Change Management Board Meeting

Tuesday, March 4, 2014

Video Conference: CO- Burns Video Bridge 1

Audio Only: 850 - 414 – 4972

GoToMeeting: https://www2.gotomeeting.com/join/217195674

Welcome and Call for Quorum

Javier Rodriguez, P.E., CMB Chairman

Agenda

Time	Item	Lead
1:30 – 1:35	Welcome and Call for Quorum	Javier Rodriguez
1:35 – 1:45	CMB Chair Nominations	Javier Rodriguez
1:45 – 1:50	Previous Meeting Recap and Action Item Review	Javier Rodriguez
1:50 – 2:00	ITS WAN Update	Randy Pierce & Frank Deasy
2:00 – 2:20	SunGuide Software Update	Derek Vollmer
2:20 – 2:45	D1 Architecture Modification	Craig Carnes
2:45 – 3:05	IDS vs. DPA	Tucker Brown
3:05 – 3:15	Break	

Agenda

Time	Item	Lead
3:15 – 3:35	SunGuide Map out of IE	Tucker Brown
3:35 – 3:50	Statewide ITS Architecture Update	Derek Vollmer
3:50 – 4:10	Open Discussion	Javier Rodriguez
4:00 – 4:20	Review Action Items	Javier Rodriguez

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

Javier Rodriguez, P.E., FDOT

Previous Action Items

1. D. Vollmer to send out SunGuide software operational survey to Districts.
2. D. Vollmer to follow up with Districts about closed versus blocked DMS messages.
3. D. Vollmer to follow up on footprint issue 2563, DMS grouping.
4. All CMB members to email J. Rodriguez for possible CMB chair nominations.
5. F. Deasy and FTE to confirm of FTE has what is needed for ITS WAN Integration.
6. D3 and D7 to determine desired SunGuide software installation dates.

Previous Action Items

7. CO to follow-up on SQL server support
8. D5 will get in touch with CO to discuss ITS WAN connectivity. (Open Action Item)
9. FTE to prepare white paper to document their efforts and findings on WWD. (Open Action Item)
10. OOCEA to prepare email for distribution to all Districts on findings of latest deployment effort. (Open Action Item)
11. CO working with D7 on issues list with RITIS. (Open Action Item)

ITS Telecommunications Update

Randy Pierce & Frank Deasy, P.E.

ITS WAN Update

- **Connecting D3 RTMC Tallahassee**
  - Tallahassee RTMC fiber connection in process
  - Connectivity to SEOC will also be established
  - Routing for local ring architecture being provisioned by City of Tallahassee
- **FTE RTMC Pompano**
  - ITS WAN ready for FTE ITS Network Connection
  - FTE Tolls connection to the ITS WAN being upgraded to a Layer 3 connection with routing to support the 95Express project and future Managed Lanes projects
- **FL-ATIS & VAS**
  - ITS WAN connectivity established and working for VAS
  - ITS WAN can support FL-ATIS

ITS WAN Update

- **FTE Tolls Middleware Application**
  - D6 has a Layer 2 Connection over ITS WAN
  - D4 has a Layer 2 Connection over separate FDOT fiber
  - FTE Tolls has requested a consolidated connection over the ITS WAN for all Districts
- **Multicast Re-Addressing**
  - Districts should re-address their multicast devices now to resolve any overlapping addresses
  - D3, D4 & D6 completed their multicast addressing
  - D1, D5, D7 & MDX are in process
  - D2 not implemented at Layer 3 at this time
  - Multicast video can then be shared statewide

QUESTIONS?

Randy Pierce & Frank Deasy, P.E.
Randy.Pierce@dot.state.fl.us
Frank.Deasy@dot.state.fl.us

SunGuide Software Update

Derek Vollmer, P.E., FDOT

Status of 6.0 Upgrades

- District 2, District 5, and City of Tallahassee are running 6.0 patch 2.
- District 1 - Week of February 17th.
- District 4 - Week of February 28th.
- OOCEA - Week of March 3rd.
- FTE – Week of March 10th.

Status of 6.0 Upgrades

- District 7 – TBD.
- District 3 and D3 Jax – TBD after Spring Break.
- District 6 – Dependent on Express Lanes project.
- MDX – TBD.

Hotfixes

- Hotfix 01 - 1-19-14 Unresolved State for SPARR Driver
- Hotfix 02 - 2-20-14 - Reporting Roadranger IDs and Thresholds dropping out
- Hotfix 03 - 2-20-14 - Fixes for IDS and FHP CAD Server
- Hotfix 04 - 2-20-14 - C2C LinkData.Link.Name to Contain dbID
- Hotfix 05 - 2-20-14 - RRXML Driver was Unable to Arrive a Responder

Database IDs and 511

- ID's changed from alpha numeric to numeric.
- Without referencing District ID or center ID, created duplicate roadways.
- IVR static tables need to be updated with new IDs.
- Coordination with 511 needed for SunGuide 6.0 upgrades.

Small Enhancements

- Not enough funding to cover them at this time.
- Support costs are higher than originally anticipated.
- Once support funding is adjusted, re-evaluate funding for small enhancements.
- May need to split items up into separate software releases.

SQL Support

- **Unlimited 24/7 web support**
  - One named user per District can be added.
- **Premiere support**
  - If web support is not adequate we can open a separate premiere support schedule under OIS EA at no additional cost to districts.
  - Can use CO's work program budget to initialize the schedule.

Moving Forward

- Collect feedback from Districts about prioritized enhancement requests.
- Discuss and select enhancements for further consideration with Districts.
- Identify items that require CMB discussions and votes.
- Develop Concept of Operations as needed.

QUESTIONS?

Derek Vollmer, P.E., FDOT
Derek.Vollmer@dot.state.fl.us

D1 Architecture Modification

Craig Carnes, P.E., Metric Engineering

Basis for Changes to the District One, Five, & Seven RITSA Documents

CHANGES NEEDED DUE TO EXISTING ISSUES AS WELL AS THE UPCOMING I-4 POLK COUNTY FOG DETECTION SYSTEM PROJECT

Basis for Changes to the District One, Five, & Seven RITSA Documents

- District One will soon begin designing a project to install visibility sensors and flashing beacon warning signs in Polk County.
- The service packages and data flows for this project are not in the current District One RITSA.
- While researching the current District One RITSA it was also noted that there are several service packages, which need to be added or modified to reflect the ITS Operations interactions between Districts One, Five, and Seven.

Basis for Changes to the District One, Five, & Seven RITSA Documents

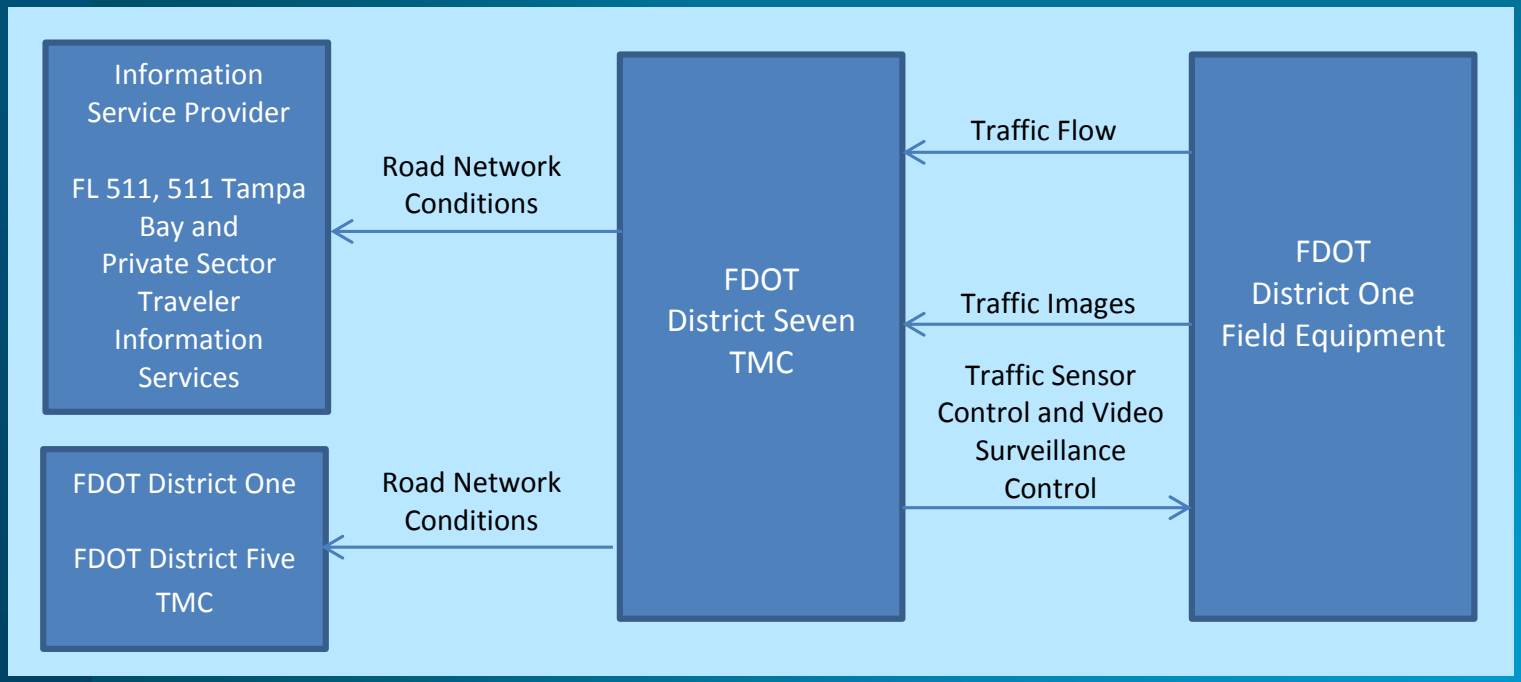
- District One's RITSA was last updated in August 2008.
- District Five's RITSA was last updated in September 2009.
- District Seven's RITSA was last updated in March 2006.
- Since these RITSA documents were updated there has been significant changes to each District's programs.
- District Seven now controls the ITS Devices and dispatches Road Rangers in Polk County West of US 27, which is in District One.
- District Five now controls the ITS Devices dispatches Road Rangers in Polk County East of US 27, which is also in District One.

Basis for Changes to the District One, Five, & Seven RITSA Documents

- The RITSA documents for each District must be updated to comply with FHWA 23 Rule 940 Requirements.
- The following slides detail the required additions and changes needed to be made in the RITSA documents for each District in regard to their interaction with District One ITS.
- Districts Five and Seven may require additional changes to their RITSA documents. However, this presentation and associated justification document only deal with the portions relating to District One.

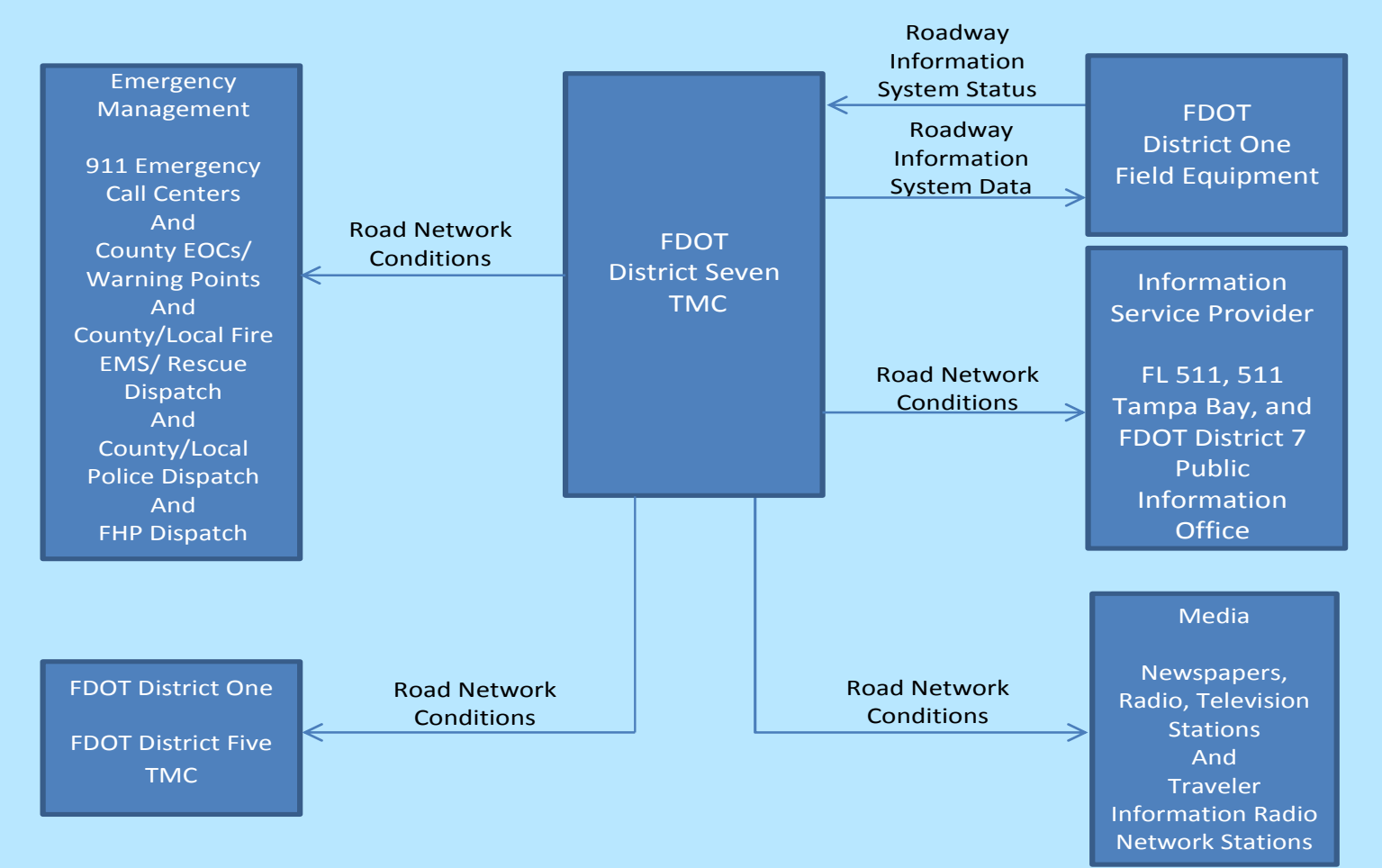
Basis for Changes to the District One, Five, & Seven RITSA Documents

- District One is requesting an update of the existing portion of the FDOT District Seven portion of the District One RITSA to include ATMS01 Network Surveillance Service Package – I-4 with the associated data flow as shown below.



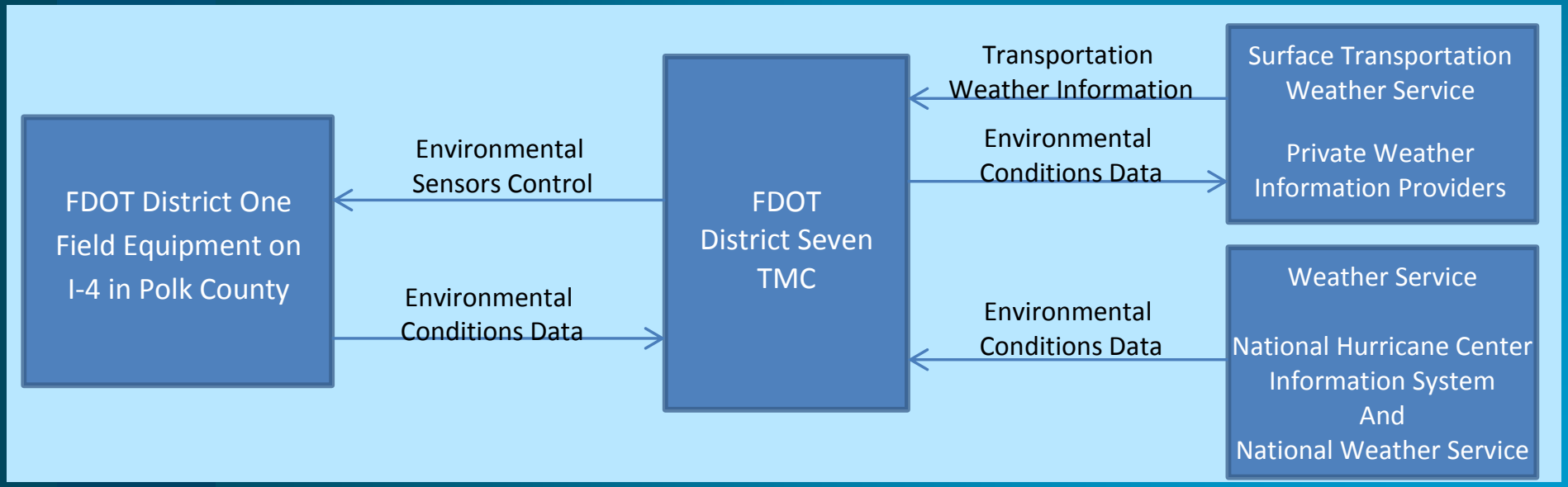
District One Required Changes

District One is requesting an update of the existing portion of the FDOT District Seven Portion of the District One RITSA to include ATMS06 Traffic Information Dissemination Package – I-4 with the associated data flow as shown below.



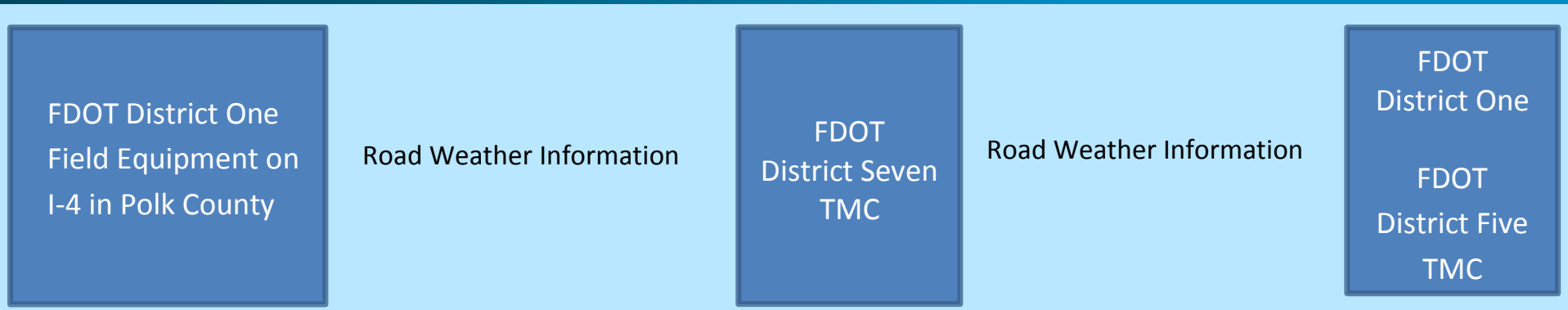
District One Required Changes

- District One is requesting an update of the District One Service Package MC03 Road Weather Data Collection to include a data flow chart which depicts environmental sensor control originating at the District Seven TMC and terminating at the FDOT District One Field Equipment and also depicts environmental conditions data originating from the FDOT District One Field Equipment and terminating at the District Seven TMC. This data flow is shown below.



District One Required Changes

- District One is requesting an update of the District One Service Package MC04 Weather Processing and Distribution to include a data flow chart which depicts the District Seven TMC distributing road weather information to field devices located on I-4 within Polk County and in advance of Polk County when needed to provide weather information to motorists in advance of areas with degraded visibility. The data flow chart must also show the District Seven TMC distributing road weather information and operational responses to District One for their use in tracking the benefits and performance of the system. This data flow is shown below.

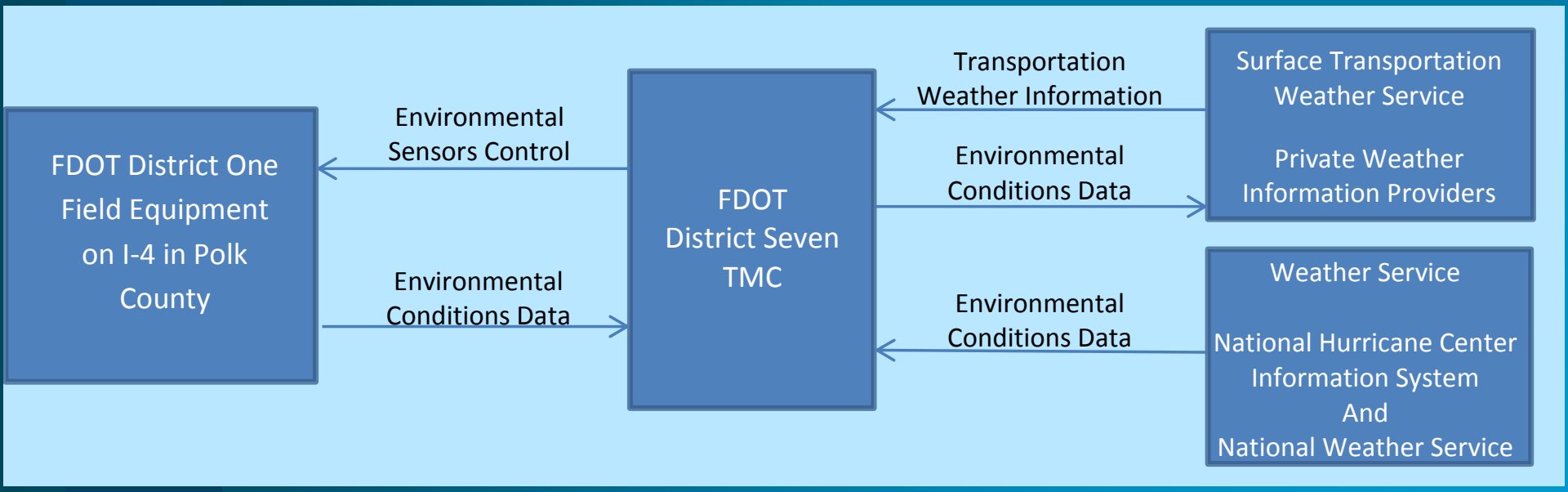


District One Required Changes

- The District Seven Portion of the District One RITSA needs to be updated to include several Service Packages and related data flows.
- These required updates are detailed within the next several slides.

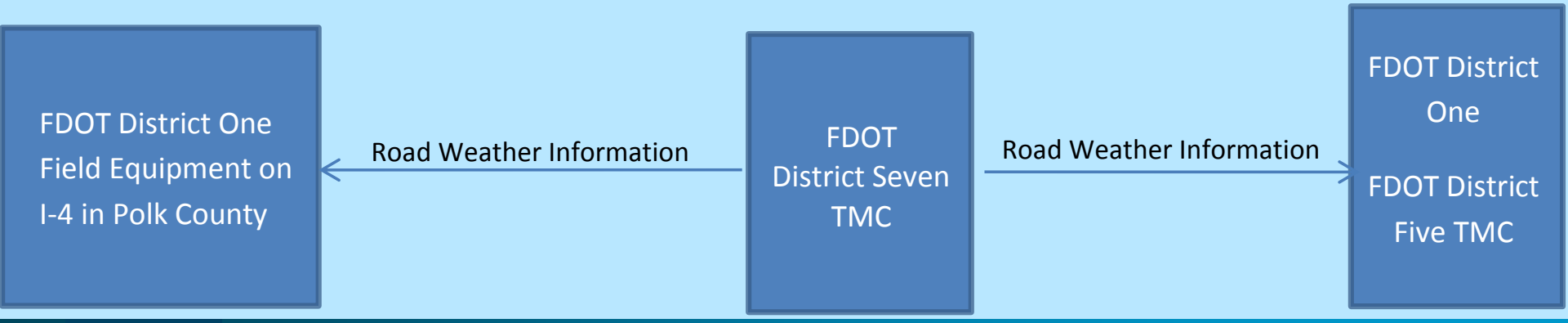
District One Required Changes

- District One is requesting an update of the existing FDOT District Seven portion of the District One RITSA to include the MC03 Road Weather Data Collection Service Package. The associated data flow is shown below.



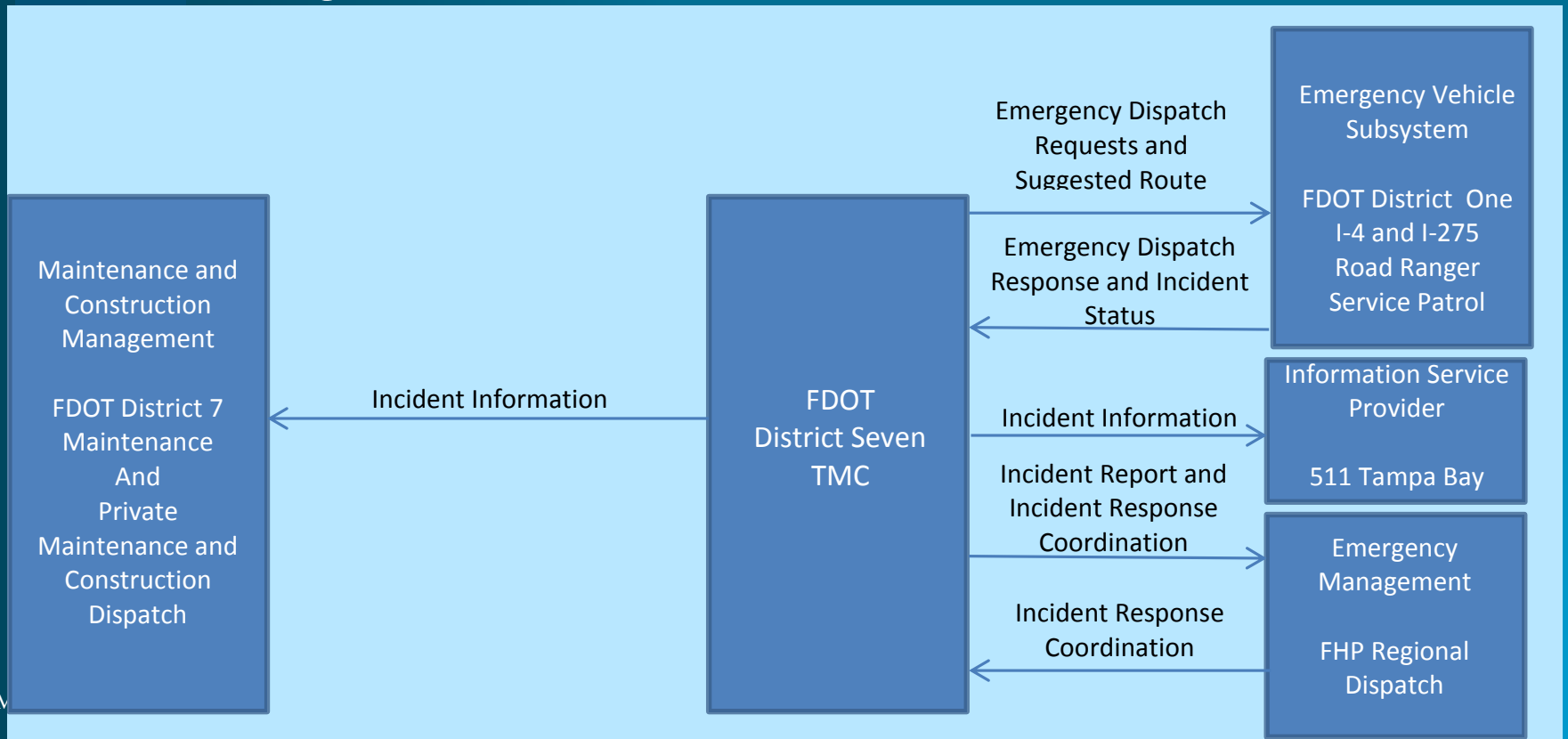
District One Required Changes

- District One is requesting an update of the existing FDOT District Seven portion of the District One RITSA to include the MC04 Weather Processing and Distribution Service Package. The associated data flow is shown below.



District One Required Changes

- District One is requesting an update of the existing FDOT District Seven Portion of the District One RITSA to include the EM04 Roadway Service Patrol Service Package. The associated data flow is shown below.

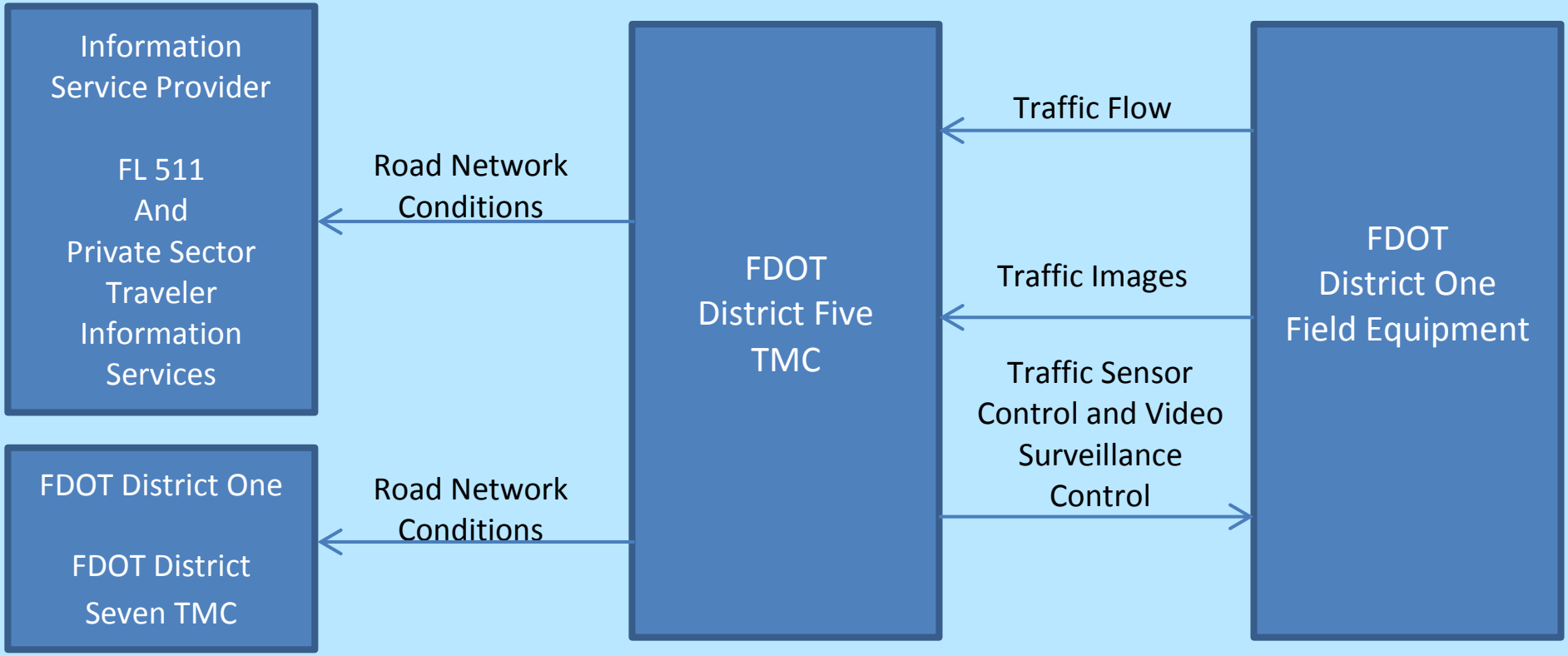


District One Required Changes

- District Five is not currently a part of the District One RITSA.
- The RITSA must include several Service Packages with associated data flows before the Polk County Fog Detection Project is initiated.
- These service packages and data flows are detailed within the next several slides.

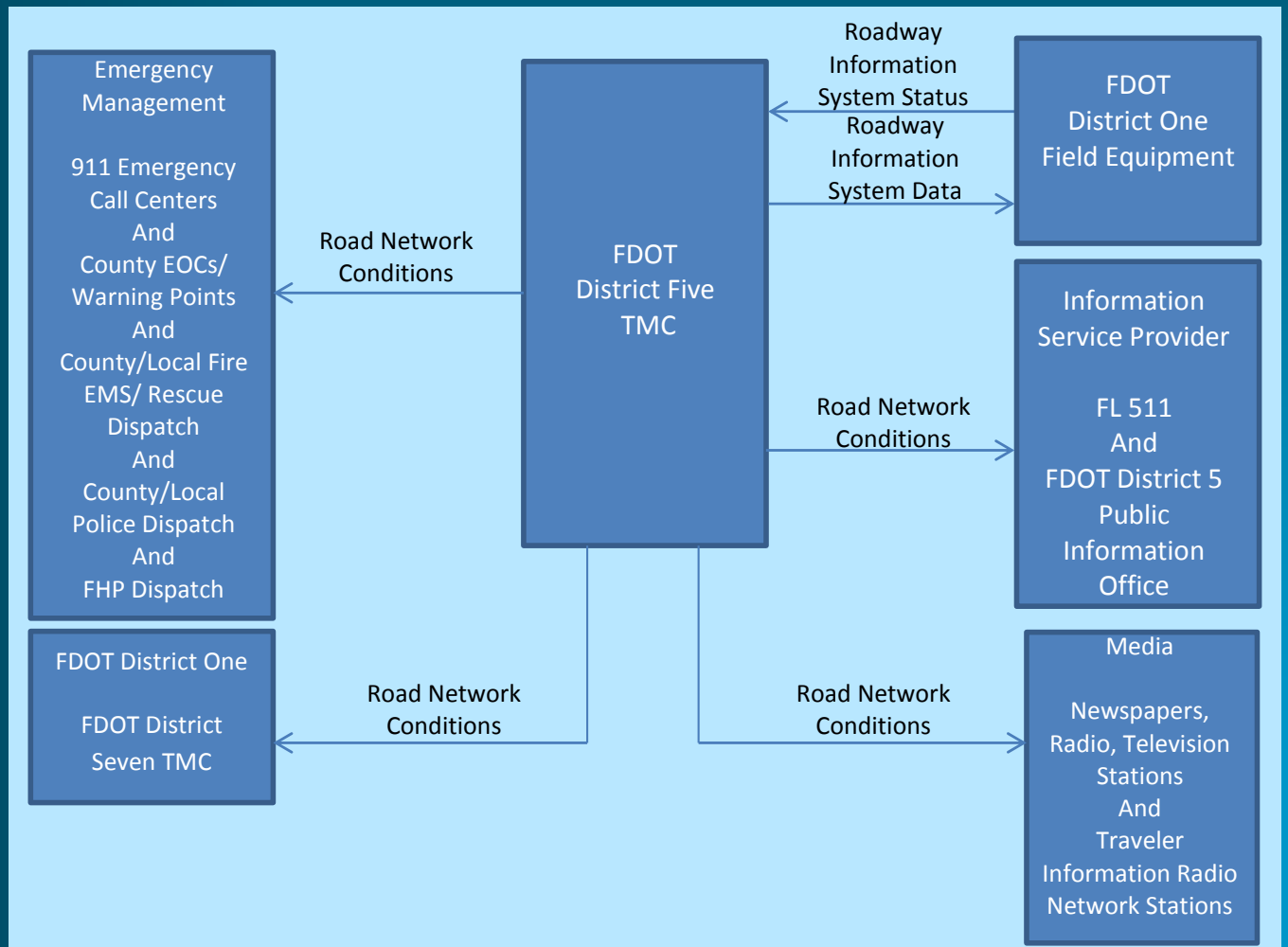
District One Required Changes

- District One is requesting that the new District Five portion of the RITSA include ATMS01 Network Surveillance Service Package with the associated data flow as shown below.



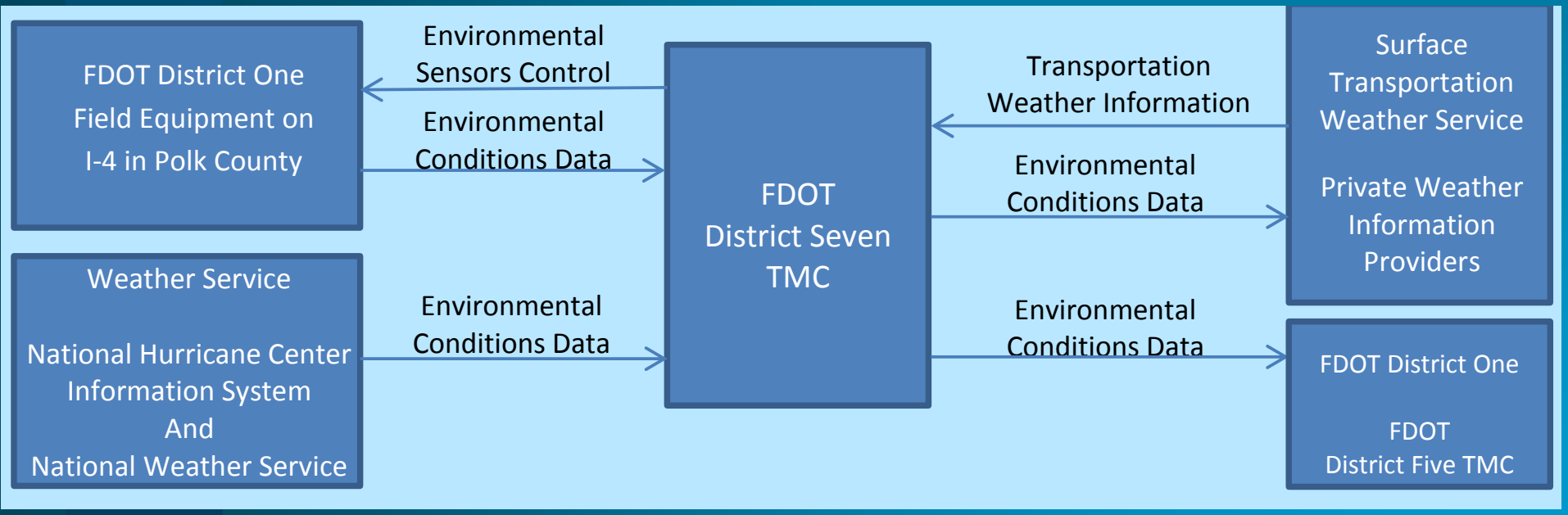
District One Required Changes

- District One is requesting that the new District Five portion of the RITSA include ATMS06 Traffic Information Dissemination Package with the associated data flow as shown below.



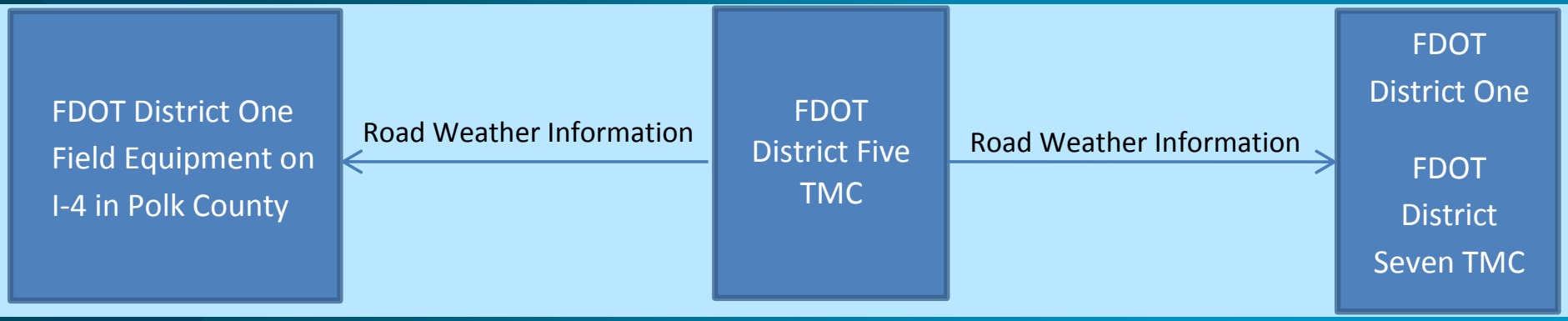
District One Required Changes

- District One is requesting the new District Five portion of the District One RITSA include MCO3 Road Weather Data Collection Package with the associated data flow as shown below.



District One Required Changes

- District One is requesting the new District Five portion of the District One RITSA include MC04 Weather Information Processing and Dissemination Package with the associated data flow as shown below.

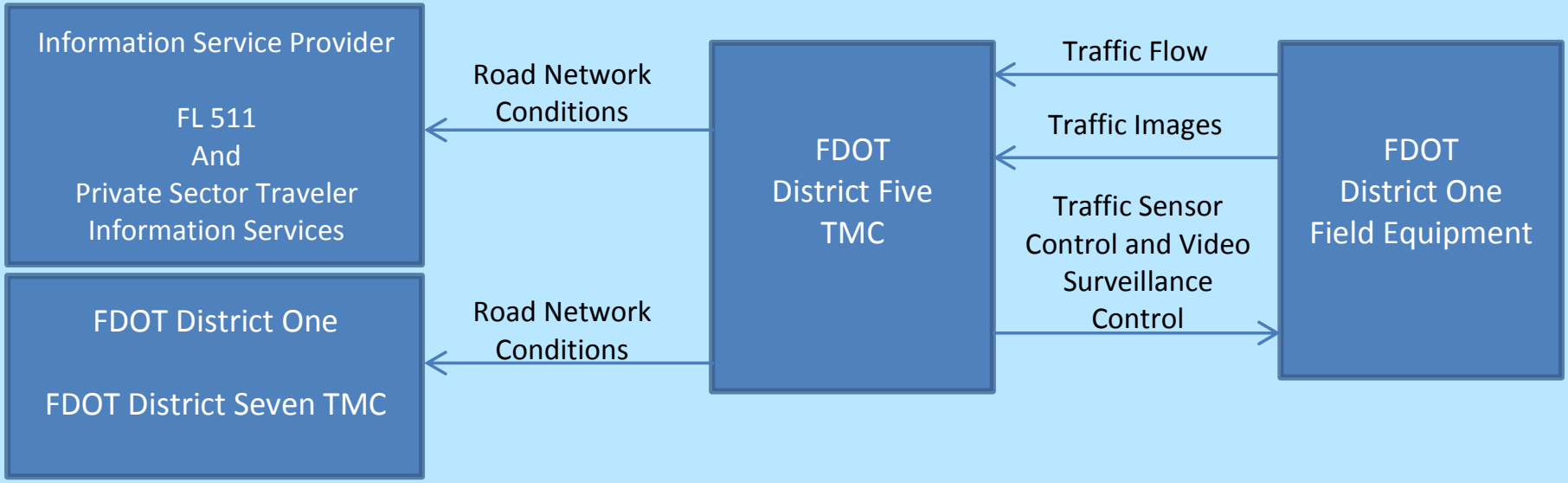


District One Required Changes

- The District Five RITSA was updated on September 1, 2009 and does not include District One.
- District Five provides services for the portion of the I-4 corridor within District One to the East of US 27.
- District Five's RITSA must be updated to include District One and the services already being provided along with services to be provided once the Polk County Fog Detection Project is in place.
- The required service packages and data flows to update the District Five RITSA are detailed within the next several slides.

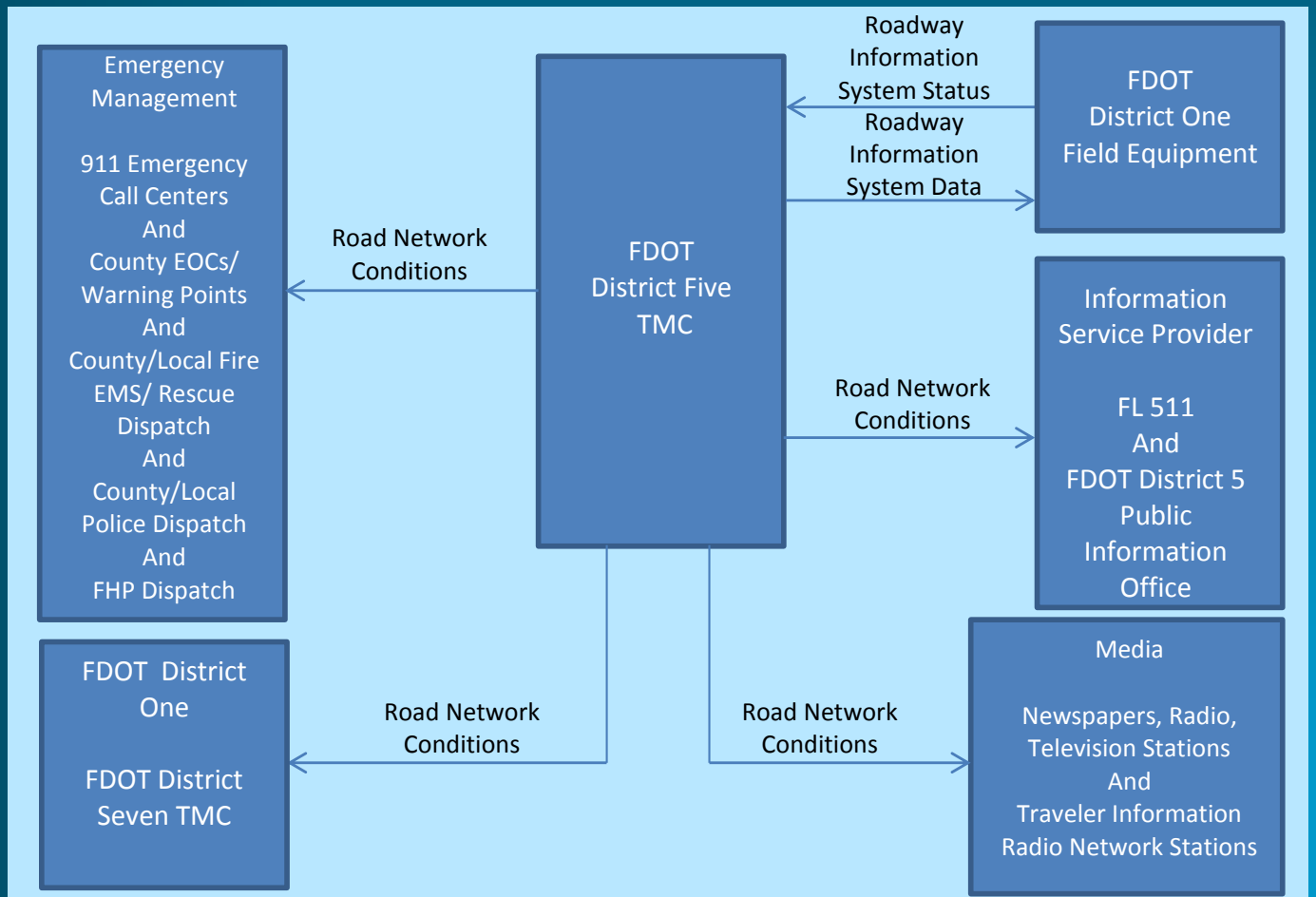
District Five Required Changes

- District One is requesting that the new District One portion of the District Five RITSA include ATMS01 Network Surveillance Service Package with the associated data flow as shown below.



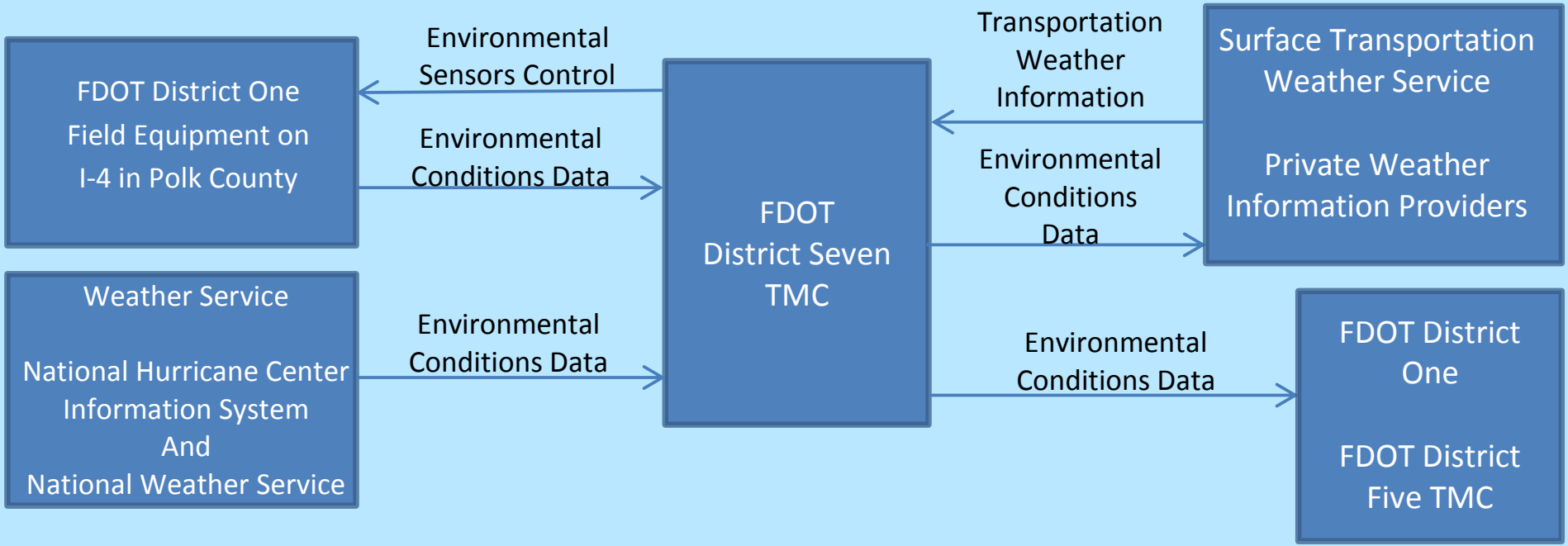
District Five Required Changes

- District One is requesting that the new District One portion of the District Five RITSA include ATMS06 Traffic Information Dissemination Package with the associated data flow as shown below.



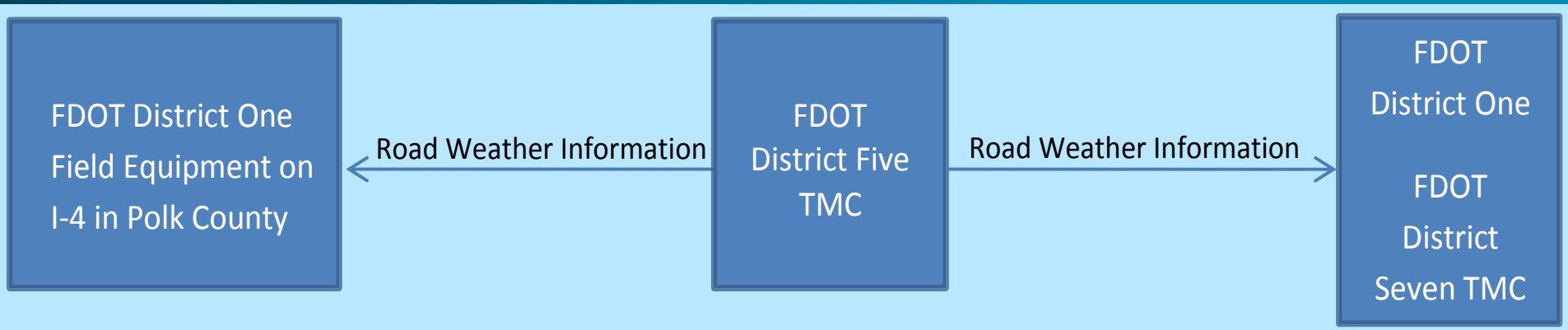
District Five Required Changes

- District One is requesting the new District One portion of the District Five RITSA include MCO3 Road Weather Data Collection Package with the associated data flow as shown below.



District Five Required Changes

- District One is requesting the new District One portion of the District Five RITSA include MC04 Weather Information Processing and Dissemination Package with the associated data flow as shown below.

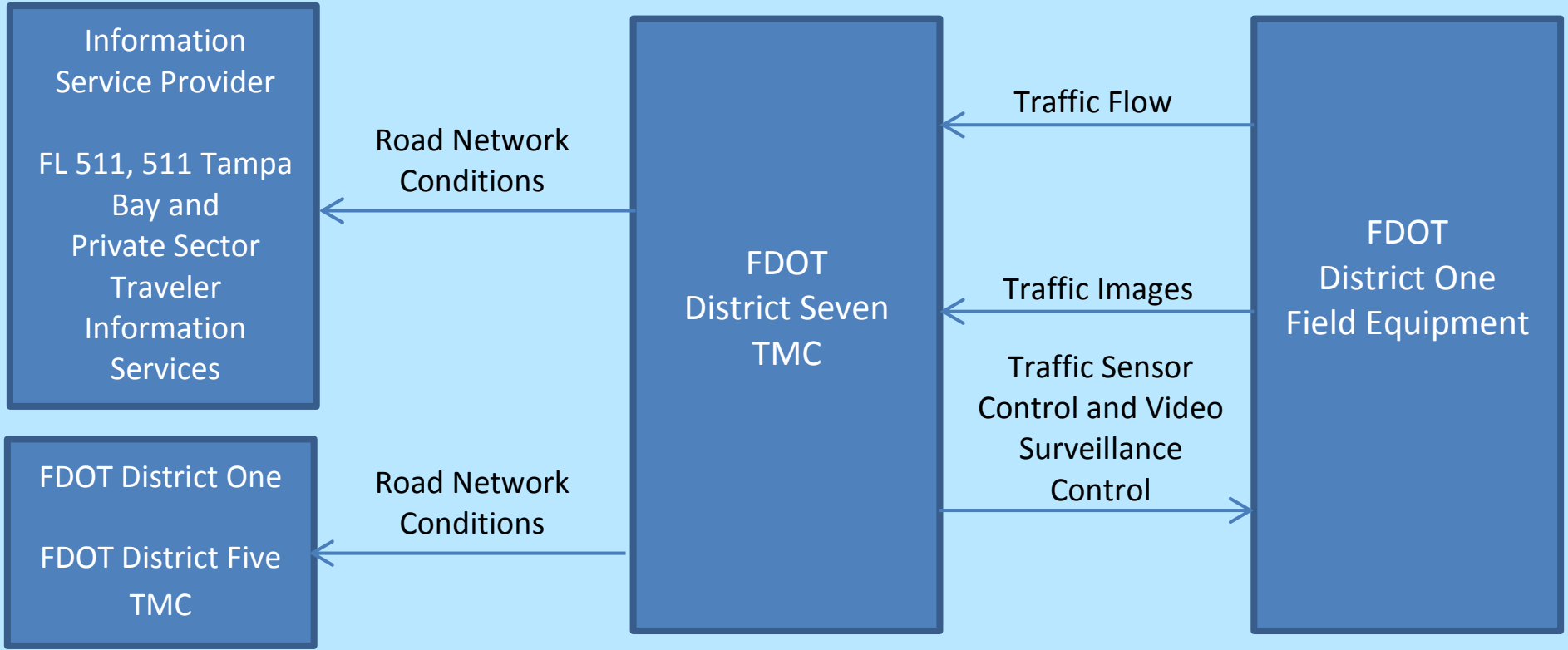


District Seven Required Changes

- The District Seven RITSA was updated on March 16, 2006 and does not include District One.
- District Seven provides services for the portion of the I-4 corridor within District One to the West of US 27.
- District Seven's RITSA must be updated to include District One and the services already being provided along with services to be provided once the Polk County Fog Detection Project is in place.
- The required service packages and data flows to update the District Seven RITSA are detailed within the next several slides.

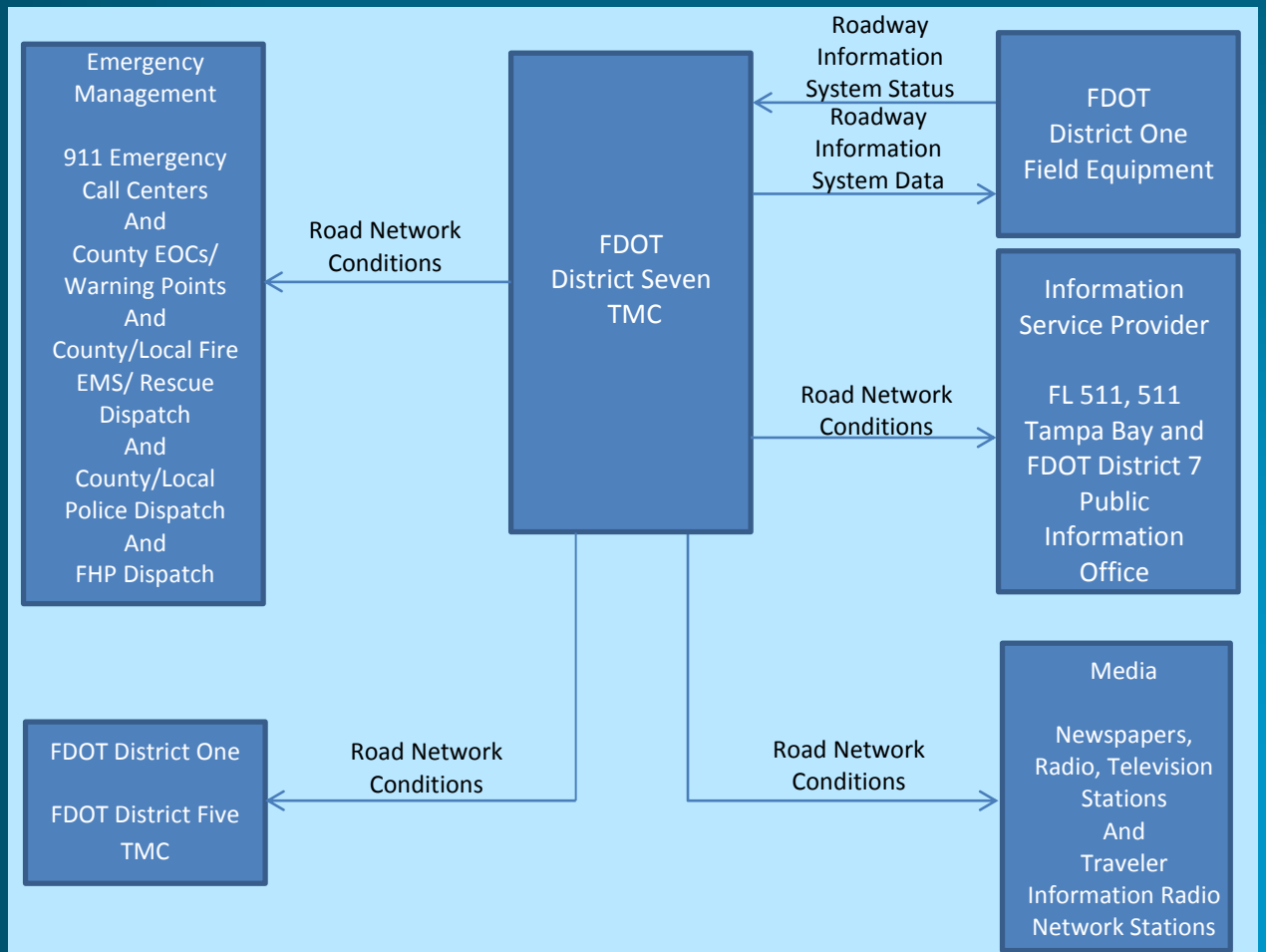
District Seven Required Changes

- District One is requesting that the new District One portion of the District Seven RITSA include ATMS01 Network Surveillance Service Package with the associated data flow as shown below.



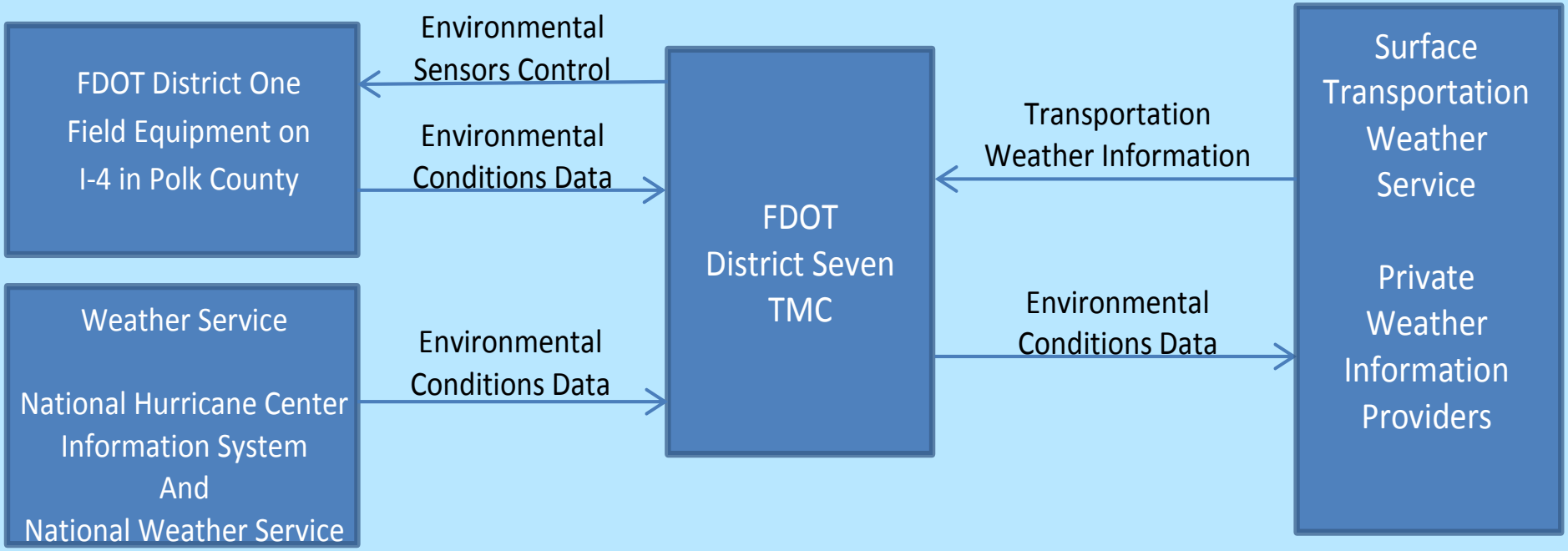
District Seven Required Changes

- District One is requesting that the new District One portion of the District Seven RITSA include ATMS06 Traffic Information Dissemination Package with the associated data flow as shown below.



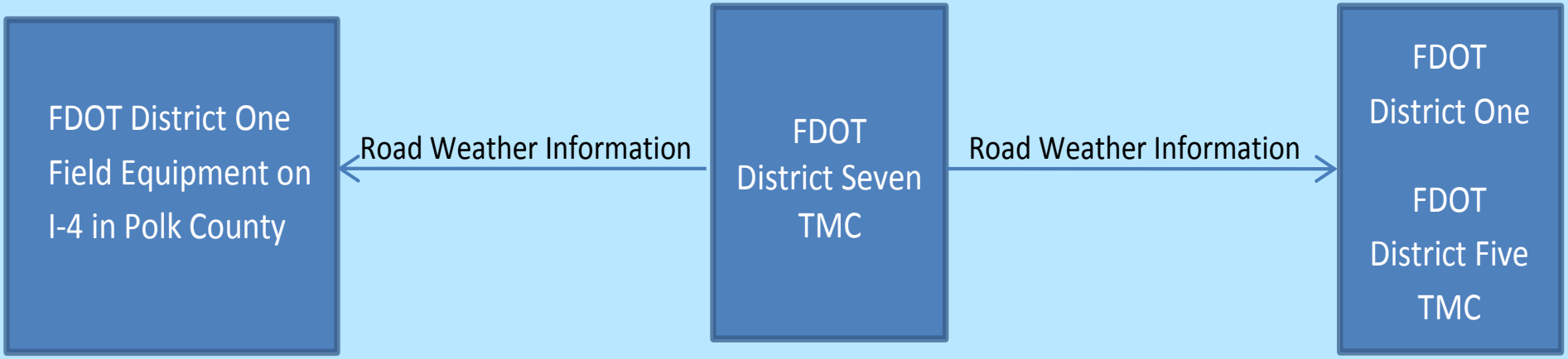
District Seven Required Changes

- District One is requesting the new District One portion of the District Seven RITSA include MCO3 Road Weather Data Collection Package with the associated data flow as shown below.



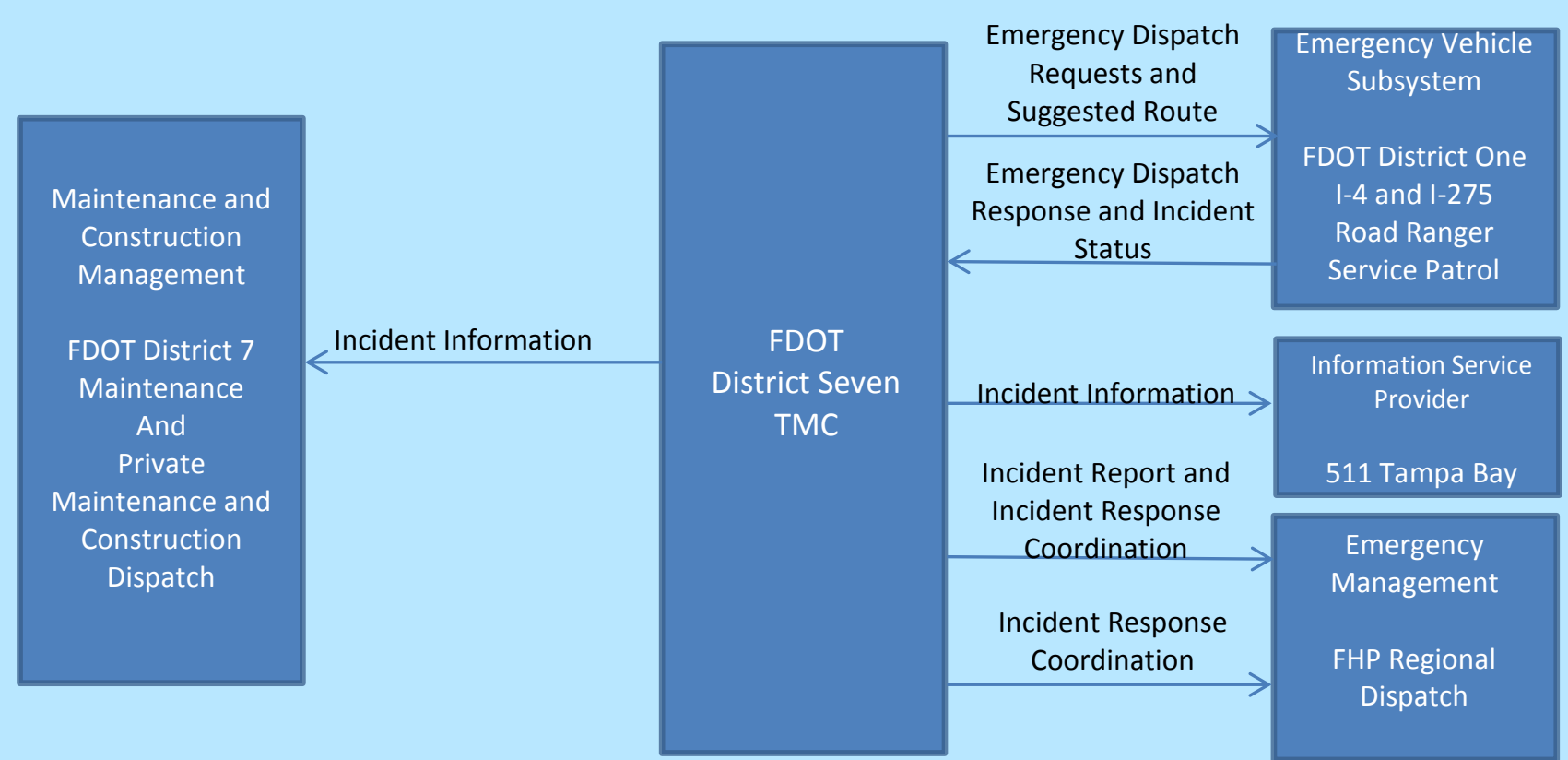
District Seven Required Changes

- District One is requesting the new District One portion of the District Seven RITSA include MC04 Weather Information Processing and Dissemination Package with the associated data flow as shown below.



District Seven Required Changes

- District One is requesting the new District One Portion of the District Seven RITSA include the EM04 Roadway Service Patrol Package with the associated data flow as shown below.



QUESTIONS?

Craig Carnes, P.E., Metric Engineering
ccarnes@metriceng.com

IDS vs. DPA

Tucker Brown, SwRI

Incident Detection Subsystem (IDS)

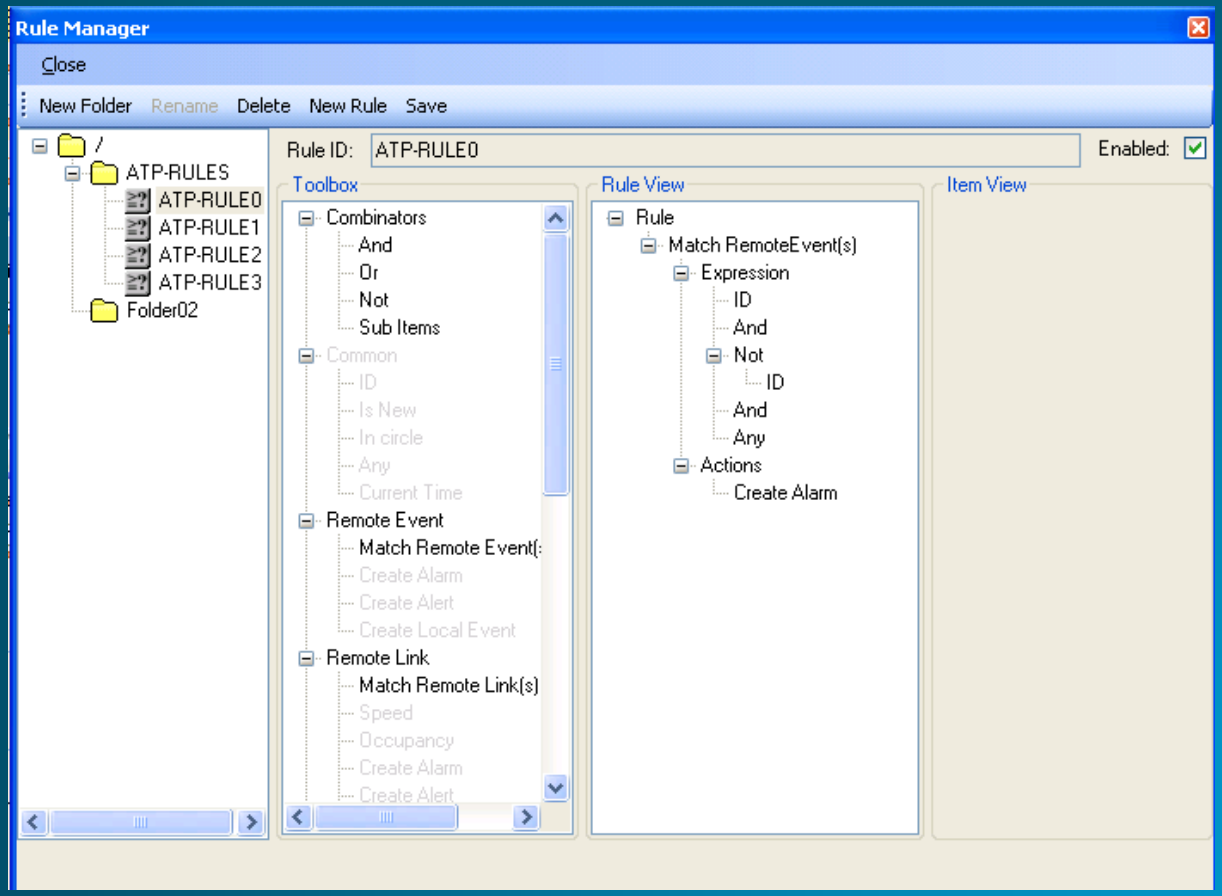
- **Manages alerts within the SunGuide system**
- **New driver required per data type**
  - TSS
  - VisioPad
  - FHP
  - Safety Barrier
  - RWIS
  - Weather
- **Alerts based on pre-configured thresholds**

Data Processing Application (DPA)

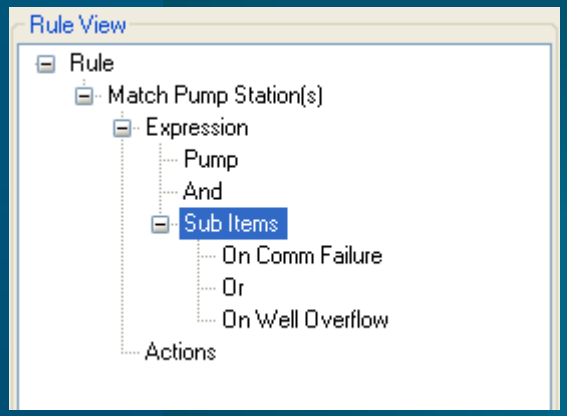
- **Manages alerts within the Lonestar system**
  - Monitors data for “conditions”
- **Drivers are embedded into the process (where needed)**
- **Interfaces with TxDOT’s Client Notification Application (CNA)**

Data Processing Application (DPA)

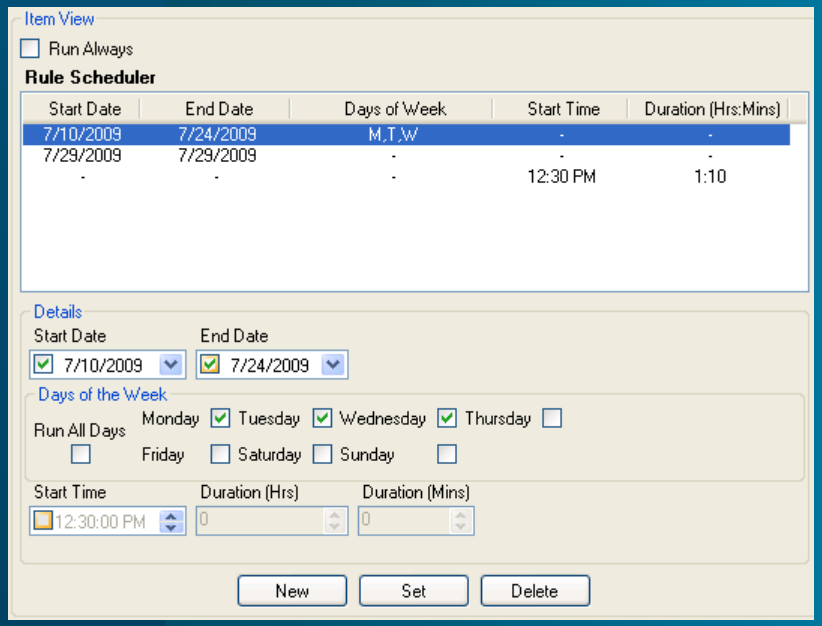
- Rules based alerting



Data Processing Application (DPA)



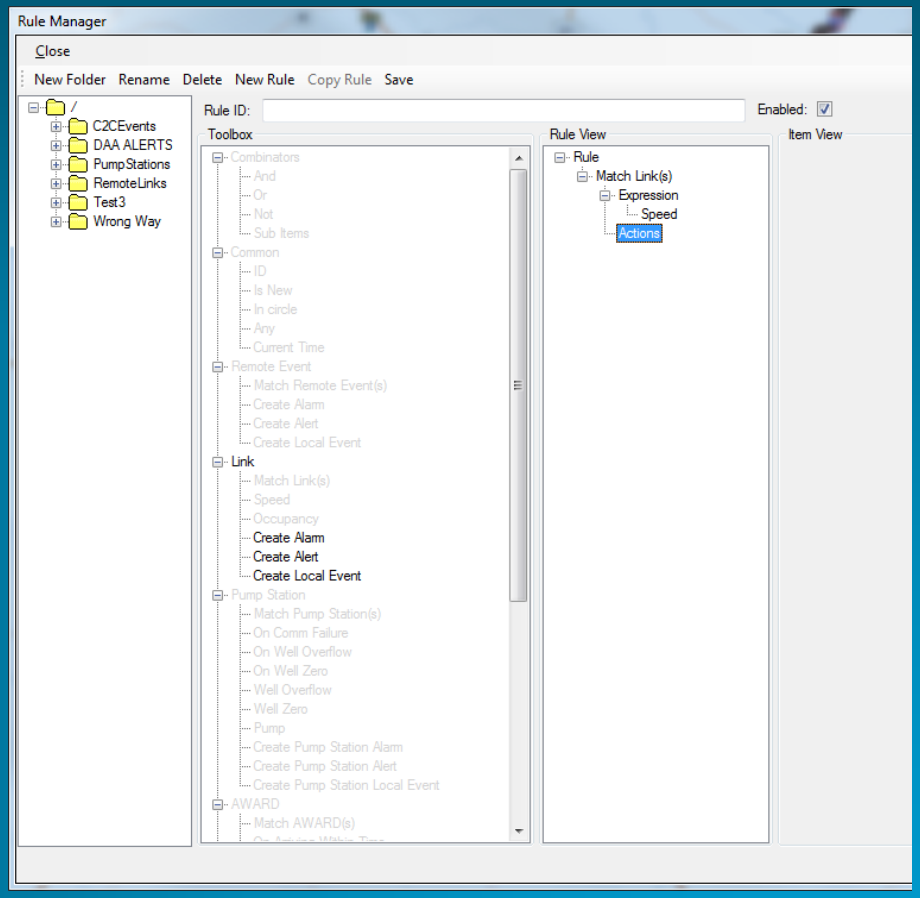
- Rules are added dynamically for device types and conditions
- Actions are defined for when the conditions are met



- Rules can be made to run on specific schedules

Data Processing Application (DPA)

- Actions can be configured based on the type



Data Processing Application (DPA)

- **Comparators allow for numerous detection conditions**

Comparison	Explanation	Triggering for values when setting = 50						
		44	45	50	50	55	50	47
Less Than	The data value is less than the setting provided	X	X					X
Less Than Or Equal	The data value is less than or equal to the setting provided	X	X	X	X		X	X
Equal To	The data value is equal to the setting provided			X	X		X	
Greater Than	The data value is greater than the setting provided					X		
Greater Than Or Equal	The data value is greater than or equal to the setting provided			X	X	X	X	
Became Less Than	The data value crossed the threshold from equal to less than the setting provided							X
Became Less Than Or Equal	The data value crossed the threshold from greater than to less than or equal to the setting provided						X	
Became Equal To	The data value crossed the threshold from greater than to equal or from less than to equal the setting provided			X			X	
Became Greater Than	The data value crossed the threshold from equal to greater than the setting provided					X		
Became Greater Than Or Equal	The data value crossed the threshold from less than to greater than or equal to the setting provided			X				

Advantages of a rule based system

- A rule based system give the users more options in configuration
- A user defines the “trigger” and assigns an “action”
- Actions can be anything the system is capable of doing, and has enough information to do
  - Send and alert/email/text/social network post
  - Create an event
    - Create a response plan/activate

Data Processing Application (DPA)

- **Ex) TSS alarms**
  - When [link] [speed] is less than [30]

    generate [email] [alert] [create event] [activate response plan]

- **Same actions could also apply to an RWIS and the only change necessary would be to make DPA aware of RWIS data types (wind, temp, precip, etc)**

QUESTIONS?

Tucker Brown, SwRI
tucker.brown@swri.org

Break – 10 min

http://ipadstopwatch.com/timer.html

SunGuide Map out of IE

Tucker Brown, SwRI

IE Limitations

- **Currently, the only supported browser**
- **Certain IE updates have broken parts of SunGuide requiring small rework**
- **Applications cannot take full advantage of CPU**
- **Focus issues**
  - IE intentionally disables certain focus calls to prevent pop-ups as a “security” feature

Future Options – Remove IE

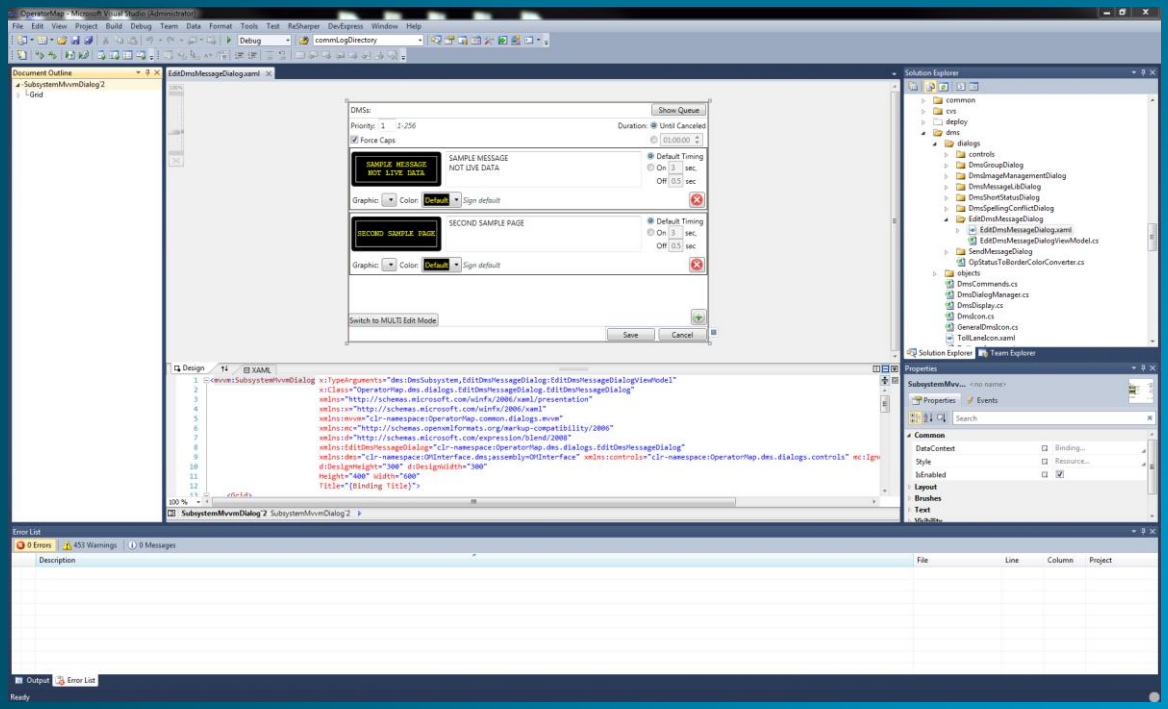
- **ClickOnce**
  - Enables the user to install and run a Windows-based smart client application by clicking a link in a web page
    - Still centrally managed
    - Updates propagate much easier than a thick client
    - Once downloaded, could be accessed through the start menu
- **Many dialogs still in HTML/JavaScript**
  - Will be dependent on a browser at some level until all dialogs have been converted

Future Options – Advantages

- **Advantages**
  - Better control of window focus and sizing
    - Windows should size better based on their content
    - Window positioning should be improved
  - More control of CPU usage and threading
    - Video on Desktop could take full advantage of the processor and allow additional video feeds to show without lag
  - More options in user customizable layouts

Other Possibilities Outside the Browser

- **Dynamic Configuration (per user)**
  - Map would not longer be the central entry point
  - Each dialog would be capable of being stand alone or incorporated into a larger dialog



QUESTIONS?

Tucker Brown, SwRI
tucker.brown@swri.org

Change Management Board

ITS Architecture Update,

Systems Engineering and ITS Architecture Procedure

Derek Vollmer, P.E.

ITS Architecture Update

- **Last Statewide update in 2005**
- **Goals**
  - Go over new requirements and new services
  - Update ITS plan for the State and each region
  - Satisfy Federal requirements for regional ITS architecture development

ITS Architecture Update

- **Consolidate work shops at three locations and reduce duration to one day**
  - Tallahassee for CO, D3, and D2
  - Orlando for D1, D5, D7, and FTE Turkey Lake
  - Fort Lauderdale for D4, D6, and FTE Pompano
- **Each location includes all stakeholders (FDOT ITS, Construction, Planning, Design, MPOs, Counties, Cities)**

ITS Architecture Update

- Work shops at each region and reduce duration to one day
- Consolidate work shops where possible and reduce duration to one day
- Tentative timeframe in Fall 2014 (September/October for work shops)

Systems Engineering and ITS Architecture Procedure

- **Review comments and update document**
- **Finalize document and send document and comment responses to stakeholders in May 2014 to obtain additional feedback**
- **Once final, begin coordination with other offices to update:**
  - Project Management Handbook
  - Project Development and Environmental Manual
  - Construction Project Administration Manual
  - Local Agency Program Manual

QUESTIONS?

Derek Vollmer, P.E.
Derek.Vollmer@dot.state.fl.us

Open Discussion

Javier Rodriguez, P.E., FDOT

Review Action Items

Javier Rodriguez, P.E., FDOT