

Project Type	ITS Inventory	Subsystems	Associated Service Packages	Equipment Packages	Functional Requirements Example	User Services
Installation of new CCTV cameras / expansion of existing camera system and integrating the cameras to be operational from a control center.	CCTV, TMC	Roadway Subsystem, Traffic Management	ATMS01 - Network Surveillance	Roadway Basic Surveillance	The field element shall collect, process, and send traffic images to the center for further analysis and distribution.	1.6 Traffic Control 1.7 Incident Management
Installation of new DMS and integrating DMS to be operational from a control center.	DMS, TMC	Roadway Subsystem, Traffic Management	ATMS06 - Traffic Information Dissemination	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).	1.2 En-Route Driver Information
Synchronization of traffic signals along key corridor and integrating system to be operational from a control center.	Traffic Signals, TMC	Roadway Subsystem, Traffic Management	ATMS03 – Traffic Signal Control	Roadway Signal Controls	The field element shall control traffic signals at intersections and on main highways for urban and rural areas, under center control.	1.6 Traffic Control
Deployment of traffic detection for use at mid-block locations and intersections.	Vehicle Detectors, TMC	Roadway Subsystem, Traffic Management	ATMS01 - Network Surveillance	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.	1.6 Traffic Control
TMC to TMC communications installation to facilitate interagency coordination	TMC	Traffic Management	ATMS07 - Regional Traffic Management	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.	1.6 Traffic Control 1.7 Incident Management
Implement a project to archive data and send applicable information to a regional server for dissemination via 511 or another traveler information service.	TMC, Caltrans Department of Emergency Operations Center	Archived Data Management Subsystem	AD1 - ITS Data Mart AD2 - ITS Data Warehouse	ITS Data Repository	The center shall collect data catalogs from one or more data sources. A catalog describes the data contained in the collection of archived data and may include descriptions of the schema or structure of the data, a description of the contents of the data.	7.1 Archived Data
Installation of tracking devices on transit vehicles to facilitate schedule adherence	Transit Detectors, Transit Operations Center	Transit Vehicle Subsystem	APTS01 – Transit Vehicle Tracking	On-Board Transit Trip Monitoring	The transit vehicle shall track the current location of the transit vehicle.	2.1 Public Transportation Management
Installation of environmental sensors along roadways that monitor weather and roadway conditions	Environmental Sensors, Maintenance and Construction Center	Roadway, Maintenance and Construction Management	MC03 – Road Weather Data Collection	MCM Environmental Information Collection	The center shall remotely control environmental sensors that measure weather conditions including temperature, wind, humidity, precipitation, and visibility.	8.1 Maintenance and Construction Operations
Implementing a connection with ITS devices and information service providers to disseminate pertinent information to the public.	Local Changeable Message Sign, Highway Advisory Radio, Fresno COG San Joaquin Valley 511	Information Service Provider, vehicle, personal information access, remote traveler support	EM 06 – Wide Area Alert	Emergency Early Warning System, ISP Emergency Traveler Information, TMC Traffic Information Dissemination	The center shall track the availability of resources and coordinate resource sharing with allied agency centers including traffic, maintenance, or other emergency centers.	5.1 Emergency Notification and Personal Security
Installation of automated vehicle identification capabilities at port of entries to allow for higher speed weigh-in-motion process.	Caltrans Department of Motor Vehicles, Caltrans Weigh-In-Motion, Commercial Vehicles	Commercial Vehicle Check, Commercial Vehicle	CV 06 – Weigh-in-Motion	Roadside WIM, On-board CV Electronic Data	The commercial vehicle shall respond to requests to provide the identity, status and other information from the electronic cargo lock tag, if so equipped, to roadside check facilities, including border crossings.	4.4 Commercial Vehicle Administration Processes
Implement a project To disseminate applicable information via 511 or another traveler information service to the public.	Fresno COG San Joaquin Valley 511, travelers, Fresno Website, Other Information Service Providers	Information Service Provider, vehicle, personal information access, remote traveler support	ATIS 02 – Interactive Traveler Information	Interactive infrastructure information, 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.	1.1 Pre-trip Traveler Information