



APPENDIX A – MARKET PACKAGE DEFINITIONS





Market Package	Market Package Name	Description	
Traffic Mar	agement Service Are	ea	
ATMS01	Network Surveillance	Includes traffic detectors, CCTV cameras, other surveillance equipment, supporting field equipment and fixed point to point communications to transmit the collected data back to a traffic management center.	
ATMS02	Probe Surveillance	Provides an alternative approach for surveillance of the roadway network. Probe vehicles are tracked and position and speed information utilized to determine road network conditions such as average speed and congestion conditions.	
ATMS03	Surface Street Control	Provides the central control and monitoring equipment, communication links and signal control equipment that support local street and/or arterial traffic management. This market package is consistent with typical urban traffic signal control systems.	
ATMS04	Freeway Control	Provides the communications and roadside equipment to support ramp control, lane controls and interchange control for freeways. This market package is consistent with typical urban traffic freeway control systems. Also includes the capability to utilize surveillance information for detection of incidents.	
ATMS05	HOV Lane Management	Manages HOV lanes by coordinating freeway ramp meters and connector signals with HOV lane usage signals.	
ATMS06	Traffic Information Dissemination	Provides driver information using roadway equipment such as dynamic message signs or highway advisory radio. Information can include traffic and road conditions, closure and detour information, incident information, emergency alerts and driver advisories.	
ATMS07	Regional Traffic Control	Sharing of traffic information and control among traffic management centers to support a regional control strategy. The nature of optimization and extent of information and control sharing is determined through working arrangements between jurisdictions.	
ATMS08	Traffic Incident Management System	Manages both unexpected incidents and planned events so that the impact to the transportation network and traveler safety is minimized. This market package includes incident detection capabilities and coordination with other agencies. It supports traffic operations personnel in developing an appropriate response in coordination with emergency management, maintenance and construction management, and other incident response personnel.	
ATMS09	Traffic Forecast and Demand Management	Includes advanced algorithms, processing, and mass storage capabilities that support historical evaluation, real-time assessment, and forecasts of the roadway network performance.	
ATMS10	Electronic Toll Collection	Provides toll operators with the ability to collect tolls electronically and detect and process violations.	
ATMS11	Emissions Monitoring and Management	Monitors individual vehicle emissions and provides general air quality monitoring using distributed sensors to collect the data.	
ATMS12	Virtual TMC and Smart Probe Data	Provides for special requirements of rural road systems. By distributing traffic management over a very wide area (whole state or collection of states). Each locality can access available information for assessment of road conditions. Vehicles are used as smart probes to provide information on road conditions.	
ATMS13	Standard Railroad Grade Crossing	Manages highway traffic at highway-rail intersections (HRIs) where rail operational speeds are less than 80 mph.	
ATMS14	Advanced Railroad Grade Crossing	Manages highway traffic at highway-rail intersections (HRIs) where operational speeds are greater than 80 mph. Augments Standard Railroad Grade Crossing market package with additional safety features to mitigate the risks associated with higher rail speeds.	
ATMS15	Railroad Operations Coordination	Provides an additional level of strategic coordination between freight rail operations and traffic management centers. Could include train schedules, maintenance schedules or any other anticipated HRI closures.	





Market Package	Market Package Name	Description	
Traffic Mar	nagement Service Ar	rea (continued)	
ATMS16	Parking Facility Management	Provides enhanced monitoring and management of parking facilities. Market package assists in the management of parking operations, coordinates with transportation authorities, and supports electronic collection of parking fees.	
ATMS17	Regional Parking Management	Supports coordination between parking facilities to enable regional parking management strategies.	
ATMS18	Reversible Lane Management	Provides for the management of reversible lane facilities and includes the field equipment, physical lane access controls, and associated control electronics.	
ATMS19	Speed Monitoring	Monitors the speeds of vehicles traveling through a roadway system.	
ATMS20	Drawbridge Management	Supports systems that manage drawbridges at rivers and canals and other multimodal crossings. Includes control devices as well as traveler information systems.	
ATMS21	Roadway Closure Management	Closes roadways to vehicular traffic when driving conditions are unsafe, maintenance must be performed, or other situations. Market package covers general road closures applications; specific closure systems that are used at railroad grade crossings, drawbridges, reversible lanes, etc. are covered by other market packages.	
Emergency	y Management Servi	ce Area	
EM01	Emergency Call - Taking and Dispatch	Provides basic public safety call-taking and dispatch services. Includes emergency vehicle equipment, equipment used to receive and route emergency calls, wireless communications and coordination between emergency management agencies.	
EM02	Emergency Routing	Supports automated vehicle location and dynamic routing of emergency vehicles. Traffic information, road conditions and suggested routing information are provided to enhance emergency vehicle routing. Includes signal preemption and priority applications.	
EM03	Mayday Support	Allows the user to initiate a request for emergency assistance and enables the emergency management subsystem to locate the user, gather information about the incident and determine the appropriate response.	
EM04	Roadway Service Patrols	Supports the roadway service patrol vehicles that aid motorists, offering rapid response to minor incidents (flat tire, accidents, out of gas) to minimize disruption to the traffic stream. This market package monitors service patrol vehicle locations and supports vehicle dispatch.	
EM05	Transportation Infrastructure Protection	Includes the monitoring of transportation infrastructure (e.g. bridges, tunnels and management centers) for potential threats using sensors, surveillance equipment, barriers and safeguard systems to preclude an incident, control access during and after an incident or mitigate the impact of an incident. Threats can be acts of nature, terrorist attacks or other incidents causing damage to the infrastructure.	
EM06	Wide-Area Alert	Uses ITS driver and traveler information systems to alert the public in emergency situations such as child abductions, severe weather, civil emergencies or other situations that pose a threat to life and property.	
EM07	Early Warning System	Monitors and detects potential, looming and actual disasters including natural, technological and man-made disasters.	
EM08	Disaster Response and Recovery	Enhances the ability of the surface transportation system to respond to and recover from disasters. Supports coordination of emergency response plans, provides enhanced access to the scene and better information about the transportation system in the vicinity of the disaster, and maintains situation awareness.	





Market Package	Market Package Name	Description	
	/ Management Service	Area (continued)	
EM09	Evacuation and Reentry Management	Supports evacuation of the general public from a disaster area and manages subsequent reentry to the disaster area. This market package supports both anticipated, well-planned and orderly evacuations such as for a hurricane, as well as sudden evacuations with little or no time for preparation or public warning such as a terrorist act. Employs a number of strategies to maximize capacity along an evacuation route including coordination with transit.	
EM10	Disaster Traveler Information	Use of ITS to provide disaster-related traveler information to the general public, including evacuation and reentry information and other information concerning the operation of the transportation system during a disaster.	
Maintenan	ce and Construction Ma	anagement Service Area	
MC01	Maintenance and Construction Vehicle and Equipment Tracking	Tracks the location of maintenance and construction vehicles and other equipment to ascertain the progress of their activities.	
MC02	Maintenance and Construction Vehicle Maintenance	Performs vehicle maintenance scheduling and manages both routine and corrective maintenance activities. Includes on-board sensors capable of automatically performing diagnostics.	
MC03	Road Weather Data Collection	Collects current road weather conditions using data collected from environmental sensors deployed on and about the roadway.	
MC04	Weather Information Processing and Distribution	Processes and distributes the environmental information collected from the Road Weather Data Collection market package. This market package uses the environmental data to detect environmental hazards such as icy road conditions, high winds, dense fog, etc. so system operators can make decisions on corrective actions to take.	
MC05	Roadway Automated Treatment	Automatically treats a roadway section based on environmental or atmospheric conditions. Includes the sensors that detect adverse conditions, automated treatment (such as anti-icing chemicals), and driver information systems.	
MC06	Winter Maintenance	Supports winter road maintenance. Monitors environmental conditions and weather forecasts and uses the information to schedule winter maintenance activities.	
MC07	Roadway Maintenance and Construction	Supports numerous services for scheduled and unscheduled maintenance and construction on a roadway system or right-of-way. Environmental conditions information is also received from various weather sources to aid in scheduling maintenance and construction activities.	
MC08	Work Zone Management	Directs activity in work zones, controlling traffic through portable dynamic message signs and informing other groups of activity for better coordination management. Also provides speed and delay information to motorists prior to the work zone.	
MC09	Work Zone Safety Monitoring	Includes systems that improve work crew safety and reduce collisions between the motoring public and maintenance and construction vehicles. Detects vehicle intrusions in work zones and warns workers and drivers of safety hazards when encroachment occurs.	
MC10	Maintenance and Construction Activity Coordination	Supports the dissemination of maintenance and construction activity to centers that can utilize it as part of their operations. (i.e., traffic management, transit, emergency management)	
Public Tran	sportation Service Are		
APTS1	Transit Vehicle Tracking	Monitors current transit vehicle location using an automated vehicle location system. Location data may be used to determine real time schedule adherence and update the transit system's schedule in real time.	
APTS2	Transit Fixed-Route Operations	Performs vehicle routing and scheduling, as well as operator assignment and system monitoring for fixed-route and flexible-route transit services.	





Market Package	Market Package Name	Description	
Public Tra	nsportation Service Are	ea (continued)	
APTS3	Demand Response Transit Operations	Performs vehicle routing and scheduling, as well as operator assignment and system monitoring for demand responsive transit services.	
APTS4	Transit Passenger and Fare Management	Manages passenger loading and fare payments on transit vehicles using electronic means.	
APTS5	Transit Security	Provides for the physical security of transit passengers and transit vehicle operators. Includes on-board security cameras and panic buttons.	
APTS6	Transit Maintenance	Supports automatic transit maintenance scheduling and monitoring for both routine and corrective maintenance.	
APTS7	Multi-modal Coordination	Establishes two way communications between multiple transit and traffic agencies to improve service coordination.	
APTS8	Transit Traveler Information	Provides transit users at transit stops and on board transit vehicles with ready access to transit information. Services include stop annunciation, imminent arrival signs and real-time transit schedule displays. Systems that provide custom transit trip itineraries and other tailored transit information services are also represented by this market package.	
Commerci	al Vehicle Operations S	Service Area	
CVO01	Fleet Administration	Provides the capabilities to manage a fleet of commercial vehicles. Vehicle routing and tracking as well as notification of emergency management of any troublesome route deviations (such as a HAZMAT vehicle) are part of this market package.	
CVO02	Freight Administration	Tracks the movement of cargo and monitors the cargo condition.	
CVO03	Electronic Clearance	Provides for automatic clearance at roadside check facilities. Allows a good driver/vehicle/carrier to pass roadside facilities at highway speeds using transponders and dedicated short range communications to the roadside.	
CVO04	Administrative Processes	Provides for electronic application, processing, fee collection, issuance and distribution of CVO credentials and tax filing.	
CVO05	International Border Electronic Clearance	Provides for automated clearance at international border crossings.	
CVO06	Weigh-In-Motion	Provides for high speed weigh-in-motion with or without automated vehicle identification capabilities.	
CVO07	Roadside CVO Safety	Provides for automated roadside safety monitoring and reporting. Automates commercial vehicle safety inspections at the roadside check facilities.	
CVO08	On-board CVO and Freight Safety & Security	Provides for on-board commercial vehicle safety monitoring and reporting as well as roadside support for reading on-board safety data via tags.	
CVO09	CVO Fleet Maintenance	Supports maintenance of CVO fleet vehicles with on-board monitoring equipment and automated vehicle location capabilities.	
CVO10	HAZMAT Management	Integrates incident management capabilities with commercial vehicle tracking to assure effective treatment of HAZMAT material and incidents.	
CVO11	Roadside HAZMAT Security Detection and Mitigation	Provides the capability to detect and classify security sensitive HAZMAT on commercial vehicles using roadside sensing and imaging technology. Credentials information can be accessed to verify if the commercial driver, vehicle and carrier are permitted to transport the identified HAZMAT.	
CVO12	Commercial Vehicle Driver Security Authentication	Provides the ability for Fleet and Freight Management to detect when an unauthorized commercial vehicle driver attempts to drive a vehicle based on stored identity information. If an unauthorized driver has been detected the commercial vehicle can be disabled.	
CVO13	Freight Assignment Tracking	Provides for the planning and tracking of the commercial vehicle, freight equipment and the commercial vehicle driver.	





Market Package	Market Package Name	Description	
Traveler I	nformation Service Area		
ATIS1	Broadcast Traveler Information	Collects traffic conditions, advisories, general public transportation, toll and parking information, incident information, roadway maintenance and construction information, air quality and weather information, and broadly disseminates this information through existing infrastructures (radio, cell phones, etc.).	
ATIS2	Interactive Traveler Information	Provides tailored information in response to a traveler request. The traveler can obtain current information regarding traffic conditions, roadway maintenance and construction, transit services, ride share/ride match, parking management, detours and pricing information.	
ATIS3	Autonomous Route Guidance	Using vehicle location and other information, this market package enables route planning and detailed route guidance based on static, stored information.	
ATIS4	Dynamic Route Guidance	Offers advanced route planning and guidance that is responsive to current conditions.	
ATIS5	ISP Based Route Guidance	Offers the user pre-trip route planning and turn-by-turn route guidance services. Routes may be based on static or real time network conditions.	
ATIS6	Integrated Transportation Management/Route Guidance	Provides advanced route planning and guidance that is responsive to current conditions.	
ATIS7	Yellow Pages and Reservation	Provides yellow pages and reservations services to the user.	
ATIS8	Dynamic Ridesharing	Provides dynamic ridesharing/ride matching services to travelers.	
ATIS9	In Vehicle Signing	Supports the distribution of traffic and travel advisory information to drivers through in-vehicle devices.	
Archived	Data Management Service A	rea	
AD1	ITS Data Mart	Provides a focused archive that houses data collected and owned by a single agency or other organization. Focused archive typically covers a single transportation mode and one jurisdiction.	
AD2	ITS Data Warehouse	Includes all the data collection and management capabilities of the ITS Data Mart. Adds the functionality to allow collection of data from multiple agencies and data sources across modal and jurisdictional boundaries.	
AD3	ITS Virtual Data Warehouse	Provides the same broad access to multimodal, multidimensional data from varied sources as in the ITS Data Warehouse Market Package, but provides this access using enhanced interoperability between physically distributed ITS archives that are each locally managed.	





APPENDIX B – CUSTOMIZED MARKET PACKAGES





APPENDIX B

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Figure B1 – ATMS01 – Network Surveillance: TDOT Region 4 TMC – Memphis

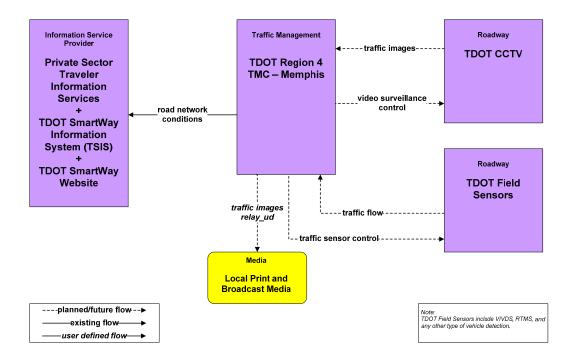


Figure B2 – ATMS01 – Network Surveillance: TDOT Overheight Vehicle Detection



planned/future flow►
───existing flow──►
──user defined flow──►





Figure B3 – ATMS01 – Network Surveillance: City of Jackson

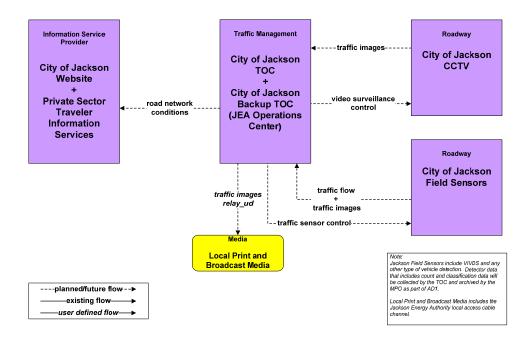
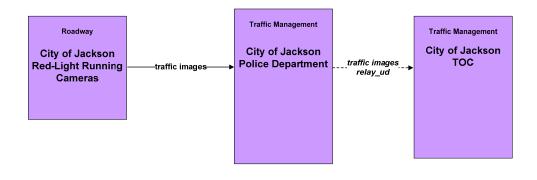


Figure B4 – ATMS01 – Network Surveillance: City of Jackson Red-Light Running Cameras

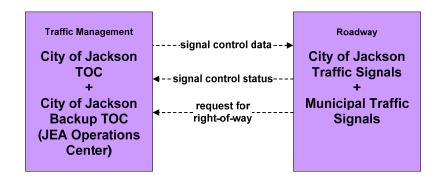


planned/future flow►	
──existing flow	
——user defined flow—→	





Figure B5 – ATMS03 – Surface Street Control: City of Jackson Signal System



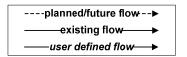
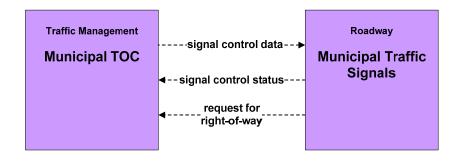


Figure B6 – ATMS03 – Surface Street Control: Municipal Signal System



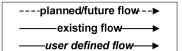






Figure B7 – ATMS06 – Traffic Information Dissemination: TDOT Region 4 TMC – Memphis

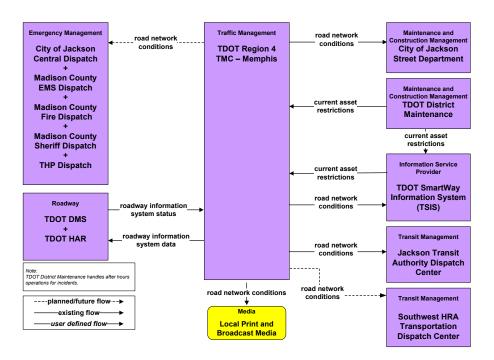


Figure B8 – ATMS06 – Traffic Information Dissemination: City of Jackson

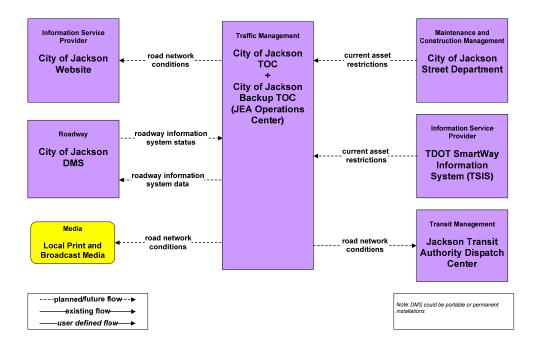






Figure B9 – ATMS07 – Regional Traffic Control: TDOT Region 4 TMC – Memphis

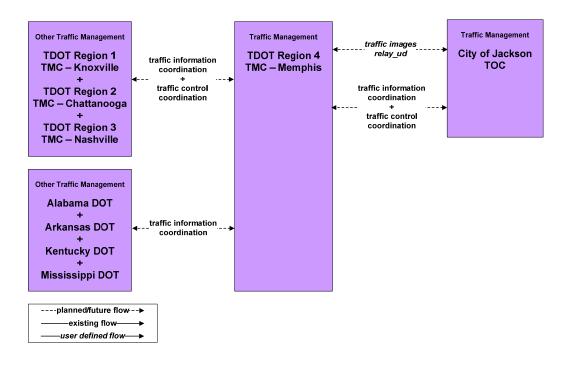
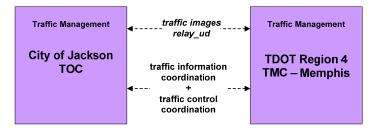


Figure B10 – ATMS07 – Regional Traffic Control: City of Jackson



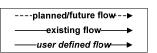






Figure B11 – ATMS08 – Incident Management: TDOT Region 4 TMC – Memphis

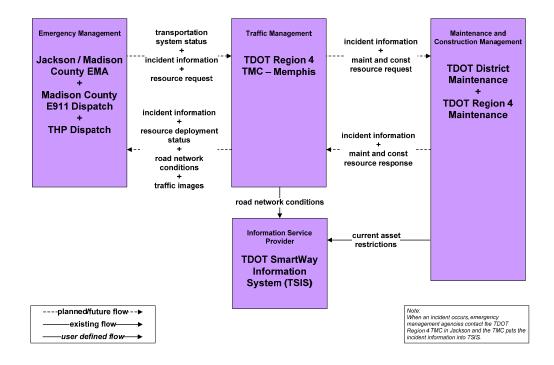


Figure B12 – ATMS08 – Incident Management: City of Jackson TOC

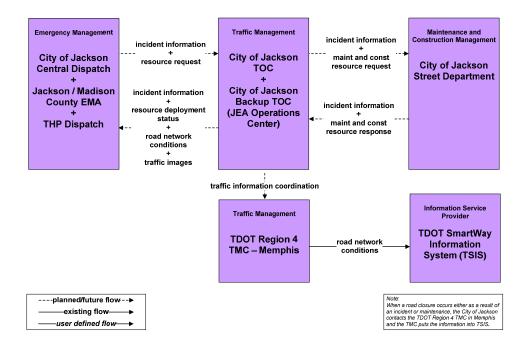






Figure B13 – ATMS13 – Standard Railroad Grade Crossing: City of Jackson

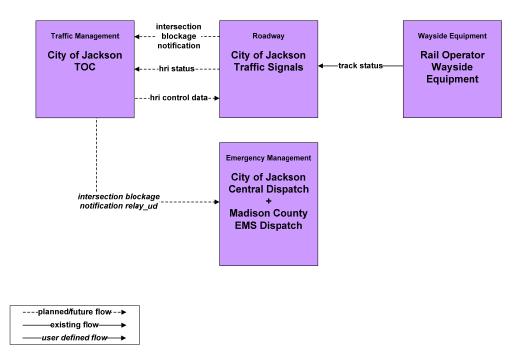


Figure B14 – ATMS15 – Standard Railroad Crossing: Southwest HRA

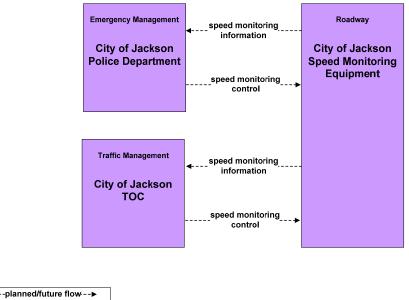


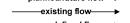






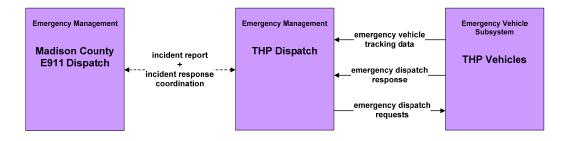
Figure B15 – ATMS19 – Speed Monitoring: City of Jackson





──user defined flow →

Figure B16 – EM01 – Emergency Call Taking and Dispatch: Tennessee Highway Patrol



planned/future flow►	
──existing flow	
──user defined flow	





Figure B17 – EM01 – Emergency Call Taking and Dispatch: Madison County E911 Dispatch

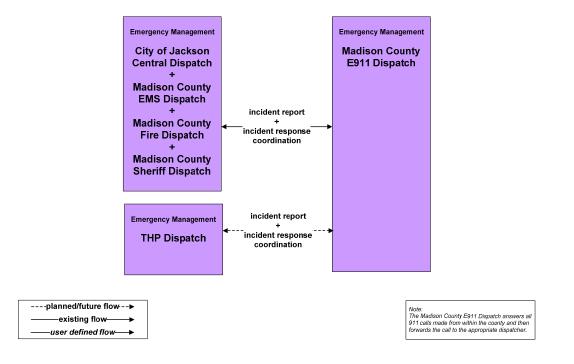
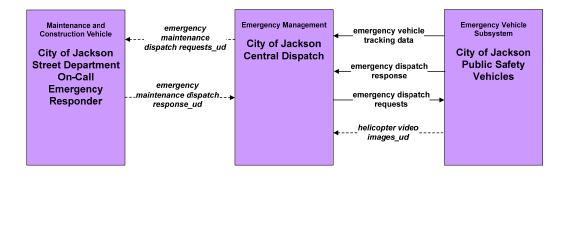


Figure B18 – EM01 – Emergency Call Taking and Dispatch: City of Jackson Central Dispatch

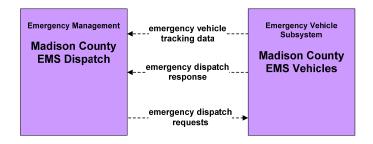


planned/future flow►	Note:
───existing flow──►	Public Safety Vehicles include City of Jackso Police patrol cars and well as helicopters.
——user defined flow—→	,



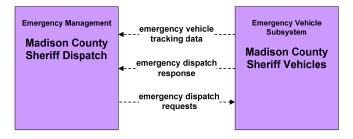


Figure B19 – EM01 – Emergency Call Taking and Dispatch: Madison County EMS



planned/future flow►
──existing flow
──user defined flow──►

Figure B20 – EM01 – Emergency Call Taking and Dispatch: Madison County Sheriff

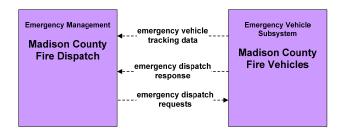


planned/future flow►
──existing flow
──user defined flow──►





Figure B21 – EM01 – Emergency Call Taking and Dispatch: Madison County Fire Dispatch



planned/future flow►]
——existing flow——►	
──user defined flow──►	

Figure B22 – EM01 – Emergency Call Taking and Dispatch: Municipal Public Safety Dispatch



planned/future flow►
──existing flow
──user defined flow





Figure B23 – EM02 – Emergency Routing: City of Jackson Public Safety Department

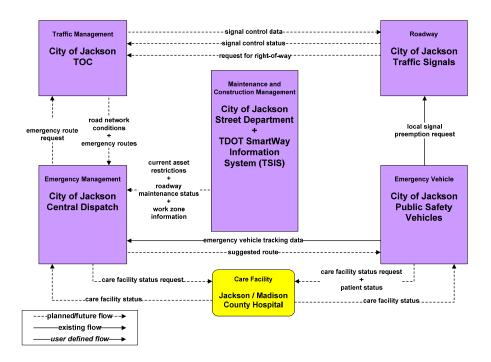


Figure B24 – EM02 – Emergency Routing: Madison County EMS

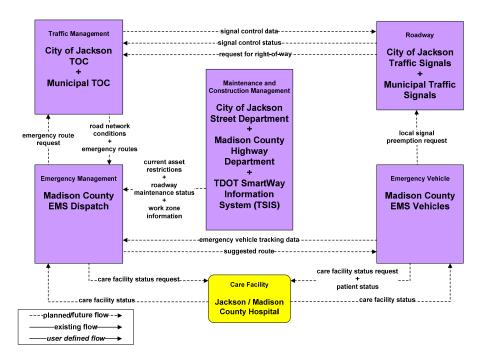
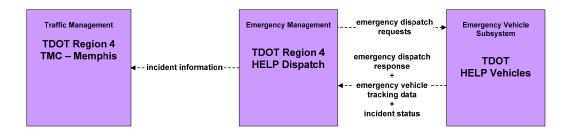






Figure B25 – EM04 – Roadway Service Patrols: HELP



planned/future flow►	
——existing flow——►	
——user defined flow—→	

Figure B26 – EM06 – Wide-Area Alerts: Tennessee AMBER Alert

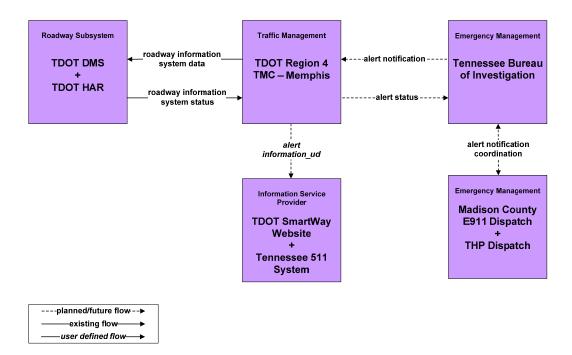
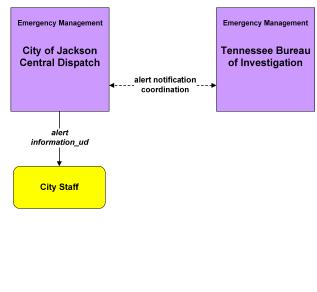






Figure B27 – EM06 – Wide-Area Alerts: City of Jackson



planned/future flow►
──existing flow
──user defined flow



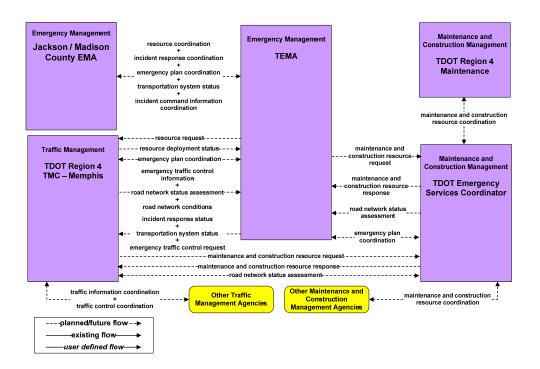






Figure B29 – EM08 – Disaster Response and Recovery: Jackson / Madison County EMA

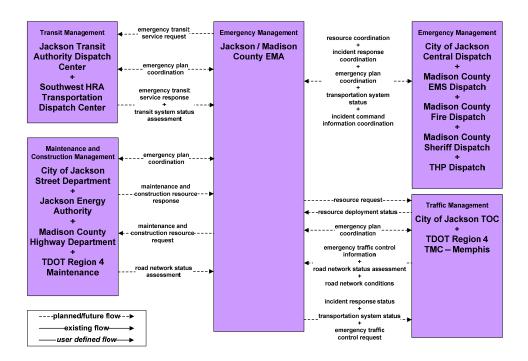
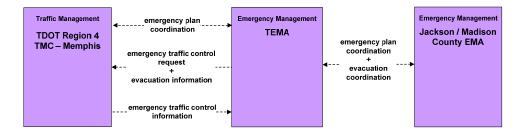


Figure B30 – EM09 – Evacuation and Reentry Management: TEMA



-	planned/future flow►
-	existing flow
-	—user defined flow—►





Figure B31 – EM09 – Evacuation and Reentry Management: Jackson / Madison County EMA

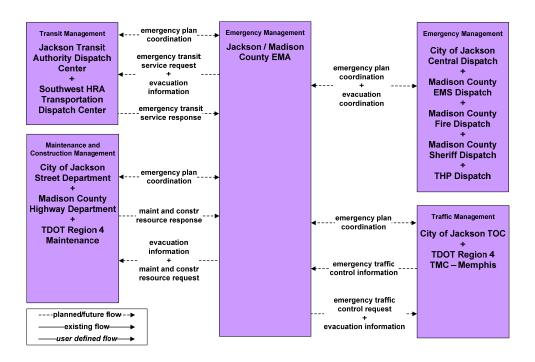
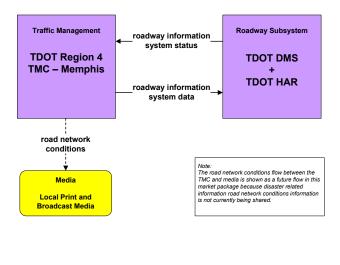


Figure B32 – EM10 – Disaster Traveler Information: TDOT



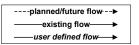






Figure B33 – EM10 – Disaster Traveler Information: Tennessee 511 and TSIS

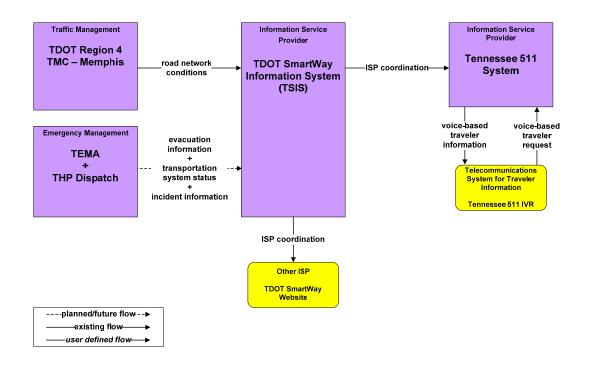
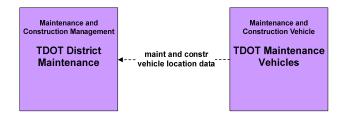


Figure B34 – MC01 – Maintenance and Construction Vehicle Tracking: TDOT District Maintenance

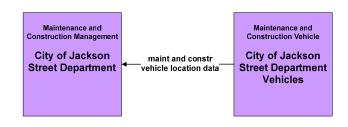


planned/future flow►
──existing flow
──user defined flow





Figure B35 – MC01 – Maintenance and Construction Vehicle Tracking: City of Jackson



planned/future flow►
——existing flow——►
——user defined flow—→

Figure B36 – MC03 – Road Weather Data Collection: TDOT RWIS

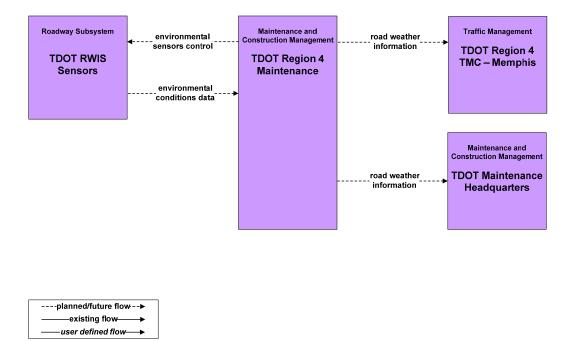
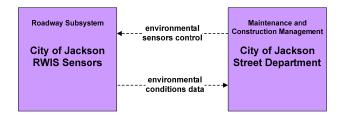






Figure B37 – MC03 – Road Weather Data Collection: City of Jackson RWIS



planned/future flow►
——existing flow——►
——user defined flow →

Figure B38 – MC04 – Weather Information Processing and Distribution: TDOT Region 4 Maintenance

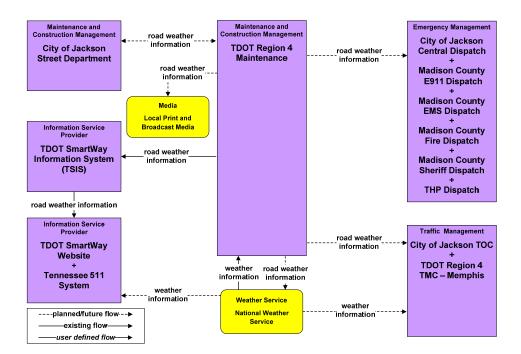






Figure B39 – MC04 – Weather Information Processing and Distribution: City of Jackson

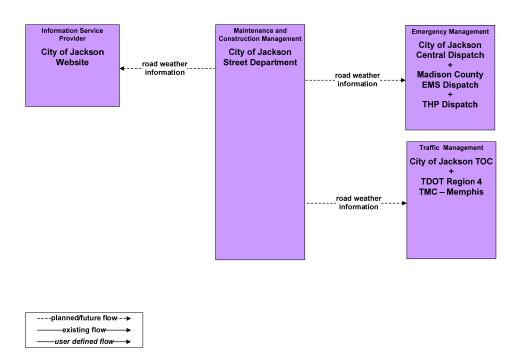


Figure B40 – MC07 – Roadway Maintenance and Construction

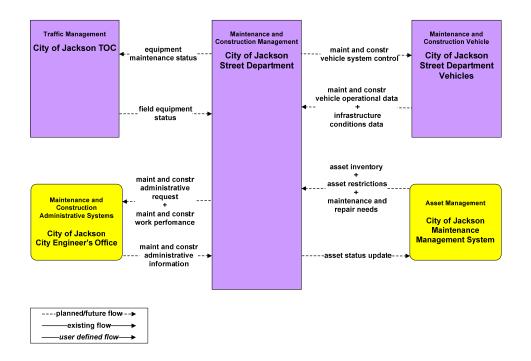






Figure B41 – MC08 – Workzone Management: TDOT District Maintenance

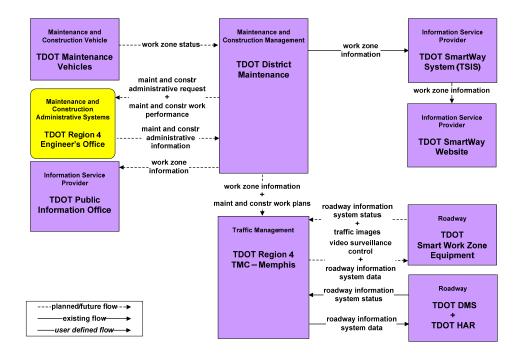


Figure B42 – MC08 – Workzone Management: TDOT Region 4 Construction Office

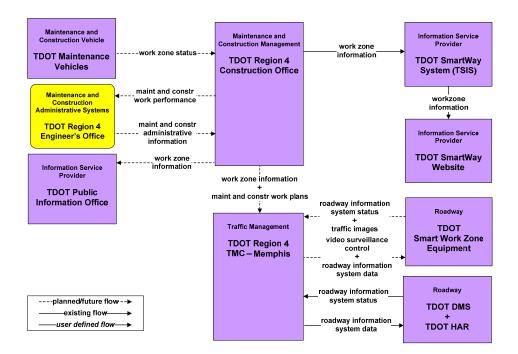






Figure B43 – MC08 – Workzone Management: City of Jackson

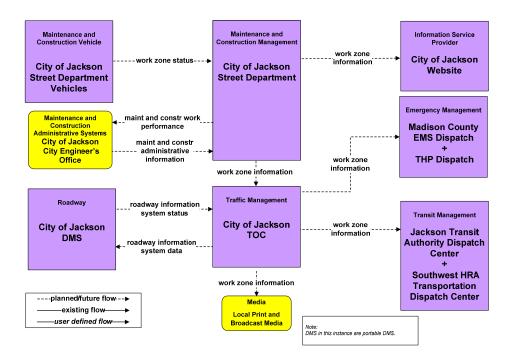


Figure B44 – MC10 – Maintenance and Construction Activity Coordination: TDOT

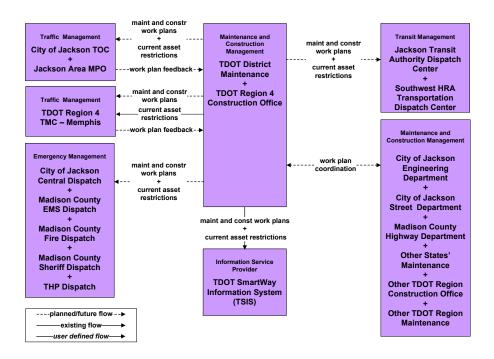






Figure B45 – MC10 – Maintenance and Construction Activity Coordination: City of Jackson

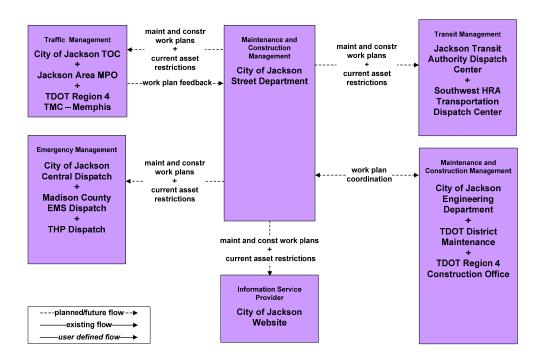
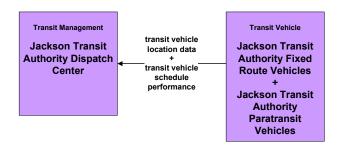


Figure B46 – APTS1 – Transit Vehicle Tracking: Jackson Transit Authority



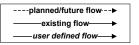
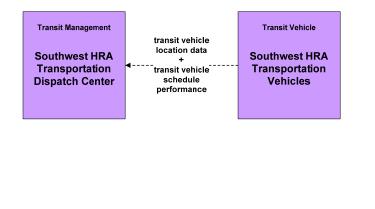






Figure B47 – APTS1 – Transit Vehicle Tracking: Southwest HRA Transportation



planned/future flow►
──existing flow
——user defined flow—→

Note: Southwest HRA has dispatch centers in each of the 8 counties in their service area. In the future these will be combined to form a centralized dispatch in Henderson.



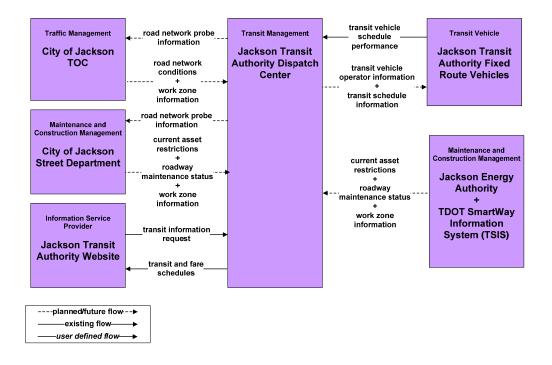






Figure B49 – APTS3 – Demand Response Transit Operations: Jackson Transit Authority

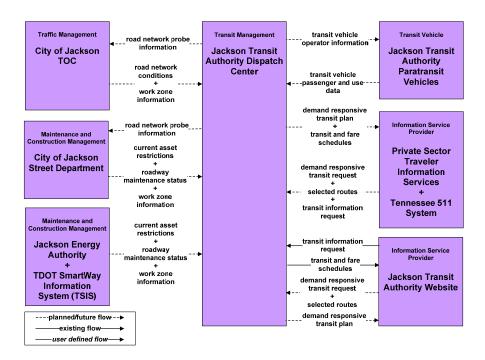


Figure B50 – APTS3 – Demand Response Transit Operations: Southwest HRA Transportation

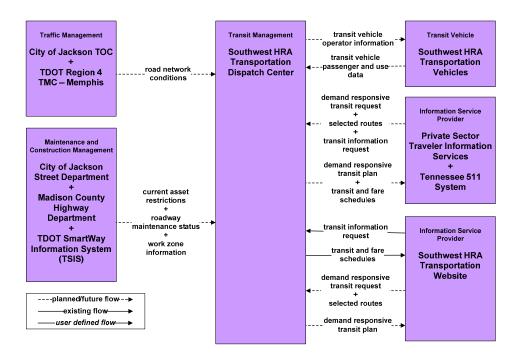






Figure B51 – APTS4 – Transit Passenger and Fare Management: Jackson Transit Authority

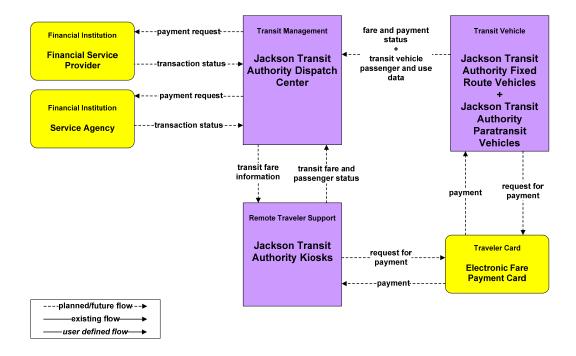


Figure B52 – APTS4 – Transit Passenger and Fare Management: Southwest HRA Transportation

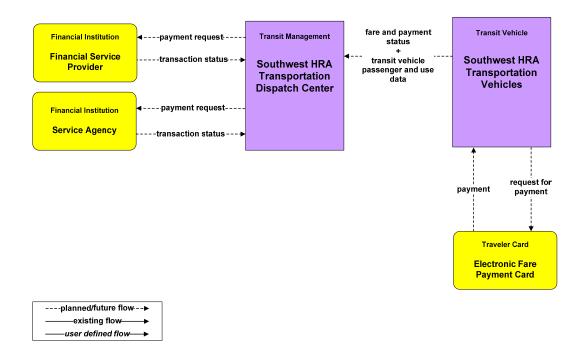






Figure B53 – APTS5 – Transit Security: Jackson Transit Authority Dispatch

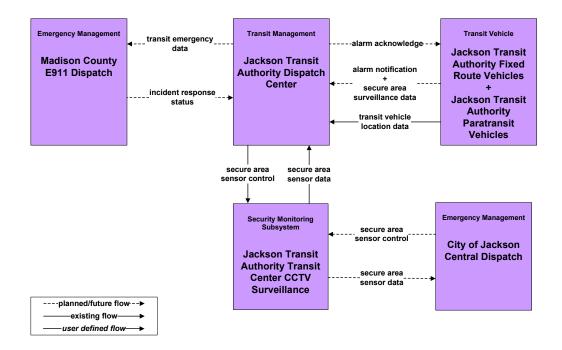
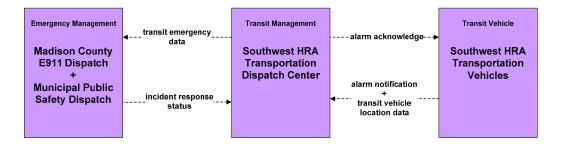


Figure B54 – APTS5 – Transit Security: Southwest HRA Transportation

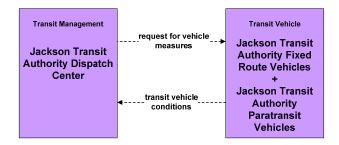


planned/future flow►
──existing flow
——user defined flow—→





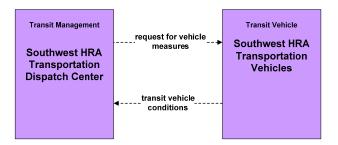
Figure B55 – APTS6 – Transit Maintenance: Jackson Transit Authority



planned/future flow►	
──existing flow	
──user defined flow →	

Note: Transit maintenance data will be collected at the maintenance garage at the end of the day rather than rea.Hime.

Figure B56 – APTS6 – Transit Maintenance: Southwest HRA Transportation

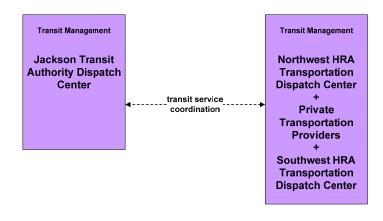


existing flow maintenance are defined flow maintenance are defined flow that real-time.	planned/future flow►	Note: Transit maintenance data will be collected at the
	existing flow►	maintenance garage at the end of the day rather
	——user defined flow—►	and rodrand_



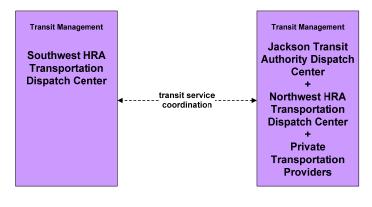


Figure B57 – APTS7 – Multi-modal Coordination: Jackson Transit Authority



planned/future flow►
───existing flow──►
──user defined flow──►

Figure B58 – APTS7 – Multi-modal Coordination: Southwest HRA Transportation



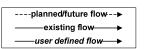






Figure B59 – APTS8 – Transit Traveler Information: Jackson Transit Authority Website and 511

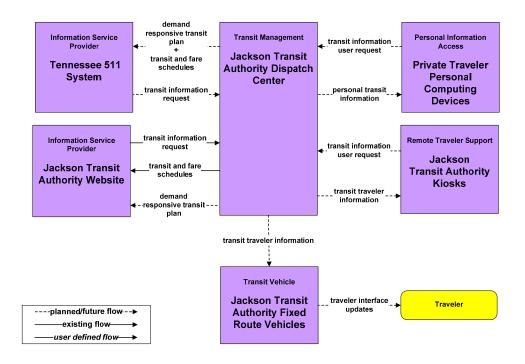


Figure B60 – APTS8 – Transit Traveler Information: Southwest HRA Transportation Website and 511

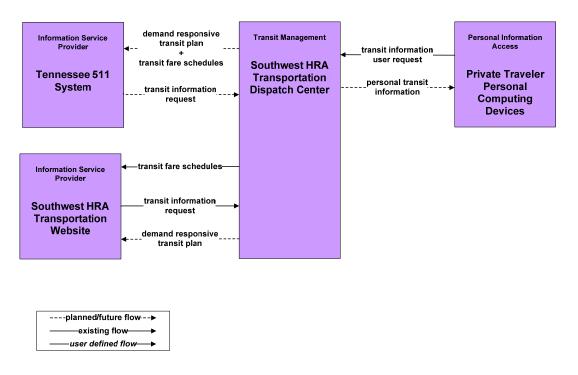






Figure B61 – ATIS1 – Broadcast Traveler Information: TSIS

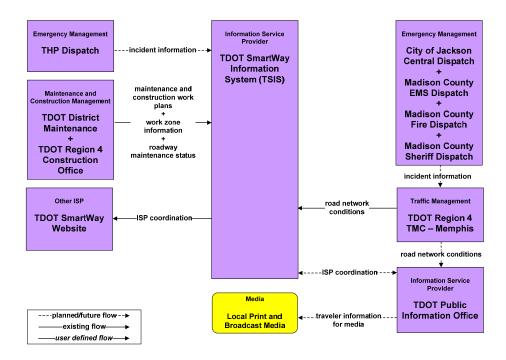


Figure B62 – ATIS1 – Broadcast Traveler Information: City of Jackson

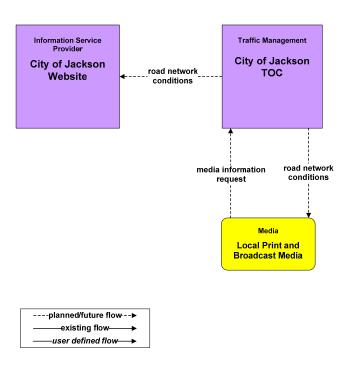
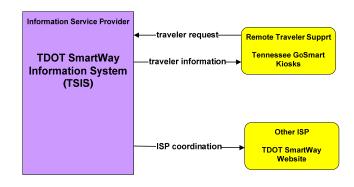


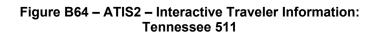




Figure B63 – ATIS2 – Interactive Traveler Information: TSIS



planned/future flow►	
──existing flow	
——user defined flow →	



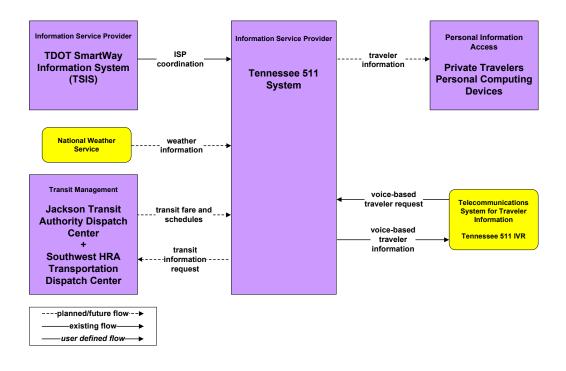
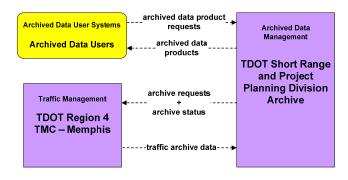




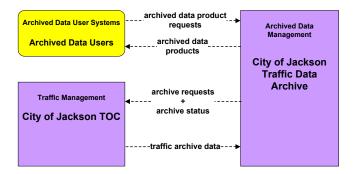


Figure B65 – AD1 – ITS Data Mart: TDOT



planned/future flow►	
——existing flow →	
——user defined flow—→	

Figure B66 – AD1 – ITS Data Mart: City of Jackson

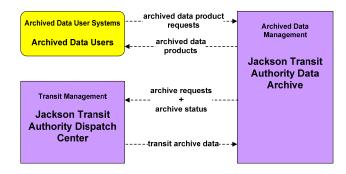


planned/future flow►	
existing flow	
──user defined flow	





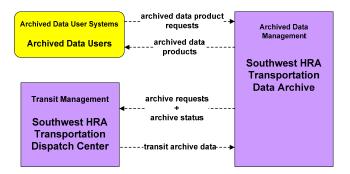
Figure B67 – AD1 – ITS Data Mart: Jackson Transit Authority



planned/future flow►	
existing flow	
──user defined flow	

Note: Data archive used by FTA, NTD, and TDOT Office of Public Transportation.

Figure B68 – AD1 – ITS Data Mart: Southwest HRA Transportation



planned/future flow►	
──existing flow	
──user defined flow──►	





Figure B69 – AD1 – ITS Data Mart: TraCS

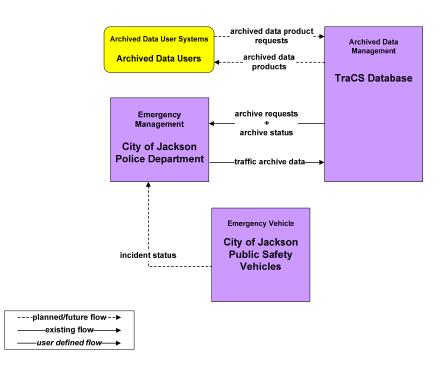
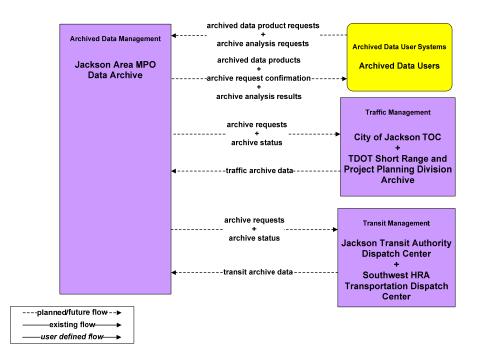


Figure B70 – AD2 – ITS Data Warehouse: Jackson Area MPO







APPENDIX C – ELEMENT FUNCTIONS





Element Name	Equipment Package (Function)
City of Jackson CCTV	Roadway Basic Surveillance
City of Jackson Central Dispatch	Emergency Call-Taking
	Emergency Dispatch
	Emergency Evacuation Support
	Emergency Response Management
	Emergency Routing
	Incident Command
City of Jackson DMS	Roadway Traffic Information Dissemination
	Roadway Work Zone Traffic Control
City of Jackson Engineering Department	MCM Work Activity Coordination
City of Jackson Field Sensors	Roadway Basic Surveillance
	Roadway Equipment Coordination
City of Jackson Police Department	Emergency Data Collection
City of Jackson Public Safety Vehicles	On-board EV En Route Support
City of Jackson Red-Light Running Cameras	Roadway Basic Surveillance
City of Jackson RWIS Sensors	Roadway Environmental Monitoring
City of Jackson Speed Monitoring Equipment	Roadway Basic Surveillance
	Roadway Speed Monitoring
City of Jackson Street Department	MCM Environmental Information Collection
	MCM Environmental Information Processing
	MCM Incident Management
	MCM Maintenance Decision Support
	MCM Roadway Maintenance and Construction
	MCM Vehicle Tracking
	MCM Work Activity Coordination
	MCM Work Zone Management
City of Jackson Street Department Vehicles	MCV Roadway Maintenance and Construction
	MCV Vehicle Location Tracking
	MCV Work Zone Support
City of Jackson Backup TOC (JEA Operations	Collect Traffic Surveillance
Center)	TMC Signal Control
	TMC Traffic Information Dissemination
	TMC Incident Detection
City of Jackson TOC	Collect Traffic Surveillance
	HRI Traffic Management
	MCM Environmental Information Processing
	TMC Environmental Monitoring
	TMC Evacuation Support
	TMC Incident Detection
	TMC Incident Dispatch Coordination/Communication





Element Name	Equipment Package (Function)
City of Jackson TOC (continued)	TMC Regional Traffic Control
	TMC Signal Control
	TMC Speed Monitoring
	TMC Traffic Information Dissemination
	TMC Work Zone Traffic Management
	Traffic Data Collection
	Traffic Maintenance
City of Jackson Traffic Data Archive	Government Reporting Systems Support
	ITS Data Repository
	Traffic and Roadside Data Archival
City of Jackson Traffic Signals	Roadway Basic Surveillance
	Roadway Equipment Coordination
	Roadway Signal Controls
	Roadway Signal Priority
	Standard Rail Crossing
City of Jackson Website	Basic Information Broadcast
	ISP Traveler Data Collection
Jackson Area MPO	Traffic Data Collection
Jackson Area MPO Data Archive	Government Reporting Systems Support
	ITS Data Repository
	Traffic and Roadside Data Archival
Jackson Energy Authority	MCM Incident Management
	MCM Roadway Maintenance and Construction
Jackson Transit Authority Data Archive	Government Reporting Systems Support
	ITS Data Repository
	Traffic and Roadside Data Archival
Jackson Transit Authority Dispatch Center	Center Secure Area Alarm Support
	Center Secure Area Sensor Management
	Center Secure Area Surveillance
	Transit Center Fare and Load Management
	Transit Center Fixed-Route Operations
	Transit Center Information Services
	Transit Center Multi-Modal Coordination
	Transit Center Paratransit Operations
	Transit Center Security
	Transit Center Vehicle Tracking
	Transit Data Collection
	Transit Evacuation Support
	Transit Garage Maintenance
	Transit Vehicle Operator Scheduling





Element Name	Equipment Package (Function)
Jackson Transit Authority Fixed Route Vehicles	On-board Fixed Route Schedule Management
	On-board Maintenance
	On-board Transit Fare and Load Management
	On-board Transit Information Services
	On-board Transit Security
	On-board Transit Trip Monitoring
Jackson Transit Authority Kiosks	Remote Transit Fare Management
	Remote Transit Information Services
Jackson Transit Authority Paratransit Vehicles	On-board Maintenance
	On-board Paratransit Operations
	On-board Transit Fare and Load Management
	On-board Transit Security
	On-board Transit Trip Monitoring
Jackson Transit Authority Transit Center CCTV	Field Secure Area Sensor Monitoring
Surveillance	Field Secure Area Surveillance
Jackson Transit Authority Website	Infrastructure Provided Trip Planning
	ISP Traveler Data Collection
Jackson/Madison County EMA	Emergency Evacuation Support
	Emergency Response Management
	Incident Command
Madison County E911 Dispatch	Emergency Call-Taking
	Emergency Dispatch
	Emergency Response Management
	Incident Command
Madison County EMS Dispatch	Emergency Call-Taking
	Emergency Dispatch
	Emergency Evacuation Support
	Emergency Response Management
	Emergency Routing
	Incident Command
Madison County EMS Vehicles	On-board EV En Route Support
Madison County Fire Dispatch	Emergency Call-Taking
	Emergency Dispatch
	Emergency Evacuation Support
	Emergency Response Management
	Incident Command
Madison County Fire Vehicles	On-board EV En Route Support
Madison County Highway Department	MCM Incident Management
	MCM Roadway Maintenance and Construction
	MCM Work Activity Coordination







Element Name	Equipment Package (Function)
Madison County Sheriff Dispatch	Emergency Call-Taking
	Emergency Dispatch
	Emergency Response Management
	Incident Command
Municipal Public Safety Dispatch	Emergency Call-Taking
	Emergency Dispatch
Municipal Public Safety Vehicles	On-board EV En Route Support
Municipal TOC	Collect Traffic Surveillance
	TMC Incident Dispatch Coordination/Communication
	TMC Signal Control
	Traffic Maintenance
Municipal Traffic Signals	Roadway Basic Surveillance
	Roadway Equipment Coordination
	Roadway Signal Controls
	Roadway Signal Priority
Northwest HRA Transportation Dispatch Center	Transit Center Multi-Modal Coordination
Other States Maintenance	MCM Work Activity Coordination
Other TDOT Region Construction Office	MCM Work Activity Coordination
Other TDOT Region Maintenance	MCM Work Activity Coordination
Private Transportation Providers	Transit Center Multi-Modal Coordination
Private Traveler Personal Computing Devices	Personal Interactive Information Reception
Southwest HRA Transportation Data Archive	Government Reporting Systems Support
	ITS Data Repository
Southwest HRA Transportation Dispatch Center	Transit Center Fare and Load Management
	Transit Center Information Services
	Transit Center Multi-Modal Coordination
	Transit Center Paratransit Operations
	Transit Center Security
	Transit Center Vehicle Tracking
	Transit Data Collection
	Transit Evacuation Support
	Transit Garage Maintenance
	Transit Vehicle Operator Scheduling
Southwest HRA Transportation Vehicles	On-board Maintenance
	On-board Paratransit Operations
	On-board Transit Fare and Load Management
	On-board Transit Security
	On-board Transit Trip Monitoring
Southwest HRA Transportation Website	Infrastructure Provided Trip Planning





Element Name	Equipment Package (Function)				
TDOT Beacon Warning Signs	Roadway Basic Surveillance				
	Roadway Equipment Coordination				
TDOT CCTV	Roadway Basic Surveillance				
TDOT District Maintenance (continued)	MCM Incident Management				
	MCM Vehicle Tracking				
	MCM Work Activity Coordination				
	MCM Work Zone Management				
TDOT DMS	Roadway Traffic Information Dissemination				
	Roadway Work Zone Traffic Control				
TDOT Emergency Services Coordinator	MCM Incident Management				
	MCM Roadway Maintenance and Construction				
TDOT Field Sensors	Roadway Basic Surveillance				
	Roadway Equipment Coordination				
TDOT HAR	Roadway Traffic Information Dissemination				
	Roadway Work Zone Traffic Control				
TDOT HELP Vehicles	On-board EV En Route Support				
	On-board EV Incident Management Communication				
TDOT Maintenance Headquarters	MCM Environmental Information Collection				
TDOT Maintenance Vehicles	MCV Vehicle Location Tracking				
	MCV Work Zone Support				
TDOT Overheight Vehicle Detection	Roadway Basic Surveillance				
	Roadway Equipment Coordination				
TDOT Public Information Office	Basic Information Broadcast				
	ISP Traveler Data Collection				
TDOT Region 4 Construction Office	MCM Work Activity Coordination				
	MCM Work Zone Management				
TDOT Region 4 HELP Dispatch	Service Patrol Management				
TDOT Region 4 Maintenance	MCM Environmental Information Collection				
	MCM Environmental Information Processing				
	MCM Incident Management				
	MCM Roadway Maintenance and Construction				
TDOT Region 4 TMC – Memphis	Collect Traffic Surveillance				
	TMC Environmental Monitoring				
	TMC Evacuation Support				
	TMC Freeway Management				
	TMC Incident Detection				
	TMC Incident Dispatch Coordination/Communication				
	TMC Probe Information Collection				
	TMC Regional Traffic Control				
	TMC Traffic Information Dissemination				





Element Name	Equipment Package (Function)				
TDOT Region 4 TMC – Memphis (continued)	TMC Work Zone Traffic Management				
	Traffic Data Collection				
	Traffic Maintenance				
TDOT RWIS Sensors	Roadway Environmental Monitoring				
TDOT Short Range and Project Planning	Government Reporting Systems Support				
Division Archive	ITS Data Repository				
	Traffic and Roadside Data Archival				
	Traffic Data Collection				
TDOT Smart Work Zone Equipment	Roadway Work Zone Traffic Control				
TDOT SmartWay Information System (TSIS)	Basic Information Broadcast				
	Interactive Infrastructure Information				
	ISP Emergency Traveler Information				
	ISP Traveler Data Collection				
	Traveler Telephone Information				
TDOT Smartway Website	Basic Information Broadcast				
	Interactive Infrastructure Information				
	ISP Emergency Traveler Information				
	ISP Traveler Data Collection				
ТЕМА	Emergency Evacuation Support				
	Emergency Response Management				
	Incident Command				
Tennessee 511 System	Infrastructure Provided Trip Planning				
	Interactive Infrastructure Information				
	ISP Emergency Traveler Information				
	ISP Traveler Data Collection				
	Traveler Telephone Information				
Tennessee 511 IVR	Traveler Telephone Information				
Tennessee Bureau of Investigation	Emergency Early Warning System				
Tennessee GoSmart Kiosks	Remote Interactive Information Reception				
THP Dispatch	Emergency Call-Taking				
	Emergency Dispatch				
	Emergency Environmental Monitoring				
	Emergency Evacuation Support				
	Emergency Response Management				
	Incident Command				
THP Vehicles	On-board EV En Route Support				
TraCS Database	Government Reporting Systems Support				
	ITS Data Repository				





APPENDIX D – STAKEHOLDER DATABASE

Stakeholder Attendance Record

Invitees			Workshop Attendance			
Organization	First Name	Last Name	Kick-Off	ITS Architectur	ITS Deployment Plan	Comment Resolution
City of Jackson	Johnny	Williams				
City of Jackson	Charles	Farmer				
City of Jackson	Maurice	Hays				
City of Jackson Engineering Department	Michael	Harris	\checkmark	\checkmark	\checkmark	
City of Jackson Engineering Department	Mike	Robinson				\checkmark
City of Jackson Engineering Dept.	Scott	Chandler	\checkmark	\checkmark	\checkmark	\checkmark
City of Jackson Fire Department	Mike	Morgan				
City of Jackson Information Systems Department	Karen	Bell				
City of Jackson Police Department	Rick	Staples	\checkmark			
City of Jackson Police Department	Lt. Ronald D.	Adams	\checkmark	\checkmark		\checkmark
City of Jackson Street Department	Gary	Leforgee	\checkmark	\checkmark		
EMA	Cory	Lay	\checkmark			
Federal Highway Administration - TN Division	Don	Gedge		\checkmark		\checkmark
Federal Transit Administration, Region IV	Tony	Dittmeier				
Jackson Area MPO	Stanley T.	Pilant	\checkmark	\checkmark		\checkmark
Jackson Area MPO	Keith C.	Donaldson	\checkmark	\checkmark	\checkmark	\checkmark
Jackson Madison County Airport Authority	Rodney	Hendrix				
Jackson Transit Authority	Johnny	Gullett				
Jackson Transit Authority	Merle	Bledsoe				
Jackson Transit Authority	Michele	Jackson	\checkmark	\checkmark		\checkmark

Organization	First Name	Last Name	Kick-Off	ITS Architectur	ITS Deployment Plan	Comment Resolution
Jackson/Madison County Emergency Management Agency	Marty	Clements		\checkmark		
Madison County	David L.	Woolfork				
Madison County	Jerry	Gist	\checkmark			
Madison County	Joe (Smokey)	Roland		\checkmark		
Madison County 911	Kim	Augustine				
Madison County Fire Department	Kelly	Holmes				
Madison County Highway Department	Fred	Bowyer				
Southwest HRA Transportation	Diana	Turner				
TDOT	Jason	Moody		\checkmark	\checkmark	
TDOT Region 4	Chuck	Rychen				
Tennessee Department of Transportation	Joe	Warren				
Tennessee Department of Transportation	Kathy	Dannenhold				
Tennessee Department of Transportation	Joe	Roach		\checkmark		
Tennessee Department of Transportation	Leonard (Rusty)	Staggs				
Tennessee Department of Transportation	Teresa	Estes				
Tennessee Department of Transportation	Joe Ed	Armstrong, PhD				
Tennessee Department of Transportation	Pete	Hiett, P.E.				
Tennessee Department of Transportation	Deborah	Fleming				





APPENDIX E – ARCHITECTURE MAINTENANCE DOCUMENTATION FORM



Please complete the following questionnaire to document changes for the Jackson Regional ITS Architecture. Modifications will be made during the next architecture update.

Agency	
Agency Contact Person	
Street Address	
City	
State, Zip Code	
Telephone	
Fax	
E-Mail	

Change Information

Please indicate the type of change:

_____ new market package (please attach sketch if possible)

- _____ existing market package modification (please attach marked up market package)
- _____ other: _____

Please indicate the reason for the change:

_____ new stakeholder

_____ new project/element(s)

Market Package(s) Impacted	
Describe requested change	
Have you coordinated with any other stakeholders on this change? If so, who?	
Are there any additional stakeholders that could be affected by this change?	

Please submit change forms to:

Keith Donaldson City of Jackson Planning Department 111 East Main Street, Suite 201 Jackson, Tennessee 38301 kdonaldson@cityofjackson.net

Date Request Filed: _____