The Maryland Commercial Vehicle Information Systems and Networks (CVISN) Prototype Project Plan

Making Intelligent Use of ITS/CVO

DRAFT - **May 15, 1996**

Note: This is a working document. It has NOT been approved by the Maryland Inter-Agency Coordinating Group. Until it has been reviewed and approved, this document should only be used for information purposes and not for decision making.

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Executive Summary

This document constitutes the project plan for the **Maryland Commercial Vehicle Information Systems and Networks Prototype,** a project undertaken by the State of Maryland in partnership with the Federal Highway Administration, the Commonwealth of Virginia, and numerous other organizations involved in the Commercial Vehicle Operations aspects of Intelligent Transportation Systems.

This document pulls together in one place the project objectives, activities, and roles and responsibilities agreed to by the various project partners. This document will evolve as the project proceeds. At the conclusion of this project, this document will serve as a model for how to plan for subsequent deployment activities related to Intelligent Transportation Systems/Commercial Vehicle Operations (ITS/CVO).

Appendix A contains a glossary of terms and acronyms used throughout this document

Appendix B contains a copy of the letters and agreements between project partners pertinent to this project.

Project Objectives

The **Maryland Commercial Vehicle Information Systems and Networks Prototype,** is a project undertaken by the State of Maryland in partnership with the Federal Highway Administration, the Commonwealth of Virginia, and numerous other organizations involved in the Commercial Vehicle Operations aspects of Intelligent Transportation Systems.

The letters and agreements included in Appendix B define the scope for the CVISN Prototype as including:

- distribution of safety information to computers at the roadside

- electronic collection of inspection data from the roadside

- electronic application for credentials by carriers

- interfacmg of State systems to the International Registration Plan (IRP) Clearmghouse

- interfacing of State systems to the International Fuel Tax Agreement (IFTA) Clearinghouse

- performing electronic clearance

The primary objective of the project is to test the technical feasibility of providing the above services through an integrated collection of commercial vehicle information systems and networks. The partners in this project have set an ambitious schedule - to showcase two or more of these services in September 1996. Subsequent showcase in 1997 will provide the opportunity to demonstrate and test other services.

In addition to the showcase demonstrations, the lessons learned throughout this project will influence future related efforts. This project will also provide valuable feedback on the CVISN Architecture developed by The Johns Hopkins University Applied Physics Laboratory under contract to the FHWA. Finally, this project will serve as a model for the implementation of CVISN initiatives in several other States.

The CVISN Prototype encompasses the ITS/CVO activities within the State of Maryland related to information systems and networks, but does not include other activities such as brake testing. Prototype activities will be coordinated as appropriate with the Virginia CVISN Prototype activities, and related efforts by the 1-95 Corridor Coalition and the Eastern States CVO Coalition.

Project Activities

The following sections provide information on the objective and approach for each project activity. The teams involved in carrying out the activities will develop separate informal plans providing the details necessary to meet the objectives of the activity. Each section includes the key personnel involved in the activity and the capabilities targeted to be available for each of the three showcases.

1. SHOWCASES

The CVISN Prototype includes three showcases to demonstrate to key decision makers the Improved processes and technology under development. Showcases will provide an opportunity for the public and private partners directly involved in the prototype to report on the benefits they have realized, the costs incurred, and their plans for future activities. Showcases will include live demonstrations when appropriate. Showcases will include adequate time to gather immediate feedback from all attendees and encourage continued feedback as the project progresses.

1.1 Showcase #l

Showcase #l, scheduled for September 1996, will include the following elements described in subsequent sections:

- Commercial Vehicle Information Exchange

- Electronic Collection of Inspection Data - Maryland State Police

- Electronic Collection of Inspection Data - Maryland Transportation Authority Police

- Connection to SAFER Data Mailbox

- Safety and Fitness Electronic Records (SAFER) System

- Maryland Motor Carriers' Home Page

- Carrier Automated Transactions

- Electronic Data Interchange (EDI) Standards

- Credentialing Interface

- Electronic submittal of applications for following credentials (actual credentials to be mailed or faxed to applicant):

    - IRP registration (original, renewal, and supplements)

    - Oversize/Overweight permits

- IRP Clearinghouse

- Roving Verification Van

1.2 Showcase #2

Showcase #2, scheduled for March 1997, will include the following additional activities or additional elements in previously demonstrated activities as described in subsequent sections:

- Commercial Vehicle Information Exchange

- Electronic Collection of Inspection Data - Maryland State Police

- Electronic Collection of Inspection Data - Maryland Transportation Authority Police

- Connection to SAFER Data Mailbox

- Safety and Fitness Electronic Records (SAFER) System

- Maryland Motor Carriers' Home Page

- Carrier Automated Transactions

- Electronic Data Interchange (EDI) Standards

- Credentialing Interface

- Electronic submittal and processing of applications for following credentials (actual credentials to be mailed or faxed to applicant):

  - IRP registration (original, renewal, and supplements)

  - IFTA registration (original, renewal, and supplements)

  - Oversize/Overweight permits

  - IFTA Tax Filings

- IRP Clearinghouse

- Roving Verification Van

1.3 Showcase #3

Showcase #3, scheduled for July 1997, will include the following additional elements described in subsequent sections:

- Commercial Vehicle Information Exchange

- Electronic Collection of Inspection Data - Maryland State Police

- Electronic Collection of Inspection Data - Maryland Transportation Authority Police

- Connection to SAFER Data Mailbox

- Safety and Fitness Electronic Records (SAFER) System

- Maryland Motor Carriers' Home Page

- Carrier Automated Transactions

- Electronic Data Interchange (EDI) Standards

- Credentialing Interface

- Electronic submittal and processing of applications for following credentials with actual credentials provided electronically to applicant after electronic funds transfer:

  - IRP registration (original, renewal, and supplements)

  - IFTA registration (original, renewal, and supplements)

  - Intra-State registration

  - Oversize/Overweight permits

  - IFTA Tax Filings

- IRP Clearinghouse

- IFTA Clearinghouse

- Roving Verification Van

- Fixed Site

- Roving Crew

- Toll Facility

2. SAFETY INFORMATION

2.1 Commercial Vehicle Information Exchange

Objective

Provide a means for information about carriers, vehicles, and drivers operating in Maryland to get from the various authoritative sources within and outside the state to where it is needed within and outside the state.

Key Personnel

Brenda Clyde, APL

Target Capabilities for Showcases

Showcase 1: Store carrier, vehicle, and driver snapshots. Receive and assemble snapshot information from State systems and Interim SAFER. Provide updated snapshots to the Roving Verification Van (Section 5.1, page 26), Electronic Collection of Inspection Data - Maryland State Police (Section 2.2, page 1l), and Electronic Collection of Inspection Data - Maryland Transportation Authority Police (Section 2.3, page 12). Provide snapshot information to Interim SAFER.

Showcase 2: Receive and assemble snapshot information from modified State systems and SAFER.

Showcase 3: Provide updated snapshots to Fixed Site (Section 5.2, page 27) and Toll Facility (Section 5.4, page 29).

Description

Carriers operating on Maryland's highways fall into one of three categories: (a) carriers based in Maryland who never travel outside Maryland; (b) carriers based in Maryland who travel to other States; and, (c) carriers based in other States. The same statement can be made for vehicles and drivers. Information about these carriers, vehicles, and drivers resides in a number of authoritative source systems, some within the State and others outside the State. This information needs to get from these various sources to where it is needed within the State.

This activity entails developing a system to facilitate the exchange of safety information, including, but not limited to

- assembling information from various authoritative sources within and outside Maryland for forwarding to Maryland inspection sites to support the use of pen-based inspection systems

- assembling information from various authoritative sources within Maryland for forwarding to SAFER for subsequent delivery to other States

- assembling information from various authoritative sources within Maryland in response to requests from authorized non-government requesters (e.g., carriers and insurance agencies)

This approach relieves the State of establishing separate connections from each and every requester to each and every authoritative source. For example, if there are 30 inspection sites and 5 sources of carrier, vehicle or driver safety information, without this system there would be 150 connection paths. With this system there are 35. This approach also provides a buffer between external requesters and the authoritative sources, thereby adding a measure of additional security and reducing the extent of the changes needed to the authoritative source systems.

2.2 Electronic Collection of Inspection Data - Maryland State Police

Objective

Provide pen-based computers using the ASPEN and ISS software to Maryland State Police (MSP) personnel to allow on-line retrieval of safety status information and entry of inspection data. Forward inspections to SAFETYNET through SAFER Data Mailbox and MSP Avalanche.

Key Personnel

Capt. Chuck Shue, Maryland State Police; Brenda Clyde, APL

Target Capabilities for Showcases

Showcase 1: Thirteen Pen-based Inspection Systems linked to Interim SAFER using land-based phone lines.

Showcase 2: Additional Pen-based Inspection Systems linked to the production SAFER system, some with the ability to support cellular phone lines. Additional sites to include a county site.

Showcase 3: Additional Pen-based Inspection Systems.

Description

The FHWA has developed pen-based computer software and communications to support the conduct of roadside driver/vehicle inspections. This system, called ASPEN, is improving the accuracy of inspection information and will vastly speed up the availability of inspection data electronically to users. Maryland is procuring 3 1 pen-based ASPEN systems, 13 for use by Maryland State Police and 18 for use by Maryland Transportation Authority Police.

The CVISN Prototype Project will use the new pen-based ASPEN systems. It will enhance them with an on-line link to the SAFER system, enabling on-line submission of inspection reports and on-line queries. In particular, this will support the ability to notify other enforcement officials in Maryland and Virginia about vehicles and drivers being placed out-of-service or being removed from an out-of-service condition.

2.3 Electronic Collection of Inspection Data - Maryland Transportation Authority Police

Provide pen-based computers using the ASPEN software to Maryland Transportation Authority Police (MdTAP) personnel to allow on-line retrieval of safety status information and entry of inspection data. Forward inspections to MSP Avalanche through SAFER Data Mailbox and MdTAP Avalanche.

Key Personnel

Lt. Mike Collins, Maryland Transportation Authority Police; Brenda Clyde, APL

Target Capabilities for Showcases

Showcase 1: Eighteen Pen-based Inspection Systems linked to Interim SAFER using land-based phone lines.

Showcase 2: Additional Pen-based Inspection Systems linked to the production SAFER system, some with the ability to support cellular phone lines.

Showcase 3: Additional Pen-based Inspection Systems.

Description

The FHWA has developed pen-based computer software and communications to support the conduct of roadside driver/vehicle inspections. This system, called ASPEN, is improving the accuracy of inspection information and will vastly speed up the availability of inspection data electronically to users. Maryland is procuring 31 pen-based ASPEN systems, 13 for use by Maryland State Police and 18 for use by Maryland Transportation Authority Police.

The CVISN Prototype Project will use the new pen-based ASPEN systems. It will enhance them with an on-line link to the SAFER system, enabling on-line submission of inspection reports and on-line queries. In particular, this will support the ability to notify other enforcement officials in Maryland and Virginia about vehicles and drivers being placed out-of-service or being removed from an out-of-service condition.

2.4 Connection to SAFER Data Mailbox

Objective

Provide a means for information about vehicle or driver inspections to get from the inspection site to other sites within and outside the State.

Key Personnel

Capt. Chuck Shue, Maryland State Police; Lt. Mike Collins, Maryland Transportation Police; Brenda Clyde, APL

Target Capabilities for Showcases

Showcase 1: Connection of MSP and MdTAP Pen-based Inspection Systems to Interim SAFER using land-based phone lines.

Showcase 2: Connection of additional Pen-based Inspection Systems to the production SAFER system, some with the ability to support cellular phone lines.

Showcase 3: Connection of additional Pen-based Inspection Systems.

Description

This activity will build on the systems supporting getting routine inspection results from the inspection site to where it is needed, and getting information downloaded to the inspection sites, by adding the capability for the inspector to specify that the information should be sent to other sites at a high priority because the vehicle and/or the driver were placed out-of-service. For example, this will allow an inspector at the I-9511-495 site in Maryland to alert the MdTAP site at I-95 JFK, the Dumfries site in Virginia, and any roving crews operating in the area. Though the probability of a driver choosing to violate an out-of-service order is low, the fact that this information is being shared should serve as an added deterrence against a driver leaving the I-95/I-495 site before correcting the situation that led to the out-of-service order.

2.5 Safety and Fitness Electronic Records (SAFER) System

Objective

Provide a means for the Maryland Commercial Vehicle Information Exchange (Section 2.1, page 9) to exchange snapshot information with the Virginia CVIE.

Key Personnel

Capt. Chuck Shue, Maryland State Police; Lt. Mike Collins, Maryland Transportation Police; Brenda Clyde and Paul North, APL

Target Capabilities for Showcases

Showcase #1: Support for exchange of carrier snapshot information provided by Interim SAFER.

Showcase #2: Support for exchange of driver and vehicle snapshot information provided by beta release of production SAFER.

Showcase #3: Support for exchange of driver and vehicle snapshot information provided by production SAFER.

Description

This activity entails connecting Maryland and Virginia systems to SAFER. Initial capabilities will include providing carrier snapshots in response to queries from pen-based inspection systems. Additional capabilities will include providing bulk downloads of carrier, vehicle, and driver snapshots; responding to queries for driver and vehicle snapshots: supporting out-of-service alerts; etc.

3. ELECTRONIC CREDENTIALS

3.1 Maryland Motor Carriers' Home Page

Objective

The objective of this project activity is to create a Motor Carriers' Home Page, accessible to the public via the World Wide Web, that provides basic information about operating a safe and legal motor carrier service in Maryland. In this one virtual location, information and forms will be made available from all state agencies that motor carriers must deal with.

Key Personnel

MVA Motor Carrier Services, supported by SHA and all other agencies involved with motor carrier services; Maggie VanVliet, APL

Target Capabilities for Showcases

Showcase #1: Capability to provide basic information, including Maryland Trucking Handbook and IFTA Manual.

Showcase #2: Capability to download forms that can then be printed, completed, and faxed to applicable office.

Showcase #3: Capability to complete and submit forms electronically. Inclusion of Legislative and Outreach Page.

Description

The Maryland Trucking Handbook provides basic information and points of contact for members of the trucking industry who **seek** an overview of the rules and regulations for operating in Maryland. This project activity will make the Handbook available on-line, via a Motor Carrier Page under the MDOT Home Page on the Internet. It will augment the information in the Handbook with the ability to link directly to further information, including copies of required forms. The implementation will be compatible with growth toward electronic submission of forms and applications.

In addition to the basic services, the Motor Carriers' Home Page can become a repository for timely information about issues of interest to the trucking industry, such as pending legislation, and can provide a **means** for the public to give comments and suggestions **on** various motor carrier issues.

3.2 Carrier Automated Transactions

Objective

Demonstrate the electronic credential application capabilities that will eventually be integrated into multiple fleet management applications by multiple vendors.

Key Personnel

Jude Nagurney and Olga Burdeynaya, RSIS

Target Capabilities for Showcases

- Showcase #1: Electronic submittal of applications for following credentials (actual credentials to be mailed or faxed to applicant):
    - IRP registration (original, renewal, supplements, and temporary authority)
    - Oversize/Overweight permits

- Showcase #2: Electronic submittal and processing of applications for following credentials (actual credentials to be mailed or faxed to applicant):
    - IRP registration (original, renewal, supplements, and temporary authority)
    - I FTA registration (original, renewal, and supplements)
    - Oversize/Overweight permits
    - IFTA Tax Filings

- Showcase #3: Electronic submittal and processing of applications for following credentials with actual credentials provided electronically to applicant after electronic funds transfer:
    - IRP registration (original, renewal, supplements, and temporary authority)
    - IFTA registration (original, renewal, and supplements)
    - Intra-State vehicle registration
    - Oversize/Overweight permits
    - IFTA Tax Filings

Description

Electronic credentialing begins with the electronic application process. The CVISN Prototype will use at least two separate packages to demonstrate the process of applying for credentials using draft X.12 ED1 transactions as defined in the CVISN Architecture. Initially, we will use the Carrier Automated Transaction (CAT) system under development. by RSIS for the Mid-West One Stop Shopping Operational Test. For Showcase #3, we will also have the capability to use the products under development for one or both of the other One Stop Operational Tests so long as they adhere to the CVISN Architecture. For Showcase #3, we may also have the capability to use other fleet management products if market demand results in their development.

3.3 Electronic Data Interchange (EDI) Standards

Objective

Participate in the definition of the draft EDI standards needed to support the CVISN Prototype and subsequent related efforts.

Key Personnel

to be determined, MVA; to be determined, Comptroller; Glen Marier, RSIS; Ed Moses, Maggie VanVliet and DJ Waddell, APL

Target Capabilities for Showcases

Showcase #1: draft Transaction Set 285 (snapshots) and Transaction Set 286 (credentials) submitted to ANSI X. 12 Committee

Showcase #2: to be determined

Showcase #3: to be determined

Description

Electronic Data Interchange (EDI) defines the content and format of information exchange between trading partners. ED1 standards in the United States are developed under the auspices of the American National Standards Institute X. 12 Committee. Use of EDI facilitates the process of exchanging information with a large number of trading partners. Two proposed transaction sets of importance to the CVISN Prototype include TS 285 which defines the carrier, vehicle, and driver snapshots and TS 286 which defines the information needed for the credentialing processes.

3.4 Credentialing Interface

Objective

Demonstrate how electronic applications for credentials could be processed through a common interface using the appropriate ED1 standards.

Key Personnel

Debbie Rogers and Jim Hose, MVA; Dee Strausser and Roger Carriker, MSHA; Steve Taylor, Comptroller's Office; Maggie VanVliet, APL

Target Capabilities for Showcases

Showcase #1: Capability to print application for subsequent data entry using appropriate existing State system. Send confirmation message to applicant. Send snapshot information to Commercial Vehicle Information Exchange (Section 2.1, page 9).

Showcase #2: Capability to route application electronically to appropriate State system.

Showcase #3: to be determined

Description

The Credentialing Interface serves as the electronic entry point for motor carriers and related businesses to apply for and be granted the necessary credentials. See subsequent sections for definition of what credentials will be processed by CI in each showcase.

3.5 IRP Registration

Objective

Demonstrate the capability to electronic apply for, process, and issue original, renewal, supplemental and temporary authority for IRP registrations.

Key Personnel

Debbie Rogers, MVA; DJ Waddell, APL

Target Capabilities for Showcases

Showcase #1: process application printed by CI through VISTA/RS. Actual credentials to be **faxed** or mailed to applicant. Exchange transmittal, recap, and netting information with IRP Clearinghouse (Section 4.1, page 24).

Showcase #2: electronic processing by VISTA/RS of application forwarded by CI. Actual credentials to be faxed or mailed to applicant. Electronic results message sent to CI.

Showcase #3: electronic credential provided to applicant after electronic funds transfer. Provide snapshot information to Commercial Vehicle Information Exchange (Section 2.1, page 9).

Description

The IRP Registration process currently requires submission of paper forms. The motor carrier must submit very similar information for other credentials. Once received at MVA, the staff must re-key the data, once to communicate with VISTA, the IRP registration system, and again to communicate with the MVA mainframe to check for flags and **conditions associated with the carrier** and vehicles before issuing credentials. Temporary registration credentials are mailed at the time of processing; full credentials are sent after payment is received.

The project activity will prototype an ED1 interface to the motor carrier community, supporting the electronic submission of IRP application and renewal forms and related information, and electronic response from the MVA. The MVA response may include temporary registration credentials. The EDT interface will be designed to be compatible with the ongoing, FHWA-funded CAT System (Carrier Automated Transactions), and will support other interfaces compliant with the relevant ED1 standards.

The project activity will be coordinated with the ongoing IRP Clearinghouse Project, and will provide the ED1 interface required to support it. These coordinated projects will, in later phases, support the use of electronic funds transfer from carriers to the state, and from the state to the IRP Clearinghouse.

3.6 Intrastate Vehicle Registration

Objective

Demonstrate the capability to electronic apply for, process, and issue original, renewal, and supplemental vehicle registrations for intrastate vehicles.

Key Personnel

to be determined, MVA; DJ Waddell, APL

Target Capabilities for Showcases

Showcase #1: (no capability planned)

Showcase #2: (no capability planned)

Showcase #3: electronic credential provided to applicant after electronic funds transfer. Provide snapshot information to Commercial Vehicle Information Exchange (Section 2.1, page 9).

Description

This activity will develop a capability for this credential similar to the capability developed for IRP Registration (Section 3.5, page 19).

3.7 Oversize/Overweight Hauling Permits

Objective

Demonstrate the capability to electronic apply for, process, and issue oversize/overweight hauling permits using the GDS Automated Hauling Permit System.

Key Personnel

Dee Strausser, MSHA; DJ Waddell, APL

Target Capabilities for Showcases

Showcase #1: capability to electronic apply for, process, and issue oversize/overweight hauling permits using the GDS Automated Hauling Permit System

Showcase #2: to be determined

Showcase #3: to be determined

Description

The Maryland State Highway Administration is in the process of installing the CDS Automated Hauling Permit System. This system does not use the ED1 Transaction Set 286.

3.8 IFTA Registration

Objective

Demonstrate the capability to electronic apply for, process, and issue original, renewal, and supplemental IFTA registrations.

Key Personnel

Steve Taylor, Comptroller; Maggie VanVliet, APL

Target Capabilities for Showcases

Showcase #1: (no capability planned)

Showcase #2: electronic processing of application forwarded by CI. Actual credentials to be faxed or mailed to applicant. Electronic results message sent to CI. Exchange transmittal, recap, and netting information with IFTA Clearinghouse (Section 4.2, page 25).

Showcase #3: electronic credential provided to applicant after electronic funds transfer. Provide snapshot information to Commercial Vehicle Information Exchange (Section 2.1, page 9).

Description

This activity will develop a capability for this credential similar to the capability developed for IRP Registration (Section 3.5, page 19).

3.9 IFTA Tax Filings

Objective

Demonstrate **the** capability to electronically file and process quarterly IFTA tax reports.

Key Personnel

Steve Taylor, Comptroller; Maggie VanVliet, APL

Target Capabilities for Showcases

Showcase #1: (no capability planned)

Showcase #2: electronic processing by New York Regional Processing Center of report forwarded by CI. Electronic results message sent to CI.

Showcase #3: electronic funds transfer. Provide snapshot information to Commercial Vehicle Information Exchange (Section 2.1, page 9).

Description

Maryland uses the New York Regional Processing Center.

4. CLEARINGHOUSES

4.1 IRP Clearinghouse

Objective

Demonstrate the capability to provide transmittal, recap, and netting services to the states using the IRP Clearinghouse.

Key Personnel

Debbie Rogers, MVA; Ali Hooshman, RSIS; DJ Waddell, APL

Target Capabilities for Showcases

Showcase #1: Capability to exchange transmittal, recap, and netting information with appropriate Maryland systems. Capability to send "cab card" data to SAFER.

Showcase #2: to be determined

Showcase #3: to be determined

Description

The IRP Clearinghouse project is being coordinated by IRP, Inc.

4.2 **IFTA Clearinghouse**

Objective

Demonstrate the capability to provide transmittal, recap, and netting services to the states using the IFTA Clearinghouse.

Key Personnel

Steve Taylor, Comptroller; Ali Hooshman and Jeff Braud, RSIS; Maggie VanVliet, APL

Target Capabilities for Showcases

Showcase #1: (no capability planned)

Showcase #2: (no capability planned)

Showcase #3: Capability to exchange transmittal, recap, and netting information with appropriate Maryland systems. Capability to send "cab card' data to SAFER.

Description

The IFTA Clearinghouse project is being coordinated by IFTA, Inc.

5. ELECTRONIC CLEARANCE

5.1 Roving Verification Van

Objective

Demonstrate the capability to implement mobile electronic screening using the JHU/APL Roving Verification (ROVER) Van.

Key Personnel

Roger Carriker, Maryland State Highway Administration; Capt. Chuck Shue, Maryland State Police; Lt. Mike Collins, Maryland Transportation Authority Police; Karen Smith, APL

Target Capabilities for Showcases

Showcase #1: Screening using information provided by the Commercial Vehicle Information Exchange (Section 2.1, page 9) using license plate readers, transponder readers, and portable WIM. ROVER will be co-located but not integrated with an existing weigh station facility (New Market and I-95 JFK Southbound). Inspection selection using ISS. Support for electronic collection of inspection information.

Showcase #2: (to be determined)

Showcase #3: Screening at **a** remote location at mainline speeds.

Description

ROVER offers an alternative for safety enforcement activities that combines the advantages of mobile enforcement (the ability to quickly set up a check point where violations are occurring) along with the advantages of a fixed facility (equipment needed to screen traffic so that officers focus on the high risk operators). Initially, ROVER will be operated at an existing facility to take advantage of the test environment these sites offer. However, ROVER's real long term benefit will be realized when it is used on bypass routes.

5.2 Fixed Site

Objective

Demonstrate the capability to implement electronic screening at a fixed site (New Market and I-95 JFK Southbound).

Key Personnel

Roger Carriker, Maryland State Highway Administration; Capt. Chuck Shue, Maryland State Police; Lt. Mike Collins, Maryland Transportation Authority Police; Karen Smith, APL

Target Capabilities for Showcases

Showcase #I: (no capability planned)

Showcase #2: (no capability planned)

Showcase #3: Screening integrated with an existing weigh station facility (New Market and I-95 JFK Southbound) using license plate readers and transponder readers and using information provided by the Commercial Vehicle Information Exchange (Section 2.1, page 9). Inspection selection using ISS. Support for electronic collection of inspection information.

Description

This activity will explore how to integrate the screening concepts into an existing fixed facility. Facilities both with (I-95 JFK Southbound) and without (New Market) WIM were selected to demonstrate both possibilities.

5.3 Roving Crew

Objective

Demonstrate the capability for roving crews to use elements of the electronic screening concepts.

Key Personnel

Capt. Chuck Shue, Maryland State Police; Lt. Mike Collins, Maryland Transportation Authority Police; Karen Smith, APL

Target Capabilities for Showcases

Showcase #1: (no capability planned)

Showcase #2: (no capability planned)

Showcase #3: Screening from a moving or stationary patrol car using license plate readers and transponder readers and using information provided by the Commercial Vehicle Information Exchange (Section 2.1, page 9). Inspection selection using ISS. Support for electronic collection of inspection information.

Description

This activity will explore the possibility of using some of the capabilities used in the Roving Verification Van (Section 5.1, page 26) in patrol cars.

5.4 Toll Facility

Objective

Demonstrate electronic toll payment using the same DSRC transponder that supports electronic clearance.

Key Personnel

Lt. Mike Collins, Maryland Transportation Authority Police; Karen Smith, APL

Target Capabilities for Showcases

Showcase 1: (no capability planned)

Showcase 2: (no capability planned)

Showcase 3: A limited number of carriers have equipped multiple vehicles in their fleets with DSRC transponders and can pay tolls at the I-95 JFK Northbound electronic toll facility.

Description

The National ITS architecture uses dedicated short range communication (DSRC) technology to support multiple user services including domestic and international electronic clearance, toll payment, fleet management, traffic probes, parking payment, and in-vehicle signing. In order to make this concept attractive to carriers, it is essential that a DSRC capability be used which permits a single tag to support multiple functions.

The CVISN Prototype Project will demonstrate using a single, interoperable DSRC transponder to support electronic clearance, toll payment, and fleet management. This effort will be integrated with the currently planned effort to establish electronic toll payment capabilities at I-95 JFK. Initially, the demonstration will be limited to a small number of carriers and test vehicles. This will demonstrate technical feasibility and allow time to work out technical difficulties and develop operational procedures.

Roles and Responsibilities

This section provides a cross-reference of the key personnel in each agency and their project activities.

1. MARYLAND

Office of the Secretary of Transportation
- ❏ Nick Owens

Maryland Motor Vehicle Administration
- ■ Anne Ferro
- ❏ Jim Hose
- ■ Debbie Rogers

Maryland State Highway Administration
- ■ Dennis Atkins
- ■ Clyde Pyers
- ■ Dee Strausser
- ■ Roger Carriker

Maryland Transportation Authority
- ● Capt. Norman Boskind
- ■ Lt. Mike Collins

Maryland Port Administration
- ■ Dave Ziolkowski

Maryland Department of State Police
- ■ Maj. Ray Cotton
- ■ Capt. Chuck Shue

Maryland Comptroller of the Treasury

- Steve Taylor

Maryland Public Service Commission

- Rick Page

Maryland Department of the Environment

- Emily Troyer
- Rose Clark

Maryland Motor Truck Association

- Walter Thompson

Maryland Bus Association

- Tom Eyre

Independent Truckers and Drivers Association

- Rita Bontz

2. FEDERAL HIGHWAY ADMINISTRATION

FHWA Turner Fairbanks Research Center

- Mike Curtis

FHWA Office of Motor Carriers Headquarters

- Doug McKelvey
- Larry Swartzlander

FHWA OMC Region 3

- John Steinhoff
- Bob Ketenheim
- Bob Miller
- Bob Neal

FHWA Federal Aid - Maryland

- Susan Binder
- Tom Jacobs

3. **TECHNICAL SUPPORT**

AAMVAnet, Incorporated

- Charlie Katz
- ❑ Carlos Dequina

IRP, Incorporated

Johns Hopkins University/Applied Physics Laboratory

- Kim Richeson
- Tim Herder
- Brenda Clyde
- Ed Moses
- Paul North
- Karen Smith
- Janet Spedden
- Maggie VanVliet
- DJ Waddell
- Ray Yuan

Lockheed-Martin Information Management Systems

Morgan State University National Transportation Center and MIT Center for Transportation Studies

- Dr. Lewis Clopton, MSU
- Tom Humphreys, MIT
- Monty Rahman, MSU

RS Information Systems

- Scott Amey
- Bruce Cargill
- Jeff Braud
- Olga Burdeynaya
- Ali Hooshman
- Glen Marier
- Charles Minehan
- Jude Nagurney

Appendices

APPENDIX A. GLOSSARY OF TERMS AND ACRONYMS

AAMVA   American Association of Motor Vehicle Administrators
AAMVAnet   AAMVA network
ATA   American Trucking Association
AVI   Automatic Vehicle Identification
CDLIS   Commercial Driver's License Information System
COVERS   Commercial Vehicle Registration System
CVED   Commercial Vehicle Enforcement Division (MD)
CVISN   Commercial Vehicle Information Systems and Networks
GVWR   Gross Vehicle Weight Rating
HELP   Heavy-vehicle Electronic License Plate
IEN   Information Exchange Network
IFTA   International Fuel Tax Agreement
ISS   Inspection Selection System
ITSA   Intelligent Transportation Society of America
MCMIS   Motor Carrier Management Information System
MCSAP   Motor Carrier Safety Assistance Program
NLETS   National Law Enforcement Telecommunications System
NMVTIS   National Motor Vehicle Title Information System
REVS   Roadside Electronic Verification System
SAFER   Safety and Fitness Electronic Records System
SAFETYNET
VAN   Value Added Net
VISTA   Vehicle Information System for Tax Apportionment
VTA   Virginia Trucking Association

APPENDIX B. LETTERS AND AGREEMENTS

**US Department
of Transportation**

Federal Highway
Administration

400 Seventh St. . S.W.
Washington D C 20590

January 31, 1996

Refer to: HSA-20

Secretary David L. Winstead
Maryland Department of Transportation
Post Office Box 8755
Baltimore/Washington International Airport
Maryland 21240-0755

Dear Secretary Winstead:

The purpose of this letter is to invite Maryland to partner with
the Federal Highway Administration (FHWA) and become a Commercial
Vehicle Information Systems and Networks (CVISN) Prototype State.
The FHWA is planning to showcase Intelligent Transportation
Systems/Commercial Vehicle Operations (ITS/CVO) technology in a
CVIEN Prototype project. It is our intent to form a partnership
with two States (Maryland and Virginia) to test the technical
feasibility of CVISN in a prototype implementation. The scope of
the CVISN Prototype includes:

* distribution of safety information to computers at the
  roadside
* electronic collection of inspection data from the roadside
* elecrxonic application for credentials by carriers
* interfacing of State systems to the International
  Registration Plan (IRP) clearinghouse
* interfacing of State systems to the International--Fuel Tax
  Agreement(IFTA) clearinghouse
* performing electronic clearance.

If the Prototype is successful, CVISN would then move to a Model
Deployment stage in several States.

We believe that Maryland is a leader and is well qualified to
become one of the two CVISN Prototype States. We appreciate the
State's history of leading and partnering with FHWA, particularly
in ITS. The Maryland Inter-Agency Coordination Group has
demonstrated a commitment to teamwork among the State agencies
dealing with CVO. The Governor's Motor Carrier Task Force is
another example tnat reflects Maryland's commitment to improved
customer service. The CHART system and other projects show
Maryland's eagerness to apply technology in innovative ways to
improve government and industry effectiveness and productivity.

Of particular interest is your strategic planning effort,
Maryland Commercial Vehicle Information Systems and Networks(MD-
CVISN) project, that is scheduled for completion in approximately
eight months. Also, we believe that the proximity of the Johns
Hopkins University Applied Physics Laboratory (JHU/APL) and their
work in both the CVISN Prototype and MD-CVISN project make
Maryland an excellent choice as a CVISN Prototype State.

As a CVISN Prototype State, you are requested to respond to this
letter with a Memorandum of Agreement (MOA) signed by the head of
each State agency with motor carrier functions. *We* believe that
the single most important key to success in this endeavor is the
commitment of the top-level executives of the State agencies that
will be involved. To assure this commitment, we are requesting
that Maryland submit an MOA that endorses the project objectives
and scope outlined earlier. This would be followed by Federal
funding and a more detailed agreement.

Once the MOA is received, the FHWA can begin the process of
transferring $500,000 toward the Maryland CVISN Prototype
project. The next step in the project would be to jointly
develop a detailed plan and agreement defining the *roles,*
responsibilities and level of resources required of each
participant. The FHWA has separately funded the JHU/APL to
provide system architecture and engineering support and RS
Information Systems to provide software development support. We
do not require any hard match of funds but encourage a soft match
of in-kind services. Of critical importance, however, is the
dedication of a project manager to both manage the project for
Maryland and act as liaison between the agencies and the JHU/APL
and RSIS contractors. This effort needs to be closely
coordinated with the MD-CVISN project.

In closing, we want to reinforce the FHWA's commitment to the
successful implementation of the CVISN Prototype. Our time frame
to achieve an initial operating capability is short,
approximately six to eight months. Therefore there is an urgent
need to finalize the commitment of two States, establish funding
and initiate the project. We would like to be able to showcase
two or more of the CVO services in August or September of this

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year.   Please feel free to contact Doug McKelvey at
(202) 366-9246 or Christine Johnson at (202) 366-9536 at your
earliest convenience for additional discussion.   We look forward
to a productive and mutually beneficial project.

Sincerely yours,
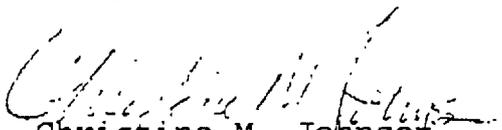
Christine M. Johnson
Director, Intelligent
   Transportation Systems
Joint Program Office
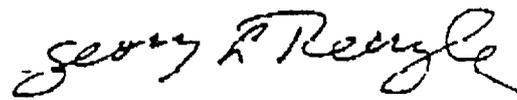
George L. Reagle
Associate Administrator for
   Motor Carriers

Maryland Department of Transportation
The Secretary's Office

March 20, 1996

Ms. Christine Johnson
Director, Intelligent Transportation Systems
Joint Program office
Federal Highway Administration
U.S. Department of Transportation
400 seventh St., S.W.
Washington, D.C. 20590

Mr. George L. Reagle
Associate Administrator for Motor Carriers
Federal Highway Administration
U.S. Department of Transportation
400 seventh St., S.W.
Washington, DC. 20590

Dear Ms. Johnson and Mr. Reagle:

I am pleased to enclose with this letter the State of Maryland' s Memorandum of
Agreement (MOA) for the Commercial Vehicle Information Systems and Networks
Project Prototype Project. The MOA has been signed by all the heads of all agencies
involved with the Maryland motor carrier program.

It is my understanding that, upon receipt of the MOA, the Federal Highway
Administration can begin to process the transferring of the $500,000 grant to be applied
towards the Maryland CVISN Prototype Project. It is also my understanding that you
have received from the Department a proposed work plan for FY 96 and FY 97 that
describes the roles and responsibilities of, and level of resources to be provided by, the
various State agencies involved in the Prototype Project. This plan also outlines the
State's proposed CVISN management structure, and the Morgan State University
consortium that will be providing technical assistance.

I thank you again for the invitation to participate as a Prototype State. This is an
exciting opportunity for Maryland, and I want to assure you that we are fully committed
to a successful implementation of the CVISN Prototype Project.

Ms. Christine Johnson
Mr. George L Reagle
March 20, 1996
Page Two

If any additional information is required, please contact mc at (410) 859-7600, or Nick **Owens, Maryland's CVISN** Project Manager, at (410) 859-7358.

Sincerely,

David L. Winstead
Secretary

cc: The Honorable Louis L. Goldstein
        Commissioner H. Russell Frisby, Jr.
        Mr. Douglas McKelvey
        Secretary David B. Mitchell
        Modal Administrators, MDOT
        Secretary Jane Nishida
        MI. Michael Onder
        Thomas L. Osborne, Deputy Secretary
        Nicholas D. Owens, CVISN Project Manager
        Dr. Earl Richardson, Morgan State University

bcc:

Inter-Agency Coordinating Group, Motor Carrier Program (through Dee Strausser)
Dr. Lewis Clopton
Beverley Swaim-Staley
John Lewis
John Petty
David Chapin
Missy Cassidy
Larry Swartzlander

STATE OF MARYLAND

Commercial Vehicle Information Systems and Networks Project
State Prototype
Memorandum of Agreement

BACKGROUND

Commercial Vehicle Information Systems and Networks Project (CVISN)

Purpose: To develop a nationwide intelligent transportation system permitting the seamless movement of goods, services, and people.

To this and, the Federal Highway Administration will select two states to serve as CVISN prototypes to showcase commercial vehicle operations intelligent transportation systems (CVO/ITS) technology.

State of Maryland Prototype

Purpose: To use Maryland as one of the two prototype states to refine and field test selected commercial vehicle operations intelligent transportation systems technologies and systams.

This may include distribution of safety information to computers at roadside, collection of inspections data from the roadside electronically, or electronic application for credentials by carriers.

Assistance to be Provided by FHWA

FHWA will provide a $500,000 grant and technical assistance to expedite the implementation of an on-going CVO/ITS project in Maryland by assisting with systems and software development equipment procurement and deployment field testing; and, coat-benefit monitoring and evaluation.

Successful completion of the Prototype will be followed by a Pilot State Project, in which the number of states involved will be increased from two to six or tight.Additional assistance will be provided by FHWA to support the Pilot State Project.

Governor's Motor Carrier Task Force

The Governor's Motor Carrier Task Force, which includes representatives from the State agencies involved with the motor carrier program as well as industry groups and trade associations, has endorsed this effort. The Task force will be available to provide policy guidance and oversight to the Prototype effort.

PROTOTYPE PROJECT: SCOPE OF AGREEMENT

We, the undersigned, hereby agree on behalf of the State of Maryland to participate in the Federal Highway Administration's Commercial Vehicle Information Systems and Networks initiative as a Prototype State.

It is our understanding that within the next eight months, the State of Maryland will deploy and field test an application of Commercial Vehicle Operations Intelligent Transportation system technology.

It is our further understanding that the Federal Highway Administration shall supply a grant of $300,000 as well as necessary technical assistance to the State of Maryland to assist with the development and implementation of the Prototype.

It is our further understanding that the State of Maryland will be required to commit the necessary staff support needed to complete the Prototype, and that this support shall be provided primarily from among those staff currently involved with Maryland' s motor carrier program.

It is our further understanding that the inclusion of any motor carrier program activity under the Prototype shall require a consensus agreement between the head(s) of the agency(ies) with responsibility for the particular program activity.

It is our further understanding that, at the end of the Prototype, expected to be within eight months from the date of this document, a comprehensive review will be undertaken of the results and that this review will be used as the basis to develop the Pilot State Phase of the CVISN Project.

Is our further understanding that the Inter-Agency Coordinating Group for the Motor Carrier Program will assume all responsibilities on behalf of the State for the Prototype and that the Governor's Motor Carrier Task Force will provide policy guidance and oversight,
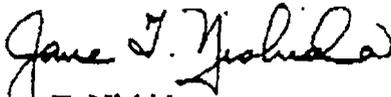
SIGNED, THIS 9th DAY OF FEBRUARY, 1996
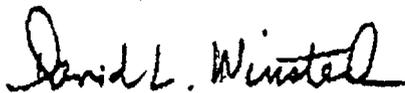
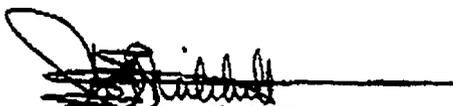David L. Winstcad
Secretary of Transportation
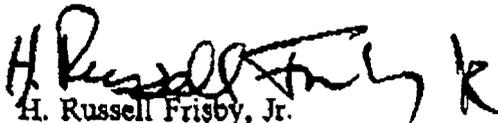
H. Russell Frisby, Jr.
Chairman, Public
Service Commission

Jane T. Nishida
Secretary of the Environment

Louis L. Goldstein
Comptroller of the
Treasury

David B. Mitchell
Secretary
Maryland State Police

Under the terms of the FAR/DFARS and our current contract, each item of technical data delivered to the Government must be accompanied by an individual certification. The required certification follows.

Technical Data Certification

The Contractor, JHU/APL, hereby certifies that, to the best of its knowledge and belief, the technical data delivered herewith under Contract No. DTFH61-95-C 00098 (Task PQK) is complete, accurate, and complies with all requirements of the contract.

_____   _____

Signature of Certifying Official   Date

K.E. Richeson
Name

CVO Program Manager
Title