



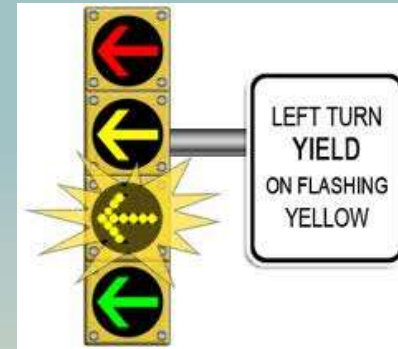
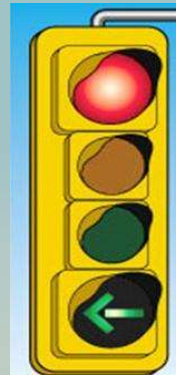
# TRANSPORTATION 2035

Peter Vega, P.E. – District Two TSM&O Program Manager  
Florida Department of Transportation





# THE PRESENT



# THE PRESENT



# THE FUTURE



T  
S  
M  
&  
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Arterial Management

Emergency / Incident  
Management

Freeway Management

Special Event Management

Freight Management

Transit Operations &  
Management

Traveler Information

Travel Demand Management

Work Zone Management

Travel Weather Management

**Planning & Development**

**Operations**

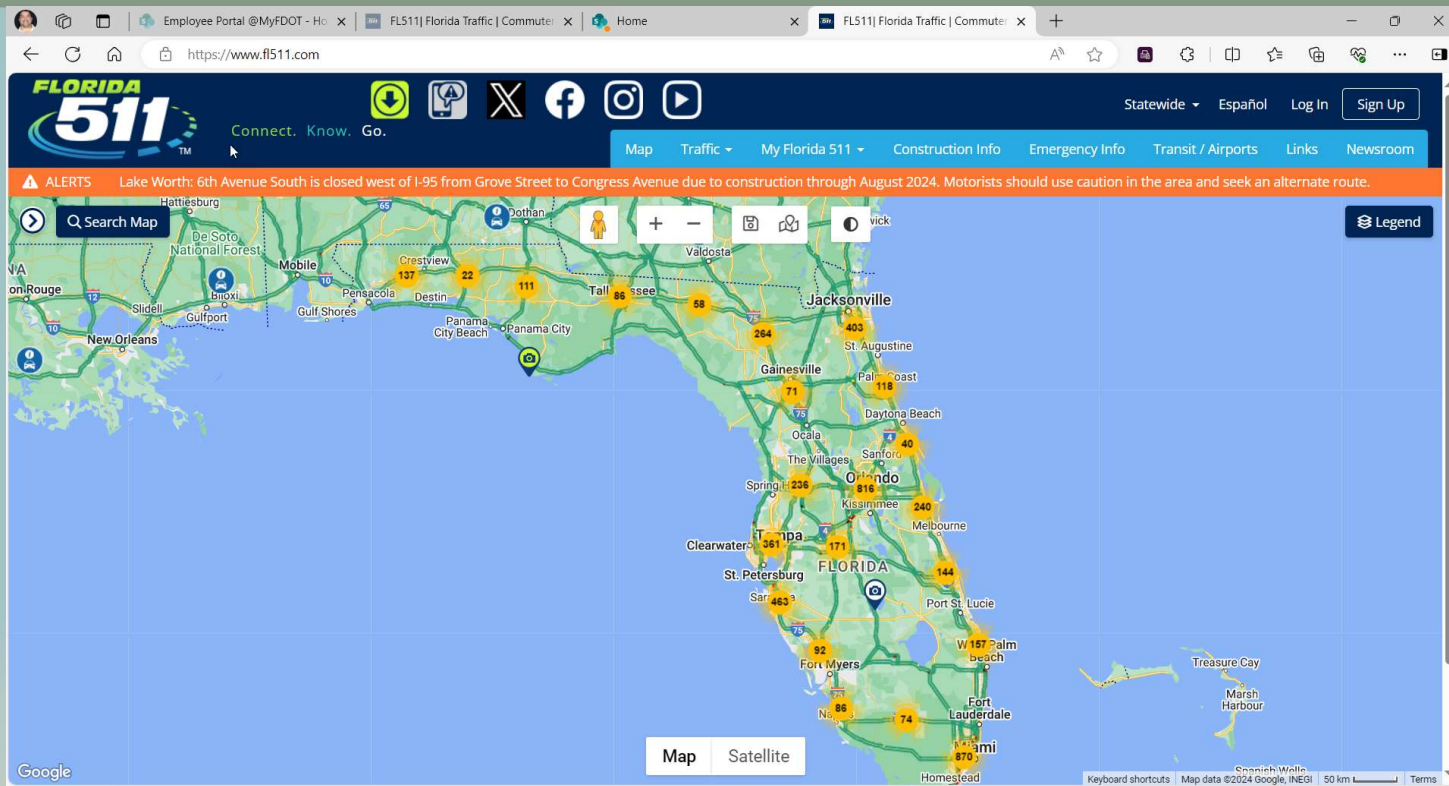
**Construction**

**Maintenance**

# FL511 – WHAT CAN IT DO FOR YOU?

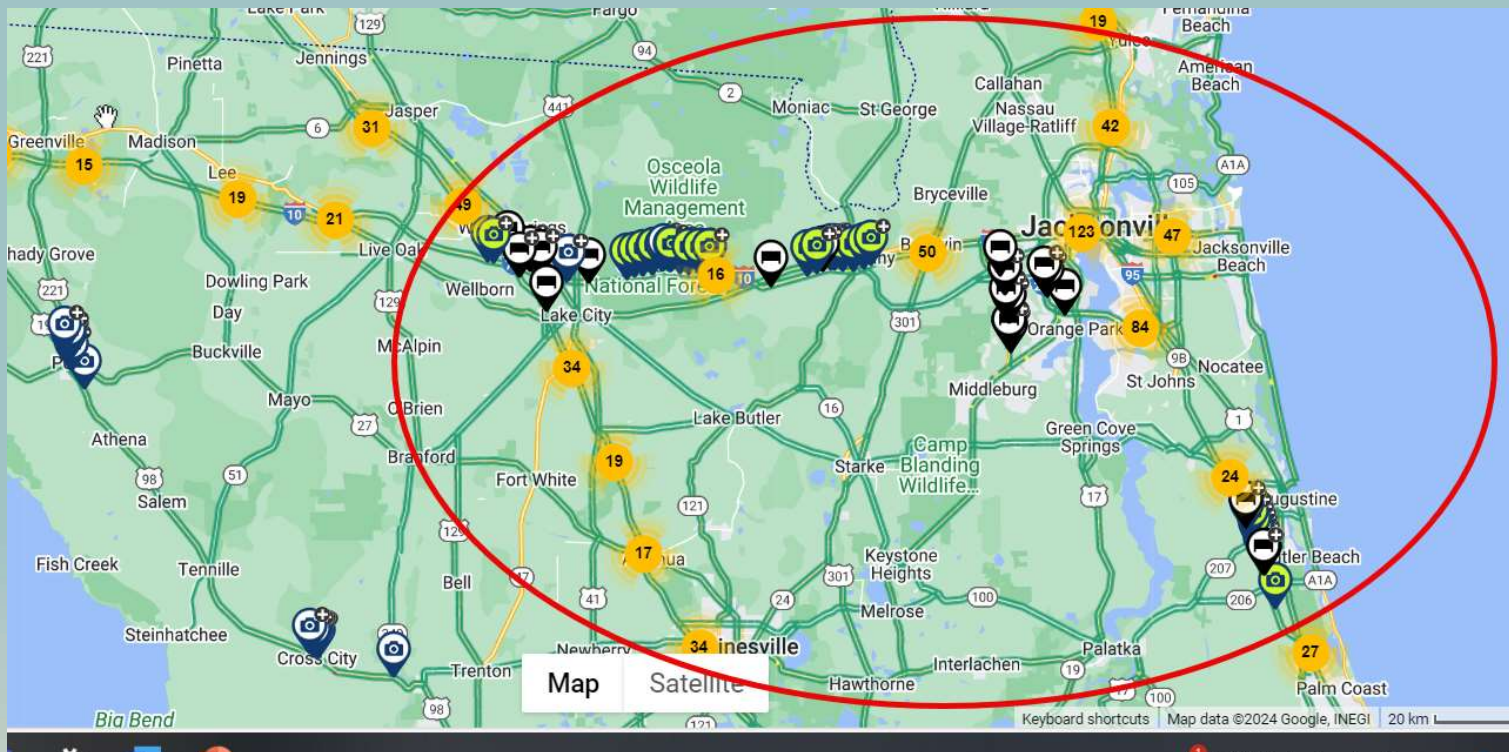


# FL511 – WHAT CAN IT DO FOR YOU?

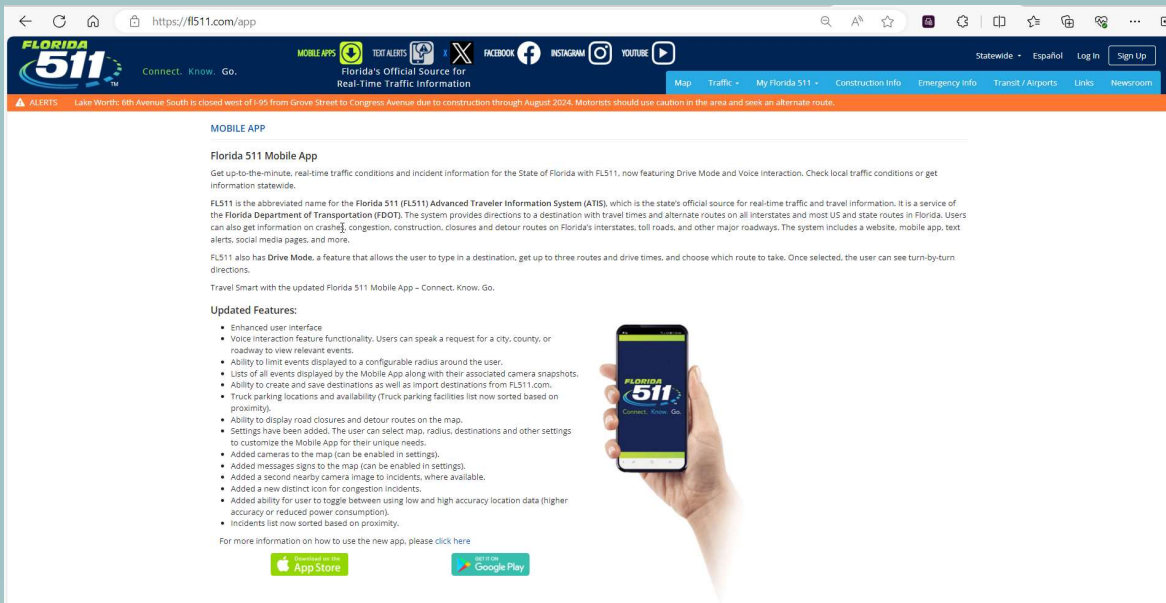




# FL511 – WHAT CAN IT DO FOR YOU?



# FL511 – WHAT CAN IT DO FOR YOU?



The screenshot shows the Florida 511 website interface. At the top, there's a navigation bar with the Florida 511 logo and the tagline "Connect. Know. Go.". Below the navigation bar, there's a section titled "MOBILE APP" with the heading "Florida 511 Mobile App". The text describes the app's features, including real-time traffic conditions, incident information, and the ability to use voice interaction. A list of "Updated Features" is provided, detailing enhancements like voice interaction, event filtering, and camera snapshots. At the bottom of the page, there are buttons for downloading the app from the App Store and Google Play.

**MOBILE APP**

**Florida 511 Mobile App**

Get up-to-the-minute, real-time traffic conditions and incident information for the State of Florida with FL511, now featuring Drive Mode and Voice Interaction. Check local traffic conditions or get information statewide.

FL511 is the abbreviated name for the Florida 511 (FL511) Advanced Traveler Information System (ATIS), which is the state's official source for real-time traffic and travel information. It is a service of the Florida Department of Transportation (FDOT). The system provides directions to a destination with travel times and alternate routes on all interstates and most US and state routes in Florida. Users can also get information on crashes, congestion, construction, closures and detour routes on Florida's interstates, toll roads, and other major roadways. The system includes a website, mobile app, text alerts, social media pages, and more.

FL511 also has **Drive Mode**, a feature that allows the user to type in a destination, get up to three routes and drive times, and choose which route to take. Once selected, the user can see turn-by-turn directions.

Travel Smart with the updated Florida 511 Mobile App - Connect, Know, Go.

**Updated Features:**

- Enhanced user interface
- Voice Interaction feature functionality. Users can speak a request for a city, county, or roadway to view relevant events.
- Ability to limit events displayed to a configurable radius around the user.
- Lists of all events displayed by the Mobile App along with their associated camera snapshots.
- Ability to create and save destinations as well as import destinations from FL511.com.
- Truck parking locations and availability (Truck parking facilities list now sorted based on proximity).
- Ability to display road closures and detour routes on the map.
- Settings have been added. The user can select map, radius, destinations and other settings to customize the Mobile App for their unique needs.
- Added cameras to the map (can be enabled in settings).
- Added messages signs to the map (can be enabled in settings).
- Added a second nearby camera image to incidents, where available.
- Added a new distinct icon for congestion incidents.
- Added ability for user to toggle between using low and high accuracy location data (higher accuracy or reduced power consumption).
- Incidents list now sorted based on proximity.

For more information on how to use the new app, please click [here](#)

[Download on the App Store](#) [GET IT ON Google Play](#)



# WAZE – GOOGLE?

- **Accuracy?**
- **Oversight?**
- **Anomalies?**
- **Examples?**
  - **California Community**
  - **Hurricane Evacuation**
  - **Trip from Gainesville**

# TECHNOLOGIES?

- **Traffic Signals**
- **Loops**
- **CCTV Cameras**
- **Dynamic Message Signs**
- **Fiber Optic Networks**
- **Vehicle Detection Systems**
- **Wireless Technologies**
- **Cellular Technologies**

# TECHNOLOGIES?

- **Ramp Metering**
- **Express Lanes**
- **Incident Detection**
- **Homeland Security Systems**
- **Bluetooth**
- **Weather Detection**
- **Safety Technology (Curve Warning, Speed Feedback, etc.)**
- **Passive Pedestrian Detection**

# TECHNOLOGIES?

- **Over Height Detection**
- **Wildlife Detection**
- **Truck Parking Systems**
- **Connected Vehicle Technology (RSUs and OBUs)**
- **Cloud Based Systems**
- **Bridge Detection**
- **Rail Crossing Detection**
- **LiDAR**

# TECHNOLOGIES?

- **Machine Learning**
- **Artificial Intelligence (Chat GPT – BAD!)**
- **Smartphones**
- **SunGuide Advancements**

# THE FUTURE?

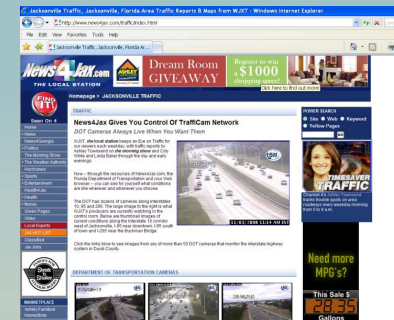
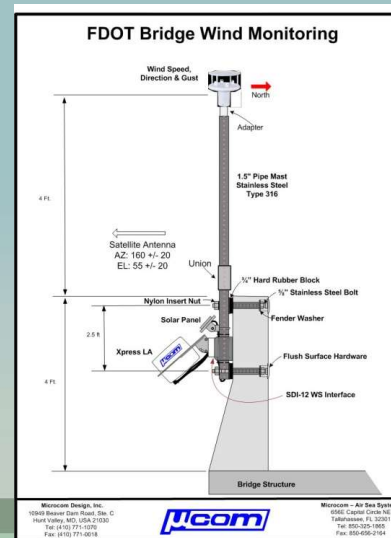
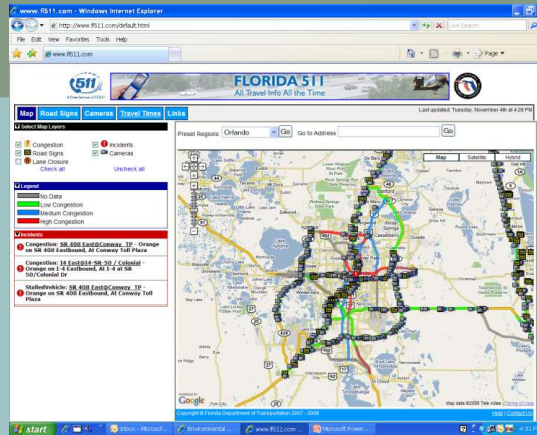
- **Current Safety Features**
- **Automated Vehicles – Level III or better Addresses:**
  - **Intersections**
  - **Advance Warning**
  - **Pedestrian**
  - **Mobility**
  - **Vehicle Collisions**



# DEVICE PICTURES



# ITS Devices



# BRIDGE MONITORING DURING WEATHER EVENTS – PROBLEM STATEMENT FROM LEO



# ITS COALITION TECHNOLOGY





NanoStation M  
(\$90 each)  
150 Mbps 5+km range



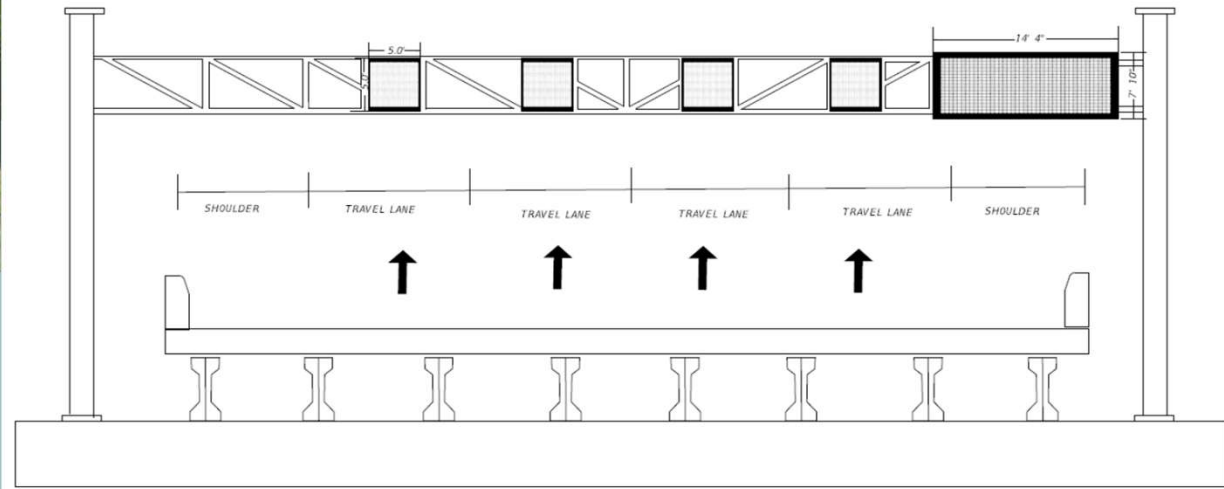
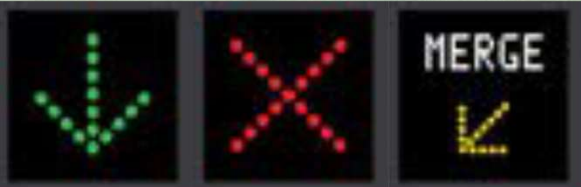
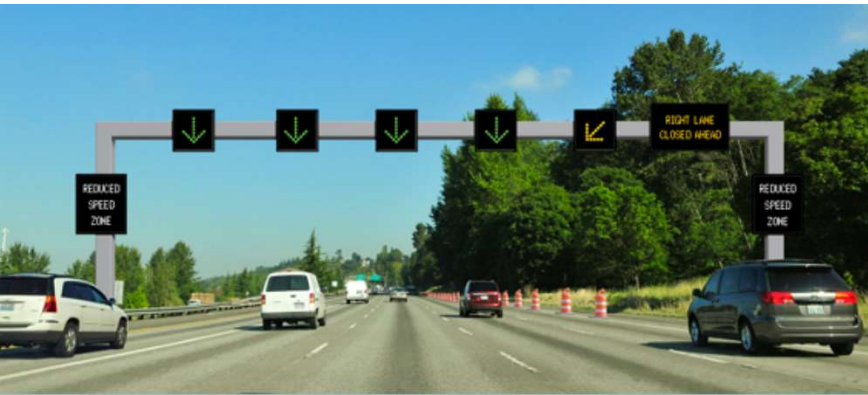
AirFiber 24  
(\$1,500 each)  
1.4 Gbps 13+km range

# THE PRESENT



# FLORIDA TRANSPORTATIONS FUTURE?





## ACTIVE TRAFFIC MANAGEMENT SYSTEM

- I-295 @ Buckman Bridge - Jacksonville
- Numerous accidents involving water entry
- Safety initiated project
- Goal to provide advanced warnings
- 52 ADMS – 13 DMS
- Integrated with SunGuide
- Completion TBD



# TRUCK PARKING SYSTEM



# OVERVIEW



- Why Technology?
- Project Backgrounds
- Product Evaluation
- Purchase
- Install
- Pitfalls & Challenges

# WHY TECHNOLOGY?

- **Safety**
- **Mobility**
- **Efficiency**
- **Data**
- **Optimization**

# SMART ST. AUGUSTINE

- **Addresses:**
  - **Parking**
  - **Signal Optimization**
  - **Vulnerable Road Users (Peds, Bikes, Physically Challenged, etc.)**
  - **Vehicle Connectivity**
  - **Bridge Closure**
  - **Wayfinding**
  - **WiFi for Underserved**
  - **Flooding**

# NEEDS

- **Experienced Staff (IE, Civil, Mechanical, Computer, Electrical)**
- **Vendor Engineering Support**
- **Vendor Technical Support**
- **Vendor Training Support**
- **System Manager Support**
- **Vehicle/Product Life-Cycle**

BE PREPARED!!! JUNE 1, 2024





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(904) 360-5463

## Questions?

