New Mexico Statewide ITS Architecture

State RFP 06-24

ITS Architecture Development

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Revision History

Filename	Version	Date	Author	Comment
New Mexico Statewide ITS Architecture 11-13-06	0.01	11/13/06	T. Harris/ B. Eisenhart	Full draft
New Mexico Statewide ITS Architecture v0-02	0.02	1/19/07	T Harris/ B Eisenhart	Revised draft based on comments received
New Mexico Statewide ITS Architecture-v1-00.doc	1.00	3/23/97	T Harris/ B Eisenhart	Initial release of document.

1. Introduction

The ***New Mexico Statewide Intelligent Transportation Systems (ITS) Architecture*** is a roadmap for transportation systems integration in the state of New Mexico over the next 20 years. The architecture has been developed through a cooperative effort by the state's transportation agencies, covering all modes and all roads in the state. The architecture represents a shared vision of how each agency's systems will work together in the future, sharing information and resources to provide a safer, more efficient, and more effective transportation system for travelers in the state.

The architecture is an important tool that will be used by:

- Operating Agencies to recognize and plan for transportation integration opportunities in the state and, more importantly, in their specific region.
- Planning Agencies to better reflect integration opportunities and operational needs into the transportation planning process.
- Other organizations and individuals that use the transportation system in the state.

The architecture provides an overarching framework that spans all of these organizations and individual transportation projects. Using the architecture, each transportation project can be viewed as an element of the overall transportation system, providing visibility into the relationship between individual transportation projects and ways to cost-effectively build an integrated transportation system over time. The architecture is not static, but will be revised and updated as plans change, ITS projects are implemented, and the ITS needs and services evolve in the region. This document, which describes the architecture, is a "living document" that will be updated each time the architecture is updated.

1.1. Purpose

The New Mexico Statewide ITS Architecture, along with the New Mexico Strategic Deployment Plan, represents a consensus blueprint for ITS Investments in the state. The New Mexico Statewide ITS Architecture starts by identifying the potential ITS agencies (stakeholders) within the state, or in the adjoining states. It goes on to define possible integration opportunities between agencies within the state and adjoining states and identifies how cooperation between the agencies in the deployment of ITS systems can be used to satisfy transportation needs. The New Mexico Strategic Deployment Plan defines what currently exists in the area of ITS deployments, and goes on to identify gaps in needed ITS services and identifies how these gaps might be addressed.

The architecture can be used to efficiently structure implementations of ITS technologies. By creating a long range plan for the implementation of these systems and technologies, agencies can:

- Prepare for future expansion

- Develop coordinated deployment of ITS
- Leverage funding
- Identify standard interfaces

In addition to structuring implementations of ITS technologies, the New Mexico Statewide ITS Architecture allows New Mexico to comply with the FHWA Rule/FTA Policy on Architecture and Standards. The FHWA Final Rule, 23 CFR 940, (and corresponding FTA policy) to implement Section 5206(e) of the TEA-21 requires that ITS projects funded through the Highway Trust Fund conform to the National ITS Architecture and applicable standards. The Rule/Policy requires that the National ITS Architecture be used to develop a local implementation of the National ITS Architecture, which is referred to as a "Regional ITS Architecture." Although the federal deadline for conformance to this Final Rule/Policy was April 8, 2005, the development of this statewide architecture will make the entire state of New Mexico fully compliant with this Rule/Policy, which will facilitate the approval of federal funds to support ITS projects in the state.

1.2. Document Overview

This document is organized into ten main sections. Section 1 provides introductory information on the project, this document and discusses the scope of the architecture. Section 2 describes the process used to develop the New Mexico Statewide ITS architecture. Section 3 gives a brief introduction and overview of the National ITS Architecture, and how it relates to this statewide ITS architecture. The stakeholders are identified in Section 4, while their systems are inventoried in Section 5. The needs addressed by ITS and the services used to address those needs are covered in Section 6. The interfaces and information exchanges are described in Section 7. Applications of the statewide ITS architecture (including functional requirements, standards and agreements) are covered in Section 8. Finally, Section 9 provides guidance on using the statewide ITS architecture and Section 10 presents the architecture maintenance plan.

The document also contains a number of appendices. Appendix A is a list of Acronyms that are used in the document or in the description of the National ITS Architecture on which the Statewide ITS Architecture is based. Appendix B provides a list of the comments received and how they have been addressed. Appendix C is a detailed listing of the elements assigned to each ITS service in the architecture. Appendix D, which is a separate document due to its length, is a listing of all the customized market packages in the architecture. Appendix E is a detailed listing of the functions assigned to each of the elements. In addition a detailed description of the functional requirements assigned to the elements is contained in a separate Excel file. Finally, Appendix F is a Maintenance Change Request Form.

1.3. Scope of the Architecture

The geographic scope of the architecture is the entire state of New Mexico. This statewide ITS architecture will interface with the following statewide or regional ITS architectures for areas outside of New Mexico:

- Arizona Statewide and Regional ITS Architecture (as developed)
- Colorado Statewide and Regional ITS Architectures (as developed)
- Oklahoma Statewide and Regional ITS Architectures (as developed)
- Texas Regional ITS Architectures

The existing adjacent architectures (Texas Regional) contain only very limited interfaces with elements in New Mexico. The stakeholders from the adjoining states were included in this development effort and the New Mexico Statewide ITS Architecture does contain interfaces to elements in all of the adjoining states/regions.

There are regional ITS architectures within the state of New Mexico for the Statewide ITS Architecture to harmonize with, and connect to. Figure 1 shows the geographic scope of the Statewide ITS Architecture with an indication of the four regional ITS architectures in the state. The regional ITS architectures are: the AMPA (Albuquerque Metropolitan Planning Area)Regional ITS Architecture (Albuquerque, NM) (1); the Santa Fe Regional ITS Architecture (Santa Fe, NM)(2); the Farmington Regional ITS Architecture (Farmington, NM)(3); and the Las Cruces Regional ITS Architecture (Las Cruces, NM)(4).

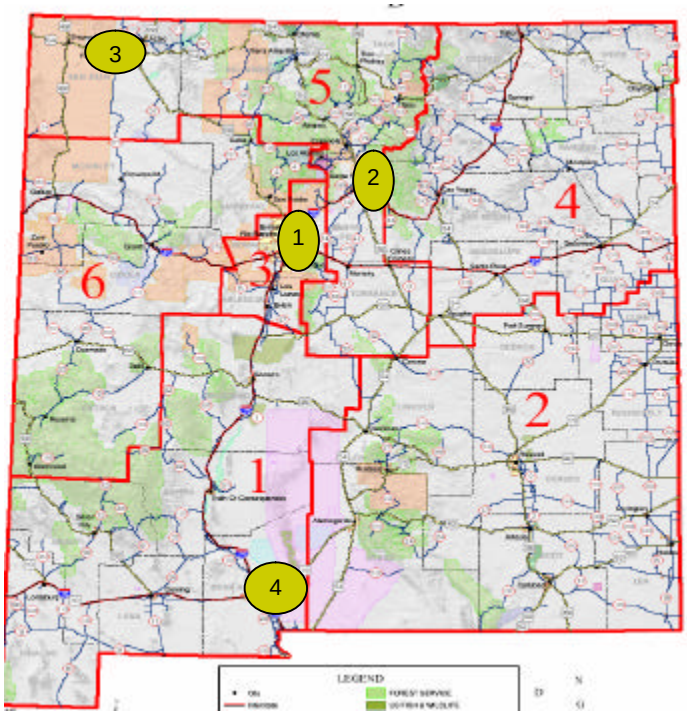


Figure 1: New Mexico Regional and Statewide ITS Architectures Geographic Scopes

In addition to describing interfaces with elements in existing regional ITS architectures within the state, the New Mexico Statewide ITS Architecture will describe interfaces between elements outside of the state of New Mexico to elements within this state (e.g. the interface between NMDOT District TOCs and TxDOT Regional TMCs in the state of Texas). However, the statewide ITS architecture will, in general, not attempt to describe specific elements and interfaces that are internal to the regions outside the geographic scope. For example, the statewide ITS architecture will not have a City of El Paso Public Safety Dispatch element or describe interfaces from this specific public safety element to other systems within southwestern Texas.

As mentioned in the introduction, the timeframe considered for the New Mexico Statewide ITS Architecture is a 20-year outlook for ITS activities in the state. This means that the architecture addresses existing ITS systems as well as those planned for development over the next 20 years. More specifically though, this statewide ITS architecture focuses on ITS systems or elements that will be deployed over the next 5 years. Still, the statewide ITS architecture represents a snapshot of the currently anticipated ITS and other projects based on information gathered from stakeholders, and research from agency websites or published agency documents. As such, the architecture will require regular updates to ensure that it maintains accurate representation throughout the state, and accurate interfaces with each of the regional ITS architectures within the state. This is addressed in more detail in Section 10, Maintaining the Architecture.

The architecture covers services across a broad range of ITS, including traffic management, maintenance and construction operations, incident management, emergency services, transit management, traveler information, archived data management, electronic payment, and commercial vehicle operations. In addition, since New Mexico is a border state, this statewide ITS architecture also covers international border crossings with Mexico.

2. Statewide ITS Architecture Development Process

2.1. Process to Create the Architecture

Development of the New Mexico Statewide ITS Architecture relied heavily on stakeholder input to ensure that the ITS architecture reflected local and regional needs and plans. The following five-step process was used to develop the ITS architecture:

- Conduct a kickoff and technical review meeting to gather information regarding inventory and services.
- Create an initial draft inventory of architecture elements and a draft set of customized ITS Services to be provided.
- Conduct stakeholder outreach through a series of one day workshops held throughout the state (one meeting per NMDOT district), including an initial kick-off meeting in Albuquerque, NM.
- Create a draft statewide ITS architecture for review (web based).
- Allow stakeholder review of the draft statewide ITS architecture and conduct additional stakeholder review through phone calls, through the NMDOT liaisons, and through a one-day architecture review workshop.
- Finalize the ITS architecture based on review comments.

2.1.1. Kickoff and Technical Review Meeting

A wide array of stakeholders across all aspects of surface transportation in New Mexico, were invited to a one day kick-off meeting that was held on June 7, 2006. A key overall objective of the meeting was that the resultant statewide ITS architecture should be a *consensus architecture*, that is, each of the participants *understands and agrees* to the ITS elements and specific information exchanges between the ITS elements identified in the architecture that they participated in defining. *(This is not to say that the resulting ITS Architecture has credible funding identified that would lead to full deployment. The ITS architecture only identifies ITS elements and interfaces that the stakeholders agree to. Existing funding processes will continue to be used to decide how to allocate limited resources to which ITS elements and interfaces for deployment.)* The meeting also incorporated an overview or training in the National ITS Architecture and statewide ITS architectures, and the identification of ITS needs for the state, so that stakeholders would understand and more fully participate in the ITS architecture development process. The morning of the kick-off meeting focused on understanding ITS and what an ITS Architecture is, and how to approach the development of the New Mexico Statewide ITS Architecture. This included a brief discussion on the services planned at the statewide level and how they were to fit into the statewide ITS architecture. Included in this discussion was an exercise on determining the needs of each stakeholder throughout the state During the late-morning and afternoon of the kick-off meeting, the focus

shifted from the New Mexico Statewide ITS Architecture to the AMPA Regional ITS Architecture and the scope, needs, and services associated with the AMPA region (these results are under a separate document). To round out the afternoon, there was a brief discussion about the development of an ITS Strategic Plan for the state of New Mexico (which is presented under a separate document).

2.1.2. Creation of an Initial Inventory and Services

The initial draft set of ITS elements, services and interconnections were created based upon information gathered at the kickoff/technical review meeting, from a review of existing documentation regarding New Mexico projects and systems, and from a brief review of the NMDOT website and the state's MPO websites.

The New Mexico Statewide ITS Architecture elements identified and defined through this review were mapped to National ITS Architecture Version 5.1 entities (subsystems and terminators). This created an initial inventory for New Mexico mapped to the National ITS Architecture entities. The existing and planned ITS projects were used to establish an initial list of services that the elements of the architecture would provide. The elements, the element definitions, and their mapping to National ITS Architecture entities (one or more) were entered into the software tool Turbo Architecture.

For each existing or future ITS service operating or expected in the region, the market package diagram (the collection of ITS elements, equipment packages, and functions that work together to perform a specific ITS service – see Section 3 for details on the National ITS Architecture) for that service from the National ITS Architecture was edited so that each National ITS Architecture subsystem or terminator was associated with the local stakeholder element name. In some cases, multiple instances of the market package were developed where the service had more than one instance in the region. This would be the case if there were multiple agencies performing the same service within the state. This set of customized market packages using the draft elements created previously, was created in preparation for stakeholder outreach so that each could be reviewed and further customized based on actual operating procedures (or theories) for each agency.

2.1.3. Stakeholder Outreach Meetings

The series of six one-day workshops held throughout the state were conducted in the same fashion as the kick-off meeting. In the first part of the workshops, stakeholders were asked to participate in identifying and defining their ITS needs while reviewing and revising their draft inventory and the inventory of fellow stakeholders. The second part of the workshops was spent reviewing the customized market package diagrams, adding or deleting diagrams, elements, and interconnections when necessary.

The locations and dates of these stakeholder workshops were:

- NMDOT District 3, Albuquerque, NM – July 24 and 25, 2006.

- NMDOT District 5, Santa Fe, NM – July 26, 2006.
- NMDOT District 4, Angel Fire, NM – July 27, 2006.
- NMDOT District 6, Milan, NM – July 31, 2006.
- NMDOT District 1, Las Cruces, NM – August 2, 2006.
- NMDOT District 2, Roswell, NM – August 4, 2006

2.1.4. Creation of a Draft Architecture for Review

Following the series of stakeholder workshops, the customized market packages were revised and a draft architecture was created. Using the customized market package diagrams (as modified during and post the workshop), the Turbo Architecture database was updated, "built", and utilized to create a draft ITS architecture. This involved the following activities:

- Updating the ITS inventory (and stakeholders when necessary)
- Revising the customized market packages
- Creating a Turbo Architecture database that represents the sum of all of the customized market packages.

In addition to creating the Turbo Architecture database and the customized set of market package diagrams, a high level *Architecture Interconnect Diagram* (*AID*, also known as a *Sausage Diagram*) of all the elements in the ITS architecture was created. A draft of this architecture document was created. There was also a hypertext version of the complete Turbo Architecture database that was created and placed on a generally accessible website (www.consystec.com), and later incorporated onto the NMDOT project website. This website described each element of the ITS architecture and all of their interconnections with other elements. The website was developed using additional software tools that go beyond the basic Turbo Architecture software.

Stakeholders were notified by email (collected at the kick-off meeting, the stakeholder meetings and through independent research on the internet) that a review period for the New Mexico Statewide ITS Architecture had commenced, and feedback was solicited. Stakeholders were encouraged to review the statewide ITS architecture on the website, and were encouraged to provide feedback electronically from the website. Comments received during the course of this project were summarized and maintained in a database. These stakeholders' comments, as well as comments generated during the QC process, and their corresponding dispositions are summarized in Appendix B.

2.1.5. Conduct Stakeholder Review of the Draft ITS Architecture

In addition to the stakeholder website review, a review of architecture material was held on September 19 and 20, 2006. During both meetings, stakeholders reviewed comments generated during the review period, and reviewed the changes to any of the customized market

package diagrams that were a direct result of the comments. In addition, the meeting covered discussions of market package prioritization and the identification of regional/statewide projects.

2.1.6. Finalize the Architecture Based on Review Comments

Following the architecture review meetings, the draft architecture was revised based on comments received during the meeting, or from outstanding comments from the NMDOT liaisons or from e-mails from the project website. In addition, any outstanding comments, from all of the various workshops or outreach meetings, were addressed and incorporated (where applicable) into the New Mexico Statewide ITS Architecture. The architecture and its documentation were updated as the final deliverables for the New Mexico Statewide ITS Architecture.

2.2. Requirements of the Final FHWA Rule and FTA Policy on Architecture

2.2.1. Specific Requirements of the Final FHWA Rule or FTA Policy

The FHWA Final Rule (23CFR 940) and FTA Policy on Intelligent Transportation System Architecture and Standards, which took effect on April 8, 2001, defines a set of requirements that regional or statewide ITS architectures should meet. The following is a list of specific requirements from the FHWA Rule/FTA Policy:

- A description of the region (scope)
- Identification of participating agencies and their systems (inventory)
- Operations concepts
- Agreements required for implementation
- System functional requirements
- Interface requirements
- Identification of ITS Standards
- Sequence of projects required for implementation
- Develop a Process for maintaining your regional ITS Architecture

2.2.2. How the Final Rule and FTA Policy Requirements are Met

Table 1 shows how the requirements of the rule are met by the outputs developed for the New Mexico Statewide ITS Architecture:

Table 1. Mapping of Requirements to Architecture Outputs

Regional ITS Architecture Requirements	Where Requirements documented
Description of region	Geographic definition, identification of services and a timeframe are given in Section 1 of this document.
Identification of participating agencies and other stakeholders	Listing of stakeholders and their definitions is given in Section 4 of this document. An inventory of the elements operated by the stakeholders is contained in Section 5 of this document. The same information is also available in the hyperlinked web site and in the Turbo Architecture database.
An operational concept that identifies the roles and responsibilities of participating agencies and stakeholders	The operational concept is defined in Section 4 of this document.
A list of any agreements (existing or new) required for operations	A brief discussion of agreements existing and needed new agreements is given in Section 8 of this document. A complete discussion of existing and potential agreements is given in Section 7 of the ITS Strategic Plan for the State of New Mexico, which is a separate output of this project.
System functional requirements;	The functional requirements of the ITS systems are described in an overview in Section 8 of this document, are presented in detail as Appendix E of this document, They are also provided in detail in the hyperlinked web site and in the Turbo Architecture database.
Interface requirements and information exchanges with planned and existing systems and subsystems	The Interfaces and information flows are described in an overview in Section 7 of this document, and are described in detail in the hyperlinked web site and in the Turbo Architecture database.
Identification of ITS standards supporting regional and national interoperability	The identification of standards for ITS in New Mexico is contained in Section 8 of this document.
The sequence of projects required for implementation	Projects, and their sequencing, are covered in Section 6 of the ITS Strategic Plan for the State of New Mexico, which is a separate output of this project.
Develop and implement procedures and responsibilities for maintaining the architecture as needs evolve within the region.	The Maintenance Plan is contained in Section 10 of this document.

3. ITS Architecture Concepts

The New Mexico Statewide ITS Architecture is an example of a Regional ITS Architecture, which has been defined by FHWA Rule 940 as a "regional framework for ensuring institutional agreement and technical integration for implementation of ITS projects". Regional ITS architectures, including the New Mexico Statewide ITS Architecture, are developed in order to provide a guide for the integration of transportation systems. The architecture is based upon the
US National ITS Architecture Version 5.1. A complete description of this architecture can be found at http://www.iteris.com/itsarch. The New Mexico Statewide ITS Architecture uses a set of common concepts or terms drawn from the National ITS Architecture to describe the parts of the architecture. This section will provide a description of the most common concepts or terms as an aid to the understanding the remainder of the document.

What are some of the main parts of an ITS architecture? They are made of the following:

- Organizations
- Systems operated
- Services provided
- Functions performed
- Information exchanged

The organizations that operate systems in the region covered by the architecture are referred to as **stakeholders**. These are public agencies, private organizations or the traveling public with a vested interest, or a "stake" in one or more transportation elements within a Regional ITS Architecture.

The systems operated by the stakeholders are referred to as **elements**. In the New Mexico Statewide ITS Architecture the elements represent actual systems, such as *NMDOT Statewide TMC*. An element may also represent field devices, for example the element *NMDOT Traffic Signals*. A more thorough discussion of the architecture elements is contained in Section 5. As mentioned above New Mexico Statewide ITS Architecture is based upon the National ITS Architecture which contains general terms for these systems. Since these National ITS Architecture terms show up repeatedly in later discussion they will be defined here.

The National ITS Architecture uses two terms to describe the systems that make up an architecture. They are:

- **Subsystems**, which represent the primary systems described by the architectures. For example the TMC element mentioned above represents a regional ITS architecture example of the Traffic Management Subsystem defined in the National ITS Architectures. The National ITS Architecture has 22 subsystems defined.

- **Terminators**, which represent systems that are on the boundary of the architecture. In general only interfaces to the terminators are described in the national architectures. An example of a terminator from the National ITS Architecture is the Weather Service. The National ITS Architecture has 73 terminators defined.

As a part of developing a regional ITS architecture, each element of the region is mapped to the subsystems and/or terminators that most closely define the functions of the element. This mapping allows the regional version to use the details associated with the subsystems and

terminators in the National ITS Architecture. As an example, the element in the New Mexico Statewide ITS Architecture called *National Weather Service* is mapped to the National ITS Architecture terminator Weather Service.

The information exchanged between elements (in the New Mexico Statewide ITS Architecture) or between subsystems and terminators in the National ITS Architecture is described by **information flows or architecture flows.** There are hundreds of these flows defined in the National ITS Architecture, and it is this information that is used to create the interface definitions in New Mexico Statewide ITS Architecture. For example in Figure 2 the top two boxes show an interface between two subsystems, with its information flows defining the exchange of information. A corresponding interface in New Mexico Statewide ITS Architecture is shown in the bottom two boxes.

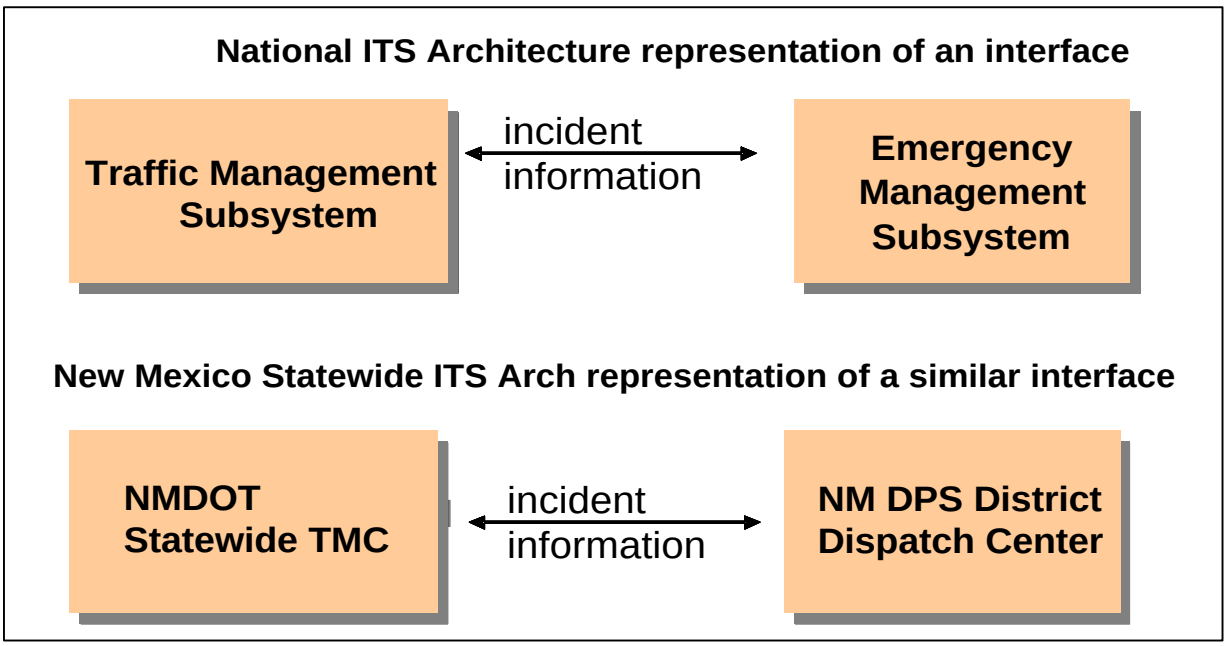


Figure 2: Information flows

By mapping the New Mexico Statewide ITS Architecture elements (e.g. NMDOT Statewide TMC) to National ITS Architecture subsystems (or terminators) (e.g. Traffic Management Subsystem), the interfaces defined in the National ITS architecture can be used as the basis for defining the interfaces in New Mexico's Statewide ITS Architecture.

The next key concept used by the architectures is that of **market packages**. These represent slices of an architecture that provide a transportation service. In the National ITS architecture, these market packages are combinations of subsystems and information flows that are used to provide the service. An example of a National ITS Architecture market package is shown in Figure 3. This shows the subsystems and information flows (some of which go to terminators) that perform the collection and distribution of traffic flow and traffic images used to monitor a road network. In the development of New Mexico Statewide ITS Architecture, a set of customized market packages were created that define the elements and interfaces used to provide the service in New Mexico Statewide ITS Architecture.

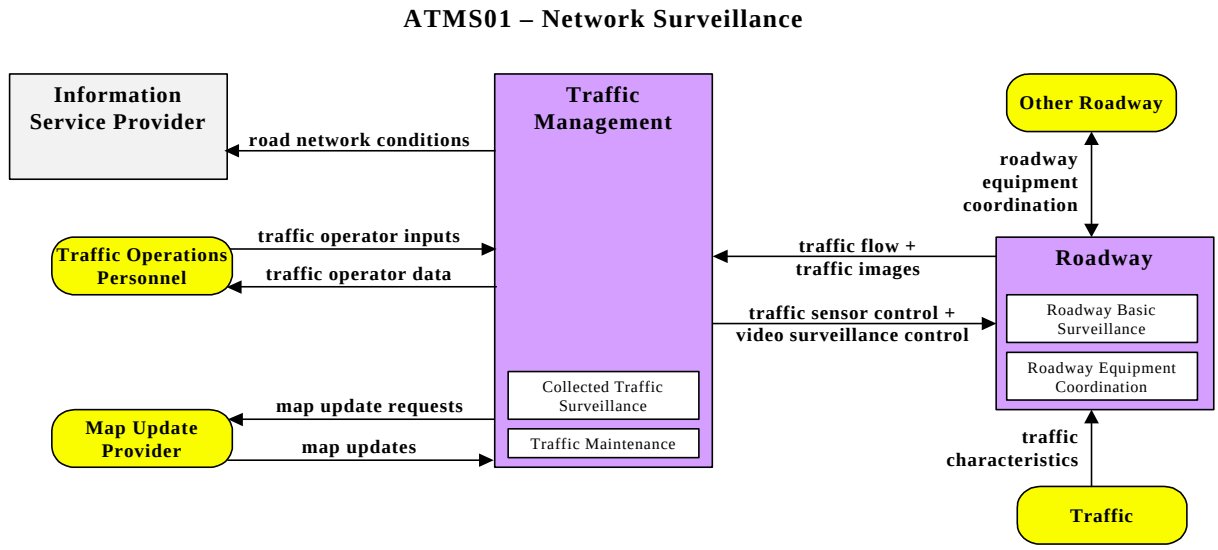


Figure 3: Example of National ITS Architecture Market Package

Figure 4 shows one of the customized market packages, in this case for the NMDOT Statewide TMC. This diagram shows how NMDOT might implement this service. There are two types of interfaces shown in the customized market package:

- Traffic Management Center to Roadside Equipment and
- Traffic management Center to Information Service Provider

Notice the name of the service has been changed to Network Monitoring (from Network Surveillance in the original National ITS Architecture example). This customization of the service was to in recognition of the sensitivity that stakeholders expressed regarding the term "surveillance", and represents just another way that the generic ITS Services of the National ITS Architecture are customized for the New Mexico Statewide ITS Architecture.

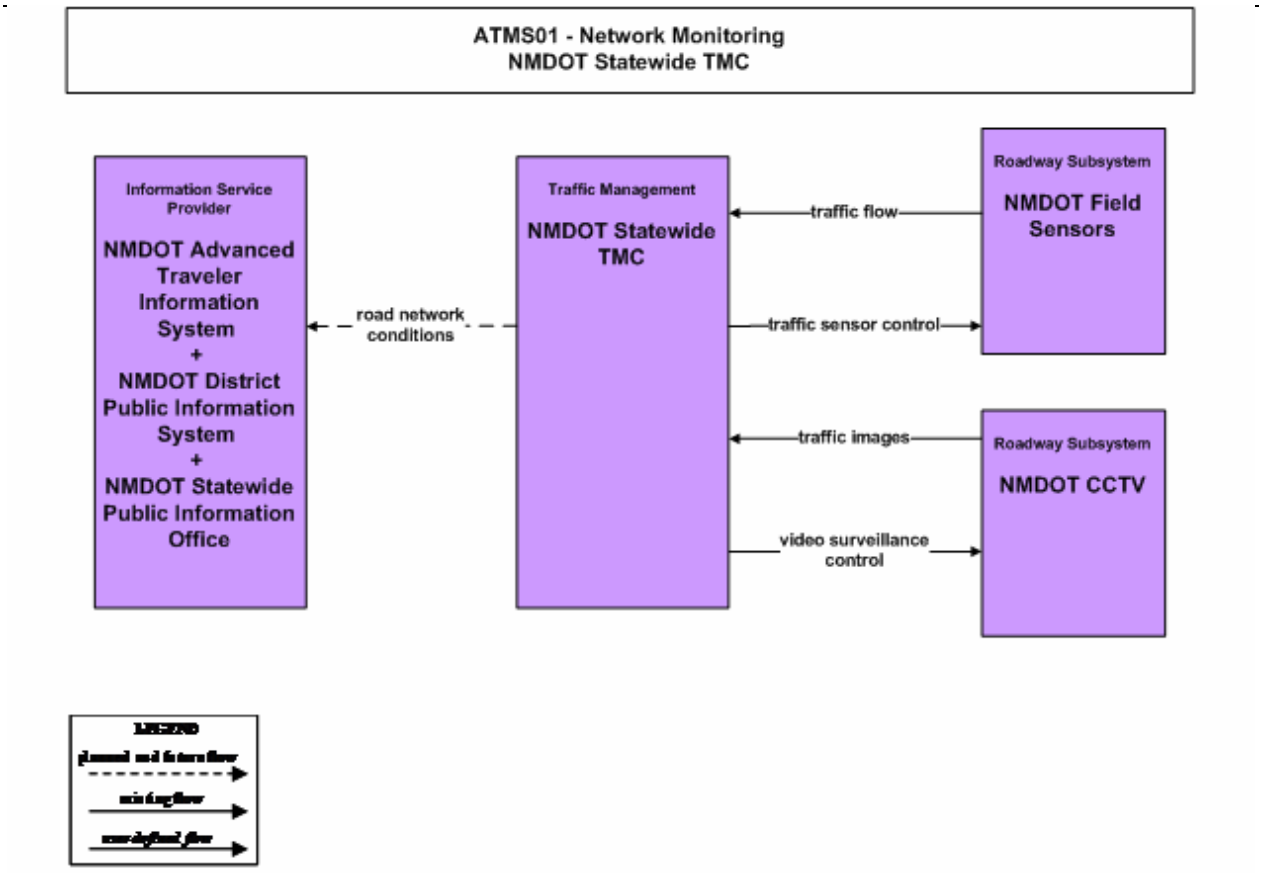


Figure 4: Example of New Mexico Statewide ITS Architecture Customized Market Package

Notice that the customized market package includes only some of the interfaces that were in the national ITS architecture market package. It does not include interfaces to personnel or a map update provider element. Elements mapping to these are not included in New Mexico's Statewide ITS Architecture.

One final concept to mention relates to the functions performed by the elements in the architecture. The National ITS Architecture have the concept of an **equipment package,** which define a piece of functionality within a subsystem. For example in Figure 3, Collect Traffic Surveillance is a function (or equipment package) that is performed by the Traffic Management Subsystem in performing the Network Surveillance Service. In the New Mexico Statewide ITS Architecture functions have been identified for the key elements using a mapping of equipment packages to each element. For example, the NMDOT Statewide TMC (shown in Figure 3) will implement the Collect Traffic Surveillance equipment package (shown in Figure 2 as functionality in the Traffic Management Subsystem). Further information regarding how functions are defined for each element is found in Section 8.1 on Functional Requirements.

4. Identification of Stakeholders

4.1. Champion

In order to successfully develop a Statewide ITS Architecture, it is necessary to have a "champion" who can lead the effort from the agency's viewpoint. This individual, or group of individuals, should have the following skills/capabilities:

- They must have a vision for interconnectivity, partnership and regional integration.
- They must have knowledge of the local and statewide ITS systems and projects.
- They must understand what a regional or statewide ITS architecture is and how to use it most effectively in the planning process.
- They must be a consensus builder or facilitator, and
- They must have executive level access to resources in order to gain the support of various regional or statewide agencies.

The Champion for the development of the New Mexico Statewide ITS Architecture is the ITS Bureau Chief of the New Mexico Department of Transportation. The champion is supported by key NMDOT personnel at the District level. The NMDOT ITS Bureau Chief (or the NMDOT Traffic Operations Engineer if the Bureau Chief position is temporarily vacant) will continue to champion the use and maintenance of the New Mexico Statewide ITS Architecture beyond the timeframe of this development effort.

4.2. Regional Stakeholders

Stakeholder coordination and involvement is one of the key elements of the development of a regional or statewide ITS architecture. Because ITS often transcends traditional transportation infrastructure, it is important to consider a range of stakeholders beyond the traditional traffic, transit, and maintenance areas. In addition, it is important to consider stakeholders at a regional or statewide level in adjoining regions/states.

The New Mexico Statewide ITS Architecture includes a wide range of stakeholders. Many of these stakeholders, along with various other agencies, were present at one of the stakeholder meetings described in the previous section. The following is a list of agencies/participants who were present during the architecture development workshops and who provided their inputs on the New Mexico Statewide ITS Architecture:

- AAA/ Park and Ride
- Acoma Pueblo
- City of Albuquerque
- City of Artesia / Southeast Regional Planning Organization (SERPO)
- City of Farmington, Traffic Operations
- City of Jal

- City of Las Cruces, Traffic Operations
- City of Raton
- City of Roswell
- City of Santa Rosa
- Clovis Area Transit Systems (CATS)
- Colfax County
- ConSysTec Corporation
- Dona Ana County
- Eagle's Nest
- EPCOG (Eastern Plains Council of Governments)
- Farmington MPO
- Federal Highway Administration
- Guadalupe County
- Harding County
- Las Cruces MPO
- Las Cruces Transit
- Middle Region RPO (MRCOG)
- North Central RTD
- North East RPO
- New Mexico State University – PSL
- New Mexico State University – Police Department
- NM DPS
- NM DPS, Motor Transportation Division
- New Mexico General Services Division(NMGSD)
- New Mexico Office of Emergency Management
- New Mexico Department of Transportation (NMDOT) – Districts 1-6, ITS Bureau, Transit & Rail Bureau
- San Miguel County
- Santa Fe MPO
- Santa Fe Regional Emergency Communications Center (RECC)
- SCCOG
- SNMDEDD / COG / SERPO
- Southwest RPO
- Town of Red River
- TxDOT – Amarillo
- University of New Mexico
- University of New Mexico – Civil Engineering Department
- Village of Angel Fire
- Village of Roy
- Wilson & Company

The Statewide ITS Architecture is defined by a set of elements (or systems), each of which is owned (or operated or maintained) by a stakeholder. The above listing includes all the agencies that attended stakeholder meetings. Most, but not all of them own, operate, or maintain elements in the architecture. (An example of an agency that does not is the EPCOG). In some cases the specific stakeholder from the above listing would be represented by a general stakeholder in the architecture definition (e.g. Village of Angel Fire Police and Fire/EMS is represented in the architecture by the general stakeholder Municipal Public Safety). Table 2 provides a listing of the full range of stakeholders assigned to elements in the New Mexico Statewide ITS Architecture. The table provides a name and description of the agency, department, or organization represented by the stakeholder.

Table 2. Stakeholders

Stakeholder	Stakeholder Description
American Association of Motor Vehicle Administrators	The American Association of Motor Vehicle Administrators (AAMVA) is a nonprofit organization striving to develop model programs in motor vehicle administration, police traffic services and highway safety. AAMVA represents the state and provincial officials in the United States and Canada who administer and enforce motor vehicle laws. AAMVA operates the IRP Clearinghouse.
Archive Data Users	Users (and their systems) of general archive data.
Arizona Department of Public Safety	The Arizona Department of Public Safety is the state agency that operates the Arizona Highway Patrol.
Arizona DOT	Arizona Department of Transportation is responsible for managing state owned roads in Arizona.
Bureau of Indian Affairs	The Bureau of Indian Affairs (BIA) is the US Federal government agency charged with the administration and management of lands held in trust by the United States for American Indians, Indian tribes, and Alaska Natives.
City of Albuquerque	Municipal government agencies in the City of Albuquerque.
City of Farmington	Municipal government of the City of Farmington.
City of Las Cruces	Municipal government of the City of Las Cruces.
City of Roswell	Municipal government of the City of Roswell.
City of Santa Fe	Municipal government of the City of Santa Fe.
Colorado Department of Public Safety	The Colorado Department of Public Safety is the state agency that operates the Colorado State Patrol.
Colorado DOT	Colorado Department of Transportation responsible for management of state owned roads in Colorado.
Contract Transport Companies	Emergency medical service providers that offer ambulance services and medical transports. +B30
County Emergency Management Agencies	Agencies that coordinate their county's response to large-scale emergencies and disasters. This includes planning and activities for preparedness, response, and recovery phases of a disaster.

Stakeholder	Stakeholder Description
County Government	County government responsible for the county's traffic operations, maintenance operations, website, tourism, convention and visitor's bureau, etc.
County Public Safety	County public safety dispatch and emergency response. Dispatch includes County Sheriff and any other county public safety services such as EMS. In many counties responsibilities also include dispatch of Department of Public Safety troopers.
County Public Safety	County public safety dispatch and emergency response. Dispatch includes County Sheriff and any other county public safety services such as EMS. In many counties responsibilities also include dispatch of Department of Public Safety troopers.
Customs Brokers	A customs broker acts on behalf of importers or exporters to clear goods through customs. It prepares and transmits required documents or data, pays duties, arranges for bonding, and expedites clearance through customs at ports of entry.
DPS Motor Transportation Division (MTD)	The Motor Transportation Division (MTD) of the Department of Public Safety (DPS) is the designated lead agency for motor carrier safety and size and weight enforcement in New Mexico.
Drayage Companies	Companies that move containers and trailer loads across the US/ Mexico border.
FHWA	Federal Highway Administration
Financial Institution	Financial and banking institutions that play a role in the transfer of funds for fare collection as well as for other fee based transportation services.
FMCSA	Federal Motor Carrier Safety Agency. The agency in the US Department of Transportation responsible for commercial vehicle operations.
IFTA	International Fuel Tax Association, Inc.
Independent School Districts	Public school districts. The districts have been included for their role in providing "fixed route" transit services and in supporting emergency evacuations with their fleet of school buses.
Local Media	Includes both print (newspaper) and broadcast (TV, radio) news media.
Local Transit Agencies-Statewide	Represents local transit agencies that operate in the state that are not specifically called out by this architecture.
Local Transit Agencies-Statewide	Represents local transit agencies that operate in the state that are not specifically called out by this architecture.
Los Alamos National Laboratory	Los Alamos National Laboratory is one of the world's leading research institutions. The primary responsibility of the laboratory has been to maintain the effectiveness of the nation's nuclear deterrent.
Mexican Governmental Agencies	This stakeholder represents all of the government agencies within the country of Mexico. This includes those agencies that handle traffic operations, maintenance of roads, emergency operations, border inspection and clearance operations, etc.
Mid-Region Regional Transit District	The Mid-Region Regional Transit District will have responsibility for transit system coordination in the RPO around Albuquerque.

Stakeholder	Stakeholder Description
Municipal Public Safety	Represents local or municipal public safety (fire/EMS districts and municipal police) that are not explicitly represented in the architecture. This includes dispatch functions, PSAPs (public safety answering points), etc. operated at the municipal level (in the future these may be regional in nature).
Municipalities-Statewide	Municipalities or villages located within the State that are not specifically called out by the Statewide ITS Architecture. These include cities such as Espanola, Taos, Las Vegas, and Hobbes.
New Mexico Conservancy Districts	There are 47 conservation districts within the state. The aspect of their scope that is relevant to the architecture is their role in providing flood control for their regions.
New Mexico Department of Agriculture	The New Mexico Department of Agriculture has among its responsibilities, a role in livestock inspection. Systems within the inspectors' vehicles represent a potential application of ITS.
New Mexico Department of Energy Minerals and Natural Resources	The New Mexico Department of Energy Minerals and Natural Resources has responsibility for state forests and state parks, including the public safety forces that operate in them. The department is also responsible for state fish and game, which has an enforcement force.
New Mexico Department of Motor Vehicles	The department of motor vehicles that is responsible for vehicle registration and resident licensing.
New Mexico Department of Public Safety - DPS	New Mexico Department of Public Safety includes the State Police and the Motor Transport Division.
New Mexico Department of Public Safety - DPS	New Mexico Department of Public Safety includes the State Police and the Motor Transport Division.
New Mexico Department of Tourism	The New Mexico Department of Tourism provides traveler and tourist information about New Mexico.
New Mexico General Services Department	The New Mexico General Services Department has among its responsibilities the operation of the Radio Communications Bureau.
New Mexico National Guard	The National Guard for the State of New Mexico.
New Mexico Public Safety Agencies	This stakeholder represents public safety agencies throughout the state at all levels of government. It is a stakeholder group.
New Mexico Spaceport Authority	The Spaceport Authority is the governing body for Spaceport America, the world's first purpose-built commercial spaceport, located in New Mexico.
New Mexico Transit Agencies	This stakeholder group potentially includes all the transit agencies in the state.
NMDOT - New Mexico Department of Transportation	The Statewide stakeholder for the New Mexico Department of Transportation.
NOAA	National Oceanic and Atmospheric Administration (includes the National Weather Service).
North Central Regional Transit District	The North Central Regional Transit District (NCRTD) is the first regional transit district certified in New Mexico. It covers the area from Santa Fe to Espanola to Los Alamos including the pueblos in this area.
North Central Regional Transit District	The North Central Regional Transit District (NCRTD) is the first regional transit district certified in New Mexico. It covers the area from Santa Fe to Espanola to Los Alamos including the

Stakeholder	Stakeholder Description
	pueblos in this area.
Oklahoma Department of Public Safety	The Oklahoma Department of Public Safety is the state agency that operates the Oklahoma State Police and has public safety responsibilities on state highways and roads in Oklahoma.
Oklahoma DOT	Oklahoma Department of Transportation - responsible for traffic operations and maintenance and construction functions in the state of Oklahoma.
Other Counties-Statewide	Represents government agencies (e.g. the traffic and maintenance departments) at the county level. This stakeholder is used to define elements that interface from one county to another.
Other Regional Transit Districts	This stakeholder represents other regional transit districts that may be formed in the state or in adjacent states where the jurisdiction may overlap into New Mexico.
Other State Departments of Public Safety	The stakeholder represents the departments of public safety in states bordering New Mexico.
Private Commercial Carriers	Private owners of commercial vehicles that carry goods throughout the state.
Private HAZMAT Providers	Private responders to HAZMAT incidents within the state. They are secondary responders to incidents.
Private Sector Traveler Information Service Providers	Local, regional and national information service providers that provide travel information to the traveling public (both subscription service and general broadcast information). Includes internet sites, service bureaus, etc.
Private Tow/Wrecker Providers	Private companies that provide tow or wrecker services for regions in the state.
Private Weather Information Provider	Weather information providers that provide regional weather information to regional agencies.
Rail Operators	Operators of private rail systems (e.g. BNSF, Amtrak, etc.), including passenger and freight.
Regional Event Coordinators	This entity supports the information exchange/coordination with various special event activities to include the Balloon Fiesta and the State Fair. It also includes groups that promote events, such as a Chamber of Commerce or Visitor's Bureau.
Regional Medical Centers	Agencies that own hospitals and trauma centers. Includes the personnel and equipment to operate Life Flight systems.
Regional MPOs/RPOs	The regional MPOs or RPOs found in the State of New Mexico.
Regional Public Safety Authorities	Organizations responsible for PSAP (Public Safety Answering Point) and public safety dispatch on a regional basis (usually covering both county and municipalities).
South Central Regional Transit District	This stakeholder represents a regional transit district planned for the Las Cruces area.
South Central Regional Transit District	This stakeholder represents a regional transit district planned for the Las Cruces area.
Southwest Regional Transit District	This stakeholder represents a regional transit district planned for the southwest portion of the state.

Stakeholder	Stakeholder Description
Southwest Regional Transit District	This stakeholder represents a regional transit district planned for the southwest portion of the state.
Texas Department of Public Safety	The department of Texas Government responsible for the Texas Highway Patrol.
Travelers	Traveling public accessing various modes of transportation, including surface street, air, rail/transit, and non-motorized.
Tribal Governments-Statewide	Represents tribal government of the 23 Native American pueblos or nations within the state.
TxDOT	Texas Department of Transportation
U.S. Department of Defense	The Department of Defense operates bases (both army and air force) within the state.
US Army Corps of Engineers	The Corps of Engineers is responsible for investigating, developing and maintaining the nation's water and related environmental resources.
US Customs and Border Protection	This agency of the Department of Homeland Security is charged with providing security at the US border.
US Department of Agriculture	The US Department of Agriculture is responsible for National Forests within the state.
US Department of Energy	The US Department of Energy is responsible for the Waste Isolation Pilot Plant in Carlsbad.
US Department of Interior	The US Department of the Interior is responsible for National Parks, Monuments, and Forests within the state.
US Immigration and Customs Enforcement	US Immigration and Customs Enforcement is a branch of the Department of Homeland Security (DHS).

The stakeholders listed in Table 2 represent a mix of specific agencies or organizations and generic names used to represent a variety of stakeholders. Examples of specific agencies or organizations would be DPS Motor Transportation Division. An example of a generic stakeholder name would be Municipalities, which represents all of the departments or agencies (police, fire, EMS, traffic, maintenance and construction, etc.) at the municipal level.

4.3. Operational Concept

An Operational Concept documents each stakeholder's current and future roles and responsibilities in the operation of the regional or statewide ITS system. The operational concept documents these roles and responsibilities across a range of transportation services. The services covered by the New Mexico Statewide ITS Architecture are:

- Traffic Signal Control: the development of signaling systems that react to changing traffic conditions and provide coordinated intersection timing over a corridor, an area, or multiple jurisdictions.
- Highway Management: the development of systems to monitor freeway (or tollway) traffic flow and roadway conditions, and provide strategies such as ramp metering or lane access control to improve the flow of traffic on the freeway. Includes systems to provide information to travelers on the roadway.

- Incident Management: the development of systems to provide rapid and effective response to incidents. Includes systems to detect and verify incidents, along with coordinated agency response to the incidents.
- Transit Management: the development of systems to more efficiently manage fleets of transit vehicles or transit rail. Includes systems to provide transit traveler information both pre-trip and during the trip as well as electronic fare payment systems used on transit vehicles.
- Traveler Information: the development of systems to provide static and real time transportation information to travelers.
- Emergency Management: the development of systems to provide emergency call taking, public safety dispatch, and emergency operations center operations.
- Maintenance and Construction Management: the development of systems to manage the maintenance of roadways in the region, including winter snow and ice clearance. Includes the managing of construction operations.
- Archive Data Management: the development of systems to collect transportation data for use in non-operational purposes (e.g. planning and research).
- Electronic Payment: the development of systems for performing electronic toll collection (this concept is covered in various other transportation service).
- Commercial Vehicle Operations: the development of systems to administer permits, check credentials and safety information, and enforce commercial vehicle regulations throughout the state so as to make it safer to operate a private or commercial vehicle on the state roadways.

Table 3 identifies the roles and responsibilities of key stakeholders for the specified range of transportation services.

Table 3. Stakeholder Roles and Responsibilities

Transportation Service	Stakeholder	Roles/ Responsibilities
Traffic Signal Control	City of Roswell	Operate network monitoring equipment (CCTV Cameras, field sensors, etc.) on designated City, County, and State owned streets (generally within the city limits).
		Operate traffic signal systems on designated City, County, and State owned streets (generally within the city limits), including traffic signals, sensor systems (CCTV), and right of way requests.
		Provide traffic information reports to regional information service providers, private information service providers, and the NMDOT Advanced Traveler Information System.

Transportation Service	Stakeholder	Roles/ Responsibilities
		Provide traffic information to regional agencies including transit, emergency management, maintenance and construction, and the media. Provide traffic information to travelers through City's DMS.
		Coordinate traffic information and control with other municipal and county TOCs, the Regional TOC, and the Statewide TMC.
		Coordinate HRI signal adjustments with private Rail Operators and NMDOT.
		Provide security monitoring of critical infrastructure within the City.
		Provide transit signal priority for regional fixed route transit vehicles.
		Provide emergency signal preemption for the City's Fire and EMS vehicles (also for County's Fire and EMS)
	Municipalities	Operate network monitoring equipment (CCTV Cameras, field sensors, etc.) on designated municipal, County, and State owned streets (generally within the municipal limits).
		Operate traffic signal systems on municipality owned streets, including traffic signals, sensor systems, and right of way requests.
		Provide traffic information reports to regional information service providers, private information service providers, and the New Mexico Advanced Traveler Information System.
		Provide traffic information to regional agencies including transit, emergency management, maintenance and construction, and the media. Provide traffic information to travelers through municipal DMS.
		Coordinate traffic information and control with other municipal and county TOCs, the Regional TOC, and the Statewide TMC.
		Coordinate HRI signal adjustments with private Rail Operators and NMDOT.
		Provide security monitoring of critical infrastructure for the municipality.
		Provide emergency signal preemption for the municipality's Fire and EMS vehicles.
	County Departments	Operate network monitoring equipment (CCTV Cameras, field sensors, etc.) on designated County or State owned streets.
		Operate traffic signal systems on county owned streets, including traffic signals, sensor systems, and right of way

Transportation Service	Stakeholder	Roles/ Responsibilities
		requests.
		Provide traffic information reports to regional information service providers, private information service providers, and the New Mexico Advanced Traveler Information System.
		Provide traffic information to regional agencies including transit, emergency management, maintenance and construction, and the media. Provide traffic information to travelers through County DMS.
		Coordinate traffic information and control with other municipal and county TOCs, the Regional TOC, and the Statewide TMC.
		Coordinate HRI signal adjustments with private Rail Operators.
		Provide emergency signal preemption for the County Fire and EMS vehicles.
	NMDOT - New Mexico Department of Transportation	Operate network surveillance equipment (CCTV Cameras, field sensors, etc.) on State owned arterials.
		Operate traffic signal systems on State owned roadways, including traffic signals, sensor systems, and right of way requests.
		Provide traffic information reports to regional information service providers, private information service providers, and the New Mexico Advanced Traveler Information System.
		Provide traffic information to regional agencies including transit, emergency management, maintenance and construction, and the media. Provide traffic information to travelers through State owned DMS.
		Coordinate traffic information and control with municipal and county TOCs and with other NMDOT TOCs/TMC. Also coordinate traffic information with adjacent state TOCs and TMCs.
		Coordinate HRI signal adjustments with private Rail Operators and NMDOT.
		Operate reversible lane signals and controls on NMDOT arterials, highways, and bridges.
		Operate roadway closure devices in NMDOT arterials and highways and alert emergency management agencies, maintenance and construction agencies, and public and private information service providers of the road closure.
		Provide security monitoring of critical infrastructure for the State.

Transportation Service	Stakeholder	Roles/ Responsibilities
	Tribal Governments	Operate network monitoring equipment (CCTV Cameras, field sensors, etc.) on designated tribal, City, County, and State owned streets (generally within the tribal limits).
		Operate traffic signal systems on designated tribal owned streets (generally within the tribal limits), including traffic signals, sensor systems (CCTV), and right of way requests.
		Provide traffic information reports to private information service providers, the tribal websites, and the New Mexico Advanced Traveler Information System.
		Provide traffic information to regional agencies including transit, emergency management, maintenance and construction, and the media. Provide traffic information to travelers through tribal's DMS.
		Coordinate traffic information and control with municipal TOCs, county TOCs, the Regional TOCs, and the Statewide TMC.
		Coordinate HRI signal adjustments with private Rail Operators and NMDOT.
		Provide emergency signal preemption for the City's Fire and EMS vehicles (and in the future other adjoining jurisdictions public safety vehicles).
Highway Management	NMDOT - New Mexico Department of Transportation	Operate network surveillance equipment (CCTV Cameras, field sensors, etc.) on State owned highways.
		Operate ramp metering devices and lane control equipment on State owned highways.
		Provide traffic information reports to regional information service providers, private information service providers, and the New Mexico Advanced Traveler Information System.
		Provide traffic information to regional transportation agencies and the general public through traffic information devices (DMS, Highway Advisory Radio, HCRS, NMDOT Advances Public Information System, etc.).
		Coordinate rail schedules and adjustments for high speed rail intersections with private rail operators and NMDOT/MRCOG.
		Operate reversible lane signals and controls on NMDOT arterials, highways, and bridges.
		Operate roadway closure devices in NMDOT arterials and highways and alert emergency management agencies, maintenance and construction agencies, and public and private information service providers of the road closure.
		Provide security monitoring of critical infrastructure for the State.
		Coordinate traffic information and traffic control with other

Transportation Service	Stakeholder	Roles/ Responsibilities
		regional TMCs.
		Coordinate traffic information other State's regional TMCs or Statewide TMC.
Incident Management (Traffic)	City of Roswell	Perform network monitoring for detection and verification of incidents on City owned streets.
		Provide incident information to the City's emergency responders through the Regional Emergency Communications Center and directly to the City's emergency responders.
		Coordinate maintenance resources for incident response with the City's Maintenance Department.
	Municipalities	Perform network monitoring for detection and verification of incidents on municipality owned streets.
		Provide incident information to the municipality's emergency responders, including the Regional Emergency Communications Center and the Municipality's Police and Fire Departments.
		Coordinate maintenance resources for incident response with the Municipality's Public Works Department.
	County Departments	Perform network monitoring for detection and verification of incidents on County owned streets.
		Provide incident information to the County's emergency responders through the Regional Emergency Communications Center and directly to other regional emergency responders.
		Coordinate maintenance resources for incident response with the County's Public Works Department.
	NMDOT - New Mexico Department of Transportation	Perform network monitoring for detection and verification of incidents on State owned highways and arterials.
		Provide incident information to travelers via traffic information devices on highways (e.g. DMS, NMDOT Advanced Traveler Information Service, etc).
		Provide incident information to the City's emergency responders through the Regional Emergency Communications Center and directly to regional emergency responders, including the State Police, County Sheriff, County Fire and EMS, and City Police, Fire and EMS.
		Coordinate maintenance resources for incident response with the State's Maintenance and Construction Division.
Incident Management (Emergency)	New Mexico Department of Public Safety - DPS	Dispatch State Police vehicles for incidents on the Region's highways.
		Coordinate incident response with other public safety agencies (police, fire, EMS, sheriff, etc.) as well as with

Transportation Service	Stakeholder	Roles/ Responsibilities
		NMDOT and other DPS units.
		Perform incident detection and verification for the highways within the region, and provide this information to traffic and other public safety agencies (including state and local agencies).
		Coordinate maintenance resources in response to incidents on state highways with regional maintenance providers.
		Coordinate an incident response with regional rail operations for incidents involving rail.
	New Mexico Motor Transport Division	Dispatch State Police vehicles for commercial vehicle incidents on the Region's highways.
		Coordinate incident response with other public safety agencies (police, fire, EMS, sheriff, etc.) as well as with NMDOT and other DPS units.
		Perform incident detection and verification for the highways within the region, and provide this information to traffic and other public safety agencies (including state and local agencies).
		Coordinate maintenance resources in response to incidents on state highways with regional maintenance providers.
		Coordinate an incident response with regional rail operations for incidents involving rail.
	City of Roswell	Receive emergency calls for incidents within the City.
		Coordinate public safety resources for incident response with the City's TOC.
		Coordinate incident response with all City public safety agencies (police, fire and EMS).
		Dispatch the City's police vehicles (and track their location), fire vehicles and EMS vehicles as well as coordinate with all other public safety agencies within the region.
		Perform incident detection and verification for the streets within the City, and provide this information to the City's TOC.
		Coordinate an incident response with regional rail operations for incidents involving rail.
		Coordinate maintenance resources in response to incident with the City.
		Coordinate with ambulance services in response to incidents within the City.
	Municipalities	Receive emergency calls for incidents within the municipalities.

Transportation Service	Stakeholder	Roles/ Responsibilities
		Coordinate public safety resources for incident response with the municipality's TOC.
		Dispatch the municipality's police, fire and EMS vehicles and coordinate with the other public safety agencies within the region for incidents.
		Perform incident detection and verification for the streets within the municipalities, and provide this information to the municipality TOCs.
		Coordinate an incident response with regional rail operations for incidents involving rail.
		Coordinate with ambulance services in response to incidents within the City.
		Coordinate maintenance resources in response to incident with the municipality.
	County Public Safety	Receive emergency calls for incidents within the county.
		Dispatch the County's sheriff vehicles (and track their location) and fire and EMS vehicles as well as coordinate with all other public safety agencies within the region.
		Perform incident detection and verification for the streets within the county, and provide this information to the regional TOCs.
		Coordinate an incident response with regional rail operations for incidents involving rail.
		Coordinate maintenance resources in response to incident with the County.
	Bureau of Indian Affairs	Receive emergency calls for incidents within the BIA/Tribal grounds.
		Dispatch the BIA/Tribal public safety vehicles (and track their location) as well as coordinate with all other public safety agencies within the region.
		Perform incident detection and verification for the streets within the Tribal boundaries, and provide this information to the Tribal TOC or regional TOCs.
		Coordinate an incident response with regional rail operations for incidents involving rail.
		Coordinate maintenance resources in response to incident with the BIA/Tribal maintenance operations or the County.
	Tribal Governments	Receive emergency calls for incidents within the Tribal grounds.
		Dispatch the tribal public safety vehicles (and track their location) as well as coordinate with all other public safety agencies within the region.

Transportation Service	Stakeholder	Roles/ Responsibilities
		Perform incident detection and verification for the streets within the Tribal boundaries, and provide this information to the Tribal TOC or regional TOCs.
		Coordinate an incident response with regional rail operations for incidents involving rail.
		Coordinate maintenance resources in response to incident with the Tribal maintenance operations or the County.
	NMDOT - New Mexico Department of Transportation	Dispatch the NMDOT's courtesy patrol vehicles.
		Perform incident detection and verification on state highways, and provide this information to the regional TOCs.
		Coordinate incident response with the state police and regional public safety providers.
Transit Management	City of Roswell	Track vehicle location and evaluate schedule performance on all agency fixed route transit vehicles, light rail vehicles, and paratransit vehicles.
		Provide transit schedule and fare information to the agency's transit website, the City's website, the New Mexico Advanced Traveler Information System, regional traveler information providers, and private sector traveler information service providers.
		Provide fixed route bus service for the City and outlying areas (on agreement).
		Provide transit passenger electronic fare payment on all agency fixed route transit vehicles.
		Provide transit security on all agency transit vehicles and at transit transfer centers through silent alarms, sensors, and monitoring systems.
		Provide automated transit maintenance scheduling through automated vehicle condition reports on all agency fixed route transit vehicles.
		Obtain traffic signal priority for all fixed route transit vehicles from the city's within the agency's service area through the city's field equipment.
		Coordinate transit service with other regional transit providers, as well as regional intermodal terminals and regional airports.
		Provide transit traveler information to the agency website, private sector traveler information services, and the New Mexico Advanced Traveler Information System, as well as making it available on all transit information kiosks, regional kiosks, and at regional transportation centers.

Transportation Service	Stakeholder	Roles/ Responsibilities
		Coordinate emergency plans with Municipal, County, and Statewide EOCs and provide emergency transit services for evacuations, fires, and disasters (including re-entry).
	Local Transit Agencies	Track vehicle location and evaluate schedule performance on all agency transit vehicles.
		Provide transit schedule and fare information to the agency's website, municipal websites, the New Mexico Advanced Traveler Information System, and private sector traveler information service providers.
		Provide fixed route bus service for the agency defined service area.
		Provide demand response (paratransit) bus service for the agency defined service area, with the ability to provide a demand response transit plan from the agency's transit IVR system and website.
		Provide transit passenger electronic fare payment on all transit vehicles.
		Provide transit security on all agency transit vehicles through silent alarms and monitoring systems.
		Provide automated transit maintenance scheduling through automated vehicle condition reports on all agency transit vehicles.
		Coordinate transit service with other regional transit providers, as well as regional intermodal terminals and regional airports.
		Provide transit traveler information to the agency website, private sector traveler information services, and the New Mexico Advanced Traveler Information System, as well as making it available on all transit information kiosks, regional kiosks, and at regional transportation centers.
		Coordinate emergency plans with Municipal, County, and Statewide EOCs and provide emergency transit services for evacuations, fires, and disasters (including re-entry).
	NMDOT - New Mexico Department of Transportation	Track vehicle location and evaluate schedule performance on all park and ride shuttle buses and rail runner transit vehicles.
		Provide transit schedule and fare information to the district websites, the New Mexico Advanced Traveler Information System, the NMDOT district PIOs, the NMDOT Traveler Information website, and private sector traveler information service providers.
		Provide fixed route shuttle bus service for the agency defined service area.
		Provide fixed route rail service for the outlying area to the City of Albuquerque.

Transportation Service	Stakeholder	Roles/ Responsibilities
		Provide transit passenger electronic fare payment on all rail runner transit rail vehicles.
		Provide transit security on all agency transit vehicles and at regional transportation centers through silent alarms, sensors, and monitoring systems.
		Provide automated transit maintenance scheduling through automated vehicle condition reports on all agency shuttles and rail vehicles.
		Coordinate transit service with other regional transit providers, as well as regional intermodal terminals and regional airports.
		Provide transit traveler information to the agency website, private sector traveler information services, and the New Mexico Advanced Traveler Information System, as well as making it available on all transit information kiosks.
		Coordinate emergency plans with Municipal, County, and Statewide EOCs and provide emergency transit services for evacuations, fires, and disasters (including re-entry).
	Independent School Districts	Track vehicle location and evaluate schedule performance on all school district buses.
		Provide school bus schedule and route information to the school district website and municipal websites.
		Provide fixed route school bus service for the cities, municipalities, and counties within the Region.
		Provide transit security on all transit vehicles through silent alarms and monitoring systems.
		Provide automated transit maintenance scheduling through automated vehicle conditions reports on all Independent School District buses.
		Coordinate emergency plans with Municipal, County, and Statewide EOCs and provide emergency transit services for evacuations, fires, and disasters (including re-entry).
	Mid Region Transit District	Track vehicle location and evaluate schedule performance on all regional transit vehicles.
		Provide transit schedule and fare information to the agency's transit website, the New Mexico Advanced Traveler Information System, and private sector traveler information service providers.
		Provide demand response (paratransit) bus service for the agency defined service area, with the ability to provide a demand response transit plan from the agency's transit website.

Transportation Service	Stakeholder	Roles/ Responsibilities
		Provide transit passenger electronic fare payment on all agency transit vehicles.
		Provide transit security on all agency transit vehicles through silent alarms and monitoring systems.
		Provide automated transit maintenance scheduling through automated vehicle conditions reports on all RTD transit vehicles.
		Coordinate transit service with other regional transit providers, as well as regional intermodal terminals and regional airports.
		Provide transit traveler information to the agency website, private sector traveler information services, and the New Mexico Advanced Traveler Information System, as well as making it available on all transit information kiosks, regional kiosks, and at regional transportation centers.
		Coordinate emergency plans with Municipal, County, and Statewide EOCs and provide emergency transit services for evacuations, fires, and disasters (including re-entry).
	North Central Regional Transit District	Track vehicle location and evaluate schedule performance on all regional transit vehicles.
		Provide transit schedule and fare information to the agency's transit website, the New Mexico Advanced Traveler Information System, and private sector traveler information service providers.
		Provide fixed route bus service for the agency defined service area.
		Provide demand response (paratransit) bus service for the agency defined service area, with the ability to provide a demand response transit plan from the agency's transit website.
		Provide transit passenger electronic fare payment on all agency transit vehicles.
		Provide transit security on all agency transit vehicles and at regional transportation centers through silent alarms, sensors, and monitoring systems.
		Provide automated transit maintenance scheduling through automated vehicle conditions reports on all RTD transit vehicles.
		Coordinate transit service with other regional transit providers, as well as regional intermodal terminals and regional airports.

Transportation Service	Stakeholder	Roles/ Responsibilities
		Provide transit traveler information to the agency website, private sector traveler information services, and the New Mexico Advanced Traveler Information System, as well as making it available on all transit information kiosks, regional kiosks, and at regional transportation centers.
		Coordinate emergency plans with Municipal, County, and Statewide EOCs and provide emergency transit services for evacuations, fires, and disasters (including re-entry).
	South Central Regional Transit District	Track vehicle location and evaluate schedule performance on all regional transit vehicles.
		Provide transit schedule and fare information to the agency's transit website, the New Mexico Advanced Traveler Information System, and private sector traveler information service providers.
		Provide fixed route bus service for the agency defined service area.
		Provide demand response (paratransit) bus service for the agency defined service area, with the ability to provide a demand response transit plan from the agency's transit website.
		Provide transit passenger electronic fare payment on all agency transit vehicles.
		Provide transit security on all agency transit vehicles and at regional transportation centers through silent alarms, sensors, and monitoring systems.
		Provide automated transit maintenance scheduling through automated vehicle conditions reports on all RTD transit vehicles.
		Coordinate transit service with other regional transit providers, as well as regional intermodal terminals and regional airports.
		Provide transit traveler information to the agency website, private sector traveler information services, and the New Mexico Advanced Traveler Information System, as well as making it available on all transit information kiosks, regional kiosks, and at regional transportation centers.
		Coordinate emergency plans with Municipal, County, and Statewide EOCs and provide emergency transit services for evacuations, fires, and disasters (including re-entry).
	Southwest Regional Transit District	Track vehicle location and evaluate schedule performance on all regional transit vehicles.
		Provide transit schedule and fare information to the agency's transit website, the New Mexico Advanced Traveler Information System, and private sector traveler information

Transportation Service	Stakeholder	Roles/ Responsibilities
		service providers.
		Provide demand response (paratransit) bus service for the agency defined service area, with the ability to provide a demand response transit plan from the agency's transit website.
		Provide transit passenger electronic fare payment on all agency transit vehicles.
		Provide transit security on all agency transit vehicles and at regional transportation centers through silent alarms, sensors, and monitoring systems.
		Provide automated transit maintenance scheduling through automated vehicle conditions reports on all RTD transit vehicles.
		Coordinate transit service with other regional transit providers, as well as regional intermodal terminals and regional airports.
		Provide transit traveler information to the agency website, private sector traveler information services, and the New Mexico Advanced Traveler Information System, as well as making it available on all transit information kiosks, regional kiosks, and at regional transportation centers.
		Provide interactive traveler information to private travelers, vehicles, and regional agencies consisting of traffic information, transit information, etc.
		Coordinate emergency plans with Municipal, County, and Statewide EOCs and provide emergency transit services for evacuations, fires, and disasters (including re-entry).
Traveler Information	NMDOT - New Mexico Department of Transportation	Operate the NMDOT Advanced Traveler Information System.
		Operate the NMDOT District Public Information Offices.
		Operate the NMDOT Statewide Public Information Office.
		Collect traffic, maintenance and construction information, emergency and transit schedule and fare information from regional providers.
		Collect traffic, maintenance and construction information, and emergency information from statewide providers.
		Collect transit information from regional transit providers.
		Provide traffic, maintenance and construction, road network conditions and transit information to the media, private travelers, and various traveler information services (including the agency website, regional kiosks, etc.).
		Provide broadcast information to travelers.

Transportation Service	Stakeholder	Roles/ Responsibilities
		Coordinate and share traveler information with all other traveler information providers within the region.
		Provide traveler information to private travelers (in vehicle, personal computing device, or kiosk) upon request.
		Provide traveler information to the media.
	Private Traveler Information Service Providers	Collect traffic, incident, transit schedule, road maintenance and weather information and provide it to the media and private travelers.
		Coordinate and share traveler information with all other traveler information providers within the region.
	City of Roswell	Collect traffic, maintenance and construction information, emergency and transit schedule and fare information from regional providers.
		Provide traffic, maintenance and construction, emergency and transit information to the media, private travelers, and various traveler information services (including the agency website).
	Municipalities	Collect traffic, maintenance and construction information, emergency and transit schedule and fare information from regional providers.
		Provide traffic, maintenance and construction, emergency and transit information to the media, private travelers, and various traveler information services (including the agency website).
	Counties Government	Collect traffic, maintenance and construction information, emergency and transit schedule and fare information from regional providers.
		Provide traffic, maintenance and construction, emergency and transit information to the media, private travelers, and various traveler information services (including the agency website).
	New Mexico Department of Tourism	Collect traffic, maintenance and construction information, and transit schedule and fare information from regional and statewide providers.
		Provide traffic, maintenance and construction and transit information to the media, private travelers, and various traveler information services (including the agency website) through the agency website.
		Coordinate with regional and statewide information service providers.
Emergency Management	New Mexico Department of Public Safety - DPS	Dispatch State Police vehicles (and track their location) as well as coordinate with all other public safety agencies within the Region.

Transportation Service	Stakeholder	Roles/ Responsibilities
		Participates in the incident response, coordination, and reporting of the Statewide Communications Network in a coordination effort only (no dispatch function).
		Coordinate with regional hospitals for care facility status.
		Receive local signal preemption from the municipalities within the Region.
		Receive and respond to threat information from the state agency, City or municipality TOC regarding critical infrastructure.
		Generate Amber Alerts and distribute them to regional emergency management agencies, transit agencies, traffic agencies, and the media.
		Generate and coordinate wide area alerts and distribute them to regional emergency management agencies, transit agencies, traffic agencies, regional information service providers, and the media.
		Plan and coordinate region wide emergency plans, evacuation and reentry plans, and disaster management plans dealing with HAZMAT incidents.
		Provide regional traffic, transit, emergency management, and maintenance operations with disaster information to disseminate to the traveling public.
		Aid in the coordination of region wide emergency plans, evacuation and reentry plans, and disaster management plans.
		Receive early warning information and threat information from the statewide EOC and/or the department of homeland security.
		Operate the New Mexico Statewide EOC.
	Regional Public Safety Authorities	Participates in the incident response, coordination, and reporting of the Statewide Communications Network in a coordination effort only (no dispatch function).
		Coordinate with regional hospitals for care facility status.
		Dispatch the county, municipal, and city public safety vehicles (and track their location) as well as coordinate with all other public safety agencies within the Region.
		Receive and respond to (i.e. dispatch) threat information from the regional, municipal and county TOC regarding critical infrastructure.
		Receive Amber Alert and other Wide Area Alert information from state police.
		Receive Wide Area Alert information from the Statewide EOC and the Regional EOCs.

Transportation Service	Stakeholder	Roles/ Responsibilities
		Receive early warning information and threat information from the statewide EOC and/or the department of homeland security.
		Responding to transit emergencies/alarms on-board transit vehicles or at regional transit facilities.
		Aid in the coordination of region wide emergency plans, evacuation and reentry plans, and disaster management plans.
		Provide evacuation, incident, and transportation system status information to regional public information systems.
	City of Roswell	Participates in the incident response, coordination, and reporting of the Statewide Communications Network in a coordination effort only (no dispatch function).
		Dispatch the City's police, fire and EMS vehicles (and track their location) and coordinate with all other public safety agencies and communications centers within the Region.
		Perform incident detection and verification for streets within the City of Roswell.
		Coordinate with regional hospitals for care facility status as well as patient care and status.
		Receive local signal preemption from the City of Roswell.
		Receive and respond to threat information from the City's TOC regarding critical infrastructure.
		Receive Amber Alert and other Wide Area Alert information from state police.
		Receive Wide Area Alert information from the Statewide EOC and the Regional EOCs.
		Receive early warning information and threat information from the statewide EOC and/or the department of homeland security.
		Responding to transit emergencies/alarms on-board transit vehicles or at regional transit facilities.
		Aid in the coordination of region wide emergency plans, evacuation and reentry plans, and disaster management plans.
		Provide evacuation, incident, and transportation system status information to regional public information systems.
	Municipalities	Participates in the incident response, coordination, and reporting of the Statewide Communications Network in a coordination effort only (no dispatch function).

Transportation Service	Stakeholder	Roles/ Responsibilities
		Dispatch the municipality's police, fire and EMS vehicles (and track their location) and coordinate with all other public safety agencies and communications centers within the Region.
		Perform incident detection and verification for streets within each municipality within the Region.
		Coordinate with regional hospitals for care facility status as well as patient care and status.
		Receive local signal preemption from the municipalities within the Region.
		Receive Amber Alert and other Wide Area Alert information from state police.
		Receive Wide Area Alert information from the Statewide EOC and the Regional EOCs.
		Operate the Municipal EOCs.
		Receive early warning information and threat information from the statewide EOC and/or the department of homeland security.
		Responding to transit emergencies/alarms on-board transit vehicles or at regional transit facilities.
		Aid in the coordination of region wide emergency plans, evacuation and reentry plans, and disaster management plans.
		Provide evacuation, incident, and transportation system status information to regional public information systems.
	County Public Safety	Participates in the incident response, coordination, and reporting of the Statewide Communications Network in a coordination effort only (no dispatch function).
		Dispatch the County's public safety vehicles (and track their location) as well as coordinate with all other public safety agencies within the Region.
		Coordinate with regional hospitals for patient care and status.
		Receive local signal preemption from County signals.
		Perform incident detection and verification for streets within the counties of the Region.
		Receive Amber Alert and other Wide Area Alert information from state police.
		Receive Wide Area Alert information from the Statewide EOC and the Regional EOCs.
		Operate the joint City and County EOC.
		Receive early warning information and threat information from the statewide EOC and/or the department of homeland

Transportation Service	Stakeholder	Roles/ Responsibilities
		security.
		Aid in the coordination of region wide emergency plans, evacuation and reentry plans, and disaster management plans.
		Provide evacuation, incident, and transportation system status information to regional public information systems.
	NMDOT - New Mexico Department of Transportation	Participates in the incident response, coordination, and reporting of the Statewide Communications Network in a coordination effort only (no dispatch function).
		Dispatch the NMDOT District HELP Courtesy Patrol vehicles (and track their location) and coordinate with all other public safety agencies and communications centers within the Region.
		Dispatch the NMDOT Motor Transport Division response vehicles (and track their location).
		Detect HAZMAT spills of leaks at monitoring stations. Report threat information to regional emergency management agencies, traffic agencies, and maintenance agencies.
		Provide local signal preemption to County public safety vehicles.
		Receive Amber Alert and other Wide Area Alert information from state police and post alert information on NMDOT DMS/VMS.
		Aid in the coordination of region wide emergency plans, evacuation and reentry plans, and disaster management plans.
		Provide evacuation, incident, and transportation system status information to regional public information systems, the media, and on the NMDOT website.
	New Mexico General Services Department	Participates in the incident response, coordination, and reporting of the Statewide Communications Network in a coordination effort only (no dispatch function).
		Operate the New Mexico State Radio Communications Bureau (RCB)
		Dispatch the forest service and other public department vehicles (and track their location) and coordinate with all other public safety agencies and communications centers within the Region.
		Receive Amber Alert and other Wide Area Alert information from state police.
		Receive Wide Area Alert information the Statewide EOC.
		Receive early warning information and threat information from the statewide EOC and/or the department of homeland

Transportation Service	Stakeholder	Roles/ Responsibilities
		security.
		Aid in the coordination of region wide emergency plans, evacuation and reentry plans, and disaster management plans.
	New Mexico National Guard	Participates in the incident response, coordination, and reporting of the Statewide Communications Network in a coordination effort only (no dispatch function).
		Dispatch the New Mexico National Guard vehicles (and track their location) and coordinate with all other public safety agencies and communications centers within the Region.
		Receive Amber Alert and other Wide Area Alert information from state police.
		Receive Wide Area Alert information the Statewide EOC.
		Receive early warning information and threat information from the statewide EOC and/or the department of homeland security.
		Aid in the coordination of region wide emergency plans, evacuation and reentry plans, and disaster management plans.
	Bureau of Indian Affairs	Participates in the incident response, coordination, and reporting of the Statewide Communications Network in a coordination effort only (no dispatch function).
		Dispatch the private ambulances and other EMS vehicles (and track their location) and coordinate with all other public safety agencies and communications centers within the Region.
		Receive Amber Alert and other Wide Area Alert information from state police.
		Coordinate with regional hospitals for patient care and status.
		Perform incident detection and verification for streets within the BIA boundaries.
		Aid in the coordination of region wide emergency plans, evacuation and reentry plans, and disaster management plans.
	Tribal Governments	Participates in the incident response, coordination, and reporting of the Statewide Communications Network in a coordination effort only (no dispatch function).
		Dispatch the private ambulances and other EMS vehicles (and track their location) and coordinate with all other public safety agencies and communications centers within the Region.
		Receive Amber Alert and other Wide Area Alert information from state police.

Transportation Service	Stakeholder	Roles/ Responsibilities
		Coordinate with regional hospitals for patient care and status.
		Perform incident detection and verification for streets within the Tribal boundaries.
		Aid in the coordination of region wide emergency plans, evacuation and reentry plans, and disaster management plans.
	Contract Transport Providers (Ambulance Services)	Participates in the incident response, coordination, and reporting of the Regional Communications Network in a coordination effort only (no dispatch function).
		Dispatch the private ambulances and other EMS vehicles (and track their location) and coordinate with all other public safety agencies and communications centers within the Region.
		Coordinates with regional medical centers regarding the status of the care facility as well as the patient status en route to the medical center.
		Receive Amber Alert and other Wide Area Alert information from state police.
		Receive Wide Area Alert information the Statewide EOC and all other regional and municipal EOCs.
		Receive early warning information and threat information from the statewide EOC and/or the department of homeland security.
Maintenance and Construction Management	City of Roswell	Receive a request for maintenance resources for incident response from regional emergency management agencies.
		Coordinate maintenance resources for incidents with other regional maintenance providers.
		Receive vehicle location information from agency maintenance and construction vehicles.
		Receive vehicle maintenance conditions from agency maintenance and construction vehicles and coordinate fleet maintenance with agency equipment repair facility/garage.
		Provide winter road maintenance for all City streets and provide roadway maintenance status information to regional public safety agencies, regional transit agencies, and the agency's traffic center.
		Provide maintenance of streets within the city, including pavement maintenance and all construction activities.
		Provide maintenance status to regional transit agencies, City public safety agencies, and to travelers (through ISPs).
		Dispatch City maintenance vehicles.
		Provide maintenance to all field equipment owned and

Transportation Service	Stakeholder	Roles/ Responsibilities
		operated by the City.
		Manage work zones on all City maintenance and construction activities, as well as monitors work zone safety with agency field devices and vehicles.
		Coordinates maintenance and construction activities with other regional maintenance and construction agencies.
		Distributes maintenance and construction plans and work zone information to regional information service providers, regional traffic operations, emergency operations, rail operations, and the media.
	Municipalities	Receive a request for maintenance resources for incident response from regional emergency management agencies.
		Coordinate maintenance resources for incidents with other regional maintenance providers.
		Receive vehicle location information from agency maintenance and construction vehicles.
		Receive vehicle maintenance conditions from agency maintenance and construction vehicles and coordinate fleet maintenance with agency equipment repair facility/garage.
		Collect road weather information with agency field equipment and distribute it to regional traffic, maintenance and transit agencies as well as the national weather service and the media.
		Provide road weather information to regional emergency management providers, regional traffic agencies, regional transit agencies, and regional public information services.
		Provide winter road maintenance for all municipal streets and provide roadway maintenance status information to regional public safety agencies, regional transit agencies, and the agency's traffic center.
		Provide maintenance of streets within the municipalities, including pavement maintenance and all construction activities.
		Provide maintenance status to regional transit agencies, municipal public safety agencies, and to travelers (through ISPs).
		Dispatch municipal maintenance vehicles.
		Provide maintenance to all field equipment owned and operated by the municipalities.
		Manage work zones on municipal streets.
		Coordinates maintenance and construction activities with other regional maintenance and construction agencies.

Transportation Service	Stakeholder	Roles/ Responsibilities
		Distributes maintenance and construction plans and work zone information to regional information service providers, regional traffic operations, emergency operations, rail operations, and the media.
	County Departments	Receive a request for maintenance resources for incident response from regional emergency management agencies.
		Coordinate maintenance resources for incidents with other regional maintenance providers.
		Receive vehicle location information from agency maintenance and construction vehicles.
		Receive vehicle maintenance conditions from agency maintenance and construction vehicles and coordinate fleet maintenance with agency equipment repair facility/garage.
		Collect road weather information with agency field equipment and distribute it to regional traffic, maintenance and transit agencies as well as the national weather service and the media.
		Provide road weather information to regional emergency management providers, regional traffic agencies, regional transit agencies, and regional public information services.
		Provide winter road maintenance for all County roads and provide roadway maintenance status information to regional public safety agencies, regional transit agencies, and the agency's traffic center.
		Provide maintenance of streets within the counties, including pavement maintenance and all construction activities.
		Provide maintenance status to regional transit agencies, municipal public safety agencies, and to travelers (through ISPs).
		Dispatch County maintenance vehicles.
		Provide maintenance to all field equipment owned and operated by the Counties.
		Manage work zones on all County maintenance and construction activities, as well as monitors work zone safety with agency field devices and vehicles.
		Coordinates maintenance and construction activities with other regional maintenance and construction agencies.
		Distributes maintenance and construction plans and work zone information to regional information service providers, regional traffic operations, emergency operations, rail operations, and the media.

Transportation Service	Stakeholder	Roles/ Responsibilities
	Bureau of Indian Affairs	Receive a request for maintenance resources for incident response from BIA/Tribal public safety agencies, and other regional public safety agencies.
		Coordinate maintenance resources for incidents with other regional maintenance providers.
		Receive vehicle location information from BIA/Tribal maintenance and construction vehicles.
		Receive vehicle maintenance conditions from BIA/Tribal maintenance and construction vehicles and coordinate fleet maintenance with agency equipment repair facility/garage.
		Provide winter road maintenance for all BIA/Tribal roads and provide roadway maintenance status information to Tribal public safety agencies, regional transit agencies, and the Tribal Transportation Operations Center.
		Provide maintenance of streets within the BIA/Tribal boundaries, including pavement maintenance and all construction activities.
		Provide maintenance status to regional transit agencies, BIA/Tribal public safety agencies, and to travelers (through ISPs).
		Dispatch BIA/Tribal maintenance vehicles.
		Provide maintenance to all field equipment owned and operated by the BIA/Tribal government.
		Manage work zones on all Tribal maintenance and construction activities, as well as monitors work zone safety with agency field devices and vehicles.
		Coordinates maintenance and construction activities with other regional maintenance and construction agencies.
		Distributes maintenance and construction plans and work zone information to regional information service providers, regional traffic operations, emergency operations, rail operations, and the media.
	Tribal Governments	Receive a request for maintenance resources for incident response from Tribal public safety agencies, and other regional public safety agencies.
		Coordinate maintenance resources for incidents with other regional maintenance providers.
		Receive vehicle location information from Tribal maintenance and construction vehicles.
		Receive vehicle maintenance conditions from Tribal maintenance and construction vehicles and coordinate fleet maintenance with agency equipment repair facility/garage.

Transportation Service	Stakeholder	Roles/ Responsibilities
		Provide winter road maintenance for all Tribal roads and provide roadway maintenance status information to Tribal public safety agencies, regional transit agencies, and the Tribal Transportation Operations Center.
		Provide maintenance of streets within the Tribal boundaries, including pavement maintenance and all construction activities.
		Provide maintenance status to regional transit agencies, Tribal public safety agencies, and to travelers (through ISPs).
		Dispatch Tribal maintenance vehicles.
		Provide maintenance to all field equipment owned and operated by the Tribal government.
		Manage work zones on all Tribal maintenance and construction activities, as well as monitors work zone safety with agency field devices and vehicles.
		Coordinates maintenance and construction activities with other regional maintenance and construction agencies.
		Distributes maintenance and construction plans and work zone information to regional information service providers, regional traffic operations, emergency operations, rail operations, and the media.
	NMDOT - New Mexico Department of Transportation	Receive a request for maintenance resources for incident response from regional emergency management agencies.
		Coordinate maintenance resources for incidents with other regional maintenance providers.
		Receive vehicle location information from agency maintenance and construction vehicles.
		Receive vehicle maintenance conditions from agency maintenance and construction vehicles and coordinate fleet maintenance with agency equipment repair facility/garage.
		Collect road weather information with agency field equipment and distribute it to regional traffic, maintenance and transit agencies as well as the national weather service and the media.
		Provide road weather information to regional emergency management providers, regional traffic agencies, regional transit agencies, and regional public information services.
		Provide automated roadway treatment on agency owned roads or bridges.
		Provide winter road maintenance for all agency arterials and highways and provide roadway maintenance status information to regional public safety agencies, regional transit agencies, and the agency's traffic centers.

Transportation Service	Stakeholder	Roles/ Responsibilities
		Provide maintenance of state highways within the region, including pavement maintenance and all construction activities.
		Provide maintenance status to regional transit agencies, regional emergency management agencies, and to travelers (through ISPs).
		Dispatch agency maintenance vehicles.
		Provide maintenance to all field equipment owned and operated by the agency.
		Manage work zones on all agency maintenance and construction activities, as well as monitors work zone safety with agency field devices and vehicles.
		Coordinates maintenance and construction activities with other regional maintenance and construction agencies.
		Distributes maintenance and construction plans and work zone information to regional information service providers, regional traffic operations, emergency operations, rail operations, and the media.
Archive Data Management	NMDOT - New Mexico Department of Transportation	Collect and archive roadside date (weather data and traffic sensor data) and traffic information to TIMS (formerly the CHDB).
		Collect and archive emergency safety and crash information from regional and statewide emergency management providers.
		Coordinate with other statewide archives (e.g. DMV).
		Collect and archive pavement information (thickness, conditions, etc.) from agency field sensors and other regional, statewide or tribal sensors.
		Coordinate with other NMDOT archives.
		Collect and archive transit information about transit services within each region and across the state.
		Coordinate with other regional traffic and MPO/RPO databases.
		Function as a data warehouse as well as coordinate with other regional travel information and traffic safety databases, transit databases, emergency databases, etc. so as to allow one access point for all archive databases.
		Collect and archive traffic safety and emergency information.
		Collect and archive maintenance and construction information and asset information from the agency's maintenance garage, regional maintenance offices and regional and statewide TOCs/TMC. (SITE Manager and

Transportation Service	Stakeholder	Roles/ Responsibilities
		HMMS)
	Tribal Governments	Collect and send archive information (about traffic, emergency information, etc.) to other regional archive systems and make it available to its users.
		Coordinate with other regional, statewide and MPO/RPO archive systems.
	Regional MPOs/RPOs	Collect and archive travel information from regional traffic management providers and emergency management providers for planning purposes.
		Collect and archive travel and traffic information from the MPO/RPO's owned field equipment, as well as from NMDOT equipment.
Commercial Vehicle Operations	Private HAZMAT Providers	Provide second responders to guide HAZMAT containment and clean-up.
		Provide first response to commercial vehicle incidents and coordinate with DEM and CST for HAZMAT conditions/clean-up.
	US Customs and Border Protection	Provides expedited border clearances through interfaces with NM CVIEW and NM SAFER.
		Provide private fleet management systems the ability to register with the USCBP for expedited border clearance.
		Collect and verify manifest data of private fleet systems with customs broker systems, private fleet systems, and border inspection systems.
		Provide for administrative systems at border crossings to catalog and generate border inspection results and clearance notifications.
	DPS Motor Transport Division (MTD)	Provide electronic clearance at weight stations and provide weight inspections for private fleet systems and their commercial vehicles.
		Operate the New Mexico CVIEW system, which coordinates with regional and national databases as well as the local DMV (for electronic clearance) and ExSTARS, the accident reporting system, national databases, and roadside inspection systems to process and issue online credentials applications.
		Provide any and all information to the US Customs and Border Protection as requested.
		Provide mobile and fixed point weigh-in-motion for private fleet systems and their commercial vehicles, and provide daily feedback on activities and violations at inspection sites.

Transportation Service	Stakeholder	Roles/ Responsibilities
		Provide for mobile or stationary roadside safety inspections on all roads in NM. Coordinate with other regional databases and the MTD Division Office for additional information and reporting.
		Send daily site activity information to the New Mexico CVIEW System and SAFER.
		Provides an electronic (web based) credentials interface for purchasing and processing of commercial vehicle credentials applications.
		Provide enforcement of regional permits for OS/OW or HAZMAT, safety inspections, and for credential violations.
		Provide E-citations to violators within the state.
		Provide an interface with CDLIS, SAFER, Query Central, IFTA and other regional and national databases.
		Provide first response to commercial vehicle incidents and coordinate with DEM and CST for HAZMAT conditions/clean-up.
	US Department of Energy	Provide emergency notification and HAZMAT information directly to regional emergency management providers and to regional traffic management providers. Provide an emergency plan and route information to the regional traffic operations centers.
	Private Commercial Carriers	Provide emergency notification and HAZMAT information to regional emergency management providers through a concierge service provider.
		Provide HAZMAT information to regional emergency management providers.
	Rail Operators	Provide emergency notification and HAZMAT information to regional emergency management providers through a concierge service provider.
		Provide HAZMAT information to regional emergency management providers.

5. Systems Inventory

Each stakeholder agency, company, or group owns, operates, maintains or plans ITS systems in the region. The New Mexico Statewide ITS Architecture inventory is a list of "elements" that represent all existing and planned ITS systems in a region as well as non-ITS systems that provide information to or get information from the ITS systems. The focus of the inventory is on those systems that support, or may support, interfaces that cross stakeholder boundaries (e.g. inter-agency interfaces, public/private interfaces).

The vast majority of the inventory represents ITS systems within the state of New Mexico, but the inventory does contain some elements that represent systems in adjoining states. An example of an element in an adjoining state would be the ADOT Statewide TMC, which represents an existing statewide traffic management center in Arizona. The significance of having the "ADOT Statewide TMC" in the statewide ITS architecture is because it would interface with the "NMDOT Statewide TMC" located in Albuquerque, New Mexico.

Each element in the inventory is described by a name, the associated stakeholder, a description, general status (e.g. existing or planned), and the associated subsystems or terminators from the National ITS Architecture that the elements is mapped to for modeling purposes.

5.1. Systems by Stakeholder

Table 4 sorts the inventory by stakeholder so that each stakeholder can easily identify all the relevant elements that are defined in the architecture. For each element in the inventory, the table provides an element description and an indication of whether the element exists or is planned.

The majority of elements in the inventory represent a specific existing or planned system. Some examples of specific systems are the "NMDOT Statewide TMC" and "NMDOT Statewide Public Information Office."

Some of the elements represent sets of devices, rather than a single specific system or device. An example of this type of element is the element "NMDOT CCTV". This element represents all of the CCTV that are or will be operated by NMDOT. The element describes the type of field device, not the specific number of devices.

A third type of element in the inventory is a "generic" element that represents all of the systems of a certain type in the region. An example of this type of element is "Municipal Public Safety Dispatch" which represents the police, fire, and EMS emergency dispatch functions at the municipal level. These generic elements have been created for two primary reasons. First, they represent elements with similar types of interfaces. So, from a standardization standpoint, describing how one of the major elements in the region (e.g. the NMDOT Statewide TMC) interfaces with various public safety dispatch functions would be the same. Second, describing many systems with a single element helps keep the architecture from growing too large.

Table 4. Inventory Sorted by Stakeholder

Stakeholder	Element	Element Description	Status
American Association of Motor Vehicle Administrators	IRP Clearinghouse	This is a registration reciprocity agreement among jurisdictions in the United States and Canada which provides for payment of license fees on the basis of fleet miles operated in various jurisdictions	Existing
Archive Data Users	Archive Data Users	Any user of archive data products from any archive management system. This may include individual users, computer applications, or modeling systems utilizing the archived data.	Existing
Arizona Department of Public Safety	Arizona Highway Patrol Dispatch	The department of public safety that responds to incidents and accidents within Arizona. Also responsible for coordinating incidents and accidents with Utah and California.	Existing
Arizona DOT	ADOT Maintenance Sections	The maintenance sections in Arizona that might coordinate maintenance activities with NMDOT, the municipalities, or the counties.	Existing
Arizona DOT	ADOT Regional TOCs	Regional Traffic Management Centers owned and operated by Arizona DOT.	Planned
Arizona DOT	ADOT Statewide TMC	The statewide TMC for Arizona - located in Phoenix.	Existing
Bureau of Indian Affairs	BIA Equipment Repair Facility	The equipment repair facility for the BIA. Handles the maintenance of BIA vehicles, which perform maintenance and construction on the smaller pueblos within the State.	Existing
Bureau of Indian Affairs	BIA Maintenance and Construction Vehicles	Vehicles that are owned and operated by the BIA that perform maintenance and construction activities for the smaller pueblos throughout the State. Include construction vehicles, snow plows, etc.	Existing
Bureau of Indian Affairs	BIA Regional Website	The website for the Southwestern Region of the Bureau of Indian Affairs. Contains traffic information as well as scheduled maintenance and construction activities for the smaller pueblos in the Region.	Planned
Bureau of Indian Affairs	BIA Roads	The regional maintenance and construction dispatch function for BIA. This agency is responsible for all roads (maintenance and construction , plowing, etc.) on all Tribal land.	Existing
Bureau of Indian Affairs	BIA/Tribal Public Safety Dispatch	The Bureau of Indian Affairs public safety (police, fire and EMS) dispatches. This is handles mostly at a tribal level with little or no	Planned

Stakeholder	Element	Element Description	Status
		BIA involvement.	
Bureau of Indian Affairs	BIA/Tribal Public Safety Vehicles	Public safety vehicles (police, fire and EMS) owned and operated by the BIA that respond to incidents on the smaller pueblos throughout the State. This is handles mostly on a tribal level (not a lot of BIA involvement).	Existing
City of Albuquerque	Albuquerque International Airport	The international airport that serves the Albuquerque area.	Existing
City of Albuquerque	City of Albuquerque Public Works Dispatch	The maintenance and construction division for the City of Albuquerque. Operates as the dispatch function for the City of Albuquerque public works (maintenance, construction, snow plows, etc.) vehicles.	Existing
City of Albuquerque	City of Albuquerque Traffic Operations Center	The traffic management center located in the City of Albuquerque that controls the traffic signal systems and other field equipment owned by the City of Albuquerque.	Planned
City of Farmington	City of Farmington Maintenance Dispatch	The public works dispatch that handles maintenance and construction activities for the City of Farmington.	Existing
City of Farmington	City of Farmington Traffic Operations Center	The traffic operations center for the City of Farmington.	Existing
City of Las Cruces	City of Las Cruces Maintenance Dispatch	The public works dispatch that handles maintenance and construction activities for the City of Las Cruces.	Existing
City of Las Cruces	City of Las Cruces Traffic Operations Center	The traffic management center located in the City of Las Cruces that controls the traffic signal systems and other field equipment owned by the City of Las Cruces.	Existing
City of Roswell	City of Roswell Equipment Repair Facility	The equipment repair facility for the City of Roswell. Handles both maintenance of city vehicles and maintenance of city ITS field equipment.	Existing
City of Roswell	City of Roswell Fire/EMS Vehicles	Fire and EMS vehicles owned and operated by the City of Roswell. Includes all ITS equipment installed in the vehicles (MDTs, AVL, etc.).	Existing
City of Roswell	City of Roswell Fixed Route Transit Dispatch	The dispatch function for the City of Roswell fixed route transit operations. May include CAD systems in the future.	Existing
City of Roswell	City of Roswell Fixed Route Transit Vehicles	Fixed route transit vehicles owned and operated by the City of Roswell. In the future may have CAD systems, fare management systems, etc.	Existing
City of Roswell	City of Roswell ITS Field	ITS Field Equipment owned and operated by the City of Roswell	Planned

Stakeholder	Element	Element Description	Status
	Equipment	that is not specifically called out by this architecture.	
City of Roswell	City of Roswell Police Vehicles	Police vehicles owned and operated by the City of Roswell's police department. Includes ITS applications installed on the police vehicles, including AVL, MDTs, cameras, etc.	Existing
City of Roswell	City of Roswell Public Information System	The office provides the official interface between the City of Roswell's traffic and public works departments and interests outside the departments such as the media.	Existing
City of Roswell	City of Roswell Public Safety Dispatch	The public safety dispatch (Fire and EMS) for the City of Roswell.	Existing
City of Roswell	City of Roswell Public Works Dispatch	The public works dispatch that handles maintenance and construction activities for the City of Roswell.	Existing
City of Roswell	City of Roswell Public Works Vehicles	The public works (maintenance and construction) vehicles for the City of Roswell. Includes the ITS applications that are installed on the vehicles.	Existing
City of Roswell	City of Roswell Storage Facility	The storage facility utilized by the City of Roswell. Stores additional maintenance equipment, road treatment chemicals, etc.	Existing
City of Roswell	City of Roswell Traffic Operations Center	The traffic operations center for the City of Roswell.	Planned
City of Roswell	City of Roswell Transit Kiosks	Kiosks located throughout the City of Roswell (at transit centers, etc) that dispense regional fare cards to transit users.	Planned
City of Roswell	City of Roswell Website	The website for the City of Roswell. Contains traffic information, maintenance and construction information, and weather information for the City of Roswell.	Existing
City of Santa Fe	City of Santa Fe Maintenance Dispatch	The department within the City of Santa Fe that is responsible for maintenance and construction operations.	Existing
City of Santa Fe	City of Santa Fe Traffic Operations Center	The traffic operations division for the City of Santa Fe. The system includes closed loop signal controls and CCTV.	Planned
Colorado Department of Public Safety	Colorado State Police Dispatch	The department of public safety that responds to incidents and accidents within Colorado. Also responsible for coordinating incidents and accidents within the states of Utah, New Mexico, and others.	Existing
Colorado DOT	CDOT Maintenance Sections	The maintenance section of the Colorado Department of Transportation that coordinates maintenance, construction, and clearing activities with NMDOT.	Existing
Colorado DOT	CDOT Regional TOCs	Regional traffic operations centers owned and operated by the	Planned

Stakeholder	Element	Element Description	Status
		Colorado Department of Transportation. Intended for connections with municipal and county TOCs.	
Colorado DOT	CDOT Statewide TMC	The statewide traffic management center for the Colorado Department of Transportation.	Existing
Contract Transport Companies	Private Ambulance Provider Dispatch-Statewide	This covers the private ambulance dispatch systems that operate throughout the state.	Existing
Contract Transport Companies	Private Ambulance Provider Vehicles	The private vehicles owned and operated by private ambulance providers.	Existing
County Emergency Management Agencies	Regional Emergency Operations Center (EOC)	The County or municipal emergency operations centers (EOC) throughout the state of New Mexico.	Existing
County Government	County Equipment Repair Facility	Equipment Repair Facilities operated at the county level.	Existing
County Government	County ITS Field Equipment	Represents ITS field equipment (e.g. CCTV, traffic signal)	Existing
County Government	County Public Information System	The office provides the official interface between County traffic and public works departments and interests outside the departments such as the media.	Existing
County Government	County Public Works Dispatch	The maintenance and construction division for a County. Operates as the dispatch function for the County's maintenance and construction vehicles as well as snow plows.	Existing
County Government	County Public Works Vehicles	Maintenance and construction vehicles owned and operated by County (includes snow plows). May include AVL and MDTs onboard vehicles.	Existing
County Government	County Storage Facility	The storage facility utilized by the counties in the State. Stores additional maintenance equipment, road treatment chemicals, etc.	Planned
County Government	County Traffic Operations Center	The traffic operations center located for a County that controls the traffic signal systems and other field equipment owned by the County.	Existing
County Government	County Website	The website for the counties across New Mexico. Contains traffic information, maintenance and construction information, and weather information for the counties.	Existing
County Public Safety	County Fire/EMS Vehicles	Fire and EMS vehicles owned and operated by county agencies. Onboard ITS systems may include mobile data terminals (MDTs), AVL, cameras, etc.	Existing
County Public Safety	County Sheriffs Vehicles	Sheriff vehicles owned and operated by a County Sheriff's Department. Onboard ITS systems may include mobile data	Existing

Stakeholder	Element	Element Description	Status
		terminals (MDTs), AVL, cameras, etc.	
Customs Brokers	Customs Broker Systems	This element represents the electronic systems used by customs brokers to perform their function of clearing importer or exporter goods through the customs process.	Existing
DPS Motor Transportation Division (MTD)	Accident Reporting System	A clearinghouse for commercial vehicle crashes used for reporting to Safetynet. Also used to rate commercial vehicle drivers and carrier safety reports (used to judge if there needs to be a commercial vehicle roadside inspection).	Existing
DPS Motor Transportation Division (MTD)	DPS Motor Transport Division Office	The dispatch function for the commercial vehicle response and enforcement division of the MTD.	Existing
DPS Motor Transportation Division (MTD)	E-Citation Process	The electronic process of sending out citations and fines for credentialing, roadside safety violations, WIM violations, etc.	Planned
DPS Motor Transportation Division (MTD)	Electronic Bypass Stations	Represents the pre-pass system for electronic bypass of commercial vehicles. Also includes the domestic port of entry stations that are equipped with Prepass.	Existing
DPS Motor Transportation Division (MTD)	Excise Summary Terminal Activity Reporting System (ExSTARS)	A fuel tracking system developed with the cooperation of the IRS, DOT, States and Motor Fuel Industry which details the movement of any liquid product into or out of an IRS approved terminal.	Existing
DPS Motor Transportation Division (MTD)	Mobile Weigh Stations	Includes both weigh in motion and safety inspections for the DPS.	Planned
DPS Motor Transportation Division (MTD)	New Mexico CVIEW System	Commercial Vehicle Information Exchange Window. Collects snapshots for interstate and intrastate carriers, vehicles, and drivers. Interfaces with SAFER for interstate snapshot exchange. Also distributed snapshots to other states. NM PRISM also included in this system.	Existing
DPS Motor Transportation Division (MTD)	NM CVO Electronic Permitting System	The automated Electronic Permitting System that contains OS/OW permitting for the state of New Mexico.	Existing
DPS Motor Transportation Division (MTD)	NM Motor Transport Division (MTD) District Offices	The MTD district offices which dispatch commercial vehicle enforcement personnel.	Existing
DPS Motor Transportation Division (MTD)	NM Motor Transport Division Response Vehicles	The MTD agency response vehicles that handle commercial vehicle incidents, enforcements, etc.	Existing
DPS Motor Transportation Division (MTD)	NM MTD Fixed Weigh Stations	Fixed point weigh stations owned and operated by the New Mexico Motor Transportation Division.	Existing
DPS Motor Transportation Division (MTD)	NM TRD CVO Credentials Interface	The electronic interface (usually a web based client) that provides electronic purchasing and credentials processing, electronic	Existing

Stakeholder	Element	Element Description	Status
		purchasing and permit processing (including permit renewal) and automated mileage and fuel reporting, and auditing functions. This is a single state permit for IRP and HAZMAT.	
DPS Motor Transportation Division (MTD)	Roadside Safety Inspection System	A laptop based system to conduct roadside safety inspections.	Existing
DPS Motor Transportation Division (MTD)	Safetynet	Distributed system for managing safety data on both interstate and intrastate motor carriers for federal and state offices to electronically exchange data on interstate carriers with MCMIS (Motor Carrier Management Information System).	Existing
Drayage Companies	Drayage Companies	This element represents the dispatch function for drayage companies operating primarily at the US-Mexico border.	Existing
Financial Institution	Financial Institution	Represents the financial institutions the regional transit agencies will use as part of electronic fare payment systems.	Existing
FMCSA	Query Central	A DPS system that is able to access Past Inspection Queries (PIQ), ISS, CDLIS, SAFER, etc. through the web using a sign in name.	Existing
FMCSA	Safety and Fitness Electronic Record (SAFER)	SAFER provides carrier, vehicle, and driver safety and credential information to fixed and mobile roadside inspection stations. This information will allow the roadside inspector to select vehicles and/or drivers for inspection based on the number of prior carrier inspections, as well as carrier, vehicle, and driver safety and credential historical information.	Existing
FHWA	FHWA New Mexico Division	Represents the division office of the FHWA in New Mexico.	Existing
IFTA	IFTA Clearinghouse	This is a national clearinghouse designed to allocate fuel taxes between multiple states for motor carrier activities across jurisdictional lines, in accordance with the International Fuel Tax Agreement.	Planned
Independent School Districts	Independent School District Buses	The buses owned and operated by the various independent school districts.	Existing
Independent School Districts	Independent School District Dispatch	Dispatch function for each of the Independent School Districts. Includes radio communication with school buses.	Existing
Local Media	Local Print and Broadcast Media	Includes the local newspapers and the local TV and radio stations	Existing
Local Transit Agencies-Statewide	Local Transit Dispatch	The dispatch function for local transit agencies are not specifically called out in the Architecture. May have an automated dispatch or CAD system in the future.	Existing

Stakeholder	Element	Element Description	Status
Local Transit Agencies-Statewide	Local Transit IVR System and Website	The local transit system that allows for reservations to be made for all demand response transit vehicles.	Planned
Local Transit Agencies-Statewide	Local Transit Vehicles	Fixed route and demand response transit vehicles owned and operated by local transit agencies. May have AVL, MDTs, or other ITS applications installed on transit vehicles (currently and in the future).	Existing
Los Alamos National Laboratory	Los Alamos National Lab Operations	Los Alamos National Labs has an emergency management operations group that would be important from a statewide transportation standpoint during any emergencies that originate from the Lab.	Existing
Mexican Governmental Agencies	Mexico Customs and Border Patrol	This element represents the border patrol agency in Chihuahua, Mexico, who also handles customs when entering into Mexico	Existing
Mexican Governmental Agencies	Mexico Public Safety	This element represents the public safety providers (police, fire and EMS) in Chihuahua, Mexico and the surrounding Mexican States.	Existing
Mexican Governmental Agencies	Mexico Regional Maintenance Section	This element represents the maintenance function in Chihuahua, Mexico that would coordinate with both New Mexico (District 1 and 2) and Texas.	Existing
Mexican Governmental Agencies	Mexico Regional TMC	This element represents the regional traffic management center located in Chihuahua, Mexico that would coordinate traffic information or operations with New Mexico and Texas.	Existing
Mid-Region Regional Transit District	Mid-Region RTD Operations Center	This represents paratransit operations centers for those agencies in the Mid-Region Regional Transit District. While the RTD is just being formed, many of the transit operations are existing.	Existing
Mid-Region Regional Transit District	Mid-Region RTD Transit Vehicles	Demand response transit vehicles owned and operated by the Mid-Region RTD and serving rural areas in Central New Mexico. Includes ITS applications installed on RTD Transit Vehicles (MDT, AVL, security cameras, etc.).	Existing
Mid-Region Regional Transit District	Mid-Region RTD Transit Website	The website for the Mid-Region RTD. May be used for schedule and fare information, road network conditions, and even to request a demand response transit plan, while online.	Existing
Municipal Public Safety	Municipal Fire and EMS Vehicles	Fire and EMS vehicles owned and operated by local fire districts that are not explicitly called out in the architecture.	Existing
Municipal Public Safety	Municipal Police Vehicles	Police vehicles that are owned and operated by the municipal police departments that are not explicitly called out in the architecture.	Existing

Stakeholder	Element	Element Description	Status
Municipal Public Safety	Municipal Public Safety Dispatch	Represents local or municipal public safety dispatch systems (for fire/EMS districts and municipal police) that are not explicitly represented in the architecture inventory. Also includes PSAPs (public safety answering points) operated by municipalities. In the future these may be regional in nature.	Existing
Municipalities-Statewide	Municipal Equipment Repair Facility	Equipment Repair Facilities operated at the municipal level. Handles maintenance and construction vehicles and equipment.	Existing
Municipalities-Statewide	Municipal ITS Field Equipment	Represents ITS roadway devices that are owned and operated by municipalities. These devices include loop detectors, DMSs, pre-emption devices, flood detection devices and CCTV cameras.	Planned
Municipalities-Statewide	Municipal Public Information System	The office and systems for municipalities that provide the official interface between municipal traffic and maintenance departments and interests outside the departments (e.g. the media).	Existing
Municipalities-Statewide	Municipal Public Works Dispatch	The maintenance and construction division for municipalities. Operates as the dispatch function for the municipalities' maintenance and construction vehicles as well as snow plows.	Existing
Municipalities-Statewide	Municipal Public Works Vehicles	Maintenance and construction vehicles owned and operated by municipalities (includes snow plows). May include AVL and MDTs onboard vehicles.	Existing
Municipalities-Statewide	Municipal Storage Facility	The storage facility for maintenance and construction operations (e.g. gravel, dirt, extra vehicles, etc,) for the municipalities.	Planned
Municipalities-Statewide	Municipal Traffic Operations Center-Statewide	Operation of traffic signal systems by municipalities.	Planned
Municipalities-Statewide	Municipal Website	The general information website for municipalities. In the future will include real-time construction, work zone, special event, incident, and traffic information, and tourism information.	Existing
Municipalities-Statewide	Other Municipal Public Works Dispatches	This elements represents the maintenance management functions of a municipality and is used to identify the interface from one municipality's maintenance section to another's.	Existing
Municipalities-Statewide	Other Municipal TOCs	This elements represents the traffic operations functions of a municipality and is used to identify the interface from one municipalities TOC to another's.	Planned
Municipalities-Statewide	Regional Airports	Regional Airports that are owned and operated by the local municipalities where they reside.	Existing
New Mexico Conservancy	New Mexico Conservancy	Irrigation and flood control. Monitoring water levels associated with	Planned

Stakeholder	Element	Element Description	Status
Districts	Districts	floods This includes Irrigation Districts such as Elephant Butte (EBID).	
New Mexico Department of Agriculture	NM Livestock Inspection Vehicles	This element represents the potential ITS equipment that could be placed in livestock inspector's vehicles.	Existing
New Mexico Department of Energy Minerals and Natural Resources	State Emergency Vehicles	This element represents the emergency or patrol vehicles owned and operated by the State for such departments as the NM State Forestry office, the NM State Game and Fish offices, or the NM State Park offices. Vehicles include ranger vehicles, enforcement vehicles, etc...	Existing
New Mexico Department of Energy Minerals and Natural Resources	State Forestry Offices	The state forestry offices have an emergency management function in addition to their forestry management functions.	Existing
New Mexico Department of Energy Minerals and Natural Resources	State Game and Fish District Offices	The state game and fish offices dispatch enforcement personnel throughout the state.	Existing
New Mexico Department of Energy Minerals and Natural Resources	State Park Facilities	This element represents the emergency management function at state parks.	Existing
New Mexico Department of Motor Vehicles	DMV Database	A comprehensive database that stores driver's license, registration, and violation information.	Existing
New Mexico Department of Public Safety - DPS	New Mexico Statewide Emergency Operations Center (EOC)	The statewide emergency operations center located in Albuquerque.	Existing
New Mexico Department of Public Safety - DPS	NM DPS Alert Coordinator	The origination point for Amber Alerts and other wide area alerts throughout the State.	Existing
New Mexico Department of Public Safety - DPS	NM DPS District Dispatch Center	The district dispatch center for the NM DPS (State Police). May have an integrated CAD system. There are 12 districts, all of which have their own dispatch center (except D12).	Existing
New Mexico Department of Public Safety - DPS	NM DPS Mobile Command Center	This element represents the DPS mobile command center which can operate as an on-site command center during emergencies, disasters, or evacuations.	Existing
New Mexico Department of Public Safety - DPS	NM DPS Vehicles	Emergency vehicles that are owned and operated by the NM DPS (State Police). ITS applications installed on the police vehicles may include AVL, MDTs, maintenance scheduling equipment, etc.	Existing
New Mexico Department of	Other NM District DPS	This element represents the New Mexico State Police dispatch	Existing

Stakeholder	Element	Element Description	Status
Public Safety - DPS	Dispatch Centers	function and is used to identify the interface between two state police districts.	
New Mexico Department of Tourism	New Mexico Travel and Tourism Website	This website provides tourism information for the state and could provide traveler information in the future.	Existing
New Mexico General Services Department	New Mexico State Radio Communications Bureau (RCB)	State communications dispatch for DPS, Fire/ Rescue statewide, NMDOT, Forest Service, EMS, and hospitals. Also known as Santa Fe Control. Own communications infrastructure in state	Existing
New Mexico National Guard	New Mexico National Guard Command System	The National Guard Command and Deployment system for the State of New Mexico. They would assist in emergency management, particularly as it relates to disasters or evacuations.	Existing
New Mexico Public Safety Agencies	New Mexico Regional HAZMAT Teams	The statewide second responders to HAZMAT incidents for evacuation, mitigation and recovery (containment). There is a statewide office-- administrative, probably not specific teams	Existing
New Mexico Public Safety Agencies	Statewide Emergency Communications Network	Statewide public safety communications network.	Planned
New Mexico Spaceport Authority	Space Port America	Commercial launch and recovery facility located in Sierra County.	Planned
New Mexico Transit Agencies	Regional Smart Card	Smart Card used for transit, parking, and other electronic systems.	Planned
New Mexico Transit Agencies	Regional Transit Kiosks-Statewide	Kiosks located throughout the state (at visitor centers, local PIOs, etc) that dispense regional fare cards and provide transit fare and schedule information to transit users.	Planned
New Mexico Transit Agencies	Regional Transportation Centers	The transportation centers that are located throughout the state.	Planned
NMDOT - New Mexico Department of Transportation	NMDOT Advanced Traveler Information System	The office that provides the official interface between the NMDOT traffic and maintenance departments and interests outside the departments such as the media. Currently this is performed by CARS- 511, but it may change in the future.	Existing
NMDOT - New Mexico Department of Transportation	NMDOT CCTV	Closed Circuit Television Cameras (CCTV) owned and operated by NMDOT.	Existing
NMDOT - New Mexico Department of Transportation	NMDOT Consolidated Highway Database (CHDB)	An automated database that is owned and operated by NMDOT that contains traffic information for state highways. To be replaced by the TIMS system in the future.	Existing
NMDOT - New Mexico Department of Transportation	NMDOT Data Warehouse	This element represents a planned data warehouse of ITS related data.	Planned
NMDOT - New Mexico	NMDOT District 1 TOC	The traffic management center (future) for the NMDOT District 1. In	Planned

Stakeholder	Element	Element Description	Status
Department of Transportation		the future they will controls all NMDOT ITS field equipment and coordinates with all other agencies (currently handles by the NM Statewide TMC).	
NMDOT - New Mexico Department of Transportation	NMDOT District 2 TOC	The traffic operations center for NMDOT District 2. the TOC will manage traffic on freeways and state owned arterials.	Planned
NMDOT - New Mexico Department of Transportation	NMDOT District 3 TOC	The traffic management center (future) for the NMDOT Albuquerque District 3. In the future they will controls all NMDOT ITS field equipment and coordinates with all other agencies (currently handled by the NM Statewide TMC).	Existing
NMDOT - New Mexico Department of Transportation	NMDOT District 4 TOC	The traffic operations center for NMDOT District 4. the TOC will manage traffic on freeways and state owned arterials.	Planned
NMDOT - New Mexico Department of Transportation	NMDOT District 5 TOC	The traffic operations center for NMDOT District 5. the TOC will manage traffic on freeways and state owned arterials.	Planned
NMDOT - New Mexico Department of Transportation	NMDOT District 6 TOC	The traffic operations center for NMDOT District 6. the TOC will manage traffic on freeways and state owned arterials.	Planned
NMDOT - New Mexico Department of Transportation	NMDOT District HELP Courtesy Patrol Dispatch	The dispatch function for the NMDOT HELP vehicles that provide courtesy patrols on the NMDOT owned and operated roadways.	Existing
NMDOT - New Mexico Department of Transportation	NMDOT District HELP Courtesy Patrol Vehicles	Help or courtesy patrol vehicles owned and operated by the NMDOT to promote safety on the roads and to offer motorist assistance.	Existing
NMDOT - New Mexico Department of Transportation	NMDOT District Maintenance and Construction Vehicles	Maintenance and construction vehicles operated by a NMDOT district.	Existing
NMDOT - New Mexico Department of Transportation	NMDOT District Maintenance Office	This element represents the office in charge of maintenance and construction operations for each NMDOT district.	Existing
NMDOT - New Mexico Department of Transportation	NMDOT District Maintenance Units Dispatch	NMDOT maintenance sections for the for a district. Dispatches maintenance vehicles and equipment for maintaining road and ITS equipment owned by NMDOT.	Existing
NMDOT - New Mexico Department of Transportation	NMDOT District Public Information System	The office provides the official interface between the NMDOT traffic and maintenance departments and interests outside the departments such as the media.	Existing
NMDOT - New Mexico Department of Transportation	NMDOT District Weather Detection Stations	Road weather detection devices that gather real time weather information including smoke, fog, ice, snow, dust, wind speed	Planned
NMDOT - New Mexico Department of Transportation	NMDOT District Website	Transportation information website for each NMDOT district. Currently has real-time construction, work zone, special event, incident, and traffic information.	Existing

Stakeholder	Element	Element Description	Status
NMDOT - New Mexico Department of Transportation	NMDOT DMS	Dynamic message signs owned and operated by NMDOT.	Existing
NMDOT - New Mexico Department of Transportation	NMDOT Equipment Repair Facility	The maintenance shop for all roadside equipment owned and operated by NMDOT. Also provides maintenance to NMDOT vehicles. Each district will have one or more facilities.	Existing
NMDOT - New Mexico Department of Transportation	NMDOT Field Sensors	Traffic and vehicle sensors owned and operated by NMDOT. Includes vehicle detection systems (video, microwave, acoustic, etc) and traffic counting systems.	Existing
NMDOT - New Mexico Department of Transportation	NMDOT Highway Advisory Radio System (HAR)	Highway Advisory Radio owned and operated by NMDOT. Provides traffic and incident information to the traveling public.	Existing
NMDOT - New Mexico Department of Transportation	NMDOT Highway Maintenance Management System (HMMS)	The maintenance archive management system for NMDOT. Specifically, this system aids NMDOT in determining appropriate maintenance activities as well as archiving various maintenance activities (for date, location, type of activity, labor, equipment used, materials used, etc.).	Existing
NMDOT - New Mexico Department of Transportation	NMDOT Lane Controls	Lane control devices owned and operated by NMDOT. These include lane control signals on bridges.	Planned
NMDOT - New Mexico Department of Transportation	NMDOT Non-Reversible Lane Controls	Non-reversible lane controls owned and operated by NMDOT.	Planned
NMDOT - New Mexico Department of Transportation	NMDOT Park and Ride Dispatch	The dispatch function for the NMDOT Park and Ride shuttles. May have a CAD system in the future.	Existing
NMDOT - New Mexico Department of Transportation	NMDOT Park and Ride Shuttle Buses	The shuttles that are owned and operated by the NMDOT Park and Ride services. In the future these shuttles may have CAD systems, security systems, etc.	Existing
NMDOT - New Mexico Department of Transportation	NMDOT Patrol Yard	Storage facility/yard owned, operated, and used by the New Mexico Department of Transportation.	Existing
NMDOT - New Mexico Department of Transportation	NMDOT Ramp Meters	This element represents ramp metering devices that are owned and operated by NMDOT.	Planned
NMDOT - New Mexico Department of Transportation	NMDOT Rest Area/Visitor Center/Truck Stop/Service Plaza Kiosks	This represents the rest areas and visitor centers with varied amenities that are existing or planned by NMDOT. Tourist information, emergency evacuation information, and general traffic information could be provided in the future.	Planned
NMDOT - New Mexico Department of Transportation	NMDOT Road Closure Gates	This element represents automated road closure gates owned and operated by NMDOT used for the remote closure of roads. Intended to be for areas where ice or snow or other adverse	Planned

Stakeholder	Element	Element Description	Status
		weather conditions exist on a frequent basis and that cause hazardous conditions for motorists (e.g. canyon roads, etc.).	
NMDOT - New Mexico Department of Transportation	NMDOT Roadway Treatment Devices	Roadway treatment devices (deicing equipment, sensors, etc.) owned and operated by NMDOT to treat roads (usually ice, snow, etc.).	Existing
NMDOT - New Mexico Department of Transportation	NMDOT RWIS	Road weather information systems that are owned and operated by NMDOT.	Planned
NMDOT - New Mexico Department of Transportation	NMDOT Security Monitoring Field Equipment	Security monitoring field equipment, including CCTV, sensors, etc., that are owned and operated by NMDOT for the purposes of protecting critical infrastructure from terrorism, vandalism, or anything of the sort.	Planned
NMDOT - New Mexico Department of Transportation	NMDOT Signal Lab	The NMDOT Signal Lab manages traffic signal systems statewide that are owned and operated by NMDOT.	Existing
NMDOT - New Mexico Department of Transportation	NMDOT SITE Manager	A construction database for NMDOT that keeps track of all construction projects (including assets allocated to the project).	Existing
NMDOT - New Mexico Department of Transportation	NMDOT Statewide Crash Information System	Statewide database of vehicle crash records. Input to system provided by elements within the architecture.	Existing
NMDOT - New Mexico Department of Transportation	NMDOT Statewide Pavement Management System	Statewide database for pavement management. Input into system provided by elements in the Region. Aids in planning for the life of pavement an funding requirements for resurfacing (based on historical evidence).	Existing
NMDOT - New Mexico Department of Transportation	NMDOT Statewide Public Information Office	The office that provides the official interface between NMDOT traffic and maintenance departments and interests outside the departments such as the media.	Existing
NMDOT - New Mexico Department of Transportation	NMDOT Statewide TMC	NMDOT Transportation Management Center located in Albuquerque. Currently controls the ITS field equipment for District 3. In the future may have the ability to control other District field equipment (but primarily serves as a backup system or operates when the District TOCs are offline - after hours).	Existing
NMDOT - New Mexico Department of Transportation	NMDOT Statewide Transit Database	The NMDOT Statewide Transit Database is a repository for transit operations data.	Planned
NMDOT - New Mexico Department of Transportation	NMDOT TIMS	The NMDOT Transportation Information Management System (TIMS) manages transportation infrastructure, inventory, attributes, and assets in a geospatial context. It is the core system used to	Existing

Stakeholder	Element	Element Description	Status
		report to FHWA. It will replace CHDB in 2008.	
NMDOT - New Mexico Department of Transportation	NMDOT Traffic Safety Division Data System	Regional database that collects traffic safety and incident information.	Existing
NMDOT - New Mexico Department of Transportation	NMDOT Traffic Signals	Traffic signal systems owned and operated by NMDOT.	Existing
NMDOT - New Mexico Department of Transportation	NMDOT Traveler Information Website	This element represents traveler information put onto the NMDOT website.	Existing
NMDOT - New Mexico Department of Transportation	NMDOT Variable Speed Limit Signs	Variable speed limit signs that are owned and operated by NMDOT on NMDOT State highways or state-owned roads.	Existing
NMDOT - New Mexico Department of Transportation	NMDOT Wayside Equipment	The wayside or rail operated equipment owned and operated by the NMDOT at highway rail intersections. Operated for Rail Runner.	Existing
NMDOT - New Mexico Department of Transportation	NMDOT Welcome Center/Tourist Info Plazas	This represents the rest areas and visitor centers with varied amenities that are existing or planned by NMDOT. Tourist information, emergency evacuation information, and general traffic information could be provided in the future.	Planned
NMDOT - New Mexico Department of Transportation	NMDOT WIM Sensors	Weigh in motion sensors owned and operated by NMDOT and the NM State Police.	Existing
NMDOT - New Mexico Department of Transportation	NMDOT Work Zone Equipment	Work zone monitoring and alerting equipment owned by NMDOT.	Planned
NMDOT - New Mexico Department of Transportation	Other NMDOT District Maintenance Dispatch	NMDOT Maintenance dispatch function in neighboring districts.	Existing
NMDOT - New Mexico Department of Transportation	Rail Runner Commuter Rail Website	This element represents the website providing Rail Runner information to the public.	Existing
NMDOT - New Mexico Department of Transportation	Rail Runner Operations	The operations function for the joint NMDOT and MRCOG commuter rail system.	Existing
NMDOT - New Mexico Department of Transportation	Rail Runner Transit Rail Vehicles	Commuter rail cars owned and operated jointly by NMDOT and MRCOG.	Existing
NOAA	National Weather Service	Service for national, regional, and local weather information.	Existing
North Central Regional Transit District	North Central RTD Operations	Fixed route and paratransit dispatch functions. North Central Regional offers specialized door thru door transportation for the disabled who qualify under the Americans with Disabilities Act of 1990. It also operates fixed routes in the city of Espanola.	Existing
North Central Regional Transit District	North Central RTD Transit Vehicles	Fixed route and demand response transit vehicles operated by the North Central Regional Transit	Existing

Stakeholder	Element	Element Description	Status
North Central Regional Transit District	North Central RTD Transit Website	Transit and Paratransit schedule and fare information. In the future, tied into AVL for real time schedules.	Planned
Oklahoma Department of Public Safety	Oklahoma State Police Dispatch	The dispatch function for the Oklahoma State Police.	Existing
Oklahoma DOT	OkDOT Maintenance Sections	The maintenance sections in Oklahoma that might coordinate maintenance activities with NMDOT, the municipalities, or the counties.	Existing
Oklahoma DOT	OkDOT Regional TOC	The regional transportation center for the western portion of the State of Oklahoma.	Planned
Oklahoma DOT	OkDOT Statewide TMC	The statewide traffic management center located in Oklahoma.	Existing
Other Counties-Statewide	Other County Public Works Dispatch	Public works department in other counties that may coordinate with public works departments within the Region for pavement maintenance, construction projects (e.g. bridges), etc.	Planned
Other Counties-Statewide	Other County TOC	Traffic operations centers in other counties that may coordinate with county traffic operations centers called out in the architecture.	Planned
Other Regional Transit Districts	Other Regional Transit Districts	Represents dispatch functions for regional transit districts that have not been identified by this architecture, or are located in other states but have an overlapping service region in New Mexico.	Planned
Other State Departments of Public Safety	Other State Public Safety Communications Centers	This element represents the connection to other States, including County (Sheriff and Fire), and Local (municipal police and fire departments) law enforcement, fire, and EMS call taker and dispatch centers. Communication between these centers uses a mesh topology - any emergency management center can communicate directly with any other emergency management center. Note that this element also represents interfaces to emergency management centers in jurisdictions adjacent to the region that also coordinate during major incidents.	Existing
Private Commercial Carriers	Commercial Vehicles	This represents ITS equipment in privately owned commercial vehicles. This classification applies to all such vehicles ranging from small panel vans used in local pick-up and delivery services to large, multi-axle tractor trailer rigs operating on long haul routes.	Existing
Private Commercial Carriers	Container Systems	Sensors and systems incorporated into an intermodal container. Containers are strengthened and stackable boxes that carry freight and allow horizontal and vertical transfers between modes (truck transport, rail, or marine vessel).	Existing

Stakeholder	Element	Element Description	Status
Private Commercial Carriers	Fleet Management Systems	Dispatch function of Commercial Vehicle Fleets	Existing
Private Commercial Carriers	Freight Shipping System	System tracking and scheduling the movement of freight from its destination - data primarily provided by the supplier or owner of commodities shipped. Includes status of bookings made and the status of the freight's movement.	Existing
Private HAZMAT Providers	Private HAZMAT Response Providers	Second responders to incidents, as determined by the first responder to an incident. Responsible for regional HAZMAT mitigation and clean-up activities.	Existing
Private Sector Traveler Information Service Providers	Private Sector Traveler Information Services	Private traveler information providers serving the region. This element could, in the future, provide support to the National Traveler Information 511 number since it collects information from a broad array of operating centers. Could also include a website.	Existing
Private Sector Traveler Information Service Providers	Travel Service Provider Systems	This represents electronic systems operated by travel service providers. The systems would be used to provide updated travel service information or to make reservations for services.	Existing
Private Tow/Wrecker Providers	Private Tow/Wrecker Dispatch	Dispatch function for privately owned tow or wrecker service. Based on a rotation list.	Existing
Private Tow/Wrecker Providers	Private Tow/Wrecker Vehicles	This element represents possible ITS equipment inside tow or wrecker vehicles.	Existing
Private Weather Information Provider	Private Weather Information Provider	Private weather services that provide regional and local weather information.	Planned
Rail Operators	Rail Operations Centers	The dispatch centers for major railroads in the region (e.g. BNSF, Amtrak, etc.).	Existing
Rail Operators	Rail Operators Wayside Equipment	The rail operated equipment at highway rail intersections. Interconnect with the region's traffic control departments.	Existing
Regional Event Coordinators	Special Event Coordinators-Statewide	Promoters and sponsors of special events. They coordinate with traffic and emergency providers.	Existing
Regional Medical Centers	Regional Air Rescue Dispatch	Represents the private air evacuation/rescue service that provides transport from remote locations to area hospitals.	Existing
Regional Medical Centers	Regional Medical Centers-Statewide	Medical centers (e.g. hospitals and trauma centers) throughout the state.	Existing
Regional MPOs/RPOs	MPO/RPO Field Sensors	Field sensors (traffic, weather, etc.) that are owned and operated by the MPOs or RPOs throughout the State.	Existing
Regional MPOs/RPOs	MPO/RPO Traffic Database	The traffic database for the MPOs/RPOs in the State. Collects traffic count information from it's own field equipment and	Existing

Stakeholder	Element	Element Description	Status
		distributes traffic count information to public.	
Regional Public Safety Authorities	Regional Emergency Communications Center	The regional communication center represents police/ fire/ems for county/ municipal emergency services.	Existing
South Central Regional Transit District	South Central RTD Operations	This represents transit operations for those systems that will be a part of the South Central RTD.	Existing
South Central Regional Transit District	South Central RTD Transit Vehicles	Demand response transit vehicles owned and operated by the South Central RTD. They serve the rural areas in South Central New Mexico.	Existing
South Central Regional Transit District	South Central RTD Website	The website for the South Central RTD. May have demand responsive transit plans and reservations ability in the future.	Planned
Southwest Regional Transit District	Southwest RTD Demand Response Transit Vehicles	Demand response transit vehicles owned and operated by the Southwest RTD. They serve the rural areas in Southwest New Mexico.	Existing
Southwest Regional Transit District	Southwest RTD Operations	This represents transit operations for those systems that will be a part of the Southwest RTD.	Existing
Southwest Regional Transit District	Southwest RTD Website	The website for the Southwest RTD. May have demand responsive transit plans and reservations ability in the future.	Planned
Texas Department of Public Safety	Texas DPS Communications Service	This element represents the Texas Highway Patrol dispatch functions. They dispatch vehicles using two-way radio communication. They are also responsible for regional evacuation.	Existing
Travelers	Border Traveler Card	Smart Card used by travelers at the border to expedite identification. The card could represent a passport or Visa with RFID.	Planned
Travelers	Private Travelers Personal Computing Devices	Includes personal and office computers, pagers, and handheld devices used by travelers to receive ITS information.	Existing
Travelers	Private Vehicles	Vehicles owned by travelers.	Existing
Travelers	User Information Device	Personal Computers, PDAs, web-enabled cell phones, etc. used by individuals to access information concerning traffic conditions, incidents, weather, routing, trip planning, and border crossing information.	Existing
Tribal Governments-Statewide	Tribal Archive Data Warehouse	This element represents any archives of data (e.g. crash records or traffic counts) performed by tribal governments.	Planned
Tribal Governments-Statewide	Tribal Equipment Repair Facility	The equipment repair facility for the Tribal Governments throughout the State. Handles the maintenance of Tribal vehicles, which perform maintenance and construction on the larger pueblos within	Existing

Stakeholder	Element	Element Description	Status
		the State.	
Tribal Governments-Statewide	Tribal ITS Field Equipment	ITS field equipment owned and operated by Tribal Governments	Planned
Tribal Governments-Statewide	Tribal Public Safety Dispatch-Statewide	The element represents police, fire, and EMS dispatch by tribal governments.	Existing
Tribal Governments-Statewide	Tribal Public Safety Vehicles	Public safety vehicles (police, fire and EMS) owned and operated by the tribal governments that respond to incidents on the larger pueblos throughout the State.	Existing
Tribal Governments-Statewide	Tribal Public Websites	This element represents public websites operated by tribal government that might provide traveler information.	Existing
Tribal Governments-Statewide	Tribal Road Maintenance	This element represents road maintenance function of tribal governments. In some cases this function is contracted to private companies.	Existing
Tribal Governments-Statewide	Tribal Road Maintenance Vehicles	Vehicles that are owned and operated by the Tribal governments that perform maintenance and construction activities for the larger pueblos throughout the State.	Existing
Tribal Governments-Statewide	Tribal Security Monitoring Field Equipment	This element is intended to represent security monitoring field equipment (cameras, etc.) that are owned and operated by Tribal governments. The images can be sent to NMDOT for security purposes.	Existing
Tribal Governments-Statewide	Tribal Storage Facility	The storage facility utilized by the large pueblos in the State. Stores additional maintenance equipment, road treatment chemicals, etc.	Planned
Tribal Governments-Statewide	Tribal Transportation Operations	The element represents the transportation operations function of Tribal governments.	Planned
TxDOT	Other TxDOT Regional TOCs	Regional Traffic Management Centers operated by TxDOT other than the Amarillo and El Paso Centers which are called out as separate elements.	Planned
TxDOT	TransVista	Traffic Management Center for El Paso region (DMS, CCTV, Lane Controls, Courtesy Patrol dispatch). Manages Freeways, in the future, will control arterials on State Routes. Pump station monitoring, low water crossings planned - DMS to indicate when the road is flooded.	Existing
TxDOT	TxDOT Amarillo TMC	This staffed operations center controls traffic signals, ATMS, ATIS and other devices on roadways and highways for TxDOT in the	Existing

Stakeholder	Element	Element Description	Status
		Amarillo Region	
TxDOT	TxDOT District Maintenance Sections	TxDOT maintenance sections for the regions bordering New Mexico. There are section offices in each county. Dispatches maintenance vehicles and equipment for maintaining road and ITS equipment owned by TxDOT..	Existing
U.S. Department of Defense	Military Installation Operations Offices	This element represents the operations offices for military installations throughout the state (e.g. Kirtland Air Force Base).	Existing
U.S. Department of Defense	White Sands Missile Range Facility	This element represents the operations (both traffic and emergency management) function at the White Sands Missile Range Facility.	Existing
US Army Corps of Engineers	Flood Control (monitoring) Dams	Flood control and monitoring systems operated by the US Army Corp of Engineers.	Existing
US Customs and Border Protection	US Border Inspection Administration Systems	Back-office systems and databases coordinating activities among the border crossings. Data collected and disseminated to other government systems and users. Includes systems that support programs such as FAST, ACE, Nexus. The Automated Commercial Environment (ACE) is the commercial trade processing system for US Customs and Border Protection, supporting import/export cargo processing and enforcement operations at the border.	Existing
US Customs and Border Protection	US Border Inspection Systems	Represents the equipment and systems used by US Customs and Border Protection to perform inspections at the border. Equipment might include electronic tag readers, identity card readers, or computer systems holding data on vehicles or travelers.	Existing
US Customs and Border Protection	US Border Patrol Stations	Border patrol stations at border crossings. Border patrol stations may have ITS capabilities such as computer aided dispatch and video monitoring.	Existing
US Department of Agriculture	US Forest Service Offices	US Forest Service Offices provide an emergency management function for the National Forests.	Existing
US Department of Energy	NEF - National Enrichment Facility	The national enrichment facility that enriches nuclear material and ships it to other locations (states, power plants, etc.).	Existing
US Department of Energy	WIPP - Waste Isolation Pilot Plant	Waste Isolation Pilot Plant in Carlsbad.	Existing
US Department of Interior	National Parks and Monuments Sites	This represents the operations function of the national park service at parks or monuments. The park service can support emergency management activities.	Existing

Stakeholder	Element	Element Description	Status
US Department of Interior	US Bureau of Land Management Offices	US Bureau of Land Management Offices provide an emergency management function for the national forests and wildlife areas within the state.	Existing
US Immigration and Customs Enforcement	US VISIT System	US-VISIT is a U.S. Department of Homeland Security program to verify the identity of incoming visitors and confirm compliance with visa and immigration policies. Allows CBP officers to match the incoming visitor's biometric identity with the biometric information stored on their Visa. This element represents the database systems that hold, and can share, the traveler information.	Existing

5.2. Systems by Architecture Entity

Each element in the New Mexico Statewide ITS Architecture inventory is mapped to one or more entities from the National ITS Architecture. In version 5.1 of the National ITS Architecture (on which this architecture is based) there are 95 entities defined. These 22 subsystems and 73 terminators describe a wide array of systems that provide ITS services, or interface with systems that provide ITS services. The mapping of statewide ITS architecture elements to National ITS Architecture entities has two primary benefits. First, it allows the full set of information flows contained in the National ITS Architecture to be used in the description of statewide ITS architecture interfaces. Secondly, it allows the elements of the statewide ITS architecture to be grouped by like entity. Table 5 provided just such a sorting of inventory elements by entity. This table allows the users of the architecture to immediately identify all the elements that have functions relating to transit management, or traffic management, or any other subsystem or terminator defined by the National ITS Architecture.

The New Mexico Statewide ITS Architecture inventory contains the following number of elements mapped to different types of entities:

- Archived Data Management: 13
- Commercial Vehicle Administration: 12
- Emergency Management: 45 (including some transit elements that are mapped to emergency management because of the transit security service described in a later section)
- Information Service Providers: 21
- Maintenance and Construction Management: 25
- Traffic Management: 13
- Transit Management: 10

Table 5. Element Inventory Sorted by Entity

Entity	Element	Stakeholder	Status
Alerting and Advisory Systems	NM DPS Alert Coordinator	New Mexico Department of Public Safety - DPS	Existing
Archived Data Management Subsystem	DMV Database	New Mexico Department of Motor Vehicles	Existing
Archived Data Management Subsystem	FHWA New Mexico Division	FHWA	Existing
Archived Data Management Subsystem	MPO/RPO Traffic Database	Regional MPOs/RPOs	Existing
Archived Data Management Subsystem	NMDOT Consolidated Highway Database (CHDB)	NMDOT - New Mexico Department of Transportation	Existing
Archived Data Management Subsystem	NMDOT Data Warehouse	NMDOT - New Mexico Department of Transportation	Planned

Entity	Element	Stakeholder	Status
Archived Data Management Subsystem	NMDOT Highway Maintenance Management System (HMMS)	NMDOT - New Mexico Department of Transportation	Existing
Archived Data Management Subsystem	NMDOT SITE Manager	NMDOT - New Mexico Department of Transportation	Existing
Archived Data Management Subsystem	NMDOT Statewide Crash Information System	NMDOT - New Mexico Department of Transportation	Existing
Archived Data Management Subsystem	NMDOT Statewide Pavement Management System	NMDOT - New Mexico Department of Transportation	Existing
Archived Data Management Subsystem	NMDOT Statewide Transit Database	NMDOT - New Mexico Department of Transportation	Planned
Archived Data Management Subsystem	NMDOT TIMS	NMDOT - New Mexico Department of Transportation	Existing
Archived Data Management Subsystem	NMDOT Traffic Safety Division Data System	NMDOT - New Mexico Department of Transportation	Existing
Archived Data Management Subsystem	Regional Emergency Operations Center (EOC)	County Emergency Management Agencies	Existing
Archived Data Management Subsystem	Tribal Archive Data Warehouse	Tribal Governments-Statewide	Planned
Archived Data User Systems	Archive Data Users	Archive Data Users	Existing
Asset Management	NMDOT TIMS	NMDOT - New Mexico Department of Transportation	Existing
Border Inspection Administration	US Border Inspection Administration Systems	US Customs and Border Protection	Existing
Border Inspection Administration	US VISIT System	US Immigration and Customs Enforcement	Existing
Border Inspection Systems	US Border Inspection Systems	US Customs and Border Protection	Existing
Care Facility	Regional Medical Centers-Statewide	Regional Medical Centers	Existing
Commercial Vehicle Administration	Accident Reporting System	DPS Motor Transportation Division (MTD)	Existing
Commercial Vehicle Administration	E-Citation Process	DPS Motor Transportation Division (MTD)	Planned
Commercial Vehicle Administration	Excise Summary Terminal Activity Reporting System (ExSTARS)	DPS Motor Transportation Division (MTD)	Existing
Commercial Vehicle Administration	IFTA Clearinghouse	IFTA	Planned
Commercial Vehicle Administration	IRP Clearinghouse	American Association of Motor Vehicle Administrators	Existing
Commercial Vehicle Administration	New Mexico CVIEW System	DPS Motor Transportation Division (MTD)	Existing
Commercial Vehicle Administration	NM CVO Electronic Permitting System	DPS Motor Transportation Division (MTD)	Existing
Commercial Vehicle Administration	NM Motor Transport Division (MTD) District Offices	DPS Motor Transportation Division (MTD)	Existing
Commercial Vehicle Administration	NM TRD CVO Credentials Interface	DPS Motor Transportation Division (MTD)	Existing

Entity	Element	Stakeholder	Status
Commercial Vehicle Administration	Query Central	FMCSA	Existing
Commercial Vehicle Administration	Safety and Fitness Electronic Record (SAFER)	FMCSA	Existing
Commercial Vehicle Administration	Safetynet	DPS Motor Transportation Division (MTD)	Existing
Commercial Vehicle Check	Electronic Bypass Stations	DPS Motor Transportation Division (MTD)	Existing
Commercial Vehicle Check	Mobile Weigh Stations	DPS Motor Transportation Division (MTD)	Planned
Commercial Vehicle Check	NM MTD Fixed Weigh Stations	DPS Motor Transportation Division (MTD)	Existing
Commercial Vehicle Check	Roadside Safety Inspection System	DPS Motor Transportation Division (MTD)	Existing
Commercial Vehicle Subsystem	Commercial Vehicles	Private Commercial Carriers	Existing
Distribution and Logistics Management Provider	Customs Broker Systems	Customs Brokers	Existing
Emergency Management	Arizona Highway Patrol Dispatch	Arizona Department of Public Safety	Existing
Emergency Management	BIA/Tribal Public Safety Dispatch	Bureau of Indian Affairs	Planned
Emergency Management	City of Roswell Fixed Route Transit Dispatch	City of Roswell	Existing
Emergency Management	City of Roswell Public Safety Dispatch	City of Roswell	Existing
Emergency Management	Colorado State Police Dispatch	Colorado Department of Public Safety	Existing
Emergency Management	Flood Control (monitoring) Dams	US Army Corps of Engineers	Existing
Emergency Management	Independent School District Dispatch	Independent School Districts	Existing
Emergency Management	Local Transit Dispatch	Local Transit Agencies-Statewide	Existing
Emergency Management	Los Alamos National Lab Operations	Los Alamos National Laboratory	Existing
Emergency Management	Mexico Customs and Border Patrol	Mexican Governmental Agencies	Existing
Emergency Management	Mexico Public Safety	Mexican Governmental Agencies	Existing
Emergency Management	Mid-Region RTD Operations Center	Mid-Region Regional Transit District	Existing
Emergency Management	Military Installation Operations Offices	U.S. Department of Defense	Existing
Emergency Management	Municipal Public Safety Dispatch	Municipal Public Safety	Existing
Emergency Management	National Parks and Monuments Sites	US Department of Interior	Existing
Emergency Management	NEF - National Enrichment Facility	US Department of Energy	Existing
Emergency Management	New Mexico Conservancy Districts	New Mexico Conservancy Districts	Planned
Emergency Management	New Mexico National	New Mexico National Guard	Existing

Entity	Element	Stakeholder	Status
	Guard Command System		
Emergency Management	New Mexico Regional HAZMAT Teams	New Mexico Public Safety Agencies	Existing
Emergency Management	New Mexico State Radio Communications Bureau (RCB)	New Mexico General Services Department	Existing
Emergency Management	New Mexico Statewide Emergency Operations Center (EOC)	New Mexico Department of Public Safety - DPS	Existing
Emergency Management	NM DPS District Dispatch Center	New Mexico Department of Public Safety - DPS	Existing
Emergency Management	NM DPS Mobile Command Center	New Mexico Department of Public Safety - DPS	Existing
Emergency Management	NM Motor Transport Division (MTD) District Offices	DPS Motor Transportation Division (MTD)	Existing
Emergency Management	NMDOT District HELP Courtesy Patrol Dispatch	NMDOT - New Mexico Department of Transportation	Existing
Emergency Management	NMDOT Park and Ride Dispatch	NMDOT - New Mexico Department of Transportation	Existing
Emergency Management	North Central RTD Operations	North Central Regional Transit District	Existing
Emergency Management	Oklahoma State Police Dispatch	Oklahoma Department of Public Safety	Existing
Emergency Management	Other NM District DPS Dispatch Centers	New Mexico Department of Public Safety - DPS	Existing
Emergency Management	Private Ambulance Provider Dispatch-Statewide	Contract Transport Companies	Existing
Emergency Management	Private HAZMAT Response Providers	Private HAZMAT Providers	Existing
Emergency Management	Private Tow/Wrecker Dispatch	Private Tow/Wrecker Providers	Existing
Emergency Management	Rail Runner Operations	NMDOT - New Mexico Department of Transportation	Existing
Emergency Management	Regional Air Rescue Dispatch	Regional Medical Centers	Existing
Emergency Management	Regional Emergency Communications Center	Regional Public Safety Authorities	Existing
Emergency Management	Regional Emergency Operations Center (EOC)	County Emergency Management Agencies	Existing
Emergency Management	South Central RTD Operations	South Central Regional Transit District	Existing
Emergency Management	Southwest RTD Operations	Southwest Regional Transit District	Existing
Emergency Management	State Forestry Offices	New Mexico Department of Energy Minerals and Natural Resources	Existing
Emergency Management	State Game and Fish District Offices	New Mexico Department of Energy Minerals and Natural Resources	Existing
Emergency Management	State Park Facilities	New Mexico Department of Energy Minerals and Natural	Existing

Entity	Element	Stakeholder	Status
		Resources	
Emergency Management	Texas DPS Communications Service	Texas Department of Public Safety	Existing
Emergency Management	Tribal Public Safety Dispatch-Statewide	Tribal Governments-Statewide	Existing
Emergency Management	US Border Patrol Stations	US Customs and Border Protection	Existing
Emergency Management	US Bureau of Land Management Offices	US Department of Interior	Existing
Emergency Management	US Forest Service Offices	US Department of Agriculture	Existing
Emergency Management	White Sands Missile Range Facility	U.S. Department of Defense	Existing
Emergency Management	WIPP - Waste Isolation Pilot Plant	US Department of Energy	Existing
Emergency Vehicle Subsystem	BIA/Tribal Public Safety Vehicles	Bureau of Indian Affairs	Existing
Emergency Vehicle Subsystem	City of Roswell Fire/EMS Vehicles	City of Roswell	Existing
Emergency Vehicle Subsystem	City of Roswell Police Vehicles	City of Roswell	Existing
Emergency Vehicle Subsystem	County Fire/EMS Vehicles	County Public Safety	Existing
Emergency Vehicle Subsystem	County Sheriffs Vehicles	County Public Safety	Existing
Emergency Vehicle Subsystem	Municipal Fire and EMS Vehicles	Municipal Public Safety	Existing
Emergency Vehicle Subsystem	Municipal Police Vehicles	Municipal Public Safety	Existing
Emergency Vehicle Subsystem	NM DPS Mobile Command Center	New Mexico Department of Public Safety - DPS	Existing
Emergency Vehicle Subsystem	NM DPS Vehicles	New Mexico Department of Public Safety - DPS	Existing
Emergency Vehicle Subsystem	NM Livestock Inspection Vehicles	New Mexico Department of Agriculture	Existing
Emergency Vehicle Subsystem	NM Motor Transport Division Response Vehicles	DPS Motor Transportation Division (MTD)	Existing
Emergency Vehicle Subsystem	NMDOT District HELP Courtesy Patrol Vehicles	NMDOT - New Mexico Department of Transportation	Existing
Emergency Vehicle Subsystem	Private Ambulance Provider Vehicles	Contract Transport Companies	Existing
Emergency Vehicle Subsystem	Private Tow/Wrecker Vehicles	Private Tow/Wrecker Providers	Existing
Emergency Vehicle Subsystem	State Emergency Vehicles	New Mexico Department of Energy Minerals and Natural Resources	Existing
Emergency Vehicle Subsystem	Tribal Public Safety Vehicles	Tribal Governments-Statewide	Existing
Enforcement Agency	DPS Motor Transport Division Office	DPS Motor Transportation Division (MTD)	Existing
Equipment Repair Facility	BIA Equipment Repair Facility	Bureau of Indian Affairs	Existing
Equipment Repair Facility	City of Roswell Equipment	City of Roswell	Existing

Entity	Element	Stakeholder	Status
	Repair Facility		
Equipment Repair Facility	County Equipment Repair Facility	County Government	Existing
Equipment Repair Facility	Municipal Equipment Repair Facility	Municipalities-Statewide	Existing
Equipment Repair Facility	NMDOT Equipment Repair Facility	NMDOT - New Mexico Department of Transportation	Existing
Equipment Repair Facility	Tribal Equipment Repair Facility	Tribal Governments-Statewide	Existing
Event Promoters	Space Port America	New Mexico Spaceport Authority	Planned
Event Promoters	Special Event Coordinators-Statewide	Regional Event Coordinators	Existing
Financial Institution	Financial Institution	Financial Institution	Existing
Fleet and Freight Management	Drayage Companies	Drayage Companies	Existing
Fleet and Freight Management	Fleet Management Systems	Private Commercial Carriers	Existing
Freight Equipment	Container Systems	Private Commercial Carriers	Existing
Information Service Provider	BIA Regional Website	Bureau of Indian Affairs	Planned
Information Service Provider	City of Roswell Public Information System	City of Roswell	Existing
Information Service Provider	City of Roswell Website	City of Roswell	Existing
Information Service Provider	County Public Information System	County Government	Existing
Information Service Provider	County Website	County Government	Existing
Information Service Provider	Local Transit IVR System and Website	Local Transit Agencies-Statewide	Planned
Information Service Provider	Mid-Region RTD Transit Website	Mid-Region Regional Transit District	Existing
Information Service Provider	Municipal Public Information System	Municipalities-Statewide	Existing
Information Service Provider	Municipal Website	Municipalities-Statewide	Existing
Information Service Provider	New Mexico Travel and Tourism Website	New Mexico Department of Tourism	Existing
Information Service Provider	NMDOT Advanced Traveler Information System	NMDOT - New Mexico Department of Transportation	Existing
Information Service Provider	NMDOT District Public Information System	NMDOT - New Mexico Department of Transportation	Existing
Information Service Provider	NMDOT District Website	NMDOT - New Mexico Department of Transportation	Existing
Information Service Provider	NMDOT Statewide Public Information Office	NMDOT - New Mexico Department of Transportation	Existing
Information Service Provider	NMDOT Traveler Information Website	NMDOT - New Mexico Department of Transportation	Existing
Information Service Provider	North Central RTD Transit Website	North Central Regional Transit District	Planned

Entity	Element	Stakeholder	Status
Information Service Provider	Private Sector Traveler Information Services	Private Sector Traveler Information Service Providers	Existing
Information Service Provider	Rail Runner Commuter Rail Website	NMDOT - New Mexico Department of Transportation	Existing
Information Service Provider	South Central RTD Website	South Central Regional Transit District	Planned
Information Service Provider	Southwest RTD Website	Southwest Regional Transit District	Planned
Information Service Provider	Tribal Public Websites	Tribal Governments-Statewide	Existing
Intermodal Freight Shipper	Freight Shipping System	Private Commercial Carriers	Existing
Maintenance and Construction Management	ADOT Maintenance Sections	Arizona DOT	Existing
Maintenance and Construction Management	BIA Roads	Bureau of Indian Affairs	Existing
Maintenance and Construction Management	CDOT Maintenance Sections	Colorado DOT	Existing
Maintenance and Construction Management	City of Roswell Public Works Dispatch	City of Roswell	Existing
Maintenance and Construction Management	County Public Works Dispatch	County Government	Existing
Maintenance and Construction Management	County Traffic Operations Center	County Government	Existing
Maintenance and Construction Management	Mexico Regional Maintenance Section	Mexican Governmental Agencies	Existing
Maintenance and Construction Management	Municipal Public Works Dispatch	Municipalities-Statewide	Existing
Maintenance and Construction Management	New Mexico State Radio Communications Bureau (RCB)	New Mexico General Services Department	Existing
Maintenance and Construction Management	NMDOT District 1 TOC	NMDOT - New Mexico Department of Transportation	Planned
Maintenance and Construction Management	NMDOT District 2 TOC	NMDOT - New Mexico Department of Transportation	Planned
Maintenance and Construction Management	NMDOT District 3 TOC	NMDOT - New Mexico Department of Transportation	Existing
Maintenance and Construction Management	NMDOT District 4 TOC	NMDOT - New Mexico Department of Transportation	Planned
Maintenance and Construction Management	NMDOT District 5 TOC	NMDOT - New Mexico Department of Transportation	Planned
Maintenance and Construction Management	NMDOT District 6 TOC	NMDOT - New Mexico Department of Transportation	Planned
Maintenance and Construction Management	NMDOT District Maintenance Office	NMDOT - New Mexico Department of Transportation	Existing
Maintenance and Construction Management	NMDOT District Maintenance Units Dispatch	NMDOT - New Mexico Department of Transportation	Existing
Maintenance and Construction Management	NMDOT Statewide TMC	NMDOT - New Mexico Department of Transportation	Existing

Entity	Element	Stakeholder	Status
Maintenance and Construction Management	OkDOT Maintenance Sections	Oklahoma DOT	Existing
Maintenance and Construction Management	Other County Public Works Dispatch	Other Counties-Statewide	Planned
Maintenance and Construction Management	Other Municipal Public Works Dispatches	Municipalities-Statewide	Existing
Maintenance and Construction Management	Other NMDOT District Maintenance Dispatch	NMDOT - New Mexico Department of Transportation	Existing
Maintenance and Construction Management	Tribal Road Maintenance	Tribal Governments-Statewide	Existing
Maintenance and Construction Management	Tribal Transportation Operations	Tribal Governments-Statewide	Planned
Maintenance and Construction Management	TxDOT District Maintenance Sections	TxDOT	Existing
Maintenance and Construction Vehicle	BIA Maintenance and Construction Vehicles	Bureau of Indian Affairs	Existing
Maintenance and Construction Vehicle	City of Roswell Public Works Vehicles	City of Roswell	Existing
Maintenance and Construction Vehicle	County Public Works Vehicles	County Government	Existing
Maintenance and Construction Vehicle	Municipal Public Works Vehicles	Municipalities-Statewide	Existing
Maintenance and Construction Vehicle	NMDOT District Maintenance and Construction Vehicles	NMDOT - New Mexico Department of Transportation	Existing
Maintenance and Construction Vehicle	Tribal Road Maintenance Vehicles	Tribal Governments-Statewide	Existing
Media	Local Print and Broadcast Media	Local Media	Existing
Multimodal Transportation Service Provider	Albuquerque International Airport	City of Albuquerque	Existing
Multimodal Transportation Service Provider	Regional Airports	Municipalities-Statewide	Existing
Multimodal Transportation Service Provider	Space Port America	New Mexico Spaceport Authority	Planned
Other Emergency Management	Other State Public Safety Communications Centers	Other State Departments of Public Safety	Existing
Other Emergency Management	Statewide Emergency Communications Network	New Mexico Public Safety Agencies	Planned
Other MCM	City of Albuquerque Public Works Dispatch	City of Albuquerque	Existing
Other MCM	City of Farmington Maintenance Dispatch	City of Farmington	Existing
Other MCM	City of Las Cruces Maintenance Dispatch	City of Las Cruces	Existing
Other MCM	City of Santa Fe Maintenance Dispatch	City of Santa Fe	Existing
Other Traffic Management	ADOT Regional TOCs	Arizona DOT	Planned
Other Traffic Management	ADOT Statewide TMC	Arizona DOT	Existing
Other Traffic Management	CDOT Regional TOCs	Colorado DOT	Planned
Other Traffic Management	CDOT Statewide TMC	Colorado DOT	Existing

Entity	Element	Stakeholder	Status
Other Traffic Management	City of Albuquerque Traffic Operations Center	City of Albuquerque	Planned
Other Traffic Management	City of Farmington Traffic Operations Center	City of Farmington	Existing
Other Traffic Management	City of Las Cruces Traffic Operations Center	City of Las Cruces	Existing
Other Traffic Management	City of Santa Fe Traffic Operations Center	City of Santa Fe	Planned
Other Traffic Management	Mexico Regional TMC	Mexican Governmental Agencies	Existing
Other Traffic Management	OkDOT Regional TOC	Oklahoma DOT	Planned
Other Traffic Management	OkDOT Statewide TMC	Oklahoma DOT	Existing
Other Traffic Management	Other County TOC	Other Counties-Statewide	Planned
Other Traffic Management	Other Municipal TOCs	Municipalities-Statewide	Planned
Other Traffic Management	Other TxDOT Regional TOCs	TxDOT	Planned
Other Traffic Management	TransVista	TxDOT	Existing
Other Traffic Management	TxDOT Amarillo TMC	TxDOT	Existing
Parking Management	NMDOT Park and Ride Dispatch	NMDOT - New Mexico Department of Transportation	Existing
Parking Management	Tribal Transportation Operations	Tribal Governments-Statewide	Planned
Personal Information Access	Private Travelers Personal Computing Devices	Travelers	Existing
Personal Information Access	User Information Device	Travelers	Existing
Rail Operations	Rail Operations Centers	Rail Operators	Existing
Remote Traveler Support	City of Roswell Transit Kiosks	City of Roswell	Planned
Remote Traveler Support	NMDOT Rest Area/Visitor Center/Truck Stop/Service Plaza Kiosks	NMDOT - New Mexico Department of Transportation	Planned
Remote Traveler Support	NMDOT Welcome Center/Tourist Info Plazas	NMDOT - New Mexico Department of Transportation	Planned
Remote Traveler Support	Regional Transit Kiosks-Statewide	New Mexico Transit Agencies	Planned
Remote Traveler Support	Regional Transportation Centers	New Mexico Transit Agencies	Planned
Roadway Subsystem	City of Roswell ITS Field Equipment	City of Roswell	Planned
Roadway Subsystem	County ITS Field Equipment	County Government	Existing
Roadway Subsystem	MPO/RPO Field Sensors	Regional MPOs/RPOs	Existing
Roadway Subsystem	Municipal ITS Field Equipment	Municipalities-Statewide	Planned
Roadway Subsystem	NMDOT CCTV	NMDOT - New Mexico Department of Transportation	Existing
Roadway Subsystem	NMDOT District Weather Detection Stations	NMDOT - New Mexico Department of Transportation	Planned
Roadway Subsystem	NMDOT DMS	NMDOT - New Mexico Department of Transportation	Existing

Entity	Element	Stakeholder	Status
Roadway Subsystem	NMDOT Field Sensors	NMDOT - New Mexico Department of Transportation	Existing
Roadway Subsystem	NMDOT Highway Advisory Radio System (HAR)	NMDOT - New Mexico Department of Transportation	Existing
Roadway Subsystem	NMDOT Lane Controls	NMDOT - New Mexico Department of Transportation	Planned
Roadway Subsystem	NMDOT Non-Reversible Lane Controls	NMDOT - New Mexico Department of Transportation	Planned
Roadway Subsystem	NMDOT Ramp Meters	NMDOT - New Mexico Department of Transportation	Planned
Roadway Subsystem	NMDOT Road Closure Gates	NMDOT - New Mexico Department of Transportation	Planned
Roadway Subsystem	NMDOT Roadway Treatment Devices	NMDOT - New Mexico Department of Transportation	Existing
Roadway Subsystem	NMDOT RWIS	NMDOT - New Mexico Department of Transportation	Planned
Roadway Subsystem	NMDOT Traffic Signals	NMDOT - New Mexico Department of Transportation	Existing
Roadway Subsystem	NMDOT Variable Speed Limit Signs	NMDOT - New Mexico Department of Transportation	Existing
Roadway Subsystem	NMDOT WIM Sensors	NMDOT - New Mexico Department of Transportation	Existing
Roadway Subsystem	NMDOT Work Zone Equipment	NMDOT - New Mexico Department of Transportation	Planned
Roadway Subsystem	Tribal ITS Field Equipment	Tribal Governments-Statewide	Planned
Security Monitoring Subsystem	NMDOT Security Monitoring Field Equipment	NMDOT - New Mexico Department of Transportation	Planned
Security Monitoring Subsystem	Tribal Security Monitoring Field Equipment	Tribal Governments-Statewide	Existing
Storage Facility	City of Roswell Storage Facility	City of Roswell	Existing
Storage Facility	County Storage Facility	County Government	Planned
Storage Facility	Municipal Storage Facility	Municipalities-Statewide	Planned
Storage Facility	NMDOT Patrol Yard	NMDOT - New Mexico Department of Transportation	Existing
Storage Facility	Tribal Storage Facility	Tribal Governments-Statewide	Planned
Traffic Management	City of Roswell Traffic Operations Center	City of Roswell	Planned
Traffic Management	County Traffic Operations Center	County Government	Existing
Traffic Management	Military Installation Operations Offices	U.S. Department of Defense	Existing
Traffic Management	Municipal Traffic Operations Center-Statewide	Municipalities-Statewide	Planned
Traffic Management	NMDOT District 1 TOC	NMDOT - New Mexico Department of Transportation	Planned

Entity	Element	Stakeholder	Status
Traffic Management	NMDOT District 2 TOC	NMDOT - New Mexico Department of Transportation	Planned
Traffic Management	NMDOT District 3 TOC	NMDOT - New Mexico Department of Transportation	Existing
Traffic Management	NMDOT District 4 TOC	NMDOT - New Mexico Department of Transportation	Planned
Traffic Management	NMDOT District 5 TOC	NMDOT - New Mexico Department of Transportation	Planned
Traffic Management	NMDOT District 6 TOC	NMDOT - New Mexico Department of Transportation	Planned
Traffic Management	NMDOT Signal Lab	NMDOT - New Mexico Department of Transportation	Existing
Traffic Management	NMDOT Statewide TMC	NMDOT - New Mexico Department of Transportation	Existing
Traffic Management	Tribal Transportation Operations	Tribal Governments-Statewide	Planned
Traffic Management	White Sands Missile Range Facility	U.S. Department of Defense	Existing
Transit Management	City of Roswell Fixed Route Transit Dispatch	City of Roswell	Existing
Transit Management	Independent School District Dispatch	Independent School Districts	Existing
Transit Management	Local Transit Dispatch	Local Transit Agencies-Statewide	Existing
Transit Management	Mid-Region RTD Operations Center	Mid-Region Regional Transit District	Existing
Transit Management	NMDOT Park and Ride Dispatch	NMDOT - New Mexico Department of Transportation	Existing
Transit Management	North Central RTD Operations	North Central Regional Transit District	Existing
Transit Management	Other Regional Transit Districts	Other Regional Transit Districts	Planned
Transit Management	Rail Runner Operations	NMDOT - New Mexico Department of Transportation	Existing
Transit Management	South Central RTD Operations	South Central Regional Transit District	Existing
Transit Management	Southwest RTD Operations	Southwest Regional Transit District	Existing
Transit Vehicle Subsystem	City of Roswell Fixed Route Transit Vehicles	City of Roswell	Existing
Transit Vehicle Subsystem	Independent School District Buses	Independent School Districts	Existing
Transit Vehicle Subsystem	Local Transit Vehicles	Local Transit Agencies-Statewide	Existing
Transit Vehicle Subsystem	Mid-Region RTD Transit Vehicles	Mid-Region Regional Transit District	Existing
Transit Vehicle Subsystem	NMDOT Park and Ride Shuttle Buses	NMDOT - New Mexico Department of Transportation	Existing
Transit Vehicle Subsystem	North Central RTD Transit Vehicles	North Central Regional Transit District	Existing

Entity	Element	Stakeholder	Status
Transit Vehicle Subsystem	Rail Runner Transit Rail Vehicles	NMDOT - New Mexico Department of Transportation	Existing
Transit Vehicle Subsystem	South Central RTD Transit Vehicles	South Central Regional Transit District	Existing
Transit Vehicle Subsystem	Southwest RTD Demand Response Transit Vehicles	Southwest Regional Transit District	Existing
Traveler Card	Border Traveler Card	Travelers	Planned
Traveler Card	Regional Smart Card	New Mexico Transit Agencies	Planned
Vehicle	Private Vehicles	Travelers	Existing
Wayside Equipment	NMDOT Wayside Equipment	NMDOT - New Mexico Department of Transportation	Existing
Wayside Equipment	Rail Operators Wayside Equipment	Rail Operators	Existing
Weather Service	National Weather Service	NOAA	Existing
Weather Service	Private Weather Information Provider	Private Weather Information Provider	Planned
Yellow Pages Service Providers	Travel Service Provider Systems	Private Sector Traveler Information Service Providers	Existing

6. Needs and Services

6.1. Needs Identification

Transportation needs identify the transportation problems that can be solved by ITS services. They also represent a link to transportation planning efforts that define the strategies used to address transportation problems. These strategies involve capital improvements as well as operational improvements. ITS solutions usually involve services that improve the efficiency, scope, or safety of operations.

An initial set of user needs was derived from the October 2000 New Mexico ITS Strategic Plan. This set of needs was presented to a variety of stakeholders during the information gathering workshop on June 21, 2006. The list of needs was discussed in order to determine the validity of the needs addressed in the 2000 Strategic Plan and to identify any additional high priority user needs to be added to the initial list. After a lengthy discussion at the information gathering meeting, a final set of high priority user needs was determined and prioritized on a statewide level. This prioritization, as listed in Table 6 below, shows an "X" where it was determined the statewide priority was for the user need. Some user need prioritizations show specific references to public services ("fire/EMS and police). This is done to show the prioritization difference between different public safety agencies. There are also several instances where a priority differs in urban areas vs. rural areas. These cases are identified in the table.

Table 6: Summary of Transportation Needs/Priorities

Need Area	Specific ITS Need	High	Medium	Low	Not a Need
Incident Management	Need improved incident management and coordination	X			
	Need to reduce delays due to accidents or construction	X			
Traffic Management	Need to improve traffic congestion mitigation	X			
	Need to provide early warning of poor visibility conditions (dust, snow, etc.)	X			
	Need traffic signal interconnect and coordination to improve mobility	X	X		
	Need traffic signal preemption for emergency vehicles	Fire/EMS			Police
	Need advanced warning of flash flood areas			X	
	Need to integrate ITS with existing infrastructure (address as a network)	X			

Need Area	Specific ITS Need	High	Medium	Low	Not a Need
	Need to enhance communications and information sharing between state and other agencies	X			
	Need to address speed differentials on controlled access roads (road geometry and vehicle density)		Urban		Rural
	Need to interconnect with neighboring states (AZ, TX, UT, CO)		X		
	Need to know travel times on major routes	Urban		Rural	
	Need to know delays on major routes		X		
	Need to implement parking management systems			X	
	Need to alert drivers of speeding (automated alert systems)		X (construc-tion and school zones)	X (else-where)	
Emergency Management	Need to improve emergency notification/dispatch and response times	X			
	Need to improve traffic safety	X			
	Need to expand remote traveler support services (information plus roadside assistance)	Rural			
	Need to have call boxes throughout the state				X
	Need improved tracking of emergency vehicles	X			
Public Transportation	Need to improve/enhance rural traveler service (inter-city)	X			
	Need to improve urban traveler service		X		
	Need to improve transit coordination among city/county/tribal governments	X			
	Need better communication with transit customers	Urban		Rural	
	Need to encourage major employers to implement transit use incentives			X	
	Need safety monitoring on NAFTA routes	X			
	Need automated maintenance system for transit fleets			X	

Need Area	Specific ITS Need	High	Medium	Low	Not a Need
	Need to improve efficiency of demand-responsive transit (enhanced information)		X		
	Need to improve schedule operations for fixed-route transit vehicles		X	X	
	Need interactive ITS services (transit-related)	X	X		
Maintenance Operations	Need to improve vehicle routing and detours/information	X			
	Need advanced and up-to-date road closure and construction zone information	X			
	Need to reduce delays due to accidents or construction	X			
	Need to know locations for snow plow dispatch	X			
	Need better snow and ice monitoring	X			
	Need to improve work zone safety	X			
	Need improved wind monitoring	X			
	Need improved dust monitoring	X			
Traveler Information	Need real-time roadway and traffic conditions information	X			
	Need real-time information about weather conditions/location	X			
	Need easier access to traveler services information (locations, types of services, etc.)			X	
	Need special event traffic information		X		
	Need to have traveler information accessible at employment sites			X	
Information Management	Need more accessible and comprehensive tourist information			X	
	Need more ITS education	X			
	Need park-and-ride information	X			
Commercial Vehicle Operations	Need to improve electronic clearance of commercial vehicles	X			
	Need to improve HAZMAT detection, enforcement, and management (tracking, monitoring, etc.)	X			

Need Area	Specific ITS Need	High	Medium	Low	Not a Need
	Need to improve detection for overheight/overweight vehicles (including WIM)	X			
	Need to use Internet for commercial vehicle permits (CVISN is addressing)	X			
	Need to improve monitoring and safety of trucks from Mexico	X			
	Need to use commercial vehicles as probes for road conditions			X	
	Need interconnectivity among the ports of entry		X		
	Need to improve communications with commercial vehicles to alert them of road and weather conditions		Coord. w/ Carriers		
	Need to deploy CVISN		X		
	Need additional Pre-pass deployment		X		
Other	Need to reduce the number of animal-vehicle collisions	X	X		
	Need to expand communications services (e.g. cellular coverage)	X			

During the discussion on user needs, discussion was generated on which potential stakeholders would be influenced by each of the user needs. Where no discussion was held, the architecture team was able to make a determination as to the agencies that would most likely be influenced by the user need. These high priority needs, and their potentially affected stakeholder groups, were reviewed by the stakeholders in the draft architecture document and modified/augmented to capture inputs from all key stakeholder groups. The results of this process are detailed below.

For simplicity, the needs summary below identifies high priority needs and maps these to stakeholder groups. The seven groups whose needs were considered are:

- NMDOT
- Public Safety (Police, Fire, EMS, Emergency Management)
- Municipal (primarily traffic and public works)
- County (primarily traffic and public works)
- Transit
- Planning (MPO/RPO)
- Commercial Vehicle Operations (NM MTD)

Table 7 provides a summary of the high priority transportation needs along with the group(s) that expressed these needs as high priority.

Table 7: Summary of Transportation Needs

Need Area	Specific ITS Need	Group
Incident Management	Need improved incident management and coordination	NMDOT, Public Safety, Municipal, County, Commercial Vehicle Operations
	Need to reduce delays due to accidents or construction	NMDOT, Public Safety, Municipal, County, Commercial Vehicle Operations
Traffic Management	Need to improve traffic congestion mitigation	NMDOT, Municipal, County
	Need to provide early warning of poor visibility conditions (dust, snow, etc.)	NMDOT, Municipal, County
	Need traffic signal interconnect and coordination to improve mobility	NMDOT, Municipal, County
	Need traffic signal priority/preemption for emergency vehicles	NMDOT, Public Safety, Municipal, County
	Need advanced warning of flash flood areas	NMDOT
	Need to integrate ITS with existing infrastructure (address as a network)	N/A
	Need to enhance communications and information sharing between state and other agencies	NMDOT, Public Safety, Municipal, County
	Need to address speed differentials on Interstates	NMDOT
	Need to interconnect with neighboring states (AZ, TX, UT, CO)	NMDOT, County
	Need to know travel times on major routes	NMDOT, Municipal, County
	Need to implement parking management systems	Municipal
	Need to alert drivers of speeding (automated alert systems)	NMDOT
Emergency Management	Need to improve emergency notification/dispatch and response times	NMDOT, Public Safety
	Need to improve traffic safety	NMDOT, Public Safety, Municipal, County, Commercial Vehicle Operations
	Need to expand remote traveler support services (information plus roadside assistance)	NMDOT
	Need to have call boxes throughout the state	NMDOT
	Need improved tracking of emergency vehicles	Public Safety

Need Area	Specific ITS Need	Group
Public Transportation	Need to improve/enhance rural traveler service (inter-city)	Transit
	Need to improve urban traveler service	Transit
	Need to improve transit coordination among city/county/tribal governments	Transit
	Need better communication with transit customers	Transit
	Need to encourage major employers to implement transit use incentives	N/A
	Need safety monitoring on NAFTA routes	Transit
	Need automated maintenance system for transit fleets	Transit
	Need to improve efficiency of demand-responsive transit (enhanced information)	Transit
	Need to improve schedule operations for fixed-route transit vehicles	Transit
	Need interactive ITS services (transit-related)	Transit
Maintenance Operations	Need to improve vehicle routing and detours/information	NMDOT, Municipal, County
	Need advanced and up-to-date road closure and construction zone information	NMDOT, Municipal, County
	Need to reduce delays due to accidents or construction	NMDOT, Public Safety, Municipal, County
	Need to know locations for snow plow dispatch	NMDOT, Municipal, County
	Need better snow and ice monitoring	NMDOT, Municipal, County
	Need to improve work zone safety	NMDOT, Municipal, County
	Need improved wind monitoring	NMDOT, Municipal, County
	Need improved dust monitoring	NMDOT, Municipal, County
Traveler Information	Need real-time roadway and traffic conditions information	NMDOT, Public Safety, Municipal, County
	Need real-time information about weather conditions/location	NMDOT, Municipal, County
	Need easier access to traveler services information (locations, types of services, etc.)	NMDOT
	Need special event traffic information	NMDOT, Municipal, County, Transit
	Need to have traveler information accessible at employment sites	NMDOT
Information Management	Need more accessible and comprehensive tourist information	NMDOT, Municipal, County, Planning

Need Area	Specific ITS Need	Group
	Need more ITS education	N/A
	Need park-and-ride information	NMDOT
Commercial Vehicle Operations	Need to improve electronic clearance of commercial vehicles	Public Safety, Commercial Vehicle Operations
	Need to improve HAZMAT detection, enforcement, and management (tracking, monitoring, etc.)	Public Safety, Commercial Vehicle Operations
	Need to improve detection for overheight/overweight vehicles (including WIM)	Public Safety, Commercial Vehicle Operations
	Need to use Internet for commercial vehicle permits (CVISN is addressing)	Commercial Vehicle Operations
	Need to improve monitoring and safety of trucks from Mexico	Public Safety, Commercial Vehicle Operations
	Need to use commercial vehicles as probes for road conditions	Commercial Vehicle Operations
	Need interconnectivity among the ports of entry	NMDOT, Public Safety, Commercial Vehicle Operations
	Need to improve communications with commercial vehicles to alert them of road and weather conditions	NMDOT, Municipal, County, Commercial Vehicle Operations
	Need to deploy CVISN	NMDOT, Public Safety, Commercial Vehicle Operations
	Need additional Pre-pass deployment	Public Safety, Commercial Vehicle Operations
Other	Need to reduce the number of animal-vehicle collisions	N/A
	Need to expand cellular coverage	N/A

6.2. Services

The ITS systems in the state currently provide a wide array of transportation services and that list will grow as more systems are developed or upgraded. The current and planned services can be described by the set of market packages that are shown in Table 8. This set of services is a subset of the services contained in the National ITS Architecture, and represent all of the selected services (market packages) based on information gathered at stakeholder meetings, needs assessments, and review of planning documents. Each of the market packages is currently implemented, or planned for implementation, on a very small scale throughout the state. And for some services there are one or more stakeholders who have implemented a service, while it is planned for the other stakeholders. In this case the service will be listed as "existing" to show that some implementation of the service is taking place in the state.

In addition to Table 8, Appendix C identifies, for each market package, the status (existing or planned) and the primary elements associated with the market package.

Table 8. Selected Statewide Market Packages

Market Package	Market Package Name	Status
AD1	ITS Data Mart	Planned
AD3	ITS Virtual Data Warehouse	Planned
APTS1	Transit Vehicle Tracking	Planned
APTS2	Transit Fixed-Route Operations	Planned
APTS3	Demand Response Transit Operations	Existing
APTS4	Transit Passenger and Fare Management	Planned
APTS5	Transit Security	Planned
APTS6	Transit Maintenance	Planned
APTS7	Multi-modal Coordination	Planned
APTS8	Transit Traveler Information	Planned
ATIS1	Broadcast Traveler Information	Planned
ATIS2	Interactive Traveler Information	Planned
ATMS01	Network Surveillance	Existing
ATMS03	Surface Street Control	Existing
ATMS04	Freeway Control	Planned
ATMS06	Traffic Information Dissemination	Existing
ATMS07	Regional Traffic Control	Planned
ATMS08	Traffic Incident Management System	Planned
ATMS13	Standard Railroad Grade Crossing	Existing
ATMS15	Railroad Operations Coordination	Planned
ATMS21	Roadway Closure Management	Planned
CVO03	Electronic Clearance	Existing
CVO04	CV Administrative Processes	Planned
CVO05	International Border Electronic Clearance	Planned
CVO06	Weigh-In-Motion	Planned
CVO07	Roadside CVO Safety	Planned
CVO10	HAZMAT Management	Planned
CVO11	Roadside HAZMAT Security Detection and Mitigation	Planned
EM01	Emergency Call-Taking and Dispatch	Existing
EM02	Emergency Routing	Existing
EM04	Roadway Service Patrols	Existing

Market Package	Market Package Name	Status
EM05	Transportation Infrastructure Protection	Planned
EM06	Wide-Area Alert	Planned
EM08	Disaster Response and Recovery	Planned
EM09	Evacuation and Reentry Management	Planned
EM10	Disaster Traveler Information	Planned
MC01	Maintenance and Construction Vehicle and Equipment Tracking	Planned
MC02	Maintenance and Construction Vehicle Maintenance	Planned
MC03	Road Weather Data Collection	Planned
MC04	Weather Information Processing and Distribution	Planned
MC05	Roadway Automated Treatment	Planned
MC06	Winter Maintenance	Planned
MC07	Roadway Maintenance and Construction	Planned
MC08	Work Zone Management	Planned
MC09	Work Zone Safety Monitoring	Planned
MC10	Maintenance and Construction Activity Coordination	Planned

Incident Management, identified as ATMS08 in the above table, is one of the key services that is planned throughout the State of New Mexico, and throughout the entire United States. Although it is technically called “Traffic Incident Management”, and identified numerically in the National ITS Architecture as ATMS08, a broader view of this service includes several market packages, including:

- ATMS03 – Surface Street Control
- ATMS04 – Freeway Control
- ATMS06 – Information Dissemination
- ATMS07 – Regional Traffic Control
- ATMS08 – Traffic Incident Management
- EM1 – Emergency Call-Taking and Dispatch
- EM2 – Emergency Routing

As indicated by Table 8 above, all of these services are identified as planned for the New Mexico Statewide ITS Architecture.

6.3. Comparison of Needs and Services

The priority needs identified in Section 6.1 will be addressed by the ITS services described in Section 6.2. Table 9 provides a mapping of the priority needs to ITS services identified in the previous section.

Table 9: Mapping of Needs to Services

Need Area	Specific ITS Need	ITS Service Addressing Need	Market Package
Incident Management	Need improved incident management and coordination	Traffic Incident Management	ATMS08
		Emergency Response	EM1
		Emergency Routing	EM2
	Need to reduce delays due to accidents or construction	Traffic Incident Management	ATMS08
		Roadway Maintenance and Construction	MC07
		Work Zone Management	MC08
Traffic Management	Need to improve traffic congestion mitigation	Network Surveillance	ATMS01
		Surface Street Control	ATMS03
		Freeway Control	ATMS04
		Traffic Information Dissemination	ATMS06
		Regional Traffic Control	ATMS07
		Traffic Incident Management	ATMS08
	Need to provide early warning of poor visibility conditions (dust, snow, etc.)	Traffic Information Dissemination	ATMS06
		Weather Information Processing and Distribution	MC04
	Need traffic signal interconnect and coordination to improve mobility	Surface Street Control	ATMS03
		Regional Traffic Control	ATMS07
	Need traffic signal priority/preemption for emergency vehicles	Emergency Routing	EM02
	Need advanced warning of flash flood areas	Traffic Information Dissemination	ATMS06
		Roadway Closure Management	ATMS21
	Need to integrate ITS with existing infrastructure (address as a network)	N/A	N/A
	Need to enhance communications and information sharing between	Traffic Information Dissemination	ATMS06

Need Area	Specific ITS Need	ITS Service Addressing Need	Market Package
	state and other agencies	Traffic Incident Management	ATMS08
		Emergency Response	EM01
		Emergency Routing	EM02
	Need to address speed differentials on Interstates	Freeway Control	ATMS04
	Need to interconnect with neighboring states (AZ, TX, UT, CO, OK)	Regional Traffic Control	ATMS07
	Need to know travel times on major routes	Network Surveillance	ATMS01
	Need to implement parking management systems	Parking Facility Management	ATMS16
	Need to alert drivers of speeding (automated alert systems)	Speed Monitoring	ATMS19
Emergency Management	Need to improve emergency notification/dispatch and response times	Traffic Incident Management	ATMS08
		Emergency Response	EM01
		Emergency Routing	EM02
	Need to improve traffic safety	Network Surveillance	ATMS01
		Surface Street Control	ATMS03
		Freeway Control	ATMS04
		Traffic Information Dissemination	ATMS06
		Traffic Incident Management	ATMS08
	Need to expand remote traveler support services (information plus roadside assistance)	Mayday Support	EM03
	Need to have call boxes throughout the state	Mayday Support	EM03
	Need improved tracking of emergency vehicles	Emergency Routing	EM02
Public Transportation	Need to improve/enhance rural traveler service (inter-city)	Transit Fixed-Route Operations	APTS02
		Demand Response Transit Operations	APTS03
	Need to improve urban traveler service	Transit Fixed-Route Operations	APTS02
		Demand Response Transit Operations	APTS03
	Need to improve transit coordination among	Multi-modal Coordination	APTS07

Need Area	Specific ITS Need	ITS Service Addressing Need	Market Package
	city/county/tribal governments		
	Need better communication with transit customers	Transit Passenger and Fare Management	APTS04
		Transit Traveler Information	APTS08
	Need to encourage major employers to implement transit use incentives	N/A	N/A
	Need safety monitoring on NAFTA routes	Transit Security	APTS05
	Need automated maintenance system for transit fleets	Transit Maintenance	APTS06
	Need to improve efficiency of demand-responsive transit (enhanced information)	Demand Response Transit Operations	APTS03
		Transit Traveler Information	APTS08
	Need to improve schedule operations for fixed-route transit vehicles	Transit Fixed-Route Operations	APTS02
	Need interactive ITS services (transit-related)	Transit Passenger and Fare Management	APTS04
		Transit Traveler Information	APTS08
Maintenance Operations	Need to improve vehicle routing and detours/information	Surface Street Control	ATMS03
		Traffic Information Dissemination	ATMS06
		Roadway Maintenance and Construction	MC07
		Work Zone Management	MC08
	Need advanced and up-to-date road closure and construction zone information	Traffic Information Dissemination	ATMS06
		Roadway Closure Management	ATMS21
		Winter Maintenance	MC06
		Roadway Maintenance and Construction	MC07
	Need to reduce delays due to accidents or construction	Traffic Incident Management	ATMS08
		Roadway Maintenance and Construction	MC07
		Work Zone Management	MC08
	Need to know locations for snow plow dispatch	Weather Information Processing and Distribution	MC04

Need Area	Specific ITS Need	ITS Service Addressing Need	Market Package
		Winter Maintenance	MC06
	Need better snow and ice monitoring	Road Weather Data Collection	MC03
	Need to improve work zone safety	Work Zone Safety Monitoring	MC09
	Need improved wind monitoring	Road Weather Data Collection	MC03
	Need improved dust monitoring	Road Weather Data Collection	MC03
Traveler Information	Need real-time roadway and traffic conditions information	Network Surveillance	ATMS01
		Traffic Information Dissemination	ATMS06
		Broadcast Traveler Information	ATIS1
	Need real-time information about weather conditions/location	Traffic Information Dissemination	ATMS06
		Road Weather Data Collection	MC03
		Weather Information Processing and Distribution	MC04
	Need easier access to traveler services information (locations, types of services, etc.)	Broadcast Traveler Information	ATIS1
	Need special event traffic information	Network Surveillance	ATMS01
		Traffic Information Dissemination	ATMS06
		Traffic Incident Management	ATMS08
		Broadcast Traveler Information	ATIS1
	Need to have traveler information accessible at employment sites	Broadcast Traveler Information	ATIS1
Information Management	Need more accessible and comprehensive tourist information	ITS Data Mart	AD1
		Broadcast Traveler Information	ATIS1
	Need more ITS education	N/A	N/A
	Need park-and-ride information	ITS Data Mart	AD1
		Transit Fixed-Route Operations	APTS02
		Transit Traveler Information	APTS08
Commercial Vehicle Operations	Need to improve electronic clearance of commercial vehicles	Electronic Clearance	CVO03
	Need to improve HAZMAT detection, enforcement, and management (tracking, monitoring, etc.)	HAZMAT Management	CVO10
		Roadside HAZMAT Security Detection and Mitigation	CVO11

Need Area	Specific ITS Need	ITS Service Addressing Need	Market Package
	Need to improve detection for overheight /overweight vehicles (including WIM)	Weigh-in-Motion	CVO06
		Roadside CVO Safety	CVO07
	Need to use Internet for commercial vehicle permits (CVISN is addressing)	CV Administrative Processes	CVO04
	Need to improve monitoring and safety of trucks from Mexico	Roadside CVO Safety	CVO07
		On-board CVO and Freight Safety & Security	CVO08
	Need to use commercial vehicles as probes for road conditions	Probe Surveillance	ATMS02
	Need interconnectivity among the ports of entry	International Border Electronic Clearance	CVO05
	Need to improve communications with commercial vehicles to alert them of road and weather conditions	Fleet Administration	CVO01
		Weather Information Processing and Distribution	MC04
	Need to deploy CVISN	Electronic Clearance	CVO03
		CV Administrative Processes	CVO04
		International Border Electronic Clearance	CVO05
		Weigh-in-Motion	CVO06
		Roadside CVO Safety	CVO07
	Need additional Pre-pass deployment	Fleet Administration	CVO01
		Electronic Clearance	CVO03
Other	Need to reduce the number of animal-vehicle collisions	N/A	N/A
	Need to expand cellular coverage	N/A	N/A

7. Interfaces and Information Exchanges

7.1. Top Level Regional System Interconnect Diagram

A system interconnect diagram, or sausage diagram, shows the systems and primary types of interconnections in the region. The National ITS Architecture interconnect diagram has been customized for New Mexico based on the information gathered from the stakeholders and system inventory. Figure 5 on the following pages summarize the existing and planned ITS elements for the state in the context of a physical interconnect. Elements (and their primary associated National ITS Architecture entity) are called out in the boxes surrounding the main interconnect diagram. In the center of the figure, the rectangles represent the subsystems of the National ITS Architecture. The New Mexico Statewide ITS Architecture has elements that map to 19 of the 22 possible subsystems of the National ITS Architecture. In addition, the statewide ITS architecture has elements that map to 24 terminators of the National ITS Architecture. These terminators are shown on the right side (in yellow) of the diagrams below. Terminators include entities such as Care Facilities (which maps to Regional Medical Centers).

[Note- some minor changes will need to be made to the diagram to reflect changes in element assignment to entity in the final editing of the document. These changes will be made in the final version of the diagram]

The diagram also identifies the three basic types of communications used to interconnect the elements of the architecture. These communications types are defined as:

- Fixed point to fixed point Communications: A communications link serving stationary sources. It may be implemented using a variety of public or private communications networks that may physically include wireless (e.g., microwave) as well as wireline infrastructure. Both dedicated and shared communications resources may be used.
- Wide Area Wireless Communications: A communications link that provides communications via a wireless device between a user and an infrastructure-based system. Both broadcast (one-way) and interactive (two-way) communications services are grouped into wide-area wireless communications. These links support a range of services including real-time traveler information and various forms of fleet communications.

Dedicated Short Range Communications: A wireless communications channel used for close-proximity communications between vehicles and the immediate infrastructure. It supports location-specific communications for ITS capabilities such as toll collection, transit vehicle management, driver information, automated commercial vehicle operations and signal pre-emption or priority.

Figure 5. New Mexico Statewide System Interconnect Diagram

LEGEND

National ITS Architecture Entity — No Regional Architecture Elements Map To National ITS Architecture

National ITS Architecture Entity — Regional Architecture Elements Map To National ITS Architecture

Existing Connection

Future Connection

No Connection Planned

Transit Vehicle Subsystem
City of Roswell Fixed Route Transit Vehicles
Independent School District Buses
Local Transit Vehicles
Mid-Region RTD Transit Vehicles
NMDOT Park and Ride Shuttle Buses
North Central RTD Transit Vehicles
Rail Runner Transit Rail Vehicles
South Central RTD Transit Vehicles
Southwest RTD Demand Response Transit Vehicles

Vehicle Subsystem
Private Vehicles

Commercial Vehicle Subsystem
Commercial Vehicles

Maintenance & Const Vehicle Subsystem
BIA Maintenance and Construction Vehicles
City of Roswell Public Works Vehicles
County Public Works Vehicles
Municipal Public Works Vehicles
NMDOT District Maintenance and Construction Vehicles
Tribal Road Maintenance Vehicles

Emergency Vehicle Subsystem
BIA/Tribal Public Safety Vehicles
City of Roswell Fire/EMS Vehicles
City of Roswell Police Vehicles
County Fire/EMS Vehicles
County Sheriffs Vehicles
Municipal Fire and EMS Vehicles
Municipal Police Vehicles
NM DPS Mobile Command Center
NM DPS Vehicles
NM Livestock Inspection Vehicles
NM Motor Transport Division Response Vehicles
NMDOT District HELP Courtesy Patrol Vehicles
Private Ambulance Provider Vehicles
Private Tow/Wrecker Vehicles
State Emergency Vehicles
Tribal Public Safety Vehicles

Remote Traveler Support Subsystem
City of Roswell Transit Kiosks*
NMDOT Rest Area/Visitor Center/Truck Stop/Service Plaza Kiosks *
NMDOT Welcome Center/Tourist Info Plazas*
Regional Transit Kiosks-Statewide*
Regional Transportation Centers*

Personal Information Access Subsystem
Private Travelers Personal Computing Devices
User Information Device

Maintenance & Const Management Subsystem
ADOT Maintenance Sections
BIA Roads
CDOT Maintenance Sections
City of Roswell Public Works Dispatch
County Public Works Dispatch
County Traffic Operations Center
Mexico Regional Maintenance Section
Municipal Public Works Dispatch
New Mexico State Radio Communications Bureau (RCB)
NMDOT District 1 TOC*
NMDOT District 2 TOC*
NMDOT District 3 TOC
NMDOT District 4 TOC*
NMDOT District 5 TOC*
NMDOT District 6 TOC*

Maintenance & Const Management Subsystem (Cont.)
NMDOT District Maintenance Office
NMDOT District Maintenance Units Dispatch
NMDOT Statewide TMC
OkDOT Maintenance Sections
Other County Public Works Dispatch*
Other Municipal Public Works Dispatches
Other NMDOT District Maintenance Dispatch
Tribal Road Maintenance
Tribal Transportation Operations*
TxDOT District Maintenance Sections

Emergency Management Subsystem
Arizona Highway Patrol Dispatch
BIA/Tribal Public Safety Dispatch*
City of Roswell Fixed Route Transit Dispatch
City of Roswell Public Safety Dispatch
Colorado State Police Dispatch
Flood Control (monitoring) Dams
Independent School District Dispatch
Local Transit Dispatch
Los Alamos National Lab Operations
Mexico Customs and Border Patrol
Mexico Public Safety
Mid-Region RTD Operations Center
Military Installation Operations Offices

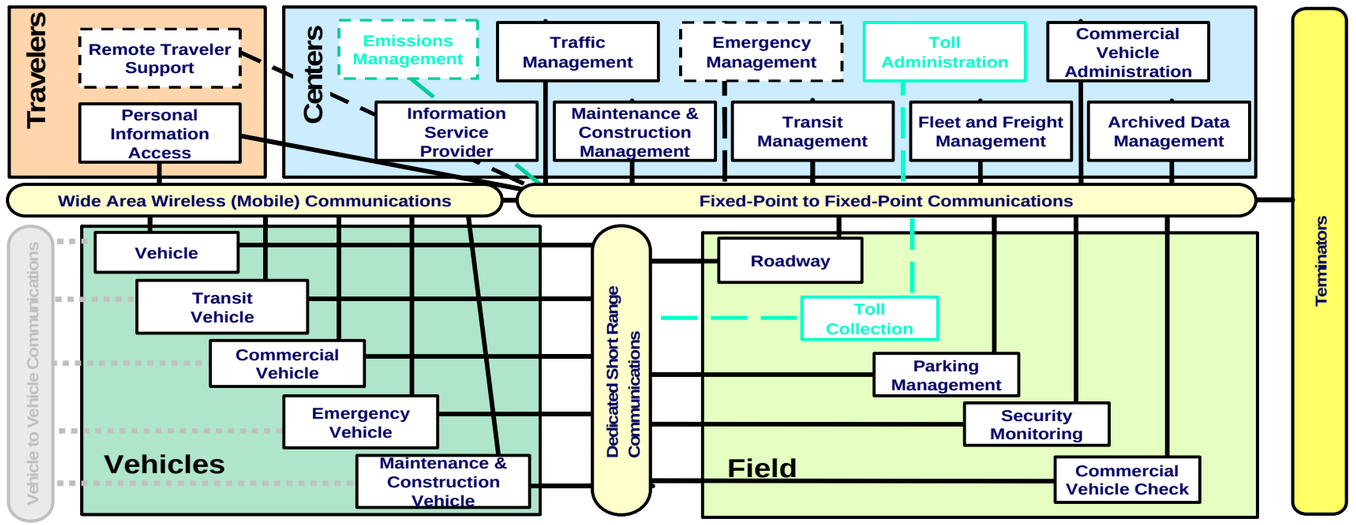
Emergency Management Subsystem (Cont.)
Municipal Public Safety Dispatch
National Parks and Monuments Sites
NEF – National Enrichment Facility
New Mexico Conservancy Districts*
New Mexico National Guard Command System
New Mexico Regional HAZMAT Teams
New Mexico State Radio Communications Bureau (RCB)
New Mexico Statewide Emergency Operations Center (EOC)
NM DPS District Dispatch Center
NM DPS Mobile Command Center
NM Motor Transport Division (MTD) District Offices
NMDOT District HELP Courtesy Patrol Dispatch
NMDOT Park and Ride Dispatch
North Central RTD Operations
Oklahoma State Police Dispatch
Other NMDOT District DPS Dispatch Centers
Private Ambulance Provider Dispatch-Statewide
Private HAZMAT Response Providers
Private Tow/Wrecker Dispatch
Rail Runner Operations
Regional Air Rescue Dispatch

Emergency Management Subsystem (Cont.)
Regional Emergency Communication Center
Regional Emergency Operations Center (EOC)
South Central RTD Operations
Southwest RTD Operations
State Forestry Offices
State Game and Fish District Offices
State Park Facilities
Texas DPS Communications Service
Tribal Public Safety Dispatch-Statewide
US Border Patrol Stations
US Bureau of Land Management Offices
US Forest Service Offices
White Sands Missile Range Facility
WIPP – Waste Isolation Pilot Plant

Transit Management Subsystem
City of Roswell Fixed Route Transit Dispatch
Independent School District Dispatch
Local Transit Dispatch
Mid-Region RTD Operations Center
NMDOT Park and Ride Dispatch
North Central RTD Operations
Other Regional Transit Districts*
Rail Runner Operations
South Central RTD Operations
Southwest RTD Operations

Traffic Management Subsystem
City of Roswell Traffic Operations Center*
County Traffic Operations Center
Military Installation Operations Offices
Municipal Traffic Operations Center-Statewide*
NMDOT District 1 TOC*
NMDOT District 2 TOC*
NMDOT District 3 TOC
NMDOT District 4 TOC*
NMDOT District 5 TOC*
NMDOT District 6 TOC*
NMDOT Signal Lab
NMDOT Statewide TMC
Tribal Transportation Operations*
White Sands Missile Range Facility

Alerting and Advisory Systems
NM DPS Alert Coordinator
Archived Data User Systems
Archive Data Users
Asset Management
NMDOT TIMS
Border Inspection Administration
US Border Inspection Administration Systems
US VISIT System
Border Inspection Systems
US Border Inspection Systems
Care Facility
Regional Medical Centers-Statewide
Distribution and Logistics Management Provider
Customs Broker Systems
Enforcement Agency
DPS Motor Transport Division Office
Equipment Repair Facility
BIA Equipment Repair Facility
City of Roswell Equipment Repair Facility
County Equipment Repair Facility
Municipal Equipment Repair Facility
NMDOT Equipment Repair Facility
Tribal Equipment Repair Facility
Event Promoters
Space Port America*
Special Event Coordinators-Statewide
Financial Institution
Financial Institution
Freight Equipment
Container Systems
Intermodal Freight Shipper
Freight Shipping System
Media
Local Print and Broadcast Media



New Mexico Statewide ITS Architecture "Sausage Diagram" (1 of 2)

* Elements are *planned or future*, not *existing*.

Last Updated: March 23, 2007

Commercial Vehicle Check Subsystem
Electronic Bypass Stations
Mobile Weigh Stations*
NM MTD Fixed Weigh Stations
Roadside Safety Inspection System

Security Monitoring Subsystem
NMDOT Security Monitoring Field Equipment*
Tribal Security Monitoring Field Equipment

Parking Management Subsystem
NMDOT Park and Ride Dispatch
Tribal Transportation Operations*

LEGEND

National ITS Architecture Entity — No Regional Architecture Elements Map To National ITS Architecture

National ITS Architecture Entity — Regional Architecture Elements Map To National ITS Architecture

Existing Connection

Future Connection

No Connection Planned

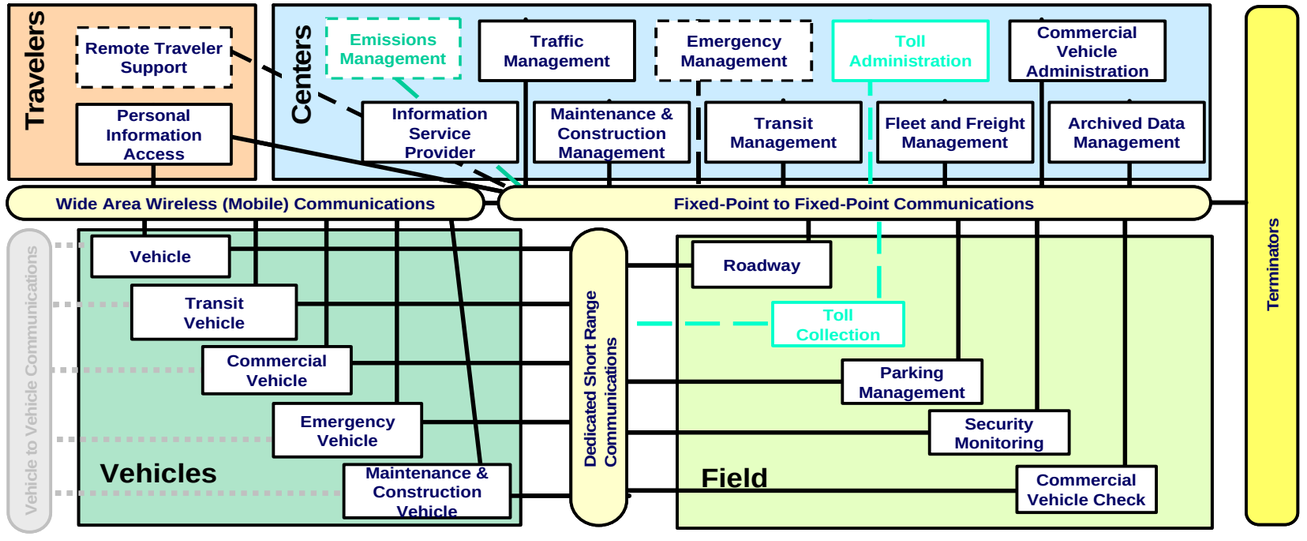
Information Service Provider Subsystem
BIA Regional Website*
City of Roswell Public Information System
City of Roswell Website
County Public Information System
County Website
Local Transit IVR System and Website*
Mid-Region RTD Transit Website
Municipal Public Information System
Municipal Website
New Mexico Travel and Tourism Website
NMDOT Advanced Traveler Information System
NMDOT District Public Information System
NMDOT District Website
NMDOT Statewide Public Information Office
NMDOT Traveler Information Website
North Central RTD Transit Website*
Private Sector Traveler Information Services
Rail Runner Commuter Rail Website
South Central RTD Website*

Information Service Provider Subsystem (Cont)
Southwest RTD Website*
Tribal Public Websites

Archived Data Management Subsystem
DMV Database
FHWA New Mexico Division
MPO/RPO Traffic Database
NMDOT Consolidated Highway Database (CHDB)
NMDOT Data Warehouse*
NMDOT Highway Maintenance Management System (HMMS)
NMDOT SITE Manager
NMDOT Statewide Crash Information System
NMDOT Statewide Pavement Management System
NMDOT Statewide Transit Database*
NMDOT TIMS
NMDOT Traffic Safety Division Data System
Regional Emergency Operations Center (EOC)
Tribal Archive Data Warehouse*

Fleet and Freight Management Subsystem
Drayage Companies
Fleet Management Systems

Commercial Vehicle Admin Subsystem
Accident Reporting System
E-Citation Process*
Excise Summary Terminal Activity Reporting System (ExSTARS)
IFTA Clearinghouse*
IRP Clearinghouse
New Mexico CVIEW System
NM CVO Electronic Permitting System
NM Motor Transport Division (MTD) District Offices
NM TRD CVO Credentials Interface
Query Central
Safety and Fitness Electronic Record (SAFER)
Safetynet



Multimodal Transportation Service Provider
Albuquerque International Airport
Regional Airports
Space Port America*
Other Emergency Management
Other State Public Safety Communication Centers
Statewide Emergency Communications Network*
Other Maintenance & Construction
City of Albuquerque Public Works Dispatch
City of Farmington Maintenance Dispatch
City of Las Cruces Maintenance Dispatch
City of Santa Fe Maintenance Dispatch
Other Traffic Management
ADOT Regional TOCs*
ADOT Statewide TMC
CDOT Regional TOCs*
CDOT Statewide TMC
City of Albuquerque Traffic Operations Center*
City of Farmington Traffic Operations Center
City of Las Cruces Traffic Operations Center
City of Santa Fe Traffic Operations Center*
Mexico Regional TMC*
OkDOT Regional TOC*
OkDOT Statewide TMC
Other County TOC*
Other Municipal TOCs*
Other TxDOT Regional TOCs*
TransVista
TxDOT Amarillo TMC
Rail Operations
Rail Operations Centers
Storage Facility
City of Roswell Storage Facility
County Storage Facility*
Municipal Storage Facility*
NMDOT Patrol Yard
Tribal Storage Facility*
Traveler Card
Border Traveler Card*
Regional Smart Card*
Wayside Equipment
NMDOT Wayside Equipment
Rail Operators Wayside Equipment
Weather Service
National Weather Service
Private Weather Information Provider*
Yellow Pages Service Providers
Travel Service Provider Systems

New Mexico Statewide ITS Architecture "Sausage Diagram" (2 of 2)

***** Elements are *planned or future*, not *existing*.

Last Updated: March 23, 2007

Roadway Subsystem
City of Roswell ITS Field Equipment*
County ITS Field Equipment*
MPO/RPO Field Sensors
Municipal ITS Field Equipment*
NMDOT CCTV
NMDOT District Weather Detection Stations*
NMDOT DMS
NMDOT Field Sensors
NMDOT Highway Advisory Radio System (HAR)
NMDOT Lane Controls*

Roadway Subsystem (Cont.)
NMDOT Non-Reversible Lane Controls*
NMDOT Ramp Meters*
NMDOT Road Closure Gates*
NMDOT Roadway Treatment Devices
NMDOT RWIS*
NMDOT Traffic Signals
NMDOT Variable Speed Limit Signs
NMDOT WIM Sensors
NMDOT Work Zone Equipment*
Tribal ITS Field Equipment*

7.2. Customized Market Packages

The market packages identified in the National ITS Architecture (see Section 3) have been customized to reflect the unique systems and connections within the state, as well as connections just outside of the state (e.g. other states). Each market package can be shown graphically, with the market package name, the entity from the National ITS Architecture and the specific New Mexico elements associated with the entity. In addition the market packages show the information flows that are exchanged (or will be exchanged) between elements.

Figure 6 is an example of an ATMS market package for Surface Street Control that has been customized for the NMDOT Signal Lab. This market package shows the two subsystems, Traffic Management and Roadway, and the associated elements. Information flows (called "architecture flows" in the National ITS Architecture) between the subsystems indicate what information is being shared. The market packages that were customized for the New Mexico Statewide ITS Architecture are shown in Appendix D. These market packages can also be found on the New Mexico Statewide Architecture web page by selecting the "Market Packages by Functional Area" button on the left side menu bar. Under the "Market Package by Functional Area" tab, market packages are grouped by functional areas (e.g. Traffic Management, Maintenance and Construction, and Public Transportation). Each set of customized market packages (based on the functional area) can be viewed by clicking on the Market Package Diagram icon under each area heading. It is important to note that while the market package table on the web page shows all of the market packages from the National ITS Architecture, only those selected for the state are included in the diagrams. The selected market packages on the web page also are highlighted in the web page table with bold print and are indicated as existing or planned.

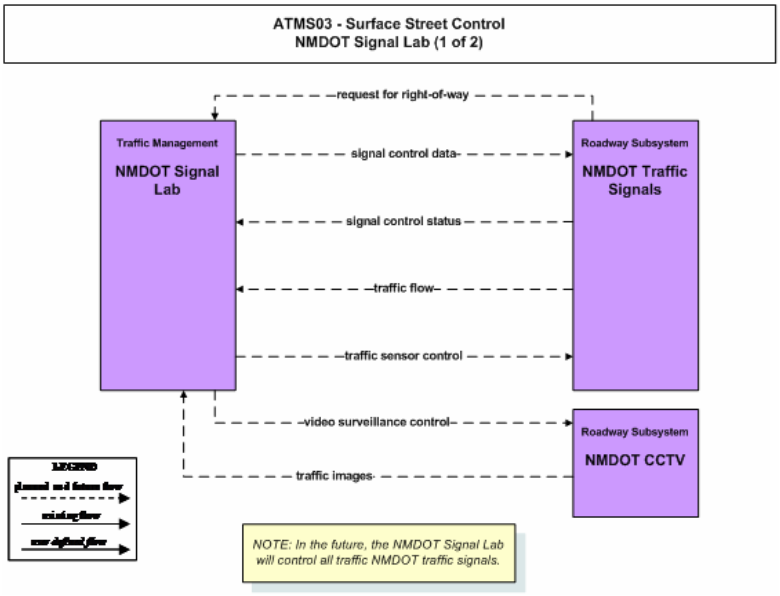


Figure 6. Example Customized Market Package

7.3. Regional Architecture Information Flows

While it is important to identify the various systems and stakeholders as part of a statewide ITS architecture, a primary purpose of the architecture is to identify the *connectivity* between transportation systems in the region. The interconnect (sausage) diagrams shown previously in Figure 5 showed the high level relationships of the elements in the region. The market package from the National ITS Architecture represent services that can be deployed as an integrated capability, and the customized market package diagrams show the information flows between the subsystems and terminators (elements within the region) that are most important to the operation of the market packages. How these systems interface with each other is an integral part of the overall architecture.

There are 245 different elements identified as part of the New Mexico Statewide ITS Architecture. These elements include municipal and state traffic operations centers, transit centers, transit vehicles, public safety dispatch centers, media outlets, and others—essentially all of the existing and planned physical components that contribute to the state's intelligent transportation system. Interfaces have been defined for each element in the architecture. For example, the City of Roswell Traffic Operations Center has planned interfaces with 29 other elements in the region ranging from field equipment to transit centers. Some of the interfaces are far less complex. For example the NM CVO Electronic Permitting System has interfaces with only two other elements in the architecture. The New Mexico Statewide ITS Architecture defines a total of 1545 interfaces from one element to another.

Elements and their interfaces are accessible via the New Mexico Statewide ITS Architecture web page by clicking on the "ITS Inventory" button. On the web page, elements are listed alphabetically in the column on the left, and the description of each element appears on the right. By clicking on (selecting) an element, the element detail page comes up where the user can view the element definition, who the stakeholder is, the current status of the element, and the other elements with which the selected element interfaces with. Figure 7 below is an example of an element detail page for the NMDOT Statewide TMC. By clicking on (selecting) an interfacing element, more detailed information about the particular interface is pulled up (e.g. architecture flows).

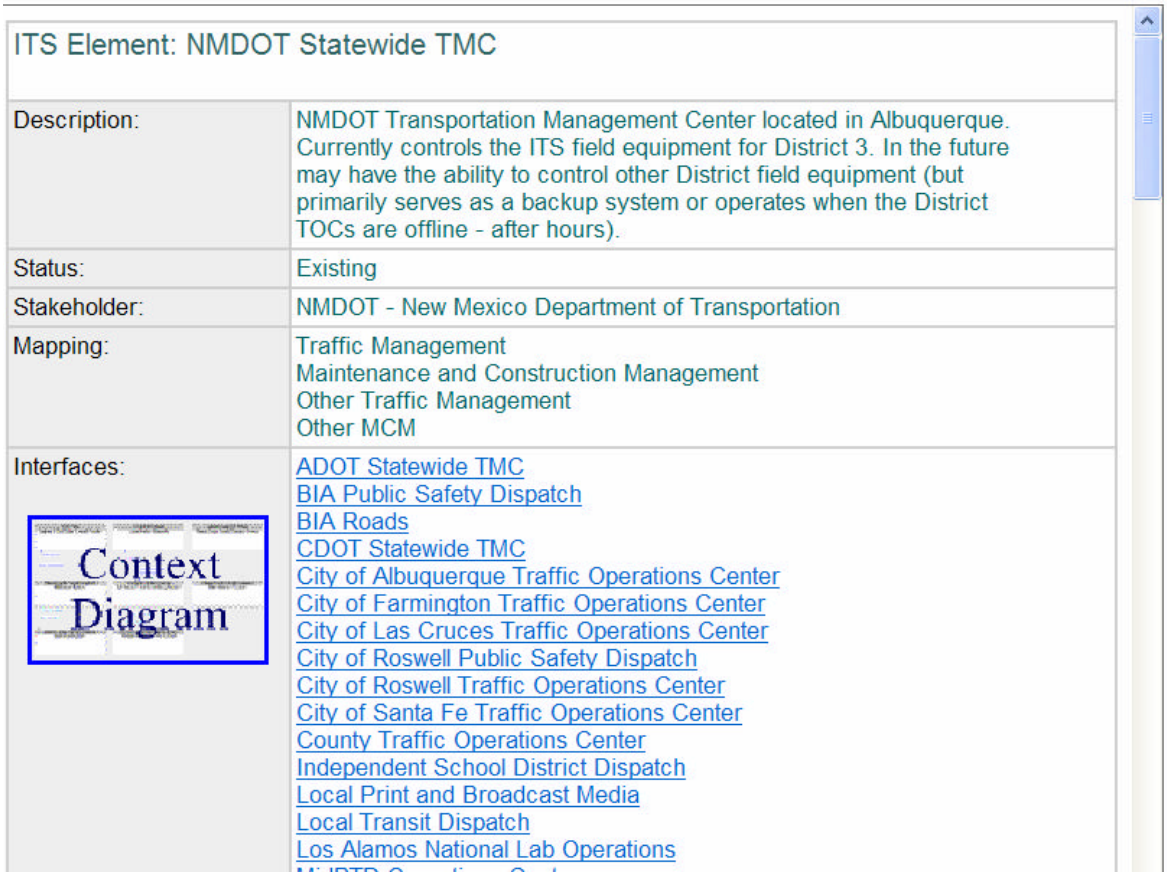


Figure 7: Example of Element Detail showing Interfaces

Architecture flows between elements define specific information that is exchanged by the elements. Each architecture flow has a direction, name and definition. Most of the architecture flows match ones from the National ITS Architecture (the mapping of elements to National ITS Architecture entities allowed the developers to match the architecture flows to the appropriate interfaces). In some cases, new "user defined" flows have been created for interfaces or connections that are not expressed in the National ITS Architecture (NOTE: User defined flows have a "_ud" at the end of the flow name to indicate they are user defined.). These architecture flows define the interface requirements between the various elements in the statewide ITS architecture. Considering a source element, architecture flow, destination element triplet, the New Mexico Statewide ITS Architecture defines 5625 of these triplets.

An example of architecture flows between two elements is shown in Figure 8. In this interface, the architecture flows that go between the New Mexico Statewide Emergency Operations Center (EOC) and the NMDOT Statewide TMC are shown. Although both the New Mexico Statewide EOC and the NMDOT Statewide TMC are both existing ITS elements, all of the architecture flows on this interface are shown as planned signifying these two elements, although existing, do not currently share data communications (since the architecture flows are all shown as planned).

Each of the individual element interfaces can be accessed on the New Mexico Statewide ITS Architecture web page by following the instructions listed previously. Specifically, the user can click on the "ITS Inventory" button, select the element whose interfaces they are reviewing in order to bring up the element detail page. Once on the element detail page, scrolling down to the "Interfaces" and clicking on (selecting) an interfacing element, more detailed information about the particular interface is pulled up (e.g. architecture flows). Selecting any of the elements from the column on the right will display the set of interfaces to that element similar to the diagram shown in Figure 8. Selecting any of the architecture flows will provide a definition, and any standards associated with that architecture flow are noted.

New Mexico Statewide Emergency Operations Center (EOC) and NMDOT Statewide TMC

(E) = Existing Flow
(P) = Planned/Future Flow
(E/P) = Existing and Planned Flow - Flow appears as Existing and Planned

Source	Architecture Flows	Destination
New Mexico Statewide Emergency Operations Center (EOC)	evacuation information (P) emergency traffic control request (P) emergency plan coordination (P) transportation system status (P) threat information (P) resource request (P) remote surveillance control (P) incident response status (P) incident information (P)	NMDOT Statewide TMC
NMDOT Statewide TMC	emergency traffic control information (P) road network status assessment (P) emergency plan coordination (P) traffic images (P) road network conditions (P) resource deployment status (P) incident information (P)	New Mexico Statewide Emergency Operations Center (EOC)

Figure 8. Example of Architecture Flows Between Elements

8. The Application of the Statewide ITS Architecture

8.1. Functional Requirements

Functional requirements are a description of the functions or activities that are currently performed by the ITS elements or that are planned to be performed in the future. For the New Mexico Statewide ITS Architecture, these functions have been developed by using the functional assignments underlying the National ITS Architecture and the mapping from transportation services to the elements shown in Appendix C.

In the National ITS Architecture, a Market Package is defined by subsystems, equipment packages, and architecture flows, which operate together to perform a particular transportation service (see Section 3 above). Equipment Packages represent pieces of a subsystem that perform a single function. (NOTE: there are no equipment packages defined for the Terminators of the National ITS Architecture since they represent systems on the boundary of the architecture and, therefore, do not have functional descriptions within the architecture.) For example, the Surface Street Control (ATMS03) market package is composed of the two Traffic Management Subsystem equipment packages, TMC Signal Control and Traffic Maintenance, and two Roadway Subsystem equipment packages, Roadway Signal Control and Roadway Equipment Coordination. The definitions of these four equipment packages, copied from version 5.1 of the National ITS Architecture, are:

- TMC Signal Control – This equipment package provides the capability for traffic managers to monitor and manage the traffic flow at signalized intersections. This capability includes analyzing and reducing the collected data from traffic surveillance equipment and developing and implementing control plans for signalized intersections. Control plans may be developed and implemented that coordinate signals at many intersections under the domain of a single traffic management subsystem. In advanced implementations, this package collects route planning information and integrates and uses this information in predicting future traffic conditions and optimizing the traffic control strategy for these conditions. These capabilities are achieved through real-time communication of logged routes from an Information Service Provider. The planned control strategies can be passed back to the Information Service Provider so that the intended strategies can be reflected in future route planning.
- Traffic Maintenance – This equipment package provides monitoring and remote diagnostics of field equipment to detect field equipment failures, issues problem reports, and tracks the repair or replacement of the failed equipment.
- Roadway Signal Controls – This equipment package provides the capabilities to control traffic signals at major intersections and on main highways for urban areas. This equipment package is generally constrained to a single jurisdiction.
- Roadway Equipment Coordination – This equipment package coordinates field equipment that is distributed along the roadway by supporting direct communications

between field equipment. This includes coordination between remote sensors and field devices (e.g., Dynamic Message Signs) and coordination between the field devices themselves (e.g., coordination between traffic controllers that are controlling adjacent intersections).

The approach used in the New Mexico Statewide ITS Architecture was to begin with the mapping of equipment packages to elements (based on the mapping of elements to market packages within the architecture, and shown in Appendix C) as an initial definition of the functions being performed by each element. Then this mapping is tailored, or customized, in the Turbo Architecture tool to provide a more accurate picture of the functions performed by each element. The resulting mapping of elements to functions is shown in Appendix E. The Turbo Architecture tool also contains a detailed mapping of functional requirements (written as "shall" statements) to each equipment package. This mapping to functional requirements has been customized for each element, selecting only those requirements that are appropriate given the definition and connectivity of the element. In some cases the functional requirement has been customized to better reflect the functions of the element. This detailed mapping of functional requirements to elements is contained in the Turbo Architecture database and is provided in a separate Excel file.

The mapping of elements to the basic functions (equipment packages) is provided on the hyperlinked web site version of the architecture. The detail page for each element (which is accessed by clicking on the hyperlinked element name within the "ITS Inventory", "Inventory by Stakeholder" or "Inventory by Entity" tabs) has a list of the equipment packages assigned to the element. Sometimes the user may need to scroll down to see the equipment packages.

For example, the Municipal TOC element has the following equipment packages assigned to it:

- Collect Traffic Surveillance
- TMC Signal Control
- TMC Traffic Information Dissemination
- TMC Incident Detection
- TMC Incident Dispatch Coordination/Communication
- TMC Evacuation Support
- TMC Regional Traffic Control
- TMC Environmental Monitoring
- HRI Traffic Management
- Rail Operations Coordination
- Traffic Maintenance
- Traffic Data Collection

This represents a first level of detail that can be obtained in the hyperlinked web site in connection with functionality. The additional level of detail, or detailed functional requirements, can be accessed by clicking on any of the equipment packages associated with the element you have under review. Using the above example, viewing the Municipal TOC element detail page the user can see the equipment packages listed above. If the user were to select one of the equipment packages (all listed as hyperlinks), the equipment package detail page would appear. Along with a full description of what this equipment package contains, as well as a listing of all element that are associated with this equipment package, it lists the detailed functional requirements that have been customized for the New Mexico Statewide ITS Architecture.

8.2. Standards

The following subsections provide a discussion of ITS standards potentially applicable in the state and how to identify the standards that might be applicable on a specific interface within the architecture.

8.2.1. Discussion of Key Standards for the State

ITS standards establish a common way in which devices connect and communicate with one another. This allows transportation agencies to implement systems that cost-effectively exchange pertinent data and accommodate equipment replacement, system upgrades, and system expansion. Standards benefit the traveling public by providing products that will function consistently and reliably throughout the region. ITS standards contribute to a safer and more efficient transportation system, facilitate regional interoperability, and promote an innovative and competitive market for transportation products and services.

The use of ITS standards is very important to project development in the New Mexico. Table 10 identifies the ITS standards that are potentially applicable to the state. This table was created by taking the standards information available in the Turbo Architecture database (which identifies standards applicable to each architecture flow) and taking the total set of standards that result from all of the selected flows. The table provides the status of the standards effort as of December 2005 (the most recent update of the information). The table lists the abbreviation of Standards Development Organization (SDO) in the first column, the name of the standard in the second column and the number of the standard in the third column. Regular updates of SDO activities will help ensure that the latest standards are utilized. The SDOs involved in the development of ITS standards who are listed in the table include:

- American Association of State Highway and Transportation Officials (AASHTO)
- American National Standards Institute (ANSI)
- American Public Transportation Association (APTA)
- American Society for Testing and Materials (ASTM)
- Institute of Electrical and Electronics Engineers (IEEE)

- Institute of Transportation Engineers (ITE)
- National Equipment Manufacturers Association (NEMA)
- Society of Automotive Engineers (SAE)

Table 10: Applicable ITS Standards

SDO	Standard Title	Standard Doc ID
AASHTO/ITE/NEMA	Global Object Definitions	NTCIP 1201
AASHTO/ITE/NEMA	Object Definitions for Actuated Traffic Signal Controller Units	NTCIP 1202
AASHTO/ITE/NEMA	Object Definitions for Dynamic Message Signs	NTCIP 1203
AASHTO/ITE/NEMA	Object Definitions for Environmental Sensor Stations & Roadside Weather Information System	NTCIP 1204
AASHTO/ITE/NEMA	Object Definitions for Closed Circuit Television Camera Control	NTCIP 1205
AASHTO/ITE/NEMA	Object Definitions for Data Collection & Monitoring Devices	NTCIP 1206
AASHTO/ITE/NEMA	Object Definitions for Ramp Meter Control	NTCIP 1207
AASHTO/ITE/NEMA	Object Definitions for Video Switches	NTCIP 1208
AASHTO/ITE/NEMA	Object Definitions for Transportation Sensor Systems	NTCIP 1209
AASHTO/ITE/NEMA	Field Management Stations (FMS) - Part 1: Object Definitions for Signal System Masters	NTCIP 1210
AASHTO/ITE/NEMA	Object Definitions for Signal Control and Prioritization (SCP)	NTCIP 1211
AASHTO/ITE/NEMA	NTCIP Center-to-Center Standards Group	See Footnotes
AASHTO/ITE/NEMA	NTCIP Center-to-Field Standards Group	See Footnotes
ANSI	Commercial Vehicle Safety Reports	ANSI TS284
ANSI	Commercial Vehicle Safety and Credentials Information Exchange	ANSI TS285
ANSI	Commercial Vehicle Credentials	ANSI TS286
ANSI	Electronic Filing of Tax Return Data	ANSI TS813
APTA	Draft Standard for Transit Communications Interface Profiles	APTA TCIP-S-001 D2.8.1,
ASTM	Standard Specification for Telecommunications and Information Exchange Between Roadside and Vehicle Systems - 5 GHz Band Dedicated Short Range Communications (DSRC) Medium Access Control (MAC) and Physical Layer (PHY) Specifications	ASTM E2213-03
ASTM	Standard Specification for Dedicated Short Range Communication (DSRC) Physical Layer using Microwave in the 902-928 MHz Band	ASTM E2158-01

SDO	Standard Title	Standard Doc ID
ASTM	Standard Practice for Metadata to Support Archived Data Management Systems	ASTM E2468-05
ASTM	Standard Guide for Archiving and Retrieving ITS-Generated Data	ASTM E2259-03
ASTM	Standard Provisional Specification for Dedicated Short Range Communication (DSRC) Data Link Layer	ASTM PS 105-99
ASTM	Specification for Dedicated Short Range Communication (DSRC) Data Link Layer: Medium Access and Logical Link Control	ASTM PS 105-99
ASTM	Specification for Dedicated Short Range Communication (DSRC) Physical Layer using Microwave in the 902-928 MHz	ASTM PS 111-98
IEEE	Traffic Incident Management Message Sets for Use by Emergency Management Centers	IEEE 1512.1-2003
IEEE	Hazardous Material Incident Management Message Sets for Use by Emergency Management Centers	IEEE 1512.3-2002
IEEE	Common Incident Management Message Sets for use by Emergency Management Centers	IEEE 1512-2000
IEEE	Standard for Interface Between the Rail Subsystem and the Highway Subsystem at a Highway Rail Intersection	IEEE 1570-2002
IEEE	Public Safety Incident Management Message Sets for Use by Emergency Management Centers	IEEE 1512.2-2004
IEEE	Common Traffic Incident Management Message Sets for Use in Entities External to Centers	IEEE 1512.4
IEEE	Security/Privacy of Vehicle/RS Communications including Smart Card Communications	IEEE P1556
IEEE	Standard for Message Sets for Vehicle/Roadside Communications	IEEE Std 1455-1999
ITE	Standards for Traffic Management Center to Center Communications	ITE TM 2.1
SAE	ISP-Vehicle Location Referencing Standard	SAE J1746
SAE	Location Referencing Message Specification (LRMS)	SAE-J2266
SAE	On-Board Land Vehicle Mayday Reporting Interface	SAE J2313
SAE	Data Dictionary for Advanced Traveler Information System (ATIS)	SAE J2353
SAE	Message Set for Advanced Traveler Information System (ATIS)	SAE J2354
SAE	Standard for ATIS Message Sets Delivered Over Bandwidth Restricted Media	SAE J2369

SDO	Standard Title	Standard Doc ID
SAE	Rules for Standardizing Street Names and Route IDs	SAE J2529
SAE	Messages for Handling Strings and Look-Up Tables in ATIS Standards	SAE J2540
SAE	RDS (Radio Data System) Phrase Lists	SAE J2540-1
SAE	ITIS (International Traveller Information System) Phrase Lists	SAE J2540-2
SAE	National Names Phrase List	SAE J2540-3

NTCIP C2F: NTCIP Center-to-Field Standards Group

The table above specifies the NTCIP Center-to-Field Standards Group, which addresses the communications protocols between a center and the ITS field devices it manages. The family includes the communications profiles that cover the interfaces between a traffic management center and dynamic message signs, ramp meters, environmental sensors, or CCTVs under its control. These protocols are common across all Center-to-Field interfaces in the National ITS Architecture, and rather than repeat the entire list for each architecture flow, we have created this summary entry – the NTCIP C2F Group of communications standards.

The “vocabulary” (objects) is specific to the actual architecture flow in the National ITS Architecture and is therefore mapped to the corresponding Data Object standard. (In the example above, the “Object Definitions for Dynamic Message Signs” standard would be mapped to the specific control and data flows between the Traffic Management Subsystem and the Roadway DMS equipment).

In order to satisfy a wide spectrum of system and regional communications requirements, Center-to-Field ITS deployments should each implement the combinations of the following NTCIP C2F communications protocols that best meet their needs.

This Group includes the following Standards Activities:

- NTCIP 1101: Simple Transportation Management Framework (STMF)
- NTCIP 1102: Base Standard: Octet Encoding Rules (OER)
- NTCIP 1103: Simple Transportation Management Protocol (STMP)
- NTCIP 2101: Point to Multi-Point Protocol Using RS-232 Subnetwork Profile
- NTCIP 2102: Subnet Profile for PMPP Over FSK modems
- NTCIP 2103: Subnet Profile for Point-to-Point Protocol using RS 232
- NTCIP 2104: Subnet Profile for Ethernet
- NTCIP 2201: Transportation Transport Profile
- NTCIP 2202: Internet (TCP/IP and UDP/IP) Transport Profile

- NTCIP 2301: Application Profile for Simple Transportation Management Framework (STMF)
- NTCIP 2302: Application Profile for Trivial File Transfer Protocol
- NTCIP 2303: Application Profile for File Transfer Protocol (FTP)

NTCIP C2C: NTCIP Center-to-Center Standards Group

Table 10specifies the NTCIP Center-to-Center (NTCIP C2C) Group of Standards, which address the communications protocols between two centers (e.g. two traffic management centers exchanging information to facilitate regional coordination of traffic signals). Some of the communication protocols covered by this family are CORBA, DATEX-ASN and FTP . These protocols are common across all Center-to-Center interfaces in the National ITS Architecture, and rather than repeat the entire list for each architecture flow, we have created this summary entry – the NTCIP C2C Group of communications standards.

The standards that describe the “vocabulary” (data elements and messages) are mapped to specific architecture flows rather than the entire set of NTCIP C2C interfaces. In the regional traffic coordination example above, the “Traffic Management Data Dictionary” and the “Message Set for External TMC Communications” standards would be mapped to the specific flows between two Traffic Management Subsystems.

In order to satisfy a wide spectrum of system and regional communications requirements, Center-to-Center ITS deployments should each implement the combinations of the following NTCIP C2C communications protocols that best meet their needs.

This Group includes the following Standards Activities:

- NTCIP 1102: Base Standard: Octet Encoding Rules (OER)
- NTCIP 1104: CORBA Naming Convention
- NTCIP 1105: CORBA Security Service
- NTCIP 1106: CORBA Near-Real Time Data Service
- NTCIP 2104: Subnet Profile for Ethernet
- NTCIP 2202: Internet (TCP/IP and UDP/IP) Transport Profile
- NTCIP 2303: Application Profile for File Transfer Protocol (FTP)
- NTCIP 2304: Application Profile for Data Exchange ASN.1 (DATEX)
- NTCIP 2305: Application Profile for Common Object Request Broker Architecture (CORBA)
- NTCIP 2306: Application Profiles for XML Message Encoding and Transport in ITS Center to Center Communications

8.2.2. Reference to the Detailed Standards information on the Web Site

The previous section provides a general discussion of the standards environment in the state. However the architecture does contain a far more detailed standards view, one that maps applicable standards to the individual information flows that goes from one element to another. This detailed information is contained in the hyperlinked web site and can be accessed through the links to the architecture flows shown as part of each interface. Each element description page has a set of links that describe the information flowing to and from the element to other elements of the architecture. Selecting any of these interface links brings the user an interface page. For example, the interface between the NMDOT Statewide TMC and the NMDOT DMS (dynamic message signs) is shown in Figure 9. There is one information flow going to the DMS element and one coming back from it. Selecting one of the flows provides information regarding the flow and gives a list of ITS standards that are applicable to the flow. An example, for the roadway information system data flow, is shown in Figure 10.

NMDOT Statewide TMC and NMDOT DMS

(E) = Existing Flow
(P) = Planned/Future Flow
(E/P) = Existing and Planned Flow - Flow appears as Existing and Planned

Source	Architecture Flows	Destination
NMDOT Statewide TMC	roadway information system data (E/P)	NMDOT DMS
NMDOT DMS	roadway information system status (E/P)	NMDOT Statewide TMC

Figure 9: Example of Interface

Architecture Flow: roadway information system data

Description:
Information used to initialize, configure, and control roadside systems that provide driver information (e.g., dynamic message signs, highway advisory radio, beacon systems). This flow can provide message content and delivery attributes, local message store maintenance requests, control mode commands, status queries, and all other commands and associated parameters that support remote management of these systems.

Communications Standards:			
NTCIP C2F	AASHTO-17	File Transfer Protocol (FTP) Application Profile	NTCIP 2303
NTCIP C2F	AASHTO-18	Trivial File Transfer Protocol (TFTP) Application Profile	NTCIP 2302
NTCIP C2F	AASHTO-21	Octet Encoding Rules (OER) Base Protocol	NTCIP 1102
NTCIP C2F	AASHTO-28	Ethernet Subnetwork Profile	NTCIP 2104
NTCIP C2F	AASHTO-30	Point-to-Point Protocol Over RS-232 Subnetwork Profile	NTCIP 2103
NTCIP C2F	AASHTO-31	Transportation Transport Profile	NTCIP 2201
NTCIP C2F	AASHTO-38	Transportation Management Protocols (TMP)	NTCIP 1103
NTCIP C2F	AASHTO-47	Point to Multi-Point Protocol Using FSK Modem Subnetwork Profile	NTCIP 2102
NTCIP C2F	NEMA TS3.2	Simple Transportation Management Framework (STMF)	NTCIP 1101
NTCIP C2F	NEMA-TS3.p	Point to Multi-Point Protocol Using RS-232 Subnetwork Profile	NTCIP 2101
NTCIP C2F	S-85	Simple Transportation Management Framework (STMF) Application Profile	NTCIP 2301
NTCIP C2F	S-88	Internet (TCP/IP and UDP/IP) Transport Profile	NTCIP 2202
Message Standards:			
NEMA TS3.4	NEMA TS3.4	Global Object Definitions	NTCIP 1201
NEMA-TS3.6	NEMA-TS3.6	Object Definitions for Dynamic Message Signs (DMS)	NTCIP 1203
Data Standards:			
No Data Standards			

Figure 10: Example of Standards Mapping Page

8.3. Agreements

There are several types of arrangements associated with the interfaces included when deploying ITS projects within the state. This section gives a brief introduction to agreements. The complete discussion of existing and possible future agreements may be found in the ITS Strategic Plan for the State of New Mexico document.

Data exchanges between systems require agreements on the transmission protocol and data formats to ensure compatibility. Coordinating field device operations owned by different agencies requires defined procedures for submitting message requests and rules governing when such requests can be honored. Such coordination can be done with informal arrangements such as a Memorandum of Understanding (MOU). Sharing control of field devices operated by different agencies, on the other hand, involves more liability issues, which requires more formal agreements. Coordinated incident response may also require formal agreements, but also requires group training of personnel from various agencies. While all interfaces involve agreements for data compatibility, agreements for procedure and operation as well as training can also be critical elements to optimizing the benefits of the architecture.

Table 11 identifies types of potential agreements that could be used by agencies in the state. It is recognized, however, that a specific agreement mechanism used among stakeholders may be different between them (for example the nature and limitations associated with a MOU might vary between stakeholders). This should be taken into consideration when identifying and pursuing the proper agreement mechanism.

Table 11. Types of Agreements

Type of Agreement	Description
Handshake Agreement	Early agreement between one or more partners Not recommended for long term operations.
Memorandum of Understanding	Initial agreement used to provide minimal detail and usually demonstrating a general consensus. Used to expand a more detailed agreement like an Interagency Agreement which may be broad in scope but contains all of the standard contract clauses required by a specific agency. May serve as a means to modify a much broader Master Funding Agreement, allowing the master agreement to cover various ITS projects throughout the region and the MOUs to specify the scope and differences between the projects.
Interagency Agreement	Between public agencies (e.g., transit authorities, cities, counties, etc.) for operations, services or funding Documents responsibility, functions and liability, at a minimum.
Intergovernmental Agreement	Between governmental agencies (e.g., Agreements between universities and State DOT, MPOs and State DOT, etc.)

Type of Agreement	Description
Operational Agreement	Between any agency involved in funding, operating, maintaining or using the right-of-way of another public or private agency. Identifies respective responsibilities for all activities associated with shared systems being operated and/or maintained.
Funding Agreement	Documents the funding arrangements for ITS projects (and other projects) Includes at a minimum standard funding clauses, detailed scope, services to be performed, detailed project budgets, etc.
Master Agreements	Standard contract and/or legal verbiage for a specific agency and serving as a master agreement by which all business is done. These agreements can be found in the legal department of many public agencies. Allows states, cities, transit agencies, and other public agencies that do business with the same agencies over and over (e.g., cities and counties) to have one Master Agreement that uses smaller agreements (e.g., MOUs, Scope-of-Work and Budget Modifications, Funding Agreements, Project Agreements, etc.) to modify or expand the boundaries of the larger agreement to include more specific language.

In addition to the agreements noted above, one element that must be considered is data ownership. The type of agreement used to address this issue may vary depending upon agencies involved.

During the initial review of the New Mexico Statewide ITS Architecture, and at the stakeholder workshops held throughout the state, stakeholders identified a variety of agreements that currently exist in the state. In addition to these existing agreements, the New Mexico Statewide ITS Architecture was used to determine a set of agreements that may need to be put into place in order to implement the interconnections described by the architecture. This output, along with a listing of existing agreements throughout the State, can be found as tables in the ITS Strategic Plan for the State of New Mexico.

9. Using the Statewide ITS Architecture

The New Mexico Statewide ITS Architecture has been created, in part, to be used as a key reference in the transportation planning process. This will ensure all proposed ITS projects are consistent with the statewide ITS architecture and additional integration opportunities are considered, leading to more efficient implementations.

Planning processes are used to identify projects whose implementation will respond to regional needs. These projects are placed in programming documents such as a Statewide Transportation Improvement Program (STIP) in order to secure funding for the projects. Once funded, the projects are implemented. The statewide ITS architecture supports all three of these major steps – planning, programming, and implementation

The most important part of developing an ITS Architecture is establishing an approach to using it. An ITS Architecture provides guidance for planning ITS projects within a region or, in this case, the state. It also provides information that can be used in the initial stages of project definition and development.

This section presents the approach for integrating the ITS Architecture developed for New Mexico into the transportation planning/ programming process and leveraging the ITS Architecture project definitions. The approach facilitates and provides a mechanism for the projects identified in the ITS Strategic Plan to be planned and deployed in an orderly and integrated fashion.

The overall objective of an ITS Architecture is to support the effective and efficient deployment of transportation/ITS projects that address the transportation needs of the state. The ITS Architecture focuses on the integration of systems to gain the maximum benefit of information developed in each system and system capabilities across the transportation network. The ITS Architecture defines “what” needs to be put in place to address the needs and requirements of the region. The transportation planning process will leverage the ITS Architecture as a roadmap to project sequencing and interdependency to achieve an integrated transportation system that addresses those strategic objectives.

The primary objective of the ITS Architecture is integration. It is the integration of transportation systems to share information and coordinate activities that facilitates their additional benefits. The New Mexico Statewide ITS Architecture illustrates the information to be exchanged between transportation systems to meet the transportation needs of the stakeholders in the state. These transportation needs (addressed in Section 6. relate to the overall objectives that will be described in the ITS Strategic Plan.

The ITS Architecture links the objectives to the ITS projects that address them. The ITS Architecture was developed with these objectives in mind through the definition of ITS services or market packages. By defining the ITS Architecture with services that address the goals and objectives, projects can be defined through the planning process using the architecture that addresses these needs through deployment.

9.1. Using the Statewide ITS Architecture in the Planning Process

One of the most important outcomes of the New Mexico Statewide ITS Architecture is that it will be used to plan and deploy ITS across the state. To do this, the ITS Architecture must be integrated into the respective planning processes. As a result of integrating the ITS Architecture into the planning processes, the architecture will link the objectives and needs of the regions with the ITS deployments in the field.

The goal of the planning process is to make quality, informed decisions pertaining to the investment of public funds for regional transportation systems and services. Using the statewide ITS architecture to support these planning activities is an important step in the mainstreaming of ITS into the traditional decision-making of planners and other transportation professionals. Once an architecture is complete, it can feed detailed ITS-specific information back into the planning process.

Figure 11 shows some of the key steps in the transportation planning process. These steps will be elaborated on in following sections. The process is driven by a statewide vision and set of goals. These drive transportation improvement strategies that are a mix of capital improvements and operational improvements. The planning organizations evaluate and prioritize the various strategies, and the resulting output is a document called the Long Range Transportation Plan (or sometimes Transportation Plan or Regional Transportation Plan). This plan is the key output of long range planning. For New Mexico, the long range planning document at the statewide level is the New Mexico 2025 Statewide Multimodal Transportation Plan, which does the following:

- Outlines principles the Department of Transportation will adhere to in planning, programming and implementing transportation services and infrastructure
- Summarizes long range objectives
- Details implementation strategies
- Identifies New Mexico's Strategic Transportation Corridors
- Identifies projects and activities that the Department will implement in a range of timeframes from near-term to decades in the future

The Long Range Transportation Plan feeds the Programming function which produces the Statewide Transportation Improvement Program. Once a project is programmed then project development can begin. All of these steps occur with a variety of critical factors and inputs as shown in the figure. A regional (or statewide) ITS architecture may support each step in this process.

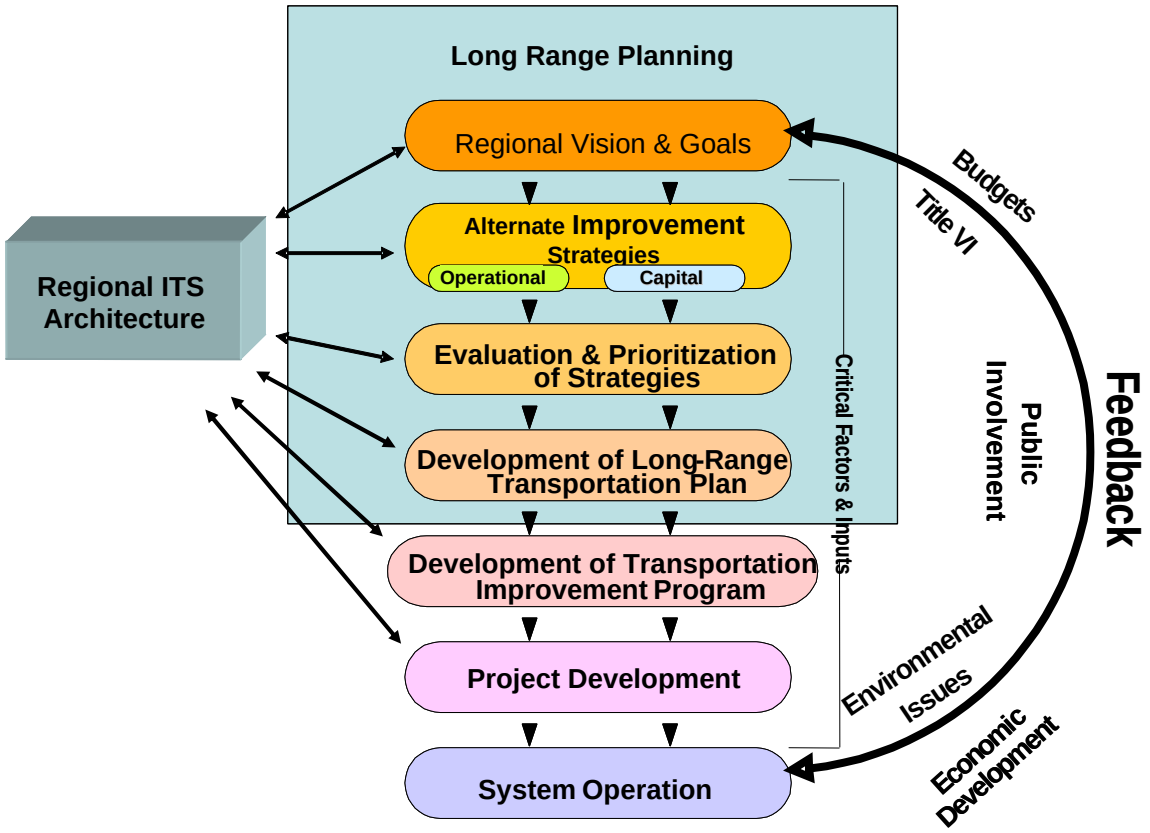


Figure 11: ITS Architecture and the Transportation Planning Process

The long range plan is the expression of a state's or metropolitan area's long-range approach to constructing, operating, and maintaining the multimodal transportation system. It is the policy forum for balancing transportation investments among modes, geographic areas, and institutions.

How can a Regional ITS Architecture support the transportation planning process? In the following basic ways that will be expanded upon below:

- The services described in the Statewide ITS Architecture can provide the basis for operational strategies that can be used to improve the transportation system to meet the region's vision and goals.
- The Statewide ITS architecture can be used to support evaluation and prioritization of strategies in two ways. The first is through the definition in the architecture of archiving and data collection systems that support collecting the data needed for evaluation. The second is through the detailed definition of ITS projects and their sequencing that can be used to support prioritization efforts.
- The definition of an integrated transportation system described by the Statewide ITS Architecture can support a key element of the transportation plan- for example the element "operations and management of the transportation system".

- The process of developing and maintaining a Statewide ITS Architecture can help to enhance the linkage between operations and planning through closer involvement of a wider array of stakeholders from both of these areas of transportation.

The discussion below focuses on supporting the transportation planning process at the statewide level, but the architecture can be used to support the planning processes in other regional or statewide agencies. As shown in Figure 12, agencies that do not use federal funds (or operate through the Statewide or MPO planning process) will still have some form of long range plan and capital plan whose development can be supported by the Statewide ITS Architecture.

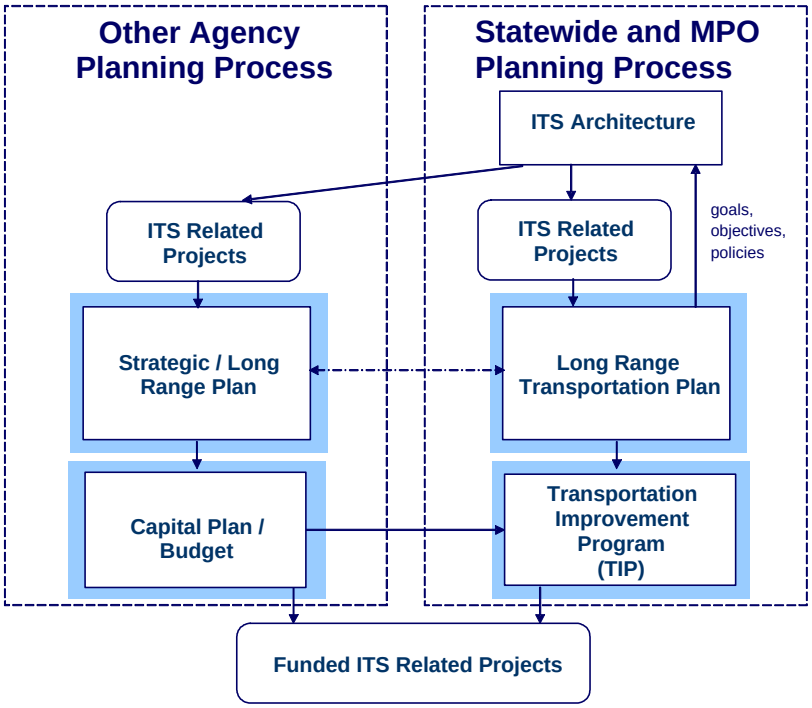


Figure 12. Supporting the Transportation Planning Processes

The challenge for achieving integration across planned ITS projects in the regions is to know how they fit together and interact or depend on each other. The ITS Architecture can be leveraged to bridge the Statewide and MPO processes to other agencies planning processes that do not use federal funding. If all the processes are using the same reference point, the ITS Architecture, then project integration can start in the planning phase.

Operational Strategies

At the statewide level, the planning process begins with a set of guiding principles which are given in the Transportation Plan as:

- Multimodal Transportation
- Partnership with Tribal Governments|

- Environmental Responsibility
- Partnership with Local Governments
- Safety and Security
- Efficient Use of Public Resources
- Economic Vitality

These guiding principles are then further defined as long range objectives and implementation strategies. As shown in Figure 11, the strategies are primarily capital improvements or operational improvements. The Regional ITS Architecture can provide an array of potential operational improvements through the services that are defined in it.

Strategies that have traditional transportation projects as their primary solution, may add ITS elements or services as a part of the overall strategy solution. For example, to reduce congestion, a corridor is planned for widening. This project could also include incorporating ITS elements and services to better manage the upgraded corridor. The use of the architecture to support the definition of implementation strategies is assisted by the definition of needs and their mapping to ITS services given in Section 6.3.

Strategy Evaluation and Prioritization

Transportation planners use a variety of tools to evaluate and prioritize the various strategies for transportation improvement. Central to this evaluation is the concept of performance measures, which focus attention on the operating performance of the transportation system. The ITS Strategic Plan provides performance measures for Operations and Management capabilities provided by ITS services. The performance measures and data collection defined in the regional ITS architecture can provide access to 24/7 data, allowing the planning organization to measure non-recurring congestion, travel times and travel time reliability, and other aspects of system performance and service reliability across all modes.

The Statewide ITS Architecture provides a guide for the archiving of transportation data including the collection of data from various ITS operational systems. These archiving capabilities revolve around regional examples of the National ITS Architecture entity, Archived Data Management Subsystem (such as the NMDOT Data Warehouse). Furthermore the Statewide ITS Architecture has examples of ITS services such as ITS Data Mart (collection of historical data from a single source) and ITS Data Warehouse (collection of historical data from multiple aspects of transportation). These examples of these services describe connections and information that can be useful to planners in performing their evaluation and prioritization efforts. While the automation of data collection for archiving is usually a future activity (or project), the discussions that occur during the development of the Statewide ITS Architecture often present additional opportunities for data sharing that can occur immediately, even before projects for the automation of data sharing are implemented. This sharing of data between operations and planning, as well as the coordination that occurs in the development of the Regional ITS Architecture are examples of linkages between Planning and Operations. The concept of linkage between these two disciplines figures prominently in the FHWA Planning for

Operations effort (see http://plan4operations.dot.gov/default.asp). A complete treatment of these opportunities is included in the FHWA publication: *Opportunities for Linking Planning and Operations.* This publication can be found at *http://www.ops.fhwa.dot.gov/publications/lpo_ref_guide/index.htm*.

FHWA has made available several software tools to support the evaluation and prioritization of ITS related strategies developed as part of the planning process. These tools include:

- IDAS (ITS Deployment Analysis System) is a software tool developed by the Federal Highway Administration that can be used in planning for Intelligent Transportation System (ITS) deployments. State, regional, and local planners can use IDAS to estimate the benefits and costs of ITS investments – which are either alternatives to or enhancements of traditional highway and transit infrastructure. IDAS can currently predict relative costs and benefits for more than 60 types of ITS investments. For more information see http://idas.camsys.com/.

- DYNASMART-P (Dynamic Network Assignment-Simulation Model for Advanced Roadway Telematics- Planning version) is a software tool developed for traffic operations planning applications under Federal Highway Administration's Dynamic Traffic Assignment (DTA) research program. DYNASMART-P combines (1) dynamic network assignment models, used primarily in conjunction with demand forecasting procedures for planning applications, and (2) traffic simulation models, used primarily for traffic operations studies. For more information see http://www.dynasmart.umd.edu/.

- SCRITS (SCReening for ITS) is a spreadsheet analysis tool for estimating the user benefits of Intelligent Transportation Systems (ITS). It is intended as a sketch-level or screening-level analysis tool for allowing practitioners to obtain an initial indication of the possible benefits of various ITS applications. For more information see http://www.fhwa.dot.gov/steam/scrits.htm.

Statewide ITS Architecture outputs, specifically the project sequencing output may also be useful to planning staff as an aid to evaluation and prioritization of strategies. The architecture provides a short-term, mid-term, and long-term, multi-modal view of the ITS systems in the region. It provides the details of the transportation services and functions that can be provided by the stakeholders via ITS projects. The Statewide ITS Architecture also illustrates the interfaces necessary between transportation systems to meet the transportation needs of the state. Finally it translates these details to the definition of a set of projects to be implemented. These projects are grouped by timeframe (e.g. short term, medium term, long term). Key to its usefulness for the strategy evaluation and prioritization (as well as for the LRP as discussed below) is that this list of projects goes well beyond the short term projects that get included in the STIP (see Section 9.2 for a discussion of how the architecture can be used in developing this program element.) The project sequencing contains information for each project that may be useful to the evaluation or prioritization of the projects including:

- Stakeholders involved in the project

- Cost of implementing the project
- Mapping of the project to ITS Services

Note that this project sequencing is not a replacement for prioritization, but rather, an input to the prioritization process. In some regions, prioritization may already have occurred and be reflected in the project sequencing outputs.

The Statewide ITS Architecture provides a guide for how ITS projects can be deployed to satisfy the vision and goals defined as part of the planning process. The architecture provides the details on how ITS can be deployed to meet and satisfy the strategies and transportation services identified for the region. These details may include the interfaces, the operational concepts and agreements necessary to implement the strategies and transportation services. With these details, ITS projects can be more clearly defined, funded, and implemented to satisfy the regional goals.

Multimodal Transportation Plan

One of the primary motives for ITS, and the statewide ITS architecture, is the need for more effective management of existing transportation infrastructure. Many regions can no longer rely on adding capacity to keep pace with increasing demand. Instead, they are relying on more effective, integrated management of the existing infrastructure. Recognizing this need, many regions are beginning to include a section of the plan on “Management and Operations”, which can be defined as an integrated approach to optimize the performance of existing infrastructure through the implementation of multimodal, intermodal, and often cross-jurisdictional systems, services, and projects. The recently passed law, “Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users’’ or ‘‘SAFETEA–LU’’, emphasizes the need to include Management and Operations in each region’s Long Range Plan. According to the legislation (Section 6001 (i)) metropolitan planning areas must include “operational and management strategies to improve the performance of existing transportation facilities to relieve vehicular congestion and maximize the safety and mobility of people and goods.” The statewide ITS architecture can provide the technical underpinning to this portion of the Long Range Plan.

One of the primary purposes of the Regional ITS Architecture is to define how an integrated transportation system (of ITS elements) might evolve in a region. To do this the architecture describes elements (e.g. various ITS assets) that are interconnected to provide operations and management of the transportation system. The architecture development and maintenance process provides an accessible way for transportation planners to become more focused on integrated management and operations. Operations practitioners have a vision for how this integrated transportation system might evolve, and express this via the details of the architecture.

In the development of the New Mexico Statewide Multimodal Transportation Plan, some of the outputs of the statewide ITS Architecture (including the ITS Strategic Plan) can be of use in the plan update. The outputs and some indication of their use are:

- **ITS goals** from the ITS Strategic Plan are connected to the long range objectives and implementation strategies of the Multimodal Transportation Plan. The ITS goals can feed appropriate areas of the Multimodal Transportation Plan
- **ITS Projects** from the Statewide ITS Architecture can provide an input to the Future Projects Matrix of the Multimodal Transportation Plan, as can the results of the Communications Analysis that is part of the ITS Strategic Plan.
- **Customized Market Packages** from the Statewide ITS Architecture offer service-oriented slices of the architecture that facilitate project definition with an understanding of integration necessary to deliver specific services. The market packages provide planners with insight into the ITS elements to include in a project, which will make the project as comprehensive as possible. They also provide sample Implementation Strategies that include ITS to address long range objectives.

Issues/Challenges

The most challenging issue to be addressed in the integration of the ITS Architecture in the planning process is the fact that there is more than one planning process across the state. Coordination is important between NMDOT, MPOs, Intergovernmental Councils, Regional Councils, Interstate Planning Commissions, etc. for ITS projects (or projects with an ITS component) in their respective plans. Integration opportunities should be taken advantage of within each of these regions as well as between them. This is the primary intent of ITS Architecture compliance where Federal funding is involved.

Another issue to address is coordination of ITS project planning between the federally funded projects and the non-federally funded projects. The non-federally funded projects are generally not part of the Long Range Planning Process and Statewide Transportation Improvement Plan. The ITS Architecture contains systems and projects that bridge both federally and non-federally funded projects and systems. Coordinating all of these projects requires an understanding by all stakeholders of the ITS systems and potential of the entire region. The ITS Architecture provides a common reference point for all stakeholders to gain insight into the integration of the systems in the region.

Recommendations

It is recommended that the organizations responsible for the Multimodal Transportation Plan and the Statewide Transportation Improvement Program designate a staff position or group who is responsible for the application and monitoring of the ITS Architecture to their respective Transportation Planning Processes. The roles and responsibilities should, as a minimum, include:

- Modification of the Transportation Planning Process to incorporate ITS Architecture checkpoints, review opportunities and guidance to take advantage of the information contained in the ITS Architecture in the planning of ITS projects,
- Point of contact for tracking the incremental process of project implementation; projects are typically broken into phases, therefore, someone should be responsible for keeping

track of completed and remaining phases and ensure the remaining components are reflected in the planning process for on-going funding support until project completion,

- Point of contact for ITS Architecture questions regarding its application in the planning process,
- Lead the evaluation of ITS (containing) projects for their compliance with the ITS Architecture,
- Outreach to stakeholders about how to use the ITS Architecture in the planning process,
- Provide feedback to the Maintenance Manager of the ITS Architecture on any ITS Architecture changes needed as a result of project planning,
- Liaison between State/MPO/IGC/RPC/etc. and non-MPO planning organizations to share information about the ITS-containing projects in the various planning processes and coordinate integration opportunities.

An additional recommendation is that the Statewide ITS Architecture be formally adopted by the NMDOT. This will add "credibility" to architecture for use in planning process and will also encourage rigor in architecture maintenance process (described in Section 10).

9.2. Using the Statewide ITS Architecture for Programming

Regional and statewide programming and agency capital planning (a.k.a. budgeting) involve identifying and prioritizing ITS projects. The result is funded projects. These processes are shown in Figure 13.

Figure 13: ITS Project Programming/Budgeting/Capital Planning

Using the statewide ITS architecture to define an ITS project links the objectives and needs of the region identified in the architecture with the ITS deployed in the field. In the state, ITS projects are deployed by many organizations including NMDOT, transit agencies and many local agencies and authorities. If projects of the various organizations are defined from the same reference point, the Statewide ITS Architecture, then coordination begins in the initial planning and funding phase.

ITS projects in a region may be funded by a variety of sources. ITS projects that are funded with federal funds are programmed by Metropolitan Planning Organizations (MPOs) and NMDOT with input from transportation agencies in the region. All organizations in a region, whether they use federal funds to deploy ITS or not, perform short term planning via their capital planning (i.e. budgeting) process.

Architecture Use in Programming Federal Funds:

The Statewide Transportation Improvement Program (STIP) is a staged, multiyear, intermodal program of transportation projects that is consistent with the long range transportation plan for the state. The STIP assigns federal funding to a prioritized list of specific projects to be constructed over a several-year period (usually three to six years) after the programs approval.

As discussed in the recommendations of Section 9.1, a regional ITS architecture can be adopted as part of or by reference in the Long Range Transportation Plan (LRTP). If this is the case, ITS projects should flow from the LRTP into the TIP in the same fashion as capital projects.

The architecture can be used to define ITS projects that are submitted for federal funding. In the current STIP, ITS projects are not defined in much detail. Sometimes merely a placeholder for ITS projects is included. A benefit to using a regional architecture to define ITS projects is that the projects can be specified in greater detail thereby allowing more realistic estimates of the ITS services being covered by the project.

When project sponsors submit ITS projects for programming, the planning agencies in some states (or regions) require that the sponsors submit architecture-related information about the project. Some agencies merely require yes/no questions to be answered regarding the project's inclusion in the regional architecture while others request more detailed information such as the elements, services, and/or interfaces of the architecture to be deployed in the project. If an ITS project is submitted which is not included in or is not consistent with the regional architecture, a justification for the project should be required. If it is justified, the impacted stakeholders support the project, and the project is funded, the regional architecture should be revised to incorporate the project.

In the STIP, projects that contain ITS elements should be designated as ITS projects so that projects sponsors are aware of the associated requirements from the FHWA/FTA Rule/Policy.

The programming process involves prioritizing projects and using federal funds to fund the top priority projects. Each region (and the state) has a process for prioritizing projects. The Statewide ITS Architecture can be useful in this process as it reflects the vision for ITS in the region so a factor in prioritization should be how well a project fits within the regional architecture. In some regions, projects (of some categories) are allotted additional points if they include elements or interfaces of the architecture.

The Statewide ITS Architecture may better support programming if the project sequencing and related architecture elements are updated on a maintenance schedule that supports the TIP cycle. The architecture should be updated prior to a project submittal request so that it can be

used by project sponsors to identify projects. If thorough updates to the architecture are to correspond to LRTP updates, less major revisions to the architecture can be made to correspond to the TIP cycle.

Architecture Use in Organization Capital Planning:

All agencies including NMDOT, transit agencies, local municipalities, etc. use a budgeting process to allocate funds to projects. The Statewide ITS Architecture includes the existing and planned elements of all stakeholders and how they are or will be interfaced with other ITS elements in the state. Therefore, all organizations can use the architecture to define ITS projects, as defined below, and feed them into their budgeting process.

Many ITS improvements are implemented as part of larger capital improvement projects. As traditional capital projects are defined and programmed, it is important to identify the associated opportunities for efficient ITS implementation. The Statewide ITS Architecture is a record of the ITS implementation planned by each agency that can be used to identify these opportunities. Some agencies in other states are considering policies to review each capital project to determine if ITS measures should be included before the project moves forward. Many agencies do this type of review as good practice, but these opportunities would be identified more consistently and "carry more weight" if this check was formally defined and required by an established policy.

Architecture Use to Identify and Define Projects:

A regional ITS architecture includes a sequence of projects (which for New Mexico are contained in the ITS Strategic Plan). Projects from the architecture should feed into the programming and/or capital planning processes. ITS projects are taken directly from the plan and submitted for funding (with Federal or other funds.)

As the projects defined in a statewide ITS architecture are sequenced and have defined characteristics (See the ITS Strategic Plan for information on defining projects), organizations can use the architecture to define ITS projects to be submitted for funding from any source.

To obtain funding, a project sponsor must define a proposed ITS project. The information contained in the Statewide ITS Architecture can be used to define projects with more detail in order to better scope them and establish project budget requirements.

Some potential ways a regional ITS architecture can be used to define an ITS project include:

- Review the list of stakeholders to identify those that should be involved with the project and those that are or may be impacted.
- Use the stakeholder roles and responsibilities defined in the operational concept to clearly define the roles and responsibilities of the stakeholders involved in the project.
- Review the relevant service(s) (i.e. market package(s)) to identify elements potentially directly or indirectly associated with the project and recognizing potential partners to share development costs, material and/or labor, facilities, etc.

- Use the defined interfaces between ITS elements (in the customized market packages) to identify current and future integration opportunities.
- Utilize the sequence of projects to gain insight into the timelines and dependencies of a project with others including identifying opportunities to coordinate with capital projects.
- Apply the project description of the project sequencing including costs, technical feasibility, potential institutional issues and readiness to clearly define the project.
- Gain a thorough understanding of the elements and interfaces included in a project to more accurately estimate project budgets.

Challenges

One critical issue is the coordination of Federally and non-Federally funded projects in the state. In many regions, non-Federally funded projects are generally not included in the TIP/STIP. The Statewide ITS Architecture contains all ITS elements and projects within the scope of the architecture irrespective of funding source. As the Statewide ITS Architecture enables understanding and coordination of all ITS related projects for all stakeholders in the region, stakeholders can benefit from using an ITS Architecture to plan, program, and deploy all ITS projects not just those that are Federal funded and therefore, must meet the Rule/Policy requirements.

Recommendations

Agencies that sponsor integration projects that are identified in the regional ITS architecture may face several hurdles. Involvement by multiple agencies may add perceived risk to the project and the benefits from the project may be more regional in nature and difficult to quantify as hard savings for a particular agency. The region can offset these hurdles by promoting integration projects to encourage support from individual agency project sponsors. For example, the Maricopa County Area Governments (MAG) MPO (in Arizona) has a documented process for ITS project prioritization that favors ITS integration projects that are identified in the ITS strategic plan and support multiple agencies. A prioritization process like this that favors integration projects with regional benefits can help to offset the hurdles faced by individual agency project sponsors.

To ensure ITS is deployed based on the regional vision contained in the Statewide ITS Architecture, a process for local and regional planning and funding of projects based on the Statewide ITS Architecture should be established. Policies and procedures to incorporate ITS projects in the programming/budgeting processes could be set or a group of various ITS stakeholders could be assigned the responsibility for monitoring the deployment of ITS in the region.

9.3. Using ITS Architecture in Project Definition

Projects that emerge from the planning process can benefit from the use of the Statewide ITS Architecture in their definition and development. Project implementation should follow a

systems engineering process. Figure 14 shows a typical project implementation process for deploying ITS projects.

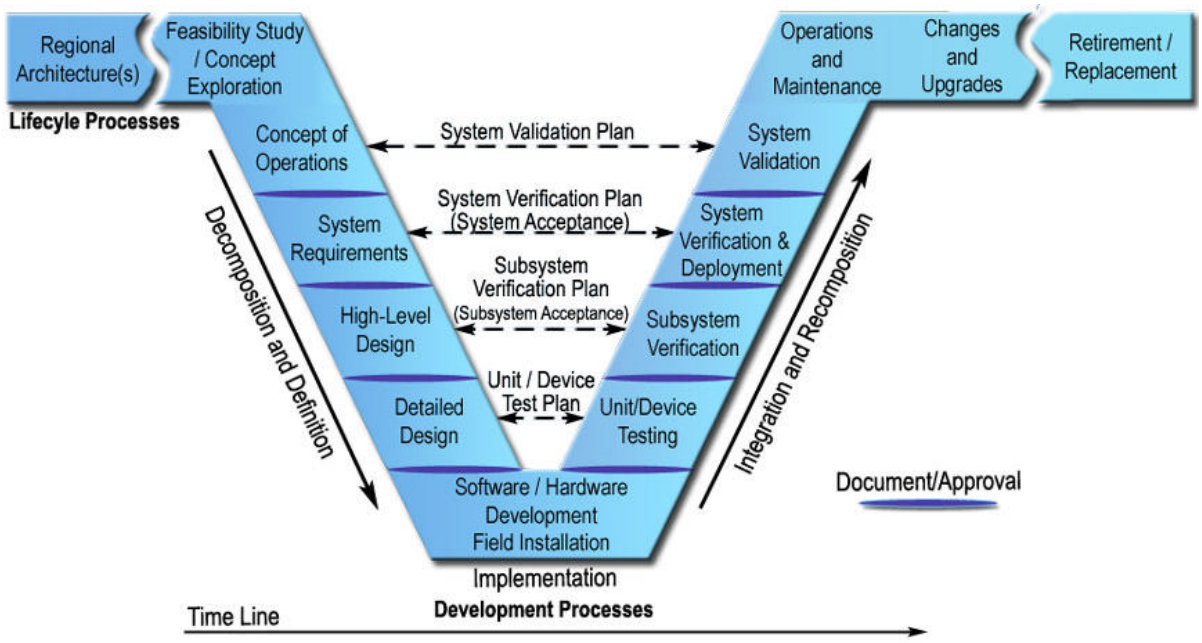


Figure 14. Project Implementation Process

The project implementation process shown in Figure 14 is a systems engineering process. It is a process that can be used to systematically deploy ITS while reducing the risks associated with deployments. The Systems Engineering process is more than just steps in systems design and implementation; it is a life-cycle process. The process recognizes that many projects are deployed incrementally and expand over time. US DOT Rule 940 requires that the systems engineering process be used for ITS projects that are funded with federal funds.

Applying System Engineering process to ITS project development is a key new requirement that must be addressed by stakeholders using federal funds. The following are some key references that stakeholders can access to assist in using this process:

General Resources

- FHWA Systems Engineering Website (ops.fhwa.dot.gov/int_its_deployment/sys_eng.htm)
- International Council on Systems Engineering (www.incose.org)

Training

- Introduction to Systems Engineering for Advanced Transportation (NHI Course# 137024)
- Advanced Systems Engineering for Advanced Transportation Projects (CITE - www.citeconsortium.org/courses/syseng.html)

Publications

- Building Quality Intelligent Transportation Systems through Systems Engineering (FHWA-OP-02-046): www.itsdocs.fhwa.dot.gov/jpodocs/repts_te/13620.html EDL# 13620
- Systems Engineering Guidebook for ITS (FHWA California Division/Caltrans): www.dot.ca.gov/research/se_guidebook_ver1-12_14_05.pdf
- System Engineering for Intelligent Transportation Systems, An Introduction for Transportation Professionals (Under Development)

There are similarities between the systems engineering process defined in Figure 14 and the project development process followed by NMDOT. The NMDOT project development process is as follows:

- Project Selection
- Authorization to Proceed
- Project Definition
  - Purpose and Need
  - Project Scoping
  - Conceptual Design
- Project Design
  - Preliminary Plan Development
  - Semi-Final Plan Development
  - Final Plan Development
- Construction
  - Testing
- Operation and Maintenance

Table 12 shows the relationship the NMDOT project development process has to the FHWA system engineering process.

Table 12. New Mexico Project Development Process Relation to FHWA System Engineering Process

NMDOT Project Development Process	Relation	System Engineering Process
Project Definition	=>	Concept of Operations
Purpose and Need		High Level Requirements
Project Scoping		Detailed Requirements
Conceptual Design		

NMDOT Project Development Process	Relation	System Engineering Process
Project Design		High Level Design
Preliminary Plan Development	=>	Detailed Design
Semi-Final Plan Development	=>	
Final Plan Development		
Construction	=>	Implementation
Testing		Integration & Test
		Subsystem Verification
		System Verification
Operation and Maintenance	=>	Operations & Maintenance

As shown by the highlights in Figure 14 and in Table 12, the New Mexico Statewide ITS Architecture can be used to support development of the concept of operations, requirements and high level design in the systems engineering process.

In deployment of an ITS related project, the ITS Architecture should be used as the starting point for developing a project concept of operations (not to be confused with an Architecture's Operational Concepts that define the roles and responsibilities of the Architecture's stakeholders). The concept of operations shows at a high level how the systems involved in a project operate in conjunction with the other systems of the region. According to the NHI course "Introduction to Systems Engineering for Advanced Transportation", a Concept of Operations includes the following information:

- Identification of stakeholders,
- Development of a vision for the project,
- Description of where the system(s) will be used,
- Description of organizational procedures or practices appropriate to the system(s), definition of critical performance parameters associated with the systems(s),
- Description of the utilization environment (conditions under which various parts of the system(s) will be used),
- Definition of performance measures used to evaluate the effectiveness of the system(s),
- Considerations of life cycle expectations, and
- Conditions under which the system(s) must operate (e.g. environmental conditions).

The customized market package diagrams tailored by the New Mexico stakeholders can also assist in definition of requirements for ITS systems involved in a specific project. The ITS Architecture contains high level functional requirements for all ITS elements in the State. These high level requirements can be the starting point for developing more detailed requirements.

The ITS Architecture can support high level system design. The ITS architecture can be used by system designers to identify the ITS standards that are applicable for the interfaces included in the architecture.

While the above discussion relates the architecture to the general system engineering process, Rule 940 does have a specific set of system engineering analysis requirements that apply to all ITS projects that use funds from the Highway Trust Fund. The required system engineering analysis steps are:

- Identification of portions of the regional ITS architecture being implemented (or if a regional ITS architecture does not exist, the applicable portions of the National ITS Architecture) – in this case the statewide ITS architecture;
- Identification of participating agencies' roles and responsibilities;
- Requirements definitions;
- Analysis of alternative system configurations and technology options to meet requirements;
- Procurement options;
- Identification of applicable ITS standards and testing procedures; and
- Procedures and resources necessary for operations and management of the system.

The New Mexico Statewide ITS Architecture provides inputs to a number of these steps as shown in Table 13.

Table 13. System Engineering Requirements supported by Statewide ITS Architecture

System Engineering Requirements	Statewide ITS Architecture Output
Identification of portions of the regional ITS architecture being implemented	Mapping project to the elements and interfaces of the regional ITS architecture
Identification of participating agencies' roles and responsibilities (this relates to the Concept of Operations described earlier.	Use Operational Concept as a starting point
Requirements definitions	Use Functional Requirements as a starting point.
Identification of applicable ITS standards and testing procedures	Use regional architecture standards outputs as a starting point for the standards definition.

How do you show compliance with the rule requirements? Document how Architecture outputs meet requirements with a System Engineering Review Form (SERF). A draft SERF has been developed for New Mexico by the FHWA Division Office.

Issues/Challenges

One of the challenges of using the ITS Architecture to facilitate the System Engineering Process in the implementation of a project is educating stakeholders about the benefits of the process and the process itself. The systems engineering process is not a new process to many

organizations. It may not be called the systems engineering process, but various stakeholders' processes may map to the systems engineering process very well (as shown in Table 12 with the NMDOT process). Making these types of linkages between processes makes it easier to incorporate the ITS Architecture as a tool in the process.

Another challenge is engaging a broader stakeholder base on a project when the ITS Architecture indicates that possibility. For example a project might map to a specific customized market package that contains 10 elements owned by 8 stakeholders. Yet the initial project definition is for 3 elements owned by 2 stakeholders. Might the project, to provide the service shown in the architecture, include more elements owned by additional stakeholders? The entire activity of seeking integration opportunities is more institutional than technical. There will be instances where getting more stakeholders involved in a project will increase its complexity or cross jurisdictional boundaries that may not have been considered in the initial scope. It is important to explore these integration opportunities so that, at the very least, they are accounted for and supported in the project design even though they may not be implemented with that specific project. The ultimate goal is to make ITS deployment as economical as possible. One way this can be accomplished is by deploying projects across institutional boundaries where different stakeholders get benefit from the ITS deployment.

Recommendations

It is recommended that NMDOT, MPOs, Intergovernmental Councils, Regional Councils, Interstate Planning Commissions and other agencies involved in deploying ITS projects modify their project development/implementation processes to incorporate the use of the New Mexico Statewide ITS Architecture. There is no standard definition of how or what process modifications are required – it is merely a function of each agency's project development processes. It is recommended that training then be developed and given to representatives of the key agencies to describe the impact of the Statewide ITS Architecture on the project development process, and to describe the new requirements that have been placed on ITS project development when federal funds are used. The process modifications should be distributed to stakeholders so they are aware of the steps to follow and are aware that this process is a necessary part of any project receiving federal funding.

It is also recommended that an individual or group be identified in each organization (NMDOT, MPOs, Intergovernmental Councils, Regional Councils, Interstate Planning Commissions, etc.) to review project submittals and evaluate compliance with the NMDOT Statewide ITS Architecture. It is important to work with the FHWA Division Office Representative in establishing a review process given that they will be involved in approval of projects with federal funding. The generation of a checklist would make the evaluation more structured and facilitate a consistent approach to each project.

10. Maintaining the Architecture

The New Mexico Statewide ITS Architecture is not a static set of outputs. It must change as plans change, ITS projects are implemented, and the ITS needs and services evolve in the region. This section describes the maintenance plan for maintaining the New Mexico Statewide ITS Architecture. The plan covers the following four key areas:

- Who will be involved in the maintenance of the architecture?
- When will the architecture be updated?
- What will be maintained?
- How it will be maintained (i.e. what configuration control process will be used)?

The Statewide ITS Architecture is created as a consensus view of what ITS systems the stakeholders in the state have currently implemented and what systems they plan to implement in the future. The Statewide ITS Architecture will need to be updated to reflect changes resulting from project implementation or resulting from the planning process itself. Types of changes may include:

- **Changes for Project Definition.** When actually defined, a project may add, subtract or modify elements, interfaces, or information flows from the Statewide ITS Architecture. Because the Statewide ITS Architecture is meant to describe the current (as well as future) statewide implementation of ITS, it must be updated to correctly reflect how the developed projects integrate into the state, or specific regions. Also, once projects are implemented interfaces that were shown in the architecture as planned should now be changed to existing.
- **Changes for Project Addition/Deletion.** Occasionally a project will be added or deleted through the planning process and some aspects of the Statewide ITS Architecture that are associated with the project may be expanded, changed or removed.
- **Changes in Project Priority.** Due to funding constraints, or other considerations, the planned project sequencing may change. Delaying a project may have a ripple effect on other projects that depend on it. Raising the priority for a project's implementation may impact the priority of other projects that are dependent upon it.
- **Changes in Statewide Needs.** Transportation planning is done to address statewide needs. Over time these needs can change and the corresponding aspects of the Statewide ITS Architecture that addresses these needs may need to be updated.
- **Changes in other Regional/Statewide ITS Architectures.** Changes made in regional ITS architectures in the state (or in adjoining states) can affect the Statewide ITS Architecture, necessitating changes to maintain consistency between the architectures.

- **Changes in ITS standards applicable to ITS projects in the state.** The architecture maps ITS standards to interfaces (and hence to projects). Over time this mapping will need to be updated as standards release new versions, or as new standards are developed.

In addition, when new stakeholders come to the table, the Statewide ITS Architecture will need be updated to reflect their place in the statewide view of ITS elements, interfaces, and information flows.

Finally, the National ITS Architecture may be expanded and updated from time to time to include new user services or better define how existing elements satisfy the user services. These changes should also be considered as the Statewide ITS Architecture is updated. The National ITS Architecture may have expanded to include a user service that has been discussed in a region, but not been included in the Statewide ITS Architecture, or been included in only a very cursory manner.

10.1. Roles and Responsibilities for Maintenance

Responsibility for maintenance of the New Mexico Statewide ITS Architecture lies with the New Mexico Department of Transportation, since they perform the primary statewide planning organization functions, and are one of the primary users of the architecture. A group of core stakeholders will act as an "institutional framework" to review proposed changes to the architecture. This group of core stakeholders is important because the Statewide ITS Architecture is a consensus framework for integrating ITS systems. As it was a consensus-driven product in its initial creation, so it should remain a consensus-driven product as it is maintained. This section defines the stakeholders and their roles and responsibilities for the maintenance of the New Mexico Statewide ITS Architecture.

10.1.1. Definitions

The following groups or persons have a role in the maintenance of the architecture:

- **Stakeholders.** Any government agency or private organization that has a role in providing transportation services in the region.
- **Maintenance Working Group.** A group of stakeholder representatives who are responsible for the technical review of updates/changes to the New Mexico Statewide ITS Architecture, and for approving changes to go into the architecture.
- **Responsible Agency.** The stakeholder agency with primary responsibility for maintenance of the architecture.
- **Maintenance Manager.** The person responsible for overseeing and guiding the maintenance efforts.

10.1.2. Stakeholders

Stakeholders are any government agency or private organization that is involved with or has an interest in providing transportation services in the state. Each stakeholder owns, operates, and/or maintains one or more ITS element in the state and, therefore, the in architecture.

The success of the change management process outlined in this Maintenance Plan is highly dependent on the participation of the stakeholders identified in the architecture. Without stakeholders participation in tracking the development of their ITS systems, and properly updating the architecture, the change management process will not succeed and the usefulness of the architecture will diminish over time.

The primary responsibility of the stakeholder agencies is to submit changes to the New Mexico Statewide ITS Architecture that are brought on by new plans or projects that are being planned or deployed for the stakeholder agency. The stakeholder agency must submit the changes in the Statewide ITS Architecture to the Maintenance Working Group.

If stakeholders desire more involvement in the architecture review process, they can get involved through voluntary participation in the Maintenance Working Group.

Each Stakeholder agency that is part of the Maintenance Working Group will designate an Authorized Representative who can sign off on architecture related changes for the agency.

10.1.3. Maintenance Working Group

The New Mexico Statewide ITS Architecture Maintenance Working Group, or the Maintenance Working Group for short, has the following responsibilities:

- Collecting and compiling proposed changes and updates to the architecture from stakeholder agencies.
- Evaluating each proposed change from a technical standpoint, and reaching a consensus on the proposed change (this may require contacting additional stakeholders if one or more of their systems are affected).
- Approving changes to the architecture.
- Making any institutional or policy related decisions that arise in the maintenance of the architecture

The maintenance working group for the State of New Mexico is a subset of the stakeholders dealing with ITS throughout the state. In other words, representatives of stakeholder agencies who are represented in the Statewide ITS Architecture are candidates for a voluntary maintenance working group.

The maintenance working group will have as its core members key staff from NMDOT who represent the different areas of transportation within the Department (e.g. operations, maintenance, and planning). Additionally, “major” stakeholders within the state will be encouraged to participate. A major stakeholder is considered to be any stakeholder that has

multiple ITS elements or systems represented throughout the Statewide ITS Architecture (e.g. NMDOT, NM Department of Public Safety, etc.).

The Maintenance Working Group will elect a Chairperson (and Vice-Chairperson in their absence) to conduct the meetings. The Chairperson is responsible for calling meetings, developing an agenda for meetings, and leading the meetings. The Chairperson will be elected for a two-year term by a simple majority vote of a Working Group meeting where there is a quorum (2/3 of the member representatives present).

Representatives on the MWG should be specifically named, and their respective proxies (if allowed) should be called out.

10.1.4. Responsible Agency

The Responsible Agency is the government agency (state agency) that formally maintains the architecture. The Responsible Agency assigns resources for making the physical changes to the architecture baseline, and for coordinating the maintenance of the architecture. The Responsible Agency for the New Mexico Statewide ITS Architecture is NMDOT, since they are the transportation planning organization for the state, and will be primary users of the architecture. The specific organization within NMDOT that will be responsible for the maintenance effort is the Intelligent Transportation Systems Bureau.

10.1.5. Maintenance Manager

The Responsible Agency will appoint a person to the role of Maintenance Manager to coordinate the maintenance activities of the New Mexico Statewide ITS Architecture. The Maintenance Manager is the coordinator and main point of contact for all maintenance activities, including receiving Change Requests forms, tracking Change Requests, and distributing documentation. This person will be the Champion defined in Section 3.1.

The Maintenance Manager has the following responsibilities:

- Coordinate the activities of the Maintenance Working Group
- Receive Change Request forms and requests for documentation from stakeholders
- Distribute the baseline documents and outputs of the architectures to stakeholders.
- Maintain the “official” records of the New Mexico Statewide ITS Architecture, including the baseline documents, meeting minutes, the Change Request Database, and the list of Points of Contacts for the Stakeholder
- Ensure the status of each Change Request is properly updated in the Change Request Database
- Maintain a complete contact list of all stakeholders within the state as well as maintain a list of all stakeholders outside the state (e.g. TxDOT, ADOT, etc.) along with the maintenance schedule for they’re perspective ITS Architectures.

Some of these responsibilities may be delegated to staff or consultants.

10.2. Timetable for Maintenance

How often will the Statewide ITS Architecture be modified or updated? What events or timetable will be used for making updates or changes to the architecture? There are two basic approaches that the State of New Mexico will utilize for maintaining the architecture:

- **Periodic Maintenance.** Update the architecture based upon one of the recurring activities of the transportation planning process. For example, it's natural that the ITS architecture would be updated at the same frequency as the statewide transportation plan is updated (every three to five years) or the Transportation Improvement Program is updated (at least every two years). The update of the architecture will occur several months prior to the transportation planning document update, so that the revised architecture could serve as an input to the planning update. Publication and versioning costs are minimized for the periodic maintenance approach since there is a new version only once in the maintenance cycle.
- **Exception Maintenance.** This approach will be followed if there is an urgent need to make a change, or if a minor change is desired to address some stakeholder need. In this case the change can be initiated as needed. Publication and versioning costs are dependent on the frequency of changes made to the statewide ITS architecture.

10.2.1. Periodic Updates

A comprehensive architecture update will occur every three years, concurrent with the formal update of the STIP. This is a natural result of the New Mexico Statewide ITS Architecture being a component of the statewide transportation planning process. The update is necessary to ensure that the architecture continues to accurately represent the statewide view of ITS Systems. The comprehensive update may include adding new stakeholders, reviewing transportation needs and services for the region, updating the status of projects, and reflecting new goals and strategies, as appropriate. Operational concepts, system functional requirements, project sequencing, ITS standards, and list of agency agreements may also be updated at this time.

Between major updates of the architecture, the following interim update actions will be performed:

On an annual basis, the Maintenance Manager will actively solicit changes from each key stakeholder a set of needed updates. The Maintenance Manager will contact the key stakeholders, via e-mail, written correspondence, or by telephone, and inquire if the stakeholder has any changes to the Statewide ITS Architecture. It is the responsibility of the stakeholders to complete and submit the Change Request Forms to the Maintenance Manager for consideration. Within a defined period, the submitted Change Request Forms will be collected and reviewed by the Maintenance Working Group for consideration in the next minor update of the Statewide ITS Architecture.

The Maintenance Plan will also be reviewed at the annual updates for required changes to the Maintenance Plan. Use of the Statewide ITS Architecture and modifications to it may differ from what was anticipated during the initial development of the Maintenance Plan. Revising the Maintenance Plan will ensure that the change management process defined is effective.

10.2.2. Event-Driven Updates

There are certain considerations listed above that may call for an event driven update to the architecture. In this case a stakeholder may submit a Change Request Form to the Maintenance Manager and request that the Maintenance Working Group review and approve the change request prior to the next scheduled update of the Statewide ITS Architecture. This may be necessary if a stakeholder suddenly requires federal funding for a previously unplanned ITS project, and needs the ITS project to be included in the Statewide ITS Architecture.

10.3. Architecture Baseline

Establishing an architecture baseline requires clear identification of the architecture products to be maintained, including specific format and version information. For the New Mexico Statewide ITS Architecture the following are identified as the architecture baseline:

- New Mexico Statewide ITS Architecture Document (this document)
- New Mexico Statewide ITS Strategic Plan (document).
- Set of Customized Market Packages (visio file)
- Turbo Architecture Database
- Statewide ITS Architecture Web pages
- Change Database
- Stakeholder List

Regarding the Architecture and ITS Strategic Plan, documents, the original source document, in Microsoft Word format, will be held by the maintenance manager, while a PDF version of the documents will be available for general distribution. In addition, a version number and date will be included inside the cover page. Each document will use a versioning scheme that identifies the baseline and revision number. For example, the initial release of the documents at the conclusion of this effort will be version 1.00. Minor revisions will be 1.01, 1.02, etc. The next major revision to the document will be version 2.00. Regarding the set of customized market packages, the visio file will be maintained by the maintenance manager.

Regarding the Turbo Architecture Database, the maintenance manager will maintain a zipped version of the final delivered New Mexico Statewide ITS Architecture database. The name, date, and size of the database file inside the zipped file will be entered into an architecture log as version 1.0 of the architecture.

Regarding the web site, a CD-ROM version of the final web site will be maintained by the maintenance manager. The version number of the architecture will be clearly visible somewhere on the home page of the web site so that the version being viewed is immediately identifiable.

The Change database will be a Microsoft Access database with the version number in the name of the database.

The Stakeholder list will be a Microsoft Excel file with the version number in the name of the file.

10.4. Change Management Process

This change management process specifies how changes are identified, how often changes will be made, and how the changes will be reviewed, implemented, and released. The change management process involves five steps:

- **Identify Change.** Review what changes are needed and complete and submit a Change Request Form.
- **Evaluate and Review Change.** An initial evaluation of the change for completeness and consensus. The MWG will then review the results of the evaluation and approve the change.
- **Update Baseline.** Apply the approved changes to the Statewide ITS Architecture documents.
- **Notify Stakeholders.** Inform the stakeholders of the updated changes to the Statewide ITS Architecture documents, and distribute the documents as necessary.

The identification of who performs these steps is shown in Figure 15.

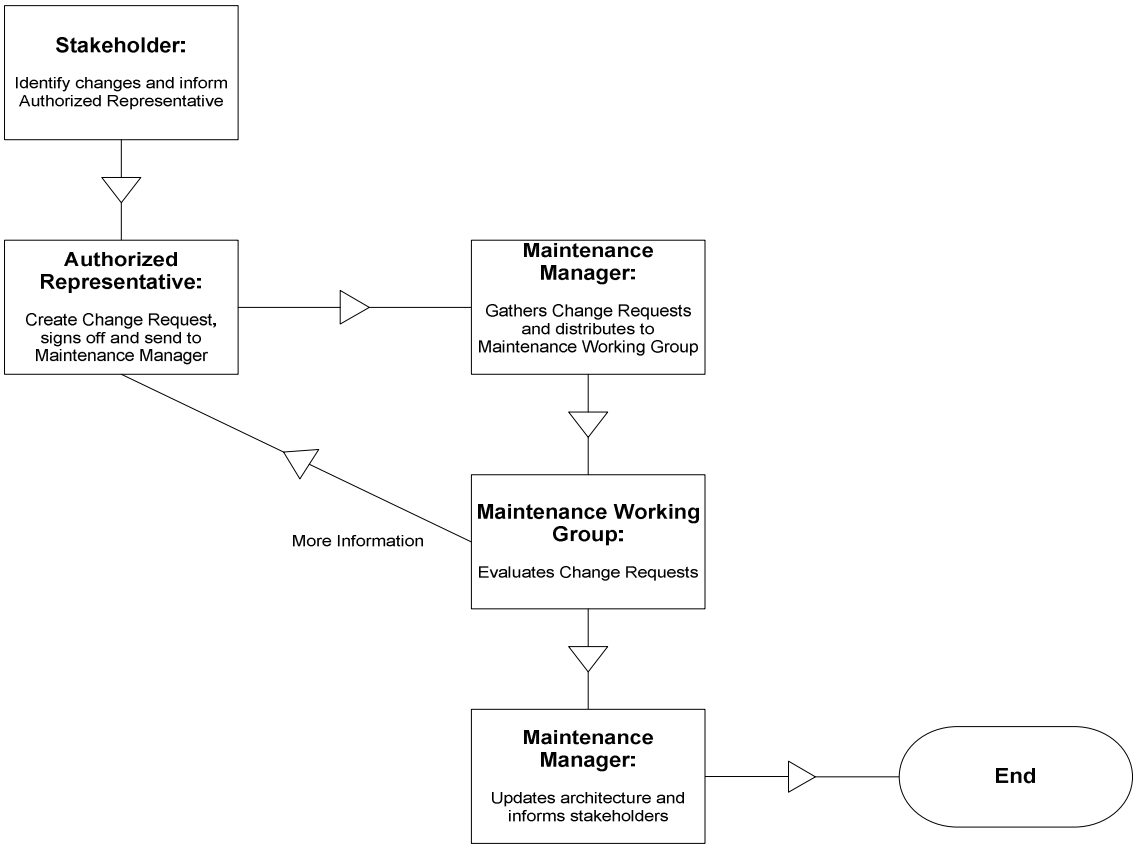


Figure 15. Change Management Process

10.4.1. Identify Change

This involves two issues:

- who can identify a change to the architecture, and
- how will the change request be documented.

The question of who can make change requests is an important one. If literally anyone can input requests the region runs the risk of being overrun by requests that will tax scarce resources to review and deliberate the change request. On the other end of the spectrum, if too much formality or paperwork is added to the process then many valid or needed changes may go unexpressed.

Any Stakeholder identified in the Statewide ITS Architecture is allowed to submit Change Requests. This effectively indicates that all changes have the approval of an existing, defined stakeholder in the ITS Architecture. If the Change Request is to add a new Stakeholder and

that Stakeholder's ITS Elements and Interfaces, the Responsible Agency for the architecture must submit the Change Request.

A Change Request Form will be used to submit changes for review. The Change Request Form for the New Mexico Statewide ITS Architecture can be found in Appendix F. The Maintenance Change Request Form includes the following information:

- Name of change
- Description of change
- Part of baseline affected (could be check boxes for document, database, web site, and not known)
- Rationale for change
- Originator name or agency
- Date of origination

This information entered on the Change Request Form will be added to a change database, maintained by the Responsible Agency. The change database will include following additional fields of information:

- Change number (some unique identifier)
- Change disposition (accepted, rejected, deferred)
- Change type (minor or significant)
- Disposition comment
- Disposition date
- Who in the Maintenance Working Group was present in disposition determination.

10.4.2. Evaluate and Review the Change Request

Upon receiving a Change Request by the Maintenance Manager, an initial evaluation of the Change Request will be made for the impact to the overall architecture or the affected document. The purpose of the evaluation is two-fold:

- Verify that the Change Request form and supporting materials is complete and correct
- Compare with other Change Request forms and determine if there are any conflicts

If the proposal for architecture modification has an impact on other stakeholders, the evaluator(s) will contact the Stakeholders to confirm their agreement with the modification. All Stakeholders directly affected by the proposed change(s) must approve and sign-off the Change Request before the Maintenance Working Group considers the Change Request.

There are several options as to who performs the initial assessment, including:

- The Maintenance Manager

- Maintenance Working Group
- The person submitting the change
- A consultant, hired to support the maintenance activities of the architecture

Each of the above options has positive and negative implications, but the evaluator must have working knowledge of the architecture to evaluate the proposed changes. The Maintenance Manager or the Maintenance Working Group will assign the evaluation option to use for each change request evaluation received.

Upon completing the initial assessment, the Change Request form will be reviewed by the Maintenance Working Group (either at a Maintenance Working Group meeting or via some electronic means). Maintenance Working Group meetings are called by the Maintenance Manager (or their designated representative).

Maintenance Working Group meetings called by the Maintenance Manager will occur at least on an annual basis. When calling the annual meeting, the Maintenance Manager will send a reminder to all Stakeholders to update their ITS Elements and Interfaces in the architecture, if necessary. If sufficient Change Request Forms are submitted, the Maintenance Manager may call a Maintenance Working Group meeting at more frequent intervals to review the Change Request forms. The Maintenance Manager will act as Chairperson for these meetings. The Maintenance Manager will distribute copies of all Change Request Forms submitted and all supporting materials to all Stakeholders prior to the meeting for their review and assemble an agenda. Maintenance Working Group meetings can also be requested by one of the stakeholders if there is an urgent need to update the architecture quickly.

The Maintenance Working Group will be provided sufficient time to review the Change Requests before the meeting. During the meeting, the Maintenance Working Group will review the proposed changes and offer any comments.

After each Change Request is reviewed, if no further comments are offered by the Maintenance Working Group, the Change Request will be considered approved, and the Chairperson will sign off on the Change Request.

If additional comments are made that require action, those comments will be noted on the Change Request form. Where comments (or changes required) are minor in nature they can be made by the submitter of the Change Request form, or by resources designated by the Maintenance Manager and the change considered approved. In the case of major comments or changes to the Change Request, the approval of the change will be deferred until the next meeting of the Maintenance Working Group.

If a Change Request is to be withdrawn from consideration, the Chairperson or the Maintenance Manager will be required to sign-off on the Change Request Form to close out the Change Request.

At the end of the meeting, the Maintenance Working Group will agree if all the approved changes to the architecture necessitate an immediate update to the baseline, or whether the

update should await either additional changes or the next major revision. The decision should be based on the number of Change Requests approved and the nature of the approved changes.

Minutes will be kept for all Maintenance Working Group meetings. Minutes will include, at a minimum, an attendance list, comments made on each Change Request, and the disposition of each Change Request Form (Approved/Withdrawn/Deferred/Request More Information). Minutes will be distributed to all members of the Maintenance Working Group meeting approximately 5 working days after the meeting. Comments are due within 10 working days to the Maintenance Manager. Approved minutes will be signed by the Chairperson and will be distributed to all Stakeholders and posted on the website. The minutes provide a recording process for the change management process and provide traceability.

The Maintenance Working Group will have the option to handling the review and approval process for minor Change Requests via e-mail exclusively rather than through face to face meetings.

10.4.3. Update Baseline

Upon approvals of the Change Request Forms, the decision agreed upon by the Maintenance Working Group is implemented. If the decision is to accept the change and update the baseline then the appropriate portions of the architecture baseline are updated and an updated architecture baseline is defined. In addition to updating the baseline documents, databases, or other outputs, the configuration status will be updated. In the discipline of Configuration Management this is known as Configuration Status Accounting. This accounting is performed by having a document that defines the following information for each separate output of the architecture baseline:

- Output name;
- Output revision number;
- Date of latest revision;
- File Name; and
- Location/Point of Contact.

Periodically, the information in the various outputs of the architecture baseline will be audited to assure that the different representations of the architecture information (e.g. the database and document) are in sync. This configuration auditing will be performed by someone independent of the staff or resources used to actually enter the changes.

Update of the Turbo Architecture Database

The updates of the Turbo Architecture database require a knowledge of the tool as well as the National ITS Architecture on which it is based. This knowledge will reside in the Responsible Agency, either with agency staff or with consultants contracted to support the maintenance effort. In order to simplify the overall architecture maintenance process in the state, the

responsible agency will create a single turbo architecture database containing not only the statewide ITS architecture but all the regional ITS architectures (e.g. AMPA, Santa Fe, Las Cruces, and Farmington). The update of the regional ITS architecture aspect of the consolidated database will be performed by the Responsible Agency (or its designee). Each Regional ITS Architecture will be updated according to its own Maintenance Plan, the aspect of the update that will be handled by the Statewide ITS Architecture Responsible Agency will be just the update of the Turbo Architecture model (in response to approved changes from the Regional ITS Architecture maintenance processes). The Responsible Agency will maintain the single Turbo Architecture file with each architecture (statewide and regional) held as a project architecture within the file. Separate version controlled files with each architecture defined as a regional ITS architecture will be distributed for stakeholder use.

10.4.4. Notify Stakeholders

Point of Contacts for each stakeholder will be notified by e-mail from the Maintenance Manager when baseline documents have been updated. All baseline documents will also be available to stakeholders from a website or other electronic location, such as an ftp site. It is the responsibility of the Maintenance Manager to ensure the most recent document is available from the website. The Configuration Status Document will be one of those outputs that are available.

Request for copies or access to the baseline documents will be made to the Maintenance Manager.

After major revisions to the architecture or the baseline documents, the Maintenance Working Group may elect to also provide all baseline documents to members on CD-ROMs, or secured-access files on the Architecture website..

Appendix A: Acronyms

Appendix A
Acronyms

Acronym	Definition
AASHTO	American Association of State Highway and Transportation Officials
AAMVA	American Association of Motor Vehicle Administrators
ACE	Automated Commercial Environment
ADA	Americans with Disabilities Act
ADMS	Archived Data Management Subsystem
ADUS	Archived Data User Service
AID	Architecture Interconnect Diagram
ANSI	American National Standards Institute
APTA	American Public Transportation Association
APTS	Advanced Public Transportation System
ASTM	American Society for Testing and Materials
ATIS	Advanced Traveler Information System
ATMS	Advanced Traffic Management System
ATS	Automatic Train Stop
AVCS	Advanced Vehicle Control System
AVI	Automated Vehicle Identification
AVL	Automated Vehicle Location
BIA	Bureau of Indian Affairs
BRT	Bus Rapid Transit
C2C	Center to Center
C2F	Center to Field
CCTV	Closed Circuit TV
CFR	Code of Federal Regulations
CV	Commercial Vehicle
CVAS	Commercial Vehicle Administration Subsystem
CVCS	Commercial Vehicle Check Subsystem
CVIEW	Commercial Vehicle Information Exchange Window
CVISN	Commercial Vehicle Information Systems and Networks
CVO	Commercial Vehicle Operations
CVS	Commercial Vehicle Subsystem
DHS	Department of Homeland Security
DMS	Dynamic Message Sign
DMV	Department of Motor Vehicles
DOT	Department of Transportation
DPS	Department of Public Safety
DRE	Disaster Response and Evacuation
DSRC	Dedicated Short Range Communications
E9-1-1	Enhanced 9-1-1
EM	Emergency Management Subsystem
EMC	Emergency Management Center
EMMS	Emissions Management Subsystem
EMS	Emergency Medical Services

Acronym	Definition
EOC	Emergency Operations Center
ETA	Expected Time of Arrival
EVS	Emergency Vehicle Subsystem
FAST	Free and Secure Trade
FHWA	Federal Highway Administration
FMCSA	Federal Motor Carrier Safety Administration
FMS	Fleet and Freight Management Subsystem
FTA	Federal Transit Administration
FTP	File Transfer Protocol
GIS	Geographic Information System
GPS	Global Positioning System
HAR	Highway Advisory Radio
HAZMAT	HAZardous MATerial(s)
HMMS	Highway Maintenance Management System
HOT	High Occupancy Toll
HOV	High Occupancy Vehicle
HRI	Highway Rail Intersection
HSAS	Homeland Security Advisory System
HTML	Hypertext Markup Language
HTTP	Hypertext Transfer Protocol
IEEE	Institute of Electrical and Electronics Engineers, Inc.
IFTA	International Fuel Tax Agreement
IRP	International Registration Plan
ISAC	Information Sharing and Analysis Center
ISO	International Standards Organization
ISP	Information Service Provider
ITE	Institute of Transportation Engineers
ITS	Intelligent Transportation Systems
MCMS	Maintenance and Construction Subsystem
MCO	Maintenance and Construction Operations
MCVS	Maintenance and Construction Vehicle Subsystem
MDT	Mobile Data Terminal
MPH	Miles per Hour
MPO	Metropolitan Planning Organization
MRCOG	Mid Region Council of Governments
MS/ETMCC	Message Set for External TMC Communication
MTD	Motor Transportation Division
NEMA	National Electrical Manufacturers Association
NIPC	National Infrastructure Protection Center
NTCIP	National Transportation Communications for ITS Protocol
OS/OW	Oversize/ Overweight
PDA	Personal Digital Assistant
PIAS	Personal Information Access Subsystem

Acronym	Definition
PIN	Personal Identification Number
PIO	Public Information Office
PMS	Parking Management Subsystem
PRISM	Performance and Registration Information Systems Management
PSAP	Public Safety Answering Point
RCB	Radio Communications Bureau
RECC	Regional Emergency Communications Center
RPO	Regional Planning Organization
RS	Roadway Subsystem
RTD	Regional Transit District
RTS	Remote Traveler Support Subsystem
SAE	Society of Automotive Engineers
SAFER	Safety and Fitness Electronic Records
SDO	Standards Development Organization
SERPO	Southeast Regional Planning Organization
SMS	Security Monitoring Subsystem
STIP	State Transportation Improvement Program
TAS	Toll Administration Subsystem
TCIP	Transit Communications Interface Profiles
TCP	Transport Control Protocol
TCS	Toll Collection Subsystem
TDM	Travel Demand Management
TEA-21	Transportation Efficiency Act for the 21st Century
TMC	Traffic Management Center
TMDD	Traffic Management Data Dictionary
TMS	Traffic Management Subsystem
TOC	Traffic Operations Center
TRMC	Transit Management Center
TRMS	Transit Management Subsystem
TRVS	Transit Vehicle Subsystem
USCBP	US Customs and Border Protection
USDOT	United States Department of Transportation
USR	User Service Requirement
VMS	Variable Message Sign
VS	Vehicle Subsystem
WAA	Wide Area Alert
WAN	Wide Area Network
WIM	Weigh-in Motion
WWW	World Wide Web

Appendix B: Comments and Disposition

Appendix B

Comments and disposition

No.	Comment	Source	Date of Comment	Completed	Dispostion	Comments/Rationale
1	In the introduction it may be good to mention this is a "living document"	Robert Fijol	1/3/2007	1/17/2007	Incorporated	
2	Pg 1 under purpose, can we add a bullet "coordinated deployment of ITS	Robert Fijol	1/3/2007	1/17/2007	Incorporated	
3	All of the acronyms should be spelled out at one point or another for both the document and the web. i.e. what is OS/OW permitting? Also many acronyms mean different things to different people (i.e. planners vs. ITS professionals). Maybe a list of acronyms would be useful???	Robert Fijol	1/3/2007	1/17/2007	Incorporated	Added an Acronym List
4	Pg 54 –why is equipment from West Virginia in here?	Robert Fijol	1/3/2007	1/17/2007	Fixed	Error that has been fixed.
5	Pg 55 – for financial institutions, "Represents the financial institutions the regional transit agencies will use as part of electronic fare payment systems. Includes Health Services through NMDOT." (What does "includes health services" mean?)	Robert Fijol	1/3/2007	1/17/2007	Fixed	The reference to health services is in error and has been removed.
6	Pg 72 –you may want to add further description to US Border Inspection Systems to distinguish it form US Border Inspection Administration Systems. Examples of equipment might be good.	Robert Fijol	1/3/2007	1/17/2007	Fixed	Description has been expanded to better explain the element.
7	Pg 111 - 1st paragraph 2nd sentence "you under review	Robert Fijol	1/3/2007	1/17/2007	Fixed	

No.	Comment	Source	Date of Comment	Completed	Dispostion	Comments/Rationale
8	Pg 125 I would add a little more description:stakeholders involved in the proposed project,cost of implementing the project,mapping to ITS services	Robert Fijol	1/3/2007	1/17/2007	Fixed	
9	Pg 132 the “vee” with wings should be used, but is not necessary	Robert Fijol	1/3/2007	1/17/2007	Fixed	Put the updated figure in and changed text.
10	Can we make the change request form a little more functional? There is not enough room to fill in some of the fields / for signatures –plenty of room left in the margins	Robert Fijol	1/3/2007	1/17/2007	Fixed	Changed the margins to give a bit more room. The rest would be done with additional attached pages.
11	Could we include a table of Acronyms?	Charles Remkes	12/20/2006	1/17/2007	Incorporated	
12	P 9- Section reference is broken	Charles Remkes	12/20/2006	1/17/2007	Fixed	
13	P. 12-sentence regarding equipment packages-I’m unsure what this sentence is saying- please clarify	Charles Remkes	12/20/2006	1/17/2007	Clarified	Description has been expanded to better explain the concept.
14	P. 14- does "level access" mean equitable among all the regional and statewide agencies? Does it refer to a level of authority that can commit resources across agencies?)	Charles Remkes	12/20/2006	1/17/2007	Clarified	Words should have been "executive level access"
15	P 20- stakeholder list. Though it, in part will be addressed in the AMPA Architecture, you still may want to include MRCOG as a stakeholder in the statewide architecture since they are responsible for Railrunner Operations, and those operations will (within the next two years) go beyond the AMPA boundary.	Charles Remkes	12/20/2006	1/17/2007	No Change	Although MRCOG supports joint operation- the owning agency is NMDOT.
16	P 57- MidRTD Operations Center- Do paratransit vehicles constitute an operation?	Charles Remkes	12/20/2006	1/17/2007	No Change	This element will dispatch paratransit.

No.	Comment	Source	Date of Comment	Completed	Dispostion	Comments/Rationale
17	P 61- NMDOT Automatic Traffic Recording Devices-This is also called out in field sensors. Why a dual entry?			1/17/2007	Fixed	Entry is duplicate and has been removed.
18	There is an existing dispatch for HELP Courtesy Patrol-change element status to existingFixed	Charles Remkes	12/20/2006	1/17/2007	Changed	Element status updated
19	NMDOT Statewide Pavement Management System Element should be existing	Charles Remkes	12/20/2006	1/17/2007	Changed	
20	P 66-NMDOT Wayside Equipment- are you referring to signal pre-emption at-grade RxR crossings?	Charles Remkes	12/20/2006	1/17/2007	No Change	No to the equipment that makes the rail gates go down and up.
21	Rail Runner Commuter Rail Website- exists as a link from MRCOG website	Charles Remkes	12/20/2006	1/17/2007	Changed	Status changed to Existing
22	P 70-South Central RTD Transit Vehicles- Would this not be considered part of the SCRTD's operations? As such wouldn't the previous entry be existing if such vehicles are in place and operated by the SCRTD? Or should this status be 'planned'?	Charles Remkes	12/20/2006	1/17/2007	Changed	The transit vehicles are a separate element from the operations center. Both elements should be existing since there are existing flows defined.
23	P 71- Southwest RTD Operations- Same comment relative to SCRTD? Shouldn't there be agreement between operational status and an entity being capable of operating a demand response system?	Charles Remkes	12/20/2006	1/17/2007	Changed	Changed status to Existing. The issue is that SWRTD does not exist yet, but the member agencies and their systems do.
24	Tribal Road Maintenance should have status existing.	Charles Remkes	12/20/2006	1/17/2007	Changed	
25	Tribal Security Monitoring Field Equipment- Is this referring to parking cameras at casinos?	Charles Remkes	12/20/2006	1/17/2007	No Change	It could be, or any other cameras they might put up.

No.	Comment	Source	Date of Comment	Completed	Dispostion	Comments/Rationale
26	NEF - National Enrichment Facility- should we generalize description so it doesn't refer to specific product?	Charles Remkes	12/20/2006	1/17/2007	Changed	Changed to reference nuclear, but not more specific.
27	Tribal Public Safety Dispatch -Some tribes do have their own public safety agencies (i.e., Laguna, Pojoaque)	Charles Remkes	12/20/2006	1/17/2007	Changed	Changed status to Existing.
28	P 81-Table 5- Vehicle Pollution Management Systems- I think this element would probably be owned and operated by a local entity (i.e., Bernalillo County or Albuquerque) that would be more vulnerable to contribute to non-attainment. I don't see it happening on a statewide basis. It might be monitored as part of Fleet Management on vehicle operations, but that would probably be an on-board system vs. a roadside device.	Charles Remkes	12/20/2006	1/17/2007	Changed	Removed Element-not needed.
29	Table 5- comments on many of the planned elements having an existing status.	Charles Remkes	12/20/2006	1/17/2007	Fixed	Numerous status changed to existing.
30	Why is Space Port America mapped to a Multimodal Transportation Service Provider?	Charles Remkes	12/20/2006	1/17/2007	No Change	It functions like an airport, or other places where people move from one mode of transportation to another.
31	Why is Tribal Security Monitoring Field Equipment Existing Status?	Charles Remkes	12/20/2006	1/17/2007	No Change	They have existing security cameras in parking lots around the casinos. The cameras exist, any connection of them to other transporation assets is future.

No.	Comment	Source	Date of Comment	Completed	Dispostion	Comments/Rationale
32	p.98- "Therefore, all of the services identified and listed in Table 7 have a planned status." Does the preceding sentence refer to Table 7 or Table 8. If Table 7, it should precede Table 7, and the Table should be modified because it only has needs and no services (not sure if needs should be qualified as planned or existing rather than prioritized as short, near or long term. If it is referring to Table 8, it is not accurate because some of the services (as you note below) are both planned and existing.	Charles Remkes	12/20/2006	1/17/2007	Fixed	The sentence was incorrect and has been fixed.
33	Wide-Area Alert Why is this planned? We have information dissemination (DMS) and a process for initiating amber alerts.	Charles Remkes	12/20/2006	1/17/2007	No Change	Although the capability exists, there isn't an electronic transfer of data from center to center.
34	Should the update of standards be considered a milestone event for architecture maintenance? I noticed it's not discussed in that section).	Charles Remkes	12/20/2006	1/17/2007	No Change	Don't think the update requires a separate milestone in maintanence, but it is one of the activities that should be performed every time a major update is undertaken.
35	Is the FHWA involved in standards development at all?	Charles Remkes	12/20/2006	1/17/2007	No Change	FHWA funds the standards organizations, but does not develop ITS standards itself.
36	P 140: should this be the System's Engineering Process or should it read using the ITS Architecture to facilitate the System's Engineering Process?	Charles Remkes	12/20/2006	1/17/2007	Clarified	It should read as the latter suggestion.

No.	Comment	Source	Date of Comment	Completed	Dispostion	Comments/Rationale
37	P 140- "Another challenge is engaging a broader stakeholder base on a project when the ITS Architecture indicates that possibility" -what is this trying to say?	Charles Remkes	12/20/2006	1/17/2007	Clarified	Added sentences to better explain.
38	p 148-Review Change. If the MWG is evaluating the change as well as reviewing it, will these two steps be combined?	Charles Remkes	12/20/2006	1/17/2007	Fixed	Agreed- should combine two bullets into one.
39	The description of TIMS is extremely understated and the fact that it will replace CHDB by 2008 is not mentioned.	Paul Adkins	1/4/2007	1/17/2007	Changed	TIMS Description expanded per suggestion.
40	Pg. 87 - in Statewide Architecture Documents the above comments states that all the services are planned. That was not accurate. (i.e., ATMS 06 is listed as existed). I didn't catch it during the statewide review.	Charles Remkes	1/19/2007	1/19/2006	Changed	Service status updated in draft 2.
41	Pg. 89 - In Statewide ITS Architecture Document, the summary of ITS services lists all the services as being planned, but some are existing. Need to check this and change accordingly in Statewide document	Charles Remkes	1/19/2007	1/19/2007	Changed	Service status updated in draft 2.
42	Add diagram showing where other regional architectures are in the state as part of Arch Scope section	Charles Remkes	1/31/2007	3/21/2007	Added	
43	Please place the word "element" in front of inventory in the website	Charles Remkes	1/31/2007	3/23/2007	Changed	Will do this in hyperlinked update
44	Create appendix of detailed functional requirements	Charles Remkes	3/15/2007	3/23/2007	Created	
45	Please provide the database with a conservative build performed	Charles Remkes	3/20/2007	3/23/2007	Created	

Appendix C: ITS Services Mapped to Elements

Appendix C: ITS Services mapped to Elements

Appendix C identifies, for each market package, the status (existing or planned) and the primary elements associated with the market package. Where the service is currently provided by some of the elements (but not others) there is a mix of existing and planned status within a single market package. A service is considered to be existing if some interfaces to provide the service are currently provided via electronic communications, or if their data communications have been decided upon.

Market Package	Market Package Name	Element	Status
AD1	ITS Data Mart	Archive Data Users	Planned
AD1	ITS Data Mart	BIA/Tribal Public Safety Dispatch	Planned
AD1	ITS Data Mart	City of Roswell Fixed Route Transit Dispatch	Planned
AD1	ITS Data Mart	City of Roswell Public Safety Dispatch	Planned
AD1	ITS Data Mart	City of Roswell Traffic Operations Center	Planned
AD1	ITS Data Mart	County Traffic Operations Center	Planned
AD1	ITS Data Mart	DMV Database	Planned
AD1	ITS Data Mart	Local Transit Dispatch	Planned
AD1	ITS Data Mart	Mid-Region RTD Operations Center	Planned
AD1	ITS Data Mart	MPO/RPO Field Sensors	Planned
AD1	ITS Data Mart	MPO/RPO Traffic Database	Planned
AD1	ITS Data Mart	Municipal ITS Field Equipment	Planned
AD1	ITS Data Mart	Municipal Public Safety Dispatch	Planned
AD1	ITS Data Mart	Municipal Traffic Operations Center-Statewide	Planned
AD1	ITS Data Mart	New Mexico Regional HAZMAT Teams	Planned
AD1	ITS Data Mart	New Mexico Statewide Emergency Operations Center (EOC)	Planned
AD1	ITS Data Mart	NM DPS District Dispatch Center	Planned
AD1	ITS Data Mart	NM Motor Transport Division (MTD) District Offices	Planned
AD1	ITS Data Mart	NMDOT Consolidated Highway Database (CHDB)	Planned
AD1	ITS Data Mart	NMDOT Data Warehouse	Planned
AD1	ITS Data Mart	NMDOT District 1 TOC	Planned
AD1	ITS Data Mart	NMDOT District 2 TOC	Planned
AD1	ITS Data Mart	NMDOT District 3 TOC	Planned
AD1	ITS Data Mart	NMDOT District 4 TOC	Planned
AD1	ITS Data Mart	NMDOT District 5 TOC	Planned
AD1	ITS Data Mart	NMDOT District 6 TOC	Planned
AD1	ITS Data Mart	NMDOT District HELP Courtesy Patrol Dispatch	Planned
AD1	ITS Data Mart	NMDOT District Maintenance Office	Planned
AD1	ITS Data Mart	NMDOT District Maintenance Units Dispatch	Planned

Market Package	Market Package Name	Element	Status
AD1	ITS Data Mart	NMDOT Field Sensors	Planned
AD1	ITS Data Mart	NMDOT Highway Maintenance Management System (HMMS)	Planned
AD1	ITS Data Mart	NMDOT Park and Ride Dispatch	Planned
AD1	ITS Data Mart	NMDOT SITE Manager	Planned
AD1	ITS Data Mart	NMDOT Statewide Crash Information System	Planned
AD1	ITS Data Mart	NMDOT Statewide Pavement Management System	Planned
AD1	ITS Data Mart	NMDOT Statewide TMC	Planned
AD1	ITS Data Mart	NMDOT Statewide Transit Database	Planned
AD1	ITS Data Mart	NMDOT TIMS	Planned
AD1	ITS Data Mart	NMDOT Traffic Safety Division Data System	Planned
AD1	ITS Data Mart	NMDOT WIM Sensors	Planned
AD1	ITS Data Mart	North Central RTD Operations	Planned
AD1	ITS Data Mart	Rail Runner Operations	Planned
AD1	ITS Data Mart	Regional Emergency Communications Center	Planned
AD1	ITS Data Mart	South Central RTD Operations	Planned
AD1	ITS Data Mart	Southwest RTD Operations	Planned
AD1	ITS Data Mart	Tribal Archive Data Warehouse	Planned
AD1	ITS Data Mart	Tribal ITS Field Equipment	Planned
AD1	ITS Data Mart	Tribal Public Safety Dispatch-Statewide	Planned
AD1	ITS Data Mart	Tribal Transportation Operations	Planned
AD3	ITS Virtual Data Warehouse	Archive Data Users	Planned
AD3	ITS Virtual Data Warehouse	NMDOT Consolidated Highway Database (CHDB)	Planned
AD3	ITS Virtual Data Warehouse	NMDOT Data Warehouse	Planned
AD3	ITS Virtual Data Warehouse	NMDOT Highway Maintenance Management System (HMMS)	Planned
AD3	ITS Virtual Data Warehouse	NMDOT SITE Manager	Planned
AD3	ITS Virtual Data Warehouse	NMDOT Statewide Crash Information System	Planned
AD3	ITS Virtual Data Warehouse	NMDOT Statewide Pavement Management System	Planned
AD3	ITS Virtual Data Warehouse	NMDOT Statewide Transit Database	Planned
AD3	ITS Virtual Data Warehouse	NMDOT TIMS	Planned
AD3	ITS Virtual Data Warehouse	NMDOT Traffic Safety Division Data System	Planned
APTS1	Transit Vehicle Tracking	City of Roswell Fixed Route Transit Dispatch	Planned
APTS1	Transit Vehicle Tracking	City of Roswell Fixed Route Transit Vehicles	Planned
APTS1	Transit Vehicle Tracking	Independent School District Buses	Planned
APTS1	Transit Vehicle Tracking	Independent School District Dispatch	Planned
APTS1	Transit Vehicle Tracking	Local Transit Dispatch	Planned

Market Package	Market Package Name	Element	Status
APTS1	Transit Vehicle Tracking	Local Transit Vehicles	Planned
APTS1	Transit Vehicle Tracking	Mid-Region RTD Operations Center	Planned
APTS1	Transit Vehicle Tracking	Mid-Region RTD Transit Vehicles	Planned
APTS1	Transit Vehicle Tracking	NMDOT Park and Ride Dispatch	Planned
APTS1	Transit Vehicle Tracking	NMDOT Park and Ride Shuttle Buses	Planned
APTS1	Transit Vehicle Tracking	North Central RTD Operations	Planned
APTS1	Transit Vehicle Tracking	North Central RTD Transit Vehicles	Planned
APTS1	Transit Vehicle Tracking	Rail Runner Operations	Planned
APTS1	Transit Vehicle Tracking	Rail Runner Transit Rail Vehicles	Planned
APTS1	Transit Vehicle Tracking	South Central RTD Operations	Planned
APTS1	Transit Vehicle Tracking	South Central RTD Transit Vehicles	Planned
APTS1	Transit Vehicle Tracking	Southwest RTD Demand Response Transit Vehicles	Planned
APTS1	Transit Vehicle Tracking	Southwest RTD Operations	Planned
APTS2	Transit Fixed-Route Operations	BIA Roads	Planned
APTS2	Transit Fixed-Route Operations	City of Roswell Fixed Route Transit Dispatch	Planned
APTS2	Transit Fixed-Route Operations	City of Roswell Fixed Route Transit Vehicles	Planned
APTS2	Transit Fixed-Route Operations	City of Roswell Public Information System	Planned
APTS2	Transit Fixed-Route Operations	City of Roswell Public Works Dispatch	Planned
APTS2	Transit Fixed-Route Operations	City of Roswell Traffic Operations Center	Planned
APTS2	Transit Fixed-Route Operations	City of Roswell Website	Planned
APTS2	Transit Fixed-Route Operations	County Public Works Dispatch	Planned
APTS2	Transit Fixed-Route Operations	County Traffic Operations Center	Planned
APTS2	Transit Fixed-Route Operations	Independent School District Buses	Planned
APTS2	Transit Fixed-Route Operations	Independent School District Dispatch	Planned
APTS2	Transit Fixed-Route Operations	Local Transit Dispatch	Planned
APTS2	Transit Fixed-Route Operations	Local Transit IVR System and Website	Planned
APTS2	Transit Fixed-Route Operations	Local Transit Vehicles	Planned
APTS2	Transit Fixed-Route Operations	Military Installation Operations Offices	Planned
APTS2	Transit Fixed-Route Operations	Municipal Public Works Dispatch	Planned
APTS2	Transit Fixed-Route Operations	Municipal Traffic Operations Center-Statewide	Planned
APTS2	Transit Fixed-Route Operations	Municipal Website	Planned
APTS2	Transit Fixed-Route Operations	NMDOT Advanced Traveler Information System	Planned
APTS2	Transit Fixed-Route Operations	NMDOT District 1 TOC	Planned
APTS2	Transit Fixed-Route Operations	NMDOT District 2 TOC	Planned
APTS2	Transit Fixed-Route Operations	NMDOT District 3 TOC	Planned
APTS2	Transit Fixed-Route Operations	NMDOT District 4 TOC	Planned
APTS2	Transit Fixed-Route Operations	NMDOT District 5 TOC	Planned

Market Package	Market Package Name	Element	Status
APTS2	Transit Fixed-Route Operations	NMDOT District 6 TOC	Planned
APTS2	Transit Fixed-Route Operations	NMDOT District Maintenance Office	Planned
APTS2	Transit Fixed-Route Operations	NMDOT District Maintenance Units Dispatch	Planned
APTS2	Transit Fixed-Route Operations	NMDOT District Public Information System	Planned
APTS2	Transit Fixed-Route Operations	NMDOT Park and Ride Dispatch	Planned
APTS2	Transit Fixed-Route Operations	NMDOT Park and Ride Shuttle Buses	Planned
APTS2	Transit Fixed-Route Operations	NMDOT Statewide TMC	Planned
APTS2	Transit Fixed-Route Operations	NMDOT Traveler Information Website	Planned
APTS2	Transit Fixed-Route Operations	North Central RTD Operations	Planned
APTS2	Transit Fixed-Route Operations	North Central RTD Transit Vehicles	Planned
APTS2	Transit Fixed-Route Operations	North Central RTD Transit Website	Planned
APTS2	Transit Fixed-Route Operations	Private Sector Traveler Information Services	Planned
APTS2	Transit Fixed-Route Operations	Rail Runner Commuter Rail Website	Planned
APTS2	Transit Fixed-Route Operations	Rail Runner Operations	Planned
APTS2	Transit Fixed-Route Operations	Rail Runner Transit Rail Vehicles	Planned
APTS2	Transit Fixed-Route Operations	South Central RTD Operations	Planned
APTS2	Transit Fixed-Route Operations	South Central RTD Transit Vehicles	Planned
APTS2	Transit Fixed-Route Operations	Tribal Road Maintenance	Planned
APTS2	Transit Fixed-Route Operations	Tribal Transportation Operations	Planned
APTS3	Demand Response Transit Operations	County Public Works Dispatch	Planned
APTS3	Demand Response Transit Operations	Local Transit Dispatch	Existing
APTS3	Demand Response Transit Operations	Local Transit IVR System and Website	Planned
APTS3	Demand Response Transit Operations	Local Transit Vehicles	Existing
APTS3	Demand Response Transit Operations	Mid-Region RTD Operations Center	Planned
APTS3	Demand Response Transit Operations	Mid-Region RTD Transit Vehicles	Planned
APTS3	Demand Response Transit Operations	Mid-Region RTD Transit Website	Planned
APTS3	Demand Response Transit Operations	Municipal Public Works Dispatch	Planned
APTS3	Demand Response Transit Operations	Municipal Traffic Operations Center-Statewide	Planned
APTS3	Demand Response Transit Operations	NMDOT District 1 TOC	Planned
APTS3	Demand Response Transit Operations	NMDOT District 3 TOC	Planned
APTS3	Demand Response Transit Operations	NMDOT District 5 TOC	Planned
APTS3	Demand Response Transit Operations	NMDOT District Maintenance Office	Planned

Market Package	Market Package Name	Element	Status
APTS3	Demand Response Transit Operations	NMDOT Statewide TMC	Planned
APTS3	Demand Response Transit Operations	NMDOT Traveler Information Website	Planned
APTS3	Demand Response Transit Operations	North Central RTD Operations	Existing
APTS3	Demand Response Transit Operations	North Central RTD Transit Vehicles	Existing
APTS3	Demand Response Transit Operations	North Central RTD Transit Website	Planned
APTS3	Demand Response Transit Operations	Private Sector Traveler Information Services	Planned
APTS3	Demand Response Transit Operations	South Central RTD Operations	Existing
APTS3	Demand Response Transit Operations	South Central RTD Transit Vehicles	Existing
APTS3	Demand Response Transit Operations	South Central RTD Website	Planned
APTS3	Demand Response Transit Operations	Southwest RTD Demand Response Transit Vehicles	Planned
APTS3	Demand Response Transit Operations	Southwest RTD Operations	Planned
APTS3	Demand Response Transit Operations	Southwest RTD Website	Planned
APTS4	Transit Passenger and Fare Management	City of Roswell Fixed Route Transit Dispatch	Planned
APTS4	Transit Passenger and Fare Management	City of Roswell Fixed Route Transit Vehicles	Planned
APTS4	Transit Passenger and Fare Management	City of Roswell Transit Kiosks	Planned
APTS4	Transit Passenger and Fare Management	Financial Institution	Planned
APTS4	Transit Passenger and Fare Management	Local Transit Dispatch	Planned
APTS4	Transit Passenger and Fare Management	Local Transit Vehicles	Planned
APTS4	Transit Passenger and Fare Management	Mid-Region RTD Operations Center	Planned
APTS4	Transit Passenger and Fare Management	Mid-Region RTD Transit Vehicles	Planned
APTS4	Transit Passenger and Fare Management	North Central RTD Operations	Planned
APTS4	Transit Passenger and Fare Management	North Central RTD Transit Vehicles	Planned
APTS4	Transit Passenger and Fare Management	Regional Smart Card	Planned
APTS4	Transit Passenger and Fare Management	Regional Transit Kiosks-Statewide	Planned
APTS4	Transit Passenger and Fare Management	South Central RTD Operations	Planned

Market Package	Market Package Name	Element	Status
APTS4	Transit Passenger and Fare Management	South Central RTD Transit Vehicles	Planned
APTS4	Transit Passenger and Fare Management	Southwest RTD Demand Response Transit Vehicles	Planned
APTS4	Transit Passenger and Fare Management	Southwest RTD Operations	Planned
APTS5	Transit Security	City of Roswell Fixed Route Transit Dispatch	Planned
APTS5	Transit Security	City of Roswell Fixed Route Transit Vehicles	Planned
APTS5	Transit Security	City of Roswell Public Information System	Planned
APTS5	Transit Security	City of Roswell Public Safety Dispatch	Planned
APTS5	Transit Security	County Public Information System	Planned
APTS5	Transit Security	Independent School District Buses	Planned
APTS5	Transit Security	Independent School District Dispatch	Planned
APTS5	Transit Security	Local Transit Dispatch	Planned
APTS5	Transit Security	Local Transit Vehicles	Planned
APTS5	Transit Security	Mid-Region RTD Operations Center	Planned
APTS5	Transit Security	Mid-Region RTD Transit Vehicles	Planned
APTS5	Transit Security	Municipal Public Information System	Planned
APTS5	Transit Security	Municipal Public Safety Dispatch	Planned
APTS5	Transit Security	NM DPS District Dispatch Center	Planned
APTS5	Transit Security	NMDOT Advanced Traveler Information System	Planned
APTS5	Transit Security	NMDOT District Public Information System	Planned
APTS5	Transit Security	NMDOT Park and Ride Dispatch	Planned
APTS5	Transit Security	NMDOT Park and Ride Shuttle Buses	Planned
APTS5	Transit Security	North Central RTD Operations	Planned
APTS5	Transit Security	North Central RTD Transit Vehicles	Planned
APTS5	Transit Security	Rail Runner Operations	Planned
APTS5	Transit Security	Rail Runner Transit Rail Vehicles	Planned
APTS5	Transit Security	Regional Emergency Communications Center	Planned
APTS5	Transit Security	Regional Transportation Centers	Planned
APTS5	Transit Security	South Central RTD Operations	Planned
APTS5	Transit Security	South Central RTD Transit Vehicles	Planned
APTS5	Transit Security	Southwest RTD Demand Response Transit Vehicles	Planned
APTS5	Transit Security	Southwest RTD Operations	Planned
APTS6	Transit Maintenance	City of Roswell Fixed Route Transit Dispatch	Planned
APTS6	Transit Maintenance	City of Roswell Fixed Route Transit Vehicles	Planned
APTS6	Transit Maintenance	Independent School District Buses	Planned

Market Package	Market Package Name	Element	Status
APTS6	Transit Maintenance	Independent School District Dispatch	Planned
APTS6	Transit Maintenance	Local Transit Dispatch	Planned
APTS6	Transit Maintenance	Local Transit Vehicles	Planned
APTS6	Transit Maintenance	Mid-Region RTD Operations Center	Planned
APTS6	Transit Maintenance	Mid-Region RTD Transit Vehicles	Planned
APTS6	Transit Maintenance	NMDOT Park and Ride Dispatch	Planned
APTS6	Transit Maintenance	NMDOT Park and Ride Shuttle Buses	Planned
APTS6	Transit Maintenance	North Central RTD Operations	Planned
APTS6	Transit Maintenance	North Central RTD Transit Vehicles	Planned
APTS6	Transit Maintenance	Rail Runner Operations	Planned
APTS6	Transit Maintenance	Rail Runner Transit Rail Vehicles	Planned
APTS6	Transit Maintenance	South Central RTD Operations	Planned
APTS6	Transit Maintenance	South Central RTD Transit Vehicles	Planned
APTS6	Transit Maintenance	Southwest RTD Demand Response Transit Vehicles	Planned
APTS6	Transit Maintenance	Southwest RTD Operations	Planned
APTS7	Multi-modal Coordination	Albuquerque International Airport	Planned
APTS7	Multi-modal Coordination	City of Roswell Fixed Route Transit Dispatch	Planned
APTS7	Multi-modal Coordination	City of Roswell Fixed Route Transit Vehicles	Planned
APTS7	Multi-modal Coordination	Local Transit Dispatch	Planned
APTS7	Multi-modal Coordination	Local Transit Vehicles	Planned
APTS7	Multi-modal Coordination	Mid-Region RTD Operations Center	Planned
APTS7	Multi-modal Coordination	Mid-Region RTD Transit Vehicles	Planned
APTS7	Multi-modal Coordination	NMDOT Park and Ride Dispatch	Planned
APTS7	Multi-modal Coordination	NMDOT Park and Ride Shuttle Buses	Planned
APTS7	Multi-modal Coordination	North Central RTD Operations	Planned
APTS7	Multi-modal Coordination	North Central RTD Transit Vehicles	Planned
APTS7	Multi-modal Coordination	Other Regional Transit Districts	Planned
APTS7	Multi-modal Coordination	Rail Runner Operations	Planned
APTS7	Multi-modal Coordination	Rail Runner Transit Rail Vehicles	Planned
APTS7	Multi-modal Coordination	Regional Airports	Planned
APTS7	Multi-modal Coordination	South Central RTD Operations	Planned
APTS7	Multi-modal Coordination	South Central RTD Transit Vehicles	Planned
APTS7	Multi-modal Coordination	Southwest RTD Demand Response Transit Vehicles	Planned
APTS7	Multi-modal Coordination	Southwest RTD Operations	Planned
APTS7	Multi-modal Coordination	Space Port America	Planned
APTS8	Transit Traveler Information	City of Roswell Fixed Route Transit Dispatch	Planned
APTS8	Transit Traveler Information	City of Roswell Transit Kiosks	Planned
APTS8	Transit Traveler Information	City of Roswell Website	Planned
APTS8	Transit Traveler Information	Local Transit Dispatch	Planned
APTS8	Transit Traveler Information	Local Transit IVR System and Website	Planned

Market Package	Market Package Name	Element	Status
APTS8	Transit Traveler Information	Mid-Region RTD Operations Center	Planned
APTS8	Transit Traveler Information	Mid-Region RTD Transit Website	Planned
APTS8	Transit Traveler Information	Municipal Website	Planned
APTS8	Transit Traveler Information	NMDOT Advanced Traveler Information System	Planned
APTS8	Transit Traveler Information	NMDOT Rest Area/Visitor Center/Truck Stop/Service Plaza Kiosks	Planned
APTS8	Transit Traveler Information	NMDOT Welcome Center/Tourist Info Plazas	Planned
APTS8	Transit Traveler Information	North Central RTD Operations	Planned
APTS8	Transit Traveler Information	North Central RTD Transit Website	Planned
APTS8	Transit Traveler Information	Private Travelers Personal Computing Devices	Planned
APTS8	Transit Traveler Information	Regional Transit Kiosks-Statewide	Planned
APTS8	Transit Traveler Information	Regional Transportation Centers	Planned
APTS8	Transit Traveler Information	South Central RTD Operations	Planned
APTS8	Transit Traveler Information	South Central RTD Website	Planned
APTS8	Transit Traveler Information	Southwest RTD Operations	Planned
APTS8	Transit Traveler Information	Southwest RTD Website	Planned
ATIS1	Broadcast Traveler Information	Arizona Highway Patrol Dispatch	Planned
ATIS1	Broadcast Traveler Information	BIA Roads	Planned
ATIS1	Broadcast Traveler Information	BIA/Tribal Public Safety Dispatch	Planned
ATIS1	Broadcast Traveler Information	City of Roswell Fixed Route Transit Dispatch	Planned
ATIS1	Broadcast Traveler Information	City of Roswell Public Information System	Planned
ATIS1	Broadcast Traveler Information	City of Roswell Public Safety Dispatch	Planned
ATIS1	Broadcast Traveler Information	City of Roswell Public Works Dispatch	Planned
ATIS1	Broadcast Traveler Information	City of Roswell Traffic Operations Center	Planned
ATIS1	Broadcast Traveler Information	City of Roswell Transit Kiosks	Planned
ATIS1	Broadcast Traveler Information	City of Roswell Website	Planned
ATIS1	Broadcast Traveler Information	Colorado State Police Dispatch	Planned
ATIS1	Broadcast Traveler Information	County Public Information System	Planned
ATIS1	Broadcast Traveler Information	County Public Works Dispatch	Planned
ATIS1	Broadcast Traveler Information	County Website	Planned
ATIS1	Broadcast Traveler Information	Flood Control (monitoring) Dams	Planned
ATIS1	Broadcast Traveler Information	Local Print and Broadcast Media	Planned
ATIS1	Broadcast Traveler Information	Local Transit Dispatch	Planned
ATIS1	Broadcast Traveler Information	Mid-Region RTD Operations Center	Planned
ATIS1	Broadcast Traveler Information	Military Installation Operations Offices	Planned
ATIS1	Broadcast Traveler Information	Municipal Public Information System	Planned
ATIS1	Broadcast Traveler Information	Municipal Public Safety Dispatch	Planned
ATIS1	Broadcast Traveler Information	Municipal Public Works Dispatch	Planned

Market Package	Market Package Name	Element	Status
ATIS1	Broadcast Traveler Information	Municipal Traffic Operations Center-Statewide	Planned
ATIS1	Broadcast Traveler Information	Municipal Website	Planned
ATIS1	Broadcast Traveler Information	National Parks and Monuments Sites	Planned
ATIS1	Broadcast Traveler Information	New Mexico National Guard Command System	Planned
ATIS1	Broadcast Traveler Information	New Mexico State Radio Communications Bureau (RCB)	Planned
ATIS1	Broadcast Traveler Information	NM DPS District Dispatch Center	Planned
ATIS1	Broadcast Traveler Information	NMDOT District 1 TOC	Planned
ATIS1	Broadcast Traveler Information	NMDOT District 2 TOC	Planned
ATIS1	Broadcast Traveler Information	NMDOT District 3 TOC	Planned
ATIS1	Broadcast Traveler Information	NMDOT District 4 TOC	Planned
ATIS1	Broadcast Traveler Information	NMDOT District 5 TOC	Planned
ATIS1	Broadcast Traveler Information	NMDOT District 6 TOC	Planned
ATIS1	Broadcast Traveler Information	NMDOT District Maintenance Office	Planned
ATIS1	Broadcast Traveler Information	NMDOT District Maintenance Units Dispatch	Planned
ATIS1	Broadcast Traveler Information	NMDOT District Public Information System	Planned
ATIS1	Broadcast Traveler Information	NMDOT District Website	Planned
ATIS1	Broadcast Traveler Information	NMDOT Rest Area/Visitor Center/Truck Stop/Service Plaza Kiosks	Planned
ATIS1	Broadcast Traveler Information	NMDOT Statewide Public Information Office	Planned
ATIS1	Broadcast Traveler Information	NMDOT Statewide TMC	Planned
ATIS1	Broadcast Traveler Information	NMDOT Welcome Center/Tourist Info Plazas	Planned
ATIS1	Broadcast Traveler Information	North Central RTD Operations	Planned
ATIS1	Broadcast Traveler Information	Oklahoma State Police Dispatch	Planned
ATIS1	Broadcast Traveler Information	Other Regional Transit Districts	Planned
ATIS1	Broadcast Traveler Information	Private Travelers Personal Computing Devices	Planned
ATIS1	Broadcast Traveler Information	Regional Emergency Communications Center	Planned
ATIS1	Broadcast Traveler Information	Regional Transit Kiosks-Statewide	Planned
ATIS1	Broadcast Traveler Information	Regional Transportation Centers	Planned
ATIS1	Broadcast Traveler Information	South Central RTD Operations	Planned
ATIS1	Broadcast Traveler Information	Southwest RTD Operations	Planned
ATIS1	Broadcast Traveler Information	Texas DPS Communications Service	Planned
ATIS1	Broadcast Traveler Information	Tribal Public Safety Dispatch-Statewide	Planned
ATIS1	Broadcast Traveler Information	Tribal Road Maintenance	Planned
ATIS1	Broadcast Traveler Information	Tribal Transportation Operations	Planned
ATIS1	Broadcast Traveler Information	US Border Patrol Stations	Planned
ATIS1	Broadcast Traveler Information	US Bureau of Land Management Offices	Planned
ATIS1	Broadcast Traveler Information	US Forest Service Offices	Planned

Market Package	Market Package Name	Element	Status
ATIS1	Broadcast Traveler Information	White Sands Missile Range Facility	Planned
ATIS2	Interactive Traveler Information	BIA Roads	Planned
ATIS2	Interactive Traveler Information	City of Roswell Fixed Route Transit Dispatch	Planned
ATIS2	Interactive Traveler Information	City of Roswell Public Works Dispatch	Planned
ATIS2	Interactive Traveler Information	City of Roswell Traffic Operations Center	Planned
ATIS2	Interactive Traveler Information	City of Roswell Transit Kiosks	Planned
ATIS2	Interactive Traveler Information	County Public Works Dispatch	Planned
ATIS2	Interactive Traveler Information	County Traffic Operations Center	Planned
ATIS2	Interactive Traveler Information	Local Print and Broadcast Media	Planned
ATIS2	Interactive Traveler Information	Local Transit Dispatch	Planned
ATIS2	Interactive Traveler Information	Mid-Region RTD Operations Center	Planned
ATIS2	Interactive Traveler Information	Municipal Public Works Dispatch	Planned
ATIS2	Interactive Traveler Information	Municipal Traffic Operations Center-Statewide	Planned
ATIS2	Interactive Traveler Information	New Mexico Travel and Tourism Website	Planned
ATIS2	Interactive Traveler Information	NMDOT Advanced Traveler Information System	Planned
ATIS2	Interactive Traveler Information	NMDOT District 1 TOC	Planned
ATIS2	Interactive Traveler Information	NMDOT District 2 TOC	Planned
ATIS2	Interactive Traveler Information	NMDOT District 3 TOC	Planned
ATIS2	Interactive Traveler Information	NMDOT District 4 TOC	Planned
ATIS2	Interactive Traveler Information	NMDOT District 5 TOC	Planned
ATIS2	Interactive Traveler Information	NMDOT District 6 TOC	Planned
ATIS2	Interactive Traveler Information	NMDOT District Maintenance Office	Planned
ATIS2	Interactive Traveler Information	NMDOT District Maintenance Units Dispatch	Planned
ATIS2	Interactive Traveler Information	NMDOT Park and Ride Dispatch	Planned
ATIS2	Interactive Traveler Information	NMDOT Rest Area/Visitor Center/Truck Stop/Service Plaza Kiosks	Planned
ATIS2	Interactive Traveler Information	NMDOT Statewide TMC	Planned
ATIS2	Interactive Traveler Information	NMDOT Traveler Information Website	Planned
ATIS2	Interactive Traveler Information	NMDOT Welcome Center/Tourist Info Plazas	Planned
ATIS2	Interactive Traveler Information	North Central RTD Operations	Planned
ATIS2	Interactive Traveler Information	Other Regional Transit Districts	Planned
ATIS2	Interactive Traveler Information	Private Sector Traveler Information Services	Planned
ATIS2	Interactive Traveler Information	Private Travelers Personal Computing Devices	Planned
ATIS2	Interactive Traveler Information	Private Vehicles	Planned
ATIS2	Interactive Traveler Information	Rail Runner Operations	Planned
ATIS2	Interactive Traveler Information	Regional Transit Kiosks-Statewide	Planned
ATIS2	Interactive Traveler Information	Regional Transportation Centers	Planned

Market Package	Market Package Name	Element	Status
ATIS2	Interactive Traveler Information	South Central RTD Operations	Planned
ATIS2	Interactive Traveler Information	Southwest RTD Operations	Planned
ATIS2	Interactive Traveler Information	Tribal Road Maintenance	Planned
ATIS2	Interactive Traveler Information	Tribal Transportation Operations	Planned
ATMS01	Network Surveillance	City of Roswell ITS Field Equipment	Existing
ATMS01	Network Surveillance	City of Roswell Public Information System	Planned
ATMS01	Network Surveillance	City of Roswell Traffic Operations Center	Existing
ATMS01	Network Surveillance	City of Roswell Website	Planned
ATMS01	Network Surveillance	County ITS Field Equipment	Planned
ATMS01	Network Surveillance	County Public Information System	Planned
ATMS01	Network Surveillance	County Traffic Operations Center	Planned
ATMS01	Network Surveillance	Municipal ITS Field Equipment	Planned
ATMS01	Network Surveillance	Municipal Public Information System	Planned
ATMS01	Network Surveillance	Municipal Traffic Operations Center-Statewide	Planned
ATMS01	Network Surveillance	Municipal Website	Planned
ATMS01	Network Surveillance	NMDOT Advanced Traveler Information System	Planned
ATMS01	Network Surveillance	NMDOT CCTV	Existing
ATMS01	Network Surveillance	NMDOT District 1 TOC	Planned
ATMS01	Network Surveillance	NMDOT District 2 TOC	Planned
ATMS01	Network Surveillance	NMDOT District 3 TOC	Existing
ATMS01	Network Surveillance	NMDOT District 4 TOC	Planned
ATMS01	Network Surveillance	NMDOT District 5 TOC	Planned
ATMS01	Network Surveillance	NMDOT District 6 TOC	Planned
ATMS01	Network Surveillance	NMDOT District Public Information System	Planned
ATMS01	Network Surveillance	NMDOT District Website	Planned
ATMS01	Network Surveillance	NMDOT Field Sensors	Existing
ATMS01	Network Surveillance	NMDOT Statewide Public Information Office	Planned
ATMS01	Network Surveillance	NMDOT Statewide TMC	Existing
ATMS01	Network Surveillance	Private Sector Traveler Information Services	Planned
ATMS01	Network Surveillance	Tribal ITS Field Equipment	Planned
ATMS01	Network Surveillance	Tribal Public Websites	Planned
ATMS01	Network Surveillance	Tribal Transportation Operations	Planned
ATMS03	Surface Street Control	City of Roswell ITS Field Equipment	Existing
ATMS03	Surface Street Control	City of Roswell Traffic Operations Center	Existing
ATMS03	Surface Street Control	County ITS Field Equipment	Planned
ATMS03	Surface Street Control	County Traffic Operations Center	Planned
ATMS03	Surface Street Control	Municipal ITS Field Equipment	Planned
ATMS03	Surface Street Control	Municipal Traffic Operations Center-Statewide	Planned
ATMS03	Surface Street Control	NMDOT CCTV	Planned

Market Package	Market Package Name	Element	Status
ATMS03	Surface Street Control	NMDOT Non-Reversible Lane Controls	Planned
ATMS03	Surface Street Control	NMDOT Signal Lab	Planned
ATMS03	Surface Street Control	NMDOT Traffic Signals	Planned
ATMS03	Surface Street Control	NMDOT Variable Speed Limit Signs	Planned
ATMS03	Surface Street Control	Tribal ITS Field Equipment	Planned
ATMS03	Surface Street Control	Tribal Transportation Operations	Planned
ATMS04	Freeway Control	NMDOT CCTV	Existing
ATMS04	Freeway Control	NMDOT District 1 TOC	Planned
ATMS04	Freeway Control	NMDOT District 2 TOC	Planned
ATMS04	Freeway Control	NMDOT District 3 TOC	Planned
ATMS04	Freeway Control	NMDOT District 4 TOC	Planned
ATMS04	Freeway Control	NMDOT District 5 TOC	Planned
ATMS04	Freeway Control	NMDOT District 6 TOC	Planned
ATMS04	Freeway Control	NMDOT DMS	Planned
ATMS04	Freeway Control	NMDOT Lane Controls	Planned
ATMS04	Freeway Control	NMDOT Ramp Meters	Planned
ATMS04	Freeway Control	NMDOT Road Closure Gates	Planned
ATMS04	Freeway Control	NMDOT Statewide TMC	Existing
ATMS06	Traffic Information Dissemination	BIA/Tribal Public Safety Dispatch	Planned
ATMS06	Traffic Information Dissemination	City of Roswell ITS Field Equipment	Planned
ATMS06	Traffic Information Dissemination	City of Roswell Public Information System	Planned
ATMS06	Traffic Information Dissemination	City of Roswell Public Safety Dispatch	Planned
ATMS06	Traffic Information Dissemination	City of Roswell Public Works Dispatch	Planned
ATMS06	Traffic Information Dissemination	City of Roswell Traffic Operations Center	Planned
ATMS06	Traffic Information Dissemination	City of Roswell Website	Planned
ATMS06	Traffic Information Dissemination	County ITS Field Equipment	Planned
ATMS06	Traffic Information Dissemination	County Public Information System	Planned
ATMS06	Traffic Information Dissemination	County Traffic Operations Center	Planned
ATMS06	Traffic Information Dissemination	County Website	Planned
ATMS06	Traffic Information Dissemination	Local Print and Broadcast Media	Planned
ATMS06	Traffic Information Dissemination	Local Transit Dispatch	Planned
ATMS06	Traffic Information Dissemination	Mid-Region RTD Operations Center	Planned
ATMS06	Traffic Information Dissemination	Municipal ITS Field Equipment	Planned

Market Package	Market Package Name	Element	Status
ATMS06	Traffic Information Dissemination	Municipal Public Information System	Planned
ATMS06	Traffic Information Dissemination	Municipal Public Safety Dispatch	Planned
ATMS06	Traffic Information Dissemination	Municipal Traffic Operations Center-Statewide	Planned
ATMS06	Traffic Information Dissemination	Municipal Website	Planned
ATMS06	Traffic Information Dissemination	NM DPS District Dispatch Center	Planned
ATMS06	Traffic Information Dissemination	NMDOT Advanced Traveler Information System	Planned
ATMS06	Traffic Information Dissemination	NMDOT District 1 TOC	Planned
ATMS06	Traffic Information Dissemination	NMDOT District 2 TOC	Planned
ATMS06	Traffic Information Dissemination	NMDOT District 3 TOC	Existing
ATMS06	Traffic Information Dissemination	NMDOT District 4 TOC	Planned
ATMS06	Traffic Information Dissemination	NMDOT District 5 TOC	Planned
ATMS06	Traffic Information Dissemination	NMDOT District 6 TOC	Planned
ATMS06	Traffic Information Dissemination	NMDOT District Public Information System	Planned
ATMS06	Traffic Information Dissemination	NMDOT DMS	Existing
ATMS06	Traffic Information Dissemination	NMDOT Highway Advisory Radio System (HAR)	Existing
ATMS06	Traffic Information Dissemination	NMDOT Park and Ride Dispatch	Planned
ATMS06	Traffic Information Dissemination	NMDOT Statewide TMC	Existing
ATMS06	Traffic Information Dissemination	North Central RTD Operations	Planned
ATMS06	Traffic Information Dissemination	Other Regional Transit Districts	Planned
ATMS06	Traffic Information Dissemination	Rail Runner Operations	Planned
ATMS06	Traffic Information Dissemination	Regional Emergency Communications Center	Planned
ATMS06	Traffic Information Dissemination	South Central RTD Operations	Planned
ATMS06	Traffic Information Dissemination	Southwest RTD Operations	Planned
ATMS06	Traffic Information Dissemination	Tribal ITS Field Equipment	Planned
ATMS06	Traffic Information Dissemination	Tribal Public Safety Dispatch-Statewide	Planned

Market Package	Market Package Name	Element	Status
ATMS06	Traffic Information Dissemination	Tribal Public Websites	Planned
ATMS06	Traffic Information Dissemination	Tribal Transportation Operations	Planned
ATMS07	Regional Traffic Control	ADOT Regional TOCs	Planned
ATMS07	Regional Traffic Control	ADOT Statewide TMC	Planned
ATMS07	Regional Traffic Control	CDOT Regional TOCs	Planned
ATMS07	Regional Traffic Control	CDOT Statewide TMC	Planned
ATMS07	Regional Traffic Control	City of Albuquerque Traffic Operations Center	Planned
ATMS07	Regional Traffic Control	City of Farmington Traffic Operations Center	Planned
ATMS07	Regional Traffic Control	City of Las Cruces Traffic Operations Center	Planned
ATMS07	Regional Traffic Control	City of Roswell Traffic Operations Center	Planned
ATMS07	Regional Traffic Control	City of Santa Fe Traffic Operations Center	Planned
ATMS07	Regional Traffic Control	County Traffic Operations Center	Planned
ATMS07	Regional Traffic Control	Mexico Regional TMC	Planned
ATMS07	Regional Traffic Control	Municipal Traffic Operations Center-Statewide	Planned
ATMS07	Regional Traffic Control	NMDOT District 1 TOC	Planned
ATMS07	Regional Traffic Control	NMDOT District 2 TOC	Planned
ATMS07	Regional Traffic Control	NMDOT District 3 TOC	Planned
ATMS07	Regional Traffic Control	NMDOT District 4 TOC	Planned
ATMS07	Regional Traffic Control	NMDOT District 5 TOC	Planned
ATMS07	Regional Traffic Control	NMDOT District 6 TOC	Planned
ATMS07	Regional Traffic Control	NMDOT Statewide TMC	Planned
ATMS07	Regional Traffic Control	OkDOT Regional TOC	Planned
ATMS07	Regional Traffic Control	OkDOT Statewide TMC	Planned
ATMS07	Regional Traffic Control	Other County TOC	Planned
ATMS07	Regional Traffic Control	Other Municipal TOCs	Planned
ATMS07	Regional Traffic Control	Other TxDOT Regional TOCs	Planned
ATMS07	Regional Traffic Control	TransVista	Planned
ATMS07	Regional Traffic Control	Tribal Transportation Operations	Planned
ATMS07	Regional Traffic Control	TxDOT Amarillo TMC	Planned
ATMS08	Traffic Incident Management System	ADOT Maintenance Sections	Planned
ATMS08	Traffic Incident Management System	Arizona Highway Patrol Dispatch	Planned
ATMS08	Traffic Incident Management System	BIA Roads	Planned
ATMS08	Traffic Incident Management System	BIA/Tribal Public Safety Dispatch	Planned
ATMS08	Traffic Incident Management System	BIA/Tribal Public Safety Vehicles	Planned
ATMS08	Traffic Incident Management System	CDOT Maintenance Sections	Planned

Market Package	Market Package Name	Element	Status
ATMS08	Traffic Incident Management System	City of Roswell Fire/EMS Vehicles	Existing
ATMS08	Traffic Incident Management System	City of Roswell Police Vehicles	Existing
ATMS08	Traffic Incident Management System	City of Roswell Public Safety Dispatch	Planned
ATMS08	Traffic Incident Management System	City of Roswell Public Works Dispatch	Planned
ATMS08	Traffic Incident Management System	City of Roswell Traffic Operations Center	Planned
ATMS08	Traffic Incident Management System	Colorado State Police Dispatch	Planned
ATMS08	Traffic Incident Management System	County Fire/EMS Vehicles	Existing
ATMS08	Traffic Incident Management System	County Public Works Dispatch	Planned
ATMS08	Traffic Incident Management System	County Sheriffs Vehicles	Existing
ATMS08	Traffic Incident Management System	County Traffic Operations Center	Planned
ATMS08	Traffic Incident Management System	Los Alamos National Lab Operations	Planned
ATMS08	Traffic Incident Management System	Mexico Customs and Border Patrol	Planned
ATMS08	Traffic Incident Management System	Mexico Public Safety	Planned
ATMS08	Traffic Incident Management System	Mexico Regional Maintenance Section	Planned
ATMS08	Traffic Incident Management System	Military Installation Operations Offices	Planned
ATMS08	Traffic Incident Management System	Municipal Fire and EMS Vehicles	Existing
ATMS08	Traffic Incident Management System	Municipal Police Vehicles	Existing
ATMS08	Traffic Incident Management System	Municipal Public Safety Dispatch	Planned
ATMS08	Traffic Incident Management System	Municipal Public Works Dispatch	Planned
ATMS08	Traffic Incident Management System	Municipal Traffic Operations Center-Statewide	Planned
ATMS08	Traffic Incident Management System	National Parks and Monuments Sites	Planned
ATMS08	Traffic Incident Management System	New Mexico National Guard Command System	Planned
ATMS08	Traffic Incident Management System	New Mexico Regional HAZMAT Teams	Planned
ATMS08	Traffic Incident Management System	New Mexico State Radio Communications Bureau (RCB)	Planned
ATMS08	Traffic Incident Management System	New Mexico Statewide Emergency Operations Center (EOC)	Planned

Market Package	Market Package Name	Element	Status
ATMS08	Traffic Incident Management System	NM DPS District Dispatch Center	Existing
ATMS08	Traffic Incident Management System	NM DPS Mobile Command Center	Planned
ATMS08	Traffic Incident Management System	NM DPS Vehicles	Existing
ATMS08	Traffic Incident Management System	NM Livestock Inspection Vehicles	Planned
ATMS08	Traffic Incident Management System	NM Motor Transport Division (MTD) District Offices	Planned
ATMS08	Traffic Incident Management System	NM Motor Transport Division Response Vehicles	Planned
ATMS08	Traffic Incident Management System	NMDOT District 1 TOC	Planned
ATMS08	Traffic Incident Management System	NMDOT District 2 TOC	Planned
ATMS08	Traffic Incident Management System	NMDOT District 3 TOC	Planned
ATMS08	Traffic Incident Management System	NMDOT District 4 TOC	Planned
ATMS08	Traffic Incident Management System	NMDOT District 5 TOC	Planned
ATMS08	Traffic Incident Management System	NMDOT District 6 TOC	Planned
ATMS08	Traffic Incident Management System	NMDOT District HELP Courtesy Patrol Dispatch	Planned
ATMS08	Traffic Incident Management System	NMDOT District HELP Courtesy Patrol Vehicles	Planned
ATMS08	Traffic Incident Management System	NMDOT District Maintenance Office	Planned
ATMS08	Traffic Incident Management System	NMDOT District Maintenance Units Dispatch	Planned
ATMS08	Traffic Incident Management System	NMDOT Statewide TMC	Planned
ATMS08	Traffic Incident Management System	OkDOT Maintenance Sections	Planned
ATMS08	Traffic Incident Management System	Oklahoma State Police Dispatch	Planned
ATMS08	Traffic Incident Management System	Other County Public Works Dispatch	Planned
ATMS08	Traffic Incident Management System	Other Municipal Public Works Dispatches	Planned
ATMS08	Traffic Incident Management System	Other NMDOT District Maintenance Dispatch	Planned
ATMS08	Traffic Incident Management System	Private Ambulance Provider Dispatch-Statewide	Planned
ATMS08	Traffic Incident Management System	Private Ambulance Provider Vehicles	Planned
ATMS08	Traffic Incident Management System	Private Tow/Wrecker Dispatch	Planned

Market Package	Market Package Name	Element	Status
ATMS08	Traffic Incident Management System	Private Tow/Wrecker Vehicles	Planned
ATMS08	Traffic Incident Management System	Rail Operations Centers	Planned
ATMS08	Traffic Incident Management System	Regional Emergency Communications Center	Existing
ATMS08	Traffic Incident Management System	Regional Emergency Operations Center (EOC)	Planned
ATMS08	Traffic Incident Management System	Space Port America	Planned
ATMS08	Traffic Incident Management System	Special Event Coordinators-Statewide	Planned
ATMS08	Traffic Incident Management System	State Emergency Vehicles	Planned
ATMS08	Traffic Incident Management System	Texas DPS Communications Service	Planned
ATMS08	Traffic Incident Management System	Tribal Public Safety Dispatch-Statewide	Planned
ATMS08	Traffic Incident Management System	Tribal Public Safety Vehicles	Planned
ATMS08	Traffic Incident Management System	Tribal Road Maintenance	Planned
ATMS08	Traffic Incident Management System	Tribal Transportation Operations	Planned
ATMS08	Traffic Incident Management System	TxDOT District Maintenance Sections	Planned
ATMS08	Traffic Incident Management System	US Border Patrol Stations	Planned
ATMS08	Traffic Incident Management System	US Bureau of Land Management Offices	Planned
ATMS08	Traffic Incident Management System	US Forest Service Offices	Planned
ATMS08	Traffic Incident Management System	White Sands Missile Range Facility	Planned
ATMS13	Standard Railroad Grade Crossing	City of Roswell ITS Field Equipment	Planned
ATMS13	Standard Railroad Grade Crossing	City of Roswell Traffic Operations Center	Planned
ATMS13	Standard Railroad Grade Crossing	County ITS Field Equipment	Existing
ATMS13	Standard Railroad Grade Crossing	County Traffic Operations Center	Planned
ATMS13	Standard Railroad Grade Crossing	Municipal ITS Field Equipment	Planned
ATMS13	Standard Railroad Grade Crossing	Municipal Traffic Operations Center-Statewide	Planned
ATMS13	Standard Railroad Grade Crossing	NMDOT Signal Lab	Planned
ATMS13	Standard Railroad Grade Crossing	NMDOT Traffic Signals	Planned

Market Package	Market Package Name	Element	Status
ATMS13	Standard Railroad Grade Crossing	NMDOT Wayside Equipment	Planned
ATMS13	Standard Railroad Grade Crossing	Rail Operators Wayside Equipment	Planned
ATMS13	Standard Railroad Grade Crossing	Tribal ITS Field Equipment	Planned
ATMS13	Standard Railroad Grade Crossing	Tribal Transportation Operations	Planned
ATMS15	Railroad Operations Coordination	City of Roswell ITS Field Equipment	Planned
ATMS15	Railroad Operations Coordination	City of Roswell Traffic Operations Center	Planned
ATMS15	Railroad Operations Coordination	County ITS Field Equipment	Planned
ATMS15	Railroad Operations Coordination	County Traffic Operations Center	Planned
ATMS15	Railroad Operations Coordination	Municipal ITS Field Equipment	Planned
ATMS15	Railroad Operations Coordination	Municipal Traffic Operations Center-Statewide	Planned
ATMS15	Railroad Operations Coordination	NMDOT Signal Lab	Planned
ATMS15	Railroad Operations Coordination	NMDOT Statewide TMC	Planned
ATMS15	Railroad Operations Coordination	NMDOT Traffic Signals	Planned
ATMS15	Railroad Operations Coordination	Rail Operations Centers	Planned
ATMS15	Railroad Operations Coordination	Tribal ITS Field Equipment	Planned
ATMS15	Railroad Operations Coordination	Tribal Transportation Operations	Planned
ATMS16	Parking Facility Management	Tribal Transportation Operations	Planned
ATMS21	Roadway Closure Management	BIA/Tribal Public Safety Dispatch	Planned
ATMS21	Roadway Closure Management	City of Roswell Public Safety Dispatch	Planned
ATMS21	Roadway Closure Management	Municipal Public Safety Dispatch	Planned
ATMS21	Roadway Closure Management	New Mexico State Radio Communications Bureau (RCB)	Planned
ATMS21	Roadway Closure Management	NM DPS District Dispatch Center	Planned
ATMS21	Roadway Closure Management	NMDOT Advanced Traveler Information System	Planned
ATMS21	Roadway Closure Management	NMDOT CCTV	Existing
ATMS21	Roadway Closure Management	NMDOT District 1 TOC	Planned
ATMS21	Roadway Closure Management	NMDOT District 2 TOC	Planned
ATMS21	Roadway Closure Management	NMDOT District 3 TOC	Planned
ATMS21	Roadway Closure Management	NMDOT District 4 TOC	Existing
ATMS21	Roadway Closure Management	NMDOT District 5 TOC	Planned
ATMS21	Roadway Closure Management	NMDOT District 6 TOC	Planned

Market Package	Market Package Name	Element	Status
ATMS21	Roadway Closure Management	NMDOT District HELP Courtesy Patrol Dispatch	Planned
ATMS21	Roadway Closure Management	NMDOT District Maintenance Office	Planned
ATMS21	Roadway Closure Management	NMDOT District Maintenance Units Dispatch	Planned
ATMS21	Roadway Closure Management	NMDOT District Public Information System	Planned
ATMS21	Roadway Closure Management	NMDOT DMS	Existing
ATMS21	Roadway Closure Management	NMDOT Road Closure Gates	Existing
ATMS21	Roadway Closure Management	NMDOT Statewide TMC	Planned
ATMS21	Roadway Closure Management	Private Sector Traveler Information Services	Planned
ATMS21	Roadway Closure Management	Regional Emergency Communications Center	Planned
ATMS21	Roadway Closure Management	Tribal Public Safety Dispatch-Statewide	Planned
CVO03	Electronic Clearance	Commercial Vehicles	Existing
CVO03	Electronic Clearance	Electronic Bypass Stations	Existing
CVO03	Electronic Clearance	IFTA Clearinghouse	Existing
CVO03	Electronic Clearance	IRP Clearinghouse	Existing
CVO03	Electronic Clearance	New Mexico CVIEW System	Existing
CVO03	Electronic Clearance	NM TRD CVO Credentials Interface	Planned
CVO03	Electronic Clearance	Safety and Fitness Electronic Record (SAFER)	Existing
CVO04	CV Administrative Processes	Accident Reporting System	Planned
CVO04	CV Administrative Processes	Drayage Companies	Planned
CVO04	CV Administrative Processes	Excise Summary Terminal Activity Reporting System (ExSTARS)	Planned
CVO04	CV Administrative Processes	Fleet Management Systems	Planned
CVO04	CV Administrative Processes	IFTA Clearinghouse	Planned
CVO04	CV Administrative Processes	IRP Clearinghouse	Planned
CVO04	CV Administrative Processes	New Mexico CVIEW System	Planned
CVO04	CV Administrative Processes	NM CVO Electronic Permitting System	Planned
CVO04	CV Administrative Processes	NM TRD CVO Credentials Interface	Planned
CVO05	International Border Electronic Clearance	Commercial Vehicles	Planned
CVO05	International Border Electronic Clearance	Container Systems	Planned
CVO05	International Border Electronic Clearance	Drayage Companies	Planned
CVO05	International Border Electronic Clearance	Electronic Bypass Stations	Planned
CVO05	International Border Electronic Clearance	Fleet Management Systems	Planned
CVO05	International Border Electronic Clearance	Freight Shipping System	Planned
CVO05	International Border Electronic Clearance	New Mexico CVIEW System	Planned

Market Package	Market Package Name	Element	Status
CVO05	International Border Electronic Clearance	Safety and Fitness Electronic Record (SAFER)	Planned
CVO06	Weigh-In-Motion	Commercial Vehicles	Existing
CVO06	Weigh-In-Motion	Mobile Weigh Stations	Existing
CVO06	Weigh-In-Motion	NM MTD Fixed Weigh Stations	Existing
CVO07	Roadside CVO Safety	Accident Reporting System	Planned
CVO07	Roadside CVO Safety	Commercial Vehicles	Planned
CVO07	Roadside CVO Safety	DPS Motor Transport Division Office	Planned
CVO07	Roadside CVO Safety	E-Citation Process	Planned
CVO07	Roadside CVO Safety	New Mexico CVIEW System	Existing
CVO07	Roadside CVO Safety	NM CVO Electronic Permitting System	Existing
CVO07	Roadside CVO Safety	Query Central	Planned
CVO07	Roadside CVO Safety	Roadside Safety Inspection System	Planned
CVO07	Roadside CVO Safety	Safety and Fitness Electronic Record (SAFER)	Planned
CVO07	Roadside CVO Safety	Safetynet	Planned
CVO10	HAZMAT Management	BIA/Tribal Public Safety Dispatch	Planned
CVO10	HAZMAT Management	City of Roswell Public Safety Dispatch	Planned
CVO10	HAZMAT Management	Fleet Management Systems	Planned
CVO10	HAZMAT Management	Military Installation Operations Offices	Planned
CVO10	HAZMAT Management	Municipal Public Safety Dispatch	Planned
CVO10	HAZMAT Management	NEF - National Enrichment Facility	Planned
CVO10	HAZMAT Management	New Mexico Regional HAZMAT Teams	Planned
CVO10	HAZMAT Management	New Mexico State Radio Communications Bureau (RCB)	Planned
CVO10	HAZMAT Management	New Mexico Statewide Emergency Operations Center (EOC)	Planned
CVO10	HAZMAT Management	NM DPS District Dispatch Center	Planned
CVO10	HAZMAT Management	NM Motor Transport Division (MTD) District Offices	Planned
CVO10	HAZMAT Management	Regional Emergency Communications Center	Planned
CVO10	HAZMAT Management	Tribal Public Safety Dispatch-Statewide	Planned
CVO10	HAZMAT Management	WIPP - Waste Isolation Pilot Plant	Planned
CVO11	Roadside HAZMAT Security Detection and Mitigation	Commercial Vehicles	Planned
CVO11	Roadside HAZMAT Security Detection and Mitigation	Electronic Bypass Stations	Planned
CVO11	Roadside HAZMAT Security Detection and Mitigation	New Mexico CVIEW System	Planned
CVO11	Roadside HAZMAT Security Detection and Mitigation	NM DPS District Dispatch Center	Planned
EM01	Emergency Call-Taking and Dispatch	Arizona Highway Patrol Dispatch	Planned

Market Package	Market Package Name	Element	Status
EM01	Emergency Call-Taking and Dispatch	BIA/Tribal Public Safety Dispatch	Planned
EM01	Emergency Call-Taking and Dispatch	BIA/Tribal Public Safety Vehicles	Planned
EM01	Emergency Call-Taking and Dispatch	City of Roswell Fire/EMS Vehicles	Existing
EM01	Emergency Call-Taking and Dispatch	City of Roswell Police Vehicles	Existing
EM01	Emergency Call-Taking and Dispatch	City of Roswell Public Safety Dispatch	Planned
EM01	Emergency Call-Taking and Dispatch	Colorado State Police Dispatch	Planned
EM01	Emergency Call-Taking and Dispatch	County Fire/EMS Vehicles	Existing
EM01	Emergency Call-Taking and Dispatch	County Sheriffs Vehicles	Existing
EM01	Emergency Call-Taking and Dispatch	Los Alamos National Lab Operations	Planned
EM01	Emergency Call-Taking and Dispatch	Mexico Public Safety	Planned
EM01	Emergency Call-Taking and Dispatch	Military Installation Operations Offices	Planned
EM01	Emergency Call-Taking and Dispatch	Municipal Fire and EMS Vehicles	Planned
EM01	Emergency Call-Taking and Dispatch	Municipal Police Vehicles	Existing
EM01	Emergency Call-Taking and Dispatch	Municipal Public Safety Dispatch	Planned
EM01	Emergency Call-Taking and Dispatch	National Parks and Monuments Sites	Planned
EM01	Emergency Call-Taking and Dispatch	New Mexico Conservancy Districts	Planned
EM01	Emergency Call-Taking and Dispatch	New Mexico National Guard Command System	Planned
EM01	Emergency Call-Taking and Dispatch	New Mexico Regional HAZMAT Teams	Planned
EM01	Emergency Call-Taking and Dispatch	New Mexico State Radio Communications Bureau (RCB)	Planned
EM01	Emergency Call-Taking and Dispatch	New Mexico Statewide Emergency Operations Center (EOC)	Planned
EM01	Emergency Call-Taking and Dispatch	NM DPS District Dispatch Center	Existing
EM01	Emergency Call-Taking and Dispatch	NM DPS Vehicles	Existing
EM01	Emergency Call-Taking and Dispatch	NM Motor Transport Division (MTD) District Offices	Planned
EM01	Emergency Call-Taking and Dispatch	NMDOT District HELP Courtesy Patrol Dispatch	Planned
EM01	Emergency Call-Taking and Dispatch	Oklahoma State Police Dispatch	Planned

Market Package	Market Package Name	Element	Status
EM01	Emergency Call-Taking and Dispatch	Other NM District DPS Dispatch Centers	Planned
EM01	Emergency Call-Taking and Dispatch	Private Ambulance Provider Dispatch-Statewide	Planned
EM01	Emergency Call-Taking and Dispatch	Private Ambulance Provider Vehicles	Planned
EM01	Emergency Call-Taking and Dispatch	Private HAZMAT Response Providers	Planned
EM01	Emergency Call-Taking and Dispatch	Private Tow/Wrecker Dispatch	Planned
EM01	Emergency Call-Taking and Dispatch	Regional Air Rescue Dispatch	Planned
EM01	Emergency Call-Taking and Dispatch	Regional Emergency Communications Center	Existing
EM01	Emergency Call-Taking and Dispatch	Regional Emergency Operations Center (EOC)	Planned
EM01	Emergency Call-Taking and Dispatch	State Forestry Offices	Planned
EM01	Emergency Call-Taking and Dispatch	State Game and Fish District Offices	Planned
EM01	Emergency Call-Taking and Dispatch	State Park Facilities	Planned
EM01	Emergency Call-Taking and Dispatch	Statewide Emergency Communications Network	Planned
EM01	Emergency Call-Taking and Dispatch	Texas DPS Communications Service	Planned
EM01	Emergency Call-Taking and Dispatch	Tribal Public Safety Dispatch-Statewide	Planned
EM01	Emergency Call-Taking and Dispatch	Tribal Public Safety Vehicles	Planned
EM01	Emergency Call-Taking and Dispatch	US Border Patrol Stations	Planned
EM01	Emergency Call-Taking and Dispatch	US Bureau of Land Management Offices	Planned
EM01	Emergency Call-Taking and Dispatch	US Forest Service Offices	Planned
EM02	Emergency Routing	BIA/Tribal Public Safety Dispatch	Planned
EM02	Emergency Routing	BIA/Tribal Public Safety Vehicles	Planned
EM02	Emergency Routing	City of Roswell Fire/EMS Vehicles	Existing
EM02	Emergency Routing	City of Roswell ITS Field Equipment	Existing
EM02	Emergency Routing	City of Roswell Police Vehicles	Planned
EM02	Emergency Routing	City of Roswell Public Safety Dispatch	Planned
EM02	Emergency Routing	City of Roswell Traffic Operations Center	Planned
EM02	Emergency Routing	County Fire/EMS Vehicles	Planned
EM02	Emergency Routing	County ITS Field Equipment	Planned
EM02	Emergency Routing	County Sheriffs Vehicles	Planned
EM02	Emergency Routing	County Traffic Operations Center	Planned
EM02	Emergency Routing	Municipal Fire and EMS Vehicles	Planned

Market Package	Market Package Name	Element	Status
EM02	Emergency Routing	Municipal ITS Field Equipment	Planned
EM02	Emergency Routing	Municipal Police Vehicles	Planned
EM02	Emergency Routing	Municipal Public Safety Dispatch	Planned
EM02	Emergency Routing	Municipal Traffic Operations Center-Statewide	Planned
EM02	Emergency Routing	New Mexico National Guard Command System	Planned
EM02	Emergency Routing	New Mexico State Radio Communications Bureau (RCB)	Planned
EM02	Emergency Routing	New Mexico Statewide Emergency Operations Center (EOC)	Planned
EM02	Emergency Routing	NM DPS District Dispatch Center	Planned
EM02	Emergency Routing	NM DPS Vehicles	Planned
EM02	Emergency Routing	NM Motor Transport Division Response Vehicles	Planned
EM02	Emergency Routing	NMDOT District HELP Courtesy Patrol Dispatch	Planned
EM02	Emergency Routing	NMDOT Signal Lab	Planned
EM02	Emergency Routing	NMDOT Traffic Signals	Planned
EM02	Emergency Routing	Private Ambulance Provider Dispatch-Statewide	Planned
EM02	Emergency Routing	Private Ambulance Provider Vehicles	Planned
EM02	Emergency Routing	Regional Emergency Communications Center	Planned
EM02	Emergency Routing	Regional Emergency Operations Center (EOC)	Planned
EM02	Emergency Routing	Regional Medical Centers-Statewide	Planned
EM02	Emergency Routing	Tribal ITS Field Equipment	Existing
EM02	Emergency Routing	Tribal Public Safety Dispatch-Statewide	Planned
EM02	Emergency Routing	Tribal Public Safety Vehicles	Existing
EM02	Emergency Routing	Tribal Transportation Operations	Planned
EM04	Roadway Service Patrols	NMDOT District HELP Courtesy Patrol Dispatch	Existing
EM04	Roadway Service Patrols	NMDOT District HELP Courtesy Patrol Vehicles	Existing
EM05	Transportation Infrastructure Protection	BIA Roads	Planned
EM05	Transportation Infrastructure Protection	BIA/Tribal Public Safety Dispatch	Planned
EM05	Transportation Infrastructure Protection	City of Roswell Public Safety Dispatch	Planned
EM05	Transportation Infrastructure Protection	City of Roswell Public Works Dispatch	Planned
EM05	Transportation Infrastructure Protection	County Public Works Dispatch	Planned
EM05	Transportation Infrastructure Protection	Military Installation Operations Offices	Planned
EM05	Transportation Infrastructure Protection	Municipal Public Safety Dispatch	Planned

Market Package	Market Package Name	Element	Status
EM05	Transportation Infrastructure Protection	Municipal Public Works Dispatch	Planned
EM05	Transportation Infrastructure Protection	New Mexico State Radio Communications Bureau (RCB)	Planned
EM05	Transportation Infrastructure Protection	New Mexico Statewide Emergency Operations Center (EOC)	Planned
EM05	Transportation Infrastructure Protection	NM DPS Alert Coordinator	Planned
EM05	Transportation Infrastructure Protection	NM DPS District Dispatch Center	Planned
EM05	Transportation Infrastructure Protection	NM Motor Transport Division (MTD) District Offices	Planned
EM05	Transportation Infrastructure Protection	NMDOT District 1 TOC	Planned
EM05	Transportation Infrastructure Protection	NMDOT District 2 TOC	Planned
EM05	Transportation Infrastructure Protection	NMDOT District 3 TOC	Planned
EM05	Transportation Infrastructure Protection	NMDOT District 4 TOC	Planned
EM05	Transportation Infrastructure Protection	NMDOT District 5 TOC	Planned
EM05	Transportation Infrastructure Protection	NMDOT District 6 TOC	Planned
EM05	Transportation Infrastructure Protection	NMDOT District Maintenance Units Dispatch	Planned
EM05	Transportation Infrastructure Protection	NMDOT Security Monitoring Field Equipment	Planned
EM05	Transportation Infrastructure Protection	NMDOT Statewide TMC	Planned
EM05	Transportation Infrastructure Protection	Other State Public Safety Communications Centers	Planned
EM05	Transportation Infrastructure Protection	Regional Emergency Communications Center	Planned
EM05	Transportation Infrastructure Protection	Regional Emergency Operations Center (EOC)	Planned
EM05	Transportation Infrastructure Protection	Statewide Emergency Communications Network	Planned
EM05	Transportation Infrastructure Protection	Tribal Public Safety Dispatch-Statewide	Planned
EM05	Transportation Infrastructure Protection	Tribal Road Maintenance	Planned
EM05	Transportation Infrastructure Protection	Tribal Security Monitoring Field Equipment	Planned
EM05	Transportation Infrastructure Protection	US Border Patrol Stations	Planned
EM06	Wide-Area Alert	BIA Roads	Planned
EM06	Wide-Area Alert	BIA/Tribal Public Safety Dispatch	Planned
EM06	Wide-Area Alert	City of Roswell Public Safety Dispatch	Planned

Market Package	Market Package Name	Element	Status
EM06	Wide-Area Alert	City of Roswell Public Works Dispatch	Planned
EM06	Wide-Area Alert	City of Roswell Traffic Operations Center	Planned
EM06	Wide-Area Alert	County Public Works Dispatch	Planned
EM06	Wide-Area Alert	County Traffic Operations Center	Planned
EM06	Wide-Area Alert	Military Installation Operations Offices	Planned
EM06	Wide-Area Alert	Municipal Public Safety Dispatch	Planned
EM06	Wide-Area Alert	Municipal Public Works Dispatch	Planned
EM06	Wide-Area Alert	Municipal Traffic Operations Center-Statewide	Planned
EM06	Wide-Area Alert	National Parks and Monuments Sites	Planned
EM06	Wide-Area Alert	New Mexico National Guard Command System	Planned
EM06	Wide-Area Alert	New Mexico State Radio Communications Bureau (RCB)	Planned
EM06	Wide-Area Alert	New Mexico Statewide Emergency Operations Center (EOC)	Planned
EM06	Wide-Area Alert	NM DPS Alert Coordinator	Planned
EM06	Wide-Area Alert	NM DPS District Dispatch Center	Planned
EM06	Wide-Area Alert	NM Motor Transport Division (MTD) District Offices	Planned
EM06	Wide-Area Alert	NMDOT District 1 TOC	Planned
EM06	Wide-Area Alert	NMDOT District 2 TOC	Planned
EM06	Wide-Area Alert	NMDOT District 3 TOC	Planned
EM06	Wide-Area Alert	NMDOT District 4 TOC	Planned
EM06	Wide-Area Alert	NMDOT District 5 TOC	Planned
EM06	Wide-Area Alert	NMDOT District 6 TOC	Planned
EM06	Wide-Area Alert	NMDOT District HELP Courtesy Patrol Dispatch	Planned
EM06	Wide-Area Alert	NMDOT District Maintenance Office	Planned
EM06	Wide-Area Alert	NMDOT District Maintenance Units Dispatch	Planned
EM06	Wide-Area Alert	NMDOT Statewide TMC	Planned
EM06	Wide-Area Alert	Regional Emergency Communications Center	Planned
EM06	Wide-Area Alert	Regional Emergency Operations Center (EOC)	Planned
EM06	Wide-Area Alert	Texas DPS Communications Service	Planned
EM06	Wide-Area Alert	Tribal Public Safety Dispatch-Statewide	Planned
EM06	Wide-Area Alert	Tribal Road Maintenance	Planned
EM06	Wide-Area Alert	Tribal Transportation Operations	Planned
EM06	Wide-Area Alert	US Border Patrol Stations	Planned
EM08	Disaster Response and Recovery	ADOT Maintenance Sections	Planned
EM08	Disaster Response and Recovery	Arizona Highway Patrol Dispatch	Planned

Market Package	Market Package Name	Element	Status
EM08	Disaster Response and Recovery	BIA Roads	Planned
EM08	Disaster Response and Recovery	BIA/Tribal Public Safety Dispatch	Planned
EM08	Disaster Response and Recovery	CDOT Maintenance Sections	Planned
EM08	Disaster Response and Recovery	City of Roswell Public Safety Dispatch	Planned
EM08	Disaster Response and Recovery	City of Roswell Public Works Dispatch	Planned
EM08	Disaster Response and Recovery	City of Roswell Traffic Operations Center	Planned
EM08	Disaster Response and Recovery	Colorado State Police Dispatch	Planned
EM08	Disaster Response and Recovery	County Public Works Dispatch	Planned
EM08	Disaster Response and Recovery	County Traffic Operations Center	Planned
EM08	Disaster Response and Recovery	Flood Control (monitoring) Dams	Planned
EM08	Disaster Response and Recovery	Los Alamos National Lab Operations	Planned
EM08	Disaster Response and Recovery	Mexico Customs and Border Patrol	Planned
EM08	Disaster Response and Recovery	Mexico Public Safety	Planned
EM08	Disaster Response and Recovery	Mexico Regional Maintenance Section	Planned
EM08	Disaster Response and Recovery	Military Installation Operations Offices	Planned
EM08	Disaster Response and Recovery	Municipal Public Safety Dispatch	Planned
EM08	Disaster Response and Recovery	Municipal Public Works Dispatch	Planned
EM08	Disaster Response and Recovery	Municipal Traffic Operations Center-Statewide	Planned
EM08	Disaster Response and Recovery	National Parks and Monuments Sites	Planned
EM08	Disaster Response and Recovery	New Mexico Regional HAZMAT Teams	Planned
EM08	Disaster Response and Recovery	New Mexico State Radio Communications Bureau (RCB)	Planned
EM08	Disaster Response and Recovery	New Mexico Statewide Emergency Operations Center (EOC)	Planned
EM08	Disaster Response and Recovery	NM DPS District Dispatch Center	Planned
EM08	Disaster Response and Recovery	NM Motor Transport Division (MTD) District Offices	Planned
EM08	Disaster Response and Recovery	NMDOT District 1 TOC	Planned

Market Package	Market Package Name	Element	Status
EM08	Disaster Response and Recovery	NMDOT District 2 TOC	Planned
EM08	Disaster Response and Recovery	NMDOT District 3 TOC	Planned
EM08	Disaster Response and Recovery	NMDOT District 4 TOC	Planned
EM08	Disaster Response and Recovery	NMDOT District 5 TOC	Planned
EM08	Disaster Response and Recovery	NMDOT District 6 TOC	Planned
EM08	Disaster Response and Recovery	NMDOT District Maintenance Office	Planned
EM08	Disaster Response and Recovery	NMDOT District Maintenance Units Dispatch	Planned
EM08	Disaster Response and Recovery	NMDOT Statewide TMC	Planned
EM08	Disaster Response and Recovery	OkDOT Maintenance Sections	Planned
EM08	Disaster Response and Recovery	Oklahoma State Police Dispatch	Planned
EM08	Disaster Response and Recovery	Private Ambulance Provider Dispatch-Statewide	Planned
EM08	Disaster Response and Recovery	Private HAZMAT Response Providers	Planned
EM08	Disaster Response and Recovery	Regional Emergency Communications Center	Planned
EM08	Disaster Response and Recovery	Regional Emergency Operations Center (EOC)	Planned
EM08	Disaster Response and Recovery	Texas DPS Communications Service	Planned
EM08	Disaster Response and Recovery	Tribal Public Safety Dispatch-Statewide	Planned
EM08	Disaster Response and Recovery	Tribal Road Maintenance	Planned
EM08	Disaster Response and Recovery	Tribal Transportation Operations	Planned
EM08	Disaster Response and Recovery	TxDOT District Maintenance Sections	Planned
EM08	Disaster Response and Recovery	US Border Patrol Stations	Planned
EM08	Disaster Response and Recovery	US Bureau of Land Management Offices	Planned
EM08	Disaster Response and Recovery	US Forest Service Offices	Planned
EM09	Evacuation and Reentry Management	Arizona Highway Patrol Dispatch	Planned
EM09	Evacuation and Reentry Management	BIA Roads	Planned
EM09	Evacuation and Reentry Management	BIA/Tribal Public Safety Dispatch	Planned

Market Package	Market Package Name	Element	Status
EM09	Evacuation and Reentry Management	City of Roswell Fixed Route Transit Dispatch	Planned
EM09	Evacuation and Reentry Management	City of Roswell Public Safety Dispatch	Planned
EM09	Evacuation and Reentry Management	City of Roswell Public Works Dispatch	Planned
EM09	Evacuation and Reentry Management	City of Roswell Traffic Operations Center	Planned
EM09	Evacuation and Reentry Management	Colorado State Police Dispatch	Planned
EM09	Evacuation and Reentry Management	County Public Works Dispatch	Planned
EM09	Evacuation and Reentry Management	County Traffic Operations Center	Planned
EM09	Evacuation and Reentry Management	Independent School District Dispatch	Planned
EM09	Evacuation and Reentry Management	Local Transit Dispatch	Planned
EM09	Evacuation and Reentry Management	Mid-Region RTD Operations Center	Planned
EM09	Evacuation and Reentry Management	Municipal Public Safety Dispatch	Planned
EM09	Evacuation and Reentry Management	Municipal Public Works Dispatch	Planned
EM09	Evacuation and Reentry Management	Municipal Traffic Operations Center-Statewide	Planned
EM09	Evacuation and Reentry Management	New Mexico National Guard Command System	Planned
EM09	Evacuation and Reentry Management	New Mexico State Radio Communications Bureau (RCB)	Planned
EM09	Evacuation and Reentry Management	New Mexico Statewide Emergency Operations Center (EOC)	Planned
EM09	Evacuation and Reentry Management	NM DPS District Dispatch Center	Planned
EM09	Evacuation and Reentry Management	NMDOT District 1 TOC	Planned
EM09	Evacuation and Reentry Management	NMDOT District 2 TOC	Planned
EM09	Evacuation and Reentry Management	NMDOT District 3 TOC	Planned
EM09	Evacuation and Reentry Management	NMDOT District 4 TOC	Planned
EM09	Evacuation and Reentry Management	NMDOT District 5 TOC	Planned
EM09	Evacuation and Reentry Management	NMDOT District 6 TOC	Planned
EM09	Evacuation and Reentry Management	NMDOT District Maintenance Office	Planned
EM09	Evacuation and Reentry Management	NMDOT District Maintenance Units Dispatch	Planned

Market Package	Market Package Name	Element	Status
EM09	Evacuation and Reentry Management	NMDOT Park and Ride Dispatch	Planned
EM09	Evacuation and Reentry Management	NMDOT Statewide TMC	Planned
EM09	Evacuation and Reentry Management	North Central RTD Operations	Planned
EM09	Evacuation and Reentry Management	Oklahoma State Police Dispatch	Planned
EM09	Evacuation and Reentry Management	Rail Runner Operations	Planned
EM09	Evacuation and Reentry Management	Regional Emergency Communications Center	Planned
EM09	Evacuation and Reentry Management	Regional Emergency Operations Center (EOC)	Planned
EM09	Evacuation and Reentry Management	South Central RTD Operations	Planned
EM09	Evacuation and Reentry Management	Southwest RTD Operations	Planned
EM09	Evacuation and Reentry Management	Texas DPS Communications Service	Planned
EM09	Evacuation and Reentry Management	Tribal Public Safety Dispatch-Statewide	Planned
EM09	Evacuation and Reentry Management	Tribal Road Maintenance	Planned
EM09	Evacuation and Reentry Management	Tribal Transportation Operations	Planned
EM09	Evacuation and Reentry Management	US Forest Service Offices	Planned
EM10	Disaster Traveler Information	City of Roswell Fixed Route Transit Dispatch	Planned
EM10	Disaster Traveler Information	City of Roswell Public Information System	Planned
EM10	Disaster Traveler Information	County Public Information System	Planned
EM10	Disaster Traveler Information	Independent School District Dispatch	Planned
EM10	Disaster Traveler Information	Local Print and Broadcast Media	Planned
EM10	Disaster Traveler Information	Local Transit Dispatch	Planned
EM10	Disaster Traveler Information	Mid-Region RTD Operations Center	Planned
EM10	Disaster Traveler Information	Municipal Public Information System	Planned
EM10	Disaster Traveler Information	New Mexico Statewide Emergency Operations Center (EOC)	Planned
EM10	Disaster Traveler Information	NMDOT Advanced Traveler Information System	Planned
EM10	Disaster Traveler Information	NMDOT District Public Information System	Planned
EM10	Disaster Traveler Information	NMDOT Park and Ride Dispatch	Planned
EM10	Disaster Traveler Information	NMDOT Statewide Public Information Office	Planned
EM10	Disaster Traveler Information	North Central RTD Operations	Planned

Market Package	Market Package Name	Element	Status
EM10	Disaster Traveler Information	Private Travelers Personal Computing Devices	Planned
EM10	Disaster Traveler Information	Rail Runner Operations	Planned
EM10	Disaster Traveler Information	Regional Emergency Operations Center (EOC)	Planned
EM10	Disaster Traveler Information	South Central RTD Operations	Planned
EM10	Disaster Traveler Information	Southwest RTD Operations	Planned
MC01	Maintenance and Construction Vehicle and Equipment Tracking	BIA Maintenance and Construction Vehicles	Planned
MC01	Maintenance and Construction Vehicle and Equipment Tracking	BIA Roads	Planned
MC01	Maintenance and Construction Vehicle and Equipment Tracking	City of Roswell Public Works Dispatch	Planned
MC01	Maintenance and Construction Vehicle and Equipment Tracking	City of Roswell Public Works Vehicles	Planned
MC01	Maintenance and Construction Vehicle and Equipment Tracking	County Public Works Dispatch	Planned
MC01	Maintenance and Construction Vehicle and Equipment Tracking	County Public Works Vehicles	Planned
MC01	Maintenance and Construction Vehicle and Equipment Tracking	Municipal Public Works Dispatch	Planned
MC01	Maintenance and Construction Vehicle and Equipment Tracking	Municipal Public Works Vehicles	Planned
MC01	Maintenance and Construction Vehicle and Equipment Tracking	NMDOT District Maintenance and Construction Vehicles	Planned
MC01	Maintenance and Construction Vehicle and Equipment Tracking	NMDOT District Maintenance Office	Planned
MC01	Maintenance and Construction Vehicle and Equipment Tracking	NMDOT District Maintenance Units Dispatch	Planned
MC01	Maintenance and Construction Vehicle and Equipment Tracking	Tribal Road Maintenance	Planned
MC01	Maintenance and Construction Vehicle and Equipment Tracking	Tribal Road Maintenance Vehicles	Planned
MC02	Maintenance and Construction Vehicle Maintenance	BIA Equipment Repair Facility	Planned
MC02	Maintenance and Construction Vehicle Maintenance	BIA Maintenance and Construction Vehicles	Planned
MC02	Maintenance and Construction Vehicle Maintenance	BIA Roads	Planned
MC02	Maintenance and Construction Vehicle Maintenance	City of Roswell Equipment Repair Facility	Planned
MC02	Maintenance and Construction Vehicle Maintenance	City of Roswell Public Works Dispatch	Planned
MC02	Maintenance and Construction Vehicle Maintenance	City of Roswell Public Works Vehicles	Planned
MC02	Maintenance and Construction Vehicle Maintenance	County Equipment Repair Facility	Planned
MC02	Maintenance and Construction Vehicle Maintenance	County Public Works Dispatch	Planned

Market Package	Market Package Name	Element	Status
MC02	Maintenance and Construction Vehicle Maintenance	County Public Works Vehicles	Planned
MC02	Maintenance and Construction Vehicle Maintenance	Municipal Equipment Repair Facility	Planned
MC02	Maintenance and Construction Vehicle Maintenance	Municipal Public Works Dispatch	Planned
MC02	Maintenance and Construction Vehicle Maintenance	Municipal Public Works Vehicles	Planned
MC02	Maintenance and Construction Vehicle Maintenance	NMDOT District Maintenance and Construction Vehicles	Planned
MC02	Maintenance and Construction Vehicle Maintenance	NMDOT District Maintenance Units Dispatch	Planned
MC02	Maintenance and Construction Vehicle Maintenance	NMDOT Equipment Repair Facility	Planned
MC02	Maintenance and Construction Vehicle Maintenance	Tribal Equipment Repair Facility	Planned
MC02	Maintenance and Construction Vehicle Maintenance	Tribal Road Maintenance	Planned
MC02	Maintenance and Construction Vehicle Maintenance	Tribal Road Maintenance Vehicles	Planned
MC03	Road Weather Data Collection	County ITS Field Equipment	Planned
MC03	Road Weather Data Collection	County Public Works Dispatch	Planned
MC03	Road Weather Data Collection	County Traffic Operations Center	Planned
MC03	Road Weather Data Collection	Municipal ITS Field Equipment	Planned
MC03	Road Weather Data Collection	Municipal Public Works Dispatch	Planned
MC03	Road Weather Data Collection	Municipal Traffic Operations Center-Statewide	Planned
MC03	Road Weather Data Collection	National Weather Service	Planned
MC03	Road Weather Data Collection	NMDOT District 1 TOC	Planned
MC03	Road Weather Data Collection	NMDOT District 2 TOC	Planned
MC03	Road Weather Data Collection	NMDOT District 3 TOC	Planned
MC03	Road Weather Data Collection	NMDOT District 4 TOC	Planned
MC03	Road Weather Data Collection	NMDOT District 5 TOC	Planned
MC03	Road Weather Data Collection	NMDOT District 6 TOC	Planned
MC03	Road Weather Data Collection	NMDOT District Weather Detection Stations	Planned
MC03	Road Weather Data Collection	NMDOT RWIS	Planned
MC03	Road Weather Data Collection	NMDOT Statewide TMC	Planned
MC03	Road Weather Data Collection	Private Weather Information Provider	Planned
MC04	Weather Information Processing and Distribution	BIA/Tribal Public Safety Dispatch	Planned
MC04	Weather Information Processing and Distribution	City of Albuquerque Public Works Dispatch	Planned
MC04	Weather Information Processing and Distribution	City of Farmington Maintenance Dispatch	Planned
MC04	Weather Information Processing and Distribution	City of Las Cruces Maintenance Dispatch	Planned
MC04	Weather Information Processing and Distribution	City of Roswell Public Safety Dispatch	Planned

Market Package	Market Package Name	Element	Status
MC04	Weather Information Processing and Distribution	City of Roswell Public Works Dispatch	Planned
MC04	Weather Information Processing and Distribution	City of Santa Fe Maintenance Dispatch	Planned
MC04	Weather Information Processing and Distribution	County Public Information System	Planned
MC04	Weather Information Processing and Distribution	County Public Works Dispatch	Planned
MC04	Weather Information Processing and Distribution	County Website	Planned
MC04	Weather Information Processing and Distribution	Independent School District Dispatch	Planned
MC04	Weather Information Processing and Distribution	Local Transit Dispatch	Planned
MC04	Weather Information Processing and Distribution	Mid-Region RTD Operations Center	Planned
MC04	Weather Information Processing and Distribution	Municipal Public Information System	Planned
MC04	Weather Information Processing and Distribution	Municipal Public Safety Dispatch	Planned
MC04	Weather Information Processing and Distribution	Municipal Public Works Dispatch	Planned
MC04	Weather Information Processing and Distribution	Municipal Website	Planned
MC04	Weather Information Processing and Distribution	National Weather Service	Planned
MC04	Weather Information Processing and Distribution	New Mexico State Radio Communications Bureau (RCB)	Planned
MC04	Weather Information Processing and Distribution	New Mexico Statewide Emergency Operations Center (EOC)	Planned
MC04	Weather Information Processing and Distribution	NM DPS District Dispatch Center	Planned
MC04	Weather Information Processing and Distribution	NMDOT Advanced Traveler Information System	Planned
MC04	Weather Information Processing and Distribution	NMDOT District 1 TOC	Planned
MC04	Weather Information Processing and Distribution	NMDOT District 2 TOC	Planned
MC04	Weather Information Processing and Distribution	NMDOT District 3 TOC	Planned
MC04	Weather Information Processing and Distribution	NMDOT District 4 TOC	Planned
MC04	Weather Information Processing and Distribution	NMDOT District 5 TOC	Planned
MC04	Weather Information Processing and Distribution	NMDOT District 6 TOC	Planned
MC04	Weather Information Processing and Distribution	NMDOT District HELP Courtesy Patrol Dispatch	Planned
MC04	Weather Information Processing and Distribution	NMDOT District Maintenance Office	Planned

Market Package	Market Package Name	Element	Status
MC04	Weather Information Processing and Distribution	NMDOT District Public Information System	Planned
MC04	Weather Information Processing and Distribution	NMDOT Park and Ride Dispatch	Planned
MC04	Weather Information Processing and Distribution	NMDOT Statewide Public Information Office	Planned
MC04	Weather Information Processing and Distribution	NMDOT Statewide TMC	Planned
MC04	Weather Information Processing and Distribution	NMDOT Traveler Information Website	Planned
MC04	Weather Information Processing and Distribution	North Central RTD Operations	Planned
MC04	Weather Information Processing and Distribution	Other County Public Works Dispatch	Planned
MC04	Weather Information Processing and Distribution	Private Weather Information Provider	Planned
MC04	Weather Information Processing and Distribution	Rail Runner Operations	Planned
MC04	Weather Information Processing and Distribution	Regional Emergency Communications Center	Planned
MC04	Weather Information Processing and Distribution	Regional Emergency Operations Center (EOC)	Planned
MC04	Weather Information Processing and Distribution	South Central RTD Operations	Planned
MC04	Weather Information Processing and Distribution	Southwest RTD Operations	Planned
MC04	Weather Information Processing and Distribution	Tribal Public Safety Dispatch-Statewide	Planned
MC05	Roadway Automated Treatment	NMDOT District Maintenance Units Dispatch	Existing
MC05	Roadway Automated Treatment	NMDOT Roadway Treatment Devices	Existing
MC06	Winter Maintenance	ADOT Maintenance Sections	Planned
MC06	Winter Maintenance	BIA Maintenance and Construction Vehicles	Planned
MC06	Winter Maintenance	BIA Roads	Planned
MC06	Winter Maintenance	CDOT Maintenance Sections	Planned
MC06	Winter Maintenance	City of Roswell Public Works Dispatch	Planned
MC06	Winter Maintenance	City of Roswell Public Works Vehicles	Planned
MC06	Winter Maintenance	City of Roswell Storage Facility	Planned
MC06	Winter Maintenance	City of Roswell Traffic Operations Center	Planned
MC06	Winter Maintenance	County Public Works Dispatch	Planned
MC06	Winter Maintenance	County Public Works Vehicles	Planned
MC06	Winter Maintenance	County Storage Facility	Planned
MC06	Winter Maintenance	County Traffic Operations Center	Planned
MC06	Winter Maintenance	Municipal Public Works Dispatch	Planned
MC06	Winter Maintenance	Municipal Public Works Vehicles	Planned

Market Package	Market Package Name	Element	Status
MC06	Winter Maintenance	Municipal Storage Facility	Planned
MC06	Winter Maintenance	Municipal Traffic Operations Center-Statewide	Planned
MC06	Winter Maintenance	National Weather Service	Planned
MC06	Winter Maintenance	NMDOT District 1 TOC	Planned
MC06	Winter Maintenance	NMDOT District 2 TOC	Planned
MC06	Winter Maintenance	NMDOT District 3 TOC	Planned
MC06	Winter Maintenance	NMDOT District 4 TOC	Planned
MC06	Winter Maintenance	NMDOT District 5 TOC	Planned
MC06	Winter Maintenance	NMDOT District 6 TOC	Planned
MC06	Winter Maintenance	NMDOT District Maintenance and Construction Vehicles	Planned
MC06	Winter Maintenance	NMDOT District Maintenance Office	Planned
MC06	Winter Maintenance	NMDOT District Maintenance Units Dispatch	Planned
MC06	Winter Maintenance	NMDOT Patrol Yard	Planned
MC06	Winter Maintenance	NMDOT Statewide TMC	Planned
MC06	Winter Maintenance	Other County Public Works Dispatch	Planned
MC06	Winter Maintenance	Other Municipal Public Works Dispatches	Planned
MC06	Winter Maintenance	Other NMDOT District Maintenance Dispatch	Planned
MC06	Winter Maintenance	Private Weather Information Provider	Planned
MC06	Winter Maintenance	Tribal Road Maintenance	Planned
MC06	Winter Maintenance	Tribal Road Maintenance Vehicles	Planned
MC06	Winter Maintenance	Tribal Storage Facility	Planned
MC06	Winter Maintenance	Tribal Transportation Operations	Planned
MC06	Winter Maintenance	TxDOT District Maintenance Sections	Planned
MC07	Roadway Maintenance and Construction	BIA Maintenance and Construction Vehicles	Planned
MC07	Roadway Maintenance and Construction	BIA Roads	Planned
MC07	Roadway Maintenance and Construction	City of Roswell Public Works Dispatch	Planned
MC07	Roadway Maintenance and Construction	City of Roswell Public Works Vehicles	Planned
MC07	Roadway Maintenance and Construction	City of Roswell Traffic Operations Center	Planned
MC07	Roadway Maintenance and Construction	County Public Works Dispatch	Planned
MC07	Roadway Maintenance and Construction	County Public Works Vehicles	Planned
MC07	Roadway Maintenance and Construction	County Traffic Operations Center	Planned
MC07	Roadway Maintenance and Construction	Municipal Public Works Dispatch	Planned
MC07	Roadway Maintenance and Construction	Municipal Public Works Vehicles	Planned

Market Package	Market Package Name	Element	Status
MC07	Roadway Maintenance and Construction	Municipal Traffic Operations Center-Statewide	Planned
MC07	Roadway Maintenance and Construction	National Weather Service	Planned
MC07	Roadway Maintenance and Construction	NMDOT District 1 TOC	Planned
MC07	Roadway Maintenance and Construction	NMDOT District 2 TOC	Planned
MC07	Roadway Maintenance and Construction	NMDOT District 3 TOC	Planned
MC07	Roadway Maintenance and Construction	NMDOT District 4 TOC	Planned
MC07	Roadway Maintenance and Construction	NMDOT District 5 TOC	Planned
MC07	Roadway Maintenance and Construction	NMDOT District 6 TOC	Planned
MC07	Roadway Maintenance and Construction	NMDOT District Maintenance and Construction Vehicles	Planned
MC07	Roadway Maintenance and Construction	NMDOT District Maintenance Office	Planned
MC07	Roadway Maintenance and Construction	NMDOT District Maintenance Units Dispatch	Planned
MC07	Roadway Maintenance and Construction	NMDOT DMS	Planned
MC07	Roadway Maintenance and Construction	NMDOT Patrol Yard	Planned
MC07	Roadway Maintenance and Construction	NMDOT Statewide TMC	Planned
MC07	Roadway Maintenance and Construction	NMDOT TIMS	Planned
MC07	Roadway Maintenance and Construction	NMDOT Work Zone Equipment	Planned
MC07	Roadway Maintenance and Construction	Private Weather Information Provider	Planned
MC07	Roadway Maintenance and Construction	Tribal Road Maintenance	Planned
MC07	Roadway Maintenance and Construction	Tribal Road Maintenance Vehicles	Planned
MC07	Roadway Maintenance and Construction	Tribal Transportation Operations	Planned
MC08	Work Zone Management	ADOT Maintenance Sections	Planned
MC08	Work Zone Management	BIA Maintenance and Construction Vehicles	Planned
MC08	Work Zone Management	BIA Roads	Planned
MC08	Work Zone Management	CDOT Maintenance Sections	Planned
MC08	Work Zone Management	City of Roswell ITS Field Equipment	Planned
MC08	Work Zone Management	City of Roswell Public Works Dispatch	Planned
MC08	Work Zone Management	City of Roswell Public Works Vehicles	Planned

Market Package	Market Package Name	Element	Status
MC08	Work Zone Management	City of Roswell Traffic Operations Center	Planned
MC08	Work Zone Management	County ITS Field Equipment	Planned
MC08	Work Zone Management	County Public Works Dispatch	Planned
MC08	Work Zone Management	County Public Works Vehicles	Planned
MC08	Work Zone Management	County Traffic Operations Center	Planned
MC08	Work Zone Management	Mexico Regional Maintenance Section	Planned
MC08	Work Zone Management	Municipal ITS Field Equipment	Planned
MC08	Work Zone Management	Municipal Public Works Dispatch	Planned
MC08	Work Zone Management	Municipal Public Works Vehicles	Planned
MC08	Work Zone Management	Municipal Traffic Operations Center-Statewide	Planned
MC08	Work Zone Management	NMDOT District 1 TOC	Planned
MC08	Work Zone Management	NMDOT District 2 TOC	Planned
MC08	Work Zone Management	NMDOT District 3 TOC	Planned
MC08	Work Zone Management	NMDOT District 4 TOC	Planned
MC08	Work Zone Management	NMDOT District 5 TOC	Planned
MC08	Work Zone Management	NMDOT District 6 TOC	Planned
MC08	Work Zone Management	NMDOT District Maintenance and Construction Vehicles	Planned
MC08	Work Zone Management	NMDOT District Maintenance Office	Planned
MC08	Work Zone Management	NMDOT District Maintenance Units Dispatch	Planned
MC08	Work Zone Management	NMDOT Statewide TMC	Planned
MC08	Work Zone Management	NMDOT Work Zone Equipment	Planned
MC08	Work Zone Management	Other County Public Works Dispatch	Planned
MC08	Work Zone Management	Other Municipal Public Works Dispatches	Planned
MC08	Work Zone Management	Other NMDOT District Maintenance Dispatch	Planned
MC08	Work Zone Management	Tribal ITS Field Equipment	Planned
MC08	Work Zone Management	Tribal Road Maintenance	Planned
MC08	Work Zone Management	Tribal Road Maintenance Vehicles	Planned
MC08	Work Zone Management	Tribal Transportation Operations	Planned
MC08	Work Zone Management	TxDOT District Maintenance Sections	Planned
MC09	Work Zone Safety Monitoring	NMDOT District Maintenance and Construction Vehicles	Planned
MC09	Work Zone Safety Monitoring	NMDOT District Maintenance Units Dispatch	Planned
MC09	Work Zone Safety Monitoring	NMDOT Work Zone Equipment	Planned
MC10	Maintenance and Construction Activity Coordination	ADOT Maintenance Sections	Planned
MC10	Maintenance and Construction Activity Coordination	BIA Regional Website	Planned
MC10	Maintenance and Construction Activity Coordination	BIA Roads	Planned

Market Package	Market Package Name	Element	Status
MC10	Maintenance and Construction Activity Coordination	BIA/Tribal Public Safety Dispatch	Planned
MC10	Maintenance and Construction Activity Coordination	CDOT Maintenance Sections	Planned
MC10	Maintenance and Construction Activity Coordination	City of Roswell Fixed Route Transit Dispatch	Planned
MC10	Maintenance and Construction Activity Coordination	City of Roswell Public Information System	Planned
MC10	Maintenance and Construction Activity Coordination	City of Roswell Public Safety Dispatch	Planned
MC10	Maintenance and Construction Activity Coordination	City of Roswell Public Works Dispatch	Planned
MC10	Maintenance and Construction Activity Coordination	City of Roswell Traffic Operations Center	Planned
MC10	Maintenance and Construction Activity Coordination	City of Roswell Website	Planned
MC10	Maintenance and Construction Activity Coordination	County Public Information System	Planned
MC10	Maintenance and Construction Activity Coordination	County Public Works Dispatch	Planned
MC10	Maintenance and Construction Activity Coordination	County Traffic Operations Center	Planned
MC10	Maintenance and Construction Activity Coordination	County Website	Planned
MC10	Maintenance and Construction Activity Coordination	Independent School District Dispatch	Planned
MC10	Maintenance and Construction Activity Coordination	Local Transit Dispatch	Planned
MC10	Maintenance and Construction Activity Coordination	Mexico Regional Maintenance Section	Planned
MC10	Maintenance and Construction Activity Coordination	Mid-Region RTD Operations Center	Planned
MC10	Maintenance and Construction Activity Coordination	Military Installation Operations Offices	Planned
MC10	Maintenance and Construction Activity Coordination	Municipal Public Information System	Planned
MC10	Maintenance and Construction Activity Coordination	Municipal Public Safety Dispatch	Planned
MC10	Maintenance and Construction Activity Coordination	Municipal Public Works Dispatch	Planned
MC10	Maintenance and Construction Activity Coordination	Municipal Traffic Operations Center-Statewide	Planned
MC10	Maintenance and Construction Activity Coordination	Municipal Website	Planned
MC10	Maintenance and Construction Activity Coordination	New Mexico National Guard Command System	Planned
MC10	Maintenance and Construction Activity Coordination	New Mexico State Radio Communications Bureau (RCB)	Planned
MC10	Maintenance and Construction Activity Coordination	New Mexico Statewide Emergency Operations Center (EOC)	Planned

Market Package	Market Package Name	Element	Status
MC10	Maintenance and Construction Activity Coordination	NM DPS District Dispatch Center	Planned
MC10	Maintenance and Construction Activity Coordination	NM Motor Transport Division (MTD) District Offices	Planned
MC10	Maintenance and Construction Activity Coordination	NMDOT Advanced Traveler Information System	Planned
MC10	Maintenance and Construction Activity Coordination	NMDOT District 1 TOC	Planned
MC10	Maintenance and Construction Activity Coordination	NMDOT District 2 TOC	Planned
MC10	Maintenance and Construction Activity Coordination	NMDOT District 3 TOC	Planned
MC10	Maintenance and Construction Activity Coordination	NMDOT District 4 TOC	Planned
MC10	Maintenance and Construction Activity Coordination	NMDOT District 5 TOC	Planned
MC10	Maintenance and Construction Activity Coordination	NMDOT District 6 TOC	Planned
MC10	Maintenance and Construction Activity Coordination	NMDOT District Maintenance Office	Planned
MC10	Maintenance and Construction Activity Coordination	NMDOT District Maintenance Units Dispatch	Planned
MC10	Maintenance and Construction Activity Coordination	NMDOT District Public Information System	Planned
MC10	Maintenance and Construction Activity Coordination	NMDOT District Website	Planned
MC10	Maintenance and Construction Activity Coordination	NMDOT Park and Ride Dispatch	Planned
MC10	Maintenance and Construction Activity Coordination	NMDOT Statewide Public Information Office	Planned
MC10	Maintenance and Construction Activity Coordination	NMDOT Statewide TMC	Planned
MC10	Maintenance and Construction Activity Coordination	NMDOT Traveler Information Website	Planned
MC10	Maintenance and Construction Activity Coordination	North Central RTD Operations	Planned
MC10	Maintenance and Construction Activity Coordination	OkDOT Maintenance Sections	Planned
MC10	Maintenance and Construction Activity Coordination	Other County Public Works Dispatch	Planned
MC10	Maintenance and Construction Activity Coordination	Other NMDOT District Maintenance Dispatch	Planned
MC10	Maintenance and Construction Activity Coordination	Other Regional Transit Districts	Planned
MC10	Maintenance and Construction Activity Coordination	Rail Runner Operations	Planned
MC10	Maintenance and Construction Activity Coordination	Regional Emergency Communications Center	Planned
MC10	Maintenance and Construction Activity Coordination	Regional Emergency Operations Center (EOC)	Planned

Market Package	Market Package Name	Element	Status
MC10	Maintenance and Construction Activity Coordination	South Central RTD Operations	Planned
MC10	Maintenance and Construction Activity Coordination	Southwest RTD Operations	Planned
MC10	Maintenance and Construction Activity Coordination	Tribal Public Safety Dispatch-Statewide	Planned
MC10	Maintenance and Construction Activity Coordination	Tribal Public Websites	Planned
MC10	Maintenance and Construction Activity Coordination	Tribal Road Maintenance	Planned
MC10	Maintenance and Construction Activity Coordination	Tribal Transportation Operations	Planned
MC10	Maintenance and Construction Activity Coordination	TxDOT District Maintenance Sections	Planned
MC10	Maintenance and Construction Activity Coordination	US Border Patrol Stations	Planned

Appendix D: Customized Market Packages

(Contained in Separate Document)

Appendix E: Functional Requirements

This appendix contains two tables describing the functions assigned to each of the major elements of the New Mexico Statewide ITS Regional ITS Architecture. Table 14 lists the functions (defined from the Turbo Architecture Database as Equipment Packages) assigned to each Element. Table 15 provides a definition of each of the functions defined in Table14. In addition, these functions are further decomposed into a detailed listing of the functional requirements (defined as a set of "shall" statements) in a separate Excel spreadsheet.

Table 14: Functions (Equipment Packages) assigned to Architecture Elements

Element	Equipment Package Name
Accident Reporting System	CV Information Exchange
Accident Reporting System	CV Safety Administration
BIA Maintenance and Construction Vehicles	MCV Roadway Maintenance and Construction
BIA Maintenance and Construction Vehicles	MCV Vehicle Location Tracking
BIA Maintenance and Construction Vehicles	MCV Vehicle System Monitoring and Diagnostics
BIA Maintenance and Construction Vehicles	MCV Winter Maintenance
BIA Maintenance and Construction Vehicles	MCV Work Zone Support
BIA Roads	MCM Incident Management
BIA Roads	MCM Roadway Maintenance and Construction
BIA Roads	MCM Vehicle and Equipment Maintenance Management
BIA Roads	MCM Vehicle Tracking
BIA Roads	MCM Winter Maintenance Management
BIA Roads	MCM Work Activity Coordination
BIA Roads	MCM Work Zone Management
BIA/Tribal Public Safety Dispatch	Emergency Call-Taking
BIA/Tribal Public Safety Dispatch	Emergency Commercial Vehicle Response
BIA/Tribal Public Safety Dispatch	Emergency Data Collection
BIA/Tribal Public Safety Dispatch	Emergency Dispatch
BIA/Tribal Public Safety Dispatch	Emergency Environmental Monitoring
BIA/Tribal Public Safety Dispatch	Emergency Evacuation Support
BIA/Tribal Public Safety Dispatch	Emergency Response Management
BIA/Tribal Public Safety Dispatch	Emergency Routing
BIA/Tribal Public Safety Dispatch	Incident Command
BIA/Tribal Public Safety Vehicles	On-board EV En Route Support
BIA/Tribal Public Safety Vehicles	On-board EV Incident Management Communication
City of Roswell Fire/EMS Vehicles	On-board EV En Route Support
City of Roswell Fire/EMS Vehicles	On-board EV Incident Management Communication
City of Roswell Fixed Route Transit Dispatch	Center Secure Area Alarm Support
City of Roswell Fixed Route Transit Dispatch	Center Secure Area Surveillance
City of Roswell Fixed Route Transit Dispatch	Transit Center Fare and Load Management
City of Roswell Fixed Route Transit Dispatch	Transit Center Fixed-Route Operations
City of Roswell Fixed Route Transit Dispatch	Transit Center Information Services
City of Roswell Fixed Route Transit Dispatch	Transit Center Multi-Modal Coordination
City of Roswell Fixed Route Transit Dispatch	Transit Center Security
City of Roswell Fixed Route Transit Dispatch	Transit Center Vehicle Tracking
City of Roswell Fixed Route Transit Dispatch	Transit Data Collection
City of Roswell Fixed Route Transit Dispatch	Transit Evacuation Support
City of Roswell Fixed Route Transit Dispatch	Transit Garage Maintenance
City of Roswell Fixed Route Transit Dispatch	Transit Vehicle Operator Scheduling
City of Roswell Fixed Route Transit Vehicles	On-board Fixed Route Schedule Management
City of Roswell Fixed Route Transit Vehicles	On-board Maintenance

Element	Equipment Package Name
City of Roswell Fixed Route Transit Vehicles	On-board Transit Fare and Load Management
City of Roswell Fixed Route Transit Vehicles	On-board Transit Security
City of Roswell Fixed Route Transit Vehicles	On-board Transit Signal Priority
City of Roswell Fixed Route Transit Vehicles	On-board Transit Trip Monitoring
City of Roswell ITS Field Equipment	Roadway Basic Surveillance
City of Roswell ITS Field Equipment	Roadway Signal Controls
City of Roswell ITS Field Equipment	Roadway Signal Priority
City of Roswell ITS Field Equipment	Roadway Traffic Information Dissemination
City of Roswell ITS Field Equipment	Roadway Work Zone Traffic Control
City of Roswell ITS Field Equipment	Standard Rail Crossing
City of Roswell Police Vehicles	On-board EV En Route Support
City of Roswell Police Vehicles	On-board EV Incident Management Communication
City of Roswell Public Information System	Basic Information Broadcast
City of Roswell Public Information System	ISP Emergency Traveler Information
City of Roswell Public Information System	ISP Traveler Data Collection
City of Roswell Public Safety Dispatch	Emergency Call-Taking
City of Roswell Public Safety Dispatch	Emergency Commercial Vehicle Response
City of Roswell Public Safety Dispatch	Emergency Data Collection
City of Roswell Public Safety Dispatch	Emergency Dispatch
City of Roswell Public Safety Dispatch	Emergency Environmental Monitoring
City of Roswell Public Safety Dispatch	Emergency Response Management
City of Roswell Public Safety Dispatch	Emergency Routing
City of Roswell Public Safety Dispatch	Incident Command
City of Roswell Public Works Dispatch	MCM Environmental Information Processing
City of Roswell Public Works Dispatch	MCM Incident Management
City of Roswell Public Works Dispatch	MCM Roadway Maintenance and Construction
City of Roswell Public Works Dispatch	MCM Vehicle and Equipment Maintenance Management
City of Roswell Public Works Dispatch	MCM Vehicle Tracking
City of Roswell Public Works Dispatch	MCM Winter Maintenance Management
City of Roswell Public Works Dispatch	MCM Work Activity Coordination
City of Roswell Public Works Dispatch	MCM Work Zone Management
City of Roswell Public Works Vehicles	MCV Roadway Maintenance and Construction
City of Roswell Public Works Vehicles	MCV Vehicle Location Tracking
City of Roswell Public Works Vehicles	MCV Vehicle System Monitoring and Diagnostics
City of Roswell Public Works Vehicles	MCV Winter Maintenance
City of Roswell Public Works Vehicles	MCV Work Zone Support
City of Roswell Traffic Operations Center	Collect Traffic Surveillance
City of Roswell Traffic Operations Center	HRI Traffic Management
City of Roswell Traffic Operations Center	Rail Operations Coordination
City of Roswell Traffic Operations Center	TMC Evacuation Support
City of Roswell Traffic Operations Center	TMC Incident Detection
City of Roswell Traffic Operations Center	TMC Incident Dispatch Coordination/Communication
City of Roswell Traffic Operations Center	TMC Multimodal Coordination
City of Roswell Traffic Operations Center	TMC Regional Traffic Control
City of Roswell Traffic Operations Center	TMC Signal Control
City of Roswell Traffic Operations Center	TMC Traffic Information Dissemination
City of Roswell Traffic Operations Center	Traffic Data Collection
City of Roswell Traffic Operations Center	Traffic Maintenance
City of Roswell Transit Kiosks	Remote Basic Information Reception
City of Roswell Transit Kiosks	Remote Interactive Information Reception

Element	Equipment Package Name
City of Roswell Transit Kiosks	Remote Transit Fare Management
City of Roswell Transit Kiosks	Remote Transit Information Services
City of Roswell Website	Basic Information Broadcast
City of Roswell Website	Infrastructure Provided Trip Planning
City of Roswell Website	ISP Traveler Data Collection
Commercial Vehicles	On-board CV Electronic Data
County Fire/EMS Vehicles	On-board EV En Route Support
County Fire/EMS Vehicles	On-board EV Incident Management Communication
County ITS Field Equipment	Roadway Basic Surveillance
County ITS Field Equipment	Roadway Environmental Monitoring
County ITS Field Equipment	Roadway Field Device Monitoring
County ITS Field Equipment	Roadway Signal Controls
County ITS Field Equipment	Roadway Signal Priority
County ITS Field Equipment	Roadway Traffic Information Dissemination
County ITS Field Equipment	Roadway Work Zone Traffic Control
County ITS Field Equipment	Standard Rail Crossing
County Public Information System	Basic Information Broadcast
County Public Information System	ISP Emergency Traveler Information
County Public Information System	ISP Traveler Data Collection
County Public Works Dispatch	MCM Environmental Information Collection
County Public Works Dispatch	MCM Environmental Information Processing
County Public Works Dispatch	MCM Incident Management
County Public Works Dispatch	MCM Maintenance Decision Support
County Public Works Dispatch	MCM Roadway Maintenance and Construction
County Public Works Dispatch	MCM Vehicle and Equipment Maintenance Management
County Public Works Dispatch	MCM Vehicle Tracking
County Public Works Dispatch	MCM Winter Maintenance Management
County Public Works Dispatch	MCM Work Activity Coordination
County Public Works Dispatch	MCM Work Zone Management
County Public Works Vehicles	MCV Roadway Maintenance and Construction
County Public Works Vehicles	MCV Vehicle Location Tracking
County Public Works Vehicles	MCV Vehicle System Monitoring and Diagnostics
County Public Works Vehicles	MCV Winter Maintenance
County Public Works Vehicles	MCV Work Zone Support
County Sheriffs Vehicles	On-board EV En Route Support
County Sheriffs Vehicles	On-board EV Incident Management Communication
County Traffic Operations Center	Collect Traffic Surveillance
County Traffic Operations Center	HRI Traffic Management
County Traffic Operations Center	Rail Operations Coordination
County Traffic Operations Center	TMC Environmental Monitoring
County Traffic Operations Center	TMC Evacuation Support
County Traffic Operations Center	TMC Incident Detection
County Traffic Operations Center	TMC Incident Dispatch Coordination/Communication
County Traffic Operations Center	TMC Regional Traffic Control
County Traffic Operations Center	TMC Signal Control
County Traffic Operations Center	TMC Traffic Information Dissemination
County Traffic Operations Center	Traffic Data Collection
County Traffic Operations Center	Traffic Maintenance
County Website	Basic Information Broadcast
County Website	ISP Traveler Data Collection

Element	Equipment Package Name
DMV Database	Government Reporting Systems Support
DMV Database	ITS Data Repository
DMV Database	Traffic and Roadside Data Archival
Drayage Companies	Fleet Administration
Drayage Companies	Freight Administration and Management
Electronic Bypass Stations	Citation and Accident Electronic Recording
Electronic Bypass Stations	International Border Crossing
Electronic Bypass Stations	Roadside Electronic Screening
Electronic Bypass Stations	Roadside HAZMAT Detection
Fleet Management Systems	Fleet Administration
Fleet Management Systems	Fleet Credentials and Taxes Management and Reporting
Fleet Management Systems	Fleet HAZMAT Management
Fleet Management Systems	Freight Administration and Management
Independent School District Buses	On-board Fixed Route Schedule Management
Independent School District Buses	On-board Maintenance
Independent School District Buses	On-board Transit Security
Independent School District Buses	On-board Transit Trip Monitoring
Independent School District Dispatch	Center Secure Area Alarm Support
Independent School District Dispatch	Center Secure Area Surveillance
Independent School District Dispatch	Transit Center Fixed-Route Operations
Independent School District Dispatch	Transit Center Multi-Modal Coordination
Independent School District Dispatch	Transit Center Security
Independent School District Dispatch	Transit Center Vehicle Tracking
Independent School District Dispatch	Transit Environmental Monitoring
Independent School District Dispatch	Transit Evacuation Support
Independent School District Dispatch	Transit Garage Maintenance
Independent School District Dispatch	Transit Vehicle Operator Scheduling
Local Transit Dispatch	Center Secure Area Alarm Support
Local Transit Dispatch	Center Secure Area Surveillance
Local Transit Dispatch	Transit Center Fare and Load Management
Local Transit Dispatch	Transit Center Fixed-Route Operations
Local Transit Dispatch	Transit Center Information Services
Local Transit Dispatch	Transit Center Multi-Modal Coordination
Local Transit Dispatch	Transit Center Paratransit Operations
Local Transit Dispatch	Transit Center Security
Local Transit Dispatch	Transit Center Vehicle Tracking
Local Transit Dispatch	Transit Data Collection
Local Transit Dispatch	Transit Environmental Monitoring
Local Transit Dispatch	Transit Evacuation Support
Local Transit Dispatch	Transit Garage Maintenance
Local Transit Dispatch	Transit Vehicle Operator Scheduling
Local Transit IVR System and Website	Infrastructure Provided Trip Planning
Local Transit IVR System and Website	ISP Traveler Data Collection
Local Transit Vehicles	On-board Fixed Route Schedule Management
Local Transit Vehicles	On-board Maintenance
Local Transit Vehicles	On-board Paratransit Operations
Local Transit Vehicles	On-board Transit Fare and Load Management
Local Transit Vehicles	On-board Transit Security
Local Transit Vehicles	On-board Transit Trip Monitoring

Element	Equipment Package Name
Los Alamos National Lab Operations	Emergency Response Management
Los Alamos National Lab Operations	Incident Command
Mid-Region RTD Operations Center	Center Secure Area Alarm Support
Mid-Region RTD Operations Center	Center Secure Area Surveillance
Mid-Region RTD Operations Center	Transit Center Fare and Load Management
Mid-Region RTD Operations Center	Transit Center Information Services
Mid-Region RTD Operations Center	Transit Center Multi-Modal Coordination
Mid-Region RTD Operations Center	Transit Center Paratransit Operations
Mid-Region RTD Operations Center	Transit Center Security
Mid-Region RTD Operations Center	Transit Center Vehicle Tracking
Mid-Region RTD Operations Center	Transit Data Collection
Mid-Region RTD Operations Center	Transit Environmental Monitoring
Mid-Region RTD Operations Center	Transit Evacuation Support
Mid-Region RTD Operations Center	Transit Garage Maintenance
Mid-Region RTD Operations Center	Transit Vehicle Operator Scheduling
Mid-Region RTD Transit Vehicles	On-board Maintenance
Mid-Region RTD Transit Vehicles	On-board Paratransit Operations
Mid-Region RTD Transit Vehicles	On-board Transit Fare and Load Management
Mid-Region RTD Transit Vehicles	On-board Transit Security
Mid-Region RTD Transit Vehicles	On-board Transit Trip Monitoring
Mid-Region RTD Transit Website	Basic Information Broadcast
Mid-Region RTD Transit Website	Infrastructure Provided Trip Planning
Mid-Region RTD Transit Website	ISP Traveler Data Collection
Military Installation Operations Offices	Emergency Response Management
Military Installation Operations Offices	Incident Command
Mobile Weigh Stations	Roadside WIM
MPO/RPO Field Sensors	Roadway Data Collection
MPO/RPO Traffic Database	Government Reporting Systems Support
MPO/RPO Traffic Database	ITS Data Repository
MPO/RPO Traffic Database	Traffic and Roadside Data Archival
Municipal Fire and EMS Vehicles	On-board EV En Route Support
Municipal Fire and EMS Vehicles	On-board EV Incident Management Communication
Municipal ITS Field Equipment	Roadway Basic Surveillance
Municipal ITS Field Equipment	Roadway Data Collection
Municipal ITS Field Equipment	Roadway Environmental Monitoring
Municipal ITS Field Equipment	Roadway Field Device Monitoring
Municipal ITS Field Equipment	Roadway Signal Controls
Municipal ITS Field Equipment	Roadway Signal Priority
Municipal ITS Field Equipment	Roadway Traffic Information Dissemination
Municipal ITS Field Equipment	Roadway Work Zone Traffic Control
Municipal ITS Field Equipment	Standard Rail Crossing
Municipal Police Vehicles	On-board EV En Route Support
Municipal Police Vehicles	On-board EV Incident Management Communication
Municipal Public Information System	Basic Information Broadcast
Municipal Public Information System	ISP Emergency Traveler Information
Municipal Public Information System	ISP Traveler Data Collection
Municipal Public Safety Dispatch	Center Secure Area Surveillance
Municipal Public Safety Dispatch	Emergency Call-Taking
Municipal Public Safety Dispatch	Emergency Data Collection
Municipal Public Safety Dispatch	Emergency Dispatch

Element	Equipment Package Name
Municipal Public Safety Dispatch	Emergency Environmental Monitoring
Municipal Public Safety Dispatch	Emergency Response Management
Municipal Public Safety Dispatch	Emergency Routing
Municipal Public Safety Dispatch	Incident Command
Municipal Public Works Dispatch	MCM Environmental Information Collection
Municipal Public Works Dispatch	MCM Environmental Information Processing
Municipal Public Works Dispatch	MCM Incident Management
Municipal Public Works Dispatch	MCM Maintenance Decision Support
Municipal Public Works Dispatch	MCM Roadway Maintenance and Construction
Municipal Public Works Dispatch	MCM Vehicle and Equipment Maintenance Management
Municipal Public Works Dispatch	MCM Vehicle Tracking
Municipal Public Works Dispatch	MCM Winter Maintenance Management
Municipal Public Works Dispatch	MCM Work Activity Coordination
Municipal Public Works Dispatch	MCM Work Zone Management
Municipal Public Works Vehicles	MCV Roadway Maintenance and Construction
Municipal Public Works Vehicles	MCV Vehicle Location Tracking
Municipal Public Works Vehicles	MCV Vehicle System Monitoring and Diagnostics
Municipal Public Works Vehicles	MCV Winter Maintenance
Municipal Public Works Vehicles	MCV Work Zone Support
Municipal Traffic Operations Center-Statewide	Collect Traffic Surveillance
Municipal Traffic Operations Center-Statewide	HRI Traffic Management
Municipal Traffic Operations Center-Statewide	Rail Operations Coordination
Municipal Traffic Operations Center-Statewide	TMC Environmental Monitoring
Municipal Traffic Operations Center-Statewide	TMC Evacuation Support
Municipal Traffic Operations Center-Statewide	TMC Incident Detection
Municipal Traffic Operations Center-Statewide	TMC Incident Dispatch Coordination/Communication
Municipal Traffic Operations Center-Statewide	TMC Regional Traffic Control
Municipal Traffic Operations Center-Statewide	TMC Signal Control
Municipal Traffic Operations Center-Statewide	TMC Traffic Information Dissemination
Municipal Traffic Operations Center-Statewide	Traffic Data Collection
Municipal Traffic Operations Center-Statewide	Traffic Maintenance
Municipal Website	Basic Information Broadcast
New Mexico CVIEW System	Credentials and Taxes Administration
New Mexico CVIEW System	CV Information Exchange
New Mexico CVIEW System	CV Safety Administration
New Mexico Statewide Emergency Operations Center (EOC)	Emergency Commercial Vehicle Response
New Mexico Statewide Emergency Operations Center (EOC)	Emergency Data Collection
New Mexico Statewide Emergency Operations Center (EOC)	Emergency Early Warning System
New Mexico Statewide Emergency Operations Center (EOC)	Emergency Environmental Monitoring
New Mexico Statewide Emergency Operations Center (EOC)	Emergency Evacuation Support
New Mexico Statewide Emergency Operations Center (EOC)	Emergency Response Management
New Mexico Statewide Emergency Operations Center (EOC)	Incident Command
New Mexico Travel and Tourism Website	Basic Information Broadcast

Element	Equipment Package Name
New Mexico Travel and Tourism Website	Interactive Infrastructure Information
NM CVO Electronic Permitting System	Credentials and Taxes Administration
NM CVO Electronic Permitting System	CV Information Exchange
NM DPS District Dispatch Center	Center Secure Area Surveillance
NM DPS District Dispatch Center	Emergency Call-Taking
NM DPS District Dispatch Center	Emergency Commercial Vehicle Response
NM DPS District Dispatch Center	Emergency Data Collection
NM DPS District Dispatch Center	Emergency Dispatch
NM DPS District Dispatch Center	Emergency Early Warning System
NM DPS District Dispatch Center	Emergency Environmental Monitoring
NM DPS District Dispatch Center	Emergency Response Management
NM DPS District Dispatch Center	Emergency Routing
NM DPS District Dispatch Center	Incident Command
NM DPS Mobile Command Center	Emergency Response Management
NM DPS Mobile Command Center	Incident Command
NM DPS Mobile Command Center	On-board EV Incident Management Communication
NM DPS Vehicles	On-board EV En Route Support
NM DPS Vehicles	On-board EV Incident Management Communication
NM Livestock Inspection Vehicles	On-board EV En Route Support
NM Livestock Inspection Vehicles	On-board EV Incident Management Communication
NM Motor Transport Division (MTD) District Offices	CV Data Collection
NM Motor Transport Division (MTD) District Offices	Emergency Dispatch
NM Motor Transport Division (MTD) District Offices	Emergency Response Management
NM Motor Transport Division Response Vehicles	On-board EV En Route Support
NM Motor Transport Division Response Vehicles	On-board EV Incident Management Communication
NM MTD Fixed Weigh Stations	Roadside WIM
NM TRD CVO Credentials Interface	Credentials and Taxes Administration
NM TRD CVO Credentials Interface	CV Information Exchange
NMDOT Advanced Traveler Information System	Basic Information Broadcast
NMDOT Advanced Traveler Information System	Infrastructure Provided Trip Planning
NMDOT Advanced Traveler Information System	Interactive Infrastructure Information
NMDOT Advanced Traveler Information System	ISP Emergency Traveler Information
NMDOT Advanced Traveler Information System	ISP Traveler Data Collection
NMDOT Advanced Traveler Information System	Traveler Telephone Information
NMDOT CCTV	Roadway Basic Surveillance
NMDOT CCTV	Roadway Work Zone Traffic Control
NMDOT Consolidated Highway Database (CHDB)	Government Reporting Systems Support
NMDOT Consolidated Highway Database (CHDB)	ITS Data Repository
NMDOT Consolidated Highway Database	On-Line Analysis and Mining

Element	Equipment Package Name
(CHDB)	
NMDOT Consolidated Highway Database (CHDB)	Traffic and Roadside Data Archival
NMDOT Consolidated Highway Database (CHDB)	Virtual Data Warehouse Services
NMDOT Data Warehouse	Government Reporting Systems Support
NMDOT Data Warehouse	ITS Data Repository
NMDOT Data Warehouse	On-Line Analysis and Mining
NMDOT Data Warehouse	Virtual Data Warehouse Services
NMDOT District 1 TOC	Barrier System Management
NMDOT District 1 TOC	Collect Traffic Surveillance
NMDOT District 1 TOC	MCM Environmental Information Processing
NMDOT District 1 TOC	TMC Environmental Monitoring
NMDOT District 1 TOC	TMC Evacuation Support
NMDOT District 1 TOC	TMC Freeway Management
NMDOT District 1 TOC	TMC Incident Detection
NMDOT District 1 TOC	TMC Incident Dispatch Coordination/Communication
NMDOT District 1 TOC	TMC Regional Traffic Control
NMDOT District 1 TOC	TMC Traffic Information Dissemination
NMDOT District 1 TOC	Traffic Data Collection
NMDOT District 1 TOC	Traffic Maintenance
NMDOT District 2 TOC	Barrier System Management
NMDOT District 2 TOC	Collect Traffic Surveillance
NMDOT District 2 TOC	MCM Environmental Information Processing
NMDOT District 2 TOC	TMC Environmental Monitoring
NMDOT District 2 TOC	TMC Evacuation Support
NMDOT District 2 TOC	TMC Freeway Management
NMDOT District 2 TOC	TMC Incident Detection
NMDOT District 2 TOC	TMC Incident Dispatch Coordination/Communication
NMDOT District 2 TOC	TMC Regional Traffic Control
NMDOT District 2 TOC	TMC Traffic Information Dissemination
NMDOT District 2 TOC	Traffic Data Collection
NMDOT District 2 TOC	Traffic Maintenance
NMDOT District 3 TOC	Barrier System Management
NMDOT District 3 TOC	Collect Traffic Surveillance
NMDOT District 3 TOC	MCM Environmental Information Processing
NMDOT District 3 TOC	TMC Environmental Monitoring
NMDOT District 3 TOC	TMC Evacuation Support
NMDOT District 3 TOC	TMC Freeway Management
NMDOT District 3 TOC	TMC Incident Detection
NMDOT District 3 TOC	TMC Incident Dispatch Coordination/Communication
NMDOT District 3 TOC	TMC Regional Traffic Control
NMDOT District 3 TOC	TMC Traffic Information Dissemination
NMDOT District 3 TOC	Traffic Data Collection
NMDOT District 3 TOC	Traffic Maintenance
NMDOT District 4 TOC	Barrier System Management
NMDOT District 4 TOC	Collect Traffic Surveillance
NMDOT District 4 TOC	MCM Environmental Information Processing
NMDOT District 4 TOC	TMC Environmental Monitoring
NMDOT District 4 TOC	TMC Evacuation Support

Element	Equipment Package Name
NMDOT District 4 TOC	TMC Freeway Management
NMDOT District 4 TOC	TMC Incident Detection
NMDOT District 4 TOC	TMC Incident Dispatch Coordination/Communication
NMDOT District 4 TOC	TMC Regional Traffic Control
NMDOT District 4 TOC	TMC Traffic Information Dissemination
NMDOT District 4 TOC	Traffic Data Collection
NMDOT District 4 TOC	Traffic Maintenance
NMDOT District 5 TOC	Barrier System Management
NMDOT District 5 TOC	Collect Traffic Surveillance
NMDOT District 5 TOC	MCM Environmental Information Processing
NMDOT District 5 TOC	TMC Environmental Monitoring
NMDOT District 5 TOC	TMC Evacuation Support
NMDOT District 5 TOC	TMC Freeway Management
NMDOT District 5 TOC	TMC Incident Detection
NMDOT District 5 TOC	TMC Incident Dispatch Coordination/Communication
NMDOT District 5 TOC	TMC Regional Traffic Control
NMDOT District 5 TOC	TMC Traffic Information Dissemination
NMDOT District 5 TOC	Traffic Data Collection
NMDOT District 5 TOC	Traffic Maintenance
NMDOT District 6 TOC	Barrier System Management
NMDOT District 6 TOC	Collect Traffic Surveillance
NMDOT District 6 TOC	TMC Environmental Monitoring
NMDOT District 6 TOC	TMC Evacuation Support
NMDOT District 6 TOC	TMC Freeway Management
NMDOT District 6 TOC	TMC Incident Detection
NMDOT District 6 TOC	TMC Incident Dispatch Coordination/Communication
NMDOT District 6 TOC	TMC Regional Traffic Control
NMDOT District 6 TOC	TMC Traffic Information Dissemination
NMDOT District 6 TOC	Traffic Data Collection
NMDOT District 6 TOC	Traffic Maintenance
NMDOT District HELP Courtesy Patrol Dispatch	Service Patrol Management
NMDOT District HELP Courtesy Patrol Vehicles	On-board EV En Route Support
NMDOT District HELP Courtesy Patrol Vehicles	On-board EV Incident Management Communication
NMDOT District Maintenance and Construction Vehicles	MCV Roadway Maintenance and Construction
NMDOT District Maintenance and Construction Vehicles	MCV Vehicle Location Tracking
NMDOT District Maintenance and Construction Vehicles	MCV Vehicle Safety Monitoring
NMDOT District Maintenance and Construction Vehicles	MCV Vehicle System Monitoring and Diagnostics
NMDOT District Maintenance and Construction Vehicles	MCV Winter Maintenance
NMDOT District Maintenance and Construction Vehicles	MCV Work Zone Support
NMDOT District Maintenance Office	MCM Data Collection
NMDOT District Maintenance Office	MCM Incident Management
NMDOT District Maintenance Office	MCM Maintenance Decision Support

Element	Equipment Package Name
NMDOT District Maintenance Office	MCM Roadway Maintenance and Construction
NMDOT District Maintenance Office	MCM Vehicle Tracking
NMDOT District Maintenance Office	MCM Winter Maintenance Management
NMDOT District Maintenance Office	MCM Work Activity Coordination
NMDOT District Maintenance Office	MCM Work Zone Management
NMDOT District Maintenance Units Dispatch	MCM Automated Treatment System Control
NMDOT District Maintenance Units Dispatch	MCM Data Collection
NMDOT District Maintenance Units Dispatch	MCM Incident Management
NMDOT District Maintenance Units Dispatch	MCM Maintenance Decision Support
NMDOT District Maintenance Units Dispatch	MCM Roadway Maintenance and Construction
NMDOT District Maintenance Units Dispatch	MCM Vehicle and Equipment Maintenance Management
NMDOT District Maintenance Units Dispatch	MCM Vehicle Tracking
NMDOT District Maintenance Units Dispatch	MCM Winter Maintenance Management
NMDOT District Maintenance Units Dispatch	MCM Work Activity Coordination
NMDOT District Maintenance Units Dispatch	MCM Work Zone Management
NMDOT District Maintenance Units Dispatch	MCM Work Zone Safety Management
NMDOT District Public Information System	Basic Information Broadcast
NMDOT District Public Information System	ISP Emergency Traveler Information
NMDOT District Public Information System	ISP Traveler Data Collection
NMDOT District Weather Detection Stations	Roadway Environmental Monitoring
NMDOT District Website	Basic Information Broadcast
NMDOT District Website	ISP Traveler Data Collection
NMDOT DMS	Roadway Traffic Information Dissemination
NMDOT DMS	Roadway Work Zone Traffic Control
NMDOT Field Sensors	Roadway Basic Surveillance
NMDOT Field Sensors	Roadway Data Collection
NMDOT Highway Advisory Radio System (HAR)	Roadway Traffic Information Dissemination
NMDOT Highway Maintenance Management System (HMMS)	Government Reporting Systems Support
NMDOT Highway Maintenance Management System (HMMS)	ITS Data Repository
NMDOT Highway Maintenance Management System (HMMS)	Virtual Data Warehouse Services
NMDOT Lane Controls	Roadway Freeway Control
NMDOT Non-Reversible Lane Controls	Roadway Freeway Control
NMDOT Park and Ride Dispatch	Center Secure Area Alarm Support
NMDOT Park and Ride Dispatch	Center Secure Area Surveillance
NMDOT Park and Ride Dispatch	Transit Center Fixed-Route Operations
NMDOT Park and Ride Dispatch	Transit Center Multi-Modal Coordination
NMDOT Park and Ride Dispatch	Transit Center Security
NMDOT Park and Ride Dispatch	Transit Center Vehicle Tracking
NMDOT Park and Ride Dispatch	Transit Data Collection
NMDOT Park and Ride Dispatch	Transit Evacuation Support
NMDOT Park and Ride Dispatch	Transit Garage Maintenance
NMDOT Park and Ride Dispatch	Transit Vehicle Operator Scheduling
NMDOT Park and Ride Shuttle Buses	On-board Fixed Route Schedule Management
NMDOT Park and Ride Shuttle Buses	On-board Maintenance
NMDOT Park and Ride Shuttle Buses	On-board Transit Security
NMDOT Park and Ride Shuttle Buses	On-board Transit Trip Monitoring

Element	Equipment Package Name
NMDOT Ramp Meters	Roadway Freeway Control
NMDOT Rest Area/Visitor Center/Truck Stop/Service Plaza Kiosks	Remote Basic Information Reception
NMDOT Rest Area/Visitor Center/Truck Stop/Service Plaza Kiosks	Remote Interactive Information Reception
NMDOT Rest Area/Visitor Center/Truck Stop/Service Plaza Kiosks	Remote Transit Information Services
NMDOT Road Closure Gates	Field Barrier System Control
NMDOT Roadway Treatment Devices	Roadway Automated Treatment
NMDOT RWIS	Roadway Environmental Monitoring
NMDOT Security Monitoring Field Equipment	Field Secure Area Sensor Monitoring
NMDOT Security Monitoring Field Equipment	Field Secure Area Surveillance
NMDOT Signal Lab	Collect Traffic Surveillance
NMDOT Signal Lab	HRI Traffic Management
NMDOT Signal Lab	Rail Operations Coordination
NMDOT Signal Lab	TMC Incident Dispatch Coordination/Communication
NMDOT Signal Lab	TMC Signal Control
NMDOT Signal Lab	Traffic Maintenance
NMDOT SITE Manager	Government Reporting Systems Support
NMDOT SITE Manager	ITS Data Repository
NMDOT SITE Manager	Virtual Data Warehouse Services
NMDOT Statewide Crash Information System	Government Reporting Systems Support
NMDOT Statewide Crash Information System	ITS Data Repository
NMDOT Statewide Crash Information System	On-Line Analysis and Mining
NMDOT Statewide Crash Information System	Virtual Data Warehouse Services
NMDOT Statewide Pavement Management System	ITS Data Repository
NMDOT Statewide Pavement Management System	On-Line Analysis and Mining
NMDOT Statewide Pavement Management System	Traffic and Roadside Data Archival
NMDOT Statewide Pavement Management System	Virtual Data Warehouse Services
NMDOT Statewide Public Information Office	Basic Information Broadcast
NMDOT Statewide Public Information Office	ISP Emergency Traveler Information
NMDOT Statewide Public Information Office	ISP Traveler Data Collection
NMDOT Statewide TMC	Barrier System Management
NMDOT Statewide TMC	Collect Traffic Surveillance
NMDOT Statewide TMC	MCM Environmental Information Collection
NMDOT Statewide TMC	MCM Environmental Information Processing
NMDOT Statewide TMC	Rail Operations Coordination
NMDOT Statewide TMC	TMC Environmental Monitoring
NMDOT Statewide TMC	TMC Evacuation Support
NMDOT Statewide TMC	TMC Freeway Management
NMDOT Statewide TMC	TMC Incident Detection
NMDOT Statewide TMC	TMC Incident Dispatch Coordination/Communication
NMDOT Statewide TMC	TMC Regional Traffic Control
NMDOT Statewide TMC	TMC Traffic Information Dissemination
NMDOT Statewide TMC	Traffic Data Collection
NMDOT Statewide TMC	Traffic Maintenance
NMDOT Statewide Transit Database	Government Reporting Systems Support

Element	Equipment Package Name
NMDOT Statewide Transit Database	ITS Data Repository
NMDOT Statewide Transit Database	On-Line Analysis and Mining
NMDOT Statewide Transit Database	Virtual Data Warehouse Services
NMDOT TIMS	Government Reporting Systems Support
NMDOT TIMS	ITS Data Repository
NMDOT TIMS	Traffic and Roadside Data Archival
NMDOT TIMS	Virtual Data Warehouse Services
NMDOT Traffic Safety Division Data System	ITS Data Repository
NMDOT Traffic Safety Division Data System	On-Line Analysis and Mining
NMDOT Traffic Safety Division Data System	Virtual Data Warehouse Services
NMDOT Traffic Signals	Roadway Signal Controls
NMDOT Traffic Signals	Roadway Signal Priority
NMDOT Traffic Signals	Standard Rail Crossing
NMDOT Traveler Information Website	Basic Information Broadcast
NMDOT Traveler Information Website	Interactive Infrastructure Information
NMDOT Traveler Information Website	Traveler Telephone Information
NMDOT Variable Speed Limit Signs	Roadway Freeway Control
NMDOT Welcome Center/Tourist Info Plazas	Remote Basic Information Reception
NMDOT Welcome Center/Tourist Info Plazas	Remote Interactive Information Reception
NMDOT Welcome Center/Tourist Info Plazas	Remote Transit Information Services
NMDOT WIM Sensors	Roadway Data Collection
NMDOT Work Zone Equipment	Roadway Work Zone Safety
NMDOT Work Zone Equipment	Roadway Work Zone Traffic Control
North Central RTD Operations	Center Secure Area Alarm Support
North Central RTD Operations	Center Secure Area Surveillance
North Central RTD Operations	Transit Center Fare and Load Management
North Central RTD Operations	Transit Center Fixed-Route Operations
North Central RTD Operations	Transit Center Information Services
North Central RTD Operations	Transit Center Multi-Modal Coordination
North Central RTD Operations	Transit Center Paratransit Operations
North Central RTD Operations	Transit Center Security
North Central RTD Operations	Transit Center Vehicle Tracking
North Central RTD Operations	Transit Data Collection
North Central RTD Operations	Transit Environmental Monitoring
North Central RTD Operations	Transit Evacuation Support
North Central RTD Operations	Transit Garage Maintenance
North Central RTD Operations	Transit Vehicle Operator Scheduling
North Central RTD Transit Vehicles	On-board Fixed Route Schedule Management
North Central RTD Transit Vehicles	On-board Maintenance
North Central RTD Transit Vehicles	On-board Paratransit Operations
North Central RTD Transit Vehicles	On-board Transit Fare and Load Management
North Central RTD Transit Vehicles	On-board Transit Security
North Central RTD Transit Vehicles	On-board Transit Trip Monitoring
North Central RTD Transit Website	Basic Information Broadcast
North Central RTD Transit Website	Infrastructure Provided Trip Planning
Private Ambulance Provider Dispatch-Statewide	Emergency Dispatch
Private Ambulance Provider Dispatch-Statewide	Emergency Response Management
Private Ambulance Provider Dispatch-	Emergency Routing

Element	Equipment Package Name
Statewide	
Private Ambulance Provider Vehicles	On-board EV En Route Support
Private Ambulance Provider Vehicles	On-board EV Incident Management Communication
Private HAZMAT Response Providers	Emergency Dispatch
Private HAZMAT Response Providers	Emergency Response Management
Private Sector Traveler Information Services	Basic Information Broadcast
Private Sector Traveler Information Services	Interactive Infrastructure Information
Private Tow/Wrecker Dispatch	Emergency Dispatch
Private Tow/Wrecker Dispatch	Emergency Response Management
Private Tow/Wrecker Vehicles	On-board EV En Route Support
Private Tow/Wrecker Vehicles	On-board EV Incident Management Communication
Private Travelers Personal Computing Devices	Personal Basic Information Reception
Private Travelers Personal Computing Devices	Personal Interactive Information Reception
Private Vehicles	Interactive Vehicle Reception
Rail Runner Commuter Rail Website	Basic Information Broadcast
Rail Runner Commuter Rail Website	Interactive Infrastructure Information
Rail Runner Operations	Center Secure Area Alarm Support
Rail Runner Operations	Center Secure Area Surveillance
Rail Runner Operations	Transit Center Fixed-Route Operations
Rail Runner Operations	Transit Center Multi-Modal Coordination
Rail Runner Operations	Transit Center Security
Rail Runner Operations	Transit Center Vehicle Tracking
Rail Runner Operations	Transit Data Collection
Rail Runner Operations	Transit Evacuation Support
Rail Runner Operations	Transit Garage Maintenance
Rail Runner Operations	Transit Vehicle Operator Scheduling
Rail Runner Transit Rail Vehicles	On-board Fixed Route Schedule Management
Rail Runner Transit Rail Vehicles	On-board Maintenance
Rail Runner Transit Rail Vehicles	On-board Transit Security
Rail Runner Transit Rail Vehicles	On-board Transit Trip Monitoring
Regional Emergency Communications Center	Emergency Call-Taking
Regional Emergency Communications Center	Emergency Commercial Vehicle Response
Regional Emergency Communications Center	Emergency Data Collection
Regional Emergency Communications Center	Emergency Dispatch
Regional Emergency Communications Center	Emergency Environmental Monitoring
Regional Emergency Communications Center	Emergency Evacuation Support
Regional Emergency Communications Center	Emergency Response Management
Regional Emergency Communications Center	Emergency Routing
Regional Emergency Communications Center	Incident Command
Regional Emergency Operations Center (EOC)	Emergency Early Warning System
Regional Emergency Operations Center (EOC)	Emergency Environmental Monitoring
Regional Emergency Operations Center (EOC)	Emergency Evacuation Support
Regional Emergency Operations Center (EOC)	Emergency Response Management
Regional Emergency Operations Center (EOC)	Incident Command

Element	Equipment Package Name
Regional Transit Kiosks-Statewide	Remote Basic Information Reception
Regional Transit Kiosks-Statewide	Remote Interactive Information Reception
Regional Transit Kiosks-Statewide	Remote Transit Fare Management
Regional Transit Kiosks-Statewide	Remote Transit Information Services
Regional Transportation Centers	Remote Basic Information Reception
Regional Transportation Centers	Remote Interactive Information Reception
Regional Transportation Centers	Remote Transit Information Services
Regional Transportation Centers	Remote Traveler Security
Regional Transportation Centers	Traveler Secure Area Surveillance
Roadside Safety Inspection System	Citation and Accident Electronic Recording
Roadside Safety Inspection System	Roadside Electronic Screening
Roadside Safety Inspection System	Roadside Safety and Security Inspection
South Central RTD Operations	Center Secure Area Alarm Support
South Central RTD Operations	Center Secure Area Surveillance
South Central RTD Operations	Transit Center Fare and Load Management
South Central RTD Operations	Transit Center Fixed-Route Operations
South Central RTD Operations	Transit Center Information Services
South Central RTD Operations	Transit Center Multi-Modal Coordination
South Central RTD Operations	Transit Center Paratransit Operations
South Central RTD Operations	Transit Center Security
South Central RTD Operations	Transit Center Vehicle Tracking
South Central RTD Operations	Transit Data Collection
South Central RTD Operations	Transit Environmental Monitoring
South Central RTD Operations	Transit Evacuation Support
South Central RTD Operations	Transit Garage Maintenance
South Central RTD Operations	Transit Vehicle Operator Scheduling
South Central RTD Transit Vehicles	On-board Fixed Route Schedule Management
South Central RTD Transit Vehicles	On-board Maintenance
South Central RTD Transit Vehicles	On-board Paratransit Operations
South Central RTD Transit Vehicles	On-board Transit Fare and Load Management
South Central RTD Transit Vehicles	On-board Transit Security
South Central RTD Transit Vehicles	On-board Transit Signal Priority
South Central RTD Transit Vehicles	On-board Transit Trip Monitoring
South Central RTD Website	Basic Information Broadcast
South Central RTD Website	Infrastructure Provided Trip Planning
South Central RTD Website	Interactive Infrastructure Information
South Central RTD Website	ISP Traveler Data Collection
Southwest RTD Demand Response Transit Vehicles	On-board Maintenance
Southwest RTD Demand Response Transit Vehicles	On-board Paratransit Operations
Southwest RTD Demand Response Transit Vehicles	On-board Transit Fare and Load Management
Southwest RTD Demand Response Transit Vehicles	On-board Transit Security
Southwest RTD Demand Response Transit Vehicles	On-board Transit Trip Monitoring
Southwest RTD Operations	Center Secure Area Alarm Support
Southwest RTD Operations	Center Secure Area Surveillance
Southwest RTD Operations	Transit Center Fare and Load Management

Element	Equipment Package Name
Southwest RTD Operations	Transit Center Information Services
Southwest RTD Operations	Transit Center Multi-Modal Coordination
Southwest RTD Operations	Transit Center Paratransit Operations
Southwest RTD Operations	Transit Center Security
Southwest RTD Operations	Transit Center Vehicle Tracking
Southwest RTD Operations	Transit Data Collection
Southwest RTD Operations	Transit Environmental Monitoring
Southwest RTD Operations	Transit Evacuation Support
Southwest RTD Operations	Transit Garage Maintenance
Southwest RTD Operations	Transit Vehicle Operator Scheduling
Southwest RTD Website	Basic Information Broadcast
Southwest RTD Website	Infrastructure Provided Trip Planning
State Emergency Vehicles	On-board EV En Route Support
State Emergency Vehicles	On-board EV Incident Management Communication
Tribal Archive Data Warehouse	ITS Data Repository
Tribal Archive Data Warehouse	Traffic and Roadside Data Archival
Tribal ITS Field Equipment	Roadway Basic Surveillance
Tribal ITS Field Equipment	Roadway Data Collection
Tribal ITS Field Equipment	Roadway Signal Controls
Tribal ITS Field Equipment	Roadway Signal Priority
Tribal ITS Field Equipment	Roadway Traffic Information Dissemination
Tribal ITS Field Equipment	Roadway Work Zone Traffic Control
Tribal ITS Field Equipment	Standard Rail Crossing
Tribal Public Safety Dispatch-Statewide	Emergency Call-Taking
Tribal Public Safety Dispatch-Statewide	Emergency Commercial Vehicle Response
Tribal Public Safety Dispatch-Statewide	Emergency Data Collection
Tribal Public Safety Dispatch-Statewide	Emergency Dispatch
Tribal Public Safety Dispatch-Statewide	Emergency Environmental Monitoring
Tribal Public Safety Dispatch-Statewide	Emergency Response Management
Tribal Public Safety Dispatch-Statewide	Emergency Routing
Tribal Public Safety Vehicles	On-board EV En Route Support
Tribal Public Safety Vehicles	On-board EV Incident Management Communication
Tribal Public Websites	Basic Information Broadcast
Tribal Road Maintenance	MCM Incident Management
Tribal Road Maintenance	MCM Roadway Maintenance and Construction
Tribal Road Maintenance	MCM Vehicle and Equipment Maintenance Management
Tribal Road Maintenance	MCM Vehicle Tracking
Tribal Road Maintenance	MCM Winter Maintenance Management
Tribal Road Maintenance	MCM Work Activity Coordination
Tribal Road Maintenance	MCM Work Zone Management
Tribal Road Maintenance Vehicles	MCV Roadway Maintenance and Construction
Tribal Road Maintenance Vehicles	MCV Vehicle Location Tracking
Tribal Road Maintenance Vehicles	MCV Vehicle System Monitoring and Diagnostics
Tribal Road Maintenance Vehicles	MCV Winter Maintenance
Tribal Road Maintenance Vehicles	MCV Work Zone Support
Tribal Security Monitoring Field Equipment	Field Secure Area Surveillance
Tribal Transportation Operations	Collect Traffic Surveillance
Tribal Transportation Operations	HRI Traffic Management
Tribal Transportation Operations	MCM Incident Management
Tribal Transportation Operations	Rail Operations Coordination

Element	Equipment Package Name
Tribal Transportation Operations	TMC Evacuation Support
Tribal Transportation Operations	TMC Incident Detection
Tribal Transportation Operations	TMC Incident Dispatch Coordination/Communication
Tribal Transportation Operations	TMC Regional Traffic Control
Tribal Transportation Operations	TMC Signal Control
Tribal Transportation Operations	TMC Traffic Information Dissemination
Tribal Transportation Operations	Traffic Data Collection
Tribal Transportation Operations	Traffic Maintenance

Table 15 provides a definition of each of the Equipment Packages (functions) from the previous table.

Table 15: Equipment Package Descriptions

Equipment Package	Description
Barrier System Management	Remotely controls barrier systems such as gates and other systems that manage entry to roadways, transportation facilities and infrastructure.
Basic Information Broadcast	Collection, processing, storage, and broadcast dissemination of traffic, transit, maintenance and construction, event, and weather information to traveler interface systems and vehicles.
Center Secure Area Alarm Support	Collection and response to silent and audible alarms received from travelers in secure areas (such as transit stops, rest areas, park-and-ride lots) and from on-board transit vehicles.
Center Secure Area Sensor Management	Management of security sensors, analysis of sensor data, correlation with surveillance data and alerts from other agencies to detect potential threats, and dissemination of threat information to other agencies. Sensors may be placed in areas such as transit stops, transit stations, rest areas, park and ride lots, modal interchange facilities, on-board a transit vehicle, etc.
Center Secure Area Surveillance	Management of security surveillance devices and analysis of that data to detect potential threats. Areas under surveillance may include transit stops, transit stations, rest areas, park and ride lots, modal interchange facilities, on-board a transit vehicle, etc.
Citation and Accident Electronic Recording	Roadside check facility equipment records results of roadside inspections and forwards information to the commercial vehicle administration center. Includes accident reports, violations, citations, and the daily site activity data.
Collect Traffic Surveillance	Management of traffic sensors and surveillance (CCTV) equipment, and distribution of the collected information to other centers and operators.
Credentials and Taxes Administration	Manage electronic filing of credentials and tax filing for commercial vehicle operators. Provides commercial vehicle (including HAZMAT) route restrictions.
CV Data Collection	Collects and stores information related to Commercial Vehicle Operations. For use by operations personnel or data archives in the region.
CV Information Exchange	Exchange information concerning safety, credentialing, and operations of commercial vehicles between the center and the roadside check stations, across jurisdictions, with fleet operators, enforcement agencies, and other information requestors.

Equipment Package	Description
CV Safety Administration	Provides commercial vehicle safety criteria to roadside check facilities, collects and reviews safety data from the field and distributes safety information to other centers, carriers, and enforcement agencies.
Emergency Call-Taking	Provides interface to the emergency call-taking systems such as the Emergency Telecommunications System (e.g., 911) that correlate call information with emergencies reported by transit agencies, commercial vehicle operators, or other public safety agencies. Allows the operator to verify the incident and forward the information to the responding agencies.
Emergency Commercial Vehicle Response	Responds to commercial vehicle and freight equipment related emergencies. Includes incidents involving hazardous materials as well as the detection of non-permitted transport of security sensitive hazmat.
Emergency Data Collection	Collection and storage of information related to Emergency Management. For use by operations personnel or data archives in the region.
Emergency Dispatch	Dispatch emergency vehicles to incidents, tracking their location and status. Pertinent incident information is gathered and relayed to the responding units.
Emergency Early Warning System	Monitors alerting and advisory systems, information collected by ITS surveillance and sensors, and reports from other agencies in order to identify potential, imminent, or in-progress major incidents or disasters. Notification is provided to other ITS centers to notify the traveling public.
Emergency Environmental Monitoring	Current and forecast road and weather information assimilated from weather service providers and emergency vehicles equipped with environmental sensors; used by the operator to more effectively manage incidents.
Emergency Evacuation Support	Evacuation planning and coordination to manage evacuation and reentry of a population in the vicinity of a disaster or other emergency that poses a risk to public safety.
Emergency Response Management	Strategic emergency planning and response capabilities and broad inter-agency interfaces to support large-scale incidents and disasters, commonly associated with Emergency Operations Centers.
Emergency Routing	Routing of emergency vehicles to facilitate the quickest/safest arrival. Routes may be determined based on real-time traffic information and road conditions or routes may be provided by Traffic Management on request.
Emissions Data Collection	Collection and storage of air quality and emissions management information. For use by operations personnel or data archives in the region.
Field Barrier System Control	Field elements that control barrier systems such as gates and other systems that manage entry to roadways, transportation facilities and infrastructure.
Field Secure Area Sensor Monitoring	Security sensors monitoring facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, and transit railways or guideways) for environmental threats, intrusion and motion, object detection, and infrastructure integrity.
Field Secure Area Surveillance	Security surveillance devices (audio/video) that monitor facilities (e.g. transit yards) and transportation infrastructure (e.g. bridges, tunnels, interchanges, and transit railways or guideways).

Equipment Package	Description
Fleet Administration	Commercial vehicle fleet tracking, dispatch, and reporting - includes interfaces to state/federal commercial vehicle administration, toll administration, emergency management, map update providers, and traveler information service providers.
Fleet Credentials and Taxes Management and Reporting	Commercial vehicle fleet support systems for the purchase and filing of electronic credentials, status reporting, tax audit data, and compliance reviews. Electronic interfaces with the appropriate state or federal commercial vehicle administration centers.
Fleet HAZMAT Management	Notification of hazardous materials (HAZMAT) shipments to emergency management centers for commercial vehicles managed by the center - includes information on the nature of the cargo, the vehicle, and its expected route.
Freight Administration and Management	Management of the movement of cargo from source to destination via links to intermodal freight shippers and depots as well as links out to the freight equipment, includes scheduling of maintenance activities.
Government Reporting Systems Support	Selects and formats data residing in an ITS archive to facilitate local, state, and federal government data reporting requirements.
HRI Traffic Management	Remotely monitor and control highway-rail intersection (HRI) equipment, includes standard speed active warning systems and high speed systems which provide additional information on approaching trains and detect and report on obstructions in the HRI.
Incident Command	Tactical decision support, resource coordination, and communications integration among emergency management agencies for Incident Commands that are established by first responders to support local management of an incident.
Infrastructure Provided Trip Planning	Generation of pre-trip and enroute trip plans for travelers (and vehicles) based on current traffic conditions, work zones, weather, and travelers constraints and preferences. Includes end-to-end trips using multiple modes, such as bicycle, transit, etc.
Interactive Infrastructure Information	Collection, processing, storage, and personalized dissemination of traffic, transit, maintenance and construction, multimodal, event, and weather information to traveler interface systems and vehicles, upon request.
Interactive Vehicle Reception	Provides drivers with traffic, maintenance and construction, transit, yellow pages, event, and weather information upon request.
International Border Crossing	Roadside check facility equipment to check compliance with import/export and immigration regulations to allow release of cargo, vehicle, and driver across an international border.
International CV Administration	Generate and process entry documentation for commercial vehicles and their shipments across international borders. Interface with Trade Regulatory Agencies that operate at border crossings.
ISP Emergency Traveler Information	Collection and distribution of emergency information to the traveler public, including evacuation information and wide-area alerts.
ISP Traveler Data Collection	Collects traveler information from other centers, consolidates and refines the collected data, and makes this data available to traveler information applications.
ITS Data Repository	Collect and maintain data and data catalogs from one or more data sources. May include quality checks, error notification, and archive coordination.
Mayday Support	Collection and response to Mayday messages received from vehicles and drivers.

Equipment Package	Description
MCM Automated Treatment System Control	Remotely controls automated roadway treatment systems (to disperse anti-icing chemicals, etc.) directly, or via control of the environmental sensors that activate the treatment systems automatically in the field.
MCM Data Collection	Collection and storage of maintenance and construction information. For use by operations personnel or data archives in the region.
MCM Environmental Information Collection	Remotely controls environmental sensors and assimilates collected data with other current and forecast road conditions and surface weather information from weather service providers and transportation operations.
MCM Environmental Information Processing	Processes current and forecast weather data, road condition information, local environmental data, and uses internal models to develop specialized detailed forecasts of local weather and surface conditions. Disseminates road weather information to other agencies and centers.
MCM Incident Management	Supports coordinated response to incidents - share incident notifications, manage incident response resources, and coordinate overall incident situation and response among allied response organizations.
MCM Maintenance Decision Support	Maintenance Decision Support Systems recommend courses of action based on current and forecast environmental and road conditions (filtered and fused for specific time horizons) and additional application specific information. Recommendations and dispatch instructions are generated based on this integrated information.
MCM Roadway Maintenance and Construction	Overall management and support for routine maintenance on the roadway or right-of-way. Includes landscape maintenance, hazard removal (roadway debris, dead animals), routine maintenance activities (roadway cleaning, grass cutting), and repair and maintenance of both ITS and non-ITS equipment.
MCM Vehicle and Equipment Maintenance Management	Monitors vehicle and equipment condition, tracks maintenance history, and schedules routine and corrective maintenance.
MCM Vehicle Tracking	Remotely tracks the location of maintenance and construction vehicles and other equipment; presented to the center personnel.
MCM Winter Maintenance Management	Manages winter road maintenance, tracking and controlling snow plow operations, roadway treatment (e.g., salt spraying and other material applications) based on weather information.
MCM Work Activity Coordination	Disseminates work activity schedules and current asset restrictions to other agencies. Work schedules are coordinated, factoring in the needs and activities of other agencies and adjacent jurisdictions.
MCM Work Zone Management	Remotely monitors and supports work zone activities, controlling traffic through dynamic message signs (DMS), highway advisory radio, gates and barriers, and informing other groups of activity (e.g., traveler information systems, traffic management centers, other maintenance and construction centers).
MCM Work Zone Safety Management	Remotely monitors work zone safety systems that detect vehicle intrusions in work zones and warns crew workers and drivers of imminent encroachment. Crew movements are also monitored so that the crew can be warned of movement beyond the designated safe zone.
MCV Barrier System Control	Control automatic or remotely controlled gates and other barrier systems from a maintenance and construction vehicle.

Equipment Package	Description
MCV Infrastructure Monitoring	On-board systems to monitor the condition of pavement, bridges, tunnels, associated hardware, and other transportation-related infrastructure (e.g., culverts). Includes vehicle-based sensors and communications with roadway-based infrastructure monitoring sensors.
MCV Roadway Maintenance and Construction	On-board systems that support routine non-winter maintenance on the roadway or right-of-way. Includes landscape maintenance, hazard removal (roadway debris, dead animals), routine maintenance activities (roadway cleaning, grass cutting), and repair and maintenance of equipment on the roadway.
MCV Vehicle Location Tracking	On-board systems to track vehicle location and reports the position and timestamp information to the dispatch center.
MCV Vehicle Safety Monitoring	On-board systems to detect vehicle intrusions and warn crew workers and drivers of imminent encroachment. Crew movements are monitored so that the crew can be warned of movement beyond the designated safe zone. Used for stationary work zones or in mobile applications where a safe zone is maintained around the moving vehicle.
MCV Vehicle System Monitoring and Diagnostics	On-board sensors capable of monitoring the condition of each of the vehicle systems and diagnostics that can be used to support vehicle maintenance.
MCV Winter Maintenance	On-board systems that support snow plow operations and other roadway treatments (e.g., salt spraying and other material applications). Supports information sharing between snow plows.
MCV Work Zone Support	On-board systems that provide communications and support for local management of a work zone.
On-board CV Electronic Data	On-board systems exchanging information between the vehicle and the roadside facility with the information such as status of driver, vehicle, carrier IDs and cargo information identified via an electronic tag.
On-board EV En Route Support	On-board systems for gathering of dispatch and routing information for emergency vehicle personnel, vehicle tracking, communications with care facilities, and signal preemption via short range communication directly with traffic control equipment at the roadside.
On-board EV Incident Management Communication	On-board systems provide communications support to first responders. Incident information is provided to dispatched emergency personnel. Emergency personnel transmit information about the incident and response status.
On-board Fixed Route Schedule Management	Collecting of data for schedule generation and adjustment on-board a transit vehicle. Supports communication between the vehicle, operator, and center.
On-board Maintenance	On-board systems to collect and process transit vehicle maintenance data including mileage and vehicle operating conditions for use in scheduling future vehicle maintenance.
On-board Paratransit Operations	On-board systems to manage paratransit and flexible-route dispatch requests, including multi-stop runs. Inputs based on the transit vehicle's type and passenger capacity.
On-board Transit Fare and Load Management	On-board systems provide variable and flexible fare collection using a travelers fare medium (stored value cards or other payment instrument). Collect data required to determine accurate ridership levels and fare statistics.

Equipment Package	Description
On-board Transit Security	On-board video/audio surveillance systems, threat sensors, and object detection sensors to enhance security and safety on-board a transit vehicles. Also includes silent alarms activated by transit user or vehicle operator, operator authentication, and remote vehicle disabling.
On-board Transit Signal Priority	On-board systems request signal priority through short range communication directly with traffic control equipment at the roadside (intersections, ramps, interchanges, etc.).
On-board Transit Trip Monitoring	Support fleet management with automatic vehicle location (AVL) and automated mileage and fuel reporting and auditing.
On-Line Analysis and Mining	Advanced data analysis and mining features to support discovery of information, patterns, and correlations in large ITS archives.
Personal Basic Information Reception	Personal traveler interface that provides formatted traffic advisories, transit, event, and other traveler information, as well as broadcast alerts. Devices include personal computers and personal portable devices such as PDAs and pagers.
Personal Interactive Information Reception	Personal traveler interface that provides traffic, transit, yellow pages, event, and trip planning information, and other personalized traveler information services upon request. Devices include personal computers and personal portable devices such as PDAs.
Rail Operations Coordination	Coordination between rail operations and traffic management centers - exchanging train schedules, maintenance schedules, as well as incidents and priority messages that impact highway-rail intersections (HRIs. Supports advanced traffic control strategies and enhanced traveler information.
Remote Basic Information Reception	Public traveler interface, such as a kiosk, that provides formatted traffic advisories, transit, event, and other traveler information, as well as broadcast alerts.
Remote Interactive Information Reception	Public traveler interface, such as a kiosk, that provides traffic, transit, yellow pages, special event, and other personalized traveler information services upon request.
Remote Transit Fare Management	Public traveler interface, such as a kiosk, that provides the capability for the traveler to use a common fare medium for transit fares, tolls, and/or parking lot charges, to calculate the amount due and identify payment problems.
Remote Transit Information Services	Public traveler interface that provides real-time travel-related information at transit stops and multi-modal transfer points, including general annunciation, display of imminent arrival information, the latest available information on transit routes, schedules, transfer options, available services, fares, and real-time schedule adherence.
Remote Traveler Security	Public traveler interface that provides the capability for travelers to report an emergency or activate a panic button to summon assistance in areas such as transit stops, park-and-ride areas, etc.
Roadside Electronic Screening	Roadside check facility equipment to communicate with commercial vehicles at mainline speeds - reading tag data, identification, weight and vehicle characteristics, and credential checking. Determines whether a pull-in message should be generated, allowing for inspectors to override.
Roadside HAZMAT Detection	Roadside check facility equipment to detect and identify commercial vehicles carrying hazardous materials. Compare data with registered credentials and determines whether a pull-in message should be generated - notify emergency management if a problem occurs.

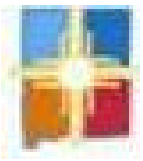
Equipment Package	Description
Roadside Safety and Security Inspection	Roadside check facility equipment to provide the capabilities to automate the roadside safety inspection process including use of hand held devices to rapidly inspect the vehicle and driver.
Roadside WIM	Roadside check facility equipment to detect and measure the weight commercial vehicles at high speed. Can include an interface to the credential checking or it can be a stand alone package with display.
Roadway Automated Treatment	Field elements that activate automated roadway treatment systems (to disperse anti-icing chemicals, etc.) based on environmental or atmospheric conditions, or under center control.
Roadway Basic Surveillance	Field elements that monitor traffic conditions using loop detectors and CCTV cameras.
Roadway Data Collection	Field elements to collect traffic, road, and environmental conditions information for use in transportation planning, research, and other off-line applications. Includes the sensors, supporting roadside infrastructure, and communications equipment.
Roadway Environmental Monitoring	Environmental sensors, surface and sub-surface, that collect weather and road surface information. Weather conditions measured include temperature, wind, humidity, precipitation, and visibility. Sensors measure road surface temperature, moisture, icing, salinity, etc.
Roadway Equipment Coordination	Field elements that control and send data to other field elements (such as environmental sensors that send data to a DMS or coordination between traffic controllers on adjacent intersections), without center control.
Roadway Field Device Monitoring	Monitors field equipment operational status and detects and reports fault conditions. Device status, configuration, and fault information are provided to a remote center and a user interface provides information locally to field personnel.
Roadway Freeway Control	Freeway control equipment including ramp meters, mainline metering, and lane control equipment which controls traffic on freeways, including indicators to drivers.
Roadway Probe Beacons	Field elements to collect traffic and road conditions from passing vehicles; both anonymous toll/parking tag readings for link time calculations and smart probe data supported.
Roadway Reversible Lanes	Traffic sensors, surveillance, and automated reversible lane equipment and lane control signals to control traffic in reversible lanes.
Roadway Signal Controls	Field elements including traffic signal controllers for use at signalized intersections; also supports pedestrian crossings.
Roadway Signal Priority	Field elements that provide the capability to receive vehicle signal priority requests and control traffic signals accordingly.
Roadway Traffic Information Dissemination	Driver information systems, such as dynamic message signs and Highway Advisory Radio (HAR).
Roadway Work Zone Safety	Work zone intrusion detection devices (to detect vehicle intrusion upon a work zone or crew worker movement across a work zone boundary) and intrusion alerting devices that provide alerts to crew and drivers.
Roadway Work Zone Traffic Control	Field elements in maintenance and construction areas including CCTV cameras, driver information systems (such as DMS), and gates/barriers that monitor and control traffic and provide information directly to drivers in affected areas.

Equipment Package	Description
Safeguard System Management	Remotely controls safeguard systems such as blast shields and tunnel exhaust systems that are used to mitigate the impact of incidents on transportation infrastructure.
Service Patrol Management	Dispatch and communication with roadway service patrol vehicles that monitor roads to aid motorists, offering rapid response to minor incidents.
Standard Rail Crossing	Field elements at highway-rail intersections (HRIs) where operational requirements do not dictate advanced features (e.g., where rail operational speeds are less than 80 miles per hour). Includes traditional HRI warning systems augmented with other standard traffic management devices.
TMC Environmental Monitoring	Management of environmental sensors and assimilation of collected data with other current and forecast road conditions and surface weather information from weather service providers and roadway maintenance operations.
TMC Evacuation Support	Development, coordination, and execution of special traffic management strategies during evacuation and subsequent reentry of a population in the vicinity of a disaster or major emergency. Interfaces with emergency management and other traffic management centers.
TMC Freeway Management	Remotely controls ramp meters, interchange connector meters, lane control signals, mainline meters, and variable speed control systems.
TMC Incident Detection	Remotely controls traffic and video sensors to support incident detection and verification; exchange information with other agencies including emergency management, maintenance and construction, alerting and advisory systems, event promoters, intermodal freight depots, and traveler information systems.
TMC Incident Dispatch Coordination/Communication	Center-based capability to formulate an incident response that takes into account the incident potential, incident impacts, and/or resources required for incident management including proposing and facilitating the dispatch of emergency response and service vehicles as well as coordinating response with all appropriate cooperating agencies.
TMC Multimodal Coordination	Provides traffic signal priority for transit vehicles based on center-to-center communications with the transit management center; also exchange traffic and transit information.
TMC Probe Information Collection	Collects, assimilates, and disseminates vehicle probe data collected from roadside beacons and centers controlling transit vehicles, emergency vehicles, toll collection points, and route-guided vehicles.
TMC Regional Traffic Control	Coordination between traffic management centers in order to share traffic information between centers as well as control of traffic management field equipment. This may be used during incidents and special events and during day-to-day operations.
TMC Signal Control	Remotely controls traffic signal controllers to implement traffic management strategies at signalized intersections based on traffic conditions, incidents, emergency vehicle preemptions, pedestrian crossings, etc.
TMC Traffic Information Dissemination	Controls dissemination of traffic-related data to other centers, the media, and travelers via the driver information systems (DMS, HAR) that it operates.
TMC Work Zone Traffic Management	Coordination with maintenance systems using work zone images and traveler information systems (such as DMS), and distribution of work plans so that work zones are established that have minimum traffic impact.

Equipment Package	Description
Traffic and Roadside Data Archival	Collects and archives traffic and environmental information directly from the roadside for use in off-line planning, research, and analysis.
Traffic Data Collection	Collection and storage of traffic management data. For use by operations personnel or data archives in the region.
Traffic Maintenance	Monitoring and remote diagnostics of field equipment - detect failures, issue problem reports, and track the repair or replacement of the failed equipment.
Transit Center Fare and Load Management	Management of fare collection at the center - includes setting and distributing fare information, central processing of fares for transit as well as other ITS services, links to financial institutions and enforcement agencies.
Transit Center Fixed-Route Operations	Management of fixed route transit operations. Planning, scheduling, and dispatch associated with fixed and flexible route transit services. Updates customer service operator systems, and provides current vehicle schedule adherence and optimum scenarios for schedule adjustment.
Transit Center Information Services	Provide interactive traveler information to travelers (on-board transit vehicles, at stops/stations, using personal devices), traveler information service providers, media, and other transit organizations. Includes routes, schedules, transfer options, fares, real-time schedule adherence, current incidents, weather conditions, yellow pages, and special events.
Transit Center Multi-Modal Coordination	Generate requests for transit priority on routes and at certain intersections. Coordinate schedules with other agencies and modes, including transit transfer cluster and transfer point information.
Transit Center Paratransit Operations	Management of demand response transit services, including paratransit. Planning and scheduling of these services. Supports automated vehicle dispatch and automatically updates customer service operator systems.
Transit Center Security	Monitor transit vehicle operator or traveler activated alarms; authenticate transit vehicle operators; remotely disable a transit vehicle; alert operators, travelers, and police to potential incidents identified by these security features.
Transit Center Vehicle Tracking	Monitoring transit vehicle locations via interactions with on-board systems. Furnish users with real-time transit schedule information and maintain interface with digital map providers.
Transit Data Collection	Collection and storage of transit management data. For use by operations personnel or data archives in the region.
Transit Environmental Monitoring	Current and forecast road and weather information assimilated from weather service providers and vehicle probes. The information is monitored and forwarded to other agencies to more effectively manage transit operations.
Transit Evacuation Support	Support evacuation and subsequent reentry of a population in the vicinity of a disaster or other emergency. Coordinate regional evacuation plans and resources including transit and school bus fleets.
Transit Garage Maintenance	Collect operational and maintenance data from transit vehicles, manage vehicle service histories, automatically generate preventative maintenance schedules, and provide information to service personnel.

Equipment Package	Description
Transit Vehicle Operator Scheduling	Assignment of transit vehicles and operators to routes or service areas in a fair manner while minimizing labor and overtime services, considering operator preferences, qualifications, accumulated work hours, and other information about each operator.
Traveler Secure Area Sensor Monitoring	Security sensors monitoring traveler-frequented areas such as transit stops, park-and-ride lots, and rest areas for environmental threats, intrusion and motion, and object detection.
Traveler Secure Area Surveillance	Security surveillance devices that monitor traveler-frequented areas such as transit stops and rest stops.
Traveler Telephone Information	Collection and distribution of traveler information and wide-area alerts to traveler telephone information systems such as 511, based on voice-based traveler requests.
Virtual Data Warehouse Services	Provides access to data from geographically dispersed archives and coordinates information exchange with a local data warehouse. Also provides the specialized publishing, directory services, and transaction management functions associated with coordinating remote archives.

Appendix F: Maintenance Change Request Form



New Mexico Statewide ITS Architecture

Maintenance Change Request (MCR) Form

To Be Completed By Stakeholder(s) Requesting Changes		
Originator Name:		Date Submitted
Originator Telephone:	Originator Fax:	Originator E-Mail:
Originator Agency:		Functional Area:
Agency Authorized Signature:		Signature Date:
Description of Proposed Change:		
Rationale for Proposed Change:		
Affected Agency:	Authorized Signature:	Signature Date:
Affected Agency:	Authorized Signature:	Signature Date:
List Attachments:		
Baseline Documents Affected: _____ Website _____Turbo Architecture _____Customized MPs _____Arch Document _____ Strategic Plan _____ Standards Plan _____Other (describe)		

To Be Completed By Maintenance Manager		
Change Request Number:	Date CR Received:	Date CR Logged:
Date Initially Discussed:	Disposition: ☐ Accepted ☐ Rejected ☐ More Info	Disposition Comments
Date Discussed:	Disposition: ☐ Accepted ☐ Rejected ☐ More Info	Disposition Comments
Date Discussed:	Disposition: ☐ Accepted ☐ Rejected ☐ More Info	Disposition Comments
Date of Maintenance Working Group Approval (If Applicable):		
Baseline Documents Affected/Version implemented ☐ Turbo Architecture Date: _____ Version: _____ ☐ Website Date: _____ Version: ____ ☐ Customized MPs Date: _____ Version: _____ ☐ Strategic Plan Date: _____ Version: ____ ☐ Architecture Doc Date: _____ Version: _____ ☐ _____ Date: _____ Version: ____		