



# MAG Regional ITS Architecture

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## Appendix D – Functional Requirements

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June, 2013  
091980011-15-35

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Element Name	Equipment Package Name	Requirement
ADEM SEOC	Emergency Dispatch	The center shall dispatch emergency vehicles to respond to verified emergencies under center personnel control.
ADEM SEOC	Emergency Dispatch	The center shall track the location and status of emergency vehicles responding to an emergency based on information from the emergency vehicle.
ADEM SEOC	Emergency Dispatch	The center shall store and maintain the emergency service responses in an action log.
ADEM SEOC	Emergency Dispatch	The center shall provide the capability to request remote control of traffic surveillance devices
ADEM SEOC	Emergency Dispatch	The center shall coordinate response to incidents with other Emergency Management centers to ensure appropriate resources are dispatched and utilized.
ADEM SEOC	Emergency Response Management	The center shall provide strategic emergency response capabilities provided by an Emergency Operations Center for large-scale incidents and disasters.
ADEM SEOC	Emergency Response Management	The center shall manage coordinated inter-agency responses to and recovery from large-scale emergencies. Such agencies include traffic management, transit, maintenance and construction management, rail operations, and other emergency management agencies.
ADEM SEOC	Emergency Response Management	The center shall provide the capability to implement response plans and track progress through the incident by exchanging incident information and response status with allied agencies.
ADEM SEOC	Emergency Response Management	The center shall develop, coordinate with other agencies, and store emergency response plans.
ADEM SEOC	Emergency Response Management	The center shall track the availability of resources and coordinate resource sharing with allied agency centers including traffic, maintenance, or other emergency centers.
ADEM SEOC	Emergency Response Management	The center shall allocate the appropriate emergency services, resources, and vehicle (s) to respond to incidents, and shall provide the capability to override the current allocation to suit the special needs of a current incident.
ADEM SEOC	Emergency Response Management	The center shall receive event scheduling information from Event Promoters.
ADEM SEOC	Emergency Response Management	The center shall support remote control of field equipment normally under control of the traffic management center including traffic signals, dynamic message signs, gates, and barriers.
ADEM SEOC	Emergency Response Management	The center shall provide the capability to remotely control and monitor CCTV systems normally operated by a traffic management center.
ADEM SEOC	Emergency Response Management	The center shall provide the capability to request transit resource availability from transit centers for use during disaster and evacuation operations.
ADEM SEOC	Emergency Response Management	The center shall assimilate the damage assessment of the transit, traffic, rail, maintenance, and other emergency center services and systems to create an overall transportation system status, and disseminate to each of these centers and the traveling public via traveler information providers.
ADEM SEOC	Emergency Response Management	The center shall provide information to the media concerning the status of an emergency response.
ADEM SEOC	Emergency Response Management	The center shall provide the capability for digitized map data to act as the background to the information presented to the emergency system operator.
ADEM SEOC	Emergency Response Management	The center shall provide the capability for center personnel to provide inputs to the management of incidents, disasters and evacuations.
ADEM SEOC	Emergency Response Management	The center shall collect information about the status of the recovery efforts for the infrastructure during disasters.
ADEM SEOC	Emergency Response Management	The center shall provide the overall status of infrastructure recovery efforts to traveler information providers and media.
ADEM SEOC	Emergency Response Management	The center shall provide the capability to communicate information about emergency situations to local population through the Emergency Telecommunications System.
ADEM SEOC	Emergency Response Management	The center shall provide the capability to identify neighborhoods and businesses that should be informed of an emergency situation based on information collected about incidents including their severity, impacted locations, and recovery schedule.
ADEM SEOC	Emergency Response Management	The center shall retrieve information from public health systems to increase preparedness for, and implement a response to biological, chemical, radiation, and other public health emergencies.
ADEM SEOC	Emergency Response Management	The center shall manage coordinated inter-agency responses to incidents at an international border.
ADEM SEOC	Emergency Environmental Monitoring	The center shall collect current and forecast road and weather information from weather service providers (such as the National Weather Service and value-added sector specific meteorological services).
ADEM SEOC	Emergency Environmental Monitoring	The center shall collect current road and weather information from roadway maintenance operations.
ADEM SEOC	Emergency Environmental Monitoring	The center shall assimilate current and forecast road conditions and surface weather information to support incident management.
ADEM SEOC	Emergency Environmental Monitoring	The center shall present the current and forecast road and weather information to the emergency system operator.

Element Name	Equipment Package Name	Requirement
ADEM SEOC	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways). The data may be raw or pre-processed in the field.
ADEM SEOC	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers). The data may be raw or pre-processed in the field.
ADEM SEOC	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected on-board transit vehicles. The data may be raw or pre-processed in the field.
ADEM SEOC	Center Secure Area Surveillance	The center shall exchange surveillance data with other emergency centers.
ADEM SEOC	Center Secure Area Surveillance	The center shall identify potential security threats based on collected security surveillance data.
ADEM SEOC	Center Secure Area Surveillance	The center shall verify potential security threats by correlating security surveillance data from multiple sources.
ADEM SEOC	Center Secure Area Surveillance	The center shall remotely control security surveillance devices in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways).
ADEM SEOC	Center Secure Area Surveillance	The center shall remotely control security surveillance devices in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers).
ADEM SEOC	Center Secure Area Surveillance	The center shall remotely control security surveillance devices on-board transit vehicles.
ADEM SEOC	Center Secure Area Surveillance	The center shall match traveler video images against a database from the Alerting and Advisory Systems of known images that may represent criminals and terrorists.
ADEM SEOC	Center Secure Area Surveillance	The center shall exchange traveler images with other emergency management centers to support traveler image matching.
ADEM SEOC	Center Secure Area Surveillance	The center shall respond to control data from center personnel regarding security surveillance data collection, processing, threat detection, and image matching.
ADEM SEOC	Center Secure Area Surveillance	The center shall monitor maintenance status of the security sensor field equipment.
ADEM SEOC	Emergency Evacuation Support	The center shall manage inter-agency coordination of evacuation operations, from initial planning through the evacuation process and reentry.
ADEM SEOC	Emergency Evacuation Support	The center shall develop and exchange evacuation plans with allied agencies prior to the occurrence of a disaster.
ADEM SEOC	Emergency Evacuation Support	The center shall provide an interface to the emergency system operator to enter evacuation plans and procedures and present the operator with other agencies' plans.
ADEM SEOC	Emergency Evacuation Support	The center shall coordinate evacuation destinations and shelter needs with shelter providers (e.g., the American Red Cross) in the region.
ADEM SEOC	Emergency Evacuation Support	The center shall provide evacuation information to traffic, transit, maintenance and construction, rail operations, and other emergency management centers as needed.
ADEM SEOC	Emergency Evacuation Support	The center shall request resources from transit agencies as needed to support the evacuation.
ADEM SEOC	Emergency Evacuation Support	The center shall request traffic management agencies to implement special traffic control strategies and to control evacuation traffic, including traffic on local streets and arterials as well as the major evacuation routes.
ADEM SEOC	Emergency Evacuation Support	The center shall provide traveler information systems with evacuation guidance including basic information to assist potential evacuees in determining whether evacuation is necessary and when it is safe to return.
ADEM SEOC	Emergency Evacuation Support	The center shall monitor the progress or status of the evacuation once it begins and exchange tactical plans, prepared during the incident, with allied agencies.
ADEM SEOC	Emergency Evacuation Support	The center shall monitor the progress of the reentry process.
ADEM SEOC	Emergency Evacuation Support	The center shall submit evacuation information to toll administration centers along with requests for changes in the toll services or fee collection during an evacuation.
ADEM SEOC	Emergency Evacuation Support	The center shall retrieve information from public health systems to plan for and implement evacuations or in-place sheltering for biological, chemical, radiation, and other public health emergencies.
ADEM SEOC	Emergency Early Warning System	The center shall monitor information from Alerting and Advisory Systems such as the Information Sharing and Analysis Centers (ISACs), the National Infrastructure Protection Center (NIPC), the Homeland Security Advisory System (HSAS), etc. The information may include assessments (general incident and vulnerability awareness information), advisories (identification of threats or recommendations to increase preparedness levels), or alerts (information on imminent or in-progress emergencies).

Element Name	Equipment Package Name	Requirement
ADEM SEOC	Emergency Early Warning System	The center shall provide the capability to correlate alerts and advisories, incident information, and security sensor and surveillance data.
ADEM SEOC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to traffic management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
ADEM SEOC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to transit management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
ADEM SEOC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to toll administration centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
ADEM SEOC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to traveler information service providers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
ADEM SEOC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to maintenance centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
ADEM SEOC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to other emergency management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
ADEM SEOC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to commercial vehicle administration centers and roadside check facilities for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
ADEM SEOC	Emergency Early Warning System	The center shall process status information from each of the centers that have been sent the wide-area alert.
ADEM SEOC	Emergency Early Warning System	The center shall coordinate the broadcast of wide-area alerts and advisories with other emergency management centers.
ADEM SEOC	Emergency Early Warning System	The center shall receive incident information from other transportation management centers to support the early warning system.
ADEM SEOC	Emergency Early Warning System	The center shall present the alert and advisory information and the status of the actions taken in response to the alert by the other centers to the emergency system operator as received from other system inputs.
ADEM SEOC	Emergency Early Warning System	The center shall support the entry of alert and advisory information directly from the emergency system operator.
ADEM SEOC	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways). The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors), infrastructure condition and integrity, intrusion and motion, and object detection sensors. The data may be raw or pre-processed in the field.
ADEM SEOC	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers). The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors), intrusion and motion, and object detection sensors. The data may be raw or pre-processed in the field.
ADEM SEOC	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected on-board transit vehicles. The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors) and object detection sensors. The data may be raw or pre-processed in the field.
ADEM SEOC	Center Secure Area Sensor Management	The center shall exchange security sensor data with other emergency centers.
ADEM SEOC	Center Secure Area Sensor Management	The center shall identify potential security threats based on collected security sensor data.
ADEM SEOC	Center Secure Area Sensor Management	The center shall verify potential security threats by correlating security sensor data from multiple sources.
ADEM SEOC	Center Secure Area Sensor Management	The center shall perform threat analysis based on correlations of security sensor and surveillance data.

Element Name	Equipment Package Name	Requirement
ADEM SEOC	Center Secure Area Sensor Management	The center shall exchange threat analysis data with Alerting and Advisory Systems and use that data in local threat analysis processing.
ADEM SEOC	Center Secure Area Sensor Management	The center shall disseminate threat information to other agencies, including traffic, transit, maintenance, rail operations, and other emergency management centers.
ADEM SEOC	Center Secure Area Sensor Management	The center shall respond to control data from center personnel regarding security sensor data collection, processing, threat detection, and threat analysis.
ADEM SEOC	Center Secure Area Sensor Management	The center shall request activation of barriers and safeguards on request from center personnel.
ADEM SEOC	Center Secure Area Sensor Management	The center shall monitor maintenance status of the security sensor field equipment.
ADOT 511 IVR	Interactive Infrastructure Information	The center shall disseminate customized traffic and highway condition information to travelers, including incident information, detours and road closures, recommended routes, and current speeds on specific routes upon request.
ADOT 511 IVR	ISP Emergency Traveler Information	The center shall disseminate emergency evacuation information to the traveler interface systems, including evacuation zones, shelter information, available transportation modes, road closures and detours, changes to transit services, and traffic and road conditions at the origin, destination, and along the evacuation routes.
ADOT 511 IVR	ISP Emergency Traveler Information	The center shall provide evacuation information to shelter providers.
ADOT 511 IVR	ISP Emergency Traveler Information	The center shall disseminate wide-area alert information to the traveler interface systems, including major emergencies such as a natural or man-made disaster, civil emergency, child abductions, severe weather watches and warnings, military activities, and law enforcement warnings.
ADOT 511 IVR	ISP Emergency Traveler Information	The center shall provide the capability for a system operator to control the type and update frequency of emergency and wide-area alert information distributed to travelers.
ADOT 511 IVR	Traveler Telephone Information	The center shall provide the capability to process voice-formatted requests for traveler information from a traveler telephone information system, and return the information in the requested format.
ADOT 511 IVR	Traveler Telephone Information	The center shall provide the capability to process dual-tone multifrequency (DTMF)-based requests (touch-tone) for traveler information from a traveler telephone information system.
ADOT 511 IVR	Traveler Telephone Information	The center shall provide the capability to process traveler information requests from a traveler telephone information system.
ADOT 511 IVR	Traveler Telephone Information	The center shall provide information on traffic conditions in the requested voice format and for the requested location.
ADOT 511 IVR	Traveler Telephone Information	The center shall provide work zone and roadway maintenance information in the requested voice format and for the requested location.
ADOT 511 IVR	Traveler Telephone Information	The center shall provide roadway environment conditions information in the requested voice format and for the requested location.
ADOT 511 IVR	Traveler Telephone Information	The center shall provide weather and event information in the requested voice format and for the requested location.
ADOT 511 IVR	Traveler Telephone Information	The center shall provide transit service information in the requested voice format and for the requested location.
ADOT 511 IVR	Traveler Telephone Information	The center shall provide yellow pages services information in the requested voice format and for the requested location.
ADOT 511 IVR	Traveler Telephone Information	The center shall provide current ferry and rail schedule and airport status information in the requested voice format and for the requested location.
ADOT 511 IVR	Traveler Telephone Information	The center shall provide the capability to support both specific caller requests as well as bulk upload of regional traveler information.
ADOT 511 IVR	Traveler Telephone Information	The center shall receive and forward region-specific wide-area alert and advisory information to the traveler telephone information system, including major emergencies such as a natural or man-made disaster, civil emergency, child abductions, severe weather watches and warnings, military activities, and law enforcement warnings.
ADOT 511 IVR	ISP Traveler Data Collection	The center shall collect, process, and store traffic and highway condition information, including incident information, detours and road closures, event information, recommended routes, and current speeds on specific routes.
ADOT 511 IVR	ISP Traveler Data Collection	The center shall collect, process, and store maintenance and construction information, including scheduled maintenance and construction work activities and work zone activities.
ADOT 511 IVR	ISP Traveler Data Collection	The center shall collect, process, and store transit routes and schedules, transit transfer options, transit fares, and real-time schedule adherence information.
ADOT 511 IVR	ISP Traveler Data Collection	The center shall collect, process, and store parking information, including location, availability, and fees.
ADOT 511 IVR	ISP Traveler Data Collection	The center shall collect, process, and store toll fee information.
ADOT 511 IVR	ISP Traveler Data Collection	The center shall collect, process, and store current and forecast road conditions and surface weather conditions.
ADOT 511 IVR	ISP Traveler Data Collection	The center shall collect, process, and store event information.

Element Name	Equipment Package Name	Requirement
ADOT 511 IVR	ISP Traveler Data Collection	The center shall collect, process, and store air quality information.
ADOT 511 IVR	ISP Traveler Data Collection	The center shall collect, process, and store border crossing information.
ADOT 511 Website	Basic Information Broadcast	The center shall disseminate traffic and highway condition information to travelers, including incident information, detours and road closures, event information, recommended routes, and current speeds on specific routes.
ADOT 511 Website	Basic Information Broadcast	The center shall disseminate transit routes and schedules, transit transfer options, transit fares, and real-time schedule adherence information to travelers.
ADOT 511 Website	Basic Information Broadcast	The center shall disseminate toll fee information to travelers.
ADOT 511 Website	Basic Information Broadcast	The center shall disseminate event information to travelers.
ADOT 511 Website	Basic Information Broadcast	The center shall provide the capability to support requests from the media for traffic and incident data.
ADOT 511 Website	ISP Emergency Traveler Information	The center shall disseminate emergency evacuation information to the traveler interface systems, including evacuation zones, shelter information, available transportation modes, road closures and detours, changes to transit services, and traffic and road conditions at the origin, destination, and along the evacuation routes.
ADOT 511 Website	ISP Emergency Traveler Information	The center shall provide evacuation information to shelter providers.
ADOT 511 Website	ISP Emergency Traveler Information	The center shall disseminate wide-area alert information to the traveler interface systems, including major emergencies such as a natural or man-made disaster, civil emergency, child abductions, severe weather watches and warnings, military activities, and law enforcement warnings.
ADOT 511 Website	ISP Emergency Traveler Information	The center shall provide the capability for a system operator to control the type and update frequency of emergency and wide-area alert information distributed to travelers.
ADOT 511 Website	ISP Traveler Data Collection	The center shall collect, process, and store traffic and highway condition information, including incident information, detours and road closures, event information, recommended routes, and current speeds on specific routes.
ADOT 511 Website	ISP Traveler Data Collection	The center shall collect, process, and store maintenance and construction information, including scheduled maintenance and construction work activities and work zone activities.
ADOT 511 Website	ISP Traveler Data Collection	The center shall collect, process, and store transit routes and schedules, transit transfer options, transit fares, and real-time schedule adherence information.
ADOT 511 Website	ISP Traveler Data Collection	The center shall collect, process, and store parking information, including location, availability, and fees.
ADOT 511 Website	ISP Traveler Data Collection	The center shall collect, process, and store toll fee information.
ADOT 511 Website	ISP Traveler Data Collection	The center shall collect, process, and store current and forecast road conditions and surface weather conditions.
ADOT 511 Website	ISP Traveler Data Collection	The center shall collect, process, and store event information.
ADOT 511 Website	ISP Traveler Data Collection	The center shall collect, process, and store air quality information.
ADOT 511 Website	ISP Traveler Data Collection	The center shall collect, process, and store border crossing information.
ADOT ALERT Vehicles	On-board EV En Route Support	The emergency vehicle, including roadway service patrols, shall track its current location.
ADOT CCTV	Roadway Basic Surveillance	The field element shall collect, process, digitize, and send traffic sensor data (speed, volume, and occupancy) to the center for further analysis and storage, under center control.
ADOT CCTV	Roadway Incident Detection	The field element shall collect, process, and send traffic images to the center for further analysis and distribution.
ADOT CCTV	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
ADOT CCTV	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
ADOT CCTV	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
ADOT CCTV	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
ADOT CCTV	Roadway Work Zone Safety	The field element shall include work zone intrusion detection devices that detect when a vehicle has intruded upon the boundary of a work zone, under center control.
ADOT CCTV	Roadway Work Zone Safety	The field element shall include work zone intrusion detection devices that detect when crew workers have crossed the boundary between the work zone and vehicle traffic, under center control.
ADOT CCTV	Roadway Work Zone Safety	The field element shall include work zone intrusion alerting devices that alert crew workers of a work zone emergency or safety issue such as the intrusion of a vehicle into the work zone area or movement of field crew into the travel lanes.
ADOT CCTV	Roadway Work Zone Safety	The field element shall include work zone intrusion alerting devices that notify crew via maintenance vehicles of a work zone emergency or safety issue such as the intrusion of a vehicle into the work zone area or movement of field crew into the travel lanes.

Element Name	Equipment Package Name	Requirement
ADOT CCTV	Roadway Work Zone Safety	The field element shall include work zone intrusion alerting devices that alert drivers that they have intruded upon the perimeter of the work zone, or are about to do so; may provide alerts to drivers directly or via in-vehicle signing.
ADOT CCTV	Roadway Work Zone Safety	The field element shall provide operational status for the work zone intrusion detection devices to the maintenance center.
ADOT CCTV	Roadway Work Zone Safety	The field element shall provide fault data for the work zone intrusion detection devices to the maintenance center for repair.
ADOT CCTV	Roadway Work Zone Safety	The field element shall provide operational status for the work zone intrusion alerting devices to the maintenance center.
ADOT CCTV	Roadway Work Zone Safety	The field element shall provide fault data for the work zone intrusion alerting devices to the maintenance center for repair.
ADOT DMS	Roadway Traffic Information Dissemination	The field element shall include dynamic messages signs for dissemination of traffic and other information to drivers, under center control; the DMS may be either those that display variable text messages, or those that have fixed format display(s) (e.g. vehicle restrictions, or lane open/close).
ADOT DMS	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
ADOT DMS	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
ADOT DMS	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
ADOT DMS	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
ADOT EOC	TMC Incident Detection	The center shall receive inputs from the Alerting and Advisory System concerning the possibility or occurrence of severe weather, terrorist activity, or other major emergency, including information provided by the Emergency Alert System.
ADOT EOC	TMC Incident Dispatch Coordination/Communication	The center shall exchange alert information and status with emergency management centers. The information includes notification of a major emergency such as a natural or man-made disaster, civil emergency, or child abduction for distribution to the public. The information may include the alert originator, the nature of the emergency, the geographic area affected by the emergency, the effective time period, and information and instructions necessary for the public to respond to the alert. This may also identify specific information that should not be released to the public.
ADOT EOC	Emergency Response Management	The center shall provide strategic emergency response capabilities provided by an Emergency Operations Center for large-scale incidents and disasters.
ADOT EOC	Emergency Response Management	The center shall manage coordinated inter-agency responses to and recovery from large-scale emergencies. Such agencies include traffic management, transit, maintenance and construction management, rail operations, and other emergency management agencies.
ADOT EOC	Emergency Response Management	The center shall provide the capability to implement response plans and track progress through the incident by exchanging incident information and response status with allied agencies.
ADOT EOC	Emergency Response Management	The center shall develop, coordinate with other agencies, and store emergency response plans.
ADOT EOC	Emergency Response Management	The center shall track the availability of resources and coordinate resource sharing with allied agency centers including traffic, maintenance, or other emergency centers.
ADOT EOC	Emergency Response Management	The center shall allocate the appropriate emergency services, resources, and vehicle (s) to respond to incidents, and shall provide the capability to override the current allocation to suit the special needs of a current incident.
ADOT EOC	Emergency Response Management	The center shall receive event scheduling information from Event Promoters.
ADOT EOC	Emergency Response Management	The center shall support remote control of field equipment normally under control of the traffic management center including traffic signals, dynamic message signs, gates, and barriers.
ADOT EOC	Emergency Response Management	The center shall provide the capability to remotely control and monitor CCTV systems normally operated by a traffic management center.
ADOT EOC	Emergency Response Management	The center shall provide the capability to request transit resource availability from transit centers for use during disaster and evacuation operations.
ADOT EOC	Emergency Response Management	The center shall assimilate the damage assessment of the transit, traffic, rail, maintenance, and other emergency center services and systems to create an overall transportation system status, and disseminate to each of these centers and the traveling public via traveler information providers.
ADOT EOC	Emergency Response Management	The center shall provide information to the media concerning the status of an emergency response.
ADOT EOC	Emergency Response Management	The center shall provide the capability for digitized map data to act as the background to the information presented to the emergency system operator.
ADOT EOC	Emergency Response Management	The center shall provide the capability for center personnel to provide inputs to the management of incidents, disasters and evacuations.

Element Name	Equipment Package Name	Requirement
ADOT EOC	Emergency Response Management	The center shall collect information about the status of the recovery efforts for the infrastructure during disasters.
ADOT EOC	Emergency Response Management	The center shall provide the overall status of infrastructure recovery efforts to traveler information providers and media.
ADOT EOC	Emergency Response Management	The center shall provide the capability to communicate information about emergency situations to local population through the Emergency Telecommunications System.
ADOT EOC	Emergency Response Management	The center shall provide the capability to identify neighborhoods and businesses that should be informed of an emergency situation based on information collected about incidents including their severity, impacted locations, and recovery schedule.
ADOT EOC	Emergency Response Management	The center shall retrieve information from public health systems to increase preparedness for, and implement a response to biological, chemical, radiation, and other public health emergencies.
ADOT EOC	Emergency Response Management	The center shall manage coordinated inter-agency responses to incidents at an international border.
ADOT FMS	Collect Traffic Surveillance	The center shall monitor, analyze, and store traffic sensor data (speed, volume, occupancy) collected from field elements under remote control of the center.
ADOT FMS	TMC Regional Traffic Management	The center shall exchange traffic information with other traffic management centers including incident information, congestion data, traffic data, signal timing plans, and real-time signal control information.
ADOT FMS	TMC Signal Control	The center shall remotely control traffic signal controllers.
ADOT FMS	TMC Traffic Information Dissemination	The center shall remotely control dynamic messages signs for dissemination of traffic and other information to drivers.
ADOT FMS	TMC Traffic Metering	The center shall remotely control systems to manage use of the freeways, including ramp, interchange, and mainline metering.
ADOT FMS	Traffic Equipment Maintenance	The center shall collect and store sensor (traffic, pedestrian, multimodal crossing) operational status.
ADOT FMS	Traffic Data Collection	The center shall collect traffic management data such as operational data, event logs, etc.
ADOT FMS	Traffic Data Collection	The center shall assign quality control metrics and meta-data to be stored along with the data. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
ADOT FMS	Traffic Data Collection	The center shall receive and respond to requests from ITS Archives for either a catalog of the traffic data or for the data itself.
ADOT FMS	Traffic Data Collection	The center shall be able to produce sample products of the data available.
ADOT HCERS	Interactive Infrastructure Information	The center shall disseminate customized traffic and highway condition information to travelers, including incident information, detours and road closures, recommended routes, and current speeds on specific routes upon request.
ADOT HCERS	ISP Probe Information Collection	The center shall collect traffic probe data (speeds, travel times, etc.) from appropriately equipped vehicles and short range communications equipment.
ADOT HCERS	Basic Information Broadcast	The center shall disseminate traffic and highway condition information to travelers, including incident information, detours and road closures, event information, recommended routes, and current speeds on specific routes.
ADOT HCERS	Basic Information Broadcast	The center shall disseminate transit routes and schedules, transit transfer options, transit fares, and real-time schedule adherence information to travelers.
ADOT HCERS	Basic Information Broadcast	The center shall disseminate toll fee information to travelers.
ADOT HCERS	Basic Information Broadcast	The center shall disseminate event information to travelers.
ADOT HCERS	Basic Information Broadcast	The center shall provide the capability to support requests from the media for traffic and incident data.
ADOT HCERS	ISP Data Collection	The center shall collect traveler information data, such as parking lot data, rideshare data, road network use data, vehicle probe data, and other data from traveler information system operations.
ADOT HCERS	ISP Data Collection	The center shall collect traveler requests, confirmations, and payment transaction data for traveler services provided.
ADOT HCERS	ISP Data Collection	The center shall assign quality control metrics and meta-data to be stored along with the data. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
ADOT HCERS	ISP Data Collection	The center shall receive and respond to requests from ITS Archives for either a catalog of the traveler information data or for the data itself.
ADOT HCERS	ISP Data Collection	The center shall be able to produce sample products of the data available.
ADOT HCERS	ISP Emergency Traveler Information	The center shall disseminate emergency evacuation information to the traveler interface systems, including evacuation zones, shelter information, available transportation modes, road closures and detours, changes to transit services, and traffic and road conditions at the origin, destination, and along the evacuation routes.

Element Name	Equipment Package Name	Requirement
ADOT HCRS	ISP Emergency Traveler Information	The center shall provide evacuation information to shelter providers.
ADOT HCRS	ISP Emergency Traveler Information	The center shall disseminate wide-area alert information to the traveler interface systems, including major emergencies such as a natural or man-made disaster, civil emergency, child abductions, severe weather watches and warnings, military activities, and law enforcement warnings.
ADOT HCRS	ISP Emergency Traveler Information	The center shall provide the capability for a system operator to control the type and update frequency of emergency and wide-area alert information distributed to travelers.
ADOT HCRS	ISP Traveler Data Collection	The center shall collect, process, and store traffic and highway condition information, including incident information, detours and road closures, event information, recommended routes, and current speeds on specific routes.
ADOT HCRS	ISP Traveler Data Collection	The center shall collect, process, and store maintenance and construction information, including scheduled maintenance and construction work activities and work zone activities.
ADOT HCRS	ISP Traveler Data Collection	The center shall collect, process, and store transit routes and schedules, transit transfer options, transit fares, and real-time schedule adherence information.
ADOT HCRS	ISP Traveler Data Collection	The center shall collect, process, and store parking information, including location, availability, and fees.
ADOT HCRS	ISP Traveler Data Collection	The center shall collect, process, and store toll fee information.
ADOT HCRS	ISP Traveler Data Collection	The center shall collect, process, and store current and forecast road conditions and surface weather conditions.
ADOT HCRS	ISP Traveler Data Collection	The center shall collect, process, and store event information.
ADOT HCRS	ISP Traveler Data Collection	The center shall collect, process, and store air quality information.
ADOT HCRS	ISP Traveler Data Collection	The center shall collect, process, and store border crossing information.
ADOT HCRS	ISP Operational Data Repository	The center shall select real-time information on the state of the regional transportation system including current traffic and road conditions, weather conditions, transit information, parking information, special event and incident information.
ADOT HCRS	ISP Operational Data Repository	The center shall distribute real-time transportation operations data to centers in the region. The data may be broadcast or customized based on the receiving center's specified requests or subscriptions.
ADOT HCRS	ISP Operational Data Repository	The center shall support the capability for the system operator to monitor and control the operational data repository and information distribution service.
ADOT HCRS	ISP Operational Data Repository	The center shall provide a web site that provides real-time transportation data to transportation system operators in the region.
ADOT HCRS	ISP Short Range Communications Traveler Information Distribution	The center shall select traveler information for distribution including traffic and road conditions, incident information, maintenance and construction information, event information, transit information, parking information, and weather information.
ADOT HCRS	ISP Short Range Communications Traveler Information Distribution	The center shall distribute location relevant traveler information to short range communications equipment at the roadside.
ADOT HCRS	ISP Short Range Communications Traveler Information Distribution	The center shall provide the capability for a system operator to monitor connected vehicle system operation and control the type and update frequency of traveler information that is distributed.
ADOT HCRS	ISP Short Range Communications Traveler Information Distribution	The center shall monitor the operational status of the DSRC roadside equipment.
ADOT HCRS	ISP Short Range Communications Traveler Information Distribution	The center shall collect fault data from the roadside equipment and send to the maintenance center for repair.
ADOT HCRS	ISP Short Range Communications Traveler Information Distribution	The center shall monitor maintenance status of the roadside equipment.
ADOT Lane Management Infrastructure	Roadway Variable Speed Limits	The field element shall monitor traffic and environmental conditions along the roadway.
ADOT Lane Management Infrastructure	Roadway Variable Speed Limits	The field element shall autonomously calculate and set variable speed limits based on current conditions by lane.
ADOT Lane Management Infrastructure	Roadway Variable Speed Limits	The field element shall receive commands from the controlling center that establish speed limits by lane.
ADOT Lane Management Infrastructure	Roadway Variable Speed Limits	The field element shall display the current speed limits per lane to drivers.

Element Name	Equipment Package Name	Requirement
ADOT Lane Management Infrastructure	Roadway Variable Speed Limits	The field element shall display additional information such as basic safety rules and current traffic information to drivers.
ADOT Lane Management Infrastructure	Roadway Variable Speed Limits	The field element shall collect operational status of the variable speed limit field equipment and report the operational status to the controlling center.
ADOT Lane Management Infrastructure	Roadway Variable Speed Limits	The field element shall monitor and report faults to the controlling center.
ADOT Lane Management Infrastructure	Roadway Dynamic Lane Management and Shoulder Use	The field element shall measure traffic conditions per lane, under center control.
ADOT Lane Management Infrastructure	Roadway Dynamic Lane Management and Shoulder Use	The field element shall determine how to change the lane controls to respond to current traffic and road conditions.
ADOT Lane Management Infrastructure	Roadway Dynamic Lane Management and Shoulder Use	The field element shall receive lane management control information from the controlling center.
ADOT Lane Management Infrastructure	Roadway Dynamic Lane Management and Shoulder Use	The field element shall provide guidance and information to drivers regarding current lane configuration and status.
ADOT Lane Management Infrastructure	Roadway Dynamic Lane Management and Shoulder Use	The field element shall monitor vehicle characteristics and classify individual vehicles.
ADOT Lane Management Infrastructure	Roadway Dynamic Lane Management and Shoulder Use	The field element shall collect vehicle profile information from individual vehicles using field-vehicle communications.
ADOT Lane Management Infrastructure	Roadway Dynamic Lane Management and Shoulder Use	The field element shall monitor current lane usage to determine if vehicles are complying with current lane use restrictions.
ADOT Lane Management Infrastructure	Roadway Dynamic Lane Management and Shoulder Use	The field element shall capture vehicle information, including vehicle image(s) of vehicles violating current lane usage restrictions and report violations to the controlling center.
ADOT Lane Management Infrastructure	Roadway Dynamic Lane Management and Shoulder Use	The field element shall monitor operational status of the dynamic lane control equipment and report operational status to the controlling center.
ADOT Lane Management Infrastructure	Roadway Dynamic Lane Management and Shoulder Use	The field element shall identify and report fault conditions to the controlling center.
ADOT Lane Management Infrastructure	Roadway Warning	The field element shall monitor for hazardous traffic conditions, including queues.
ADOT Lane Management Infrastructure	Roadway Warning	The field element shall monitor for hazardous road surface and local weather conditions.
ADOT Lane Management Infrastructure	Roadway Warning	The field element shall monitor for debris, animals, or other objects in the travel lanes.
ADOT Lane Management Infrastructure	Roadway Warning	The field element shall provide collected sensor data to the controlling center.
ADOT Lane Management Infrastructure	Roadway Warning	The field element shall autonomously identify potentially hazardous conditions and activate warning signs to approaching motorists.
ADOT Lane Management Infrastructure	Roadway Warning	The field element shall receive commands from the controlling center that activate warning signs to approaching motorists.
ADOT Lane Management Infrastructure	Roadway Warning	The field element shall collect operational status of the warning system field equipment and report the operational status to the controlling center.
ADOT Lane Management Infrastructure	Roadway Warning	The field element shall monitor and report faults to the controlling center.
ADOT Maintenance Group	MCM Incident Management	The center shall receive inputs from the Alerting and Advisory System concerning the possibility or occurrence of severe weather, terrorist activity, or other major emergency, including information provided by the Emergency Alert System.

Element Name	Equipment Package Name	Requirement
ADOT Maintenance Group	MCM Incident Management	The center shall exchange alert information and status with emergency management centers. The information includes notification of a major emergency such as a natural or man-made disaster, civil emergency, or child abduction. The information may include the alert originator, the nature of the emergency, the geographic area affected by the emergency, the effective time period, etc.
ADOT Maintenance Group	MCM Incident Management	The center shall exchange incident and threat information with emergency management centers as well as traffic management centers; including notification of existence of incident and expected severity, location, time and nature of incident.
ADOT Maintenance Group	MCM Incident Management	The center shall coordinate planning for incidents with emergency management centers - including pre-planning activities for disaster response, evacuation, and recovery operations.
ADOT Maintenance Group	MCM Incident Management	The center shall respond to requests from emergency management to provide maintenance and construction resources to implement response plans, assist in clean up, verify an incident, etc. This may also involve coordination with traffic management centers and other maintenance centers.
ADOT Maintenance Group	MCM Incident Management	The center shall exchange road network status assessment information with emergency management and traffic management centers including an assessment of damage sustained by the road network including location and extent of the damage, estimate of remaining capacity, required closures, alternate routes, necessary restrictions, and time frame for repair and recovery.
ADOT Maintenance Group	MCM Incident Management	The center shall provide work zone activities affecting the road network including the nature of the maintenance or construction activity, location, impact to the roadway, expected time(s) and duration of impact, anticipated delays, alternate routes, and suggested speed limits. This information may be augmented with images that provide a visual indication of current work zone status and traffic impacts.
ADOT Maintenance Group	MCM Incident Management	The center shall receive information indicating the damage sustained by transportation assets, derived from aerial surveillance, field reports, inspections, tests, and analyses to support incident management.
ADOT Maintenance Group	MCM Work Activity Coordination	The center shall provide work zone activities affecting the road network including the nature of the maintenance or construction activity, location, impact to the roadway, expected time(s) and duration of impact, anticipated delays, alternate routes, and suggested speed limits. This information may be augmented with images that provide a visual indication of current work zone status and traffic impacts.
ADOT Maintenance Group	MCM Work Activity Coordination	The center shall provide status information about scheduled maintenance and construction activities including anticipated closures and impact to the roadway, alternate routes, anticipated delays, closure times, and durations. The information is provided to other management centers such as traffic, emergency, transit, traveler information providers, other maintenance centers, multimodal transportation providers, rail operations, and the media.
ADOT Maintenance Group	MCM Work Activity Coordination	The center shall collect and respond to feedback concerning scheduled maintenance and construction activities with other management centers such as traffic, emergency, transit, and rail operations.
ADOT Maintenance Group	MCM Work Activity Coordination	The center shall collect and disseminate asset restriction information levied on transportation asset usage based on infrastructure design, surveys, tests, or analyses. This includes standard facility design height, width, and weight restrictions, special restrictions such as spring weight restrictions, and temporary facility restrictions that are imposed during maintenance and construction.
ADOT Maintenance Group	MCM Work Activity Coordination	The center shall exchange information with administrative systems to support the planning and scheduling of maintenance and construction activities. This information includes: equipment and consumables resupply purchase request status, personnel qualifications including training and special certifications, environmental regulations and rules that may impact maintenance activities, and requests and project requirements from contract administration.
ADOT Maintenance Group	MCM Work Activity Coordination	The center shall exchange rail schedules and work plans with rail operations centers.
ADOT Maintenance Group	MCM Work Zone Safety Management	The center shall provide remote monitoring and control of work zone safety devices - including intrusion detection devices that have been installed in work zones or maintenance areas.
ADOT Maintenance Group	MCM Work Zone Safety Management	The center shall provide remote monitoring and control of intrusion alert devices that have been installed in work zones or maintenance areas.
ADOT Maintenance Group	MCM Work Zone Safety Management	The center shall collect status information of work zone safety device status from field equipment or the maintenance and construction vehicles.
ADOT Maintenance Group	MCM Work Zone Safety Management	The center shall collect and store work zone data collected from work zone monitoring devices (such as intrusion detection or alert devices and speed monitoring devices) on-board the vehicle and at the roadside.

Element Name	Equipment Package Name	Requirement
ADOT Ramp Meters	Roadway Signal Priority	The field element shall respond to requests for indicator (e.g., signal) preemption requests from emergency vehicles at ramp meters.
ADOT Ramp Meters	Roadway Traffic Metering	The field element shall regulate the flow of traffic on ramps, interchanges, and the mainline, under center control.
ADOT Ramp Meters	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
ADOT Ramp Meters	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
ADOT Ramp Meters	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
ADOT Ramp Meters	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
ADOT TOC	Collect Traffic Surveillance	The center shall monitor, analyze, and store traffic sensor data (speed, volume, occupancy) collected from field elements under remote control of the center.
ADOT TOC	TMC Environmental Monitoring	The center shall remotely control environmental sensors that measure road surface temperature, moisture, icing, salinity, and other measures.
ADOT TOC	TMC Incident Detection	The center shall receive inputs from the Alerting and Advisory System concerning the possibility or occurrence of severe weather, terrorist activity, or other major emergency, including information provided by the Emergency Alert System.
ADOT TOC	TMC Incident Dispatch Coordination/Communication	The center shall exchange alert information and status with emergency management centers. The information includes notification of a major emergency such as a natural or man-made disaster, civil emergency, or child abduction for distribution to the public. The information may include the alert originator, the nature of the emergency, the geographic area affected by the emergency, the effective time period, and information and instructions necessary for the public to respond to the alert. This may also identify specific information that should not be released to the public.
ADOT TOC	TMC Regional Traffic Management	The center shall exchange traffic information with other traffic management centers including incident information, congestion data, traffic data, signal timing plans, and real-time signal control information.
ADOT TOC	TMC Signal Control	The center shall remotely control traffic signal controllers.
ADOT TOC	TMC Traffic Information Dissemination	The center shall remotely control dynamic messages signs for dissemination of traffic and other information to drivers.
ADOT TOC	TMC Traffic Metering	The center shall remotely control systems to manage use of the freeways, including ramp, interchange, and mainline metering.
ADOT TOC	Traffic Equipment Maintenance	The center shall collect and store sensor (traffic, pedestrian, multimodal crossing) operational status.
ADOT TOC	Traffic Data Collection	The center shall collect traffic management data such as operational data, event logs, etc.
ADOT TOC	Traffic Data Collection	The center shall assign quality control metrics and meta-data to be stored along with the data. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
ADOT TOC	Traffic Data Collection	The center shall receive and respond to requests from ITS Archives for either a catalog of the traffic data or for the data itself.
ADOT TOC	Traffic Data Collection	The center shall be able to produce sample products of the data available.
ADOT TOC	Emergency Data Collection	The center shall collect emergency service data, emergency vehicle management data, emergency vehicle data, sensor and surveillance data, threat data, and incident data.
ADOT TOC	Emergency Data Collection	The center shall assign quality control metrics and meta-data to be stored along with the data. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
ADOT TOC	Emergency Data Collection	The center shall receive and respond to requests from ITS Archives for either a catalog of the emergency management data or for the data itself.
ADOT TOC	Emergency Data Collection	The center shall be able to produce sample products of the data available.
ADOT TOC	Service Patrol Management	The center shall dispatch roadway service patrol vehicles to identified incident locations.
ADOT TOC	Service Patrol Management	The center shall store the current status of all service patrol vehicles available for dispatch and those that have been dispatched.
ADOT TOC	Service Patrol Management	The center shall share incident information collected by the service patrol with traffic, maintenance and construction, and traveler information centers for incident management, incident notification to travelers, and incident cleanup.
ADOT TOC	Service Patrol Management	The center shall track the location and status of service patrol vehicles.
ADOT TOC	TMC Work Zone Traffic Management	The center shall receive work zone images from a maintenance center.
ADOT TOC	TMC Work Zone Traffic Management	The center shall analyze work zone images for indications of a possible incident.

Element Name	Equipment Package Name	Requirement
ADOT TOC	TMC Work Zone Traffic Management	The center shall remotely control driver information systems (such as dynamic messages signs, highway advisory radios) to advise drivers of activity around a work zone.
ADOT TOC	TMC Work Zone Traffic Management	The center shall collect operational status for the driver information systems equipment in work zones.
ADOT TOC	TMC Work Zone Traffic Management	The center shall collect fault data for the driver information systems equipment in work zones for repair.
ADOT TOC	TMC Work Zone Traffic Management	The center shall receive proposed maintenance and construction work plans, analyze the activity as a possible incident, and provide work plan feedback to the sending center.
ADOT TOC	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways). The data may be raw or pre-processed in the field.
ADOT TOC	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers). The data may be raw or pre-processed in the field.
ADOT TOC	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected on-board transit vehicles. The data may be raw or pre-processed in the field.
ADOT TOC	Center Secure Area Surveillance	The center shall exchange surveillance data with other emergency centers.
ADOT TOC	Center Secure Area Surveillance	The center shall identify potential security threats based on collected security surveillance data.
ADOT TOC	Center Secure Area Surveillance	The center shall verify potential security threats by correlating security surveillance data from multiple sources.
ADOT TOC	Center Secure Area Surveillance	The center shall remotely control security surveillance devices in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways).
ADOT TOC	Center Secure Area Surveillance	The center shall remotely control security surveillance devices in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers).
ADOT TOC	Center Secure Area Surveillance	The center shall remotely control security surveillance devices on-board transit vehicles.
ADOT TOC	Center Secure Area Surveillance	The center shall match traveler video images against a database from the Alerting and Advisory Systems of known images that may represent criminals and terrorists.
ADOT TOC	Center Secure Area Surveillance	The center shall exchange traveler images with other emergency management centers to support traveler image matching.
ADOT TOC	Center Secure Area Surveillance	The center shall respond to control data from center personnel regarding security surveillance data collection, processing, threat detection, and image matching.
ADOT TOC	Center Secure Area Surveillance	The center shall monitor maintenance status of the security sensor field equipment.
ADOT TOC	Incident Command	The center shall provide tactical decision support, resource coordination, and communications integration for Incident Commands that are established by first responders to support local management of an incident.
ADOT TOC	Incident Command	The center shall provide incident command communications with public safety, emergency management, transportation, and other allied response agency centers.
ADOT TOC	Incident Command	The center shall track and maintain resource information and action plans pertaining to the incident command.
ADOT TOC	Incident Command	The center shall share incident command information with other public safety agencies including resource deployment status, hazardous material information, rail incident information, evacuation advice as well as traffic, road, and weather conditions.
ADOT TOC	Incident Command	The center shall assess the status of responding emergency vehicles as part of an incident command.
ADOT TOC	Emergency Early Warning System	The center shall monitor information from Alerting and Advisory Systems such as the Information Sharing and Analysis Centers (ISACs), the National Infrastructure Protection Center (NIPC), the Homeland Security Advisory System (HSAS), etc. The information may include assessments (general incident and vulnerability awareness information), advisories (identification of threats or recommendations to increase preparedness levels), or alerts (information on imminent or in-progress emergencies).
ADOT TOC	Emergency Early Warning System	The center shall provide the capability to correlate alerts and advisories, incident information, and security sensor and surveillance data.
ADOT TOC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to traffic management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.

Element Name	Equipment Package Name	Requirement
ADOT TOC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to transit management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
ADOT TOC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to toll administration centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
ADOT TOC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to traveler information service providers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
ADOT TOC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to maintenance centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
ADOT TOC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to other emergency management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
ADOT TOC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to commercial vehicle administration centers and roadside check facilities for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
ADOT TOC	Emergency Early Warning System	The center shall process status information from each of the centers that have been sent the wide-area alert.
ADOT TOC	Emergency Early Warning System	The center shall coordinate the broadcast of wide-area alerts and advisories with other emergency management centers.
ADOT TOC	Emergency Early Warning System	The center shall receive incident information from other transportation management centers to support the early warning system.
ADOT TOC	Emergency Early Warning System	The center shall present the alert and advisory information and the status of the actions taken in response to the alert by the other centers to the emergency system operator as received from other system inputs.
ADOT TOC	Emergency Early Warning System	The center shall support the entry of alert and advisory information directly from the emergency system operator.
ADOT TOC	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways). The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors), infrastructure condition and integrity, intrusion and motion, and object detection sensors. The data may be raw or pre-processed in the field.
ADOT TOC	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers). The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors), intrusion and motion, and object detection sensors. The data may be raw or pre-processed in the field.
ADOT TOC	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected on-board transit vehicles. The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors) and object detection sensors. The data may be raw or pre-processed in the field.
ADOT TOC	Center Secure Area Sensor Management	The center shall exchange security sensor data with other emergency centers.
ADOT TOC	Center Secure Area Sensor Management	The center shall identify potential security threats based on collected security sensor data.
ADOT TOC	Center Secure Area Sensor Management	The center shall verify potential security threats by correlating security sensor data from multiple sources.
ADOT TOC	Center Secure Area Sensor Management	The center shall perform threat analysis based on correlations of security sensor and surveillance data.
ADOT TOC	Center Secure Area Sensor Management	The center shall exchange threat analysis data with Alerting and Advisory Systems and use that data in local threat analysis processing.
ADOT TOC	Center Secure Area Sensor Management	The center shall disseminate threat information to other agencies, including traffic, transit, maintenance, rail operations, and other emergency management centers.
ADOT TOC	Center Secure Area Sensor Management	The center shall respond to control data from center personnel regarding security sensor data collection, processing, threat detection, and threat analysis.

Element Name	Equipment Package Name	Requirement
ADOT TOC	Center Secure Area Sensor Management	The center shall request activation of barriers and safeguards on request from center personnel.
ADOT TOC	Center Secure Area Sensor Management	The center shall monitor maintenance status of the security sensor field equipment.
ADOT TOC	TMC Variable Speed Limits	The center shall monitor data on traffic and environmental conditions collected from sensors along the roadway.
ADOT TOC	TMC Variable Speed Limits	Based on the measured data, the center shall calculate and set suitable speed limits by lane.
ADOT TOC	TMC Variable Speed Limits	The center shall control field equipment that posts the current speed limits and displays additional information such as basic safety rules and current traffic information to drivers.
ADOT TOC	TMC Variable Speed Limits	The center shall monitor the operational status of the variable speed limit equipment, including fault reports.
ADOT TOC	TMC Variable Speed Limits	The center shall provide center personnel current system status and respond to control data from center personnel regarding variable speed limits and
ADOT TOC	TMC Dynamic Lane Management and Shoulder Use	The center shall remotely monitor and control dynamically managed travel lanes.
ADOT TOC	TMC Dynamic Lane Management and Shoulder Use	The center shall monitor traffic conditions and demand measured per lane.
ADOT TOC	TMC Dynamic Lane Management and Shoulder Use	The center shall receive input from Border Inspection Systems to identify existing and planned lane configurations at the border.
ADOT TOC	TMC Dynamic Lane Management and Shoulder Use	The center shall receive input from multimodal crossings such as draw bridges to identify existing and planned lane configurations at the crossings.
ADOT TOC	TMC Dynamic Lane Management and Shoulder Use	The center shall receive input from Intermodal Freight Depots to support monitoring and anticipation of commercial vehicle traffic originating at the depot and requests for dynamic lane management in the vicinity of the depot.
ADOT TOC	TMC Dynamic Lane Management and Shoulder Use	The center shall monitor and coordinate dynamic lane controls with adjacent jurisdictions.
ADOT TOC	TMC Dynamic Lane Management and Shoulder Use	Based on the collected data and operator input, the center shall determine suggested and required lane control configuration changes.
ADOT TOC	TMC Dynamic Lane Management and Shoulder Use	The center shall support temporary use of shoulders as travel lanes.
ADOT TOC	TMC Dynamic Lane Management and Shoulder Use	The center shall designate lanes for use by special vehicles only, such as buses, high occupancy vehicles (HOVs), or vehicles attending a special event.
ADOT TOC	TMC Dynamic Lane Management and Shoulder Use	The center shall identify lane use restrictions, prohibiting specific types of vehicles (e.g., commercial vehicles) from specific lanes.
ADOT TOC	TMC Dynamic Lane Management and Shoulder Use	The center shall activate lane management field equipment that is used to dynamically manage specific lanes and shoulders.
ADOT TOC	TMC Dynamic Lane Management and Shoulder Use	The center shall reconfigure intersections and interchanges for compatibility with the current lane configuration.
ADOT TOC	TMC Dynamic Lane Management and Shoulder Use	The center shall notify the enforcement agency of violators of the lane controls.
ADOT TOC	TMC Roadway Warning	The center shall monitor data on traffic, environmental conditions, and other hazards collected from sensors along the roadway.
ADOT TOC	TMC Roadway Warning	The center shall identify hazardous road weather and surface conditions.
ADOT TOC	TMC Roadway Warning	The center shall identify hazardous traffic conditions including queues.
ADOT TOC	TMC Roadway Warning	The center shall identify debris, animals, or other encroachment on the roadway dangerous to approaching motorists.
ADOT TOC	TMC Roadway Warning	The center shall issue control commands to field equipment warning drivers approaching the identified hazardous conditions.
ADOT TOC	TMC Roadway Warning	The center shall monitor the operational status of the dynamic warning equipment, including fault reports.
ADOT Traffic Signals	Roadway Signal Controls	The field element shall control traffic signals under center control.

Element Name	Equipment Package Name	Requirement
ADOT Traffic Signals	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
ADOT Traffic Signals	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
ADOT Traffic Signals	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
ADOT Traffic Signals	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
ADOT Vehicle Detectors	Roadway Basic Surveillance	The field element shall collect, process, digitize, and send traffic sensor data (speed, volume, and occupancy) to the center for further analysis and storage, under center control.
ADOT Vehicle Detectors	Roadway Probe Data Communications	The field element shall communicate with passing vehicles for traffic data link time calculations and send collected data to the controlling center; identification will be removed to ensure anonymity.
ADOT Vehicle Detectors	Roadway Data Collection	The field element shall collect traffic, road, and environmental conditions information.
ADOT Vehicle Detectors	Roadway Data Collection	The field element shall include the sensors and supporting roadside devices that sense, collect, and send traffic, road, and environmental conditions information to a center for archival.
ADOT Vehicle Detectors	Roadway Data Collection	The field element shall collect sensor status and sensor faults from roadside equipment and send it along with the recorded data to a center for archival.
ADOT Vehicle Detectors	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
ADOT Vehicle Detectors	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
ADOT Vehicle Detectors	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
ADOT Vehicle Detectors	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
ADOT Vehicle Detectors	Roadway Work Zone Safety	The field element shall include work zone intrusion detection devices that detect when a vehicle has intruded upon the boundary of a work zone, under center control.
ADOT Vehicle Detectors	Roadway Work Zone Safety	The field element shall include work zone intrusion detection devices that detect when crew workers have crossed the boundary between the work zone and vehicle traffic, under center control.
ADOT Vehicle Detectors	Roadway Work Zone Safety	The field element shall include work zone intrusion alerting devices that alert crew workers of a work zone emergency or safety issue such as the intrusion of a vehicle into the work zone area or movement of field crew into the travel lanes.
ADOT Vehicle Detectors	Roadway Work Zone Safety	The field element shall include work zone intrusion alerting devices that notify crew via maintenance vehicles of a work zone emergency or safety issue such as the intrusion of a vehicle into the work zone area or movement of field crew into the travel lanes.
ADOT Vehicle Detectors	Roadway Work Zone Safety	The field element shall include work zone intrusion alerting devices that alert drivers that they have intruded upon the perimeter of the work zone, or are about to do so; may provide alerts to drivers directly or via in-vehicle signing.
ADOT Vehicle Detectors	Roadway Work Zone Safety	The field element shall provide operational status for the work zone intrusion detection devices to the maintenance center.
ADOT Vehicle Detectors	Roadway Work Zone Safety	The field element shall provide fault data for the work zone intrusion detection devices to the maintenance center for repair.
ADOT Vehicle Detectors	Roadway Work Zone Safety	The field element shall provide operational status for the work zone intrusion alerting devices to the maintenance center.
ADOT Vehicle Detectors	Roadway Work Zone Safety	The field element shall provide fault data for the work zone intrusion alerting devices to the maintenance center for repair.
Arizona DPS	Emergency Call-Taking	The center shall support the interface to the Emergency Telecommunications System (e.g. 911 or 7-digit call routing) to receive emergency notification information and provide it to the emergency system operator.
Arizona DPS	Emergency Dispatch	The center shall dispatch emergency vehicles to respond to verified emergencies under center personnel control.
Arizona DPS	Emergency Call-Taking	The center shall receive emergency call information from 911 services and present the possible incident information to the emergency system operator.
Arizona DPS	Emergency Call-Taking	The center shall receive emergency notification information from other public safety agencies and present the possible incident information to the emergency system operator.
Arizona DPS	Emergency Call-Taking	The center shall receive emergency notification information from public transit systems and present the possible incident information to the emergency system operator.
Arizona DPS	Emergency Call-Taking	The center shall coordinate, correlate, and verify all emergency inputs, including those identified based on external calls and internal analysis of security sensor and surveillance data, and assign each a level of confidence.
Arizona DPS	Emergency Call-Taking	The center shall send a request for remote control of CCTV systems from a traffic management center in order to verify the reported incident.

Element Name	Equipment Package Name	Requirement
Arizona DPS	Emergency Call-Taking	The center shall forward the verified emergency information to the responding agency based on the location and nature of the emergency.
Arizona DPS	Emergency Call-Taking	The center shall update the incident information log once the emergency system operator has verified the incident.
Arizona DPS	Emergency Dispatch	The center shall track the location and status of emergency vehicles responding to an emergency based on information from the emergency vehicle.
Arizona DPS	Emergency Dispatch	The center shall store and maintain the emergency service responses in an action log.
Arizona DPS	Emergency Dispatch	The center shall provide the capability to request remote control of traffic surveillance devices
Arizona DPS	Emergency Dispatch	The center shall coordinate response to incidents with other Emergency Management centers to ensure appropriate resources are dispatched and utilized.
Arizona DPS	Emergency Response Management	The center shall provide strategic emergency response capabilities provided by an Emergency Operations Center for large-scale incidents and disasters.
Arizona DPS	Emergency Response Management	The center shall manage coordinated inter-agency responses to and recovery from large-scale emergencies. Such agencies include traffic management, transit, maintenance and construction management, rail operations, and other emergency management agencies.
Arizona DPS	Emergency Response Management	The center shall provide the capability to implement response plans and track progress through the incident by exchanging incident information and response status with allied agencies.
Arizona DPS	Emergency Response Management	The center shall develop, coordinate with other agencies, and store emergency response plans.
Arizona DPS	Emergency Response Management	The center shall track the availability of resources and coordinate resource sharing with allied agency centers including traffic, maintenance, or other emergency centers.
Arizona DPS	Emergency Response Management	The center shall allocate the appropriate emergency services, resources, and vehicle (s) to respond to incidents, and shall provide the capability to override the current allocation to suit the special needs of a current incident.
Arizona DPS	Emergency Response Management	The center shall receive event scheduling information from Event Promoters.
Arizona DPS	Emergency Response Management	The center shall support remote control of field equipment normally under control of the traffic management center including traffic signals, dynamic message signs, gates, and barriers.
Arizona DPS	Emergency Response Management	The center shall provide the capability to remotely control and monitor CCTV systems normally operated by a traffic management center.
Arizona DPS	Emergency Response Management	The center shall provide the capability to request transit resource availability from transit centers for use during disaster and evacuation operations.
Arizona DPS	Emergency Response Management	The center shall assimilate the damage assessment of the transit, traffic, rail, maintenance, and other emergency center services and systems to create an overall transportation system status, and disseminate to each of these centers and the traveling public via traveler information providers.
Arizona DPS	Emergency Response Management	The center shall provide information to the media concerning the status of an emergency response.
Arizona DPS	Emergency Response Management	The center shall provide the capability for digitized map data to act as the background to the information presented to the emergency system operator.
Arizona DPS	Emergency Response Management	The center shall provide the capability for center personnel to provide inputs to the management of incidents, disasters and evacuations.
Arizona DPS	Emergency Response Management	The center shall collect information about the status of the recovery efforts for the infrastructure during disasters.
Arizona DPS	Emergency Response Management	The center shall provide the overall status of infrastructure recovery efforts to traveler information providers and media.
Arizona DPS	Emergency Response Management	The center shall provide the capability to communicate information about emergency situations to local population through the Emergency Telecommunications System.
Arizona DPS	Emergency Response Management	The center shall provide the capability to identify neighborhoods and businesses that should be informed of an emergency situation based on information collected about incidents including their severity, impacted locations, and recovery schedule.
Arizona DPS	Emergency Response Management	The center shall retrieve information from public health systems to increase preparedness for, and implement a response to biological, chemical, radiation, and other public health emergencies.
Arizona DPS	Emergency Response Management	The center shall manage coordinated inter-agency responses to incidents at an international border.
Arizona DPS	Service Patrol Management	The center shall dispatch roadway service patrol vehicles to identified incident locations.
Arizona DPS	Service Patrol Management	The center shall store the current status of all service patrol vehicles available for dispatch and those that have been dispatched.
Arizona DPS	Service Patrol Management	The center shall share incident information collected by the service patrol with traffic, maintenance and construction, and traveler information centers for incident management, incident notification to travelers, and incident cleanup.
Arizona DPS	Service Patrol Management	The center shall track the location and status of service patrol vehicles.

Element Name	Equipment Package Name	Requirement
Arizona DPS	Emergency Environmental Monitoring	The center shall collect current and forecast road and weather information from weather service providers (such as the National Weather Service and value-added sector specific meteorological services).
Arizona DPS	Emergency Environmental Monitoring	The center shall collect current road and weather information from roadway maintenance operations.
Arizona DPS	Emergency Environmental Monitoring	The center shall assimilate current and forecast road conditions and surface weather information to support incident management.
Arizona DPS	Emergency Environmental Monitoring	The center shall present the current and forecast road and weather information to the emergency system operator.
Arizona DPS	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways). The data may be raw or pre-processed in the field.
Arizona DPS	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers). The data may be raw or pre-processed in the field.
Arizona DPS	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected on-board transit vehicles. The data may be raw or pre-processed in the field.
Arizona DPS	Center Secure Area Surveillance	The center shall exchange surveillance data with other emergency centers.
Arizona DPS	Center Secure Area Surveillance	The center shall identify potential security threats based on collected security surveillance data.
Arizona DPS	Center Secure Area Surveillance	The center shall verify potential security threats by correlating security surveillance data from multiple sources.
Arizona DPS	Center Secure Area Surveillance	The center shall remotely control security surveillance devices in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways).
Arizona DPS	Center Secure Area Surveillance	The center shall remotely control security surveillance devices in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers).
Arizona DPS	Center Secure Area Surveillance	The center shall remotely control security surveillance devices on-board transit vehicles.
Arizona DPS	Center Secure Area Surveillance	The center shall match traveler video images against a database from the Alerting and Advisory Systems of known images that may represent criminals and terrorists.
Arizona DPS	Center Secure Area Surveillance	The center shall exchange traveler images with other emergency management centers to support traveler image matching.
Arizona DPS	Center Secure Area Surveillance	The center shall respond to control data from center personnel regarding security surveillance data collection, processing, threat detection, and image matching.
Arizona DPS	Center Secure Area Surveillance	The center shall monitor maintenance status of the security sensor field equipment.
Arizona DPS	Emergency Routing	The center shall collect current traffic and road condition information for emergency vehicle route calculation.
Arizona DPS	Emergency Routing	The center shall receive information on the location and status of traffic control equipment and work zones along potential emergency routes.
Arizona DPS	Emergency Routing	The center shall receive status information from care facilities to determine the appropriate facility and its location.
Arizona DPS	Emergency Routing	The center shall receive asset restriction information to support the dispatching of appropriate emergency resources.
Arizona DPS	Emergency Routing	The center shall receive current railroad schedule information for emergency vehicle route calculation.
Arizona DPS	Emergency Routing	The center shall track current emergency vehicle location and status.
Arizona DPS	Emergency Routing	The center shall calculate emergency vehicle routes, under center personnel control, based on the collected traffic and road conditions information.
Arizona DPS	Emergency Routing	The center shall request and receive ingress and egress routes or other specialized emergency access routes from the traffic management center.
Arizona DPS	Emergency Routing	The center shall provide the capability to request special traffic control measures, such as signal preemption, from the traffic management center to facilitate emergency vehicle progress along the suggested route.
Arizona DPS	Emergency Routing	Once the route is calculated the route shall be provided to the dispatch function.
Arizona DPS	Emergency Routing	The center shall provide the capability for digitized map data to act as the background to the information presented to the emergency system operator.
Arizona DPS	Incident Command	The center shall provide tactical decision support, resource coordination, and communications integration for Incident Commands that are established by first responders to support local management of an incident.

Element Name	Equipment Package Name	Requirement
Arizona DPS	Incident Command	The center shall provide incident command communications with public safety, emergency management, transportation, and other allied response agency centers.
Arizona DPS	Incident Command	The center shall track and maintain resource information and action plans pertaining to the incident command.
Arizona DPS	Incident Command	The center shall share incident command information with other public safety agencies including resource deployment status, hazardous material information, rail incident information, evacuation advice as well as traffic, road, and weather conditions.
Arizona DPS	Incident Command	The center shall assess the status of responding emergency vehicles as part of an incident command.
Arizona DPS	Emergency Early Warning System	The center shall monitor information from Alerting and Advisory Systems such as the Information Sharing and Analysis Centers (ISACs), the National Infrastructure Protection Center (NIPC), the Homeland Security Advisory System (HSAS), etc. The information may include assessments (general incident and vulnerability awareness information), advisories (identification of threats or recommendations to increase preparedness levels), or alerts (information on imminent or in-progress emergencies).
Arizona DPS	Emergency Early Warning System	The center shall provide the capability to correlate alerts and advisories, incident information, and security sensor and surveillance data.
Arizona DPS	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to traffic management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Arizona DPS	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to transit management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Arizona DPS	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to toll administration centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Arizona DPS	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to traveler information service providers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Arizona DPS	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to maintenance centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Arizona DPS	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to other emergency management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Arizona DPS	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to commercial vehicle administration centers and roadside check facilities for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Arizona DPS	Emergency Early Warning System	The center shall process status information from each of the centers that have been sent the wide-area alert.
Arizona DPS	Emergency Early Warning System	The center shall coordinate the broadcast of wide-area alerts and advisories with other emergency management centers.
Arizona DPS	Emergency Early Warning System	The center shall receive incident information from other transportation management centers to support the early warning system.
Arizona DPS	Emergency Early Warning System	The center shall present the alert and advisory information and the status of the actions taken in response to the alert by the other centers to the emergency system operator as received from other system inputs.
Arizona DPS	Emergency Early Warning System	The center shall support the entry of alert and advisory information directly from the emergency system operator.
Arizona DPS	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways). The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors), infrastructure condition and integrity, intrusion and motion, and object detection sensors. The data may be raw or pre-processed in the field.

Element Name	Equipment Package Name	Requirement
Arizona DPS	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers). The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors), intrusion and motion, and object detection sensors. The data may be raw or pre-processed in the field.
Arizona DPS	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected on-board transit vehicles. The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors) and object detection sensors. The data may be raw or pre-processed in the field.
Arizona DPS	Center Secure Area Sensor Management	The center shall exchange security sensor data with other emergency centers.
Arizona DPS	Center Secure Area Sensor Management	The center shall identify potential security threats based on collected security sensor data.
Arizona DPS	Center Secure Area Sensor Management	The center shall verify potential security threats by correlating security sensor data from multiple sources.
Arizona DPS	Center Secure Area Sensor Management	The center shall perform threat analysis based on correlations of security sensor and surveillance data.
Arizona DPS	Center Secure Area Sensor Management	The center shall exchange threat analysis data with Alerting and Advisory Systems and use that data in local threat analysis processing.
Arizona DPS	Center Secure Area Sensor Management	The center shall disseminate threat information to other agencies, including traffic, transit, maintenance, rail operations, and other emergency management centers.
Arizona DPS	Center Secure Area Sensor Management	The center shall respond to control data from center personnel regarding security sensor data collection, processing, threat detection, and threat analysis.
Arizona DPS	Center Secure Area Sensor Management	The center shall request activation of barriers and safeguards on request from center personnel.
Arizona DPS	Center Secure Area Sensor Management	The center shall monitor maintenance status of the security sensor field equipment.
Arizona DPS FSP	On-board EV En Route Support	The emergency vehicle, including roadway service patrols, shall track its current location.
Arizona DPS FSP	On-board EV Incident Management Communication	The emergency vehicle shall receive dispatch instructions sufficient to enable emergency personnel in the field to implement an effective incident response. It includes local traffic, road, and weather conditions, hazardous material information, and the current status of resources that have been allocated to an incident.
Arizona DPS Vehicles	On-board EV En Route Support	The emergency vehicle, including roadway service patrols, shall track its current location.
AZTech RADS	Interactive Infrastructure Information	The center shall disseminate customized traffic and highway condition information to travelers, including incident information, detours and road closures, recommended routes, and current speeds on specific routes upon request.
AZTech RADS	ISP Probe Information Collection	The center shall collect traffic probe data (speeds, travel times, etc.) from appropriately equipped vehicles and short range communications equipment.
AZTech RADS	ITS Data Repository	The center shall collect data to be archived from one or more data sources.
AZTech RADS	ITS Data Repository	The center shall include capabilities for archive to archive coordination.
AZTech RADS	ITS Data Repository	The center shall support a broad range of archived data management implementations, ranging from simple data marts that collect a focused set of data and serve a particular user community to large-scale data warehouses that collect, integrate, and summarize transportation data from multiple sources and serve a broad array of users within a region.
AZTech RADS	ITS Data Repository	The center shall perform quality checks on received data.
AZTech RADS	ITS Data Repository	The center shall provide the capability to execute methods on the incoming data such as cleansing, summarizations, aggregations, or transformations applied to the data before it is stored in the archive.
AZTech RADS	ITS Data Repository	The center shall respond to requests from the administrator interface function to maintain the archive data.
AZTech RADS	ITS Data Repository	When data or a catalog of data is received from the archive, the center shall generate the requested data product for the users systems.
AZTech RADS	ITS Data Repository	For archive data requiring financial payment, the center shall process the financial requests and manage an interface to a Financial Institution.
AZTech RADS	Basic Information Broadcast	The center shall disseminate traffic and highway condition information to travelers, including incident information, detours and road closures, event information, recommended routes, and current speeds on specific routes.
AZTech RADS	Basic Information Broadcast	The center shall disseminate transit routes and schedules, transit transfer options, transit fares, and real-time schedule adherence information to travelers.
AZTech RADS	Basic Information Broadcast	The center shall disseminate toll fee information to travelers.
AZTech RADS	Basic Information Broadcast	The center shall disseminate event information to travelers.

Element Name	Equipment Package Name	Requirement
AZTech RADS	Basic Information Broadcast	The center shall provide the capability to support requests from the media for traffic and incident data.
AZTech RADS	Government Reporting Systems Support	The center shall provide data from an ITS archive to federal, state, or local government reporting systems.
AZTech RADS	Government Reporting Systems Support	The center shall provide the capability to select data from an ITS archive for use in government reports.
AZTech RADS	Government Reporting Systems Support	The center shall provide the capability to format data from an ITS archive suitable for input into government reports.
AZTech RADS	Government Reporting Systems Support	The center shall support requests for ITS archived data from Government Reporting Systems.
AZTech RADS	Government Reporting Systems Support	The center shall provide the applicable meta-data for any ITS archived data to satisfy government reporting system requests. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
AZTech RADS	On-Line Analysis and Mining	The center shall support the interface with Archive Data User Systems for requests for analysis of the archive data.
AZTech RADS	On-Line Analysis and Mining	The center shall provide the capability to perform activities such as data mining, data fusion, summarizations, aggregations, and recreation from archive data. This may include multidimensional analysis, selective summarization and expansion of data details, and many other advanced analysis services.
AZTech RADS	On-Line Analysis and Mining	The center shall receive the user's systems requests and develop the request to retrieve the data from the archive.
AZTech RADS	On-Line Analysis and Mining	The center shall respond to users systems requests for a catalog of the archived data analysis products available.
AZTech RADS	On-Line Analysis and Mining	For archive analysis and data mining products requiring financial payment the center shall process the financial requests and manage an interface to a Financial Institution.
AZTech RADS	ISP Data Collection	The center shall collect traveler information data, such as parking lot data, rideshare data, road network use data, vehicle probe data, and other data from traveler information system operations.
AZTech RADS	ISP Data Collection	The center shall collect traveler requests, confirmations, and payment transaction data for traveler services provided.
AZTech RADS	ISP Data Collection	The center shall assign quality control metrics and meta-data to be stored along with the data. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
AZTech RADS	ISP Data Collection	The center shall receive and respond to requests from ITS Archives for either a catalog of the traveler information data or for the data itself.
AZTech RADS	ISP Data Collection	The center shall be able to produce sample products of the data available.
AZTech RADS	Traffic Data Collection	The center shall collect traffic management data such as operational data, event logs, etc.
AZTech RADS	Traffic Data Collection	The center shall assign quality control metrics and meta-data to be stored along with the data. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
AZTech RADS	Traffic Data Collection	The center shall receive and respond to requests from ITS Archives for either a catalog of the traffic data or for the data itself.
AZTech RADS	Traffic Data Collection	The center shall be able to produce sample products of the data available.
AZTech RADS	Traffic and Roadside Data Archival	The center shall manage the collection of archive data directly from collection equipment located at the roadside.
AZTech RADS	Traffic and Roadside Data Archival	The center shall collect traffic sensor information from roadside devices.
AZTech RADS	Traffic and Roadside Data Archival	The center shall collect environmental sensor information that from roadside devices.
AZTech RADS	Traffic and Roadside Data Archival	The center shall respond to requests from the Archive Data Administer to input the parameters that control the collection process.
AZTech RADS	Traffic and Roadside Data Archival	The center shall send the request for data and control parameters to the field equipment where the information is collected and returned.
AZTech RADS	Traffic and Roadside Data Archival	The center shall record the status about the imported traffic and roadside data.
AZTech RADS	Traffic and Roadside Data Archival	The center shall use the status information to adjust the collection of traffic and roadside data.
AZTech RADS	ISP Traveler Data Collection	The center shall collect, process, and store traffic and highway condition information, including incident information, detours and road closures, event information, recommended routes, and current speeds on specific routes.
AZTech RADS	ISP Traveler Data Collection	The center shall collect, process, and store maintenance and construction information, including scheduled maintenance and construction work activities and work zone activities.
AZTech RADS	ISP Traveler Data Collection	The center shall collect, process, and store transit routes and schedules, transit transfer options, transit fares, and real-time schedule adherence information.

Element Name	Equipment Package Name	Requirement
AZTech RADS	ISP Traveler Data Collection	The center shall collect, process, and store parking information, including location, availability, and fees.
AZTech RADS	ISP Traveler Data Collection	The center shall collect, process, and store toll fee information.
AZTech RADS	ISP Traveler Data Collection	The center shall collect, process, and store current and forecast road conditions and surface weather conditions.
AZTech RADS	ISP Traveler Data Collection	The center shall collect, process, and store event information.
AZTech RADS	ISP Traveler Data Collection	The center shall collect, process, and store air quality information.
AZTech RADS	ISP Traveler Data Collection	The center shall collect, process, and store border crossing information.
AZTech RADS	ISP Short Range Communications Traveler Information Distribution	The center shall select traveler information for distribution including traffic and road conditions, incident information, maintenance and construction information, event information, transit information, parking information, and weather information.
AZTech RADS	ISP Short Range Communications Traveler Information Distribution	The center shall distribute location relevant traveler information to short range communications equipment at the roadside.
AZTech RADS	ISP Short Range Communications Traveler Information Distribution	The center shall provide the capability for a system operator to monitor connected vehicle system operation and control the type and update frequency of traveler information that is distributed.
AZTech RADS	ISP Short Range Communications Traveler Information Distribution	The center shall monitor the operational status of the DSRC roadside equipment.
AZTech RADS	ISP Short Range Communications Traveler Information Distribution	The center shall collect fault data from the roadside equipment and send to the maintenance center for repair.
AZTech RADS	ISP Short Range Communications Traveler Information Distribution	The center shall monitor maintenance status of the roadside equipment.
City of Avondale CCTV	Roadway Basic Surveillance	The field element shall collect, process, digitize, and send traffic sensor data (speed, volume, and occupancy) to the center for further analysis and storage, under center control.
City of Avondale CCTV	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Avondale CCTV	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Avondale CCTV	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Avondale CCTV	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Avondale DMS	Roadway Traffic Information Dissemination	The field element shall include dynamic messages signs for dissemination of traffic and other information to drivers, under center control; the DMS may be either those that display variable text messages, or those that have fixed format display(s) (e.g. vehicle restrictions, or lane open/close).
City of Avondale DMS	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Avondale DMS	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Avondale DMS	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Avondale DMS	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Avondale TMC	Collect Traffic Surveillance	The center shall monitor, analyze, and store traffic sensor data (speed, volume, occupancy) collected from field elements under remote control of the center.
City of Avondale TMC	HRI Traffic Management	The center shall remotely control highway-rail intersection (HRI) equipment located in the field.
City of Avondale TMC	TMC Environmental Monitoring	The center shall remotely control environmental sensors that measure road surface temperature, moisture, icing, salinity, and other measures.
City of Avondale TMC	TMC Incident Detection	The center shall receive inputs from the Alerting and Advisory System concerning the possibility or occurrence of severe weather, terrorist activity, or other major emergency, including information provided by the Emergency Alert System.
City of Avondale TMC	TMC Incident Dispatch Coordination/Communication	The center shall exchange alert information and status with emergency management centers. The information includes notification of a major emergency such as a natural or man-made disaster, civil emergency, or child abduction for distribution to the public. The information may include the alert originator, the nature of the emergency, the geographic area affected by the emergency, the effective time period, and information and instructions necessary for the public to respond to the alert. This may also identify specific information that should not be released to the public.

Element Name	Equipment Package Name	Requirement
City of Avondale TMC	TMC Regional Traffic Management	The center shall exchange traffic information with other traffic management centers including incident information, congestion data, traffic data, signal timing plans, and real-time signal control information.
City of Avondale TMC	TMC Signal Control	The center shall remotely control traffic signal controllers.
City of Avondale TMC	TMC Traffic Information Dissemination	The center shall remotely control dynamic messages signs for dissemination of traffic and other information to drivers.
City of Avondale TMC	Traffic Equipment Maintenance	The center shall collect and store sensor (traffic, pedestrian, multimodal crossing) operational status.
City of Avondale TMC	HRI Traffic Management	The center shall collect highway-rail intersection (HRI) equipment operational status and compare against the control information sent by the center.
City of Avondale TMC	HRI Traffic Management	The center shall provide the highway-rail intersection (HRI) equipment operational status to rail operations centers.
City of Avondale TMC	Traffic Data Collection	The center shall collect traffic management data such as operational data, event logs, etc.
City of Avondale TMC	Traffic Data Collection	The center shall assign quality control metrics and meta-data to be stored along with the data. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
City of Avondale TMC	Traffic Data Collection	The center shall receive and respond to requests from ITS Archives for either a catalog of the traffic data or for the data itself.
City of Avondale TMC	Traffic Data Collection	The center shall be able to produce sample products of the data available.
City of Avondale TMC	TMC Work Zone Traffic Management	The center shall receive work zone images from a maintenance center.
City of Avondale TMC	TMC Work Zone Traffic Management	The center shall analyze work zone images for indications of a possible incident.
City of Avondale TMC	TMC Work Zone Traffic Management	The center shall remotely control driver information systems (such as dynamic messages signs, highway advisory radios) to advise drivers of activity around a work zone.
City of Avondale TMC	TMC Work Zone Traffic Management	The center shall collect operational status for the driver information systems equipment in work zones.
City of Avondale TMC	TMC Work Zone Traffic Management	The center shall collect fault data for the driver information systems equipment in work zones for repair.
City of Avondale TMC	TMC Work Zone Traffic Management	The center shall receive proposed maintenance and construction work plans, analyze the activity as a possible incident, and provide work plan feedback to the sending center.
City of Avondale Traffic Signals	Roadway Signal Controls	The field element shall control traffic signals under center control.
City of Avondale Traffic Signals	Roadway Signal Priority	The field element shall respond to signal priority requests from transit vehicles.
City of Avondale Traffic Signals	Standard Rail Crossing	The field element shall collect and process, traffic sensor data in the vicinity of a highway-rail intersection (HRI).
City of Avondale Traffic Signals	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Avondale Traffic Signals	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Avondale Traffic Signals	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Avondale Traffic Signals	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Avondale Vehicle Detectors	Roadway Basic Surveillance	The field element shall collect, process, digitize, and send traffic sensor data (speed, volume, and occupancy) to the center for further analysis and storage, under center control.
City of Avondale Vehicle Detectors	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Avondale Vehicle Detectors	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Avondale Vehicle Detectors	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Avondale Vehicle Detectors	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Chandler CCTV	Roadway Basic Surveillance	The field element shall collect, process, digitize, and send traffic sensor data (speed, volume, and occupancy) to the center for further analysis and storage, under center control.
City of Chandler CCTV	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Chandler CCTV	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Chandler CCTV	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.

Element Name	Equipment Package Name	Requirement
City of Chandler CCTV	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Chandler DMS	Roadway Traffic Information Dissemination	The field element shall include dynamic messages signs for dissemination of traffic and other information to drivers, under center control; the DMS may be either those that display variable text messages, or those that have fixed format display(s) (e.g. vehicle restrictions, or lane open/close).
City of Chandler DMS	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Chandler DMS	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Chandler DMS	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Chandler DMS	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Chandler TMC	Collect Traffic Surveillance	The center shall monitor, analyze, and store traffic sensor data (speed, volume, occupancy) collected from field elements under remote control of the center.
City of Chandler TMC	HRI Traffic Management	The center shall remotely control highway-rail intersection (HRI) equipment located in the field.
City of Chandler TMC	TMC Environmental Monitoring	The center shall remotely control environmental sensors that measure road surface temperature, moisture, icing, salinity, and other measures.
City of Chandler TMC	TMC Incident Detection	The center shall receive inputs from the Alerting and Advisory System concerning the possibility or occurrence of severe weather, terrorist activity, or other major emergency, including information provided by the Emergency Alert System.
City of Chandler TMC	TMC Incident Dispatch Coordination/Communication	The center shall exchange alert information and status with emergency management centers. The information includes notification of a major emergency such as a natural or man-made disaster, civil emergency, or child abduction for distribution to the public. The information may include the alert originator, the nature of the emergency, the geographic area affected by the emergency, the effective time period, and information and instructions necessary for the public to respond to the alert. This may also identify specific information that should not be released to the public.
City of Chandler TMC	TMC Multimodal Coordination	The center shall respond to requests from transit management centers for signal priority at one or more intersections along a particular transit route.
City of Chandler TMC	TMC Regional Traffic Management	The center shall exchange traffic information with other traffic management centers including incident information, congestion data, traffic data, signal timing plans, and real-time signal control information.
City of Chandler TMC	TMC Signal Control	The center shall remotely control traffic signal controllers.
City of Chandler TMC	TMC Traffic Information Dissemination	The center shall remotely control dynamic messages signs for dissemination of traffic and other information to drivers.
City of Chandler TMC	Traffic Equipment Maintenance	The center shall collect and store sensor (traffic, pedestrian, multimodal crossing) operational status.
City of Chandler TMC	HRI Traffic Management	The center shall collect highway-rail intersection (HRI) equipment operational status and compare against the control information sent by the center.
City of Chandler TMC	HRI Traffic Management	The center shall provide the highway-rail intersection (HRI) equipment operational status to rail operations centers.
City of Chandler TMC	Traffic Data Collection	The center shall collect traffic management data such as operational data, event logs, etc.
City of Chandler TMC	Traffic Data Collection	The center shall assign quality control metrics and meta-data to be stored along with the data. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
City of Chandler TMC	Traffic Data Collection	The center shall receive and respond to requests from ITS Archives for either a catalog of the traffic data or for the data itself.
City of Chandler TMC	Traffic Data Collection	The center shall be able to produce sample products of the data available.
City of Chandler TMC	TMC Work Zone Traffic Management	The center shall receive work zone images from a maintenance center.
City of Chandler TMC	TMC Work Zone Traffic Management	The center shall analyze work zone images for indications of a possible incident.
City of Chandler TMC	TMC Work Zone Traffic Management	The center shall remotely control driver information systems (such as dynamic messages signs, highway advisory radios) to advise drivers of activity around a work zone.
City of Chandler TMC	TMC Work Zone Traffic Management	The center shall collect operational status for the driver information systems equipment in work zones.
City of Chandler TMC	TMC Work Zone Traffic Management	The center shall collect fault data for the driver information systems equipment in work zones for repair.
City of Chandler TMC	TMC Work Zone Traffic Management	The center shall receive proposed maintenance and construction work plans, analyze the activity as a possible incident, and provide work plan feedback to the sending center.

Element Name	Equipment Package Name	Requirement
City of Chandler Traffic Signals	Roadway Signal Controls	The field element shall control traffic signals under center control.
City of Chandler Traffic Signals	Roadway Signal Priority	The field element shall respond to signal priority requests from transit vehicles.
City of Chandler Traffic Signals	Standard Rail Crossing	The field element shall collect and process, traffic sensor data in the vicinity of a highway-rail intersection (HRI).
City of Chandler Traffic Signals	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Chandler Traffic Signals	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Chandler Traffic Signals	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Chandler Traffic Signals	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Chandler Vehicle Detectors	Roadway Basic Surveillance	The field element shall collect, process, digitize, and send traffic sensor data (speed, volume, and occupancy) to the center for further analysis and storage, under center control.
City of Chandler Vehicle Detectors	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Chandler Vehicle Detectors	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Chandler Vehicle Detectors	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Chandler Vehicle Detectors	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Glendale CCTV	Roadway Basic Surveillance	The field element shall collect, process, digitize, and send traffic sensor data (speed, volume, and occupancy) to the center for further analysis and storage, under center control.
City of Glendale CCTV	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Glendale CCTV	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Glendale CCTV	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Glendale CCTV	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Glendale DMS	Roadway Traffic Information Dissemination	The field element shall include dynamic messages signs for dissemination of traffic and other information to drivers, under center control; the DMS may be either those that display variable text messages, or those that have fixed format display(s) (e.g. vehicle restrictions, or lane open/close).
City of Glendale DMS	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Glendale DMS	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Glendale DMS	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Glendale DMS	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Glendale Parking Management System	Parking Coordination	The parking element shall exchange parking management data with other parking facilities including location, hours, availability, status, lot usage, operating strategies, and charging information.
City of Glendale Parking Management System	Parking Coordination	The parking element shall provide parking management data to traffic management centers upon request as part of the implementation of demand management programs in the region. This could include changes to hours of operation or pricing.
City of Glendale Parking Management System	Parking Coordination	The parking element shall distribute parking lot information to traffic management centers upon request to support integrated regional traffic control and parking management. This could include information on facility hours of operation and current parking availability.
City of Glendale Parking Management System	Parking Coordination	The parking element shall distribute parking lot information upon request to transit management centers for park and ride facilities, parking shuttle services, and other applications that integrate transit and parking services.
City of Glendale Parking Management System	Parking Coordination	The parking element shall distribute parking lot information upon request to traveler information providers to support travel planning.

Element Name	Equipment Package Name	Requirement
City of Glendale Parking Management System	Parking Coordination	The parking element shall support requests for parking reservations.
City of Glendale Reversible Lane Control Devices	Roadway Reversible Lanes	The field element shall monitor traffic in reversible lanes, including wrong-way vehicles, using sensors and surveillance equipment under center control.
City of Glendale Reversible Lane Control Devices	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Glendale Reversible Lane Control Devices	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Glendale Reversible Lane Control Devices	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Glendale Reversible Lane Control Devices	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Glendale TMC	Collect Traffic Surveillance	The center shall monitor, analyze, and store traffic sensor data (speed, volume, occupancy) collected from field elements under remote control of the center.
City of Glendale TMC	HRI Traffic Management	The center shall remotely control highway-rail intersection (HRI) equipment located in the field.
City of Glendale TMC	TMC Environmental Monitoring	The center shall remotely control environmental sensors that measure road surface temperature, moisture, icing, salinity, and other measures.
City of Glendale TMC	TMC Incident Detection	The center shall receive inputs from the Alerting and Advisory System concerning the possibility or occurrence of severe weather, terrorist activity, or other major emergency, including information provided by the Emergency Alert System.
City of Glendale TMC	TMC Incident Dispatch Coordination/Communication	The center shall exchange alert information and status with emergency management centers. The information includes notification of a major emergency such as a natural or man-made disaster, civil emergency, or child abduction for distribution to the public. The information may include the alert originator, the nature of the emergency, the geographic area affected by the emergency, the effective time period, and information and instructions necessary for the public to respond to the alert. This may also identify specific information that should not be released to the public.
City of Glendale TMC	TMC Regional Traffic Management	The center shall exchange traffic information with other traffic management centers including incident information, congestion data, traffic data, signal timing plans, and real-time signal control information.
City of Glendale TMC	TMC Reversible Lane Management	The center shall remotely control devices to detect traffic in reversible lanes, including wrong-way vehicles.
City of Glendale TMC	TMC Signal Control	The center shall remotely control traffic signal controllers.
City of Glendale TMC	TMC Traffic Information Dissemination	The center shall remotely control dynamic messages signs for dissemination of traffic and other information to drivers.
City of Glendale TMC	Traffic Equipment Maintenance	The center shall collect and store sensor (traffic, pedestrian, multimodal crossing) operational status.
City of Glendale TMC	HRI Traffic Management	The center shall collect highway-rail intersection (HRI) equipment operational status and compare against the control information sent by the center.
City of Glendale TMC	HRI Traffic Management	The center shall provide the highway-rail intersection (HRI) equipment operational status to rail operations centers.
City of Glendale TMC	Traffic Data Collection	The center shall collect traffic management data such as operational data, event logs, etc.
City of Glendale TMC	Traffic Data Collection	The center shall assign quality control metrics and meta-data to be stored along with the data. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
City of Glendale TMC	Traffic Data Collection	The center shall receive and respond to requests from ITS Archives for either a catalog of the traffic data or for the data itself.
City of Glendale TMC	Traffic Data Collection	The center shall be able to produce sample products of the data available.
City of Glendale TMC	TMC Work Zone Traffic Management	The center shall receive work zone images from a maintenance center.
City of Glendale TMC	TMC Work Zone Traffic Management	The center shall analyze work zone images for indications of a possible incident.
City of Glendale TMC	TMC Work Zone Traffic Management	The center shall remotely control driver information systems (such as dynamic messages signs, highway advisory radios) to advise drivers of activity around a work zone.

Element Name	Equipment Package Name	Requirement
City of Glendale TMC	TMC Work Zone Traffic Management	The center shall collect operational status for the driver information systems equipment in work zones.
City of Glendale TMC	TMC Work Zone Traffic Management	The center shall collect fault data for the driver information systems equipment in work zones for repair.
City of Glendale TMC	TMC Work Zone Traffic Management	The center shall receive proposed maintenance and construction work plans, analyze the activity as a possible incident, and provide work plan feedback to the sending center.
City of Glendale Traffic Signals	Roadway Signal Controls	The field element shall control traffic signals under center control.
City of Glendale Traffic Signals	Roadway Signal Priority	The field element shall respond to signal priority requests from transit vehicles.
City of Glendale Traffic Signals	Standard Rail Crossing	The field element shall collect and process, traffic sensor data in the vicinity of a highway-rail intersection (HRI).
City of Glendale Traffic Signals	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Glendale Traffic Signals	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Glendale Traffic Signals	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Glendale Traffic Signals	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Glendale Vehicle Detectors	Roadway Basic Surveillance	The field element shall collect, process, digitize, and send traffic sensor data (speed, volume, and occupancy) to the center for further analysis and storage, under center control.
City of Glendale Vehicle Detectors	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Glendale Vehicle Detectors	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Glendale Vehicle Detectors	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Glendale Vehicle Detectors	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Goodyear CCTV	Roadway Basic Surveillance	The field element shall collect, process, digitize, and send traffic sensor data (speed, volume, and occupancy) to the center for further analysis and storage, under center control.
City of Goodyear CCTV	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Goodyear CCTV	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Goodyear CCTV	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Goodyear CCTV	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Goodyear DMS	Roadway Traffic Information Dissemination	The field element shall include dynamic messages signs for dissemination of traffic and other information to drivers, under center control; the DMS may be either those that display variable text messages, or those that have fixed format display(s) (e.g. vehicle restrictions, or lane open/close).
City of Goodyear DMS	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Goodyear DMS	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Goodyear DMS	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Goodyear DMS	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Goodyear TMC	Collect Traffic Surveillance	The center shall monitor, analyze, and store traffic sensor data (speed, volume, occupancy) collected from field elements under remote control of the center.
City of Goodyear TMC	HRI Traffic Management	The center shall remotely control highway-rail intersection (HRI) equipment located in the field.
City of Goodyear TMC	TMC Environmental Monitoring	The center shall remotely control environmental sensors that measure road surface temperature, moisture, icing, salinity, and other measures.
City of Goodyear TMC	TMC Incident Detection	The center shall receive inputs from the Alerting and Advisory System concerning the possibility or occurrence of severe weather, terrorist activity, or other major emergency, including information provided by the Emergency Alert System.

Element Name	Equipment Package Name	Requirement
City of Goodyear TMC	TMC Incident Dispatch Coordination/Communication	The center shall exchange alert information and status with emergency management centers. The information includes notification of a major emergency such as a natural or man-made disaster, civil emergency, or child abduction for distribution to the public. The information may include the alert originator, the nature of the emergency, the geographic area affected by the emergency, the effective time period, and information and instructions necessary for the public to respond to the alert. This may also identify specific information that should not be released to the public.
City of Goodyear TMC	TMC Regional Traffic Management	The center shall exchange traffic information with other traffic management centers including incident information, congestion data, traffic data, signal timing plans, and real-time signal control information.
City of Goodyear TMC	TMC Signal Control	The center shall remotely control traffic signal controllers.
City of Goodyear TMC	TMC Traffic Information Dissemination	The center shall remotely control dynamic messages signs for dissemination of traffic and other information to drivers.
City of Goodyear TMC	Traffic Equipment Maintenance	The center shall collect and store sensor (traffic, pedestrian, multimodal crossing) operational status.
City of Goodyear TMC	HRI Traffic Management	The center shall collect highway-rail intersection (HRI) equipment operational status and compare against the control information sent by the center.
City of Goodyear TMC	HRI Traffic Management	The center shall provide the highway-rail intersection (HRI) equipment operational status to rail operations centers.
City of Goodyear TMC	Traffic Data Collection	The center shall collect traffic management data such as operational data, event logs, etc.
City of Goodyear TMC	Traffic Data Collection	The center shall assign quality control metrics and meta-data to be stored along with the data. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
City of Goodyear TMC	Traffic Data Collection	The center shall receive and respond to requests from ITS Archives for either a catalog of the traffic data or for the data itself.
City of Goodyear TMC	Traffic Data Collection	The center shall be able to produce sample products of the data available.
City of Goodyear TMC	TMC Work Zone Traffic Management	The center shall receive work zone images from a maintenance center.
City of Goodyear TMC	TMC Work Zone Traffic Management	The center shall analyze work zone images for indications of a possible incident.
City of Goodyear TMC	TMC Work Zone Traffic Management	The center shall remotely control driver information systems (such as dynamic messages signs, highway advisory radios) to advise drivers of activity around a work zone.
City of Goodyear TMC	TMC Work Zone Traffic Management	The center shall collect operational status for the driver information systems equipment in work zones.
City of Goodyear TMC	TMC Work Zone Traffic Management	The center shall collect fault data for the driver information systems equipment in work zones for repair.
City of Goodyear TMC	TMC Work Zone Traffic Management	The center shall receive proposed maintenance and construction work plans, analyze the activity as a possible incident, and provide work plan feedback to the sending center.
City of Goodyear Traffic Signals	Roadway Signal Controls	The field element shall control traffic signals under center control.
City of Goodyear Traffic Signals	Roadway Signal Priority	The field element shall respond to signal priority requests from transit vehicles.
City of Goodyear Traffic Signals	Standard Rail Crossing	The field element shall collect and process, traffic sensor data in the vicinity of a highway-rail intersection (HRI).
City of Goodyear Traffic Signals	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Goodyear Traffic Signals	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Goodyear Traffic Signals	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Goodyear Traffic Signals	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Goodyear Vehicle Detectors	Roadway Basic Surveillance	The field element shall collect, process, digitize, and send traffic sensor data (speed, volume, and occupancy) to the center for further analysis and storage, under center control.
City of Goodyear Vehicle Detectors	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Goodyear Vehicle Detectors	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Goodyear Vehicle Detectors	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Goodyear Vehicle Detectors	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.

Element Name	Equipment Package Name	Requirement
City of Mesa CCTV	Roadway Basic Surveillance	The field element shall collect, process, digitize, and send traffic sensor data (speed, volume, and occupancy) to the center for further analysis and storage, under center control.
City of Mesa CCTV	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Mesa CCTV	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Mesa CCTV	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Mesa CCTV	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Mesa DMS	Roadway Traffic Information Dissemination	The field element shall include dynamic messages signs for dissemination of traffic and other information to drivers, under center control; the DMS may be either those that display variable text messages, or those that have fixed format display(s) (e.g. vehicle restrictions, or lane open/close).
City of Mesa DMS	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Mesa DMS	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Mesa DMS	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Mesa DMS	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Mesa TMC	Collect Traffic Surveillance	The center shall monitor, analyze, and store traffic sensor data (speed, volume, occupancy) collected from field elements under remote control of the center.
City of Mesa TMC	HRI Traffic Management	The center shall remotely control highway-rail intersection (HRI) equipment located in the field.
City of Mesa TMC	TMC Environmental Monitoring	The center shall remotely control environmental sensors that measure road surface temperature, moisture, icing, salinity, and other measures.
City of Mesa TMC	TMC Incident Detection	The center shall receive inputs from the Alerting and Advisory System concerning the possibility or occurrence of severe weather, terrorist activity, or other major emergency, including information provided by the Emergency Alert System.
City of Mesa TMC	TMC Incident Dispatch Coordination/Communication	The center shall exchange alert information and status with emergency management centers. The information includes notification of a major emergency such as a natural or man-made disaster, civil emergency, or child abduction for distribution to the public. The information may include the alert originator, the nature of the emergency, the geographic area affected by the emergency, the effective time period, and information and instructions necessary for the public to respond to the alert. This may also identify specific information that should not be released to the public.
City of Mesa TMC	TMC Multimodal Coordination	The center shall respond to requests from transit management centers for signal priority at one or more intersections along a particular transit route.
City of Mesa TMC	TMC Regional Traffic Management	The center shall exchange traffic information with other traffic management centers including incident information, congestion data, traffic data, signal timing plans, and real-time signal control information.
City of Mesa TMC	TMC Signal Control	The center shall remotely control traffic signal controllers.
City of Mesa TMC	TMC Traffic Information Dissemination	The center shall remotely control dynamic messages signs for dissemination of traffic and other information to drivers.
City of Mesa TMC	Traffic Equipment Maintenance	The center shall collect and store sensor (traffic, pedestrian, multimodal crossing) operational status.
City of Mesa TMC	HRI Traffic Management	The center shall collect highway-rail intersection (HRI) equipment operational status and compare against the control information sent by the center.
City of Mesa TMC	HRI Traffic Management	The center shall provide the highway-rail intersection (HRI) equipment operational status to rail operations centers.
City of Mesa TMC	Traffic Data Collection	The center shall collect traffic management data such as operational data, event logs, etc.
City of Mesa TMC	Traffic Data Collection	The center shall assign quality control metrics and meta-data to be stored along with the data. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
City of Mesa TMC	Traffic Data Collection	The center shall receive and respond to requests from ITS Archives for either a catalog of the traffic data or for the data itself.
City of Mesa TMC	Traffic Data Collection	The center shall be able to produce sample products of the data available.
City of Mesa TMC	TMC Work Zone Traffic Management	The center shall receive work zone images from a maintenance center.
City of Mesa TMC	TMC Work Zone Traffic Management	The center shall analyze work zone images for indications of a possible incident.
City of Mesa TMC	TMC Work Zone Traffic Management	The center shall remotely control driver information systems (such as dynamic messages signs, highway advisory radios) to advise drivers of activity around a work zone.

Element Name	Equipment Package Name	Requirement
City of Mesa TMC	TMC Work Zone Traffic Management	The center shall collect operational status for the driver information systems equipment in work zones.
City of Mesa TMC	TMC Work Zone Traffic Management	The center shall collect fault data for the driver information systems equipment in work zones for repair.
City of Mesa TMC	TMC Work Zone Traffic Management	The center shall receive proposed maintenance and construction work plans, analyze the activity as a possible incident, and provide work plan feedback to the sending center.
City of Mesa Traffic Signals	Roadway Signal Controls	The field element shall control traffic signals under center control.
City of Mesa Traffic Signals	Roadway Signal Priority	The field element shall respond to signal priority requests from transit vehicles.
City of Mesa Traffic Signals	Standard Rail Crossing	The field element shall collect and process, traffic sensor data in the vicinity of a highway-rail intersection (HRI).
City of Mesa Traffic Signals	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Mesa Traffic Signals	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Mesa Traffic Signals	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Mesa Traffic Signals	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Mesa Vehicle Detectors	Roadway Basic Surveillance	The field element shall collect, process, digitize, and send traffic sensor data (speed, volume, and occupancy) to the center for further analysis and storage, under center control.
City of Mesa Vehicle Detectors	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Mesa Vehicle Detectors	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Mesa Vehicle Detectors	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Mesa Vehicle Detectors	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Peoria CCTV	Roadway Basic Surveillance	The field element shall collect, process, digitize, and send traffic sensor data (speed, volume, and occupancy) to the center for further analysis and storage, under center control.
City of Peoria CCTV	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Peoria CCTV	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Peoria CCTV	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Peoria CCTV	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Peoria DMS	Roadway Traffic Information Dissemination	The field element shall include dynamic messages signs for dissemination of traffic and other information to drivers, under center control; the DMS may be either those that display variable text messages, or those that have fixed format display(s) (e.g. vehicle restrictions, or lane open/close).
City of Peoria DMS	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Peoria DMS	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Peoria DMS	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Peoria DMS	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Peoria TMC	Collect Traffic Surveillance	The center shall monitor, analyze, and store traffic sensor data (speed, volume, occupancy) collected from field elements under remote control of the center.
City of Peoria TMC	TMC Environmental Monitoring	The center shall remotely control environmental sensors that measure road surface temperature, moisture, icing, salinity, and other measures.
City of Peoria TMC	TMC Incident Detection	The center shall receive inputs from the Alerting and Advisory System concerning the possibility or occurrence of severe weather, terrorist activity, or other major emergency, including information provided by the Emergency Alert System.
City of Peoria TMC	TMC Incident Dispatch Coordination/Communication	The center shall exchange alert information and status with emergency management centers. The information includes notification of a major emergency such as a natural or man-made disaster, civil emergency, or child abduction for distribution to the public. The information may include the alert originator, the nature of the emergency, the geographic area affected by the emergency, the effective time period, and information and instructions necessary for the public to respond to the alert. This may also identify specific information that should not be released to the public.

Element Name	Equipment Package Name	Requirement
City of Peoria TMC	TMC Regional Traffic Management	The center shall exchange traffic information with other traffic management centers including incident information, congestion data, traffic data, signal timing plans, and real-time signal control information.
City of Peoria TMC	TMC Signal Control	The center shall remotely control traffic signal controllers.
City of Peoria TMC	TMC Traffic Information Dissemination	The center shall remotely control dynamic messages signs for dissemination of traffic and other information to drivers.
City of Peoria TMC	TMC Traffic Metering	The center shall remotely control systems to manage use of the freeways, including ramp, interchange, and mainline metering.
City of Peoria TMC	Traffic Equipment Maintenance	The center shall collect and store sensor (traffic, pedestrian, multimodal crossing) operational status.
City of Peoria TMC	Traffic Data Collection	The center shall collect traffic management data such as operational data, event logs, etc.
City of Peoria TMC	Traffic Data Collection	The center shall assign quality control metrics and meta-data to be stored along with the data. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
City of Peoria TMC	Traffic Data Collection	The center shall receive and respond to requests from ITS Archives for either a catalog of the traffic data or for the data itself.
City of Peoria TMC	Traffic Data Collection	The center shall be able to produce sample products of the data available.
City of Peoria TMC	Emergency Data Collection	The center shall collect emergency service data, emergency vehicle management data, emergency vehicle data, sensor and surveillance data, threat data, and incident data.
City of Peoria TMC	Emergency Data Collection	The center shall assign quality control metrics and meta-data to be stored along with the data. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
City of Peoria TMC	Emergency Data Collection	The center shall receive and respond to requests from ITS Archives for either a catalog of the emergency management data or for the data itself.
City of Peoria TMC	Emergency Data Collection	The center shall be able to produce sample products of the data available.
City of Peoria TMC	TMC Work Zone Traffic Management	The center shall receive work zone images from a maintenance center.
City of Peoria TMC	TMC Work Zone Traffic Management	The center shall analyze work zone images for indications of a possible incident.
City of Peoria TMC	TMC Work Zone Traffic Management	The center shall remotely control driver information systems (such as dynamic messages signs, highway advisory radios) to advise drivers of activity around a work zone.
City of Peoria TMC	TMC Work Zone Traffic Management	The center shall collect operational status for the driver information systems equipment in work zones.
City of Peoria TMC	TMC Work Zone Traffic Management	The center shall collect fault data for the driver information systems equipment in work zones for repair.
City of Peoria TMC	TMC Work Zone Traffic Management	The center shall receive proposed maintenance and construction work plans, analyze the activity as a possible incident, and provide work plan feedback to the sending center.
City of Peoria TMC	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways). The data may be raw or pre-processed in the field.
City of Peoria TMC	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers). The data may be raw or pre-processed in the field.
City of Peoria TMC	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected on-board transit vehicles. The data may be raw or pre-processed in the field.
City of Peoria TMC	Center Secure Area Surveillance	The center shall exchange surveillance data with other emergency centers.
City of Peoria TMC	Center Secure Area Surveillance	The center shall identify potential security threats based on collected security surveillance data.
City of Peoria TMC	Center Secure Area Surveillance	The center shall verify potential security threats by correlating security surveillance data from multiple sources.
City of Peoria TMC	Center Secure Area Surveillance	The center shall remotely control security surveillance devices in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways).
City of Peoria TMC	Center Secure Area Surveillance	The center shall remotely control security surveillance devices in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers).
City of Peoria TMC	Center Secure Area Surveillance	The center shall remotely control security surveillance devices on-board transit vehicles.
City of Peoria TMC	Center Secure Area Surveillance	The center shall match traveler video images against a database from the Alerting and Advisory Systems of known images that may represent criminals and terrorists.

Element Name	Equipment Package Name	Requirement
City of Peoria TMC	Center Secure Area Surveillance	The center shall exchange traveler images with other emergency management centers to support traveler image matching.
City of Peoria TMC	Center Secure Area Surveillance	The center shall respond to control data from center personnel regarding security surveillance data collection, processing, threat detection, and image matching.
City of Peoria TMC	Center Secure Area Surveillance	The center shall monitor maintenance status of the security sensor field equipment.
City of Peoria TMC	Incident Command	The center shall provide tactical decision support, resource coordination, and communications integration for Incident Commands that are established by first responders to support local management of an incident.
City of Peoria TMC	Incident Command	The center shall provide incident command communications with public safety, emergency management, transportation, and other allied response agency centers.
City of Peoria TMC	Incident Command	The center shall track and maintain resource information and action plans pertaining to the incident command.
City of Peoria TMC	Incident Command	The center shall share incident command information with other public safety agencies including resource deployment status, hazardous material information, rail incident information, evacuation advice as well as traffic, road, and weather conditions.
City of Peoria TMC	Incident Command	The center shall assess the status of responding emergency vehicles as part of an incident command.
City of Peoria TMC	Emergency Early Warning System	The center shall monitor information from Alerting and Advisory Systems such as the Information Sharing and Analysis Centers (ISACs), the National Infrastructure Protection Center (NIPC), the Homeland Security Advisory System (HSAS), etc. The information may include assessments (general incident and vulnerability awareness information), advisories (identification of threats or recommendations to increase preparedness levels), or alerts (information on imminent or in-progress emergencies).
City of Peoria TMC	Emergency Early Warning System	The center shall provide the capability to correlate alerts and advisories, incident information, and security sensor and surveillance data.
City of Peoria TMC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to traffic management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
City of Peoria TMC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to transit management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
City of Peoria TMC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to toll administration centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
City of Peoria TMC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to traveler information service providers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
City of Peoria TMC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to maintenance centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
City of Peoria TMC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to other emergency management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
City of Peoria TMC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to commercial vehicle administration centers and roadside check facilities for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
City of Peoria TMC	Emergency Early Warning System	The center shall process status information from each of the centers that have been sent the wide-area alert.
City of Peoria TMC	Emergency Early Warning System	The center shall coordinate the broadcast of wide-area alerts and advisories with other emergency management centers.
City of Peoria TMC	Emergency Early Warning System	The center shall receive incident information from other transportation management centers to support the early warning system.
City of Peoria TMC	Emergency Early Warning System	The center shall present the alert and advisory information and the status of the actions taken in response to the alert by the other centers to the emergency system operator as received from other system inputs.
City of Peoria TMC	Emergency Early Warning System	The center shall support the entry of alert and advisory information directly from the emergency system operator.

Element Name	Equipment Package Name	Requirement
City of Peoria TMC	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways). The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors), infrastructure condition and integrity, intrusion and motion, and object detection sensors. The data may be raw or pre-processed in the field.
City of Peoria TMC	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers). The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors), intrusion and motion, and object detection sensors. The data may be raw or pre-processed in the field.
City of Peoria TMC	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected on-board transit vehicles. The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors) and object detection sensors. The data may be raw or pre-processed in the field.
City of Peoria TMC	Center Secure Area Sensor Management	The center shall exchange security sensor data with other emergency centers.
City of Peoria TMC	Center Secure Area Sensor Management	The center shall identify potential security threats based on collected security sensor data.
City of Peoria TMC	Center Secure Area Sensor Management	The center shall verify potential security threats by correlating security sensor data from multiple sources.
City of Peoria TMC	Center Secure Area Sensor Management	The center shall perform threat analysis based on correlations of security sensor and surveillance data.
City of Peoria TMC	Center Secure Area Sensor Management	The center shall exchange threat analysis data with Alerting and Advisory Systems and use that data in local threat analysis processing.
City of Peoria TMC	Center Secure Area Sensor Management	The center shall disseminate threat information to other agencies, including traffic, transit, maintenance, rail operations, and other emergency management centers.
City of Peoria TMC	Center Secure Area Sensor Management	The center shall respond to control data from center personnel regarding security sensor data collection, processing, threat detection, and threat analysis.
City of Peoria TMC	Center Secure Area Sensor Management	The center shall request activation of barriers and safeguards on request from center personnel.
City of Peoria TMC	Center Secure Area Sensor Management	The center shall monitor maintenance status of the security sensor field equipment.
City of Peoria Traffic Signals	Roadway Signal Controls	The field element shall control traffic signals under center control.
City of Peoria Traffic Signals	Roadway Signal Priority	The field element shall respond to signal priority requests from transit vehicles.
City of Peoria Traffic Signals	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Peoria Traffic Signals	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Peoria Traffic Signals	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Peoria Traffic Signals	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Peoria Vehicle Detectors	Roadway Basic Surveillance	The field element shall collect, process, digitize, and send traffic sensor data (speed, volume, and occupancy) to the center for further analysis and storage, under center control.
City of Peoria Vehicle Detectors	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Peoria Vehicle Detectors	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Peoria Vehicle Detectors	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Peoria Vehicle Detectors	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Phoenix CCTV	Roadway Basic Surveillance	The field element shall collect, process, digitize, and send traffic sensor data (speed, volume, and occupancy) to the center for further analysis and storage, under center control.
City of Phoenix CCTV	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Phoenix CCTV	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Phoenix CCTV	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.

Element Name	Equipment Package Name	Requirement
City of Phoenix CCTV	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Phoenix DMS	Roadway Traffic Information Dissemination	The field element shall include dynamic messages signs for dissemination of traffic and other information to drivers, under center control; the DMS may be either those that display variable text messages, or those that have fixed format display(s) (e.g. vehicle restrictions, or lane open/close).
City of Phoenix DMS	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Phoenix DMS	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Phoenix DMS	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Phoenix DMS	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Phoenix Lane Control Signs	Roadway Dynamic Lane Management and Shoulder Use	The field element shall measure traffic conditions per lane, under center control.
City of Phoenix Lane Control Signs	Roadway Dynamic Lane Management and Shoulder Use	The field element shall determine how to change the lane controls to respond to current traffic and road conditions.
City of Phoenix Lane Control Signs	Roadway Dynamic Lane Management and Shoulder Use	The field element shall receive lane management control information from the controlling center.
City of Phoenix Lane Control Signs	Roadway Dynamic Lane Management and Shoulder Use	The field element shall provide guidance and information to drivers regarding current lane configuration and status.
City of Phoenix Lane Control Signs	Roadway Dynamic Lane Management and Shoulder Use	The field element shall monitor vehicle characteristics and classify individual vehicles.
City of Phoenix Lane Control Signs	Roadway Dynamic Lane Management and Shoulder Use	The field element shall collect vehicle profile information from individual vehicles using field-vehicle communications.
City of Phoenix Lane Control Signs	Roadway Dynamic Lane Management and Shoulder Use	The field element shall monitor current lane usage to determine if vehicles are complying with current lane use restrictions.
City of Phoenix Lane Control Signs	Roadway Dynamic Lane Management and Shoulder Use	The field element shall capture vehicle information, including vehicle image(s) of vehicles violating current lane usage restrictions and report violations to the controlling center.
City of Phoenix Lane Control Signs	Roadway Dynamic Lane Management and Shoulder Use	The field element shall monitor operational status of the dynamic lane control equipment and report operational status to the controlling center.
City of Phoenix Lane Control Signs	Roadway Dynamic Lane Management and Shoulder Use	The field element shall identify and report fault conditions to the controlling center.
City of Phoenix TMC	Collect Traffic Surveillance	The center shall monitor, analyze, and store traffic sensor data (speed, volume, occupancy) collected from field elements under remote control of the center.
City of Phoenix TMC	HRI Traffic Management	The center shall remotely control highway-rail intersection (HRI) equipment located in the field.
City of Phoenix TMC	TMC Environmental Monitoring	The center shall remotely control environmental sensors that measure road surface temperature, moisture, icing, salinity, and other measures.
City of Phoenix TMC	TMC Incident Detection	The center shall receive inputs from the Alerting and Advisory System concerning the possibility or occurrence of severe weather, terrorist activity, or other major emergency, including information provided by the Emergency Alert System.
City of Phoenix TMC	TMC Incident Dispatch Coordination/Communication	The center shall exchange alert information and status with emergency management centers. The information includes notification of a major emergency such as a natural or man-made disaster, civil emergency, or child abduction for distribution to the public. The information may include the alert originator, the nature of the emergency, the geographic area affected by the emergency, the effective time period, and information and instructions necessary for the public to respond to the alert. This may also identify specific information that should not be released to the public.
City of Phoenix TMC	TMC Multimodal Coordination	The center shall respond to requests from transit management centers for signal priority at one or more intersections along a particular transit route.
City of Phoenix TMC	TMC Regional Traffic Management	The center shall exchange traffic information with other traffic management centers including incident information, congestion data, traffic data, signal timing plans, and real-time signal control information.

Element Name	Equipment Package Name	Requirement
City of Phoenix TMC	TMC Signal Control	The center shall remotely control traffic signal controllers.
City of Phoenix TMC	TMC Traffic Information Dissemination	The center shall remotely control dynamic messages signs for dissemination of traffic and other information to drivers.
City of Phoenix TMC	Traffic Equipment Maintenance	The center shall collect and store sensor (traffic, pedestrian, multimodal crossing) operational status.
City of Phoenix TMC	HRI Traffic Management	The center shall collect highway-rail intersection (HRI) equipment operational status and compare against the control information sent by the center.
City of Phoenix TMC	HRI Traffic Management	The center shall provide the highway-rail intersection (HRI) equipment operational status to rail operations centers.
City of Phoenix TMC	Traffic Data Collection	The center shall collect traffic management data such as operational data, event logs, etc.
City of Phoenix TMC	Traffic Data Collection	The center shall assign quality control metrics and meta-data to be stored along with the data. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
City of Phoenix TMC	Traffic Data Collection	The center shall receive and respond to requests from ITS Archives for either a catalog of the traffic data or for the data itself.
City of Phoenix TMC	Traffic Data Collection	The center shall be able to produce sample products of the data available.
City of Phoenix TMC	TMC Work Zone Traffic Management	The center shall receive work zone images from a maintenance center.
City of Phoenix TMC	TMC Work Zone Traffic Management	The center shall analyze work zone images for indications of a possible incident.
City of Phoenix TMC	TMC Work Zone Traffic Management	The center shall remotely control driver information systems (such as dynamic messages signs, highway advisory radios) to advise drivers of activity around a work zone.
City of Phoenix TMC	TMC Work Zone Traffic Management	The center shall collect operational status for the driver information systems equipment in work zones.
City of Phoenix TMC	TMC Work Zone Traffic Management	The center shall collect fault data for the driver information systems equipment in work zones for repair.
City of Phoenix TMC	TMC Work Zone Traffic Management	The center shall receive proposed maintenance and construction work plans, analyze the activity as a possible incident, and provide work plan feedback to the sending center.
City of Phoenix TMC	TMC Dynamic Lane Management and Shoulder Use	The center shall remotely monitor and control dynamically managed travel lanes.
City of Phoenix TMC	TMC Dynamic Lane Management and Shoulder Use	The center shall monitor traffic conditions and demand measured per lane.
City of Phoenix TMC	TMC Dynamic Lane Management and Shoulder Use	The center shall receive input from Border Inspection Systems to identify existing and planned lane configurations at the border.
City of Phoenix TMC	TMC Dynamic Lane Management and Shoulder Use	The center shall receive input from multimodal crossings such as draw bridges to identify existing and planned lane configurations at the crossings.
City of Phoenix TMC	TMC Dynamic Lane Management and Shoulder Use	The center shall receive input from Intermodal Freight Depots to support monitoring and anticipation of commercial vehicle traffic originating at the depot and requests for dynamic lane management in the vicinity of the depot.
City of Phoenix TMC	TMC Dynamic Lane Management and Shoulder Use	The center shall monitor and coordinate dynamic lane controls with adjacent jurisdictions.
City of Phoenix TMC	TMC Dynamic Lane Management and Shoulder Use	Based on the collected data and operator input, the center shall determine suggested and required lane control configuration changes.
City of Phoenix TMC	TMC Dynamic Lane Management and Shoulder Use	The center shall support temporary use of shoulders as travel lanes.
City of Phoenix TMC	TMC Dynamic Lane Management and Shoulder Use	The center shall designate lanes for use by special vehicles only, such as buses, high occupancy vehicles (HOVs), or vehicles attending a special event.
City of Phoenix TMC	TMC Dynamic Lane Management and Shoulder Use	The center shall identify lane use restrictions, prohibiting specific types of vehicles (e.g., commercial vehicles) from specific lanes.
City of Phoenix TMC	TMC Dynamic Lane Management and Shoulder Use	The center shall activate lane management field equipment that is used to dynamically manage specific lanes and shoulders.

Element Name	Equipment Package Name	Requirement
City of Phoenix TMC	TMC Dynamic Lane Management and Shoulder Use	The center shall reconfigure intersections and interchanges for compatibility with the current lane configuration.
City of Phoenix TMC	TMC Dynamic Lane Management and Shoulder Use	The center shall notify the enforcement agency of violators of the lane controls.
City of Phoenix Traffic Signals	Roadway Signal Controls	The field element shall control traffic signals under center control.
City of Phoenix Traffic Signals	Roadway Signal Priority	The field element shall respond to signal priority requests from transit vehicles.
City of Phoenix Traffic Signals	Standard Rail Crossing	The field element shall collect and process, traffic sensor data in the vicinity of a highway-rail intersection (HRI).
City of Phoenix Traffic Signals	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Phoenix Traffic Signals	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Phoenix Traffic Signals	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Phoenix Traffic Signals	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Phoenix Vehicle Detectors	Roadway Basic Surveillance	The field element shall collect, process, digitize, and send traffic sensor data (speed, volume, and occupancy) to the center for further analysis and storage, under center control.
City of Phoenix Vehicle Detectors	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Phoenix Vehicle Detectors	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Phoenix Vehicle Detectors	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Phoenix Vehicle Detectors	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Scottsdale CCTV	Roadway Basic Surveillance	The field element shall collect, process, digitize, and send traffic sensor data (speed, volume, and occupancy) to the center for further analysis and storage, under center control.
City of Scottsdale CCTV	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Scottsdale CCTV	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Scottsdale CCTV	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Scottsdale CCTV	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Scottsdale DMS	Roadway Traffic Information Dissemination	The field element shall include dynamic messages signs for dissemination of traffic and other information to drivers, under center control; the DMS may be either those that display variable text messages, or those that have fixed format display(s) (e.g. vehicle restrictions, or lane open/close).
City of Scottsdale DMS	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Scottsdale DMS	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Scottsdale DMS	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Scottsdale DMS	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Scottsdale HAR	Roadway Traffic Information Dissemination	The field element shall include driver information systems that communicate directly from a center to the vehicle radio (such as Highway Advisory Radios) for dissemination of traffic and other information to drivers, under center control.
City of Scottsdale HAR	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Scottsdale HAR	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Scottsdale HAR	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Scottsdale HAR	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Scottsdale TMC	Collect Traffic Surveillance	The center shall monitor, analyze, and store traffic sensor data (speed, volume, occupancy) collected from field elements under remote control of the center.

Element Name	Equipment Package Name	Requirement
City of Scottsdale TMC	TMC Environmental Monitoring	The center shall remotely control environmental sensors that measure road surface temperature, moisture, icing, salinity, and other measures.
City of Scottsdale TMC	TMC Incident Detection	The center shall receive inputs from the Alerting and Advisory System concerning the possibility or occurrence of severe weather, terrorist activity, or other major emergency, including information provided by the Emergency Alert System.
City of Scottsdale TMC	TMC Incident Dispatch Coordination/Communication	The center shall exchange alert information and status with emergency management centers. The information includes notification of a major emergency such as a natural or man-made disaster, civil emergency, or child abduction for distribution to the public. The information may include the alert originator, the nature of the emergency, the geographic area affected by the emergency, the effective time period, and information and instructions necessary for the public to respond to the alert. This may also identify specific information that should not be released to the public.
City of Scottsdale TMC	TMC Regional Traffic Management	The center shall exchange traffic information with other traffic management centers including incident information, congestion data, traffic data, signal timing plans, and real-time signal control information.
City of Scottsdale TMC	TMC Signal Control	The center shall remotely control traffic signal controllers.
City of Scottsdale TMC	TMC Traffic Information Dissemination	The center shall remotely control dynamic messages signs for dissemination of traffic and other information to drivers.
City of Scottsdale TMC	Traffic Equipment Maintenance	The center shall collect and store sensor (traffic, pedestrian, multimodal crossing) operational status.
City of Scottsdale TMC	Traffic Data Collection	The center shall collect traffic management data such as operational data, event logs, etc.
City of Scottsdale TMC	Traffic Data Collection	The center shall assign quality control metrics and meta-data to be stored along with the data. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
City of Scottsdale TMC	Traffic Data Collection	The center shall receive and respond to requests from ITS Archives for either a catalog of the traffic data or for the data itself.
City of Scottsdale TMC	Traffic Data Collection	The center shall be able to produce sample products of the data available.
City of Scottsdale TMC	TMC Work Zone Traffic Management	The center shall receive work zone images from a maintenance center.
City of Scottsdale TMC	TMC Work Zone Traffic Management	The center shall analyze work zone images for indications of a possible incident.
City of Scottsdale TMC	TMC Work Zone Traffic Management	The center shall remotely control driver information systems (such as dynamic messages signs, highway advisory radios) to advise drivers of activity around a work zone.
City of Scottsdale TMC	TMC Work Zone Traffic Management	The center shall collect operational status for the driver information systems equipment in work zones.
City of Scottsdale TMC	TMC Work Zone Traffic Management	The center shall collect fault data for the driver information systems equipment in work zones for repair.
City of Scottsdale TMC	TMC Work Zone Traffic Management	The center shall receive proposed maintenance and construction work plans, analyze the activity as a possible incident, and provide work plan feedback to the sending center.
City of Scottsdale Traffic Signals	Roadway Signal Controls	The field element shall control traffic signals under center control.
City of Scottsdale Traffic Signals	Roadway Signal Priority	The field element shall respond to signal priority requests from transit vehicles.
City of Scottsdale Traffic Signals	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Scottsdale Traffic Signals	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Scottsdale Traffic Signals	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Scottsdale Traffic Signals	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Scottsdale Vehicle Detectors	Roadway Basic Surveillance	The field element shall collect, process, digitize, and send traffic sensor data (speed, volume, and occupancy) to the center for further analysis and storage, under center control.
City of Scottsdale Vehicle Detectors	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Scottsdale Vehicle Detectors	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Scottsdale Vehicle Detectors	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Scottsdale Vehicle Detectors	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Surprise CCTV	Roadway Basic Surveillance	The field element shall collect, process, digitize, and send traffic sensor data (speed, volume, and occupancy) to the center for further analysis and storage, under center control.

Element Name	Equipment Package Name	Requirement
City of Surprise CCTV	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Surprise CCTV	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Surprise CCTV	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Surprise CCTV	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Surprise DMS	Roadway Traffic Information Dissemination	The field element shall include dynamic messages signs for dissemination of traffic and other information to drivers, under center control; the DMS may be either those that display variable text messages, or those that have fixed format display(s) (e.g. vehicle restrictions, or lane open/close).
City of Surprise DMS	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Surprise DMS	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Surprise DMS	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Surprise DMS	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Surprise TMC	Collect Traffic Surveillance	The center shall monitor, analyze, and store traffic sensor data (speed, volume, occupancy) collected from field elements under remote control of the center.
City of Surprise TMC	HRI Traffic Management	The center shall remotely control highway-rail intersection (HRI) equipment located in the field.
City of Surprise TMC	TMC Environmental Monitoring	The center shall remotely control environmental sensors that measure road surface temperature, moisture, icing, salinity, and other measures.
City of Surprise TMC	TMC Incident Detection	The center shall receive inputs from the Alerting and Advisory System concerning the possibility or occurrence of severe weather, terrorist activity, or other major emergency, including information provided by the Emergency Alert System.
City of Surprise TMC	TMC Incident Dispatch Coordination/Communication	The center shall exchange alert information and status with emergency management centers. The information includes notification of a major emergency such as a natural or man-made disaster, civil emergency, or child abduction for distribution to the public. The information may include the alert originator, the nature of the emergency, the geographic area affected by the emergency, the effective time period, and information and instructions necessary for the public to respond to the alert. This may also identify specific information that should not be released to the public.
City of Surprise TMC	TMC Regional Traffic Management	The center shall exchange traffic information with other traffic management centers including incident information, congestion data, traffic data, signal timing plans, and real-time signal control information.
City of Surprise TMC	TMC Signal Control	The center shall remotely control traffic signal controllers.
City of Surprise TMC	TMC Traffic Information Dissemination	The center shall remotely control dynamic messages signs for dissemination of traffic and other information to drivers.
City of Surprise TMC	Traffic Equipment Maintenance	The center shall collect and store sensor (traffic, pedestrian, multimodal crossing) operational status.
City of Surprise TMC	HRI Traffic Management	The center shall collect highway-rail intersection (HRI) equipment operational status and compare against the control information sent by the center.
City of Surprise TMC	HRI Traffic Management	The center shall provide the highway-rail intersection (HRI) equipment operational status to rail operations centers.
City of Surprise TMC	Traffic Data Collection	The center shall collect traffic management data such as operational data, event logs, etc.
City of Surprise TMC	Traffic Data Collection	The center shall assign quality control metrics and meta-data to be stored along with the data. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
City of Surprise TMC	Traffic Data Collection	The center shall receive and respond to requests from ITS Archives for either a catalog of the traffic data or for the data itself.
City of Surprise TMC	Traffic Data Collection	The center shall be able to produce sample products of the data available.
City of Surprise TMC	TMC Work Zone Traffic Management	The center shall receive work zone images from a maintenance center.
City of Surprise TMC	TMC Work Zone Traffic Management	The center shall analyze work zone images for indications of a possible incident.
City of Surprise TMC	TMC Work Zone Traffic Management	The center shall remotely control driver information systems (such as dynamic messages signs, highway advisory radios) to advise drivers of activity around a work zone.
City of Surprise TMC	TMC Work Zone Traffic Management	The center shall collect operational status for the driver information systems equipment in work zones.

Element Name	Equipment Package Name	Requirement
City of Surprise TMC	TMC Work Zone Traffic Management	The center shall collect fault data for the driver information systems equipment in work zones for repair.
City of Surprise TMC	TMC Work Zone Traffic Management	The center shall receive proposed maintenance and construction work plans, analyze the activity as a possible incident, and provide work plan feedback to the sending center.
City of Surprise Traffic Signals	Roadway Signal Controls	The field element shall control traffic signals under center control.
City of Surprise Traffic Signals	Roadway Signal Priority	The field element shall respond to signal priority requests from transit vehicles.
City of Surprise Traffic Signals	Standard Rail Crossing	The field element shall collect and process, traffic sensor data in the vicinity of a highway-rail intersection (HRI).
City of Surprise Traffic Signals	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Surprise Traffic Signals	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Surprise Traffic Signals	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Surprise Traffic Signals	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Surprise Vehicle Detectors	Roadway Basic Surveillance	The field element shall collect, process, digitize, and send traffic sensor data (speed, volume, and occupancy) to the center for further analysis and storage, under center control.
City of Surprise Vehicle Detectors	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Surprise Vehicle Detectors	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Surprise Vehicle Detectors	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Surprise Vehicle Detectors	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Tempe CCTV	Roadway Basic Surveillance	The field element shall collect, process, digitize, and send traffic sensor data (speed, volume, and occupancy) to the center for further analysis and storage, under center control.
City of Tempe CCTV	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Tempe CCTV	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Tempe CCTV	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Tempe CCTV	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Tempe DMS	Roadway Traffic Information Dissemination	The field element shall include dynamic messages signs for dissemination of traffic and other information to drivers, under center control; the DMS may be either those that display variable text messages, or those that have fixed format display(s) (e.g. vehicle restrictions, or lane open/close).
City of Tempe DMS	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Tempe DMS	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Tempe DMS	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Tempe DMS	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Tempe TMC	Collect Traffic Surveillance	The center shall monitor, analyze, and store traffic sensor data (speed, volume, occupancy) collected from field elements under remote control of the center.
City of Tempe TMC	HRI Traffic Management	The center shall remotely control highway-rail intersection (HRI) equipment located in the field.
City of Tempe TMC	TMC Environmental Monitoring	The center shall remotely control environmental sensors that measure road surface temperature, moisture, icing, salinity, and other measures.
City of Tempe TMC	TMC Incident Detection	The center shall receive inputs from the Alerting and Advisory System concerning the possibility or occurrence of severe weather, terrorist activity, or other major emergency, including information provided by the Emergency Alert System.
City of Tempe TMC	TMC Incident Dispatch Coordination/Communication	The center shall exchange alert information and status with emergency management centers. The information includes notification of a major emergency such as a natural or man-made disaster, civil emergency, or child abduction for distribution to the public. The information may include the alert originator, the nature of the emergency, the geographic area affected by the emergency, the effective time period, and information and instructions necessary for the public to respond to the alert. This may also identify specific information that should not be released to the public.

Element Name	Equipment Package Name	Requirement
City of Tempe TMC	TMC Multimodal Coordination	The center shall respond to requests from transit management centers for signal priority at one or more intersections along a particular transit route.
City of Tempe TMC	TMC Regional Traffic Management	The center shall exchange traffic information with other traffic management centers including incident information, congestion data, traffic data, signal timing plans, and real-time signal control information.
City of Tempe TMC	TMC Signal Control	The center shall remotely control traffic signal controllers.
City of Tempe TMC	TMC Traffic Information Dissemination	The center shall remotely control dynamic messages signs for dissemination of traffic and other information to drivers.
City of Tempe TMC	Traffic Equipment Maintenance	The center shall collect and store sensor (traffic, pedestrian, multimodal crossing) operational status.
City of Tempe TMC	HRI Traffic Management	The center shall collect highway-rail intersection (HRI) equipment operational status and compare against the control information sent by the center.
City of Tempe TMC	HRI Traffic Management	The center shall provide the highway-rail intersection (HRI) equipment operational status to rail operations centers.
City of Tempe TMC	Traffic Data Collection	The center shall collect traffic management data such as operational data, event logs, etc.
City of Tempe TMC	Traffic Data Collection	The center shall assign quality control metrics and meta-data to be stored along with the data. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
City of Tempe TMC	Traffic Data Collection	The center shall receive and respond to requests from ITS Archives for either a catalog of the traffic data or for the data itself.
City of Tempe TMC	Traffic Data Collection	The center shall be able to produce sample products of the data available.
City of Tempe TMC	TMC Work Zone Traffic Management	The center shall receive work zone images from a maintenance center.
City of Tempe TMC	TMC Work Zone Traffic Management	The center shall analyze work zone images for indications of a possible incident.
City of Tempe TMC	TMC Work Zone Traffic Management	The center shall remotely control driver information systems (such as dynamic messages signs, highway advisory radios) to advise drivers of activity around a work zone.
City of Tempe TMC	TMC Work Zone Traffic Management	The center shall collect operational status for the driver information systems equipment in work zones.
City of Tempe TMC	TMC Work Zone Traffic Management	The center shall collect fault data for the driver information systems equipment in work zones for repair.
City of Tempe TMC	TMC Work Zone Traffic Management	The center shall receive proposed maintenance and construction work plans, analyze the activity as a possible incident, and provide work plan feedback to the sending center.
City of Tempe Traffic Signals	Roadway Signal Controls	The field element shall control traffic signals under center control.
City of Tempe Traffic Signals	Roadway Signal Priority	The field element shall respond to signal priority requests from transit vehicles.
City of Tempe Traffic Signals	Standard Rail Crossing	The field element shall collect and process, traffic sensor data in the vicinity of a highway-rail intersection (HRI).
City of Tempe Traffic Signals	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Tempe Traffic Signals	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Tempe Traffic Signals	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Tempe Traffic Signals	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
City of Tempe Vehicle Detectors	Roadway Basic Surveillance	The field element shall collect, process, digitize, and send traffic sensor data (speed, volume, and occupancy) to the center for further analysis and storage, under center control.
City of Tempe Vehicle Detectors	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
City of Tempe Vehicle Detectors	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
City of Tempe Vehicle Detectors	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
City of Tempe Vehicle Detectors	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
Connected Vehicle Road Infrastructure Devices	Roadway Short Range Traveler Information Communications	The field element shall distribute traveler information including traffic and road conditions to passing vehicles using short range communications, under center control.
East Valley Dial-A-Ride Archived Data Server	ITS Data Repository	The center shall collect data to be archived from one or more data sources.

Element Name	Equipment Package Name	Requirement
East Valley Dial-A-Ride Archived Data Server	ITS Data Repository	The center shall include capabilities for archive to archive coordination.
East Valley Dial-A-Ride Archived Data Server	ITS Data Repository	The center shall support a broad range of archived data management implementations, ranging from simple data marts that collect a focused set of data and serve a particular user community to large-scale data warehouses that collect, integrate, and summarize transportation data from multiple sources and serve a broad array of users within a region.
East Valley Dial-A-Ride Archived Data Server	ITS Data Repository	The center shall perform quality checks on received data.
East Valley Dial-A-Ride Archived Data Server	ITS Data Repository	The center shall provide the capability to execute methods on the incoming data such as cleansing, summarizations, aggregations, or transformations applied to the data before it is stored in the archive.
East Valley Dial-A-Ride Archived Data Server	ITS Data Repository	The center shall respond to requests from the administrator interface function to maintain the archive data.
East Valley Dial-A-Ride Archived Data Server	ITS Data Repository	When data or a catalog of data is received from the archive, the center shall generate the requested data product for the users systems.
East Valley Dial-A-Ride Archived Data Server	ITS Data Repository	For archive data requiring financial payment, the center shall process the financial requests and manage an interface to a Financial Institution.
East Valley Dial-A-Ride Archived Data Server	Government Reporting Systems Support	The center shall provide data from an ITS archive to federal, state, or local government reporting systems.
East Valley Dial-A-Ride Archived Data Server	Government Reporting Systems Support	The center shall provide the capability to select data from an ITS archive for use in government reports.
East Valley Dial-A-Ride Archived Data Server	Government Reporting Systems Support	The center shall provide the capability to format data from an ITS archive suitable for input into government reports.
East Valley Dial-A-Ride Archived Data Server	Government Reporting Systems Support	The center shall support requests for ITS archived data from Government Reporting Systems.
East Valley Dial-A-Ride Archived Data Server	Government Reporting Systems Support	The center shall provide the applicable meta-data for any ITS archived data to satisfy government reporting system requests. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
East Valley Dial-A-Ride Archived Data Server	Traffic and Roadside Data Archival	The center shall manage the collection of archive data directly from collection equipment located at the roadside.
East Valley Dial-A-Ride Archived Data Server	Traffic and Roadside Data Archival	The center shall collect traffic sensor information from roadside devices.
East Valley Dial-A-Ride Archived Data Server	Traffic and Roadside Data Archival	The center shall collect environmental sensor information that from roadside devices.
East Valley Dial-A-Ride Archived Data Server	Traffic and Roadside Data Archival	The center shall respond to requests from the Archive Data Administer to input the parameters that control the collection process.
East Valley Dial-A-Ride Archived Data Server	Traffic and Roadside Data Archival	The center shall send the request for data and control parameters to the field equipment where the information is collected and returned.
East Valley Dial-A-Ride Archived Data Server	Traffic and Roadside Data Archival	The center shall record the status about the imported traffic and roadside data.
East Valley Dial-A-Ride Archived Data Server	Traffic and Roadside Data Archival	The center shall use the status information to adjust the collection of traffic and roadside data.
East Valley Dial-A-Ride Transit Dispatch	Transit Center Multi-Modal Coordination	The center shall coordinate schedules and services between transit agencies, traffic management, maintenance and construction operations, parking management, and other surface or air transportation modes.
East Valley Dial-A-Ride Transit Dispatch	Transit Center Paratransit Operations	The center shall process trip requests for demand responsive transit services, i.e. paratransit. Sources of the requests may include traveler information service providers.

Element Name	Equipment Package Name	Requirement
East Valley Dial-A-Ride Transit Dispatch	Transit Center Security	The center shall monitor transit vehicle operational data to determine if the transit vehicle is off-route and assess whether a security incident is occurring.
East Valley Dial-A-Ride Transit Dispatch	Transit Center Vehicle Tracking	The center shall monitor the locations of all transit vehicles within its network.
East Valley Dial-A-Ride Transit Dispatch	Transit Garage Maintenance	The center shall collect operational and maintenance data from transit vehicles.
East Valley Dial-A-Ride Transit Dispatch	Transit Vehicle Operator Assignment	The center shall maintain records of a transit vehicle operator's performance. This may be done utilizing standardized performance evaluation criteria set forth by governmental regulations and transit operating company policies, assessing the transit vehicle operator's driving history, and assessing comments from the transit vehicle operator's supervisor(s) as well as noting any moving violations or accidents, supervisor comments, government regulations, and company policies.
East Valley Dial-A-Ride Transit Dispatch	Transit Data Collection	The center shall collect transit management data such as transit fares and passenger use, transit services, paratransit operations, transit vehicle maintenance data, etc.
East Valley Dial-A-Ride Transit Dispatch	Transit Data Collection	The center shall assign quality control metrics and meta-data to be stored along with the data. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
East Valley Dial-A-Ride Transit Dispatch	Transit Data Collection	The center shall receive and respond to requests from ITS Archives for either a catalog of the transit data or for the data itself.
East Valley Dial-A-Ride Transit Dispatch	Transit Data Collection	The center shall be able to produce sample products of the data available.
East Valley Dial-A-Ride Transit Dispatch	Transit Environmental Monitoring	The center shall assimilate current and forecast road conditions and surface weather information to more effectively manage transit operations.
East Valley Dial-A-Ride Transit Dispatch	Transit Environmental Monitoring	The center shall collect current and forecast road and weather information from weather service providers and roadway maintenance centers.
East Valley Dial-A-Ride Transit Dispatch	Transit Vehicle Assignment	The center shall assign individual transit vehicles to transit blocks.
East Valley Dial-A-Ride Transit Dispatch	Transit Vehicle Assignment	The center shall download vehicle assignments to the transit vehicle prior to the start of the day's operations.
East Valley Dial-A-Ride Transit Dispatch	Transit Vehicle Assignment	The center shall provide an exception handling process for the vehicle assignment function. This process shall generate new supplemental vehicle assignments as required due to change events which occur during the operating day.
East Valley Dial-A-Ride Transit Dispatch	Transit Vehicle Assignment	The center shall provide an inventory management function for the transit facility that stores functional attributes about each vehicle owned by the transit operator. The functional attributes permit the planning and assignment functions to match vehicles with routes based on suitability for the types of service required by the particular routes.
East Valley Dial-A-Ride Transit Dispatch	Transit Vehicle Assignment	The center shall generate transit vehicle availability listings, current and forecast, to support transit vehicle assignment planning.
East Valley Dial-A-Ride Transit Dispatch	Transit Vehicle Assignment	The center shall provide transit operations personnel with the capability to update transit vehicle assignments and receive reports on transit vehicle inventory status.
East Valley Dial-A-Ride Transit Vehicles	On-board Maintenance	The transit vehicle shall collect and process vehicle mileage data available to sensors on-board.
East Valley Dial-A-Ride Transit Vehicles	On-board Paratransit Operations	The transit vehicle shall manage data input to sensor(s) on-board a transit vehicle to determine the vehicle's availability for use in demand responsive and flexible-route transit services based on identity, type, and passenger capacity.
East Valley Dial-A-Ride Transit Vehicles	On-board Schedule Management	The transit vehicle shall receive a vehicle assignment including transit route information, transit service instructions, traffic information, road conditions, and other information for the operator.
East Valley Dial-A-Ride Transit Vehicles	On-board Transit Security	The transit vehicle shall perform video and audio surveillance inside of transit vehicles and output raw video or audio data for either local monitoring (for processing or direct output to the transit vehicle operator), remote monitoring or for local storage (e.g., in an event recorder).

Element Name	Equipment Package Name	Requirement
East Valley Dial-A-Ride Transit Vehicles	On-board Transit Trip Monitoring	The transit vehicle shall track the current location of the transit vehicle.
Flood Control District of Maricopa County ALERT	MCM Environmental Information Processing	The center shall respond to control data from center personnel regarding environmental sensor control and weather data collection and processing.
Flood Control District of Maricopa County ALERT	MCM Environmental Information Processing	The center shall assimilate current and forecast road conditions and surface weather information using a combination of weather service provider information (such as the National Weather Service and value-added sector specific meteorological services) and local environmental sensor data.
Flood Control District of Maricopa County ALERT	MCM Environmental Information Processing	The center shall use the various data inputs of environmental sensors and road weather data to develop a view of current and predicted road weather and road conditions.
Flood Control District of Maricopa County ALERT	MCM Environmental Information Processing	The center shall disseminate current and forecasted road weather and road condition information to weather service providers (such as the National Weather Service and value-added sector specific meteorological services) as well as other agencies including traffic, emergency, and transit management, traveler information providers, rail operations centers, media, and other maintenance management centers.
Flood Control District of Maricopa County ALERT	MCM Environmental Information Processing	The center shall provide value-added sector specific meteorological services with information on basic road facility and treatment information that supports forecasts for road conditions.
Flood Control District of Maricopa County ALERT	MCM Environmental Information Collection	The center shall remotely control environmental sensors that measure road surface temperature, moisture, icing, salinity, and other measures.
Flood Control District of Maricopa County ALERT	MCM Environmental Information Collection	The center shall remotely control environmental sensors that measure weather conditions including temperature, wind, humidity, precipitation, and visibility.
Flood Control District of Maricopa County ALERT	MCM Environmental Information Collection	The center shall remotely control environmental sensors on-board maintenance and construction vehicles that measure road and weather conditions including air and surface temperatures, wind speed, humidity, precipitation, visibility and other measures.
Flood Control District of Maricopa County ALERT	MCM Environmental Information Collection	The center shall collect environmental probe data (air temperature, exterior light status, wiper status, traction control status, etc.) from short range communications equipment that communicates with appropriately equipped probe vehicles.
Flood Control District of Maricopa County ALERT	MCM Environmental Information Collection	The center shall assimilate current and forecast road conditions and surface weather information using a combination of weather service provider information (such as the National Weather Service and value-added sector specific meteorological services), data from traffic and traveler information providers, and environmental data collected from sensors deployed on and about the roadway as well as the fleet of maintenance and construction vehicles and the broader population of vehicle probes.
Flood Control District of Maricopa County ALERT	MCM Environmental Information Collection	The center shall provide weather and road condition information to weather service providers and center personnel.
Flood Control District of Maricopa County ALERT	MCM Environmental Information Collection	The center shall respond to control data from center personnel regarding environmental sensor control and weather data collection and processing.
Flood Control District of Maricopa County ALERT	MCM Environmental Information Collection	The center shall collect operational status for the roadside and vehicle-based environmental sensor equipment.
Flood Control District of Maricopa County ALERT	MCM Environmental Information Collection	The center shall collect fault data for the roadside and vehicle-based environmental sensor equipment for repair.
Flood Control District of Maricopa County ALERT	MCM Incident Management	The center shall receive inputs from the Alerting and Advisory System concerning the possibility or occurrence of severe weather, terrorist activity, or other major emergency, including information provided by the Emergency Alert System.
Flood Control District of Maricopa County ALERT	MCM Incident Management	The center shall exchange alert information and status with emergency management centers. The information includes notification of a major emergency such as a natural or man-made disaster, civil emergency, or child abduction. The information may include the alert originator, the nature of the emergency, the geographic area affected by the emergency, the effective time period, etc.
Flood Control District of Maricopa County ALERT	MCM Incident Management	The center shall exchange incident and threat information with emergency management centers as well as traffic management centers; including notification of existence of incident and expected severity, location, time and nature of incident.
Flood Control District of Maricopa County ALERT	MCM Incident Management	The center shall coordinate planning for incidents with emergency management centers - including pre-planning activities for disaster response, evacuation, and recovery operations.

Element Name	Equipment Package Name	Requirement
Flood Control District of Maricopa County ALERT	MCM Incident Management	The center shall respond to requests from emergency management to provide maintenance and construction resources to implement response plans, assist in clean up, verify an incident, etc. This may also involve coordination with traffic management centers and other maintenance centers.
Flood Control District of Maricopa County ALERT	MCM Incident Management	The center shall exchange road network status assessment information with emergency management and traffic management centers including an assessment of damage sustained by the road network including location and extent of the damage, estimate of remaining capacity, required closures, alternate routes, necessary restrictions, and time frame for repair and recovery.
Flood Control District of Maricopa County ALERT	MCM Incident Management	The center shall provide work zone activities affecting the road network including the nature of the maintenance or construction activity, location, impact to the roadway, expected time(s) and duration of impact, anticipated delays, alternate routes, and suggested speed limits. This information may be augmented with images that provide a visual indication of current work zone status and traffic impacts.
Flood Control District of Maricopa County ALERT	MCM Incident Management	The center shall receive information indicating the damage sustained by transportation assets, derived from aerial surveillance, field reports, inspections, tests, and analyses to support incident management.
Flood Control District of Maricopa County Weather Sensors	Roadway Environmental Monitoring	The field element shall include surface and sub-surface environmental sensors that measure road surface temperature, moisture, icing, salinity, and other measures.
Independent Fare Collection System Server	Transit Center Fare Management	The center shall manage the actual value of transit fares for each segment of each regular transit route, including the transmission of the information to transit vehicles and transit stops or stations.
Independent School District Buses	On-board Transit Trip Monitoring	The transit vehicle shall track the current location of the transit vehicle.
Independent School Districts Dispatch	Transit Center Vehicle Tracking	The center shall monitor the locations of all transit vehicles within its network.
ITIP Sensors	Roadway Basic Surveillance	The field element shall collect, process, digitize, and send traffic sensor data (speed, volume, and occupancy) to the center for further analysis and storage, under center control.
ITIP Sensors	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
ITIP Sensors	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
ITIP Sensors	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
ITIP Sensors	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
Local City and Municipal Archived Data	ITS Data Repository	The center shall collect data to be archived from one or more data sources.
Local City and Municipal Archived Data	ITS Data Repository	The center shall include capabilities for archive to archive coordination.
Local City and Municipal Archived Data	ITS Data Repository	The center shall support a broad range of archived data management implementations, ranging from simple data marts that collect a focused set of data and serve a particular user community to large-scale data warehouses that collect, integrate, and summarize transportation data from multiple sources and serve a broad array of users within a region.
Local City and Municipal Archived Data	ITS Data Repository	The center shall perform quality checks on received data.
Local City and Municipal Archived Data	ITS Data Repository	The center shall provide the capability to execute methods on the incoming data such as cleansing, summarizations, aggregations, or transformations applied to the data before it is stored in the archive.
Local City and Municipal Archived Data	ITS Data Repository	The center shall respond to requests from the administrator interface function to maintain the archive data.
Local City and Municipal Archived Data	ITS Data Repository	When data or a catalog of data is received from the archive, the center shall generate the requested data product for the users systems.
Local City and Municipal Archived Data	ITS Data Repository	For archive data requiring financial payment, the center shall process the financial requests and manage an interface to a Financial Institution.

Element Name	Equipment Package Name	Requirement
Local City and Municipal Archived Data	Government Reporting Systems Support	The center shall provide data from an ITS archive to federal, state, or local government reporting systems.
Local City and Municipal Archived Data	Government Reporting Systems Support	The center shall provide the capability to select data from an ITS archive for use in government reports.
Local City and Municipal Archived Data	Government Reporting Systems Support	The center shall provide the capability to format data from an ITS archive suitable for input into government reports.
Local City and Municipal Archived Data	Government Reporting Systems Support	The center shall support requests for ITS archived data from Government Reporting Systems.
Local City and Municipal Archived Data	Government Reporting Systems Support	The center shall provide the applicable meta-data for any ITS archived data to satisfy government reporting system requests. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
Local City and Municipal Archived Data	Traffic and Roadside Data Archival	The center shall manage the collection of archive data directly from collection equipment located at the roadside.
Local City and Municipal Archived Data	Traffic and Roadside Data Archival	The center shall collect traffic sensor information from roadside devices.
Local City and Municipal Archived Data	Traffic and Roadside Data Archival	The center shall collect environmental sensor information that from roadside devices.
Local City and Municipal Archived Data	Traffic and Roadside Data Archival	The center shall respond to requests from the Archive Data Administer to input the parameters that control the collection process.
Local City and Municipal Archived Data	Traffic and Roadside Data Archival	The center shall send the request for data and control parameters to the field equipment where the information is collected and returned.
Local City and Municipal Archived Data	Traffic and Roadside Data Archival	The center shall record the status about the imported traffic and roadside data.
Local City and Municipal Archived Data	Traffic and Roadside Data Archival	The center shall use the status information to adjust the collection of traffic and roadside data.
Local City and Municipal ITS Field Equipment	Roadway Basic Surveillance	The field element shall collect, process, digitize, and send traffic sensor data (speed, volume, and occupancy) to the center for further analysis and storage, under center control.
Local City and Municipal ITS Field Equipment	Roadway Traffic Information Dissemination	The field element shall include dynamic messages signs for dissemination of traffic and other information to drivers, under center control; the DMS may be either those that display variable text messages, or those that have fixed format display(s) (e.g. vehicle restrictions, or lane open/close).
Local City and Municipal ITS Field Equipment	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
Local City and Municipal ITS Field Equipment	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
Local City and Municipal ITS Field Equipment	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
Local City and Municipal ITS Field Equipment	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
Local City and Municipal REACT Vehicles	On-board EV En Route Support	The emergency vehicle, including roadway service patrols, shall track its current location.
Local City and Municipal REACT Vehicles	On-board EV Incident Management Communication	The emergency vehicle shall receive dispatch instructions sufficient to enable emergency personnel in the field to implement an effective incident response. It includes local traffic, road, and weather conditions, hazardous material information, and the current status of resources that have been allocated to an incident.
Local City and Municipal TMC	Collect Traffic Surveillance	The center shall monitor, analyze, and store traffic sensor data (speed, volume, occupancy) collected from field elements under remote control of the center.
Local City and Municipal TMC	HRI Traffic Management	The center shall remotely control highway-rail intersection (HRI) equipment located in the field.

Element Name	Equipment Package Name	Requirement
Local City and Municipal TMC	TMC Environmental Monitoring	The center shall remotely control environmental sensors that measure road surface temperature, moisture, icing, salinity, and other measures.
Local City and Municipal TMC	TMC Incident Detection	The center shall receive inputs from the Alerting and Advisory System concerning the possibility or occurrence of severe weather, terrorist activity, or other major emergency, including information provided by the Emergency Alert System.
Local City and Municipal TMC	TMC Incident Dispatch Coordination/Communication	The center shall exchange alert information and status with emergency management centers. The information includes notification of a major emergency such as a natural or man-made disaster, civil emergency, or child abduction for distribution to the public. The information may include the alert originator, the nature of the emergency, the geographic area affected by the emergency, the effective time period, and information and instructions necessary for the public to respond to the alert. This may also identify specific information that should not be released to the public.
Local City and Municipal TMC	TMC Multimodal Coordination	The center shall respond to requests from transit management centers for signal priority at one or more intersections along a particular transit route.
Local City and Municipal TMC	TMC Regional Traffic Management	The center shall exchange traffic information with other traffic management centers including incident information, congestion data, traffic data, signal timing plans, and real-time signal control information.
Local City and Municipal TMC	TMC Signal Control	The center shall remotely control traffic signal controllers.
Local City and Municipal TMC	TMC Traffic Information Dissemination	The center shall remotely control dynamic messages signs for dissemination of traffic and other information to drivers.
Local City and Municipal TMC	Traffic Equipment Maintenance	The center shall collect and store sensor (traffic, pedestrian, multimodal crossing) operational status.
Local City and Municipal TMC	HRI Traffic Management	The center shall collect highway-rail intersection (HRI) equipment operational status and compare against the control information sent by the center.
Local City and Municipal TMC	HRI Traffic Management	The center shall provide the highway-rail intersection (HRI) equipment operational status to rail operations centers.
Local City and Municipal TMC	Traffic Data Collection	The center shall collect traffic management data such as operational data, event logs, etc.
Local City and Municipal TMC	Traffic Data Collection	The center shall assign quality control metrics and meta-data to be stored along with the data. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
Local City and Municipal TMC	Traffic Data Collection	The center shall receive and respond to requests from ITS Archives for either a catalog of the traffic data or for the data itself.
Local City and Municipal TMC	Traffic Data Collection	The center shall be able to produce sample products of the data available.
Local City and Municipal TMC	TMC Speed Monitoring and Warning	The center shall remotely control vehicle speed sensors typically placed in work zones; control parameters may include environmental and traffic conditions.
Local City and Municipal TMC	TMC Speed Monitoring and Warning	The center shall collect operational status for the vehicle speed sensors; the status shall include logged information including measured speeds, warning messages displayed, and violation records.
Local City and Municipal TMC	TMC Speed Monitoring and Warning	The center shall provide the capability to notify an enforcement agency when vehicle speeds in the work zone are in excess of the posted speed limit or are creating an unsafe condition based upon the current environmental or traffic conditions.
Local City and Municipal TMC	TMC Speed Monitoring and Warning	The center shall collect fault data for the vehicle speed sensors for repair.
Local City and Municipal TMC	TMC Work Zone Traffic Management	The center shall receive work zone images from a maintenance center.
Local City and Municipal TMC	TMC Work Zone Traffic Management	The center shall analyze work zone images for indications of a possible incident.
Local City and Municipal TMC	TMC Work Zone Traffic Management	The center shall remotely control driver information systems (such as dynamic messages signs, highway advisory radios) to advise drivers of activity around a work zone.
Local City and Municipal TMC	TMC Work Zone Traffic Management	The center shall collect operational status for the driver information systems equipment in work zones.
Local City and Municipal TMC	TMC Work Zone Traffic Management	The center shall collect fault data for the driver information systems equipment in work zones for repair.
Local City and Municipal TMC	TMC Work Zone Traffic Management	The center shall receive proposed maintenance and construction work plans, analyze the activity as a possible incident, and provide work plan feedback to the sending center.
Local City and Municipal Traffic Signals	Roadway Signal Controls	The field element shall control traffic signals under center control.
Local City and Municipal Traffic Signals	Roadway Signal Priority	The field element shall respond to signal priority requests from transit vehicles.

Element Name	Equipment Package Name	Requirement
Local City and Municipal Traffic Signals	Standard Rail Crossing	The field element shall collect and process, traffic sensor data in the vicinity of a highway-rail intersection (HRI).
Local City and Municipal Traffic Signals	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
Local City and Municipal Traffic Signals	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
Local City and Municipal Traffic Signals	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
Local City and Municipal Traffic Signals	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
Local Dial-A-Ride Transit Dispatches	Transit Center Information Services	The center shall provide travelers using public transportation with traffic and advisory information upon request. Such information may include transit routes, schedules, transfer options, fares, real-time schedule adherence, current incidents, weather conditions, and special events.
Local Dial-A-Ride Transit Dispatches	Transit Center Multi-Modal Coordination	The center shall coordinate schedules and services between transit agencies, traffic management, maintenance and construction operations, parking management, and other surface or air transportation modes.
Local Dial-A-Ride Transit Dispatches	Transit Center Paratransit Operations	The center shall process trip requests for demand responsive transit services, i.e. paratransit. Sources of the requests may include traveler information service providers.
Local Dial-A-Ride Transit Dispatches	Transit Center Security	The center shall monitor transit vehicle operational data to determine if the transit vehicle is off-route and assess whether a security incident is occurring.
Local Dial-A-Ride Transit Dispatches	Transit Center Vehicle Tracking	The center shall monitor the locations of all transit vehicles within its network.
Local Dial-A-Ride Transit Dispatches	Transit Garage Maintenance	The center shall collect operational and maintenance data from transit vehicles.
Local Dial-A-Ride Transit Dispatches	Transit Vehicle Operator Assignment	The center shall maintain records of a transit vehicle operator's performance. This may be done utilizing standardized performance evaluation criteria set forth by governmental regulations and transit operating company policies, assessing the transit vehicle operator's driving history, and assessing comments from the transit vehicle operator's supervisor(s) as well as noting any moving violations or accidents, supervisor comments, government regulations, and company policies.
Local Dial-A-Ride Transit Dispatches	Transit Data Collection	The center shall collect transit management data such as transit fares and passenger use, transit services, paratransit operations, transit vehicle maintenance data, etc.
Local Dial-A-Ride Transit Dispatches	Transit Data Collection	The center shall assign quality control metrics and meta-data to be stored along with the data. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
Local Dial-A-Ride Transit Dispatches	Transit Data Collection	The center shall receive and respond to requests from ITS Archives for either a catalog of the transit data or for the data itself.
Local Dial-A-Ride Transit Dispatches	Transit Data Collection	The center shall be able to produce sample products of the data available.
Local Dial-A-Ride Transit Dispatches	Transit Environmental Monitoring	The center shall assimilate current and forecast road conditions and surface weather information to more effectively manage transit operations.
Local Dial-A-Ride Transit Dispatches	Transit Environmental Monitoring	The center shall collect current and forecast road and weather information from weather service providers and roadway maintenance centers.
Local Dial-A-Ride Transit Dispatches	Transit Vehicle Assignment	The center shall assign individual transit vehicles to transit blocks.
Local Dial-A-Ride Transit Dispatches	Transit Vehicle Assignment	The center shall download vehicle assignments to the transit vehicle prior to the start of the day's operations.
Local Dial-A-Ride Transit Dispatches	Transit Vehicle Assignment	The center shall provide an exception handling process for the vehicle assignment function. This process shall generate new supplemental vehicle assignments as required due to change events which occur during the operating day.
Local Dial-A-Ride Transit Dispatches	Transit Vehicle Assignment	The center shall provide an inventory management function for the transit facility that stores functional attributes about each vehicle owned by the transit operator. The functional attributes permit the planning and assignment functions to match vehicles with routes based on suitability for the types of service required by the particular routes.
Local Dial-A-Ride Transit Dispatches	Transit Vehicle Assignment	The center shall generate transit vehicle availability listings, current and forecast, to support transit vehicle assignment planning.
Local Dial-A-Ride Transit Dispatches	Transit Vehicle Assignment	The center shall provide transit operations personnel with the capability to update transit vehicle assignments and receive reports on transit vehicle inventory status.
Local Dial-A-Ride Transit Vehicles	On-board Maintenance	The transit vehicle shall collect and process vehicle mileage data available to sensors on-board.

Element Name	Equipment Package Name	Requirement
Local Dial-A-Ride Transit Vehicles	On-board Paratransit Operations	The transit vehicle shall manage data input to sensor(s) on-board a transit vehicle to determine the vehicle's availability for use in demand responsive and flexible-route transit services based on identity, type, and passenger capacity.
Local Dial-A-Ride Transit Vehicles	On-board Schedule Management	The transit vehicle shall receive a vehicle assignment including transit route information, transit service instructions, traffic information, road conditions, and other information for the operator.
Local Dial-A-Ride Transit Vehicles	On-board Transit Security	The transit vehicle shall perform video and audio surveillance inside of transit vehicles and output raw video or audio data for either local monitoring (for processing or direct output to the transit vehicle operator), remote monitoring or for local storage (e.g., in an event recorder).
Local Dial-A-Ride Transit Vehicles	On-board Transit Trip Monitoring	The transit vehicle shall track the current location of the transit vehicle.
Local EOCs	Emergency Call-Taking	The center shall support the interface to the Emergency Telecommunications System (e.g. 911 or 7-digit call routing) to receive emergency notification information and provide it to the emergency system operator.
Local EOCs	Emergency Dispatch	The center shall dispatch emergency vehicles to respond to verified emergencies under center personnel control.
Local EOCs	Emergency Call-Taking	The center shall receive emergency call information from 911 services and present the possible incident information to the emergency system operator.
Local EOCs	Emergency Call-Taking	The center shall receive emergency notification information from other public safety agencies and present the possible incident information to the emergency system operator.
Local EOCs	Emergency Call-Taking	The center shall receive emergency notification information from public transit systems and present the possible incident information to the emergency system operator.
Local EOCs	Emergency Call-Taking	The center shall coordinate, correlate, and verify all emergency inputs, including those identified based on external calls and internal analysis of security sensor and surveillance data, and assign each a level of confidence.
Local EOCs	Emergency Call-Taking	The center shall send a request for remote control of CCTV systems from a traffic management center in order to verify the reported incident.
Local EOCs	Emergency Call-Taking	The center shall forward the verified emergency information to the responding agency based on the location and nature of the emergency.
Local EOCs	Emergency Call-Taking	The center shall update the incident information log once the emergency system operator has verified the incident.
Local EOCs	Emergency Dispatch	The center shall track the location and status of emergency vehicles responding to an emergency based on information from the emergency vehicle.
Local EOCs	Emergency Dispatch	The center shall store and maintain the emergency service responses in an action log.
Local EOCs	Emergency Dispatch	The center shall provide the capability to request remote control of traffic surveillance devices
Local EOCs	Emergency Dispatch	The center shall coordinate response to incidents with other Emergency Management centers to ensure appropriate resources are dispatched and utilized.
Local EOCs	Emergency Environmental Monitoring	The center shall collect current and forecast road and weather information from weather service providers (such as the National Weather Service and value-added sector specific meteorological services).
Local EOCs	Emergency Environmental Monitoring	The center shall collect current road and weather information from roadway maintenance operations.
Local EOCs	Emergency Environmental Monitoring	The center shall assimilate current and forecast road conditions and surface weather information to support incident management.
Local EOCs	Emergency Environmental Monitoring	The center shall present the current and forecast road and weather information to the emergency system operator.
Local EOCs	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways). The data may be raw or pre-processed in the field.
Local EOCs	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers). The data may be raw or pre-processed in the field.
Local EOCs	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected on-board transit vehicles. The data may be raw or pre-processed in the field.
Local EOCs	Center Secure Area Surveillance	The center shall exchange surveillance data with other emergency centers.
Local EOCs	Center Secure Area Surveillance	The center shall identify potential security threats based on collected security surveillance data.
Local EOCs	Center Secure Area Surveillance	The center shall verify potential security threats by correlating security surveillance data from multiple sources.
Local EOCs	Center Secure Area Surveillance	The center shall remotely control security surveillance devices in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways).

Element Name	Equipment Package Name	Requirement
Local EOCs	Center Secure Area Surveillance	The center shall remotely control security surveillance devices in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers).
Local EOCs	Center Secure Area Surveillance	The center shall remotely control security surveillance devices on-board transit vehicles.
Local EOCs	Center Secure Area Surveillance	The center shall match traveler video images against a database from the Alerting and Advisory Systems of known images that may represent criminals and terrorists.
Local EOCs	Center Secure Area Surveillance	The center shall exchange traveler images with other emergency management centers to support traveler image matching.
Local EOCs	Center Secure Area Surveillance	The center shall respond to control data from center personnel regarding security surveillance data collection, processing, threat detection, and image matching.
Local EOCs	Center Secure Area Surveillance	The center shall monitor maintenance status of the security sensor field equipment.
Local EOCs	Emergency Early Warning System	The center shall monitor information from Alerting and Advisory Systems such as the Information Sharing and Analysis Centers (ISACs), the National Infrastructure Protection Center (NIPC), the Homeland Security Advisory System (HSAS), etc. The information may include assessments (general incident and vulnerability awareness information), advisories (identification of threats or recommendations to increase preparedness levels), or alerts (information on imminent or in-progress emergencies).
Local EOCs	Emergency Early Warning System	The center shall provide the capability to correlate alerts and advisories, incident information, and security sensor and surveillance data.
Local EOCs	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to traffic management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Local EOCs	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to transit management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Local EOCs	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to toll administration centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Local EOCs	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to traveler information service providers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Local EOCs	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to maintenance centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Local EOCs	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to other emergency management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Local EOCs	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to commercial vehicle administration centers and roadside check facilities for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Local EOCs	Emergency Early Warning System	The center shall process status information from each of the centers that have been sent the wide-area alert.
Local EOCs	Emergency Early Warning System	The center shall coordinate the broadcast of wide-area alerts and advisories with other emergency management centers.
Local EOCs	Emergency Early Warning System	The center shall receive incident information from other transportation management centers to support the early warning system.
Local EOCs	Emergency Early Warning System	The center shall present the alert and advisory information and the status of the actions taken in response to the alert by the other centers to the emergency system operator as received from other system inputs.
Local EOCs	Emergency Early Warning System	The center shall support the entry of alert and advisory information directly from the emergency system operator.

Element Name	Equipment Package Name	Requirement
Local EOCs	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways). The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors), infrastructure condition and integrity, intrusion and motion, and object detection sensors. The data may be raw or pre-processed in the field.
Local EOCs	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers). The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors), intrusion and motion, and object detection sensors. The data may be raw or pre-processed in the field.
Local EOCs	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected on-board transit vehicles. The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors) and object detection sensors. The data may be raw or pre-processed in the field.
Local EOCs	Center Secure Area Sensor Management	The center shall exchange security sensor data with other emergency centers.
Local EOCs	Center Secure Area Sensor Management	The center shall identify potential security threats based on collected security sensor data.
Local EOCs	Center Secure Area Sensor Management	The center shall verify potential security threats by correlating security sensor data from multiple sources.
Local EOCs	Center Secure Area Sensor Management	The center shall perform threat analysis based on correlations of security sensor and surveillance data.
Local EOCs	Center Secure Area Sensor Management	The center shall exchange threat analysis data with Alerting and Advisory Systems and use that data in local threat analysis processing.
Local EOCs	Center Secure Area Sensor Management	The center shall disseminate threat information to other agencies, including traffic, transit, maintenance, rail operations, and other emergency management centers.
Local EOCs	Center Secure Area Sensor Management	The center shall respond to control data from center personnel regarding security sensor data collection, processing, threat detection, and threat analysis.
Local EOCs	Center Secure Area Sensor Management	The center shall request activation of barriers and safeguards on request from center personnel.
Local EOCs	Center Secure Area Sensor Management	The center shall monitor maintenance status of the security sensor field equipment.
Local Fire and EMS Dispatch	Emergency Call-Taking	The center shall support the interface to the Emergency Telecommunications System (e.g. 911 or 7-digit call routing) to receive emergency notification information and provide it to the emergency system operator.
Local Fire and EMS Dispatch	Emergency Dispatch	The center shall dispatch emergency vehicles to respond to verified emergencies under center personnel control.
Local Fire and EMS Dispatch	Emergency Call-Taking	The center shall receive emergency call information from 911 services and present the possible incident information to the emergency system operator.
Local Fire and EMS Dispatch	Emergency Call-Taking	The center shall receive emergency notification information from other public safety agencies and present the possible incident information to the emergency system operator.
Local Fire and EMS Dispatch	Emergency Call-Taking	The center shall receive emergency notification information from public transit systems and present the possible incident information to the emergency system operator.
Local Fire and EMS Dispatch	Emergency Call-Taking	The center shall coordinate, correlate, and verify all emergency inputs, including those identified based on external calls and internal analysis of security sensor and surveillance data, and assign each a level of confidence.
Local Fire and EMS Dispatch	Emergency Call-Taking	The center shall send a request for remote control of CCTV systems from a traffic management center in order to verify the reported incident.
Local Fire and EMS Dispatch	Emergency Call-Taking	The center shall forward the verified emergency information to the responding agency based on the location and nature of the emergency.
Local Fire and EMS Dispatch	Emergency Call-Taking	The center shall update the incident information log once the emergency system operator has verified the incident.
Local Fire and EMS Dispatch	Emergency Dispatch	The center shall track the location and status of emergency vehicles responding to an emergency based on information from the emergency vehicle.
Local Fire and EMS Dispatch	Emergency Dispatch	The center shall store and maintain the emergency service responses in an action log.
Local Fire and EMS Dispatch	Emergency Dispatch	The center shall provide the capability to request remote control of traffic surveillance devices
Local Fire and EMS Dispatch	Emergency Dispatch	The center shall coordinate response to incidents with other Emergency Management centers to ensure appropriate resources are dispatched and utilized.
Local Fire and EMS Dispatch	Emergency Response Management	The center shall provide strategic emergency response capabilities provided by an Emergency Operations Center for large-scale incidents and disasters.

Element Name	Equipment Package Name	Requirement
Local Fire and EMS Dispatch	Emergency Response Management	The center shall manage coordinated inter-agency responses to and recovery from large-scale emergencies. Such agencies include traffic management, transit, maintenance and construction management, rail operations, and other emergency management agencies.
Local Fire and EMS Dispatch	Emergency Response Management	The center shall provide the capability to implement response plans and track progress through the incident by exchanging incident information and response status with allied agencies.
Local Fire and EMS Dispatch	Emergency Response Management	The center shall develop, coordinate with other agencies, and store emergency response plans.
Local Fire and EMS Dispatch	Emergency Response Management	The center shall track the availability of resources and coordinate resource sharing with allied agency centers including traffic, maintenance, or other emergency centers.
Local Fire and EMS Dispatch	Emergency Response Management	The center shall allocate the appropriate emergency services, resources, and vehicle (s) to respond to incidents, and shall provide the capability to override the current allocation to suit the special needs of a current incident.
Local Fire and EMS Dispatch	Emergency Response Management	The center shall receive event scheduling information from Event Promoters.
Local Fire and EMS Dispatch	Emergency Response Management	The center shall support remote control of field equipment normally under control of the traffic management center including traffic signals, dynamic message signs, gates, and barriers.
Local Fire and EMS Dispatch	Emergency Response Management	The center shall provide the capability to remotely control and monitor CCTV systems normally operated by a traffic management center.
Local Fire and EMS Dispatch	Emergency Response Management	The center shall provide the capability to request transit resource availability from transit centers for use during disaster and evacuation operations.
Local Fire and EMS Dispatch	Emergency Response Management	The center shall assimilate the damage assessment of the transit, traffic, rail, maintenance, and other emergency center services and systems to create an overall transportation system status, and disseminate to each of these centers and the traveling public via traveler information providers.
Local Fire and EMS Dispatch	Emergency Response Management	The center shall provide information to the media concerning the status of an emergency response.
Local Fire and EMS Dispatch	Emergency Response Management	The center shall provide the capability for digitized map data to act as the background to the information presented to the emergency system operator.
Local Fire and EMS Dispatch	Emergency Response Management	The center shall provide the capability for center personnel to provide inputs to the management of incidents, disasters and evacuations.
Local Fire and EMS Dispatch	Emergency Response Management	The center shall collect information about the status of the recovery efforts for the infrastructure during disasters.
Local Fire and EMS Dispatch	Emergency Response Management	The center shall provide the overall status of infrastructure recovery efforts to traveler information providers and media.
Local Fire and EMS Dispatch	Emergency Response Management	The center shall provide the capability to communicate information about emergency situations to local population through the Emergency Telecommunications System.
Local Fire and EMS Dispatch	Emergency Response Management	The center shall provide the capability to identify neighborhoods and businesses that should be informed of an emergency situation based on information collected about incidents including their severity, impacted locations, and recovery schedule.
Local Fire and EMS Dispatch	Emergency Response Management	The center shall retrieve information from public health systems to increase preparedness for, and implement a response to biological, chemical, radiation, and other public health emergencies.
Local Fire and EMS Dispatch	Emergency Response Management	The center shall manage coordinated inter-agency responses to incidents at an international border.
Local Fire and EMS Dispatch	Emergency Environmental Monitoring	The center shall collect current and forecast road and weather information from weather service providers (such as the National Weather Service and value-added sector specific meteorological services).
Local Fire and EMS Dispatch	Emergency Environmental Monitoring	The center shall collect current road and weather information from roadway maintenance operations.
Local Fire and EMS Dispatch	Emergency Environmental Monitoring	The center shall assimilate current and forecast road conditions and surface weather information to support incident management.
Local Fire and EMS Dispatch	Emergency Environmental Monitoring	The center shall present the current and forecast road and weather information to the emergency system operator.
Local Fire and EMS Dispatch	Incident Command	The center shall provide tactical decision support, resource coordination, and communications integration for Incident Commands that are established by first responders to support local management of an incident.
Local Fire and EMS Dispatch	Incident Command	The center shall provide incident command communications with public safety, emergency management, transportation, and other allied response agency centers.
Local Fire and EMS Dispatch	Incident Command	The center shall track and maintain resource information and action plans pertaining to the incident command.
Local Fire and EMS Dispatch	Incident Command	The center shall share incident command information with other public safety agencies including resource deployment status, hazardous material information, rail incident information, evacuation advice as well as traffic, road, and weather conditions.
Local Fire and EMS Dispatch	Incident Command	The center shall assess the status of responding emergency vehicles as part of an incident command.

Element Name	Equipment Package Name	Requirement
Local Fire/EMS Vehicles	On-board EV En Route Support	The emergency vehicle, including roadway service patrols, shall track its current location.
Local PIOs	Basic Information Broadcast	The center shall disseminate traffic and highway condition information to travelers, including incident information, detours and road closures, event information, recommended routes, and current speeds on specific routes.
Local PIOs	Basic Information Broadcast	The center shall disseminate transit routes and schedules, transit transfer options, transit fares, and real-time schedule adherence information to travelers.
Local PIOs	Basic Information Broadcast	The center shall disseminate toll fee information to travelers.
Local PIOs	Basic Information Broadcast	The center shall disseminate event information to travelers.
Local PIOs	Basic Information Broadcast	The center shall provide the capability to support requests from the media for traffic and incident data.
Local PIOs	ISP Emergency Traveler Information	The center shall disseminate emergency evacuation information to the traveler interface systems, including evacuation zones, shelter information, available transportation modes, road closures and detours, changes to transit services, and traffic and road conditions at the origin, destination, and along the evacuation routes.
Local PIOs	ISP Emergency Traveler Information	The center shall provide evacuation information to shelter providers.
Local PIOs	ISP Emergency Traveler Information	The center shall disseminate wide-area alert information to the traveler interface systems, including major emergencies such as a natural or man-made disaster, civil emergency, child abductions, severe weather watches and warnings, military activities, and law enforcement warnings.
Local PIOs	ISP Emergency Traveler Information	The center shall provide the capability for a system operator to control the type and update frequency of emergency and wide-area alert information distributed to travelers.
Local PIOs	ISP Traveler Data Collection	The center shall collect, process, and store traffic and highway condition information, including incident information, detours and road closures, event information, recommended routes, and current speeds on specific routes.
Local PIOs	ISP Traveler Data Collection	The center shall collect, process, and store maintenance and construction information, including scheduled maintenance and construction work activities and work zone activities.
Local PIOs	ISP Traveler Data Collection	The center shall collect, process, and store transit routes and schedules, transit transfer options, transit fares, and real-time schedule adherence information.
Local PIOs	ISP Traveler Data Collection	The center shall collect, process, and store parking information, including location, availability, and fees.
Local PIOs	ISP Traveler Data Collection	The center shall collect, process, and store toll fee information.
Local PIOs	ISP Traveler Data Collection	The center shall collect, process, and store current and forecast road conditions and surface weather conditions.
Local PIOs	ISP Traveler Data Collection	The center shall collect, process, and store event information.
Local PIOs	ISP Traveler Data Collection	The center shall collect, process, and store air quality information.
Local PIOs	ISP Traveler Data Collection	The center shall collect, process, and store border crossing information.
Local Police Dispatch	Emergency Call-Taking	The center shall support the interface to the Emergency Telecommunications System (e.g. 911 or 7-digit call routing) to receive emergency notification information and provide it to the emergency system operator.
Local Police Dispatch	Emergency Dispatch	The center shall dispatch emergency vehicles to respond to verified emergencies under center personnel control.
Local Police Dispatch	Emergency Call-Taking	The center shall receive emergency call information from 911 services and present the possible incident information to the emergency system operator.
Local Police Dispatch	Emergency Call-Taking	The center shall receive emergency notification information from other public safety agencies and present the possible incident information to the emergency system operator.
Local Police Dispatch	Emergency Call-Taking	The center shall receive emergency notification information from public transit systems and present the possible incident information to the emergency system operator.
Local Police Dispatch	Emergency Call-Taking	The center shall coordinate, correlate, and verify all emergency inputs, including those identified based on external calls and internal analysis of security sensor and surveillance data, and assign each a level of confidence.
Local Police Dispatch	Emergency Call-Taking	The center shall send a request for remote control of CCTV systems from a traffic management center in order to verify the reported incident.
Local Police Dispatch	Emergency Call-Taking	The center shall forward the verified emergency information to the responding agency based on the location and nature of the emergency.
Local Police Dispatch	Emergency Call-Taking	The center shall update the incident information log once the emergency system operator has verified the incident.
Local Police Dispatch	Emergency Dispatch	The center shall track the location and status of emergency vehicles responding to an emergency based on information from the emergency vehicle.
Local Police Dispatch	Emergency Dispatch	The center shall store and maintain the emergency service responses in an action log.

Element Name	Equipment Package Name	Requirement
Local Police Dispatch	Emergency Dispatch	The center shall provide the capability to request remote control of traffic surveillance devices
Local Police Dispatch	Emergency Dispatch	The center shall coordinate response to incidents with other Emergency Management centers to ensure appropriate resources are dispatched and utilized.
Local Police Dispatch	Emergency Response Management	The center shall provide strategic emergency response capabilities provided by an Emergency Operations Center for large-scale incidents and disasters.
Local Police Dispatch	Emergency Response Management	The center shall manage coordinated inter-agency responses to and recovery from large-scale emergencies. Such agencies include traffic management, transit, maintenance and construction management, rail operations, and other emergency management agencies.
Local Police Dispatch	Emergency Response Management	The center shall provide the capability to implement response plans and track progress through the incident by exchanging incident information and response status with allied agencies.
Local Police Dispatch	Emergency Response Management	The center shall develop, coordinate with other agencies, and store emergency response plans.
Local Police Dispatch	Emergency Response Management	The center shall track the availability of resources and coordinate resource sharing with allied agency centers including traffic, maintenance, or other emergency centers.
Local Police Dispatch	Emergency Response Management	The center shall allocate the appropriate emergency services, resources, and vehicle (s) to respond to incidents, and shall provide the capability to override the current allocation to suit the special needs of a current incident.
Local Police Dispatch	Emergency Response Management	The center shall receive event scheduling information from Event Promoters.
Local Police Dispatch	Emergency Response Management	The center shall support remote control of field equipment normally under control of the traffic management center including traffic signals, dynamic message signs, gates, and barriers.
Local Police Dispatch	Emergency Response Management	The center shall provide the capability to remotely control and monitor CCTV systems normally operated by a traffic management center.
Local Police Dispatch	Emergency Response Management	The center shall provide the capability to request transit resource availability from transit centers for use during disaster and evacuation operations.
Local Police Dispatch	Emergency Response Management	The center shall assimilate the damage assessment of the transit, traffic, rail, maintenance, and other emergency center services and systems to create an overall transportation system status, and disseminate to each of these centers and the traveling public via traveler information providers.
Local Police Dispatch	Emergency Response Management	The center shall provide information to the media concerning the status of an emergency response.
Local Police Dispatch	Emergency Response Management	The center shall provide the capability for digitized map data to act as the background to the information presented to the emergency system operator.
Local Police Dispatch	Emergency Response Management	The center shall provide the capability for center personnel to provide inputs to the management of incidents, disasters and evacuations.
Local Police Dispatch	Emergency Response Management	The center shall collect information about the status of the recovery efforts for the infrastructure during disasters.
Local Police Dispatch	Emergency Response Management	The center shall provide the overall status of infrastructure recovery efforts to traveler information providers and media.
Local Police Dispatch	Emergency Response Management	The center shall provide the capability to communicate information about emergency situations to local population through the Emergency Telecommunications System.
Local Police Dispatch	Emergency Response Management	The center shall provide the capability to identify neighborhoods and businesses that should be informed of an emergency situation based on information collected about incidents including their severity, impacted locations, and recovery schedule.
Local Police Dispatch	Emergency Response Management	The center shall retrieve information from public health systems to increase preparedness for, and implement a response to biological, chemical, radiation, and other public health emergencies.
Local Police Dispatch	Emergency Response Management	The center shall manage coordinated inter-agency responses to incidents at an international border.
Local Police Dispatch	Emergency Environmental Monitoring	The center shall collect current and forecast road and weather information from weather service providers (such as the National Weather Service and value-added sector specific meteorological services).
Local Police Dispatch	Emergency Environmental Monitoring	The center shall collect current road and weather information from roadway maintenance operations.
Local Police Dispatch	Emergency Environmental Monitoring	The center shall assimilate current and forecast road conditions and surface weather information to support incident management.
Local Police Dispatch	Emergency Environmental Monitoring	The center shall present the current and forecast road and weather information to the emergency system operator.
Local Police Dispatch	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways). The data may be raw or pre-processed in the field.

Element Name	Equipment Package Name	Requirement
Local Police Dispatch	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers). The data may be raw or pre-processed in the field.
Local Police Dispatch	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected on-board transit vehicles. The data may be raw or pre-processed in the field.
Local Police Dispatch	Center Secure Area Surveillance	The center shall exchange surveillance data with other emergency centers.
Local Police Dispatch	Center Secure Area Surveillance	The center shall identify potential security threats based on collected security surveillance data.
Local Police Dispatch	Center Secure Area Surveillance	The center shall verify potential security threats by correlating security surveillance data from multiple sources.
Local Police Dispatch	Center Secure Area Surveillance	The center shall remotely control security surveillance devices in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways).
Local Police Dispatch	Center Secure Area Surveillance	The center shall remotely control security surveillance devices in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers).
Local Police Dispatch	Center Secure Area Surveillance	The center shall remotely control security surveillance devices on-board transit vehicles.
Local Police Dispatch	Center Secure Area Surveillance	The center shall match traveler video images against a database from the Alerting and Advisory Systems of known images that may represent criminals and terrorists.
Local Police Dispatch	Center Secure Area Surveillance	The center shall exchange traveler images with other emergency management centers to support traveler image matching.
Local Police Dispatch	Center Secure Area Surveillance	The center shall respond to control data from center personnel regarding security surveillance data collection, processing, threat detection, and image matching.
Local Police Dispatch	Center Secure Area Surveillance	The center shall monitor maintenance status of the security sensor field equipment.
Local Police Dispatch	Incident Command	The center shall provide tactical decision support, resource coordination, and communications integration for Incident Commands that are established by first responders to support local management of an incident.
Local Police Dispatch	Incident Command	The center shall provide incident command communications with public safety, emergency management, transportation, and other allied response agency centers.
Local Police Dispatch	Incident Command	The center shall track and maintain resource information and action plans pertaining to the incident command.
Local Police Dispatch	Incident Command	The center shall share incident command information with other public safety agencies including resource deployment status, hazardous material information, rail incident information, evacuation advice as well as traffic, road, and weather conditions.
Local Police Dispatch	Incident Command	The center shall assess the status of responding emergency vehicles as part of an incident command.
Local Police Dispatch	Emergency Early Warning System	The center shall monitor information from Alerting and Advisory Systems such as the Information Sharing and Analysis Centers (ISACs), the National Infrastructure Protection Center (NIPC), the Homeland Security Advisory System (HSAS), etc. The information may include assessments (general incident and vulnerability awareness information), advisories (identification of threats or recommendations to increase preparedness levels), or alerts (information on imminent or in-progress emergencies).
Local Police Dispatch	Emergency Early Warning System	The center shall provide the capability to correlate alerts and advisories, incident information, and security sensor and surveillance data.
Local Police Dispatch	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to traffic management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Local Police Dispatch	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to transit management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Local Police Dispatch	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to toll administration centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Local Police Dispatch	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to traveler information service providers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.

Element Name	Equipment Package Name	Requirement
Local Police Dispatch	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to maintenance centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Local Police Dispatch	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to other emergency management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Local Police Dispatch	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to commercial vehicle administration centers and roadside check facilities for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Local Police Dispatch	Emergency Early Warning System	The center shall process status information from each of the centers that have been sent the wide-area alert.
Local Police Dispatch	Emergency Early Warning System	The center shall coordinate the broadcast of wide-area alerts and advisories with other emergency management centers.
Local Police Dispatch	Emergency Early Warning System	The center shall receive incident information from other transportation management centers to support the early warning system.
Local Police Dispatch	Emergency Early Warning System	The center shall present the alert and advisory information and the status of the actions taken in response to the alert by the other centers to the emergency system operator as received from other system inputs.
Local Police Dispatch	Emergency Early Warning System	The center shall support the entry of alert and advisory information directly from the emergency system operator.
Local Police Dispatch	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways). The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors), infrastructure condition and integrity, intrusion and motion, and object detection sensors. The data may be raw or pre-processed in the field.
Local Police Dispatch	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers). The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors), intrusion and motion, and object detection sensors. The data may be raw or pre-processed in the field.
Local Police Dispatch	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected on-board transit vehicles. The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors) and object detection sensors. The data may be raw or pre-processed in the field.
Local Police Dispatch	Center Secure Area Sensor Management	The center shall exchange security sensor data with other emergency centers.
Local Police Dispatch	Center Secure Area Sensor Management	The center shall identify potential security threats based on collected security sensor data.
Local Police Dispatch	Center Secure Area Sensor Management	The center shall verify potential security threats by correlating security sensor data from multiple sources.
Local Police Dispatch	Center Secure Area Sensor Management	The center shall perform threat analysis based on correlations of security sensor and surveillance data.
Local Police Dispatch	Center Secure Area Sensor Management	The center shall exchange threat analysis data with Alerting and Advisory Systems and use that data in local threat analysis processing.
Local Police Dispatch	Center Secure Area Sensor Management	The center shall disseminate threat information to other agencies, including traffic, transit, maintenance, rail operations, and other emergency management centers.
Local Police Dispatch	Center Secure Area Sensor Management	The center shall respond to control data from center personnel regarding security sensor data collection, processing, threat detection, and threat analysis.
Local Police Dispatch	Center Secure Area Sensor Management	The center shall request activation of barriers and safeguards on request from center personnel.
Local Police Dispatch	Center Secure Area Sensor Management	The center shall monitor maintenance status of the security sensor field equipment.
Local Police Dispatch	Center Secure Area Alarm Support	The center shall collect silent and audible alarms received from travelers in secure areas (such as transit stops, rest areas, park and ride lots, modal interchange facilities).
Local Police Dispatch	Center Secure Area Alarm Support	The center shall collect silent and audible alarms received from transit vehicles, originated by the traveler or the transit vehicle operator.
Local Police Dispatch	Center Secure Area Alarm Support	After the alarm message has been received, the center shall generate an alarm acknowledgment to the sender.
Local Police Dispatch	Center Secure Area Alarm Support	After the alarm message becomes a verified incident, the center shall determine the appropriate response.

Element Name	Equipment Package Name	Requirement
Local Police Dispatch	Center Secure Area Alarm Support	The center shall determine whether the alarm message indicates an emergency that requires the attention of public safety agencies, and forward alarm message data to the appropriate agency as necessary.
Local Police Dispatch	Center Secure Area Alarm Support	The center shall forward the alarm message to center personnel and respond to the traveler or transit vehicle operator as directed by the personnel.
Local Public Works Divisions	MCM Incident Management	The center shall receive inputs from the Alerting and Advisory System concerning the possibility or occurrence of severe weather, terrorist activity, or other major emergency, including information provided by the Emergency Alert System.
Local Public Works Divisions	MCM Incident Management	The center shall exchange alert information and status with emergency management centers. The information includes notification of a major emergency such as a natural or man-made disaster, civil emergency, or child abduction. The information may include the alert originator, the nature of the emergency, the geographic area affected by the emergency, the effective time period, etc.
Local Public Works Divisions	MCM Incident Management	The center shall exchange incident and threat information with emergency management centers as well as traffic management centers; including notification of existence of incident and expected severity, location, time and nature of incident.
Local Public Works Divisions	MCM Incident Management	The center shall coordinate planning for incidents with emergency management centers - including pre-planning activities for disaster response, evacuation, and recovery operations.
Local Public Works Divisions	MCM Incident Management	The center shall respond to requests from emergency management to provide maintenance and construction resources to implement response plans, assist in clean up, verify an incident, etc. This may also involve coordination with traffic management centers and other maintenance centers.
Local Public Works Divisions	MCM Incident Management	The center shall exchange road network status assessment information with emergency management and traffic management centers including an assessment of damage sustained by the road network including location and extent of the damage, estimate of remaining capacity, required closures, alternate routes, necessary restrictions, and time frame for repair and recovery.
Local Public Works Divisions	MCM Incident Management	The center shall provide work zone activities affecting the road network including the nature of the maintenance or construction activity, location, impact to the roadway, expected time(s) and duration of impact, anticipated delays, alternate routes, and suggested speed limits. This information may be augmented with images that provide a visual indication of current work zone status and traffic impacts.
Local Public Works Divisions	MCM Incident Management	The center shall receive information indicating the damage sustained by transportation assets, derived from aerial surveillance, field reports, inspections, tests, and analyses to support incident management.
Local Public Works Divisions	MCM Work Activity Coordination	The center shall provide work zone activities affecting the road network including the nature of the maintenance or construction activity, location, impact to the roadway, expected time(s) and duration of impact, anticipated delays, alternate routes, and suggested speed limits. This information may be augmented with images that provide a visual indication of current work zone status and traffic impacts.
Local Public Works Divisions	MCM Work Activity Coordination	The center shall provide status information about scheduled maintenance and construction activities including anticipated closures and impact to the roadway, alternate routes, anticipated delays, closure times, and durations. The information is provided to other management centers such as traffic, emergency, transit, traveler information providers, other maintenance centers, multimodal transportation providers, rail operations, and the media.
Local Public Works Divisions	MCM Work Activity Coordination	The center shall collect and respond to feedback concerning scheduled maintenance and construction activities with other management centers such as traffic, emergency, transit, and rail operations.
Local Public Works Divisions	MCM Work Activity Coordination	The center shall collect and disseminate asset restriction information levied on transportation asset usage based on infrastructure design, surveys, tests, or analyses. This includes standard facility design height, width, and weight restrictions, special restrictions such as spring weight restrictions, and temporary facility restrictions that are imposed during maintenance and construction.
Local Public Works Divisions	MCM Work Activity Coordination	The center shall exchange information with administrative systems to support the planning and scheduling of maintenance and construction activities. This information includes: equipment and consumables resupply purchase request status, personnel qualifications including training and special certifications, environmental regulations and rules that may impact maintenance activities, and requests and project requirements from contract administration.
Local Public Works Divisions	MCM Work Activity Coordination	The center shall exchange rail schedules and work plans with rail operations centers.
Local Speed Monitoring System	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
Local Speed Monitoring System	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
Local Speed Monitoring System	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.

Element Name	Equipment Package Name	Requirement
Local Speed Monitoring System	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
Local Speed Monitoring System	Roadway Speed Monitoring and Warning	The field element shall include sensors to detect vehicle speeds, under traffic or maintenance center control.
Local Speed Monitoring System	Roadway Speed Monitoring and Warning	The field element shall include sensors to detect vehicle speeds, under enforcement agency control.
Local Speed Monitoring System	Roadway Speed Monitoring and Warning	If the speed detected by vehicle speed sensors is determined to be excessive, the field element shall provide a safe speed advisory to passing drivers via a driver information system (such as portable messages signs, field to vehicle communications to in-vehicle signing systems, etc.).
Local Speed Monitoring System	Roadway Speed Monitoring and Warning	The field element shall base speed advisories to passing drivers on environmental conditions.
Local Speed Monitoring System	Roadway Speed Monitoring and Warning	The field element shall monitor notify an enforcement agency when a speed violation is detected.
Local Speed Monitoring System	Roadway Speed Monitoring and Warning	The field element shall return operational status for the vehicle speed sensors to the controlling traffic or maintenance center; including measured speeds, warning messages displayed, and violation records.
Local Speed Monitoring System	Roadway Speed Monitoring and Warning	The field element shall return operational status for the vehicle speed sensors to the enforcement agency.
Local Speed Monitoring System	Roadway Speed Monitoring and Warning	The field element shall return fault data for the vehicle speed sensors to the controlling center for repair.
Local Transit Providers Dispatch	Transit Center Fixed-Route Operations	The center shall generate transit routes and schedules based on such factors as parameters input by the system operator, road network conditions, incident information, operational data on current routes and schedules, and digitized map data.
Local Transit Providers Dispatch	Transit Center Information Services	The center shall provide travelers using public transportation with traffic and advisory information upon request. Such information may include transit routes, schedules, transfer options, fares, real-time schedule adherence, current incidents, weather conditions, and special events.
Local Transit Providers Dispatch	Transit Center Multi-Modal Coordination	The center shall coordinate schedules and services between transit agencies, traffic management, maintenance and construction operations, parking management, and other surface or air transportation modes.
Local Transit Providers Dispatch	Transit Center Security	The center shall monitor transit vehicle operational data to determine if the transit vehicle is off-route and assess whether a security incident is occurring.
Local Transit Providers Dispatch	Transit Center Vehicle Tracking	The center shall monitor the locations of all transit vehicles within its network.
Local Transit Providers Dispatch	Transit Garage Maintenance	The center shall collect operational and maintenance data from transit vehicles.
Local Transit Providers Dispatch	Transit Vehicle Operator Assignment	The center shall maintain records of a transit vehicle operator's performance. This may be done utilizing standardized performance evaluation criteria set forth by governmental regulations and transit operating company policies, assessing the transit vehicle operator's driving history, and assessing comments from the transit vehicle operator's supervisor(s) as well as noting any moving violations or accidents, supervisor comments, government regulations, and company policies.
Local Transit Providers Dispatch	Transit Environmental Monitoring	The center shall assimilate current and forecast road conditions and surface weather information to more effectively manage transit operations.
Local Transit Providers Dispatch	Transit Environmental Monitoring	The center shall collect current and forecast road and weather information from weather service providers and roadway maintenance centers.
Local Transit Providers Dispatch	Transit Center Passenger Counting	The center shall collect passenger count information from each transit vehicle.
Local Transit Providers Dispatch	Transit Center Passenger Counting	The center shall calculate transit ridership data by route, route segment, transit stop, time of day, and day of week based on the collected passenger count information.
Local Transit Providers Dispatch	Transit Center Passenger Counting	The center shall make the compiled ridership data available to the system operator and other applications.
Local Transit Providers Dispatch	Transit Vehicle Assignment	The center shall assign individual transit vehicles to transit blocks.
Local Transit Providers Dispatch	Transit Vehicle Assignment	The center shall download vehicle assignments to the transit vehicle prior to the start of the day's operations.
Local Transit Providers Dispatch	Transit Vehicle Assignment	The center shall provide an exception handling process for the vehicle assignment function. This process shall generate new supplemental vehicle assignments as required due to change events which occur during the operating day.
Local Transit Providers Dispatch	Transit Vehicle Assignment	The center shall provide an inventory management function for the transit facility that stores functional attributes about each vehicle owned by the transit operator. The functional attributes permit the planning and assignment functions to match vehicles with routes based on suitability for the types of service required by the particular routes.
Local Transit Providers Dispatch	Transit Vehicle Assignment	The center shall generate transit vehicle availability listings, current and forecast, to support transit vehicle assignment planning.

Element Name	Equipment Package Name	Requirement
Local Transit Providers Dispatch	Transit Vehicle Assignment	The center shall provide transit operations personnel with the capability to update transit vehicle assignments and receive reports on transit vehicle inventory status.
Local Transit Vehicles	On-board Maintenance	The transit vehicle shall collect and process vehicle mileage data available to sensors on-board.
Local Transit Vehicles	On-board Schedule Management	The transit vehicle shall receive a vehicle assignment including transit route information, transit service instructions, traffic information, road conditions, and other information for the operator.
Local Transit Vehicles	On-board Transit Fare Management	The transit vehicle shall read data from the traveler card / payment instrument presented by boarding passengers.
Local Transit Vehicles	On-board Transit Security	The transit vehicle shall perform video and audio surveillance inside of transit vehicles and output raw video or audio data for either local monitoring (for processing or direct output to the transit vehicle operator), remote monitoring or for local storage (e.g., in an event recorder).
Local Transit Vehicles	On-board Transit Trip Monitoring	The transit vehicle shall track the current location of the transit vehicle.
Local Transit Vehicles	On-board Passenger Counting	The transit vehicle shall count passengers boarding and alighting.
Local Transit Vehicles	On-board Passenger Counting	The passenger counts shall be related to location to support association of passenger counts with routes, route segments, or bus stops.
Local Transit Vehicles	On-board Passenger Counting	The passenger counts shall be timestamped so that ridership can be measured by time of day and day of week.
Local Transit Vehicles	On-board Passenger Counting	The transit vehicle shall send the collected passenger count information to the transit center.
Maricopa County EOC	Emergency Call-Taking	The center shall support the interface to the Emergency Telecommunications System (e.g. 911 or 7-digit call routing) to receive emergency notification information and provide it to the emergency system operator.
Maricopa County EOC	Emergency Dispatch	The center shall dispatch emergency vehicles to respond to verified emergencies under center personnel control.
Maricopa County EOC	Emergency Call-Taking	The center shall receive emergency call information from 911 services and present the possible incident information to the emergency system operator.
Maricopa County EOC	Emergency Call-Taking	The center shall receive emergency notification information from other public safety agencies and present the possible incident information to the emergency system operator.
Maricopa County EOC	Emergency Call-Taking	The center shall receive emergency notification information from public transit systems and present the possible incident information to the emergency system operator.
Maricopa County EOC	Emergency Call-Taking	The center shall coordinate, correlate, and verify all emergency inputs, including those identified based on external calls and internal analysis of security sensor and surveillance data, and assign each a level of confidence.
Maricopa County EOC	Emergency Call-Taking	The center shall send a request for remote control of CCTV systems from a traffic management center in order to verify the reported incident.
Maricopa County EOC	Emergency Call-Taking	The center shall forward the verified emergency information to the responding agency based on the location and nature of the emergency.
Maricopa County EOC	Emergency Call-Taking	The center shall update the incident information log once the emergency system operator has verified the incident.
Maricopa County EOC	Emergency Dispatch	The center shall track the location and status of emergency vehicles responding to an emergency based on information from the emergency vehicle.
Maricopa County EOC	Emergency Dispatch	The center shall store and maintain the emergency service responses in an action log.
Maricopa County EOC	Emergency Dispatch	The center shall provide the capability to request remote control of traffic surveillance devices
Maricopa County EOC	Emergency Dispatch	The center shall coordinate response to incidents with other Emergency Management centers to ensure appropriate resources are dispatched and utilized.
Maricopa County EOC	Emergency Environmental Monitoring	The center shall collect current and forecast road and weather information from weather service providers (such as the National Weather Service and value-added sector specific meteorological services).
Maricopa County EOC	Emergency Environmental Monitoring	The center shall collect current road and weather information from roadway maintenance operations.
Maricopa County EOC	Emergency Environmental Monitoring	The center shall assimilate current and forecast road conditions and surface weather information to support incident management.
Maricopa County EOC	Emergency Environmental Monitoring	The center shall present the current and forecast road and weather information to the emergency system operator.
Maricopa County EOC	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways). The data may be raw or pre-processed in the field.
Maricopa County EOC	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers). The data may be raw or pre-processed in the field.

Element Name	Equipment Package Name	Requirement
Maricopa County EOC	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected on-board transit vehicles. The data may be raw or pre-processed in the field.
Maricopa County EOC	Center Secure Area Surveillance	The center shall exchange surveillance data with other emergency centers.
Maricopa County EOC	Center Secure Area Surveillance	The center shall identify potential security threats based on collected security surveillance data.
Maricopa County EOC	Center Secure Area Surveillance	The center shall verify potential security threats by correlating security surveillance data from multiple sources.
Maricopa County EOC	Center Secure Area Surveillance	The center shall remotely control security surveillance devices in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways).
Maricopa County EOC	Center Secure Area Surveillance	The center shall remotely control security surveillance devices in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers).
Maricopa County EOC	Center Secure Area Surveillance	The center shall remotely control security surveillance devices on-board transit vehicles.
Maricopa County EOC	Center Secure Area Surveillance	The center shall match traveler video images against a database from the Alerting and Advisory Systems of known images that may represent criminals and terrorists.
Maricopa County EOC	Center Secure Area Surveillance	The center shall exchange traveler images with other emergency management centers to support traveler image matching.
Maricopa County EOC	Center Secure Area Surveillance	The center shall respond to control data from center personnel regarding security surveillance data collection, processing, threat detection, and image matching.
Maricopa County EOC	Center Secure Area Surveillance	The center shall monitor maintenance status of the security sensor field equipment.
Maricopa County EOC	Emergency Early Warning System	The center shall monitor information from Alerting and Advisory Systems such as the Information Sharing and Analysis Centers (ISACs), the National Infrastructure Protection Center (NIPC), the Homeland Security Advisory System (HSAS), etc. The information may include assessments (general incident and vulnerability awareness information), advisories (identification of threats or recommendations to increase preparedness levels), or alerts (information on imminent or in-progress emergencies).
Maricopa County EOC	Emergency Early Warning System	The center shall provide the capability to correlate alerts and advisories, incident information, and security sensor and surveillance data.
Maricopa County EOC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to traffic management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Maricopa County EOC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to transit management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Maricopa County EOC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to toll administration centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Maricopa County EOC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to traveler information service providers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Maricopa County EOC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to maintenance centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Maricopa County EOC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to other emergency management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Maricopa County EOC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to commercial vehicle administration centers and roadside check facilities for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Maricopa County EOC	Emergency Early Warning System	The center shall process status information from each of the centers that have been sent the wide-area alert.
Maricopa County EOC	Emergency Early Warning System	The center shall coordinate the broadcast of wide-area alerts and advisories with other emergency management centers.
Maricopa County EOC	Emergency Early Warning System	The center shall receive incident information from other transportation management centers to support the early warning system.

Element Name	Equipment Package Name	Requirement
Maricopa County EOC	Emergency Early Warning System	The center shall present the alert and advisory information and the status of the actions taken in response to the alert by the other centers to the emergency system operator as received from other system inputs.
Maricopa County EOC	Emergency Early Warning System	The center shall support the entry of alert and advisory information directly from the emergency system operator.
Maricopa County EOC	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways). The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors), infrastructure condition and integrity, intrusion and motion, and object detection sensors. The data may be raw or pre-processed in the field.
Maricopa County EOC	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers). The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors), intrusion and motion, and object detection sensors. The data may be raw or pre-processed in the field.
Maricopa County EOC	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected on-board transit vehicles. The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors) and object detection sensors. The data may be raw or pre-processed in the field.
Maricopa County EOC	Center Secure Area Sensor Management	The center shall exchange security sensor data with other emergency centers.
Maricopa County EOC	Center Secure Area Sensor Management	The center shall identify potential security threats based on collected security sensor data.
Maricopa County EOC	Center Secure Area Sensor Management	The center shall verify potential security threats by correlating security sensor data from multiple sources.
Maricopa County EOC	Center Secure Area Sensor Management	The center shall perform threat analysis based on correlations of security sensor and surveillance data.
Maricopa County EOC	Center Secure Area Sensor Management	The center shall exchange threat analysis data with Alerting and Advisory Systems and use that data in local threat analysis processing.
Maricopa County EOC	Center Secure Area Sensor Management	The center shall disseminate threat information to other agencies, including traffic, transit, maintenance, rail operations, and other emergency management centers.
Maricopa County EOC	Center Secure Area Sensor Management	The center shall respond to control data from center personnel regarding security sensor data collection, processing, threat detection, and threat analysis.
Maricopa County EOC	Center Secure Area Sensor Management	The center shall request activation of barriers and safeguards on request from center personnel.
Maricopa County EOC	Center Secure Area Sensor Management	The center shall monitor maintenance status of the security sensor field equipment.
MCDOT ATIS	Interactive Infrastructure Information	The center shall disseminate customized traffic and highway condition information to travelers, including incident information, detours and road closures, recommended routes, and current speeds on specific routes upon request.
MCDOT ATIS	TMC Environmental Monitoring	The center shall remotely control environmental sensors that measure road surface temperature, moisture, icing, salinity, and other measures.
MCDOT ATIS	Basic Information Broadcast	The center shall disseminate traffic and highway condition information to travelers, including incident information, detours and road closures, event information, recommended routes, and current speeds on specific routes.
MCDOT ATIS	Basic Information Broadcast	The center shall disseminate transit routes and schedules, transit transfer options, transit fares, and real-time schedule adherence information to travelers.
MCDOT ATIS	Basic Information Broadcast	The center shall disseminate toll fee information to travelers.
MCDOT ATIS	Basic Information Broadcast	The center shall disseminate event information to travelers.
MCDOT ATIS	Basic Information Broadcast	The center shall provide the capability to support requests from the media for traffic and incident data.
MCDOT ATIS	ISP Data Collection	The center shall collect traveler information data, such as parking lot data, rideshare data, road network use data, vehicle probe data, and other data from traveler information system operations.
MCDOT ATIS	ISP Data Collection	The center shall collect traveler requests, confirmations, and payment transaction data for traveler services provided.
MCDOT ATIS	ISP Data Collection	The center shall assign quality control metrics and meta-data to be stored along with the data. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
MCDOT ATIS	ISP Data Collection	The center shall receive and respond to requests from ITS Archives for either a catalog of the traveler information data or for the data itself.
MCDOT ATIS	ISP Data Collection	The center shall be able to produce sample products of the data available.

Element Name	Equipment Package Name	Requirement
MCDOT ATIS	Traffic Data Collection	The center shall collect traffic management data such as operational data, event logs, etc.
MCDOT ATIS	Traffic Data Collection	The center shall assign quality control metrics and meta-data to be stored along with the data. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
MCDOT ATIS	Traffic Data Collection	The center shall receive and respond to requests from ITS Archives for either a catalog of the traffic data or for the data itself.
MCDOT ATIS	Traffic Data Collection	The center shall be able to produce sample products of the data available.
MCDOT ATIS	MCM Environmental Information Processing	The center shall respond to control data from center personnel regarding environmental sensor control and weather data collection and processing.
MCDOT ATIS	MCM Environmental Information Processing	The center shall assimilate current and forecast road conditions and surface weather information using a combination of weather service provider information (such as the National Weather Service and value-added sector specific meteorological services) and local environmental sensor data.
MCDOT ATIS	MCM Environmental Information Processing	The center shall use the various data inputs of environmental sensors and road weather data to develop a view of current and predicted road weather and road conditions.
MCDOT ATIS	MCM Environmental Information Processing	The center shall disseminate current and forecasted road weather and road condition information to weather service providers (such as the National Weather Service and value-added sector specific meteorological services) as well as other agencies including traffic, emergency, and transit management, traveler information providers, rail operations centers, media, and other maintenance management centers.
MCDOT ATIS	MCM Environmental Information Processing	The center shall provide value-added sector specific meteorological services with information on basic road facility and treatment information that supports forecasts for road conditions.
MCDOT ATIS	MCM Data Collection	The center shall collect maintenance and construction data (such as field equipment status, infrastructure status, maintenance and construction activity data) gathered from roadway, traffic, and other maintenance and construction sources.
MCDOT ATIS	MCM Data Collection	The center shall assign quality control metrics and meta-data to be stored along with the data. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
MCDOT ATIS	MCM Data Collection	The center shall receive and respond to requests from ITS Archives for either a catalog of the maintenance and construction data or for the data itself.
MCDOT ATIS	MCM Data Collection	The center shall be able to produce sample products of the data available.
MCDOT ATIS	MCM Data Collection	The center shall provide data to Asset Management to be used in updating the status of assets in the inventory.
MCDOT ATIS	MCM Work Activity Coordination	The center shall provide work zone activities affecting the road network including the nature of the maintenance or construction activity, location, impact to the roadway, expected time(s) and duration of impact, anticipated delays, alternate routes, and suggested speed limits. This information may be augmented with images that provide a visual indication of current work zone status and traffic impacts.
MCDOT ATIS	MCM Work Activity Coordination	The center shall provide status information about scheduled maintenance and construction activities including anticipated closures and impact to the roadway, alternate routes, anticipated delays, closure times, and durations. The information is provided to other management centers such as traffic, emergency, transit, traveler information providers, other maintenance centers, multimodal transportation providers, rail operations, and the media.
MCDOT ATIS	MCM Work Activity Coordination	The center shall collect and respond to feedback concerning scheduled maintenance and construction activities with other management centers such as traffic, emergency, transit, and rail operations.
MCDOT ATIS	MCM Work Activity Coordination	The center shall collect and disseminate asset restriction information levied on transportation asset usage based on infrastructure design, surveys, tests, or analyses. This includes standard facility design height, width, and weight restrictions, special restrictions such as spring weight restrictions, and temporary facility restrictions that are imposed during maintenance and construction.
MCDOT ATIS	MCM Work Activity Coordination	The center shall exchange information with administrative systems to support the planning and scheduling of maintenance and construction activities. This information includes: equipment and consumables resupply purchase request status, personnel qualifications including training and special certifications, environmental regulations and rules that may impact maintenance activities, and requests and project requirements from contract administration.
MCDOT ATIS	MCM Work Activity Coordination	The center shall exchange rail schedules and work plans with rail operations centers.
MCDOT ATIS	TMC Work Zone Traffic Management	The center shall receive work zone images from a maintenance center.
MCDOT ATIS	TMC Work Zone Traffic Management	The center shall analyze work zone images for indications of a possible incident.
MCDOT ATIS	TMC Work Zone Traffic Management	The center shall remotely control driver information systems (such as dynamic messages signs, highway advisory radios) to advise drivers of activity around a work zone.

Element Name	Equipment Package Name	Requirement
MCDOT ATIS	TMC Work Zone Traffic Management	The center shall collect operational status for the driver information systems equipment in work zones.
MCDOT ATIS	TMC Work Zone Traffic Management	The center shall collect fault data for the driver information systems equipment in work zones for repair.
MCDOT ATIS	TMC Work Zone Traffic Management	The center shall receive proposed maintenance and construction work plans, analyze the activity as a possible incident, and provide work plan feedback to the sending center.
MCDOT ATIS	Traveler Telephone Information	The center shall provide the capability to process voice-formatted requests for traveler information from a traveler telephone information system, and return the information in the requested format.
MCDOT ATIS	Traveler Telephone Information	The center shall provide the capability to process dual-tone multifrequency (DTMF)-based requests (touch-tone) for traveler information from a traveler telephone information system.
MCDOT ATIS	Traveler Telephone Information	The center shall provide the capability to process traveler information requests from a traveler telephone information system.
MCDOT ATIS	Traveler Telephone Information	The center shall provide information on traffic conditions in the requested voice format and for the requested location.
MCDOT ATIS	Traveler Telephone Information	The center shall provide work zone and roadway maintenance information in the requested voice format and for the requested location.
MCDOT ATIS	Traveler Telephone Information	The center shall provide roadway environment conditions information in the requested voice format and for the requested location.
MCDOT ATIS	Traveler Telephone Information	The center shall provide weather and event information in the requested voice format and for the requested location.
MCDOT ATIS	Traveler Telephone Information	The center shall provide transit service information in the requested voice format and for the requested location.
MCDOT ATIS	Traveler Telephone Information	The center shall provide yellow pages services information in the requested voice format and for the requested location.
MCDOT ATIS	Traveler Telephone Information	The center shall provide current ferry and rail schedule and airport status information in the requested voice format and for the requested location.
MCDOT ATIS	Traveler Telephone Information	The center shall provide the capability to support both specific caller requests as well as bulk upload of regional traveler information.
MCDOT ATIS	Traveler Telephone Information	The center shall receive and forward region-specific wide-area alert and advisory information to the traveler telephone information system, including major emergencies such as a natural or man-made disaster, civil emergency, child abductions, severe weather watches and warnings, military activities, and law enforcement warnings.
MCDOT ATIS	ISP Traveler Data Collection	The center shall collect, process, and store traffic and highway condition information, including incident information, detours and road closures, event information, recommended routes, and current speeds on specific routes.
MCDOT ATIS	ISP Traveler Data Collection	The center shall collect, process, and store maintenance and construction information, including scheduled maintenance and construction work activities and work zone activities.
MCDOT ATIS	ISP Traveler Data Collection	The center shall collect, process, and store transit routes and schedules, transit transfer options, transit fares, and real-time schedule adherence information.
MCDOT ATIS	ISP Traveler Data Collection	The center shall collect, process, and store parking information, including location, availability, and fees.
MCDOT ATIS	ISP Traveler Data Collection	The center shall collect, process, and store toll fee information.
MCDOT ATIS	ISP Traveler Data Collection	The center shall collect, process, and store current and forecast road conditions and surface weather conditions.
MCDOT ATIS	ISP Traveler Data Collection	The center shall collect, process, and store event information.
MCDOT ATIS	ISP Traveler Data Collection	The center shall collect, process, and store air quality information.
MCDOT ATIS	ISP Traveler Data Collection	The center shall collect, process, and store border crossing information.
MCDOT CCTV	Roadway Basic Surveillance	The field element shall collect, process, digitize, and send traffic sensor data (speed, volume, and occupancy) to the center for further analysis and storage, under center control.
MCDOT CCTV	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
MCDOT CCTV	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
MCDOT CCTV	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
MCDOT CCTV	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
MCDOT DMS	Roadway Traffic Information Dissemination	The field element shall include dynamic messages signs for dissemination of traffic and other information to drivers, under center control; the DMS may be either those that display variable text messages, or those that have fixed format display(s) (e.g. vehicle restrictions, or lane open/close).
MCDOT DMS	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.

Element Name	Equipment Package Name	Requirement
MCDOT DMS	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
MCDOT DMS	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
MCDOT DMS	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
MCDOT Maintenance Division	MCM Incident Management	The center shall receive inputs from the Alerting and Advisory System concerning the possibility or occurrence of severe weather, terrorist activity, or other major emergency, including information provided by the Emergency Alert System.
MCDOT Maintenance Division	MCM Incident Management	The center shall exchange alert information and status with emergency management centers. The information includes notification of a major emergency such as a natural or man-made disaster, civil emergency, or child abduction. The information may include the alert originator, the nature of the emergency, the geographic area affected by the emergency, the effective time period, etc.
MCDOT Maintenance Division	MCM Incident Management	The center shall exchange incident and threat information with emergency management centers as well as traffic management centers; including notification of existence of incident and expected severity, location, time and nature of incident.
MCDOT Maintenance Division	MCM Incident Management	The center shall coordinate planning for incidents with emergency management centers - including pre-planning activities for disaster response, evacuation, and recovery operations.
MCDOT Maintenance Division	MCM Incident Management	The center shall respond to requests from emergency management to provide maintenance and construction resources to implement response plans, assist in clean up, verify an incident, etc. This may also involve coordination with traffic management centers and other maintenance centers.
MCDOT Maintenance Division	MCM Incident Management	The center shall exchange road network status assessment information with emergency management and traffic management centers including an assessment of damage sustained by the road network including location and extent of the damage, estimate of remaining capacity, required closures, alternate routes, necessary restrictions, and time frame for repair and recovery.
MCDOT Maintenance Division	MCM Incident Management	The center shall provide work zone activities affecting the road network including the nature of the maintenance or construction activity, location, impact to the roadway, expected time(s) and duration of impact, anticipated delays, alternate routes, and suggested speed limits. This information may be augmented with images that provide a visual indication of current work zone status and traffic impacts.
MCDOT Maintenance Division	MCM Incident Management	The center shall receive information indicating the damage sustained by transportation assets, derived from aerial surveillance, field reports, inspections, tests, and analyses to support incident management.
MCDOT Maintenance Division	MCM Work Activity Coordination	The center shall provide work zone activities affecting the road network including the nature of the maintenance or construction activity, location, impact to the roadway, expected time(s) and duration of impact, anticipated delays, alternate routes, and suggested speed limits. This information may be augmented with images that provide a visual indication of current work zone status and traffic impacts.
MCDOT Maintenance Division	MCM Work Activity Coordination	The center shall provide status information about scheduled maintenance and construction activities including anticipated closures and impact to the roadway, alternate routes, anticipated delays, closure times, and durations. The information is provided to other management centers such as traffic, emergency, transit, traveler information providers, other maintenance centers, multimodal transportation providers, rail operations, and the media.
MCDOT Maintenance Division	MCM Work Activity Coordination	The center shall collect and respond to feedback concerning scheduled maintenance and construction activities with other management centers such as traffic, emergency, transit, and rail operations.
MCDOT Maintenance Division	MCM Work Activity Coordination	The center shall collect and disseminate asset restriction information levied on transportation asset usage based on infrastructure design, surveys, tests, or analyses. This includes standard facility design height, width, and weight restrictions, special restrictions such as spring weight restrictions, and temporary facility restrictions that are imposed during maintenance and construction.
MCDOT Maintenance Division	MCM Work Activity Coordination	The center shall exchange information with administrative systems to support the planning and scheduling of maintenance and construction activities. This information includes: equipment and consumables resupply purchase request status, personnel qualifications including training and special certifications, environmental regulations and rules that may impact maintenance activities, and requests and project requirements from contract administration.
MCDOT Maintenance Division	MCM Work Activity Coordination	The center shall exchange rail schedules and work plans with rail operations centers.
MCDOT REACT Vehicles	On-board EV En Route Support	The emergency vehicle, including roadway service patrols, shall track its current location.

Element Name	Equipment Package Name	Requirement
MCDOT REACT Vehicles	On-board EV Incident Management Communication	The emergency vehicle shall receive dispatch instructions sufficient to enable emergency personnel in the field to implement an effective incident response. It includes local traffic, road, and weather conditions, hazardous material information, and the current status of resources that have been allocated to an incident.
MCDOT TMC	Collect Traffic Surveillance	The center shall monitor, analyze, and store traffic sensor data (speed, volume, occupancy) collected from field elements under remote control of the center.
MCDOT TMC	HRI Traffic Management	The center shall remotely control highway-rail intersection (HRI) equipment located in the field.
MCDOT TMC	TMC Environmental Monitoring	The center shall remotely control environmental sensors that measure road surface temperature, moisture, icing, salinity, and other measures.
MCDOT TMC	TMC Incident Detection	The center shall receive inputs from the Alerting and Advisory System concerning the possibility or occurrence of severe weather, terrorist activity, or other major emergency, including information provided by the Emergency Alert System.
MCDOT TMC	TMC Incident Dispatch Coordination/Communication	The center shall exchange alert information and status with emergency management centers. The information includes notification of a major emergency such as a natural or man-made disaster, civil emergency, or child abduction for distribution to the public. The information may include the alert originator, the nature of the emergency, the geographic area affected by the emergency, the effective time period, and information and instructions necessary for the public to respond to the alert. This may also identify specific information that should not be released to the public.
MCDOT TMC	TMC Regional Traffic Management	The center shall exchange traffic information with other traffic management centers including incident information, congestion data, traffic data, signal timing plans, and real-time signal control information.
MCDOT TMC	TMC Signal Control	The center shall remotely control traffic signal controllers.
MCDOT TMC	TMC Traffic Information Dissemination	The center shall remotely control dynamic messages signs for dissemination of traffic and other information to drivers.
MCDOT TMC	Traffic Equipment Maintenance	The center shall collect and store sensor (traffic, pedestrian, multimodal crossing) operational status.
MCDOT TMC	HRI Traffic Management	The center shall collect highway-rail intersection (HRI) equipment operational status and compare against the control information sent by the center.
MCDOT TMC	HRI Traffic Management	The center shall provide the highway-rail intersection (HRI) equipment operational status to rail operations centers.
MCDOT TMC	Emergency Response Management	The center shall provide strategic emergency response capabilities provided by an Emergency Operations Center for large-scale incidents and disasters.
MCDOT TMC	Emergency Response Management	The center shall manage coordinated inter-agency responses to and recovery from large-scale emergencies. Such agencies include traffic management, transit, maintenance and construction management, rail operations, and other emergency management agencies.
MCDOT TMC	Emergency Response Management	The center shall provide the capability to implement response plans and track progress through the incident by exchanging incident information and response status with allied agencies.
MCDOT TMC	Emergency Response Management	The center shall develop, coordinate with other agencies, and store emergency response plans.
MCDOT TMC	Emergency Response Management	The center shall track the availability of resources and coordinate resource sharing with allied agency centers including traffic, maintenance, or other emergency centers.
MCDOT TMC	Emergency Response Management	The center shall allocate the appropriate emergency services, resources, and vehicle (s) to respond to incidents, and shall provide the capability to override the current allocation to suit the special needs of a current incident.
MCDOT TMC	Emergency Response Management	The center shall receive event scheduling information from Event Promoters.
MCDOT TMC	Emergency Response Management	The center shall support remote control of field equipment normally under control of the traffic management center including traffic signals, dynamic message signs, gates, and barriers.
MCDOT TMC	Emergency Response Management	The center shall provide the capability to remotely control and monitor CCTV systems normally operated by a traffic management center.
MCDOT TMC	Emergency Response Management	The center shall provide the capability to request transit resource availability from transit centers for use during disaster and evacuation operations.
MCDOT TMC	Emergency Response Management	The center shall assimilate the damage assessment of the transit, traffic, rail, maintenance, and other emergency center services and systems to create an overall transportation system status, and disseminate to each of these centers and the traveling public via traveler information providers.
MCDOT TMC	Emergency Response Management	The center shall provide information to the media concerning the status of an emergency response.
MCDOT TMC	Emergency Response Management	The center shall provide the capability for digitized map data to act as the background to the information presented to the emergency system operator.
MCDOT TMC	Emergency Response Management	The center shall provide the capability for center personnel to provide inputs to the management of incidents, disasters and evacuations.

Element Name	Equipment Package Name	Requirement
MCDOT TMC	Emergency Response Management	The center shall collect information about the status of the recovery efforts for the infrastructure during disasters.
MCDOT TMC	Emergency Response Management	The center shall provide the overall status of infrastructure recovery efforts to traveler information providers and media.
MCDOT TMC	Emergency Response Management	The center shall provide the capability to communicate information about emergency situations to local population through the Emergency Telecommunications System.
MCDOT TMC	Emergency Response Management	The center shall provide the capability to identify neighborhoods and businesses that should be informed of an emergency situation based on information collected about incidents including their severity, impacted locations, and recovery schedule.
MCDOT TMC	Emergency Response Management	The center shall retrieve information from public health systems to increase preparedness for, and implement a response to biological, chemical, radiation, and other public health emergencies.
MCDOT TMC	Emergency Response Management	The center shall manage coordinated inter-agency responses to incidents at an international border.
MCDOT TMC	Traffic Data Collection	The center shall collect traffic management data such as operational data, event logs, etc.
MCDOT TMC	Traffic Data Collection	The center shall assign quality control metrics and meta-data to be stored along with the data. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
MCDOT TMC	Traffic Data Collection	The center shall receive and respond to requests from ITS Archives for either a catalog of the traffic data or for the data itself.
MCDOT TMC	Traffic Data Collection	The center shall be able to produce sample products of the data available.
MCDOT TMC	Emergency Data Collection	The center shall collect emergency service data, emergency vehicle management data, emergency vehicle data, sensor and surveillance data, threat data, and incident data.
MCDOT TMC	Emergency Data Collection	The center shall assign quality control metrics and meta-data to be stored along with the data. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
MCDOT TMC	Emergency Data Collection	The center shall receive and respond to requests from ITS Archives for either a catalog of the emergency management data or for the data itself.
MCDOT TMC	Emergency Data Collection	The center shall be able to produce sample products of the data available.
MCDOT TMC	TMC Work Zone Traffic Management	The center shall receive work zone images from a maintenance center.
MCDOT TMC	TMC Work Zone Traffic Management	The center shall analyze work zone images for indications of a possible incident.
MCDOT TMC	TMC Work Zone Traffic Management	The center shall remotely control driver information systems (such as dynamic messages signs, highway advisory radios) to advise drivers of activity around a work zone.
MCDOT TMC	TMC Work Zone Traffic Management	The center shall collect operational status for the driver information systems equipment in work zones.
MCDOT TMC	TMC Work Zone Traffic Management	The center shall collect fault data for the driver information systems equipment in work zones for repair.
MCDOT TMC	TMC Work Zone Traffic Management	The center shall receive proposed maintenance and construction work plans, analyze the activity as a possible incident, and provide work plan feedback to the sending center.
MCDOT TMC	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways). The data may be raw or pre-processed in the field.
MCDOT TMC	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers). The data may be raw or pre-processed in the field.
MCDOT TMC	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected on-board transit vehicles. The data may be raw or pre-processed in the field.
MCDOT TMC	Center Secure Area Surveillance	The center shall exchange surveillance data with other emergency centers.
MCDOT TMC	Center Secure Area Surveillance	The center shall identify potential security threats based on collected security surveillance data.
MCDOT TMC	Center Secure Area Surveillance	The center shall verify potential security threats by correlating security surveillance data from multiple sources.
MCDOT TMC	Center Secure Area Surveillance	The center shall remotely control security surveillance devices in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways).
MCDOT TMC	Center Secure Area Surveillance	The center shall remotely control security surveillance devices in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers).
MCDOT TMC	Center Secure Area Surveillance	The center shall remotely control security surveillance devices on-board transit vehicles.

Element Name	Equipment Package Name	Requirement
MCDOT TMC	Center Secure Area Surveillance	The center shall match traveler video images against a database from the Alerting and Advisory Systems of known images that may represent criminals and terrorists.
MCDOT TMC	Center Secure Area Surveillance	The center shall exchange traveler images with other emergency management centers to support traveler image matching.
MCDOT TMC	Center Secure Area Surveillance	The center shall respond to control data from center personnel regarding security surveillance data collection, processing, threat detection, and image matching.
MCDOT TMC	Center Secure Area Surveillance	The center shall monitor maintenance status of the security sensor field equipment.
MCDOT TMC	Incident Command	The center shall provide tactical decision support, resource coordination, and communications integration for Incident Commands that are established by first responders to support local management of an incident.
MCDOT TMC	Incident Command	The center shall provide incident command communications with public safety, emergency management, transportation, and other allied response agency centers.
MCDOT TMC	Incident Command	The center shall track and maintain resource information and action plans pertaining to the incident command.
MCDOT TMC	Incident Command	The center shall share incident command information with other public safety agencies including resource deployment status, hazardous material information, rail incident information, evacuation advice as well as traffic, road, and weather conditions.
MCDOT TMC	Incident Command	The center shall assess the status of responding emergency vehicles as part of an incident command.
MCDOT TMC	Emergency Early Warning System	The center shall monitor information from Alerting and Advisory Systems such as the Information Sharing and Analysis Centers (ISACs), the National Infrastructure Protection Center (NIPC), the Homeland Security Advisory System (HSAS), etc. The information may include assessments (general incident and vulnerability awareness information), advisories (identification of threats or recommendations to increase preparedness levels), or alerts (information on imminent or in-progress emergencies).
MCDOT TMC	Emergency Early Warning System	The center shall provide the capability to correlate alerts and advisories, incident information, and security sensor and surveillance data.
MCDOT TMC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to traffic management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
MCDOT TMC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to transit management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
MCDOT TMC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to toll administration centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
MCDOT TMC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to traveler information service providers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
MCDOT TMC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to maintenance centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
MCDOT TMC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to other emergency management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
MCDOT TMC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to commercial vehicle administration centers and roadside check facilities for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
MCDOT TMC	Emergency Early Warning System	The center shall process status information from each of the centers that have been sent the wide-area alert.
MCDOT TMC	Emergency Early Warning System	The center shall coordinate the broadcast of wide-area alerts and advisories with other emergency management centers.
MCDOT TMC	Emergency Early Warning System	The center shall receive incident information from other transportation management centers to support the early warning system.
MCDOT TMC	Emergency Early Warning System	The center shall present the alert and advisory information and the status of the actions taken in response to the alert by the other centers to the emergency system operator as received from other system inputs.

Element Name	Equipment Package Name	Requirement
MCDOT TMC	Emergency Early Warning System	The center shall support the entry of alert and advisory information directly from the emergency system operator.
MCDOT TMC	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways). The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors), infrastructure condition and integrity, intrusion and motion, and object detection sensors. The data may be raw or pre-processed in the field.
MCDOT TMC	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers). The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors), intrusion and motion, and object detection sensors. The data may be raw or pre-processed in the field.
MCDOT TMC	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected on-board transit vehicles. The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors) and object detection sensors. The data may be raw or pre-processed in the field.
MCDOT TMC	Center Secure Area Sensor Management	The center shall exchange security sensor data with other emergency centers.
MCDOT TMC	Center Secure Area Sensor Management	The center shall identify potential security threats based on collected security sensor data.
MCDOT TMC	Center Secure Area Sensor Management	The center shall verify potential security threats by correlating security sensor data from multiple sources.
MCDOT TMC	Center Secure Area Sensor Management	The center shall perform threat analysis based on correlations of security sensor and surveillance data.
MCDOT TMC	Center Secure Area Sensor Management	The center shall exchange threat analysis data with Alerting and Advisory Systems and use that data in local threat analysis processing.
MCDOT TMC	Center Secure Area Sensor Management	The center shall disseminate threat information to other agencies, including traffic, transit, maintenance, rail operations, and other emergency management centers.
MCDOT TMC	Center Secure Area Sensor Management	The center shall respond to control data from center personnel regarding security sensor data collection, processing, threat detection, and threat analysis.
MCDOT TMC	Center Secure Area Sensor Management	The center shall request activation of barriers and safeguards on request from center personnel.
MCDOT TMC	Center Secure Area Sensor Management	The center shall monitor maintenance status of the security sensor field equipment.
MCDOT Traffic Signals	Roadway Signal Controls	The field element shall control traffic signals under center control.
MCDOT Traffic Signals	Roadway Signal Priority	The field element shall respond to signal priority requests from transit vehicles.
MCDOT Traffic Signals	Standard Rail Crossing	The field element shall collect and process, traffic sensor data in the vicinity of a highway-rail intersection (HRI).
MCDOT Traffic Signals	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
MCDOT Traffic Signals	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
MCDOT Traffic Signals	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
MCDOT Traffic Signals	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
MCDOT Vehicle Detectors	Roadway Basic Surveillance	The field element shall collect, process, digitize, and send traffic sensor data (speed, volume, and occupancy) to the center for further analysis and storage, under center control.
MCDOT Vehicle Detectors	Roadway Probe Data Communications	The field element shall communicate with passing vehicles for traffic data link time calculations and send collected data to the controlling center; identification will be removed to ensure anonymity.
MCDOT Vehicle Detectors	Roadway Data Collection	The field element shall collect traffic, road, and environmental conditions information.
MCDOT Vehicle Detectors	Roadway Data Collection	The field element shall include the sensors and supporting roadside devices that sense, collect, and send traffic, road, and environmental conditions information to a center for archival.
MCDOT Vehicle Detectors	Roadway Data Collection	The field element shall collect sensor status and sensor faults from roadside equipment and send it along with the recorded data to a center for archival.
MCDOT Vehicle Detectors	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.

Element Name	Equipment Package Name	Requirement
MCDOT Vehicle Detectors	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
MCDOT Vehicle Detectors	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
MCDOT Vehicle Detectors	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
MCSO Dispatch Center	Emergency Call-Taking	The center shall support the interface to the Emergency Telecommunications System (e.g. 911 or 7-digit call routing) to receive emergency notification information and provide it to the emergency system operator.
MCSO Dispatch Center	Emergency Dispatch	The center shall dispatch emergency vehicles to respond to verified emergencies under center personnel control.
MCSO Dispatch Center	Emergency Call-Taking	The center shall receive emergency call information from 911 services and present the possible incident information to the emergency system operator.
MCSO Dispatch Center	Emergency Call-Taking	The center shall receive emergency notification information from other public safety agencies and present the possible incident information to the emergency system operator.
MCSO Dispatch Center	Emergency Call-Taking	The center shall receive emergency notification information from public transit systems and present the possible incident information to the emergency system operator.
MCSO Dispatch Center	Emergency Call-Taking	The center shall coordinate, correlate, and verify all emergency inputs, including those identified based on external calls and internal analysis of security sensor and surveillance data, and assign each a level of confidence.
MCSO Dispatch Center	Emergency Call-Taking	The center shall send a request for remote control of CCTV systems from a traffic management center in order to verify the reported incident.
MCSO Dispatch Center	Emergency Call-Taking	The center shall forward the verified emergency information to the responding agency based on the location and nature of the emergency.
MCSO Dispatch Center	Emergency Call-Taking	The center shall update the incident information log once the emergency system operator has verified the incident.
MCSO Dispatch Center	Emergency Dispatch	The center shall track the location and status of emergency vehicles responding to an emergency based on information from the emergency vehicle.
MCSO Dispatch Center	Emergency Dispatch	The center shall store and maintain the emergency service responses in an action log.
MCSO Dispatch Center	Emergency Dispatch	The center shall provide the capability to request remote control of traffic surveillance devices
MCSO Dispatch Center	Emergency Dispatch	The center shall coordinate response to incidents with other Emergency Management centers to ensure appropriate resources are dispatched and utilized.
MCSO Dispatch Center	Emergency Response Management	The center shall provide strategic emergency response capabilities provided by an Emergency Operations Center for large-scale incidents and disasters.
MCSO Dispatch Center	Emergency Response Management	The center shall manage coordinated inter-agency responses to and recovery from large-scale emergencies. Such agencies include traffic management, transit, maintenance and construction management, rail operations, and other emergency management agencies.
MCSO Dispatch Center	Emergency Response Management	The center shall provide the capability to implement response plans and track progress through the incident by exchanging incident information and response status with allied agencies.
MCSO Dispatch Center	Emergency Response Management	The center shall develop, coordinate with other agencies, and store emergency response plans.
MCSO Dispatch Center	Emergency Response Management	The center shall track the availability of resources and coordinate resource sharing with allied agency centers including traffic, maintenance, or other emergency centers.
MCSO Dispatch Center	Emergency Response Management	The center shall allocate the appropriate emergency services, resources, and vehicle (s) to respond to incidents, and shall provide the capability to override the current allocation to suit the special needs of a current incident.
MCSO Dispatch Center	Emergency Response Management	The center shall receive event scheduling information from Event Promoters.
MCSO Dispatch Center	Emergency Response Management	The center shall support remote control of field equipment normally under control of the traffic management center including traffic signals, dynamic message signs, gates, and barriers.
MCSO Dispatch Center	Emergency Response Management	The center shall provide the capability to remotely control and monitor CCTV systems normally operated by a traffic management center.
MCSO Dispatch Center	Emergency Response Management	The center shall provide the capability to request transit resource availability from transit centers for use during disaster and evacuation operations.
MCSO Dispatch Center	Emergency Response Management	The center shall assimilate the damage assessment of the transit, traffic, rail, maintenance, and other emergency center services and systems to create an overall transportation system status, and disseminate to each of these centers and the traveling public via traveler information providers.
MCSO Dispatch Center	Emergency Response Management	The center shall provide information to the media concerning the status of an emergency response.
MCSO Dispatch Center	Emergency Response Management	The center shall provide the capability for digitized map data to act as the background to the information presented to the emergency system operator.

Element Name	Equipment Package Name	Requirement
MCSO Dispatch Center	Emergency Response Management	The center shall provide the capability for center personnel to provide inputs to the management of incidents, disasters and evacuations.
MCSO Dispatch Center	Emergency Response Management	The center shall collect information about the status of the recovery efforts for the infrastructure during disasters.
MCSO Dispatch Center	Emergency Response Management	The center shall provide the overall status of infrastructure recovery efforts to traveler information providers and media.
MCSO Dispatch Center	Emergency Response Management	The center shall provide the capability to communicate information about emergency situations to local population through the Emergency Telecommunications System.
MCSO Dispatch Center	Emergency Response Management	The center shall provide the capability to identify neighborhoods and businesses that should be informed of an emergency situation based on information collected about incidents including their severity, impacted locations, and recovery schedule.
MCSO Dispatch Center	Emergency Response Management	The center shall retrieve information from public health systems to increase preparedness for, and implement a response to biological, chemical, radiation, and other public health emergencies.
MCSO Dispatch Center	Emergency Response Management	The center shall manage coordinated inter-agency responses to incidents at an international border.
MCSO Dispatch Center	Emergency Environmental Monitoring	The center shall collect current and forecast road and weather information from weather service providers (such as the National Weather Service and value-added sector specific meteorological services).
MCSO Dispatch Center	Emergency Environmental Monitoring	The center shall collect current road and weather information from roadway maintenance operations.
MCSO Dispatch Center	Emergency Environmental Monitoring	The center shall assimilate current and forecast road conditions and surface weather information to support incident management.
MCSO Dispatch Center	Emergency Environmental Monitoring	The center shall present the current and forecast road and weather information to the emergency system operator.
MCSO Dispatch Center	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways). The data may be raw or pre-processed in the field.
MCSO Dispatch Center	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers). The data may be raw or pre-processed in the field.
MCSO Dispatch Center	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected on-board transit vehicles. The data may be raw or pre-processed in the field.
MCSO Dispatch Center	Center Secure Area Surveillance	The center shall exchange surveillance data with other emergency centers.
MCSO Dispatch Center	Center Secure Area Surveillance	The center shall identify potential security threats based on collected security surveillance data.
MCSO Dispatch Center	Center Secure Area Surveillance	The center shall verify potential security threats by correlating security surveillance data from multiple sources.
MCSO Dispatch Center	Center Secure Area Surveillance	The center shall remotely control security surveillance devices in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways).
MCSO Dispatch Center	Center Secure Area Surveillance	The center shall remotely control security surveillance devices in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers).
MCSO Dispatch Center	Center Secure Area Surveillance	The center shall remotely control security surveillance devices on-board transit vehicles.
MCSO Dispatch Center	Center Secure Area Surveillance	The center shall match traveler video images against a database from the Alerting and Advisory Systems of known images that may represent criminals and terrorists.
MCSO Dispatch Center	Center Secure Area Surveillance	The center shall exchange traveler images with other emergency management centers to support traveler image matching.
MCSO Dispatch Center	Center Secure Area Surveillance	The center shall respond to control data from center personnel regarding security surveillance data collection, processing, threat detection, and image matching.
MCSO Dispatch Center	Center Secure Area Surveillance	The center shall monitor maintenance status of the security sensor field equipment.
MCSO Dispatch Center	Incident Command	The center shall provide tactical decision support, resource coordination, and communications integration for Incident Commands that are established by first responders to support local management of an incident.
MCSO Dispatch Center	Incident Command	The center shall provide incident command communications with public safety, emergency management, transportation, and other allied response agency centers.
MCSO Dispatch Center	Incident Command	The center shall track and maintain resource information and action plans pertaining to the incident command.

Element Name	Equipment Package Name	Requirement
MCSO Dispatch Center	Incident Command	The center shall share incident command information with other public safety agencies including resource deployment status, hazardous material information, rail incident information, evacuation advice as well as traffic, road, and weather conditions.
MCSO Dispatch Center	Incident Command	The center shall assess the status of responding emergency vehicles as part of an incident command.
MCSO Dispatch Center	Emergency Early Warning System	The center shall monitor information from Alerting and Advisory Systems such as the Information Sharing and Analysis Centers (ISACs), the National Infrastructure Protection Center (NIPC), the Homeland Security Advisory System (HSAS), etc. The information may include assessments (general incident and vulnerability awareness information), advisories (identification of threats or recommendations to increase preparedness levels), or alerts (information on imminent or in-progress emergencies).
MCSO Dispatch Center	Emergency Early Warning System	The center shall provide the capability to correlate alerts and advisories, incident information, and security sensor and surveillance data.
MCSO Dispatch Center	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to traffic management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
MCSO Dispatch Center	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to transit management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
MCSO Dispatch Center	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to toll administration centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
MCSO Dispatch Center	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to traveler information service providers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
MCSO Dispatch Center	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to maintenance centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
MCSO Dispatch Center	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to other emergency management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
MCSO Dispatch Center	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to commercial vehicle administration centers and roadside check facilities for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
MCSO Dispatch Center	Emergency Early Warning System	The center shall process status information from each of the centers that have been sent the wide-area alert.
MCSO Dispatch Center	Emergency Early Warning System	The center shall coordinate the broadcast of wide-area alerts and advisories with other emergency management centers.
MCSO Dispatch Center	Emergency Early Warning System	The center shall receive incident information from other transportation management centers to support the early warning system.
MCSO Dispatch Center	Emergency Early Warning System	The center shall present the alert and advisory information and the status of the actions taken in response to the alert by the other centers to the emergency system operator as received from other system inputs.
MCSO Dispatch Center	Emergency Early Warning System	The center shall support the entry of alert and advisory information directly from the emergency system operator.
MCSO Dispatch Center	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways). The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors), infrastructure condition and integrity, intrusion and motion, and object detection sensors. The data may be raw or pre-processed in the field.
MCSO Dispatch Center	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers). The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors), intrusion and motion, and object detection sensors. The data may be raw or pre-processed in the field.

Element Name	Equipment Package Name	Requirement
MCSO Dispatch Center	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected on-board transit vehicles. The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors) and object detection sensors. The data may be raw or pre-processed in the field.
MCSO Dispatch Center	Center Secure Area Sensor Management	The center shall exchange security sensor data with other emergency centers.
MCSO Dispatch Center	Center Secure Area Sensor Management	The center shall identify potential security threats based on collected security sensor data.
MCSO Dispatch Center	Center Secure Area Sensor Management	The center shall verify potential security threats by correlating security sensor data from multiple sources.
MCSO Dispatch Center	Center Secure Area Sensor Management	The center shall perform threat analysis based on correlations of security sensor and surveillance data.
MCSO Dispatch Center	Center Secure Area Sensor Management	The center shall exchange threat analysis data with Alerting and Advisory Systems and use that data in local threat analysis processing.
MCSO Dispatch Center	Center Secure Area Sensor Management	The center shall disseminate threat information to other agencies, including traffic, transit, maintenance, rail operations, and other emergency management centers.
MCSO Dispatch Center	Center Secure Area Sensor Management	The center shall respond to control data from center personnel regarding security sensor data collection, processing, threat detection, and threat analysis.
MCSO Dispatch Center	Center Secure Area Sensor Management	The center shall request activation of barriers and safeguards on request from center personnel.
MCSO Dispatch Center	Center Secure Area Sensor Management	The center shall monitor maintenance status of the security sensor field equipment.
MCSO Vehicles	On-board EV En Route Support	The emergency vehicle, including roadway service patrols, shall track its current location.
METRO Light Rail Archived Data Server	ITS Data Repository	The center shall collect data to be archived from one or more data sources.
METRO Light Rail Archived Data Server	ITS Data Repository	The center shall include capabilities for archive to archive coordination.
METRO Light Rail Archived Data Server	ITS Data Repository	The center shall support a broad range of archived data management implementations, ranging from simple data marts that collect a focused set of data and serve a particular user community to large-scale data warehouses that collect, integrate, and summarize transportation data from multiple sources and serve a broad array of users within a region.
METRO Light Rail Archived Data Server	ITS Data Repository	The center shall perform quality checks on received data.
METRO Light Rail Archived Data Server	ITS Data Repository	The center shall provide the capability to execute methods on the incoming data such as cleansing, summarizations, aggregations, or transformations applied to the data before it is stored in the archive.
METRO Light Rail Archived Data Server	ITS Data Repository	The center shall respond to requests from the administrator interface function to maintain the archive data.
METRO Light Rail Archived Data Server	ITS Data Repository	When data or a catalog of data is received from the archive, the center shall generate the requested data product for the users systems.
METRO Light Rail Archived Data Server	ITS Data Repository	For archive data requiring financial payment, the center shall process the financial requests and manage an interface to a Financial Institution.
METRO Light Rail Archived Data Server	Government Reporting Systems Support	The center shall provide data from an ITS archive to federal, state, or local government reporting systems.
METRO Light Rail Archived Data Server	Government Reporting Systems Support	The center shall provide the capability to select data from an ITS archive for use in government reports.
METRO Light Rail Archived Data Server	Government Reporting Systems Support	The center shall provide the capability to format data from an ITS archive suitable for input into government reports.
METRO Light Rail Archived Data Server	Government Reporting Systems Support	The center shall support requests for ITS archived data from Government Reporting Systems.
METRO Light Rail Archived Data Server	Government Reporting Systems Support	The center shall provide the applicable meta-data for any ITS archived data to satisfy government reporting system requests. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.

Element Name	Equipment Package Name	Requirement
METRO Light Rail Archived Data Server	Traffic and Roadside Data Archival	The center shall manage the collection of archive data directly from collection equipment located at the roadside.
METRO Light Rail Archived Data Server	Traffic and Roadside Data Archival	The center shall collect traffic sensor information from roadside devices.
METRO Light Rail Archived Data Server	Traffic and Roadside Data Archival	The center shall collect environmental sensor information that from roadside devices.
METRO Light Rail Archived Data Server	Traffic and Roadside Data Archival	The center shall respond to requests from the Archive Data Administer to input the parameters that control the collection process.
METRO Light Rail Archived Data Server	Traffic and Roadside Data Archival	The center shall send the request for data and control parameters to the field equipment where the information is collected and returned.
METRO Light Rail Archived Data Server	Traffic and Roadside Data Archival	The center shall record the status about the imported traffic and roadside data.
METRO Light Rail Archived Data Server	Traffic and Roadside Data Archival	The center shall use the status information to adjust the collection of traffic and roadside data.
METRO Light Rail OCC	Transit Center Fixed-Route Operations	The center shall generate transit routes and schedules based on such factors as parameters input by the system operator, road network conditions, incident information, operational data on current routes and schedules, and digitized map data.
METRO Light Rail OCC	Transit Center Information Services	The center shall provide travelers using public transportation with traffic and advisory information upon request. Such information may include transit routes, schedules, transfer options, fares, real-time schedule adherence, current incidents, weather conditions, and special events.
METRO Light Rail OCC	Transit Center Multi-Modal Coordination	The center shall coordinate schedules and services between transit agencies, traffic management, maintenance and construction operations, parking management, and other surface or air transportation modes.
METRO Light Rail OCC	Transit Center Security	The center shall monitor transit vehicle operational data to determine if the transit vehicle is off-route and assess whether a security incident is occurring.
METRO Light Rail OCC	Transit Center Vehicle Tracking	The center shall monitor the locations of all transit vehicles within its network.
METRO Light Rail OCC	Transit Vehicle Operator Assignment	The center shall maintain records of a transit vehicle operator's performance. This may be done utilizing standardized performance evaluation criteria set forth by governmental regulations and transit operating company policies, assessing the transit vehicle operator's driving history, and assessing comments from the transit vehicle operator's supervisor(s) as well as noting any moving violations or accidents, supervisor comments, government regulations, and company policies.
METRO Light Rail OCC	Emergency Response Management	The center shall provide strategic emergency response capabilities provided by an Emergency Operations Center for large-scale incidents and disasters.
METRO Light Rail OCC	Emergency Response Management	The center shall manage coordinated inter-agency responses to and recovery from large-scale emergencies. Such agencies include traffic management, transit, maintenance and construction management, rail operations, and other emergency management agencies.
METRO Light Rail OCC	Emergency Response Management	The center shall provide the capability to implement response plans and track progress through the incident by exchanging incident information and response status with allied agencies.
METRO Light Rail OCC	Emergency Response Management	The center shall develop, coordinate with other agencies, and store emergency response plans.
METRO Light Rail OCC	Emergency Response Management	The center shall track the availability of resources and coordinate resource sharing with allied agency centers including traffic, maintenance, or other emergency centers.
METRO Light Rail OCC	Emergency Response Management	The center shall allocate the appropriate emergency services, resources, and vehicle (s) to respond to incidents, and shall provide the capability to override the current allocation to suit the special needs of a current incident.
METRO Light Rail OCC	Emergency Response Management	The center shall receive event scheduling information from Event Promoters.
METRO Light Rail OCC	Emergency Response Management	The center shall support remote control of field equipment normally under control of the traffic management center including traffic signals, dynamic message signs, gates, and barriers.
METRO Light Rail OCC	Emergency Response Management	The center shall provide the capability to remotely control and monitor CCTV systems normally operated by a traffic management center.
METRO Light Rail OCC	Emergency Response Management	The center shall provide the capability to request transit resource availability from transit centers for use during disaster and evacuation operations.

Element Name	Equipment Package Name	Requirement
METRO Light Rail OCC	Emergency Response Management	The center shall assimilate the damage assessment of the transit, traffic, rail, maintenance, and other emergency center services and systems to create an overall transportation system status, and disseminate to each of these centers and the traveling public via traveler information providers.
METRO Light Rail OCC	Emergency Response Management	The center shall provide information to the media concerning the status of an emergency response.
METRO Light Rail OCC	Emergency Response Management	The center shall provide the capability for digitized map data to act as the background to the information presented to the emergency system operator.
METRO Light Rail OCC	Emergency Response Management	The center shall provide the capability for center personnel to provide inputs to the management of incidents, disasters and evacuations.
METRO Light Rail OCC	Emergency Response Management	The center shall collect information about the status of the recovery efforts for the infrastructure during disasters.
METRO Light Rail OCC	Emergency Response Management	The center shall provide the overall status of infrastructure recovery efforts to traveler information providers and media.
METRO Light Rail OCC	Emergency Response Management	The center shall provide the capability to communicate information about emergency situations to local population through the Emergency Telecommunications System.
METRO Light Rail OCC	Emergency Response Management	The center shall provide the capability to identify neighborhoods and businesses that should be informed of an emergency situation based on information collected about incidents including their severity, impacted locations, and recovery schedule.
METRO Light Rail OCC	Emergency Response Management	The center shall retrieve information from public health systems to increase preparedness for, and implement a response to biological, chemical, radiation, and other public health emergencies.
METRO Light Rail OCC	Emergency Response Management	The center shall manage coordinated inter-agency responses to incidents at an international border.
METRO Light Rail OCC	Transit Data Collection	The center shall collect transit management data such as transit fares and passenger use, transit services, paratransit operations, transit vehicle maintenance data, etc.
METRO Light Rail OCC	Transit Data Collection	The center shall assign quality control metrics and meta-data to be stored along with the data. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
METRO Light Rail OCC	Transit Data Collection	The center shall receive and respond to requests from ITS Archives for either a catalog of the transit data or for the data itself.
METRO Light Rail OCC	Transit Data Collection	The center shall be able to produce sample products of the data available.
METRO Light Rail OCC	Emergency Data Collection	The center shall collect emergency service data, emergency vehicle management data, emergency vehicle data, sensor and surveillance data, threat data, and incident data.
METRO Light Rail OCC	Emergency Data Collection	The center shall assign quality control metrics and meta-data to be stored along with the data. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
METRO Light Rail OCC	Emergency Data Collection	The center shall receive and respond to requests from ITS Archives for either a catalog of the emergency management data or for the data itself.
METRO Light Rail OCC	Emergency Data Collection	The center shall be able to produce sample products of the data available.
METRO Light Rail OCC	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways). The data may be raw or pre-processed in the field.
METRO Light Rail OCC	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers). The data may be raw or pre-processed in the field.
METRO Light Rail OCC	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected on-board transit vehicles. The data may be raw or pre-processed in the field.
METRO Light Rail OCC	Center Secure Area Surveillance	The center shall exchange surveillance data with other emergency centers.
METRO Light Rail OCC	Center Secure Area Surveillance	The center shall identify potential security threats based on collected security surveillance data.
METRO Light Rail OCC	Center Secure Area Surveillance	The center shall verify potential security threats by correlating security surveillance data from multiple sources.
METRO Light Rail OCC	Center Secure Area Surveillance	The center shall remotely control security surveillance devices in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways).
METRO Light Rail OCC	Center Secure Area Surveillance	The center shall remotely control security surveillance devices in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers).
METRO Light Rail OCC	Center Secure Area Surveillance	The center shall remotely control security surveillance devices on-board transit vehicles.

Element Name	Equipment Package Name	Requirement
METRO Light Rail OCC	Center Secure Area Surveillance	The center shall match traveler video images against a database from the Alerting and Advisory Systems of known images that may represent criminals and terrorists.
METRO Light Rail OCC	Center Secure Area Surveillance	The center shall exchange traveler images with other emergency management centers to support traveler image matching.
METRO Light Rail OCC	Center Secure Area Surveillance	The center shall respond to control data from center personnel regarding security surveillance data collection, processing, threat detection, and image matching.
METRO Light Rail OCC	Center Secure Area Surveillance	The center shall monitor maintenance status of the security sensor field equipment.
METRO Light Rail OCC	Emergency Early Warning System	The center shall monitor information from Alerting and Advisory Systems such as the Information Sharing and Analysis Centers (ISACs), the National Infrastructure Protection Center (NIPC), the Homeland Security Advisory System (HSAS), etc. The information may include assessments (general incident and vulnerability awareness information), advisories (identification of threats or recommendations to increase preparedness levels), or alerts (information on imminent or in-progress emergencies).
METRO Light Rail OCC	Emergency Early Warning System	The center shall provide the capability to correlate alerts and advisories, incident information, and security sensor and surveillance data.
METRO Light Rail OCC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to traffic management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
METRO Light Rail OCC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to transit management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
METRO Light Rail OCC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to toll administration centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
METRO Light Rail OCC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to traveler information service providers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
METRO Light Rail OCC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to maintenance centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
METRO Light Rail OCC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to other emergency management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
METRO Light Rail OCC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to commercial vehicle administration centers and roadside check facilities for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
METRO Light Rail OCC	Emergency Early Warning System	The center shall process status information from each of the centers that have been sent the wide-area alert.
METRO Light Rail OCC	Emergency Early Warning System	The center shall coordinate the broadcast of wide-area alerts and advisories with other emergency management centers.
METRO Light Rail OCC	Emergency Early Warning System	The center shall receive incident information from other transportation management centers to support the early warning system.
METRO Light Rail OCC	Emergency Early Warning System	The center shall present the alert and advisory information and the status of the actions taken in response to the alert by the other centers to the emergency system operator as received from other system inputs.
METRO Light Rail OCC	Emergency Early Warning System	The center shall support the entry of alert and advisory information directly from the emergency system operator.
METRO Light Rail OCC	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways). The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors), infrastructure condition and integrity, intrusion and motion, and object detection sensors. The data may be raw or pre-processed in the field.

Element Name	Equipment Package Name	Requirement
METRO Light Rail OCC	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers). The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors), intrusion and motion, and object detection sensors. The data may be raw or pre-processed in the field.
METRO Light Rail OCC	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected on-board transit vehicles. The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors) and object detection sensors. The data may be raw or pre-processed in the field.
METRO Light Rail OCC	Center Secure Area Sensor Management	The center shall exchange security sensor data with other emergency centers.
METRO Light Rail OCC	Center Secure Area Sensor Management	The center shall identify potential security threats based on collected security sensor data.
METRO Light Rail OCC	Center Secure Area Sensor Management	The center shall verify potential security threats by correlating security sensor data from multiple sources.
METRO Light Rail OCC	Center Secure Area Sensor Management	The center shall perform threat analysis based on correlations of security sensor and surveillance data.
METRO Light Rail OCC	Center Secure Area Sensor Management	The center shall exchange threat analysis data with Alerting and Advisory Systems and use that data in local threat analysis processing.
METRO Light Rail OCC	Center Secure Area Sensor Management	The center shall disseminate threat information to other agencies, including traffic, transit, maintenance, rail operations, and other emergency management centers.
METRO Light Rail OCC	Center Secure Area Sensor Management	The center shall respond to control data from center personnel regarding security sensor data collection, processing, threat detection, and threat analysis.
METRO Light Rail OCC	Center Secure Area Sensor Management	The center shall request activation of barriers and safeguards on request from center personnel.
METRO Light Rail OCC	Center Secure Area Sensor Management	The center shall monitor maintenance status of the security sensor field equipment.
METRO Light Rail OCC	Center Secure Area Alarm Support	The center shall collect silent and audible alarms received from travelers in secure areas (such as transit stops, rest areas, park and ride lots, modal interchange facilities).
METRO Light Rail OCC	Center Secure Area Alarm Support	The center shall collect silent and audible alarms received from transit vehicles, originated by the traveler or the transit vehicle operator.
METRO Light Rail OCC	Center Secure Area Alarm Support	After the alarm message has been received, the center shall generate an alarm acknowledgment to the sender.
METRO Light Rail OCC	Center Secure Area Alarm Support	After the alarm message becomes a verified incident, the center shall determine the appropriate response.
METRO Light Rail OCC	Center Secure Area Alarm Support	The center shall determine whether the alarm message indicates an emergency that requires the attention of public safety agencies, and forward alarm message data to the appropriate agency as necessary.
METRO Light Rail OCC	Center Secure Area Alarm Support	The center shall forward the alarm message to center personnel and respond to the traveler or transit vehicle operator as directed by the personnel.
METRO Light Rail OCC	Transit Center Signal Priority	The center shall analyze transit vehicle schedule performance to determine the need for priority along certain routes or at certain intersections.
METRO Light Rail OCC	Transit Center Signal Priority	The center shall send requests for priority along routes or at intersections to traffic management.
METRO Light Rail OCC	Transit Center Signal Priority	The center shall define business rules that govern use of transit vehicle signal priority, communicate these rules to the transit vehicle, and monitor transit vehicle requests for priority at signalized intersections.
METRO Light Rail OCC	Transit Center Signal Priority	The center shall provide transit operations personnel with the capability to control and monitor transit signal priority operations.
METRO Light Rail OMC	Transit Garage Maintenance	The center shall collect operational and maintenance data from transit vehicles.
METRO Light Rail OMC	Transit Center Passenger Counting	The center shall collect passenger count information from each transit vehicle.
METRO Light Rail OMC	Transit Center Passenger Counting	The center shall calculate transit ridership data by route, route segment, transit stop, time of day, and day of week based on the collected passenger count information.
METRO Light Rail OMC	Transit Center Passenger Counting	The center shall make the compiled ridership data available to the system operator and other applications.
METRO Light Rail OMC	Transit Vehicle Assignment	The center shall assign individual transit vehicles to transit blocks.
METRO Light Rail OMC	Transit Vehicle Assignment	The center shall download vehicle assignments to the transit vehicle prior to the start of the day's operations.
METRO Light Rail OMC	Transit Vehicle Assignment	The center shall provide an exception handling process for the vehicle assignment function. This process shall generate new supplemental vehicle assignments as required due to change events which occur during the operating day.

Element Name	Equipment Package Name	Requirement
METRO Light Rail OMC	Transit Vehicle Assignment	The center shall provide an inventory management function for the transit facility that stores functional attributes about each vehicle owned by the transit operator. The functional attributes permit the planning and assignment functions to match vehicles with routes based on suitability for the types of service required by the particular routes.
METRO Light Rail OMC	Transit Vehicle Assignment	The center shall generate transit vehicle availability listings, current and forecast, to support transit vehicle assignment planning.
METRO Light Rail OMC	Transit Vehicle Assignment	The center shall provide transit operations personnel with the capability to update transit vehicle assignments and receive reports on transit vehicle inventory status.
METRO Light Rail Transit DMS	Remote Transit Information Services	The public interface for travelers shall collect and provide real-time travel-related information at transit stops, multi-modal transfer points, and other public transportation areas.
METRO Light Rail Transit DMS	Remote Transit Information Services	The public interface for travelers shall collect and present to the transit traveler information on transit routes, schedules, and real-time schedule adherence.
METRO Light Rail Transit DMS	Remote Transit Information Services	The public interface for travelers shall provide support for general annunciation and/or display of imminent arrival information and other information of general interest to transit users.
METRO Light Rail Transit DMS	Remote Transit Information Services	The public interface for travelers shall present information to the traveler in a form suitable for travelers with physical disabilities.
METRO Light Rail Vehicles	On-board Maintenance	The transit vehicle shall collect and process vehicle mileage data available to sensors on-board.
METRO Light Rail Vehicles	On-board Schedule Management	The transit vehicle shall receive a vehicle assignment including transit route information, transit service instructions, traffic information, road conditions, and other information for the operator.
METRO Light Rail Vehicles	On-board Transit Information Services	The transit vehicle shall enable traffic and travel advisory information to be requested and output to the traveler. Such information may include transit routes, schedules, transfer options, fares, real-time schedule adherence, current incidents, weather conditions, and special events.
METRO Light Rail Vehicles	On-board Transit Security	The transit vehicle shall perform video and audio surveillance inside of transit vehicles and output raw video or audio data for either local monitoring (for processing or direct output to the transit vehicle operator), remote monitoring or for local storage (e.g., in an event recorder).
METRO Light Rail Vehicles	On-board Transit Signal Priority	The transit vehicle shall determine the schedule deviation and estimated times of arrival (ETA) at transit stops.
METRO Light Rail Vehicles	On-board Transit Trip Monitoring	The transit vehicle shall track the current location of the transit vehicle.
METRO Light Rail Vehicles	On-board Passenger Counting	The transit vehicle shall count passengers boarding and alighting.
METRO Light Rail Vehicles	On-board Passenger Counting	The passenger counts shall be related to location to support association of passenger counts with routes, route segments, or bus stops.
METRO Light Rail Vehicles	On-board Passenger Counting	The passenger counts shall be timestamped so that ridership can be measured by time of day and day of week.
METRO Light Rail Vehicles	On-board Passenger Counting	The transit vehicle shall send the collected passenger count information to the transit center.
Other City and Municipal Public Works	MCM Work Activity Coordination	The center shall provide work zone activities affecting the road network including the nature of the maintenance or construction activity, location, impact to the roadway, expected time(s) and duration of impact, anticipated delays, alternate routes, and suggested speed limits. This information may be augmented with images that provide a visual indication of current work zone status and traffic impacts.
Other City and Municipal Public Works	MCM Work Activity Coordination	The center shall provide status information about scheduled maintenance and construction activities including anticipated closures and impact to the roadway, alternate routes, anticipated delays, closure times, and durations. The information is provided to other management centers such as traffic, emergency, transit, traveler information providers, other maintenance centers, multimodal transportation providers, rail operations, and the media.
Other City and Municipal Public Works	MCM Work Activity Coordination	The center shall collect and respond to feedback concerning scheduled maintenance and construction activities with other management centers such as traffic, emergency, transit, and rail operations.
Other City and Municipal Public Works	MCM Work Activity Coordination	The center shall collect and disseminate asset restriction information levied on transportation asset usage based on infrastructure design, surveys, tests, or analyses. This includes standard facility design height, width, and weight restrictions, special restrictions such as spring weight restrictions, and temporary facility restrictions that are imposed during maintenance and construction.
Other City and Municipal Public Works	MCM Work Activity Coordination	The center shall exchange information with administrative systems to support the planning and scheduling of maintenance and construction activities. This information includes: equipment and consumables resupply purchase request status, personnel qualifications including training and special certifications, environmental regulations and rules that may impact maintenance activities, and requests and project requirements from contract administration.
Other City and Municipal Public Works	MCM Work Activity Coordination	The center shall exchange rail schedules and work plans with rail operations centers.

Element Name	Equipment Package Name	Requirement
Other Local Dial-A-Ride Transit Dispatches	Transit Center Multi-Modal Coordination	The center shall coordinate schedules and services between transit agencies, traffic management, maintenance and construction operations, parking management, and other surface or air transportation modes.
Other Police Dispatch	Emergency Call-Taking	The center shall support the interface to the Emergency Telecommunications System (e.g. 911 or 7-digit call routing) to receive emergency notification information and provide it to the emergency system operator.
Other Police Dispatch	Emergency Dispatch	The center shall dispatch emergency vehicles to respond to verified emergencies under center personnel control.
Other Police Dispatch	Emergency Call-Taking	The center shall receive emergency call information from 911 services and present the possible incident information to the emergency system operator.
Other Police Dispatch	Emergency Call-Taking	The center shall receive emergency notification information from other public safety agencies and present the possible incident information to the emergency system operator.
Other Police Dispatch	Emergency Call-Taking	The center shall receive emergency notification information from public transit systems and present the possible incident information to the emergency system operator.
Other Police Dispatch	Emergency Call-Taking	The center shall coordinate, correlate, and verify all emergency inputs, including those identified based on external calls and internal analysis of security sensor and surveillance data, and assign each a level of confidence.
Other Police Dispatch	Emergency Call-Taking	The center shall send a request for remote control of CCTV systems from a traffic management center in order to verify the reported incident.
Other Police Dispatch	Emergency Call-Taking	The center shall forward the verified emergency information to the responding agency based on the location and nature of the emergency.
Other Police Dispatch	Emergency Call-Taking	The center shall update the incident information log once the emergency system operator has verified the incident.
Other Police Dispatch	Emergency Dispatch	The center shall track the location and status of emergency vehicles responding to an emergency based on information from the emergency vehicle.
Other Police Dispatch	Emergency Dispatch	The center shall store and maintain the emergency service responses in an action log.
Other Police Dispatch	Emergency Dispatch	The center shall provide the capability to request remote control of traffic surveillance devices
Other Police Dispatch	Emergency Dispatch	The center shall coordinate response to incidents with other Emergency Management centers to ensure appropriate resources are dispatched and utilized.
Other Police Dispatch	Emergency Early Warning System	The center shall monitor information from Alerting and Advisory Systems such as the Information Sharing and Analysis Centers (ISACs), the National Infrastructure Protection Center (NIPC), the Homeland Security Advisory System (HSAS), etc. The information may include assessments (general incident and vulnerability awareness information), advisories (identification of threats or recommendations to increase preparedness levels), or alerts (information on imminent or in-progress emergencies).
Other Police Dispatch	Emergency Early Warning System	The center shall provide the capability to correlate alerts and advisories, incident information, and security sensor and surveillance data.
Other Police Dispatch	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to traffic management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Other Police Dispatch	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to transit management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Other Police Dispatch	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to toll administration centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Other Police Dispatch	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to traveler information service providers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Other Police Dispatch	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to maintenance centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Other Police Dispatch	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to other emergency management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.

Element Name	Equipment Package Name	Requirement
Other Police Dispatch	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to commercial vehicle administration centers and roadside check facilities for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Other Police Dispatch	Emergency Early Warning System	The center shall process status information from each of the centers that have been sent the wide-area alert.
Other Police Dispatch	Emergency Early Warning System	The center shall coordinate the broadcast of wide-area alerts and advisories with other emergency management centers.
Other Police Dispatch	Emergency Early Warning System	The center shall receive incident information from other transportation management centers to support the early warning system.
Other Police Dispatch	Emergency Early Warning System	The center shall present the alert and advisory information and the status of the actions taken in response to the alert by the other centers to the emergency system operator as received from other system inputs.
Other Police Dispatch	Emergency Early Warning System	The center shall support the entry of alert and advisory information directly from the emergency system operator.
Personal Information Devices	Personal Basic Information Reception	The personal traveler interface shall receive traffic information from a center and present it to the traveler.
Personal Information Devices	Personal Basic Information Reception	The personal traveler interface shall receive evacuation information from a center and present it to the traveler.
Personal Information Devices	Personal Basic Information Reception	The personal traveler interface shall receive wide-area alerts and present it to the traveler.
Personal Information Devices	Personal Basic Information Reception	The personal traveler interface shall provide the capability for digitized map data to act as the background to the information presented to the traveler.
Personal Information Devices	Personal Basic Information Reception	The personal traveler interface shall support traveler input in audio or manual form.
Personal Information Devices	Personal Basic Information Reception	The personal traveler interface shall present information to the traveler in audible or visual forms, consistent with a personal device.
Personal Information Devices	Personal Interactive Information Reception	The personal traveler interface shall receive traffic information from a center and present it to the traveler upon request.
Personal Information Devices	Personal Interactive Information Reception	The personal traveler interface shall receive transit information from a center and present it to the traveler upon request.
Personal Information Devices	Personal Interactive Information Reception	The personal traveler interface shall receive traveler services information (such as lodging, restaurants, theaters, bicycle facilities, and other tourist activities) from a center and present it to the traveler upon request.
Personal Information Devices	Personal Interactive Information Reception	The personal traveler interface shall receive event information from a center and present it to the traveler upon request.
Personal Information Devices	Personal Interactive Information Reception	The personal traveler interface shall receive evacuation information from a center and present it to the traveler.
Personal Information Devices	Personal Interactive Information Reception	The personal traveler interface shall receive wide-area alerts and present it to the traveler.
Personal Information Devices	Personal Interactive Information Reception	The personal traveler interface shall accept reservations for confirmed trip plans.
Personal Information Devices	Personal Interactive Information Reception	The personal traveler interface shall support payment for services, such as confirmed trip plans, tolls, transit fares, parking lot charges, map updates, and advanced payment for tolls.
Personal Information Devices	Personal Interactive Information Reception	The personal traveler interface shall provide an interface through which credit identity, stored credit value, or traveler information may be collected from a traveler card being used by a traveler with a personal device.
Personal Information Devices	Personal Interactive Information Reception	The personal traveler interface shall base requests from the traveler on the traveler's current location or a specific location identified by the traveler, and filter the provided information accordingly.
Personal Information Devices	Personal Interactive Information Reception	The personal traveler interface shall provide digitized map data to act as the background to the information presented to the traveler.

Element Name	Equipment Package Name	Requirement
Personal Information Devices	Personal Interactive Information Reception	The personal traveler interface shall support traveler input in audio or manual form.
Personal Information Devices	Personal Interactive Information Reception	The personal traveler interface shall present information to the traveler in audible or visual forms consistent with a personal device, and suitable for travelers with hearing and vision physical disabilities.
Personal Information Devices	Personal Interactive Information Reception	The personal traveler interface shall be able to store frequently requested or used data, including the traveler's identity, home and work locations, etc.
Personal Information Devices	Personal Interactive Information Reception	The personal traveler interface shall receive travel alerts and present them to the traveler. Relevant alerts are provided based on pre-supplied trip characteristics and preferences.
Personal Information Devices	Personal Interactive Information Reception	The personal traveler interface shall accept personal preferences, recurring trip characteristics, and traveler alert subscription information from the traveler and send this information to a center to support customized traveler information services.
Personal Information Devices	Personal Interactive Information Reception	The personal traveler interface shall provide an interface to establish and manage user VMT accounts, process VMT payments, and access VMT reports under user control.
Phoenix Dial-A-Ride Archived Data Server	ITS Data Repository	The center shall collect data to be archived from one or more data sources.
Phoenix Dial-A-Ride Archived Data Server	ITS Data Repository	The center shall include capabilities for archive to archive coordination.
Phoenix Dial-A-Ride Archived Data Server	ITS Data Repository	The center shall support a broad range of archived data management implementations, ranging from simple data marts that collect a focused set of data and serve a particular user community to large-scale data warehouses that collect, integrate, and summarize transportation data from multiple sources and serve a broad array of users within a region.
Phoenix Dial-A-Ride Archived Data Server	ITS Data Repository	The center shall perform quality checks on received data.
Phoenix Dial-A-Ride Archived Data Server	ITS Data Repository	The center shall provide the capability to execute methods on the incoming data such as cleansing, summarizations, aggregations, or transformations applied to the data before it is stored in the archive.
Phoenix Dial-A-Ride Archived Data Server	ITS Data Repository	The center shall respond to requests from the administrator interface function to maintain the archive data.
Phoenix Dial-A-Ride Archived Data Server	ITS Data Repository	When data or a catalog of data is received from the archive, the center shall generate the requested data product for the users systems.
Phoenix Dial-A-Ride Archived Data Server	ITS Data Repository	For archive data requiring financial payment, the center shall process the financial requests and manage an interface to a Financial Institution.
Phoenix Dial-A-Ride Archived Data Server	Government Reporting Systems Support	The center shall provide data from an ITS archive to federal, state, or local government reporting systems.
Phoenix Dial-A-Ride Archived Data Server	Government Reporting Systems Support	The center shall provide the capability to select data from an ITS archive for use in government reports.
Phoenix Dial-A-Ride Archived Data Server	Government Reporting Systems Support	The center shall provide the capability to format data from an ITS archive suitable for input into government reports.
Phoenix Dial-A-Ride Archived Data Server	Government Reporting Systems Support	The center shall support requests for ITS archived data from Government Reporting Systems.
Phoenix Dial-A-Ride Archived Data Server	Government Reporting Systems Support	The center shall provide the applicable meta-data for any ITS archived data to satisfy government reporting system requests. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
Phoenix Dial-A-Ride Archived Data Server	Traffic and Roadside Data Archival	The center shall manage the collection of archive data directly from collection equipment located at the roadside.
Phoenix Dial-A-Ride Archived Data Server	Traffic and Roadside Data Archival	The center shall collect traffic sensor information from roadside devices.

Element Name	Equipment Package Name	Requirement
Phoenix Dial-A-Ride Archived Data Server	Traffic and Roadside Data Archival	The center shall collect environmental sensor information that from roadside devices.
Phoenix Dial-A-Ride Archived Data Server	Traffic and Roadside Data Archival	The center shall respond to requests from the Archive Data Administer to input the parameters that control the collection process.
Phoenix Dial-A-Ride Archived Data Server	Traffic and Roadside Data Archival	The center shall send the request for data and control parameters to the field equipment where the information is collected and returned.
Phoenix Dial-A-Ride Archived Data Server	Traffic and Roadside Data Archival	The center shall record the status about the imported traffic and roadside data.
Phoenix Dial-A-Ride Archived Data Server	Traffic and Roadside Data Archival	The center shall use the status information to adjust the collection of traffic and roadside data.
Phoenix Dial-A-Ride Transit Dispatch	Transit Center Multi-Modal Coordination	The center shall coordinate schedules and services between transit agencies, traffic management, maintenance and construction operations, parking management, and other surface or air transportation modes.
Phoenix Dial-A-Ride Transit Dispatch	Transit Center Paratransit Operations	The center shall process trip requests for demand responsive transit services, i.e. paratransit. Sources of the requests may include traveler information service providers.
Phoenix Dial-A-Ride Transit Dispatch	Transit Center Security	The center shall monitor transit vehicle operational data to determine if the transit vehicle is off-route and assess whether a security incident is occurring.
Phoenix Dial-A-Ride Transit Dispatch	Transit Center Vehicle Tracking	The center shall monitor the locations of all transit vehicles within its network.
Phoenix Dial-A-Ride Transit Dispatch	Transit Garage Maintenance	The center shall collect operational and maintenance data from transit vehicles.
Phoenix Dial-A-Ride Transit Dispatch	Transit Vehicle Operator Assignment	The center shall maintain records of a transit vehicle operator's performance. This may be done utilizing standardized performance evaluation criteria set forth by governmental regulations and transit operating company policies, assessing the transit vehicle operator's driving history, and assessing comments from the transit vehicle operator's supervisor(s) as well as noting any moving violations or accidents, supervisor comments, government regulations, and company policies.
Phoenix Dial-A-Ride Transit Dispatch	Transit Data Collection	The center shall collect transit management data such as transit fares and passenger use, transit services, paratransit operations, transit vehicle maintenance data, etc.
Phoenix Dial-A-Ride Transit Dispatch	Transit Data Collection	The center shall assign quality control metrics and meta-data to be stored along with the data. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
Phoenix Dial-A-Ride Transit Dispatch	Transit Data Collection	The center shall receive and respond to requests from ITS Archives for either a catalog of the transit data or for the data itself.
Phoenix Dial-A-Ride Transit Dispatch	Transit Data Collection	The center shall be able to produce sample products of the data available.
Phoenix Dial-A-Ride Transit Dispatch	Transit Environmental Monitoring	The center shall assimilate current and forecast road conditions and surface weather information to more effectively manage transit operations.
Phoenix Dial-A-Ride Transit Dispatch	Transit Environmental Monitoring	The center shall collect current and forecast road and weather information from weather service providers and roadway maintenance centers.
Phoenix Dial-A-Ride Transit Dispatch	Transit Vehicle Assignment	The center shall assign individual transit vehicles to transit blocks.
Phoenix Dial-A-Ride Transit Dispatch	Transit Vehicle Assignment	The center shall download vehicle assignments to the transit vehicle prior to the start of the day's operations.
Phoenix Dial-A-Ride Transit Dispatch	Transit Vehicle Assignment	The center shall provide an exception handling process for the vehicle assignment function. This process shall generate new supplemental vehicle assignments as required due to change events which occur during the operating day.



Element Name	Equipment Package Name	Requirement
Phoenix Dial-A-Ride Transit Dispatch	Transit Vehicle Assignment	The center shall provide an inventory management function for the transit facility that stores functional attributes about each vehicle owned by the transit operator. The functional attributes permit the planning and assignment functions to match vehicles with routes based on suitability for the types of service required by the particular routes.
Phoenix Dial-A-Ride Transit Dispatch	Transit Vehicle Assignment	The center shall generate transit vehicle availability listings, current and forecast, to support transit vehicle assignment planning.
Phoenix Dial-A-Ride Transit Dispatch	Transit Vehicle Assignment	The center shall provide transit operations personnel with the capability to update transit vehicle assignments and receive reports on transit vehicle inventory status.
Phoenix Dial-A-Ride Transit Vehicles	On-board Maintenance	The transit vehicle shall collect and process vehicle mileage data available to sensors on-board.
Phoenix Dial-A-Ride Transit Vehicles	On-board Paratransit Operations	The transit vehicle shall manage data input to sensor(s) on-board a transit vehicle to determine the vehicle's availability for use in demand responsive and flexible-route transit services based on identity, type, and passenger capacity.
Phoenix Dial-A-Ride Transit Vehicles	On-board Schedule Management	The transit vehicle shall receive a vehicle assignment including transit route information, transit service instructions, traffic information, road conditions, and other information for the operator.
Phoenix Dial-A-Ride Transit Vehicles	On-board Transit Fare Management	The transit vehicle shall read data from the traveler card / payment instrument presented by boarding passengers.
Phoenix Dial-A-Ride Transit Vehicles	On-board Transit Security	The transit vehicle shall perform video and audio surveillance inside of transit vehicles and output raw video or audio data for either local monitoring (for processing or direct output to the transit vehicle operator), remote monitoring or for local storage (e.g., in an event recorder).
Phoenix Dial-A-Ride Transit Vehicles	On-board Transit Trip Monitoring	The transit vehicle shall track the current location of the transit vehicle.
Phoenix Fire Department Regional Dispatch Center	Emergency Call-Taking	The center shall support the interface to the Emergency Telecommunications System (e.g. 911 or 7-digit call routing) to receive emergency notification information and provide it to the emergency system operator.
Phoenix Fire Department Regional Dispatch Center	Emergency Dispatch	The center shall dispatch emergency vehicles to respond to verified emergencies under center personnel control.
Phoenix Fire Department Regional Dispatch Center	Emergency Call-Taking	The center shall receive emergency call information from 911 services and present the possible incident information to the emergency system operator.
Phoenix Fire Department Regional Dispatch Center	Emergency Call-Taking	The center shall receive emergency notification information from other public safety agencies and present the possible incident information to the emergency system operator.
Phoenix Fire Department Regional Dispatch Center	Emergency Call-Taking	The center shall receive emergency notification information from public transit systems and present the possible incident information to the emergency system operator.
Phoenix Fire Department Regional Dispatch Center	Emergency Call-Taking	The center shall coordinate, correlate, and verify all emergency inputs, including those identified based on external calls and internal analysis of security sensor and surveillance data, and assign each a level of confidence.
Phoenix Fire Department Regional Dispatch Center	Emergency Call-Taking	The center shall send a request for remote control of CCTV systems from a traffic management center in order to verify the reported incident.
Phoenix Fire Department Regional Dispatch Center	Emergency Call-Taking	The center shall forward the verified emergency information to the responding agency based on the location and nature of the emergency.
Phoenix Fire Department Regional Dispatch Center	Emergency Call-Taking	The center shall update the incident information log once the emergency system operator has verified the incident.



Element Name	Equipment Package Name	Requirement
Phoenix Fire Department Regional Dispatch Center	Emergency Dispatch	The center shall track the location and status of emergency vehicles responding to an emergency based on information from the emergency vehicle.
Phoenix Fire Department Regional Dispatch Center	Emergency Dispatch	The center shall store and maintain the emergency service responses in an action log.
Phoenix Fire Department Regional Dispatch Center	Emergency Dispatch	The center shall provide the capability to request remote control of traffic surveillance devices
Phoenix Fire Department Regional Dispatch Center	Emergency Dispatch	The center shall coordinate response to incidents with other Emergency Management centers to ensure appropriate resources are dispatched and utilized.
Phoenix Fire Department Regional Dispatch Center	Emergency Response Management	The center shall provide strategic emergency response capabilities provided by an Emergency Operations Center for large-scale incidents and disasters.
Phoenix Fire Department Regional Dispatch Center	Emergency Response Management	The center shall manage coordinated inter-agency responses to and recovery from large-scale emergencies. Such agencies include traffic management, transit, maintenance and construction management, rail operations, and other emergency management agencies.
Phoenix Fire Department Regional Dispatch Center	Emergency Response Management	The center shall provide the capability to implement response plans and track progress through the incident by exchanging incident information and response status with allied agencies.
Phoenix Fire Department Regional Dispatch Center	Emergency Response Management	The center shall develop, coordinate with other agencies, and store emergency response plans.
Phoenix Fire Department Regional Dispatch Center	Emergency Response Management	The center shall track the availability of resources and coordinate resource sharing with allied agency centers including traffic, maintenance, or other emergency centers.
Phoenix Fire Department Regional Dispatch Center	Emergency Response Management	The center shall allocate the appropriate emergency services, resources, and vehicle (s) to respond to incidents, and shall provide the capability to override the current allocation to suit the special needs of a current incident.
Phoenix Fire Department Regional Dispatch Center	Emergency Response Management	The center shall receive event scheduling information from Event Promoters.
Phoenix Fire Department Regional Dispatch Center	Emergency Response Management	The center shall support remote control of field equipment normally under control of the traffic management center including traffic signals, dynamic message signs, gates, and barriers.
Phoenix Fire Department Regional Dispatch Center	Emergency Response Management	The center shall provide the capability to remotely control and monitor CCTV systems normally operated by a traffic management center.
Phoenix Fire Department Regional Dispatch Center	Emergency Response Management	The center shall provide the capability to request transit resource availability from transit centers for use during disaster and evacuation operations.
Phoenix Fire Department Regional Dispatch Center	Emergency Response Management	The center shall assimilate the damage assessment of the transit, traffic, rail, maintenance, and other emergency center services and systems to create an overall transportation system status, and disseminate to each of these centers and the traveling public via traveler information providers.
Phoenix Fire Department Regional Dispatch Center	Emergency Response Management	The center shall provide information to the media concerning the status of an emergency response.

Element Name	Equipment Package Name	Requirement
Phoenix Fire Department Regional Dispatch Center	Emergency Response Management	The center shall provide the capability for digitized map data to act as the background to the information presented to the emergency system operator.
Phoenix Fire Department Regional Dispatch Center	Emergency Response Management	The center shall provide the capability for center personnel to provide inputs to the management of incidents, disasters and evacuations.
Phoenix Fire Department Regional Dispatch Center	Emergency Response Management	The center shall collect information about the status of the recovery efforts for the infrastructure during disasters.
Phoenix Fire Department Regional Dispatch Center	Emergency Response Management	The center shall provide the overall status of infrastructure recovery efforts to traveler information providers and media.
Phoenix Fire Department Regional Dispatch Center	Emergency Response Management	The center shall provide the capability to communicate information about emergency situations to local population through the Emergency Telecommunications System.
Phoenix Fire Department Regional Dispatch Center	Emergency Response Management	The center shall provide the capability to identify neighborhoods and businesses that should be informed of an emergency situation based on information collected about incidents including their severity, impacted locations, and recovery schedule.
Phoenix Fire Department Regional Dispatch Center	Emergency Response Management	The center shall retrieve information from public health systems to increase preparedness for, and implement a response to biological, chemical, radiation, and other public health emergencies.
Phoenix Fire Department Regional Dispatch Center	Emergency Response Management	The center shall manage coordinated inter-agency responses to incidents at an international border.
Phoenix Fire Department Regional Dispatch Center	Emergency Data Collection	The center shall collect emergency service data, emergency vehicle management data, emergency vehicle data, sensor and surveillance data, threat data, and incident data.
Phoenix Fire Department Regional Dispatch Center	Emergency Data Collection	The center shall assign quality control metrics and meta-data to be stored along with the data. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
Phoenix Fire Department Regional Dispatch Center	Emergency Data Collection	The center shall receive and respond to requests from ITS Archives for either a catalog of the emergency management data or for the data itself.
Phoenix Fire Department Regional Dispatch Center	Emergency Data Collection	The center shall be able to produce sample products of the data available.
Phoenix Fire Department Regional Dispatch Center	Emergency Environmental Monitoring	The center shall collect current and forecast road and weather information from weather service providers (such as the National Weather Service and value-added sector specific meteorological services).
Phoenix Fire Department Regional Dispatch Center	Emergency Environmental Monitoring	The center shall collect current road and weather information from roadway maintenance operations.
Phoenix Fire Department Regional Dispatch Center	Emergency Environmental Monitoring	The center shall assimilate current and forecast road conditions and surface weather information to support incident management.
Phoenix Fire Department Regional Dispatch Center	Emergency Environmental Monitoring	The center shall present the current and forecast road and weather information to the emergency system operator.

Element Name	Equipment Package Name	Requirement
Phoenix Fire Department Regional Dispatch Center	Incident Command	The center shall provide tactical decision support, resource coordination, and communications integration for Incident Commands that are established by first responders to support local management of an incident.
Phoenix Fire Department Regional Dispatch Center	Incident Command	The center shall provide incident command communications with public safety, emergency management, transportation, and other allied response agency centers.
Phoenix Fire Department Regional Dispatch Center	Incident Command	The center shall track and maintain resource information and action plans pertaining to the incident command.
Phoenix Fire Department Regional Dispatch Center	Incident Command	The center shall share incident command information with other public safety agencies including resource deployment status, hazardous material information, rail incident information, evacuation advice as well as traffic, road, and weather conditions.
Phoenix Fire Department Regional Dispatch Center	Incident Command	The center shall assess the status of responding emergency vehicles as part of an incident command.
Phoenix Fire/EMS Vehicles	On-board EV En Route Support	The emergency vehicle, including roadway service patrols, shall track its current location.
Phoenix Police Dispatch	Emergency Response Management	The center shall provide strategic emergency response capabilities provided by an Emergency Operations Center for large-scale incidents and disasters.
Phoenix Police Dispatch	Emergency Response Management	The center shall manage coordinated inter-agency responses to and recovery from large-scale emergencies. Such agencies include traffic management, transit, maintenance and construction management, rail operations, and other emergency management agencies.
Phoenix Police Dispatch	Emergency Response Management	The center shall provide the capability to implement response plans and track progress through the incident by exchanging incident information and response status with allied agencies.
Phoenix Police Dispatch	Emergency Response Management	The center shall develop, coordinate with other agencies, and store emergency response plans.
Phoenix Police Dispatch	Emergency Response Management	The center shall track the availability of resources and coordinate resource sharing with allied agency centers including traffic, maintenance, or other emergency centers.
Phoenix Police Dispatch	Emergency Response Management	The center shall allocate the appropriate emergency services, resources, and vehicle (s) to respond to incidents, and shall provide the capability to override the current allocation to suit the special needs of a current incident.
Phoenix Police Dispatch	Emergency Response Management	The center shall receive event scheduling information from Event Promoters.
Phoenix Police Dispatch	Emergency Response Management	The center shall support remote control of field equipment normally under control of the traffic management center including traffic signals, dynamic message signs, gates, and barriers.
Phoenix Police Dispatch	Emergency Response Management	The center shall provide the capability to remotely control and monitor CCTV systems normally operated by a traffic management center.
Phoenix Police Dispatch	Emergency Response Management	The center shall provide the capability to request transit resource availability from transit centers for use during disaster and evacuation operations.
Phoenix Police Dispatch	Emergency Response Management	The center shall assimilate the damage assessment of the transit, traffic, rail, maintenance, and other emergency center services and systems to create an overall transportation system status, and disseminate to each of these centers and the traveling public via traveler information providers.
Phoenix Police Dispatch	Emergency Response Management	The center shall provide information to the media concerning the status of an emergency response.
Phoenix Police Dispatch	Emergency Response Management	The center shall provide the capability for digitized map data to act as the background to the information presented to the emergency system operator.
Phoenix Police Dispatch	Emergency Response Management	The center shall provide the capability for center personnel to provide inputs to the management of incidents, disasters and evacuations.
Phoenix Police Dispatch	Emergency Response Management	The center shall collect information about the status of the recovery efforts for the infrastructure during disasters.
Phoenix Police Dispatch	Emergency Response Management	The center shall provide the overall status of infrastructure recovery efforts to traveler information providers and media.
Phoenix Police Dispatch	Emergency Response Management	The center shall provide the capability to communicate information about emergency situations to local population through the Emergency Telecommunications System.
Phoenix Police Dispatch	Emergency Response Management	The center shall provide the capability to identify neighborhoods and businesses that should be informed of an emergency situation based on information collected about incidents including their severity, impacted locations, and recovery schedule.

Element Name	Equipment Package Name	Requirement
Phoenix Police Dispatch	Emergency Response Management	The center shall retrieve information from public health systems to increase preparedness for, and implement a response to biological, chemical, radiation, and other public health emergencies.
Phoenix Police Dispatch	Emergency Response Management	The center shall manage coordinated inter-agency responses to incidents at an international border.
Phoenix Police Dispatch	Emergency Environmental Monitoring	The center shall collect current and forecast road and weather information from weather service providers (such as the National Weather Service and value-added sector specific meteorological services).
Phoenix Police Dispatch	Emergency Environmental Monitoring	The center shall collect current road and weather information from roadway maintenance operations.
Phoenix Police Dispatch	Emergency Environmental Monitoring	The center shall assimilate current and forecast road conditions and surface weather information to support incident management.
Phoenix Police Dispatch	Emergency Environmental Monitoring	The center shall present the current and forecast road and weather information to the emergency system operator.
Phoenix Police Dispatch	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways). The data may be raw or pre-processed in the field.
Phoenix Police Dispatch	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers). The data may be raw or pre-processed in the field.
Phoenix Police Dispatch	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected on-board transit vehicles. The data may be raw or pre-processed in the field.
Phoenix Police Dispatch	Center Secure Area Surveillance	The center shall exchange surveillance data with other emergency centers.
Phoenix Police Dispatch	Center Secure Area Surveillance	The center shall identify potential security threats based on collected security surveillance data.
Phoenix Police Dispatch	Center Secure Area Surveillance	The center shall verify potential security threats by correlating security surveillance data from multiple sources.
Phoenix Police Dispatch	Center Secure Area Surveillance	The center shall remotely control security surveillance devices in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways).
Phoenix Police Dispatch	Center Secure Area Surveillance	The center shall remotely control security surveillance devices in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers).
Phoenix Police Dispatch	Center Secure Area Surveillance	The center shall remotely control security surveillance devices on-board transit vehicles.
Phoenix Police Dispatch	Center Secure Area Surveillance	The center shall match traveler video images against a database from the Alerting and Advisory Systems of known images that may represent criminals and terrorists.
Phoenix Police Dispatch	Center Secure Area Surveillance	The center shall exchange traveler images with other emergency management centers to support traveler image matching.
Phoenix Police Dispatch	Center Secure Area Surveillance	The center shall respond to control data from center personnel regarding security surveillance data collection, processing, threat detection, and image matching.
Phoenix Police Dispatch	Center Secure Area Surveillance	The center shall monitor maintenance status of the security sensor field equipment.
Phoenix Police Dispatch	Incident Command	The center shall provide tactical decision support, resource coordination, and communications integration for Incident Commands that are established by first responders to support local management of an incident.
Phoenix Police Dispatch	Incident Command	The center shall provide incident command communications with public safety, emergency management, transportation, and other allied response agency centers.
Phoenix Police Dispatch	Incident Command	The center shall track and maintain resource information and action plans pertaining to the incident command.
Phoenix Police Dispatch	Incident Command	The center shall share incident command information with other public safety agencies including resource deployment status, hazardous material information, rail incident information, evacuation advice as well as traffic, road, and weather conditions.
Phoenix Police Dispatch	Incident Command	The center shall assess the status of responding emergency vehicles as part of an incident command.
Phoenix Police Dispatch	Emergency Early Warning System	The center shall monitor information from Alerting and Advisory Systems such as the Information Sharing and Analysis Centers (ISACs), the National Infrastructure Protection Center (NIPC), the Homeland Security Advisory System (HSAS), etc. The information may include assessments (general incident and vulnerability awareness information), advisories (identification of threats or recommendations to increase preparedness levels), or alerts (information on imminent or in-progress emergencies).
Phoenix Police Dispatch	Emergency Early Warning System	The center shall provide the capability to correlate alerts and advisories, incident information, and security sensor and surveillance data.

Element Name	Equipment Package Name	Requirement
Phoenix Police Dispatch	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to traffic management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Phoenix Police Dispatch	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to transit management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Phoenix Police Dispatch	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to toll administration centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Phoenix Police Dispatch	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to traveler information service providers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Phoenix Police Dispatch	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to maintenance centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Phoenix Police Dispatch	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to other emergency management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Phoenix Police Dispatch	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to commercial vehicle administration centers and roadside check facilities for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Phoenix Police Dispatch	Emergency Early Warning System	The center shall process status information from each of the centers that have been sent the wide-area alert.
Phoenix Police Dispatch	Emergency Early Warning System	The center shall coordinate the broadcast of wide-area alerts and advisories with other emergency management centers.
Phoenix Police Dispatch	Emergency Early Warning System	The center shall receive incident information from other transportation management centers to support the early warning system.
Phoenix Police Dispatch	Emergency Early Warning System	The center shall present the alert and advisory information and the status of the actions taken in response to the alert by the other centers to the emergency system operator as received from other system inputs.
Phoenix Police Dispatch	Emergency Early Warning System	The center shall support the entry of alert and advisory information directly from the emergency system operator.
Phoenix Police Dispatch	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways). The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors), infrastructure condition and integrity, intrusion and motion, and object detection sensors. The data may be raw or pre-processed in the field.
Phoenix Police Dispatch	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers). The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors), intrusion and motion, and object detection sensors. The data may be raw or pre-processed in the field.
Phoenix Police Dispatch	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected on-board transit vehicles. The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors) and object detection sensors. The data may be raw or pre-processed in the field.
Phoenix Police Dispatch	Center Secure Area Sensor Management	The center shall exchange security sensor data with other emergency centers.
Phoenix Police Dispatch	Center Secure Area Sensor Management	The center shall identify potential security threats based on collected security sensor data.
Phoenix Police Dispatch	Center Secure Area Sensor Management	The center shall verify potential security threats by correlating security sensor data from multiple sources.
Phoenix Police Dispatch	Center Secure Area Sensor Management	The center shall perform threat analysis based on correlations of security sensor and surveillance data.
Phoenix Police Dispatch	Center Secure Area Sensor Management	The center shall exchange threat analysis data with Alerting and Advisory Systems and use that data in local threat analysis processing.

Element Name	Equipment Package Name	Requirement
Phoenix Police Dispatch	Center Secure Area Sensor Management	The center shall disseminate threat information to other agencies, including traffic, transit, maintenance, rail operations, and other emergency management centers.
Phoenix Police Dispatch	Center Secure Area Sensor Management	The center shall respond to control data from center personnel regarding security sensor data collection, processing, threat detection, and threat analysis.
Phoenix Police Dispatch	Center Secure Area Sensor Management	The center shall request activation of barriers and safeguards on request from center personnel.
Phoenix Police Dispatch	Center Secure Area Sensor Management	The center shall monitor maintenance status of the security sensor field equipment.
Phoenix Police Dispatch	Center Secure Area Alarm Support	The center shall collect silent and audible alarms received from travelers in secure areas (such as transit stops, rest areas, park and ride lots, modal interchange facilities).
Phoenix Police Dispatch	Center Secure Area Alarm Support	The center shall collect silent and audible alarms received from transit vehicles, originated by the traveler or the transit vehicle operator.
Phoenix Police Dispatch	Center Secure Area Alarm Support	After the alarm message has been received, the center shall generate an alarm acknowledgment to the sender.
Phoenix Police Dispatch	Center Secure Area Alarm Support	After the alarm message becomes a verified incident, the center shall determine the appropriate response.
Phoenix Police Dispatch	Center Secure Area Alarm Support	The center shall determine whether the alarm message indicates an emergency that requires the attention of public safety agencies, and forward alarm message data to the appropriate agency as necessary.
Phoenix Police Dispatch	Center Secure Area Alarm Support	The center shall forward the alarm message to center personnel and respond to the traveler or transit vehicle operator as directed by the personnel.
Phoenix Public Transit Bus Stops	Remote Transit Information Services	The public interface for travelers shall collect and provide real-time travel-related information at transit stops, multi-modal transfer points, and other public transportation areas.
Phoenix Public Transit Bus Stops	Remote Transit Information Services	The public interface for travelers shall collect and present to the transit traveler information on transit routes, schedules, and real-time schedule adherence.
Phoenix Public Transit Bus Stops	Remote Transit Information Services	The public interface for travelers shall provide support for general annunciation and/or display of imminent arrival information and other information of general interest to transit users.
Phoenix Public Transit Bus Stops	Remote Transit Information Services	The public interface for travelers shall present information to the traveler in a form suitable for travelers with physical disabilities.
Phoenix Public Transit OCC	Transit Center Fixed-Route Operations	The center shall generate transit routes and schedules based on such factors as parameters input by the system operator, road network conditions, incident information, operational data on current routes and schedules, and digitized map data.
Phoenix Public Transit OCC	Transit Center Information Services	The center shall provide travelers using public transportation with traffic and advisory information upon request. Such information may include transit routes, schedules, transfer options, fares, real-time schedule adherence, current incidents, weather conditions, and special events.
Phoenix Public Transit OCC	Transit Center Multi-Modal Coordination	The center shall coordinate schedules and services between transit agencies, traffic management, maintenance and construction operations, parking management, and other surface or air transportation modes.
Phoenix Public Transit OCC	Transit Center Security	The center shall monitor transit vehicle operational data to determine if the transit vehicle is off-route and assess whether a security incident is occurring.
Phoenix Public Transit OCC	Transit Center Vehicle Tracking	The center shall monitor the locations of all transit vehicles within its network.
Phoenix Public Transit OCC	Transit Garage Maintenance	The center shall collect operational and maintenance data from transit vehicles.
Phoenix Public Transit OCC	Transit Vehicle Operator Assignment	The center shall maintain records of a transit vehicle operator's performance. This may be done utilizing standardized performance evaluation criteria set forth by governmental regulations and transit operating company policies, assessing the transit vehicle operator's driving history, and assessing comments from the transit vehicle operator's supervisor(s) as well as noting any moving violations or accidents, supervisor comments, government regulations, and company policies.
Phoenix Public Transit OCC	Emergency Response Management	The center shall provide strategic emergency response capabilities provided by an Emergency Operations Center for large-scale incidents and disasters.
Phoenix Public Transit OCC	Emergency Response Management	The center shall manage coordinated inter-agency responses to and recovery from large-scale emergencies. Such agencies include traffic management, transit, maintenance and construction management, rail operations, and other emergency management agencies.
Phoenix Public Transit OCC	Emergency Response Management	The center shall provide the capability to implement response plans and track progress through the incident by exchanging incident information and response status with allied agencies.
Phoenix Public Transit OCC	Emergency Response Management	The center shall develop, coordinate with other agencies, and store emergency response plans.
Phoenix Public Transit OCC	Emergency Response Management	The center shall track the availability of resources and coordinate resource sharing with allied agency centers including traffic, maintenance, or other emergency centers.
Phoenix Public Transit OCC	Emergency Response Management	The center shall allocate the appropriate emergency services, resources, and vehicle (s) to respond to incidents, and shall provide the capability to override the current allocation to suit the special needs of a current incident.

Element Name	Equipment Package Name	Requirement
Phoenix Public Transit OCC	Emergency Response Management	The center shall receive event scheduling information from Event Promoters.
Phoenix Public Transit OCC	Emergency Response Management	The center shall support remote control of field equipment normally under control of the traffic management center including traffic signals, dynamic message signs, gates, and barriers.
Phoenix Public Transit OCC	Emergency Response Management	The center shall provide the capability to remotely control and monitor CCTV systems normally operated by a traffic management center.
Phoenix Public Transit OCC	Emergency Response Management	The center shall provide the capability to request transit resource availability from transit centers for use during disaster and evacuation operations.
Phoenix Public Transit OCC	Emergency Response Management	The center shall assimilate the damage assessment of the transit, traffic, rail, maintenance, and other emergency center services and systems to create an overall transportation system status, and disseminate to each of these centers and the traveling public via traveler information providers.
Phoenix Public Transit OCC	Emergency Response Management	The center shall provide information to the media concerning the status of an emergency response.
Phoenix Public Transit OCC	Emergency Response Management	The center shall provide the capability for digitized map data to act as the background to the information presented to the emergency system operator.
Phoenix Public Transit OCC	Emergency Response Management	The center shall provide the capability for center personnel to provide inputs to the management of incidents, disasters and evacuations.
Phoenix Public Transit OCC	Emergency Response Management	The center shall collect information about the status of the recovery efforts for the infrastructure during disasters.
Phoenix Public Transit OCC	Emergency Response Management	The center shall provide the overall status of infrastructure recovery efforts to traveler information providers and media.
Phoenix Public Transit OCC	Emergency Response Management	The center shall provide the capability to communicate information about emergency situations to local population through the Emergency Telecommunications System.
Phoenix Public Transit OCC	Emergency Response Management	The center shall provide the capability to identify neighborhoods and businesses that should be informed of an emergency situation based on information collected about incidents including their severity, impacted locations, and recovery schedule.
Phoenix Public Transit OCC	Emergency Response Management	The center shall retrieve information from public health systems to increase preparedness for, and implement a response to biological, chemical, radiation, and other public health emergencies.
Phoenix Public Transit OCC	Emergency Response Management	The center shall manage coordinated inter-agency responses to incidents at an international border.
Phoenix Public Transit OCC	Transit Environmental Monitoring	The center shall assimilate current and forecast road conditions and surface weather information to more effectively manage transit operations.
Phoenix Public Transit OCC	Transit Environmental Monitoring	The center shall collect current and forecast road and weather information from weather service providers and roadway maintenance centers.
Phoenix Public Transit OCC	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways). The data may be raw or pre-processed in the field.
Phoenix Public Transit OCC	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers). The data may be raw or pre-processed in the field.
Phoenix Public Transit OCC	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected on-board transit vehicles. The data may be raw or pre-processed in the field.
Phoenix Public Transit OCC	Center Secure Area Surveillance	The center shall exchange surveillance data with other emergency centers.
Phoenix Public Transit OCC	Center Secure Area Surveillance	The center shall identify potential security threats based on collected security surveillance data.
Phoenix Public Transit OCC	Center Secure Area Surveillance	The center shall verify potential security threats by correlating security surveillance data from multiple sources.
Phoenix Public Transit OCC	Center Secure Area Surveillance	The center shall remotely control security surveillance devices in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways).
Phoenix Public Transit OCC	Center Secure Area Surveillance	The center shall remotely control security surveillance devices in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers).
Phoenix Public Transit OCC	Center Secure Area Surveillance	The center shall remotely control security surveillance devices on-board transit vehicles.
Phoenix Public Transit OCC	Center Secure Area Surveillance	The center shall match traveler video images against a database from the Alerting and Advisory Systems of known images that may represent criminals and terrorists.
Phoenix Public Transit OCC	Center Secure Area Surveillance	The center shall exchange traveler images with other emergency management centers to support traveler image matching.
Phoenix Public Transit OCC	Center Secure Area Surveillance	The center shall respond to control data from center personnel regarding security surveillance data collection, processing, threat detection, and image matching.

Element Name	Equipment Package Name	Requirement
Phoenix Public Transit OCC	Center Secure Area Surveillance	The center shall monitor maintenance status of the security sensor field equipment.
Phoenix Public Transit OCC	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways). The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors), infrastructure condition and integrity, intrusion and motion, and object detection sensors. The data may be raw or pre-processed in the field.
Phoenix Public Transit OCC	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers). The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors), intrusion and motion, and object detection sensors. The data may be raw or pre-processed in the field.
Phoenix Public Transit OCC	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected on-board transit vehicles. The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors) and object detection sensors. The data may be raw or pre-processed in the field.
Phoenix Public Transit OCC	Center Secure Area Sensor Management	The center shall exchange security sensor data with other emergency centers.
Phoenix Public Transit OCC	Center Secure Area Sensor Management	The center shall identify potential security threats based on collected security sensor data.
Phoenix Public Transit OCC	Center Secure Area Sensor Management	The center shall verify potential security threats by correlating security sensor data from multiple sources.
Phoenix Public Transit OCC	Center Secure Area Sensor Management	The center shall perform threat analysis based on correlations of security sensor and surveillance data.
Phoenix Public Transit OCC	Center Secure Area Sensor Management	The center shall exchange threat analysis data with Alerting and Advisory Systems and use that data in local threat analysis processing.
Phoenix Public Transit OCC	Center Secure Area Sensor Management	The center shall disseminate threat information to other agencies, including traffic, transit, maintenance, rail operations, and other emergency management centers.
Phoenix Public Transit OCC	Center Secure Area Sensor Management	The center shall respond to control data from center personnel regarding security sensor data collection, processing, threat detection, and threat analysis.
Phoenix Public Transit OCC	Center Secure Area Sensor Management	The center shall request activation of barriers and safeguards on request from center personnel.
Phoenix Public Transit OCC	Center Secure Area Sensor Management	The center shall monitor maintenance status of the security sensor field equipment.
Phoenix Public Transit OCC	Center Secure Area Alarm Support	The center shall collect silent and audible alarms received from travelers in secure areas (such as transit stops, rest areas, park and ride lots, modal interchange facilities).
Phoenix Public Transit OCC	Center Secure Area Alarm Support	The center shall collect silent and audible alarms received from transit vehicles, originated by the traveler or the transit vehicle operator.
Phoenix Public Transit OCC	Center Secure Area Alarm Support	After the alarm message has been received, the center shall generate an alarm acknowledgment to the sender.
Phoenix Public Transit OCC	Center Secure Area Alarm Support	After the alarm message becomes a verified incident, the center shall determine the appropriate response.
Phoenix Public Transit OCC	Center Secure Area Alarm Support	The center shall determine whether the alarm message indicates an emergency that requires the attention of public safety agencies, and forward alarm message data to the appropriate agency as necessary.
Phoenix Public Transit OCC	Center Secure Area Alarm Support	The center shall forward the alarm message to center personnel and respond to the traveler or transit vehicle operator as directed by the personnel.
Phoenix Public Transit OCC	Transit Center Passenger Counting	The center shall collect passenger count information from each transit vehicle.
Phoenix Public Transit OCC	Transit Center Passenger Counting	The center shall calculate transit ridership data by route, route segment, transit stop, time of day, and day of week based on the collected passenger count information.
Phoenix Public Transit OCC	Transit Center Passenger Counting	The center shall make the compiled ridership data available to the system operator and other applications.
Phoenix Public Transit OCC	Transit Vehicle Assignment	The center shall assign individual transit vehicles to transit blocks.
Phoenix Public Transit OCC	Transit Vehicle Assignment	The center shall download vehicle assignments to the transit vehicle prior to the start of the day's operations.
Phoenix Public Transit OCC	Transit Vehicle Assignment	The center shall provide an exception handling process for the vehicle assignment function. This process shall generate new supplemental vehicle assignments as required due to change events which occur during the operating day.

Element Name	Equipment Package Name	Requirement
Phoenix Public Transit OCC	Transit Vehicle Assignment	The center shall provide an inventory management function for the transit facility that stores functional attributes about each vehicle owned by the transit operator. The functional attributes permit the planning and assignment functions to match vehicles with routes based on suitability for the types of service required by the particular routes.
Phoenix Public Transit OCC	Transit Vehicle Assignment	The center shall generate transit vehicle availability listings, current and forecast, to support transit vehicle assignment planning.
Phoenix Public Transit OCC	Transit Vehicle Assignment	The center shall provide transit operations personnel with the capability to update transit vehicle assignments and receive reports on transit vehicle inventory status.
Phoenix Public Transit Vehicles	On-board Maintenance	The transit vehicle shall collect and process vehicle mileage data available to sensors on-board.
Phoenix Public Transit Vehicles	On-board Schedule Management	The transit vehicle shall receive a vehicle assignment including transit route information, transit service instructions, traffic information, road conditions, and other information for the operator.
Phoenix Public Transit Vehicles	On-board Transit Fare Management	The transit vehicle shall read data from the traveler card / payment instrument presented by boarding passengers.
Phoenix Public Transit Vehicles	On-board Transit Information Services	The transit vehicle shall enable traffic and travel advisory information to be requested and output to the traveler. Such information may include transit routes, schedules, transfer options, fares, real-time schedule adherence, current incidents, weather conditions, and special events.
Phoenix Public Transit Vehicles	On-board Transit Security	The transit vehicle shall perform video and audio surveillance inside of transit vehicles and output raw video or audio data for either local monitoring (for processing or direct output to the transit vehicle operator), remote monitoring or for local storage (e.g., in an event recorder).
Phoenix Public Transit Vehicles	On-board Transit Trip Monitoring	The transit vehicle shall track the current location of the transit vehicle.
Phoenix Public Transit Vehicles	On-board Passenger Counting	The transit vehicle shall count passengers boarding and alighting.
Phoenix Public Transit Vehicles	On-board Passenger Counting	The passenger counts shall be related to location to support association of passenger counts with routes, route segments, or bus stops.
Phoenix Public Transit Vehicles	On-board Passenger Counting	The passenger counts shall be timestamped so that ridership can be measured by time of day and day of week.
Phoenix Public Transit Vehicles	On-board Passenger Counting	The transit vehicle shall send the collected passenger count information to the transit center.
Private Traveler Information Systems	ISP Probe Information Collection	The center shall collect traffic probe data (speeds, travel times, etc.) from appropriately equipped vehicles and short range communications equipment.
Private Traveler Information Systems	Basic Information Broadcast	The center shall disseminate traffic and highway condition information to travelers, including incident information, detours and road closures, event information, recommended routes, and current speeds on specific routes.
Private Traveler Information Systems	Basic Information Broadcast	The center shall disseminate transit routes and schedules, transit transfer options, transit fares, and real-time schedule adherence information to travelers.
Private Traveler Information Systems	Basic Information Broadcast	The center shall disseminate toll fee information to travelers.
Private Traveler Information Systems	Basic Information Broadcast	The center shall disseminate event information to travelers.
Private Traveler Information Systems	Basic Information Broadcast	The center shall provide the capability to support requests from the media for traffic and incident data.
Private Traveler Information Systems	ISP Traveler Data Collection	The center shall collect, process, and store traffic and highway condition information, including incident information, detours and road closures, event information, recommended routes, and current speeds on specific routes.
Private Traveler Information Systems	ISP Traveler Data Collection	The center shall collect, process, and store maintenance and construction information, including scheduled maintenance and construction work activities and work zone activities.
Private Traveler Information Systems	ISP Traveler Data Collection	The center shall collect, process, and store transit routes and schedules, transit transfer options, transit fares, and real-time schedule adherence information.
Private Traveler Information Systems	ISP Traveler Data Collection	The center shall collect, process, and store parking information, including location, availability, and fees.
Private Traveler Information Systems	ISP Traveler Data Collection	The center shall collect, process, and store toll fee information.

Element Name	Equipment Package Name	Requirement
Private Traveler Information Systems	ISP Traveler Data Collection	The center shall collect, process, and store current and forecast road conditions and surface weather conditions.
Private Traveler Information Systems	ISP Traveler Data Collection	The center shall collect, process, and store event information.
Private Traveler Information Systems	ISP Traveler Data Collection	The center shall collect, process, and store air quality information.
Private Traveler Information Systems	ISP Traveler Data Collection	The center shall collect, process, and store border crossing information.
Private Vehicles	Vehicle Traffic Probe Support	The vehicle shall respond to requests from short range communications equipment for identification information that can be used to collect basic probe information; the field equipment will remove identification information to ensure anonymity.
Private Vehicles	Vehicle Location Determination	The vehicle shall provide the vehicle's current location to other in-vehicle functions.
Private Vehicles	Vehicle Location Determination	The vehicle shall calculate the location from one or more data sources including positioning systems such as GPS, sensors that track vehicle movement, and maps used to determine the likely vehicle route.
Town of Gilbert CCTV	Roadway Basic Surveillance	The field element shall collect, process, digitize, and send traffic sensor data (speed, volume, and occupancy) to the center for further analysis and storage, under center control.
Town of Gilbert CCTV	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
Town of Gilbert CCTV	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
Town of Gilbert CCTV	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
Town of Gilbert CCTV	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
Town of Gilbert DMS	Roadway Traffic Information Dissemination	The field element shall include dynamic messages signs for dissemination of traffic and other information to drivers, under center control; the DMS may be either those that display variable text messages, or those that have fixed format display(s) (e.g. vehicle restrictions, or lane open/close).
Town of Gilbert DMS	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
Town of Gilbert DMS	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
Town of Gilbert DMS	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
Town of Gilbert DMS	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
Town of Gilbert TMC	Collect Traffic Surveillance	The center shall monitor, analyze, and store traffic sensor data (speed, volume, occupancy) collected from field elements under remote control of the center.
Town of Gilbert TMC	HRI Traffic Management	The center shall remotely control highway-rail intersection (HRI) equipment located in the field.
Town of Gilbert TMC	TMC Environmental Monitoring	The center shall remotely control environmental sensors that measure road surface temperature, moisture, icing, salinity, and other measures.
Town of Gilbert TMC	TMC Incident Detection	The center shall receive inputs from the Alerting and Advisory System concerning the possibility or occurrence of severe weather, terrorist activity, or other major emergency, including information provided by the Emergency Alert System.
Town of Gilbert TMC	TMC Incident Dispatch Coordination/Communication	The center shall exchange alert information and status with emergency management centers. The information includes notification of a major emergency such as a natural or man-made disaster, civil emergency, or child abduction for distribution to the public. The information may include the alert originator, the nature of the emergency, the geographic area affected by the emergency, the effective time period, and information and instructions necessary for the public to respond to the alert. This may also identify specific information that should not be released to the public.
Town of Gilbert TMC	TMC Regional Traffic Management	The center shall exchange traffic information with other traffic management centers including incident information, congestion data, traffic data, signal timing plans, and real-time signal control information.
Town of Gilbert TMC	TMC Signal Control	The center shall remotely control traffic signal controllers.
Town of Gilbert TMC	TMC Traffic Information Dissemination	The center shall remotely control dynamic messages signs for dissemination of traffic and other information to drivers.

Element Name	Equipment Package Name	Requirement
Town of Gilbert TMC	Traffic Equipment Maintenance	The center shall collect and store sensor (traffic, pedestrian, multimodal crossing) operational status.
Town of Gilbert TMC	HRI Traffic Management	The center shall collect highway-rail intersection (HRI) equipment operational status and compare against the control information sent by the center.
Town of Gilbert TMC	HRI Traffic Management	The center shall provide the highway-rail intersection (HRI) equipment operational status to rail operations centers.
Town of Gilbert TMC	Traffic Data Collection	The center shall collect traffic management data such as operational data, event logs, etc.
Town of Gilbert TMC	Traffic Data Collection	The center shall assign quality control metrics and meta-data to be stored along with the data. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
Town of Gilbert TMC	Traffic Data Collection	The center shall receive and respond to requests from ITS Archives for either a catalog of the traffic data or for the data itself.
Town of Gilbert TMC	Traffic Data Collection	The center shall be able to produce sample products of the data available.
Town of Gilbert TMC	TMC Work Zone Traffic Management	The center shall receive work zone images from a maintenance center.
Town of Gilbert TMC	TMC Work Zone Traffic Management	The center shall analyze work zone images for indications of a possible incident.
Town of Gilbert TMC	TMC Work Zone Traffic Management	The center shall remotely control driver information systems (such as dynamic messages signs, highway advisory radios) to advise drivers of activity around a work zone.
Town of Gilbert TMC	TMC Work Zone Traffic Management	The center shall collect operational status for the driver information systems equipment in work zones.
Town of Gilbert TMC	TMC Work Zone Traffic Management	The center shall collect fault data for the driver information systems equipment in work zones for repair.
Town of Gilbert TMC	TMC Work Zone Traffic Management	The center shall receive proposed maintenance and construction work plans, analyze the activity as a possible incident, and provide work plan feedback to the sending center.
Town of Gilbert Traffic Signals	Roadway Signal Controls	The field element shall control traffic signals under center control.
Town of Gilbert Traffic Signals	Roadway Signal Priority	The field element shall respond to signal priority requests from transit vehicles.
Town of Gilbert Traffic Signals	Standard Rail Crossing	The field element shall collect and process, traffic sensor data in the vicinity of a highway-rail intersection (HRI).
Town of Gilbert Traffic Signals	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
Town of Gilbert Traffic Signals	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
Town of Gilbert Traffic Signals	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
Town of Gilbert Traffic Signals	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
Town of Gilbert Vehicle Detectors	Roadway Basic Surveillance	The field element shall collect, process, digitize, and send traffic sensor data (speed, volume, and occupancy) to the center for further analysis and storage, under center control.
Town of Gilbert Vehicle Detectors	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
Town of Gilbert Vehicle Detectors	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
Town of Gilbert Vehicle Detectors	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
Town of Gilbert Vehicle Detectors	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
Town of Queen Creek CCTV	Roadway Basic Surveillance	The field element shall collect, process, digitize, and send traffic sensor data (speed, volume, and occupancy) to the center for further analysis and storage, under center control.
Town of Queen Creek CCTV	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
Town of Queen Creek CCTV	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
Town of Queen Creek CCTV	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
Town of Queen Creek CCTV	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
Town of Queen Creek TMC	Collect Traffic Surveillance	The center shall monitor, analyze, and store traffic sensor data (speed, volume, occupancy) collected from field elements under remote control of the center.
Town of Queen Creek TMC	TMC Environmental Monitoring	The center shall remotely control environmental sensors that measure road surface temperature, moisture, icing, salinity, and other measures.

Element Name	Equipment Package Name	Requirement
Town of Queen Creek TMC	TMC Incident Detection	The center shall receive inputs from the Alerting and Advisory System concerning the possibility or occurrence of severe weather, terrorist activity, or other major emergency, including information provided by the Emergency Alert System.
Town of Queen Creek TMC	TMC Incident Dispatch Coordination/Communication	The center shall exchange alert information and status with emergency management centers. The information includes notification of a major emergency such as a natural or man-made disaster, civil emergency, or child abduction for distribution to the public. The information may include the alert originator, the nature of the emergency, the geographic area affected by the emergency, the effective time period, and information and instructions necessary for the public to respond to the alert. This may also identify specific information that should not be released to the public.
Town of Queen Creek TMC	TMC Regional Traffic Management	The center shall exchange traffic information with other traffic management centers including incident information, congestion data, traffic data, signal timing plans, and real-time signal control information.
Town of Queen Creek TMC	TMC Signal Control	The center shall remotely control traffic signal controllers.
Town of Queen Creek TMC	TMC Traffic Information Dissemination	The center shall remotely control dynamic messages signs for dissemination of traffic and other information to drivers.
Town of Queen Creek TMC	Traffic Equipment Maintenance	The center shall collect and store sensor (traffic, pedestrian, multimodal crossing) operational status.
Town of Queen Creek TMC	Traffic Data Collection	The center shall collect traffic management data such as operational data, event logs, etc.
Town of Queen Creek TMC	Traffic Data Collection	The center shall assign quality control metrics and meta-data to be stored along with the data. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
Town of Queen Creek TMC	Traffic Data Collection	The center shall receive and respond to requests from ITS Archives for either a catalog of the traffic data or for the data itself.
Town of Queen Creek TMC	Traffic Data Collection	The center shall be able to produce sample products of the data available.
Town of Queen Creek TMC	TMC Work Zone Traffic Management	The center shall receive work zone images from a maintenance center.
Town of Queen Creek TMC	TMC Work Zone Traffic Management	The center shall analyze work zone images for indications of a possible incident.
Town of Queen Creek TMC	TMC Work Zone Traffic Management	The center shall remotely control driver information systems (such as dynamic messages signs, highway advisory radios) to advise drivers of activity around a work zone.
Town of Queen Creek TMC	TMC Work Zone Traffic Management	The center shall collect operational status for the driver information systems equipment in work zones.
Town of Queen Creek TMC	TMC Work Zone Traffic Management	The center shall collect fault data for the driver information systems equipment in work zones for repair.
Town of Queen Creek TMC	TMC Work Zone Traffic Management	The center shall receive proposed maintenance and construction work plans, analyze the activity as a possible incident, and provide work plan feedback to the sending center.
Town of Queen Creek Traffic Signals	Roadway Signal Controls	The field element shall control traffic signals under center control.
Town of Queen Creek Traffic Signals	Roadway Signal Priority	The field element shall respond to signal priority requests from transit vehicles.
Town of Queen Creek Traffic Signals	Roadway Equipment Coordination	The field element shall include sensors that provide data and status information to other field element devices, without center control.
Town of Queen Creek Traffic Signals	Roadway Equipment Coordination	The field element shall include sensors that receive configuration data from other field element devices, without center control.
Town of Queen Creek Traffic Signals	Roadway Equipment Coordination	The field element shall include devices that provide data and status information to other field element devices without center control.
Town of Queen Creek Traffic Signals	Roadway Equipment Coordination	The field element shall include devices that receive configuration data from other field element devices, without center control.
Valley Metro Archived Data Server	ITS Data Repository	The center shall collect data to be archived from one or more data sources.
Valley Metro Archived Data Server	ITS Data Repository	The center shall include capabilities for archive to archive coordination.

Element Name	Equipment Package Name	Requirement
Valley Metro Archived Data Server	ITS Data Repository	The center shall support a broad range of archived data management implementations, ranging from simple data marts that collect a focused set of data and serve a particular user community to large-scale data warehouses that collect, integrate, and summarize transportation data from multiple sources and serve a broad array of users within a region.
Valley Metro Archived Data Server	ITS Data Repository	The center shall perform quality checks on received data.
Valley Metro Archived Data Server	ITS Data Repository	The center shall provide the capability to execute methods on the incoming data such as cleansing, summarizations, aggregations, or transformations applied to the data before it is stored in the archive.
Valley Metro Archived Data Server	ITS Data Repository	The center shall respond to requests from the administrator interface function to maintain the archive data.
Valley Metro Archived Data Server	ITS Data Repository	When data or a catalog of data is received from the archive, the center shall generate the requested data product for the users systems.
Valley Metro Archived Data Server	ITS Data Repository	For archive data requiring financial payment, the center shall process the financial requests and manage an interface to a Financial Institution.
Valley Metro Archived Data Server	Government Reporting Systems Support	The center shall provide data from an ITS archive to federal, state, or local government reporting systems.
Valley Metro Archived Data Server	Government Reporting Systems Support	The center shall provide the capability to select data from an ITS archive for use in government reports.
Valley Metro Archived Data Server	Government Reporting Systems Support	The center shall provide the capability to format data from an ITS archive suitable for input into government reports.
Valley Metro Archived Data Server	Government Reporting Systems Support	The center shall support requests for ITS archived data from Government Reporting Systems.
Valley Metro Archived Data Server	Government Reporting Systems Support	The center shall provide the applicable meta-data for any ITS archived data to satisfy government reporting system requests. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
Valley Metro Archived Data Server	Traffic and Roadside Data Archival	The center shall manage the collection of archive data directly from collection equipment located at the roadside.
Valley Metro Archived Data Server	Traffic and Roadside Data Archival	The center shall collect traffic sensor information from roadside devices.
Valley Metro Archived Data Server	Traffic and Roadside Data Archival	The center shall collect environmental sensor information that from roadside devices.
Valley Metro Archived Data Server	Traffic and Roadside Data Archival	The center shall respond to requests from the Archive Data Administer to input the parameters that control the collection process.
Valley Metro Archived Data Server	Traffic and Roadside Data Archival	The center shall send the request for data and control parameters to the field equipment where the information is collected and returned.
Valley Metro Archived Data Server	Traffic and Roadside Data Archival	The center shall record the status about the imported traffic and roadside data.
Valley Metro Archived Data Server	Traffic and Roadside Data Archival	The center shall use the status information to adjust the collection of traffic and roadside data.
Valley Metro Center Stations/Park and Rides	Remote Transit Fare Management	The public interface for travelers shall accept and process current transit passenger fare collection information.
Valley Metro Center Stations/Park and Rides	Remote Traveler Security	The public interface for travelers shall provide the capability for a traveler to report an emergency and summon assistance from secure areas such as transit stops, transit stations, modal transfer facilities, rest stops, park-and-ride areas, travel information areas, and emergency pull off areas.

Element Name	Equipment Package Name	Requirement
Valley Metro Center Stations/Park and Rides	Traveler Secure Area Surveillance	The field element shall include video and/or audio surveillance of traveler secure areas including transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and traveler information centers).
Valley Metro Center Stations/Park and Rides	Remote Transit Fare Management	The public interface for travelers shall provide an interface to a transit user traveler card in support of payment for transit fares, tolls, and/or parking lot charges. The stored credit value data from the card shall be collected and updated based on the fare or other charges, or the credit identity shall be collected.
Valley Metro Center Stations/Park and Rides	Remote Transit Fare Management	The public interface for travelers shall provide information to the center for financial authorization and transaction processing.
Valley Metro Center Stations/Park and Rides	Remote Transit Fare Management	The public interface for travelers shall provide an image of all travelers purchasing rides or services to be used for violation processing.
Valley Metro Center Stations/Park and Rides	Remote Transit Fare Management	The public interface for travelers shall determine the routing based on the traveler's destination and the location of the closest transit stop from which a route request is being made.
Valley Metro Center Stations/Park and Rides	Remote Transit Fare Management	The public interface for travelers shall create fare statistics data based upon data collected at a transit stop.
Valley Metro Center Stations/Park and Rides	Remote Transit Fare Management	The public interface for travelers shall present information to the traveler in a form suitable for travelers with physical disabilities.
Valley Metro Center Stations/Park and Rides	Remote Transit Information Services	The public interface for travelers shall collect and provide real-time travel-related information at transit stops, multi-modal transfer points, and other public transportation areas.
Valley Metro Center Stations/Park and Rides	Remote Transit Information Services	The public interface for travelers shall collect and present to the transit traveler information on transit routes, schedules, and real-time schedule adherence.
Valley Metro Center Stations/Park and Rides	Remote Transit Information Services	The public interface for travelers shall provide support for general annunciation and/or display of imminent arrival information and other information of general interest to transit users.
Valley Metro Center Stations/Park and Rides	Remote Transit Information Services	The public interface for travelers shall present information to the traveler in a form suitable for travelers with physical disabilities.
Valley Metro Center Stations/Park and Rides	Traveler Secure Area Sensor Monitoring	The field element shall include security sensors that monitor conditions in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers).
Valley Metro Center Stations/Park and Rides	Traveler Secure Area Sensor Monitoring	The field element shall be remotely controlled by a center.
Valley Metro Center Stations/Park and Rides	Traveler Secure Area Sensor Monitoring	The field element shall provide equipment status and fault indication of security sensor equipment to a center.
Valley Metro Center Stations/Park and Rides	Traveler Secure Area Sensor Monitoring	The field element shall include environmental threat sensors (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological).
Valley Metro Center Stations/Park and Rides	Traveler Secure Area Sensor Monitoring	The field element shall include motion and intrusion detection sensors.

Element Name	Equipment Package Name	Requirement
Valley Metro Center Stations/Park and Rides	Traveler Secure Area Sensor Monitoring	The field element shall include object detection sensors (such as metal detectors).
Valley Metro Center Stations/Park and Rides	Traveler Secure Area Sensor Monitoring	The field element shall provide raw security sensor data.
Valley Metro Center Stations/Park and Rides	Traveler Secure Area Sensor Monitoring	The field element shall remotely process security sensor data and provide an indication of potential incidents or threats to a center.
Valley Metro OCC	Transit Center Fare Management	The center shall manage the actual value of transit fares for each segment of each regular transit route, including the transmission of the information to transit vehicles and transit stops or stations.
Valley Metro OCC	Transit Center Fixed-Route Operations	The center shall generate transit routes and schedules based on such factors as parameters input by the system operator, road network conditions, incident information, operational data on current routes and schedules, and digitized map data.
Valley Metro OCC	Transit Center Information Services	The center shall provide travelers using public transportation with traffic and advisory information upon request. Such information may include transit routes, schedules, transfer options, fares, real-time schedule adherence, current incidents, weather conditions, and special events.
Valley Metro OCC	Transit Center Multi-Modal Coordination	The center shall coordinate schedules and services between transit agencies, traffic management, maintenance and construction operations, parking management, and other surface or air transportation modes.
Valley Metro OCC	Transit Center Security	The center shall monitor transit vehicle operational data to determine if the transit vehicle is off-route and assess whether a security incident is occurring.
Valley Metro OCC	Transit Center Vehicle Tracking	The center shall monitor the locations of all transit vehicles within its network.
Valley Metro OCC	Transit Garage Maintenance	The center shall collect operational and maintenance data from transit vehicles.
Valley Metro OCC	Transit Vehicle Operator Assignment	The center shall maintain records of a transit vehicle operator's performance. This may be done utilizing standardized performance evaluation criteria set forth by governmental regulations and transit operating company policies, assessing the transit vehicle operator's driving history, and assessing comments from the transit vehicle operator's supervisor(s) as well as noting any moving violations or accidents, supervisor comments, government regulations, and company policies.
Valley Metro OCC	Emergency Response Management	The center shall provide strategic emergency response capabilities provided by an Emergency Operations Center for large-scale incidents and disasters.
Valley Metro OCC	Emergency Response Management	The center shall manage coordinated inter-agency responses to and recovery from large-scale emergencies. Such agencies include traffic management, transit, maintenance and construction management, rail operations, and other emergency management agencies.
Valley Metro OCC	Emergency Response Management	The center shall provide the capability to implement response plans and track progress through the incident by exchanging incident information and response status with allied agencies.
Valley Metro OCC	Emergency Response Management	The center shall develop, coordinate with other agencies, and store emergency response plans.
Valley Metro OCC	Emergency Response Management	The center shall track the availability of resources and coordinate resource sharing with allied agency centers including traffic, maintenance, or other emergency centers.
Valley Metro OCC	Emergency Response Management	The center shall allocate the appropriate emergency services, resources, and vehicle (s) to respond to incidents, and shall provide the capability to override the current allocation to suit the special needs of a current incident.
Valley Metro OCC	Emergency Response Management	The center shall receive event scheduling information from Event Promoters.
Valley Metro OCC	Emergency Response Management	The center shall support remote control of field equipment normally under control of the traffic management center including traffic signals, dynamic message signs, gates, and barriers.
Valley Metro OCC	Emergency Response Management	The center shall provide the capability to remotely control and monitor CCTV systems normally operated by a traffic management center.
Valley Metro OCC	Emergency Response Management	The center shall provide the capability to request transit resource availability from transit centers for use during disaster and evacuation operations.
Valley Metro OCC	Emergency Response Management	The center shall assimilate the damage assessment of the transit, traffic, rail, maintenance, and other emergency center services and systems to create an overall transportation system status, and disseminate to each of these centers and the traveling public via traveler information providers.
Valley Metro OCC	Emergency Response Management	The center shall provide information to the media concerning the status of an emergency response.

Element Name	Equipment Package Name	Requirement
Valley Metro OCC	Emergency Response Management	The center shall provide the capability for digitized map data to act as the background to the information presented to the emergency system operator.
Valley Metro OCC	Emergency Response Management	The center shall provide the capability for center personnel to provide inputs to the management of incidents, disasters and evacuations.
Valley Metro OCC	Emergency Response Management	The center shall collect information about the status of the recovery efforts for the infrastructure during disasters.
Valley Metro OCC	Emergency Response Management	The center shall provide the overall status of infrastructure recovery efforts to traveler information providers and media.
Valley Metro OCC	Emergency Response Management	The center shall provide the capability to communicate information about emergency situations to local population through the Emergency Telecommunications System.
Valley Metro OCC	Emergency Response Management	The center shall provide the capability to identify neighborhoods and businesses that should be informed of an emergency situation based on information collected about incidents including their severity, impacted locations, and recovery schedule.
Valley Metro OCC	Emergency Response Management	The center shall retrieve information from public health systems to increase preparedness for, and implement a response to biological, chemical, radiation, and other public health emergencies.
Valley Metro OCC	Emergency Response Management	The center shall manage coordinated inter-agency responses to incidents at an international border.
Valley Metro OCC	Transit Data Collection	The center shall collect transit management data such as transit fares and passenger use, transit services, paratransit operations, transit vehicle maintenance data, etc.
Valley Metro OCC	Transit Data Collection	The center shall assign quality control metrics and meta-data to be stored along with the data. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
Valley Metro OCC	Transit Data Collection	The center shall receive and respond to requests from ITS Archives for either a catalog of the transit data or for the data itself.
Valley Metro OCC	Transit Data Collection	The center shall be able to produce sample products of the data available.
Valley Metro OCC	Emergency Data Collection	The center shall collect emergency service data, emergency vehicle management data, emergency vehicle data, sensor and surveillance data, threat data, and incident data.
Valley Metro OCC	Emergency Data Collection	The center shall assign quality control metrics and meta-data to be stored along with the data. Meta-data may include attributes that describe the source and quality of the data and the conditions surrounding the collection of the data.
Valley Metro OCC	Emergency Data Collection	The center shall receive and respond to requests from ITS Archives for either a catalog of the emergency management data or for the data itself.
Valley Metro OCC	Emergency Data Collection	The center shall be able to produce sample products of the data available.
Valley Metro OCC	Transit Environmental Monitoring	The center shall assimilate current and forecast road conditions and surface weather information to more effectively manage transit operations.
Valley Metro OCC	Transit Environmental Monitoring	The center shall collect current and forecast road and weather information from weather service providers and roadway maintenance centers.
Valley Metro OCC	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways). The data may be raw or pre-processed in the field.
Valley Metro OCC	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers). The data may be raw or pre-processed in the field.
Valley Metro OCC	Center Secure Area Surveillance	The center shall remotely monitor video images and audio surveillance data collected on-board transit vehicles. The data may be raw or pre-processed in the field.
Valley Metro OCC	Center Secure Area Surveillance	The center shall exchange surveillance data with other emergency centers.
Valley Metro OCC	Center Secure Area Surveillance	The center shall identify potential security threats based on collected security surveillance data.
Valley Metro OCC	Center Secure Area Surveillance	The center shall verify potential security threats by correlating security surveillance data from multiple sources.
Valley Metro OCC	Center Secure Area Surveillance	The center shall remotely control security surveillance devices in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways).
Valley Metro OCC	Center Secure Area Surveillance	The center shall remotely control security surveillance devices in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers).
Valley Metro OCC	Center Secure Area Surveillance	The center shall remotely control security surveillance devices on-board transit vehicles.
Valley Metro OCC	Center Secure Area Surveillance	The center shall match traveler video images against a database from the Alerting and Advisory Systems of known images that may represent criminals and terrorists.

Element Name	Equipment Package Name	Requirement
Valley Metro OCC	Center Secure Area Surveillance	The center shall exchange traveler images with other emergency management centers to support traveler image matching.
Valley Metro OCC	Center Secure Area Surveillance	The center shall respond to control data from center personnel regarding security surveillance data collection, processing, threat detection, and image matching.
Valley Metro OCC	Center Secure Area Surveillance	The center shall monitor maintenance status of the security sensor field equipment.
Valley Metro OCC	Emergency Early Warning System	The center shall monitor information from Alerting and Advisory Systems such as the Information Sharing and Analysis Centers (ISACs), the National Infrastructure Protection Center (NIPC), the Homeland Security Advisory System (HSAS), etc. The information may include assessments (general incident and vulnerability awareness information), advisories (identification of threats or recommendations to increase preparedness levels), or alerts (information on imminent or in-progress emergencies).
Valley Metro OCC	Emergency Early Warning System	The center shall provide the capability to correlate alerts and advisories, incident information, and security sensor and surveillance data.
Valley Metro OCC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to traffic management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Valley Metro OCC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to transit management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Valley Metro OCC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to toll administration centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Valley Metro OCC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to traveler information service providers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Valley Metro OCC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to maintenance centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Valley Metro OCC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to other emergency management centers for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Valley Metro OCC	Emergency Early Warning System	The center shall broadcast wide-area alerts and advisories to commercial vehicle administration centers and roadside check facilities for emergency situations such as severe weather events, civil emergencies, child abduction (AMBER alert system), military activities, and other situations that pose a threat to life and property.
Valley Metro OCC	Emergency Early Warning System	The center shall process status information from each of the centers that have been sent the wide-area alert.
Valley Metro OCC	Emergency Early Warning System	The center shall coordinate the broadcast of wide-area alerts and advisories with other emergency management centers.
Valley Metro OCC	Emergency Early Warning System	The center shall receive incident information from other transportation management centers to support the early warning system.
Valley Metro OCC	Emergency Early Warning System	The center shall present the alert and advisory information and the status of the actions taken in response to the alert by the other centers to the emergency system operator as received from other system inputs.
Valley Metro OCC	Emergency Early Warning System	The center shall support the entry of alert and advisory information directly from the emergency system operator.
Valley Metro OCC	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected in secure areas including facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, roadway infrastructure, and transit railways or guideways). The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors), infrastructure condition and integrity, intrusion and motion, and object detection sensors. The data may be raw or pre-processed in the field.
Valley Metro OCC	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected in traveler secure areas, which include transit stations, transit stops, rest areas, park and ride lots, and other fixed sites along travel routes (e.g., emergency pull-off areas and travel information centers). The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors), intrusion and motion, and object detection sensors. The data may be raw or pre-processed in the field.

Element Name	Equipment Package Name	Requirement
Valley Metro OCC	Center Secure Area Sensor Management	The center shall remotely monitor and control security sensor data collected on-board transit vehicles. The types of security sensor data include environmental threat (e.g. chemical agent, toxic industrial chemical, biological, explosives, and radiological sensors) and object detection sensors. The data may be raw or pre-processed in the field.
Valley Metro OCC	Center Secure Area Sensor Management	The center shall exchange security sensor data with other emergency centers.
Valley Metro OCC	Center Secure Area Sensor Management	The center shall identify potential security threats based on collected security sensor data.
Valley Metro OCC	Center Secure Area Sensor Management	The center shall verify potential security threats by correlating security sensor data from multiple sources.
Valley Metro OCC	Center Secure Area Sensor Management	The center shall perform threat analysis based on correlations of security sensor and surveillance data.
Valley Metro OCC	Center Secure Area Sensor Management	The center shall exchange threat analysis data with Alerting and Advisory Systems and use that data in local threat analysis processing.
Valley Metro OCC	Center Secure Area Sensor Management	The center shall disseminate threat information to other agencies, including traffic, transit, maintenance, rail operations, and other emergency management centers.
Valley Metro OCC	Center Secure Area Sensor Management	The center shall respond to control data from center personnel regarding security sensor data collection, processing, threat detection, and threat analysis.
Valley Metro OCC	Center Secure Area Sensor Management	The center shall request activation of barriers and safeguards on request from center personnel.
Valley Metro OCC	Center Secure Area Sensor Management	The center shall monitor maintenance status of the security sensor field equipment.
Valley Metro OCC	Center Secure Area Alarm Support	The center shall collect silent and audible alarms received from travelers in secure areas (such as transit stops, rest areas, park and ride lots, modal interchange facilities).
Valley Metro OCC	Center Secure Area Alarm Support	The center shall collect silent and audible alarms received from transit vehicles, originated by the traveler or the transit vehicle operator.
Valley Metro OCC	Center Secure Area Alarm Support	After the alarm message has been received, the center shall generate an alarm acknowledgment to the sender.
Valley Metro OCC	Center Secure Area Alarm Support	After the alarm message becomes a verified incident, the center shall determine the appropriate response.
Valley Metro OCC	Center Secure Area Alarm Support	The center shall determine whether the alarm message indicates an emergency that requires the attention of public safety agencies, and forward alarm message data to the appropriate agency as necessary.
Valley Metro OCC	Center Secure Area Alarm Support	The center shall forward the alarm message to center personnel and respond to the traveler or transit vehicle operator as directed by the personnel.
Valley Metro OCC	Transit Center Passenger Counting	The center shall collect passenger count information from each transit vehicle.
Valley Metro OCC	Transit Center Passenger Counting	The center shall calculate transit ridership data by route, route segment, transit stop, time of day, and day of week based on the collected passenger count information.
Valley Metro OCC	Transit Center Passenger Counting	The center shall make the compiled ridership data available to the system operator and other applications.
Valley Metro OCC	Transit Vehicle Assignment	The center shall assign individual transit vehicles to transit blocks.
Valley Metro OCC	Transit Vehicle Assignment	The center shall download vehicle assignments to the transit vehicle prior to the start of the day's operations.
Valley Metro OCC	Transit Vehicle Assignment	The center shall provide an exception handling process for the vehicle assignment function. This process shall generate new supplemental vehicle assignments as required due to change events which occur during the operating day.
Valley Metro OCC	Transit Vehicle Assignment	The center shall provide an inventory management function for the transit facility that stores functional attributes about each vehicle owned by the transit operator. The functional attributes permit the planning and assignment functions to match vehicles with routes based on suitability for the types of service required by the particular routes.
Valley Metro OCC	Transit Vehicle Assignment	The center shall generate transit vehicle availability listings, current and forecast, to support transit vehicle assignment planning.
Valley Metro OCC	Transit Vehicle Assignment	The center shall provide transit operations personnel with the capability to update transit vehicle assignments and receive reports on transit vehicle inventory status.
Valley Metro OCC	Transit Center Signal Priority	The center shall analyze transit vehicle schedule performance to determine the need for priority along certain routes or at certain intersections.
Valley Metro OCC	Transit Center Signal Priority	The center shall send requests for priority along routes or at intersections to traffic management.
Valley Metro OCC	Transit Center Signal Priority	The center shall define business rules that govern use of transit vehicle signal priority, communicate these rules to the transit vehicle, and monitor transit vehicle requests for priority at signalized intersections.
Valley Metro OCC	Transit Center Signal Priority	The center shall provide transit operations personnel with the capability to control and monitor transit signal priority operations.

Element Name	Equipment Package Name	Requirement
Valley Metro Transit DMS	Remote Transit Information Services	The public interface for travelers shall collect and provide real-time travel-related information at transit stops, multi-modal transfer points, and other public transportation areas.
Valley Metro Transit DMS	Remote Transit Information Services	The public interface for travelers shall collect and present to the transit traveler information on transit routes, schedules, and real-time schedule adherence.
Valley Metro Transit DMS	Remote Transit Information Services	The public interface for travelers shall provide support for general annunciation and/or display of imminent arrival information and other information of general interest to transit users.
Valley Metro Transit DMS	Remote Transit Information Services	The public interface for travelers shall present information to the traveler in a form suitable for travelers with physical disabilities.
Valley Metro Transit Vehicles	On-board Maintenance	The transit vehicle shall collect and process vehicle mileage data available to sensors on-board.
Valley Metro Transit Vehicles	On-board Schedule Management	The transit vehicle shall receive a vehicle assignment including transit route information, transit service instructions, traffic information, road conditions, and other information for the operator.
Valley Metro Transit Vehicles	On-board Transit Fare Management	The transit vehicle shall read data from the traveler card / payment instrument presented by boarding passengers.
Valley Metro Transit Vehicles	On-board Transit Information Services	The transit vehicle shall enable traffic and travel advisory information to be requested and output to the traveler. Such information may include transit routes, schedules, transfer options, fares, real-time schedule adherence, current incidents, weather conditions, and special events.
Valley Metro Transit Vehicles	On-board Transit Security	The transit vehicle shall perform video and audio surveillance inside of transit vehicles and output raw video or audio data for either local monitoring (for processing or direct output to the transit vehicle operator), remote monitoring or for local storage (e.g., in an event recorder).
Valley Metro Transit Vehicles	On-board Transit Signal Priority	The transit vehicle shall determine the schedule deviation and estimated times of arrival (ETA) at transit stops.
Valley Metro Transit Vehicles	On-board Transit Trip Monitoring	The transit vehicle shall track the current location of the transit vehicle.
Valley Metro Transit Vehicles	On-board Passenger Counting	The transit vehicle shall count passengers boarding and alighting.
Valley Metro Transit Vehicles	On-board Passenger Counting	The passenger counts shall be related to location to support association of passenger counts with routes, route segments, or bus stops.
Valley Metro Transit Vehicles	On-board Passenger Counting	The passenger counts shall be timestamped so that ridership can be measured by time of day and day of week.
Valley Metro Transit Vehicles	On-board Passenger Counting	The transit vehicle shall send the collected passenger count information to the transit center.
Valley Metro Website	Infrastructure Provided Trip Planning	The center shall provide the capability to provide specific pre-trip and enroute directions to travelers (and drivers), including costs, arrival times, and transfer points.
Valley Metro Website	ISP Traveler Data Collection	The center shall collect, process, and store traffic and highway condition information, including incident information, detours and road closures, event information, recommended routes, and current speeds on specific routes.
Valley Metro Website	ISP Traveler Data Collection	The center shall collect, process, and store maintenance and construction information, including scheduled maintenance and construction work activities and work zone activities.
Valley Metro Website	ISP Traveler Data Collection	The center shall collect, process, and store transit routes and schedules, transit transfer options, transit fares, and real-time schedule adherence information.
Valley Metro Website	ISP Traveler Data Collection	The center shall collect, process, and store parking information, including location, availability, and fees.
Valley Metro Website	ISP Traveler Data Collection	The center shall collect, process, and store toll fee information.
Valley Metro Website	ISP Traveler Data Collection	The center shall collect, process, and store current and forecast road conditions and surface weather conditions.
Valley Metro Website	ISP Traveler Data Collection	The center shall collect, process, and store event information.
Valley Metro Website	ISP Traveler Data Collection	The center shall collect, process, and store air quality information.
Valley Metro Website	ISP Traveler Data Collection	The center shall collect, process, and store border crossing information.