Collaboration for Success

The Mississippi CVISN Project
Purpose of MDOT
Key Challenges

- **Safety** – Despite crash rate reductions, the number of crashes continues to increase due to growth in VMT
  - Need: *Focus limited enforcement resources on higher risk carriers, vehicles and drivers*

- **Productivity** – Motor carriers lose $1 per minute when a truck is stopped; state staffing levels are constrained
  - Need: *Enable safe and compliant vehicles / drivers to proceed without delay and without need for state staff intervention.*

- **Efficiency** – State agencies and motor carriers expend millions on regulatory activities
  - Need: *Accommodate increased demand for services with fixed / declining staff levels*
Truck Vehicle Miles Traveled (VMT)

Year


Truck VMT (billions)

0 50 100 150 200 250 300 350 400
Freight Forecast by Mode (Tonnage)

- 1998:
  - Truck: 10.86
  - Rail: 2.00
  - Water: 4.00
  - Air: 0.00
  - Other: 2.00

- 2010:
  - Truck: 15.66
  - Rail: 2.00
  - Water: 5.00
  - Air: 0.00
  - Other: 2.00

- 2020:
  - Truck: 19.20
  - Rail: 2.00
  - Water: 6.00
  - Air: 0.00
  - Other: 2.00

The bar chart shows the forecasted tonnage in billions for each mode of transportation from 1998 to 2020.
Highway Congestion, 2000
Highway Congestion, 2020
HOW???

HOW???
Islands of Technology
Supporting CVO

Information systems were built primarily to allow information to flow within a particular state or local agency, carrier, or supplier. As a result, it is difficult to share information.

Roads were built to allow traffic flow within and between states.
Why “Collaboration”?

- Mississippi Department of Transportation
  - Office of Enforcement
    - Permits
    - UCR
    - Enforcement Officers
  - Division of Planning
  - Traffic Control
- Mississippi Tax Commission
- Mississippi Department of Public Safety
- Mississippi Truckers Association
- Federal Motor Carrier Safety Administration
CVISN Program Goals

- Improve safety and productivity of commercial vehicles and 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 state and industry regulatory costs
CVISN Core Deployment Components

Automated Safety Assurance
- ASPEN
- Connection to SAFER
- CVIEW implementation

Credentials Administration
- IRP / IFTA Clearinghouse connectivity
- Electronic credentialing for IRP and IFTA, ready to extend to other credential types

Electronic Screening
- Screening using WIM, and automated safety / credentials verification at minimum of one site
Safety Projects Implemented

- **ASPEN**
  - FMCSA software for recording inspection results electronically
  - ASPEN loaded on laptops,
  - ASPEN used to record safety inspections and upload inspections to state and national systems from the roadside

- **SAFER**
  - FMCSA-owned database housing safety status information on all interstate carriers
  - Will ultimately house credential status information on all interstate carriers – currently 29 states sending data
  - DPS and MDOT networks are interfaced to SAFER
Safety Projects Implemented

- CVIEW
  - State-owned database housing safety / credential status information on carriers and vehicles
  - Interfaced with SAFER to enable upload of Mississippi IRP and IFTA information, download of safety and credential status information on carriers and vehicles based in other states, Canada and Mexico
  - Interfaced with Mississippi systems:
    - IRP
    - IFTA
Safety Information Exchange

- Implement a state-specific data warehouse *Commercial Vehicle Information Exchange Window (CVIEW)*
  - Use CVIEW to store interstate and intrastate carrier and vehicle information
  - Use CVIEW to share information with authorized state users (e.g., law enforcement)
  - Use CVIEW to exchange carrier and vehicle data with FMCSA’s Safety and Fitness Electronic Records (SAFER)

- *Use ASPEN or equivalent automated inspection software at all major inspection sites*
Safety Information Exchange

- **Expected benefits**
  - Ability to target enforcement resources at high-risk or improperly credentialed motor carriers and/or commercial vehicles
  - Ability to access safety and credential data from other jurisdictions
  - Improved inspection data quality and timeliness
  - Supports other CVISN program areas
MS Commercial Vehicle Information Exchange Window (CVIEW)

- Consolidates Fuel Tax (IFTA), License Plate (IRP) and Insurance/Safety (SAFER) data for query and retrieval. UCR registration data is planned to be included in a future version.

- Web-based interface for both roadside and inter-agency use.

- Currently in testing, with production deployment by early 2010.

- Sample screenshots are shown on following slides:
Pre-CVISN Safety Information Exchange Process

Roadside Enforcement

Other State Credentials  IRP  IFTA  SAFER (FMCSA)
Pre-CVISON Safety Information Exchange Process

Roadside Enforcement

- Other State Credentials
- IRP
- IFTA
- SAFER (FMCSA)
Pre-CVISN Safety Information Exchange Process
Pre-CVISN Safety Information Exchange Process

Roadside Enforcement

- Other State Credentials
- IRP
- IFTA
- SAFER (FMCSA)
CVISN Safety Information Exchange Process
CVISN Safety Information Exchange Process

Roadside Enforcement

CVIEW

Other State Credentials
IRP
IFTA
SAFER (FMCSA)
CVISN Safety Information Exchange Process

- Roadside Enforcement
- CVIEW
- Other State Credentials
- IRP
- IFTA
- SAFER (FMCSA)
CVISN Safety Information Exchange Process
CVISN Safety Information Exchange Process

Roadside Enforcement

CVIEW

Other State Credentials
IRP
IFTA
SAFER (FMCSA)
CVISN Safety Information Exchange Process

Roadside Enforcement

CVIEW

Other State Credentials  IRP  IFTA

SAFER (FMCSA)
CVISN Safety Information Exchange Process

Roadside Enforcement

CVIEW

Other State Credentials
IRP
IFTA
SAFER (FMCSA)
CVISN Safety Information
Exchange Process

Roadside Enforcement

CVIEW

Other State Credentials
IRP
IFTA

SAFER (FMCSA)
Safety Projects Implemented

- Roadside wireless connectivity
  - Available to MCSAP officers throughout the state via aircards
  - Enables access to centralized systems / upload to centralized systems from anywhere in the state.
Electronic Credentials

- **Objective**
  - Allow carriers to apply for and receive credentials electronically

- **Core CVISN Functionality**
  - Automate processing of at least International Registration Plan (IRP) and International Fuel Tax Agreement (IFTA) credentials
  - Participate in IRP Clearinghouse to share information across jurisdictions and automate funds settlement between jurisdictions
  - Participate in IFTA Clearinghouse to share information across jurisdictions and automate funds settlement between jurisdictions
Electronic Credentials

- **Expected benefits**
  - Improved customer service to motor carrier industry
  - Reduced administrative costs for state credentialing agencies and motor carriers
  - Improved data accuracy and turnaround time in processing credentials
  - Increased data sharing among state agencies
  - Increased regulatory compliance
Credentials Projects Implemented

- IRP – PRISM Process
  - Ties registration process to safety performance
  - Assists officers at roadside in identifying the carrier responsible for safety when enforcement actions taken against a driver or vehicle

- OS / OW System
  - Web-based permitting for more than 50% of permits issued
  - Carriers can apply for, route, pay for and print OS/OW permits via the internet
  - Static routing
    - Enables system to vet / approve route without permit staff intervention
Electronic Screening

- **Objective**
  - Automatically screen vehicles at roadside and allow safe and legal vehicles to bypass inspection sites 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 credential 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 – Fixed Site

- Use of WIM and automated safety/credentials verification
- Orange Grove
E-screening Projects Implemented

- PrePass
  - Implemented at weigh stations
  - Enables safety / compliance screening at mainline speeds
  - Reduces number of vehicles through fixed ports by 20-30% (reducing need for physical capacity increases)
Electronic Screening Overview
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1. Commercial vehicle approaches weigh station. Screening system identifies the carrier and vehicle; classifies the vehicle; and weighs the vehicle.
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2. Credential, safety, and weight data are processed to determine whether vehicle can bypass station.
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3. Bypass decision is sent to the transponder. Driver is notified of decision via green light or red light on transponder.
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4. Compliance reader verifies that vehicle has been cleared to bypass the station.
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Electronic Screening- Virtual Site

- Roadside Screening
  - Need
  - How to accomplish
  - Virtual Weigh Stations
More Information

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