

CONTRACT #2
RFS # 349.01-00029
Edison # 21010

**Department of Safety and
Homeland Security**

VENDOR:
Cambridge Systematics, Inc.



**STATE OF TENNESSEE
DEPARTMENT OF SAFETY AND HOMELAND SECURITY**

**312 ROSA L. PARKS AVENUE
25TH FLOOR
NASHVILLE, TN 37243**

BILL HASLAM
GOVERNOR

BILL GIBBONS
COMMISSIONER

March 10, 2015

Jeff Spaulding, Director
Fiscal Review Committee
Rachel Jackson Building, 8th Floor
320 Sixth Avenue North
Nashville, TN 37243

Mike Perry, Chief Procurement Officer
Central Procurement Office
Department of General Services
Tennessee Tower, 3rd Floor
Nashville, TN 37243

Justin P. Wilson, Comptroller of Treasury
Comptroller Procurement Compliance
Suite 1400, James K. Polk Building
505 Deaderick Street
Nashville, TN 37243-1402

Dear Director Spaulding, CPO Perry, and Comptroller Wilson:

The Department of Safety and Homeland Security ("TDOSHS") is requesting sole source approval to amend a five (5) year contract with Cambridge Systematics for continued management and technical support of the State's Commercial Vehicle Information Systems Network ("CVISN") program and its related Performance and Registration Information Systems Management ("PRISM") program.

Cambridge will ensure the CVISN and PRISM programs and their projects are in compliance with the Federal Intelligent Transportation Systems ("ITS") and the Architecture Configuration Control Board ("ACCB"). This program was originally implemented by the contractor in 2010. Cambridge Systematics has provided Program Manager and System Architect services to Tennessee. The company has an intimate knowledge of our existing platforms, systems, processes and facilities. They have represented TN at the Federal level during monthly CVISN calls and continue to keep the goals of Tennessee CVISN in line with the requirements of the Federal program.

The amendment request is for an additional five (5) years for a total of ten (10) years. The original maximum liability of \$714,300.00 will be increased by an additional \$780,000.00 for a total of \$1,484,500.00.

Changing vendors at this stage in the process would be cost prohibitive to Tennessee as all member agencies would be required to train a new vendor on the interoperability of our existing systems, potentially delaying grant requests needed to keep our program in compliance and moving forward.

The Department of Safety and Homeland Security respectfully submits the above referenced procurement for consideration and approval.

Sincerely,

Sonya Hadley
Budget Director

cc: Kippine Smith, Procurement Supervisor

Supplemental Documentation Required for
Fiscal Review Committee

*Contact Name:	Kippine Smith	*Contact Phone:	615-251-5238		
*Presenter's name(s):	Lt Colonel Dereck Stewart, Captain Tony Barham, Lt. Brandon Douglas				
Edison Contract Number: <i>(if applicable)</i>	21010	RFS Number: <i>(if applicable)</i>	34901-00029		
*Original or Proposed Contract Begin Date:	6/15/2010	*Current or Proposed End Date:	6/14/2020		
Current Request Amendment Number: <i>(if applicable)</i>	Amendment 1				
Proposed Amendment Effective Date: <i>(if applicable)</i>	6/14/2015				
*Department Submitting:	Safety and Homeland Security				
*Division:	THP-Commercial Vehicle Enforcement				
*Date Submitted:	3/10/2015				
*Submitted Within Sixty (60) days:	Yes				
<i>If not, explain:</i>					
*Contract Vendor Name:	Cambridge Systematics, Inc.				
*Current or Proposed Maximum Liability:	\$1,494,300.00				
*Estimated Total Spend for Commodities:	\$0				
*Current or Proposed Contract Allocation by Fiscal Year: (as Shown on Most Current Fully Executed Contract Summary Sheet)					
FY:2011	FY:2012	FY:2013	FY:2015	FY2015	FY
\$ 133,200	\$ 138,000	\$ 142,800	\$ 147,600	\$ 152,700	\$
FY:2016	FY:2017	FY:2018	FY:2019	FY2020	FY
\$ 150,000	\$ 153,000	\$ 156,000	\$ 159,000	\$ 162,000	\$
*Current Total Expenditures by Fiscal Year of Contract: (attach backup documentation from Edison)					
FY:2011	FY:2012	FY:2013	FY:2014	FY2015	FY
\$ 75,710.94	\$ 133,328.41	\$ 112,958.64	\$ 164000.00	\$ 109,600.00	\$
IF Contract Allocation has been greater than Contract Expenditures, please give the reasons and explain where surplus funds were spent:			Contract allocation is greater than contract expenditures because there was less required travel. The State reimburses the vendor for travel and throughout the contract there was less travel required than originally expected. The surplus funds have not been spent.		
IF surplus funds have been carried forward, please give the reasons and provide the authority for the carry forward provision:			N/A		
IF Contract Expenditures exceeded Contract Allocation, please give the			N/A		

Supplemental Documentation Required for
Fiscal Review Committee

reasons and explain how funding was acquired to pay the overage:			
*Contract Funding Source/Amount:			
State:		Federal:	\$ 1,494,300.00
<i>Interdepartmental:</i>		<i>Other:</i>	
If “ <i>other</i> ” please define:			
If “ <i>interdepartmental</i> ” please define:			
Dates of All Previous Amendments or Revisions: <i>(if applicable)</i>	Brief Description of Actions in Previous Amendments or Revisions: <i>(if applicable)</i>		
N/A			
Method of Original Award: <i>(if applicable)</i>		RFP	
*What were the projected costs of the service for the entire term of the contract prior to contract award? How was this cost determined?		\$ 714,300.00 Costs were determined based on using the proposed and approved CS resources. Rates were then negotiated to provide a flexible number of hours of support each month. Additionally, cost included a list of fixed requirements that were to be met by the vendor on a regular basis as defined in the “scope of work”.	
*List number of other potential vendors who could provide this good or service; efforts to identify other competitive procurement alternatives; and the reason(s) a sole-source contract is in the best interest of the State.		There are zero(0) other vendors available that provide this service. TN put together and advertised an RFP for these services. Only one vendor submitted a response. Cambridge Systematics (CS) has been providing Program Management and System Architect support TDOSHS for our Commercial Vehicle Information Systems and Networks (CVISN) since 2010. There is a need to continue receiving support for the advancement of the CVISN program in the State. The CVISN program continues to provide value to the TDOSHS. It is important to	

Supplemental Documentation Required for
Fiscal Review Committee

	engage CS to oversee and support future CVISN deployment projects as well as current maintenance projects in order to receive fully authorized federal funding from the Federal Motor Carrier Safety Administration (FMCSA) for program deployment
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OIR Pre-Approval Endorsement Request E-Mail Transmittal

TO : Mark Rampey, OIR Contracts
Department of Finance & Administration
E-mail : Mark.Rampey@tn.gov

FROM : Kippine Smith
E-mail : Kippine.K.Smith@tn.gov

DATE : 2/10/2015

RE : Request for OIR Pre-Approval Endorsement

Applicable RFS # 34901-00029

OIR Endorsement Signature & Date:



Chief Information Officer

NOTE: Proposed contract/grant support is applicable to the subject IT service technical merit.

Office for Information Resources (OIR) pre-approval endorsement is required pursuant to procurement regulations pertaining to contracts with information technology as a component of the scope of service. This request seeks to ensure that OIR is aware of and has an opportunity to review the procurement detailed below and in the attached document(s). This requirement applies to any procurement method regardless of dollar amount.

Please indicate OIR endorsement of the described procurement (with the appropriate signature above), and return this document via e-mail at your earliest convenience.

Contracting Agency	Safety and Homeland Security
Agency Contact (name, phone, e-mail)	Raymond Gaskill, Raymond.Gaskill@tn.gov, 615-741-3181
Attachments Supporting Request (mark all applicable)	
<p>Note: The complete draft procurement document and the applicable documents listed below must accompany this request when submitted to OIR. Special Contract Requests and Amendment Requests without Agency Head signature are acceptable. OIR is aware that these documents will not have CPO signature when submitted with this request.</p>	
<p><input type="checkbox"/> Solicitation Document</p> <p><input checked="" type="checkbox"/> Special Contract Request</p> <p><input checked="" type="checkbox"/> Amendment Request</p> <p><input checked="" type="checkbox"/> Proposed Contract/Grant or Amendment</p> <p><input type="checkbox"/> Original Contract/Grant and Previous Amendments (if any)</p>	

Applicable RFS # 34901-00029

Information Systems Plan (ISP) Project Applicability

To avoid delay of OIR pre-approval, the applicability of an ISP project to the procurement must be confirmed with agency IT staff prior to submitting this request to OIR. If necessary, agency IT staff should contact OIR Planning with questions concerning the need for an ISP project.

IT Director/Staff Name Confirming (required): Vicky Hutchings

Applicable – Approved ISP Project#

Not Applicable

Subject Information Technology Service Description

Provide a brief summary of the information technology services involved. Clearly identify included technologies such as system development/maintenance, security, networking, *etc.* As applicable, identify the contract or solicitation sections related to the IT services.

Continued management and technical support of the State's Commercial Vehicle Information Systems Network (CVISN) program and its related Performance and Registration Information Systems Management (PRISM) program. The contractor will ensure the CVISN and PRISM programs and their projects are in compliance with the Federal Intelligent Transportation Systems (ITS) and the Architecture Configuration Control Board (ACCB). This program was originally implemented by the contractor in 2010

Amendment Request

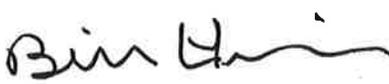
This request form is not required for amendments to grant contracts. Route a completed request, as one file in PDF format, via e-mail attachment sent to: Agsprs.Agsprs@tn.gov

APPROVED

CHIEF PROCUREMENT OFFICER

DATE

Agency request tracking #	34901-00029	
1. Procuring Agency	Safety and Homeland Security	
2. Contractor	Cambridge Systematics, Inc.	
3. Edison contract ID #	21010	
4. Proposed amendment #	1	
5. Contract's Effective Date		6/14/2015
6. Current end date		6/14/2015
7. Proposed end date		6/14/2020
8. Current Maximum Liability or Estimated Liability		\$ 714,300.00
9. Proposed Maximum Liability or Estimated Liability		\$ 1,494,300.00
10. Office for Information Resources Pre-Approval Endorsement Request <i>– information technology service (N/A to THDA)</i>	<input type="checkbox"/> Not Applicable	<input checked="" type="checkbox"/> Attached
11. eHealth Pre-Approval Endorsement Request <i>– health-related professional, pharmaceutical, laboratory, or imaging</i>	<input checked="" type="checkbox"/> Not Applicable	<input type="checkbox"/> Attached
12. Human Resources Pre-Approval Endorsement Request <i>– state employee training service</i>	<input checked="" type="checkbox"/> Not Applicable	<input type="checkbox"/> Attached
13. Explain why the proposed amendment is needed		
<p>Continued management and technical support of the State's Commercial Vehicle Information Systems Network (CVISN) program and its related Performance and Registration Information Systems Management (PRISM) program. The contractor will ensure the CVISN and PRISM programs and their projects are in compliance with the Federal Intelligent Transportation Systems (ITS) and the Architecture Configuration Control Board (ACCB). This program was originally implemented by the contractor in 2010.</p> <p>Cambridge Systematics has provided Tennessee with value added services that have met all</p>		

Agency request tracking #	34901-00029
<p>expectations. Cambridge Systematics continues to be the premium transportation planning and services firm and since the inception of their contract in Tennessee, they have supported three additional states and demonstrated success in helping them achieve core compliance, receive Federal funding and ensure service delivery on time and on budget.</p> <p>Cambridge Systematics has provided Program Manager and System Architect services to Tennessee for 5 years. The company has an intimate knowledge of our existing platforms, systems, processes and facilities. They have represented TN at the Federal level during monthly CVISN calls and continue to keep the goals of Tennessee CVISN in line with the requirements of the Federal program.</p> <p>Changing vendors at this stage in the process would be cost prohibitive to Tennessee as all member agencies would be required to train a new vendor on the interoperability of our existing systems, potentially delaying grant requests needed to keep our program in compliance and moving forward.</p> <p>Cambridge Systematics (CS) has been extensively involved in Tennessee's Commercial Vehicle Operations (CVO) for many years. Cambridge Systematics has unique experience in multiple areas critical to THP's success on this topic.</p> <ul style="list-style-type: none"> a. Cambridge Systematics has supported the CVISN nationally since its inception. In Tennessee, Cambridge Systematics currently provides project management and system architecture assistance through contract 34901-00029 (Agency Tracking #) – 21010 (Edison id). The technologies and strategies to be evaluated on behalf of THP must be consistent with the purpose and funding directives of the CVISN program. b. Cambridge Systematics has supported the State of Tennessee's efforts on overweight and overdimensional vehicles since 1996. Cambridge Systematics is the designer and developer of the state's TOOPS system for truck permitting, which is the authoritative data set for the State on allowable extralegal moves. The technologies and strategies to be evaluated by THP must be consistent with the processes, procedures, and available information for managing overweight and overdimensional vehicles. <p>Cambridge Systematics has over twenty-five years of experience in asset management and capital investment planning for infrastructure. They are expert in designing processes to allow government agencies to plan for ongoing investments in asset infrastructure, an area of importance to THP as strategies and technologies are evaluated.</p>	
<p>14. If the amendment involves a change in Scope, describe efforts to identify reasonable, competitive, procurement alternatives to amending the contract.</p> <p>There is no change to the scope of services.</p>	
<p>Signature of agency head or designee and date</p> <p style="text-align: center;"> 2/20/15</p>	

Rule Exception Request

Route completed request, as one file in PDF format, via e-mail attachment sent to: AGSPRS.AGSPRS@tn.gov

APPROVED
 Digitally signed by Michael F. Perry/TLS
 DN: cn=Michael F. Perry/TLS, o, ou=Central Procurement
 Office, email=toni.stuart@tn.gov, c=US
 Date: 2015.01.26 14:25:27 -06'00'

CHIEF PROCUREMENT OFFICER
 (Required for all Rule Exception Requests)

APPROVED

[Handwritten Signature] 2/2/15

COMPTROLLER OF THE TREASURY
 (ONLY for applicable statutorily required approvals e.g.,
 records, annual report and audit, or monitoring provisions)

Request Tracking #	34901-00029
1. Contract #	21010
2. Goods or Services Caption	Continued management and technical support of the State's Commercial Vehicle Information Systems Network (CVISN) program and its related Performance and Registration Information Systems Management (PRISM) program. The contractor will ensure the CVISN and PRISM programs and their projects are in compliance with the Federal Intelligent Transportation Systems (ITS) and the Architecture Configuration Control Board (ACCB). This program was originally implemented by the contractor in 2010
3. Contractor	Cambridge Systematics, Inc.
4. Contract Period (with ALL options to extend exercised)	120 months
5. Contract Maximum Liability (with ALL options to extend exercised)	\$ 1,494,300 00
6. Rule(s) (for which the exception is requested) Please include citation and written explanation of Rule(s) to be excepted.	0690-03-01-.14 (2) (c) The requirement of a multi-year contract shall be stated in the solicitation, and any multi-year contract shall be awarded pursuant to these Rules and shall not be for a period longer than sixty (60) months unless approved by the Chief Procurement Officer as being in the best interests of the State. The justification for the contract term exceeding sixty (60) months shall be maintained in the records of the Central Procurement Office. A report of all contracts awarded for a period longer than sixty (60) months in such format and at such interval determined requested shall be provided to the <u>Comptroller of the Treasury</u>
7. Explanation of Rule Exception Requested	The Department is requesting to amend Edison contract for 60 additional months.
8. Justification	Cambridge Systematics has provided Tennessee with value added services that have met all expectations. Cambridge Systematics continues to be the premium transportation planning and services firm and since the inception of their contract in Tennessee, they have supported three additional states and demonstrated success in

helping them achieve core compliance, receive Federal funding and ensure service delivery on time and on budget.

Cambridge Systematics has provided Program Manager and System Architect services to Tennessee for 5 years. The company has an intimate knowledge of our existing platforms, systems, processes and facilities. They have represented TN at the Federal level during monthly CVISN calls and continue to keep the goals of Tennessee CVISN in line with the requirements of the Federal program.

Changing vendors at this stage in the process would be cost prohibitive to Tennessee as all member agencies would be required to train a new vendor on the interoperability of our existing systems, potentially delaying grant requests needed to keep our program in compliance and moving forward.

Cambridge Systematics (CS) has been extensively involved in Tennessee's Commercial Vehicle Operations (CVO) for many years. Cambridge Systematics has unique experience in multiple areas critical to THP's success on this topic.

- a. Cambridge Systematics has supported the CVISN nationally since its inception. In Tennessee, Cambridge Systematics currently provides project management and system architecture assistance through contract 34901-00029 (Agency Tracking #) – 21010 (Edison id). The technologies and strategies to be evaluated on behalf of THP must be consistent with the purpose and funding directives of the CVISN program.
- b. Cambridge Systematics has supported the State of Tennessee's efforts on overweight and overdimensional vehicles since 1996. Cambridge Systematics is the designer and developer of the state's TOOPS system for truck permitting, which is the authoritative data set for the State on allowable extralegal moves. The technologies and strategies to be evaluated by THP must be consistent with the processes, procedures, and available information for managing overweight and overdimensional vehicles.

Cambridge Systematics has over twenty-five years of experience in asset management and capital investment planning for infrastructure. They are expert in designing processes to allow government agencies to plan for ongoing investments in asset infrastructure, an area of importance to THP as strategies and technologies are evaluated.

Agency Head Signature and Date (contracting agency head or authorized signatory)

Brian K. [Signature]

11/20/14

Don Ivancic

From: Don Ivancic
Sent: Tuesday, January 27, 2015 7:49 AM
To: Toni Stuart; COT CPC
Subject: Rule Exception Request cy14-4500

Request for an extension to the contract to 120 months (Edison # 21010)

- I believe that the original contract does not allow for an extension.
- This is really a sole source request for a new contract at new rates. Why is the agency pursuing an extension rather than a Special Contract Request for a sole source procurement?
- Does the State own the TOOPS software?
- How is the TOOPS software maintained?
- Does Cambridge System issue a license to the State to use the TOOPS software?
- The original purchase was by RFP with only a single vendor responding (Cambridge Systems). Has the marketplace changed since the origin RFP was issued?
- It is implied in the RER that multiple State agencies use this software. Which State agencies use this software?
- Why does Cambridge make the monthly CVISN calls? Do State employees participate in the calls? What is the impact on the State if the State must take over the monthly calls? What is the impact on the State if the State must keep the TN version of CVISN in line with the Federal requirements?

In addition to getting the answer to the above questions, please check with the agency to determine why they are not pursuing a Special Contract Request for a sole source procurement.

Thanks

Donald J. Ivancic

Legislative Procurement Compliance Manager
State of Tennessee – Comptroller of the Treasury
Office of Management Services
505 Deaderick St ste 1400
Nashville TN 37243

Desk: 615 401-7753
Cell: 615 630-0253

Email Address - don.ivancic@cot.tn.gov

Kippine K. Smith

From: Brandon Douglas
Sent: Tuesday, February 03, 2015 11:16 AM
To: Kippine K. Smith; Raymond Gaskill
Cc: Allen England
Subject: RE: Cambridge Systematics Contract

Mr. Smith,

Please see our answers below in red. Should you have any additional questions please let me know. Thank you for your support and assistance on this.

From: Kippine K. Smith
Sent: Wednesday, January 28, 2015 1:38 PM
To: Raymond Gaskill
Cc: Brandon Douglas; Allen England
Subject: RE: Cambridge Systematics Contract
Importance: High

Sgt. Gaskill, Could you please address the questions below? This is pertaining to the Cambridge Systematics contract:

- **This is really a sole source request for a new contract at new rates. Why is the agency pursuing an extension rather than a Special Contract Request for a sole source procurement?**
Our request was based on the necessity to maintain compliance with the program. Currently, Cambridge supports all of our Program management and Architectural work due to our Department not have the expertise to perform this work. We chose this process to ensure we would not have any downtime and miss possible changes to this Federal program which could cause possible loss in current and future grant funding.
- **Does the State own the TOOPS software?**
Cambridge Systematics owns the software and it is licensed to Tennessee for use by any State user.
- **Does Cambridge System issue a license to the State to use the TOOPS software?**
Yes, Cambridge Systematics issues software license to Tennessee and has a software support contract with DOT/OIR to support the system.
- **The original purchase was by RFP with only a single vendor responding (Cambridge Systems). Has the marketplace changed since the origin RFP was issued?**
To our knowledge the marketplace has not changed based on the scope of work we have requested.
- **It is implied in the RER that multiple State agencies use this software. Which State agencies use this software?**
Department of Safety and Homeland Security and Department of Transportation.
- **Why does Cambridge make the monthly CVISN calls? Do State employees participate in the calls? What is the impact on the State if the State must take over the monthly calls? What is the impact on the State if the State must keep the TN version of CVISN in line with the Federal requirements?**

Cambridge Systematics has a couple of State clients where they perform Program Manager and System Architect services. Cambridge Systematics also supports the Federal Motor Carrier Safety Administration with a current Federal contract. Members of Cambridge Systematics attend the Program Manager calls and the ACCB calls to keep their clients up to date on CVISN related activities. State employees do participate in calls where the Program Manager and System Architect are State employees. Other State members attend who are part of the State's CVISN team. If TN took over the

process, then it would be TN sole responsibility to keep the program compliant. If we become noncompliant, we are no longer eligible for Federal grants.

From: Raymond Gaskill
Sent: Wednesday, November 19, 2014 7:43 AM
To: Kippine K. Smith
Cc: Brandon Douglas; Allen England
Subject: FW: Cambridge Sysematics Contract

Kippine everything has been updated. Thanks

Subject: Cambridge Sysematics Contract

Please see the attached documents. I have highlighted the sections I need for you to address.

1. How long of an extension are you requesting? Extend contract 60 months from June 2015 to June 2020.
2. What is the new cost per month?

Rates Over Contract Term: In order to keep contract terms as they are in the original contract and not to worry about a shift in service hours or add provisions to the contract for such, was to suggest these payment rates:

Development and Management Services - 6/15/2015 thru 6/14/2016	\$12,500 per Month
Development and Management Services - 6/15/2016 thru 6/14/2017	\$12,750 per Month
Development and Management Services - 6/15/2017 thru 6/14/2018	\$13,000 per Month
Development and Management Services - 6/15/2018 thru 6/14/2019	\$13,250 per Month
Development and Management Services - 6/15/2019 thru 6/14/2020	\$13,500 per Month

Grand Total over the course of the contract is (\$780,000)

3. Will there be any other changes to the contract besides changes to the term and money? No
4. Is this program federally-Funded, Federally-mandated, or both? This is 50% covered under the CVISN Grant. So is this a federally mandated? "CVISN is a joint Federal and State program that supports voluntary participation by States. States that participate are eligible for Federal Grants provided the State meets the minimum program requirements. States that participate are also required to establish a management team to manage the State's involvement. The management team must include a Program Manager and a System Architect responsible for but not limited to: maintaining the Program Plan and Top Level Design, filling out yearly grant applications and ensuring projects meet Federal requirements, ensure systems and updates to systems meet interoperability requirements, attend monthly meetings and keeping the State compliant with the plan."

Sergeant Raymond L. Gaskill
T.H.P. / C.V.E.
1228 Foster Avenue

Nashville, Tn. 37243
(615)743-4975 Office
(615)253-2280 Fax

Departments Mission: To serve, secure, and protect the people of Tennessee.

Department's Vision: To be a national leader in best practices that enhance public safety and customer service.

www.tn.gov/safety



CONTRACT AMENDMENT COVER SHEET

Agency Tracking # 34901-00029	Edison ID 21010	Contract # FA-10-31800	Amendment # 1		
Contractor Legal Entity Name Cambridge Systematics, Inc.			Edison Vendor ID 221		
Amendment Purpose & Effect(s) Continued management and technical support of the State's Commercial Vehicle Information Systems Network (CVISN) program and its related Performance and Registration Information Systems Management (PRISM) program					
Amendment Changes Contract End Date: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		End Date: 6/14/2020			
TOTAL Contract Amount INCREASE or DECREASE per this Amendment (zero if N/A):			\$ 780,000.00		
Funding —					
FY	State	Federal	Interdepartmental	Other	TOTAL Contract Amount
10-11		133,200.00			133,200.00
11-12		138,000.00			138,000.00
12-13		142,800.00			142,800.00
13-14		147,600.00			147,600.00
14-15		152,700.00			152,700.00
15-16		150,000.00			150,000.00
16-17		153,000.00			153,000.00
17-18		156,000.00			156,000.00
18-19		159,000.00			159,000.00
19-20		162,000.00			162,000.00
TOTAL:		\$ 1,494,300.00			\$ 1,494,300.00
American Recovery and Reinvestment Act (ARRA) Funding: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO					
Budget Officer Confirmation: There is a balance in the appropriation from which obligations hereunder are required to be paid that is not already encumbered to pay other obligations.			<i>CPO USE</i>		
Speed Chart (optional)		Account Code (optional)			

**AMENDMENT 1
OF CONTRACT FA-10-31800**

This Amendment is made and entered by and between the State of Tennessee, **Department Safety and Homeland Security**, hereinafter referred to as the “State” and **Cambridge Systematics, Inc.**, hereinafter referred to as the “Contractor.” For good and valuable consideration, the sufficiency of which is hereby acknowledged, it is mutually understood and agreed by and between said, undersigned contracting parties that the subject contract is hereby amended as follows:

1. Contract section **B** is deleted in its entirety and replaced with the following:
 - B. This Contract shall be effective on 6/15/2010 (“Effective Date”) and extend for a period of number (120) months after the Effective Date (“Term”). The State shall have no obligation for goods or services provided by the Contractor prior to the Effective Date.

2. Contract sections **C.1, C.2, and C.3** are deleted in their entirety and replaced with the following:
 - C.1. Maximum Liability. In no event shall the maximum liability of the State under this Contract exceed **exceed One Million Four Hundred Ninety Four Thousand Three Hundred Dollars (\$1,494,300.00)**. (“Maximum Liability”). This Contract does not grant the Contractor any exclusive rights. The State does not guarantee that it will buy any minimum quantity of goods or services under this Contract. Subject to the terms and conditions of this Contract, the Contractor will only be paid for goods or services provided under this Contract after a purchase order is issued to Contractor by the State or as otherwise specified by this Contract.
 - C.2. Compensation Firm. The payment methodology in Section C.3. of this Contract shall constitute the entire compensation due the Contractor for all goods or services provided under this Contract regardless of the difficulty, materials or equipment required. The payment methodology includes all applicable taxes, fees, overhead, and all other direct and indirect costs incurred or to be incurred by the Contractor.
 - C.3. Payment Methodology. The Contractor shall be compensated based on the payment rates herein for units of service authorized by the State in a total amount not to exceed the Contract Maximum Liability established in Section C.1.
 - a. The Contractor’s compensation shall be contingent upon the satisfactory completion of units, milestones, or increments of service defined in Section A.
 - b. The Contractor shall be compensated for said units, milestones, or increments of service based upon the following payment rates:

Service Description	Amount (per compensable increment)
Development and Management Services – 6/15/2010 – 6/14/2011	\$ 10,600.00 per Month
Development and Management Services – 6/15/2011 – 6/14/2012	\$ 11,000.00 per Month
Development and Management Services – 6/15/2012 – 6/14/2013	\$ 11,400.00 per Month
Development and Management Services – 6/15/2013 – 6/14/2014	\$ 11,800.00 per Month
Development and Management Services – 6/15/2014 – 6/14/2015	\$ 12,225.00 per Month
Development and Management Services – 6/15/2015 – 6/14/2016	\$12,500.00 per Month
Development and Management Services – 6/15/2016 – 6/14/2017	\$12,750.00 per Month
Development and Management Services – 6/15/2017 – 6/14/2018	\$13,000.00 per Month
Development and Management Services – 6/15/2018 – 6/14/2019	\$13,250.00 per Month

c. The Contractor shall NOT be compensated based on the rates detailed in this section for travel time to any location of service provision. The Contractor shall only be compensated for travel as detailed in Contract section C.4., below.

3. The following is added as Contract section New Section D.22.

D.22. Tennessee Department of Revenue Registration. The Contractor shall comply with all applicable registration requirements contained in Tenn. Code Ann. §§ 67-6-601 – 608. Compliance with applicable registration requirements is a material requirement of this Contract.

Required Approvals. The State is not bound by this Amendment until it is signed by the contract parties and approved by appropriate officials in accordance with applicable Tennessee laws and regulations (depending upon the specifics of this contract, said officials may include, but are not limited to, the Commissioner of Finance and Administration, the Commissioner of Human Resources, and the Comptroller of the Treasury).

Amendment Effective Date. The revisions set forth herein shall be effective **6/13/2015**. All other terms and conditions of this Contract not expressly amended herein shall remain in full force and effect.

IN WITNESS WHEREOF,

CAMBRIDGE SYSTEMATICS, INC.:

SIGNATURE

DATE

PRINTED NAME AND TITLE OF SIGNATORY (above)

TENNESSEE DEPARTMENT OF SAFETY AND HOMELAND SECURITY:

Bill Gibbons, Commissioner

DATE



CONTRACT

(FA-type fee-for-service contract with an individual, business, non-profit, or governmental entity of another state)

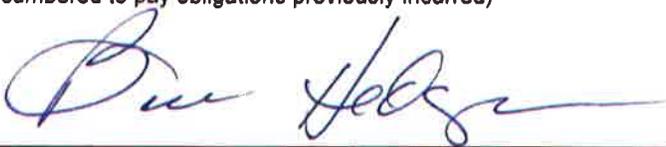
Agency Tracking # 34901-00029	Edison ID 21010
Contractor Cambridge Systematics, Inc.	Contractor Federal Employer Identification or Social Security # <input type="checkbox"/> C- or <input checked="" type="checkbox"/> V- 04-2505095

Service
Development and Management of the Commercial Vehicle Information Systems Network (CVISN) Program

Contract Begin Date June 15, 2010	Contract End Date June 14, 2015	Subrecipient or Vendor <input type="checkbox"/> Subrecipient <input checked="" type="checkbox"/> Vendor	CFDA #(s) 20.237
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FY	State	Federal	Interdepartmental	Other	TOTAL Contract Amount
2011		133,200.00			133,200.00
2012		138,000.00			138,000.00
2013		142,800.00			142,800.00
2014		147,600.00			147,600.00
2015		152,700.00			152,700.00
TOTAL:		714,300.00			714,300.00

American Recovery and Reinvestment Act (ARRA) Funding – YES NO

OCR USE FA	Agency Contact & Telephone # Coleman Hanna (615) 251-5292
 F&A Secured Document # FA1031800	Agency Budget Officer Approval (there is a balance in the appropriation from which this obligation is required to be paid that is not otherwise encumbered to pay obligations previously incurred) 
	Speed Code Account Code 70803000

Contractor Ownership/Control

African American
 Person w/ Disability
 Hispanic
 Small Business
 Government
 Asian
 Female
 Native American
 NOT Minority/Disadvantaged
 Other

Contractor Selection Method

RFP
 Competitive Negotiation *
 Alternative Competitive Method *
 Non-Competitive Negotiation *
 Other *

*Procurement Process Summary

**CONTRACT
BETWEEN THE STATE OF TENNESSEE,
DEPARTMENT OF SAFETY
AND
CAMBRIDGE SYSTEMATICS, INC.**

This Contract, by and between the State of Tennessee, Department of Safety, hereinafter referred to as the "State" and Cambridge Systematics, Inc., hereinafter referred to as the "Contractor," is for the provision of Development and Management of the Commercial Vehicle Information Systems Network (CVISN) Program, as further defined in the "SCOPE OF SERVICES."

The Contractor is FOR-PROFIT CORPORATION.

Contractor Federal Employer Identification or Social Security Number: 04-2505095

Contractor Place of Incorporation or Organization: Commonwealth of Massachusetts

A. SCOPE OF SERVICES:

- A.1. The Contractor shall provide all service and deliverables as required, described, and detailed by this Scope of Services and shall meet all service and delivery timelines specified in the Scope of Services section or elsewhere in this Contract.
- A.2. The contractor will be required to have the following experience:
- a. Five years experience in managing complex projects with multiple tasks.
 - b. Five years of expertise in the development and management of CVISN and PRISM federal programs including project plans, schedules, budgets, and resource allocations. The contractor will possess knowledge of current and emerging Commercial Vehicle Operations practices, knowledge of state and federal commercial vehicle laws, regulations and cooperative agreements, industry practices, and other states' commercial vehicle operations.
 - c. Experience with methods needed to create and communicate strategic and business plans for CVISN, PRISM, and ITS/CVO related projects and state agency functions in the commercial vehicle arena. Experience with the development of strategic ITS/CVO regional business plans to ensure compatibility with adjoining states. The contractor will possess extensive knowledge of e-Credentialing, Roadside safety, and e-Screening requirements for inter-agency budget proposals.
 - d. Experience with Federal and State budget management, planning, and administration for inter-agency budget proposals.
 - e. Experience with Federal grant application/development process.
 - f. Five years of experience in assisting a CVISN and PRISM team in identifying, developing, implementing, and managing information system policies regarding the deployment and maintenance of the CVISN and/or program.
 - g. Five years of experience in planning, designing and implementing electronic transponder data exchange technology. Five years of experience in planning and designing of a Weigh-In-Motion Facility using ITS/CVO technology principles and standards.
 - h. Ability to integrate Weigh-In-Motion and electronic transponder data exchange technology to meet e-Screening requirements for the CVISN/PRISM program. Knowledge of dedicated short-range communication technology, fiber optic technology and wireless communication technology.
 - i. Five years experience using Project Management Tools and expertise with project management fundamentals and principles. The contractor will possess the ability to

provide effective oversight to projects, identifying problems and constructing plans of action to mitigate risks.

- J. Five years of experience with Information system design, documentation principles, and quality management techniques, identifying problems and assessing the impact of problems. The contractor will display strategic and creative thinking regarding the deployment methods of multiple projects having long-term impacts on the state's infrastructure.
 - k. Five years of experience with designing, organizing, leading, and conducting executive level workshops, benchmarking, and surveying. The contractor will possess experience with coordinating activities of multiple projects to achieve one coordinated outcome.
 - l. Ability to communicate effectively and interface with customers, private sector business executives, high level regulatory agency managers, legislators, executive management and technical staff. The contractor will possess the ability to work with multiple state and federal agencies on highly complex issues and projects. The contractor will possess the ability to work with staff at all levels within the organization including the executive level. The contractor will possess the ability to communicate effectively, technical and non-technical information (written, oral and presentations).
 - m. Ability to oversee the Independent Validation and Verification process of the State's CVISN program to ensure nationwide compatibility.
- A.3. The contractor will assist in continuing the development and management of the Commercial Vehicle Information Systems Network (CVISN) program and its related Performance and Registration Information Systems Management (PRISM) program. The contractor will ensure the CVISN and PRISM programs and their projects are in compliance with the Federal Intelligent Transportation Systems (ITS) and the Architecture Configuration Control Board (ACCB).
- A.4. The contractor will provide management and technical assistance to the State's Program Manager. The services include overall assistance in decision-making, planning, development, and implementation of the CVISN and PRISM programs.
- A.5. CVISN Program Management Consultant Services include but are not limited to the following:
- a. Under the guidance of the Department's Program Manager, the contractor is responsible for the overall management of the CVISN and PRISM programs. The contractor is responsible for insuring that deployment of all projects identified to implement CVISN and PRISM capabilities are carried out in a timely manner and within budget.
 - b. The contractor will assist in planning, managing, and directing the work of state personnel and private contractors in multi-disciplined design, and plan review.
 - c. Under the guidance of the Department's Program Manager, the contractor is responsible for identifying, developing, and implementing policies and processes having multi-agency applications, regarding the design, installation, maintenance, and coordination of the CVISN and PRISM related information systems. The contractor will assist the Department's Program Manager in establishing goals and objectives. The contractor will assist the Department's Program Manager in developing and maintaining all phases of the Department's CVISN and PRISM Program Plans (see Attachment B). The contractor will assist the Department's Program Manager in the developing and maintaining the required Memorandums of Understanding.
 - d. The contractor will assist in the decision making of all matters of the design process, advising senior management of decisions, and soliciting input and alternatives on decisions of major impact to the CVISN and PRISM programs.
 - e. The contractor will define and develop program status reports and prepare milestones and status summaries. The contractor will schedule and lead program status meetings; prepare agenda, coordinate logistics and coordinate and review presentations for accuracy,

completeness, and applicability. The contractor will facilitate discussions at functional and technical group meetings.

- f. The contractor will assist in the development of program contracts, Request for Proposals (RFP), reviewing and making effective recommendations for acceptance of scope of work documentation, and cost estimations. The contractor will develop, in collaboration with the Department's Program Manager, System Architect, and Project Leaders, the procurement strategy. The contractor will assist the procurement team with accomplishing the procurements.
- g. The contractor will identify, assess, and communicate to State and Federal CVISN partners and private industry the impacts of current and developing technologies.
- h. This contractor may represent the State at meetings of the regional and national CVISN, PRISM and ITS/Commercial Vehicle Operations (CVO) committees.
- i. The contractor will participate in monthly and periodic teleconferences in which the State participates such as:
 - (1) CVISN conference call- expanded CVISN state
 - (2) Smart Roadside conference call
 - (3) CVISN program manager conference call
 - (4) CVISN ACCB meeting telecom
- j. The contractor will facilitate meetings and work sessions to identify requirements, deficiencies, new ideas and opportunities.
- k. Key personnel shall not be removed from the project without the Department's approval.
- l. The contractor's work can be performed off-site or on-site depending on tasks such as project status meetings, problem resolutions and training. When the contractor is working off-site, the contractor shall be available to the state as needed.
- m. Knowledge required for Contract Section A.5, include the following: *Jan 7/3/10*
 - Tennessee's CVISN goals, objectives, and current CVISN deployment status
 - National CVISN goals, objectives, program components, benefits, and costs
 - National Core CVISN and Expanded capabilities
 - Deployed CVISN systems in other states and "best practices"
 - CVISN program planning and documentation principles
 - CVISN stakeholders and outreach/education strategies
 - National CVISN Architecture, principles, and standards
 - CVISN technology options, including current and emerging technologies
 - Federal CVISN grant application and development processes*Paul Miller 8-4-10*

A.6 CVISN System Architect Consultant Services include but are not limited to the following:

- a. The contractor will oversee the development of interfaces and information flows and work to ensure conformance with the National and State CVISN Architectures. The contractor will identify and comply with standards for internal and external systems connections.
- b. The contractor will identify, develop, and implement policies having multi-agency application regarding the design, installation, maintenance, and coordination of CVISN-related data systems.
- c. The contractor will represent the State at CVISN ACCB meetings.
- d. The contractor will work with other State and Federal personnel to ensure interoperability between CVISN deployment activities.

- e. The contractor will identify and comply with Federal requirements associated with the deployment of CVISN and PRISM capabilities, and with CVISN testing
- f. The contractor will advise managers within the affected CVISN agencies on the issues of architecture.
- g. The contractor will provide technical expertise to CVISN partners.
- h. The contractor will ensure that the State's CVISN implementation is consistent with the National CVISN Architecture
- i. Knowledge required for Contract Section A.6. include the following:
 - National CVISN Architecture
 - National CVISN interface standards
 - FMCSA CVISN Architecture Configuration Control Board (ACCB) processes and protocols
 - CVISN interoperability and certification testing processes System design for CVISN-related legacy systems in Tennessee
 - Tennessee CVISN design and documentation principles
 - Networking and network protocol principles
 - Data communications systems principles
 - Strategic planning

Jan 9/3/10
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8-44 70

B. CONTRACT TERM:

This Contract shall be effective for the period commencing on June 15, 2010 and ending on June 14, 2015. The State shall have no obligation for services rendered by the Contractor which are not performed within the specified period.

C. PAYMENT TERMS AND CONDITIONS:

C.1 Maximum Liability. In no event shall the maximum liability of the State under this Contract exceed seven hundred fourteen thousand three hundred dollars and no cents (\$714,300.00). The payment rates in Section C.3 and the Travel Compensation provided in Section C.4 shall constitute the entire compensation due the Contractor for the Service and all of the Contractor's obligations hereunder regardless of the difficulty, materials or equipment required. The payment rates include, but are not limited to, all applicable taxes, fees, overheads, and all other direct and indirect costs incurred or to be incurred by the Contractor.

The Contractor is not entitled to be paid the maximum liability for any period under the Contract or any extensions of the Contract for work not requested by the State. The maximum liability represents available funds for payment to the Contractor and does not guarantee payment of any such funds to the Contractor under this Contract unless the State requests work and the Contractor performs said work. In which case, the Contractor shall be paid in accordance with the payment rates detailed in Section C.3. The State is under no obligation to request work from the Contractor in any specific dollar amounts or to request any work at all from the Contractor during any period of this Contract.

C.2 Compensation Firm. The payment rates and the maximum liability of the State under this Contract are firm for the duration of the Contract and are not subject to escalation for any reason unless amended

C.3 Payment Methodology. The Contractor shall be compensated based on the payment rates herein for units of service authorized by the State in a total amount not to exceed the Contract Maximum Liability established in Section C.1.

- a. The Contractor's compensation shall be contingent upon the satisfactory completion of units, milestones, or increments of service defined in Section A.
- b. The Contractor shall be compensated for said units, milestones, or increments of service based upon the following payment rates:

Service Description	Amount (per compensable increment)
Development and Management Services – 6/15/2010 – 6/14/2011	\$ 10,600.00 per Month
Development and Management Services – 6/15/2011 – 6/14/2012	\$ 11,000.00 per Month
Development and Management Services – 6/15/2012 – 6/14/2013	\$ 11,400.00 per Month
Development and Management Services – 6/15/2013 – 6/14/2014	\$ 11,800.00 per Month
Development and Management Services – 6/15/2014 – 6/14/2015	\$ 12,225.00 per Month

- c. The Contractor shall NOT be compensated based on the rates detailed in this section for travel time to any location of service provision. The Contractor shall only be compensated for travel as detailed in Contract section C.4., below.
- C.4. **Travel Compensation.** Compensation to the Contractor for travel, meals, or lodging shall be subject to amounts and limitations specified in the "State Comprehensive Travel Regulations," as they are amended from time to time. Travel Compensation to the Contractor shall be further limited to:
- a. travel to conferences or any state mandated meetings where the contractor will represent the state as may be required.
- C.5. **Invoice Requirements.** The Contractor shall invoice the State only for completed increments of service and for the amount stipulated in Section C.3, above, and as required below prior to any payment.
- a. The Contractor shall submit invoices no more often than monthly, with all necessary supporting documentation, to:

Commercial Vehicle Administration
1150 Foster Ave. Cooper Hall Bldg.
Nashville, TN 37243
 - b. The Contractor agrees that each invoice submitted shall clearly and accurately (all calculations must be extended and totaled correctly) detail the following required information.
 - (1) Invoice/Reference Number (assigned by the Contractor);
 - (2) Invoice Date;
 - (3) Invoice Period (period to which all invoiced charges are applicable);
 - (4) Contract Number (assigned by the State to this Contract);
 - (5) Account Name: TN Department of Safety, Commercial Vehicle Division;
 - (6) Account/Customer Number (uniquely assigned by the Contractor to the above-referenced Account Name);
 - (7) Contractor Name;
 - (8) Contractor Federal Employer Identification Number or Social Security Number (as referenced in this Contract);
 - (9) Contractor Contact (name, phone, and/or fax for the individual to contact with billing questions);

- (10) Contractor Remittance Address;
- (11) Complete Itemization of Charges, which shall detail the following:
 - i. Service Description for each service invoiced;
 - ii. Number of Units, Increments, or Milestones of each service invoiced;
 - iii. Applicable Payment Rate (as stipulated in Section C.3.) for each service invoiced;
 - iv. Amount Due by Service;
 - v. Travel Compensation requested in accordance with and attaching to the invoice appropriate documentation and receipts as required by the above-referenced "State Comprehensive Travel Regulations;" and
 - vi. Total Amount Due for the invoice period.

- c. The Contractor understands and agrees that an invoice to the State under this Contract shall:
 - (1) include only charges for service described in Contract Section A and in accordance with payment terms and conditions set forth in Contract Section C;
 - (2) not include any future work but will only be submitted for completed service; and
 - (3) not include sales tax or shipping charges.
- d. The Contractor agrees that timeframe for payment (and any discounts) begins when the State is in receipt of each invoice meeting the minimum requirements above.
- e. The Contractor shall complete and sign a "Substitute W-9 Form" provided to the Contractor by the State. The taxpayer identification number contained in the Substitute W-9 submitted to the State shall agree to the Federal Employer Identification Number or Social Security Number referenced in this Contract for the Contractor. The Contractor shall not invoice the State for services until the State has received this completed form.

C.6. Payment of Invoice. The payment of the invoice by the State shall not prejudice the State's right to object to or question any invoice or matter in relation thereto. Such payment by the State shall neither be construed as acceptance of any part of the work or service provided nor as an approval of any of the amounts invoiced therein.

C.7. Invoice Reductions. The Contractor's invoice shall be subject to reduction for amounts included in any invoice or payment theretofore made which are determined by the State, on the basis of audits conducted in accordance with the terms of this Contract, not to constitute proper remuneration for compensable services.

C.8. Deductions. The State reserves the right to deduct from amounts which are or shall become due and payable to the Contractor under this or any Contract between the Contractor and the State of Tennessee any amounts which are or shall become due and payable to the State of Tennessee by the Contractor.

C.9. Automatic Deposits. The Contractor shall complete and sign an "Authorization Agreement for Automatic Deposit (ACH Credits) Form." This form shall be provided to the Contractor by the State. Once this form has been completed and submitted to the State by the Contractor all payments to the Contractor, under this or any other Contract the Contractor has with the State of Tennessee shall be made by Automated Clearing House (ACH). The Contractor shall not invoice the State for services until the Contractor has completed this form and submitted it to the State.

D. STANDARD TERMS AND CONDITIONS:

D.1. Required Approvals. The State is not bound by this Contract until it is approved by the appropriate State officials in accordance with applicable Tennessee State laws and regulations.

- D.2. Modification and Amendment. This Contract may be modified only by a written amendment executed by all parties hereto and approved by the appropriate Tennessee State officials in accordance with applicable Tennessee State laws and regulations.
- D.3. Termination for Convenience. The State may terminate this Contract without cause for any reason. Said termination shall not be deemed a Breach of Contract by the State. The State shall give the Contractor at least thirty (30) days written notice before the effective termination date. The Contractor shall be entitled to receive compensation for satisfactory, authorized service completed as of the termination date, but in no event shall the State be liable to the Contractor for compensation for any service which has not been rendered. Upon such termination, the Contractor shall have no right to any actual general, special, incidental, consequential, or any other damages whatsoever of any description or amount.
- D.4. Termination for Cause. If the Contractor fails to properly perform its obligations under this Contract in a timely or proper manner, or if the Contractor violates any terms of this Contract, the State shall have the right to immediately terminate the Contract and withhold payments in excess of fair compensation for completed services. Notwithstanding the above, the Contractor shall not be relieved of liability to the State for damages sustained by virtue of any breach of this Contract by the Contractor.
- D.5. Subcontracting. The Contractor shall not assign this Contract or enter into a subcontract for any of the services performed under this Contract without obtaining the prior written approval of the State. If such subcontracts are approved by the State, they shall contain, at a minimum, sections of this Contract below pertaining to "Conflicts of Interest," "Nondiscrimination," and "Records" (as identified by the section headings). Notwithstanding any use of approved subcontractors, the Contractor shall be the prime contractor and shall be responsible for all work performed.
- D.6. Conflicts of Interest. The Contractor warrants that no part of the total Contract Amount shall be paid directly or indirectly to an employee or official of the State of Tennessee as wages, compensation, or gifts in exchange for acting as an officer, agent, employee, subcontractor, or consultant to the Contractor in connection with any work contemplated or performed relative to this Contract.
- D.7. Nondiscrimination. The Contractor hereby agrees, warrants, and assures that no person shall be excluded from participation in, be denied benefits of, or be otherwise subjected to discrimination in the performance of this Contract or in the employment practices of the Contractor on the grounds of disability, age, race, color, religion, sex, national origin, or any other classification protected by Federal, Tennessee State constitutional, or statutory law. The Contractor shall, upon request, show proof of such nondiscrimination and shall post in conspicuous places, available to all employees and applicants, notices of nondiscrimination.
- D.8. Prohibition of Illegal Immigrants. The requirements of Public Acts of 2006, Chapter Number 878, of the state of Tennessee, addressing the use of illegal immigrants in the performance of any Contract to supply goods or services to the state of Tennessee, shall be a material provision of this Contract, a breach of which shall be grounds for monetary and other penalties, up to and including termination of this Contract.
- a. The Contractor hereby attests, certifies, warrants, and assures that the Contractor shall not knowingly utilize the services of an illegal immigrant in the performance of this Contract and shall not knowingly utilize the services of any subcontractor who will utilize the services of an illegal immigrant in the performance of this Contract. The Contractor shall reaffirm this attestation, in writing, by submitting to the State a completed and signed copy of the document at Attachment A, hereto, semi-annually during the period of this Contract. Such attestations shall be maintained by the Contractor and made available to state officials upon request.

- b. Prior to the use of any subcontractor in the performance of this Contract, and semi-annually thereafter, during the period of this Contract, the Contractor shall obtain and retain a current, written attestation that the subcontractor shall not knowingly utilize the services of an illegal immigrant to perform work relative to this Contract and shall not knowingly utilize the services of any subcontractor who will utilize the services of an illegal immigrant to perform work relative to this Contract. Attestations obtained from such subcontractors shall be maintained by the Contractor and made available to state officials upon request.
 - c. The Contractor shall maintain records for all personnel used in the performance of this Contract. Said records shall be subject to review and random inspection at any reasonable time upon reasonable notice by the State.
 - d. The Contractor understands and agrees that failure to comply with this section will be subject to the sanctions of Public Chapter 878 of 2006 for acts or omissions occurring after its effective date. This law requires the Commissioner of Finance and Administration to prohibit a contractor from contracting with, or submitting an offer, proposal, or bid to contract with the State of Tennessee to supply goods or services for a period of one year after a contractor is discovered to have knowingly used the services of illegal immigrants during the performance of this Contract.
 - e. For purposes of this Contract, "illegal immigrant" shall be defined as any person who is not either a United States citizen, a Lawful Permanent Resident, or a person whose physical presence in the United States is authorized or allowed by the federal Department of Homeland Security and who, under federal immigration laws and/or regulations, is authorized to be employed in the U.S. or is otherwise authorized to provide services under the Contract.
- D.9. **Records.** The Contractor shall maintain documentation for all charges under this Contract. The books, records, and documents of the Contractor, insofar as they relate to work performed or money received under this Contract, shall be maintained for a period of three (3) full years from the date of the final payment and shall be subject to audit at any reasonable time and upon reasonable notice by the State, the Comptroller of the Treasury, or their duly appointed representatives. The financial statements shall be prepared in accordance with generally accepted accounting principles.
- D.10. **Prevailing Wage Rates.** All contracts for construction, erection, or demolition or to install goods or materials that involve the expenditure of any funds derived from the State require compliance with the prevailing wage laws as provided in *Tennessee Code Annotated*, Section 12-4-401 *et seq.*
- D.11. **Monitoring.** The Contractor's activities conducted and records maintained pursuant to this Contract shall be subject to monitoring and evaluation by the State, the Comptroller of the Treasury, or their duly appointed representatives.
- D.12. **Progress Reports.** The Contractor shall submit brief, periodic, progress reports to the State as requested.
- D.13. **Strict Performance.** Failure by any party to this Contract to insist in any one or more cases upon the strict performance of any of the terms, covenants, conditions, or provisions of this Contract shall not be construed as a waiver or relinquishment of any such term, covenant, condition, or provision. No term or condition of this Contract shall be held to be waived, modified, or deleted except by a written amendment signed by the parties hereto.
- D.14. **Independent Contractor.** The parties hereto, in the performance of this Contract, shall not act as employees, partners, joint venturers, or associates of one another. It is expressly acknowledged by the parties hereto that such parties are independent contracting entities and that nothing in this

Contract shall be construed to create an employer/employee relationship or to allow either to exercise control or direction over the manner or method by which the other transacts its business affairs or provides its usual services. The employees or agents of one party shall not be deemed or construed to be the employees or agents of the other party for any purpose whatsoever.

The Contractor, being an independent contractor and not an employee of the State, agrees to carry adequate public liability and other appropriate forms of insurance, including adequate public liability and other appropriate forms of insurance on the Contractor's employees, and to pay all applicable taxes incident to this Contract.

- D.15. State Liability. The State shall have no liability except as specifically provided in this Contract.
- D.16. Force Majeure. The obligations of the parties to this Contract are subject to prevention by causes beyond the parties' control that could not be avoided by the exercise of due care including, but not limited to, natural disasters, riots, wars, epidemics, or any other similar cause.
- D.17. State and Federal Compliance. The Contractor shall comply with all applicable State and Federal laws and regulations in the performance of this Contract.
- D.18. Governing Law. This Contract shall be governed by and construed in accordance with the laws of the State of Tennessee. The Contractor agrees that it will be subject to the exclusive jurisdiction of the courts of the State of Tennessee in actions that may arise under this Contract. The Contractor acknowledges and agrees that any rights or claims against the State of Tennessee or its employees hereunder, and any remedies arising therefrom, shall be subject to and limited to those rights and remedies, if any, available under *Tennessee Code Annotated*, Sections 9-8-101 through 9-8-407.
- D.19. Completeness. This Contract is complete and contains the entire understanding between the parties relating to the subject matter contained herein, including all the terms and conditions of the parties' agreement. This Contract supersedes any and all prior understandings, representations, negotiations, and agreements between the parties relating hereto, whether written or oral.
- D.20. Severability. If any terms and conditions of this Contract are held to be invalid or unenforceable as a matter of law, the other terms and conditions hereof shall not be affected thereby and shall remain in full force and effect. To this end, the terms and conditions of this Contract are declared severable.
- D.21. Headings. Section headings of this Contract are for reference purposes only and shall not be construed as part of this Contract.

E. SPECIAL TERMS AND CONDITIONS:

- E.1. Conflicting Terms and Conditions. Should any of these special terms and conditions conflict with any other terms and conditions of this Contract, these special terms and conditions shall control.
- E.2. Communications and Contacts. All instructions, notices, consents, demands, or other communications required or contemplated by this Contract shall be in writing and shall be made by certified, first class mail, return receipt requested and postage prepaid, by overnight courier service with an asset tracking system, or by EMAIL or facsimile transmission with recipient confirmation. Any such communications, regardless of method of transmission, shall be addressed to the respective party at the appropriate mailing address, facsimile number, or EMAIL address as set forth below or to that of such other party or address, as may be hereafter specified by written notice.

The State:

Captain Dereck Stewart
Tennessee Department of Safety/ Tennessee Highway Patrol
1148 Foster Avenue Nashville, TN 37243
Dereck.Stewart@tn.gov
Telephone # 615-251-5125
FAX # 615-532-1051

The Contractor:

Steven A. Capecci
Cambridge Syatematics, Inc.
100 CambridgePark Drive, Suite 400
Cambridge, MA 02140
acapecci@carmsys.com
Telephone # (617) 354-0167
FAX # (617) 354-1542

All instructions, notices, consents, demands, or other communications shall be considered effectively given upon receipt or recipient confirmation as may be required.

- E.3. Subject to Funds Availability. The Contract is subject to the appropriation and availability of State and/or Federal funds. In the event that the funds are not appropriated or are otherwise unavailable, the State reserves the right to terminate the Contract upon written notice to the Contractor. Said termination shall not be deemed a breach of Contract by the State. Upon receipt of the written notice, the Contractor shall cease all work associated with the Contract. Should such an event occur, the Contractor shall be entitled to compensation for all satisfactory and authorized services completed as of the termination date. Upon such termination, the Contractor shall have no right to recover from the State any actual, general, special, incidental, consequential, or any other damages whatsoever of any description or amount.
- E.4. Tennessee Consolidated Retirement System. The Contractor acknowledges and understands that, subject to statutory exceptions contained in *Tennessee Code Annotated*, Section 8-36-801, *et. seq.*, the law governing the Tennessee Consolidated Retirement System (TCRS), provides that if a retired member of TCRS, or of any superseded system administered by TCRS, or of any local retirement fund established pursuant to *Tennessee Code Annotated*, Title 8, Chapter 35, Part 3 accepts state employment, the member's retirement allowance is suspended during the period of the employment. Accordingly and notwithstanding any provision of this Contract to the contrary, the Contractor agrees that if it is later determined that the true nature of the working relationship between the Contractor and the State under this Contract is that of "employee/employer" and not that of an independent contractor, the Contractor may be required to repay to TCRS the amount of retirement benefits the Contractor received from TCRS during the period of this Contract.
- E.5. Voluntary Buyout Program. The Contractor acknowledges and understands that, for a period of two years beginning August 16, 2008, restrictions are imposed on former state employees who received a State of Tennessee Voluntary Buyout Program (VBP) severance payment with regard to contracts with state agencies that participated in the VBP.
- a. The State will not contract with either a former state employee who received a VBP severance payment or an entity in which a former state employee who received a VBP severance payment or the spouse of such an individual holds a controlling financial interest.
 - b. The State may contract with an entity with which a former state employee who received a VBP severance payment is an employee or an independent contractor. Notwithstanding

the foregoing, the Contractor understands and agrees that there may be unique business circumstances under which a return to work by a former state employee who received a VBP severance payment as an employee or an independent contractor of a State contractor would not be appropriate, and In such cases the State may refuse Contractor personnel. Inasmuch, it shall be the responsibility of the State to review Contractor personnel to identify any such issues.

- c. With reference to either subsection a. or b. above, a contractor may submit a written request for a waiver of the VBP restrictions regarding a former state employee and a contract with a state agency that participated in the VBP. Any such request must be submitted to the State in the form of the *VBP Contracting Restriction Waiver Request* format available from the State and the Internet at: www.state.tn.us/finance/rds/ocr/waiver.html. The determination on such a request shall be at the sole discretion of the head of the state agency that is a Party to this Contract, the Commissioner of Finance and Administration, and the Commissioner of Human Resources.

- E.6. **Confidentiality of Records.** Strict standards of confidentiality of records shall be maintained in accordance with the law. All material and Information, regardless of form, medium or method of communication, provided to the Contractor by the State or acquired by the Contractor on behalf of the State shall be regarded as confidential information in accordance with the provisions of State law and ethical standards and shall not be disclosed, and all necessary steps shall be taken by the Contractor to safeguard the confidentiality of such material or information in conformance with State law and ethical standards.

The Contractor will be deemed to have satisfied its obligations under this section by exercising the same level of care to preserve the confidentiality of the State's information as the Contractor exercises to protect its own confidential information so long as such standard of care does not violate the applicable provisions of the first paragraph of this section.

The Contractor's obligations under this section do not apply to information in the public domain; entering the public domain but not from a breach by the Contractor of this Contract; previously possessed by the Contractor without written obligations to the State to protect it; acquired by the Contractor without written restrictions against disclosure from a third party which, to the Contractor's knowledge, is free to disclose the information; independently developed by the Contractor without the use of the State's information; or, disclosed by the State to others without restrictions against disclosure.

It is expressly understood and agreed the obligations set forth in this section shall survive the termination of this Contract.

- E.7. **Incorporation of Additional Documents.** Included in this Contract by reference are the following documents:

- a. The Contract document and its attachments
- b. All Clarifications and addenda made to the Contractor's Proposal
- c. The Request for Proposal and its associated amendments
- d. Technical Specifications provided to the Contractor
- e. The Contractor's Proposal

In the event of a discrepancy or ambiguity regarding the Contractor's duties, responsibilities, and performance under this Contract, these documents shall govern in order of precedence detailed above.

E.8. Contractor Commitment to Diversity. The Contractor shall comply with and make reasonable business efforts to exceed the commitment to diversity represented by the Contractor's proposal responding to 34901-00029 (Attachment 6.2) and resulting in this Contract.

The Contractor shall assist the State in monitoring the Contractor's performance of this commitment by providing, as requested, a quarterly report of participation in the performance of this Contract by small business enterprises and businesses owned by minorities, women, and persons with a disability. Such reports shall be provided to the state of Tennessee Governor's Office of Diversity Business Enterprise in form and substance as required by said office.

IN WITNESS WHEREOF,

CAMBRIDGE SYSTEMATICS, INC.:



5/27/10

CONTRACTOR SIGNATURE

DATE

LANCE NEUMANN, PRESIDENT

PRINTED NAME AND TITLE OF CONTRACTOR SIGNATORY (above)

DEPARTMENT OF SAFETY:



6-7-10

DAVE MITCHELL, COMMISSIONER

DATE

ATTESTATION RE PERSONNEL USED IN CONTRACT PERFORMANCE

SUBJECT CONTRACT NUMBER:	
CONTRACTOR LEGAL ENTITY NAME:	CAMBRIDGE SYSTEMATICS, INC.
FEDERAL EMPLOYER IDENTIFICATION NUMBER: (or Social Security Number)	04-2505095

The Contractor, identified above, does hereby attest, certify, warrant, and assure that the Contractor shall not knowingly utilize the services of an illegal immigrant in the performance of this Contract and shall not knowingly utilize the services of any subcontractor who will utilize the services of an illegal immigrant in the performance of this Contract.



CONTRACTOR SIGNATURE

NOTICE: This attestation MUST be signed by an individual empowered to contractually bind the Contractor. If said individual is not the chief executive or president, this document shall attach evidence showing the individual's authority to contractually bind the Contractor.

LANCE NEUMANN, PRESIDENT

PRINTED NAME AND TITLE OF SIGNATORY

5/27/10

DATE OF ATTESTATION

Tennessee Expanded CVISN Program Plan and Top-Level Design

Final Report

prepared for

Federal Motor Carrier Safety Administration

prepared by

**Tennessee Department of Safety
Tennessee Department of Revenue
Tennessee Department of Transportation**

April 29, 2009

Final

Tennessee Expanded CVISN Program Plan and Top-Level Design

prepared for

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Tennessee Department of Safety
Tennessee Department of Revenue
Tennessee Department of Transportation

date

April 29, 2009

Table of Contents

Executive Summary	1
1.0 Introduction	1-1
Purpose and Scope of Document	1-2
1.1 Background.....	1-2
National CVISN Program	1-2
Core CVISN Capabilities	1-3
Expanded CVISN Capabilities	1-4
1.2 Tennessee CVISN Team.....	1-5
1.3 Organization of this Document.....	1-6
2.0 Expanded CVISN Program	2-1
2.1 State Expanded CVISN Goals	2-2
2.2 Current CVO Credentialing Operations	2-3
IRP and IFTA	2-3
OS/OW Permitting.....	2-4
2.3 Roadside Safety and Enforcement	2-4
2.4 Safety Information Exchange.....	2-7
2.5 Planned Expanded CVISN Projects	2-9
3.0 System Design.....	3-1
3.1 Architecture Overview	3-1
3.2 Description of System Components.....	3-4
3.3 Project Design Elements	3-5
CVIEW	3-5
Trucking in Tennessee Website.....	3-7
Mobile Inspection Station	3-8
Summary of Projects	3-9
System Testing	3-9
4.0 Products and Procurement Strategy	4-1
5.0 Program Schedule	5-1
6.0 Program Budget and Funding Sources	6-1
7.0 Outstanding Issues	7-1

List of Tables

Table 1.1	Status of Tennessee Core CVISN Functionality	1-4
Table 2.1	2007 Tennessee Roadside Safety Inspection Results	2-5
Table 2.2	2007 National Roadside Safety Inspection Results	2-6
Table 2.3	SAFER Output Transactions.....	2-8
Table 2.4	SAFER Input Transactions.....	2-9
Table 2.5	Project #1: Trucking in Tennessee Website.....	2-10
Table 2.6	Project #2: Deploy Tennessee Mobile Inspection Station.....	2-13
Table 2.7	Project #3: Replace State’s Existing CVIEW.....	2-16
Table 2.8	Project #4 Program Management	2-19
Table 3.1	System Interfaces for CVIEW Project.....	3-7
Table 3.2	System Interfaces for Trucking in Tennessee Website	3-8
Table 3.3	System Interfaces for Mobile Inspection Station.....	3-8
Table 3.4	Summary of System Changes	3-9
Table 4.1	Summary of Anticipated Procurements	4-2
Table 6.1	Summary of Tennessee Expanded CVISN Costs	6-2

List of Figures

Figure 1.1 Tennessee CVISN Team Organization.....	1-6
Figure 2.1 Tennessee DOT WIM Locations	2-7
Figure 3.1 Expanded CVISN System Design Diagram	3-2
Figure 3.2 State Computers and Network Diagram	3-3
Figure 5.1 Proposed Tennessee CVISN Deployment Schedule	5-2

Executive Summary

The State of Tennessee has been an active participant in the national Commercial Vehicle Information Systems and Networks (CVISN) program for more than ten years. The State was deemed to be Core CVISN Compliant on September 30, 2003, which certifies that it deployed all of the Core CVISN functionality as required by the Federal Motor Carrier Safety Administration (FMCSA), including:

- Safety Information Exchange
 - Use ASPEN or an equivalent automated inspection software at all major inspection sites;
 - Connect to the national Safety and Fitness Electronic Records (SAFER) system to exchange interstate safety and credentials data among states; and
 - Implement a State-specific data exchange system, Commercial Vehicle Information Exchange Window (CVIEW) or the equivalent, to exchange interstate motor carrier and commercial vehicle information with the SAFER system.
- Credentials Administration
 - Automate the processing of at least International Registration Plan (IRP) and International Fuel Tax Agreement (IFTA) credentials;
 - Connect to the IRP Clearinghouse to share information across jurisdictions and automate funds settlement between jurisdictions; and
 - Connect to the IFTA Clearinghouse to share information across jurisdictions and automate funds settlement between jurisdictions.
- Electronic Screening
 - Implement electronic screening at a minimum of one fixed or mobile inspection site, and be ready to replicate this functionality at other sites.

In order to augment its Core CVISN functionality and to expand its roadside commercial vehicle enforcement program, the State of Tennessee has elected to deploy a series of Expanded CVISN projects, including:

- **Trucking in Tennessee website**—a web page designed to provide a single point of access for motor carriers looking for information regarding how to safely and legally operate in the State of Tennessee. This website also will provide hyperlinks to the State's existing and planned web-based credentialing applications (e.g., IRP, IFTA, oversize/overweight (OS/OW) permits), in order to ensure that carriers are aware of the on-line systems.
- **Mobile Inspection Station (MIS)**—a mobile commercial vehicle screening facility that can be moved to high-crash, high-risk, high-volume areas as needed. Equipped with a variety of technologies to identify a commercial vehicle in real-time (e.g., license plate readers, United States Department of Transportation (U.S. DOT) number readers, transponder readers), as well as

Attachment B

communication technology to query Federal and state safety and credentialing data in real-time, the MIS will allow the State's roadside enforcement personnel to focus their resources on carriers that are known to be non-compliant, have a history of being non-compliant, or have not previously been inspected.

- **Commercial Vehicle Information Exchange Window (CVIEW)**—a statewide commercial vehicle data repository that stores Federal census and safety information, as well as real-time State credentialing information (e.g., IRP, IFTA, OS/OW) and makes the data available to authorized users via web-based query interfaces. CVIEW also is the State's primary means for sharing its credentialing data (i.e., IRP, IFTA) with other jurisdictions and accessing IRP and IFTA data from other jurisdictions. The State's Expanded CVISN project will replace the State's existing CVIEW with a modern, more stable system that is both CVISN and Performance and Registration Information Systems Management (PRISM) compliant. The new system also will provide streamlined data access to roadside enforcement users, including the State's MIS.
- **Program Management**—ongoing project and systems management to ensure that the State's CVISN program remains on-budget and on-schedule, as well as in compliance with the national CVISN architecture and State's IT standards. Given budgetary constraints in Tennessee, both the Program Manager and System Architect positions funded by this project are envisioned to be hired resources.

Deployment of these projects will begin upon acceptance of this document by FMCSA. Funding for the projects will be, in large part, drawn from the State's FY 2007 CVISN Deployment grant, as well as a FY 2009 CVISN Deployment grant for which the State is planning to apply.

Numerous State agencies, including the Department of Safety (DOS), Department of Revenue (DOR), and Department of Transportation (DOT) as well as FMCSA, are active participants in the State's CVISN program and will lead and/or participate in the deployment of the State's Expanded CVISN functionality.

1.0 Introduction

The State of Tennessee has been an active participant in the Commercial Vehicle Information Systems and Networks (CVISN) program since April 2001. At that time, the State's Core CVISN Program Plan and Top-Level Design (PP/TLD) were developed by the State's CVISN Team and approved by the Federal Motor Carrier Safety Administration (FMCSA). FMCSA certified Tennessee as Core CVISN Compliant (formerly known as Level One compliant) on September 30, 2003. After successfully maintaining Core Compliance for a number of years, Tennessee applied for, and received, a 2006 Expanded CVISN Deployment grant to facilitate the movement of its CVIEW from the host site at the University of Tennessee to the Office for Information Resources (OIR) datacenter in Nashville, Tennessee. The migration was completed in April 2007.

The State also applied for and received a FY 2007 Federal CVISN Deployment grant to support effective program management, fund operations and maintenance costs of the State's Core CVISN infrastructure, and deploy new Expanded CVISN functionality (e.g., virtual weigh stations). Included in the FY 2007 grant was funding for the development of this Tennessee Expanded CVISN PP/TLD. Due to procurement issues, the State asked FMCSA for assistance in developing its Expanded CVISN Program Plan and Top-Level Design and FMCSA agreed to support the State's development of its Expanded CVISN documentation as part of the national Intelligent Transportation Systems for Commercial Vehicle Operations (ITS/CVO) technical assistance program.

The methodology used to develop this detailed PP/TLD included convening the State CVISN Team for a comprehensive training and visioning session followed by facilitated Joint Application Development (JAD) sessions to identify stakeholder requirements by functional areas (e.g., credentialing, roadside enforcement, oversize/overweight (OS/OW) permitting, information technology). Potential risks and challenges also were identified during these sessions. Identified projects were further detailed and presented to the State CVISN Team, who was asked to confirm implementation decisions (e.g., build/buy new software) and prioritize projects for implementation.

Deployment of the State's proposed Expanded CVISN functionality will enhance the safety, security, and productivity of commercial vehicle operations in Tennessee; improve the access to and quality of information about motor carriers and commercial vehicles that is available to authorized public- and private- sector users; and leverage CVISN deployments already in place.

PURPOSE AND SCOPE OF DOCUMENT

The Tennessee Expanded CVISN Program Plan and Top-Level Design details the State's comprehensive involvement in the CVISN program since 2001. The document provides information on both current and planned Core and Expanded CVISN functionality and is intended to detail to FMCSA and interested stakeholders the State's program goals, priority projects, and related systems architecture. Key components of this document include:

- Scope, goals, and objectives of Tennessee's CVISN program;
- Project descriptions of Expanded CVISN capabilities to be deployed;
- System design;
- Procurement strategy;
- Schedule;
- Budget and funding sources; and
- Design and deployment issues.

The document also confirms the State of Tennessee's continued commitment to conform to CVISN requirements as defined by the U.S. DOT and FMCSA. The PP/TLD was developed in accordance with the template provided by FMCSA to guide State's Expanded CVISN planning activities.

1.1 BACKGROUND

National CVISN Program

The CVISN program is a key component of FMCSA's drive to improve commercial motor vehicle safety. The program is designed to:

- Improve safety and productivity of motor carriers, commercial vehicles and their drivers;
- Improve efficiency and effectiveness of commercial vehicle safety programs through targeted enforcement;
- Improve commercial vehicle data sharing within states and between states and FMCSA; and
- Reduce Federal/State and industry regulatory and administrative costs.

CVISN consists of information systems and communications networks owned and operated by governments, motor carriers, and other stakeholders. These information systems support capabilities in three program areas:

- **Safety Information Exchange** – This program area is designed to assure the safety of motor carriers, commercial vehicles, commercial drivers, and cargo through improved data collection and enhanced data sharing (e.g., inspection reports, credentials status);

- **Electronic Screening** – This program area is designed to facilitate the verification of a commercial vehicle's size, weight, safety, and credentials status. Projects in this area include the use of transponder-based systems to automatically identify commercial motor vehicles while in motion. Pre-enrolled vehicles are allowed to bypass an inspection/weigh station as long as they are within size and weight limits, have the necessary operating credentials, and are operated by a motor carrier with a history of good safety performance; and
- **Electronic Credentials Administration** – This program area is designed to automate the application, processing, and issuance of commercial motor carrier operating credentials and permits.

Core CVISN Capabilities

FMCSA has defined a set of core functionality that each State receiving Federal CVISN funding is required to include in their CVISN programs. Core CVISN capabilities include:

- Safety Information Exchange
 - Use ASPEN or an equivalent automated inspection software at all major inspection sites;
 - Connect to the national Safety and Fitness Electronic Records (SAFER) system to exchange interstate safety and credentials data among states; and
 - Implement a State-specific data exchange system, Commercial Vehicle Information Exchange Window (CVIEW) or the equivalent, to exchange interstate motor carrier and commercial vehicle information with the SAFER system.
- Credentials Administration
 - Automate the processing of at least International Registration Plan (IRP) and International Fuel Tax Agreement (IFTA) credentials;
 - Connect to the IRP Clearinghouse to share information across jurisdictions and automate funds settlement between jurisdictions; and
 - Connect to the IFTA Clearinghouse to share information across jurisdictions and automate funds settlement between jurisdictions.
- Electronic Screening
 - Implement electronic screening at a minimum of one fixed or mobile inspection site, and be ready to replicate this functionality at other sites.

As noted above, Tennessee has deployed all of the Core CVISN functionality and was certified by FMCSA as being Core CVISN Compliant on September 30, 2003. Table 1.1 summarizes Tennessee's current deployment of Core CVISN functionality. The Tennessee CVISN Team is committed to maintaining its Core CVISN functionality and advancing its roadside enforcement program through the implementation of new technology.

Table 1.1 Status of Tennessee Core CVISN Functionality

<u>Core CVISN Functionality</u>	<u>Tennessee Deployment Status</u>
Electronic Credentialing	
Automate Electronic Credentialing for IRP	Deployed
Automate Electronic Credentialing for IFTA	Deployed
Participate in IRP Clearinghouse	Deployed
Participate in IFTA Clearinghouse	Deployed
Safety Information Exchange	
Deploy CVIEW (or equivalent)	Deployed
Interface CVIEW (or equivalent) with SAFER	Deployed
Deploy ASPEN	Deployed
Electronic Screening	
Deploy e-screening at one fixed or mobile station	Deployed

Expanded CVISN Capabilities

In order to further improve commercial motor vehicle safety and security and to extend the services provided through CVISN, FMCSA and the CVISN stakeholder community identified a set of Expanded CVISN capabilities. These capabilities are designed to: enhance the safety, security, and productivity of commercial vehicle operations; and improve the access to, and quality of, information about commercial drivers, carriers, vehicles, chassis, cargo, inspections, crashes, compliance reviews, and citations for authorized public- and private-sector users.

The Expanded CVISN capabilities are segmented into four Expanded CVISN program areas:

- Driver Information Sharing and Enhanced Safety Information Sharing;
- Smart Roadside;
- Expanded Electronic Credentialing; and
- Core CVISN Support and Augmentation.

As Tennessee's Core CVISN Program evolved, the State recognized the need to better focus its enforcement resources and operations in order to address increasing truck volume, improve truck safety, and promote efficiency through mobility. To this end, the State's primary Expanded CVISN goals are to:

- Expand the geographic scope of commercial vehicle enforcement efforts;
- Improve the effectiveness of roadside enforcement resources through expanded systems functionality and data sharing; and
- Streamline motor carrier operations.

These goals will be achieved through the implementation of four proposed projects detailed in Section 2.5 of this document.

1.2 TENNESSEE CVISN TEAM

The Tennessee CVISN Team is comprised of representatives from three State agencies—Department of Safety (DOS), Department of Transportation (DOT), Department of Revenue (DOR)—as well as FMCSA. The State's lead CVISN agency is the Tennessee Department of Safety, Highway Patrol. DOS' commercial vehicle responsibilities include the enforcement of Federal and state commercial vehicle safety, size and weight, and credentialing regulations, rules, and standards. DOR administers commercial vehicle credentials including IFTA, IRP, and Unified Carrier Registration (UCR). DOT is responsible for issuing OS/OW permits.

The CVISN Program Manager is Trooper Brandon Douglas of the Department of Safety. Trooper Douglas is supported by Lieutenant Tonya Hunt and Paul Battenfield also of the Department of Safety. Specific project leads are identified in Section 2.5. Figure 1.1 illustrates the Tennessee CVISN Team organization.

Figure 1.1 Tennessee CVISN Team Organization



1.3 ORGANIZATION OF THIS DOCUMENT

This document is comprised of seven sections and an Executive Summary.

- **Executive Summary**—Provides a concise summation of the full document.
- **Section 1: Introduction**—Provides an overview of the purpose, scope, and contents of the document, as well as an overview of the national CVISN Program. This section also provides historical information on the State’s CVISN program.
- **Section 2: Expanded CVISN Program**—Provides a general introduction to Tennessee’s Expanded CVISN program and details the State’s four Expanded CVISN projects.
- **Section 3: System Design**—Presents the system design for Tennessee’s Expanded CVISN deployment. It provides an overview of the existing state and national systems/networks involved in Expanded CVISN deployment, new systems/connectivity to be implemented to complete deployment, and a summary of the system changes required to implement expanded CVISN capabilities. This section also defines the interfaces that will be employed between/among systems.
- **Section 4: Procurement Strategy / Products**—Identifies the products/services that Tennessee plans to procure for each Expanded CVISN project, as well as state resources (e.g., RFPs, in-house development resources, existing contract vehicles) that will be required to support these projects.
- **Section 5: Schedule**—Provides an overview of the proposed schedule for completion of all Expanded CVISN projects detailed in this document, including key milestones and life cycle timeline. The schedule graphic

Attachment B

provides quick visual reference to all projects and milestones in full programmatic context.

- **Section 6: Budget**—Provides details of anticipated financial resources required for execution of projects. Information provided in this section also identifies planned funding sources for each project. For applicable projects this section will identify state staff resources required to complete implementation.
- **Section 7: Issues**—Identifies any outstanding or potentially problematic issues that may be encountered during the State's implementation of its Expanded CVISN projects.

2.0 Expanded CVISN Program

Tennessee applied for, and received, a grant in FY 2007 for (amount removed from report) that contained seven projects designed to support effective program management, fund the operation and maintenance of the State's Core CVISN infrastructure, and deploy new Expanded CVISN functionality. The specific projects, by category, contained in the FY 2007 application included:

- **Core Deployment Projects** (Augment/Maintain Core CVISN functionality that already has been deployed)
 - Three years of salary for the Tennessee CVISN Program Manager;
 - Two years of CVISN System Architect support;
 - Three years of operation and maintenance for the State's CVIEW application;
 - Three years of membership fees for the PrePass electronic screening program;
- **Expanded CVISN Projects** (Develop Expanded CVISN Program Plan/Top-Level Design)
 - Development of a FMCSA-approved Tennessee Expanded CVISN Program Plan and Top-Level Design;
 - Deployment of a virtual weigh station; and
 - Deployment of radiation detection equipment at an additional fixed weigh station.

These projects were developed to ensure that the State maintained its Core CVISN achievements in the Safety Information Exchange (CVIEW) and Roadside Screening (PrePass) Program Areas; advanced its Roadside Enforcement program through the implementation of new technology (i.e., virtual weigh station, radiation detectors); and secured strong and dedicated management of the State's overall CVISN Program.

As part of the PP/TLD development process the need for some of these projects was confirmed while other projects have been modified (or eliminated) to address the current operational environment/needs of the State's commercial vehicle industry and the State agencies that regulate it.

2.1 STATE EXPANDED CVISN GOALS

Through the maintenance and operation of Tennessee's Core CVISN Program elements the State has recognized significant benefits in improved safety, increased efficiency in utilizing state resources, and subsequent cost savings. Since the FY 2007 grant application was submitted, the State has recognized an increased need to target its roadside enforcement resources on high-risk motor carriers/commercial vehicles, as well as to expand the geographic scope of its enforcement resources to ensure that motor carriers are not routinely bypassing operations at fixed enforcement facilities. The State also identified opportunities to further streamline its credentialing activities. These priorities are reflected in the State's Expanded CVISN goals and objectives, which are detailed below.

Goal:

Expand the geographic scope of commercial vehicle enforcement efforts

Objectives:

- Provide enforcement coverage on known bypass routes
- Support high-priority roadside operations
- Allow mobile roadside enforcement personnel to target inspections at high risk and/or unknown commercial vehicles

Goal:

Improve the effectiveness of roadside enforcement resources through expanded systems functionality and data sharing

Objectives:

- Improve access to data repository for selected subset of Federal and state CVO data
- Support single point of access for roadside personnel to verify credentialing, safety, and inspection information

Goal:

Streamline motor carrier operations

Objectives:

- Provide single storefront for Tennessee's CVO credentialing systems
- Provide single point of access for motor carriers to view regulatory and enforcement information
- Reduce time required by state personnel to respond to motor carrier inquiries

These goals and objectives provide the framework within which the Expanded CVISN Program projects have been developed. These projects are detailed in section 2.5 of this document.

2.2 CURRENT CVO CREDENTIALING OPERATIONS

IRP and IFTA

Tennessee currently uses ACS' VISTA products for IRP and IFTA credentialing and ACS' MVS Express products for electronic credentialing. The state recently executed a new five year support contract to continue using these products. ACS's VISTA products interact with both the IRP and IFTA Clearinghouses.

From January 1, 2008 through December 10, 2008, Tennessee had 6,755 IRP accounts and 75,682 IRP-registered vehicles. Approximately 3,400 of the State's IRP accounts process their transactions electronically. Tennessee has found that the MVS Express product is used predominately by permit services to process transactions electronically. In addition to on-line transactions, carriers and permit services may submit transactions via fax, mail, or in-person. IRP renewals are staggered monthly and all carriers receive their renewal paperwork via mail. Between 2000 and 2002, barcodes were placed on all credentials. Starting in 2009, motor carriers with greater than 200 IRP-registered vehicles will be allowed to maintain an inventory of credentials (i.e., plates and decals) at their facilities.

In 2008, Tennessee had 5,417 IFTA accounts of which 1,366 filed their IFTA quarterly taxes electronically. Other quarterly tax filings are mailed into a DOR lockbox, and scanned. The scanning system creates a flat file which is integrated into the ACS system.

Electronic payments (i.e., T-Check, EFS, Comdata) are accepted by DOR.

Tennessee does participate in the UCR system with their state-based carriers using the Indiana-based UCR system. Indiana provides a daily report detailing the carriers that have registered and provides a monthly remittance to all states for the fees collected. These funds are intended to support motor carrier safety programs, as well as the State's administration of the UCR program.

DOR cross-checks a variety of credentials before issuing IRP and IFTA, including IRP, IFTA, and other DOR taxes. DOR also verifies UCR data prior to issuing IRP and IFTA credentials.

OS/OW Permitting

Tennessee recently upgraded its automated OS/OW permitting system from a client-server Lotus Notes system to a Java-based web application. Annual permit requests are processed internally by State staff. Single-trip permit applications are submitted by state staff, permit services or the motor carrier staff. Tennessee requires a permit service or motor carrier to post a \$25,000 deposit to an escrow account that is used to offset the cost of ordered permits. Companies must sign a contract and post the escrow money before they are given user IDs to access the system. Once established, permit requests and the printing of the PDF permit document can be completed at the user's site.

Tennessee has approximately 49 companies, including permit services, that use the on-line system. Over 95 percent of the State's single trip permits are requested by these companies. The permit staff processes approximately 600 to 800 permit requests a day. Annual and single-trip over-dimensional permit requests are processed by the permit office, which currently has seven staff. Overweight permit requests are processed by the engineering group, which currently has eight staff. DOT management are concerned because the permit office is significantly understaffed. Full staffing is ten full-time equivalents and current staffing is estimated at five full-time equivalents.

Upon implementation of the new system, OS/OW management opted to collect additional data through permit applications and now requests U.S. DOT (if available) and VIN numbers. These data will be displayed on the permit document in the future.

An interface between the OS/OW system and the State's CVIEW was in place. However, the connection between the systems was severed during the OS/OW system upgrade. The data-feed from the new OS/OW permitting system to CVIEW currently is being developed.

2.3 ROADSIDE SAFETY AND ENFORCEMENT

Tennessee Highway Patrol (THP) consists of 700 troopers, all of whom are responsible for commercial vehicle enforcement and are certified to be, at a minimum, Level 3 inspectors. Approximately 350 newer troopers have been certified to be Level 1 inspectors at the academy. Veteran troopers can elect to become Level 1 inspectors. Of the 700 troopers, 50-60 are assigned to fixed sites and the remaining 650 troopers are in patrol cars.

Tennessee operates five weigh stations and a new site is being planned for I-65 North in Giles County. Construction on this site is scheduled to begin in 2009. All weigh stations are operated by the Tennessee Department of Safety and are equipped with the PrePass pre-clearance program. Even with PrePass, some sites are overwhelmed by the volume of truck traffic and the sites automatically close down for safety purposes when traffic queues extend to the highway. Tennessee's goal is to operate fixed sites 24/7 but resources dictate most sites being open approximately 75 percent of the time.

Tennessee also operates a virtual weigh station on I-26 in Unicoi County. This site is equipped with a License Plate Reader (LPR), weigh-in-motion (WIM) scales, and an overview camera but is not connected to any safety or credentialing databases. Troopers utilize portable scales to conduct mobile enforcement at the roadside.

Tables 2.1 and 2.2 compare Tennessee's 2007 roadside safety inspection results to the national totals.

Table 2.1 2007 Tennessee Roadside Safety Inspection Results

Inspection Level	Number of Inspections Conducted in Tennessee	Percent of Inspections Conducted in Tennessee	Tennessee Driver Out-of-Service Rate	Tennessee Vehicle Out-of-Service Rate
1. Full	13,805	20.17%	8.74%	15.83%
2. Walk-Around	17,232	25.18%	9.23%	11.50%
3. Driver-only	36,798	53.77%	4.21%	
4. Special Study	53	0.08%		
5. Terminal	543	0.79%		
Total	68,431	100.00%	6.40%	13.22%

Source: FMCSA Analysis and Information website: ai.volpe.dot.gov

Table 2.2 2007 National Roadside Safety Inspection Results

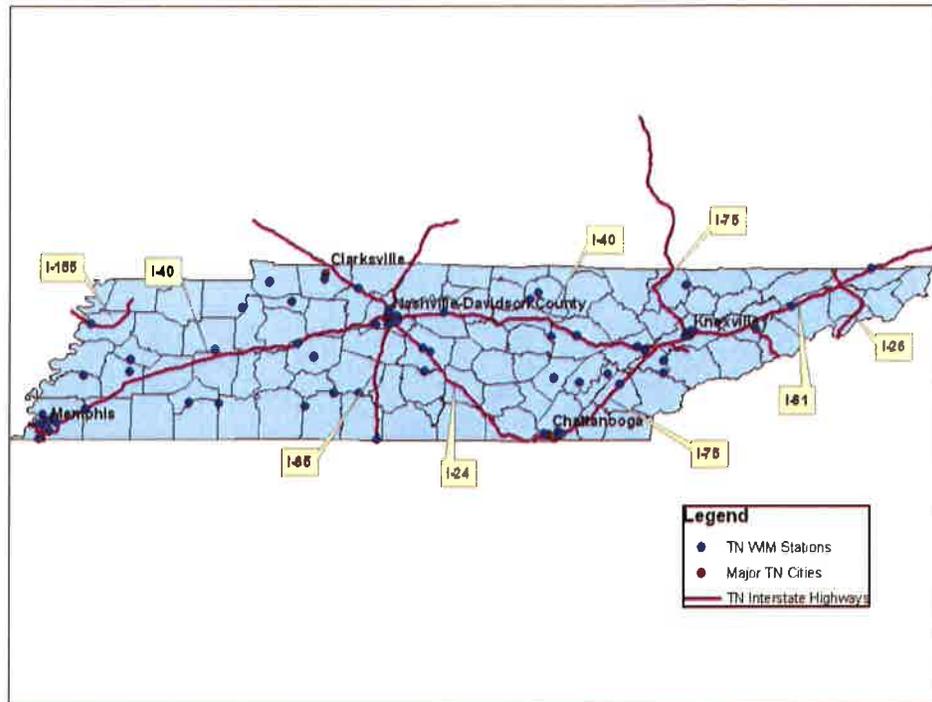
Inspection Level	Number of Inspections Conducted in U.S.	Percent of Inspections Conducted in U.S.	National Driver Out-of-Service Rate	National Vehicle Out-of-Service Rate
1. Full	1,126,861	33.03%	4.87%	26.16%
2. Walk-Around	1,132,494	33.19%	7.28%	20.00%
3. Driver-only	1,003,463	29.41%	8.52%	
4. Special Study	23,858	0.70%		
5. Terminal	125,238	3.67%		8.06%
Total	3,411,914	100.00%	6.83%	22.28%

Source: FMCSA Analysis and Information website: ai.volpe.dot.gov

Approximately 80-90 percent of the State's inspections are conducted at the five fixed sites. Level 2 inspections are conducted if the trooper is certified and in a safe location. Level 3 inspections are included in all stops involving a commercial vehicle.

Tennessee has 63 WIM stations in 36 counties that collect data used by the DOT for research and planning activities. Tennessee conducted approximately 11,000,000 truck weighings via WIM in 2008. While THP currently does not access WIM data from these research and planning sites for use in enforcement activities or to plan/deploy their resources, staff indicated interest in accessing Average Daily Truck Volume data to support their staffing decisions. Figure 2.1 illustrates locations of planning WIM sites.

Figure 2.1 Tennessee DOT WIM Locations



THP uses a variety of tools and data to help select commercial vehicles for inspection, including ISS, PrePass, probable cause, and “areas of interest” pursuant to an approved methodology. At the roadside troopers verify IRP, IFTA, and CDL information. Troopers currently do not have real-time data access to authoritative sources (e.g., legacy systems) for the credentials that they verify at the roadside.

At least once a week, troopers upload their inspection data to SAFER. Approximately 20 percent of troopers have 3G air cards and these troopers upload their inspection data on a daily or real-time basis.

2.4 SAFETY INFORMATION EXCHANGE

Tennessee’s current CVIEW was built by the University of Tennessee at Knoxville. The Department of Safety assumed responsibility for support and maintenance of the system and relocated CVIEW to a DOS IT hosting location in 2007.

DOS currently is trying to secure the source code to ensure that the system can be supported to provide the ability to recover from a potential failure. The State’s CVIEW uses SQL Server 2000 Enterprise on a virtual server but this version of software is being sunset by DOS and will no longer be supported. DOS wants to upgrade to SQL Server 2005 but will need to downgrade from the Enterprise version of the database for cost purposes. The downgrade may result in some functionality being removed or rewritten.

The Tennessee CVIEW incorporates data from IRP, IFTA, and OS/OW credentialing systems into its database. IRP and IFTA Clearinghouse data is sent to CVIEW from

ACS's data center in Tarrytown, NY on a daily basis. OS/OW permit data is scheduled to be sent to CVIEW on a daily basis once the connection between the OS/OW permitting system and CVIEW has been re-established. This is expected to occur in the coming months. SAFER data is integrated into the Tennessee CVIEW on a daily basis and the State recently began uploading data to SAFER. The current CVIEW does have a web query application written in .NET but the interface fails intermittently. DOS currently is investigating the cause of the failures, as well as potential solutions.

Table 2.3 details the status of transactions being downloaded from SAFER to the state's CVIEW. Table 2.4 details the status of transactions being uploaded to SAFER.

Table 2.3 SAFER Output Transactions

Transaction ID	Transaction	Transaction Data Tag	Deployment Status in Tennessee
T0025	International Fuel Tax Agreement (IFTA)	IFTA_LICENSE	Downloading
T0026	IRP Account	IRP_ACCOUNT	Downloading
T0027	IRP Fleet	IRP_FLEET	Downloading
T0028v3	IRP Registration (Cab Card)	IRP_REGISTRATION	Downloading
T0029v2	Vehicle Transponder ID	VEHICLE_TRANSPONDER_ID	N/A. PrePass state
T0030	Vehicle Inspection Summary	VEHICLE_INSPECTION_SUMMARY	Downloading
T0031v2	MCMIS Safety and Census	MCMIS_SAFETY_CENSUS	Downloading
T0032	Licensing and Insurance	LICENSING_INSURANCE	Not deployed

Table 2.4 SAFER Input Transactions

Transaction ID	Transaction	Transaction Data Tag	Deployment Status in Tennessee
T0019	International Fuel Tax Agreement (IFTA)	IFTA_LICENSE	Uploading
T0020	IRP Account	IRP_ACCOUNT	Uploading
T0021	IRP Fleet	IRP_FLEET	Uploading
T0022v3	IRP Registration (Cab Card)	IRP_REGISTRATION	Uploading
T0024v2	Vehicle Transponder ID	VEHICLE_TRANSPONDER_ID	N/A. PrePass state

2.5 PLANNED EXPANDED CVISN PROJECTS

Through the PP/TLD process, the State identified four projects that will be included in its Expanded CVISN program. These projects include:

- Deployment of a Trucking in Tennessee website;
- Deployment of a Mobile Inspection Station (MIS);
- Deployment of a new CVIEW with augmented web-based querying capabilities; and
- Augmented program management and systems oversight.

Each of these projects are detailed below.

Table 2.5 Project #1: Trucking in Tennessee Website

PROJECT NAME: <u>Trucking in Tennessee Website</u>	
E-CVISN Program Area: Expanded Electronic Credentialing	
Project Objectives	
	<p>The objectives of this project are to:</p> <ul style="list-style-type: none"> • Provide a single point of access for motor carriers to view commercial vehicle regulatory and enforcement information from all state agencies • Minimize motor carrier effort required to collect information about CVO-related state agencies and programs • Reduce time required by state personnel to respond to motor carrier inquiries • Create a “user experience” that streamlines motor carrier operations • Provide a single “storefront” for Tennessee’s CVO credentialing systems
Project Benefits	
	<p>Benefits to the State:</p> <ul style="list-style-type: none"> • Improved information sharing • Increased efficiency/reduced staff time addressing misdirected inquiries
	<p>Benefits to the Motor Carrier Industry:</p> <ul style="list-style-type: none"> • Reduced time required for data gathering and credentialing • Fast, reliable, and consistent access to safety, credentialing systems, and other commercial vehicle operations (CVO) information •
Operational Scenario	
	Currently, Tennessee provides a webpage for each agency to maintain that

PROJECT NAME: <u>Trucking in Tennessee Website</u>	
	<p>contains information about that particular agency. When motor carriers need to find out information about operating in Tennessee, they must visit each agency's page to gather the required information. This task can be time consuming if a carrier is unsure what agency is responsible for the program in question. To streamline this task, Tennessee will implement a web portal so a motor carrier can gather information about all systems from a single place.</p> <p>Tennessee envisions a central web portal that describes the motor carrier experience in Tennessee. This page will contain:</p> <ul style="list-style-type: none"> • A welcome to the Tennessee trucking website; • Links to publications that describe the requirements to legally operate a commercial vehicle in Tennessee (e.g., operating authority, UCR, IRP registration, IFTA licensing and taxes, OS/OW permitting and safety requirements); and • Links to the State's on-line credentialing systems so motor carriers can request credentials online. <p>The portal will be a link off of the official Tennessee State page http://state.tn.us</p>
Lead (Host) Agency	
	Tennessee Department of Safety
Project Lead (Individual)	
	Paul Battenfield, Department of Safety
Participating Agencies	
	Tennessee Department of Revenue Tennessee Department of Transportation
Key Functions to be Provided by Project/System	
	<ul style="list-style-type: none"> • Central location for providing safety and credentialing information to the motor carrier community • Minimize the effort to locate data and request credentials

PROJECT NAME: <u>Trucking in Tennessee Website</u>	
	<ul style="list-style-type: none">• Create a "user experience" that helps streamline motor carrier operations
Estimated Budget	
	Budget information has been removed from this report.

Table 2.6 Project #2: Deploy Tennessee Mobile Inspection Station

PROJECT NAME: Tennessee Mobile Inspection Station	
E-CVISN Program Area: Smart Roadside	
Project Objectives	
	<p>The objectives of this project are to:</p> <ul style="list-style-type: none"> • Expand geographic scope of enforcement efforts targeted at commercial vehicles • Provide enforcement coverage on known bypass routes • Allow enforcement personnel working at roadside to target their inspections at high-risk/unknown commercial vehicles • Support high-priority roadside operations: <ul style="list-style-type: none"> - Operation S.T.O.P. (Strategic Transportation Operation Prevention) - High crash corridors - Radioactive material detection • Serve as a command post at high-profile commercial vehicle involved crashes
Project Benefits	
	<p>Benefits to the State:</p> <ul style="list-style-type: none"> • Mainline, bypass, and secondary route monitoring • Improved compliance • Implementation of effective enforcement strategies • Conservation of enforcement resources • Increased safety for enforcement and drivers
	<p>Benefits to the Motor Carrier Industry:</p> <ul style="list-style-type: none"> • Leveling of the playing field <ul style="list-style-type: none"> - Fewer delays for legal carriers - Target carriers that are not in compliance with Federal or State laws/regulations/rules

PROJECT NAME: Tennessee Mobile Inspection Station**Operational Scenario**

A new concept being used by some states to supplement fixed roadside enforcement facilities is a Mobile Inspection Station (MIS). These vehicle-based systems contain all of the equipment necessary to electronically screen commercial vehicles in real-time at the roadside. The MIS also can be moved from location to location to ensure that high-risk and bypass routes are targeted. A MIS typically includes portable scales, a camera/reader system, and wireless communications for use in real-time truck screening.

Mobile inspection stations demonstrate an innovative approach to solving weight and safety enforcement issues that extend beyond the traditional inspection/enforcement weigh station. In their application of non-intrusive, automated data collection, mobile inspection stations offer the capability to screen for violators quickly and economically on roadways where fixed, staffed facilities are not needed but where violators are likely to travel.

For weight screening, the mobile inspection station will operate as follows:

- The mobile inspection station will be positioned on the side of the road, near a WIM or near a rest area;
- Instructions will be provided to the driver via a mobile dynamic messaging sign;
- All commercial vehicles weighing 10,001 pounds or more will be instructed to drive through the site;
- As the commercial vehicles move forward, they will pass both an automated U.S. DOT number reader and an automated license plate reader that will gather carrier and vehicle identifiers;
- These identifiers will allow the system to electronically cross-reference the CVIEW database and retrieve pertinent information regarding the carrier and/or vehicle;
- Targeting information will be relayed to the trooper stationed in the mobile inspection vehicle; and
- The trooper will direct the driver to stop or to drive through depending on the returned information.

For crash sites that involve a commercial vehicle, the mobile inspection station will act as a command post that can be used to:

- Collect data and pertinent statistics on the crash;
- Manage traffic and routing until the crash investigation and cleanup is complete; and
- Provide a central location for various agencies responding

PROJECT NAME: Tennessee Mobile Inspection Station	
	to the crash site. The State's MIS architecture will be designed to allow newer technologies to be integrated into the mobile unit as they become available.
Lead (Host) Agency	
	Tennessee Department of Safety
Project Lead (Individual)	
	Trooper Brandon Douglas
Participating Agencies	
	N/A
Key Functions to be Provided by Project/System	
	<ul style="list-style-type: none"> • Mobile, real-time weight screening using existing WIM sites or portable scales • Automated screening on safety, credentials, and justice information enabled throughout the State, not just at fixed facilities • Commercial vehicle command post used to manage crash sites, capture data and manage cleanup
Estimated Budget	
	Budget information has been removed from the report.

Table 2.7 Project #3: Replace State’s Existing CVIEW

<p>PROJECT NAME: <u>Commercial Vehicle Information Exchange Window (CVIEW) Replacement</u></p>	
<p>E-CVISN Program Area: Enhanced Safety Information Sharing</p>	
<p>Project Objectives</p>	
	<p>The objectives of this project are to:</p> <ul style="list-style-type: none"> • Deploy a modern and reliable data repository for a selected subset of Federal and State CVO data • Enable data exchange with the SAFER and PRISM systems to comply with both CVISN and PRISM program criteria • Support single point of access through which roadside enforcement personnel can verify credentialing, safety, and inspection information • Provide a data repository that can queried in support of credentialing transactions • Allow motor carriers to view their own safety and credential data that is stored in Federal and State information systems
<p>Project Benefits</p>	
	<p>Benefits to the State:</p> <ul style="list-style-type: none"> • Improved information sharing within the State • Fast, reliable, and consistent access to safety, credentials, and other commercial vehicle operations (CVO) information by enforcement officers • Improved electronic screening • Enforcement resources focused on high risk carriers • Information sharing with other jurisdictions • Fulfillment of data exchange requirements/support for registration requirements of CVISN and PRISM • Improved quality of data and regulatory compliance
	<p>Benefits to the Motor Carrier Industry:</p>

PROJECT NAME: Commercial Vehicle Information Exchange Window (CVIEW) Replacement

- Improved quality of data
- Reduced time required for inspections and other stops
- Leveling of the playing field

Operational Scenario

The CVIEW data repository will serve as the core CVO data exchange system in Tennessee. Its primary focus will be to exchange data among the State's multiple CVO-related systems. The Tennessee CVIEW also will exchange data with the SAFER and PRISM systems. Currently, TN is trying to maintain a CVIEW developed by the University of Tennessee. While the CVIEW is compliant, Tennessee is struggling to maintain this version and worries that it will not be able to support transaction changes scheduled to roll out this year.

Before a credential is issued, the State's credentialing systems (e.g., IRP, IFTA, etc.) will check the carrier's IRP, IFTA, and out-of-service status in CVIEW. After a credential is issued, the State's credentialing system will send updated information to CVIEW for incorporation into the carrier and vehicle snapshots. Enforcement personnel will access the CVIEW query interface at the roadside for enforcement purposes and data also will be used in electronic screening at fixed sites and at the Mobile Inspection Station. Motor carriers also will be able to view their own information stored in the CVIEW database.

Operationally, CVIEW will process data using the following general steps:

- A State credentialing system queries CVIEW to determine the status of the carrier requesting the credential and, assuming the carrier is in good standing, issues the credential using the native functionality provided by the system.
- The State credentialing system sends carrier and vehicle information to CVIEW to create/update the carrier and vehicle snapshot data.
- CVIEW receives and integrates credentials and safety data from the SAFER and PRISM Central Sites.
- Other Tennessee systems such as OS/OW will send permit data to CVIEW to be linked with corresponding motor carrier data.
- CVIEW provides query access to roadside personnel to enhance enforcement activities.
- CVIEW sends updated carrier and vehicle information to SAFER to meet CVISN and PRISM requirements.

<p>PROJECT NAME: <u>Commercial Vehicle Information Exchange Window (CVIEW) Replacement</u></p>	
	<ul style="list-style-type: none"> • CVIEW supports browser-based query access to motor carriers for viewing their own safety and credentials information such as IRP, IFTA, and OS/OW permit status; safety rating; and Motor Carrier Safety Improvement Process (MCSIP) level. <p>Other Enhancements – Additional enhancements to CVIEW that will promote information sharing and improve data quality will be examined for implementation. Key among these enhancements is the ability to query for a carrier's vehicles based on the U.S. DOT number.</p>
<p>Lead (Host) Agency</p>	
	<p>Tennessee Department of Safety</p>
<p>Project Lead (Individual)</p>	
	<p>Paul Battenfield</p>
<p>Participating Agencies</p>	
	<p>Tennessee Department of Transportation Tennessee Department of Revenue</p>
<p>Key Functions to be Provided by Project/System</p>	
	<ul style="list-style-type: none"> • Replace CVIEW with state-of-the-art system that is more stable than existing system • Exchange of credentialing data (IRP, IFTA and OS/OW) for storage in CVIEW • Support verification of State CVO credentials at roadside • Query safety data received from Federal databases (e.g., SAFER) • Web-based query interface for authorized public- and private-sector users
<p>Estimated Budget</p>	
	<p>Budget information has been removed from the report.</p>

Table 2.8 Project #4 Program Management

PROJECT NAME: <u>CVISN Program Management</u>	
E-CVISN Program Area: Program Organization	
Project Objective	
The objectives of this project are to: <ul style="list-style-type: none"> • Retain a CVISN Program Manager • Retain a CVISN System Architect 	
Project Benefits	
	Benefits to the State: <ul style="list-style-type: none"> • Experienced project management to oversee implementation of Expanded CVISN projects • Availability of program expertise for all CVISN partners • Monitoring of the business requirement deliverables from state agencies and private sector vendors • Interoperability between systems in Tennessee, other jurisdictions, and at the national level • Compliance with national standards and best practices
	Benefits to the Motor Carrier Industry: <ul style="list-style-type: none"> • Knowledgeable resource to oversee delivery of pertinent information to the motor carrier industry • Interoperability between systems in Tennessee, other jurisdictions, and at the national level
Operational Scenario	
	<p>The CVISN Program Manager will be responsible for overseeing all of the State's Expanded CVISN projects and ensuring that they are deployed in accordance with the stakeholder needs, as well as the PP/TLD. The Program Manager will convene and lead regularly scheduled CVISN Team meetings in order to ensure that all CVISN agencies are aware of the program's current status and next steps. These meetings also will be an opportunity to discuss any issues or challenges that may arise.</p> <p>The Program Manager will work with each CVISN agency, in order to implement a Memorandum of Understanding (MOU) that will guide the inter-agency distribution of funds, as well as inter-agency data sharing.</p> <p>The CVISN Program Manager also will be the State's primary point of contact with FMCSA regarding the CVISN program and will participate in monthly national CVISN program manager conference calls and national deployment workshops. The PM also will be responsible for fulfilling the reporting requirements associated with any Federal CVISN grant funding</p>

Attachment B

	<p>that is received and will look to identify other funding sources to support the State's CVISN program.</p> <p>As needed, the PM will coordinate with project leads regarding procurement issues that may arise.</p> <p>The System Architect will be responsible for overseeing all technical aspects of the State's Expanded CVISN projects and ensuring that the projects are deployed in accordance with the national CVISN architecture as well as the State's IT standards. The System Architect will support the procurement process and may document the requirements that bidders must meet. The System Architect also will convene and lead regularly scheduled project review meetings with all vendors and identify/address any issues that may arise.</p> <p>The System Architect will represent the State during Architecture Configuration Control Board (ACCB) meetings to ensure that the State CVISN Team remains up-to-date with any changes to the national CVISN architecture. The System Architect also may participate in national CVISN deployment workshops, as needed.</p>
<p>Lead (Host) Agency</p>	
	<p>Tennessee Department of Safety</p>
<p>Project Lead (Individual)</p>	
	<p>Trooper Brandon Douglas</p>
<p>Participating Agency</p>	
	<p>Tennessee Department of Revenue Tennessee Department of Transportation</p>
<p>Key Functions to be Provided by Project/System</p>	
	<ul style="list-style-type: none"> CVISN deployment requires an organizational framework for cooperative development of CVISN capabilities among State agencies and motor carriers. Key to the success of CVISN in any state is a CVISN Program Manager and System Architect who are the programmatic and technical leaders, respectively, of CVISN deployment.
<p>Estimated Budget</p>	
	<p>Budget information removed from report.</p>

3.0 System Design

3.1 ARCHITECTURE OVERVIEW

The proposed architecture for Tennessee's Core and Expanded CVISN implementation is shown in Figure 3-1 with the corresponding host computers and networks shown in Figure 3-2. New or modified systems are shown in green. These systems include the replacement of the State's CVIEW, a Trucking in Tennessee Web Portal and a Mobile Inspection Station. Tennessee also plans on hiring a vendor to supply a Program Manager and a System Architect.

Table 3.4 shows the summary of changes depicted in the systems and network diagrams. For brevity, SAFER is used to refer to the SAFER/PRISM Central Site shown in the diagrams.

Figure 3.1 Expanded CVISN System Design Diagram

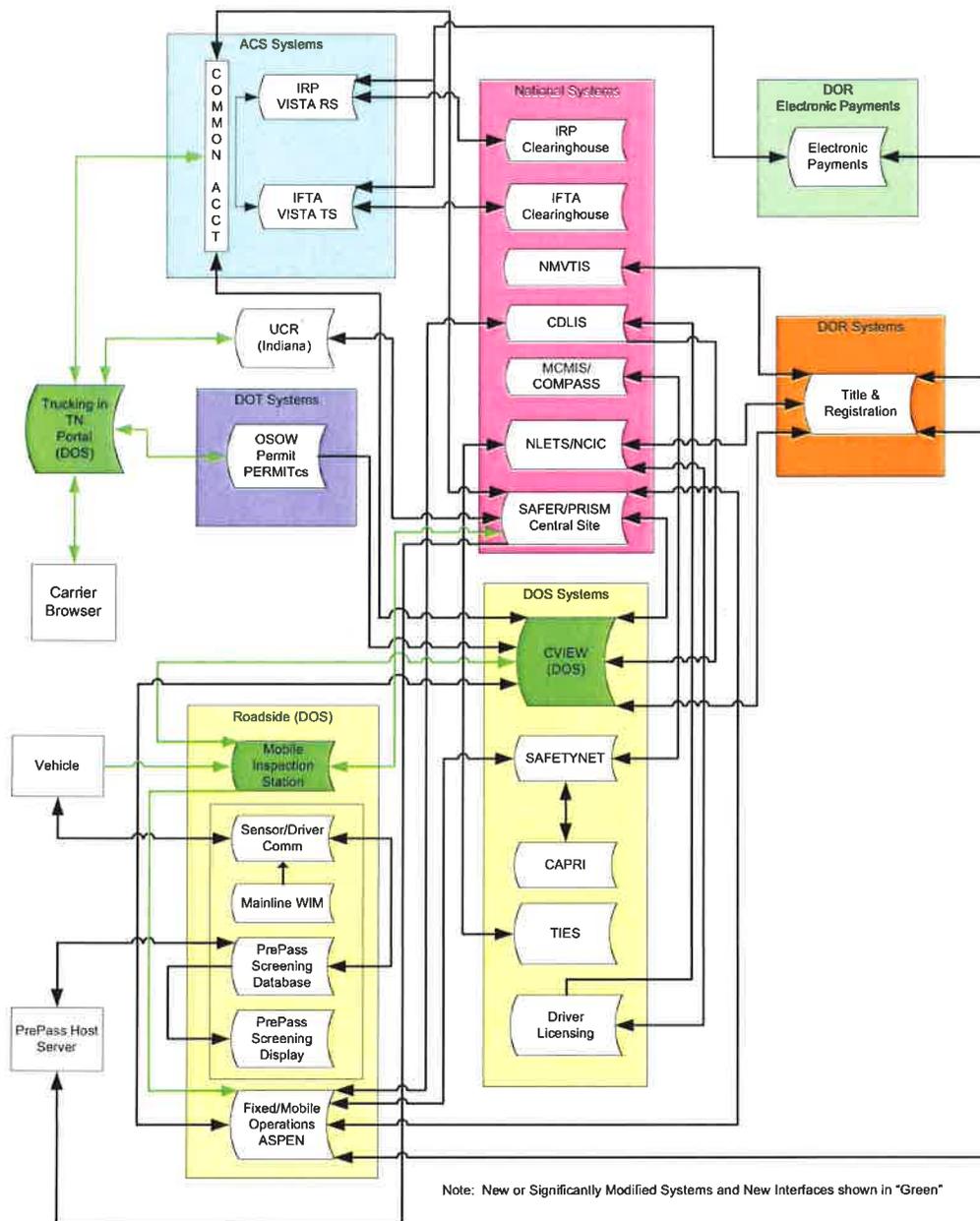
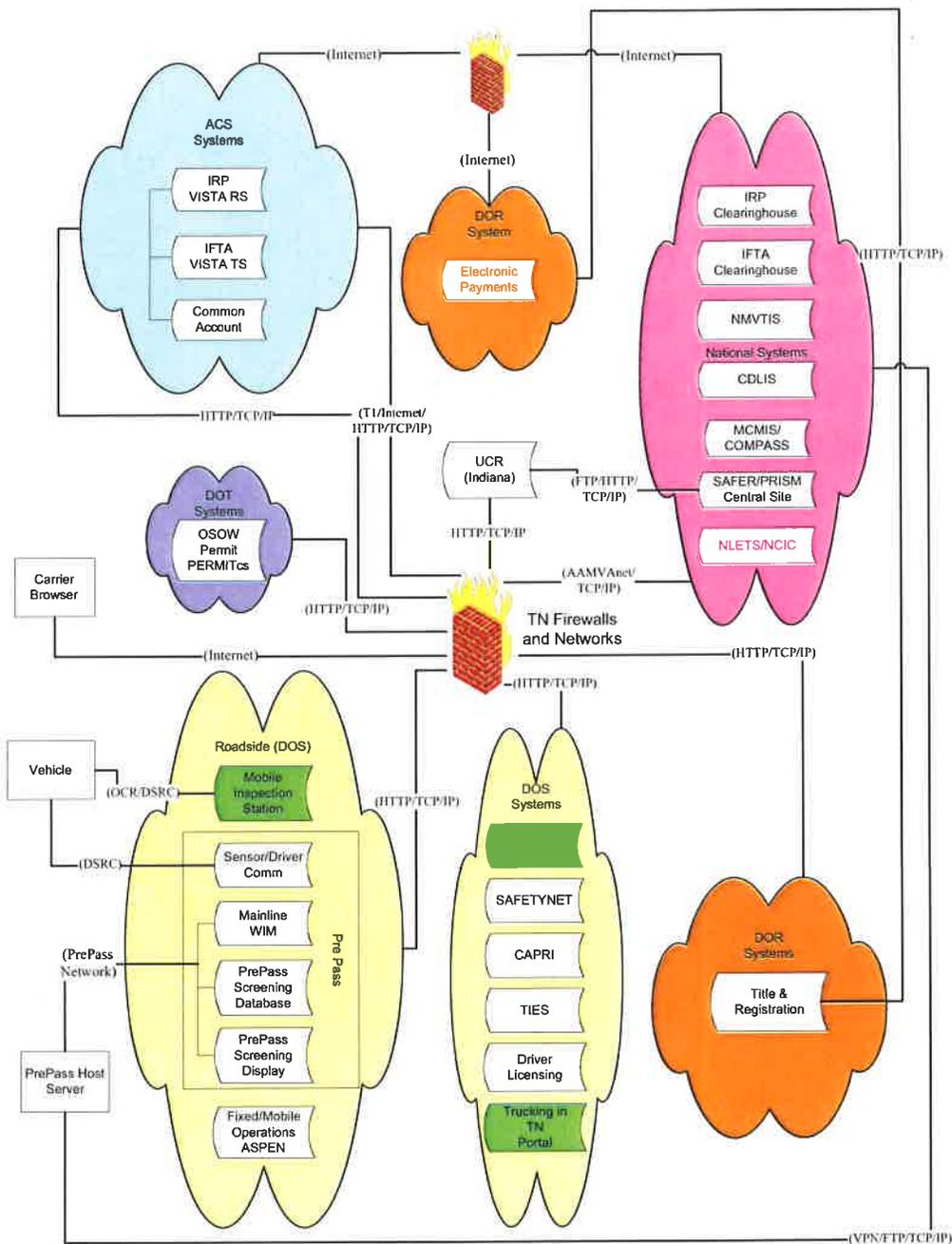


Figure 3.2 State Computers and Network Diagram



Tennessee's current and proposed architecture demonstrates the State's commitment to meeting all national ITS/CVO and CVISN standards while allowing for sufficient flexibility in maintaining the State's in-house systems. Tennessee's architecture will meet the following high-level goals:

- Deployment of all Core CVISN functionality for safety information exchange, credentials administration, and electronic screening;
- Deployment of Expanded CVISN functionality to enhance safety information exchange and electronic screening through the use of a Mobile Inspection Station and other technologies; and
- Support of the State's PRISM program to link vehicle registrations to a carrier's safety performance.

The design is guided by the following principles:

- The existing CVO-related legacy systems were enhanced to support electronic credentialing. In addition, systems to support new functionality or gather additional data will be acquired or built. These enhancements and new systems will be created in a manner consistent with CVISN objectives and the national architecture.
- The primary means of communicating with the carrier community will be via the Internet using a common portal.
- Standard protocols will be used for communications between all systems. The exact protocol will depend on the scenario. For example, when communicating with the carrier community over the Internet the Hyper Text Transfer Protocol Secure (HTTPS) will be used and CVIEW will exchange eXtensible Markup Language (XML) documents with SAFER using the File Transfer Protocol (FTP) or web services.
- A Service Oriented Architecture (SOA) will be employed to facilitate inter-application data sharing for all State systems and for as many external systems as can be achieved. Web services will be a required capability for all new systems that are developed as part of CVISN and will be required as part of the CVIEW replacement project.

3.2 DESCRIPTION OF SYSTEM COMPONENTS

The following are the CVO systems that are currently in-place in Tennessee:

- **International Registration Plan (IRP)** – Tennessee's existing IRP system has been deployed and is hosted by ACS. It is a mainframe application that processes all IRP transactions and sends information to the IRP Clearinghouse via a flat file. PRISM data is received and processed by the ACS VISTA/RS System and is used to validate a carrier or vehicle status before a credential is issued. Carrier access to the system is provided through a web interface using the ACS Common Account and MVS Express. The IRP system supplies CVIEW with any new or revised fleet or vehicle information on a nightly basis and will continue to supply data to the IRP Clearinghouse. VISTA/RS also queries PRISM data extracted from SAFER

(PRISM Central Site) on a nightly basis and will not issue a credential to a vehicle found on the PRISM Target File. Payment for on-line users is handled through a variety of methods including Com-Check.

- **International Fuel Tax Agreement (IFTA)** – Tennessee utilizes an existing IFTA system that was deployed and is hosted by ACS. Similar to the VISTA/RS system, VISTA/TS is a mainframe system. Carrier access to the system is provided through a web interface using the ACS Common Account and MVS Express. VISTATS will continue to supply CVIEW any new or revised carrier information on a nightly basis and also sends information to the IFTA Clearinghouse via a flat file.
- **OS/OW** – Tennessee’s current OS/OW system was developed and is maintained by Cambridge Systematics, Inc. The Tennessee Oversize and Overweight Permitting System (TOOPS) is a web-based system. TOOPS is currently being expanded to include a direct interface to CVIEW to supply permit data that can be accessed at the roadside. Payment for permits issued to online customers is handled through an escrow account managed by the State.
- **ASPEN** - ASPEN is used during roadside inspections. Information is either directly uploaded to the SAFER data mailbox from the roadside or is uploaded via SAFETYNET from a desk side system.
- **PrePass** – PrePass is an electronic screening system that interacts with a member’s transponder and can verify credential information as the driver approaches Tennessee’s weigh stations. If the carrier and vehicle pass the credential check, they are given a “green light” and can by-pass the weigh station. Any “red light” requires the vehicle to enter the weigh station for a more thorough review.
- **UCR** – The Unified Carrier Registration (UCR) Agreement is the interstate agreement developed under the UCR Plan governing the collection and distribution of registration information and UCR fees paid by motor carriers, private carriers, brokers, freight forwarders, and leasing companies pursuant to 49 U.S.C. Section 14504a. Tennessee currently uses the Indiana web-based system to collect and report UCR registration fees. Tennessee has no plan to develop their own UCR system and will continue to use the Indiana system as a means of supporting the UCR agreement.

3.3 PROJECT DESIGN ELEMENTS

Tennessee has identified three implementation projects for consideration in this Expanded CVISN Program Plan. New and/or modified systems as well as staffing to support Expanded CVISN will be deployed through these projects. Each of the projects/systems are described in the following subsections.

CVIEW

Tennessee currently utilizes a CVIEW that was designed and developed by the University of Tennessee. The CVIEW is considered a compliant CVIEW but is limited in

Attachment B

functionality and does not provide a robust interface for data collection or queries by State personnel. Tennessee plans on replacing the existing CVIEW with a vendor developed and supported solution. The CVIEW will serve as the data warehouse for all commercial vehicle information in the State. It will contain credentialing information from State-based systems and data from the national SAFER and PRISM systems. Interfaces to the State's credentialing systems will enable cross-checking of credentials. After a credential has been issued the data relevant to the credential is then passed to CVIEW where it is accessible to all other systems. Tennessee plans on issuing a RFP sometime this year.

Table 3.1 lists the interfaces that will be supported by Tennessee CVISN Systems interacting with CVIEW. Interfaces to the SAFER and PRISM systems are dictated by existing standards as defined in the SAFER Interface Control Document (ICD) and the PRISM System Specification. It is anticipated that the interfaces to State credentialing systems will be accomplished via web services using XML as the data passing mechanism. The exact nature of the interface will depend upon details at time of implementation.

Standard secure Internet protocols will be used to allow roadside enforcement personnel to query the CVIEW in real-time from the roadside.

Table 3.1 System Interfaces for CVIEW Project

Source System	Destination System	Interface Type
IRP (VISTA/RS)	CVIEW	XML
CVIEW	IRP (VISTA/RS)	XML
IFTA (VISTA/TS)	CVIEW	XML
CVIEW	IFTA (VISTA/TS)	XML
CVIEW	SAFER	XML
SAFER	CVIEW	XML
CVIEW	Mobile Inspection Station	Hyper Text Markup Language (HTML)/XML
OS/OW	CVIEW	XML or Flat file
Fixed/Mobile Operations - ASPEN	CVIEW	Hyper Text Markup Language (HTML)/XML

Trucking in Tennessee Website

The Trucking in Tennessee website will provide a one-stop point of information to motor carrier customers of the State of Tennessee. The main purpose of the Tennessee portal is to provide a single point of information for all motor carrier operations and CVISN-related systems in Tennessee. Initially, the portal will not support single sign-on but will provide the motor carrier public with a wealth of information as well as links to the various web-based credentialing systems supported by Tennessee. The portal eventually will have the capability of displaying carrier and vehicle snapshot information stored in CVIEW to authorized motor carrier users. This enhancement to the web portal is still in the investigative phase.

The interfaces that will be supported by the portal are shown in Table 3.2.

Table 3.2 System Interfaces for Trucking in Tennessee Website

Source System	Destination System	Interface Type
End User	Web Portal	HTML
Web Portal	End User	HTML
Web Portal	IRP	HTML/XML
Web Portal	IFTA	HTML/XML
Web Portal	OS/OW	HTML/XML
Web Portal	UCR	HTML/XML

Mobile Inspection Station

A new concept being utilized by some states to supplement fixed roadside enforcement facilities is a Mobile Inspection Station. These mobile vehicles contain all the equipment necessary for enforcement officers to perform safety and credential inspections on commercial vehicles at varying locations throughout the State. A mobile inspection station is a roadside enforcement facility that can be moved from location to location, and typically includes portable scales, a camera/reader system, and wireless communications for use in real-time truck screening.

Table 3.3 depicts the interfaces that will be supported by the Mobile Inspection Station.

Table 3.3 System Interfaces for Mobile Inspection Station

Source System	Destination System	Interface Type
Mobile Inspection Station	CVIEW	HTML/XML
CVIEW	Mobile Inspection Station	HTML/XML
Mobile Inspection Station	Fixed Operations/ASPEN	HTML/XML
Mobile Inspection Station	SAFER	HTML/XML
SAFER	Mobile Inspection Station	HTML/XML
Vehicle	Mobile Inspection Station	DSRC/OCR (License Plate and US DOT readers)

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Summary of Projects

Table 3.4, summarizes the high-level system changes required to meet the proposed core and expanded architecture. The changes are as follows:

- Small (S) – Change to existing software to add minor new functionality;
- Medium (M) – New or modified application of limited scope; and
- Large (L)– New enterprise-wide application or new application with multiple State, national, or third-party interfaces.

Table 3.4 Summary of System Changes

System	Description of Required Modifications	No Change	Size of Change	Buy	Build
CVIEW	New application that will house credential and safety information with interfaces to State systems and the national SAFER and PRISM systems. At a minimum, existing functionality must be provided		L	X	
Trucking in Tennessee Website	New application that provides a single source of motor carrier information and links to Tennessee's web-based credentialing applications		S		X
Mobile Inspection Station	Purchase the vehicle and equipment necessary to perform mobile inspections and credential checks at varying locations throughout the State		L	X	
IRP	Interface to new CVIEW		M	X	
IFTA	Interface to new CVIEW		M	X	
OS/OW	Interface to new CVIEW		M	X	
UCR		X			

System Testing

The testing of CVISN software systems in Tennessee will follow current State practices. At a minimum each system will address the following testing phases:

- Proof of concept – Validate work flow with end users;
- Unit test – Verify that individual components work. This is considered to be part of the overall software development effort;
- Integration test – Verify that the individual components work together with all interfaces;

Attachment B

- Acceptance test – Verify that the user interface and all components behave as expected for a range of data inputs expected to be entered by end users; and
- Pilot test – Performed by selected end users. This is done in parallel with the system to be replaced (if one exists).

Interoperability tests will be performed to determine if two systems that have a defined interface between them are successfully passing the desired information. At least one test will be performed for each interface that exists. For interfaces between systems such as CVIEW and SAFER, certification testing will be performed according to the SAFER Interface Certification Procedures (SICP) document available on the CVISN website.

Each project team is responsible for defining the quantitative means to measure the progress of the testing effort and what constitutes its successful completion. A test plan will be generated for each system. The purpose of the test plan is to document the testing process, methodology to be utilized, approach for developing and maintaining test data, testing tools used, recording of testing results, tracking and resolution of defects, and test schedule.

4.0 Products and Procurement Strategy

To deploy its Expanded CVISN functionality, Tennessee will need to procure new systems in addition to modifying existing ones. All purchases will follow the states standard procurement policies. Table 4.1 lists the items that will be procured for each project. The high-level procurement strategy is to obtain commercial off-the-shelf (COTS) systems and modify them to meet the specific needs of the State. The current plan is to submit a series of Requests for Proposals and evaluate vendors based on the responses received.

To fill the roles of Program Manager and System Architect, Tennessee expects to issue a single RFP.

Table 4.1 Summary of Anticipated Procurements

Procurement Item Group	Item to be Procured	Procurement Item	Category	Contracting Approach			Earliest Possible Date of Procurement
				Type	Method of Award	Procurement Leader	
Safety Information Exchange	CVISN and PRISM compliant CVIEW	CVIEW software, including web-based query interfaces for roadside enforcement and motor carrier users, as well as three years of support and maintenance	Software development and professional services	New contract	Request for Proposal	DOS	Q3 2009
	System interfaces to CVIEW	Modifications to existing legacy system interfaces (if required) to accommodate new CVIEW	Software development and professional services	Existing contracts	Task orders/contract modifications	DOS DOT DOR	Q3 2009
Electronic Credentialing	Trucking in Tennessee website	Website to provide single storefront environment to all of the State's CVO-related websites	Software development/professional services	Existing contract	Task order/contract modification	DOS	Q3 2009
Electronic Screening	Mobile Inspection Station	Mobile inspection station, including vehicle, roadside sensors (e.g., license plate readers, U.S. DOT number reader, transponder reader)	Hardware and software	New contract	Request for Proposal	DOS	Q1 2010

Procurement Item Group	Item to be Procured	Procurement Item	Category	Type	Contracting Approach		Earliest Possible Date of Procurement
					Method of Award	Procurement Leader	
		and necessary communication equipment to query CVIEW in real-time					

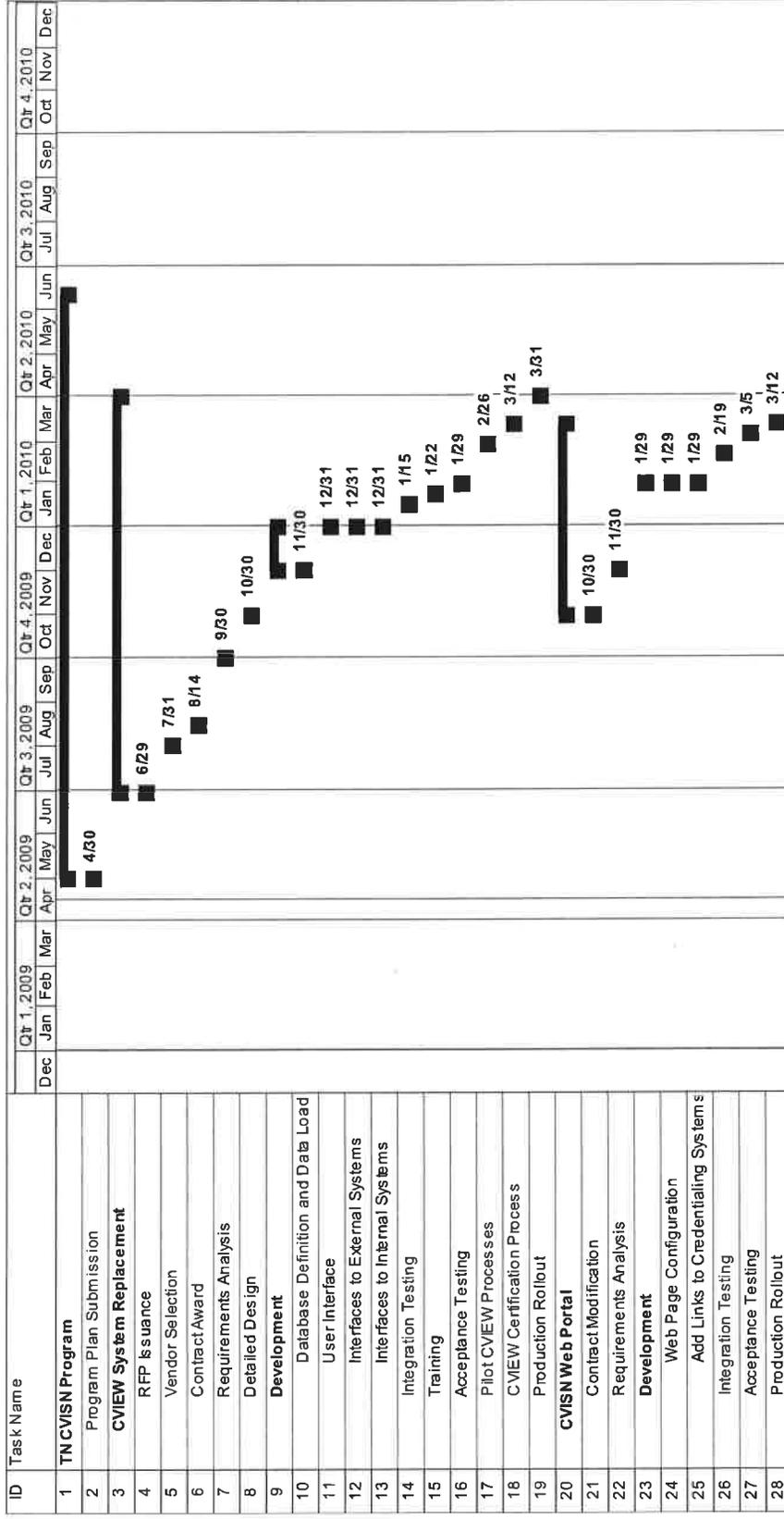
Table 4.1 Summary of Anticipated Procurements (continued)

Procurement Item Group	Item to be Procured	Procurement Item	Category	Type	Contracting Approach		Earliest Possible Date of Procurement
					Method of Award	Procurement Leader	
Program Management	Program Manager and System Architect	Two years of Program Management and System Architect services	Professional Services	New contract	Request for Proposal	DOS	Q3 2009

5.0 Program Schedule

Tennessee's CVISN program schedule is shown in the figures on the following pages. The State's current CVISN activities began in 2008 with the onset of development of this Expanded Program Plan/Top-Level Design. Timelines for projects (start to finish) including project phases are shown in the figures. Completion dates are shown for milestones associated with the projects (indicated by diamonds). Additional information will be added to the schedule when factors such as the selected vendor, the nature of the system that is available, the amount of customization needed to satisfy each agency's specific needs, available resources, etc. are known. Attempting to provide a greater level of detail than is presently shown will produce a schedule that is out of date soon after it is submitted.

Figure 5.1 Proposed Tennessee CVISN Deployment Schedule



Attachment B

ID	Task Name	Qtr 1, 2009			Qtr 2, 2009			Qtr 3, 2009			Qtr 4, 2009			Qtr 1, 2010			Qtr 2, 2010			Qtr 3, 2010			Qtr 4, 2010			
		Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
29	TN Mobile Inspection Station																									
30	RFP Issuance																									
31	Vendor Selection																									
32	Contract Award																									
33	Vehicle Delivery																									
34	Purchase Additional Hardware																									
35	License Plate Reader																									
36	US DOT Reader																									
37	Mobile Scales																									
38	Training																									
39	Production Rollout																									
40	Program Manager & System Architect																									
41	RFP Issuance																									
42	Vendor Selection																									
43	Contract Award																									
44	Transition Responsibilities																									

6.0 Program Budget and Funding Sources

**References to Budget Amounts and Funding Sources
have been deleted from this report.**

Table 6.1 Summary of Tennessee Expanded CVISN Costs

References to Budget Amounts and Funding Sources have been deleted from this report.

7.0 Outstanding Issues

Tennessee has identified several issues that need be investigated/resolved before the State can proceed with certain elements of its program. Specific issues as well as the agency responsible for investigating them are:

- Electronic Credentialing
 - Determine the feasibility of a single sign-on portal for motor carriers. (DOS)
- Safety Information Exchange
 - Determine if roadside enforcement personnel can access safety and credential data via Internet or if IT security protocols will require an alternate approach (i.e., intranet) to accessing this data from the roadside. (DOS)
 - Determine whether CVIEW products can accommodate data interfaces that have been deployed in connection with State's existing CVIEW. (DOS)
- Electronic Screening
 - Confirm with PrePass, State's e-screening provider, whether PrePass will update the credential information for Tennessee-based enrolled carriers via CVIEW or SAFER. (DOS)
- Program Management
 - Develop Memoranda of Understanding (MOU) between the participating agencies, in order to govern the inter-agency funding of projects, as well as the authorized use of data being shared between agencies. This must be completed as soon as possible. Without the MOU in place, DOR will not be able to share its data with other users due to the provisions on the Federal Driver's Privacy Protection Act. (DOS lead)
 - Ensure that UCR funds collected by the State are being used to support motor carrier safety programs and/or administration of the UCR program. (DOS)

INTERNET MONEY RECONCILIATION

DUPLICATES

DATE	NIC TOTAL	L2G TOTAL	DIFF	EXP.	L2G AMEX	L2G DISC	L2G VISA/MC	of Trans	of Trans L
FEB 1	1,344.00	1,204.00	-140.00	None Authoriz Transaction	88.00	24.00	1,092.00	151	136
FEB 2		4,760.00	4,760.00	No Report	188.00	48.00	4,524.00		
FEB 3		4,376.00	4,376.00	No Report	136.00	104.00	4,136.00		
FEB 4		4,096.00	4,096.00	No Report	132.00	80.00	3,884.00		
FEB 5	3,780.00	3,780.00	0.00		120.00	56.00	3,604.00	421	421
FEB 6	4,716.00	4,716.00	0.00		112.00	108.00	4,496.00	526	526
FEB 7	844.00	844.00	0.00		36.00	12.00	796.00	94	94
FEB 8	1,428.00	1,428.00	0.00		76.00		1,352.00	160	160
FEB 9	4,520.00	4,520.00	0.00		116.00	72.00	4,332.00	515	515
FEB 10	4,116.00	4,116.00	0.00		148.00	40.00	3,928.00	461	461
FEB 11	3,848.00	3,700.00	-148.00	None Authoriz Transaction	168.00	56.00	3,476.00	424	208
FEB 12	3,748.00	3,748.00	0.00		136.00	40.00	3,572.00	422	422
FEB 13	3,864.00	3,864.00	0.00		104.00	40.00	3,720.00	428	428