



Introduction to Commercial Vehicle Information Systems and Networks (CVISN)

Presented to:
FMCSA Division Staff

July 11, 2012



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Office of Research and Information Technology

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Objectives



- The objectives of this presentation are to:
 - Provide an overview of the CVISN Program
 - Provide the FMCSA Divisions information about their role in the CVISN Program



Agenda



- CVISN Program Overview
- Core and Expanded CVISN Program Areas
- Examples of CVISN Deployment
- Role of FMCSA Division in the CVISN Program
- Next Steps



CVISN Deployment Program Overview



- CVISN is a nationwide deployment grant program administered by FMCSA under the authority of **49 U.S.C. § 31106** that is designed to:
 - Improve safety and productivity of motor carriers, commercial vehicles and their drivers
 - Improve efficiency and effectiveness of commercial vehicle safety programs through targeted enforcement
 - Improve commercial vehicle data sharing within states and between states and FMCSA
 - Reduce Federal/State and industry regulatory and administrative costs



Core CVISN Program Areas



Program Areas

Safety Information Exchange

- Sharing of safety data and supporting credentials data among State agencies
- Interstate data exchange
- Use of ASPEN inspection software

Credentials Administration

- Automated processing of IRP and IFTA credentials
- Interstate data exchange and funds transfer via IRP and IFTA Clearinghouses

Electronic Screening

- Automated screening based on safety, weight and credentials information (at fixed or mobile site)

CVISN Architecture (Technical Infrastructure)

Mainstreaming and Deployment Planning (Organizational Infrastructure)



Expanded CVISN



- Expanded CVISN functionality is designed to:
 - Build upon Core capabilities to further improve commercial motor vehicle safety, security, and mobility/productivity
 - Extend the services provided through CVISN (e.g., additional screening sites, more automated credentials/permits)
- Expanded CVISN program is more flexible than the Core component of the program
 - Cafeteria approach is employed
 - States customize their Expanded CVISN programs and focus their resources on the commercial vehicle safety and productivity projects that are most important to them and their constituencies
 - States are not required to deploy a set of fixed capabilities



Safety Information Exchange



- Objectives
 - Improve the exchange of safety and credentials information among State agencies and between states and FMCSA
 - Proactively identify unsafe operators
- Core CVISN functionality
 - Implement a State-specific data exchange system, Commercial Vehicle Information Exchange Window (CVIEW) or equivalent
 - Store interstate and intrastate carrier and vehicle information
 - Share information with authorized State users (e.g., law enforcement)
 - Exchange carrier and vehicle data with FMCSA's SAFER system
 - Use Aspen or equivalent automated inspection software at all major inspection sites



Safety Information Exchange (continued)



- Additional elements often included in safety information exchange deployments:
 - Wireless connectivity to CVIEW, SAFER, and other data repositories
 - Web-based query interface to allow roadside enforcement personnel to access CVIEW
 - Web-based query interface to allow motor carriers and deskside enforcement personnel to access CVIEW
 - Facilitate cross-checking of credentials



Safety Information Exchange(*continued*)

CVIEW

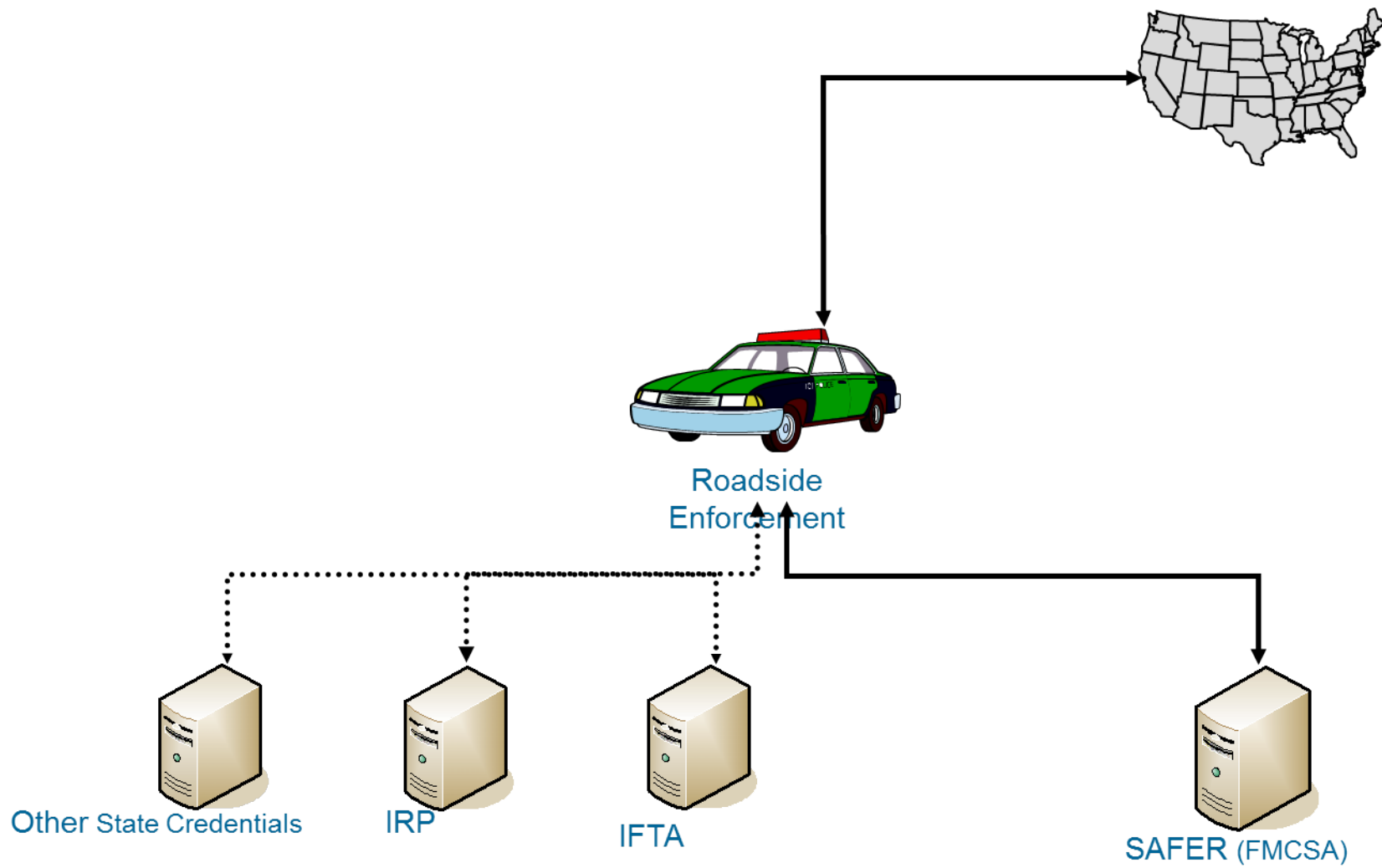


- CVIEW is a state operated system
- It is the primary inter-agency data exchange system at the state level
- CVIEW-SAFER interfaces are standardized and must be certified before a state can send or receive data to/from SAFER



Safety Information Exchange Process

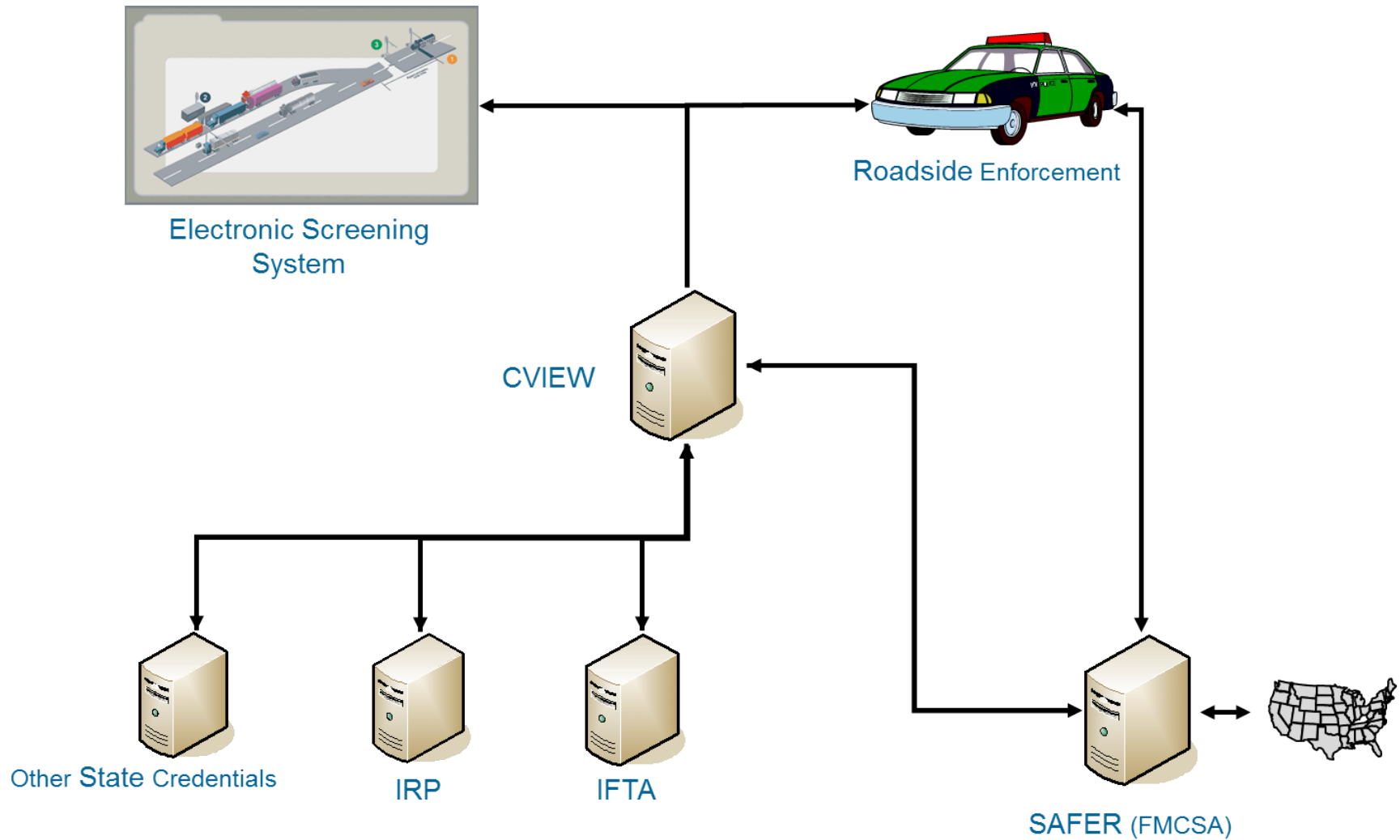
Pre-CVISN/Pre-CVIEW





Safety Information Exchange Process

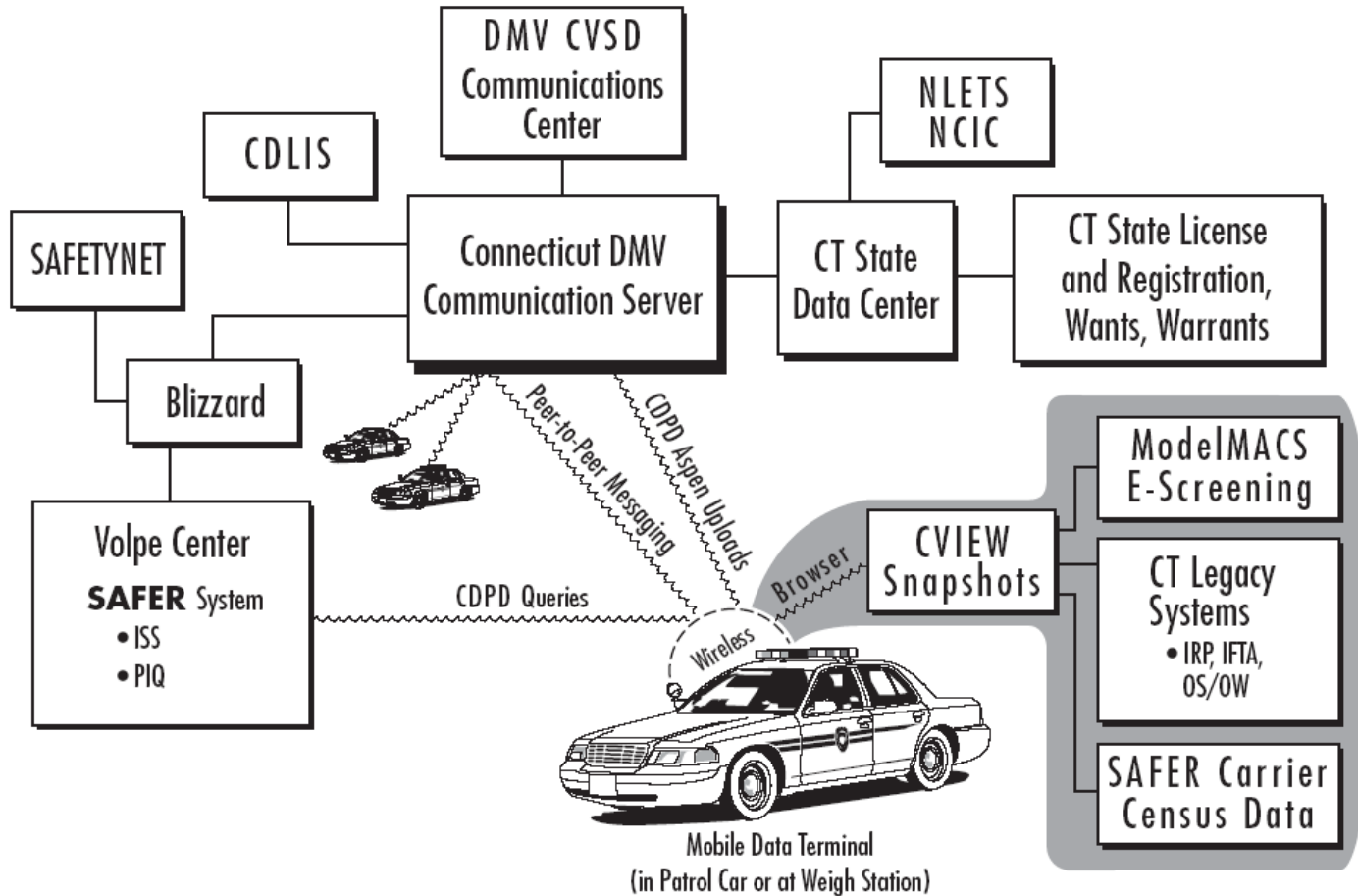
CVISN





Safety Information Exchange

State of Connecticut



Note: Diagram taken from FMCSA's "CVISN Safety Information Exchange for Commercial Vehicles in Connecticut: A Case Study"



Safety Information Exchange

State of South Carolina



CVIEW-PLUS™
Query Windows


You are currently logged in as: iteris [[logout](#)]

Carrier Vehicle Driver Reports [Admin](#) [Settings](#) [Help](#)

Overview IRP/IFTA Safety Inspection L & I Cargo Vehicles UCR

USDOT Unit Carrier Name State Tax ID MC Number

DOUG ANDRUS DISTRIBUTING LLC (234)
 DBA: none
 Last MCMIS Update 2012-03-05



| |
|-----------------------------|
| MCSIP |
| MCSIP Level = 0 |
| MCSIP Level = 0 |
| MCSIP Active Carrier |
| MCMIS Status = A - Active |
| ISS Score |
| ISS Score = 86 |
| ISS Score = 86 |
| UCR/interstate |
| UCR fee paid for year 2012 |



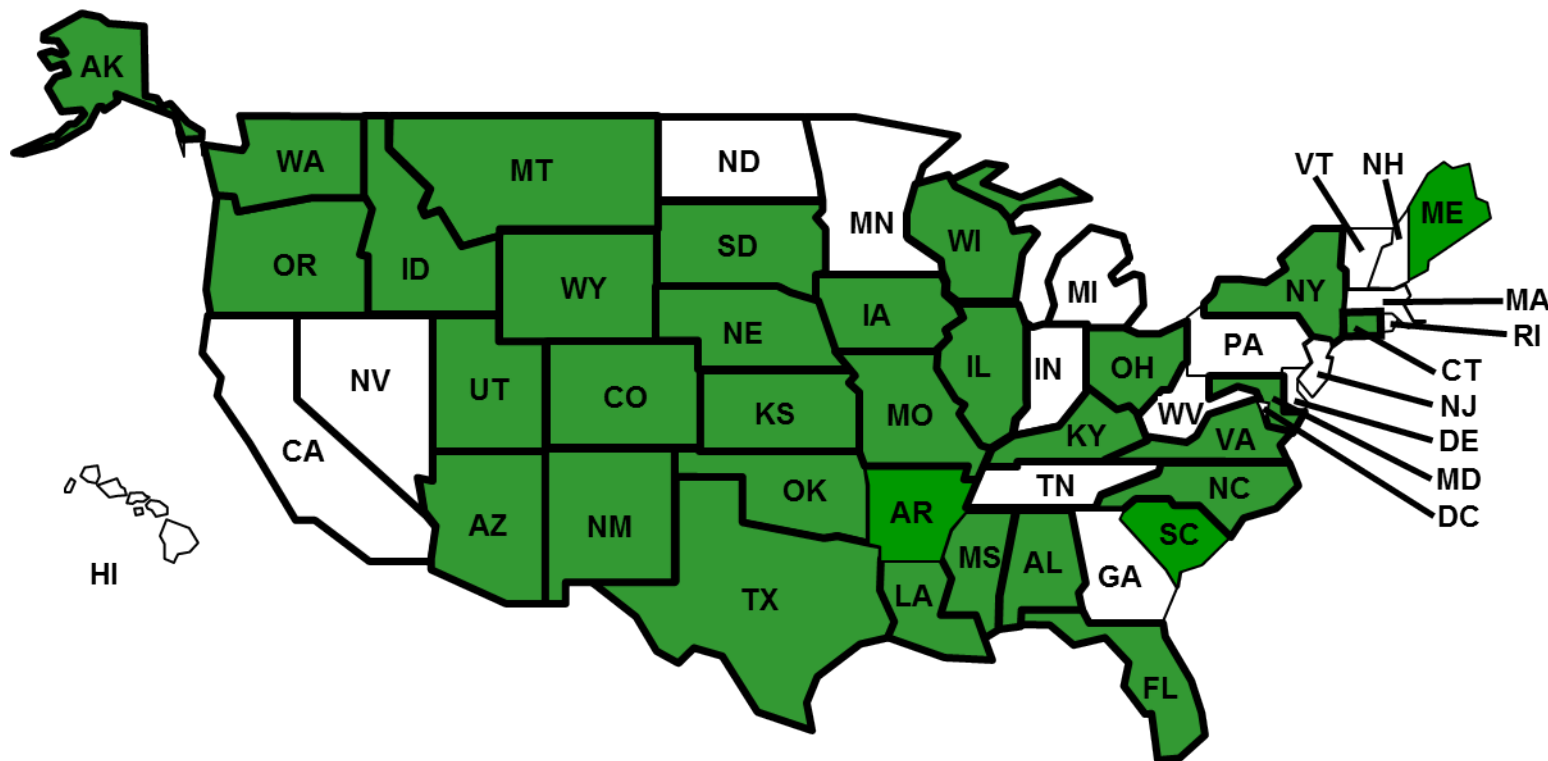
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Version 11.2.0.0



Uploading Credential Data to SAFER (June 2012)



 Uploading to SAFER (33)





Electronic Credentials Administration



- Objectives
 - Allow carriers to apply for and receive credentials electronically
 - Allow carriers to file returns on fuel taxes and pay the associated fees electronically
 - Support base state agreements (IRP and IFTA) and associated fee payment reconciliation

- Core CVISN functionality
 - Automate processing of at least IRP and IFTA credentials
 - Participate in IRP Clearinghouse to share information across jurisdictions and automate funds settlement
 - Participate in IFTA Clearinghouse to share information across jurisdictions and automate funds settlement

Note: Alaska and Hawaii are exempted from IRP and IFTA and therefore do not need to implement the electronic credentialing portion of Core CVISN.



Electronic Credentials Administration (continued)



- Expanded elements often included in electronic credentialing programs:
 - One-stop shop/Internet portal for multiple credentials
 - Inclusion of additional credentials
 - Oversize/overweight permits
 - Intrastate vehicle registrations
 - Intrastate fuel tax credentials/payments
 - Operating authority
 - Transponder registration
 - Electronic payment
 - Cross-checking of credentials

Electronic Credentials Administration

State of Kansas



KANSAS.gov Search

TruckingKS



Online Services



PrePass



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Restrictions & Guidelines

Starting a Business

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Roads & Weather

Tax Information

Safety Issues

KS Dept. of Revenue
Kansas.gov

[Home](#)

IFTA Return Filing

The purpose of this application is to give motor carriers the ability to submit IFTA tax returns online:

File a Quarterly Return
Change Mailing Address
View Online History Info

GO!



[IFTA Additional Decals](#)

[IFTA License Renewal](#)

[IFTA Return Filing](#)

[IRP Registration](#)

[Trucking Permits \(Requires Kansas.gov subscription\)](#)

[KCC Authorities Renewal/Changes](#)

Useful Resources

[Trucking Through Kansas Handbook \(pdf\)](#)
[IRP Resources](#)

USDOT Resources

[USDOT Number for New Carrier Update MCS-150](#)

Heavy Vehicle Use Tax (HVUT)

[Form 2290 and Instructions](#)
[FAQ's for filing Form 2290](#)
[File HVUT Form 2290](#)

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Last Modified 06/26/2012 12:29:34

Electronic Credentials Administration State of New York



https://www.oscar.state.ny.us/OSCR/OSCRCarrierHome New York State Department of Taxa... Bing

File Edit View Favorites Tools Help

Convert Select

Favorites Web Slice Gallery

OSCAR Home Page

One Stop Credentialing and Registration

Log In

USDOT #

NYS Tax-ID#

Password

By clicking Submit, you agree to the [Terms and Conditions](#) and certify all information you submit to us is true and correct to the best of your knowledge.

General Info


- ▶ [About OSCAR](#)
- ▶ [Enrollment Requirements](#)
- ▶ [New York State USDOT Number Application MCS-150NY Form](#)
- ▶ [New York City Oversize/Overweight Permits for commercial Vehicles and Trucks](#)
- ▶ [MTA Bridges & Tunnels](#)
- ▶ [Port Authority Truckers' Resources](#)

Participating Programs

- ▶ [Highway Use Tax - See Publication 538](#)
- ▶ [International Fuel Tax Agreement - See Publication 536](#)
- ▶ [International Registration Plan](#)
- ▶ [NYS DOT Oversize/Overweight Permits](#)

Helpful Links

- ▶ [IFTA E-file](#)
- ▶ [IFTA decal placement](#)
- ▶ [Form TMT-39: New Account Application for Highway Use Tax \(HUT\) and Automotive Fuel Carrier \(AFC\)](#)
 - [Form TMT-39](#)
 - [Form TMT-39 Instructions](#)
- ▶ [Federal Motor Carrier Association](#)
- ▶ [Stay on The Road and On The Job](#)



Notices as of June 8, 2012:

NEW Highway use tax renewal begins Oct. 1, 2012. You must get a certificate of registration and decal for each vehicle. See [Pub 160](#)

The latest version of Adobe Reader is required to view and print the credential(s) and voucher(s). If you do not have this software, [here's how to download a free copy.](#)

UCR Requirements for Commercial Motor Carriers. See [UCR Notice.](#)

[NYS IFTA Carrier: File your IFTA return on-line](#)

OSCAR - Five New York State agencies involved in regulating motor carrier activities have designed a one stop shopping Web site which allows the industry a single point of contact to apply, change, pay for, and receive the operating credentials for HUT/AFC, IFTA, IRP and OS/OW.

The following functions can be performed:

- Obtain HUT certificate(s)
- Request duplicate HUT certificate(s)
- Revise HUT certificate(s)
- Cancel HUT certificate(s)
- Obtain IFTA decals
- Add a vehicle to IRP fleet
- Transfer license plates
- Convert a Commercial Registration to an Apportioned Registration
- Replace IRP Plate/Cab Card
- [NYS DOT Special Hauling Permits](#)

Registration Info

- [Get USDOT #](#)

Internet | Protected Mode: On Show hidden icons 0%

Electronic Credentials Administration

State of Arizona



Motor Vehicle Division - Windows Internet Explorer
http://www.azdot.gov/mvd/Menuonlineservices.asp

MVD Offices & Alternatives | Vehicle Registration | Road Conditions | Traffic Cameras | Public Meetings

ADOT Arizona Department of Transportation **AZ.GOV** Arizona's Official Web Site

Google Custom Search Search

Home Page :: MVD Site Index

MVD Home Page

- Online Services
- Frequently Asked Questions
- New To Arizona?
- General Information
- Driver Services
- Vehicle Services
- Commercial Services
- Motor Carrier Services
- Fuel Tax Information
- Aircraft Services
- Other Services
- Business Partners
- Forms & Publications
- How Are We Doing?
- Contact Us

Online Services

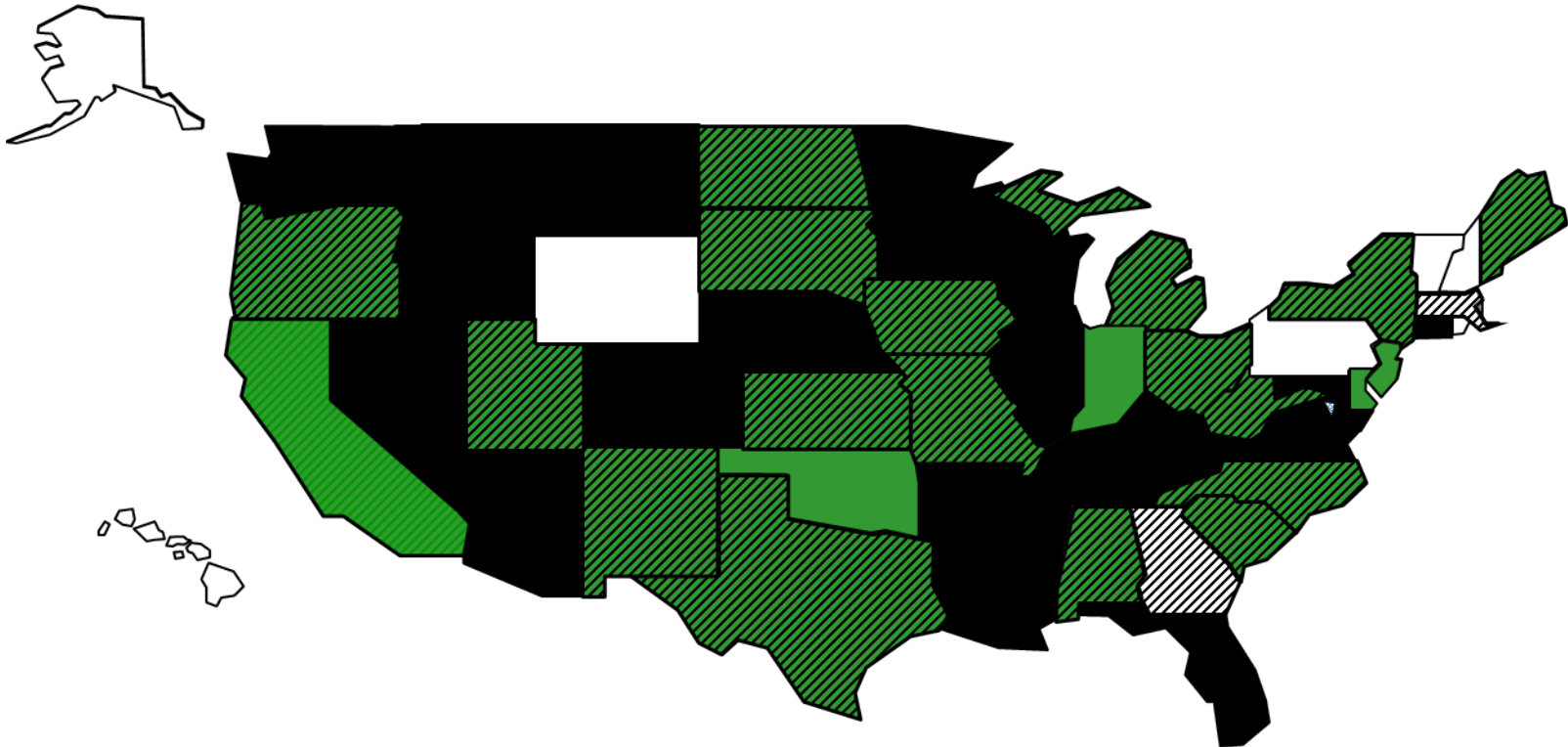
- Vehicle Registration Renewal
- Duplicate Driver License or Identification Card
- Address/Email Change
- 30-Day General Use Permit
- Aircraft Registration Renewal
- Commercial Vehicle Permits**
- De-Insured Certificate
- Driver License Reinstatement
- Duplicate Vehicle Registration
- Fleet Registration Renewal
- IFTA Tax Filing
- Insurance Verification
- Motor Vehicle Record
- Off-Highway Vehicle Decal
- Organ Donor Registry (AZDonorRegistry.org)
- Personalized/Special Plates
- Plate Credit
- Plate Refund
- Registration Compliance-Violator Report
- Restricted Use 3-Day Permit
- Sold Notice
- Tab Replacement
- Vehicle Fee Recap
- Voter Registration

Arizona Department of Transportation
Disclaimer & Privacy Statement | Contact MVD

Electronic Credentials Administration Deployment Status (June 2012)



 IRP only (6 states)



- AK has implemented e-credentialing for OS/OW.
- AK and HI are exempt from IRP and IFTA



Electronic Screening



- Objectives
 - Use technology to identify trucks as they approach roadside weigh or inspection stations
 - Allow safe and legal vehicles to bypass inspection/weigh facilities without stopping
- Core CVISN functionality
 - Implement electronic screening at a minimum of one fixed or mobile inspection site
 - Identify enrolled vehicles (e.g., via in-vehicle transponders)
 - Screen vehicles based on safety history and credentials status (e.g., registration, fuel tax payment, operating authority) as well as weight (optional)
 - Allow enrolled vehicles that meet the State's criteria to bypass inspection sites



Electronic Screening

Targeted Safety Enforcement



- Current, accurate information allows enforcement personnel to be more discriminating in selecting vehicles for inspections
- As a result, enforcement officers can focus on high-risk operators, allowing safe and legal carriers, vehicles, and drivers to bypass roadside inspections
- This is accomplished by electronically:
 - Using inspection selection tools
 - Accessing credentials and safety information at the roadside
 - Exchanging information with other agencies and states
 - Screening vehicles at mainline speeds

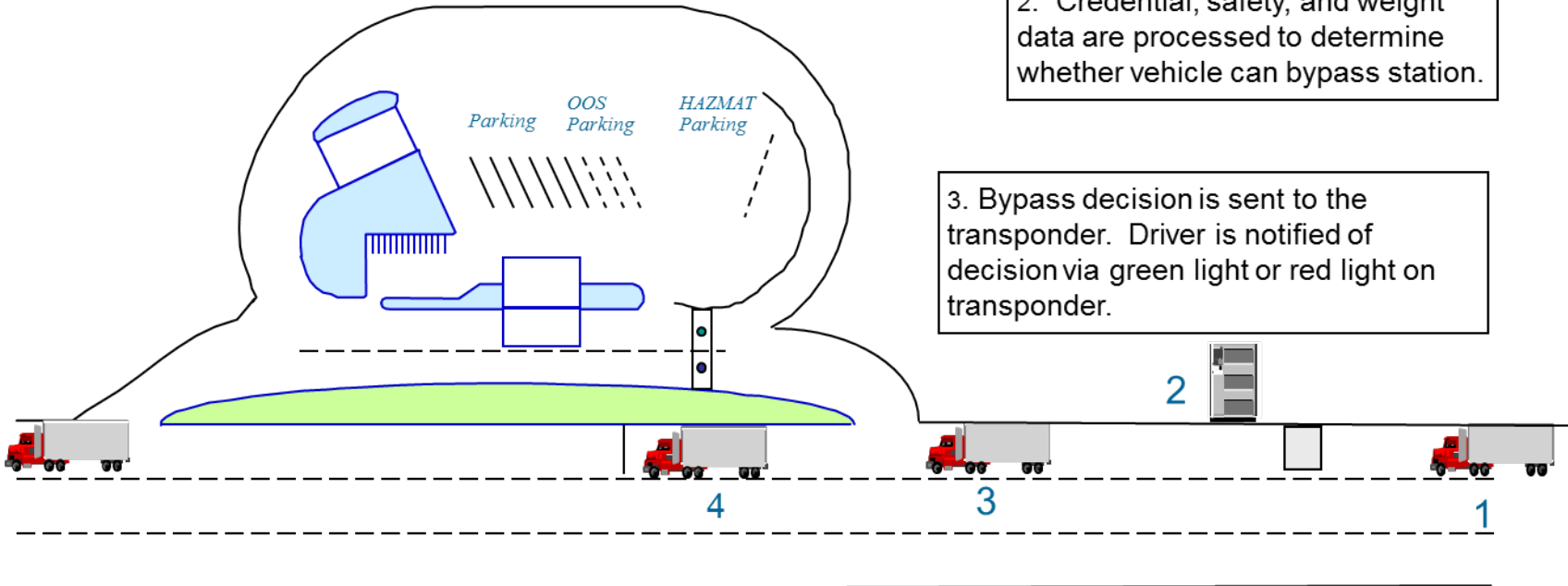


Electronic Screening (continued)

1. Commercial vehicle approaches weigh station. Screening system identifies the carrier and vehicle; classifies the vehicle; and weighs the vehicle.

2. Credential, safety, and weight data are processed to determine whether vehicle can bypass station.




3. Bypass decision is sent to the transponder. Driver is notified of decision via green light or red light on transponder.

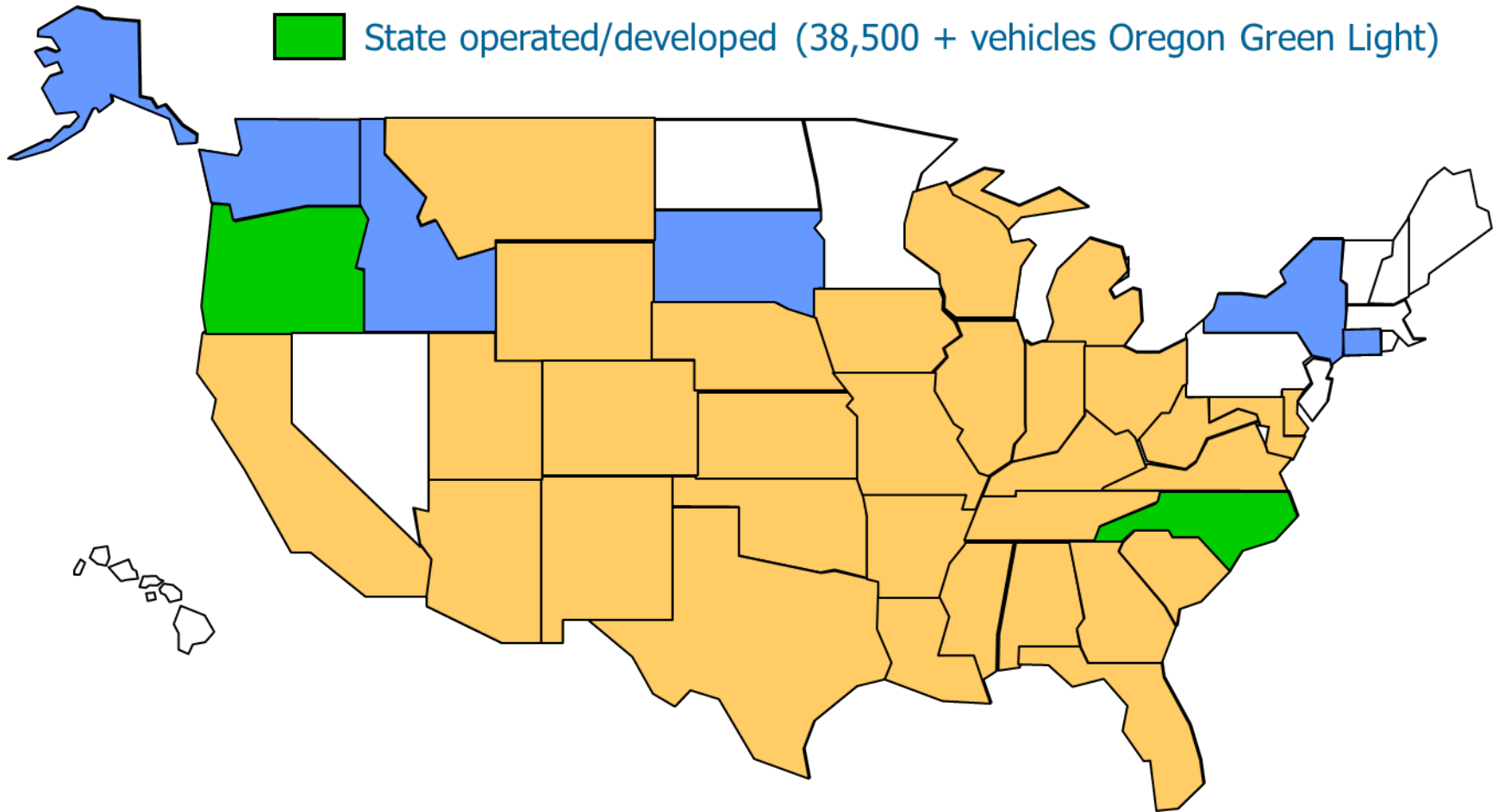


4. Compliance reader verifies that vehicle has been cleared to bypass the station

Electronic Screening Participation (June 2012)



-  PrePass (420,000+ vehicles)
-  NORPASS (75,000+ vehicles)
-  State operated/developed (38,500 + vehicles Oregon Green Light)





Electronic Screening (continued)

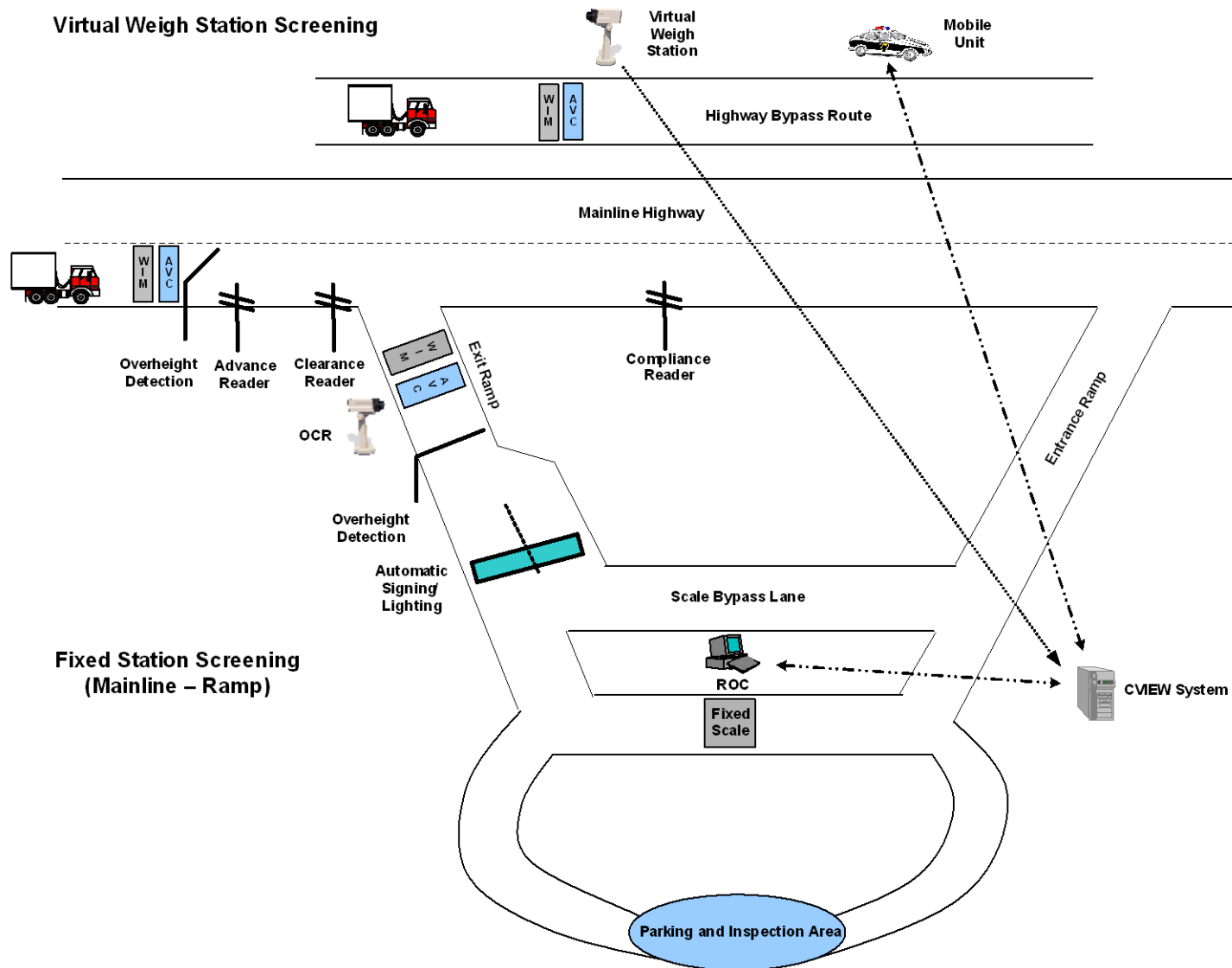


- Expanded elements included in electronic screening programs:
 - Agricultural screening
 - Integration with toll collection systems
 - Virtual weigh station



Electronic Screening (continued)

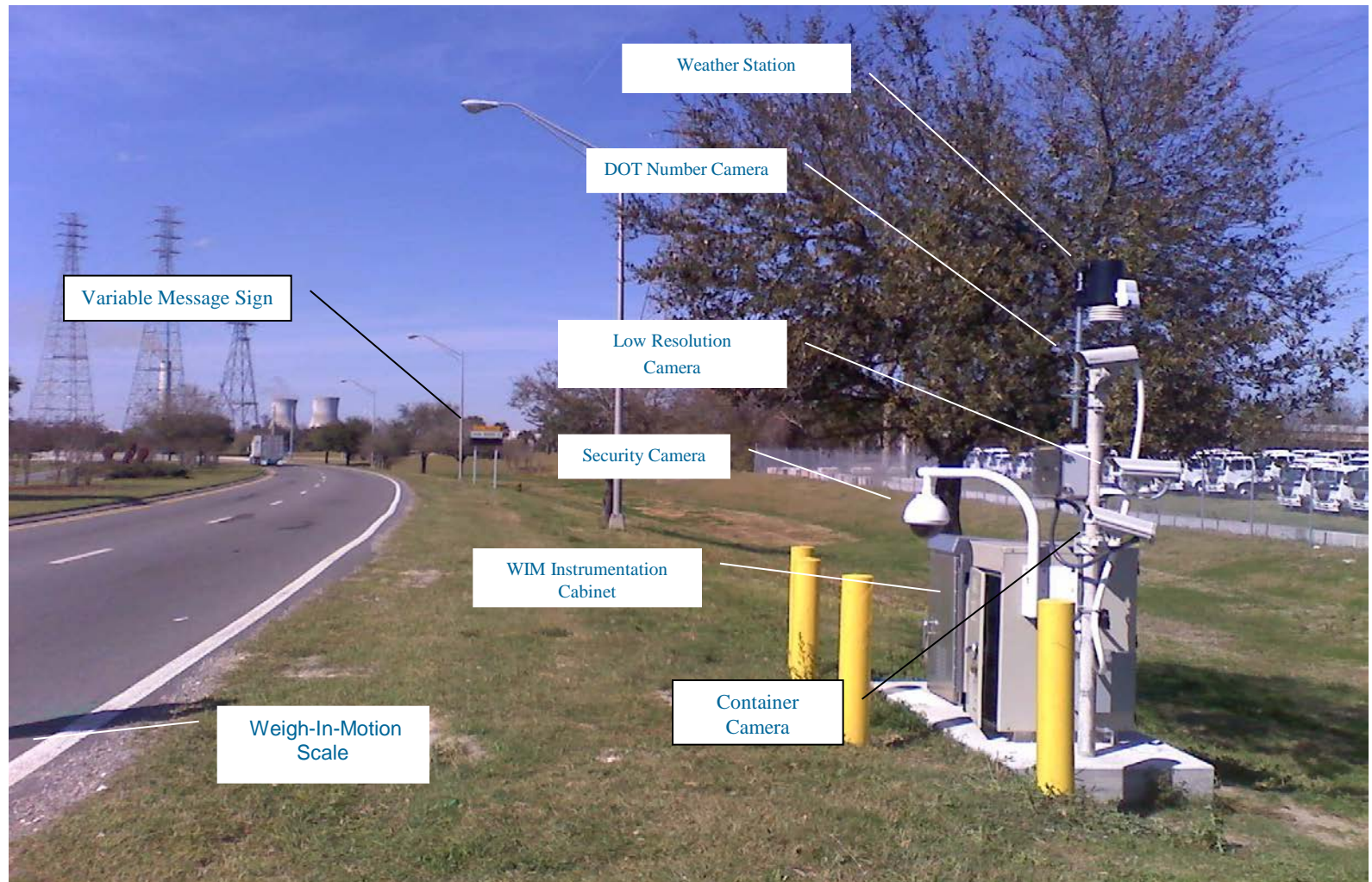
Virtual Weigh Stations





Electronic Screening (continued)

Virtual Weigh Stations



Source: JAXPORT Demonstration, 2008 Smart Roadside Workshop.



Electronic Screening (continued)

Virtual Weigh Stations



Source: Weigh-in-motion scales and license plate reading cameras in Washington State, FMCSA photo



Electronic Screening (continued)

Virtual Weigh Stations



Vehicle Live Summary

Smart Roadside™ | System Time 11:29:53am
 Logged in as Werner Fraga

[Top of Queue](#) [Queue Detail](#)

| Overview | Vehicle | Plates | DOT # | Alerts |
|----------|--|--------------|------------|--|
| | Interstate X Southbound #1 07:26:43 2009-02-20 | AD 31166 | 054283 | <ul style="list-style-type: none"> ⚠ NCIC Alert ⚠ Tax Owing 3 more alerts › |
| | Interstate X Southbound #1 17:10:19 2009-02-03 | 47093HZ | NoRead | |
| | Interstate X Southbound #1 17:09:02 2009-02-03 | PX6 1A3 | 212920 | <ul style="list-style-type: none"> ⚠ Plate / DOT Mismatch Alert: Here's some extra context for the sake of showing longer messages.... ⚠ Tax Owing |
| | Interstate X Southbound #1 17:08:19 2009-02-03 | 116458 | 073705 | <ul style="list-style-type: none"> ⚠ Nebraska Plate Alert ⚠ Tax Owing 1 more alert › |
| | Interstate X Southbound #1 07:26:43 2009-02-20 | AD 31166 | 054283 | |
| | Interstate X Southbound #1 17:10:19 2009-02-03 | 47093HZ | NoRead | |
| | Interstate X Southbound #1 17:09:02 2009-02-03 | PX6 143 | 212920 | |
| | Interstate X Southbound #1 17:08:19 2009-02-03 | 116458 | 073705 | |

Source: State of New Mexico Department of Public Safety



CVISN Benefits



| | Benefit Applies to | | Benefit Derived From | | |
|--|--------------------|-------|----------------------|-------------|--------------|
| | Carrier | State | Safety Info Exch | E-Screening | E-Cred Admin |
| Targeted enforcement focused on high-risk carriers and vehicles | ● | ● | ● | ● | |
| More effective use of roadside enforcement resources | | ● | ● | ● | |
| Real-time access to online data at fixed inspection facilities and by mobile units | ● | ● | ● | ● | |
| Improved asset tracking and safety/driver management | ● | | ● | ● | |
| Improved access to credential and safety information from other jurisdictions | ● | ● | ● | ● | ● |
| More efficient and cost effective processing of credential applications | ● | ● | | | ● |
| Improved customer service/Ability to receive select credentials 24X7 | ● | ● | | | ● |
| Improved accuracy and timeliness in credentials processing | ● | ● | ● | | ● |



CVISN Can Save Lives

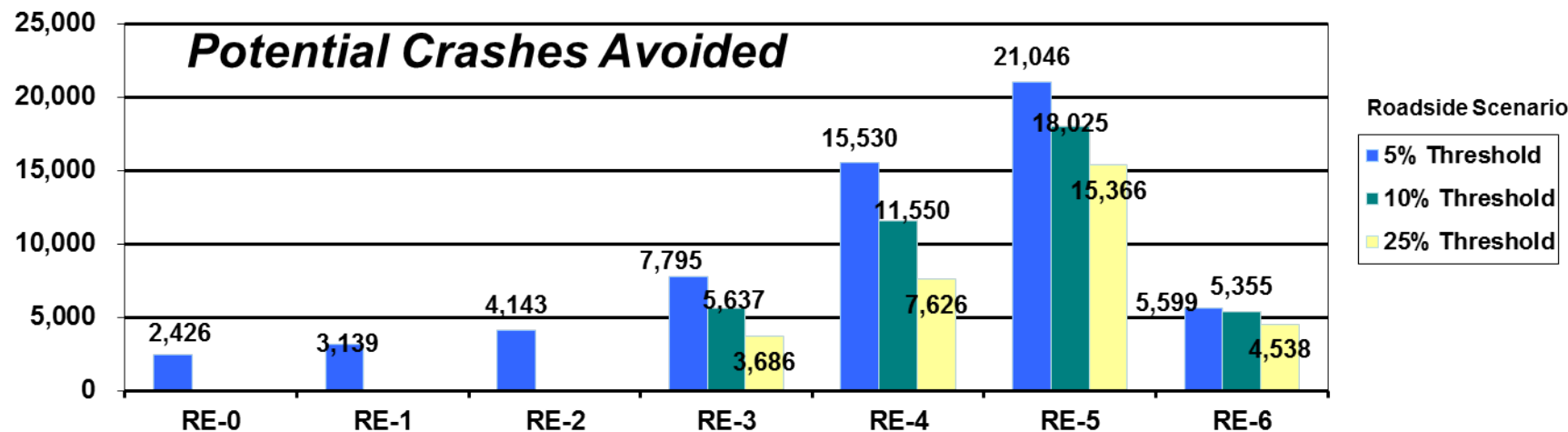
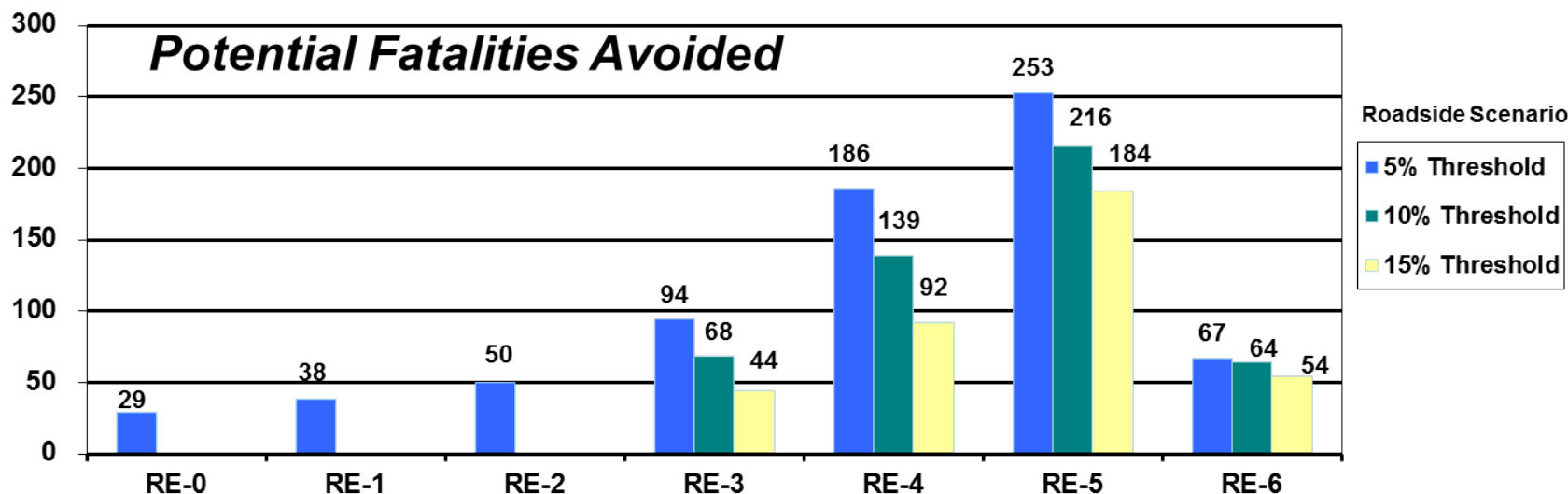


- Evaluation compared six different operating scenarios:
 - RE-0, Random selection: Inspectors select commercial vehicles for inspection in a random manner without using personal experience, judgment or any CVISN technologies
 - RE-1, Pre-CVISN Baseline: Inspectors select commercial vehicles for inspection using personal experience and judgment, but without the aid of most CVISN technologies
 - RE-2: Electronic screening based on ISS score
 - RE-3: Electronic screening based on high vehicle and driver OOS rates
 - RE-4: Electronic screening based on high driver OOS and brake violation rates
 - RE-5: Electronic screening based on infrared screening and high driver OOS violation rate
 - RE-6: Electronic screening based on high ISS score

Source: Evaluation of the National CVISN Deployment Program: Volume 1 Final Report. March 2, 2009.
http://www.fmcsa.dot.gov/documents/cvisn/eval_natl_cvisn_deployment-508.pdf



CVISN Can Save Lives (continued)



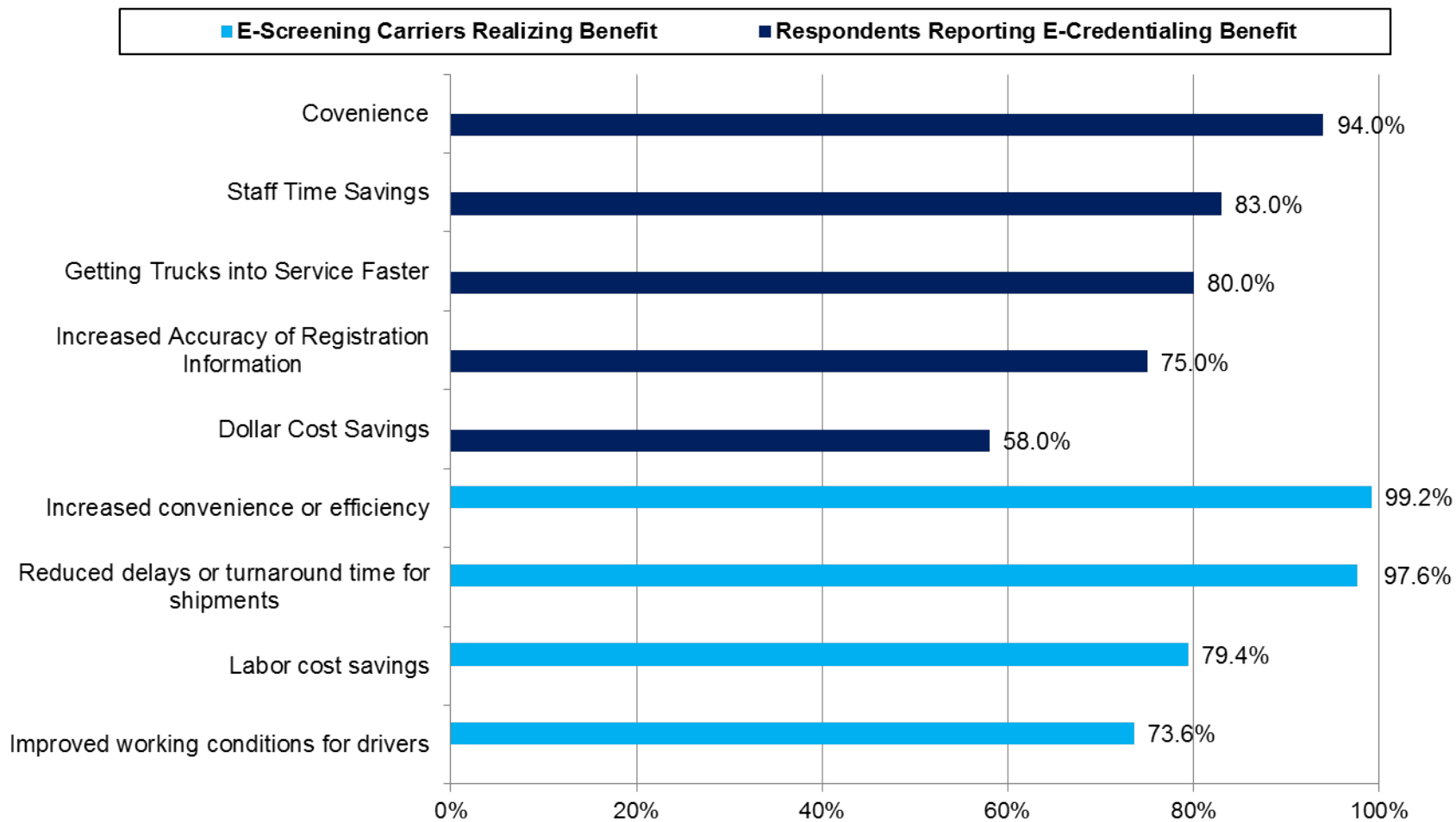
Source: Evaluation of the National CVISN Deployment Program: Volume 1 Final Report. March 2, 2009.
http://www.fmcsa.dot.gov/documents/cvisn/eval_natl_cvisn_deployment-508.pdf



CVISN Benefits (continued)



CVISN Benefits



Source: Evaluation of the National CVISN Deployment Program: Volume 1 Final Report. March 2, 2009.

http://www.fmcsa.dot.gov/documents/cvisn/eval_natl_cvisn_deployment-508.pdf

Office of Research and Information Technology



Role of FMCSA Division



- Oversee CVISN Grant related activities
- Ensure that the State's CVISN Plan is compliant with CVISN Program requirements
- Ensure that the State's CVISN Plan is consistent with the other FMCSA grant programs being implemented by the State
- Support and monitor the State's CVISN Program to ensure continued compliance



Next Steps



- Conduct additional training sessions geared toward FMCSA Divisions to provide:
 - Detailed technical information on the CVISN program
 - Complete understanding of the roles and responsibilities
 - In-depth information to support and monitor states' CVISN program
- Continue monthly CVISN State program managers conference calls and CVISN architecture configuration control board calls
- Continue to provide technical assistance to FMCSA Service Centers and Divisions