CVISN Interoperability Test Plan

Oregon Department of Transportation

Motor Carrier Transportation Division (MCTD)

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1. About this document

This document constitutes the interoperability test plan description for the Oregon Commercial Vehicle Information Systems and Networks (CVISN), a program undertaken by the State of Oregon in partnership with the Federal Motor Carrier Safety Administration (FMCSA). Oregon CVISN Level 1 deployment is built upon past and current efforts to improve highway safety, increase government efficiency, and make Oregon a better place for motor carriers to do business.

2. Objectives

The primary objective of this document is to demonstrate that Oregon meets or exceeds CVISN Level 1 requirements. This will be done through the defined test scenarios demonstrating the systems in use, showing those involved in executing the test plan and who is certifying compliance.

A secondary objective is to demonstrate Oregon's continued commitment and focus on several key initiatives to modernize trucking and radically change the trucking industry. The Green Light program and the Oregon Trucking Online program have revolutionized the way the Motor Carrier industry does business in Oregon. These programs are enhancing the private/public partnership, fostering effective two-way communication and delivering superior customer service while recognizing the vital economic interests of the commercial transportation industry.

3. Oregon's CVISN Design

The design of the Oregon systems is based on the CVISN Architecture Specifications and the general CVISN System Design Description. It follows these closely while adapting them to Oregon's technology infrastructure, institutional relationships, statutory requirements, and business needs.

Safety Information Exchange

In calendar year 2005 approximately 500 trained and certified safety inspectors checked 55,840 trucks and drivers, essentially at a rate of 1 every 9.5 minutes (see more http://www.oregon.gov/ODOT/MCT/SAFETY.shtml). In the inspections, critical safety violations were found in 24.32% of vehicles and 8.60% of drivers (current national rates are 22.92% and 6.78%, respectively).

State inspectors use computers with the Inspection Selection System (ISS) to target high-risk trucks. Laptops with ASPEN software record the details of more than 75% of all inspections. Because most of its data originates in electronic form, Oregon ranks as one of the best states in terms of speedy upload of information to the national SafetyNet databank. Also, because of its reliance on ISS and because it has assigned a U.S. DOT number to all intrastate carriers, Oregon has one of the lowest "non-match" error rates of all states submitting information to SafetyNet.

Electronic Credentialing and Trucking Online
Oregon has expanded its Trucking Online service to include applications that allow a motor carrier to use a home or office computer to register to operate in other states under the International Registration Plan (IRP), as well as, transactions related to operating in other states under the International Fuel Tax Agreement (IFTA). These expanded services include connections to the IRP Clearinghouse and the IFTA Clearinghouse giving us the ability to transmit vehicle registration information and fees to the Clearinghouses rather than to the individual states and provinces involved.

Oregon has achieved CVISN Level 1 compliance with the U.S DOT's Commercial Vehicle Information Systems and Networks (CVISN) Program. Oregon Motor Carrier Transportation Division's (MCTD) work was initially slowed by the need to correct computer systems for Year 2000 date problems. It then had to fall in step with Oregon's enterprise-wide E-Government initiatives schedule. But in 2003, MCTD assumed a leading role in advancing E-Government when it launched Trucking Online.

Electronic Screening (Green Light)
Oregon opened the first Green Light site in October 1997. It started keeping track of green lights in January 1999 when it had four weigh stations preclearing an average of 51 trucks a day. Today, 22 stations have Green Light systems and this year they're preclearing an average of 3,700 trucks a day. The Green Light weigh station preclearance program is on pace to preclear the 8-millionth truck in its history in March 2007.

The Oregon Green Light Weigh Station Preclearance System employs Dedicated Short Range Communications (DSRC) transponders (currently the Mark IV model) that are mounted on truck windshields. The transponders are compatible with the country's other two preclearance programs – PrePass and NORPASS – and they allow a carrier to enjoy interoperability between the different systems.

Oregon has a rich database of information about carriers operating in the state. This unique computer system has the same functionality of a Commercial Vehicle Information Exchange Window (CVIEW), which CVISN requires states to develop. The Oregon version is fully capable of supporting screening decisions in the Green Light weigh station preclearance program. It produces its own electronic "snapshots" of information about a carrier and its vehicles, although it is not the exact kind of snapshot imagined by the CVISN program. Carriers participating in Green Light can be precleared and directed to pass weigh stations at highway speed if they successfully complete an instantaneous computer check of vehicle size and weight compliance, carrier registration and tax status, and carrier safety risk rating status (carriers with an unsatisfactory safety rating, and carriers participating in the PRISM safety improvement program, are not precleared).

Green Light follows CVISN designs for electronic screening in that it performs a virtual real-time check of truckers´ safety record and credentials status every time they approach a weigh station. Oregon's statewide network of computers allows for updates of carrier records every four hours. Most states just perform an initial screening of applicants to see if they qualify for their preclearance program and then perform manual follow-up checks of credentials and safety records on a monthly or quarterly basis.

It should be noted that Green Light could yield greater benefits if an institutional barrier to the use of compatible transponders were removed. The PrePass transponder is currently subject to a restrictive usage policy and, as a result, thousands of trucks are unnecessarily forced to pull into Oregon weigh stations each month because they have one of these transponders.

4. About the Design

Figure 1 on page 6 illustrates the CVISN interfaces between the State's Systems, Carrier Systems and the Core Infrastructure Systems. Tables 1, 2 and 3 on page 7 provide details about the various CVISN systems interfaces.

Figure 1: CVISN Interfaces

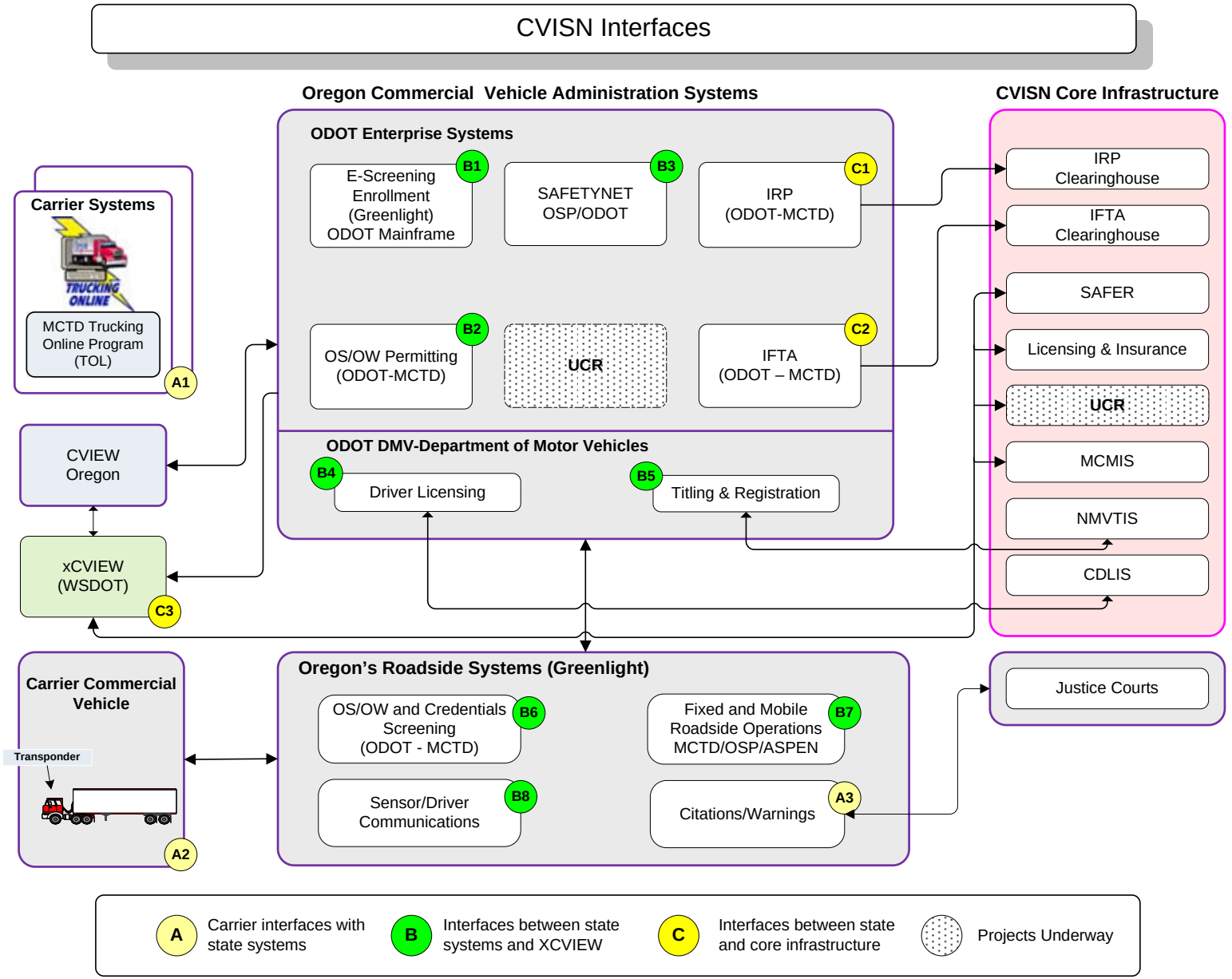


Table 1: Carrier Interfaces

Interface	Systems Connected	Data Exchanged	Standards
A1	Internet browser/Common Account	Credential applications, IFTA tax filings, invoices, payment processing, payment information, inquiries, electronic credentials	Internet standards
A2	Transponder / Sensors (Roadside Reader)	Vehicle, carrier & driver Ids, Green/red light	DSRC standard

Table 2: Oregon CVISN System Design: Interfaces within Oregon

Interface	Systems Connected	Data Exchanged	Standards
B1	ODOT Mainframe	E-screening Enrollment	TCP/IP
B2	OS/OW Permitting	Permit information, permit status	TCP/IP
B3	SAFETYNET	Safety inspection reports; safety segment of snapshots	TCP/IP
B4	Driver Licensing	DMV CDL status (CDLIS)	TCP/IP
B5	Titling and Registration	DMV CICS	TCP/IP
B6	OS/OW and Credentials Screening	IFTA/IRP information; Carrier and Vehicle Safety Information (Snapshots)	TCP/IP
B7	Roadside Screening	Inspection reports and statistics; Interstate and Intrastate carrier and vehicle safety information; Interstate and intrastate carrier and vehicle credentials status; vehicle and driver OOS report	TCP/IP
B8	E Screening Enrollment Green Light	Transponder Ids	TCP/IP

Table 3: Oregon CVISN System Design: Interfaces with CVISN Core Infrastructure

Interface	Systems Connected	Data Exchanged	Standards
C1	IRP ↔ IRP Clearinghouse	Interstate fund transfer reports and summaries; Base state IRP credential data	FTP TCP/IP
C2	IFTA ↔ IFTA Clearinghouse	Base state fuel tax data	AFF/FTP TCP/IP
C3	WA CVIEW ↔ SAFER	Snapshot Segments	XML

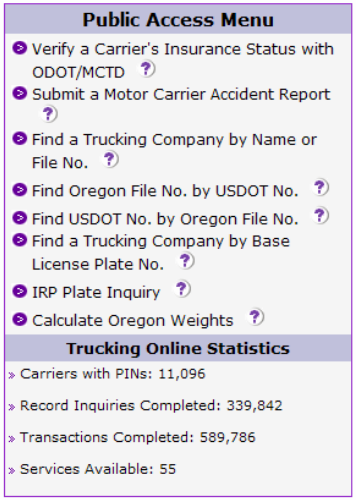
5. About Trucking Online

Figure 2 on page 9 Illustrates programs available to the industry via the Trucking Online program further demonstrating Oregon's commitment to advancements that are both in step with the CVISN program and meet or exceed its goals.

In the past 24 months, the Oregon Motor Carrier Division has doubled the number of Trucking Online services available and more than doubled the number of participating trucking companies. From January 2005 to January 2007 the total number of transactions and records inquiries that could be completed through the Trucking Online program rose from 27 to 55 and the companies using a home or office computer to take advantage of these services rose from 5000 to over 11,000 companies nationwide. In the past four years, the Oregon Trucking Online program has been used to complete more than 950,000 transactions or records inquiries that formerly required a telephone call, fax, mail delivery, or field office visit. There are about 24,000 companies with trucks registered in Oregon and now the companies doing business online include 55% of those based in another state or Canada and 36% of those based in Oregon.

In addition to a number of online services including sixteen IRP and IFTA transactions, the newest online services now available will help motor carriers who need over-dimension variance permits. (See figure 2). Carriers can already view permits issued, report and pay road use assessment fees, and even analyze the weight of a divisible or non-divisible load to determine what's allowable under permits. More self service features in development include the ability to submit permit applications directly to the mainframe permits system for processing by a permit analyst. This eliminates the need for carriers to speak person-to-person with staff.

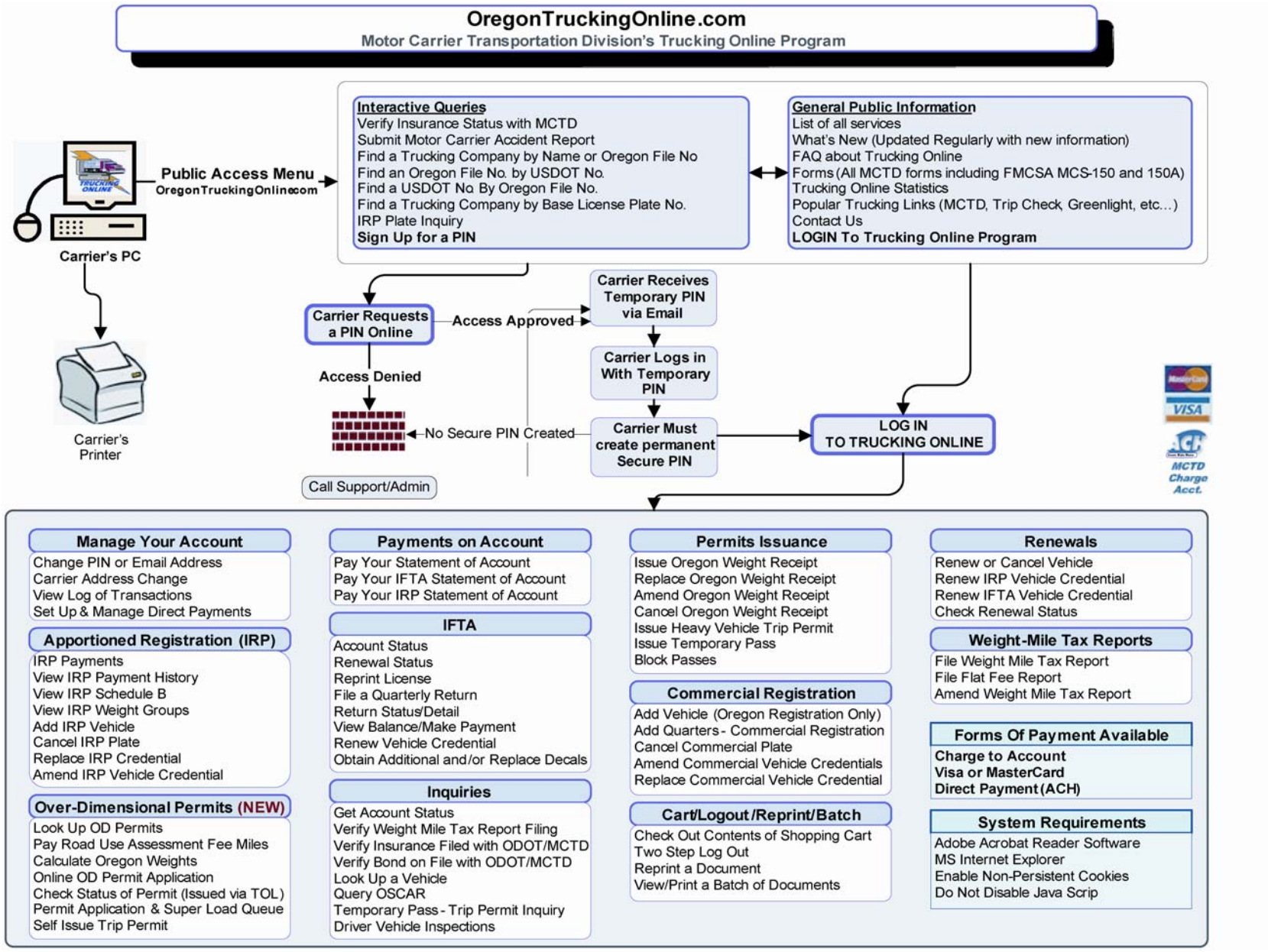
In 2005, the Motor Carrier Transportation Division created a "gateway" website for the Trucking Online Program using the domain name OregonTruckingOnline.com. This approach gave a new dimension of visibility to the program while giving carriers and the general public a quality self service environment including these features:



- Multiple electronic system queries through a "Public Access Menu"
- User friendly online "Sign Up" process and login link to the Trucking Online Program
- Informative up to date Trucking Online news and MCTD information
- Helpful links to other Motor Carrier related websites and information

The OregonTruckingOnline.com domain name has created a recognizable "brand" enhancing our ability to market and promote the Trucking Online program to the Motor Carrier Industry.

Figure 2: Inside the Trucking Online Program



CVISN Capabilities Criteria (From CVISN Level 1 Checklist)

Table 4: General State System Requirements

General State Systems Design Requirements Checklist				
Check When Done	**Item #**	**Compatibility Criteria**	**Required CVISN Level 1 Interoperability Tests (or other method of verifying capability)**	**Comments**
√	**4.1.1**	Adopt standard identifiers for carriers, vehicles, drivers, and transponders to support information exchange.	MC Information Systems Participation in CDLIS Date Completed: 1996	**Signoff:**
√	1	Adopt standard identifiers for interstate carrier, vehicle, driver, and transponder.	MC Information Systems Date Completed: __1997_____	**Signoff:**
√	**4.1.2**	Use the World Wide Web for person-to-computer interactions between private citizens and state information systems.	Trucking Online Program. Public queries and registered user website. Over 50 unique MCT registration transactions available; ecommerce capabilities via charge account, Credit Card or Direct Payment (ACH) Date Completed: __Jan 2003___	**Signoff:**
√	**4.1.3**	Use open standards for computer-to-computer exchange of information with other jurisdictions and with the public.	Data sharing "Memorandum of Understanding" (MOU) between Washington Dept of Transportation (WDOT) and ODOT Data exchange through xCVIEW. Contract signed. Status: Active in production. Date Completed: __Mar 2002___	**Signoff:**
√	1	Use open standards[1] for transactions between state information systems and private systems (CV operators, insurance companies, etc.).	Online Queries through Trucking Online program Date Completed: __Jan 2003__	**Signoff:**

General State Systems Design Requirements Checklist				
Check When Done	**Item #**	**Compatibility Criteria**	**Required CVISN Level 1 Interoperability Tests (or other method of verifying capability)**	**Comments**
√	2	Use open standards for transactions between state information systems and CVISN Core Infrastructure systems, where available.	Participation in core infrastructure systems IRP Clearinghouse IFTA Clearinghouse MOU w/WDOT for XCVIEW Dates Completed: __1996__	**Signoff:**
√	**4.1.4**	Ensure that all information transfers, fee payments, and money transfers are authorized and secure, e.g., through access control and encryption.	Trucking Online Program Security and Secure Pay Administrator eCommerce program Date Completed: __Jan 2003 __	**Signoff:**
√	**4.1.5**	Exchange safety and credentials data electronically within the state to support credentialing, safety, and other roadside functions. Where useful, exchange snapshots.	MOU xCVIEW Washington via data FTP transfer Date Completed: __Mar 2002___	**Signoff:**
√	1	Data for interstate carriers	MOU xCVIEW Washington data share Date Completed: __Mar 2002___	**Signoff:**
√	2	Data for interstate vehicles	MOU xCVIEW Washington data share Date Completed: __Mar 2002___	**Signoff:**
√	**4.1.6**	Demonstrate technical interoperability by performing Interoperability Tests.	Demonstrated via MOU xCVIEW Washington & Trucking Online Program. Used daily by ODOT, WDOT carriers and public. Date Completed: __Mar 2002___	**Signoff:**

Table 5: State Safety information Exchange Requirements

State Safety Information Exchange and Safety Assurance Systems Design Requirements Checklist				
Check When Done	**Item #**	**Compatibility Criteria**	**Required CVISN Level 1 Interoperability Tests (or other method of verifying capability)**	**Comments**
√	**4.2.1**	Use ASPEN (or equivalent) at all major inspection sites	Participation in MCSAP Date Completed: 1996	**Signoff:**
√	**1**	Select vehicles and drivers for inspection based on availability of inspector, standard inspection selection system, vehicle measures, and random process, as statutes permit.	Participation in MCSAP Date Completed: 1996	**Signoff:**
√	**2**	Report interstate inspections to MCMIS (Motor Carrier Management Information System) via SAFETYNET	Participation in MCSAP Date Completed: 1996	**Signoff:**
√	**3**	Report intrastate inspections to SAFETYNET	Participation in MCSAP Date Completed: 1996	**Signoff:**
√	**4**	Submit interstate inspections for 60-day storage to SAFER (Safety and Fitness Electronic Records).	Participation in MCSAP Date Completed: 1996	**Signoff:**
√	**4.2.2**	SAFETYNET 2000 submits inspection reports to SAFER.	Participation in MCSAP Date Completed: 1996	**Signoff:**
√	**1**	SAFETYNET 2000 submits interstate inspection reports to SAFER.	Participation in MCSAP Date Completed: 1996	**Signoff:**

State Safety Information Exchange and Safety Assurance Systems Design Requirements Checklist				
Check When Done	**Item #**	**Compatibility Criteria**	**Required CVISN Level 1 Interoperability Tests (or other method of verifying capability)**	**Comments**
√	**4.2.4**	Use CAPRI (or equivalent) for compliance reviews.	Participation in MCSAP Date Completed: 1996	**Signoff:**
√	**1**	Report interstate compliance reviews to MCMIS via SAFETYNET	Participation in MCSAP Date Completed: 1996	**Signoff:**
√	**4.2.9**	Implement the CVIEW (or equivalent) system for exchange of intrastate and interstate data within state and connection to SAFER for exchange of interstate data through snapshots – OR – utilize the SAFER option for exchange of inter- and intrastate data through snapshots.	Data sharing Signed MOU (Memorandum of Understanding) w/ WDOT Data exchange through xCVIEW. Date Completed: __Mar 2002___	**Signoff:**

Table 6: State Commercial Vehicle Administration Systems

State CV Administration Systems Design Requirements Checklist				
Check When Done	**Item #**	**Compatibility Criteria**	**Required CVISN Level 1 Interoperability Tests (or other method of verifying capability)**	**Comments**
√	**4.3.1**	Support electronic credentialing (electronic submission of applications, evaluation, processing, and application response) for IRP.	Trucking Online Program. XCVIEW Data Membership IRP Clearinghouse Date Completed: __Oct 2005___	**Signoff:**
√	**1**	Provide a Web site for a person-to-computer process. (Either a Web-based or a computer-to-computer interface is required)	Trucking Online Program (See Figure 2) IRP Clearinghouse Membership Internet application. xCVIEW data Date Completed: _Oct 2005___	**Signoff:**
√	**2**	Provide a computer-to-computer automated process. (Either a Web-based or a computer-to-computer interface is required)	Trucking Online Program Check xCVIEW data. Date Completed: __Oct 2005___	**Signoff:**
√	**4.3.2**	Proactively provide updates to vehicle snapshots as needed when IRP credentials actions are taken.	xCVIEW data MOU w/WDOT Date Completed: __Mar 2002___	**Signoff:**
√	**4.3.3**	Proactively provide updates to carrier snapshots as needed when IRP credentials actions are taken.	xCVIEW data MOU w/WDOT Date Completed: __Mar 2002___	**Signoff:**
√	**4.3.4**	Provide IRP Clearinghouse with IRP credential application information (recaps).	Membership IRP Clearinghouse Date Completed: __Oct 2005___	**Signoff:**

State CV Administration Systems Design Requirements Checklist				
Check When Done	**Item #**	**Compatibility Criteria**	**Required CVISN Level 1 Interoperability Tests (or other method of verifying capability)**	**Comments**
√	**4.3.5**	Review fees billed and/or collected by a jurisdiction and the portion due other jurisdictions (transmittals) as provided by the IRP Clearinghouse.	Membership IRP Clearinghouse Date Completed: __Oct 2005___	**Signoff:**
√	**4.3.6**	Support electronic state-to-state fee payments via IRP Clearinghouse	Membership IRP Clearinghouse Date Completed: __Oct 2005__	**Signoff:**
√	**4.3.7**	Support electronic credentialing (electronic submission of applications, evaluation, processing, and application response) for IFTA registration.	Trucking Online Program xCVIEW data. Membership IFTA Clearinghouse Date Completed: __Nov 2006__	**Signoff:**
√	**1**	Provide a Web site for a person-to-computer process. (Either a Web-based or a computer-to-computer interface is required)	Trucking Online Program (See Figure 2) xCVIEW Data. Membership IRP Clearinghouse Date Completed: __Nov 2006__	**Signoff:**
√	**4.3.8**	Proactively provide updates to carrier snapshots as needed when IFTA credentials actions are taken or tax payments are made.	xCVIEW data- MOU w/WDOT Trucking Online Program Date Completed: ___Mar 2002___	**Signoff:**
√	**1**	Interface to SAFER for interstate carrier snapshots, using available SAFER interface.	xCVIEW data- MOU w/WDOT Trucking Online Program Date Completed: ___Mar 2002___	**Signoff:**
√	**4.3.9**	Provide IFTA Clearinghouse with IFTA credential application information, using available interface.	Membership IFTA Clearinghouse Date Completed: ___ Nov 2006___	**Signoff:**

State CV Administration Systems Design Requirements Checklist				
Check When Done	**Item #**	**Compatibility Criteria**	**Required CVISN Level 1 Interoperability Tests (or other method of verifying capability)**	**Comments**
√	**4.3.10**	Support electronic tax filing for IFTA quarterly fuel tax returns.	Trucking Online Program (See Figure 2) Date Completed: ___Q1 2007__	**Signoff:**
√	**1**	Provide a Web site for a person-to-computer process.	Trucking Online Program (See Figure 2) Date Completed: ___Q1 2007__	**Signoff:**
√	**4.3.11**	Provide info on tax collected by own jurisdiction and portion due other jurisdictions (transmittals) to the IFTA Clearinghouse, using available interface	IFTA Clearinghouse Membership Date Completed: ___ Nov 2006___	**Signoff:**
√	**4.3.12**	Download for automated review the demographic information from the IFTA Clearinghouse.	IFTA Clearinghouse Membership Date Completed: ___ Nov 2006___	**Signoff:**
√	**4.3.13**	Download for automated review the transmittal information from the IFTA Clearinghouse.	IFTA Clearinghouse Membership Date Completed: ___ Nov 2006___	**Signoff:**
√	**4.3.14**	Retrieve IFTA tax rate information electronically from IFTA, Inc.	IFTA Clearinghouse Membership Date Completed: ___ Nov 2006___	**Signoff:**
√	**4.3.19**	Provide commercial driver information to other jurisdictions via CDLIS (Commercial Driver's License Information System).	CDLIS via DMV Systems Completed 1985	**Signoff:**

Table 7: State Electronic Screening Requirements

State Electronic Screening Systems Design Requirements Checklist				
Check When Done	**Item #**	**Compatibility Criteria**	**Required CVISN Level 1 Interoperability Tests (or other method of verifying capability)**	**Comment**
√	**4.4.1**	Follow FHWA guidelines for Dedicated Short Range Communications (DSRC) equipment.	Green Light program as outlined in the Oregon Green Light CVO Evaluation Final Report April 2001. All Details are available online http://www.oregon.gov/ODOT/MCT/GREEN.shtml. Date Completed: _October 29, 1997__	**Signoff:**
√	**1**	For the immediate future, all CVO and Border crossing projects will continue to utilize the current DSRC configuration employed by the programs. This is the "ASTM (American Society for Testing and Materials) version 6" active tag. (The DSRC provisional standard is defined in the FHWA specification, (Reference 37).)	Green Light program as outlined in the Oregon Green Light CVO Evaluation Final Report April 2001. All Details are available online http://www.oregon.gov/ODOT/MCT/GREEN.shtml. Date Completed: _October 29, 1997__	**Signoff:**
√	**4.4.2**	Use snapshots updated by a SAFER subscription in an automated process to support screening decisions.	Date Completed: __Mar 2002___ XCVIEW (MOU w/WDOT)	**Signoff:**
√	**1**	Carrier snapshots.	Date Completed: __Mar 2002___ XCVIEW (MOU w/WDOT)	**Signoff:**
√	**2**	Vehicle snapshots.	Date Completed: __Mar 2002___ XCVIEW (MOU w/WDOT)	**Signoff:**

State Electronic Screening Systems Design Requirements Checklist				
Check When Done	**Item #**	**Compatibility Criteria**	**Required CVISN Level 1 Interoperability Tests (or other method of verifying capability)**	**Comment**
√	**4.4.4**	At one or more sites, provide electronic mainline or ramp screening for transponder-equipped vehicles, and clear for bypass if carrier & vehicle were properly identified.	Green Light program as outlined in the Oregon Green Light CVO Evaluation Final Report April 2001. All Details are available online http://www.oregon.gov/ODOT/MCT/GREEN.shtml. Date Completed: _October 29, 1997__	**Signoff:**
√	**1**	For transponder-equipped vehicles, identify carrier at mainline or ramp speeds.	Green Light program Date Completed: _ October 29, 1997__	**Signoff:**
√	**2**	For transponder-equipped vehicles, identify vehicle at mainline or ramp speeds.	Green Light program Date Completed: _ October 29, 1997__	**Signoff:**
√	**3**	Use WIM (Weigh-In-Motion) or weight history at mainline speed or on the ramp in making screening decisions.	Green Light program WIM locations on 7 Oregon highways in 23 locations Date Completed: _ October 29, 1997__	**Signoff:**
√	**4**	Use safety data from snapshots and other sources.	Green Light program Date Completed: _ October 29, 1997__	**Signoff:**
√	**5**	Use credentials data from snapshots and other sources.	Green Light program Date Completed: _ October 29, 1997__	**Signoff:**

State Electronic Screening Systems Design Requirements Checklist				
Check When Done	**Item #**	**Compatibility Criteria**	**Required CVISN Level 1 Interoperability Tests (or other method of verifying capability)**	**Comment**
√	**4.4.5**	Carrier enrollment: Collect from the carrier a list of jurisdictions and/or e-screening programs in which it wishes to participate. Inform those jurisdictions and/or e-screening programs.	Green Light program xCVIEW (MOU w/WDOT) Date Completed: _ October 29, 1997__	**Signoff:**
√	**4.4.6**	Vehicle enrollment: Collect from the carrier a list of the vehicles for each jurisdiction and/or e-screening program. Inform those jurisdictions and/or e-screening programs.	Green Light program xCVIEW (MOU w/WDOT) Date Completed: _ October 29, 1997__	**Signoff:**
√	**4.4.7**	Record transponder number and default carrier ID for each vehicle that intends to participate in e screening.	Green Light program xCVIEW (MOU w/WDOT) Date Completed: _ October 29, 1997__	**Signoff:**
√	**4.4.8**	Share carrier ID for each carrier that intends to participate in e screening with other jurisdictions and/or e-screening programs as requested by the carrier.	Green Light program xCVIEW (MOU w/WDOT) Date Completed: _ October 29, 1997__	**Signoff:**
√	**4.4.9**	Share transponder number and default carrier ID for each vehicle that intends to participate in e screening with other jurisdictions, e-screening programs, or other agencies as requested by the carrier.	Green Light program xCVIEW (MOU w/WDOT) Date Completed: _ October 29, 1997__	**Signoff:**

State Electronic Screening Systems Design Requirements Checklist				
Check When Done	**Item #**	**Compatibility Criteria**	**Required CVISN Level 1 Interoperability Tests (or other method of verifying capability)**	**Comment**
√	**4.4.10**	Accept each qualified vehicle already equipped with a compatible transponder into your e-screening program without requiring an additional transponder.	Green Light program xCVIEW (MOU w/WDOT) Date Completed: _ October 29, 1997__	**Signoff:**
√	**4.4.11**	Enable the carrier to share information about the transponder that you issue with other jurisdictions, e-screening programs, or agencies.	Green Light program xCVIEW (MOU w/WDOT) Date Completed: _ October 29, 1997__	**Signoff:**
√	**4.4.12**	Verify credentials/safety information with authoritative source prior to issuing citation.	Green Light program xCVIEW (MOU w/WDOT) Date Completed: _ October 29, 1997__	**Signoff:**

6. Interoperability Test scenarios

A. Vehicle Inspected and Placed Out-Of-Service
B. IRP Carrier Add Vehicle
C. IFTA Carrier Renews Credential
D. Screening an Interstate Vehicle

7. Test Scenario Details

Vehicle Inspected and Placed Out-of Service

This test encompasses operating scenarios 4.2.1, 4.2.5, 4.2.7
Test Case 4.2.1, Vehicle Inspected and Placed Out-of-Service

TEST SUMMARY
A Safety Compliance specialist using ASPEN places a vehicle Out-Of-Service (OOS) at the roadside. The OOS Inspection Report is sent to the SAFER system via SafetyNet or via dial-up telephone transmission. SAFER returns snapshot via SafetyNet and displays through PIQ (Past Inspection Query) window and Query Central. Major inspection sites user interface provides a display of the OOS when a vehicle is queried in real-time.

TEST PURPOSE

The objective of this End-to-End test is to ensure the products involved in placing a vehicle OOS work together properly. Specifically, the test will verify that major roadside inspection sites can receive the vehicle snapshot update that places the vehicle OOS.

ACCEPTANCE CRITERIA

Verify the correct vehicle snapshot is received and updated in ODOT CVIEW repository and the vehicle's OOS condition is displayed at the roadside.

DATA RECORDING - EVALUATION PROCEDURES

Examination of the Operations database and displayed screens will show the successful receipt and update of information (vehicle snapshot update) resulting from a vehicle placed OOS. The Test Analyst will evaluate the appropriate database and ensure the vehicle inspected and placed OOS in Step 4 of Table A is correct.

PROCEDURE

The ASPEN operator, using test case data set 4.02.01, will input the data used for the past inspection report request and the OOS inputs.

TESTING REQUIREMENTS

The test criteria for safety information exchange and inspection reporting data flows are based on the standards found in COACH Part 5, and reflect those requirements which are pertinent to this test case.

Figure 3: ASPEN - Vehicle Inspections

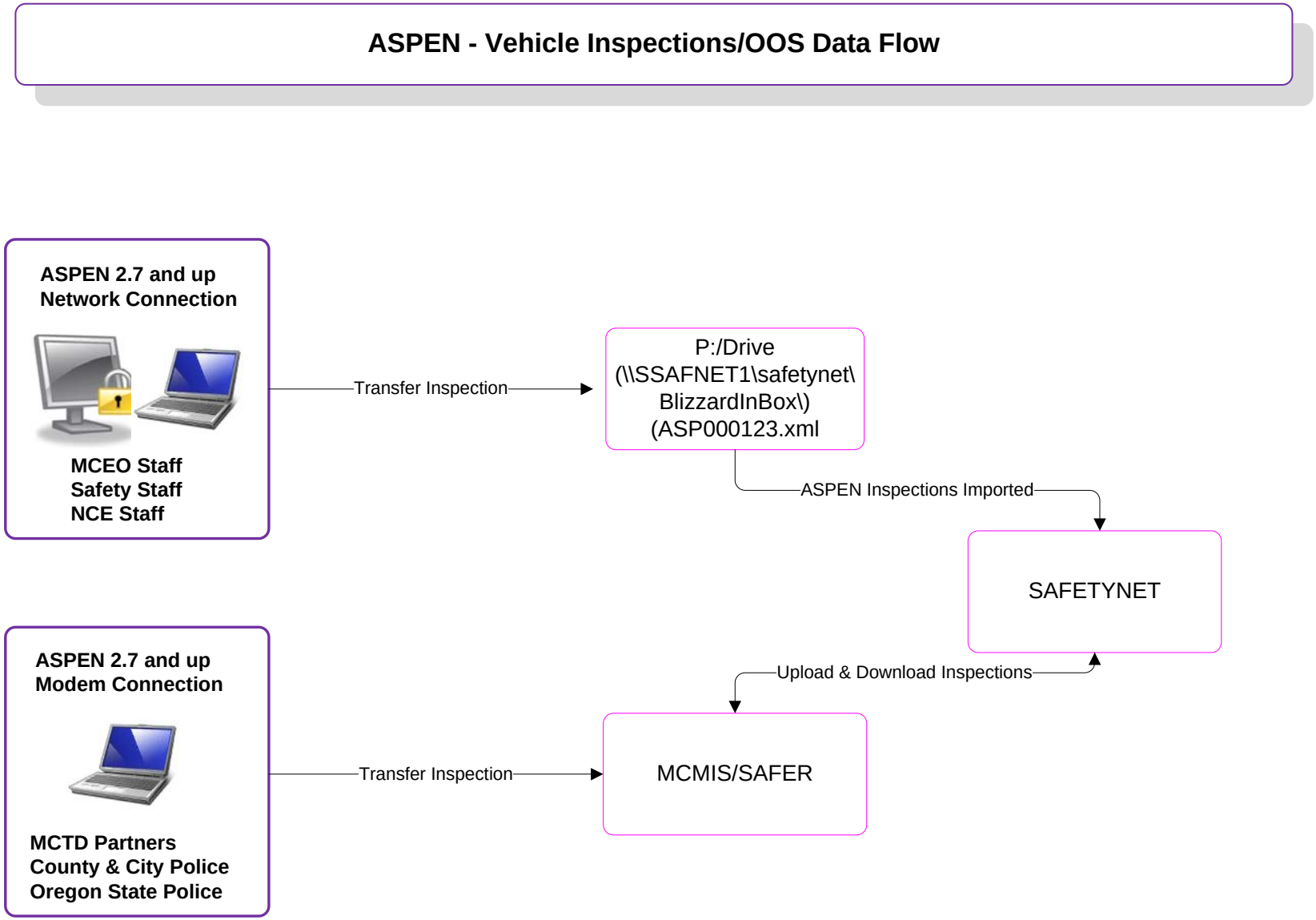


Table 8: Vehicle Inspected and Placed OUT-OF-SERVICE

Step	Operator Action	Verification	Pass/ Fail
1	**An enforcement officer queries and inspection report from SAFER via Query Central.** Record the following information for the query: Vehicle Plate and State; USDOT # YCRS867 OR USDOT-616187	*A Safety Compliance Specialist places vehicle OOS. Test analyst observes use of ASPEN to conduct test.	Pass
2	SAFER receives the request, queries the inspection reports and forwards it to the Query Central screen form for officer viewing or printing.	*Test analyst verifies the vehicle inspection report is for the vehicle in step 1	Pass
3	**Safety Compliance Specialist inspects the vehicle and places the Vehicle OOS.**	Test data	Pass
4	**The Safety Specialist uploads the OOS inspection report to SAFER** Record the following information for identification: USDOT Number 616187 Co. Name Hanks Concrete Products Inc. Vehicle Plate and State YCRS867 OR VIN XP1DRHJ078856 OOS Flag OOS Order/Report ID ORAABW001808 OOS Violation Code 393.47(e)	Verified successful	
5	SAFER receives and updates the vehicle snapshot segment with inspection information, e.g., OOS status, inspection history.	Yes	Pass
6	SAFER provides CVIEW with vehicle inspection snapshots.	N/A	N/A
7.	ROC displays the OOS information at roadside when queried by plate number and state of registration	Test analyst verified OOS vehicle data.	Pass

*Names of certifying test analyst and participants available upon request.

Carrier Adds Vehicle IRP Supplemental

This test encompasses operating scenarios 4.2.5, 4.2.7, 4.3.3

Test item:
In this scenario, test data is verified by the carrier and at Oregon's Legacy Systems, SAFER, and Roadside Systems. The following test data are used as test items throughout the test:

• Identification	• Credentials
VIN 1FUPCDZB9TP825394	**USDOT #** 467614
Plate YAFK649	**IRP Account Number** 021548
State OREGON	**IRP Base State** OREGON

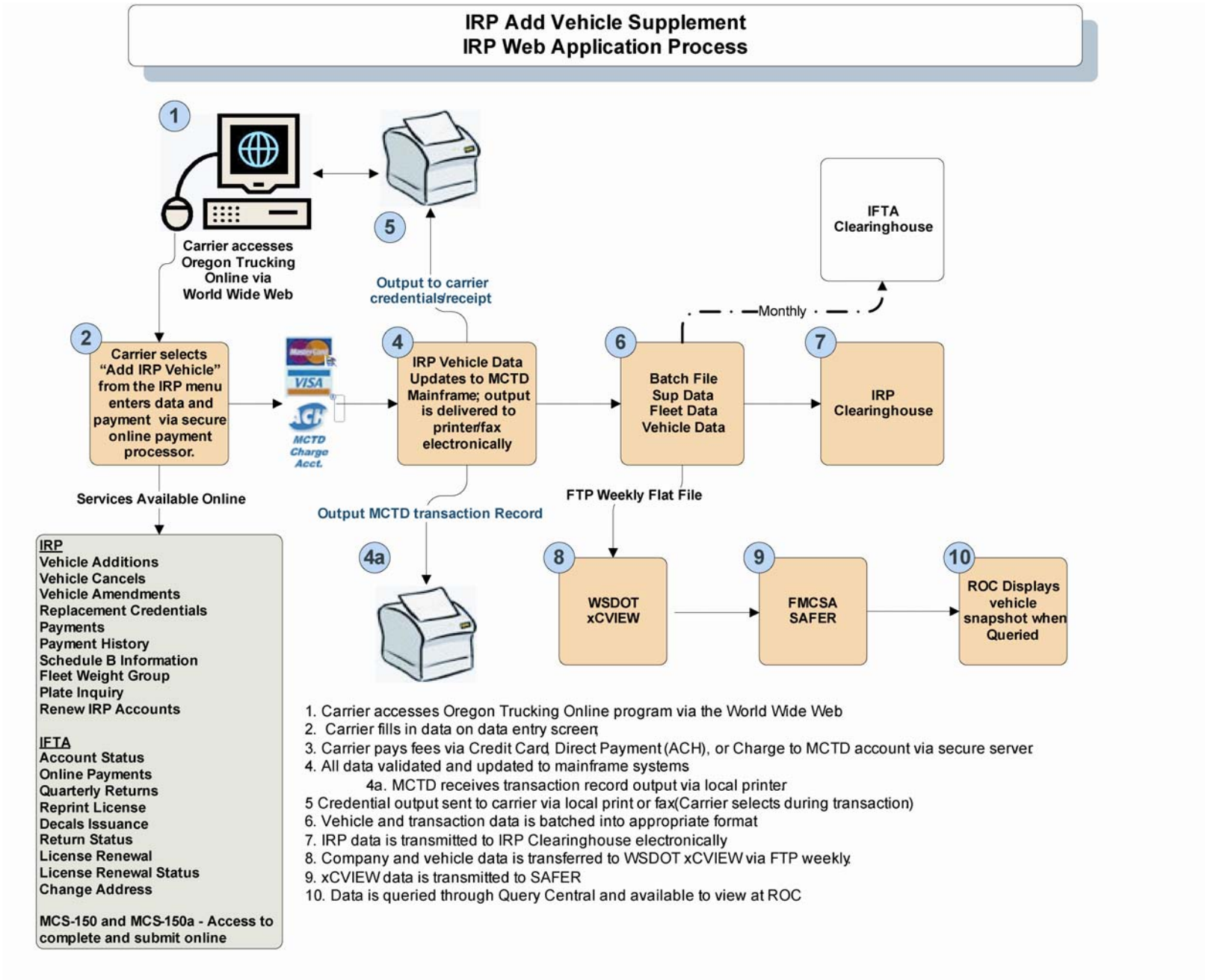
FUNCTIONS BEING DEMONSTRATED:
The test scenario is initiated when the carrier submits an IRP Supplemental "Add Vehicle" using Oregon Trucking Online web site and selecting the IRP menu options via an Internet browser. Trucking online program sends data to MCTD mainframe. The Carrier completes this transaction by submitting payment through the Trucking Online shopping cart via credit card. The Trucking Online system sends the updated vehicle information electronically to the Oregon's Legacy Systems. MCTD compiles data into a data and submits weekly FTP updates to xCVIEW and SAFER via the data. The updates can be seen on SAFER, and Roadside Operations, by checking the respective databases for the test items.

GENERAL DATA FLOW
Figure 2 illustrates the IRP/IFTA web application process. The test flow will encompass the following steps.

- Carrier accesses MCTD Trucking Online program from a PC with internet connection.
- Carrier submits an IRP supplemental Add Vehicle application to MCTD via Trucking Online. Carrier pays transaction online via Credit Card through secure server.
- Carrier/Vehicle data is updated to ODOT MCTD Mainframe systems.
- 3a. Output sent to MCTD printer.
- Carrier receives instant temporary credentials via local printer or fax.
- OR Legacy system initiates internal overnight batch file process and credential output.
- Batch file sent to IRP Clearinghouse via monthly electronic transmittal process.
- OR Legacy system merges fleet/vehicle data for transfer via FTP to xCVIEW.
- WSDOT xCVIEW transmits data to SAFER
- CVIEW displays vehicle snapshot information at ROC when queried.

Result: CVIEW displays vehicle snapshot information when queried through Query Central or PIQ.

Figure 4: IRP Vehicle Supplement



Data Recording and Evaluation

Using IRP production data from a carrier's Trucking Online account, Legacy system databases and displayed screens, the test analyst verifies successful receipt and update of information resulting from the submission of an IRP Supplemental application by the carrier. Post-test analysis involves comparing the appropriate database updates PIQ and Query Central to the test items.

Table 9: Carrier Add Vehicle Supplemental

Step	Operator Action	Verification	Pass / Fail
1	**A carrier uses Web Site - IRP Program, inputs the vehicle information for the vehicle they wish to add.** Record and use the following information for the query: VIN -1FUPCDZB9TP825394 Vehicle's Plate# YAFK649 State OREGON	*Test analyst obtains records from Trucking Online transaction.	Pass
2	**Carrier completes vehicle addition application and submits direct via secure server connection to Oregon Legacy System. Carrier makes payment via secure server direct to Legacy systems. Transaction posts immediately, vehicle application detail posts immediately to mainframe and sends temp credential to carrier and permanent credential to MCTD printer via overnight batch process. Staff mails Cab Card and plates next day.** USDOT number 467614 IRP Acct # 021548 Base State on Cab Card 021548	Checked Trucking Online Secure Pay Admin against Mainframe record. Verified all vehicle data. Verified output.	Pass
3	Merge Job runs to create merged snapshot files.	N/A	N/A
4	Scheduled FTP Data process is initiated. XCVIEW is updated and sent to SAFER	Verified SAFER database updated.	Pass
	Observed production data.	Hard copies of test data available upon request.	

*Names of certifying test analyst and participants available upon request.

Carrier Renews IFTA Credential

This test encompasses operating scenarios 4.2.5, 4.2.7, 4.3.5

TEST ITEMS:
In this scenario, we verify a carrier's Trucking Online IFTA Renew transaction online in a production environment; follow it through Oregon Legacy systems to the SAFER system to ensure availability of data at ROC. We also verify general flow of data to IFTA Clearinghouse.

The following test data are used as test items throughout the test:

• Credentials	• Registration Information
USDOT Number 600916	Contact Name Beall Corp
IFTA Account Number 202435	Add: 8801 N Vancouver Ave Portland, OR 97217
IFTA Base State Oregon	Reg Expiration 12/31/2007
Jurisdictions OR-WA	

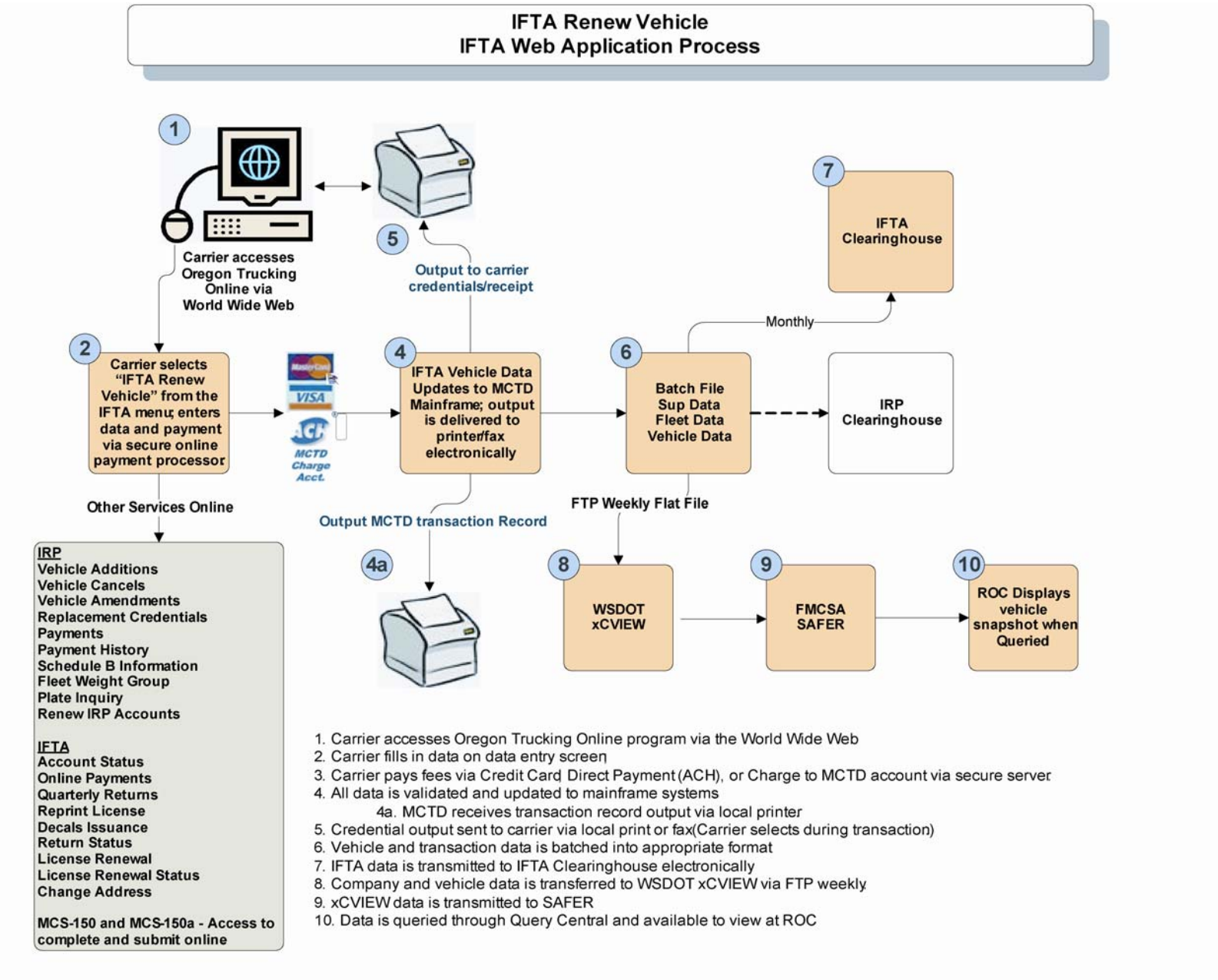
FUNCTIONS BEING DEMONSTRATED:

Carrier accesses Oregon Trucking Online and completes the IFTA renewal process. (IFTA Renewal Online program is available to carrier with accounts in compliance.) ODOT automatically renews IFTA Licenses if carriers are in compliance. The renewal is processed on ODOT Tax and Revenue Group Automated Transaction System (TARGATS). There is no charge and credentials and decals are sent to the carriers. The updates are aggregated and sent to CVIEW and SAFER.

GENERAL DATA FLOW:
Figure 2 illustrates the IRP/IFTA web application process. The test flow will encompass the following steps.

- Carrier accesses MCTD Trucking Online program from a PC with internet connection.
- Carrier enters data for self issued and IFTA license and decals renewal. Carrier pays transaction online via Credit Card through secure server.
- Renewal data is updated to Oregon Legacy systems.
- 3a. Output sent to MCTD printer.
- Carrier receives IFTA license and decal voucher instantly via local printer or fax.
- OR Legacy system initiates internal overnight batch process for MCTD records output.
- IFTA credentials are mailed to tax payer
- Batch file sent to IFTA Clearinghouse via monthly electronic transmittal process.
- OR Legacy system merges data for weekly transfer via FTP to xCVIEW.
- WSDOT xCVIEW transmits data to SAFER
- CVIEW displays vehicle snapshot information at ROC when queried.

Figure 5: IFTA Renew Vehicle



DATA RECORDING AND EVALUATION:

Using messages, databases, and displayed screens, the test analyst verifies successful receipt and update of information resulting from the submission of an IFTA Renewal application by the carrier. Post-test analysis involves comparing the appropriate database updates to the test items.

Table 10: Carrier Renews IFTA Credential

Step	Operator Action	Verification	Pass/ Fail
1	**Carrier accesses online IFTA program and completes renewal data entry. Carrier pays renewal fee via credit card through secure server. Output sent to carrier's local printer or fax (IFTA license and decal voucher)** **Legacy system is updated and sends output transaction record to MCTD Printer. IFTA Decals and License are sent to taxpayer** **Record and use the following information for the query:** **USDOT: 600916** **IFTA ACCT#: 202435** **BASE STATE: OR** **JURISDICTIONS: OR, WA**	*Test Analyst obtains records from a Trucking Online transaction. Verified output and MCTD records.	**Pass**
2	**Merge process extracts account changes, and formats files for transfer to WSDOT xCVIEW.**	Verified scheduled weekly transfer	**Pass**
3	**Production data file transferred to WSDOT xCVIEW via FTP.**	Verified data updated to SAFER.	**Pass**

*Names of certifying test analyst and participants available upon request.

Screening an Interstate Vehicle using Green Light (Test waived)

This test has been waived in lieu of the fact that the Green Light program is a nationally recognized screening system that has a demonstrated history of operation since 1997.

OPERATING SCENARIO 4.4.2

The Green Light program has pre-cleared over 7 million trucks in the last 10 years. It is a nationally recognized screening program. Oregon opened its first Green Light site in October 1997 and began recording “green lights” in January of 1999. Green Light now serves 4024 companies and 40,804 trucks equipped with the transponders. In this test scenario, the successful daily operations of the Green Light program by enforcement staff and the policies in place serve as verification of the data generated and used in the Green Light screening process.

STATUS: PROGRAM IS IN PRODUCTION AND MEETS REQUREMENTS

Scales in the roadway weigh trucks in-motion at high speed as they approach the station while automatic vehicle identification devices look for signals from a palm-size transponder mounted inside truck windshields. The transponder contains only a 10-digit number that is used to identify the carrier and specific truck. A computer takes in all the information, verifies truck size and weight, checks the carrier’s registration and safety records, and sends a green light signal back to the transponder if the truck is "good to go" past the station.

SUMMARY

An interstate vehicle is selected. When the vehicle, equipped with a valid transponder, approaches the weigh station, the transponder is read and the database is checked for vehicle information associated with that transponder ID. After the vehicle is identified, it will be directed to bypass or pull in to the weigh station.

PURPOSE

To verify that all transactions and data are properly processed by Green Light at the roadside screening computer, and that that information is used to verify proper interaction between the roadside screening system and a valid transponder.

INITIAL CONDITIONS

Utilizes the standard transponder ID data set 4.3.1 defines nominal parameters for clearance.

ACCEPTANCE CRITERIA

The vehicle and carrier are identified based on the transponder ID. Vehicle is signaled to bypass or pull-in based on carrier or vehicle status.

Table 11: Screening an Interstate Vehicle (Test Waived)

Step	Operator Action	Verification	Pass/ Fail
1	**Test transponder selected.** **Record the following information:** Vehicle Identification VIN _____ State/plate_____ Transponder ID_____ Carrier Identification USDOT_____	None	
5	**Vehicle operator verifies that transponder listed in data set is installed.**	None	
6	**Roadside operator verifies roadside systems are properly initialized and are ready to proceed with test.**	None	
7	**Roadside System Operator instructs vehicle operator to proceed through the CV check station.**	None	
8	**The screening system reads the vehicle transponder ID from the DSRC tag.**	None	
9	**A screening decision is made.**	**Verify that that the screening decision is in agreement with the IFTA and IRP status,**	
10	**Test Conductor receives Carrier ID, Vehicle ID, and screening decision from Roadside Operations System.**	**Verify transponder ID has been properly read, carrier and vehicle have been properly identified, and the screening result bypass is displayed.**	
11	**Test Conductor receives screening decision from the vehicle operator.**	**Verify the screening decision bypass or pull-in is displayed.**	

Test Waived

Test Case	Test Name	Expected Results
4.03.01	Vehicle Identified; No failed checks: Bypass	Screening Decision is Bypass
4.03.02	Vehicle Identified; Failed Carrier Check: Pull-In	Screening Decision is Pull In
4.03.03	Vehicle Identified; Failed Vehicle Check: Pull-In	Screening Decision is Pull In