WEST VIRGINIA

ITS/CVO

MAINSTREAMING BUSINESS PLAN

Prepared by:

West Virginia Department of Transportation
Division of Motor Vehicles

with assistance from
Lockheed Martin IMS

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PARTNERING AGREEMENT

Whereas, the State of West Virginia recognizes the need for increased cooperation and coordination between the public and private sectors in the area of motor carrier monitoring and regulation;

Whereas, the several state agencies that administer commercial vehicle operation regulatory and safety programs including the West Virginia Motor Truck Association have worked together to develop a ITS/CVO Business Plan;

Whereas, the public interest would best be served by coordination and integration of this broad based plan among the public and private sector;

Whereas, the West Virginia Division of Motor Vehicles has been assigned the responsibility for the preparation of the ITS/CVO Business Plan;

Therefore, we the agencies responsible for various commercial vehicle programs agree to cooperate, participate and support the implementation of the ITS/CVO Business Plan for the purpose of guiding our efforts in using the latest technology to increase coordination among state agencies and to improve the productivity of both the state agencies and the motor carrier industry.

Richard E. Boyle, Jr.
Tax Commissioner
Division of Tax and Revenue

Charlotte R. Lane
Chairman
Public Service Commission

Colonel Gary L. Edgell
Superintendent
West Virginia State Police

Samuel H. Beverage
Commissioner
Division of Highways

William H. Gavan
General Manager
West Virginia Parkways,
Economic Development and Tourism

Joe E. Miller
Commissioner
Division of Motor Vehicles

Executive Summary

The West Virginia ITS/CVO Business Plan has been developed with the cooperation of the several state agencies that administer CVO programs as well as the West Virginia Motor Truck Association and its members. The basic tenants of this plan include the elements of discovery of processes, regulations and institutional barriers that need to be changed or eliminated. The adoption of working ITS/CVO technologies for increased productivity for both the state agencies and for the motor carriers will be applied to both traditional and new ways of doing business.

The West Virginia goals, objectives and projects identified are tied to the objectives of the National ITS/CVO program goals for safety, administration, congestion relief and carrier productivity. The ranking of the projects is in order of the most effective in each of the four categories.

The application of ITS/CVO technologies for this state and the region in which we identify depend on the availability of funding from sources both within the state and from the federal government. Safety projects for inspections and information access require MCSAP funding for the specific acquisition of equipment and upgraded access to networks. Likewise, weigh station operational improvements with WIM technologies require the approval of Federal Highway funds and state matching monies. Credential and tax payment improvements through the adoption of CVISN technology to interface legacy systems and provide electronic access to motor carriers may be paid for by both state and federal government and the motor carriers.

The development of this Business Plan has brought attention to the real benefits of applied ITS technologies to Commercial Vehicle Operations. The plan brings into the forefront the ideas of including ITS/CVO projects as an integral part of the state planning and budgeting process. The plan brings together all of the agencies with CVO responsibilities and requires them to acknowledge the benefits to be derived from ITS applied technology.

With the support of the directors of the departments with CVO responsibility, the plan will be utilized to inform the Governor and state legislators about the benefits to both the operations of the state and the increased access and productivity of carriers. The safety elements of CVO can be used to assure the citizens that everything is being done to identify unsafe operations and to take appropriate action to correct unsafe situations - both in operations of carriers and in the identification and management of high incident locations.

This ITS/CVO Business Plan is a beginning guide for our technological entry into the next century. The vision of the National plan is for continuous updates as technology advances in ITS implementation. If we continue to place our emphasis on our identified projects and development of additional ITS solutions to CVO, we will be in step with those goals.

A brief overview of each project is outlined in the following paragraphs.

The dynamic speed warning for long down grades is a pilot project which will help to reduce accidents and fatalities at high accident areas. The Division of Highways Traffic Engineering section is leading this project and is responsible for acquiring appropriate funding. Once installed, this will serve as a model for use in other high accident areas.

The West Virginia toll system upgrade will reduce overall congestion at toll plazas as well as enhance commercial traffic flow through the plazas. The improvements will also reduce cost for commercial carriers by eliminating the need to stop and return to highway speeds, as well as creating a safer travel environment. Funding will be secured by the Turnpike Authority in conjunction with federal matching fund availability.

The next project is an effort to assist roadside enforcement. This project will be used to purchase lap top computers for immediate on-line access to SAFER and the states interface with CVIEW. Project funding will be a joint effort with the Federal Highway Administration and the Public Service Commission.

The consolidated truck center is a visionary model of interagency cooperation with the ultimate goal being a true one-stop shop. All aspects of commercial vehicle registration and regulatory requirements will be facilitated at this location. Funding will be accomplished with cooperation of all agencies involved by garnering funds through the normal state budgetary process. These funds will be applied as a part of the necessary match to acquire federal funding.

Project number five involves the integration of state legacy systems to accomplish many of the CVISN tasks. These tasks include electronic credentialing for carriers, CVIEW and SAFER access for roadside enforcement, as well as other related state applications. All agencies will be working together to accomplish these tasks with the funding responsibility divided among each agency. The use of federal matching funds will be used as available.

Pre-clearance will allow enforcement officials to concentrate on unsafe companies. This is a project that may be developed as a cooperative effort with our surrounding states. Funding for this project is minimal and has already been budgeted.

The Motor Carrier Advisory Committee and the CVISN working group will meet annually. Project development and status report meetings will be held on a regular basis as needed. The Motor Carrier Advisory Committee is made up of several state agencies, Federal Highways Administration and the West Virginia Motor Truck Association.

1.0 INTRODUCTION

This ITS/CVO Business Plan is being developed as a living document for the identification of programs and projects to support commercial vehicle operations within and throughout West Virginia. In addition to those operations within West Virginia, the plan is to be coordinated with the surrounding states and regions for like operations. The plan recognizes the number of agencies within the state that must be contacted by commercial vehicle operators for both regulatory and safety compliance. The number of agencies contacted creates an undue burden on motor carriers, this plan will act as a consensus builder for change in operations and service delivery.

There are many current ITS/CVO initiatives at both the state and national level. Many of these projects were initiated to test "operational" theories for increasing safety compliance, easing of highway congestion and upgrading access and service levels from the states' regulatory systems. In many of these cases, improvements have been identified in systems and services that can now be planned for implementation on a statewide, regional and national basis. This plan identifies elements of ITS/CVO from some of those tests that are being proposed for implementation. Also, there are initiatives from the agencies that will take place to improve on service levels and to expand contact opportunities for motor carriers.

The West Virginia Department of Transportation (DOT), Division of Motor Vehicles (DMV) is the designated agency responsible for the plan development. As the coordinating agency, they have helped identify those members of both the state and the motor carrier industry who are affected by this plan and have an interest in contributing to its development. The state agencies involved include:

Department of Transportation
- Weight Enforcement (WE)

Division of Motor Vehicles
-Motor Carrier Services (MCS)

Division of Highways (DOH)
- Transportation Planning Division

Public Service Commission
- Transportation Division (PSC)

Department of Tax and Revenue (DTR)

West Virginia State Police

Parkways Economic Development and Tourism Authority (Parkways)

1.1 CONCERNS OF THE MOTOR CARRIER INDUSTRY

In addition to the state agencies, Mr. Bob Stanley, Executive Director of the West Virginia Motor Truck Association, has been a member of the Motor Carrier Advisory Committee since its inception. Fred Burns of Burns Motor Freight also represents the industry on the Motor Carrier Advisory

Committee. They have indicated that the following technological issues are the major concerns of the motor carrier industry in West Virginia.

- *One Stop Shopping*: The move toward compatible information, that includes the collection and sharing of information among agencies and states can make "one-stop shopping" a real benefit to the industry. The industry will no longer have to spend hours running from one agency to another to fill out similar paperwork. Rather, electronic transfer of information and payments, coupled with the exchange of information among agencies will make government more user friendly and the industry more efficient.

- *PrePass*: PrePass is the high-tech weigh station bypass that automatically weighs and checks for compliance with safety regulations and credentialing as vehicles drive by participating facilities. This concept will improve safety, as trucks will no longer pull in and out of scales, thereby, decreasing operating expenses and improving delivery time for the carrier. The concern with this technology is that transponders are uniform, thus being compatible among states, carriers and projects. Industry does not want to carry a myriad of transponders to effect interstate travel.

- *EasyPass*: This technology is being used at toll facilities throughout the nation. EasyPass and PrePass have similar effects for the industry. EasyPass provides for the non-stop operation on toll roads by electronically collecting tolls via transponders and billing credit-worthy motor carriers.

- *Self Credentialing*: The motor carrier industry is also interested in the concept of self-issuance of credentials. The motor carrier would be allowed to enter registration data on-site and submit electronic funds transfers to the state at the same time application is made. This concept would enhance one-stop shopping.

The funding for the development of the ITS/CVO Business Plan comes from a grant of FHWA ITS/CVO Mainstreaming monies with contributions in kind from all involved state agencies.

2.0 OVERVIEW OF BUSINESS PLANNING PROCESSES

The development of the ITS/CVO plan includes several different phases:

- Initial meetings with agencies involved with CVO (See 3.1 for agencies)
- Motor Carrier Advisory Committee meetings to review ITS/CVO plan direction
- Individual information gathering one-on-one meetings with agencies and motor carriers
- Consensus agenda for incorporating projects into business plan
- Sharing the plan draft with Regional counterparts
- Develop final written report with endorsements by state and motor carriers

Initial meetings held resulted in agencies providing written summaries of their operations and ideas for the deployment of ITS/CVO as it pertained to their specific area of responsibility. As this information was gathered, it became clear that the agencies as individual operating units did not possess a clear "vision" of coordinated process improvements. However, the motor carrier industry did not express any great degree of dissatisfaction with the services now provided by the state.

The individual sessions, as well as the consensus workshop, began to identify the areas where ITS/CVO projects would stand alone and those that would result in cooperative efforts between agencies for coordinated CVO improvements. The review of the National ITS/CVO program objectives helps to focus the state program. These National ITS/CVO objectives include:

- Improve highway safety
- Streamline the administration of motor carrier credentials and taxation
- Reduce congestion costs for motor carriers
- Ensure regulatory compliance by and equitable treatment of motor carriers

Consistent with the National ITS/CVO program objectives, the state plan provides a focus on the primary goals for implementation of ITS/CVO programs and technologies into the early 2000's. The plan includes the following state initiatives:

- Identification of commercial vehicle high accident locations and remedial projects
- Concentration of safety inspections on high risk carriers
- Provide efficient access to carriers for credentials and tax payments
- Utilize WIM technology for planning improvements to weigh station operations
- Plan for electronic toll collections at highway speeds

Current ITS/CVO projects already under contract or about to be bid were identified along with the funding sources and the expected results of use of the system. The analysis of the current environment of regulation, safety and enforcement was used to identify additional ITS/CVO projects to be a part of the West Virginia long term CVO Mainstreaming plan.

3.0 DESCRIPTION OF THE STATE

The West Virginia CVO regulatory requirements and the environment for operations are covered in this section. Also, the current ITS/CVO supported operations are briefly described.

3.1 Current State CVO Program

Table .01 - Commercial Vehicle Operations Requirements and Responsible Agencies

CVO Requirement	Responsible Agency	Support Systems and ITS Deployment
IRP Registration	Div of Motor Vehicles MCS	- Information processing - VISTA - IRP Clearing House Pilot
Heavy Vehicle Use Tax	IRS	- Collection and Manual Receipt to state
IFTA License and Tax Filing	Div of Motor Vehicles MCS Dept of Tax and Revenue	- Information processing -VISTA - NLETS STOLEN Project
Corporate and Income Tax	DTR	- In House Mainframe
Dyed Fuel Enforcement	DTR	- Manual Operations at Weigh Stations
Property Tax Filing	DTR and State Auditors	- New requirement using IRP definitions
SSRS Authority and Insurance Intrastate Authority	Public Service Commission	- Illinois PC - In House PC to Mainframe
Hazardous Material Registration and Permit Program	Public Service Commission	- US DOT pilot project participant
OS/OW Permits	DOH Permit Section	- In process of development - C.W.Beilfus
Size and Enforcement	DOH Enforcement	- No access to database information - WIM exit ramp on I-79
Toll Road Operations	Parkways	- Credit Card and physical payment - Traffic Management System - SCAN pavement condition monitoring
Compliance Reviews	PSC and FHWA - OMC	- PC to SAFER on completion of Inspection
CDL	State Police Mgmt of 3rd Party Examiners	- DMV Driver records system - CDL AAMVA pointer system
Annual Vehicle Inspection	State Police Mgmt Inspect Sta	- Inspection Sta and Carriers can self-certify
Roadside Safety Inspections and Enforcement	Public Service Commission	- RADIX hand held computers for inspection - Brake analyzer

West Virginia requires credentials for interstate carriers under the IRP, IFTA and SSRS. The state also has a personal property tax requirement, mandatory insurance and insurance registration with the PSC prior to IRP registration as well as the proof of payment of HVUT. A current CDL is

required for all drivers and motor carrier employers must check the status of the CDL prior to employing a driver.

Annual vehicle inspections are required which may be a self-certification. Haulers of hazardous waste must register under a demonstration program with the Public Service Commission. Operations of OS/OW vehicles require the issuance of either single trip or annual permits.

There are seven different state agencies, plus the IRS and FHWA Office of Motor Carriers that are in contact and have requirements for Commercial Vehicle Operations in the state. (See Organization chart Table.02)

ITS/CVO Projects in Support of CVO
West Virginia has implemented ITS/CVO projects in several areas. These include:

- Parkway Authority Traffic Management System for CCTV and variable message signs warning of accidents, construction and weather related conditions for motorist safety
- Parkway Authority operation of SCAN system for 24-hour monitoring of roadway conditions at five locations
- DOH Enforcement use of WIM on I-79 ramp to pass compliant vehicles
- PSC RADIX hand-held computer support for MCSAP Safety Inspection program to record inspections and upload to SAFER
- DOH Traffic Engineering contract for WIM truck advisory project for long downgrade on Sandstone Mountain on I-64 at MP 133 (to include traffic counts and classification)
- Designed state-of-the-art weigh station for I-68
- PSC use of brake analyzer during safety inspections
- DTR access to NLETS STOLEN
- DTR and DMV EFT program between states
- DMV use of IRP Clearinghouse

Table .02 - State of West Virginia Organization Chart for CVO

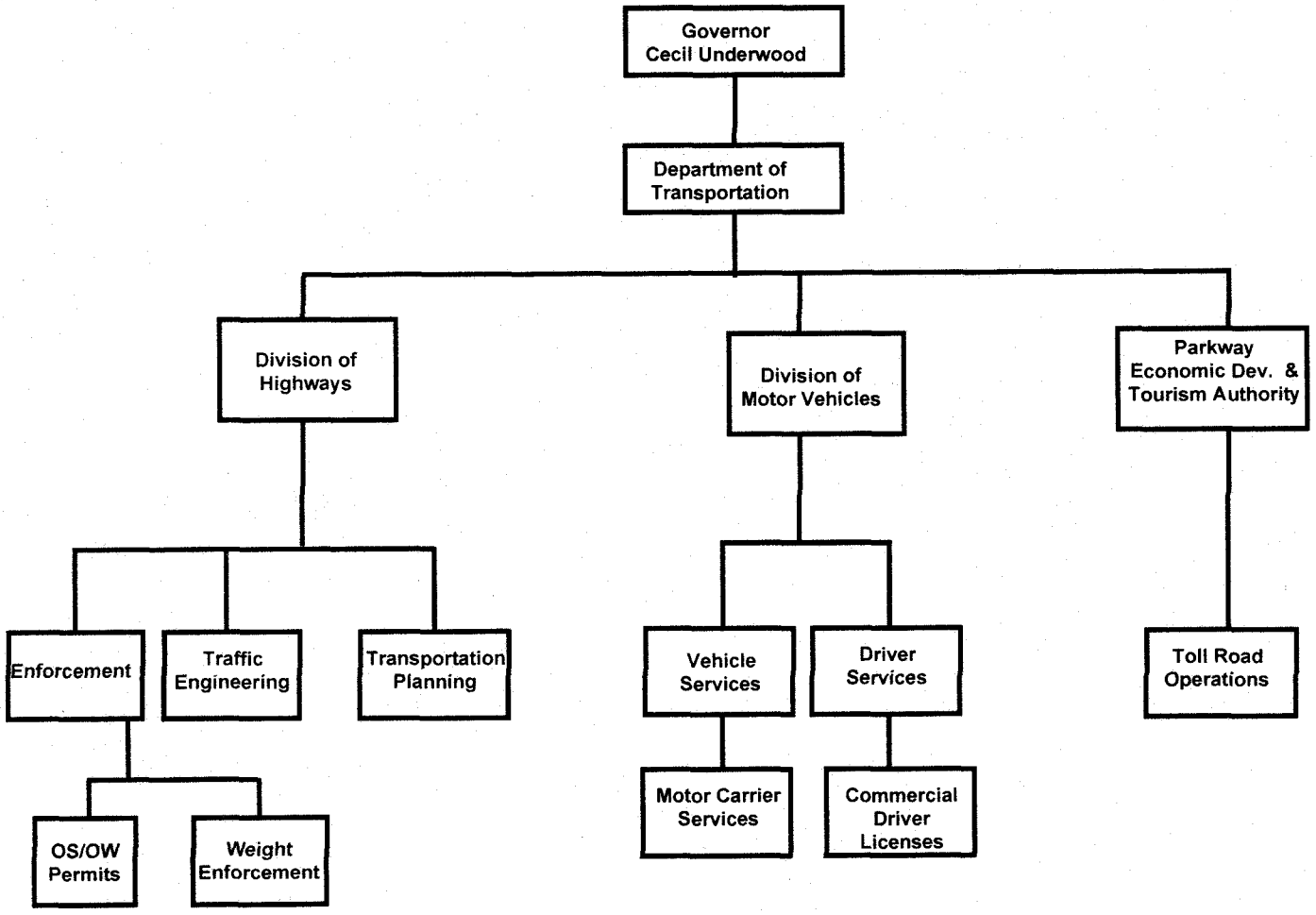
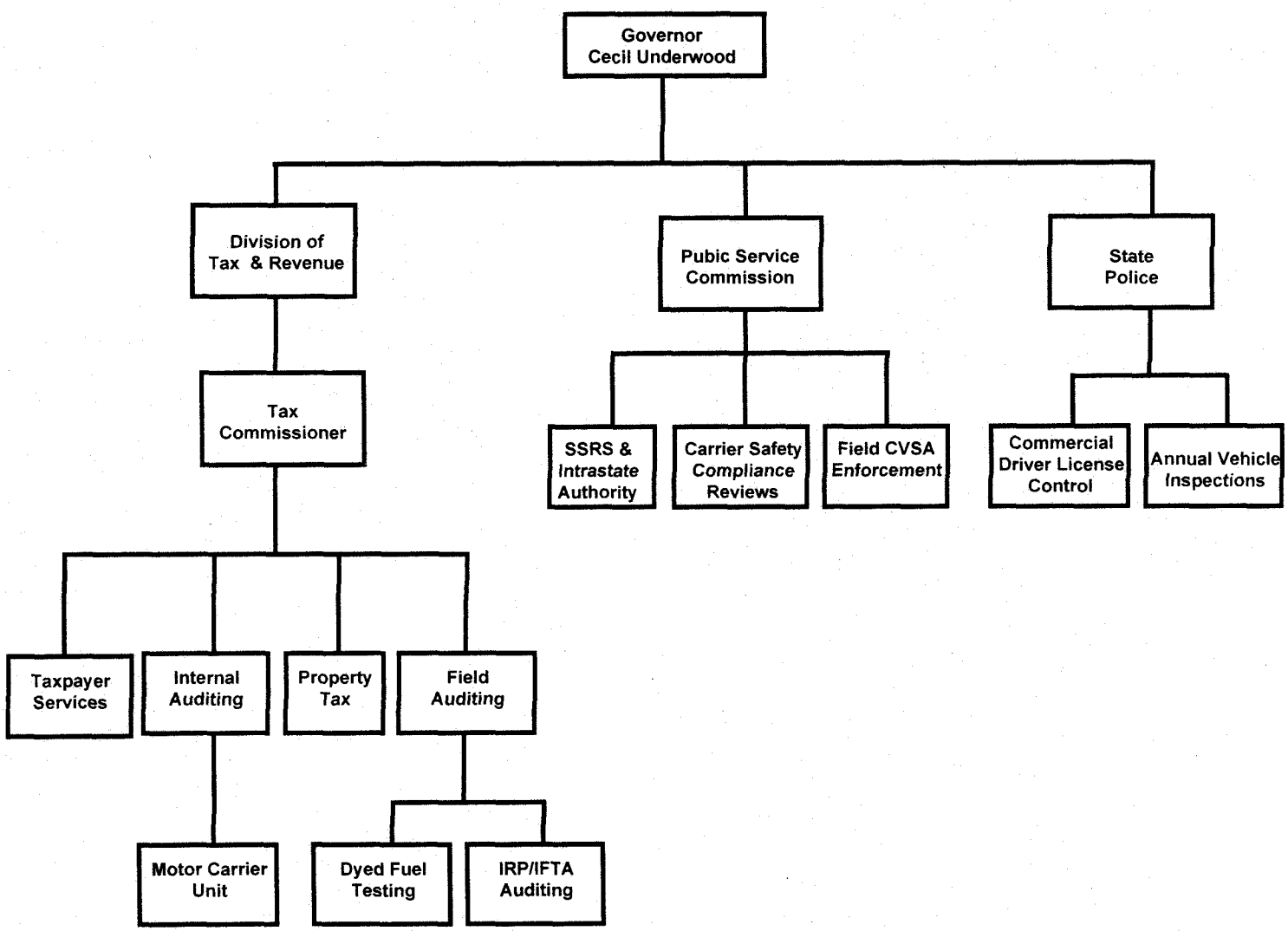


Table .02 - State of West Virginia Organization Chart for CVO



.2 Economic and Political Characteristics

Nature and Economics of Commercial Vehicle Operations
West Virginia is a rural state with a 36,000 mile highway system of which 97.6% of highways are classified as rural. The operations of the highway system contend with winter weather conditions and are accentuated by the mountainous terrain. Commercial vehicle operations account for 11.1% of the traffic on the states highway system. The state highway system handles traffic from over 55,000 nationwide carriers. Almost 75% of all manufactured freight moved in West Virginia is by truck. Truck service is exclusively provided to 78.3% of the communities in the state. Trucking industry employment accounts for over 50,000 jobs and approximately 9.5% of the states workers.

Regional Alignment
The Eastern States Institutional Barriers study included West Virginia. However, the nature of the state highways and their operations more closely relate to the southeastern states. For ITS/CVO planning purposes, West Virginia is aligned with both the southeastern and Great Lakes states. West Virginia is a member of the SASHTO multi-state OS/OW permit program and as such, honors the movement of "envelope" vehicle movements under permit.

State Highway Operations
Interstate 77 from Charleston south to US 460 at Princeton is operated as a toll facility. As such, there are three toll plazas that require traffic to stop and can cause delays. There are seven permanent weigh stations which operate in the state on the Interstate system. Only one of these facilities (I-79) is equipped with WIM on the Interstate exit ramp for exemption from static weighing.

Safety inspections are conducted at roadside areas and at weigh stations. There are no garage facilities for safety inspections.

Credentials, Tax Payments and Safety Programs
There are three agencies that individually collect information and taxes/fees from West Virginia based carriers. None of the systems used for the support of IRP, IFTA and SSRS communicate with each other, therefore they collect duplicate information on the carrier. The credentials systems for IRP and SSRS require payment of fees by certified or cashiers check and do not allow for personal check or EFT payment of invoices. The IFTA Fuel Use quarterly reporting and tax payment is handled by the Department of Tax and Revenue.

Carrier auditing of records for credentials and tax payments under IRP and IFTA are done by the Department of Tax and Revenue.

Safety programs for CDL testing and issuance, roadside enforcement and safety compliance reviews are conducted by the State Police, PSC and FHWA.

Table .03 - Issuance and Revenue Statistics from CVO for all Carriers/Vehicles - FY 1997

Agency	Application	Staff Size	# of Carriers	# of Vehicles	$ (000) Collected
Parkways	Toll Collections			3,496,000	26,704
MCS	IRP Credentials IFTA Credentials	5 2	2,630 5,381	16,000 21,438	5,095 107
MCS	IRP - Other States				10,300
MCS	Trip Permits				123
MCS	Other Sts - Audit				24
DTR	IFTA Tax Returns Audits	5 10	5,381 109	21,438 2,276	20,452 101
DTR	Dyed Diesel Inspections	10		3,200	70
PSC	SSRS Intrastate Authority Safety Inspections Carrier Safety Audit	37 2	 946 20 per year	519,401 2,956	1,558 180
PSC	Haz Mat Reg		443		180
PSC	SSRS - Other States			64,518	460
PSC	Haz Mat Reg				10
DOH Permits	OS/OW Permits	9		89,306	2,628
DOH Enforcement	Scale Weighing Roving Weighing Citations	67 Officers 5 Support			1,499
State Police (Supervisory)	Commercial DL Annual Inspections	Private Contractor			

3.3 CVO Issues and ITS Application Opportunities

The administration of CVO credentials, tax payments and highway operation regulations is not coordinated through the use of networked information exchange on the various requirements for operations. The separate administration of each function leads to several issues that are addressed under the applications of ITS technologies.

West Virginia state government institutional issues include:

- Joint access to data for cross checking carrier status before credentials
- Enforcement field access to carrier database to check validity of credentials
- Update of enforcement databases for safety inspections and out-of-service orders
- West Virginia Code restrictions on cross use of data considered confidential
- Access to facilities for enforcement activities
- Weigh station configuration modifications required for use of WIM and pre-clearance

ITS/CVO Applications to address issues:

- Installation of CVISN compliant information exchange systems within the state and for use by the carriers for credential applications, permits and tax payments will ease many of the problems now encountered with the separate systems support.
- The establishment of an electronic and/or physical "one-stop" truck center
- Establish a state CVIEW database for all motor carrier information
- Fund weigh station improvements, both physical and data access, for WIM and pre-clearance

Table .04 - ITS/CVO Issues and Opportunities

ISSUES	OPPORTUNITIES
Motor Carrier Systems lack communication with each other and with carriers; require duplicate data entry for each separate system plus update to Title and Registration system	– CVISN model deployment within West Virginia for the use of CAT and CI for legacy systems interfaces including Title and Registration system updates – Provide report generator and file download capability for auditor use
Motor Carrier Access to state systems; difference in licensing/reporting time frames required by separate agencies	– Create one-stop shopping center for contact plus branch offices for local service for increased hours of operation and access – Carrier use of CAT and CI for systems access to registration and tax payments
Size, Weight and Safety Enforcement lack access to current data	– Equip weigh stations with computer connections to validate regulatory and safety information and enter updated information on-line to create and update CVIEW
Size, Weight and Safety Roving patrol access to current data	– Equip cruisers with system connectivity for on-line data inquiry to CVIEW
Motor Carrier Access to state forms and documents and regulatory requirement information	– Develop WEB page of all motor carrier forms and requirements information to be available for download to carriers
Eliminate paperwork between IRP, IFTA and SSRS jurisdictions; provide electronic verification of 2290 and insurance if required - too much paper support	– Use of clearing houses to electronically distribute data and provide for EFT transfer of funds – Explore paperless operations for licensing and permitting
Concentrate enforcement on suspected unsafe vehicles	– Better access to SAFER data (CVIEW) for immediate out-of-service notice, upgrade facilities access for safety inspections
Commercial driver fatigue and available parking	– Current study for amount of parking available and additional needs throughout the state
High accident area identification, enforcement and saturation	– Reduction of accidents and fatalities for commercial vehicles – Utilize commercial vehicle accident reporting forms
Motor Carrier delays at weigh stations and toll barriers	– Upgrade toll facilities collection procedures for transponder support – Provide for pre-clearance for compliant vehicles at weight stations both mainline and in-scale WIM
Carrier record keeping requirements	– Acceptance of PC miler and other automated on-board recording for audit backup information on operations

4.0 STRATEGIC OVERVIEW

The West Virginia vision for the deployment of ITS/CVO technologies is driven by the mission of the state in providing up to date services and support those services by means of advanced technologies in the transportation sector. This section deals with the mission, the principles that are followed in the development of the plan, and the goals and objectives for implementation.

4.1 Mission Statement

The State of West Virginia will provide a transportation system that will expedite the safe and efficient travel within and throughout the state for compliant commercial vehicles. Consolidated access and state-of-the-art electronic access to services will be available when needed by motor carriers.

4.2 Business Plan Principles

The following are guiding principles to be followed in achieving a highway transportation system that utilizes ITS technologies to further the state's CVO mission.

- Safety projects should be considered where high accident locations have been identified and should result in measurable reductions.

- Consolidation of physical and/or electronic administration into a truck center and the application of CVISN connectivity and access should reduce time and effort of motor carriers in compliance, and should also create a lower cost basis of service for the state.

- Physical improvements to weigh station layouts to include pre-clearance both on mainline and off ramps should improve productivity of motor carriers and allow officers to focus on possible non-compliant carriers.

- Acceptance of carrier EDI and EFT filings for credentials and tax payments by the state must result in reduced time and eliminate duplication of effort in carrier compliance with state regulatory functions.

- Projects to access data by all interested state agencies whether for enforcement, regulatory compliance or audit should result in a common database and eliminate exclusion while maintaining security.

- Projects should be considered that have been researched and found to be "best practices" when implemented in other states, regions or at the National level.

4.3 Goals and Objectives

The deployment of ITS technologies for CVO follows a plan with Goals and Objectives that are closely aligned with the National program. Each state has specific objectives in pursuit of the four basic goals, and each of these objectives are further broken out into specific action areas. In this portion of the plan, we will cover the West Virginia Goals and those state specific objectives to accomplish the goals.

GOAL: Plan Improvements to Highway Safety Programs

- Objective: Identify commercial vehicle high accident locations and implement remedial projects
- Objective: Concentrate Safety Enforcement activity on high risk carriers
- Objective: Allow only safe drivers and vehicles on roadway
- Objective: Improve accident data collection with use of Commercial Vehicle Accident Form and include training for officers in reporting

GOAL: Provide an Efficient and Electronic Administrative System for Credentials and Tax Payments, and Safety Information

- Objective: Give carriers direct access to systems through EDI and Internet
- Objective: Network and interface legacy systems for CVISN deployment
- Objective: Open Truck Center for One-stop operations
- Objective: Upgrade enforcement access to commercial driver and vehicle databases

GOAL: Provide Productivity Improvements for Motor Carriers

- Objective: Electronic collection of tolls through transponder technology
- Objective: WIM Pre-sorting and Pre-pass of weigh stations for compliant vehicles
- Objective: Traffic Management notification of road conditions for routing

GOAL: Provide CVO Operations Consistent with Regional and National Goals

- Objective: Provide for continuous travel by OS/OW envelope vehicles
- Objective: Be ready with CVIEW commercial vehicle and driver database for Regional and National enforcement use
- Objective: Provide regional training for enforcement and audit for consistent application and rules and regulations
- Objective: Provide leadership in accepting changes in carriers operations that are supported by ITS such as on-board computers for the mileage and fuel use reporting

5.0 PROGRAM SUMMARY

The definition of the projects to be included within this ITS/CVO Business Plan resulted from the in-depth interviews with all of the state CVO service providers and selected users of those services. The process resulted not only those CVO projects that are included in the ITS initiatives, but in other efficiencies in operations and processes that were highlighted and the opportunity for change and simplification resulted.

The projects included in the plan have been identified with the category of application to the ITS/CVO initiatives and have been ranked in order of the states priority for completion and effectiveness of providing the change in or additional service.

5.1 Structure of the Business Plan Projects

Within the four emphasis areas, we have given a priority to each of the defined projects. This initial ranking within the categories may be modified with the application for approvals and funding both within the state resources and budget processes, and within the Federal funds available for certain ITS projects. The review completed by the Business Plan implementation team has agreed on these priorities as presented here for the initial plan.

Table .05 Business Plan Program Categories and Projects

Category and Problems	Projects
Safety Assurance • Safety Enforcement Access to live data • Safe operations of CVO at potential high accident locations	# 3 - Laptop computers for PSC officers # 1 - Dynamic Truck Speed Warning
Credentials Issuance and Administration • Legacy Systems not interfaced • Six agencies for contact with Motor Carriers • Clarify compliance issues	# 5 - CVISN Readiness and System Integration # 4 - Consolidated Commercial Truck Center # 7 - Trucker's Compliance Manual
Electronic Screening • Single lane weigh stations scales and toll plazas - inefficient clearance for CVO	# 2 - Toll plaza redesign # 6 - WIM Carrier pre-clearance
Will be expanded as projects are identified and added to program	

5.2 Project Description

Each of the ITS projects that have been defined as meeting the objectives of this Business Plan are included in Appendix A. This list of projects will be modified with each review of the plan to upgrade and update the information on each of the projects. As additional projects are identified, they will be added to the plan with the association and ranking to the various categories of CVO improvement.

5.3 Ranking of Projects

The first ranking of projects within the plan is within the individual categories and is detailed in Table 06. With the diverse number of agencies involved with the development of the plan and the ranking of the projects, it was decided by the group to develop a matrix to determine the overall project ranking. The matrix (Table .07) was developed by rating each project using the four criteria developed by the FHWA on an individual basis for each project.

The implementation of an overall efficient transportation system that delivers on the simplification of requirements for regulation while at the same time concentrates on the improvements to both the operation of the highway system and the reduction of unsafe carrier operations achieves ITS results quicker than single thread approaches.

Table .06 Ranking of Projects

Projects Ranked by Priority within Category
Safety Assurance: 1. Dynamic Truck Speed Warning - Project # 1 2. Laptop Computers for PSC Officers - Project # 3
Credentials Issuance 1. Consolidated Commercial Truck Center - Project # 4 2. CVISN Readiness and System Integration - Project # 5 3. Trucker's Compliance Manual - Project # 7
Electronic Screening 1. Toll Plaza Redesign - Project # 2 2. WIM Carrier Pre-clearance - Project # 6

Table .07 Project Ranking by Overall Priority

Projects Ranking by Priority
1. Consolidated Commercial Truck Center - Project # 4
2. CVISN Readiness and System Integration - Project # 5
3. Laptop Computer SAFER Inspection and Information Access Support - Project # 3
4. Weigh in Motion Motor Carrier Pre-Clearance - Project # 6
5. Toll Booth Reconstruction and Electronic Toll Collection - Project # 2
6. Dynamic Truck Speed Warning for Long Downgrades - Project # 1
7. Trucker's Compliance Manual -Project # 7

6.0 ORGANIZATION AND MANAGEMENT

This section of the plan gives the assignment to the responsible agency in West Virginia for the project initiation and follow through. Without the commitment of the lead agencies for the development and implementation of the ITS projects, the utilization of technology for the simplification of CVO will lag. Each agency will be responsible for the "championing" of the projects they have committed and agreed to develop and install. The Division of Motor Vehicles will coordinate the updates to the plan as the agencies make progress with approvals and funding for implementation.

6.1 Stakeholder Responsibilities

The development and implementation of ITS can be best accomplished through the combined efforts of all "stakeholders." Both the public and private sectors have an interest in successful migration to the new technologies. Through the application of "permissive" and non-mandatory ITS programs, the traditional ways of doing business within the state can be preserved for those not yet ready to invest in or utilize the new available services. For both sectors to achieve maximum benefits from the application of ITS, the utilization should move as quickly as possible to the new structure and phase out the old ways of doing business. This approach may encounter some resistance from agencies that have had an established way of doing business for many years. The results for both the state and users of the services are "win-win" when progress is steady and predictable.

The support of the West Virginia Motor Truck Association and members as well as independent carriers in promotion of the concept of ITS and the readiness to utilize the technologies when adopted by the state are essential to the success of the plan. The implementation of some of the projects will require legislative and/or rule changes to move ahead. The private sector stakeholder support of the program is vital to accomplish a coordinated change to the new technologies.

6.2 Project Lead Agencies

There are seven different state agencies with CVO responsibility. Each of them has an interest in ITS and are represented on the Motor Carrier Advisory Committee that is directing the development and implementation of the plan. The determination of the lead agency for each project follows the operational responsibility currently assigned to the agency. For projects jointly implemented such as the one-stop Truck Center, one agency will assume the leadership. Project development and planning as well as the acquisition of funding for implementation are the responsibility of the lead agency. In some cases, there will be shared funds and in others, the motor carriers may be involved in a "user fee" approach to paying for services. The lead agencies for the plan projects are:

Project # 1 Division of Highways
Project # 2 Parkways
Project # 3 Public Service Commission
Project # 4 Division of Motor Vehicles
Project # 5 Division of Motor Vehicles
Project # 6 Division of Highways
Project # 7 Division of Highways

6.3 Project Financials

Costs and funding sources for each of the projects are being determined as the project is developed. Where possible, quantitative cost benefit analysis are completed on the individual projects. The source and assumptions for the comparative factors for the analysis are to be included with the cost benefit ratio determined.

6.4 Project Training and Outreach

The Division of Motor Vehicles, as the lead agency, will be responsible for training in projects involving credentialing and will help facilitate general training and outreach programs for all parties affected by the projects outlined in the business plan.

The participating agencies will be responsible for training and outreach for specific projects and components of projects outlined that have the most impact on their business function. This training and outreach will be conducted for agency staff and the motor carriers that are specifically affected by each project.

6.5 Project Schedules

Each project has an event schedule with start dates and milestones. The master schedule for all projects is included below:

WEST VIRGINIA ITS/CVO BUSINESS PLAN
PROJECTS TIMETABLE

PROJECTS	Start Implementation	Testing/Review Period	Production Turnover/ Installation	Completion
1. Dynamic Truck Speed Warning for Long Downgrades	1st Quarter CY1998	2nd Quarter CY1998	3rd Quarter CY1998	4th Quarter CY1998
2. Toll Booth Reconstruction and Electronic Toll Collection	1st Quarter CY1998	3rd Quarter CY1998	2nd Quarter CY1999	4th Quarter CY1999
3. Laptop Computer SAFER Inspection and Information Access Support	3rd Quarter CY1998	1st Quarter CY1999	2nd Quarter CY1999	3rd Quarter CY1999
4. Consolidated Commercial Truck Center	4th Quarter CY1998	2nd Quarter CY1999	4th Quarter CY1999	4th Quarter CY2000
5. CVISN Readiness and System Integration	4th Quarter CY1998	3rd Quarter CY1999	1st Quarter CY2000	3rd Quarter CY2000
6. Weigh in Motion Motor Carrier Pre-Clearance	4th Quarter CY1998	1st Quarter CY1999	2nd Quarter CY1999	4th Quarter CY1999
7. Trucker's Compliance Manual	Mid-1997	Current	1st Quarter CY1999	Annual updates

Appendix A - Project Descriptions

Project 1: Dynamic Truck Speed Warning for Long Downgrades

Objective: Install a WIM for classification of vehicles weighing over 30,000 pounds at Interstate I-64 MP 133 at the beginning of a 6-7% grade. Using an algorithm published in FHWA-D-79-116, determine the safe descent speed and post advisory sign for the truck.

Outcome: Expected outcome will be the measurable reduction of truck accidents on the Sandstone Mountain downgrade from MP 132-138.

Lead Agencies: WVDOT Traffic Engineering Division

Other Participating Stakeholders: FHWA, Motor Carriers

Market: All commercial vehicles over 30,000 pounds operating on this route.

Approach:

- Add WIM loop technology to pavement both lanes for accurate classification
- Compute safe decent speed and display to truck with variable message device
- Classify accident statistics for before and after installation

Key Issues:

- Safety enhancement warning
- No action required to get warning by driver
- Effectiveness verification will tell if use on other slopes on Toll Roads and Interstate is advisable

Products: WIM System for classification and safety warning

Schedule: 4 Months for installation - Completion approximately late1998

Cost: $312,239

Estimated Project Management Requirements: ½ full-time equivalent

Appendix A - Project Descriptions

Project 2: Toll Booth Reconstruction and Electronic Toll Collection

Objective: Modernize toll collection facilities and methods to include ITS Transponder collections at current sites and mile markers 30, 57, and 82 on I-77 between Charleston and Bluefield.

Outcome: Minimize time through toll structures. Collect tolls at highway speeds, reduce congestion and increase safety of toll collection operations.

Lead Agencies: Parkways, Economic Development and Tourism Authority

Other Participating Stakeholders: Commercial Vehicle operators, State Police

Market: Passenger Vehicles
Commercial Vehicles

Approach: Current equipment is outdated and replacement parts are not available. Making the upgrade more critical.

Key Issues: Toll Barrier "C" - closest to Charleston
Legislation - be able to write a ticket to a vehicle rather than an operator

Products: State-of-the-art toll collection equipment including automated collection

Schedule: Current studies will be completed in mid 1998. When a vendor is selected in late 1998 the expected completion for the projection should be 4th quarter 1999

Cost: Up to $11.5 million

Estimated Project Management Requirements: 12 - 18 months; consultant contract let Jan '98

Appendix A - Project Descriptions

Project 3: Laptop Computer SAFER Inspection and Information Access Support

Objective: Provide laptop computers to all PSC officers for Safety Inspections

Outcome: Network for on-line updates to SAFER and CVIEW with access to data for immediate notification of out-of-service and return to service orders on unsafe vehicles and drivers

Lead Agencies: Public Service Commission, FHWA OMC

Other Participating Stakeholders: PSC, DMV

Market: All Commercial Carriers, both Intrastate and Interstate

Approach: Current equipment is outdated and will not perform uplinks into SAFER and cannot perform searches

Key Issues: Many current hand-held computers cannot be upgraded and we need search capability for immediate Carrier profile and recommendation on inspection

Products: Armor covered laptop for field protection, SAFER software (provided by FHWA OMC), telephone up-link, either cellular or permanent

Schedule: Upon allocation of funds

Cost: 33 units @ $4,000 ea = $132,000

Appendix A - Project Descriptions

Project 4: Consolidated Commercial Truck Center

Objective: *Provide One-stop-shop access to state agencies for motor carriers to do business* with West Virginia

Outcome: Co-locate agencies under one roof at a convenient location for truck access near Charleston service level to carriers improved with minimal time for access to comply with all state registration, regulation and tax payment processes

Lead Agencies: Division of Motor Vehicles

Other Participating Stakeholders: DTR, PSC, Parkways, WE, Permits, State Police, WVMTA and individual trucking companies

Market: All motor carriers that must do business with the state

Approach: Provide cross-trained staff from each agency in one facility for quick and easy access for motor carriers. The consolidation and cross-training of staff in one location will help to reduce the total number of employees needed and can offer extended hours of operation.

Key Issues: Funding for facility to replace present office space
Interagency agreement for cross training to handle other agency's responsibilities
Notification to motor carriers of changes in operations and service level
Identification of staff to be moved to new facility and training package development

Products: Consolidated location for expanded services to motor carriers at reduced cost to WV

Schedule: The expected completion time will be approximately 18-24 months after vendor selection which should be late 1998

Cost: $1.8 million - $2.4 million

Estimated Project Management Requirements: 2 FTE years

Appendix A - Project Descriptions

Project 5: CVISN Readiness and System Integration

Objective: Planning and Development of integrated motor carrier support systems with instant access for carriers for credentialing and payment of taxes and to enforcement for verification of safety data

Outcome: System design and work plan for implementation of modification to legacy systems and to schedule and fund the development of front end motor carrier access and back end CVIEW enforcement access

Lead Agencies: Division of Motor Vehicles, Department of Tax and Revenue, PSC

Other Participating Stakeholders: WVMTA, Individual motor carriers, Permits and Weight Enforcement, State Police

Market: All West Virginia motor carriers, all state department with CVO responsibilities and other jurisdiction CVO agencies

Approach: Adapt the West Virginia legacy systems to CVISN architecture and provide for Carrier Access Transaction (CAT) to access state systems for credentials and tax payments. Develop the enforcement database for CVIEW to store and access carrier information on safety and compliance.

Key Issues: Utilization and integration of legacy systems
Allocation of resources for development work on project
Establish time frame for project to meet National goals of completion by 2005

Products: CVISN compliant state systems that integrate information available to all agencies and provide carrier direct access for credentials and tax payments.

Schedule: Begin 4thquarter of 1998 with projected completion 4th quarter 2000

Cost: Between $1,500,000 to $3,000,000

Estimated Project Management Requirements: 2 FTE years

Appendix A - Project Descriptions

Project 6: Weigh in Motion Motor Carrier Pre-clearance

Objective: Improve carrier and enforcement productivity with pre-clearance for weigh station bypass

Outcome: Adoption and implementation of technology for WIM and transponder activated identification of commercial vehicles for pre-clearance of compliant, safe vehicles

Lead Agencies: WVDOT, WE

Other Participating Stakeholders: Participating motor carriers, DMV, DTR, PSC

Market: All motor carriers who maintain regulatory compliance and choose to participate

Approach: Provide an electronic clearance system that stores information on vehicles as to compliance with regulatory requirements (IRP, IFTA, SSRS) and combined with WIM provides both mainline sorting and ramp sorting for weigh station bypass and improved carrier productivity

Key Issues: Carrier participation and Transponder availability
Compatibility with Toll Collection system on I-77
Regional use of Transponder

Products: PrePass™ pre-clearance system

Schedule: 1999

Cost: $ 10,000

Estimated Project Management Requirements: ½ FTE 6 months

Appendix A - Project Descriptions.

Project 7: Trucker's Compliance Manual

Objective: Development of one manual to assist motor carriers in conducting business with current CVO structure in West Virginia

Outcome: Anticipated outcome of manual is that motor carrier regulatory compliance will be streamlined

Lead Agency: WVDOT Planning

Other Participating Stakeholders: WVMTA, Individual Motor Carriers, DMV DTR, PSC, State Police Permits, WE

Market: All motor carriers who maintain regulatory compliance and all new motor carriers to the state

Approach:

- Obtain summary of requirements for motor carriers from each appropriate regulatory agency
- Compile/summarize data requirements into booklet form
- Advertise availability of manual and distribute to motor carriers

Key Issues

- Registration and licensing requirements and fees
- Appropriate agency to be contacted by motor carrier for specific transactions
- Vehicle size and weight limits for West Virginia highways

Products: Trucker's Compliance Manual

Schedule: Completion by end of 1998

Cost: $10,000

Estimated Project Management Requirements: ½ FTE one year

Appendix B - Glossary of Acronyms

AAMVA	American Association of Motor Vehicle Administrators
CAT	Carrier Automated Transaction
CCTV	Closed Circuit Television
CI	Credentialing Interface
CDL	Commercial Driver License
CVIEW	Commercial Vehicle Information Exchange Window
CVISN	Commercial Vehicle Information System Network
CVO	Commercial Vehicle Operations
DOH	Division of Highways
EDI	Electronic Data Interchange
EFT	Electronic Funds Transfer
FHWA	Federal Highway Administration
HVUT	Heavy Vehicle Use Tax
IFTA	International Fuel Tax Agreement
IRP	International Registration Plan
IRS	Internal Revenue Service
ITS	Intelligent Transportation Systems
MCS	Motor Carrier Services
MCSAP	Motor Carrier Safety Action Program
DMV	Division of Motor Vehicles
NLETS	National Law Enforcement Telecommunications System
OMC	FHWA - Office of Motor Carriers
OS/OW	Oversize/Overweight
PC	Personal Computer
PSC	Public Service Commission
RADIX	Hand held computers
SAFER	Safety Rating database
SASHTO	Southern Association of State Highway and Transportation Officials
SCAN	Highway Condition monitoring system
SSRS	Single State Registration System
STOLEN	State On-Line Enforcement Network
DTR	Department of Tax and Revenue
USDOT	United States Department of Transportation
VISTA	Vehicle Information System for Tax Apportionment
WE	Weight Enforcement, West Virginia Division of Highways
WIM	Weigh-in-Motion
WVDOT	West Virginia Department of Transportation
WVMTA	West Virginia Motor Truck Association

- Mike Stafford, Deputy Commissioner
  Division of Motor Vehicles

- Steve Dale, Assistant to the Commissioner
  Division of Motor Vehicles

- Glenn Pauley, Director of Vehicles Services
  Division of Motor Vehicles

- Jerry Conrad, Manager of Commercial Vehicles
  Division of Motor Vehicles

- Mark Holmes, IRP Supervisor
  Division of Motor Vehicles

- Phil Kingery, IFTA Supervisor
  Division of Motor Vehicles

- Cam Lewis, Director of Enforcement
  Division of Highways

- Jeff Davis
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- Kenneth Chrisman, Officer of Enforcement
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- William Forrest, Director of Maintenance
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- Lt. W. D. Totten
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- Lt. Larry Williams
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- Bob Brooks, Manager of Motor Carrier Section
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  Tax and Revenue

- Tom Raynes, Manager of External Audit
  Tax and Revenue

- Vicki Kidd, Manager of IFTA Tax Collection
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- Bob Stanley, Executive Director
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