Technical Memorandum No. 3.4

Physical Architectures:

ITS Corridor Master Plans for Florida's Principal FIHS Limited-Access Corridors

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List of Acronyms

ABT ..... Alcohol, Beverage, and Tobacco
AD ..... Archived Data
AHS ..... Automated Highway System
APTS ..... Advanced Public Transportation System
ARG ..... Autonomous Route Guidance
ATIS ..... Advanced Traveler Information System
ATMS ..... Advanced Traffic Management System
AVSS ..... Advanced Vehicle Safety System
CDM ..... Cooperative Development Methodology
CVO ..... Commercial Vehicle Operations
DRG ..... Dynamic Route Guidance
E-911 ..... Enhanced 911
EM ..... Emergency Management
EPS ..... Electronic Payment System
ETC ..... Electronic Toll Collection
FDLE ..... Florida Department of Law Enforcement
FDOT ..... Florida Department of Transportation
FIHS ..... Florida Intrastate Highway System
HAZMAT ..... Hazardous Materials
HEFT ..... Homestead Extension of Florida's Turnpike
HOV ..... High Occupancy Vehicles
HPMS ..... Highway Performance Monitoring System
HRI ..... Highway-Rail Intersection
I-10 ..... Interstate 10
I-4 ..... Interstate 4
I-75 ..... Interstate 75
I-95 ..... Interstate 95
ICC ..... Interstate Commerce Commission
IMS ..... Incident Management System

ISP.....Information Service Provider
ITS.....Intelligent Transportation System
IVR..... Interactive Voice Response
JTF .....Joint Task Force
MCC.....Motor Carrier Compliance
MCO .....Maintenance and Construction Operations
NITSA .....*National ITS Architecture*
ORT.....Open Road Tolling
PAHS .....Partially Automated Highway System
PDA..... Personal Digital Assistants
RCC.....Regional Communications Center
RR Service Patrols ..... Road Ranger Service Patrols
RTMC ..... Regional Traffic Management Center
RWIS.....Road Weather Information System
SEOC .....State Emergency Operations Center
SIS.....Strategic Intermodal System
SITSA..... *Statewide ITS Architecture*
STMC.....Satellite Traffic Management Center
SUL ..... Special-Use Lane
TMC .....Traffic Management Center
USDOD.....United States Department of Defense
USDOT ..... United States Department of Transportation
VMT..... Vehicle-Miles Traveled
VTMC ..... Virtual Traffic Management Center
WIM ..... Weigh-in-Motion

1. Introduction

This technical memorandum presents the physical ITS architectures developed for the Florida Intrastate Highway System (FIHS) limited-access corridors. The study corridors include:

- **Interstate 95 (I-95) Corridor** – The limits of the I-95 corridor are from the southern terminus of U.S. 1 in Miami-Dade County to the Georgia State Line. This corridor will also include I-195 and I-395 in Miami-Dade County, I-595 in Broward County, and I-295/9A around Jacksonville in Duval County.

- **Interstate 75 (I-75) Corridor** – The limits of the I-75 corridor are from the Palmetto Expressway in Miami-Dade County to the Georgia State Line. This corridor will also include I-275 from Manatee County to north Hillsborough County.

- **Interstate 4 (I-4)** – The limits of the I-4 corridor are from I-275 in Hillsborough County to I-95 in Volusia County.

- **Interstate 10 (I-10) Corridor** – The limits of the I-10 corridor are from the Alabama State Line to I-95 in Jacksonville. This corridor will also include I-110 in Escambia County.

- **Florida's Turnpike** – Several of Florida's Turnpike facilities are included as part of the study network. These facilities include:

    - SR 91/Turnpike Mainline from I-95 to I-75;

    - SR 821/Homestead Extension of Florida's Turnpike (HEFT) from the Turnpike to U.S. 1 in Miami-Dade County;

    - SR 869/Sawgrass Expressway from I-75 to the Turnpike in Broward County;

    - SR 417/Seminole Expressway, from the Seminole County Line to U.s. 17/92 in Seminole County;

    - SR 417/Florida Greeneway Southern Extension Connector, [the Florida Department of Transportation (FDOT) portion from I-4 to SR 417) in Orange County; and

    - SR 528/Bee Line Expressway (the FDOT portion from I-4 to Sand Lake Road) in Orange County.

1.1 Purpose

The purpose of the physical architectures is to develop a multi-faceted framework illustrating how ITS technologies, products, and services will interact in the ultimate implementation of ITS strategies.

These physical architectures are consistent with the *National ITS Architecture* (*NITSA*) and Florida's *Statewide ITS Architecture* (*SITSA*). The *NITSA* provides a common structure for the design of ITS. It is not a system design nor is it a design concept. The *NITSA* structure defines the framework around which multiple design approaches can be developed, each one specifically tailored to meet the individual needs of the user, while maintaining the benefits of a common architecture.

An ITS architecture defines the functions (e.g., gathering traffic information or requesting a route) that must be performed to implement a given user service. The physical architecture also includes:

- Physical entities or subsystems where these functions reside (e.g., the roadside or the vehicle);
- Interfaces/Information flows between the physical subsystems; and
- Communications requirements for the information flows (e.g., wireline or wireless).

In addition, the ITS architecture identifies and specifies the requirements for the standards needed to support national and regional interoperability, as well as product standards needed to support economy of scale.

There are two architectures to be considered for the FIHS limited-access corridors ITS framework: the logical and the physical architectures. This document addresses the physical architecture only. *Technical Memorandum No. 3 – ITS Logical Architecture* addresses the logical architecture.

1.2 Document Organization

This technical memorandum is organized into five major sections. Section 1 provides an introduction and outlines document organization.

Section 2 presents the cooperative development methodology developed by PBS&J to create an ITS architecture.

Section 3 presents a summary of the ITS "big picture", which identifies the needs, issues, problems and objectives, mission and vision, and themes and strategies included in *Technical Memorandum No. 2 – ITS Needs Model*.

Section 4 defines the concept of the physical architecture and its components and discusses the methodology used in developing the corridor architectures.

Section 5 presents a high-level view of the study corridors' ITS architectures. Additional architectural features and functions related to subsystems, terminators, market package diagrams, and physical data flows are identified. Appendices provide additional data and details to support the physical architecture.

Section 6 presents a summary of this technical memorandum.

2. ITS Cooperative Development Methodology

This section should provide readers with an overall understanding of the methodology utilized to develop an ITS architecture and how it fits together to form a complete approach. This methodology is a standard, mature PBS&J ITS architecture methodology that has been used because it is primarily designed to support a high degree of cooperation and communication between the FDOT ITS Office, the districts, and the system developer. It also strongly supports cooperation between users in the form of consensus building between various regional transportation agencies and user groups. This section provides both a summary and a detailed view of the methodology.

2.1 Purpose

The purpose of the ITS Cooperative Development Methodology (CDM) is to clearly identify a series of specific objectives that are meaningful to the stakeholders. Essential ITS products are developed as a result of completing these objectives. These objectives include:

- Invoking a user-driven development supported by clear communications of needs, objectives, technology capabilities, and effects;
- Highlighting the direct correlation between what the users expect and how the system will work;
- Identifying and confirming the needs of the stakeholder groups;
- Validating the needs, objectives, problems, and issues of users;
- Identifying and describing the ITS needs and future big picture;
- Facilitating ITS market package definitions and detailed designs; and
- Supporting the technical analysts in defining the technical solutions based on user needs.

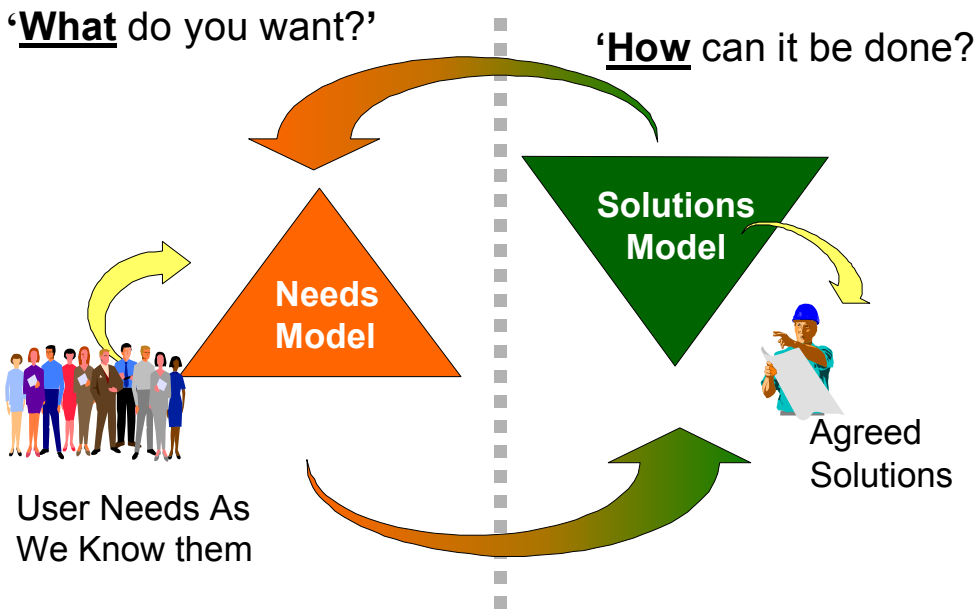
2.2 Description

Figure 2.1 presents the ITS what/how model. The purpose of this model is to provide a clear understanding of the need to separate the "what" from the "how" of the process. The goal has been to utilize the information and data gleaned from several data collection and planning activities.

The needs, issues, problems, and transportation policy objectives have been initially discussed and generally agreed on by all major stakeholders in the *ITS Needs Model*. The *ITS Needs Model* addresses the "what" – what the stakeholders expect from ITS services. Therefore, the second question, "how," is addressed in the *ITS Solutions Model*, which includes the logical and physical architectures.

Products of this portion of the CDM process have been identified and are organized into two categories. The two categories are identified as ITS "needs" and "solutions". Summary descriptions are as follows:

Figure 2.1 – The "What/How" Cycle



- **ITS Needs** are those that are to be addressed and satisfied by the proposed ITS plan. The ITS needs documentation includes:

  - o ITS initial needs, objectives, problems, and issues;
  - o ITS mission and vision;
  - o ITS user services; and
  - o Themes and strategies to coordinate and communicate market packages.

- **ITS Solutions** represent a finely balanced model that on one hand contains enough detail to confirm that transportation needs are being satisfied in a manner that ensures a balanced resource investment and risk. On the other hand, it is presented at a high enough level of abstraction that changes and modifications can be introduced and accommodated. At this point, the study is still relatively early in the requirements definition phase that any subsequent changes to the proposed solution(s) can be made more affordable.

- The ***NITSA*** developed by the United States Department of Transportation (USDOT) is an integral part of the CDM process. The Turbo Architecture developed by the USDOT to

support regional and corridor physical architectures has been adopted for FDOT ITS deployments. This software application is firmly rooted in the *NITSA* and is a high-level, interactive program. This program aids transportation planners and system integrators, both in the public and private sectors, in the development of a regional and/or project architecture. The tool is a planning and integration aid designed to facilitate usage of the *NITSA*. The purpose of the tool is to provide a detailed conceptual framework to be used for defining the physical architecture. The tool is not a complete end-to-end solution that will fully develop ITS architectures. User interaction, customization, and extension of the resulting architectures will be required beyond the data, diagrams, and reports that the tool provides.

Figure 2.2 provides a view of the high-level ITS Cooperative Development Model. The purpose of this view is to show where ITS needs and ITS solutions fit into the overall process. The goal of using this model is to address a series of key objectives, listed previously. This model provides a structured methodology to capture and document FDOT's decision-making. PBS&J's use of the CDM methodology makes it relatively easy for the user to explain requirements and for the system developer to understand the dynamics of the evolving requirements picture.

Figure 2.2 – High-Level View of the ITS Cooperative Development Model

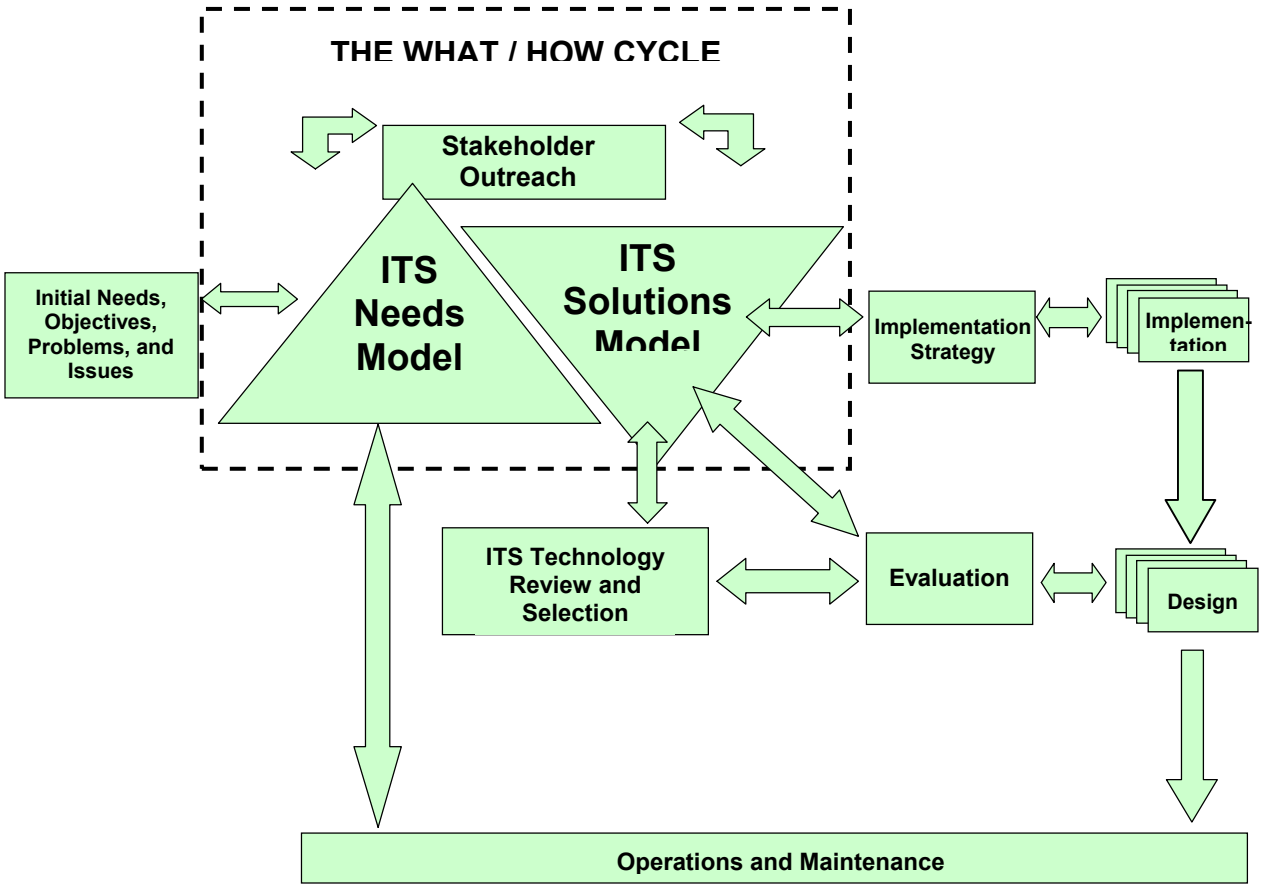
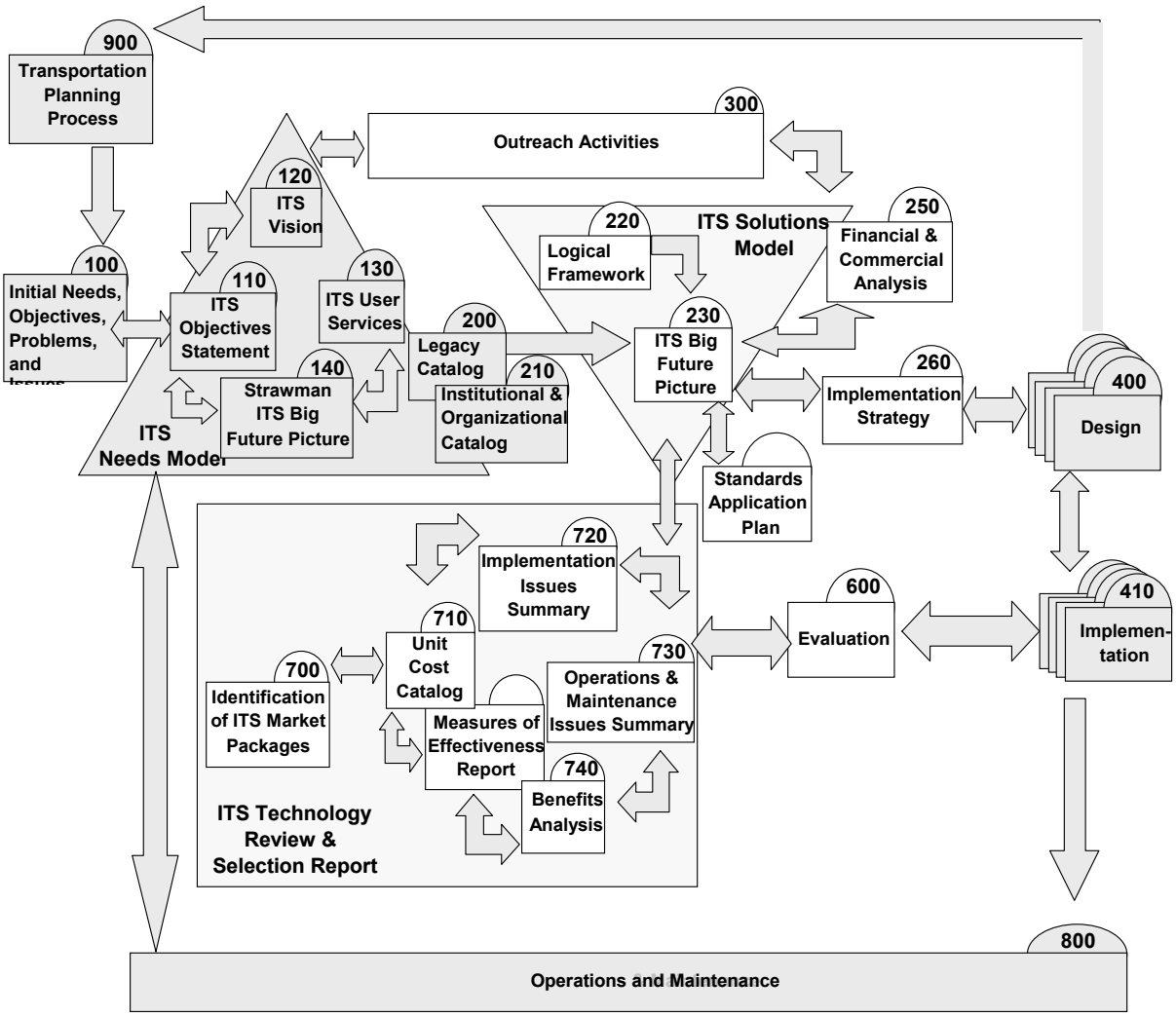


Figure 2.3 provides a detailed view of the ITS CDM methodology. This figure also provides a detailed description of the CDM process with all the steps shown.

Figure 2.3 – Detailed View of the ITS Cooperative Development Model



3. ITS Future Big Picture

3.1 Needs, Issues, Problems, and Objectives

The following needs, issues, problems, and objectives were identified for ITS deployments in Florida along the major corridors. The needs, issues, problems, and objectives were organized based on Florida's transportation mission as follows:

> Florida will provide and manage a safe transportation system that ensures the mobility of people and goods, while enhancing economic competitiveness and the quality of our environment and communities.

From this mission, FDOT derived four primary goals to carry out the mission. Associated with each goal are a number of objectives for implementation.

3.1.1 Safe Transportation – Moving People and Goods Safely

- In 1999, 2,290 people died on Florida's highways resulting in a fatal accident rate (2.1 per million vehicle-miles) higher than the national average (1.5 per million vehicle-miles). Less than one percent of these crashes were due to road-related conditions. Strategies are needed to provide a safer driving environment and to improve vehicular safety to reduce the potential for driver errors and severe accidents.

- FDOT's *FIHS Cost-Feasible Plan* will be implemented as proposed, resulting in significant capacity improvement projects, interchange modifications, and related programs on a statewide basis along each of the major corridors. These programs will result in a significant number of construction work zones along these major corridors.

- Providing safe work zones and maintaining traffic along these high-traffic volumes is a priority needed to support FDOT's mission to provide "safe" transportation services.

- Highway-rail crossings are dangerous for vehicular and rail passengers. At-grade rail crossings near interchanges along I-95 at several locations present a safety problem as a result of queue formation along the mainline and within interchanges.

- The safety of commercial vehicle operators is dependent on reliable and predictable traffic flows at interchanges, weigh and inspection stations, and gates for intermodal facilities – such as rail, port, and airport cargo facilities. The formation of queues on these corridors is a safety concern for commercial vehicle operators and other vehicles.

- Commercial vehicle operators seek safe environments at our rest and weigh stations where vehicles can be parked overnight to satisfy rest requirements of the Interstate Commerce Commission (ICC).

- Innovative technologies are needed to enhance the coverage and accuracy of inspection and enforcement of commercial vehicle safety requirements.

- Florida has the greatest risk of landfall of hurricanes in the nation requiring residents and visitors to respond quickly to events requiring evacuation. Based on the average since 1900, a named storm is anticipated to land in Florida once per year and a storm that requires a major evacuation is likely once every three years. Services are needed that can:

    - Support pre-planning for evacuations;
    - Manage traffic during evacuation scenarios;
    - Manage demand through communications with shelters and other safe harbors;
    - Provide route guidance information and information on traffic/travel conditions and weather including winds, rainfalls, and storm surge;
    - Support remote configuration management of highways during evacuation conditions or other emergencies;
    - Provide accurate and timely traveler information regarding incidents on evacuation routes;
    - Share emergency information among local and regional traffic management centers (TMCs) and emergency management facilities; and
    - Detect, verify, respond, and clear incidents and manage traffic around accidents, emergencies, and other incidents.

- A number of other weather and natural events affect traffic and transportation including flooding, fog, tornados, wildfires, and heavy rainfalls where unsafe driving conditions may exist or diversions of major corridors are required. Surveillance and information of when these unsafe conditions exist are needed to improve driving conditions and manage traffic.

- Improve and expand our ability to identify motorists in need and verify and respond to their needs in an efficient and cost-effective manner.

- Reduce the risk of accidents and other incidents by warning drivers of approaching congestion, inclement weather, steep downgrades, sharp curves, and other hazardous conditions.

3.1.2 System Management – Preservation and Management of Florida's Transportation System

- Four of Florida's metropolitan areas are severely congested and rank among the nation's fifty most congested areas: Miami, Orlando, Tampa, and Jacksonville. (Source: 2000 Urban Mobility Study, Texas Transportation Institute.) In Florida's seven largest urbanized counties (those with 500,000 or more in population including Miami-Dade, Broward, Palm Beach, Pinellas, Hillsborough, Orange, and Duval), the amount of traffic that is congested along these corridors doubled from 1990 to 1999. (Source: Florida's Mobility Performance Measures Program.) In order to manage the efficiency of the transportation system, the following objectives are needed:

  - Improve travel times along the corridors;
  - Improve predictability and reliability of travel times;
  - Reduce accidents and other incidents during normal flows that result from congestion and delays that result from "rubber-necking" during incidents;
  - Reduce congestion-related delays by reducing queues and spillback from other facilities;
  - Reduce delays caused by congestion in construction work zones;
  - Manage traffic accessing these major corridors at interchanges to improve through-put and traffic flow;
  - Reduce unnecessary delays at tolls booths; and
  - Reduce unnecessary delays at the gates of intermodal facilities.

- In addition to managing traffic flows, additional alternatives are needed to enable coordinated regional transportation operations by sharing information among RTMCs and agencies to maximize efficiency of the system and demand between modes. Information to support and promote transit and other mult-modal use and manage transit vehicles or fleets has the potential to reduce congestion on highways and increase mobility.

- Commercial vehicles present a considerable loading on our roadway infrastructure and proper enforcement is needed to eliminate illegally over-weight vehicles that cause damage to pavement and bridges.

- Improve our abilities to detect, verify, respond, and clear incidents to minimize the impacts on traffic flow.

- Improve traveler information to better manage traffic and inform travelers of delays and breakdowns in our largest metropolitan areas, even when no alternative can be offered to divert or re-route travelers to other modes or roadways exists. Traveler information services are valuable communications tools that can help us manage our system more efficiently by modifying driver behavior and increasing awareness of traffic conditions.

- Technologies are needed to support the operations and management of alternate highway configurations such as special-use lanes (SULs) that serve high-occupancy vehicles (HOV), operate as express toll lanes, provide preferences to commercial vehicles or transit vehicles, open road tolling (ORT), and other alternative configurations and management plans to promote the efficiency and effectiveness of our infrastructure.

- During the course of ITS corridor and program deployments nationally and in Florida, there is an increasing need for data and information sharing to better mange and operate the system by:

    - Supporting system evaluation and alternative analysis of future ITS deployments to ensure we are deploying resources efficiently and effectively;
    - Supporting and supplementing other data collection programs such as the 200-highest hour report, highway performance monitoring systems (HPMS), and design traffic factors for geometric and pavement design;
    - Supporting highway operational performance reporting, modeling simulation, and other techniques for the operations and management of the system;
    - Providing "before" and "after" studies for ITS deployments. Many current programs are unable to assess their benefits or effectiveness because no data was collected on conditions and performance prior to the installation of ITS.

3.1.3 Economic Competitiveness – A Transportation System that Enhances Florida's Economic Competitiveness

- Commercial vehicles form the backbone of the state's freight transportation network. All aspects of the economy rely on commercial vehicles to meet their transportation needs. The trucking industry is an active participant in all of Florida's economy. Motor carriers haul 77 percent of all shipments originating in Florida (by weight), have a combined value of $154 billion, and provide the landside link to all of our intermodal facilities. The following objectives are needed to support Florida's economic competitiveness:

    - Ensure efficient landside access to intermodal, port, airport, and truck terminal facilities;
    - Ensure efficient intermodal transfer of people and goods;
    - Promote safe and efficient access of vehicles to markets; and
    - Expedite permitting and clearance of commercial vehicles at weigh and agricultural inspection sites to keep commerce moving.

- Tourism is one of Florida's top industries and providing a safe, efficient, and easily navigable transportation network to support more than 60 million visitors each year is essential to Florida's long-term economic prosperity. The following objectives are needed to support Florida's economic competitiveness:

    - Ensure efficient access to major activity centers such as tourist attractions, state parks, and other areas of interest; and

  - Provide safe and efficient tourist travel and reduce vehicle-miles traveled (VMT) through the provision of accurate and timely traveler information.

- FDOT, along with its partners, is currently considering the designation of the Strategic Intermodal System (SIS). Each of the five principal transportation corridors will likely be part of this SIS because of their roles in regional, statewide, and national transportation linkages.

3.1.4 Quality of Life – Increasing Mobility Options for a More Livable Florida

- To ensure we provide more livable communities in Florida, the planning and design of transportation systems should support communities' visions and be compatible with corridors of statewide and regional significance. To support this objective:

  - Provide efficient statewide ITS services with autonomy for decision-making to support local needs and regional cooperation to promote efficiency and regional and statewide goals;
  - Improve interoperability of ITS services through the development of statewide uniform device standards and specifications;
  - Support integration of ITS into local planning processes, programs, and capacity projects;
  - Provide name recognition of key ITS-related services through branding that will instill trust and confidence in traveler information services, roadside assistance, electronic payment services, and other strategic services;
  - Provide easy access and central data warehousing capabilities for transportation planning and design for all partners to support decision-making; and
  - Provide accurate real-time data to technology, business, and operational users for effective and responsive transportation operations.

- Improve the quality of the environment by reducing air quality impacts from mobile source emissions through a more efficient and reliable transportation system.

- Reduce impacts of hazardous materials' (HAZMAT) incidents by providing response systems that provide first responders with access to information on the content of vehicles and vehicle locations so they can quickly respond and clear areas.

- Improve the availability of weather, traveler, and shelter information during natural and man-made disasters.

- Provide safe and efficient travel routes for freight carriers to reduce potential HAZMAT incidents in densely populated areas.

3.2 Mission and Vision

The ITS mission and vision statements were developed for the *ITS Corridor Master Plans* and the *ITS Program Plan* to assist in defining the ultimate twenty-year ITS services for the interstate corridors and to guide the selection of appropriate solutions to fulfill the ultimate ITS vision.

3.2.1 Mission

Provide effective ITS services for the five principal FIHS limited-access corridors that enhance the safety and mobility of people and goods, economic competitiveness, and the quality of our environment and communities.

3.2.2 Vision

Two decades into the 21st century, travelers and shippers of goods along Florida's five principal limited-access corridors are benefiting from infrastructure, information, and communications technologies that improve the safety, mobility, economic competitiveness, and livability of communities in Florida. Information is available that assists travelers and shippers in route planning, predicting travel times, and scheduling their trips/shipments to reduce delays and arrive at scheduled times. When congestion is severe along specific facilities, alternate routes and modes of travel will be suggested that may be more reliable or cost-effective. During their trip, information of travel conditions is provided in real-time so that scheduling and diversions can be planned if needed as a result of an incident. If an incident occurs, automated information technologies are capable of verifying the location and assessing the appropriate response to incidents. If necessary, emergency personnel or roadside assistance is dispatched, arriving in a short period of time. Traffic flow is restored quickly and delays minimized.

During normal operations, traffic flow is managed within the corridor to keep traffic moving. Information on weather conditions is provided to an in-vehicle information service that alerts the driver when visibilities are compromised and advises a safe travel speed. If a natural disaster is impending, information is provided on appropriate local shelter locations, routes for travelers choosing to drive to another area, and other modes of travel that are available instead of driving.

The economy is thriving as a result of world-class access to international markets at ports, airports, and railheads from our agricultural, mining, and manufacturing industries and efficient deliveries of goods and services at the local level. Decisions on the operations, management, and future improvements to the corridors are made through a number of key partners. These decisions are based on measured benefits and a record of the performance of various technologies and elements are customized for communities to reflect their unique values and priorities. However, similar services are available statewide and on related arterial systems and are easily recognized by elderly drivers or visitors since strong name recognition exists for traveler information, roadside assistance, electronic tolls, and other essential services. FDOT is viewed as an ITS powerhouse and a model for how to cost-effectively deploy ITS services and partner with other public agencies and the private sector to create win-win agreements for the benefit of the citizens of Florida.

3.3 Goals and Objectives

To achieve this mission, the following goals and objectives are recommended:

1. Move People and Goods Safely

- 1.1. Reduce accident rates.
  - 1.1.1. Reduce accident rates caused by driver errors and the severity of accidents.
  - 1.1.2. Reduce accident rates and severities in construction work zones.
  - 1.1.3. Reduce accident rates at highway-rail grade crossings.
- 1.2. Reduce queuing on mainlines.
  - 1.2.1. Reduce queues on limited-access roadways from highway-rail grade crossings.
  - 1.2.2. Reduce queues at weigh and inspection stations along the corridors.
  - 1.2.3. Reduce queues at intermodal facilities that impact corridor operations.
- 1.3. Improve the safety of commercial vehicle operators in rest areas.
- 1.4. Provide evacuation coordination services and emergency management.
  - 1.4.1. Provide pre-trip planning information for evacuation conditions.
  - 1.4.2. Provide traffic management during evacuation conditions.
  - 1.4.3. Manage demand through communication with shelters and other safe harbors.
  - 1.4.4. Provide route guidance information and information on traffic/travel conditions and weather including winds, rainfalls, and storm surges.
  - 1.4.5. Support remote configuration management of highways during evacuation conditions or other emergencies.
  - 1.4.6. Provide accurate and timely traveler information regarding incidents on evacuation routes and updated weather information.
  - 1.4.7. Share emergency information among local and regional traffic management centers (TMCs) and emergency management facilities.
  - 1.4.8. Detect, verify, respond to, and clear incidents and manage traffic around accidents, emergencies, and other incidents.
  - 1.4.9. Support infrastructure security through surveillance at critical structures and interchanges.

2. Preserve and Manage the System

- 2.1. Enhance mobility and efficiency.
  - 2.1.1. Improve travel times along the corridors.
  - 2.1.2. Improve predictability and reliability of travel times.
  - 2.1.3. Reduce accidents and other incidents during normal flows that result from congestion and delays that are caused by "rubber-necking" during incidents.
  - 2.1.4. Reduce congestion-related delays by decreasing queues and spillback from other facilities.
  - 2.1.5. Reduce delays caused by congestion in construction work zones.

2.1.6. Manage traffic accessing these major corridors at interchanges to improve mainline throughput and traffic flow.
2.1.7. Reduce unnecessary delays at tollbooths.
2.1.8. Reduce unnecessary delays at the gates of intermodal facilities.
2.1.9. Provide traveler information services with route and mode choice information.

2.2. System Preservation
2.2.1. Improve enforcement of illegally overweight vehicles.

2.3. Incident Management
2.3.1. Improve ability to detect, verify, respond to, and clear incidents.
2.3.2. Improve incident-related traveler information.
2.3.2.1. Predict delays and clearance times.

2.4. Manage Special-Use Lanes (SULs)

2.5. Provide Data Archiving and Warehousing
2.5.1. Conduct system evaluation and alternative analysis
2.5.2. Support and supplement other statewide data collection programs
2.5.3. Support highway operational performance reporting, modeling simulation and other techniques for operations and management of the system.
2.5.4. Develop before and after studies for ITS deployments.

3. Enhance Economic Competitiveness

3.1. Ensure efficient landside access to intermodal, port, airport, and truck terminal facilities.

3.2. Ensure efficient intermodal transfer of people and goods.

3.3. Promote safe and efficient access of vehicles to markets.

3.4. Expedite permitting and clearance of commercial vehicles at weigh and agricultural inspection sites to keep commerce moving.

3.5. Ensure efficient access to major activity centers such as tourist attractions, state parks, and other areas of interest.

3.6. Provide safe and efficient tourist travel and reduce vehicle-miles traveled (VMT) through the provision of accurate and timely traveler information.

3.7. Support the designation of corridors as strategic intermodal corridors and funding for ITS deployments.

4. Enhance Quality of Life and the Environment

4.1. Provide efficient statewide ITS services with autonomy for decision-making to support local needs and regional cooperation to promote efficiency and support regional and statewide goals.

4.2. Improve interoperability of ITS services through the development of statewide uniform device standards and specifications.

4.3. Support integration of ITS into local planning processes, programs, and capacity projects.

4.4. Provide name recognition of key ITS-related services through branding that will instill trust and confidence in traveler information services, roadside assistance, electronic payment services, and other strategic services.

4.5. Provide easy access and data mining capabilities for transportation planning and design for all partners to support decision-making.
4.6. Provide accurate real-time data to technology, business and operational users for effective and responsive transportation operations.
4.7. Reduce air-quality emissions from mobile sources.
4.8. Reduce the potential for impacts from hazardous materials' (HAZMAT) incidents.
    4.8.1. Improve HAZMAT response systems.
    4.8.2. Improve the availability of traveler, weather, and shelter information during man-made and natural disasters.
    4.8.3. Provide safe routes for HAZMAT that avoid densely populated areas.

5. Deploy an Integrated, Effective System
5.1. Provide research and development for technologies to support deployments.
5.2. Develop statewide standards and specifications for ITS field devices.
5.3. Develop statewide standards for TMC software.
5.4. Develop a communications architecture and backbone for statewide deployment.
5.5. Develop standard procedures for operations and management.
5.6. Develop statewide information exchange network standards and criteria.
5.7. Brand all critical statewide services such as traveler information, interactive voice response (IVR) systems (511 or 1-800 services), Road Ranger (RR) Service Patrols, ***SunPass***®, Pre-Pass, etc.
5.8. Standardize performance measures and archive data to produce a history of trends and establish benchmarks.
5.9. Develop statewide procurement guidelines.
5.10. Develop a statewide systems engineering process for design, integration, and testing that includes regular updates and enhancements of statewide architecture.
5.11. Develop statewide procurement contracts to leverage economies of scale.
5.12. Develop an ITS asset management program to track and program replacement parts, migrate legacy systems, and manage the life-cycle of deployments.
5.13. Establish a statewide-managed funding program for ITS with project decision recommendations made by the ITS Office.
5.14. Dedicate a percent of all FDOT funds, statewide-managed and district-allocated, for operations and management of ITS deployments.
5.15. Update work program instructions to develop traceability with the *Statewide ITS Architecture (SITSA).*
5.16. Increase the professional capacity of the public and private sector in Florida to support planned deployments.
5.17. Promote public-public partnerships to leverage financial and human resources.
5.18. Promote public-private partnerships to leverage financial and human resources.

3.4 User Services

ITS User Services are the core of requirements definition and document what ITS services should do from a user's perspective. A user might be the public, a public system operator, or a private system operator. In the *NITSA* development effort, the USDOT and ITS America, with significant stakeholder input, have defined 31 user services to date. A number of functions are required to accomplish each of these user services. To reflect this, each of the user services was broken down into successively more detailed functional requirements, called User Service Requirements.

Table 3.1 identifies the applicable near-term and future big picture deployment of the user services defined for the *ITS Program Plan*. The future big-picture user services represent full ITS deployments along the corridor that are likely to be implemented over the next twenty years and the near-term user services represent those ITS deployments that are likely to occur in the next few years, given the legacy ITS deployments and the corridors' programmed transportation improvements. These users services, except for the Evacuation Coordination User Service, were derived from the *NITSA* and *SITSA*.

Table 3.1 – Timing of Deployment of User Services

User Services		Applicable (Big Picture)	Applicable (Near-Term)
1.0	**Travel and Traffic Management**		
1.1	**Pre-Trip Travel Information**		
1.1.1	Travel Services	✓	✓
1.1.2	Current Conditions	✓	✓
1.1.3	Trip Planning	✓	✓
1.1.4	User Access	✓	✓
1.2	**En-Route Driver Information**		
1.2.2	Driver Advisory	✓	✓
1.2.3	In-Vehicle Signing		
1.3	**Route Guidance**		
1.3.1	Provide Directions	✓	
1.3.2	Static Mode	✓	
1.3.3	Real-Time Mode	✓	
1.3.4	User Interface	✓	
1.4	**Ride Matching and Reservation**		
1.4.1	Rider Request (Demand)	✓	
1.4.2	Transportation Provider Services (Supply)	✓	
1.4.3	Information Processing (Marrying Supply and Demand)	✓	
1.5	**Traveler Services Information**		
1.5.1	Information Receipt	✓	✓
1.5.2	Information Access	✓	✓
1.6	**Traffic Control**		
1.6.1	Traffic Flow Optimization	✓	✓
1.6.2	Traffic Surveillance	✓	✓
1.6.3	Control Function	✓	✓
1.6.4	Provide Information	✓	✓
1.7	**Incident Management**		
1.7.1	Incident Identification	✓	✓
1.7.2	Response Formulation	✓	✓
1.7.3	Response Implementation	✓	✓
1.7.4	Predict Time and Location of Hazardous Conditions	✓	✓
1.8	**Travel Demand Management**		
1.8.1	Increase Efficiency of Transportation System	✓	✓
1.8.2	Provide Wide Variety of Mobility Options	✓	✓
1.9	**Emissions Testing and Mitigation**		
1.9.1	Wide Area Pollution Monitoring	✓	
1.9.2	Roadside Pollution Assessment	✓	
1.10	**Highway-Rail Intersection (HRI)**		
1.10.1	Standard Rail Subservice (<80 MPH Trains)	✓	✓
1.10.2	High Speed Rail Subservice (80 to 125 MPH Trains)	✓	
2.0	**Public Transportation Management**		
2.1	**Public Transportation Management**		
2.1.1	Operation of Vehicles and Facilities	✓	✓
2.1.2	Planning and Scheduling Services	✓	✓
2.1.3	Personnel Management		
2.1.4	Communications	✓	✓

Table 3.1 (Continued)

User Services		Applicable (Big Picture)	Applicable (Near-Term)
2.2	**En-Route Transit Information**		
2.2.1	Information Distribution	✓	✓
2.2.2	Information Receipt	✓	✓
2.2.3	Information Processing	✓	✓
2.3	**Personalized Public Transit**		
2.3.1	Rider Request		
2.3.2	Vehicle Assignment		
2.3.3	Data Collection		
2.3.4	Information Processing		
2.3.5	Communications		
2.4	**Public Travel Security**		
2.4.2	Security Sensors Function	✓	✓
2.4.3	Personal Sensors Items		
2.4.4	Security Management and Control	✓	✓
3.0	**Electronic Payment**		
3.1	**Electronic Payment Services**		
3.1.1	Electronic Toll Collection (ETC)		
3.1.2	Electronic Fare Collection	✓	
3.1.3	Electronic Parking Payment		
3.1.4	Electronic Payment Systems (EPS) Integration		
3.1.5	Roadway Pricing	✓	
4.0	**Commercial Vehicle Operations (CVO)**		
4.1	**Commercial Vehicle Electronic Clearance**		
4.1.1	Fixed Facility	✓	✓
4.1.2	Vehicle System	✓	
4.2	**Automated Roadside Safety Inspection**		
4.2.2	Roadside Facility	✓	✓
4.2.3	Vehicle System	✓	
4.3	**On-Board Safety Monitoring**		
4.3.1	Fixed Facility		
4.3.2	Vehicle System		
4.4	**Commercial Vehicle Administrative Processes**		
4.4.1	Electronic Purchase of Credentials	✓	✓
4.4.2	Automated Mileage and Fuel Reporting and Auditing	✓	✓
4.4.3	International Border Electronic Clearance		
4.5	**HAZMAT Incident Response**		
4.5.1	HAZMAT Incident Notification	✓	✓
4.5.2	Operational Focal Point	✓	✓
4.5.3	Communications	✓	✓
4.6	**Commercial Fleet Management**		
4.6.1	Real-Time Routing		
4.6.2	Real-Time Communications		

Table 3.1 (Continued)

User Services		Applicable (Big Picture)	Applicable (Near-Term)
5.0	**Emergency Management**		
5.1	**Emergency Notification and Personnel**		
5.1.1	Driver and Personal Security (Manual)	✓	✓
5.1.2	Automated Collision Notification	✓	✓
5.2	**Emergency Vehicle Management**		
5.2.1	Fleet Management	✓	✓
5.2.2	Route Guidance	✓	✓
5.2.3	Signal Priority	✓	✓
5.3	**Evacuation Coordination**		
5.3.1	Evacuation Guidance	✓	✓
5.3.2	Evacuation Travel Information	✓	✓
5.3.3	Evacuation Traffic Management	✓	✓
5.3.4	Evacuation Planning Support	✓	✓
5.3.5	Evacuation Resource Sharing	✓	✓
6.0	**Advanced Vehicle Safety Systems (AVSS)**		
6.1	**Longitudinal Collision Avoidance**		
6.1.1	Rear-End		
6.1.2	Backing		
6.1.3	Head-On/Passing		
6.2	**Lateral Collision Avoidance**		
6.2.1	Lane Change/Merge	✓	
6.2.2	Single Vehicle Roadway Departure	✓	
6.3	**Intersection Collision Avoidance**		
6.3.1	Advisory System		
6.3.2	Driver Action System		
6.3.3	Automatic Control System		
6.4	**Vision Enhancement for Crash Avoidance**		
6.4.1	Enhanced Vision System	✓	
6.5	**Safety Readiness**		
6.5.1	Driver Monitor		
6.5.2	Vehicle Condition		
6.5.3	Infrastructure Condition		
6.6	**Pre-Crash Restraint Deployment**		
6.6.1	Automatic Activation System		
6.7	**Automated Vehicle Operation**		
6.7.1	Automated Highway System (AHS)		
6.7.2	Partially Automated Highway System (PAHS)	✓	

Table 3.1 (Continued)

User Services		Applicable (Big Picture)	Applicable (Near-Term)
7.0	**Information Management**		
7.1	**Archived Data**		
7.1.1	Historical Data Archive	✓	✓
7.1.2	Operational Data Control	✓	✓
7.1.3	Data Import and Verification	✓	✓
7.1.4	Automatic Data Historical Archive	✓	✓
7.1.5	Data Warehouse Distribution	✓	✓
7.1.6	ITS Community Interface	✓	✓
8.0	**Maintenance and Construction Operations (MCO)**		
8.1	**Maintenance Vehicle Fleet Management**	✓	✓
8.2	**Roadway Management**	✓	✓
8.3	**Roadway Maintenance Conditions and Work Plan Dissemination**	✓	✓
8.4	**Smart Work Zones**	✓	✓

In addition, an Evacuation Coordination User Service has been added that provides the capability to efficiently manage an evacuation and provide evacuees with information they need during the evacuation, as well as reentry. It consists of five major functions:

- Evacuation Guidance;
- Evacuation Travel Information;
- Evacuation Traffic Management;
- Evacuation Planning Support; and
- Evacuation Resource Sharing.

For further information regarding the Evacuation Coordination User Service, an issue paper was developed as part of the *I-4 ITS Corridor Study* that summarizes this user service in greater detail. This new Evacuation Coordination User Service is also included in the *SITSA*.

In addition, the USDOT issued a Maintenance and Construction Operations User Service in February 2001 that will be evaluated for use in these corridors. The purpose of the Maintenance and Construction Operations User Service is to effectively manage, monitor, operate, and improve the physical condition of the roadway, associated infrastructure equipment on the roadway, and the available resources to conduct these activities. It consists of the following four major functions:

- Maintenance Vehicle Fleet Management;
- Roadway Management;
- Work Zone Management and Safety; and
- Roadway Maintenance Conditions and Work Plan Dissemination.

To ensure that the selected user services are consistent with the previously identified system goals and objectives, a traceability matrix was prepared which maps one element to the other. This matrix is provided in the *ITS Needs Model*. Goal number 5 (Deploy an Integrated, Effective System) can be mapped to each of the user services. This goal represents high-level ITS policy initiatives that will eventually be implemented by FDOT as a comprehensive, statewide ITS plan that addresses all long-term ITS Plan needs.

3.5 Themes and Strategies for Implementation

Based on the identified goals and objectives, the following themes and strategies summarize the desired outcomes of the ITS deployments along the FIHS limited-access corridors. These themes and strategies are intended to describe the desired outcomes in non-technical terms that stakeholders can understand and may not follow strict technical definitions.

3.5.1 Coordinated Operations

- Facilitate, support, and enhance the coordination and implementation of interagency efforts in response to the needs of intercity travel, major incidents or special events of regional significance along the corridor, and the security of the transportation infrastructure.

- Promote coordination and cooperation among all organizations involved in incident management including state, county, and local transportation departments, toll road authorities, law enforcement agencies, emergency service providers, and other operating agencies within the corridor.

- Foster and facilitate continued development and implementation of regional incident management initiatives and educate the public and responders to the benefits of incident management.

- Encourage technology and resource sharing by coordinating the development of training programs to support member agencies' incident management programs and activities.

- Demonstrate and evaluate the application of innovative procedures and technologies to enhance incident management activities.

- Provide regional solutions for serving intercity travel by promoting the through movement of vehicles.

- Provide procedures and coordination during evacuation and other emergency situations to make the best use of system resources.

- Promote coordination among agencies in the notification and implementation of maintenance and construction.

3.5.2 Active Facilities Management

- Support traffic management along all facilities in a coordinated way.

- Support incident management for the detection of, response to, and clearance of accidents and other major incidents such as freeway service patrols and Mayday / E-911 support, development of incident response scenarios and traffic diversion plans, incident response centers or command posts, and traffic surveillance technologies.

- Provide transit management, including bus, commuter rail, and park-and-ride facilities, as well as other transit-related activities and manage SULs, such as high-occupancy toll or other value pricing, reversible lane control for high occupancy vehicle (HOV) facilities, and transit or emergency vehicle signal preemption systems.

- Improve the ability to monitor, schedule, and dispatch maintenance, construction, special services, or other public/community transportation fleets.

- Manage traffic flow and safety during evacuations related to hurricanes, fires, and other emergencies.

- Serve commercial vehicle operations (CVO), such as electronic screening systems, to verify the compliance of motor carriers with size, weight, safety and credentials regulations, and emergency response systems.

- Promote the use of electronic toll collection (ETC) and electronic payment systems (EPS) to improve traffic flow efficiencies and reduce infrastructure requirements.

- Implement procedures and systems that cost-effectively manage work zone activities.

- Manage lane closure prediction and scheduling.

- Collect/Maintain data on work zone locations and delay and alternate routing for mainlines and standard diversion or evacuation routes.

- Automate speed enforcement and variable speed limits in work zones.

- Support advanced traveler information systems (ATIS).

- Provide evacuation guidance that includes basic information to assist potential evacuees in determining whether evacuation is necessary. Once the decision is made to evacuate, the services will also assist evacuees in determining destination routes to shelters and other lodging options. This function will also provide guidance for returning to evacuated areas, information regarding clean up, and other pertinent information to be distributed from federal, state, and local agencies.
- Provide evacuation travel information that will benefit evacuees in planning their evacuation trip once that decision has been made. This function will also allow travelers to change course during the trip based on route and destination conditions.
- Provide evacuation traffic management to assist evacuation coordination personnel in the management of evacuation operations on the transportation network.
- Provide evacuation planning to support the evacuation process by providing information, current and historical, to emergency management planning personnel.
- Promote evacuation resource sharing to allow information and resource sharing between agencies involved in the evacuation including transportation, emergency management, law enforcement and other emergency service agencies.
- Improve the coordination of construction activity and other roadway activities with maintenance.
- Provide infrastructure security against terrorist attacks.

3.5.3 Information Sharing

- Coordinate data collection and information processing, management, and distribution.
- Coordinate data collection programs and sensor installation/operations.
- Inform and exchange data through coordinated operations.
- Centralize information processing, management, and storage.
- Open access to information delivery and use.
- Coordinate information report development.
- Coordinate transportation management strategy development.

3.6 Market Packages

In the previous section, the user services were identified as the "what" – what ITS services need to be successful. The market packages recommended in the straw architecture represent the "how" – how the system will be designed to address the needs and user services. There are standardized terms for ITS solutions which represent the building blocks for the ITS architecture. Market packages are organized around certain system functions or capabilities that can be deployed to satisfy user needs.

The identification of applicable market packages for a set of specified user needs is developed through an iterative process. First, a general menu of standard market packages is derived from Version 3.0 of the *NITSA*. This menu is then tailored to reflect ITS deployments along the corridors as identified in legacy systems, short-term and long-term FDOT plans or programs, and potential new ITS deployments identified from the goals and objectives.

Table 3.2 exhibits the standard market packages from the *NITSA* and those selected as applicable for the five major corridors statewide. These market packages, grouped into eight general categories, will support ITS deployments for the FIHS limited-access corridors over the long-term.

Table 3.2 – Recommended Market Packages for the *ITS Corridor Master Plans* Developed from Version 3.0 of the *NITSA* and User-Identified Market Packages

MP NO.	Market Package Name	Applicable
Advanced Public Transportation Systems (APTS)		
APTS1	Transit Vehicle Tracking	✓
APTS2	Transit Fixed-Route Operations	✓
APTS3	Demand Response Time Operations	N/A
APTS4	Transit Passenger and Fare Management	✓
APTS5	Transit Security	✓
APTS6	Transit Maintenance	N/A
APTS7	Multi-Modal Coordination	✓
APTS8	Transit Traveler Information	✓
Advanced Traveler Information Systems (ATIS)		
ATIS1	Broadcast Traveler Information	✓
ATIS2	Interactive Traveler Information	✓
ATIS3	Autonomous Route Guidance (ARG)	N/A
ATIS4	Dynamic Route Guidance (DRG)	N/A
ATIS5	ISP-Based Route Guidance	N/A
ATIS6	Integrated Transportation Management/Route Guidance	N/A
ATIS7	Yellow Pages and Reservations	✓
ATIS8	Dynamic Ridesharing	✓
ATIS9	In-Vehicle Signing	N/A
Advanced Traffic Management Systems (ATMS)		
ATMS01	Network Surveillance	✓
ATMS02	Probe Surveillance	✓
ATMS03	Surface Street Control	N/A
ATMS04	Freeway Control	✓
ATMS05	HOV Lane Management	✓`
ATMS06	Traffic Information Dissemination	✓
ATMS07	Regional Traffic Control	✓
ATMS08	Incident Management System (IMS)	✓
ATMS09	Traffic Forecast and Demand Management	✓
ATMS10	Electronic Fare Collection	✓
ATMS11	Emissions Monitoring and Management	N/A
ATMS12	Virtual TMC and Smart Probe Data	N/A
ATMS13	Standard Railroad Grade Crossing	✓
ATMS14	Advanced Railroad Grade Crossing	✓
ATMS15	Railroad Operations Coordination	✓
ATMS16	Parking Facility Management	✓
ATMS17	Reversible Lane Management	✓
ATMS18	Road Weather Information System (RWIS)	✓
ATMS19	Regional Parking Management	N/A
FL ATMS20	Speed Management	✓

Table 3.2 (Continued)

MP NO.	Market Package Name	Applicable
Advanced Vehicle Safety Systems (AVSS)		
AVSS01	Vehicle Safety Monitoring	N/A
AVSS02	Driver Safety Monitoring	N/A
AVSS03	Longitudinal Safety Warning	N/A
AVSS04	Lateral Safety Warning	N/A
AVSS05	Intersection Safety Warning	N/A
AVSS06	Pre-Crash Restraint Deployment	N/A
AVSS07	Driver Visibility Improvement	N/A
AVSS08	Advanced Vehicle Longitudinal Control	N/A
AVSS09	Advanced Vehicle Lateral Control	N/A
AVSS10	Intersection Collision Avoidance	N/A
AVSS11	Automated Highway System (AHS)	N/A
Commercial Vehicle Operations (CVO)		
CVO01	Fleet Administration	N/A
CVO02	Freight Administration	✓
CVO03	Electronic Clearance	✓
CVO04	Commercial Vehicle Administrative Process	✓
CVO05	International Border Electronic Clearance	N/A
CVO06	Weigh-In-Motion (WIM)	✓
CVO07	Roadside CVO Safety	✓
CVO08	On-Board CVO Safety	✓
CVO09	CVO Fleet Maintenance	✓
CVO10	HAZMAT Management	✓
Emergency Management		
EM1	Emergency Response	✓
EM2	Emergency Routing	✓
EM3	Mayday Support	✓
FL EM4	Evacuation Management	✓
Archived Data and Management		
AD1	ITS Data Mart	✓
AD2	ITS Data Warehouse	✓
AD3	ITS Virtual Data Warehouse	✓
Maintenance and Construction Operations (MCO)		
FL MCO1	Maintenance and Construction Management	✓

Notes:
* N/A – Not Applicable
* FL ATMS20, FL EM4, and FL MCO1 are user-identified market packages.
* Market packages not selected for implementation were not applicable for deployment on the FIHS limited access corridors.

4. Physical Architecture

This section of the document defines the concept of the physical architecture, identifies the major components, discusses the methodology, and describes the value-added benefits of using an automated tool to support the analysis.

4.1 Concept Definition

The physical architecture identifies the physical subsystems and the architecture flows between subsystems that will implement the processes and support the data flows of the ITS logical architecture. The physical architecture further identifies the system terminator inputs (sources) and system terminator outputs (destinations) for architecture flows in and out of the system.

The goal is to develop a framework that describes the processing to be carried out, identifies the most logical place to carry out the processing, and defines the data flows required to allow the whole framework to act as a single system.

4.2 Architectural Components

The key components of the physical architecture are defined in terms of layers and elements. The following text defines the layers and elements that compose the physical architecture.

4.2.1 Architectural Layers

The physical architecture is structured in three layers: transportation, communications, and institutional. An overview of each layer is provided.

- **Transportation Layer –** performs transportation functions such as traffic management and traveler information provision. Functions (i.e., process specifications in the logical architecture) are assigned to subsystems so that the interfaces between subsystems represent candidate interfaces in the physical world. The remainder of this document focuses specifically on the analysis of data and the presentation of the results for this layer only.

- **Communications Layer –** represents the technology that will support the interfaces between transportation functions. Each data flow required by the transportation functions is evaluated with respect to the type of communications service that will be needed.

- **Institutional Layer –** represents the policy makers, planners, and other users of the ITS services. These agencies and organizations are further addressed in the *ITS Corridor Implementation Plans*.

4.2.2 Architectural Elements

The physical architecture contains the elements on which the evaluations, standards, and deployment and implementation strategies for the corridors have been built. The elements define the framework for the whole architecture. Key elements are identified as follows:

- **Subsystems –** Subsystems are the primary structural components of the physical architecture. Stakeholder input, institutional issues, and technology constraints and capabilities are used to determine the subsystems that are supported by each institution. These institutions perform functions that "belong" together and whose interfaces may require standards to promote interoperability and compatibility.

- **Physical Architecture Flows –** Processes from the logical architecture are assigned to each of the subsystems according to stakeholder inputs. Architecture flows between subsystems are determined based on the data exchange implied by the process specification assignments and the data flows defined in the logical architecture.

- **Physical Architecture Interconnections –** Each type of data flowing between subsystems requires a specific type of interconnect. The collection of interconnects which support all data flows is defined in the communications layer of the architecture.

4.3 Physical Architecture Methodology

The CDM approach provides validated information as to what physical architecture elements (i.e., subsystems, terminators, and data flows) have to be supported if all of the FIHS limited-access corridors' ITS objectives are to be met. (Refer to the *NITSA* for complete definitions of the subsystems, terminators, and data flows.) These products are utilized to perform a detailed analysis and develop the most reasonable and appropriate physical framework. The physical framework focuses specifically on intrastate facility requirements. A conscious decision has been made to ignore current institutional and/or organizational elements and specific technologies that may be deployed at this stage.

For the development of the FIHS corridor architectures, the *SITSA* was used as a starting point for the corridor architectures. The regional components of the statewide architecture were reviewed for content. All architecture subsystems, terminators, and flows contained in the regional components of the *SISTA*, but not directly related to the interstate corridor ITS operations, were excluded from the corridor architectures. Market packages, subsystems, terminators, and flows necessary for the corridor architectures, but not contained in the *SISTA*, were added. Recommendations for updates and modifications to the *SITSA* were made to be consistent with the corridor architectures. The results of this methodology are presented in Section 5. Recommended updates and modifications to the *SISTA* for consistency with the corridor architectures are detailed in the harmonization section.

The Turbo Architecture tool used in this study allows the user to select the applicable physical architecture elements for the corridors or the regions. It also provides users with a systems integration and planning design aid that facilitates the use of *NITSA*. This application provides users with useful reports and graphics that show a high-level view of the district corridor architecture for system designers. The primary value-added benefits of this tool are that it is linked with standardized, validated, *NITSA* databases. This ensures a consistent, standardized, and replicable baseline that is in conformance to the *NITSA*. The use of this architectural concept is required to receive federally allocated funds.

Through various graphical outputs, Turbo illustrates the levels of communication, data flows, and interconnections between the various elements in architecture. These flows and interconnects are useful in the development of communications infrastructure designs, ITS design/build criteria packages, and TMC software.

The following text documents the Turbo Architecture process. Figure 4.1 illustrates the corridor architecture development process.

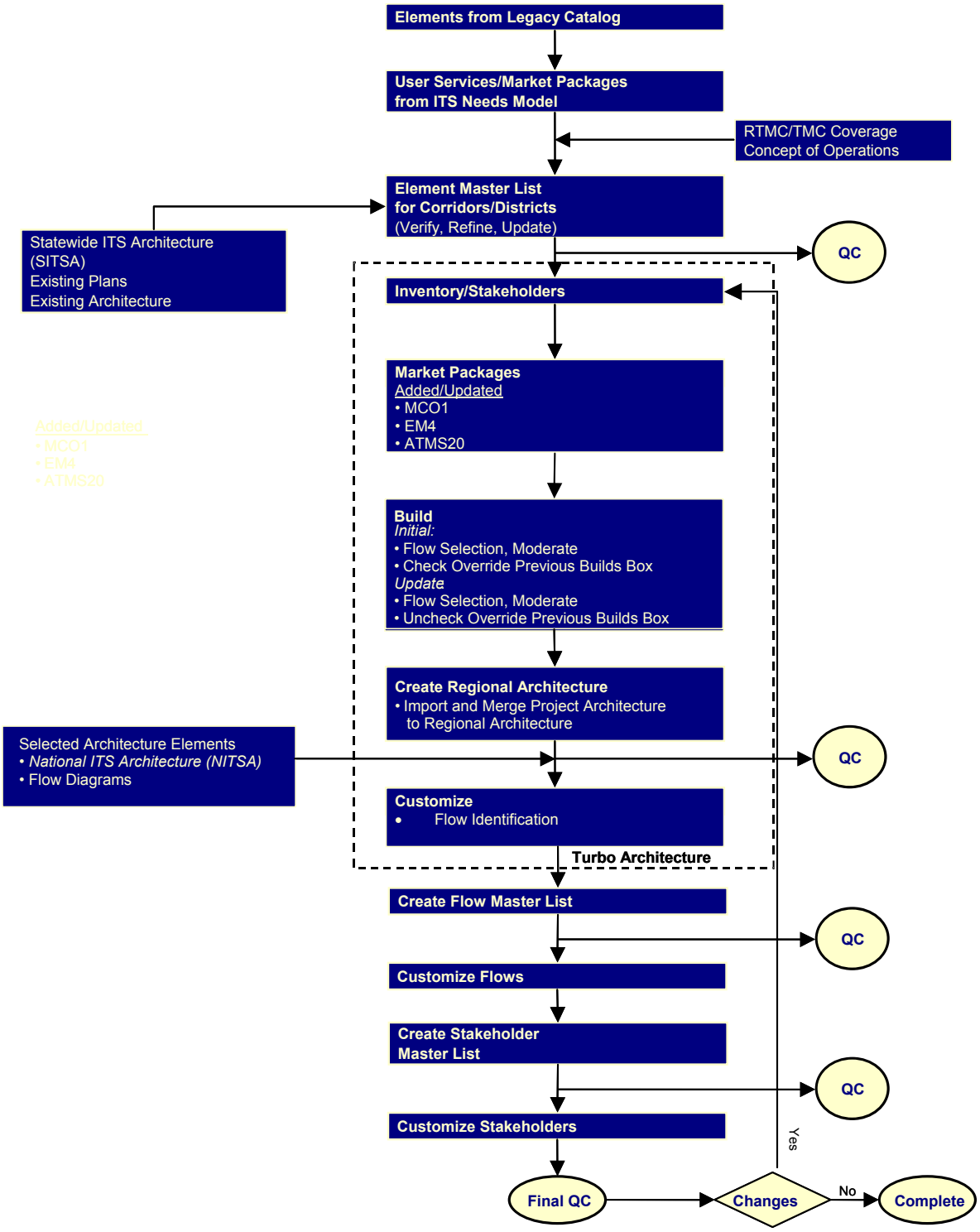
Selected market packages for each corridor were identified in the *ITS Needs Model*. These selected market packages were then mapped to each of the FIHS corridors based on their specific characteristics. Approximately 90 percent of the market packages identified in the *ITS Needs Model* were applicable to all corridors; however, certain market packages apply only to a limited number of corridors or corridor segments. For example, the ATMS17 market package for Reversible Lane Management only applies to certain segments of I-4, I-10, I-75, and Florida's Turnpike that will have reverse lane operations during hurricane evacuations. Appendix A identifies the market packages selected for each FIHS limited-access corridor by FDOT district.

Information collected and documented in the *Technical Memorandum No. 1 – ITS Legacy Catalog*, such as corridor-related terminators, connections, TMCs, and subsystems, was used to convert the regional architectures into corridor architectures. Additionally, *Technical Memorandum No. 4.1 – ITS Concept of Operations* defines the framework for the RTMC command and control and connections to local TMC's, law enforcement, and emergency management center (EMC) operations. These RTMC/TMC connections were used to develop the corridor architectures. A concept of operations, center-to-center communications, and RTMC/TMC functions will be detailed in the next section.

Master Element Lists were created from the *SITSA* inventory of elements and other existing architectures. In order to ensure quality and the preservation of the process, these Master Element Lists were reviewed for consistency and errata and were modified and approved before the element information was entered into the Turbo databases.

Next, a series of project architectures were identified for each corridor by region. These project architectures grouped related market packages together. From project architectures, elements were added to each market package to coincide with their terminators and subsystems.

Figure 4.1 – Turbo Architecture Process



Once all of the initial preparation and data collection was completed, the data were entered into Turbo Architecture Version 1.1 software. This is indicated in Figure 4.1, by the group of tasks encompassed by the larger dashed box. The key steps to the Turbo Architecture data entry are as follows:

- **Inventory** – allows the architecture developer to add/delete/modify elements and assign them to a project or regional architecture;

- **Market Packages** – provides the developer with a complete list of all the *NITSA* market packages and allows the selection of each market package while also providing the necessary elements to associate to them;

- **Build** – allows the developer to build a list of architecture flows based on inventory and market package selections; and

- **Customize** – allows the developer the ability to pick and choose connections and flows between elements.

5. Physical Architecture Results

This section presents the results of the physical architecture development for the FIHS corridors in terms of both a high-level summary and a detailed summary. This will provide a systems designer with a high-level view of the architecture. Due to the volume of detailed information created for each of the corridor architectures, much of the information regarding subsystem interfaces must be derived from the Turbo architecture files.

5.1 High-Level Architecture Summary

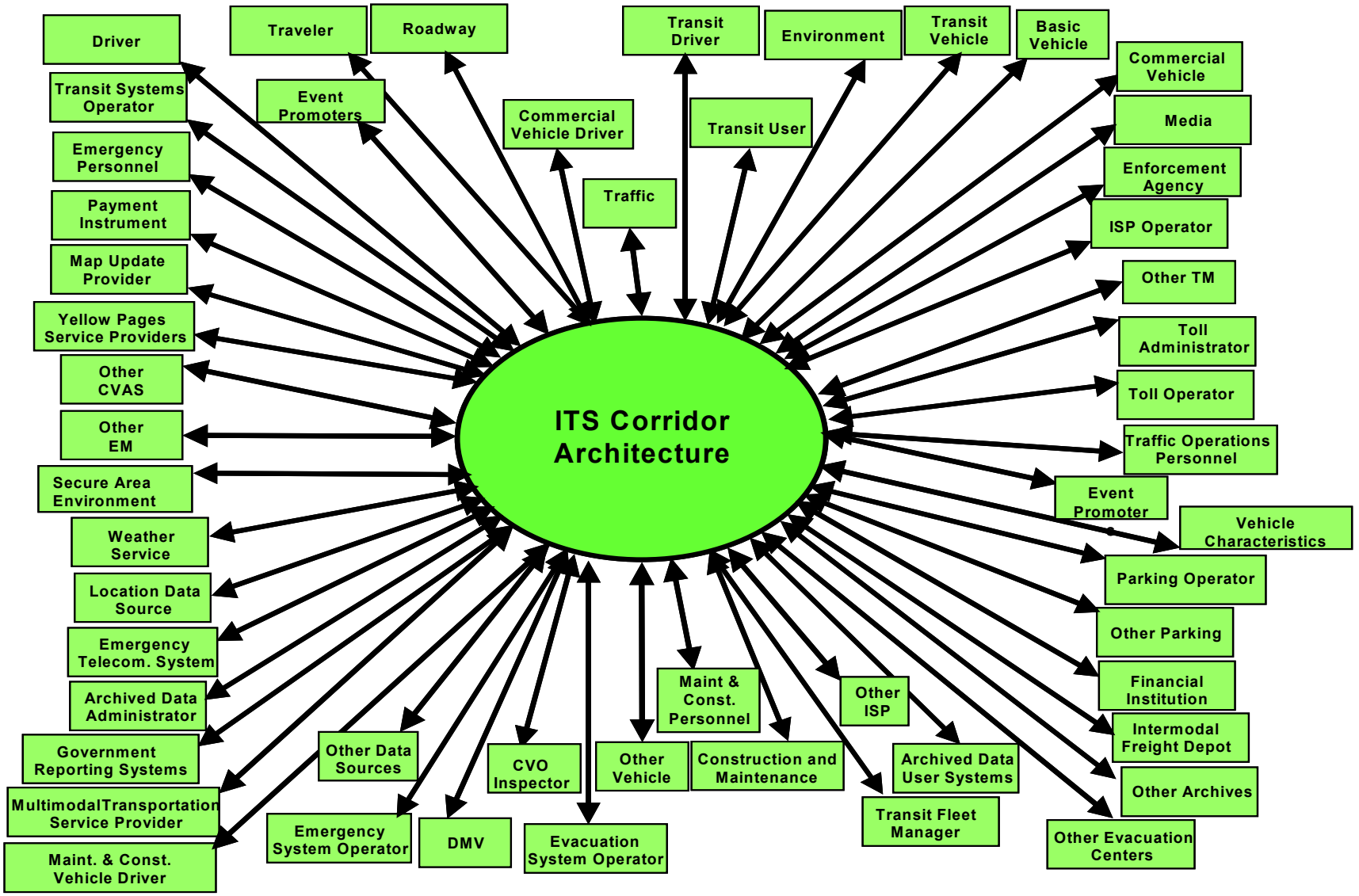
This section presents two standard representations of a high-level ITS physical architecture. The first representation is a high-level context diagram to identify the architecture terminators or "end-users". The second is a high-level architecture framework representation from Turbo Architecture that illustrates the architecture subsystems and their relationships.

5.1.1 Context Diagram

The purpose of the high-level context diagram depicted in Figure 5.1 is to delineate the ITS corridor framework boundaries – that is, identifying those things that the corridor ITS deployments have control of and those things that are beyond control of the deployments. The boxes outside of the circle are the system terminators, also referred to as the system end-users. Those items outside the circle will require interaction with, have an effect on, and will influence how things work inside the ITS framework circle. A description of the terminators, as defined in the *NITSA*, is included in Appendix B of this report.

It is also important to recognize that the context diagram of the physical architecture is identical with that of the logical architecture. The identical sets of terminators establish exactly the same boundary. The physical architecture thus provides a broad structural overlay to the structured analysis model documented in the logical architecture.

Figure 5.1 – Corridor Physical Architecture Context Diagram



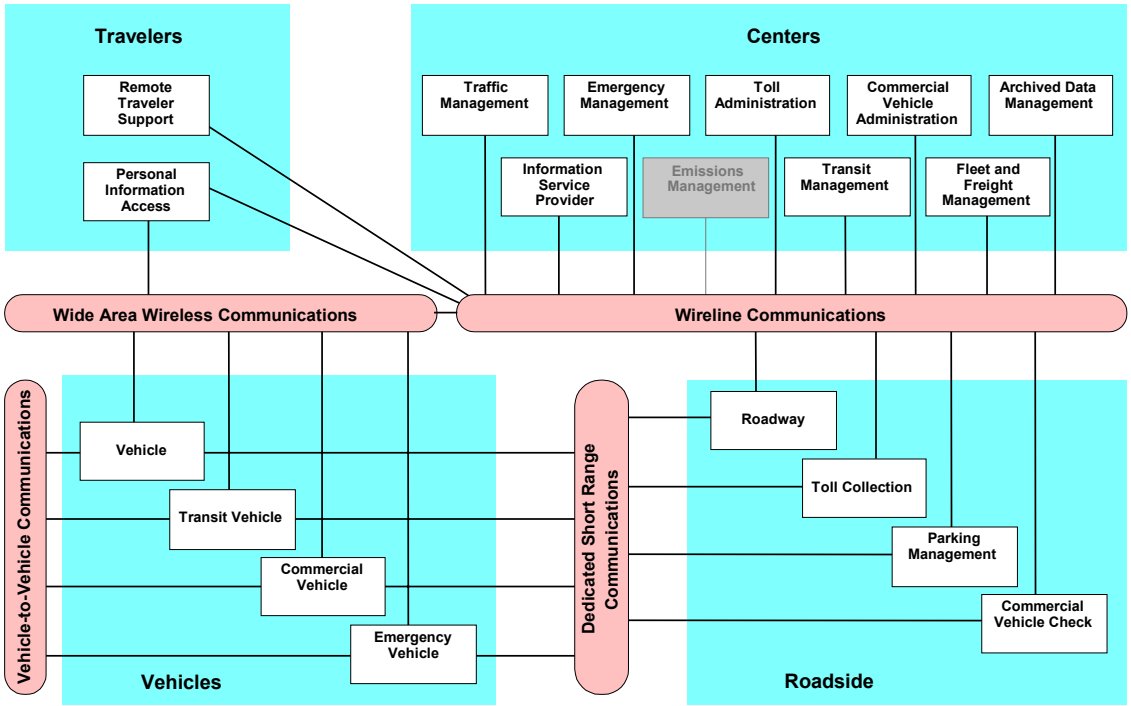
5.1.2 I-4 Corridor ITS Physical Entities

The transportation and communications layers together are the ITS physical entities that coordinate overall system operation. The physical entities identify what each major transportation system element does and how they interact to provide all user services. An example of a top-level diagram of the physical architecture for the FIHS corridors is shown in Figure 5.2. This is often referred to as a "sausage diagram". Physical entity diagrams for each FIHS limited-access corridor are contained in Appendix C.

The physical architecture defines four systems: Traveler, Center, Roadside, and Vehicle, and nineteen subsystems. The specific choice of nineteen subsystems represents a lower level of partitioning of functions that is intended to capture all anticipated subsystem boundaries for the present and twenty years into the future.

The ITS architecture systems are organized into four distinct groups that share basic functional, deployment, and institutional characteristics. These groups identify and describe the characteristics of those subsystems that have been identified for the FIHS corridor projects. Each of the four groups is described in subsequent paragraphs.

Figure 5.2 – FIHS Corridor ITS Physical Entities
(District 1 I-75 Corridor)



Additional details and descriptions of the subsystems within each group may be found in one of the four tables contained in Appendix D.

- **Center Subsystems –** Table D.1 located in Appendix D presents a description of the centers' subsystems defined in the *NITSA*. The center subsystems each communicate with other centers to enable coordination between modes and across jurisdictions within a region. The center subsystems also communicate with roadside and vehicle subsystems to gather information and provide information and control that is coordinated by the center subsystems.

- **Roadside Subsystems –** Table D.2 located in Appendix D lists a description of infrastructure subsystems defined in the *NITSA*. Each of the roadway subsystems includes functions that require distribution to the roadside to support direct surveillance, information provision, and control plan execution. All roadside subsystems interface to one or more of the center subsystems that govern overall operation of the roadside subsystems. The roadside subsystems also generally include direct user interfaces to drivers and transit users and short-range interfaces to the Vehicle Subsystems to support operations.

- **Vehicle Subsystems –** Table D.3 located in Appendix D describes the vehicle-based subsystems defined in the *NITSA*. These subsystems share many general driver information, vehicle navigation, and advanced safety systems functions. The vehicle subsystems communicate with the roadside and center subsystems for provision of information to the driver. The Personal Vehicle Subsystem description includes general traveler information and vehicle safety functions that are also applicable to the three fleet vehicle subsystems (Commercial Vehicle Subsystem, Emergency Vehicle Subsystem, and Transit Vehicle Subsystem). The fleet vehicle subsystems all include vehicle location and two-way communications functions that support efficient fleet operations. Each of the three fleet vehicle subsystems also includes functions that support their specific service area.

- **Traveler Subsystem –** Table D.4 located in Appendix D describes the subsystems that provide interface with the travelers. This equipment is specifically used for gaining access to traveler information within the scope of the ITS architecture. These subsystems interface to the information provider [one of the center subsystems, most commonly the Information Service Provider (ISP) Subsystem] to access the traveler information. A range of service options and levels of equipment sophistication are considered and supported. Examples of the equipment included in this subsystem class include personal computers, telephones, personal digital assistants (PDA), televisions, kiosks, and other communications-capable consumer products that can be used to supply information to the traveler.

As illustrated in Figure 5.2, the FIHS corridor ITS deployments include most of the subsystems of the ITS architecture with the exception of three. Emissions management was not identified as

a user need, therefore the market package and subsystem have not been included in the corridor architectures. The Toll Administration and Toll Collection Subsystems are also not selected for corridors that do not currently have ETC systems or have no plans for toll collection in the future. Figure 5.2, which includes the physical subsystems for the I-75 corridor in District 1, identifies electronic toll administration and collection as a subsystem. This subsystem was included due to the fact that ETC systems are operating on I-75 (Alligator Alley) in Naples and Ft. Lauderdale. Additionally, although the I-10/I-110 corridor does not currently operate ETC, the I-10/I-110 architecture prepared by FDOT's District 3 indicates a potential need in the future. Therefore, the subsystem was included in that corridor's architecture.

5.2 Detailed Architectural Summary

The detailed architectural summary presented in this section defines the specific subsystems, elements, and flows contained in each of the corridor architectures. This detailed architecture is represented through the market package diagrams and the physical element and flow lists documented for each corridor. These diagrams show the relationships between and among the selected corridor market packages, equipment packages, subsystems, architecture flows, and terminators. The following text describes each component and identifies the detailed relationship between each architecture component. Appendices illustrating the market packages (Appendix E) and listing the elements and flows within each market package (Appendices F and G) are included in this report for more information.

Figure 5.3 is a sample market package diagram from Appendix E. This diagram, entitled "ATIS1 – Broadcast Traveler Information", depicts the relationships, equipment packages, subsystems, architecture flows, and terminators. The legend for this appendix is described in Table 5.1.

The market package diagrams contained in Appendix E are the standard market package diagrams illustrated in the *NITSA*. Typically, the specific corridor physical elements are mapped to the market package entities (subsystems) in these diagrams. However, due to the numerous architectures developed for the FIHS corridors and the numerous market packages and ITS projects, subsystems, and elements selected for the corridors, the market package diagrams mapped to each element were not included in this document. However, the elements selected for each architecture and the associated stakeholders are identified in Appendix F.

Figure 5.3 – Sample Market Package Diagram from Appendix E

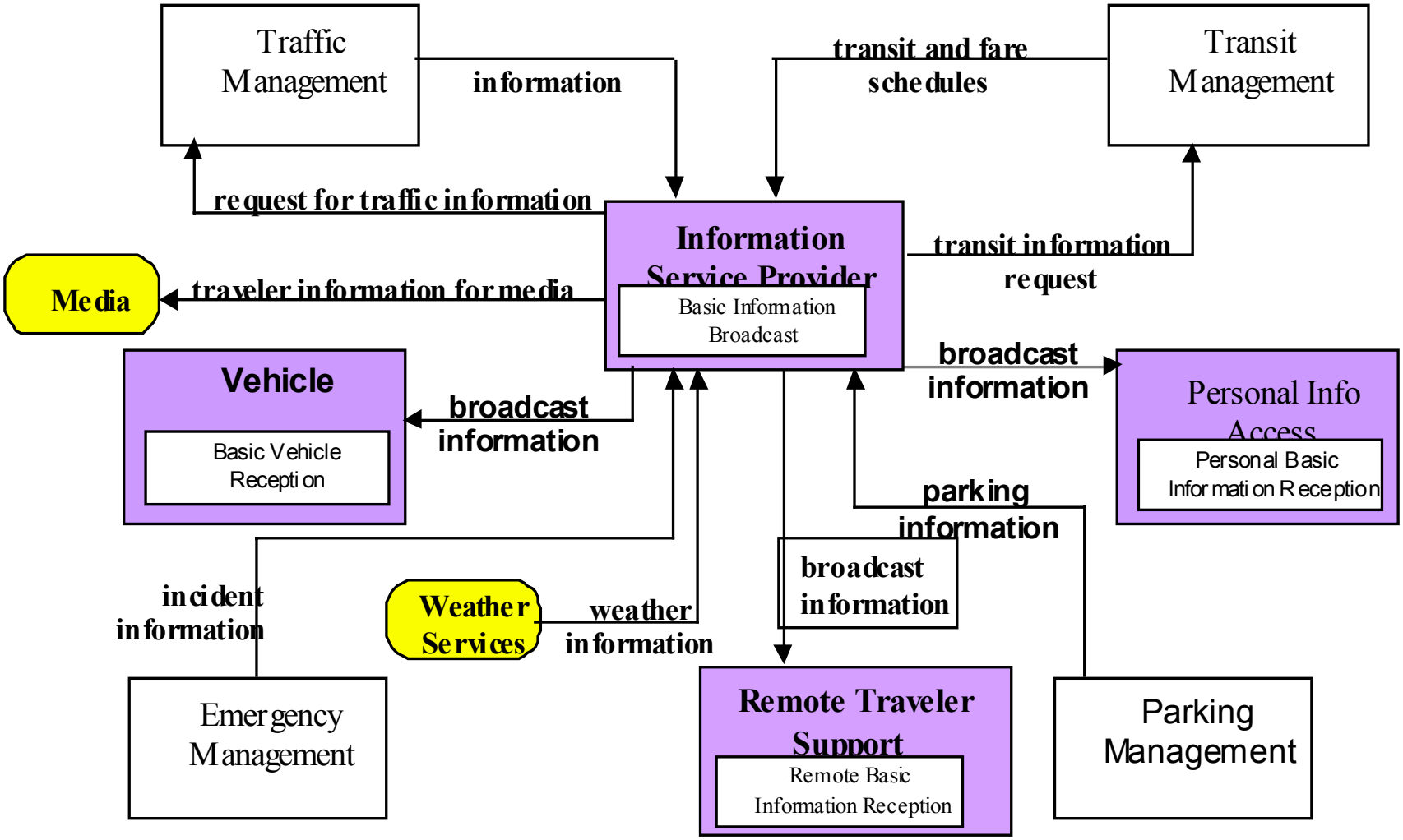
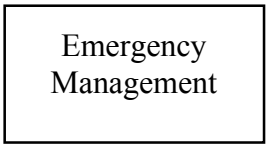
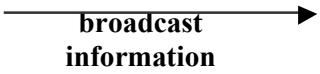
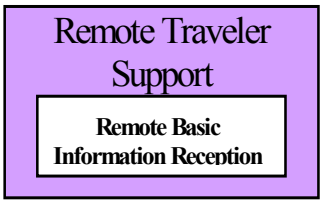


Table 5.1 – Legend for Market Package Diagrams found in Appendix E

Market Package Graphic Components	Description
	Subsystem containing equipment packages in the market package.
	Subsystem that participates in market package operations through data sharing.
	Architecture flows (i.e., direction) and flow names (i.e., labels) that support market package operations.
	Equipment package included in the market package.
	Terminators that participate in market package operations. Appendix B contains a list of corridor terminator descriptions.

Architecture flows represent the information that is exchanged between subsystems and terminators in the physical architecture. These architecture flows and their communications requirements define the interfaces that form the basis for much of the ongoing standards work in the ITS Plan. A list of all the architecture flows can be produced from the Turbo Architecture database to illustrate the source, destination, name, type, and status of each flow contained in each architecture. The list also identifies whether the flow is a national (*NITSA*) flow or a user-defined flow developed specifically for the corridor architecture. Due to the numerous architectures and flows (approximately 1,500 flows per architecture), these lists were not included in the report. This list can be extracted from the Microsoft Access database generated by Turbo Architecture. Descriptions of the national architecture flows are provided in Appendix G.

5.2.1 Market Packages Defined for the FIHS Corridor Framework

The corridor market packages presented in Appendix E include three market packages that have not been defined in the *NITSA*. The Speed Management and Evacuation Management Market Packages were developed as part of the I-4 study and incorporated into the remaining FIHS corridor architectures to satisfy user service requirements and for consistency purposes. These new market packages are:

- **Speed Management (FL ATMS20) Market Package** – This market package was developed to satisfy the construction work zone management requirements. It includes one new equipment package, Speed Management, located in the Traffic Management Subsystem. *(See Figure E.40.)*

- **Evacuation Management (FL EM4) Market Package** – This market package was developed to satisfy the evacuation management and coordination requirements. It includes two new equipment packages: Evacuation Operation Management and Evacuation Planning. Both of these equipment packages are located in the Evacuation Management Subsystem. *(See Figure E.64.)*

- **Maintenance and Construction Operations (FL MCO1) Market Package** – This market package was developed to satisfy the maintenance and construction requirements. *(See Figure E.65.)*

5.3 Harmonization of the FIHS Limited-Access Corridor Architectures with SITSA

5.3.1 Overview

An FDOT *SITSA* was developed in the year 2000 as a framework for all ITS projects throughout the state. As part of that effort, a regional ITS architecture was developed for each of the eight FDOT districts. The statewide architecture is defined based on these regional architectures.

As discussed in the methodology section, the *SITSA* was used as a basis for the development of the corridor architectures. However, as new ITS projects and concepts evolve throughout the state of Florida, updates and refinement to the *SITSA* are necessary for consistency with current ITS practices. Additionally, inconsistencies in element names were also found, thus requiring the need to modify the *SITSA*. Throughout the development of the corridor physical architectures, recommendations for harmonization with the *SITSA* were documented.

5.3.2 Purpose of the Harmonization

The objective of the harmonization effort is to compare the FIHS corridor ITS architectures with the regional architectures that were developed as part of FDOT's *SITSA* and to resolve any identified differences. It should be noted that the market packages, entities, and architecture flows used for the district regional architectures do not have to match those used as part of the FIHS corridor architecture. The identified differences should be examined to determine if they warrant any modification to the FIHS corridor architectures and/or district regional architectures.

5.3.3 Harmonization Process

The harmonization process involved reviewing the statewide architecture market packages, entities, and architecture flows included in the regional architectures. These regional architectures were posted to the FDOT statewide architecture website, www.jeng.com. The website includes the following items for each of the regional architectures:

- Customized market package diagrams;
- Existing and future ITS elements' inventory; and
- Turbo Architecture databases.

These items were reviewed in this study and compared with the corresponding items for the FIHS corridor ITS architectures. A list of the differences was produced for review by FDOT's Central Office and the district ITS engineers.

5.3.4 Harmonization Results

As previously stated, one of the products of the harmonization effort is a list of the differences between the district regional architectures and the corridor architectures. This configuration management database is presented in Appendix H. The list is a compilation of issues and actions

for harmonization with the *SITSA*. The issues and actions were compiled from the development of the FIHS corridor architectures including the development of the I-4 architectures. This configuration management database was distributed to various ITS agency representatives and district traffic operations engineers for their review and approval. This database was developed in lieu of a comprehensive stakeholder participation process to ensure stakeholder agencies agreed with the changes and modifications to the statewide architecture recommended for the corridor architectures.

Appendix H illustrates the database form distributed for review. The reviewer has the opportunity to agree or disagree with the issues and actions and provide additional comment if necessary. If the harmonization comments are not agreed upon by a majority of the selected reviewers, changes will be made to the corridor architectures to reflect their desires. A summary of the responses and comments will be presented to the reviewers for confirmation and verification. Harmonization recommendations presented as part of this corridor physical architecture development will be incorporated into the *SITSA* during the next scheduled update.

6. Summary

This document summarizes the application of standard CDM processes to obtain a customized set of client-validated ITS products. The FIHS limited-access corridors' ITS future big picture, developed as part of the *ITS Needs Model,* provides direct benefits to both the client and the system developer/architect with a definition of all the major system requirements and potential solutions.

This document also presents a physical architecture purpose and definition and details the components of a physical architecture. A methodology for the development of the corridor architectures was presented utilizing the Turbo Architecture, consistent with the *NITSA*. Both the high-level and detailed results of the corridors' architectures were presented and discussed. Additionally, a description of the architecture layers and subsystems is provided in terms of a description of the processes, flows, and the data necessary to support each subsystem.

A configuration management database containing issues and actions regarding the harmonization of the *SISTA* with the corridor architectures was developed for review and approval by the necessary stakeholder agencies.

Appendix A

FIHS Corridor Market Packages Table

Table A.1 – Mapping of Market Packages to District 1 I-75 Projects

D1 I-75 Projects												
D1 I-75 Maintenance and Construction Operations	D1 I-75 AVSS	D1 I-75 Road Ranger Incident Response Patrols (Existing)	D1 I-75 Archived Data Management	D1 I-75 Call Boxes(Existing)	D1 I-75 Evacuation Management	D1 I-75 CVO	D1 APTS	D1 I-75 Emergency Management	D1 Regional ATIS	D1 I-75 Smart Work Zones	D1 I-75 ATMS	Market Packages
												ATMS
										●	●	01 Network Surveillance
									●		●	02 Probe Surveillance
											●	04 Freeway Control
										●	●	05 HOV Lane Management
										●	●	06 Traffic Information Dissemination
										●	●	07 Regional Traffic Control
										●	●	08 Incident Management System (IMS)
										●	●	09 Traffic Forecast and Demand Management
											●	10 Electronic Toll Collection (ETC)
										●	●	13 Standard Railroad Grade Crossing
												14 Advanced Railroad Grade Crossing
												15 Railroad Operations Coordination
												17 Reversible Lane Management
											●	18 Road Weather Information System (RWIS)
										●	●	19 Regional Parking Management
										●	●	20 Speed Management
												APTS
							●					01 Transit Vehicle Tracking
							●					02 Transit Fixed-Route Operations
							●					04 Transit Passenger and Fare Management
							●					05 Transit Security
							●					07 Multi-Modal Coordination
							●					08 Transit Traveler Information
												ATIS
									●			01 Broadcast Traveler Information
									●			02 Interactive Traveler Information
									●			07 Yellow Pages and Reservations
									●			08 Dynamic Ridesharing
												CVO
						●						02 Freight Administration
						●						03 Electronic Clearance
						●						04 CV Administrative Processes
						●						06 Weigh-In-Motion (WIM)
						●						07 Roadside CVO Safety
						●						08 On-Board CVO Safety
						●						09 CVO Fleet Maintenance
						●						10 HAZMAT Management
												EM
		●						●				01 Emergency Response
								●				02 Emergency Routing
		●		●				●				03 Mayday Support
					●							04 Evacuation Management
												AD
			●									01 ITS Data Mart
			●									02 ITS Data Warehouse
			●									03 ITS Virtual Data Warehouse
												MCO
●												01 Maintenance and Construction Management

Table A.2 – Mapping of Market Packages to District 2 I-75 Projects

D2 I-75 Maintenance and Construction Operations	D2 I-75 AVSS	D2 I-75 Road Ranger Incident Response Patrols(Future)	D2 I-75 Archived Data Management	D2 I-75 Call Boxes(Existing)	D2 I-75 Evacuation Management	D2 I-75 CVO	D2 APTS	D2 I-75 Emergency Management	D2 Regional ATIS	D2 I-75 Smart Work Zones	D2 I-75 ATMS	**D2 I-75 Projects** / **Market Packages**
												ATMS
										●	●	01 Network Surveillance
									●		●	02 Probe Surveillance
											●	04 Freeway Control
										●	●	05 HOV Lane Management
										●	●	06 Traffic Information Dissemination
										●	●	07 Regional Traffic Control
										●	●	08 Incident Management System (IMS)
										●	●	09 Traffic Forecast and Demand Management
											●	10 Electronic Toll Collection (ETC)
										●	●	13 Standard Railroad Grade Crossing
												14 Advanced Railroad Grade Crossing
												15 Railroad Operations Coordination
												17 Reversible Lane Management
												18 Road Weather Information System (RWIS)
										●	●	19 Regional Parking Management
										●	●	20 Speed Management
												APTS
							●					01 Transit Vehicle Tracking
							●					02 Transit Fixed-Route Operations
							●					04 Transit Passenger and Fare Management
							●					05 Transit Security
							●					07 Multi-Modal Coordination
							●					08 Transit Traveler Information
												ATIS
									●			01 Broadcast Traveler Information
									●			02 Interactive Traveler Information
									●			07 Yellow Pages and Reservations
									●			08 Dynamic Ridesharing
												CVO
						●						02 Freight Administration
						●						03 Electronic Clearance
						●						04 CV Administrative Processes
						●						06 Weigh-In-Motion (WIM)
						●						07 Roadside CVO Safety
						●						08 On-Board CVO Safety
						●						09 CVO Fleet Maintenance
						●						10 HAZMAT Management
												EM
		●						●				01 Emergency Response
								●				02 Emergency Routing
		●		●				●				03 Mayday Support
					●							04 Evacuation Management
												AD
			●									01 ITS Data Mart
			●									02 ITS Data Warehouse
			●									03 ITS Virtual Data Warehouse
												MCO
●												01 Maintenance and Construction Management

Table A.3 – Mapping of Market Packages to Districts 4 and 6 I-75 Projects

D4 & D6 I-75 Maintenance and Construction Operations	D4& D6 I-75 AVSS	D4 & D6 Road Ranger Incident Response patrols (Existing)	D4 & D6 I-75 Archived Data Management	D4 & D6 I-75 Call Boxes	D4 & D6 I-75 Evacuation Management	D4 & D6 I-75 CVO	D4 & D6 APTS	D4 & D6 I-75 Emergency Management	D4 & D6 Regional ATIS	D4 & D6 I-75 Smart Work Zones	D4 & D6 I-75 ATMS	**D4 &D6 I-75 Projects** / **Market Packages**
												ATMS
										●	●	01 Network Surveillance
									●		●	02 Probe Surveillance
											●	04 Freeway Control
										●	●	05 HOV Lane Management
										●	●	06 Traffic Information Dissemination
										●	●	07 Regional Traffic Control
										●	●	08 Incident Management System (IMS)
										●	●	09 Traffic Forecast and Demand Management
												10 Electronic Toll Collection (ETC)
												13 Standard Railroad Grade Crossing
												14 Advanced Railroad Grade Crossing
												15 Railroad Operations Coordination
												17 Reversible Lane Management
											●	18 Road Weather Information System (RWIS)
										●	●	19 Regional Parking Management
										●	●	20 Speed Management
												APTS
							●					01 Transit Vehicle Tracking
							●					02 Transit Fixed-Route Operations
							●					04 Transit Passenger and Fare Management
							●					05 Transit Security
							●					07 Multi-Modal Coordination
							●					08 Transit Traveler Information
												ATIS
									●			01 Broadcast Traveler Information
									●			02 Interactive Traveler Information
									●			07 Yellow Pages and Reservations
									●			08 Dynamic Ridesharing
												CVO
						●						02 Freight Administration
						●						03 Electronic Clearance
						●						04 CV Administrative Processes
						●						06 Weigh-In-Motion (WIM)
						●						07 Roadside CVO Safety
						●						08 On-Board CVO Safety
						●						09 CVO Fleet Maintenance
						●						10 HAZMAT Management
												EM
		●						●				01 Emergency Response
								●				02 Emergency Routing
		●		●				●				03 Mayday Support
					●							04 Evacuation Management
												AD
			●									01 ITS Data Mart
			●									02 ITS Data Warehouse
			●									03 ITS Virtual Data Warehouse
												MCO
●												01 Maintenance and Construction Management

Table A.4 – Mapping of Market Packages to District 5 I-75 Projects

D5 I-75 Maintenance and Construction Operations	D5 I-75 AVSS	D5 I 75 Road Ranger Incident Response Patrols(Future)	D5 I-75 Archived Data Management	D5 I-75 Call Boxes	D5 I-75 Evacuation Management	D5 I-75 CVO	D5 APTS	D5 I-75 Emergency Management	D5 Regional ATIS	D5 I-75 Smart Work Zones	D5 I-75 ATMS	**D5 I-75 Projects** / **Market Packages**
												ATMS
										●	●	01 Network Surveillance
									●		●	02 Probe Surveillance
											●	04 Freeway Control
										●	●	05 HOV Lane Management
										●	●	06 Traffic Information Dissemination
										●	●	07 Regional Traffic Control
										●	●	08 Incident Management System (IMS)
										●	●	09 Traffic Forecast and Demand Management
												10 Electronic Toll Collection (ETC)
												13 Standard Railroad Grade Crossing
												14 Advanced Railroad Grade Crossing
												15 Railroad Operations Coordination
												17 Reversible Lane Management
											●	18 Road Weather Information System (RWIS)
										●	●	19 Regional Parking Management
										●	●	20 Speed Management
												APTS
							●					01 Transit Vehicle Tracking
							●					02 Transit Fixed-Route Operations
							●					04 Transit Passenger and Fare Management
							●					05 Transit Security
							●					07 Multi-Modal Coordination
							●					08 Transit Traveler Information
												ATIS
									●			01 Broadcast Traveler Information
									●			02 Interactive Traveler Information
									●			07 Yellow Pages and Reservations
									●			08 Dynamic Ridesharing
												CVO
						●						02 Freight Administration
						●						03 Electronic Clearance
						●						04 CV Administrative Processes
						●						06 Weigh-In-Motion (WIM)
						●						07 Roadside CVO Safety
						●						08 On-Board CVO Safety
						●						09 CVO Fleet Maintenance
						●						10 HAZMAT Management
												EM
		●						●				01 Emergency Response
								●				02 Emergency Routing
		●		●				●				03 Mayday Support
					●							04 Evacuation Management
												AD
			●									01 ITS Data Mart
			●									02 ITS Data Warehouse
			●									03 ITS Virtual Data Warehouse
												MCO
●												01 Maintenance and Construction Management

Table A.5 – Mapping of Market Packages to District 7 I-75 Projects

D7 I-75 Maintenance and Construction Operations	D7 I-75 AVSS	D7 I-75 Road Ranger Incident Response Patrols (Existing)	D7 I-75 Archived Data Management	D7 I-75 Call Boxes	D7 I-75 Evacuation Management	D7 I-75 CVO	D7 APTS	D7 I-75 Emergency Management	D7 Regional ATIS	D7 I-75 Smart Work Zones	D7 I-75 ATMS	**D7 I-75 Projects** / **Market Packages**
												ATMS
										●	●	01 Network Surveillance
									●		●	02 Probe Surveillance
											●	04 Freeway Control
										●	●	05 HOV Lane Management
										●	●	06 Traffic Information Dissemination
										●	●	07 Regional Traffic Control
										●	●	08 Incident Management System (IMS)
										●	●	09 Traffic Forecast and Demand Management
											●	10 Electronic Toll Collection (ETC)
												13 Standard Railroad Grade Crossing
												14 Advanced Railroad Grade Crossing
												15 Railroad Operations Coordination
												17 Reversible Lane Management
											●	18 Road Weather Information System (RWIS)
										●	●	19 Regional Parking Management
										●	●	20 Speed Management
												APTS
							●					01 Transit Vehicle Tracking
							●					02 Transit Fixed-Route Operations
							●					04 Transit Passenger and Fare Management
							●					05 Transit Security
							●					07 Multi-Modal Coordination
							●					08 Transit Traveler Information
												ATIS
									●			01 Broadcast Traveler Information
									●			02 Interactive Traveler Information
									●			07 Yellow Pages and Reservations
									●			08 Dynamic Ridesharing
												CVO
						●						02 Freight Administration
						●						03 Electronic Clearance
						●						04 CV Administrative Processes
						●						06 Weigh-In-Motion (WIM)
						●						07 Roadside CVO Safety
						●						08 On-Board CVO Safety
						●						09 CVO Fleet Maintenance
						●						10 HAZMAT Management
												EM
		●						●				01 Emergency Response
								●				02 Emergency Routing
				●				●				03 Mayday Support
					●							04 Evacuation Management
												AD
			●									01 ITS Data Mart
			●									02 ITS Data Warehouse
			●									03 ITS Virtual Data Warehouse
												MCO
●												01 Maintenance and Construction Management

Table A.6 – Mapping of Market Packages to District 2 I-95 Projects

D2 I-95 Maintenance and Construction Operations	D2 I-95 AVSS	D2 I-95 Road Ranger Incident Response Patrols(Existing)	D2 I-95 Archived Data Management	D2 I-95 Call Boxes (In District Four Only)	D2 I-95 Evacuation Management	D2 I-95 CVO	D2 APTS	D2 I-95 Emergency Management	D2 Regional ATIS	D2 I-95 Smart Work Zones	D2 I-95 ATMS	**D2 I-95 Projects** / **Market Packages**
												ATMS
										●	●	01 Network Surveillance
									●		●	02 Probe Surveillance
										●	●	04 Freeway Control
												05 HOV Lane Management
										●	●	06 Traffic Information Dissemination
										●	●	07 Regional Traffic Control
										●	●	08 Incident Management System (IMS)
											●	09 Traffic Forecast and Demand Management
												10 Electronic Toll Collection (ETC)
												13 Standard Railroad Grade Crossing
												14 Advanced Railroad Grade Crossing
												15 Railroad Operations Coordination
												17 Reversible Lane Management
											●	18 Road Weather Information System (RWIS)
											●	19 Regional Parking Management
										●	●	20 Speed Management
												APTS
							●					01 Transit Vehicle Tracking
							●					02 Transit Fixed-Route Operations
							●					04 Transit Passenger and Fare Management
							●					05 Transit Security
							●					07 Multi-Modal Coordination
							●					08 Transit Traveler Information
												ATIS
									●	●		01 Broadcast Traveler Information
									●	●		02 Interactive Traveler Information
									●			07 Yellow Pages and Reservations
									●			08 Dynamic Ridesharing
												CVO
						●						02 Freight Administration
						●						03 Electronic Clearance
						●						04 CV Administrative Processes
						●						06 Weigh-In-Motion (WIM)
						●						07 Roadside CVO Safety
						●						08 On-Board CVO Safety
						●						09 CVO Fleet Maintenance
						●						10 HAZMAT Management
												EM
		●						●				01 Emergency Response
								●				02 Emergency Routing
				●				●				03 Mayday Support
					●							04 Evacuation Management
												AD
			●									01 ITS Data Mart
			●									02 ITS Data Warehouse
			●									03 ITS Virtual Data Warehouse
												MCO
●												01 Maintenance and Construction Management

Table A.7 – Mapping of Market Packages to Districts 4 and 6 I-95 Projects

D4 & D6 I-95 Maintenance and Construction Operations	D4&D6 I-95 AVSS	D4 & D6 I-95 Road Ranger Incident Response Patrols(Existing)	D4 & D6 I-95 Archived Data Management	D4 & D6 I-95 Call Boxes	D4 & D6 I-95 Evacuation Management	D4 & D6 I-95 CVO	D4 & D6 APTS	D4 & D6 I-95 Emergency Management	D4 & D6 Regional ATIS	D4 & D6 I-95 Smart Work Zones	D4 & D6 I-95 ATMS	**D4 & D6 I -95 Projects** / **Market Packages**
												ATMS
										●	●	01 Network Surveillance
									●		●	02 Probe Surveillance
										●	●	04 Freeway Control
											●	05 HOV Lane Management
										●	●	06 Traffic Information Dissemination
										●	●	07 Regional Traffic Control
										●	●	08 Incident Management System (IMS)
											●	09 Traffic Forecast and Demand Management
												10 Electronic Toll Collection (ETC)
												13 Standard Railroad Grade Crossing
												14 Advanced Railroad Grade Crossing
												15 Railroad Operations Coordination
												17 Reversible Lane Management
										—	●	18 Road Weather Information System (RWIS)
											●	19 Regional Parking Management
										●	●	20 Speed Management
												APTS
							●					01 Transit Vehicle Tracking
							●					02 Transit Fixed-Route Operations
							●					04 Transit Passenger and Fare Management
							●					05 Transit Security
							●					07 Multi-Modal Coordination
							●					08 Transit Traveler Information
												ATIS
									●	●		01 Broadcast Traveler Information
									●	●		02 Interactive Traveler Information
									●			07 Yellow Pages and Reservations
									●			08 Dynamic Ridesharing
												CVO
						●						02 Freight Administration
						●						03 Electronic Clearance
						●						04 CV Administrative Processes
						●						06 Weigh-In-Motion (WIM)
						●						07 Roadside CVO Safety
						●						08 On-Board CVO Safety
						●						09 CVO Fleet Maintenance
						●						10 HAZMAT Management
												EM
		●						●				01 Emergency Response
								●				02 Emergency Routing
				●				●				03 Mayday Support
					●							04 Evacuation Management
												AD
			●									01 ITS Data Mart
			●									02 ITS Data Warehouse
			●									03 ITS Virtual Data Warehouse
												MCO
●												01 Maintenance and Construction Management

Table A.8 – Mapping of Market Packages to District 5 I-95 Projects

D5 I-95 Maintenance and Construction Operations	D5 I-95 AVSS	D5 I-95 Road Ranger Service Patrol (Future)	D5 I-95 Archived Data Management	D5 I-95 Call Boxes	D5 I-95 Evacuation Management	D5 I-95 CVO	D5 APTS	D5 I-95 Emergency Management	D5 Regional ATIS	D5 I-95 Smart Work Zones	D5 I-95 ATMS	**D5 I-95 Projects** / **Market Packages**
												ATMS
										●	●	01 Network Surveillance
									●		●	02 Probe Surveillance
										●	●	04 Freeway Control
												05 HOV Lane Management
										●	●	06 Traffic Information Dissemination
										●	●	07 Regional Traffic Control
										●	●	08 Incident Management System (IMS)
											●	09 Traffic Forecast and Demand Management
												10 Electronic Toll Collection (ETC)
												13 Standard Railroad Grade Crossing
												14 Advanced Railroad Grade Crossing
												15 Railroad Operations Coordination
												17 Reversible Lane Management
										_	●	18 Road Weather Information System (RWIS)
											●	19 Regional Parking Management
										●	●	20 Speed Management
												APTS
							●					01 Transit Vehicle Tracking
							●					02 Transit Fixed-Route Operations
							●					04 Transit Passenger and Fare Management
							●					05 Transit Security
							●					07 Multi-Modal Coordination
							●					08 Transit Traveler Information
												ATIS
									●	●		01 Broadcast Traveler Information
									●	●		02 Interactive Traveler Information
									●			07 Yellow Pages and Reservations
									●			08 Dynamic Ridesharing
												CVO
						●						02 Freight Administration
						●						03 Electronic Clearance
						●						04 CV Administrative Processes
						●						06 Weigh-In-Motion (WIM)
						●						07 Roadside CVO Safety
						●						08 On-Board CVO Safety
						●						09 CVO Fleet Maintenance
						●						10 HAZMAT Management
												EM
		●						●				01 Emergency Response
								●				02 Emergency Routing
		●		●				●				03 Mayday Support
					●							04 Evacuation Management
	●											**AD**
			●									01 ITS Data Mart
			●									02 ITS Data Warehouse
			●									03 ITS Virtual Data Warehouse
												MCO
●												01 Maintenance and Construction Management

Table A.9 – Mapping of Market Packages to District 2 I-10 Projects

D2 I-10 Maintenance and Construction Operations	D2 I-10 AVSS	D2 I-10 Road Ranger Incident Response Patrols	D2 I-10 Archived Data Management	D2 I-10 Call Boxes	D2 I-10 Evacuation Management	D2 I-10 CVO	D2 APTS	D2 I-10 Emergency Management	D2 Regional ATIS	D2 I-10 Smart Work Zones	D2 I-10 ATMS	Market Packages
												ATMS
										●	●	01 Network Surveillance
									●		●	02 Probe Surveillance
										●	●	04 Freeway Control
												05 HOV Lane Management
										●	●	06 Traffic Information Dissemination
										●	●	07 Regional Traffic Control
										●	●	08 Incident Management System (IMS)
											●	09 Traffic Forecast and Demand Management
												10 Electronic Toll Collection (ETC)
												13 Standard Railroad Grade Crossing
												14 Advanced Railroad Grade Crossing
												15 Railroad Operations Coordination
											●	17 Reversible Lane Management
											●	18 Road Weather Information System (RWIS)
											●	19 Regional Parking Management
										●	●	20 Speed Management
												APTS
							●					01 Transit Vehicle Tracking
							●					02 Transit Fixed-Route Operations
							●					04 Transit Passenger and Fare Management
							●					05 Transit Security
							●					07 Multi-Modal Coordination
							●					08 Transit Traveler Information
												ATIS
									●	●		01 Broadcast Traveler Information
									●	●		02 Interactive Traveler Information
									●			07 Yellow Pages and Reservations
									●			08 Dynamic Ridesharing
												CVO
						●						02 Freight Administration
						●						03 Electronic Clearance
						●						04 CV Administrative Processes
						●						06 Weigh-In-Motion (WIM)
						●						07 Roadside CVO Safety
						●						08 On-Board CVO Safety
						●						09 CVO Fleet Maintenance
						●						10 HAZMAT Management
												EM
		●						●				01 Emergency Response
								●				02 Emergency Routing
		●		●				●				03 Mayday Support
					●							04 Evacuation Management
												AD
			●									01 ITS Data Mart
			●									02 ITS Data Warehouse
			●									03 ITS Virtual Data Warehouse
												MCO
●												01 Maintenance and Construction Management

Table A.10 – Mapping of Market Packages to District 3 I-10 Projects

D3 I-10 Maintenance and Construction Operations	D3 I-10 AVSS	D3 I-10 DMS	D3 I-10 Archived Data Management	D3 I-10 Call Boxes	D3 I-10 Evacuation Management	D3 I-10 CVO	D3 APTS	D3 I-10 Emergency Management	D3 Regional ATIS	D3 I-10 Smart Work Zones	D3 I-10 ATMS	**D3 I-10 Projects**	**Market Packages**
													ATMS
										●	●		01 Network Surveillance
									●		●		02 Probe Surveillance
										●	●		04 Freeway Control
													05 HOV Lane Management
										●	●		06 Traffic Information Dissemination
										●	●		07 Regional Traffic Control
										●	●		08 Incident Management System (IMS)
											●		09 Traffic Forecast and Demand Management
													10 Electronic Toll Collection (ETC)
													13 Standard Railroad Grade Crossing
													14 Advanced Railroad Grade Crossing
													15 Railroad Operations Coordination
											●		17 Reversible Lane Management
										_	●		18 Road Weather Information System (RWIS)
											●		19 Regional Parking Management
										●	●		20 Speed Management
													APTS
							●						01 Transit Vehicle Tracking
							●						02 Transit Fixed-Route Operations
							●						04 Transit Passenger and Fare Management
							●						05 Transit Security
							●						07 Multi-Modal Coordination
							●						08 Transit Traveler Information
													ATIS
									●	●			01 Broadcast Traveler Information
									●	●			02 Interactive Traveler Information
									●				07 Yellow Pages and Reservations
									●				08 Dynamic Ridesharing
													CVO
						●							02 Freight Administration
						●							03 Electronic Clearance
						●							04 CV Administrative Processes
						●							06 Weigh-In-Motion (WIM)
						●							07 Roadside CVO Safety
						●							08 On-Board CVO Safety
						●							09 CVO Fleet Maintenance
						●							10 HAZMAT Management
													EM
								●					01 Emergency Response
								●					02 Emergency Routing
				●				●					03 Mayday Support
					●								04 Evacuation Management
													AD
			●										01 ITS Data Mart
			●										02 ITS Data Warehouse
			●										03 ITS Virtual Data Warehouse
													MCO
●													01 Maintenance and Construction Management

Table A.11 – Mapping of Market Packages to the Turnpike District's Projects

D8 Turnpike Projects												
D8 Turnpike Maintenance and Construction Operations	D8 Turnpike AVSS	D8 Turnpike Road Ranger Incident Response Patrols	D8 Turnpike Archived Data Management	D8 Turnpike Call Boxes	D8 Turnpike Evacuation Management	D8 APTS	D8 Turnpike Emergency Management	D8 Regional ATIS	D8 Turnpike Smart Work Zones	D8 Turnpike ATMS	Market Packages
											ATMS
									●	●	01 Network Surveillance
								●		●	02 Probe Surveillance
									●	●	04 Freeway Control
										●	05 HOV Lane Management
									●	●	06 Traffic Information Dissemination
									●	●	07 Regional Traffic Control
									●	●	08 Incident Management System (IMS)
										●	09 Traffic Forecast and Demand Management
											10 Electronic Toll Collection (ETC)
											13 Standard Railroad Grade Crossing
											14 Advanced Railroad Grade Crossing
											15 Railroad Operations Coordination
										●	17 Reversible Lane Management
									●	●	18 Road Weather Information System (RWIS)
										●	19 Regional Parking Management
									●	●	20 Speed Management
											APTS
						●					01 Transit Vehicle Tracking
						●					02 Transit Fixed-Route Operations
						●					04 Transit Passenger and Fare Management
						●					05 Transit Security
						●					07 Multi-Modal Coordination
						●					08 Transit Traveler Information
											ATIS
								●	●		01 Broadcast Traveler Information
								●	●		02 Interactive Traveler Information
								●			07 Yellow Pages and Reservations
								●			08 Dynamic Ridesharing
											CVO
											02 Freight Administration
											03 Electronic Clearance
											04 CV Administrative Processes
											06 Weigh-In-Motion (WIM)
											07 Roadside CVO Safety
											08 On-Board CVO Safety
											09 CVO Fleet Maintenance
											10 HAZMAT Management
											EM
		●					●				01 Emergency Response
							●				02 Emergency Routing
		●		●			●				03 Mayday Support
					●						04 Evacuation Management
											AD
			●								01 ITS Data Mart
			●								02 ITS Data Warehouse
			●								03 ITS Virtual Data Warehouse
											MCO
●											01 Maintenance and Construction Management

Appendix B

Terminator Descriptions

Table B.1 – Terminator Descriptions

NAME	DESCRIPTION
Archived Data Administrator	This terminator represents the human operator who provides overall data management, administration, and monitoring duties for the ITS data archive. Unlike the manager of the operational databases, the archive data administrator's role is focused on the archive and covers areas such as establishing user authentication controls, monitoring data quality, and initiating data import requests.
Archived Data User Systems	This terminator represents the systems users employ to access archived data. The general interface provided from this terminator allows a broad range of users (e.g., planners, researchers, analysts, and operators) and their systems (e.g., databases, models, analytical tools, and user interface devices) to acquire data and analyses results from the archive.
Basic Vehicle	This terminator represents the basic vehicle platform that interfaces with and hosts ITS electronics. The Basic Vehicle terminator provides an interface to drive train, driver convenience and entertainment systems, and other non-ITS electronics on-board the vehicle. This interface allows general vehicle systems (e.g., the stereo speaker system) to be shared by ITS and non-ITS services. It also allows monitoring and control of the vehicle platform for advanced vehicle control system applications.
Commercial Vehicle	The actual commercial vehicle along with the special aspects of large commercial vehicles and vehicles designed to carry cargo that extend beyond the characteristics defined for the Basic Vehicle. This terminator thus represents a special type of Basic Vehicle that is used to transport goods or services, which are operated by professional drivers, typically administered as part of a larger fleet, and regulated by a Commercial Vehicle Manager. This classification applies to all such vehicles ranging from small panel vans used in local pick-up and delivery services to large, multi-axle tractor-trailer rigs operating on long haul routes.
Commercial Vehicle Driver	This terminator represents the human entity that operates vehicles transporting goods including both long haul trucks and local pick up and delivery vans. This terminator is complementary to the Driver terminator in that it represents those interactions that are unique to Commercial Vehicle Operations. In general, a "real world" commercial vehicle driver will interact as both a Driver and a CVO Driver. Data flowing from the Commercial Vehicle Driver terminator will include those system inputs specific to Commercial Vehicle Operations, such as information back to the Commercial Vehicle Manager. Data flowing to the Commercial Vehicle Driver may include system outputs such as commands to pull into a roadside safety inspection facility. Showing the Driver as the external interface includes the user interface devices within the ITS architecture boundary. The CVO Driver will be expected to interact with the ITS with interface devices designed to provide support for their usage.

Table B.1 (Continued)

NAME	DESCRIPTION
Construction and Maintenance	This terminator represents the information systems that are used to manage and track construction and maintenance of the roadway infrastructure. Roadway maintenance personnel, roadway construction personnel, or other work crew personnel assigned to highway construction and maintenance use these Construction and Maintenance systems. Coordination with these systems allows the ITS architecture to rapidly correct deficiencies noted through its advanced surveillance capabilities and also improves the quality and accuracy of information available to Travelers regarding closures and other roadway construction and maintenance activities.
CVO Inspector	This terminator represents the human entities who perform regulatory inspection of Commercial Vehicles in the field. CVO Inspectors support the roadside inspection, weighing, and checking of credentials either through automated pre-clearance or manual methods. The CVO Inspector is an inspection and enforcement arm of the regulatory agencies with frequent direct interface with the Commercial Vehicles and their Drivers.
Driver	This terminator represents the human entity that operates a licensed vehicle on the roadway. Included are operators of private, Transit, Commercial, and Emergency vehicles where the data being sent or received is not particular to the type of vehicle. Thus this external terminator originates driver requests and receives driver information that reflects the interactions that might be useful to all drivers, regardless of vehicle classification. The Driver terminator is the operator of the Basic Vehicle terminator. Information and interactions that are unique to drivers of a specific vehicle type (e.g., fleet interactions with transit, commercial, or emergency vehicle drivers) are covered separately.
Emergency Personnel	This terminator represents personnel that are responsible for police, fire, emergency medical services, towing, and other special response team (e.g., hazardous material clean-up) activities at an incident site. These personnel are associated with the Emergency Vehicle Subsystem during dispatch to the incident site, but often work independently of the Emergency Vehicle Subsystem while providing their incident response services. Emergency personnel may include an Officer in Charge (OIC) and a crew. When managing an incident following standard Incident Command System practices, the on-site emergency personnel form an organizational structure under the auspices of an Incident Commander.
Emergency System Operator	This terminator represents the human entity that monitors all ITS emergency requests, (including those from the E911 Operator) and sets up pre-defined responses to be executed by an emergency management system. The operator may also override predefined responses where it is observed that they are not achieving the desired result. This terminator includes dispatchers who manage an emergency fleet (police, fire, ambulance, HAZMAT, etc.), or higher order emergency managers who provide response coordination during emergencies.

Table B.1 (Continued)

NAME	DESCRIPTION
Emergency Telecommunication System	This terminator represents the telecommunications systems that connect a caller with a Public Safety Answering Point (PSAP). These systems transparently support priority wireline and wireless caller access to the PSAP through 9-1-1 and other access mechanisms like 7 digit local access numbers, and motorist aid call boxes. The calls are routed to the appropriate PSAP, based on caller location when this information is available. When available, the caller's location and call-back number are also provided to the PSAP by this interface.
Enforcement Agency	This terminator represents an external entity which receives reports of violations detected by various ITS facilities, e.g. individual vehicle emissions, toll violations, CVO violations, etc.
Environment	This terminator is the operational setting in which the ITS interfaces and operates. This setting consists of weather effects such as snow, rain, fog, pollution, dust, temperature, humidity, solar radiation, and man made electromagnetic (RF) effects. Environmental conditions must be monitored by the ITS Architecture so that Travelers may be informed and control strategies can reflect adverse environmental conditions in a timely fashion.
Event Promoters	This terminator represents external Special Event Sponsors that have knowledge of events that may impact travel on roadways or other modal means. Examples of special event sponsors include sporting events, conventions, motorcades/parades, and public/political events. These promoters interface to the ITS to provide event information such as date, time, estimated duration, location, and any other information pertinent to traffic movement in the surrounding area.
Financial Institutions	This terminator represents the organization that handles all electronic fund transfer requests to enable the transfer of funds from the user of the service to the provider of the service. The functions and activities of financial clearinghouses are subsumed by this entity.
Government Reporting Systems	This terminator represents the system and associated personnel that prepare the inputs to support the various local, state, and federal government transportation data reporting requirements (e.g. Highway Performance Monitoring System, Fatal Analysis Reporting System) using data collected by ITS services. This terminator represents a system interface that would provide access to the archived data that is relevant to these reports. In most cases, this terminator would manually combine data collected from the ITS archives with data from non ITS sources to assemble and submit the required information.
Intermodal Freight Depot	A Depot operated either by an ITS Freight manager or an alternate mode freight shipper which is capable of tracking cargo as it is moved from one mode to another.
ISP Operator	This terminator is the human entity that may be physically present at the ISP to monitor the operational status of the facility and provide human interface capabilities to travelers and other ISP subsystems.

Table B.1 (Continued)

NAME	DESCRIPTION
Location Data Source	This terminator represents an external entity that provides accurate position information. External systems that use global positioning system (GPS), terrestrial trilateration, or driver inputs are potential examples. This terminator contains sensors such as radio position receivers (e.g. GPS) and/or dead reckoning sensors (e.g. odometer, differential odometer, magnetic compass, gyro, etc.). This external implies that some additional functionality associated with developing an absolute position is outside the system and will not be directly modeled by the logical or physical architecture representations of the system.
Map Update Provider	This terminator represents a third-party developer and provider of digitized map databases used to support ITS services. It supports the provision of the databases that are required exclusively for route guidance (navigable_map) as well as those that are used exclusively for display by operators and at traveler information points, e.g. kiosks (display_map).
Media	This terminator represents the information systems that provide traffic reports, travel conditions, and other transportation-related news services to the traveling public through radio, TV, and other media. Traffic and travel advisory information that is collected by ITS is provided to this terminator. It is also a source for traffic flow information, incident and special event information, and other events that may have implications for the transportation system.
Multi-Modal Transportation Service Provider	This terminator provides the interface through which Transportation Service Providers can exchange data with ITS. They are the operators of non-roadway transportation systems (e.g. airlines, ferry services, passenger carrying heavy rail). This two-way interface enables coordination for efficient movement of people across multiple transportation modes. It also enables the traveler to efficiently plan itineraries which include segments using modes not directly included in the ITS User Services.
Other Archives	This terminator represents distributed archived data systems or centers whose data can be accessed and shared with a local archive. The interface between the Other Archives Terminator and the Archived Data Management Subsystem allows data from multiple archives to be accessed on demand or imported and consolidated into a single repository.
Other CVAS	This terminator is intended to provide a source and destination for ITS data flows between peer (e.g. inter-regional) commercial vehicle administration functions. It enables commercial vehicle administration activities to be coordinated across different jurisdictional areas. In the Physical Architecture, this terminator is a reciprocal Commercial Vehicle Administration Subsystem (CVAS).
Other Data Sources	This terminator represents the myriad systems and databases containing data not generated from subsystems and terminators represented in the National ITS Architecture that can provide predefined data sets to the ITS archive. The terminator can provide economic, cost, demographic, land use, law enforcement, and other data that is not collected by ITS services and would otherwise be unavailable within an ITS data archive.

Table B.1 (Continued)

NAME	DESCRIPTION
Other EM	Representing other Emergency Management centers, systems or subsystems, this terminator provides a source and destination for ITS data flows between various communications centers operated by public safety agencies as well as centers operated by other allied agencies and private companies that participate in coordinated management of highway-related incidents. The interface represented by this terminator enables emergency management activities to be coordinated across jurisdictional boundaries and between functional areas. In the Physical Architecture this terminator is a reciprocal Emergency Management Subsystem implying the requirements for general networks connecting many allied agencies. The interface between this terminator and the Emergency Management Subsystem supports coordination of incident management information between many different centers providing Public Safety Answering Point (both public or private sector implementations), Public Safety Dispatch, Emergency Operations, and other functions that participate in the detection, verification, response, and clearance of highway incidents. This terminator also supports interface to other allied agencies like utility companies that also participate in the coordinated response to selected highway-related incidents.
Other ISP	Representing other distinct ISP's, this terminator is intended to provide a source and destination for ITS data flows between peer information and service provider functions. It enables cooperative information sharing between providers as conditions warrant. In the Physical Architecture this terminator is a reciprocal ISP Subsystem.
Other Parking	Representing another parking facility, system or subsystem, this terminator provides a source and destination for information that may be exchanged between peer parking systems. This terminator enables parking management activities to be coordinated between different parking operators or systems in a region. In the physical architecture this terminator is a reciprocal Parking Management Subsystem.
Other TM	Representing another TMC, system or subsystem, this terminator is intended to provide a source and destination for ITS data flows between peer (e.g. inter-regional) traffic management functions. It enables traffic management activities to be coordinated across different jurisdictional areas. In the Physical Architecture this terminator is a reciprocal Traffic Management Subsystem (TMS).
Other TRM	Representing another TMC, system or subsystem, this terminator is intended to provide a source and destination for ITS data flows between peer (e.g. inter-regional) transit management functions. It enables traffic management activities to be coordinated across geographic boundaries or different jurisdictional areas. In the Physical Architecture this terminator represents a Reciprocal Transit Management Subsystem (RTMS).
Other Vehicle	This terminator represents a vehicle (of any 4 vehicle types) that is neighboring the Basic Vehicle, where the Basic Vehicle is equipped to support vehicle-to-vehicle communication and coordination. These features are associated with advanced vehicle safety User Service implementations. These high-end vehicle control services may involve vehicles coordinating their activities.

Table B.1 (Continued)

NAME	DESCRIPTION
Parking Operator	This terminator is the human entity that may be physically present at the parking lot facility to monitor the operational status of the facility.
Payment Instrument	This terminator represents the entity that enables the actual transfer of funds from the user of a service to the provider of the service. This terminator can be as abstract as an account number in the logical architecture, or as real as the electronic tag in the Physical architecture.
Roadway	This terminator represents the physical conditions and geometry of the surface on which vehicles travel from an origin to a destination. Roadways can vary in type, such as surface streets, arterials, multi-lane highways, 2-lane rural roads, expressways, tollways, freeways, or any other vehicle travel surface. The condition of the roadway must be monitored by the architecture to enable corrective action and information dissemination regarding roadway conditions which may adversely affect travel. Roadways can also depict travel networks, such as surface street networks, arterial networks, or freeway networks. The roadway interface to the system carries the physical condition and geometry attributes that must be sensed, interpreted, and processed by functions internal to the system to achieve ITS User Service functionality.
Secure Area Environment	This terminator comprises public access areas that transit users frequent during trips. Areas include bus stops, park-and-ride (PAR) facilities, at kiosks, and other transit transfer locations. These environments are monitored as part of the ITS Architecture functions to promote transit safety.
Toll Administrator	The Toll Administrator is the human entity that manages the back office payment administration systems for a electronic toll system. This terminator monitors the systems that support the electronic transfer of authenticated funds from the customer to the system operator. The terminator monitors customer enrollment and supports the establishment of escrow accounts depending on the clearinghouse scheme and the type of payments involved. The terminator also establishes and administers the pricing structures and policies.
Toll Operator	The Toll Operator is the human entity that may be physically present at the toll plaza to monitor the operational status of the plaza.
Traffic	The Traffic terminator represents the collective body of vehicles that travel on surface streets, arterials, highways, expressways, tollways, freeways, or any other vehicle travel surface. Traffic depicts the vehicle population from which traffic flow surveillance information is collected (average occupancy, average speed, total volume, average delay, etc.), and to which traffic control indicators are applied (intersection signals, stop signs, ramp meters, lane control barriers, variable speed limit indicators, etc.). All sensory and control elements that interface to this vehicle population are internal to ITS.

Table B.1 (Continued)

NAME	DESCRIPTION
Traffic Operations Personnel	This terminator represents the human entity that directly interfaces with vehicle traffic operations. These personnel interact with traffic control systems, traffic surveillance systems, incident management systems, work zone management systems, and travel demand management systems to accomplish ITS services. They provide operator data and command inputs to direct systems' operations to varying degrees depending on the type of system and the deployment scenario. All functionality associated with these services that might be automated in the course of ITS deployment is modeled as internal to the architecture.
Transit Driver	This terminator represents the human entity that is a special form of the Driver terminator that receives and provides additional information that is specific to Transit (including demand responsive transit) operations. This information will not be received by other types of Drivers. The Transit Driver terminator operates the Transit Vehicle terminator and represents random route drivers, flexible fixed route drivers and fixed route drivers. The fixed route drivers require minimal information such as run times and passenger loading. The flexible, fixed, and random route drivers require additional information such as dynamically changing routes.
Transit Fleet Manager	This terminator represents the human entity that is responsible for planning the operation of transit fleets, including monitoring and controlling the transit fleet route schedules and the transit fleet maintenance schedules. This comprises planning routes and schedules for either daily use or for special occasions as distinct from making day-to-day variations to schedules and routes.
Transit System Operators	This terminator represents the human entities that are responsible for all aspects of the Transit subsystem operation including planning and management. They actively monitor, control, and modify the transit fleet routes and schedules on a day-to-day basis. The modifications will be to take account of abnormal situations such as vehicle breakdown, vehicle delay, etc. These personnel may also be responsible for demand responsive transit operation and for managing emergency situations within the transit network.
Transit User	This terminator represents the human entities using Public Transit vehicles. They may be in the act of embarking or debarking the vehicles and are thus sensed for the purpose of determining passenger loading and fares, or on the vehicles and able to request and receive information.
Transit Vehicle	This terminator represents a specialized form of the Basic Vehicle used by transit service providers. It supports equipment to collect fares, monitor activities, request priority at signals, and provide information to travelers. It may be a bus, LRT vehicle, or other vehicle specially designed for the carriage of passengers, such as those used by demand responsive transit operators. The monitoring of the Transit Vehicle mechanical condition and mileage provides the major inputs for transit vehicle maintenance scheduling.

Table B.1 (Continued)

NAME	DESCRIPTION
Traveler	This terminator represents any individual (human) who uses transportation services. At the time that data is passed to or from the terminator the individual is neither a driver, pedestrian, or transit user. This means that the data provided is that for pre-trip planning or multi-Modal personal guidance and includes their requests for assistance in an emergency. Subsequent to receipt of pre-trip information, a Traveler may become a vehicle driver, passenger, transit user, or pedestrian.
Vehicle Characteristics	This terminator represents the external view of an individual vehicle. It includes vehicle characteristics such as height, width, length, weight, and other properties (e.g., magnetic properties, number of axles) that allow an individual vehicle to be detected and measured or classified. This external view of an individual vehicle is also used as a source of visible data that supports individual vehicle imaging requirements in the architecture. ITS subsystems at the roadside sense these characteristics and generate ITS data flows. These individual vehicle characteristics are important for toll collection, parking management, and other applications that identify and measure individual vehicles. See also the related "Traffic" terminator, which represents physical characteristics of many vehicles in the aggregate that is measured for general traffic applications.
Weather Service	This terminator provides weather, hydrologic, and climate information and warnings of hazardous weather including thunderstorms, flooding, hurricanes, tornadoes, winter weather, tsunamis, and climate events. It provides current and forecast weather data that is collected and derived by the National Weather Service, private sector providers, and various research organizations. The interface provides formatted weather data products suitable for on-line processing and integration with other ITS data products as well as Doppler radar images, satellite images, severe storm warnings, and other products that are formatted for presentation to various ITS users.
Yellow Pages Service Providers	This terminator represents the individual organizations that provide any service oriented towards the Traveler. Example services that could be included are gas, food, lodging, vehicle repair, points of interest, and recreation areas. The Service Providers may pay a fee to have their services advertised to travelers. The interface with the Service Provider is necessary so that accurate, up-to-date service information can be provided to the traveler and to support electronic reservation capabilities included in the ITS User Services.

Appendix C

FIHS Corridor ITS Physical Entities

Figure C.1 – District 1 I-75 Corridor ITS Physical Entities

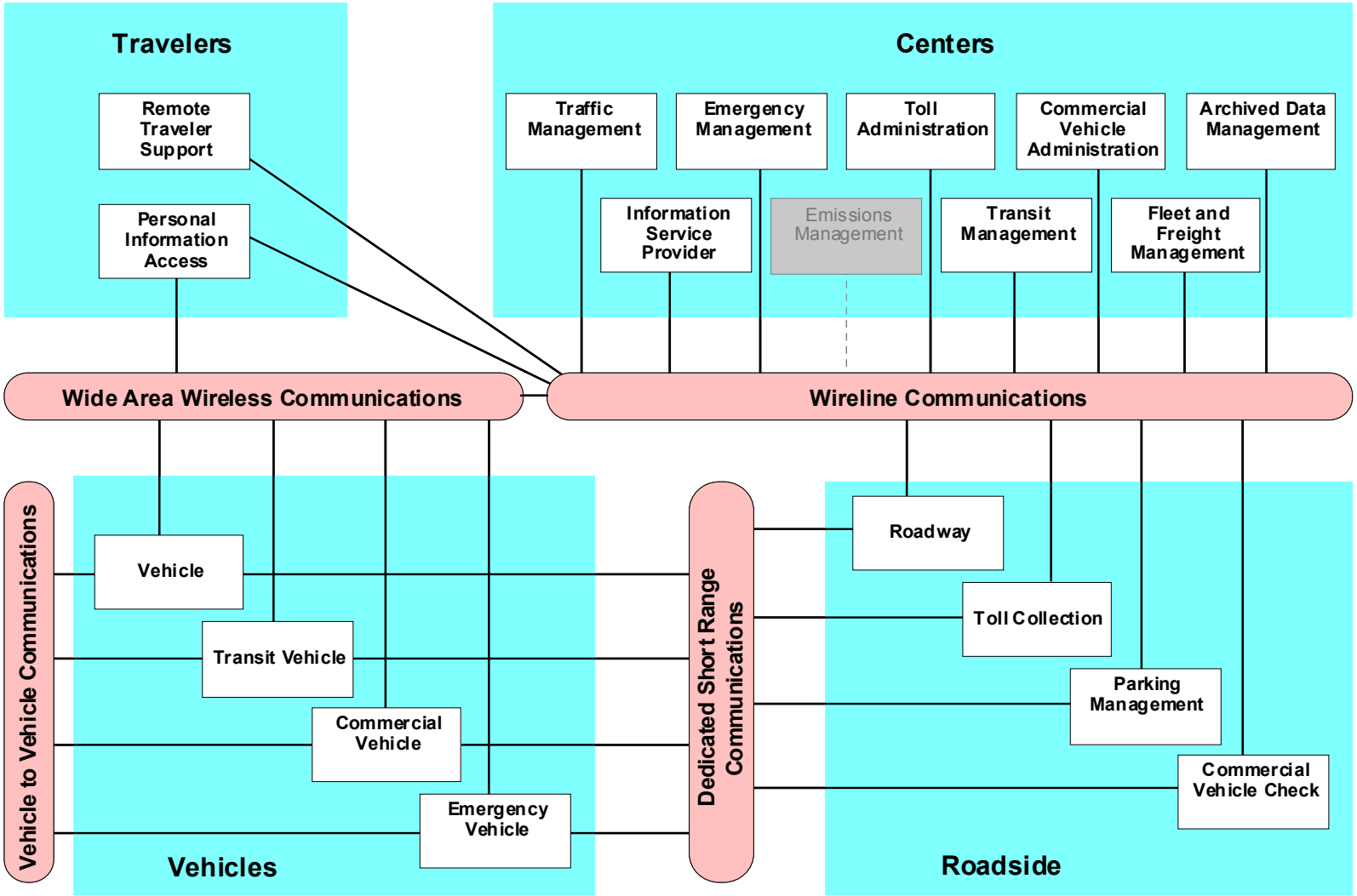


Figure C.2 – District 2 I-10 Corridor ITS Physical Entities

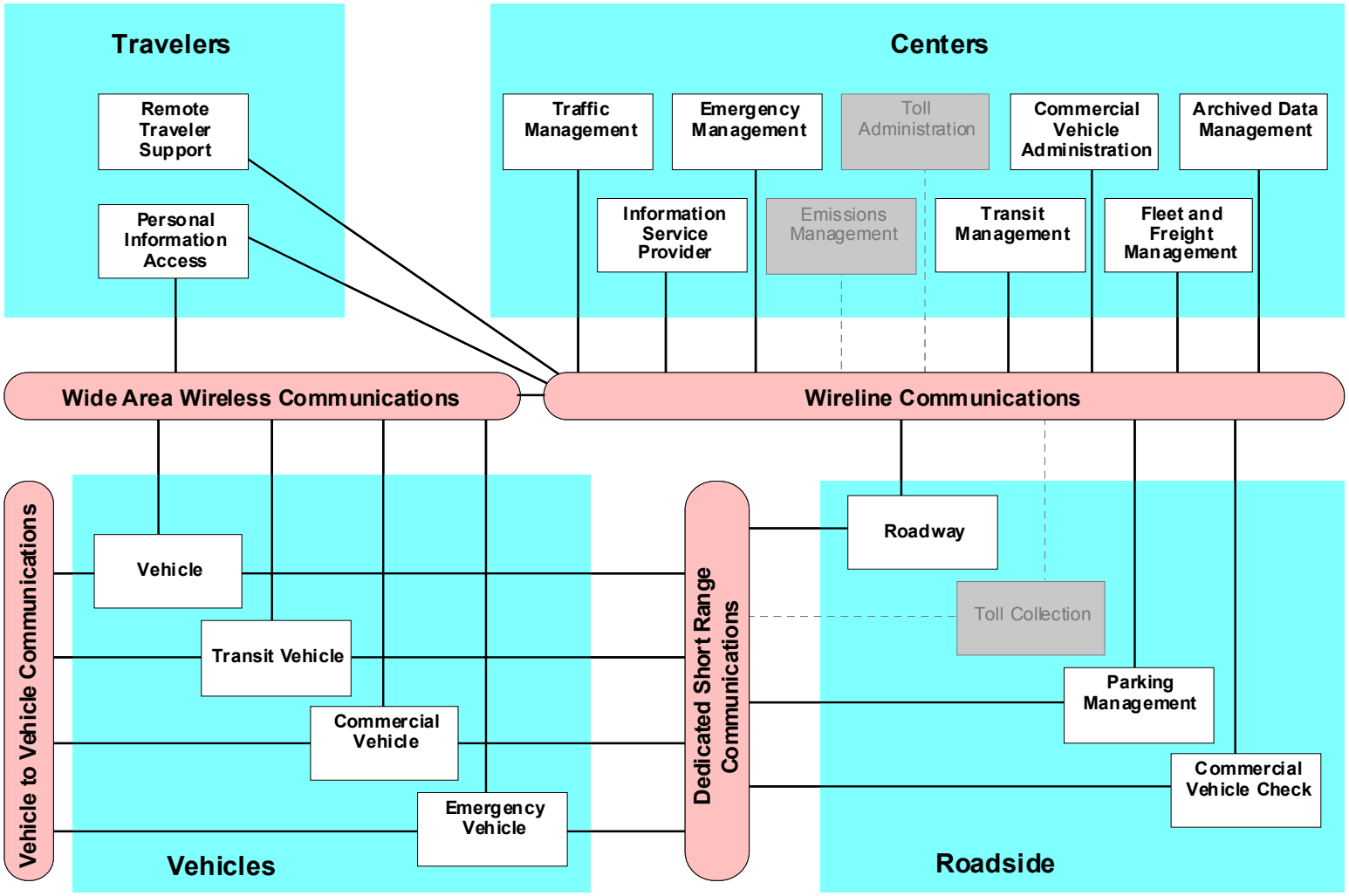


Figure C.3 – District 2 I-75 Corridor ITS Physical Entities

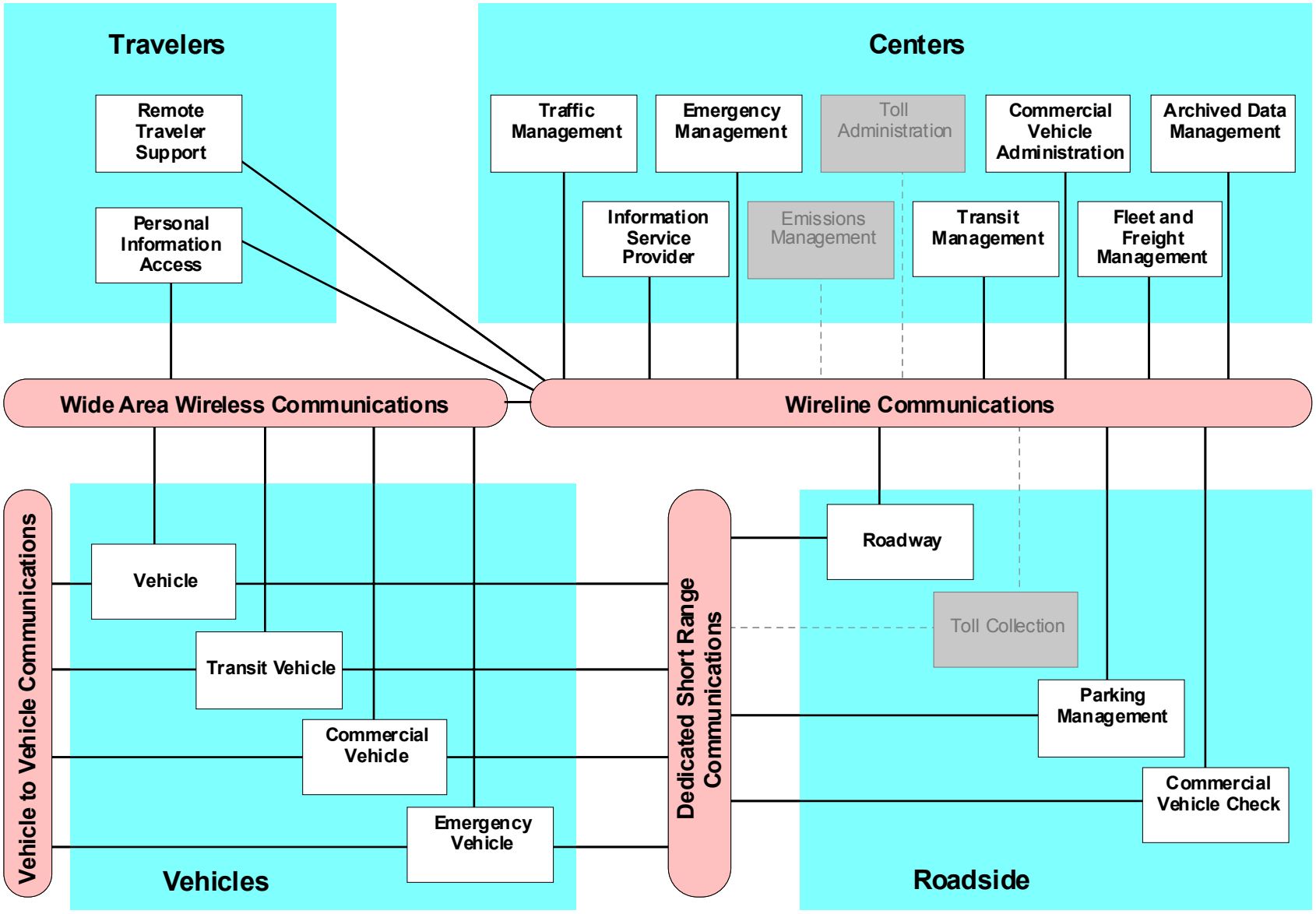


Figure C.4 – District 2 I-95 Corridor ITS Physical Entities

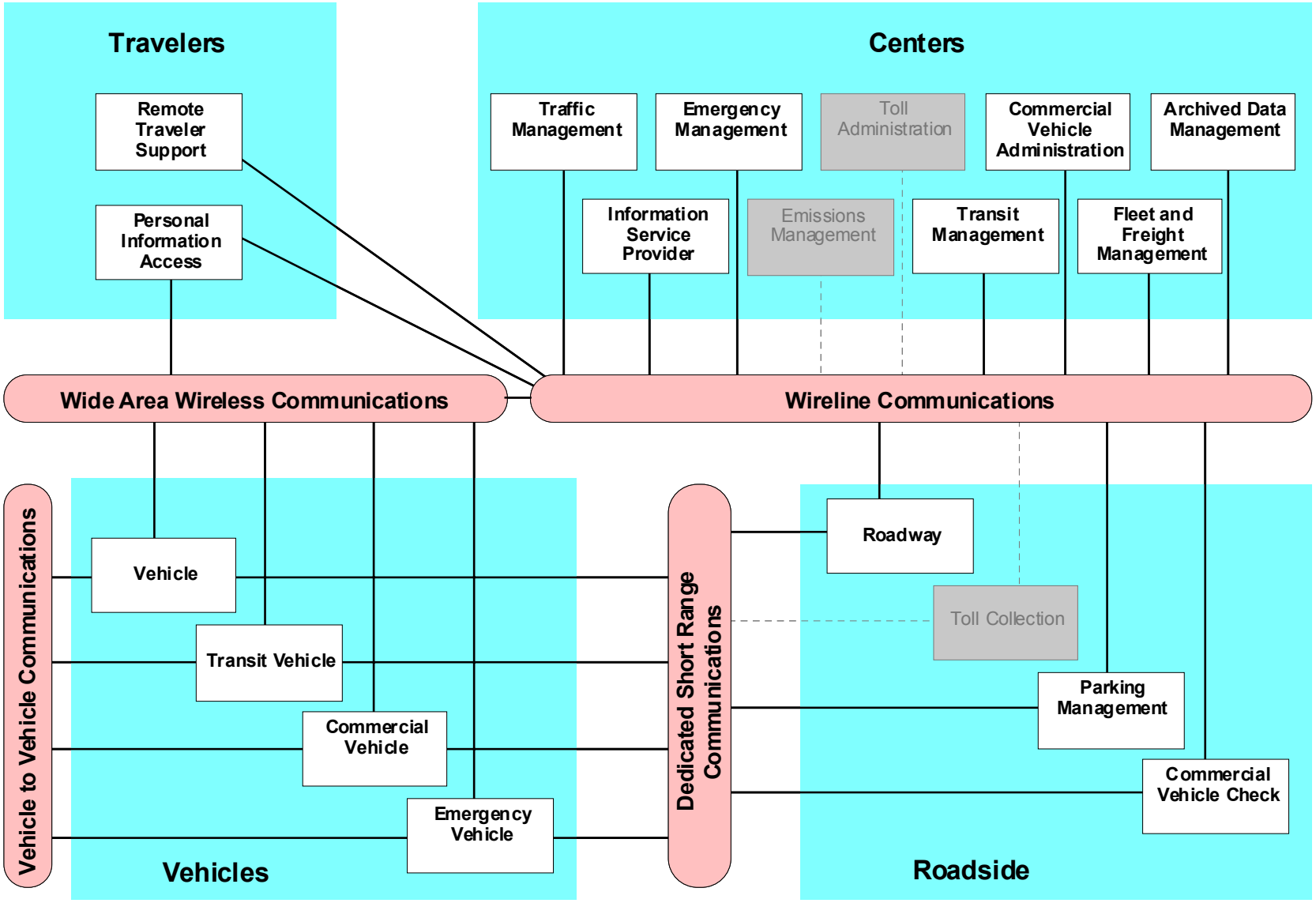


Figure C.5 – District 3 I-10 Corridor ITS Physical Entities

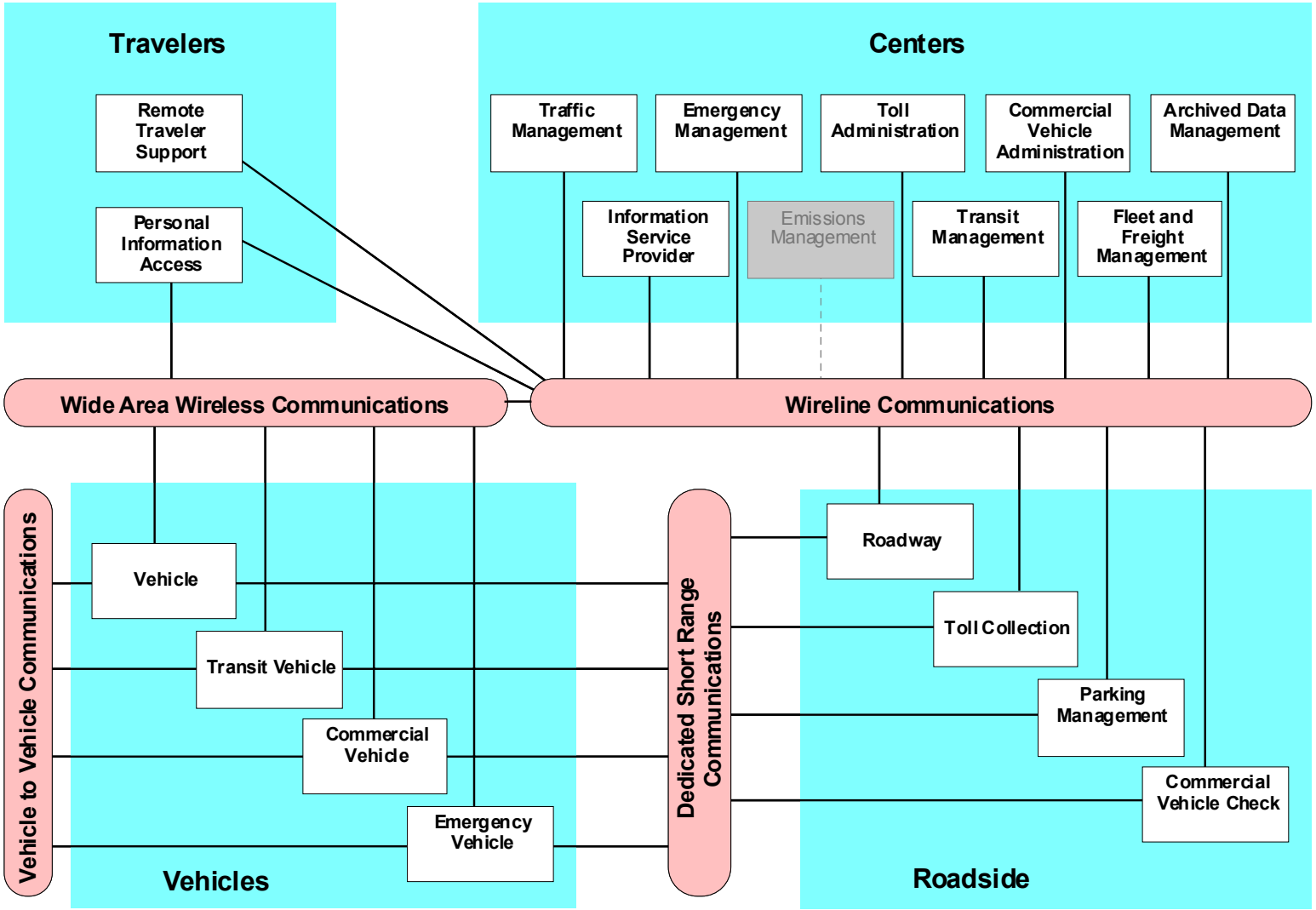


Figure C.6 – District 4 I-75 Corridor ITS Physical Entities

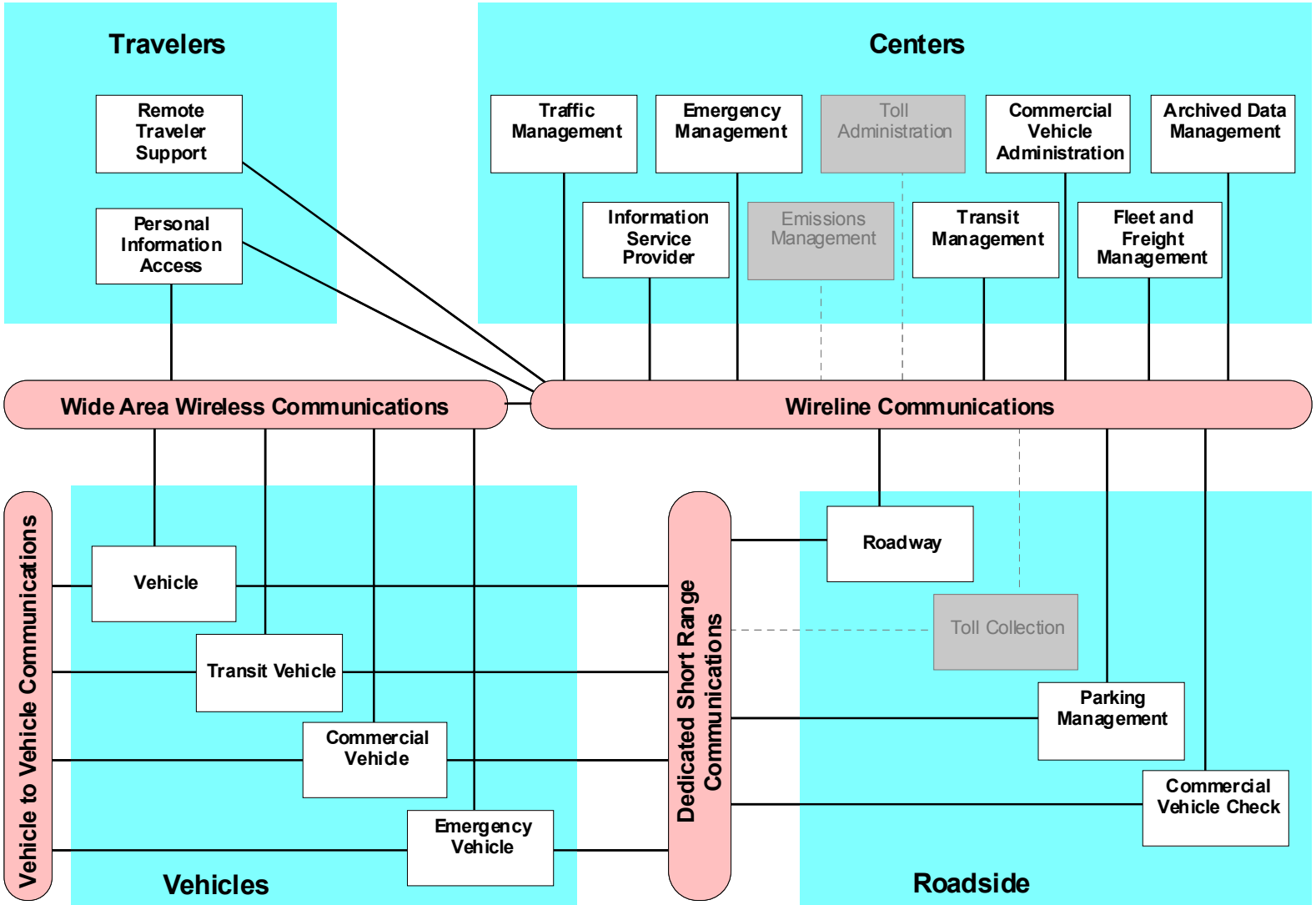


Figure C.7 – District 4 I-95 Corridor ITS Physical Entities

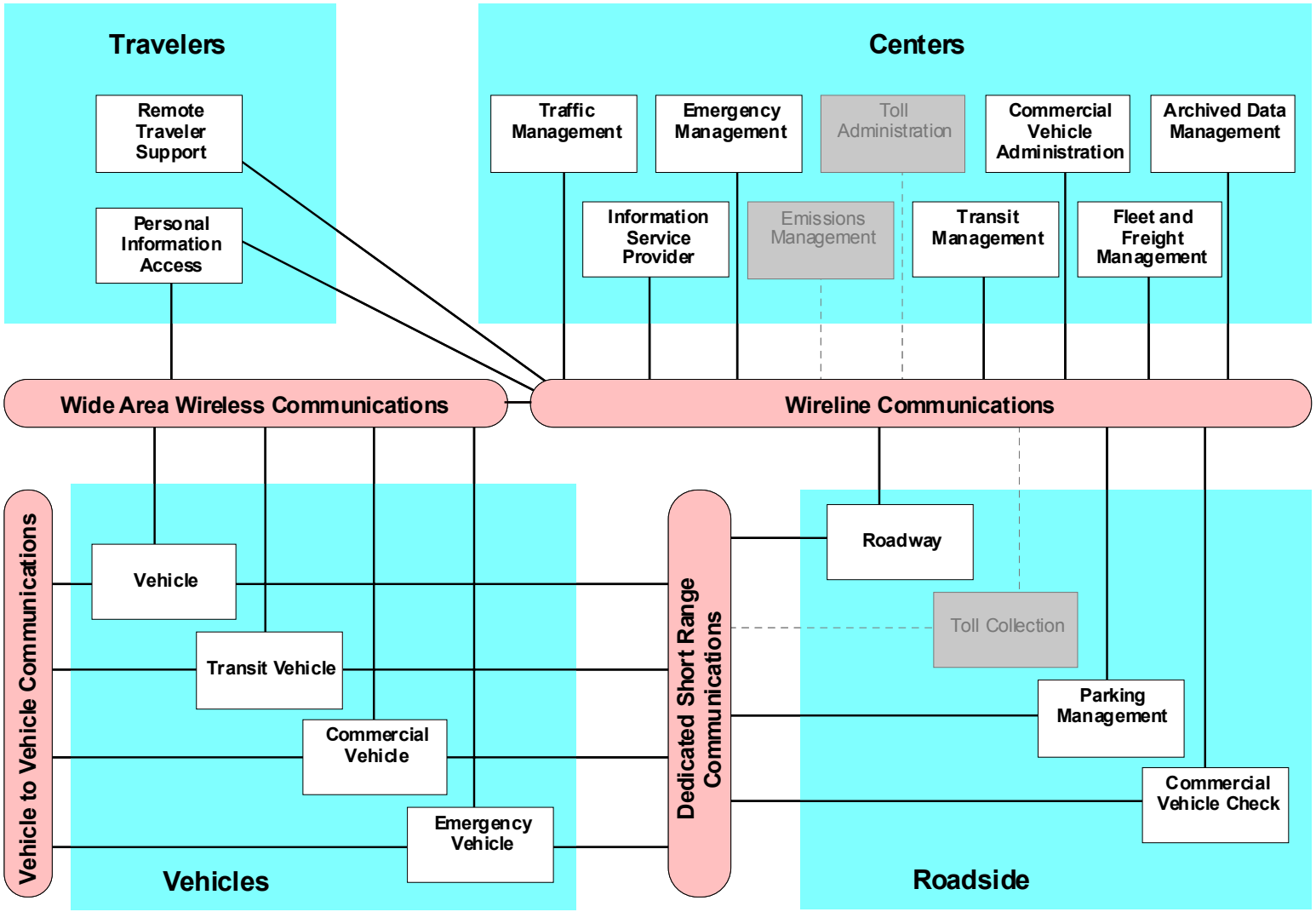


Figure C.8 – District 5 I-75 Corridor ITS Physical Entities

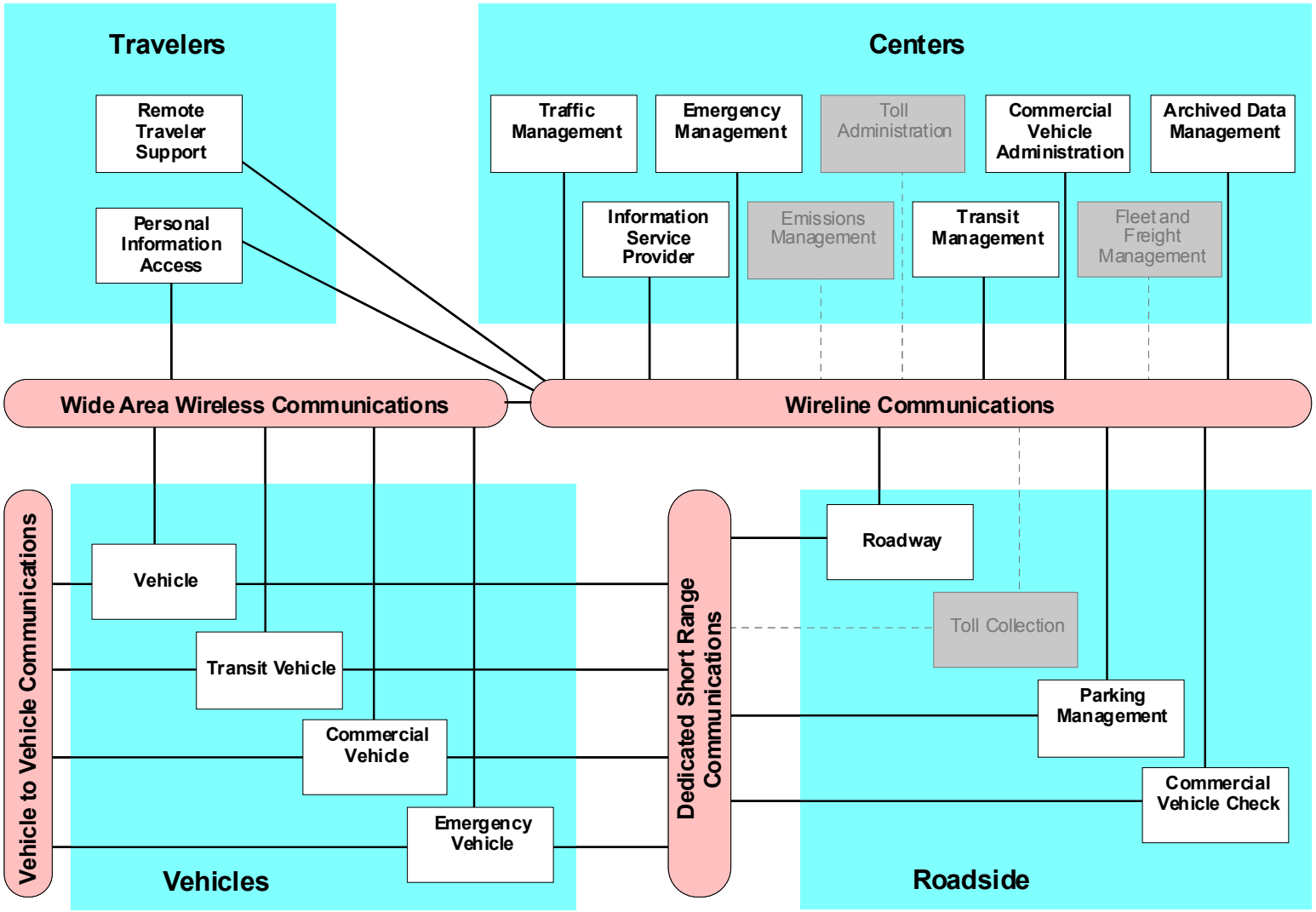


Figure C.9 – District 5 I-95 Corridor ITS Physical Entitles

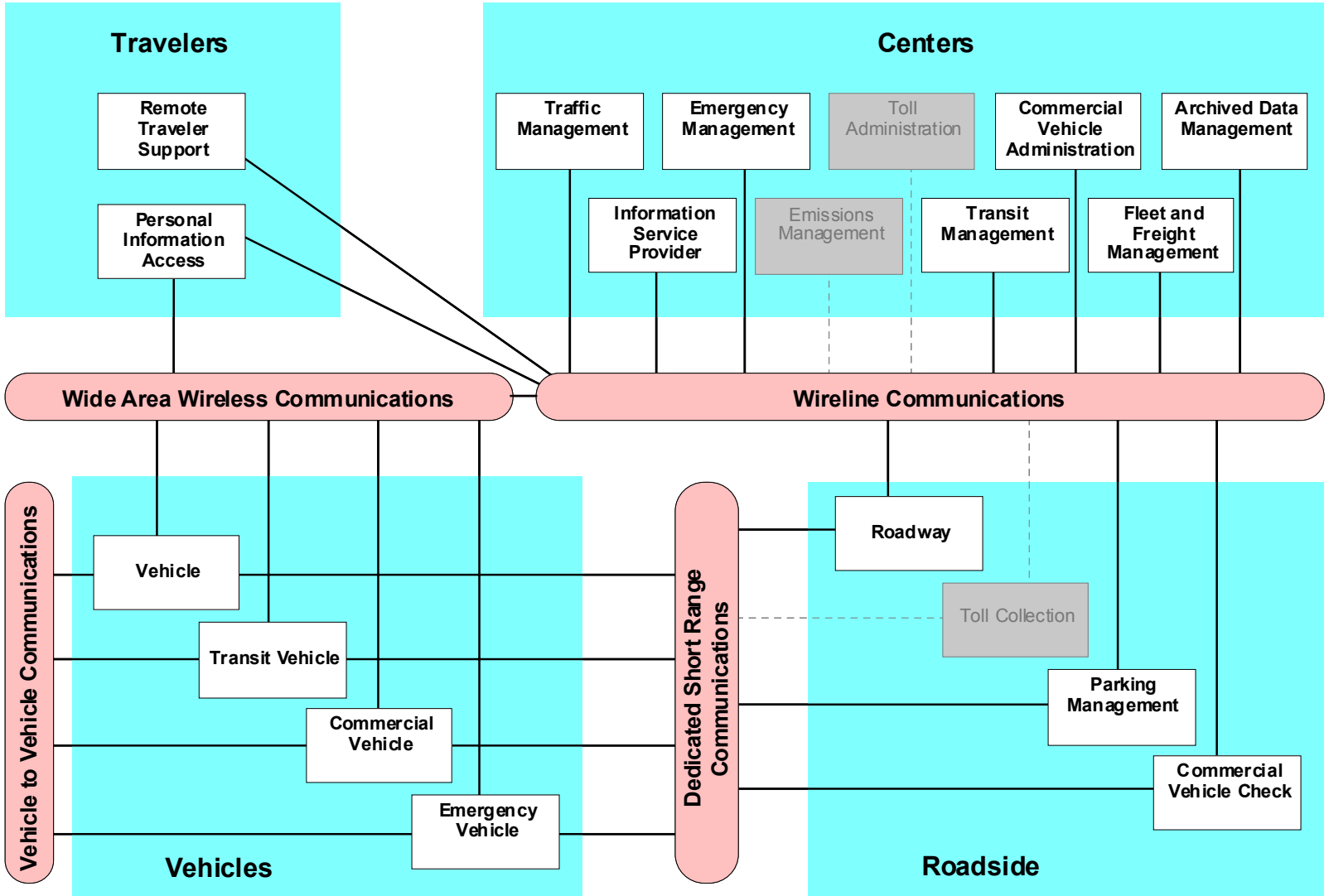


Figure C.10 – District 6 I-75 Corridor ITS Physical Entities

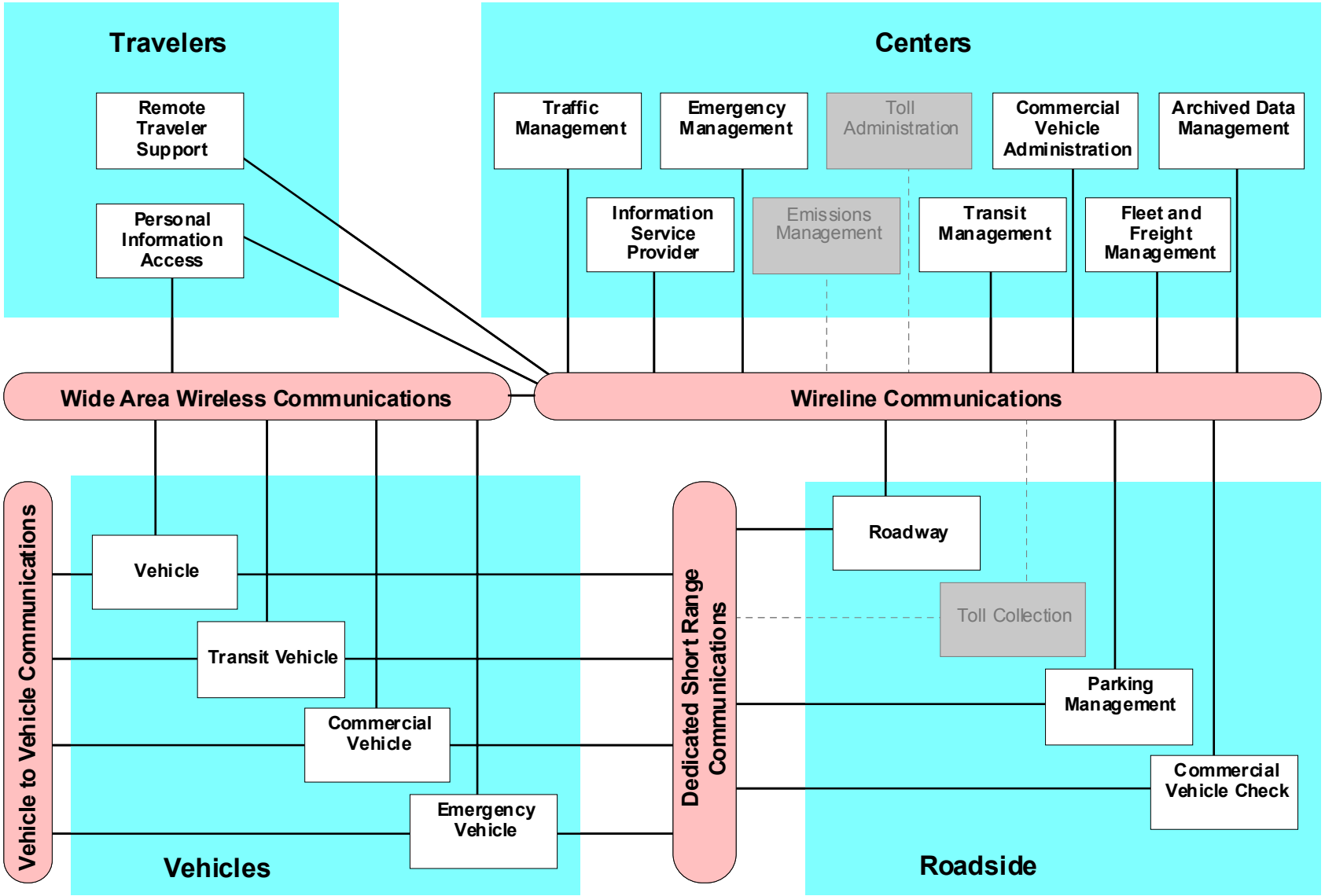


Figure C.11 – District 6 I-95 Corridor ITS Physical Entities

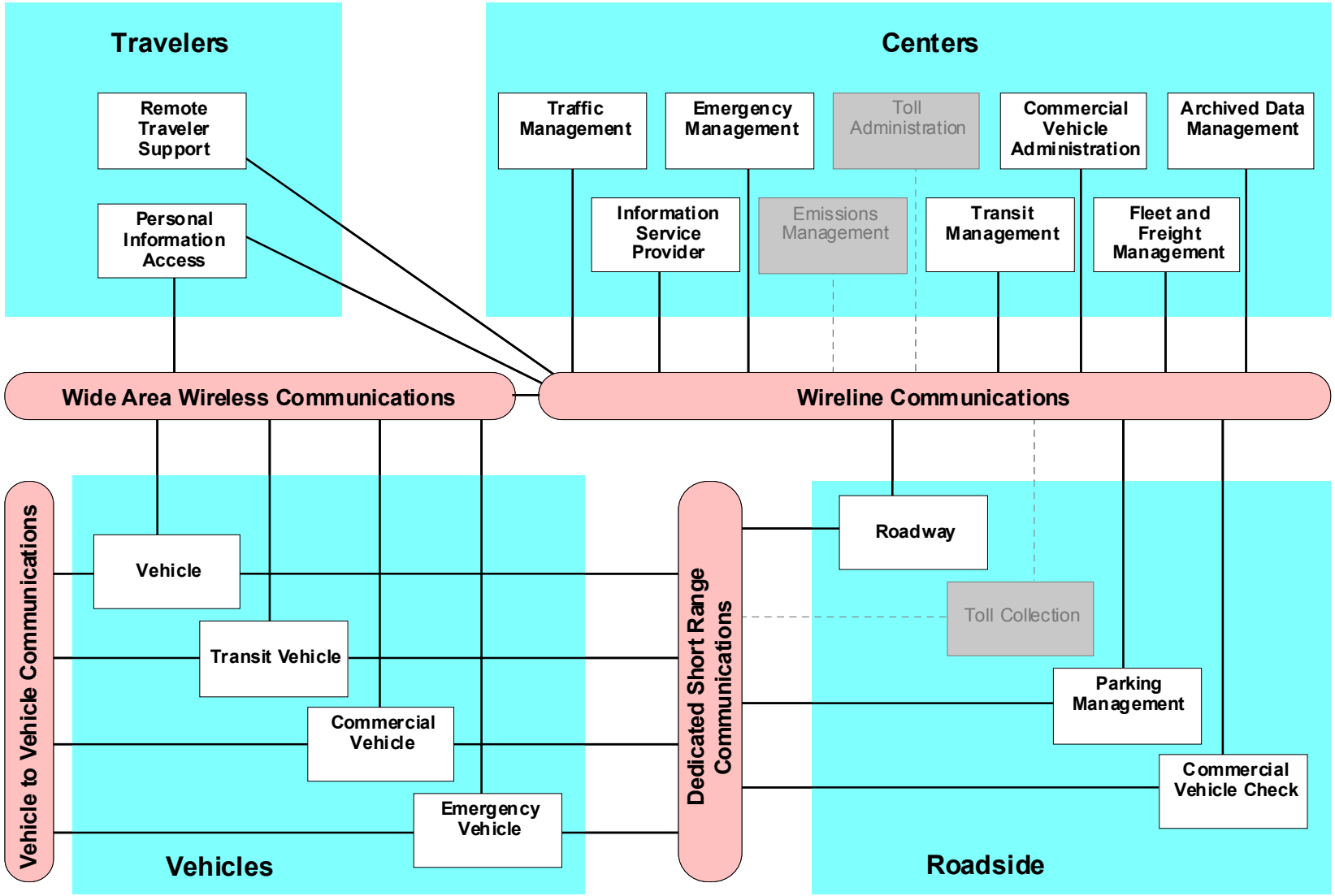


Figure C.12 – District 7 I-75 Corridor ITS Physical Entities

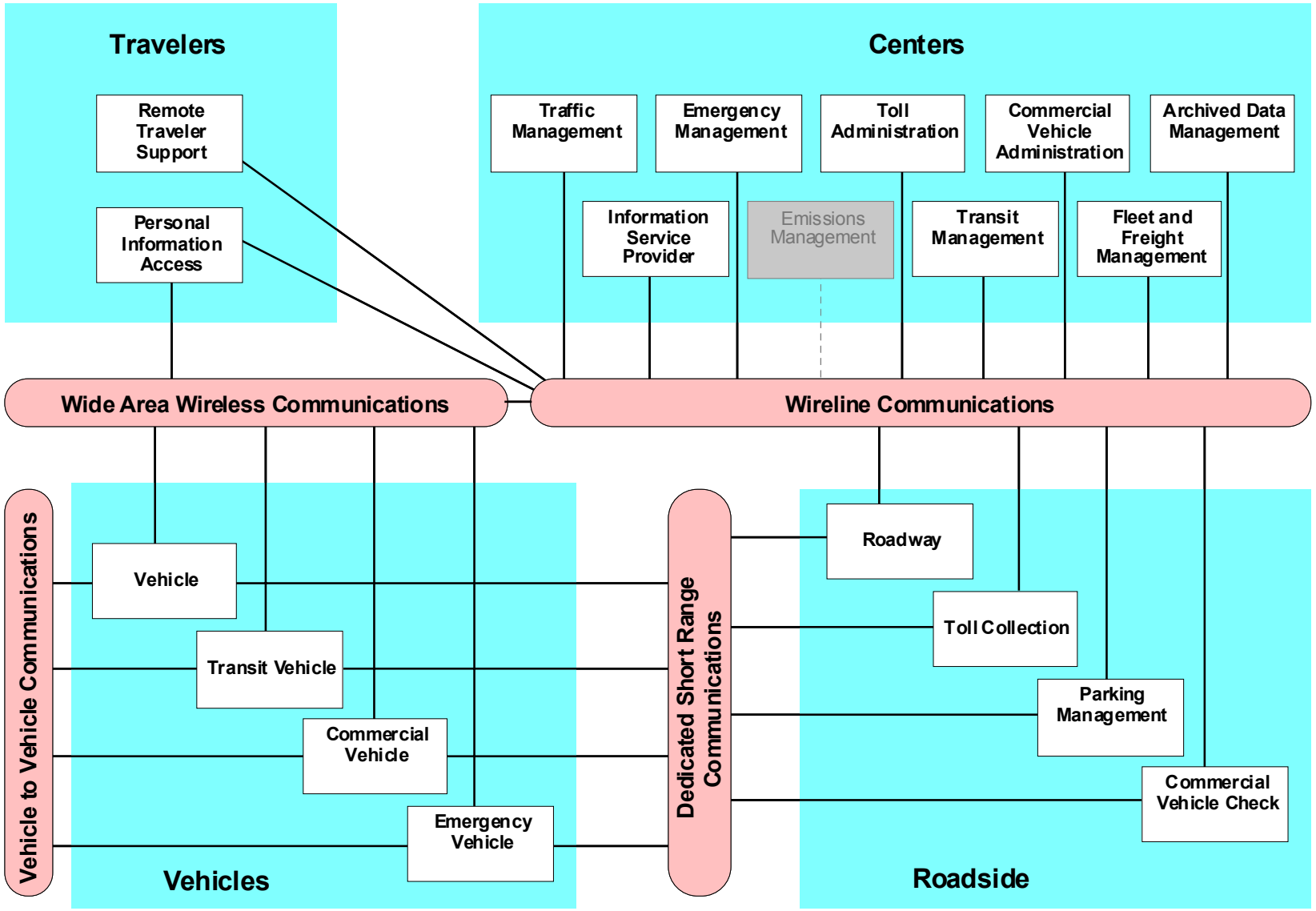


Figure C.13 – I-4 Corridor ITS Physical Entities

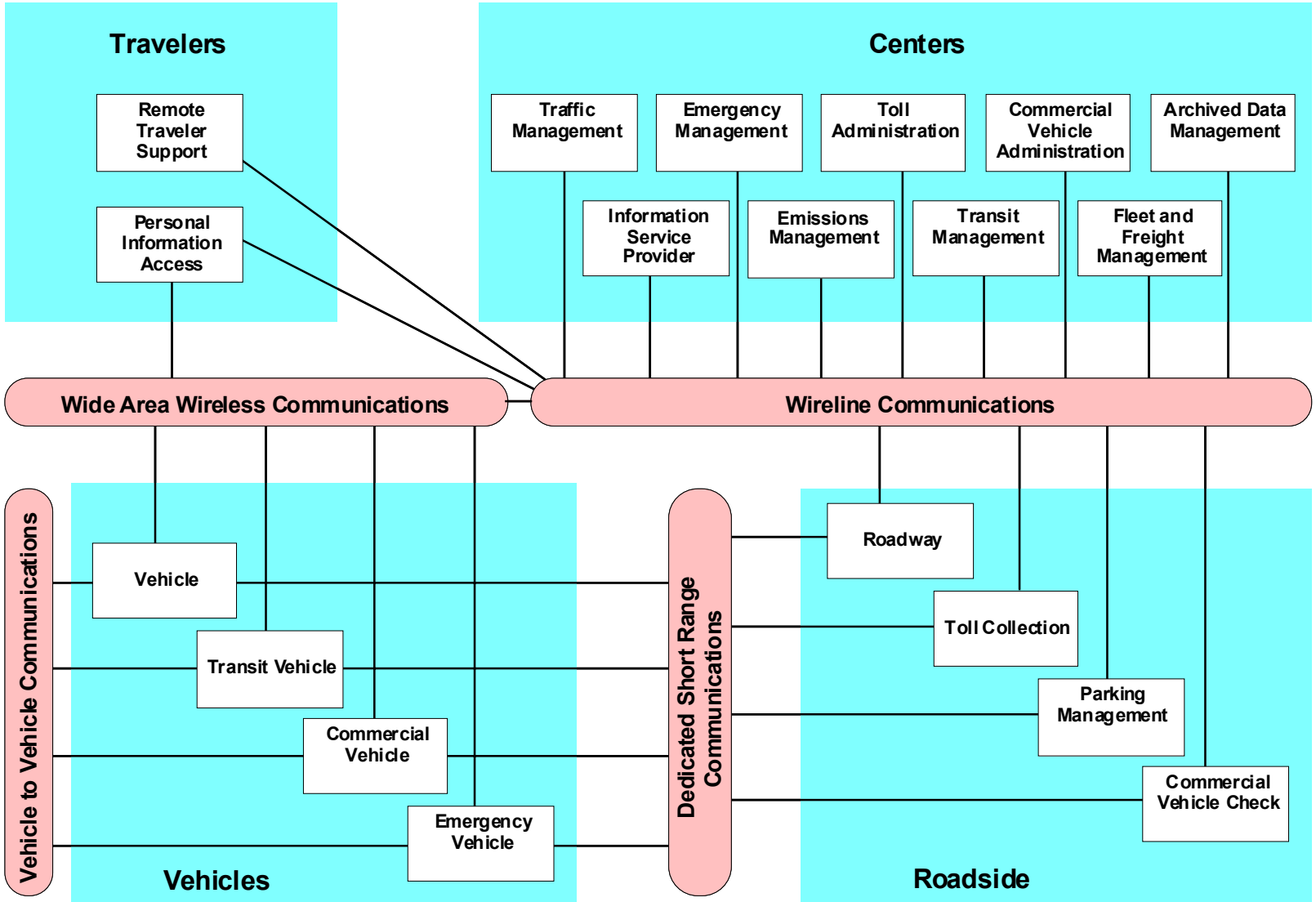
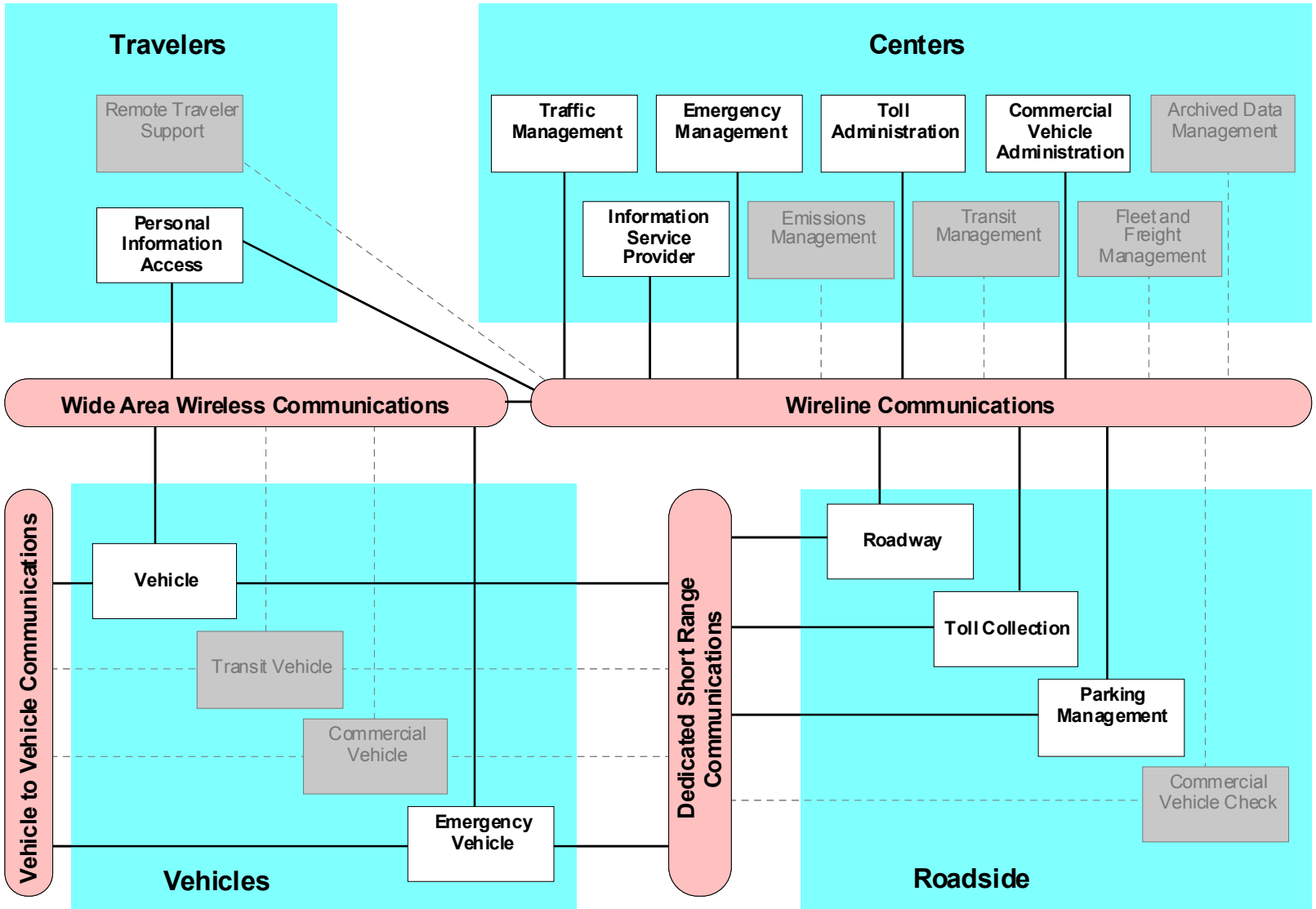


Figure C.14 – Turnpike Corridor ITS Physical Entities



Appendix D

ITS Subsystem Descriptions

Table D.1 – Center Subsystems

NAME	DESCRIPTION
Archived Data Management Subsystem	The Archived Data Management Subsystem collects, archives, manages, and distributes data generated from ITS sources for use in transportation administration, policy evaluation, safety, planning, performance monitoring, program assessment, operations, and research applications. The data received is formatted, tagged with attributes that define the data source, conditions under which it was collected, data transformations, and other information (i.e. meta data) necessary to interpret the data. The subsystem can fuse ITS generated data with data from non-ITS sources and other archives to generate information products utilizing data from multiple functional areas, modes, and jurisdictions. The subsystem prepares data products that can serve as inputs to Federal, State, and local data reporting systems. This subsystem may be implemented in many different ways. It may reside within an operational center and provide focused access to a particular agency's data archives. Alternatively, it may operate as a distinct center that collects data from multiple agencies and sources and provides a general data warehouse service for a region.
Commercial Vehicle Administration	The Commercial Vehicle Administration Subsystem will operate at one or more fixed locations within a region. This subsystem performs administrative functions supporting credentials, tax, and safety regulations. It issues credentials, collects fees and taxes, and supports enforcement of credential requirements. This subsystem communicates with the Fleet Management. The subsystem is associated with the motor carriers to process credentials applications and collect fuel taxes, weight/distance taxes, and other taxes and fees associated with commercial vehicle operations. The subsystem also receives applications for, and issues special Oversize/Overweight and HAZMAT permits in coordination with other cognizant authorities. The subsystem coordinates with other Commercial Vehicle Administration Subsystems (in other states/regions) to support nationwide access to credentials and safety information for administration and enforcement functions. This subsystem supports communications with Commercial Vehicle Check Subsystems operating at the roadside to enable credential checking and safety information collection. The collected safety information is processed, stored, and made available to qualified stakeholders to identify carriers and drivers that operate unsafely.
Emergency Management	The Emergency Management Subsystem operates in various emergency centers supporting public safety including police and fire stations, search and rescue special detachments, and HAZMAT response teams. This subsystem interfaces with other Emergency Management Subsystems to support coordinated emergency response involving multiple agencies. The subsystem creates, stores, and utilizes emergency response plans to facilitate coordinated response. The subsystem tracks and manages emergency vehicle fleets using automated vehicle location technology and two-way communications with the vehicle fleet. Real-time traffic information received from the other center subsystems is used to further aide the emergency dispatcher in selecting the emergency vehicle(s) and routes that will provide the timeliest response. Interface with the Traffic Management Subsystem allows strategic coordination in tailoring traffic control to support en-route emergency vehicles. Interface with the Transit Management Subsystem allows coordinated use of transit vehicles to facilitate response to

NAME	DESCRIPTION
	major emergencies.
Emissions Management	This subsystem operates at a fixed location and may co-reside with the Traffic Management Subsystem or may operate in its own distinct location depending on regional preferences and priorities. This subsystem provides the capabilities for air quality managers to monitor and manage air quality. These capabilities include collecting emissions data from distributed emissions sensors within the roadway subsystem. These sensors monitor general air quality within each sector of the area and also monitor the emissions of individual vehicles on the roadway. The sector emissions measures are collected, processed, and used to identify sectors exceeding safe pollution levels. This information is provided to toll administration, traffic management, and transit management systems and used to implement strategies intended to reduce emissions in and around the problem areas. Emissions data associated with individual vehicles, supplied by the Roadway Subsystem, is also processed and monitored to identify vehicles that exceed standards. This subsystem provides any functions necessary to inform the violators and otherwise ensure timely compliance with the emissions standards.
Fleet and Freight Management	The Fleet and Freight Management Subsystem provides the capability for commercial drivers and dispatchers to receive real-time routing information and access databases containing vehicle and cargo locations as well as carrier, vehicle, cargo, and driver information. In addition, the capability to purchase credentials electronically shall be provided, with automated and efficient connections to financial institutions and regulatory agencies, along with post-trip automated mileage and fuel usage reporting. The Fleet Management Subsystem also provides the capability for Fleet Managers to monitor the safety of their commercial vehicle drivers and fleet. The subsystem also supports application for HAZMAT credentials and makes information about HAZMAT cargo available to agencies as required.
Information Service Provider	This subsystem collects, processes, stores, and disseminates transportation information to system operators and the traveling public. The subsystem can play several different roles in an integrated ITS. In one role, the ISP provides a general data warehousing function, collecting information from transportation system operators and redistributing this information to other system operators in the region and other ISPs. In this information redistribution role, the ISP provides a bridge between the various transportation systems that produce the information and the other ISPs and their subscribers that use the information. The second role of an ISP is focused on delivery of traveler information to subscribers and the public at large. Information provided includes basic advisories, real time traffic condition and transit schedule information, yellow pages information, ride-matching information, and parking information. The subsystem also provides the capability to provide specific directions to travelers by receiving origin and destination requests from travelers, generating route plans, and returning the calculated plans to the users. In addition to general route planning for travelers, the ISP also supports specialized route planning for vehicle fleets. In this third role, the ISP function may be dedicated to, or even embedded within, the dispatch system. Reservation services are also provided in advanced implementations. The information is provided to the traveler through the Personal Information Access Subsystem, Remote Traveler Support Subsystem, and various Vehicle Subsystems through available communications links. Both basic one-way (broadcast) and personalized two-way information provision is supported.

NAME	DESCRIPTION
	The subsystem provides the capability for an informational infrastructure to connect providers and consumers, and gather that market information needed to assist in the planning of service improvements and in maintenance of operations.
Toll Administration	The Toll Administration Subsystem provides general payment administration capabilities and supports the electronic transfer of authenticated funds from the customer to the transportation system operator. This subsystem supports traveler enrollment and collection of both pre-payment and post-payment transportation fees in coordination with the existing and evolving financial infrastructure supporting electronic payment transactions. The system may establish and administer escrow accounts depending on the clearinghouse scheme and the type of payments involved. This subsystem posts a transaction to the customer account and generates a bill (for post-payment accounts), debits an escrow account, or interfaces to the financial infrastructure to debit a customer designated account. It supports communications with the Toll Collection Subsystem to support fee collection operations. The subsystem also sets and administers the pricing structures and includes the capability to implement road-pricing policies in coordination with the Traffic Management Subsystem. The electronic financial transactions in which this subsystem is an intermediary between the customer and the financial infrastructure shall be cryptographically protected and authenticated to preserve privacy and ensure authenticity and auditability.
Traffic Management	The Traffic Management Subsystem operates within a TMC or other fixed location. This subsystem communicates with the Roadway Subsystem to monitor and manage traffic flow. Incidents are detected and verified and incident information is provided to the Emergency Management Subsystem, travelers (through Roadway Subsystem Highway Advisory Radio and Dynamic Message Signs), and to third party providers. The subsystem supports HOV lane management and coordination, road pricing, and other demand management policies that can alleviate congestion and influence mode selection. The subsystem monitors and manages maintenance work and disseminates maintenance work schedules and road closures. The subsystem also manages reversible lane facilities, and processes probe vehicle information. The subsystem communicates with other Traffic Management Subsystems to coordinate traffic information and control strategies in neighboring jurisdictions. It also coordinates with rail operations to support safer and more efficient highway traffic management at highway-rail intersections. Finally, the Traffic Management Subsystem provides the capabilities to exercise control over those devices utilized for AHS traffic and vehicle control.
Transit Management	The transit management subsystem manages transit vehicle fleets and coordinates with other modes and transportation services. It provides operations, maintenance, customer information, and planning and management functions for the transit property. It spans distinct central dispatch and garage management systems and supports the spectrum of fixed route, flexible route, and paratransit services. The subsystem's interfaces allow for communication between transit departments and with other operating entities such as emergency response services and traffic management systems. This subsystem receives special event and real-time incident data from the traffic management subsystem. It provides current transit operations data to other center subsystems. The Transit Management Subsystem collects and stores accurate ridership levels and implements corresponding fare structures. It collects operational and maintenance data from transit vehicles, manages vehicle service

NAME	DESCRIPTION
	histories, and assigns drivers and maintenance personnel to vehicles and routes. The Transit Management Subsystem also provides the capability for automated planning and scheduling of public transit operations. It furnishes travelers with real-time travel information, continuously updated schedules, schedule adherence information, transfer options, and transit routes and fares. In addition, the monitoring of key transit locations with both video and audio systems is provided with automatic alerting of operators and police of potential incidents including support for traveler activated alarms.

Table D.2 – Roadside Subsystems

NAME	DESCRIPTION
Toll Collection	The Toll Collection Subsystem provides the capability for vehicle operators to pay tolls without stopping their vehicles using locally determined pricing structures and including the capability to implement various variable road pricing policies. Each transaction is accompanied by feedback to the customer, which indicates the general status of the customer account. A record of the transactions is provided to the Toll Administration subsystem for reconciliation and so that the customer can periodically receive a detailed record of the transactions.
Roadway Subsystem	This subsystem includes the equipment distributed on and along the roadway which monitors and controls traffic. Equipment includes highway advisory radios, dynamic message signs, cellular call boxes, CCTV cameras and video image processing systems for incident detection and verification, vehicle detectors, traffic signals, grade crossing warning systems, and freeway ramp metering systems. This subsystem also provides the capability for emissions and environmental condition monitoring including weather sensors, pavement icing sensors, fog etc. HOV lane management and reversible lane management functions are also available. In advanced implementations, this subsystem supports automated vehicle safety systems by safely controlling access to and egress from an Automated Highway System through monitoring of, and communications with, AHS vehicles. Intersection collision avoidance functions are provided by determining the probability of a collision in the intersection and sending appropriate warnings and/or control actions to the approaching vehicles.
Parking Management	The Parking Management Subsystem provides electronic monitoring and management of parking facilities. It supports a DSRC communications link to the Vehicle Subsystem that allows electronic collection of parking fees. It also includes the instrumentation, signs, and other infrastructure that monitors parking lot usage and provides local information about parking availability and other general parking information. This portion of the subsystem functionality must be located in the parking facility where it can monitor, classify, and share information with customers and their vehicles. The subsystem also interfaces with the financial infrastructure and broadly disseminates parking information to other operational centers in the region. Note that the latter functionality may be located in a back office, remote from the parking facility.
Evacuation Coordination	The Evacuation Coordination Subsystem collects data from other ITS subsystems and terminators during a major disaster to coordinate mandatory and non-mandatory evacuations. The subsystem manages the data and provides recommended actions to the other ITS entities. It also utilizes ITS archived data for the development of evacuation strategies.

NAME	DESCRIPTION
Commercial Vehicle Check	The Commercial Vehicle Check Subsystem supports automated vehicle identification at mainline speeds for credential checking, roadside safety inspections, and weigh-in-motion using two-way data exchange. These capabilities include providing warnings to the commercial vehicle drivers, their fleet managers, and proper authorities of any safety problems that have been identified, accessing and examining historical safety data, and automatically deciding whether to allow the vehicle to pass or require it to stop with operator manual override. The Commercial Vehicle Check Subsystem also provides supplemental inspection services to current capabilities by supporting expedited brake inspections, the use of operator hand-held devices, on-board safety database access, and the enrollment of vehicles and carriers in the electronic clearance program.

Table D.3 – Vehicle Subsystems

NAME	DESCRIPTION
Transit Vehicle Subsystem	This subsystem resides in a transit vehicle and provides the sensory, processing, storage, and communications functions necessary to support safe and efficient movement of passengers. The Transit Vehicle Subsystem collects accurate ridership levels and supports electronic fare collection. An optional traffic signal prioritization function communicates with the roadside subsystem to improve on-schedule performance. Automated vehicle location functions enhance the information available to the Transit Management Subsystem enabling more efficient operations. On-board sensors support transit vehicle maintenance. The Transit Vehicle Subsystem also furnishes travelers with real-time travel information, continuously updated schedules, transfer options, routes, and fares.
Vehicle	This subsystem resides in an automobile and provides the sensory, processing, storage, and communications functions necessary to support efficient, safe, and convenient travel by personal automobile. Information services provide the driver with current travel conditions and the availability of services along the route and at the destination. Both one-way and two-way communications options support a spectrum of information services from low-cost broadcast services to advanced, pay for use personalized information services. Route guidance capabilities assist in formulation of an optimal route and step-by-step guidance along the travel route. Advanced sensors, processors, enhanced driver interfaces, and actuators complement the driver information services so that, in addition to making informed mode and route selections, the driver travels these routes in a safer and more consistent manner. Initial collision avoidance functions provide “vigilant co-pilot” driver-warning capabilities. More advanced functions assume limited control of the vehicle to maintain safe headway. Ultimately, this subsystem supports completely automated vehicle operation through advanced communications with other vehicles in the vicinity and in coordination with supporting infrastructure subsystems. Pre-crash safety systems are deployed and emergency notification messages are issued when unavoidable collisions do occur.
Emergency Vehicle Subsystem	This subsystem resides in an emergency vehicle and provides the sensory, processing, storage, and communications functions necessary to support safe and efficient emergency response. The Emergency Vehicle Subsystem includes two-way communications to support coordinated response to emergencies in accordance with an associated Emergency Management Subsystem. Emergency vehicles are equipped with automated vehicle location capability for monitoring by vehicle tracking and fleet management functions in the Emergency Management Subsystem. Using these capabilities, the appropriate emergency vehicle to respond to each emergency is determined. Route guidance capabilities within the vehicle enable safe and efficient routing to the emergency. In addition, the emergency vehicle may be equipped to support signal preemption through communications with the roadside subsystem.
Commercial Vehicle Subsystem	This subsystem resides in a commercial vehicle and provides the sensory, processing, storage, and communications functions necessary to support safe and efficient commercial vehicle operations. The Commercial Vehicle Subsystem provides two-way communications between the commercial vehicle drivers, their fleet managers, and roadside officials, and provides HAZMAT response teams with timely and accurate cargo contents information after a vehicle incident.

NAME	DESCRIPTION
	This subsystem provides the capability to collect and process vehicle, cargo, and driver safety data and status and alert the driver whenever there is a potential safety problem. Basic identification and safety status data are supplied to inspection facilities at mainline speeds. In addition, the subsystem will automatically collect and record mileage, fuel usage, and border crossings.

Table D.4 – Traveler Subsystems

NAME	DESCRIPTION
Remote Traveler Support	This subsystem provides access to traveler information at transit stations, transit stops, other fixed sites along travel routes, and at major trip generation locations such as special event centers, hotels, office complexes, amusement parks, and theaters. Traveler information access points include kiosks and informational displays supporting varied levels of interaction and information access. At transit stops, simple displays providing schedule information and imminent arrival signals can be provided. This basic information may be extended to include multi-modal information including traffic conditions and transit schedules along with yellow pages information to support mode and route selection at major trip generation sites. Personalized route planning and route guidance information can also be provided based on criteria supplied by the traveler. In addition to traveler information provision, this subsystem also supports public safety monitoring using CCTV cameras or other surveillance equipment and emergency notification within these public areas. Fare card maintenance, and other features, which enhance traveler convenience may also be provided at the discretion of the deploying agency.
Personal Information Access	This subsystem provides the capability for travelers to receive formatted traffic advisories from their homes, place of work, major trip generation sites, personal portable devices, and over multiple types of electronic media. These capabilities shall also provide basic routing information and allow users to select those transportation modes that allow them to avoid congestion, or more advanced capabilities to allow users to specify those transportation parameters that are unique to their individual needs and receive travel information. This subsystem shall provide capabilities to receive route planning from the infrastructure at fixed locations such as in their homes, their place of work, and at mobile locations such as from personal portable devices and in the vehicle or perform the route planning process at a mobile information access location. This subsystem shall also provide the capability to initiate a distress signal and cancel a prior issued manual request for help.

Appendix E

Market Package Diagrams

Figure E.1 – ITS Data Mart (AD1) Market Package

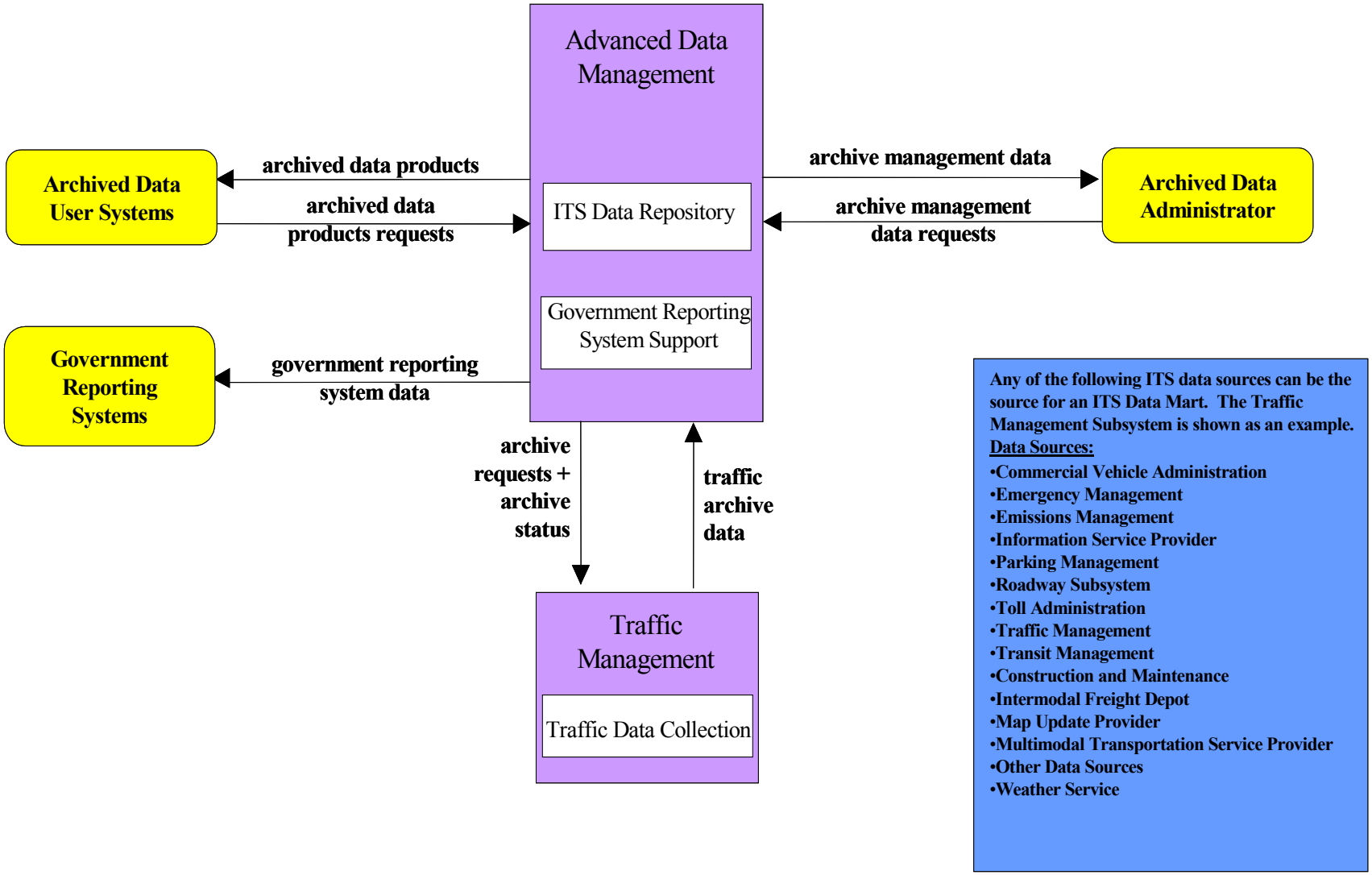


Figure E.2 – ITS Data Warehouse (AD2) Market Package

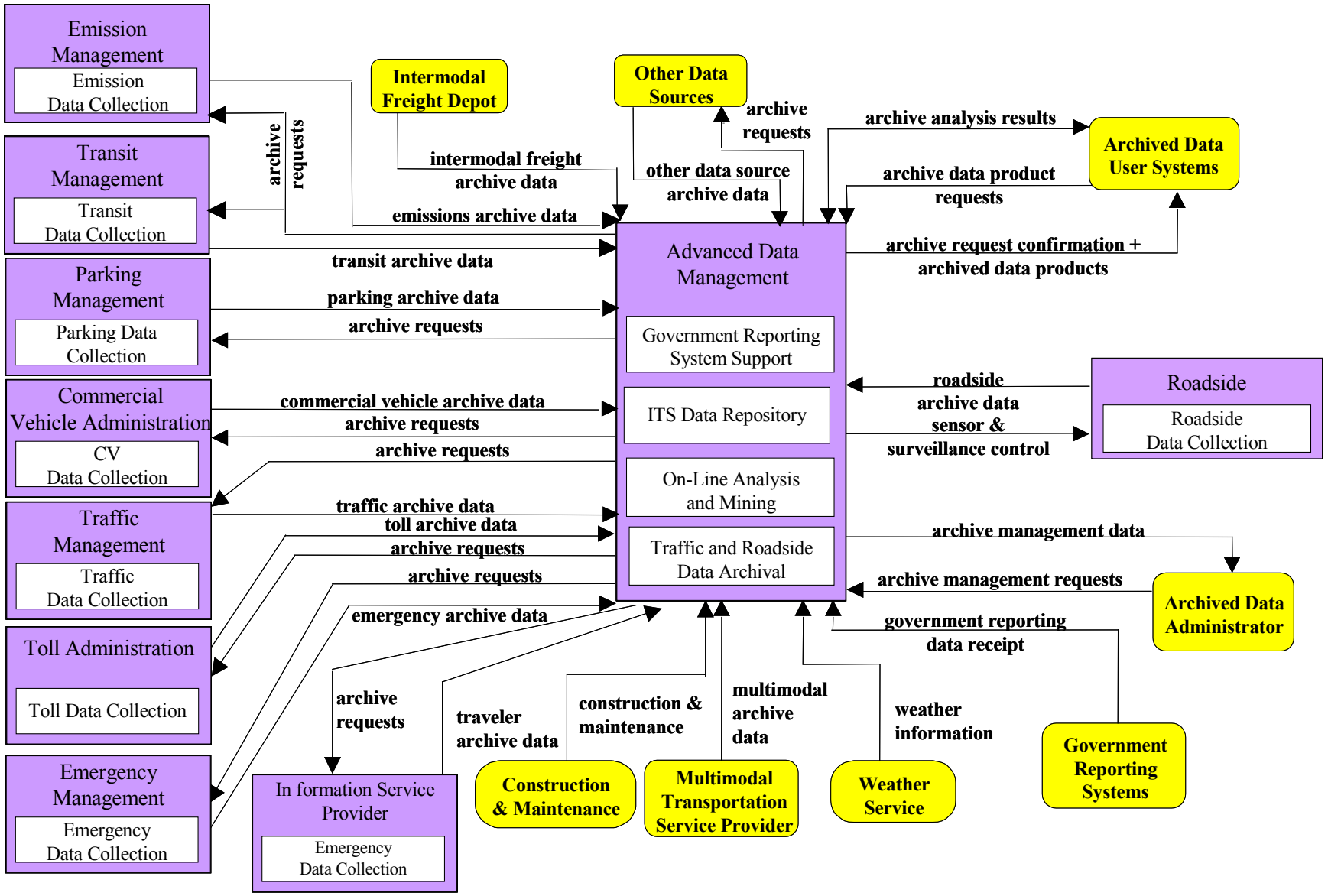


Figure E.3 – ITS Virtual Data Warehouse (AD3) Market Package

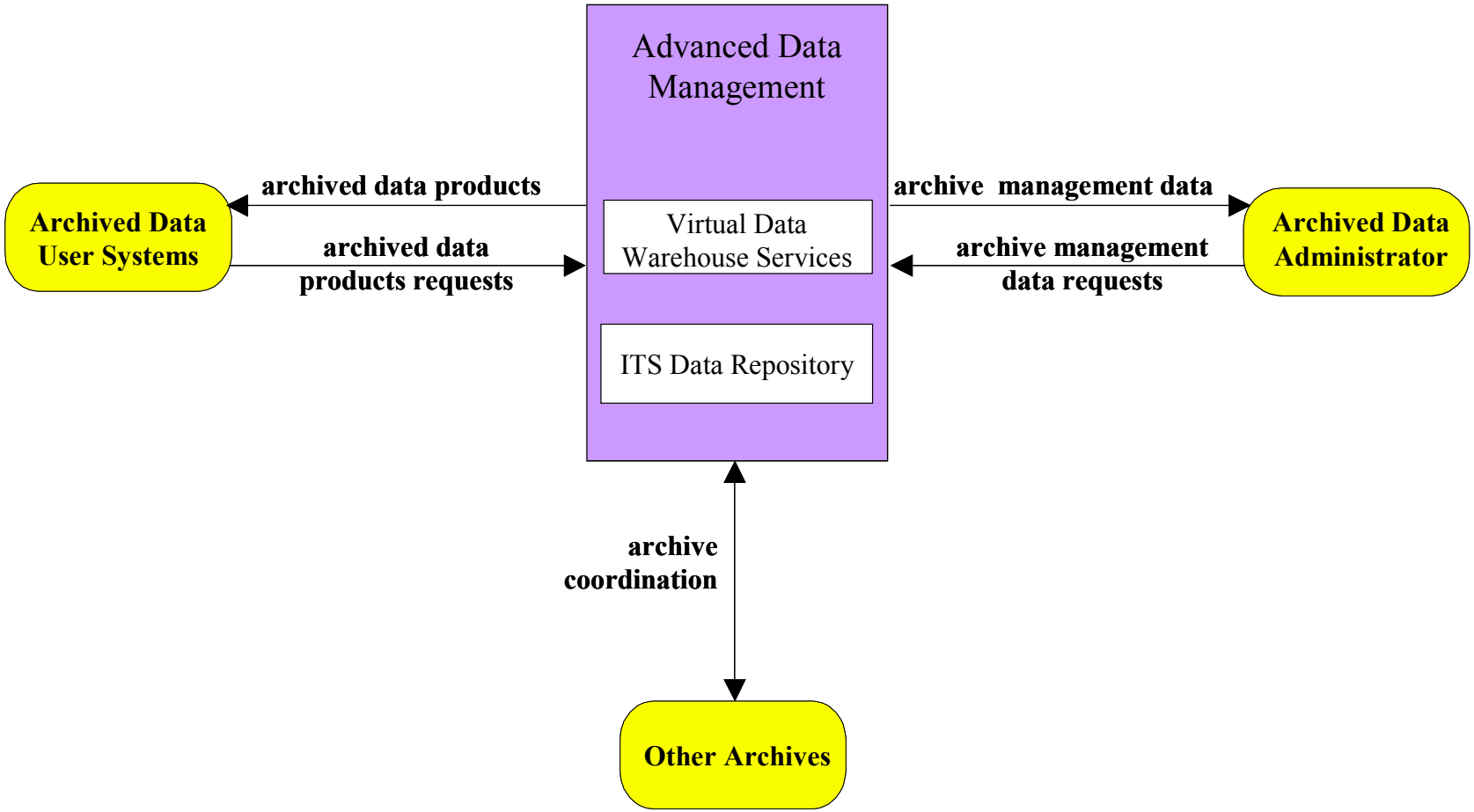


Figure E.4 – Transit Vehicle Tracking (APTS1) Market Package

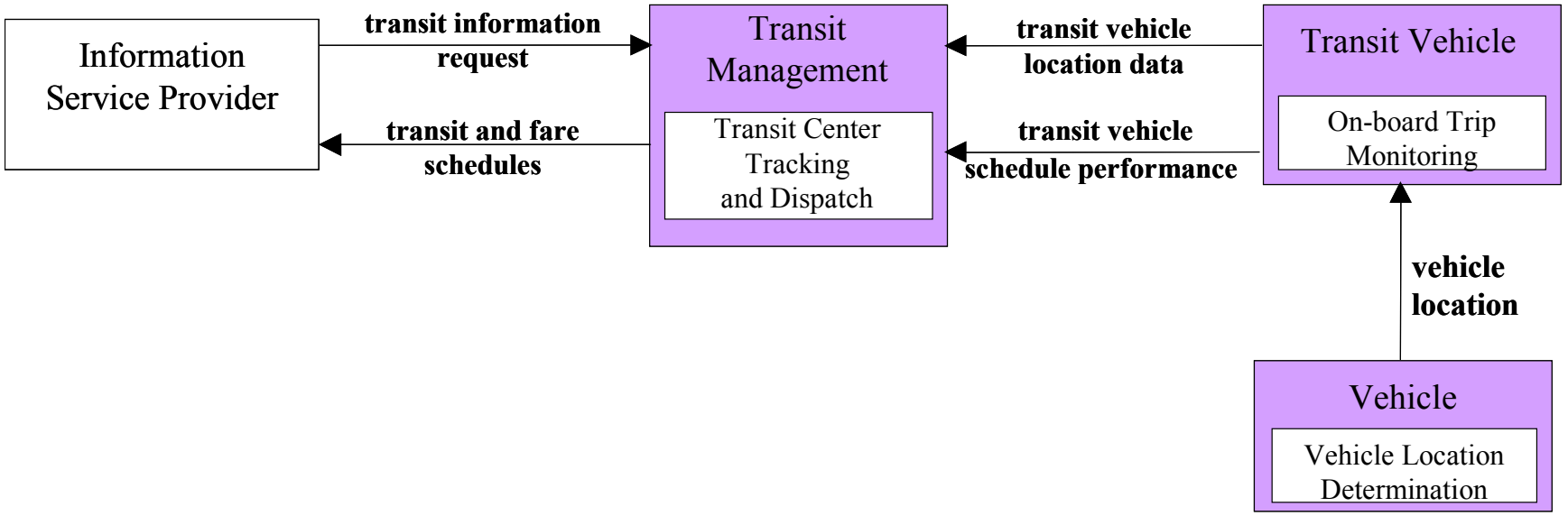


Figure E.5 – Transit Fixed-Route Operations (APTS2) Market Package

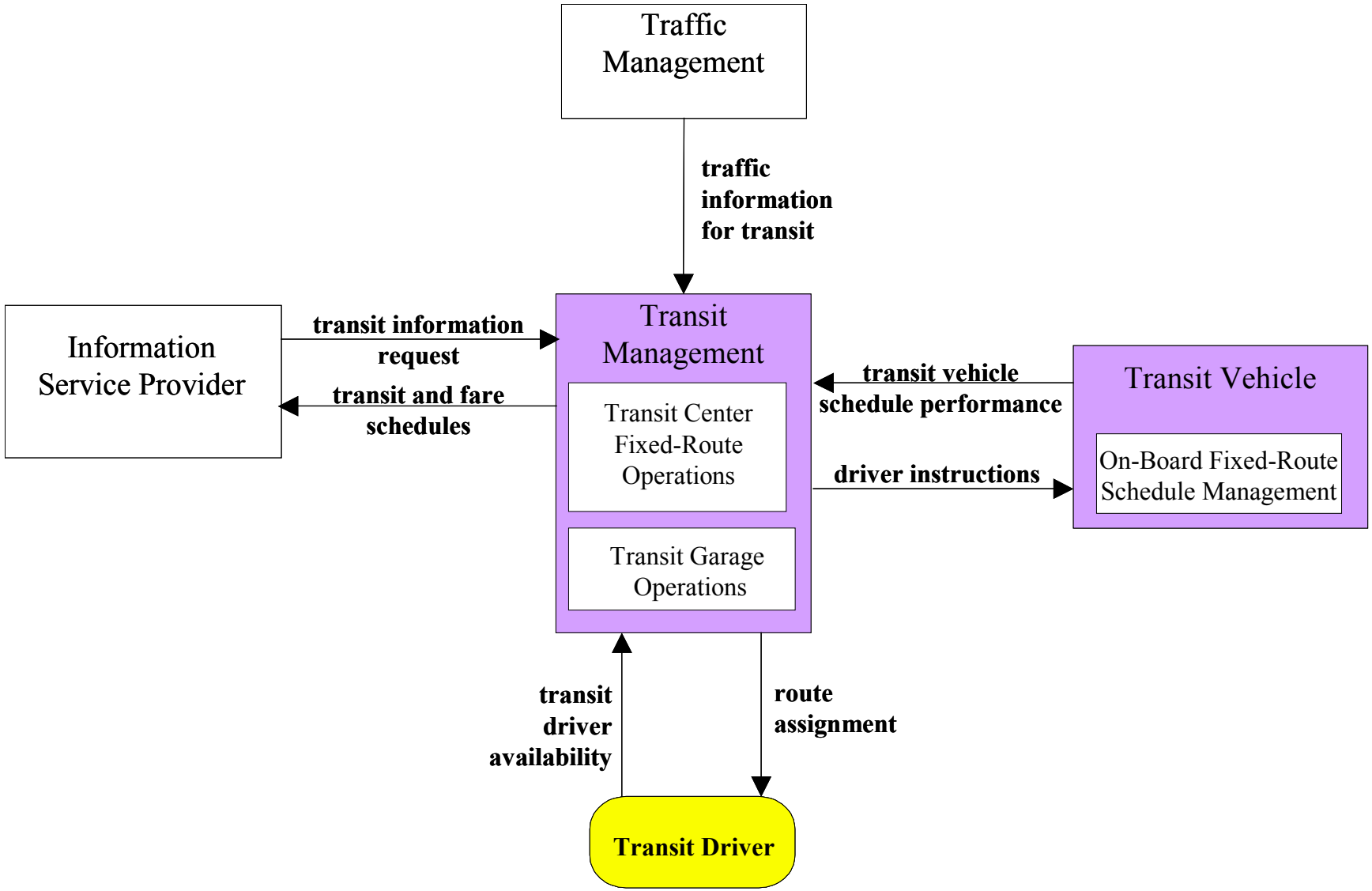


Figure E.6 – Transit Passenger and Fare Management (APTS4) Market Package

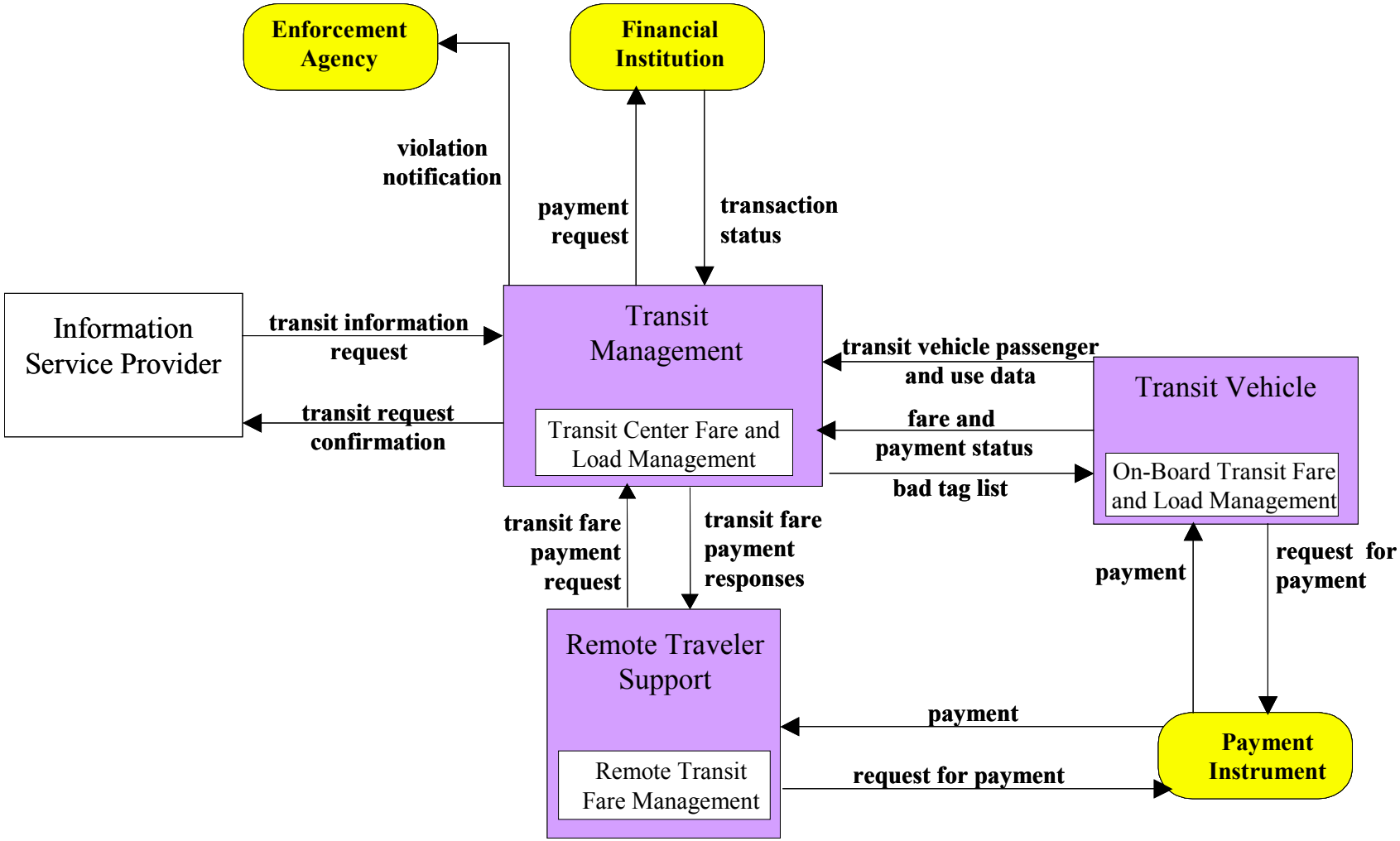


Figure E.7 – Transit Security (APTS5) Market Package

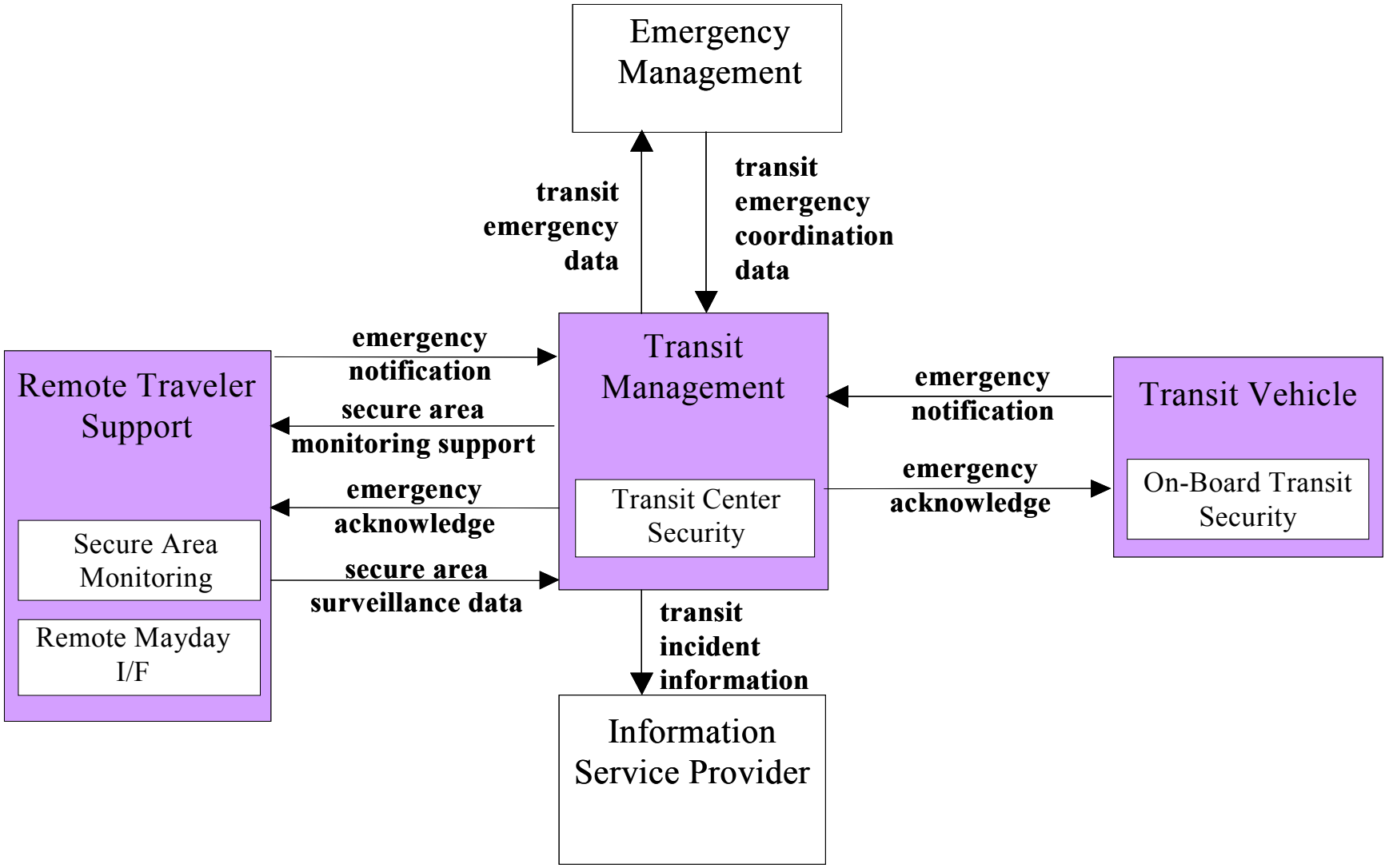


Figure E.8 – Multi-Modal Coordination (APTS7) Market Package

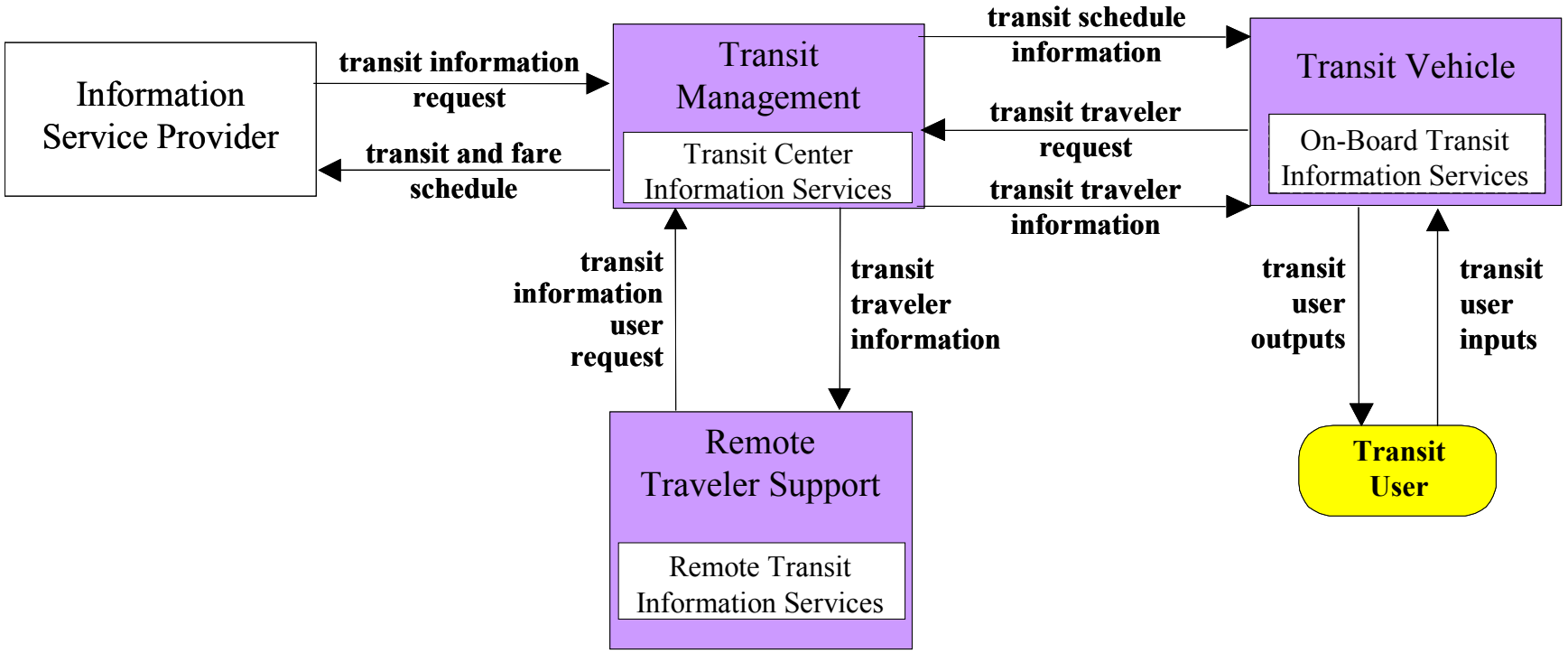


Figure E.9 – Transit Traveler (APTS8) Market Package

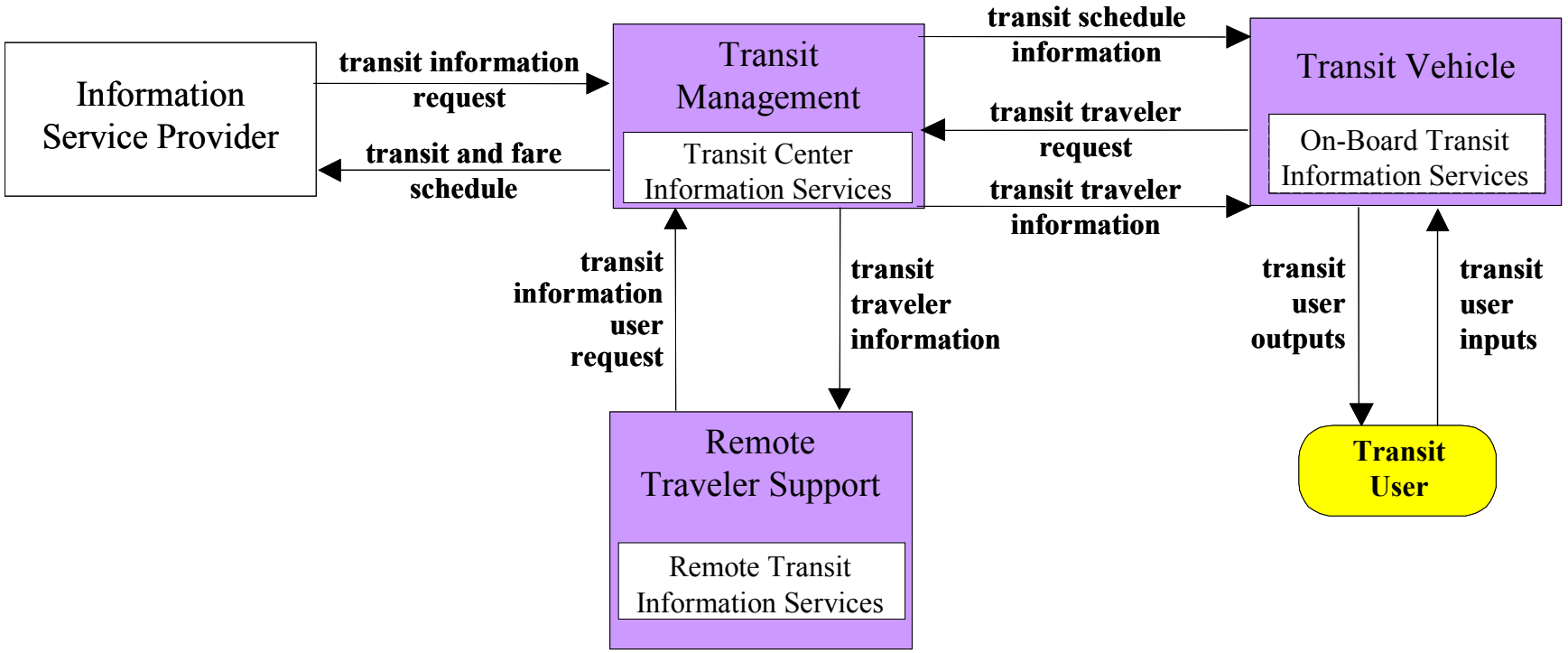


Figure E.10 – Broadcast Traveler Information (ATIS1) Market Package

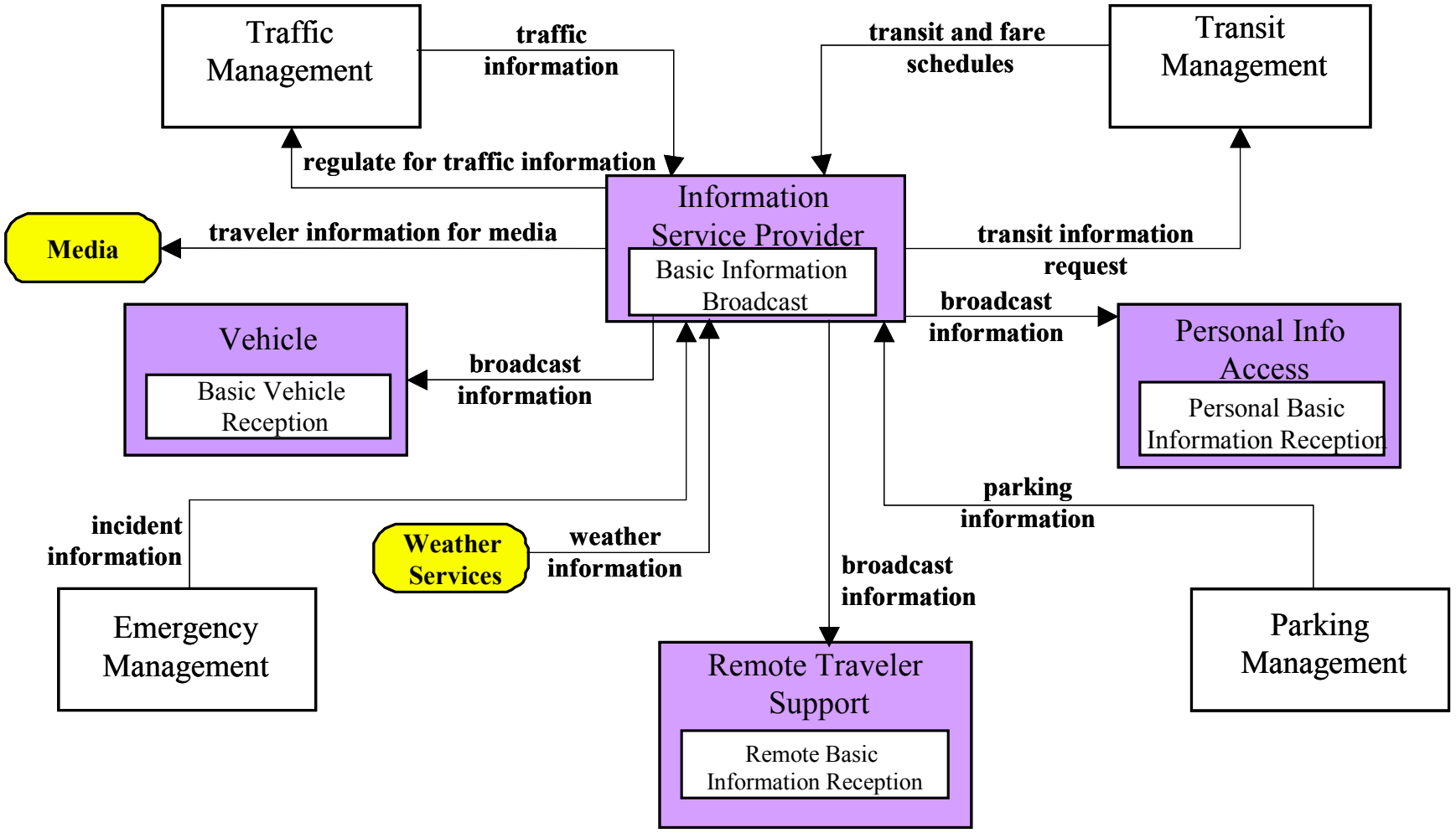


Figure E.11 – Interactive Traveler Information (ATIS2) Market Package

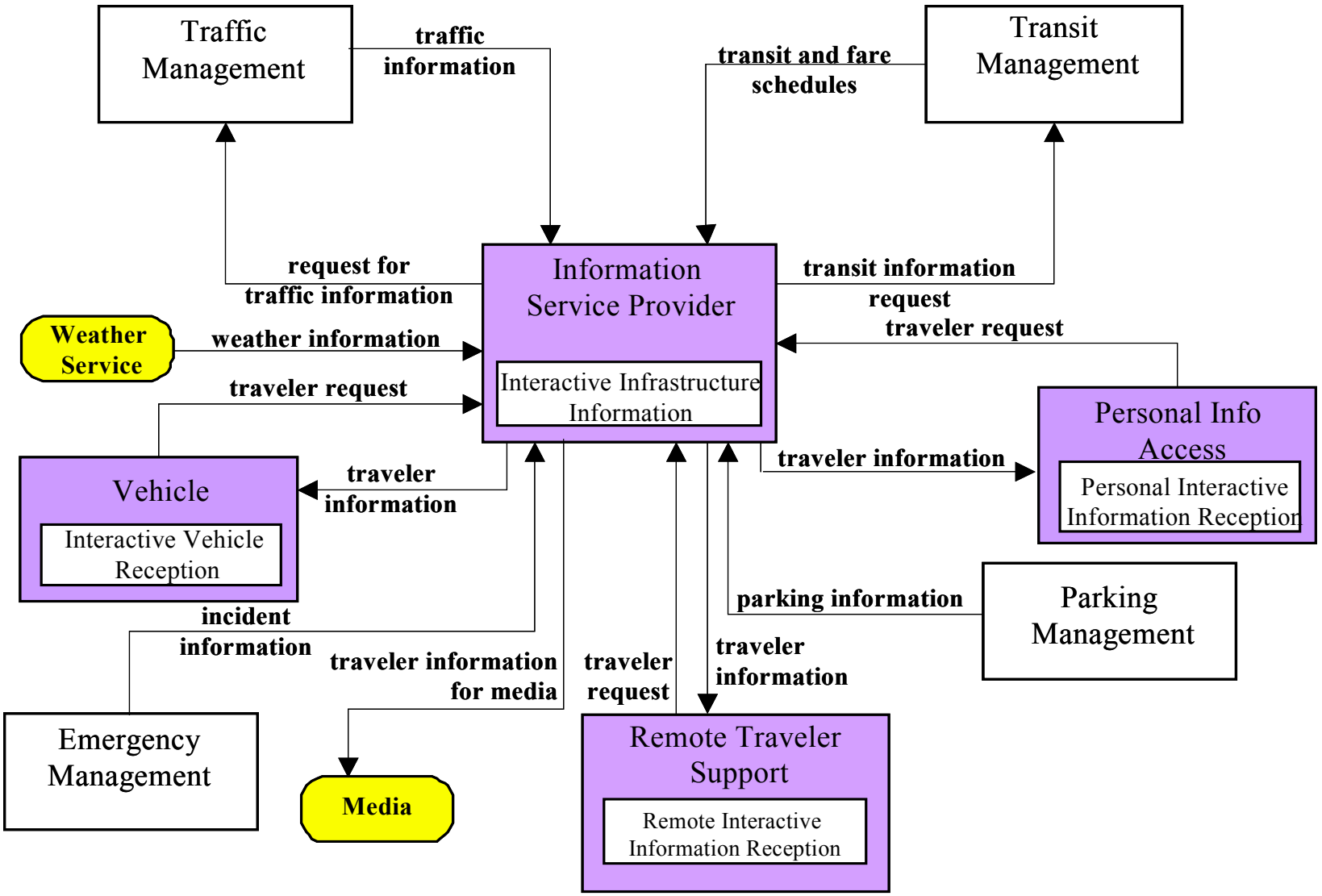


Figure E.12 – Yellow Pages and Reservations (ATIS7) Market Package

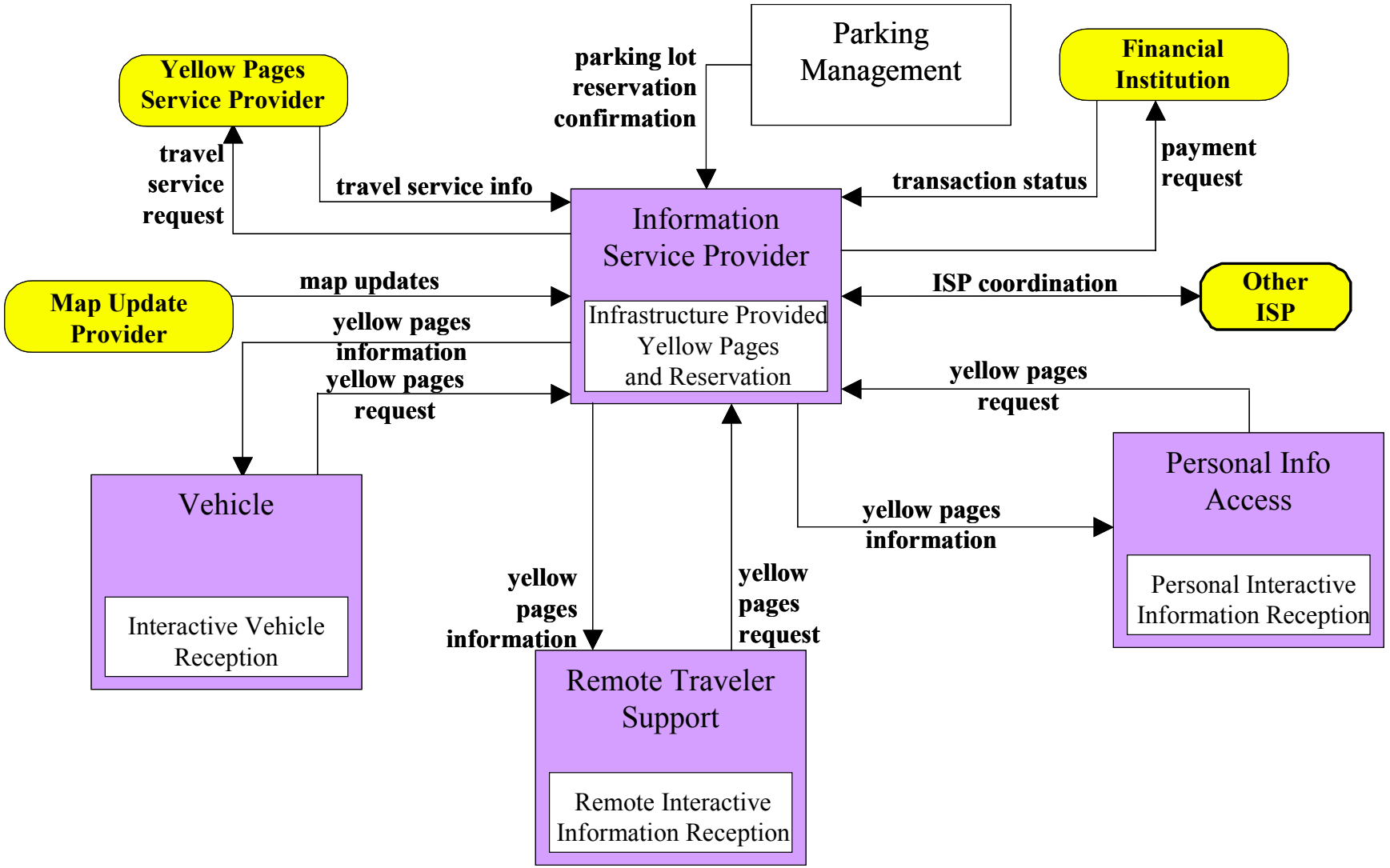


Figure E.13 – Dynamic Ridesharing (ATIS8) Market Package

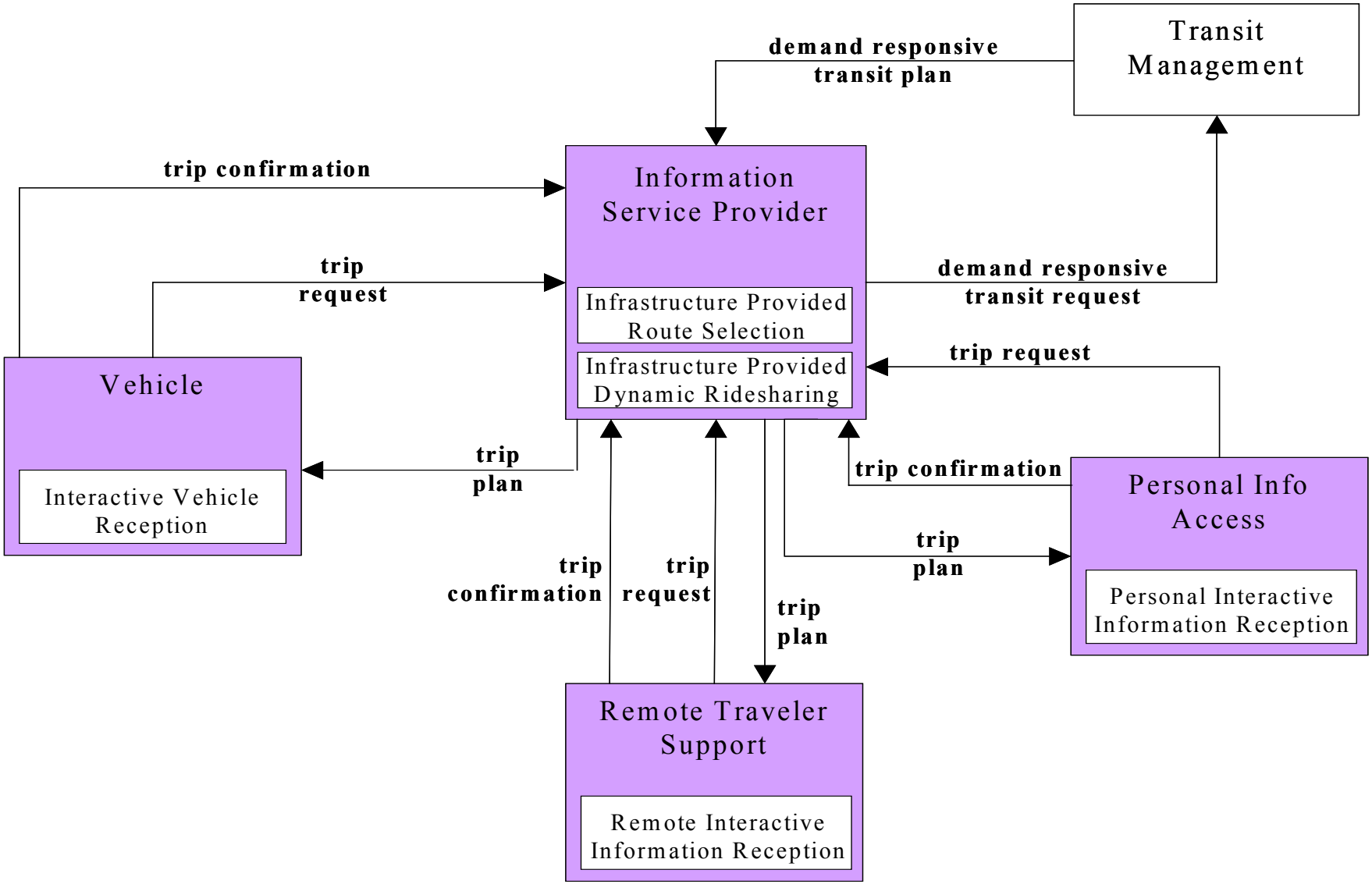


Figure E.14 – Network Surveillance (ATMS01) Market Package

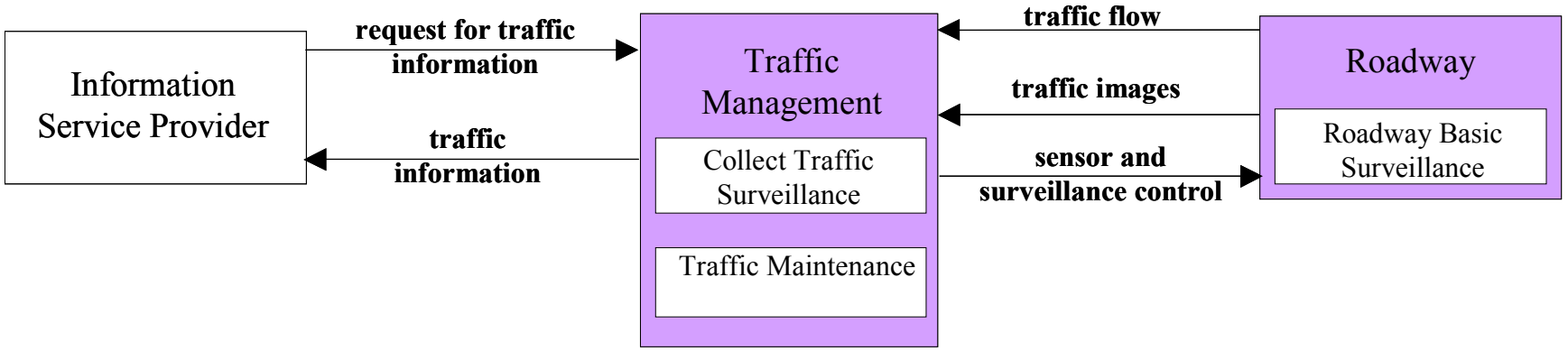


Figure E.15 – Probe Surveillance (ATMS02) Market Package

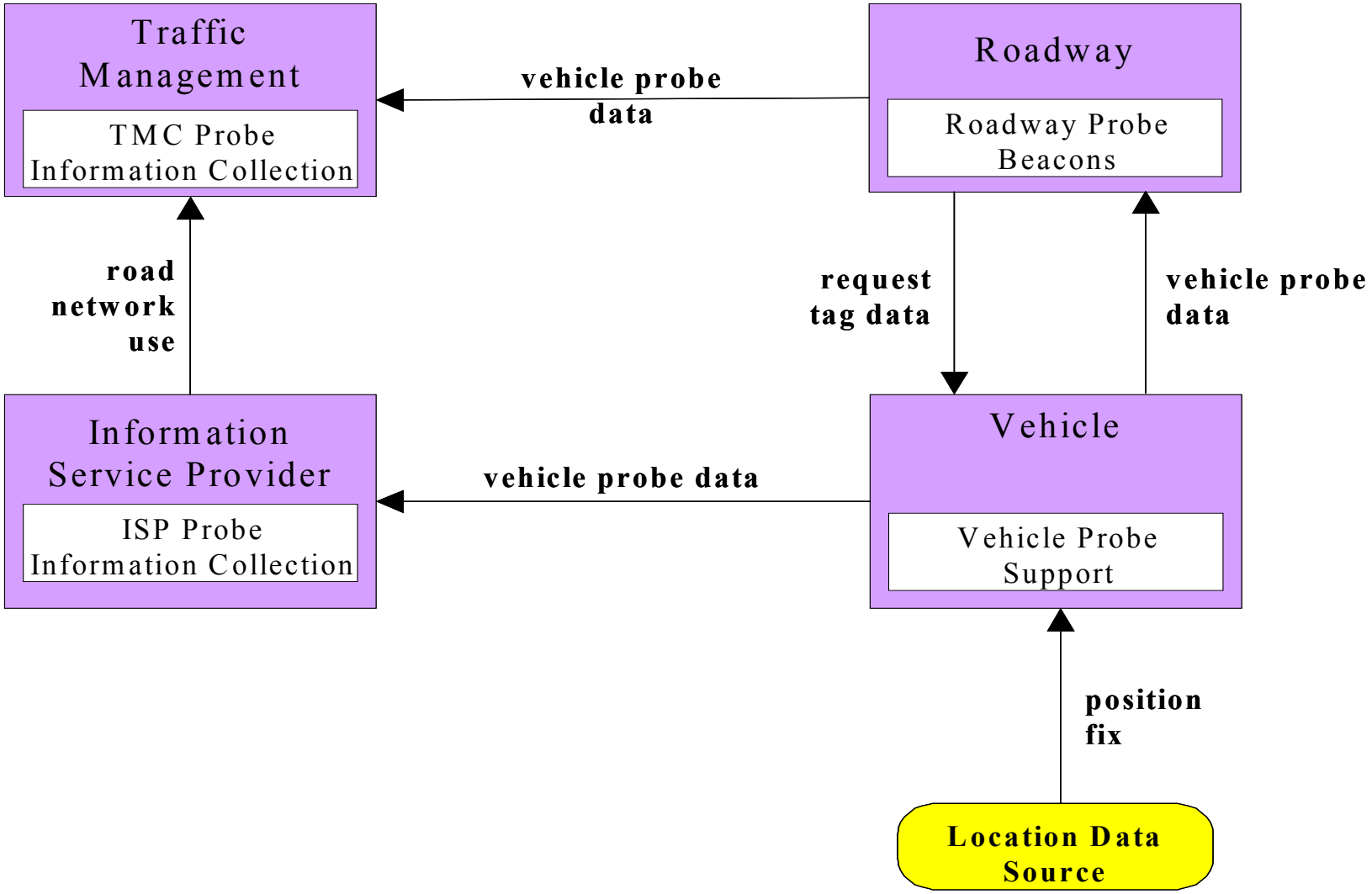


Figure E.16 – Freeway Control (ATMS04) Market Package

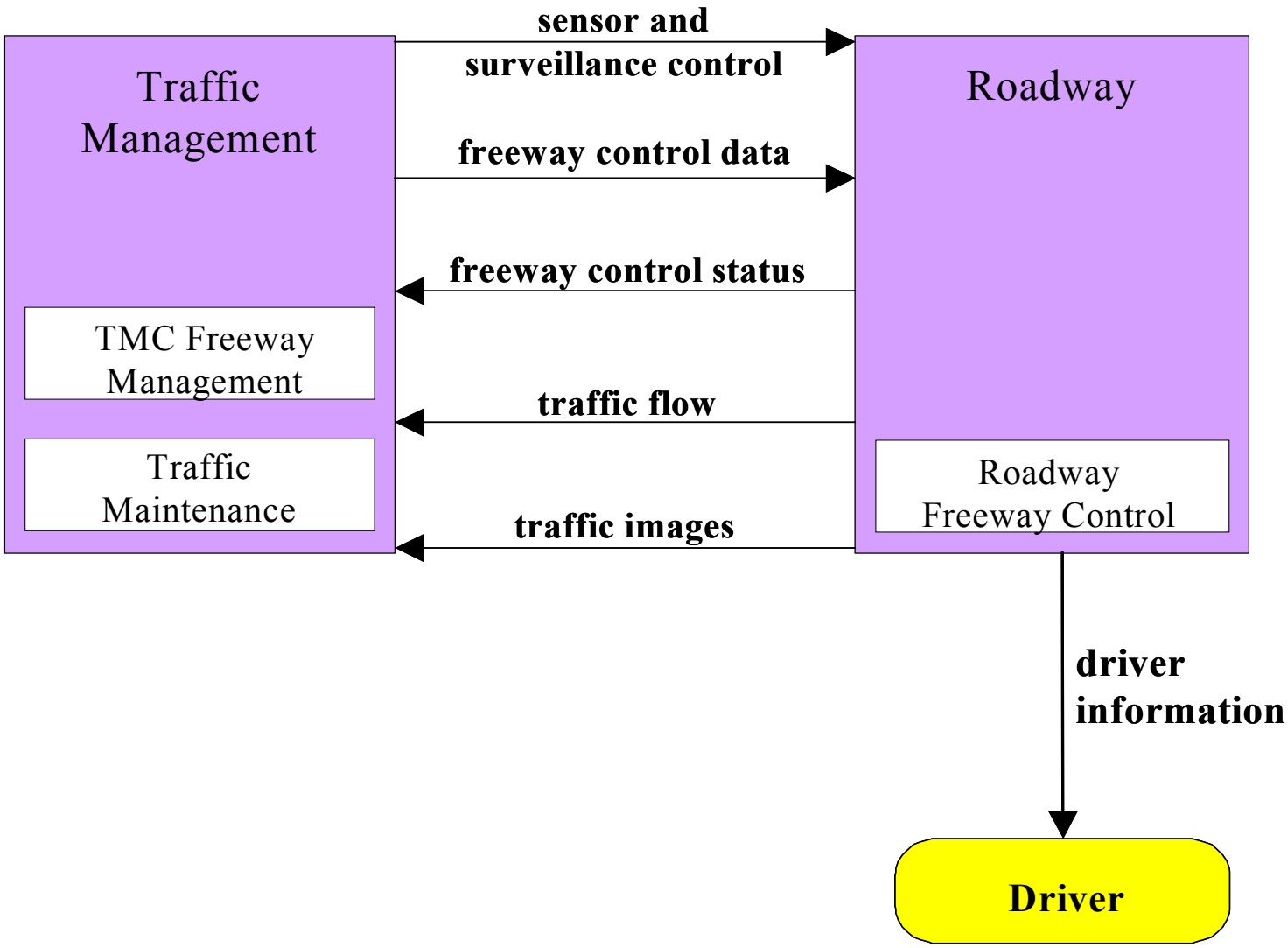


Figure E.17 – HOV Lane Management (ATMS05) Market Package

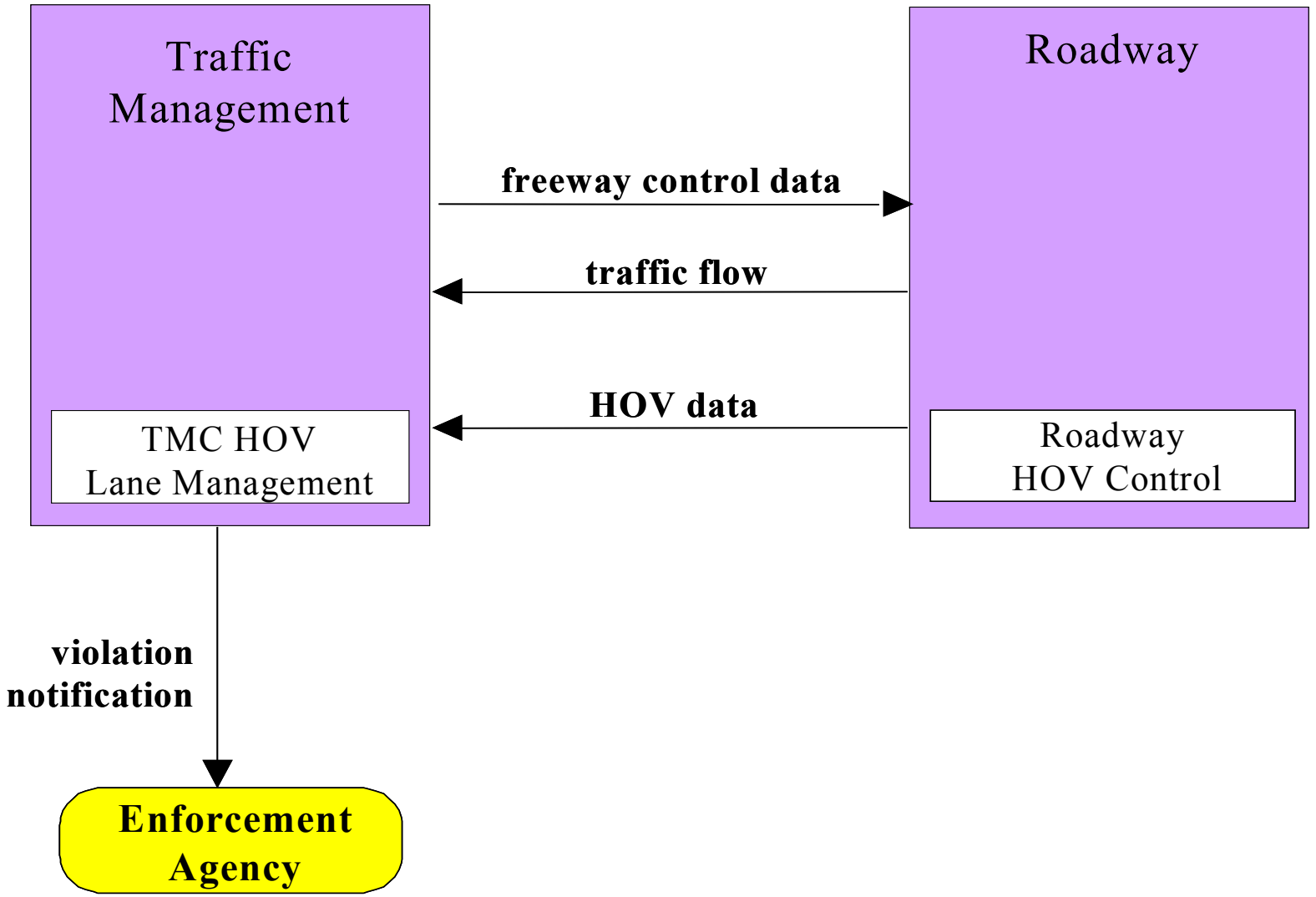


Figure E.18 – Traffic Information Dissemination (ATMS06) Market Package

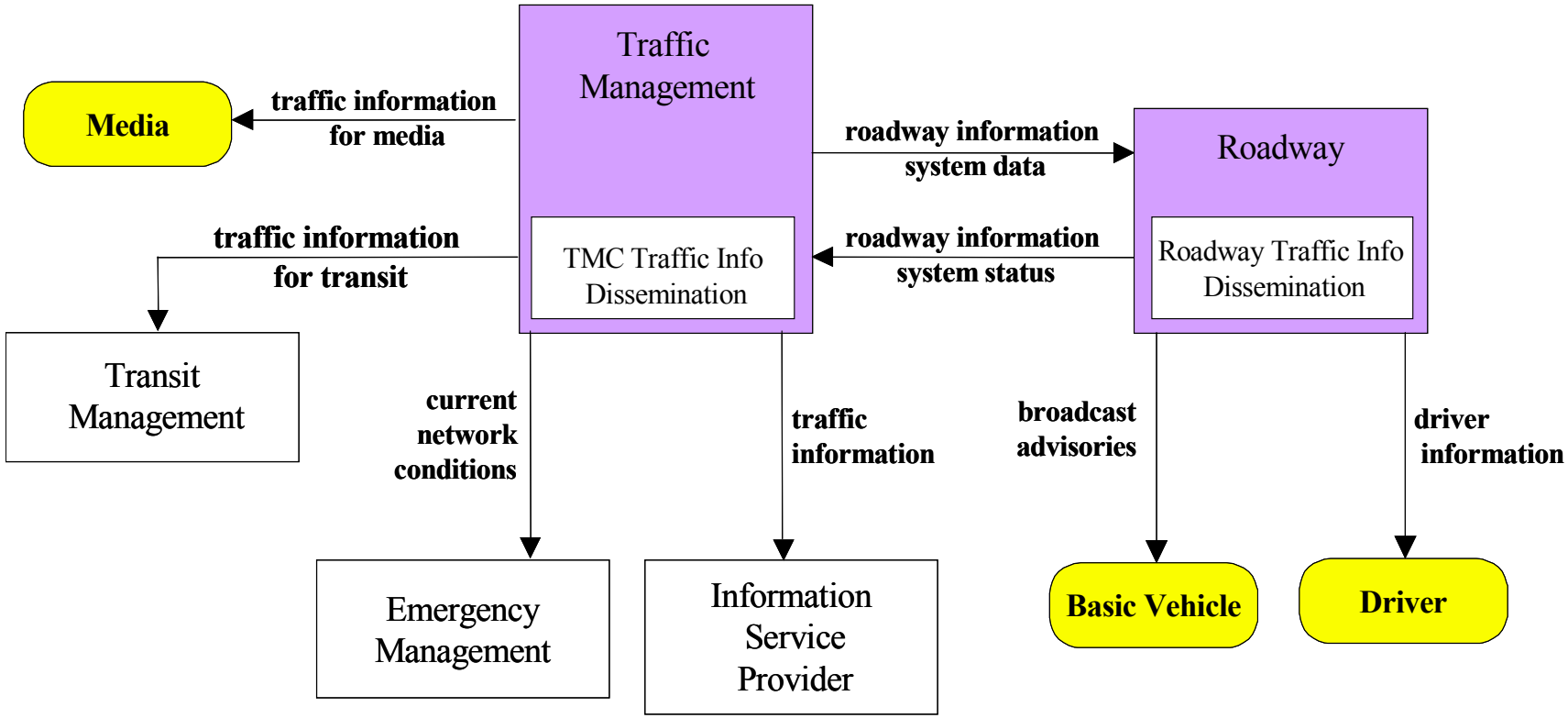


Figure E.19 – Regional Traffic Control (ATMS07) Market Package

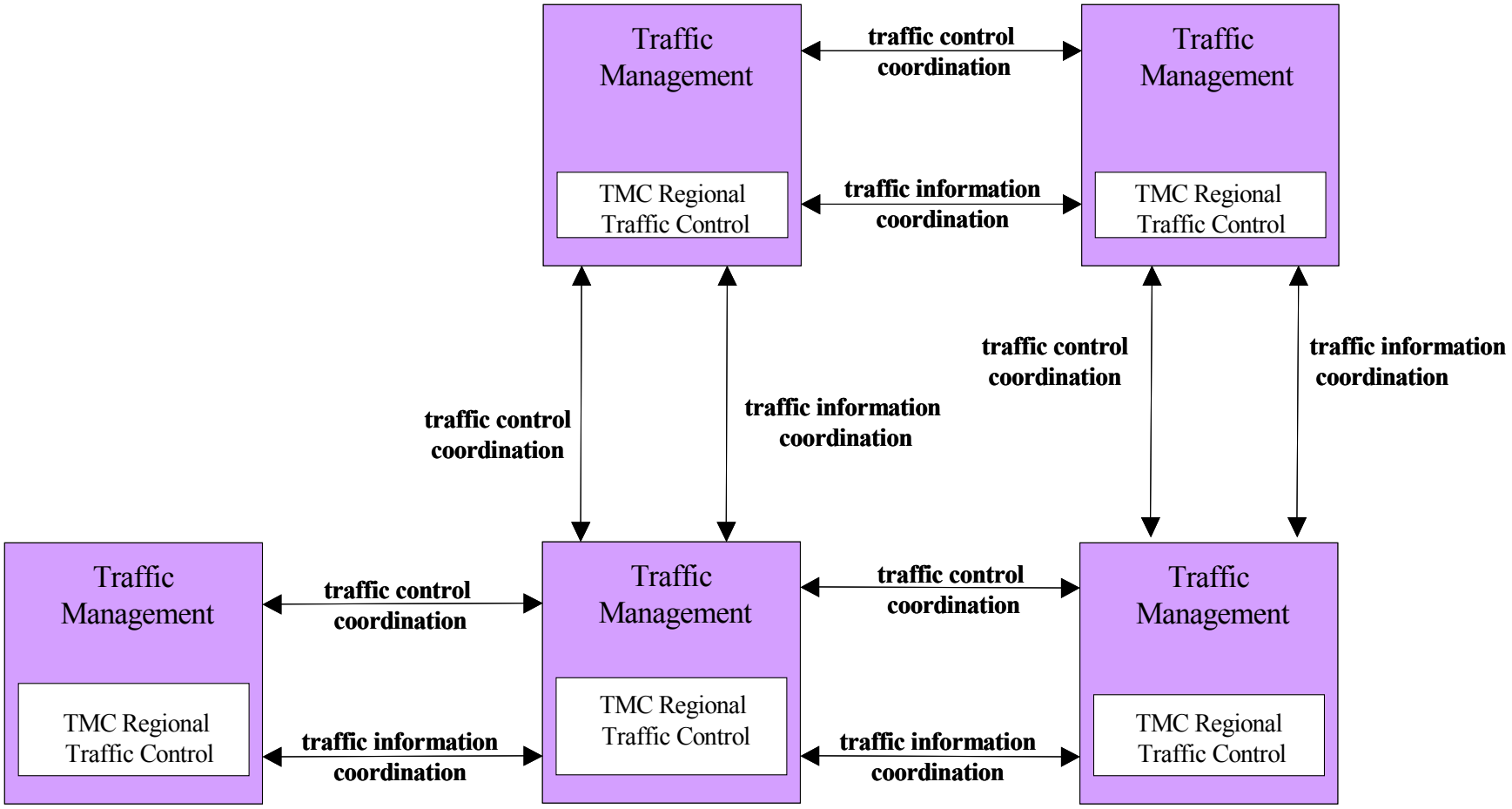


Figure E.20 – Incident Management System (ATMS08) Market Package

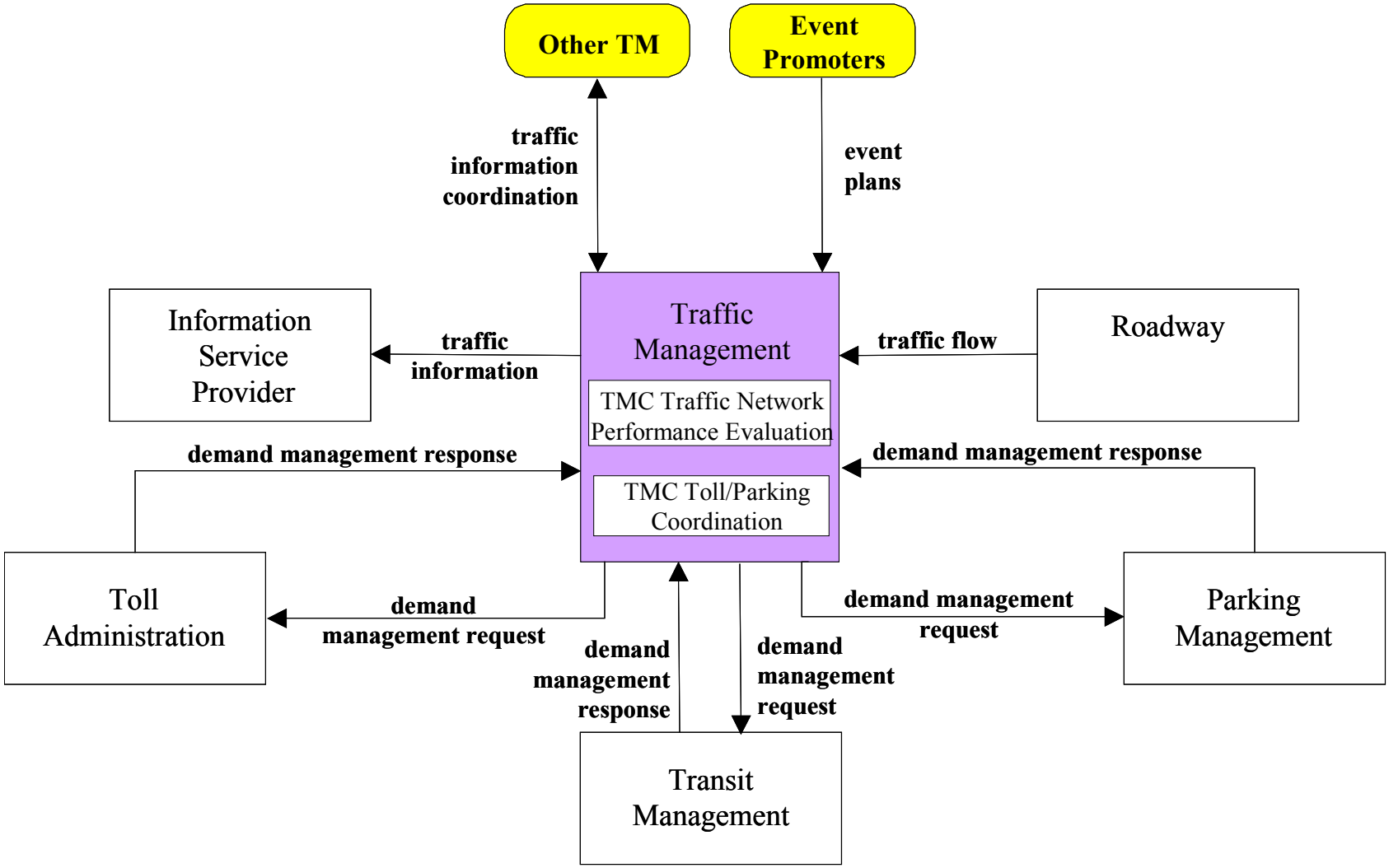


Figure E.21 – Traffic Forecast and Demand Management (ATMS09) Market Package

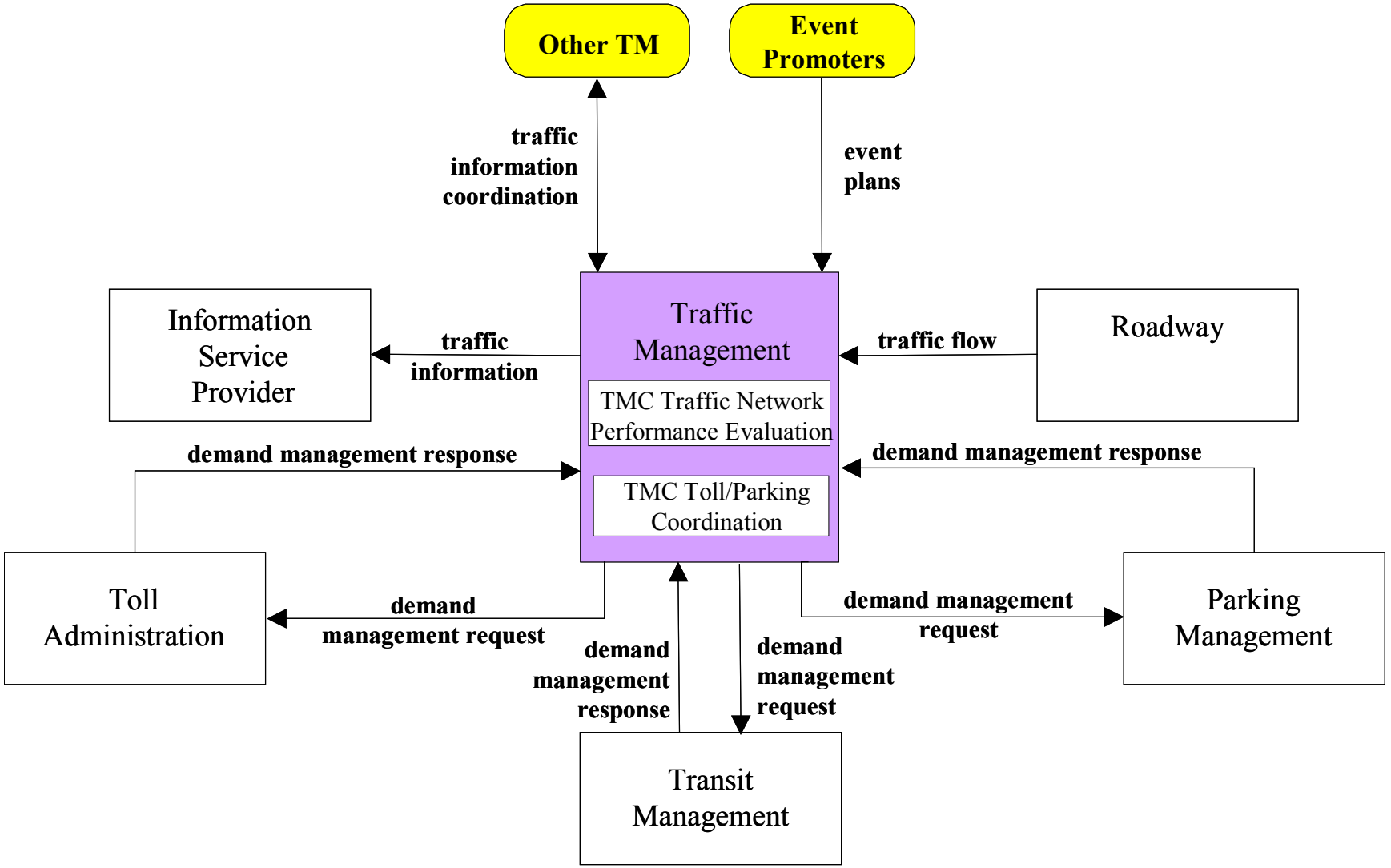


Figure E.22 – Electronic Fare Collection (ATMS10) Market Package

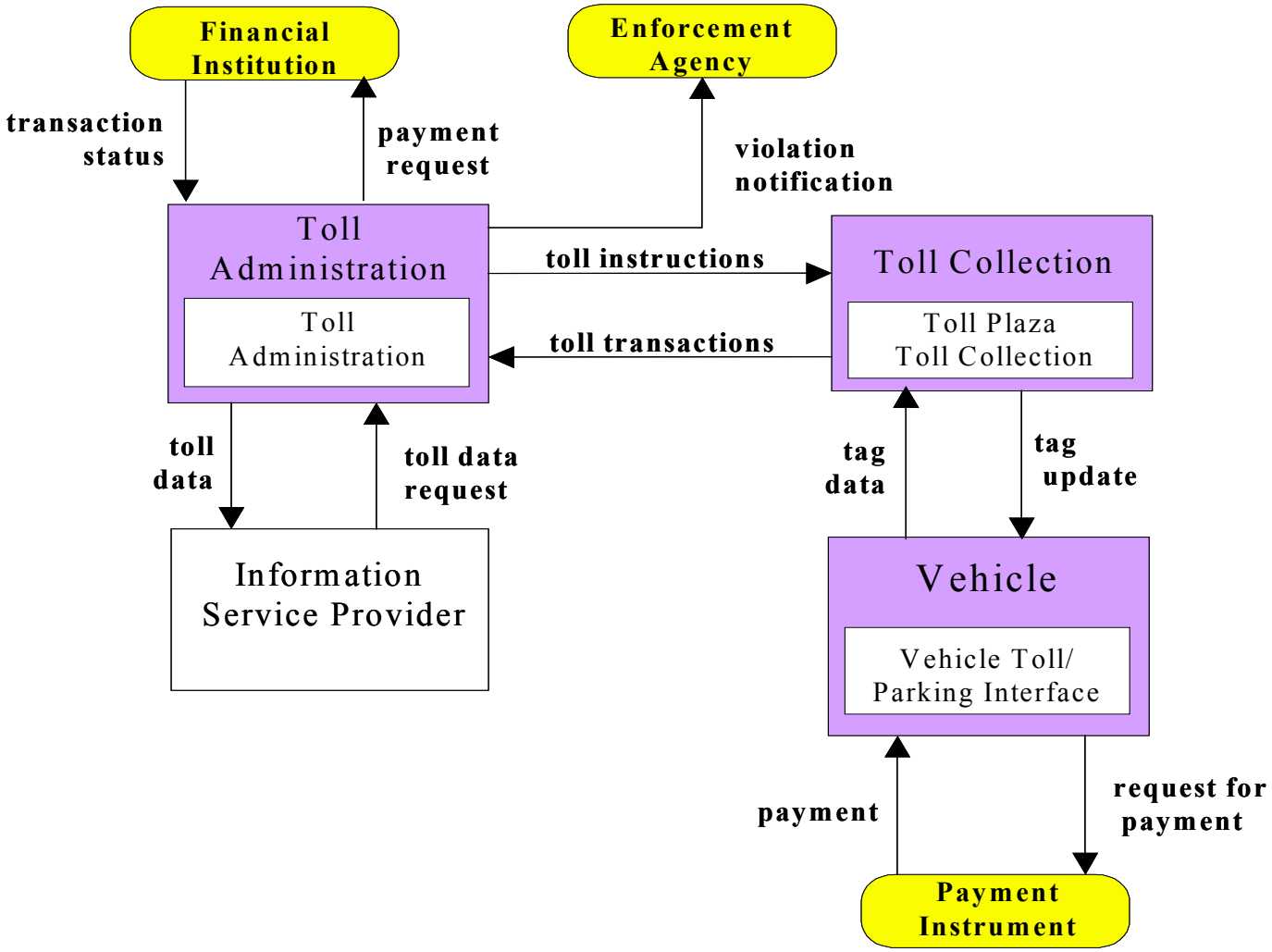


Figure E.23 – Standard Railroad Grade Crossing (ATMS13) Market Package

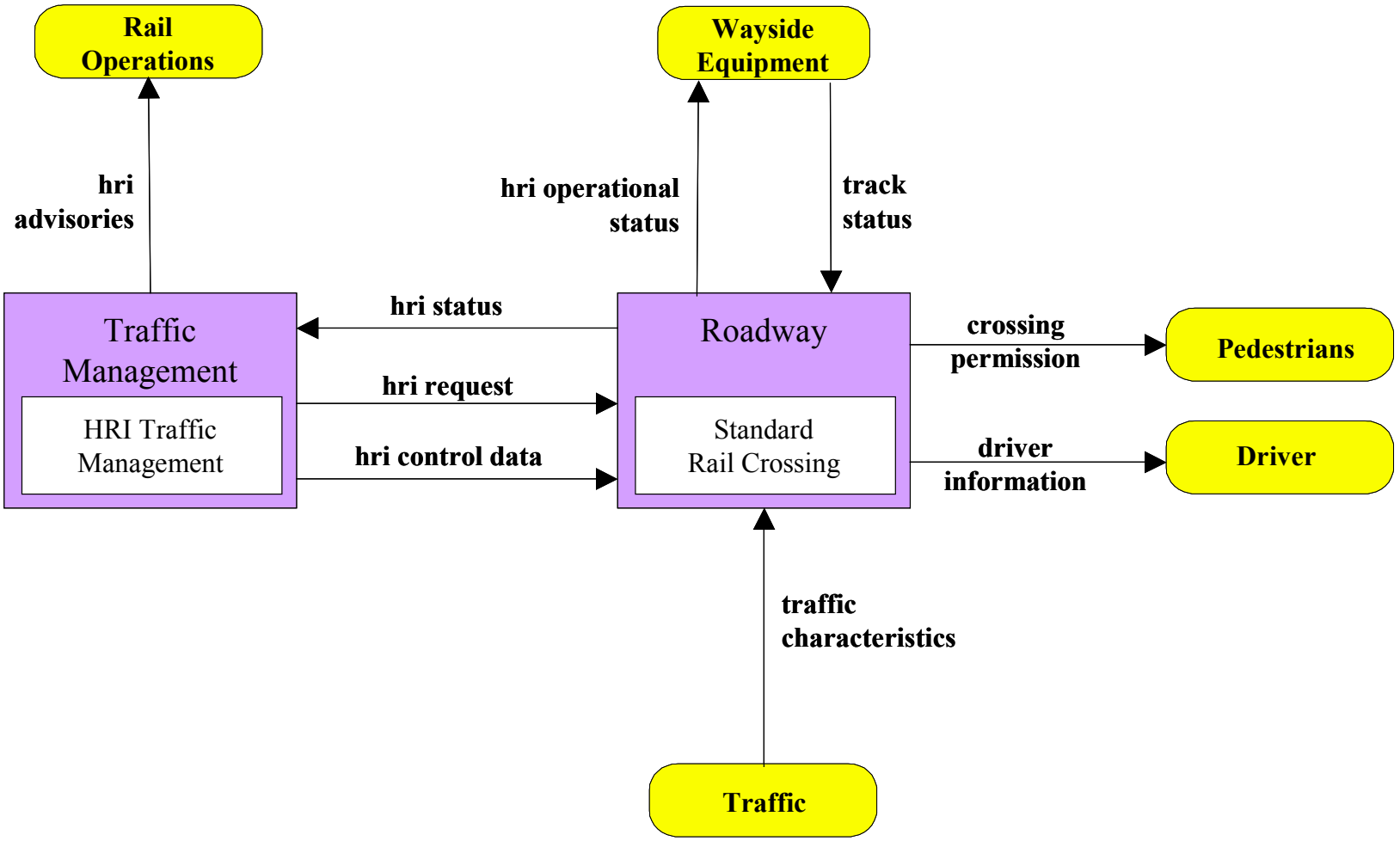


Figure E.24 – Advanced Railroad Grade Crossing (ATMS14) Market Package

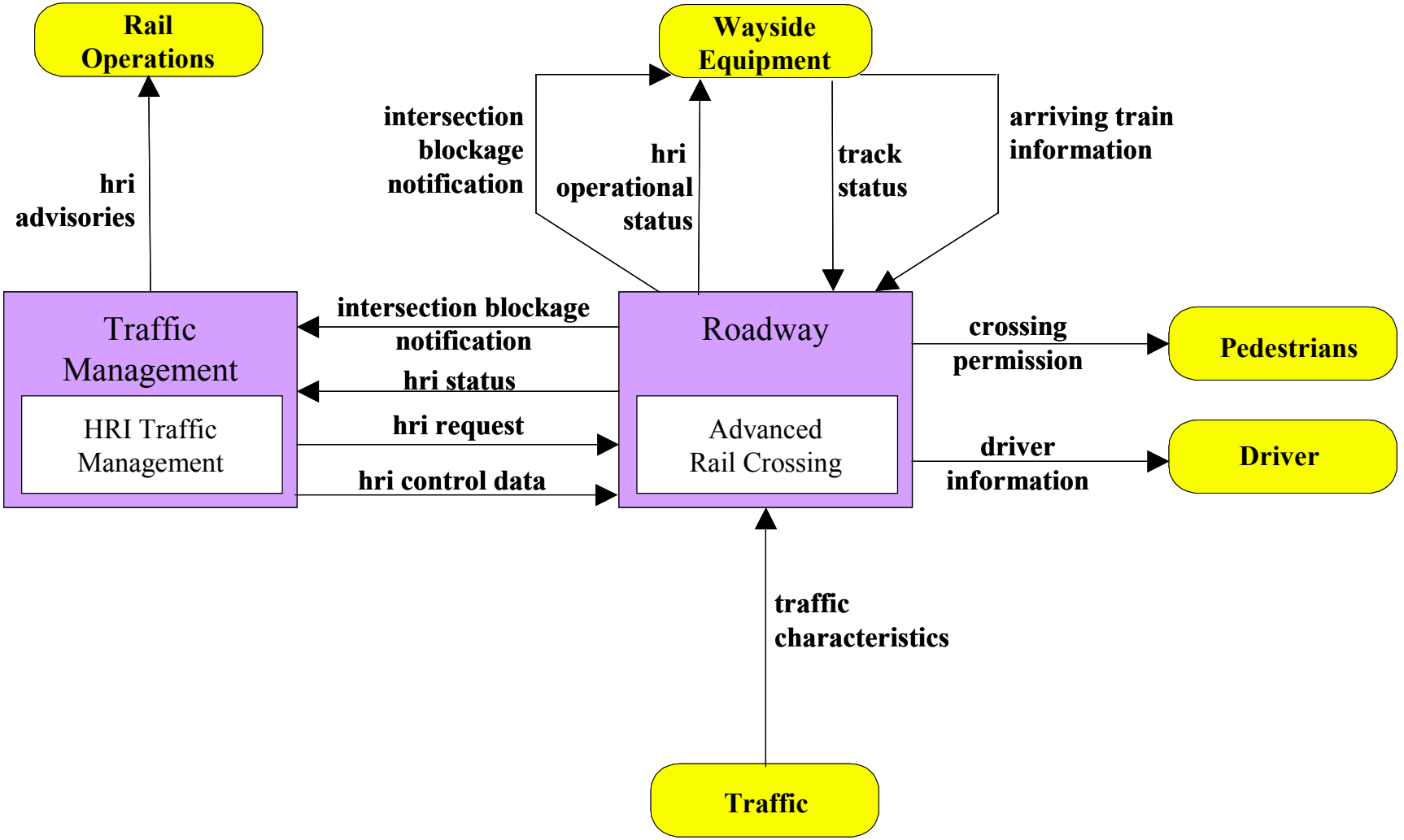


Figure E.25 – Railroad Operations Coordination (ATMS15) Market Package

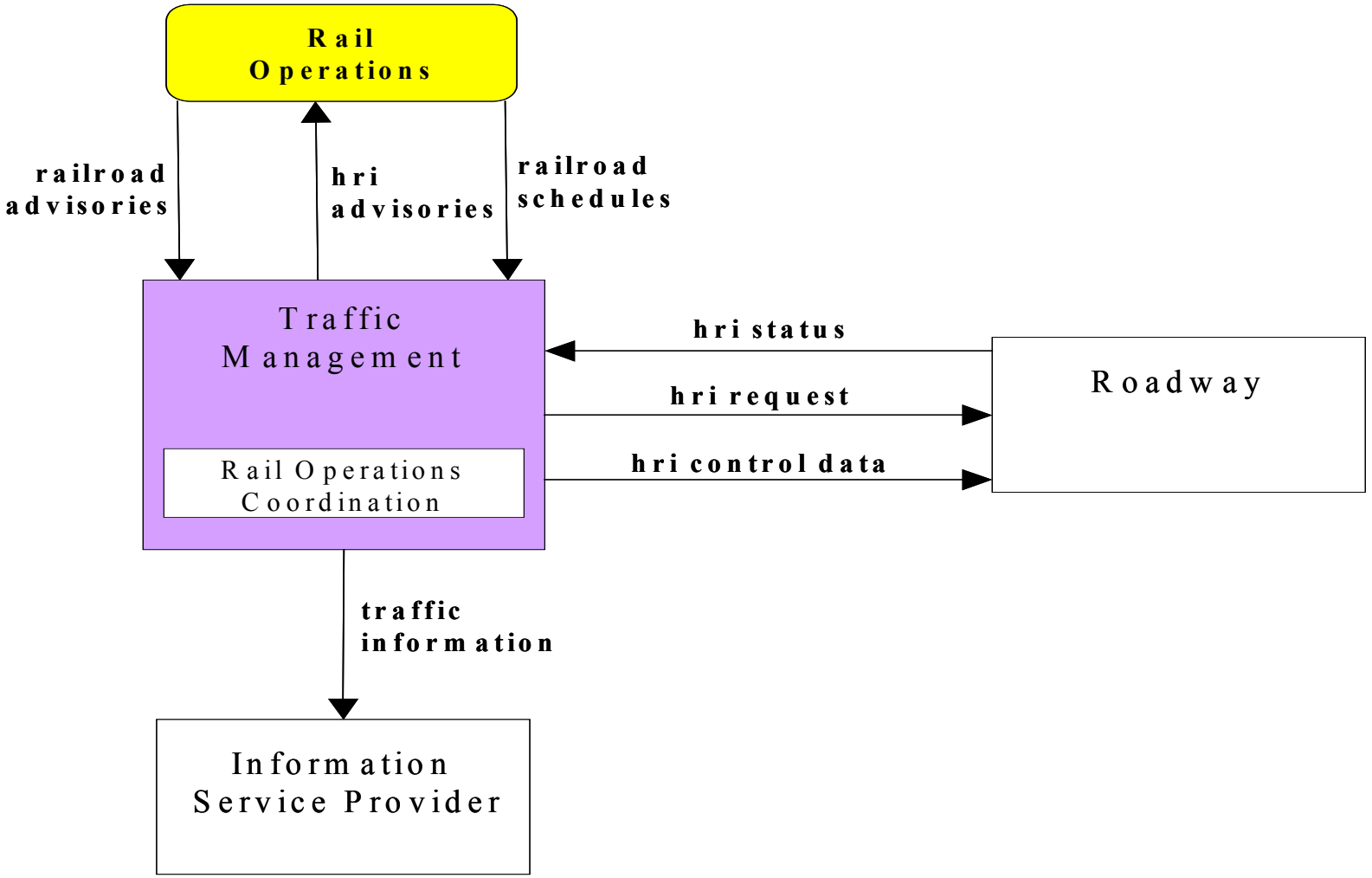


Figure E.26 – Parking Facility Management (ATMS16) Market Package

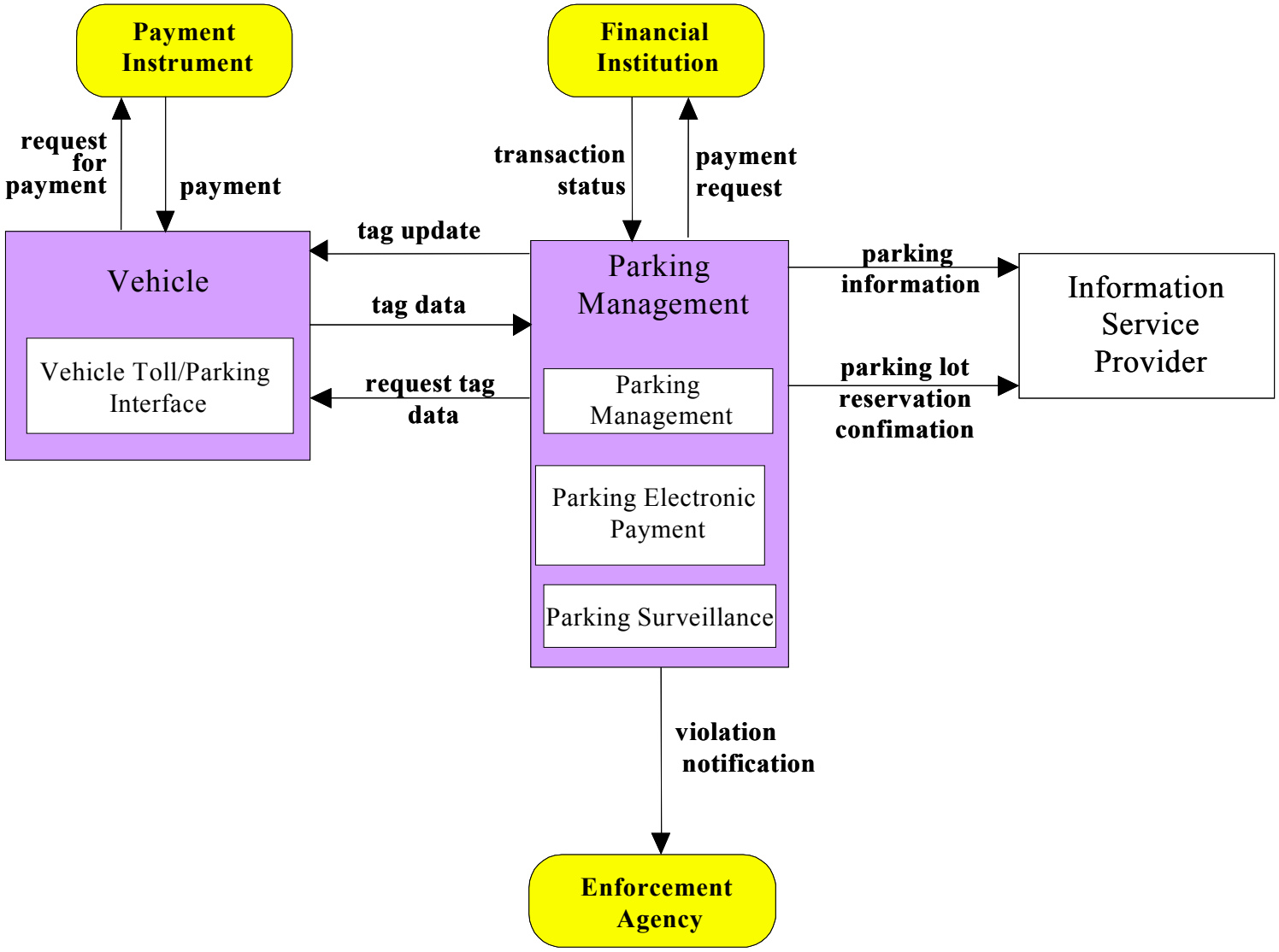


Figure E.27 – Reversible Lane Management (ATMS17) Market Package

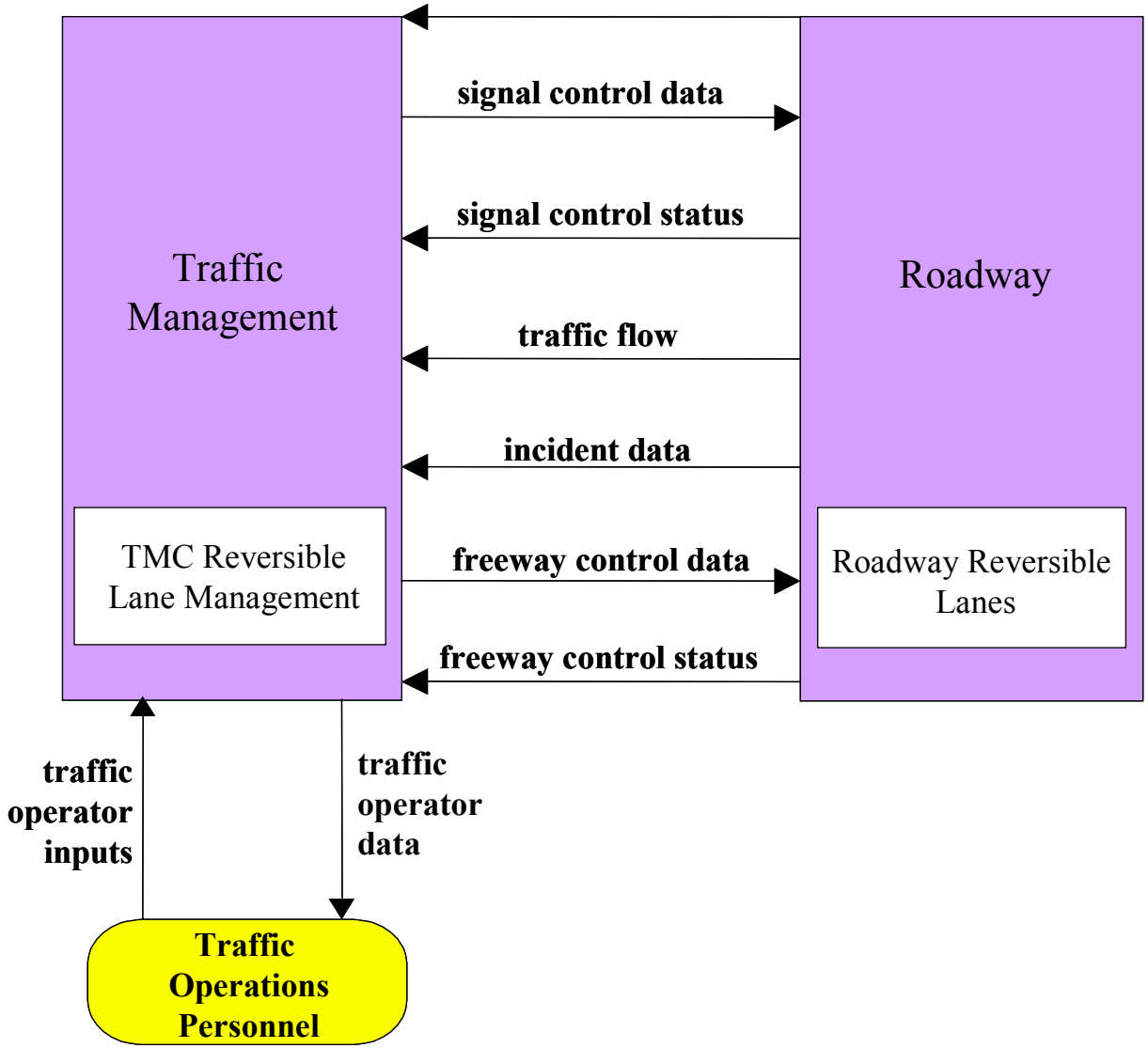


Figure E.28 – Road Weather Information System (ATMS18) Market Package

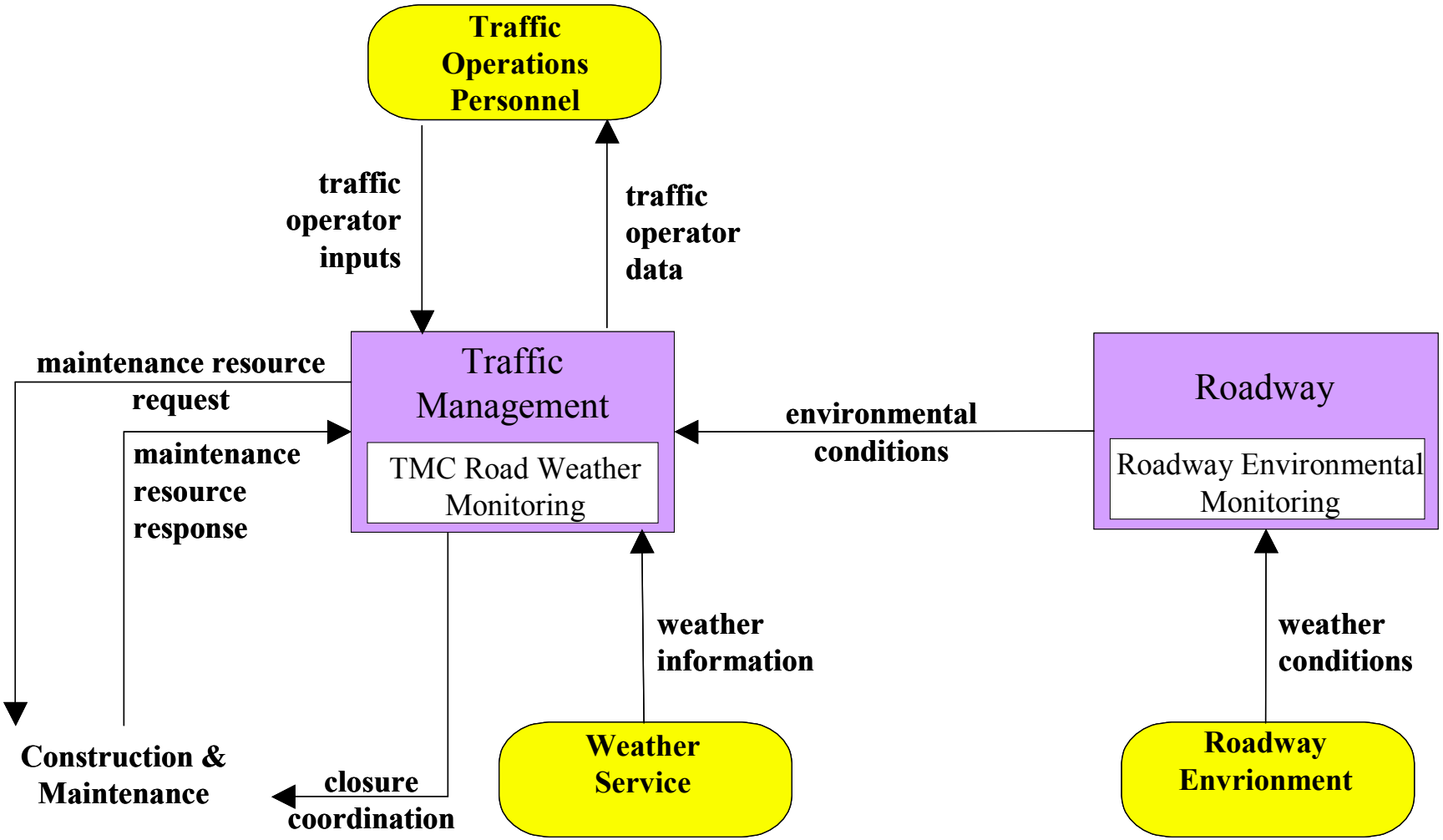


Figure E.29 – Speed Management (FL ATMS20) Market Package

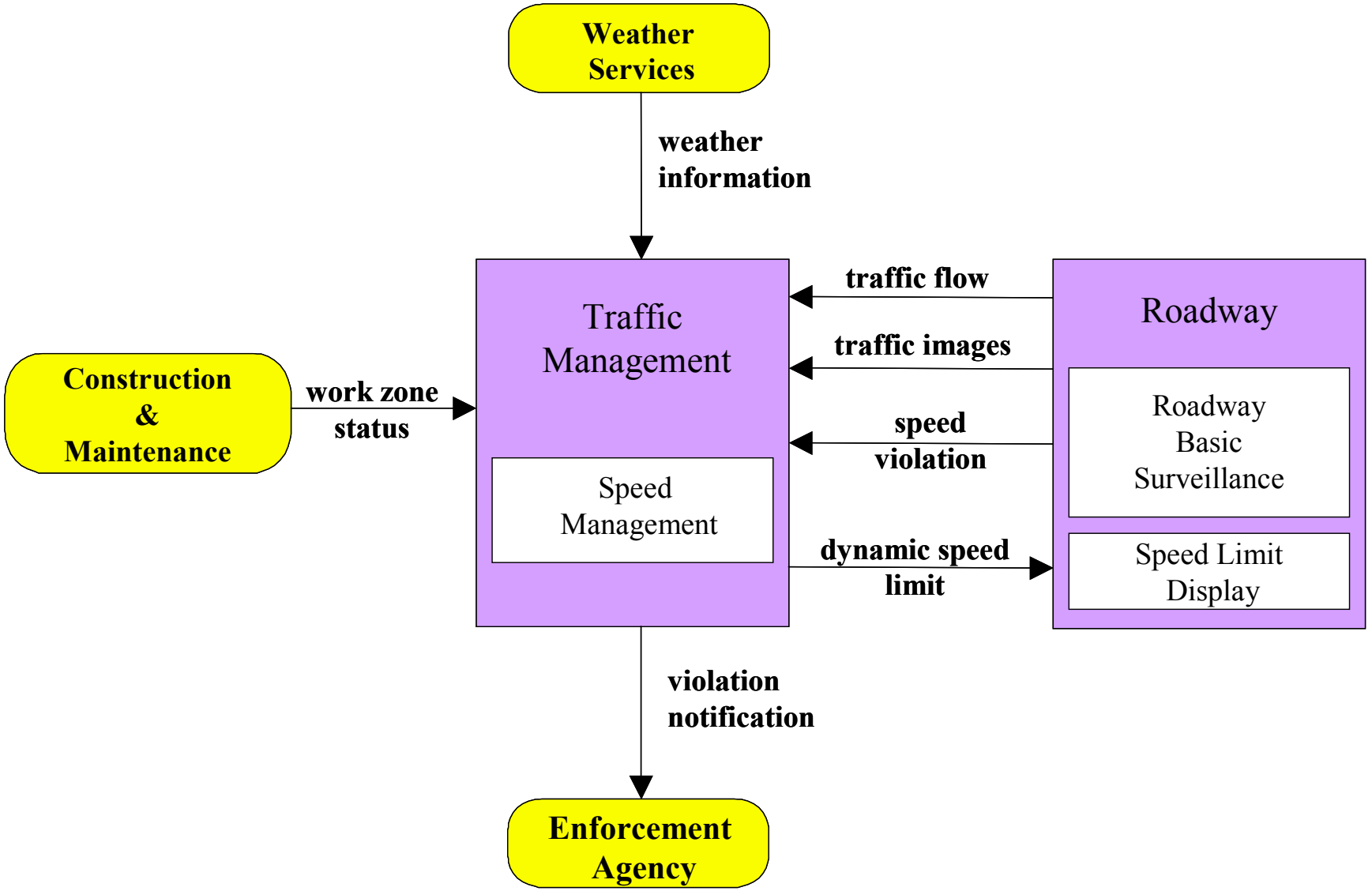


Figure E.30 – Freight Administration (CVO02) Market Package

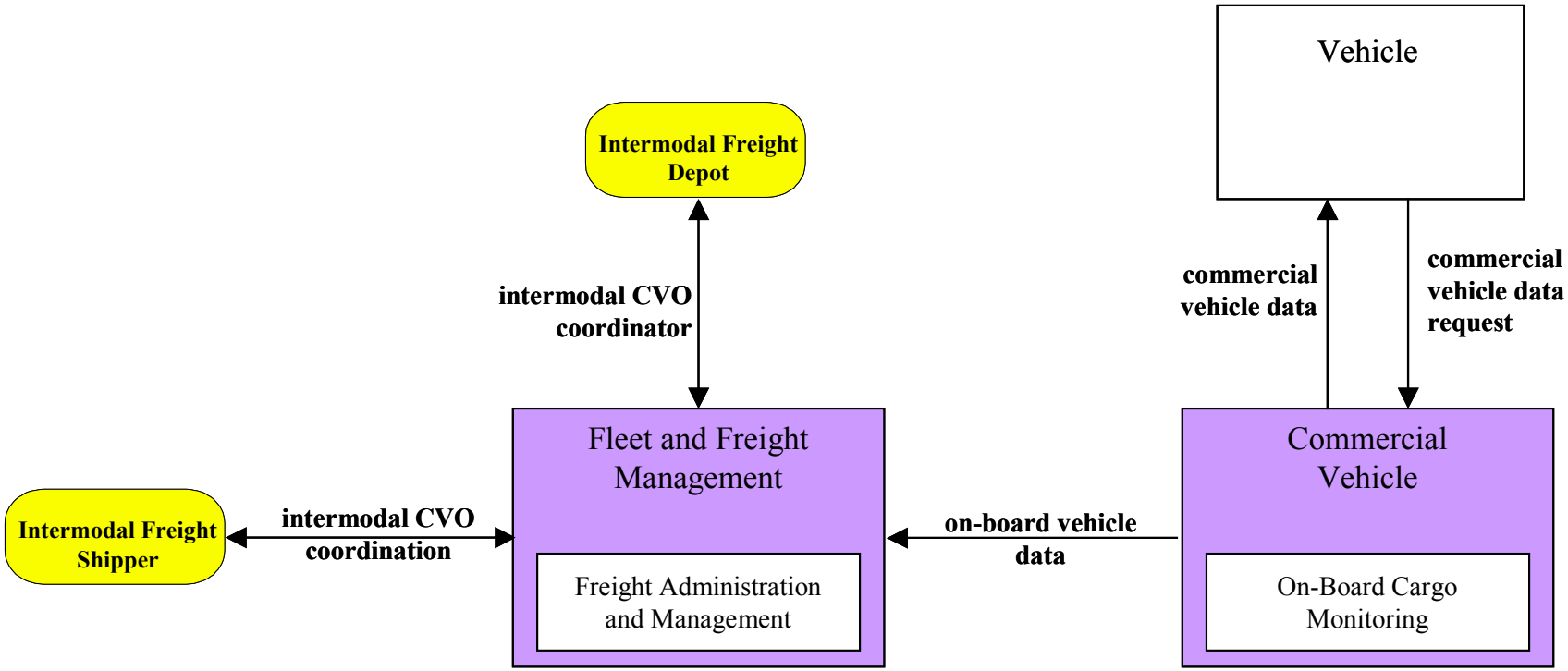


Figure E.31 – Electronic Clearance (CVO03) Market Package

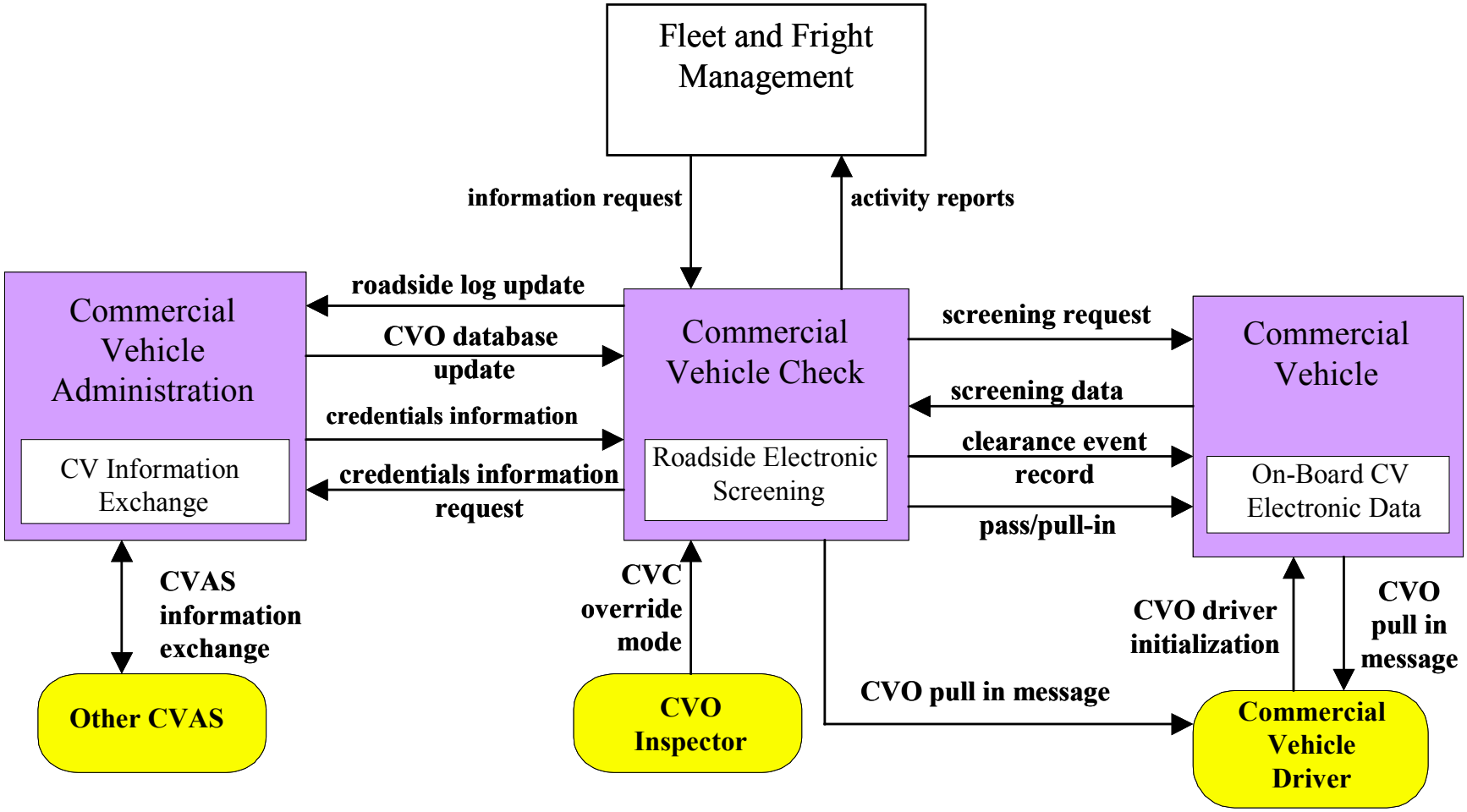


Figure E.32 – Commercial Vehicle Administrative Process (CVO04) Market Package

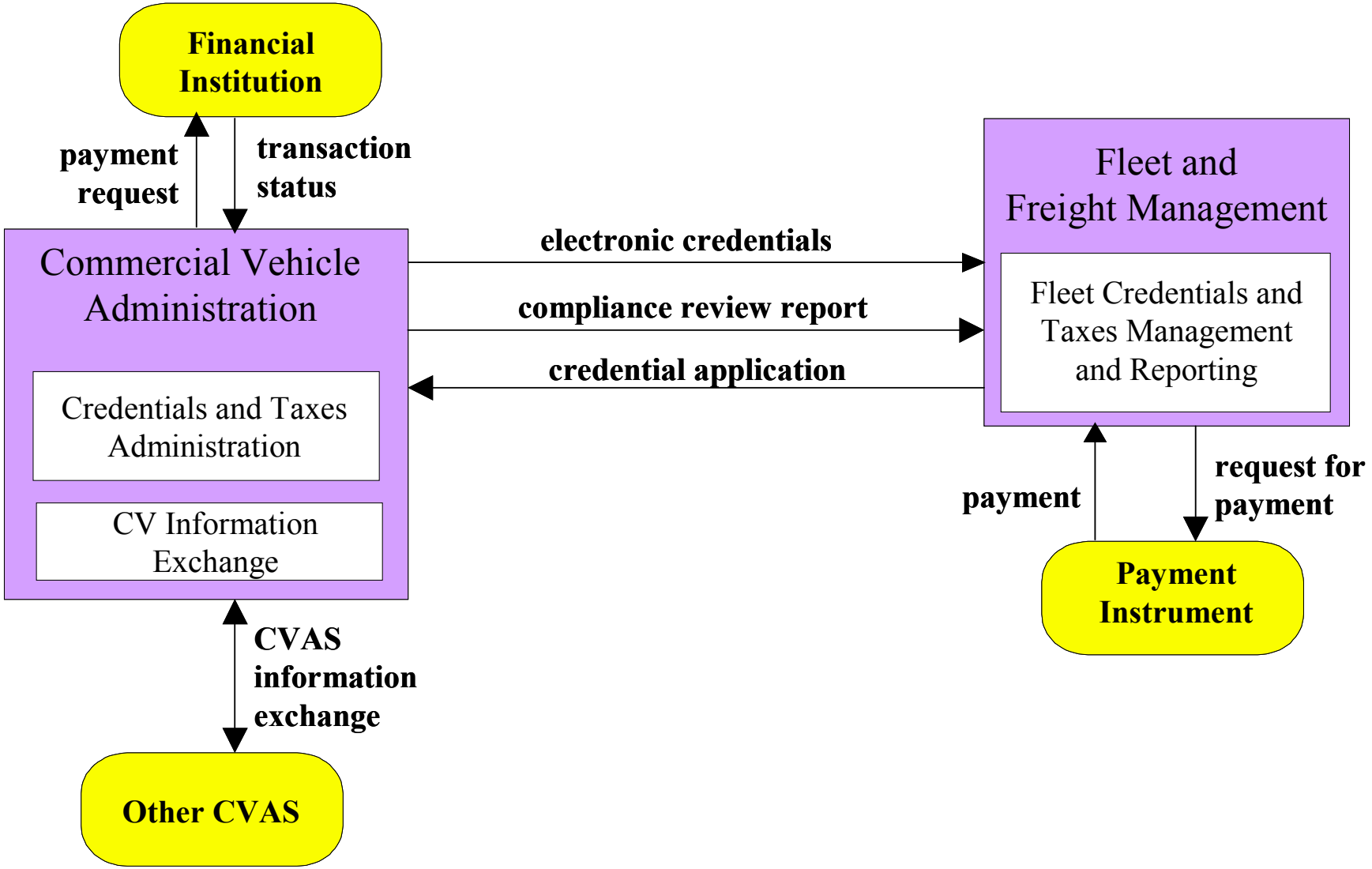


Figure E.33 – Weigh-in-Motion (CVO06) Market Package

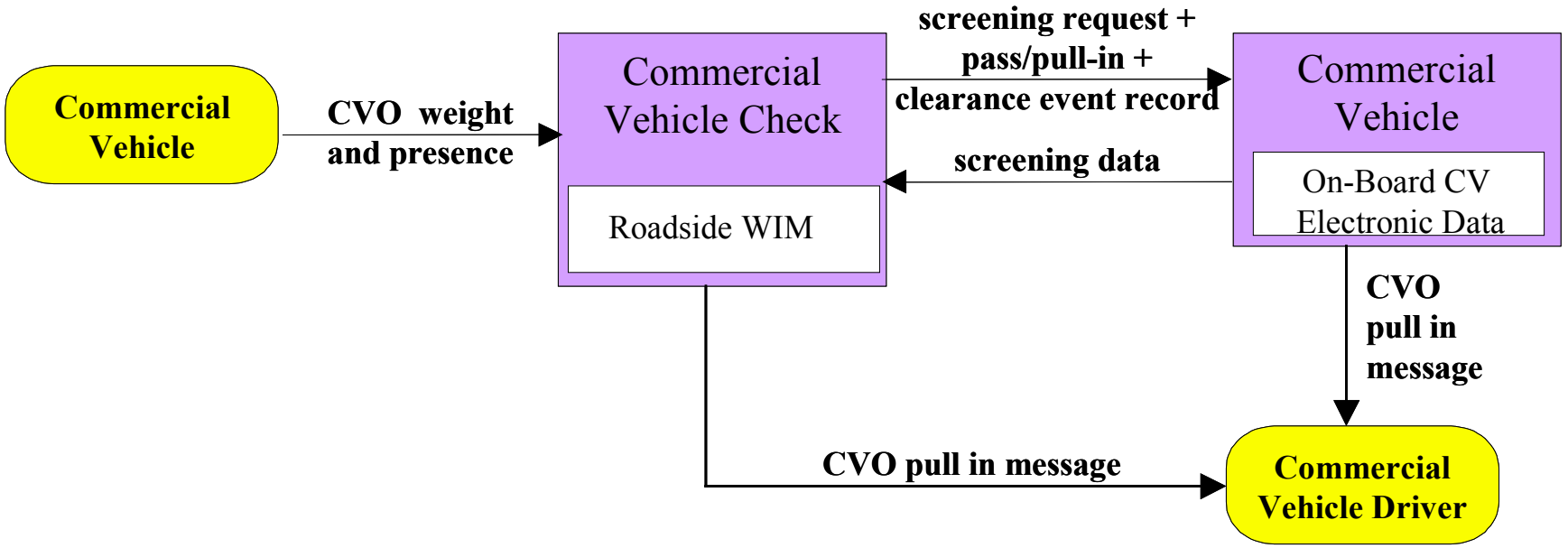


Figure E.34 – Roadside CVO Safety (CVO07) Market Package

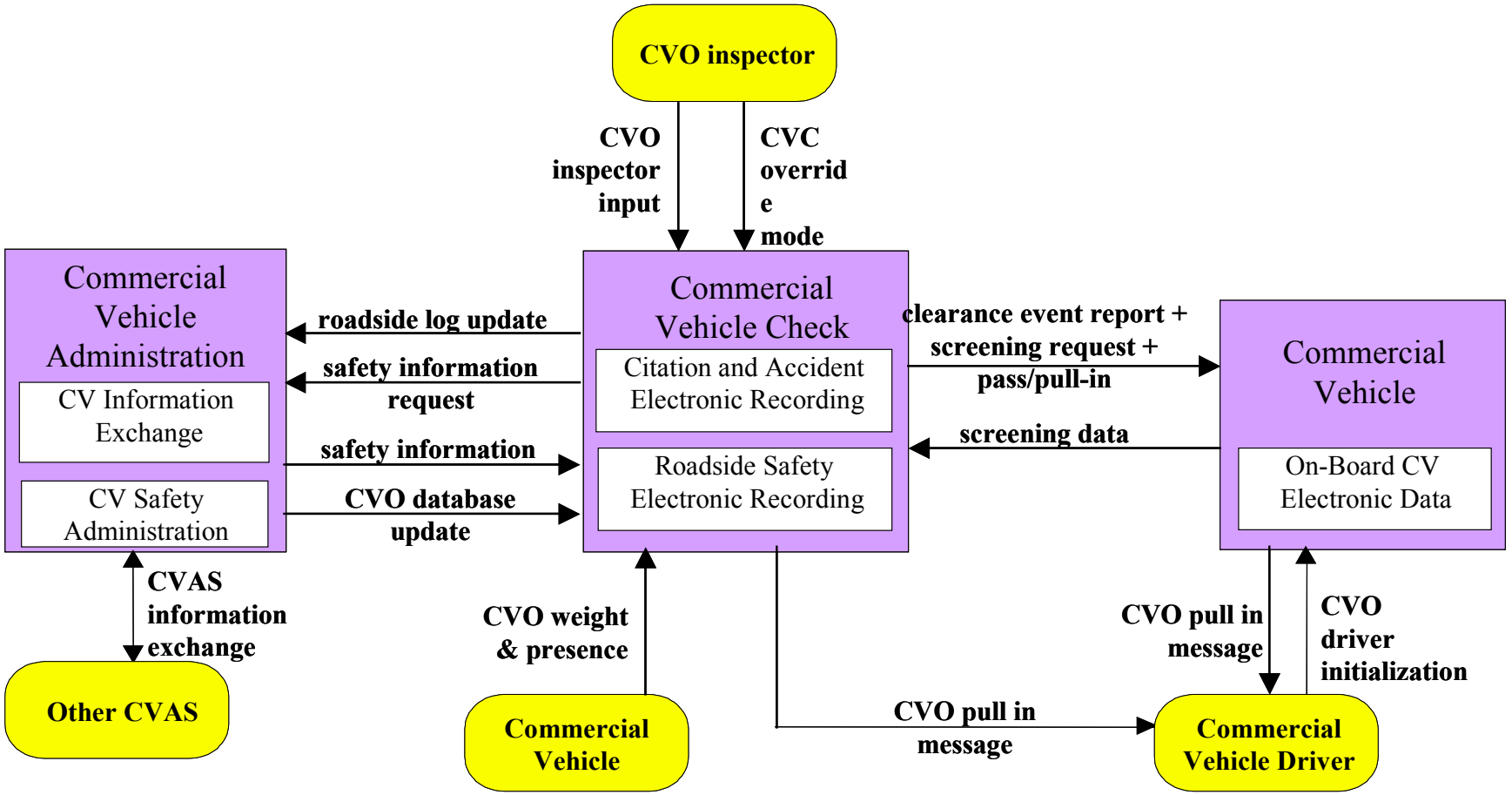


Figure E.35 – On-Board CVO Safety (CVO08) Market Package

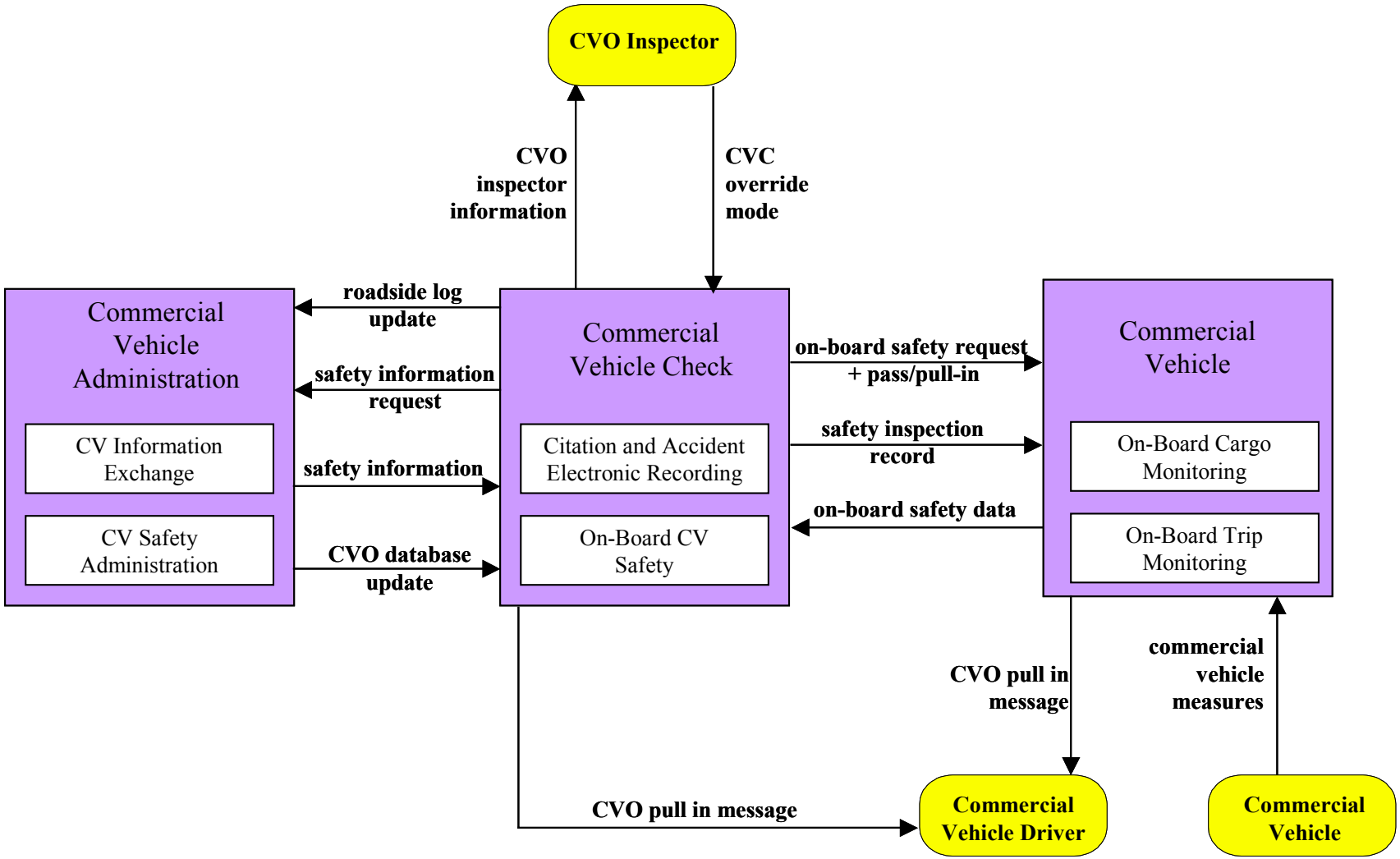


Figure E.36 – CVO Fleet Maintenance (CVO09) Market Package

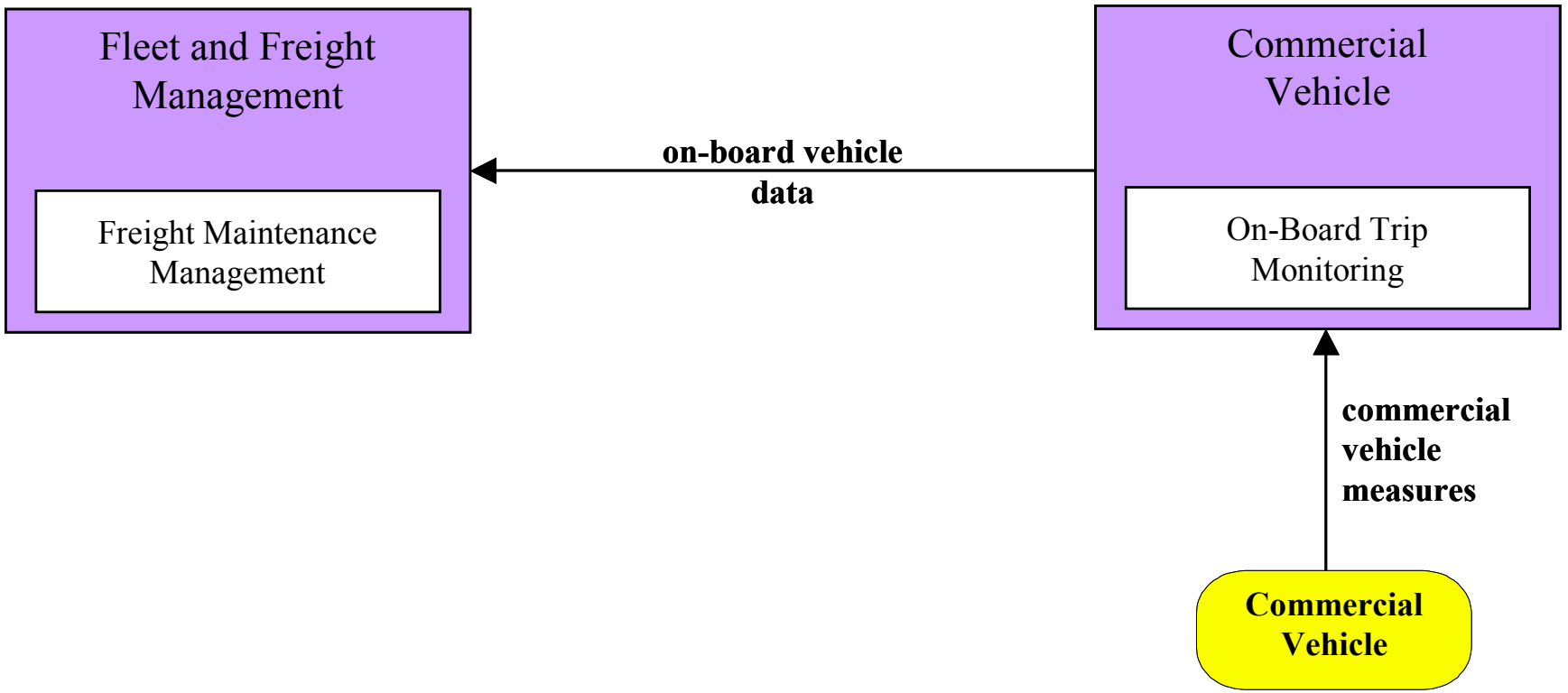


Figure E.37 – HAZMAT Management (CVO10) Market Package

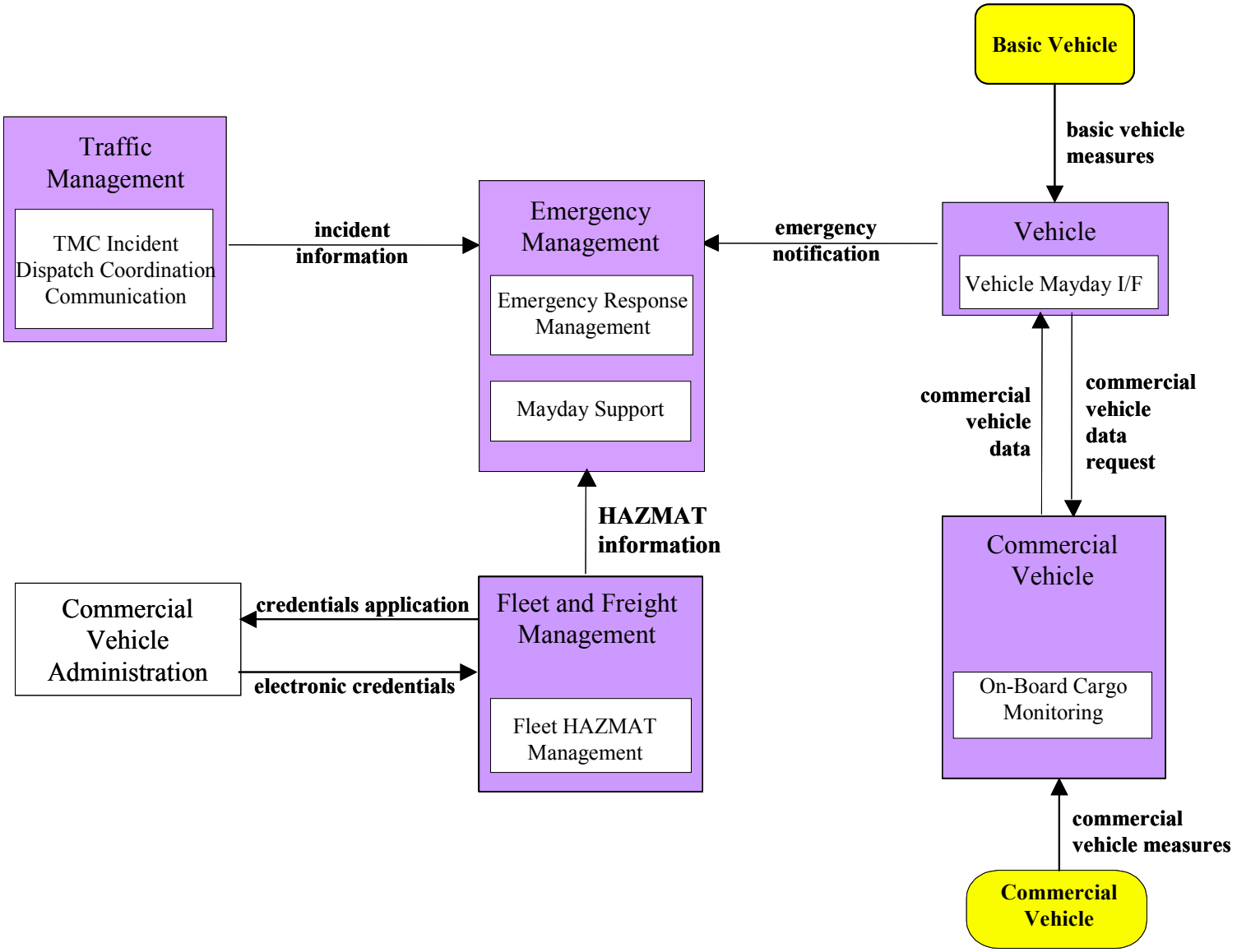


Figure E.38 – Emergency Response (EM1) Market Package

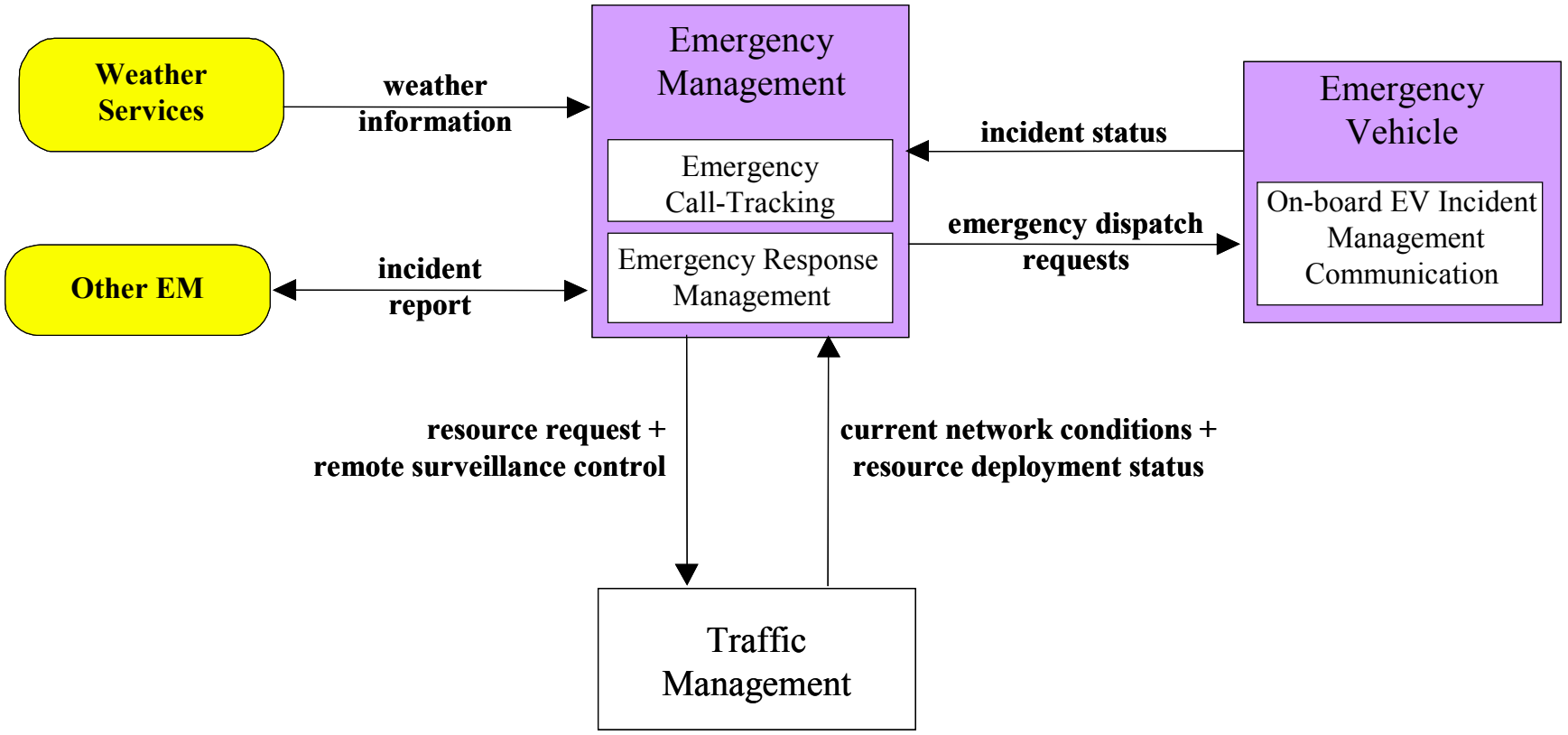


Figure E.39 – Emergency Routing (EM2) Market Package

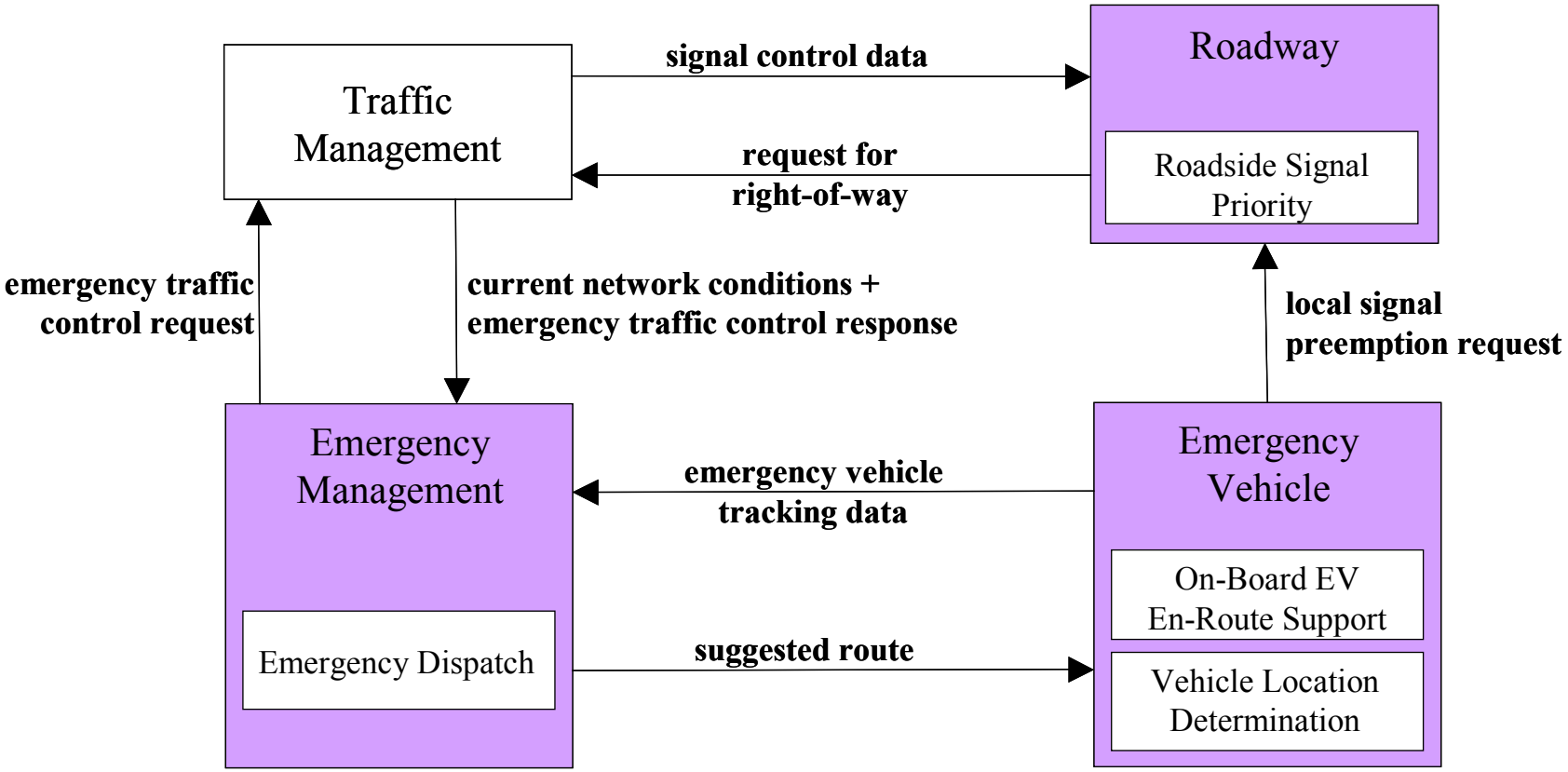


Figure E.40 – Mayday Support (EM3) Market Package

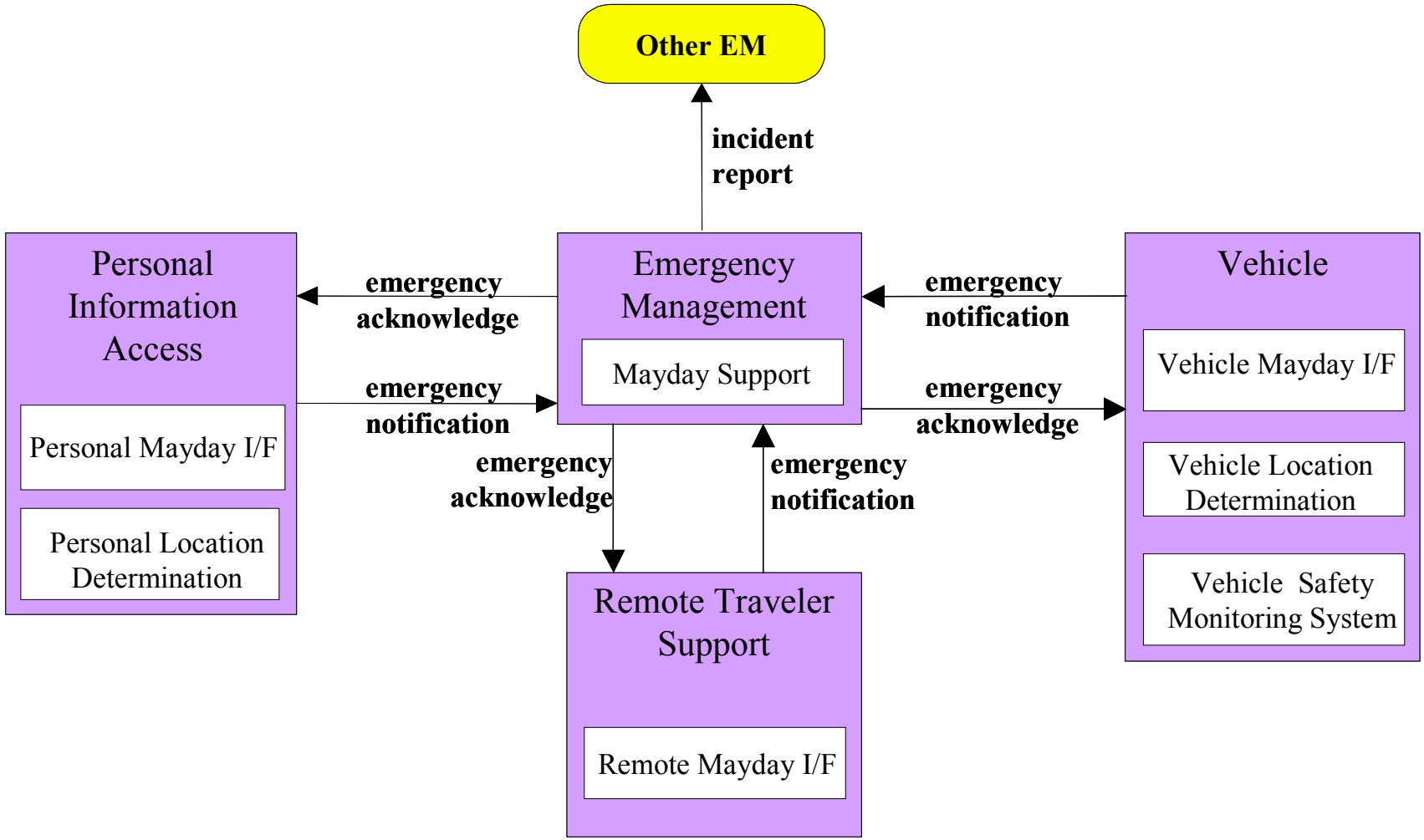


Figure E.41 – Evacuation Management (FL EM4) Market Package

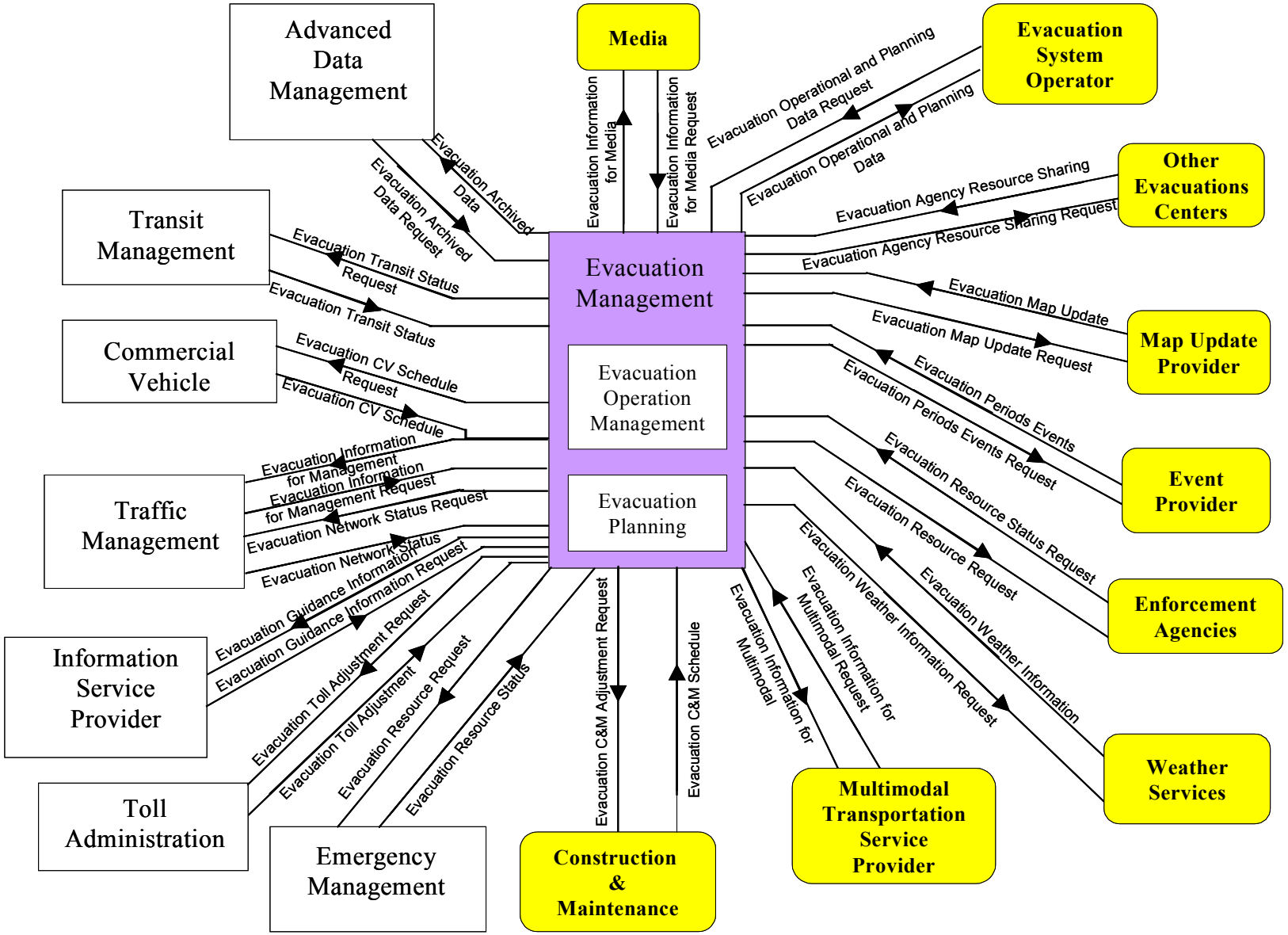
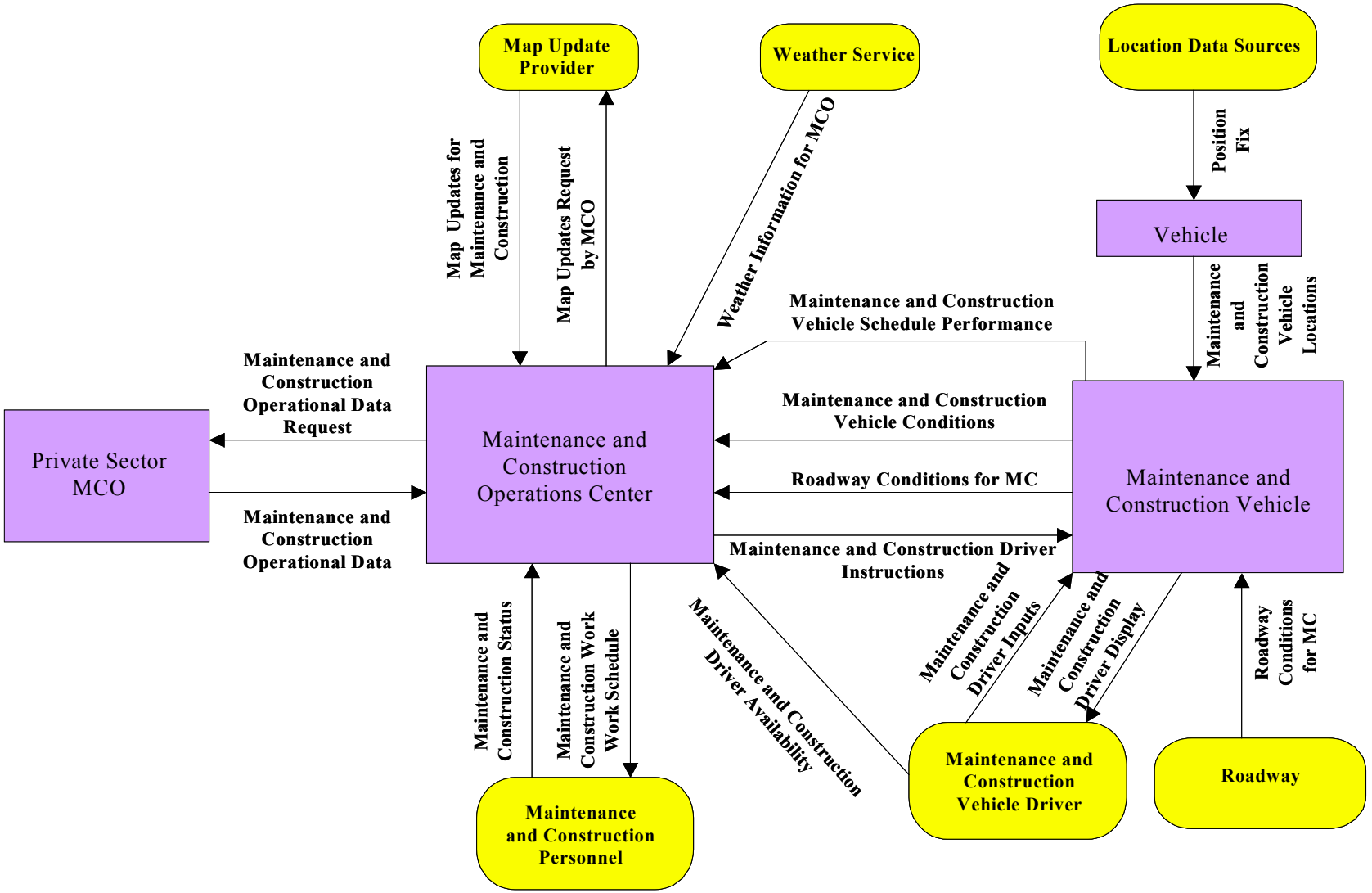


Figure E.42 – Maintenance and Construction Operations (FL MCO1) Market Package



Appendix F

FIHS Corridor Elements and Stakeholder Lists

Table F.1 – District 1 I-75 Stakeholders

Element Name	Stakeholder Name	Element Status
ADC	FDOT D1	Planned
Air Freight Terminals	Air Freight Terminals	Existing
Amtrak Passenger Train Terminal	Amtrak	Existing
Archived Data Administrator	FDOT D1	Planned
Archived Data User Systems	Archived Data User Systems	Planned
Basic Vehicle	Basic Vehicle	Existing
Broward County ITS Operations Facility (RTMC)	FDOT D4	Existing
Charlotte County Fire Rescue Dispatch	Charlotte County Fire Rescue	Existing
Charlotte County Fire Rescue Vehicles	Charlotte County Fire Rescue	Existing
Charlotte County Sheriff's Dispatch	Charlotte County Sheriff's Office	Existing
Charlotte County Sheriff's Vehicles	Charlotte County Sheriff's Office	Existing
Charlotte County TMC	Charlotte County	Existing
City of Bradenton TMC	City of Bradenton	Existing
City of Cape Coral TMC	City of Cape Coral TMC	Existing
City of Ft. Myers TMC	City of Ft. Myers	Existing
City of Naples TMC	City of Naples	Existing
City of Sarasota TMC	City of Sarasota	Existing
Collier County Fire Rescue Dispatch	Collier County Fire Rescue	Existing
Collier County Fire Rescue Vehicles	Collier County Fire Rescue	Existing
Collier County Sheriff's Dispatch	Collier County Sheriff's Office	Existing
Collier County Sheriff's Vehicles	Collier County Sheriff's Office	Existing
Collier County TMC	Collier County	Existing
Collier County Transit Dispatch	Collier County	Existing
Collier County Transit Vehicles	Collier County	Existing
Commercial Vehicle	Commercial Vehicle	Existing
Commercial Vehicle Administration	Commercial Vehicle Administration	Existing
Commercial Vehicle Driver	Commercial Vehicle Driver	Existing
Commercial Vehicle Manager	Commercial Vehicle Manager	Existing
County Emergency Operations Centers	County Emergency Mgmt. Divs.	Existing

Table F.1 (Continued)

Element Name	Stakeholder Name	Element Status
County Paratransit Dispatch	Community Transportation Coordination	Planned
County Paratransit Vehicles	Community Transportation Coordination	Planned
CVO Information Requestor	CVO Information Requestor	Planned
CVO Inspector	MCCO	Existing
District 1 Event Promoter	District 1 Event Promoter	Existing
District 1 I-275 Roadside Equipment	FDOT D1	Planned
District 1 I-75 Roadside Equipment (North)	FDOT D1	Planned
District 1 I-75 Roadside Equipment (South)	FDOT D1	Planned
District 1 Regional Airports	District 1 Regional Airports	Existing
District 1 Service Patrol Dispatch	FDOT D1	Existing
District 1 Service Patrol Vehicles	FDOT D1	Existing
DMV	Department of Motor Vehicle	Existing
Driver	Driver	Existing
E-911	County Emergency Mgmt. Divs.	Existing
Electronic Payment Card	Traveler	Existing
Emergency Personnel	Emergency Management Centers	Existing
Emergency System Operator	Emergency Management Centers	Existing
FDLE	FDLE	Existing
FDOT District 1 Construction	FDOT D1	Existing
FDOT District 1 Maintenance	FDOT D1	Existing
FDOT District 1 Public Information Office	FDOT D1	Existing
FDOT District 1 Transportation Statistics System	FDOT D1	Existing
FDOT Office of Toll Operations	FDOT D8	Existing
FHP Vehicles	FHP	Existing
Financial Institutions	Financial Institutions	Existing
Fleet and Freight Management	Fleet and Freight Management	Existing
Florida Highway Patrol Troop F Dispatch	FHP	Existing
Ft. Myers RTMC	FDOT D1	Planned

Table F.1 (Continued)

Element Name	Stakeholder Name	Element Status
Government Administrators	Government Administrators	Existing
Government Reporting Systems	Government Reporting Systems	Planned
I-75 Alligator Alley Toll Collection Systems	OTO	Existing
Inter-City Bus Service	Greyhound Bus Company	Existing
Inter-City Buses	Greyhound Bus Company	Existing
Intermodal Freight Shipper	Intermodal Freight Shipper	Existing
ISP Operator	ISP Operators	Existing
Lee County Fire Rescue Dispatch	Lee County Fire Rescue	Existing
Lee County Fire Rescue Vehicles	Lee County Fire Rescue	Existing
Lee County Sheriff's Dispatch	Lee County Sheriff's Office	Existing
Lee County Sheriff's Vehicles	Lee County Sheriff's Office	Existing
Lee County TMC	Lee County	Existing
LEETRAN Multi-Modal Transportation Center	LEETRAN	Existing
LEETRAN Transit Dispatch	LEETRAN	Existing
LEETRAN Transit Vehicles	LEETRAN	Existing
Local Fire Dispatch	Local Fire Dept	Existing
Local Fire Rescue Vehicles	Local Fire Dept	Existing
Local Military Bases	US DOD	Existing
Local Police Dispatch	Local Police Dept	Existing
Local Police Vehicles	Local Police Dept	Existing
Local Venue Event Scheduling System	Local Venue Promoters	Existing
Location Data Source	Location Data Source	Planned
Maintenance and Construction Personnel	FDOT D1	Existing
Maintenance and Construction Vehicle	FDOT D1	Existing
Maintenance and Construction Vehicle Driver	FDOT D1	Existing
Manatee County Fire Rescue Dispatch	Manatee County Fire Rescue	Existing
Manatee County Fire Rescue Vehicles	Manatee County Fire Rescue	Existing
Manatee County Sheriff's Dispatch	Manatee County Sheriff's Office	Existing
Manatee County Sheriff's Vehicles	Manatee County Sheriff's Office	Existing

Table F.1 (Continued)

Element Name	Stakeholder Name	Element Status
Manatee County TMC	Manatee County	Existing
Map Update Provider	Map Update Providers	Planned
MCAT Transit Dispatch	Manatee County Community Service Dept.	Existing
MCAT Transit Vehicles	Manatee County Community Service Department	Existing
Mobile TMC	FDOT D1	Planned
Mobile TMC Roadside Equipment	FDOT D1	Planned
Motorist Aid Call Boxes	FDOT D1	Planned
Municipality Event Permit Systems	County and City Permit Office	Existing
National Hurricane Center Information System	National Weather Service	Existing
National Weather Service	National Weather Service	Existing
Newspapers, Radio, Television Stations	Local Media Affiliates	Existing
Other CVAS	Other CVAS	Planned
Other Data Sources	MPOs, RPCs, City and County Agencies	Planned
Other Evacuation Center	Other Evacuation Agencies	Planned
Other ISP	Information Service Providers	Planned
Other Southwest Florida TMC	South FL Traffic Mgmt Agencies	Planned
Other TRM	Other TRM	Planned
Other Vehicle	Other Vehicle	Planned
Park-and-Ride Lots	Public and Private Parking Providers	Existing
Parking Facilities	Public and Private Parking Providers	Existing
Parking Operator	Parking Operator	Planned
Port of Manatee	Manatee County Port Authority	Existing
Potential Obstacles	Potential Obstacles	Planned
Private Sector MCO	Private Sector MCO	Planned
Punta Gorda TMC	City of Punta Gorda	Existing
Rail Intermodal Terminals	Rail Operator	Existing
Region 4 MCCO	MCCO	Existing
Regional ATIS Center	FDOT D1	Planned

Table F.1 (Continued)

Element Name	Stakeholder Name	Element Status
Regional ATIS Kiosks	FDOT D1	Planned
Regional Evacuation Center Personnel	Regional Evacuation Management	Planned
Regional Evacuation Management Center	Regional Evacuation Management	Planned
Rest Areas/Visitor Centers	FDOT D1	Planned
Roadway	Roadway	Existing
Roadway Environment	Roadway Environment	Existing
Sarasota County Fire Rescue Dispatch	Sarasota County Fire Rescue	Existing
Sarasota County Fire Rescue Vehicles	Sarasota County Fire Rescue	Existing
Sarasota County Sheriff's Dispatch	Sarasota County Sheriff's Office	Existing
Sarasota County Sheriff's Vehicles	Sarasota County Sheriff's Office	Existing
Sarasota County TMC	Sarasota County	Existing
Sarasota Satellite TMC	FDOT D1	Existing
Scales and Inspection Facilities	FDOT Motor Carrier Compliance	Existing
SCAT Transit Dispatch	Sarasota County Area Transit	Existing
SCAT Transit Vehicles	Sarasota County Area Transit	Existing
School Buses	County School Districts	Existing
School District Transportation Dispatch	County School Districts	Existing
Secure Area Environment	Secure Area Environment	Planned
SEOC	SEOC	Existing
Southwest Florida International Airport	Southwest Florida International Airport	Existing
Special Event Parking	Public and Private Parking Providers	Existing
State Evacuation Management Center	SEOC	Planned
Sunshine Skyway South Toll Plaza Control Center	Sunshine Skyway South Toll Plaza Control Center	Existing
Tampa RTMC	FDOT D7	Planned
Toll Administrator	OTO	Existing
Toll Operators	OTO	Existing
Traffic	Traffic	Existing
Traffic Operations Personnel	Traffic Operations Personnel	Planned
Transit Driver	Transit Driver	Existing

Table F.1 (Continued)

Element Name	Stakeholder Name	Element Status
Transit Fleet Manager	Transit Fleet Manager	Existing
Transit System Operators	Transit System Operators	Existing
Transit User	Traveler	Existing
Transit Vehicle	Transit Vehicle	Existing
Transp. Data Collection Systems	County MPO	Planned
Traveler	Traveler	Existing
Traveler Personal Computing/Information Appliances	Traveler	Existing
Vehicle	Vehicle	Existing
Vehicle Characteristics	Vehicle Characteristics	Planned
Yellow Pages Service Providers	Yellow Pages Service Providers	Planned

Table F.2 – District 2 I-10 Stakeholders

Element Name	Stakeholder Name	Element Status
ADC	FDOT D2	Planned
Air Freight Terminals	Jacksonville Port Authority	Existing
Alltel Stadium	Alltel Stadium	Existing
Amtrak Passenger Train Terminal	Amtrak	Existing
Archived Data Administrator	FDOT D2	Planned
Archived Data User Systems	Archived Data User Systems	Planned
Baker County Fire Rescue Dispatch	Baker County Fire Rescue	Existing
Baker County Fire Rescue Vehicles	Baker County Fire Rescue	Existing
Baker County Sheriff's Dispatch	Baker County Sheriff's Office	Existing
Baker County Sheriff's Vehicles	Baker County Sheriff's Office	Existing
Basic Vehicle	Basic Vehicle	Existing
City of Jacksonville TMC	City of Jacksonville	Existing
City of Lake City TMC	City of Lake City	Existing
Columbia County Fire Rescue Dispatch	Columbia County Fire Rescue	Existing
Columbia County Fire Rescue Vehicles	Columbia County Fire Rescue	Existing
Columbia County Sheriff's Dispatch	Columbia County Sheriff's Office	Existing
Columbia County Sheriff's Vehicles	Columbia County Sheriff's Office	Existing
Commercial Vehicle	Commercial Vehicle	Existing
Commercial Vehicle Administration	Commercial Vehicle Administration	Existing
Commercial Vehicle Driver	Commercial Vehicle Driver	Existing
Commercial Vehicle Manager	Commercial Vehicle Manager	Existing
County Emergency Operations Centers	County Emergency Mgmt. Divs.	Existing
County Paratransit Dispatch	Community Transportation Coordinator	Existing
County Paratransit Vehicles	Community Transportation Coordinator	Existing
CVO Information Requestor	CVO Information Requestor	Planned
CVO Inspector	MCCO	Planned
District 2 Event Promoter	District 2 Event Promoter	Planned
District 2 I-10 Roadside Equipment	FDOT D2	Planned
District 2 Regional Airports	District 2 Regional Airports	Existing
District 2 Service Patrol Dispatch	FDOT D2	Existing
District 2 Service Patrol Vehicles	FDOT D2	Existing

Table F.2 (Continued)

Element Name	Stakeholder Name	Element Status
DMV	Department of Motor Vehicles	Existing
Driver	Driver	Existing
E-911	County Emergency Mgmt. Divs.	Existing
Electronic Payment Card	Traveler	Existing
Emergency Personnel	Emergency Management Centers	Existing
Emergency System Operator	Emergency Management Centers	Existing
FDLE	FDLE	Existing
FDOT District 2 Construction	FDOT D2	Existing
FDOT District 2 Maintenance	FDOT D2	Existing
FDOT District 2 Transportation Statistics System	FDOT D2	Existing
FHP Vehicles	FHP	Existing
Financial Institutions	Financial Institutions	Existing
Fleet and Freight Management	Fleet and Freight Management	Existing
Florida Highway Patrol Dispatch	FL Highway Patrol	Existing
Government Administrators	Government Administrators	Existing
Government Reporting Systems	Government Reporting Systems	Planned
Inter-City Bus Service	Greyhound Bus Company	Existing
Inter-City Buses	Greyhound Bus Company	Existing
Intermodal Freight Shipper	Intermodal Freight Shipper	Existing
ISP Operator	ISP Operators	Planned
Jacksonville Fire Rescue Dispatch	Jacksonville Fire Rescue	Existing
Jacksonville Fire Rescue Vehicles	Jacksonville Fire Rescue	Existing
Jacksonville International Airport	Jacksonville Port Authority	Existing
Jacksonville Multi-Modal Transportation Center	Jacksonville Transportation Authority	Existing
Jacksonville RTMC	FDOT D2	Existing
Jacksonville Sheriff's Dispatch	Jacksonville Sheriff's Office	Existing
Jacksonville Sheriff's Vehicles	Jacksonville Sheriff's Office	Existing
Jacksonville Transit Dispatch	Jacksonville Transportation Authority	Existing
Jacksonville Transit Vehicles	Jacksonville Transportation Authority	Existing
JAXPORT Marine Terminals	Jacksonville Port Authority	Existing
Lake City Virtual TMC	FDOT D2	Planned

Table F.2 (Continued)

Element Name	Stakeholder Name	Element Status
Local Fire Dispatch	Local Fire Dept	Existing
Local Fire Rescue Vehicles	Local Fire Dept	Existing
Local Military Bases	US DOD	Existing
Local Police Dispatch	Local Police Dept	Existing
Local Police Vehicles	Local Police Dept	Existing
Local Venue Event Scheduling System	Local Venue Promoters	Existing
Location Data Source	Location Data Source	Planned
Madison County Fire Rescue Dispatch	Madison County Fire Rescue	Existing
Madison County Fire Rescue Vehicles	Madison County Fire Rescue	Existing
Madison County Sheriff's Dispatch	Madison County Sheriff's Office	Existing
Madison County Sheriff's Vehicles	Madison County Sheriff's Office	Existing
Maintenance and Construction Personnel	FDOT D2	Existing
Maintenance and Construction Vehicle	FDOT D2	Existing
Maintenance and Construction Vehicle Driver	FDOT D2	Existing
Map Update Provider	Map Update Providers	Planned
Mobile TMC	FDOT D2	Planned
Mobile TMC Roadside Equipment	FDOT D2	Planned
Motorist Aid Call Boxes	FDOT D2	Planned
Municipality Event Permit Systems	County and City Permit Office	Existing
Nassau County Fire Rescue Dispatch	Nassau County Fire Rescue	Existing
Nassau County Fire Rescue Vehicles	Nassau County Fire Rescue	Existing
Nassau County Sheriff's Dispatch	Nassau County Sheriff's Office	Existing
Nassau County Sheriff's Vehicles	Nassau County Sheriff's Office	Existing
National Hurricane Center Information System	National Weather Service	Existing
National Weather Service	National Weather Service	Existing
Newspapers, Radio, Television Stations	Local Media Affiliates	Existing
Orlando RTMC	FDOT D5	Existing
Other CVAS	Other CVAS	Planned
Other Data Sources	MPOs, RPCs, City and County Agencies	Planned
Other Evacuation Center	Other Evacuation Agencies	Planned
Other ISP	Information Service Providers	Planned

Table F.2 (Continued)

Element Name	Stakeholder Name	Element Status
Other North Florida TMCs	North FL Traffic Mgmt Agencies	Planned
Other TRM	Jacksonville Transportation Authority	Planned
Other Vehicle	Other Vehicle	Planned
Park-and-Ride Lots	Public and Private Parking Providers	Existing
Parking Facilities	Public and Private Parking Providers	Existing
Parking Operator	Parking Operators	Existing
Port of Fernandina Beach System	Nassau County Ocean Highway Authority	Existing
Potential Obstacles	Potential Obstacles	Planned
Private Sector MCO	Private Sector MCO	Existing
Rail Intermodal Terminals	Rail Operator	Existing
Region 2 MCCO	MCCO	Existing
Regional ATIS Center	FDOT D2	Planned
Regional ATIS Kiosks	FDOT D2	Planned
Regional Evacuation Center Personnel	Regional Evacuation Management	Planned
Regional Evacuation Management Center	Regional Evacuation Management	Planned
Rest Areas/Visitor Centers	FDOT D2	Existing
Roadway	Roadway	Existing
Roadway Environment	Roadway Environment	Existing
Scales and Inspection Facilities	FDOT Motor Carrier Compliance	Existing
School Buses	County School Districts	Existing
School District Transportation Dispatch	County School Districts	Existing
Secure Area Environment	FDOT D2	Planned
SEOC	SEOC	Existing
Special Event Parking	Public and Private Parking Providers	Existing
State Evacuation Management Center	SEOC	Planned
Suwannee County Fire Rescue Dispatch	Suwannee County Fire Rescue	Existing
Suwannee County Fire Rescue Vehicles	Suwannee County Fire Rescue	Existing
Suwannee County Sheriff's Dispatch	Suwannee County Sheriff's Office	Existing
Suwannee County Sheriff's Vehicles	Suwannee County Sheriff's Office	Existing
Tallahassee RTMC	FDOT D3	Planned
Traffic	Traffic	Existing

Table F.2 (Continued)

Element Name	Stakeholder Name	Element Status
Traffic Operations Personnel	FDOT D2	Planned
Transit Driver	Jacksonville Transportation Authority	Existing
Transit Fleet Manager	Jacksonville Transportation Authority	Existing
Transit System Operators	Jacksonville Transportation Authority	Existing
Transit User	Traveler	Existing
Transit Vehicle	Jacksonville Transportation Authority	Planned
Transp. Data Collection Systems	Transp. Data Collection Systems	Planned
Traveler	Traveler	Existing
Traveler Personal Computing/Information Appliance	Traveler	Existing
Troop G FHP Headquarters	FHP	Existing
Vehicle	Vehicle	Existing
Vehicle Characteristics	Vehicle Characteristics	Planned
Yellow Pages Service Providers	Yellow Pages Service Providers	Planned

Table F.3 – District 2 I-75 Stakeholders

Element Name	Stakeholder Name	Element Status
ADC	FDOT D2	Planned
Air Freight Terminals	Gainesville Regional Airport	Existing
Alachua County Fire Rescue Dispatch	Alachua County Fire Rescue	Existing
Alachua County Fire Rescue Vehicles	Alachua County Fire Rescue	Existing
Alachua County Sheriff's Dispatch	Alachua County Sheriff	Existing
Alachua County Sheriff's Vehicles	Alachua County Sheriff	Existing
Amtrak Passenger Train Terminal	Amtrak	Existing
Archived Data Administrator	FDOT D2	Planned
Archived Data User Systems	Archived Data User Systems	Planned
Basic Vehicle	Basic Vehicle	Existing
City of Lake City TMC	City of Lake City	Existing
Columbia County Fire and Rescue Dispatch	Columbia County Fire and Rescue	Existing
Columbia County Fire Rescue Vehicles	Columbia County Fire and Rescue	Existing
Columbia County Sheriff's Dispatch	Columbia County Sheriff's Office	Existing
Columbia County Sheriff's Vehicles	Columbia County Sheriff's Office	Existing
Commercial Vehicle	Commercial Vehicle	Existing
Commercial Vehicle Administration	Commercial Vehicle Administration	Existing
Commercial Vehicle Driver	Commercial Vehicle Driver	Existing
Commercial Vehicle Manager	Commercial Vehicle Manager	Existing
County Emergency Operations Centers	County Emergency Mgmt. Divs.	Existing
County Paratransit Dispatch	Community Transportation Coordinator	Existing
County Paratransit Vehicles	Community Transportation Coordinator	Existing
CVO Information Requestor	CVO Information Requestor	Planned
CVO Inspector	MCCO	Planned
District 2 Event Promoter	District 2 Event Promoters	Existing
District 2 I-75 Roadside Equipment	FDOT D2	Planned
District 2 Regional Airports	District 2 Regional Airports	Planned
District 2 Service Patrol Dispatch	FDOT D2	Existing
District 2 Service Patrol Vehicles	FDOT D2	Existing
DMV	Department of Motor Vehicles	Existing
Driver	Driver	Existing

Table F.3 (Continued)

Element Name	Stakeholder Name	Element Status
E-911	County Emergency Mgmt. Divs.	Existing
Electronic Payment Card	Traveler	Existing
Emergency Personnel	Emergency Management Centers	Existing
Emergency System Operator	Emergency Management Centers	Existing
FDLE	FDLE	Existing
FDOT District 2 Construction	FDOT D2	Existing
FDOT District 2 Maintenance	FDOT D2	Existing
FDOT District 2 Transportation Statistics System	FDOT D2	Existing
FHP Vehicles	FHP	Existing
Financial Institutions	Financial Institutions	Existing
Fleet and Freight Management	Fleet and Freight Management	Planned
Florida Highway Patrol Dispatch	FHP	Existing
Gainesville Regional Airport	Gainesville Regional Airport	Existing
Gainesville Regional Transit Dispatch	City of Gainesville	Existing
Gainesville Regional Transit Vehicles	City of Gainesville	Existing
Gainesville TMC	City of Gainesville	Existing
Government Administrators	Government Administrators	Existing
Government Reporting Systems	Government Reporting Systems	Planned
Hamilton County Fire Rescue Dispatch	Hamilton County Fire Rescue	Existing
Hamilton County Fire Rescue Vehicles	Hamilton County Fire Rescue	Existing
Hamilton County Sheriff's Dispatch	Hamilton County Sheriff's Office	Existing
Hamilton County Sheriff's Vehicles	Hamilton County Sheriff's Office	Existing
Inter-City Bus Service	Greyhound Bus Company	Existing
Inter-City Buses	Greyhound Bus Company	Existing
Intermodal Freight Shipper	Intermodal Freight Shipper	Existing
ISP Operator	ISP Operator	Existing
Lake City Virtual TMC	FDOT D2	Planned
Local Fire Dispatch	Local Fire Dept	Existing
Local Fire Rescue Vehicles	Local Fire Dept	Existing
Local Military Bases	US DOD	Existing
Local Police Dispatch	Local Police Dept	Existing

Table F.3 (Continued)

Element Name	Stakeholder Name	Element Status
Local Police Vehicles	Local Police Dept	Existing
Local Venue Event Scheduling System	Local Venue Promoters	Existing
Location Data Source	Location Data Source	Planned
Maintenance and Construction Personnel	FDOT D2	Existing
Maintenance and Construction Vehicle	FDOT D2	Existing
Maintenance and Construction Vehicle Driver	FDOT D2	Existing
Map Update Provider	Map Update Providers	Planned
Mobile TMC	FDOT D2	Planned
Mobile TMC Roadside Equipment	FDOT D2	Planned
Motorist Aid Call Boxes	FDOT D2	Planned
Municipality Event Permit Systems	County and City Permit Office	Existing
National Hurricane Center Information System	National Weather Service	Existing
National Weather Service	National Weather Service	Existing
Newspapers, Radio, Television Stations	Local Media Affiliates	Existing
Orlando RTMC	FDOT D5	Existing
Other CVAS	Other CVAS	Planned
Other Data Sources	MPOs, RPCs, City and County Agencies	Planned
Other Evacuation Center	Other Evacuation Agencies	Planned
Other ISP	Information Service Providers	Planned
Other North Florida TMCs	North FL Traffic Mgmt Agencies	Planned
Other TRM	Other TRM	Planned
Other Vehicle	Other Vehicle	Existing
Park-and-Ride Lots	Public and Private Parking Providers	Existing
Parking Facilities	Public and Private Parking Providers	Existing
Parking Operator	Parking Operator	Planned
Potential Obstacles	Potential Obstacles	Planned
Private Sector MCO	Private Sector MCO	Planned
Rail Intermodal Terminals	Rail Operator	Existing
Region 2 MCCO	MCCO	Existing
Regional ATIS Center	FDOT D2	Planned
Regional ATIS Kiosks	FDOT D2	Planned

Table F.3 (Continued)

Element Name	Stakeholder Name	Element Status
Regional Evacuation Center Personnel	Regional Evacuation Management	Planned
Regional Evacuation Management Center	Regional Evacuation Management	Planned
Rest Areas/Visitor Centers	FDOT D2	Planned
Roadway	Roadway	Existing
Roadway Environment	Roadway Environment	Existing
Scales and Inspection Facilities	FDOT Motor Carrier Compliance	Existing
School Buses	County School Districts	Existing
School District Transportation Dispatch	County School Districts	Existing
Secure Area Environment	FDOT D2	Planned
SEOC	SEOC	Existing
Special Event Parking	Public and Private Parking Providers	Existing
State Evacuation Management Center	SEOC	Planned
Suwannee County Fire Rescue Dispatch	Suwannee County Fire Department	Existing
Suwannee County Fire Rescue Vehicles	Suwannee County Fire Department	Existing
Suwannee County Sheriff's Dispatch	Suwannee County Sheriff's Department	Existing
Suwannee County Sheriff's Vehicles	Suwannee County Sheriff's Department	Existing
Tallahassee RTMC	FDOT D3	Planned
Traffic	Traffic	Existing
Traffic Operations Personnel	Traffic Operations Personnel	Existing
Transit Driver	Gainesville Regional Transportation Authority	Existing
Transit Fleet Manager	Fleet and Freight Management	Existing
Transit System Operators	Gainesville Regional Transportation Authority	Existing
Transit User	Traveler	Existing
Transit Vehicle	Gainesville Regional Transportation Authority	Planned
Transp. Data Collection Systems	County MPO	Existing
Traveler	Traveler	Existing
Traveler Personal Computing/Information Appliances	Traveler	Planned
Troop G FHP Headquarters	FHP	Existing
Vehicle	Vehicle	Existing
Vehicle Characteristics	Vehicle Characteristics	Planned

Table F.3 (Continued)

Element Name	Stakeholder Name	Element Status
Yellow Pages Service Providers	Yellow Pages Service Providers	Planned

Table F.4 – District 2 I-95 Stakeholders

Element Name	Stakeholder Name	Element Status
ADC	FDOT D2	Planned
Air Freight Terminals	Jacksonville Port Authority	Existing
Alltel Stadium	Alltel Stadium	Existing
Amtrak Passenger Train Terminal	Amtrak	Existing
Archived Data Administrator	FDOT D2	Planned
Archived Data User Systems	Archived Data User Systems	Planned
Basic Vehicle	Basic Vehicle	Existing
City of Jacksonville TMC	City of Jacksonville	Existing
Clay County Fire Rescue Dispatch	Clay County Fire Rescue	Existing
Clay County Fire Rescue Vehicles	Clay County Fire Rescue	Existing
Clay County Sheriff's Dispatch	Clay County Sheriff's Office	Existing
Clay County Sheriff's Vehicles	Clay County Sheriff's Office	Existing
Clay County TMC	Clay County	Existing
Commercial Vehicle	Commercial Vehicle	Existing
Commercial Vehicle Administration	Commercial Vehicle Administration	Planned
Commercial Vehicle Driver	Commercial Vehicle Driver	Existing
Commercial Vehicle Manager	Commercial Vehicle Manager	Existing
County Emergency Operations Centers	County Emergency Mgmt. Divs.	Existing
County Paratransit Dispatch	Community Transportation Coordinator	Existing
County Paratransit Vehicles	Community Transportation Coordinator	Existing
CVO Information Requestor	CVO Information Requestor	Planned
CVO Inspector	MCCO	Existing
District 2 Event Promoter	District 2 Event Promoter	Planned
District 2 I-295 Roadside Equipment	FDOT D2	Planned
District 2 I-95 Roadside Equipment	FDOT D2	Planned
District 2 Regional Airports	Jacksonville Port Authority	Existing
District 2 Service Patrol Dispatch	FDOT D2	Existing
District 2 Service Patrol Vehicles	FDOT D2	Existing
District 2 SR9A Roadside Equipment	FDOT D2	Planned
DMV	Department of Motor Vehicles	Existing
Driver	Driver	Existing

Table F.4 (Continued)

Element Name	Stakeholder Name	Element Status
E-911	County Emergency Mgmt. Divs.	Existing
Electronic Payment Card	Traveler	Existing
Emergency Personnel	Emergency Management Centers	Existing
Emergency System Operator	Emergency Management Centers	Existing
FDLE	FHP	Existing
FDOT District 2 Construction	FDOT D2	Existing
FDOT District 2 Maintenance	FDOT D2	Existing
FDOT District 2 Transportation Statistics System	FDOT D2	Existing
FHP Vehicles	FHP	Existing
Financial Institutions	Financial Institutions	Existing
Fleet and Freight Management	Fleet and Freight Management	Existing
Florida Highway Patrol Dispatch	FL Highway Patrol	Existing
Government Administrators	Government Administrators	Existing
Government Reporting Systems	Government Reporting Systems	Planned
Inter-City Bus Service	Greyhound Bus Company	Existing
Inter-City Buses	Greyhound Bus Company	Existing
Intermodal Freight Shipper	Intermodal Freight Shipper	Existing
ISP Operator	ISP Operators	Planned
Jacksonville Fire Rescue Dispatch	Jacksonville Fire Rescue	Existing
Jacksonville Fire Rescue Vehicles	Jacksonville Fire Rescue	Existing
Jacksonville International Airport	Jacksonville Port Authority	Existing
Jacksonville Multi-Modal Transportation Center	Jacksonville Transportation Authority	Existing
Jacksonville RTMC	FDOT D2	Existing
Jacksonville Sheriff's Dispatch	Jacksonville Sheriff's Office	Existing
Jacksonville Sheriff's Vehicles	Jacksonville Sheriff's Office	Existing
Jacksonville Transit Dispatch	Jacksonville Transportation Authority	Existing
Jacksonville Transit Vehicles	Jacksonville Transportation Authority	Existing
JAXPORT Marine Terminals	Jacksonville Port Authority	Existing
Lake City Virtual RTMC	FDOT D2	Planned
Local Fire Dispatch	Local Fire Dept	Existing
Local Fire Rescue Vehicles	Local Fire Dept	Existing

Table F.4 (Continued)

Element Name	Stakeholder Name	Element Status
Local Military Bases	US DOD	Existing
Local Police Dispatch	Local Police Dept	Existing
Local Police Vehicles	Local Police Dept	Existing
Local Venue Event Scheduling System	Local Venue Promoters	Existing
Location Data Source	Location Data Source	Planned
Maintenance and Construction Personnel	FDOT D2	Existing
Maintenance and Construction Vehicle	FDOT D2	Existing
Maintenance and Construction Vehicle Driver	FDOT D2	Existing
Map Update Provider	Map Update Providers	Planned
Mobile TMC	FDOT D2	Planned
Mobile TMC Roadside Equipment	FDOT D2	Planned
Motorist Aid Call Boxes	FDOT D2	Planned
Municipality Event Permit Systems	County and City Permit Office	Existing
Nassau County Fire Rescue Dispatch	Nassau County Fire Rescue	Existing
Nassau County Fire Rescue Vehicles	Nassau County Fire Rescue	Existing
Nassau County Sheriff's Dispatch	Nassau County Sheriff	Existing
Nassau County Sheriff's Vehicles	Nassau County Sheriff	Existing
National Hurricane Center Information System	National Weather Service	Existing
National Weather Service	National Weather Service	Existing
Newspapers, Radio, Television Stations	Local Media Affiliates	Existing
Orlando RTMC	FDOT D5	Existing
Other CVAS	Other CVAS	Planned
Other Data Sources	MPOs, RPCs, City and County Agencies	Planned
Other Evacuation Center	Other Evacuation Agencies	Planned
Other ISP	Information Service Providers	Planned
Other North Florida TMCs	North FL Traffic Mgmt Agencies	Planned
Other TRM	Jacksonville Transportation Authority	Planned
Other Vehicle	Other Vehicle	Planned
Park-and-Ride Lots	Public and Private Parking Providers	Existing
Parking Facilities	Public and Private Parking Providers	Existing
Parking Operator	Parking Operators	Planned

Table F.4 (Continued)

Element Name	Stakeholder Name	Element Status
Port of Fernandina Beach System	Nassau County Ocean Highway Authority	Existing
Potential Obstacles	Potential Obstacles	Planned
Private Sector MCO	Private Sector MCO	Existing
Rail Intermodal Terminals	Rail Operator	Existing
Region 2 MCCO	MCCO	Existing
Regional ATIS Center	FDOT D2	Planned
Regional ATIS Kiosks	FDOT D2	Planned
Regional Evacuation Center Personnel	Regional Evacuation Management	Planned
Regional Evacuation Management Center	Regional Evacuation Management	Planned
Rest Areas/Visitor Centers	FDOT D2	Existing
Roadway	Roadway	Existing
Roadway Environment	Roadway Environment	Existing
Scales and Inspection Facilities	FDOT Motor Carrier Compliance	Existing
School Buses	County School Districts	Existing
School District Transportation Dispatch	County School Districts	Existing
Secure Area Environment	FDOT D2	Planned
SEOC	SEOC	Existing
Special Event Parking	Public and Private Parking Providers	Existing
St. Augustine TMC	St. Johns County	Existing
St. Johns County Fire Rescue Dispatch	St. Johns County Fire Dept.	Existing
St. Johns County Fire Rescue Vehicles	St. Johns County Fire Dept.	Existing
St. Johns County Sheriff's Dispatch	St. Johns County Sheriff's Dept.	Existing
St. Johns County Sheriff's Vehicles	St. Johns County Sheriff's Dept.	Existing
State Evacuation Management Center	SEOC	Planned
Tallahassee RTMC	FDOT D3	Planned
Traffic	Traffic	Existing
Traffic Operations Personnel	Traffic Operations Personnel	Existing
Transit Driver	Jacksonville Transportation Authority	Existing
Transit Fleet Manager	Jacksonville Transportation Authority	Existing
Transit System Operators	Traveler	Existing
Transit User	Traveler	Existing

Table F.4 (Continued)

Element Name	Stakeholder Name	Element Status
Transit Vehicle	Jacksonville Transportation Authority	Existing
Transp. Data Collection Systems	County MPO	Planned
Traveler	Traveler	Existing
Traveler Personal Computing/Information Appliances	User Personal Computing Devices	Planned
Troop G FHP Headquarters	FHP	Existing
Vehicle	Vehicle	Existing
Vehicle Characteristics	Vehicle Characteristics	Planned
Yellow Pages Service Providers	Yellow Pages Service Providers	Planned

Table F.5 – District 3 I-10 Stakeholders

Element Name	Stakeholder Name	Element Status
ADC	FDOT D3	Planned
Air Freight Terminals	Air Freight Terminals	Existing
Amtrak Passenger Train Terminal	Amtrak	Existing
Archived Data Administrator	FDOT D3	Planned
Archived Data User Systems	Archived Data User Systems	Planned
Basic Vehicle	Basic Vehicle	Planned
City of Pensacola Traffic Control Center	City of Pensacola	Existing
City of Tallahassee Traffic Control Center	City of Tallahassee	Existing
Commercial Vehicle	Commercial Vehicle	Planned
Commercial Vehicle Administration	Commercial Vehicle Administration	Planned
Commercial Vehicle Driver	Commercial Vehicle Driver	Existing
Commercial Vehicle Manager	Commercial Vehicle Manager	Planned
County Emergency Operations Centers	County Emergency Mgmt. Divs.	Existing
County Paratransit Dispatch	Community Transportation Coordination	Planned
County Paratransit Vehicles	Community Transportation Coordination	Planned
CVO Information Requestor	CVO Information Requestor	Planned
CVO Inspector	CVO Inspector	Planned
District 3 Event Promoter	District 3 Event Promoter	Planned
District 3 I-10 Roadside Equipment (East)	FDOT D3	Planned
District 3 I-10 Roadside Equipment (West)	FDOT D3	Planned
District 3 I-110 Roadside Equipment	FDOT D3	Planned
District 3 Regional Airports	District 3 Regional Airports	Planned
District 3 Service Patrol Dispatch	FDOT D3	Planned
District 3 Service Patrol Vehicles	FDOT D3	Planned
DMV	Department of Motor Vehicle	Existing
Driver	Driver	Existing
E-911	County Emergency Mgmt. Divs.	Existing
ECAT Transit Dispatch	Escambia County	Existing
ECAT Transit Vehicles	Escambia County	Existing
Electronic Payment Card	Electronic Payment Card	Planned
Emergency Personnel	Emergency Management Centers	Existing

Table F.5 (Continued)

Element Name	Stakeholder Name	Element Status
Emergency System Operator	Emergency Management Centers	Existing
Escambia County Fire Rescue Dispatch	Escambia County Fire Rescue	Existing
Escambia County Fire Rescue Vehicles	Escambia County Fire Rescue	Existing
Escambia County Sheriff's Dispatch	Escambia County Sheriff's Office	Existing
Escambia County Sheriff's Vehicles	Escambia County Sheriff's Office	Existing
Escambia County TMC	Escambia County	Existing
Escambia/Santa Rosa County Multi-Modal Transportation Operations Center	Escambia County	Existing
FDLE	FDLE	Existing
FDOT District 3 Construction	FDOT D3	Existing
FDOT District 3 Maintenance	FDOT D3	Existing
FDOT District 3 Public Information Office	FDOT D3	Existing
FDOT District 3 Transportation Statistics System	FDOT D3	Planned
FDOT Office of Toll Operations	FDOT Office Of Toll Operations	Existing
FHP Vehicles	FHP	Planned
Financial Institutions	Financial Institutions	Existing
Fleet and Freight Management	Fleet and Freight Management	Planned
Florida Highway Patrol Troop A and H Dispatch	FHP	Existing
Gadsden County Fire Rescue Dispatch	Gadsden County Fire Rescue	Existing
Gadsden County Fire Rescue Vehicles	Gadsden County Fire Rescue	Existing
Gadsden County Sheriff's Dispatch	Gadsden County Sheriff's Office	Existing
Gadsden County Sheriff's Vehicles	Gadsden County Sheriff's Office	Existing
Government Administrators	Government Administrators	Existing
Government Reporting Systems	Government Reporting Systems	Planned
Holmes County Fire Rescue Dispatch	Holmes County Fire Rescue	Existing
Holmes County Fire Rescue Vehicles	Holmes County Fire Rescue	Existing
Holmes County Sheriff's Dispatch	Holmes County Sheriff's Office	Existing
Holmes County Sheriff's Vehicles	Holmes County Sheriff's Office	Existing
I-110 Electronic Toll Collection System	FDOT Office Of Toll Operations	Planned
Inter-City Bus Service	Greyhound Bus Company	Existing
Inter-City Buses	Greyhound Bus Company	Planned
Intermodal Freight Shipper	Intermodal Freight Shipper	Planned

Table F.5 (Continued)

Element Name	Stakeholder Name	Element Status
ISP Operator	ISP Operators	Planned
Jackson County Fire Rescue Dispatch	Jackson County Fire Rescue	Existing
Jackson County Fire Rescue Vehicles	Jackson County Fire Rescue	Existing
Jackson County Sheriff's Dispatch	Jackson County Sheriff's Office	Existing
Jackson County Sheriff's Vehicles	Jackson County Sheriff's Office	Existing
Jacksonville RTMC	FDOT D2	Existing
Jefferson County Fire Rescue Dispatch	Jefferson County Fire Rescue	Existing
Jefferson County Fire Rescue Vehicles	Jefferson County Fire Rescue	Existing
Jefferson County Sheriff's Dispatch	Jefferson County Sheriff's Office	Existing
Jefferson County Sheriff's Vehicles	Jefferson County Sheriff's Office	Existing
Leon County Fire Rescue Dispatch	Leon County Fire Rescue	Existing
Leon County Fire Rescue Vehicles	Leon County Fire Rescue	Existing
Leon County Sheriff's Vehicles	Leon County Sheriff's Office	Existing
Leon County Sheriff's Dispatch	Leon County Sheriff's Office	Existing
Local Fire Dispatch	Local Fire Dept	Existing
Local Fire Rescue Vehicles	Local Fire Dept	Existing
Local Military Bases	US DOD	Existing
Local Police Dispatch	Local Police Dept	Existing
Local Police Vehicles	Local Police Dept	Existing
Local Venue Event Scheduling System	Local Venue Promoters	Existing
Location Data Source	Location Data Source	Planned
Maintenance and Construction Personnel	FDOT D3	Existing
Maintenance and Construction Vehicle	FDOT D3	Existing
Maintenance and Construction Vehicle Driver	FDOT D3	Existing
Map Update Provider	Map Update Providers	Planned
Mobile TMC	FDOT D3	Planned
Mobile TMC Roadside Equipment	FDOT D3	Planned
Motorist Aid Call Boxes	FDOT D3	Existing
Municipality Event Permit Systems	County and City Permit Office	Existing
National Hurricane Center Information System	National Weather Service	Planned
National Weather Service	National Weather Service	Existing

Table F.5 (Continued)

Element Name	Stakeholder Name	Element Status
Newspapers, Radio, Television Stations	Local Media Affiliates	Planned
Okaloosa County Fire Rescue Dispatch	Okaloosa County Fire Rescue	Existing
Okaloosa County Fire Rescue Vehicles	Okaloosa County Fire Rescue	Existing
Okaloosa County Sheriff's Dispatch	Okaloosa County Sheriff's Office	Existing
Okaloosa County Sheriff's Vehicles	Okaloosa County Sheriff's Office	Existing
Other CVAS	Other CVAS	Planned
Other Data Sources	MPOs, RPCs, City and County Agencies	Planned
Other Evacuation Center	Other Evacuation Agencies	Planned
Other ISP	Information Service Providers	Planned
Other Northwest Florida TMCs	North FL Traffic Mgmt Agencies	Planned
Other TRM	Other TRM	Planned
Other Vehicle	Other Vehicle	Planned
Park-and-Ride Lots	Parking Facility Management Agencies	Existing
Parking Facilities	Parking Facility Management Agencies	Planned
Parking Operator	Parking Operator	Planned
Pensacola Regional Airport	Pensacola Port Authority	Existing
Pensacola Satellite TMC	FDOT D3	Planned
Port of Pensacola	Pensacola Port Authority	Existing
Potential Obstacles	Potential Obstacles	Planned
Private Sector MCO	Private Sector MCO	Planned
Rail Intermodal Terminals	Rail Intermodal Terminals	Existing
Region 1 MCCO	FDOT Motor Carrier Compliance Office	Existing
Regional ATIS Center	FDOT D3	Planned
Regional ATIS Kiosks	FDOT D3	Planned
Regional Evacuation Center Personnel	Regional Evacuation Management	Planned
Regional Evacuation Management Center	Regional Evacuation Management	Planned
Rest Areas/Visitor Centers	FDOT D3	Existing
Roadway	Roadway	Planned
Roadway Environment	Roadway Environment	Existing
Santa Rosa County Fire Rescue Dispatch	Santa Rosa County Fire Rescue	Existing
Santa Rosa County Fire Rescue Vehicles	Santa Rosa County Fire Rescue	Existing

Table F.5 (Continued)

Element Name	Stakeholder Name	Element Status
Santa Rosa County Sheriff's Dispatch	Santa Rosa County Sheriff's Office	Existing
Santa Rosa County Sheriff's Vehicles	Santa Rosa County Sheriff's Office	Existing
Scales and Inspection Facilities	FDOT Motor Carrier Compliance	Existing
School Buses	County School Districts	Existing
School District Transportation Dispatch	County School Districts	Planned
Secure Area Environment	Secure Area Environment	Planned
SEOC	SEOC	Existing
Special Event Parking	Special Event Parking	Existing
State Evacuation Management Center	SEOC	Planned
Tallahassee (RTMC)	FDOT D3	Planned
Tallahassee Regional Airport	Tallahassee Regional Airport	Existing
TalTran Transit Dispatch	TALTRAN	Existing
TalTran Transit Vehicles	TALTRAN	Planned
Toll Administrator	Toll Administrator	Existing
Toll Operators	Toll Operators	Existing
Traffic	Traffic	Planned
Traffic Operations Personnel	Traffic Operations Personnel	Existing
Transit Driver	Transit Driver	Planned
Transit Fleet Manager	Transit Fleet Manager	Planned
Transit System Operators	Transit System Operators	Planned
Transit User	Transit User	Planned
Transit Vehicle	Transit Vehicle	Planned
Transp. Data Collection Systems	Transp. Data Collection Systems	Planned
Traveler	Traveler	Existing
Traveler Personal Computing/Information Appliances	Traveler	Planned
Vehicle	Vehicle	Planned
Vehicle Characteristics	Vehicle Characteristics	Planned
Walton County Fire Rescue Vehicles	Walton County Fire Rescue	Existing
Walton County Sheriff's Dispatch	Walton County Sheriff's Office	Existing
Walton County Sheriff's Vehicles	Walton County Sheriff's Office	Existing
Washington County Fire Rescue Dispatch	Washington County Fire Rescue	Existing

Table F.5 (Continued)

Element Name	Stakeholder Name	Element Status
Washington County Fire Rescue Vehicles	Washington County Fire Rescue	Existing
Washington County Sheriff's Dispatch	Washington County Sheriff's Office	Existing
Washington County Sheriff's Vehicles	Washington County Sheriff's Office	Existing
Yellow Pages Service Providers	Yellow Pages Service Providers	Planned

Table F.6 – District 4 I-75 Stakeholders

Element Name	Stakeholder Name	Element Status
ADC	FDOT D4	Planned
Air Freight Terminals	Air Freight Terminals	Existing
Amtrak Passenger Train Terminal	Amtrak	Existing
Archived Data Administrator	FDOT D4	Planned
Archived Data User Systems	Archived Data User Systems	Planned
Basic Vehicle	Basic Vehicle	Existing
Broward County Fire Rescue Dispatch	Broward County Fire Rescue	Existing
Broward County Fire Rescue Vehicles	Broward County Fire Rescue	Existing
Broward County ITS Operations Facility (RTMC)	FDOT D4	Planned
Broward County Sheriff's Dispatch	Broward County Sheriff's Office	Existing
Broward County Sheriff's Vehicles	Broward County Sheriff's Office	Existing
Broward County TMC	Broward County	Existing
Broward County Transit Dispatch	Broward County Mass Transit Div.	Planned
Broward County Transit Vehicles	Broward County Mass Transit Div.	Planned
Commercial Vehicle	Commercial Vehicle	Existing
Commercial Vehicle Administration	Commercial Vehicle Administration	Existing
Commercial Vehicle Driver	Commercial Vehicle Driver	Existing
Commercial Vehicle Manager	Commercial Vehicle Manager	Existing
County Emergency Operations Centers	County Emergency Mgmt. Divs.	Existing
County Paratransit Dispatch	Community Transportation Coordination	Existing
County Paratransit Vehicles	Community Transportation Coordination	Existing
CVO Information Requestor	CVO Information Requestor	Planned
CVO Inspector	MCCO	Existing
District 4 I-75 Roadside Equipment	FDOT D4	Planned
DMV	Department of Motor Vehicle	Existing
Driver	Driver	Existing
E-911	County Emergency Mgmt. Divs.	Existing
Electronic Payment Card	Traveler	Existing
Emergency Personnel	Emergency Management Centers	Existing
Emergency System Operator	Emergency Management Centers	Existing
FDLE	FDLE	Existing

Table F.6 (Continued)

Element Name	Stakeholder Name	Element Status
FDOT District 4 Construction	FDOT D4	Existing
FDOT District 4 Maintenance	FDOT D4	Existing
FDOT District 4 Public Information Office	FDOT D4	Existing
FDOT District 4 Transportation Statistics System	FDOT D4	Existing
FHP Vehicles	FHP	Existing
Financial Institutions	Financial Institutions	Existing
Fleet and Freight Management	Fleet and Freight Management	Existing
Florida Highway Patrol Troop L Dispatch	FHP	Existing
Ft. Lauderdale Downtown TMA Dispatch	Ft. Lauderdale Downtown TMA	Existing
Ft. Lauderdale Downtown Transit Vehicles	Ft. Lauderdale Downtown TMA	Existing
Ft. Lauderdale/Hollywood International Airports	Broward County Aviation Dept.	Existing
Ft. Myers RTMC	FDOT D1	Planned
Government Administrators	Government Administrators	Existing
Government Reporting Systems	Government Reporting Systems	Planned
Inter-City Bus Service	Greyhound Bus Company	Existing
Inter-City Buses	Greyhound Bus Company	Existing
Intermodal Freight Shipper	Intermodal Freight Shipper	Existing
ISP Operator	ISP Operators	Planned
Local Fire Dispatch	Local Fire Dept	Existing
Local Fire Rescue Vehicles	Local Fire Dept	Existing
Local Police Dispatch	Local Police Dept	Existing
Local Police Vehicles	Local Police Dept	Existing
Local Venue Event Scheduling System	Local Venue Promoters	Existing
Location Data Source	Location Data Source	Planned
Maintenance and Construction Personnel	FDOT D4	Existing
Maintenance and Construction Vehicle	FDOT D4	Existing
Maintenance and Construction Vehicle Driver	FDOT D4	Existing
Map Update Provider	Map Update Providers	Planned
Miami RTMC	FDOT D6	Planned
Mobile TMC	FDOT D4	Planned
Mobile TMC Roadside Equipment	FDOT D4	Planned

Table F.6 (Continued)

Element Name	Stakeholder Name	Element Status
Motorist Aid Call Boxes	FDOT D4	Planned
Municipality Event Permit Systems	County and City Permit Office	Existing
National Car Rental Center Event Scheduling System	National Car Rental Center	Existing
National Hurricane Center Information System	National Weather Service	Existing
National Weather Service	National Weather Service	Existing
Newspapers, Radio, Television Stations	Local Media Affiliates	Existing
Other CVAS	Other CVAS	Planned
Other Data Sources	MPOs, RPCs, City and County Agencies	Planned
Other Evacuation Center	Other Evacuation Agencies	Planned
Other ISP	Information Service Providers	Planned
Other Southwest Florida TMCs	Southwest FL Traffic Mgmt Agencies	Planned
Other TRM	Other TRM	Planned
Other Vehicle	Other Vehicle	Planned
Palm Beach County ITS Operations Facility (RTMC)	FDOT D4	Planned
Park-and-Ride Lots	Public and Private Parking Providers	Existing
Parking Facilities	Public and Private Parking Providers	Existing
Parking Operator	Parking Operator	Planned
Pompano Turnpike Operations Center	FDOT D8	Existing
Port Everglades	Port Everglades Seaport	Existing
Potential Obstacles	Potential Obstacles	Planned
Private Sector MCO	Private Sector MCO	Planned
Rail Intermodal Terminals	Rail Operator	Existing
Region 5 MCCO	MCCO	Existing
Regional ATIS Center	FDOT D4	Planned
Regional ATIS Kiosks	FDOT D4	Planned
Regional Evacuation Center Personnel	Regional Evacuation Management	Planned
Regional Evacuation Management Center	Regional Evacuation Management	Planned
Rest Areas/Visitor Centers	FDOT D4	Planned
Roadway	Roadway	Existing
Roadway Environment	Roadway Environment	Existing

Table F.6 (Continued)

Element Name	Stakeholder Name	Element Status
Scales and Inspection Facilities		Existing
School Buses	County School Districts	Existing
School District Transportation Dispatch	County School Districts	Planned
Secure Area Environment	FDOT D4	Existing
SEOC	SEOC	Existing
South Florida Educational Complex TMA Dispatch	South Florida Educational Complex TMA	Existing
South Florida Educational Complex TMA Vehicles	South Florida Educational Complex TMA	Existing
Special Event Parking	Public and Private Parking Providers	Existing
State Evacuation Management Center	SEOC	Planned
SunGuide^{SM} Service Patrol Dispatch	FDOT D4	Existing
SunGuide^{SM} Service Patrol Vehicles	FDOT D4	Existing
SunGuide^{SM} Smart Route ATIS Center	FDOT D4	Existing
Traffic	Traffic	Existing
Traffic Operations Personnel	Traffic Operations Personnel	Existing
Transit Driver	Transit Driver	Existing
Transit Fleet Manager	Transit Fleet Manager	Existing
Transit System Operators	Transit System Operators	Existing
Transit User	Traveler	Existing
Transit Vehicle	Transit Vehicle	Existing
Transp. Data Collection Systems	County MPO	Existing
Traveler	Traveler	Existing
Traveler Personal Computing/Information Appliances	Traveler	Existing
Tri-Rail Commuter Rail Authority	Tri-Co Commuter Rail Authority	Existing
Vehicle	Vehicle	Existing
Vehicle Characteristics	Vehicle Characteristics	Planned
Yellow Pages Service Providers	Yellow Pages Service Providers	Planned

Table F.7 – District 4 I-95 Stakeholders

Element Name	Stakeholder Name	Element Status
ADC	FDOT D4	Planned
Air Freight Terminals	Air Freight Terminals	Existing
Amtrak Passenger Train Terminal	Amtrak	Existing
Archived Data Administrator	FDOT D4	Planned
Archived Data User Systems	Archived Data User Systems	Planned
Basic Vehicle	Basic Vehicle	Existing
Broward County Fire Rescue Dispatch	Broward County Fire Rescue	Existing
Broward County Fire Rescue Vehicles	Broward County Fire Rescue	Existing
Broward County ITS Operations Facility (RTMC)	FDOT D4	Planned
Broward County Sheriff's Dispatch	Broward County Sheriff's Office	Existing
Broward County Sheriff's Vehicles	Broward County Sheriff's Office	Existing
Broward County TMC	Broward County	Existing
Broward County Transit Dispatch	Broward County Mass Transit Div.	Planned
Broward County Transit Vehicles	Broward County Mass Transit Div.	Planned
City of West Palm Beach TMA Dispatch	West Palm Beach Transit Authority	Existing
City of West Palm Beach TMA Vehicles	West Palm Beach Transit Authority	Existing
Commercial Vehicle	Commercial Vehicle	Existing
Commercial Vehicle Administration	Commercial Vehicle Administration	Existing
Commercial Vehicle Driver	Commercial Vehicle Driver	Existing
Commercial Vehicle Manager	Commercial Vehicle Manager	Existing
County Emergency Operations Centers	County Emergency Mgmt. Divs.	Existing
County Paratransit Dispatch	Community Transportation Coordination	Existing
County Paratransit Vehicles	Community Transportation Coordination	Existing
CVO Information Requestor	CVO Information Requestor	Planned
CVO Inspector	MCCO	Existing
District 4 I-595 Roadside Equipment	FDOT D4	Planned
District 4 I-95 Roadside Equipment (North)	FDOT D4	Planned
District 4 I-95 Roadside Equipment (South)	FDOT D4	Planned
DMV	Department of Motor Vehicle	Existing
Driver	Driver	Existing
Electronic Payment Card	Traveler	Existing

Table F.7 (Continued)

Element Name	Stakeholder Name	Element Status
Emergency Personnel	Emergency Management Centers	Existing
Emergency System Operator	Emergency Management Centers	Existing
FDLE	FDLE	Existing
FDOT District 4 Construction	FDOT D4	Existing
FDOT District 4 Maintenance	FDOT D4	Existing
FDOT District 4 Public Information Office	FDOT D4	Existing
FDOT District 4 Transportation Statistics System	FDOT D4	Existing
FHP Vehicles	FHP	Existing
Financial Institutions	Financial Institutions	Existing
Fleet and Freight Management	Fleet and Freight Management	Existing
Florida Highway Patrol Troop L Dispatch	FHP	Existing
Ft. Lauderdale Downtown TMA Dispatch	Ft. Lauderdale Downtown TMA	Existing
Ft. Lauderdale Downtown Transit Vehicles	Ft. Lauderdale Downtown TMA	Existing
Ft. Lauderdale/Hollywood International Airports	Broward County Aviation Dept.	Planned
Ft. Myers RTMC	FDOT D1	Planned
Government Administrators	Government Administrators	Existing
Government Reporting Systems	Government Reporting Systems	Planned
Indian River County Fire Rescue Dispatch	Indian River County Fire Rescue	Existing
Indian River County Fire Rescue Vehicles	Indian River County Fire Rescue	Existing
Indian River County Sheriff's Dispatch	Indian River County Sheriff's Office	Existing
Indian River County Sheriff's Vehicles	Indian River County Sheriff's Office	Existing
Indian River County Transit Dispatch	Indian River County Council on Aging	Existing
Indian River County Transit Vehicles	Indian River County Council on Aging	Existing
Inter-City Bus Service	Greyhound Bus Company	Existing
Inter-City Buses	Greyhound Bus Company	Existing
Intermodal Freight Shipper	Intermodal Freight Shipper	Existing
ISP Operator	ISP Operators	Planned
Local Fire Dispatch	Local Fire Dept	Existing
Local Fire Rescue Vehicles	Local Fire Dept	Existing
Local Police Dispatch	Local Police Dept	Existing
Local Police Vehicles	Local Police Dept	Existing

Table F.7 (Continued)

Element Name	Stakeholder Name	Element Status
Local Venue Event Scheduling System	Local Venue Promoters	Existing
Location Data Source	Location Data Source	Planned
Maintenance and Construction Personnel	FDOT D4	Existing
Maintenance and Construction Vehicle	FDOT D4	Existing
Maintenance and Construction Vehicle Driver	FDOT D4	Existing
Map Update Provider	Map Update Providers	Planned
Martin County Fire Rescue Dispatch	Martin County Fire Rescue	Existing
Martin County Fire Rescue Vehicles	Martin County Fire Rescue	Existing
Martin County Sheriff's Dispatch	Martin County Sheriff's Office	Existing
Martin County Sheriff's Vehicles	Martin County Sheriff's Office	Existing
Martin County TMC	Martin County	Existing
Miami RTMC	FDOT D6	Existing
Mobile TMC	FDOT D4	Planned
Mobile TMC Roadside Equipment	FDOT D4	Planned
Motorist Aid Call Boxes	FDOT D4	Planned
Municipality Event Permit Systems	County and City Permit Office	Existing
National Car Rental Center Event Scheduling System	National Car Rental Center	Planned
National Hurricane Center Information System	National Weather Service	Existing
National Weather Service	National Weather Service	Existing
Newspapers, Radio, Television Stations	Local Media Affiliates	Existing
Orlando RTMC	FDOT D5	Existing
Other CVAS	Other CVAS	Planned
Other Data Sources	MPOs, RPCs, City and County Agencies	Planned
Other Evacuation Center	County EOC	Planned
Other ISP	Information Service Providers	Planned
Other Southwest Florida TMCs	Southwest FL Traffic Mgmt Agencies	Planned
Other TRM	Other TRM	Planned
Other Vehicle	Other Vehicle	Planned
Palm Beach County Fire Rescue Dispatch	Palm Beach County Fire Rescue	Existing
Palm Beach County Fire Rescue Vehicles	Palm Beach County Fire Rescue	Existing
Palm Beach County ITS Operations Facility (PBTMC)	FDOT D4	Planned

Table F.7 (Continued)

Element Name	Stakeholder Name	Element Status
(RTMC)		
Palm Beach County Sheriff's Dispatch	Palm Beach County Sheriff's Office	Existing
Palm Beach County Sheriff's Vehicles	Palm Beach County Sheriff's Office	Existing
Palm Beach County TMC	Palm Beach County	Existing
Palm Beach International Airport	Palm Beach County Dept. of Airports	Existing
PalmTran Transit Dispatch	Palm Beach County Transit	Existing
PalmTran Transit Vehicles	Palm Beach County Transit	Existing
Park-and-Ride Lots	Public and Private Parking Providers	Existing
Parking Facilities	Public and Private Parking Providers	Existing
Parking Operator	Parking Operator	Planned
Pompano Turnpike Operations Center	FDOT D8	Existing
Port Everglades	Port Everglades Seaport Dept.	Existing
Port of Palm Beach	Port of Palm Beach Seaport	Existing
Potential Obstacles	Potential Obstacles	Planned
Private Sector MCO	Private Sector MCO	Planned
Rail Intermodal Terminals	Rail Operator	Existing
Region 5 MCCO	MCCO	Existing
Regional ATIS Center	FDOT D4	Planned
Regional ATIS Kiosks	FDOT D4	Planned
Regional Evacuation Center Personnel	Regional Evacuation Management	Planned
Regional Evacuation Management Center	Regional Evacuation Management	Planned
Rest Areas/Visitor Centers	FDOT D4	Existing
Roadway	Roadway	Planned
Roadway Environment	Roadway Environment	Existing
Scales and Inspection Facilities		Existing
School Buses	County School Districts	Existing
School District Transportation Dispatch	County School Districts	Existing
Secure Area Environment	FDOT D4	Existing
SEOC	SEOC	Existing
South Florida Educational Complex TMA Dispatch	South Florida Educational Complex TMA	Existing
South Florida Educational Complex TMA	South Florida Educational Complex TMA	Existing

Table F.7 (Continued)

Element Name	Stakeholder Name	Element Status
Vehicles		
Special Event Parking	Public and Private Parking Providers	Existing
St. Lucie County Fire Rescue Dispatch	St. Lucie County Fire Rescue	Existing
St. Lucie County Fire Rescue Vehicles	St. Lucie County Fire Rescue	Existing
St. Lucie County Sheriff's Dispatch	St. Lucie County Sheriff's Office	Existing
St. Lucie County Sheriff's Vehicles	St. Lucie County Sheriff's Office	Existing
St. Lucie County TMC	St. Lucie County	Existing
St. Lucie County Transit Dispatch	St. Lucie County Transit	Existing
St. Lucie County Transit Vehicles	St. Lucie County Transit	Existing
State Evacuation Management Center	SEOC	Planned
SunGuide^{SM} Service Patrol Dispatch	FDOT D4	Existing
SunGuide^{SM} Service Patrol Vehicles	FDOT D4	Existing
SunGuide^{SM} Smart Route ATIS Center	FDOT D4	Existing
Traffic	Traffic	Existing
Traffic Operations Personnel	Traffic Operations Personnel	Existing
Transit Driver	Transit Driver	Existing
Transit Fleet Manager	Transit Fleet Manager	Existing
Transit System Operators	Transit System Operators	Existing
Transit User	Traveler	Existing
Transit Vehicle	Transit Vehicle	Existing
Transp. Data Collection Systems	County MPO	Existing
Traveler	Traveler	Existing
Traveler Personal Computing/Information Appliances	Traveler	Existing
Tri-Rail Commuter Rail Authority	Tri-Co Commuter Rail Authority	Existing
Vehicle	Vehicle	Existing
Vehicle Characteristics	Vehicle Characteristics	Planned
Yellow Pages Service Providers	Yellow Pages Service Providers	Planned

Table F.8 – District 5 I-75 Stakeholders

Element Name	Stakeholder Name	Element Status
ADC	FDOT D5	Planned
Air Freight Terminals		Existing
Amtrak Passenger Train Terminal	Amtrak	Existing
Amtrak Regional Bus Service	Amtrak	Existing
Amtrak Regional Buses	Amtrak	Existing
Archived Data Administrator	FDOT D5	Planned
Archived Data User Systems	Archived Data User Systems	Planned
Basic Vehicle	Basic Vehicle	Planned
Commercial Vehicle	Commercial Vehicle	Planned
Commercial Vehicle Administration	Commercial Vehicle Administration	Planned
Commercial Vehicle Driver	Commercial Vehicle Driver	Existing
Commercial Vehicle Manager	Commercial Vehicle Manager	Planned
County Emergency Operations Centers	County Emergency Mgmt. Divs.	Existing
County Paratransit Dispatch	Community Transportation Coordination	Planned
County Paratransit Vehicles	Community Transportation Coordination	Planned
CVO Information Requestor	CVO Information Requestor	Planned
CVO Inspector	CVO Inspector	Planned
District 5 Event Promoter	Event Promoters	Planned
District 5 I-75 Roadside Equipment	FDOT D5	Planned
District 5 Service Patrol Dispatch	FDOT D5	Existing
District 5 Service Patrol Vehicles	FDOT D5	Existing
DMV	Department of Motor Vehicles	Existing
Driver	Driver	Existing
E-911	County Emergency Mgmt. Divs.	Existing
Electronic Payment Cards	Electronic Payment Cards	Planned
Emergency Personnel	Emergency Management Centers	Existing
Emergency System Operator	Emergency Management Centers	Existing
FDLE	FDLE	Existing
FDOT District 5 Construction	FDOT D5	Existing
FDOT District 5 Headquarters Virtual TMC	FDOT D5	Planned
FDOT District 5 Maintenance	FDOT D5	Existing

Table F.8 (Continued)

Element Name	Stakeholder Name	Element Status
FDOT District 5 Public Information Office	FDOT D5	Planned
FDOT District 5 Transportation Statistics System	FDOT D5	Planned
FHP Vehicles	FHP	Planned
Financial Institutions	Financial Institutions	Existing
Florida Highway Patrol Troop C and G Dispatch	FL Highway Patrol	Existing
Ft. Myers RTMC		Planned
Government Administrators	Government Administrators	Existing
Government Reporting Systems	Government Reporting Systems	Planned
Inter-City Bus Service	Greyhound Bus Company	Existing
Inter-City Buses	Greyhound Bus Company	Planned
Intermodal Freight Shipper	Intermodal Freight Shipper	Planned
ISP Operator	ISP Operator	Planned
Jacksonville RTMC		Existing
Local Fire Dispatch	Local Fire Dept	Existing
Local Fire Rescue Vehicles	Local Fire Dept	Existing
Local Police Dispatch	Local Police Dept	Existing
Local Police Vehicles	Local Police Dept	Existing
Local Venue Event Scheduling System	Local Venue Promoters	Existing
Location Data Source	Location Data Source	Planned
Maintenance and Construction Personnel	FDOT D5	Planned
Maintenance and Construction Vehicle	FDOT D5	Planned
Maintenance and Construction Vehicle Driver	FDOT D5	Planned
Map Update Provider	Map Update Providers	Planned
Marion County Fire Rescue Dispatch	Marion County Fire Rescue	Existing
Marion County Fire Rescue Vehicles	Marion County Fire Rescue	Existing
Marion County Sheriff's Dispatch	Marion County Sheriff	Existing
Marion County Sheriff's Vehicles	Marion County Sheriff	Existing
Marion County TMC	Marion County	Planned
Mobile TMC	FDOT D5 Public Info Office	Planned
Mobile TMC Roadside Equipment	FDOT D5	Planned
Motorist Aid Call Boxes	FDOT D5	Planned

Table F.8 (Continued)

Element Name	Stakeholder Name	Element Status
Municipality Event Permit Systems	County and City Permit Office	Existing
National Hurricane Center Information System	National Weather Service	Planned
National Weather Service	National Weather Service	Existing
Newspapers, Radio, Television Stations	Local Media Affiliates	Planned
Orlando RTMC	FDOT D5	Planned
Other CVAS	Other CVAS	Planned
Other Data Sources	MPOs, RPCs, City and County Agencies	Planned
Other District 5 Public Safety Commission and Dispatch Center	Other District 5 Public Safety Commission and Dispatch Center	Planned
Other Evacuation Center	Other Evacuation Agencies	Planned
Other ISP		Planned
Other North Florida TMCs	North FL Traffic Mgmt Agencies	Planned
Other TRM		Planned
Other Vehicle	Other Vehicle	Planned
Park-and-Ride Lots		Existing
Parking Facilities		Planned
Parking Operator	Parking Operator	Planned
Potential Obstacles	Potential Obstacles	Planned
Private Sector MCO	Private Sector MCO	Planned
Rail Intermodal Terminals	Rail Operator	Existing
Region 4 MCCO	MCCO	Existing
Regional ATIS Center	FDOT D5	Planned
Regional ATIS Kiosks	FDOT D5	Planned
Regional Evacuation Center Personnel	Regional Evacuation Management	Planned
Regional Evacuation Management Center	Regional Evacuation Management	Planned
Rest Areas/Visitor Centers	FDOT D5	Planned
Roadway	Roadway	Planned
Roadway Environment	Roadway Environment	Existing
Scales and Inspection Facilities	FDOT Motor Carrier Compliance	Existing
School Buses	County School Districts	Existing
School District Transportation Dispatch	County School Districts	Planned
Secure Area Environment	FDOT D5	Planned

Table F.8 (Continued)

Element Name	Stakeholder Name	Element Status
SEOC	SEOC	Existing
Special Event Parking		Existing
State Evacuation Management Center	SEOC	Planned
Sumter County Fire Rescue Dispatch	Sumter County Fire Rescue	Existing
Sumter County Fire Rescue Vehicles	Sumter County Fire Rescue	Existing
Sumter County Sheriff's Dispatch	Sumter County Sheriff	Existing
Sumter County Sheriff's Vehicles	Sumter County Sheriff	Existing
Sumter County TMC	Sumter County	Planned
Tampa RTMC		Planned
Traffic	Traffic	Planned
Traffic Operations Personnel	Traffic Operations Personnel	Planned
Transit Driver		Planned
Transit Fleet Manager		Planned
Transit System Operators		Planned
Transit User		Planned
Transit Vehicle		Planned
Transp. Data Collection Systems	Transp. Data Collection Systems	Planned
Traveler	Traveler	Existing
Traveler Personal Computing/Information Appliances	Traveler	Planned
Turkey Lake Turnpike TMC		Existing
Vehicle	Vehicle	Planned
Vehicle Characteristics	Vehicle Characteristics	Planned
Yellow Pages Service Providers	Yelllow Pages Service Providers	Planned

Table F.9 – District 5 I-95 Stakeholders

Element Name	Stakeholder Name	Element Status
ADC	FDOT D5	Planned
Air Freight Terminals	Greater Orlando Airport Authority	Existing
Amtrak Passenger Train Terminal	Amtrak	Existing
Archived Data Administrator	FDOT D5	Planned
Archived Data User Systems	Archived Data User Systems	Planned
Basic Vehicle	Basic Vehicle	Existing
Brevard County Fire and Rescue Dispatch	Brevard County Fire Rescue	Existing
Brevard County Fire Rescue Vehicles	Brevard County Fire Rescue	Existing
Brevard County Sheriff's Vehicles	Brevard County Sheriff's Office	Existing
Brevard County Sheriff's Dispatch	Brevard County Sheriff's Office	Existing
Brevard County Traffic Operations Center	Brevard County	Existing
Canaveral/Kennedy Space Port	Canaveral/Kennedy Space Port	Existing
City of Daytona Beach TMC (DASH)	City of Daytona Beach	Existing
City of Melbourne TMC	City of Melbourne	Existing
Commercial Vehicle	Commercial Vehicle	Existing
Commercial Vehicle Administration	Commercial Vehicle Administration	Planned
Commercial Vehicle Driver	Commercial Vehicle Driver	Existing
Commercial Vehicle Manager	Commercial Vehicle Manager	Existing
County Emergency Operations Centers	County Emergency Mgmt. Divs.	Existing
County Paratransit Dispatch	Community Transportation Coordination	Planned
County Paratransit Vehicles	Community Transportation Coordination	Planned
CVO Information Requestor	CVO Information Requestor	Planned
CVO Inspector	MCCO	Existing
Daytona Beach International Airport	City of Daytona Beach	Existing
District 5 Event Promoter	District 5 Event Promoters	Planned
District 5 FDOT Headquarters TMC	FDOT D5	Existing
District 5 I-95 Roadside Equipment	FDOT D5	Planned
District 5 Regional Airports	FDOT D5	Planned
District 5 Service Patrol Dispatch	FDOT D5	Existing
District 5 Service Patrol Vehicles	FDOT D5	Existing
DMV	Department of Motor Vehicles	Existing

Table F.9 (Continued)

Element Name	Stakeholder Name	Element Status
Driver	Driver	Existing
E-911	County Emergency Mgmt. Divs.	Existing
Electronic Payment Card	Traveler	Existing
Emergency Personnel	Emergency Management Centers	Existing
Emergency System Operator	Emergency Management Centers	Existing
FDLE	FDLE	Existing
FDOT District 5 Construction	FDOT D5	Existing
FDOT District 5 Headquarters Virtual TMC	FDOT D5	Existing
FDOT District 5 Maintenance	FDOT D5	Existing
FDOT District 5 Public Information Office	FDOT D5	Existing
FDOT District 5 Transportation Statistics System	FDOT D5	Existing
FHP Vehicles	FHP	Existing
Financial Institutions	Financial Institutions	Existing
Flagler County Fire Rescue Dispatch	Flagler County Fire Rescue	Existing
Flagler County Fire Rescue Vehicles	Flagler County Fire Rescue	Existing
Flagler County Sheriff's Dispatch	Flagler County Sheriff	Existing
Flagler County Sheriff's Vehicles	Flagler County Sheriff	Existing
Fleet and Freight Management	Fleet and Freight Management	Planned
Florida Highway Patrol Troop D and G Dispatch	FL Highway Patrol	Existing
Government Administrators	Government Administrators	Existing
Government Reporting Systems	Government Reporting Systems	Planned
Inter-City Bus Service	Greyhound Bus Company	Existing
Inter-City Buses	Greyhound Bus Company	Planned
Intermodal Freight Shipper	Intermodal Freight Shipper	Existing
ISP Operator	ISP Operator	Planned
Jacksonville RTMC	FDOT D2	Existing
Local Fire Dispatch	Local Fire Dept	Existing
Local Fire Rescue Vehicles	Local Fire Dept	Existing
Local Police Dispatch	Local Police Dept	Existing
Local Police Vehicles	Local Police Dept	Existing
Local Venue Event Scheduling System	Local Venue Promoters	Existing

Table F.9 (Continued)

Element Name	Stakeholder Name	Element Status
Location Data Source	Location Data Source	Planned
Maintenance and Construction Personnel	FDOT D5	Existing
Maintenance and Construction Vehicle	FDOT D5	Existing
Maintenance and Construction Vehicle Driver	FDOT D5	Existing
Map Update Provider	Map Update Providers	Planned
Melbourne International Airport	Greater Orlando Airport Authority	Existing
Mobile TMC	FDOT D5	Planned
Mobile TMC Roadside Equipment	FDOT D5	Planned
Motorist Aid Call Boxes	FDOT D5	Planned
Municipality Event Permit Systems	County and City Permit Office	Existing
National Hurricane Center Information System	National Weather Service	Existing
National Weather Service	National Weather Service	Existing
Newspapers, Radio, Television Stations	Local Media Affiliates	Existing
Orlando RTMC	FDOT D5	Existing
Other Central Florida TMCs	North FL Traffic Mgmt Agencies	Planned
Other CVAS	Other CVAS	Planned
Other Data Sources	MPOs, RPCs, City and County Agencies	Planned
Other Evacuation Center	County EOC	Planned
Other ISP	Information Service Providers	Planned
Other TRM	LYNX	Planned
Other Vehicle	Other Vehicle	Planned
Palm Beach County ITS Operations Facility	FDOT D4	Existing
Park-and-Ride Lots	Public and Private Parking Providers	Existing
Parking Facilities	Public and Private Parking Providers	Existing
Parking Operator	Parking Operator	Planned
Port of Canaveral	Canaveral Port Authority	Existing
Potential Obstacles	Potential Obstacles	Planned
Private Sector MCO	Private Sector MCO	Planned
Rail Intermodal Terminals	Rail Operator	Existing
Region 2 MCCO	MCCO	Existing
Regional ATIS Center	FDOT D5	Planned

Table F.9 (Continued)

Element Name	Stakeholder Name	Element Status
Regional ATIS Kiosks	FDOT D5	Planned
Regional Evacuation Center Personnel	Regional Evacuation Management	Planned
Regional Evacuation Management Center	Regional Evacuation Management	Planned
Rest Areas/Visitor Centers	FDOT D5	Existing
Roadway	Roadway	Existing
Roadway Environment	Roadway Environment	Existing
Scales and Inspection Facilities	FDOT Motor Carrier Compliance	Existing
SCAT Dispatch	Space Coast Area Transit Agency	Existing
SCAT Vehicles	Space Coast Area Transit Agency	Planned
School Buses	County School Districts	Existing
School District Transportation Dispatch	County School Districts	Existing
Secure Area Environment	FDOT D5	Planned
Seminole County Traffic Action Center	Seminole County	Existing
SEOC	SEOC	Existing
Special Event Parking	Public and Private Parking Providers	Existing
State Evacuation Management Center	SEOC	Planned
Tampa RTMC	FDOT D7	Planned
Traffic	Traffic	Existing
Traffic Operations Personnel	Traffic Operations Personnel	Existing
Transit Driver	LYNX	Existing
Transit Fleet Manager	LYNX	Existing
Transit System Operators	LYNX	Existing
Transit User	Traveler	Existing
Transit Vehicle	LYNX	Existing
Transp. Data Collection Systems	County MPO	Existing
Traveler	Traveler	Existing
Traveler Personal Computing/Information Appliances	User Personal Computing Devices	Existing
Turkey Lake Turnpike TMC	FDOT D8	Existing
Vehicle	Vehicle	Existing
Vehicle Characteristics	Vehicle Characteristics	Planned
Volusia County Fire Rescue Dispatch	Volusia County Fire Rescue	Existing

Table F.9 (Continued)

Element Name	Stakeholder Name	Element Status
Volusia County Fire Rescue Vehicles	Volusia County Fire Rescue	Existing
Volusia County Sheriff's Dispatch	Volusia County Sheriff's Office	Existing
Volusia County Sheriff's Vehicles	Volusia County Sheriff's Office	Existing
Volusia County TMC	Volusia County	Existing
VOTRAN Dispatch	VOTRAN	Existing
VOTRAN Vehicles	VOTRAN	Existing
Yellow Pages Service Providers	Yellow Pages Service Providers	Planned

Table F.10 – District 6 I-75 Stakeholders

Element Name	Stakeholder Name	Element Status
AA Arena Event Scheduling System	American Airlines Arena	Existing
ADC	FDOT D6	Planned
Air Freight Terminals	Air Freight Terminals	Existing
Amtrak Passenger Train Terminal	Amtrak	Existing
Archived Data Administrator	FDOT D6	Planned
Archived Data User Systems	Archived Data User Systems	Planned
Basic Vehicle	Basic Vehicle	Existing
Broward County ITS Operations Facility	FDOT D4	Planned
Commercial Vehicle	Commercial Vehicle	Existing
Commercial Vehicle Administration	Commercial Vehicle Administration	Existing
Commercial Vehicle Driver	Commercial Vehicle Driver	Existing
Commercial Vehicle Manager	Commercial Vehicle Manager	Planned
County Emergency Operations Centers	County Emergency Mgmt. Divs.	Existing
County Paratransit Dispatch	Community Transportation Coordination	Existing
County Paratransit Vehicles	Community Transportation Coordination	Existing
CVO Information Requestor	CVO Information Requestor	Planned
CVO Inspector	MCCO	Existing
District 6 FDOT Urban Area Office TMC	FDOT D6	Planned
District 6 I-75 Roadside Equipment	FDOT D6	Planned
District 6 Service Patrol Dispatch	FDOT D6	Existing
District 6 Service Patrol Vehicles	FDOT D6	Existing
DMV	Department of Motor Vehicle	Existing
Driver	Driver	Existing
E-911	County Emergency Mgmt. Divs.	Existing
Electronic Payment Card	Traveler	Existing
ELECTROWAVE Shuttle Bus Operations Center	Miami Beach Transit Management Association	Existing
ELECTROWAVE Shuttle Buses	Miami Beach Transit Management Association	Existing
Emergency Personnel	Emergency Management Centers	Existing
Emergency System Operator	Emergency Management Centers	Existing
FDLE	FDLE	Existing
FDOT District 6 Construction	FDOT D6	Existing

Table F.10 (Continued)

Element Name	Stakeholder Name	Element Status
FDOT District 6 Maintenance	FDOT D6	Existing
FDOT District 6 Public Information Office	FDOT D6	Existing
FDOT District 6 Transportation Statistics System	FDOT D6	Planned
FHP Vehicles	FHP	Existing
Financial Institutions	Financial Institutions	Existing
Fleet and Freight Management	Fleet and Freight Management	Existing
Florida Highway Patrol Dispatch	FHP	Existing
Ft. Myers RTMC	FDOT D1	Planned
Government Administrators	Government Administrators	Existing
Government Reporting Systems	Government Reporting Systems	Planned
Inter-City Bus Service	Greyhound Bus Company	Existing
Inter-City Buses	Greyhound Bus Company	Existing
Intermodal Freight Shipper	Intermodal Freight Shipper	Planned
ISP Operator	ISP Operators	Planned
Local Fire Dispatch	Local Fire Dept	Existing
Local Fire Rescue Vehicles	Local Fire Dept	Existing
Local Police Dispatch	Local Police Dept	Existing
Local Police Vehicles	Local Police Dept	Existing
Local Venue Event Scheduling System	Local Venue Promoters	Existing
Location Data Source	Location Data Source	Planned
Maintenance and Construction Personnel	FDOT D6	Existing
Maintenance and Construction Vehicle	FDOT D6	Existing
Maintenance and Construction Vehicle Driver	FDOT D6	Existing
Map Update Provider	Map Update Providers	Planned
MetroMover System	Miami-Dade County Transit Agency	Existing
Metrorail System	Miami-Dade County Transit Agency	Existing
Miami RTMC	FDOT D6	Existing
Miami-Dade County Fire Rescue Dispatch	Miami-Dade County Fire Rescue	Existing
Miami-Dade County Fire Rescue Vehicles	Miami-Dade County Fire Rescue	Existing
Miami-Dade County Sheriff's Dispatch	Miami-Dade County Sheriff's Office	Existing
Miami-Dade County Sheriff's Vehicles	Miami-Dade County Sheriff's Office	Existing

Table F.10 (Continued)

Element Name	Stakeholder Name	Element Status
Miami-Dade County TMC	Miami-Dade County	Existing
Miami-Dade County Transit Authority	Miami-Dade County Transit Agency	Existing
Miami-Dade County Transit Vehicles	Miami-Dade County Transit Agency	Existing
Miami-Dade Expressway Authority (MDX)	Miami-Dade Expressway Authority	Existing
Mobile TMC	FDOT D6	Planned
Mobile TMC Roadside Equipment	FDOT D6	Planned
Motorist Aid Call Boxes	FDOT D6	Planned
Municipality Event Permit Systems	County and City Permit Office	Existing
National Hurricane Center Information System	National Weather Service	Existing
National Weather Service	National Weather Service	Existing
Newspapers, Radio, Television Stations	Local Media Affiliates	Existing
Other CVAS	Other CVAS	Planned
Other Data Sources	MPOs, RPCs, City and County Agencies	Planned
Other Evacuation Center	Other Evacuation Agencies	Planned
Other ISP	Information Service Providers	Planned
Other TRM	Other TRM	Planned
Other Vehicle	Other Vehicle	Existing
Park-and-Ride Lots	Public and Private Parking Facilities	Existing
Parking Facilities	Public and Private Parking Facilities	Existing
Parking Operator	Parking Operator	Planned
Port of Everglades	Port Everglades Seaport	Existing
Potential Obstacles	Potential Obstacles	Planned
Private Sector MCO	Private Sector MCO	Planned
Pro Player Stadium Event Schedule System	Pro Player Stadium	Existing
Rail Intermodal Terminals	Rail Operator	Existing
Region 5 MCCO	MCCO	Existing
Regional ATIS Center	FDOT D6	Planned
Regional ATIS Kiosks	FDOT D6	Planned
Regional Evacuation Center Personnel	Regional Evacuation Management	Planned
Regional Evacuation Management Center	Regional Evacuation Management	Planned
Rest Areas/Visitor Centers	FDOT D6	Planned

Table F.10 (Continued)

Element Name	Stakeholder Name	Element Status
Roadway	Roadway	Existing
Roadway Environment	Roadway Environment	Existing
Scales and Inspection Facilities		Existing
School Buses	County School Districts	Existing
School District Transportation Dispatch	County School Districts	Existing
Secure Area Environment	Secure Area Environment	Planned
SEOC	SEOC	Existing
South Florida Educational Complex TMA Dispatch	South Florida Educational Complex TMA	Existing
South Florida Educational Complex TMA Vehicles	South Florida Educational Complex TMA	Existing
Special Event Parking	Public and Private Parking Facilities	Existing
State Evacuation Management Center	SEOC	Planned
SunGuide^{SM} Smart Route TMC	FDOT D6	Existing
Traffic	Traffic	Existing
Traffic Operations Personnel	Traffic Operations Personnel	Existing
Transit Driver	Transit Driver	Existing
Transit Fleet Manager	Transit Fleet Manager	Existing
Transit System Operators	Transit System Operators	Existing
Transit User	Traveler	Existing
Transit Vehicle	Transit Vehicle	Existing
Transp. Data Collection Systems	County MPO	Existing
Traveler	Traveler	Existing
Traveler Personal Computing/Information Appliances	Traveler	Existing
Tri-Rail Commuter Rail System	Tri-Co Commuter Rail Authority	Existing
Troop E FHP Headquarters	FHP	Existing
Vehicle	Vehicle	Existing
Vehicle Characteristics	Vehicle Characteristics	Planned
Yellow Pages Service Providers	Yellow Pages Service Providers	Planned

Table F.11 – District 6 I-95 Stakeholders

Element Name	Stakeholder Name	Element Status
AA Arena Event Scheduling System	American Airlines Arena	Existing
ADC	FDOT D6	Planned
Air Freight Terminals	Air Freight Terminals	Existing
Amtrak Passenger Train Terminal	Amtrak	Existing
Archived Data Administrator	FDOT D6	Planned
Archived Data User Systems	Archived Data User Systems	Planned
Basic Vehicle	Basic Vehicle	Existing
Broward County ITS Operations Facility (RTMC)	FDOT D4	Planned
Commercial Vehicle	Commercial Vehicle	Existing
Commercial Vehicle Administration	Commercial Vehicle Administration	Existing
Commercial Vehicle Driver	Commercial Vehicle Driver	Existing
Commercial Vehicle Manager	Commercial Vehicle Manager	Existing
County Emergency Operations Centers	County Emergency Mgmt. Divs.	Existing
County Paratransit Dispatch	Community Transportation Coordination	Existing
County Paratransit Vehicles	Community Transportation Coordination	Existing
CVO Information Requestor	CVO Information Requestor	Planned
CVO Inspector	MCCO	Existing
District 6 I-195 Roadside Equipment	FDOT D6	Planned
District 6 I-395 Roadside Equipment	FDOT D6	Planned
District 6 I-95 Roadside Equipment	FDOT D6	Planned
District 6 Service Patrol Dispatch	FDOT D6	Existing
District 6 Service Patrol Vehicles	FDOT D6	Existing
DMV	Department of Motor Vehicle	Existing
Driver	Driver	Existing
E-911	County Emergency Mgmt. Divs.	Existing
Electronic Payment Card	Traveler	Existing
Emergency Personnel	Emergency Management Centers	Existing
Emergency System Operator	Emergency Management Centers	Existing
FDLE	FDLE	Existing
FDOT District 6 Construction	FDOT D6	Existing
FDOT District 6 Maintenance	FDOT D6	Existing

Table F.11 (Continued)

Element Name	Stakeholder Name	Element Status
FDOT District 6 Public Information Office	FDOT D6	Existing
FDOT District 6 Transportation Statistics System	FDOT D6	Existing
FHP Vehicles	FHP	Existing
Financial Institutions	Financial Institutions	Existing
Fleet and Freight Management	Fleet and Freight Management	Existing
Florida Highway Patrol Dispatch	FHP	Existing
Government Administrators	Government Administrators	Existing
Government Reporting Systems	Government Reporting Systems	Planned
Inter-City Bus Service	Greyhound Bus Company	Existing
Inter-City Buses	Greyhound Bus Company	Existing
Intermodal Freight Shipper	Intermodal Freight Shipper	Existing
ISP Operator	ISP Operators	Planned
Local Fire Dispatch	Local Fire Dept	Existing
Local Fire Rescue Vehicles	Local Fire Dept	Existing
Local Police Dispatch	Local Police Dept	Existing
Local Police Vehicles	Local Police Dept	Existing
Local Venue Event Scheduling System	Local Venue Promoters	Existing
Location Data Source	Location Data Source	Planned
Maintenance and Construction Personnel	FDOT D6	Existing
Maintenance and Construction Vehicle	FDOT D6	Existing
Maintenance and Construction Vehicle Driver	FDOT D6	Existing
Map Update Provider	Map Update Providers	Planned
MetroMover System	Miami-Dade Transit Agency	Existing
Metrorail System	Miami-Dade Transit Agency	Existing
Miami RTMC	FDOT D6	Existing
Miami-Dade County Fire Rescue Dispatch	Miami-Dade County Fire Rescue	Existing
Miami-Dade County Fire Rescue Vehicles	Miami-Dade County Fire Rescue	Existing
Miami-Dade County Sheriff's Dispatch	Miami-Dade County Sheriff's Office	Existing
Miami-Dade County Sheriff's Vehicles		Existing
Miami-Dade County Traffic Control Center	FDOT D6	Existing
Miami-Dade County Transit Authority	Miami-Dade Transit Agency	Existing

Table F.11 (Continued)

Element Name	Stakeholder Name	Element Status
Miami-Dade County Transit Vehicles	Miami-Dade Transit Agency	Existing
Miami-Dade Expressway Authority (MDX)	Miami-Dade Expressway Authority	Existing
Mobile TMC	FDOT D6	Planned
Mobile TMC Roadside Equipment	FDOT D6	Planned
Motorist Aid Call Boxes	FDOT D6	Planned
Municipality Event Permit Systems	County and City Permit Office	Existing
National Hurricane Center Information System	National Weather Service	Existing
National Weather Service	National Weather Service	Existing
Newspapers, Radio, Television Stations	Local Media Affiliates	Existing
Other CVAS	Other CVAS	Planned
Other Data Sources	MPOs, RPCs, City and County Agencies	Planned
Other Evacuation Center	Other Evacuation Agencies	Planned
Other ISP	Information Service Providers	Planned
Other TRM	Other TRM	Planned
Other Vehicle	Other Vehicle	Planned
Park-and-Ride Lots	Public and Private Parking Providers	Existing
Parking Facilities	Public and Private Parking Providers	Existing
Parking Operator	Parking Operator	Planned
Pompano Turnpike Traffic Management Center	FDOT D8	Existing
Port of Everglades	Everglades Port Authority	Existing
Potential Obstacles	Potential Obstacles	Planned
Private Sector MCO	Private Sector MCO	Planned
Pro Player Event Schedule System	Pro Player Stadium	Existing
Rail Intermodal Terminals	Rail Operator	Existing
Region 5 MCCO	MCCO	Existing
Regional ATIS Center	FDOT D6	Planned
Regional ATIS Kiosks	FDOT D6	Planned
Regional Evacuation Center Personnel	Regional Evacuation Management	Planned
Regional Evacuation Management Center	Regional Evacuation Management	Planned
Rest Areas/Visitor Centers	FDOT D6	Planned
Roadway	Roadway	Existing

Table F.11 (Continued)

Element Name	Stakeholder Name	Element Status
Roadway Environment	Roadway Environment	Existing
Scales and Inspection Facilities		Existing
School Buses	County School Districts	Existing
School District Transportation Dispatch	County School Districts	Existing
Secure Area Environment	Secure Area Environment	Planned
SEOC	SEOC	Existing
South Florida Educational Complex TMA Dispatch	South Florida Educational Complex TMA	Existing
South Florida Educational Complex TMA Vehicles	Public and Private Parking Providers	Existing
Special Event Parking	Special Event Parking	Existing
State Evacuation Management Center	SEOC	Planned
SunGuide^{SM} Smart Route ATIS Center	FDOT D6	Existing
SUNPASS Toll Operations Center	SUNPASS Traffic Operations Center	Existing
Traffic	Traffic	Existing
Traffic Operations Personnel	Traffic Operations Personnel	Existing
Transit Driver	Transit Driver	Existing
Transit Fleet Manager	Transit Fleet Manager	Existing
Transit System Operators	Transit System Operators	Existing
Transit User	Transit User	Existing
Transit Vehicle	Transit Vehicle	Existing
Transp. Data Collection Systems	County MPO	Existing
Traveler	Traveler	Existing
Tri-Rail Commuter Rail System	Tri-Rail Commuter Rail Authority	Existing
Troop E FHP Headquarters	FHP	Existing
Traveler Personal Computing/Information Appliances	User Personal Computing Devices	Existing
Vehicle	Vehicle	Existing
Vehicle Characteristics	Vehicle Characteristics	Planned
Yellow Pages Service Providers	Yellow Pages Service Providers	Planned

Table F.12 – District 7 I-75 Stakeholders

Element Name	Stakeholder Name	Element Status
ADC	FDOT D7	Planned
Air Freight Terminals	Air Freight Terminals	Existing
Amtrak Passenger Train Terminal	Amtrak	Existing
Amtrak Regional Bus Service	Amtrak	Existing
Amtrak Regional Buses	Amtrak	Existing
Archived Data Administrator	FDOT D7	Planned
Archived Data User Systems	Archived Data User Systems	Planned
Basic Vehicle	Basic Vehicle	Existing
CBD Parking Systems	Tampa, Clearwater, and St. Petersburg	Existing
City of Tampa TMC	City of Tampa	Existing
Commercial Vehicle	Commercial Vehicle	Existing
Commercial Vehicle Administration	Commercial Vehicle Administration	Existing
Commercial Vehicle Driver	Commercial Vehicle Driver	Existing
Commercial Vehicle Manager	Commercial Vehicle Manager	Existing
County Emergency Operations Centers	County Emergency Mgmt. Divs.	Existing
County Paratransit Dispatch	Community Transportation Coordination	Existing
County Paratransit Vehicles	Community Transportation Coordination	Existing
CVO Information Requestor	CVO Information Requestor	Planned
CVO Inspector	MCCO	Existing
District 1 Bartow Virtual TMC	FDOT D7	Planned
District 7 Event Promoter	District 7 Event Promoter	Existing
District 7 I-275 Roadside Equipment	FDOT D7	Planned
District 7 I-275 Tropicana DMS	FDOT D7	Planned
District 7 I-75 Roadside Equipment	FDOT D7	Planned
District 7 Regional Airports	FDOT D7	Planned
District 7 Service Patrol Dispatch	FDOT D7	Existing
District 7 Service Patrol Vehicles	FDOT D7	Existing
DMV	Department of Motor Vehicles	Existing
Driver	Driver	Existing
E-911	County Emergency Mgmt. Divs.	Existing
Electronic Payment Card	Traveler	Existing

Table F.12 (Continued)

Element Name	Stakeholder Name	Element Status
Emergency Personnel	Emergency Management Centers	Existing
Emergency System Operator	Emergency Management Centers	Existing
FDLE	FDLE	Existing
FDOT District 7 Construction	FDOT D7	Existing
FDOT District 7 Maintenance	FDOT D7	Existing
FDOT District 7 Public Information Office	FDOT D7	Existing
FDOT District 7 Transportation Statistics System	FDOT D7	Existing
FDOT Office of Toll Operations	FDOT D8	Existing
FHP Vehicles	FHP	Planned
Financial Institutions	Financial Institutions	Existing
Florida Highway Patrol Troop C	FHP	Existing
Ft. Myers RTMC	FDOT D1	Planned
Government Administrators	Government Administrators	Existing
Government Reporting Systems	Government Reporting Systems	Planned
HARTline Transit Fare Cards	HARTline	Existing
HARTline Transit Management Center	HARTline	Existing
HARTline Transit Vehicles	HARTline	Existing
Hernando County Fire Rescue Dispatch	Hernando County Fire Rescue	Existing
Hernando County Fire Rescue Vehicles	Hernando County Fire Rescue	Existing
Hernando County Public Works Vehicle AVL System	Hernando County	Planned
Hernando County Sheriff's Dispatch	Hernando County Sheriff	Existing
Hernando County Sheriff's Vehicles	Hernando County Sheriff	Existing
Hernando County TMC	Hernando County	Planned
Hernando County, FDOT CVO Route Guidance	Hernando County	Planned
Hillsborough County Fire Rescue Dispatch	Hillsborough County Fire Rescue	Existing
Hillsborough County Fire Rescue Vehicles	Hillsborough County Fire Rescue	Existing
Hillsborough County Sheriff's Dispatch	Hillsborough County Sheriff	Existing
Hillsborough County Sheriff's Vehicles	Hillsborough County Sheriff	Existing
Hillsborough County TMC	Hillsborough County	Planned
Ice Palace	Ice Palace	Existing
Inter-City Bus Service	Greyhound Bus Company	Existing

Table F.12 (Continued)

Element Name	Stakeholder Name	Element Status
Inter-City Buses	Greyhound Bus Company	Existing
Intermodal Freight Shipper	Intermodal Freight Shipper	Planned
ISP Operator	ISP Operator	Existing
Jacksonville RTMC	FDOT D2	Existing
Local Fire Dispatch	Local Fire Dept	Existing
Local Fire Rescue Vehicles	Local Fire Dept	Existing
Local Military Bases	US DOD	Existing
Local Police Dispatch	Local Police Dept	Existing
Local Police Vehicles	Local Police Dept	Existing
Local Venue Event Scheduling System	Local Venue Promoters	Existing
Location Data Source	Location Data Source	Planned
Maintenance and Construction Personnel	FDOT D7	Existing
Maintenance and Construction Vehicle	FDOT D7	Existing
Maintenance and Construction Vehicle Driver	FDOT D7	Existing
Map Update Provider	Map Update Providers	Planned
Marine Terminals	Port Authority	Existing
Mobile TMC	FDOT D7 Public Info Office	Planned
Mobile TMC Roadside Equipment	FDOT D7	Planned
Motorist Aid Call Boxes	FDOT D7	Planned
Municipality Event Permit Systems	County and City Permit Office	Existing
National Hurricane Center Information System	National Weather Service	Existing
National Weather Service	National Weather Service	Existing
Newspapers, Radio, Television Stations	Local Media Affiliates	Existing
Orlando RTMC		Planned
Other CVAS	Other CVAS	Planned
Other Data Sources	MPOs, RPCs, City and County Agencies	Planned
Other District 7 Public Safety Commission and Dispatch Center	FDOT D7	Planned
Other Evacuation Center	Other Evacuation Agencies	Planned
Other North Florida TMCs	North FL Traffic Mgmt Agencies	Planned
Other TRM		Planned
Other Vehicle	Other Vehicle	Planned

Table F.12 (Continued)

Element Name	Stakeholder Name	Element Status
Park-and-Ride Lots	Public and Private Parking Providers	Existing
Parking Facilities	Public and Private Parking Providers	Existing
Parking Operator	Parking Operator	Planned
Pasco County Sheriff's Dispatch	Pasco County Sheriff's Department	Existing
Pasco County Fire Rescue Dispatch	Pasco County Fire Department	Existing
Pasco County Fire Rescue Vehicles	Pasco County Fire Department	Existing
Pasco County Sheriff's Vehicles	Pasco County Sheriff's Department	Existing
Pasco County TMC	Pasco County	Planned
Pinellas County Fire Rescue Dispatch	Pinellas County Fire Rescue	Existing
Pinellas County Fire Rescue Vehicles	Pinellas County Fire Rescue	Existing
Pinellas County Sheriff's Dispatch	Pinellas County Sheriff's Office	Existing
Pinellas County Sheriff's Vehicles	Pinellas County Sheriff's Office	Existing
Pinellas County TMC	Pinellas County	Existing
Pinellas Suncoast Transit Authority Vehicles	Pinellas Suncoast Transit Authority	Existing
Pinellas Suncoast Transit Authority Transit Management	Pinellas Suncoast Transit Authority	Existing
Potential Obstacles	Potential Obstacles	Planned
Private Sector MCO	Private Sector MCO	Planned
PSTA Electronic Fare Payment (Go Card)	Pinellas Suncoast Transit Authority	Existing
Rail Intermodal Terminals	Rail Operator	Existing
Raymond James Stadium	Raymond James Stadium	Existing
Region 4 MCCO	MCCO	Existing
Regional ATIS Center	FDOT D7	Planned
Regional ATIS Kiosks	FDOT D7	Planned
Regional Evacuation Center Personnel	Regional Evacuation Management	Planned
Regional Evacuation Management Center	Regional Evacuation Management	Planned
Rest Areas/Visitor Centers	FDOT D7	Existing
Roadway	Roadway	Existing
Roadway Environment	Roadway Environment	Existing
Sarasota Satellite TMC	FDOT D1	Planned
Scales and Inspection Facilities	FDOT Motor Carrier Compliance	Existing
School Buses	County School Districts	Existing

Table F.12 (Continued)

Element Name	Stakeholder Name	Element Status
School District Transportation Dispatch	County School Districts	Existing
Secure Area Environment	FDOT D7	Planned
SEOC	SEOC	Existing
Special Event Parking	Public and Private Parking Providers	Existing
St. Petersburg Fire and Rescue Dispatch	St. Petersburg Fire and Rescue	Existing
St. Petersburg Fire Rescue Vehicles	St. Petersburg Fire and Rescue	Existing
St. Petersburg International Clearwater Airport	Port Authority	Existing
St. Petersburg Sheriff's Vehicles	St. Petersburg Sheriff's Office	Existing
St. Petersburg Sheriff's Dispatch	St. Petersburg Sheriff's Office	Existing
St. Petersburg TMC	City of St. Petersburg	Existing
State Evacuation Management Center	SEOC	Planned
Sunshine Skyway North Toll Plaza Control Center	Sunshine Skyway North Toll Plaza Control Center	Existing
Tampa Bay Crisis Center	Tampa Bay Crisis Center	Planned
Tampa Bay Fire Rescue Dispatch	Tampa Bay Fire Rescue	Existing
Tampa Bay Fire Rescue Vehicles	Tampa Bay Fire Rescue	Existing
Tampa Bay Police Dispatch	Tampa Bay Sheriff's Office	Existing
Tampa Bay Police Vehicles	Tampa Bay Sheriff's Office	Existing
Tampa International Airport	Port Authority	Existing
Tampa RTMC	FDOT D7	Planned
Toll Administrator	FDOT D8	Existing
Toll Operator	FDOT D8	Existing
Traffic	Traffic	Existing
Traffic Operations Personnel	Traffic Operations Personnel	Existing
TransHernando Transit Management Center	TransHernando	Existing
TransHernando Transit Vehicles	TransHernando	Existing
Transit Driver	Transit Driver	Existing
Transit Fleet Manager	Transit Fleet Manager	Existing
Transit System Operators	Transit System Operators	Existing
Transit User	Transit User	Existing
Transit Vehicle	Transit Vehicle	Existing
Transp. Data Collection Systems	County MPO	Planned

Table F.12 (Continued)

Element Name	Stakeholder Name	Element Status
Traveler	Traveler	Existing
Traveler Personal Computing/Information Appliances	Traveler	Planned
Tropicana Field	Tropicana Field	Existing
Turkey Lake Turnpike TMC	FDOT D8	Existing
USF Sun Dome	USF Sun Dome	Existing
Vehicle	Vehicle	Existing
Vehicle Characteristics	Vehicle Characteristics	Planned
Yellow Pages Service Providers	Yellow Pages Service Providers	Planned

Appendix G

NITSA Flow Descriptions

NITSA Flow Descriptions

FlowName	FlowDescription
activity reports	Activity reports containing records of citations, accidents, inspections, etc.
AHS control data	Information required for vehicles to operate on AHS lanes.
AHS control information	Control data to AHS roadway equipment
AHS status	Status of AHS equipment, lane controls etc.
AHS vehicle data	AHS route and vehicle condition data
air quality information	Aggregated region-wide measured air quality data and possible pollution incident information.
alerts, messages	Specific alerts and messages related to Commercial Vehicles (e.g., trucks not advised, trucks over 10 tons not allowed on bridge, route details)
archive analysis requests	A user request that initiates data mining, analytical processing, aggregation or summarization, report formulation, or other advanced processing and analysis of archived data. The request also includes information that is used to identify and authenticate the user and support electronic payment requirements, if any.
archive analysis results	Processed information products, supporting meta data, and any associated transaction information resulting from data mining, analytical processing, aggregation or summarization, report formulation, or other on-line processing and analysis of archived data.
archive coordination	Catalog data, meta data, published data, and other information exchanged between archives to support data synchronization and satisfy user data requests.
archive management data	Information used to support the management of an ITS archive including database reports on the condition and quality of the archived data, status of the import and collection process, reports that monitor archive usage, and any special requests that require direct action by the administrator (e.g., requests for access to new data sources).
archive management requests	Commands, requests, and queries that support the administration and management of an ITS data archive.
archive request confirmation	Confirmation that an archive request has been received and processed with information on the disposition of the request
archive requests	A request to a data source for information on available data (i.e. "catalog") or request that defines the data to be archived. The request can be a general subscription intended to initiate a continuous or regular data stream or a specific request intended to initiate a one-time response from the recipient.
archive status	Notification that data provided to an archive contains erroneous, missing, or suspicious data or verification that the data provided appears valid. If an error has been detected, the offending data and the nature of the potential problem are identified.
archived data product requests	A user-specified request for archived data products (i.e. data, meta data, or data catalogs). The request also includes information that is used to identify and authenticate the user and support electronic payment requirements, if any.
archived data products	Raw or processed data, meta data, data catalogs and other data products provided to a user system upon request. The response may also include any associated transaction information.
arriving train information	Information for a train approaching a highway-rail intersection that may include direction and allow calculation of approximate arrival time and closure duration.

Flow Name	***Flow Descriptions***
bad tag list	List of invalid transit user tags which may have previously failed a fare payment transaction.
basic vehicle measures	Information provided to on-board ITS equipment from the vehicle platform indicating current vehicle status.
border clearance event record	Results of border clearance check.
broadcast advisories	General broadcast advisories that are provided over wide-area wireless communications direct to the vehicle radio. These analog advisory messages may provide similar content to ITS broadcast information flows, but include no digital data component. Existing Highway-Advisory Radio (HAR) advisory messages are a prime example of this flow.
broadcast information	General broadcast information that contains link travel times, incidents, advisories, transit services and a myriad of other traveler information.
citation data	Safety problems related to the carrier, driver and vehicle that may lead to a citation.clearance event record results of vehicle clearance activity.
closure coordination	Coordination between subsystems regarding construction and maintenance closure times and durations.
commercial vehicle archive data	Information describing commercial vehicle travel and commodity flow characteristics. Content may include a catalog of available information, the actual information to be archived, and associated meta data that describes the archived information.
commercial vehicle data	Information about the commercial vehicles cargo, credentials, and payments.
commercial vehicle data request	Request for commercial vehicle information (cargo, driver's credit, vehicle location). commercial vehicle measures Commercial vehicle, driver, and cargo safety status measured by on-board ITS equipment.
compliance review report	Report containing data from facility activity logs from various roadside facilities.
construction and maintenance	Information describing road construction and maintenance activities identifying archive data the type of activity, the location of the activity, and the activity status. Contents may include a catalog of available information, the actual information to be archived, and associated meta data that describes the archived information.
credential application	Application for commercial vehicle credentials for a particular route/trip.
credentials and safety information request	Request for additional credentials and safety information.
credentials and safety information	Instructions to commercial vehicle managing and/or information systems response indicating which vehicles are to be allowed to pass and which are out of service or have not been credentialed.
credentials information	Response containing credentials information.
credentials information request	Request for credential information.
crossing call	Request for pedestrian crossing.
crossing permission	Signal to pedestrians indicating permission to cross roadway.
current network conditions	Current traffic information, road conditions, and camera images that can be used to locate and verify reported incidents, and plan and implement an appropriate response.
CVAS information exchange	Tax and credential fee information exchanged between cooperating commercial vehicle administration offices (e.g. regional or inter-state pre-clearance data).

Flow Name	***Flow Descriptions***
CVC override mode	Manual override by the commercial vehicle roadside facility inspector of automated pass/pull-in signage information.
CVO database update	Credential information and safety problem list updates.
CVO driver initialization	Commercial vehicle driver and vehicle information and requests to the commercial vehicle managing system.
CVO inspector information	Credential, safety, and preclearance information and instructions to the commercial vehicle inspector.
CVO inspector input	Requests from the commercial vehicle inspector to operate the commercial vehicle inspection station.
CVO Pull in Message	Message sent to commercial vehicle driver requesting pull in to inspection/verification stop along with inspection results.
CVO weight and presence	WIM message to indicate presence of commercial vehicle and its weight.
demand responsive transit plan	Plan regarding overall demand responsive transit schedules and deployment.
demand responsive transit request	Request for paratransit support.
dispatch information	Dispatch information and command to emergency personnel.
driver and vehicle information	Requests from the driver and vehicle for routing, payment, and enrollment information.
driver information	General advisory and traffic control information provided to the driver while en-route.
driver inputs	Driver commands to the vehicle.
driver instructions	Transit service instructions for both transit and paratransit drivers.
driver updates	Information displayed or otherwise conveyed by the vehicle to the driver.
electronic clearance data	Information required for electronic clearance (toll, safety, customs, etc.).
electronic clearance request	Request for electronic clearance data (Toll, safety, customs, etc.).
electronic credentials	Authenticated credentials including route enrollment and payment confirmation.
emergency acknowledge	Acknowledge request for emergency assistance and provide additional details regarding actions and verification requirements.
emergency archive data	Logged incident information that characterizes the identified incidents and provides a record of the corresponding incident response. Content may include a catalog of available information, the actual information to be archived, and associated meta data that describes the archived information.
emergency data request	A request for additional information or a control command issued by the emergency response agency in response to an emergency request for assistance from a traveler.
emergency dispatch requests	Emergency vehicle dispatch instructions including incident location and available information concerning the incident.
emergency dispatch response	Request for additional emergency dispatch information (e.g., a suggested route) and provision of en-route status.

Flow Name	***Flow Descriptions***
emergency notification	An emergency request for assistance originated by a traveler using an in-vehicle, public access, or personal device. Sufficient information is provided so that the recipient can determine the location of the emergency as a minimum. Additional information identifying the requestor and requesting device and the nature and severity of the emergency may also be provided (and required) by some emergency operations request. Emergency operator inputs supporting call taking, dispatch, and other operations and communications center operator functions.
emergency operations status	Emergency operations data supporting a range of emergency operating positions including call taker, dispatch, and various other operations and communications center operator positions.
emergency personnel inputs	Current incident status information and requests from emergency personnel in the field for information and/or resources.
emergency request	An emergency assistance request originated by a transit traveler using an in-vehicle, public access, or personal device.
emergency traffic control request	Special request to preempt the current traffic control strategy in effect at one or more signalized intersections or highway segments. For example, this flow can request all signals to red-flash, request a progression of traffic control preemptions along an emergency vehicle route, or request another special traffic emergency traffic control response. Status of the special traffic signal control strategy implemented in response to the emergency traffic control request.
emergency vehicle tracking data	The current location and operating status of the emergency vehicle.
emissions archive data	Air quality and vehicle emissions information that is collected by sensors or derived from models. Content may include a catalog of available information, the actual information to be archived, and associated meta data that describes the archived information.
emissions data	Emissions data and associated imagery collected by roadside equipment.
environmental conditions	Current environment conditions (e.g., air temperature, wind speed, surface temperature) as measured by environmental sensors and communicated by supporting field equipment.
equipment maintenance status	Current status of field equipment maintenance actions.
event confirmation	Confirmation that special event details have been received and processed.
event plans	Plans for major events possibly impacting traffic.
external reports	Traffic and incident information that is collected by the media through a variety of mechanisms (e.g., radio station call-in programs, air surveillance)
fare and payment status	Current fare collection information including the operational status of the fare collection equipment and financial payment transaction data.
fare and price information	Current transit, parking, and toll fee schedule information.
fare management information	Transit fare information and transaction data used to manage transit fare processing on the transit vehicle.
fault reports	Reports from field equipment (sensors, signals, signs, controllers, etc.) which indicate current operational status.
fleet manager inquiry	Inquiry from fleet manager requesting data from commercial vehicle management system.
fleet status	Fleet status information including enrollment status, routing information, current vehicle information, and emergency information.
fleet to driver update	Updated instructions to the driver including dispatch, routing, and special instructions

Flow Name	***Flow Descriptions***
flood monitoring system control	Information that is used to request status from and establish control settings for flood monitoring equipment.
flood monitoring system status	Information from flood monitoring systems indicating the health status of the equipment and the condition of the roadway.
freeway control data	Control commands and operating parameters for ramp meters, dynamic message signs, mainline metering/lane controls and other systems associated with freeway operations.
freeway control status	Current operational status and operating parameters for ramp meters, dynamic message signs, mainline metering/lane controls and other control equipment associated with freeway operations.
government reporting data receipt	The acknowledgement of satisfactory receipt of information used as input to government data systems or a report identifying problems or issues with the data submittal.
government reporting system data	Information provided by an ITS archive, formatted as appropriate, that can be used as input to government data reporting systems.
HAZMAT information	Information about a particular HAZMAT load including nature of the load and unloading instructions. May also include HAZMAT vehicle route and route update information
HAZMAT information request	Request for information about a particular hazmat load.
highway control status	Current traffic control equipment status that indicates operational status and right-of-way availability to the non-highway transportation mode at a multi-modal center.
hov data	Current HOV lane information including both standard traffic flow measures and information regarding vehicle occupancy in HOV lanes.
hri advisories	Notification of Highway-Rail Intersection equipment failure, intersection blockage, or other condition requiring attention, and maintenance activities at or near highway rail intersections.
hri control data	Data required for HRI information transmitted at railroad grade crossings and within railroad operations.
hri operational status	Status of the highway-rail grade crossing equipment including both the current state or mode of operation and the current equipment condition.
hri request	A request for highway-rail intersection status or a specific control request intended to modify HRI operation.
hri status	Status of the highway-rail intersection equipment including both the current state or mode of operation and the current equipment condition.
incident command information	Information that supports local management of an incident. It includes resource deployment status, hazardous material information, traffic, road, and weather conditions, evacuation advice, and other information that enables emergency personnel in the field to implement an effective, safe incident response.
incident command information	Presentation of information to emergency personnel in the field that supports presentation local tactical decision-making within an incident command system structure.
incident command request	Request for resources, commands for relay to other allied response agencies, and other requests that reflect local command of an evolving incident response.
incident data	Data and imagery from the roadside supporting incident detection and verification.
incident information	Notification of existence of incident and expected severity, location, time and nature of incident.
incident information for media	Report of current desensitized incident information prepared for public dissemination through the media.

Flow Name	***Flow Descriptions***
incident information request	Request for incident information, clearing time, severity. The request can be a subscription that initiates as-needed information updates as well as a one-time request for information.
incident notification	The notification of an incident including its nature, severity, and location.
incident notification response	Interactive acknowledgement and verification of the incident information received, requests for additional information, and general information on incident response status.
incident report	Report of an identified incident including incident location, type, severity and other information necessary to initiate an appropriate incident response.
incident response coordination	Incident response procedures, resource coordination, and current incident response status that are shared between allied response agencies to support a coordinated response to incidents. This flow also coordinates a positive hand off of responsibility for all or part of an incident response between agencies.
incident response status	Status of the current incident response including traffic management strategies implemented at the site (e.g., closures, diversions, traffic signal control
incident status	Information gathered at the incident site that more completely characterizes the incident and provides current incident response status.
information on violators	Response from law enforcement agency to violations notification request.
information request	General purpose information request for data stored within the commercial vehicle operations information exchange network.
intermodal CVO coordination	Cargo movement logs and cargo ID's exchanged between freight shippers.
intermodal freight archive data	Information describing demand at intermodal freight terminals including loading/unloading activities of trailers and containers. Content may include a catalog of available information, the actual information to be archived, and associated meta data that describes the archived information.
international border crossing data	Cleared commercial vehicle data to allow pass-thru international border crossings.
international border crossing data	Update from commercial vehicle check stations of international border crossing update events.
intersection blockage notification	Notification that a highway-rail intersection is obstructed and supporting information.
intersection status	Status of intersection congestion, approaching vehicles, etc.
in-vehicle transaction status	The status of an electronic payment transaction presented to the driver by in-vehicle equipment.
ISP coordination	Coordination and exchange of transportation information between centers. This flow allows a broad range of transportation information collected by one ISP to be redistributed to many other ISPs and their clients.
ISP operating parameter updates	Tuning and performance enhancement parameters to ISP algorithms.
ISP operating parameters	Parameters provided to the ISP Operator by the ISP including broadcast information settings, route selection controls, and travel optimization algorithms.
license request	Request supporting registration data based on license plate read during violation.
local signal preemption request	Direct control signal or message to a signalized intersection that results in preemption of the current control plan and grants right-of-way to the requesting vehicle.
local signal priority request	Request from a vehicle to a signalized intersection for priority at that intersection.

Flow Name	***Flow Descriptions***
lock tag data	Tag information on cargo lock.
lock tag data request	Request to supply lock information on cargo lock for retransmission to international border crossing station.
log information	Request information to be entered into the driver log.
logged special vehicle route	Anticipated route information for special vehicles (e.g., oversize vehicles) or groups of vehicles (e.g., governer's motorcade) that may require changes in traffic control strategy.
maintenance resource request	Request for road maintenance resources that can be used in the diversion of traffic (cones, portable signs), clearance of an incident, and repair of ancillary
maintenance resource response	Current status of maintenance resources included availability and deployment status.
maintenance status	Current maintenance status of vehicle.
map update request	Request for a map update which could include a new underlying map or map layer updates.
map updates	Map update which could include a new underlying static or real-time map or map layer(s) update.
media information request	Request from the media for current transportation information.
multimodal archive data	Operational information from alternate passenger transportation modes including air, rail transit, taxis, and ferries. Content may include a catalog of available information, the actual information to be archived, and associated meta data that describes the archived information.
multimodal crossing status	Indication of operational status and pending requests for right-of-way from equipment supporting the non-highway mode at multi-modal crossings.
multimodal information	Schedule information for alternate mode transportation providers such as train, ferry, air and bus.
multimodal information request	Information request for alternate mode transportation providers such as train, ferry, air and bus.
on board safety data	Vehicle safety data measured by vehicle sensors and sent to inspection stations.
on board vehicle data	Condition of the commercial vehicle sent to commercial vehicle manager primarily for maintenance purposes.
on-board safety request	Request for onboard vehicle safety data.
other data source archive data	Data extracted from other data sources. A wide range of ITS and non-ITS data and associated meta data may be provided.
parking archive data	Data used to analyze and monitor trends in parking demand, pricing, and operational actions. Content may include a catalog of available information, the actual information to be archived, and associated meta data that describes the archived information.
parking availability	Current parking lot occupancy, parking availability, and cost information.
parking coordination	Information that enables parking management activities to be coordinated between different parking operators or systems in a region.
parking demand management request	Request to change the demand for parking facility use through pricing or other mechanisms.
parking demand management	Response to parking demand management change requests indicating level of response compliance with request.

Flow Name	***Flow Descriptions***
parking information	General parking information and current parking availability.
parking instructions	Information that allows local parking facilities to be managed to support regional traffic management objectives.
parking lot data request	Request for parking lot occupancy, fares, and availability. The request can be a subscription that initiates as-needed information updates as well as a one-time request for information.
parking lot reservation confirmation	Confirmation for parking lot reservation.
parking operator inputs	Local parking operator inputs that query current status and control the operation of the parking management system.
parking reservations request	Reservation request for parking lot.
parking status	Parking lot operational status.
pass/pull-in	Command to commercial vehicle to pull into inspection station.
payment	Payment of some kind (e.g., toll, parking, fare) by traveler which in most cases can be related to a credit account.
payment request	Request for payment from financial institution.
personal transit information	General and personalized transit information for a particular fixed route, flexible route, or paratransit system.
physical presence	Detection of an obstacle by a vehicle. Obstacle could include animals, other vehicles, pedestrians, rocks in roadway etc.
pollutant levels	Atmospheric pollutant levels as monitored by air quality sensors.
pollution data	Measured emissions data comprised of various atmospheric pollutants.
pollution data display	Both reference and current pollution status details for a given geographic area.
pollution data parameters	Nominal pollution data compliance (reference) levels for each sector of an urban area.
pollution state data request	Aggregated emissions data information request.
position fix	Information which provides a traveler or vehicles geographical position.
probe data	Aggregate data from probe vehicles including location, speed for a given link or collection of links.
provider profile confirm	Confirmation of profile information received by a service provider (e.g. for a hotel or restaurant).
provider profile data	Information supplied by a service provider (e.g., a hotel or restaurant) that identifies the service provider and provides details of the service offering. This flow covers initial registration of a service provider and subsequent submittal of new information and status updates so that data currency is maintained.
railroad advisories	Real-time notification of railway-related incident or advisory.
railroad schedules	Train schedules, maintenance schedules, and other information from the railroad that supports forecast of HRI closures.
registration	Registered owner of vehicle and associated vehicle information.
regulations	Regulations imposed on Commercial Vehicle Administration agencies including safety ratings, facility locations and credential fee structure.
remote surveillance control	The control commands used to remotely operate another center's sensors or

Flow Name	*Flow Descriptions*
	surveillance equipment so that roadside surveillance assets can be shared by more than one agency.
request fare and price information	Requests for current fare and price information from a service provider that can be used to augment the traffic manager's overall view of current transportation network status.
request for bad tag list	Request for list of bad vehicle tag IDs.
request for information on violators	Request for law enforcement information on vehicles and drivers suspected of violations.
request for payment	Request to deduct cost of service from user's payment account.
request for performance data	Request issued by a service provider for current parking service performance data.
request for right-of-way	Forwarded request from signal prioritization, signal preemption, pedestrian call, multi-modal crossing activation, or other source for right-of-way.
request for service	A traveler service request initiated by a driver or traveler. The request may result in a financial transaction, summon an emergency response, or initiate another service at the behest of the driver.
request for traffic information	Request for traffic information that specifies the region/route of interest, the desired effective time period, and other parameters that allow preparation of a tailored response. The request can be a subscription that initiates as-needed information updates as well as a one-time request for information.
request for vehicle measures	Request for vehicle performance and maintenance data collected by onboard sensors.
request tag data	Request for tag information including credit identity, stored value card cash, etc.
request transit information	Request for transit service information and current transit status.
resource deployment status	Status of TMC resource deployment identifying the resources available and their current deployment status.
resource request	A request for traffic management resources to implement special traffic control measures, assist in clean up, verify an incident, etc.
reversible lane status	Current reversible lane status including traffic sensor and surveillance data and the operational status and mode of the reversible lane control equipment.
road closure information	Provides an overall list of road closure information from construction and maintenance to the Information Service Provider. Note that this extended flow actually connects two existing National ITS Architecture entities.
road network use	Aggregated route usage and associated travel data from clients for planning and analysis.
roadside archive data	A broad set of data derived from roadside sensors that includes current traffic conditions, environmental conditions, and any other data that can be directly collected by roadside sensors. This data also indicates the status of the sensors and reports of any identified sensor faults.
roadside log update	Update of activities at commercial vehicle check stations including clearance events and inspection reports.
roadside transaction status	The status of an electronic payment transaction provided directly to the driver via sign or other roadside infrastructure.
roadway characteristics	Detectable or measurable road characteristics such as friction coefficient and general surface conditions, road geometry and markings, etc. These characteristics are monitored or measured by vehicle ITS components and used to support advanced vehicle safety and control capabilities.

Flow Name	***Flow Descriptions***
roadway information system data	Information used to initialize, configure, and control roadside systems that provide driver information (e.g., dynamic message signs, highway advisory radio, beacon systems). This flow can provide message content and delivery attributes, local message store maintenance requests, control mode commands, status queries, and all other commands and associated parameters that support remote management of these systems.
roadway information system status	Current operating status of dynamic message signs, highway advisory radios, beacon systems, or other configurable field equipment that provides dynamic information to the driver.
route assignment	Route assignment information for transit driver.
route plan	Tailored route provided by ISP in response to a specific request.
route request	Request for a tailored route based on given constraints.
safety information	Response containing commercial vehicle safety information.
safety information request	Request for commercial vehicle safety information.
safety inspection record	Record containing results of commercial vehicle safety inspection.
screening data	Data stored in vehicle's tag allowing electronic clearance at border crossings, debits at toll plazas, and clearance at safety inspections.
screening request	Request for screening data based on vehicle and possibly cargo's tags.
secure area characteristics	Characteristics (visual, audible, other) that are monitored by surveillance security systems via sensors.
secure area monitoring support	Commands that control surveillance equipment and security sensors that monitor secure public transportation areas. Also includes information for general advisories and alerts intended for general dissemination in these same public
secure area surveillance data	Data collected from surveillance systems used to monitor secure areas. Includes video, audio, and other security sensor outputs.
selected routes	Routes selected based on route request criteria.
sensor and surveillance control	Information used to configure and control sensor and surveillance systems at the roadside.
signal control data	Information used to configure and control traffic signal systems.
signal control status	Status of surface street signal controls.
suggested route	Suggested route for a dispatched emergency vehicle that may reflect current network conditions and the additional routing options available to en-route emergency vehicles that are not available to the general public.
tag data	Unique tag ID and related vehicle information for the purposes of payment for services.
tag update	Update data held in tag which can be read at another screening.
tax filing, audit data	Commercial vehicle tax filing and audit data.
tax-credentials-fees request	Request to government agency for tax, credential and/or fee data.
toll administration requests	Instructions indicating toll fees which should be charged.
toll archive data	Data indicating toll facility usage and pricing schedules. Content may include a catalog of available information, the actual information to be archived, and associated meta data

Flow Name	*Flow Descriptions*
	that describes the archived information.
toll data	Current toll schedules for different types of vehicles as well as advanced toll payment information.
toll data request	Request made to obtain toll schedule information or pay a toll in advance. The request can be a subscription that initiates as-needed information updates as well as a one-time request for information.
toll demand management request	Request to change the demand for toll road facility use through pricing or other mechanisms.
toll demand management response	Response to toll demand management change requests indicating level of compliance with request.
toll instructions	Demand management toll pricing information based on current congestion.
toll operator requests	Request for information from toll operator at toll collection site.
toll revenues and summary reports	Summary of toll revenues and toll-related reports to toll service provider.
toll transaction reports	Summary report sent to toll collection point operator containing previous toll transactions.
Toll Transactions	Detailed list of transactions from a toll station.
track status	Current status of the wayside equipment and notification of an arriving train.
traffic archive data	Information describing the use and vehicle composition on transportation facilities and the traffic control strategies employed. Content may include a catalog of available information, the actual information to be archived, and associated meta data that describes the archived information.
traffic characteristics	Physical traffic characteristics which are monitored and translated into macroscopic measures like occupancy, volume, density, and average speed. Point measures support presence detection and individual vehicle measures like traffic control coordination Information transfers that enable remote monitoring and control of traffic management devices. This flow is intended to allow cooperative access to, and control of, field equipment during incidents and special events and during day-to-day operations. This flow also allows 24-hour centers to monitor and control assets of other centers during off-hours, allows system redundancies and fail-over capabilities to be established, and otherwise enables integrated traffic control strategies in a region.
traffic control priority request	Request for signal priority at one or more intersections along a particular route.
traffic control priority status	Status of signal priority request functions at the roadside (e.g. enabled or disabled).
traffic equipment status	Identification of field equipment requiring repair and known information about the associated faults.
traffic flow	Raw and/or processed traffic detector information which allows derivation of traffic flow variables (e.g., speed, volume and density measures).
traffic images	High fidelity, real-time traffic images suitable for surveillance monitoring by the operator or for use in machine vision applications.
traffic information	Current and forecasted traffic information, road and weather conditions, incident information, and pricing data. Either raw data, processed data, or some combination of both may be provided by this architecture flow.
traffic information coordination	Traffic information exchanged between TMC's. Normally would include incidents, congestion data, traffic data, signal timing plans, and real-time signal control information.
traffic information for media	Report of current traffic conditions, incidents, maintenance activities and other traffic-related information prepared for public dissemination through the media.

Flow Name	***Flow Descriptions***
traffic information for transit	Current and forecasted traffic information and incident information.
traffic operator data	Presentation of traffic operations data to the operator including traffic conditions, current operating status of traffic control equipment, maintenance activity status, incident status, and other information. This data keeps the operator appraised of current road network status, provides feedback to the operator as traffic control actions are implemented, and supports review of historical data and preparation for future traffic operations activities.
traffic operator inputs	Traffic operations requests for information, configuration changes, commands to adjust current traffic control strategies (e.g., adjust signal timing plans, change DMS messages), and other traffic operations data entry.
transaction status	Response to transaction request. Normally dealing with a request for payment.
transit and fare schedules	Specific transit and fare schedule information including schedule adherence.
transit archive data	Data used to describe and monitor transit demand, fares, operations, and system performance. Content may include a catalog of available information, the actual information to be archived, and associated meta data that describes the archived information.
transit demand management request	Request to change the demand for transit facility use through pricing or other mechanisms.
transit demand management	Response to transit demand management change requests indicating level of response compliance with request.
transit driver availability	Transit driver availability data that can be used to develop driver assignments and detailed operations schedules.
transit driver display	Display (either video or audio) to transit driver containing status of various ITS services.
transit driver inputs	Transit driver emergency request as well as fare transaction data.
transit emergency coordination data	Data exchanged between centers dealing with a transit-related incident.
transit emergency data	Initial notification of transit emergency at a transit stop or on transit vehicles and further coordination as additional details become available and the response is coordinated.
transit fare payment requests	Information provided from the transit user location that supports fare payments and associated record keeping.
transit fare payment responses	Information provided by transit management that supports a fare payment transaction
transit fleet manager inputs	Instructions governing service availability, schedules, emergency response plans, transit personnel assignments, transit maintenance requirements, and other inputs that establish general system operating requirements and procedures.
transit incident information	Information on transit incidents that impact transit services for public dissemination. transit incidents for media Report of an incident impacting transit operations for public dissemination through the media.
transit information for media	Report of transit schedule deviations for public dissemination through the media.
transit information request	Request for transit operations information including schedule and fare information. The request can be a subscription that initiates as-needed information updates as well as a one-time request for information.
transit information user request	Request for special transit routing, real-time schedule information, and availability information.
transit multimodal information	Transit schedule information for coordination at modal interchange points.

Flow Name	***Flow Descriptions***
transit operations planning data	Accumulated schedule and fare information, emergency response plans, transit personnel information, maintenance records, and other information intended to support overall planning and management of a transit property.
transit operator display	Display for transit operations personnel regarding performance of the transit fleet, current ridership and on-time performance.
transit operator management data	Information and control provided by transit system operators involving many aspects of managing transit operations.
transit parking coordination	Request for coordinated fare payment and parking lot price data.
transit parking lot response	Response to transit occupancy inquiries and coordination with parking lots.
transit request confirmation	Confirmation of a request for transit information or service.
transit schedule information	Current and projected transit schedule adherence.
transit system data	Current transit system operations information indicating current transit routes, the level of service on each route, and the progress of individual vehicles along their routes for use in forecasting demand and estimating current transportation network performance.
transit traveler information	Transit information prepared to support transit users and other travelers. It contains transit schedules, real-time arrival information, fare schedules, and general transit service information.
transit traveler request	Request by a Transit traveler to summon assistance, request transit information, or request any other transit services.
transit user fare status	Status of fare transaction for transit user.
transit user inputs	Requests from transit user through either an on-board or fixed location traveler information station.
transit user outputs	Information for traveler from either an on-board or fixed location traveler information station.
transit vehicle conditions	Operating conditions of transit vehicle (e.g., mileage).
transit vehicle location data	Current transit vehicle location and related operational conditions data provided by a transit vehicle.
transit vehicle measures	Transit vehicle status measured by on-board ITS equipment.
transit vehicle passenger and use	Data collected on board the transit vehicle pertaining to availability and/or data passenger count.
transit vehicle schedule performance	Estimated times of arrival and anticipated schedule deviations reported by a transit vehicle.
transit work schedule	Orders for maintenance of transit vehicle or other transit system equipment.
travel service info	Reservation information or yellow pages data.
travel service request	Request for reservation or other service (e.g., yellow pages).
traveler advisory request	In vehicle communication between transit and vehicle systems includes advisories and advance payment deductions.
traveler archive data	Data associated with traveler information services including service requests, facility usage, rideshare, routing, and traveler payment transaction data. Contents may include a catalog of available information, the actual information to be archived, and associated

Flow Name	*Flow Descriptions*
	meta data that describes the archived information.
traveler information	Traveler information comprised of traffic status, advisories, incidents, payment information and many other travel-related data updates and confirmations.
traveler information for media	General traveler information regarding incidents, unusual traffic conditions, transit issues, or other advisory information that has been desensitized and provided to the media.
traveler inputs	Request by a traveler to summon assistance, request travel information, make a reservation, or request any other traveler service.
traveler interface updates	Visual or audio information (e.g., routes, messages, guidance) to the traveler.
traveler profile	Information about a traveler including equipment capabilities, personal preferences and recurring trip characteristics.
traveler request	Request by a traveler to summon assistance, request information, make a reservation, or initiate any other traveler service.
trip confirmation	Acknowledgement by the driver/traveler of acceptance of a route.
trip plan	A sequence of links and special instructions comrising of a trip plan indicating efficient routes for navigating the links. Normally coordinated with traffic conditions, other incidents, preemption and prioritization plans.
trip request	Request by a driver/traveler for special routing.
TRMS coordination	Coordination information between local/regional transit organizations including schedule, on-time information, and ridership.
vehicle characteristics	The physical or visible characteristics of an individual vehicle that can be measured to classify a vehicle and imaged to uniquely identify a vehicle.
vehicle control	Vehicular control commands
vehicle location	Location of vehicle and other vehicle characteristics which are exchanged between vehicle subsystems.
vehicle pollution criteria	Vehicular pollution acceptance criteria.
vehicle probe data	Vehicle probe data indicating identity, route segment identity, link time and location.
vehicle signage data	In-vehicle signage data generated by the roadway infrastructure indicating either road conditions, street names, or special information which will be useful for a vehicle passing a specific point on the roadway.
vehicle to vehicle coordination	Any type of advanced vehicle to vehicle communication.
violation notification	Notification to enforcement agency of violation or regulations.
weather conditions	Collected weather condition data from sensors.
weather information	Accumulated forecasted and current weather data (e.g., temperature, pressure, wind speed, wind direction, humidity, precipitation, visibility, light conditions, etc.).
widearea statistical pollution information	Aggregated region-wide measured emissions data and possible pollution incident information.
work zone status	Status of maintenance work zone.

Flow Name	***Flow Descriptions***
yellow pages information	Travel service information covering tourist attractions, lodging, restaurants, service stations, emergency services, and other services and businesses of interest to the traveler.
yellow pages request	Request for information through a yellow pages type service.

Appendix H

Harmonization with the *SITSA*

Report of Architecture Comments and Issues

Issue *I52* **The I-10/I-110 Urban Area Architecture does not include the FDLE, SEOC, and District Service Patrol Dispatch elements.**

Action *A57* *Update the I-10/I-110 Urban Area Architecture to include these elements with their appropriate market package associations, connections, and flows.*

Commenter ***Agree?***
Comment

McCrary, Elizabeth

Issue *I22* **The County / Local Police and Fire Department element was removed from the District Corridor Architectures due to the SITSA's inconsistent and duplicative element naming conventions.**

Action *A24* *Remove this duplicate element from the SITSA.*

Commenter ***Agree?***
Comment

Birosak, Chris

If our district initially included county/local police and fire in our architecture, I would hesitate to remove it without consulting additional stakeholders.

McCrary, Elizabeth

Tofexis, Valerie

Issue *I59* **The District 1 I-75 Architecture does not include the Skyway Bridge Southern End (Toll Plaza). It was determined that this will be included in the District 7 I-75 Architecture.**

Action *A64* *Remove the Skyway Bridge Southern End from the Naples Regional Architecture.*

Commenter ***Agree?***
Comment

Birosak, Chris

I think we had this element in the architecture because of our maintenance responsibilities on the south end of the skyway. I am not sure it should be deleted.

Issue *I58* **The District 1 I-75 Architecture includes connections between the Tampa RTMC, the Broward County RTMC, and the Ft. Myers RTMC. The SITSA does not.**

Action *A63* *Update the Naples Regional Architecture to include these elements along with their market package associations, connections, and flows.*

Commenter ***Agree?***

Comment

Birenbaum, Ingrid

District 1 has no connection shown to the Turnpike's Turkey Lake TMC, but ITS jurisdiction covers Okeechobee and Polk counties where Turnpike facilities exist. Should there be a recommended connection to the Turkey Lake TMC or a future Turnpike TMC that might reside in District 1 or 7?

Issue *I56* **The District 1 I-75 Architecture includes the Ft. Myers RTMC as the Regional Traffic Management Center. The SITSA identifies a planned I-75 Traffic Management Center.**

Action *A61* *Update the SITSA to reflect this element name change along with all of its market package associations, connections, and flows.*

Commenter ***Agree?***

Comment

Birosak, Chris

We also are planning a satellite TMC for I-75 in the Sarasota/Manatee area. This should be reflected in the update.

Issue *I67* **The District 3 I-10 Architecture identifies the Tallahassee RTMC as a Regional Traffic Management Center. The SITSA District 3 Regional Architecture does not include this element.**

Action *A72* *Update the SITSA District 3 Regional Architecture to include this element alone with its market package associations, connections, and flows.*

Commenter ***Agree?***

Comment

McCrary, Elizabeth

Issue *I48* **The District 3 I-10 Architecture includes connections between the Jacksonville RTMC and the Tallahassee RTMC. The SITSA does not include any connections outside of its region.**

Action *A53* *Update SITSA to include this element and all of its market package associates, connections, and flows.*

Commenter ***Agree?***

Comment

McCrary, Elizabeth

Issue *I64* **The District 3 I-10 Architecture includes the Tallahassee RTMC. The I-10/I-110 Urban Area Architecture does not.**

Action *A69* *Update the I-10/I-110 Urban Area Architecture to include this element along with all of its market package associations, connections, and flows.*

Commenter ***Agree?***

Comment

McCrary, Elizabeth

Issue *I45* **The District 4 I-95 and I-75 Corridor Architectures identify connections between the Miami RTMC, the Orlando RTMC, the Lee County RTMC, and the Palm Beach County RTMC.**

Action *A50* *Update the SITSA to include these elements and all their market package associations, connections, and flows.*

Commenter ***Agree?***

Comment

Tofexis, Valerie

Issue *I44* **The District 4 I-95 and I-75 Corridor Architectures identify the Broward County ITS Operations Facility, the Palm Beach County ITS Operations Facility, and the SunGuide℠ Smart Route TMC (ATIS Only) elements.**

Action *A49* *Update the SITSA to include these elements and all their appropriate flows and connections as identified by the District 4 I-95 and I-75 Corridor Architectures.*

Commenter ***Agree?***

Comment

Tofexis, Valerie

Issue *I70* **The District 5 I-95 and I-75 Architectures include connections between the Tampa RTMC, the Jacksonville RTMC, the Palm Beach RTMC, and the Orlando RTMC. The Orlando Regional portion of the SITSA does not.**

Action *A75* *Update the Orlando Regional portion of the SITSA to include these elements along with all of their market package associations, connections, and flows.*

Commenter ***Agree?***

Comment

Birenbaum, Ingrid

I70 does not appear to have a connection to the Turnpike's Turkey Lake TMC.

Issue *I43* **The District 6 I-95 and I-75 Corridor Architectures identify connections between the Miami RTMC, Ft. Myers RTMC, and Broward County ITS Operations Facility (RTMC).**

Action *A48* *Update the SITSA to include these elements and all their market package associations, connections, and flows.*

Commenter ***Agree?***

Comment

Birenbaum, Ingrid

I43, I4,4 and I45 don't appear to have any connections to the Turnpike's Pompano TMC.

Issue *I63* **The District 7 I-75 Corridor Architectures identify connections between the Tampa RTMC, the Ft. Myers RTMC, the Jacksonville RTMC, and the Orlando RTMC. The Tampa Regional portion of the SITSA does not.**

Action *A68* *Update the Tampa Regional portion of the SITSA to include these elements and all their market package associations, connections, and flows.*

Commenter ***Agree?***
Comment

Birenbaum, Ingrid

Same as 3, but for District 7. The Turnpike has facilities in Hernando, Hillsborough, and Pasco Counties.

Issue *I4* **The District Corridor Architectures identify a centralized location for data warehousing called the Archived Data Center (ADC), which will be located at each RTMC throughout the state. The SITSA does not use this approach. The SITSA provides Archived Data Management through local MPOs which is no longer a valid approach.**

Action *A6* *Update the SITSA to reflect the RTMC/ADC approach and all of its appropriate connections as identified by the District Corridor Architectures.*

Commenter ***Agree?***
Comment

McCrary, Elizabeth

Tofexis, Valerie

Issue *I95* **The District Corridor Architectures identify a centralized location for information dissemination called the Regional ATIS Center. The Turnpike Architecture does not.**

Action *A100* *Update the Turnpike Architecture to include this element and all of its market package associations, connections, and flows.*

Commenter ***Agree?***
Comment

Birenbaum, Ingrid

If the regional ATIS center is the ISP, then the Turnpike will use SunGuide^{SM} (SmarTraveler) in the south and a yet unnamed ISP in the north. The SmarTraveler element does not appear in the Turnpike Architecture.

Issue *I5* **The District Corridor Architectures identify a centralized location for providing information and information dissemination called the Regional ATIS Center. The SITSA does not use this approach. The Regional ATIS Center will be determined with the Information Service Providers selected through the invitations to negotiate for the regional and corridor ATIS.**

Action *A7* *Update the SITSA to include the Regional ATIS Center element and all of its corresponding connections.*

Commenter ***Agree?***
Comment

McCrary, Elizabeth

Tofexis, Valerie

Issue *I28* **The District Corridor Architectures identify a Motorist Aid Call Box and Regional ATIS Kiosks to correspond with the Remote Traveler Support Subsystem. The SITSA does not include these elements.**

Action *A30* *Update the SISTA to reflect these additions.*

Commenter ***Agree?***

Comment

McCrary, Elizabeth

Tofexis, Valerie

I agree to the extent of kiosks. What is the expected time frame that Motorist Aid Call Boxes will remain in use given the prevalence of cell phones and the aid received from service patrols? They are an outdated technology and are expensive to maintain.

Issue *I13* **The District Corridor Architectures identify an Automated Highway Center (AHC) element that will be located at each RTMC and will control any future Automated Highways. This SITSA does not use this approach.**

Action *A15* *Include the AHC element in the SITSA and all of its corresponding connections and flows as identified by the District Corridor Architectures.*

Commenter ***Agree?***

Comment

McCrary, Elizabeth

Tofexis, Valerie

What is the purpose or function of an AHC and automated highways? What plans are in place for Automated Highways?

Issue *I24* **The District Corridor Architectures identify Special Event Parking and Park-and-Ride Lots to correspond with the Parking Management Subsystem.**

Action *A34* *Update the SITSA to include these elements and all of their market package associations, connections, and flows.*

Commenter ***Agree?***

Comment

McCrary, Elizabeth

Tofexis, Valerie

Issue *I97* **The District Corridor Architectures identify the following Regional Traffic Management Centers: Turkey Lake Turnpike TMC, Pompano Turnpike TMC, Tampa RTMC, Miami RTMC, Orlando RTMC, Broward County RTMC, and the District 1 Bartow Virtual TMC. The Turnpike does not use the proper naming convention for these elements.**

Action *A102* *Update the Turnpike Architecture to reflect this naming convention change.*

Commenter ***Agree?***
Comment

Birenbaum, Ingrid

Naming convention of TMC's to be updated.

Issue *I102* **The District Corridor Architectures inclide AVSS04, AVSS07, AVSS09, and AVSS11. The Turnpike Architecture does not include these market packages.**

Action *A107* *Update the Turnpike Architecture to include these market packages as planned. Also, include all of their corresponding elements from the NITSA with the appropriate market package associations, connections, and flows.*

Commenter ***Agree?***
Comment

Birenbaum, Ingrid

The AVSS family of market packages seems extremely futuristic and the most unlikely of market packages to be deployed. Once again, market acceptance is dependent on interoperability among auto manufacturers and public agencies as well as the cost to deploy (both for auto manufacturers and public agencies). It is anticipated that most public money will be spent deploying proven ITS technologies and upgrading existing infrastructure (roads, bridges, etc.). The Turnpike's vision is to update the architecture with AVSS when the likelihood of deployment is

Issue *I103* **The District Corridor Architectures include an Automated Highway Center element that will control any future automated highways from each RTMC.**

Action *A108* *Update the Turnpike Architecture to include this element along with its market package associations, connections, and flows.*

Commenter ***Agree?***
Comment

Birenbaum, Ingrid

See 12 above.

Issue *I15* **The District Corridor Architectures include ATMS 09 (traffic forecasting and demand) and ATMS 12 (virtual TMCs and probe data). The SITSA does not include these market packages.**

Action *A17* *Update the SITSA to include ATMS 09 and ATMS 12, along with all of their corresponding elements as defined by the NITSA.*

Commenter ***Agree?***
Comment

McCrary, Elizabeth

Tofexis, Valerie

Issue *I12* **The District Corridor Architectures include AVSS 04, AVSS 07, AVSS 09, AVSS 11. The SITSA does not include these market packages.**

Action *A14* *Update the SITSA to include these market packages as planned as well as the elements identified by NITSA that correspond with them.*

Commenter ***Agree?***

Comment

Birosak, Chris

These market packages correspond to an Automated Highway System. I do not recall discussing or planning for these improvements within our district. The development of these packages will rely heavily upon private industry including them in the SITSA may be premature.

McCrary, Elizabeth

Tofexis, Valerie

Issue *I2* **The District Corridor Architectures include CVO 01, CVO 02, CVO 03, CVO 05, CVO 06, CVO 07, CVO 08, and CVO 10, whereas the SITSA does not include all of these market packages, as well as their associated elements from the NITSA. These Market Packages were added to be consistent with the Statewide CVO/CVISN Business Plan.**

Action *A2* *Update the SITSA to include all listed CVO market packages as either planned or existing, depending on their status in the District Corridor Architectures. Include all of the elements from the NITSA associated with the listed CVO market packages as either planned or existing depending on their status in the District Corridor Architectures.*

Commenter ***Agree?***

Comment

McCrary, Elizabeth

Tofexis, Valerie

Issue *I17* **The District Corridor Architectures include the ATMS 20, Speed Management market package. The SITSA does not include this market package.**

Action *A19* *Update the SITSA to include ATMS 20 and all of its associated elements and connections.*

Commenter ***Agree?***

Comment

McCrary, Elizabeth

Tofexis, Valerie

Issue *I25* **The District Corridor Architectures replaced the District Field Equipment element with corridor specific devices, for example, District 7 I-75 Roadside Equipment.**

Action *A27* *Update the SITSA to reflect this change and include all of the necessary market package associations, connections, and flows.*

Commenter	***Agree?***
Comment	
McCrary, Elizabeth	
Tofexis, Valerie	

Issue *I20* **The Emergency Operations Center element description was modified to represent all county EMCs within a district which respond to incidents or emergencies declared by the SEOC.**

Action *A22* *Update the SITSA to reflect this change.*

Commenter	***Agree?***
Comment	
McCrary, Elizabeth	
Tofexis, Valerie	

Issue *I65* **The I-10/I-110 Urban Area Architecture does not include a Motorist Aid Call Boxes element.**

Action *A70* *Update the I-10/I-110 Urban Area Architecture to include the Motorist Aid Call Boxes element alone with all of its market package associations, connections, and flows.*

Commenter	***Agree?***
Comment	
McCrary, Elizabeth	

Issue *I54* **The I-10/I-110 Urban Area Architecture does not include the Park-and-Ride and Special Event Parking elements.**

Action *A59* *Update the I-10/I-110 Urban Area Architecture to include these elements with their appropriate market package associations, connections, and flows.*

Commenter	***Agree?***
Comment	
McCrary, Elizabeth	

Issue *I53* **The I-10/I-110 Urban Area Architecture identifies a Traveler PC/Information Appliance element to represent the Personal Information Access Subsystem.**

Action *A58* *Rename this element to User Personal Computing Devices and include all of its market package associations, connections, and flows.*

Commenter ***Agree?***
Comment

McCrary, Elizabeth

Issue *I26* **The Mobile TMC and Mobile TMC Roadside Equipment elements were adopted from the I-4 Corridor Study into the District Corridor Architectures.**

Action *A28* *Update the SITSA to include these elements and their market package associations, connections, and flows.*

Commenter ***Agree?***
Comment

McCrary, Elizabeth

Tofexis, Valerie

Issue *I21* **The Service Patrol Dispatch element in the SITSA was modified to identify corridor information, ie. District Service Patrol Dispatch, in the District Corridor Architectures.**

Action *A23* *Update the SITSA to reflect this element change.*

Commenter ***Agree?***
Comment

McCrary, Elizabeth

Tofexis, Valerie

Issue *I66* **The SITSA District 3 Regional Architecture does not include the Motorist Aid Call Boxes element.**

Action *A71* *Update the SITSA District 3 Regional Architecture to include this element along with all of its market package associations, connections, and flows.*

Commenter ***Agree?***
Comment

McCrary, Elizabeth

Issue *I16* **The SITSA does not associate all of the necessary elements with the ATMS Market Package group.**

Action *A18* *Update the SITSA to include all of the necessary elements identified by the SITSA and NITSA.*

Commenter ***Agree?***
Comment

McCrary, Elizabeth

Tofexis, Valerie

Issue *I19* **The SITSA does not include all of the associated NITSA elements to complete the APTS market package group.**

Action *A21* *Include all of the associated NITSA elements with their corresponding flows and connections as identified by the District Corridor Architectures.*

Commenter ***Agree?***
Comment

Birosak, Chris

This action appears to contradict the action (A20) taken for the last issue (18).

McCrary, Elizabeth

Tofexis, Valerie

Issue *I7* **The SITSA does not include the EM 4 market package, (evacuation coordination) elements or flows identified by the I-4 Corridor Study and proposed for the five principal FIHS corridors.**

Action *A9* *Update the SITSA to include the EM 4 market package, elements, and flows.*

Commenter ***Agree?***
Comment

McCrary, Elizabeth

Tofexis, Valerie

Issue *I68* **The SITSA does not include the I-75 Alligator Alley Toll Collections Systems element as Toll Collection.**

Action *A73* *Update the SITSA to include this element along with all of its market package associations, connections, and flows.*

Commenter ***Agree?***

Comment

Tofexis, Valerie

Issue *I6* **The SITSA does not include these market packages: ATIS 03, ATIS 04, ATIS 05, ATIS 06, ATIS 07, and ATIS 09. The SITSA is also missing several elements identified by the NITSA that pertain to the ATIS market package group. A vision for the provision of statewide ATIS and 511 services is now adopted that covers each of these corridors.**

Action *A8* *Update the SITSA to include all of the ATIS market packages and elements as either planned or existing depending on their status in the District Corridor Architectures.*

Commenter ***Agree?***

Comment

McCrary, Elizabeth

Tofexis, Valerie

Issue *I14* **The SITSA identifies ATMS 03, the Surface Street Control Market Package as existing which is not necessary for intrastate corridors. If future ramp metering is implemented, it is addressed in freeway control (ATMS 04).**

Action *A16* *ATMS 03 is not planned for the District Corridor Architectures.*

Commenter ***Agree?***

Comment

Birosak, Chris

If traffic is detoured off the interstate and control of the signals at the end of the ramps or even an arterial is necessary, wouldn't this be considered a function of ATMS03? If so, it should be in the District Corridor

McCrary, Elizabeth

The next logical step in deployment of a statewide ITS network would be integration of Surface Street Control. This market package already exists; however, there is no immediate plan for integration. The market package should be retained.

Issue *I11* **The SITSA identifies County Warning Points, E911 Call Centers, Rural County Sheriff / Fire Rescue Dispatches and Vehicles as Emergency Management elements. The FDLE and FHP are consolidating dispatch centers. The county warning points do not exists, they are part of the county emergency operation centers. County dispatch centers are identified in the corridor architectures.**

Action *A13* *Remove these unecessary elements from the SITSA.*

Commenter ***Agree?***

Comment

McCrary, Elizabeth

Tofexis, Valerie

Issue *I27* **The SITSA identifies various district components which did not relate specifically to the limited-access facility components.**

Action *A29* *Elements not related specifically to intrastates and larger cities within close proximity to the facilities were removed.*

Commenter	***Agree?***
Comment	
Birosak, Chris	
If they were removed from the District Corridor Architecture, I agree. If they were removed from the SITSA, I disagree.	
McCrary, Elizabeth	
Tofexis, Valerie	

Issue *I3* **The SITSA includes all three AD Market Packages as planned, however, it does not include all of the elements and connections that correspond with the market packages.**

Action *A5* *Update the SITSA to include all of the elements (from NITSA) associated with the AD market packages as either planned or existing depending on their status in the District Corridor Architectures.*

Commenter	***Agree?***
Comment	
McCrary, Elizabeth	
Tofexis, Valerie	

Issue *I47* **The SITSA includes Bay County, Okaloosa County, and Walton County TMC elements which are not planned.**

Action *A52* *Remove these elements and their associated flows, connections, and market packages.*

Commenter	***Agree?***
Comment	
McCrary, Elizabeth	

Issue *I29* **The SITSA includes several elements that are Multi-Modal Crossings for local, arterial roadways.**

Action *A31* *These elements were removed from the District Corridor Architectures because none of the FIHS limited-access facilites contain a draw bridge or at-grade rail crossing.*

Commenter	***Agree?***

Comment

McCrary, Elizabeth

Tofexis, Valerie

Issue *I18* **The SITSA includes the APTS 03 (demand responsive transit) and APTS 06 (transit maintenance) market packages.**

Action *A20* *No action. The District Corridor Architectures did not find the necessary user needs to include these market packages.*

Commenter ***Agree?***

Comment

McCrary, Elizabeth

Issue *I8* **The SITSA is inconsistent in the naming of county fire rescue and sheriff dispatches/vehicles.**

Action *A10* *Update the SITSA to include all of the appropriate counties within each of its regions.*

Commenter ***Agree?***

Comment

McCrary, Elizabeth

Tofexis, Valerie

Issue *I30* **The SITSA lacks consistency with the identification of Weather Service Providers.**

Action *A35* *The only two elements associated with Weather Service in the District Corridor Architectures are the National Weather Service and National Hurricane Center Information Systems. The SITSA needs to be updated to reflect this change.*

Commenter ***Agree?***

Comment

McCrary, Elizabeth

Tofexis, Valerie

Issue *I10* **The State Emergency Operations Center (SEOC) is not identified in the SITSA. The SEOC was added for the corridor architectures. FDLE was also not identified as an EM element in the SITSA. FDLE was added to the corridor architectures.**

Action *A12* *Update the SITSA to include these elements and their appropriate market package associations, connections, and flows.*

Commenter ***Agree?***

Comment

McCrary, Elizabeth

Tofexis, Valerie

Issue *I96* **The Turnpike Architecture does not contain all of the necessary elements to complete the ATMS market package group.**

Action *A101* *Update the Turnpike Architecture to include all of the related ATMS elements from the NITSA and all of their market package associations, connections, and flows.*

Commenter ***Agree?***

Comment

Birenbaum, Ingrid

The Turnpike Architecture contains ATMS market packages that were assumed to be applicable to the district. For example, it is not anticipated that ATMS03 (Surface Street Control) and ATMS05 (HOV Lane Management) would ever be applicable to the Turnpike. Other ATMS packages, considered critical statewide, will be reviewed on a case-by-case basis for inclusion in the Turnpike Architecture.

Issue *I99* **The Turnpike Architecture does not include a Motorist Aid Call Boxeselement or a Turnpike Service Plazas element to correspond with the Remote Traveler Support Subsystem.**

Action *A104* *Update the Turnpike Architecture to include these elements and all of their market package associations, connections, and flows.*

Commenter ***Agree?***

Comment

Birenbaum, Ingrid

Motorist aid call boxes (MACB) are included in the Turnpike Architecture as Pompano TMC_Roadside Equipment and Turkey Lake TMC_Roadside Equipment. At the present time, most of the MACB utilize simplex communications and therefore do not fully fit the fully interactive requirements of the Remote Traveler Support System. Since kiosks were not planned at service plazas, the plazas were not included in the Remote Traveler

Issue *I91* **The Turnpike Architecture does not include AD2 and AD3 or any of the necessary elements from the NITSA to complete the AD market package group.**

Action *A96* *Update the Turnpike Architecture to include these market packages and elements as either planned or existing.*

Commenter ***Agree?***

Comment

Birenbaum, Ingrid

The addition of AD2 from a functional and interface perspective makes sense; however, the Turnpike intended to store data locally with interoperability between its TMC's rather than with other agencies. Nevertheless, this will be considered if it is a statewide requirement.

Issue *I100* **The Turnpike Architecture does not include all of the CVO Market Packages or their corresponding elements.**

Action *A105* *Update the Turnpike Architecture to include all of the CVO market packages and their corresponding elements from the NITSA. Include all appropriate market package associations, connections, and flows.*

Commenter ***Agree?***
Comment

Birenbaum, Ingrid

Utilizing all CVO market packages contained in the NITSA does not seem applicable to all the districts, except perhaps the MCCO. A good number of the CVO market packages are targeted toward the trucking companies.

Issue *I94* **The Turnpike Architecture does not include all of the necessary NITSA elements to complete the ATIS market package group.**

Action *A99* *Update the Turnpike Architecture to include all of the necessary elements from the NITSA to complete the ATIS market package group.*

Commenter ***Agree?***
Comment

Birenbaum, Ingrid

See 3 above.

Issue *I101* **The Turnpike Architecture does not include EM2 and EM3. It also does not contain all of the necessary elements to complete the EM market package group.**

Action *A106* *Update the Turnpike Architecture to include EM2 and EM3 along with all of their corresponding elements identified by the NITSA. Include all appropriate market package associations, connections, and flows.*

Commenter ***Agree?***
Comment

Birenbaum, Ingrid

The inclusion of EM2 and EM3 will be reviewed.

Issue *I92* **The Turnpike Architecture does not include the Archived Data Center element identified by the District Corridor Architectures.**

Action *A97* *Update the Turnpike Architecture to include the ADC element and approach.*

Commenter ***Agree?***
Comment

Birenbaum, Ingrid

Please provide the information concerning the ADC element as identified and utilized by the District Corridor Architectures for inclusion in the Turnpike Architecture.

Issue *I98* **The Turnpike Architecture does not include the ATMS20, EM4, and MCO1 market packages or elements.**

Action *A103* *Update the Turnpike Architectures to include these market packages and all of their market package associations, connections, and flows.*

Commenter ***Agree?***
Comment

Birenbaum, Ingrid

ATMS20 (Speed Management), EM4 (Evacuation Management), and MCO1 (Maintenance and Construction Operations) all appear to be good additions if acceptable to the Turnpike.

Issue *I93* **The Turnpike Architecture only includes ATIS1, ATIS2, and ATIS5.**

Action *A98* *Update the Turnpike Architecture to complete the ATIS market package group.*

Commenter ***Agree?***
Comment

Birenbaum, Ingrid

The Turnpike Architecture included ATIS1 (Broadcast Traveler Information), ATIS2 (Interactive Traveler Information), and ATIS5 (ISP-Based Route Guidance), but did not include ATIS3 (Autonomous Route Guidance), ATIS4 (Dynamic Route Guidance), ATIS6 (Integrated Transportation Management/Route Guidance), ATIS7 (Yellow Pages and Reservations), ATIS8 (Dynamic Ridesharing), and ATIS9 (In-Vehicle Signing). ATIS3 provides information based on static data and therefore does not rely on data provided by any agency. ATIS4 relies on in-vehicle devices and handheld computing devices, which at this time has not gained wide market acceptance due to cost and compatibility issues. It may also introduce liability issues to the state if the information has errors, unless all information and liability is assumed by the ISP. ATIS6 would not be applicable to the Turnpike unless variable speed signing and/or open tolling is adopted in the future. ATIS7 might be best accomplished by linking to an information service such as BellSouth RealPages. Will ATIS8 be performed by the ISP or through each FDOT district? It was decided that the market penetration of in-vehicle signing was not deep enough to warrant the ATIS9 market package and that VMS and HAR would have the broadest reach to suffice for the immediate future.

Issue *I23* **The User Personal Computing Devices element was added to the District Corridor Architectures to represent the Personal Information Access Subsystem to support text messaging from ATIS.**

Action *A33* *Update the SITSA to include this element and all of its market package associations, connections, and flows.*

Commenter ***Agree?***
Comment

McCrary, Elizabeth

Tofexis, Valerie

Original Issue: **I12** **The District Corridor Architectures include AVSS 04, AVSS 07, AVSS 09, AVSS 11. The SITSA does not include these market packages.**

Action Responded to for this issue: ***A14*** *Update the SITSA to include these market packages as planned as well as the elements identified by NITSA that correspond with them.*

Comment Made By: Birosak, Chris C104

These market packages correspond to an Automated Highway System. I do not recall discussing or planning for these improvements within our district. The development of these packages will rely heavily upon private industry including them in the SITSA may be premature.

New Issue Generated from Comment: *I125*

Agree. This market package bundle was selected as a "Big picture" deployment. It would be implemented as technology matured and implementation costs become affordable. However, due to the lack of technology advancement in this area, the District Corridor Architectures will consider postponing the deployment of the AVSS market packages.

Original Issue: **I13** **The District Corridor Architectures identify an Automated Highway Center (AHC) element that will be located at each RTMC and will control any future Automated Highways. This SITSA does not use this approach.**

Action Responded to for this issue: ***A15*** *Include the AHC element in the SITSA and all of its corresponding connections and flows as* ***to for this issue:*** *identified by the District Corridor Architectures.*

Comment Made By: Tofexis, Valerie C48

What is the purpose or function of an AHC and automated highways? What plans are in place for Automated Highways?

New Issue Generated from Comment: *I117*

The function of automated highway centers is to communicate the AHS information with the Roadway Subsystem. This may be eliminated with the elimination of AVSS market package bundle.

Original Issue: **I14** **The SITSA identifies ATMS 03, the Surface Street Control Market Package as existing, which is not necessary for intrastate corridors. If future ramp metering is implemented, it is addressed in freeway control (ATMS 04).**

Action Responded to for this issue: *A16* *ATMS 03 is not planned for the District Corridor Architectures.*

Comment Made By: McCrary, Elizabeth C78

The next logical step in deployment of a statewide ITS network would be integration of Surface Street Control. This market package is already existing; however, there is no immediate plan for integration. The market package should be retained.

New Issue Generated from Comment: *I124*

The District Corridor Architectures do not consider the management and control of local surface streets during incident. This market package, ATMS03, is typically the urban traffic signal control system. The RTMCs will coordinate and communicate with county/city TMCs, but will not assume control of artirial devices. Ramp metering is address in the ATMS 04 freeway control market package.

Comment Made By: Birosak, Chris C105

If traffic is detoured off the interstate and control of the signals at the end of the ramps or even an arterial is necessary, wouldn't this be considered a function of ATMS03? If so, it should be in the District Corridor Architecture.

New Issue Generated from Comment: *I126*

The District Corridor Architectures do not consider the management and control of local surface streets signal system during an incident. This market package, ATMS03, is typically for urban traffic signal control system. The RTMCs will coordinate and communicate with county/city TMCs during a incident, but will not assume control of arterial devices. Ramp metering is addressed in the ATMS 04 freeway control market package.

Original Issue:	**I19**	**The SITSA does not include all of the associated NITSA elements to complete the APTS market package group.**
Action Responded to for this issue:	*A21*	*Include all of the associated NITSA elements with their corresponding flows and connections as identified by the District Corridor Architectures.*

Comment Made By: Birosak, Chris C106

This action appears to contradict the action (A20) taken for the last issue (18).

New Issue Generated from Comment: *I127*

Clarification: This issue was intended to say that some necessary elements of APTS market packages are not included in SITSA. It does not mean SITSA should include all the unnecessary APTS market packages.

Original Issue:	**I43**	**The District 6 I-95 and I-75 Corridor Architectures identify connections between the Miami RTMC, Ft. Myers RTMC, and Broward County ITS Operations Facility (RTMC).**
Action Responded Tto for this issue:	*A48*	*Update the SITSA to include these elements and all their market package associations, connections, and flows.*

Comment Made By: Birenbaum, Ingrid C18

I43, I4,4 and I45 don't appear to have any connections to the Turnpike's Pompano TMC.

New Issue Generated from Comment: *I104*

The Turnpike's Pompano TMC is already included in the District Corridor Architectures as Pompano Beach Regional Traffic Management Center element. It also connects to Broward County RTMC, Miami RTMC, Palm Beach County RTMC, and Turnpike RTMC Turkey Lake.

Original Issue:	**I56**	**The District 1 I-75 Architecture includes the Ft. Myers RTMC as the Regional Traffic Management Center. The SITSA identifies a planned I-75 Traffic Management Center.**
Action Responded to for this issue:	***A61***	*Update the SITSA to reflect this element name change along with all of its market package* ***to for this issue:*** *associations, connections, and flows.*

Comment Made By: Birosak, Chris C109

We also are planning a satellite TMC for I-75 in the Sarasota/Manatee area. This should be reflected in the update.

New Issue Generated from Comment: *I128*

The District Corridor Architectures already include the Sarasota Satellite Traffic Management Center element and ITS connections to the Ft. Myers RTMC and other TMCs.

Original Issue:

Original Issue: **I58** **The District 1 I-75 Architecture includes connections between the Tampa RTMC, the Broward County RTMC, and the Ft. Myers RTMC. The SITSA does not.**

Action Responded to for this issue: ***A63*** *Update the Naples Regional Architecture to include these elements along with their market* ***to for this issue:*** *package associations, connections, and flows.*

Comment Made By: Birenbaum, Ingrid C19

District 1 has no connection shown to the Turnpike's Turkey Lake TMC, but ITS jurisdiction covers Okeechobee and Polk counties where Turnpike facilities exist. Should there be a recommended connection to the Turkey Lake TMC or a future Turnpike TMC that might reside in District 1 or 7?

New Issue Generated from Comment: *I105*

The control of I-4 will be divided between D7 and D5. D1 will assumed no control or maintenance of ITS deployment along I-4. Therefore, the Polk Parkway, a Turnpike facility, will be controlled by the Tampa RTMC, which has connection to the Turkey Lake RTMC.

Original Issue: **I59** **The District 1 I-75 Architecture does not include the Skyway Bridge Southern End (Toll Plaza). It was determined that this will be included in the District 7 I-75 Architecture.**

Action Responded to for this issue: ***A64*** *Remove the Skyway Bridge Southern End from the Naples Regional Architecture.*

Comment Made By: Birosak, Chris C110

I think we had this element in the architecture because of our maintenance responsibilities on the south end of the skyway. I am not sure it should be deleted.

New Issue Generated from Comment: *I129*

Agree, The Sunshine Skyway Bridge southern end will remain.

Original Issue: **I63** **The District 7 I-75 Corridor Architectures identify connections between the Tampa RTMC, the Ft. Myers RTMC, the Jacksonville RTMC, and the Orlando RTMC. The Tampa Regional portion of the SITSA does not.**

Action Responded to for this issue: ***A68*** *Update the Tampa Regional portion of the SITSA to include these elements and all their market package associations, connections, and flows.*

Comment Made By: Birenbaum, Ingrid C20

Same as 3, but for District 7. The Turnpike has facilities in Hernando, Hillsborough, and Pasco Counties.

New Issue Generated from Comment: *I106*

Hernando, Hillsborough, and Pasco counties are under the coverage of the Tampa RTMC. The connection between the Tampa RTMC and the Turnpike Turkey Lake RTMC is identified in the District Corridor Architectures.

Original Issue: I70 **The District 5 I-95 and I-75 Architectures include connections between the Tampa RTMC, the Jacksonville RTMC, the Palm Beach RTMC, and the Orlando RTMC. The Orlando Regional portion of the SITSA does not.**

Action Responded to for this issue: ***A75*** *Update the Orlando Regional portion of the SITSA to include these elements along with all of* ***to for this issue:*** *their market package associations, connections, and flows.*

Comment Made By: Birenbaum, Ingrid C21

I70 does not appear to have a connection to the Turnpike's Turkey Lake TMC.

New Issue Generated from Comment: *I107*

The connection between the Orlando RTMC and the Turnpike Turkey Lake RTMC is already identified in the District Corridor Architectures.

Original Issue: I91 **The Turnpike Architecture does not include AD2 and AD3 or any of the necessary elements from the NITSA to complete the AD market package group.**

Action Responded to for this issue: ***A96*** *Update the Turnpike Architecture to include these market packages and elements as either planned or existing.*

Comment Made By: Birenbaum, Ingrid C22

The addition of AD2 from a functional and interface perspective makes sense; however, the Turnpike intended to store data locally with interoperability between its TMC's rather than with other agencies. Nevertheless, this will be considered if it is a statewide requirement.

New Issue Generated from Comment: *I108*

The District Corridor Architectures' approach to ADC is that the ADC will be located at the RTMC and coordinated and interfaced with local agencies and the FDOT centrol office. The District Corridor Architectures identified the Archived Data Center element as an ITS Data Warehouse which provides all the data collection and management capabilities for multiple agencies. The ADC also performs the additional transformations and provides the additional meta data management

Original Issue: **I92** **The Turnpike Architecture does not include the Archived Data Center element identified by the District Corridor Architectures.**

Action Responded to for this issue: ***A97*** *Update the Turnpike Architecture to include the ADC element and approach.*

Comment Made By: Birenbaum, Ingrid C23

Please provide the information concerning the ADC element as identified and utilized by the District Corridor Architectures for inclusion in the Turnpike Architecture.

New Issue Generated from Comment: *I109*

The District Corridor Architectures identified the Archived Data Center element as an ITS Data Warehouse which provides all the data collection and management capabilities for multiple agencies. The ADC also performs the additional transformations and provides the additional meta data management features.

Original Issue: **I93** **The Turnpike Architecture only includes ATIS1, ATIS2, and ATIS5.**

Action Responded to for this issue: ***A98*** *Update the Turnpike Architecture to complete the ATIS market package group.*

Comment Made By: Birenbaum, Ingrid C24

The Turnpike Architecture included ATIS1 (Broadcast Traveler Information), ATIS2 (Interactive Traveler Information), and ATIS5 (ISP-Based Route Guidance), but did not include ATIS3 (Autonomous Route Guidance), ATIS4 (Dynamic Route Guidance), ATIS6 (Integrated Transportation Management/Route Guidance), ATIS7 (Yellow Pages and Reservations), ATIS8 (Dynamic Ridesharing), and ATIS9 (In-Vehicle Signing). ATIS3 provides information based on static data and therefore does not rely on data provided by any agency. ATIS4 relies on in-vehicle devices and handheld computing devices, which at this time has not gained wide market acceptance due to cost and compatibility issues. It may also introduce liability issues to the state if the information has errors, unless all information and liability is assumed by the ISP. ATIS6 would not be applicable to the Turnpike unless variable speed signing and/or open tolling is adopted in the future. ATIS7 might be best accomplished by linking to an information service such as BellSouth RealPages. Will ATIS8 be performed by the ISP or through each FDOT district? It was decided that the market penetration of in-vehicle signing was not deep enough to warrant the ATIS9 market package and that VMS and HAR would have the broadest reach to suffice for the immediate future.

New Issue Generated from Comment: *I110*

Agree, the Turnpike Architecture will be adopted as is.

Original Issue: **I95** **The District Corridor Architectures identify a centralized location for information dissemination called the Regional ATIS Center. The Turnpike Architecture does not.**

Action Responded Tto for this issue: ***A100*** *Update the Turnpike Architecture to include this element and all of its market package associations, connections, and flows.*

Comment Made By: Birenbaum, Ingrid C26

If the regional ATIS center is the ISP, then the Turnpike will use SunGuide℠ (SmarTraveler) in the south and a yet unnamed ISP in the north. The SmarTraveler element does not appear in the Turnpike Architecture.

New Issue Generated from Comment: *I111*

Agree. The District Corridor Architecture will be updated to replace regional ATIS centers by SunGuide℠ (SmarTraveler) as regional ATIS centers in the South.

Original Issue: **I96** **The Turnpike Architecture does not contain all of the necessary elements to complete the ATMS market package group.**

Action Responded to for this issue: ***A101***

Update the Turnpike Architecture to include all of the related ATMS elements from the NITSA ***to for this issue:*** *and all of their market package associations, connections, and flows.*

Comment Made By: Birenbaum, Ingrid C27

The Turnpike Architecture contains ATMS market packages that were assumed to be applicable to the district. For example, it is not anticipated that ATMS03 (Surface Street Control) and ATMS05 (HOV Lane Management) would ever be applicable to the Turnpike. Other ATMS packages, considered critical statewide, will be reviewed on a case-by-case basis for inclusion in the Turnpike Architecture.

New Issue Generated from Comment: *I113*

ATMS03 (Surface Street Control) is not included in the District Corridor Architecture.
ATMS05 - Agree.

Original Issue: **I100** **The Turnpike Architecture does not include all of the CVO Market Packages or their corresponding elements.**

Action Responded to for this issue: ***A105***

Update the Turnpike Architecture to include all of the CVO market packages and their ***to for this issue:*** *corresponding elements from the NITSA. Include all appropriate market package associations, connections, and flows.*

Comment Made By: Birenbaum, Ingrid C34

Utilizing all CVO market packages contained in the NITSA does not seem applicable to all the districts, except perhaps the MCCO. A good number of the CVO market packages are targeted toward the trucking companies. Please advise.

New Issue Generated from Comment: *I114*

The truck volume in the Turnpike facilities currently is lower than 4,000 trucks per day (TPD). The demand forecasting of truck volume in 2010 will be increased to 5,000 ~ 10,000 TPD. According to the trend, market packages CVO3 (Electronic Clearance), CVO4 (CV Administrative Process), CVO6 (Weigh-in-Motion), CVO7 (Roadside CVO Safety), and CVO10 (HAZMAT Management) still needed to be considered in the Turnpike Architecture. Based on information provided at Dec. 4th Turnpike Architecture Meeting, the Turnpike will add the necessary CVO market package bundle to their architecture.

Original Issue: **I102** **The District Corridor Architectures inclide AVSS04, AVSS07, AVSS09, and AVSS11. The Turnpike Architecture does not include these market packages.**

Action Responded to for this issue: ***A107***

Update the Turnpike Architecture to include these market packages as planned. Also, include all ***to for this issue:*** *of their corresponding elements from the NITSA with the appropriate market package associations, connections, and flows.*

Comment Made By: Birenbaum, Ingrid C36

The AVSS family of market packages seems extremely futuristic and the most unlikely of market packages to be deployed. Once again, market acceptance is dependent on interoperability among auto manufacturers and public agencies as well as the cost to deploy (both for auto manufacturers and public agencies). It is anticipated that most public money will be spent deploying proven ITS technologies and upgrading existing infrastructure (roads, bridges, etc.). The Turnpike's vision is to update the architecture with AVSS when the likelihood of deployment is more realistic.

New Issue Generated from Comment: *I115*

Agree. The District Corridor Architectures will consider postponing the deployment of the AVSS market packages.

Original Issue: **I103** **The District Corridor Architectures include an Automated Highway Center element that will control any future automated highways from each RTMC.**

Action Responded ***A108***

to for this issue: *Update the Turnpike Architecture to include this element along with its market package* ***to for this issue:*** *associations, connections, and flows.*

Comment Made By: Birenbaum, Ingrid C37

See 12 above.

New Issue Generated from Comment: *I116*

Agree. The District Corridor Architecture will consider postponing the deployment of the AVSS market packages.

Table H.1 – ITS Architecture Harmonization Comments

	Issue by PBS&J	Recommended Action	Responses/Solutions
1	The I-4 Corridor Architecture does not include the FDOT District 5 Public Information Office and the FDOT District 7 Public Information Office elements as ISPs.	Update the I-4 Corridor Architectures to include these elements and their market package associations, connections, and flows.	o.k.
2	The District Corridor Architectures replaced the District Field Equipment element with corridor specific devices (for example, the District 7 I-75 Roadside Equipment).	Update the I-4 Corridor Architecture to reflect this change and include all of the necessary market package associations, connections, and flows.	The I-4 architecture differentiates between SMIS and DASH field equipment. It also refers to I-4 devices in D7 as FDOT_D7 roadside equipment. Rename to be consistent with other corridors.
3	The I-4 Corridor Architecture does not include a RR Service Patrol element.	Update the I-4 Corridor Architecture to include this element and all of its market package associations, connections, and flows.	I-4 corridor architecture includes these and calls them I-4 Highway Helper Vehicles. Just Rename.
4	The I-4 Corridor Architecture does not include the National Weather Service and National Hurricane Center Information System elements.	Update the I-4 Corridor Architecture to reflect this change.	These are named Weather services in I-4 just rename.
5	The Construction and Maintenance element description in the I-4 Corridor Architecture was modified as FDOT D5 Maintenance, FDOT D5 Construction, FDOT D7 Maintenance, and FDOT D7 Construction in Regional Architectures.	Update the I-4 Corridor Architecture to reflect this change.	o.k.
6	The I-4 Corridor Architecture does not include a Newspapers, Radio, Television Stations element as Media.	Update the I-4 Corridor Architecture to include this element and all of its market package associations, connections, and flows.	We called this Media. Just rename.
7	The I-4 Corridor Architecture does not include Rest Areas/Visitor Centers and Motorist Aid Call Boxes elements as Remote Traveler Support.	Update the I-4 Corridor Architectures to include these elements and their market package associations, connections, and flows.	In I-4, we have call boxes. Rename to be consistent with other corridors. Add Rest Areas and visitors.
8	The I-4 Corridor Architecture does not include the ADC element, Archived Data Management Subsystem.	Update the I-4 Corridor Architecture to include this element along with all of its market package associations, connections, and flows to be consistent	In I-4, we assumed a warehouse at each RTMC and data marts at other agencies. In the other

	Issue by PBS&J	Recommended Action	Responses/Solutions
		with other corridor architectures.	corridors we code ADC as a separate element although it is located in the University of Central Florida (UCF). Change to be consistent with others.
9	The I-4 Corridor Architecture does not include Volusia County Transit (VOTRAN) and VOTRAN Transit Vehicle elements.	Update the I-4 Corridor Architecture to include these elements and all of their market package associations, connections, and flows.	ok
10	The District Corridor Architectures identify Special Event Parking and Park-and-Ride Lots to correspond with the Parking Management Subsystem.	Update the I-4 Corridor Architecture to include these elements along with all of their market package associations, connections, and flows.	The I-4 architecture includes park-and-ride. Add Special Event Parking.
11	The I-4 Corridor Architecture does not include connections between the Jacksonville RTMC, the Orlando RTMC, and the Tampa RTMC.	Update the I-4 Corridor Architecture to include these connections and flows.	Orlando and Tampa RTMCs are connected in I-4. Add the other connections as required by our concept.
12	The I-4 Corridor Architecture does not include District 1 Bartow Virtual TMC and ~~Sarasota Satellite TMC~~ element as Secondary Regional TMCs.	Update the I-4 Corridor Architecture to include these elements along with all of their market package associations, connections, and flows.	Add these connections as required by our concept.
13	The FDOT District 5 Regional TMC, FDOT District 1 Regional TMC, and FDOT District 7 Regional TMC elements in the I-4 Corridor Architecture need modifying to Orlando RTMC, Ft. Myers RTMC, and Tampa RTMC respectively.	Update the I-4 Corridor Architecture to reflect these element changes.	Rename I-4 Architecture to be consistent.
14	The I-4 Corridor Architecture does not include the Scales and Inspection Facilities element as a Commercial Vehicle Check.	Update the I-4 Corridor Architecture to include this element along with all of its market package associations, connections, and flows to be consistent with other corridor architectures.	This is called CV_Ispection Facility in I-4. Rename to Commercial Vehicle Check and flows.
15	The I-4 Corridor Architecture does not include the FDLE SEOC District Service Patrol Dispatch and Florida Highway Patrol Troop elements.	Update the I-4 Corridor Architecture to include these elements alone with all of their market package associations, connections, and flows to be consistent with other corridor architectures.	Service Patrol Dispatch was assumed at D7 RTMC and D5 TMC in Deland. Florida Highway Patrol was called Orlando FHP, Tampa FHP, etc. Update the above to be consistent.

	Issue by PBS&J	Recommended Action	Responses/Solutions
16	The District Corridor Architectures include many functions involving the Maintenance and Construction terminator. The I-4 Corridor Architecture does not.	Update the I-4 Corridor Architecture to include the maintenance and construction terminator along with all of its market package associations, connections, and flows. *A more desirable solution is to migrate each of the district regional ITS architectures and the corridor architectures to the upcoming V4 release of the National ITS Architecture, expected to be available around March 1, 2002 on the internet. This has several new Market Packages and architecture flows to support maintenance and construction functions more completely than the V3 National ITS Architecture.*	New market packages already available in NITSA 4.0. 4/2/02 Conclusion: <u>The District Corridor Architectures stay with the current approaches (user-identified Market Packages) for now. Update I-4 to include the user-identified FLMCO 01 Market Package</u>.
17	The District Corridor Architectures identify a specific regional MCCO region for each corridor. The I-4 Corridor Architecture does not..	Update the I-4 Corridor Architecture to include this element along with all of its market package associations, connections, and flows.	In I-4, this is called Commercial Vehicle Administration (CVA), and it will be renamed to MCCO. Conclusion: <u>Rename I-4 Enforcement Agencies to Region 1 & 4 MCCO element as Enforcement Agency subsystem.</u>
18	The I-4 Corridor Architecture identifies an E911 element as an Emergency Management element.	Remove this element from I-4 Corridor Architecture to be consistent with other corridor architectures. *While this may make the Corridor's consistent, each of the District architectures do include the Emergency Management subsystems that represent the emergency call taker functions. We recommend that the corridor architectures consider consistently identifying the emergency call taker functions, to support an understanding of the operational concepts for dispatch, handoff and mutual aid.*	E911 service is included within other EMC. Thus, it was not included in the corridor architectures. 4/2/02 Conclusion: <u>E 911 element will be added to the District Corridor Architectures.</u>
19	The Turnpike Architecture does not include a Motorist Aid Call Boxes element or a Turnpike Service Plazas element	~~Update the Turnpike Architecture to include these elements and all of their market package~~	The version of Turnpike District Architecture for steering reviewing

	Issue by PBS&J	Recommended Action	Responses/Solutions
	to correspond with the Remote Traveler Support Subsystem. *Not true! The Turnpike District Architecture does indeed have Motorist Aid Callboxes connected directly to FHP Troop K Dispatch.*	~~associations, connections, and flows.~~	does not have MACB and its associated links, MPs. The version of Turnpike District Architecture on the web has MACB but it does not link to the Traveler element. (EM3 Mayday Support)
20	The SITSA identifies ATMS 03, the Surface Street Control Market Package as existing which is not necessary for intrastate corridors. If future ramp metering is implemented, it is addressed in freeway control (ATMS 04).	ATMS 03 is not planned for the District Corridor Architectures. *While the corridors themselves may not have surface street control, the surface streets that interface with the corridors (the other end of the on/off ramps) may require surface street control, and some interface between the freeway and surface street systems may be appropriate.*	The Districts want to control from <u>RTMC to local TMC</u> instead of center to surface street devices. In District Corridor Architectures, a decision was made that this will be achieved through regional control coordination ATMS07.
21	The District Corridor Architectures include the ATMS 20, Speed Management market package. The SITSA does not include this market package.	Update the SITSA to include ATMS 20 and all of its associated elements and connections. *Stakeholders in each district should be queried as to whether speed enforcement by ITS is a good idea for their district. If so, it should be added where indicated. We recommend that Market Packages developed in Florida be labeled as such, e.g. rather than ATMS 20, perhaps ATMS FL1, ATMS FL2, etc. This will avoid future conflicts with later versions of the National ITS Architecture that may use the same designation for a different Market Package.*	Corridor stakeholders did not object to Dynamic Speed Control. Those user identified MPs will be renamed to FL ATMS 20 (Speed Management), FL EM4 (Evacuation Management), and FL MCO 01 (Maintenance and Construction Operations). Conclusion: <u>SITSA need to add either FLATMS20 Speed Management, or NITSA 4.0 ATMS 19 Speed Monitoring.</u>
22	The SITSA lacks consistency with the identification of Weather Service Providers. *(We need further discussion with the commenters to understand this issue.)*	The only two elements associated with Weather Service in the District Corridor Architectures are the National Weather Service and National Hurricane Center Information Systems. The SITSA needs to be updated to reflect this change.	In Regional Architectures (D1, D3, and D5) and Statewide Service Architecture: weather information providers. In D2, D4&D6, and D7 Regional Architectures: national weather

	Issue by PBS&J	Recommended Action	Responses/Solutions
			service. Conclusion: SITSA need to make them to be consistent (from HTML version).
23	The SITSA includes several elements that are Multi-Modal Crossings for local, arterial roadways.	These elements were removed from the District Corridor Architectures because none of the FIHS limited-access facilities contain a drawbridge or at-grade rail crossing. *Doesn't I-95 in Jacksonville have a drawbridge?*	That drawbridge was removed.
24	The District Corridor Architectures identify a Motorist Aid Call Box and Regional ATIS Kiosks to correspond with the Remote Traveler Support Subsystem. The SITSA does not include these elements. *Not sure we understand. These elements appear in several of the District ITS Architectures, e.g. Rest Area and Visitor Centers, and Welcome Centers in the District 1 ITS Architecture.*	~~Update the SISTA to reflect these additions.~~	• Only Naples Regional Architecture and Statewide Service Architecture have MACB. • Naming conventions need to be made for transit kiosks and rest are/visitor centers elements.
25	The SITSA identifies various district components, which did not relate specifically to the limited-access facility components.	Elements not related specifically to intrastates and larger cities within close proximity to the facilities were removed.	ok
26	The Mobile TMC and Mobile TMC Roadside Equipment elements were adopted from the I-4 Corridor Study into the District Corridor Architectures.	Update the SITSA to include these elements and their market package associations, connections, and flows.	ok
27	The District Corridor Architectures replaced the District Field Equipment element with corridor specific devices, for example, District 7 I-75 Roadside Equipment.	Update the SITSA to reflect this change and include all of the necessary market package associations, connections, and flows.	ok
28	The District Corridor Architectures identify Special Event Parking and Park-and-Ride Lots to correspond with the Parking Management Subsystem. *Not understood. The District Architectures include these*	Update the SITSA to include these elements and all of their market package associations, connections, and flows.	• Naples, D3, D4&D6, D5, D7, and Statewide Service Architectures are missing these two elements.

	Issue by PBS&J	Recommended Action	Responses/Solutions
	Parking Management elements as described and where identified by stakeholders.		• 4/2/02 Conclusions: Agree to make no change.
29	The User Personal Computing Devices element was added to the District Corridor Architectures to represent the Personal Information Access Subsystem to support text messaging from ATIS. *The District ITS Architectures already include a "Traveler PC/Info. Appliance" mapped to PIAS. It was assumed that this could be connected with wireline or wireless channels to an ISP. We don't understand how this is different.*	Update the SITSA to include this element and all of its market package associations, connections, and flows.	The District Corridor Architectures will rename the "User Personal Computing Devices" element to " traveler PC/info. appliance" element.
30	The County / Local Police and Fire Department element was removed from the District Corridor Architectures due to the SITSA's inconsistent and duplicative element naming conventions. *A distinction was made between County Fire and Local Fire, and between County Sheriff and Local Police because these elements had generally different characteristics driven by the more generally rural character of the County elements. The local and municipal fire and police departments had a variety of rural/urban characteristics. These are generalized in the districts where it made sense to do so. In some cases, the ITS connectivity of these elements, especially for the more urban elements, were unique in the district, and thus they required being called out separately.*	~~Remove this duplicate element from the SITSA.~~	Agree.
31	The Service Patrol Dispatch element in the SITSA was modified to identify corridor information, i.e. District Service Patrol Dispatch, in the District Corridor Architectures.	Update the SITSA to reflect this element change.	OK
32	The Emergency Operations Center element description was modified to represent all county EMCs within a district which respond to incidents or emergencies declared by the SEOC.	Update the SITSA to reflect this change.	OK

	Issue by PBS&J	Recommended Action	Responses/Solutions
33	The District Corridor Architectures include AVSS 04, AVSS 07, AVSS 09, and AVSS 11. The SITSA does not include these market packages. *The Advanced Vehicle services were reviewed and determined to not have any Florida DOT or other public sector involvement. As such, they are totally private sector and operate independently of the public sector agencies. Thus it was determined that they will have not impact in a Public Sector ITS Architecture.*	~~Update the SITSA to include these market packages as planned as well as the elements identified by NITSA that correspond with them.~~	• During the I-4 Architecture development effort, the stakeholders determined that these MPs might need infrastructure support. • This MP bundle was selected as a "Big Picture" deployment. It would be implemented as technology matured and implementation become affordable. However, due to the lack of technology advancement in this area, the District Corridor Architecture will consider posting or removing the deployment of the AVSS MPs. • 4/2/02 Conclusions: Remove MP AVSS 4,7,9,11 from District Corridor Architecture.
34	The SITSA includes the APTS 03 (demand responsive transit) and APTS 06 (transit maintenance) market packages.	No action. The District Corridor Architectures did not find the necessary user needs to include these market packages.	OK
35	The District Corridor Architectures include CVO 01, CVO 02, CVO 03, CVO 05, CVO 06, CVO 07, CVO 08, and CVO 10, whereas the SITSA does not include all of these market packages, as well as their associated elements from the NITSA. These Market Packages were added to be consistent with the Statewide CVO/CVISN Business Plan. *The CVO elements are included in the SITSA Statewide Services Architecture. As such, these CVO services and elements participate in almost all of the District ITS*	~~Update the SITSA to include all listed CVO market packages as either planned or existing, depending on their status in the District Corridor Architectures. Include all of the elements from the NITSA associated with the listed CVO market packages as either planned or existing depending on their status in the District Corridor Architectures.~~	• The public sectors need to monitor private sectors, identify opportunities for coordination. • The Statewide Service Architecture includes only CVO 3, 4, 6, 7, 8, and 10. SITSA needs to include CVO 1(Fleet Management), CVO 2 (Freight Administration), and CVO 5(International Border Electronic Clearance)

	Issue by PBS&J	Recommended Action	Responses/Solutions
	Architectures.		Electronic Clearance). • 4/2/02 Conclusions: <u>SITSA needs to be added with CVO 02 for "Homeland Security Issue".</u> • <u>District Corridor Architectures need to remove CVO 01 and CVO 05.</u>
36	The SITSA does not associate all of the necessary elements with the ATMS Market Package group. Each Market Package was individually customized by the Stakeholders in each District. This customization often involves removing elements and architecture flows that are not relevant to a Districts existing or planned operational concept.	~~Update the SITSA to include all of the necessary elements identified by the SITSA and NITSA.~~	Agree.
37	The District Corridor Architectures include ATMS 09 (traffic forecasting and demand *management)* and ATMS 12 (virtual TMCs and probe data). The SITSA does not include these market packages. *The purpose of ATMS09 is to affect a modal shift between single occupancy vehicles and transit by modifying tolls, fares and parking costs. This idea was almost uniformly rejected (as draconian) by stakeholders in all FDOT districts. Based on this input, this market package was not included in any of the SITSA district architectures. ATMS12 is based on technology that is not mature, and is not expected to mature in the timeframe of the SITSA.*	~~Update the SITSA to include ATMS 09 and ATMS 12, along with all of their corresponding elements as defined by the NITSA.~~	• The ATMS09 MP was selected by District Corridor Architecture for its application to the "Value Pricing Lane project" in Miami-Dade County, which is in I-95 study corridor. Also, the demand management requests can also be made to Toll Administration, Transit Management, and Parking Management System. • ~~The Concept of ATMS 12 MP was identified in Tech Memo 4.1 "Concept of Operations for ITS Deployments along Florida's Principal FIHS Limited-Access Corridors". VTMC serves as backup for~~

	Issue by PBS&J	Recommended Action	Responses/Solutions
			~~RTMC to collect and coordinate data.~~ • 4/2/02 Conclusions: Take out ATMS 12 from District Corridor Architectures. • SITSA need to be included with ATMS 09
38	The District Corridor Architectures identify an Automated Highway Center (AHC) element that will be located at each RTMC and will control any future Automated Highways. This SITSA does not use this approach. *If there is stakeholder support for this, we will included it. The key issue to be addressed is tort liability as follows: if any public agency is perceived to have "control" of a vehicle, then they will be a party in many accidents. In our outreach, we noted that most public agencies in Florida were risk averse in this respect.*	Include the AHC element in the SITSA and all of its corresponding connections and flows as identified by the District Corridor Architectures.	AHS was selected for the architectures. Thus, an AHC is needed. The final selection of who control the center will most likely be decided in the future. However, this element may be eliminated with the removal of AVSS MP bundle.
39	The SITSA identifies County Warning Points, E911 Call Centers, Rural County Sheriff / Fire Rescue Dispatches and Vehicles as Emergency Management elements. The FDLE and FHP are consolidating dispatch centers. The county warning points do not exists, they are part of the county emergency operation centers. County dispatch centers are identified in the corridor architectures.	Remove these unnecessary elements from the SITSA.	OK
40	The State Emergency Operations Center (SEOC) is not identified in the SITSA. The SEOC was added for the corridor architectures. FDLE was also not identified as an EM element in the SITSA. FDLE was added to the corridor architectures. *The "Florida State Emergency Operations Center" is identified in the Statewide Services ITS Architecture, and thus is incorporated into each of the District ITS*	~~Update the SITSA to include these elements and their appropriate market package associations, connections, and flows.~~	• 4/2/02 Conclusions: FDLE and Florida State Emergency Operations Center" elements are already in SITSA. No changes need to be made.

	Issue by PBS&J	Recommended Action	Responses/Solutions
	Architectures. Same for FDLE (Emergency Management Subsystem and Emergency Vehicle Subsystem).		
41	The SITSA is inconsistent in the naming of county fire rescue and sheriff dispatches/vehicles. *Where it made sense, we aggregated County Emergency Management and Emergency Vehicle subsystems. This was possible where these elements were identical from an ITS functions and interfaces perspective. In this way we could significantly simplify the ITS architecture, with no loss in accuracy. Where counties were significantly different in character, the elements were called out individually, to identify the significant differences in functions and interfaces.*	~~Update the SITSA to include all of the appropriate counties within each of its regions.~~	Agree
42	The SITSA does not include the EM 4 market package, (evacuation coordination) elements or flows identified by the I-4 Corridor Study and proposed for the five principal FIHS corridors. *As before, we suggest the renaming of EM4 to EM FL1.*	Update the SITSA to include the EM 4 market package, elements, and flows.	Agree.
43	The SITSA does not include these market packages: ATIS 03, ATIS 04, ATIS 05, ATIS 06, ATIS 07, and ATIS 09. The SITSA is also missing several elements identified by the NITSA that pertain to the ATIS market package group. A vision for the provision of statewide ATIS and 511 services is now adopted that covers each of these corridors. *ATIS3: Autonomous Route Guidance* *This market package is self-contained in the vehicle, and has no impacts on a public sector ITS architecture - and probably should remain out of the SITSA.* *ATIS4: Dynamic Route Guidance* *ATIS5: ISP Based Route Guidance* *ATIS6: Integrated Transportation Management/Route Guidance*	Update the SITSA to include all of the ATIS market packages and elements as either planned or existing depending on their status in the District Corridor Architectures.	• All of these market packages were selected by I-4 Stakeholders. • Public sectors like Traffic Management and Transit Management need to connect (coordinate and supervise) to those private sectors in ATIS 4, ATIS 5, ATIS 6, ATIS 7, and ATIS 9 MPs that are defined in NITSA MP flows. ATIS 3 should be included if ATIS 4, ATIS 5, and ATIS 6 are selected. • 4/2/02 Conclusions: <u>Remove</u>

	Issue by PBS&J	Recommended Action	Responses/Solutions
	Guidance *These are typically private sector provided information services to the private vehicle. No public sector involvement. In discussing this with stakeholders, no public sector agency wished to give specific information to travelers, again because of the tort liability concern.* *ATIS7: Yellow Pages and Reservation* *This is a primarily private sector function. It is likely that these services will be provided very capably by the private sector, and it will be difficult for any public sector to compete in this market.* *ATIS9: In Vehicle Signing* *In the short term, there will be equity issues with the public sector providing signage that only benefits a small number of people -- unless the proliferation of radar detectors with signage capability increases dramatically, and public sector agencies invest in equipment to provide messages to these devices.*		ATIS 3,4,5,6,9; keep ATIS 7 for "511 Project".
44	The District Corridor Architectures identify a centralized location for providing information and information dissemination called the Regional ATIS Center. The SITSA does not use this approach. The Regional ATIS Center will be determined with the Information Service Providers selected through the invitations to negotiate for the regional and corridor ATIS's.	Update the SITSA to include the Regional ATIS Center element and all of its corresponding connections.	ok
45	The District Corridor Architectures identify a centralized location for data warehousing called the Archived Data Center (ADC), which will be located at each RTMC throughout the state. The SITSA does not use this approach. The SITSA provides Archived Data Management through local MPOs which is no longer a valid approach.	Update the SITSA to reflect the RTMC/ADC approach and all of its appropriate connections as identified by the District Corridor Architectures.	ok
46	The SITSA includes all three AD Market Packages as	Update the SITSA to include all of the elements (from	Agree

	Issue by PBS&J	Recommended Action	Responses/Solutions
	planned, however, it does not include all of the elements and connections that correspond with the market packages. *The SITSA uses mostly AD2, and occasionally AD3 Market Packages. These MPs were customized based on stakeholder requirements - thus not all elements and connections are required. We will review the corridor connectivity.*	NITSA) associated with the AD market packages as either planned or existing depending on their status in the District Corridor Architectures.	
47	The SITSA does not include all of the associated NITSA elements to complete the APTS market package group. *The APTS market package were customized to local agency requirements, and thus do not contain elements mapped to all entities and all architecture flows for these market packages. We will review the District Corridor Architectures for these connections.*	Include all of the associated NITSA elements with their corresponding flows and connections as identified by the District Corridor Architectures.	Agree

1. I-4 Corridor and Florida *SITSA* Comparison

Below are the results of the comparison of the I-4 corridor and the *SITSA*.

1.1 General

There are several inventory items that are included in the *SITSA* but not in the I-4 corridor's ITS architecture. These will be added to the I-4 corridor's ITS architecture. In many cases, these inventory elements can be added to the description of the more general elements that were defined in the I-4 architecture rather than creating new elements (e.g., add Florida Safety and Accident Data Collection System to a list in the Other Archives Terminator description).

The statewide architecture includes two new user-defined architecture entities and 14 architecture flows. These will be added to the I-4 architecture, as needed.

1.2 FDOT's District 5 Architecture

The following outline the differences between FDOT's District 5 architecture and the I-4 architecture:

- The statewide architecture does not include the Daytona Beach DASH TMC and field equipment. These need to be added to the following statewide architecture market packages ATMS1, ATMS2, ATMS4, ATMS5, ATMS6, ATMS7, ATMS8, ATMS9, ATMS11, ATMS17, ATMS18, ATMS19, and other APTS, ATIS, EMS, data archiving, and CVO market packages that require connections to TMCs.

- The Mobile TMC for work zone management is included in the I-4 architecture and needs to be added to ATMS1, ATMS4, ATMS6, ATMS7, ATMS8, ATMS18, and to EMS and data archiving market packages that require connections to TMCs.

- In ATMS6 (Traffic Information Dissemination), the I-4 corridor architecture includes an architecture flow that provides traffic information for transit between TMCs and LYNX.

- In ATMS6 (Traffic Information Dissemination), the I-4 corridor architecture includes broadcast advisory flow between the Roadway Subsystem and Basic Vehicles.

- In ATMS7 (Regional Traffic Control), the I-4 architecture provides a connection between the DASH TMC and Daytona Beach area arterial TMCs and between DASH TMC and the FDOT D5 RTMC.

- In ATMS7 (Regional Traffic Control), the I-4 architecture includes flows that connect FDOT Headquarters in Deland and the mobile TMC with the DASH TMC and FDOT D5 RTMC.

- In ATMS7 (Regional Traffic Control), the I-4 architecture includes flows between OOCEA Headquarters and the FDOT D5 RTMC.

- In ATMS8 (Incident Management), the I-4 architecture assumes that the FDOT D5 RTMC, DASH TMC, and arterial TMCs are connected to the FHP and Other Emergency Centers. In the statewide architecture, the FDOT D5 RTMC and all county TMCs are connected to County Fire/Rescue, County Sheriff, FHP, and County Emergency Operations Centers. The City TMCs are connected to Local Fire/Rescue, Local Police, and County Emergency Operations Center.

- ATMS9 (Traffic Forecast and Demand Management) is included in the I-4 architecture but not in the statewide architecture.

- In ATMS10, the I-4 architecture includes two toll centers: OOCEA's E-Pass Service Center and the Turnpike's ***SunPass™*** Service Center. In the statewide architecture, three centers are included: the E-Pass Service Center (that manages the Orange and Osceola counties' toll plazas), the SCEA Center (that manages the SCEA toll plazas), and the ***SunPass™*** Service Center (that manages the Turnpike toll plazas).

- In ATMS10, the I-4 architecture has a connection between the toll centers and ATIS centers.

- In ATMS10, the statewide architecture includes a new entity called "***SunPass™*** Reciprocity Network" that allows interagency toll payment coordination. This will be added to the I-4 architecture.

- ATMS11 (Emissions Management) is included in the I-4 architecture but not the statewide architecture. The DASH TMC and FDOT D5 RTMC will be the emissions management centers.

- In ATMS16 and ATMS19 (Parking Management), the I-4 architecture includes architecture flows from Parking Management to Enforcement Agencies, LYNX, and to the Other Parking.

- In ATMS16 and ATMS19 (Parking Management), the I-4 Park-and-Ride Facilities need to be added to the statewide architecture.

- In ATMS17 (Reversible Lane Management), the statewide architecture has a connection between the TMCs and the FHP centers to account for Hurricane Evacuation. The I-4 architecture has a separate market package for this purpose.

- The I-4 architecture includes a new market package, Speed Management, which was introduced for mobile center work zone management.

- In APTS4 (Passenger and Fare Management), the I-4 architecture includes connections to the I-4 enforcement agencies and to remote traveler support (vending machines).

- In APTS5, the I-4 architecture includes a "transit incident information" flow from the LYNX Operations Center to ISPs.

- In APTS7 (Multi-Modal Coordination), the I-4 architecture includes connections from the LYNX Operations Center to the FDOT D5 RTMC, the DASH TMC, and their field equipment.

- The statewide CVO market packages include new user-defined flows that need to be included in the I-4 architecture.

- In the statewide architecture's CVO market packages, the HAZMAT information is sent from the Fleet and Freight Management to local and county fire rescue and to E-911. The emergency notifications from the vehicles are sent to E-911. In the I-4 architecture, the information is sent to the I-4 Emergency Management Element.

- ATIS3 and ATIS8 are not included in the statewide architecture diagrams. However, there are a number of these market package architecture flows in the database (such as trip plans and yellow page information). The I-4 architecture includes these market packages.

- In AD1 (Data Mart Management), the I-4 architecture includes a general-purpose Data Mart Management Market Package that could be used by agencies desired to do so (OCCC, OOCEA, LYNX, etc.). This is not included in the statewide architecture.

- In AD2 (Data Warehouse Management), the I-4 architecture includes two data management centers, one at the FDOT D5 RTMC and the DASH TMC. FDOT D5 RTMC data management is connected to FDOT D7 data management and DASH TMC warehouses. The statewide architecture includes the following data management centers: Metroplan Orlando, Volusia MPO, and city and county data management centers. The I-4 architecture's data management centers include connections not included in the statewide architecture.

- In EM2 (Emergency Routing), the I-4 architecture includes connections to ISPs for emergency vehicle dispatch. This is not included in the statewide architecture.

- In EM3 (Mayday Support), motorist call boxes in the statewide architecture are connected to FHP dispatch and vehicles are connected to private sector

mayday/concierge service centers. The calls are then sent to E-911 emergency call centers. In the I-4 architecture, the calls are sent to the district motorist aid centers that are connected to other I-4 emergency centers.

- Four AVCS market packages are included in the I-4 architecture but not in the statewide architecture.

- A new market package, EM4 (Hurricane Evacuation) was introduced in the I-4 architecture.

1.3 FDOT's District 7 Architecture

The following are differences between the FDOT District 7 Architecture and the I-4 architecture:

- The mobile TMC for work zone management needs to be added to ATMS1, ATMS4, ATMS6, ATMS7, ATMS8, and ATMS18, in addition to EMS and data archiving market packages that require connections to TMCs.

- In the I-4 architecture, the Sunshine Skyway field equipment is modeled as a separate element that is connected to the St. Petersburg toll plaza. This is not modeled as a separate element in the statewide architecture.

- In ATMS2, the I-4 architecture supports probe surveillance. The FDOT D7 market package diagrams on the website do not include this market package. The data flow vehicle probe data is included in the statewide architecture FDOT D7 Turbo Architecture database.

- ATMS3 (Surface Street Control) includes FDOT D7 regional arterial field equipment. This is not included in the I-4 architecture. (Does D7 control or plan to control signals?)

- In ATMS6, a connection between the FDOT D7 RTMC and the private traveler information providers needs to be added in the statewide architecture.

- In ATMS6 (Traffic Information Dissemination), the I-4 corridor architecture includes the broadcast advisory flow between the Roadway Subsystem and Basic Vehicles.

- In ATMS7, a connection between the FDOT D7 RTMC and the FDOT D5 RTMC needs to be added to the statewide architecture. The mobile TMC needs to be connected to the FDOT D7 RTMC.

- In ATMS8, the I-4 architecture connects the FDOT D7 RTMC and arterial TMCs to the FHP and other emergency centers. In the statewide architecture, county and city TMCs are connected to county fire/rescue, county sheriff, local fire rescue, local police and

county 911 dispatches. The D7 RTMC is connected to FHP, the FDLE communications center, service patrol dispatch, county emergency operations center, and county warning points.

- ATMS9 (Traffic Forecast and Demand Management) in the I-4 architecture includes connections between the FDOT D7 RTMC to the HARTline Center, toll administration, and parking management.

- In ATMS10, the I-4 architecture has a connection between the toll centers and ATIS centers.

- ATMS11 (Emissions Management) is included in the I-4 architecture but not the statewide architecture. The FDOT D7 RTMC will have the emissions management function and will share the information with FDOT D5 RTMC and local TMCs.

- In ATMS16 and ATMS19 (Parking Management), the I-4 architecture includes park-and-ride facilities with connections to the FDOT D7 RTMC, other park-and-ride facilities, HARTline, ISPs, enforcement agencies, and vehicles.

- In ATMS18, an environmental conditions architecture flow needs to be added between the FDOT D7 freeway field equipment and the FDOT D7 RTMC in the statewide architecture.

- The I-4 architecture includes a new market package, Speed Management, for mobile work zone management.

- In APTS2, the transit management flows to transit vehicle and transit driver are included in the I-4 architecture.

- In APTS4 (Passenger and Fare Management), the I-4 architecture includes connections to enforcement agencies and financial institutions.

- In APTS5 (Transit Security), the I-4 architecture includes architecture flows between the HARTline center and EMCs and transit vehicles.

- In APTS7 (Multi-Modal Coordination), the FDOT D7 RTMC and field equipment are included to account for preemption in the I-4 architecture.

- The CVO4, CVO6, and CVO7 market packages are not included in the statewide architecture market package diagrams but it appears that their data flows are in the database.

- In the statewide architecture's CVO10 (HAZMAT Management), the HAZMAT information is sent from fleet and freight management to local and county fire/rescue and

to E-911. Emergency notification from vehicles goes to E-911. In the I-4 architecture, the connections are to the FHP and other I-4 emergency management.

- In the statewide ATIS market packages, the statewide architecture connections are made from the TMCs to one private ISP (Metro Traffic). The rest area kiosks are connected to the FDOT web page. The I-4 architecture database includes connections to Regional ATIS Centers.

- In the ATIS market packages, an architecture flow between the ISP and park-and-ride management is included in the I-4 architecture.

- The market packages ATIS3, ATIS4, and ATIS7 are not included in the statewide architecture diagrams. The I-4 architecture includes the three market packages. {However, there is the yellow page information architecture flow in the database between the Route Guidance Information System and Traveler Personal Computing/Information Appliances.}

- In AD1 (Data Mart Management), the I-4 architecture includes a general-purpose Data Mart Management Market Package that could be used by agencies who so desired.

- In AD2 (Data Warehouse Management), the I-4 architecture includes one warehouse for District 7, located in the FDOT D7 RTMC. This warehouse communicates with all agencies and other archives including the FDOT D5 RTMC archive. The statewide architecture includes a warehouse for FDOT D7 and a warehouse for each county.

- In AD2 (Data Warehouse Management), the I-4 architecture includes connections between the FDOT D7 RTMC to commercial vehicle administration and parking management.

- In EM2 (Emergency Routing), the I-4 architecture includes connections to ISPs for emergency vehicle routing. This is not included in the statewide architecture.

- In EM3 (Mayday Support), motorist call boxes are connected to FHP dispatch and vehicles are connected to private sector mayday/concierge service centers in the statewide architecture. The calls are then sent to E-911 emergency call centers. In the I-4 architecture, the calls are sent to the district motorist aid centers, which are connected to other I-4 emergency centers.

- Four AVCS market packages are included in the I-4 architecture.

- A new market package, EM4 (Hurricane Evacuation) was introduced in the I-4 architecture.

1.4 FDOT's District 1 Architecture

The following needs to be added to District 1's statewide architecture:

- In the statewide architecture, there is a need to connect FDOT D5 RTMC and FDOT D7 to FDOT D1 TMC and Polk County's county and city TMCs for information and control sharing and archive data collection.