Leveraging Commercial Vehicle Information Systems & Networks (CVISN) for Highway Security

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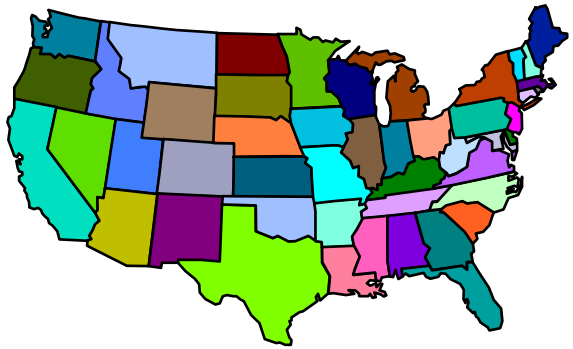
Agenda

- Commercial Vehicle Information Systems And Networks (CVISN) Description
- Comparing CVO Safety And Highway Security Problems
- Leveraging CVISN for Highway Security
- Expanded CVISN
- Security Projects Leveraging CVISN
- Summary

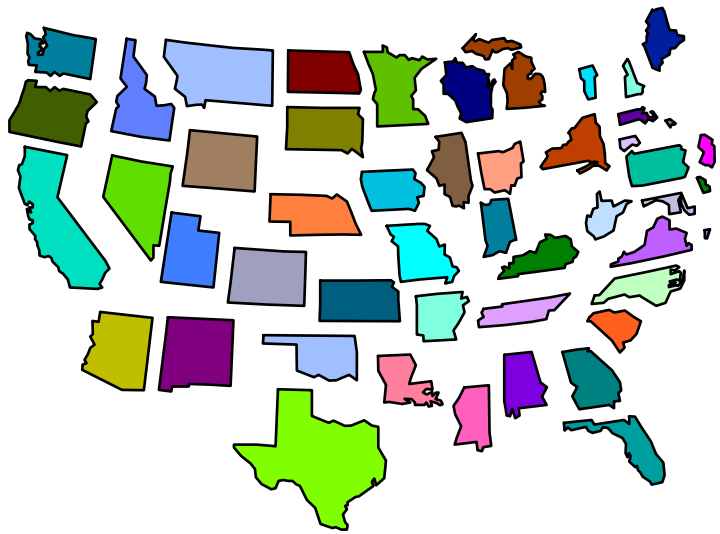
ITS/CVO Problem

How to Connect the Commercial Vehicle Operations (CVO) Islands of Technology?



Roads were built to allow traffic flow within and between states.

Information systems were built primarily to allow information to flow within a state agency, resulting in difficulties in responding to external requests for information sharing.



Goal: Interconnection and interoperability among state, federal and private systems.

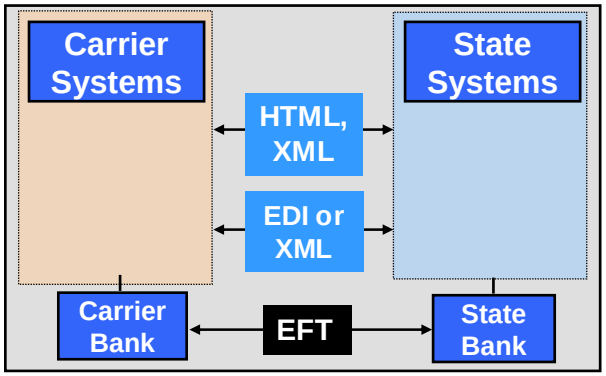
CVISN Provides Capabilities in Three Primary Functional Areas

Safety Information Exchange

The electronic collection & exchange of safety performance & credentials information among states, Federal agencies, motor carriers & other stakeholders.

Electronic Screening

Using technology to identify & weigh trucks at mainline speeds. Let safe and legal trucks pass weigh stations while enforcement resources are focused on higher risk carriers & vehicles.



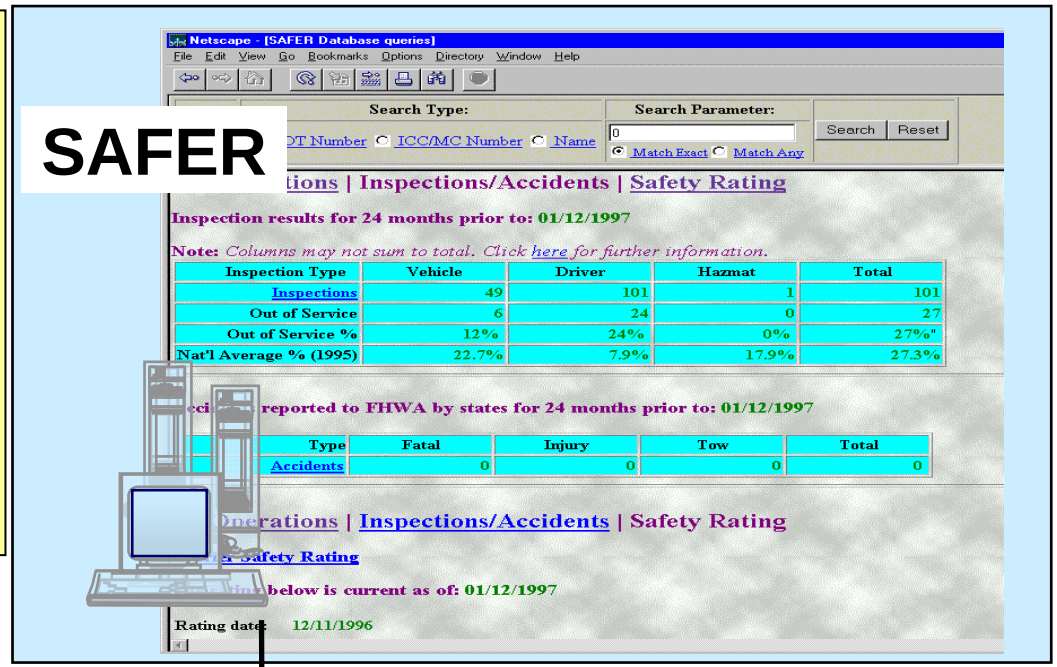
Credentials Administration

Motor carriers using Web sites or a computer-to-computer exchange to apply for and receive credentials electronically.

Safety Information Exchange

Motor carrier safety data is exchanged between federal, state and private sector systems via SAFER

SAFER is a national online system providing information on a carrier's safety rating, inspection history, and accident record to roadside users within a few seconds. The SAFER data is available to users via nationwide data networks.



Shippers/ Insurance Companies/ Public

Internet / WANs

State Safety Systems (CVIEW)

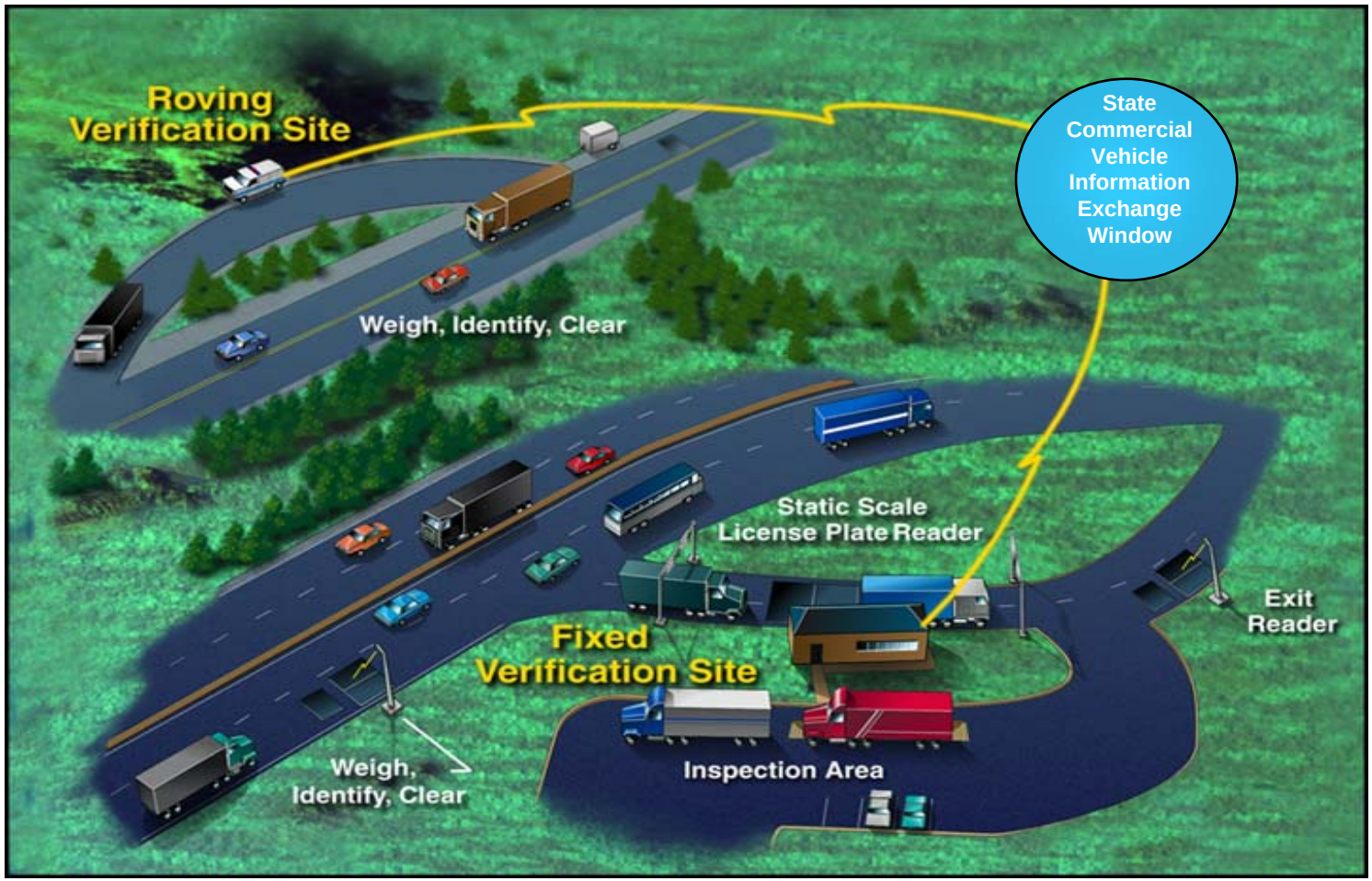
DOT Motor Carrier Management Information System (MCMIS)

Inspection Sites (ASPEN)

State Electronic Screening Systems

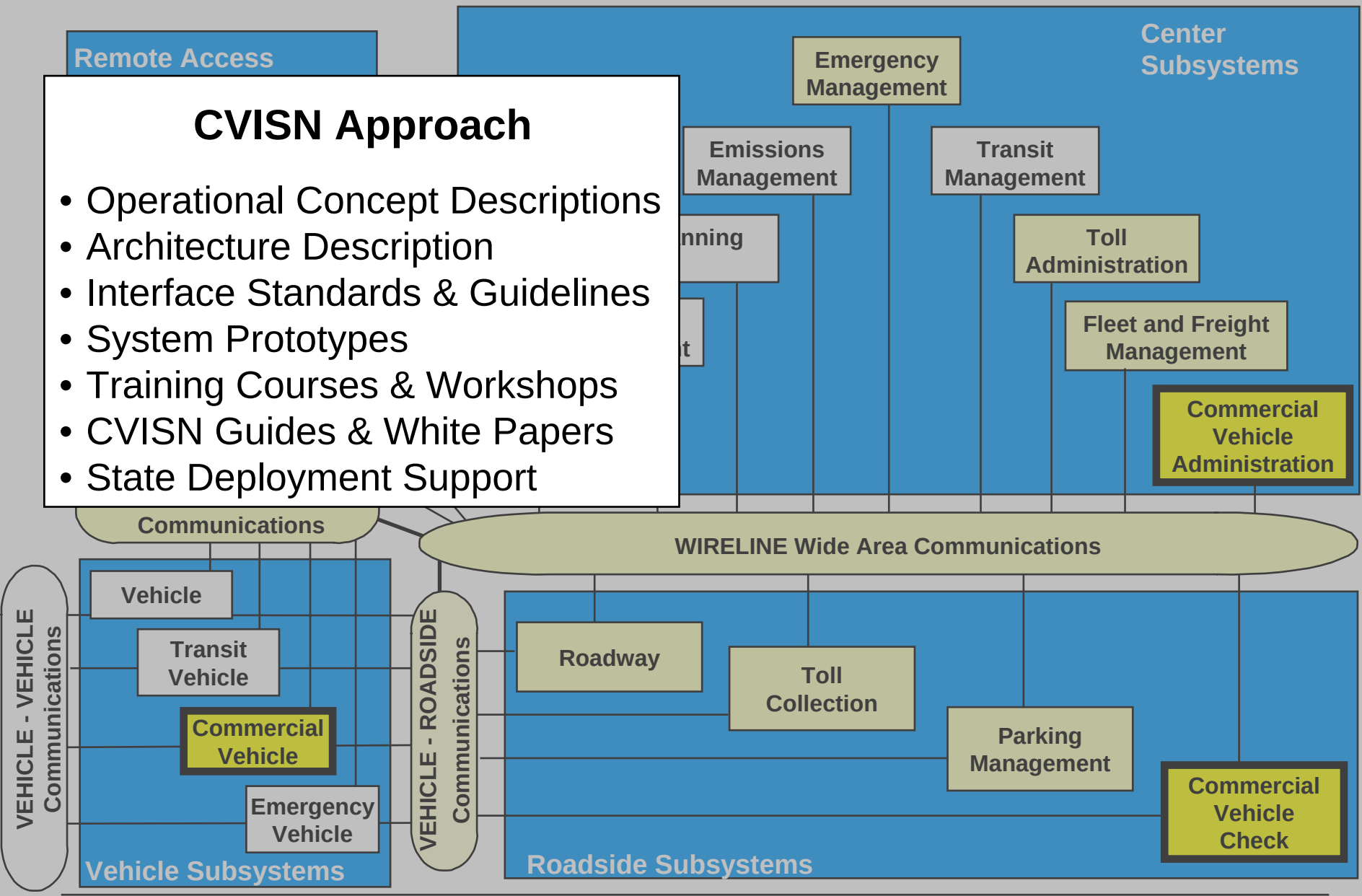
Roadside Electronic Screening

E-Screening allows compliant and low-risk vehicles to bypass



- **Vehicles are identified based on identifiers read from the transponder, used to access snapshot safety ratings and credentials information**
- **Weigh-in-motion and over-dimensional sensors provide input to screening decision**

ITS National Architecture
Subsystems Interconnect Diagram



CVISN Approach

- Operational Concept Descriptions
- Architecture Description
- Interface Standards & Guidelines
- System Prototypes
- Training Courses & Workshops
- CVISN Guides & White Papers
- State Deployment Support

Comparing CVO Safety and Highway Security

There are similarities between the CVO Safety and Highway Security problems but also some differences

CVO Safety

- Complex multi-dimensional problem addressed by the deployment of technology
- Multi-state, multi-agency deployment and facilities
- Carrier & vehicle data exchange
- Sensors: weight & dimension, other technologies

Highway Security

- Complex multi-dimensional problem addressed by the deployment of technology & processes
- Multi-state, multi-agency deployment and facilities
- Carrier, vehicle, driver & cargo data exchange
- Sensors: intrusion, CBRNE, other technologies

Leveraging CVISN for Highway Security

Facilities & Infrastructure

- Nationwide network of weigh & inspection stations
- Data exchange between Federal, State credential and roadside systems

Relationships

- Multi-agency State teams
- Multi-State Coalitions (GCM, I-95, etc.)
- Technology working groups (IFTWG, CVFM)
- Public/Private partnerships

Methods

- Architecture
- Guides & workshops
- Open standards
- Deployment program support
- Lessons learned

Expanded CVISN

New capabilities beyond CVISN Core are directly applicable to security

- Improve safety & security through exchange of driver information
- Improve data availability and quality
- Improve service to motor carriers
- Ensure cargo security
- CVO vehicle and infrastructure integration

Security Projects Leveraging CVISN

Several projects are underway to track trailers equipped with CVISN-compatible electronic seals at E-Screening sites

Summary

- The highway security and CVO safety problems are similar complex, multi-dimensional problems being addressed through deployment of advanced technologies
- CVISN facilities, infrastructure, relationships and methods can be leveraged to support testing and deployment of highway security capabilities
- Several Expanded CVISN capabilities, such as driver information exchange and cargo security, are directly applicable to Highway Security
- Several security projects utilizing CVISN-compatible electronic seals are under way