Description of Cost Data from State Self-Evaluations of Commercial Vehicle Information Systems and Networks (CVISN) Deployments (October 2003 to October 2005)

Report Prepared
February 20, 2006

For
U.S. Department of Transportation
Federal Motor Carrier Safety Administration
Washington, DC 20590

By
Battelle
505 King Avenue
Columbus, Ohio 43201-2693

Contract No. DTFH61-02-C-00134
Task Order BA34009

To help states track their own progress in deploying Commercial Vehicle Information Systems and Networks (CVISN) technologies, a self-evaluation requirement was included in the partnership agreements between the U.S. Department of Transportation (DOT) and individual states. This self-evaluation was tied to the U.S. DOT's support of infrastructure deployment and R&D in cooperation with the states. One purpose of the self-evaluation reports is to encourage—through the sharing of timely information—the widespread deployment of technologies that offer tangible benefits in safety, efficiency, and cost for both roadside (electronic screening and safety information exchange) and administrative (credentialing) operations related to commercial vehicles.

Data Collection

To assist states in completing their self-evaluation reports, and to help ensure that the data reported would be comparable across states for use in federal planning and analysis, three data collection forms or templates were developed and tested: Deployment, Costs, and Benefits/Lessons Learned. The **deployment** template covered the types and quantities of equipment deployed, the functions, operations, and features in place and planned within each state's CVISN deployment, and the scope of commercial vehicle operations in each state (e.g., populations of vehicles, numbers of motor carriers, numbers of inspection sites, and volume of inspections per year). The **cost** template covered the one-time start-up costs to deploy CVISN

technologies, including state employee and contracted labor, purchased equipment, materials, services, and software; fees paid to associations or administrators involved in CVISN data management; and annual labor and operations/maintenance costs to continue using the CVISN technologies once they are deployed. States could provide either actual or estimated costs. For annual costs, they were asked to report data from the most recent 12-month period. Costs were intended to reflect all costs incurred by the state government in the course of the deployment, regardless of whether the funds originated within the state, through a federal grant or match, or from some other funding source. The **benefits/lessons learned** template covered open-ended, qualitative topics, such as technical challenges, institutional issues, tangible benefits observed, and recommendations for other states and future deployment phases. The original cost template is attached to this report.

A password-protected web site interface for state CVISN program managers and their teams to use in populating the CVISN self-evaluation database was announced in late 2003. Once a state had entered its data and marked the templates as complete and verified, the data were added to a data review module on the same web site, in raw data and summary format, for other state CVISN program managers and their teams to review and analyze. States are welcome to add, modify, and update their self-evaluation reports at any time. Approximately 20 states have completed all three templates. State-identifiable self-evaluation data have not been released to the public.

Public Data Summary

The purpose of this report is to document the process for aggregating and summarizing the cost data to be posted for public view on the U.S. DOT's Intelligent Transportation Systems (ITS) Unit Costs Database web site, http://www.itscosts.its.dot.gov/. To avoid revealing any state's specific cost data, which may involve proprietary contractual or competitive information not intended for public release, the data exported from the self-evaluation database to the ITS Unit Costs Database are anonymous. All cost data in the self-evaluation database were considered, whether or not a state had marked its template as complete.

Method of Summarizing

The cost data included in this report were downloaded from the self-evaluation database (operated and maintained by Oak Ridge National Laboratory on behalf of the ITS Joint Program Office) in October 2005. States may have entered or modified their data on the templates at any time between 2003 and 2005. The downloaded database in MS Access format was processed using SAS to sort and arrange the records and to extract the relevant information fields, and then exported to MS Excel for presentation.

Response Rates. For any question or item on the templates, various numbers of states may have responded. Table 1 shows, in descending order of frequency, the distribution of the numbers of responses across all of the 69 cost categories or cost elements representing 396 cost records included in this report. For example, Table 1 shows that 14 of the 69 cost elements (questions) had only two data points or states reporting, and 12 cost elements had three states reporting.

Table 1. Distribution of Response Rates for All Reported Cost Elements

Frequency of Each "N" Value	N (Number of Responses per Question)
14	2
12	3
9	4
7	8
6	5
5	10
4	11
3	7
3	6
2	13
2	12
1	18
1	9
Total=69	

The maximum number of responses for any single question was 18. Most questions had between 2 and 11 responses. Blank or zero values were excluded from the summary, as were any questions or cost elements for which the database contained only one response. Also, any apparently erroneous values (e.g., when a state listed a total statewide cost instead of a unit cost, such as $137,000 for one desktop personal computer or $250,000 for one laptop computer) were excluded from the analysis. Like the self-evaluation database, the ITS Unit Costs Database segregates capital (one-time) and recurring operating and maintenance (O&M) costs. Labor costs are also divided between one-time start-up labor and recurring (annual) labor.

Selection of Low and High Cost Values. The structure of the ITS Unit Costs Database as posted on the web allows any cost element to have two values associated with it: a low cost and a high cost. To arrive at these two values, several approaches were considered, including

- Choosing the minimum and maximum from each range of values
- Excluding the two extreme values in each range and then choosing the remaining minimum and maximum
- Statistically calculating 95-percent (or some other percentage) prediction limits for the distribution of values
- Determining statistical quartile values, and then using the actual reported values closest to the 25^{th} and 75^{th} percentile values as representative of low cost and high cost values
- Analyzing each range of values visually, subjectively, and qualitatively and choosing two values that appeared to represent the most likely low and high costs a state would incur in deploying and using that element of CVISN.

It was decided that the two values should be within the range; that is the values should not be calculated or derived (as a mean or average might be). Many of the cost elements had extremely high and extremely low values within a range; and, as noted, the number of states responding to

any given question was low. Therefore, to select the low and high cost values from within each range, an analyst determined the 25th and 75th percentiles (first and third quartiles). Then the analyst reviewed each range of values visually to confirm that those two quartile values represented fair and realistic low and high costs. In the many cases where the true quartile boundary fell between two values in the range, the more central of the two values on either side of the quartile point, i.e., the two values adjacent to the boundary point and closer to the median of the range, were chosen. This approach took extreme values into account without allowing them to overwhelm the more moderate values.

In instances where only two to four states responded, the following data selection conventions were observed:

- **Two or Three** States Responding: The minimum was used as the low cost, and the maximum was used as the high cost

- **Four** States Responding: The two middle values were used as the low and high cost values.

Two examples are given below. For each range, the values chosen as low and high for reporting in the ITS Unit Costs Database are shown in **boldface.** In electronic credentialing, out of 13 states reporting, the range for *state employee* labor ($) for new software development (Question 8a) was as follows:

2,867,500
1,300,000
708,608
250,000
243,000
221,600
201,785
144,827
84,600
72,000
48,000
12,000
3,321

Out of 10 states reporting, the range for *contractor* labor ($) for new software development (Question 8c) was as follows:

3,048,500
1,022,000
901,789
836,379
500,792
500,000
298,000
150,000
80,000
25,463

”

Variability in the Data. For such highly variable datasets, with relatively small numbers of states reporting, the method selected is believed to be sound and reasonably reflective of the underlying source data. In the cost summary tables below, notes in the “Description” column indicate those cost elements that, like the two examples shown above, have extraordinarily wide variability from the minimum to the maximum, and where individual states may have reported costs that are widely different from the representative high and low values shown. Specifically, cost elements 7b, 8a, 8c, 16c, 19d, and 22c are designated in this way.

As another example of the variability in the data, some states perform all software development in-house, while others purchase software ready to install from vendors, purchase a basic package from a vendor and then have in-house programmers customize the software, or hire contractors or consultants to develop their software. The cost template requested separate cost values for state employee labor, contractor labor, and purchased software, which could each be highly variable, depending on the software development approach taken in that state. Thus, when evaluating the data for any given cost element, the user should bear in mind that not all states reported costs for all elements. A given state might have spent $800k for in-house software development labor, but $0 for contractor labor. Conversely, the neighboring state might have spent $0 for in-house (state employee) software development labor, but $800k for contractor labor.

For some labor cost elements, when a number of states reported labor hours as well as labor dollars, the “description” column of the cost summary lists an approximate range of full-time equivalents as reported, as a related point of reference and scale.

Equipment Service Life. Service life values (expressed in years) were the median values from among all of the values reported in each range. In cases where there were equal numbers of predicted life values—for example, two 4s and two 5s—the analyst rounded up to the 5-year service life.

Data Description and Qualifications/Exceptional Cases

The purpose of the CVISN infrastructure deployment program is to provide a unified structure or architecture within which each state can plan, develop, and deploy software and hardware systems customized to that state’s commercial vehicle operations and regulatory climate. Therefore, states enjoy wide latitude in selecting their own ways of participating in the CVISN program. This variability from state to state is reflected in the cost data.

The data presented in the ITS Unit Costs Database are organized around the three functions within CVISN, namely

- Electronic credentialing—the administration of carrier and vehicle credentials, licenses, taxes, and permits using web-based interfaces
- Roadside safety information exchange—the sharing of safety, inspection, and credentials information from central databases to inspectors at the roadside, and vice versa

- Electronic screening—transponder-based methods of allowing safe and compliant vehicles to bypass weigh and inspection stations.

Within each functional area, the start-up costs are presented first, followed by the annual or recurring costs.

Table 2 below presents the summary cost data (low and high costs only) to be imported into the ITS Unit Costs Database on the U.S. DOT web site. The cost date values shown for each cost element represent the year that each dollar value was reported by the state; however, in cases where the low and high values were reported in different years, rounding was used to arrive at a single cost date value. For example, if the low cost was reported in 2004 and the high cost was reported in 2005, then the two answers were rounded up, and 2005 was shown in Table 2. If one cost was reported in 2003 and the other in 2005, then again the higher or more recent value of 2005 was shown in Table 2. No escalation, inflation, or other adjustment to account for varying reporting years has been performed on the dollar values shown in Table 2.

Table 3 below presents all of the raw data used in this analysis of the CVISN self-evaluation data. The question numbers and sub-numbers in both tables refer to the identifying labels used in the original data collection templates (Attachment 1). The Flag values in Table 3 denote the two values in each cost element range chosen as the high (H) and low (L) cost values. Within each cost element or category, the reported costs are presented in descending order, with the greatest cost values at the top of each range.

The Function values refer to electronic credentialing (EC), safety information exchange (SIE), and electronic screening (ES). The values in the last column denote whether the reported cost is a one-time, start-up cost (S), or a recurring, annual cost (A).

Most of the values shown in this analysis are as reported by the states and are expressed in per-state (one-time) or per-state-per-year terms. In the case of electronic credentialing, however, it was decided to standardize the displayed values according to some common measures of credentialing activity, to more easily compare the data across states of varying sizes and operations. In the responses to Questions 9b through 10b (IRP credentialing) and Questions 11b through 12c (IFTA credentialing), the values are displayed in terms of dollars per thousand accounts reported, for IRP and IFTA programs respectively. The underlying basis values (numbers of accounts per state and total annual dollars per state) used to calculate the displayed values are shown in Table 3.

One of the benefits of CVISN is the unification of various commercial vehicle operations (CVO) activities under a single architecture for efficient sharing of data within and among states. Therefore, the division of the cost data into the three CVISN functional areas is somewhat artificial. For example, a state might develop a CVIEW (Commercial Vehicle Information Exchange Window) application that pulls data from that state's credentialing and roadside inspection operations for use in real-time electronic screening decisions at mainline speeds. This single software application could, in fact, be used for all three CVISN functions. Respondents were asked to make sure that they counted the development costs for such multi-functional software and equipment only once.

In two cases, anomalous values might have caused unreasonable results to be displayed. For Question 11a, annual membership fees paid to IFTA Clearinghouse, the predominant answer was $1,000 (nine out of 13 states reporting). However, three states reported higher amounts: $5,000, $11,000, and $18,000. According to the IFTA Clearinghouse, the fee is a flat $1,000 per jurisdiction, so the three highest values were disregarded, and $1,000 was used as both the low and high cost.

For Question 21c, contractor labor for electronic screening software development, only three states responded, with values of

- $630,000
- $187,689
- $185,000

Normally with three states responding, the minimum and maximum values would have been chosen for display. In this one instance, however, the value of $630,000 was considered anomalous; the other two values were chosen as the high and low cost values.

Table 2. Summary Data from CVISN Self-Evaluation (as of October 2005)

Q#	Sub#	Subsystem/Unit Cost Element	Lifetime Yrs	Capital		Cost Date	O&M		Cost Date	Description
				Low $k	High $k		Low $k/yr	High $k/yr		
		Commercial Vehicle Electronic Credentialing/Admin.								
6	a	Computer network server for EC	4	7.5	55	2004				Each
6	b	Personal computer (desktop or laptop) for EC administration	4	1.6	3	2005				Each
6	c	Supplies and materials for EC outreach, internal and external publicity, training, other deployment support		1	21	2003				Per state, consumables for publicity, training, and other deployment support
6	d	Bar code readers for law enforcement for EC		0.5	0.8	2004				Each
7	a	EC software purchased for back-end admin	5	40	74	2004				Per state, for database management and data processing or reporting
7	b	EC software purchased for front-end interface	5	72	261	2005				Per state, for user interface and data entry. Depending on the functionality of the interface being developed, the cost could be much higher or much lower than the range shown.
8	a	State employee labor for new EC software devel		72	250	2005				Per state. For states also reporting hours, FTEs ranged from about 0.2 to 2.6 FTE. Depending on the functionality of the system being developed, the dollar cost could be much higher or much lower than the range shown.
8	b	State employee labor for new EC hardware config		2.4	12	2003				Per state, after original hardware installation
8	c	Contractor labor for new EC software development		150	902	2003				Per state. For states also reporting hours, FTEs ranged from about 1 to 3 FTE. Depending on the functionality of the system being developed, the cost could be much higher, or much lower than the range shown.
8	d	Contractor labor for new EC hardware configuration		3.3	6.4	2004				Per state, after original hardware installation
8	g	Labor for existing (legacy) credentialing system interface and/or modification		12	40	2004				Per state, includes state employees, contractors, vendors. For states also reporting hours, FTEs ranged from about 0.1 to 0.4 FTE.

Q#	Sub#	Subsystem/Unit Cost Element	Lifetime Yrs	Capital		Cost Date	O&M		Cost Date	Description
				Low $k	High $k		Low $k/yr	High $k/yr		
8	h	Labor for EC training		5	12	2003				Per state cost to state agency. Examples: Start-up workshops, training and publicity materials for administrators, law enforcement, and PRISM carriers
8	i	Other start-up labor costs		10	40	2003				Per state, includes CVISN system architect, EC feasibility study; OS/OW permitting, program queries,IFTA/IRP program staff, maintenance, miscellaneous A&E, hardware, software, planning and facilitation, training and travel
9	a	Membership fees paid to IRP Clearinghouse (annual)					8	15	2004	Fees set by clearinghouse pro rata, based on registered power units per state
9	b	Annual fees to IRP EC admin (back-end)					11	63	2003	Per thousand accounts, for third-party administrator (e.g., VISTA, Polk)
9	c	Annual fees to IRP EC admin (front-end)					5	29	2004	Per thousand accounts, for third-party administrator (e.g., VISTA, Polk)
9	e	Recurring costs for EC outreach ($/thousand accts.)					0.5	0.9	2004	Per thousand accounts. Outreach includes marketing, promotional, attendance at trade shows, advertising, booklets.
10	a	State employee annual labor IRP credentialing (legacy)					45	159	2005	Per thousand accounts, for legacy system (pre-CVISN) labor
10	b	Contractor annual labor for IRP credentialing (legacy)					6	16	2004	Per thousand accounts, for legacy system (pre-CVISN) labor
11	a	Membership fees paid to IFTA Clearinghouse (annual)					1	1	2005	Fees set by clearinghouse
11	b	Annual fees to IFTA EC admin (back-end)					11	33	2004	Per thousand accounts, for third-party administrator (e.g., VISTA, Polk)
11	c	Annual fees to IFTA EC admin (front-end)					7	12	2004	Per thousand accounts, for third-party administrator (e.g., VISTA, Polk)
12	a	State employee annual labor IFTA credentialing (legacy)					13	105	2004	Per thousand accounts, for legacy system (pre-CVISN) labor
12	c	Vendor annual labor for IFTA credentialing (legacy)					1	18	2004	Per thousand accounts, for legacy system (pre-CVISN) labor
		Commercial Vehicle Safety Information Exchange								
14	a	Computer network server for SIE	4	5.5	25	2004				Each, includes mobile servers used in roadside enforcement

Q#	Sub#	Subsystem/Unit Cost Element	Lifetime Yrs	Capital		Cost Date	O&M		Cost Date	Description
				Low $k	High $k		Low $k/yr	High $k/yr		
14	b	Desktop personal computer for SIE	4	1.1	2	2004				Each, includes computers used at roadside check stations
14	c	Laptop personal computer for SIE	3	3	4	2004				Each
14	d	Portable printer for mobile enforcement	4	0.3	0.4	2004				Each
14	e	Wireless modem for vehicle and/or roadside use	3	0.5	0.9	2003				Each
14	f	Supplies and materials for SIE outreach, training		5	5	2004				Per state, consumables for publicity and other deployment support
14	ga	Router (Cisco) for SIE	5	5	12	2004				Each
14	gb	T1 Lines for SIE	5	3	30	2004				Each line
15	a	SIE software purchased off the shelf		6	20	2004				Per state
16	a	State employee labor for new SIE software development		19	118	2005				Per state; e.g., CVIEW. For states also reporting hours, FTEs ranged from about 0.2 to 2 FTE.
16	b	State employee labor for new SIE hardware configuration		4.8	5	2004				Per state
16	c	Contractor labor for new SIE software development		45	170	2004				Per state. Depending on the functionality of the system being developed, the cost could be much higher or much lower than the range shown.
16	g	Labor for existing (legacy) SIE system interface		72	250	2005				Per state, includes state employees, contractors, vendors
16	h	Labor for training for SIE system deployment		4	7.1	2004				Per state
17	b	Telephone and internet annual service charges for SIE					0.5	40	2004	Per state
17	c	Wireless communication annual charges for SIE					26	62	2004	Per state
18	a	State employee annual labor for SIE					19	63	2004	Per state
18	b	Contractor annual labor for SIE					14	40	2004	Per state
		Commercial Vehicle Elec. Screening (Preclearance)								
19	a	Computer network server dedicated to electronic screening	5	10	13	2004				Each
19	b	Desktop PC dedicated to electronic screening	5	2.5	3	2005				Each
19	c	Laptop personal computer dedicated to electronic screening	4	3	3	2004				Each
19	d	Mainline (highway speed) weigh-in-motion (WIM) scale	10	60	250	2004				Each. Depending on the functionality of the equipment deployed, the cost could be much higher or much lower than the range shown. Some states reported equipment cost only; others reported installed cost, with accessories, e.g., signs, loop detectors, wiring, etc.

Q#	Sub#	Subsystem/Unit Cost Element	Lifetime Yrs	Capital		Cost Date	O&M		Cost Date	Description
				Low $k	High $k		Low $k/yr	High $k/yr		
19	e	Sorter lane (ramp speed) WIM scale	12	100	250	2003				Each
19	f	ES transponder purchased by state for free distribution	5	0.01	0.05	2004				Each
19	g	ES transponder purchased by state for resale	4	0.04	0.05	2004				Each
19	h	Automated vehicle identification (AVI) equipment/system	10	50	99	2004				Each
19	i	ES telecom. equipment (upstream to weigh station)	20	0.8	28	2004				Per state, e.g., fiber optic cable
19	j	Electronic sign for weigh station	20	12	48	2004				Each, e.g., Open/Closed, directional arrows, or variable-message signs
19	k	Loop detector for weigh station	20	1	6	2005				Each
19	l	Upgrade of fixed-site weigh station for ES (excluding items listed above)		44	80	2004				Each. Some states reported building modifications, counters, cabinets, wiring, HVAC, structural changes to static scale building, highway poles and bases
19	m	One-time start-up fees paid to ES admin		15	15	2004				Per state, e.g., PrePass or Norpass
19	n	Supplies and materials for ES outreach and publicity		0.5	2	2004				Per state
20	a	ES software purchased off the shelf		0.5	4	2004				Per state
21	a	State employee labor for ES software development		12	29	2004				Per state
21	b	State employee labor for new ES hardware configuration		4.8	5	2004				Per state
21	c	Contractor labor for ES software development		185	188	2004				Per state
21	d	Contractor labor for new ES hardware configuration		130	189	2004				Per state
21	g	Labor for existing (legacy) system interface		29	30	2004				Per state, includes state employees, contractors, vendors
21	h	Labor for training associated with ES system deployment		3.6	20	2004				Per state
22	b	Annual payments made to ES admin					15	15	2005	Per state, e.g., PrePass or Norpass
22	c	Annual maintenance cost for mainline WIM scale					52	128	2004	Each. Depending on the functionality of the equipment being maintained, the cost could be much higher or much lower than the range shown.
22	d	Annual maintenance cost for sorter-lane WIM scale for ES					10	36	2004	Each
22	f	Annual costs for marketing, outreach, publicity, etc.					0.5	5	2004	Per state
23	aa	State employee annual labor for ES, higher-volume state					50	167	2004	Per state, volume based on relative numbers of carriers, vehicles, and inspections
23	ab	State employee annual labor for ES, lower-volume state					4.8	6	2004	Per state, volume based on relative numbers of carriers, vehicles, and inspections

Table 3. Expanded Data from CVISN Self-Evaluation (as of October 2005)

Q#	Sub#	Description	Flag	Cost	#_Accts	Total_$	Cost Date	ServLif, Yrs	Cost Type
6	a	Computer network server for EC		68,000			2005	5	Start
6	a	Computer network server for EC		63,000			2005	5	Start
6	a	Computer network server for EC	H	55,000			2004	.	Start
6	a	Computer network server for EC		22,000			2004	4	Start
6	a	Computer network server for EC		10,000			2004	.	Start
6	a	Computer network server for EC		10,000			2003	3	Start
6	a	Computer network server for EC	L	7,500			2004	3	Start
6	a	Computer network server for EC		5,000			2003	5	Start
6	a	Computer network server for EC		1,000			2003	4	Start
6	b	Personal computer for EC administration		137,678			2003	.	Start
6	b	Personal computer for EC administration		6,000			2004	5	Start
6	b	Personal computer for EC administration		4,000			2004	.	Start
6	b	Personal computer for EC administration	H	3,000			2004	4	Start
6	b	Personal computer for EC administration		2,000			2004	3	Start
6	b	Personal computer for EC administration		1,750			2004	.	Start
6	b	Personal computer for EC administration		1,700			2003	3	Start
6	b	Personal computer for EC administration	L	1,600			2005	4	Start
6	b	Personal computer for EC administration		1,200			2004	.	Start
6	b	Personal computer for EC administration		900			2003	4	Start
6	c	Consumable supplies and materials for EC outreach, training		50,000			2005	1	Start
6	c	Consumable supplies and materials for EC outreach, training		39,951			2003	.	Start
6	c	Consumable supplies and materials for EC outreach, training	H	20,712			2003	.	Start
6	c	Consumable supplies and materials for EC outreach, training		10,000			2003	.	Start
6	c	Consumable supplies and materials for EC outreach, training		8,300			2004	.	Start
6	c	Consumable supplies and materials for EC outreach, training		6,000			2004	.	Start
6	c	Consumable supplies and materials for EC outreach, training		5,000			2003	.	Start
6	c	Consumable supplies and materials for EC outreach, training		2,000			2003	.	Start
6	c	Consumable supplies and materials for EC outreach, training	L	1,000			2003	0	Start
6	c	Consumable supplies and materials for EC outreach, training		240			2004	.	Start
6	c	Consumable supplies and materials for EC outreach, training		76			2003	.	Start
6	d	Bar code readers for EC	H	800			2004	.	Start

Q#	Sub#	Description	Flag	Cost	#_Accts	Total_$	Cost Date	ServLif, Yrs	Cost Type
6	d	Bar code readers for law enforcement for EC	L	500			2004	.	Start
7	a	EC software for back-end administration		150,000			2003	5	Start
7	a	EC software for back-end administration	H	74,366			2004	.	Start
7	a	EC software for back-end administration		55,000			2004	.	Start
7	a	EC software for back-end administration		50,500			2003	.	Start
7	a	EC software for back-end administration		40,300			2003	5	Start
7	a	EC software for back-end administration	L	40,000			2004	.	Start
7	a	EC software for back-end administration		30,000			2004	4	Start
7	b	EC software for front-end interface		1,550,000			2004	.	Start
7	b	EC software for front-end interface	H	260,500			2005	5	Start
7	b	EC software for front-end interface		200,000			2003	.	Start
7	b	EC software for front-end interface		175,500			2005	4	Start
7	b	EC software for front-end interface	L	71,928			2004	.	Start
7	b	EC software for front-end interface		35,400			2003	.	Start
8	a	State employee labor for new EC software development		2,867,500			2003		Start
8	a	State employee labor for new EC software development		1,300,000			2003		Start
8	a	State employee labor for new EC software development		708,608			2003		Start
8	a	State employee labor for new EC software development	H	250,000			2005		Start
8	a	State employee labor for new EC software development		243,000			2004		Start
8	a	State employee labor for new EC software development		221,600			2003		Start
8	a	State employee labor for new EC software development		201,785			2004		Start
8	a	State employee labor for new EC software development		144,827			2003		Start
8	a	State employee labor for new EC software development		84,600			2003		Start
8	a	State employee labor for new EC software development	L	72,000			2004		Start
8	a	State employee labor for new EC software development		48,000			2003		Start
8	a	State employee labor for new EC software development		12,000			2003		Start
8	a	State employee labor for new EC software development		3,321			2005		Start
8	b	State employee labor for new EC hardware config	H	12,000			2003		Start
8	b	State employee labor for new EC hardware config		6,750			2004		Start
8	b	State employee labor for new EC hardware config	L	2,400			2003		Start
8	c	Contractor labor for new EC software development		3,048,500			2003		Start
8	c	Contractor labor for new EC software development		1,022,000			2004		Start
8	c	Contractor labor for new EC software development	H	901,789			2003		Start

Q#	Sub#	Description	Flag	Cost	#_Accts	Total_$	Cost Date	ServLif, Yrs	Cost Type
8	c	Contractor labor for new EC software development		836,379			2003		Start
8	c	Contractor labor for new EC software development		500,792			2003		Start
8	c	Contractor labor for new EC software development		500,000			2005		Start
8	c	Contractor labor for new EC software development		298,000			2003		Start
8	c	Contractor labor for new EC software development	L	150,000			2003		Start
8	c	Contractor labor for new EC software development		80,000			2004		Start
8	c	Contractor labor for new EC software development		25,463			2005		Start
8	d	Contractor labor for new EC hardware configuration	H	6,400			2004		Start
8	d	Contractor labor for new EC hardware configuration	L	3,300			2003		Start
8	g	Labor for existing EC system interface/modification		72,000			2005		Start
8	g	Labor for existing EC system interface/modification	H	40,000			2004		Start
8	g	Labor for existing EC system interface/modification		12,000			2003		Start
8	g	Labor for existing EC system interface/modification	L	12,000			2004		Start
8	g	Labor for existing EC system interface/modification		11,000			2003		Start
8	h	Labor for training for EC system development		92,000			2003		Start
8	h	Labor for training for EC system development		27,000			2004		Start
8	h	Labor for training for EC system development	H	12,000			2003		Start
8	h	Labor for training for EC system development		7,410			2003		Start
8	h	Labor for training for EC system development		6,000			2004		Start
8	h	Labor for training for EC system development	L	5,000			2003		Start
8	h	Labor for training for EC system development		2,400			2003		Start
8	h	Labor for training for EC system development		1,100			2003		Start
8	i	Travel expenses for EC	H	40,265			2003		Start
8	i	Travel expenses for EC	L	10,000			2003		Start
9	a	Membership fees paid to IRP Clearinghouse		18,000			2003		Annual
9	a	Membership fees paid to IRP Clearinghouse		18,000			2003		Annual
9	a	Membership fees paid to IRP Clearinghouse		15,800			2004		Annual
9	a	Membership fees paid to IRP Clearinghouse		15,800			2004		Annual
9	a	Membership fees paid to IRP Clearinghouse	H	15,000			2003		Annual
9	a	Membership fees paid to IRP Clearinghouse		15,000			2003		Annual
9	a	Membership fees paid to IRP Clearinghouse		12,000			2004		Annual
9	a	Membership fees paid to IRP Clearinghouse		11,850			2004		Annual
9	a	Membership fees paid to IRP Clearinghouse		11,850			2005		Annual

Q#	Sub#	Description	Flag	Cost	#_Accts	Total_$	Cost Date	ServLif, Yrs	Cost Type
9	a	Membership fees paid to IRP Clearinghouse		11,850			2004		Annual
9	a	Membership fees paid to IRP Clearinghouse		11,850			2004		Annual
9	a	Membership fees paid to IRP Clearinghouse		11,850			2003		Annual
9	a	Membership fees paid to IRP Clearinghouse		11,850			2003		Annual
9	a	Membership fees paid to IRP Clearinghouse	L	8,000			2004		Annual
9	a	Membership fees paid to IRP Clearinghouse		7,900			2004		Annual
9	a	Membership fees paid to IRP Clearinghouse		4,800			2003		Annual
9	a	Membership fees paid to IRP Clearinghouse		4,740			2003		Annual
9	a	Membership fees paid to IRP Clearinghouse		4,740			2003		Annual
9	b	Fees for third-party IRP cred. admin. (back-end, $/thousand accts.)		82,826	2,300	190,500	2004		Annual
9	b	Fees for third-party IRP cred. admin. (back-end, $/thousand accts.)		69,270	2,800	193,957	2004		Annual
9	b	Fees for third-party IRP cred. admin. (back-end, $/thousand accts.)	H	63,280	2,500	158,200	2003		Annual
9	b	Fees for third-party IRP cred. admin. (back-end, $/thousand accts.)		44,398	9,100	404,019	2004		Annual
9	b	Fees for third-party IRP cred. admin. (back-end, $/thousand accts.)		43,566	7,400	322,388	2004		Annual
9	b	Fees for third-party IRP cred. admin. (back-end, $/thousand accts.)	L	10,909	1,100	12,000	2003		Annual
9	b	Fees for third-party IRP cred. admin. (back-end, $/thousand accts.)		8,571	14,000	120,000	2003		Annual
9	b	Fees for third-party IRP cred. admin. (back-end, $/thousand accts.)		4,321	8,100	35,000	2003		Annual
9	c	Fees for third-party IRP cred. admin. (front-end, $/thousand accts.)		48,000	2,500	120,000	2003		Annual
9	c	Fees for third-party IRP cred. admin. (front-end, $/thousand accts.)	H	28,577	2,300	65,727	2004		Annual
9	c	Fees for third-party IRP cred. admin. (front-end, $/thousand accts.)		13,333	1,500	20,000	2003		Annual
9	c	Fees for third-party IRP cred. admin. (front-end, $/thousand accts.)		7,432	7,400	55,000	2004		Annual
9	c	Fees for third-party IRP cred. admin. (front-end, $/thousand accts.)	L	4,933	9,100	44,891	2004		Annual
9	c	Fees for third-party IRP cred. admin. (front-end, $/thousand accts.)		3,922	5,100	20,000	2005		Annual
9	e	Recurring costs for EC marketing and outreach ($/thousand accts.)	H	893	2,800	2,500	2004		Annual
9	e	Recurring costs for EC marketing and outreach ($/thousand accts.)	L	476	2,100	1,000	2003		Annual
10	a	State employee annual labor IRP EC ($/thousand accts.)		285,714	2,100	600,000	2003		Annual
10	a	State employee annual labor IRP EC ($/thousand accts.)		198,786	2,800	556,600	2004		Annual
10	a	State employee annual labor IRP EC ($/thousand accts.)	H	158,548	14,600	2,314,800	2003		Annual
10	a	State employee annual labor IRP EC ($/thousand accts.)		110,329	4,000	441,315	2004		Annual
10	a	State employee annual labor IRP EC ($/thousand accts.)		89,908	2,543	228,635	2003		Annual
10	a	State employee annual labor IRP EC ($/thousand accts.)		80,000	2,500	200,000	2003		Annual
10	a	State employee annual labor IRP EC ($/thousand accts.)		62,500	16,000	1,000,000	2004		Annual
10	a	State employee annual labor IRP EC ($/thousand accts.)		56,010	8,900	498,488	2004		Annual

Q#	Sub#	Description	Flag	Cost	#_Accts	Total_$	Cost Date	ServLif, Yrs	Cost Type
10	a	State employee annual labor IRP EC ($/thousand accts.)	L	45,294	5,100	231,000	2005		Annual
10	a	State employee annual labor IRP EC ($/thousand accts.)		11,429	2,100	24,000	2003		Annual
10	a	State employee annual labor IRP EC ($/thousand accts.)		5,168	11,609	60,000	2004		Annual
10	b	Contractor annual labor for IRP credentialing ($/thousand accts.)	H	16,250	4,000	65,000	2004		Annual
10	b	Contractor annual labor for IRP credentialing ($/thousand accts.)		8,571	14,000	120,000	2003		Annual
10	b	Contractor annual labor for IRP credentialing ($/thousand accts.)	L	6,250	16,000	100,000	2004		Annual
11	a	Membership fees paid to IFTA Clearinghouse		18,000			2003		Annual
11	a	Membership fees paid to IFTA Clearinghouse		11,000			2003		Annual
11	a	Membership fees paid to IFTA Clearinghouse		5,000			2003		Annual
11	a	Membership fees paid to IFTA Clearinghouse	H	1,000			2003		Annual
11	a	Membership fees paid to IFTA Clearinghouse		1,000			2003		Annual
11	a	Membership fees paid to IFTA Clearinghouse		1,000			2004		Annual
11	a	Membership fees paid to IFTA Clearinghouse		1,000			2004		Annual
11	a	Membership fees paid to IFTA Clearinghouse		1,000			2005		Annual
11	a	Membership fees paid to IFTA Clearinghouse		1,000			2004		Annual
11	a	Membership fees paid to IFTA Clearinghouse	L	1,000			2003		Annual
11	a	Membership fees paid to IFTA Clearinghouse		1,000			2004		Annual
11	a	Membership fees paid to IFTA Clearinghouse		1,000			2004		Annual
11	a	Membership fees paid to IFTA Clearinghouse		5			2003		Annual
11	b	Fees for third-party IFTA cred. admin. (back-end, $/thousand accts.)		87,500	1,800	157,500	2004		Annual
11	b	Fees for third-party IFTA cred. admin. (back-end, $/thousand accts.)		34,675	7,000	242,724	2004		Annual
11	b	Fees for third-party IFTA cred. admin. (back-end, $/thousand accts.)	H	33,214	2,800	93,000	2003		Annual
11	b	Fees for third-party IFTA cred. admin. (back-end, $/thousand accts.)		30,000	4,000	120,000	2004		Annual
11	b	Fees for third-party IFTA cred. admin. (back-end, $/thousand accts.)		12,605	11,900	150,000	2004		Annual
11	b	Fees for third-party IFTA cred. admin. (back-end, $/thousand accts.)	L	11,318	6,100	69,039	2004		Annual
11	b	Fees for third-party IFTA cred. admin. (back-end, $/thousand accts.)		10,000	1,200	12,000	2003		Annual
11	b	Fees for third-party IFTA cred. admin. (back-end, $/thousand accts.)		7,609	4,600	35,000	2003		Annual
11	c	Fees for third-party IFTA cred. admin. (front-end, $/thousand accts.)		15,385	1,300	20,000	2003		Annual
11	c	Fees for third-party IFTA cred. admin. (front-end, $/thousand accts.)	H	11,607	2,800	32,500	2003		Annual
11	c	Fees for third-party IFTA cred. admin. (front-end, $/thousand accts.)	L	7,143	7,000	50,000	2004		Annual
11	c	Fees for third-party IFTA cred. admin. (front-end, $/thousand accts.)		4,878	4,100	20,000	2005		Annual
12	a	State employee annual labor IFTA EC ($/thousand accts.)		289,256	12,100	3,500,000	2003		Annual
12	a	State employee annual labor IFTA EC ($/thousand accts.)		111,380	2,316	257,956	2003		Annual

Q#	Sub#	Description	Flag	Cost	#_Accts	Total_$	Cost Date	ServLif, Yrs	Cost Type
12	a	State employee annual labor IFTA EC ($/thousand accts.)	H	105,075	4,200	441,315	2004		Annual
12	a	State employee annual labor IFTA EC ($/thousand accts.)		47,479	11,900	565,000	2004		Annual
12	a	State employee annual labor IFTA EC ($/thousand accts.)		37,561	4,100	154,000	2005		Annual
12	a	State employee annual labor IFTA EC ($/thousand accts.)		35,714	2,800	100,000	2003		Annual
12	a	State employee annual labor IFTA EC ($/thousand accts.)		14,286	4,200	60,000	2004		Annual
12	a	State employee annual labor IFTA EC ($/thousand accts.)	L	13,333	1,800	24,000	2003		Annual
12	a	State employee annual labor IFTA EC ($/thousand accts.)		12,409	11,000	136,500	2004		Annual
12	a	State employee annual labor IFTA EC ($/thousand accts.)		7,828	3,100	24,266	2004		Annual
12	c	Vendor annual labor for IFTA EC ($/thousand accts.)	H	18,182	12,100	220,000	2003		Annual
12	c	Vendor annual labor for IFTA EC ($/thousand accts.)		10,417	1,200	12,500	2003		Annual
12	c	Vendor annual labor for IFTA EC ($/thousand accts.)	L	1,261	11,900	15,000	2004		Annual
14	a	Computer network server for SIE		30,000			2004	5	Start
14	a	Computer network server for SIE		30,000			2004	6	Start
14	a	Computer network server for SIE	H	25,000			2003	3	Start
14	a	Computer network server for SIE		15,000			2004	4	Start
14	a	Computer network server for SIE		14,200			2005	5	Start
14	a	Computer network server for SIE		13,000			2004	5	Start
14	a	Computer network server for SIE		13,000			2005	4	Start
14	a	Computer network server for SIE	L	5,500			2004	3	Start
14	a	Computer network server for SIE		3,000			2003	4	Start
14	a	Computer network server for SIE		2,000			2003	4	Start
14	b	Desktop personal computer for SIE		4,000			2004	4	Start
14	b	Desktop personal computer for SIE		2,500			2004	4	Start
14	b	Desktop personal computer for SIE	H	2,000			2004	3	Start
14	b	Desktop personal computer for SIE		1,800			2003	4	Start
14	b	Desktop personal computer for SIE		1,600			2005	4	Start
14	b	Desktop personal computer for SIE		1,500			2003	4	Start
14	b	Desktop personal computer for SIE		1,250			2003	5	Start
14	b	Desktop personal computer for SIE	L	1,100			2004	3	Start
14	b	Desktop personal computer for SIE		1,000			2004	.	Start
14	b	Desktop personal computer for SIE		750			2003	.	Start
14	c	Laptop personal computer for SIE		25,000			2003	4	Start
14	c	Laptop personal computer for SIE		5,000			2004	3	Start

Q#	Sub#	Description	Flag	Cost	#_Accts	Total_$	Cost Date	ServLif, Yrs	Cost Type
14	c	Laptop personal computer for SIE		4,000			2004	.	Start
14	c	Laptop personal computer for SIE	H	4,000			2003	3	Start
14	c	Laptop personal computer for SIE		4,000			2004	3	Start
14	c	Laptop personal computer for SIE		4,000			2003	3	Start
14	c	Laptop personal computer for SIE		3,400			2003	.	Start
14	c	Laptop personal computer for SIE		3,100			2003	3	Start
14	c	Laptop personal computer for SIE	L	3,000			2004	4	Start
14	c	Laptop personal computer for SIE		3,000			2003	5	Start
14	c	Laptop personal computer for SIE		2,800			2005	4	Start
14	c	Laptop personal computer for SIE		2,400			2004	3	Start
14	d	Portable printer for SIE mobile enforcement		670			2003	.	Start
14	d	Portable printer for SIE mobile enforcement		500			2003	5	Start
14	d	Portable printer for SIE mobile enforcement		400			2003	2	Start
14	d	Portable printer for SIE mobile enforcement	H	400			2004	2	Start
14	d	Portable printer for SIE mobile enforcement		350			2003	4	Start
14	d	Portable printer for SIE mobile enforcement		350			2003	.	Start
14	d	Portable printer for SIE mobile enforcement		325			2003	.	Start
14	d	Portable printer for SIE mobile enforcement		300			2003	4	Start
14	d	Portable printer for SIE mobile enforcement	L	300			2004	3	Start
14	d	Portable printer for SIE mobile enforcement		300			2004	4	Start
14	d	Portable printer for SIE mobile enforcement		240			2004	3	Start
14	d	Portable printer for SIE mobile enforcement		200			2005	4	Start
14	e	Wireless modem for SIE vehicle and/or roadside use		5,000			2004	5	Start
14	e	Wireless modem for SIE vehicle and/or roadside use		3,500			2003	5	Start
14	e	Wireless modem for SIE vehicle and/or roadside use	H	850			2003	.	Start
14	e	Wireless modem for SIE vehicle and/or roadside use		850			2003	.	Start
14	e	Wireless modem for SIE vehicle and/or roadside use		700			2004	2	Start
14	e	Wireless modem for SIE vehicle and/or roadside use	L	500			2003	4	Start
14	e	Wireless modem for SIE vehicle and/or roadside use		250			2004	2	Start
14	e	Wireless modem for SIE vehicle and/or roadside use		125			2004	3	Start
14	f	Consumable supplies and materials for SIE outreach, training		7,500			2003	.	Start
14	f	Consumable supplies and materials for SIE outreach, training	H	5,000			2004	.	Start
14	f	Consumable supplies and materials for SIE outreach, training	L	5,000			2004	.	Start

Q#	Sub#	Description	Flag	Cost	#_Accts	Total_$	Cost Date	ServLif, Yrs	Cost Type
14	f	Consumable supplies and materials for SIE outreach, training		4,000			2003	.	Start
14	ga	Router (Cisco) for SIE	H	12,000			2004	5	Start
14	ga	Router (Cisco) for SIE		6,000			2004	5	Start
14	ga	Router for SIE	L	5,000			2004	5	Start
14	gb	T1 Lines for SIE	H	30,000			2004	5	Start
14	gb	T1 lines to fixed scales for SIE	L	3,000			2004	.	Start
15	a	SIE software purchased off the shelf	H	20,000			2004		Start
15	a	SIE software purchased off the shelf		12,000			2005		Start
15	a	SIE software purchased off the shelf	L	6,000			2003		Start
16	a	State employee labor for new SIE software development		215,822			2003		Start
16	a	State employee labor for new SIE software development		132,000			2003		Start
16	a	State employee labor for new SIE software development	H	117,852			2005		Start
16	a	State employee labor for new SIE software development		92,000			2003		Start
16	a	State employee labor for new SIE software development		80,000			2004		Start
16	a	State employee labor for new SIE software development		75,000			2003		Start
16	a	State employee labor for new SIE software development		58,568			2004		Start
16	a	State employee labor for new SIE software development		50,000			2003		Start
16	a	State employee labor for new SIE software development	L	19,200			2003		Start
16	a	State employee labor for new SIE software development		15,700			2003		Start
16	a	State employee labor for new SIE software development		5,000			2004		Start
16	b	State employee labor for new SIE hardware configuration	H	5,000			2004		Start
16	b	State employee labor for new SIE hardware configuration	L	4,888			2004		Start
16	c	Contractor labor for new SIE software development		1,471,929			2003		Start
16	c	Contractor labor for new SIE software development		796,240			2005		Start
16	c	Contractor labor for new SIE software development	H	170,000			2003		Start
16	c	Contractor labor for new SIE software development		84,600			2003		Start
16	c	Contractor labor for new SIE software development		50,000			2004		Start
16	c	Contractor labor for new SIE software development	L	45,000			2004		Start
16	c	Contractor labor for new SIE software development		40,000			2003		Start
16	c	Contractor labor for new SIE software development		36,540			2004		Start
16	g	Labor for existing (legacy) SIE system interface/modification		520,093			2005		Start
16	g	Labor for existing (legacy) SIE system interface/modification	H	250,000			2004		Start
16	g	Labor for existing (legacy) SIE system interface/modification	L	72,000			2005		Start

Q#	Sub#	Description	Flag	Cost	#_Accts	Total_$	Cost Date	ServLif, Yrs	Cost Type
16	g	Labor for existing (legacy) SIE system interface/modification		12,000			2003		Start
16	h	Labor for training for SIE system deployment	H	7,140			2004		Start
16	h	Labor for training for SIE system deployment	L	4,000			2004		Start
17	b	Telephone and internet annual service charges for SIE		43,176			2004		Annual
17	b	Telephone and internet annual service charges for SIE	H	40,000			2004		Annual
17	b	Telephone and internet annual service charges for SIE		10,080			2004		Annual
17	b	Telephone and internet annual service charges for SIE		5,000			2004		Annual
17	b	Telephone and internet annual service charges for SIE		1,104			2003		Annual
17	b	Telephone and internet annual service charges for SIE	L	500			2003		Annual
17	b	Telephone and internet annual service charges for SIE		460			2004		Annual
17	c	Wireless communication charges for SIE		68,796			2004		Annual
17	c	Wireless communication charges for SIE	H	61,620			2004		Annual
17	c	Wireless communication charges for SIE	L	26,400			2004		Annual
17	c	Wireless communication charges for SIE		60			2004		Annual
18	a	State employee annual labor for SIE		140,000			2004		Annual
18	a	State employee annual labor for SIE	H	62,865			2004		Annual
18	a	State employee annual labor for SIE		54,200			2003		Annual
18	a	State employee annual labor for SIE		35,000			2005		Annual
18	a	State employee annual labor for SIE		24,543			2004		Annual
18	a	State employee annual labor for SIE	L	19,200			2003		Annual
18	a	State employee annual labor for SIE		4,000			2003		Annual
18	b	Contractor annual labor for SIE		65,000			2004		Annual
18	b	Contractor annual labor for SIE	H	40,000			2004		Annual
18	b	Contractor annual labor for SIE		35,200			2003		Annual
18	b	Contractor annual labor for SIE	L	14,000			2003		Annual
18	b	Contractor annual labor for SIE		5,000			2003		Annual
19	a	Computer network server for ES		19,308			2004	5	Start
19	a	Computer network server for ES	H	13,000			2004	10	Start
19	a	Computer network server for ES	L	10,000			2004	.	Start
19	a	Computer network server for ES		3,000			2004	3	Start
19	b	Desktop personal computer for ES		3,000			2004	.	Start
19	b	Desktop personal computer for ES	H	3,000			2004	5	Start
19	b	Desktop personal computer for ES	L	2,500			2005	5	Start

Q#	Sub#	Description	Flag	Cost	#_Accts	Total_$	Cost Date	ServLif, Yrs	Cost Type
19	b	Desktop personal computer for ES		2,349			2004	4	Start
19	c	Laptop personal computer for ES		250,000			2003	.	Start
19	c	Laptop personal computer for ES	H	3,000			2004	4	Start
19	c	Laptop personal computer for ES	L	3,000			2004	3	Start
19	d	Mainline (highway speed) weigh-in-motion (WIM) scale for ES		786,000			2004	3	Start
19	d	Mainline (highway speed) weigh-in-motion (WIM) scale for ES		441,042			2003	.	Start
19	d	Mainline (highway speed) weigh-in-motion (WIM) scale for ES	H	250,000			2003	12	Start
19	d	Mainline (highway speed) weigh-in-motion (WIM) scale for ES		241,000			2005	20	Start
19	d	Mainline (highway speed) weigh-in-motion (WIM) scale for ES		100,000			2003	5	Start
19	d	Mainline (highway speed) weigh-in-motion (WIM) scale for ES	L	60,000			2004	5	Start
19	d	Mainline (highway speed) weigh-in-motion (WIM) scale for ES		48,597			2004	15	Start
19	d	Mainline (highway speed) weigh-in-motion (WIM) scale for ES		40,000			2004	10	Start
19	e	Sorter lane (ramp speed) WIM scale for ES		668,000			2003	.	Start
19	e	Sorter lane (ramp speed) WIM scale for ES	H	250,000			2003	12	Start
19	e	Sorter lane (ramp speed) WIM scale for ES	L	100,000			2003	.	Start
19	e	Sorter lane (ramp speed) WIM scale for ES		19,000			2004	.	Start
19	f	ES transponder purchased by state for free distribution	H	50			2004	6	Start
19	f	ES transponder purchased by state for free distribution		45			2005	3	Start
19	f	ES transponder purchased by state for free distribution	L	12			2004	5	Start
19	g	ES transponder purchased by state for resale	H	50			2004	3	Start
19	g	ES transponder purchased by state for resale	L	35			2004	5	Start
19	h	Automated vehicle identification (AVI) equipment/system for ES		400,000			2005	.	Start
19	h	Automated vehicle identification (AVI) equipment/system for ES	H	99,212			2004	10	Start
19	h	Automated vehicle identification (AVI) equipment/system for ES		50,000			2004	.	Start
19	h	Automated vehicle identification (AVI) equipment/system for ES	L	50,000			2004	6	Start
19	h	Automated vehicle identification (AVI) equipment/system for ES		14,000			2004	.	Start
19	i	ES telecommunication equipment (upstream to weigh station)	H	28,000			2004	.	Start
19	i	ES telecommunication equipment (upstream to weigh station)		4,000			2005	20	Start
19	i	ES telecommunication equipment (upstream to weigh station)	L	835			2004	.	Start
19	j	Electronic sign for weigh station for ES		78,000			2005	20	Start
19	j	Electronic sign for weigh station for ES	H	48,400			2004	10	Start
19	j	Electronic sign for weigh station for ES		40,000			2004	.	Start
19	j	Electronic sign for weigh station for ES	L	12,000			2004	.	Start

Q#	Sub#	Description	Flag	Cost	#_Accts	Total_$	Cost Date	ServLif, Yrs	Cost Type
19	j	Electronic sign for weigh station for ES		6,000			2003	.	Start
19	k	Loop detector for weigh station for ES		11,472			2004	.	Start
19	k	Loop detector for weigh station for ES	H	6,000			2005	20	Start
19	k	Loop detector for weigh station for ES		1,600			2003	.	Start
19	k	Loop detector for weigh station for ES	L	1,000			2004	.	Start
19	k	Loop detector for weigh station for ES		500			2004	.	Start
19	l	Upgrade of existing fixed-site weigh station infrastructure for ES		410,000			2005	40	Start
19	l	Upgrade of existing fixed-site weigh station infrastructure for ES	H	80,000			2004	5	Start
19	l	Upgrade of existing fixed-site weigh station infrastructure for ES	L	44,146			2004	7	Start
19	l	Upgrade of existing fixed-site weigh station infrastructure for ES		18,000			2004	.	Start
19	m	One-time start-up fees paid to ES admin		15,000			2004	.	Start
19	m	One-time start-up fees paid to ES admin	H	15,000			2003	.	Start
19	m	One-time start-up fees paid to ES admin	L	15,000			2005	1	Start
19	m	One-time start-up fees paid to ES admin		12,000			2003	.	Start
19	n	Supplies and materials for ES outreach and publicity	H	2,000			2004	.	Start
19	n	Supplies and materials for ES outreach and publicity	L	500			2004	.	Start
19	n	Supplies and materials for ES outreach and publicity		3			2004	.	Start
20	a	ES software purchased off the shelf	H	4,000			2004		Start
20	a	ES software purchased off the shelf	L	500			2004		Start
21	a	State employee labor for ES software development	H	29,284			2004		Start
21	a	State employee labor for ES software development		20,000			2003		Start
21	a	State employee labor for ES software development	L	12,300			2003		Start
21	b	State employee labor for new ES hardware configuration	H	5,000			2004		Start
21	b	State employee labor for new ES hardware configuration	L	4,888			2004		Start
21	c	Contractor labor for ES software development		630,000			2004		Start
21	c	Contractor labor for ES software development	H	187,689			2004		Start
21	c	Contractor labor for ES software development	L	185,000			2004		Start
21	d	Contractor labor for new ES hardware configuration	H	188,736			2004		Start
21	d	Contractor labor for new ES hardware configuration	L	130,000			2004		Start
21	g	Labor for legacy system interface/modification for ES	H	30,000			2004		Start
21	g	Labor for legacy system interface/modification for ES	L	29,284			2004		Start
21	h	Labor for training for ES deployment		34,900			2003		Start

Q#	Sub#	Description	Flag	Cost	#_Accts	Total_$	Cost Date	ServLif, Yrs	Cost Type
21	h	Labor for training for ES deployment	H	20,000			2004		Start
21	h	Labor for training for ES deployment		14,928			2004		Start
21	h	Labor for training for ES deployment		9,216			2005		Start
21	h	Labor for training for ES deployment	L	3,600			2003		Start
21	h	Labor for training for ES deployment		1,000			2004		Start
22	b	Annual payments made to ES admin		30,000			2004		Annual
22	b	Annual payments made to ES admin		15,000			2003		Annual
22	b	Annual payments made to ES admin	H	15,000			2004		Annual
22	b	Annual payments made to ES admin		15,000			2004		Annual
22	b	Annual payments made to ES admin		15,000			2004		Annual
22	b	Annual payments made to ES admin		15,000			2004		Annual
22	b	Annual payments made to ES admin		15,000			2003		Annual
22	b	Annual payments made to ES admin		15,000			2004		Annual
22	b	Annual payments made to ES admin	L	15,000			2005		Annual
22	b	Annual payments made to ES admin		12,000			2003		Annual
22	b	Annual payments made to ES admin		10,000			2003		Annual
22	c	Annual maintenance cost for mainline WIM scale for ES		800,000			2003		Annual
22	c	Annual maintenance cost for mainline WIM scale for ES		172,800			2004		Annual
22	c	Annual maintenance cost for mainline WIM scale for ES	H	128,000			2004		Annual
22	c	Annual maintenance cost for mainline WIM scale for ES		84,000			2004		Annual
22	c	Annual maintenance cost for mainline WIM scale for ES		80,000			2004		Annual
22	c	Annual maintenance cost for mainline WIM scale for ES	L	52,000			2004		Annual
22	c	Annual maintenance cost for mainline WIM scale for ES		12,000			2003		Annual
22	c	Annual maintenance cost for mainline WIM scale for ES		5,000			2003		Annual
22	d	Annual maintenance cost for sorter-lane WIM scale for ES	H	36,000			2003		Annual
22	d	Annual maintenance cost for sorter-lane WIM scale for ES	L	10,000			2004		Annual
22	f	Recurring costs for ES marketing, outreach, publicity, etc.	H	5,000			2004		Annual
22	f	Recurring costs for ES marketing, outreach, publicity, etc.		500			2004		Annual
22	f	Recurring costs for ES marketing, outreach, publicity, etc.	L	500			2004		Annual
23	aa	State employee annual labor for ES, higher-volume state		198,072			2003		Annual
23	aa	State employee annual labor for ES, higher-volume state	H	167,128			2003		Annual
23	aa	State employee annual labor for ES, higher-volume state		58,568			2004		Annual
23	aa	State employee annual labor for ES, higher-volume state	L	50,000			2004		Annual

Q#	Sub#	Description	Flag	Cost	#_Accts	Total_$	Cost Date	ServLif, Yrs	Cost Type
23	aa	State employee annual labor for ES, higher-volume state		24,000			2003		Annual
23	ab	State employee annual labor for ES, lower-volume state	H	6,000			2004		Annual
23	ab	State employee annual labor for ES, lower-volume state	L	4,800			2003		Annual

Attachment 1

Original Data Collection Template and Instructions for CVISN Self-Evaluation Cost Data (Distributed October 2003)

Guidance to Respondents

Enclosed are three questionnaire-style templates for your use in preparing your state's CVISN Self-Evaluation Report. The templates are designed to help you report on the status and plans for CVISN deployment, costs, benefits, and lessons learned in your state, and to help the U.S. DOT combine, compare, analyze, and publish information on deployments across all states receiving CVISN earmark funds for infrastructure deployment.

By completing and returning the three enclosed templates, you will have provided the major part of your self-evaluation report to DOT, which is required under the terms of your partnership agreement with the Federal ITS earmark program.

You are asked to complete the templates by December 19, 2003**.** Be sure to keep a copy of the completed templates for your records. Please contact me by e-mail, Jeff.Secrist@ fmcsa.dot.gov, or by phone at (202) 385-2367, if you need more information about the CVISN self-evaluation program in general. Please send completed templates and supporting information for to Vince Brown at Battelle, 505 King Avenue, Columbus, Ohio 43201-2693, or via fax (614-424-4250) or email (brownv@battelle.org). This hard-copy version is intended to match the content of the Web-based self-evaluation templates. If you have questions about the Web-based data collection templates, contact Pamela Vandergriff at vandergriffp@saic.com.

Below is some background information on the self-evaluation process and guidance for completing the three templates. Note that separate guidelines are included for each template, in case you need to distribute any of the three templates to other agencies or departments for completion.

Purpose of the Self-Evaluation Process

Self-evaluation reports are expected to foster the widespread deployment of CVISN through the sharing of timely, accurate, usable information among states. That is, states now in the planning, decision-making, or early deployment stages can learn from the experiences of others; and states further along in the deployment process can learn new ideas that might help them improve their existing systems and networks. Self-evaluation reports will also help DOT in overall program planning and economic/investment analyses.

Purpose of the Templates

As part of the ITS Partnership Agreement for states to receive federal funds under TEA-21, each state has agreed to prepare and submit to DOT a self-evaluation report, which is to cover three main topics:

1. Lessons Learned

2. Benefits of CVISN
3. Costs of CVISN.

The Federal Motor Carrier Safety Administration (FMCSA), in cooperation with the ITS Joint Program Office, has developed a series of self-evaluation templates or information collection forms that will yield important information. In setting up these self-evaluation templates, the FMCSA is building on the evaluation framework developed for the CVISN Model Deployment Initiative (March 2002) by defining data elements and measures that are as realistic and quantifiable as possible.

The information reported on the **Deployment Template** will help DOT to better understand the general shape and extent of CVISN deployments at this time across the states. This template will provide objective data on what technologies are now being deployed, in what numbers, and in what specific configurations or applications. The information reported on the **Cost Template** will enable DOT to gather actual, current information on what states have spent (including funds from federal, state, local, and other revenue sources) to deploy their particular version of CVISN. The information reported on the combined **Benefits and Lessons Learned Template** will help DOT understand what positive outcomes have been observed, what obstacles have been encountered and overcome, and what challenges remain.

Quantitative information reported on the templates, when summed and viewed across the states, will be especially helpful as input to broader, more formal economic and benefit-cost analyses of CVISN. These analyses will be made available to states. Thus, no state is expected to generate its own full-scale, quantitative benefit-cost report.

The challenge in this process has been to identify relevant descriptors or data categories. Data elements in the templates have been designed to be recognizable, applicable, and comparable from state to state, and helpful to future cost analyses, given the variety of CVISN deployments now in progress.

General Guidance for Completing All Templates

- The costs and benefits templates are based on the deployment template, so it is recommended that you complete the deployment template first.

- Information requested on the deployment and cost templates should be available from your state's funding decision packages, plans, budgets, reports to legislators, and other business documents. In completing the benefits and lessons learned template, please share any available quantitative, measurable benefits information. Any supporting qualitative and anecdotal evidence you have is also requested.

- It may be helpful for you to go over the templates in a meeting of your state's CVISN team, so that several viewpoints can be represented in the responses, especially regarding the perceived and measured benefits of CVISN deployment.

- This self-evaluation reporting process is not related to the separate deployment assessment matrix, CVISN Level 1 checklist, or scorecard process.

- The self-evaluation reporting process is not intended to be an audit of federal, state, or local expenditures. Rather, the process is intended to help states learn what is being deployed, what it has cost other states to deploy and operate particular systems for commercial vehicle operations, and what the most important lessons have been. In this way it is much more like an independent, research-oriented survey than a cost accounting activity.

- DOT expects to aggregate unit cost data before making any public statements or summaries of findings. DOT may, however, choose to post some kinds of system cost data, which would be traceable to a specific state source, on the existing ITS cost database (www.benefitcost.its.dot.gov). If you wish any of the cost data you report in your state's self-evaluation templates to be considered proprietary or sensitive, please note it as such in the space provided in the Comments and Qualifiers section.

- As expected with any emerging technology, different states and jurisdictions use different labels or terms to refer to similar CVISN processes, systems, and devices. We have attempted to use prevailing or standard terms. If your state uses terminology different from that given in the templates, you are welcome to add comments or clarifications in the space provided.

- Space is provided for you to supply additional information applicable to your state, if a data element is not included in the template, or if you need more room.

- **When You Have Completed Your Templates.** You are asked to complete the templates by December 19, 2003. Be sure to keep a copy of the completed templates for your records. Please contact Jeff Secrist by e-mail, Jeff.Secrist@ fmcsa.dot.gov, or by phone at (202) 385-2367, if you need more information about the CVISN self-evaluation program in general. Send completed templates and supporting information to Vince Brown at Battelle, 505 King Avenue, Columbus, Ohio 43201-2693, or via fax (614-424-4250) or email (brownv@battelle.org).

Guidance for Cost Self-Evaluation Template

- **Organization and Definitions.** This template has four major parts:

  - Information About Respondents
  - Electronic Credentialing
  - Roadside Safety Information Exchange
  - Roadside Electronic Screening (Clearance or Preclearance)

Electronic credentialing, or credentials administration, is understood to consist of four discrete steps: motor carrier application, state processing, carrier fee payment, and state issuance of the official credential. A state may have automated one or more of these steps in stages while deploying CVISN electronic credentialing. CVISN electronic credentialing is understood to include IRP, IFTA, and other types of credentials or permits.

The two roadside functions are (1) safety information exchange, or the transmittal of safety and credential information to and from the roadside for use in supporting enforcement and inspection decisions; and (2) electronic screening, or the enrollment of transponder-equipped vehicles in an automated preclearance program enabling some portion of vehicles to bypass weigh stations.

To help you navigate the template, here are the major divisions of cost categories:

One-Time (Start-Up) Costs

- *Equipment and Materials (including installation costs and excluding lease payments)*
- *Purchased Software*
- *Labor for Start-Up (separate lines for state employees, contractors, and third-party vendors)*
- *Other Start-Up Costs*

Recurring (Annual) Costs

- *Operating and Maintenance (including lease payments)*
- *Labor for Ongoing Activities (separate lines for state employees, contractors, and third-party vendors)*
- *Other Recurring Costs*

It is important to distinguish between one-time or start-up costs and recurring or annual costs.

For most elements, unit cost information is preferred to total cost information. Unit costs make the data more meaningful in comparing deployment costs across states. Total costs are meaningful only if supported by a quantity deployed or by a clear description of what the cost represents.

- **Cost Elements Not Shown on the Template.** Space is provided in each part of the template for you to add cost elements from your state that are not included in the given lists of cost elements. You can also list costs of other ITS/CVO systems not directly related to CVISN Level I deployment, such as infrared inspection system (IRIS) vans or remote monitoring sites. As expected with any emerging technology, different states and jurisdictions use different labels or terms to refer to similar CVISN processes, systems, and devices. We have attempted to use prevailing or standard terms. If you add your own cost elements, be sure to describe the function specifically, so that comparisons can be made across states.

- **Supporting Cost Documentation.** You are also welcome to send in supporting cost documentation, such as spreadsheets or existing budget reports, using the address shown at the end of the template.

- **Actual Versus Estimated Costs.** The costs that you report on this template should relate to the CVISN systems that your state has deployed or is deploying in the near future, as reflected in your state's deployment template. That is, analysts should be able to track from the information on your state's deployment template to the information on your state's cost template, to better understand what the cost values represent. Indicate in the space provided whether each cost is actual or estimated. Actual incurred cost values are preferred, but good-faith estimates, especially for components or services that have been negotiated and purchased or ordered but not yet delivered or deployed, are also useful.

- **Reporting Annual Costs.** For annual costs, you can use either the last 12 calendar months or the most recent 12-month reporting period, whichever is more convenient. If your state has been incurring CVISN O&M or labor costs for less than 12 months, estimate what the annual cost will be after the first year, and indicate in the "Actual" or "Estimated" column that the value given is an estimate.

- **Costs Applicable to More Than One Function.** Because one of the purposes of CVISN is to permit separate CVO functions to interact electronically, some cost elements could be double-counted by mistake. For example, a single network server or your state's CVIEW system could be configured to collect fuel tax and license/registration information from the credentials administration program as well as safety inspection information from the roadside (part of the safety information exchange function). The same server could also make this information available to your state's transponder-based electronic screening (preclearance) system.

  To avoid erroneous double-counting, be sure that the costs for a single piece of equipment or software package used across several CVO functions are counted only once in completing your cost template. If a single hardware item or software system is used in more than one function, you should indicate this in the "Comments and Qualifiers" column of the template.

  Likewise, computer equipment and software may be used for both CVISN and non-CVISN functions. Such cost items should also be allocated as accurately as possible to reflect (a) the portion of the cost incurred because of the CVISN deployment and (b) the portion giving users access to a function that was unavailable before CVISN deployment.

  Computers used in CVISN functions may not belong to a single state agency. For example, states may purchase computers for state DOT or highway departments, motor carrier or public utilities enforcement, or state patrol. Any computer equipment purchased by the state for use in CVISN deployment should be included in your report.

- **Labor Costs.** Regarding labor hours and labor costs, it is expected that, in some states, a single staff member will work on some CVISN tasks and some non-CVISN tasks during a typical year. Estimate or allocate the number of hours dedicated to your state's CVISN deployment (both the initial or start-up hours and the recurring or annual hours). When reporting labor costs in terms of dollars, include the "fully loaded" labor cost to the state, including base pay and fringe benefits for your state's employees.

- **Equipment Purchased by Contractors.** Equipment purchased for state use, even if purchased through a contractor, should be included in the state's capital cost section, not in the contracted cost section. That is, contracted costs are intended to represent only the labor and services—and not the capital equipment—that your state purchases from a contractor.

- **Request for Baseline (Pre-CVISN) Labor Costs for Credentialing.** The annual labor hours or labor cost section for Electronic Credentialing requests baseline data on pre-CVISN (legacy system) labor levels and on post-deployment labor levels. The purpose of this comparison is to assess any change in labor costs to the state resulting from the deployment and use of CVISN technologies.

- **Comments and Qualifiers.** For each cost element, you are encouraged to provide comments and qualifiers to represent special circumstances or descriptions of the function of cost elements particular to your state's deployment.

Examples of comments and qualifiers that would be useful to future cost analysts include pointing out whether the deployment cost includes installation; giving a vendor name and model or product identifier (model number or software version); and saying whether a dollar cost reflects a quantity discount or other special pricing arrangement. As another example, assume that your state awards a single maintenance contract, covering labor, parts, and materials, and that these costs cannot be separated from each other. On your template, you would record the cost under either "annual maintenance cost" or under "purchased or contracted annual labor," but not both, and indicate the nature of the charge in the "Comments and Qualifiers" column.

CVISN Cost Self-Evaluation Template

U.S. Department of Transportation, Federal Motor Carrier Safety Administration

Version: October 17, 2003

When completed and sent to U.S. DOT, this template will become part of your state's CVISN Self-Evaluation Report, as required in the ITS Partnership Agreement between your state and the federal government.

Send completed templates to Vince Brown at Battelle, 505 King Avenue, Columbus, Ohio 43201-2693, or via fax (614-424-4250) or email (brownv@battelle.org). by December 19, 2003. Be sure to keep a copy of your completed template for your records. You are welcome to attach additional pages to the completed templates with clarifications and supporting information. If you attach additional pages, please indicate the template item number to which your information is related. If you are completing the form by hand, please print.

Information About Respondents	
1	Name of person primarily responsible for completing the form:
2	Telephone number of person completing the form:
3	Agency, department, and division of person completing the form:
4	Names of other persons providing supporting information on the form:
5	Date when the form was completed (mm/dd/yyyy):

I. Electronic Credentialing

	6 One-Time (Start-Up) Purchase Costs for Equipment and Materials (Including Installation Costs and Excluding Leased Equipment)	Quantity Deployed	Unit Cost, $	Actual (A) or Estimated (E)	Expected Service Life, Years	Comments and Qualifiers
a	Computer network servers for electronic credentialing					
b	Personal computers (desktop or laptop) for state employees to use in electronic credentials administration					
c	Consumable supplies and materials for outreach, internal and external publicity, training, or supporting the deployment of electronic credentialing					
d	Other central office or branch office network hardware and peripherals for electronic credentialing (specify function):					

	7 One-Time (Start-Up) Purchase Costs for Software	Quantity Deployed	Unit Cost, $	Actual (A) or Estimated (E)	Expected Service Life, Years	Comments and Qualifiers
a	Credentialing software packages purchased for back-end database management and data processing or reporting					
b	Credentialing software packages purchased for front-end user interface and data entry					
c	Other software purchased for electronic credentialing start-up (specify function)					

8	One-Time (Start-Up) Costs for Labor	Total Labor Hours	Total Labor Cost, $	Actual (A) or Estimated (E)	Comments and Qualifiers
a	State employee labor for new electronic credentialing software development				
b	State employee labor for new hardware configuration (after original installation)				
c	Contractor labor for new electronic credentialing software development				
d	Contractor labor for new hardware configuration (after original installation)				
e	Third-party vendor labor for software development				
f	Third-party vendor labor for hardware configuration				
g	Labor for existing (legacy) system interface and/or modification (state employee labor plus contractor or vendor labor)				
h	Labor for training associated with credentialing system deployment				
i	Other start-up labor costs for electronic credentialing (specify function)				

9	Recurring (Annual) Costs for Operating and Maintaining Electronic IRP Credentialing System (Excluding Labor)	Total Annual Cost to State, $	Actual (A) or Estimated (E)	Comments and Qualifiers
a	Membership fees paid to IRP Clearinghouse			
b	Fees paid to third-party IRP credentials administrator (for example, VISTA, Polk) for operating a back-end database management and data processing system			
c	Fees paid to third-party IRP credentials administrator (for example, VISTA, Polk) for operating a front-end user interface and data entry system			
d	Lease payments for computer equipment (specify function in comments section at right)			
e	Recurring costs for marketing, outreach, publicity, etc.			
f	Other recurring (annual) costs for electronic IRP credentialing operation and maintenance, excluding labor (specify function):			

Include all labor charges for IRP credentials administration, including processing the applications, handling payments, issuing the final credentials, serving customers, analyzing computer systems, programming, reporting, and management. ***If you report labor dollars, use the fully loaded amount, including fringe benefits and other overhead-type labor costs.*** *Provide annual costs for your state's baseline credentials administration function, for comparison with the costs for your state's corresponding credentialing function after the deployment of CVISN technologies.*

10	Recurring (Annual) Labor for IRP Credentialing	Legacy System Labor (Pre-deployment) Provide hours and/or $			CVISN Labor (Post-deployment) Provide hours and/or $			Comments and Qualifiers
		Annual Labor, Hours	Annual Labor Cost, $	Actual (A) or Estimated (E)	Annual Labor, Hours	Annual Labor Cost, $	Actual (A) or Estimated (E)	
a	State employee annual labor							
b	Contractor annual labor							
c	Third-party vendor annual labor							
d	Other recurring (annual) CVISN-related electronic IRP credentialing labor cost elements not listed above (specify function):							

11	Recurring (Annual) Costs for Operating and Maintaining Electronic IFTA Credentialing System (Excluding Labor)	Total Annual Cost to State, $	Actual (A) or Estimated (E)	Comments and Qualifiers
a	Membership fees paid to IFTA Clearinghouse			
b	Fees paid to third-party IFTA credentials administrator (for example, VISTA, Polk) for operating a back-end database management and data processing system			
c	Fees paid to third-party IFTA credentials administrator (for example, VISTA, Polk) for operating a front-end user interface and data entry system			
d	Lease payments for computer equipment (specify function in comments section right in this row)			
e	Recurring costs for marketing, outreach, publicity, etc.			
f	Other recurring (annual) costs for electronic IFTA credentialing operation and maintenance, excluding labor (specify function):			

Include all labor charges for IFTA credentials administration, including processing the applications, handling payments, issuing the final credentials, serving customers, analyzing computer systems, programming, reporting, and management. ***If you report labor dollars, use the fully loaded amount, including fringe benefits and other overhead-type labor costs.*** *Provide annual costs for your state's baseline credentials administration function, for comparison with the costs for your state's corresponding credentialing function after the deployment of CVISN technologies.*

		Legacy System Labor (Pre-deployment) Provide hours and/or $			CVISN Labor (Post-deployment) Provide hours and/or $			
12	**Recurring (Annual) Labor for IFTA Credentialing**	**Annual Labor, Hours**	**Annual Labor Cost, $**	**Actual (A) or Estimated (E)**	**Annual Labor, Hours**	**Annual Labor Cost, $**	**Actual (A) or Estimated (E)**	**Comments and Qualifiers**
a	State employee annual labor							
b	Contractor annual labor							
c	Third-party vendor annual labor							
d	Other recurring (annual) CVISN-related electronic IFTA credentialing labor cost elements not listed above (please specify):							

13	**General Question About Your Electronic Credentialing System**	**Comments and Qualifiers**
	Is your electronic credentialing system available (check one): ☐ In only selected regions within your state ☐ Statewide	

II. Roadside: Safety Information Exchange

14	One-Time (Start-Up) Purchase Costs for Equipment and Materials (Including Installation Costs and Excluding Leased Equipment)	Quantity Deployed	Unit Cost, $	Actual (A) or Estimated (E)	Expected Service Life, Years	Comments and Qualifiers
a	Computer network servers for safety information exchange, including mobile network servers used in roadside enforcement					
b	Desktop personal computers for administering the safety information exchange system (including desktop computers used at roadside check stations)					
c	Laptop personal computers for roadside use in inspections for safety information exchange					
d	Portable printers for mobile enforcement					
e	Wireless modems for vehicle and/or roadside use					
f	Consumable supplies and materials for outreach, internal and external publicity, training, and supporting the deployment or safety information exchange					
g	Other central office, branch office, roadside, or mobile telecommunications equipment for safety information exchange (specify function):					

15	One-Time (Start-Up) Purchase Costs for Software	Quantity Deployed	Unit Cost, $	Actual (A) or Estimated (E)	Expected Service Life, Years	Comments and Qualifiers
a	Safety information exchange software purchased off the shelf					
b	Other software purchased for safety information exchange start-up (specify function):					

16	One-Time (Start-Up) Costs for Labor	Total Labor Hours	Total Labor Cost, $	Actual (A) or Estimated (E)	Comments and Qualifiers
a	State employee labor for new safety information exchange software development (for example, CVIEW)				
b	State employee labor for new hardware configuration (after original installation)				
c	Contractor labor for new safety information exchange software development				
d	Contractor labor for new hardware configuration (after original installation)				
e	Third-party vendor labor for software development				
f	Third-party vendor labor for hardware configuration				
g	Labor for existing (legacy) system interface and/or modification (state employee labor plus contractor or vendor labor)				
h	Labor for training associated with safety information exchange system deployment				
i	Other start-up labor costs for safety information exchange (specify function)				

17	Recurring (Annual) Costs for Operating and Maintaining Safety Information Exchange System (Excluding Labor)	Total Annual Cost to State, $	Actual (A) or Estimated (E)	Comments and Qualifiers
a	Lease payments for computer equipment for safety information exchange (specify function)			
b	Telephone and internet service charges			
c	Wireless communication charges			
d	Charges for linking to central data services (for example, AAMVAnet)			
e	Other recurring (annual) costs for safety information exchange operation and maintenance, excluding labor (specify function)			

18	Recurring (Annual) Costs for Labor (provide hours and/or $)	Annual Labor, Hours	Annual Labor Cost, $	Actual (A) or Estimated (E)	Comments and Qualifiers
a	State employee annual labor				
b	Contractor annual labor				
c	Third-party vendor annual labor				
d	**Other recurring (annual) safety information exchange labor costs (specify function):**				

III. Roadside: Electronic Screening (Clearance)

Unless otherwise indicated, provide **only those costs that were incurred by your state.** For example, if a private organization or partnership other than your state pays for and installs transponder readers, wiring, computers, etc., at the roadside for electronic screening at no cost to the state, then do not list the costs for that equipment or infrastructure below. If your state purchases its own screening or computing equipment (for example, to interface with the private organization's equipment), then list your state's costs for the state-owned equipment. If a system or device is used in more than one CVISN function, **count it only once.** For example, if a computer database stores and shares information on credentials and inspection history with your state's electronic screening system, then determine the system's primary function, list the system in that section of the cost template, and count the computer and the database costs only once.

19	One-Time (Start-Up) Purchase Costs for Equipment and Materials (Including Installation Costs and Excluding Leased Equipment)	Quantity Deployed	Unit Cost, $	Actual (A) or Estimated (E)	Expected Service Life, Years	Comments and Qualifiers
a	Computer network server dedicated to electronic screening					
b	Desktop personal computer dedicated to electronic screening					
c	Laptop personal computer dedicated to electronic screening					
d	Mainline (highway speed) weigh-in-motion (WIM) scale					
e	Sorter lane (ramp speed) WIM scale					
f	In-vehicle transponder purchased by state for distribution (free of charge) to motor carriers enrolling vehicles in electronic screening					
g	In-vehicle transponder purchased by state for resale (cost-recovery or other basis) to motor carriers enrolling vehicles in electronic screening					
h	Automated vehicle identification (AVI) equipment/system (specify type, for example, DSRC, optical, video, other)					
i	Telecommunication equipment between upstream site and weigh station/base					
j	Electronic sign for weigh station					
k	Loop detector for weigh station					

19	One-Time (Start-Up) Purchase Costs for Equipment and Materials (Including Installation Costs and Excluding Leased Equipment)	Quantity Deployed	Unit Cost, $	Actual (A) or Estimated (E)	Expected Service Life, Years	Comments and Qualifiers
l	Upgrade of existing fixed-site weigh station infrastructure (excluding items listed above) for electronic screening (specify function):					
m	One-time start-up fees paid to electronic screening provider or partnership (for example, PrePass, Norpass)					
n	Consumable supplies and materials for outreach, internal and external publicity, training, or supporting the deployment of electronic screening					
o	Other central office or branch office network hardware and peripherals purchased for electronic screening (specify function):					
20	**One-Time (Start-Up) Purchase Costs for Software**	**Quantity Deployed**	**Unit Cost, $**	**Actual (A) or Estimated (E)**	**Expected Service Life, Years**	**Comments and Qualifiers**
a	Electronic screening software purchased off the shelf					
b	Other software for electronic screening start-up (specify function)					

21	One-Time (Start-Up) Costs for Labor	Quantity Deployed	Unit Cost, $	Actual (A) or Estimated (E)	Comments and Qualifiers
a	State employee labor for electronic screening software development				
b	State employee labor for new hardware configuration (after original installation)				
c	Contractor labor for electronic screening software development				
d	Contractor labor for new hardware configuration (after original installation)				
e	Third-party vendor labor for software development				
f	Third-party vendor labor for hardware configuration				
g	Labor for existing (legacy) system interface and/or modification (state employee labor + contractor or vendor labor)				
h	Labor for training associated with system deployment				
i	Other start-up labor costs (specify function):				

22	Recurring (Annual) Costs, Operating and Maintaining Electronic Screening System (Excluding Labor)	Total Annual Cost to State, $	Actual (A) or Estimated (E)	Comments and Qualifiers
a	Lease payments for computer equipment for electronic screening			
b	Annual payments made to electronic screening administrator/vendor/ partnership (for example, PrePass, Norpass)			
c	Annual maintenance cost for mainline WIM scale			
d	Annual maintenance cost for sorter-lane WIM scale			
e	Annual maintenance cost for other roadside equipment (AVI, transponder readers, etc.)			
f	Recurring costs for marketing, outreach, publicity, etc.			
g	Other recurring (annual) costs for operation and maintenance, excluding labor (specify function):			

23	Recurring (Annual) Costs for Labor (Provide Hours and/or $)	Total Labor, Hours	Total Labor Cost, $	Actual (A) or Estimated (E)	Comments and Qualifiers
a	State employee annual labor				
b	Contractor annual labor				
c	Third-party vendor annual labor				
d	**Other recurring (annual) electronic screening cost elements not listed above (specify function):**				

Use the space provided below to add to, clarify, or expand on your answers, especially with information about aspects of your state's deployment that were not covered in the questions. Please send completed templates and supporting information to Vince Brown at Battelle, 505 King Avenue, Columbus, Ohio 43201-2693, or via fax (614-424-4250) or email (brownv@battelle.org) by December 19, 2003. Be sure to keep a copy of your completed template for your records.