Oklahoma Commercial Vehicle Information Systems (CVISN) Program Plan

Oklahoma Department of Transportation

In Coordination With:

U.S. Department of Transportation

July 2003

Table of Contents

This page left intentionally blank.

Oklahoma's Commitment to CVISN Deployment

Oklahoma is joining 48 other states nationally who are committed to using technology to improve the efficiency and effectiveness of commercial vehicle operations (CVO) for both state agencies and motor carriers alike. Oklahoma's participation in the Federal Motor Carrier Safety Administration's (FMCSA) Commercial Vehicle Information Systems and Networks (CVISN) program stem from this commitment.

The national CVISN program promotes information exchange within and among states, carriers and federal regulators to increase the efficiency and effectiveness of CVO credentialing, screening and safety assurance. Guiding principals of the CVISN program include:

- Capturing regulatory, compliance and enforcement data at the source to increase the accuracy and timeliness of information;
- Making information that is currently "locked up" in state and national legacy systems (hardware and software systems managing credentialing, safety and screening programs) available to all authorized users from both roadside and deskside locations;
- Development and implementation of open standards that facilitate data exchange.

The overriding purpose of the national CVISN program and its implementation in Oklahoma is to apply proven technologies to accomplish the following:

- Improve the safety of commercial vehicles and drivers;
- Improve motor carrier, vehicle and driver compliance;
- Improve motor carrier and state productivity by reducing the steps, paper, dollars, time and person-hours required to ensure safety and compliance.

Deployment of Oklahoma's CVISN program will assist the state in meeting its CVO goals of:

- Improved administrative efficiency;
- Maximization of commercial vehicle operational safety, security and productivity; and
- Expedited freight movements through operational productivity enhancements.

Purpose of This Document

This document provides a management framework for Oklahoma's CVISN program deployment. It is intended to advise policy makers, CVISN program and project managers, and CVISN deployment team members of the fiscal, technical, organizational and institutional resources and processes required to successfully deploy the state's CVISN Level 1 program.

Background / Organization

The CVISN Program Plan was developed by Oklahoma's CVISN project team. The CVISN Team is led by the Oklahoma Department of Transportation (ODOT) Planning and Research Division, and includes representatives of all state agencies and other entities with responsibility for commercial vehicle credentialing, screening and enforcement. Team members include:

- ODOT: Bridge Division, and Planning & Research Division;
- Department of Public Safety (DPS): Troop S, Size and Weights Permits Division, and Telecommunications Administration;
- Oklahoma Tax Commission (OTC): Motor Vehicle and MIS Divisions;
- Oklahoma Corporation Commission (OCC): Data Processing and Transportation Divisions;
- Oklahoma Trucking Association (OTA); and
- Oklahoma Division offices of the Federal Motor Carrier Safety Administration (FMCSA) and Federal Highway Administration (FHWA).

Various other stakeholders have contributed to the development of Oklahoma's CVISN deployment program and will continue to be involved through the deployment phase. These include metropolitan planning organizations, including ACOG and INCOG, the Oklahoma Transportation Authority (responsible for toll road operation and management), and representatives of individual trucking companies, including UPS, Groendyke, McCorkle Trucking, and others.

ODOT, OCC, OTC and DPS have signed a memorandum of understanding committing each agency to work with industry, FHWA and FMCSA to plan for and work toward deployment of "CVISN Level 1" functionality.

Components of Oklahoma's CVISN Deployment

CVISN Level 1 deployment will provide Oklahoma with the capabilities described below. Some of the projects described below are in addition to the level of functionality defined by FMCSA as comprising "CVISN Level 1 functionality". Projects which exceed the FMCSA definition of Level 1 functionality are included here as they are an integral part of the state's ongoing ITS / CVO program. Projects outside of the FMCSA definition of Level 1 functionality are labeled as "Post" Level 1 projects.

CVISN Level 1 Safety Assurance Projects

Full Deployment of SafetyNet 2000 / 32-bit ASPEN

The Oklahoma DPS and OCC use ASPEN units to record safety inspections in the field. DPS uploads the inspections to the state SafetyNet and federal Safety and Fitness Electronic Record (SAFER) systems. The newest version of SafetyNet, SafetyNet 2000, provides a robust, client-server application running on a SQL database management system. Oklahoma has completed installation of SafetyNet 2000 and has installed 32-bit ASPEN on all laptop field units.

Deployment of 32-bit ASPEN provides Oklahoma field officers with capabilities to upload inspection reports directly to the national SAFER database, to query SAFER for credential and safety status information on carriers and vehicles ("snapshots"), and to query SAFER for past inspection reports. However, this functionality can be utilized only if wireless communications are in place. The DPS satellite project described below is designed to enable officers at the roadside to take full advantage of the functionality offered by the enhanced ASPEN installation.

DPS Satellite Communications and Open Connection to SAFER

The Oklahoma Highway Patrol (OHP) is planning to implement a satellite communications system to provide statewide wireless connectivity from mobile units in the field to central databases. The system being implemented by the OHP will enable officers to access the Oklahoma Law Enforcement Telecommunications System (OLETS), the National Law Enforcement Telecommunications System (NLETS), the National Crime Information center (NCIC), dispatch and the DPS networks for both voice and data communications.

Troop S has pilot tested the system and is preparing for Phase 1 deployment, equipping 12 cars with satellite receivers. To meet the special communication needs of Troop S (as distinct from the needs of the general OHP), a related CVISN project has been identified. The related project is an open connection to the national Safety and Fitness Electronic Record (SAFER). This project will provide LAN to LAN virtual private network (VPN) between the DPS networks and SAFER, enabling Troop S officers to perform Inspection Selection System (ISS) and Past Inspection Queries (PIQ queries), snapshot queries, and inspection uploads on a real-time basis from any roadside location statewide. This is expected to improve officers' inspection selection capabilities and to ensure that vehicle and driver out of service (OOS) information is immediately available to roadside officers. The satellite / DPS WAN connectivity will also enable officers at roadside to

query the state's Commercial Vehicle Information Exchange Window (CVIEW).

The LAN to LAN VPN, though located on the DPS networks, may be accessible from other agencies through the satellite link, or through the Oklahoma government agency WAN, enabling other agencies to utilize the connectivity to SAFER and the Oklahoma CVIEW.

Universal Carrier ID

Oklahoma's DPS modified state rules in 2002 to require intrastate motor carriers to obtain DOT numbers and display the DOT number on their trucks. Intrastate carriers who register with the OCC already have DOT numbers assigned, but this rule change ensures that all intrastate carriers will have DOT numbers assigned. Assignment of the DOT number enables safety information to be aggregated at the carrier level, assisting DPS in motor carrier safety assurance functions.

Oklahoma CVIEW

Oklahoma plans to implement a Commercial Vehicle Information Exchange Window (CVIEW). The CVIEW is a key component in Oklahoma's efforts to make Oklahoma-based carriers' credential status information available to safety, screening and credentialing staff in all states, and to make credential and safety status of carriers based in other states available to Oklahoma agencies involved in credentialing, screening and safety assurance. The Oklahoma CVIEW will perform the following functions:

- Collect and route interstate credential status information (snapshots) to SAFER. This will include International Registration Plan (IRP), International Fuel tax Agreement (IFTA) and Single State Registration (SSRS) information.
- Collect and house intrastate credential status information, including intrastate vehicle and carrier registration and OS/OW and other permit data.
- Transmit intrastate credential snapshots supported by the PrePass system (but not supported by SAFER) to the PrePass host server for use in electronic screening decisions ("Post" Level 1 implementation).
- Receive periodic downloads from the SAFER database to support manual queries from credentialing, screening and safety personnel and automated queries from various credentialing systems.

Oklahoma does not plan to route inspection uploads, PIQ queries, ASPEN-based vehicle or carrier snapshot queries through CVIEW. Rather, uploads and queries will be transmitted directly to SAFER (utilizing the satellite network and LAN to LAN VPN connection to SAFER.) This assumes that SAFER and MCMIS will be enhanced to accommodate intrastate safety snapshot information.

Oklahoma will contract out for CVIEW implementation.

CVISN Level 1 Credentials Projects

IRP Legacy System Modifications Electronic Credentialing

Oklahoma's IRP system is a state-owned system, developed and maintained by the OTC. The system credentials more than 20,000 carriers and more than 400,000 trucks and 300,000 trailers annually. The legacy system must be modified to accommodate the implementation of the Performance Registration Information Systems Management (PRISM) program, web-based credentialing and transmittal of updated credential status information to the state CVIEW.

Oklahoma will undertake a requirements analysis to determine the nature and extent of modifications required to accommodate PRISM, web-based credentialing and CVIEW interfaces and will evaluate other states non-proprietary IRP systems. The OTC will determine whether it is more cost-effective to modify the existing legacy system or replace it with a clone of another state's system, and then modify that system to met Oklahoma's specific needs.

Oklahoma's IRP system includes a module which enables carriers to download application and renewal information from the carriers' fleet management systems and transmit the application information to the state utilizing electronic data interchange (EDI) x12 interface standards. State personnel then open the attachments, review them, upload them to the IRP legacy system and manually package credentials which are mailed to the carrier, typically within 24-48 hours.

As part of the Legacy Systems Modification project, the OTC will evaluate the modifications necessary to automate the "back-end" of the EDI / bulletin board process, automating the checking, upload and credentials issuance process.

Larger carriers utilize the EDI / bulletin board application process. Carriers utilizing the EDI process represent a small proportion of total carriers, but approximately 60% of the interstate trucks credentialed in Oklahoma. Smaller carriers, however, tend not to use the automated system. Oklahoma plans to develop web-based credentialing capabilities to serve the needs of these smaller carriers. The web-based system will support electronic funds transfer (EFT), will allow a carrier using a commercial web browser to access the web systems, transmit application and fee information to the state electronically, upload application and fee information to the state's IRP legacy system, and, upon validation of the application and associated fee transmittal, will allow the carrier to print required credentials at their offices. The IRP web system may not be linked to other web-credentialing systems in the state, but will appear seamless to the carrier.

The web-based IRP system will include an automated check for safety status to meet the requirements of the PRISM program, described below.

PRISM

The Performance Registration Information Systems Management (PRISM) program is a FMCSA program designed to improve the safety performance of motor carriers. Under the PRISM program, motor carriers must meet minimum safety performance guidelines as a condition of registration. Carriers falling below this minimum threshold are enrolled in the national Motor Carrier Safety Improvement Program (MCSIP), where they are subject to monitoring and "treatment" to improve their safety performance. Oklahoma has submitted its PRISM Implementation Plan to FMCSA. Oklahoma will verify DOT numbers and census data for interstate carriers using the MCS 150, assign DOT numbers to intrastate carriers and will modify its IRP and intrastate registration systems to allow tracking of the US DOT number at both the carrier and vehicle levels. Implementation of the intrastate portion of the PRISM program will be phased in following the interstate portion, as funding is available.

IFTA Legacy System Modifications / Electronic Credentialing and Quarterly Filing

Oklahoma's IFTA legacy system is a state-owned system, developed and maintained by the OTC. The legacy system must be modified to better accommodate web-based credentialing and tax filing, and transmitting required credential status updates to the state CVIEW.

Oklahoma will undertake a requirements analysis to determine the nature and extent of modifications required to accommodate web-based credentialing and CVIEW interfaces and will evaluate other states non-proprietary IFTA systems. The OTC will also evaluate the costs / benefits of using the Regional Processing Center (RPC) as the IFTA tax management system, maintaining only an IFTA-credentialing system in-house. The OTC will then identify the most cost-effective option and will modify / replace the legacy system accordingly.

Oklahoma will implement a web-based automated IFTA credentialing and tax filing system. The system will support electronic funds transfer (EFT). The system will allow a carrier to use a commercial web browser to access the supported web system, and transmit mileage and fee information to the state, which will be uploaded and processed by the IFTA system. The system will include interfaces between the credentialing and accounting systems.

IRP and IFTA Clearinghouse Membership

Oklahoma will evaluate the costs / benefits of Clearinghouse membership and will implement interfaces as appropriate.

Interfaces with Oklahoma CVIEW

The following credentialing systems will report credential status information to the Oklahoma CVIEW:

- IRP
- IFTA
- OCC Carrier Authorities
- Intrastate registration
- OS / OW
- Hazardous Waste Registration

Interfaces will be required between each system and are planned for implementation in the order listed above. Interface development is incorporated in each of the IRP, IFTA, OCC and OS / OW legacy system modification projects.

"Post" Level 1 Credentials Projects

OCC Transportation Database Legacy System Modifications

The OCC transportation database legacy system is a state owned system, developed and maintained by the OCC. The system manages the SSRS program, Interstate Exempt, Intrastate Authority credentialing programs and the Deleterious Substance and Wash Pit permit programs. The system will be modified to accommodate web-based credentialing and implementation of CVIEW interfaces.

The OCC will undertake a requirements analysis to determine the nature and extent of modifications required to accommodate web-based credentialing and CVIEW interfaces and will evaluate other states non-proprietary systems, including systems developed by Louisiana and North Carolina. The OCC will determine whether it is more cost-effective to modify the existing legacy system or replace it with a clone of another state's system, and then modify that system to met Oklahoma's specific needs.

The OCC intends to develop a web-based front-end for the SSRS, interstate exempt and intrastate operating authority registration systems. The system will support electronic funds transfer (EFT), will allow a carrier using a commercial web browser to access the web system, transmit application information and fees to the state electronically, and, upon validation of the application and associated fee transmittal, will allow the carrier to print the SSRS (or other) license. The web system may not be linked to the IRP or IFTA web systems, but will appear seamless to the carrier.

Automated OS / OW Permitting

The Oklahoma DPS is responsible for oversize / overweight permitting. DPS is currently replacing the existing FoxPro OS/OW permitting system with a more robust system that will accommodate internet interface. Subsequent phases of this project will include web-based permit capabilities to enable motor carriers to apply for, route and receive OS/OW permits electronically.

The first phase of permit automation will allow carriers to apply for certain "envelope" permits over the web. This is expected to accommodate as

much as 40 percent of the demand for permits. Subsequent phases will provide more robust routing capabilities.

OS / OW Permit System / Bridge Interface

Approximately 1,000 of the permits issued annually by DPS must be forwarded to ODOT for bridge analysis. DPS and ODOT plan to develop an interface between the ODOT Bridge Analysis System and the OS / OW permitting system to allow the permits to be transmitted electronically. ODOT also plans to automate the analytics for permits involving simple span bridges to reduce turn-around time and reduce the FTE requirement for bridge analysis.

Oklahoma's Automated Screening Projects

Oklahoma uses HELP Inc.'s PrePass screening system. Under the PrePass program, HELP, Inc. issues transponders and assigns a unique transponder ID number to enrolled vehicles. Only carriers who meet specific compliance and safety requirements are eligible for enrollment. HELP, Inc. has installed readers, screening systems and roadside operations computers at seven highway sites in Oklahoma.

At present, Oklahoma does not have plans to install WIM scales at its fixed scale sites. However, the state is considering implementation of the project identified below to evaluate the operational benefits associated.

WIM / DMS/ Camera Installation at One Interstate Scale

This project would include installation of mainline weigh-in-motion (WIM) scales, cameras and dynamic message signs (DMS) at one high volume interstate scale. The DMS would be used to notify mainline traffic of scale closings to prevent peak period back-up. The DMS could also be used for peak-period weight-only screening to reduce total volumes into the scale house when back-up is a possibility. WIM scales would be integrated with the PrePass clearance system. Cameras would be used to assist scale house staff in manual query / sorting capabilities.

Operational effects of these installations will be evaluated to determine the desirability of implementing similar improvements at other scales.

Pilot Project to Enhance Mobile Screening Operations

Upon deployment of the Oklahoma CVIEW and implementation of the DPS satellite project, OCC, OTC and DPS mobile enforcement officers will have roadside access to current and accurate safety and credential status information that can assist them in making more informed inspection selection decisions. Officers can query CVIEW or SAFER from their laptops units and receive information that, at a glance, provides an indicator of whether the carrier and vehicle's credentials are in order and whether a safety inspection is warranted.

However, officers will have to stop vehicles to manually capture their plate or DOT number before they are able to make a query. While this would provide productivity improvements over the current process, it would still result in a number of safe and legal carriers and vehicles being stopped (albeit for a shorter duration). A more effective means of identifying potentially higher risk carriers / vehicles for inspection may be to capture plate and / or DOT numbers upstream of the inspection site using CCTV cameras, automatically match the unique identifier with data in the CVIEW, and notify the officer at the mobile enforcement site regarding which trucks to stop; or to relay the image back to the officer and allow him or her to manually query the CVIEW system prior to the truck's arrival at the site.

Scale House Computer and Communications Upgrades

Access to safety and credential snapshot data from fixed scales would assist OTC and OCC enforcement officers in credentials verification and inspection selection decisions. With an open connection from the fixed scales to the Oklahoma CVIEW, scale officers could key in plate or DOT number as vehicles are moving over the fixed scales, review snapshot data and either flag the driver through or call him in for further inspection.

This project will evaluate options for scale house computer upgrades and connections to the state agency WAN (T1, satellite, other) and implement appropriate connections to provide scale staff with access to the CVIEW server.

Expanded PrePass Functionality

Information such as intrastate safety inspection results or OOS orders, or intrastate credential snapshots required for local screening decisions which may not ultimately be supported by SAFER will be transmitted periodically from the Oklahoma CVIEW to the PrePass host server or PreView (the PrePass CVIEW equivalent).

Planned Roll-Out of Oklahoma's CVISN Deployment

Exhibit 1 on the following page shows the planned implementation schedule for Oklahoma's CVISN deployment program. Exhibit 2 summarizes the CVISN deployment budget.

Exhibit 1. Summary Implementation Schedule – Oklahoma CVISN Deployment.

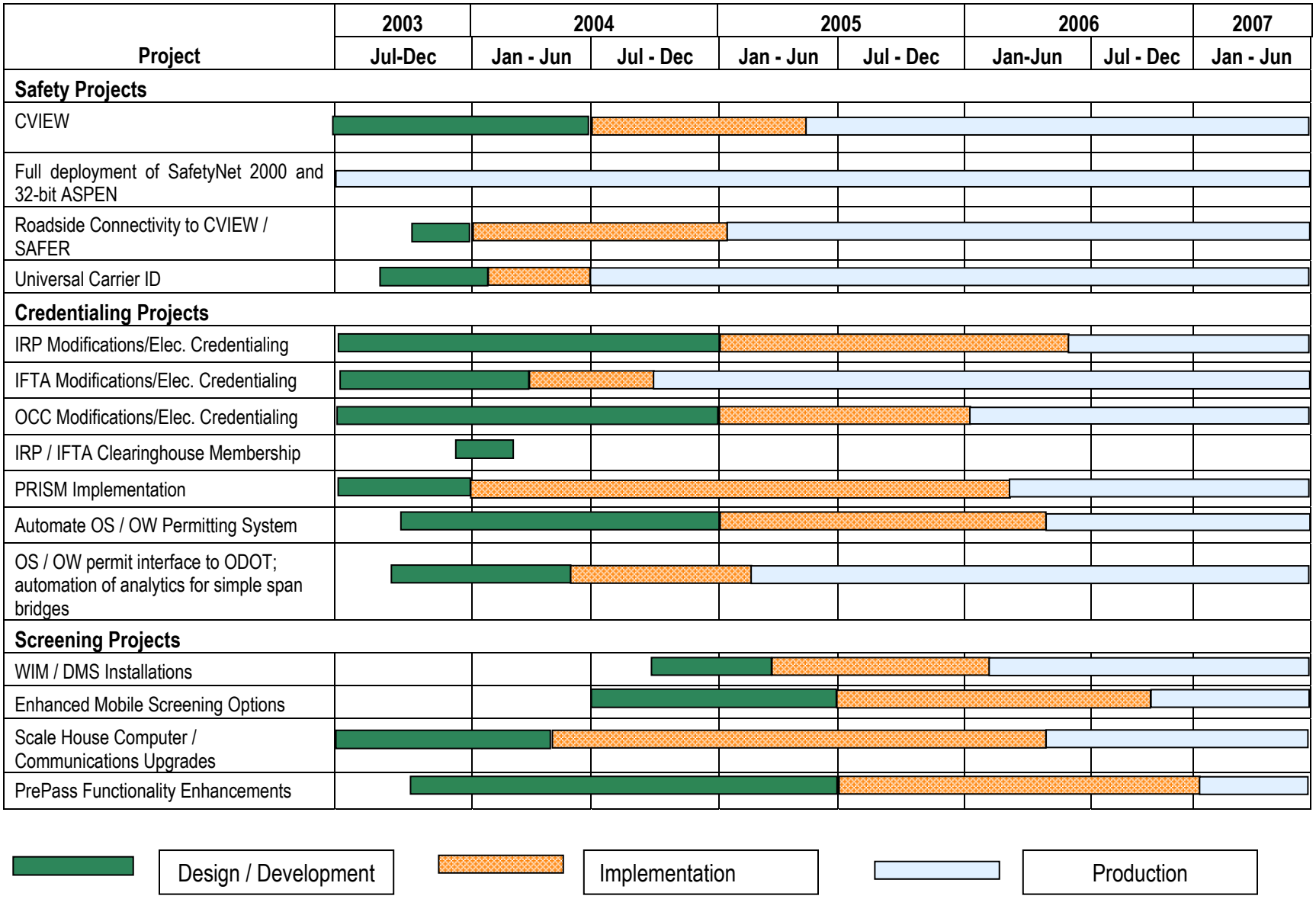


Exhibit 2. Oklahoma CVISN Deployment Budget

CVISN Task	Total Up-front Costs to Deploy	State Staff Resource Requirements (Hours; included in deployment costs) (1)	Estimated Annual O&M Cost (2)	Anticipated Funding Source				
				CVISN Deployment Funds	PRISM / MCSAP Grant	Federal Aid Funds	State Funds	Public / Private Partnership Funds
Program Management	**$ 200,000**	**2,000**	**$ -**	**$ 120,000**	**$ -**	**$ -**	**$ 80,000**	**$ -**
System Engineering & Integration	**$ 200,000**	**2,000**		**$ 110,000**			**$ 90,000**	
Safety Projects	**$ 629,500**	**4,700**	**$ 22,500**	**$ 500,000**	**$ 45,000**	**$ -**	**$ 84,500**	**$ -**
Project Management	$ 10,500	300	$ -				$ 10,500	
System Engineering & Integration	$ 10,500	300	$ -				$ 10,500	
Subcontract and Procurement Management	$ 7,000	200	$ -				$ 7,000	
CVIEW	$ 500,000	2,300	$ 20,000	$ 500,000				
SafetyNet 2000 / 32-bit ASPEN (Includes satellite connectivity and VPN to SAFER)	$ 76,500	900	??		$ 45,000		$ 31,500	
Universal Carrier ID (Build 1 of 1)	$ 25,000	700	$ 2,500				$ 25,000	
Credentials Projects	**$ 2,524,500**	**38,942**	**$ 106,000**	**$ 1,585,000**	**$ 500,000**	**$ -**	**$ 439,500**	**$ -**
Project Management	$ 10,500	300	$ -				$ 10,500	

CVISN Task	Total Up-front Costs to Deploy	State Staff Resource Requirements (Hours; included in deployment costs) (1)	Estimated Annual O&M Cost (2)	Anticipated Funding Source				
				CVISN Deployment Funds	PRISM / MCSAP Grant	Federal Aid Funds	State Funds	Public / Private Partnership Funds
System Engineering & Integration	$ 7,000	200	$ -				$ 7,000	
Subcontract and Procurement Management	$ 7,000	200	$ -				$ 7,000	
IRP	$ 600,000	9,060	$ 20,000	$ 600,000				
IFTA	$ 450,000	4,800	$ 12,000	$ 450,000				
PRISM	$ 500,000	6,500	$ 12,000		$ 500,000			
OCC Credentialing Systems	$ 350,000	8,882	$ 15,000	$ 185,000			$ 165,000	
OS/OW Permitting	$ 500,000	8,000	$ 35,000	$ 250,000			$ 250,000	
OS/OW Permitting / Bridge Interface	$ 100,000	1,000	$ 12,000	$ 100,000				
E-Screening Project (3)	**$ 939,500**	**3,400**	**$ 95,000**	**$ 870,000**	**$ -**	**$ -**	**$ 24,500**	**$ 1,400,000**
Project Management	$ 7,000	200	$ -				$ 7,000	
Systems Engineering & Integration	$ 7,000	200	$ -				$ 7,000	
Subcontract and Procurement Management	$ 10,500	300	$ -				$ 10,500	
Expanded PrePass Functionality	$ 45,000	500	$ -					$ 1,400,000
WIM / DMS / Camera	$ 400,000		??	$ 400,000				

CVISN Task	Total Up-front Costs to Deploy	State Staff Resource Requirements (Hours; included in deployment costs) (1)	Estimated Annual O&M Cost (2)	Anticipated Funding Source				
				CVISN Deployment Funds	PRISM / MCSAP Grant	Federal Aid Funds	State Funds	Public / Private Partnership Funds
Installation (3)		900						
Scale house Communications Upgrades	$ 285,000	800	$ 60,000	$ 285,000				
Evaluate Enhanced mobile screening options (3)	$ 185,000	500	$ 35,000	$ 185,000				
Evaluation	**$ 25,000**	**600**	**$ -**	**$ 25,000**				
	$ 4,518,500	***51,642***	***$ 223,500***	***$ 3,210,000***	***$ 545,000***	***$ -***	***$ 718,500***	***$1,400,000***

(1) may include state employees and / or state contract employees

(2) O&M cost estimates do not include potential productivity savings. For automated credentialing projects, short-term O&M costs are expected to increase while state operates parallel systems. Over long-term, O&M costs are expected to decline as a result of productivity increases in processing

(3) Includes costs of deployment at one site only

Note: Shaded areas indicate funds already allocated / spent.

1.1 Purpose and Scope

This document provides a management framework for Oklahoma's CVISN program deployment. It is intended to advise policy makers, CVISN program and project managers, and team members of the fiscal, technical, organizational and institutional resources and processes required to successfully deploy the state's CVISN Level 1 program.

The CVISN Program Plan was developed by Oklahoma's CVISN project team. The CVISN Team is led by the Oklahoma Department of Transportation (ODOT) Planning and Research Division, and includes representatives of all state agencies and other entities with responsibility for commercial vehicle credentialing, screening and enforcement. Team members include:

- ODOT, Bridge Division, responsible for review of OS / OW permits requiring analysis to ensure the structural integrity of the state's bridges;
- Department of Public Safety (DPS), Troop S, responsible for implementation of both the Motor Carrier Safety Assurance program (MCSAP) and the state's mobile size and weight enforcement efforts;
- DPS, Size and Weights Division, responsible for issuance of permits to oversize / overweight vehicles;
- DPS Telecommunications Administration, responsible for IT and communications support for safety assurance;
- Oklahoma Tax Commission (OTC), Motor Vehicle and MIS Divisions, responsible for registration of interstate trucks (IRP Program), registration for / collection of fuel taxes for interstate trucks (IFTA Program), intrastate truck registration, and related IT support;
- Oklahoma Corporation Commission (OCC), Data Processing and Transportation Divisions, responsible for issuance and enforcement of carrier operating authorities, related safety duties and related IT support;
- Oklahoma Trucking Association (OTA); and
- Oklahoma Division offices of the Federal Motor Carrier Safety Administration (FMCSA) and Federal Highway Administration (FHWA).

Various other stakeholders have contributed to the development of Oklahoma's CVISN deployment program and will continue to be involved through the deployment phase. These include metropolitan planning organizations, including ACOG and INCOG, the Oklahoma Transportation Authority (responsible for toll road operation and management) and representatives of individual trucking companies, including UPS, Groendyke, McCorkle Trucking, and others.

ODOT, OCC, OTC and DPS have signed a memorandum of understanding committing each agency to work with industry, FHWA and FMCSA to plan for and work toward deployment of "CVISN Level 1" functionality.

1.2 Background

Commercial Vehicle Operations (CVO) are the various activities in which public agencies and motor carriers engage to credential or permit commercial vehicles; to clear vehicles through weigh stations; to assure motor carrier, vehicle and driver safety and compliance; and to manage the flow of commercial vehicle traffic. Intelligent Transportation Systems (ITS) is the application of advanced technologies to surface transportation needs. ITS / CVO activities involve automating existing CVO processes such as credentialing, clearance or safety assurance to improve the efficiency and effectiveness of these processes, for both carriers and states.

The Federal Motor Carrier Safety Administration initiated the National ITS / CVO program in the early 1990s. The National Program is focused on providing resources and guidance to states and carriers interested in applying technology to CVO activities. The National ITS / CVO program includes two primary sub-programs – Mainstreaming and Commercial Vehicle Information Systems and Networks (CVISN). The Mainstreaming program was designed to help states understand and plan for the technological change that was coming about in association with CVO. The

Mainstreaming Program also focused on assisting states in developing the institutional infrastructure required to accommodate and implement technological change occurring nationally.

Oklahoma has completed its ITS / CVO Business Plan. The Business Plan identifies a program of “no-tech”, low-tech and technology-based initiatives focused on achieving the high-level goals summarized below:

- Improve administrative efficiency
- Maximize commercial vehicle operational safety, security and productivity
- Improve freight flows by increasing commercial vehicle operational productivity

Whereas the Mainstreaming Program focused on helping states develop the institutional infrastructure required to automate CV safety, credentialing and screening functions, CVISN is focused on developing the technological infrastructure required for automation. CVISN is not a new system; rather it is the collection of state, federal, and private sector information systems and communications networks that facilitate information exchange in support more efficient, more effective commercial vehicle operations.

Specific examples of new or enhanced services include:

- providing timely safety information to inspectors at the roadside,
- providing operating credentials to motor carriers electronically,
- allowing states to exchange registration and fuel tax information electronically, and
- conducting electronic screening of commercial vehicles at fixed and mobile sites while vehicles travel at highway speeds.

1.3 Oklahoma CVO Program Scope

Oklahoma is committed to improving commercial vehicle operations and services within the state. Toward this end, Oklahoma is committed to meeting CVISN Level 1 deployment requirements, as well as implementing a number of projects designed to improve the efficiency and effectiveness of CVO operations for both the state and carriers, which are not necessarily part of Level 1 functionality as defined by FMCSA. To differentiate these projects from those required for Level 1 compliance, this document refers to these additional projects as "post" Level 1 implementation projects. Level 1 and "post" Level 1 deployment projects are listed in the call-out box below, and are described in detail in Section 2, System Requirements.

Oklahoma CVISN Deployment Program

Automated Safety Assurance

- Full deployment of SafetyNet 2000 and 32-bit ASPEN (includes DPS satellite project and VPN from DPS networks to SAFER)
- Oklahoma Commercial Vehicle Information Exchange Window (OK CVIEW).

Credentials Administration

- IRP Legacy System Modifications / Electronic Credentialing
- IFTA Legacy System Modifications / Electronic Credentialing
- Evaluate IRP and IFTA Clearinghouse membership
- PRISM Implementation
- OCC Transportation data Base Legacy System Modifications / Electronic credentialing ("Post" Level 1)
- Automated OS/OW permitting ("Post" Level 1)
- OS / OW Permitting / ODOT Bridge System Interface ("Post" Level 1)

Electronic Screening

- WIM / DMS installation at One Interstate Scale Facility
- Open Connection from Scale House Computers to CVIEW and Associated Communications Upgrades
- Pilot Project to Test Enhanced Mobile Screening Options
- Expanded PrePass Functionality

1.3.1 CVISN Level 1 Scope

Oklahoma's CVISN program is consistent with the program of projects defined in the state's ITS / CVO Business Plan, and is consistent with the functional requirements of CVISN Level 1, as defined by the FMCSA. Level 1 requirements, as defined by FMCSA, include the basic capabilities described below:

Automated Safety Assurance:

- ASPEN or equivalent at all major inspection sites;
- Connection to SAFER to provide for exchange of interstate carrier and vehicle snapshots;
- Implementation of CVIEW (or equivalent) system for the exchange of intrastate and intrastate safety and credentials snapshots.

Automated Credentialing:

- Accept and process electronic IRP applications for supplements and renewals;
- Accept and process electronic IFTA credential applications for supplements and renewals;
- Accept and process electronic quarterly filings for IFTA tax returns;
- Automated credentialing system ready to extend to other credentials (intrastate registration, OS/OW permits, carrier registration, etc.); and
- At least 10% of transaction volumes handled electronically; ready to bring on additional carriers as carriers sign up; ready to extend to branch offices where applicable.

Electronic Screening at a Minimum of One Site:

- To include WIM, AVI, automated credentials verification.

1.3.2 "Post" Level 1 Scope

In some areas, such as automated Oversize / Overweight (OS / OW) permitting, and automated credentialing for OCC-issued credentials, Oklahoma will implement additional functionality beyond the Level 1 requirements in tandem with its CVISN Level 1 deployment. Although FMCSA does not require that "post" Level 1 projects be documented in the Top Level Design Description, project descriptions are provided in Section 2, and current deployment status is defined here, to enable readers to understand the state's full CVO program for near-term implementation.

1.4 Deployment Status as of June, 2003

This section highlights the current status of Oklahoma's CVISN deployment program. Oklahoma has completed an ITS / CVO Business Plan which defines the current CVO environment, identifies a series of goals and objectives for improving the efficiency and effectiveness of commercial vehicle operations in Oklahoma, and defines a program of projects to address those goals and objectives. The CVISN Program Plan and Design Document build upon the program identified in the Business Plan. Copies of the Plan are available from the ODOT Planning and Research Division.

Oklahoma has received a FY 2002 CVISN deployment earmark totaling $775,000, and a FY 2003 earmark totaling $710,000. The earmarks will be utilized to set up the state CVIEW and complete modifications to the state's IRP and OCC transportation database legacy systems to prepare those systems for automated credentialing, CVIEW interfaces, and, in the case of IRP, PRISM implementation. Earmarks will also be used to upgrade communications to the state's scale houses, implement an interface between the OS/OW permitting and bridge analysis systems, and to provide web-based credentialing / tax filing for the IFTA system. The state has completed detailed project plans, refining the more general WBS, budget and phase planning information contained in the Program Plan for the projects to be implemented with FY 2002 funds and is working to prepare project plans for the FY 2003 projects.

Oklahoma's PRISM Implementation Plan has been approved by the FMCSA and PRISM Grant funding in the amount of $499,700 has been authorized

for program deployment. The state is working toward a FY 2004 CVISN Deployment earmark.

1.4.1 Safety Assurance

Oklahoma's MCSAP and OCC officers use laptops and ASPEN software for safety inspection reporting. 100 percent of DPS Troop S officers and all OCC officers authorized to conduct Level 1 inspections are equipped with laptop units. The DPS has installed SafetyNet 2000 on its SafetyNet server, has installed 32-bit ASPEN on all ASPEN units.

The DPS is installing satellite units on all Troop S laptops. The satellite system will enable officers to upload inspections and access OLETS, NLETS, NCIC, and, ultimately, CVIEW and SAFER, from any location in the state.

1.4.2 Credentials Administration

The Oklahoma Tax Commission, Corporation Commission and DPS use state-owned systems for managing all credential and permit types.

Oklahoma is unique in the nation in that it credentials almost 20 percent of the interstate trucks registered in the US. To better accommodate the large carriers who credential in Oklahoma, and to reduce state data entry requirements, the OTC implemented a system several years ago which enables motor carriers to download IRP application and renewal information from their fleet management systems and transmit the data electronically to the state bulletin board in an EDI x12 format. Approximately 60 percent of the interstate trucks credentialed in Oklahoma are processed through the EDI / bulletin board application.

Oklahoma is not currently a member of the IRP or IFTA Clearinghouses.

Oklahoma's PRISM Implementation Plan has been approved by FMCSA and PRISM Grant funding of approximately $500,000 has been authorized.

The DPS is pilot testing a new oversize / overweight permit system and plans to begin issuing certain types of permits with simple routing requirements via the web in its Phase 2 deployment.

1.4.3 Electronic Screening

Oklahoma is a member of HELP, Inc. and has installed PrePass readers and screening systems at seven highway locations.

1.5 Document Organization

This Program Plan is organized as follows:

- **Section 2,** following this Introduction, highlights Oklahoma's ITS / CVO program goals and objectives, and presents detailed project descriptions.
- **Section 3** describes Oklahoma's key design features and summarizes the state's high-level CVISN system architecture. The full design description is included in the Oklahoma CVISN Top Level Design Description, available from the ODOT's Planning and Research Division.
- **Section 4** defines the deployment organizational structure.
- **Section 5** provides a work breakdown structure for Oklahoma's CVISN program, detailing constituent projects, associated tasks, responsible agencies / persons.
- **Section 6** defines the project leadership assignments, action item assignments and staffing needs for CVISN deployment.
- **Section 7** outlines the procurement items, hardware and software products associated with each major project and defines how each type of goods or services will be acquired.
- **Section 8** provides Oklahoma's approach to planning and management processes that recur across projects.

- **Section 9** includes a series of charts are used to illustrate phased project deployment and the critical milestones to be accomplished in each phase.
- **Section 10** shows budget needs and corresponding funding sources.
- **Section 11** highlights outstanding issues / risks, and associated action items / risk mitigation plans.

Appendix A - The COACH, Part 2, is a management checklist developed by John's Hopkins Applied Physics Laboratory (JHU / APL) to assist states in ensuring that program management processes are adequately addressed.

Appendix B - Includes the Oklahoma CVISN Team list of contacts.

2.1 Oklahoma CVISN Goals

Oklahoma's CVISN goals and objectives build upon those established in the state's ITS / CVO Business Plan. Oklahoma's primary goals and objectives are as follows:

Improve Administrative Efficiency

Specific objectives include:

- Continue to improve the level of customer service provided in Oklahoma.
- Improve state and motor carrier productivity and motor carrier compliance by reducing the steps, paper, dollars or people required to fulfill regulatory obligations.
- Improve safety compliance and motor carrier accountability through provision of timely, current, accurate credential status information to the roadside.

Maximize CV Operational Safety, Security and Productivity

Specific objectives include:

- Focus safety assurance and screening resources on higher risk motor carriers to reduce crashes, maintain security of shipments, improve operational productivity of safe and legal motor carriers, and reduce public and private sector unit costs per violation / citation issued.
- Improve the operating productivity of safe and legal motor carriers and maximize the efficiency and effectiveness of enforcement resources by allowing for mainline screening and bypass at key locations throughout the state.

Improve freight flows by Increasing CVO Operational Productivity

Specific objectives include:

- Maintain and enhance mobility on priority freight corridors.
- Increase available funding dedicated to freight flow mobility improvements.

2.2 Oklahoma CVISN Deployment Projects

Oklahoma will implement a variety of safety assurance, credentialing and screening projects to meet CVISN Level 1 functionality requirements.

Oklahoma also plans a number of projects that are in addition to the level of functionality required to meet the FMCSA definition of CVISN Level 1 compliance. Projects which exceed Level 1 functionality requirements as defined by FMCSA are detailed here, as they are part of the state's ongoing CVO deployment program and relate directly to the Level 1 projects. Projects which go beyond Level 1 functionality are labeled as "post" Level 1 projects. "Post" does not necessarily refer to timing; rather it indicates that a project is in addition to the Level 1 projects. Some "post" Level 1 projects will be undertaken concurrently with Level 1 efforts; others will be undertaken as funding is available and may be implemented after the Level 1 deployment timeframe.

Each of these projects is described below.

2.2.1 Automated Safety Assurance Projects

Oklahoma intends to implement four safety projects as part of its Level 1 and post Level 1 deployment program.

- Full deployment of SafetyNet 2000 / 32-bit ASPEN
- DPS Satellite Communications and Open Connection to SAFER
- Universal carrier ID
- Oklahoma Commercial Vehicle Information Exchange Window (OK CVIEW)

Each of these projects is described below.

2.2.1.1 CVISN Level 1 Safety Deployment Projects

Full Deployment of SafetyNet 2000 / 32-bit ASPEN

Project Objectives:

- Take advantage of the functionality offered by latest versions of FMCSA-provided software
- Upload inspection reports directly to the SAFER data mailbox, reducing turn-around time for inspection upload

Project Benefits:

Full deployment of SafetyNet 2000 / 32-bit ASPEN will allow MCSAP officers to:

- Take advantage of ISS2, PIQ query and direct upload to SAFER functions, improving safety assurance efforts

Project Description:

The SafetyNet system was developed by FMCSA and is distributed to any state who desires to use SafetyNet for managing safety inspection reports, CV crash reports, compliance reviews, enforcement data and carrier identification information. FMCSA maintains SafetyNet and periodically updates and enhances the system. The most recent version of SafetyNet, SafetyNet 2000, provides a robust, client-server application running on a SQL database management system.

High Level Implementation Requirements:

- Oklahoma has installed SafetyNet 2000 on the DPS Oracle SafetyNet server.
- ASPEN units have been upgraded to the 32-bit version of ASPEN.
- DPS is currently working through some issuers related to direct upload of inspection reports to the SAFER data mailbox, and in the meantime is still routing inspection reports through Blizzard to SafetyNet and from SafetyNet to MCMIS.
- DPS expects to be uploading directly to the SAFER data mailbox before year-end 2002.

DPS Satellite Communications and Open Connection to SAFER

Project Objectives:

- Provide voice / data wireless communications capability to roadside from any location in the state
- Provide direct connection to SAFER from the field and replace dial-up connection from deskside

Project Benefits:

- Improve officer security by providing communications to dispatch from any location statewide
- Enable ISS2, PIQ queries from roadside, improving officer's access to accurate, timely data, thus facilitating their efforts to target limited enforcement resources on higher risk carriers
- Enable direct uploads of inspection reports to SAFER upon completion of inspection, providing "downstream" officers and officers in other states with timely inspection and out-of-service (OOS) information, again, facilitating enforcement officers efforts to focus limited enforcement resources on higher risk carriers and vehicles

Project Description:

The Oklahoma Highway Patrol (OHP) is planning to implement a satellite communications system to provide statewide wireless connectivity from mobile units in the field. The system being implemented by OHP will enable officers to access the Oklahoma Law Enforcement Telecommunications System (OLETS), the National Law Enforcement Telecommunications System (NLETS), the National Crime Information center (NCIC), dispatch and central DPS systems for both voice and data communications.

Troop S will pilot test the system for the OHP. To meet the special communication needs of Troop S (as distinct from the needs of the general

Highway Patrol), a related CVISN project has been identified. The related project is an open connection to the national Safety and Fitness Electronic Record (SAFER). This project will provide LAN to LAN VPN between the DPS networks and SAFER, enabling Troop S officers, and ultimately certified officers in other agencies, to perform Inspection Selection System (ISS) and Past Inspection Queries (PIQ queries), snapshot queries, and inspection uploads on a real-time basis from any roadside location statewide. Officers at roadside will also be able to access the Oklahoma CVIEW via satellite query to the DPS networks.

High Level Requirements:

- Define functional / technical requirements
- Test ASPEN connectivity from roadside to DPS networks
- Install VPN connection from DPS networks to SAFER
- Test OCC connectivity from roadside to DPS and OCC networks

Universal Carrier ID

Project Objectives:

- Improve enforcement officers' capabilities to track safety performance at the motor carrier level for intrastate carriers by enabling officers to track inspection and crash history at the carrier rather than vehicle level

Project Benefits:

- Target limited enforcement resources toward higher risk carriers

Project Description:

DPS modified its administrative rules in 2002 to require all intrastate carriers based in Oklahoma to obtain an Oklahoma DOT number and display the number on their vehicle.

High Level Implementation Requirements:

- Work with the Oklahoma Trucking Association (OTA) to educate carriers regarding the new requirement for acquisition / display of intrastate DOT numbers
- Provide MCS 150s and associated instructions in the upcoming renewal cycle for LP Gas registrants

Oklahoma CVIEW

- Improve safety, security, compliance for the citizens of Oklahoma, by targeting enforcement / compliance resources on potentially unsafe / Illegal motor carriers, drivers and vehicles.
- Improve productivity of safe and legal carriers.

Project Benefits:

CVIEW deployment will:

- Enable Oklahoma's roadside enforcement officers and deskside regulatory staff to access motor carrier, vehicle and (ultimately) driver safety and credential status information for Oklahoma-based intrastate carriers and vehicles, and interstate carriers / vehicles registered in Oklahoma, any other US state, some Canadian provinces, and Mexico.
- Ensure that other states have access to carrier and vehicle credential status information for interstate carriers registering in Oklahoma.

Project Description:

CVIEW is a state-owned and maintained system. Several states have already deployed CVIEWs; approximately 30 other states are preparing to deploy. Several vendors currently offer systems. Public domain systems have been developed by the state of Washington and Johns Hopkins Applied Physics Lab.

Oklahoma plans to implement a CVIEW which will perform the following functions:

- Collect and route interstate credential status information (snapshots) to SAFER. This will include IRP, IFTA and SSRS information.
- Collect and house intrastate credential status information, including intrastate vehicle registration and OS/OW and other permit data.
- Transmit intrastate credential snapshots supported by the PrePass system (but not supported by SAFER) to the PrePass host server for use in electronic screening decisions.
- Receive periodic downloads from the SAFER database to support manual queries from credentialing, screening and safety personnel and automated queries from various credentialing systems.

Oklahoma credential legacy systems will populate credential fields for Oklahoma-based carriers. The national SAFER system will populate safety fields for Oklahoma-based carriers and credential and safety fields for carriers and vehicles based in other jurisdictions. Data will be updated nightly or weekly, depending upon data type.

All Oklahoma CV enforcement and regulatory agencies will be able to access the database, from deskside or roadside.

Oklahoma does not plan to route inspection uploads, PIQ queries, ASPEN-based vehicle or carrier snapshot queries through CVIEW. Rather, uploads and queries will be transmitted directly to SAFER. This assumes that SAFER and MCMIS will be enhanced to accommodate intrastate safety snapshot information.

Oklahoma will issue an RFP for implementation of the CVIEW system.

High Level Implementation Requirements:

- Evaluate CVIEW systems as developed by state of Washington, Johns Hopkins Applied Physics Lab, and vendors (completed).
- Select system which best meets Oklahoma's needs (completed).
- Install on Oklahoma server and modify to meet Oklahoma-specific needs.
- Interface with national Safety and Fitness Electronic Record (SAFER) system.
- Beta and integration testing of SAFER interface.
- Interface with OTC's IRP, IFTA and intrastate credentialing systems; OCC's SSRS, intrastate and interstate exempt credentialing systems; DPS' OS / OW permitting system, including beta and integration testing
- Interface with PrePass host server to enable electronic clearance of intrastate vehicles at states fixed weigh scales, including beta and integration testing.

2.2.2 Credentials Projects

Oklahoma intends to implement the following credentialing projects as part of its CVISN deployment:

- IRP legacy system modifications and electronic credentialing
- IFTA legacy system modifications and electronic credentialing / tax filing
- PRISM
- Evaluate IRP / IFTA Clearinghouse costs / benefits
- OCC Legacy system modifications and electronic credentialing ("Post" Level 1)
- OS / OW automated permitting / routing ("Post" Level 1)
- OS / OW permitting system / bridge interface ("Post" Lev el 1)

2.2.2.1 CVISN Level 1 Credentials Projects

IRP Legacy System Modifications / Automated Credentialing

Project Objectives:

- Position IRP system for PRISM implementation, CVIEW interface and web-based credentialing.
- Support objective of targeting safety and security resources on higher risk carriers by positioning systems to provide roadside access to credentials status information.
- Improve efficiency of existing computer-to-computer electronic application capabilities for larger carriers and state staff
- Provide web-based credentialing to meet the needs of smaller carriers who do not use EDI

Project Benefits:

- More efficient, robust PRISM, CVIEW and automated credentialing systems can be developed if existing legacy system is first modified
- Ease of maintenance, reduced long-term O&M costs
- Improved processing capabilities
- Increase staff handling capacity without increasing FTEs
- Enable safe and legal carriers to get vehicles on the road in minutes rather than hours or days
- Over time, redeploy resources to revenue recovery functions such as audit rather than routine application processing

Project Description:

Oklahoma's IRP system is a state-owned system, developed and maintained by the OTC. The system credentials more than 20,000 carriers and more than 400,000 trucks annually. The legacy system must be modified to accommodate the implementation of the Performance Registration Information Systems Management (PRISM) program, web-based credentialing and transmittal of updated credential status information to the state CVIEW.

Oklahoma will undertake a requirements analysis to determine the nature and extent of modifications required to accommodate PRISM, web-based credentialing and CVIEW interfaces and will evaluate other states non-proprietary IRP systems. The OTC will determine whether it is more cost-effective to modify the existing legacy system or replace it with a clone of another state's system, and then modify that system to met Oklahoma's specific needs.

Oklahoma's IRP system includes a module which enables carriers to download application and renewal information from the carriers' fleet management systems and transmit the application information to the state utilizing electronic data interchange (EDI) x12 interface standards. State personnel then open the attachments, review them, upload them to the IRP legacy system and manually package credentials which are mailed to the carrier, typically within 24-48 hours.

As part of the Legacy Systems Modification project, the OTC will evaluate the modifications necessary to automate the "back-end" of the EDI / bulletin board process, automating the application verification, upload and credentials issuance process. Depending upon the outcome of that evaluation / requirements analysis, the EDI / bulletin board system may be modified as part of the overall legacy system modifications, or may be modified as part of the Phase 2 electronic credentialing implementation. The EDI / bulletin board system will be migrated to a web-based application, which will still allow for download from carrier's fleet management systems.

This project also includes implementation of the Oklahoma CVIEW to IRP legacy system interface, enabling periodic downloads and updates of credential "snapshots" to CVIEW, automated verification of carrier safety status prior to issuance of registration, and upload of Oklahoma data to national SAFER system.

The second phase of this project includes implementation of web-based credentialing, enabling smaller carriers who do not use EDI to apply for, pay for and receive their credentials using the Internet. The web-based system will support electronic funds transfer (EFT), will allow a carrier using a commercial web browser to access the web systems, transmit application and fee information to the state electronically, upload application and fee information to the state's IRP legacy system, and, upon validation of the application and associated fee transmittal, will allow the carrier to print required credentials at their offices. The IRP web system may not be linked to other web-credentialing systems in the state, but will appear seamless to the carrier.

The web-based IRP system will include an automated check for safety status to meet the requirements of the PRISM program.

High Level Requirements:

- Complete requirements analysis to accommodate PRISM, CVIEW interfaces, and automated credentialing (web-based and computer-to-computer).
- Evaluate other states' non-proprietary systems for application in Oklahoma.
- Modify (existing legacy system or other state's system) as required to meet Oklahoma needs, including beta and integration testing.
- Incorporate enhanced computer-to-computer credentialing capabilities, including beta and integration testing
- Design / test / deploy interfaces to Oklahoma CVIEW.
- Develop, test and deploy web-based credentialing.

IFTA Legacy System Modifications / Automated Credentialing

Project Objectives:

- Position IFTA legacy system for CVIEW interface and web-based credentialing.
- Support objective of targeting safety and security resources on higher risk carriers by positioning system to provide roadside access to credentials status information.
- Improve efficiency of credentialing for both state and carriers

Project Benefits:

- More efficient, robust CVIEW / automated credentialing systems can be developed if existing legacy system is first modified
- Ease of maintenance, reduced long-term O&M costs
- Improved processing capabilities
- Increase staff handling capacity without increasing FTEs
- Over time, redeploy resources to revenue recovery functions such as audit rather than routine application processing

Project Description:

Oklahoma's IFTA legacy system is a state-owned system, developed and maintained by the OTC. The legacy system must be modified to better accommodate web-based credentialing and tax filing, and transmitting required credential status updates to the state CVIEW.

Oklahoma will undertake a requirements analysis to determine the nature and extent of modifications required to accommodate web-based credentialing and CVIEW interfaces and will evaluate other states non-proprietary IFTA systems. The OTC will also evaluate the costs / benefits of using the Regional Processing Center (RPC) as the IFTA tax management system, maintaining only an IFTA-credentialing system in-house. The OTC will then identify the most cost-effective option and will modify / replace the legacy system accordingly.

This project includes implementation of the IFTA legacy system interface to CVIEW, enabling periodic downloads updates of credential "snapshots" to CVIEW, and upload of Oklahoma data to national SAFER system.

A second phase of the project includes implementing web-based credentialing and quarterly tax filing, enabling carriers to apply for, pay for and receive their IFTA license, and to file and pay quarterly fuel taxes using the Internet. The system will support electronic funds transfer (EFT). The system will allow a carrier to use a commercial web browser to access the supported web system, and transmit mileage and fee information to the state, which will be uploaded and processed by the IFTA system. The system will include interfaces between the credentialing and accounting systems. The IFTA web system may not be linked to other web-credentialing systems in the state, but will appear seamless to the carrier.

High Level Requirements:

- Complete requirements analysis to accommodate CVIEW interfaces, and automated credentialing (web-based).
- Evaluate other states' and RPC systems for application in Oklahoma
- Modify (existing legacy or other state) system as required to meet Oklahoma needs, including beta and integration testing.
- Design / test / deploy interfaces to Oklahoma CVIEW, including beta and integration testing.
- Incorporate web-based credentialing / tax filing.

IRP and IFTA Clearinghouse Membership

Oklahoma will evaluate the costs / benefits of Clearinghouse membership and will implement interfaces as appropriate.

PRISM

Project Objectives:

- Improve safety, security, compliance for the citizens of Oklahoma, by ensuring that motor carriers meet federally-specified minimum safety performance standards as a prerequisite to registration. Assist FHWA / FMCSA in identifying marginal performance and provide incentives for safety performance improvement.
- Reduce CVO-related crashes.

Project Benefits:

PRISM deployment will:

- Create a partnership between Oklahoma credentialing, enforcement and federal safety assurance agencies to improve highway safety for CV and general traffic.
- Assist motor carriers by ensuring that crashes, inspections, citations, OOS actions are more accurately attributed to the motor carrier actually responsible for safety.

Project Description:

PRISM is a national program designed to provide a uniform process to identify motor carriers with marginal and / or unacceptable safety performance prior to registration. The PRISM program provides a series of progressive ameliorative actions to encourage motor carriers to improve safety performance. Program implementation is 100% funded through federal grants.

FMCSA has approved Oklahoma's PRISM Implementation Plan and has authorized funding for PRISM implementation. Oklahoma will verify DOT numbers and census data for interstate carriers using the MCS 150, assign DOT numbers to intrastate carriers and will modify its IRP (and, ultimately intrastate) registration systems to allow tracking of the US DOT number at both the carrier and vehicle levels. Implementation of the intrastate portion of the PRISM program will be phased in following the interstate portion, as funding is available.

High Level Implementation Requirements:

- Modify IRP and (ultimately) intrastate vehicle registration system to track US DOT number at both the registrant and vehicle level.
- Ensure that all carriers have valid US DOT numbers and update carrier census data associated with the number.
- Electronically capture MCS 150 data and enter into federal Motor Carrier Management Information System (MCMIS).
- Modify IRP system to produce bar codes on printed cab cards, enabling roadside enforcement to "wand" cab card for positive ID and electronic transmittal of all required carrier / vehicle data to inspection and crash reporting systems.
- Modify IRP system to automatically verify safety status (via checks to state CVIEW) of registrant / vehicles prior to issuance of registration.
- Provide bar code readers to roadside safety assurance / compliance officers to assist in inspection selection decisions, safety and compliance verification.

2.2.2.2 "Post" Level 1 Credentials Projects

OCC Transportation Database Legacy System Modifications / Electronic Credentialing

Project Objectives:

- Position legacy system for CVIEW interface / automated credentialing.
- Improve carrier compliance through more efficient tracking / registration / citation tracking systems
- Improve efficiency of credentialing for both state and carriers

Project Benefits:

- More efficient, robust CVIEW / automated credentialing systems can be developed if existing legacy system is first modified
- Ease of maintenance, reduced long-term O&M costs
- Improved processing capabilities
- Improved carrier compliance
- Increase staff handling capacity without increasing FTEs
- Enable safe and legal carriers to get vehicles on the road in minutes rather than hours or days
- Over time, redeploy resources to revenue recovery functions such as audit rather than routine application processing

Project Description:

The OCC transportation database legacy system is a state owned system, developed and maintained by the OCC. The system manages the SSRS program, Interstate Exempt, Intrastate Operating Authority and HazWaste credentialing programs. The system will be modified to position it to better accommodate web-based credentialing and implementation of CVIEW interfaces.

The OCC will undertake a requirements analysis to determine the nature and extent of modifications required to accommodate web-based credentialing and CVIEW interfaces and will evaluate other states non-proprietary systems, including systems developed by Louisiana and North Carolina. The OCC will determine whether it is more cost-effective to modify the existing legacy system or replace it with a clone of another state's system, and will then modify that system to met Oklahoma's specific needs.

Legacy system modifications will also include implementation of the Oklahoma CVIEW to OCC legacy system interface, enabling periodic downloads updates of credential "snapshots" to CVIEW, automated verification of carrier insurance status prior to issuance of registration, and upload of Oklahoma data to national SAFER system.

Phase 2 of this project includes deployment of web-based credentialing for OCC-issued credentials, enabling carriers to apply for, pay for and receive

their IFTA license, and to file and pay quarterly fuel taxes using the Internet. The system will support electronic funds transfer (EFT), will allow a carrier using a commercial web browser to access the web system, transmit application information and fees to the state electronically, and, upon validation of the application and associated fee transmittal, will allow the carrier to print the SSRS (or other) license. The OCC web system may not be linked to the IRP or IFTA web systems, but will appear seamless to the carrier.

High Level Requirements:

- Complete requirements analysis to accommodate CVIEW interfaces, and automated credentialing (web-based).
- Evaluate other states' systems for application in Oklahoma.
- Modify system as required to meet Oklahoma needs, including beta and integration testing
- Interfaces to Oklahoma CVIEW, including beta and integration testing
- Design / test / deploy web-based credentialing system

Automated OS / OW Permitting

Project Objectives:

- Improve efficiency of credentialing for both state and carriers

Project Benefits:

- Improved processing capabilities
- Improved carrier compliance
- Increase staff handling capacity without increasing FTEs
- Facilitate staff training and reduce staff turnover
- Enable safe and legal carriers to get vehicles on the road in minutes rather than hours or days

Project Description:
The Oklahoma DPS is responsible for oversize / overweight permitting, issuing approximately 200,000 permits annually. On average, DPS permit staff issues one permit every ten minutes. Given the complexity of the permitting process and the fast pace of the job, turn-over rates among new hires are very high. DPS is implementing automated permitting to improve service to customers and to reduce staff turnover. DPS is currently replacing the existing FoxPro OS/OW permitting system with a more robust system that will accommodate internet interface.

The first phase of permit automation will allow carriers to apply for certain "envelope" permits over the web. This is expected to accommodate as much as 40 percent of the demand for permits. Subsequent phases will provide more robust routing capabilities.

OS / OW Permitting / ODOT Bridge Interface

Project Objectives:

- Improve efficiency of credentialing for both state and carriers

Project Benefits:

- Improved processing capabilities
- Improved carrier compliance
- Increase staff handling capacity without increasing FTEs

Project Description
Approximately 1,000 of the permits issued annually by DPS must be forwarded to ODOT for bridge analysis. DPS and ODOT plan to develop an interface between the ODOT Bridge Analysis System and the OS / OW permitting system to allow the permits to be transmitted electronically. ODOT also plans to automate the analytics for permits involving simple span bridges to reduce turn-around time and reduce the FTE requirement for bridge analysis.

2.2.3 Oklahoma's Automated Screening Projects

Oklahoma uses HELP Inc.'s PrePass screening system. Under the PrePass program, HELP, Inc. issues transponders and assigns a unique transponder ID number to enrolled vehicles. Only carriers who meet specific compliance and safety requirements are eligible for enrollment. HELP, Inc. has installed readers, screening systems and roadside operations computers at seven interstate sites in Oklahoma.

As transponder-equipped vehicles pass the roadside readers, the readers use dedicated short-range communications (DSRC) to read the transponder ID. The ID is then electronically transmitted to the local PrePass screening computer at the port. The screening computer makes a bypass / pull-in decision based on credential and safety status information housed in the screening database. The bypass / pull-in decision is transmitted back to the in-cab transponder, which emits a green or red light and audible alarm, depending on the results of the screening decision. Results of the screening decision are sent to the roadside operations computer housed at the scale house.

2.2.3.1 Oklahoma's Automated Screening Projects, CVISN Level 1

Install Mainline WIM, DMS, Cameras at One PrePass-equipped Fixed Scale

Project Objectives:

- Pilot project to demonstrate operational improvements / requirements associated with incorporating weight data in the electronic screening decision
- Pilot project to demonstrate operational efficiencies / safety benefits associated with weight only screening / coupled with random call-ins for non-transponder-equipped trucks during peak periods to reduce potential for mainline back-up from extended ramp queuing
- Pilot project to demonstrate safety / compliance benefits of DMS / camera use in conjunction with manual queries to CVIEW

Project Benefits:

- Improved safety, security and compliance
- Reduce crash potential associated with mainline back-ups
- Reduce pavement deterioration related to overweight vehicles
- Target enforcement resources on higher risk motor carriers
- Over time, provides potential redeploy resources to mobile enforcement operations, which tend to have higher violation recovery rates

Project Description:

Fixed scales in Oklahoma are operated by the OTC. OTC scale officers are authorized to enforce registered weight, but they are not authorized to enforce the state's size and weight laws (rather, this is a DPS function). The OCC also deploys enforcement officers at fixed scales. OCC officers are responsible for enforcing OCC registration requirements and safety.

DPS Troop S officers, who do have authority to enforce the state's size and weight laws, as well as federal and state motor carrier safety requirements and state traffic laws, operate primarily on a mobile basis. Troop S officers carry mobile scales in their cars and conduct size and weight and safety inspections from roadside pull-out locations, as well as than from fixed scales.

Because OTC and OCC officers are focused on enforcing registration requirements rather than size and weight laws, the OTC does not currently have plans to install WIM scales at its fixed scale sites. However, the state is considering implementation of this project to evaluate the associated operational benefit. Quartz piezzo WIMs and associated AVI system would be installed on the mainline, along with software / communications to integrate WIM data with the PrePass screening decision.

During peak periods, when there is potential for mainline back-up due to excessive queuing on ramps, weight-only screening in conjunction with

random call-ins could be utilized to manage flow of traffic into scale house. Scale house operators can set random call-in rate, signaling drivers via the DMS to pull-in or bypass.

Scale house operators can use CCTV to capture plate numbers of vehicles pulling into scale house (during any period) and can manually key plate number or DOT number into the CVIEW query system to validate credentials / safety status of non-transponder-equipped vehicles, assisting them in making inspection selection decisions, thus targeting review of paper credentials to potentially higher risk carriers / vehicles.

High Level Requirements:

- Analyze scale volumes, geometrics, current queuing issues and identify optimal pilot project location.
- Design / deploy / test WIM / DMS / camera installation.
- PrePass integration of WIM / screening data and DMS display
- Train officers in system use.
- Evaluate benefits for additional applications

Pilot Project to Enhance Mobile Screening Operations

Project Objectives:

- Pilot project to demonstrate operational improvements / requirements associated with enhanced mobile enforcement.

Project Benefits:

- Improved safety, security and compliance
- Target enforcement resources on higher risk motor carriers

Project Description:

Upon deployment of the Oklahoma CVIEW and implementation of the DPS satellite project, OCC, OTC and DPS mobile enforcement officers will have roadside access to current and accurate safety and credential status information that can assist them in making more informed inspection selection decisions. Officers can query CVIEW or SAFER from their laptops units and receive information that, at a glance, provides an indicator of whether the carrier and vehicle's credentials are in order and whether a safety inspection is warranted.

However, officers will have to stop vehicles to manually capture their plate or DOT number before they are able to make a query. While this would provide productivity improvements over the current process, it would still result in a number of safe and legal carriers and vehicles being stopped (albeit for a shorter duration). A more effective means of identifying potentially higher risk carriers / vehicles for inspection may be to capture plate and / or DOT numbers upstream of the inspection site using CCTV cameras, automatically match the unique identifier with data in the CVIEW, and notify the officer at the mobile enforcement site regarding which trucks to stop; or to relay the image back to the officer and allow him or her to the manually query the CVIEW system prior to the truck's arrival at the site.

High Level Requirements:

- Establish pilot test purpose, success criteria
- Define functional / technical requirements
- Design pilot test
- Pilot test
- Evaluation.

2.2.3.2 Oklahoma's Automated Screening Projects, "Post" Level 1

Scale House Computer and Communications Upgrades

Access to safety and credential snapshot data from fixed scales would assist OTC and OCC enforcement officers in credentials verification and inspection selection decisions. With an open connection from the fixed scales to the Oklahoma CVIEW, scale officers could key in plate or DOT number as vehicles are moving over the fixed scales, review snapshot data and either flag the driver through or call him in for further inspection.

This project will evaluate options for scale house computer upgrades and connections to the state agency WAN (T1, satellite, other) and implement appropriate connections to provide scale staff with access to the CVIEW server.

Expanded PrePass Functionality

Information such as intrastate safety inspection results or OOS orders, or intrastate credential snapshots required for local screening decisions which may not ultimately be supported by SAFER will be transmitted periodically from the Oklahoma CVIEW to the PrePass host server or PreView (the PrePass CVIEW equivalent).

3.1 Key Design Features

This section of the Program Plan describes the key design features of Oklahoma's CVISN design. A comprehensive discussion of the state's top level CVISN design can be found in the Oklahoma CVISN Top Level Design Description, available from the ODOT's Planning and research Division..

Key features of Oklahoma's design include the following:

- Member of HELP Inc., using PrePass electronic screening.
- Use of ASPEN for recording / uploading safety inspections
- Will implement a CVIEW.
- Will implement a web-based electronic credentialing system for IRP and IFTA and also for various other interstate and intrastate credentials.
- Currently has in operation an IRP electronic computer-to-computer interface for IRP registrations.
- Oklahoma has submitted a letter of intent and work plan to participate in the PRISM program.
- Has begun development of an automated OS/OW permitting system that will be expanded to include automated routing and web-based credentialing.
- Intends to establish a LAN-to-LAN VPN to connect the Department of Public Safety networks to SAFER.
- Intends to establish satellite connectivity from roadside to DPS networks; will make wireless connectivity available to other agencies involved in roadside enforcement.

3.2 Oklahoma CVISN Design Overview

This section provides an overview of the Oklahoma CVISN Design. The key elements included in this section are the:

- Oklahoma CVISN System Design Template, showing all of the functional systems involved in CVO data exchange (systems highlighted in yellow are new systems).
- Design For Host Computers And Networks shows the host computers and networks involved in Oklahoma's CVISN Level 1 deployment; identifies the "owner" of the systems and illustrates the communication links used to connect systems.
- Oklahoma High Level Connectivity Overview, showing the same interfaces as the Host Computers and Networks Diagram, but from a network management perspective.

For more information, refer to the Oklahoma CVISN Top Level Design Description, which contains more detailed information on system interfaces, operational data flows and hardware/software configurations.

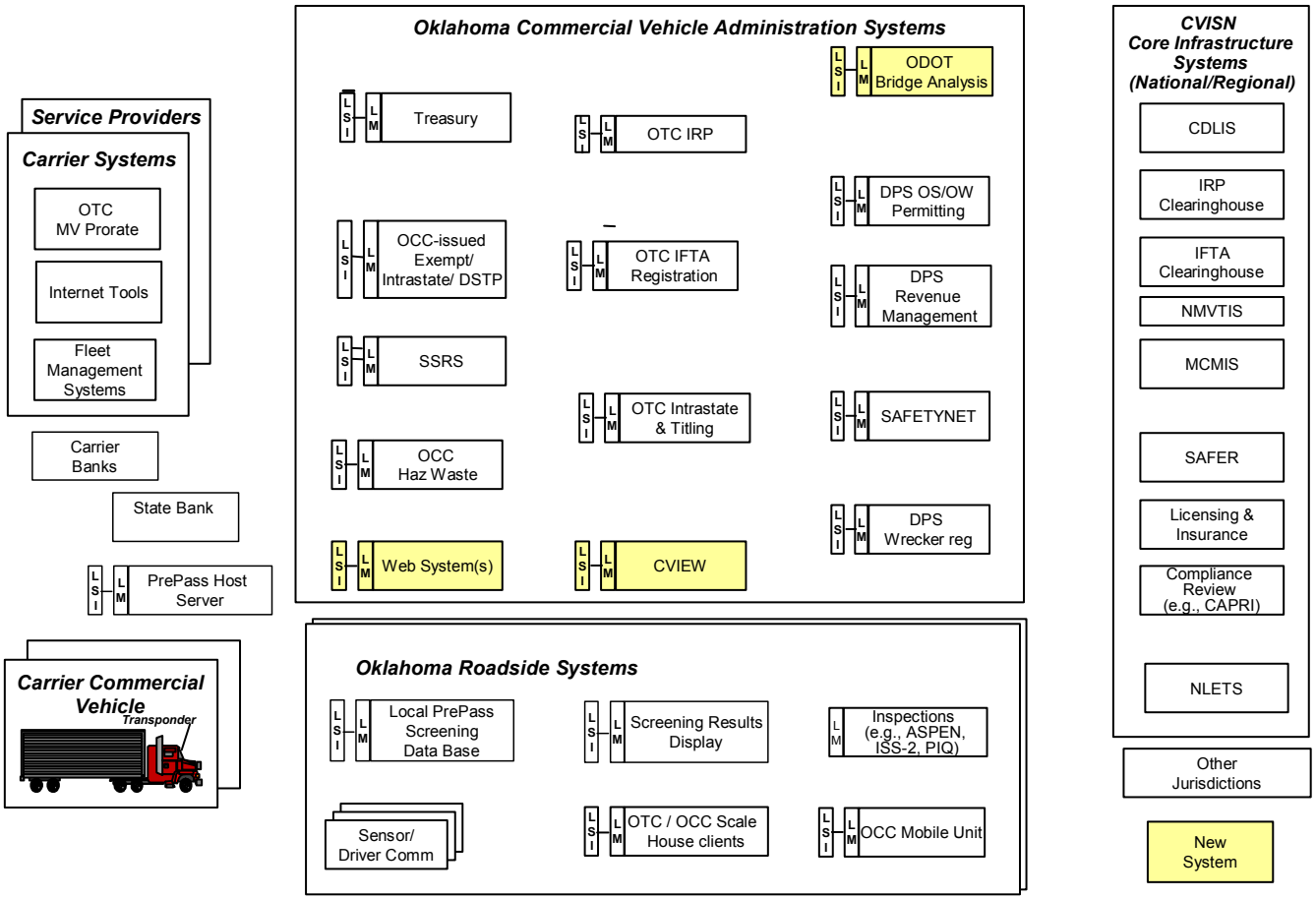


Exhibit 3-1. Oklahoma CVISN Level 1 Architecture

Oklahoma Host Computers and Networks Template
(——— Changes Required for CVISN projects)

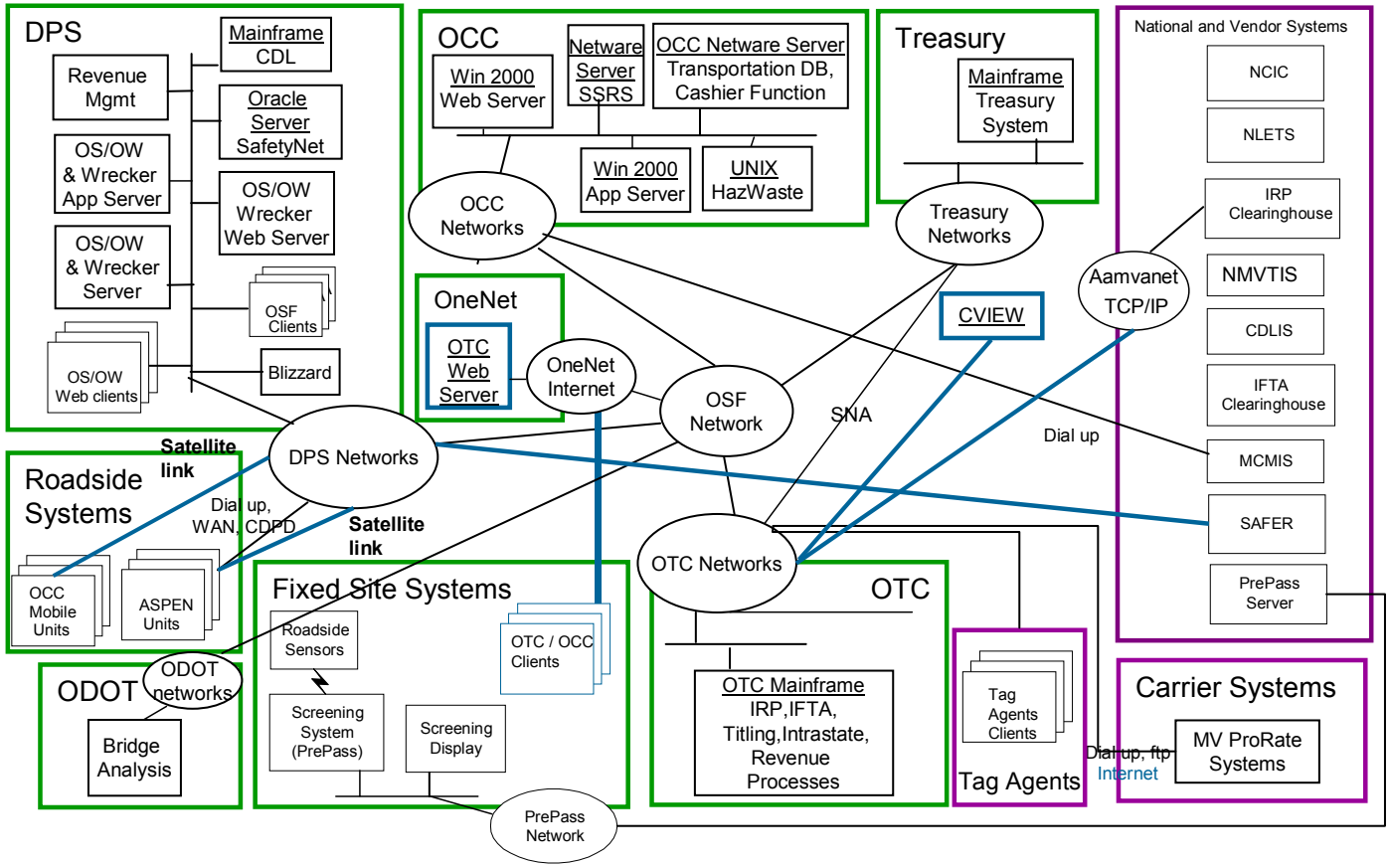


Exhibit 3-2. Oklahoma Host Computers and Networks

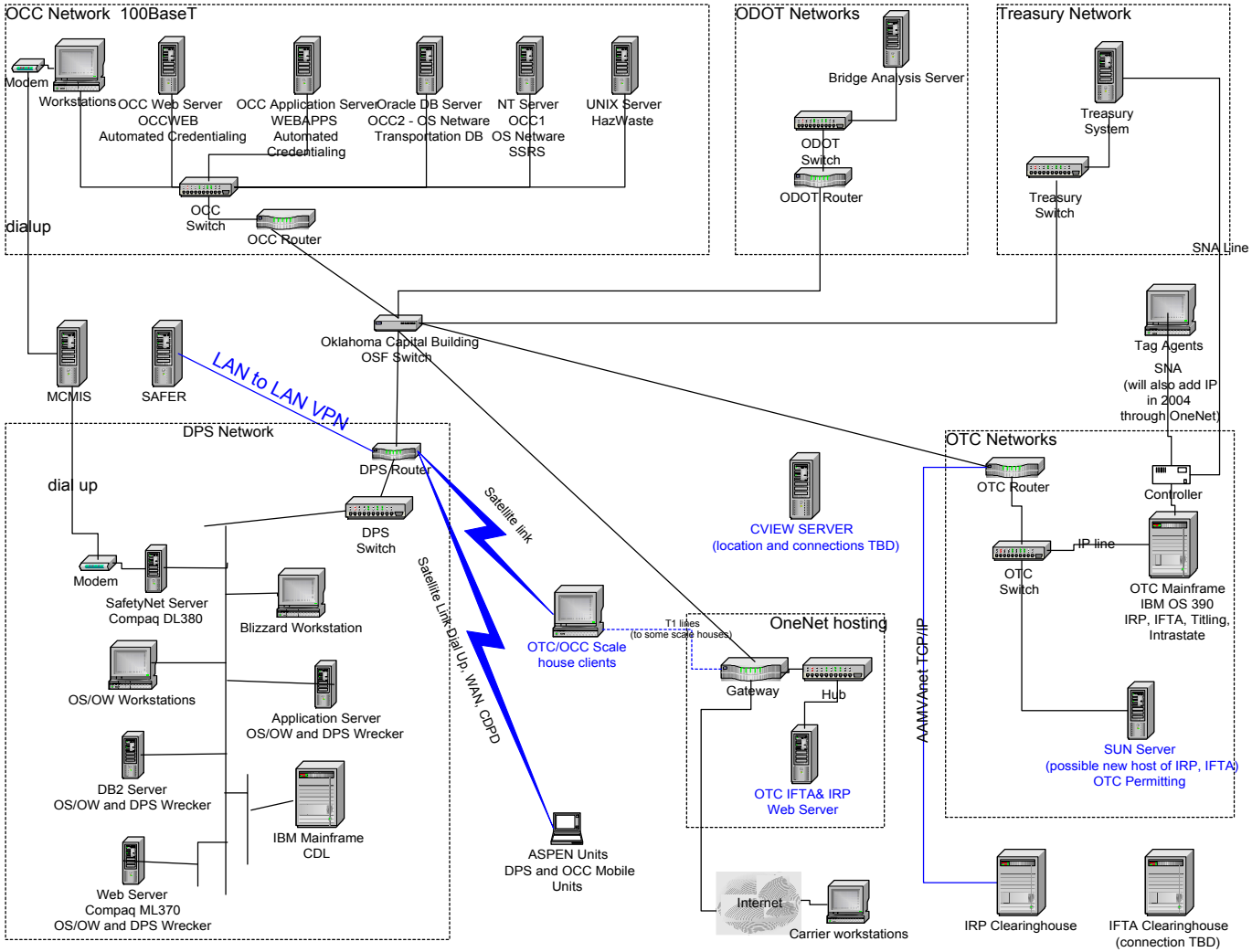


Exhibit 3-3. Oklahoma Physical Design

4.1 Overview

This section highlights Oklahoma's organizational framework for CVISN Level 1 deployment. Exhibit 4-1 identifies the state agencies and constituent departments involved in CVO activities. Exhibit 4-2 shows the CVISN program organization.

The program organization includes three levels of teams, as follows:

- **Executive Committee –** Includes the Secretary, Commissioner or Administrator from each state agency involved in CVISN deployment. Meetings are held with this group at key decision points (project start-up, transition from planning to deployment activities, accomplishment of key milestones, etc.). These periodic meetings ensure that agency decision-makers at the highest level are familiar with the CVISN program, understand the expected benefits to the state and each individual agency, and that they understand and support the funding and resource commitments required to move the program forward. Their involvement is required to ensure that the program remains a priority within each agency.
- **ITS / CVO Steering Committee –** Includes the department managers from each IT and business functional area involved in the CVISN program. This group meets quarterly to discuss program status, accomplishments, resource / funding issues and issues that cross departmental / agency boundaries.
- **CVISN Team –** This group meets monthly and includes the project managers, IT support and business side support staff responsible for implementing the CVISN projects. This team makes the day-to-day decisions regarding project deployment, scheduling and funding priorities.

In addition, each CVISN project team meets monthly or more frequently to discuss specific project management, design, development and connectivity issues. Oklahoma has also implemented a CVISN Architectural Control Board (CAB) which meets as needed to define standards for shared interfaces, web standards for the "look and feel" of credentialing web sites, shared capabilities for EFT transactions, CVIEW interface requirements, etc.

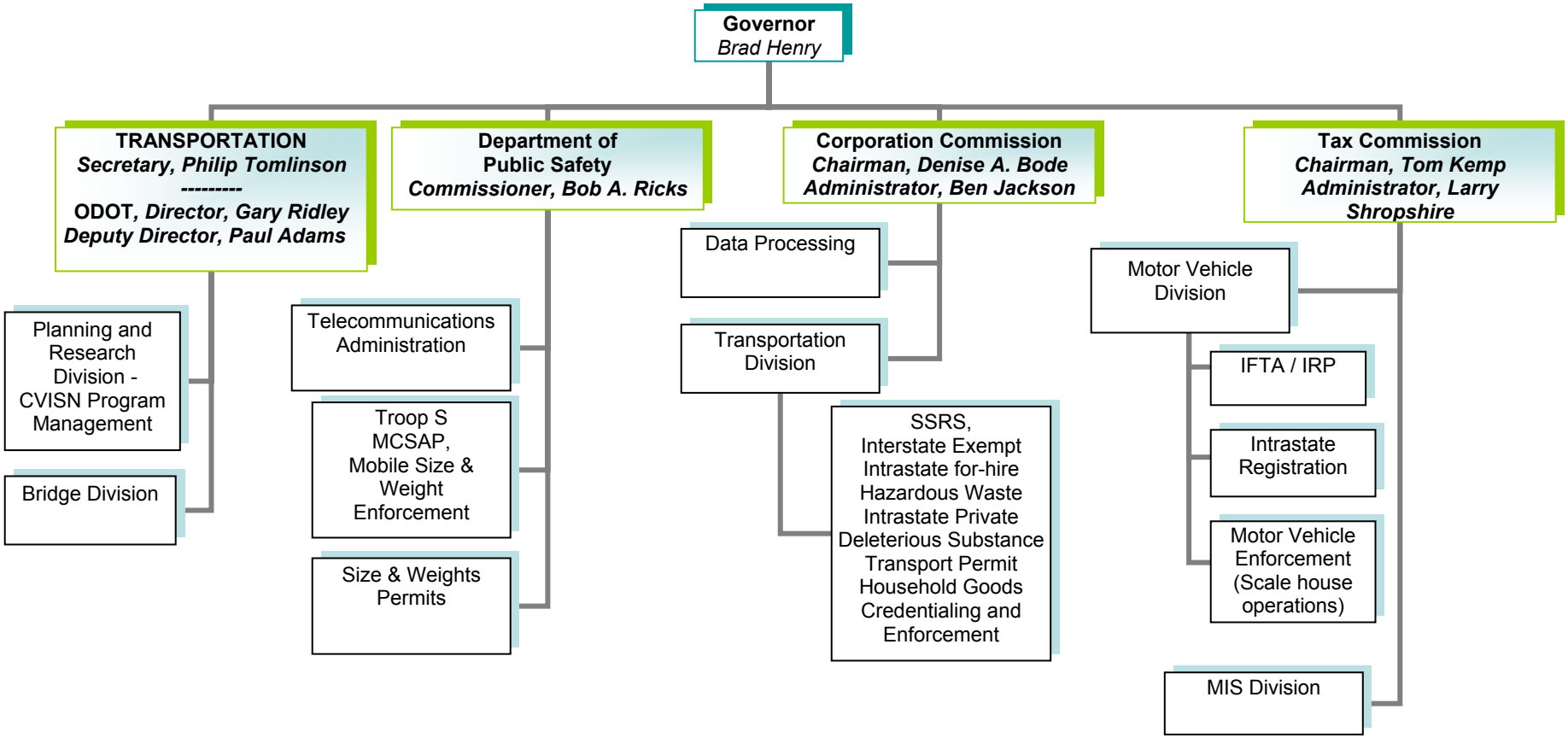


Exhibit 4-1. State Agency Organization - CVO Functions

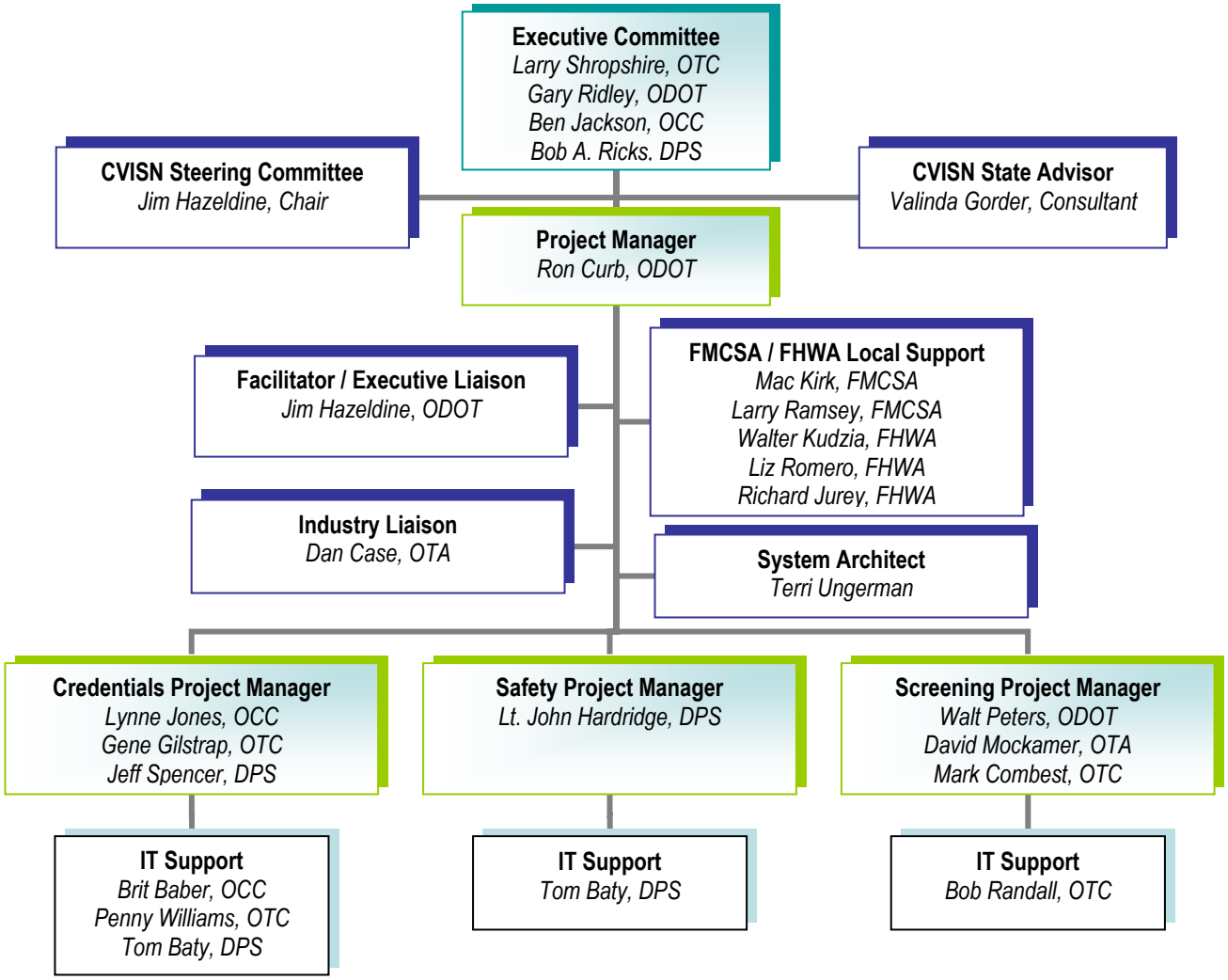


Exhibit 4-2. CVISN Program Organization

5.1 Overview

This section presents Oklahoma's Work Breakdown Structure (WBS) for CVISN project implementation. The Work Breakdown Structure lists each project that is included within Oklahoma's CVISN program, and breaks each project down into its constituent tasks. The WBS provides a high level overview of the major milestones for project implementation and indicates the responsible person and scheduled completion period. Exhibit 5-1 on the next page provides a high level overview of Oklahoma's CVISN Level 1 Work Breakdown Structure. More detailed versions of the WBS are included in the Oklahoma project plans.

Exhibit 5-1. Work Breakdown Structure

WBS	Task	Task Description / Notes	Responsible Organization	Assigned to	Schedule for Completion
	State CVISN Program				**12/31/2005**
1.0	**Program Management**		**ODOT**	**Ron Curb, Jim Hazeldine**	**12/31/2005**
1.1	**Planning & Coordination**				**12/31/2005**
1.1.1	Program Plan				6/30/2005
1.1.2	Phase 1 Planning				completed
1.1.2.1	Safety				completed
1.1.2.2	Credentials				completed
1.1.2.3	Electronic Screening				completed
1.1.3	Phase 2 Planning				completed
1.1.4	Phase 3 Planning				12/31/2002
1.1.5	Phase 4 Planning				6/30/2003
1.1.6	Phase 5 Planning				12/31/2003
1.1.7	Phase 6 Planning				6/30/2004
1.1.8	Phase 7 Planning				12/31/2004
1.1.9	Phase 8 Planning				6/30/2005
1.1.10	Staff key positions / committees				completed
1.1.10.1	CVISN Program Manager				completed
1.1.10.2	System Architect				completed
1.1.10.3	Administrator/facilitator				completed
1.1.10.4	Project Leaders				completed
1.1.10.5	Steering Committee				completed
1.1.10.6	Executive Committee				completed
1.2	**Carrier Coordination**				**12/31/2005**

WBS	Task	Task Description / Notes	Responsible Organization	Assigned to	Schedule for Completion
1.3	**Showcases & Outreach**				**12/31/2005**
1.4	**Regional Coordination**				**12/31/2005**
1.5	**O&M Planning**				**12/31/2005**
2.0	**System Engineering & Integration**		**DPS, OCC, OTC**	**CVISN Technical Team**	**12/31/2005**
2.1	System Requirements Definition				completed
2.1.1	Goals				completed
2.1.2	COACH Part 1				completed
2.1.3	COACH Part 4				completed
2.1.4	Other state requirements				completed
2.1.5	Operational Scenarios				completed
2.2	System Design				completed
2.2.1	Allocation of requirements to components				completed
2.2.1.1	COACH Part 3				completed
2.2.1.2	Description of functions for each component				completed
2.2.2	Interface summaries				completed
2.2.3	Physical Design				completed
2.2.3.1	Allocation of systems to computers				completed
2.2.4	Electronic Credentialing Web Site Standards and Common Modules	develop e-credentialing web standards and a one-stop shopping web page.			10/31/2002

WBS	Task	Task Description / Notes	Responsible Organization	Assigned to	Schedule for Completion
2.2.4.1	Develop common agency e-credentialing web site standards	Includes investigating the feasibility of a common payment module to be used by all agencies, common tables to allow data sharing among agency web credentialing applications.			12/31/2002
2.2.4.2	Develop e-credentialing one-stop shopping web page and common modules as feasible				6/30/2004
2.3	Architecture Conformance and Configuration Management				6/30/2005
2.3.1	Verify commitment to principles				completed
2.3.2	Verify plan is sound & top-level design conforms				10/31/2002
2.3.3	Verify detailed designs conform	Detail design will be reviewed prior to development of each build			6/30/2005
2.4	System Integration & Test				12/31/2005
2.5	Interoperability Testing				12/31/2005
3.0	**Safety Projects**		**DPS, OCC**	**John Hardridge, Lynne Jones**	**2/28/2005**
3.1	**Project Management**		**DPS, OCC**	**John Hardridge, Lynne Jones**	**2/28/2005**
3.2	**System Engineering & Integration**		**DPS, OCC**	**John Hardridge, Lynne Jones**	**2/28/2005**

WBS	Task	Task Description / Notes	Responsible Organization	Assigned to	Schedule for Completion
3.3	**Subcontract and Procurement Management**		**DPS, OCC**	**John Hardridge, Lynne Jones**	**2/28/2005**
3.4	**CVIEW**		**OCC**	**Lynne Jones, Brit Baber**	**2/28/2005**
3.4.1	CVIEW Build 1 - Requirements and Design			Brit Baber	3/31/2003
3.4.1.1	Evaluate available CVIEW products for implementation in Oklahoma and select product for baseline	Oklahoma has selected XCVIEW as baseline product			completed
3.4.1.2	Requirements Gathering and Analysis				12/31/2002
3.4.1.3	Design				3/31/2003
3.4.1.3.1	Interface Specifications OCC, DPS and OTC, and PrePass system interfaces				3/31/2003
3.4.1.3.2	Database modifications				3/31/2003
3.4.2	CVIEW Build 2 - Modify XCVIEW for Oklahoma use			Brit Baber	12/31/2003
3.4.2.1	Make modifications to XCVIEW				10/31/2003
3.4.2.2	Test modifications	Integration and Operational Testing will take place in Build 3			12/31/2003
3.4.2.2.1	Test that Washington's periodic updates will not interfere with modifications				12/31/2003
3.4.2.2.2	Test SAFER or BDCVIEW interface				12/31/2003
3.4.3	CVIEW Build 3 -Integration and Operational Testing			Brit Baber	6/30/2004

WBS	Task	Task Description / Notes	Responsible Organization	Assigned to	Schedule for Completion
3.4.3.1	Interface tests between OCC, DPS, OTC, PrePass systems and CVIEW		DPS, OCC, OTC	Tom Baty, Brit Baber, Penny Williams	2/31/04
3.4.3.2	System Testing			Brit Baber	3/31/2004
3.4.3.3	Beta Test		DPS, OCC, OTC	Tom Baty, Brit Baber, Penny Williams	5/31/2004
3.4.3.4	Deployment		DPS, OCC, OTC	Tom Baty, Brit Baber, Penny Williams	6/30/2004
3.4.4	CVIEW Build 4 - IFTA interface testing			Brit Baber	2/28/2005
3.4.4.1	Interface tests between IFTA and CVIEW, CVIEW and SAFER for IFTA status information				10/31/2004
3.4.4.2	Beta Test				12/31/2004
3.4.4.3	Deployment				2/28/2005
3.5	**SafetyNet 2000 / 32-bit ASPEN**			John Hardridge, Tom Baty, Lynne Jones	6/30/2003
3.5.1	Network / Communications			Tom Baty	6/30/2003
3.5.1.1	Satellite Connectivity - Roadside to DPS network (Build 1)		DPS, Troop S	Tom Baty	6/30/2003
3.5.1.1.1	Target CVO requirements in satellite project		DPS	Kevin Ward	12/31/2002
3.5.1.1.2	Requirements		DPS	Tom Baty	12/31/2002

WBS	Task	Task Description / Notes	Responsible Organization	Assigned to	Schedule for Completion
3.5.1.1.2.1	ASPEN satellite connectivity to DPS network connectivity	Define requirements for ASPEN connectivity to DPS networks and determine any restrictions satellite connectivity may place on SAFER / PIQ / ISS queries	DPS	Tom Baty	12/31/2002
3.5.1.1.2.2	OCC roadside satellite connectivity to DPS and OCC network	Define requirements for OCC roadside connectivity to DPS and / or OCC networks and determine any restrictions satellite connectivity may place on CVIEW queries	OCC	Doug Miesse	12/31/2002
3.5.1.1.3	Incorporate Requirements into larger DPS satellite contract		DPS		12/31/2002
3.5.1.1.4	Procurement				12/31/2002
3.5.1.1.5	Pilot Testing		DPS, OCC		4/30/2003
3.5.1.1.6	Deployment		DPS, OCC		6/30/2003
3.5.1.2	VPN connection from DPS network to SAFER(Build 1)		DPS	Tom Baty	6/30/2003
3.5.1.2.1	Requirements		DPS		9/31/02
3.5.1.2.2	Design		DPS		10/31/2002
3.5.1.2.3	Installation		DPS		11/31/02
3.5.1.2.4	Test		DPS		12/31/2002
3.5.1.2.5	Deployment		DPS		6/30/2003
3.5.2	Deploy SafetyNet 2000/ 32 bit ASPEN		DPS, OCC	John Hardridge, Lynne Jones	completed
3.6	**Universal Carrier ID (Build 1 of 1)**		DPS, OTC	John Hardrige, Penny Williams	12/31/2002

WBS	Task	Task Description / Notes	Responsible Organization	Assigned to	Schedule for Completion
3.6.1	Requirements Analysis and Design				
3.6.1.1	Define process for DOT number assignment				
3.6.1.2	Define mechanism for intrastate registration system	Intrastate registration system must tie carrier to vehicle record and match the DOT number with the carrier/vehicle			
3.6.2	Modifications to Intrastate Registration System				
3.6.3	Test Modifications to Intrastate Registration System				
3.6.4	Deploy				
3.6.4.1	Training / Outreach				
3.6.4.2	Assign DOT numbers to intrastate carriers and require display of number on vehicle				12/31/2002
4.0	**Credentials Projects**		**DPS, OTC, OCC**	**Jeff Spencer, Penny Williams, Lynne Jones**	**12/31/2005**
4.1	**Project Management**		**DPS, OTC, OCC**	**Jeff Spencer, Penny Williams, Lynne Jones**	12/31/2005
4.2	**System Engineering & Integration**		**DPS, OTC, OCC**	**Jeff Spencer, Penny Williams, Lynne Jones**	12/31/2005

WBS	Task	Task Description / Notes	Responsible Organization	Assigned to	Schedule for Completion
4.3	**Subcontract and Procurement Management**		**DPS, OTC, OCC**	**Jeff Spencer, Penny Williams, Lynne Jones**	12/31/2005
4.4	**IRP**		**OTC**	**Penny Williams**	**12/31/2005**
4.4.1	Build 1 - Legacy System Modifications	Modifications are for PRISM requirements, Clearinghouse capability, CVIEW interface, and accommodation of web based credentialing	OTC	Steve Mixon	12/31/2003
4.4.1.1	Evaluation of alternate systems	OTC will review the software being developed by other states and determine if there are advantages to using the software as the new basis for their IRP system	OTC	Penny Williams	9/30/2002
4.4.1.2	Requirements Analysis	Requirements analysis includes a cost/benefits analysis of clearinghouse participation	OTC	Penny Williams	12/31/2002
4.4.1.3	Design		OTC	Mixon, Gage	3/31/2003
4.4.1.4	Modifications to Software		OTC	Mixon, Gage	8/31/2003
4.4.1.5	Beta Test		OTC	Mixon, Gage	10/31/2003
4.4.1.6	Training		OTC	MIS Training	11/30/2003
4.4.1.7	Deployment		OTC	Mixon, Gage	12/31/2003
4.4.2	Automated Credentialing		OTC	Penny Williams	12/31/2005
4.4.2.1	Build 2 - Web based Credentialing Requirements Analysis and Design	Requirements and design for all IRP web based credentialing	OTC	Penny Williams	12/31/2003

WBS	Task	Task Description / Notes	Responsible Organization	Assigned to	Schedule for Completion
4.4.2.1.1	Requirements Gathering and Analysis		OTC		8/31/2003
4.4.2.1.1.1	Functional / stakeholder interviews		OTC		8/31/2003
4.4.2.1.1.2	Review other state systems and approaches		OTC		8/31/2003
4.4.2.1.1.3	Analysis		OTC		9/30/2003
4.4.2.1.2	High Level Design		OTC		12/31/2003
4.4.2.2	Build 3 - Web based applications	web based application and fee payment for renewals, and initials where hard copy documentation is not required. Credentials are mailed	OTC	Penny Williams	1/31/2005
4.4.2.2.1	Detail Design		OTC		3/31/2004
4.4.2.2.2	Development		OTC		9/30/2004
4.4.2.2.3	Beta Testing	Members of the user community will review. OTC will also review.	OTC		11/31/04
4.4.2.2.4	Revisions based on Beta Testing		OTC		12/31/2004
4.4.2.2.5	Deployment	Make accessible to industry	OTC		1/31/2005
4.4.2.3	Build 4 - Supplementals and Automated Credentialing	Add supplementals and ability to print credential at applicants offices	OTC	Penny Williams	7/31/2005
4.4.2.3.1	Detail Design		OTC		9/31/04
4.4.2.3.2	Development		OTC		3/31/2005
4.4.2.3.3	Beta Testing	Members of the user community will review. OTC will also review.	OTC		5/31/2005
4.4.2.3.4	Revisions based on Beta Testing		OTC		6/30/2005
4.4.2.3.5	Deployment	Make accessible to industry	OTC		7/31/2005

WBS	Task	Task Description / Notes	Responsible Organization	Assigned to	Schedule for Completion
4.4.2.4	Build 5 - Supplemental Documentation Automation	Where possible automate the submittal of supplemental hardcopy documentation	OTC	Penny Williams	12/31/2005
4.4.2.4.1	Feasibility Review	Review which applications require supplemental documentation and possible methods to automate credentials. Determine which supplemental documentation submittals to automate.	OTC	Penny Williams	2/28/2005
4.4.2.4.2	Design		OTC		4/30/2005
4.4.2.4.3	Development		OTC		6/31/2005
4.4.2.4.4	Beta Testing		OTC		9/30/2005
4.4.2.4.5	Revisions based on Beta Testing		OTC		11/30/2005
4.4.2.4.6	Deployment		OTC		12/31/2005
4.5	**IFTA**			**Gene Gilstrap, Penny Williams**	**12/31/2005**
4.5.1	Build 1 - Legacy System Modifications	Modifications are for improved productivity, Clearinghouse capability, CVIEW interface, and accommodation of web based credentialing	OTC		2/28/2005
4.5.1.1	Evaluation of alternate systems	OTC will review the software being developed by other states and determine if there are advantages to using the software as the new basis for their IFTA system	OTC		12/31/2003

WBS	Task	Task Description / Notes	Responsible Organization	Assigned to	Schedule for Completion
4.5.1.2	Requirements Analysis	Requirements analysis includes a cost/benefits analysis of clearinghouse participation	OTC		3/30/2004
4.5.1.3	Design		OTC		6/30/2004
4.5.1.4	Modifications to Software		OTC		10/31/2004
4.5.1.5	Beta Test		OTC		12/31/2004
4.5.1.6	Training		OTC		1/31/2005
4.5.1.7	Deployment		OTC		2/28/2005
4.5.2	Build 2 - Web based Credentialing and Tax Filing		OTC		12/31/2005
4.5.2.1	Requirements Gathering and Analysis		OTC		10/31/2004
4.5.2.1.1	Functional / stakeholder interviews		OTC		8/31/2004
4.5.2.1.2	Analysis		OTC		12/31/2004
4.5.2.2	Design		OTC		12/31/2004
4.5.2.3	Development		OTC		6/30/2005
4.5.2.4	Beta Testing	Members of the user community will review. OTC will also review.	OTC		8/31/2005
4.5.2.5	Revisions based on Beta Testing		OTC		10/31/2005
4.5.2.6	Deployment	Make accessible to industry	OTC		12/31/2005
4.6	**PRISM**	**Additional schedule and cost details for PRISM implementation are provided in the Oklahoma PRISM Scope of Work Document.**	**OTC, DPS**	**Penny Williams, John Hardridge**	**3/31/2005**
4.6.1	PRISM Letter of intent				completed

WBS	Task	Task Description / Notes	Responsible Organization	Assigned to	Schedule for Completion
4.6.2	Scope of Work / Grant Application				completed
4.6.3	Draft legislation for authority to revoke IRP registration based on safety performance				3/31/2003
4.6.4	Completion by all registrants of a new MCS-150 form				3/31/2005
4.6.5	Collect and maintain the US DOT Number for Registrants and the Motor Carrier responsible for safety				3/31/2005
4.6.6	Select the Method to Validate the US DOT Number				1/31/2004
4.6.7	Deployment				3/31/2005
4.7	**OCC Credentialing Systems**				**12/31/2005**
4.7.1	Build 1 - Legacy System Modifications	Modify legacy system to improve carrier and state productivity, prepare legacy system for interfacing with web-based automated credentialing, and interact with CVIEW	OCC	Lynne Jones, Brit Baber	9/30/2003
4.7.1.1	Evaluation of alternate systems	OCC will review the software being developed by Louisiana and determine if there are advantages to using the software as the new basis for their transportation database	OCC	Lynne Jones	9/30/2002
4.7.1.2	Requirements Gathering and Analysis		OCC	Brit Baber, Will Weldon	12/31/2002

WBS	Task	Task Description / Notes	Responsible Organization	Assigned to	Schedule for Completion
4.7.1.3	Design		OCC	Will Weldon	3/31/2003
4.7.1.4	Development / Modifications		OCC	TBD	6/30/2003
4.7.1.5	Transition	Transition includes QA testing, Training, Documentation, and transition to production	OCC	Technical Writer, Trainer	9/30/2003
4.7.2	Automated Credentialing		OCC		12/31/2005
4.7.2.1	Build 2 - Web based Credentialing Requirements Analysis and Design	Requirements and design for all OCC web based credentialing	OCC	Lynne Jones, Brit Baber	12/31/2003
4.7.2.1.1	Requirements Gathering and Analysis		OCC	Lynne Jones, Brit Baber	8/31/2003
4.7.2.1.1.1	Functional / stakeholder interviews		OCC	Lynne Jones, Brit Baber	8/31/2003
4.7.2.1.1.2	Review other state systems and approaches		OCC	Lynne Jones, Brit Baber	8/31/2003
4.7.2.1.1.3	Analysis		OCC	Brit Baber	9/30/2003
4.7.2.1.2	High Level Design		OCC	Brit Baber	12/31/2003
4.7.2.1.2.1	Process Model		OCC	Brit Baber	12/31/2003
4.7.2.1.2.2	Functional hierarchy diagrams		OCC	Brit Baber	12/31/2003
4.7.2.1.2.3	Data Model		OCC	Brit Baber	12/31/2003
4.7.2.2	Build 3 - Web based applications	Web based application and fee payment for renewals, and initials where hard copy documentation is not required. Credentials are mailed	OCC	Lynne Jones, Brit Baber	1/31/2005
4.7.2.2.1	Detail Design		OCC	Brit Baber	3/31/2004
4.7.2.2.2	Development		OCC	Brit Baber	9/30/2004

WBS	Task	Task Description / Notes	Responsible Organization	Assigned to	Schedule for Completion
4.7.2.2.3	Beta Testing	Members of the user community will review. OCC will also review.	OCC	Lynne Jones, Brit Baber	11/31/04
4.7.2.2.4	Revisions based on Beta Testing		OCC	Brit Baber	12/31/2004
4.7.2.2.5	Deployment	Make accessible to industry	OCC	Brit Baber	1/31/2005
4.7.2.3	Build 4 - Supplementals and Automated credentialing for OCC credentials	Add supplementals and ability to print credential at applicants offices	OCC	Lynne Jones, Brit Baber	7/31/2005
4.7.2.3.1	Detail Design		OCC	Brit Baber	9/31/04
4.7.2.3.2	Development		OCC	Brit Baber	3/31/2005
4.7.2.3.3	Beta Testing	Members of the user community will review. OCC will also review.	OCC	Lynne Jones, Brit Baber	5/31/2005
4.7.2.3.4	Revisions based on Beta Testing		OCC	Brit Baber	6/30/2005
4.7.2.3.5	Deployment	Make accessible to industry	OCC	Brit Baber	7/31/2005
4.7.2.4	Build 5 -Supplemental Documentation Automation	Where possible automate the submittal of supplemental hardcopy documentation	OCC	Lynne Jones, Brit Baber	12/30/2005
4.7.2.4.1	Feasibility Review	Review which applications require supplemental documentation and possible methods to automate credentials. Determine which supplemental documentation submittals to automate.	OCC	Lynne Jones	2/28/2005
4.7.2.4.2	Design		OCC	Brit Baber	4/30/2005
4.7.2.4.3	Development		OCC	Brit Baber	6/31/2005
4.7.2.4.4	Beta Testing		OCC	Lynne Jones, Brit	9/30/2005

WBS	Task	Task Description / Notes	Responsible Organization	Assigned to	Schedule for Completion
				Baber	
4.7.2.4.5	Revisions based on Beta Testing		OCC	Brit Baber	11/30/2005
4.7.2.4.6	Deployment		OCC	Brit Baber	12/31/2005
4.8	**OS/OW Permitting**		**DPS**	**Jeff Spencer**	
4.8.1	Build 1 - Legacy System Modifications web based user interface		DPS		10/31/2002
4.8.2	Build 2 - automated permitting for standard routes available to industry		DPS		4/30/2003
4.8.2.1	Requirements Gathering and Analysis		DPS		11/30/2002
4.8.2.2	Design		DPS		12/31/2002
4.8.2.3	Development		DPS		1/31/2003
4.8.2.4	Beta Testing		DPS		2/28/2003
4.8.2.5	Revisions based on Beta Testing		DPS		3/31/2003
4.8.2.6	Deployment		DPS		4/30/2003
4.8.3	Build 3 - automated routing and roadway restrictions database, CVIEW interface		DPS, ODOT		6/30/2004
4.8.3.1	Requirements Gathering and Analysis		DPS		4/30/2003
4.8.3.2	Design		DPS		6/30/2003
4.8.2.3	Development		DPS		9/30/2003
4.8.3.4	Populate Roadway restrictions database		DPS, ODOT		10/31/2003
4.8.3.5	Beta Testing		DPS		12/31/2003
4.8.3.6	Revisions based on Beta Testing		DPS		3/31/2004
4.8.3.7	Deployment		DPS		6/30/2004

WBS	Task	Task Description / Notes	Responsible Organization	Assigned to	Schedule for Completion
4.9	**OS/OW Permitting / Bridge Interface**	**Automate transmittal of permits requiring bridge analysis from DPS to ODOT; automate analysis for simple span bridges**	**ODOT, DPS**		**6/30/2004**
4.9.1	Requirements Gathering and Analysis		ODOT, DPS		1/31/2003
4.9.2	Design		ODOT, DPS		3/31/2003
4.9.3	Development		ODOT, DPS		6/30/2003
4.9.3.1	Interface between ODOT and DPS		ODOT, DPS		6/30/2003
4.9.3.2	Automated analysis of simple span bridges		ODOT		6/30/2003
4.9.4	Beta Testing		ODOT, DPS		9/30/2003
4.9.5	Revisions based on Beta Testing		ODOT, DPS		12/31/2003
4.9.6	Deployment		ODOT, DPS		6/30/2004
5.0	**E-Screening Project**		**DPS, OCC, OTC**	**John Hardridge, Lynne Jones, OTC screening**	**6/30/2005**
5.1	**Project Management**			**John Hardridge, Lynne Jones, OTC screening**	**6/30/2005**
5.2	**Systems Engineering & Integration**			**John Hardridge, Lynne Jones, OTC screening**	**6/30/2005**
5.3	**Subcontract and Procurement Management**			**John Hardridge, Lynne Jones, OTC screening**	**6/30/2005**

WBS	Task	Task Description / Notes	Responsible Organization	Assigned to	Schedule for Completion
5.4	**Expanded PrePass Functionality (Build 1 of 1)**	**Expand PrePass functionality to include open connection to SAFER, allow periodic updates from Oklahoma CVIEW for Intrastate data, and possible functionality of including registered weight data**	**DPS, OCC, OTC**	**John Hardridge, Lynne Jones, OTC screening**	**6/30/2004**
5.4.1	Determine Feasibility of including registered weight data in Oklahoma's local screening database				12/31/2002
5.4.2	Requirements Analysis				12/31/2002
5.4.3	Discussions with Help, Inc. on including expanded functionality in PrePass				3/31/2003
5.4.4	Design				3/31/2003
5.4.5	Development				12/31/2003
5.4.5.1	PrePass interface development to receive CVIEW data				12/31/2003
5.4.5.2	Open SAFER connection				12/31/2003
5.4.5.3	Registered weight data				12/31/2003
5.4.6	Interface testing				2/31/04
5.4.7	System Testing				3/31/2004
5.4.8	Beta Testing				5/31/2004
5.4.9	Deployment				6/30/2004
5.5	**WIM / DMS Installation (Build 1 of 1)**	**Install WIM, DMS, Cameras at one scale site**	**OTC, OCC**	**OTC Enforcement, Lynne Jones**	**6/30/2005**
5.5.1	Requirements Analysis				12/31/2003

WBS	Task	Task Description / Notes	Responsible Organization	Assigned to	Schedule for Completion
5.5.2	Discussions with Vendors				3/31/2004
5.5.3	Design				3/31/2004
5.5.4	Installation				9/31/04
5.5.4.1	Site Modifications				9/31/04
5.5.4.2	WIM / DMS Installation				9/31/04
5.5.4.3	Character matching with Automated CCTV system				9/31/04
5.5.4.4	Manual queries keyed off of plate / DOT numbers to assist with inspection selection decisions				9/31/04
5.5.5	Pilot test				12/31/2004
5.5.6	Evaluation	Evaluate and document benefits and costs to assist in decision making regarding expansion of similar improvements to additional sites			6/30/2005
5.6	**Scale house Communications Upgrades**	**Develop access to SAFER, CVIEW and selected legacy systems from scale houses**	**OTC, OCC**	**Keith Gage, Doug Miesse**	**12/31/2005**
5.6.1	Build 1 - Requirements and Design				12/31/2003
5.6.1.1	Communications Requirements				9/30/2003
5.6.1.2	Design				12/31/2003
5.6.2	Build 2 - Installation and test at one facility				6/30/2004
5.6.2.1	Installation of communications equipment / PCs at scale houses				4/30/2004

WBS	Task	Task Description / Notes	Responsible Organization	Assigned to	Schedule for Completion
5.6.2.2	Beta Testing				5/30/2004
5.6.2.3	Deployment				6/30/2004
5.6.3	Build 3 - Deploy at additional scale houses				6/30/2005
5.6.3.1	Installation of communications equipment / PCs at scale houses				12/31/2004
5.6.3.2	Beta Testing				4/30/2005
5.6.3.3	Deployment				6/30/2005
5.7	**Evaluate Enhanced mobile screening options (Build 1 of 1)**		**DPS, OCC, OTC**		**12/31/2005**
5.7.1	Establish pilot test purposes, success criteria				6/30/2004
5.7.2	Design pilot test				12/31/2004
5.7.2.1	Use of satellite connectivity to DPS networks for roadside access to CVIEW				12/31/2004
5.7.2.2	Mobile cameras to provide plate / DOT numbers to downstream officers, who query against CVIEW to assist in inspection selection decisions				12/31/2004
5.7.3	Pilot test				6/30/2005
5.7.4	Evaluation				12/31/2005
6.0	**Evaluation**		**ODOT**	**Ron Curb, Jim Hazeldine**	**12/31/2005**
6.1	Self-Evaluation				
6.1.1	Evaluation Team	Form the evaluation team.			

WBS	Task	Task Description / Notes	Responsible Organization	Assigned to	Schedule for Completion
6.1.2	Evaluation Strategy	Write document; ensure adequate test points in system technical design.			
6.1.3	Evaluation Plan	Write document.			
6.1.4	Lessons Learned	Periodically capture and publish lessons learned, in 5 specified areas.			
6.1.5	Cost Data	Collect cost accounting data (on-going).			
6.1.6	Test Plans	Write test plan for each test.			
6.1.7	Analysis	Collect and analyze data.			
6.1.8	Final Report	Write document.			
6.2	National Evaluation (Funded Separately)	Participate if selected.			

6.1 Overview

This section highlights work assignments for CVISN projects, action item assignments and staffing for CVISN deployment.

6.2 Project Leadership Assignments

Safety Assurance Projects

Lieutenant John Hardridge, DPS, Troop S

- Full deployment of SafetyNet 2000 and 32-bit ASPEN, including DPS satellite connectivity from roadside to DPS network and VPN connection from DPS networks to SAFER
- Universal carrier ID

Lynne Jones, OCC Transportation Division and Britt Baber, OCC IT

- Oklahoma CVIEW implementation

Credentials Administration

Penny Williams, OTC MVD

- IRP Legacy System Modifications and Electronic Credentialing
- IFTA Legacy System Modifications and Electronic Credentialing
- PRISM Program
- IRP / IFTA related interfaces with Oklahoma CVIEW
- Evaluate IRP / IFTA Clearinghouse Membership

Lynne Jones, OCC, Transportation Division

- SSRS Legacy System Modifications and Electronic Credentialing
- Interfaces between the Transportation Database and Oklahoma CVIEW

Jeff Spencer, DPS, OS / OW Permits Section

- Automated OS / OW permitting
- OS / OW permitting system to CVIEW interface

Screening Projects

Lieutenant John Hardridge, DPS, Troop S; Lynne Jones, OCC Transportation Division

- Mobile Screening enhancements

Walt Peters, ODOT, Lynne Jones, OCC Transportation Division; Mark Combest, OTC Enforcement

- WIM, DMS, camera installation at one PrePass-equipped scale house
- Scale house and communications upgrades
- Expanded PrePass functionality

6.3 Action Item Assignments

To ensure the success of Oklahoma's CVISN deployment, the following action items have been assigned.

- Liaison with the Oklahoma Trucking Association – Dan Case, OTA
- Coordination with Procurement to ensure compliance with state purchasing requirements – Shirley Hull, OCC Procurement
- Ongoing coordination among participating agencies at both the staff and management level – Jim Hazeldine, ODOT; Ron Curb, ODOT; Valinda Gorder, Oklahoma CVISN State Advisor
- Continued coordination with HELP, Inc. – Mark Combest, OTC Enforcement
- Implementation of funding strategy – Jim Hazeldine, ODOT

6.4 Staffing Needs

- A systems architect has been engaged to assist with requirements analysis, planning for systems integration and integration testing, and to assist in development of the state's in-house system architect team.
- OCC and OTC will engage contract programming assistance (contract employees) to assist with CVIEW implementation; development and

deployment of interfaces to the CVIEW; automated credentialing projects, including IRP, IFTA and OCC-issued credentials; PRISM implementation and associated interface requirements; system testing and integration testing.

- Commitment from upper management to ensure that staff resources, including CVISN Program Manager, individual project managers and IT staff are dedicated at the appropriate level to CVISN deployment.
- Outside contractors / vendor may be engaged by DPS to deploy automated routing routines for OS / OW permitting.

7.1 Overview

This section outlines the procurement process for goods and services anticipated to be purchased as part of Oklahoma's CVISN Level 1 deployment and defines the major products to be procured. The Project Plans which serve as detailed implementation guides for each CVISN Level 1 project include a detailed description of the specific hardware, software and contract services which must be procured for project implementation.

7.2 Procurement Strategy

Oklahoma anticipates purchases to include communications upgrades, commercial off-the-shelf (COTS) software and hardware, as well as services of contract employees for software development and professional services for system architect / program management assistance. Requirements for each of these types of purchases are described below.

7.2.1 Communications Purchases

The Office of State Finance has a state contract for communications services. Agencies request required services through the approved vendors on the statewide contract. Requests for T1 lines, IP services and a variety of other types of communications services typically go through OneNet, a public consortium on the statewide contract which is tasked with networking state agencies. OneNet identifies the vendor best able to fulfill the communications request and bills the requesting agency for installation and monthly fees.

7.2.2 COTS Software / Hardware Purchases

Agencies can use a purchase order / requisition process for software or hardware purchases if the item is purchased from a pre-approved vendor. No bid process is required and the items are generally immediately available. Requesting agencies can exempt from the state contract if it can be demonstrated that RFP or bid process would result in lower cost acquisition.

7.2.3 Contract Employees

Oklahoma anticipates in-house development of all system modifications, new systems and interfaces, resulting in non-proprietary, state-owned systems. However, the state has established a very aggressive schedule for roll-out of CVISN Level 1 capabilities. Due to limited permanent staff resources, OTC, OCC and DPS will likely hire contract employees who will work under state project manager direction to assist with system development and integration testing of the CVIEW and credentialing legacy system modifications / automated credentialing. The state has established Statewide Enterprise Agreements with a number of IT contractors, essentially pre-qualifying the firms for specific types of services. Oklahoma agencies can prepare specification / need statements for submittal to firms on the State Enterprise Agreement list. Firms respond with a scope of services and cost, and the agency can select the preferred firm and establish a contract with them without going through a formal RFP or bid process.

7.2.4 Software Development / Professional Services

If procurement for software development or professional services is under $25,000, agencies can write a professional services contract and contract with a selected vendor without a formal RFP or bid process. Professional service / software development contracts over $25,000 must go through State Central Purchasing and require an RFP or bid process. The requesting agency prepares the scope of work / requirements specifications for the RFP or bid. The scope is reviewed by Central Purchasing and upon finalization, Central Purchasing adds all required "boiler plate", issues the RFP and, upon approval of the agency selection committee's recommendation, issues the contract. The process typically occupies six months from start to completion.

7.3 Budget Planning Requirements

Each agency's DP Plan must be modified to reflect anticipated purchases of services. Implicit approval is provided by the Office of State Finance.

Budget requests for service procurements over $25,000 typically must be prepared 24 months prior to the year of planned expenditure. However, Oklahoma has received CVISN deployment funding for FY 2002 and is anticipating additional CVISN deployment funding. Match for the federal CVISN funding is planned from projects already funded. Oklahoma thus anticipates using federal funding for unbudgeted portions of its CVISN procurement needs, and will not be affected by the 24 month lead time.

Where Oklahoma will use software developed by another state, as in the case of the Washington xCVIEW, Intergovernmental Agreements will be developed. Intergovernmental Agreements are a formalized agreement between Oklahoma and another state DOT(s) which would allow Oklahoma to use existing, non-proprietary systems and or products.

7.4 Hardware / Software Maintenance

Oklahoma anticipates that most software systems and interfaces developed in the course of its CVISN Level 1 deployment will be state-owned systems, running on state-owned hardware. Maintenance will be provided by the state for state-owned systems / equipment. Maintenance for any vendor-owned hardware / software will be provided as stipulated in each contract. Those contracts have not been made at this date, so no specifics can be provided. Vendor-provided software will be licensed and maintained as per contracts yet to be completed.

7.5 Products for CVISN Level 1 Deployment

The major products anticipated to be purchased for the CVISN deployment project are listed below. Exhibit 7-1 shows the procurements anticipated with each deployment project.

Procurement Item Group	Description of Procurement	Procurement Item	Category	Contracting Approach		Procurement Leader	Earliest Date Procurement Anticipated
				Type	Method of Award		
Safety	Open Connection – DPS networks to SAFER	LAN to LAN VPN	Communications	New contract	State contract	J. Hardridge	Fall 2002
	Interface (if required) between DPS Satellite systems and DPS networks	Mobile user interface	Software	Existing contract	DNA	J. Hardridge	Fall 2002
	Satellite connectivity from roadside to DPS networks	Software / Hardware	Software development / professional services	Existing contract	DNA	J. Hardridge	Fall 2002
Safety / Credentials	CVIEW	OCC server and network upgrades in support of CVIEW and related interfaces	Hardware / Communications	New contract	Hardware - COTs	B. Baber	12/02
	CVIEW software customization	Installation of / modifications to Washington xCVIEW	Contract employees	New contract	Statewide Enterprise Agreement	CVISN Technical Subcommittee	12/02
	CVIEW / legacy systems interface development	Development of interfaces to OCC, OTC and DPS legacy systems	Contract employees	New contract	Statewide Enterprise Agreement	CVISN Technical Subcommittee	8/03

Procurement Item Group	Description of Procurement	Procurement Item	Category	Contracting Approach		Procurement Leader	Earliest Date Procurement Anticipated
				Type	Method of Award		
Credentials	Legacy system modifications / electronic credentialing for IRP	Modify IRP system to accommodate PRISM, CVIEW interfaces, web-based credentialing, web-based computer-to-computer credentialing system; development of Web-based system to enable electronic application, upload to IRP system, automated verifications required by PRISM program, application and payment processing and issuance of credential to applicant	Contract employees	New contract	Statewide Enterprise Agreement	P. Williams	11/02
Credentials	Legacy system modifications / electronic credentialing for IFTA	Modify IFTA system to accommodate, CVIEW interfaces, web-based credentialing; develop Web-based system to enable electronic application and quarterly return, upload to IFTA system, application / return and payment processing, and issuance of credential to applicant	Contract employees	New contract	Statewide Enterprise Agreement	P. Williams	03/04

Procurement Item Group	Description of Procurement	Procurement Item	Category	Contracting Approach		Procurement Leader	Earliest Date Procurement Anticipated
				Type	Method of Award		
	IRP / IFTA Legacy Systems	IRP / IFTA Legacy System Server	Hardware	New Contract	COTS - Hardware	P. Williams	3/03
Credentials	Legacy system modifications / electronic credentialing for OCC-issued credentials	Modify OCC system to accommodate, CVIEW interfaces, web-based credentialing; develop Web-based system to enable electronic, upload to OCC Transportation database system, application and payment processing, and issuance of credential to applicant	Contract Employees	New contract	Statewide Enterprise Agreement	L. Jones / B. Baber	12/02
Credentials	Electronic OS/OW permitting / other enhancements to OS / OW permitting system	Web-based system to enable electronic application, upload to OS / OW permitting system, application, automated routing and payment processing, and issuance of permit to applicant	Contract employees or Software Development	New contract	Statewide Enterprise Agreement if contract employees RFP if software development	G. Fitzpatrick	6/03
Credentials	Electronic OS/OW permitting	Server	Hardware	New Contract	COTs - hardware	G. Fitzpatrick	6/03
Credentials	OS / OW Permitting / ODOT Bridge interface and bridge analytics	Interfaces from OS / OW permitting system to ODOT Bridge system and automated analysis of permits for simple span bridges	Contract employees or software development	New contract	Statewide Enterprise Agreement if contract employees RFP if software development	W. Peters	3/03

Procurement Item Group	Description of Procurement	Procurement Item	Category	Contracting Approach		Procurement Leader	Earliest Date Procurement Anticipated
				Type	Method of Award		
Credentials	PRISM Implementation	Modifications to IRP system; CVIEW interface development	Contract employees	New contract	Statewide Enterprise Agreement	P. Williams	6/03
Electronic Screening	WIMs/AVI/ DMS / Cameras	Quartz piezzo WIM, DMS, CCTV camera at one PrePass-equipped fixed scale; integration with PrePass system	Software, Hardware, Engineering services	New contract	RFP	R. Curb	3/04
Electronic Screening							
Electronic Screening	Open connection from scale houses to CVIEW; scale house computer / communications upgrades	Computers, communications upgrade	Hardware, Communications	New and existing contracts	Computers – COTS Hardware Communications – State Contract, OneNet	P. Williams	12/03

8.1 Process Overview

This section summarizes Oklahoma's proposed project processes. The table below lists the process type, and the responsibility for process development and implementation oversight.

Process Type	Responsibility	*References and Remarks*
Work Planning	Program Managers	WBS will be used for "high level" program / project planning. Each agency has its own work planning process for specific project deployments.
Progress Tracking and Status Reporting	Project Managers Project Teams Program Manager	Bi-weekly meetings are held with all project managers and program manager. Bi-weekly meetings held with project managers and project teams
Budget Planning and Tracking	Program Manager Agency Budget Offices	PM responsible for overall program budget planning / tracking Agencies responsible for planning / tracking portion of deployment budget to be spent by their agency, with reporting to Program Manager
Schedule Planning and Tracking	Program Manager Project Managers	
Procurement	Program Manager Project Managers	Program Manager is responsible for non-project specific procurements. Project Managers are responsible for project specific procurements
Contracting and Contract Management	Agency Contract Offices, Project Managers	Follow state procurement rules and regulations. The CVISN Team will coordinate procurements as appropriate for contract services (contract employees for IT services) for cost-effective service delivery (particularly important in CVIEW modifications / CVIEW interface development)
Sponsor Liaison	Project Managers	The CVISN 'team" structure includes the CVISN team, day-to-day

Process Type	Responsibility	*References and Remarks*
	Executive Liaison	working group, which includes program and project managers and the Team's Executive Liaison. Periodic formal meetings are conducted with the ITS / CVO Steering Committee (division / section heads), and CVISN Executive Committee (department secretaries). Informal communications also occur at key points.
Funding	Program Manager	CVISN team identifies priorities for funding, with concurrence by ITS / CVO Steering Committee and CVISN Executive Team
Legislative Liaison	Program Manager	Periodic legislative briefings to key legislators to position CVISN deployment for ongoing O&M funding
Motor Carrier Liaison	Program Manager OTA Representative	OTA is part of CVISN Team, participates in CVISN team meetings. Motor carrier reps also attend some meetings. Presentations / coordination will be planned for key OTA meetings / safety meetings as appropriate.
Inter-Agency Liaison	Program Manager	CVISN Team meetings provide forum for identifying / discussing / resolving agency needs, issues, concerns and opportunities
Training	Project Managers	Training needs will be identified for both the state and industry
Configuration Management	Project Managers Project Technical Leads System Architecture Team	Project Managers and Project Technical Leads will be responsible for configuration management of project specific systems. The system architecture team will be responsible for configuration management of inter-agency systems.
System Development	Project Managers Project Teams	Each agency has its own system development process which it will follow when developing / deploying systems for its use.
Information Systems Standards	Office of Finance System Architecture Team Project Managers	Office of Finance provides statewide standards System Architecture team is responsible interoperability standards Project Managers responsible for project specific standards
Product Documentation	Project Managers System Architecture Team Project Teams	Each agency has its own standards; will develop shared standard for systems requiring interagency interfaces

Process Type	Responsibility	*References and Remarks*
Testing	Project Managers Project Teams System Architecture Team User Community	Project Managers, Project Teams and the User Community for each project will be responsible for testing. The System Architecture team is responsible for assisting with interoperability testing.
Program Library	Program Manager	
CVISN Team Meetings	Program Manager	Bi-weekly meetings are held with all project managers and program manager. E-mail and phone calls will be used between meetings.
Project Team Communications	Project Managers	Meetings, newsletter, project web site, informal communications
Action Items	Program Manager	Action items are agreed upon at team meetings and progress on prior action items reported.
Issue Resolution	Program Manager	Resolved at CVISN team meetings

9.1 Overview

This section summarizes Oklahoma's proposed roll-out schedule for CVISN Level 1 deployment and deployment of post CVISN Level 1 functionality. Each CVISN deployment project is broken out into its constituent builds to indicate the order in project functionality will be deployed. Exhibit 9-1 provides a generalized implementation schedule. Detailed deployment schedules, tied to a more detailed project-specific WBS, are included in the individual Project Plans prepared by each project team. These Project Plans are available from ODOT's Strategic Planning Office in the Planning Division.

9.2 Build Definitions

CVIEW

CVIEW Build 1:

- Requirements and design for the Oklahoma CVIEW; vendor selection process.

CVIEW Build 2:

- Modifications of vendor CVIEW to meet Oklahoma requirements; SAFER interface

CVIEW Build 3:

- Integration and operational testing of IRP, OCC and OS/OW credentialing system interfaces with CVIEW deployment

CVIEW Build 4:

- Integration and operational testing of IFTA credentialing and tax filing system with CVIEW full deployment

SafetyNet 2000 / 32-bit ASPEN

Satellite Connectivity Build 1

- ASPEN connectivity to DPS networks over satellite
- CVIEW connectivity from roadside over satellite

VPN Connectivity for DPS networks to SAFER Build 1

- DPS network VPN connectivity to SAFER
- OCC and OTC access to SAFER through DPS network

Universal Carrier ID Build 1

- DOT numbers assigned to all intrastate carriers

IRP System Replacement / Web-based Credentialing

IRP Build 1: Legacy System Modifications

- PRISM requirements
- Clearinghouse requirements
- CVIEW interface
- Accommodate web based credentialing

IRP Build 2:

- Web credentialing requirements and high level design

IRP Build 3:

- Web based application and fee payment for renewals
- Credentials are mailed

IRP Build 4:

- Web based application and fee payment for supplementals
- Credentials may be printed at applicants location

IRP Build 5:

- Automation of IRP initials if feasible

OCC Transportation Database

OCC Build 1: Legacy System Modifications

- Modifications for improved productivity

- CVIEW interface
- Accommodate web based credentialing

OCC Build 2:
- Web credentialing requirements and high level design

OCC Build 3:
- Web based application and fee payment for renewals; credentials are mailed

OCC Build 4:
- Web based application and fee payment for supplementals; credentials may be printed at applicants location

OCC Build 5:
- Automation of initial credentials where supplemental documentation is not needed or may be automated

IFTA Legacy System Modifications / Web-based Credentialing / Tax Filing

IFTA Build 1: Legacy System Modifications
- Modifications for improved productivity
- Clearinghouse capability
- CVIEW interface
- Accommodate web based credentialing

IFTA Build 2: Web Credentialing and tax filing
- Web based credentialing and tax filing capabilities

OS/OW Build 1:
- Legacy System modifications and web based interface for in-house use

OS/OW Build 2:
- Web based interface available to public with standard routes

OS/OW Build 3:
- Automated Routing
- CVIEW interface

OS/OW Permitting / Bridge Interface Build 1:
- Automated transmitted of permits requiring bridge analysis from DPS to ODOT
- Automated analysis for simple span bridges

Expanded PrePass Functionality Build 1:
- Open connection to SAFER for immediate updates
- Receive periodic updates of intrastate data from CVIEW
- If feasible, inclusion of registered weight data in local screening data base

WIM/DMS Installation Build 1:
- Installation of WIM, DMS, and cameras at one PrePass fixed scale site
- Character matching with automated CCTV system
- Manual queries by plate or US DOT number
- Pilot test and evaluation

Scale House Communications Upgrades

Scale house Communication Upgrades Build 1:
- Requirements and Design
- Determine best communication method (T1, fiber, satellite)

Scale house Communication Upgrades Build 2:
- Installation of communications and PCs at one scale site
- Beta Testing

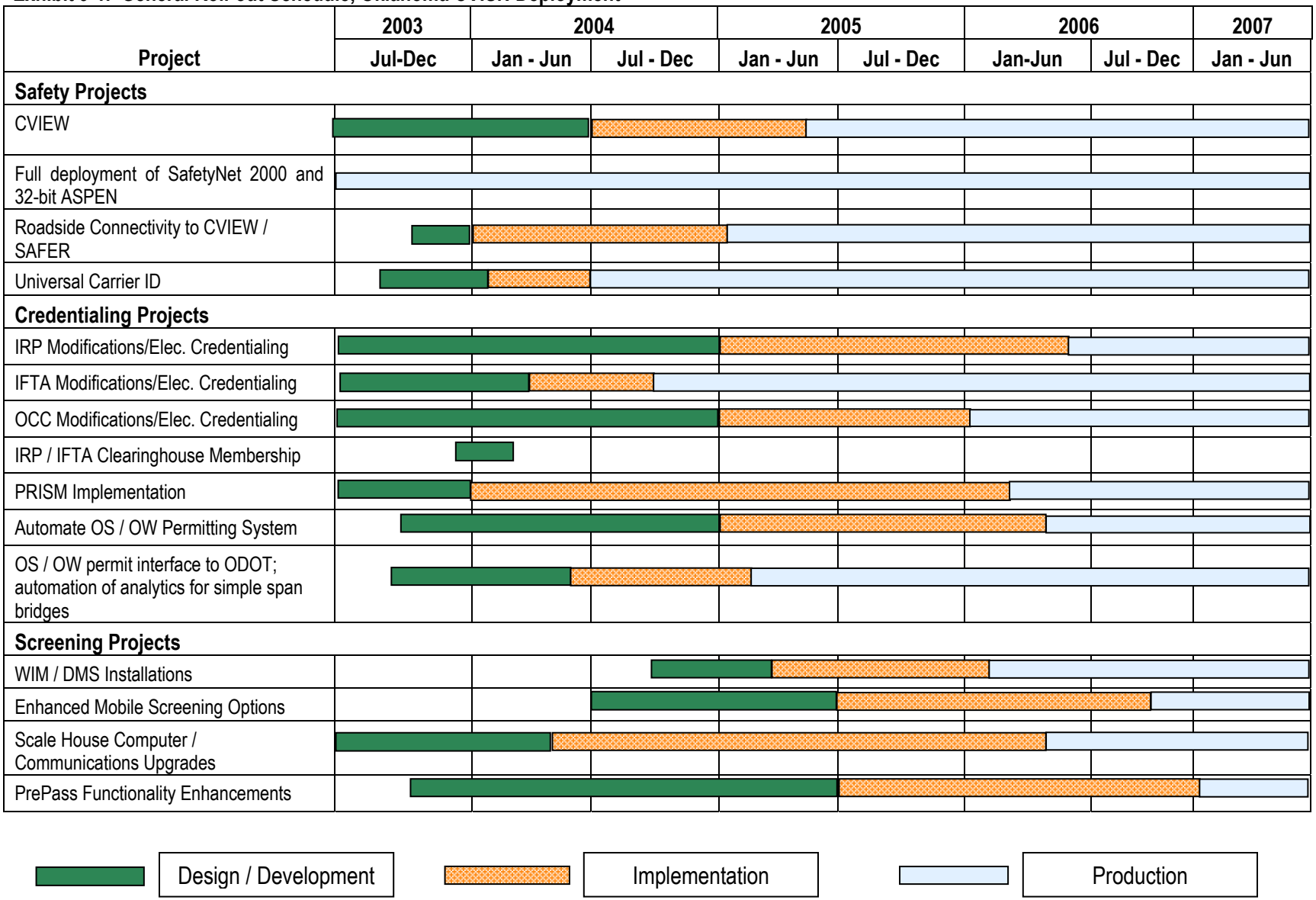
Scale house Communication Upgrades Build 3:

- Expansion of communications model verified in Build 2 to other scale houses
- Deployment

Evaluate Enhanced Mobile Screening Options Build 1:

- Develop pilot test for use of satellite connectivity to DPS networks for roadside access to CVIEW and mobile cameras to provide plate / DOT number to downstream officers.
- Pilot test and evaluation

Exhibit 9-1. General Roll-out Schedule, Oklahoma CVISN Deployment



10.1 Overview

This section summarizes the financial and state staff resources required to implement Oklahoma's CVISN deployment program. Exhibit 10-1 shows estimated capital requirements for each project described in the Program Plan, state staff time required for implementation and estimated ongoing O&M costs. Funding sources are also identified. Oklahoma has received $775,000 in FY 2002 CVISN Deployment Funds and has applied for additional CVISN Deployment Funds for FY 2003. Oklahoma has also completed its PRISM implementation plan and is expecting a PRISM grant of approximately $500,000 out of FY 2002 PRISM Grant funding. The shading in Exhibit 10-1 indicates where funds have been programmed or have already been expended for CVISN deployment. Staff hours shown may be Oklahoma agency employees, or a portion of those hours may be allocated to contract employees.

The budget included in Exhibit 10-1 is a general budget for planning purposes only, to assist the project team in understanding the "order of magnitude" of funding needs. Oklahoma is preparing detailed project implementation plans for each of its CVISN deployment projects. The project plans will address specific hardware and software needs, contract service needs, etc. for each deployment project. Each project plan contains a detailed budget tied to the detailed Project Plan WBS. Project plan budgets will be updated as required throughout the course of implementation. Copies of the Project Plans are available from ODOT's Strategic Planning Office in the Planning Division.

Exhibit 10-1. Oklahoma CVISN Program Budget

CVISN Task	Total Up-front Costs to Deploy	State Staff Resource Requirements (Hours; included in deployment costs) (1)	Estimated Annual O&M Cost (2)	Anticipated Funding Source				
				CVISN Deployment Funds	PRISM / MCSAP Grant	Federal Aid Funds	State Funds	Public / Private Partnership Funds
Program Management	**$ 200,000**	**2,000**	**$ -**	**$ 120,000**	**$ -**	**$ -**	**$ 80,000**	**$ -**
System Engineering & Integration	**$ 200,000**	**2,000**		**$ 110,000**			**$ 90,000**	
Safety Projects	**$ 629,500**	**4,700**	**$ 22,500**	**$ 500,000**	**$ 45,000**	**$ -**	**$ 84,500**	**$ -**
Project Management	$ 10,500	300	$ -				$ 10,500	
System Engineering & Integration	$ 10,500	300	$ -				$ 10,500	
Subcontract and Procurement Management	$ 7,000	200	$ -				$ 7,000	
CVIEW	$ 500,000	2,300	$ 20,000	$ 500,000				
SafetyNet 2000 / 32-bit ASPEN (Includes satellite connectivity and VPN to SAFER)	$ 76,500	900	??		$ 45,000		$ 31,500	
Universal Carrier ID (Build 1 of 1)	$ 25,000	700	$ 2,500				$ 25,000	
Credentials Projects	**$ 2,524,500**	**38,942**	**$ 106,000**	**$ 1,585,000**	**$ 500,000**	**$ -**	**$ 439,500**	**$ -**
Project Management	$ 10,500	300	$ -				$ 10,500	

10.0 Funding Resources and Program Budget

CVISN Task	Total Up-front Costs to Deploy	State Staff Resource Requirements (Hours; included in deployment costs) (1)	Estimated Annual O&M Cost (2)	Anticipated Funding Source				
				CVISN Deployment Funds	PRISM / MCSAP Grant	Federal Aid Funds	State Funds	Public / Private Partnership Funds
System Engineering & Integration	$ 7,000	200	$ -				$ 7,000	
Subcontract and Procurement Management	$ 7,000	200	$ -				$ 7,000	
IRP	$ 600,000	9,060	$ 20,000	$ 600,000				
IFTA	$ 450,000	4,800	$ 12,000	$ 450,000				
PRISM	$ 500,000	6,500	$ 12,000		$ 500,000			
OCC Credentialing Systems	$ 350,000	8,882	$ 15,000	$ 185,000			$ 165,000	
OS/OW Permitting	$ 500,000	8,000	$ 35,000	$ 250,000			$ 250,000	
OS/OW Permitting / Bridge Interface	$ 100,000	1,000	$ 12,000	$ 100,000				
E-Screening Project (3)	**$ 939,500**	**3,400**	**$ 95,000**	**$ 870,000**	**$ -**	**$ -**	**$ 24,500**	**$ 1,400,000**
Project Management	$ 7,000	200	$ -				$ 7,000	
Systems Engineering & Integration	$ 7,000	200	$ -				$ 7,000	
Subcontract and Procurement Management	$ 10,500	300	$ -				$ 10,500	
Expanded PrePass Functionality	$ 45,000	500	$ -					$ 1,400,000
WIM / DMS / Camera	$ 400,000		??	$ 400,000				

10.0 Funding Resources and Program Budget

CVISN Task	Total Up-front Costs to Deploy	State Staff Resource Requirements (Hours; included in deployment costs) (1)	Estimated Annual O&M Cost (2)	Anticipated Funding Source				
				CVISN Deployment Funds	PRISM / MCSAP Grant	Federal Aid Funds	State Funds	Public / Private Partnership Funds
Installation (3)		900						
Scale house Communications Upgrades	$ 285,000	800	$ 60,000	$ 285,000				
Evaluate Enhanced mobile screening options (3)	$ 185,000	500	$ 35,000	$ 185,000				
Evaluation	**$ 25,000**	**600**	**$ -**	**$ 25,000**				
	$ 4,518,500	***51,642***	***$ 223,500***	***$ 3,210,000***	***$ 545,000***	***$ -***	***$ 718,500***	***$1,400,000***

11.1 Design and Deployment Issues

This section highlights unresolved issues that have emerged during Oklahoma's design effort. The proposed method for addressing each issue is summarized.

11.1.1 Issues Associated with Safety Projects

CVIEW Implementation: Oklahoma has installed the Washington xCVIEW on a server at OCC and is evaluating use of the xCVIEW. However, no final decisions have been made on which currently available version of CVIEW to deploy, or where the CVIEW production server will be hosted.

11.1.2 Issues Associated with Credentialing Projects

Legacy System Modification / Replacement: Each of the IRP, IFTA and OCC Transportation Database legacy systems has been in place for some time. These are mainframe systems, written in older programming languages. Maintenance and enhancement of these systems has become increasingly difficult. Oklahoma is evaluating the detailed requirements for CVIEW interface development, PRISM implementation, and interface with web-based credentialing systems. The OTC and OCC are evaluating modifications required to existing legacy systems to meet the needs of PRISM, CVIEW and web-based credentialing implementation. OTC and OCC are also evaluating systems available from other states and will move forward with the most cost-effective options, taking into account functionality requirements, long-term maintenance needs, etc.

DPS OS / OW Permitting System: DPS plans to automate its permit issuance process for a variety of types of routed permits. Initial phases of automation will focus on "envelop" permits – permits which fall within certain size and weight parameters, and which can be routed along a limited number of "standardized" routes. To accommodate more complex size / weight and route parameters, DPS anticipates developing a more robust automated routing system in future phases. ODOT has developed an extensive geographic information systems (GIS) database that includes characteristics data for the state's surface transportation system. DPS may use the ODOT GIS information as the basis from which to develop a GIS-based routing system, or may elect to develop a routing system based on "look-up" tables that tie minimum / maximum restriction data to specific roadway segments.

Additional analysis is required to determine the data fields required for OW / OW route establishment, and to determine which approach will be more cost-effective for the state over the long-term. Additional research is also required to determine whether it is more cost-effective for the state to develop the automated routing routines in-house, to contract with a vendor who has developed similar applications in other states, or to acquire another state's nonproprietary system and modify it to meet Oklahoma's needs.

APPENDIX A – COACH, PART 2

Program/Project Management Checklist

Commit Level (F/P/N)	Intended Actions
F	1. Establish program executive sponsorship. For example an agency head or chief information officer; or a group such as an executive-level steering committee.
F	2. Empower a Program Manager, dedicated to the program at least 30% of the time on average. More time is needed in the startup phase, when a team is new, and if there are many simultaneous projects under the CVISN umbrella. (One state with 20 projects has a full-time Program Manager.)
F	3. Engage a System Architect, dedicated to the program approximately 80% of the time on average.
F	4. Engage a facilitator/scheduler/administrator, dedicated to the program approximately 50% of the time on average.
F	5. When multiple state agencies are involved, establish an inter-agency coordinating council.
F	6. Obtain an approved memorandum of agreement among all involved state agencies.
F	7. Establish a state carrier advisory council.
F	8. Recruit interstate, intrastate, and owner-operator carriers to participate in the program before production deployment (both motor carriers and motor coach companies).
F	9. Where appropriate initiate separate deployment projects under the scope of the CVISN program. For example, deployments in disparate domains such as credentials administration vs electronic screening are likely to be developed by different teams operating as distinct projects.
F	10. Assign a Project Leader for each separate deployment project, dedicated to each project at least 30% of the time on average. More time is needed in the startup phase.,
F	11. Provide adequate training opportunities to project team members, such as attendance at FHWA's CVISN training courses and CVISN workshops.
F	12. Ensure all team members acquire a broad and common understanding of CVISN activities, architecture, and design guidance -- for example, by reading the CVISN Guides, and noting lessons-learned by other states.
F	13. Foster a sense of professional fellowship and teamwork. Likely to require teambuilding interventions such as a partnering workshop; and periodic face-to-face meetings of geographically dispersed teams.
F	14. Adopt the strategy of incrementally developing and deploying products in 3-6 month phases, where each phase adds additional CVISN capabilities. This is called the “spiral” development model as opposed to the “linear” model. Refer to the CVISN Guide to Phase Planning & Tracking.
F	15. Establish a configuration management process for controlling changes to the system baseline; this typically includes a Configuration Control Board. Utilize state's existing configuration control process wherever possible.
F	16. Set up a program library; obtain needed references identified in the CVISN Guide to Program & Project Planning.
F	17. Maintain a list of action items, decisions, and issues. (By definition action items require formal closure.)

Commit Level (F/P/N)	Intended Actions
F	18. Delineate needs for external communications with stakeholders (including the state legislature), and with related projects.
F	19. Conduct monthly team meetings and status assessments.
F	20. Track progress versus schedule monthly; strategize accordingly.
F	21. Conduct quarterly stakeholder progress reviews before a wider audience.
F	22. Monitor actual costs and resource expenditures relative to estimates.

Program/Project Planning Checklist

This is performed for each project, and aggregated for the CVISN program.

Commit Level (F/P/N)	Intended Actions	Preparer Comments
F	1. Review state's ITS/CVO strategic plan and business plan.	
F	2. Define objectives for CVISN Program.	
F	3. Derive requirements for deployment projects.	
F	4. Establish project development standards, such as design margin as a function of development lifecycle.	Some standards may be agency-specific
F	5. Define project-specific processes, such as required design reviews, or how to close an action item.	
F	6. Establish a system design baseline. (See the CVISN Guide to Top-Level Design.)	
F	7. Create a program Work Breakdown Structure.	
F	8. Delineate program deliverables, including support documentation and training.	
F	9. Establish a program organization structure, with clear roles and responsibilities.	
F	10. Assign each element of the work breakdown structure to an element of the program organization structure.	
F	11. Develop project-specific "partnering charters" covering four areas: mission statement; communication objectives (e.g. decision-making at lowest possible level); performance objectives (e.g. complete the project without litigation); issue resolution system (e.g. management levels and timeframes).	
F	12. Develop a flexible procurement strategy. Allocate sufficient calendar time for the required steps.	
F	13. Establish a top-level schedule divided into phases; ensure milestones are measurable.	
F	14. Outline high-level objectives for each phase; express in a 1-2 page phases chart that explains capabilities from a user's point of view.	
F	15. Set the stage for the transition to production use and support; such as database backup and restoration, and a user "help" desk.	
F	16. Identify project external dependencies, with their need-by date.	
F	17. Estimate cost and resource requirements first using summary top-down methods, such as historical analogy and manager's judgment. This will initiate the process and set targets.	

Commit Level (F/P/N)	Intended Actions	Preparer Comments
F	18. Estimate cost and resource requirements using bottom-up detailed methods, such as resource-type quantities for each element of the WBS. This will get 'buy in" from the staff, and validate the top-down estimates.	
F	19. Determine potential funding sources and obtain funding commitments	
F	20. Identify both programmatic and technical issues and develop a resolution plan.	
F	21. Obtain approval, publish, and distribute program plan document. Include completed COACH Part 2 checklists as an appendix.	
F	22. Maintain on each project a Project Leader's notebook with up-to-date copies of essential key charts and diagrams.	
F	23. Maintain a Program Manager's notebook with up-to-date copies of essential key charts and diagrams.	
F	24. Once a year or more often, re-figure the estimate-to-completion.	

Phase Planning & Incremental Development Checklist

This is performed for each project, and aggregated for the CVISN program.

Commit Level (F/P/N)	Intended Actions
F	1. Sustain a system perspective -- a vision of the overall CVISN architecture and deployment strategy.
F	2. Plan, develop, and release incrementally, such that at the end of each phase useful end-to-end functionality is delivered in a way that subsequent phases can build upon.
F	3. Choose and format the elements of the phase plan such that they are naturally useful for presenting status. For example, the list of deliverables could also include columns for dates, current standing, reasons for change.
F	4. Employ the rolling wave planning technique, with more detail for the near-term tasks and progressively less detail for the far-term tasks.
F	5. Involve the project staff in the phase planning process, for example in a team-oriented planning session.
F	6. Review items on the issues list; resolve to the extent possible.
F	7. Close open action items, to the extent possible.
F	8. Review items on the decisions list -- as a reminder and to verify they are still relevant and correct.
F	9. Set phase objectives.
F	10. Flesh out the applicable lowest-level details of the Work Breakdown Structure.
F	11. Derive phase requirements; refer to COACH Part 1 checklists and the Program Plan as starting points. Look for alternative design and development approaches.
F	12. Itemize phase deliverables.

Commit Level (F/P/N)	Intended Actions
F	13. Indicate which elements of the system design baseline are to be deployed; update presentation diagrams accordingly.
F	14. Perform studies to determine whether to make, buy, or modify subsystem components.
F	15. Develop a detailed schedule for the work to be accomplished during the current phase. Most effectively done by identifying and linking activities per the critical path method, utilizing a desktop scheduling tool. The output can be printed as both a Gantt (bar) chart and a PERT (network) chart.
F	16. Identify named individuals who will perform the activities in the detailed schedule.
F	17. Update project external dependencies, with their need-by date.
F	18. Update the master program phases chart.
F	19. Complete the detailed design for all components and interfaces to be developed or modified in the phase. Start with the top-level design and phase objectives. Use COACH Part 3 checklists as guidance, plus the Scope and Design Workshops.
F	20. Define subsystem and component control and data interfaces. Utilize COACH Part 4 for functional allocation.
F	21. Conduct technical reviews in order to catch problems as early as possible in the development life cycle.
F	22. Maintain a strict version numbering system for all products.
F	23. Maintain stakeholder commitment via visibility into progress by physical demonstrations of useful capability, and by regular management status reporting.
F	24. Define system acceptance criteria; use COACH Part 5 checklists as guidance.
F	25. Conduct operational acceptance tests at the end of each phase; specify re-work if necessary.
F	26. Conduct a lessons learned session at the end of each phase (as part of planning the next phase).

APPENDIX B – Contact List

Name	Agency	Title	Mailing Address	Phone / Fax	E-Mail
Jim Hazeldine	Oklahoma Department of Transportation	Manager, Special Projects	200 NE 21st St. Oklahoma City, OK 73105-3204	405-522-6296 405-521-6821	jhazeldine@odot.org jhazeldine@FD9NS01.OKLADOT.STATE.OK.US
Ron Curb	Oklahoma Department of Transportation	CVISN Project Manager	200 NE 21st St. Oklahoma City, OK 73105-3204	405-521-2536 405-521-6917	rcurb@ODOT.org rcurb@FD9NS01.OKLADOT.STATE.OK.US
Penny Williams	Oklahoma Tax Commission	Deputy Director, MIS Division	2501 N. Lincoln Blvd. Oklahoma City, OK 73194	405-521-3060 405-522-0971	pwilliams@oktax.state.ok.us
Keith Gage	Oklahoma Tax Commission	Supervisor, Hardware Services	2501 N. Lincoln Blvd. Oklahoma City, OK 73194	405-521-3060 405-522-0971	KGage@eris.oktax.state.ok.us
Steve Mixon	Oklahoma Tax Commission	Manager	2501 N. Lincoln Blvd. Oklahoma City, OK 73194	405-521-2054 405-522-0971	smixon@oktax.state.ok.us
Gene Gilstrap	Oklahoma Tax Commission	Manager, IRP / IFTA	2501 N. Lincoln Blvd. Oklahoma City, OK 73194	405-521-3036	ggilstrap@oktax.state.ok.us
Officer Mark Combest	Oklahoma Tax Commission	Supervisor, District 4	PO Box 53525 Oklahoma City, OK 73152-9990	405-521-2810	Combest@cox.net
Lynne Jones	Oklahoma Corporation Commission	Deputy Director, Transportation Division	PO Box 52000 Oklahoma City, OK 73152-2000	405-522-5285	l.jones@occmail.occ.state.ok.us
Rhonda Bridges	Oklahoma Corporation Commission	Manager, RSO	PO Box 52000 Oklahoma City, OK 73152-2000	405-522-5277 405-521-2916	r.bridges@occmail.occ.state.ok.us

Name	Agency	Title	Mailing Address	Phone / Fax	E-Mail
Brit Baber	Oklahoma Corporation Commission	OCC Data Processing	PO Box 52000 Oklahoma City, OK 73152-2000	405-521-4132	b.baber@occmail.occ.state.ok.us
Lt. John Hardridge	Oklahoma Department of Public Safety	Troop S Commander, OHP	32 NE 23rd St. Oklahoma City, OK 73105	405-521-6103 405-521-6227	jhardrid@dps.state.ok.us
Tom Baty	Oklahoma Department of Public Safety	Telecommunications Division	32 NE 23rd St. Oklahoma City, OK 73105	405-425-2223	tbaty@dps.state.ok.us
Jeff Spencer	Oklahoma Department of Public Safety	Oklahoma Highway Safety Office	3223 N. Lincoln Blvd. Oklahoma City, OK 73105	405-521-6021	jspencer@dps.state.ok.us
Larry Ramsey	FMCSA	State Programs Director	300 N. Meridian, Suite 106-2 Oklahoma City, OK 73107	405-605-6047 405-605-6176	larry.ramsey@fhwa.dot.gov
Richard Jurey	FHWA	ITS Engineer	300 N. Meridian, Suite 105-S Oklahoma City, OK 73107	405-605-6040 405-605-6170	richard.jurey@fhwa.dot.gov
Dan Case	Oklahoma Trucking Association	Executive Director	PO Box 14620 Oklahoma City, Ok 73113	405-843-9488 405-843-7310	dancase@oktrucking.org
Terri Ungerman	Westcliffe Technologies	System Architect	PO Box 842 Westcliffe, CO 81252	719-783-4359 719-783-4389	terri@westcliffe-tech.com
Valinda P. Gorder	Parker ● Young	CVISN State Advisor	9 Chaco Loop Sandia Park, NM 87047	505-286-2233 505-281-8581	vpgimi@aol.com