# Expanded Commercial Vehicle Information Systems and Networks (CVISN) Program Plan and

# **Top-Level Design**

# For the State of Florida

January 15, 2010

# **EXECUTIVE SUMMARY**

Florida has made a substantial financial and systematic commitment in support of the National CVISN Program. It was one of the earlier States to commit to the Core CVISN Program requirements and develop its CVISN Program Plan. Florida then went on to implement the program, funding the majority of its core projects with State funds and personnel resources. This cost has totaled well over \$10 million to date.

In order to capitalize on the previous investments and to further leverage the State's future investments in CVISN deployments, Florida has committed to continuing participation in CVISN and will develop and implement a robust Expanded CVISN Program over the next five years. Many of the precipitating factors which prompted Florida's initial participation in the National CVISN Program are still in effect and provide impetus for Florida to continue to address these factors in the most efficient manner possible.

Florida expects significant growth in commercial vehicle traffic over the next 15 years. In 2004, The Road Information Program (TRIP) analyzed U.S. DOT data and projected that trucking in Florida would increase by 56% by the year 2020. Unfortunately, in the same report, it was also reported that from 1998 to 2003, Florida was number three in traffic fatalities involving large trucks with 1,574 fatalities (excluding the large truck occupants) over the six year period. Trucking is vital to Florida's economy. According to the Florida Trucking Association (FTA), in 2005 the trucking industry provided over 465,000 jobs (6% of all jobs in the State) with wages exceeding \$17 billion. In summer 2007, FTA reported Florida had 687,120 commercial driver's license holders.

To further compound the challenge of keeping up with an almost 60% increase in trucking, State financial and human resources to regulate the industry are not likely to keep pace with this increase. One of the major goals of Florida's Expanded CVISN Program will be to utilize Intelligent Transportation Systems (ITS) technologies to maximize the effectiveness of State regulatory and enforcement personnel to ensure the safety and security of Florida's traveling public, while at the same time minimizing financial and regulatory burdens to the (Commercial Vehicle) CV industry which is vital to the State's economy.

As Florida plans for its future transportation needs, the State's Expanded CVISN Program will play an integral part, with the CVISN team partners responsible for addressing those transportation challenges that are particular to the Commercial Vehicle Operations (CVO) community.

Florida's Expanded CVISN projects will improve safety, security, and the mobility of motor carriers in Florida in many ways. Technology deployments will help enforcement personnel to target limited staff resources on the small percentage of operators that require closer scrutiny. Additional pre-clearance and pre-screening technology deployments will allow safe and legal motor carriers to avoid or limit pull-ins for inspection activities. Technology deployments will also aid the motor carrier community by streamlining the required regulatory activities such as obtaining credentials or Over Size/Over Weight (OS/OW) permits. Deployment of internet-

based services allows the industry to apply for and obtain many required credentials 24 hours a day/7 days a week, and eliminates having to physically go to the agency to apply and pay for these credentials.

Most of Florida's information systems have been integrated for those activities that require cross-agency data exchange for regulatory/enforcement activities. The main focus of Florida's Expanded CVISN program is to build upon the successful Core CVISN deployments in order to enhance system capabilities. Additionally, there are projects that will add new functionality under Expanded CVISN to address those needs that have arisen since the adoption of Florida's Core CVISN Program Plan. Additional system integration will be from screening systems to State and Federal regulatory and criminal databases.

Currently, the list of Expanded CVISN projects contains eight projects plus expenditures for operations and maintenance (O&M) of current CVISN systems. As with Core CVISN, the Expanded CVISN Projects can be categorized into distinct program areas: Safety Information Exchange, Virtual Roadside Sites, and Enhanced Electronic OS/OW Permitting.

There is one feasibility study proposed for Florida's Expanded CVISN Program Plan that addresses a longstanding issue to minimize the regulatory burden on Florida's motor carriers. The study will address Florida's Port-of-Entry status – currently Florida is <u>not</u> a port-of-entry state. The study will evaluate the feasibility of changing Florida's status, provide legal review and best practices for addressing port-of-entry issues, and it will also recommend technology deployments to automate credentials administration for International Registration Plan (IRP) and International Fuel Tax Agreement (IFTA) Trip Permits.

The largest Expanded CVISN project is for one or more virtual roadside facilities. These sites will be equipped with high-speed weigh in motion (WIM), License Plate Readers (LPRs), length and width detection (3-D imaging), and automated infrared brake testing. There is an additional project for deploying an automated brake thermal-imaging system at a current OMCC weigh station.

The last set of projects involves system enhancements. Systems to be enhanced are the License Plate Reader (LPR) systems at the Department of Agriculture and Consumer Services (DACS) and the Office of Motor Carrier Compliance (OMCC), the Department of Agriculture Container Number Database, and the electronic OS/OW permitting system (APASS).

Additional capabilities will be added to the DACS LPR system to allow the system to run tags read at their facilities against the Performance and Registration Information System (PRISM) database. Since DACS does not enforce Florida's Motor Carrier regulations, the system will notify OMCC officers (in the vicinity of the DACS station) of any hits, and OMCC will perform necessary law enforcement activities. Because of the nature of the DACS inspection requirements, their facilities perform reads of millions more trucks than OMCC could do in a year. By expanding these systems, Florida will have the ability to set up a statewide screening system with the potential to read millions of plates a year which can then be run against various databases (criminal, stolen cargo, outstanding citations, etc.).

The Container Number Database Project will also be an additional deployment to further enhance the DACS LPR system. Funded by U. S. Department of Homeland Security (DHS), the DACS LPR system added the capability to read container numbers. Unfortunately, today there is no external database of container numbers against which to run the container numbers that are being read. DACS maintains the container numbers read at their facilities, but other than checking for containers on the DACS BOLO (be on the look-out) listing, this data is not being utilized. This project will develop a database for storage of container numbers and ancillary data and also deploy additional readers along I-95, south of the Georgia state line; along I-10 east of the I-75 interchange, and near Pensacola (both east and west bound) which will read container numbers at highway speeds. This system will provide origin and destination data for container movements in Florida. Additional capabilities for the Container Number Reader System will involve linkages to other databases such as Florida's Electronic Freight Theft Management System (EFTMS) to check for stolen cargo activity.

The lead and partner agencies vary depending on the Expanded CVISN project. Implementation responsibilities for Expanded CVISN projects will be distributed among all partner agencies.

Florida CVISN Team Members include:

<u>State</u> Florida Department of Transportation (FDOT) Florida Department of Transportation – Permits Office Florida Department of Transportation – Office of Motor Carrier Compliance (OMCC) Florida Department of Revenue (DOR) Florida Department of Agriculture and Consumer Services (DACS) Florida Department of Highway Safety and Motor Vehicles (DHSMV)

Federal

The Federal Motor Carrier Safety Administration (FMCSA)

<u>Private Industry</u> Florida Trucking Association (FTA) Representatives from the trucking community (Landstar, McKenzie Tank Lines, Federal Express, Rountree Transport, and Owner Operator Independent Drivers Association (OOIDA).

The estimated cost for Florida's Expanded CVISN Program (including development of the program plan and required documents) is \$6,329,452 and is expected to take five years. Florida is anticipating that \$3,136,226 will come from the Federal Motor Carrier Safety Administration (FMCSA) CVISN grant funds with the remainder from State in-kind funds and cash.

Project Title	Estimated Total Project Cost (all years)	FY 07 Grant Funds
Florida Expanded CVISN	\$ 200,000	\$100,000
Program Plan & Top Level		
Design Development		
Expanded CVISN Projects		
Virtual Weigh Station(s)	\$4,000,000	\$2,000,000
Port-of-Entry Feasibility Study &	\$100,000	\$50,000
Best Practices Report		
Automated Brake Thermal-	\$100,000	\$50,000
Imaging System Deployment		
Container Number Database	\$1,000,000	\$500,000
Deployment		
Electronic Credentialing System	\$200,000	\$100,000
Enhancements		
Dept of Agriculture LPR System	\$48,000	\$24,000
Expansion (add to 6 additional		
locations)		
LPR System Enhancements	\$274,452	\$137,226
runs LP# against PRISM DB &		
notify OMCC of 'hits'		
Phase I – OMCC		
Phase II – DACS	<b>*</b> 222.022	<b>\$450,000</b>
Automated Permitting System	\$300,000	\$150,000
Enhancements	¢407.000	05.000
Expanded CVISN Operation and	\$107,000	25,000
Maintenance Activities	¢c 200 450	¢0.400.000
Total	\$6,329,452	\$3,136,226

 Table 1: Project Cost Summary

#### Table 2: Key Dates for CVISN Projects

Project Title	Start Date	End Date	Comments
Florida Expanded CVISN Program Plan Development	Jan. 1, 2009	Feb. 15, 2010	Timeline includes submission of program plan documents and approval of plan by FMCSA.
Expanded CVISN Projects	Feb. 16, 2010	Mar. 31, 2015	Expanded CVISN Projects will commence upon acceptance of Florida's Expanded CVISN Program Plan by FMCSA.

The start date of the funded projects is effective upon execution of the CVISN Program Agreement by all affected parties. The expected completion date for Florida's Expanded CVISN Program Projects is March 31, 2015. The completion date may be extended upon the mutual consent of the parties to this agreement.

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# 1. Introduction

This document describes Florida's approach to deploying Expanded CVISN capabilities. The plan will guide the deployment of adopted Expanded CVISN projects and programs in an efficient and cost-effective manner. The program plan contains detailed information on each project such as project description, benefits, operational scenario, lead and participating agencies, key functions of the system, system design, procurement strategy, deployment schedule, budget, and design/deployment issues. The plan will also serve as a reference document for Commercial Vehicle Operations (CVO) stakeholders, governmental regulatory personnel, CVISN team members, and Florida's CVISN Executive Steering Committee. As with Florida's Core CVISN Program Plan, this will be a dynamic document. It will be updated as needed when factors, unknown at the time this document was produced, necessitate an adjustment in the program plan. Changes to the Florida CVISN program plan are governed by the CVISN Executive Steering Committee.

The purpose of Florida's Expanded CVISN Program is to continue the successes realized during the deployment of their core CVISN program. Florida recognizes the important impact that the commercial vehicle industry has on the State's economy. The Expanded CVISN program will improve safety, security, and the mobility of motor carriers in Florida while at the same time ensuring the safe and efficient movement of the traveling public throughout the State. Additionally, the Expanded CVISN program will assist the State in achieving these goals without placing undue costs on the commercial vehicle industry.

### **1.1 Purpose and Scope of Document**

This Expanded CVISN Program Plan document will serve as Florida's guidance document for the implementation of its Expanded CVISN Program and associated projects. It will also serve as a reference document on Florida's Expanded CVISN Program, and as such, will be updated as project details that are not currently contained in the document are developed and finalized. The Program Plan/Top Level Design will be updated on an annual basis, if needed. It will be updated at the end of the fiscal year to provide an updated document for the beginning of the new fiscal year.

## 1.2 Background

Florida began preliminary activities for program plan development during the process of developing the proposed Expanded CVISN projects contained the 2007 CVISN Grant Application. The projects contained in Florida's Expanded CVISN Program Plan were selected because they will provide the most benefit to the traveling public, member regulatory agencies, and to Florida's motor carriers.

Florida developed an extensive list of Expanded CVISN Projects which capitalize on previous investments in the Core CVISN Program deployments. To develop the list of projects to be

included in Florida's Expanded CVISN Program Plan, the Florida CVISN Program Manager, supported by E-Squared Engineering, met separately with each CVISN team member agency (including the CVO industry). During these meetings, the CVISN Program Management Team reviewed the progress to date on Florida's Core CVISN program and explained what Expanded CVISN is and that Florida fully intends to continue its CVISN program to this next level; provided required funding is available. Each member agency discussed their top issues with regard to Commercial Vehicle (CV) regulation in Florida. From this issues list the CVISN Team then developed the Expanded CVISN project(s) that could solve these issues and provide a benefit to the agency, the State and the motor carrier community in Florida. Additionally, the CVISN Program Management Team also asked each of the member agencies to reconfirm their commitment to supporting Florida's CVISN program. The original CVISN Memorandum of Understanding (MOU) is included in the Appendices.)

During the meetings it was determined that although the projects that were implemented during CVISN Core deployment have provided great benefit to member agencies and to Florida's motor carriers, there are still many areas that can benefit by further technology deployments or enhancements to previously deployed systems. This is the main focus of Florida's Expanded CVISN program - to build upon the successful Core CVISN deployments in order to enhance system capabilities. Additionally there are projects that will add new functionality under Expanded CVISN to address those needs that have arisen since the adoption of Florida's Core CVISN Program Plan.

Florida has made a substantial financial and systematic commitment in support of the National CVISN Program. It was one of the earlier States to commit to Core CVISN and develop its CVISN Program Plan. Florida then went on to implement the program, funding the majority of its core projects with State funds and personnel resources. This cost has totaled well over \$10 million to date.

In order to capitalize on the previous investments and to further leverage the State's future investments in CVISN deployments, Florida has committed to continuing participation in CVISN and will develop and implement a robust Expanded CVISN Program over the next five years. Many of the precipitating factors which prompted Florida's initial participation in the National CVISN Program are still in effect and provide impetus for Florida to continue to address these factors in the most efficient manner possible.

Florida expects significant growth in commercial vehicle traffic over the next 15 years. In 2004, The Road Information Program (TRIP) analyzed U.S. DOT data and projected that trucking in Florida would increase by 56% by the year 2020. Unfortunately, in the same report, it was also reported that from 1998 to 2003, Florida was number three in traffic fatalities involving large trucks with 1,574 fatalities (excluding the large truck occupants) over the six year period. Trucking is vital to Florida's economy. According to the Florida Trucking Association, in 2005 the trucking industry provided over 465,000 jobs (6% of all jobs in the State) with wages exceeding \$17 billion. In summer 2007, FTA reported Florida had 687,120 commercial driver's license holders.

To further compound the challenge of keeping up with an almost 60% increase in trucking, State financial and human resources to regulate the industry are not likely to keep pace with this increase. One of the major goals of Florida's Expanded CVISN Program will be to utilize ITS technologies to maximize the effectiveness of State regulatory and enforcement personnel to ensure the safety and security of Florida's traveling public, while at the same time minimizing financial and regulatory burdens to the CV industry which is vital to the State's economy.

As Florida plans for its future transportation needs, the State's Expanded CVISN Program will play an integral part, with the CVISN team partners responsible for addressing those transportation challenges that are particular to the CVO community.

Florida's Expanded CVISN projects will improve safety, security, and the mobility of motor carriers in Florida in many ways. Technology deployments will help enforcement personnel to target limited staff resources on the small percentage of operators that require closer scrutiny. Additional pre-clearance and pre-screening technology deployments will allow safe and legal motor carriers to avoid or limit pull-ins for inspection activities. Technology deployments will also aid the motor carrier community by streamlining the required regulatory activities such as obtaining credentials or OS/OW permits. Deployment of internet-based services allows the industry to apply for and obtain many required credentials 24 hours a day/7 days a week, and eliminates having to go physically to the agency to apply and pay for these credentials.

Most of Florida's information systems have been integrated for those activities that require cross-agency data exchange for regulatory/enforcement activities. The main focus of Florida's Expanded CVISN program is to build upon the successful Core CVISN deployments in order to enhance system capabilities. Additionally, there are projects that will add new functionality under Expanded CVISN to address those needs that have arisen since the adoption of Florida's Core CVISN Program Plan. Additional system integration will be from screening systems to State and Federal regulatory and criminal databases.

Florida was certified as Core CVISN compliant on February 24, 2009. (See Appendices.)

Florida's Expanded CVISN Program goals will closely align with those established for the Core CVISN Program, these include:

- Utilizing ITS technologies to maximize the effectiveness of State regulatory and enforcement personnel to ensure the safety and security of Florida's traveling public.
- Ensuring CVO-related safety and security without placing undue costs on the motor carrier industry.
- Further improving the State's CVO regulatory environment.
- Ensuring the safe, efficient, and secure movement of goods throughout the State.
- To build upon successful Core CVISN deployments in order to enhance system capabilities.

The lead and partner agencies vary depending on the project. Implementation responsibilities for Expanded CVISN projects will be distributed among all partner agencies.

Florida CVISN Team Members include:

State
Florida Department of Transportation (FDOT)
Florida Department of Transportation – Permits Office
Florida Department of Transportation – Office of Motor Carrier Compliance (OMCC)
Florida Department of Revenue (DOR)
Florida Department of Agriculture and Consumer Services (DACS)
Florida Department of Highway Safety and Motor Vehicles (DHSMV)

<u>Federal</u> The Federal Motor Carrier Safety Administration (FMCSA)

Private Industry

Florida Trucking Association (FTA)

Representatives from the trucking community (Landstar, McKenzie Tank Lines, Federal Express, Rountree Transport, and Owner Operator Independent Drivers Association (OOIDA).

### **1.3** Organization of this Document

The remainder of this document provides greater detail on Florida's Expanded CVISN Program, the projects which will be deployed as part of Expanded CVISN, and how the systems will be procured, designed, and tested. Program budget and schedule information is also included.

**Section 2. Florida's Expanded CVISN Program.** This section provides an overview of Florida's Expanded CVISN Program and includes information on program goals and current Expanded CVISN related activities/projects. This section also contains detailed descriptions of each Expanded CVISN project.

**Section 3. System Design.** This section contains an overview of the Expanded CVISN System Design and includes Florida's commitment to conformance and compatibility with the National ITS and CVISN Architectures. An Expanded CVISN System Design Diagram Template and State Computers and Networks Diagram are also included. New CVISN systems are highlighted in Florida's System Design Diagram Template.

The System Design section also includes a detailed description of the system components for both legacy systems and new Expanded CVISN systems. Project design elements are included with system changes provided in table format for each project. System testing procedures to be followed by each agency for their respective projects are also included in Section 3.

Section 4. Procurement Strategy/Products. This section describes the planned procurement mechanism for the projects.

**Section 5. Program Schedule.** The program schedule section includes planned start- and enddates for each project and the project duration. There is also an overall project schedule graphic.

**Section 6. Program Budget.** This section provides the overall program budget, broken down by project.

Section 7. Design/Deployment Issues. Current design and deployment issues are discussed in this section.

**Section 8.** Appendices. Contains copies of Florida's CVISN MOU and Core Deployment Certification.

# 2. Expanded CVISN Program

Florida's Expanded CVISN program will be a well-rounded program and will engage all Florida CVISN partner agencies (both regulatory and industry). Currently, the list of Expanded CVISN projects contains eight projects plus expenditures for operations and maintenance (O&M) of CVISN systems. As with Core CVISN, the Expanded CVISN Projects can be categorized into distinct program areas: Safety Information Exchange, Virtual Roadside Sites, and Enhanced Electronic OS/OW Permitting.

As Florida plans for its future transportation needs, the State's Expanded CVISN Program will play an integral part, with the CVISN team partners responsible for addressing those transportation challenges that are particular to the CVO community.

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Most of Florida's information systems have been integrated for those activities that require cross-agency data exchange for regulatory/enforcement activities. The main focus of Florida's Expanded CVISN program is to build upon the successful Core CVISN deployments in order to enhance system capabilities. Additionally, there are projects that will add new functionality under Expanded CVISN to address those needs that have arisen since the adoption of Florida's Core CVISN Program Plan. Additional system integration will be from screening systems to State and Federal regulatory and criminal databases.

### 2.1 State Expanded CVISN Goals

Florida's Expanded CVISN Program goals will closely align with those established for the Core CVISN Program, these include:

- Utilizing ITS technologies to maximize the effectiveness of State regulatory and enforcement personnel to ensure the safety and security of Florida's traveling public.
- Ensuring CVO-related safety and security without placing undue costs on the motor carrier industry.
- Further improving the State's CVO regulatory environment.
- Ensuring the safe, efficient, and secure movement of goods throughout the State.
- To build upon successful Core CVISN deployments in order to enhance system capabilities.

### 2.2 Current Expanded CVISN Related Activities/Projects

All of the projects that were completed as part of Florida's Core CVISN deployment efforts are still operational and are the foundation for the State's Expanded CVISN Program.

Pre-clearance at both OMCC weigh stations and DACS interdiction stations (deployed in 1999 and 2002, respectively) continue to be a core CVISN capability for Florida and will remain operational as part of Expanded CVISN. DACS will be adding AgPass pre-clearance capability at their inbound station in Pensacola in early 2010. The contract with HELP, Inc. will expire in April 2010 and, at the writing of this document, Florida is working on the contract renewal.

OMCC deployed ASPEN in 2001 and continues to use this system, upgrading it as system enhancements are made available. The OMCC Punta Gorda Bypass Detection System, deployed in 2006, will also remain operational as part of Expanded CVISN.

The Department of Highway Safety and Motor Vehicles (DHSMV) began participation in the IRP Clearinghouse in 2002 and the IFTA Clearinghouse in 2004; and will continue participation in both clearinghouses as part of the Expanded CVISN program. The Electronic Credentialing System which was completed in 2007 will continue as part of Expanded CVISN.

Florida will continue core CVISN capabilities through their Commercial Vehicle Information Exchange Window (CVIEW) Equivalent system. This includes IFTA/IRP Credentials upload to the Safety and Fitness Electronic Records System (SAFER) database from DHSMV, download of credentials data to officers at the roadside through a web services query to SAFER, and upload of safety inspection data through ASPEN. As part of Florida's PRISM program deployment, DHSMV will upgrade the credentialing process to include requiring the USDOT number of the carrier responsible for safety. Once this enhancement is made, Florida will begin uploading this data to SAFER with their daily T0022 upload.

Automated OS/OW permitting and routing has been available online since 2002 and 2003, respectively. This system will continue to operate and will be enhanced as part of Expanded CVISN. The SmartCop OS/OW Permit Viewing Application which was completed in 2004 will be further upgraded under Expanded CVISN as part of Permitting System enhancements.

The CVO Help Desk (telephone and website) will also be continued as part of Expanded CVISN.

### 2.3 Planned Expanded CVISN Deployment Projects

There is one feasibility study proposed for Florida's Expanded CVISN Program Plan. This study addresses a longstanding issue to minimize the regulatory burden on Florida's motor carriers. The study will address Florida's Port-of-Entry status – currently Florida is <u>not</u> a port-of-entry state. The study will evaluate the feasibility of changing Florida's status, provide legal review and best practices for addressing port-of-entry issues, and additionally it will also recommend technology deployments to automate credentials administration for IFTA and IRP trip permits.

The largest Expanded CVISN project is for one or more virtual roadside facilities. These sites will be equipped with high-speed WIM, License Plate Readers, length and width detection (3-D imaging), and automated thermal-imaging brake testing. There is an additional project for deploying an automated brake thermal-imaging system at a current OMCC weigh station.

The last set of projects involves system enhancements. Systems to be enhanced are the License Plate Reader (LPR) systems at the Department of Agriculture and Motor Carrier Compliance, the Department of Agriculture Container Number Database, and the electronic OS/OW permitting system (APASS).

Additional capabilities will be added to the DACS LPR system to allow the system to run license plates numbers read at their facilities against the PRISM database. Since DACS does not enforce Florida's Motor Carrier regulations, the system will notify OMCC officers (in the vicinity of the DACS station) of any hits, and OMCC will perform necessary law enforcement activities. Because of the nature of the DACS inspection requirements, their facilities perform reads of millions more trucks than OMCC could do in a year. By expanding these systems, Florida will have the ability to set up a statewide screening system with the potential to read millions of plates a year which can then be run against various databases (criminal, stolen cargo, outstanding citations, etc.).

The Container Number Database Project will also be an additional deployment to further enhance the DACS LPR system. Funded by U. S. Department of Homeland Security (DHS), the DACS LPR system added the capability to read container numbers. Unfortunately, today there is no external database of container numbers against which to run the container numbers that are being read. DACS maintains the container numbers read at their facilities, but other than checking for containers on the DACS BOLO listing, this data is not being utilized. This project will develop a database for storage of container numbers and ancillary data and also deploy additional readers along I-95, south of the Georgia state line; along I-10 east of the I-75 interchange, and near Pensacola (both east and west bound) which will read container numbers at highway speeds. This system will provide origin and destination data for container movements in Florida. Additional capabilities for the Container Number Reader System will involve linkages to other databases such as Florida's Electronic Freight Theft Management System (EFTMS) to check for stolen cargo activity.

The projects are presented in priority order as determined by the Florida CVISN Team and approved by the Florida CVISN Executive Steering Committee.

#### Table 2-1 Port-of-Entry Feasibility Study and Best Practices

#### **PROJECT NAME:** Port-of-Entry Feasibility Study and Best Practices

#### **Project Objectives:**

- Determine history behind Florida's non-port-of-entry status.
- Investigate needed actions to change status.
- If status is changed, provide automated method for motor carriers to obtain automated IRP and IFTA Trip Permits and determine best method and location(s) for issuing permits.

#### **Project Benefits:**

Benefits to the State:

- Good will with Motor Carrier Industry.
- Frees enforcement officers up from issuing permits.

Benefits to the Motor Carrier Industry:

- Potential for large cost savings. Fines for not having the appropriate credentials <u>before</u> crossing the Florida state line are very substantial.
- Provides efficient method for obtaining required permits.

#### **Project Description:**

This project will research the history behind Florida's current non-port-of-entry status with regard to interstate commercial vehicle operations. Tasks will include identifying which department is responsible for this status, conducting a review of what would be required legislatively to change this status, identifying best practices with regard to port-of-entry, determining the costs and benefits of changing to port-of-entry status, and providing recommendations. It will also include evaluating options for issuing IRP and IFTA Trip Permits at weigh stations by automated methods (i.e. online, kiosk at weigh stations near port-of-entry) rather than having an officer issue the permit. The study will also evaluate and recommend weigh station locations for required permits issuance capability.

#### **Operational Scenario:**

If the study determines that the best course of action is to change Florida's Port-of-Entry status, the recommendations and an implementation plan will be developed and presented to the CVISN Executive Steering Committee for consideration and approval. The capability for automated processing of required permits will be implemented at recommended locations in the State. Additionally, the system will be available to all motor carriers online (via the internet).

#### Lead (host) Agency:

This project will be led by the CVISN Program Manager with assistance from DHSMV and OMCC.

#### **Participating Agencies:**

- FDOT
- FDOT Legal Office
- FDOT OMCC
- DHSMV

### Key Functions to be Provided by Project/System:

1. Automated processing (application, payment, and issuance) of required permits via the internet at strategic locations within the State.

#### Table 2-2 LPR System/PRISM Project

#### PROJECT NAME: LPR System/PRISM Project

**Project Objectives:** Provide additional virtual review of CV license plates in Florida. Plate numbers to be run against various State and national criminal databases, plus additional databases such as the PRISM target file, citation database and stolen cargo database. Any hits will be provided to OMCC enforcement officers, in the vicinity, for further action.

#### **Project Benefits:**

Benefits to the State: Enhanced law enforcement capabilities for Motor Carrier Compliance. Enhanced screening and location of out of service (OOS) carriers contained in the PRISM Target File. Quicker recovery of stolen cargo or vehicles.

Benefits to the Motor Carrier Industry: Quicker recovery of stolen cargo or vehicles.

**Project Description:** This project builds on the capabilities of current License Plate Readers (LPRs) at select DACS and OMCC inspection stations. Currently there are LPR systems installed, and collecting data, at 12 DACS stations and 15 OMCC stations. Both systems are working well. DACS has a much higher read rate than the LPR systems at OMCC weigh stations. The two differences between the DACS system and the OMCC system are that DACS has a different optical character recognition (OCR) technology, and their system reads the tag on a stopped vehicle (instead of rolling at 40 mph). This results in DACS having a much higher accuracy rate. The DACS system has flagged over 78 positive hits which resulted in the recovery of 21 stolen trucks.

This project would expand the capabilities of the DACS LPR system by sending data to OMCC and having the capability to run this additional data against various law enforcement databases, the PRISM Target File, and provide notification to Florida OMCC enforcement officers in that area for necessary action. DACS 'sees' many more trucks per year than OMCC, plus the greater read accuracy of their LPR system provides much more data (this additional capability could potentially result in 8 to 10 million plate reads per year).

The PRISM Target file query capability is dependent upon Florida's implementation of its PRISM program. Florida does not currently capture the USDOT number during the credentialing process. The first phase of Florida's PRISM program deployment is to update the credentialing process to require applicants to provide the USDOT number for the carrier responsible for safety. Once this data is being captured and uploaded to SAFER via the T0022 transaction set, there will be a method for the system to flag and assign a vehicle/carrier to the PRISM Target file. It is expected that this part of the PRISM program deployment will be complete prior to the initiation of the Expanded CVISN LPR/PRISM Project.

The following OMCC weigh stations have LPR systems installed. (The systems at these

stations are all part of OMCC's integrated LPR system.)

- Bunnell
- Hopewell
- Old Town
- Plantation Key
- Yulee 17
- Sneads
- Pensacola Eastbound
- Pensacola 90
- Hilliard
- Flagler Northbound
- Flagler Southbound
- Wildwood Northbound
- Wildwood Southbound
- Punta Gorda Northbound
- Punta Gorda Southbound

DACS interdiction stations with LPR systems installed:

- Station No. 1, 7289 US Hwy 19, Trenton, FL 32693, (2) lanes
- Station No. 6A, 19517 I-10, Live Oak, FL 32060, (1) lane (also AgPass)
- Station No. 6B, 19517 I-10, Live Oak, FL 32060, (1) lane (also AgPass)
- Station No. 7, 20387 US 90, Live Oak, FL 32060, (2) lanes
- Station No. 8, 3264 US 129 N, Live Oak, FL 32060, (2) lanes
- Station No. 9A, 13106 Interstate 75, White Springs, FL 32096, (1) lane (also AgPass)
- Station No. 9B, 13099 Interstate 75, White Springs, FL 32096, (1) lane (also AgPass)
- Station No. 10, 10875 NW US Hwy 41, White Springs, FL 32096, (1) lane
- Station No. 14, 553893 US Highway 1, Hilliard, FL 32046, (2) lanes
- Station No. 16A, 751408 North I-95, Yulee, FL 32097, (1) lane (also AgPass)
- Station No. 16B, 751423 North I-95, Yulee, FL 32097, (1) lane (also AgPass)
- Station No. 19, 101 Interstate 10, Pensacola, FL 32534, (2) lanes (Planned AgPass location-to be completed early 2010)

**Operational Scenario:** License plate is read while passing through any of the above inspection/interdiction stations. Optical Character Recognition (OCR) technology converts numbers to data and this data is run against the Florida Crime Information Center/National Crime Information Center (FCIC/NCIC) and also forwarded to OMCC to query a variety of databases. If the FCIC/NCIC query returns a hit, DACS will act on the information in the appropriate fashion. Hits from any of the databases queried after reaching OMCC will be sent to OMCC enforcement officers in the area for further activity. OMCC would undertake any enforcement actions with the driver/vehicle, DACS would not be involved in this process.

Additionally, the system will provide a method for linking the vehicle's license plate number to its USDOT number. This will allow the system to check to see if the truck is in the PRISM

Target File (OOS). This allows OMCC to leverage the existing LPR systems and FMCSA PRISM database to detect vehicles illegally operating while under an out of service order.

#### **Co-leads: Florida DACS and FDOT OMCC**

**Participating Agencies:** 

- Florida DOT
- Florida OMCC
- Florida Department of Agriculture and Consumer Services
- Florida DHSMV (USDOT number capture)

Key Functions to be Provided by Project/System:

1. License plate capture at OMCC stations run against various law enforcement databases (State and Federal) and PRISM Target file.

2. License plate capture at DACS stations run against various law enforcement databases (State and Federal) and forwarded to OMCC for query on PRISM Target file and additional databases.

3. 'Hit' notification provided to OMCC enforcement officer(s) in the vicinity for any needed action.

#### Table 2-3 Container Number Database Deployment

#### **PROJECT NAME:** Container Number Database Deployment

#### **Project Objectives:**

- Develop database for storing and accessing container numbers captured at FDOT and Dept. of Agriculture LPR System locations which also include cameras for container number capture. Ancillary data to be captured is location and time stamp of data collection (container read).
- Develop and implement software to track and provide visual representation of container movements within Florida.
- Provide capability to run container number against the Electronic Freight Theft Management System (EFTMS) to facilitate locating stolen cargo containers.

#### **Project Benefits:**

Benefits to the State:

- Provides much needed origin/destination data for container movements in Florida.
- Automated recognition of stolen containers and/or potential illegal activity.

Benefits to the Motor Carrier Industry:

• Provides method for quick location of stolen containers.

**Project Description:** The Container Number Database Project will be an additional deployment to further enhance the DACS LPR/Container Number Reader system and the FDOT Remotely Operated Compliance Station (ROCS) system. Funded by DHS, the DACS LPR system added the capability to read container numbers. Currently there is not a container number database against which to query the captured container numbers. Currently the container number is being run against the Department of Agriculture BOLO list, the National Crime Information Center (NCIC), and the Florida Crime Information Center (FCIC) databases to check for criminal activity.

Currently, the DACS system photographs the front truck tag, the container number (if there is one), as well as either the driver or the driver side of the vehicle. OCR is done on the tag/container at the local station site and that information is sent to the server in Tallahassee along with other data containing the date, time, station, and originating lane. When the data reaches the DACS server, it is checked against an AgLaw BOLO list and if there is no entry in the BOLO list, then the tag/container number is sent to Florida Department of Law Enforcement (FDLE) via a dedicated circuit. If a hit occurs, the system sends an alert to the officer at the originating site, and the officer is asked to verify by sight that the tag number and the photo of the tag are in fact the same (same numbers, correct state, etc).

This project will develop a database for storage and query of container numbers and ancillary data, and develop software for tracking the container movements and presenting this data graphically. Ancillary data will include location of container and time-stamp. As part of the system additional cameras will be deployed to capture container numbers on I-95 (south of

the Georgia state line) in both directions; along I-10 east of the I-75 interchange in both directions, and near Pensacola (both east and west bound). Cameras will capture container numbers at highway speeds at these locations. This system will provide information for container movements in Florida, to include graphical representation of container movements. The system will also interact with the PIERS system in order to provide information on the commodities in the container. Additional capabilities for the Container Reader System will involve linkages to other databases such as Florida's Electronic Freight Theft Management System (EFTMS) to check for stolen cargo activity and aid recovery.

#### **Operational Scenario:**

All trucks and trailers in Florida (including rental trucks) are required to enter the DACS interdiction stations, unless they are participating in AgPass. During the pass-through vehicles are traveling very slowly (< 5mph) and/or they come to a complete stop. This allows the optimal conditions for capturing the number from the container. OCR software will be utilized to convert the container number read to electronic data for storage in the container number database. In addition to FCIC, NCIC, and the DACS BOLO list, the container number will also be run against the EFTMS system to check if it is stolen. Depending on which database produces a hit, DACS or OMCC enforcement personnel in the area will be notified. Specifics on how and which agency will be notified for each type of "hit" will be determined at the time when system requirements are developed by partner agencies. This information will be provided in the quarterly report to FMCSA.

#### Lead (host) Agency:

This project will be led by OMCC with assistance from DACS.

**Participating Agencies:** 

- DACS
- FDOT OMCC
- DHSMV (for EFTMS portion)

#### Key Functions to be Provided by Project/System:

1. Create database for storage of data captured from containers passing through the statewide system which captures container numbers.

2. Run container number against DACS BOLO list, FCIC, NCIC, and EFTMS to check for illegal activity.

3. Notify DACS or OMCC officers of 'hit'.

4. Provide capability to analyze and report on container movements in Florida.



#### **DataFlow Sequence**

- Vehicle front plate, driver, and container images captured and OCR'ed by TDS Station Processor
   BOLO Table is queried at AgLaw Host Database
   If a BOLO match is found, processing continues at step 8

- Vehicle front license plate, container #, time, and location is inserted into AgLaw Host Database
   AgLaw Comm Processor queries AgLaw Host Database for transactions requiring NCIC lookup
- 6)
- AgLaw Comm Processor submits query through FDLE interface to NCIC If a match is returned. AgLaw Comm Processor forwards the NCIC data to originating TDS Station Processor. 7)
- TDS Station Processor displays data for officer verification 8)
- 9) If the officer verifies as a valid hit, the TDS Station Processor sends an email notification
- 10) TDS Station Processor sends vehicle images and data to the AgLaw Host Database for all valid hits.

Figure 1- Current DACS Container Number System Dataflow Diagram

#### Table 2-4 Virtual Weigh Station(s)

#### **PROJECT NAME:** Virtual Weigh Station(s)

**Project Objectives:** Deployment of one or more fully automated roadside facilities to monitor and record commercial vehicle data (at highway speeds), automated analysis of this data, and notification to law enforcement in the vicinity of any vehicles requiring further investigation. Each location will be integrated into the LPR/PRISM/Container Number monitoring system(s).

#### **Project Benefits:**

Benefits to the State:

- Maximizes efficiency of enforcement staff resources.
- Address issue of limited funding available for building new fixed weigh sites.
- Equipment is somewhat 'portable' and easily relocated to new location with greater need for bypass monitoring.

Benefits to the Motor Carrier Industry:

- Keeps level playing field, carriers that cut corners more likely to be caught by enforcement personnel.
- Decreases number of facilities that require pull-in for weight enforcement activities.

#### **Project Description:**

This project is for the design and deployment of one or more completely automated virtual roadside facilities. Technologies to be deployed will be those that are functional at highway speeds. There are currently two virtual weigh station facilities in western Florida, one on southbound US 29 and the other on County Route 184 in Escambia County (north of Pensacola). The final locations for the new stations will be determined based on stakeholder input and available funding. Currently the locations under consideration are near the Bunnell and Flagler permanent weigh stations. Planned technologies are high-speed WIM, length and width detection, License Plate Readers (to include links with various law enforcement databases and other Expanded CVISN systems), and automated infrared brake testing. Numeric data and digital images (which are captured for any commercial vehicle that indicates a potential problem) will be sent to OMCC law enforcement personnel in the vicinity of the virtual facility. This information will be sent to the officers' in-vehicle laptops. Officers will then have the necessary information to apprehend the vehicle for further investigation as appropriate.

Location(s) and specific technologies to be deployed will be provided in future quarterly reports to FMCSA.

#### **Operational Scenario:**

All technologies are installed at the roadside and operate at highway speeds. Data is captured and processed as appropriate against the appropriate database. Any potential violations or 'hits' are sent to OMCC enforcement officers in the area along with identifying information for the vehicle (photo, USDOT #, License Plate #). In addition to officers being notified of hit activity at the VWS station, enforcement officers will be able to sign into the system and pull data that has been captured at the site.

Lead (host) Agency: FDOT OMCC with consultant support for project management

Participating Agencies: FDOT District personnel at deployment location.

Key Functions to be Provided by Project/System:

1. License plate and container number capture and conversion to digital data.

2. Run of data against all applicable criminal and regulatory databases [FCIC/NCIC (stolen vehicles), OMCC Hotlist (delinquent citations), EFTMS, PRISM database/Target file].

3. Screening for safety issues (weight, brakes, over dimensional)

#### Table 2-5 Electronic Credentialing System Enhancements

**PROJECT NAME:** Electronic Credentialing System Enhancements

**Project Objectives:** Provide additional capabilities to the Electronic Credentialing System as required, based on Expanded CVISN studies and system user input.

#### **Project Benefits:**

Benefits to the State:

- Enhanced customer service.
- Increased good will with motor carrier industry

Benefits to the Motor Carrier Industry:

• Additional options for obtaining necessary operating credentials.

#### **Project Description:**

This project will upgrade the current electronic credentialing system (for IFTA and IRP credentials). There are four proposed enhancements to the system that have been developed based on user feedback to the current system which was deployed in December 2007. These are the Carrier Services enhancement, IFTA Tax Return Upload, online Cabcard printing, and new account creation enhancement.

The Carrier Services enhancement will allow a Service to maintain a single CVISN account upon which the Service will have access to all IRP and IFTA accounts for which they have power of attorney. The Service will be able to process multiple transactions for each carrier and provide a single electronic payment for all transactions.

Carriers who maintain electronic records for IFTA fuel tax purchases will have the option to upload their fuel tax information using the XML formatted data upload process. DHSMV will provide schema documentation for the formatting of Tax Return data. The upload process will allow the carrier to navigate to a file located on their PC and select for processing. The Application will verify the data and calculate the tax return if there are no errors found. If validation errors are found the application will allow the carrier to make corrections and resubmit for processing.

Currently carriers who process transactions and pay electronically must wait for their credentials to be processed and sent via the US mail. This process usually takes anywhere from 5 - 7 days for receipt of credentials. Carriers who process supplemental transactions that do not require the issuance of a license plate can print their CABCARDS immediately if the transaction is paid for electronically. Carriers will only be allowed to reprint CABCARDS for supplements that were submitted and paid for electronically for an allowed period of time to be determined by Motor Carrier Services (MCS).

Currently a carrier must notify MCS if they want to utilize the electronic credentialing system. Upon notification, MCS will request the CVISN account and generate the account

and password letters which are mailed to the carrier. In an effort to increase participation and eliminate the manual process, DHSMV is considering two options for initial set up for using the electronic credentialing system. One is to allow carriers to request an account for themselves online. The other option is whenever MCS creates a new IRP / IFTA account; the system will automatically create a CVISN account and generate the CVISN account and password letter.

**Operational Scenario:** To be developed further and provided in quarterly reports to FMCSA as stakeholder feedback is considered in more detail. Current ideas for enhancements include capability for third party providers to upload electronic data for multiple clients directly to DHSMV electronic credentialing system, and updating the method for creating a new user account.

Lead (host) Agency: DHSMV

**Participating Agencies:** 

• FDOT OMCC

#### Key Functions to be Provided by Project/System:

- 1. Carrier Service Accounts.
- 2. Multiple record upload to electronic credentialing system for IFTA Tax Returns.
- 3. Online printing of CABCARDS.
- 4. Online CVISN Program Registration.

#### Table 2-6 Automated Permit Application Submission System (APASS) Enhancement

**<u>PROJECT NAME</u>**: Automated Permit Application Submission System (APASS) Enhancements

**Project Objectives:** Provide additional and enhanced capabilities to the Electronic Permitting System, based on system user input.

#### **Project Benefits:**

Benefits to the State:

- Enhanced customer service.
- Increased good will with motor carrier industry

Benefits to the Motor Carrier Industry:

- Enhanced automated tools for applying for and obtaining overweight and over dimensional permits.
- Enhanced and new automated tools for routing and utilizing routing data.
- Notification of additional state operating credentials requirements at time of permit application.

#### **Project Description:**

This project enhances Florida's Electronic Permitting System known as APASS. These enhancements will be implemented in phases. Phase one involves rewriting APASS to FDOT standards, creating a new database structure, and integrating the data with the Oversized over weight Vehicle Permitting (OVP) system. Phase one will provide a new foundation for all other phases to be incorporated into. Phase one will be completed with FDOT Permits funding and is not part of the Expanded CVISN Project. Phase two system upgrades are considered the Expanded CVISN Program project.

Phase two will create an interface for GIS based routing. This interface will be capable of accepting input from APASS and sending bridge and route information to the FDOT engineering tools for proper evaluation. This phase will also include some minor modifications to the engineering tools to accept the input and output from the new GIS module. The interface will allow the APASS software to route trucks, evaluate the route for the given vehicle, and re-route if necessary.

Phase three will consist of complete integration of the engineering tools with the new APASS system and the GIS module created as part of phase two. This will require the tools to be rewritten into APASS as modules. There will also be enhancements in functionality associated with this, allowing for less data entry and faster response times. Deployment of Phase three will depend upon funding available after completion of phases one and two.

**Operational Scenario:** Enhanced capabilities will be provided to users through the APASS system which is accessed via the internet. More specific details to be provided after system

requirements and capabilities have been determined.

Lead (host) Agency: Florida DOT Permits office

Participating Agencies: Florida Trucking Association; industry representation

Key Functions to be Provided by Project/System:

1. Provide information to carriers on Florida operating credentials requirements.

2. Allow carriers to use automated systems for verifying proposed routes for their particular vehicle weight and configuration.

3. Upload approved route and vehicle configuration to be included with permit application data.

4. Create a new module to provide a GIS based routing interface for APASS.

#### Table 2-7 Expanded Communications to Dept. of Agriculture Remote Locations

**PROJECT NAME:** Expansion of Internet Capability to Department of Agriculture Remote Locations

**Project Objectives:** This project will provide the necessary communications infrastructure to allow expansion of the DACS LPR System to six (6) additional interdiction station locations in rural areas.

#### **Project Benefits:**

Benefits to the State:

- DACS officers in remote locations are able to receive and send data regarding suspect vehicles/containers.
- Provides additional locations for Container Number data capture and processing.

Benefits to the Motor Carrier Industry:

• Additional "eyes on the street" to scan for stolen cargo or vehicles.

**Project Description:** This project will provide the necessary communications infrastructure to allow expansion of the DACS Container Number Capture to six (6) additional interdiction station locations in rural areas. Proposed locations are: Station No. 5, located on County Road 250 in Lafayette County; Station No. 11, located on U.S. 441 in Hamilton County; Station No. 12, located on State Road 2 in Baker County; Station 13, located on State Road 121 in Baker County; Station 15, located on U.S. Highway 17 in Nassau County; and Station 17, located on State Road 751 in Hamilton County.

In addition to providing the infrastructure to add Container Number Capture to these locations, this project also allows staff at these locations to receive timely updates of important information and assists with the task of updating the Department of Revenue (DOR) Bill of Lading (BOL) data. Providing BOL data to the DOR is a core CVISN capability and a component of the AgPass program.

#### **Operational Scenario:**

Officers at these locations will manually enter the container numbers, for containers passing through these stations, into the container number database. The data will also run against the DACS BOLO list, NCIC and FCIC to check for criminal activity. The officer will be notified of any hits. The data will also be stored in the container number database for the purposes of tracking container movements in Florida.

Lead (host) Agency: Florida Dept. of Agriculture and Consumer Services

Participating Agencies: FDOT OMCC, FDOT District personnel

#### Key Functions to be Provided by Project/System:

1. Internet connectivity to allow manual entry of Container Number Capture data.

2. Notification of any 'hit' to officer in the station.

#### Table 2-8 Automated Brake Thermal-Imaging System Deployment

#### **PROJECT NAME:** Automated Brake Thermal-Imaging System Deployment

#### **Project Objectives:**

Utilize the benefits provided by infrared brake testing technology to the maximum extent possible and eliminate the negative aspects of this technology. Provide enforcement officers with a relatively low cost, performance based method for screening commercial vehicles for brake problems.

#### **Project Benefits:**

Benefits to the State:

- Increased safety enforcement.
- Target personnel resources toward higher risk carriers.

Benefits to the Motor Carrier Industry:

• Level playing field. Carriers with unsafe brakes are more easily detected.

**Project Description:** The Automated Brake Thermal-Imaging System Deployment takes the capability of infrared brake testing and automates it. The project involves automating the process of visual inspection of each infrared image that is produced for a vehicle traveling through the weigh station. In the majority of cases the brake images will not indicate any anomalies and no further inspection is required. However, in those cases that an image does indicate an anomaly, only at that time would an officer be alerted to a potential problem. By having the system do the monitoring the officer is freed from staring at a screen for several hours a day. A series of algorithms will monitor the images and only alert an officer when it detects an image that indicates a potential safety problem with a vehicle's brakes. Officers could then pull the vehicle into the inspection area for further scrutiny.

#### **Operational Scenario:**

At equipped OMCC weigh stations, or other locations where commercial vehicles will be applying their brakes, the equipment will capture infrared images of the vehicles brakes (on both sides). Automated review will be performed on these images and if it is determined that the vehicle meets the threshold for potential brake problems, enforcement officers at the location will receive an audible alert. The officers then have the option of directing the vehicle in question to the inspection area for further investigation. This equipment will only be in operation during times when the weigh station is open and staffed with enforcement personnel.

Lead (host) Agency: Florida OMCC with consultant support

#### Participating Agencies:

Florida DOT

Florida Trucking Association

### Key Functions to be Provided by Project/System:

1. Performance based analysis of vehicles' brakes.

2. Automated review and screening with audible notification of potential problem vehicles.

#### Table 2-9 CVISN System Operations and Maintenance Expenses

**PROJECT NAME:** CVISN System Operations and Maintenance Expense

**Project Objectives:** Provide operations and maintenance funding of select CVISN systems during deployment of Florida's Expanded CVISN Program Plan.

#### **Project Benefits:**

Benefits to the State:

- Allows ample operational time frame for data collection and analysis of systems' ROI and benefits provided to the State.
- Assures participation of all CVISN agencies in project deployment and operations.
- Assures CVISN systems remain operational.

Benefits to the Motor Carrier Industry:

• Assures CVISN systems remain operational.

**Project Description:** During the deployment phase of Florida's Expanded CVISN Program, funding for operations and maintenance of some of these systems will be paid for out of CVISN Program Funds.

**Operational Scenario:** Florida CVISN funds will be used for operations and maintenance costs for the JaxPort ROCS location.

Lead (host) Agency: FDOT

#### **Participating Agencies:** DACS FDOT OMCC

#### Key Functions to be Provided by Project/System:

1. Operations and Maintenance of systems.

- 2. Telecommunications.
- 3. Data upload.

# 3. System Design

As was the case with the core CVISN program, Florida's Expanded CVISN program aligns with the National ITS and CVISN Architectures. Florida's CVISN currently interface with several national/international systems and networks. Figure 3-1 represents the current and planned systems and networks involved with Florida's Expanded CVISN deployment. Orange boxes designate new systems to be deployed.

System design for the Expanded CVISN projects will be developed in detail as each of the respective projects kick off. FDOT will use their standard system development process detailed in the graphic below. The SAFER Interface Control Document will be followed during development of new system interfaces.



With regard to the National and State CVISN architectures, definitions and diagrams are provided in the following sub-sections.

## 3.1 Architecture Overview

In planning for and implementing Florida's Core CVISN Program, Florida committed to conformance and compatibility with the National ITS and CVISN Architectures. This will continue to be the case for systems deployed during Core CVISN deployment as well as those that will be deployed as part of Florida's Expanded CVISN Program. All system interfaces (between State and National systems) developed during Core deployment were certified by FMCSA/Volpe as meeting architecture requirements. Additional systems to be developed will follow this same design, testing, and certification process.

The only new interface to be deployed during Expanded CVISN will be the interface between State LPR systems and the PRISM database/target file. All other interfaces were developed during core CVISN and certified by FMCSA. Florida plans to use the web services interface for the PRISM target file query.

For the new virtual weigh station deployment, Florida will incorporate the recommendations contained in the FMCSA documents "Expanded CVISN – Virtual Roadside Sites" document SSD-PL-05-0199 and "Commercial Vehicle Information Systems and Networks (CVISN) Virtual Weigh Station Guidance" to the maximum extent practicable under Florida Statutes.

#### Figure 3-1. Florida Expanded CVISN System Design Diagram Template

[This diagram should show the systems related to Florida's Core CVISN and Expanded CVISN programs.]



#### Figure 3-2. State Computers and Networks Diagram



#### Florida CVISN Network

#### Additional Florida CVISN Network Diagram Information

#### DHSMV

IRP/IFTA windows 2003 E-mail – Exchange Clearinghouse connect via DMS AAMVANET

#### FDOT / OMCC

E-mail – Exchange MyFloridaNet connects HQ, field/district offices, weigh stations. Metro Ethernet via MFN also connects other resources like DHSMV, FDLE and FHWA. Officers on the road connect via CDMA. Mix of Windows 2003 and 2008. Migrating to Win 2008 only. CJNET – Private Network, through MyFloridaNet, used by FDLE.

#### FDOT / Permits

Permits database - Windows NT/Oracle system.




# **3.2 Description of System Components**

# State Legacy Systems Information

All Florida agencies use My Florida Network (MFN) to access Internet and other non-state resources, e.g. AAMVANet. It consists of a Mesh Network Private Virtual Network. For the Department of Agriculture, if no MFN connection is available, they use commercial DSL and connect via a VPN.

# DHSMV Legacy Systems

- IRP & IFTA databases
- Titling System and Vehicle Registration
- Driver Licensing
- Electronic Credentialing System

# **DHSMV Legacy Systems**

Description of System Components

- 1) IRP & IFTA
  - a) Platform
    - i) Oracle; PL/SQL
    - ii) UNIFACE
      - (1) An Integrated Development Environment (IDE) for the Legacy Application for FL Motor Carrier Services that communicates with Oracle
  - b) State owned
  - c) Current Functions/Interfaces
    - i) Maintain snapshots for interstate operators by providing credential data for carriers and vehicles based in Florida to SAFER
    - ii) Connect to the IFTA and IRP Clearinghouse to support the IFTA and IRP base state agreement
- 2) Titles & Registrations
  - a) Platform
    - i) Oracle; PL/SQL
    - ii) UNIFACE

(1) An Integrated Development Environment (IDE) for the Legacy Application for FL Motor Carrier Services that communicates with Oracle

- b) State owned
- c) Current Functions/Interfaces
  - i) Connect to NMVTIS to validate Vehicle Title and Brand Information

# DHSMV System Upgrades

- 3) Carrier Services
  - a) Platform
    - i) Oracle; PL/SQL
    - ii) UNIFACE
      - An Integrated Development Environment (IDE) for the Legacy Application for FL Motor Carrier Services that communicates with Oracle
    - iii) Java/Rational Application Developer
      - (1) An IDE for the Web Application for the Carrier Services that communicates with Oracle
  - b) State owned
  - c) Current Functions/Interfaces
    - i) Interact with Carrier Service electronically via Web Browser and Web Application
    - ii) Interact with FL Motor Carrier Services via UNIFACE
    - iii) Maintain snapshots for interstate operators by providing credential data for carriers and vehicles based in Florida to SAFER
    - iv) Connect to the IFTA and IRP Clearinghouse to support the IFTA and IRP base state agreement
  - d) Functions/Interface Requirements
    - i) Enhance UNIFACE application for FL Motor Carrier Services
    - ii) Enhance Java application for Carrier Service
- 4) IFTA Tax Return Upload
  - a) Platform
    - i) Java
      - (1) An IDE for the Web Application for the Carrier Services that communicates with Oracle
    - ii) XML
  - b) State owned
  - c) Current Functions/Interfaces
    - i) Interact with Carrier Service electronically via Web Browser and Web Application
    - ii) Maintain snapshots for interstate operators by providing credential data for carriers and vehicles based in Florida to SAFER
    - iii) Connect to the IFTA Clearinghouse to support the IFTA base state agreement
  - d) Functions/Interface Requirements
    - i) Enhance Java application for Carrier Service
- 5) Online Printing of Cab Cards
  - a) Platform
    - i) Java

- (1) An IDE for the Web Application for the Carrier Services that communicates with Oracle
- ii) XML
- iii) Oracle; PL/SQL
- b) State owned
- c) Current Functions/Interfaces
  - i) Interact with Carrier Service electronically via Web Browser and Web Application
  - ii) Maintain snapshots for interstate operators by providing credential data for carriers and vehicles based in Florida to SAFER
  - iii) Connect to the IRP Clearinghouse to support the IRP base state agreement
- d) Functions/Interface Requirements
  - i) Enhance Java application for Carrier Service
- 6) Carrier CVISN Account Request
  - a) Platform
    - i) Oracle; PL/SQL
    - ii) UNIFACE
      - (1) An IDE for the Legacy Application for FL Motor Carrier Services that communicates with Oracle
    - iii) Java/Rational Application Developer
      - (1) An IDE for the Web Application for the Carrier Services that communicates with Oracle
  - b) State owned
  - c) Current Functions/Interfaces
    - i) Interact with Carrier Service electronically via Web Browser and Web Application
    - ii) Interact with FL Motor Carrier Services via UNIFACE
    - iii) Maintain snapshots for interstate operators by providing credential data for carriers and vehicles based in Florida to SAFER
    - iv) Connect to the IFTA and IRP Clearinghouse to support the IFTA and IRP base state agreement
  - d) Functions/Interface Requirements
    - i) Enhance UNIFACE application for FL Motor Carrier Services
    - ii) Enhance Java application for Carrier Service

# FDOT Permits Office Legacy Systems

- APASS (receive & store electronic application data)
- ASABE (Automated System for Approximate Bridge Evaluation- analyzes truck and bridge information for permitting decisions) / Segments Maps (identifies bridges en route)
- OS/OW database
- PONTIS (bridge characteristics inventory database)

- OVP (input application data by permits office, store accounting and permit data, generate permit)
- GIS Maps (displays weight restrictions for structures)
- RCI (Roadway Characteristics Inventory roadway characteristics inventory database)

The APASS application is a web-based system which currently does not interface with any other system used by the Permit Office; however, this application does provide a link to Bank of America for payment by credit card. The APASS system is owned and supported by the Department of Transportation. APASS is currently written as an Active Server Page (ASP). It interfaces with a small Microsoft Access database, and transfers data to FDOT with an ADOBE acrobat form data file (.FDF). The system is currently hosted by a contractor on an external web server. Currently APASS is undergoing some enhancements that will update its structure to allow for the enhancements under this project. APASS will be written in a newer web based language (ASP.NET, or JAVA) with the database being ORACLE. ADOBE will still be used to preserve the integrity of the forms but the permits office will upgrade the technology to the eXtensible Markup Language (XML) based forms with an .XDP extension.

The addition of the GIS based routing tools, additional system enhancements will expand the Permits Office's current capabilities by allowing an automatic retrieval of bridge data from the Roadway Characteristics Inventory (RCI) database and from the PONTIS database. Currently the creation of a route segment is a manual process which can lead to discrepancies. By automating this process, these discrepancies can be virtually eliminated, and the processing time for the individual permit reduced. A software vendor for the routing module has not been selected; however the FDOT's standard GIS vendor is ESRI. The technology that will be used to develop this module has not been selected either, largely due to the uncertainty in the routing logic that will be used, however neither will impact development because of the many options that are available to interface with the GIS package. Minor changes will also be done to the engineering tools to allow for data transfer between the routing and the engineering tools, as well as some data transfer to APASS.

The modifications to APASS will allow the permits office to integrate the many tools which have been developed for the issuance of permits. The largest effort will involve the integration of ASABE into the new APASS. ASABE is currently written in Visual Basic 6.0 (VB6) with a Microsoft Access database. ASABE also interfaces with PONTIS (Florida's bridge inventory database), allowing for current information to be used for the analysis. Other integrations will involve smaller programs that were written in Visual Basic .NET (VB.NET), some with Microsoft Access databases. The new programs will share a common language, and also a common ORACLE database.

#### FDOT OMCC Legacy Systems

- SmartCop
- OMCC Citation database
- OMCC LPR System
- PrePass
- CVIEW Equivalent

Agency	Legacy system	Platform	Ownership state or vendor	Current functions/ interfaces	Functions/interface requirements under the CVISN design
OMCC	SmartCop	SQL∕ Delphi	State	Primary law enforcement application. OMCC CAD Program / MC Citations	Current functions/interfaces will continue. Will add interface with PRISM target file.
OMCC	Citation database	SQL+.net	State	Primary civil citation & tracking database. / SmartCop	Current functions/interfaces will continue.
OMCC	OMCC LPR System	.net	State	Runs plate # against citations hotlist.	Current functions/interfaces will continue. Will add interface with PRISM target file.
OMCC	PrePass	Proprietary System – Provided by HELP Inc.	Vendor	Pre-clearance of transpondered vehicles.	Same as current.
OMCC	CVIEW Equivalent	SmartCop SQL/ Delphi	State	Interface with SAFER database to download credentials data via web services transaction sets.	Current functions/interfaces will continue. Additional TBD.

# DACS Legacy Systems

- DACS BOLO database
- DACS LPR / Container Number System
- AgPass

Agency	Legacy system	Platform	Ownership state or vendor	Current functions/ interfaces	Functions/interface requirements under the CVISN design
DACS	DACS BOLO database	Oracle	State	Query of agency database from DACS LPR/Container # system	Same as current.
DACS	DACS LPR System & container number database	Site Station Processor – Linux/ Apache/ MySQL/ PHP. Windows 2003 Server. Oracle Host database.	State	Queries DACS BOLO database, FCIC & NCIC criminal databases.	Same as current. Future functions will send data to OMCC for query of PRISM Target file and EFTMS. Will send captured data to master state-wide container number database.

Agency	Legacy system	Platform	Ownership state or vendor	Current functions/ interfaces	Functions/interface requirements under the CVISN design
DACS	AgPass	Proprietary System – Provided by HELP Inc.	Vendor	Pre-clearance of transpondered vehicles.	Same as current.

#### New Expanded CVISN Systems

#### **Port-of-Entry Feasibility Study and Best Practices**

If this project determines that temporary operational permits should be issued at select OMCC weigh stations and over the internet, this will be a standalone system. The platform, system ownership, host network, functions/interfaces, and functions/interface requirements will be determined as part of this project and will be provided in future quarterly reports to FMCSA.

#### **Container Number Database**

The platform, network environment, and interface requirements for the Container Number Database will be determined closer to project deployment and will be provided in future quarterly reports to FMCSA. It will be a State owned system.

#### Virtual Weigh Station(s)

The platform, network environment, and interface requirements for the Virtual Weigh Station(s) will be determined closer to project deployment and will be provided in future quarterly reports to FMCSA. It will be a State owned system.

#### Automated Brake Thermal-Imaging System Deployment

The platform, network environment, and interface requirements for the Enhanced Infrared Brake Testing System will be determined closer to project deployment and will be provided in future quarterly reports to FMCSA. It will be a State owned system.

# **3.3** Project Design Elements

#### LPR System/PRISM Project

#### Table 3-1 System Change Summary – LPR System/PRISM Project

System	Description of Modifications Required	No Change	Change (S,M,L)	Buy	Build
LPR	Develop query to PRISM database (FMCSA/Volpe		М		Х
	specs) to Query the PRISM target file.				

#### **Container Number Database**

Figure 2 below illustrates the current structure of the Container Number Reader System as the Department of Agriculture. Figure 3 demonstrates the initial high level overview of the proposed system to be deployed as part of Expanded CVISN.



#### **DataFlow Sequence**

- 1) Vehicle front plate, driver, and container images captured and OCR'ed by TDS Station Processor
- 2) BOLO Table is queried at AgLaw Host Database3) If a BOLO match is found, processing continues at step 8
- 4) Vehicle front license plate, container #, time, and location is inserted into AgLaw Host Database
- AgLaw Comm Processor queries AgLaw Host Database for transactions requiring NCIC lookup
- 6) AgLaw Comm Processor submits query through FDLE interface to NCIC
- 7) If a match is returned. AgLaw Comm Processor forwards the NCIC data to originating TDS Station Processor.
- 8) TDS Station Processor displays data for officer verification
- 9) If the officer verifies as a valid hit, the TDS Station Processor sends an email notification
- 10) TDS Station Processor sends vehicle images and data to the AgLaw Host Database for all valid hits.

#### Figure 3 - Current DACS Container Number System Dataflow Diagram



Figure 4 - Container Number Database – High Level Overview

Table 3-2 System	Change Summary -	- Container N	umber Database
I dole o 🖉 Ogstein	Change Summary	Container 10	

System	Description of Modifications Required	No Change	Change (S,M,L)	Buy	Build
Container Number Database	Create database for storage and query of container numbers collected throughout the Florida System.		L		Х

System	Description of Modifications Required	No Change	Change (S,M,L)	Buy	Build
Container Movements Graphical Display	Develop system and GUI that presents container movement data graphically to the user.		L		Х
System Hardware	Installation of container reader equipment at 6 additional locations.		L	Х	
System Software	Develop system software to meet system requirement for Container Number Database project.		L	Х	

# Virtual Weigh Station(s)

The virtual weigh station will consist of technologies that will be deployed and functional on the mainline. The elements of the VWS will be the technology components (for data collection), a database for data storage, system software and GUI (processes data to determine potential violators and presents data in usable format to officers), and the communications platform (for data transmission to officers of violations). Communications to/from the station will be on a wireless platform, unless fiber is already available at the location (to be determined with final site selection).

The License Plate Reader technology component is the only sub-system that will interface with State and National systems. License plate reads will be run against a variety of databases to check for criminal activity. Current plans are to run the plate number against FCIC, NCIC, Florida OMCC Hotlist (outstanding citations) database, and the PRISM target file.

The interface control document will be developed as part of the system software design.

Table 3-3 System	Change Summary	- Virtual Weigh Station(s)
Table 3-3 System	Change Summary	• VII tuai VVergii Station(s)

System	Description of Modifications Required	No Change	Change (S,M,L)	Buy	Build
Technology Components (WIM, 3-D imaging, LPR readers & CCTV, automated IR brake testers)	Installation of Equipment at VWS location		L	Х	

#### System **Description of** No Change Buy Build **Modifications Required** Change (**S,M,L**) System Software and Creation of software to L Х GUI development run the VWS and GUI to present data in usable format Develop new or enhance L Х Database existing database for storage and retrieval of data collected at VWS S Х Communications Develop or enhance platform existing communications with officers to deliver vehicle information collected at VWS

# Florida Expanded CVISN Program Plan / Top-Level Design

# **Electronic Credentialing System Enhancements**

Table 2 4 Sustan Change Summary	Electronic Credenticling System Enhoncoments
Table 5-4 System Change Summary	– Electronic Credentialing System Enhancements

System	Description of Modifications Required	No Change	Change (S,M,L)	Buy	Build
Electronic Credentialing	Modify CVISN application to allow Carrier Services to manage IRP & IFTA Accounts		L		Х
IRP	Modify IRP system to maintain Carrier Service / IRP Account Relationship		L		Х
Electronic Credentialing	Modify CVISN application to allow Carriers to upload Tax Return Data		L		Х
Electronic Credentialing	Modify CVISN application to allow Carriers to print CABCARDS electronically		М		Х

System	Description of Modifications Required	No Change	Change (S,M,L)	Buy	Build
IRP/IFTA/ Electronic Credentialing	Modify IRP system to automatically create CVISN account for all new IRP & IFTA accounts		М		Х

### Automated Permit Application Submission System (APASS) Enhancement

There will be no additional interaction with other CVISN systems in this project. The APASS system is a standalone system. Future enhancements will be made to allow FDOT Motor Carrier Compliance real-time access to the information in the permits database; however with the GIS project no system interaction is expected.

# Table 3-5 System Change Summary - Automated Permit Application Submission System (APASS) Enhancement

System	Description of Modifications Required	No Change	Change (S,M,L)	Buy	Build
APASS	Addition of GIS routing Module		М	Х	
ASABE	Modify for the GIS routing		S	Х	
Other Engineering tools	Modify for the GIS tools		S		Х

#### **Expanded Communications to Dept. of Agriculture remote locations**

 Table 3-6 System Change Summary – Expanded Communications to Dept. of Agriculture remote locations

System	Description of Modifications Required	No Change	Change (S,M,L)	Buy	Build
Purchase air cards (and antennas, if needed)	Connect to existing computers at stations.		S	Х	
Design portal for container # entry	Contract with TDS to develop GUI for manual entry of container data into database.		S	Х	

# Automated Brake Thermal-Imaging System Deployment

Table 3-7 System Change Summary – Automated Brake Thermal-Imaging System	
Deployment	

System	Description of Modifications Required	No Change	Change (S,M,L)	Buy	Build
System Hardware	Installation of infrared brake testing equipment.		L	Х	
System Software	Development of system software to automate review of CV brake images and meet system requirements.		L	Х	

# 3.4 System Testing

### Expanded CVISN Projects to be managed by OMCC:

- LPR System/PRISM Project
- Container Number Database
- Virtual Weigh Station(s)
- Automated Brake Thermal-Imaging System Deployment

For those projects to be managed by OMCC (listed above); they will utilize their approved system testing procedures. Regardless of the complexity of the project, all new development and maintenance to production systems undergoes testing. The size and complexity of the project will drive the amount and level of testing. A new development project may require Unit, System and User testing prior to production, as would be the case in creating the Container Number Database. However, only Systems and User Testing might be necessary for the introduction of a new report. As part of the system design and development, each project listed above will have a documented testing plan. This information will be provided to FMCSA in future quarterly reports.

Most new development projects in OMCC have the following steps:

- Unit testing
- System testing
- Integration testing
- User acceptance testing
- Performance testing

#### **Electronic Credentialing System Enhancements**

Information Systems Administration (ISA) developer will perform unit testing and system integration testing prior to submission to the business partners for acceptance testing. Once initial acceptance has begun internally, ISA will expand acceptance testing to included members from the Carrier Service Industry.

#### Automated Permit Application Submission System (APASS) Enhancement

Each enhancement will undergo rigorous testing to ensure that the capabilities and outputs exceed the original deployments. This will involve running Permit applications through both the new and old systems to identify any discrepancies. If errors are found, the engineers must determine the cause of the issue and work with the programmers to correct the defect. The testing will then restart to ensure that the correction did not cause other issues. This process will be done for each product that is integrated. The formal testing process will be developed before testing begins. Results of the testing will be documented. Since no other systems are affected by the integrations, there should be no testing of interactions with other systems.

#### **Expanded Communications to Dept. of Agriculture remote locations**

Testing new applications in this type of environment is difficult due to interoperability required between three state agencies. Current application vendor for DACS LPR has a test server on their site which will interface with the DACS test environment. Additional development and testing will be determined and provided in future quarterly reports. Current DACS policy requires that ITLC process be followed which includes:

- 1. Project Proposal to outline entire project, business analysis, cost and funding, staffing needs, network environment and requirements.
- 2. Project Charter to include approvals at Bureau, Division, and Department levels
- 3. Process checklist to include line item responsibilities for staff and vendors, as well as deliverables timetable
- 4. System Security Plan
- 5. Functional Requirements
- 6. Application Deployment plan for test environment
- 7. Application Deployment plan for production

More detailed testing information would be available as the Project Manager defines all expectations and deliverables of the finalized project.

# 4. Procurement Strategy/Products

The Florida Department of Transportation adheres to the rules set forth by the Florida Department of Management Services (DMS) regarding staff augmentation. Florida DMS established a statewide contract for these services and a process to acquire these services. A high level overview of the process is listed below. Details are located at <u>http://dms.myflorida.com/business\_operations/state\_purchasing/vendor\_information/state\_contra</u> <u>cts\_agreements\_and\_price\_lists/state\_term\_contracts/information\_and\_technology\_it\_consulting</u>

\_services/contract\_summary

- State Contract Number: 973-561-010-1
- Effective Date: 09/15/2009
- Expiration Date: 08/31/2012

The State Contract provides a broad range of IT Services in two ways:

- To provide Staff Augmentation services (Project Area 4, no RFQ required) through the issuance of Time and Materials Task Orders (purchase orders)
- To provide a streamlined, flexible RFQ process to procure more complex IT Services (up to \$10 million in scope) that are project oriented in nature, and can be quoted by vendors by offering a fixed price for the entire project solution. In this second approach, the Agency will provide a statement of work and solicit the minimum number of quotations required from vendors awarded in the appropriate Project Area (1, 2, and 3) in order to select the vendor providing the Best Value to meet the Agency's needs.

After determining which of these two approaches is most appropriate, the Buyer will use the Contract in the following steps:

- IDENTIFY STAFFING NEEDS or PROJECT REQUIREMENTS: Develop a detailed Statement of Work with clear definition of Deliverables and Benchmarks.
- PREPARE THE RFQ: An Agency may use its own RFQ format or borrow another agency's RFQ format
- SELECTION OF VENDORS for RFQ: State Contract Price Sheets are available to review and select awarded vendors by Project Area.
- ISSUE THE RFQ: The Agency will solicit quotations and select the quotation that provides the Best Value to the State.

Generally, the work for the CVISN projects will be under Project Area 4.

Agencies will use "Project Area 4" when staff augmentation services from awardees that possess the technical skills are needed by the client organization on a contingent assignment basis. The requirements for a staff augmentation purchase order include the requisite educational qualifications and experience of the individual. An RFQ process is not required for staff augmentation procurement as all contracted rates and qualified positions will be published on the Contract resulting from this solicitation.

#### **Expanded** Communications to Dept. of Agriculture remote locations

DACS will follow established State of Florida DMS procurement guidelines for purchase of air cards and monthly wireless connection fees.

#### **Electronic Credentialing System Enhancements**

DHSMV will submit a RFQ for staff augmentation for the following:

JAVA Developer Business Analyst Project Manager

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Table 4-1 Products/Procure	ement
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Project	Description of Procurement	Procurement Item	Category	Contracting Approach/ Method of Award	Procurement Leader	Earliest Date Procurement Anticipated
Port-of-Entry Feasibility Study and Best Practices	Research current status and provide recommendations for POE and temporary permits issuance.	Consultant Services	Feasibility Study	TBD: In-house, sole source, or RFP	CVISN Program Manager	Feb 2010
LPR System/PRISM Project	Develop automated system to collect and run CV license plate numbers against various criminal databases and notify officers	Consultant Services Consultant Services	Software Development	In-house development. Task work order under current vendor agreement or sole-	OMCC DACS	Mar 2010
Container Number	of potential violations. Develop system to collect, store, and	Consultant Services	Software Development & Equipment Installation	source. RFP	OMCC	Sept 2010
Database	analyze data related to container movements in Florida.	Consultant Services	Project Management	RFP		

Project	Description of Procurement	Procurement Item	Category	Contracting Approach/ Method of Award	Procurement Leader	Earliest Date Procurement Anticipated
Virtual Weigh Station(s)	Hardware & software to support automated analysis and reporting of regulatory compliance, vehicle safety, and potential illegal activity of vehicles passing through VWS.	Consultant Services Consultant Services	System Software Development & Equipment Installation Project Management	RFP from State approved contractor list. RFP - open	OMCC	TBD
Electronic Credentialing System Enhancements	Develop additional system capabilities. Modifications to Legacy IRP System.	RFQ	Software Development JAVA Developer Business Analyst Project Manager	Provided by DHSMV IT staff augmented with consultant support.	DHSMV	Oct 2010
(APASS) online permitting enhancements	Develop GIS module.	Consultant Services	Software Development	RFP	Permits Office	Jan 2010

Project	Description of Procurement	Procurement Item	Category	Contracting Approach/ Method of Award	Procurement Leader	Earliest Date Procurement Anticipated
Expanded Communications to DACS remote locations	Hardware to support telecommunications with remote stations.		System Software Development & Equipment Installation	Will be purchased under current state wireless contract.	DACS	Jan 2010
	input of container numbers	Consultant Services	System upgrade	Use current vendor for system upgrade.		
	Monthly telecom fee	Operations & Maintenance	O&M			
Automated Brake Thermal- Imaging System Deployment		upport Services Equipment Installation RFP		RFP – open	OMCC	Jan 2011
	for vehicles passing through site.		Project Management	RFP – open		
Expanded CVISN Systems O&M	N/A	Monthly telecom fees	O&M	N/A – invoice sent to CVISN Program Manager for payment	FDOT	Ongoing

# 5. Program Schedule

The schedule below provides the estimated project durations and start/end dates for each of the Expanded CVISN Projects. It is intended to provide relative time frames and the sequence of project deployment. Detailed project schedules with component builds, requisite milestones, dependencies, deliverables, etc. will be developed during the initial phase of project requirements and statement of work development. This information will be provided to FMCSA in future quarterly reports.

Project	Start	Completion	Project
·	Date	Date	Duration
Expanded Communications to Dept. of	1/2010	6/2010	Installation: 6
Agriculture remote locations			months.
			O&M: 5 years.
Automated Permit Application Submission	1/2010	12/2010	12 months
System (APASS) Enhancement (GIS routing			
System)			
Port-of-Entry Feasibility Study and Best Practice	2/2010	9/2010	8 months
LPR System/PRISM Project	3/2010	2/2011	12 months
Virtual Weigh Station(s)	5/2010	5/2012	24 months
Container Number Database	6/2010	11/2011	18 months
Electronic Credentialing System Enhancements			
Online CABCARD Printing	10/2010	9/2011	24 months
Online CVISN Account Request	10/2010	9/2011	
Carrier Services	1/2011	9/2012	
IFTA Tax Return Upload	1/2011	9/2012	
Enhanced Infrared Brake Testing Pilot	1/2011	12/2011	12 months
<b>CVISN Systems Operations and Maintenance</b>	Ongoing	3/2015	5 years

Project	1q	tr 2(	010	2q	tr 2	010	30	qtr 2	010	40	tr 2	010	10	ıtr 2	2011	2	qtr	201	1	3qt	r 20	11	4qt	tr 20	)11	1q	tr 2	012	20	ıtr 2	2012	3	qtr 2	2012	2	4qt	r 20	)12
Months	J	F	м	А	м	J	J	Α	S	0	Ν	D	J	F	Μ	A	A N	Λ.	J	l	Α	S	0	Z	D	J	F	м	А	N	IJ	J	Α	S		0	Ν	D
DACS Telecom																																						
Apass																																						
Enhancements																																						
POE Study																																						
LPR/PRISM																																						
vws																																						
Container																																						
Number																																						
E-cred System																																						
Enhancements																																						
IR Brake Testing																																						
CVISN O&M																																						

# Proposed Schedule for Florida Expanded CVISN Program Deployment

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# 6. Program Budget

The table below provides an estimate of the total Expanded CVISN implementation budget. Matching funds for the entire FY07 CVISN Grant amount will be matched by the state expenditures on weight inspectors' salaries and benefits (as previously approved by Quon Kwan). The balance will come from designated state funds (cash). Staff resources for Expanded CVISN will be provided in the same manner as they were during core CVISN deployment. The governance structure and project management established under core CVISN will continue. In the past nine years, as CVISN team members from each agency have retired or been reassigned, the respective agency has taken measures to assure that a new team members is up to speed and ready to assume CVISN responsibilities. The expectation is that this will continue for Expanded CVISN as well.

Project Title	Estimated Total Project Cost (all years)	FY 07 Grant Funds
Florida Expanded CVISN	\$ 200,000	\$100,000
Program Plan & Top Level		
Design Development		
Expanded CVISN Projects		
Virtual Weigh Station(s)	\$4,000,000	\$2,000,000
Port-of-Entry Feasibility Study &	\$100,000	\$50,000
Best Practices Report		
Automated Brake Thermal-	\$100,000	\$50,000
Imaging System Deployment		
Container Number Database	\$1,000,000	\$500,000
Deployment		
Electronic Credentialing System	\$200,000	\$100,000
Enhancements		
Dept of Agriculture LPR System	\$48,000	\$24,000
Expansion (add to 6 additional		
locations)		
LPR System Enhancements	\$274,452	\$137,226
runs LP# against PRISM DB &		
notify OMCC of 'hits'		
Phase I – OMCC		
Phase II – DACS	<b>*</b> ***	<b>* 1 = 0 0 0</b>
Automated Permitting System	\$300,000	\$150,000
Enhancements	<b>*</b> ( <b>07 00</b>	
Expanded CVISN Operation and	\$107,000	25,000
Maintenance Activities	<b>A</b> A AAA ( <b>T</b> A	
Total	\$6,329,452	\$3,136,226

# 7. Design/Deployment Issues

The most pressing deployment issues for Expanded CVISN are staff resources and operations and maintenance of CVISN systems. The State is facing severe budget issues so staffing continues to be an issue, plus all departments are seeing budget cuts. All departments are being asked to do more with less.

The staffing issue is most poignant for OMCC. They bear the responsibility for the majority of Florida's Expanded CVISN project deployments. Officers have a large area of responsibility and have expressed concern for their ability to perform their duties plus manage complex projects, requiring specific technical expertise, with large budgets to manage. In order to belay these concerns the CVISN team has agreed that the project budget for these projects will contain funding to provide project management support to OMCC on their projects. This solution was agreeable to OMCC and they have already begun making plans for procurement of the project vendor, and also for the consultant project management support as well.

The other issue, operations and maintenance costs, still remains a valid concern to the CVISN team. A portion of the CVISN program budget has been allocated to operations and maintenance costs during the period of performance of the current CVISN grant. Once these funds are exhausted, there is no guarantee that some CVISN systems (those deployed under Expanded CVISN) will have staffing and funding to support ongoing operations and maintenance. The team has discussed this and the hope is that the economy will be better in five years; or the systems will have proved themselves, with substantial ROIs, to be highly valuable enforcement tools worthy of continuing operations and maintenance funding. Additionally, the CVISN team is looking for additional funding opportunities for future CVISN costs.

# 8. Appendices