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|  | Florida ITS Architecture Support and Maintenance ProjectFinal FTE RITSA Update ReportVersion 1.0 |

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# Introduction

This Update Report for the Florida’s Turnpike Enterprise (FTE) Regional ITS Architecture (RITSA) identifies the revisions incorporated into the architecture. The purpose of this FTE RITSA Update Report is to document revisions made to the FTE RITSA to support Stakeholder input received through Architecture Change Requests as part of the Florida Intelligent Transportation Systems (ITS) Architecture Support and Maintenance Project.

The Florida ITS Architecture Support and Maintenance Project included the initial major update of the Statewide ITS Architecture (SITSA) and seven RITSAs. Following the major update phase, periodic updates are executed to maintain the architecture content. The FDOT Architecture Team coordinates with the FDOT Project Manager or designee and each applicable District Transportation Systems Management and Operations (TSM&O) Program Engineer or designee for the RITSAs.

# Description of Changes

Two maintenance log items were addressed in the update. Table 1 provides descriptions for each change request that was implemented in the architecture update. A log reference number is provided for each change to related it to the Architecture Maintenance Log that is provided in Appendix A. Each architecture change that is received is added to the maintenance log for tracking and disposition.

Information about stakeholders, elements, and services is provided to summarize the changes. Some architecture components such as interfaces, roles and responsibilities, functional requirements and standards are numerous and can be reviewed on the architecture website or in the Regional Architecture Development for Intelligent Transportation (RAD-IT) software tool to explore the details of each project.

Table 1 ARCHITECTURE Updates

| **Change** | **Log Ref #** | **Actions Taken / Changes Implemented** |
| --- | --- | --- |
| Add I-4 FRAME Project to the FTE RITSA. Service packages requested to be included: * SU02: Core Authorization
* SU04: Map Management
* SU08: Security and Credentials Management
* SU09: Device Certification and Enrollment
* TI01: Broadcast Traveler Information
* TM06: Traffic Information Dissemination
* TM08: Traffic Incident Management System
* VS03: Situation Awareness
 | 96 | * Created FTE I-4 FRAME project.
* Selected Stakeholders based on Services requested:
* Counties and Cities
* FDOT
* FDOT CO
* FTE
* Local Media
* Parking Operators
* Private Commercial Vehicle and Fleet Operators
* Private Sector ISPs
* Travelers
* Selected Inventory Elements based on Services requested:
* 911 Emergency Call Centers
* CAV Authorizing Center
* CAV Identifier Registry
* CAV-ITS Map Update System
* Commercial Vehicle
* FDOT SCMS
* FL511
* FTE CAV Field Equipment
* FTE Data Collection Field Equipment
* FTE Data Dissemination Field Equipment
* FTE Maintenance and Construction Vehicles
* FTE Maintenance Facilities
* FTE Operations Center (Pompano)
* FTE Operations Center (Turkey Lake)
* Newspapers, Radio, Television Stations
* Other Vehicle
* Parking Facilities
* Private Sector Traveler Information Services
* Private Travelers Personal Computing Devices
* Rest Areas/Visitor Centers/Service Plazas
* Vehicle
* Added Service instances with the relevant elements selected:
* SU02 Core Authorization (FTE I-4 FRAME)
	+ Elements: CAV Authorizing Center, CAV Identifier Registry, CAV-ITS Map Update System, FDOT SCMS, FTE CAV Field Equipment, FTE Operations Center (Pompano), FTE Operations Center (Turkey Lake).
* SU04 Map Management (FTE I-4 FRAME)
	+ Elements: CAV-ITS Map Update System, Commercial Vehicle, FTE CAV Field Equipment, FTE Maintenance Facilities, FTE Operations Center (Pompano), FTE Operations Center (Turkey Lake), Other Vehicle, Private Travelers Personal Computing Devices, Rest Areas/Visitor Centers/Service Plazas, Vehicle.
* SU08 Security and Credentials Management (FTE I-4 FRAME)
	+ Elements: CAV Identifier Registry, Commercial Vehicle, FDOT SCMS, FTE CAV Field Equipment, FTE Maintenance Facilities, FTE Operations Center (Pompano), FTE Operations Center (Turkey Lake), Private Travelers Personal Computing Devices, Rest Areas/Visitor Centers/Service Plazas, Vehicle.
* SU09 Device Certification and Enrollment (FTE I-4 FRAME)
	+ Elements: Commercial Vehicle, FDOT SCMS, FTE CAV Field Equipment, FTE Maintenance Facilities, FTE Operations Center (Pompano), FTE Operations Center (Turkey Lake), Private Travelers Personal Computing Devices, Rest Areas/Visitor Centers/Service Plazas, Vehicle.
* TI01 Broadcast Traveler Information (FTE I-4 FRAME)
	+ Elements: Commercial Vehicle, FL511, FTE CAV Field Equipment, FTE Maintenance Facilities, FTE Operations Center (Pompano), FTE Operations Center (Turkey Lake), Newspapers, Radio, Television Stations, Parking Facilities, Private Sector Traveler Information Services, Private Travelers Personal Computing Devices, Rest Areas/Visitor Centers/Service Plazas, Vehicle.
* TM06 Traffic Information Dissemination (FTE I-4 FRAME)
	+ Elements: Commercial Vehicle, FL511, FTE CAV Field Equipment, FTE Data Dissemination Field Equipment, FTE Maintenance Facilities, FTE Operations Center (Pompano), FTE Operations Center (Turkey Lake), Newspapers, Radio, Television Stations, Parking Facilities, Private Sector Traveler Information Services, Vehicle.
* TM08 Traffic Incident Management System (FTE I-4 FRAME)
	+ Elements: 911 Emergency Call Centers, FL511, FTE CAV Field Equipment, FTE Data Collection Field Equipment, FTE Data Dissemination Field Equipment, FTE Maintenance Facilities, FTE Operations Center (Pompano), FTE Operations Center (Turkey Lake), Newspapers, Radio, Television Stations, Private Sector Traveler Information Services.
* VS03 Situational Awareness (FTE I-4 FRAME)
	+ Elements: Commercial Vehicle, FTE CAV Field Equipment, FTE Data Dissemination Field Equipment, FTE Maintenance and Construction Vehicles, Other Vehicle, Vehicle.
* Added Roles and Responsibilities
* Counties and Cities
* FDOT
* FDOT CO
* FTE
* Local Media
* Parking Operators
* Private Commercial Vehicle and Fleet Operators
* Private Sector ISPs
* Travelers
* Added Functional Requirements
* 911 Emergency Call Centers
* CAV Authorizing Center
* CAV Identifier Registry
* CAV-ITS Map Update System
* Commercial Vehicle
* FDOT SCMS
* FL511
* FTE CAV Field Equipment
* FTE Data Collection Field Equipment
* FTE Data Dissemination Field Equipment
* FTE Maintenance and Construction Vehicles
* FTE Maintenance Facilities
* FTE Operations Center (Pompano)
* FTE Operations Center (Turkey Lake)
* Other Vehicle
* Private Sector Traveler Information Services
* Private Travelers Personal Computing Devices
* Rest Areas/Visitor Centers/Service Plazas
* Vehicle
* Updated Standards references.
 |
| During maintenance activities of the District 1 RITSA update, it was noticed that the SunTrax research project was missing some elements to make the project services work. Upon further analysis, there is no connection between the SunTrax test facility and any other District 1 stakeholder systems. The SunTrax test facility is geographically in the District 1 boundaries but its only interaction is with FTE managed and operated systems/equipment inside the test facility. The issue was discussed this with Eric Gordin (FTE) and it was recommended that SunTrax be removed from the District 1 RITSA and moved to the FTE RITSA. This action will not have any affect on any District 1 interfaces or systems so the overall District 1 RITSA will not have any impact. | 110 | * Created SunTrax Research, Development and Transportation Technologies Testing Facility project
* Selected Stakeholders based on Services requested:
* FDOT CO
* Financial Institutions
* FTE
* Private Commercial Vehicle and Fleet Operators
* SunTrax Agencies
* Travelers
* Selected Inventory Elements based on Services requested:
* CAV Authorizing Center
* CAV-ITS Map Update System
* Commercial Vehicle
* FDOT SCMS
* Financial Institutions
* Private Travelers Personal Computing Devices
* SunPass Tag
* SunTrax CAV Field Equipment
* SunTrax Field Equipment
* SunTrax TMC
* SunTrax Toll Plazas
* SunTrax-Owned Toll Transaction System
* Vehicle
* Added Service instances with the relevant elements selected:
* SU01 Connected Vehicle System Monitoring and Management (SunTrax)
* SU02 Core Authorization (SunTrax)
* SU04 Map Management (SunTrax)
* SU08 Security and Credentials Management (SunTrax)
* TI07 In-Vehicle Signage (SunTrax)
* TM01 Infrastructure-Based Traffic Surveillance (SunTrax)
* TM02 Vehicle-Based Traffic Surveillance (SunTrax)
* TM03 Traffic Signal Control (SunTrax)
* TM04 Connected Vehicle Traffic Signal System (SunTrax)
* TM10 Electronic Toll Collection (SunTrax)
* VS02 V2V Basic Safety (SunTrax)
* VS12 Pedestrian and Cyclist Safety (SunTrax)
* VS16 Automated Vehicle Operations (SunTrax)
* Added Roles and Responsibilities
* Added Functional Requirements
* Updated Standards references.
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Appendix A: Architecture Maintenance Log (District 7 RITSA)

The maintenance log in Table 2 provides the FTE RITSA maintenance items considerations for the update.

Table 2 Architecture Maintenance Log (FTE RITSA)

| **#** | **Date** | **Architecture** | **Source** | **Contact** | **Change** | **Disposition** | **Recommend Maintenance** | **Incorporated** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 96 | 5/13/2021 | FTE RITSA | Change Request Form: FDOT (Raj Ponnaluri email 5/13/2021) | Ronald Chin & Yang Zhao / FDOT | Add I-4 FRAME to the FTE Regional ITS Architecture (RITSA) with service packages requested to be included. | Add I-4 FRAME project to FTE RITSA. | Yes | Yes |
| 110 | 2/9/2022 | FTE RITSA | Update Analysis | Cliff Heise (Iteris) | During maintenance activities of the District 1 RITSA update, it was noticed that the SunTrax research project was missing some elements to make the project services work. Upon further analysis, there is no connection between the SunTrax test facility and any other District 1 stakeholder systems. The SunTrax test facility is geographically in the District 1 boundaries but its only interaction is with FTE managed and operated systems/equipment inside the test facility. The issue was discussed this with Eric Gordin (FTE) and it was recommended that SunTrax be removed from the District 1 RITSA and moved to the FTE RITSA. This action will not have any affect on any District 1 interfaces or systems so the overall District 1 RITSA will not have any impact. | Add SunTrax Facility element and SunTrax Research project to FTE RITSA. | Yes | Yes |