



Change Management Board Meeting

Thursday, August 24, 2017

Audio: 1 (872) 240-3212 , Access Code 372-352-149

Do NOT Put On Hold

Call is Being Recorded

GoToMeeting:

<https://global.gotomeeting.com/join/372352149>



Welcome and Call for Quorum

Bryan Homayouni, P.E., CMB Chairman



Agenda



Time	Item	Lead
1:30 – 1:40	Welcome and Call for Quorum	Bryan Homayouni
1:40 – 1:50	Previous Meeting Recap & Action Item Review	Bryan Homayouni
1:50 – 2:00	SICN Update	David Heupel
2:00 – 2:10	SunGuide Software Update	Derek Vollmer
2:10 – 2:30	SunGuide Software Development Process <i>(vote)</i>	Derek Vollmer
2:30 – 2:40	Roadway Type Flag (Event Manager) <i>(vote)</i>	Derek Vollmer



Agenda



Time	Item	Lead
2:40 – 2:50	Traffic Signal Malfunction (new SAE codes) <i>(vote)</i>	Derek Vollmer
2:50 – 3:00	Lane Level Detector Information in C2C <i>(vote)</i>	Jeremy Dilmore
3:00 – 3:10	FP 1422 Audit Chronology <i>(vote)</i>	Mark Laird
3:10 – 3:20	FP 2963 Case Insensitivity <i>(vote)</i>	Mark Laird
3:20 – 3:30	FP 2736 Links on Map <i>(vote)</i>	Mark Laird
3:30 – 3:40	Planned Events <i>(vote)</i>	Derek Vollmer



Agenda



Time	Item	Lead
3:40 – 3:50	Module to Control Lane Availability	Jeremy Dilmore
3:50 – 4:00	Saving Accurate Device Locations	Jeremy Dilmore
4:00 – 4:10	RWIS Enhancements	Derek Vollmer
4:10 – 4:20	Executive Notification Automation	Derek Vollmer
4:20 – 4:35	Open Discussion	Bryan Homayouni
4:35 – 4:45	Review Action Items	Bryan Homayouni

CMB Agenda, slides, and attachments posted here:

http://www.dot.state.fl.us/trafficoperations/ITS/Projects_Deploy/CMB.shtm



Previous Meetings Recap and Action Items Review

Bryan Homayouni, P.E., CMB Chairman



Previous Meeting Action Items

Owner	Action Item
Districts	FDOT request status of the multicast re-addressing from the Districts.
Derek Vollmer	Statewide agreement for removing Express Lanes in SunGuide.
Mark Lair and Tucker Brown	Establish the DMS Color/Graphic committee.
Derek Vollmer	Reach out to Russell for D5 architecture.
Derek Vollmer	Add DMS Travel-times in rural areas to the ITS WGM.
Elizabeth Birriel	End of Life of devices at the LESS committee meeting.
Derek Vollmer	Add Nelson to the SSUG.



Statewide ITS Communications Network (SICN) Update

Randy Pierce & Terry Posey, P. E.



SICN Update



- Sharing of Traffic Flow Video via Statewide ITS Communications Network
 - Multicast video from Districts 1, 3-Tallahassee, 4, 5, and 6 is working
 - Limited multicast video from Districts 2 & 7 is available
 - Districts 2 and 7 actively working on their networks
 - Multicast video from CFX is pending a direct connection to the SICN at the D5 RTMC
- Statewide IP Allocations/Migration
 - District 5 migrations continue
 - District 6 migrations to begin at completion of District 5
- District 4 – SE FL Fiber Re-route
 - District 4, Turnpike and Broward County fiber to support redundant connection to District 4 RTMC
 - Project kick-off meeting scheduled for mid September
 - Field reconnaissance and some splice work has already begun
 - Site visits with D4, Turnpike and Broward County to determine additional splice points, and fibers to use so accurate work plans and documentation can be developed to support the project.



SICN Update



- Keys ITS Network Upgrade
 - Full upgrade of Keys ITS Network for District 6
 - New, high-capacity IP/Ethernet microwave (6 GHz backbone approx. 300 – 350 Mb/s with ideal propagation)
 - Licensed RF spectrum – mitigates interference problems
 - New 10Gb/s fiber optic component – D6 RTMC to end of HEFT
 - Installation underway
 - Fiber optic span is operational and currently carrying traffic from the Florida City segment of the network
- Transition to the ITS Working Group



QUESTIONS?

Randy Pierce & Terry Posey

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SunGuide Software Update

Derek Vollmer, P.E., FDOT



SunGuide Software Update



- Release 7.0 is available
 - Truck Parking – New system protocols added as hotfixes
 - Signals in SunGuide – issues with Trafficware protocol
 - Managed Lanes system ported over (versilis gate control)
 - Disable e-mails from response plans, alternate travel time destinations, auto merge operator entered messages with travel times, ...

SunGuide Software Update

- Release 7.1 Remaining GUIs transitioned
 - Ramp metering
 - Variable speed limit (Deprecated)
 - C2C
 - Pricing Subsystem (Deprecated)
- 7.1 Remaining Config moved to map
 - No more Admin Editor

SunGuide Software update

- Additional items included in 7.1
 - Ramp Meter NTCIP Protocol
 - TAPCO protocol
 - Device permissions/device groups
- FAT week of October 2nd
- Release scheduled for January 5th, 2017



SunGuide Software Update

- What's being fleshed out
 - Executive Notification Automation
 - Interface with Active Directory
 - Controlling remote DMS
 - Intersections in SunGuide (Event Management Perspective)
 - RISC in SunGuide



SunGuide Software update

- What needs to be started
 - Color DMS Enhancements
 - Part time shoulder use
 - C2C improvements
 - Continue working on small enhancements



SunGuide Software Update

- Deprecate inventory management in SunGuide?
 - No one uses it.
 - Costs money to keep updating it with releases



QUESTIONS?

Derek Vollmer, P.E., FDOT

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SunGuide Software Development Process *(VOTE)*

Derek Vollmer, P.E., FDOT



Software Development Process



Motivation

- Get smaller yet beneficial enhancements and fixes out to the Districts quicker
- Allows us to test throughout the year instead of doing one massive testing effort at the end for a large release



Software Development Process



- Goal is four releases a year
- This would be three minor releases and one more significant release.
- First year will be fewer while we work out the kinks in the process.



Software Development Process



- Smaller enhancements and bug fixes included in smaller releases.
- Larger enhancements (e.g. new subsystems) more likely included in the larger release.
- If an enhancement fails testing, it will be removed and delivered in a later release.



Software Development Process



- Hotfixes will still be released for issues that need immediate attention, i.e. frequent crashes, issues that impact ability to manage incidents
- If a bug fix is included in a minor release, we will not release a hotfix.
- For smaller releases, will only provide remote installation support.

Software Development Process

- For smaller enhancements, may need CMB approval for items outside of scheduled CMB meetings.
- Propose e-mail votes using voting buttons in between meetings.
- Results captured at the following CMB meeting to record the results. E-mail also sent with results.
- Voting e-mail will be sent by the CMB chair. Will need to update the CMB process document to reflect this change.



QUESTIONS? *(VOTE)*

Derek Vollmer, P.E., FDOT

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Roadway Type Flag How Roadways are Handled (Event Manager) ***(VOTE)***

Derek Vollmer, P.E., FDOT

Roadway Type and Naming

- D2 requested ability to identify a roadway as an Arterial
- Would allow different behavior based on roadway type
- Different performance measures based on roadway type

Roadway Type and Naming

- D2 request on handling arterial roadway name changes
- Can name them US1/Name1 then US1/Name 2
 - Issues with events that start on one and end on another (congestion)
 - Issues with running reports for the roadway (now multiple roadways)
- Want to provide the local name for the public

Roadway Types

- Add three new Roadway Types
 - Limited Access
 - Arterial
 - Express Lanes
- All roadways will be assigned a type during upgrade
 - Will default to Limited Access

Roadway Type Flags

- Report templates will be modified
 - Add filter for Roadway Type to this screen

Managing Center:	<input type="text" value="Any Center"/>	
County:	<input type="text" value="Any Counties"/>	
Road:	<input type="text" value="Any Roads"/>	
Direction:	<input type="text" value="Any"/>	
From Reference Point:	<input type="text" value="Any"/>	To: <input type="text" value="Any"/>
From Location:	<input type="text"/>	To: <input type="text"/>



Roadway Naming



- Any roadway could have an associated “primary” roadway. This would be entered via a drop-down in a new column in the Roadway Configuration window.
- Starting in 7.0, Roadways are configured in a grid layout that should make this task much easier.



Roadway Naming



- Example:
 - US-1 would be entered as usual, with no associated primary.
 - Philips Hwy would be entered with US-1 as its primary.
 - EM Locations would be configured using Philips Hwy. Events would be reported to FL511 using locations on Philips Hwy.

Roadway Naming

- Reports could be run for either Roadway
 - Reports run on a Primary would include events on any Secondary roadways as well.
 - Reports run on a Secondary roadway would only include events on that roadway itself.
- Congestion events could span across differently named roads that share the same primary roadway.

Roadway Type and Naming

- Roadway Type
 - Effort: 1 day
 - Cost \$1k
- Roadway naming
 - Effort: 3 weeks
 - Cost: \$13k



QUESTIONS? *(VOTE)*

Derek Vollmer, P.E., FDOT

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Traffic Signal Malfunction (new SAE codes) ***(VOTE)***

Derek Vollmer, P.E., FDOT

Traffic Signal Malfunction

- D2 enters traffic signal issues as “Other” event in SunGuide
- Appears as “Incident” on FL511
- “Other” not included in performance measures reports
- Want to convey there is a traffic signal issue to the public

Traffic Signal Malfunction

- New Event Types: Traffic Signal Dark, Traffic Signal Flash
- Detail can be communicated to FL511 using SAE codes:
 - 1804 – Traffic lights not working
 - Use this when signal is “dark”
 - 1805 – Traffic lights working incorrectly
 - Use this when signal is unexpectedly in flash
- FL511 would display same text as SAE codes
- Guess what....new Waze alert type “Traffic Light Fault”

Traffic Signal Malfunction

- Effort: 2 days
- Cost: \$2k
- Version: TBD 7.1.1 or 7.2.0



QUESTIONS? *(VOTE)*

Derek Vollmer, P.E., FDOT

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Lane Level Detector information in C2C *(VOTE)*

Jeremy Dilmore, P.E., FDOT

Lane Level Detector Information in C2C

- SunGuide has lane level detector information but C2C doesn't
- Enhancement expands C2C plugins and operator map to handle lane level information
 - Increases granularity of data that can be provided from SunGuide
 - Would be **optional** within C2C to allow C2C providers like HERE to not report information per lane
 - Would impact amount of data exchanged within C2C – performance considerations will need to be handled



QUESTIONS? *(VOTE)*

Jeremy Dilmore, P.E., FDOT

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FP 1422 Audit Chronology

(VOTE)

Mark Laird, AECOM

1422 - Audit Chronology

- When auditing, the AUDIT record goes into the chronology at the time associated with the modified record
- If multiple changes are made, the sequence of the changes is not known.

1422 - Audit Chronology

- Proposal
 - Place AUDIT records into chronology at the time of the audit (may be long after event is closed)
 - Shows what was modified (including whether it was the value or the time)
 - Show the time at which this item appears in the chronology (after the audit)
 - Show the original value (the one that was changed) – this may say “New” if a new item was added – maybe delimited to make it clear that this wasn’t the old value, e.g. <New>



1422 - Audit Chronology

Date	Type	Description
02/02/2017 16:50:35	ATIS SEVERITY	minor
02/02/2017 16:50:35	EVENT TYPE	Crash
02/02/2017 16:50:35	LOCATION	Miami-Dade on SR-826 Northbound, At I-75
02/02/2017 16:50:35	OWNER	lairdm
02/02/2017 16:50:35	STATUS	Active
02/02/2017 16:50:35	TMC NOTIFIED	FHP
02/02/2017 16:50:43	AUDIT	Blockage,By user lairdm
02/02/2017 16:50:43	BLOCKAGE	2 Right Lanes (of 3 Lanes) Blocked
02/02/2017 16:50:46	ATIS SEVERITY	major
02/02/2017 16:52:43	AUDIT	Blockage,By user lairdm
02/02/2017 16:52:43	BLOCKAGE	Right Lane (of 3 Lanes) Blocked



1422 - Audit Chronology

Date	Type	Description
02/02/2017 16:50:35	ATIS SEVERITY	minor
02/02/2017 16:50:35	EVENT TYPE	Crash
02/02/2017 16:50:35	LOCATION	Miami-Dade on SR-826 Northbound, At I-75
02/02/2017 16:50:35	OWNER	lairdm
02/02/2017 16:50:35	STATUS	Active
02/02/2017 16:50:35	TMC NOTIFIED	FHP
02/02/2017 16:50:43	BLOCKAGE	2 Right Lanes (of 3 Lanes) Blocked
02/02/2017 16:50:46	ATIS SEVERITY	major
02/02/2017 16:52:43	BLOCKAGE	Right Lane (of 3 Lanes) Blocked
02/03/2017 09:10:15	AUDIT	Blockage Time @ 16:52:43 ,By user lairdm, was 16:50:43
02/03/2017 09:12:25	AUDIT	Blockage Time @ 16:50:43 ,By user lairdm, was 16:52:43
02/03/2017 09:13:10	AUDIT	Blockage @ 16:52:43,By user lairdm, <New>



QUESTIONS? *(VOTE)*

Mark Laird, FDOT

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FP 2963 Case Insensitivity *(VOTE)*

Mark Laird, AECOM

2963 – Case Insensitivity

- Some names have uniqueness enforced, but are case-sensitive:
 - AVLRR Status
 - Cameras
 - Vehicle Operators
 - Signs
 - Video Destinations
 - Video Sources
 - TVT Links

2963 – Case Insensitivity

- Proposal
 - Make this check case-insensitive, so that the following conflict:
 - OTHER and other
 - Dms107 and DMS107 and dms107
 - Busy and BUSY
 - Only checked at configuration time
 - Only affects future configuration



QUESTIONS? *(VOTE)*

Mark Laird, AECOM

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FP 2736 Links on Map *(VOTE)*

Mark Laird, AECOM

2736 – Links on Map

- There are multiple sources of link data that are displayed on the map
 - Local TSS links
 - Remote TSS links
 - Nokia
 - Waze
- Because they are overlaid, only one is visible at a time

2736 – Links on Map

It is |

C2C Network Selection

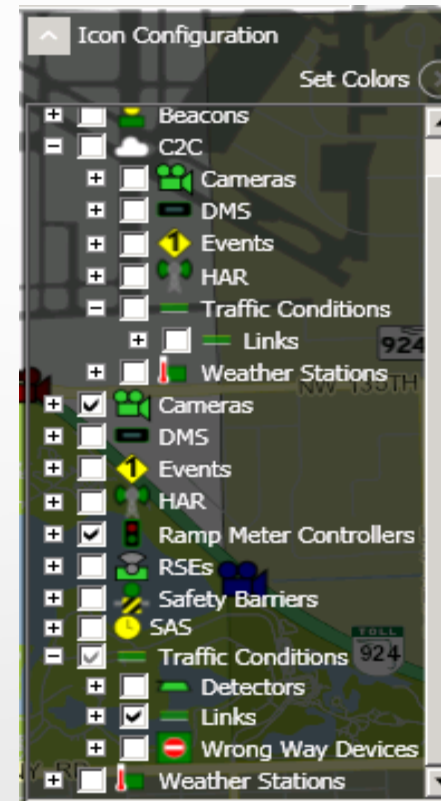
Select below which remote data items should be displayed on your map. Preferences will be saved automatically.

Center	Camera	DMS	Event	HAR	Traffic Condition	RWIS
District 4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
District 6 Nokia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MDX	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Waze	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
[Default for new centers]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

menu

2736 – Links on Map

- It is possible to turn off all C2C links or all local links



2736 – Links on Map

- Proposal – provide an easier mechanism to view various data sources. Suggestions include:
 1. Add a link “Source” item under C2C (or TSS) to choose which link(s) to display *
 2. Add another section (or a popup) to the icon configuration to choose C2C sources
 3. Provide a means to modify stacking order
 4. Hovering over a link “spreads” the links to show all (need to identify each) *

* = To be implemented



QUESTIONS? *(VOTE)*

Mark Laird, FDOT

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Planned Events

(VOTE)

Derek Vollmer, P.E., FDOT

Planned Events

Current Implementation – Using SAS

- D5 request to support planned events in addition to currently active events
- Currently can use SAS to schedule event creation and response plan activation
- Events are not viewable until created.
- Not as easy to see all planned events

Planned Events

Proposed Solution

- Intended for use with marathons, Bike Week, etc.
- Not intended for Construction events
- Create an event just as you do now, with optional start and end times
- Events that never start can be voided so as not to influence performance measures



Planned Events

Proposed Solution

- New event status required: Planned
- Planned Events would reside in their own section of the Event List until they start.
- The Event List will also include an indicator of the approval status for Planned Events.



Planned Events

Proposed Solution

- Configure who has permission to approve response plans.
- The Response Plan would need to be approved prior to activation.
- Could be approved any time between creation and start of event.



Planned Events

- Effort: 3-4 weeks
- Cost: \$20k
- Release: TBD 7.1.1 or 7.2



QUESTIONS? *(VOTE)*

Derek Vollmer, P.E., FDOT

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Module to Control Lane Availability

Part Time Shoulder Use

Jeremy Dilmore, P.E., FDOT

Module to Control Lane Availability

Part Time Shoulder Use – The Issue

- I-4 Ultimate
 - 21.1 Miles Express Lanes
 - Adding 2 lanes of capacity in each direction
 - Completion Date 2021
- I-4 Ultimate is most congested region
 - Still congestion north and south
 - Beyond the Ultimate
 - Addresses north and south limits
- Not funded for construction by 2021



Module to Control Lane Availability

Part Time Shoulder Use – Add Capacity Options

- Additional General Use Lane

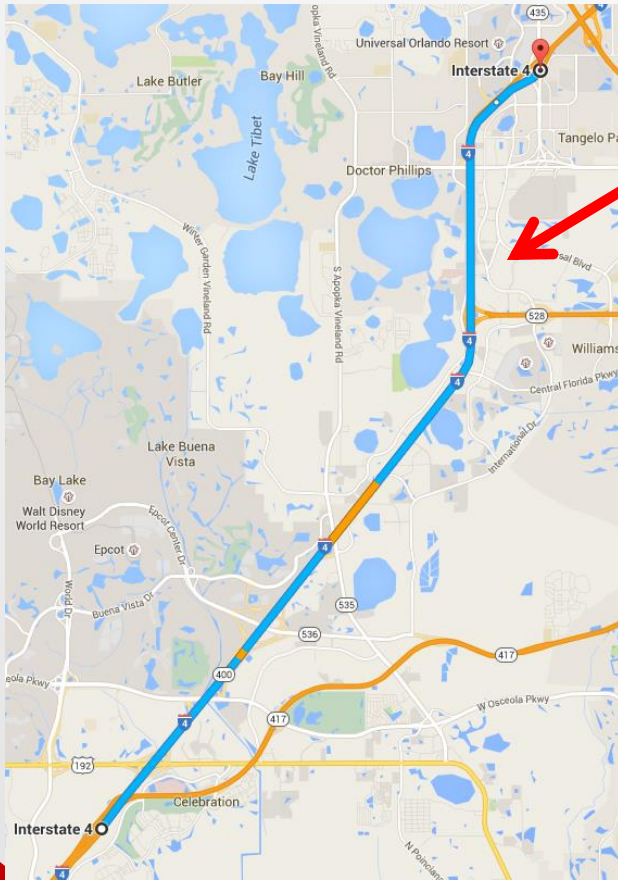
- Inconsistent with Department policy
- Would reduce BtU funding
- Reduce ability to manage demand in future years
- Costly
- Existing standards

- Part Time Shoulder Use

- Consistent Department Policy, Managed Lane Technique
- Maintains number base lanes
- Maintains funding
- Maintains ability to manage demand in future years
- Cost effective
- Lacks standards

Module to Control Lane Availability

Part Time Shoulder Use – Known Use Locations

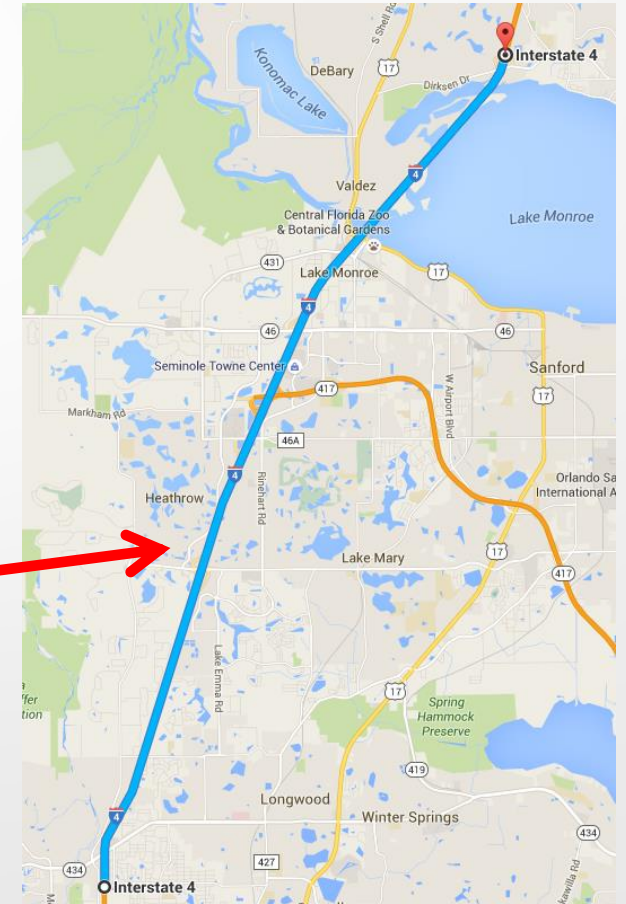


- I-4 BtU Osceola/Orange

- US 192 to Kirkman Road
- 12.5 miles

- I-4 BtU Seminole/Volusia

- SR 434 to Dirksen Drive
- 15 miles



Module to Control Lane Availability

Part Time Shoulder Use

- Example scenario - I-4 BtU Seminole/Volusia



- Goal is to detect roadway failure due to congestion and respond appropriately

Module to Control Lane Availability

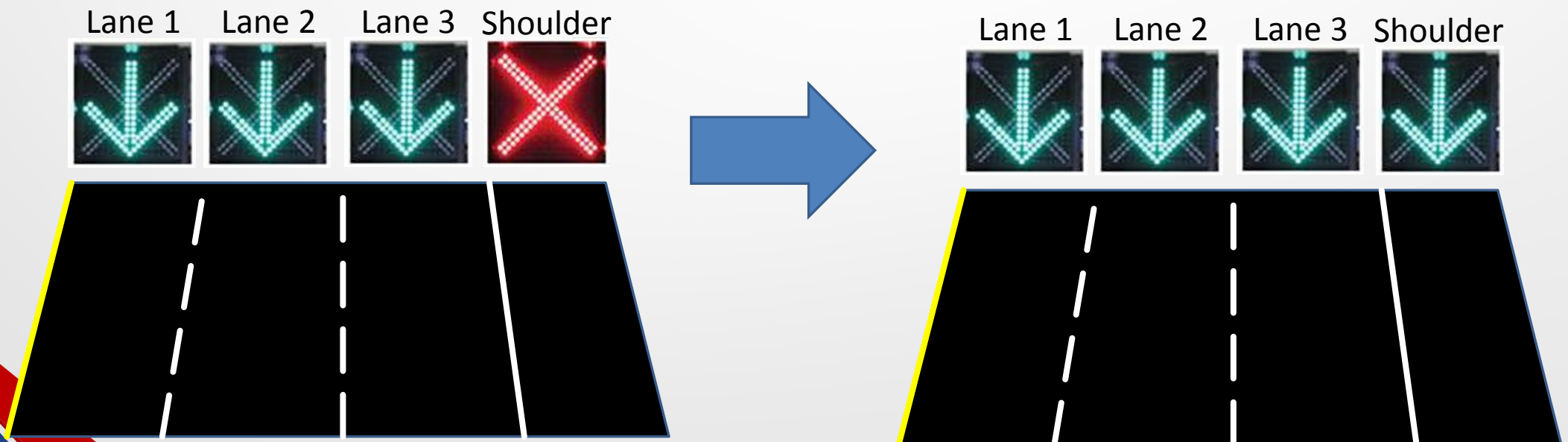
Part Time Shoulder Use

- Operational concept – 4 steps
 1. Traffic builds until it reaches configured thresholds, based on:
 - Volume > threshold
 - Speed < threshold
 - Location of Possible Congestion
 - Time of Day
 2. Alert an operator who dispatches a Road Ranger

Module to Control Lane Availability

Part Time Shoulder Use

- Operational concept, con't:
 - Road Ranger confirms congestion with operator
 - Operator activates a response plan that will update dynamic lane signage





QUESTIONS?

Jeremy Dilmore, P.E., FDOT

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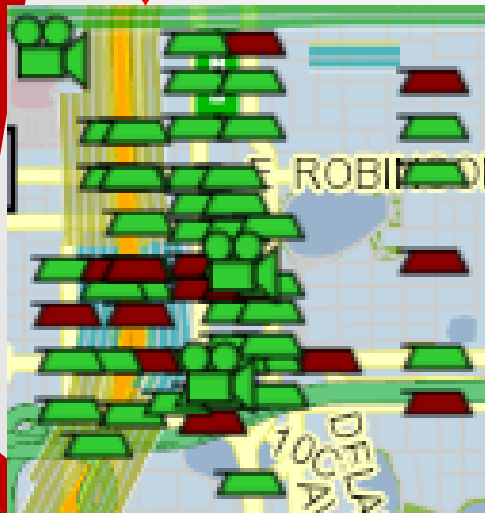


Saving Accurate Device Locations

Jeremy Dilmore, P.E., FDOT

Saving Accurate Device Locations

- With increasing number of devices, the operator map quickly becomes too cluttered with icons
- Only current option is to modify lat/long coordinates off road

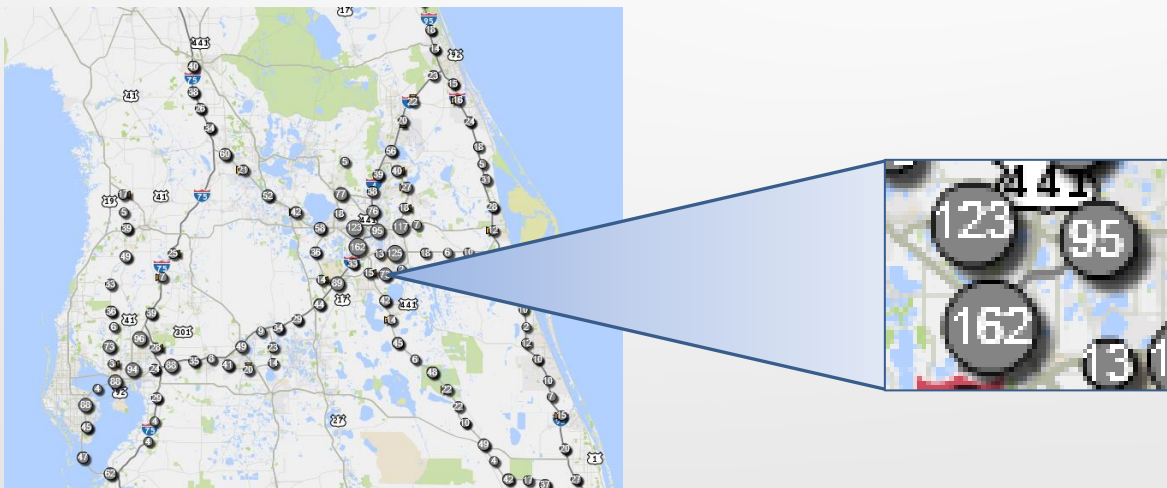


Saving Accurate Device Locations

- Consequence: SunGuide does not contain reliably accurate device locations
- Accurate Device locations are important for:
 - Asset/device management
 - Interagency coordination of devices
 - Data mining/reporting activities
 - Consistent, accurate configuration

Saving Accurate Device Locations

- Various options for accurate device locations have been discussed, but not finalized
 - Add a map/display offset configuration value to avoid dense clustering of devices
 - Have the map automatically offset devices so they're not on top of each other
 - Include “bubbles” that group multiple devices together, similarly to RITIS



Change Management Board

Saving Accurate Device Locations

- Bottom lines:
 - Inaccurate device locations are important long term for various reasons
 - Resolving short term map-display issues will allow for accurate configuration



QUESTIONS?

Jeremy Dilmore, P.E., FDOT

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RWIS Enhancements

Derek Vollmer



RWIS Enhancements Background



- Wind sensors deployed on bridges where there is limited power and communication capabilities
- Sensors communicate via GOES satellite
- Receive messages at Lake City with a backup site at the TERL
- Used to help detect when wind speeds are dangerous on bridges

RWIS Enhancements Background

- Under normal conditions, device sends a message once an hour
- If a threshold is met, device immediately sends a message and continues to send messages every 6 minutes until the “alarm” is cleared
 - Threshold is configured on the device
- Devices installed in D2 and D6

RWIS Enhancements Comments

- Will wind gusts or brief gaps in high winds result in state changes?
 - The thresholds on the MicroComm devices should reduce this
 - Ask MicroComm if a value is sent when the winds reach their recovery threshold
 - For NTCIP devices, could create alarms based on 2 minute average speed or max gust detected within 10 minutes
 - If created an event from the alert, then it will not retrigger
 - Mention of time factor – only create an alarm if exceeds the threshold after X time
 - Would only be checked at poll cycles

RWIS Enhancements Comments

- Can FHP be notified with automated response plans?
 - Not currently. E-mails for weather events are not included in automated responses
 - After the automated response, the plan can be updated to include an e-mail
- Find on map?
 - Yes all alerts now have find on map

RWIS Enhancements Comments

- How to check accuracy of RWIS?
 - Discuss potential visibility/wind reports at SSUG
- Displaying wind information via icon
 - Perhaps have this separate from the actual icon, so it can be hidden if needed
 - Need a way to indicate information age (could be an hour old)
 - Discuss at SSUG

RWIS Enhancements

- Can obtain the MicroComm data via the ITS network
- Protocol is comma separated, but data order needs to be defined by us.
- Anyone anticipate using more than just wind sensors on these devices?
- MicroComm is listed on the Innovative Product List



QUESTIONS?

Derek Vollmer, P.E., FDOT

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Executive Notification Update

Derek Vollmer

Executive Notification

- Current State:
 - Emails are generated automatically based on some of the executive notification criteria, i.e closure duration, estimated closure duration.
 - Emails can be manually generated using a specific comment type
 - Emails are sent to a single address but that address can be an e-mail group
 - Information still needs to be copied over to another e-mail. Generated e-mails do not contain the narrative history.

Executive Notification

- Five or more fatalities – Manually generate
- Work zone and fatality – automate
 - FDOT/contractor injury/fatality – manually generate
- Multi vehicle crash fog – automate
 - Multi vehicle crash smoke – manually generate

Executive Notification

- 10 vehicles in chain reaction – automate
 - Add checkbox for 10 or more vehicles
 - Number of vehicles configurable and value stored
- Bus crash with injuries/fatalities
 - Configure a bus vehicle for every District
 - Ability for an operator to create an EM location on the fly?
 - Get lat/lon from the map
 - Needs more discussion

Executive Notification

- Police Activity – will be removed as a criteria.
 - Covered by “Any incident...estimated duration of more than one hour”
- One hour closure – Automated (estimated or actual duration)
- All bridge failures or closures
 - Not intended for ramp closures without structural damage
 - Still discussing if this can be automated or not

Executive Notification

- Wildfire that closes....
 - Can have wildfire event type
 - SAE code for “serious fire”
 - With new event type, this one could be automated

Executive Notification

- Add ability to link multiple SunGuide events to a single notification
 - i.e. both directions of travel are closed
- Popup for email editing would show the different fields
 - Would not be free text editing of entire e-mail
 - Need a way to keep track of the changes
 - Ability to add comments and hide comments, i.e. earlier comment was incorrect and a revised comment added. Old comment would remain in chronology

Executive Notification

- Email content needs to be approved before being sent
- Configurable permission to be an approver
- Prioritize approver list
 - Go to approver 1 if they are logged on
 - Continue in that fashion

Executive Notification

- We are working on “pictures” to help explain the email editing and approval part
- Will continue discussion at SSUG once “pictures” are complete
- Note, we will be removing the estimated duration field from the e-mails



QUESTIONS?

Derek Vollmer, P.E., FDOT

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Open Discussion

Bryan Homayouni, P.E., CMB Chairman



Review Action Items

Bryan Homayouni, P.E., CMB Chairman