



This chapter provides a summary of what CVISN (pronounced “see – vision”) is. But sometimes the forest gets lost in the trees. Figure 2-1 attempts to show a picture of the forest before you set off on a path that looks more closely at some of the trees.

2.1 What is the Definition of CVISN?

The term CVISN (Commercial Vehicle Information Systems and Networks) refers to the collection of information systems and communications networks that support commercial vehicle operations (CVO). These include information systems owned and operated by governments, motor carriers, and other stakeholders. The Federal Motor Carrier Safety Administration (FMCSA) CVISN program is not trying to create a new information system, but rather to create a way for existing and newly designed systems to exchange information through the use of standards and available communications infrastructure. The CVISN program provides a framework or “architecture” that will enable government agencies, the motor carrier industry, and other parties engaged in CVO safety assurance and regulation to exchange information and conduct business transactions electronically. The goal of the CVISN program is to improve the safety and efficiency of commercial vehicle operations.

The CVISN Architecture is the CVO part of the National Intelligent Transportation Systems (ITS) Architecture. It includes standards for communications technologies such as electronic data interchange (EDI) and dedicated short range communication (DSRC). These standards are being developed to promote interoperability and efficiency. The Transportation Equity Act for the 21st Century (TEA-21) requires that ITS projects funded from the Highway Trust Fund must be consistent with the National ITS Architecture and applicable standards.

CVISN
The collection of information systems and communications networks that support commercial vehicle operations.

2.2 What is the Difference Between ITS/CVO and CVISN?

Over the past few years as terminology has evolved, there has been considerable confusion about terminology. Unfortunately, the situation remains confusing because terms are commonly used in ways that are not always precise and logically consistent. The following definitions are those that have been generally accepted among stakeholders. Figure 2-2 shows the relationships of these terms.

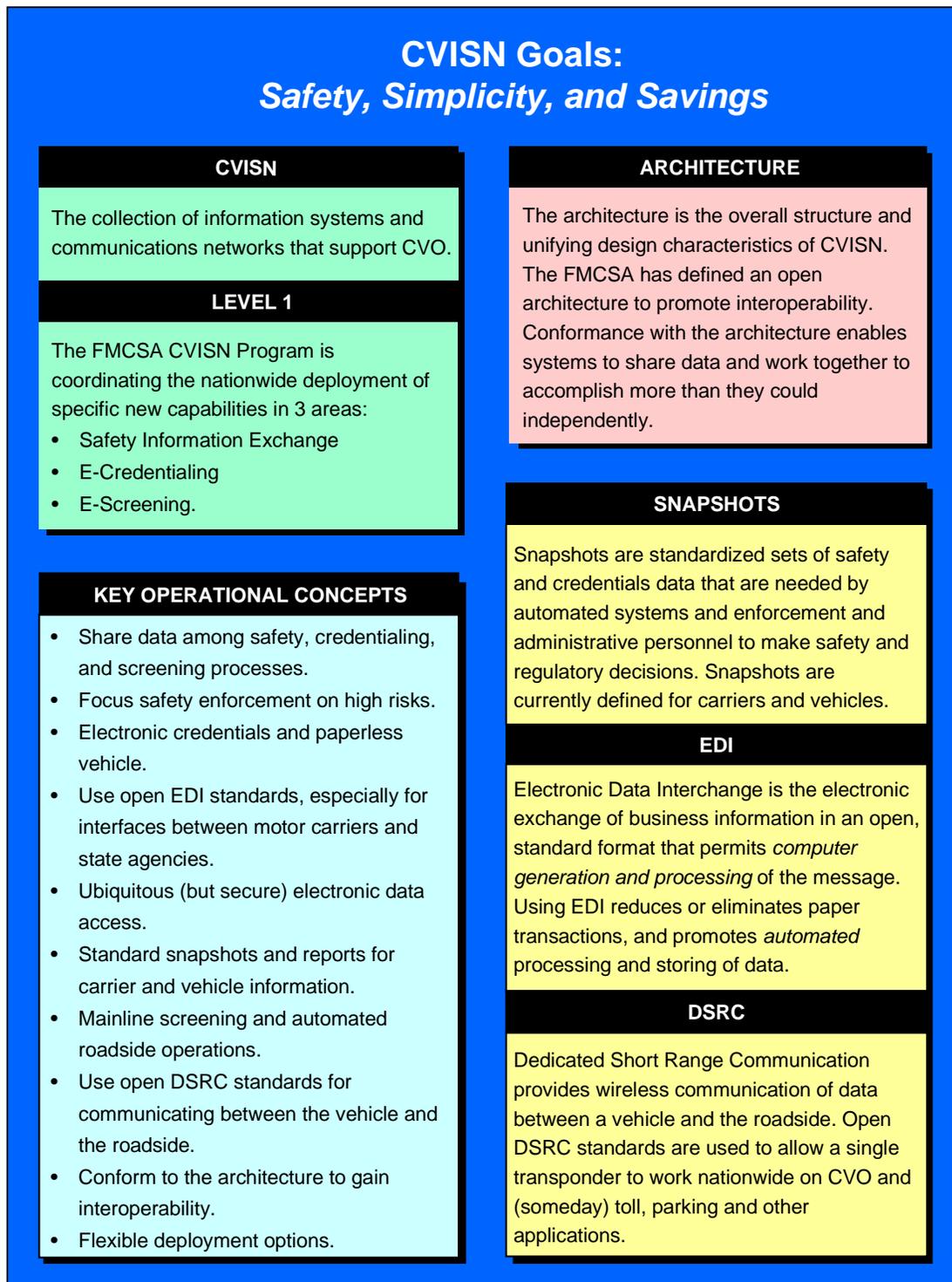


Figure 2-1 CVISN Overview

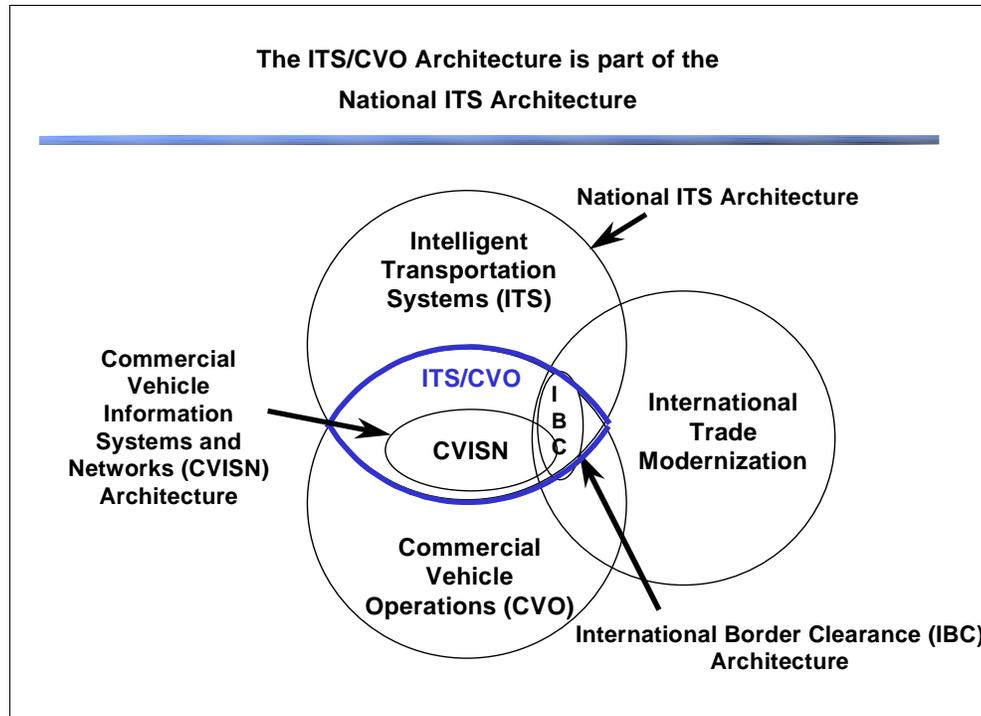


Figure 2-2 CVISN Terminology

ITS – Electronics, communications, or information processing used singly or in combination to improve the efficiency or safety of a surface transportation system.

CVO – The motor carrier operations and motor vehicle regulatory activities associated with the commercial movement of goods, including hazardous materials, and passengers. With respect to the public sector, includes the issuance of operating credentials, the administration of motor vehicle and fuel taxes, and roadside safety and border crossing inspection and regulatory compliance operations.

ITS/CVO – The ITS elements that support commercial vehicle operations. These include information systems, networks, sensor systems such as weigh-in-motion (WIM), technologies such as brake testing equipment, border crossing systems, and the components of the intelligent commercial vehicle. The

ITS National Program Plan defines these Commercial Vehicle Operations User Services: Commercial Vehicle Electronic Clearance, Automated Roadside Safety Inspection, Onboard Safety Monitoring, Commercial Vehicle Administrative Processes, Hazardous Materials Incident Response, and Freight Mobility.

CVISN –The collection of information systems and communications networks that support commercial vehicle operations. CVISN includes information systems owned and operated by governments, carriers, and other stakeholders. It excludes the sensor and control elements of ITS/CVO.

IBC (International Border Clearance) – The clearance of commercial carriers and vehicles at U.S. borders with Canada and Mexico using transponders, the information exchange infrastructure, and roadside sensors.

2.3 What are the ITS/CVO Program and the CVISN Program?

The FMCSA is sponsoring and coordinating a set of activities to develop and deploy ITS/CVO technologies. These activities are generally referred to as the **ITS/CVO Program**. *The purpose of the ITS/CVO Program is to foster the development and implementation of technology designed to assist trucks and buses in moving safely and freely throughout North America.* The CVISN Program is one element of the ITS/CVO Program. Chapter 5 provides more background on the elements of the ITS/CVO and CVISN Programs.

2.4 What is the CVISN Program Trying to Accomplish?

The current, primary objective of the CVISN Program is to develop and deploy information systems that will support new capabilities in three areas:

- ◆ Safety Information Exchange
- ◆ Credentials Administration
- ◆ Electronic Screening.

The CVISN Program is using an approach based on an **open architecture and standards** so that these capabilities may be deployed in a manner that is interoperable from state-to-state from a motor carrier's perspective. The architecture will also enable the addition of further capabilities in the future. An overview of the vision for each of the current capability areas follows. Please refer to the guides for these capability areas for more detailed information.

CVISN is officially defined as a very broad concept covering all ITS/CVO information systems and networks. In common usage, many people now use "CVISN" as a shorthand way to refer to only the parts of CVISN being developed as part of the current CVISN Program.

2.5 What Will the CVISN Program do for Safety Information Exchange?

For a number of years, the FHWA (now FMCSA) funded states through the Motor Carrier Safety Assessment Program (MCSAP) to perform safety inspections of selected commercial vehicles at the roadside and to perform audits of the safety processes of selected motor carriers at their terminals. FMCSA maintains a central Motor Carrier Management Information System (MCMIS) to support these tasks. In the past, MCMIS inputs were entered from paper forms and outputs were available as printed reports. The CVISN Safety Information Exchange capability area is intended to provide improved electronic exchange of MCMIS and other safety information among roadside and deskside, state and federal systems.

A key aspect of the new capability is the automated collection of the results of the vehicle and driver inspections via a system called ASPEN (see Figure 2-3). This laptop or pen-based unit is used by law enforcement officers at the roadside to enter the results of driver and vehicle inspections as they perform the inspection. This improves the entry accuracy and enables them to submit the reports immediately over a network, dial-up, or wireless cellular digital packet data link.

In a typical state configuration, the **inspection reports** are relayed from ASPEN via a Commercial Vehicle Information Exchange Window (CVIEW) system at the state level to the Safety and Fitness Electronic Records System (SAFER) at the national level. SAFER relays them to MCMIS and makes them available back to the CVIEW's and roadside systems in other states. These relays are conducted in near real-time so that other states can usually have the results of inspection reports (including out-of-service orders) in less than an hour. The CVIEW in the originating state also provides the inspection reports to SAFETYNET where a quality control edit can be performed by a safety analyst later

when time is available. (Note that each state configuration may be different. Also, the exact configurations of SAFER, SAFETYNET and MCMIS are all evolving. Please see the CVISN Guide to Safety Information Exchange for more details on alternative configurations. A typical configuration is used herein to describe basic concepts.)

The SAFER system is now making much of the MCMIS safety data available online to safety analysts and law enforcement personnel. SAFER receives an extract of subsets of MCMIS data, referred to as motor carrier and vehicle “**snapshots**.” Snapshots are standardized sets of safety and credentials data that are needed by automated systems, enforcement personnel, and administrative personnel to make safety and regulatory decisions. For example, the carrier

snapshot contains the name and United States Department of Transportation (USDOT) identifier of the carrier, several statistical safety indicators, tax payment, and other regulatory data items. SAFER distributes snapshots in several ways, including a web site (<http://www.safersys.org/>) that is available to the general public. It distributes the snapshots to CVIEW that in turn distributes them to roadside sites and administrative users within the state.

Snapshots are standardized sets of safety and credentials data that are needed by automated systems, enforcement personnel, and administrative personnel to make safety and regulatory decisions. Snapshots are currently defined for carriers and vehicles.

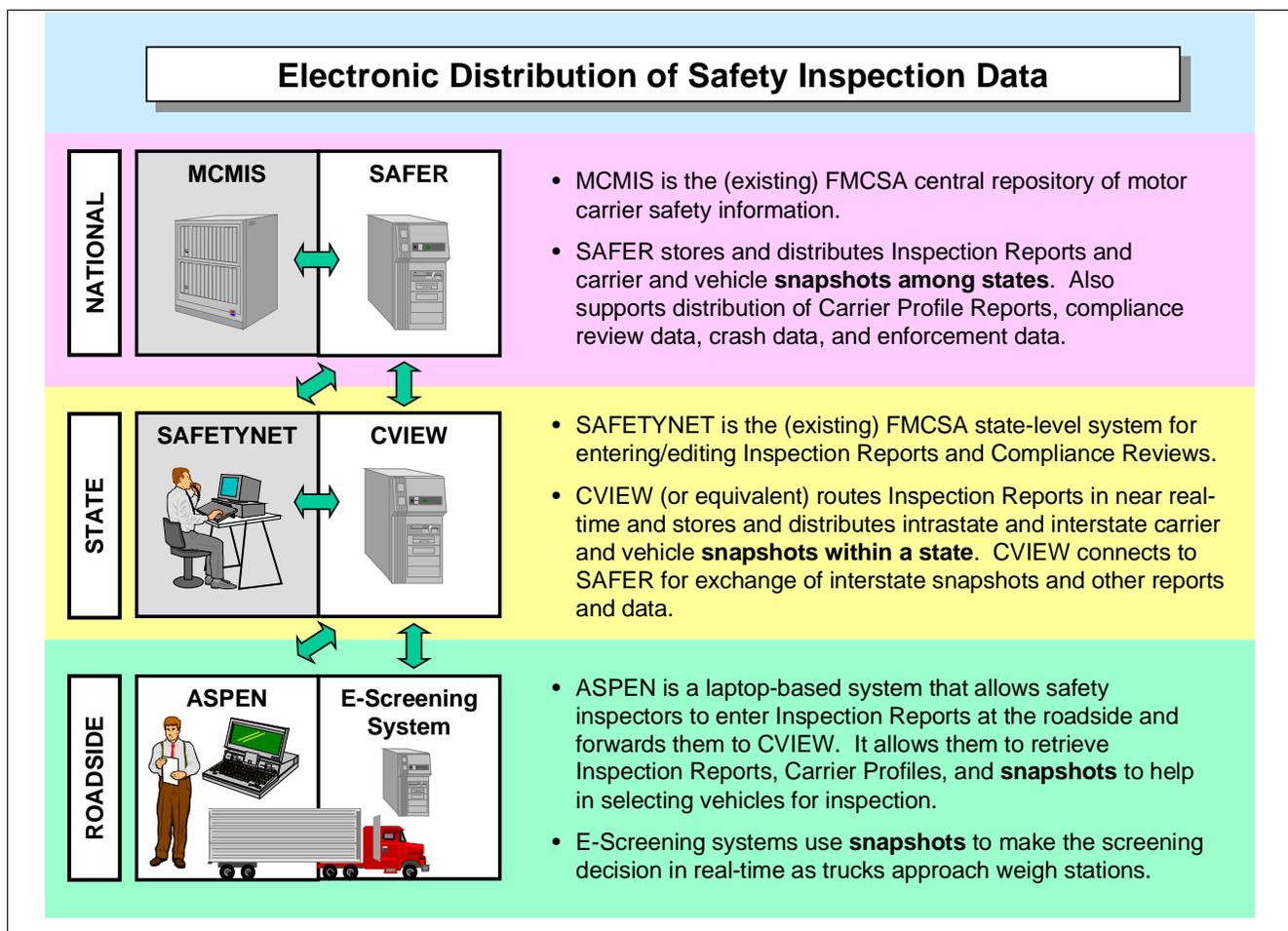


Figure 2-3 Electronic Distribution of Safety Inspection Data

A key feature of the snapshot data is that changes are automatically distributed to users. Source systems recognize when a significant change has occurred and forward these data proactively to SAFER. SAFER uses the change notice to update snapshot data and forwards the data to users (e.g., state CVIEW systems) who have subscribed to the update service. A state may subscribe to the carrier snapshots for all carriers registered to operate in its state (an average of approximately 10,000 interstate carriers per state).

In the past, SAFETYNET was the primary point of entry for inspection reports. With CVISN Level 1, this function has been taken over by ASPEN. SAFETYNET continues to be used for editing inspection reports, entering compliance review data and running safety reports. Currently, SAFETYNET interfaces directly with MCMIS. In the future, it will interface indirectly through SAFER.

2.6 What Will the CVISN Program do for Credentials Administration?

The central concept for this capability area is to allow motor carriers to apply for, pay for, and receive credentials electronically. Anyone who has had to title or register a personal vehicle can appreciate the magnitude of a commercial carrier's task that includes credentialing many hundreds of vehicles. Most states today have extensive information systems used to process all the credentialing aspects of commercial motor vehicle operations. Motor carriers typically submit applications on a variety of paper forms relating to registering to operate as a motor carrier, demonstrating they have the required liability insurance, registering and titling vehicles, paying fuel taxes, applying for special oversize/overweight (OS/OW) permits, applying for special hazardous materials hauling licenses and permits, paying federal heavy vehicle use tax, and complying with other state-specific regulations. The state processes the applications with a combination of manual and automated systems. Often some sort of invoicing and payment is involved, which may or may not use electronic payment mechanisms.

A goal of CVISN is to provide end-to-end automation of these credentialing processes. By end-to-end we mean the electronic application, processing, fee collection, issuance, and distribution of CVO credentials, tax filing and auditing, and support of multistate information exchange and processing agreements. The carrier would use some type of credentialing system software on their computer to prepare applications electronically. One possible alternative is a standalone, desktop software package referred to as a CAT (Carrier Automated Transaction) system. The CAT would provide prompting and error checking to help improve the accuracy of the applications. (Some state agencies report that as many as 40 percent of the applications submitted manually have some type of error on them, including illegible entries, missing items, wrong identifiers, etc.) After completing the application, the carrier transmits the form electronically to the state.

The exact information systems design used by each state will vary. A typical design is shown in Figure 2-4. In this example, the state has a Credentialing Interface (CI) system that receives the applications. The CI does some initial error checking and transaction archiving, and then routes the transaction to the appropriate state agency system to process the particular submission. For example, vehicle registration requests or renewals might go to the department of motor vehicles while fuel tax payments might go to the comptroller's office. The actual processing of the form would be done in a system operated by a particular agency. This system would typically be a "legacy" (previously existing) system that had been modified to include a new interface for accepting electronic transactions from the CI instead of accepting manual entries of information from state agency clerks, who processed the paper applications in the past. Part of the processing might include crosschecks to other systems, such as verifying that a carrier who was requesting to register a vehicle was current on tax payments or checking that the vehicle was properly titled and not stolen. The details of the processing are different for each transaction.

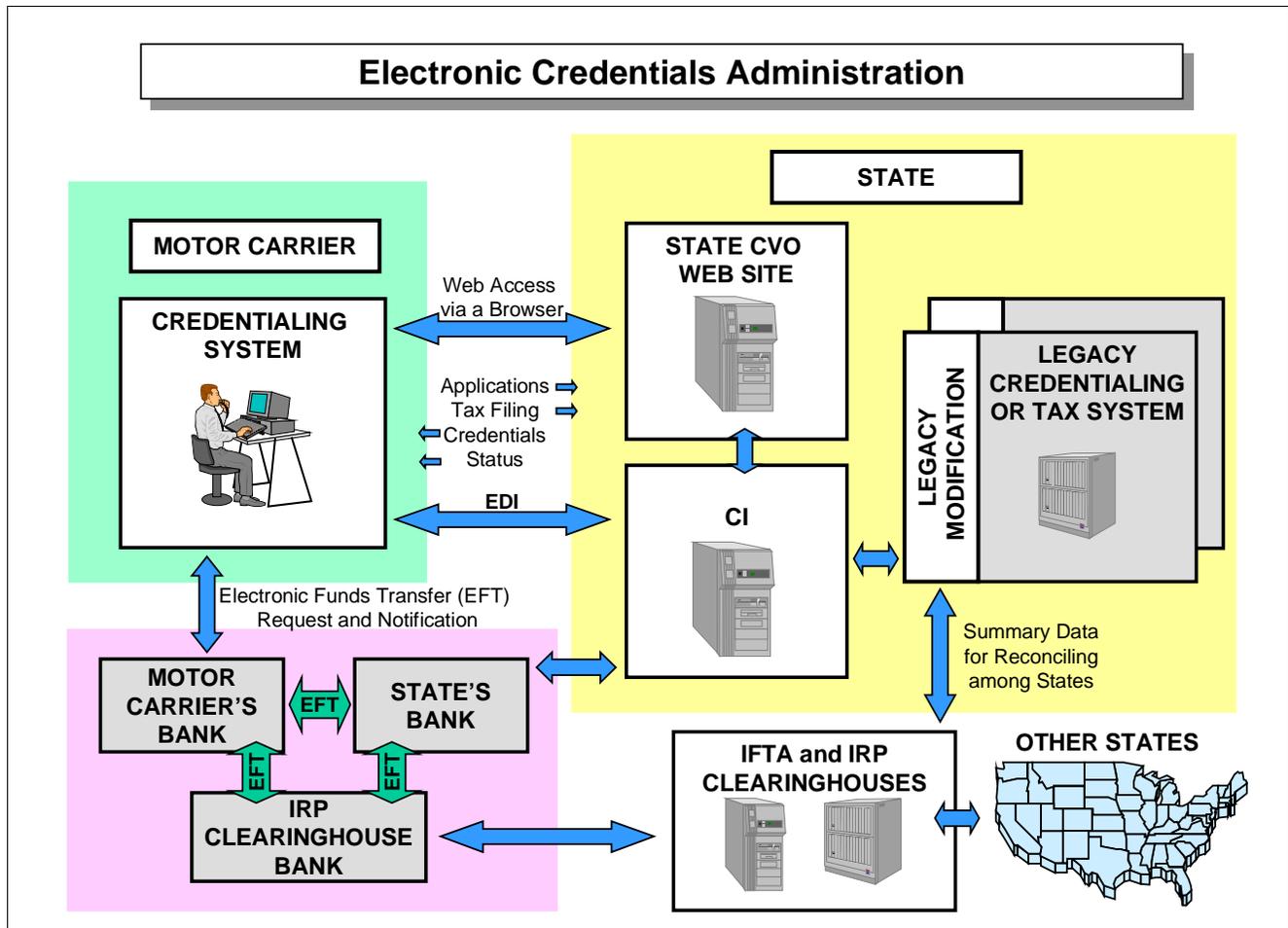


Figure 2-4 Electronic Credentials Administration

In general, the processing includes error checking, crosschecks with other databases, fee calculations, invoicing, payment, and issuance of some type of decal, sticker, plate, or paper document. The goal is to allow paper documents to be printed by the carrier. Decals and metal plates will need to be mailed to smaller carriers, although larger carriers will be able to maintain an inventory of these items at their sites, just as some states allow car and truck dealers to do today.

A cornerstone feature of CVISN is that each state will support an EDI interface available to motor carriers for electronic credentialing. Figure 2-5 illustrates some of the key features of EDI. It is the commonly accepted method of sending **computer-to-computer**

transactions between businesses. It has been used extensively for years in the transportation field for transactions among shippers and carriers. Examples of transactions include shipping orders, bills-of-lading, shipping status notification, and invoices. The CVISN Program has developed a number of new transactions to support the exchange of credentials transactions (as well as safety transactions). EDI allows two trading partners with different hardware and software to communicate via a common language, i.e., EDI transactions. They typically do this by purchasing a commercial off-the-shelf EDI translator and developing some custom code to interface their existing application to the translator.

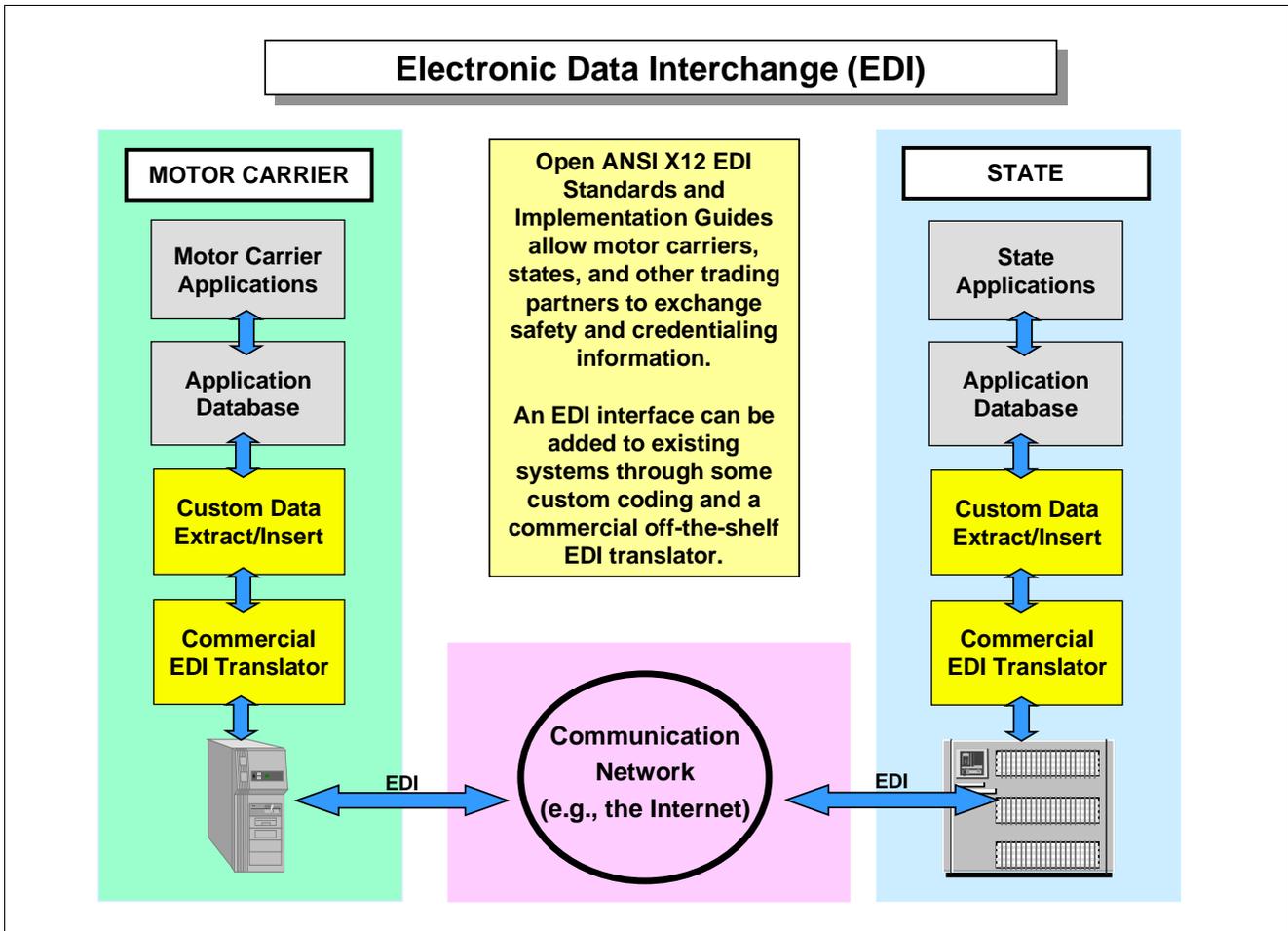


Figure 2-5 Electronic Data Interchange

Some states will provide web sites for electronic credentialing in addition to the EDI interface. These may be more attractive to smaller and midsize carriers since they will be accessible via a standard web browser.

EDI is the electronic exchange of business information in a standard structure that permits computer generation and processing of the message.

The web browser has become the commonly accepted method of providing a **person-to-remote-computer interface**. No specialized CAT software will be required. The disadvantage to this approach for larger carriers is that a person will be required to

enter data manually onto the web site. Whereas, the CAT might actually be integrated into the carrier's fleet management system and it could fill out electronic forms automatically from the carrier's existing business

databases. Most states are likely to offer both EDI and web-based approaches to satisfy the needs and preferences of all carriers.

Another aspect of credentialing is sharing information among multiple states. States have evolved a number of "base-state agreements" over the years, including the International Registration Plan (IRP) and International Fuel Tax Agreement (IFTA). These agreements allow a carrier to designate a base state that it deals with and that state in turn provides information and fee payments to other states. For example, a carrier may operate in Maryland and 10 surrounding states. The carrier could choose to register its vehicles in Maryland as the base state. In completing the registration form (using the CAT), the carrier would specify the expected percentage of allocation of each vehicle's mileage to

each of the other 10 states. The state of Maryland would process the data, calculate the fees based on the differing rates for each state, and exchange the necessary information and fee payments with each state. This is a great simplification for carriers. Until a decade ago, they had to separately register and obtain license plates from each state for each vehicle that would operate in the state. The further improvement that CVISN brings to this situation is the development of an IRP Clearinghouse and an IFTA Clearinghouse to allow the states to exchange data and fees electronically rather than via paper reports as is done today. At this time, only the IRP Clearinghouse actually initiates the transfer of funds among states' banks. The IFTA Clearinghouse calculates the transfer amounts, but relies on the states to actually initiate the transfers.

2.7 What Will the CVISN Program do for Electronic Screening?

Most automobile drivers have gone past weigh stations on major highways. Signs direct trucks to pull into these stations to have their weight checked to ensure that they are within federal and state regulations.

Overweight trucks can cause excessive road wear. Most states limit trucks to a maximum of 80,000 pounds, with corresponding maximum weights on each axle. At a typical weigh station, trucks slow down or stop at a scale that weighs each axle and total vehicle gross weight. While the vehicle is slowing and stopped on the scale, law enforcement personnel check it for the proper decals and any obvious safety problems. If they observe any problem, they will ask the driver to pull into an inspection area at the site for a more thorough examination. They also pull in a small random sample of vehicles for safety inspections, even without any obvious safety problem. The weighing process may result in a delay of from 30 seconds to (if traffic is backed up) 5 minutes or more. This can be a significant cost to some types of trucking operations. At some high-traffic stations, queues can back up onto the highway, forcing temporary closure of the station to avoid a safety hazard.

Another aspect of ITS/CVO is to automatically screen vehicles as they approach weigh stations and allow those that are safe and legal to bypass without slowing down or stopping (see Figure 2-6). This capability requires installation of WIM scales in the main highway to measure the weight of trucks while they are moving at highway speeds. The trucks would be equipped with DSRC transponders (see Figure 2-7) that can be interrogated by roadside readers just before the vehicle goes over the scale. This reader obtains identifying information from the transponder equivalent to the license plate number. A Roadside Operations Computer (ROC) in the weigh station uses this identifier to check information about the vehicle and the associated carrier using the snapshot information provided by SAFER. It checks the safety rating of the vehicle and associated carrier and also checks to see that the vehicle is registered, is current on tax obligations, and has no other recent problems. If the weight and other checks are good, the reader sends back a message to the transponder that says the truck is cleared and does not need to pull into the static scale ramp. The transponder is mounted on the dashboard and has red and green indicators. The green light signals the driver to proceed; the red light to pull into the scale. Enforcement personnel can set up the ROC to pull in a certain number of vehicles for random safety inspections, just as they do today with manual systems.

2.8 What are the CVISN Key Operational Concepts?

The term “operational concept” generally means “how a system is used in various operational scenarios.” “System” is used here in a broad sense to include people and manual processes as well as automated information, sensor, and control systems. New operational concepts are adopted in order to solve a problem in the current operations or to take advantage of new knowledge or technology that enables improvements in current operations.

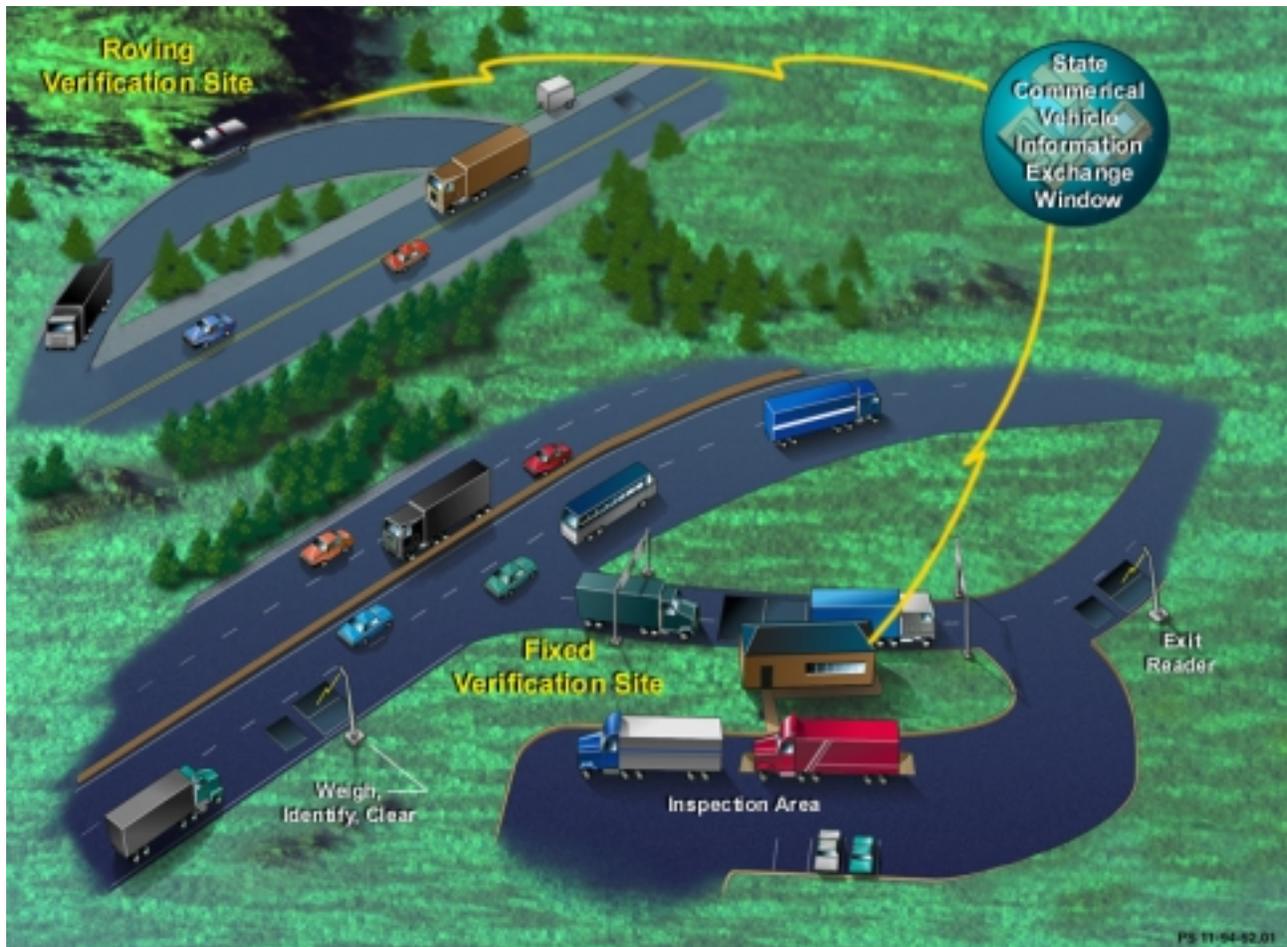


Figure 2-6 Electronic Screening Operational Concept

The ITS/CVO Program does not advocate deploying technology for its own sake. Before looking to technology for answers to CVO problems, stakeholders should:

- ◆ Understand the problems with current operations
- ◆ Understand the potential benefits of improved processes
- ◆ Evaluate the underlying business processes
- ◆ Re-engineer the business processes, if necessary.

This series of guides focuses on the technologies used in ITS/CVO. It does not directly address the business

process re-engineering (BPR) that should accompany any discussion of significant change. Typically, a well-structured BPR project for an organization will include answering these questions:

- ◆ Why do we do what we do?
- ◆ Why do we do it the way we do?
- ◆ How can we fix problems in the current business processes?
- ◆ How can new knowledge and technology be applied to improve effectiveness and efficiency?

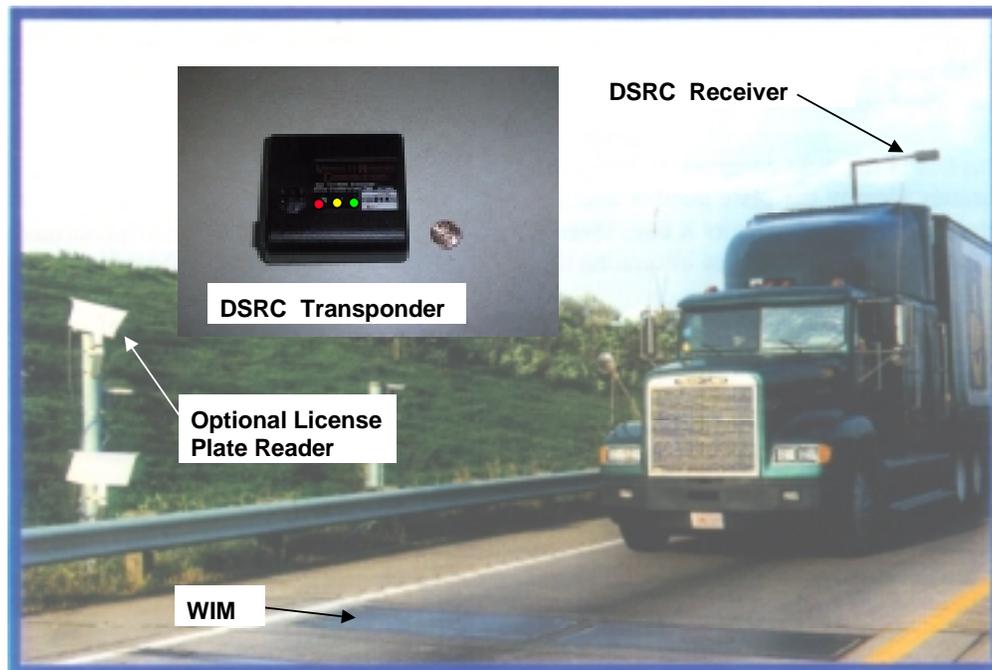


Figure 2-7 Electronic Screening Equipment

Many attempts at adopting new business processes and incorporating new technology never achieve the original objectives for undertaking the change. This is often because the impact of the technology on operations is not clearly understood by users until the system is nearly completely developed, and then it is often too late to change. We believe that a critical success factor for a CVISN program or project is that the CVO stakeholder community understand the operational impact of the new technology proposed by CVISN. A description of a new, proposed operational concept should include a description of the how stakeholders interact with the systems involved to carry out some task. Most stakeholders will be more interested in and concerned about the operational concepts than the details of the architecture, design, and implementation. The key CVISN operational concepts are summarized as follows. More detailed scenarios are presented in the other guides and references (see Table 2-1).

Share data among safety, credentialing, and screening processes – The CVISN Program is structured to encourage states to design and deploy these three elements in parallel. Doing so enables the synergy of being able to use data from one area to improve the processes of another. For example, basing the decision to grant a truck registration renewal on the prior safety history of the carrier.

Focus safety enforcement on high risks – Enhanced data exchange will allow all activities to focus resources on high risk operators. Providing enforcement personnel with current, detailed, accurate information about carriers, vehicles and drivers allows them to do a better job of selection of vehicles for inspection and allows them to focus on carriers, drivers, and vehicles that have the highest safety risk.

Electronic credentials and paperless vehicle – The “paperless vehicle” concept is supported, i.e., electronic records become primary and paper records become secondary. Electronic access to credentials information makes it possible to contemplate no longer requiring commercial vehicles to carry copies of credentials and decals onboard. Instead credentials would be checked and verified electronically. The concept is to support the complete credential life cycle electronically: application, fee payment, credential issuance, revenue distribution, modification, renewal, audit, sanctioning, appeals, and inspection. Data exchange between the public and private sector will be accomplished using formats and protocols defined in open standards. Paper could be produced from the electronic information if and when required.

Use open EDI standards – Open standards are used for interchanges between public and private systems. In particular, American National Standards Institute (ANSI) Accredited Standards Committee (ASC) X12 EDI transactions are used for carrier-state and for some state-core infrastructure information systems’ interactions. Carriers in the United States have already embraced EDI for their fleet and business operations.

Ubiquitous (but secure) electronic data access – Good business processes can be enhanced through improved automated access to accurate information. Information sharing within a single jurisdiction and across jurisdictions using electronic networks is a cornerstone of the CVISN initiative. Information systems are only as good as the quality of the data they use. Data must be accurate, current, and safe from tampering or unauthorized disclosure.

Standard snapshots and reports for carrier and vehicle information – Standard information exchange is supported via carrier and vehicle (and eventually driver) snapshots. ITS/CVO involves multiple applications and interfaces among hundreds of state agencies and thousands of carriers. Information exchange will be enabled through the use of standards. Many elements of CVO require information about the current and past safety performance and credentials status for carriers, vehicles, and drivers. Collecting the most-used information into standard messages will simplify systems since interfaces can be defined once, rather than negotiated between every pair of stakeholders. Carrier and vehicle snapshots containing safety and credentials data are part of CVISN Level 1.

Mainline screening and automated roadside operations – Electronic screening is provided for vehicles equipped with US DOT ITS JPO-specified DSRC transponders. Stopping a truck or bus costs time and money and is inconvenient. The current weigh station screening process and safety inspection process can be greatly expedited through automation with technologies such as weigh-in-motion, hand-held computers, brake testing, and communications networks.

Use open DSRC standards – Open standards are used for interchanges between public and private systems. Dedicated Short Range Communications (DSRC) standards for the messages, data link, and physical layers are used for vehicle-roadside interactions. DSRC standards apply not only to electronic screening, but also to toll, traffic, fleet applications, and border crossing processes throughout North America. The use of open DSRC standards for communicating between the vehicle and the roadside will allow a single transponder to be used for multiple applications throughout the states (and eventually North America).

Conform to the architecture to gain

interoperability – Interoperability is assured by a process of architecture conformance checks throughout a project’s lifecycle, culminating in execution of standardized interoperability tests. Interoperability is achieved through conformance to the CVISN architecture. Interoperability of deployed systems is verified through testing. If a tested system is changed, the interoperability tests are re-run as part of the re-validation process.

Flexible deployment options – The architecture provides a common technical framework and a basis for developing interface standards. It does not specify a particular design for states or carriers; it allows them to select from a wide range of options to meet their particular needs. It only constrains design options in areas necessary to achieve interoperability and compatible practices. As technology changes, so will the architecture. Before incorporating new technologies into the architecture, feasibility should be demonstrated. Several technology options and implementation choices are likely to continue to support the CVISN architecture’s concepts and standards. Stakeholders choose the approach that best fits their business needs and available resources.

Table 2-1 Operational Concepts

Key CVISN Operational Concepts
<ul style="list-style-type: none"> ▪ Share data among safety, credentialing, and screening processes. ▪ Focus safety enforcement on high risks. ▪ Electronic credentials and paperless vehicle. ▪ Use open EDI standards, especially for interfaces between motor carriers and state agencies. ▪ Ubiquitous (but secure) electronic data access. ▪ Standard snapshots and reports for carrier and vehicle information. ▪ Mainline screening and automated roadside operations. ▪ Use open DSRC standards for communicating between the vehicle and the roadside. ▪ Conform to the architecture to gain interoperability. ▪ Flexible deployment options.

2.9 What Systems Comprise CVISN?

Figure 2-8 illustrates how the numerous systems operated by different stakeholders can be viewed as part of one, large, whole system, that is, CVISN. A brief description of each system is provided in Tables 2-2 through 2-4 following the figure. Some of these systems are not part of the initial CVISN Program deployment effort, referred to as CVISN Level 1. Please see the next chapter for a clarification of which systems are considered within the scope of Level 1.

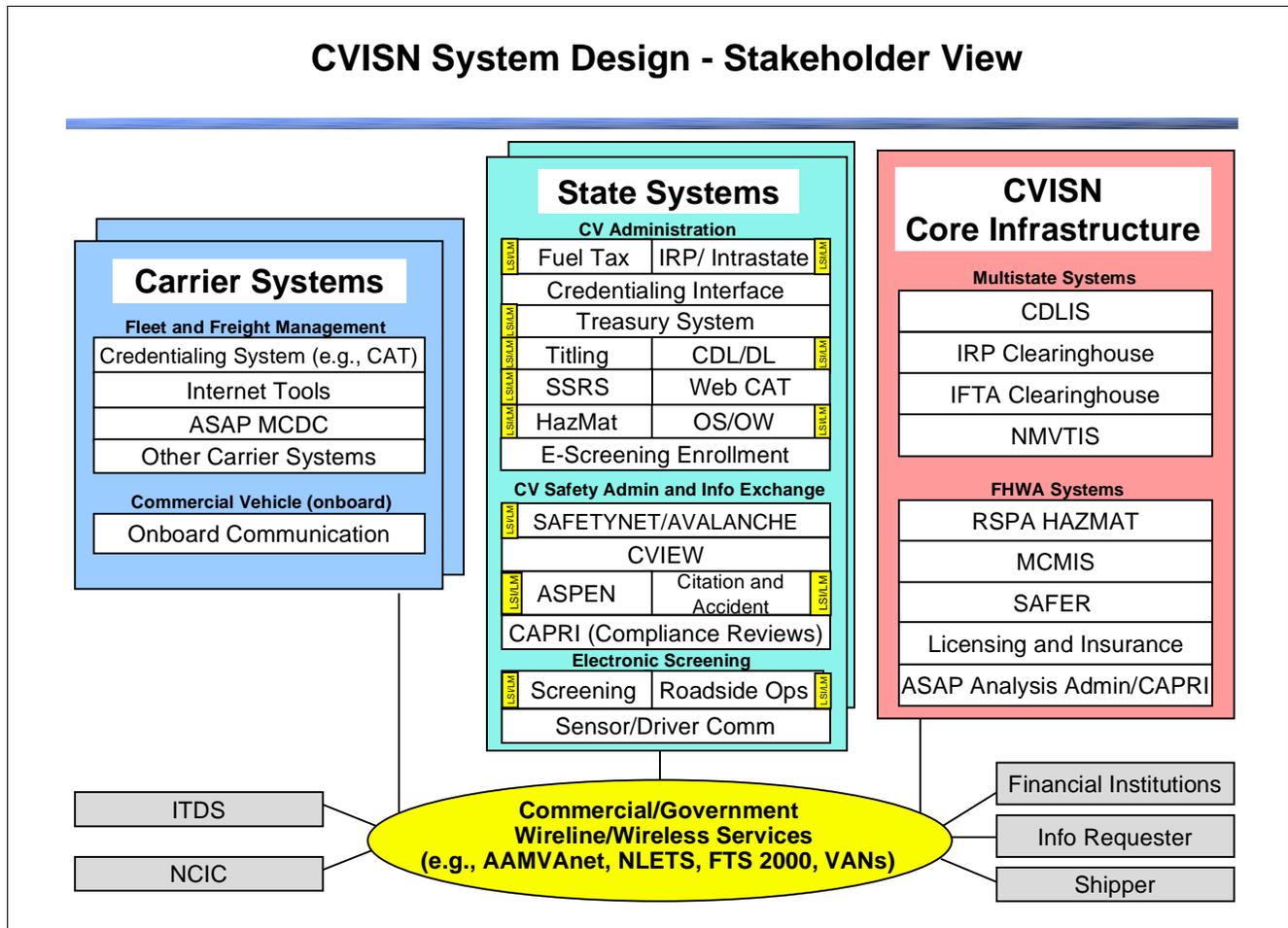


Figure 2-8 CVISN System Design – Stakeholder View

Table 2-2 Carrier Systems

CARRIER SYSTEMS	
System	Description
Credentiaing System	Apply for and receive credentials; file fuel tax returns. Communicates with states via American National Standards Institute (ANSI) standard EDI transactions. One such system is the CAT system.
Internet Tools	Via Internet browser, access governmental or private web sites to apply for credentials, file fuel tax returns, and perform other CV-related functions.
ASAP MCDC	Automated Safety Assessment Program Motor Carrier Data Collection. Report compliance information.
Other Carrier Systems	Freight Administration, Fleet Hazardous Materials Management, and Fleet Maintenance. Other elements of fleet and freight management.
Onboard Communication	Communicate via DSRC, voice, etc. Record trip events.

Table 2-3 State Systems

STATE SYSTEMS	
System	Description
Fuel Tax	International Fuel Tax Agreement systems. Register for fuel tax credential and process fuel tax returns.
IRP/Intrastate	International Registration Plan and intrastate registration systems. Register commercial vehicles.
Credentialing Interface	Single interface for carrier interactions related to credentialing. Communicates with carriers via ANSI standard EDI transactions.
Treasury System	Process electronic payments.
Titling	Title new and used vehicles.
CDL/DL	Commercial Driver's License/Driver's License.
SSRS	Single State Registration System. Carrier registration.
Web CAT	State WWW site support for electronic credentialing.
HAZMAT	Hazardous Material. Register to carry HAZMAT and issue HAZMAT permits.
OS/OW	Issue Oversize/Overweight permits.
E-Screening Enrollment	Collect and evaluate requests for carriers to participate in electronic screening.
SAFETYNET /AVALANCHE	Collect safety inspections and report to FMCSA.
CVIEW	Commercial Vehicle Information Exchange Window. Collect snapshot segments (parts of snapshots) for interstate and intrastate carriers, vehicles, and drivers. Interface with SAFER for interstate snapshot exchange. Distribute snapshots to other state systems.
ASPEN	Record and report safety inspections.
Citation and Accident	Record citation and accident data.
CAPRI	Support compliance reviews.
Screening	Make pass/pull-in decision.
Roadside Ops	Roadside Operations. Process snapshots and control site traffic.
Sensor/Driver Comm	Sensor/Driver Communications. Process vehicle measurements (e.g., weight) and communicate via DSRC with driver.

Table 2-4 Core Infrastructure Systems

CORE INFRASTRUCTURE SYSTEMS	
System	Description
CDLIS	Commercial Driver's License Information System. Pointer to past performance records for commercial drivers.
IRP Clearinghouse	International Registration Plan Clearinghouse. Administration of IRP base state agreement.
IFTA Clearinghouse	International Fuel Tax Agreement Clearinghouse. Administration of IFTA base state agreement.
NMVTIS	National Motor Vehicle Title Information System. Pointer to title information for all vehicles.
RSPA HAZMAT	Research and Special Programs Administration Hazardous Materials. Register carriers authorized to carry HAZMAT.
MCMIS	Motor Carrier Management Information System. Store safety data.
SAFER	Safety and Fitness Electronic Record/Data Mailbox. Collect snapshots for interstate carriers, vehicles, and drivers. Provide snapshots to user systems.
Licensing and Insurance	Register financial responsibility for interstate carriers.
ASAP Analysis Admin/CAPRI	Automated Safety Assessment Program Analysis Administration/CAPRI. FMCSA component of systems that support collection of compliance data from carriers and record and report compliance reviews.