April 13th, 2005

San Gabriel Valley Traffic Forum

ATMS Improvement Project

Area Architecture Definition Report

(Deliverable 2.4.1)

Draft

Prepared by:

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SAN GABRIEL VALLEY TRAFFIC FORUM

Area Architecture Definition Report

Deliverable 2.4.1

DRAFT

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LA County Department of Public Works

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1. INTRODUCTION

1.1 Project Overview

The San Gabriel Valley Traffic Forum (SGVTF) is one of the planned Intelligent Transportation Systems (ITS) improvement projects that the Los Angeles County Department of Public Works (County) is developing as part of the Traffic System Management (TSM) program in order to improve traffic flow and enhance arterial capacity in a cost-effective way where roadway widening is not possible. The purpose of the SGVTF project is to design, develop, and deploy an Advanced Transportation Management System (ATMS) that can be tailored to each Agency's operational needs so that traffic signals can be synchronized and ITS systems integrated across jurisdictional boundaries. The SGVTF project focuses on the specific needs of each Agency to manage their ATMS and recommends improvements to field infrastructure (e.g., controllers, detection systems, communications, etc.) and centralized Traffic Control Systems (TCSs) and/or Traffic Management Centers (TMCs) to meet those requirements. When the SGVTF is successfully completed, each of the Agencies responsible for traffic signal operations will have full access to an ATMS that monitors and controls the traffic signals within their jurisdiction. In addition, Agencies will be able to synchronize their signals and exchange traffic information in real-time with neighboring Agencies. This will allow the Agencies to respond to recurrent and non-recurrent congestion in a coordinated fashion across jurisdictional boundaries.

The SGVTF project area ranges from Cities bordering the California State Route (CA SR) 110 and I-710 freeways to the west, I-210 freeway to the north, CA SR 57 freeway to the east, and the CA SR 60 freeway to the south. It encompasses 24 municipalities as well as unincorporated portions of Los Angeles County. The traffic signals in this region are operated by many of the individual Agencies, County, and Caltrans District 7.

Developed by the County, the Countywide Information Exchange Network (IEN) is the integrated system framework that connects participating Agency ATMSs into a regional network to support the operational goals identified above. The Countywide IEN supports traffic signal operations at the Local level, Corridor level, and Regional level. The SGVTF assumes the availability of the Countywide IEN at the Corridor and Regional levels. Therefore, the SGVTF project is focused on the selection of TCSs and the integration of those systems to the Countywide IEN at the Local level. The eventual ATMS design for the SGVTF will take into account the interface to the IEN and its requirements at the Local level and encompass the following six (6) core components:

- ATMS and/or TCS (Individual Agency)
- Detection and Surveillance
- TMC and/or Workstation Layouts (ATMS and/or IEN)
- Communications Network
- SGVTF Participation/Coordination (City-specific and/or SGVTF-Regional integration)
- Operations and Maintenance (O&M)

The Countywide IEN comprises a series of computer servers, communication networks, and software applications that integrates these components for the collection and transfer of data to support Corridor and Regional functions throughout Los Angeles County.

1.2 Agency Level Definitions

Four (4) Agency roles or "Levels" have been defined as well as a planning-related level (Region Coordinator) for the implementation of the ATMS based upon the level of interaction an Agency will have in managing its traffic operations:

- **Level 1**
  - Agency does NOT operate its traffic signals
    - Agency wants to be "Agency B" on another Agency's ATMS
    - Another Agency operates its traffic signals (e.g., LA County DPW)
  - Provided with an IEN W/S to monitor traffic signals & incident management activities
  - No separate ATMS W/S provided

- **Level 2A**
  - Agency passively manages its traffic signals
    - Establish initial signal timings, monitor system status daily, etc.
    - May operate on an exception/as-needed basis
    - Monitor mainly for alarms & malfunctions
  - Agency wants to be "Agency B" on another Agency's ATMS
  - Provided with an IEN W/S to monitor traffic signals & incident management activities [Regional view]
  - Maintains a separate ATMS W/S connected to "host" Agency's ATMS [local view]

- **Level 2B**
  - Agency actively manages & operates its own ATMS
    - Actively manages ATMS during exceptions
    - Passively manages ATMS during AM & PM peak periods
  - Agency may operate some other ITS devices (small amount)
  - Agency may operate other Agencies' traffic signals (Level 1)
  - Agency may "host" other Agencies' traffic signals (Level 2A)
  - Maintains an LCCS facility to manage traffic signals & incident management activities
    - IEN W/S [Regional view]
    - ATMS W/S [Local view]
    - CDI between the ATMS & IEN
- **Level 3**
  - Agency actively manages its own ATMS & other ITS devices (large amount)
    - Typically AM & PM peak period traffic operations & incidents
    - May support 24/7 operations

- Agency may operate other Agencies' traffic signals (Level 1)
- Agency may "host" other Agencies' traffic signals (Level 2A)
- Agency will have a TMC from which to operate its ATMS, the IEN, & other ITS devices
- Maintains an TMC/LCCS facility to manage ATMS & incident management activities
    - IEN W/S (Regional view)
    - ATMS W/S (Local view)
    - CDI between the ATMS & IEN

Each Agency has been mapped to one of these Levels based upon the types of traffic and incident management functions and operations the Agency are proposed to be performing following the ATMS implementation and not what is being done today. The following table presents the Agency/Level mapping for the SGVTF.

Exhibit 1.1 - SGVTF Agency/Level Mapping

Level 1	Level 2A	Level 2B	Level 3
Duarte La Puente San Marino South El Monte South Pasadena Temple City	Azusa Baldwin Park El Monte Glendora Monrovia Montebello Monterrey Park San Gabriel	Alhambra Arcadia Covina Irwindale Rosemead San Dimas West Covina	Caltrans LA County DPW Pasadena

1.3 Purpose of Document

This document is Deliverable 2.4.1 – Area Architecture Definition Report (Draft). The primary goal of this document is to show the interrelationships between the major systems in the SGVTF ATMS deployment. This report will also provide a high-level view of how the individual Agencies fit together and interact with the County and other area-wide Stakeholders.

1.4 Report Organization

After this introduction, the report is broken into the following sections:

- Section 2 presents an overview of the system interconnectivity
- Section 3 describes how Turbo Architecture was used in this task
- Section 4 presents the Area Architecture using Turbo diagrams and customized reports

1.5 Referenced Documents

The following documents have been used as reference material in the preparation of this report:

- Deliverables 2.1.2 & 2.2.2: Operational Objectives & Systems Needs
- Deliverable 2.3.1: Concept-of-Operations
- Deliverables 2.3.2 & 2.3.3: ATMS User & Functional Requirements

- Deliverable 2.3.4: LCCS Requirements
- Deliverable 2.3.5: Sub-Regional TMC Requirements
- Deliverables 2.3.6 & 2.3.7: Integration System User & Functional Requirements
- Deliverable 2.3.8: Communications User and Functional Requirements
- National ITS Architecture

2. SGVTF OPERATIONAL & CONNECTIVITY OVERVIEW

The SGVTF Concept-of-Operations (Deliverable 2.3.1) described four operating levels for SGVTF Agencies and how each will manage their traffic operations using a mix of IEN and Advanced Transportation Management System (ATMS) workstations. Regardless of its operational level, each Agency will have a Local City Control Site (LCCS) or Traffic Management Center (TMC) from which the Agency can perform their traffic and incident management activities.

This section briefly summarizes the Agency operations and interconnectivity for each of the operational levels, as well as SGVTF interconnectivity with Agencies external to the SGVTF. Interconnection diagrams and data flows are presented in Section 4. Please refer to Deliverable 2.3.1, the SGVTF Concept-of-Operations for more details on what tasks SGVTF Agencies will be performing and how they will work collaboratively to manage traffic and incidents Regionally.

2.1 Level 1 Agencies

Level 1 Agencies have another Agency (generally, LACO DPW) operate their traffic signals. They will have minimal, if any, day-to-day traffic operations and will have an IEN workstation to monitor local and Regional traffic signals and incident management activities.

Level 1 Agencies' roadside equipment (e.g., traffic signals, vehicle detection, etc.) will be linked to the "host" Agency's central Traffic Control System (TCS) server (LACO DPW will be the hosting Agency for all Level 1 Agencies in the SGVTF) and their IEN workstations will be connected to the SGV IEN Corridor Server.

2.2 Level 2A Agencies

Level 2A Agencies also have another Agency/hosting operating their traffic signals, but they do play a more active role in their traffic operations. Level 2A Agencies will have an IEN workstation to monitor traffic and incident operations Regionally as well as an ATMS workstation to monitor local traffic signal operations.

Level 2A Agencies' ATMS workstations and roadside equipment (e.g., traffic signals, vehicle detection, etc.) will be linked to the host Agency's central TCS server (LACO DPW will be the hosting Agency for all Level 2A Agencies in the SGVTF) and their IEN workstations will be connected to the SGV IEN Corridor Server.

2.3 Level 2B & Level 3 Agencies

The only difference between Level 2B and Level 3 Agencies is the degree to which each manages their traffic signal operations and the quantity of ITS devices deployed. Each will have generally the same traffic management equipment and either could host Level 1 or 2A Agency signals (at this time, only LACO DPW is slated to do so).

Level 2B and 3 Agencies will have an ATMS workstation connected to their local central TCS server for local traffic signal operations and an IEN workstation connected to the SGV IEN Corridor Server, for Regional traffic and incident management. The central TCS server will also be linked to the SGV IEN Corridor Server through a Command/Data Interface (CDI) so that their traffic signal data is available to the Countywide IEN.

2.4 Planned Sub-Regional TMC

The SGVTF Sub-Regional TMC will house the SGV IEN Corridor Server, which will coordinate the IEN activities between SGVTF Agencies (e.g., requests for traffic data, traffic data, etc.). The Sub-Regional TMC will be co-located in the LACO TMC in Alhambra. The LACO TMC will also house the IEN Regional Server.

2.5 Other Traffic Forums and External Interfaces

One of the main functions of the Countywide IEN is to facilitate the sharing of traffic information between jurisdictions both within and between Traffic Forums (e.g., I-5/Telegraph Road, Pomona Valley Traffic, etc.) as well as external Agencies (e.g., Caltrans). In general, interfaces with systems from external Agencies will be with the IEN Regional Server. Some of the external interfaces may be unidirectional into the IEN.

3. TURBO ARCHITECTURE

3.1 National ITS Architecture

The National ITS Architecture, currently at Version 5 and developed by the FHWA, is a framework for planning, defining, and integrating intelligent transportation systems. It includes technologies across a broad cross-section of the ITS and information technology communities. The Architecture describes the functionality, subsystems, and data flows that can be tailored and applied as needed to help define an integrated transportation system.

You can go to http://www.iteris.com/itsarch/ on the web to get more information about the National ITS Architecture.

3.2 Turbo Architecture

Turbo Architecture (Turbo), currently at Version 3, is a PC/Windows-based tool commissioned by the FHWA to implement the National ITS Architecture. It facilitates the capture and reporting of the data required to build system architectures as well as providing a stepwise development process.

You can go to http://itsarch.iteris.com/itsarch/html/turbo/turbooverview.htm on the web to get more information about Turbo Architecture.

Turbo was used to build the SGVTF System Architecture and to generate the interconnection and data flow diagrams.

4. SGVTF SYSTEM ARCHITECTURE

4.1 SGVTF ITS Inventory

The basic component of any ITS Architecture is the ITS inventory. The inventory describes what transportation-related systems actually are or will be deployed and is the foundation for all subsequent ITS architecture tasks. So, fully identifying and documenting all ITS-related elements directly impacts the validity of the full system architecture.

Since all of the SGVTF Agencies have some similar inventory elements, a naming convention has been used to describe the ITS components that many SGVTF Agencies will have in their inventory:

Exhibit 4.1 - ITS Inventory Naming Conventions

ITS Element	Description
Signal System	Roadside equipment used to operate traffic signals (generally, traffic signals and controllers). Controllers may be interconnected or synchronized with others, but the system is not managed centrally.
ATMS	Advanced Transportation Management System. A **central TCS server/system** and workstation(s) that is connected to, and can control, the **Local** Agency signal system and VDS, and possibly other roadside equipment.
VDS	Vehicle Detection System. This element represents all of the Agency's sensors and devices used to detect, count, etc. vehicles. It includes elements such as loops, VIDs, etc. and is usually input to a signal system and/or ATMS.
CCTV	Closed Circuit Television System. Cameras and control system used to visually monitor road conditions. System may be integrated with the ATMS.
CMS	Changeable Message Signs. Roadside equipment and (usually) control system used to display messages to inform travelers of incidents, road conditions, etc. System may be integrated with the ATMS.
IEN Workstation	A workstation connected to the SGV IEN Corridor Server used to facilitate **Regional** traffic and incident management/operations.
ATMS Workstation	A workstation connected to an ATMS used to manage **Local** Agency traffic signals.
CDI (ATMS/CDI)	Command/Data Interface. Software (running at the Local Agency) that translates and reformats commands and data between a Local Agency ATMS and the Countywide IEN.
SGVTF Additional Deployed ITS	A "catch-all" element used to describe other potential ITS elements, connections, and data flows that may be deployed by an Agency but not specifically depicted in the diagrams using "Generic" SGVTF Agencies. (These elements are fully described in the textual reports.)

Appendix A contains the SGVTF System Architecture Inventory Report. There is a brief description of each element, however, to read more about the functionality of some of these items, please refer to the appropriate documents listed in Section 1.5, Referenced Documents.

The SGVTF System Architecture ITS inventory elements include only those items that are directly related to traffic and incident management. Potential ITS inventory elements related to areas such as Maintenance and Construction have not been addressed herein.

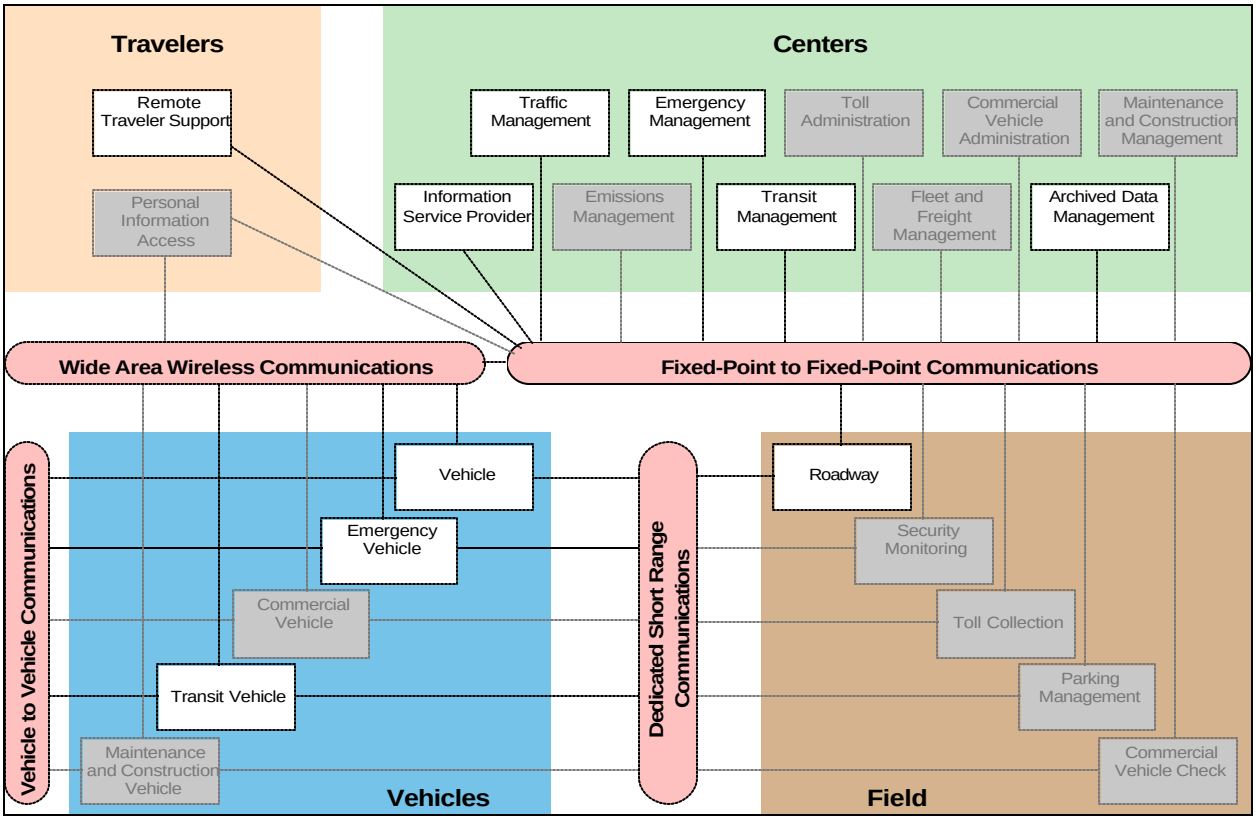
4.2 SGVTF Physical (Communications) Architecture

The Physical Architecture Diagram (Figure 4.2) illustrates the methods that are, or can be, used to communicate between the subsystems in an ITS architecture. These communication methods, represented in the diagram by the elongated objects, include:

- Fixed-point to fixed-point (e.g., copper wire, fiber-optic cable, etc.)
- Wide area wireless (e.g., microwave, etc.)
- Dedicated short range (e.g., RFID, transponders, etc.)
- Vehicle-to-vehicle (internal data paths in the vehicle) communications

There are four categories of subsystems: Travelers, Centers, Vehicles, and Field. Each category encapsulates a number of subsystems. Non-shaded boxes and solid lines represent those subsystems and paths that are in the SGVTF System Architecture (either existing or planned).

Exhibit 4.2 – SGVTF Physical (Communications) Architecture



There are ten (10) subsystems included in the SGVTF System Architecture (shown as unshaded in the diagram, above):

- Travelers: Remote Traveler Support (CMS, bus arrival info, etc.)
- Centers: Traffic Management (signal control, etc.), Emergency Management (signal pre-emption, etc.), ISP (data exchange/publishing, etc.), Transit Management (signal priority, etc.), and Archived Data Management

- Vehicles: Vehicle (basis for specific-use vehicles), Emergency Vehicles (additional subsystems, such as signal pre-emption), and Transit Vehicles (additional subsystems, such as Rapid Bus)
- Field: Roadway (actual on-street equipment, such as signals/controllers, CMS, VDS, etc.)

Consider a transit priority system as an example on how to read the diagram. A bus is tracked via wide-area wireless and then fixed-point to fixed-point to the transit management system, which can check schedule adherence. The vehicle also has a transponder that identifies itself to roadway equipment via dedicated short-range communications. If the bus is behind schedule, a transponder on the bus identifies itself and requests signal priority to roadway equipment via dedicated short-range communications, which can then make the appropriate (programmed) actions with the signal system or ATMS.

4.3 SGVTF Interconnections and Architecture Flows

This section presents specific views of the SGVTF System Architecture that show the inter-relationships between integral SGVTF systems and Agencies. Two (2) types of diagrams are used: Interconnections and Architecture Flows. Interconnection Diagrams show what systems or elements (and therefore, Agencies) are connected, without regard to what data is being passed or in what direction the data is flowing; Architecture Flow diagrams provide that additional information. Both diagrams also show if the connection or data flow is currently implemented or planned to be implemented.

To make the reports and diagrams more readable, we have grouped similar inventory elements for all Agencies of the same operating level into a "generic" Agency based upon the Agency's operational level: all Level 1 Agencies are represented by the "Level 1 Agency" elements, all Level 2A Agencies by "Level 2A Agency", etc. For example, rather than including the identical relationships and data flows for 23 IEN workstations (6 Level 1, 8 Level 2A, 7 Level 2B, and 2 Level 3), we have just four (4). Please refer to Section 1.2 for the Agency/operating level mapping.

Even with the aforementioned shorthand, some of the diagrams may still be complex and/or difficult to read due to the amount of data and page size limitations. Tabular reports of the SGVTF interconnections and data flows are available in Appendices B and C, respectively.

4.3.1 ATMS

The ATMS views shows relationships and data flows between the LACO ATMS and hosted Level 1 and Level 2A Agencies (Exhibit 4.3.1.1 – 4.3.1.2) and also between all SGVTF Agencies operating ATMSs (Level 2B and Level 3) (Exhibit 4.3.1.3 – 4.3.1.4).

Exhibit 4.3 – LACO ATMS Interconnection Diagram

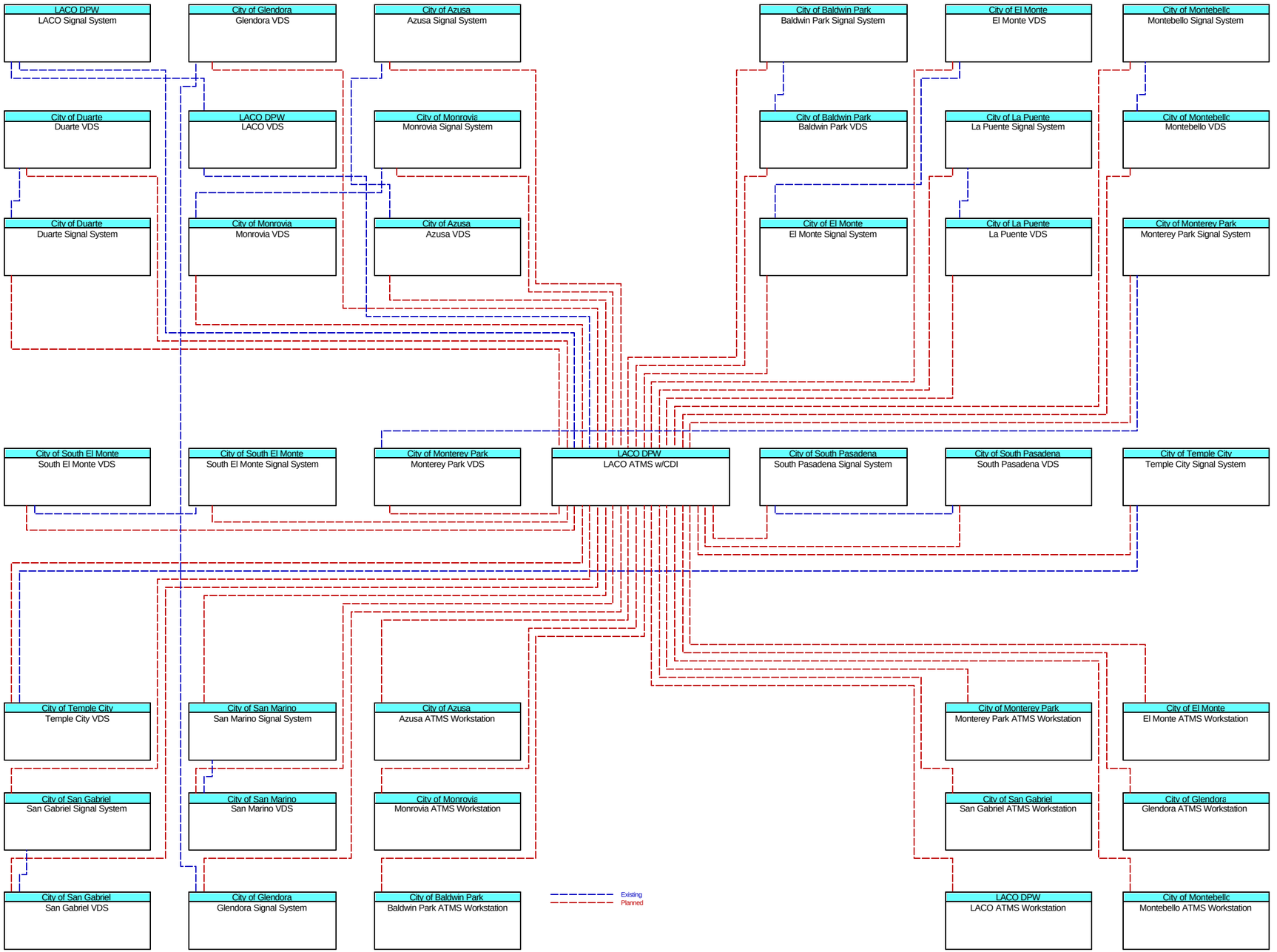


Exhibit 4.4 – LACO ATMS Architecture Flow Diagram

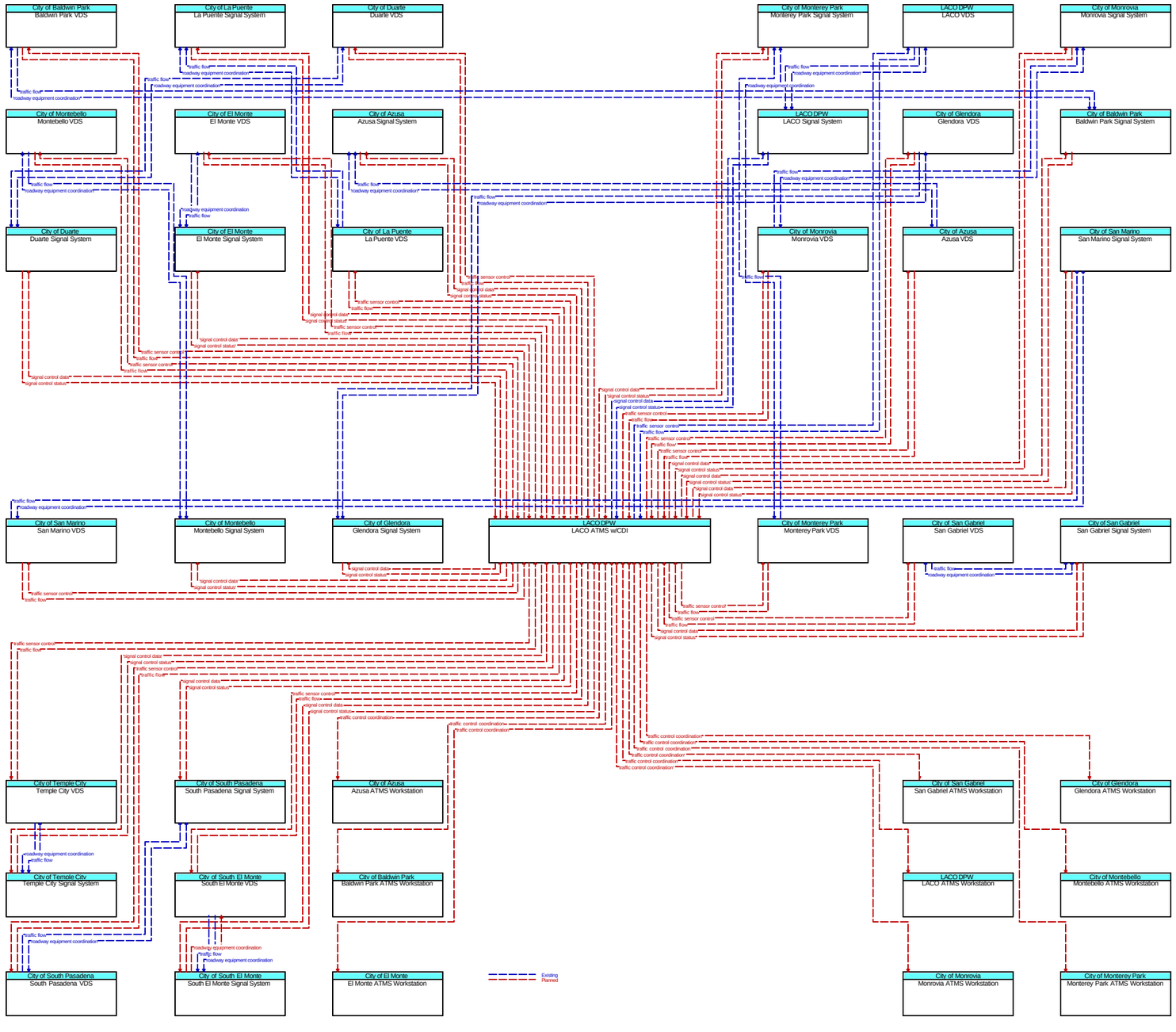


Exhibit 4.5 – All Agency ATMS Interconnection Diagram

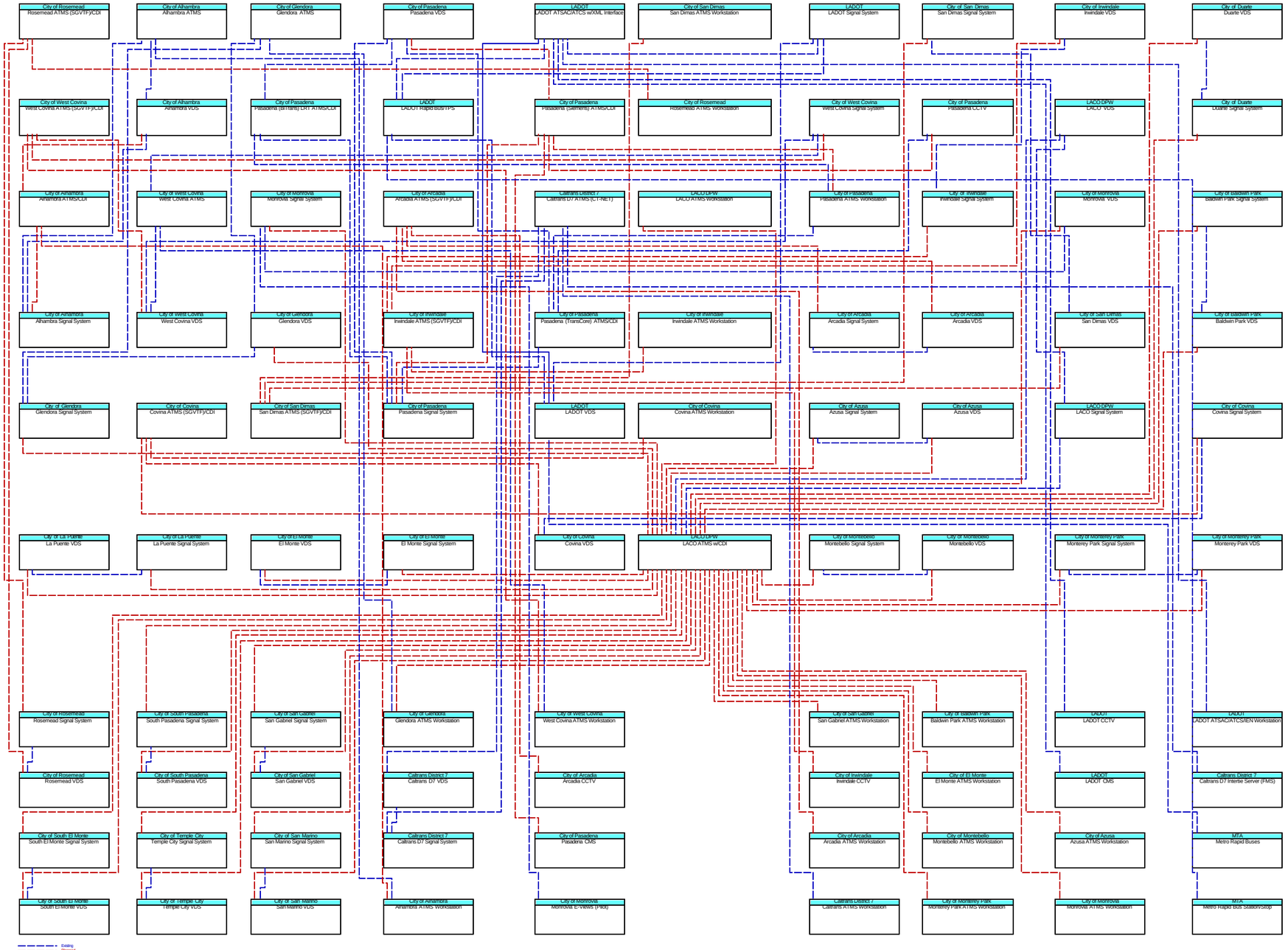
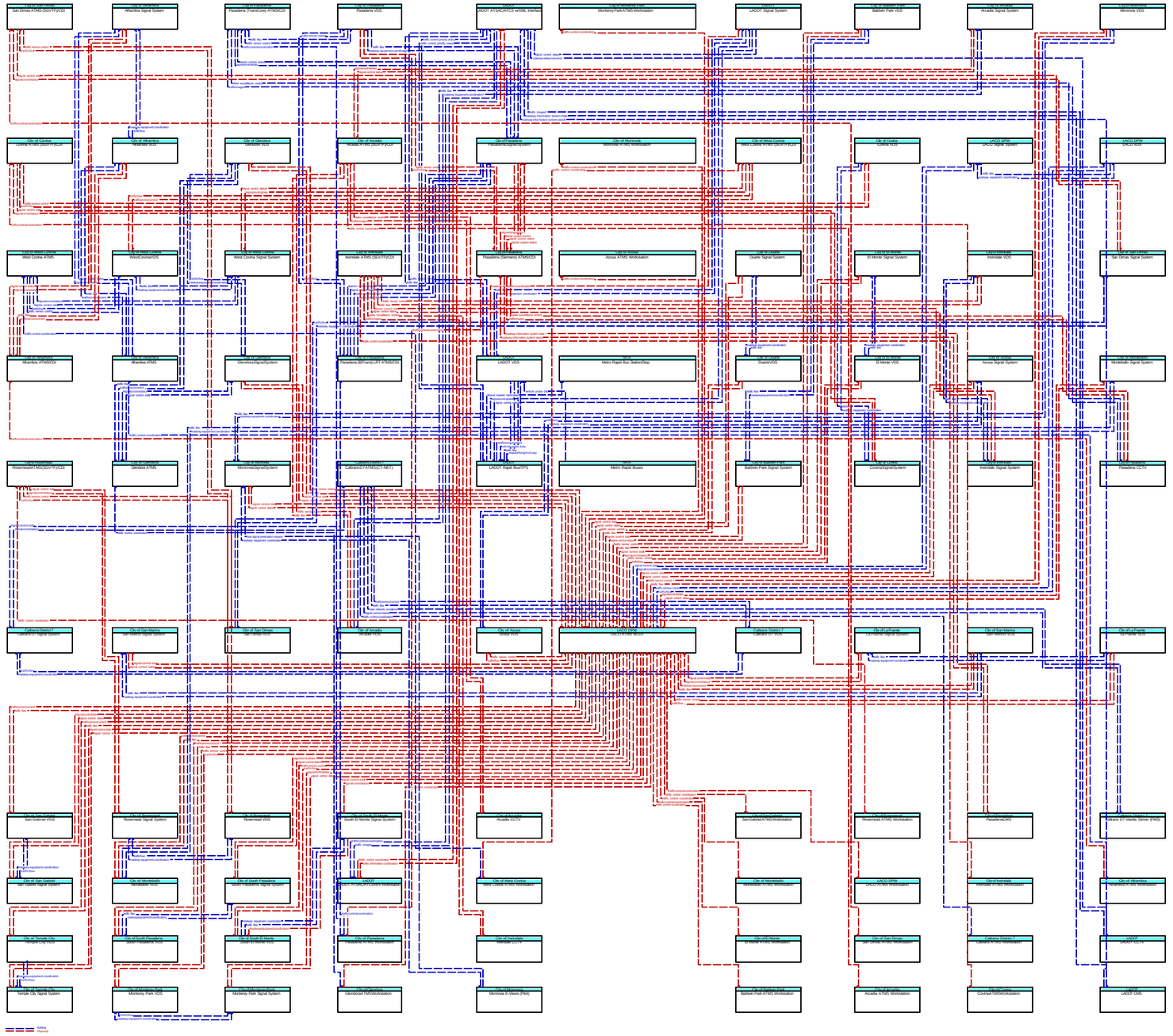


Exhibit 4.6 – All Agency ATMS Architecture Flow Diagram



4.3.2 IEN

The IEN views of the SGVTF System Architecture show the relationships and data flows between all Agencies using the Countywide IEN (e.g., IEN workstations, ATMS/CDIs, etc.) or providing data to the IEN. To help reduce the complexity of the diagram, "generic" elements for each Agency Level were used instead of including 23 individual IEN workstation elements.

Exhibit 4.7 – IEN Interconnection Diagram

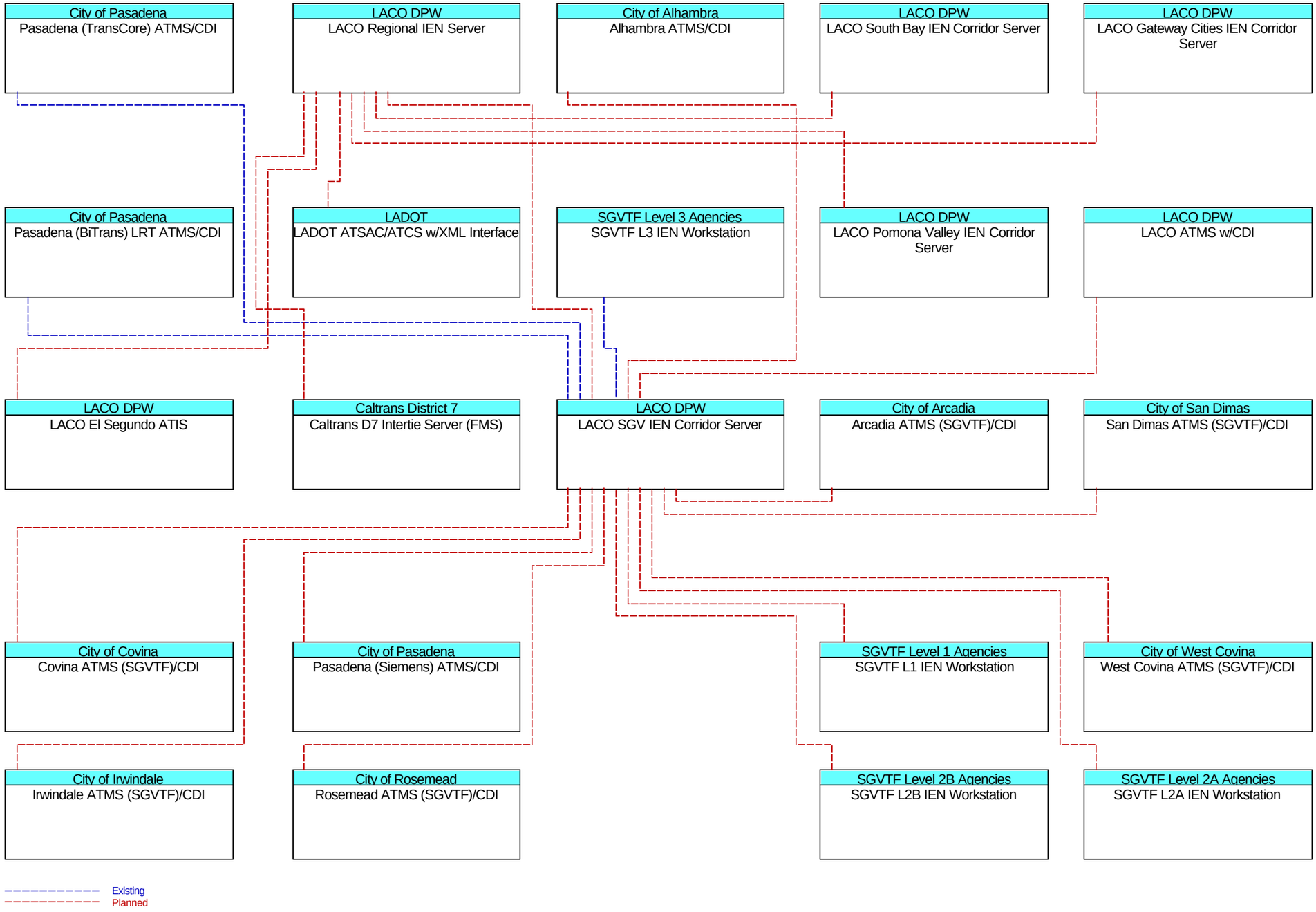
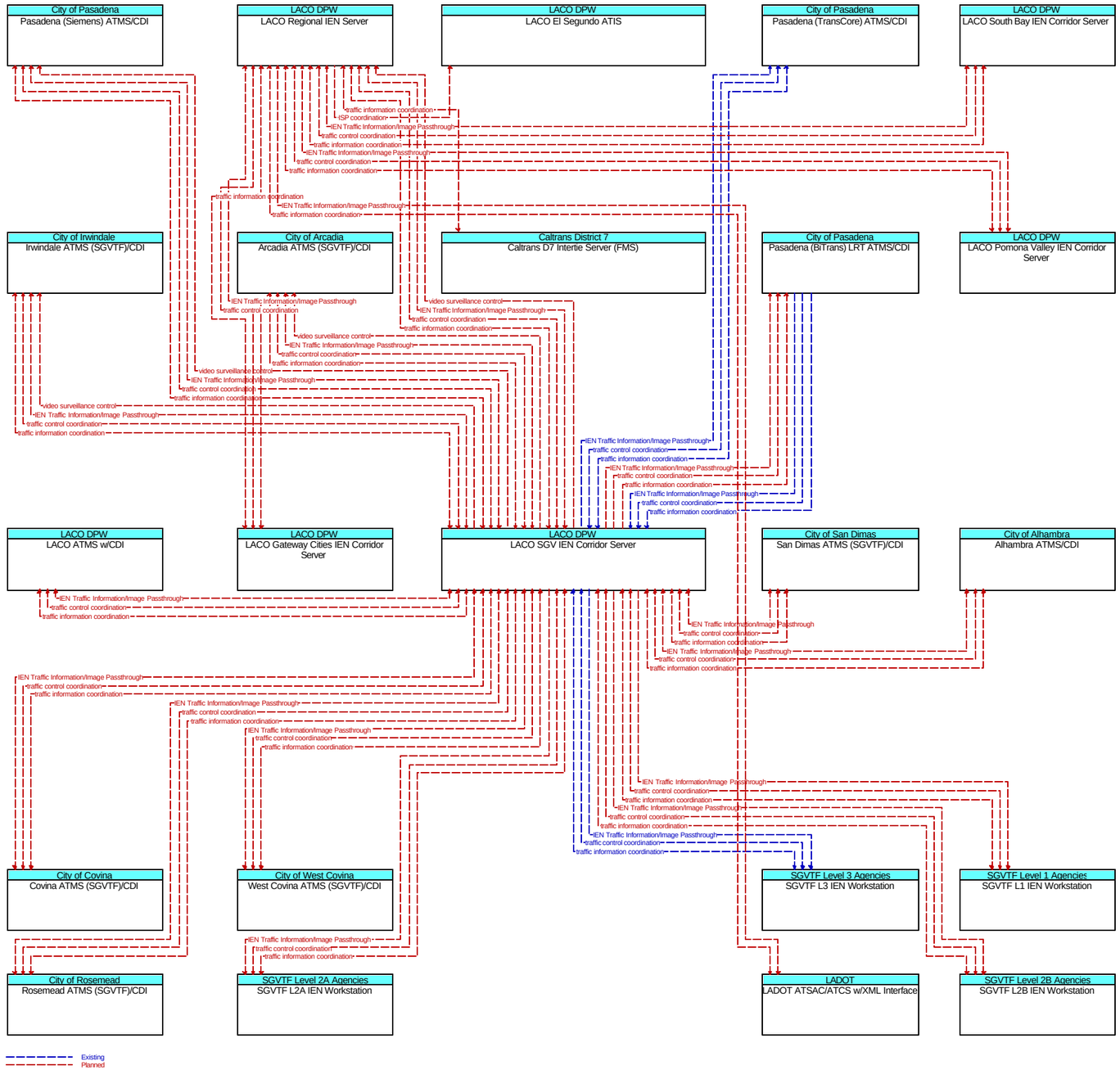


Exhibit 4.8 – IEN Architecture Flow Diagram



4.3.3 AGENCY LCCS/TMC

As discussed in Deliverable 2.3.1, SGVTF Concept-of-Operations, every Agency will have an LCCS or a TMC from which to perform traffic and incident management. The following views of the SGVTF System Architecture show the Agency & system relationships and data flows for typical Level 1, 2A, and 2B Agencies and individual diagrams for two SGVTF Level 3 Agencies (LACO DPW and Pasadena).

Exhibit 4.9 – Typical SGVTF Level 1 LCCS Interconnection Diagram

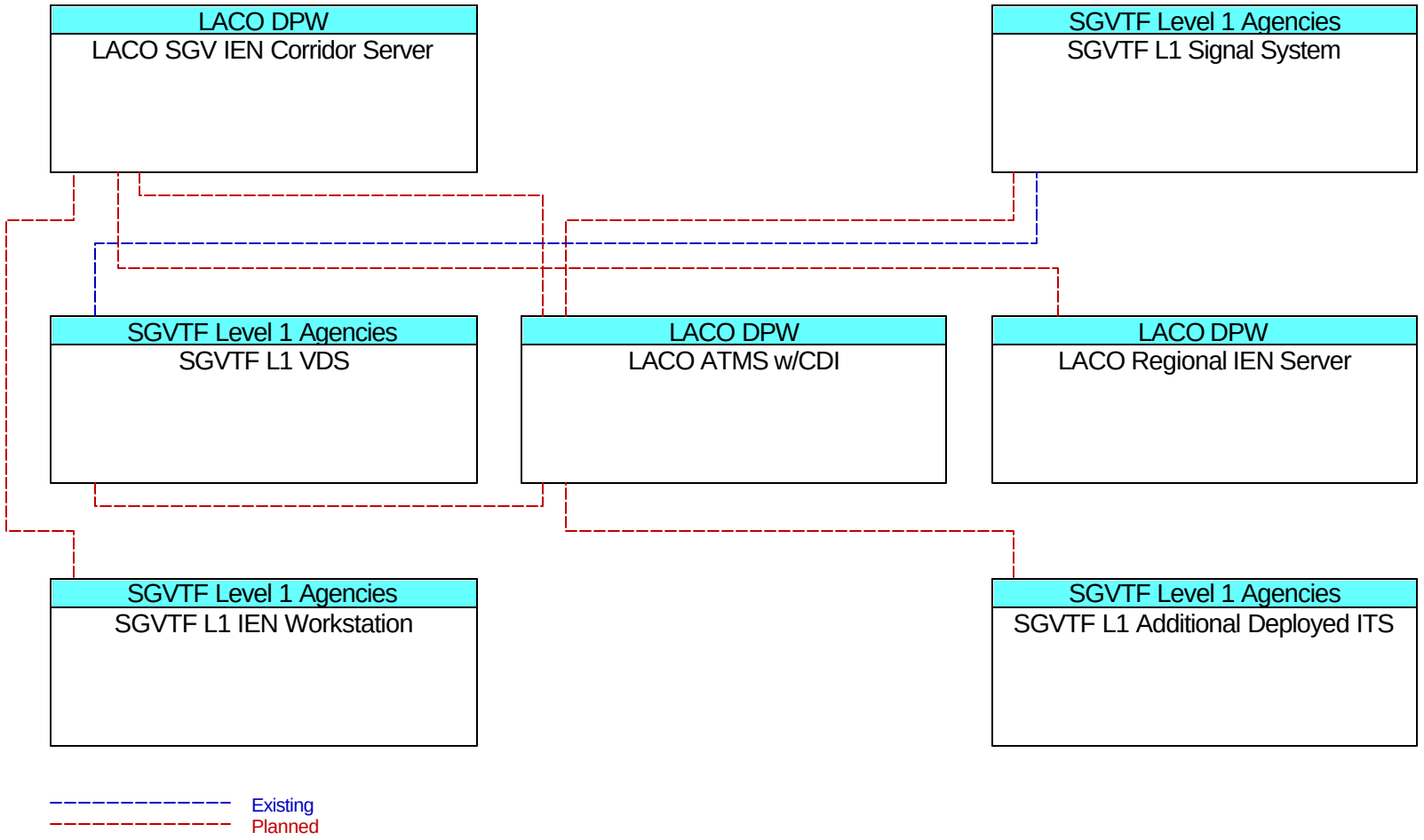


Exhibit 4.10 – Typical SGVTF Level 1 LCCS Architecture Flow Diagram

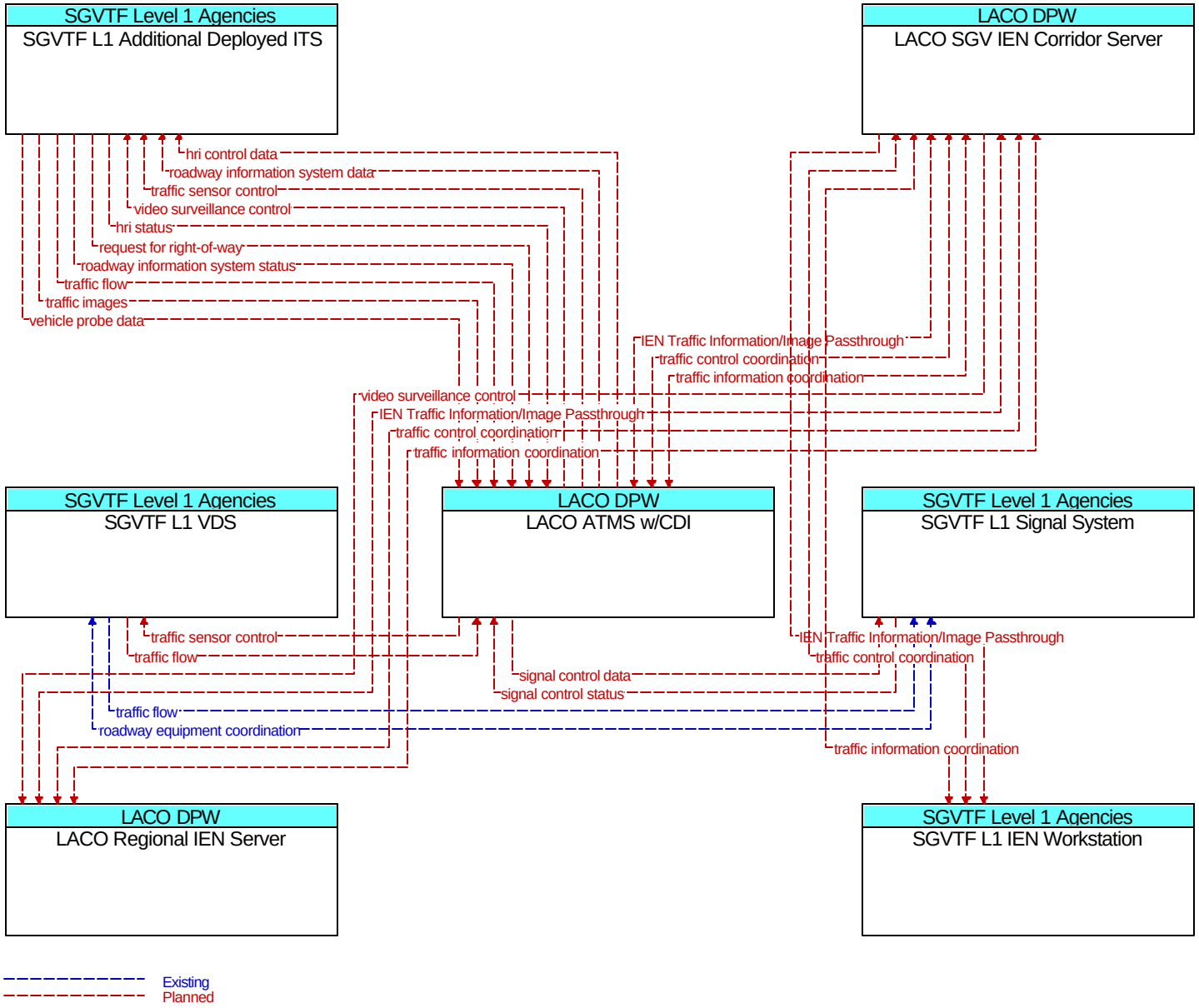


Exhibit 4.11 – Typical SGVTF Level 2A LCCS Interconnection Diagram

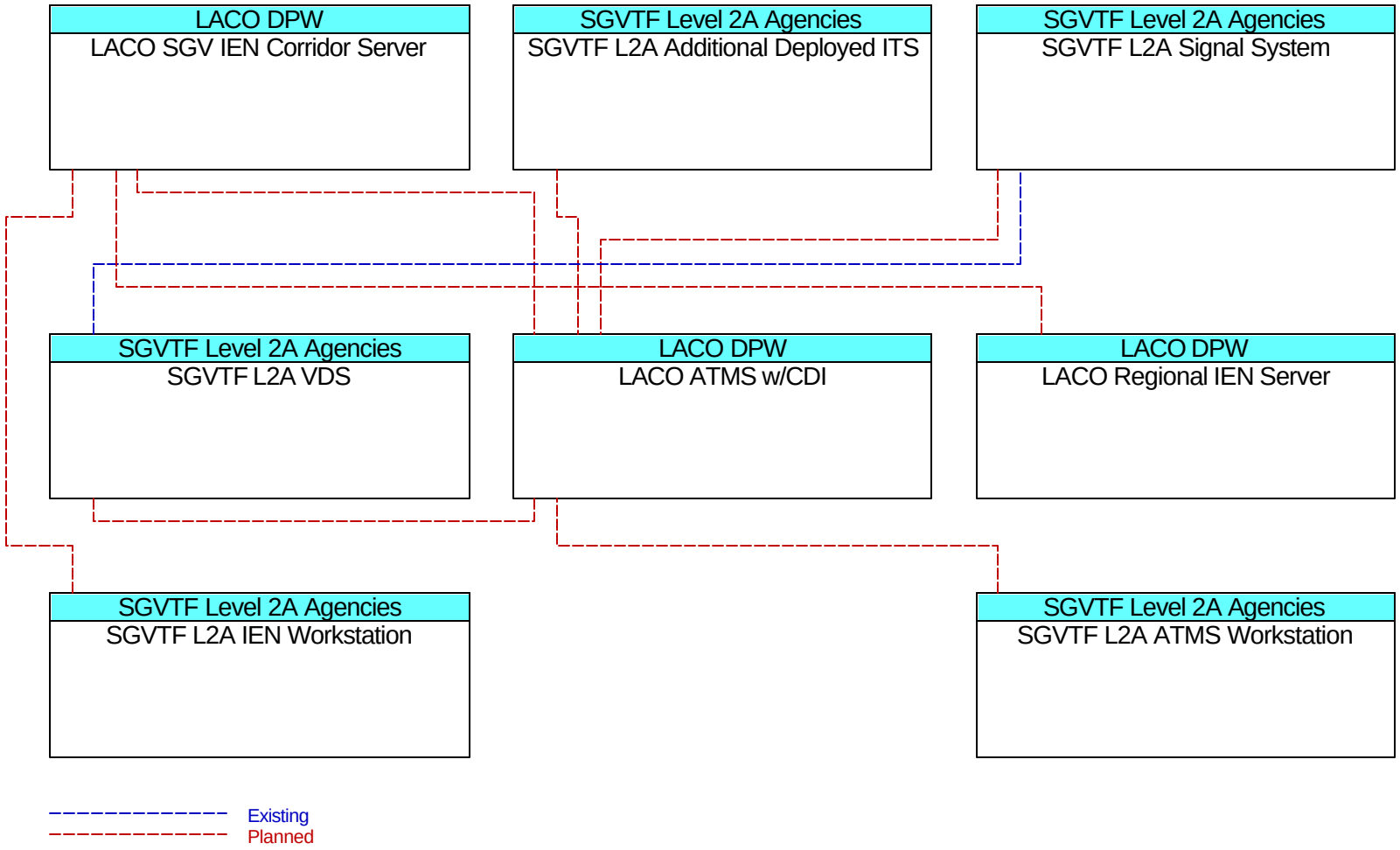


Exhibit 4.12 – Typical SGVTF Level 2A LCCS Architecture Flow Diagram

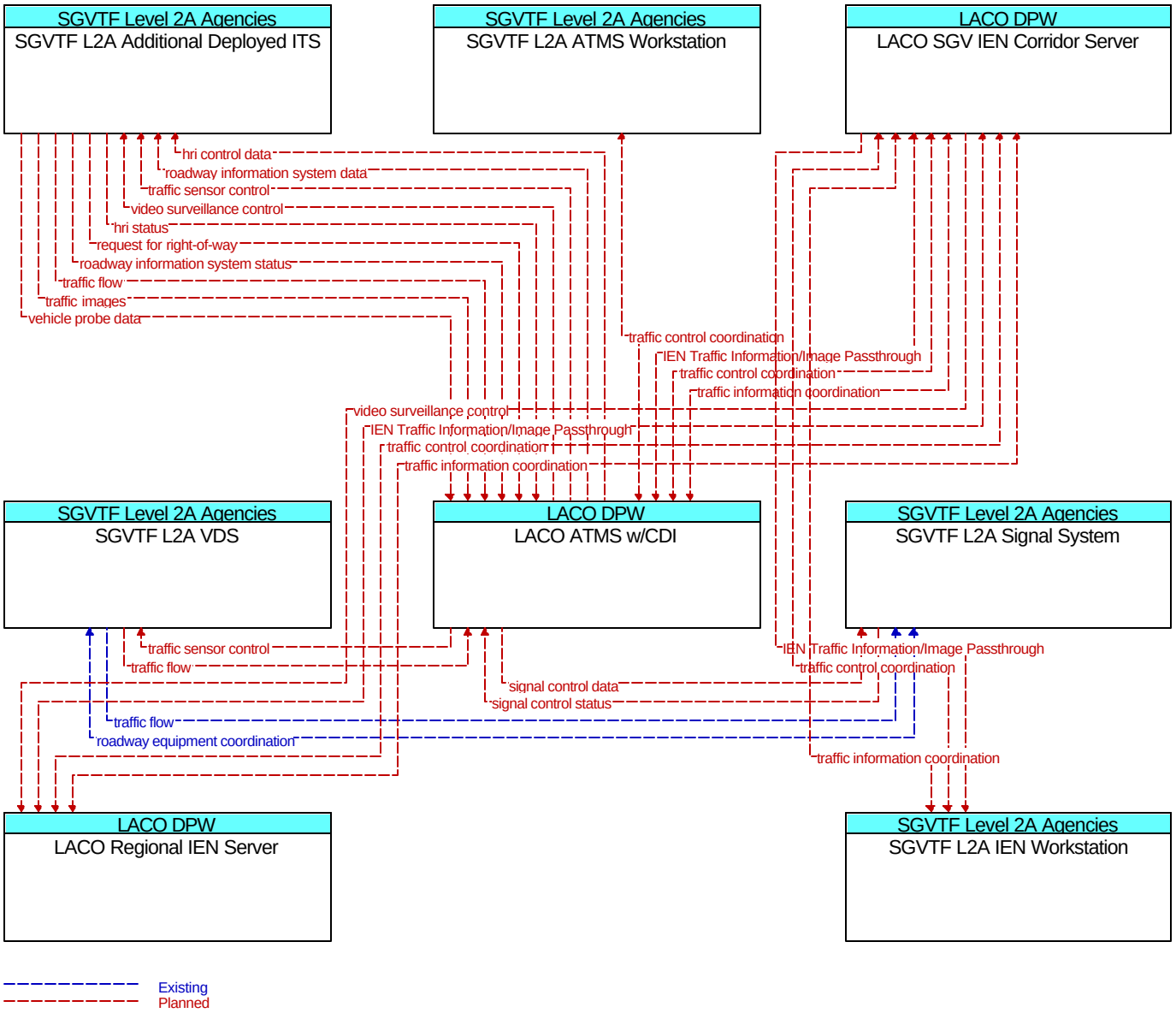


Exhibit 4.13 – Typical SGVTF Level 2B LCCS Interconnection Diagram

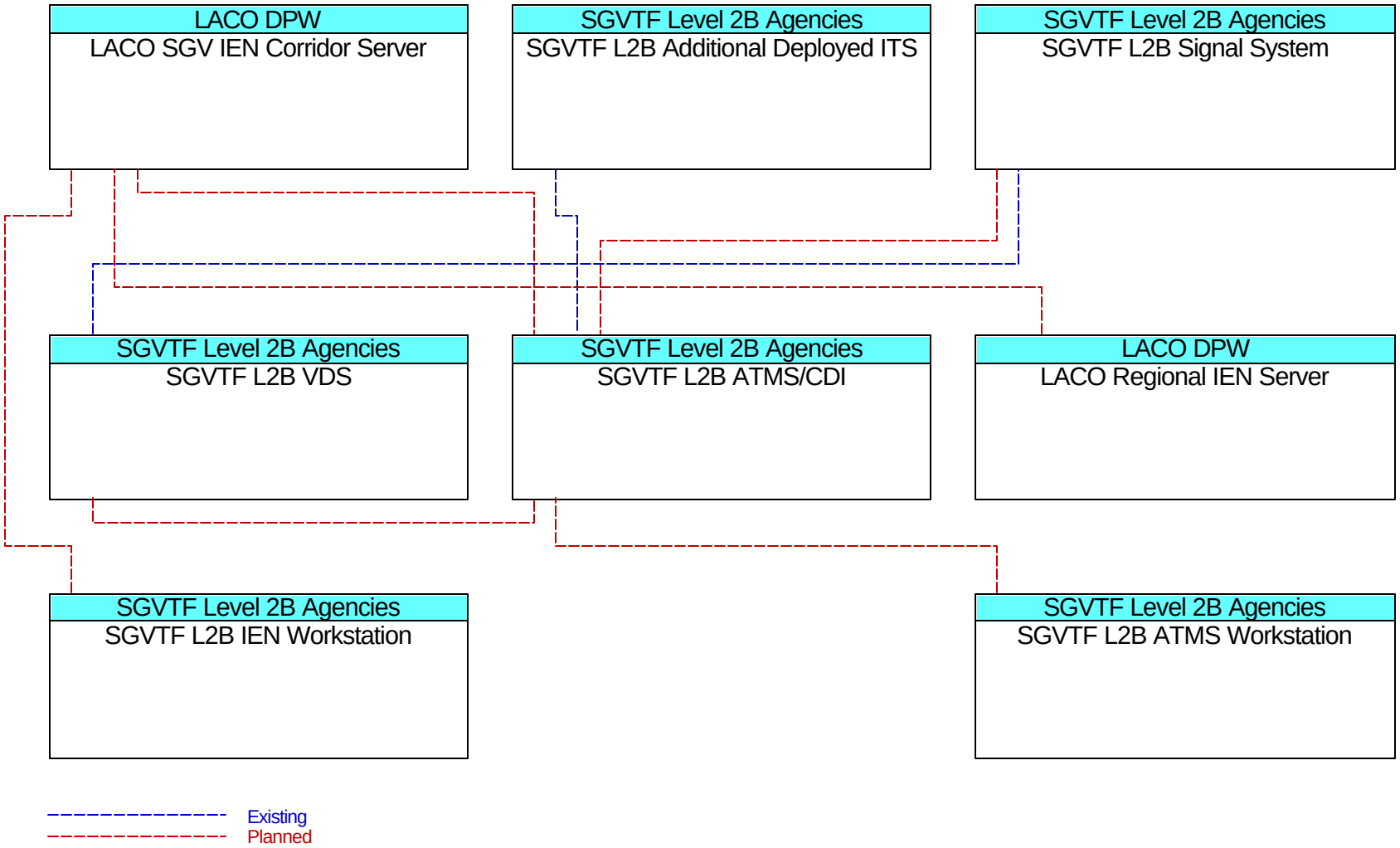


Exhibit 4.14 – Typical SGVTF Level 2B LCCS Architecture Flow Diagram

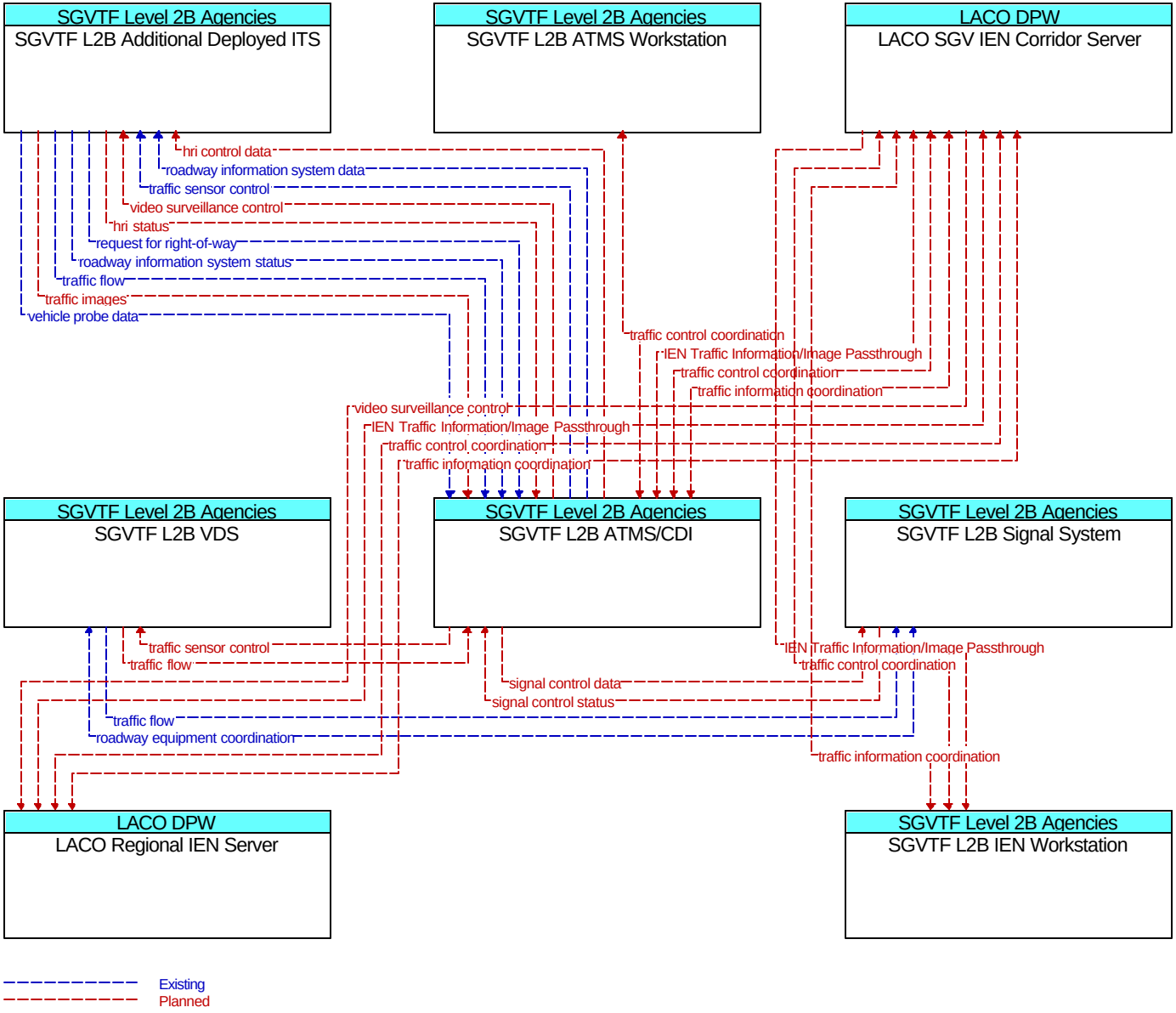


Exhibit 4.15 – LACO DPW TMC Interconnection Diagram

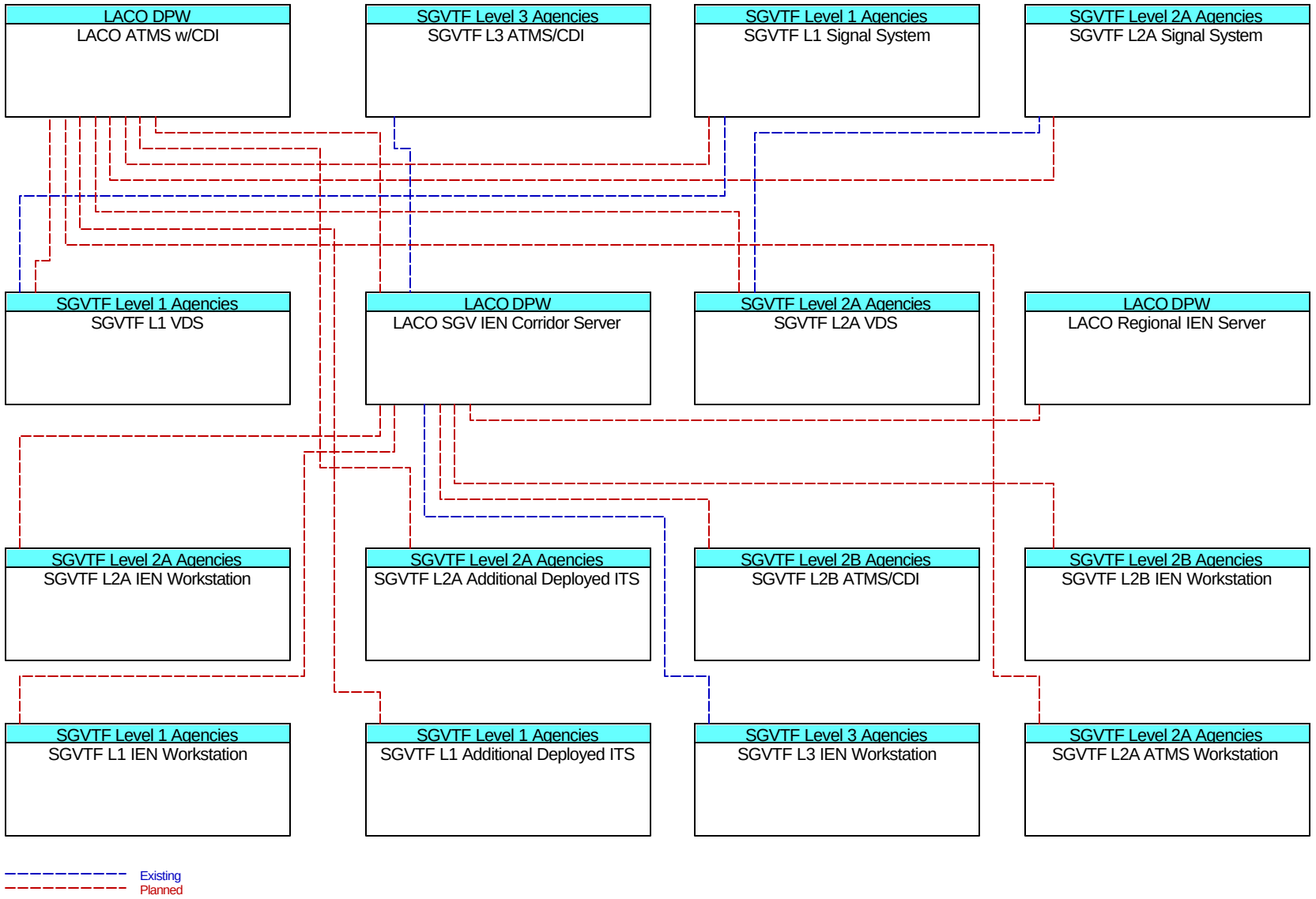


Exhibit 4.16 – LACO DPW TMC Architecture Flow Diagram

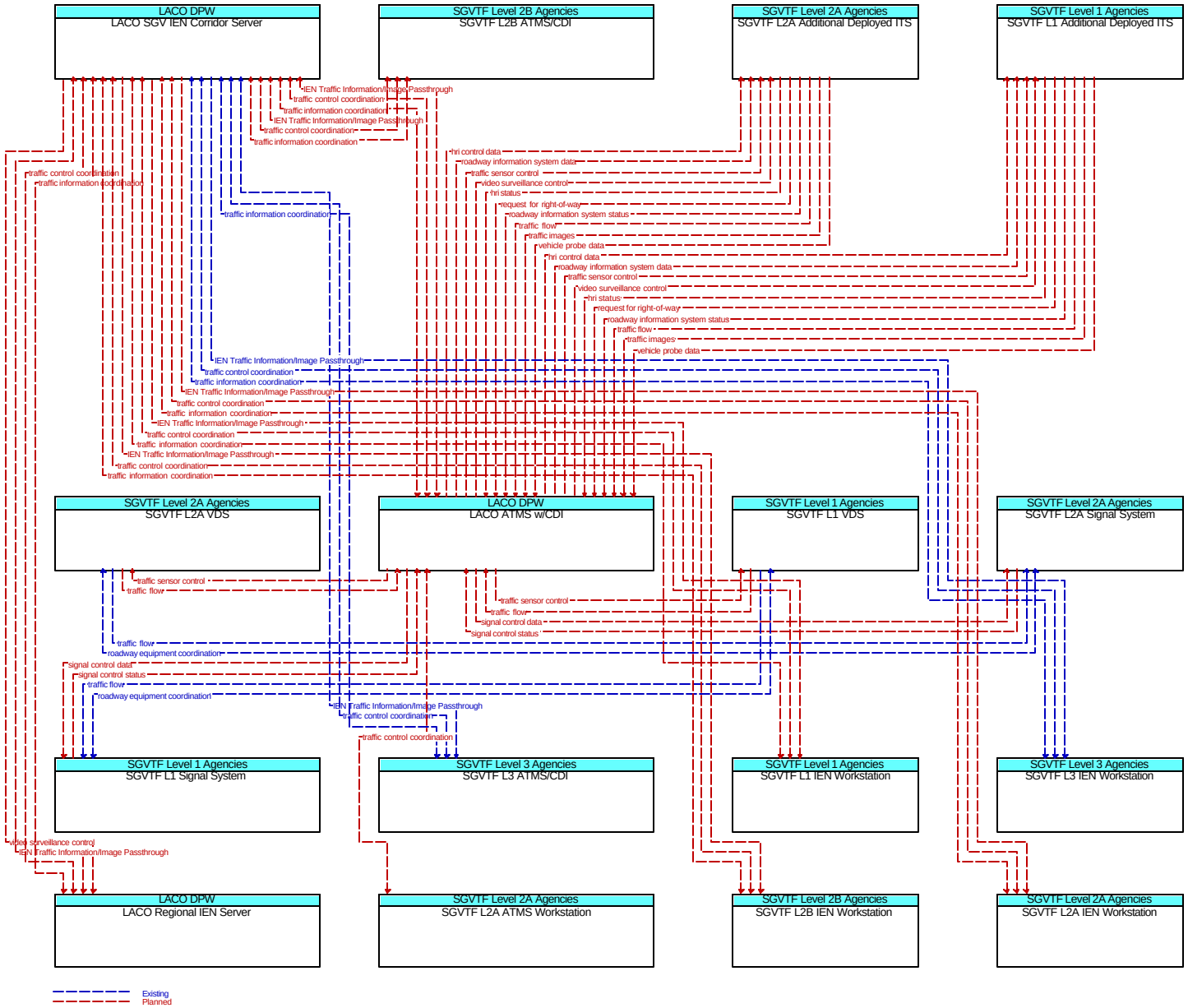


Exhibit 4.17 – Pasadena TMC Interconnection Diagram

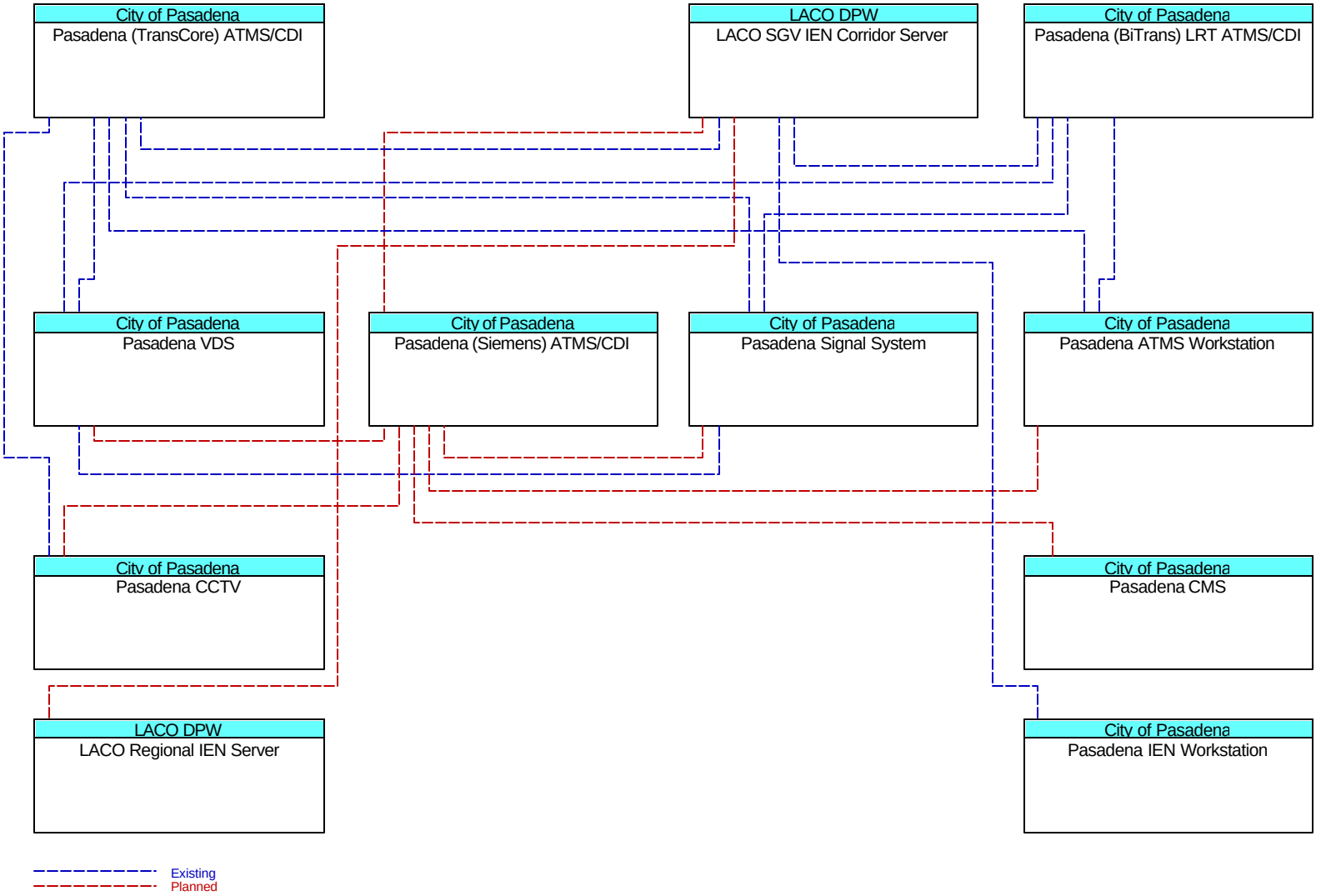
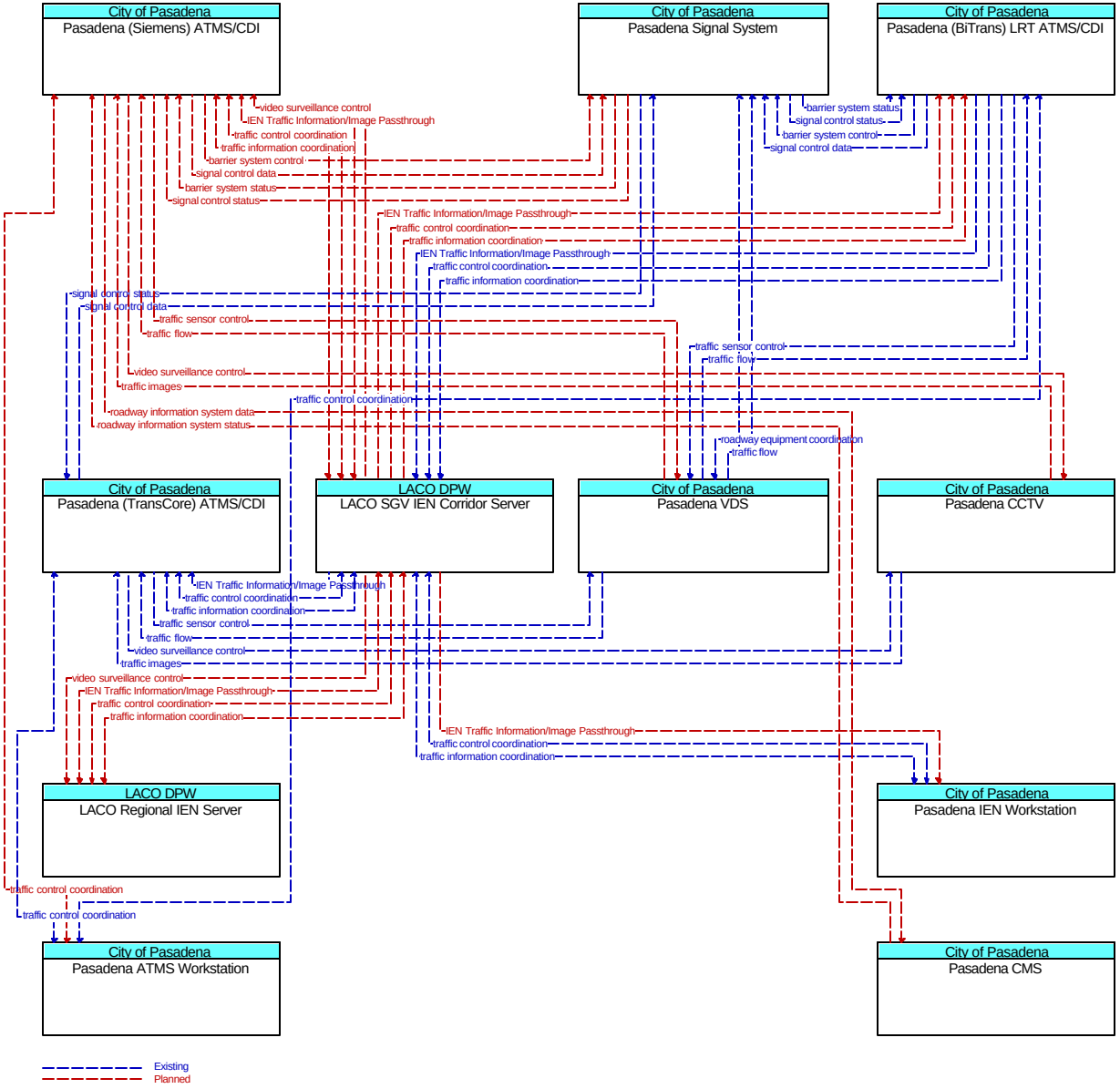


Exhibit 4.18 – Pasadena TMC Architecture Flow Diagram



4.3.4 SGVTF SUB-REGIONAL TMC

The diagrams of the SGVTF Sub-Regional view show the relationships and data flows for the elements connected to or at the Sub-Regional TMC (again, using the generic Agency elements for all Agency levels).

Exhibit 4.19 – Sub-Regional TMC Interconnection Diagram

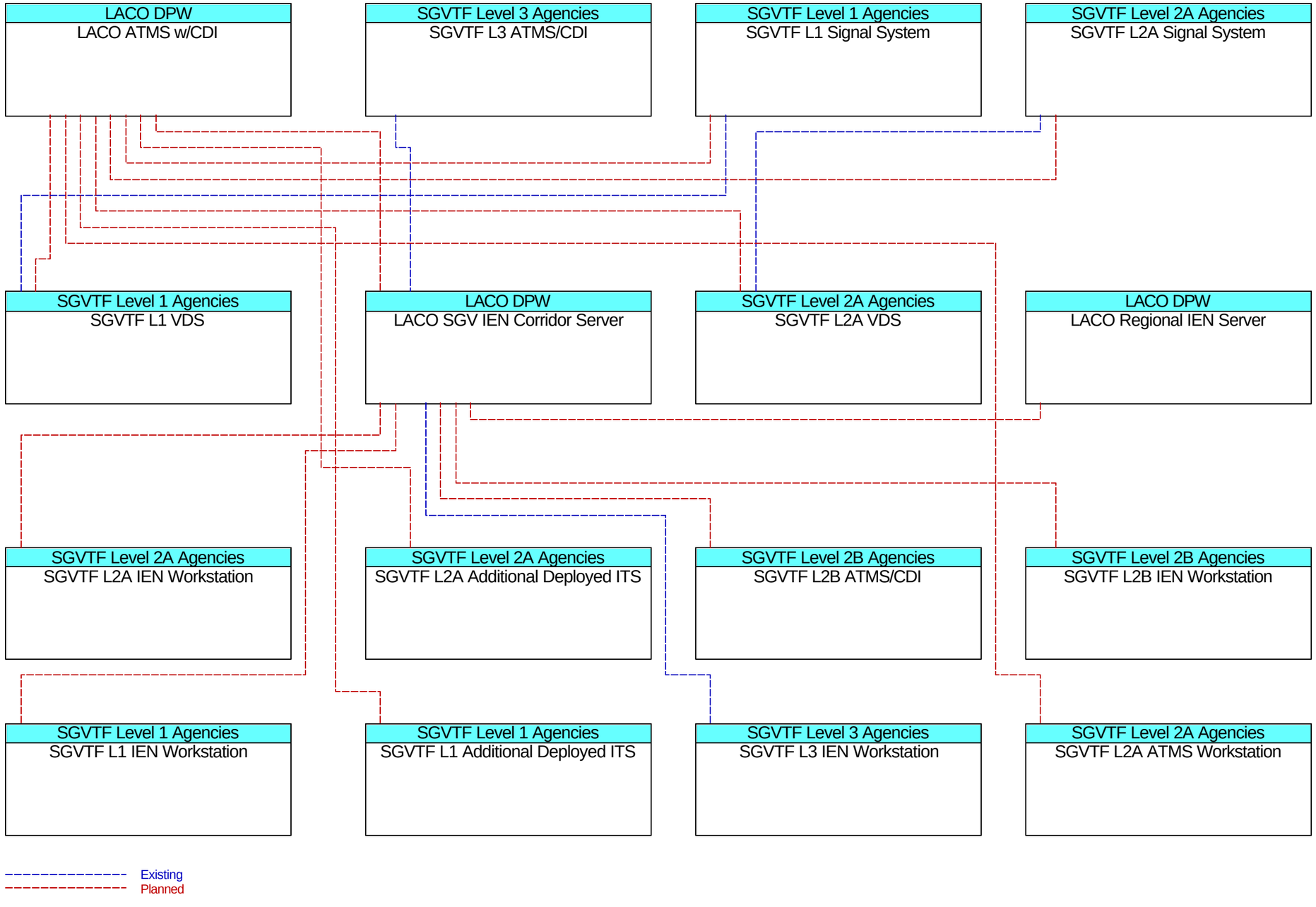
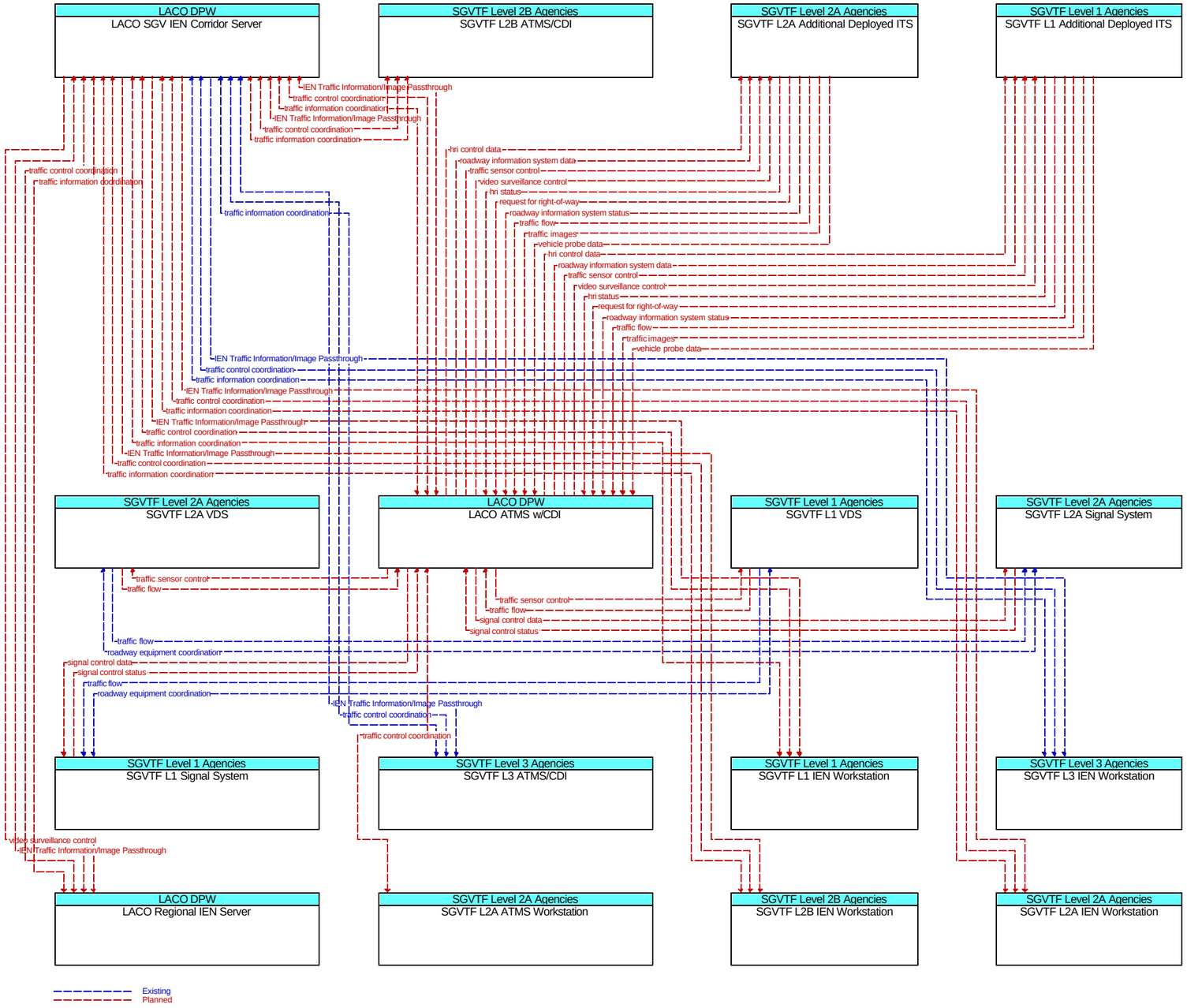


Exhibit 4.20 – Sub-Regional TMC Architecture Flow Diagram



4.3.5 SGVTF REGIONAL

The following diagrams depict the relationships and data flows for the SGVTF in its entirety. Generic Agency elements have been used in order to reduce the complexity of the diagrams. The custom reports in Appendices B and C contain the interconnections and flows for all SGVTF Agencies.

Exhibit 4.21 – SGVTF Interconnection Diagram

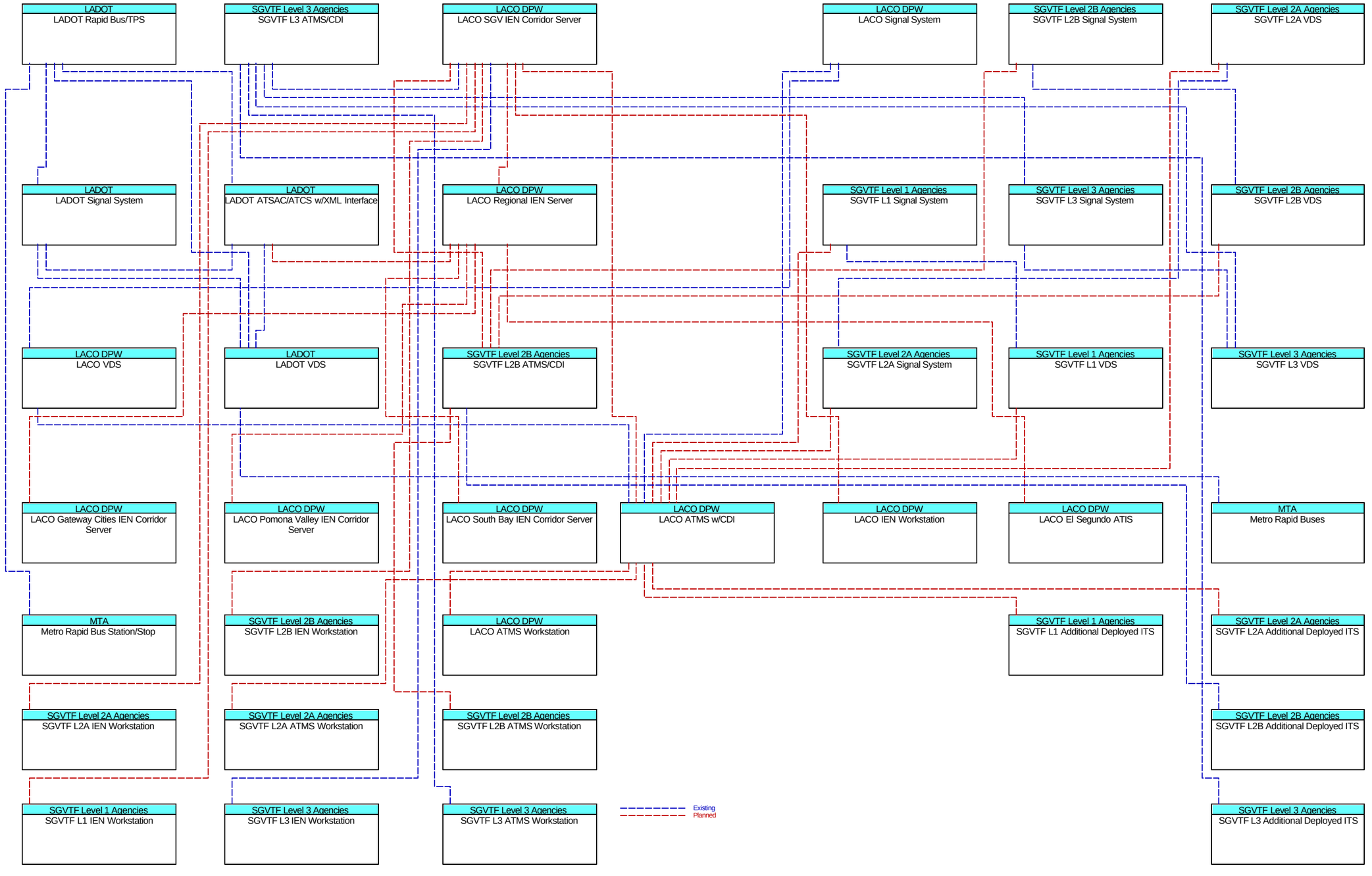
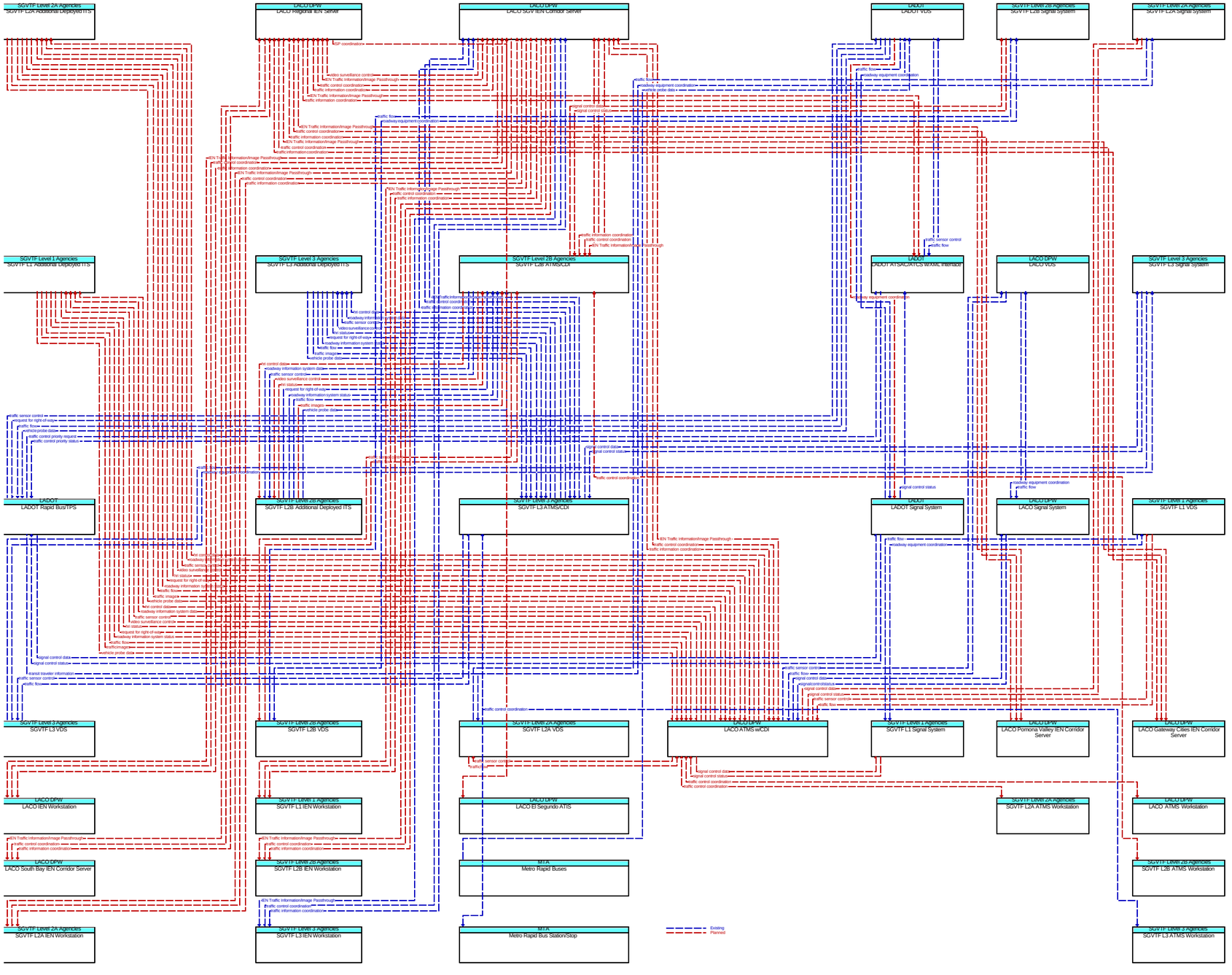


Exhibit 4.22 – SGVTF Architecture Flow Diagram



SGVTF Inventory

Alhambra ATMS

Description Econolite Aries V1.51 (18 intersections currently connected/19 more 3Q04)

Associated Stakeholder: City of Alhambra

Status: Existing

Alhambra ATMS Workstation

Description Workstation connected to the Agency's ATMS for local traffic signal operations.

Associated Stakeholder: City of Alhambra

Status: Existing

Alhambra ATMS/CDI

Description Alambra ATMS with additional CDI to integrate with the IEN.

Associated Stakeholder: City of Alhambra

Status: Planned

Alhambra IEN Workstation

Description Local Agency access to IEN for Regional traffic and incident management.

Associated Stakeholder: City of Alhambra

Status: Planned

Alhambra Signal System

Description 97 total signalized intersections. Controllers: 73 NEMA/Econolite, 23 170/LACO-1R, 3 170/LACO-3; 2 Field Masters; 45 RCTB. Running Fixed Pattern/TOD and Special Event timing plans

Associated Stakeholder: City of Alhambra

Status: Existing

Alhambra VDS

Description Vehicle detection system (86 inductive loops, 11 VIDs)

Associated Stakeholder: City of Alhambra

Status: Existing

Arcadia ATMS (SGVTF)/CDI

Description ATMS needed to complete the Agency's LCCS and CDI to integrate with the IEN. Vendor TBD.

Associated Stakeholder: City of Arcadia

Status: Planned

Arcadia ATMS Workstation

Description Workstation connected to the Agency's ATMS for local traffic signal operations.

Associated Stakeholder: City of Arcadia

Status: Planned

Arcadia CCTV

Description CCTV system (2) for the City of Arcadia

Associated Stakeholder: City of Arcadia

Status: Planned

Arcadia IEN Workstation

Description Local Agency access to IEN for Regional traffic and incident management.

Associated Stakeholder: City of Arcadia

Status: Planned

Arcadia Signal System

Description 71 signalized intersections w/45- Multisonic 820 and 36- 170 (LACO-1) controllers running TOD timing plans. Shared intersections (3@ Caltrans, LACO; 1- Pasadena; 2- Monrovia, Temple City, El Monte) Note: Multisonics VMS 330 w/WWV clock synchronization disconnected about 2000.

Associated Stakeholder: City of Arcadia

Status: Existing

Arcadia VDS

Description Vehicle detection system (all inductive loops plus 2 VIDs)

Associated Stakeholder: City of Arcadia

Status: Existing

Azusa ATMS Workstation

Description ATMS workstation connected to LACO for local traffic signal operations.

Associated Stakeholder: City of Azusa

Status: Planned

Azusa IEN Workstation

Description Local Agency access to IEN for Regional traffic and incident management.

Associated Stakeholder: City of Azusa

Status: Planned

Azusa Signal System

Description 52 signalized intersections. Mostly 170 controllers w/LACO firmware (some Type 90s running BiTrans). WWV RTCBs running fixed pattern/TOD timing plans. Shared intersections (Caltrans 7; LACO 8)

Associated Stakeholder: City of Azusa

Status: Existing

Azusa VDS

Description Vehicle detection system (52 loops, 3 VIDs)

Associated Stakeholder: City of Azusa

Status: Existing

Baldwin Park ATMS Workstation

Description ATMS workstation connected to LACO for local traffic signal operations.

Associated Stakeholder: City of Baldwin Park

Status: Planned

Baldwin Park IEN Workstation

Description Local Agency access to IEN for Regional traffic and incident management.

Associated Stakeholder: City of Baldwin Park

Status: Planned

Baldwin Park Signal System

Description 56 signalized intersections; 170E controllers w/BiTrans firmware running fixed pattern/TOD, pre-planned scenarios and traffic responsive timing plans.

Associated Stakeholder: City of Baldwin Park

Status: Existing

Baldwin Park VDS

Description Vehilce detection system (all inductive loops)

Associated Stakeholder: City of Baldwin Park

Status: Existing

Caltrans ATMS Workstation

Description Workstation connected to the Agency's ATMS for local traffic signal operations.

Associated Stakeholder: Caltrans District 7

Status: Existing

Caltrans D7 ATMS (CT-NET)

Description Caltrans D7's in-house ATMS for arterials/highways.

Associated Stakeholder: Caltrans District 7

Status: Existing

Caltrans D7 Intertie Server (FMS)

Description Infrastructure to facilitate inter-operation of various Caltrans systems (e.g., District TCSs). Also includes LA/Ventura ATIS Server, IMAJINE, TravelTip, etc. FMS operates and maintains freeway ramp metering and roadside devices on state and interstate highways and provides some loop data to Pasadena.

Associated Stakeholder: Caltrans District 7

Status: Existing

Caltrans D7 Signal System

Description 170 C8 Master controllers. 3 intersections (of 37).

Associated Stakeholder: Caltrans District 7

Status: Existing

Caltrans D7 VDS

Description Vehicle detection on Caltrans arterials in the SGV.

Associated Stakeholder: Caltrans District 7

Status: Existing

Covina ATMS (SGVTF)/CDI

Description ATMS needed to complete the Agency's LCCS and CDI to integrate with the IEN. Vendor TBD.

Associated Stakeholder: City of Covina

Status: Planned

Covina ATMS Workstation

Description Workstation connected to the Agency's ATMS for local traffic signal operations.

Associated Stakeholder: City of Covina

Status: Planned

Covina IEN Workstation

Description Local Agency access to IEN for Regional traffic and incident management.

Associated Stakeholder: City of Covina

Status: Planned

Covina Signal System

Description 49 signalized intersections; 46 170 and 2 Type 90 controllers w/LACO firmware (and 1 flahser) running fixed pattern/TOD timing plans. WWV on Grand and Barranca. 6 intersection on Grand shared w/LACO.

Associated Stakeholder: City of Covina

Status: Existing

Covina VDS

Description Vehicle detection system (all inductive loops)

Associated Stakeholder: City of Covina

Status: Existing

Duarte IEN Workstation

Description Local Agency access to IEN for local and Regional traffic and incident management.

Associated Stakeholder: City of Duarte

Status: Planned

Duarte Signal System

Description 11 signalized intersections w/170 controllers running fixed pattern/TOD timing plans. Shared intersections (Caltrans 4, Monrovia 2)

Associated Stakeholder: City of Duarte

Status: Existing

Duarte VDS

Description Vehicle detection system (all inductive loops)

Associated Stakeholder: City of Duarte

Status: Existing

El Monte ATMS Workstation

Description ATMS workstation connected to LACO for local traffic signal operations.

Associated Stakeholder: City of El Monte

Status: Planned

El Monte IEN Workstation

Description Local Agency access to IEN for Regional traffic and incident management.

Associated Stakeholder: City of El Monte

Status: Planned

El Monte Signal System

Description 67 signalized intersections w/170E controllers running fixed pattern/TOD timing plans. Shared intersections (7 Caltrans; 2 LACO).

Associated Stakeholder: City of El Monte

Status: Existing

El Monte VDS

Description Vehicle detection system (all inductive loop)

Associated Stakeholder: City of El Monte

Status: Existing

Glendora ATMS

Description Econolite Aries system controlling 4 of 40 signalized intersections;

Associated Stakeholder: City of Glendora

Status: Existing

Glendora ATMS Workstation

Description Workstation connected to the Agency's ATMS for local traffic signal operations. To be connected to LACO as part of TF implementation.

Associated Stakeholder: City of Glendora

Status: Existing

Glendora IEN Workstation

Description Local Agency access to IEN for Regional traffic and incident management.

Associated Stakeholder: City of Glendora

Status: Planned

Glendora Signal System

Description 31 Traconex 390, 1 Eagle EPAL 300, 8 Econlite ASC controllers running fixed pattern/TOD and NIC timing plans. Shared intersections (Caltrans 4, LACO 11).

Associated Stakeholder: City of Glendora

Status: Existing

Glendora VDS

Description Vehicle detection system (1 pedestrian activated, 2 VIDs, 37 inductive loops).

Associated Stakeholder: City of Glendora

Status: Existing

Irwindale ATMS (SGVTF)/CDI

Description ATMS needed to complete the Agency's LCCS and CDI to integrate with the IEN. Vendor TBD.

Associated Stakeholder: City of Irwindale

Status: Planned

Irwindale ATMS Workstation

Description Workstation connected to the Agency's ATMS for local traffic signal operations.

Associated Stakeholder: City of Irwindale

Status: Planned

Irwindale CCTV

Description CCTV roadway surveillance system for the City of Irwindale. Locations TBD.

Associated Stakeholder: City of Irwindale

Status: Planned

Irwindale IEN Workstation

Description Local Agency access to IEN for Regional traffic and incident management.

Associated Stakeholder: City of Irwindale

Status: Planned

Irwindale Signal System

Description 170 controllers w/LACO firmware. WWV RCTB. (15) Arrow Hwy intersections shared with Baldwin Park, maintained by Irwindale/LACO DPW. (Note: extracted from Baldwin Park data.)

Associated Stakeholder: City of Irwindale

Status: Existing

Irwindale VDS

Description Vehicle detection system (all inductive loops)

Associated Stakeholder: City of Irwindale

Status: Existing

La Puente IEN Workstation

Description Local Agency access to IEN for local and Regional traffic and incident management.

Associated Stakeholder: City of La Puente

Status: Planned

La Puente Signal System

Description 11 signalized intersections running fixed pattern/TOD and pre-planned scenario timing plans.

Associated Stakeholder: City of La Puente

Status: Existing

La Puente VDS

Description Vehicle detection system (all inductive loops)

Associated Stakeholder: City of La Puente

Status: Existing

LACO ATMS w/CDI

Description TCS for LACO DPW controlled traffic signals (about 650 in county/150 in SGV region). Kimley Horn. Also will be usde to control SGV Level 1 and L2A Agency signals. With CDI to integrate with the IEN.

Associated Stakeholder: LACO DPW

Status: Existing

LACO ATMS Workstation

Description Workstation connected to the LACO ATMS for hosted Agency and local traffic signal operations.

Associated Stakeholder: LACO DPW

Status: Existing

LACO El Segundo ATIS

Description ATIS for the El Segundo area (El Segundo Employer's Association is a major stakeholder).

Associated Stakeholder: LACO DPW

Status: Existing

LACO Gateway Cities IEN Corridor Server

Description IEN Corridor (sub-regional) server for Agencies participating in the I-105 Corridor, I-5/Telegraph Road, and I-710/Atlantic Blvd. Traffic Forums

Associated Stakeholder: LACO DPW

Status: Planned

LACO IEN Workstation

Description Local Agency access to IEN for Regional traffic and incident management.

Associated Stakeholder: LACO DPW

Status: Planned

LACO Pomona Valley IEN Corridor Server

Description IEN Corridor (sub-regional) server for PVTF participating Agencies

Associated Stakeholder: LACO DPW

Status: Planned

LACO Regional IEN Server

Description IEN server to link all IEN Corridor Servers. Information Exchange Network Server for Los Angeles County. Facilitates the exchange of real-time arterial traffic information between potentially disparate TCS's, and limited signal control between participating Agencies in the corridor. Also provides incident and planned event tracking to allow Agencies to share incident, planned events and construction activities. Data repository and archival services for the Regional traffic data. Server to be housed at the LACO TMC.

Associated Stakeholder: LACO DPW

Status: Planned

LACO SGV IEN Corridor Server

Description IEN Corridor (sub-regional) server for SGVTF participating Agencies. Server to be housed at the LACO TMC.

Associated Stakeholder: LACO DPW

Status: Existing

LACO Signal System

Description 170 Controllers w/LACO-1R and -3 firmware. (LACO-4, to communicate with TCS, is in development.)

Associated Stakeholder: LACO DPW

Status: Existing

LACO South Bay IEN Corridor Server

Description IEN Corridor (sub-regional) server for SBTF participating Agencies

Associated Stakeholder: LACO DPW

Status: Planned

LACO VDS

Description Vehicle detection system (virtually all inductive loops with a few VIDs and even less radar (none in SGV)

Associated Stakeholder: LACO DPW

Status: Existing

LADOT ATSAC/ATCS w/XML Interface

Description City of Los Angeles Automated Traffic Surveillance and Control System. In-house, PC-based system controlling all traffic signals in the City of Los Angeles (approx 4,400). Upgraded with Adaptive Traffic Control Software. With XML Interface to integrate with the IEN.

Associated Stakeholder: LADOT

Status: Existing

LADOT ATSAC/ATCS/IEN Workstation

Description LADOT ATSAC/ATCS workstation for local traffic data access and control and interjurisdictional traffic data access via XML interface to the IEN.

Associated Stakeholder: LADOT

Status: Existing

LADOT CCTV

Description LADOT CCTV for traffic monitoring (about 150)

Associated Stakeholder: LADOT

Status: Existing

LADOT CMS

Description LADOT CMS equipment

Associated Stakeholder: LADOT

Status: Existing

LADOT Rapid Bus/TPS

Description Transit Priority System. System to manage Rapid Bus traffic signal preemption requests based upon bus location, schedule, etc.

Associated Stakeholder: LADOT

Status: Existing

LADOT Signal System

Description Approx. 4,400 signalized intersections

Associated Stakeholder: LADOT

Status: Existing

LADOT VDS

Description Vehicle detection system (virtually all inductive loop, some old magnetometers, custom Rapid Bus detectors).

Associated Stakeholder: LADOT

Status: Existing

Metro Rapid Bus Station/Stop

Description Special Metro Rapid bus stops equipped with various transit info dissemination devices (e.g., kiosks).

Associated Stakeholder: MTA

Status: Existing

Metro Rapid Buses

Description Commuter buses with basic AVL and traffic signal prioritization request functionality. Several fixed routes currently in operation in LA (City).

Associated Stakeholder: MTA

Status: Existing

Monrovia ATMS Workstation

Description ATMS workstation connected to LACO for local traffic signal operations.

Associated Stakeholder: City of Monrovia

Status: Planned

Monrovia E-Views (Pilot)

Description Emergency Vehicle Early Warning System. Activated by transponders in 20 police and 10 fire vehicles and works at several intersections along Huntington Bl. Changes warning signs and traffic signals as emergency vehicle approaches.

Associated Stakeholder: City of Monrovia

Status: Existing

Monrovia IEN Workstation

Description Local Agency access to IEN for Regional traffic and incident management.

Associated Stakeholder: City of Monrovia

Status: Planned

Monrovia Signal System

Description 34 signalized intersections w/170 controllers w/LACO-1 (or 1R) firmware. Shared intersections w/Caltrans, LACO, Duarte, and Arcadia.

Associated Stakeholder: City of Monrovia

Status: Existing

Monrovia VDS

Description Vehicle detection system (all inductive loops)

Associated Stakeholder: City of Monrovia

Status: Existing

Montebello ATMS Workstation

Description ATMS workstation connected to LACO for local traffic signal operations.

Associated Stakeholder: City of Montebello

Status: Planned

Montebello IEN Workstation

Description Local Agency access to IEN for Regional traffic and incident management.

Associated Stakeholder: City of Montebello

Status: Planned

Montebello Signal System

Description 78 signalized intersections w/mostly 170 controllers (2 Econolite) w/LACO-1/1R/3, BiTrans and Singer firmware, running fixed pattern/TOD timing plans. Shared intersections (3 Caltrans, 3 LACO).

Associated Stakeholder: City of Montebello

Status: Existing

Montebello VDS

Description Vehicle detection system (77 inductive loops, 1 VID)

Associated Stakeholder: City of Montebello

Status: Existing

Monterey Park ATMS Workstation

Description ATMS workstation connected to LACO for local traffic signal operations.

Associated Stakeholder: City of Monterey Park

Status: Planned

Monterey Park IEN Workstation

Description Local Agency access to IEN for Regional traffic and incident management.

Associated Stakeholder: City of Monterey Park

Status: Planned

Monterey Park Signal System

Description 65 signalized intersections w/Econlite 8200 and State 170 controllers running fixed pattern/TOD and actuated timing plans. Shared intersections (Caltrans 4, LACO 6, Alhambra 2).

Associated Stakeholder: City of Monterey Park

Status: Existing

Monterey Park VDS

Description Vehicle detection system (63 inductive loops, 3 VIDs)

Associated Stakeholder: City of Monterey Park

Status: Existing

Pasadena (BiTrans) LRT ATMS/CDI

Description BiTrans QuicNet IV ATMS to operate signals located at 18 MTA LRT (Gold Line) crossings An IEN CDI for this TCS is planned for 2005.

Associated Stakeholder: City of Pasadena

Status: Existing

Pasadena (Siemens) ATMS/CDI

Description Siemens I2-TMS to be deployed and CDI to integrate with the IEN.. Replaces the Pasadena ATMS and Pasadena ATMS - LRT elements when deployed.

Associated Stakeholder: City of Pasadena

Status: Planned

Pasadena (TransCore) ATMS/CDI

Description TransCore Series 2000 ATMS managing 290 signalized intersections. Also controls some Caltrans signals (intertie with LA Caltrans TMC) and CDI to integrate with the IEN.

Associated Stakeholder: City of Pasadena

Status: Existing

Pasadena ATMS Workstation

Description Workstation connected to the Agency's ATMS for local traffic signal operations.

Associated Stakeholder: City of Pasadena

Status: Planned

Pasadena CCTV

Description 10 CCTV throughout City.

Associated Stakeholder: City of Pasadena

Status: Existing

Pasadena CMS

Description 9 CMS (6 fixed/3 mobile) throughout the City

Associated Stakeholder: City of Pasadena

Status: Existing

Pasadena IEN Workstation

Description Local Agency access to IEN for Regional traffic and incident management.

Associated Stakeholder: City of Pasadena

Status: Existing

Pasadena Signal System

Description 290- 170 BiTrans 222 Pasadena firmware (some LACO-IV 170 firmware) controllers running fixed pattern/TOD, pre-planned scenario, special/planned event timing plans. Shared intersections (Caltrans 16, LACO 6, Sierra Madre 2, South Pasadena and La Canada 4). Also includes 2070 BiTrans controllers running BiTrans LRT and TOD timing plans.

Associated Stakeholder: City of Pasadena

Status: Existing

Pasadena VDS

Description Vehicle detection system (288 inductive loops and 17 VIDs, 4 microwave. (All new installations to be VIDs)

Associated Stakeholder: City of Pasadena

Status: Existing

Rosemead ATMS (SGVTF)/CDI

Description ATMS needed to complete the Agency's LCCS and CDI to integrate with the IEN. Vendor TBD.

Associated Stakeholder: City of Rosemead

Status: Planned

Rosemead ATMS Workstation

Description Workstation connected to the Agency's ATMS for local traffic signal operations.

Associated Stakeholder: City of Rosemead

Status: Planned

Rosemead IEN Workstation

Description Local Agency access to IEN for Regional traffic and incident management.

Associated Stakeholder: City of Rosemead

Status: Planned

Rosemead Signal System

Description 51 signalized intersections w/170 (LACO-1 and BiTrans) and Multisonics Type 90 controllers running fixed pattern/TOD timing plans. Shared intersections (Caltrans 10, LACO 2, Monterey Park 2, Other 2).

Associated Stakeholder: City of Rosemead

Status: Existing

Rosemead VDS

Description Vehicle detection system (all inductive loops)

Associated Stakeholder: City of Rosemead

Status: Existing

San Dimas ATMS (SGVTF)/CDI

Description ATMS needed to complete the Agency's LCCS and CDI to integrate with the IEN. Vendor TBD.

Associated Stakeholder: City of San Dimas

Status: Planned

San Dimas ATMS Workstation

Description Workstation connected to the Agency's ATMS for local traffic signal operations.

Associated Stakeholder: City of San Dimas

Status: Planned

San Dimas IEN Workstation

Description Local Agency access to IEN for Regional traffic and incident management.

Associated Stakeholder: City of San Dimas

Status: Planned

San Dimas Signal System

Description 33 signalized intersections w/170 (50% 170E) controllers and mostly LACO (some Caltrans) firmware running LACO time-space timing (2-170s are Field masters). Shared intersections (8 Caltrans, 1@ LACO, Glendora, La Verne).

Associated Stakeholder: City of San Dimas

Status: Existing

San Dimas VDS

Description Vehicle detection system (all inductive loops, 3 VIDs)

Associated Stakeholder: City of San Dimas

Status: Existing

San Gabriel ATMS Workstation

Description ATMS workstation connected to LACO for local traffic signal operations.

Associated Stakeholder: City of San Gabriel

Status: Planned

San Gabriel IEN Workstation

Description Local Agency access to IEN for Regional traffic and incident management.

Associated Stakeholder: City of San Gabriel

Status: Planned

San Gabriel Signal System

Description 34 signalized intersections w/McCain 170 controllers (31 LACO-1R, 3 LACO-3) running TOD timing plans. Shared intersections (LACO 2, Caltrans 2, and 1@ Alhambra and Rosemead). Signal preemption for FD at 2 intersections via button at station.

Associated Stakeholder: City of San Gabriel

Status: Existing

San Gabriel VDS

Description Vehicle detection system (32 inductive loops, 2 VIDs)

Associated Stakeholder: City of San Gabriel

Status: Existing

San Marino IEN Workstation

Description Local Agency access to IEN for local and Regional traffic and incident management.

Associated Stakeholder: City of San Marino

Status: Planned

San Marino Signal System

Description 18 signalized intersections w/17- 170 (LACO) and 1- Micro Delta 1070/6800 (LACO-1) controllers running TOD timing plan. (EV for A-B-C Opticom) Shared intersections (LACO 3, Alhambra 2, Pasadena 1).

Associated Stakeholder: City of San Marino

Status: Existing

San Marino VDS

Description Vehicle detection system (all inductive loop)

Associated Stakeholder: City of San Marino

Status: Existing

SGVTF L1 Additional Deployed ITS

Description Other ITS equipment (e.g., CCTV, CMS, etc.) that may be deployed by SGVTF L1 Agencies.

Associated Stakeholder: SGVTF Level 1 Agencies

Status: Planned

SGVTF L1 IEN Workstation

Description Level 1 Agency access to IEN for local and Regional traffic and incident management.

Associated Stakeholder: SGVTF Level 1 Agencies

Status: Planned

SGVTF L1 Signal System

Description Generic signal system (roadside controllers, etc.) for Level 1 Agencies (generall operated by LACO)

Associated Stakeholder: SGVTF Level 1 Agencies

Status: Existing

SGVTF L1 VDS

Description Generic vehicle detection system (loops, etc.) for Level 1 Agencies (generally operated by LACO)

Associated Stakeholder: SGVTF Level 1 Agencies

Status: Existing

SGVTF L2A Additional Deployed ITS

Description Other ITS equipment (e.g., CCTV, CMS, HAR, etc.) that may be deployed by SGVTF L2A Agencies.

Associated Stakeholder: SGVTF Level 2A Agencies

Status: Planned

SGVTF L2A ATMS Workstation

Description ATMS workstation for Level 2A Agency connected to LACO for local traffic signal operations.

Associated Stakeholder: SGVTF Level 2A Agencies

Status: Planned

SGVTF L2A IEN Workstation

Description Level 2A Agency access to IEN for Regional traffic and incident management.

Associated Stakeholder: SGVTF Level 2A Agencies

Status: Planned

SGVTF L2A Signal System

Description Generic signal system (roadside controllers, etc.) for Level 2A Agencies (generall operated by LACO)

Associated Stakeholder: SGVTF Level 2A Agencies

Status: Existing

SGVTF L2A VDS

Description Generic vehicle detection system (loops, etc.) for Level 2A Agencies (generally operated by LACO)

Associated Stakeholder: SGVTF Level 2A Agencies

Status: Existing

SGVTF L2B Additional Deployed ITS

Description Other ITS equipment (e.g., CCTV, CMS, etc.) that may be deployed by SGVTF L2B Agencies.

Associated Stakeholder: SGVTF Level 2B Agencies

Status: Planned

SGVTF L2B ATMS Workstation

Description Workstation connected to the Agency's ATMS for local traffic signal operations.

Associated Stakeholder: SGVTF Level 2B Agencies

Status: Planned

SGVTF L2B ATMS/CDI

Description ATMS needed to complete the Level 2B Agency's LCCS w/CDI to integrate with the IEN.

Associated Stakeholder: SGVTF Level 2B Agencies

Status: Planned

SGVTF L2B IEN Workstation

Description Level 2B Agency access to IEN for Regional traffic and incident management.

Associated Stakeholder: SGVTF Level 2B Agencies

Status: Planned

SGVTF L2B Signal System

Description Generic signal system (roadside controllers, etc.) for Level 2B Agencies

Associated Stakeholder: SGVTF Level 2B Agencies

Status: Existing

SGVTF L2B VDS

Description Generic vehicle detection system (loops, etc.) for Level 2B Agencies

Associated Stakeholder: SGVTF Level 2B Agencies

Status: Existing

SGVTF L3 Additional Deployed ITS

Description Other ITS equipment (e.g., CCTV, CMS, etc.) that may be deployed by SGVTF L3 Agencies.

Associated Stakeholder: SGVTF Level 3 Agencies

Status: Existing

SGVTF L3 ATMS Workstation

Description Workstation connected to the Agency's ATMS for local traffic signal operations.

Associated Stakeholder: SGVTF Level 3 Agencies

Status: Existing

SGVTF L3 ATMS/CDI

Description ATMS needed to complete the Level 3 Agency's LCCS w/CDI to integrate with the IEN

Associated Stakeholder: SGVTF Level 3 Agencies

Status: Existing

SGVTF L3 IEN Workstation

Description Level 3 Agency access to IEN for Regional traffic and incident management.

Associated Stakeholder: SGVTF Level 3 Agencies

Status: Existing

SGVTF L3 Signal System

Description Generic signal system (roadside controllers, etc.) for Level 3 Agencies

Associated Stakeholder: SGVTF Level 3 Agencies

Status: Existing

SGVTF L3 VDS

Description Generic vehicle detection system (loops, etc.) for Level 3 Agencies

Associated Stakeholder: SGVTF Level 3 Agencies

Status: Existing

South El Monte IEN Workstation

Description Local Agency access to IEN for local and Regional traffic and incident management.

Associated Stakeholder: City of South El Monte

Status: Planned

South El Monte Signal System

Description 22 signalized intersections w/3 170 controllers running TOD timing. 5 intersections are shared w/Caltrans.

Associated Stakeholder: City of South El Monte

Status: Existing

South El Monte VDS

Description Vehicle detection system (all inductive loops)

Associated Stakeholder: City of South El Monte

Status: Existing

South Pasadena IEN Workstation

Description Local Agency access to IEN for local and Regional traffic and incident management.

Associated Stakeholder: City of South Pasadena

Status: Planned

South Pasadena Signal System

Description 36 signalized intersections w/mostly 170 controllers (LACO firmware on Huntington , Fair Oaks and Freemont, non NEMA on Monterey) running fixed pattern/TOD timing plans. Shared intersections (Caltrans 2, LACO 1, Alhambra 2, Pasadena 2)

Associated Stakeholder: City of South Pasadena

Status: Existing

South Pasadena VDS

Description Vehicle detection system (all indeuctive loops, 1 VID planned)

Associated Stakeholder: City of South Pasadena

Status: Existing

Temple City IEN Workstation

Description Local Agency access to IEN for local and Regional traffic and incident management.

Associated Stakeholder: City of Temple City

Status: Planned

Temple City Signal System

Description 28 signalized intersections w/170 controllers running fixed pattern/TOD timing plans. Shared intersections (1@ Caltrans, Arcadia, and El Monte).

Associated Stakeholder: City of Temple City

Status: Existing

Temple City VDS

Description Vehicle detection system (all inductive loops)

Associated Stakeholder: City of Temple City

Status: Existing

West Covina ATMS

Description Multisoncis VMS 330 (V4SP5) connected to 63 (of 112) signalized intersections (24 of which are malfunctioning)

Associated Stakeholder: City of West Covina

Status: Existing

West Covina ATMS (SGVTF)/CDI

Description ATMS needed to complete the Agency's LCCS and CDI to integrate with the IEN. Vendor TBD. Signal preemption at major intersections.

Associated Stakeholder: City of West Covina

Status: Planned

West Covina ATMS Workstation

Description Workstation connected to the Agency's ATMS for local traffic signal operations.

Associated Stakeholder: City of West Covina

Status: Existing

West Covina IEN Workstation

Description Local Agency access to IEN for local and Regional traffic and incident management.

Associated Stakeholder: City of West Covina

Status: Planned

West Covina Signal System

Description Multisonics controllers w/820A firmware (Econolite controllers on LACO synchronized corridors) running traffic responsive time plans. Shared intersections: Caltrans (15), LACO(11), and Covina (4) and Walnut (3) w/170 controllers. Signal preemption at major intersections.

Associated Stakeholder: City of West Covina

Status: Existing

West Covina VDS

Description Vehicle detection system (all inductive loop).

Associated Stakeholder: City of West Covina

Status: Existing

SGVTF Interconnections

Alhambra ATMS
- Talks with: Alhambra ATMS Workstation
- Talks with: Alhambra Signal System
- Talks with: Alhambra VDS

Alhambra ATMS Workstation
- Talks with: Alhambra ATMS
- Will talk with: Alhambra ATMS/CDI

Alhambra ATMS/CDI
- Will talk with: Alhambra ATMS Workstation
- Will talk with: Alhambra Signal System
- Will talk with: Alhambra VDS
- Will talk with: LACO SGV IEN Corridor Server

Alhambra IEN Workstation
- Will talk with: LACO SGV IEN Corridor Server

Alhambra Signal System
- Talks with: Alhambra ATMS
- Will talk with: Alhambra ATMS/CDI
- Talks with: Alhambra VDS

Alhambra VDS
- Talks with: Alhambra ATMS
- Will talk with: Alhambra ATMS/CDI
- Talks with: Alhambra Signal System

Arcadia ATMS (SGVTF)/CDI
- Will talk with: Arcadia ATMS Workstation
- Will talk with: Arcadia CCTV
- Will talk with: Arcadia Signal System
- Will talk with: Arcadia VDS
- Will talk with: LACO SGV IEN Corridor Server

Arcadia ATMS Workstation
- Will talk with: Arcadia ATMS (SGVTF)/CDI

Arcadia CCTV
- Will talk with: Arcadia ATMS (SGVTF)/CDI

Arcadia IEN Workstation
- Will talk with: LACO SGV IEN Corridor Server

Arcadia Signal System
- Will talk with: Arcadia ATMS (SGVTF)/CDI
- Talks with: Arcadia VDS

Arcadia VDS
- Will talk with: Arcadia ATMS (SGVTF)/CDI
- Talks with: Arcadia Signal System

Azusa ATMS Workstation
- Will talk with: LACO ATMS w/CDI

Azusa IEN Workstation
- Will talk with: LACO SGV IEN Corridor Server

Azusa Signal System
- Talks with: Azusa VDS
- Will talk with: LACO ATMS w/CDI

Azusa VDS
- Talks with: Azusa Signal System
- Will talk with: LACO ATMS w/CDI

Baldwin Park ATMS Workstation
- Will talk with: LACO ATMS w/CDI

Baldwin Park IEN Workstation
- Will talk with: LACO SGV IEN Corridor Server

Baldwin Park Signal System
- Talks with: Baldwin Park VDS
- Will talk with: LACO ATMS w/CDI

Baldwin Park VDS
- Talks with: Baldwin Park Signal System
- Will talk with: LACO ATMS w/CDI

Caltrans ATMS Workstation
- Talks with: Caltrans D7 ATMS (CT-NET)

Caltrans D7 ATMS (CT-NET)
- Talks with: Caltrans ATMS Workstation
- Talks with: Caltrans D7 Intertie Server (FMS)
- Talks with: Caltrans D7 Signal System
- Talks with: Caltrans D7 VDS

Caltrans D7 Intertie Server (FMS)
- Talks with: Caltrans D7 ATMS (CT-NET)
- Will talk with: LACO Regional IEN Server

Caltrans D7 Signal System
- Talks with: Caltrans D7 ATMS (CT-NET)
- Talks with: Caltrans D7 VDS

Caltrans D7 VDS
- Talks with: Caltrans D7 ATMS (CT-NET)
- Talks with: Caltrans D7 Signal System

Covina ATMS (SGVTF)/CDI
- Will talk with: Covina ATMS Workstation
- Will talk with: Covina Signal System
- Will talk with: Covina VDS
- Will talk with: LACO SGV IEN Corridor Server

Covina ATMS Workstation
- Will talk with: Covina ATMS (SGVTF)/CDI

Covina IEN Workstation
- Will talk with: LACO SGV IEN Corridor Server

Covina Signal System
- Will talk with: Covina ATMS (SGVTF)/CDI
- Talks with: Covina VDS

Covina VDS
- Will talk with: Covina ATMS (SGVTF)/CDI
- Talks with: Covina Signal System

Duarte IEN Workstation
- Will talk with: LACO SGV IEN Corridor Server

Duarte Signal System
- Talks with: Duarte VDS
- Will talk with: LACO ATMS w/CDI

Duarte VDS
- Talks with: Duarte Signal System
- Will talk with: LACO ATMS w/CDI

El Monte ATMS Workstation
- Will talk with: LACO ATMS w/CDI

El Monte IEN Workstation
- Will talk with: LACO SGV IEN Corridor Server

El Monte Signal System
- Talks with: El Monte VDS
- Will talk with: LACO ATMS w/CDI

El Monte VDS
- Talks with: El Monte Signal System
- Will talk with: LACO ATMS w/CDI

Glendora ATMS
- Talks with: Glendora ATMS Workstation
- Talks with: Glendora Signal System
- Talks with: Glendora VDS

Glendora ATMS Workstation
- Talks with: Glendora ATMS
- Will talk with: LACO ATMS w/CDI

Glendora IEN Workstation
- Will talk with: LACO SGV IEN Corridor Server

Glendora Signal System
- Talks with: Glendora ATMS
- Talks with: Glendora VDS
- Will talk with: LACO ATMS w/CDI

Glendora VDS
- Talks with: Glendora ATMS
- Talks with: Glendora Signal System
- Will talk with: LACO ATMS w/CDI

Irwindale ATMS (SGVTF)/CDI
- Will talk with: Irwindale ATMS Workstation
- Will talk with: Irwindale CCTV
- Will talk with: Irwindale Signal System
- Will talk with: Irwindale VDS
- Will talk with: LACO SGV IEN Corridor Server

Irwindale ATMS Workstation
- Will talk with: Irwindale ATMS (SGVTF)/CDI

Irwindale CCTV
- Will talk with: Irwindale ATMS (SGVTF)/CDI

Irwindale IEN Workstation
- Will talk with: LACO SGV IEN Corridor Server

Irwindale Signal System
- Will talk with: Irwindale ATMS (SGVTF)/CDI
- Talks with: Irwindale VDS

Irwindale VDS
- Will talk with: Irwindale ATMS (SGVTF)/CDI
- Talks with: Irwindale Signal System

La Puente IEN Workstation
- Will talk with: LACO SGV IEN Corridor Server

La Puente Signal System
- Talks with: La Puente VDS
- Will talk with: LACO ATMS w/CDI

La Puente VDS
- Talks with: La Puente Signal System
- Will talk with: LACO ATMS w/CDI

LACO ATMS w/CDI

Will talk with: Azusa ATMS Workstation
Will talk with: Azusa Signal System
Will talk with: Azusa VDS
Will talk with: Baldwin Park ATMS Workstation
Will talk with: Baldwin Park Signal System
Will talk with: Baldwin Park VDS
Will talk with: Duarte Signal System
Will talk with: Duarte VDS
Will talk with: El Monte ATMS Workstation
Will talk with: El Monte Signal System
Will talk with: El Monte VDS
Will talk with: Glendora ATMS Workstation
Will talk with: Glendora Signal System
Will talk with: Glendora VDS
Will talk with: La Puente Signal System
Will talk with: La Puente VDS
Will talk with: LACO ATMS Workstation
Will talk with: LACO SGV IEN Corridor Server
Talks with: LACO Signal System
Talks with: LACO VDS
Will talk with: Monrovia ATMS Workstation
Will talk with: Monrovia Signal System
Will talk with: Monrovia VDS
Will talk with: Montebello ATMS Workstation
Will talk with: Montebello Signal System
Will talk with: Montebello VDS
Will talk with: Monterey Park ATMS Workstation
Will talk with: Monterey Park Signal System
Will talk with: Monterey Park VDS
Will talk with: San Gabriel ATMS Workstation
Will talk with: San Gabriel Signal System
Will talk with: San Gabriel VDS
Will talk with: San Marino Signal System
Will talk with: San Marino VDS
Will talk with: SGVTF L1 Additional Deployed ITS
Will talk with: SGVTF L1 Signal System
Will talk with: SGVTF L1 VDS
Will talk with: SGVTF L2A Additional Deployed ITS
Will talk with: SGVTF L2A ATMS Workstation
Will talk with: SGVTF L2A Signal System
Will talk with: SGVTF L2A VDS

Will talk with: South El Monte Signal System
Will talk with: South El Monte VDS
Will talk with: South Pasadena Signal System
Will talk with: South Pasadena VDS
Will talk with: Temple City Signal System
Will talk with: Temple City VDS

LACO ATMS Workstation
Will talk with: LACO ATMS w/CDI

LACO El Segundo ATIS
Will talk with: LACO Regional IEN Server

LACO Gateway Cities IEN Corridor Server
Will talk with: LACO Regional IEN Server

LACO IEN Workstation
Will talk with: LACO SGV IEN Corridor Server

LACO Pomona Valley IEN Corridor Server
Will talk with: LACO Regional IEN Server

LACO Regional IEN Server
Will talk with: Caltrans D7 Intertie Server (FMS)
Will talk with: LACO El Segundo ATIS
Will talk with: LACO Gateway Cities IEN Corridor Server
Will talk with: LACO Pomona Valley IEN Corridor Server
Will talk with: LACO SGV IEN Corridor Server
Will talk with: LACO South Bay IEN Corridor Server
Will talk with: LADOT ATSAC/ATCS w/XML Interface

LACO SGV IEN Corridor Server

- Will talk with: Alhambra ATMS/CDI
- Will talk with: Alhambra IEN Workstation
- Will talk with: Arcadia ATMS (SGVTF)/CDI
- Will talk with: Arcadia IEN Workstation
- Will talk with: Azusa IEN Workstation
- Will talk with: Baldwin Park IEN Workstation
- Will talk with: Covina ATMS (SGVTF)/CDI
- Will talk with: Covina IEN Workstation
- Will talk with: Duarte IEN Workstation
- Will talk with: El Monte IEN Workstation
- Will talk with: Glendora IEN Workstation
- Will talk with: Irwindale ATMS (SGVTF)/CDI
- Will talk with: Irwindale IEN Workstation
- Will talk with: La Puente IEN Workstation
- Will talk with: LACO ATMS w/CDI
- Will talk with: LACO IEN Workstation
- Will talk with: LACO Regional IEN Server
- Will talk with: Monrovia IEN Workstation
- Will talk with: Montebello IEN Workstation
- Will talk with: Monterey Park IEN Workstation
- Talks with: Pasadena (BiTrans) LRT ATMS/CDI
- Will talk with: Pasadena (Siemens) ATMS/CDI
- Talks with: Pasadena (TransCore) ATMS/CDI
- Talks with: Pasadena IEN Workstation
- Will talk with: Rosemead ATMS (SGVTF)/CDI
- Will talk with: Rosemead IEN Workstation
- Will talk with: San Dimas ATMS (SGVTF)/CDI
- Will talk with: San Dimas IEN Workstation
- Will talk with: San Gabriel IEN Workstation
- Will talk with: San Marino IEN Workstation
- Will talk with: SGVTF L1 IEN Workstation
- Will talk with: SGVTF L2A IEN Workstation
- Will talk with: SGVTF L2B ATMS/CDI
- Will talk with: SGVTF L2B IEN Workstation
- Talks with: SGVTF L3 ATMS/CDI
- Talks with: SGVTF L3 IEN Workstation
- Will talk with: South El Monte IEN Workstation
- Will talk with: South Pasadena IEN Workstation
- Will talk with: Temple City IEN Workstation
- Will talk with: West Covina ATMS (SGVTF)/CDI
- Will talk with: West Covina IEN Workstation

LACO Signal System
- Talks with: LACO ATMS w/CDI
- Talks with: LACO VDS

LACO South Bay IEN Corridor Server
- Will talk with: LACO Regional IEN Server

LACO VDS
- Talks with: LACO ATMS w/CDI
- Talks with: LACO Signal System

LADOT ATSAC/ATCS w/XML Interface
- Will talk with: LACO Regional IEN Server
- Talks with: LADOT ATSAC/ATCS/IEN Workstation
- Talks with: LADOT CCTV
- Talks with: LADOT CMS
- Talks with: LADOT Rapid Bus/TPS
- Talks with: LADOT Signal System
- Talks with: LADOT VDS

LADOT ATSAC/ATCS/IEN Workstation
- Talks with: LADOT ATSAC/ATCS w/XML Interface

LADOT CCTV
- Talks with: LADOT ATSAC/ATCS w/XML Interface

LADOT CMS
- Talks with: LADOT ATSAC/ATCS w/XML Interface

LADOT Rapid Bus/TPS
- Talks with: LADOT ATSAC/ATCS w/XML Interface
- Talks with: LADOT Signal System
- Talks with: LADOT VDS
- Talks with: Metro Rapid Bus Station/Stop

LADOT Signal System
- Talks with: LADOT ATSAC/ATCS w/XML Interface
- Talks with: LADOT Rapid Bus/TPS
- Talks with: LADOT VDS

LADOT VDS
- Talks with: LADOT ATSAC/ATCS w/XML Interface
- Talks with: LADOT Rapid Bus/TPS
- Talks with: LADOT Signal System
- Talks with: Metro Rapid Buses

Metro Rapid Bus Station/Stop
- Talks with: LADOT Rapid Bus/TPS

Metro Rapid Buses
Talks with: LADOT VDS

Monrovia ATMS Workstation
Will talk with: LACO ATMS w/CDI

Monrovia E-Views (Pilot)
Talks with: Monrovia Signal System

Monrovia IEN Workstation
Will talk with: LACO SGV IEN Corridor Server

Monrovia Signal System
Will talk with: LACO ATMS w/CDI
Talks with: Monrovia E-Views (Pilot)
Talks with: Monrovia VDS

Monrovia VDS
Will talk with: LACO ATMS w/CDI
Talks with: Monrovia Signal System

Montebello ATMS Workstation
Will talk with: LACO ATMS w/CDI

Montebello IEN Workstation
Will talk with: LACO SGV IEN Corridor Server

Montebello Signal System
Will talk with: LACO ATMS w/CDI
Talks with: Montebello VDS

Montebello VDS
Will talk with: LACO ATMS w/CDI
Talks with: Montebello Signal System

Monterey Park ATMS Workstation
Will talk with: LACO ATMS w/CDI

Monterey Park IEN Workstation
Will talk with: LACO SGV IEN Corridor Server

Monterey Park Signal System
Will talk with: LACO ATMS w/CDI
Talks with: Monterey Park VDS

Monterey Park VDS
Will talk with: LACO ATMS w/CDI
Talks with: Monterey Park Signal System

Pasadena (BiTrans) LRT ATMS/CDI

- Talks with: LACO SGV IEN Corridor Server
- Talks with: Pasadena ATMS Workstation
- Talks with: Pasadena Signal System
- Talks with: Pasadena VDS

Pasadena (Siemens) ATMS/CDI

- Will talk with: LACO SGV IEN Corridor Server
- Will talk with: Pasadena ATMS Workstation
- Will talk with: Pasadena CCTV
- Will talk with: Pasadena CMS
- Will talk with: Pasadena Signal System
- Will talk with: Pasadena VDS

Pasadena (TransCore) ATMS/CDI

- Talks with: LACO SGV IEN Corridor Server
- Talks with: Pasadena ATMS Workstation
- Talks with: Pasadena CCTV
- Talks with: Pasadena Signal System
- Talks with: Pasadena VDS

Pasadena ATMS Workstation

- Talks with: Pasadena (BiTrans) LRT ATMS/CDI
- Will talk with: Pasadena (Siemens) ATMS/CDI
- Talks with: Pasadena (TransCore) ATMS/CDI

Pasadena CCTV

- Will talk with: Pasadena (Siemens) ATMS/CDI
- Talks with: Pasadena (TransCore) ATMS/CDI

Pasadena CMS

- Will talk with: Pasadena (Siemens) ATMS/CDI

Pasadena IEN Workstation

- Talks with: LACO SGV IEN Corridor Server

Pasadena Signal System

- Talks with: Pasadena (BiTrans) LRT ATMS/CDI
- Will talk with: Pasadena (Siemens) ATMS/CDI
- Talks with: Pasadena (TransCore) ATMS/CDI
- Talks with: Pasadena VDS

Pasadena VDS

- Talks with: Pasadena (BiTrans) LRT ATMS/CDI
- Will talk with: Pasadena (Siemens) ATMS/CDI
- Talks with: Pasadena (TransCore) ATMS/CDI
- Talks with: Pasadena Signal System

Rosemead ATMS (SGVTF)/CDI
- Will talk with: LACO SGV IEN Corridor Server
- Will talk with: Rosemead ATMS Workstation
- Will talk with: Rosemead Signal System
- Will talk with: Rosemead VDS

Rosemead ATMS Workstation
- Will talk with: Rosemead ATMS (SGVTF)/CDI

Rosemead IEN Workstation
- Will talk with: LACO SGV IEN Corridor Server

Rosemead Signal System
- Will talk with: Rosemead ATMS (SGVTF)/CDI
- Talks with: Rosemead VDS

Rosemead VDS
- Will talk with: Rosemead ATMS (SGVTF)/CDI
- Talks with: Rosemead Signal System

San Dimas ATMS (SGVTF)/CDI
- Will talk with: LACO SGV IEN Corridor Server
- Will talk with: San Dimas ATMS Workstation
- Will talk with: San Dimas Signal System
- Will talk with: San Dimas VDS

San Dimas ATMS Workstation
- Will talk with: San Dimas ATMS (SGVTF)/CDI

San Dimas IEN Workstation
- Will talk with: LACO SGV IEN Corridor Server

San Dimas Signal System
- Will talk with: San Dimas ATMS (SGVTF)/CDI
- Talks with: San Dimas VDS

San Dimas VDS
- Will talk with: San Dimas ATMS (SGVTF)/CDI
- Talks with: San Dimas Signal System

San Gabriel ATMS Workstation
- Will talk with: LACO ATMS w/CDI

San Gabriel IEN Workstation
- Will talk with: LACO SGV IEN Corridor Server

San Gabriel Signal System
- Will talk with: LACO ATMS w/CDI
- Talks with: San Gabriel VDS

San Gabriel VDS
Will talk with: LACO ATMS w/CDI
Talks with: San Gabriel Signal System

San Marino IEN Workstation
Will talk with: LACO SGV IEN Corridor Server

San Marino Signal System
Will talk with: LACO ATMS w/CDI
Talks with: San Marino VDS

San Marino VDS
Will talk with: LACO ATMS w/CDI
Talks with: San Marino Signal System

SGVTF L1 Additional Deployed ITS
Will talk with: LACO ATMS w/CDI

SGVTF L1 IEN Workstation
Will talk with: LACO SGV IEN Corridor Server

SGVTF L1 Signal System
Will talk with: LACO ATMS w/CDI
Talks with: SGVTF L1 VDS

SGVTF L1 VDS
Will talk with: LACO ATMS w/CDI
Talks with: SGVTF L1 Signal System

SGVTF L2A Additional Deployed ITS
Will talk with: LACO ATMS w/CDI

SGVTF L2A ATMS Workstation
Will talk with: LACO ATMS w/CDI

SGVTF L2A IEN Workstation
Will talk with: LACO SGV IEN Corridor Server

SGVTF L2A Signal System
Will talk with: LACO ATMS w/CDI
Talks with: SGVTF L2A VDS

SGVTF L2A VDS
Will talk with: LACO ATMS w/CDI
Talks with: SGVTF L2A Signal System

SGVTF L2B Additional Deployed ITS
Talks with: SGVTF L2B ATMS/CDI

SGVTF L2B ATMS Workstation
Will talk with: SGVTF L2B ATMS/CDI

SGVTF L2B ATMS/CDI
- Will talk with: LACO SGV IEN Corridor Server
- Talks with: SGVTF L2B Additional Deployed ITS
- Will talk with: SGVTF L2B ATMS Workstation
- Will talk with: SGVTF L2B Signal System
- Will talk with: SGVTF L2B VDS

SGVTF L2B IEN Workstation
- Will talk with: LACO SGV IEN Corridor Server

SGVTF L2B Signal System
- Will talk with: SGVTF L2B ATMS/CDI
- Talks with: SGVTF L2B VDS

SGVTF L2B VDS
- Will talk with: SGVTF L2B ATMS/CDI
- Talks with: SGVTF L2B Signal System

SGVTF L3 Additional Deployed ITS
- Talks with: SGVTF L3 ATMS/CDI

SGVTF L3 ATMS Workstation
- Talks with: SGVTF L3 ATMS/CDI

SGVTF L3 ATMS/CDI
- Talks with: LACO SGV IEN Corridor Server
- Talks with: SGVTF L3 Additional Deployed ITS
- Talks with: SGVTF L3 ATMS Workstation
- Talks with: SGVTF L3 Signal System
- Talks with: SGVTF L3 VDS

SGVTF L3 IEN Workstation
- Talks with: LACO SGV IEN Corridor Server

SGVTF L3 Signal System
- Talks with: SGVTF L3 ATMS/CDI
- Talks with: SGVTF L3 VDS

SGVTF L3 VDS
- Talks with: SGVTF L3 ATMS/CDI
- Talks with: SGVTF L3 Signal System

South El Monte IEN Workstation
- Will talk with: LACO SGV IEN Corridor Server

South El Monte Signal System
- Will talk with: LACO ATMS w/CDI
- Talks with: South El Monte VDS

South El Monte VDS
- Will talk with: LACO ATMS w/CDI
- Talks with: South El Monte Signal System

South Pasadena IEN Workstation
- Will talk with: LACO SGV IEN Corridor Server

South Pasadena Signal System
- Will talk with: LACO ATMS w/CDI
- Talks with: South Pasadena VDS

South Pasadena VDS
- Will talk with: LACO ATMS w/CDI
- Talks with: South Pasadena Signal System

Temple City IEN Workstation
- Will talk with: LACO SGV IEN Corridor Server

Temple City Signal System
- Will talk with: LACO ATMS w/CDI
- Talks with: Temple City VDS

Temple City VDS
- Will talk with: LACO ATMS w/CDI
- Talks with: Temple City Signal System

West Covina ATMS
- Talks with: West Covina ATMS Workstation
- Talks with: West Covina Signal System
- Talks with: West Covina VDS

West Covina ATMS (SGVTF)/CDI
- Will talk with: LACO SGV IEN Corridor Server
- Will talk with: West Covina ATMS Workstation
- Will talk with: West Covina Signal System
- Will talk with: West Covina VDS

West Covina ATMS Workstation
- Talks with: West Covina ATMS
- Will talk with: West Covina ATMS (SGVTF)/CDI

West Covina IEN Workstation
- Will talk with: LACO SGV IEN Corridor Server

West Covina Signal System
- Talks with: West Covina ATMS
- Will talk with: West Covina ATMS (SGVTF)/CDI
- Talks with: West Covina VDS

West Covina VDS

Talks with: West Covina ATMS

Will talk with: West Covina ATMS (SGVTF)/CDI

Talks with: West Covina Signal System

SGVTF Architecture Flows

Stakeholder: Caltrans District 7

Source System: Caltrans ATMS Workstation

Destination System: Caltrans D7 ATMS (CT-NET)

Data Flow: traffic control coordination

Source System: Caltrans D7 ATMS (CT-NET)

Destination System: Caltrans ATMS Workstation

Data Flow: traffic control coordination

Destination System: Caltrans D7 Intertie Server (FMS)

Data Flow: road network conditions

Data Flow: signal control status

Destination System: Caltrans D7 Signal System

Data Flow: signal control data

Destination System: Caltrans D7 VDS

Data Flow: traffic sensor control

Source System: Caltrans D7 Intertie Server (FMS)

Planned Destination System: LACO Regional IEN Server

Planned Data Flow: traffic information coordination

Source System: Caltrans D7 Signal System

Destination System: Caltrans D7 ATMS (CT-NET)

Data Flow: signal control status

Destination System: Caltrans D7 VDS

Data Flow: roadway equipment coordination

Source System: Caltrans D7 VDS

Destination System: Caltrans D7 ATMS (CT-NET)

Data Flow: traffic flow

Destination System: Caltrans D7 Signal System

Data Flow: roadway equipment coordination

Data Flow: traffic flow

Stakeholder: City of Alhambra

Source System: Alhambra ATMS

Destination System: Alhambra ATMS Workstation

Data Flow: traffic control coordination

Destination System: Alhambra Signal System

Data Flow: signal control data

Destination System: Alhambra VDS

Data Flow: traffic sensor control

Source System: Alhambra ATMS Workstation

Destination System: Alhambra ATMS

Data Flow: traffic control coordination

Planned Destination System: Alhambra ATMS/CDI

Planned Data Flow: traffic control coordination

Planned Source System: Alhambra ATMS/CDI

Destination System: Alhambra Signal System

Planned Data Flow: signal control data

Destination System: Alhambra VDS

Planned Data Flow: traffic sensor control

Destination System: LACO SGV IEN Corridor Server

Planned Data Flow: IEN Traffic Information/Image Passthrough

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Planned Source System: Alhambra IEN Workstation

Destination System: LACO SGV IEN Corridor Server

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Source System: Alhambra Signal System

Destination System: Alhambra ATMS

Data Flow: signal control status

Planned Destination System: Alhambra ATMS/CDI

Planned Data Flow: signal control status

Destination System: Alhambra VDS

Data Flow: roadway equipment coordination

Source System: Alhambra VDS

Destination System: Alhambra ATMS

Data Flow: traffic flow

Planned Destination System: Alhambra ATMS/CDI

Planned Data Flow: traffic flow

Destination System: Alhambra Signal System

Data Flow: roadway equipment coordination

Data Flow: traffic flow

Stakeholder: City of Arcadia

Planned Source System: Arcadia ATMS (SGVTF)/CDI

Planned Destination System: Arcadia ATMS Workstation

Planned Data Flow: traffic control coordination

Planned Destination System: Arcadia CCTV

Planned Data Flow: video surveillance control

Destination System: Arcadia Signal System

Planned Data Flow: signal control data

Destination System: Arcadia VDS

Planned Data Flow: traffic sensor control

Destination System: LACO SGV IEN Corridor Server

Planned Data Flow: IEN Traffic Information/Image Passthrough

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Planned Source System: Arcadia ATMS Workstation

Planned Destination System: Arcadia ATMS (SGVTF)/CDI

Planned Data Flow: traffic control coordination

Planned Source System: Arcadia CCTV

Planned Destination System: Arcadia ATMS (SGVTF)/CDI

Planned Data Flow: traffic images

Planned Source System: Arcadia IEN Workstation

Destination System: LACO SGV IEN Corridor Server

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Source System: Arcadia Signal System

Planned Destination System: Arcadia ATMS (SGVTF)/CDI

Planned Data Flow: signal control status

Destination System: Arcadia VDS

Data Flow: roadway equipment coordination

Source System: Arcadia VDS

Planned Destination System: Arcadia ATMS (SGVTF)/CDI

Planned Data Flow: traffic flow

Destination System: Arcadia Signal System

Data Flow: roadway equipment coordination

Data Flow: traffic flow

Stakeholder: City of Azusa

Planned Source System: Azusa ATMS Workstation

Destination System: LACO ATMS w/CDI

Planned Data Flow: traffic control coordination

Planned Source System: Azusa IEN Workstation

Destination System: LACO SGV IEN Corridor Server

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Source System: Azusa Signal System

Destination System: Azusa VDS

Data Flow: roadway equipment coordination

Destination System: LACO ATMS w/CDI

Planned Data Flow: signal control status

Source System: Azusa VDS

Destination System: Azusa Signal System

Data Flow: roadway equipment coordination

Data Flow: traffic flow

Destination System: LACO ATMS w/CDI

Planned Data Flow: traffic flow

Stakeholder: City of Baldwin Park

Planned Source System: Baldwin Park ATMS Workstation

Destination System: LACO ATMS w/CDI

Planned Data Flow: traffic control coordination

Planned Source System: Baldwin Park IEN Workstation

Destination System: LACO SGV IEN Corridor Server

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Source System: Baldwin Park Signal System

Destination System: Baldwin Park VDS

Data Flow: roadway equipment coordination

Destination System: LACO ATMS w/CDI

Planned Data Flow: signal control status

Source System: Baldwin Park VDS

Destination System: Baldwin Park Signal System

Data Flow: roadway equipment coordination

Data Flow: traffic flow

Destination System: LACO ATMS w/CDI

Planned Data Flow: traffic flow

Stakeholder: City of Covina

Planned Source System: Covina ATMS (SGVTF)/CDI

Planned Destination System: Covina ATMS Workstation

Planned Data Flow: traffic control coordination

Destination System: Covina Signal System

Planned Data Flow: signal control data

Destination System: Covina VDS

Planned Data Flow: traffic sensor control

Destination System: LACO SGV IEN Corridor Server

Planned Data Flow: IEN Traffic Information/Image Passthrough

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Planned Source System: Covina ATMS Workstation

Planned Destination System: Covina ATMS (SGVTF)/CDI

Planned Data Flow: traffic control coordination

Planned Source System: Covina IEN Workstation

Destination System: LACO SGV IEN Corridor Server

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Source System: Covina Signal System

Planned Destination System: Covina ATMS (SGVTF)/CDI

Planned Data Flow: signal control status

Destination System: Covina VDS

Data Flow: roadway equipment coordination

Source System: Covina VDS

Planned Destination System: Covina ATMS (SGVTF)/CDI

Planned Data Flow: traffic flow

Destination System: Covina Signal System

Data Flow: roadway equipment coordination

Data Flow: traffic flow

Stakeholder: City of Duarte

Planned Source System: Duarte IEN Workstation

Destination System: LACO SGV IEN Corridor Server

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Source System: Duarte Signal System

Destination System: Duarte VDS

Data Flow: roadway equipment coordination

Destination System: LACO ATMS w/CDI

Planned Data Flow: signal control status

Source System: Duarte VDS

Destination System: Duarte Signal System

Data Flow: roadway equipment coordination

Data Flow: traffic flow

Destination System: LACO ATMS w/CDI

Planned Data Flow: traffic flow

Stakeholder: City of El Monte

Planned Source System: El Monte ATMS Workstation

Destination System: LACO ATMS w/CDI

Planned Data Flow: traffic control coordination

Planned Source System: El Monte IEN Workstation

Destination System: LACO SGV IEN Corridor Server

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Source System: El Monte Signal System

Destination System: El Monte VDS

Data Flow: roadway equipment coordination

Destination System: LACO ATMS w/CDI

Planned Data Flow: signal control status

Source System: El Monte VDS

Destination System: El Monte Signal System

Data Flow: roadway equipment coordination

Data Flow: traffic flow

Destination System: LACO ATMS w/CDI

Planned Data Flow: traffic flow

Stakeholder: City of Glendora

Source System: Glendora ATMS

Destination System: Glendora ATMS Workstation

Data Flow: traffic control coordination

Destination System: Glendora Signal System

Data Flow: signal control data

Destination System: Glendora VDS

Data Flow: traffic sensor control

Source System: Glendora ATMS Workstation

Destination System: Glendora ATMS

Data Flow: traffic control coordination

Destination System: LACO ATMS w/CDI

Planned Data Flow: traffic control coordination

Planned Source System: Glendora IEN Workstation

Destination System: LACO SGV IEN Corridor Server

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Source System: Glendora Signal System

Destination System: Glendora ATMS

Data Flow: signal control status

Destination System: Glendora VDS

Data Flow: roadway equipment coordination

Destination System: LACO ATMS w/CDI

Planned Data Flow: signal control status

Source System: Glendora VDS

Destination System: Glendora ATMS

Data Flow: traffic flow

Destination System: Glendora Signal System

Data Flow: roadway equipment coordination

Data Flow: traffic flow

Destination System: LACO ATMS w/CDI

Planned Data Flow: traffic flow

Stakeholder: City of Irwindale

Planned Source System: Irwindale ATMS (SGVTF)/CDI

Planned Destination System: Irwindale ATMS Workstation

Planned Data Flow: traffic control coordination

Planned Destination System: Irwindale CCTV

Planned Data Flow: video surveillance control

Destination System: Irwindale Signal System

Planned Data Flow: signal control data

Destination System: Irwindale VDS

Planned Data Flow: traffic sensor control

Destination System: LACO SGV IEN Corridor Server

Planned Data Flow: IEN Traffic Information/Image Passthrough

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Planned Source System: Irwindale ATMS Workstation

Planned Destination System: Irwindale ATMS (SGVTF)/CDI

Planned Data Flow: traffic control coordination

Planned Source System: Irwindale CCTV

Planned Destination System: Irwindale ATMS (SGVTF)/CDI

Planned Data Flow: traffic images

Planned Source System: Irwindale IEN Workstation

Destination System: LACO SGV IEN Corridor Server

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Source System: Irwindale Signal System

Planned Destination System: Irwindale ATMS (SGVTF)/CDI

Planned Data Flow: signal control status

Destination System: Irwindale VDS

Data Flow: roadway equipment coordination

Source System: Irwindale VDS

Planned Destination System: Irwindale ATMS (SGVTF)/CDI

Planned Data Flow: traffic flow

Destination System: Irwindale Signal System

Data Flow: roadway equipment coordination

Data Flow: traffic flow

Stakeholder: City of La Puente

Planned Source System: La Puente IEN Workstation

Destination System: LACO SGV IEN Corridor Server

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Source System: La Puente Signal System

Destination System: La Puente VDS

Data Flow: roadway equipment coordination

Destination System: LACO ATMS w/CDI

Planned Data Flow: signal control status

Source System: La Puente VDS

Destination System: La Puente Signal System

Data Flow: roadway equipment coordination

Data Flow: traffic flow

Destination System: LACO ATMS w/CDI

Planned Data Flow: traffic flow

Stakeholder: City of Monrovia

Planned Source System: Monrovia ATMS Workstation

Destination System: LACO ATMS w/CDI

Planned Data Flow: traffic control coordination

Source System: Monrovia E-Views (Pilot)

Destination System: Monrovia Signal System

Data Flow: local signal preemption request

Data Flow: roadway equipment coordination

Planned Source System: Monrovia IEN Workstation

Destination System: LACO SGV IEN Corridor Server

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Source System: Monrovia Signal System

Destination System: LACO ATMS w/CDI

Planned Data Flow: signal control status

Destination System: Monrovia E-Views (Pilot)

Data Flow: roadway equipment coordination

Destination System: Monrovia VDS

Data Flow: roadway equipment coordination

Source System: Monrovia VDS

Destination System: LACO ATMS w/CDI

Planned Data Flow: traffic flow

Destination System: Monrovia Signal System

Data Flow: roadway equipment coordination

Data Flow: traffic flow

Stakeholder: City of Montebello

Planned Source System: Montebello ATMS Workstation

Destination System: LACO ATMS w/CDI

Planned Data Flow: traffic control coordination

Planned Source System: Montebello IEN Workstation

Destination System: LACO SGV IEN Corridor Server

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Source System: Montebello Signal System

Destination System: LACO ATMS w/CDI

Planned Data Flow: signal control status

Destination System: Montebello VDS

Data Flow: roadway equipment coordination

Source System: Montebello VDS

Destination System: LACO ATMS w/CDI

Planned Data Flow: traffic flow

Destination System: Montebello Signal System

Data Flow: roadway equipment coordination

Data Flow: traffic flow

Stakeholder: City of Monterey Park

Planned Source System: Monterey Park ATMS Workstation

Destination System: LACO ATMS w/CDI

Planned Data Flow: traffic control coordination

Planned Source System: Monterey Park IEN Workstation

Destination System: LACO SGV IEN Corridor Server

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Source System: Monterey Park Signal System

Destination System: LACO ATMS w/CDI

Planned Data Flow: signal control status

Destination System: Monterey Park VDS

Data Flow: roadway equipment coordination

Source System: Monterey Park VDS

Destination System: LACO ATMS w/CDI

Planned Data Flow: traffic flow

Destination System: Monterey Park Signal System

Data Flow: roadway equipment coordination

Data Flow: traffic flow

Stakeholder: City of Pasadena

Source System: Pasadena (BiTrans) LRT ATMS/CDI

Destination System: LACO SGV IEN Corridor Server

Data Flow: IEN Traffic Information/Image Passthrough

Data Flow: traffic control coordination

Data Flow: traffic information coordination

Planned Destination System: Pasadena ATMS Workstation

Data Flow: traffic control coordination

Destination System: Pasadena Signal System

Data Flow: barrier system control

Data Flow: signal control data

Destination System: Pasadena VDS

Data Flow: traffic sensor control

Planned Source System: Pasadena (Siemens) ATMS/CDI

Destination System: LACO SGV IEN Corridor Server

Planned Data Flow: IEN Traffic Information/Image Passthrough

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Planned Destination System: Pasadena ATMS Workstation

Planned Data Flow: traffic control coordination

Destination System: Pasadena CCTV

Planned Data Flow: video surveillance control

Destination System: Pasadena CMS

Planned Data Flow: roadway information system data

Destination System: Pasadena Signal System

Planned Data Flow: barrier system control

Planned Data Flow: signal control data

Destination System: Pasadena VDS

Planned Data Flow: traffic sensor control

Source System: Pasadena (TransCore) ATMS/CDI

Destination System: LACO SGV IEN Corridor Server

Data Flow: traffic control coordination

Data Flow: traffic information coordination

Planned Destination System: Pasadena ATMS Workstation

Data Flow: traffic control coordination

Destination System: Pasadena CCTV

Data Flow: video surveillance control

Destination System: Pasadena Signal System

Data Flow: signal control data

Destination System: Pasadena VDS

Data Flow: traffic sensor control

Planned Source System: Pasadena ATMS Workstation

Destination System: Pasadena (BiTrans) LRT ATMS/CDI

Data Flow: traffic control coordination

Planned Destination System: Pasadena (Siemens) ATMS/CDI

Planned Data Flow: traffic control coordination

Destination System: Pasadena (TransCore) ATMS/CDI

Data Flow: traffic control coordination

Source System: Pasadena CCTV

Planned Destination System: Pasadena (Siemens) ATMS/CDI

Planned Data Flow: traffic images

Destination System: Pasadena (TransCore) ATMS/CDI

Data Flow: traffic images

Source System: Pasadena CMS

Planned Destination System: Pasadena (Siemens) ATMS/CDI

Planned Data Flow: roadway information system status

Source System: Pasadena IEN Workstation

Destination System: LACO SGV IEN Corridor Server

Data Flow: traffic control coordination

Data Flow: traffic information coordination

Source System: Pasadena Signal System

Destination System: Pasadena (BiTrans) LRT ATMS/CDI

Data Flow: barrier system status

Data Flow: signal control status

Planned Destination System: Pasadena (Siemens) ATMS/CDI

Planned Data Flow: barrier system status

Planned Data Flow: signal control status

Destination System: Pasadena (TransCore) ATMS/CDI

Data Flow: signal control status

Destination System: Pasadena VDS

Data Flow: roadway equipment coordination

Source System: Pasadena VDS

Destination System: Pasadena (BiTrans) LRT ATMS/CDI

Data Flow: traffic flow

Planned Destination System: Pasadena (Siemens) ATMS/CDI

Planned Data Flow: traffic flow

Destination System: Pasadena (TransCore) ATMS/CDI

Data Flow: traffic flow

Destination System: Pasadena Signal System

Data Flow: roadway equipment coordination

Data Flow: traffic flow

Stakeholder: City of Rosemead

Planned Source System: Rosemead ATMS (SGVTF)/CDI

Destination System: LACO SGV IEN Corridor Server

Planned Data Flow: IEN Traffic Information/Image Passthrough

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Planned Destination System: Rosemead ATMS Workstation

Planned Data Flow: traffic control coordination

Destination System: Rosemead Signal System

Planned Data Flow: signal control data

Destination System: Rosemead VDS

Planned Data Flow: traffic sensor control

Planned Source System: Rosemead ATMS Workstation

Planned Destination System: Rosemead ATMS (SGVTF)/CDI

Planned Data Flow: traffic control coordination

Planned Source System: Rosemead IEN Workstation

Destination System: LACO SGV IEN Corridor Server

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Source System: Rosemead Signal System

Planned Destination System: Rosemead ATMS (SGVTF)/CDI

Planned Data Flow: signal control status

Destination System: Rosemead VDS

Data Flow: roadway equipment coordination

Source System: Rosemead VDS

Planned Destination System: Rosemead ATMS (SGVTF)/CDI

Planned Data Flow: traffic flow

Destination System: Rosemead Signal System

Data Flow: roadway equipment coordination

Data Flow: traffic flow

Stakeholder: City of San Dimas

Planned Source System: San Dimas ATMS (SGVTF)/CDI

Destination System: LACO SGV IEN Corridor Server

Planned Data Flow: IEN Traffic Information/Image Passthrough

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Planned Destination System: San Dimas ATMS Workstation

Planned Data Flow: traffic control coordination

Destination System: San Dimas Signal System

Planned Data Flow: signal control data

Destination System: San Dimas VDS

Planned Data Flow: traffic sensor control

Planned Source System: San Dimas ATMS Workstation

Planned Destination System: San Dimas ATMS (SGVTF)/CDI

Planned Data Flow: traffic control coordination

Planned Source System: San Dimas IEN Workstation

Destination System: LACO SGV IEN Corridor Server

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Source System: San Dimas Signal System

Planned Destination System: San Dimas ATMS (SGVTF)/CDI

Planned Data Flow: signal control status

Destination System: San Dimas VDS

Data Flow: roadway equipment coordination

Source System: San Dimas VDS

Planned Destination System: San Dimas ATMS (SGVTF)/CDI

Planned Data Flow: traffic flow

Destination System: San Dimas Signal System

Data Flow: roadway equipment coordination

Data Flow: traffic flow

Stakeholder: City of San Gabriel

Planned Source System: San Gabriel ATMS Workstation

Destination System: LACO ATMS w/CDI

Planned Data Flow: traffic control coordination

Planned Source System: San Gabriel IEN Workstation

Destination System: LACO SGV IEN Corridor Server

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Source System: San Gabriel Signal System

Destination System: LACO ATMS w/CDI

Planned Data Flow: signal control status

Destination System: San Gabriel VDS

Data Flow: roadway equipment coordination

Source System: San Gabriel VDS

Destination System: LACO ATMS w/CDI

Planned Data Flow: traffic flow

Destination System: San Gabriel Signal System

Data Flow: roadway equipment coordination

Data Flow: traffic flow

Stakeholder: City of San Marino

Planned Source System: San Marino IEN Workstation

Destination System: LACO SGV IEN Corridor Server

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Source System: San Marino Signal System

Destination System: LACO ATMS w/CDI

Planned Data Flow: signal control status

Destination System: San Marino VDS

Data Flow: roadway equipment coordination

Source System: San Marino VDS

Destination System: LACO ATMS w/CDI

Planned Data Flow: traffic flow

Destination System: San Marino Signal System

Data Flow: roadway equipment coordination

Data Flow: traffic flow

Stakeholder: City of South El Monte

Planned Source System: South El Monte IEN Workstation

Destination System: LACO SGV IEN Corridor Server

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Source System: South El Monte Signal System

Destination System: LACO ATMS w/CDI

Planned Data Flow: signal control status

Destination System: South El Monte VDS

Planned Data Flow: roadway equipment coordination

Source System: South El Monte VDS

Destination System: LACO ATMS w/CDI

Planned Data Flow: traffic flow

Destination System: South El Monte Signal System

Data Flow: roadway equipment coordination

Data Flow: traffic flow

Stakeholder: City of South Pasadena

Planned Source System: South Pasadena IEN Workstation

Destination System: LACO SGV IEN Corridor Server

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Source System: South Pasadena Signal System

Destination System: LACO ATMS w/CDI

Planned Data Flow: signal control status

Destination System: South Pasadena VDS

Data Flow: roadway equipment coordination

Source System: South Pasadena VDS

Destination System: LACO ATMS w/CDI

Planned Data Flow: traffic flow

Destination System: South Pasadena Signal System

Data Flow: roadway equipment coordination

Data Flow: traffic flow

Stakeholder: City of Temple City

Planned Source System: Temple City IEN Workstation

Destination System: LACO SGV IEN Corridor Server

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Source System: Temple City Signal System

Destination System: LACO ATMS w/CDI

Planned Data Flow: signal control status

Destination System: Temple City VDS

Data Flow: roadway equipment coordination

Source System: Temple City VDS

Destination System: LACO ATMS w/CDI

Planned Data Flow: traffic flow

Destination System: Temple City Signal System

Data Flow: roadway equipment coordination

Data Flow: traffic flow

Stakeholder: City of West Covina

Source System: West Covina ATMS

Destination System: West Covina ATMS Workstation

Data Flow: traffic control coordination

Destination System: West Covina Signal System

Data Flow: signal control data

Destination System: West Covina VDS

Data Flow: traffic sensor control

Planned Source System: West Covina ATMS (SGVTF)/CDI

Destination System: LACO SGV IEN Corridor Server

Planned Data Flow: IEN Traffic Information/Image Passthrough

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Destination System: West Covina ATMS Workstation

Planned Data Flow: traffic control coordination

Destination System: West Covina Signal System

Planned Data Flow: signal control data

Destination System: West Covina VDS

Planned Data Flow: traffic sensor control

Source System: West Covina ATMS Workstation

Destination System: West Covina ATMS

Data Flow: traffic control coordination

Planned Destination System: West Covina ATMS (SGVTF)/CDI

Planned Data Flow: traffic control coordination

Planned Source System: West Covina IEN Workstation

Destination System: LACO SGV IEN Corridor Server

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Source System: West Covina Signal System

Destination System: West Covina ATMS

Data Flow: signal control status

Planned Destination System: West Covina ATMS (SGVTF)/CDI

Planned Data Flow: signal control status

Destination System: West Covina VDS

Data Flow: roadway equipment coordination

Source System: West Covina VDS

Destination System: West Covina ATMS

Data Flow: traffic flow

Planned Destination System: West Covina ATMS (SGVTF)/CDI

Planned Data Flow: traffic flow

Destination System: West Covina Signal System

Data Flow: roadway equipment coordination

Data Flow: traffic flow

Stakeholder: LACO DPW

Source System: LACO ATMS w/CDI

Planned Destination System: Azusa ATMS Workstation

Planned Data Flow: traffic control coordination

Destination System: Azusa Signal System

Planned Data Flow: signal control data

Destination System: Azusa VDS

Planned Data Flow: traffic sensor control

Planned Destination System: Baldwin Park ATMS Workstation

Planned Data Flow: traffic control coordination

Destination System: Baldwin Park Signal System

Planned Data Flow: signal control data

Destination System: Baldwin Park VDS

Planned Data Flow: traffic sensor control

Destination System: Duarte Signal System

Planned Data Flow: signal control data

Destination System: Duarte VDS

Planned Data Flow: traffic sensor control

Planned Destination System: El Monte ATMS Workstation

Planned Data Flow: traffic control coordination

Destination System: El Monte Signal System

Planned Data Flow: signal control data

Destination System: El Monte VDS

Planned Data Flow: traffic sensor control

Destination System: Glendora ATMS Workstation

Planned Data Flow: traffic control coordination

Destination System: Glendora Signal System

Planned Data Flow: signal control data

Destination System: Glendora VDS

Planned Data Flow: traffic sensor control

Destination System: La Puente Signal System

Planned Data Flow: signal control data

Destination System: La Puente VDS

Planned Data Flow: traffic sensor control

Destination System: LACO ATMS Workstation

Planned Data Flow: traffic control coordination

Destination System: LACO SGV IEN Corridor Server

Planned Data Flow: IEN Traffic Information/Image Passthrough

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Destination System: LACO Signal System

Data Flow: signal control data

Destination System: LACO VDS

Data Flow: traffic sensor control

Planned Destination System: Monrovia ATMS Workstation

Planned Data Flow: traffic control coordination

Destination System: Monrovia Signal System

Planned Data Flow: signal control data

Destination System: Monrovia VDS

Planned Data Flow: traffic sensor control

Planned Destination System: Montebello ATMS Workstation

Planned Data Flow: traffic control coordination

Destination System: Montebello Signal System

Planned Data Flow: signal control data

Destination System: Montebello VDS

Planned Data Flow: traffic sensor control

Planned Destination System: Monterey Park ATMS Workstation

Planned Data Flow: traffic control coordination

Destination System: Monterey Park Signal System

Planned Data Flow: signal control data

Destination System: Monterey Park VDS

Planned Data Flow: traffic sensor control

Planned Destination System: San Gabriel ATMS Workstation

Planned Data Flow: traffic control coordination

Destination System: San Gabriel Signal System

Planned Data Flow: signal control data

Destination System: San Gabriel VDS

Planned Data Flow: traffic sensor control

Destination System: San Marino Signal System

Planned Data Flow: signal control data

Destination System: San Marino VDS

Planned Data Flow: traffic sensor control

Planned Destination System: SGVTF L1 Additional Deployed ITS

Planned Data Flow: hri control data

Planned Data Flow: roadway information system data

Planned Data Flow: traffic sensor control

Planned Data Flow: video surveillance control

Destination System: SGVTF L1 Signal System

Planned Data Flow: signal control data

Destination System: SGVTF L1 VDS

Planned Data Flow: traffic sensor control

Planned Destination System: SGVTF L2A Additional Deployed ITS

Planned Data Flow: hri control data

Planned Data Flow: roadway information system data

Planned Data Flow: traffic sensor control

Planned Data Flow: video surveillance control

Planned Destination System: SGVTF L2A ATMS Workstation

Planned Data Flow: traffic control coordination

Destination System: SGVTF L2A Signal System

Planned Data Flow: signal control data

Destination System: SGVTF L2A VDS

Planned Data Flow: traffic sensor control

Destination System: South El Monte Signal System

Planned Data Flow: signal control data

Destination System: South El Monte VDS

Planned Data Flow: traffic sensor control

Destination System: South Pasadena Signal System

Planned Data Flow: signal control data

Destination System: South Pasadena VDS

Planned Data Flow: traffic sensor control

Destination System: Temple City Signal System

Planned Data Flow: signal control data

Destination System: Temple City VDS

Planned Data Flow: traffic sensor control

Source System: LACO ATMS Workstation

Destination System: LACO ATMS w/CDI

Planned Data Flow: traffic control coordination

Planned Source System: LACO Gateway Cities IEN Corridor Server

Planned Destination System: LACO Regional IEN Server

Planned Data Flow: IEN Traffic Information/Image Passthrough

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Planned Source System: LACO IEN Workstation

Destination System: LACO SGV IEN Corridor Server

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Planned Source System: LACO Pomona Valley IEN Corridor Server

Planned Destination System: LACO Regional IEN Server

Planned Data Flow: IEN Traffic Information/Image Passthrough

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Planned Source System: LACO Regional IEN Server

Destination System: Caltrans D7 Intertie Server (FMS)

Planned Data Flow: traffic information coordination

Destination System: LACO El Segundo ATIS

Planned Data Flow: ISP coordination

Planned Destination System: LACO Gateway Cities IEN Corridor Server

Planned Data Flow: IEN Traffic Information/Image Passthrough

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Planned Destination System: LACO Pomona Valley IEN Corridor Server

Planned Data Flow: IEN Traffic Information/Image Passthrough

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Destination System: LACO SGV IEN Corridor Server

Planned Data Flow: IEN Traffic Information/Image Passthrough

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Planned Destination System: LACO South Bay IEN Corridor Server

Planned Data Flow: IEN Traffic Information/Image Passthrough

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Destination System: LADOT ATSAC/ATCS w/XML Interface

Planned Data Flow: IEN Traffic Information/Image Passthrough

Planned Data Flow: traffic information coordination

Source System: LACO SGV IEN Corridor Server

Planned Destination System: Alhambra ATMS/CDI

Planned Data Flow: IEN Traffic Information/Image Passthrough
Planned Data Flow: traffic control coordination
Planned Data Flow: traffic information coordination

Planned Destination System: Alhambra IEN Workstation

Planned Data Flow: IEN Traffic Information/Image Passthrough
Planned Data Flow: traffic control coordination
Planned Data Flow: traffic information coordination

Planned Destination System: Arcadia ATMS (SGVTF)/CDI

Planned Data Flow: IEN Traffic Information/Image Passthrough
Planned Data Flow: traffic control coordination
Planned Data Flow: traffic information coordination
Planned Data Flow: video surveillance control

Planned Destination System: Arcadia IEN Workstation

Planned Data Flow: IEN Traffic Information/Image Passthrough
Planned Data Flow: traffic control coordination
Planned Data Flow: traffic information coordination

Planned Destination System: Azusa IEN Workstation

Planned Data Flow: IEN Traffic Information/Image Passthrough
Planned Data Flow: traffic control coordination
Planned Data Flow: traffic information coordination

Planned Destination System: Baldwin Park IEN Workstation

Planned Data Flow: IEN Traffic Information/Image Passthrough
Planned Data Flow: traffic control coordination
Planned Data Flow: traffic information coordination

Planned Destination System: Covina ATMS (SGVTF)/CDI

Planned Data Flow: IEN Traffic Information/Image Passthrough
Planned Data Flow: traffic control coordination
Planned Data Flow: traffic information coordination

Planned Destination System: Covina IEN Workstation

Planned Data Flow: IEN Traffic Information/Image Passthrough
Planned Data Flow: traffic control coordination
Planned Data Flow: traffic information coordination

Planned Destination System: Duarte IEN Workstation

Planned Data Flow: IEN Traffic Information/Image Passthrough
Planned Data Flow: traffic control coordination
Planned Data Flow: traffic information coordination

Planned Destination System: El Monte IEN Workstation

Planned Data Flow: IEN Traffic Information/Image Passthrough
Planned Data Flow: traffic control coordination
Planned Data Flow: traffic information coordination

Planned Destination System: Glendora IEN Workstation
Planned Data Flow: IEN Traffic Information/Image Passthrough
Planned Data Flow: traffic control coordination
Planned Data Flow: traffic information coordination

Planned Destination System: Irwindale ATMS (SGVTF)/CDI
Planned Data Flow: IEN Traffic Information/Image Passthrough
Planned Data Flow: traffic control coordination
Planned Data Flow: traffic information coordination
Planned Data Flow: video surveillance control

Planned Destination System: Irwindale IEN Workstation
Planned Data Flow: IEN Traffic Information/Image Passthrough
Planned Data Flow: traffic control coordination
Planned Data Flow: traffic information coordination

Planned Destination System: La Puente IEN Workstation
Planned Data Flow: IEN Traffic Information/Image Passthrough
Planned Data Flow: traffic control coordination
Planned Data Flow: traffic information coordination

Destination System: LACO ATMS w/CDI
Planned Data Flow: IEN Traffic Information/Image Passthrough
Planned Data Flow: traffic control coordination
Planned Data Flow: traffic information coordination

Planned Destination System: LACO IEN Workstation
Planned Data Flow: IEN Traffic Information/Image Passthrough
Planned Data Flow: traffic control coordination
Planned Data Flow: traffic information coordination

Planned Destination System: LACO Regional IEN Server
Planned Data Flow: IEN Traffic Information/Image Passthrough
Planned Data Flow: traffic control coordination
Planned Data Flow: traffic information coordination
Planned Data Flow: video surveillance control

Planned Destination System: Monrovia IEN Workstation
Planned Data Flow: IEN Traffic Information/Image Passthrough
Planned Data Flow: traffic control coordination
Planned Data Flow: traffic information coordination

Planned Destination System: Montebello IEN Workstation
Planned Data Flow: IEN Traffic Information/Image Passthrough

Planned Data Flow: traffic control coordination
Planned Data Flow: traffic information coordination

Planned Destination System: Monterey Park IEN Workstation
Planned Data Flow: IEN Traffic Information/Image Passthrough
Planned Data Flow: traffic control coordination
Planned Data Flow: traffic information coordination

Destination System: Pasadena (BiTrans) LRT ATMS/CDI
Planned Data Flow: IEN Traffic Information/Image Passthrough
Planned Data Flow: traffic control coordination
Planned Data Flow: traffic information coordination

Planned Destination System: Pasadena (Siemens) ATMS/CDI
Planned Data Flow: IEN Traffic Information/Image Passthrough
Planned Data Flow: traffic control coordination
Planned Data Flow: traffic information coordination
Planned Data Flow: video surveillance control

Destination System: Pasadena (TransCore) ATMS/CDI
Data Flow: IEN Traffic Information/Image Passthrough
Data Flow: traffic control coordination
Data Flow: traffic information coordination

Destination System: Pasadena IEN Workstation
Planned Data Flow: IEN Traffic Information/Image Passthrough
Data Flow: traffic control coordination
Data Flow: traffic information coordination

Planned Destination System: Rosemead ATMS (SGVTF)/CDI
Planned Data Flow: IEN Traffic Information/Image Passthrough
Planned Data Flow: traffic control coordination
Planned Data Flow: traffic information coordination

Planned Destination System: Rosemead IEN Workstation
Planned Data Flow: IEN Traffic Information/Image Passthrough
Planned Data Flow: traffic control coordination
Planned Data Flow: traffic information coordination

Planned Destination System: San Dimas ATMS (SGVTF)/CDI
Planned Data Flow: IEN Traffic Information/Image Passthrough
Planned Data Flow: traffic control coordination
Planned Data Flow: traffic information coordination

Planned Destination System: San Dimas IEN Workstation
Planned Data Flow: IEN Traffic Information/Image Passthrough
Planned Data Flow: traffic control coordination
Planned Data Flow: traffic information coordination

Planned Destination System: San Gabriel IEN Workstation

Planned Data Flow: IEN Traffic Information/Image Passthrough

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Planned Destination System: San Marino IEN Workstation

Planned Data Flow: IEN Traffic Information/Image Passthrough

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Planned Destination System: SGVTF L1 IEN Workstation

Planned Data Flow: IEN Traffic Information/Image Passthrough

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Planned Destination System: SGVTF L2A IEN Workstation

Planned Data Flow: IEN Traffic Information/Image Passthrough

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Planned Destination System: SGVTF L2B ATMS/CDI

Planned Data Flow: IEN Traffic Information/Image Passthrough

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Planned Destination System: SGVTF L2B IEN Workstation

Planned Data Flow: IEN Traffic Information/Image Passthrough

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Destination System: SGVTF L3 ATMS/CDI

Data Flow: IEN Traffic Information/Image Passthrough

Data Flow: traffic control coordination

Data Flow: traffic information coordination

Destination System: SGVTF L3 IEN Workstation

Data Flow: IEN Traffic Information/Image Passthrough

Data Flow: traffic control coordination

Data Flow: traffic information coordination

Planned Destination System: South El Monte IEN Workstation

Planned Data Flow: IEN Traffic Information/Image Passthrough

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Planned Destination System: South Pasadena IEN Workstation

Planned Data Flow: IEN Traffic Information/Image Passthrough

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Planned Destination System: Temple City IEN Workstation

Planned Data Flow: IEN Traffic Information/Image Passthrough

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Planned Destination System: West Covina ATMS (SGVTF)/CDI

Planned Data Flow: IEN Traffic Information/Image Passthrough

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Planned Destination System: West Covina IEN Workstation

Planned Data Flow: IEN Traffic Information/Image Passthrough

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Source System: LACO Signal System

Destination System: LACO ATMS w/CDI

Data Flow: signal control status

Destination System: LACO VDS

Data Flow: roadway equipment coordination

Planned Source System: LACO South Bay IEN Corridor Server

Planned Destination System: LACO Regional IEN Server

Planned Data Flow: IEN Traffic Information/Image Passthrough

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Source System: LACO VDS

Destination System: LACO ATMS w/CDI

Data Flow: traffic flow

Destination System: LACO Signal System

Data Flow: roadway equipment coordination

Data Flow: traffic flow

Stakeholder: LADOT

Source System: LADOT ATSAC/ATCS w/XML Interface

Planned Destination System: LACO Regional IEN Server

Planned Data Flow: IEN Traffic Information/Image Passthrough

Planned Data Flow: traffic information coordination

Destination System: LADOT ATSAC/ATCS/IEN Workstation

Data Flow: traffic control coordination

Data Flow: traffic images

Planned Data Flow: traffic information coordination

Destination System: LADOT CCTV

Data Flow: video surveillance control

Destination System: LADOT CMS

Data Flow: roadway information system data

Destination System: LADOT Rapid Bus/TPS

Data Flow: traffic control priority status

Destination System: LADOT VDS

Data Flow: traffic sensor control

Source System: LADOT ATSAC/ATCS/IEN Workstation

Destination System: LADOT ATSAC/ATCS w/XML Interface

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Source System: LADOT CCTV

Destination System: LADOT ATSAC/ATCS w/XML Interface

Data Flow: traffic images

Source System: LADOT CMS

Destination System: LADOT ATSAC/ATCS w/XML Interface

Data Flow: roadway information system status

Source System: LADOT Rapid Bus/TPS

Destination System: LADOT ATSAC/ATCS w/XML Interface

Data Flow: traffic control priority request

Destination System: LADOT Signal System

Data Flow: signal control data

Destination System: LADOT VDS

Data Flow: traffic sensor control

Destination System: Metro Rapid Bus Station/Stop

Data Flow: transit traveler information

Source System: LADOT Signal System

Destination System: LADOT ATSAC/ATCS w/XML Interface

Data Flow: signal control status

Destination System: LADOT Rapid Bus/TPS

Data Flow: signal control status

Destination System: LADOT VDS

Data Flow: roadway equipment coordination

Source System: LADOT VDS

Destination System: LADOT ATSAC/ATCS w/XML Interface

Data Flow: traffic flow

Destination System: LADOT Rapid Bus/TPS

Data Flow: request for right-of-way

Data Flow: traffic flow

Data Flow: vehicle probe data

Destination System: LADOT Signal System

Planned Data Flow: roadway equipment coordination

Data Flow: traffic flow

Stakeholder: MTA

Source System: Metro Rapid Buses

Destination System: LADOT VDS

Data Flow: vehicle probe data

Stakeholder: SGVTF Level 1 Agencies

Planned Source System: SGVTF L1 Additional Deployed ITS

Destination System: LACO ATMS w/CDI

Planned Data Flow: hri status

Planned Data Flow: request for right-of-way

Planned Data Flow: roadway information system status

Planned Data Flow: traffic flow

Planned Data Flow: traffic images

Planned Data Flow: vehicle probe data

Planned Source System: SGVTF L1 IEN Workstation

Destination System: LACO SGV IEN Corridor Server

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Source System: SGVTF L1 Signal System

Destination System: LACO ATMS w/CDI

Planned Data Flow: signal control status

Destination System: SGVTF L1 VDS

Data Flow: roadway equipment coordination

Source System: SGVTF L1 VDS

Destination System: LACO ATMS w/CDI

Planned Data Flow: traffic flow

Destination System: SGVTF L1 Signal System

Data Flow: roadway equipment coordination

Data Flow: traffic flow

Stakeholder: SGVTF Level 2A Agencies

Planned Source System: SGVTF L2A Additional Deployed ITS

Destination System: LACO ATMS w/CDI

Planned Data Flow: hri status

Planned Data Flow: request for right-of-way

Planned Data Flow: roadway information system status

Planned Data Flow: traffic flow

Planned Data Flow: traffic images

Planned Data Flow: vehicle probe data

Planned Source System: SGVTF L2A ATMS Workstation

Destination System: LACO ATMS w/CDI

Planned Data Flow: traffic control coordination

Planned Source System: SGVTF L2A IEN Workstation

Destination System: LACO SGV IEN Corridor Server

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Source System: SGVTF L2A Signal System

Destination System: LACO ATMS w/CDI

Planned Data Flow: signal control status

Destination System: SGVTF L2A VDS

Data Flow: roadway equipment coordination

Source System: SGVTF L2A VDS

Destination System: LACO ATMS w/CDI

Planned Data Flow: traffic flow

Destination System: SGVTF L2A Signal System

Data Flow: roadway equipment coordination

Data Flow: traffic flow

Stakeholder: SGVTF Level 2B Agencies

Planned Source System: SGVTF L2B Additional Deployed ITS

Planned Destination System: SGVTF L2B ATMS/CDI

Planned Data Flow: hri status

Data Flow: request for right-of-way

Data Flow: roadway information system status

Data Flow: traffic flow

Planned Data Flow: traffic images

Data Flow: vehicle probe data

Planned Source System: SGVTF L2B ATMS Workstation

Planned Destination System: SGVTF L2B ATMS/CDI

Planned Data Flow: traffic control coordination

Planned Source System: SGVTF L2B ATMS/CDI

Destination System: LACO SGV IEN Corridor Server

Planned Data Flow: IEN Traffic Information/Image Passthrough

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Planned Destination System: SGVTF L2B Additional Deployed ITS

Planned Data Flow: hri control data

Data Flow: roadway information system data

Data Flow: traffic sensor control

Planned Data Flow: video surveillance control

Planned Destination System: SGVTF L2B ATMS Workstation

Planned Data Flow: traffic control coordination

Destination System: SGVTF L2B Signal System

Planned Data Flow: signal control data

Destination System: SGVTF L2B VDS

Planned Data Flow: traffic sensor control

Planned Source System: SGVTF L2B IEN Workstation

Destination System: LACO SGV IEN Corridor Server

Planned Data Flow: traffic control coordination

Planned Data Flow: traffic information coordination

Source System: SGVTF L2B Signal System

Planned Destination System: SGVTF L2B ATMS/CDI

Planned Data Flow: signal control status

Destination System: SGVTF L2B VDS

Data Flow: roadway equipment coordination

Source System: SGVTF L2B VDS

Planned Destination System: SGVTF L2B ATMS/CDI

Planned Data Flow: traffic flow

Destination System: SGVTF L2B Signal System

Data Flow: roadway equipment coordination

Data Flow: traffic flow

Stakeholder: SGVTF Level 3 Agencies

Source System: SGVTF L3 Additional Deployed ITS

Destination System: SGVTF L3 ATMS/CDI

- Data Flow: hri status
- Data Flow: request for right-of-way
- Data Flow: roadway information system status
- Data Flow: traffic flow
- Data Flow: traffic images
- Data Flow: vehicle probe data

Source System: SGVTF L3 ATMS Workstation

Destination System: SGVTF L3 ATMS/CDI

- Data Flow: traffic control coordination

Source System: SGVTF L3 ATMS/CDI

Destination System: LACO SGV IEN Corridor Server

- Data Flow: IEN Traffic Information/Image Passthrough
- Data Flow: traffic control coordination
- Data Flow: traffic information coordination

Destination System: SGVTF L3 Additional Deployed ITS

- Data Flow: hri control data
- Data Flow: roadway information system data
- Data Flow: traffic sensor control
- Data Flow: video surveillance control

Destination System: SGVTF L3 ATMS Workstation

- Data Flow: traffic control coordination

Destination System: SGVTF L3 Signal System

- Data Flow: signal control data

Destination System: SGVTF L3 VDS

- Data Flow: traffic sensor control

Source System: SGVTF L3 IEN Workstation

Destination System: LACO SGV IEN Corridor Server

- Data Flow: traffic control coordination
- Data Flow: traffic information coordination

Source System: SGVTF L3 Signal System

Destination System: SGVTF L3 ATMS/CDI

- Data Flow: signal control status

Destination System: SGVTF L3 VDS

- Data Flow: roadway equipment coordination

Source System: SGVTF L3 VDS

Destination System: SGVTF L3 ATMS/CDI

Data Flow: traffic flow

Destination System: SGVTF L3 Signal System

Data Flow: roadway equipment coordination

Data Flow: traffic flow