



RTMC

Regional Transportation Management Center



Overview

D5 Regional Transportation Management Center (RTMC)

- Nerve-center for FDOT District 5 and Central Florida Expressway (CFX)
 - High-tech
 - Hurricane-ready
- **Functionality**
 - Dispatch
 - Traffic Incident & Emergency Management
 - Freeway, Express Lanes, & Arterial Management
 - Other



General Information

- **44,000 sq ft**
 - **Co-located with FHP & FWC**
- **Secure facility**
 - **State law enforcement level background clearance**
- **Training/Conference Rooms**
- **Media room overlooking Operations Floor**



RTMC Operations Floor

- 4 large video walls (84 screens)
- 42 operator workstations
- 24-hour monitoring and management of traffic
 - Freeways
 - Arterials
 - Express Lanes (Future)
- Traffic Incident & Emergency Management



Regional Integrated Corridor Management

- Regional management of freeway and arterial roadways as a system
- Keeps traffic flowing during major incidents or construction
 - Diversion routes with enhanced signal timing
 - Lane & ramp management via traffic control devices
 - Real-time travel information



Safe. Efficient. Reliable.

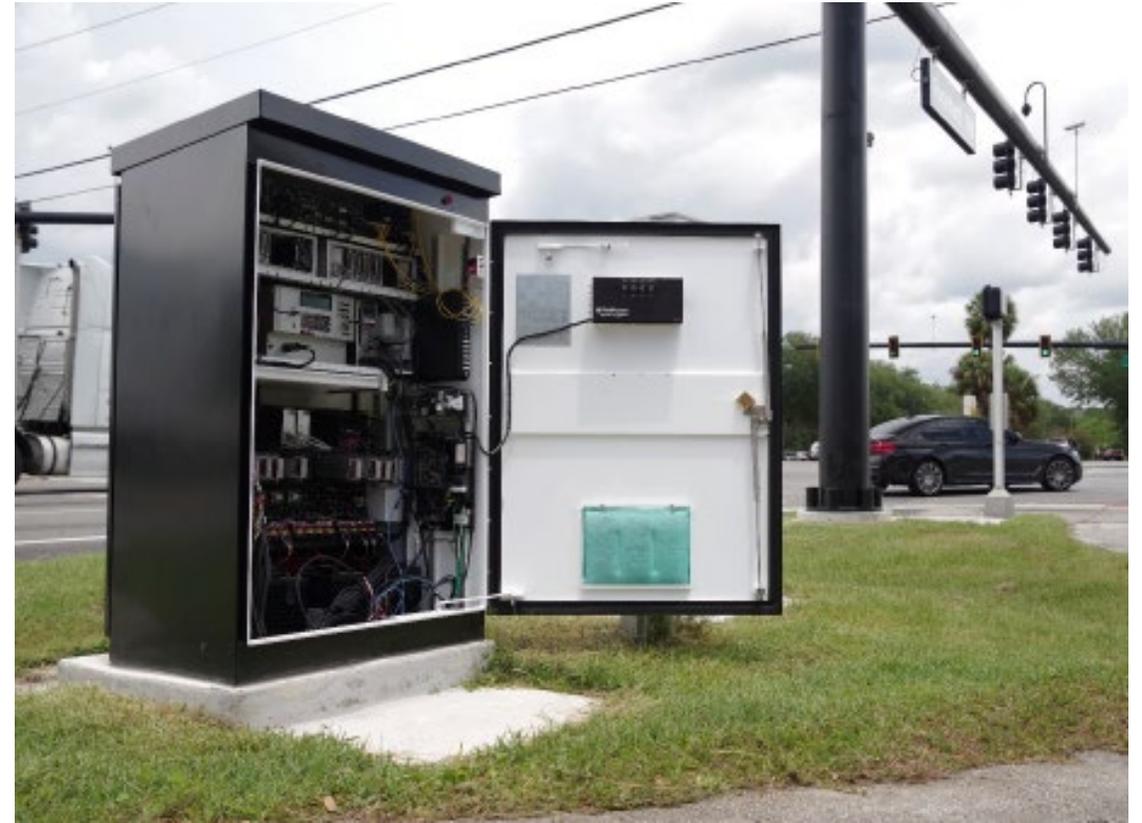
RTMC Operators

- Monitor roadway conditions to find incidents
- Verify incidents via CCTV camera
- Dispatch Road Rangers and other FDOT responders
- Communicate real-time traffic information to motorists
- Will operate I-4 Ultimate
 - Pricing Managed Lanes
 - Ramp Signal Operation
- Focus on roadway management



Arterial Operators

- Monitor roadway conditions and traffic signal systems
- Verify reported incidents via CCTV camera, where possible
- Adjust signal timing or work with local agencies to do so due to incidents
- Evaluation of signal network for efficiency
 - Implement new timing patterns
 - Suggest operational improvements



Traffic Incident Management (TIM)



- **Planned and coordinated process to detect, respond to, and remove traffic incidents as safely and quickly as possible**
- **Reduce risk of secondary crashes**
- **Promotes responder safety**
- **Florida's Open Roads Policy**
 - **Safe, quick clearance (90-min or less)**
- **Special Event Traffic Management**



TIM Teams

- Comprised of emergency responders and transportation professionals
- Quarterly meetings
 - I-4/Metro Orlando (Orange, Osceola, Seminole)
 - I-75 Area (Lake, Marion, Sumter)
 - I-95 North (Flagler, Volusia)
 - I-95 South (Brevard)
- After action reviews
- Responder safety/TIM training
- New technologies



www.CFLTIM.com

TIM Specialists

- Monitor incidents and major events
- Make high-level decisions during emergency events
- Communicate and coordinate with outside emergency response partners
- Focus on incident management & responder safety



Intelligent Transportation Systems (ITS)

ITS is technology to detect incidents, coordinate response, and provide real-time traveler information.

Used by:

RTMC operators

TIM personnel

Arterial managers

Road Rangers

First Responders

EOC



ITS Devices

Detect
Alert
Communicate
Manage



- **CCTV Traffic Cameras**
- **Freeway and arterial traffic speed and volume detectors**
- **Dynamic message signs (DMS)**
- **Traffic signals**
- **Bridge security system**
- **Connected Vehicle devices**

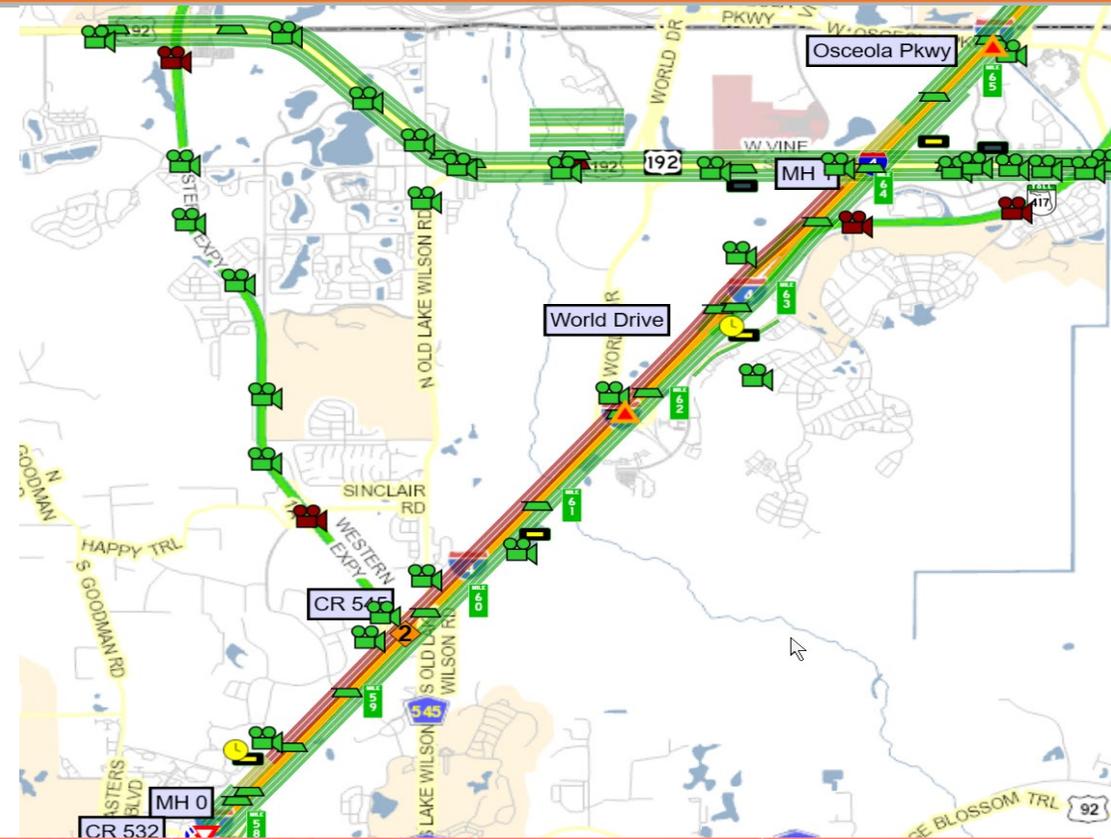
Data-Driven Traffic Management

- **Sunguide**
- **Third party applications**
- **CCTV traffic cameras**
- **Roadside detectors**
- **Vehicle probe data**
- **Crowdsourced data**



How traffic incident management works...

- Incident alert
- RTMC Operator/TIM specialist finds it on camera in about 1.5-2 min
- RTMC Operator dispatches Road Ranger, sets overhead DMS message, pushes information to FL511
- TIM Specialist provide incident details to outside partners/emergency responders
 - What and where
- TIM Specialist assists with interagency coordination



0 min ago	FHP	Incident detected by FHP Incident: AccidentsAndIncidents - Orange	I-4 East - MM88 (88) (Lat: 28605590, Lon: -81386360)		
		Incident detected by FHP Incident: Unknown - Orange	I-4 East - MM84 (84) (Lat: 28605590, Lon: -81386360)		

Road Rangers

***FHP (*347)**

Safety Service Patrol

- Incident Response
 - Temporary Traffic Control (TTC) for scene safety
 - Vehicle relocation (push, pull, drag)
- Motorist assist
 - Tire changes, vehicle fluids, minor roadside repairs
- General roadway safety
 - Clear debris
 - Report roadway damage or other safety concerns
- Coverage on all limited access roadways



Rapid Incident Scene Clearance (RISC)

- Incentive-based program for safe, quick clearance of heavy-duty vehicles
- FDOT contracts with FHP-qualified tow vendors
 - Extensive equipment and experience required
- Performance Measures
 - 60-min arrival time
 - 90-min clearance time



FL511

- FDOT's official source for travel info
 - Website or mobile app
 - Personalized alerts
 - Provides information on:
 - Crashes, congestion, construction, weather, and travel times
 - Enables drivers to make informed decisions about their travel



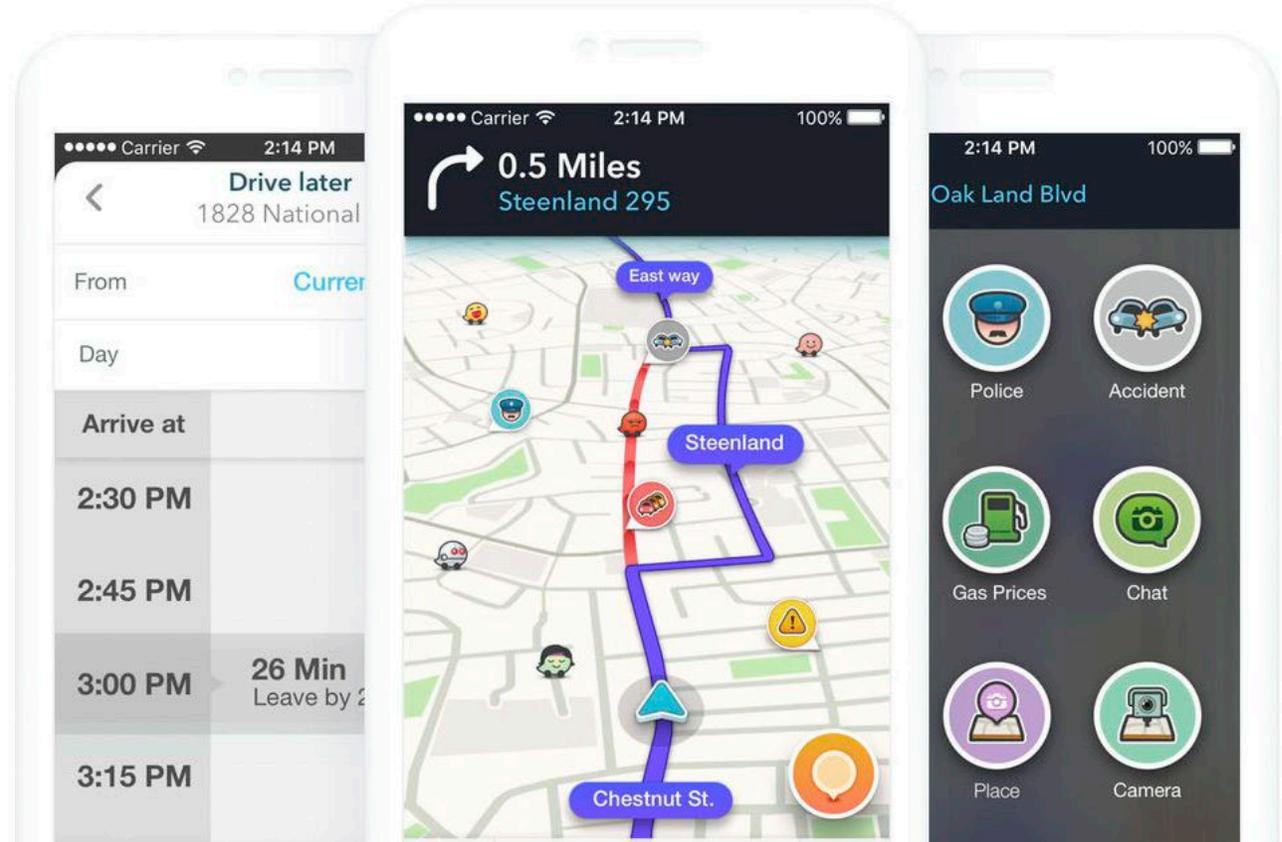
Emergency Management Functionality

- Monitor traffic speeds and volumes
- Manage evacuation routes/Emergency Shoulder Use (ESU) plans
- Safe, quick clearance of incidents
- Communicate detours and road closures
- Smoke/Fog protocol for traffic management
- Coordinate with TSA & Homeland Security



Waze

- Data sharing agreement
- Partner for large-scale event management
- Motorist alerts of roadway hazards
- Emergency responder alerts



Wrong Way Driving

Tools & devices to mitigate risk of wrong way drivers

- Wrong way signs
- Raised pavement markers
- Pavement markings
- Wrong-way vehicle detection system (WWVDS)
 - Radar detection, CCTV camera verification, automated alerts



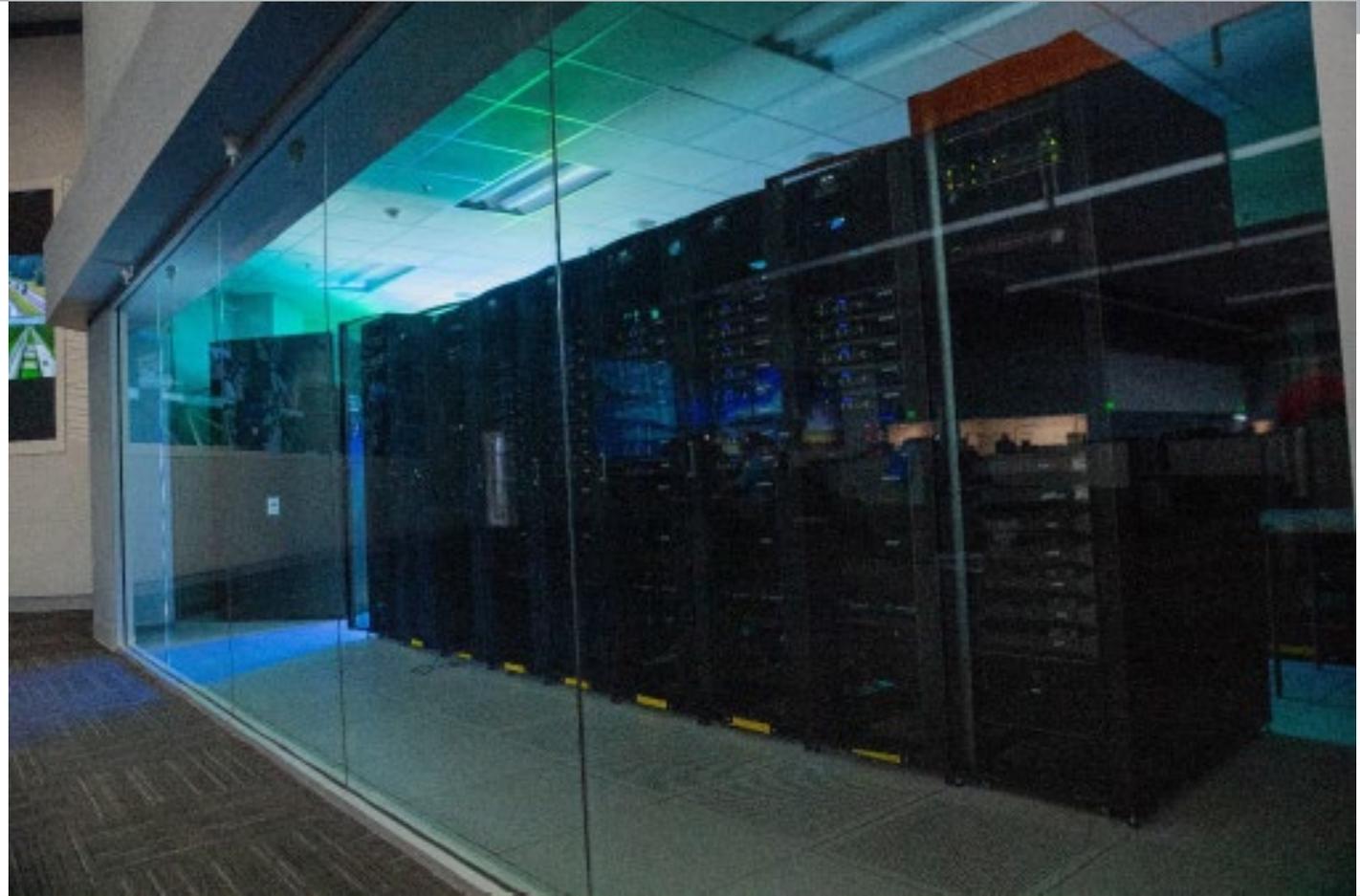
Truck Parking Availability System (TPAS)

- **Detection in truck parking areas**
- **Advises commercial truck drivers of available parking along their route**
- **Helps plan stops more efficiently and deter shoulder parking**



Server Room

- **Room for 400 servers**
 - 667 TB redundant storage capacity
- **Fiber-optic connectivity**
 - District 5 ITS Devices
 - CFX ITS Devices
 - Statewide ITS Network
- **Hosts**
 - Sunguide
 - Sunstore
 - IVDS



High-tech, Hardened Facility

- **Secure, access-controlled facility**
- **Rated for 150mph winds**
- **Battery back-up for computers/servers**
- **2 diesel generators**



FDOT Support Staff Suite

- **IT Staff**
- **Signal staff**
- **Contract managers**
- **Various consultants/project managers**
- **Officers for managers**
- **View of I-4 and Wekiva Parkway**



Additional Rooms

- **Staff breakroom**
- **Staff restrooms with showers**
- **Storage**



Staff Entrance and Mechanical Rooms

- **Secure staff entrance**
- **Mechanical and telephone rooms**
- **Additional server space**
 - Media
 - Other partners
- **Traffic signal testing lab**



FHP & FWC Regional Communications Center

Dispatch Troopers or Fish & Wildlife Conservation Officers

Coordinate with RTMC for incident response

- **Dispatchers can see FDOT video walls**

***FHP (*347) – statewide hotline to FHP dispatchers**

D5 RTMC works with 4 FHP troops/communications centers



Questions?