on DMS 28.3 NB ‘EXPRESS LNS CLOSED / TRAFFIC MUST EXIT / TO OAKLAND PARK BLVD’.</p> <p>*Post on DMS NB31 ‘EXPRESS LANES / CLOSED / DO NOT ENTER’.</p>	<p>If the event type is Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding and the event does not impede the entrance / ingress from Hillsboro Blvd (three lanes at ingress):</p> <ol style="list-style-type: none"> Dispatch incident responders to assist with the event. In SELS Corridor View, click on the  within the Status Table for Segments 8N and 7N: <ul style="list-style-type: none"> Choose Closed mode. Select a D4 event. If the event is not available at the time of the override, select a Dummy event. Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). Generate a response plan and post messaging for ‘SOFT (ONE LANE OF TWO) CLOSURE’. <p>Once event exceeds 30 minutes (or from the get-go if expected to exceed 30 minutes), or if all lanes are blocked:</p> <ol style="list-style-type: none"> Dispatch incident responders to implement a hard closure at the exit / egress to Oakland Park Blvd (force motorists to mainline). Dispatch incident responders to implement a hard closure at the entrance / ingress from Sunrise Blvd mainline. If emergency responders require the ingress to be hard closed, then dispatch a responder to close at the entrance / ingress from Cypress Creek Rd mainline. Post messages using SunGuide predefined plan “7N - NB Express Lanes Closed - Segment 7N”. 	<ol style="list-style-type: none"> If the entrance / ingress from Sunrise Blvd mainline is hard closed, release the incident responders. Release the incident responders and open at the exit / egress to Oakland Park Blvd mainline. In the SELS Corridor View, click on the  within the Status Table for both 8N and 7N: <ul style="list-style-type: none"> Choose desired mode. If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. In SunGuide, terminate the response plan that was used for this closure. Continue tolling as usual.


Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express NB entrance / ingress from Cypress Creek Rd.	NB	ENTRANCE / INGRESS FROM CYPRESS CREEK RD / I-95 MAINLINE TO SEGMENT 8N BLOCKED	<p>Use NB33 for incident management.</p> <p>If supporting a primary EL event, then the segment should be closed (in SELS) to the ingress event once it is hard closed.</p> <p>Post the DMS through the segment if supporting a primary EL event.</p> <p>Refer to DMS messaging plan.</p>	<ol style="list-style-type: none"> 2. Dispatch incident responders. 3. Manually post ‘CLOSED’ on all the Toll Amount and Lane Status DMS, associated with the entrance / ingress to 95 Express NB Segment 8N, using group filter ‘95X NB 05 Ingress fm Cypress’. 4. Set the TADMS and LSDMS to ‘Out of Service’. 5. Verify that the ‘CLOSED’ message is on those TADMS and LSDMS. If not, place any back in service that do not have that message and repeat the process. 6. Generate a response plan and from the message library post ‘EXPRESS LANES / CLOSED / DO NOT ENTER’. 7. If supporting a primary closure, then post messages using SunGuide predefined plan “8N – NB INGRESS SUPPORTING A PRIMARY – SEGMENT 8N” and in SELS Corridor View, click on the  within the Status Table for Segment 8N: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 8. Every 15 minutes verify that all EL DMS are displaying the correct messages. 	<ol style="list-style-type: none"> 1. Release the incident responders and open the entrance / ingress from Cypress Creek Rd mainline. 2. Set all the TADMS and LSDMS associated with 95 Express NB entrance/ ingress from Cypress Creek Rd mainline back to ‘Active’. 3. If supporting a primary closure, then the TADMS and LSDMS do not need to be placed ‘out of service’. 4. In the SELS Corridor View, click on the  within the Status Table for Segment 8N and re-submit the mode displayed (current) to update signs that were set ‘out of service’. 5. In SunGuide, terminate the response plan that was used for this closure. 6. Continue tolling as usual.


Location	Direction	Scenario	Comments	Response	Recovery
<p>95 Express Lanes Events – 95 Express NB before exit / egress to SW 10th St. Segment 8N.</p>	<p>NB</p>	<p>ABANDONED VEHICLE, DEBRIS, DISABLED VEHICLE, OTHER, OR PEDESTRIAN EVENT OCCURS IN TWO LANE SECTION OF EXPRESS LANES SEGMENT 8N BLOCKED (BEFORE EXIT / EGRESS TO SW 10TH ST)</p>	<p>A hard closure shall be implemented at any time based on safety concerns.</p> <p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>*If internal DMS 38.1 NB is before the incident, then add to the response plan (if using RPG).</p> <p>*Segment 7N has a data gantry.</p> <p>Refer to DMS messaging plan.</p>	<p>If the event type is Abandoned Vehicle, Debris, Disabled Vehicle, Other, or Pedestrian:</p> <p>If the event is blocking all lanes, regardless of the event type follow the procedure that is shown on next page for Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding.</p> <p>If the event is not blocking all lanes and is expected to be cleared within 30 minutes:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. Normal tolling continues for the next 30 minutes. 3. Generate a response plan to notify motorists of the lane blockage. <p>Once the event exceeds 30 minutes, or if expected to exceed 30 minutes, or if all lanes are blocked:</p> <ol style="list-style-type: none"> 1. In SELS Corridor View, click on the  within the Status Table for Segments 8N and 7N: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 2. Post messages using SunGuide predefined plan “8N - NB Express Lanes Closed - Segment 8N”. 3. Dispatch incident responders to implement a hard closure at the ingress / entrance to Segment 8N from Cypress Creek Rd mainline. 	<ol style="list-style-type: none"> 1. Release the incident responders and open the entrance / ingress from Cypress Creek Rd mainline. 2. In the SELS Corridor View, click on the  within the Status Table for both Segment 8N and 7N: <ul style="list-style-type: none"> o Choose desired mode. o If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. 3. In SunGuide, terminate the response plan that was used for this closure. 4. Continue tolling a usual.


Location	Direction	Scenario	Comments	Response	Recovery
<p>95 Express Lanes Events – 95 Express NB before exit / egress to SW 10th St. Segment 8N.</p>	<p>NB</p>	<p>CRASH, EMERGENCY VEHICLES, ROAD WORK EMERGENCY, POLICE ACTIVITY, OR FLOODING EVENT TWO LANE SECTION OF EXPRESS LANES SEGMENT 8N BLOCKED (BEFORE EXIT / EGRESS TO SW 10TH ST)</p>	<p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>*If internal DMS 38.1 NB is beyond the location or if hard closure procedures are in place, then post ‘EXPRESS LANES / CLOSED / DO NOT ENTER’.</p> <p>*Segment 7N has a data gantry.</p> <p>Refer to DMS messaging plan.</p>	<p>If the event type is Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding, and is not blocking all lanes, then:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. In SELS Corridor View, click on the  within the Status Table for Segments 8N and 7N: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 3. Generate a response plan and post messaging for a ‘SOFT (ONE LANE OF TWO) CLOSURE’. <p>Once the event exceeds 30 minutes (or if expected to exceed 30 minutes from the time of activation), or if all lanes are blocked:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to implement a hard closure at the ingress / entrance to Segment 8N from Cypress Creek Rd mainline. 2. Dispatch incident responders to implement a hard closure at the ingress / entrance to Segment 7N from Sunrise Blvd mainline. 3. Dispatch incident responders to implement a hard closure at the exit / egress from Segment 6N to Oakland Park Blvd (force motorists to mainline). 4. Post messages using SunGuide predefined plan “8N - NB Express Lanes Closed - Segment 8N”. 	<ol style="list-style-type: none"> 1. Release the incident responders and open the entrance / ingress from Cypress Creek Rd mainline. 2. Release the incident responders and open the entrance / ingress from Sunrise Blvd mainline. 3. Release the incident responders and open at the exit / egress to Oakland Park Blvd mainline. 4. In the SELS Corridor View, click on the  for the Segment within the Status Table for both Segment 8N and 7N: <ul style="list-style-type: none"> o Choose desired mode. o If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. 5. In SunGuide, terminate the response plan that was used for this closure. 6. Continue tolling as usual.



Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express NB exit / egress to SW 10th St. Segment 8N.	NB	EXIT / EGRESS TO SW 10TH ST MAINLINE FROM SEGMENT 8N BLOCKED	<p>Use NB33 for incident management.</p> <p>If being supported by a secondary ingress event, then the segment should also be closed (in SELS) to the ingress event once it is hard closed.</p> <p>Refer to DMS messaging plan.</p> <p>*Segment 7N has a data gantry.</p>	<p>Regardless of event type:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders. 2. In SELS Corridor View, click on the  within the Status Table for Segments 8N and 7N: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 3. Post messages using SunGuide predefined plan “8N - NB Express Lanes Egress - Segment 8N”. 4. Dispatch incident responders to assist clearing the event and allow trapped vehicles to exit the Express Lanes. <p>Once the event exceeds 30 minutes, or if expected to exceed 30 minutes, or if all lanes are blocked):</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to implement a hard closure at the ingress / entrance to Segment 8N from Cypress Creek Rd mainline. 2. Dispatch incident responders to implement a hard closure at the ingress / entrance to Segment 7N from Sunrise Blvd mainline. 3. Dispatch incident responders to implement a hard closure at the exit / egress from Segment 6N to Oakland Park Blvd (force motorists to mainline). Place Group Filter 95X NB 03 Internal to SW 10 St_Glades OOS once hard closed. 	<ol style="list-style-type: none"> 1. Release the incident responders and open the entrance / ingress from Cypress Creek Rd mainline. 2. Release the incident responders and open the entrance / ingress from Sunrise Blvd mainline. 3. Release the incident responders and open at the exit / egress to Oakland Park Blvd mainline. 4. Set all the associated TADMS back to ‘Active’. 5. In the SELS Corridor View, click on the  within the Status Table for both Segment 8N and 7N: <ul style="list-style-type: none"> o Choose desired mode. o If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. 6. In SunGuide, terminate the response plan that was used for this closure. 7. Continue tolling as usual.


Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express NB before exit / egress to SW 10 th St. Segment 8N.	NB	ROADWORK WHEN CONTRACTORS MOT TAPER IMPEDES TOLLED SEGMENT	<p>This refers to when the MOT taper to force motorists out at the end of the tolled segment impedes or degrades the tolled segment.</p> <p>Refer to DMS messaging plan.</p> <p>The location must fall within the tolled segment limits.</p> <p>*Note – IM procedures differ from construction procedures due to length of MOT.</p>	<p>If the event impacts or degrades the throughput of the segment, then:</p> <ol style="list-style-type: none"> In SELS Corridor View, click on the  within the Status Table for Segments 8N and 7N: <ul style="list-style-type: none"> Choose Closed mode. Select a D4 event. If the event is not available at the time of the override, select a Dummy event. Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). Generate a response plan based upon length of taper. If taper length is significant enough to warrant ‘LEFT / RIGHT LANE BLOCKED or LEFT LANE BLOCKED MERGE RIGHT / RIGHT LANE BLOCKED MERGE LEFT’, then post accordingly, otherwise post messaging for a ‘SOFT CLOSURE’ (Refer to DMS messaging plan) – Do not upgrade to a hard closure unless the contractor hard closes. Contractors MOT taper will divert traffic out to SW 10 Street. 	<ol style="list-style-type: none"> In the SELS Corridor View, click on the  within the Status Table for Segment 8N and 7N: <ul style="list-style-type: none"> Choose desired mode. If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. In SunGuide, terminate the response plan that was used for this closure. Continue tolling a usual.

Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express NB beyond exit / egress to SW 10 th St.	NB	ABANDONED VEHICLE, DEBRIS, DISABLED VEHICLE, OTHER, OR PEDESTRIAN EVENT OCCURS IN TWO LANE SECTION OF EXPRESS LANES BEYOND SEGMENT 8N BLOCKED (BEYOND EXIT / EGRESS TO SW 10TH ST)	<p>A hard closure shall be implemented at any time based on safety concerns.</p> <p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>Motorists can use the exit / egress to SW10th St mainline; therefore, the segment is open, but the trip to Glades Rd is not.</p> <p>Refer to DMS messaging plan.</p> <p>* For soft and hard closures post on DMS 38.1 NB 'EXPRESS LNS CLOSED / TRAFFIC MUST EXIT / TO SW 10 ST'.</p>	<p>If the event type is Abandoned Vehicle, Debris, Disabled Vehicle, Other, or Pedestrian:</p> <p>If the event is blocking all lanes, regardless of the event type follow the procedure that is shown on next page for Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding.</p> <p>If the event is not blocking all lanes and is expected to be cleared within 30 minutes:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. Normal tolling continues for the next 30 minutes. 3. Generate a response plan to notify motorists of the lane blockage. <p>Once the event exceeds 30 minutes, or if expected to exceed 30 minutes, or if all lanes are blocked:</p> <ol style="list-style-type: none"> 1. Manually post 'CLOSED' on all the Toll Amount DMS, associated with the 95 Express NB Segment 8N and 7N, for destination to GLADES RD using group filter '95X NB 06 Bey Egress SW 10 St'. 2. Set the TADMS used to 'Out of Service'. 3. Verify that the 'CLOSED' message is on those TADMS. If not, place any back in service that do not have that message and repeat the process. 4. Generate a response plan and post messaging for a 'HARD CLOSURE'. 5. Dispatch incident responders to implement a hard closure at the exit / egress from Segment 8N to SW 10th St mainline (force motorists to mainline). 	<ol style="list-style-type: none"> 1. Release the incident responders and open at the exit / egress to SW 10th St mainline. 2. Set all the associated TADMS back to 'Active'. 3. In the SELS Corridor View, click on the  within the Status Table for Segment 8N and 7N and re-submit the mode displayed (current) to update signs that were set 'out of service'. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling as usual.



Location	Direction	Scenario	Comments	Response	Recovery
<p>95 Express Lanes Events – 95 Express NB beyond exit / egress to SW 10th St.</p>	<p>NB</p>	<p>CRASH, EMERGENCY VEHICLES, ROAD WORK EMERGENCY, POLICE ACTIVITY, OR FLOODING EVENT TWO LANE SECTION OF EXPRESS LANES BEYOND SEGMENT 8N BLOCKED (BEYOND EXIT / EGRESS TO SW 10TH ST)</p>	<p>A hard closure shall be implemented at any time based on safety concerns.</p> <p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>Motorists can use the exit / egress to SW10th St mainline; therefore, the segment is open, but the trip to Glades Rd is not.</p> <p>Refer to DMS messaging plan.</p> <p>*Post on DMS 38.1 NB ‘EXPRESS LNS CLOSED / TRAFFIC MUST EXIT / TO SW 10 ST’.</p>	<p>If the event type is Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding, and is not blocking all lanes, then:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. Manually post ‘CLOSED’ on all the Toll Amount DMS, associated with 95 Express NB Segment 8N and 7N, for destination to GLADES RD using group filter ‘95X NB 06 Bey Egress SW 10 St’. 3. Set the TADMS used to ‘Out of Service’. 4. Verify that the ‘CLOSED’ message is on those TADMS. If not, place any back in service that do not have that message and repeat the process. 5. Generate a response plan and post messaging for a ‘SOFT (ONE LANE OF TWO) CLOSURE’. <p>Once the event exceeds 30 minutes (or if expected to exceed 30 minutes from the time of activation):</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to implement a hard closure at the exit / egress from Segment 8N to SW 10th St mainline (force motorists to mainline). 2. Generate a response plan and post messaging for a ‘HARD CLOSURE’. 	<ol style="list-style-type: none"> 1. Release the incident responders and open at the exit / egress to SW 10th St mainline. 2. Set all the associated TADMS back to ‘Active’. 3. In the SELS Corridor View, click on the  within the Status Table for Segment 8N and 7N and re-submit the mode displayed (current) to update signs that were set ‘out of service’. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling as usual.



Location	Direction	Scenario	Comments	Response	Recovery
<p>95 Express Lanes Events – 95 Express NB beyond exit / egress to SW 10th St.</p>	<p>NB</p>	<p>SINGLE LANE SECTION OF EXPRESS LANES BEYOND SEGMENT 8N BLOCKED (BEYOND EXIT / EGRESS TO SW 10TH ST) BLOCKED</p>	<p>A hard closure shall be implemented at any time based on safety concerns.</p> <p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>Motorists can use the exit / egress to SW10th St mainline; therefore, the segment is open, but the trip to Glades Rd is not.</p> <p>Refer to DMS messaging plan.</p> <p>*Post on DMS 38.1 NB 'EXPRESS LNS CLOSED / TRAFFIC MUST EXIT / TO SW 10 ST'.</p>	<p>Regardless of event type:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders. 2. Manually post 'CLOSED' on all the Toll Amount DMS, associated with 95 Express NB Segment 8N and 7N, for destination to GLADES RD using group filter '95X NB 06 Bey Egress SW 10 St'. 3. Set the TADMS used to 'Out of Service'. 4. Verify that the 'CLOSED' message is on those TADMS. If not, place any back in service that do not have that message and repeat the process. 5. Generate a response plan and post message for a 'HARD CLOSURE'. <p>Once the event exceeds 30 minutes (or if expected to exceed 30 minutes from the time of activation):</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to implement a hard closure at the exit / egress from Segment 8N to SW 10th St mainline (force motorists to mainline). 	<ol style="list-style-type: none"> 1. Release the incident responders and open at the exit / egress to SW 10th St mainline. 2. Set all the associated back to 'Active'. 3. In the SELS Corridor View, click on the  within the Status Table for Segment 8N and 7N and re-submit the mode displayed (current) to update signs that were set 'out of service'. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling as usual.



Location	Direction	Scenario	Comments	Response	Recovery
<p>95 Express Lanes Events – 95 Express NB at entrance / ingress from Hillsboro Blvd (where 2 x EL lanes meet entrance / ingress from Hillsboro Blvd).</p>	<p>NB</p>	<p>AT ENTRANCE / INGRESS FROM HILLSBORO BLVD / I-95 MAINLINE WHEN EL AND INGRESS MEET TO MAKE THREE LANES / SEGMENT 9N BLOCKED</p>	<p>A hard closure shall be implemented at any time based on safety concerns.</p> <p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>Motorists can use the exit / egress to SW10th St mainline; therefore, the segment is open, but the trip to Glades Rd is not.</p> <p>Refer to DMS messaging plan.</p> <p>*Post on DMS 38.1 NB ‘EXPRESS LNS CLOSED / TRAFFIC MUST EXIT / TO SW 10 ST’.</p> <p>*Post on DMS NB40 ‘EXPRESS LANES / CLOSED / DO NOT ENTER’.</p>	<p>If the event type is Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding and the event does not impede the entrance / ingress from Hillsboro Blvd (three lanes at ingress):</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. In SELS Corridor View, click on the  within the Status Table for Segment 9N: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 3. Generate a response plan and post messaging for a ‘SOFT (ONE LANE OF TWO) CLOSURE’. <p>Once event exceeds 30 minutes (or from the get-go if expected to exceed 30 minutes), or if all lanes are blocked:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to implement a hard closure at the exit / egress to SW 10 St (force motorists to mainline). 2. If emergency responders require the ingress to be hard closed, then dispatch a responder to close at the entrance / ingress from Hillsboro Blvd mainline. 3. Post messages using SunGuide predefined plan “9N - NB Express Lanes Closed - Segment 9N”. 	<ol style="list-style-type: none"> 1. If the entrance / ingress from Hillsboro Blvd mainline is hard closed, release the incident responders. 2. Release the incident responders and open the exit / egress to SW 10th St mainline. 3. In the SELS Corridor View, click on the  within the Status Table for Segment 9N: <ul style="list-style-type: none"> o Choose desired mode. o If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling as usual.


Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express NB entrance / ingress from Hillsboro Blvd.	NB	ENTRANCE / INGRESS FROM HILLSBORO BLVD / I-95 MAINLINE TO SEGMENT 9N BLOCKED	<p>Use NB40 for incident management.</p> <p>If supporting a primary EL event, then the segment should be closed in SELS.</p> <p>Post the DMS through the segment that the ingress is supporting.</p> <p>Refer to DMS messaging plan.</p>	<ol style="list-style-type: none"> 1. Dispatch incident responders. 2. Manually post ‘CLOSED’ on all the Toll Amount and Lane Status DMS, associated with the entrance / ingress to 95 Express NB Segment 9N, using group filter ‘95X NB 07 Ingress fm Hillsboro Blvd’. 3. Set the TADMS and LSDMS to ‘Out of Service’. 4. Verify that the ‘CLOSED’ message is on those TADMS and LSDMS. If not, place any back in service that do not have that message and repeat the process. 5. Generate a response plan and from the message library post ‘EXPRESS LANES / CLOSED / DO NOT ENTER’. 6. If supporting a primary closure, then post messages using SunGuide predefined plan “9N – NB INGRESS SUPPORTING A PRIMARY – SEGMENT 9N”. 7. Every 15 minutes verify that all EL DMS are displaying the correct messages. 	<ol style="list-style-type: none"> 1. Release the incident responders and open the entrance / ingress from Hillsboro Blvd mainline. 2. Set all the TADMS and LSDMS associated with 95 Express NB entrance/ ingress from Hillsboro Blvd mainline back to ‘Active’. 3. In the SELS Corridor View, click on the  within the Status Table for Segment 9N and re-submit the mode displayed (current) to update signs that were set ‘out of service’. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling as usual.


Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express NB before exit / egress to Glades Rd. Segment 9N.	NB	ABANDONED VEHICLE, DEBRIS, DISABLED VEHICLE, OTHER, OR PEDESTRIAN EVENT OCCURS IN TWO LANE SECTION OF EXPRESS LANES SEGMENT 9N BLOCKED (BEFORE EXIT / EGRESS TO GLADES RD)	<p>A hard closure shall be implemented at any time based on safety concerns.</p> <p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>Use NB40 for incident management.</p> <p>Refer to DMS messaging plan.</p> <p>*If internal DMS 44.0 NB is before the incident, then add to the response plan (if using RPG).</p> <p>*On DMS 38.1 NB, post RPG generated message. After 30 minutes, ensure message is updated to post ‘EXPRESS LNS CLOSED / TRAFFIC MUST EXIT / TO SW 10 ST’.</p> <p>There are two Toll Amount DMS located inside the Express Lanes with a destination CONGRESS AVE. The TADMS are FLD4DOT95043.6NB-TR1 and FLD4DOT95044.2NB-TR1. If the TADMS are before the incident after 30 minutes or if a hard closure, ‘CLOSED’ is to be manually posted using group 95X NB 08 Internal to Congress and place OOS.</p>	<p>If the event type is Abandoned Vehicle, Debris, Disabled Vehicle, Other, or Pedestrian:</p> <p>If the event is blocking all lanes, regardless of the event type follow the procedure that is shown on next page for Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding.</p> <p>If the event is not blocking all lanes and is expected to be cleared within 30 minutes:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. Normal tolling continues for the next 30 minutes. 3. Generate a response plan to notify motorists of the lane blockage. <p>Once the event exceeds 30 minutes, or if expected to exceed 30 minutes, or if all lanes are blocked: Once the event exceeds 30 minutes, or if expected to exceed 30 minutes, or if all lanes are blocked:</p> <ol style="list-style-type: none"> 1. In SELS Corridor View, click on the M within the Status Table for Segment 9N: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 2. Post messages using SunGuide predefined plan “9N - NB Express Lanes Closed - Segment 9N”. 3. Dispatch incident responders to implement a hard closure at the entrance / ingress to Segment 9N from Hillsboro Blvd mainline. 4. Dispatch incident responders to implement a hard closure at the exit / egress from Segment 8N to SW 10 St (force motorists to mainline). 	<ol style="list-style-type: none"> 1. Release the incident responders and open the entrance / ingress from Hillsboro Blvd mainline. 2. Release the incident responders and open the exit / egress to SW 10th St mainline. 3. In the SELS Corridor View, click on the M within the Status Table for Segment 9N: <ul style="list-style-type: none"> o Choose desired mode. o If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling as usual.



Location	Direction	Scenario	Comments	Response	Recovery
<p>95 Express Lanes Events – 95 Express NB before exit / egress to Glades Rd. Segment 9N.</p>	<p>NB</p>	<p>CRASH, EMERGENCY VEHICLES, ROAD WORK EMERGENCY, POLICE ACTIVITY, OR FLOODING EVENT TWO LANE SECTION OF EXPRESS LANES SEGMENT 9N BLOCKED (BEFORE EXIT / EGRESS TO GLADES RD)</p>	<p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>Use NB40 for incident management, if the location of the incident is relevant to the ingress from Hillsboro mainline for this DMS to be relevant. Add to the response plan (if using pre-defined).</p> <p>Refer to DMS messaging plan.</p> <p>*Post on DMS 38.1 NB ‘EXPRESS LNS CLOSED / TRAFFIC MUST EXIT / TO SW 10 ST’.</p> <p>*If internal DMS 44.0 NB is beyond the location or if hard closure procedures are in place, then post ‘EXPRESS LANES / CLOSED / DO NOT ENTER’.</p> <p>There are two Toll Amount DMS located inside the Express Lanes with a destination CONGRESS AVE. The TADMS are FLD4DOT95043.6NB-TR1 and FLD4DOT95044.2NB-TR1. Once segment is hard closed, post ‘CLOSED’ manually using group filter ‘95X NB 08 Internal to Congress’ and place OOS.</p>	<p>If the event type is Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding, and is not blocking all lanes, then:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. In SELS Corridor View, click on the  within the Status Table for Segment 9N: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 3. Generate a response plane and post messaging for a ‘SOFT (ONE LANE OF TWO) CLOSURE’. <p>Once the event exceeds 30 minutes (or if expected to exceed 30 minutes from the time of activation):</p> <p>Once event exceeds 30 minutes (or from the get-go if expected to exceed 30 minutes), or if all lanes are blocked:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to implement a hard closure at the entrance / ingress to Segment 9N from Hillsboro Blvd mainline. 2. Dispatch incident responders to implement a hard closure at the exit / egress to SW 10 St (force motorists to mainline). 3. Post messages using SunGuide predefined plan “9N - NB Express Lanes Closed - Segment 9N”. 	<ol style="list-style-type: none"> 1. Release the incident responders and open the entrance / ingress from Hillsboro Blvd mainline. 2. Release the incident responders and open the exit / egress to SW 10th St mainline. 3. In the SELS Corridor View, click on the  within the Status Table for Segment 9N: <ul style="list-style-type: none"> o Choose desired mode. o If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling as usual.



Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express NB exit / egress to Glades Rd. Segment 9N.	NB	EXIT / EGRESS TO GLADES RD MAINLINE FROM SEGMENT 9N BLOCKED	<p>Use NB40 for incident management.</p> <p>If being supported by a secondary ingress event, then the segment should also be closed (in SELS) to the ingress event once it is hard closed.</p> <p>Refer to DMS messaging plan.</p>	<p>Regardless of event type:</p> <ol style="list-style-type: none"> Dispatch incident responders. In SELS Corridor View, click on the  within the Status Table for Segment 9N: <ul style="list-style-type: none"> Choose Closed mode. Select a D4 event. If the event is not available at the time of the override, select a Dummy event. Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). Post messages using SunGuide predefined plan “9N - NB Express Lanes Egress - Segment 9N” Dispatch incident responders to assist clearing the event and allow trapped vehicles to exit the Express Lanes. <p>Once the event exceeds 30 minutes, or if expected to exceed 30 minutes, or if all lanes are blocked):</p> <ol style="list-style-type: none"> Dispatch incident responders to implement a hard closure at the entrance / egress to Segment 9N from Hillsboro Blvd mainline. Dispatch incident responders to implement a hard closure at the exit / egress to SW 10 St (force motorists to mainline). Place Group Filter 95X NB 06 Bey Egress SW 10 St OOS. 	<ol style="list-style-type: none"> Release the incident responders and open the entrance / ingress from Hillsboro Blvd mainline. Release the incident responders and open the exit / egress to SW 10th St mainline. In the SELS Corridor View, click on the  within the Status Table for Segment 9N: <ul style="list-style-type: none"> Choose desired mode. If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. In SunGuide, terminate the response plan that was used for this closure. Continue tolling as usual.

Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express NB before exit / egress to Glades Rd. Segment 9N.	NB	ROADWORK WHEN CONTRACTORS MOT TAPER IMPEDES TOLLED SEGMENT	<p>This refers to when the MOT taper to force motorists out at the end of the tolled segment impedes or degrades the tolled segment.</p> <p>Refer to DMS messaging plan.</p> <p>The location must fall within the tolled segment limits.</p> <p>*Note – IM procedures differ from construction procedures due to length of MOT.</p> <p>There are two Toll Amount DMS located inside the Express Lanes with a destination CONGRESS AVE. The TADMS are FLD4DOT95043.6NB-TR1 and FLD4DOT95044.2NB-TR1. 'CLOSED' is to be manually posted using group filter 95X NB 08 Internal to Congress and place OOS.</p>	<p>If the event impacts or degrades the throughput of the segment, then:</p> <ol style="list-style-type: none"> In SELS Corridor View, click on the  within the Status Table for Segment 9N: <ul style="list-style-type: none"> Choose Closed mode. Select a D4 event. If the event is not available at the time of the override, select a Dummy event. Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). Generate a response plan based upon length of taper. If taper length is significant enough to warrant 'LEFT / RIGHT LANE BLOCKED or LEFT LANE BLOCKED MERGE RIGHT / RIGHT LANE BLOCKED MERGE LEFT', then post accordingly, otherwise post messaging for a 'SOFT CLOSURE' (Refer to DMS messaging plan) – Do not upgrade to a hard closure unless the contractor hard closes. Contractors MOT taper will divert traffic out to Glades Road. 	<ol style="list-style-type: none"> In the SELS Corridor View, click on the  within the Status Table for Segment 9N: <ul style="list-style-type: none"> Choose desired mode. If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. In SunGuide, terminate the response plan that was used for this closure. Continue tolling a usual.



Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express NB beyond exit / egress to Glades Rd.	NB	ABANDONED VEHICLE, DEBRIS, DISABLED VEHICLE, OTHER, OR PEDESTRIAN EVENT OCCURS IN TWO LANE SECTION OF EXPRESS LANES BEYOND SEGMENT 9N (BEYOND EXIT / EGRESS TO GLADES RD)	<p>A hard closure shall be implemented at any time based on safety concerns.</p> <p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>Motorists can use the exit / egress to Glades Rd mainline; therefore, the segment is open, but the trip to Congress Ave is not.</p> <p>Refer to DMS messaging plan.</p> <p>*For soft and hard closures post on DMS 44.0 NB ‘EXPRESS LNS CLOSED / TRAFFIC MUST EXIT / TO GLADES RD’.</p>	<p>If the event type is Abandoned Vehicle, Debris, Disabled Vehicle, Other, or Pedestrian:</p> <p>If the event is blocking all lanes, regardless of the event type follow the procedure that is shown on next page for Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding.</p> <p>If the event is not blocking all lanes and is expected to be cleared within 30 minutes:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. Normal tolling continues for the next 30 minutes. 3. Generate a response plan to notify motorists of the lane blockage. <p>Once the event exceeds 30 minutes, or if expected to exceed 30 minutes, or if all lanes are blocked:</p> <ol style="list-style-type: none"> 1. Manually post ‘CLOSED’ on all the Toll Amount DMS, associated with the 95 Express NB Segment 9N, for trips to CONGRESS AVE using group filter ‘95X NB 08 Internal to Congress’. 2. Set the TADMS used to ‘Out of Service’. 3. Verify that the ‘CLOSED’ message is on those TADMS. If not, place any back in service that do not have that message and repeat the process. 4. Generate a response plan and post messaging for ‘SOFT (ONE LANE OF TWO) CLOSURE’. 5. Dispatch incident responders to implement a hard closure at the exit / egress from Segment 9N to Glades Rd mainline (force motorists to mainline). 	<ol style="list-style-type: none"> 1. Release the incident responders and open at the exit / egress to Glades Rd mainline. 2. Set all the TADMS associated with the trips back to ‘Active’. 3. In the SELS Corridor View, click on the  within the Status Table for Segment 10N and re-submit the mode displayed (current) to update signs that were set ‘out of service’. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling a usual.



Location	Direction	Scenario	Comments	Response	Recovery
<p>95 Express Lanes Events – 95 Express NB beyond exit / egress to Glades Rd.</p>	<p>NB</p>	<p>CRASH, EMERGENCY VEHICLES, ROAD WORK EMERGENCY, POLICE ACTIVITY, OR FLOODING EVENT TWO LANE SECTION OF EXPRESS LANES BEYOND SEGMENT 9N (BEYOND EXIT / EGRESS TO GLADES RD)</p>	<p>A hard closure shall be implemented at any time based on safety concerns.</p> <p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>Motorists can use the exit / egress to Glades Rd mainline; therefore, the segment is open, but the trip to Congress Ave is not.</p> <p>Refer to DMS messaging plan.</p> <p>*For soft and hard closures post on DMS 44.0 NB ‘EXPRESS LNS CLOSED / TRAFFIC MUST EXIT / TO GLADES RD’.</p>	<p>If the event type is Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding, and is not blocking all lanes, then:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. Manually post ‘CLOSED’ on all the Toll Amount DMS, associated with the 95 Express NB Segment 9N, for trips to CONGRESS AVE using group filter ‘95X NB 08 Internal to Congress’. 3. Set the TADMS used to ‘Out of Service’. 4. Verify that the ‘CLOSED’ message is on those TADMS. If not, place any back in service that do not have that message and repeat the process. 5. Generate a response plan and post messaging for ‘SOFT (ONE LANE OF TWO) CLOSURE’. <p>Once the event exceeds 30 minutes (or if expected to exceed 30 minutes from the time of activation):</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to implement a hard closure at the exit / egress from Segment 9N to Glades Rd mainline (force motorists to mainline). 	<ol style="list-style-type: none"> 1. Release the incident responders and open at the exit / egress to Glades Rd mainline. 2. Set all the TADMS associated with the trips back to ‘Active’. 3. In the SELS Corridor View, click on the  within the Status Table for Segment 10N and re-submit the mode displayed (current) to update signs that were set ‘out of service’. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling a usual.

Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express NB at entrance / ingress from Glades Rd (where 2 x EL lanes meet entrance / ingress from Glades Rd).	SB	AT ENTRANCE / INGRESS FROM GLADES RD / I-95 MAINLINE WHEN EL AND INGRESS MEET TO MAKE THREE LANES / SEGMENT 10N BLOCKED	<p>A hard closure shall be implemented at any time based on safety concerns.</p> <p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>Refer to DMS messaging plan.</p> <p>*Post on DMS EL 44.0 NB ‘EXPRESS LNS CLOSED / TRAFFIC MUST EXIT / TO GLADES RD’.</p> <p>*Post on DMS NB45 ‘EXPRESS LANES / CLOSED / DO NOT ENTER’.</p>	<p>If the event type is Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding and the event does not impede the entrance / ingress from Hillsboro Blvd (three lanes at ingress):</p> <ol style="list-style-type: none"> Dispatch incident responders to assist with the event. In SELS Corridor View, click on the  within the Status Table for Segment 10N: <ul style="list-style-type: none"> Choose Closed mode. Select a D4 event. If the event is not available at the time of the override, select a Dummy event. Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). Generate a response plan and post messaging for ‘SOFT (ONE LANE OF TWO) CLOSURE’. <p>Once event exceeds 30 minutes (or from the get-go if expected to exceed 30 minutes), or if all lanes are blocked:</p> <ol style="list-style-type: none"> Dispatch incident responders to implement a hard closure at the exit / egress to Glades Rd (force motorists to mainline). If emergency responders require the ingress to be hard closed, then dispatch a responder to close at the entrance / ingress from Glades Rd mainline. Post messages using SunGuide predefined plan ‘10N - NB Express Lanes Closed - Segment 10N’. 	<ol style="list-style-type: none"> If the entrance / ingress from Glades Rd mainline is hard closed, release the incident responders. Release the incident responders and open at the exit / egress to Glades Rd In the SELS Corridor View, click on the  within the Status Table for Segment 10N: <ul style="list-style-type: none"> Choose desired mode. If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. In SunGuide, terminate the response plan that was used for this closure.

Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express NB entrance / ingress from Glades Rd.	NB	ENTRANCE / INGRESS FROM GLADES RD / I-95 MAINLINE TO SEGMENT 10N BLOCKED	<p>Use NB45 for incident management.</p> <p>If supporting a primary EL event, then the segment should be closed (in SELS) to the ingress event once it is hard closed.</p> <p>Post the DMS through the segment if supporting a primary EL event.</p> <p>Refer to DMS messaging plan.</p>	<ol style="list-style-type: none"> 1. Dispatch incident responders. 2. Manually post ‘CLOSED’ on all the Toll Amount and Lane Status DMS, associated with the entrance / ingress to 95 Express NB Segment 10N, using group filter ‘95X NB 09 Ingress fm Glades’. 3. Set the TADMS and LSDMS to ‘Out of Service’. 4. Verify that the ‘CLOSED’ message is on those TADMS and LSDMS. If not, place any back in service that do not have that message and repeat the process. 5. Generate a response plan and from the message library post ‘EXPRESS LANES / CLOSED / DO NOT ENTER’. 6. If supporting a primary closure, then post messages using SunGuide predefined plan “10N – NB INGRESS SUPPORTING A PRIMARY – SEGMENT 10N” and in SELS Corridor View, click on the  within the Status Table for Segment 10N: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 7. Every 15 minutes verify that all EL DMS are displaying the correct messages. 	<ol style="list-style-type: none"> 1. Release the incident responders and open the entrance / ingress from Glades Rd mainline. 2. Set all the TADMS and LSDMS associated with 95 Express SB entrance/ ingress from Glades Rd mainline back to ‘Active’. 3. If supporting a primary closure, then the TADMS and LSDMS do not need to be placed ‘out of service’. 4. In the SELS Corridor View, click on the  within the Status Table for Segment 10N and re-submit the mode displayed (current) to update signs that were set ‘out of service’. 5. In SunGuide, terminate the response plan that was used for this closure. 6. Continue tolling a usual.



Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express NB before exit / egress to Congress Ave. Segment 10N.	NB	ABANDONED VEHICLE, DEBRIS, DISABLED VEHICLE, OTHER, OR PEDESTRIAN EVENT OCCURS IN TWO LANE SECTION OF EXPRESS LANES SEGMENT 10N BLOCKED (BEFORE EXIT / EGRESS TO CONGRESS AVE)	<p>A hard closure shall be implemented at any time based on safety concerns.</p> <p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>Use NB45 for incident management.</p> <p>Refer to DMS messaging plan.</p> <p>*If internal DMS EL 47.5 NB is before the incident, then add to the response plan (if using RPG).</p> <p>*On DMS 44.0 NB, post RPG generated message. After 30 minutes, ensure message is updated to post 'EXPRESS LNS CLOSED / TRAFFIC MUST EXIT / TO GLADES RD'.</p>	<p>If the event type is Abandoned Vehicle, Debris, Disabled Vehicle, Other, or Pedestrian:</p> <p>If the event is blocking all lanes, regardless of the event type follow the procedure that is shown on next page for Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding.</p> <p>If the event is not blocking all lanes and is expected to be cleared within 30 minutes:</p> <ol style="list-style-type: none"> Dispatch incident responders to assist with the event. Normal tolling continues for the next 30 minutes. Generate a response plan to notify motorists of the lane blockage. <p>Once the event exceeds 30 minutes, or if expected to exceed 30 minutes, or if all lanes are blocked:</p> <ol style="list-style-type: none"> In SELS Corridor View, click on the M within the Status Table for Segment 10N: <ul style="list-style-type: none"> Choose Closed mode. Select a D4 event. If the event is not available at the time of the override, select a Dummy event. Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). Post messages using SunGuide predefined plan “10N - NB Express Lanes Closed - Segment 10N”. Dispatch incident responders to implement a hard closure at the exit / egress from Segment 9N to Glades Rd (force motorists to mainline). 	<ol style="list-style-type: none"> Release the incident responders and open at the exit / egress to Glades Rd mainline. In the SELS Corridor View, click on the M within the Status Table for both Segment 10N: <ul style="list-style-type: none"> Choose desired mode. If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. In SunGuide, terminate the response plan that was used for this closure. Continue tolling as usual.


Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express NB before exit / egress to Congress Ave. Segment 10N.	NB	CRASH, EMERGENCY VEHICLES, ROAD WORK EMERGENCY, POLICE ACTIVITY, OR FLOODING OCCURS IN TWO LANE SECTION OF EXPRESS LANES SEGMENT 10N BLOCKED (BEFORE EXIT / EGRESS TO CONGRESS AVE)	<p>Once the duration of an event is greater than 60 minutes, notify the Asset Maintenance Contractor to relieve the Road Rangers.</p> <p>Refer to DMS messaging plan.</p> <p>Use NB45 for incident management.</p> <p>*Post on DMS 44.0 NB ‘EXPRESS LNS CLOSED / TRAFFIC MUST EXIT / TO GLADES RD’.</p> <p>*If internal DMS 47.5 NB is beyond the location or if hard closure procedures are in place, then post ‘EXPRESS LANES / CLOSED / DO NOT ENTER’.</p>	<p>If the event type is Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding, and is not blocking all lanes, then:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. In SELS Corridor View, click on the  within the Status Table for Segment 10N: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 3. Generate a response plan and post messaging for a ‘SOFT (ONE LANE OF TWO) CLOSURE’. <p>Once the event exceeds 30 minutes, or if expected to exceed 30 minutes, or if all lanes are blocked:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to implement a hard closure at the exit / egress from Segment 9N to Glades Rd (force motorists to mainline). 2. Post messages using SunGuide predefined plan “10N - NB Express Lanes Closed - Segment 10N”. 	<ol style="list-style-type: none"> 1. Release the incident responders and open at the exit / egress to Glades Rd mainline. 2. In the SELS Corridor View, click on the  within the Status Table for both Segment 10N: <ul style="list-style-type: none"> o Choose desired mode. o If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. 3. In SunGuide, terminate the response plan that was used for this closure. 4. Continue tolling as usual.

Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express NB exit / egress to Congress Ave. Segment 10N.	NB	EXIT / EGRESS TO CONGRESS AVE MAINLINE FROM SEGMENT 10N BLOCKED	<p>*Use discretion with this scenario as the Express Lanes ‘end’ beyond the official egress to Congress Ave and both can be deemed to be the destination to Congress Ave.</p> <p>Refer to DMS messaging plan.</p>	<p>Regardless of event type:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders. 2. In SELS Corridor View, click on the  within the Status Table for Segment 10N: <ul style="list-style-type: none"> o Choose Closed mode. o Select a D4 event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). 3. Post messages using SunGuide predefined plan “10N - NB Express Lanes Egress - Segment 10N”. 4. Dispatch incident responders to assist clearing the event and allow trapped vehicles to exit the Express Lanes. <p>Once the event exceeds 30 minutes, or if expected to exceed 30 minutes, or if all lanes are blocked):</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to implement a hard closure at the exit / egress to Glades Rd (force motorists to mainline). Place Group Filter 95X NB 08 Internal to Congress OOS once hard closed. 	<ol style="list-style-type: none"> 1. Release the incident responders and open the exit / egress to Glades Rd mainline. 2. If utilized, set associated TADMS back to ‘Active’. 3. In the SELS Corridor View, click on the  within the Status Table for Segment 10N: <ul style="list-style-type: none"> o Choose desired mode. o If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling as usual.

Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express NB before exit / egress to Congress Ave. Segment 10N.	NB	ROADWORK WHEN CONTRACTORS MOT TAPER IMPEDES UPSTREAM SEGMENT	<p>This refers to when the MOT taper to force motorists out at the end of the upstream segment impedes or degrades the upstream segment.</p> <p>Refer to DMS messaging plan.</p> <p>The location must fall within the tolled segment limits.</p> <p>*Note – IM procedures differ from construction procedures due to length of MOT.</p>	<p>If the event impacts or degrades the throughput of the segment, then:</p> <ol style="list-style-type: none"> In SELS Corridor View, click on the M within the Status Table for Segment 10N: <ul style="list-style-type: none"> Choose Closed mode. Select a D4 event. If the event is not available at the time of the override, select a Dummy event. Ensure that the effective time is set at 10 minutes before the event reported time (SELS default). Generate a response plan based upon length of taper. If taper length is significant enough to warrant ‘LEFT / RIGHT LANE BLOCKED or LEFT LANE BLOCKED MERGE RIGHT / RIGHT LANE BLOCKED MERGE LEFT’, then post accordingly, otherwise post messaging for a ‘SOFT CLOSURE’ (Refer to DMS messaging plan) – Do not upgrade to a hard closure unless the contractor hard closes. Contractors MOT taper will divert traffic out to Congress Avenue. 	<ol style="list-style-type: none"> In the SELS Corridor View, click on the M within the Status Table for Segment 10N: <ul style="list-style-type: none"> Choose desired mode. If the Closed mode was not originally associated with a D4 event, select an event. An event must be selected before leaving Closed mode. In SunGuide, terminate the response plan that was used for this closure. Continue tolling a usual.

Location	Direction	Scenario	Comments	Response	Recovery
95 Express Lanes Events – 95 Express NB beyond exit / egress to Congress Ave.	NB	<p>BEYOND EXIT / EGRESS TO CONGRESS AVE BLOCKED</p> <p>(CURRENT END OF FACILITY)</p>	<p>Motorists can use the exit / egress to Congress Ave mainline; therefore, the segment / trip is open, but the destination beyond the egress is not. No action required to be taken on the TADMS or LSDMS.</p> <p>Refer to DMS messaging plan.</p> <p>*For soft and hard closures post on DMS EL 47.5 NB 'TRAFFIC MUST EXIT / TO / CONGRESS AVE.</p>	<p>Regardless of event:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders. 2. Generate a response plan to notify motorists of the lane blockage. <p>Once the event exceeds 30 minutes (or if expected to exceed 30 minutes from the time of activation):</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to implement a hard closure at the exit / egress from Segment 10N to Congress Ave mainline (force motorists to mainline). 2. Generate a response plan and post messaging for a 'HARD CLOSURE'. 	<ol style="list-style-type: none"> 1. Release the incident responders and open at the exit / egress to Congress Ave mainline. 2. In SunGuide, terminate the response plan that was used for this closure. 3. Continue tolling as usual.

Location	Scenario	Comments	Response	Recovery
<p>Two lane section of 95 Express facility NB and SB.</p>	<p>IF ALL GENERAL-USE LANES ARE CLOSED, ALL 95 EXPRESS LANES ARE OPEN AND TRAFFIC IS BEING DIVERTED INTO EXPRESS IN TWO LANE SECTION OF EXPRESS (ZERO TOLL MODE)</p>	<p>Only upon FHP / Law Enforcement request or implementation and/or FDOT approval, will traffic be diverted into the 95 Express Lanes.</p> <p>Resources such as Road Rangers, SIRV and/or Asset Maintenance should be informed to bleed traffic from the GU into 95 Express, around the incident, and then push traffic back into GU over the plastic poles using lane two of the Express Lanes. Express Lane one will remain for Express motorists that wish to continue within the facility.</p> <p>Per ‘procedure per event type’, the protocol is to close the segment after 30 minutes, however for this scenario, as the facility is being used to improve throughput and reduce congestion/reduce secondary incidents, the segment is to remain open unless requested to be closed by FHP / Law Enforcement and/or FDOT personnel.</p> <p>Refer to DMS messaging plan.</p> <p>Lane one would be used for EL and lane two would be for GU.</p>	<p>To improve throughput, and reduce the possibility of secondary incidents, the following procedure has been introduced when a FULL GU closure occurs parallel to the 95 Express Lanes:</p> <ol style="list-style-type: none"> 1. Dispatch responders to assist with the event by directing traffic from GU lanes into EL lane two, guiding them around the incident, and back into GU lanes. 2. In the SELS Corridor View, click on the  within the Status Table for the Segment adjacent to the GU closure: <ul style="list-style-type: none"> o Select ZERO TOLL. o Select a D4 event (GU). If the event is not available at the time of the override, add a comment to justify the mode change. o Ensure the effective time is set at 10 minutes before the event reported time (This is an automated adjustment in SELS). 3. Generate a response plan (do not update to soft or hard closure plan) to notify motorists of the lane blockage. 4. Continue with ZERO TOLL mode until all GU lanes are clear. 	<ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the  for the segment for which ZERO TOLL mode was in effect. <ul style="list-style-type: none"> o Select the desired mode. 2. In SunGuide, terminate the response plan that was used for this closure. 3. Continue tolling as usual.

Location	Scenario	Comments	Response	Recovery
<p>Single lane section of 95 Express facility NB and SB.</p>	<p>IF ALL GENERAL-USE LANES ARE CLOSED, ALL 95 EXPRESS LANES ARE OPEN AND TRAFFIC IS BEING DIVERTED INTO EXPRESS IN SINGLE LANE SECTION OF EXPRESS</p>	<p>Only upon FHP / Law Enforcement request or implementation and/or FDOT approval, will traffic be diverted into the 95 Express Lanes.</p> <p>Resources such as Road Rangers, SIRV and / or Asset Maintenance should be informed to bleed traffic from the GU into 95 Express, around the incident, and then push traffic back into GU over the plastic poles.</p> <p>It is critical to ensure that traffic diverted into the EL is allowed to divert out of the EL immediately after traffic passes the lane closure or event.</p> <p>*On the internal EL DMS within the closest upstream segment, post 'TRAFFIC MUST EXIT (to the egress destination)'.</p>	<p>To improve throughput, and reduce the possibility of secondary incidents, the following procedure has been introduced when a FULL GU closure occurs parallel to the 95 Express Lanes:</p> <ol style="list-style-type: none"> 1. Dispatch responders to assist with the event by directing traffic from GU lanes into EL, guiding them around the incident, and back into GU lanes. 2. Dispatch incident responders to implement a hard closure at the closest exit / egress upstream from the closure. 3. Manually post 'CLOSED' on all the Toll Amount DMS associated with the trip tolls using the relevant group filter. 4. Set the TADMS used to 'Out of Service'. 5. Generate a response plan to notify motorists of the lane blockage using messaging on the internal EL DMS to force out at the closest egress. 6. Continue tolling as usual. 	<ol style="list-style-type: none"> 1. Release the incident responders and open at the point of closure. 2. Release the incident responders and open at the exit / egress. 3. Set all the TADMS associated with the trips back to 'Active'. 4. In the SELS Corridor View, click on the  within the Status Table for the upstream segment and re-submit the mode displayed (current) to update signs that were set 'out of service'. 5. In SunGuide, terminate the response plan that was used for this closure. 6. Continue tolling as usual.

CONGESTION MANAGEMENT

The Express Lane Operator shall document both recurring and non-recurring congestion within the any of the Express Lane facilities in accordance with District Four Event Management Procedures. All congestion detected within the Express Lanes shall have “Congestion” events created with a FLATIS message being published to the Interactive Voice Recognition (IVR) system and Statewide 511 website. The Express Lanes Operator shall monitor the SELS Speed Graphs or the corridor map view to identify congestion and verify all congestion via CCTV or Road Ranger/SIRV.


Once the average Traffic Density (TD) for an Express Lanes segment is equal to or greater than 27 (currently configured to TD of 27) and/or the segment is 50% congested, SELS shall automatically request the “CONGESTED” message for the segment Lane Status DMS (LSDMS).


Once congestion has been reduced in the segment (less than 50%) or the TD drops below the configured threshold, then the “EXPRESS LANES OPEN” message will replace the previous ‘CONGESTED’ messaging. The Express Lanes Operator is to verify that the Lane Status DMS are posting the correct message.


MINIMUM SPEED TOLL (DYNAMIC TOLLING)

FLORIDA STATUE 338.166



If a customer’s average travel speed for a trip in an Express Lane falls below 40 miles per hours, the customer must be charged the minimum Express Lane Toll. A customer’s Express Lane average travel speed is his or her average travel speed from the customer’s entry point to the customer’s exit point.


MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
Mode Change From Dynamic Or Time Of Day To Closed, Zero Toll Or Manual Mode		<ol style="list-style-type: none"> 1. In SELS Corridor View, click on the  of the segment that needs to be updated. 2. Select the new mode from the “Mode” dropdown list. <ul style="list-style-type: none"> o CLOSED and Zero Toll modes must be associated with a D4 event. Manual mode must either be associated with an event or a comment must be entered. If the event is not available at the time of the mode change, select a Dummy event from either District. 3. Check the “Approved” checkbox and then select “Submit”. 4. Verify that Lane Status and Toll Amount DMS are posting the correct message. 	

MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
Mode Change From Closed, Zero Toll Or Manual Mode To Dynamic Or Time Of Day Modes		<ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the  for the segment to be updated. 2. Select the new mode from the “Mode” dropdown list. <ul style="list-style-type: none"> o If previous mode was CLOSED, Zero Toll or Manual mode and was not associated with a D4 event, an event from either District must be selected before the mode can be changed. 3. Check the “Approved” checkbox and then select “Submit”. 4. Verify that Lane Status and Toll Amount DMS are posting the correct message. 	

MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
Recover From Express Lanes Closed.		<ol style="list-style-type: none"> 1. Verify that the TADMS and/or LSDMS are active. 2. In the SELS Corridor View, click on the  for the Segment within the Status Table <ul style="list-style-type: none"> o Choose desired mode o If the Closed mode was not originally associated with a D4 event, select an event from either district. An event must be selected before leaving Closed mode. o Verify that Lane Status and Toll Amount DMS are posting the correct message. 3. In SunGuide, terminate the response plan that was used for this closure. 4. Notify D6 TMC if relevant to closure. 	

MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
Toll Update Reminder Notification		<p>In the Toll Update Reminder alert, click on the “Acknowledge” button</p> <p>If user desires to remain in the current mode, check the “Approved” checkbox and then select “Submit”.</p> <p>To change mode:</p> <ol style="list-style-type: none"> 1. Select the new mode from the “Mode” dropdown list 2. Verify or select the Toll amount and the Lane Status DMS Message. 3. If required, select a D4 event from the dropdown lists (select Dummy event if real event is not yet available). 4. Check the “Approved” check box and click on the “Submit” button. 5. When the SELS DMS Verification form appears, verify that each Toll Amount and Lane Status DMS is showing the correct message. <ul style="list-style-type: none"> o If a message is incorrect, then ensure that an ITS Maintenance Module trouble ticket is open for this failure. 	

MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
Toll Adjustment For Segments (Finite AND ONGOING)		<p>Ongoing Adjustment:</p> <ol style="list-style-type: none"> 1. In SELS click on the  for the Segment within the Status Table. 2. Select the desired effective time 3. Select the desired Adjusted Toll 4. Associate an event or add a comment to justify the adjustment. 5. Submit the Ongoing Adjustment. 6. Continue tolling as usual. <p>Finite Adjustment:</p> <ol style="list-style-type: none"> 1. In SELS, click on the  for the Segment within the Status Table for the segment. 2. Select the desired effective time. 3. Check Finite Adjustment. 4. Select the desired Effective End. 5. Select the desired Adjusted Toll. 6. Associate an event or add a comment to justify the adjustment. 7. Submit the Finite Adjustment. 8. Continue tolling as usual. 	

MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
Implementing Toll Adjustment For Trip Tolls (Ongoing Only)		<p>Ongoing Adjustment</p> <ol style="list-style-type: none"> 1. In SELS Corridor View, click on the  for the Trip within the Status Table. 2. Select the desired Adjusted Time/Toll. 3. Add a comment justifying the adjustment. 4. Submit Ongoing Adjustment. 5. Continue tolling as usual. 	


MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
Ongoing Toll Adjustment Reminder		1. When an ongoing toll adjustment reminder appears, select “Continue” if still applicable, or select “End” if not.	


MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
Ending Ongoing Adjustments		<ol style="list-style-type: none"> In the SELS Corridor View, click on the M for the segment with an ongoing adjustment in effect or any segment within a trip with an ongoing adjustment. Note: It is not possible to end a trip adjustment directly; it must be done via a segment included in that trip. Select the current mode and toll for the selected segment and submit the request (continue current active toll/mode). When the ongoing adjustment reminder appears, select End and submit. 	<p>If a Toll Adjustment was in effect prior to system restart, the interim toll will only present \$0.00, \$0.50, and latest Toll Adjustment amount.</p> <p>If Toll Adjustment is no longer required upon restart, then end the Toll Adjustment.</p>

MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Email	Attachments	Example Content Of Email
Retroactive Toll Adjustment Request Procedure	Alexandra Lopez Ryan Drendel David Needham Dee McTague Leroy Soley	Toll Chronology (SELS or ELS) for impacted segment / time	<p>A ‘descriptor’ event on ‘roadway’, ‘direction’ (facility – GU/EL), at ‘cross-street’, occurred on ‘day, date, time’.</p> <ul style="list-style-type: none"> Explanation of incident. Explanation of reasons why tolls should be recommended to be scratched. Fixed statement (example below).
<p>A fatality event on I-595 EB (general use lanes) at US-441 occurred on Saturday, 12/2 @10:52 PM.</p> <ul style="list-style-type: none"> The 595 team closed 595 Express at the Turnpike reversible lanes, forcing motorists onto a tolled facility. Florida’s Turnpike should be notified in case motorists complain about being forced onto a tolled roadway (there was no other egress available due to the fatality). <i>Note that motorists on 595 GU had the option to take US 441.</i> Tolling continued on 595 Express for the duration of the incident. Tolling should have been suspended since motorists were unable to reach the destination of I-95. <p>TOLL ADJUSTMENT: We are hereby requesting a retroactive toll adjustment on 595 Express EB from 12/02/2023 @ 10:42 PM (10 minutes before event creation) through 12/03/2023 @ 1:43 AM when the ramps were reopened.</p>			


MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
System Restart		<p>Complete and submit startup dialog for each segment.</p> <ol style="list-style-type: none"> 1. Select desired interim toll. <ul style="list-style-type: none"> ○ Interim toll options are limited to 0.00, \$0.50, and last effective Toll Amount. ○ Select the lowest of those tolls that would have been used during the outage if the software had been operating. 2. Select desired mode (Dynamic, TOD, Zero Toll, or Closed) <ul style="list-style-type: none"> ○ If applicable, associate an event or add comments. 3. If applicable, select desired toll amount (Manual or TOD Modes ONLY). 4. Select desired Lane Status DMS Message 5. Check the “Approved” checkbox and submit. 6. Manually check if there was an ongoing adjustment before system restart. <ul style="list-style-type: none"> ○ If yes, decide if Toll Adjustment is still needed. If needed, click on the <input type="checkbox"/> for the Segment within the Status Table. ○ If not, continue normal operations. 7. Continue tolling as usual. 	


MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
<p>TOLL SUSPENSION:</p> <p>Request To Open Express Lane Or Set Toll To \$0.00 For Emergencies Or Special Events.</p> <p>Most Likely Due to:</p> <p>Evacuation</p>		<p>Special approval is required TSM&O Program Manager, TSM&O Engineer-Freeways, and EOC (Jeannie Cann) will notify operations staff to implement.</p> <ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the <input type="checkbox"/> within the Status Table for the Segment, select Zero Toll mode and set the effective time at 10 minutes before the event reported time within SELS (default) <ul style="list-style-type: none"> ○ The Zero Toll Override must be associated with a D4 event, if available. If no D4 event is available at the time of the override, select a Dummy event. 	




MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
SEGMENT CLOSURE AND RECOVERY FROM CLOSURE DURING TOLL SUSPENSION		<p>1. Search the section for Express Lanes Events in this document for the procedure that applies to the location of the blocking event. Follow the procedure.</p> <p>2. Notice that if the procedure calls for a toll adjustment it does not apply since mode was Zero Toll (\$0.00) before the event.</p> <p>RECOVERY</p> <p>1. When recovering from the closure, in SELS, click on the  for the Segment within the Status Table and:</p> <ul style="list-style-type: none"> o Choose desire mode. o If the Closed mode was not originally associated with a SunGuide event, select an event. An event must be selected before leaving Zero Toll mode. <p>2. In SunGuide, terminate the response plan for the event.</p>	


MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
Recover From Open Status (Zero Toll Mode)		<p>1. In SELS, click on the  for the Segment within the Status Table and:</p> <ul style="list-style-type: none"> o Choose desire mode o If the Zero Toll mode was not originally associated with a SunGuide event, select an event from D4, if available. An event must be selected before leaving Zero Toll mode. <p>2. In SunGuide, terminate the response plan associated with the toll suspension.</p>	



COMMON DMS PROCEDURES			
Scenario	Comments	Response	Recovery
DMS Verification		<ol style="list-style-type: none"> 1. Acknowledge the DMS Verification Notification. 2. Verify that each Toll Amount and Lane Status DMS is showing the correct message. 3. If a sign is correct, check Confirmed. If it is incorrect: <ul style="list-style-type: none"> o If there is already an open MIMS ticket for this DMS, do nothing. o If there is not an open MIMS ticket, follow the appropriate action for a stuck or blank sign. 4. After all signs have been reviewed, select “Completed” on the DMS Verification form. 	




COMMON DMS PROCEDURES			
Scenario	Comments	Response	Recovery
Post Messages Manually On Toll Amount DMS		<p>For each Toll Amount DMS on which a manual message is to be posted:</p> <ol style="list-style-type: none"> 1. Click on the Toll Amount DMS icon  for the sign to be changed. 2. Locate the desired sign in the Sign Control pop-up, using the TADMS name or the Destination. 3. In the New Message area, choose Toll Message, if posting a toll message, or “Configured Message”. 4. Double click in the message display area (black rectangle). 5. Select a message from the drop-down list. 6. Click on Send Message. 7. Set DMS status to ‘Out of Service’. 8. Verify that the message just posted is still on the sign. If not, set the Sign Active and repeat the process of posting the message, taking the sign ‘Out of Service’ and verifying. 	

COMMON DMS PROCEDURES			
Scenario	Comments	Response	Recovery
Post Messages Manually On Lane Status DMS		<p>For each Lane Status DMS on which a manual message is to be posted:</p> <ol style="list-style-type: none"> 1. Click on the Toll Amount DMS icon  for the sign to be changed. 2. In the New Message area, choose Status Message, if posting a lane status message, or “Configured Message”. 3. Double click in the message display area (black rectangle). 4. Select a message from the drop-down list. 5. Click on Send Message. 6. Set DMS status to ‘Out of Service’. 7. Verify that the message just posted is still on the sign. If not, set the Sign Active and repeat the process of posting the message, taking the sign ‘Out of Service’ and verifying. 	

COMMON DMS PROCEDURES			
Scenario	Comments	Response	Recovery
<p>If Operator CHOOSES A MANUAL MODE Toll That Is Higher Than The Correct Toll</p>		<ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the  for the Segment within the Status Table, select the correct mode and toll and submit. 2. *Wait until it is at least one minute after the effective time of the correct toll just requested and then click on the  for the Segment within the Status Table. 3. Check Finite Adjustment, choose \$0.50 for the toll, and set the effective time at 10 minutes before the effective time of the incorrect toll. 4. Set the Effective End Time at the current time, but at least one minute after the effective time of the correct toll that was requested above. 5. Associate an event or add a comment justifying the adjustment. 6. Submit the Adjustment. 7. In SELS, click on the  within the Status Table for each trip that includes the segment 8. From the Adjusted Time/Toll drop-down list, select the first (latest) toll that is equal to or lower than the desired (correct) trip toll. If no toll is available that is low enough, close this dialog and do not adjust the trip toll. 9. Associate an event or add a comment justifying the adjustment 10. Submit Adjustment 11. Repeat for each trip that includes the segment with the erroneous toll. 12. Continue tolling as usual. 	<p>*The delay in 'Step 2' is necessary to ensure that any time at which the incorrect toll was active, was covered by the adjustment. An adjustment's 'end time' cannot be set after the current time. If the dialog is opened before this time, the desired ending time will not be available.</p>



COMMON DMS PROCEDURES			
Scenario	Comments	Response	Recovery
If Operator CHOOSES A MANUAL MODE Toll That Is Less Than The Correct Toll		<ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the  for the Segment within the Status Table, select the correct mode and toll and submit. 2. Continue tolling as usual. 	

COMMON DMS PROCEDURES			
Scenario	Comments	Response	Recovery
DMS Subsystem Failure. Blank Or Stuck Messages		<ol style="list-style-type: none"> 1. Notify IT. 2. Open a MIMS ticket within the ITS Maintenance Module. (critical) 3. If one or several Segment Toll Amount signs are blank or have a message stuck on them: <p>In SELS Corridor View, click on the  within the Status Table for each Segment with a Segment Toll Amount Sign that is blank or has a message stuck on it,</p> <ul style="list-style-type: none"> o Set the toll to \$0.50 and set the effective time at 10 minutes before the failure was discovered. 4. SELS If one or several Trip Toll Amount signs are blank or have an incorrect toll stuck on them: <p>In SELS Corridor View, click on the  within the Status Table for each Segment included in the trip,</p> <ul style="list-style-type: none"> o Adjust the toll for each segment included in the trip to \$0.50 as in the step above. It is not necessary to adjust the trip toll, since all segments included in the trip are set to the minimum toll. 5. Continue the adjustment(s) until the DMS Subsystem is operational. 	<ol style="list-style-type: none"> 1. Resume normal tolling for all segments. 2. End ongoing adjustments.

COMMON DMS PROCEDURES			
Scenario	Comments	Response	Recovery
<p>DMS FAILURE AFFECTS ALL DMS IN ONE OR SEVERAL SEGMENTS.</p> <p>BLANK OR STUCK MESSAGES</p>	<p>If any EL Entrance must be closed due to a DMS failure, the *Maintenance Contractor shall perform the closure(s) and coordinate the closure(s) with the Control Room Staff.</p> <p>*If reported as a fiber cut or power outage, for example, or the outage is a result of scheduled maintenance, then the Maintenance Contractor is not required to perform a closure(s).</p> <p>Report any other devices (CCTV or Vehicle Detectors) that are failed.</p>	<ol style="list-style-type: none"> 1. Notify IT and open a MIMS ticket within the ITS Maintenance Module (critical). 2. If one or several Segment Toll Amount signs are blank or have an incorrect toll stuck on them: <ul style="list-style-type: none"> In SELS Corridor View, click on the  within the Status Table for each Segment with a Segment Toll Amount Sign that is blank or has a message stuck on it: <ul style="list-style-type: none"> o Choose Manual mode. o Set the toll to \$0.50. o Click the “Is an Override” checkbox. o Set the effective time as the effective time of the last toll. 3. If one or several Segment Toll Amount signs have a stuck ‘CLOSED’ message on it: <ul style="list-style-type: none"> o In SELS Corridor View, click on the  within the Status Table. o Set the toll to \$0.00 and set the effective time at 10 minutes before the failure was discovered. 4. If one or several Trip Toll Amount signs are blank or have an incorrect toll stuck on them: <ul style="list-style-type: none"> If all Trip Toll Amount signs are blank: <ul style="list-style-type: none"> o Take no action on the signs. 5. If one or several Trip Toll Amount signs have a toll stuck on them that is equal or higher than the recommended toll: <ul style="list-style-type: none"> o Take no action on the sign(s). 6. If one or several Trip Toll Amount signs have a toll stuck on them that is lower than the recommended toll: <ul style="list-style-type: none"> In SELS Corridor View, click on the  within the Status Table for each trip displaying an incorrect (low) toll, <ul style="list-style-type: none"> o Set the Trip toll equal to the toll stuck on the sign (if available). o If that trip toll is not available, submit an ongoing \$0.50 segment toll adjustment for each segment in the trip, effective 10 minutes before the sign was found to be stuck. 7. Continue the adjustment(s) until the DMS Subsystem is operational or the segments are closed due to an incident. 	<ol style="list-style-type: none"> 1. Resume normal tolling for all segments. 2. End ongoing adjustments.

COMMON DMS PROCEDURES

Segment Toll Amount Sign Failures

Scenario	Comments	Response	Recovery
<p>Failed Segment Toll Amount DMS. Message Is Blank</p>	<p>See special case for specific locations in the next page.</p> <p>For HEFT ramp to 75 Express Northbound: If any EL Entrance must be closed due to a DMS failure, the ITS Maintenance Contractor shall perform the closure(s) and coordinate the closure(s) with the Control Room Staff.</p>	<p>If one Segment Toll Amount DMS is blank at an entrance to the Express Lanes, and another is working for the same entrance:</p> <ol style="list-style-type: none"> 1. Continue tolling as usual. 2. Open a MIMS ticket (Critical Failure). <p>Note at least one Toll Amount DMS must be operational for each entrance to the Express Lanes.</p> <p>If all Toll Amount DMS at an entrance to the Express Lanes are blank:</p> <ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the  within the Status Table for the Segment, choose \$0.50 for the toll, and set the effective time at 10 minutes before the sign was found to be blank. 2. Associate an event or add a comment justifying the adjustment. 3. Open a MIMS ticket (Critical Failure). 4. Continue the ongoing adjustment after each toll update until at least one DMS is operational at the entrance, or the entrance is closed. 5. When entrance is closed or at least one sign is operational, end the adjustment and resume operation as usual. 	<p>Toll Amount DMS may be blank after contractor repairs it.</p> <ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the  within the Status Table for the Segment and set tolls as usual. 2. When the SELS DMS Verification form appears, verify that each Toll Amount and Lane Status DMS is showing the correct message. <ul style="list-style-type: none"> o If a message is not correct, then ensure that a MIMS ticket is open for the failure.



COMMON DMS PROCEDURES

Segment Toll Amount Sign Failures

Scenario	Comments	Response	Recovery
<p>Failed Segment Toll Amount DMS. Incorrect Toll Message(S) Stuck On Sign(S)</p>	<p>Stuck Trip Toll Amount DMS are handled differently. Procedures for Trip Toll Amount DMS have their own section in the next pages.</p> <p>For HEFT ramp to 75 Express Northbound: If any EL Entrance must be closed due to a DMS failure, the ITS Maintenance Contractor shall perform the closure(s) and coordinate the closure(s) with the Control Room Staff.</p>	<p>If the upstream Toll Amount DMS at an entrance to the Express Lanes has a stuck segment toll, but the corresponding downstream Toll Amount DMS is working:</p> <ol style="list-style-type: none"> 1. Continue tolling as usual. 2. Open a MIMS ticket (Critical Failure). <p>If the downstream Toll Amount DMS at an entrance to the Express Lanes has a stuck segment toll:</p> <ol style="list-style-type: none"> 1. If the stuck toll on the downstream sign is the same as, or higher than, the recommended toll, continue tolling as usual. 2. If the stuck toll on the downstream sign is lower than the recommended toll: <ul style="list-style-type: none"> ○ In SELS, click on the M within the Status Table for the Segment, select Manual mode, set the toll equal to the toll stuck on the sign, set the effective time at the effective time of the last toll. ○ Enter a comment explaining why Manual mode was used. ○ Continue using this procedure until the failure is resolved. 3. Open a MIMS ticket (Critical Failure). 4. If ramp is to be closed for repair, once hard closure is implemented, post CLOSED on associated DMS, and resume tolling as usual (segment is open). 	<p>Toll Amount DMS may be blank after contractor repairs it.</p> <ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the M within the Status Table for the Segment and set tolls as usual. 2. When the SELS DMS Verification form appears, verify that each Toll Amount and Lane Status DMS is showing the correct message. <ul style="list-style-type: none"> ○ If a message is not correct, then ensure that a MIMS ticket is open for the failure.

COMMON DMS PROCEDURES

Segment Toll Amount Sign Failures

Scenario	Comments	Response	Recovery
<p>Failed Segment INTERNAL Toll Amount DMS. Message Is Blank.</p> <p>75 Express NB before MGD – 1.9-TR1/2/3</p> <p>95 Express NB at Sunrise – 28.2-TR1/2 and 28.8-TR1/2 95 Express NB at Sunrise – 28.2-TR1/2 and 28.8-TR1/2 95 Express NB before Palmetto – 43.6-TR1 and 44.2TR1</p> <p>95 Express SB beyond Yamato – 47.2-TR1/2 and 47.7-TR1/2 95 Express SB at Atlantic – 35.4-TR1 and 35.9-TR1 95 Express SB beyond Commercial – 32.6-TR1 and 31.7-TR1</p>	<p>These internal Toll Amount DMS are for motorists that are already travelling inside the facility from an upstream location.</p>	<ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the  within the Status Table for the Segment, choose \$0.50 for the toll, and set the effective time at 10 minutes before the sign was found to be blank. 2. Open a MIMS ticket (Critical Failure). 3. Continue the adjustment after each toll update until the DMS is operational. 4. End the ongoing adjustment. 	<p>Toll Amount DMS may be blank after contractor repairs it.</p> <ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the  within the Status Table for the Segment and set tolls as usual. 2. When the SELS DMS Verification form appears, verify that each Toll Amount and Lane Status DMS is showing the correct message. <ul style="list-style-type: none"> o If a message is not correct, then ensure that a MIMS ticket is open for the failure.


COMMON DMS PROCEDURES

Segment Toll Amount Sign Failures

Scenario	Comments	Response	Recovery
<p>Failed Segment INTERNAL Toll Amount DMS. Message Is STUCK.</p> <p>75 Express NB before MGD – 1.9-TR1/2/3</p> <p>95 Express NB at Sunrise – 28.2-TR1/2 and 28.8-TR1/2 95 Express NB at Sunrise – 28.2-TR1/2 and 28.8-TR1/2 95 Express NB before Palmetto – 43.6-TR1 and 44.2TR1</p> <p>95 Express SB beyond Yamato – 47.2-TR1/2 and 47.7-TR1/2 95 Express SB at Atlantic – 35.4-TR1 and 35.9-TR1 95 Express SB beyond Commercial – 32.6-TR1 and 31.7-TR1</p>	<p>These internal Toll Amount DMS are for motorists that are already travelling inside the facility from an upstream location.</p>	<ol style="list-style-type: none"> 1. If the stuck toll is the same as or higher than the recommended toll, continue tolling as usual. 2. If the stuck toll is lower than the recommend toll, in the SELS Corridor View, click on the M within the Status Table for the Segment, choose Manual mode, set the toll equal to the toll stuck on the sign. 3. Enter a comment explaining why Manual mode was used. 4. Continue using this procedure until the failure is resolved. 5. Open a trouble ticket within the ITS Maintenance Module (critical). 	<p>Toll Amount DMS may be blank after contractor repairs it.</p> <ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the M within the Status Table for the Segment and set tolls as usual. 2. When the SELS DMS Verification form appears, verify that each Toll Amount and Lane Status DMS is showing the correct message. <ul style="list-style-type: none"> o If a message is not correct, then ensure that a MIMS ticket is open for the failure.


COMMON DMS PROCEDURES

Segment Toll Amount Sign Failures

Scenario	Comments	Response	Recovery
<p>Failed Segment Toll Amount DMS. PIXEL FAILURE</p>		<ol style="list-style-type: none"> 1. If failure makes messages unclear, blank the sign and set it out of service. Follow procedure “Failed Segment Toll Amount DMS. Message Is Blank” 2. If messages can be understood event through the pixel error, continue using the sign. 3. Open a trouble ticket within the ITS Maintenance Module. 	<p>Toll Amount DMS may be blank after contractor repairs it.</p> <ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the  within the Status Table for the Segment and set tolls as usual. 2. When the SELS DMS Verification form appears, verify that each Toll Amount and Lane Status DMS is showing the correct message. <ul style="list-style-type: none"> o If a message is not correct, then ensure that a MIMS ticket is open for the failure.



COMMON DMS PROCEDURES

Trip Toll Amount Sign Failures

Scenario	Comments	Response	Recovery
<p>Failed Trip Toll Amount DMS (Blank)</p>		<ol style="list-style-type: none"> 1. Open a MIMS ticket (Critical Failure). 2. Continue tolling as usual. 	<ol style="list-style-type: none"> 1. Click on the  within the Status Table for each Segment included in the trip. 2. Select the current mode and toll and submit. 3. If an ongoing adjustment reminder appears for one of these segments, select End and Submit.



COMMON DMS PROCEDURES

Trip Toll Amount Sign Failures

Scenario	Comments	Response	Recovery
<p>Failed Trip Toll Amount DMS (STUCK)</p>	<p>See special cases for specific locations in the next pages.</p> <p>If any EL Entrance must be closed due to a DMS failure, the ITS Maintenance Contract shall perform the closure(s) and coordinate the closure(s) with the Control Room Staff.</p>	<p>If the upstream Toll Amount DMS at an entrance to 95 Express has a stuck trip toll, but the corresponding downstream Toll Amount DMS is working:</p> <ol style="list-style-type: none"> 1. Continue tolling as usual. 2. Open a trouble ticket within the ITS Maintenance Module (critical). <p>If the downstream Toll Amount DMS at an entrance to 95 Express has a stuck trip toll:</p> <ol style="list-style-type: none"> 1. If the toll shown on the Trip Toll Amount DMS is equal to or higher than the requested toll, continue tolling as usual. 2. If the toll shown on the Trip Toll Amount DMS is stuck lower than the requested toll, in the SELS Corridor View, click on the  within the Status Table for the Trip, choose the Time/Toll at which the toll matches what is stuck on the Trip Toll Amount DMS (if available), add a comment explaining the reason for the adjustment and submit. If that trip toll is not available, submit an ongoing \$0.50 segment toll adjustment for each segment in the trip, effective 10 minutes before the sign was found to be stuck. 3. Open a MIMS ticket (Critical Failure). 4. At each toll update, continue the adjustment until the sign is fixed. 	<ol style="list-style-type: none"> 1. Click on the  within the Status Table for each Segment included in the trip. 2. Select the current mode and toll and submit. 3. If an ongoing adjustment reminder appears for one of these segments, select End and Submit.

COMMON DMS PROCEDURES

Segment Toll Amount Sign Failures

Scenario	Comments	Response	Recovery
Failed Segment Toll Amount DMS. Message Is STUCK	For HEFT ramp to 75 Express Northbound: If any EL Entrance must be closed due to a DMS failure, the ITS Maintenance Contractor shall perform the closure(s) and coordinate the closure(s) with the Control Room Staff.	<ol style="list-style-type: none"> 1. If the toll shown on the Trip Toll Amount DMS is equal to or higher than the requested toll, continue tolling as usual. 2. If the toll shown on the Trip Toll Amount DMS is stuck lower than the requested toll, in the SELS Corridor View, click on the  within the Status Table for the Trip, choose the Time/Toll at which the toll matches what is stuck on the Trip Toll Amount DMS (if available), add a comment explaining the reason for the adjustment and submit. If that trip toll is not available, submit an ongoing \$0.50 segment toll adjustment for each segment in the trip, effective 10 minutes before the sign was found to be stuck. 3. Open a MIMS ticket (Critical Failure). 4. At each toll update, continue the adjustment until the sign is fixed. 5. If ramp is to be closed for repair, once hard closure is implemented, post CLOSED on associated DMS, and resume tolling as usual (segment is open). 	<ol style="list-style-type: none"> 1. Click on the  within the Status Table for each Segment included in the trip. 2. Select the current mode and toll and submit. 3. If an ongoing adjustment reminder appears for one of these segments, select End and Submit.


COMMON DMS PROCEDURES

Lane Status DMS Failures

Scenario	Comments	Response	Recovery
Failed Lane Status And/or 3x18 EL IM DMS	Same if Lane Status DMS message is blank or has a message stuck up, including Closed or Open. If any EL Entrance must be closed due to a DMS failure, the ITS Maintenance Contractor shall perform the closure(s) and coordinate the closure(s) with the Control Room Staff.	<ol style="list-style-type: none"> 1. Open a MIMS ticket (Critical Failure). 2. Continue operating Express Lanes as usual. 	<ol style="list-style-type: none"> 1. Place sign back in service. 2. Manually post appropriate lane status message.

DETECTOR / TSS / MVDS FAILURES IN EXPRESS LANES

Detector / TSS / MVDS Failures

Scenario	Comments	Response	Recovery
Failed EL detector		<ol style="list-style-type: none"> 1. Open a MIMS ticket (5 or more in one direction is deemed a Critical Failure, otherwise priority). 2. Refer to the information below. If fewer than the specified number of detectors within a tolled segment of the Express Lanes are operational, then click on  within the Status Table for the Segment and select Time of Day mode (TOD). <ul style="list-style-type: none"> • Segment 5N: • Segment 6N: • Segment 7N: • Segment 8N: 7 detectors required. • Segment 9N: 2 detectors required. • Segment 10N: 3 detectors required. • Segment 6S: • Segment 7S: • Segment 8S: 6 detectors required. • Segment 9S: 2 detectors required. • Segment 10S: 4 detectors required. 	<ol style="list-style-type: none"> 1. If the number of operational detectors within the tolled segment is greater than or equal to the number specified in the 'response list' to the left: <ul style="list-style-type: none"> ○ At the next toll / mode update, select Time of Day mode. ○ At the subsequent toll / mode update, resume tolling.

DETECTOR / TSS / MVDS FAILURES IN EXPRESS LANES

Detector / TSS / MVDS Subsystem Failures

Scenario	Comments	Response	Recovery
Subsystem Failure		<ol style="list-style-type: none"> 1. Open MIMS tickets (Critical Failure). 2. When not in Closed, Manual or Zero Toll mode, use Time of Day mode (TOD). 	<ol style="list-style-type: none"> 1. At the next toll / mode update, select Time of Day mode (TOD). 2. At the subsequent toll / mode update, resume tolling.

SUNWATCH INTERFACE FAILURES		
Scenario	Procedure	Comments
FTE Toll Service Error	<ol style="list-style-type: none"> 1. Notify IBI representative. 2. If the error is a recoverable error, notify SunWatch (e-mail to SunWatch e-mail group). 3. If the error is an unrecoverable error, <ul style="list-style-type: none"> o Notify the TMC Manager and SunWatch (e-mail to SunWatch e-mail group) o Open a service desk ticket and include the IBI representative. Include actions taken and notification to SunWatch (critical). 4. Continue operating as usual until directed otherwise. 5. Verify and report on each shift debrief until full service resumes. 	<p>Complete, as best as possible, the Issue Report Form and include in the email to SunWatch</p> <p>Email to SunWatch includes FTE Toll Systems Manager and TransCore MMC.</p>
Recovery from unrecoverable FTE Toll Service Error	<ol style="list-style-type: none"> 1. IBI will advise if any special handling or further actions are required. 	

FTE - SunWatch Operations	
Phone:	877-786-3375
email:	tpksunwatchgroup@dot.state.fl.us
FTE - Toll Systems Project Manager:	
Phone:	407-264-3027
email(s):	greg.griffin@dot.state.fl.us
TransCore MMC:	
Phone:	321-281-4127
email(s):	orlmmc@transcore.com
	mitch.pabon@transcore.com
	esteban.gomez@transcore.com
	Ivan.DelCampo@transcore.com

FTE PLAZA INFORMATION (TOLL GANTRY)

(109410) Hallandale Northbound (Express Lanes) – District Four maintenance only maintain the D4 side of the building.
 (109420) Stirling Road Southbound (95 Express Lanes) – District Four maintenance only maintain the D4 side of the building.
 (109415 / 109426) SR 736 (95 Express Lanes) – Awaiting final MOU. Currently District Four have no responsibilities.
 (109431 / 109432) SR 838 (95 Express Lanes) – Awaiting final MOU. Currently District Four have no responsibilities.
 (109441) SR 870 Northbound (95 Express Lanes) – Awaiting final MOU. Currently District Four have no responsibilities.
 (109442) McNab Road Southbound (95 Express Lanes) – Awaiting final MOU. Currently District Four have no responsibilities.
 (109461) SR 814 Northbound (95 Express Lanes) – Awaiting final MOU. Currently District Four have no responsibilities.
 (109462) Lighthouse Point Southbound (95 Express Lanes) – Awaiting final MOU. Currently District Four have no responsibilities.
 (109463 / 109464) Camino Real (95 Express Lanes) – Awaiting final MOU. Currently District Four have no responsibilities.
 (109465) Spanish River Blvd. Northbound (95 Express Lanes) – Awaiting final MOU. Currently District Four have no responsibilities.
 (109466) Yamato Road Southbound (95 Express Lanes) – Awaiting final MOU. Currently District Four have no responsibilities.
 (108441 / 108442) Miramar (75 Express Lanes) – External power to the hub.
 (108461 / 108462) Pines (75 Express Lanes) – External power to the hub.
 (108481 / 108482) Griffin (75 Express Lanes) – External power to the hub.

FTE POC FOR SCADA RELATED COMMUNICATION

Name	Contact #	Email Address	Role	Notes
Brian Menard	Office: (561) 218-5816 Cell: (321) 436-0135	Brian.Menard@dot.state.fl.us or www.cai.io	TSE Southern Regional Supervisor	Primary Contact
Dave Carson	Mobile: (407) 367-9160 Office: (407) 302-2547	David.Carson@dot.state.fl.us	Distributed Controls Systems Analyst	Alternated Contact Cc on all related SCADA communications
Dan Walker	Mobile: 321-459-4621 Office: 407-264-3410	dan.walker@dot.state.fl.us	FTE Tolls Construction Manager	Cc on all related SCADA communications
Albert Bryant	Mobile: 786-288-9174	albert.bryant@atkinsglobal.com	FTE Tolls Field Engineer	Cc on all related SCADA communications

Greg Griffin	(407) 264-3027 Office (407) 497-7191 Mobile	greg.griffin@dot.state.fl.us	FTE Toll Systems PM	Cc on all related SCADA communications
FTE SunWatch Operations	Toll Free: 877-786-3375 Cell: 954-573-0192	TPKSUNWATCHGROUP@dot.state.fl.us	24 / 7 Toll Systems Monitoring Center	Cc on all related SCADA communications
DISTRICT FOUR MAINTENANCE FOR SCADA RELATED COMMUNICATION				
D4 Operations		d4-rtmc-operationsoperatorssupervisors@dot.state.fl.us d4-rtmc-leadoperators@dot.state.fl.us	District Four Operations	Cc on all related SCADA communications
D4 Broward		nicolas.garcia1@dot.state.fl.us	Project Manager (ELAND)	Forward all related SCADA communications per list on Page 86
D4 Broward		mark.chambers@dot.state.fl.us	Maintenance (ELAND)	Forward all related SCADA communications per list on Page 86
D4 N4C		jose.rojas@dot.state.fl.us	Maintenance (Eland)	Forward all related SCADA communications per list on Page 86

EXAMPLE REPORTING FORM

Incident Reporting Form		
	'X' if applicable 'N/A' if not	Details
Incident Report #: --/--/----		
Incident Type (select one):		
A. Scheduled		
B. <input checked="" type="checkbox"/> Non-scheduled		
Facility or Toll Site(s) Affected: Examples: 95 Express and 75 Express		
Issue Description (select all that apply):		
A. <input checked="" type="checkbox"/> 95 Express directional schedule change (with reason for change)		
B. Express Lane (EL) facility or segment closure		
C. Zero toll assignments		
D. SELS outage (all dynamically tolled EL facilities – minus I-595 Express)		
E. <input checked="" type="checkbox"/> SL service outage (I-595 Express only)		
F. Loss of communications with FTE Back office system:		
a. Layer 1 disruption (fiber hit with general or specific location (if known at time of report))		
b. Layer 2 or 3 disruption (device description)		
c. Secure VPN connection unavailable (with system outage message received)		
Environment Affected (select one):		
A. <input checked="" type="checkbox"/> Test or;		
B. Production		
Notification Type:		
A. Email and / or;		
B. Phone call		
Services Affected:		
A. <input checked="" type="checkbox"/> Delivery of toll rates for dynamically tolled facilities		
B. <input checked="" type="checkbox"/> Delivery of toll rates 95 EL / 95 EL / 595 Express		
C. <input checked="" type="checkbox"/> Standard directional schedule (for 595 Express)		
Date & Start Time:		
A. <input checked="" type="checkbox"/> Date issue identified		
B. Time issue identified		
What's Being Done to Address the Issue:		
A. <input checked="" type="checkbox"/> Corrective actions being taken		
B. Who's performing the corrective actions		
C. Is FTE assistance required - which FTE functional area or team member(s)		
D. Who will inform SunWatch when corrective actions are complete		
E. Projected completion of corrective actions and / or restoration of network connectivity		
F. <input checked="" type="checkbox"/> Projected return to standard directional schedule (I-595 Express only)		
G. <input checked="" type="checkbox"/> None needed – notification is informational for scheduled event		

EXPRESS LANE MODULE OR OVERALL OTM FAILURES		
Scenario	Procedure	Comments
Tolling Task Failure – Toll calculation approval	<ol style="list-style-type: none"> 1. Notify IBI representative. 2. Open a service desk ticket and include the IBI representative (critical). 	
Tolling Task Failure – DMS verification prep.	<ol style="list-style-type: none"> 1. Notify IBI representative. 2. Open a service desk ticket and include the IBI representative (critical). 	
Recover from Tolling Task Failure	<ol style="list-style-type: none"> 1. IBI will advise if any special handling or further actions are required. 	

EXPRESS LANE MODULE OR OVERALL OTM FAILURES		
Scenario	Procedure	Comments
Express Lanes Module Failure	<ol style="list-style-type: none"> 1. Notify IBI representative. 2. Open a service desk ticket and include the IBI representative (critical). 	
OTM Failure	<ol style="list-style-type: none"> 1. Notify IBI representative. 2. Open a service desk ticket and include the IBI representative (critical). 	
Recover from Express Lanes Module or overall OTM Failure	<ol style="list-style-type: none"> 1. IBI will execute the SELS restart procedure. 2. Continue to operate Express Lanes as usual. 	

IT MAINTENANCE OUTAGE (SCHEDULED AND / OR EMERGENCY)		
Scenario	Procedure	Comments
Scheduled SunGuide IT Maintenance	<ol style="list-style-type: none"> 1. IT Staff will contact the IBI team and Operations Management requesting the outage. 2. IBI team and Operations Management will request the anticipated duration of the outage. 3. Notify TMC Manager / Project Manager and include the client (FDOT). 4. TMC Manager or designee will either approve the outage and/or contact IT/ITS staff to discuss alternate times to perform the work. (Note: Scheduled outages shall only be permitted during non-peak times, 9A-4P or 7P-6A). 5. E-mail critical staff informing them of the outage. 6. E-mail SunWatch and associated team. 	<p>Note: All scheduled outages shall be performed during scheduled maintenance closures or when charging default (minimum) toll.</p> <p>If a planned outage is canceled, notify SunWatch of the cancellation (e-mail) in advance of the time when the outage was scheduled.</p>
Emergency SunGuide IT Maintenance	<ol style="list-style-type: none"> 1. IT Staff will contact the IBI team and Operations Management requesting the outage. 2. IBI team and Operations Management will request the anticipated duration of the outage. 3. Notify TMC Manager / Project Manager and include the client (FDOT). 4. TMC Manager or designee will either approve the outage and/or contact IT/ITS staff to discuss alternate times to perform the work. (Note: Scheduled outages shall only be permitted during non-peak times, 9A-4P or 7P-6A). 5. E-mail critical staff informing them of the outage. 6. E-mail SunWatch and associated team. 	
Recovery From Maintenance Outage.	<ol style="list-style-type: none"> 1. Resume operating Express Lanes as usual. 2. Notify TMC Manager / Project Manager or designee that we have resumed Operations (e-mail). 3. E-mail SunWatch and associated team. 	

OUT OF HOURS SELS FAILURES (Static Tolling)

How to recognize and report SELS failures (static \$0.50 minimum toll):

1. Should the SELS application via intrasmart, or the URL <http://i75sels/> generate a 'page cannot be displayed' instead of the login page, then report to Jacques or the IBI representative immediately. Please verify that this is not from an isolated console, but from all consoles as this indicates that the SELS application is down.
2. Observe the corridor view, as below.

Home > Express Lanes > Corridor (I-95) View Traffic Data Update End Time: 10/15/2021 07:53

Top (SB) Direction: DMS Verification Request Sent to David Needham @ 07:51:00 Bottom (NB) Direction: DMS Verification Request Sent to David Needham @ 07:51:05

Destination	I-95-SB		I-95-NB	
	Cypress Creek Rd	Hillsboro Blvd	Cypress Creek Rd	
TD	-1	-1		
Toll	\$0.50	\$0.00	\$0.50	
Mode	Time of Day	Time of Day		
Next Update	08:00:00	08:00:00	08:00:00	
Last Confirm				
GP Avg	0	0		
EL Avg	0	0		

Communications and Tolling Tasks

MMS Tickets @ 07:51:05

Toll Calculation/Approval @ 07:51:05

Settings

Corridor Area: Whole Corridor

View: Map (Night)

Data: Speed

Smoothing: 1 Min

Destination	I-95-SB		I-95-NB	
	SW 10th St	Glades Rd	Glades Rd	
TD	-1	-1		
Toll	\$0.50	\$0.50	\$0.00	
Mode	Time of Day	Time of Day	Time of Day	
Next Update	08:00:00	08:00:00	08:00:00	
Last Confirm				
GP Avg	0	0	0	
EL Avg	0	0	0	

Map Legend

>= 30 MPH: Green

< 30 MPH: Red

No Data: Blue

No Detector: Grey

3. Verify MVDS (detector) data is being collected in SunGuide.
4. If 'No', open MIMS tickets via the maintenance module for MVDS (detectors) that are not operational.
5. *If 'Yes', verify the 'Communications and Tolling Tasks' in the top right corner of the corridor view. Also view the time of the 'Next Update' to see if data returns to the corridor.

Note that during overnight hours, server updates may cause the corridor to temporarily lose data. Allow for the 'Next Update' scheduled time to pass prior to action

Home > Express Lanes > Corridor (I-75) View Traffic Data Update End Time: 10/14/2021 13:54

Top (SB) Direction: DMS Verification Request Sent to David Needham @ 13:55:20 Bottom (NB) Direction: Scheduled Toll Update Auto-approved @ 13:45:03

	I-75-4S	I-75-6S	I-75-9S	I-75-13S	
Destination	NW 138th St	HEFT	HEFT	HEFT	NW 138th St
TD	-1	-1	-1	-1	
Toll	\$0.50	\$0.50	\$1.00	\$0.50	\$1.00
Mode	Time of Day	Time of Day	Time of Day	Time of Day	Time of Day
Next Update	14:00:00	14:00:00	14:00:00	14:00:00	14:00:00
Last Confirm					
GP Avg	0	0	0	0	0
EL Avg	0	0	0	0	0

Communications and Tolling Tasks

D4Tst.SunGuide: With Exceptions @ 13:55:18

FTE Toll Service: Success @ 13:55:18

Toll Calculation/Approval: Completed @ 13:45:03

Settings

Corridor Area: Whole Corridor

View: Map (Day)

Data: Speed

Smoothing: 1 Min

- If you see an error, which will be highlighted in 'red' (see above), click on the 'blue' text to open up to show the 'Databus Communications Recent XML Requests (2 hours)' page. From the top right drop menu select 'All Requests', see image below.

← → ↻ Not secure | i75selstest/dc/recentRequests.jsp?sgld=D4Tst&pOption=All&mOption=All

Databus Communication Recent XML Requests (2 Hours)

All Subsystems All Requests

Log ID	Request Time	Ref ID	SunGuide User	Subsystem	XML Request	Response Time	Response	Exception
38981	2021-10-14 13:40:29	OTM_SELSSERVICE_TSS_2	selsservice	tss	<?xml version="1.0" encoding="UTF-8"?><subscribeReq providerName="tss"><refid>OTM_SELSSERVICE_TSS_2</refid><icdVersion>1.0</icdVersion><username>selsservice</username><securityToken>PjyyEvM87AlAvhm</securityToken><detectorData>true</detectorData><mapDetectorData>true</mapDetectorData><linkUpdate>true</linkUpdate></subscribeReq>	2021-10-14 13:40:29	<subscribeResp xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" providerName="tss" providerType="tss"><refid>OTM_SELSSERVICE_TSS_2</refid><icdVersion>1.0</icdVersion><securityToken>PjyyEvM87AlAvhm</securityToken><data xsi:type="subscribeData"><detectorData>true</detectorData><mapDetectorData>true</mapDetectorData><linkUpdate>true</linkUpdate></data></subscribeResp>	N/A
38980	2021-10-14 13:40:28	OTM_SELSSERVICE_CCTV_2	selsservice	cctv	<?xml version="1.0" encoding="UTF-8"?><subscribeReq providerName="cctv"><refid>OTM_SELSSERVICE_CCTV_2</refid><icdVersion>1.0</icdVersion><username>selsservice</username><securityToken>VnSQEeO1vzju4ml7</securityToken><cameraData>true</cameraData></subscribeReq>	2021-10-14 13:40:28	<subscribeResp xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" providerName="cctv" providerType="cctv"><refid>OTM_SELSSERVICE_CCTV_2</refid><icdVersion>1.0</icdVersion><securityToken>VnSQEeO1vzju4ml7</securityToken><data xsi:type="subscribeData"><cameraData>true</cameraData></data></subscribeResp>	N/A
38979	2021-10-14 13:40:28	OTM_SELSSERVICE_TSS_1	selsservice	tss	<?xml version="1.0" encoding="UTF-8"?><authenticateReq providerName="tss"><refid>OTM_SELSSERVICE_TSS_1</refid><icdVersion>1.0</icdVersion><username>selsservice</username><password>qzqzTIBPCIQSIXRfzZuVA==</password></authenticateReq>	2021-10-14 13:40:29	<authenticateResp providerName="tss"><refid>OTM_SELSSERVICE_TSS_1</refid><icdVersion>1.0</icdVersion><securityToken>PjyyEvM87AlAvhm</securityToken><data xsi:type="authenticateData" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"><securityToken>PjyyEvM87AlAvhm</securityToken></data></authenticateResp>	N/A

- Within the 'Subsystem' column, if 'dms' or 'cctv' are displayed in 'black' type, then no 'out of hours' action is required. If they are displayed in 'red' type, then action will be required and Jacques is to be notified.

← → ↻ Not secure | i75selstest/el/corridorView.jsp?corId=1

Home > Express Lanes > Corridor (I-75) View

Traffic Data Update End Time: 10/14/2021 13:54

Top (SB) Direction: DMS Verification Request Sent to David Needham @ 13:55:20

Bottom (NB) Direction: Scheduled Toll Update Auto-approved @ 13:45:03

	I-75-4S	I-75-6S		I-75-9S			I-75-13S		
Destination	NW 138th St	HEFT	NW 138th St	HEFT	HEFT	NW 138th St	Sheridan St	HEFT	NW 138th St
TD	-1	-1		-1			-1		
Toll	\$0.50	\$0.50	\$1.00	\$0.00	\$0.50	\$1.00	\$0.50	\$1.00	\$1.50
Mode	Time of Day	Time of Day		Time of Day			Time of Day		
Next Update	14:00:00	14:00:00	14:00:00	14:00:00	14:00:00	14:00:00	14:00:00	14:00:00	14:00:00
Last Confirm									
GP Avg	0	0		0			0		
EL Avg	0	0		0			0		

Communications and Tolling Tasks

D4Tst SunGuide: With Exceptions @ 13:55:18

FTE Toll Service: Success @ 13:55:18

Toll Calculation/Approval: Completed @ 13:45:03

Settings

Corridor Area: Whole Corridor

View: Map (Day)

Data: Speed

Smoothing: 1 Min



8. If there is a failure with the 'FTE Toll Service' the following parameters are to be adhered to, as this is critical to Express Lanes Operations:
 - a. *Monday through Thursday before midnight, notify Jacques.
 - b. *Friday through business hours Monday, notify Jacques.

*The reason for the above timeframes is that we have 8 hours in which to send the tolls to the Turnpike.

9. Using the scroll on the right of the 'Communications and Tolling Tasks' verify that the 'Toll Calculation/Approval' and the 'DMS Verification Prep' both shows 'Completed' in 'green' text, along with an updated timestamp, also in 'green' text. If the next anticipated timestamp expires, monitor for several cycles and report via the 'service desk' application.

DISTRICT FOUR EXPRESS DELINEATOR MAINTENANCE

District Four and District Six will coordinate closure efforts to reduce the impact on the travelling public. Blanket approval has been granted to applicable contractors in both Districts for Monday night closures between 10pm and 5am for use as needed. The need for closure of the 95 Express lanes in a given District shall be determined by the Asset Maintenance (AM) Contractor associated with that District and their DOT Project Manager.

AM Contractor shall create a video depicting the delineator system present in each direction of travel every Thursday by 12:00pm. AM Contractor shall analyze the video identifying and documenting areas in each direction of travel that do not meet the following Contract Requirements:

EXPRESS LANES CRITERIA	
Deficiency Identification	Time Allowed/Criteria
a) Delineators do not match existing in color	Immediately upon identification
b) Delineator less than current Department standard height (from pavement surface to top of delineator)	Immediately upon identification
c) Delineators not meeting vertical tolerances	Immediately upon identification
d) Reflective sheeting not according to DOT Standard Specifications	Immediately upon identification
e) More than three consecutive delineators missing	Within 7 days or by next regularly scheduled repair whichever is less
f) More than a total of 100 delineators (not consecutive) missing in either direction	Within 7 days or by next regularly scheduled repair whichever is less

AM Contractor shall submit the video, a summary of their findings and intended course of action based on the Contract requirements every week to the Department Project Manager by no later than Thursday at 3pm. The intended course of action shall state whether the AM Contractor requests a closure for delineator maintenance for the following week. If delineators do not require maintenance, AM Contractor may request a closure for the following maintenance activities:

- Glare Screen replacements – all replacement shall be done in conjunction with a Southbound Express lanes closure; closure of one or both SB Express lanes shall be specified and justified by the AM Contractor.
- Drain/Barrier Wall inlet Cleaning – closure of one or both Express lanes in the applicable direction shall be specified and justified by the AM Contractor.

- Roadway Light pole pedestal Cleaning – closure of one or both Express lanes in the applicable direction shall be specified and justified by the AM Contractor.
- Replacement or repair of Roadway Lighting – closure of both Express lanes in the applicable direction is required.

If any of these requests are approved by the Department Project Manager, AM Contractor shall send Email notification by no later than 5:00pm the Friday before planned Monday closure date. AM Contractor shall use the template found in Attachment A for this email notification, stating proposed closure, subject to weather changes. Notification email recipients can be found in Attachment B.

AM Contractor shall send a final email notification by 2pm of the expected closure date confirming the closure of the express lanes. AM Contractor shall use the template found in Attachment A for this email notification. Notification email recipients can be found in Attachment B.

Prior to closing any Entrance Ramps or Exit Ramps to the 95 Express system, AM Contractor shall call the District Four TMC to request approval. AM Contractor shall only begin closures upon receiving approval. District Four TMC shall communicate closure details with District Six TMC to ensure consistent sign messaging.

*During active Express Lane projects, the appropriate contractor will be notified.

OPERATIONS DELINEATOR REVIEW AND REPORTING PROCESS		
Scenario	Procedure	Comments
	<ol style="list-style-type: none"> 1. Review the video links provided by the SIRV Operations Manager / Supervisor. 2. Take a screen capture of the missing / damaged delineators. 3. Create a SunGuide event, notating the following: <ul style="list-style-type: none"> o Event type 'other'. o Status, 'unconfirmed'. o Location of reported incident. o Under 'infrastructure damage' comments, provide a descriptive reference to the damage or missing poles. o Event status 'closed'. 4. Save the individual chronology reports, along with the images, onto the 'plastic pole weekly review' folder on the public drive. 5. Email to the respective Asset Maintenance contractor and FDOT representatives (see list below). 	<p>Any gaps of 5 (or more) consecutive delineators / plastic poles are deemed an emergency response by the TMC for the Asset Maintenance team (or contractors within a project area).</p> <p>Any significant gaps where a single pole or poles do not quite meet the above requirements is also considered an emergency response.</p> <p>Any correspondence should include that 'the condition is unsafe for motorists'.</p>

Asset Maintenance Broward County (Jorgensen)	
Email(s):	Nia_Mozley@royjorgensen.com
	Maritza_Tardi@royjorgensen.com
	Sebastian_Villegas@royjorgensen.com
FDOT	
Email(s):	alexandra.lopez@dot.state.fl.us
	alyssa.klien@dot.state.fl.us
	dani.goodwin@dot.state.fl.us
	andres.sanchez@dot.state.fl.us
	flavia.magalhaes@dot.state.fl.us
Asset Maintenance Palm Beach County (Versar)	
	Miguel.sosa@versar.com
	luz.barríos@versar.com
	jlugo@versar.com
FDOT	
Email(s):	alexandra.lopez@dot.state.fl.us
	alyssa.klien@dot.state.fl.us
	stephanie.torres@dot.state.fl.us
	andres.sanchez@dot.state.fl.us
	gideon.nancoo@dot.state.fl.us

GLOSSARY

Default Toll – The toll to be used when scheduled or calculated tolls are not available, and the facility is not open (Zero Toll). This is currently \$0.50.

Dynamic Mode – A toll setting mode in which current traffic conditions are used to determine the toll charged.

Effective Time – The time at which a toll becomes the toll in use for a segment or trip and not necessarily the time when it was requested or first appeared on Toll Amount signs.

Manual Override – This term refers to using Manual mode with a retroactive effective time to override previously requested tolls. This changes the toll posted on the signs as well as the toll sent to the Turnpike.

Toll Adjustment – A manual correction of the toll to be charged by the Turnpike (FTE). This correction is frequently retroactive to correct an incorrect toll or a toll inconsistent with that on signs, such as when the toll message on a sign is stuck or the sign is blank. This changes the toll charged by the Turnpike but does not change any signs. It is always less than or equal to the toll in effect.

Override vs. Adjustment – Overrides affect the tolls posted on signs as well as the tolls charged by SunPass. Adjustments affect the tolls charged by SunPass, but do not change the tolls posted on the signs. Both are frequently effective retroactively, such as when an incident closes the Express Lanes, to help compensate for people who may have been affected by the blockage that may have occurred after they enter the facility, to adjust tolls when a Toll Amount sign has failed or at other times when a driver may have seen a toll that may be higher than what should be charged. Retroactive overrides/adjustments are usually limited to become effective no earlier than 8 hours prior to the time at which they are submitted (configurable).

1.1 EXPRESS LANES (EL) OVERVIEW

PURPOSE AND SCOPE

The purpose of this section is to provide an overview of the 75 Express Lanes (EL) program and the guidelines to support the program by the FDOT District Four SMART SunGuide TMC and District Six SunGuide TMC Operations staff.

PROJECT OVERVIEW

In early 2014, the FDOT initiated construction of the Express Lane project that featured a new, four-lane barrier separated, tolled managed lanes facility within the I-75 median, as well as direct connections to the I-595 Express Lanes and Florida's Turnpike (HEFT) as well as major improvements to the HEFT, Miramar Parkway, and Sheridan Street interchanges. The construction phase was completed in 2019, and peak period, weekday express bus service was introduced in January 2020, however due to low ridership, the service has been suspended until further notice (August 2020).

The project begins in Miami-Dade County at the SR 826 / Gratigny Parkway interchange (Mile Post 0.00) and extends north along I-75 to the Miami-Dade / Broward County line (Mile Post 5.442). In Broward County, the project continues north from the county line (Mile Post 0.00) to the I-75 / I-595 interchange (Mile Post 11.546), a total length of approximately 12 miles (see [Figure 1](#)).

The municipalities crossed by the project include Medley, Hialeah, Miami Lakes, Hialeah Gardens, Miramar, Pembroke Pines, Southwest Ranches, Davie, Weston, Sunrise and unincorporated Miami-Dade County.

75 EL Project has implemented two types of tolling methods: Segment Based and Trip Based Tolling. Segment Based Tolling calculates toll amounts for the next downstream destination, whereas Trip Based Tolling combines toll amounts from two or more sequential downstream segments for a destination that is farther downstream. These toll amounts will vary depending on current traffic conditions in the EL. The toll will increase as the demand for the EL increases, to deter motorists from using the EL and try to maintain free flowing speeds (at approximately 45 mph or greater) at all times.



Figure 1 75 EL Project Map

The EL also permits toll-exempt use by motorcycles, hybrid vehicles and registered buses, vanpools, and carpools (3+) (see [Figure 2](#) for EL vehicle classification). A registration is required (through South Florida Commuter Services) to be exempt from tolls. Trucks (3 axles or more) are prohibited from using the EL unless assisting with event removal within the express lanes or unless directed by FHP. Other vehicles may use the EL by paying a variable toll.

The vehicle classification scheme breaks down all motor vehicles into 13 categories. [Figure 2](#) shows which vehicles are eligible and not eligible to utilize the express lanes. Vehicles that fall into Classes 1 through 5 are allowed to use express lane facilities and vehicles that fall into Classes 6 through 13 are not permitted. For safety and operational purposes, two axle vehicles towing a trailer will not be allowed.

Facility Lane Configuration

75 Express Lanes are considered a separate facility, built in the median of I-75 General Use Lanes and is an enclosed facility with limited emergency access. When referring to incidents occurring within the Express Lanes, the lane closest to the median barrier wall shall be “Express Lane #1” and the lane next to the delineators (Express Lane Markers (ELM’s) / Plastic Poles) shall be referred to as “Express Lane #2,” when applicable. The General Use Lanes of I-75 are those lanes outside of the Express Lanes facility. These lanes shall be referred to as “I-95 Lane #1, I-95 Lane #2, etc...” and shall be counted beginning to the right of the Express Lanes facility and ending at the right shoulder of I-75 (see [Figure 3](#)).



Figure 2 EL Vehicle Classification



Figure 3 Lane Layout with Express Lanes

1.2 EL OPERATIONAL MODES

PURPOSE AND SCOPE

The purpose of this section is to describe the EL operational modes. The EL pricing strategy is considered dynamic and requires EL Operator monitoring. The following procedures were developed for the Express pricing strategy.

OPERATIONAL MODES

The Express Lanes Module contained in Operations Task Manager (OTM) also known as the Statewide Express Lane Software (SELS) is the primary operator interface for EL Operators and controls the distribution of calculated toll amounts to the Turnpike and dynamic message signs (DMS) in the field. The software will recommend toll amounts to the EL Operator, who will then acknowledge the recommendations and subsequently confirm that the approved toll amounts have been used and posted correctly on the Toll Amount DMS. The EL Operator will also confirm that the Lane Status DMS are displaying the correct messages. The SELS has six operational modes available to the EL Operators for Segment Tolls, plus toll adjustment functionality for Segment and Trip tolls, and a start sequence. These include:

- **Time-of-Day**– Time-of-Day operating mode is an override mode and will be used when the EL facility is open, dynamic mode is unavailable (possibly due to lack of detector data), and traffic warrants the utilization of the toll

stored in the Time-of-Day (TOD) Table. TOD operating mode only requires EL Operator interaction when switching from another operating mode to TOD mode. While in this mode, the tolls update automatically based on the operating tolls stored in the SELS Software TOD table. There is a schedule in SELS Software that causes SELS to use different TOD tables for weekdays and weekends/holidays. TOD can be configured to utilize automatic approval.

- **Manual** – Manual operating mode is an override mode that allows the EL Operator to set tolls manually by selecting from a predefined set of tolls. Toll amounts remain the same until the EL Operator chooses a new toll or mode. This mode will be used by the EL Operator typically when toll amounts are stuck due to Toll Amount Sign failure(s).
- **Dynamic** – Dynamic operating mode is the default mode that allows the operating toll amounts to be “adjusted” based on the real time responsive toll amount adjustment algorithm (described later in this section). Dynamic operating mode is the most commonly used operating mode and will be used until a situation arises that warrants a change in mode. In Dynamic mode, SELS will recommend a toll amount based on current traffic conditions. Dynamic mode can be configured to utilize automatic approval for changing toll amounts.
- **Closed** – Closed operating mode is an override mode that requires EL Operator interaction. Closed operating mode will be used when the EL facility is closed, and a zero-toll amount is charged. As the EL Operator changes the operating mode to closed, SELS will adjust the effective time to 10 minutes before the incident was confirmed by the EL Operator. The EL facility will be closed for an incident that results in a blocked travel lane within the EL and when traffic is diverted from the General Use Lanes (GU) to the EL because of an incident in the General Use Lanes. The diversion will be initiated by the Florida Highway Patrol (FHP) or FDOT.
- **Zero-Toll** – Zero Toll operating mode is an override mode that requires EL Operator interaction. It will be used when the EL are open, but a \$0.00 toll must be charged. This mode will be implemented by the EL Operator during evacuations, when the Governor has suspended tolls, and/or under the direction of FDOT.
- **Toll Adjustment** – Toll adjustments are retroactive toll reductions that require EL Operator interaction. An ongoing adjustment shall continually replace the toll amount until terminated by an operator. A finite adjustment allows the EL Operator to replace toll amounts for a specified interval in time utilizing beginning and ending times no later than the present time. EL Operators can implement either an on-going or finite adjustment for a segment or a trip.
 - Segment toll adjustments allow the EL Operators to go back in time (up to eight hours) and change the toll amount charged to customers to an amount less than or equal to that posted on the Toll Amount DMS. A toll adjustment will be applied when any Toll Amount DMS is unable to post the current toll amount. When any toll amount sign is blank, the minimum toll amount of \$0.50 will be charged. The toll adjustment does not change the tolls displayed on the Toll Amount DMS and only affects the toll charged to customers. Therefore, the current applicable toll amounts can be displayed on all operating Toll Amount DMS to manage demand, while the customers are only charged \$0.50.
 - Trip toll adjustments are similar, except that the toll and effective time are chosen from a list of previous tolls in order to ensure that the tolls associated with each segment included in that trip are known. The list contains tolls effective up to eight hours in the past, except that any toll higher than a subsequent toll is not included and stops the search back in time for tolls to include in the list. For additional detailed procedures, refer to [Express Lanes Operational Procedures \(ELOP\)](#).
- **SELS Start-Up** – Upon SELS start-up or when publishing a corridor, the EL Operator must initialize the segment(s). The procedure was developed to assist the EL Operator to start the SELS Software in the correct mode, ensure the correct amount is being charged and posted, and to allow the EL Operator to set interim tolls for the time when the software was not running to ensure seamless operation for the EL motorist. The EL Operator can employ any mode upon start-up. For additional procedure details, refer to [Express Lanes Operational Procedures \(ELOP\)](#).

TOLL AMOUNT ADJUSTMENT LOGIC

The operational goal of the 95 Express Lanes is to provide free flow conditions along the facility. Under free flow conditions, vehicles are generally unimpeded and typically able to safely operate at speeds of 45 miles per hour or greater along an uninterrupted expressway segment. Real time responsive toll pricing is utilized to control traffic volumes in the EL in order to maintain free flow conditions.

The condition of traffic flow is defined as the Highway Capacity Manual (HCM) using an operational level of service (LOS). The LOS for a freeway facility is measured by traffic density (TD), which is a combination of speed and volume. TD is calculated as follows:

$$\text{Traffic Density (vehicles per mile per lane)} = \frac{\text{Volume (vehicles per hour per lane)}}{\text{Speed (miles per hour)}}$$

Figure 4 depicts the relationship between LOS and TD, which is derived from the HCM. LOS A, B and C are considered to be free-flow conditions and should safely allow for maximum throughput in the EL. As conditions reach LOS D and E, traffic flow will begin to deteriorate, densities will begin to approach 45 vehicles per mile per lane (vpml) and travel speed will be reduced. For LOS F, densities are expected to be above 45 vpml and speeds will be reduced significantly.

Level of Service	Traffic Density (vpml)	Expected Traffic Conditions
A	0 - 11	Free-Flow
B	> 11 - 18	Free-Flow
C	> 18 - 26	Free-Flow
D	> 26 - 35	Mild Congestion
E	> 35 - 45	Moderate Congestion
F	> 45	Severe Congestion

Figure 4 Level of Service and Traffic Density Relationship

The real time responsive toll amount adjustment logic utilizes concepts proven to be successful by other HOT facilities. The logic begins with an initial operating toll amount schedule and compares the initial toll amount to a calculated toll amount based on current traffic conditions. Current traffic conditions are determined by real time traffic data collected from EL detectors. The data collected are processed to exclude erroneous data and averaged before a TD is calculated. The TD is used to determine the toll amount needed to optimize traffic flow.

The TD calculations are averaged for each EL segment every 15 minutes to respond to current traffic conditions. The TD calculation is then rounded to a whole number.

The toll amount calculations use configurable settings. The two primary settings are LOS settings and change in TD (Delta TD Tables) settings. The LOS settings relate a TD range to a toll amount range, as shown in Figure 5 for all of the currently approved Segment Level of Service Settings Tables.

LOS	Density		Tolls	
	Minimum	Maximum	Minimum	Maximum
A	0	11	\$0.50	\$0.50
B	12	18	\$0.50	\$1.50
C	19	26	\$1.50	\$8.50
D	27	35	\$8.50	\$10.50
E	36	45	\$9.50	\$10.50
F	>45		\$10.50	\$10.50

Figure 5 Sample Level of Service Table

The Delta settings relate a change in TD (Δ TD) to a change in toll amount (Δ TA). The steps for calculating the current toll amount are presented in Figure 6. The TD calculated for the previous time period is subtracted from the TD for the current time period to determine the change in TD (Δ TD). Using the delta settings table, a toll change is determined. The toll amount change is added to or subtracted from the previous toll amount to determine the current toll amount. The current toll amount is compared to the maximum and minimum toll amounts in the LOS settings table (Figure 5).

If the current toll amount falls outside the maximum or minimum toll amounts for the corresponding TD, then the maximum or minimum toll amount, respectively, is applied. If the current toll amount falls within the maximum or minimum toll amounts, then the current toll amount is applied. For example, the previous toll amount is \$1.50, and the previous TD is 20. The current TD is 23. The current toll amount is calculated as follows:

$$\Delta TD = TD_t - TD_{t-1} = 23 - 20 = 3$$

Refer to example Delta Settings Matrix (Figure 7). A TD of 23 at ATD 3 yields a \$0.50.

The current toll amount falls within the toll amount ranges for a Level of Service C (TD=23). Therefore, a toll amount of \$3.00 is used.

Step 1: Calculate ΔTD
 The TD calculated for the previous time period (TD_{t-1}) is subtracted from the TD for the current time period (TD_t) to determine the change in TD (ΔTD)

$$\Delta TD = TD_t - TD_{t-1}$$

Step 2: Find ΔR based on ΔTD and TD_t
 Using the delta settings table, a rate change is determined
Refer to Delta Settings Matrix

Step 3: Calculate R_t
 $R_t = R_{t-1} + \Delta R$

Figure 6 Current Toll Amount Calculations

LDS	TD	$\Delta-18$	$\Delta-17$	$\Delta-16$	$\Delta-15$	$\Delta-14$	$\Delta-13$	$\Delta-12$	$\Delta-11$	$\Delta-10$	$\Delta-9$	$\Delta-8$	$\Delta-7$	$\Delta-6$	$\Delta-5$	$\Delta-4$	$\Delta-3$	$\Delta-2$	$\Delta-1$	$\Delta 1$	$\Delta 2$	$\Delta 3$	$\Delta 4$	
A	0	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	
	1	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	
	2	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	
	3	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	
	4	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	
	5	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	
	6	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	
	7	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	
	8	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	
	9	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	
	10	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	
	11	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	
	B	12	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1	1	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
13		1.25	1.25	1.25	1.25	1.25	1.25	1.25	1	1	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	
14		1.25	1.25	1.25	1.25	1.25	1.25	1.25	1	1	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	
15		1.25	1.25	1.25	1.25	1.25	1.25	1.25	1	1	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	
16		1.25	1.25	1.25	1.25	1.25	1.25	1.25	1	1	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	
17		1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	
18		1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	
C	19	3.75	3.75	3.75	3.75	3.75	3.25	2.75	2.5	2.25	2	1.75	1.5	1.25	1	0.75	0.5	0.25	0.25	0.25	0.25	0.25	0.25	
	20	3.75	3.75	3.75	3.75	3.25	2.75	2.5	2.25	2	1.75	1.5	1.25	1	0.75	0.5	0.25	0.25	0.25	0.25	0.25	0.25	0.25	
	21	3.75	3.75	3.75	3.75	3.25	2.75	2.5	2.25	2	1.75	1.5	1.25	1	0.75	0.5	0.25	0.25	0.25	0.25	0.25	0.25	0.25	
	22	3.75	3.75	3.75	3.75	3.25	2.75	2.5	2.25	2	1.75	1.5	1.25	1	0.75	0.5	0.25	0.25	0.25	0.25	0.25	0.25	0.25	
	23	3.75	3.75	3.75	3.75	3.25	2.75	2.5	2.25	2	1.75	1.5	1.25	1	0.75	0.5	0.25	0.25	0.25	0.25	0.25	0.25	0.5	0.75
	24	3.75	3.75	3.75	3.75	3.25	2.75	2.75	2.5	2.25	2	1.75	1.5	1.25	1	0.75	0.5	0.25	0.25	0.25	0.25	0.5	0.75	1
	25	3.75	3.75	3.75	3.75	3.25	3	2.75	2.5	2.25	2	1.75	1.5	1.25	1	0.75	0.5	0.25	0.25	0.25	0.25	0.5	0.75	1
	26	3.75	3.75	3.75	3.75	3.25	3	2.75	2.5	2.25	2	1.75	1.5	1.25	1	0.75	0.5	0.25	0.25	0.25	0.25	0.5	0.75	1

Figure 7 Example Delta Settings Matrix

PERFORMANCE FACTOR

Performance Factor (PF) is an adjustment factor that is utilized to increase Traffic Density (TD) when EL performance degrades. By increasing TD intentionally, toll amounts can be increased more effectively and thus maintain acceptable performance of EL. *Note: During times when Express Lanes are encountering performance problems, this factor will allow or force the toll to increase faster than under normal operations.*

It is calculated by the percentage of detectors (DS in the formula) with speeds below X MPH, where X is a configurable number associated with an EL segment. For each time interval analyzed, the number of detectors below X MPH is converted to a percentage. The actual traffic density (TD) is increased by that percentage to calculate a new traffic density (TDn), which is then used to calculate the new toll amount, see below:

$$PF = \frac{\# \text{ of } DS < X \text{ MPH}}{\# \text{ of } DS}$$

$$TD_n = TD + TD * PF$$

The configurable threshold X will be recommended by the engineer and configured by the analyst; however, operations staff will not be required to change it. From an operations point of view, one should witness toll increases more rapidly when EL speed drops below X mph.

SELS RE-OPEN PROCEDURE

The current EL recover from closure procedure in SELS addresses a race condition. SELS reduces the risk of toll amounts artificially decreasing when traffic starts flowing into an empty or low volume segment, by allowing a “normal” toll (time-of-day toll) check at the first calculation interval before dynamic tolling is fully restored. This means that when the EL come out of “closed” and a scheduled update is going to occur, this procedure minimizes the risk of implementing a low toll, so the EL may see a higher toll than current conditions might recommend when dynamic mode is first restored.

Figure 8. Toll Calculation during EL Recovery from Closure, demonstrates how the procedure works. In the figure: once the EL are reopened, the immediate effective toll amount (TA_i) will be either the Time-of-Day toll amount (TA_n) or the last calculated toll amount (TA_0), whichever is greater, and TD_i is either TD_0 or TD_n according to which toll amount is chosen. When a proposed scheduled interval of toll calculation starts, the toll amount for the first interval (TA_1) is calculated using current TD_1 , TD_i and TA_i , then this TA_1 is compared with TA_i , TA_1 will replace TA_i if $TA_1 < TA_i$. Dynamic tolling is recovered in the second scheduled interval.

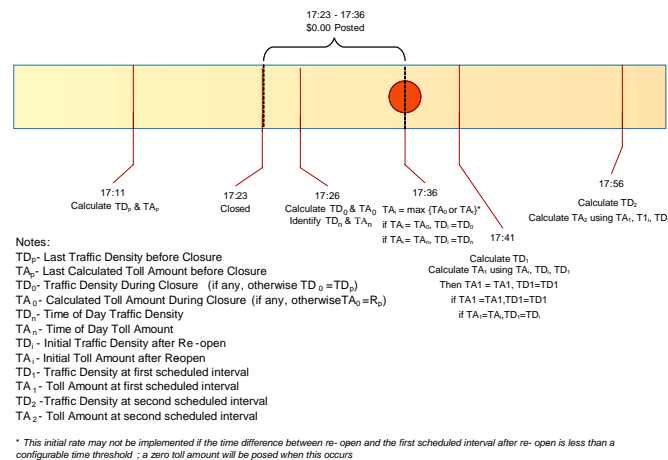


Figure 8 Toll Calculation during EL Recovery from Closure

TOLL SYSTEM INTERFACES

Express lane systems in Florida consist of two systems running in parallel, with the key interfaces between them. These two systems and the interfaces needed to support Express Lane operations are the Turnpike toll collection system and the District ITS and pricing system. The interactions between the two systems are shown in **Figure 9**. The Turnpike operates the toll collection system and is responsible for processing toll transactions through roadside toll equipment and back-office systems. The District is responsible for the management of the express lane traffic operations through the TMC.

The toll lane equipment is connected to the Turnpike Back Office through the Turnpike transaction host, while the ITS roadside equipment connects to the TMC. The ITS roadside components include traffic sensors deployed along the Express lanes, dynamic message signs (DMS) displaying Express Lane status and toll amounts, traffic control devices (such as gates), and closed-circuit television (CCTV) cameras for incident management.

The three key interfaces between the toll collection system and the ITS / pricing system are:

- Toll Amount Interface – This interface is used by the Turnpike to receive the final toll amount information from the TMC / Pricing System. This interface will be used for all Express lanes throughout the State.

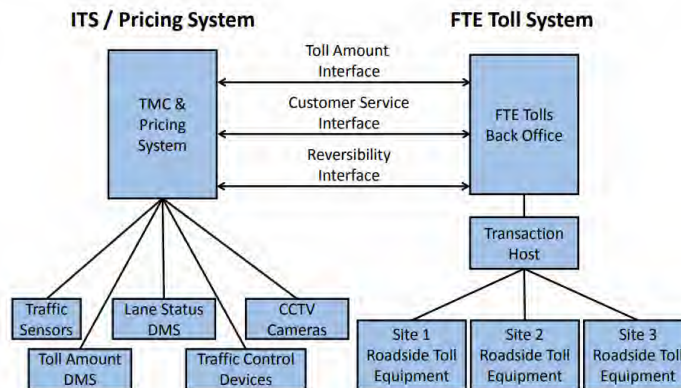


Figure 9 Typical Toll System Interfaces

- Customer Service Interface – This interface allows the Turnpike Customer Service Representatives to look at information that was posted on the toll amount DMS when customers have questions regarding transactions. The Turnpike also has an Interface Control Document that describes this interface.
- Reversibility Interface – This interface is used by the TMC to send a signal to the toll system to change the direction in which the toll point operates. This interface is only needed if the Express lane is a reversible system.

EXPRESS LANE SEGMENT

An Express lane segment is the distance between an entry point to the Express lanes and the next point of exit, see [Figure 10](#). If there are multiple entry points before an exit point, the segment is defined to be the distance between the first entry point, see [Figure 11](#). If there are multiple exit points following an entry point, the segment represents the distance between two successive exit points, see [Figure 12](#).

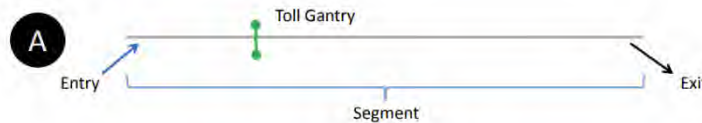


Figure 10

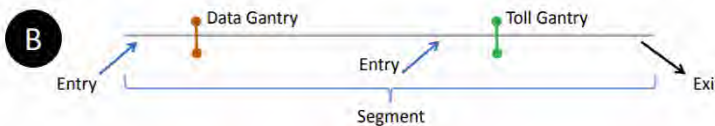


Figure 11

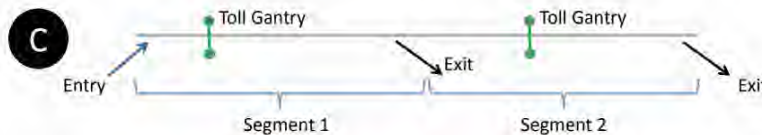


Figure 12

Gantries shall be placed between successive entries, between an entry point and an exit point, and between successive exits, unless the entry or exit points are spaced less than one mile apart or physical constraints prevent the placement of such structures.

Gantries placed between successive entry points (i.e. data gantries) do not charge a toll but rather collect data to accurately account for the time to travel from the toll amount DMS to the tolling point. All other gantries will charge the toll in effect at the time of entry. Every segment has only one toll gantry that charges a toll. The minimum toll is \$0.50 at each gantry where a toll is charged.

TRIP BUILDING

A tolling trip is comprised of one or more contiguous segments. [Figure 13](#) illustrates the six tolling trip possibilities of an example Express lane system, for a single direction on travel, which is composed of three segments. For longer Express lane systems that have more than three segments, trip building systems, consisting of no more than three segments, can be established in series with a decision point for the customer to stay in or get out of the Express lanes within the tolling trip. The linking of trip building systems together is shown in [Figure 14](#).

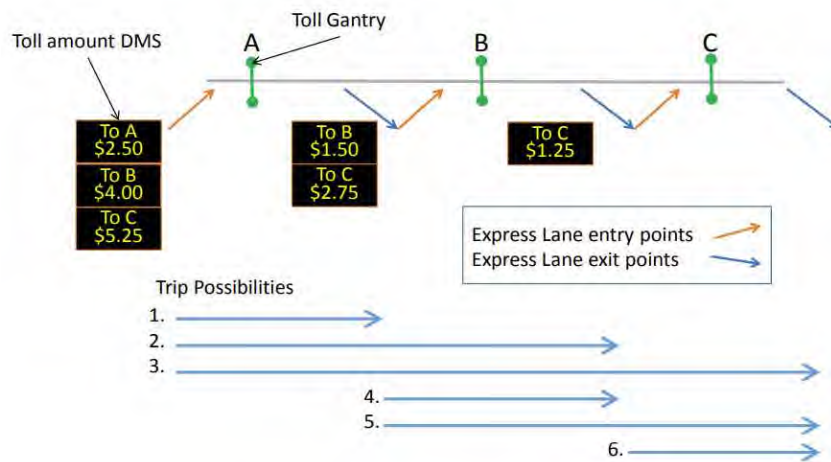


Figure 13 Trip Possibilities for a Three Segment Express Lane System

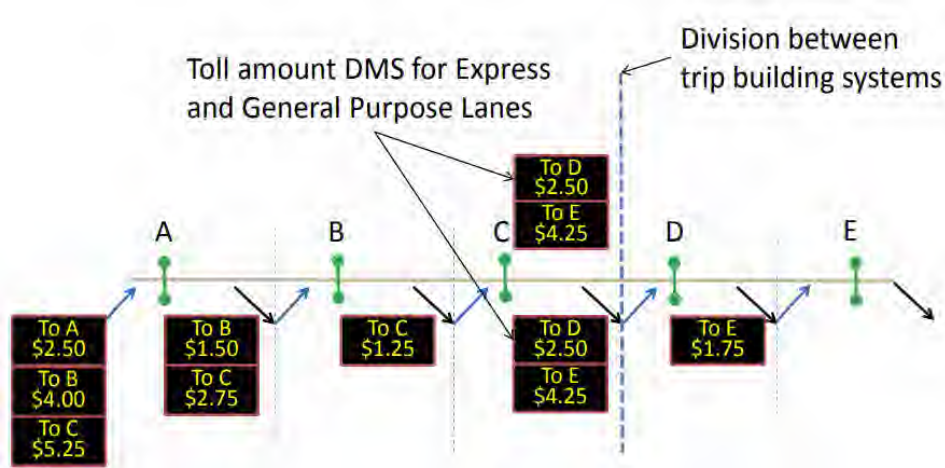


Figure 14 Linked Trip Building Systems

A customer in the General use lanes will see a toll amount DMS which displays the toll amount that will be charged to the customer for traveling to one or more destinations in the Express lanes/ Each possible Express lane exit in the current tolling trip, and the associated destination, is provided with the associated toll amount. The toll amount seen by the customer on the toll amount DMS is locked in upon entry to the Express lanes for travel to the destinations

shown on the sign. Therefore, the customer will be charged no more than what is posted on the toll amount DMS for traveling to the destinations shown even if the toll amounts change after customers enter. If the toll amount is reduced after a customer has entered the Express lanes and while the customer is still in the Express lanes, the reduced toll amount will be charged.

Each of the Express lane segments within a tolling trip may have different toll amounts, which when added together, form the total trip toll amount. Even though the toll amount will be charged on a segment-by-segment basis, and reported as such on the customers statement, trip building is necessary to ensure that drivers who get into the Express lanes and travel through multiple segments pay the lower toll between what they see on the toll amount DMS and what is actually charged a the successive toll gantries within the tolling trip.

1.3 DISTRICT FOUR EL STAFFING AND SCHEDULING

PURPOSE AND SCOPE

The purpose of this section is to establish responsibilities and scheduling of the Express Program Manager and the Control Room Staff that cover the Express Lanes Shifts, referred to as EL Staff.

EXPRESS LANES PROGRAM MANAGER

The Express Program Manager works full time on-site at the SunGuide TMC to support all Express and Ramp Signaling related activities.

The responsibilities of the Express Program Manager include, but are not limited to:

- Overseeing EL operations
- Overseeing overall project performance to ensure it is meeting the intended results
- Evaluating and analyzing project related performance metrics
- Developing and implementing recommendations to mitigate performance measures degradation
- Conducting and overseeing operational analyses
- Providing projects related data and information to others (internal and external)
- Coordinating and supporting testing for all software, hardware and firmware upgrades/changes
- Reviewing and updating operational parameters including but not limited to:
 - Express Time of Day, Level of Service, and Traffic Density Delta tables
 - Ramp Signaling Central and Local Time of Day tables
 - Ramp Signaling minimum and maximum metering rates
- Representing the Department at meetings, workshops, presentations (including other Express Lanes deployments as the project lead and technical expert)
- Supporting public outreach/public information efforts

EL STAFF RESPONSIBILITIES

District Four shall schedule a minimum of one Express Lanes Operator on-site at the SunGuide TMC at all times. The 24 hours per day/7 days per week (24/7) coverage requirement includes using the Shift Supervisors or alternate Express trained Operators to cover EL operations during breaks and approved leaves of absence. The responsibilities of the EL Staff are as follows:

- Primary operators of the Express Lanes Module (SELS).
- Monitor Express facilities and General Use Lanes within District limits.
- Verify toll amounts (per Segments and Trips) are displayed correctly every 15 minutes.
- Review failures in SELS and follow failure procedures.
- Observe, acknowledge and report all detector failures and report via the MIMS software application.
- Manage events in the Express Lanes, in accordance District Four ELOPS and training material.
- Primary Point of Contact for Express Lane events (to include interagency event for District Six and 595 Express LLC).
- Ensure shift change report for EL Operations is complete and accurate for each shift worked.
- Create and complete the SELS Shift debriefing report to incorporate activities for 595 Express, 75 Express, and 95 Express.
- Handle all calls/inquiries related to Express Lanes.

- Monitor 75 Express and 95 Express field devices along both facilities and field devices along the General Use Lanes throughout the Express limits and report failures via the MIMS software application.
- Ensure breaks and meals are covered by Shift Supervisors or EL trained Operators.
- Closely coordinate and support Shift Supervisors and Fleet Operators.
- Prepare or assist with preparation of Express Lanes reports.
- Assist and/or perform research for TMC Management / Client.

1.4 DISTRICT FOUR ROAD RANGER/INCIDENT RESPONSE TEAM COORDINATION

PURPOSE AND SCOPE

The purpose of this section is to describe supplemental Road Ranger coordination procedures and policies and provide procedures for communicating with the Express Severe Incident Response Team. As agreed, by both districts, FDOT District Six shall handle all incident and event management for all events occurring in Miami-Dade County. FDOT District Four shall handle all incident and event management for all events occurring in Broward County.

INCIDENT RESPONSE TEAM OVERVIEW

Existing Incident Management

Existing FDOT D4 and D6 incident management efforts along the project corridor are managed from the respective FDOT SunGuide Transportation Management Center (TMC). These efforts include four key program elements; Traffic Incident Management (TIM) Teams, Road Rangers, Rapid Incident Scene Clearance (RISC), and Severe Incident Response Vehicle/Incident Response Vehicle (SIRV/IRV) Operations. These resources work closely with Asset Maintenance Contractors for extended incidents. The delineation mark for incident management services between D4 and D6 will be the Broward County/Miami Dade Countyline, to the south of the District; however, procedures are in place for each District to respond to the neighboring District upon request.

Traffic Incident Management (TIM) Teams

The Incident Management program provides incident management response as well as limited assistance to stranded motorists to reduce congestion and improve safety for emergency responders and the motoring public. The D4 TMC, in the interest of promoting Florida's "Open Roads Policy" and providing increased mobility on FDOT highways, provides Incident Management (IM) and Motorist Assistance (MA) services to improve safety, reduce delays, and mitigate secondary traffic incidents.

Both the D4 and D6 have established Traffic Incident Management (TIM) Teams. The TIM Teams consists of FDOT, Florida's Turnpike Enterprise (FTE), FHP (Florida Highway Patrol), tow companies, local police, local fire rescue, other regional TMCs, consultants, and asset maintenance companies. The District Four TMC TIM Team meets quarterly and there are bi-annual joint TIM meetings held among the D4 TMC and D6 TMC TIM Teams. Through the TIM Teams, both D4 TMC and 64 TMC have established excellent working relationships with the incident responders. The TIM Teams have helped to establish quick clearance policies and provide a forum to discuss issues which results in continuous improvement to incident response within the region.

Future - FDOT District Four will look into providing additional resources to clear events along the EL facility. As part of the enforcement plan, at least two FHP Troopers (6:00 AM to 10:00 PM, Monday through Friday) will be retained by FDOT through the Hireback program. In addition, one FDOT Severe Incident Response Vehicle (SIRV) Operator will support the existing Road Rangers and improve communications between the field and the TMC Operations. A flat bed tow truck will be required to assist with clearance of the EL.

Express Severe Incident Response Vehicle Operators

The SIRV operators will act as an FDOT incident coordinator on-scene for events impacting the traffic flow within the Express Lanes. They will assist responding agencies, coordinate maintenance of traffic (MOT) activities of the Road Rangers and provide liaison between other responding agencies and FDOT resources (such as FDOT Maintenance and/or its Asset Maintenance Contractor). The SIRV Operator will be the primary contact for the TMC Operators to ensure all response and clearance times are documented in the SunGuide Software. As needed, the SIRV operator will facilitate post-incident analysis meetings with other agencies. The SIRV operators will wear a uniform that portrays a professional appearance and assists with recognition in the field to new responders. A patch will be worn to communicate that the SIRV Operators represent FDOT. The SIRV operators will be trained and qualified in the following:



- Incident Management and Command
- Advanced Management of Traffic
- Incident Clearance Procedures
- Severe Incident Documentation
- Emergency Vehicle Operation
- First responder functions and responsibilities

Their hours for Express Lanes incident response are listed below:

- Monday through Friday (excluding FDOT approved / public holidays) – 6A through 10P.
- Out of hours 10P through 6A and weekends – on call (refer to weekly published schedule).

For out of hours response, the following criteria must be met:

- Any event lasting or expected to last 2 hours or longer.
- Any event involving a fatality.
- Any RISC event.
- Any event involving a large overturned commercial vehicle, such as a tractor-trailer, dump-trump, cement mixer, tanker, etc.
- Any event involving a large commercial vehicle, such as a tractor-trailer, dump-truck, cement mixer, tanker, etc. where the tires are burned off.
- Any event involving a Haz-Mat.

SIRV must also be notified for any crash involving injuries requiring transport to:

- Law Enforcement.
- Fire Rescue.
- Road Rangers.

Severe Incident Response Vehicle

The SIRV is a specially equipped and marked vehicle that is dispatched through the FDOT District Four SunGuide TMC. These vehicles are equipped with an amber strobe light system to facilitate emergency response. High intensity lighting and markings have been added to the truck to assist responders after sundown. A docking station in the driver's compartment allows use of a laptop computer to support incident command activities. A statewide law enforcement radio system (SLERS) radio is provided to allow for direct communication with the FDOT District Four SunGuide TMC Operations Staff. In addition, the Severe Incident Response Vehicle carries maintenance of traffic and spill mitigation equipment such as cones, signs, flares, oil dry, and fuel absorbent.



Flat Bed Tow Truck

The flat bed tow truck is a 21 ft. carrier properly equipped for all types of vehicle towing and a four passenger cab (not including driver) to facilitate quick clearance of the lanes.

Florida Highway Patrol

FHP provide enforcement and coordinate the removal of an event from the Express Lanes. FHP is contacted when rotational tow is required either to remove a vehicle from the Express Lanes or to assist with removal of the vehicle from any other site after it has been relocated from the Express Lanes.



Road Ranger Coordination

The Road Rangers are the FDOT freeway service patrol which is a free service provided by FDOT and is managed by each Districts TMC. The Road Rangers' mission is to provide free highway assistance services during incidents to reduce delay and improve safety for the motoring public and responders. In Broward, Palm Beach (D4) and Miami Dade (D6), Road Rangers patrol designated areas (beats) 24 hours a day, 7 days a week and 365 days a year. The Road Rangers provides the following services:

- Short-term maintenance-of-traffic (MOT) services during incidents.
- Assist in incident management and response.
- Clear disabled vehicles from travel lanes.
- Clear debris from travel lanes.
- Change flat tires.
- Jump-start vehicles and make minor repairs.
- Supply emergency gasoline, diesel, water.
- Provide stranded motorists two free local calls.
- Monitor abandoned vehicles and notify FHP

In Broward County, Road Ranger services along I-75 are currently provided through the Asset Maintenance Contract E4V68. Asset Maintenance Contract E4V68 (Incident Clear – Broward) began service on July 01, 2022. This contract provides Road Ranger pick-up trucks that continuously patrol all I-95, I-75, and portions of I-595. The Road Rangers respond to incidents and stranded motorists along these corridors to help facilitate clearing the roadway.

The Road Ranger vehicle fleet within Broward / Palm Beach includes three different truck types: - Pickup trucks, pickup trucks (with debris clear) and flatbed trucks. The Road Ranger patrol beats for 75 EL and 95 EL project limits are as follows:

Monday through Friday 5:30 AM – 10:00 PM

- I-75 Broward County (Alligator Alley Toll Plaza to Mile Marker 50)
 - One Pickup Truck
- I-75 Broward County (Flamingo Rd to Sunrise Blvd / Alligator Alley Toll Plaza to Griffin Rd)
 - One Pickup Truck
- I-75 Broward County (Miami Gardens to Royal Palm)
 - One Pickup Truck
- West Roving Supervisor
 - One Pickup Truck (with Debris Clear)

Monday through Friday 10:00 PM – 5:30 AM, weekends and holidays

- I-75 Broward County (Alligator Alley Toll Plaza to Mile Marker 50)
 - One Pickup Truck
- I-75 Broward County (Miami Gardens to Toll Plaza / I-595 Flamingo Road to SR-869 / Sunrise Blvd and EXPRESS Lanes)
 - One Pickup Truck
- County Supervisor
 - One Pickup Truck (with Debris Clear)

75 Express is an enclosed facility, separated from the General Use lanes by concrete barrier wall, with designated emergency access crossover points along the facility. Road Rangers are designated as “Emergency Vehicles” by FDOT Secretary Order and are permitted to utilize these crossovers when responding to and departing an event. This authorization was granted to Road Rangers in order to safely facilitate quick clearance of traffic incidents, especially those occurring within the Express Lanes facility.

A minimum of two Road Rangers will be dispatched. One of these two vehicles must be a flatbed truck during Peak Period (broken down into Peak East and Peak West). The Road Ranger arriving first will:

- Notify the TMC upon its arrival.
- Assess the situation.
- Communicate to the TMC whether the backup unit is still needed.
- Secure the scene by setting up temporary MOT and offer assistance, as needed, to the vehicle or motorist.

If the backup unit is needed, the Road Ranger vehicles will reposition themselves, as needed, to allow the flatbed truck to hook up the disabled vehicle as the other Road Ranger provides additional backup and maintenance of traffic (MOT) behind the incident.

- When relocating vehicles, a minimum of two vehicles is required.
- All vehicles should be relocated to a safe location, with wide shoulder, within the facility or Emergency Stopping Site (ESS) along I-75.



Road Rangers shall be allowed to relocate any vehicle without the presence of law enforcement (FHP or other) to the nearest safe location or Emergency Stopping Site (ESS). However, Road Rangers are not legally authorized to perform relocation of the vehicle without the vehicle owner’s or law enforcement’s consent.

Anytime a Road Ranger/SIRV Operator relocates a vehicle or requests FHP assistance, the TMC Operator shall provide FHP with the following information:

- Vehicle Description(s) (Make, Model, Color, License Plate and VIN)
- Note: TMC Operator must advise FHP when the event is unable to be located by CCTV or when a Road Ranger is not on scene.
- Nature/Type of Event
- Location (Roadway, Direction of Travel, Proximity, and Cross Street)
- Injuries, if applicable

Dispatching Resources

The Express Lanes Operator is responsible for detecting, confirming, and dispatching the necessary resources to accommodate the nature of the event, such as Road Rangers, SIRV Operator and/or Flatbed Tow Truck. Communication will be maintained by the Express Lanes Operator with the resources dispatched pre, during, and/or post incident.

Quick Clearance Procedures

In order to expedite the clearance of both travel lane and shoulder blocking events within the Express Lanes, the following quick clearance procedures have been established:

- Vehicles blocking Express travel lanes are to be relocated to a safe location, with wide shoulder, within the facility or a designated Emergency Stopping Site (ESS) along I-75. Road Ranger vehicles equipped to safely move vehicles may do so, although some events may require a flatbed truck.
- Disabled vehicles located on either the left or right shoulder of the Express Lanes should be relocated to a safe location, with wide shoulder, within the facility or a designated Emergency Stopping Site (ESS) along I-75.
- Abandoned vehicles within the Express Lanes that are blocking a travel lane or deemed to be impeding traffic due to proximity of the travel lane shall be relocated to the nearest safe location. Prior to relocation the Express Lanes Operator shall notify FHP that the vehicle is being relocated. Once the vehicle has been relocated the EL Operator shall provide FHP with a follow-up notification informing FHP of the vehicle description (Make, Model, Color, and License Plate Number) and the location of the vehicle.
- Abandoned vehicles on the Express Lanes shoulder (legally parked) are to be marked with a grease pen on the rear window by a Road Ranger when it is first discovered and the Express Lanes Operator will notify FHP (or liaison) to log the initial discovery.
 - The markings include the time, date and Road Ranger truck number.
 - At the beginning of each Hireback (future) shift, the FHP Trooper sweeps the Express Lanes for disabled vehicles and calls for rotational tow if necessary.
 - The rotational tow will pick up the vehicle from the shoulder if they are able to respond within 30 minutes. If they are not able to respond within 30 minutes, the FHP Trooper will request TMC Operations dispatch resources to relocate the disabled vehicle to the General Use right shoulder, ESS, or Broward Park and Ride.
- Subsequently, the FHP Trooper will request rotational tow to pick up the vehicle at the designated relocation area.

Debris

Debris located within the Express Lanes shall be removed from the travel lanes by the Road Ranger/Road Ranger Supervisor using the DebrisClear System. Once the debris is clear, the Road Ranger/Road Ranger Supervisor shall notify the TMC. It is then the responsibility of the Express Lanes Operator to contact the Asset Maintenance Contractor (or project contractor) to dispose of the debris. If the debris is too large for the Road Ranger/Road Ranger Supervisor to remove, or if the removal puts the Road Ranger/Road Ranger Supervisor in an unsafe situation, then the TMC Operator shall contact the FDOT Asset Maintenance Contractor (or project contractor).

Asset Maintenance / Contractor within project limits (for LTMOT)

Asset Maintenance – The Asset Maintenance contractor is responsible for repair and maintenance of the Express Lanes, unless the limits fall within an active project, at which time the contractor assigned to the project is to respond (please refer to the Asset Maintenance spreadsheet for project limits). They respond to or acknowledge:

- Damage, property theft or vandalism to State owned infrastructure or equipment, including but not limited to guardrails, bridge abutments, crash barrels and pavement.
- Debris on the roadway.
- Severe incident with Long Term Maintenance of Traffic requirements (LTMOT). Typically estimated to have greater than one hour of lane blockage for Express Lanes management.

HARD CLOSURES FOR INDIVIDUAL SEGMENTS

All field resources patrol their assigned beats throughout their patrol.

- The SIRV unit and Flatbed shall provide on-scene management and event coordination for the primary incident.
- One Road Ranger Pickup truck shall be responsible for the closing of each assigned ingress point to the segment (from I-75 mainline).

- One Road Ranger Pickup truck shall be responsible for the closing at the end of the upstream segment to prevent motorists continuing their trip toward the incident scene (to I-75 mainline).
- Once the duration of an event has exceeded 60 minutes, then notify Asset Maintenance Contractor to relieve the Road Rangers and/or IRV.

HARD CLOSURES FOR SEGMENTS OUTSIDE OF DISTRICT FOUR LIMITS

District Four are supported by SEFRTOC partners for locations outside of their District limits, such as ingress locations for 75 Express, supported by District Six and FTE. Examples are listed below:

- D6 – One Road Ranger Pickup truck is responsible for closing at the end of 75 Express Segment 2N (destination Miami Gardens Drive), to force traffic out to the General Use mainline and prevent motorists from entering the downstream segment (4N).
- D6 – One Road Ranger Pickup truck is responsible for closing the ingress from NW 138 Street mainline to prevent motorists from entering downstream segment (4N).
- D6 – One Road Ranger Pickup truck is responsible for closing at the egress to HEFT SB to prevent motorists from entering HEFT SB. *If the General Use exit ramp to HEFT is to be closed (includes both NB and SB ramps), this falls within District Four Incident Management limits, for which their own resources will be utilized.*
- FTE – One Road Ranger Pickup truck is responsible for closing the ingress from HEFT NB to prevent motorists from entering downstream segment (6N).
- FTE – One Road Ranger Pickup truck is responsible for closing the ingress from HEFT SB to prevent motorists from entering downstream segment (6N).
- Once the duration of an event has exceeded 60 minutes, then notify Asset Maintenance Contractor to relieve the Road Rangers and/or IRV.

The emergency access crossover points are at the following locations. See [Figure 15](#):

- Northbound: South of Miramar Parkway
 South of Pines Boulevard
 South of Sheridan Street
 South of Royal Palm Boulevard
- Southbound: North of Griffin Road
 North of Sheridan Street
 North of Pines Boulevard
 North of Miramar Parkway

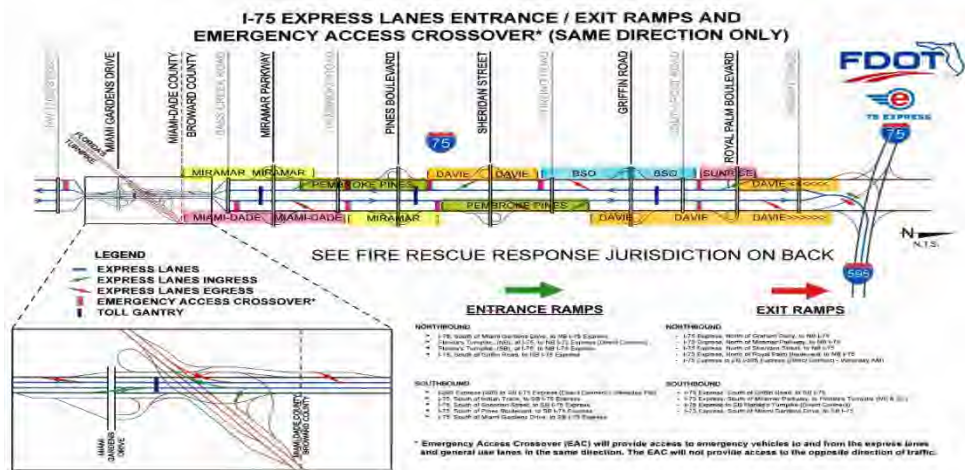


Figure 15 Sample Screenshot of the 95 Express Corridor View

1.5 EL SOFTWARE APPLICATIONS

PURPOSE AND SCOPE

The purpose of this section is to provide the procedures for operating the SELS software applications.

EXPRESS LANE MODULE (SELS)

The EL Operator shall use SELS to determine and post the applicable toll amount, monitor traffic conditions in both the EL and GU Lanes, monitor EL detector status and generate reports. The EL Operator shall log onto SELS at the beginning of each shift and initiate the Roadway Operations View and Detector Status Monitor. The SELS will track, change modes, and post EL Toll Amount DMS messages, plus document the EL Operator actions for acknowledging and confirming the applicable toll amount. The EL Operator shall visually verify that the intended toll amounts are posted via CCTV screenshots before processing the SELS DMS Verification Form. [Figure 16](#) provides a sample screenshot of the Roadway Operation View. [Figure 17](#) provides a sample screenshot of the DMS Verification Form. [Figure 18](#) provides a sample screenshot of the Segment Mode/Toll Change pop-up.

For additional detailed procedures, refer to [Express Lanes Operational Procedures \(ELOP\)](#) and the District Four 75 Express Corridor Management for closures NORTHBOUND scenarios located in the following folder P:\EXPRESS LANE INFO FOR OPERATORS\75 EXPRESS.



Figure 16 Sample Screenshot of the 75 Express Corridor View

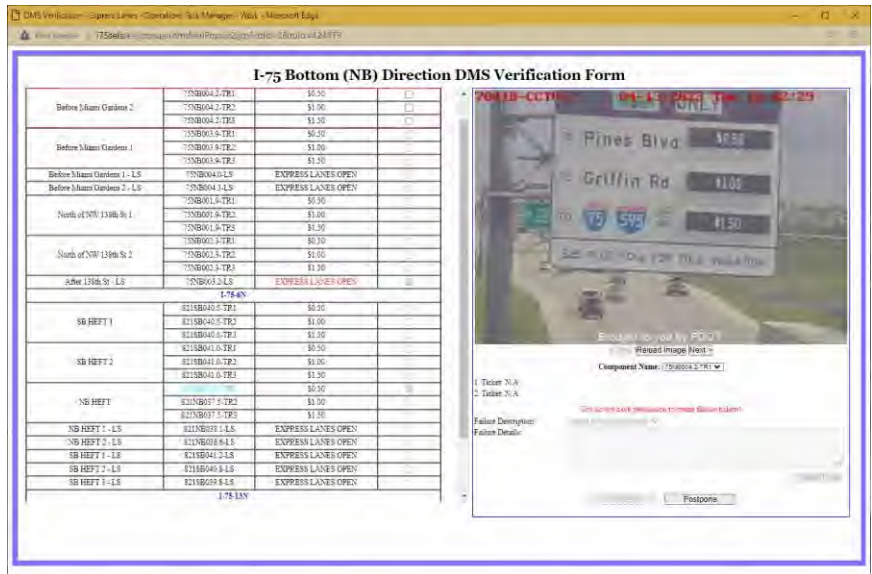


Figure 17 Sample Screenshot of the DMS Verification Form

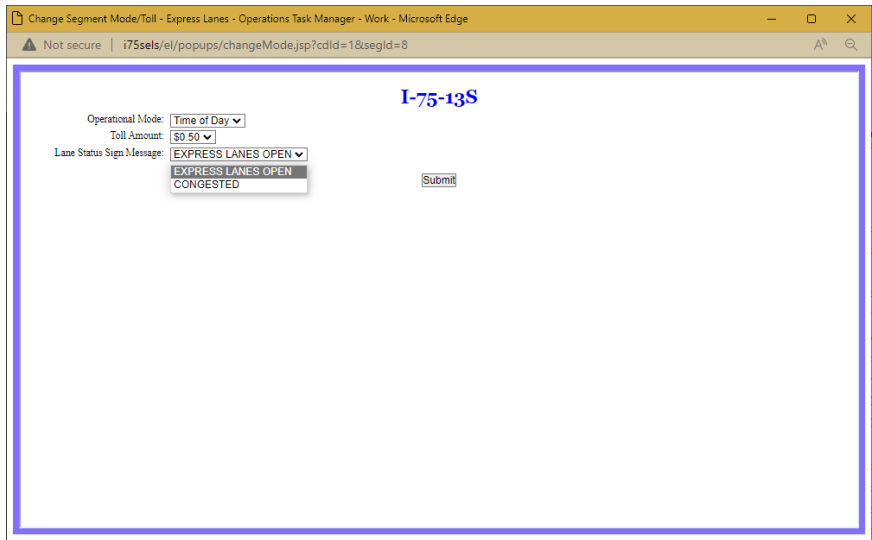


Figure 18 Sample Screenshot of the Segment Mode / Toll Change pop-up

EXPRESS LANES OPERATIONAL PROCEDURES

Express Lanes Operational Procedures (Version 1)

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Location	Direction	Scenario	Comments	Response	Recovery
<p>75 Express Lanes Events – 75 Express SB entrance / ingress from 595 Express WB reversible ramp.</p>	<p>SB</p>	<p>ENTRANCE / INGRESS FROM I-595 EXPRESS WB REVERSIBLE RAMP BLOCKED</p>	<p>This is a 595 Express Incident Management response area.</p> <p>If supporting a primary EL event, then the segment should be closed in SELS.</p>	<p>Regardless of event type:</p> <ol style="list-style-type: none"> 1. Manually post ‘CLOSED’ on all the TADMS located on 595 Express, associated with the I-75 entrance to 75 Express SB Segment I-75-13S, using group filter ‘75X SB 01 595 W Ramp’. 2. Manually post ‘EXPRESS LANES CLOSED’ on all the LSDMS located on 595 Express, associated with the I-75 entrance to 75 Express SB Segment I-75-13S, using group filter ‘75X SB 01 595 W Ramp’. 3. Set the TADMS and LSDMS to ‘Out of Service’. 4. Verify that the ‘CLOSED’ message is on those TADMS. If not, place any back in service that do not have that message and repeat the process. 5. Verify that the ‘EXPRESS LANES CLOSED’ message is on those LSDMS. If not, place any back in service that do not have that message and repeat the process. 6. Notify 595 Express for incident response and to assist with DMS messaging. 7. Log the event into SunGuide for documentation purposes (interagency event). Notate the use of the Toll Amount DMS, and the status of what is posted (Closed). 8. Every 15 minutes verify that all EL DMS are displaying the correct messages. 9. Continue tolling as usual. 	<ol style="list-style-type: none"> 1. Notify 595 Express to release the Road Ranger and open the entrance / ingress. 2. Set all the TADMS associated with the entrance / ingress back to ‘Active’. 3. In the SELS Corridor View, click on the  within the Status Table for Segment I-75-13S and re-submit the mode displayed (current), to update signs that were set ‘Out of Service’. 4. In SunGuide, notate the use of the Toll Amount DMS and the status of what is posted (Tolling). 5. Advise 595 Express to clear the DMS messaging (interagency). 6. Continue tolling as usual.

Location	Direction	Scenario	Comments	Response	Recovery
75 Express Lanes Events – 75 Express SB entrance / ingress from Royal Palm / I-75 mainline.	SB	ENTRANCE / INGRESS FROM ROYAL PALM / I-75 MAINLINE TO SEGMENT I-75-13S BLOCKED	<p>If supporting a primary EL event and the reversible ramp from 595 Express WB is CLOSED, then the segment should be closed in SELS and post the IM DMS through the segment that the ingress is supporting.</p> <p>Utilize GU DMS SB 15.8 and post “75 EXPRESS LANES / CLOSED / DO NOT ENTER”</p> <p>Refer to DMS messaging plan.</p>	<p>Regardless of event type:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. Manually post ‘CLOSED’ on the TADMS associated with the entrance / ingress to I-75 Express SB Segment I-75-13S, using group filter ‘75X SB 02 Before Royal Palm’. 3. Manually post ‘EXPRESS LANES CLOSED’ on the LSDMS associated with the entrance / ingress to I-75 Express SB Segment I-75-13S, using group filter ‘75X SB 02 Before Royal Palm’. 4. Set the TADMS and LSDMS to ‘Out of Service’. 5. Verify that the ‘CLOSED’ message is on the TADMS. If not, place any back in service that do not have that message and repeat the process. 6. Verify that the ‘EXPRESS LANES CLOSED’ message is on those LSDMS. If not, place any back in service that do not have that message and repeat the process. 7. Generate a response plan to notify motorists of the lane blockage. <p>If both points of ingress to the segment are closed, then:</p> <ol style="list-style-type: none"> 1. In SELS Corridor View, click on the  within the Status Table for the Segment: <ul style="list-style-type: none"> o Choose Closed mode for Segment I-75-13S. o Select the associated SunGuide event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (default in SELS). 2. Post messaging using SunGuide predefined plan “75 EXPRESS SB SEGMENT 13S”. 3. Every 15 minutes verify that all EL DMS are displaying the correct messages. 	<ol style="list-style-type: none"> 1. Release the Road Ranger and open the entrance / ingress. 2. Set all the TADMS and LSDMS associated with the entrance / ingress back to ‘Active’. 3. In the SELS Corridor View, click on the  within the Status Table for Segment I-75-13S and re-submit the mode displayed (current), to update signs that were set ‘Out of Service’. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling as usual.


Location	Direction	Scenario	Comments	Response	Recovery
75 Express Lanes Events – 75 Express SB before exit / egress to Sheridan St. Segment I-75-13S.	SB	ABANDONED VEHICLE, DEBRIS, DISABLED VEHICLE, OTHER, OR PEDESTRIAN EVENT OCCURS IN TWO LANE SECTION OF EXPRESS LANES SEGMENT I-75-13S (BEFORE EXIT / EGRESS TO SHERIDAN ST) BLOCKED	<p>Utilize GU DMS SB 15.8 and internal DMS SB 14.0 EL with RPG based message, based upon location of incident.</p> <p>Once 60 minutes has elapsed, update the GU DMS SB 15.8 with “75 EXPRESS LANES / CLOSED / DO NOT ENTER”</p> <p>Refer to DMS messaging plan.</p>	<p>If the event type is Abandoned Vehicle, Debris, Disabled Vehicle, Other, or Pedestrian:</p> <p>If the event is blocking all lanes, regardless of the event type follow the procedure that is shown on next page for Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding.</p> <p>If the event is not blocking all lanes and is expected to be cleared within 60 minutes:</p> <ol style="list-style-type: none"> 1. Dispatch responders to assist with the event. 2. Normal tolling continues for the next 60 minutes. 3. Generate a response plan to notify motorists of the lane blockage. <p>Once the event exceeds 60 minutes, or if expected to exceed 60 minutes, or if all lanes are blocked:</p> <ol style="list-style-type: none"> 4. In SELS Corridor View, click on the  within the Status Table for the Segment: <ul style="list-style-type: none"> o Choose Closed mode for Segment I-75-13S. o Select the associated SunGuide event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (default in SELS). 5. Post messaging using SunGuide predefined plan “75 EXPRESS SB SEGMENT 13S”. 6. Request 595 Express to implement a hard closure at the entrance / ingress to Segment I-75-13S from 595 Express WB (if reversible ramp is open). 7. Dispatch incident responders to implement a hard closure at the ingress / entrance to Segment I-75-13S Segment at Royal Palm (from I-75 / I595 / SR-869 mainline). 	<ol style="list-style-type: none"> 1. Notify 595 Express to release the Road Rangers to open the segment entrance / ingress. 2. Release the responders and open the segment entrance / ingress from I-75 / I595 / SR-869 mainline. 3. Verify that all the TADMS and LSDMS are active. 4. In the SELS Corridor View, click on the  within the Status Table for both Segment I-75-13S: <ul style="list-style-type: none"> o Choose desired mode (current). o If the Closed mode was not originally associated with a SunGuide event, select an even. An event must be selected before leaving ‘Closed’ mode. 5. In SunGuide, terminate the response plan that was used for this closure. 6. In SunGuide, notate the use of the Toll Amount DMS and the status of what is posted (Tolling). 7. Continue tolling as usual.



Location	Direction	Scenario	Comments	Response	Recovery
<p>75 Express Lanes Events – 75 Express SB before exit / egress to Sheridan St. Segment I-75-13S.</p>	<p>SB</p>	<p>CRASH, EMERGENCY VEHICLES, ROAD WORK EMERAGENCY, POLICE ACTIVITY, OR FLOODING OCCURS IN TWO LANE SECTION OF EXPRESS LANES SEGMENT I-75-13S (BEFORE EXIT / EGRESS TO SHERIDAN ST) BLOCKED</p>	<p>Utilize GU DMS SB 15.8 with “75 EXPRESS LANES / CLOSED / DO NOT ENTER” and on EL DMS SB 14.0 use RPG generated message based upon location of incident.</p> <p>Refer to DMS messaging plan.</p>	<p>If the event type is Crash, Emergency Vehicles, Road Work Emergency, Police Activity or *Flooding, then:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. In SELS Corridor View, click on the  within the Status Table for the Segment: 3. Choose Closed mode for Segment I-75-13S. 4. Select the associated SunGuide event. If the event is not available at the time of the override, select a Dummy event. 5. Ensure that the effective time is set at 10 minutes before the event reported time (default in SELS). 6. Generate a response plan to notify motorists of the lane blockage using messaging for a SOFT closure. <p>*For Flooding – Internal DMS to use soft messaging until responder arrives on scene. Messaging example: “FLOODING/REFERENCE POINT/LEFT LANE”</p>	<ol style="list-style-type: none"> 1. Notify 595 Express to release the Road Rangers to open the segment entrance / ingress. 2. Release the responders and open the segment entrance / ingress. 3. Verify that all the TADMS and LSDMS are active. 4. In the SELS Corridor View, click on the  within the Status Table for both Segment I-75-13S: <ul style="list-style-type: none"> o Choose desired mode (current). o If the Closed mode was not originally associated with a SunGuide event, select an even. An event must be selected before leaving ‘Closed’ mode. 5. In SunGuide, terminate the response plan that was used for this closure. 6. In SunGuide, notate the use of the Toll Amount DMS and the status of what is posted (Tolling). 7. Continue tolling as usual.

			<p>Refer to DMS messaging plan.</p>	<p>Once responder is on scene, the internal DMS will be updated via RPG to reflect the blockage (ex. LEFT LANE BLOCKED/ REFERENCE POINT)</p> <p>Once the event exceeds 60 minutes (or if expected to exceed 60 minutes from the time of activation):</p> <ol style="list-style-type: none"> 1. Post messaging using SunGuide predefined plan “75 EXPRESS SEGMENT 13S” 2. Request 595 Express to implement a hard closure at the ingress / entrance to Segment I-75-13S from 595 Express WB (if reversible ramp is open). 3. Dispatch incident responders to implement a hard closure at the ingress / entrance to Segment I-75-13S at Royal Palm (from I-75 / I595 / SR-869 mainline). 	
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Location	Direction	Scenario	Comments	Response	Recovery
<p>75 Express Lanes Events – 75 Express SB exit / egress to Sheridan St (at Griffin Rd). Segment I-75-13S.</p>	<p>SB</p>	<p>EXIT / EGRESS TO SHERIDAN ST / I-75 MAINLINE SEGMENT I-75-13S BLOCKED</p>	<p>For this scenario, as the Trip destinations are to Turnpike and NW 138th Street and the EL mainline is unaffected, to improve throughput we are to CLOSE segment 13N, manually change the LSDMS to reflect OPEN, and manually change the trip tolls to Turnpike (TR-2) and NW 138th Street (TR-3) from CLOSED to the TOD time, and place ‘Out of Service’. <i>*Once we toll dynamically, the price will have to be adjusted based upon change in dynamic pricing.</i></p> <p><i>Refer to DMS messaging plan.</i></p>	<p>Regardless of event type:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. In SELS Corridor View, click on the  within the Status Table for Segment: <ul style="list-style-type: none"> o Choose Closed mode for Segment I-75-13S. o Select the associated SunGuide event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (default in SELS). 3. Post messages using SunGuide predefined plan “75 EXPRESS SB SEGMENT 13 (EGRESS)”. <p>Once the event exceeds 60 minutes (or if expected to exceed 60 minutes from the time of activation):</p> <ol style="list-style-type: none"> 1. Request 595 Express to implement a hard closure at the ingress / entrance to Segment I-75-13S from 595 Express WB (if reversible ramp is open). 2. Dispatch incident responders to implement a hard closure at the ingress / entrance to Segment I-75-13S at Royal Palm (from I-75 / I595 / SR-869 mainline). 	<ol style="list-style-type: none"> 1. Notify 595 Express to release the Road Rangers to open the segment entrance / ingress. 2. Release the responder and open the segment entrance / ingress. 3. Verify that all the TADMS and LSDMS are active. 4. In SELS Corridor View, click on the  within the Status Table for both Segment I-75-13S: <ul style="list-style-type: none"> o Select desired mode (current). o If the Closed mode was not originally associated with a SunGuide event, select an event. An event must be selected before leaving Closed mode. 5. In SunGuide, terminate the response plan that was used for this closure. 6. Continue tolling as usual.

Location	Direction	Scenario	Comments	Response	Recovery
75 Express Lanes Events – 75 Express SB beyond exit / egress to Sheridan St.	SB	EVENT OCCURS IN TWO LANE SECTION OF EXPRESS LANES SEGMENT (BEYOND EXIT / EGRESS TO SHERIDAN ST) BLOCKED	<p>Motorists can use the exit / egress to Sheridan St mainline and re-enter at entrance / ingress from Griffin Rd mainline (no toll gantry between exit / egress and entrance / ingress)</p> <p>Use the internal DMS SB 14.0 EL to post “TRAFFIC MUST EXIT / TO / SHERIDAN ST”</p> <p>Refer to DMS messaging plan.</p>	<p>Regardless of event type:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. Send an incident responder to implement a hard closure at the exit / egress at Griffin Rd (to Sheridan St) and force motorists to mainline. 3. Manually post ‘CLOSED’ on the Toll Amount and Lane Status DMS associated with 75 Express SB Segment I-75-9S and 13S, using group filter ‘75X SB 05 bey Griffin egress’. 4. Set the TADMS to ‘Out of Service’. 5. Verify that the ‘CLOSED’ message is on the TADMS. If not, place any back in service that do not have that message and repeat the process. 6. Generate a response plan to notify motorists of the lane blockage. 7. Every 15 minutes verify that all EL DMS are displaying the correct messages. 8. Continue tolling as usual. 	<ol style="list-style-type: none"> 1. Release the responder open the exit / egress at Griffin Rd (to Sheridan St). 2. Verify that all the TADMS are active. 3. In SELS Corridor View, click on the M within the Status Table for both Segment I-75-9S and 13S: <ul style="list-style-type: none"> o Select desired mode (current). o If the Closed mode was not originally associated with a SunGuide event, select an event. An event must be selected before leaving Closed mode. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling as usual.


Location	Direction	Scenario	Comments	Response	Recovery
<p>75 Express Lanes Events – 75 Express SB entrance / ingress from Griffin Rd mainline (at Sheridan St). Segment I-75-9S.</p>	<p>SB</p>	<p>ENTRANCE / INGRESS FROM GRIFFIN RD / I-75 MAINLINE TO SEGMENT I-75-9S BLOCKED</p>	<p>If supporting a primary EL event, then the segment should be closed in SELS (9S) and post the IM DMS through the segment that the ingress is supporting.</p> <p>On closest Incident Management DMS to entrance / ingress, from the message library post “75 EXPRESS LANES / CLOSED / DO NOT ENTER”</p> <p>Refer to DMS messaging plan.</p>	<p>Regardless of event type:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. Manually post ‘CLOSED’ on the TADMS associated with the entrance / ingress to I-75 Express SB Segment I-75-9S, using group filter ‘75X SB 06 Ingress at Sheridan St’. 3. Manually post ‘EXPRESS LANES CLOSED’ on the LSDMS associated with the entrance / ingress to I-75 Express SB Segment I-75-9S, using group filter ‘75X SB 06 Ingress at Sheridan St’. 4. Set the TADMS and LSDMS to ‘Out of Service’. 5. Verify that the ‘CLOSED’ message is on the TADMS. If not, place any back in service that do not have that message and repeat the process. 6. Verify that the ‘EXPRESS LANES CLOSED’ message is on the LSDMS. If not, place any back in service that do not have that message and repeat the process. 7. Generate a response plan to notify motorists of the lane blockage. 8. Every 15 minutes verify that all EL DMS are displaying the correct messages. 9. Continue tolling as usual. 	<ol style="list-style-type: none"> 1. Release the Road Ranger and open the entrance / ingress. 2. Set all the TADMS and LSDMS associated with the entrance / ingress back to ‘Active’. 3. In the SELS Corridor View, click on the  within the Status Table for Segment I-75-9S and re-submit the mode displayed (current), to update signs that were set ‘Out of Service’. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling as usual.



Location	Direction	Scenario	Comments	Response	Recovery
75 Express Lanes Events – 75 Express SB beyond entrance / ingress from Griffin Rd mainline. Segment I-75-9S.	SB	ABANDONED VEHICLE, DEBRIS, DISABLED VEHICLE, OTHER, OR PEDESTRIAN EVENT OCCURS IN TWO LANE SECTION OF EXPRESS LANES SEGMENT I-75-9S (BEYOND ENTRANCE / INGRESS FROM GRIFFIN RD) BLOCKED	Utilize GU DMS SB 12.0 and internal DMS SB 14.0 EL with RPG generated message based upon location of incident. Refer to DMS messaging plan.	<p>If the event type is Abandoned Vehicle, Debris, Disabled Vehicle, Other, or Pedestrian:</p> <p>If the event is blocking all lanes, regardless of the event type follow the procedure that is shown on next page for Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding.</p> <p>If the event is not blocking all lanes and is expected to be cleared within 60 minutes:</p> <ol style="list-style-type: none"> 1. Dispatch responders to assist with the event. 2. Normal tolling continues for the next 60 minutes. 3. Generate a response plan to notify motorists of the lane blockage. <p>Once the event exceeds 60 minutes, or if expected to exceed 60 minutes, or if all lanes are blocked:</p> <ol style="list-style-type: none"> 1. In SELS Corridor View, click on the  within the Status Table for the Segment: <ul style="list-style-type: none"> o Choose Closed mode for Segment I-75-9S. o Select the associated SunGuide event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes 	<ol style="list-style-type: none"> 1. Release the responder and open at the exit / egress to Sheridan St. (at Griffin Rd) 2. Release the responder and open the segment entrance / ingress (at Sheridan St). 3. Verify that all the TADMS and LSDMS are active. 4. In the SELS Corridor View, click on the  within the Status Table for Segment I-75-9S: <ul style="list-style-type: none"> o Choose desired mode (current). o If the Closed mode was not originally associated with a SunGuide event, select an even. An event must be selected before leaving 'Closed' mode. 5. In SunGuide, terminate the response plan that was used for this closure. 6. In SunGuide, notate the use of the Toll Amount DMS and the status of what is posted (Tolling). 7. Continue tolling as usual.

			<p>Once 60 minutes has elapsed, update the GU DMS SB 12.0 with “75 EXPRESS LANES / CLOSED / DO NOT ENTER”</p> <p>Refer to DMS messaging plan.</p>	<p>before the event reported time (default in SELS).</p> <ol style="list-style-type: none"> 2. Post messages using SunGuide predefined plan “75 EXPRESS SB SEGMENT 9S”. 3. Dispatch incident responders to implement a hard closure at the exit / egress at Griffin Rd (to Sheridan St) and force motorists to mainline. 4. Dispatch incident responders to implement a hard closure at the ingress / entrance to Segment I-75-9S at Sheridan St (from I-75 Griffin mainline). 	
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Location	Direction	Scenario	Comments	Response	Recovery
75 Express Lanes Events – 75 Express SB beyond entrance / ingress from Griffin Rd mainline. Segment I-75-9S.	SB	CRASH, EMERGENCY VEHICLES, ROAD WORK, POLICE ACTIVITY, OR FLOODING EVENT OCCURS IN TWO LANE SECTION OF EXPRESS LANES SEGMENT I-75-9S (BEYOND ENTRANCE / INGRESS FROM GRIFFIN RD) BLOCKED	<p>Utilize GU DMS SB 12.0 with “75 EXPRESS LANES / CLOSED / DO NOT ENTER” and on EL DMS SB 14.0 use RPG generated message based upon location of incident.</p> <p>Refer to DMS messaging plan.</p>	<p>If the event type is Crash, Emergency Vehicles, Road Work Emergency, Police Activity or *Flooding, then:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. In SELS Corridor View, click on the  within the Status Table for the Segment: <ul style="list-style-type: none"> o Choose Closed mode for Segment I-75-9S. o Select the associated SunGuide event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (default in SELS). 3. Generate a response plan to notify motorists of the lane blockage using messaging for a SOFT closure. <p>*For Flooding – Internal DMS to use soft messaging until responder arrives on scene. Messaging example: “FLOODING/REFERENCE POINT/LEFT LANE”</p> <p>Once responder is on scene, the internal DMS will be updated via RPG to reflect the blockage (ex. LEFT LANE BLOCKED/ REFERENCE POINT)</p>	<ol style="list-style-type: none"> 1. Release the responder and open at the exit / egress to Sheridan St. (at Griffin Rd) 2. Release the responder and open the segment entrance / ingress (at Sheridan St). 3. Verify that all the TADMS and LSDMS are active. 4. In the SELS Corridor View, click on the  within the Status Table for Segment I-75-9S: <ul style="list-style-type: none"> o Choose desired mode (current). o If the Closed mode was not originally associated with a SunGuide event, select an even. An event must be selected before leaving ‘Closed’ mode. 5. In SunGuide, terminate the response plan that was used for this closure. 6. In SunGuide, notate the use of the Toll Amount DMS and the status of what is posted (Tolling). 7. Continue tolling as usual.

			<p>Refer to DMS messaging plan.</p>	<p>Once the event exceeds 60 minutes (or if expected to exceed 60 minutes from the time of activation):</p> <ol style="list-style-type: none"> 1. Post messages using SunGuide predefined plan “75 EXPRESS SB SEGMENT 9S”. 2. Dispatch incident responders to implement a hard closure at the exit / egress at Griffin Rd (to Sheridan St) and force motorists to mainline. 3. Dispatch incident responders to implement a hard closure at the ingress / entrance to Segment I-75-9S at Sheridan St (from I-75 Griffin mainline). 	
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Location	Direction	Scenario	Comments	Response	Recovery
<p>75 Express Lanes Events – 75 Express SB entrance / ingress from Pines Blvd mainline (at Miramar Pkwy). Segment I-75-6S.</p>	<p>SB</p>	<p>ENTRANCE / INGRESS FROM PINES BLVD / I-75 MAINLINE TO SEGMENT I-75-6S BLOCKED</p>	<p>If supporting a primary EL event, then the segment should be closed in SELS (6S) and post the IM DMS through the segment that the ingress is supporting.</p> <p>On the closest Incident Management DMS to entrance / ingress, from the message library post “75 EXPRESS LANES / CLOSED / DO NOT ENTER”</p> <p>Refer to DMS messaging plan.</p>	<p>Regardless of event type:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. Manually post ‘CLOSED’ on the TADMS associated with the entrance / ingress to I-75 Express SB Segment I-75-6S, using group filter ‘75X SB 08 Ingress North of Miramar’. 3. Manually post ‘EXPRESS LANES CLOSED’ on the LSDMS associated with the entrance / ingress to I-75 Express SB Segment I-75-6S, using group filter ‘75X SB 08 Ingress North of Miramar’. 4. Set the TADMS and LSDMS to ‘Out of Service’. 5. Verify that the ‘CLOSED’ message is on the TADMS. If not, place any back in service that do not have that message and repeat the process. 6. Verify that the ‘EXPRESS LANES CLOSED’ message is on the LSDMS. If not, place any back in service that do not have that message and repeat the process. 7. Generate a response plan to notify motorists of the lane blockage. 8. Every 15 minutes verify that all EL DMS are displaying the correct messages. 9. Continue tolling as usual. 	<ol style="list-style-type: none"> 1. Release the responder and open the entrance / ingress. 2. Set all the TADMS and LSDMS associated with the entrance / ingress back to ‘Active’. 3. In the SELS Corridor View, click on the  within the Status Table for Segment I-75-6S and re-submit the mode displayed (current), to update signs that were set ‘Out of Service’. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling as usual.

Location	Direction	Scenario	Comments	Response	Recovery
<p>75 Express Lanes Events – 75 Express SB before exit / egress to Florida’s Turnpike (NB and SB). Segment I-75-6S.</p>	<p>SB</p>	<p>ABANDONED VEHICLE, DEBRIS, DISABLED VEHICLE, OTHER, OR PEDESTRIAN EVENT OCCURS IN TWO LANE SECTION OF EXPRESS LANES SEGMENT I-75-6S (BEFORE EXIT / EGRESS TO FLORIDAS TURNPIKE NB AND SB) BLOCKED</p>	<p>South of the County line - This is a District Six Incident Management response area.</p> <p>North of the County Line – This is a District Four Incident Management response area.</p> <p>Utilize GU DMS SB 8.9 and SB 12.0, internal DMS 14.0 EL with RPG and add SB 7.2 EL based upon location of incident.</p> <p>Refer to DMS messaging plan.</p> <p>SELS will prompt the closure of 9SN when 6S is closed.</p>	<p>If the event type is Abandoned Vehicle, Debris, Disabled Vehicle, Other, or Pedestrian:</p> <p>If the event is blocking all lanes, regardless of the event type follow the procedure that is shown on next page for Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding.</p> <p>If the event is not blocking all lanes and is expected to be cleared within 60 minutes:</p> <ol style="list-style-type: none"> 1. Dispatch responders to assist with the event. 2. Normal tolling continues for the next 60 minutes. 3. Generate a response plan to notify motorists of the lane blockage. <p>Once the event exceeds 60 minutes, or if expected to exceed 60 minutes, or if all lanes are blocked:</p> <ol style="list-style-type: none"> 1. In SELS Corridor View, click on the  within the Status Table for the Segment: <ul style="list-style-type: none"> o Choose Closed mode for Segment I-75-6S and I-75-9S. o Select the associated SunGuide event. If the event is not available at 	<ol style="list-style-type: none"> 1. Release the responder to open at the egress / exit at Griffin Rd (to Sheridan St). 2. Release the responders and open the segment entrance / ingress at Sheridan St (from Griffin Rd). 3. Release the responders and open the segment entrance / ingress at Miramar Pkwy (from Pines Blvd). 4. Verify that all the TADMS and LSDMS are active. 5. In the SELS Corridor View, click on the  within the Status Table for Segment I-75-6S and I-75-9S: <ul style="list-style-type: none"> o Choose desired mode (current). o If the Closed mode was not originally associated with a SunGuide event, select an even. An event must be selected before leaving ‘Closed’ mode. 6. In SunGuide, terminate the response plan that was used for this closure. 7. In SunGuide, notate the use of the Toll Amount DMS and the status of what is posted (Tolling). 8. Continue tolling as usual.



			<p>Utilize GU DMS SB 8.9 and internal DMS 14.0 EL with RPG and add SB 7.2 EL based upon location of incident.</p> <p>Refer to DMS messaging plan.</p>	<p>the time of the override, select a Dummy event.</p> <ul style="list-style-type: none"> ○ Ensure that the effective time is set at 10 minutes before the event reported time (default in SELS). <ol style="list-style-type: none"> 2. Post messages using SunGuide predefined plan “75 EXPRESS SB SEGMENT 6S (BEFORE FL TURNPIKE)”. 3. Dispatch incident responders to implement a hard closure at the ingress / entrance to Segment I-75-6S at Miramar Pkwy (from Pines Blvd / I-75 mainline). 4. Dispatch incident responders to implement a hard closure at the ingress / entrance to Segment I-75-6S at Sheridan St (from Griffin Rd / I-75 mainline). 5. Dispatch incident responders to implement a hard closure at the egress / exit at Griffin Rd (to Sheridan St) and force motorists to mainline. 	
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Location	Direction	Scenario	Comments	Response	Recovery
<p>75 Express Lanes Events – 75 Express SB before exit / egress to Florida’s Turnpike (NB and SB). Segment I-75-6S.</p>	<p>SB</p>	<p>CRASH, EMERGENCY VEHICLES, ROAD WORK EMERGENCY, POLICE ACTIVITY, OR FLOODING EVENT OCCURS IN TWO LANE SECTION OF EXPRESS LANES SEGMENT I-75-6S (BEFORE EXIT / EGRESS TO FLORIDAS TURNPIKE NB AND SB) BLOCKED</p>	<p>South of the County line - This is a District Six Incident Management response area.</p> <p>North of the County Line – This is a District Four Incident Management response area.</p> <p>SELS will prompt the closure of 9S when 6S is closed.</p> <p>Manually add internal DMS 7.2 EL with RPG based message based upon location of incident.</p> <p>Refer to DMS messaging plan.</p>	<p>If the event type is Crash, Emergency Vehicles, Road Work Emergency, Police Activity or *Flooding, then:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. In SELS Corridor View, click on the  within the Status Table for the Segment: <ul style="list-style-type: none"> o Choose Closed mode for Segment I-75-6S and I-75-9S. o Select the associated SunGuide event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (default in SELS). 3. Generate a response plan to notify motorists of the lane blockage using messaging for a SOFT closure. <p>*For Flooding – Internal DMS to use soft messaging until responder arrives on scene. Messaging example: “FLOODING/REFERENCE POINT/LEFT LANE”</p>	<ol style="list-style-type: none"> 1. Release the responder to open at the egress / exit at Griffin Rd (to Sheridan St). 2. Release the responders and open the segment entrance / ingress at Sheridan St (from Griffin Rd). 3. Release the responders and open the segment entrance / ingress at Miramar Pkwy (from Pines Blvd). 4. Verify that all the TADMS and LSDMS are active. 5. In the SELS Corridor View, click on the  within the Status Table for Segment I-75-6S and I-75-9S: <ul style="list-style-type: none"> o Choose desired mode (current). o If the Closed mode was not originally associated with a SunGuide event, select an even. An event must be selected before leaving ‘Closed’ mode. 6. In SunGuide, terminate the response plan that was used for this closure. 7. In SunGuide, notate the use of the Toll Amount DMS and the status of what is posted (Tolling). 8. Continue tolling as usual.



			<p>Refer to DMS messaging plan.</p>	<p>Once responder is on scene, the internal DMS will be updated via RPG to reflect the blockage (ex. LEFT LANE BLOCKED/ REFERENCE POINT)</p> <p>Once the event exceeds 60 minutes (or if expected to exceed 60 minutes from the time of activation):</p> <ol style="list-style-type: none"> 4. Post messages using SunGuide predefined plan “75 EXPRESS SB SEGMENT 6S (BEFORE FL TURNPIKE)”. 5. Dispatch incident responders to implement a hard closure at the ingress / entrance to Segment I-75-6S at Miramar Pkwy (from Pines Blvd / I-75 mainline). 6. Dispatch incident responders to implement a hard closure at the ingress / entrance to Segment I-75-6S at Sheridan St (from Griffin Rd / I-75 mainline). 7. Dispatch incident responders to implement a hard closure at the egress / exit at Griffin Rd (to Sheridan St) and force motorists to mainline. 	
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Location	Direction	Scenario	Comments	Response	Recovery
<p>75 Express Lanes Events – 75 Express SB exit / egress to Florida’s Turnpike Northbound. Segment I-75-6S.</p>	<p>SB</p>	<p>SINGLE LANE EXIT / EGRESS TO FLORIDAS TURNPIKE NORTHBOUND</p>	<p>This is a District Six Incident Management response area.</p> <p>SELS will prompt the closure of 9S when 6S is closed.</p> <p>For this scenario, as the Trip destination is to Florida’s Turnpike, and there are two exits (NB and SB), we are to CLOSE segments 6S and 9S, manually change the LSDMS to reflect OPEN, and manually change the trip tolls to NW 138th St from CLOSED to the TOD time. <i>*Once we toll dynamically, the price will have to be adjusted based upon change in dynamic pricing.</i></p> <p><i>Refer to DMS messaging plan.</i></p> <p>District Six have two internal Toll Amount signs for segment and trip tolls to NW 74th St, NW 25th St / Dolphin Expwy, and SW 24th St. Notify District Six if incident or off-ramp back up affects mainline to NW 138th St.</p>	<p>Regardless of event type:</p> <ol style="list-style-type: none"> 1. Dispatch responders to assist with the event. 2. Dispatch responders to the exit / egress to Florida’s Turnpike NB (single lane). 3. In SELS Corridor View, click on the  within the Status Table for the Segment: <ul style="list-style-type: none"> o Choose Closed mode for Segment I-75-6S and I-75-9S. o Select the associated SunGuide event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (default in SELS). 4. Post messages using SunGuide predefined plan “75 EXPRESS SB SEGMENT 6S (RAMP TO NB)”. 5. On the LSDMS associated with segments 6S and 9S, manually post the ‘EXPRESS LANES OPEN’ message using group filter ‘75X SB 10 Egress to HEFT NB’. 6. Set the LSDMS that were manually changed to ‘Out of service’. 7. On the trip toll DMS to NW 138th St, post the current toll for that trip using group filter ‘75X SB 10 Egress to HEFT NB’ 8. Set the trip TADMS to ‘Out of Service’. 9. Every 15 minutes verify that all EL DMS are displaying the correct messages. 	<ol style="list-style-type: none"> 1. Release the responder to open the exit / egress to Florida’s Turnpike NB. 2. Set all LSDMS and TADMS back to ‘Active’. 3. In the SELS Corridor View, click on the  within the Status Table for Segment I-75-6S and I-75-9S: <ul style="list-style-type: none"> o Choose desired mode (current). 2. In SunGuide, terminate the response plan that was used for this closure. 3. In SunGuide, notate the use of the Toll Amount DMS and the status of what is posted (Tolling). 4. Continue tolling as usual.




Location	Direction	Scenario	Comments	Response	Recovery
<p>75 Express Lanes Events – 75 Express SB exit / egress to Florida’s Turnpike Southbound. Segment I-75-6S.</p>	<p>SB</p>	<p>SINGLE LANE EXIT / EGRESS TO FLORIDAS TURNPIKE SOUTHBOUND</p>	<p>This is a District Six Incident Management response area.</p> <p>Refer to DMS messaging plan.</p> <p>District Six have two internal Toll Amount signs for segment and trip tolls to NW 74th St, NW 25th St / Dolphin Expwy, and SW 24th St. Notify District Six if incident or off-ramp back up affects mainline to NW 138th St.</p>	<p>Regardless of event type:</p> <ol style="list-style-type: none"> 1. Notify District Six for incident response to assist with the event. 2. Notify District Six to dispatch responders to the exit / egress to Florida’s Turnpike SB (single lane). 3. Post messages using SunGuide predefined plan “75 EXPRESS SB SEGMENT 6S (RAMP TO SB)”. 4. Continue tolling as usual. 	<ol style="list-style-type: none"> 1. Notify District Six to release the responder to open the exit / egress to Florida’s Turnpike SB. 2. In SunGuide, terminate the active response plan that was used for the event. 3. Continue tolling as usual.

Location	Direction	Scenario	Comments	Response	Recovery
SB HEFT Interagency Event. Segment I-75-6S.	SB	SB HEFT INTERAGENCY FULL CLOSURE (NO ACCESS FROM NB OR SB RAMP)	<p>This is a District Six Incident Management response area (NB and SB – Only SB GU exit ramp is District Four).</p> <p>SELS will prompt the closure of 4N when 6N is closed.</p> <p>For this scenario, as the Trip destination is to Florida’s Turnpike, and there are two exits (NB and SB), we are to CLOSE segments 6S and 9S, manually change the LSDMS to reflect OPEN, and manually change the trip tolls to NW 138th St from CLOSED to the TOD time. *Once we toll dynamically, the price will have to be adjusted based upon change in dynamic pricing.</p> <p>The exit ramp to HEFT NB merges with the GP exit ramp from I-75 SB mainline (which permits motorists to go to HEFT NB or SB)</p> <p>Refer to DMS messaging plan.</p>	<p>Regardless of event type:</p> <ol style="list-style-type: none"> 1. Notify District Six to provide asset maintenance for long term MOT at the 75 Express SB egress to Florida’s Turnpike SB. 2. Notify District Six to provide asset maintenance for long term MOT on the GP exit ramp to HEFT SB (even if the mainline exit ramp is closed – you can still by-pass the closure if entering from 75 Express). 3. In SELS Corridor View, click on the  within the Status Table for the Segment: <ul style="list-style-type: none"> o Choose Closed mode for Segment I-75-6S and I-75-9S. o Select the associated SunGuide event. If the event is not available (interagency event must be active) at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (default in SELS). 4. Post messages using SunGuide predefined plan “75 EXPRESS SB SEGMENT 6S (SB HEFT INTERAGENCY – FULL CLOSURE)”. 5. On the LSDMS associated with segments 6S and 9S, manually post the ‘EXPRESS LANES OPEN’ message using group filter ‘75X SB 10 Egress to HEFT NB’. 	<ol style="list-style-type: none"> 1. Notify District Six to release the asset maintenance contractor (determined by FTE as it is their primary event). 2. Set all LSDMS and TADMS back to ‘Active’. 3. In the SELS Corridor View, click on the  within the Status Table for Segment I-75-6S and I-75-9S: <ul style="list-style-type: none"> o Choose desired mode (current). 4. In SunGuide, terminate the response plan that was used for this closure. 5. In SunGuide, notate the use of the Toll Amount DMS and the status of what is posted (Tolling). 6. Continue tolling as usual.




			<p>D6 have two internal Toll Amount signs for segment and trip tolls to NW 74th St, NW 25th St / Dolphin Expwy, and SW 24th St. Notify District Six if incident or off-ramp back up affects mainline to NW 138th St.</p>	<ol style="list-style-type: none"> 6. Set the LSDMS that were manually changed to 'Out of service'. 7. On the trip toll DMS to NW 138th St, post the current toll for that trip using group filter '75X SB 10 Egress to HEFT NB'. 8. Set the trip TADMS to 'Out of Service'. 9. Every 15 minutes verify that all EL DMS are displaying the correct messages. 	
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Location	Direction	Scenario	Comments	Response	Recovery
<p>75 Express Lanes Events – 75 Express SB between HEFT SB and exit / egress to NW 138 St. Segment I-75-4S.</p>	<p>SB</p>	<p>ABANDONED VEHICLE, DEBRIS, DISABLED VEHICLE, OTHER, OR PEDESTRIAN EVENT OCCURS IN TWO LANE SECTION OF EXPRESS LANES SEGMENT I-75-4S (BETWEEN HEFT SB AND EXIT / EGRESS TO NW 138 STREET) BLOCKED</p>	<p>This is a District Six Incident Management response area.</p> <p>District Six have two internal Toll Amount signs for segment and trip tolls to NW 74th St, NW 25th St / Dolphin Expwy, and SW 24th St. Notify District Six if incident or off-ramp back up affects mainline to NW 138th St.</p> <p>Manually add internal DMS 7.2 EL with RPG based message based upon location of incident.</p> <p>Refer to DMS messaging plan.</p> <p>Manually add internal DMS 7.2 EL with RPG based message based upon location of incident.</p> <p>Refer to DMS messaging plan.</p>	<p>If the event type is Abandoned Vehicle, Debris, Disabled Vehicle, Other, or Pedestrian:</p> <p>If the event is blocking all lanes, regardless of the event type follow the procedure that is shown on next page for Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding.</p> <p>If the event is not blocking all lanes and is expected to be cleared within 60 minutes:</p> <ol style="list-style-type: none"> 1. Notify District Six to dispatch a responder to assist with the event. 2. Normal tolling continues for the next 60 minutes. 3. Generate a response plan to notify motorists of the lane blockage. <p>Once the event exceeds 60 minutes, or if expected to exceed 60 minutes, or if all lanes are blocked:</p> <ol style="list-style-type: none"> 1. In SELS Corridor View, click on the  within the Status Table for the Segment: <ul style="list-style-type: none"> o Choose Closed mode for Segment I-75-4S. o Select the associated SunGuide event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (default in SELS). 2. Post messages using SunGuide predefined plan “75 EXPRESS SB 	<ol style="list-style-type: none"> 1. Release the responder to open at the egress / exit at Griffin Rd (to Sheridan St). 2. Release the responders and open the segment entrance / ingress at Sheridan St (from Griffin Rd). 3. Release the responders and open the segment entrance / ingress at Miramar Pkwy (from Pines Blvd). 4. Verify that all the TADMS and LSDMS are active. 5. In the SELS Corridor View, click on the  within the Status Table for Segment I-75-4S (6S and 9S if additional segments are closed): <ul style="list-style-type: none"> o Choose desired mode (current). o If the Closed mode was not originally associated with a SunGuide

			<p>Motorists cannot be forced onto a tolled facility. Ramps to HEFT NB and SB will be left open so that motorists have an option to exit the enclosed facility.</p> <p>Once all secondary closures are implemented, close the additional segments in SELS (6S and 9S).</p>	<p>SEGMENT 4S (75 EXPRESS MAINLINE)”.</p> <ol style="list-style-type: none"> 3. Dispatch incident responders to implement a hard closure at the ingress / entrance to Segment I-75-6S at Miramar Pkwy (from Pines Blvd / I-75 mainline). 4. Dispatch incident responders to implement a hard closure at the ingress / entrance to Segment I-75-9S at Sheridan St (from Griffin Rd / I-75 mainline). 5. Dispatch incident responders to implement a hard closure at the egress / exit at Griffin Rd (to Sheridan St) and force motorists to mainline. 	<p>event, select an even. An event must be selected before leaving ‘Closed’ mode.</p> <ol style="list-style-type: none"> 6. In SunGuide, terminate the response plan that was used for this closure. 7. In SunGuide, notate the use of the Toll Amount DMS and the status of what is posted (Tolling). 8. Continue tolling as usual.
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Location	Direction	Scenario	Comments	Response	Recovery
75 Express Lanes Events – 75 Express SB between HEFT SB and exit / egress to NW 138 St. Segment I-75-4S.	SB	CRASH, EMERGENCY VEHICLES, ROADWORK EMERGENCY, POLICE ACTIVITY, OR FLOODING EVENT OCCURS IN TWO LANE SECTION OF EXPRESS LANES SEGMENT I-75-4S (BETWEEN HEFT SB AND EXIT / EGRESS TO NW 138 STREET) BLOCKED	<p>This is a District Six Incident Management response area.</p> <p>District Six have two internal Toll Amount signs for segment and trip tolls to NW 74th St, NW 25th St / Dolphin Expwy, and SW 24th St. Notify District Six if incident or off-ramp back up affects mainline to NW 138th St.</p> <p>Manually add internal DMS 7.2 EL with RPG based message based upon location of incident.</p> <p>Refer to DMS messaging plan.</p>	<p>If the event type is Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding, then:</p> <p>9. Notify District Six to dispatch incident responders to assist with the event.</p> <p>10. In SELS Corridor View, click on the  within the Status Table for the Segment:</p> <ul style="list-style-type: none"> o Choose Closed mode for Segment I-75-4S. o Select the associated SunGuide event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (default in SELS). <p>11. Generate a response plan to notify motorists of the lane blockage using messaging for a SOFT closure.</p> <p>Once the event exceeds 60 minutes, or if expected to exceed 60 minutes, or if all lanes are blocked:</p> <p>1. In SELS Corridor View, click on the  within the Status Table for the Segment:</p> <ul style="list-style-type: none"> o Choose Closed mode for Segment I-75-4S. o Select the associated SunGuide event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (default in SELS). <p>2. Post messages using SunGuide predefined plan “75 EXPRESS SB SEGMENT 4S (75 EXPRESS MAINLINE)”.</p>	<p>7. Release the responder to open at the egress / exit at Griffin Rd (to Sheridan St).</p> <p>8. Release the responders and open the segment entrance / ingress at Sheridan St (from Griffin Rd).</p> <p>9. Release the responders and open the segment entrance / ingress at Miramar Pkwy (from Pines Blvd).</p> <p>10. Verify that all the TADMS and LSDMS are active.</p> <p>11. In the SELS Corridor View, click on the  within the Status Table for Segment I-75-4S (6S and 9S if additional segments are closed):</p> <ul style="list-style-type: none"> o Choose desired mode (current). o If the Closed mode was not originally associated with a SunGuide event, select an even. An event must be selected before



			<p>Motorists cannot be forced onto a tolled facility. Ramps to HEFT NB and SB will be left open so that motorists have an option to exit the enclosed facility.</p> <p>Once all secondary closures are implemented, close the additional segments in SELS (6S and 9S).</p>	<ol style="list-style-type: none"> 3. Dispatch incident responders to implement a hard closure at the ingress / entrance to Segment I-75-6S at Miramar Pkwy (from Pines Blvd / I-75 mainline). 4. Dispatch incident responders to implement a hard closure at the ingress / entrance to Segment I-75-9S at Sheridan St (from Griffin Rd / I-75 mainline). 5. Dispatch incident responders to implement a hard closure at the egress / exit at Griffin Rd (to Sheridan St) and force motorists to mainline. 	<p>leaving 'Closed' mode.</p> <ol style="list-style-type: none"> 12. In SunGuide, terminate the response plan that was used for this closure. 13. In SunGuide, notate the use of the Toll Amount DMS and the status of what is posted (Tolling). 14. Continue tolling as usual.
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Location	Direction	Scenario	Comments	Response	Recovery
<p>75 Express Lanes Events – 75 Express SB exit / egress to NW 138 St (at Miami Gardens Drive). Segment I-75-4S.</p>	<p>SB</p>	<p>EXIT / EGRESS TO NW 138 ST / I-75 MAINLINE SEGMENT I-75-4S BLOCKED</p>	<p>This is a District Six Incident Management response area.</p> <p>District Six have two internal Toll Amount signs for segment and trip tolls to NW 74th St, NW 25th St / Dolphin Expwy, and SW 24th St. Notify District Six if incident or off-ramp back up affects mainline to NW 138th St.</p> <p>Refer to DMS messaging plan.</p> <p>For this scenario, as the Trip destination is to NW 138th St and the EL mainline is unaffected to Palmetto Express destinations, to improve throughput we are to CLOSE segment 4S, and manually change the LSDMS to reflect OPEN, and place ‘Out of Service’. *Once we toll dynamically, the price will have to be adjusted based upon change in dynamic pricing.</p> <p>Refer to DMS messaging plan.</p>	<p>Regardless of event type:</p> <ol style="list-style-type: none"> 1. Notify District Six to dispatch incident responders to assist with the event. 2. In SELS Corridor View, click on the  within the Status Table for the Segment: <ul style="list-style-type: none"> ○ Choose Closed mode for Segment I-75-4S. ○ Select the associated SunGuide event. If the event is not available at the time of the override, select a Dummy event. ○ Ensure that the effective time is set at 10 minutes before the event reported time (default in SELS). 3. Post messages using SunGuide predefined plan “75 EXPRESS SB SEGMENT 4S (EGRESS)”. <p>Once the event exceeds 60 minutes (or if expected to exceed 60 minutes from the time of activation):</p> <ol style="list-style-type: none"> 1. In SELS Corridor View, click on the  within the Status Table for the Segment: <ul style="list-style-type: none"> ○ Choose Closed mode for Segment I-75-4S. ○ Select the associated SunGuide event. If the event is not available at the time of the override, select a Dummy event. ○ Ensure that the effective time is set at 10 minutes before the event reported time (default in SELS). 	<ol style="list-style-type: none"> 1. Release the responder to open at the egress / exit at Griffin Rd (to Sheridan St). 2. Release the responders and open the segment entrance / ingress at Sheridan St (from Griffin Rd). 3. Release the responders and open the segment entrance / ingress at Miramar Pkwy (from Pines Blvd). 4. Verify that all the TADMS and LSDMS are active. 5. In the SELS Corridor View, click on the  within the Status Table for Segment I-75-4S (6S and 9S if additional segments are closed): <ul style="list-style-type: none"> ○ Choose desired mode (current). ○ If the Closed mode was not originally associated with a SunGuide event, select an even. An event must be selected before leaving ‘Closed’ mode.

			<p>Motorists cannot be forced onto a tolled facility. Ramps to HEFT NB and SB will be left open so that motorists have an option to exit the enclosed facility.</p> <p>Once all secondary closures are implemented, close the additional segments in SELS (6S and 9S).</p>	<ol style="list-style-type: none"> 2. Post messages using SunGuide predefined plan “75 EXPRESS SB SEGMENT 4S (75 EXPRESS MAINLINE)”. 3. Dispatch incident responders to implement a hard closure at the ingress / entrance to Segment I-75-6S at Miramar Pkwy (from Pines Blvd / I-75 mainline). 4. Dispatch incident responders to implement a hard closure at the ingress / entrance to Segment I-75-9S at Sheridan St (from Griffin Rd / I-75 mainline). 5. Dispatch incident responders to implement a hard closure at the egress / exit at Griffin Rd (to Sheridan St) and force motorists to mainline. 	<ol style="list-style-type: none"> 6. In SunGuide, terminate the response plan that was used for this closure. 7. In SunGuide, notate the use of the Toll Amount DMS and the status of what is posted (Tolling). 8. Continue tolling as usual.
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Location	Direction	Scenario	Comments	Response	Recovery
75 Express Lanes Events – 75 Express SB beyond exit / egress to NW 138 St (at Miami Gardens Drive) – Single lane to Palmetto Express.	SB	SINGLE LANE CLOSED BEYOND EXIT / EGRESS TO NW 138 STREET (INTERAGENCY)	<p>This is a District Six tolling and Incident Management response area.</p> <p>No action required to be taken on the TADMS or LSDMS.</p> <p>Refer to DMS messaging plan.</p>	<p>Regardless of event:</p> <ol style="list-style-type: none"> 1. Notify District Six to dispatch an incident responder to implement a hard closure at the exit / egress to NW 138 St (force motorists to mainline). 2. Post messages using SunGuide predefined plan “75 EXPRESS SB SEGMENT BEYOND 4S”. 3. Continue tolling as usual. 	<ol style="list-style-type: none"> 1. Release the incident responder and open at the exit / egress to NW 138 St. 2. In SunGuide, terminate the response plan that was used for this closure. 3. Continue tolling as usual.

Location	Direction	Scenario	Comments	Response	Recovery
<p>75 Express Lanes Events – 75 Express SB Facility Closure.</p>	<p>SB</p>	<p>FULL SOUTHBOUND FACILITY CLOSURE FOR CONSTRUCTION</p>	<p>Closures should begin North to South so that traffic exits upstream.</p> <p>Interagency events need to be made ACTIVE so that they can be associated in SELS. Once associated, then revert to UNCONFIRMED (comment within chronology).</p> <p>If the ramp from I-75 mainline / I-595 / SR-869 is closed prior to the reversible ramp, then using the group filter 75X SB 02 Before Royal Palm, post CLOSED on the TADMS and EXPRESS LANES CLOSED on the LSDMS and place OOS. Once the reversible ramp is closed, then make active and close Segment 13S in SELS.</p>	<p>If the event type is Road Work Emergency or Road Work Scheduled, then:</p> <ol style="list-style-type: none"> 1. Create an interagency coordination event for the reversible ramp (ingress from I-595 Westbound). <ul style="list-style-type: none"> o Notate the use of the Toll Amount DMS, and the status of what is posted (Closed). o Manually post ‘CLOSED’ on all the TADMS located on 595 Express, associated with the I 75 entrance to 75 Express SB Segment I-75-13S, using group filter ‘75X SB 01 595 W Ramp’. o Manually post ‘EXPRESS LANES CLOSED’ on all the LSDMS located on 595 Express, associated with the I 75 entrance to 75 Express SB Segment I-75-13S, using group filter ‘75X SB 01 595 W Ramp’. o Set the TADMS and LSDMS to ‘Out of Service’. 2. Create an event for the ingress to segment 13S (ingress from I-75 mainline / I-595 / SR-869) <ul style="list-style-type: none"> o In SELS Corridor View, click on the  within the Status Table for the Segment: o Choose Closed mode for Segment I-75-13S. o Select the associated SunGuide event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (default in SELS). o Post messages using SunGuide predefined plan “75 EXPRESS SB SEGMENT 13S”. 	<ol style="list-style-type: none"> 1. Verify that all the TADMS and LSDMS are active. 2. In the SELS Corridor View, click on the  within the Status Table for Segment I-75-4S, 6S, 9S and 13S: <ul style="list-style-type: none"> o Choose desired mode (current). o If the Closed mode was not originally associated with a SunGuide event, select an even. An event must be selected before leaving ‘Closed’ mode. 3. In SunGuide, terminate the response plan that was used for this closure. 4. In SunGuide, notate the use of the Toll Amount DMS and

			<p style="color: red;">Refer to DMS messaging plan.</p> <p style="color: red;">Refer to DMS messaging plan.</p> <p>District Six have an IM DMS located parallel to the SB EL Egress to HEFT NB.</p>	<ol style="list-style-type: none"> 3. Create an event for the ingress to segment 9S (ingress from I-75 mainline / Griffin Rd) <ul style="list-style-type: none"> ○ In SELS Corridor View, click on the  within the Status Table for the Segment: ○ Choose Closed mode for Segment I-75-9S. ○ Select the associated SunGuide event. If the event is not available at the time of the override, select a Dummy event. ○ Ensure that the effective time is set at 10 minutes before the event reported time (default in SELS). ○ Post a message from the SunGuide message library “75 EXPRESS LANES CLOSED DO NOT ENTER” on 75SB012.0. 4. Create an event for the ingress to segment 6S (ingress from I-75 mainline / Pines Blvd.) <ul style="list-style-type: none"> ○ In SELS Corridor View, click on the  within the Status Table for the Segment: ○ Choose Closed mode for Segment I-75-6S. ○ Select the associated SunGuide event. If the event is not available at the time of the override, select a Dummy event. ○ Ensure that the effective time is set at 10 minutes before the event reported time (default in SELS). ○ Post a message from the SunGuide message library “75 EXPRESS LANES CLOSED DO NOT ENTER” on 75SB007.2-EL, and 75SB08.9. 5. Create an interagency coordination event for a location within Segment 4S. <ul style="list-style-type: none"> ○ Notify District Six to utilize their internal IM DMS. 	<p>the status of what is posted (Tolling).</p> <ol style="list-style-type: none"> 5. Advise 595 Express to clear the DMS messaging (interagency). 6. Advise District Six to clear the DMS messaging (interagency). 7. Continue tolling as usual.
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			<p>District Six have two internal Toll Amount signs for segment and trip tolls to NW 74th St, NW 25th St / Dolphin Expwy, and SW 24th St.</p> <p>Refer to DMS messaging plan.</p>	<ul style="list-style-type: none"> ○ In SELS Corridor View, click on the  within the Status Table for the Segment: ○ Choose Closed mode for Segment I-75-4S. ○ Select the associated SunGuide event. If the event is not available at the time of the override, select a Dummy event. ○ Ensure that the effective time is set at 10 minutes before the event reported time (default in SELS). ○ Post a message from the SunGuide message library “75 EXPRESS LANES CLOSED DO NOT ENTER” on 75SB007.2-EL. ○ Notate the use of the Toll Amount DMS, and the status of what is posted (Closed). 	
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CONGESTION MANAGEMENT

The Express Lane Operator shall document both recurring and non-recurring congestion within the any of the Express Lane facilities in accordance with District Four Event Management Procedures. All congestion detected within the Express Lanes shall have “Congestion” events created with a FLATIS message being published to the Interactive Voice Recognition (IVR) system and Statewide 511 website. The Express Lanes Operator shall monitor the SELS Speed Graphs or the corridor map view to identify congestion and verify all congestion via CCTV or Road Ranger/SIRV.


Once the average Traffic Density (TD) for an Express Lanes segment is equal to or greater than 32 (currently configured to TD of 32) and/or the segment is 50% congested, SELS shall automatically request the “CONGESTED” message for the segment Lane Status DMS (LSDMS).


Once congestion has been reduced in the segment (less than 50%) or the TD drops below the configured threshold, then the “EXPRESS LANES OPEN” message will replace the previous ‘CONGESTED’ messaging. The Express Lanes Operator is to verify that the Lane Status DMS are posting the correct message.


MINIMUM SPEED TOLL (DYNAMIC TOLLING)

FLORIDA STATUE 338.166



If a customer’s average travel speed for a trip in an Express Lane falls below 40 miles per hours, the customer must be charged the minimum Express Lane Toll. A customer’s Express Lane average travel speed is his or her average travel speed from the customer’s entry point to the customer’s exit point.


MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
Mode Change From Dynamic Or Time Of Day To Closed, Zero Toll Or Manual Mode		<ol style="list-style-type: none"> 1. In SELS Corridor View, click on the  of the segment that needs to be updated. 2. Select the new mode from the “Mode” dropdown list. <ul style="list-style-type: none"> o CLOSED and Zero Toll modes must be associated with a D4 event. Manual mode must either be associated with an event or a comment must be entered. If the event is not available at the time of the mode change, select a Dummy event from either District. 3. Check the “Approved” checkbox and then select “Submit”. 4. Verify that Lane Status and Toll Amount DMS are posting the correct message. 	

MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
Mode Change From Closed, Zero Toll Or Manual Mode To Dynamic Or Time Of Day Modes		<ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the  for the segment to be updated. 2. Select the new mode from the “Mode” dropdown list. <ul style="list-style-type: none"> o If previous mode was CLOSED, Zero Toll or Manual mode and was not associated with a D4 event, an event from either District must be selected before the mode can be changed. 3. Check the “Approved” checkbox and then select “Submit”. 4. Verify that Lane Status and Toll Amount DMS are posting the correct message. 	

MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
Recover From Express Lanes Closed.		<ol style="list-style-type: none"> 1. Verify that the TADMS and/or LSDMS are active. 2. In the SELS Corridor View, click on the  for the Segment within the Status Table <ul style="list-style-type: none"> o Choose desired mode o If the Closed mode was not originally associated with a D4 event, select an event from either district. An event must be selected before leaving Closed mode. o Verify that Lane Status and Toll Amount DMS are posting the correct message. 3. In SunGuide, terminate the response plan that was used for this closure. 4. Notify D6 TMC if relevant to closure. 	

MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
Toll Update Reminder Notification		<p>In the Toll Update Reminder alert, click on the “Acknowledge” button</p> <p>If user desires to remain in the current mode, check the “Approved” checkbox and then select “Submit”.</p> <p>To change mode:</p> <ol style="list-style-type: none"> 1. Select the new mode from the “Mode” dropdown list 2. Verify or select the Toll amount and the Lane Status DMS Message. 3. If required, select a D4 event from the dropdown lists (select Dummy event if real event is not yet available). 4. Check the “Approved” check box and click on the “Submit” button. 5. When the SELS DMS Verification form appears, verify that each Toll Amount and Lane Status DMS is showing the correct message. <ul style="list-style-type: none"> o If a message is incorrect, then ensure that an ITS Maintenance Module trouble ticket is open for this failure. 	

MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
Toll Adjustment For Segments (Finite AND ONGOING)		<p>Ongoing Adjustment:</p> <ol style="list-style-type: none"> 1. In SELS click on the  for the Segment within the Status Table. 2. Select the desired effective time 3. Select the desired Adjusted Toll 4. Associate an event or add a comment to justify the adjustment. 5. Submit the Ongoing Adjustment. 6. Continue tolling as usual. <p>Finite Adjustment:</p> <ol style="list-style-type: none"> 1. In SELS, click on the  for the Segment within the Status Table for the segment. 2. Select the desired effective time. 3. Check Finite Adjustment. 4. Select the desired Effective End. 5. Select the desired Adjusted Toll. 6. Associate an event or add a comment to justify the adjustment. 7. Submit the Finite Adjustment. 8. Continue tolling as usual. 	

MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
Implementing Toll Adjustment For Trip Tolls (Ongoing Only)		<p>Ongoing Adjustment</p> <ol style="list-style-type: none"> 1. In SELS Corridor View, click on the  for the Trip within the Status Table. 2. Select the desired Adjusted Time/Toll 3. Add a comment justifying the adjustment 4. Submit Ongoing Adjustment 5. Continue tolling as usual. 	


MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
Ongoing Toll Adjustment Reminder		1. When an ongoing toll adjustment reminder appears, select “Continue” if still applicable, or select “End” if not.	


MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
Ending Ongoing Adjustments		<ol style="list-style-type: none"> In the SELS Corridor View, click on the M for the segment with an ongoing adjustment in effect or any segment within a trip with an ongoing adjustment. Note: It is not possible to end a trip adjustment directly; it must be done via a segment included in that trip. Select the current mode and toll for the selected segment and submit the request (continue current active toll/mode). When the ongoing adjustment reminder appears, select End and submit. 	<p>If a Toll Adjustment was in effect prior to system restart, the interim toll will only present \$0.00, \$0.50, and latest Toll Adjustment amount.</p> <p>If Toll Adjustment is no longer required upon restart, then end the Toll Adjustment.</p>

MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Email	Attachments	Example Content Of Email
Retroactive Toll Adjustment request procedure	Alexandra Lopez Ryan Drendel David Needham Dee McTague Leroy Soley	Toll Chronology (SELS or ELS) for impacted segment / time	<p>A ‘descriptor’ event on ‘roadway’, ‘direction’ (facility – GU/EL), at ‘cross-street’, occurred on ‘day, date, time’.</p> <ul style="list-style-type: none"> Explanation of incident. Explanation of reasons why tolls should be recommended to be scratched. Fixed statement (example below).
<p>A fatality event on I-595 EB (general use lanes) at US-441 occurred on Saturday, 12/2 @10:52 PM.</p> <ul style="list-style-type: none"> The 595 team closed 595 Express at the Turnpike reversible lanes, forcing motorists onto a tolled facility. Florida’s Turnpike should be notified in case motorists complain about being forced onto a tolled roadway (there was no other egress available due to the fatality). <i>Note that motorists on 595 GU had the option to take US 441.</i> Tolling continued on 595 Express for the duration of the incident. Tolling should have been suspended since motorists were unable to reach the destination of I-95. <p>TOLL ADJUSTMENT: We are hereby requesting a retroactive toll adjustment on 595 Express EB from 12/02/2023 @ 10:42 PM (10 minutes before event creation) through 12/03/2023 @ 1:43 AM when the ramps were reopened.</p>			


MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
System Restart		<p>Complete and submit startup dialog for each segment.</p> <ol style="list-style-type: none"> 1. Select desired interim toll. <ul style="list-style-type: none"> ○ Interim toll options are limited to 0.00, \$0.50, and last effective Toll Amount. ○ Select the lowest of those tolls that would have been used during the outage if the software had been operating. 2. Select desired mode (Dynamic, TOD, Zero Toll, or Closed) <ul style="list-style-type: none"> ○ If applicable, associate an event or add comments. 3. If applicable, select desired toll amount (Manual or TOD Modes ONLY). 4. Select desired Lane Status DMS Message 5. Check the “Approved” checkbox and submit. 6. Manually check if there was an ongoing adjustment before system restart. <ul style="list-style-type: none"> ○ If yes, decide if Toll Adjustment is still needed. If needed, click on the <input type="checkbox"/> for the Segment within the Status Table. ○ If not, continue normal operations. 7. Continue tolling as usual. 	


MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
<p>TOLL SUSPENSION:</p> <p>Request To Open Express Lane Or Set Toll To \$0.00 For Emergencies Or Special Events.</p> <p>Most Likely Due to:</p> <p>Evacuation</p>		<p>Special approval is required TSM&O Program Manager, TSM&O Engineer-Freeways, and EOC (Jeannie Cann) will notify operations staff to implement.</p> <ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the <input type="checkbox"/> within the Status Table for the Segment, select Zero Toll mode and set the effective time at 10 minutes before the event reported time within SELS (default) <ul style="list-style-type: none"> ○ The Zero Toll Override must be associated with a D4 event, if available. If no D4 event is available at the time of the override, select a Dummy event. 	




MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
SEGMENT CLOSURE AND RECOVERY FROM CLOSURE DURING TOLL SUSPENSION		<p>1. Search the section for Express Lanes Events in this document for the procedure that applies to the location of the blocking event. Follow the procedure.</p> <p>2. Notice that if the procedure calls for a toll adjustment it does not apply since mode was Zero Toll (\$0.00) before the event.</p> <p>RECOVERY</p> <p>1. When recovering from the closure, in SELS, click on the  for the Segment within the Status Table and:</p> <ul style="list-style-type: none"> o Choose desire mode. o If the Closed mode was not originally associated with a SunGuide event, select an event. An event must be selected before leaving Zero Toll mode. <p>2. In SunGuide, terminate the response plan for the event.</p>	


MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
Recover From Open Status (Zero Toll Mode)		<p>1. In SELS, click on the  for the Segment within the Status Table and:</p> <ul style="list-style-type: none"> o Choose desire mode o If the Zero Toll mode was not originally associated with a SunGuide event, select an event from D4, if available. An event must be selected before leaving Zero Toll mode. <p>2. In SunGuide, terminate the response plan associated with the toll suspension.</p>	



COMMON DMS PROCEDURES			
Scenario	Comments	Response	Recovery
DMS Verification		<ol style="list-style-type: none"> 1. Acknowledge the DMS Verification Notification. 2. Verify that each Toll Amount and Lane Status DMS is showing the correct message. 3. If a sign is correct, check Confirmed. If it is incorrect: <ul style="list-style-type: none"> ○ If there is already an open MIMS ticket for this DMS, do nothing. ○ If there is not an open MIMS ticket, follow the appropriate action for a stuck or blank sign. 4. After all signs have been reviewed, select “Completed” on the DMS Verification form. 	

COMMON DMS PROCEDURES			
Scenario	Comments	Response	Recovery
Post Messages Manually On Toll Amount DMS		<p>For each Toll Amount DMS on which a manual message is to be posted:</p> <ol style="list-style-type: none"> 1. Click on the Toll Amount DMS icon  for the sign to be changed. 2. Locate the desired sign in the Sign Control pop-up, using the TADMS name or the Destination. 3. In the New Message area, choose Toll Message, if posting a toll message, or “Configured Message”. 4. Double click in the message display area (black rectangle). 5. Select a message from the drop-down list. 6. Click on Send Message. 7. Set DMS status to ‘Out of Service’. 8. Verify that the message just posted is still on the sign. If not, set the Sign Active and repeat the process of posting the message, taking the sign ‘Out of Service’ and verifying. 	

COMMON DMS PROCEDURES			
Scenario	Comments	Response	Recovery
Post Messages Manually On Lane Status DMS		<p>For each Lane Status DMS on which a manual message is to be posted:</p> <ol style="list-style-type: none"> 5. Click on the Toll Amount DMS icon  for the sign to be changed. 6. In the New Message area, choose Status Message, if posting a lane status message, or "Configured Message". 7. Double click in the message display area (black rectangle). 8. Select a message from the drop-down list. 9. Click on Send Message. 10. Set DMS status to 'Out of Service'. 11. Verify that the message just posted is still on the sign. If not, set the Sign Active and repeat the process of posting the message, taking the sign 'Out of Service' and verifying. 	

COMMON DMS PROCEDURES			
Scenario	Comments	Response	Recovery
<p>If Operator CHOOSES A MANUAL MODE Toll That Is Higher Than The Correct Toll</p>		<ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the  for the Segment within the Status Table, select the correct mode and toll and submit. 2. *Wait until it is at least one minute after the effective time of the correct toll just requested and then click on the  for the Segment within the Status Table. 3. Check Finite Adjustment, choose \$0.50 for the toll, and set the effective time at 10 minutes before the effective time of the incorrect toll. 4. Set the Effective End Time at the current time, but at least one minute after the effective time of the correct toll that was requested above. 5. Associate an event or add a comment justifying the adjustment. 6. Submit the Adjustment. 7. In SELS, click on the  within the Status Table for each trip that includes the segment 8. From the Adjusted Time/Toll drop-down list, select the first (latest) toll that is equal to or lower than the desired (correct) trip toll. If no toll is available that is low enough, close this dialog and do not adjust the trip toll. 9. Associate an event or add a comment justifying the adjustment 10. Submit Adjustment 11. Repeat for each trip that includes the segment with the erroneous toll. 12. Continue tolling as usual. 	<p>*The delay in 'Step 2' is necessary to ensure that any time at which the incorrect toll was active, was covered by the adjustment. An adjustment's 'end time' cannot be set after the current time. If the dialog is opened before this time, the desired ending time will not be available.</p>

COMMON DMS PROCEDURES			
Scenario	Comments	Response	Recovery
If Operator CHOOSES A MANUAL MODE Toll That Is Less Than The Correct Toll		<ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the  for the Segment within the Status Table, select the correct mode and toll and submit. 2. Continue tolling as usual. 	



COMMON DMS PROCEDURES			
Scenario	Comments	Response	Recovery
DMS Subsystem Failure. Blank Or Stuck Messages		<ol style="list-style-type: none"> 1. Notify IT. 2. Open a MIMS ticket within the ITS Maintenance Module. (critical) 3. If one or several Segment Toll Amount signs are blank or have a message stuck on them: In SELS Corridor View, click on the  within the Status Table for each Segment with a Segment Toll Amount Sign that is blank or has a message stuck on it, <ul style="list-style-type: none"> o Set the toll to \$0.50 and set the effective time at 10 minutes before the failure was discovered. 4. SELS If one or several Trip Toll Amount signs are blank or have an incorrect toll stuck on them: In SELS Corridor View, click on the  within the Status Table for each Segment included in the trip, <ul style="list-style-type: none"> o Adjust the toll for each segment included in the trip to \$0.50 as in the step above. It is not necessary to adjust the trip toll, since all segments included in the trip are set to the minimum toll. 5. Continue the adjustment(s) until the DMS Subsystem is operational. 	<ol style="list-style-type: none"> 1. Resume normal tolling for all segments. 2. End ongoing adjustments.

COMMON DMS PROCEDURES

Scenario	Comments	Response	Recovery
<p>DMS FAILURE AFFECTS ALL DMS IN ONE OR SEVERAL SEGMENTS.</p> <p>BLANK OR STUCK MESSAGES</p>	<p>If any EL Entrance must be closed due to a DMS failure, the *Maintenance Contractor shall perform the closure(s) and coordinate the closure(s) with the Control Room Staff.</p> <p>*If reported as a fiber cut or power outage, for example, or the outage is a result of scheduled maintenance, then the Maintenance Contractor is not required to perform a closure(s).</p> <p>Report any other devices (CCTV or Vehicle Detectors) that are failed.</p>	<ol style="list-style-type: none"> 1. Notify IT and open a MIMS ticket within the ITS Maintenance Module (critical). 2. If one or several Segment Toll Amount signs are blank or have an incorrect toll stuck on them: <ul style="list-style-type: none"> In SELS Corridor View, click on the M within the Status Table for each Segment with a Segment Toll Amount Sign that is blank or has a message stuck on it: <ul style="list-style-type: none"> o Choose Manual mode. o Set the toll to \$0.50. o Click the “Is an Override” checkbox. o Set the effective time as the effective time of the last toll. 3. If one or several Segment Toll Amount signs have a stuck ‘CLOSED’ message on it: <ul style="list-style-type: none"> o In SELS Corridor View, click on the \$ within the Status Table. o Set the toll to \$0.00 and set the effective time at 10 minutes before the failure was discovered. 4. If one or several Trip Toll Amount signs are blank or have an incorrect toll stuck on them: <ul style="list-style-type: none"> If all Trip Toll Amount signs are blank: <ul style="list-style-type: none"> o Take no action on the signs. 5. If one or several Trip Toll Amount signs have a toll stuck on them that is equal or higher than the recommended toll: <ul style="list-style-type: none"> o Take no action on the sign(s). 6. If one or several Trip Toll Amount signs have a toll stuck on them that is lower than the recommended toll: <ul style="list-style-type: none"> In SELS Corridor View, click on the \$ within the Status Table for each trip displaying an incorrect (low) toll, <ul style="list-style-type: none"> o Set the Trip toll equal to the toll stuck on the sign (if available). o If that trip toll is not available, submit an ongoing \$0.50 segment toll adjustment for each segment in the trip, effective 10 minutes before the sign was found to be stuck. 7. Continue the adjustment(s) until the DMS Subsystem is operational or the segments are closed due to an incident. 	<ol style="list-style-type: none"> 1. Resume normal tolling for all segments. 2. End ongoing adjustments.

COMMON DMS PROCEDURES

Segment Toll Amount Sign Failures

Scenario	Comments	Response	Recovery
<p>Failed Segment Toll Amount DMS. Message Is Blank</p>	<p>See special case for specific locations in the next page.</p> <p>For HEFT NB ramp to 75 Express Northbound: If any EL Entrance must be closed due to a DMS failure, the ITS Maintenance Contractor shall perform the closure(s) and coordinate the closure(s) with the Control Room Staff.</p>	<p>If one Segment Toll Amount DMS is blank at an entrance to the Express Lanes, and another is working for the same entrance:</p> <ol style="list-style-type: none"> 1. Continue tolling as usual. 2. Open a MIMS ticket (Critical Failure). <p>Note at least one Toll Amount DMS must be operational for each entrance to the Express Lanes.</p> <p>If all Toll Amount DMS at an entrance to the Express Lanes are blank:</p> <ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the  within the Status Table for the Segment, choose \$0.50 for the toll, and set the effective time at 10 minutes before the sign was found to be blank. 2. Associate an event or add a comment justifying the adjustment. 3. Open a MIMS ticket (Critical Failure). 4. Continue the ongoing adjustment after each toll update until at least one DMS is operational at the entrance, or the entrance is closed. 5. When entrance is closed or at least one sign is operational, end the adjustment and resume operation as usual. 	<p>Toll Amount DMS may be blank after contractor repairs it.</p> <ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the  within the Status Table for the Segment and set tolls as usual. 2. When the SELS DMS Verification form appears, verify that each Toll Amount and Lane Status DMS is showing the correct message. <ul style="list-style-type: none"> ○ If a message is not correct, then ensure that a MIMS ticket is open for the failure.



COMMON DMS PROCEDURES

Segment Toll Amount Sign Failures

Scenario	Comments	Response	Recovery
<p>Failed Segment Toll Amount DMS. Incorrect Toll Message(S) Stuck On Sign(S)</p>	<p>Stuck Trip Toll Amount DMS are handled differently. Procedures for Trip Toll Amount DMS have their own section in the next pages.</p> <p>For HEFT ramp to 75 Express Northbound: If any EL Entrance must be closed due to a DMS failure, the ITS Maintenance Contractor shall perform the closure(s) and coordinate the closure(s) with the Control Room Staff.</p>	<p>If the upstream Toll Amount DMS at an entrance to the Express Lanes has a stuck segment toll, but the corresponding downstream Toll Amount DMS is working:</p> <ol style="list-style-type: none"> 1. Continue tolling as usual. 2. Open a MIMS ticket (Critical Failure). <p>If the downstream Toll Amount DMS at an entrance to the Express Lanes has a stuck segment toll:</p> <ol style="list-style-type: none"> 1. If the stuck toll on the downstream sign is the same as, or higher than, the recommended toll, continue tolling as usual. 2. If the stuck toll on the downstream sign is lower than the recommended toll: <ul style="list-style-type: none"> ○ In SELS, click on the M within the Status Table for the Segment, select Manual mode, set the toll equal to the toll stuck on the sign, set the effective time at the effective time of the last toll. ○ Enter a comment explaining why Manual mode was used. ○ Continue using this procedure until the failure is resolved. 3. Open a MIMS ticket (Critical Failure). 4. If ramp is to be closed for repair, once hard closure is implemented, post CLOSED on associated DMS, and resume tolling as usual (segment is open). 	<p>Toll Amount DMS may be blank after contractor repairs it.</p> <ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the M within the Status Table for the Segment and set tolls as usual. 2. When the SELS DMS Verification form appears, verify that each Toll Amount and Lane Status DMS is showing the correct message. <ul style="list-style-type: none"> ○ If a message is not correct, then ensure that a MIMS ticket is open for the failure.



COMMON DMS PROCEDURES

Segment Toll Amount Sign Failures

Scenario	Comments	Response	Recovery
<p>Failed Segment INTERNAL Toll Amount DMS. Message Is Blank.</p> <p>(75 Express NB before Miami Gardens Drive and 95 Express SB at Atlantic Blvd)</p>	<p>These internal Toll Amount DMS are for motorists that are already travelling inside the facility from an upstream location.</p>	<ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the  within the Status Table for the Segment, choose \$0.50 for the toll, and set the effective time at 10 minutes before the sign was found to be blank. 2. Open a MIMS ticket (Critical Failure). 3. Continue the adjustment after each toll update until the DMS is operational. 4. End the ongoing adjustment. 	<p>Toll Amount DMS may be blank after contractor repairs it.</p> <ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the  within the Status Table for the Segment and set tolls as usual. 2. When the SELS DMS Verification form appears, verify that each Toll Amount and Lane Status DMS is showing the correct message. <p>If a message is not correct, then ensure that a MIMS ticket is open for the failure.</p>


COMMON DMS PROCEDURES

Segment Toll Amount Sign Failures

Scenario	Comments	Response	Recovery
<p>Failed Segment INTERNAL Toll Amount DMS. Message Is STUCK.</p> <p>(75 Express NB before Miami Gardens Drive and 95 Express SB at Atlantic Blvd)</p>	<p>These internal Toll Amount DMS are for motorists that are already travelling inside the facility from an upstream location.</p>	<ol style="list-style-type: none"> 1. If the stuck toll is the same as or higher than the recommended toll, continue tolling as usual. 2. If the stuck toll is lower than the recommend toll, in the SELS Corridor View, click on the  within the Status Table for the Segment, choose Manual mode, set the toll equal to the toll stuck on the sign. <ul style="list-style-type: none"> o Enter a comment explaining why Manual mode was used. o Continue using this procedure until the failure is resolved. 3. Open a trouble ticket within the ITS Maintenance Module (critical). 	<ol style="list-style-type: none"> 1. Toll Amount DMS may be blank after contractor repairs it. 2. In the SELS Corridor View, click on the  within the Status Table for the Segment and set tolls as usual. 3. When the SELS DMS Verification form appears, verify that each Toll Amount and Lane Status DMS is showing the correct message. 4. If a message is not correct, then ensure that a MIMS ticket is open for the failure.


COMMON DMS PROCEDURES

Segment Toll Amount Sign Failures

Scenario	Comments	Response	Recovery
Failed Segment Toll Amount DMS. PIXEL FAILURE		<ol style="list-style-type: none"> 1. If failure makes messages unclear, blank the sign and set it out of service. Follow procedure "Failed Segment Toll Amount DMS. Message Is Blank" 2. If messages can be understood event through the pixel error, continue using the sign. 3. Open a trouble ticket within the ITS Maintenance Module. 	<ol style="list-style-type: none"> 1. Toll Amount DMS may be blank after contractor repairs it. 2. In the SELS Corridor View, click on the  within the Status Table for the Segment and set tolls as usual. 3. When the SELS DMS Verification form appears, verify that each Toll Amount and Lane Status DMS is showing the correct message. 4. If a message is not correct, then ensure that a MIMS ticket is open for the failure.



COMMON DMS PROCEDURES

Trip Toll Amount Sign Failures

Scenario	Comments	Response	Recovery
Failed Trip Toll Amount DMS (Blank)		<ol style="list-style-type: none"> 1. Open a MIMS ticket (Critical Failure). 2. Continue tolling as usual. 	<ol style="list-style-type: none"> 1. Click on the  within the Status Table for each Segment included in the trip. 2. Select the current mode and toll and submit. 3. If an ongoing adjustment reminder appears for one of these segments, select End and Submit.



COMMON DMS PROCEDURES

Trip Toll Amount Sign Failures

Scenario	Comments	Response	Recovery
<p>Failed Trip Toll Amount DMS (STUCK)</p>	<p>See special cases for specific locations in the next pages.</p> <p>If any EL Entrance must be closed due to a DMS failure, the ITS Maintenance Contract shall perform the closure(s) and coordinate the closure(s) with the Control Room Staff.</p>	<p>If the upstream Toll Amount DMS at an entrance to 95 Express has a stuck trip toll, but the corresponding downstream Toll Amount DMS is working:</p> <ol style="list-style-type: none"> 1. Continue tolling as usual. 2. Open a trouble ticket within the ITS Maintenance Module (critical). <p>If the downstream Toll Amount DMS at an entrance to 95 Express has a stuck trip toll:</p> <ol style="list-style-type: none"> 1. If the toll shown on the Trip Toll Amount DMS is equal to or higher than the requested toll, continue tolling as usual. 2. If the toll shown on the Trip Toll Amount DMS is stuck lower than the requested toll, in the SELS Corridor View, click on the  within the Status Table for the Trip, choose the Time/Toll at which the toll matches what is stuck on the Trip Toll Amount DMS (if available), add a comment explaining the reason for the adjustment and submit. If that trip toll is not available, submit an ongoing \$0.50 segment toll adjustment for each segment in the trip, effective 10 minutes before the sign was found to be stuck. 3. Open a MIMS ticket (Critical Failure). 3. At each toll update, continue the adjustment until the sign is fixed. 	<ol style="list-style-type: none"> 1. Click on the  within the Status Table for each Segment included in the trip. 2. Select the current mode and toll and submit. 3. If an ongoing adjustment reminder appears for one of these segments, select End and Submit.

COMMON DMS PROCEDURES

Segment Toll Amount Sign Failures

Scenario	Comments	Response	Recovery
<p>Failed Segment Toll Amount DMS. Message Is STUCK</p>	<p>For HEFT ramp to 75 Express Northbound: If any EL Entrance must be closed due to a DMS failure, the ITS Maintenance Contractor shall perform the closure(s) and coordinate the closure(s) with the Control Room Staff.</p>	<ol style="list-style-type: none"> 1. If the toll shown on the Trip Toll Amount DMS is equal to or higher than the requested toll, continue tolling as usual. 2. If the toll shown on the Trip Toll Amount DMS is stuck lower than the requested toll, in the SELS Corridor View, click on the  within the Status Table for the Trip, choose the Time/Toll at which the toll matches what is stuck on the Trip Toll Amount DMS (if available), add a comment explaining the reason for the adjustment and submit. If that trip toll is not available, submit an ongoing \$0.50 segment toll adjustment for each segment in the trip, effective 10 minutes before the sign was found to be stuck. 3. Open a MIMS ticket (Critical Failure). 4. At each toll update, continue the adjustment until the sign is fixed. 5. If ramp is to be closed for repair, once hard closure is implemented, post CLOSED on associated DMS, and resume tolling as usual (segment is open). 	<ol style="list-style-type: none"> 1. Click on the  within the Status Table for each Segment included in the trip. 2. Select the current mode and toll and submit. 3. If an ongoing adjustment reminder appears for one of these segments, select End and Submit.

COMMON DMS PROCEDURES

Lane Status DMS Failures

Scenario	Comments	Response	Recovery
<p>Failed Lane Status And/or Full Matrix IM DMS</p>	<p>Same if Lane Status DMS message is blank or has a message stuck up, including Closed or Open.</p> <p>If any EL Entrance must be closed due to a DMS failure, the ITS Maintenance Contractor shall perform the closure(s) and coordinate the closure(s) with the Control Room Staff.</p>	<ol style="list-style-type: none"> 1. Open a MIMS ticket (Critical Failure). 2. Continue operating Express Lanes as usual. 	<ol style="list-style-type: none"> 1. Place sign back in service. 2. Manually post appropriate lane status message.

GLOSSARY

Default Toll – The toll to be used when scheduled or calculated tolls are not available, and the facility is not open (Zero Toll). This is currently \$0.50.

Dynamic Mode – A toll setting mode in which current traffic conditions are used to determine the toll charged.

Effective Time – The time at which a toll becomes the toll in use for a segment or trip and not necessarily the time when it was requested or first appeared on Toll Amount signs.

Manual Override – This term refers to using Manual mode with a retroactive effective time to override previously requested tolls. This changes the toll posted on the signs as well as the toll sent to the Turnpike.

Toll Adjustment – A manual correction of the toll to be charged by the Turnpike (FTE). This correction is frequently retroactive to correct an incorrect toll or a toll inconsistent with that on signs, such as when the toll message on a sign is stuck or the sign is blank. This changes the toll charged by the Turnpike but does not change any signs. It is always less than or equal to the toll in effect.

Override vs. Adjustment – Overrides affect the tolls posted on signs as well as the tolls charged by SunPass. Adjustments affect the tolls charged by SunPass, but do not change the tolls posted on the signs. Both are frequently effective retroactively, such as when an incident closes the Express Lanes, to help compensate for people who may have been affected by the blockage that may have occurred after they enter the facility, to adjust tolls when a Toll Amount sign has failed or at other times when a driver may have seen a toll that may be higher than what should be charged. Retroactive overrides/adjustments are usually limited to become effective no earlier than 8 hours prior to the time at which they are submitted (configurable).

1.1 EXPRESS LANES (EL) OVERVIEW

PURPOSE AND SCOPE

The purpose of this section is to provide an overview of the 75 Express Lanes (EL) program and the guidelines to support the program by the FDOT District Four SMART SunGuide TMC and District Six SunGuide TMC Operations staff.

PROJECT OVERVIEW

In early 2014, the FDOT initiated construction of the Express Lane project that featured a new, four-lane barrier separated, tolled managed lanes facility within the I-75 median, as well as direct connections to the I-595 Express Lanes and Florida's Turnpike (HEFT) as well as major improvements to the HEFT, Miramar Parkway, and Sheridan Street interchanges. The construction phase was completed in 2019, and peak period, weekday express bus service was introduced in January 2020, however due to low ridership, the service has been suspended until further notice (August 2020).

The project begins in Miami-Dade County at the SR 826 / Gratigny Parkway interchange (Mile Post 0.00) and extends north along I-75 to the Miami-Dade / Broward County line (Mile Post 5.442). In Broward County, the project continues north from the county line (Mile Post 0.00) to the I-75 / I-595 interchange (Mile Post 11.546), a total length of approximately 12 miles (see [Figure 1](#)).

The municipalities crossed by the project include Medley, Hialeah, Miami Lakes, Hialeah Gardens, Miramar, Pembroke Pines, Southwest Ranches, Davie, Weston, Sunrise and unincorporated Miami-Dade County.

75 EL Project has implemented two types of tolling methods: Segment Based and Trip Based Tolling. Segment Based Tolling calculates toll amounts for the next downstream destination, whereas Trip Based Tolling combines toll amounts from two or more sequential downstream segments for a destination that is farther downstream. These toll amounts will vary depending on current traffic conditions in the EL. The toll will increase as the demand for the EL increases, to deter motorists from using the EL and try to maintain free flowing speeds (at approximately 45 mph or greater) at all times.



Figure 1 75 EL Project Map

The EL also permits toll-exempt use by motorcycles, hybrid vehicles and registered buses, vanpools, and carpools (3+) (see [Figure 2](#) for EL vehicle classification). A registration is required (through South Florida Commuter Services) to be exempt from tolls. Trucks (3 axles or more) are prohibited from using the EL unless assisting with event removal within the express lanes or unless directed by FHP. Other vehicles may use the EL by paying a variable toll.

The vehicle classification scheme breaks down all motor vehicles into 13 categories. [Figure 2](#) shows which vehicles are eligible and not eligible to utilize the express lanes. Vehicles that fall into Classes 1 through 5 are allowed to use express lane facilities and vehicles that fall into Classes 6 through 13 are not permitted. For safety and operational purposes, two axle vehicles towing a trailer will not be allowed.

Facility Lane Configuration

75 Express Lanes are considered a separate facility, built in the median of I-75 General Use Lanes and is an enclosed facility with limited emergency access. When referring to incidents occurring within the Express Lanes, the lane closest to the median barrier wall shall be “Express Lane #1” and the lane next to the delineators (Express Lane Markers (ELM’s) / Plastic Poles) shall be referred to as “Express Lane #2,” when applicable. The General Use Lanes of I-75 are those lanes outside of the Express Lanes facility. These lanes shall be referred to as “I-95 Lane #1, I-95 Lane #2, etc...” and shall be counted beginning to the right of the Express Lanes facility and ending at the right shoulder of I-75 (see [Figure 3](#)).

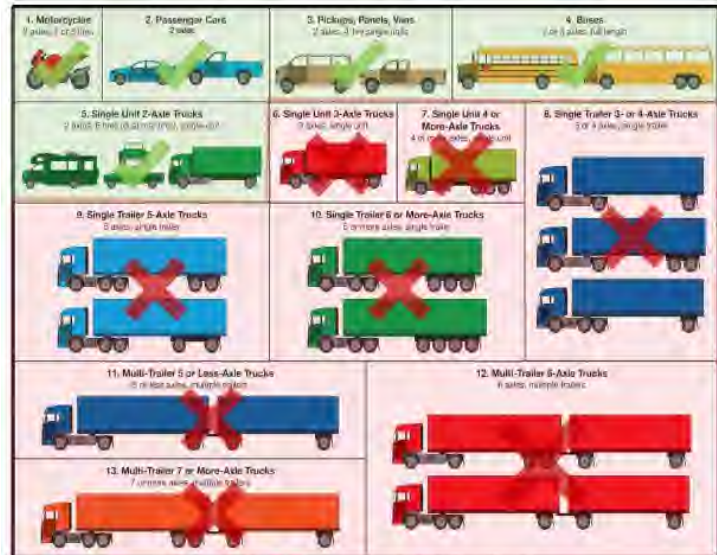


Figure 2 EL Vehicle Classification



Figure 3 Lane Layout with Express Lanes

1.2 EL OPERATIONAL MODES

PURPOSE AND SCOPE

The purpose of this section is to describe the EL operational modes. The EL pricing strategy is considered dynamic and requires EL Operator monitoring. The following procedures were developed for the Express pricing strategy.

OPERATIONAL MODES

The Express Lanes Module contained in Operations Task Manager (OTM) also known as the Statewide Express Lane Software (SELS) is the primary operator interface for EL Operators and controls the distribution of calculated toll amounts to the Turnpike and dynamic message signs (DMS) in the field. The software will recommend toll amounts to the EL Operator, who will then acknowledge the recommendations and subsequently confirm that the approved toll amounts have been used and posted correctly on the Toll Amount DMS. The EL Operator will also confirm that the Lane Status DMS are displaying the correct messages. The SELS has six operational modes available to the EL Operators for Segment Tolls, plus toll adjustment functionality for Segment and Trip tolls, and a start sequence. These include:

- **Time-of-Day**– Time-of-Day operating mode is an override mode and will be used when the EL facility is open, dynamic mode is unavailable (possibly due to lack of detector data), and traffic warrants the utilization of the toll

stored in the Time-of-Day (TOD) Table. TOD operating mode only requires EL Operator interaction when switching from another operating mode to TOD mode. While in this mode, the tolls update automatically based on the operating tolls stored in the SELS Software TOD table. There is a schedule in SELS Software that causes SELS to use different TOD tables for weekdays and weekends/holidays. TOD can be configured to utilize automatic approval.

- **Manual** – Manual operating mode is an override mode that allows the EL Operator to set tolls manually by selecting from a predefined set of tolls. Toll amounts remain the same until the EL Operator chooses a new toll or mode. This mode will be used by the EL Operator typically when toll amounts are stuck due to Toll Amount Sign failure(s).
- **Dynamic** – Dynamic operating mode is the default mode that allows the operating toll amounts to be “adjusted” based on the real time responsive toll amount adjustment algorithm (described later in this section). Dynamic operating mode is the most commonly used operating mode and will be used until a situation arises that warrants a change in mode. In Dynamic mode, SELS will recommend a toll amount based on current traffic conditions. Dynamic mode can be configured to utilize automatic approval for changing toll amounts.
- **Closed** – Closed operating mode is an override mode that requires EL Operator interaction. Closed operating mode will be used when the EL facility is closed, and a zero-toll amount is charged. As the EL Operator changes the operating mode to closed, SELS will adjust the effective time to 10 minutes before the incident was confirmed by the EL Operator. The EL facility will be closed for an incident that results in a blocked travel lane within the EL and when traffic is diverted from the General Use Lanes (GU) to the EL because of an incident in the General Use Lanes. The diversion will be initiated by the Florida Highway Patrol (FHP) or FDOT.
- **Zero-Toll** – Zero Toll operating mode is an override mode that requires EL Operator interaction. It will be used when the EL are open, but a \$0.00 toll must be charged. This mode will be implemented by the EL Operator during evacuations, when the Governor has suspended tolls, and/or under the direction of FDOT.
- **Toll Adjustment** – Toll adjustments are retroactive toll reductions that require EL Operator interaction. An ongoing adjustment shall continually replace the toll amount until terminated by an operator. A finite adjustment allows the EL Operator to replace toll amounts for a specified interval in time utilizing beginning and ending times no later than the present time. EL Operators can implement either an on-going or finite adjustment for a segment or a trip.
 - Segment toll adjustments allow the EL Operators to go back in time (up to two hours) and change the toll amount charged to customers to an amount less than or equal to that posted on the Toll Amount DMS. A toll adjustment will be applied when any Toll Amount DMS is unable to post the current toll amount. When any toll amount sign is blank, the minimum toll amount of \$0.50 will be charged. The toll adjustment does not change the tolls displayed on the Toll Amount DMS and only affects the toll charged to customers. Therefore, the current applicable toll amounts can be displayed on all operating Toll Amount DMS to manage demand, while the customers are only charged \$0.50.
 - Trip toll adjustments are similar, except that the toll and effective time are chosen from a list of previous tolls in order to ensure that the tolls associated with each segment included in that trip are known. The list contains tolls effective up to two hours in the past, except that any toll higher than a subsequent toll is not included and stops the search back in time for tolls to include in the list. For additional detailed procedures, refer to [Express Lanes Operational Procedures \(ELOP\)](#).
- **SELS Start-Up** – Upon SELS start-up or when publishing a corridor, the EL Operator must initialize the segment(s). The procedure was developed to assist the EL Operator to start the SELS Software in the correct mode, ensure the correct amount is being charged and posted, and to allow the EL Operator to set interim tolls for the time when the software was not running to ensure seamless operation for the EL motorist. The EL Operator can employ any mode upon start-up. For additional procedure details, refer to [Express Lanes Operational Procedures \(ELOP\)](#).

TOLL AMOUNT ADJUSTMENT LOGIC

The operational goal of the 95 Express Lanes is to provide free flow conditions along the facility. Under free flow conditions, vehicles are generally unimpeded and typically able to safely operate at speeds of 45 miles per hour or greater along an uninterrupted expressway segment. Real time responsive toll pricing is utilized to control traffic volumes in the EL in order to maintain free flow conditions.

The condition of traffic flow is defined as the Highway Capacity Manual (HCM) using an operational level of service (LOS). The LOS for a freeway facility is measured by traffic density (TD), which is a combination of speed and volume. TD is calculated as follows:

$$\text{Traffic Density (vehicles per mile per lane)} = \frac{\text{Volume (vehicles per hour per lane)}}{\text{Speed (miles per hour)}}$$

Figure 4 depicts the relationship between LOS and TD, which is derived from the HCM. LOS A, B and C are considered to be free-flow conditions and should safely allow for maximum throughput in the EL. As conditions reach LOS D and E, traffic flow will begin to deteriorate, densities will begin to approach 45 vehicles per mile per lane (vpml) and travel speed will be reduced. For LOS F, densities are expected to be above 45 vpml and speeds will be reduced significantly.

Level of Service	Traffic Density (vpml)	Expected Traffic Conditions
A	0 - 11	Free-Flow
B	> 11 - 18	Free-Flow
C	> 18 - 26	Free-Flow
D	> 26 - 35	Mild Congestion
E	> 35 - 45	Moderate Congestion
F	> 45	Severe Congestion

Figure 4 Level of Service and Traffic Density Relationship

The real time responsive toll amount adjustment logic utilizes concepts proven to be successful by other HOT facilities. The logic begins with an initial operating toll amount schedule and compares the initial toll amount to a calculated toll amount based on current traffic conditions. Current traffic conditions are determined by real time traffic data collected from EL detectors. The data collected are processed to exclude erroneous data and averaged before a TD is calculated. The TD is used to determine the toll amount needed to optimize traffic flow.

The TD calculations are averaged for each EL segment every 15 minutes to respond to current traffic conditions. The TD calculation is then rounded to a whole number.

The toll amount calculations use configurable settings. The two primary settings are LOS settings and change in TD (Delta TD Tables) settings. The LOS settings relate a TD range to a toll amount range, as shown in **Figure 5** for all of the currently approved Segment Level of Service Settings Tables.

LOS	Density		Tolls	
	Minimum	Maximum	Minimum	Maximum
A	0	11	\$0.50	\$0.50
B	12	18	\$0.50	\$1.50
C	19	26	\$1.50	\$8.50
D	27	35	\$8.50	\$10.50
E	36	45	\$9.50	\$10.50
F	>45		\$10.50	\$10.50

Figure 5 Sample Level of Service Table

The Delta settings relate a change in TD (Δ TD) to a change in toll amount (Δ TA). The steps for calculating the current toll amount are presented in **Figure 6**. The TD calculated for the previous time period is subtracted from the TD for the current time period to determine the change in TD (Δ TD). Using the delta settings table, a toll change is determined. The toll amount change is added to or subtracted from the previous toll amount to determine the current toll amount. The current toll amount is compared to the maximum and minimum toll amounts in the LOS settings table (**Figure 5**).

If the current toll amount falls outside the maximum or minimum toll amounts for the corresponding TD, then the maximum or minimum toll amount, respectively, is applied. If the current toll amount falls within the maximum or

minimum toll amounts, then the current toll amount is applied. For example, the previous toll amount is \$1.50, and the previous TD is 20. The current TD is 23. The current toll amount is calculated as follows:

$$\Delta TD = TD_t - TD_{t-1} = 23 - 20 = 3$$

Refer to example Delta Settings Matrix (Figure 7). A TD of 23 at ΔTD 3 yields a \$0.50.

The current toll amount falls within the toll amount ranges for a Level of Service C (TD=23). Therefore, a toll amount of \$3.00 is used.

Step 1: Calculate ΔTD
 The TD calculated for the previous time period (TD_{t-1}) is subtracted from the TD for the current time period (TD_t) to determine the change in TD (ΔTD)

$$\Delta TD = TD_t - TD_{t-1}$$

Step 2: Find ΔR based on ΔTD and TD_t
 Using the delta settings table, a rate change is determined
Refer to Delta Settings Matrix

Step 3: Calculate R_t
 $R_t = R_{t-1} + \Delta R$

Figure 6 Current Toll Amount Calculations

LDS	TD	Δ -18	Δ -17	Δ -16	Δ -15	Δ -14	Δ -13	Δ -12	Δ -11	Δ -10	Δ -9	Δ -8	Δ -7	Δ -6	Δ -5	Δ -4	Δ -3	Δ -2	Δ -1	Δ 1	Δ 2	Δ 3	Δ 4
A	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	1	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
	2	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
	3	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
	4	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
	5	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
	6	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
	7	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
	8	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
	9	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
	10	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
	11	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
	B	12	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
13		1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
14		1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
15		1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
16		1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
17		1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
18		1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
C	19	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75
	20	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75
	21	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75
	22	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75
	23	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75
	24	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75
	25	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75
	26	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75

Figure 7 Example Delta Settings Matrix

PERFORMANCE FACTOR

Performance Factor (PF) is an adjustment factor that is utilized to increase Traffic Density (TD) when EL performance degrades. By increasing TD intentionally, toll amounts can be increased more effectively and thus maintain acceptable performance of EL. *Note: During times when Express Lanes are encountering performance problems, this factor will allow or force the toll to increase faster than under normal operations.*

It is calculated by the percentage of detectors (DS in the formula) with speeds below X MPH, where X is a configurable number associated with an EL segment. For each time interval analyzed, the number of detectors below X MPH is

converted to a percentage. The actual traffic density (TD) is increased by that percentage to calculate a new traffic density (TDn), which is then used to calculate the new toll amount, see below:

$$PF = \frac{\# \text{ of } DS < X \text{ MPH}}{\# \text{ of } DS}$$

$$TDn = TD + TD * PF$$

The configurable threshold *X* will be recommended by the engineer and configured by the analyst; however, operations staff will not be required to change it. From an operations point of view, one should witness toll increases more rapidly when EL speed drops below *X* mph.

SELS RE-OPEN PROCEDURE

The current EL recover from closure procedure in SELS addresses a race condition. SELS reduces the risk of toll amounts artificially decreasing when traffic starts flowing into an empty or low volume segment, by allowing a “normal” toll (time-of-day toll) check at the first calculation interval before dynamic tolling is fully restored. This means that when the EL come out of “closed” and a scheduled update is going to occur, this procedure minimizes the risk of implementing a low toll, so the EL may see a higher toll than current conditions might recommend when dynamic mode is first restored.

Figure 8, Toll Calculation during EL Recovery from Closure, demonstrates how the procedure works. In the figure: once the EL are reopened, the immediate effective toll amount (TA_i) will be either the Time-of-Day toll amount (TA_n) or the last calculated toll amount (TA₀), whichever is greater, and TD_i is either TD₀ or TD_n according to which toll amount is chosen. When a proposed scheduled interval of toll calculation starts, the toll amount for the first interval (TA₁) is calculated using current TD₁, TD_i and TA_i, then this TA₁ is compared with TA_i, TA₁ will replace TA_i if TA₁ < TA_i. Dynamic tolling is recovered in the second scheduled interval.

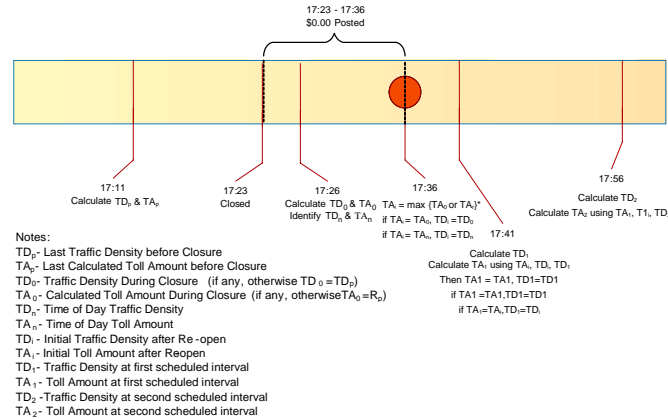


Figure 8 Toll Calculation during EL Recovery from Closure

TOLL SYSTEM INTERFACES

Express lane systems in Florida consist of two systems running in parallel, with the key interfaces between them. These two systems and the interfaces needed to support Express Lane operations are the Turnpike toll collection system and the District ITS and pricing system. The interactions between the two systems are shown in **Figure 9**. The Turnpike operates the toll collection system and is responsible for processing toll transactions through roadside toll equipment and back-office systems. The District is responsible for the management of the express lane traffic operations through the TMC.

The toll lane equipment is connected to the Turnpike Back Office through the Turnpike transaction host, while the ITS roadside equipment connects to the TMC. The ITS roadside components include traffic sensors deployed along

the Express lanes, dynamic message signs (DMS) displaying Express Lane status and toll amounts, traffic control devices (such as gates), and closed-circuit television (CCTV) cameras for incident management. The three key interfaces between the toll collection system and the ITS / pricing system are:

- Toll Amount Interface – This interface is used by the Turnpike to receive the final toll amount information from the TMC / Pricing System. This interface will be used for all Express lanes throughout the State.

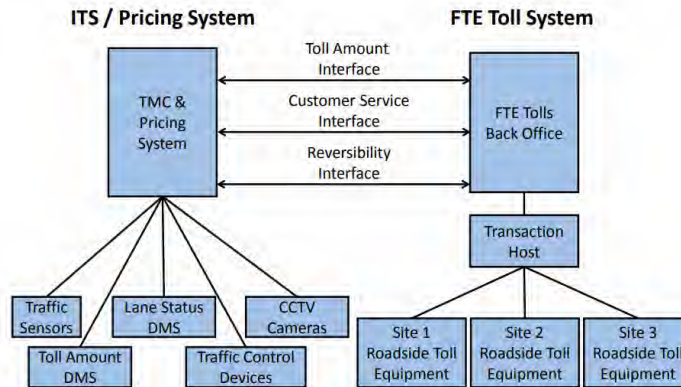


Figure 9 Typical Toll System Interfaces

- Customer Service Interface – This interface allows the Turnpike Customer Service Representatives to look at information that was posted on the toll amount DMS when customers have questions regarding transactions. The Turnpike also has an Interface Control Document that describes this interface.
- Reversibility Interface – This interface is used by the TMC to send a signal to the toll system to change the direction in which the toll point operates. This interface is only needed if the Express lane is a reversible system.

EXPRESS LANE SEGMENT

An Express lane segment is the distance between an entry point to the Express lanes and the next point of exit, see [Figure 10](#). If there are multiple entry points before an exit point, the segment is defined to be the distance between the first entry point, see [Figure 11](#). If there are multiple exit points following an entry point, the segment represents the distance between two successive exit points, see [Figure 12](#).

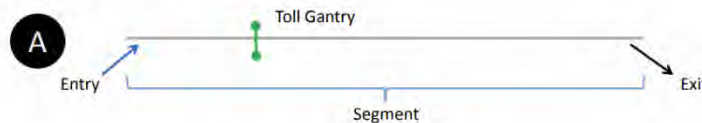


Figure 10

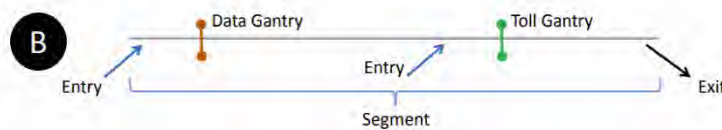


Figure 11

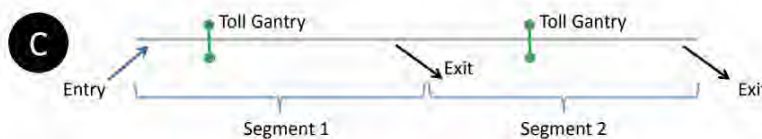


Figure 12

Gantries shall be placed between successive entries, between an entry point and an exit point, and between successive exits, unless the entry or exit points are spaced less than one mile apart or physical constraints prevent the placement of such structures.

Gantries placed between successive entry points (i.e. data gantries) do not charge a toll but rather collect data to accurately account for the time to travel from the toll amount DMS to the tolling point. All other gantries will charge the toll in effect at the time of entry. Every segment has only one toll gantry that charges a toll. The minimum toll is \$0.50 at each gantry where a toll is charged.

TRIP BUILDING

A tolling trip is comprised of one or more contiguous segments. [Figure 13](#) illustrates the six tolling trip possibilities of an example Express lane system, for a single direction on travel, which is composed of three segments. For longer Express lane systems that have more than three segments, trip building systems, consisting of no more than three segments, can be established in series with a decision point for the customer to stay in or get out of the Express lanes within the tolling trip. The linking of trip building systems together is shown in [Figure 14](#).

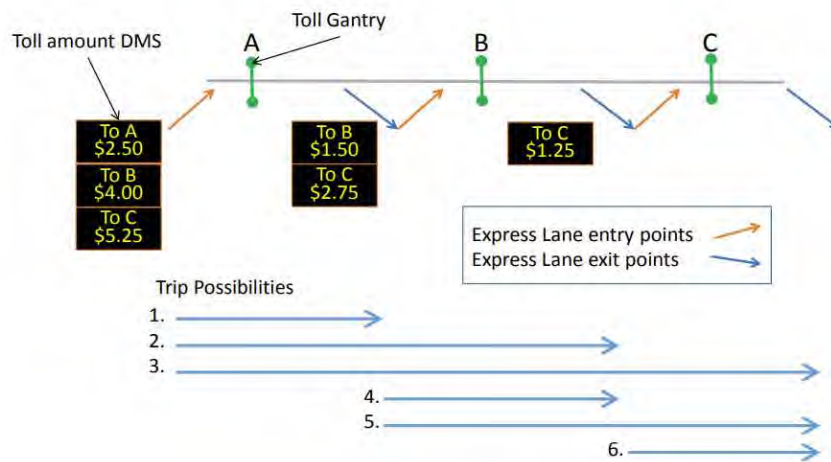


Figure 13 Trip Possibilities for a Three Segment Express Lane System

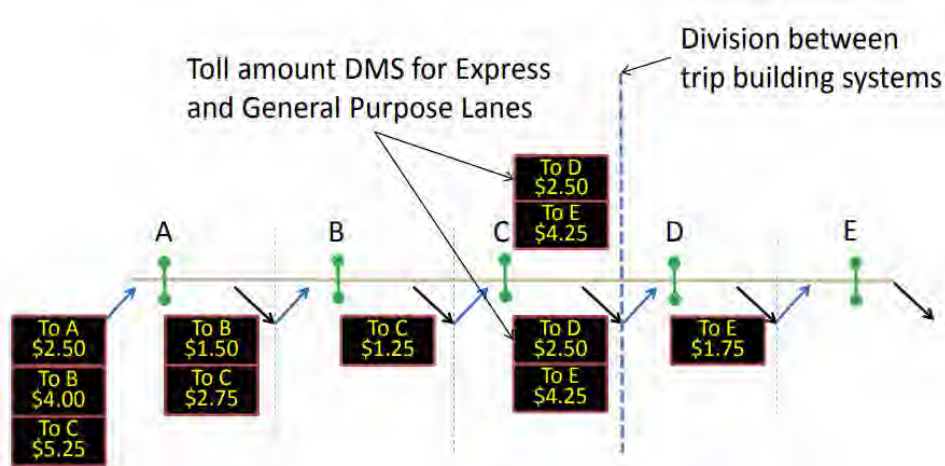


Figure 14 Linked Trip Building Systems

A customer in the General use lanes will see a toll amount DMS which displays the toll amount that will be charged to the customer for traveling to one or more destinations in the Express lanes/ Each possible Express lane exit in the current tolling trip, and the associated destination, is provided with the associated toll amount. The toll amount seen by the customer on the toll amount DMS is locked in upon entry to the Express lanes for travel to the destinations

shown on the sign. Therefore, the customer will be charged no more than what is posted on the toll amount DMS for traveling to the destinations shown even if the toll amounts change after customers enter. If the toll amount is reduced after a customer has entered the Express lanes and while the customer is still in the Express lanes, the reduced toll amount will be charged.

Each of the Express lane segments within a tolling trip may have different toll amounts, which when added together, form the total trip toll amount. Even though the toll amount will be charged on a segment-by-segment basis, and reported as such on the customers statement, trip building is necessary to ensure that drivers who get into the Express lanes and travel through multiple segments pay the lower toll between what they see on the toll amount DMS and what is actually charged a the successive toll gantries within the tolling trip.

1.3 DISTRICT FOUR EL STAFFING AND SCHEDULING

PURPOSE AND SCOPE

The purpose of this section is to establish responsibilities and scheduling of the Express Program Manager and the Control Room Staff that cover the Express Lanes Shifts, referred to as EL Staff.

EXPRESS LANES PROGRAM MANAGER

The Express Program Manager works full time on-site at the SunGuide TMC to support all Express and Ramp Signaling related activities.

The responsibilities of the Express Program Manager include, but are not limited to:

- Overseeing EL operations
- Overseeing overall project performance to ensure it is meeting the intended results
- Evaluating and analyzing project related performance metrics
- Developing and implementing recommendations to mitigate performance measures degradation
- Conducting and overseeing operational analyses
- Providing projects related data and information to others (internal and external)
- Coordinating and supporting testing for all software, hardware and firmware upgrades/changes
- Reviewing and updating operational parameters including but not limited to:
 - Express Time of Day, Level of Service, and Traffic Density Delta tables
 - Ramp Signaling Central and Local Time of Day tables
 - Ramp Signaling minimum and maximum metering rates
- Representing the Department at meetings, workshops, presentations (including other Express Lanes deployments as the project lead and technical expert)
- Supporting public outreach/public information efforts

EL STAFF RESPONSIBILITIES

District Four shall schedule a minimum of one Express Lanes Operator on-site at the SunGuide TMC at all times. The 24 hours per day/7 days per week (24/7) coverage requirement includes using the Shift Supervisors or alternate Express trained Operators to cover EL operations during breaks and approved leaves of absence. The responsibilities of the EL Staff are as follows:

- Primary operators of the Express Lanes Module (SELS).
- Monitor Express facilities and General Use Lanes within District limits.
- Verify toll amounts (per Segments and Trips) are displayed correctly every 15 minutes.
- Review failures in SELS and follow failure procedures.
- Observe, acknowledge and report all detector failures and report via the MIMS software application.
- Manage events in the Express Lanes, in accordance District Four ELOPS and training material.
- Primary Point of Contact for Express Lane events (to include interagency event for District Six and 595 Express LLC).
- Ensure shift change report for EL Operations is complete and accurate for each shift worked.
- Create and complete the SELS Shift debriefing report to incorporate activities for 595 Express, 75 Express, and 95 Express.
- Handle all calls/inquiries related to Express Lanes.

- Monitor 75 Express and 95 Express field devices along both facilities and field devices along the General Use Lanes throughout the Express limits and report failures via the MIMS software application.
- Ensure breaks and meals are covered by Shift Supervisors or EL trained Operators.
- Closely coordinate and support Shift Supervisors and Fleet Operators.
- Prepare or assist with preparation of Express Lanes reports.
- Assist and/or perform research for TMC Management / Client.

1.4 DISTRICT FOUR ROAD RANGER/INCIDENT RESPONSE TEAM COORDINATION

PURPOSE AND SCOPE

The purpose of this section is to describe supplemental Road Ranger coordination procedures and policies and provide procedures for communicating with the Express Severe Incident Response Team. As agreed, by both districts, FDOT District Six shall handle all incident and event management for all events occurring in Miami-Dade County. FDOT District Four shall handle all incident and event management for all events occurring in Broward County.

INCIDENT RESPONSE TEAM OVERVIEW

Existing Incident Management

Existing FDOT D4 and D6 incident management efforts along the project corridor are managed from the respective FDOT SunGuide Transportation Management Center (TMC). These efforts include four key program elements; Traffic Incident Management (TIM) Teams, Road Rangers, Rapid Incident Scene Clearance (RISC), and Severe Incident Response Vehicle/Incident Response Vehicle (SIRV/IRV) Operations. These resources work closely with Asset Maintenance Contractors for extended incidents. The delineation mark for incident management services between D4 and D6 will be the Broward County/Miami Dade Countyline, to the south of the District; however, procedures are in place for each District to respond to the neighboring District upon request.

Traffic Incident Management (TIM) Teams

The Incident Management program provides incident management response as well as limited assistance to stranded motorists to reduce congestion and improve safety for emergency responders and the motoring public. The D4 TMC, in the interest of promoting Florida's "Open Roads Policy" and providing increased mobility on FDOT highways, provides Incident Management (IM) and Motorist Assistance (MA) services to improve safety, reduce delays, and mitigate secondary traffic incidents.

Both the D4 and D6 have established Traffic Incident Management (TIM) Teams. The TIM Teams consists of FDOT, Florida's Turnpike Enterprise (FTE), FHP (Florida Highway Patrol), tow companies, local police, local fire rescue, other regional TMCs, consultants, and asset maintenance companies. The District Four TMC TIM Team meets quarterly and there are bi-annual joint TIM meetings held among the D4 TMC and D6 TMC TIM Teams. Through the TIM Teams, both D4 TMC and 64 TMC have established excellent working relationships with the incident responders. The TIM Teams have helped to establish quick clearance policies and provide a forum to discuss issues which results in continuous improvement to incident response within the region.

Future - FDOT District Four will look into providing additional resources to clear events along the EL facility. As part of the enforcement plan, at least two FHP Troopers (6:00 AM to 10:00 PM, Monday through Friday) will be retained by FDOT through the Hireback program. In addition, one FDOT Severe Incident Response Vehicle (SIRV) Operator will support the existing Road Rangers and improve communications between the field and the TMC Operations. A flat bed tow truck will be required to assist with clearance of the EL.

Express Severe Incident Response Vehicle Operators

The SIRV operators will act as an FDOT incident coordinator on-scene for events impacting the traffic flow within the Express Lanes. They will assist responding agencies, coordinate maintenance of traffic (MOT) activities of the Road Rangers and provide liaison between other responding agencies and FDOT resources (such as FDOT Maintenance and/or its Asset Maintenance Contractor). The SIRV Operator will be the primary contact for the TMC Operators to ensure all response and clearance times are documented in the SunGuide Software. As needed, the SIRV operator will facilitate post-incident analysis meetings with other agencies. The SIRV operators will wear a uniform that portrays a professional appearance and assists with recognition in the field to new responders. A patch will be worn to communicate that the SIRV Operators represent FDOT. The SIRV operators will be trained and qualified in the following:



- Incident Management and Command
- Advanced Management of Traffic
- Incident Clearance Procedures
- Severe Incident Documentation
- Emergency Vehicle Operation
- First responder functions and responsibilities

Their hours for Express Lanes incident response are listed below:

- Monday through Friday (excluding FDOT approved / public holidays) – 6A through 10P.
- Out of hours 10P through 6A and weekends – on call (refer to weekly published schedule).

For out of hours response, the following criteria must be met:

- Any event lasting or expected to last 2 hours or longer.
- Any event involving a fatality.
- Any RISC event.
- Any event involving a large overturned commercial vehicle, such as a tractor-trailer, dump-trump, cement mixer, tanker, etc.
- Any event involving a large commercial vehicle, such as a tractor-trailer, dump-truck, cement mixer, tanker, etc. where the tires are burned off.
- Any event involving a Haz-Mat.

SIRV must also be notified for any crash involving injuries requiring transport to:

- Law Enforcement.
- Fire Rescue.
- Road Rangers.

Severe Incident Response Vehicle

The SIRV is a specially equipped and marked vehicle that is dispatched through the FDOT District Four SunGuide TMC. These vehicles are equipped with an amber strobe light system to facilitate emergency response. High intensity lighting and markings have been added to the truck to assist responders after sundown. A docking station in the driver's compartment allows use of a laptop computer to support incident command activities. A statewide law enforcement radio system (SLERS) radio is provided to allow for direct communication with the FDOT District Four SunGuide TMC Operations Staff. In addition, the Severe Incident Response Vehicle carries maintenance of traffic and spill mitigation equipment such as cones, signs, flares, oil dry, and fuel absorbent.



Flat Bed Tow Truck

The flat bed tow truck is a 21 ft. carrier properly equipped for all types of vehicle towing and a four passenger cab (not including driver) to facilitate quick clearance of the lanes.

Florida Highway Patrol

FHP provide enforcement and coordinate the removal of an event from the Express Lanes. FHP is contacted when rotational tow is required either to remove a vehicle from the Express Lanes or to assist with removal of the vehicle from any other site after it has been relocated from the Express Lanes.



Road Ranger Coordination

The Road Rangers are the FDOT freeway service patrol which is a free service provided by FDOT and is managed by each Districts TMC. The Road Rangers' mission is to provide free highway assistance services during incidents to reduce delay and improve safety for the motoring public and responders. In Broward, Palm Beach (D4) and Miami Dade (D6), Road Rangers patrol designated areas (beats) 24 hours a day, 7 days a week and 365 days a year. The Road Rangers provides the following services:

- Short-term maintenance-of-traffic (MOT) services during incidents.
- Assist in incident management and response.
- Clear disabled vehicles from travel lanes.
- Clear debris from travel lanes.
- Change flat tires.
- Jump-start vehicles and make minor repairs.
- Supply emergency gasoline, diesel, water.
- Provide stranded motorists two free local calls.
- Monitor abandoned vehicles and notify FHP

In Broward County, Road Ranger services along I-75 are currently provided through the Asset Maintenance Contract E4V68. Asset Maintenance Contract E4V68 (Incident Clear – Broward) began service on July 01, 2022. This contract provides Road Ranger pick-up trucks that continuously patrol all I-95, I-75, and portions of I-595. The Road Rangers respond to incidents and stranded motorists along these corridors to help facilitate clearing the roadway.

The Road Ranger vehicle fleet within Broward / Palm Beach includes three different truck types: - Pickup trucks, pickup trucks (with debris clear) and flatbed trucks. The Road Ranger patrol beats for 75 EL and 95 EL project limits are as follows:

Monday through Friday 5:30 AM – 10:00 PM

- I-75 Broward County (Alligator Alley Toll Plaza to Mile Marker 50)
 - One Pickup Truck
- I-75 Broward County (Flamingo Rd to Sunrise Blvd / Alligator Alley Toll Plaza to Griffin Rd)
 - One Pickup Truck
- I-75 Broward County (Miami Gardens to Royal Palm)
 - One Pickup Truck
- West Roving Supervisor
 - One Pickup Truck (with Debris Clear)

Monday through Friday 10:00 PM – 5:30 AM, weekends and holidays

- I-75 Broward County (Alligator Alley Toll Plaza to Mile Marker 50)
 - One Pickup Truck
- I-75 Broward County (Miami Gardens to Toll Plaza / I-595 Flamingo Road to SR-869 / Sunrise Blvd and EXPRESS Lanes)
 - One Pickup Truck
- County Supervisor
 - One Pickup Truck (with Debris Clear)

75 Express is an enclosed facility, separated from the General Use lanes by concrete barrier wall, with designated emergency access crossover points along the facility. Road Rangers are designated as “Emergency Vehicles” by FDOT Secretary Order and are permitted to utilize these crossovers when responding to and departing an event. This authorization was granted to Road Rangers in order to safely facilitate quick clearance of traffic incidents, especially those occurring within the Express Lanes facility.

A minimum of two Road Rangers will be dispatched. One of these two vehicles must be a flatbed truck during Peak Period (broken down into Peak East and Peak West). The Road Ranger arriving first will:

- Notify the TMC upon its arrival.
- Assess the situation.
- Communicate to the TMC whether the backup unit is still needed.
- Secure the scene by setting up temporary MOT and offer assistance, as needed, to the vehicle or motorist.

If the backup unit is needed, the Road Ranger vehicles will reposition themselves, as needed, to allow the flatbed truck to hook up the disabled vehicle as the other Road Ranger provides additional backup and maintenance of traffic (MOT) behind the incident.

- When relocating vehicles, a minimum of two vehicles is required.
- All vehicles should be relocated to a safe location, with wide shoulder, within the facility or Emergency Stopping Site (ESS) along I-75.



Road Rangers shall be allowed to relocate any vehicle without the presence of law enforcement (FHP or other) to the nearest safe location or Emergency Stopping Site (ESS). However, Road Rangers are not legally authorized to perform relocation of the vehicle without the vehicle owner’s or law enforcement’s consent.

Anytime a Road Ranger/SIRV Operator relocates a vehicle or requests FHP assistance, the TMC Operator shall provide FHP with the following information:

- Vehicle Description(s) (Make, Model, Color, License Plate and VIN)
- Note: TMC Operator must advise FHP when the event is unable to be located by CCTV or when a Road Ranger is not on scene.
- Nature/Type of Event
- Location (Roadway, Direction of Travel, Proximity, and Cross Street)
- Injuries, if applicable

Dispatching Resources

The Express Lanes Operator is responsible for detecting, confirming, and dispatching the necessary resources to accommodate the nature of the event, such as Road Rangers, SIRV Operator and/or Flatbed Tow Truck. Communication will be maintained by the Express Lanes Operator with the resources dispatched pre, during, and/or post incident.

Quick Clearance Procedures

In order to expedite the clearance of both travel lane and shoulder blocking events within the Express Lanes, the following quick clearance procedures have been established:

- Vehicles blocking Express travel lanes are to be relocated to a safe location, with wide shoulder, within the facility or a designated Emergency Stopping Site (ESS) along I-75. Road Ranger vehicles equipped to safely move vehicles may do so, although some events may require a flatbed truck.
- Disabled vehicles located on either the left or right shoulder of the Express Lanes should be relocated to a safe location, with wide shoulder, within the facility or a designated Emergency Stopping Site (ESS) along I-75.
- Abandoned vehicles within the Express Lanes that are blocking a travel lane or deemed to be impeding traffic due to proximity of the travel lane shall be relocated to the nearest safe location. Prior to relocation the Express Lanes Operator shall notify FHP that the vehicle is being relocated. Once the vehicle has been relocated the EL Operator shall provide FHP with a follow-up notification informing FHP of the vehicle description (Make, Model, Color, and License Plate Number) and the location of the vehicle.
- Abandoned vehicles on the Express Lanes shoulder (legally parked) are to be marked with a grease pen on the rear window by a Road Ranger when it is first discovered and the Express Lanes Operator will notify FHP (or liaison) to log the initial discovery.
 - The markings include the time, date and Road Ranger truck number.
 - At the beginning of each Hireback (future) shift, the FHP Trooper sweeps the Express Lanes for disabled vehicles and calls for rotational tow if necessary.
 - The rotational tow will pick up the vehicle from the shoulder if they are able to respond within 30 minutes. If they are not able to respond within 30 minutes, the FHP Trooper will request TMC Operations dispatch resources to relocate the disabled vehicle to the General Use right shoulder, ESS, or Broward Park and Ride.
- Subsequently, the FHP Trooper will request rotational tow to pick up the vehicle at the designated relocation area.

Debris

Debris located within the Express Lanes shall be removed from the travel lanes by the Road Ranger/Road Ranger Supervisor using the DebrisClear System. Once the debris is clear, the Road Ranger/Road Ranger Supervisor shall notify the TMC. It is then the responsibility of the Express Lanes Operator to contact the Asset Maintenance Contractor (or project contractor) to dispose of the debris. If the debris is too large for the Road Ranger/Road Ranger Supervisor to remove, or if the removal puts the Road Ranger/Road Ranger Supervisor in an unsafe situation, then the TMC Operator shall contact the FDOT Asset Maintenance Contractor (or project contractor).

Asset Maintenance / Contractor within project limits (for LTMOT)

Asset Maintenance – The Asset Maintenance contractor is responsible for repair and maintenance of the Express Lanes, unless the limits fall within an active project, at which time the contractor assigned to the project is to respond (please refer to the Asset Maintenance spreadsheet for project limits). They respond to or acknowledge:

- Damage, property theft or vandalism to State owned infrastructure or equipment, including but not limited to guardrails, bridge abutments, crash barrels and pavement.
- Debris on the roadway.
- Severe incident with Long Term Maintenance of Traffic requirements (LTMOT). Typically estimated to have greater than one hour of lane blockage for Express Lanes management.

HARD CLOSURES FOR INDIVIDUAL SEGMENTS

All field resources patrol their assigned beats throughout their patrol.

- The SIRV unit and Flatbed shall provide on-scene management and event coordination for the primary incident.
- One Road Ranger Pickup truck shall be responsible for the closing of each assigned ingress point to the segment (from I-75 mainline).

- One Road Ranger Pickup truck shall be responsible for the closing at the end of the upstream segment to prevent motorists continuing their trip toward the incident scene (to I-75 mainline).
- Once the duration of an event has exceeded 60 minutes, then notify Asset Maintenance Contractor to relieve the Road Rangers and/or IRV.

HARD CLOSURES FOR SEGMENTS OUTSIDE OF DISTRICT FOUR LIMITS

District Four are supported by SEFRTOC partners for locations outside of their District limits, such as ingress locations for 75 Express, supported by District Six and FTE. Examples are listed below:

- D6 – One Road Ranger Pickup truck is responsible for closing at the end of 75 Express Segment 2N (destination Miami Gardens Drive), to force traffic out to the General Use mainline and prevent motorists from entering the downstream segment (4N).
- D6 – One Road Ranger Pickup truck is responsible for closing the ingress from NW 138 Street mainline to prevent motorists from entering downstream segment (4N).
- D6 – One Road Ranger Pickup truck is responsible for closing at the egress to HEFT SB to prevent motorists from entering HEFT SB. *If the General Use exit ramp to HEFT is to be closed (includes both NB and SB ramps), this falls within District Four Incident Management limits, for which their own resources will be utilized.*
- FTE – One Road Ranger Pickup truck is responsible for closing the ingress from HEFT NB to prevent motorists from entering downstream segment (6N).
- FTE – One Road Ranger Pickup truck is responsible for closing the ingress from HEFT SB to prevent motorists from entering downstream segment (6N).
- Once the duration of an event has exceeded 60 minutes, then notify Asset Maintenance Contractor to relieve the Road Rangers and/or IRV.

The emergency access crossover points are at the following locations. See [Figure 15](#):

- Northbound: South of Miramar Parkway
 South of Pines Boulevard
 South of Sheridan Street
 South of Royal Palm Boulevard
- Southbound: North of Griffin Road
 North of Sheridan Street
 North of Pines Boulevard
 North of Miramar Parkway

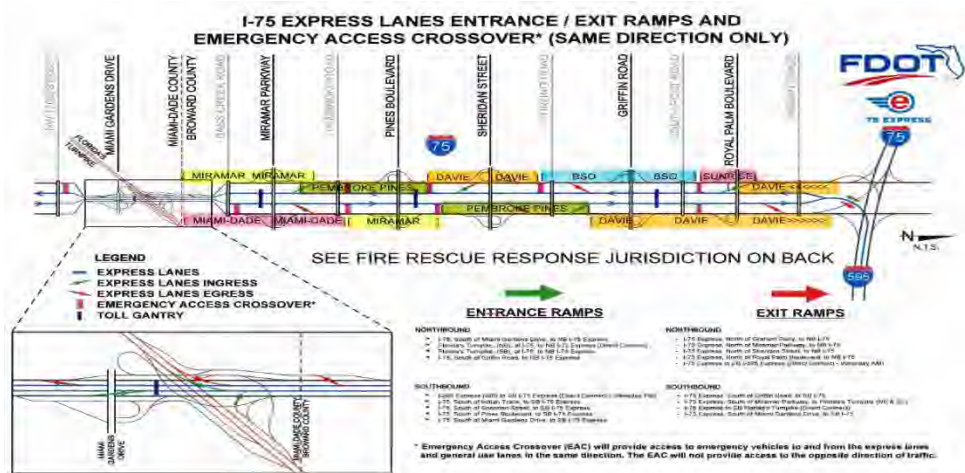


Figure 15 Sample Screenshot of the 95 Express Corridor View

1.5 EL SOFTWARE APPLICATIONS

PURPOSE AND SCOPE

The purpose of this section is to provide the procedures for operating the SELS software applications.

EXPRESS LANE MODULE (SELS)

The EL Operator shall use SELS to determine and post the applicable toll amount, monitor traffic conditions in both the EL and GU Lanes, monitor EL detector status and generate reports. The EL Operator shall log onto SELS at the beginning of each shift and initiate the Roadway Operations View and Detector Status Monitor. The SELS will track, change modes, and post EL Toll Amount DMS messages, plus document the EL Operator actions for acknowledging and confirming the applicable toll amount. The EL Operator shall visually verify that the intended toll amounts are posted via CCTV screenshots before processing the SELS DMS Verification Form. [Figure 16](#) provides a sample screenshot of the Roadway Operation View. [Figure 17](#) provides a sample screenshot of the DMS Verification Form. [Figure 18](#) provides a sample screenshot of the Segment Mode/Toll Change pop-up.

For additional detailed procedures, refer to [Express Lanes Operational Procedures \(ELOP\)](#) and the District Four 75 Express Corridor Management for closures NORTHBOUND scenarios located in the following folder P:\EXPRESS LANE INFO FOR OPERATORS\75 EXPRESS.



Figure 16 Sample Screenshot of the 75 Express Corridor View

EXPRESS LANES OPERATIONAL PROCEDURES

Express Lanes Operational Procedures (Version 1)

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Location	Direction	Scenario	Comments	Response	Recovery
75 Express Lanes Events – 75 Express from Palmetto Expressway (District Six) to egress to Miami Gardens Drive (single lane).	NB	SINGLE LANE CLOSED BEFORE EGRESS TO MIAMI GARDENS DRIVE (ALSO BEFORE INGRESS FROM NW 138 STREET)	<p>This is a District Six tolling and Incident Management response area; however District Four have two internal Toll Amount signs for segment and trip tolls to Pines Blvd, Griffin Rd, and I-595.</p> <p>These signs will have to be manually changed for all destinations to state ‘CLOSED’ if the incident is beyond either one of the toll amount signs.</p> <p>The TADMS are: FLD4DOT075001.9NB-TR1/ TR2/ TR3. FLD4DOT075002.3NB-TR1/ TR2/ TR3.</p>	<ol style="list-style-type: none"> 1. Verify the location of the incident (see comments). 2. Notify District Six if District Four are the notifying agency. 3. If the event is before the Toll Amount Sign, no further action is required District Four. 4. If the event is beyond the Toll Amount DMS, log the event into SunGuide for documentation purposes. The location will be determined by District Six (interagency event). 5. Manually post ‘CLOSED’ on all the 75 Express NB TADMS associated with the single lane from Palmetto Express to 75 Express NB Segment I-75-4N, using group filter ‘75X NB 01 S of HEFT - INTERNAL’. 6. Verify that the ‘CLOSED’ message is on those TADMS. If not, place any back in service that do not have that message and repeat the process. 7. Set the TADMS to ‘Out of Service’. 8. Every 15 minutes verify that all EL DMS are displaying the correct messages. 9. Continue tolling as usual. 	<ol style="list-style-type: none"> 1. Set the TADMS back to ‘Active’. 2. In the SELS Corridor View, click on the  within the Status Table for Segment I-75-4N and re-submit the mode displayed (current), to update signs that were set ‘Out of Service’. 3. In SunGuide notate the use of the Toll Amount DMS and the status of what is posted (Tolling). 4. Continue tolling as usual.



Location	Direction	Scenario	Comments	Response	Recovery
<p>75 Express Lanes Events – Entrance / Ingress from NW 138 St / I-75 mainline (at MGD) to Segment I-75-4N Blocked.</p>	<p>NB</p>	<p>ENTRANCE / INGRESS FROM NW 138 STREET / I-75 MAINLINE TO SEGMENT I-75-4N BLOCKED</p>	<p>This is a District Six Incident Management response area.</p> <p>If supporting a primary EL event, then the segment should be closed in SELS (No EL IM DMS within 4N).</p>	<p>Regardless of event type:</p> <ol style="list-style-type: none"> 1. Notify District Six for incident response and to assist with DMS messaging. 2. Manually post ‘CLOSED’ on all the 75 Express NB TADMS associated with the I-75 entrance to 75 Express NB Segment I-75-4N from mainline, using group filter ‘75X NB 02 Ingress at MGD’. 3. Manually post ‘EXPRESS LANES CLOSED’ on all the 75 Express NB LSDMS associated with the I-75 entrance to 75 Express NB Segment I-75-4N from mainline, using group filter ‘75X NB 02 Ingress at MGD’. 4. Set the TADMS and LSDMS to ‘Out of Service’. 5. Verify that the ‘CLOSED’ message is on those TADMS. If not, place any back in service that do not have that message and repeat the process. 6. Verify that the ‘EXPRESS LANES CLOSED’ message is on those LSDMS. If not, place any back in service that do not have that message and repeat the process. 7. Log the event into SunGuide for documentation purposes (interagency event). Notate the use of the TADMS and LSDMS, and the status of what is posted (Closed). 8. Every 15 minutes verify that all EL DMS are displaying the correct messages. 9. Continue tolling as usual. 	<ol style="list-style-type: none"> 1. Notify District Six to release the Road Ranger and / or IRV and open the entrance / ingress. 2. Set all the TADMS and LSDMS associated with the entrance / ingress back to ‘Active’. 3. In the SELS Corridor View, click on the  within the Status Table for Segment I-75-4N and re-submit the mode displayed (current), to update signs that were set ‘Out of Service’. 4. In SunGuide, notate the use of the TADMS and LASDMS and the status of what is posted (Tolling). 5. Advise District Six to clear the DMS messaging (interagency). 6. Continue tolling as usual.

Location	Direction	Scenario	Comments	Response	Recovery
75 Express Lanes Events – Segment I-75-4N (beyond entrance / ingress from NW 138 St).	NB	ABANDONED VEHICLE, DEBRIS, DISABLED VEHICLE, OTHER, OR PEDESTRIAN EVENT OCCURS IN TWO LANE SECTION OF EXPRESS LANES SEGMENT I-75-4N (BEYOND ENTRANCE / INGRESS FROM NW 138 ST) BLOCKED	<p>South of the County line - This is a District Six Incident Management response area.</p> <p>North of the County Line – This is a District Four Incident Management response area.</p>	<p>If the event type is Abandoned Vehicle, Debris, Disabled Vehicle, Other, or Pedestrian:</p> <p>If the event is blocking all lanes, regardless of the event type follow the procedure that is shown on next page for Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding.</p> <p>If the event is not blocking all lanes and is expected to be cleared within 60 minutes:</p> <ol style="list-style-type: none"> 1. Dispatch responders to assist with the event. 2. Notify District Six for incident response (if south of the county line) and to assist with DMS messaging. 3. Normal tolling continues for the next 60 minutes. <p>Once the event exceeds 60 minutes, or if expected to exceed 60 minutes, or if all lanes are blocked:</p> <ol style="list-style-type: none"> 1. In SELS Corridor View, click on the  within the Status Table for the Segment: <ul style="list-style-type: none"> o Choose Closed mode o Select the associated SunGuide event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (default in SELS). 2. Request District Six to implement a hard closure with additional Road Rangers and / or IRV at the ingress to I-75-4N. 3. Request District Six to implement a hard closure with additional Road Rangers and / or IRV at the exit/ egress to Miami Gardens Drive (force motorists to mainline). 4. Request District Six to assist with DMS messaging. 	<ol style="list-style-type: none"> 1. Notify District Six to release the Road Rangers / IRV to open the segment entrances / ingress. 2. Verify that the TADMS and LSDMS are active. 3. In the SELS Corridor View, click on the  for the Segment within the Status Table: 4. Choose desired mode (current) 5. If the Closed mode was not originally associated with a SunGuide event, select an event. An event must be selected before leaving 'Closed' mode. 6. In SunGuide, notate the use of the Toll Amount DMS and the status of what is posted (Tolling). 7. Advise District Six to clear the DMS messaging (interagency). 8. Continue tolling as usual.



Location	Direction	Scenario	Comments	Response	Recovery
75 Express Lanes Events – Segment I-75-4N (beyond entrance / ingress from NW 138 St).	NB	CRASH, EMERGENCY VEHICLES, ROADWORK EMERGENCY, POLICE ACTIVITY, OR FLOODING EVENT OCCURS IN TWO LANE SECTION OF EXPRESS LANES SEGMENT I-75-4N (BEYOND ENTRANCE / INGRESS FROM NW 138 ST) BLOCKED	<p>South of the County line - This is a District Six Incident Management response area.</p> <p>North of the County Line – This is a District Four Incident Management response area.</p>	<p>If the event type is Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding, then:</p> <ol style="list-style-type: none"> 1. Dispatch responders to assist with the event. 2. Notify District Six for incident response (if south of the county line) and to assist with DMS messaging. 5. In SELS Corridor View, click on the M within the Status Table for the Segment: <ul style="list-style-type: none"> o Choose Closed mode o Select the associated SunGuide event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (default in SELS). 3. Log the event into SunGuide for documentation purposes (interagency event). Notate the use of the Toll Amount DMS, and the status of what is posted (Closed). <p>Once the event exceeds 60 minutes (or if expected to exceed 60 minutes from the time of activation):</p> <ol style="list-style-type: none"> 1. Request District Six to implement a hard closure with additional Road Rangers and / or IRV at the ingress to Segment I-75-4N. 2. Request District Six to implement a hard closure with additional Road Rangers and / or IRV at the exit / egress to Miami Gardens Drive (force motorists to mainline). 	<ol style="list-style-type: none"> 1. Notify District Six to release the Road Rangers / IRV to open the segment entrances / ingress. 2. Verify that the TADMS and LSDMS are active. 3. In the SELS Corridor View, click on the M for the Segment within the Status Table: 4. Choose desired mode (current) 5. If the Closed mode was not originally associated with a SunGuide event, select an event. An event must be selected before leaving ‘Closed’ mode. 6. In SunGuide, notate the use of the Toll Amount DMS and the status of what is posted (Tolling). 7. Advise District Six to clear the DMS messaging (interagency). 8. Continue tolling as usual.

Location	Direction	Scenario	Comments	Response	Recovery
<p>75 Express Lanes Events – Entrance / ingress from HEFT NB mainline to 75 Express NB. Segment I-75-6N.</p>	<p>NB</p>	<p>ENTRANCE / INGRESS FROM HEFT NB MAINLINE TO 75 EXPRESS NB SEGMENT I-75-6N BLOCKED</p>	<p>This is a Florida Turnpike Enterprise (FTE) Incident Management response area.</p> <p>If supporting a primary EL event, then the segment should be closed in SELS (6N).</p>	<p>Regardless of event type:</p> <ol style="list-style-type: none"> 1. Notify Florida’s Turnpike Enterprise (FTE) for incident response and to assist with activation of RPG (DMS / email / FLATIS). 2. Manually post ‘CLOSED’ on the TADMS associated with the entrance / ingress from HEFT NB mainline to I-75 Express NB Segment I-75-6N, using group filter ‘75X NB 04 HEFT NB Ramp only’. 3. Manually post ‘CLOSED’ on the LSDMS associated with the entrance / ingress to I-75 Express NB Segment I-75-6N, using group filter ‘75X NB 04 HEFT NB Ramp only’. 4. Set the TADMS and LSDMS to ‘Out of Service’. 5. Verify that the ‘CLOSED’ message is on the TADMS. If not, place any back in service that do not have that message and repeat the process. 6. Verify that the ‘EXPRESS LANES CLOSED’ message is on those LSDMS. If not, place any back in service that do not have that message and repeat the process. 7. Log the event into SunGuide for documentation purposes (interagency event). Notate the use of the Toll Amount and Lane Status DMS, and the status of what is posted (Closed). 8. Every 15 minutes verify that all EL DMS are displaying the correct messages. 9. Continue tolling as usual. 	<ol style="list-style-type: none"> 1. Notify FTE to release the Road Ranger and open the entrance / ingress. 2. Set all the TADMS and LSDMS associated with the entrance / ingress back to ‘Active’. 3. In the SELS Corridor View, click on the  within the Status Table for Segment I-75-6N and re-submit the mode displayed (current), to update signs that were set ‘Out of Service’. 4. In SunGuide, notate the use of the Toll Amount DMS and the status of what is posted (Tolling). 5. Advise FTE to clear the DMS messaging (interagency). 6. Continue tolling as usual.


Location	Direction	Scenario	Comments	Response	Recovery
75 Express Lanes Events – Entrance / ingress from HEFT SB mainline to 75 Express NB. Segment I-75-6N.	NB	ENTRANCE / INGRESS FROM HEFT SB MAINLINE TO 75 EXPRESS NB SEGMENT I-75-6N BLOCKED	<p>This is a Florida Turnpike Enterprise (FTE) Incident Management response area.</p> <p>If District Four post the IM DMS located on the HEFT (If Turnpike not able to post via C2C), then from the message library post “NB 75 EXPRESS LANES / CLOSED / DO NOT ENTER” on DMS 821SB041.4.</p> <p>Refer to DMS messaging plan</p> <p>If supporting a primary EL event, then the segment should be closed in SELS (6N).</p>	<p>Regardless of event type:</p> <ol style="list-style-type: none"> 1. Notify Florida’s Turnpike Enterprise (FTE) for incident response and to assist with activation of RPG (Email / FLATIS). 2. Manually post ‘CLOSED’ on the TADMS associated with the entrance / ingress to I-75 Express NB Segment I-75-6N, using group filter ‘75X NB 05 Ingress from HEFT SB’. 3. Manually post ‘CLOSED’ on the LSDMS associated with the entrance / ingress to I-75 Express NB Segment I-75-6N, using group filter ‘75X NB 05 Ingress from HEFT SB’. 4. Set the TADMS and LSDMS to ‘Out of Service’. 5. Verify that the ‘CLOSED’ message is on the TADMS. If not, place any back in service that do not have that message and repeat the process. 6. Verify that the ‘EXPRESS LANES CLOSED’ message is on those LSDMS. If not, place any back in service that do not have that message and repeat the process. 7. Log the event into SunGuide for documentation purposes (interagency event). Notate the use of the Toll Amount and Lane Status DMS, and the status of what is posted (Closed). 8. Every 15 minutes verify that all EL DMS are displaying the correct messages. 9. Continue tolling as usual. 	<ol style="list-style-type: none"> 1. Notify FTE to release the Road Ranger and open the entrance / ingress. 2. Set all the TADMS and LSDMS associated with the entrance / ingress back to ‘Active’. 3. In the SELS Corridor View, click on the  within the Status Table for Segment I-75-6N and re-submit the mode displayed (current), to update signs that were set ‘Out of Service’. 4. In SunGuide, notate the use of the Toll Amount DMS and the status of what is posted (Tolling). 5. Advise FTE to clear the DMS messaging (interagency). 6. Continue tolling as usual.



Location	Direction	Scenario	Comments	Response	Recovery
<p>75 Express Lanes Events – 75 Express NB before exit / egress to Pines Blvd. Segment I-75-6N.</p>	<p>NB</p>	<p>ABANDONED VEHICLE, DEBRIS, DISABLED VEHICLE, OTHER, OR PEDESTRIAN EVENT OCCURS IN TWO LANE SECTION OF EXPRESS LANES SEGMENT I-75-6N (BEFORE EXIT / EGRESS TO PINES BLVD) BLOCKED</p>	<p>South of the County line - This is a District Six Incident Management response area.</p> <p>North of the County Line – This is a District Four Incident Management response area.</p> <p>Utilize HEFT SB DMS 41.4 and internal DMS NB 6.3 EL with RPG generated message, based upon location of incident.</p> <p>Refer to DMS messaging plan</p> <p>SELS will prompt the closure of 4N when 6N is closed.</p>	<p>If the event type is Abandoned Vehicle, Debris, Disabled Vehicle, Other, or Pedestrian:</p> <p>If the event is blocking all lanes, regardless of the event type follow the procedure that is shown on next page for Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding.</p> <p>If the event is not blocking all lanes and is expected to be cleared within 60 minutes:</p> <ol style="list-style-type: none"> 1. Dispatch responders to assist with the event. 2. Normal tolling continues for the next 60 minutes. 3. Generate a response plan to notify motorists of the lane blockage. 4. Request District Six and FTE to assist with DMS messaging. <p>Once the event exceeds 60 minutes, or if expected to exceed 60 minutes, or if all lanes are blocked:</p> <ol style="list-style-type: none"> 1. In SELS Corridor View, click on the  within the Status Table for the Segment: <ul style="list-style-type: none"> o Choose Closed mode for Segment I-75-6N and I-75-4N. o Select the associated SunGuide event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the 	<ol style="list-style-type: none"> 1. Notify District Six and FTE to release the Road Rangers / IRV to open the segment entrances / ingress. 2. Verify that all the TADMS and LSDMS are active. 3. In the SELS Corridor View, click on the  within the Status Table for both Segment I-75-6N and I-75-4N: <ul style="list-style-type: none"> o Choose desired mode (current). o If the Closed mode was not originally associated with a SunGuide event, select an even. An event must be selected before leaving ‘Closed’ mode. 4. In SunGuide, terminate the response plan that was used for this closure. 5. In SunGuide, notate the use of the Toll Amount DMS and the status of what is posted (Tolling). 6. Advise District Six and FTE to clear the DMS messaging (interagency). 7. Continue tolling as usual.



			<p>Once 60 minutes has elapsed, update the HEFT SB DMS 41.4 with “75 NB EXPRESS / LANES CLOSED / DO NOT ENTER”</p>	<p>event reported time (default in SELS).</p> <ol style="list-style-type: none"> 2. Post messages using SunGuide predefined plan “75 EXPRESS NB SEGMENT 6N”. 3. Request District Six and FTE to assist with DMS messaging. 4. Request District Six to implement a hard closure at the entrance / ingress to Segment I-75-4N from I-75 mainline. 5. Request FTE to implement a hard closure at the entrance / ingress to Segment I-75-6N from HEFT NB. 6. Request FTE to implement a hard closure at the entrance / ingress to Segment I-75-6N from HEFT SB. 7. Request District Six to implement a hard closure with additional Road Rangers and / or IRV at the egress to Miami Gardens Drive (force motorists to mainline). 	
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Location	Direction	Scenario	Comments	Response	Recovery
<p>75 Express Lanes Events – 75 Express NB before exit / egress to Pines Blvd. Segment I-75-6N.</p>	<p>NB</p>	<p>CRASH, EMERGENCY VEHICLES, ROAD WORK EMERGENCY, POLICE ACTIVITY, OR FLOODING EVENT OCCURS IN TWO LANE SECTION OF EXPRESS LANES SEGMENT I-75-6N (BEFORE EXIT / EGRESS TO PINES BLVD) BLOCKED</p>	<p>South of the County line - This is a District Six Incident Management response area.</p> <p>North of the County Line – This is a District Four Incident Management response area.</p> <p>SELS will prompt the closure of 4N when 6N is closed.</p> <p>Utilize HEFT SB DMS 41.4 with “75 NB EXPRESS LANES / CLOSED / DO NOT ENTER” and on EL DMS NB 6.3 use RPG generated message based upon location of incident.</p> <p>Refer to DMS messaging plan</p>	<p>If the event type is Crash, Emergency Vehicles, Road Work Emergency, Police Activity or *Flooding, then:</p> <ul style="list-style-type: none"> ○ Dispatch incident responders to assist with the event. ○ In SELS Corridor View, click on the  within the Status Table for the Segment: <ul style="list-style-type: none"> ○ Choose Closed mode for Segment I-75-6N and I-75-4N. ○ Select the associated SunGuide event. If the event is not available at the time of the override, select a Dummy event. ○ Ensure that the effective time is set at 10 minutes before the event reported time (default in SELS). ○ Generate a response plan to notify motorists of the lane blockage using messaging for a SOFT closure. <p>*For Flooding – Internal DMS to use soft messaging until responder arrives on scene. Messaging example: “FLOODING/REFERENCE POINT/LEFT LANE”</p> <p>Once responder is on scene, the internal DMS will be updated via RPG to reflect the blockage (ex. LEFT LANE BLOCKED/ REFERENCE POINT)</p> <ol style="list-style-type: none"> 1. Request District Six and FTE to assist with DMS messaging. 	<ol style="list-style-type: none"> 1. Notify District Six and FTE to release the Road Rangers / IRV to open the segment entrances / ingress. 2. Verify that all the TADMS and LSDMS are active. 3. In the SELS Corridor View, click on the  within the Status Table for both Segment I-75-6N and I-75-4N: <ul style="list-style-type: none"> ○ Choose desired mode (current). ○ If the Closed mode was not originally associated with a SunGuide event, select an even. An event must be selected before leaving ‘Closed’ mode. 4. In SunGuide, terminate the response plan that was used for this closure. 5. In SunGuide, notate the use of the Toll Amount DMS and the status of what is posted (Tolling). 6. Advise District Six and FTE to clear the DMS messaging (interagency). 7. Continue tolling as usual.



			<p>Refer to DMS messaging plan</p>	<p>Once the event exceeds 60 minutes (or if expected to exceed 60 minutes from the time of activation):</p> <ol style="list-style-type: none"> 1. Post messages using SunGuide predefined plan “75 EXPRESS NB SEGMENT 6N”. 2. Request District Six to implement a hard closure at the entrance / ingress to Segment I-75-4N from I-75 mainline. 3. Request FTE to implement a hard closure at the entrance / ingress to Segment I-75-6N from HEFT NB. 4. Request FTE to implement a hard closure at the entrance / ingress to Segment I-75-6N from HEFT SB. 5. Request District Six to implement a hard closure with additional Road Rangers and / or IRV at the egress to Miami Gardens Drive (force motorists to mainline). 	
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Location	Direction	Scenario	Comments	Response	Recovery
75 Express Lanes Events – 75 Express NB before exit / egress to Pines Blvd. Segment I-75-6N.	NB	<p>RECOVER FROM TWO LANE SECTION OF EXPRESS LANES SEGMENT I-75-4N AND I-75-6N CLOSED – OPEN ENTRANCES SEQUENTIALLY</p> <p>Example:</p> <p>Open entrance / ingress from NW 138 St / mainline I-75</p> <p>Then → Open the exit / egress from HEFT NB to 75 Express NB</p> <p>Then → Open the exit / egress from HEFT SB to 75 Express NB</p>	<p>The HEFT NB and HEFT SB ramps are associated with Segment I-75-6N.</p> <p>The 75 Express mainline is associated with Segment 6N and 4N.</p>		<ol style="list-style-type: none"> 1. Place Toll Amount DMS (Segment and /or Trip) and Lane Status DMS associated with any entrance that remains closed ‘Out of Service’ to ensure that the ‘closed’ message remains on those signs. 2. In SELS Corridor View, click on the  within the Status Table for both Segment I-75-6N and I-75-4N: <ul style="list-style-type: none"> ○ Select desired mode (current). ○ If the Closed mode was not originally associated with a SunGuide event, select an event. An event must be selected before leaving ‘Closed’ mode. 3. Continue tolling as usual. 4. When the last entrance is reopened, follow the procedures outlined in the recovery from the affected entrance to the Express Lane. See Scenario for: <ul style="list-style-type: none"> • RECOVERY FROM ENTRANCE / INGRESS FROM NW 138 STREET / I-75 MAINLINE TO SEGMENT I-75-4N BLOCKED • RECOVER FROM HEFT NB EXIT / EGRESS TO 75 EXPRESS NB SEGMENT I-75-6N BLOCKED, or • RECOVER FROM HEFT SB EXIT / EGRESS TO 75 EXPRESS NB SEGMENT I-75-6N BLOCKED 5. Advise District Six and FTE to clear the DMS messaging (interagency). 6. Continue tolling as usual.


Location	Direction	Scenario	Comments	Response	Recovery
75 Express Lanes Events – 75 Express NB exit / egress to Pines Blvd (at Miramar). Segment I-75-6N.	NB	EXIT / EGRESS TO PINES BLVD / I-75 MAINLINE SEGMENT I-75-6N BLOCKED	<p>For this scenario, as the Trip destinations are to Griffin and I-595 and the EL mainline is unaffected, to improve throughput we are to CLOSE segments 6N and 4N, manually change the LSDMS to reflect OPEN, and manually change the trip tolls to Griffin (TR-2) and I-595 (TR-3) from CLOSED to the TOD time, and place ‘Out of Service’. *Once we toll dynamically, the price will have to be adjusted based upon change in dynamic pricing.</p> <p>SELS will prompt the closure of 4N when 6N is closed.</p> <p>Refer to DMS messaging plan</p>	<p>Regardless of event type:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. In SELS Corridor View, click on the  within the Status Table for Segment: <ul style="list-style-type: none"> ○ Choose Closed mode for Segment I-75-6N and I-75-4N. ○ Select the associated SunGuide event. If the event is not available at the time of the override, select a Dummy event. ○ Ensure that the effective time is set at 10 minutes before the event reported time (default in SELS). 3. Post messages using SunGuide predefined plan “75 EXPRESS NB SEGMENT 6N (EGRESS)”. 4. Request District Six and FTE to assist with DMS messaging. <p>Once the event exceeds 60 minutes (or if expected to exceed 60 minutes from the time of activation):</p> <ol style="list-style-type: none"> 1. Request District Six to implement a hard closure at the entrance / ingress to Segment I-75-4N from I-75 mainline. 2. Request FTE to implement a hard closure at the entrance / ingress to Segment I-75-6N from HEFT NB. 3. Request FTE to implement a hard closure at the entrance / ingress to Segment I-75-6N from HEFT SB. 4. Request District Six to implement a hard closure with additional Road Rangers and / or IRV at the exit / egress to Miami Gardens Drive (force motorists to mainline). 	<ol style="list-style-type: none"> 1. Release the Road Ranger and / or SIRV and open the exit / egress. 2. Verify that all the TADMS and LSDMS are active. 3. In SELS Corridor View, click on the  within the Status Table for both Segment I-75-6N and I-75-4N: <ul style="list-style-type: none"> ○ Select desired mode (current). ○ If the Closed mode was not originally associated with a SunGuide event, select an event. An event must be selected before leaving Closed mode. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Advise District Six and FTE to clear the DMS messaging (interagency). 6. Continue tolling as usual.



Location	Direction	Scenario	Comments	Response	Recovery
75 Express Lanes Events – 75 Express NB beyond exit / egress to Pines Blvd. Segment I-75-9N.	NB	ABANDONED VEHICLE, DEBRIS, DISABLED VEHICLE, OTHER, OR PEDESTRIAN EVENT OCCURS IN TWO LANE SECTION OF EXPRESS LANES SEGMENT I-75-9N (BEYOND EXIT / EGRESS TO PINES BLVD) BLOCKED	<p>Utilize internal DMS NB 6.3 EL and manually add internal DMS NB 10.3 EL with RPG generated message, based upon location of incident.</p> <p>Refer to DMS messaging plan</p> <p>Once 60 minutes has elapsed, update the internal DMS NB 6.3 EL with “TRAFFIC MUST EXIT / TO / PINES BLVD”</p> <p>Refer to DMS messaging plan</p>	<p>If the event type is Abandoned Vehicle, Debris, Disabled Vehicle, Other, or Pedestrian:</p> <p>If the event is blocking all lanes, regardless of the event type follow the procedure that is shown on next page for Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding.</p> <p>If the event is not blocking all lanes and is expected to be cleared within 60 minutes:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. Normal tolling continues for the next 60 minutes. 3. Generate a response plan to notify motorists of the lane blockage. <p>Once the event exceeds 60 minutes, or if expected to exceed 60 minutes, or if all lanes are blocked:</p> <ol style="list-style-type: none"> 1. In SELS Corridor View, click on the  within the Status Table for the Segment: <ul style="list-style-type: none"> o Choose Closed mode for Segment I-75-9N. o Select the associated SunGuide event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (default in SELS). 2. Post messages using SunGuide predefined plan “75 EXPRESS NB SEGMENT 9N”. 3. Send an incident responder to implement a hard closure at the exit / egress to Pines Blvd (force motorists to mainline). 	<ol style="list-style-type: none"> 1. Release the Road Ranger and / or SIRV and open at the exit / egress to Pines Blvd (at Miramar Pkwy). 2. Verify that all the TADMS and LSDMS are active. 3. In SELS Corridor View, click on the  within the Status Table for Segment I-75-9N: <ul style="list-style-type: none"> o Select desired mode (current). o If the Closed mode was not originally associated with a SunGuide event, select an event. An event must be selected before leaving Closed mode. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling as usual.



Location	Direction	Scenario	Comments	Response	Recovery
<p>75 Express Lanes Events – 75 Express NB beyond exit / egress to Pines Blvd. Segment I-75-9N.</p>	<p>NB</p>	<p>CRASH, EMERGENCY VEHICLES, ROAD WORK EMERGENCY, POLICE ACTIVITY, OR FLOODING EVENT OCCURS IN TWO LANE SECTION OF EXPRESS LANES SEGMENT I-75-9N (BEYOND EXIT / EGRESS TO PINES BLVD) BLOCKED</p>	<p>Utilize internal DMS NB 6.3 EL with ‘TRAFFIC MUST EXIT / TO / PINES BLVD on internal DMS NB 10.3 EL post with RPG generated message, based upon location of incident.</p> <p>Refer to DMS messaging plan</p> <p>Once secondary closure is in place to force traffic out to Pines, place group filter 75 NB 06 beyond Pines egress to OOS.</p>	<p>If the event type is Crash, Emergency Vehicles, Road Work Emergency, Police Activity or *Flooding, then:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. In SELS Corridor View, click on the  within the Status Table for the Segment: <ul style="list-style-type: none"> o Choose Closed mode for Segment I-75-9N. o Select the associated SunGuide event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (default in SELS). 3. Generate a response plan to notify motorists of the lane blockage using messaging for a SOFT closure. <p style="text-align: center;">*For Flooding – Internal DMS to use soft messaging until responder arrives on scene. Messaging example: “FLOODING/REFERENCE POINT/LEFT LANE”</p> <p>Once responder is on scene, the internal DMS will be updated via RPG to reflect the blockage (ex. LEFT LANE BLOCKED/ REFERENCE POINT)</p> <p>Once the event exceeds 60 minutes (or if expected to exceed 60 minutes from the time of activation):</p> <ol style="list-style-type: none"> 1. Post messages using SunGuide predefined plan “75 EXPRESS NB SEGMENT 9N” 2. Send an incident responder to implement a hard closure at the exit / egress to Pines Blvd (force motorists to mainline). 	<ol style="list-style-type: none"> 1. Release the Road Ranger and / or SIRV and open at the exit / egress to Pines Blvd (at Miramar Pkwy). 2. Verify that all the TADMS and LSDMS are active. 3. In SELS Corridor View, click on the  within the Status Table for Segment I-75-9N: <ul style="list-style-type: none"> o Select desired mode (current). o If the Closed mode was not originally associated with a SunGuide event, select an event. An event must be selected before leaving Closed mode. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling as usual.

Location	Direction	Scenario	Comments	Response	Recovery
75 Express Lanes – 75 Express NB exit / egress to Griffin Rd (at Sheridan St). Segment I-75-9N.	NB	EXIT / EGRESS TO GRIFFIN RD / I-75 MAINLINE SEGMENT I-75-9N BLOCKED	<p>For this scenario, as the Trip destination is to I-595 and the EL mainline is unaffected, to improve throughput we are to CLOSE segment 9N, and manually change the trip toll to I-595 (TR-3) from CLOSED to the TOD time, and place ‘Out of Service’. <i>*Once we toll dynamically, the price will have to be adjusted based upon change in dynamic pricing.</i></p> <p>Refer to DMS messaging plan</p>	<p>Regardless of event type:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. In SELS Corridor View, click on the  within the Status Table for the Segment: <ul style="list-style-type: none"> ○ Choose Closed mode for Segment I-75-9N. ○ Select the associated SunGuide event. If the event is not available at the time of the override, select a Dummy event. ○ Ensure that the effective time is set at 10 minutes before the event reported time (default in SELS). 3. Post messages using SunGuide predefined plan “75 EXPRESS NB SEGMENT 9N (EGRESS)”. <p>Once the event exceeds 60 minutes (or if expected to exceed 60 minutes from the time of activation):</p> <ol style="list-style-type: none"> 1. Send an incident responder to implement a hard closure at the exit / egress to Pines Blvd (force motorists to mainline). 	<ol style="list-style-type: none"> 1. Release the Road Ranger and / or SIRV and open at the exit / egress to Pines Blvd (at Miramar Pkwy). 2. Verify that all the TADMS and LSDMS are active. 3. In SELS Corridor View, click on the  within the Status Table for Segment I-75-9N: <ul style="list-style-type: none"> ○ Select desired mode (current). ○ If the Closed mode was not originally associated with a SunGuide event, select an event. An event must be selected before leaving Closed mode. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling as usual.



Location	Direction	Scenario	Comments	Response	Recovery
75 Express Lanes Events – 75 Express NB entrance / ingress from Sheridan St (at Griffin Rd). Segment I-75-13N.	NB	ENTRANCE / INGRESS FROM SHERIDAN ST / I-75 MAINLINE SEGMENT I-75-13N BLOCKED	<p>If supporting a primary EL event, then the segment should be closed in SELS and post the IM DMS through the segment that the ingress is supporting.</p> <p>Refer to DMS messaging plan</p>	<p>Regardless of event type:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. Manually post ‘CLOSED’ on the TADMS associated with the entrance / ingress to I-75 Express NB Segment I-75-13N, using group filter ‘75X NB 11 Ingress at Griffin’. 3. Manually post ‘EXPRESS LANES CLOSED’ on the LSDMS associated with the entrance / ingress to I-75 Express NB Segment I-75-13N, using group filter ‘75X NB 11 Ingress at Griffin’. 4. Set the TADMS and LSDMS to ‘Out of Service’. 5. Verify that the ‘CLOSED’ message is on the TADMS and LSDMS. If not, place any back in service that do not have that message and repeat the process. 6. Verify that the ‘EXPRESS LANES CLOSED’ message is on those LSDMS. If not, place any back in service that do not have that message and repeat the process. 7. Post messages using SunGuide predefined plan “75 EXPRESS NB INGRESS TO SEGMENT 13N (FROM SHERIDAN)”. 8. Every 15 minutes verify that all EL DMS are displaying the correct messages. 9. Continue tolling as usual. 	<ol style="list-style-type: none"> 1. Release the Road Ranger and open the entrance / ingress. 2. Set all the TADMS and LSDMS associated with the entrance / ingress back to ‘Active’. 3. In the SELS Corridor View, click on the  within the Status Table for Segment I-75-13N and re-submit the mode displayed (current), to update signs that were set ‘Out of Service’. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling as usual.

Location	Direction	Scenario	Comments	Response	Recovery
75 Express Lanes Events – 75 Express NB beyond exit / egress to Griffin Rd.	NB	EVENT OCCURS IN TWO LANE SECTION OF EXPRESS LANES SEGMENT (BEYOND EXIT / EGRESS TO GRIFFIN RD) BLOCKED	<p>Motorists can use the exit / egress to Griffin Rd mainline and re-enter at entrance / ingress from Sheridan St mainline (no toll gantry between exit / egress and entrance / ingress)</p> <p>Refer to DMS messaging plan</p>	<p>Regardless of event type:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. Send an incident to implement a hard closure at the exit / egress at Sheridan St (to Griffin Rd) and force motorists to mainline. 3. Manually post ‘CLOSED’ on the Toll Amount DMS associated with the trip to I-595, using group filter ‘75X NB 10 beyond Griffin egress’. 4. Set TADMS to ‘Out of Service’. 5. Verify that the ‘CLOSED’ message is on the TADMS. If not, place any back in service that do not have that message and repeat the process. 6. Post messages using SunGuide predefined plan “75 EXPRESS NB (BEYOND EGRESS TO GRIFFIN)”. 7. e a response plan to notify motorists of the lane blockage. 8. Every 15 minutes verify that all EL DMS are displaying the correct messages. 9. Continue tolling as usual. 	<ol style="list-style-type: none"> 1. Release the Road Ranger and / or SIRV and open at the exit / egress to Griffin Rd (at Sheridan St). 2. Verify that all the TADMS are active. 3. In SELS Corridor View, click on the  within the Status Table for Segment I-75-13N: <ul style="list-style-type: none"> o Select desired mode (current). o If the Closed mode was not originally associated with a SunGuide event, select an event. An event must be selected before leaving Closed mode. 4. In SunGuide, terminate the response plan that was used for this closure.



Location	Direction	Scenario	Comments	Response	Recovery
<p>75 Express Lanes Events – 75 Express NB before exit / egress to I-595. Segment I-75-13N.</p>	<p>NB</p>	<p>ABANDONED VEHICLE, DEBRIS, DISABLED VEHICLE, OTHER, OR PEDESTRIAN EVENT OCCURS IN TWO LANE SECTION OF EXPRESS LANES SEGMENT I-75-13N (BEFORE EXIT / EGRESS TO I-595) BLOCKED</p>	<p>595 Express have two internal TADMS and two internal LSDMS: NB-14.1 CCTV 7140 NB-14.4 CCTV 7143</p> <p>Log into the ELS system and update the TADMS if the incident affects the trip to Florida’s Turnpike / I-95.</p> <p>Utilize internal DMS NB 14.0 EL with RPG generated message, based upon location of incident.</p> <p>Refer to DMS messaging plan</p> <p>Once 60 minutes has elapsed, update the GU DMS NB 12.3 with “75 EXPRESS LANES / CLOSED / DO NOT ENTER”</p>	<p>If the event type is Abandoned Vehicle, Debris, Disabled Vehicle, Other, or Pedestrian:</p> <p>If the event is blocking all lanes, regardless of the event type follow the procedure that is shown on next page for Crash, Emergency Vehicles, Road Work Emergency, Police Activity or Flooding.</p> <p>If the event is not blocking all lanes and is expected to be cleared within 60 minutes:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. Normal tolling continues for the next 60 minutes. 3. Generate a response plan to notify motorists of the lane blockage. <p>Once the event exceeds 60 minutes, or if expected to exceed 60 minutes, or if all lanes are blocked:</p> <ol style="list-style-type: none"> 1. In SELS Corridor View, click on the  within the Status Table for the Segment: <ul style="list-style-type: none"> o Choose Closed mode for Segment I-75-13N. o Select the associated SunGuide event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (default in SELS). 2. Post messages using SunGuide predefined plan “75 EXPRESS NB SEGMENT 13N (BEFORE EGRESS TO 595)”. 3. Send an incident responder to implement a hard closure at the exit / egress to Griffin Rd (force motorists to mainline). 4. Send an incident responder to implement a hard closure at the entrance / ingress from Sheridan St. 	<ol style="list-style-type: none"> 1. Release the Road Ranger and open at the exit / egress to Griffin Rd. 2. Release the Road Ranger and open the entrance / ingress from Sheridan St. 3. Set all the TADMS and LSDMS associated with the entrance / ingress back to ‘Active’. 4. In the SELS Corridor View, click on the  within the Status Table for Segment I-75-13N: <ul style="list-style-type: none"> o Choose desired mode (current). o If the Closed mode was not originally associated with a SunGuide event, select an even. An event must be selected before leaving ‘Closed’ mode 5. In SunGuide, terminate the response plan that was used for this closure. 6. Continue tolling as usual.



Location	Direction	Scenario	Comments	Response	Recovery
<p>75 Express Lanes Events – 75 Express NB before exit / egress to I-595. Segment I-75-13N.</p>	<p>NB</p>	<p>CRASH, EMERGENCY VEHICLES, ROAD WORK EMERGENCY, POLICE ACTIVITY, OR FLOODING EVENT OCCURS IN TWO LANE SECTION OF EXPRESS LANES SEGMENT I-75-13N (BEFORE EXIT / EGRESS TO I-595) BLOCKED</p>	<p>595 Express have two internal TADMS and two internal LSDMS: NB-14.1 CCTV 7140 NB-14.4 CCTV 7143 Log into the ELS system and update the TADMS if the incident affects the trip to Florida’s Turnpike / I-95.</p> <p>Utilize GU DMS NB 12.3 with “75 EXPRESS LANES / CLOSED / DO NOT ENTER and internal DMS NB 14.0 EL with RPG generated message, based upon location of incident.</p> <p>Refer to DMS messaging plan</p>	<p>If the event type is Crash, Emergency Vehicles, Road Work Emergency, Police Activity or *Flooding, then:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. In SELS Corridor View, click on the  within the Status Table for the Segment: 3. Choose Closed mode for Segment I-75-13N. 4. Select the associated SunGuide event. If the event is not available at the time of the override, select a Dummy event. 5. Ensure that the effective time is set at 10 minutes before the event reported time (default in SELS). 6. Generate a response plan to notify motorists of the lane blockage using messaging for a SOFT closure. <p>*For Flooding – Internal DMS to use soft messaging until responder arrives on scene. Messaging example: “FLOODING/REFERENCE POINT/LEFT LANE” Once responder is on scene, the internal DMS will be updated via RPG to reflect the blockage (ex. LEFT LANE BLOCKED/ REFERENCE POINT)</p> <p>Once the event exceeds 60 minutes (or if expected to exceed 60 minutes from the time of activation):</p> <ol style="list-style-type: none"> 1. Post messages using SunGuide predefined plan “75 EXPRESS NB SEGMENT 13N (BEFORE EGRESS TO 595)”. 2. Send an incident responder to implement a hard closure at the exit / egress to Griffin Rd (force motorists to mainline). 3. Send an incident responder to implement a hard closure at the entrance / ingress from Sheridan St. 	<ol style="list-style-type: none"> 1. Release the Road Ranger and open at the exit / egress to Griffin Rd. 2. Release the Road Ranger and open the entrance / ingress from Sheridan St. 3. Set all the TADMS and LSDMS associated with the entrance / ingress back to ‘Active’. 4. In the SELS Corridor View, click on the  within the Status Table for Segment I-75-13N: <ul style="list-style-type: none"> o Choose desired mode (current). o If the Closed mode was not originally associated with a SunGuide event, select an even. An event must be selected before leaving ‘Closed’ mode 5. In SunGuide, terminate the response plan that was used for this closure. 6. Continue tolling as usual.


Location	Direction	Scenario	Comments	Response	Recovery
<p>75 Express Lanes Events – 75 Express NB exit / egress to I-595 (at Royal Palm). Segment I-75-13N.</p>	<p>NB</p>	<p>ABANDONED VEHICLE, DEBRIS, DISABLED VEHICLE, OTHER, OR PEDESTRIAN EVENT OCCURS IN TWO LANE SECTION OF EXPRESS LANES EXIT / EGRESS TO I-595 MAINLINE SEGMENT I-75-13N BLOCKED</p>	<p>If reversible ramp to 595 Express EB is open – cannot force motorists into a tolled facility.</p> <p>Refer to DMS messaging plan</p>	<p>If the event type is Abandoned Vehicle, Debris, Disabled Vehicle, Other, or Pedestrian:</p> <p>If the event is not blocking all lanes and is expected to be cleared within 60 minutes:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. Normal tolling continues for the next 60 minutes. 3. Post messages using SunGuide predefined plan “75 EXPRESS NB SEGMENT 13N (EGRESS) SOFT (LEFT OR RIGHT)”. <p>If the event is blocking all lanes, regardless of the event type OR once the event exceeds 60 minutes, or if expected to exceed 60 minutes:</p> <ol style="list-style-type: none"> 1. In SELS Corridor View, click on the M within the Status Table for the Segment: <ul style="list-style-type: none"> o Choose Closed mode for Segment I-75-13N. o Select the associated SunGuide event. If the event is not available at the time of the override, select a Dummy event. o Ensure that the effective time is set at 10 minutes before the event reported time (default in SELS). 2. Post messages using SunGuide predefined plan “75 EXPRESS NB SEGMENT 13N (EGRESS)”. 3. Send an incident responder to implement a hard closure at the exit / egress to Griffin Rd (force motorists to mainline). 4. Send an incident responder to implement a hard closure at the entrance / ingress from Sheridan St. 	<ol style="list-style-type: none"> 1. Release the Road Ranger and open at the exit / egress to Griffin Rd. 2. Release the Road Ranger and open the entrance / ingress from Sheridan St. 3. Set all the TADMS and LSDMS associated with the entrance / ingress back to ‘Active’. 4. In the SELS Corridor View, click on the M within the Status Table for Segment I-75-13N: <ul style="list-style-type: none"> o Choose desired mode (current). o If the Closed mode was not originally associated with a SunGuide event, select an even. An event must be selected before leaving ‘Closed’ mode 5. In SunGuide, terminate the response plan that was used for this closure. 6. Continue tolling as usual.

Location	Direction	Scenario	Comments	Response	Recovery
<p>75 Express Lanes Events – 75 Express NB exit / egress to I-595 (at Royal Palm). Segment I-75-13N.</p>	<p>NB</p>	<p>EXIT / EGRESS TO I-595 MAINLINE SEGMENT I-75-13N BLOCKED</p>	<p>If reversible ramp to 595 Express EB is open – cannot force motorists into a tolled facility.</p> <p>Refer to DMS messaging plan</p>	<p>Regardless of event type:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. In SELS Corridor View, click on the  within the Status Table for the Segment: <ul style="list-style-type: none"> ○ Choose Closed mode for Segment I-75-13N. ○ Select the associated SunGuide event. If the event is not available at the time of the override, select a Dummy event. ○ Ensure that the effective time is set at 10 minutes before the event reported time (default in SELS). 3. Post messages using SunGuide predefined plan “75 EXPRESS NB SEGMENT 13N (EGRESS)”. <p>Once the event exceeds 60 minutes (or if expected to exceed 60 minutes from the time of activation):</p> <ol style="list-style-type: none"> 1. Send an incident responder to implement a hard closure at the exit / egress to Griffin Rd (force motorists to mainline). 	<ol style="list-style-type: none"> 1. Release the Road Ranger and / or SIRV and open at the exit / egress to Griffin Rd. 2. Verify that all the TADMS and LSDMS are active. 3. In SELS Corridor View, click on the  within the Status Table for Segment I-75-13: <ul style="list-style-type: none"> ○ Select desired mode (current). ○ If the Closed mode was not originally associated with a SunGuide event, select an event. An event must be selected before leaving Closed mode. 4. In SunGuide, terminate the response plan that was used for this closure. 5. Continue tolling as usual.

Location	Direction	Scenario	Comments	Response	Recovery
75 Express Lanes Events – Express NB exit / egress to 595 Express reversible ramp.	NB	EXIT / EGRESS TO I-595 EXPRESS EB REVERSIBLE RAMP BLOCKED	<p>When reversible ramp is open:</p> <p>595 Express have two internal TADMS and two internal LSDMS: NB-14.1 CCTV 7140 NB-14.4 CCTV 7143 Log into the ELS system and update the TADMS if the incident affects the trip to Florida’s Turnpike / I-95.</p> <p>Refer to DMS messaging plan</p>	<p>Regardless of event type:</p> <ol style="list-style-type: none"> 1. Dispatch incident responders to assist with the event. 2. Send an incident responder to implement a hard closure at the exit / egress to I-595 (force motorists to mainline). 3. Post messages using SunGuide predefined plan “75 EXPRESS NB REVERSIBLE RAMP TO 595 EXPRESS)”. 4. Continue tolling as usual. 	<ol style="list-style-type: none"> 1. Release the Road Ranger and / or SIRV and open at the exit / egress I-595. 2. In SunGuide, terminate the response plan that was used for this closure. 3. Continue tolling as usual.

Location	Direction	Scenario	Comments	Response	Recovery
75 Express Lanes Events – 75 Express NB Facility Closure.	NB	FULL NORTHBOUND FACILITY CLOSURE FOR CONSTRUCTION	<p>Closures should begin South to North so that traffic exits upstream.</p> <p>Interagency events need to be made ACTIVE so that they can be associated in SELS. Once associated, then revert to UNCONFIRMED (comment within chronology).</p> <p>If the ramp from I-75 mainline / NW 138 St is closed prior to the connector from Palmetto Express, then using the group filter 75X NB 02 Ingress at MGD, post CLOSED on the TADMS and EXPRESS LANES CLOSED on the LSDMS and place OOS. Once the connector from Palmetto Express is closed, then make active and</p>	<p>If the event type is Road Work Emergency or Road Work Scheduled, then:</p> <ol style="list-style-type: none"> Once the connector from Palmetto Express is closed and traffic is being forced to MGD (D6). <ul style="list-style-type: none"> Manually post ‘CLOSED’ on all the TADMS located within the connector, associated with the trips to D4 destinations, using group filter ‘75X NB 01 S of HEFT - INTERNAL’. Set the TADMS ‘Out of Service’. Create an interagency coordination event for the ramp from I-75 mainline / NW 138 St. <ul style="list-style-type: none"> In SELS Corridor View, click on the  within the Status Table for the Segment: Choose Closed mode for Segment I-75-4N. Select the associated SunGuide event. If the event is not available at the time of the override, select a Dummy event. Ensure that the effective time is set at 10 minutes before the event reported time (default in SELS). Notify D6 to assist with IM messaging. Create an interagency coordination event for the ingress to segment 6N (HEFT SB ramp to 75 Express NB) <ul style="list-style-type: none"> Notate the use of the Toll Amount DMS, and the status of what is posted (Closed). Manually post ‘CLOSED’ on all the TADMS located on HEFT, associated with the entrance to 75 Express NB Segment 6N, using group filter ‘75X NB 05 Ingress from HEFT SB’. 	<ol style="list-style-type: none"> Verify that all the TADMS and LSDMS are active. In the SELS Corridor View, click on the  within the Status Table for Segment I-75-4N, 6N, 9N and 13N: <ul style="list-style-type: none"> Choose desired mode (current). If the Closed mode was not originally associated with a SunGuide event, select an even. An event must be selected before leaving ‘Closed’ mode. In SunGuide, terminate the response plan that was used for this closure. In SunGuide, notate the use of the Toll Amount DMS and

			<p>close Segment 4N in SELS.</p> <p>Refer to DMS messaging plan.</p> <p>Interagency events need to be made ACTIVE so that they can be associated in SELS. Once associated, then revert to UNCONFIRMED (comment within chronology).</p> <p>If the ramp from HEFT NB is closed prior to the ramp from HEFT SB, then using the group filter 75X NB 04 HEFT NB ramp only, post CLOSED on the TADMS and EXPRESS LANES CLOSED on the LSDMS and place OOS. Once the HEFT SB ramp is closed, then make active and close Segment 6N in SELS.</p>	<ul style="list-style-type: none"> ○ Manually post ‘EXPRESS LANES CLOSED’ on all the LSDMS located on HEFT, associated with the entrance to 75 Express NB Segment 6N, using group filter ‘75X NB 05 Ingress from HEFT SB’. ○ Set the TADMS and LSDMS to ‘Out of Service’. ○ Post a message from the SunGuide message library “NB 75 EXPRESS LANES CLOSED DO NOT ENTER” on 821SB041.4. <p>4. Create an interagency coordination event for the ingress to segment 6N (HEFT NB ramp to 75 Express NB)</p> <ul style="list-style-type: none"> ○ In SELS Corridor View, click on the  within the Status Table for the Segment: ○ Choose Closed mode for Segment I-75-6N. ○ Select the associated SunGuide event. If the event is not available at the time of the override, select a Dummy event. ○ Ensure that the effective time is set at 10 minutes before the event reported time (default in SELS). ○ Notify FTE to assist with IM messaging. ○ Once both entrance ramps are closed, post a message from the SunGuide message library “75 EXPRESS LANES CLOSED DO NOT ENTER” on 75NB006.3-EL. <p>5. Create an event for a location within Segment 9N.</p> <ul style="list-style-type: none"> ○ In SELS Corridor View, click on the  within the Status Table for the Segment: ○ Choose Closed mode for Segment I-75-9N. 	<p>the status of what is posted (Tolling).</p> <ol style="list-style-type: none"> 5. Advise FTE to clear the DMS messaging (interagency). 6. Advise District Six to clear the DMS messaging (interagency). 7. Continue tolling as usual.
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			<p>Refer to DMS messaging plan.</p> <p>Refer to DMS messaging plan.</p>	<ul style="list-style-type: none"> ○ Select the associated SunGuide event. If the event is not available at the time of the override, select a Dummy event. ○ Ensure that the effective time is set at 10 minutes before the event reported time (default in SELS). ○ Post a message from the SunGuide message library “75 EXPRESS LANES CLOSED DO NOT ENTER” on 75NB010.3-EL. <p>6. Create an event for the ingress to Segment 13N (ingress from I-75 mainline / Sheridan St.</p> <ul style="list-style-type: none"> ○ In SELS Corridor View, click on the  within the Status Table for the Segment: ○ Choose Closed mode for Segment I-75-13N. ○ Select the associated SunGuide event. If the event is not available at the time of the override, select a Dummy event. ○ Ensure that the effective time is set at 10 minutes before the event reported time (default in SELS). ○ Post a message from the SunGuide message library “75 EXPRESS LANES CLOSED DO NOT ENTER” on 75NB12.3 and 75NB014.0-EL. 	
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CONGESTION MANAGEMENT

The Express Lane Operator shall document both recurring and non-recurring congestion within the any of the Express Lane facilities in accordance with District Four Event Management Procedures. All congestion detected within the Express Lanes shall have “Congestion” events created with a FLATIS message being published to the Interactive Voice Recognition (IVR) system and Statewide 511 website. The Express Lanes Operator shall monitor the SELS Speed Graphs or the corridor map view to identify congestion and verify all congestion via CCTV or Road Ranger/SIRV.


Once the average Traffic Density (TD) for an Express Lanes segment is equal to or greater than 32 (currently configured to TD of 32) and/or the segment is 50% congested, SELS shall automatically request the “CONGESTED” message for the segment Lane Status DMS (LSDMS).


Once congestion has been reduced in the segment (less than 50%) or the TD drops below the configured threshold, then the “EXPRESS LANES OPEN” message will replace the previous ‘CONGESTED’ messaging. The Express Lanes Operator is to verify that the Lane Status DMS are posting the correct message.


MINIMUM SPEED TOLL (DYNAMIC TOLLING)

FLORIDA STATUE 338.166



If a customer’s average travel speed for a trip in an Express Lane falls below 40 miles per hours, the customer must be charged the minimum Express Lane Toll. A customer’s Express Lane average travel speed is his or her average travel speed from the customer’s entry point to the customer’s exit point.


MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
Mode Change From Dynamic Or Time Of Day To Closed, Zero Toll Or Manual Mode		<ol style="list-style-type: none"> 1. In SELS Corridor View, click on the  of the segment that needs to be updated. 2. Select the new mode from the “Mode” dropdown list. <ul style="list-style-type: none"> o CLOSED and Zero Toll modes must be associated with a D4 event. Manual mode must either be associated with an event or a comment must be entered. If the event is not available at the time of the mode change, select a Dummy event from either District. 3. Check the “Approved” checkbox and then select “Submit”. 4. Verify that Lane Status and Toll Amount DMS are posting the correct message. 	

MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
Mode Change From Closed, Zero Toll Or Manual Mode To Dynamic Or Time Of Day Modes		<ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the  for the segment to be updated. 2. Select the new mode from the “Mode” dropdown list. <ul style="list-style-type: none"> o If previous mode was CLOSED, Zero Toll or Manual mode and was not associated with a D4 event, an event from either District must be selected before the mode can be changed. 3. Check the “Approved” checkbox and then select “Submit”. 4. Verify that Lane Status and Toll Amount DMS are posting the correct message. 	

MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
Recover From Express Lanes Closed.		<ol style="list-style-type: none"> 1. Verify that the TADMS and/or LSDMS are active. 2. In the SELS Corridor View, click on the  for the Segment within the Status Table <ul style="list-style-type: none"> o Choose desired mode o If the Closed mode was not originally associated with a D4 event, select an event from either district. An event must be selected before leaving Closed mode. o Verify that Lane Status and Toll Amount DMS are posting the correct message. 3. In SunGuide, terminate the response plan that was used for this closure. 4. Notify D6 TMC if relevant to closure. 	

MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
Toll Update Reminder Notification		<p>In the Toll Update Reminder alert, click on the “Acknowledge” button</p> <p>If user desires to remain in the current mode, check the “Approved” checkbox and then select “Submit”.</p> <p>To change mode:</p> <ol style="list-style-type: none"> 1. Select the new mode from the “Mode” dropdown list 2. Verify or select the Toll amount and the Lane Status DMS Message. 3. If required, select a D4 event from the dropdown lists (select Dummy event if real event is not yet available). 4. Check the “Approved” check box and click on the “Submit” button. 5. When the SELS DMS Verification form appears, verify that each Toll Amount and Lane Status DMS is showing the correct message. <ul style="list-style-type: none"> o If a message is incorrect, then ensure that an ITS Maintenance Module trouble ticket is open for this failure. 	

MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
Toll Adjustment For Segments (Finite AND ONGOING)		<p>Ongoing Adjustment:</p> <ol style="list-style-type: none"> 1. In SELS click on the  for the Segment within the Status Table. 2. Select the desired effective time 3. Select the desired Adjusted Toll 4. Associate an event or add a comment to justify the adjustment. 5. Submit the Ongoing Adjustment. 6. Continue tolling as usual. <p>Finite Adjustment:</p> <ol style="list-style-type: none"> 1. In SELS, click on the  for the Segment within the Status Table for the segment. 2. Select the desired effective time. 3. Check Finite Adjustment. 4. Select the desired Effective End. 5. Select the desired Adjusted Toll. 6. Associate an event or add a comment to justify the adjustment. 7. Submit the Finite Adjustment. 8. Continue tolling as usual. 	

MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
Implementing Toll Adjustment For Trip Tolls (Ongoing Only)		<p>Ongoing Adjustment</p> <ol style="list-style-type: none"> 1. In SELS Corridor View, click on the  for the Trip within the Status Table. 2. Select the desired Adjusted Time/Toll 3. Add a comment justifying the adjustment 4. Submit Ongoing Adjustment 5. Continue tolling as usual. 	


MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
Ongoing Toll Adjustment Reminder		1. When an ongoing toll adjustment reminder appears, select “Continue” if still applicable, or select “End” if not.	


MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
Ending Ongoing Adjustments		<ol style="list-style-type: none"> In the SELS Corridor View, click on the M for the segment with an ongoing adjustment in effect or any segment within a trip with an ongoing adjustment. Note: It is not possible to end a trip adjustment directly; it must be done via a segment included in that trip. Select the current mode and toll for the selected segment and submit the request (continue current active toll/mode). When the ongoing adjustment reminder appears, select End and submit. 	<p>If a Toll Adjustment was in effect prior to system restart, the interim toll will only present \$0.00, \$0.50, and latest Toll Adjustment amount.</p> <p>If Toll Adjustment is no longer required upon restart, then end the Toll Adjustment.</p>

MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Email	Attachments	Example Content Of Email
Retroactive Toll Adjustment Request Procedure	Alexandra Lopez Ryan Drendel David Needham Dee McTague Leroy Soley	Toll Chronology (SELS or ELS) for impacted segment / time	<p>A ‘descriptor’ event on ‘roadway’, ‘direction’ (facility – GU/EL), at ‘cross-street’, occurred on ‘day, date, time’.</p> <ul style="list-style-type: none"> Explanation of incident. Explanation of reasons why tolls should be recommended to be scratched. Fixed statement (example below).
<p>A fatality event on I-595 EB (general use lanes) at US-441 occurred on Saturday, 12/2 @ 10:52 PM.</p> <ul style="list-style-type: none"> The 595 team closed 595 Express at the Turnpike reversible lanes, forcing motorists onto a tolled facility. Florida’s Turnpike should be notified in case motorists complain about being forced onto a tolled roadway (there was no other egress available due to the fatality). <i>Note that motorists on 595 GU had the option to take US 441.</i> Tolling continued on 595 Express for the duration of the incident. Tolling should have been suspended since motorists were unable to reach the destination of I-95. <p>TOLL ADJUSTMENT: We are hereby requesting a retroactive toll adjustment on 595 Express EB from 12/02/2023 @ 10:42 PM (10 minutes before event creation) through 12/03/2023 @ 1:43 AM when the ramps were reopened.</p>			


MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
System Restart		<p>Complete and submit startup dialog for each segment.</p> <ol style="list-style-type: none"> 1. Select desired interim toll. <ul style="list-style-type: none"> ○ Interim toll options are limited to 0.00, \$0.50, and last effective Toll Amount. ○ Select the lowest of those tolls that would have been used during the outage if the software had been operating. 2. Select desired mode (Dynamic, TOD, Zero Toll, or Closed) <ul style="list-style-type: none"> ○ If applicable, associate an event or add comments. 3. If applicable, select desired toll amount (Manual or TOD Modes ONLY). 4. Select desired Lane Status DMS Message 5. Check the “Approved” checkbox and submit. 6. Manually check if there was an ongoing adjustment before system restart. <ul style="list-style-type: none"> ○ If yes, decide if Toll Adjustment is still needed. If needed, click on the <input type="checkbox"/> for the Segment within the Status Table. ○ If not, continue normal operations. 7. Continue tolling as usual. 	


MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
<p>TOLL SUSPENSION:</p> <p>Request To Open Express Lane Or Set Toll To \$0.00 For Emergencies Or Special Events.</p> <p>Most Likely Due to:</p> <p>Evacuation</p>		<p>Special approval is required TSM&O Program Manager, TSM&O Engineer-Freeways, and EOC (Jeannie Cann) will notify operations staff to implement.</p> <ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the <input type="checkbox"/> within the Status Table for the Segment, select Zero Toll mode and set the effective time at 10 minutes before the event reported time within SELS (default) <ul style="list-style-type: none"> ○ The Zero Toll Override must be associated with a D4 event, if available. If no D4 event is available at the time of the override, select a Dummy event. 	




MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
SEGMENT CLOSURE AND RECOVERY FROM CLOSURE DURING TOLL SUSPENSION		<p>1. Search the section for Express Lanes Events in this document for the procedure that applies to the location of the blocking event. Follow the procedure.</p> <p>2. Notice that if the procedure calls for a toll adjustment it does not apply since mode was Zero Toll (\$0.00) before the event.</p> <p>RECOVERY</p> <p>1. When recovering from the closure, in SELS, click on the  for the Segment within the Status Table and:</p> <ul style="list-style-type: none"> o Choose desire mode. o If the Closed mode was not originally associated with a SunGuide event, select an event. An event must be selected before leaving Zero Toll mode. <p>2. In SunGuide, terminate the response plan for the event.</p>	


MODE CHANGES, ADJUSTMENTS, SYSTEM RESTART			
Scenario	Comments	Response	Recovery
Recover From Open Status (Zero Toll Mode)		<p>1. In SELS, click on the  for the Segment within the Status Table and:</p> <ul style="list-style-type: none"> o Choose desire mode o If the Zero Toll mode was not originally associated with a SunGuide event, select an event from D4, if available. An event must be selected before leaving Zero Toll mode. <p>2. In SunGuide, terminate the response plan associated with the toll suspension.</p>	



COMMON DMS PROCEDURES			
Scenario	Comments	Response	Recovery
DMS Verification		<ol style="list-style-type: none"> 1. Acknowledge the DMS Verification Notification. 2. Verify that each Toll Amount and Lane Status DMS is showing the correct message. 3. If a sign is correct, check Confirmed. If it is incorrect: <ul style="list-style-type: none"> ○ If there is already an open MIMS ticket for this DMS, do nothing. ○ If there is not an open MIMS ticket, follow the appropriate action for a stuck or blank sign. 4. After all signs have been reviewed, select “Completed” on the DMS Verification form. 	

COMMON DMS PROCEDURES			
Scenario	Comments	Response	Recovery
Post Messages Manually On Toll Amount DMS		<p>For each Toll Amount DMS on which a manual message is to be posted:</p> <ol style="list-style-type: none"> 1. Click on the Toll Amount DMS icon  for the sign to be changed. 2. Locate the desired sign in the Sign Control pop-up, using the TADMS name or the Destination. 3. In the New Message area, choose Toll Message, if posting a toll message, or “Configured Message”. 4. Double click in the message display area (black rectangle). 5. Select a message from the drop-down list. 6. Click on Send Message. 7. Set DMS status to ‘Out of Service’. 8. Verify that the message just posted is still on the sign. If not, set the Sign Active and repeat the process of posting the message, taking the sign ‘Out of Service’ and verifying. 	




COMMON DMS PROCEDURES			
Scenario	Comments	Response	Recovery
Post Messages Manually On Lane Status DMS		<p>For each Lane Status DMS on which a manual message is to be posted:</p> <ol style="list-style-type: none"> 5. Click on the Toll Amount DMS icon  for the sign to be changed. 6. In the New Message area, choose Status Message, if posting a lane status message, or "Configured Message". 7. Double click in the message display area (black rectangle). 8. Select a message from the drop-down list. 9. Click on Send Message. 10. Set DMS status to 'Out of Service'. 11. Verify that the message just posted is still on the sign. If not, set the Sign Active and repeat the process of posting the message, taking the sign 'Out of Service' and verifying. 	

COMMON DMS PROCEDURES			
Scenario	Comments	Response	Recovery
<p>If Operator CHOOSES A MANUAL MODE Toll That Is Higher Than The Correct Toll</p>		<ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the  for the Segment within the Status Table, select the correct mode and toll and submit. 2. *Wait until it is at least one minute after the effective time of the correct toll just requested and then click on the  for the Segment within the Status Table. 3. Check Finite Adjustment, choose \$0.50 for the toll, and set the effective time at 10 minutes before the effective time of the incorrect toll. 4. Set the Effective End Time at the current time, but at least one minute after the effective time of the correct toll that was requested above. 5. Associate an event or add a comment justifying the adjustment. 6. Submit the Adjustment. 7. In SELS, click on the  within the Status Table for each trip that includes the segment 8. From the Adjusted Time/Toll drop-down list, select the first (latest) toll that is equal to or lower than the desired (correct) trip toll. If no toll is available that is low enough, close this dialog and do not adjust the trip toll. 9. Associate an event or add a comment justifying the adjustment 10. Submit Adjustment 11. Repeat for each trip that includes the segment with the erroneous toll. 12. Continue tolling as usual. 	<p>*The delay in 'Step 2' is necessary to ensure that any time at which the incorrect toll was active, was covered by the adjustment. An adjustment's 'end time' cannot be set after the current time. If the dialog is opened before this time, the desired ending time will not be available.</p>

COMMON DMS PROCEDURES			
Scenario	Comments	Response	Recovery
If Operator CHOOSES A MANUAL MODE Toll That Is Less Than The Correct Toll		<ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the  for the Segment within the Status Table, select the correct mode and toll and submit. 2. Continue tolling as usual. 	



COMMON DMS PROCEDURES			
Scenario	Comments	Response	Recovery
DMS Subsystem Failure. Blank Or Stuck Messages		<ol style="list-style-type: none"> 1. Notify IT. 2. Open a MIMS ticket within the ITS Maintenance Module. (critical) 3. If one or several Segment Toll Amount signs are blank or have a message stuck on them: In SELS Corridor View, click on the  within the Status Table for each Segment with a Segment Toll Amount Sign that is blank or has a message stuck on it, <ul style="list-style-type: none"> o Set the toll to \$0.50 and set the effective time at 10 minutes before the failure was discovered. 4. SELS If one or several Trip Toll Amount signs are blank or have an incorrect toll stuck on them: In SELS Corridor View, click on the  within the Status Table for each Segment included in the trip, <ul style="list-style-type: none"> o Adjust the toll for each segment included in the trip to \$0.50 as in the step above. It is not necessary to adjust the trip toll, since all segments included in the trip are set to the minimum toll. 5. Continue the adjustment(s) until the DMS Subsystem is operational. 	<ol style="list-style-type: none"> 1. Resume normal tolling for all segments. 2. End ongoing adjustments.

COMMON DMS PROCEDURES

Scenario	Comments	Response	Recovery
<p>DMS FAILURE AFFECTS ALL DMS IN ONE OR SEVERAL SEGMENTS.</p> <p>BLANK OR STUCK MESSAGES</p>	<p>If any EL Entrance must be closed due to a DMS failure, the *Maintenance Contractor shall perform the closure(s) and coordinate the closure(s) with the Control Room Staff.</p> <p>*If reported as a fiber cut or power outage, for example, or the outage is a result of scheduled maintenance, then the Maintenance Contractor is not required to perform a closure(s).</p> <p>Report any other devices (CCTV or Vehicle Detectors) that are failed.</p>	<ol style="list-style-type: none"> 1. Notify IT and open a MIMS ticket within the ITS Maintenance Module (critical). 2. If one or several Segment Toll Amount signs are blank or have an incorrect toll stuck on them: <ul style="list-style-type: none"> In SELS Corridor View, click on the  within the Status Table for each Segment with a Segment Toll Amount Sign that is blank or has a message stuck on it: <ul style="list-style-type: none"> o Choose Manual mode. o Set the toll to \$0.50. o Click the “Is an Override” checkbox. o Set the effective time as the effective time of the last toll. 3. If one or several Segment Toll Amount signs have a stuck ‘CLOSED’ message on it: <ul style="list-style-type: none"> o In SELS Corridor View, click on the  within the Status Table. o Set the toll to \$0.00 and set the effective time at 10 minutes before the failure was discovered. 4. If one or several Trip Toll Amount signs are blank or have an incorrect toll stuck on them: <ul style="list-style-type: none"> If all Trip Toll Amount signs are blank: <ul style="list-style-type: none"> o Take no action on the signs. 5. If one or several Trip Toll Amount signs have a toll stuck on them that is equal or higher than the recommended toll: <ul style="list-style-type: none"> o Take no action on the sign(s). 6. If one or several Trip Toll Amount signs have a toll stuck on them that is lower than the recommended toll: <ul style="list-style-type: none"> In SELS Corridor View, click on the  within the Status Table for each trip displaying an incorrect (low) toll, <ul style="list-style-type: none"> o Set the Trip toll equal to the toll stuck on the sign (if available). o If that trip toll is not available, submit an ongoing \$0.50 segment toll adjustment for each segment in the trip, effective 10 minutes before the sign was found to be stuck. 7. Continue the adjustment(s) until the DMS Subsystem is operational or the segments are closed due to an incident. 	<ol style="list-style-type: none"> 1. Resume normal tolling for all segments. 2. End ongoing adjustments.

COMMON DMS PROCEDURES

Segment Toll Amount Sign Failures

Scenario	Comments	Response	Recovery
<p>Failed Segment Toll Amount DMS. Message Is Blank</p>	<p>See special case for specific locations in the next page.</p> <p>For HEFT NB ramp to 75 Express Northbound: If any EL Entrance must be closed due to a DMS failure, the ITS Maintenance Contractor shall perform the closure(s) and coordinate the closure(s) with the Control Room Staff.</p>	<p>If one Segment Toll Amount DMS is blank at an entrance to the Express Lanes, and another is working for the same entrance:</p> <ol style="list-style-type: none"> 1. Continue tolling as usual. 2. Open a MIMS ticket (Critical Failure). <p>Note at least one Toll Amount DMS must be operational for each entrance to the Express Lanes.</p> <p>If all Toll Amount DMS at an entrance to the Express Lanes are blank:</p> <ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the  within the Status Table for the Segment, choose \$0.50 for the toll, and set the effective time at 10 minutes before the sign was found to be blank. 2. Associate an event or add a comment justifying the adjustment. 3. Open a MIMS ticket (Critical Failure). 4. Continue the ongoing adjustment after each toll update until at least one DMS is operational at the entrance, or the entrance is closed. 5. When entrance is closed or at least one sign is operational, end the adjustment and resume operation as usual. 	<ol style="list-style-type: none"> 1. Toll Amount DMS may be blank after contractor repairs it. 2. In the SELS Corridor View, click on the  within the Status Table for the Segment and set tolls as usual. 3. When the SELS DMS Verification form appears, verify that each Toll Amount and Lane Status DMS is showing the correct message. <ul style="list-style-type: none"> o If a message is not correct, then ensure that a MIMS ticket is open for the failure.



COMMON DMS PROCEDURES

Segment Toll Amount Sign Failures

Scenario	Comments	Response	Recovery
<p>Failed Segment Toll Amount DMS. Incorrect Toll Message(S) Stuck On Sign(S)</p>	<p>Stuck Trip Toll Amount DMS are handled differently. Procedures for Trip Toll Amount DMS have their own section in the next pages.</p> <p>For HEFT ramp to 75 Express Northbound: If any EL Entrance must be closed due to a DMS failure, the ITS Maintenance Contractor shall perform the closure(s) and coordinate the closure(s) with the Control Room Staff.</p>	<p>If the upstream Toll Amount DMS at an entrance to the Express Lanes has a stuck segment toll, but the corresponding downstream Toll Amount DMS is working:</p> <ol style="list-style-type: none"> 1. Continue tolling as usual. 2. Open a MIMS ticket (Critical Failure). <p>If the downstream Toll Amount DMS at an entrance to the Express Lanes has a stuck segment toll:</p> <ol style="list-style-type: none"> 1. If the stuck toll on the downstream sign is the same as, or higher than, the recommended toll, continue tolling as usual. 2. If the stuck toll on the downstream sign is lower than the recommended toll: <ul style="list-style-type: none"> ○ In SELS, click on the M within the Status Table for the Segment, select Manual mode, set the toll equal to the toll stuck on the sign, set the effective time at the effective time of the last toll. ○ Enter a comment explaining why Manual mode was used. ○ Continue using this procedure until the failure is resolved. 3. Open a MIMS ticket (Critical Failure). 4. If ramp is to be closed for repair, once hard closure is implemented, post CLOSED on associated DMS, and resume tolling as usual (segment is open). 	<ol style="list-style-type: none"> 1. Toll Amount DMS may be blank after contractor repairs it. 2. In the SELS Corridor View, click on the M within the Status Table for the Segment and set tolls as usual. 3. When the SELS DMS Verification form appears, verify that each Toll Amount and Lane Status DMS is showing the correct message. <ul style="list-style-type: none"> ○ If a message is not correct, then ensure that a MIMS ticket is open for the failure.



COMMON DMS PROCEDURES

Segment Toll Amount Sign Failures

Scenario	Comments	Response	Recovery
<p>Failed Segment INTERNAL Toll Amount DMS. Message Is Blank.</p> <p>(75 Express NB before Miami Gardens Drive and 95 Express SB at Atlantic Blvd)</p>	<p>These internal Toll Amount DMS are for motorists that are already travelling inside the facility from an upstream location.</p>	<ol style="list-style-type: none"> 1. In the SELS Corridor View, click on the  within the Status Table for the Segment, choose \$0.50 for the toll, and set the effective time at 10 minutes before the sign was found to be blank. 2. Open a MIMS ticket (Critical Failure). 3. Continue the adjustment after each toll update until the DMS is operational. 4. End the ongoing adjustment. 	<ol style="list-style-type: none"> 1. Toll Amount DMS may be blank after contractor repairs it. 2. In the SELS Corridor View, click on the  within the Status Table for the Segment and set tolls as usual. 3. When the SELS DMS Verification form appears, verify that each Toll Amount and Lane Status DMS is showing the correct message. 4. If a message is not correct, then ensure that a MIMS ticket is open for the failure.


COMMON DMS PROCEDURES

Segment Toll Amount Sign Failures

Scenario	Comments	Response	Recovery
<p>Failed Segment INTERNAL Toll Amount DMS. Message Is STUCK.</p> <p>(75 Express NB before Miami Gardens Drive and 95 Express SB at Atlantic Blvd)</p>	<p>These internal Toll Amount DMS are for motorists that are already travelling inside the facility from an upstream location.</p>	<ol style="list-style-type: none"> 1. If the stuck toll is the same as or higher than the recommended toll, continue tolling as usual. 2. If the stuck toll is lower than the recommend toll, in the SELS Corridor View, click on the  within the Status Table for the Segment, choose Manual mode, set the toll equal to the toll stuck on the sign. <ul style="list-style-type: none"> o Enter a comment explaining why Manual mode was used. o Continue using this procedure until the failure is resolved. 3. Open a trouble ticket within the ITS Maintenance Module (critical). 	<ol style="list-style-type: none"> 1. Toll Amount DMS may be blank after contractor repairs it. 2. In the SELS Corridor View, click on the  within the Status Table for the Segment and set tolls as usual. 3. When the SELS DMS Verification form appears, verify that each Toll Amount and Lane Status DMS is showing the correct message. 4. If a message is not correct, then ensure that a MIMS ticket is open for the failure.


COMMON DMS PROCEDURES

Segment Toll Amount Sign Failures

Scenario	Comments	Response	Recovery
Failed Segment Toll Amount DMS. PIXEL FAILURE		<ol style="list-style-type: none"> 1. If failure makes messages unclear, blank the sign and set it out of service. Follow procedure "Failed Segment Toll Amount DMS. Message Is Blank" 2. If messages can be understood event through the pixel error, continue using the sign. 3. Open a trouble ticket within the ITS Maintenance Module. 	<ol style="list-style-type: none"> 1. Toll Amount DMS may be blank after contractor repairs it. 2. In the SELS Corridor View, click on the  within the Status Table for the Segment and set tolls as usual. 3. When the SELS DMS Verification form appears, verify that each Toll Amount and Lane Status DMS is showing the correct message. 4. If a message is not correct, then ensure that a MIMS ticket is open for the failure.



COMMON DMS PROCEDURES

Trip Toll Amount Sign Failures

Scenario	Comments	Response	Recovery
Failed Trip Toll Amount DMS (Blank)		<ol style="list-style-type: none"> 1. Open a MIMS ticket (Critical Failure). 2. Continue tolling as usual. 	<ol style="list-style-type: none"> 1. Click on the  within the Status Table for each Segment included in the trip. 2. Select the current mode and toll and submit. 3. If an ongoing adjustment reminder appears for one of these segments, select End and Submit.



COMMON DMS PROCEDURES

Trip Toll Amount Sign Failures

Scenario	Comments	Response	Recovery
<p>Failed Trip Toll Amount DMS (STUCK)</p>	<p>See special cases for specific locations in the next pages.</p> <p>If any EL Entrance must be closed due to a DMS failure, the ITS Maintenance Contract shall perform the closure(s) and coordinate the closure(s) with the Control Room Staff.</p>	<p>If the upstream Toll Amount DMS at an entrance to 95 Express has a stuck trip toll, but the corresponding downstream Toll Amount DMS is working:</p> <ol style="list-style-type: none"> 1. Continue tolling as usual. 2. Open a trouble ticket within the ITS Maintenance Module (critical). <p>If the downstream Toll Amount DMS at an entrance to 95 Express has a stuck trip toll:</p> <ol style="list-style-type: none"> 1. If the toll shown on the Trip Toll Amount DMS is equal to or higher than the requested toll, continue tolling as usual. 2. If the toll shown on the Trip Toll Amount DMS is stuck lower than the requested toll, in the SELS Corridor View, click on the  within the Status Table for the Trip, choose the Time/Toll at which the toll matches what is stuck on the Trip Toll Amount DMS (if available), add a comment explaining the reason for the adjustment and submit. If that trip toll is not available, submit an ongoing \$0.50 segment toll adjustment for each segment in the trip, effective 10 minutes before the sign was found to be stuck. 3. Open a MIMS ticket (Critical Failure). 4. At each toll update, continue the adjustment until the sign is fixed. 	<ol style="list-style-type: none"> 1. Click on the  within the Status Table for each Segment included in the trip. 2. Select the current mode and toll and submit. 3. If an ongoing adjustment reminder appears for one of these segments, select End and Submit.

COMMON DMS PROCEDURES

Segment Toll Amount Sign Failures

Scenario	Comments	Response	Recovery
Failed Segment Toll Amount DMS. Message Is STUCK	For HEFT ramp to 75 Express Northbound: If any EL Entrance must be closed due to a DMS failure, the ITS Maintenance Contractor shall perform the closure(s) and coordinate the closure(s) with the Control Room Staff.	<ol style="list-style-type: none"> 1. If the toll shown on the Trip Toll Amount DMS is equal to or higher than the requested toll, continue tolling as usual. 2. If the toll shown on the Trip Toll Amount DMS is stuck lower than the requested toll, in the SELS Corridor View, click on the  within the Status Table for the Trip, choose the Time/Toll at which the toll matches what is stuck on the Trip Toll Amount DMS (if available), add a comment explaining the reason for the adjustment and submit. If that trip toll is not available, submit an ongoing \$0.50 segment toll adjustment for each segment in the trip, effective 10 minutes before the sign was found to be stuck. 3. Open a MIMS ticket (Critical Failure). 4. At each toll update, continue the adjustment until the sign is fixed. 5. If ramp is to be closed for repair, once hard closure is implemented, post CLOSED on associated DMS, and resume tolling as usual (segment is open). 	<ol style="list-style-type: none"> 1. Click on the  within the Status Table for each Segment included in the trip. 2. Select the current mode and toll and submit. 3. If an ongoing adjustment reminder appears for one of these segments, select End and Submit.

COMMON DMS PROCEDURES

Lane Status DMS Failures

Scenario	Comments	Response	Recovery
Failed Lane Status And/or Full Matrix IM DMS	<p>Same if Lane Status DMS message is blank or has a message stuck up, including Closed or Open.</p> <p>If any EL Entrance must be closed due to a DMS failure, the ITS Maintenance Contractor shall perform the closure(s) and coordinate the closure(s) with the Control Room Staff.</p>	<ol style="list-style-type: none"> 1. Open a MIMS ticket (Critical Failure). 2. Continue operating Express Lanes as usual. 	<ol style="list-style-type: none"> 1. Place sign back in service. 2. Manually post appropriate lane status message.

GLOSSARY

Default Toll – The toll to be used when scheduled or calculated tolls are not available, and the facility is not open (Zero Toll). This is currently \$0.50.

Dynamic Mode – A toll setting mode in which current traffic conditions are used to determine the toll charged.

Effective Time – The time at which a toll becomes the toll in use for a segment or trip and not necessarily the time when it was requested or first appeared on Toll Amount signs.

Manual Override – This term refers to using Manual mode with a retroactive effective time to override previously requested tolls. This changes the toll posted on the signs as well as the toll sent to the Turnpike.

Toll Adjustment – A manual correction of the toll to be charged by the Turnpike (FTE). This correction is frequently retroactive to correct an incorrect toll or a toll inconsistent with that on signs, such as when the toll message on a sign is stuck or the sign is blank. This changes the toll charged by the Turnpike but does not change any signs. It is always less than or equal to the toll in effect.

Override vs. Adjustment – Overrides affect the tolls posted on signs as well as the tolls charged by SunPass. Adjustments affect the tolls charged by SunPass, but do not change the tolls posted on the signs. Both are frequently effective retroactively, such as when an incident closes the Express Lanes, to help compensate for people who may have been affected by the blockage that may have occurred after they enter the facility, to adjust tolls when a Toll Amount sign has failed or at other times when a driver may have seen a toll that may be higher than what should be charged. Retroactive overrides/adjustments are usually limited to become effective no earlier than 2 hours prior to the time at which they are submitted (configurable).

Project Information

The I-595 corridor is located in central Broward County, Florida. The Project extends from the I-75/Sawgrass Expressway interchange west of SW 136th Avenue to the I595/I-95 interchange, for a total project length of approximately 10.5 miles. The I-595 corridor passes through or lies immediately adjacent to six governmental jurisdictions: the City of Sunrise, Town of Davie, City of Plantation, City of Ft. Lauderdale, and Town of Dania, as well as unincorporated areas of Broward County. The majority of the I-595 corridor is comprised of two facilities: I-595 and SR-84. The I595 portion of the corridor is a six-lane, limited access facility. SR-84 is typically a four-lane facility, with two lanes in each direction located north and south of I-595. In addition to the interchanges with the two roadway systems at each end of the corridor, there are nine other interchanges along the corridor at the following crossroads: SW 136th Avenue, Flamingo Road (SR-823), Hiatus Road, Nob Hill Road, Pine Island Road, University Drive (SR-817), Davie Road, Florida's Turnpike (SR-91) and US 441 (SR-7).

Entry / Exit Points

You may enter Eastbound 595 Express from:

- Sawgrass Expressway
- I-75 Southbound (from Naples)
- I-75 Northbound (from Miami)
- I-595 Eastbound, west of 136th Avenue
- 75 Express Northbound (when reversible lane is open)

You may exit Eastbound 595 Express to:

- Northbound or Southbound Florida's Turnpike
- Eastbound I-595, east of SR 7 / US 441 (to I-95)

You may enter Westbound 595 Express from:

- Northbound or Southbound Florida's Turnpike
- Westbound I-595, west of I-95 (SR 7 / US 441)

You may exit Westbound 595 Express to:

- Sawgrass Expressway
- I-75 Northbound (to Naples)
- I-75 Southbound (to Miami)
- 75 Express Southbound (when reversible lane is open)



Hours of Operation

The reversible lanes will typically be open on weekdays to eastbound traffic between 4 a.m. and 1 p.m. and for westbound drivers between 2 p.m. and 2 a.m. The Express Lanes will normally be closed between 1 p.m. and 2 p.m. and between 2 a.m. and 4 a.m. for routine maintenance. On weekends, the Express Lanes will normally be open in the eastbound direction only.

Note that times are approximate. The scheduled closure cannot occur prior to the start time; however, opening can occur earlier than stated.

OPEN EASTBOUND

Monday through Friday from 4:00 AM to 1:00 PM

Saturday 4:00 AM through Monday 1:00 PM

OPEN WESTBOUND

Monday through Friday 2:00 PM to 2:00 AM

Start	End	Mode
Saturday 4:00 AM	To Monday 1:00 PM	Open Eastbound
Monday 1:00 PM	To 2:00 PM	Sealed
Monday 2:00 PM	To Tuesday 2:00 AM	Open Westbound
Tuesday 2:00 AM	To 4:00 AM	Sealed
Tuesday 4:00 AM	To 1:00 PM	Open Eastbound
Tuesday 1:00 PM	To 2:00 PM	Sealed
Tuesday 2:00 PM	To Wednesday 2:00 AM	Open Westbound
Wednesday 2:00 AM	To 4:00 AM	Sealed
Wednesday 4:00 AM	To 1:00 PM	Open Eastbound
Wednesday 1:00 PM	To 2:00 PM	Sealed
Wednesday 2:00 PM	To Thursday 2:00 AM	Open Westbound
Thursday 2:00 AM	To 4:00 AM	Sealed
Thursday 4:00 AM	To 1:00 PM	Open Eastbound
Thursday 1:00 PM	To 2:00 PM	Sealed
Thursday 2:00 PM	To Friday 2:00 AM	Open Westbound
Friday 2:00 AM	To 4:00 AM	Sealed
Friday 4:00 AM	To 1:00 PM	Open Eastbound
Friday 1:00 PM	To 2:00 PM	Sealed
Friday 2:00 PM	To Saturday 2:00 AM	Open Westbound
Saturday 2:00 AM	To 4:00 AM	Sealed

District 4 IM Procedures

Due to the facility being enclosed, with only segment destinations (no trips), the District 4 SunGuide software only has two locations available for segment IM use:

- I-595 Eastbound at Flamingo Road
- I-595 Westbound at Florida Turnpike

The above locations are to be used for Level 2 and Level 3 incidents, with all segment interagency events to be activated using pre-defined plans.

Below are the ingress locations to be used for [individual entrance closures](#). The individual message is to be taken from the message library 595 EXPRESS > 595 EXPRESS LANES / CLOSED / DO NOT ENTER:

WESTBOUND

- I-595 Express Westbound ramp from US-441 / SR-7 (for Westbound directional travel) – ***595WB10**.
- Turnpike Southbound ramp to I-595 Express Westbound (for Westbound directional travel) – **FTE responsibility**.
- Turnpike Northbound ramp to I-595 Express Westbound (for Westbound directional travel) – **FTE responsibility**.

EASTBOUND

- I-595 Express Eastbound ramp from SW 136 Ave (for Eastbound directional travel) – **75NB16 and 869SB01**.
- I-595 Express Eastbound ramp from I-75 Southbound (for Eastbound directional travel) – **75NB20**.
- 75 Express Northbound ramp to I-595 Express Eastbound (for Westbound directional travel) – **75NB014.0-EL**.

***595WB09 currently removed due to 95 Express Phase 3 project**

Business Rules

Use of the Express Lanes

First responders, Road Rangers and SIRV shall be provided Non-Revenue generating Transponders for using the Express Lanes. All other users of the Express Lanes will be required to have a valid SunPass and all vehicles detected without a valid SunPass will be processed as a toll violator.

Entering the Express Lanes Using Emergency Access Gates (EAG)

First Responders, Road Rangers, SIRV, and tow trucks requested by First Responders, shall be permitted to enter the Express Lanes from the General Use Lanes (Westbound or Eastbound) using Emergency Access Gates. It is anticipated that the Emergency Access Gates selected by First Responders for entry, will be selected based on proximity to the relevant Express Lanes incident, and the direction from which First Responders are approaching the relevant Express Lanes incident

Exiting Express Lanes Using Emergency Access Gates (EAG)

Only ambulances transporting patients shall be permitted to exit the Express Lanes into the General Use Lanes using Emergency Access Gates. It is anticipated that the Emergency Access Gates selected by ambulances transporting patients, will be selected based on the location of the hospital to which patients are being transported. All other First Responders, Road Rangers and SIRV shall exit the Express Lanes using Express Lanes facility exits.

Using Emergency Access Gates (EAG) for Diversion and Evacuation

Emergency Access Gates shall only be used during Emergencies, including for diversion and evacuation, as directed by the Florida Highway Patrol.

Special Events

The Express Lanes may be used for special events, as formally permitted by the Florida Department of Transportation, using the normal Florida Department of Transportation permitting process.

Routine Maintenance Closures

The Express Lanes may be closed for routine maintenance during off-peak hours, defined as between 9:00PM and 5:00AM, on an as-needed basis and with FDOT approval. Routine maintenance closure requests must be submitted to FDOT 14 days in advance of the closure.

Transition from Closed Mode to Dynamic, Real Time Data Mode

When the Express Lanes transition from Closed Mode to Dynamic and / or Real Time Mode, and the ELS shall select the initial or 'seed' toll, based on the configured default toll.

Communication Verification Procedures

After any operational changes that are made to the system the District 4 EL Operator should complete the appropriate log, as outlined below, and have the I-595 Operator initial that the information entered is accurate.

Daily Reversal Log: This log should be completed after all Express Lane closures and openings that occur during the normal scheduled reversal time as stated under Facility Operations above.

Retroactive Adjustment Duration

Determining Retroactive Adjustment Duration X

Variables

- D^E Largest projected distance between the *toll gantry and an incident, downstream of the toll gantry, affecting the eastbound Express Lanes [miles].

- D^W Largest projected distance between the *toll gantry and an incident, downstream of the toll gantry, affecting the westbound Express Lanes [miles].
- V^S Lowest projected ‘free flowing’ average traffic speed in the Express Lanes [miles/hour].
- ID^L Longest projected incident detection period [minutes].

*The location of the gantry is as follows:

EB - Before Flamingo Road

WB – Beyond Flamingo Road

Variable Values

$D^E = 7.381$ miles

$D^W = 2.036$ miles

$V^S = 60$ miles/hour

$ID^L = 15$ minutes

Value of X [minutes]

Incident Eastbound / Before Toll Gantry	$= ID^L$	$= 15$ minutes
Incident Eastbound / After Toll Gantry	$= ID^L + [D^E / V^S]*60$	$= 22.381 = 22$ minutes
Incident Westbound / Before Toll Gantry	$= ID^L$	$= 15$ minutes
Incident Westbound / After Toll Gantry	$= ID^L + [D^W / V^S]*60$	$= 17.036 = 17$ minutes

Limited Operational Role of the Concessionaire


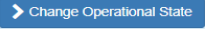
The Concessionaire has agreed to undertake the following limited tasks related to the operation of the tolling system for the I-595 Express Lanes:

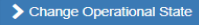
- the Concessionaire will open/close the I-595 Express Lanes to traffic, or any entrance thereof, including upon the occurrence of any incident or special event, in accordance with their Standard Operating Guidelines, and
- the Concessionaire will provide such notifications to FDOT (or their consultants) as specifically identified to be performed by I-595 Express LLC, (shown as I-595 Procedure) in these Standard Operating Guidelines.


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Location	Direction	Scenario	Comments	Response
595 EXPRESS	EB / WB	CLOSING (AND SEALING) THE SEGMENT, VIA THE ELS SOFTWARE, FROM AN OPEN STATE (FOR REVERSAL)	<p>The facility must be CLOSED before 595 Express staff can begin closing the gates.</p> <p>In the event of a CMST message display error, verify the status with 595 Express staff and create a MIMS ticket using the 595 MIMS application.</p> <p>District Four personnel are responsible for ensuring that the daily reversible document is signed upon CLOSING by both members of staff (D4 and 595 LLC).</p>	<p><u>I-595 Procedure</u></p> <ol style="list-style-type: none"> 1. Contact District 4 EL Operator to request that the Toll Segment be closed. 2. Upon notification that the Toll Segment is closed and Toll Amount CMS have been changed to 'Closed' use SunGuide to physically close the Express Lanes. 3. Follow procedures as outlined in the I-595 Express SOG for Closing the Express Lanes. <p><u>District 4 Procedure</u></p> <ol style="list-style-type: none"> 1. Upon notification that the Express Lanes need to be closed, in the ELS Segment Status view, click on  to change the Operational State to 'Closing Eastbound' or 'Westbound' (the drop menu prompt is a default for the next stage of the closing process) and confirm the change to 'Closed' Toll Mode. 2. Messages will be generated as a 'System Warning', which will need to be acknowledged. 3. A DMS verification pop-up will also generate (in green), which is to be verified prior to proceeding. This is to ensure an accurate toll change has occurred on the CMST's. 4. Upon notification that the Express Lanes have been physically closed, in the ELS Segment Status view, click on  to change the Operational State to 'SEALED'. 5. Inform the 595 Operator that the Toll Mode and Toll Amount CMS have been changed to 'Closed'. 6. Complete the communication verification procedures.


Location	Direction	Scenario	Comments	Response
595 EXPRESS	EB / WB	OPENING THE SEGMENT, VIA THE ELS SOFTWARE, FROM A SEALED STATE (FOR REVERSAL)	<p>The facility must be fully OPEN, as confirmed by 595 Express staff, before starting.</p> <p>In the event of a CMST message display error, verify the status with 595 Express staff and create a MIMS ticket using the 595 MIMS application.</p> <p>District Four personnel are responsible for ensuring that the daily reversible document is signed upon CLOSING by both members of staff (D4 and 595 LLC).</p>	<p><u>I-595 Procedure</u></p> <ol style="list-style-type: none"> Using SunGuide physically open the Express Lanes (Eastbound or Westbound). Contact the District 4 EL Operator to inform them that the Express Lanes have been physically opened (Eastbound or Westbound). Follow procedures as outlined in the I-595 Express SOG for Opening the Express Lanes. <p><u>District 4 Procedure</u></p> <ol style="list-style-type: none"> Upon notification that the Express Lanes have been physically opened, in the ELS Segment Status view, click on  to change the Operational State to 'Open Eastbound' or 'Westbound' and 'save the change'. Messages will be generated as a 'System Warning', which will need to be acknowledged. A DMS verification pop-up will also be generated (in green), which needs to be verified. This is to ensure an accurate toll change has occurred on the CMST's. Complete the communication verification procedures.


Location	Direction	Scenario	Comments	Response
595 EXPRESS INGRESS	EB / WB	CLOSING AN INGRESS (OR MULTIPLE INGRESS) VIA THE ELS SOFTWARE, WHEN THE OPERATIONAL STATE REMAINS TOLLING	<p>The toll amount CMS on the affected entrance ramp must be changed to CLOSED before 595 Express staff can begin closing the ramp.</p> <p>In the event of a CMST message display error, verify the status with 595 Express staff and create a MIMS ticket using the 595 MIMS application.</p>	<p><u>I-595 Procedure</u></p> <ol style="list-style-type: none"> 1. Contact the District 4 EL Operator to inform them of the incident and request that the Toll Amount CMS on the affected entrance be changed to ‘CLOSED’. 2. Upon notification that the Toll Amount CMS have been changed to ‘CLOSED’, use SunGuide to physically close the affected Express Lanes Entrance. 3. Follow SunGuide Event Management procedures to manage the event in SunGuide. 4. Follow procedures outlined in the I-595 Express SOG for incidents within the Express Lanes. <p><u>District 4 Procedure</u></p> <ol style="list-style-type: none"> 1. Upon notification from the 595 Express staff, in the ELS DMS view, select the appropriate entry ramp from the ‘Entry Segment’ drop menu, and click on  to override the current message. 2. Under ‘New Message’ type ‘CLOSED’ and ‘Apply’ to manually override the associated CMST’s. 3. Using ELS, verify that the displayed CCTV image for the relevant CMST’s correctly reflects the information. 4. Inform 595 Express staff that the relevant CMST’s have been changed to ‘CLOSED’. 5. Complete the communication verification procedures. <p><u>District 4 IM Procedure</u></p> <ol style="list-style-type: none"> 1. Create an interagency event and post ‘595 EXPRESS LANES / CLOSED / DO NOT ENTER’ on the appropriate IM DMS for the affected ingress/es.

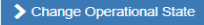
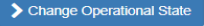
Location	Direction	Scenario	Comments	Response
595 EXPRESS INGRESS	EB / WB	OPENING AN INGRESS (OR MULTIPLE INGRESS), VIA THE ELS SOFTWARE, WHEN THE OPERATIONAL STATE REMAINS TOLLING	<p>The affected entrance ramp must be fully opened by 595 Express staff before proceeding.</p> <p>In the event of a CMST message display error, verify the status with 595 Express staff and create a MIMS ticket using the 595 MIMS application.</p>	<p><u>I-595 Procedure</u></p> <ol style="list-style-type: none"> Using SunGuide, physically open the affected Express Lanes entrance. Contact the District 4 EL Operator to inform them that the incident has cleared and request that the Toll Amount CMS for the affected entrance be changed to the current Toll Amount. Follow SunGuide Event Management procedures to manage the event in SunGuide. Follow procedures outlined in the I-595 Express SOG for incidents within the Express Lanes. <p><u>District 4 Procedure</u></p> <ol style="list-style-type: none"> Upon notification from the 595 Express staff that the ramp has been physically opened, in the ELS DMS view, select the appropriate entry ramp from the 'Entry Segment' drop menu, and click on  to override the current message. Under 'New Message' type '\$0.50' (or whatever the segment toll amount is) and 'Apply' to manually override the associated CMST's. Using ELS, verify that the displayed CCTV image for the relevant CMST's correctly reflects the information. Complete the communication verification procedures. <p><u>District 4 IM Procedure</u></p> <ol style="list-style-type: none"> Terminate the response plan and request the 595 Express event number.

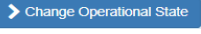
Location	Direction	Scenario	Comments	Response
75 EXPRESS NB – REVERSIBLE RAMP	EB	CLOSING 75 EXPRESS NB REVERSIBLE LANE VIA THE ELS SOFTWARE, WHEN THE OPERATIONAL STATE REMAINS TOLLING	<p>The toll amount CMS on the affected entrance ramp must be changed to CLOSED before 595 Express staff can begin closing the ramp.</p> <p>In the event of a CMST message display error, verify the status with 595 Express staff and create a MIMS ticket using the 595 MIMS application.</p>	<p><u>I-595 Procedure</u></p> <ol style="list-style-type: none"> 1. Contact the District 4 EL Operator to inform them of the incident and request that the Toll Amount CMS on the affected entrance be changed to ‘CLOSED’. 2. Upon notification that the Toll Amount CMS have been changed to ‘CLOSED’, use SunGuide to physically closed the affected Express Lanes Entrance. 3. Manually post ‘CLOSED’ on the CMSS relevant to the reversible ramp. 4. Follow SunGuide Event Management procedures to manage the event in SunGuide. 5. Follow procedures outlined in the I-595 Express SOG for incidents within the Express Lanes. <p><u>District 4 Procedure</u></p> <ol style="list-style-type: none"> 1. Upon notification from the 595 Express staff, in the ELS DMS view, select ‘Ramp 6 75 Express to 595 EB Direct Connect’ from the ‘Entry Segment’ drop menu, and click on  to override the current message. Refer to Appendix A. 2. Under ‘New Message’ type ‘CLOSED’ and ‘Apply’ to manually override the associated CMST’s. 3. Using ELS, verify that the displayed CCTV image for the relevant CMST’s correctly reflects the information. 4. Inform 595 Express staff that the relevant CMST’s have been changed to ‘CLOSED’. 5. Complete the communication verification procedures. <p><u>District 4 IM Procedure</u></p> <ol style="list-style-type: none"> 1. Create an interagency event and post ‘EXIT RAMP / TO 595 EXPRESS / CLOSED’ on the appropriate IM EL DMS for the affected reversible ramp.


Location	Direction	Scenario	Comments	Response
75 EXPRESS NB – REVERSIBLE RAMP	EB	OPENING 75 EXPRESS NB REVERSIBLE LANE VIA THE ELS SOFTWARE, WHEN THE OPERATIONAL STATE REMAINS TOLLING	<p>The affected entrance ramp must be fully opened by 595 Express staff before proceeding.</p> <p>In the event of a CMST message display error, verify the status with 595 Express staff and create a MIMS ticket using the 595 MIMS application.</p>	<p><u>I-595 Procedure</u></p> <ol style="list-style-type: none"> Using SunGuide, physically open the affected Express Lanes entrance. Contact the District 4 EL Operator to inform them that the incident has cleared and request that the Toll Amount CMS for the affected entrance be changed to the current Toll Amount. Follow SunGuide Event Management procedures to manage the event in SunGuide. Follow procedures outlined in the I-595 Express SOG for incidents within the Express Lanes. <p><u>District 4 Procedure</u></p> <ol style="list-style-type: none"> Upon notification from the 595 Express staff that the ramp has been physically opened, in the ELS DMS view, select the appropriate entry ramp from the ‘Entry Segment’ drop menu, and click on  to override the current message. Under ‘New Message’ type ‘\$0.50’ (or whatever the segment toll amount is) and ‘Apply’ to manually override the associated CMST’s. Using ELS, verify that the displayed CCTV image for the relevant CMST’s correctly reflects the information. Complete the communication verification procedures. <p><u>District 4 IM Procedure</u></p> <ol style="list-style-type: none"> Terminate the response plan and request the 595 Express event number.


Location	Direction	Scenario	Comments	Response
75 EXPRESS NB – SEGMENT 13N INGRESS TO 595 EB	EB	INCIDENT WITHIN 75 EXPRESS SEGMENT 13N LOCATED BEYOND CMST NB14.1 (CCTV 7140) AND CMST NB14.4 (CCTV 7143)	<p>The toll amount CMS on the affected entrance ramp must be changed to CLOSED before 595 Express staff can begin closing the ramp.</p> <p>In the event of a CMST message display error, verify the status with 595 Express staff and create a MIMS ticket using the 595 MIMS application.</p>	<p><u>I-595 Procedure</u></p> <ol style="list-style-type: none"> 1. Contact the District 4 EL Operator to inform them of the incident and request that the Toll Amount CMS on the affected entrance be changed to ‘CLOSED’. 2. Upon notification that the Toll Amount CMS have been changed to ‘CLOSED’, use SunGuide to physically closed the affected Express Lanes Entrance. 3. Manually post ‘CLOSED’ on the CMSS relevant to the reversible ramp. 4. Follow SunGuide Event Management procedures to manage the event in SunGuide. 5. Follow procedures outlined in the I-595 Express SOG for incidents within the Express Lanes. <p><u>District 4 Procedure</u></p> <ol style="list-style-type: none"> 1. Upon notification from the 595 Express staff, in the ELS DMS view, select ‘Ramp 6 75 Express to 595 EB Direct Connect’ from the ‘Entry Segment’ drop menu, and click on  to override the current message. Refer to Appendix A. 2. Under ‘New Message’ type ‘CLOSED’ and ‘Apply’ to manually override the associated CMST’s. 3. Using ELS, verify that the displayed CCTV image for the relevant CMST’s correctly reflects the information. 4. Inform 595 Express staff that the relevant CMST’s have been changed to ‘CLOSED’. 5. Complete the communication verification procedures.

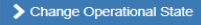
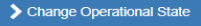
Location	Direction	Scenario	Comments	Response
75 EXPRESS NB – SEGMENT 13N INGRESS TO 595 EB	EB	INCIDENT WITHIN 75 EXPRESS SEGMENT 13N LOCATED BEYOND CMST NB14.1 (CCTV 7140) AND CMST NB14.4 (CCTV 7143) CLEARED	<p>The affected entrance ramp must be fully opened by 595 Express staff before proceeding.</p> <p>In the event of a CMST message display error, verify the status with 595 Express staff and create a MIMS ticket using the 595 MIMS application</p>	<p><u>I-595 Procedure</u></p> <ol style="list-style-type: none"> Using SunGuide, physically open the affected Express Lanes entrance. Contact the District 4 EL Operator to inform them that the incident has cleared and request that the Toll Amount CMS for the affected entrance be changed to the current Toll Amount. Follow SunGuide Event Management procedures to manage the event in SunGuide. Follow procedures outlined in the I-595 Express SOG for incidents within the Express Lanes. <p><u>District 4 Procedure</u></p> <ol style="list-style-type: none"> Upon notification from the 595 Express staff that the ramp has been physically opened, in the ELS DMS view, select ‘Ramp 6 75 Express to 595 EB Direct Connect’ from the ‘Entry Segment’ drop menu, and click on  to override the current message. Under ‘New Message’ type ‘\$0.50’ (or whatever the segment toll amount is) and ‘Apply’ to manually override the associated CMST’s. Using ELS, verify that the displayed CCTV image for the relevant CMST’s correctly reflects the information. Complete the communication verification procedures.

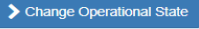
Location	Direction	Scenario	Comments	Response
595 EXPRESS	EB / WB	CLOSING THE SEGMENT, VIA THE ELS SOFTWARE, FROM AN OPEN STATE FOR A LEVEL 2 OR LEVEL 3 EVENT WITHIN THE FACILITY	<p>The segment status must be CLOSED before 595 Express staff can begin closing the gates.</p> <p>In the event of a CMST message display error, verify the status with 595 Express staff and create a MIMS ticket using the 595 MIMS application.</p>	<p><u>I-595 Procedure</u></p> <ol style="list-style-type: none"> 1. Contact District 4 EL Operator to request that the Toll Segment be closed. 2. Upon notification that the Toll Segment is closed and Toll Amount CMS have been changed to 'Closed' use SunGuide to physically close the Express Lanes. 3. Follow SunGuide Event Management procedures to manage the event in SunGuide. 4. Follow procedures as outlined in the I-595 Express SOG for Incidents within the Express Lanes. <p><u>District 4 Procedure</u></p> <ol style="list-style-type: none"> 1. Upon notification that the Express Lanes need to be closed, in the ELS Segment Status view, click on  to change the Operational State to 'Closing Eastbound' or 'Westbound' (the drop menu prompt is a default for the next stage of the closing process) and confirm the change to 'Closed' Toll Mode. 2. Messages will be generated as a 'System Warning', which will need to be acknowledged. 3. A DMS verification pop-up will also generate (in green), which is to be verified prior to proceeding. This is to ensure an accurate toll change has occurred on the CMST's. 4. Inform the 595 Operator that the Toll Mode and Toll Amount CMS have been changed to 'Closed'. 5. Upon notification that the Express Lanes have been physically closed, in the ELS Segment Status view, click on  to change the Operational State to 'SEALED'. If the duration of the closure does not require the segment to be 'SEALED', then you can remain in a 'CLOSING' state, without having to 'SEAL' the segment. 6. The on-duty, designated FDOT representative shall use ELS to implement a Retroactive Toll Amount Adjustment for the Toll Segment, when applicable. Refer to Appendix C. 7. Complete the communication verification procedures. <p><u>District 4 IM Procedure</u></p> <ol style="list-style-type: none"> 1. Create an interagency event and post 'EXPRESS LANES / CLOSED / DO NOT ENTER' on the appropriate IM DMS for the affected directional closure.

Location	Direction	Scenario	Comments	Response
595 EXPRESS	EB / WB	OPENING THE SEGMENT, VIA THE ELS SOFTWARE, FROM A CLOSED STATE FOR A LEVEL 2 OR LEVEL 3 EVENT THAT OCCURRED WITHIN THE FACILITY	<p>The facility must be fully OPEN, as confirmed by 595 Express staff, before proceeding.</p> <p>In the event of a CMST message display error, verify the status with 595 Express staff and create a MIMS ticket using the 595 MIMS application.</p>	<p><u>I-595 Procedure</u></p> <ol style="list-style-type: none"> Using SunGuide physically open the Express Lanes (Eastbound or Westbound). Contact the District 4 EL Operator to inform them that the incident has cleared and request that the Toll Segment be opened (Eastbound or Westbound). Follow SunGuide Event Management procedures to close the event in SunGuide. Follow procedures as outlined in the I-595 Express SOG for incidents within the Express Lanes. <p><u>District 4 Procedure</u></p> <ol style="list-style-type: none"> Upon notification that the Express Lanes have been physically opened, in the ELS Segment Status view, click on  to change the Operational State to 'Open Eastbound' or 'Westbound' and 'save the change'. A DMS verification pop-up will also be generated (in green), which needs to be verified. This is to ensure an accurate toll change has occurred on the CMST's. Complete the communication verification procedures. <p><u>District 4 IM Procedure</u></p> <ol style="list-style-type: none"> Terminate the response plan and request the 595 Express event number.

Location	Direction	Scenario	Comments	Response
595 EXPRESS	EB / WB	EMERGENCY EVENT – EXPRESS LANES OPEN, BUT NOT TOLLED	<p>An authorized FDOT representative is required to implement the procedures for this, and formal direction will be provided to I-595 Express LLC.</p> <p>In the event of a CMST message display error, verify the status with 595 Express staff and create a MIMS ticket using the 595 MIMS application.</p>	<p><u>This scenario may be due to:</u></p> <ol style="list-style-type: none"> 2. Emergency Evacuation. 3. FHP Request. 4. Weather Event. 5. Traffic Diversion. <p><u>I-595 Procedure</u></p> <ol style="list-style-type: none"> 1. If related to a SunGuide event, follow SunGuide Event Management procedures to manage the event in SunGuide. 2. Follow procedures outlined in the I-595 Express SOG for incidents within the Express Lanes follow SunGuide Event Management procedures to manage the event in SunGuide. <p><u>District 4 Procedure</u></p> <ol style="list-style-type: none"> 1. Upon notification that the toll mode needs to be changed, within the ELS Segment Status view, click on  to change the toll mode (the drop menu reveals the toll modes available). 2. Select 'ZERO' toll mode and associate the SunGuide event (if relevant). Click on 'accept'. 3. Once the SunGuide event has been associated (if relevant), then 'SAVE CHANGES' to initiate the change in toll mode. 4. Messages will be generated as a 'System Warning', which will need to be acknowledged. 5. A DMS verification pop-up will also generate (in green), which is to be verified prior to proceeding. This is to ensure an accurate toll change has occurred on the CMST's. 6. Inform the 595 Operator that the Toll Mode and Toll Amount CMS have been changed to '\$0.00'. 7. Complete the communication verification procedures.

Location	Direction	Scenario	Comments	Response
595 EXPRESS	EB / WB	EMERGENCY EVENT ENDED	In the event of a CMST message display error, verify the status with 595 Express staff and create a MIMS ticket using the 595 MIMS application.	<p><u>I-595 Procedure</u></p> <ol style="list-style-type: none"> 1. If related to a SunGuide event, follow SunGuide Event Management procedures to close the event in SunGuide. <p><u>District 4 Procedure</u></p> <ol style="list-style-type: none"> 1. Upon notification that the toll mode needs revert back to tolling, within the ELS Segment Status view, click on  to change the toll mode (the drop menu reveals the toll modes available). 2. Select 'MANUAL' toll mode. Click on 'accept'. 3. Messages will be generated as a 'System Warning', which will need to be acknowledged. 4. A DMS verification pop-up will also generate (in green), which is to be verified prior to proceeding. This is to ensure an accurate toll change has occurred on the CMST's. 5. Inform the 595 Operator that the Toll Mode and Toll Amount CMS have been changed to '\$0.50'. 6. Complete the communication verification procedures.

Location	Direction	Scenario	Comments	Response
595 EXPRESS	EB / WB	SPECIAL EVENT – EXPRESS LANES REQUIRED TO BE CLOSED / SEALED	<p>Normal FDOT permitting process to be followed to obtain approval for Special Events. Formal direction will be provided to I-595 Express LLC.</p> <p>The operational state must be CLOSED before 595 Express staff can begin closing the segment.</p> <p>In the event of a CMST message display error, verify the status with 595 Express staff and create a MIMS ticket using the 595 MIMS application.</p>	<p><u>I-595 Procedure</u></p> <ol style="list-style-type: none"> 1. Contact District 4 EL Operator to request that the Toll Segment be closed. 2. Upon notification that the Toll Segment is closed and Toll Amount CMS have been changed to ‘Closed’ use SunGuide to physically close the Express Lanes. 3. Follow SunGuide Event Management procedures to manage the event in SunGuide. 4. Follow procedures as outlined in the I-595 Express SOG for Incidents within the Express Lanes. <p><u>District 4 Procedure</u></p> <ol style="list-style-type: none"> 1. Upon notification that the Express Lanes need to be closed, in the ELS Segment Status view, click on  to change the Operational State to ‘Closing Eastbound’ or ‘Westbound’ (the drop menu prompt is a default for the next stage of the closing process) and confirm the change to ‘Closed’ Toll Mode. 2. Messages will be generated as a ‘System Warning’, which will need to be acknowledged. 3. A DMS verification pop-up will also generate (in green), which is to be verified prior to proceeding. This is to ensure an accurate toll change has occurred on the CMST’s. 4. Upon notification that the Express Lanes have been physically closed, in the ELS Segment Status view, click on  to change the Operational State to ‘SEALED’. 5. Inform the 595 Operator that the Toll Mode and Toll Amount CMS have been changed to ‘Closed’. 6. Complete the communication verification procedures. <p><u>District 4 IM Procedure</u></p> <ol style="list-style-type: none"> 1. Create an interagency event and post ‘EXPRESS LANES / CLOSED / DO NOT ENTER’ on the appropriate IM DMS for the affected directional closure.

Location	Direction	Scenario	Comments	Response
595 EXPRESS	EB / WB	SPECIAL EVENT – EXPRESS LANES REQUIRED TO BE OPENED	<p>The facility must be fully OPEN, as confirmed by 595 Express staff, before proceeding.</p> <p>In the event of a CMST message display error, verify the status with 595 Express staff and create a MIMS ticket using the 595 MIMS application.</p>	<p><u>I-595 Procedure</u></p> <ol style="list-style-type: none"> 1. Using SunGuide physically open the Express Lanes (Eastbound or Westbound). 2. Contact the District 4 EL Operator to inform them that the incident has cleared and request that the Toll Segment be opened (Eastbound or Westbound). 3. Follow SunGuide Event Management procedures to close the event in SunGuide. 4. Follow procedures as outlined in the I-595 Express SOG for incidents within the Express Lanes. <p><u>District 4 Procedure</u></p> <ol style="list-style-type: none"> 1. Upon notification that the Express Lanes have been physically opened, in the ELS Segment Status view, click on  to change the Operational State to 'Open Eastbound' or 'Westbound' and 'save the change'. 2. A DMS verification pop-up will also be generated (in green), which needs to be verified. This is to ensure an accurate toll change has occurred on the CMST's. 3. Complete the communication verification procedures. <p><u>District 4 IM Procedure</u></p> <ol style="list-style-type: none"> 1. Terminate the response plan and request the 595 Express event number.

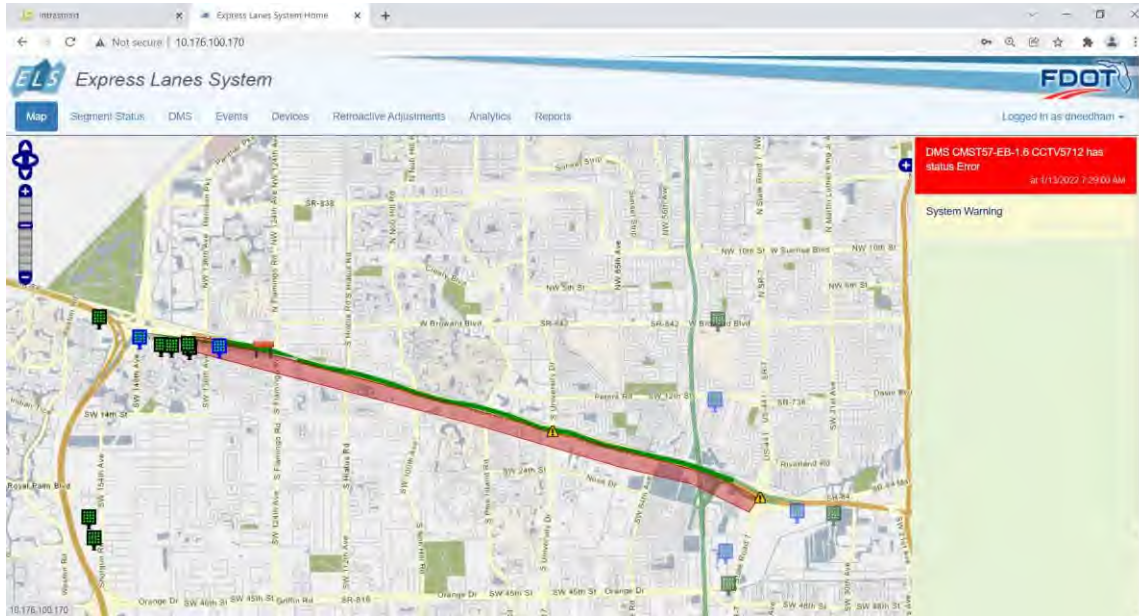
APPENDIX A

MANUALLY CHANGING CMST (TADMS) MESSAGES THROUGH ELS FOR 595 EXPRESS FACILITY
For incidents that affect points of access, but the facility remains tolling:

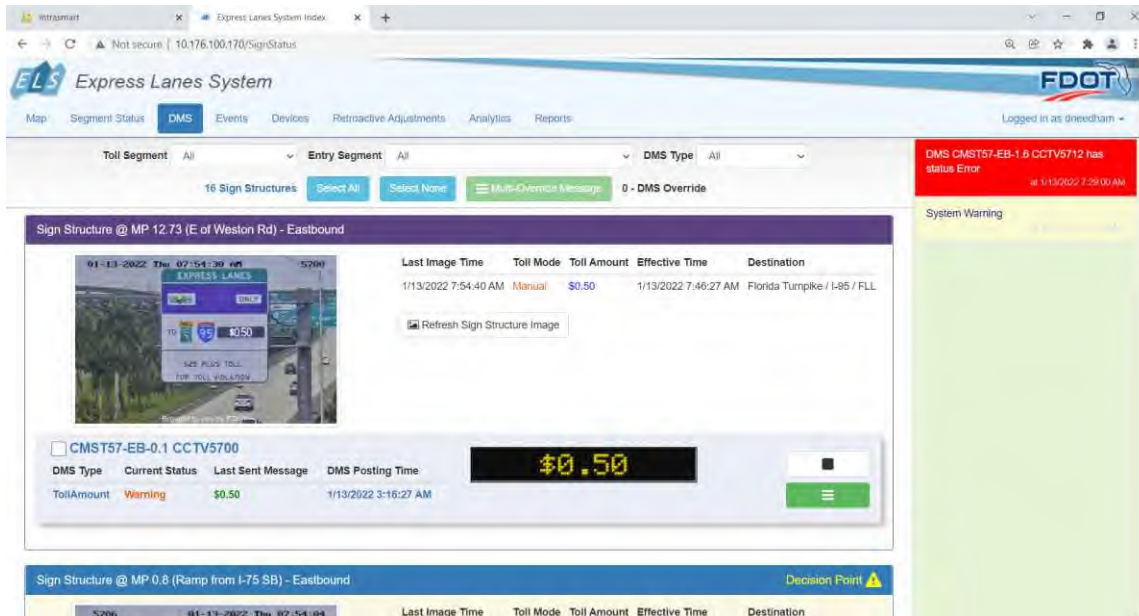
Example: Gate removal / Gate strike / Incident at ingress point / Incident that affects multiple ingress points but not the facility

*This example is for the CMST (TADMS) located within segment 13N for the EB reversible ramp

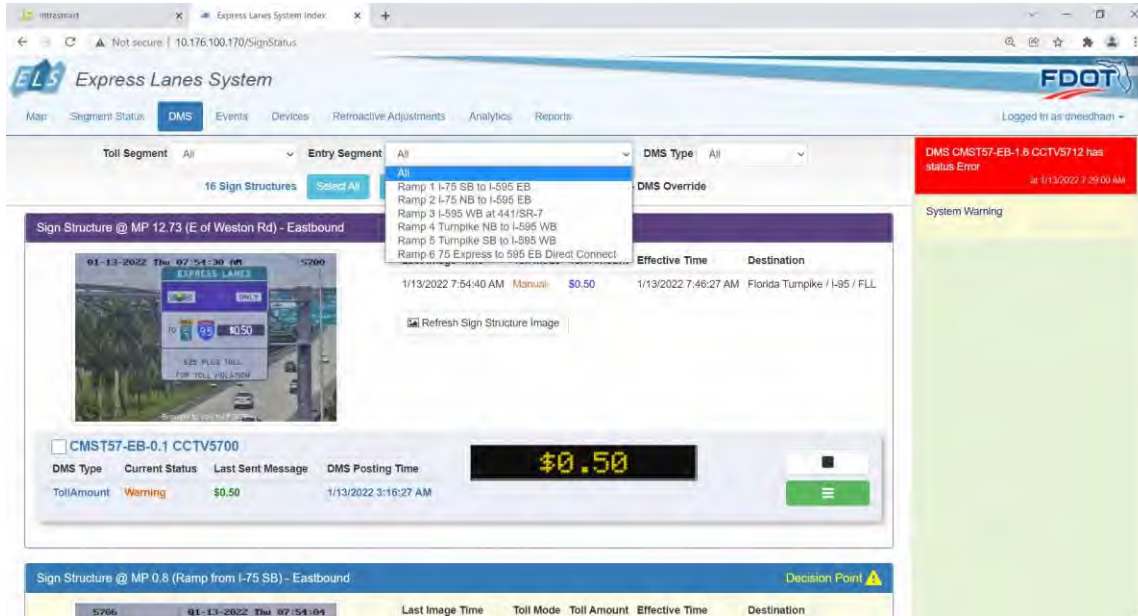
'Home screen' (Map)



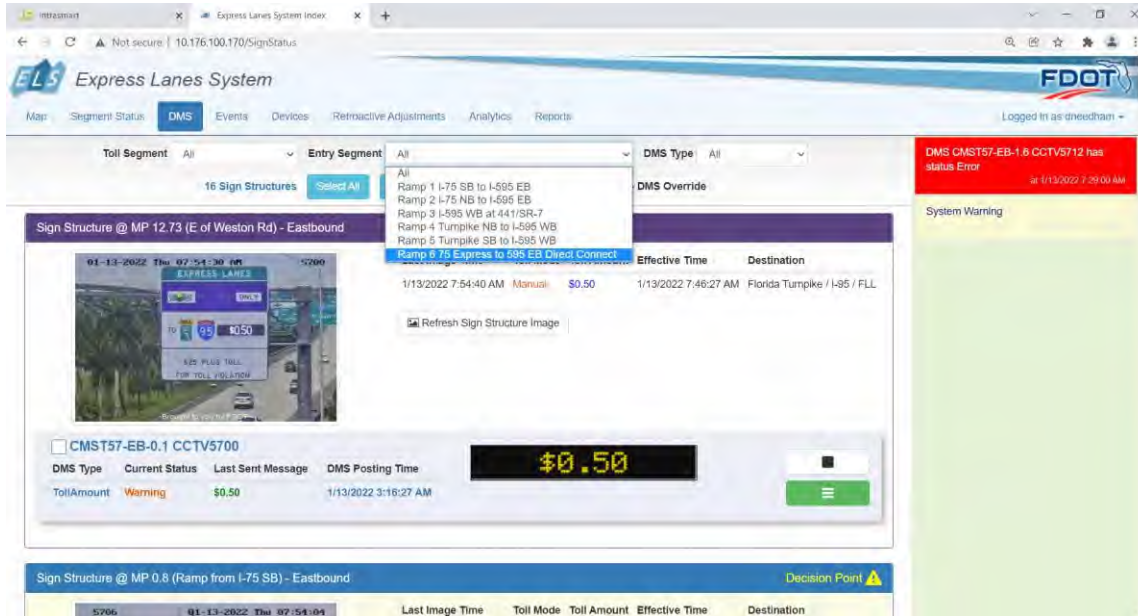
Along the toolbar select the 'DMS' tab



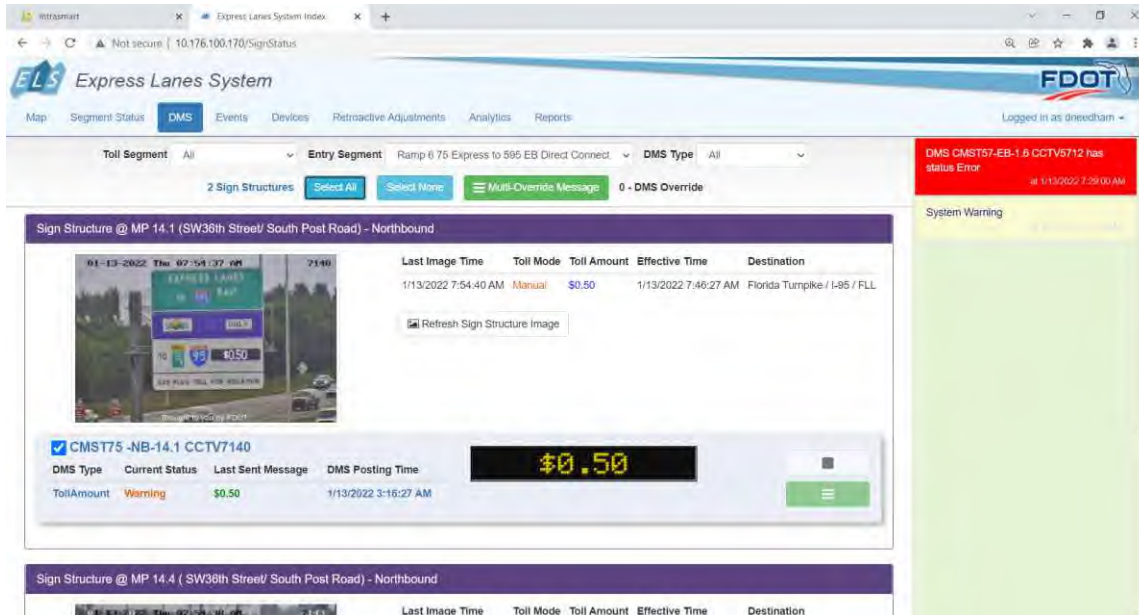
Open up the drop menu for 'Entry Segment' (this drop menu shows all CMST (TDMS) associated with each ingress)



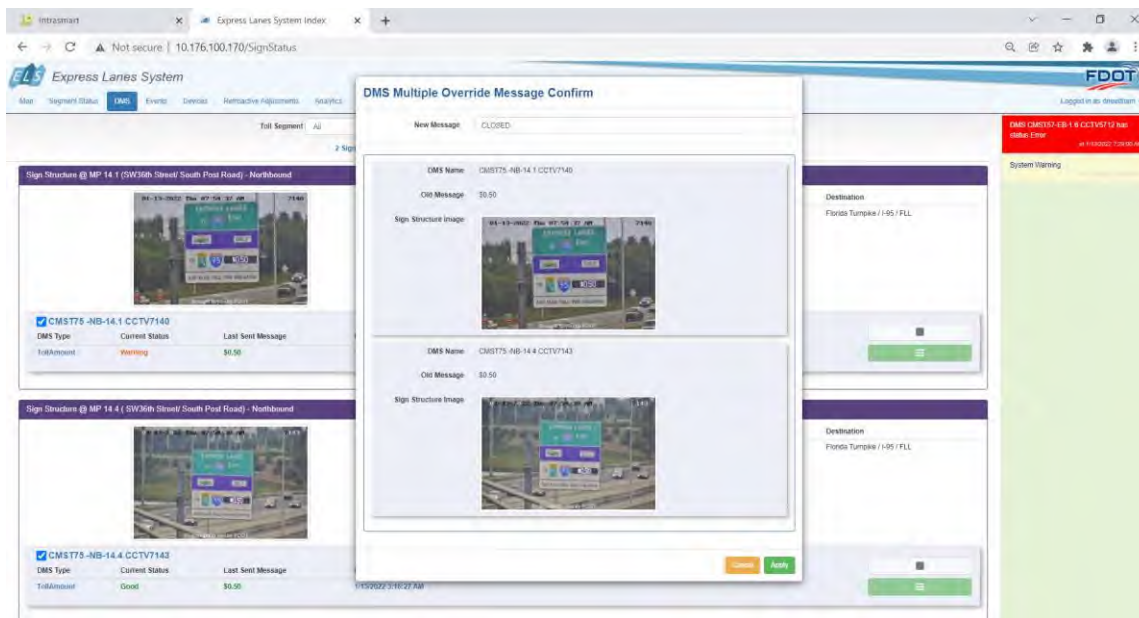
Select 'Ramp 6 – 75 Express to 595 EB Direct Connect'



Click on the 'Select All' button (blue) and you will see the check box complete alongside the CMST name



Click on the 'Multi-Override Message' button (green). In the 'New Message', type 'CLOSED' and click on 'Apply' button (green) at the bottom right of the window.



Repeat for when the signs need reverting back to their operational state.

APPENDIX B

MAINTENANCE PROCEDURES

CMS ISSUES

Scenario	Procedure
OPERATOR MANUALLY POSTS THE WRONG MESSAGE ON A DECISION POINT TOLL AMOUNT CMS	<u>District 4 Procedure</u> <ol style="list-style-type: none"> 1. Using ELS manually override the Toll Amount CMS to the correct message for the relevant Toll Amount CMS. 2. Using ELS, verify that the displayed CCTV image for the relevant Toll Amount CMS correctly reflects the Toll Amount Message for the Toll Segment.

Scenario	Procedure
NON-DECISION POINT TOLL AMOUNT CMS HAS FAILED AND IS BLANK OR DISPLAYING AN UNCHANGEABLE TOLL AMOUNT	<u>District 4 Procedure</u> <ol style="list-style-type: none"> 1. Immediately notify I-595 Operator. 2. Using the I-595 installation of MIMS create a trouble ticket, with an ‘emergency’ priority level, for the relevant Toll Amount CMS.

Scenario	Procedure
DECISION POINT TOLL AMOUNT CMS HAS FAILED AND IS BLANK, AND AN UPSTREAM TOLL AMOUNT CMS IS OPERATIONAL	<u>District 4 Procedure</u> <ol style="list-style-type: none"> 1. Immediately notify I-595 Operator 2. Using the I-595 installation of MIMS create a trouble ticket, with an ‘emergency’ priority level, for the relevant Toll Amount CMS. 3. Notify District 4 Software Support Staff to reconfigure the relevant operational, upstream Toll Amount CMS to be a Decision Point sign.

Scenario	Procedure
DECISION POINT TOLL AMOUNT CMS IS BACK ONLINE AFTER FAILURE	<u>District 4 Procedure</u> <ol style="list-style-type: none"> 1. Using ELS, verify that the displayed CCTV image for the relevant Toll Amount CMS reflects the correct Toll Amount for the Toll Segment. 2. Notify District 4 Software Support Staff to undo the reconfiguration of the relevant operational, upstream Toll Amount CMS.

Scenario	Procedure
<p>FAILURE OF ALL TOLL AMOUNT CMS FOR AN INDIVIDUAL INGRESS</p>	<p><u>I-595 Procedure</u></p> <ol style="list-style-type: none"> 1. Upon notification that the affected entrance needs to be closed and the appropriate Toll Amount signs have been changed to “Closed” use SunGuide to physically close the affected Express Lanes entrance. <p><u>District 4 Procedure</u></p> <ol style="list-style-type: none"> 1. Notify the I-595 Operator of the issue and inform them that the affected entrance needs to be physically closed. 2. Using ELS manually override the Toll Amount CMS message to “Closed” for all Toll Amount CMS associated with the affected Entrance 3. Using ELS, verify that the displayed CCTV image for the Toll Amount CMS associated with the affected Entrance correctly reflects the “Closed” message. 4. Using the I-595 installation of MIMS create a trouble ticket, with an ‘emergency’ priority level, for the relevant CMS. 5. Complete communication verification procedures.

Scenario	Procedure
<p>ONE OR MORE TOLL AMOUNT CMS ARE BACK ONLINE AFTER FAILURE</p>	<p><u>I-595 Procedure</u></p> <ol style="list-style-type: none"> 1. Upon notification that the affected entrance can be opened use SunGuide to physically open the affected Express Lanes entrance. 2. Inform the District 4 EL Operator that the Express Lanes entrance has been physically opened. 3. Using SunGuide and/or CCTV video feeds, verify that the messages posted on Lane Status CMS are correct for the Toll Segment. In the event of a CMS message display error, notify the on-duty, designated FDOT representative of the issue. <p><u>District 4 Procedure</u></p> <ol style="list-style-type: none"> 1. Using ELS, verify that the displayed CCTV image for the Toll Amount CMS associated with the affected Entrance reflects the correct message (all should be displaying ‘Closed’). 2. Inform the I-595 Operator that the signs are working and request that the Express Lanes entrance be physically opened. 3. Upon notification that the Express Lanes entrance has been physically opened use ELS to release the Toll Amount CMS associated with the affected Entrance to automatic control. 4. Using ELS, verify that the displayed CCTV image for the Toll Amount CMS associated with the affected Entrance reflects the correct Toll Amount for the Toll Segment. 5. Complete communication verification procedures.

Scenario	Procedure
<p>DECISION POINT TOLL AMOUNT CMS HAS FAILED AND IS DISPLAYING AN UNCHANGEABLE TOLL AMOUNT</p>	<p><u>I-595 Procedure</u></p> <ol style="list-style-type: none"> 1. Upon notification of the issue dispatch maintenance staff. 2. Coordinate with District 4 EL Operator as needed until the sign has been repaired. <p><u>District 4 Procedure</u></p> <ol style="list-style-type: none"> 1. Immediately notify I-595 Operator of the issue and ask that they contact maintenance staff immediately. 2. Using the I-595 installation of MIMS create a trouble ticket, with an ‘emergency’ priority level, for the relevant Toll Amount CMS. 3. Follow appropriate procedure below based on the unchangeable Toll Amount that is posted. 4. Complete communication verification procedures, as needed. <p>Unchangeable Toll is Higher than Current Toll:</p> <ol style="list-style-type: none"> 1. If the unchangeable toll amount is more than the current calculated Segment Toll, then leave the system in the current state. <p>Unchangeable Toll Lower than Current Toll:</p> <ol style="list-style-type: none"> 1. If the unchangeable Toll Amount is below the current calculated Toll Amount, and not less than the current Minimum Toll Amount, use ELS to manually override the current segment toll to the unchangeable toll amount. <p>Unchangeable Toll Less than Minimum Toll:</p> <ol style="list-style-type: none"> 1. If the unchangeable Toll Amount is less than the current minimum toll contact, I-595 Operator, and request that they have maintenance staff manually blank or power down the affected Toll Amount CMS. 2. Notify District 4 Software Support Staff to reconfigure the relevant operational, upstream Toll Amount CMS to be a Decision Point sign.

Scenario	Procedure
<p>DECISION POINT TOLL AMOUNT CMS IS BACK ONLINE AFTER FAILING AND DISPLAYING AN UNCHANGEABLE TOLL AMOUNT</p>	<p><u>I-595 Procedure</u></p> <ol style="list-style-type: none"> 1. Coordinate with District 4 EL Operator as needed to be sure that the Express Lanes are returned to the appropriate operational state based on the time of day. <p><u>District 4 Procedure</u></p> <ol style="list-style-type: none"> 1. Follow appropriate procedure below based on the unchangeable Toll Amount that was posted. 2. Complete communication verification procedures, as needed <p>Unchangeable Toll was Higher than Current Toll:</p> <ol style="list-style-type: none"> 1. Using ELS, verify that the displayed CCTV image for the affected Toll Amount CMS reflects the correct message (should be displaying the current calculated Toll Amount) and change the asset operational status in MIMS. <p>Unchangeable Toll Lower than Current Toll:</p> <ol style="list-style-type: none"> 1. Use ELS to return the Toll Mode to the Toll Mode that was active prior to the CMS failure. 2. Using ELS, verify that the displayed CCTV image for the affected Toll Amount CMS reflects the correct message (should be displaying the current calculated Toll Amount) and change the asset operational status in MIMS. <p>Unchangeable Toll Less than Minimum Toll:</p> <ol style="list-style-type: none"> 1. Using ELS, verify that the displayed CCTV image for the affected Toll Amount CMS reflects the correct message (should be displaying the current calculated Toll Amount). 2. Notify District 4 Software Support Staff to undo the reconfiguration of the relevant operational, upstream Toll Amount CMS.

Scenario	Procedure
<p>ELS CMS DEVICE MANAGEMENT SUBSYSTEM FAILURE</p>	<p><u>District 4 Procedure</u></p> <ol style="list-style-type: none"> 1. Acknowledge the CMS Module Failure Alert describing the issue. 2. Immediately notify District 4 Software Support Staff and the District 4 Managed Lanes Coordinator.

Scenario	Procedure
<p>RECOVERY FROM ELS CMS DEVICE MANAGEMENT SUBSYSTEM FAILURE</p>	<p><u>District 4 Procedure</u></p> <p>Note: ELS will automatically update all CMS when the subsystem is back online.</p> <ol style="list-style-type: none"> 1. Using ELS, verify that the displayed CCTV image for all Toll Amount CMS reflects the correct Toll Amount for the Toll Segment.

APPENDIX C

RETROACTIVE TOLL ADJUSTMENT



Gantry is located just west of Flamingo Road (see photo above)

Change the Toll Amount to \$0.00, with a starting time of X (see below) minutes before the SunGuide event was confirmed and an ending time coincident with the start of the Closed Mode.

Incident Eastbound / Before Toll Gantry	X = 15 minutes
Incident Eastbound / After Toll Gantry	X = 22 minutes
Incident Westbound / Before Toll Gantry	X = 15 minutes
Incident Westbound / After Toll Gantry	X = 17 minutes

We have 24 hours to make retroactive toll adjustments. Please use the following as a guide. For incidents that occur during the following timings:

- Friday 5PM through Sunday 10AM, contact the District 4 Software Support staff and / or the District 4 Managed Lanes Coordinator for guidance. Use the above formula for the actual duration of the retroactive adjustment. The call should be made during daylight hours (between 9AM and 5PM), within 24 hours of the incident. For example:
 - An incident occurs on Friday at 11PM – Call one of the afore mentioned personnel between 9AM and 5PM on Saturday.
 - An incident occurs on Saturday at 1PM – Call one of the afore mentioned personnel after the facility reopens.
 - An incident occurs on Sunday at 6AM – Call one of the afore mentioned personnel between 9AM and 5PM on Sunday.
- Monday through Friday, 8AM – 5PM – The adjustment can be made real-time.
- Monday through Thursday, after 5PM – The adjustment can be made the following business day.

Public holidays are to be considered under the weekend parameters.

APPENDIX D

595 EXPRESS DEVICE INFORMATION

I-75 Southbound				
CMST (TADMS)	Camera	CMSS (LSDMS)	Camera	Ramp
0.1	5700	0.5	5705	D4 (R1) 595 EX (R4)
0.8	5706	1	5709	
		1.3	5715	
75 EXPRESS Reversible Ramp				
CMST (TADMS)	Camera	CMSS (LSDMS)	Camera	D4 (R6) 595 EX (R3)
14.1	7140	14.0	7137	
14.4	7143	14.6	7143	
		15	7148	
		15.3	7148	
I595 EB 136th				
CMST (TADMS)	Camera	CMSS (LSDMS)	Camera	D4 (R2) 595 EX (R5)
1.1	5710	1.1	5712	
1.2	5714	1.8	5716	
1.5	5716	00.1	5718	
1.9	5718			
SR-869 SB				
CMST (TADMS)	Camera	CMSS (LSDMS)	Camera	
1.6	5713	1.4	5714	
I595 WB 441				
CMST (TADMS)	Camera	CMSS (LSDMS)	Camera	D4 (R3) 595 EX (R11)
8.6	5087	8.9	5094	
9.0	D4 Camera	8.3	5084	
Turnpike Northbound				
CMST (TADMS)	Camera	CMSS (LSDMS)	Camera	D4 (R4) 595 EX (R10)
53.5	0534	53.1	0529	
54.1	0539	54	0539	
54.7	0542	54.5	0542	
		54.8	0547	
		55	0542	
Turnpike Southbound				
CMST (TADMS)	Camera	CMSS (LSDMS)	Camera	D4 (R5) 595 EX (R7)
58	0581	58.5	0586	
56.8	0571	57.5	0576	
		57	0571	
		56.5	0566	



DECISION POINT



REMOVED AS PART OF 95 EXPRESS PHASE 3C

595 EXPRESS TOLL AMOUNT (CMST) LOCATIONS

RAMP ONE – I-75 SB TO I-595 EB – This ingress is relevant to motorists coming from the West (NAPLES)



Copy and paste the following Lat. and Long. into Google Maps for the ingress: 26.1192665, -80.3465261

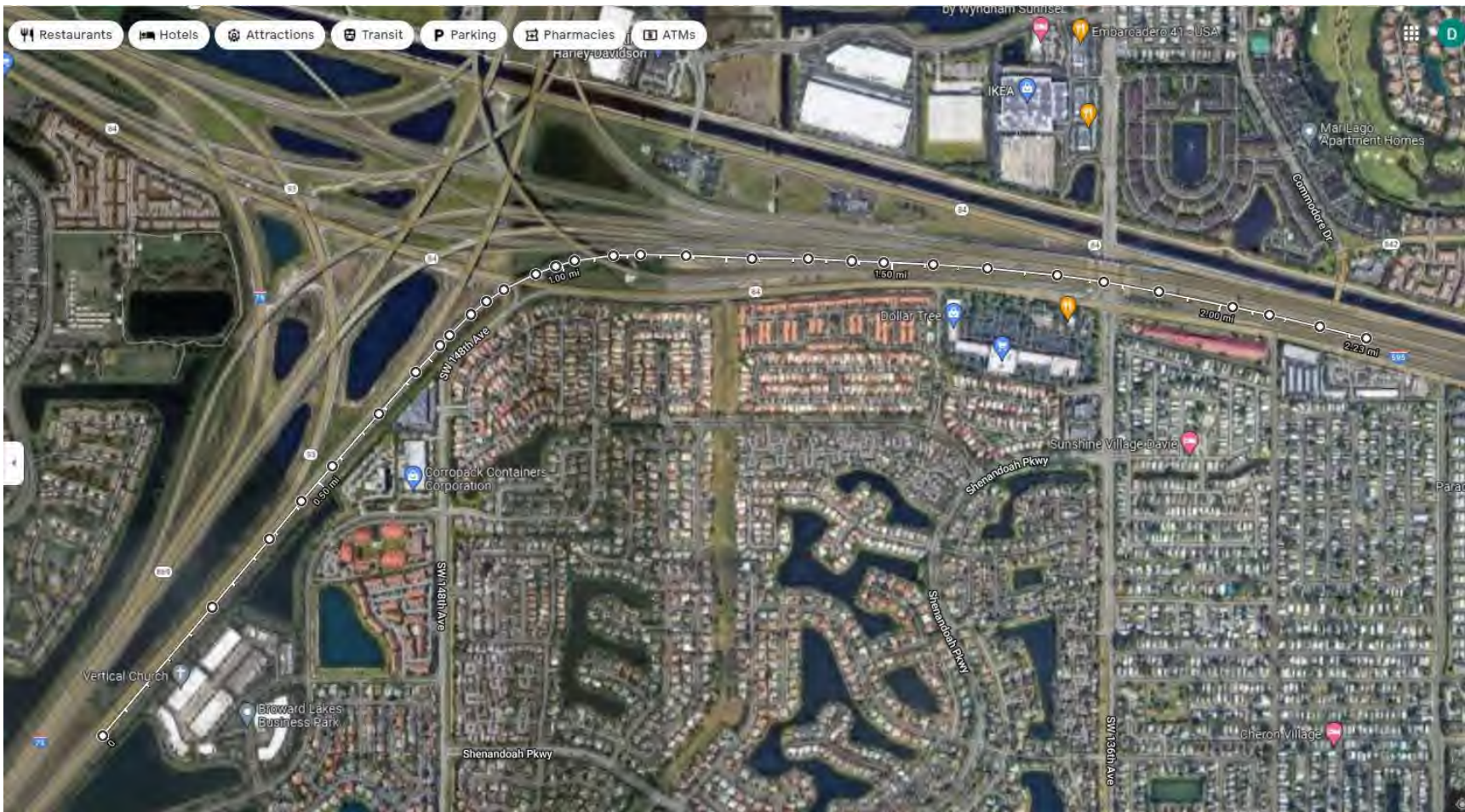
CMST 57-EB-0.1 / CCTV 5700



CLOSEST TO INGRESS – CMST 57-EB-0.8 / CCTV 5706



RAMP TWO – I-75 NB TO I-595 EB – This ingress is relevant to motorists coming from the South (Miami)



Copy and paste the following Lat. and Long. into Google Maps for the ingress: 26.117501, -80.3265954

RAMP FROM 75 NB – CMST 57-EB-1.2 / CCTV 5709/CCTV 5714



RAMP TWO – SR-84 EB TO I-595 EB – This ingress is relevant to motorists coming from the West (SR-84)



RAMP FROM SR-84 WB – CMST 57-EB-1.1 / CCTV 5710



RAMP TWO – SR-869 SB TO I-595 EB – This ingress is relevant to motorists coming from the North (SAWGRASS)



RAMP FROM SR-869 SB – CMST 57-EB-1.6 CCTV5712



RAMP TWO – I-75 SB TO I-595 EB – This ingress is relevant to motorists coming from the West (NAPLES)



595 EXPRESS – CMST 57-EB-1.5 / CCTV 5716



595 EXPRESS DOWNSTREAM - CLOSEST TO INGRESS – CMST 57-EB-1.9 / CCTV 5718



RAMP THREE – I-595WB at US-441 / SR-7 – CMST 595-WB-8.6 / CCTV5087



RAMP FOUR – TURNPIKE NB TO I-95 WB - This ingress is relevant to motorists coming from the South (Miami Dade)



Copy and paste the following Lat. and Long. into Google Maps for the ingress: 26.0808357, -80.2159535

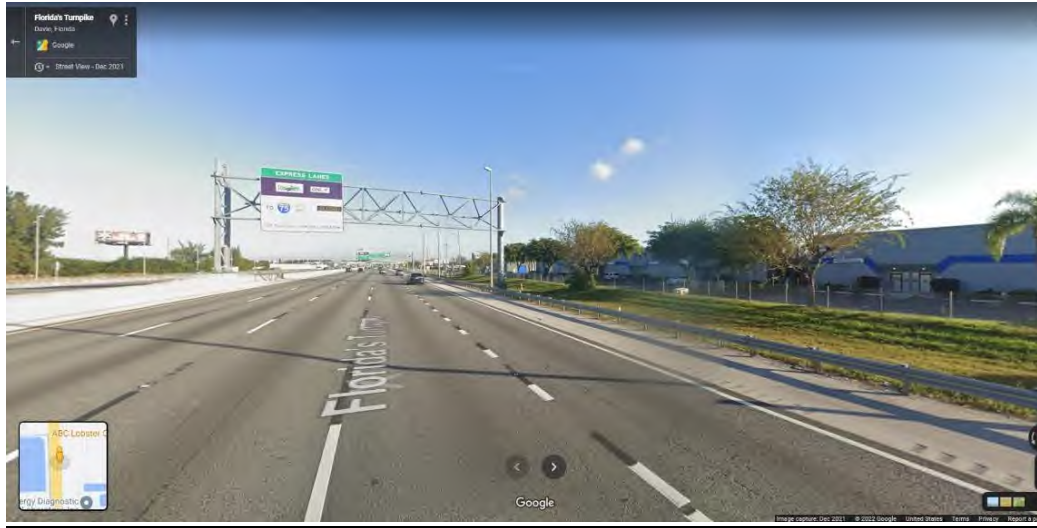
RAMP FOUR – TURNPIKE NB TO I-595 WB – CMST 91-NB-53.5 / CCTV 0534



RAMP FROM GRIFFIN RD – CMST 91-NB-54.1 / CCTV 0539



TURNPIKE NB DOWNSTREAM OF ABOVE / CLOSEST TO INGRESS – CMST 57-EB-1.9 / CCTV 5718

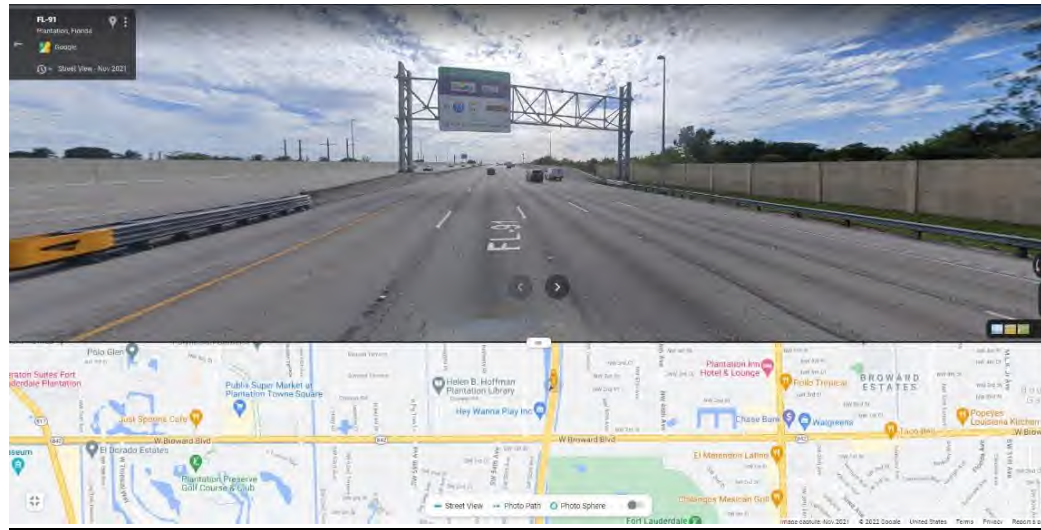


RAMP FIVE – TURNPIKE SB TO I-95 WB - This ingress is relevant to motorists coming from the North (Palm Beach)



Copy and paste the following Lat. and Long. into Google Maps for the ingress: 26.1016293, -80.2180929

RAMP FIVE – TURNPIKE SB TO I-595 WB – CMST 91-SB-58.0 / CCTV 0581



TURNPIKE SB DOWNSTREAM OF ABOVE / CLOSEST TO INGRESS – CMST 91-SB-56.8 / CCTV 0571

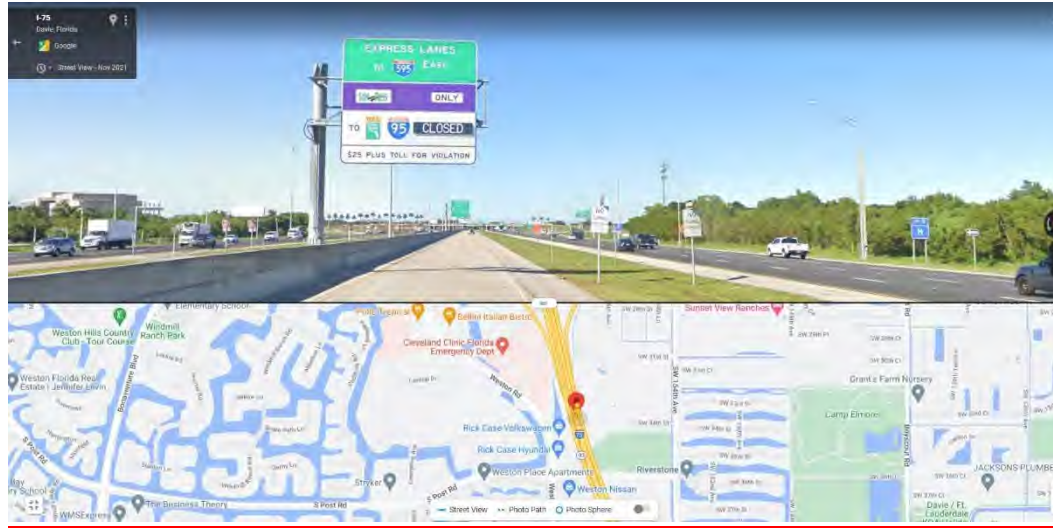


RAMP SIX – 75 EXPRESS TO 595 EB DIRECT CONNECT – This ingress is relevant to motorists coming from the South (via 75 Express). Both located within Segment 13N



Copy and paste the following Lat. and Long. into Google Maps for the ingress: 26.0948006, -80.3630539

RAMP SIX – 75 EXPRESS TO 595 EB DIRECT CONNECT – CMST 75 -NB-14.1 / CCTV 7140



75 EXPRESS NB DOWNSTREAM OF ABOVE / CLOSEST TO INGRESS – CMST 75 - NB-14.4 / CCTV 7143

