System Acceptance Test Plan

Dallas Integrated Corridor Management (ICM) Demonstration Project

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Final Report — February 16, 2013
FHWA-JPO-13-056

U.S. Department of Transportation

Produced by Dallas Integrated Corridor Management Demonstration Project
U.S. Department of Transportation
ITS Joint Program Office, Research and Innovative Technology Administration
Federal Highway Administration
Federal Transit Administration

Notice

Technical Report Documentation Page

1. Report No. FHWA-JPO-13-056	2. Government Accession No.	3. Recipient's Catalog No.
4. Title and Subtitle System Acceptance Test Plan, Dallas Integrated Corridor Management (ICM) Demonstration Project		5. Report Date February 16, 2013 6. Performing Organization Code
7. Author(s) Miller, Kevin; Bouattoura, Fairel; Zingalli, Joe; Macias, Roberto; Miller, Bryan; Olyai, Koorosh		8. Performing Organization Report No.
9. Performing Organization Name And Address Dallas Area Rapid Transit 1401 Pacific Avenue Dallas, TX 75202		10. Work Unit No. (TRAIS) 11. Contract or Grant No. DTFH61-06-H-00040
12. Sponsoring Agency Name and Address U.S. Department of Transportation ITS Joint Program Office-HOIT 1200 New Jersey Avenue, SE Washington, DC 20590		13. Type of Report and Period Covered Final System Acceptance Test Plan 14. Sponsoring Agency Code
15. Supplementary Notes Source for all figures and tables in this report is Dallas Area Rapid Transit and dated February 16, 2013.		
16. Abstract The Dallas Area Rapid Transit (DART) is leading the US 75 Integrated Corridor Management (ICM) Demonstration Project for the Dallas region. Coordinated corridor operations and management is predicated on being able to share transportation information on highways, arterials, transit, weather, and incidents. The ICM system will utilize the existing TxDOT Center-to-Center standards based communication infrastructure, and will provide direct connections to agencies not on the Center-to-Center network, via a web-based interface known as SmartNET. The ICM system uses SmartNET as the main graphical user interfaces for the ICM Stakeholders to create, edit, and view events in the corridor and region, view current conditions of field devices and congestion on the roadway network, and coordinate responses to incidents within the corridor. This Systems Acceptance Test Plan covers the test process and scripts for validating the requirements of the ICM system.		
17. Key Words Integrated Corridor Management, ICM, Testing, SAT	18. Distribution Statement	

19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 222	22. Price N/A

Form DOT F 1700.7 (8-72) Reproduction of completed page authorized

Table of Contents

List of Tables

List of Figures

Revision Tracking

Revision	Description	Author/Reviewer	Date
1.0	Initial Draft Release	Fariel Bouattoura/Joe Zingalli	02/17/2012
1.1	DSS Dialogue was added	Fariel Bouattoura	03/05/2012
2.0	Final	Fariel Bouattoura/Joe Zingalli	
2.1	Updated Final	Fariel Bouattoura/Joe Zingalli/ Kevin Miller/ Roberto Macias	11/30/2012
3.0	Final - approved	Fariel Bouattoura/Joe Zingalli/ Kevin Miller/ Roberto Macias	2/15/2013

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Project Name: Dallas US-75 Integrated Corridor Management Demonstration Project

Document Approval
Document Name: System Acceptance Test Plan: Dallas ICM Demonstration Project
Publication Date: November 28, 2012
Cooperative Agreement Number: DTFH-61-06-H-00040
Prepared by: Fariel Bouattoura

Approval: _____
Koorosh Olyai, DART Program Manager

Concurrence: _____
Ahmad Sadegh, Telvent Project Manager

1 Introduction

This document is intended as a listing of a set of test procedures to verify the Requirements for the US-75 Integrated Corridor Management System (ICMS) Demonstration Project in Dallas. The SmartFusion subsystem is to provide the data processing, fusion, and data dissemination functions for the ICMS. The SmartFusion Subsystem receives data from and provides data to the SmartNET Subsystem information exchange tool. The SmartFusion Subsystem also receives data from external interfaces described in this document. The basic SmartFusion subsystem already exists and provides the majority of the functionality needed for the ICMS.

The Decision Support Subsystem uses the data from the SmartFusion Subsystem in selecting appropriate response plans, and sending those recommended response plans to the ICM Coordinator in order to coordinate responses to incidents within the corridor.

1.1 Purpose

As a part of the Dallas US-75 ICM Demonstration Project, the Dallas ICM team has developed an acceptance test plan for verifying the requirements of the ICMS. This plan is to test the ICMS, not to validate the data provided by external sources. Thus, if the data is erroneous and the ICMS reports the erroneous data in an accurate and timely manner, then the ICMS has performed successfully.

This document includes the overall plan for acceptance testing of the ICMS. The specific scripts to conduct the acceptance test are attached as an appendix. The scripts are based on the requirements document, and the design documents.

This document is intended for use by the individuals responsible for verifying operation of the system and compliance with contract technical provisions. The primary objective is for this document to serve as a plan and script for verifying that the ICMS complies with the requirements.

1.2 References

- US-75 ICM System Requirements, Dallas Integrated Corridor Management (ICM) Demonstration Project, version 7.8, January 2011
- US-75 ICM Draft System Design Document, Dallas Integrated Corridor Management (ICM) Demonstration Project, July 2012
- Data Dictionary, Dallas Integrated Corridor Management (ICM) Demonstration Project, November 2012
- Center-to-Center(C2C) Interface Control Document (ICD) version 4.3.0, Texas Department of Transportation

1.3 Key Stakeholders

The stakeholders for the Project include:

- Dallas Area Rapid Transit
- City of Dallas
- City of Richardson
- City of Plano
- Town of Highland Park
- City of University Park
- North Central Texas Council of Governments
- North Texas Tollway Authority
- Texas Department of Transportation – Dallas District

1.4 Points of Contact

The table below lists the points of contact for the different technical aspects of the system:

Table 1: Technical Lead Contact Information

Responsibility	Name	Telephone	E-mail
Project Manager	Ahmad Sadegh	215-704-7799	Ahmad.sadegh@telvent.com
Deployment Lead	Fariel Bouattoura	917-865-7104	Fariel.bouattoura@telvent.com
Networking Lead	Jim Carl	301-354-1379	jim.carl@telvent.com
DSS Lead	Ed Seymour	972-994-0433	eseymour@tamu.edu

1.5 Document Review and Approval Procedure

This document can be found in the Dallas ICM ProjectSolve repository in the Deliverables directory My ProjectSolve> Deliverables >Task 5 – System Testing> TestPlans. Change requests will be handled using the process established for document review within the Project Management Plan:

1. Telvent and TTI provides the documents to the DART Program Manager, whom distributes the document to the appropriate stakeholders for review
2. Stakeholders provide the DART Program Manager, and Telvent and TTI their comments
3. Telvent and TTI updates document to address comments, and provides to the DART Program Manager
4. The DART Program Manager provides document to the USDOT for comment
5. USDOT provides the DART Program Manager with comments, who then forwards comments to Telvent and TTI
6. Telvent and TTI update the document for Final review and approval, and provides Final document to the DART Program Manager
7. The DART Program Manager provides the appropriate stakeholders, and USDOT the Final Document
8. If acceptable the stakeholders and USDOT indicates approval and document is moved to My ProjectSolve> Deliverables >Task 5 – System Testing> TestPlans folder.

1.6 Test Process and Methodology

The Software Development Life Cycle (SDLC) that Telvent uses is in concert with industry standard SDLC models and conforms to ISO 9001 process requirements. It provides for all the phases necessary to accomplish a software project (from project initiation through installation). Key phases of the life cycle are the Software Systems Testing and the Systems Acceptance Testing components.

Prior to System Acceptance Testing, the ICMS will have undergone complete and more detailed Software Systems Testing in a controlled environment, for the purpose of verifying that requirements are being met and quality software is being produced and released to the client.

After the ICMS has completed Software Systems Testing, the Dallas ICM Team conducts a software Testing Readiness Review (TRR) to verify that everything is in place before commencing the execution of System Acceptance Testing.

1.7 Test Plan Objectives

The overall objective of acceptance testing is to allow the project stakeholders to verify that the ICMS will provide functionality sufficient for their operational needs as defined in the Requirements Document, which were reviewed and approved by the stakeholders and the DART program manager..

The objective of this plan is to provide a platform of well-defined acceptance test procedures that will be used to assist in conducting acceptance testing on site.

1.8 Testing Procedures

To test the various requirements of the ICMS, the following testing procedure will be used and will encompass all the requirements. This is:

Test by Observation – these tests use a technique in which satisfaction of a requirement is verified by the visual examination of hardware, data, and/or physical demonstration of the system.

1.9 Approach for Executing the Acceptance Test

To achieve the above objectives, a systematic approach will include the following activities for executing the System Acceptance Test.

1.9.1 Execute Acceptance Tests

The Dallas ICM Team will execute the Acceptance Tests over a period of several days. A test schedule will include a “dry run” period to confirm test readiness in the ICMS preproduction environment and the final period for acceptance testing. The schedule for both the “dry run” testing and final testing activities will be confirmed and communicated separately. Representatives from the Dallas stakeholders and USDOT witness these tests and the test results.

1.9.2 Assumptions

1.9.2.1 Source Documents/Artifacts Required for Testing

Sources to use during verification include:

- Acceptance Test Plan, and Acceptance Test Scripts, included in this document
- Other data references to aid in some tests (which are referenced in certain test scripts)

1.9.2.2 Environment Needs

It is assumed that acceptance testing will be performed on computer systems and a data network meeting the defined configuration requirements, both in terms of hardware and software. The testing will be completed on a preproduction environment since the production environment will be used as an operational tool by the various stakeholders.

Telvent will conduct a review of the test platform and its configuration prior to testing to ensure test readiness. Successful completion of these functional pretests will attest to its proper configuration.

1.9.2.3 Training Needs

It is assumed that personnel who will assist with the acceptance test execution will be properly briefed or trained prior to the acceptance test period. The functional tests will primarily require assistance from a Telvent Technical Representative and development team members who are knowledgeable about the system operations and test tools.

1.9.2.4 Data Needs

The SmartFusion subsystem collects information from the various external sources as described in the Detailed Design Document. The Diagram below represent the external data sources as well as the Subsubsystems included in the SmartFusion Subsystem.

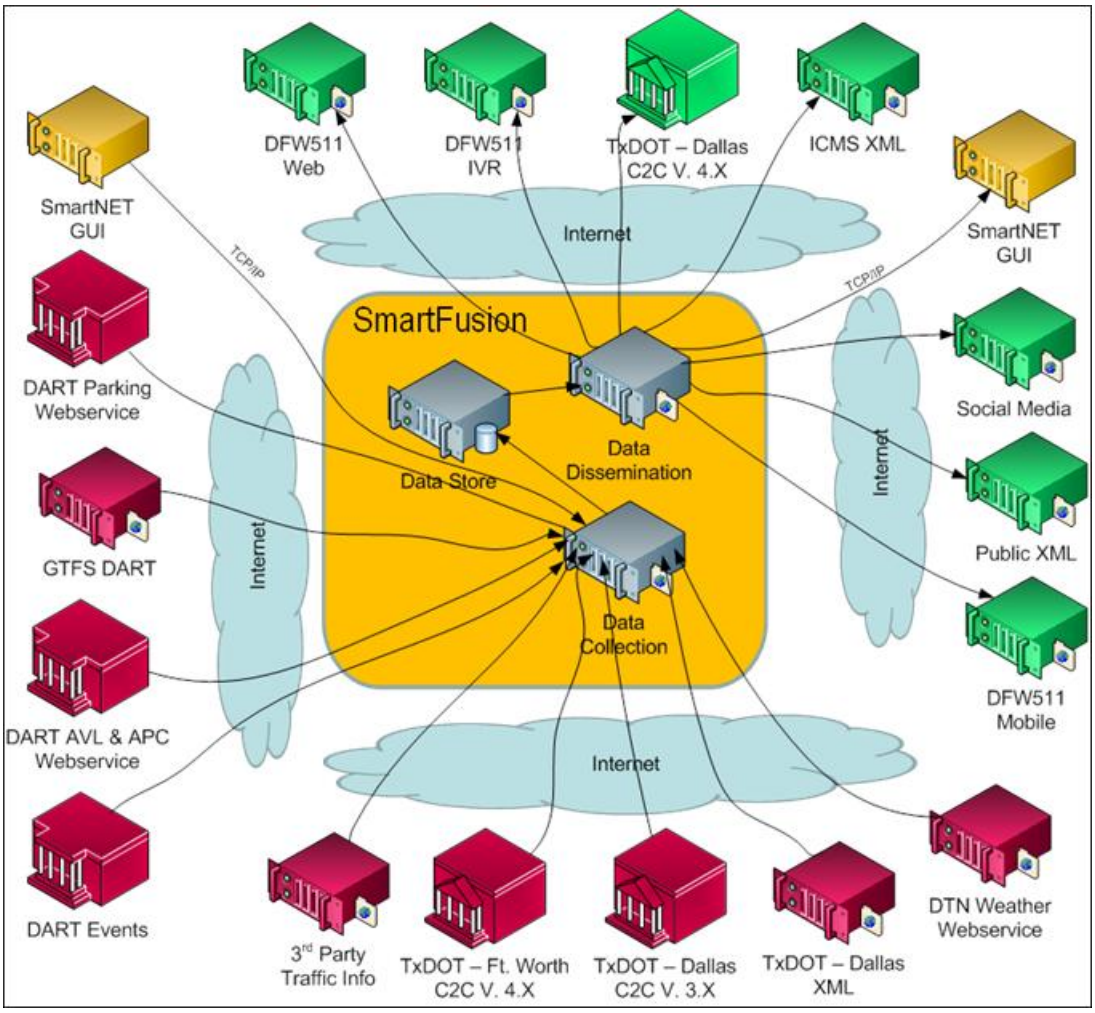

Figure 1: High-Level Logical Architecture for the SmartFusion Subsystem

When working with data during System Acceptance Testing, it is assumed that:

- TxDOT Active event information will be provided through the C2C web service. If data is not available, simulation data will be used.
- Active event information will be generated during the tests using simulated data.
- All necessary highway and roadway speed data will be populated, including data that is referenced by the detailed test scripts.
- Parking information will be provided through the Parking data interface. If the data is not available, data will be simulated based on the data feed specification
- DTN Weather data will be provided through the weather data interface.
- DART data will be provided through the various DART data interfaces.

1.9.3 Testers

The functional tests may require assistance from the Telvent and TTI Technical Representatives, who is knowledgeable about the ICMS operations, and the development team, on input for the test

tools. As normal course of business dictates, a Telvent and TTI technical representative will be available during acceptance testing.

1.9.4 Problem Identification and Resolution

During acceptance testing, all test successes, failures or other results will be reported to the Telvent representative by the stakeholder's system users who are observing the test. All test cases reported as Failed, or that appear to be working other than expected, will be verified by the Telvent representative, compiled and reported for further review and correction as necessary.

There are four (4) possible outcomes for each test observation, and/or test script. These test results, along with any additional comments will be noted as reported by the Telvent representative. The test results will be recorded in the checkbox provided at the end of each test. Those tests that are reported as "Pass" do not require any further comments; however, DART may choose to provide additional comments that satisfy the understanding and/or disposition of the test. Each test case reported as "Failed", must include sufficient detail, including a complete description of the activities performed while executing the test (so that the problem can be repeated). Those tests reported as "Could not complete" must also include the reason in sufficient detail why the test could not be executed/finished. There may be cases where a test could not be completed or did not complete in the expected way, but DART is willing to pass it anyway. In this case, the "Accept as is" result is used and appropriate comments provided to explain why this result was selected.

The following table outlines the procedures for handling each outcome:

Table 2: Test Result Possible Outcomes

Test Result	Reason	Resolution
Pass	System produced expected result.	Script is successful. Acceptance of the test is noted by signature of tester and initials of the stakeholder observer.
Could not complete	Unknown or external factors prevented the completion of the test.	Report the problem in detail in the script's Comments field. Assign responsibility for the resolution of the problem, and create an action plan and schedule to resolve it and re-test.
Failed	Software did not produce the expected result or caused other failures (e.g., system crash, unexpected error).	The Tester reports the problem in detail in the script's Comments field. The Telvent Representative confirms the problem and logs an SCR (Software Change Request). Telvent will review and make modifications to the software and/or database and re-test until successful.
Accept as is	Complete verification is not desired, or observed behavior is acceptable.	As appropriate, report any concerns in detail in the script's Comments field. Inform the Telvent representative. The Telvent representative confirms and reports the

Test Result	Reason	Resolution
		problem to Telvent and logs an SCR (Software Change Request) if necessary.

Each feature of the ICMS, as described in the ICMS design document, will be covered by one or more test scripts (see *Appendix B – Acceptance Test Scripts*). Each test script is made up of several steps and includes an explanation of inputs and expected results.

In the Comment section, located at the bottom of each script (procedure), the tester must note any problems that occur and the associated step number. If the test script is executed successfully (passes), the tester must sign and date the script as shown below (the tester signature/Date fields are located at the end of each test script).

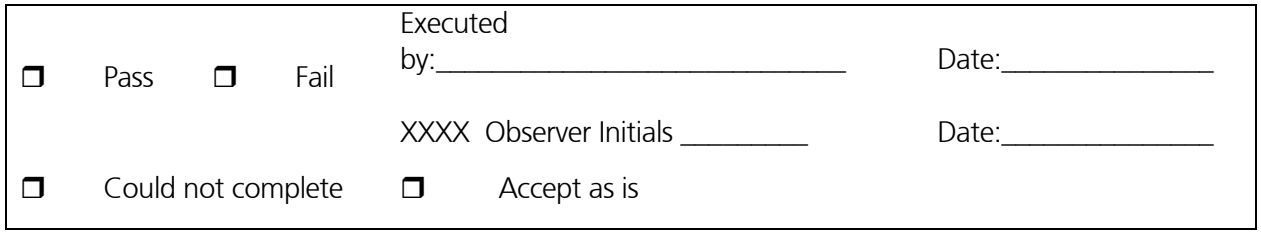

Figure 2: Test Status

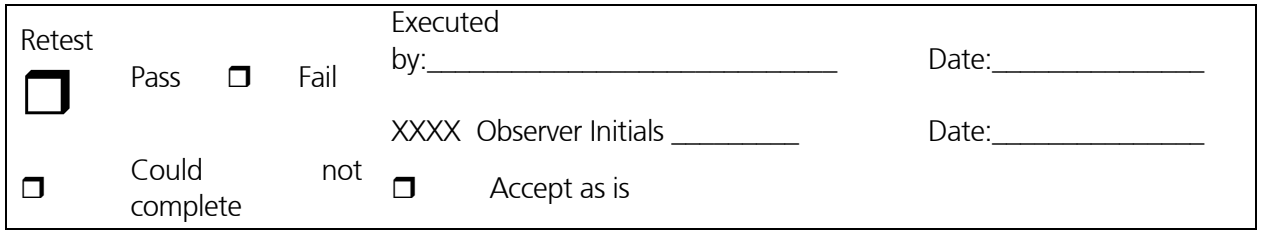

Figure 3: Re-Test Status

The designated tester will execute all test scripts in the presence of a Telvent and TTI Technical representative and a DART representative. All test results will be reviewed on site by the Telvent and TTI Technical representative to ensure agreement with the result (pass or fail) of each test.

Confirmed defects and other issues reported by the client or observed on site, will be reported back to the Telvent Development leads and Project Manager.

Stakeholder technical staff will have the opportunity to observe the repeat any failed tests upon receipt of the software fix or clarification of a test script that was misinterpreted or incorrect. Appropriate staff from Telvent will also be assigned to be available to assist with these follow-up tests.

Upon mutual agreement between Telvent and DART, test items may be deferred and/or test procedures or expected test results may be modified while conducting the acceptance test. The reason for any deferral and the terms for any modifications shall be documented by Telvent and will

become a part of the final test results. Telvent will be responsible for providing the DART staff and management with an estimate as to when to expect needed modification, software discrepancy fixes and any other configuration adjustments to enable further examination and/or testing to occur.

1.9.4.1 Acceptance of the System

Acceptance testing will be repeated for the total system as reflected in the Functional Requirements once the system elements to meet these requirements are completed. After all required tests have passed or been "accepted as-is", DART will accept the ICMS software by having the appropriate representative sign the *Acceptance Signature Sheet* (*Appendix B.)*

1.9.4.2 Disposition of Signed Scripts and Final Acceptance Signature Sheet

The ICM team will retain the original acceptance test plan and acceptance test procedure, along with all comments received from the stakeholder personnel during the course of executing the Systems Acceptance Testing. A signed copy of the completed acceptance testing result will be provided to all stakeholders and USDOT.

1.9.4.3 Responsibilities/Resources

The following individuals will be involved with the acceptance test effort at various times, as required.

Table 3: Roles and Responsibilities

Responsible Individual	Description
Telvent System Administrator	Provides the test environment and equipment specified in this acceptance test plan. Will also be needed to execute (or assist with) the test scripts.
Stakeholder system users	Participate directly in the acceptance testing as the resource responsible for executing and observing the behaviors of the system. The "user" in this case may be the system administrator or other designated technical personnel assigned by the various stakeholders.
Telvent System/Network Engineer	Set up related environment components; network, hardware, software and database configuration (including appropriate database population and simulator) in preparation for acceptance testing.
Telvent and TTI Technical Representative	Monitor activities associated with the acceptance test. Document and maintain a list of discrepancies occurring on site as well as, during testing. Report Software Change Requests (SCRs) as necessary. Report confirmed discrepancies to Telvent development or system engineering staff.
Telvent and TTI Software Lead and Software Developers	Perform debugging and make coding changes.

Responsible Individual	Description
Telvent SCM Administrator	Provide Software Configuration Management and version control.
Telvent Project Manager	Monitor activities associated with the acceptance test.
Stakeholder Representatives	Review and approve Acceptance Test Plan. As appropriate, witness test execution, and accept the system. Provide signatory for system acceptance (Final Acceptance Signature Sheet).

2 Appendix A – Acceptance Test Evaluation

2.1 Requirements/Acceptance Test Traceability Matrix:

Table 1: The requirements listed in Table 1 below will be verified by review of system design documentation, observation, and or other reference material.

Table 4: SmartNET SubSystem Requirements Traceability Matrix

Test Script #	Test Description	ReqNo	RequirementText	Results P/A/C/F
SN5	Control object layers on the map and verify the SmartNET data store object data	1.3.0.10	The SmartNET Subsystem shall provide Agency Users the capability to view current status of ITS devices in the corridor	
SN5	Control object layers on the map and verify the SmartNET data store object data	1.3.0.20	The SmartNET Subsystem shall provide Agency Users the capability to view current conditions in the corridor	
SN2	Sending Email Alerts for Events Using SmartNET	1.3.0.30	The SmartNET Subsystem shall send to internet E-mail SmartNET E-mail alerts	
SN3	Creating/Viewing/Updating/ Closing Incidents/Construction/Special Events in SmartNET	1.3.0.40	The SmartNET Subsystem shall receive from the SmartFusion Subsystem incidents	
SN3	Creating/Viewing/Updating/ Closing Incidents/Construction/Special Events in SmartNET	1.3.0.50	The SmartNET Subsystem shall receive from the SmartFusion Subsystem construction	
SN3	Creating/Viewing/Updating/ Closing Incidents /Construction/ Special Events in SmartNET	1.3.0.60	The SmartNET Subsystem shall receive from the SmartFusion Subsystem special events	

Test Script #	Test Description	ReqNo	RequirementText	Results P/A/C/F
SN5	Control object layers on the map and verify the SmartNET data store object data	1.3.0.70	The SmartNET Subsystem shall receive from the SmartFusion Subsystem parking lot data	
SN5	Control object layers on the map and verify the SmartNET data store object data	1.3.0.80	The SmartNET Subsystem shall receive from the SmartFusion Subsystem weather alert data	
SN5	Control object layers on the map and verify the SmartNET data store object data	1.3.0.90	The SmartNET Subsystem shall receive from the SmartFusion Subsystem link dynamic data	
SN5	Control object layers on the map and verify the SmartNET data store object data	1.3.0.100	The SmartNET Subsystem shall receive from the SmartFusion Subsystem HOV status data	
SN5	Control object layers on the map and verify the SmartNET data store object data	1.3.0.110	The SmartNET Subsystem shall receive from the SmartFusion Subsystem CCTV status data	
SN5	Control object layers on the map and verify the SmartNET data store object data	1.3.0.120	The SmartNET Subsystem shall receive from the SmartFusion Subsystem VMS status data	
SN5	Control object layers on the map and verify the SmartNET data store object data	1.3.0.130	The SmartNET Subsystem shall receive from the SmartFusion Subsystem traffic signal status data	
SN4	SmartNET Receiving/Sending Response Plans	1.3.0.140	The SmartNET Subsystem shall receive from the SmartFusion Subsystem a response plan recommendation	
SN3	Creating/Viewing/Updating/ Closing Incidents/Construction/Special Events in SmartNET	1.3.0.150	The SmartNET Subsystem shall send to the SmartFusion Subsystem incidents	
SN3	Creating/Viewing/Updating/ Closing Incidents/Construction/Special Events in SmartNET	1.3.0.160	The SmartNET Subsystem shall send to the SmartFusion Subsystem construction	

Test Script #	Test Description	ReqNo	RequirementText	Results P/A/C/F
SN3	Creating/Viewing/Updating/ Closing Incidents/Construction/Special Events in SmartNET	1.3.0.170	The SmartNET Subsystem shall send to the SmartFusion Subsystem special events	
SN4	SmartNET Receiving/Sending Response Plans	1.3.0.180	The SmartNET Subsystem shall send to the SmartFusion Subsystem response plan responses	
SN5	Control object layers on the map and verify the SmartNET data store object data	1.3.0.190	The SmartNET Subsystem shall receive from the SmartFusion Subsystem transit vehicle location data	
SN9	Working with Custom Map Views	1.3.0.200	The SmartNET Subsystem shall send to the SmartFusion Subsystem agency profile data	
SN9	Working with Custom Map Views	1.3.0.210	The SmartNET Subsystem shall send to the SmartFusion Subsystem user profile data	
SN9	Working with Custom Map Views	1.3.0.220	The SmartNET Subsystem shall receive from the SmartFusion Subsystem agency profile data	
SN9	Working with Custom Map Views	1.3.0.230	The SmartNET Subsystem shall receive from the SmartFusion Subsystem user profile data	
SN7	Testing SmartNET Alarms Functionality	1.3.0.240	The SmartNET Subsystem shall receive from the SmartFusion Subsystem an alarm notification	
SN8	Working with Custom Map Views	1.3.0.250	The SmartNET Subsystem shall receive from the SmartFusion Subsystem map profile data	
SN8	Working with Custom Map Views	1.3.0.260	The SmartNET Subsystem shall receive from the SmartFusion Subsystem static map data	

Test Script #	Test Description	ReqNo	RequirementText	Results P/A/C/F
SN8	Working with Custom Map Views	1.3.0.270	The SmartNET Subsystem shall send to the SmartFusion Subsystem map profile data	
SN5	Control object layers on the map and verify the SmartNET data store object data	1.3.0.280	The SmartNET Subsystem shall send to the SmartFusion Subsystem a static map request	
SN7	Testing SmartNET Alarms Functionality	1.3.0.290	The SmartNET Subsystem shall send to the SmartFusion Subsystem an alarm response	
SN4	SmartNET Receiving/Sending Response Plans	1.3.0.300	The SmartNET Subsystem shall receive from the SmartFusion Subsystem a response plan request	
SN4	SmartNET Receiving/Sending Response Plans	1.3.0.310	The SmartNET Subsystem shall send to the SmartFusion Subsystem an agency user response	
SN5	Control object layers on the map and verify the SmartNET data store object data	1.3.0.320	The SmartNET Subsystem shall send to the SmartFusion Subsystem traffic signal status data	
SN5	Control object layers on the map and verify the SmartNET data store object data	1.3.0.330	The SmartNET Subsystem shall send to the SmartFusion Subsystem static map data	
SN3	Creating/Viewing/Updating/ Closing Incidents/Construction/Special Events in SmartNET	1.3.2.10	The SmartNET GUI Subsubsystem shall refresh the SmartNET Event Form based on a time interval defined in minutes	
SN5	Control object layers on the map and verify the SmartNET data store object data	1.3.2.20	The SmartNET GUI Subsubsystem shall refresh the SmartNET Map based on a time interval defined in minutes	

Test Script #	Test Description	ReqNo	RequirementText	Results P/A/C/F
SN7	Testing SmartNET Alarms Functionality	1.3.2.30	The SmartNET GUI Subsubsystem shall refresh the Alarm Form based on a configurable time interval defined in minutes	
SN9	Managing User Accounts	1.3.2.40	The SmartNET GUI Subsubsystem shall provide an administrative user the capability to create an agency user profile in the Data Store	
SN9	Managing User Accounts	1.3.2.50	The SmartNET GUI Subsubsystem shall provide an agency user the capability to modify an agency user profile in the Data Store	
SN3	Creating/Viewing/Updating/ Closing Incidents/Construction/Special Events in SmartNET	1.3.2.60	The SmartNET GUI Subsubsystem shall provide an agency user the capability to create a construction	
SN3	Creating/Viewing/Updating/ Closing Incidents/Construction/Special Events in SmartNET	1.3.2.70	The SmartNET GUI Subsubsystem shall provide an agency user the capability to modify a construction	
SN5	Control object layers on the map and verify the SmartNET data store object data	1.3.2.80	The SmartNET GUI Subsubsystem shall provide an agency user the capability to view information layers on a map as defined in data dictionary table 2.7.5	
SN2	Sending Email Alerts for Events Using SmartNET	1.3.2.90	The SmartNET GUI Subsubsystem shall provide an agency user the capability to send via email the incident description as defined in data dictionary table 2.5.1	

Test Script #	Test Description	ReqNo	RequirementText	Results P/A/C/F
SN5	Control object layers on the map and verify the SmartNET data store object data	1.3.2.100	The SmartNET GUI Subsubsystem shall receive VMS status data from the Data Store Subsubsystem	
SN5	Control object layers on the map and verify the SmartNET data store object data	1.3.2.110	The SmartNET GUI Subsubsystem shall provide an agency user the capability to view current status of VMS in the corridor	
SN5	Control object layers on the map and verify the SmartNET data store object data	1.3.2.120	The SmartNET GUI Subsubsystem shall receive CCTV status data from the Data Store Subsubsystem	
SN5	Control object layers on the map and verify the SmartNET data store object data	1.3.2.130	The SmartNET GUI Subsubsystem shall provide an agency user the capability to view current status of CCTV in the corridor	
SN5	Control object layers on the map and verify the SmartNET data store object data	1.3.2.140	The SmartNET GUI Subsubsystem shall receive HOV status data from the Data Store Subsubsystem	
SN5	Control object layers on the map and verify the SmartNET data store object data	1.3.2.150	The SmartNET GUI Subsubsystem shall provide Agency Users the capability to view current status of HOV facilities in the corridor	
SN5	Control object layers on the map and verify the SmartNET data store object data	1.3.2.160	The SmartNET GUI Subsubsystem shall receive Transit Vehicle Location from the Data Store Subsubsystem	
SN5	Control object layers on the map and verify the SmartNET data store object data	1.3.2.170	The SmartNET GUI Subsubsystem shall provide Agency Users the capability to view Transit Vehicle Location in the corridor	

Test Script #	Test Description	ReqNo	RequirementText	Results P/A/C/F
SN5	Control object layers on the map and verify the SmartNET data store object data	1.3.2.210	The SmartNET GUI Subsubsystem shall provide Agency Users the capability to view link based weather link data in the corridor	
SN3	Creating/Viewing/Updating/ Closing Incidents/Construction/Special Events in SmartNET	1.3.2.220	The SmartNET GUI Subsubsystem shall receive from the Data Store Subsubsystem incidents	
SN3	Creating/Viewing/Updating/ Closing Incidents/Construction/Special Events in SmartNET	1.3.2.230	The SmartNET GUI Subsubsystem shall provide an agency user the capability to view incidents in the corridor	
SN5	Control object layers on the map and verify the SmartNET data store object data	1.3.2.240	The SmartNET GUI Subsubsystem shall receive from the Data Store Subsubsystem parking lot data	
SN5	Control object layers on the map and verify the SmartNET data store object data	1.3.2.250	The SmartNET GUI Subsubsystem shall provide Agency Users the capability to view parking lot data in the corridor	
SN5	Control object layers on the map and verify the SmartNET data store object data	1.3.2.260	The SmartNET GUI Subsubsystem shall receive from the Data Store Subsubsystem Link dynamic data	
SN5	Control object layers on the map and verify the SmartNET data store object data	1.3.2.270	The SmartNET GUI Subsubsystem shall provide Agency Users the capability to view link dynamic data on a map in the corridor	
SN9	Managing User Accounts	1.3.2.300	The SmartNET GUI Subsubsystem shall provide an administrative user the capability to make inactive a agency user profile in the Data Store Subsubsystem	

Test Script #	Test Description	ReqNo	RequirementText	Results P/A/C/F
SN5	Control object layers on the map and verify the SmartNET data store object data	1.3.2.310	The SmartNET GUI Subsubsystem shall provide Agency Users the capability to view Freeway Travel Time link dynamic data on a map in the corridor	
SN5	Control object layers on the map and verify the SmartNET data store object data	1.3.2.330	The SmartNET GUI Subsubsystem shall provide Agency Users the capability to view Arterial Travel Time link dynamic data on a map in the corridor	
SN3	Creating/Viewing/Updating/ Closing Incidents/Construction/Special Events in SmartNET	1.3.2.340	The SmartNET GUI Subsubsystem shall receive from the Data Store Subsubsystem construction	
SN3	Creating/Viewing/Updating/ Closing Incidents/Construction/Special Events in SmartNET	1.3.2.350	The SmartNET GUI Subsubsystem shall receive from the Data Store Subsubsystem special events	
SN3	Creating/Viewing/Updating/ Closing Incidents/Construction/Special Events in SmartNET	1.3.2.360	The SmartNET GUI Subsubsystem shall provide an agency user the capability to create an incident	
SN3	Creating/Viewing/Updating/ Closing Incidents/Construction/Special Events in SmartNET	1.3.2.370	The SmartNET GUI Subsubsystem shall provide an agency user the capability to create a special event	
SN3	Creating/Viewing/Updating/ Closing Incidents/Construction/Special Events in SmartNET	1.3.2.380	The SmartNET GUI Subsubsystem shall provide an agency user the capability to modify an incident	
SN3	Creating/Viewing/Updating/ Closing Incidents/Construction/Special Events in SmartNET	1.3.2.390	The SmartNET GUI Subsubsystem shall provide an agency user the capability to modify a special event	

Test Script #	Test Description	ReqNo	RequirementText	Results P/A/C/F
SN3	Creating/Viewing/Updating/Closing Incidents/Construction/Special Events in SmartNET	1.3.2.400	The SmartNET GUI Subsubsystem shall provide an agency user the capability to close an incident	
SN3	Creating/Viewing/Updating/Closing Incidents/Construction/Special Events in SmartNET	1.3.2.410	The SmartNET GUI Subsubsystem shall provide an agency user the capability to close a construction	
SN3	Creating/Viewing/Updating/Closing Incidents/Construction/Special Events in SmartNET	1.3.2.420	The SmartNET GUI Subsubsystem shall provide an agency user the capability to close a special event	
SN11	Creating/Modifying/Deleting ITS Object Data in SmartNET	1.3.2.460	The SmartNET GUI Subsubsystem shall provide an agency user the capability to create a link	
SN11	Creating/Modifying/Deleting ITS Object Data in SmartNET	1.3.2.470	The SmartNET GUI Subsubsystem shall provide an agency user the capability to modify a link	
SN11	Creating/Modifying/Deleting ITS Object Data in SmartNET	1.3.2.480	The SmartNET GUI Subsubsystem shall provide an agency user the capability to delete a link	
SN8	Working with Custom Map Views	1.3.2.500	The SmartNET GUI Subsubsystem shall provide an agency user the capability to create a map profile	
SN8	Working with Custom Map Views	1.3.2.510	The SmartNET GUI Subsubsystem shall provide an agency user the capability to update a map profile	
SN8	Working with Custom Map Views	1.3.2.520	The SmartNET GUI Subsubsystem shall provide an agency user the capability to delete a map profile	

Test Script #	Test Description	ReqNo	RequirementText	Results P/A/C/F
SN8	Working with Custom Map Views	1.3.2.530	The SmartNET GUI Subsubsystem shall provide an agency user the capability to select layers on a map by toggling on and off	
SN11	Creating/Modifying/Deleting ITS Object Data in SmartNET	1.3.2.540	The SmartNET GUI Subsubsystem shall provide an agency user the capability to create a facility point	
SN11	Creating/Modifying/Deleting ITS Object Data in SmartNET	1.3.2.550	The SmartNET GUI Subsubsystem shall provide an agency user the capability to update a facility point	
SN11	Creating/Modifying/Deleting ITS Object Data in SmartNET	1.3.2.560	The SmartNET GUI Subsubsystem shall provide an agency user the capability to delete a facility point	
SN11	Creating/Modifying/Deleting ITS Object Data in SmartNET	1.3.2.570	The SmartNET GUI Subsubsystem shall provide an agency user the capability to create a VMS object	
SN11	Creating/Modifying/Deleting ITS Object Data in SmartNET	1.3.2.580	The SmartNET GUI Subsubsystem shall provide an agency user the capability to update a VMS object	
SN11	Creating/Modifying/Deleting ITS Object Data in SmartNET	1.3.2.590	The SmartNET GUI Subsubsystem shall provide an agency user the capability to delete a VMS object	
SN11	Creating/Modifying/Deleting ITS Object Data in SmartNET	1.3.2.600	The SmartNET GUI Subsubsystem shall provide an agency user the capability to create a CCTV object	

Test Script #	Test Description	ReqNo	RequirementText	Results P/A/C/F
SN11	Creating/Modifying/Deleting ITS Object Data in SmartNET	1.3.2.610	The SmartNET GUI Subsubsystem shall provide an agency user the capability to update a CCTV object	
SN11	Creating/Modifying/Deleting ITS Object Data in SmartNET	1.3.2.620	The SmartNET GUI Subsubsystem shall provide an agency user the capability to delete a CCTV object	
SN11	Creating/Modifying/Deleting ITS Object Data in SmartNET	1.3.2.630	The SmartNET GUI Subsubsystem shall provide an agency user the capability to create a traffic signal object	
SN11	Creating/Modifying/Deleting ITS Object Data in SmartNET	1.3.2.640	The SmartNET GUI Subsubsystem shall provide an agency user the capability to update a traffic signal object	
SN11	Creating/Modifying/Deleting ITS Object Data in SmartNET	1.3.2.650	The SmartNET GUI Subsubsystem shall provide an agency user the capability to delete a traffic signal object	
SN2	Sending Email Alerts for Events Using SmartNET	1.3.2.660	The SmartNET GUI Subsubsystem shall provide an agency user the capability to send via email the construction description as defined in the data dictionary table 2.5.2	
SN2	Sending Email Alerts for Events Using SmartNET	1.3.2.670	The SmartNET GUI Subsubsystem shall provide an agency user the capability to send via email the special event description as defined in the data dictionary table 2.5.3	

Test Script #	Test Description	ReqNo	RequirementText	Results P/A/C/F
SN6	Using SmartNET to Generate Reports	1.3.2.680	The SmartNET GUI Subsubsystem shall provide an agency user the capability to create reports	
SN3	Creating/Viewing/Updating/ Closing Incidents/Construction/Special Events in SmartNET	1.3.2.690	The SmartNET GUI Subsubsystem shall provide an agency user the capability to view construction in the corridor	
SN3	Creating/Viewing/Updating/ Closing Incidents/Construction/Special Events in SmartNET	1.3.2.700	The SmartNET GUI Subsubsystem shall provide an agency user the capability to view special events in the corridor	
SN3	Creating/Viewing/Updating/ Closing Incidents/Construction/Special Events in SmartNET	1.3.2.710	The SmartNET GUI Subsubsystem shall provide an agency user the capability to view incidents on a map in the corridor	
SN3	Creating/Viewing/Updating/ Closing Incidents/Construction/Special Events in SmartNET	1.3.2.720	The SmartNET GUI Subsubsystem shall provide an agency user the capability to view construction on a map in the corridor	
SN3	Creating/Viewing/Updating/ Closing Incidents/Construction/Special Events in SmartNET	1.3.2.730	The SmartNET GUI Subsubsystem shall provide an agency user the capability to view special events on a map in the corridor	
SN10	Creating/Modifying/Deleting ITS Object Data in SmartNET	1.3.2.740	The SmartNET GUI Subsubsystem shall provide an agency user the capability to edit current status of VMS in the corridor	

Test Script #	Test Description	ReqNo	RequirementText	Results P/A/C/F
SN5	Control object layers on the map and verify the SmartNET data store object data	1.3.2.750	The SmartNET GUI Subsubsystem shall provide an agency user the capability to view Traffic signal device status information on a map in the corridor	
SN5	Control object layers on the map and verify the SmartNET data store object data	1.3.2.770	The SmartNET GUI Subsubsystem shall provide an agency user the capability to view link speed information on a map in the corridor	
SN5	Control object layers on the map and verify the SmartNET data store object data	1.3.2.780	The SmartNET GUI Subsubsystem shall provide an agency user the capability to view link weather information on a map in the corridor	
SN7	Testing SmartNET Alarms Functionality	1.3.2.790	The SmartNET GUI Subsubsystem shall provide an agency user the capability to view an alarm	
SN7	Testing SmartNET Alarms Functionality	1.3.2.800	The SmartNET GUI Subsubsystem shall provide an agency user the capability to confirm an alarm	
SN7	Testing SmartNET Alarms Functionality	1.3.2.810	The SmartNET GUI Subsubsystem shall provide an agency user the capability to ignore an alarm	
SN7	Testing SmartNET Alarms Functionality	1.3.2.820	The SmartNET GUI Subsubsystem shall provide an agency user the capability to acknowledge an alarm	
SN1	Authorized Users are Able to Access/Login into SmartNET and Logout	1.3.2.830	The SmartNET GUI Subsubsystem shall provide an agency user the capability to login to the SmartNET GUI	

Test Script #	Test Description	ReqNo	RequirementText	Results P/A/C/F
SN1	Authorized Users are Able to Access/Login into SmartNET and Logout	1.3.2.840	The SmartNET GUI Subsubsystem shall validate an agency user login	
SN1	Authorized Users are Able to Access/Login into SmartNET and Logout	1.3.2.850	The SmartNET GUI Subsubsystem shall authorize an agency user based on user profile	
SN3	Creating/Viewing/Updating/ Closing Incidents/Construction/Special Events in SmartNET	1.3.2.860	The SmartNET GUI Subsubsystem shall send to the Data Collection Subsubsystem incidents	
SN3	Creating/Viewing/Updating/ Closing Incidents/Construction/Special Events in SmartNET	1.3.2.870	The SmartNET GUI Subsubsystem shall send to the Data Collection Subsubsystem construction	
SN3	Creating/Viewing/Updating/ Closing Incidents/Construction/Special Events in SmartNET	1.3.2.880	The SmartNET GUI Subsubsystem shall send to the Data Collection Subsubsystem special events	
SN10	SmartNET GUI Sending ITS Object Data to the Data Collection Subsystem	1.3.2.900	The SmartNET GUI Subsubsystem shall send to the Data Collection Subsubsystem VMS inventory	
SN10	SmartNET GUI Sending ITS Object Data to the Data Collection Subsystem	1.3.2.910	The SmartNET GUI Subsubsystem shall send to the Data Collection Subsubsystem VMS status data	
SN10	SmartNET GUI Sending ITS Object Data to the Data Collection Subsystem	1.3.2.920	The SmartNET GUI Subsubsystem shall send to the Data Collection Subsubsystem CCTV inventory	
SN10	SmartNET GUI Sending ITS Object Data to the Data Collection Subsystem	1.3.2.930	The SmartNET GUI Subsubsystem shall send to the Data Collection Subsubsystem Traffic Signal inventory	

Test Script #	Test Description	ReqNo	RequirementText	Results P/A/C/F
SN10	SmartNET GUI Sending ITS Object Data to the Data Collection Subsystem	1.3.2.940	The SmartNET GUI Subsubsystem shall send to the Data Collection Subsubsystem Traffic Signal status data	
SN2	Sending Email Alerts for Events Using SmartNET	1.3.2.950	The SmartNET GUI Subsubsystem shall send to internet email an incident description	
SN2	Sending Email Alerts for Events Using SmartNET	1.3.2.960	The SmartNET GUI Subsubsystem shall send to internet email a construction description	
SN2	Sending Email Alerts for Events Using SmartNET	1.3.2.970	The SmartNET GUI Subsubsystem shall send to internet email a special event description	
SN9	Managing User Accounts	1.3.2.980	The SmartNET GUI Subsubsystem shall send to the Data Store Subsubsystem an updated user profile	
SN12	Using the SmartNET GUI to enact a Response Plan	1.3.1.10	The Plan Decision Dialogue Subsubsystem shall receive from the Plan Decision Subsubsystem a response plan recommendation	
SN12	Using the SmartNET GUI to enact a Response Plan	1.3.1.20	The Plan Decision Dialogue Subsubsystem shall receive from the Decision Support Subsystem a response plan recommendation	
SN12	Using the SmartNET GUI to enact a Response Plan	1.3.1.40	The Plan Decision Dialogue Subsubsystem Shall display to the ICM Coordinator a response plan recommendation	

Test Script #	Test Description	ReqNo	RequirementText	Results P/A/C/F
SN12	Using the SmartNET GUI to enact a Response Plan	1.3.1.50	The Plan Decision Dialogue Subsubsystem shall provide the ICM Coordinator the capability to accept or reject a response plan recommendation	
SN12	Using the SmartNET GUI to enact a Response Plan	1.3.1.60	The Plan Decision Dialogue Subsubsystem Shall receive from the ICM Coordinator a decision on whether to use a response plan recommendation	
SN12	Using the SmartNET GUI to enact a Response Plan	1.3.1.70	The Plan Decision Dialogue Subsubsystem shall display to an agency user a response plan recommendation	
SN12	Using the SmartNET GUI to enact a Response Plan	1.3.1.80	The Plan Decision Dialogue Subsubsystem Shall provide to an agency user the capability to accept or reject a response plan recommendation	
SN12	Using the SmartNET GUI to enact a Response Plan	1.3.1.90	The Plan Decision Dialogue Subsubsystem shall receive agency accept or reject responses to response plan recommendation	
SN12	Using the SmartNET GUI to enact a Response Plan	1.3.1.100	The Plan Decision Dialogue Subsubsystem shall display to ICM Coordinator agency accept or reject responses to response plan recommendation	
SN12	Using the SmartNET GUI to enact a Response Plan	1.3.1.110	The Plan Decision Dialogue Subsubsystem shall provide the ICM Coordinator the capability to implement a response plan recommendation	

Test Script #	Test Description	ReqNo	RequirementText	Results P/A/C/F
SN12	Using the SmartNET GUI to enact a Response Plan	1.3.1.120	The Plan Decision Dialogue Subsubsystem shall display to the agency users a response plan implementation notice	
SN12	Using the SmartNET GUI to enact a Response Plan	1.3.1.130	The Plan Decision Dialogue Subsubsystem shall send the Plan Decision Subsubsystem a response plan implementation notice	
SN12	Using the SmartNET GUI to enact a Response Plan	1.2.1.10	The Plan Decision Subsubsystem shall receive from the Expert Rules Subsubsystem a response plan recommendation	
SN12	Using the SmartNET GUI to enact a Response Plan	1.2.1.20	The Plan Decision Subsubsystem shall receive from the Data Store Subsubsystem agency status	
SN12	Using the SmartNET GUI to enact a Response Plan	1.2.1.40	The Plan Decision Subsubsystem shall send the Plan Decision Dialogue Subsubsystem a response plan recommendation.	
SN12	Using the SmartNET GUI to enact a Response Plan	1.2.1.60	The Plan Decision Subsubsystem Shall receive from the Plan Decision Dialogue Subsubsystem response plan recommendation decision	
SN12	Using the SmartNET GUI to enact a Response Plan	1.2.1.90	The Plan Decision Subsubsystem Shall generate for the Plan Decision Dialogue Subsubsystem the agency contact list	

Test Script #	Test Description	ReqNo	RequirementText	Results P/A/C/F
SN12	Using the SmartNET GUI to enact a Response Plan	1.2.1.120	The Plan Decision Subsubsystem Shall receive from the Plan Decision Dialogue Subsubsystem a plan decision dialogue request	
SN12	Using the SmartNET GUI to enact a Response Plan	1.2.1.130	The Plan Decision Subsubsystem Shall receive from the Plan Decision Dialogue Subsubsystem a plan decision dialogue response	
SN12	Using the SmartNET GUI to enact a Response Plan	1.2.1.140	The Plan Decision Subsubsystem Shall send to the Data Store Subsubsystem a plan decision dialogue request	
SN12	Using the SmartNET GUI to enact a Response Plan	1.2.1.150	The Plan Decision Subsubsystem Shall send to the Data Store Subsubsystem a plan decision dialogue response	
SN12	Using the SmartNET GUI to enact a Response Plan	1.2.1.190	The Plan Decision Subsubsystem Shall send to the Expert Rules Subsubsystem a plan decision result	
SN12	Using the SmartNET GUI to enact a Response Plan	1.2.1.200	The Plan Decision Subsubsystem shall receive from the Plan Decision Dialogue Subsubsystem a plan decision result	
SN12	Using the SmartNET GUI to enact a Response Plan	1.2.1.210	The Plan Decision Subsubsystem shall receive from the Plan Decision Dialogue Subsubsystem a response plan implementation notice	

Test Script #	Test Description	ReqNo	RequirementText	Results P/A/C/F
SN12	Using the SmartNET GUI to enact a Response Plan	1.2.1.220	The Plan Decision Subsubsystem shall send the Expert Rules Subsubsystem a response plan implementation notice	

Table 5: SmartFusion Subsystem Requirements Traceability Matrix

Test Script #	Test Description	Req. No.	Requirement Text	Results P/A/C/F
SF1	SmartFusion receiving/storing/sending/aggregating C2C ITS Device status	1.2.0.10	The SmartFusion Subsystem shall receive from the Regional Center to Center interface CCTV status in the corridor as defined in C2C-SICD-4.3.0	
SF1	SmartFusion receiving/storing/sending/aggregating C2C ITS Device status	1.2.0.15	The SmartFusion Subsystem shall receive from the Regional Center to Center interface VMS Status in the corridor as defined in C2C-SICD-4.3.0	
SF1	SmartFusion receiving/storing/sending/aggregating C2C ITS Device status	1.2.0.18	The SmartFusion Subsystem shall receive from the Regional Center to Center interface HOV Status in the corridor as defined in C2C-SICD-4.3.0	
SF5	SmartFusion receiving/storing/sending/aggregating C2C ITS Device status	1.2.0.20	The SmartFusion Subsystem shall receive from the DART Network bus AVL data in the corridor	
SF5	SmartFusion receiving/storing/sending/aggregating DART Network AVL Data	1.2.0.25	The SmartFusion Subsystem shall receive from the DART Network light rail vehicle AVL data in the corridor	
SF4	SmartFusion receiving/storing/sending/aggregating weather alert and link data	1.2.0.30	The SmartFusion Subsystem shall receive from the weather data interface weather link data in the corridor	
SF4	SmartFusion receiving/storing/sending/aggregating weather alert and link data	1.2.0.35	The SmartFusion Subsystem shall receive from the weather data interface weather alert data in the corridor	

Test Script #	Test Description	Req. No.	Requirement Text	Results P/A/C/F
SF6	SmartFusion receiving/storing/sending/aggregating Parking Lot Data	1.2.0.40	The SmartFusion Subsystem shall receive from the Parking Management System Interface parking lot data in the corridor as defined in data dictionary table 2.4.1	
SF2	receiving/storing/sending/aggregating C2CDynamic Link status	1.2.0.50	The SmartFusion Subsystem shall receive current link dynamic data in the corridor from the Regional Center to Center interface as defined in C2C-SICD-4.3.0	
N/A	receiving/storing/sending/aggregating C2CDynamic Link status	1.2.0.70	The SmartFusion Subsystem shall receive from 3rd Party information providers link dynamic data in the corridor	FUTURE
SF3	SmartFusion receiving/storing/sending/aggregating C2CEvent status	1.2.0.90	The SmartFusion Subsystem shall receive from the Regional Center to Center interface incident data as defined in C2C-SICD-4.3.0	
SF3	SmartFusion receiving/storing/sending/aggregating C2CEvent status	1.2.0.95	The SmartFusion Subsystem shall receive from the Regional Center to Center interface construction data as defined in C2C-SICD-4.3.0	
SF3	SmartFusion receiving/storing/sending/aggregating C2CEvent status	1.2.0.100	The SmartFusion Subsystem shall receive from the SmartNET Subsystem incident data	
SF3	SmartFusion receiving/storing/sending/aggregating C2CEvent status	1.2.0.105	The SmartFusion Subsystem shall receive from the SmartNET Subsystem construction data	

Test Script #	Test Description	Req. No.	Requirement Text	Results P/A/C/F
SF3	SmartFusion receiving/storing/sending/aggregating C2CEvent status	1.2.0.108	The SmartFusion Subsystem shall receive from the SmartNET Subsystem special event data	
SF7	SmartFusion receiving/storing/sending/aggregating Traffic Signal Status Data	1.2.0.290	The SmartFusion Subsystem shall receive from the SmartNET Subsystem traffic signal status data	
SF12	SmartFusion receiving/storing/sending/aggregating Parking Lot Data	1.2.0.110	The SmartFusion Subsystem shall send to the Regional Center to Center interface parking lot data as defined in C2C-SICD-4.3.0	
SF12	SmartFusion receiving/storing/sending/aggregating DART Network AVL Data	1.2.0.115	The SmartFusion Subsystem shall send to the Regional Center to Center interface transit vehicle location data as defined in C2C-SICD-4.3.0	
SF12	receiving/storing/sending/aggregating C2C Dynamic Link status	1.2.0.120	The SmartFusion Subsystem shall send to the Regional Center to Center interface link dynamic data as defined in C2C-SICD-4.3.0	
SF12	SmartFusion receiving/storing/sending/aggregating DART Network AVL Data	1.2.0.125	The SmartFusion Subsystem shall send to the Regional Center to Center interface transit vehicle location data as defined in C2C-SICD-4.3.0	
SF12	SmartFusion receiving/storing/sending/aggregating C2CEvent status	1.2.0.130	The SmartFusion Subsystem shall send to the Regional Center to Center interface incident data as defined in C2C-SICD-4.3.0	

Test Script #	Test Description	Req. No.	Requirement Text	Results P/A/C/F
SF12	SmartFusion receiving/storing/sending/aggregating C2CEvent status	1.2.0.135	The SmartFusion Subsystem shall send to the Regional Center to Center interface construction data as defined in C2C-SICD-4.3.0	
SF12	SmartFusion receiving/storing/sending/aggregating C2CEvent status	1.2.0.138	The SmartFusion Subsystem shall send to the Regional Center to Center interface special event data as defined in C2C-SICD-4.3.0	
SF4	SmartFusion receiving/storing/sending/aggregating weather alert and link data	1.2.0.140	The SmartFusion Subsystem shall send to the Public Web weather alert data	
SF3	SmartFusion receiving/storing/sending/aggregating C2CEvent status	1.2.0.150	The SmartFusion Subsystem shall send to the Public Web incident data	
SF3	SmartFusion receiving/storing/sending/aggregating C2CEvent status	1.2.0.155	The SmartFusion Subsystem shall send to the Public Web construction data	
SF3	SmartFusion receiving/storing/sending/aggregating C2CEvent status	1.2.0.158	The SmartFusion Subsystem shall send to the Public Web special event data	
SF2	receiving/storing/sending/aggregating C2CDynamic Link status	1.2.0.160	The SmartFusion Subsystem shall send to the Public Web link dynamic data	
SF6	SmartFusion receiving/storing/sending/aggregating Parking Lot Data	1.2.0.165	The SmartFusion Subsystem shall send to the Public Web parking lot data	

Test Script #	Test Description	Req. No.	Requirement Text	Results P/A/C/F
SF2	receiving/storing/sending/aggregating C2CDynamic Link status	1.2.0.170	The SmartFusion Subsystem shall send to the Interactive Voice Response Telephone system link dynamic data	
SF3	SmartFusion receiving/storing/sending/aggregating C2CEvent status	1.2.0.180	The SmartFusion Subsystem shall send to the Interactive Voice Response Telephone system incident data	
SF4	SmartFusion receiving/storing/sending/aggregating weather alert and link data	1.2.0.200	The SmartFusion Subsystem shall send to the Interactive Voice Response Telephone system weather alert data	
SF3	SmartFusion receiving/storing/sending/aggregating C2CEvent status	1.2.0.210	The SmartFusion Subsystem shall send to the RSS Media feed RSS Events	
N/A	SmartFusion receiving/storing/sending/aggregating C2CEvent status	1.2.0.220	The SmartFusion Subsystem shall send to the interactive trip planner incident data	FUTURE
N/A	receiving/storing/sending/aggregating C2CDynamic Link status	1.2.0.240	The SmartFusion Subsystem shall send to the interactive trip planner link dynamic data	FUTURE
SF2	receiving/storing/sending/aggregating C2CDynamic Link status	1.2.0.250	The SmartFusion Subsystem shall send to ALERT system, link dynamic data	
SF4	SmartFusion receiving/storing/sending/aggregating weather alert and link data	1.2.0.420	The SmartFusion Subsystem shall store weather alert data	
SF6	SmartFusion receiving/storing/sending/aggregating Parking Lot Data	1.2.0.270	The SmartFusion Subsystem shall send to ALERT system, parking lot data	

Test Script #	Test Description	Req. No.	Requirement Text	Results P/A/C/F
SF6	SmartFusion receiving/storing/sending/aggregating weather alert and link data	1.2.0.280	The SmartFusion Subsystem shall send to 511 system, weather alert data	
SF6	SmartFusion receiving/storing/sending/aggregating Parking Lot Data	1.2.0.300	The SmartFusion Subsystem shall send to the Public Web, parking lot data	
SF5	SmartFusion receiving/storing/sending/aggregating DART Network AVL Data	1.2.0.310	The SmartFusion Subsystem shall send to the Public Web, transit vehicle location data	
SF6	SmartFusion receiving/storing/sending/aggregating Parking Lot Data	1.2.0.320	The SmartFusion Subsystem shall send to Interactive Voice Response Telephone system, parking lot data	
SF3	SmartFusion receiving/storing/sending/aggregating C2CEvent status	1.2.0.330	The SmartFusion Subsystem shall store incident data	
SF3	SmartFusion receiving/storing/sending/aggregating C2CEvent status	1.2.0.340	The SmartFusion Subsystem shall store construction data	
SF3	SmartFusion receiving/storing/sending/aggregating C2CEvent status	1.2.0.350	The SmartFusion Subsystem shall store special event data	
SF1	SmartFusion receiving/storing/sending/aggregating C2C ITS Device status	1.2.0.360	The SmartFusion Subsystem shall store CCTV status data	
SF1	SmartFusion receiving/storing/sending/aggregating C2C ITS Device status	1.2.0.370	The SmartFusion Subsystem shall store VMS Status data	

Test Script #	Test Description	Req. No.	Requirement Text	Results P/A/C/F
SF1	SmartFusion receiving/storing/sending/aggregating C2C ITS Device status	1.2.0.380	The SmartFusion Subsystem shall store HOV Status data	
SF2	SmartFusion receiving/storing/sending/aggregating C2C ITS Device status	1.2.0.390	The SmartFusion Subsystem shall store link dynamic data	
SF6	SmartFusion receiving/storing/sending/aggregating Parking Lot Data	1.2.0.400	The SmartFusion Subsystem shall store parking lot data	
SF5	SmartFusion receiving/storing/sending/aggregating DART Network AVL Data	1.2.0.410	The SmartFusion Subsystem shall store transit vehicle location data	
SF4	SmartFusion receiving/storing/sending/aggregating weather alert and link data	1.2.0.420	The SmartFusion Subsystem shall store weather alert data	
SF3	SmartFusion receiving/storing/sending/aggregating C2CEvent status	1.2.0.430	The SmartFusion Subsystem shall aggregate incident data	
SF3	SmartFusion receiving/storing/sending/aggregating C2CEvent status	1.2.0.440	The SmartFusion Subsystem shall aggregate construction data	
SF3	SmartFusion receiving/storing/sending/aggregating C2CEvent status	1.2.0.450	The SmartFusion Subsystem shall aggregate special event data	
SF1	SmartFusion receiving/storing/sending/aggregating C2C ITS Device status	1.2.0.460	The SmartFusion Subsystem shall aggregate CCTV status data	
SF1	SmartFusion receiving/storing/sending/aggregating C2C ITS Device status	1.2.0.470	The SmartFusion Subsystem shall aggregate VMS Status data	

Test Script #	Test Description	Req. No.	Requirement Text	Results P/A/C/F
SF1	SmartFusion receiving/storing/sending/aggregating C2C ITS Device status	1.2.0.480	The SmartFusion Subsystem shall aggregate HOV Status data	
SF2	SmartFusion receiving/storing/sending/aggregating C2C ITS Device status	1.2.0.490	The SmartFusion Subsystem shall aggregate link dynamic data	
SF6	SmartFusion receiving/storing/sending/aggregating Parking Lot Data	1.2.0.500	The SmartFusion Subsystem shall aggregate parking lot data	
SF5	SmartFusion receiving/storing/sending/aggregating DART Network AVL Data	1.2.0.510	The SmartFusion Subsystem shall aggregate transit vehicle location data	
SF4	SmartFusion receiving/storing/sending/aggregating weather alert and link data	1.2.0.520	The SmartFusion Subsystem shall aggregate weather alert data	
SF9	SmartFusion receiving/storing incident response plans	1.2.0.530	The SmartFusion Subsystem shall store pre-agreed incident response plans	
SF9	SmartFusion receiving/storing incident response plans	1.2.0.540	The SmartFusion Subsystem shall store history of enacted response plans	
SF7	SmartFusion receiving/storing/sending/aggregating Traffic Signal Status Data	1.2.0.550	The SmartFusion Subsystem shall aggregate traffic signal status data	
SF1	SmartFusion receiving/storing/sending/aggregating C2C ITS Device status	1.2.0.560	The SmartFusion Subsystem shall send to the Decision Support Subsystem VMS status data	

Test Script #	Test Description	Req. No.	Requirement Text	Results P/A/C/F
SF1	SmartFusion receiving/storing/sending/aggregating C2C ITS Device status	1.2.0.570	The SmartFusion Subsystem shall send to the Decision Support Subsystem CCTV status data	
SF1	SmartFusion receiving/storing/sending/aggregating C2C ITS Device status	1.2.0.580	The SmartFusion Subsystem shall send to the Decision Support Subsystem HOV status data	
SF3	SmartFusion receiving/storing/sending/aggregating C2CEvent status	1.2.0.590	The SmartFusion Subsystem shall send to the Decision Support Subsystem incident data	
SF2	receiving/storing/sending/aggregating C2CDynamic Link status	1.2.0.600	The SmartFusion Subsystem shall send to the Decision Support Subsystem link dynamic data	
SF6	SmartFusion receiving/storing/sending/aggregating Parking Lot Data	1.2.0.610	The SmartFusion Subsystem shall send to the Decision Support Subsystem parking lot data	
SF4	SmartFusion receiving/storing/sending/aggregating weather alert and link data	1.2.0.620	The SmartFusion Subsystem shall send to the Decision Support Subsystem weather alert data	
SF7	SmartFusion receiving/storing/sending/aggregating Traffic Signal Status Data	1.2.0.630	The SmartFusion Subsystem shall send to the Decision Support Subsystem traffic signal status data	
SF5	SmartFusion receiving/storing/sending/aggregating DART Network AVL Data	1.2.0.640	The SmartFusion Subsystem shall send to the Decision Support Subsystem transit vehicle location data	

Test Script #	Test Description	Req. No.	Requirement Text	Results P/A/C/F
SF8	SmartFusion receiving/storing/sending/aggregating Static Traffic Map Data	1.2.0.650	The SmartFusion Subsystem shall send to the SmartNET Subsystem static map data	
SF8	SmartFusion receiving/storing/sending/aggregating Static Traffic Map Data	1.2.0.660	The SmartFusion Subsystem shall receive from the SmartNET Subsystem static map data	
SF8	SmartFusion receiving/storing/sending/aggregating Static Traffic Map Data	1.2.0.670	The SmartFusion Subsystem shall store static map data	
SF7	SmartFusion receiving/storing/sending/aggregating Traffic Signal Status Data	1.2.0.680	The SmartFusion Subsystem shall store traffic signal status	
SF10	SmartFusion storing receive profile data	1.2.0.690	The SmartFusion Subsystem shall store map profile data	
SF10	SmartFusion storing receive profile data	1.2.0.700	The SmartFusion Subsystem shall store agency profile data	
SF10	SmartFusion storing receive profile data	1.2.0.710	The SmartFusion Subsystem shall store user profile data	
SF11	SmartFusion storing alarm notifications	1.2.0.720	The SmartFusion Subsystem shall store alarm notifications	
SF12	SmartFusion receiving from the SmartNET Subsystem a map request	1.2.0.730	The SmartFusion Subsystem shall receive from the SmartNET Subsystem a map request	

Table 6: Decision Support Subsystem Requirements Traceability Matrix

Test Script #	Test Description	Req. No.	Requirement Text	Results P/A/C/F
Decision Support Subsystem Requirements				
DS25	Decision Support Subsystem receiving/adding/editing/deleting/querying pre-agreed incident response plans	1.1.0.10	The Decision Support Subsystem shall retrieve from the Data Store Subsubsystem pre-agreed incident response plans as defined in data dictionary table 2.9.1	
DS25	Decision Support Subsystem receiving/adding/editing/deleting/querying pre-agreed incident response plans	1.1.0.20	The Decision Support Subsystem shall provide the DSS Administrator the capability to add pre-agreed incident response plans for a specified incident to the Data Store Sub-subsystem	
DS25	Decision Support Subsystem receiving/adding/editing/deleting/querying pre-agreed incident response plans	1.1.0.30	The Decision Support Subsystem shall provide the DSS Administrator the capability to query pre-agreed incident response plans	
DS25	Decision Support Subsystem receiving/adding/editing/deleting/querying pre-agreed incident response plans	1.1.0.40	The Decision Support Subsystem shall provide the DSS Administrator the capability to edit pre-agreed incident response plans for a specified incident	
DS25	Decision Support Subsystem receiving/adding/editing/deleting/querying pre-agreed incident response plans	1.1.0.50	The Decision Support Subsystem shall provide the DSS Administrator the capability to delete pre-agreed incident response plans for specified events	
DS3	Decision Support Subsystem receiving Event data from the SmartFusion Subsystem	1.1.0.60	The Decision Support Subsystem shall receive from the SmartFusion Subsystem Incidents as defined in data dictionary table 2.5.1	

Test Script #	Test Description	Req. No.	Requirement Text	Results P/A/C/F
DS3	Decision Support Subsystem receiving Event data from the SmartFusion Subsystem	1.1.0.70	The Decision Support Subsystem shall receive from the SmartFusion Subsystem Construction as defined in data dictionary table 2.5.2	
DS3	Decision Support Subsystem receiving Event data from the SmartFusion Subsystem	1.1.0.80	The Decision Support Subsystem shall receive from the SmartFusion Subsystem Special events as defined in data dictionary table 2.5.3	
DS2	Decision Support Subsystem receiving Link Dynamic status data from the SmartFusion Subsystem	1.1.0.90	The Decision Support Subsystem shall receive from the SmartFusion Subsystem Link dynamic data as defined in data dictionary table 2.4.4	
DS1	Decision Support Subsystem receiving ITS Device status from the SmartFusion Subsystem	1.1.0.100	The Decision Support Subsystem shall receive from the SmartFusion Subsystem HOV Status data as defined in data dictionary table 2.4.4	
DS1	Decision Support Subsystem receiving ITS Device status from the SmartFusion Subsystem	1.1.0.110	The Decision Support Subsystem shall receive from the SmartFusion Subsystem VMS Status Data as defined in data dictionary table 2.1.1	
DS7	Decision Support Subsystem receiving Traffic Signal Status Data from the SmartFusion Subsystem	1.1.0.120	The Decision Support Subsystem shall receive from the SmartFusion Subsystem Traffic signal status data as defined in data dictionary table 2.1.3	
DS6	Decision Support Subsystem receiving Parking Lot Data from the SmartFusion Subsystem	1.1.0.130	The Decision Support Subsystem shall receive from the SmartFusion Subsystem parking lot data as defined in data dictionary table 2.4.1	

Test Script #	Test Description	Req. No.	Requirement Text	Results P/A/C/F
DS30	Decision Support Subsystem receiving Response Plan Decision and Agency Status from the SmartFusion Subsystem	1.1.0.170	The Decision Support Subsystem shall receive from the SmartFusion Subsystem the response plan decision result as defined in data dictionary table 2.9.3	
DS30	Decision Support Subsystem receiving Response Plan Decision and Agency Status from the SmartFusion Subsystem	1.1.0.180	The Decision Support Subsystem shall receive from the SmartFusion Subsystem agency status as defined in data dictionary table 2.7.1	
DS35	Decision Support Subsystem receiving Historical Data from the SmartFusion Subsystem	1.1.0.190	The Decision Support Subsystem shall receive from the SmartFusion Subsystem historical data as defined in data dictionary table section 2.10	
DS95	Expert Rules Subsubsystem sending Agency Status Request to the Plan Decision Subsubsystem	1.1.0.200	The Decision Support Subsystem shall send the SmartFusion Subsystem agency status requests	
DS20	Decision Support Subsystem analyzing corridor data and selecting the appropriate response plan	1.1.0.210	The Decision Support Subsystem shall send the SmartFusion Subsystem a response plan recommendation within fifteen minutes of incident conditions that trigger a response plan recommendation arriving at the SmartFusion XML feed	
DS4	Decision Support Subsystem receiving weather alert data from the SmartFusion Subsystem	1.1.0.220	The Decision Support Subsystem shall receive from the SmartFusion Subsystem weather alert data	
Additional DSS Subsystem Requirements				

Test Script #	Test Description	Req. No.	Requirement Text	Results P/A/C/F
DS20	Decision Support Subsystem analyzing corridor data and selecting the appropriate response plan	1.1.0.230	The Decision Support subsystem shall analyze stored event data to determine appropriate corridor strategies and response plans	
DS20	Decision Support Subsystem analyzing corridor data and selecting the appropriate response plan	1.1.0.240	The Decision Support subsystem shall analyze stored ITS device status data to determine availability in corridor strategies and response plans	
DS20	Decision Support Subsystem analyzing corridor data and selecting the appropriate response plan	1.1.0.250	The Decision Support subsystem shall analyze events, network conditions, and status of devices to select appropriate response plans	
DS20	Decision Support Subsystem analyzing corridor data and selecting the appropriate response plan	1.1.0.260	The Decision Support subsystem shall select a recommended ICM strategy and response plan	
DS40	Decision Support Subsystem predicting benefits of implementing a response plan	1.1.0.270	The Decision Support subsystem shall predict the potential benefit of implementing an ICM strategy and associated response plan	
DS45	Decision Support Subsystem evaluating the impact of enacted response plans	1.1.0.280	The Decision Support subsystem shall evaluate the impact of enacted response plans on the corridor	
Expert Rules Subsubsystem Requirements				

Test Script #	Test Description	Req. No.	Requirement Text	Results P/A/C/F
DS20	Decision Support Subsystem analyzing corridor data and selecting the appropriate response plan	1.1.1.10	The Expert Rules Subsubsystem Shall generate a response plan recommendation based on existing network conditions in the ICM corridor	
DS50	Expert Rules Subsubsystem sending Response Plan Recommendation to the Plan Decision Subsubsystem	1.1.1.30	The Expert Rules Subsubsystem Shall send to the Plan Decision Subsubsystem a response plan recommendation	
DS55	Expert Rules Subsubsystem sending Response Plan Recommendation to the Evaluation Subsubsystem	1.1.1.40	The Expert Rules Subsubsystem shall provide the Evaluation Subsubsystem the response plan recommendation after the ICM Coordinator confirms the response plan	
DS30	Decision Support Subsystem receiving Response Plan Decision and Agency Status from the SmartFusion Subsystem	1.1.1.60	The Expert Rules Subsubsystem shall receive from the Plan Decision Subsubsystem a plan decision result	
DS1	Decision Support Subsystem receiving ITS Device status from the SmartFusion Subsystem	1.1.1.80	The Expert Rules Subsubsystem shall receive from the Data Dissemination Subsubsystem VMS status data	
DS7	Decision Support Subsystem receiving Traffic Signal Status Data from the SmartFusion Subsystem	1.1.1.90	The Expert Rules Subsubsystem shall receive from the Data Dissemination Subsubsystem Traffic Signal status data	
DS1	Decision Support Subsystem receiving ITS Device status from the SmartFusion Subsystem	1.1.1.100	The Expert Rules Subsubsystem shall receive from the Data Dissemination Subsubsystem HOV status data	

Test Script #	Test Description	Req. No.	Requirement Text	Results P/A/C/F
DS2	Decision Support Subsystem receiving Link Dynamic status data from the SmartFusion Subsystem	1.1.1.110	The Expert Rules Subsubsystem shall receive from the Data Dissemination Subsubsystem link dynamic data	
DS6	Decision Support Subsystem receiving Parking Lot Data from the SmartFusion Subsystem	1.1.1.150	The Expert Rules Subsubsystem shall receive from the Data Dissemination Subsubsystem parking lot data	
DS4	Decision Support Subsystem receiving weather alert data from the SmartFusion Subsystem	1.1.1.160	The Expert Rules Subsubsystem shall receive from the Data Dissemination Subsubsystem weather alert data	
DS3	Decision Support Subsystem receiving Event data from the SmartFusion Subsystem	1.1.1.190	The Expert Rules Subsubsystem shall receive from the Data Dissemination Subsubsystem incident data	
DS3	Decision Support Subsystem receiving Event data from the SmartFusion Subsystem	1.1.1.200	The Expert Rules Subsubsystem shall receive from the Data Dissemination Subsubsystem construction data	
DS3	Decision Support Subsystem receiving Event data from the SmartFusion Subsystem	1.1.1.210	The Expert Rules Subsubsystem shall receive from the Data Dissemination Subsubsystem special event data	
DS30	Decision Support Subsystem receiving Response Plan Decision and Agency Status from the SmartFusion Subsystem	1.1.1.240	The Expert Rules Subsubsystem shall receive from the Plan Decision Subsubsystem agency status	
DS40	Decision Support Subsystem predicting benefits of implementing a response plan	1.1.1.340	The Expert Rules Subsubsystem shall receive from the Prediction Subsubsystem predicted network conditions	

Test Script #	Test Description	Req. No.	Requirement Text	Results P/A/C/F
DS65	Expert Rules Subsubsystem sending Link Dynamic status data to the Evaluation Subsubsystem	1.1.1.350	The Expert Rules Subsubsystem shall send to the Evaluation Subsubsystem link dynamic data	
DS70	Expert Rules Subsubsystem sending Event data to the Evaluation Subsubsystem	1.1.1.360	The Expert Rules Subsubsystem shall send to the Evaluation Subsubsystem incidents	
DS70	Expert Rules Subsubsystem sending Event data to the Evaluation Subsubsystem	1.1.1.370	The Expert Rules Subsubsystem shall send to the Evaluation Subsubsystem construction	
DS70	Expert Rules Subsubsystem sending Event data to the Evaluation Subsubsystem	1.1.1.380	The Expert Rules Subsubsystem shall send to the Evaluation Subsubsystem special events	
DS85	Expert Rules Subsubsystem sending Traffic Signal Status Data to the Evaluation Subsubsystem	1.1.1.390	The Expert Rules Subsubsystem shall send to the Evaluation Subsubsystem traffic signal status data	
DS60	Expert Rules Subsubsystem sending ITS Device status to the Evaluation Subsubsystem	1.1.1.400	The Expert Rules Subsubsystem shall send to the Evaluation Subsubsystem VMS status data	
DS60	Expert Rules Subsubsystem sending ITS Device status to the Evaluation Subsubsystem	1.1.1.410	The Expert Rules Subsubsystem shall send to the Evaluation Subsubsystem HOV status data	
DS75	Expert Rules Subsubsystem sending weather alert data to the Evaluation Subsubsystem	1.1.1.420	The Expert Rules Subsubsystem shall send to the Evaluation Subsubsystem weather alert data	

Test Script #	Test Description	Req. No.	Requirement Text	Results P/A/C/F
DS80	Expert Rules Subsubsystem sending Parking Lot Data to the Evaluation Subsubsystem	1.1.1.430	The Expert Rules Subsubsystem shall send to the Evaluation Subsubsystem parking lot data	
DS45	Decision Support Subsystem evaluating the impact of enacted response plans	1.1.1.440	The Expert Rules Subsubsystem shall calculate measures of effectiveness	
DS90	Expert Rules Subsubsystem sending Agency Status Data to the Evaluation Subsubsystem	1.1.1.450	The Expert Rules Subsubsystem shall send the Evaluation Subsubsystem agency status	
DS95	Expert Rules Subsubsystem sending Agency Status Request to the Plan Decision Subsubsystem	1.1.1.460	The Expert Rules Subsubsystem shall send the Plan Decision Subsubsystem agency status request	
DS100	Expert Rules Subsubsystem sending a summary of the Predicted Network Conditions to the Evaluation Subsubsystem	1.1.1.470	The Expert Rules Subsubsystem shall send the Evaluation Subsubsystem a summary of the predicted network conditions	
DS20	Decision Support Subsystem analyzing corridor data and selecting the appropriate response plan	1.1.1.490	The Expert Rules Subsubsystem shall select a response plan recommendation based on the response plan list	
DS50	Expert Rules Subsubsystem sending Response Plan Recommendation to the Plan Decision Subsubsystem	1.1.1.500	The Expert Rules Subsubsystem shall coordinate with the Plan Decision Subsubsystem the response plan recommendation	
DS25	Decision Support Subsystem receiving/adding/editing/deleting/querying pre-agreed incident response plans	1.1.1.510	The Expert Rules Subsubsystem shall retrieve from the Data Store Subsubsystem pre-agreed incident response plans as defined in data dictionary table 2.9.1	

Test Script #	Test Description	Req. No.	Requirement Text	Results P/A/C/F
DS25	Decision Support Subsystem receiving/adding/editing/deleting/querying pre-agreed incident response plans	1.1.1.520	The Expert Rules Subsubsystem shall provide the DSS Administrator the capability to add pre-agreed incident response plans for a specified incident to the Data Store Sub-subsystem	
DS25	Decision Support Subsystem receiving/adding/editing/deleting/querying pre-agreed incident response plans	1.1.1.530	The Expert Rules Subsubsystem shall provide the DSS Administrator the capability to query pre-agreed incident response plans	
DS25	Decision Support Subsystem receiving/adding/editing/deleting/querying pre-agreed incident response plans	1.1.1.540	The Expert Rules Subsubsystem shall provide the DSS Administrator the capability to edit pre-agreed incident response plans for a specified incident	
DS25	Decision Support Subsystem receiving/adding/editing/deleting/querying pre-agreed incident response plans	1.1.1.550	The Expert Rules Subsubsystem shall provide the DSS Administrator the capability to delete pre-agreed incident response plans for specified events	
Prediction Subsubsystem Requirements				
DS2	Decision Support Subsystem receiving Link Dynamic status data from the SmartFusion Subsystem	1.1.3.10	The Prediction Subsubsystem shall receive from the Data Dissemination Subsubsystem link dynamic data	
DS7	Decision Support Subsystem receiving Traffic Signal Status Data from the SmartFusion Subsystem	1.1.3.20	The Prediction Subsubsystem shall receive from the Data Dissemination Subsubsystem traffic signal data	

Test Script #	Test Description	Req. No.	Requirement Text	Results P/A/C/F
DS3	Decision Support Subsystem receiving Event data from the SmartFusion Subsystem	1.1.3.30	The Prediction Subsubsystem shall receive from the Data Dissemination Subsubsystem incidents	
DS3	Decision Support Subsystem receiving Event data from the SmartFusion Subsystem	1.1.3.40	The Prediction Subsubsystem shall receive from the Data Dissemination Subsubsystem construction	
DS3	Decision Support Subsystem receiving Event data from the SmartFusion Subsystem	1.1.3.50	The Prediction Subsubsystem shall receive from the Data Dissemination Subsubsystem special events	
DS1	Decision Support Subsystem receiving ITS Device status from the SmartFusion Subsystem	1.1.3.60	The Prediction Subsubsystem shall receive from the Data Dissemination Subsubsystem VMS status data	
DS1	Decision Support Subsystem receiving ITS Device status from the SmartFusion Subsystem	1.1.3.70	The Prediction Subsubsystem shall receive from the Data Dissemination Subsubsystem HOV status data	
DS4	Decision Support Subsystem receiving weather alert data from the SmartFusion Subsystem	1.1.3.80	The Prediction Subsubsystem shall receive from the Data Dissemination Subsubsystem weather alert data	
DS6	Decision Support Subsystem receiving Parking Lot Data from the SmartFusion Subsystem	1.1.3.90	The Prediction Subsubsystem shall receive from the Data Dissemination Subsubsystem parking lot data	

Test Script #	Test Description	Req. No.	Requirement Text	Results P/A/C/F
DS110	Prediction Subsubsystem receiving/accepting Response Plan from the Data Dissemination Subsubsystem	1.1.3.100	The Prediction Subsubsystem shall receive from the Data Dissemination Subsubsystem response plan	
DS120	Prediction Subsubsystem sending/computing Predicted Network	1.1.3.110	The Prediction Subsubsystem shall compute predicted network conditions	
DS120	Prediction Subsubsystem sending/computing Predicted Network	1.1.3.120	The Prediction Subsubsystem shall send to the Expert Rules Subsubsystem predicted network conditions	
DS110	Prediction Subsubsystem receiving/accepting Response Plan from the Data Dissemination Subsubsystem	1.1.3.130	The Prediction Subsubsystem shall accept from the Data Dissemination Subsubsystem the recommended incident response plan within two minutes after the ICM Coordinator confirms the response plan and confirmation is posted in the SmartFusion XML feed	
DS105	Prediction Subsubsystem evaluating ICM Network Conditions to Compute the Measures of Effectiveness	1.1.3.160	The Prediction Subsubsystem shall evaluate the ICM network conditions to compute the performance measures	
Evaluation Subsubsystem Requirements				
DS90	Expert Rules Subsubsystem sending Agency Status Data to the Evaluation Subsubsystem	1.1.2.10	The Evaluation Subsubsystem shall receive from the Expert Rules Subsubsystem agency status	

Test Script #	Test Description	Req. No.	Requirement Text	Results P/A/C/F
DS55	Expert Rules Subsubsystem sending Response Plan Recommendation to the Evaluation Subsubsystem	1.1.2.20	The Evaluation Subsubsystem shall accept from the Expert Rules Subsubsystem the recommended incident response plan within two minutes after the ICM Coordinator confirms the response plan and confirmation is posted in the SmartFusion XML feed	
DS65	Expert Rules Subsubsystem sending Link Dynamic status data to the Evaluation Subsubsystem	1.1.2.40	The Evaluation Subsubsystem shall receive from the Expert Rules Subsubsystem link dynamic data	
DS70	Expert Rules Subsubsystem sending Event data to the Evaluation Subsubsystem	1.1.2.50	The Evaluation Subsubsystem shall receive from the Expert Rules Subsubsystem incidents	
DS70	Expert Rules Subsubsystem sending Event data to the Evaluation Subsubsystem	1.1.2.60	The Evaluation Subsubsystem shall receive from the Expert Rules Subsubsystem construction	
DS70	Expert Rules Subsubsystem sending Event data to the Evaluation Subsubsystem	1.1.2.70	The Evaluation Subsubsystem shall receive from the Expert Rules Subsubsystem special events	
DS85	Expert Rules Subsubsystem sending Traffic Signal Status Data to the Evaluation Subsubsystem	1.1.2.80	The Evaluation Subsubsystem shall receive from the Expert Rules Subsubsystem traffic signal status data	
DS60	Expert Rules Subsubsystem sending ITS Device status to the Evaluation Subsubsystem	1.1.2.90	The Evaluation Subsubsystem shall receive from the Expert Rules Subsubsystem VMS status data	

Test Script #	Test Description	Req. No.	Requirement Text	Results P/A/C/F
DS60	Expert Rules Subsubsystem sending ITS Device status to the Evaluation Subsubsystem	1.1.2.100	The Evaluation Subsubsystem shall receive from the Expert Rules Subsubsystem HOV status data	
DS75	Expert Rules Subsubsystem sending weather alert data to the Evaluation Subsubsystem	1.1.2.110	The Evaluation Subsubsystem shall receive from the Expert Rules Subsubsystem weather alert data	
DS80	Expert Rules Subsubsystem sending Parking Lot Data to the Evaluation Subsubsystem	1.1.2.120	The Evaluation Subsubsystem shall receive from the Expert Rules Subsubsystem parking lot data	
DS100	Expert Rules Subsubsystem sending a summary of the Predicted Network Conditions to the Evaluation Subsubsystem	1.1.2.130	The Evaluation Subsubsystem shall receive from the Expert Rules Subsubsystem a summary of the predicted network conditions	
DS55	Expert Rules Subsubsystem sending Response Plan Recommendation to the Evaluation Subsubsystem	1.1.2.140	The Evaluation Subsubsystem shall receive from the Expert Rules Subsubsystem a response plan recommendation	
DS115	Evaluation Subsubsystem evaluating ICM network	1.1.2.150	The Evaluation Subsubsystem shall evaluate the ICM network to calculate measures of effectiveness of the corridor	
DS35	Decision Support Subsystem receiving Historical Data from the SmartFusion Subsystem	1.1.2.160	The Evaluation Subsubsystem shall receive from the Data Store Subsubsystem historical data	

3 Appendix B – Acceptance Test Scripts

This section includes some preparation information and all the “Test Scripts”.

3.1 SAT Prerequisites

This section identifies the necessary tools (i.e., simulators and data support files) and lists necessary to execute the test scripts contained within this document. The items detailed herein are identified in each script as they are needed.

3.1.1 Simulation and Data Input

Some simulation will be needed for executing some of the tests, such as:

- Active Incident data (TxDOT)
- Planned Event data (TxDOT)
- VMS data (TxDOT)
- CCTV data (TxDOT)
- Links data (TxDOT)
- Weather Event data (DTN)
- CAD/AVL data (DART)
- Parking Information data (DART)

Refer to the related test scripts for specific scenarios and details.

3.2 Test Script #: SN1

3.2.1 Test Title: Authorized Users are Able to Access/Login into SmartNET and Logout

Test Description: This test procedure verifies that only authorized users are able to access SmartNET over the Internet via the Microsoft Internet Explorer web browser interface with a valid login username and password, and access agency related data.

Requirement #: 1.3.2.830
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to login to the SmartNET GUI.

Requirement #: 1.3.2.840
Description: The SmartNET GUI Subsubsystem shall validate an agency user login.

Requirement #: 1.3.2.850
Description: The SmartNET GUI Subsubsystem shall authorize an agency user based on user profile.

3.2.1.1 Test Procedure:

Table 7: Test Script #SN1

Step#	Procedure	Associated Requirement	Expected Result
1	Access the URL for the SmartNET Website using Microsoft Internet Explorer browser	1.3.2.830	The Login page is displayed with the User ID and Password fields. The appropriate logo displays on the Login page.
2	Attempt to log into the SmartNET Website by entering an invalid username and password and clicking the login button.	1.3.2.840	The system displays a message about the invalid login and does not allow this invalid user to proceed to the SmartNET interface. The Login page is still displayed and no data is viewable at this point.
3	Repeat step 2, but enter a valid user name/ID and an invalid password.	1.3.2.840	Same results as in step 2.
4	Repeat step 2, but enter an invalid user name/ID and a valid password.	1.3.2.840	Same results as in step 2.
5	Log into the SmartNET Website by entering a valid username and valid password and clicking the login button.	1.3.2.850	The Event Tracking Interface page is displayed, allowing the authorized user access to application functions. The appropriate logo and agency data is displayed on the Event Tracking Interface.
6	Log out of the SmartNET Web system by clicking the “Logout” link in the right section of the web page.	1.3.2.850	The user is prompted to confirm the logout and close the browser
7	Click Ok to confirm logout.		Observe the user has successfully logged out of the system.
8	End Test		

Comments:_____

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☐ Pass	☐ Fail	Executed by:_____	Date:_____
☐ Could not complete	☐ Accept as is	Stakeholder Observer Initials _____	Date:_____

3.3 Test Script #: SN2

3.3.1 Test Title: Sending Email Alerts for Events using SmartNET

Test Description: This test will verify that SmartNET users are able to send email alerts containing the event description for Incidents, Construction, and Special Events.

Requirement #: 1.3.0.30
Description: The SmartNET Subsystem shall send to internet E-mail SmartNET E-mail alerts.

Requirement #: 1.3.2.90
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to send via email the incident description as defined in data dictionary table 2.5.1.

Requirement #: 1.3.2.660
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to send via email the construction description as defined in the data dictionary table 2.5.2.

Requirement #: 1.3.2.670
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to send via email the special event description as defined in the data dictionary table 2.5.3.

Requirement #: 1.3.2.950
Description: The SmartNET GUI Subsubsystem shall send to internet email an incident description.

Requirement #: 1.3.2.960
Description: The SmartNET GUI Subsubsystem shall send to internet email a construction description.

Requirement #: 1.3.2.970
Description: The SmartNET GUI Subsubsystem shall send to internet email a special event description.

3.3.1.1 Test Procedure:

Table 8: Test Script #SN2

Step#	Procedure	Associated Requirement	Expected Result
1	Identify an Internet email account that will be used to verify that SmartNET emails are received for this test.	1.3.2.950	An Internet email account is identified for use with the remaining test steps.

Step#	Procedure	Associated Requirement	Expected Result
2	As a user with event write privileges, switch to the Highway Incident Tracking view (if not already displayed) by clicking the link to this view.		The appropriate tracking view is displayed.
3	Click on the Create icon.		The Create icon was enabled for the user with write privileges and the tracking view is in create mode. The static pick lists become available for selection in this mode, e.g., State, Facility, etc. and certain default entries already display, such as State, based on the user's organization profile and/or User Settings. Observe that the correct default organization displayed in the "Reported by" field based on the user's login profile.
4	After completing the event fields, submit the event.		The new event was submitted.
5	Verify that an email was sent to the email account defined for this test.	1.3.0.30 1.3.2.950	An email is received containing the incident description as defined in the data dictionary table 2.5.3.
6	Have the user identified in step 1 update the above event owned by his/her organization by selecting the event from the event list and clicking the Update icon.	1.3.2.90	The fields are available for updating.
7	Change one or two entries by selecting information from pick lists and entering text in the available free text fields and note the changes. Be sure that the event description changes based on the changed fields. After completing the changes, submit the event.	1.3.2.90	The updated event was submitted. The changes were saved and reflected in view mode after submission.
8	Verify that an email was sent to the email account defined for this test.	1.3.2.90	An email is received containing the updated incident description as defined in the data dictionary table 2.5.3.

Step#	Procedure	Associated Requirement	Expected Result
9	Have the user identified in step 1 close the above event by selecting the event from the event list and clicking the Close icon.		The event was closed successfully and an email is received alerting the user that the event was closed.
10	Repeat the steps above for Construction Events.	1.3.2.660 1.3.2.960	The user is able to create a Construction Event and receive an email, update a Construction Event and receive an email, and close a Construction Event and receive an email successfully.
11	Repeat the steps above for Special Events.	1.3.2.670 1.3.2.970	The user is able to create a Special Event and receive an email, update a Special Event and receive an email, and close a Special Event and receive an email successfully.
12	End Test		

Comments:_____

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☐ Pass ☐ Fail Executed by:_____ Date:_____

☐ Could not complete ☐ Accept as is Stakeholder Observer Initials _____ Date:_____

3.4 Test Script #: SN3

3.4.1 Test Title: Creating/Viewing/Updating/Closing Incidents/Construction/Special Events in SmartNET

Test Description: This test will demonstrate the following:

- The ability to create, view, update, and close incidents, construction, and special events within the SmartNET GUI;
- The ability to view events on the map; and
- The ability to view incident, construction, and special events received from external systems on the map and event view.

Requirement #: 1.3.0.40
Description: The SmartNET Subsystem shall receive from the SmartFusion Subsystem incidents.

Requirement #: 1.3.0.50
Description: The SmartNET Subsystem shall receive from the SmartFusion Subsystem construction.

Requirement #: 1.3.0.60
Description: The SmartNET Subsystem shall receive from the SmartFusion Subsystem special events.

Requirement #: 1.3.0.150
Description: The SmartNET Subsystem shall send to the SmartFusion Subsystem incidents.

Requirement #: 1.3.0.160
Description: The SmartNET Subsystem shall send to the SmartFusion Subsystem construction.

Requirement #: 1.3.0.170
Description: The SmartNET Subsystem shall send to the SmartFusion Subsystem special events.

Requirement #: 1.3.2.10
Description: The SmartNET GUI Subsubsystem shall refresh the SmartNET Event Form based on a time interval defined in minutes.

Requirement #: 1.3.2.60
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to create a construction event.

Requirement #: 1.3.2.70
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to modify a construction event.

Requirement #: 1.3.2.220

Description: The SmartNET GUI Subsubsystem shall receive from the Data Store Subsubsystem incidents.

Requirement #: 1.3.2.230
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to view incidents in the corridor.

Requirement #: 1.3.2.340
Description: The SmartNET GUI Subsubsystem shall receive from the Data Store Subsubsystem construction.

Requirement #: 1.3.2.350
Description: The SmartNET GUI Subsubsystem shall receive from the Data Store Subsubsystem special events.

Requirement #: 1.3.2.360
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to create an incident

Requirement #: 1.3.2.370
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to create a special event.

Requirement #: 1.3.2.380
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to modify an incident.

Requirement #: 1.3.2.390
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to modify a special event.

Requirement #: 1.3.2.400
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to close an incident.

Requirement #: 1.3.2.410
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to close a construction event.

Requirement #: 1.3.2.420
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to close a special event.

Requirement #: 1.3.2.690

Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to view construction in the corridor.

Requirement #: 1.3.2.700
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to view special events in the corridor.

Requirement #: 1.3.2.710
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to view construction on a map in the corridor

Requirement #: 1.3.2.730
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to view special events on a map in the corridor

Requirement #: 1.3.2.860
Description: The SmartNET GUI Subsubsystem shall send to the Data Collection Subsubsystem incidents.

Requirement #: 1.3.2.870
Description: The SmartNET GUI Subsubsystem shall send to the Data Collection Subsubsystem construction.

Requirement #: 1.3.2.880
Description: The SmartNET GUI Subsubsystem shall send to the Data Collection Subsubsystem special events.

3.4.1.1 Test Procedure:

Table 9: Test Script #SN3

Step#	Procedure	Associated Requirement	Expected Result
1	Log into the SmartNET Website as a user with event write privileges.		Observe that the Event Tracking Interface page displayed.
2	Switch to the Highway Incident Tracking view (if not already displayed) by clicking the link to this view.		The appropriate tracking view is displayed.
3	Create an incident, completing required fields and submit it.	1.3.0.150 1.3.2.360 1.3.2.860	The new incident was submitted.

Step#	Procedure	Associated Requirement	Expected Result
4	Select the incident that was reported by this user's organization from the browser.	1.3.0.40 1.3.0.150 1.3.2.230	The incident displayed details in the tracking view.
5	Click on the Update icon.	1.3.0.170	The tracking view is in update mode and the static pick lists became available for selection in this mode, e.g., State, Facility, etc.
6	Change one or two entries by selecting information from pick lists and entering text in the available free text fields and note the changes.	1.3.2.380	Values were changed and noted.
7	Submit the updated event.		The updated event was submitted.
8	Select the incident that was reported by this user's organization from the browser.	1.3.0.40	The incident displayed details in the tracking view.
9	Click on the Close icon.	1.3.2.400	Observe that the Close icon was enabled for the user with write privileges and a close confirmation message displayed.
10	Select "No".		Observe that the user was able to cancel the close operation and the event remained in the Open event browser.
11	Click on the Close icon and select "Yes" to confirm closure of the event.	1.3.2.400	The closed event was submitted.
12	Review the Closed tab of the highway incident tracking view.	1.3.0.40 1.3.0.150	The event was moved from the Open event list and is now present in the Closed tab of the tracking view only for the organization that initially created the event.

Step#	Procedure	Associated Requirement	Expected Result
13	Repeat the steps above for a construction event.	1.3.0.50 1.3.0.160 1.3.2.60 1.3.2.70 1.3.2.340 1.3.2.410 1.3.2.690 1.3.2.710 1.3.2.870	The user is able to create, update, and close a construction event.
14	Repeat the steps above for a special event.	1.3.0.60 1.3.0.170 1.3.2.220 1.3.2.350 1.3.2.370 1.3.2.390 1.3.2.420 1.3.2.700 1.3.2.730 1.3.2.880	The user is able to create, update, and close a special event.
15	Switch to the Highway Incident Tracking view by clicking the link to this view.		The appropriate tracking view is displayed.
16	If there are existing events in the browser, skip to the next step. If not, click the Create icon, complete the Highway Incident (completing required fields and noting the Facility/Route and From point location).		The event was submitted and displays in the tracking view's browser.
17	Select an event from the browser that includes a valid "From" point selection or one that you know was manually plotted.		The event's details are displayed.
18	Select the "Locate (on Map)" icon.		The Default Map View displayed and automatically zoomed to the event location. Observe that the event icon was correctly located on the map based on the Facility/Route and From point location selections.

Step#	Procedure	Associated Requirement	Expected Result
19	Repeat steps 15-18 for a construction event.	1.3.2.690 1.3.2.710 1.3.2.870	The Default Map View displayed and automatically zoomed to the event location. Observe that the event icon was correctly located on the map based on the Facility/Route and From point location selections.
20	Repeat the steps 15-18 for a special event.	1.3.2.700 1.3.2.730 1.3.2.880	The Default Map View displayed and automatically zoomed to the event location. Observe that the event icon was correctly located on the map based on the Facility/Route and From point location selections.
21	Logout from the SmartNET GUI.		The user is successfully logged out.
22	Have the external live data source provider submit a highway incident, construction with a lane closure, and special event with valid map locations. Note the external event object's map location, event description, and external owner organization for a later step.	1.3.0.40	The events were submitted and noted as described.
23	Have a valid user from a different organization log into the SmartNET Website.		Observe the Event Tracking Interface page displayed.
24	Switch to the Highway Incident view if not already in view.		The Highway Incident view is visible.
25	Review the open event list for the external highway incident that was noted above. Note: Check the Source field for external source organizations in the event records.		The highway incident from the external source was present in the event list.
26	Select the Locate on Map feature from the Event View.	1.3.2.860	The event from the external source was located on the map in the location noted above.

Step#	Procedure	Associated Requirement	Expected Result
27	Close the map and switch to the Construction view if not already in view.		The Construction view is visible.
28	Review the open event list for the external highway construction event that was noted above. Note: Check the Source field for external source organizations in the event records.		The construction event from the external source was present in the event list.
29	Select the Locate on Map feature from the Event View.	1.3.2.870	The event from the external source was located on the map in the location noted above.
30	Review the Highway Incident View for the active Construction with the lane closure and select the event received from the external source that was noted above.		The active highway construction event from the external source was present in the event list and was selected.
31	Close the map and switch to the Highway Special Event view if not already in view.		The Highway Special Event view is visible.
32	Review the open event list for the external Special Event that was noted above. Note: Check the Source field for external source organizations in the event records.		The Special Event from the external source was present in the event list.
33	Select the Locate on Map feature from the Event View.	1.3.2.880	The event from the external source was located on the map in the location noted above.
34	Close the map.		The map is closed.
35	Switch to the Highway Incident Tracking view (if not already displayed) by clicking the link to this view.		The appropriate tracking view is displayed.
36	Select Tools and the User Settings from the toolbar.		The User Settings dialog box is displayed.
37	In the Event View dropdown box, change the value to “1” and click “Update Profile.”	1.3.2.10	The user Event View Refresh Rate is successfully changed.
38	Wait one minute for the Incident Tracking view to refresh.	1.3.2.10	The Incident Tracking View page is automatically refreshed after one minute.

Step#	Procedure	Associated Requirement	Expected Result
39	End Test		

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☐ Pass ☐ Fail Executed by:_____ Date:_____

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3.5 Test Script #: SN4

3.5.1 Test Title: SmartNET Receiving/Sending Response Plans

Test Description: This test will demonstrate SmartNET's ability to:

- Receive a response plan recommendation
- Send a response plan response to SmartFusion
- Receive a plan request from SmartFusion
- Send an agency user response to SmartFusion
-

Requirement #: 1.3.0.140
Description: The SmartNET Subsystem shall receive from the SmartFusion Subsystem a response plan recommendation.

Requirement #: 1.3.0.180
Description: The SmartNET Subsystem shall send to the SmartFusion Subsystem response plan responses.

Requirement #: 1.3.0.300
Description: The SmartNET Subsystem shall receive from the SmartFusion Subsystem a response plan request.

Requirement #: 1.3.0.310
Description: The SmartNET Subsystem shall send to the SmartFusion Subsystem an agency user response.

3.5.1.1 Test Procedure:

Note: This test requires two testers to complete, as well as coordination with the ICM Coordinator to ensure that a Plan Recommendation exists in the Plan Decision Subsubsystem.

Table 10: Test Script #SN4

Step#	Procedure	Associated Requirement	Expected Result
1	Coordinate with the ICM Coordinator to ensure that a response plan recommendation exists in the Plan Decision Subsystem.		A response plan recommendation exists in the Plan Decision Subsubsystem.
2	Connect to the DSS feed by opening a browser window and navigating to: http://xxxxxxxx		The user shall observe the DSS XML feed.

Step#	Procedure	Associated Requirement	Expected Result
3	Find a Plan node and make note of the Plan ID, DSS transaction ID, and Plan URL of the chosen DSS Plan in the XML document.		The user shall observe and make note of the following fields: PlanID:_____ The plan number provided by the expert rules system DSS Transaction ID: _____ Plan URL:___ _____ Last update: Date and time of the last update
4	Have a user with ICM Coordinator privileges log into the SmartNET Website.		Observe that the Event Tracking Interface page is displayed.
5	In the Plan Decision Dialogue, search for the response plan recommendation noted above and accept the recommended response plan by clicking on the "Accept" button.	1.3.0.140	The user is presented with a message that the recommended response plan has been accepted successfully.
6	Open the Event XML feed by clicking on the following url: https://xxxxxxxx		The user shall observe the XML feed login page.
7	Login by entering a Username and Password for a valid feed user account. Select the Events radio button and click on "Submit Query". Note: The username used to access the XML feed shall have read capability to the DSS data		The user shall observe the Event data presented in an XML format and containing DSS data if applicable.

Step#	Procedure	Associated Requirement	Expected Result
8	Locate the DSS Plan identifier noted in previous steps in the XML feed.		The user shall observe the following XML data for the identified DSS Plan: SmartNET Event ID: _____ PlanID:_____ The plan number provided by the DSS XML Feed DSS Transaction ID DSS Plan Actions associated with this event Plan URL pdf:_____
9	Compare the PlanIDs made available in the DSS XML feed with the PlanID noted in the previous step.		The user shall observe the same IDs.
10	Search for "accepted response recommendation" in the Event XML feed.		The user shall observe that the recommended response plan has been accepted for the response plan recommendation noted above.
11	In the Plan Decision Dialogue in SmartNET, find the response plan request for the response plan recommendation noted in the previous steps.	1.3.0.300	The user shall observe the response plan request in the Plan Decision Dialogue interface.
12	Have User 1 refresh the Plan Decision Dialogue in SmartNET.		Observe that a response plan request is available in the Plan Decision Dialogue.
13	Have User 1 accept the response plan request by clicking the "Accept" button.	1.3.0.180	User 1 is presented with a message that the response plan request was accepted.
14	Refresh and search for "enacted response" in the Event XML feed.	1.3.0.310	The user shall observe that the recommended response plan has been enacted for the response plan recommendation noted above.
15	In the Plan Decision Dialogue interface, have User 1 accept the response plan.		User 1 is presented with a message that the response plan has successfully been implemented.

Step#	Procedure	Associated Requirement	Expected Result
16	Refresh and search for “enacted response” in the Event XML feed.		The user shall observe that the recommended response plan has been enacted for the response plan recommendation noted above.
17	End Test		

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☐ Could not complete ☐ Accept as is Stakeholder Observer Initials _____ Date:_____

3.6 Test Script #: SN5

3.6.1 Test Title: Control object layers on the map and verify the SmartNET data store object data

Test Description: This test will demonstrate the ability to:

- Verify current status of ITS objects in the corridor utilizing the SmartNET map
- Verify that ITS object data is present in the SmartFusion Data Store
- View weather, traffic signal status, parking lot, vehicle location and link data on the SmartNET map

Requirement #: 1.3.0.10
The SmartNET Subsystem shall provide Agency Users the capability to view current status of ITS devices in the corridor.

Requirement #: 1.3.0.20
Description: The SmartNET Subsystem shall provide Agency Users the capability to view current conditions in the corridor.

Requirement #: 1.3.0.70
Description: The SmartNET Subsystem shall receive from the SmartFusion Subsystem parking lot data.

Requirement #: 1.3.0.80
Description: The SmartNET Subsystem shall receive from the SmartFusion Subsystem weather alert data.

Requirement #: 1.3.0.90
Description: The SmartNET Subsystem shall receive from the SmartFusion Subsystem link dynamic data.

Requirement #: 1.3.0.100
Description: The SmartNET Subsystem shall receive from the SmartFusion Subsystem HOV status data.

Requirement #: 1.3.0.110
Description: The SmartNET Subsystem shall receive from the SmartFusion Subsystem CCTV status data.

Requirement #: 1.3.0.120
Description: The SmartNET Subsystem shall receive from the SmartFusion Subsystem VMS status data.

Requirement #: 1.3.0.130

Description: The SmartNET Subsystem shall receive from the SmartFusion Subsystem traffic signal status data.

Requirement #: 1.3.0.190
Description: The SmartNET Subsystem shall receive from the SmartFusion Subsystem transit vehicle location data.

Requirement #: 1.3.0.280
Description: The SmartNET Subsystem shall send to the SmartFusion Subsystem a static map request.

Requirement #: 1.3.0.320
Description: The SmartNET Subsystem shall send to the SmartFusion Subsystem traffic signal status data.

Requirement #: 1.3.0.330
Description: The SmartNET Subsystem shall send to the SmartFusion Subsystem static map data.

Requirement #: 1.3.2.20
Description: The SmartNET GUI Subsubsystem shall refresh the SmartNET Map based on a time interval defined in minutes.

Requirement #: 1.3.2.80
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to view information layers on a map as defined in data dictionary table 2.7.5.

Requirement #: 1.3.2.100
Description: The SmartNET GUI Subsubsystem shall receive VMS status data from the Data Store Subsubsystem.

Requirement #: 1.3.2.110
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to view current status of VMS in the corridor.

Requirement #: 1.3.2.120
Description: The SmartNET GUI Subsubsystem shall receive CCTV status data from the Data Store Subsubsystem.

Requirement #: 1.3.2.130
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to view current status of CCTV in the corridor.

Requirement #: 1.3.2.140
Description: The SmartNET GUI Subsubsystem shall receive HOV status data from the Data Store Subsubsystem.

Requirement #: 1.3.2.150
Description: The SmartNET GUI Subsubsystem shall provide Agency Users the capability to view current status of HOV facilities in the corridor.

Requirement #: 1.3.2.160
Description: The SmartNET GUI Subsubsystem shall receive Transit Vehicle Location from the Data Store Subsubsystem.

Requirement #: 1.3.2.170
Description: The SmartNET GUI Subsubsystem shall provide Agency Users the capability to view Transit Vehicle Location in the corridor.

Requirement #: 1.3.2.210
Description: The SmartNET GUI Subsubsystem shall provide Agency Users the capability to view link based weather link data in the corridor.

Requirement #: 1.3.2.240
Description: The SmartNET GUI Subsubsystem shall receive from the Data Store Subsubsystem parking lot data.

Requirement #: 1.3.2.250
Description: The SmartNET GUI Subsubsystem shall provide Agency Users the capability to view parking lot data in the corridor.

Requirement #: 1.3.2.260
Description: The SmartNET GUI Subsubsystem shall receive from the Data Store Subsubsystem Link dynamic data.

Requirement #: 1.3.2.270
Description: The SmartNET GUI Subsubsystem shall provide Agency Users the capability to view link dynamic data on a map in the corridor.

Requirement #: 1.3.2.310
Description: The SmartNET GUI Subsubsystem shall provide Agency Users the capability to view Freeway Travel Time link dynamic data on a map in the corridor.

Requirement #: 1.3.2.330
Description: The SmartNET GUI Subsubsystem shall provide Agency Users the capability to view Arterial Travel Time link dynamic data on a map in the corridor.

Requirement #: 1.3.2.750
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to view Traffic signal device status information on a map in the corridor.

Requirement #: 1.3.2.770
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to view link speed information on a map in the corridor.

Requirement #: 1.3.2.780
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to view link weather information on a map in the corridor.

3.6.1.1 Test Procedure:

Table 11: Test Script #SN5

Step#	Procedure	Associated Requirement	Expected Result
1	Have any valid SmartNET user log into the SmartNET Website.		The Event Tracking Interface page displayed.
2	Click on the Map View link.	1.3.0.330	The Map View displays.
3	Zoom in to an area and level where all the following different map objects would display if these object layers were turned on -for example: Parking Lots Weather Links HOV CCTV VMS Traffic Signals Vehicle Locations	1.3.0.10 1.3.0.70 1.3.0.80 1.3.0.90 1.3.0.100 1.3.0.110 1.3.0.130 1.3.0.120 1.3.0.190 1.3.0.320	An area of the Map is chosen where these object icons can be displayed.

Step#	Procedure	Associated Requirement	Expected Result
4	Expand the navigation tree under Event Layers > Others and toggle on and off the following layers to show or hide icons, for example: Parking Lots Weather Link HOV CCTV VMS Traffic Signals Vehicle Locations	1.3.0.20 1.3.2.80 1.3.2.100 1.3.2.110 1.3.2.120 1.3.2.130 1.3.2.140 1.3.2.150 1.3.2.160 1.3.2.170 1.3.2.180 1.3.2.190 1.3.2.200 1.3.2.210 1.3.2.240 1.3.2.250 1.3.2.260 1.3.2.270	As the map object layer is toggled on, the appropriate icon(s) shall appear on the map for the selected object type. As the map object layer is toggled off, the icon(s) shall disappear from the map for the selected map object type.
5	Select the Links layer as the active layer from the map view, click the Select tool and then click on a link object on the map.	1.3.0.280 1.3.2.310 1.3.2.330	The active link layer was selectable as indicated by a highlight.
6	Select two or three links from the same area by clicking on those links		Multiple links could be selected.
7	From the Map View, select another map object as the active layer, e.g., Parking Lots, click the Select tool, and click on this object on the map.	1.3.2.750 1.3.2.770 1.3.2.780	The object relating to the active layer was selectable as indicated by a highlight or an Information pop-up view (depending on the selected object). If a Parking Lot object is selected, the Parking Lot Information view is displayed.
8	Repeat step 4 to select the remaining object types that are selectable (such as Weather and CCTV).		The object relating to the active layer was selectable as indicated by a highlight or an Information pop-up view.

Step#	Procedure	Associated Requirement	Expected Result
9	Select the “Identify” tool icon from the toolbar, then click on the following objects making sure these object layers are turned on to be displayed on the map.: Parking Lots Weather Link HOV CCTV VMS Traffic Signals Vehicle Locations	1.3.0.20 1.3.2.80 1.3.2.100 1.3.2.110 1.3.2.120 1.3.2.130 1.3.2.140 1.3.2.150 1.3.2.160 1.3.2.170 1.3.2.210 1.3.2.240 1.3.2.250 1.3.2.260 1.3.2.270	The Identify window popped up to display the details for the selected object.
10	Close the Identify window.		The Identify window closed.
11	Repeat step 9 to view the Identify window information for other map objects listed above.		The Identify window popped up to display the details for the selected object.
12	Hover the mouse cursor over any of the map objects listed in the steps above to verify the resulting tool tip (regardless of the selected active layer).		A tool tip popped up and displayed information about the map icon.
13	With the “Identify” tool still selected, repeat step 12 to verify tool tips for the remaining map objects listed above.		A tool tip popped up and displayed information about the map icon.
14	End Test		

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☐ Could not complete ☐ Accept as is Stakeholder Observer Initials _____ Date:_____

3.7 Test Script #: SN6

3.7.1 Test Title: Using SmartNET to Generate Reports

Test Description: This test procedure verifies that the SmartNET interface provides the capability to generate reports for stored events.

Requirement #: 1.3.2.680
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to create reports.

3.7.1.1 Test Procedure:

Table 12: Test Script #SN6

Step#	Procedure	Associated Requirement	Expected Result
1	Have a user with event write privileges log into the SmartNET Website.		The Event Tracking Interface page displayed.
2	If there are not existing events of different types, create some events of different types and Facilities and update a couple of them with associated user actions. Also create, and then close a couple of events.		The events were created/updated/closed as described.
3	From the Highway Incident view, click on the User Tools link, then the Reports link.		The Reports view is displayed with the Incidents option selected by default based on the current event view.
4	Display Open or Closed Incidents by selecting the proper radio button.		The selected type of incidents is displayed in the report browser.

Step#	Procedure	Associated Requirement	Expected Result
5	Filter incidents in the main Reports view by clicking the “Date and Time Filtering” check box, and selecting the Dates and Times in the “From Date”, “From Time”, “To Date” and “To Time” fields, then “Apply Filter”.	1.3.2.680	Only the incidents that occurred during the times and dates that were selected are displayed.
6	Uncheck the “Date and Time Filtering” check box and filter incidents by selecting the “Event Type”, then “Apply Filter”.	1.3.2.680	Only incidents for the selected Event Type were displayed.
7	Clear the “Event Type” (by selecting the blank from the top of the pick list) and filter incidents by selecting a Reporting Organization, then “Apply Filter”.		Only incidents for the selected Reported by Organization display.
8	Clear the “Reporting Organization” (by selecting the blank from the top of the pick list) and filter incidents by selecting the State and Facility, then “Apply Filter”.		Only incidents for selected State and Facility display.
9	Select the “Date and Time Filtering” checkbox and select a “From Date” and “To Date” using the calendar control and select “Apply Filter”. Select the “Action Report” from the “Report Type” list; select “Generate Report”; and click “Open” on the resulting “File Download” dialog box (the display of the “File Download” dialog box depends on the client’s configuration).		All Open or Closed event actions display (depending on your “Open” or “Closed” option selection). Note: When using report functions, if you select any specific report from the “Report Type” list (within the main Report view) and select “Generate Report”, you may or may not see a “File Download” dialog box with Open and Save options. This depends on your client IE browser version and/or IE settings. The report will either display after the report selection or you will be presented with the “File Download” dialog box, in which case you can select “Open” from there.

Step#	Procedure	Associated Requirement	Expected Result
10	From the main Report view, click on "Date/Time" Sort By: radio button to sort events by "Date/Time" and Apply.		Events sort by: "Date/Time".
11	Review other sort options, e.g., "Event Type" and "Facility" for example.		The events were sorted by the sort selection.
12	Select an event from the main Report view list; select the "Detail Report" from "Report Type" list and click on the "Generate Report" button.		The Detail Report displays for review based on the event that was selected from the main Report view list.
13	Display the printable view of the Detail Report by clicking on the "Preview Detail Report" button from the Detail Report view and click "Open" on the resulting "File Download" dialog box (if this dialog is presented).	1.3.2.680	A printable view of the Event View Detail Report for the selected event displays in PDF format. Note: When using report functions, if you select any specific report from the "Report Type" list (within the main Report view) and select "Generate Report", you may or may not see a "File Download" dialog box with Open and Save options. This depends on your client IE browser version and/or IE settings. The report will either display after the report selection or you will be presented with the "File Download" dialog box, in which case you can select "Open" from there.
14	Close the Detail Report windows and the main Report view, then reopen the main Report view.		The Detail Report windows and main Report view were closed and the main Report view was reopened.
15	Clear the Date/Time filtering from the main Reports view; select the "Summary / Archive Report" from the "Report Type" list and click on the "Generate Report" button.	1.3.2.680	A message displays to prompt the user to select the Date and Time Filtering. This is to let the user know that this report requires date/time filtering.

Step#	Procedure	Associated Requirement	Expected Result
16	Acknowledge the message and repeat step 5 to filter the events by Dates and Times.		Only the events that occurred during the times and dates that were selected are displayed.
17	Select the "Summary / Archive Report" from the "Report Type" list and click on the "Generate Report" button. If the "File Download" dialog box displays (depending on the client configuration), select "Open".	1.3.2.680	A pdf view of the Summary Report displayed for the category/state of events that were selected (e.g., Open Incident, Closed Construction, etc.) The Summary Report displayed the report filtering criteria, which in this case is the selected Dates and Times filtering selected in above. The Summary Report listed all the events that displayed in the main Reports view based on the Dates and Times filtering and any other filtering. Note: When using report functions, if you select any specific report from the "Report Type" list (within the main Report view) and select "Generate Report", you may or may not see a "File Download" dialog box with Open and Save options. This depends on your client IE browser version and/or IE settings. The report will either display after the report selection or you will be presented with the "File Download" dialog box, in which case you can select "Open" from there.
18	Close the Summary Report window.		The Summary Report closed and the main Reports window is in view.

Step#	Procedure	Associated Requirement	Expected Result
19	Repeat step 5 to filter the events by Dates and Times and select different Dates and Times plus one more filter criteria, e.g., State.		Only the events that occurred during the dates/times and other filter criteria (such as State) that were selected are displayed.
20	Click on the "Action Report" from the "Report Type" list and click on the "Generate Report" button. If the "File Download" dialog box displays (depending on the client configuration), select "Open".	1.3.2.680	The Actions Report in pdf format is displayed with all the actions (including new (Initial), update, closed (Final) and USER actions) that occurred within the selected Dates/Times and based on other filter criteria (e.g., State) and the selected event category (e.g., Highway Incident, Highway Construction, Closed, Open, etc.). Note: Only users of the owning organization will be able to view their private actions in the Actions Report. Note: When using report functions, if you select any specific report from the "Report Type" list (within the main Report view) and select "Generate Report", you may or may not see a "File Download" dialog box with Open and Save options. This depends on your client IE browser version and/or IE settings. The report will either display after the report selection or you will be presented with the "File Download" dialog box, in which case you can select "Open" from there.
21	Create an Unassociated Action.		The user created an Unassociated Action for his/her organization.

Step#	Procedure	Associated Requirement	Expected Result
22	From the Reports view, select the Date/Time interval by selecting the Dates and Times "From" and "To" fields from the Reports view (such that the dates and times will include the unassociated action just entered) and select "Apply Filter". Select the "Unassociated Action Report" from the "Report Type" list; select "Generate Report" and click "Open" on the resulting "File Download" dialog box if displayed.	1.3.2.680	The Unassociated Actions Report in pdf format is displayed with all the unassociated actions that were created for this user's organization (unrelated to any selected event) within the selected Date/Time interval. Note: When using report functions, if you select any specific report from the "Report Type" list (within the main Report view) and select "Generate Report", you may or may not see a "File Download" dialog box with Open and Save options. This depends on your client IE browser version and/or IE settings. The report will either display after the report selection or you will be presented with the "File Download" dialog box, in which case you can select "Open" from there.
23	End test.		

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3.8 Test Script #: SN7

3.8.1 Test Title: Testing SmartNET Alarms Functionality

Test Description: This test procedure verifies the following Alarm features:

- The event tracking interface provides the capability to view alarms.
- The Alarm view displays notifications of new, updated, and closed events when unfiltered on the next refresh interval.
- Alarms are removed from the Alarm view when a user acknowledges or confirms the notification on the next manual or automatic refresh.
- Alarm updates that affect other local views within that organization will display on the next manual or automatic refresh.

Alarms and associated acknowledgements will be shared by all users of a single Organization. When one user of the organization creates an event, the alarm appears for all users of the same organization. When a user acknowledges an alarm, it is acknowledged and removed on all other affected local views for the whole organization on the next refresh interval. Two Web clients and two users from the same organization are needed for this part of the test.

Requirement #: 1.3.0.240
Description: The SmartNET Subsystem shall receive from the SmartFusion Subsystem an alarm notification

Requirement #: 1.3.0.290
Description: The SmartNET Subsystem shall send to the SmartFusion Subsystem an alarm response

Requirement #: 1.3.2.30
Description: The SmartNET GUI Subsubsystem shall refresh the Alarm Form based on a configurable time interval defined in minutes

Requirement #: 1.3.2.790
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to view an alarm

Requirement #: 1.3.2.800
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to confirm an alarm

Requirement #: 1.3.2.810
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to ignore an alarm

Requirement #: 1.3.2.820

Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to acknowledge an alarm

3.8.1.1 Test Procedure: SmartNET Alarms

Table 13: Test Script #SN7

Step#	Procedure	Associated Requirement	Expected Result
1	Have 2 non-admin users with event write privileges belonging to two different organizations log into the SmartNET Website on 2 different web clients.		The Event Tracking Interface page displayed for both users.
2	Have both users switch to the Highway Incident Tracking view (if not already displayed) by clicking the link to this view.		The appropriate tracking view is displayed.
3	Have both users (User 1 and 2) create a new incident by clicking on the Create icon, completing required fields and submit it.		The new incident was submitted.
4	Have both users (User 1 and User 2) click the Alarm link to open the Alarm view and click the Refresh button.	1.3.0.240 1.3.2.790	The Alarm view displayed for both users. User 1 was able to see the "New" incident alarm, along with its description for the event created by User 2. User 1 was unable to see the "New" incident alarm for the event created by User 1 since the event was reported by this user. User 2 was able to see the "New" incident alarm, along with its description for the event created by User 1. User 2 was unable to see the "New" incident alarm for the event created by User 2 since the event was reported by this user.

Step#	Procedure	Associated Requirement	Expected Result
5	Have User 1 log out and have User 3 who belongs to the same organization as User 2 and has alarm write privileges log in and access the Alarm view.		The Alarm view displayed with the same "New" Incident alarm, along with its description for this user.
6	Have User 3 access the Alarm View and select the New Incident in the Alarm view and click on the Acknowledge button.	1.3.0.290 1.3.2.800 1.3.2.810 1.3.2.820	The New Incident alarm was acknowledged.
7	Have both User 2 and User 3 review the Alarm View and wait for the automatic refresh.	1.3.2.30	Observe that the New Incident alarm was removed for both users since User 3 of the same organization acknowledged the alarm, which confirms associated acknowledgements are shared by all users of a single Organization.
8	Have User 3 log out and repeat steps 1 – 7 with an update to the incident that was created in step 3 to observe alarm behavior for an update.	1.3.0.290 1.3.2.800 1.3.2.810 1.3.2.820	Same results except that the Alarm View status was "Update" for the event.
9	Have User 3 log out and repeat steps 1 – 7, but with a closure of the incident that was created in step 3 to observe alarm behavior for a closure.	1.3.0.290 1.3.2.800 1.3.2.810 1.3.2.820	Same results except that the Alarm View status was "Closed" for the event.
10	End test.		

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3.9 Test Script #: SN8

3.9.1 Test Title: Working with Custom Map Views

Test Description: The following will test the following SmartNET map features:

- The Map View shall refresh on a configurable time interval.
- The Map View provides the capability for users to create and store custom map views.
- The Map View provides the capability to open custom map views for updating or viewing.
- The Map View provides the capability to close custom map views after updating or viewing. The default view always remains open.
- The Map View provides the capability to delete custom map views.

All users within the same organization will share the same stored custom map views. This portion of the procedure will verify that when one user of an organization creates a custom view, another user belonging to the same organization is able to open this view. Any changes that are made to a custom view are also visible to all users of the same organization when opened.

Users can select an active layer for any map view (default or custom view). Each map view map frame will have an active layer associated with it. Once the active layer is selected, certain tools, such as the select tool or "Zoom to", can be used on selectable objects, e.g., event, link, etc. to display details.

Requirement #: 1.3.0.250
Description: The SmartNET Subsystem shall receive from the SmartFusion Subsystem map profile data.

Requirement #: 1.3.0.260
Description: The SmartNET Subsystem shall receive from the SmartFusion Subsystem static map data.

Requirement #: 1.3.0.270
Description: The SmartNET Subsystem shall send to the SmartFusion Subsystem map profile data.

Requirement #: 1.3.2.500
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to create a map profile.

Requirement #: 1.3.2.510
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to update a map profile.

Requirement #: 1.3.2.520
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to delete a map profile.

Requirement #: 1.3.2.530
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to select layers on a map by toggling on and off.

3.9.1.1 Test Procedure:

Table 14: Test Script #SN8

Step#	Procedure	Associated Requirement	Expected Result
1	Have any valid SmartNET user log into the SmartNET Website.		The Event Tracking Interface page displayed.
2	Click on the Map View link.	1.3.2.530	The Default Map View displays.
3	Zoom and pan to an area of the map that you wish to save for a new view.	1.3.2.500	A selected area of the map displays.
4	Select an active layer (e.g., highway construction event) for the new map view.		The active layer was selected.
5	When the desired position and layers are selected, click the "Save View" icon from the Map toolbar.	1.3.2.500	A Save Map dialog displays for entry.
6	Enter a name "MyView1" and select "Ok" to save the new custom view.		The new view is saved.
7	Click the "Open Map" icon from the Map toolbar and review the view pick list.	1.3.2.510	The new custom view "MyView1" displayed in the view pick list.
8	Repeat steps 3 – 6 to create another custom view called "MyView2".		A 2nd custom view was created.
9	Click the "Open Map" icon from the Map toolbar and review the view pick list.		The new custom view "MyView2" displayed in the view pick list.

Step#	Procedure	Associated Requirement	Expected Result
10	While the 1st user is still logged in with the 2 views displayed, have another valid SmartNET user from the same organization log into the SmartNET Website on another client. Note: The second SmartNET user should be logged in from a different client machine.		The Event Tracking Interface page displayed.
11	Have the 2nd user click on the Map View link.		The Default Map View displays.
12	Have the 2nd user click the "Open View" icon from the Map toolbar (from the default view) and open the 2 custom views that were created during this test.		The two users from the same organization were able to open the 2 custom views.
13	Have the 1st user select one of the custom views and delete it. Have the 2nd user close the same custom view that was deleted by the 1st user, and then have both users try to reopen this view.	1.3.2.520 1.3.2.530	The view that was deleted by the 1st user is no longer available in the open map selection pull down list for both users of the same organization.
14	Have both users close all the custom views that are currently open.		The custom views were closed.
15	Have user 2 open, then update one of the custom views that was created earlier (e.g., pan to a different location and select a different layer as the active layer, such as highway incident, then click the Update Map tool and save with the same name).	1.3.0.250 1.3.0.260 1.3.0.270	A custom view was updated as described.
16	Have both users open this view and review the changes. Also verify that active layer change from step 15 is operational in the updated custom map view. Find that type of object on the map (based on the active layer), then use the 'Zoom to" tool to zoom to the object.	1.3.0.250 1.3.0.260 1.3.0.270	Both users of the same organization were able to see the view updates (e.g., changed location). The users were able to "Zoom to" the selected object based on the active layer.

Step#	Procedure	Associated Requirement	Expected Result
17	End Test		

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3.10 Test Script #: SN9

3.10.1 Test Title: Managing User Accounts

Test Description: This test procedure verifies the following user account management utilities in the Admin View:

- The SmartNET interface will provide an administrative utility view for administrative users to set system privileges;
- The super administrator has the capability to add, modify, or delete user accounts;
- A non-super administrator can only modify user accounts for users who belong to the same organization;
- The super administrator has the ability to copy an existing user account's information from any organization in order to create a new account;
- Any administrative user can change the password for a user from their organization;
- The administrator has the ability to override an existing password on any user's account;
- Application rights can be managed for each user are available at the SmartNET user level (one example; Event Tracking Edit (read-only or write); and
- The following application rights for each administrative user account are available at the SmartNET administrative level:
    - Modify user accounts;
    - Ability to view and change FPE (Fax, Pager, Email) account information; and
    - All read-only vs. write-level user level applications.

Note: This test requires three types of users: Super administrator, non-super user with administrative privileges, and non-admin user with standard operator/write privileges who belongs to the same organization as the non-super user with administrative privileges.

Requirement #: 1.3.0.200
Description: The SmartNET Subsystem shall send to the SmartFusion Subsystem agency profile data.

Requirement #: 1.3.0.210
Description: The SmartNET Subsystem shall send to the SmartFusion Subsystem user profile data.

Requirement #: 1.3.0.220
Description: The SmartNET Subsystem shall receive from the SmartFusion Subsystem agency profile data.

Requirement #: 1.3.0.230
Description: The SmartNET Subsystem shall receive from the SmartFusion Subsystem user profile data.

Requirement #: 1.3.2.40
Description: The SmartNET GUI Subsubsystem shall provide an administrative user the capability to create an agency user profile in the Data Store.

Requirement #: 1.3.2.50
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to modify an agency user profile in the Data Store.

Requirement #: 1.3.2.300
Description: The SmartNET GUI Subsubsystem shall provide an administrative user the capability to make inactive an agency user profile in the Data Store Subsubsystem.

Requirement #: 1.3.2.980
Description: The SmartNET GUI Subsubsystem shall send to the Data Store Subsubsystem an updated user profile.

3.10.1.1 Test Procedure:

Table 15: Test Script #SN9

Step#	Procedure	Associated Requirement	Expected Result
1	Have an admin user with non-super administrative privileges log into the SmartNET Website.		The Event Tracking Interface page displayed.
2	Click the "User Tools" link, then the "Admin View" link.	1.3.0.220 1.3.0.230	The Admin view displays with user profiles. The non-super administrative user is able to view the list of user profiles. At this point, only the Close button is available since there has been no user selection yet.
3	Have the admin user with non-super administrative privileges select a user who does not belong to the same organization from the user profile list.	1.3.0.220 1.3.0.230	The "Update" button from the User Profile tab is unavailable to this user since the selected user in the profile list does not belong to this administrator's organization. The non-super administrative user is unable to view or update the details of the selected user profile.

Step#	Procedure	Associated Requirement	Expected Result
4	Have the same non-super administrative user select a user from his/her organization from the user profile list and click the "Update" button from the User Profile tab.	1.3.2.50	The "Update" button from the User Profile tab was available to this user since the selected user in the profile list belongs to this administrator's organization. The non-super administrative user is able to view the details of the selected user profile, including system privileges, since this user belongs to the same organization. The fields were enabled for updates.
5	Have the non-super admin user with administrative privileges change the selected user's password and one other field value (e.g., Email ID) and submit the change.	1.3.2.980 1.3.0.200 1.3.0.210	The non-super administrative user is able modify the user's profile, including the password.
6	On another web client, have the user with the changed password log in. After logging in and seeing the event tracking view, log out.		The user belonging to the same organization as the non-super administrative user was able to successfully log in with the changed password.
7	Have the non-super Admin user with administrative privileges log out and have the super administrator log in.		The non-super administrative user logged out and the super administrator logged in.
8	Have the super administrator create a new user by selecting the Create button from the User Profile tab.	1.3.2.40	The Create User page appears with fields enabled for entries and selections, including application rights.
9	Complete the new user profile and select "Submit".		The new user profile was added to the user profile list in the User Profile tab.
10	Have the super administrator select any user from any other organization from the user profile list and click the "Update" button from the User Profile tab.	1.3.0.200 1.3.0.210 1.3.2.980	The super administrator is able to view the details of the selected user profile, including system privileges. The fields were enabled for updates.

Step#	Procedure	Associated Requirement	Expected Result
11	Have the super administrator change the selected user's password and one other field value (e.g., Email ID) and submit the change.	1.3.0.200 1.3.0.210 1.3.2.980	The super administrator was able successfully modify the user's profile, including the password.
12	Repeat step 6 to have the user with the changed password (from step 11) login.		The user was able to successfully log in with the changed password confirming that the super administrator can update any user's profile, including the ability to override any user's password.
13	Have the super administrator copy an existing user's profile to create a new user profile. Select any user from any other organization from the user profile list and click the "Copy" button from the User Profile tab.	1.3.2.40	The Create User page appears with fields that are populated from the copied profile and are enabled for making changes that are applicable to the new user.
14	Make changes that are applicable to the new user and submit the new user profile.	1.3.2.50	The new user profile was added to the user profile list in the User Profile tab.
15	On another web client, have the new user log in. After logging in and seeing the event tracking view, log out.		The new user that was created by the super administrator was able to successfully log in.
16	Repeat step 13 – 15 to copy a user's profile from another organization.	1.3.2.40	Same results.
17	Have the super administrator delete one of the new user profiles created during this test by selecting the user from the user profile list and clicking the "Delete" button from the User Profile tab.		A deletion confirmation message displayed.
18	Click OK on the confirmation message.		The selected user profile was removed from the user profile list.
19	On another web client, have the user that was deleted log in.	1.3.2.300	The user was unable to log in because this user was deleted by the super administrator.

Step#	Procedure	Associated Requirement	Expected Result
20	Have a non-administrative, but valid user (with event write privileges) log into the SmartNET Website on one of the Web clients.		The Event Tracking Interface page displayed.
21	Have the user from step 20 above click the “User Tools” link, then the “Admin View” link.		The Admin view displays with the User Profile tab in view, but all functional buttons e.g., “Set Ticker”, “Create”, “Update”, “Copy”, and “Delete”, except for “Close”, were grayed out for this user since this user does not have the appropriate privileges.
22	Have the user from step 20 above click the Organization tab.		A message displayed saying “Insufficient privileges to view the organization list”.
23	End Test		

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3.11 Test Script #: SN10

3.11.1 Test Title: SmartNET GUI Sending ITS Object Data to the Data Collection Subsystem

Test Description: This test will verify the SmartNET GUI's ability to send ITS Object Data to the Data Collection Subsystem. ITS Object data includes:

- VMS Inventory
- VMS Status
- CCTV Inventory
- Traffic Signal Inventory
- Traffic Signal Status

Requirement #: 1.3.2.740
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to edit current status of VMS in the corridor.

Requirement #: 1.3.2.900
Description: The SmartNET GUI Subsubsystem shall send to the Data Collection Subsubsystem VMS inventory.

Requirement #: 1.3.2.910
Description: The SmartNET GUI Subsubsystem shall send to the Data Collection Subsubsystem VMS status data.

Requirement #: 1.3.2.920
Description: The SmartNET GUI Subsubsystem shall send to the Data Collection Subsubsystem CCTV inventory.

Requirement #: 1.3.2.930
Description: The SmartNET GUI Subsubsystem shall send to the Data Collection Subsubsystem Traffic Signal inventory

Requirement #: 1.3.2.940
Description: The SmartNET GUI Subsubsystem shall send to the Data Collection Subsubsystem Traffic Signal status data.

3.11.1.1 Test Procedure:

Table 16: Test Script #SN10

Step#	Procedure	Associated Requirement	Expected Result

Step#	Procedure	Associated Requirement	Expected Result
1	Login to the SmartNET Website with valid user privileges.		Observe that the Event Tracking Interface page displayed.
2	Click the “Object Editor” link on the main toolbar.		The Object Editor window is displayed.
3	Select “VMS” from the “Select Object Type” dropdown box and click “Add Object”.	1.3.2.740	The “Add VMS” window is opened.
4	Complete the required fields in the Add VMS form making sure to select “Operational” as the status, and when done, click the “Plot” button.	1.3.2.740	The required fields are populated and the SmartNET map is launched, instructing the user to select the location on the map to plot the new VMS. Note the new VMS name created in this step.
5	Select a point on the map to plot the new VMS object, click “Yes” when asked to “Proceed with plotting the object here?” and when complete, click on the “Apply” button in the “Add VMS” window.	1.3.2.740	The user observes a message in the Object Editor window confirming that the new VMS object was successfully added.
6	Open the ICM XML feed by clicking on the following url: https://xxxxxxxx	1.3.2.740	The user shall observe the XML feed login page.
7	Login by entering a Username and Password for a valid feed user account. Select the VMS radio button and click on “Submit Query”.	1.3.2.740	The user shall observe VMS data presented in an XML format.
8	Search the XML feed for the name of the new object noted above.	1.3.2.740	The user shall observe that the VMS object exists in the XML feed and contains the information entered into the SmartNET GUI in the steps above. The user shall also observe that the status is “Operational.”
9	In the Object Editor window, locate the VMS object created above, select it, and click the “Edit Object” button.	1.3.2.740	The VMS object information created in the steps above is populated in the “Edit VMS” window.

Step#	Procedure	Associated Requirement	Expected Result
10	In the “Status” dropdown box, select “Non-Operational” and click “Apply”	1.3.2.740	The user observes a message in the Object Editor window confirming that the new VMS object was successfully updated.
11	Refresh the XML feed VMS data page and locate the VMS updated in the steps above.	1.3.2.740	The user shall observe that the status is “Non-Operational.”
12	In the Object Editor window, locate the VMS object created above, select it, click the “Delete Object” button, and accept the confirmation dialog by clicking “Yes.”	1.3.2.740	The user observes a message in the Object Editor window confirming that the new VMS object was successfully deleted.
13	Refresh the XML feed VMS data page and locate the VMS updated in the steps above.	1.3.2.900 1.3.2.910	The user shall observe that the VMS no longer exists in the XML feed.
14	Click the “Object Editor” link on the main toolbar.		The Object Editor window is displayed.
15	Select “Traffic Signal” from the “Select Object Type” dropdown box and click “Add Object”.	1.3.2.930 1.3.2.940	The “Add Traffic Signal” window is opened.
16	Complete the required fields in the Add Traffic Signal form making sure to select “Operational” as the status, and when done, click the “Plot” button.	1.3.2.930 1.3.2.940	The required fields are populated and the SmartNET map is launched, instructing the user to select the location on the map to plot the new Traffic Signal. Note the new Traffic Signal name created in this step.
17	Select a point on the map to plot the new Traffic Signal object, click “Yes” when asked to “Proceed with plotting the object here?” and when complete, click on the “Apply” button in the “Add Traffic Signal” window.	1.3.2.930 1.3.2.940	The user observes a message in the Object Editor window confirming that the new Traffic Signal object was successfully added.
18	Open the ICM XML feed by clicking on the following url: https://xxxxxxxx	1.3.2.930 1.3.2.940	The user shall observe the XML feed login page.

Step#	Procedure	Associated Requirement	Expected Result
19	Login by entering a Username and Password for a valid feed user account. Select the Traffic Signal radio button and click on “Submit Query”.	1.3.2.930	The user shall observe Traffic Signal data presented in an XML format.
20	Search the XML feed for the name of the new object noted above.	1.3.2.930	The user shall observe that the Traffic Signal object exists in the XML feed and contains the information entered into the SmartNET GUI in the steps above. The user shall also observe that the status is “Operational.”
21	In the Object Editor window, locate the Traffic Signal object created above, select it, and click the “Edit Object” button.	1.3.2.930	The Traffic Signal object information created in the steps above is populated in the “Edit Traffic Signal” window.
22	In the “Status” dropdown box, select “Non-Operational” and click “Apply”		The user observes a message in the Object Editor window confirming that the new Traffic Signal object was successfully updated.
23	Refresh the XML feed Traffic Signal data page and locate the Traffic Signal updated in the steps above.		The user shall observe that the status is “Non-Operational.”
24	In the Object Editor window, locate the Traffic Signal object created above, select it, click the “Delete Object” button, and accept the confirmation dialog by clicking “Yes.”	1.3.2.930	The user observes a message in the Object Editor window confirming that the new Traffic Signal object was successfully deleted.
25	Refresh the XML feed Traffic Signal data page and locate the Traffic Signal updated in the steps above.		The user shall observe that the Traffic Signal no longer exists in the XML feed.
26	Click the “Object Editor” link on the main toolbar.		The Object Editor window is displayed.
27	Select “CCTV” from the “Select Object Type” dropdown box and click “Add Object”.	1.3.2.920	The “Add CCTV” window is opened.

Step#	Procedure	Associated Requirement	Expected Result
28	Complete the required fields in the Add CCTV form and when done, click the “Plot” button.	1.3.2.920	The required fields are populated and the SmartNET map is launched, instructing the user to select the location on the map to plot the new CCTV. Note the new CCTV name created in this step.
29	Select a point on the map to plot the new CCTV object, click “Yes” when asked to “Proceed with plotting the object here?” and when complete, click on the “Apply” button in the “Add CCTV” window.	1.3.2.920	The user observes a message in the Object Editor window confirming that the new CCTV object was successfully added.
30	Open the ICM XML feed by clicking on the following url: https://xxxxxxxx	1.3.2.920	The user shall observe the XML feed login page.
31	Login by entering a Username and Password for a valid feed user account. Select the CCTV radio button and click on “Submit Query”.	1.3.2.920	The user shall observe CCTV data presented in an XML format.
32	Search the XML feed for the name of the new object noted above.	1.3.2.920	The user shall observe that the CCTV object exists in the XML feed and contains the information entered into the SmartNET GUI in the steps above.
33	In the Object Editor window, locate the CCTV object created above, select it, click the “Delete Object” button, and accept the confirmation dialog by clicking “Yes.”	1.3.2.920	The user observes a message in the Object Editor window confirming that the new CCTV object was successfully deleted.
34	Refresh the XML feed CCTV data page and locate the CCTV updated in the steps above.		The user shall observe that the CCTV no longer exists in the XML feed.
35	End Test		

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3.12 Test Script #: SN11

3.12.1 Test Title: Creating/Modifying/Deleting ITS Object Data in SmartNET

Test Description: This test will verify the following ITS Object types can be created/updated/deleted in the SmartNET GUI:

- Links
- Facility Point
- VMSs
- CCTVs
- Traffic Signal
-

Requirement #: 1.3.2.460
The SmartNET GUI Subsubsystem shall provide an agency user the capability to create a link.

Requirement #: 1.3.2.470
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to modify a link.

Requirement #: 1.3.2.480
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to delete a link.

Requirement #: 1.3.2.540
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to create a facility point.

Requirement #: 1.3.2.550
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to update a facility point.

Requirement #: 1.3.2.560
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to delete a facility point.

Requirement #: 1.3.2.570
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to create a VMS object.

Requirement #: 1.3.2.580
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to update a VMS object

Requirement #: 1.3.2.590

Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to delete a VMS object.

Requirement #: 1.3.2.600
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to create a CCTV object.

Requirement #: 1.3.2.610
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to update a CCTV object.

Requirement #: 1.3.2.620
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to delete a CCTV object.

Requirement #: 1.3.2.630
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to create a traffic signal object

Requirement #: 1.3.2.640
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to update a traffic signal object

Requirement #: 1.3.2.650
Description: The SmartNET GUI Subsubsystem shall provide an agency user the capability to delete a traffic signal object.

3.12.1.1 Test Procedure:

Table 17: Test Script #SN11

Step#	Procedure	Associated Requirement	Expected Result
1	Login to the SmartNET Website with valid user privileges.		Observe that the Event Tracking Interface page displayed.
2	Click the “Object Editor” link on the main toolbar.		The Object Editor window is displayed.
3	Select “Link” from the “Select Object Type” dropdown box and click “Add Object”.	1.3.2.460	The “Add Link” window is opened.

Step#	Procedure	Associated Requirement	Expected Result
4	Complete the required fields in the Add Link form and when done, click the “Plot” button.		The required fields are populated and the SmartNET map is launched, instructing the user to select the location on the map to plot the new Link.
5	Select a point on the map to plot the new Link object, double click the map to finalize the link drawing, click “Yes” when asked to “Proceed with plotting the object here?” and when complete, click on the “Apply” button in the “Add Link” window.	1.3.2.470	The user observes a message in the Object Editor window confirming that the new Link object was successfully added.
6	In the Object Editor window, locate the Link object created above, select it, and click the “Edit Object” button.		The Link object information created in the steps above is populated in the “Edit Link” window.
7	In the “Link Name” field, modify the link name and click “Apply”		The user observes a message in the Object Editor window confirming that the new Link object was successfully updated.
8	In the Object Editor window, locate the Link object created above, select it, click the “Delete Object” button, and accept the confirmation dialog by clicking “Yes.”	1.3.2.480	The user observes a message in the Object Editor window confirming that the new Link object was successfully deleted.
9	Click the “Object Editor” link on the main toolbar.		The Object Editor window is displayed.
10	Select “Point” from the “Select Object Type” dropdown box and click “Add Object”.	1.3.2.540	The “Add Point” window is opened.
11	Complete the required fields in the Add Point form and when done, click the “Plot” button.		The required fields are populated and the SmartNET map is launched, instructing the user to select the location on the map to plot the new Point.
12	Select a point on the map to plot the new Point object, click “Yes” when asked to “Proceed with plotting the object here?” and when complete, click on the “Apply” button in the “Add Point” window.		The user observes a message in the Object Editor window confirming that the new Point object was successfully added.

Step#	Procedure	Associated Requirement	Expected Result
13	In the Object Editor window, locate the Point object created above, select it, and click the “Edit Object” button.	1.3.2.550	The Point object information created in the steps above is populated in the “Edit Point” window.
14	In the “Point Name” field, modify the Point name and click “Apply”		The user observes a message in the Object Editor window confirming that the new Point object was successfully updated.
15	In the Object Editor window, locate the Point object created above, select it, click the “Delete Object” button, and accept the confirmation dialog by clicking “Yes.”	1.3.2.560	The user observes a message in the Object Editor window confirming that the new Point object was successfully deleted.
16	Click the “Object Editor” link on the main toolbar.		The Object Editor window is displayed.
17	Select “VMS” from the “Select Object Type” dropdown box and click “Add Object”.	1.3.2.570	The “Add VMS” window is opened.
18	Complete the required fields in the Add VMS form making sure to select “Operational” as the status, and when done, click the “Plot” button.		The required fields are populated and the SmartNET map is launched, instructing the user to select the location on the map to plot the new VMS.
19	Select a point on the map to plot the new VMS object, click “Yes” when asked to “Proceed with plotting the object here?” and when complete, click on the “Apply” button in the “Add VMS” window.		The user observes a message in the Object Editor window confirming that the new VMS object was successfully added.
20	In the Object Editor window, locate the VMS object created above, select it, and click the “Edit Object” button.	1.3.2.580	The VMS object information created in the steps above is populated in the “Edit VMS” window.
21	In the “Status” dropdown box, select “Non-Operational” and click “Apply”		The user observes a message in the Object Editor window confirming that the new VMS object was successfully updated.

Step#	Procedure	Associated Requirement	Expected Result
22	In the Object Editor window, locate the VMS object created above, select it, click the “Delete Object” button, and accept the confirmation dialog by clicking “Yes.”	1.3.2.590	The user observes a message in the Object Editor window confirming that the new VMS object was successfully deleted.
23	Click the “Object Editor” link on the main toolbar.		The Object Editor window is displayed.
24	Select “CCTV” from the “Select Object Type” dropdown box and click “Add Object”.		The “Add CCTV” window is opened.
25	Complete the required fields in the Add CCTV form and when done, click the “Plot” button.	1.3.2.600	The required fields are populated and the SmartNET map is launched, instructing the user to select the location on the map to plot the new CCTV.
26	Select a point on the map to plot the new CCTV object, click “Yes” when asked to “Proceed with plotting the object here?” and when complete, click on the “Apply” button in the “Add CCTV” window.		The user observes a message in the Object Editor window confirming that the new CCTV object was successfully added.
27	In the Object Editor window, locate the CCTV object created above, select it, and click the “Edit Object” button.	1.3.2.610	The CCTV object information created in the steps above is populated in the “Edit CCTV” window.
28	In the “CCTV Name” field, modify the CCTV name and click “Apply”		The user observes a message in the Object Editor window confirming that the new CCTV object was successfully updated.
29	In the Object Editor window, locate the CCTV object created above, select it, click the “Delete Object” button, and accept the confirmation dialog by clicking “Yes.”	1.3.2.620	The user observes a message in the Object Editor window confirming that the new CCTV object was successfully deleted.
30	Click the “Object Editor” link on the main toolbar.		The Object Editor window is displayed.
31	Select “Traffic Signal” from the “Select Object Type” dropdown box and click “Add Object”.		The “Add Traffic Signal” window is opened.

Step#	Procedure	Associated Requirement	Expected Result
32	Complete the required fields in the Add Traffic Signal form making sure to select “Operational” as the status, and when done, click the “Plot” button.	1.3.2.630	The required fields are populated and the SmartNET map is launched, instructing the user to select the location on the map to plot the new Traffic Signal.
33	Select a point on the map to plot the new Traffic Signal object, click “Yes” when asked to “Proceed with plotting the object here?” and when complete, click on the “Apply” button in the “Add Traffic Signal” window.		The user observes a message in the Object Editor window confirming that the new Traffic Signal object was successfully added.
34	In the Object Editor window, locate the Traffic Signal object created above, select it, and click the “Edit Object” button.	1.3.2.630	The Traffic Signal object information created in the steps above is populated in the “Edit Traffic Signal” window.
35	In the “Status” dropdown box, select “Non-Operational” and click “Apply”		The user observes a message in the Object Editor window confirming that the new Traffic Signal object was successfully updated.
36	In the Object Editor window, locate the Traffic Signal object created above, select it, click the “Delete Object” button, and accept the confirmation dialog by clicking “Yes.”	1.3.2.640 1.3.2.650	The user observes a message in the Object Editor window confirming that the new Traffic Signal object was successfully deleted.
37	End Test		

Comments:_____

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3.13 Test Script #: SN12

3.13.1 Test Title: Using the SmartNET GUI to enact a Response Plan

Test Description: This test will demonstrate the ability to enact a Response Plan based on coordination between the ICM Coordinator and an agency user using the SmartNET Plan Decision Dialogue.

Requirement #: 1.3.1.110
Description: The Plan Decision Dialogue Subsubsystem shall provide the ICM Coordinator the capability to implement a response plan recommendation.

Requirement #: 1.3.1.120
Description: The Plan Decision Dialogue Subsubsystem shall display to the agency users a response plan implementation notice.

Requirement #: 1.3.1.130
Description: The Plan Decision Dialogue Subsubsystem shall send the Plan Decision Subsubsystem a response plan implementation notice.

Requirement #: 1.2.1.10
Description: The Plan Decision Subsubsystem shall receive from the Expert Rules Subsubsystem a response plan recommendation.

Requirement #: 1.2.1.20
Description: The Plan Decision Subsubsystem shall receive from the Data Store Subsubsystem agency status.

Requirement #: 1.2.1.40
Description: The Plan Decision Subsubsystem shall send the Plan Decision Dialogue Subsubsystem a response plan recommendation.

Requirement #: 1.2.1.60
Description: The Plan Decision Subsubsystem shall receive from the Plan Decision Dialogue Subsubsystem response plan recommendation decision.

Requirement #: 1.2.1.90
Description: The Plan Decision Subsubsystem shall generate for the Plan Decision Dialogue Subsubsystem the agency contact list.

Requirement #: 1.2.1.120
Description: The Plan Decision Subsubsystem shall receive from the Plan Decision Dialogue Subsubsystem a plan decision dialogue request.

Requirement #: 1.2.1.130

Description: The Plan Decision Subsubsystem shall receive from the Plan Decision Dialogue Subsubsystem a plan decision dialogue response.

Requirement #: 1.2.1.140
Description: The Plan Decision Subsubsystem shall send to the Data Store Subsubsystem a plan decision dialogue request.

Requirement #: 1.2.1.150
Description: The Plan Decision Subsubsystem shall send to the Data Store Subsubsystem a plan decision dialogue response.

Requirement #: 1.2.1.190
Description: The Plan Decision Subsubsystem shall send to the Expert Rules Subsubsystem a plan decision result.

Requirement #: 1.2.1.200
Description: The Plan Decision Subsubsystem shall receive from the Plan Decision Dialogue Subsubsystem a plan decision result.

Requirement #: 1.2.1.210
Description: The Plan Decision Subsubsystem shall receive from the Plan Decision Dialogue Subsubsystem a response plan implementation notice.

Requirement #: 1.2.1.220
Description: The Plan Decision Subsubsystem shall send the Expert Rules Subsubsystem a response plan implementation notice.

3.13.1.1 Test Procedure:

Note: This test requires two testers to complete, as well as coordination with the ICM Coordinator to ensure that a Plan Recommendation exists in the Plan Decision Subsystem.

- ICM Coordinator
- User1: Accepting the recommended DSS Plan
- User2: Rejecting the recommended DSS Plan

Table 18: Test Script #SN12

Step#	Procedure	Associated Requirement	Expected Result

Step#	Procedure	Associated Requirement	Expected Result
1	Coordinate with the ICM Coordinator to ensure that a response plan recommendation exists in the Plan Decision Subsystem.	1.2.1.10	A response plan recommendation exists in the Plan Decision Subsystem. Make note of the PlanID and the Plan Description from the ICM Coordinator.
2	Connect to the DSS feed by opening a browser window and navigating to: http://xxxxxxxx		The user shall observe the DSS XML feed.
3	Find a Plan node and search for the PlanID associated with the response plan recommendation noted in step 1 .		The user shall observe and make note of the following fields: PlanID: The plan number provided by the expert rules system DSS Transaction ID: _____ Plan URL:_____ Make note of the users this plan should be submitted to. Last update: Date and time of the last update
4	Have the ICM coordinator login into SmartNET		SmartNET Event Interface shall be made available
5	The ICM Coordinator shall search for the event associated with proposed Plan noted in the previous steps	1.3.1.110 1.2.1.10	Event Description details

Step#	Procedure	Associated Requirement	Expected Result
6	The ICM Coordinator shall open the DSS Dialog interface and verify the list of users/organizations and statuses part of the proposed DSS plan	1.2.1.20 1.2.1.90	The DSS Dialog interface displays the following details: PlanID Plan Description URL Last Updated List of users including their contact information Status Notes
7	Have user 2 Log into the SmartNET Website as a user with Agency User privileges. Note: User2 shall be part of the users list this plan should be submitted to.	1.3.1.120	Observe that the Event Tracking Interface page is displayed.
8	In the Event List, search for the response plan recommendation noted above and Open the DSS Dialog associated with it.		The DSS Dialog displays: PlanID Plan Description URL Last Updated Status Notes Submit button
9	In the DSS Dialog interface User2 rejects the plan and enters some text in the notes field and submits.	1.2.1.190 1.2.1.150	User2 DSS plan recommendation rejected
10	ICM to verify new DSS alarms with the newly reported status		The ICM Coordinator is presented with an alarm message that the recommended response plan has been rejected by User2.
11	Open the Event XML feed by clicking on the following url: https://xxxxxxxx		The user shall observe the XML feed login page.

Step#	Procedure	Associated Requirement	Expected Result
12	Login by entering a Username and Password for a valid feed user account. Select the Events radio button and click on “Submit Query”. Note: The username used to access the XML feed shall have read capability to the DSS data	1.2.1.40 1.2.1.60	The user shall observe the Event data presented in an XML format and containing DSS data if applicable.
13	Locate the DSS Plan identifier noted in previous steps in the XML feed.	1.2.1.40 1.2.1.60	The user shall observe the following XML data for the identified DSS Plan: SmartNET Event ID: _____ PlanID:_____ The plan number provided by the DSS XML Feed DSS Transaction ID_____ DSS Plan Actions associated with this event Plan URL pdf:_____
14	Compare the PlanIDs made available in the DSS XML feed with the PlanID noted in the previous step.	1.2.1.40 1.2.1.60	The user shall observe the same IDs and note that the response plan recommendation shows a rejected action by the agency user.
15	Have user1 Log into the SmartNET Website as a user with Agency User privileges. Note: User1 shall be part of the users list this plan should be submitted to.	1.2.1.120 1.2.1.130 1.2.1.140	Observe that the Event Tracking Interface page is displayed.
16	In the Event List, User1 searches for the response plan recommendation noted above and opens the DSS Dialog associated with it.	1.2.1.120 1.2.1.130 1.2.1.140	The DSS Dialog displays: PlanID Plan Description URL Last Updated Status Notes Submit button

Step#	Procedure	Associated Requirement	Expected Result
17	In the DSS Dialog interface User1 accepts the plan, enters some text in the notes field (optional) and submits.		User1 DSS plan recommendation accepted
18	The ICM coordinator to verify new DSS alarm notifications with the newly reported DSS status	1.2.1.130	The ICM Coordinator is presented with an alarm message that the recommended response plan has been accepted by User1.
19	Open the Event XML feed by clicking on the following url: https://xxxxxxxx		The user shall observe the XML feed login page.
20	Login by entering a Username and Password for a valid feed user account. Select the Events radio button and click on “Submit Query”. Note: The username used to access the XML feed shall have read capability to the DSS data		The user shall observe the Event data presented in an XML format and containing DSS data if applicable.
21	Locate the DSS Plan identifier noted in previous steps in the XML feed.		The user shall observe the following XML data for the identified DSS Plan: SmartNET Event ID: _____ PlanID:_____ The plan number provided by the DSS XML Feed DSS Transaction ID_____ DSS Plan Actions associated with this event Plan URL pdf:_____
22	Compare the PlanIDs made available in the DSS XML feed with the PlanID noted in the previous step.	1.2.1.190 1.2.1.200	The user shall observe the same IDs and note that the response plan recommendation shows a rejected action by the agency user.

Step#	Procedure	Associated Requirement	Expected Result
23	Using the DSS dialogue interface, the ICM Coordinator updates the proposed response plan recommendation selected above and activates it.	1.3.1.130	All users part of the recommended plan notification list shall be alarmed of the plan activation.
24	Have User 1 refresh the Plan Decision Dialogue in SmartNET.	1.2.1.210 1.2.1.220	Observe that a response plan is activated by the ICM coordinator.
25	Have User 2 refresh the Plan Decision Dialogue in SmartNET.	1.2.1.210 1.2.1.220	Observe that a response plan is activated by the ICM coordinator.
26	Refresh and search for "enacted response" in the Event XML feed.		The user shall observe that the recommended response plan has been activated for the response plan recommendation noted above.
27	End Test		

Comments:_____

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☐ Pass ☐ Fail Executed by:_____ Date:_____

☐ Could not complete ☐ Accept as is Stakeholder Observer Initials _____ Date:_____

3.14 Test Script #: SF1

3.14.1 Test Title: SmartFusion receiving/storing/sending/aggregating C2C ITS Device status

Test Description: The following test will demonstrate the SmartFusion subsystem's ability to collect, store, send, and aggregate C2C ITS Device status data.

Requirement #: 1.2.0.10
Description: The SmartFusion Subsystem shall receive from the Regional Center to Center interface CCTV status in the corridor as defined in C2C-SICD-4.3.0.

Requirement #: 1.2.0.15
Description: The SmartFusion Subsystem shall receive from the Regional Center to Center interface VMS Status in the corridor as defined in C2C-SICD-4.3.0.

Requirement #: 1.2.0.18
Description: The SmartFusion Subsystem shall receive from the Regional Center to Center interface HOV Status in the corridor as defined in C2C-SICD-4.3.0.

Requirement #: 1.2.0.360
Description: The SmartFusion Subsystem shall store CCTV status data.

Requirement #: 1.2.0.370
Description: The SmartFusion Subsystem shall store VMS status data.

Requirement #: 1.2.0.380
Description: The SmartFusion Subsystem shall store HOV status data.

Requirement #: 1.2.0.460
Description: The SmartFusion Subsystem shall aggregate CCTV status data.

Requirement #: 1.2.0.470
Description: The SmartFusion Subsystem shall aggregate VMS status data.

Requirement #: 1.2.0.480
Description: The SmartFusion Subsystem shall aggregate HOV status data.

Requirement #: 1.2.0.560
Description: The SmartFusion Subsystem shall store CCTV status data.

Requirement #: 1.2.0.570
Description: The SmartFusion Subsystem shall store VMS status data.

Requirement #: 1.2.0.580
Description: The SmartFusion Subsystem shall store HOV status data.

3.14.1.1 Test Procedure:

Table 19: Test Script #SF1

Step#	Procedure	Associated Requirement	Expected Result
1	Open your C2C simulator CCTV XML document.		The user shall observe the CCTV status field data.
2	Make note of the CCTV Identifier and the CCTV status associated with the CCTV data in the XML document.		CCTV identifier:_____ CCTV Status: _____ Note: The status shall include one the following options: 0 –> Unknown Status 1 –> Unknown Network ID 2 –> Unknown Device ID 3 –> Network Down 4 –> Device Online 5 –> Device Offline 6 –> Device Error
3	Open the ICM XML feed by clicking on the following url: https://xxxxxxxx		The user shall observe the XML feed login page.
4	Login by entering a Username and Password for a valid feed user account. Select the CCTV radio button and click on “Submit Query”.		The user shall observe CCTV data presented in an XML format.
5	Locate the CCTV identifier noted in previous steps in the XML feed.	1.2.0.10	The user shall observe the XML data for the identified camera. CCTV Status: _____ Note: The status shall include one the following options: 0 –> Unknown Status 1 –> Unknown Network ID 2 –> Unknown Device ID 3 –> Network Down 4 –> Device Online 5 –> Device Offline 6 –> Device Error
6	Launch the C2C DI ensuring that the DI is running in Simulation Mode and that the Simulation File being used is the correct Simulation File. Note, this step should be performed by a system administrator.	1.2.0.10	The C2C DI is launched in Simulation Mode and processes the simulated data.

Step#	Procedure	Associated Requirement	Expected Result
7	Refresh the CCTV XML feed and search for the CCTV Identifier noted in previous steps.	1.2.0.360	The user shall observe an identical CCTV status for the identified camera object.
8	Click the browser's back button to return to the ICM XML Feed login page, close the CCTV Status Data simulation file and stop the C2C DI.		The user shall observe the login page of the ICM XML Feed login page, the C2C DI is closed and the simulation file is closed.
9	Open your C2C simulator DMS XML document. Please note: Although the requirement calls for VMS verification, the term used in the C2C is DMS. The test script will refer to DMS as opposed to VMS.		The user shall observe the DMSID, status and message field data.
10	Make note of the DMSID, status, and message associated with the DMS data in the XML document.	1.2.0.460 1.2.0.560	DMSID:_____ DMSStatus: _____ DMSMessage: _____ Note: The status shall include one the following options: Enumerated value: 0 –> Unknown Status 1 –> Unknown Network ID 2 –> Unknown Device ID 3–> Network Down 4 –> Device Online 5 –> Device Offline 6 –> Device Error
11	Open the ICM XML feed by clicking on the following url: https://xxxxxxxx		The user shall observe the XML feed login page.
12	Login by entering a Username and Password for a valid feed user account. Select the DMS radio button and click on "Submit Query".		The user shall observe DMS data presented in an XML format.

Step#	Procedure	Associated Requirement	Expected Result
13	Locate the DMS identifier noted in previous steps in the XML feed.	1.2.0.15	The user shall observe the XML data for the identified DMS. DMS Status: _____ DMSMessage: _____ Note: The status shall include one the following options: 0 –> Unknown Status 1 –> Unknown Network ID 2 –> Unknown Device ID 3 –> Network Down 4 –> Device Online 5 –> Device Offline 6 –> Device Error
14	Launch the C2C DI ensuring that the DI is running in Simulation Mode and that the Simulation File being used is the correct Simulation File. Note: this step should be performed by a system administrator.		The C2C DI is launched in Simulation Mode and processes the simulated data.
15	Refresh the DMSXML feed and search for the DMS Identifier noted in previous steps.	1.2.0.370	The user shall observe an identical DMS status and message for the identified DMS object.
16	Click the browser's back button to return to the ICM XML Feed login page, close the DMS Status Data simulation file and stop the C2C DI.		The user shall observe the login page of the ICM XML Feed login page, the C2C DI is closed and the simulation file is closed.
17	Open your C2C simulator HOV XML document.		The user shall observe the HOVID and status field data.
18	Make note of the HOVID and status associated with the HOV data in the XML document.	1.2.0.470 1.2.0.570	HOVID:_____ HOVStatus: _____ Note: The status shall include one the following options: Enumerated value: 0 –> Unknown Status 1 –> Unknown Network ID 2 –> Unknown Device ID 3–> Network Down 4 –> Device Online 5 –> Device Offline 6 –> Device Error

Step#	Procedure	Associated Requirement	Expected Result
19	Open the ICM XML feed by clicking on the following url: https://xxxxxxxx		The user shall observe the XML feed login page.
20	Login by entering a Username and Password for a valid feed user account. Select the HOV radio button and click on “Submit Query”.		The user shall observe HOV data presented in an XML format.
21	Locate the HOV identifier noted in previous steps in the XML feed.	1.2.0.18	The user shall observe the XML data for the identified HOV. HOVStatus: _____ Note: The status shall include one the following options: 0 –> Unknown Status 1 –> Unknown Network ID 2 –> Unknown Device ID 3 –> Network Down 4 –> Device Online 5 –> Device Offline 6 –> Device Error
22	Launch the C2C DI ensuring that the DI is running in Simulation Mode and that the Simulation File being used is the correct Simulation File. Note, this step should be performed by a system administrator.		The C2C DI is launched in Simulation Mode and processes the simulated data.
23	Refresh the DMS XML feed and search for the HOV identifier noted in previous steps.	1.2.0.380 1.2.0.480 1.2.0.580 1.2.0.560	The user shall observe an identical HOV status for the identified HOV object.
24	End Test		

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3.15 Test Script #: SF2

3.15.1 Test Title: SmartFusion receiving/storing/sending/aggregating C2CDynamic Link status

Test Description: The following test will demonstrate the SmartFusion subsystem's ability to collect, store, send, and aggregate C2C dynamic link status data.

Requirement #: 1.2.0.50
Description: The SmartFusion Subsystem shall receive current link dynamic data in the corridor from the Regional Center to Center interface as defined in C2C-SICD-4.3.0.

Requirement #: 1.2.0.70
Description: The SmartFusion Subsystem shall receive from 3rd Party information providers link dynamic data in the corridor.

Requirement #: 1.2.0.160
Description: The SmartFusion Subsystem shall send to the Public Web link dynamic data.

Requirement #: 1.2.0.170
Description: The SmartFusion Subsystem shall send to the Interactive Voice Response Telephone system link dynamic data.

Requirement #: 1.2.0.240
Description: The SmartFusion Subsystem shall send to the interactive trip planner link dynamic data.

Requirement #: 1.2.0.250
Description: The SmartFusion Subsystem shall send to ALERT system, link dynamic data.

Requirement #: 1.2.0.390
Description: The SmartFusion Subsystem shall store link dynamic data.

Requirement #: 1.2.0.490
Description: The SmartFusion Subsystem shall aggregate link dynamic data.

Requirement #: 1.2.0.600
Description: The SmartFusion Subsystem shall send to the Decision Support Subsystem link dynamic data.

3.15.1.1 Test Procedure:

Table 20: Test Script #SF2

Step#	Procedure	Associated Requirement	Expected Result
1	Open your C2C simulator Link XML document.		The user shall observe the Traffic Conditions status data.
2	Make note of the Link (trafficCond) Identifier and the speed and travel time associated with the link data in the XML document. Note: Link data is denoted by the C2C as trafficCond data.	1.2.0.50	Link identifier:_____ LinkSpeed: _____ Link Travel Time: _____
3	Open the ICM XML feed by clicking on the following url: https://xxxxxxxx		The user shall observe the XML feed login page.
4	Login by entering a Username and Password for a valid feed user account. Select the Links radio button and click on "Submit Query".		The user shall observe Link data presented in an XML format.
5	Locate the Link identifier noted in step 2 in the XML feed.	1.2.0.250 1.2.0.390 1.2.0.490	The user shall observe the XML data for the identified Link. LinkSpeed: _____ Link Travel Time: _____
6	Launch the C2C DI ensuring that the DI is running in Simulation Mode and that the Simulation File being used is the correct Simulation File. Note, this step should be performed by a system administrator.		The C2C DI is launched in Simulation Mode and processes the simulated data.
7	Refresh the Link feed and search for the Link Identifier noted in step 2.	1.2.0.70 1.2.0.160 1.2.0.170 1.2.0.240 1.2.0.600	The user shall observe an identical Link speed and travel time for the identified Link object.
8	Click the browser's back button to return to the ICM XML Feed login page, close the Link Data simulation file and stop the C2C DI.		The user shall observe the login page of the ICM XML Feed login page, the C2C DI is closed and the simulation file is closed.
9	End Test		

Comments:_____

☐ **Pass**	☐ **Fail**	**Executed by:**_____	**Date:**_____
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3.16 Test Script #: SF3

3.16.1 Test Title: SmartFusion receiving/storing/sending/aggregating C2CEvent status

Test Description: The following test will demonstrate the SmartFusion subsystem's ability to collect, store, send and aggregate C2C Event status data.

Requirement #: 1.2.0.90
Description: The SmartFusion Subsystem shall receive from the Regional Center to Center interface incident data as defined in C2C-SICD-4.3.0.

Requirement #: 1.2.0.95
Description: The SmartFusion Subsystem shall receive from the Regional Center to Center interface construction data as defined in C2C-SICD-4.3.0.

Requirement #: 1.2.0.100
Description: The SmartFusion Subsystem shall receive from the SmartNET Subsystem incident data.

Requirement #: 1.2.0.105
Description: The SmartFusion Subsystem shall receive from the SmartNET Subsystem construction data.

Requirement #: 1.2.0.108
Description: The SmartFusion Subsystem shall receive from the SmartNET Subsystem special event data.

Requirement #: 1.2.0.150
Description: The SmartFusion Subsystem shall send to the Public Web incident data.

Requirement #: 1.2.0.155
Description: The SmartFusion Subsystem shall send to the Public Web construction data.

Requirement #: 1.2.0.158
Description: The SmartFusion Subsystem shall send to the Public Web special event data.

Requirement #: 1.2.0.180
Description: The SmartFusion Subsystem shall send to the Interactive Voice Response Telephone system incident data.

Requirement #: 1.2.0.210
Description: The SmartFusion Subsystem shall send to the RSS Media feed RSS Events.

Requirement #: 1.2.0.220

Description: The SmartFusion Subsystem shall send to the interactive trip planner incident data.

Requirement #: 1.2.0.330
Description: The SmartFusion Subsystem shall store incident data.

Requirement #: 1.2.0.340
Description: The SmartFusion Subsystem shall store construction data.

Requirement #: 1.2.0.350
Description: The SmartFusion Subsystem shall store special event data.

Requirement #: 1.2.0.430
Description: The SmartFusion Subsystem shall aggregate incident data.

Requirement #: 1.2.0.440
Description: The SmartFusion Subsystem shall aggregate construction data.

Requirement #: 1.2.0.450
Description: The SmartFusion Subsystem shall aggregate special event data.

3.16.1.1 Test Procedure:

Table 21: Test Script #SF3

Step#	Procedure	Associated Requirement	Expected Result
1	Open your C2C simulator event XML document.	1.2.0.90 1.2.0.95	The user shall observe event data.

Step#	Procedure	Associated Requirement	Expected Result
2	Find an incident event, special event, and construction event and make note of the event IDs, event descriptions, event facilities, and last updates of the event in the XML document. Note: Link data is denoted by the C2C as trafficCond data.	1.2.0.90 1.2.0.95 1.2.0.100 1.2.0.105 1.2.0.108	EventID (incident):_____ Event Description: _____ _____ _____ _____ _____ _____ Facility: _____ Last Update:_____ __ EventID (construction):_____ Event Description: _____ _____ _____ _____ _____ _____ Facility: _____ Last Update:_____ __ EventID (special event):_____ Event Description: _____ _____ _____ _____ _____ _____ Facility: _____ Last Update:_____ __

Step#	Procedure	Associated Requirement	Expected Result
3	Open the ICM XML feed by clicking on the following url: https://xxxxxxxx		The user shall observe the XML feed login page.
4	Login by entering a Username and Password for a valid feed user account. Select the Events radio button and click on “Submit Query”.		The user shall observe Event data presented in an XML format.

Step#	Procedure	Associated Requirement	Expected Result
5	Locate the Event identifiers noted in step 2 in the XML feed.	1.2.0.330 1.2.0.340 1.2.0.350 1.2.0.430 1.2.0.440 1.2.0.450	The user shall observe the XML data for the identified Event. (Incident) Event Description: _____ _____ _____ _____ _____ _____ Facility: _____ Last Update:_____ __ (Construction) Event Description: _____ _____ _____ _____ _____ _____ Facility: _____ Last Update:_____ __ (Special Event) Event Description: _____ _____ _____ _____ _____ _____ Facility: _____ Last Update:_____ __

Step#	Procedure	Associated Requirement	Expected Result
6	Launch the C2C DI ensuring that the DI is running in Simulation Mode and that the Simulation File being used is the correct Simulation File. Note, this step should be performed by a system administrator.		The C2C DI is launched in Simulation Mode and processes the simulated data.
7	Refresh the Event feed and search for the Event Identifiers noted in step 2.		The user shall observe identical descriptions and last updates for the identified Event objects.
8	Click the browser's back button to return to the ICM XML Feed login page, close the Event Data simulation file and stop the C2C DI.	1.2.0.180 1.2.0.210 1.2.0.220	The user shall observe the login page of the ICM XML Feed login page, the C2C DI is closed and the simulation file is closed.
9	Open an Internet browser and navigate to http://xxxxxxxxxxx.		The user shall observe the DFW511 homepage.
10	Click on "Traffic and Transit Conditions List"	1.2.0.150 1.2.0.155 1.2.0.158	The user shall observe the DFW511 traffic/transit event list.
11	Locate the facilities identified in the Event above.		The user shall find matching event descriptions and last updates for the Events noted above.
12	End Test		

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☐ **Pass** ☐ **Fail** **Executed by:**_____ **Date:**_____

☐ **Could not complete** ☐ **Accept as is** **Stakeholder Observer Initials** _____ **Date:**_____

3.17 Test Script #: SF4

3.17.1 Test Title: SmartFusion receiving/storing/sending/aggregating weather alert and link data

Test Description: The following test will demonstrate the SmartFusion subsystem's ability to collect, store, send, and aggregate weather alert and link data.

Requirement #: 1.2.0.30
Description: The SmartFusion Subsystem shall receive from the weather data interface weather link data in the corridor.

Requirement #: 1.2.0.35
Description: The SmartFusion Subsystem shall receive from the weather data interface weather alert data in the corridor.

Requirement #: 1.2.0.140
Description: The SmartFusion Subsystem shall send to the Public Web weather alert data.

Requirement #: 1.2.0.200
Description: The SmartFusion Subsystem shall send to the Interactive Voice Response Telephone system weather alert data.

Requirement #: 1.2.0.280
Description: The SmartFusion Subsystem shall send to ALERT system, weather alert data.

Requirement #: 1.2.0.420
Description: The SmartFusion Subsystem shall store weather alert data.

Requirement #: 1.2.0.520
Description: The SmartFusion Subsystem shall aggregate weather alert data.

Requirement #: 1.2.0.620
Description: The SmartFusion Subsystem shall send to the Decision Support Subsystem weather alert data.

3.17.1.1 Test Procedure:

Table 22: Test Script #SF4

Step#	Procedure	Associated Requirement	Expected Result
1	Connect to the DTN weather web service in your browser by navigating to the following URL: http://xxxxxxx		The user shall observe the DTN weather service.
2	Find a weather link and make note of the link ID, link name and link condition of the chosen link in the XML document.		Link ID:_____ Link Name: _____ _____ Link Condition_____ ____
3	Open the ICM XML feed by clicking on the following url: https://xxxxxxxx	1.2.0.30 1.2.0.35	The user shall observe the XML feed login page.
4	Login by entering a Username and Password for a valid feed user account. Select the Weather radio button and click on “Submit Query”.		The user shall observe weather data presented in an XML format.
5	Locate the weather link identifiers noted in step 2 in the XML feed.	1.2.0.140 1.2.0.200 1.2.0.280 1.2.0.420 1.2.0.520 1.2.0.620	The user shall observe the XML data for the identified weather link. Link Name: _____ Link Condition_____ ____
6	Open an Internet browser and navigate to http://xxxxxxxxxxxx		The user shall observe the DFW511 homepage.
7	Click on “Traffic and Transit Conditions Map”		The user shall observe the DFW511 traffic/transit event map.
8	Click on the “Weather” checkbox to activate the Weather layer.		The user shall observe weather links on the map denoting locations covered by the 511 system.

Step#	Procedure	Associated Requirement	Expected Result
9	Locate the weather link identified in the steps above and mouse over the roadway segment.	1.2.0.140 1.2.0.200 1.2.0.280 1.2.0.420 1.2.0.520 1.2.0.620	The user shall be presented with a popup tooltip denoting the weather condition data identical to what has been noted above for the chosen weather link.
10	End test		

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☐ **Pass** ☐ **Fail** **Executed by:**_____ **Date:**_____

☐ **Could not complete** ☐ **Accept as is** **Stakeholder Observer Initials** _____ **Date:**_____

3.18 Test Script #: SF5

3.18.1 Test Title: SmartFusion receiving/storing/sending/aggregating DART Network AVL Data

Test Description: The following test will demonstrate the SmartFusion subsystem's ability to collect, store, send, and aggregate DART Network AVL data.

Requirement #: 1.2.0.20
Description: The SmartFusion Subsystem shall receive from the DART Network bus AVL data in the corridor.

Requirement #: 1.2.0.25
Description: The SmartFusion Subsystem shall receive from the DART Network light rail vehicle AVL data in the corridor.

Requirement #: 1.2.0.310
Description: The SmartFusion Subsystem shall send to the Public Web, transit vehicle location data.

Requirement #: 1.2.0.410
Description: The SmartFusion Subsystem shall store transit vehicle location data.

Requirement #: 1.2.0.510
Description: The SmartFusion Subsystem shall aggregate transit vehicle location data.

Requirement #: 1.2.0.640
Description: The SmartFusion Subsystem shall send to the Decision Support Subsystem transit vehicle location data.

3.18.1.1 Test Procedure:

Table 23: Test Script #SF5

Step#	Procedure	Associated Requirement	Expected Result
1	Open your C2C simulator transit vehicle location status XML document.		The user shall observe transit vehicle location status data.

Step#	Procedure	Associated Requirement	Expected Result
2	Find a transit vehicle location node and make note of the transit vehicle ID and transit vehicle status of the chosen transit vehicle in the XML document.		Transit VehicleID:_____ Transit Vehicle Status:_____
3	Open the ICM XML feed by clicking on the following url: https://xxxxxxxx		The user shall observe the XML feed login page.
4	Login by entering a Username and Password for a valid feed user account. Select the Transit Vehicle Location radio button and click on "Submit Query".	1.2.0.20 1.2.0.25	The user shall observe transit vehicle location data presented in an XML format.
5	Locate the transit vehicle identifiers noted in step 2 in the XML feed.		The user shall observe the XML data for the identified transit vehicle location: Transit Vehicle Status:_____
6	Launch the DART AVL DI ensuring that the DI is running in Simulation Mode and that the Simulation File being used is the correct Simulation File. Note, this step should be performed by a system administrator.		The DART AVL DI is launched in Simulation Mode and processes the simulated data.
7	Refresh the transit vehicle location feed and search for the transit vehicle identifiers noted in step 2.	1.2.0.510 1.2.0.410	The user shall observe identical transit vehicle status for the identified transit vehicle object.
8	Click the browser's back button to return to the ICM XML Feed login page, close the transit vehicle data simulation file and stop the DART AVL DI.		The user shall observe the login page of the ICM XML Feed login page, the DART AVL DI is closed and the simulation file is closed.
9	Open an Internet browser and navigate to http://xxxxxxxxxxx.		The user shall observe the DFW511 homepage.
10	Click on "Traffic and Transit Conditions Map"		The user shall observe the DFW511 traffic/transit event map.

Step#	Procedure	Associated Requirement	Expected Result
11	Click on the "Transit Vehicle Location" checkbox to activate the transit vehicle layer.		The user shall observe Transit Vehicle icons on the map denoting the Transit Vehicle locations available on the 511 system.
12	Locate the Transit Vehicle identified in the steps above and click on the icon to open the Transit Vehicle description.	1.2.0.310 1.2.0.640	The user shall find matching transit vehicle status for the transit vehicle selected above.
13	End test		

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☐ **Pass** ☐ **Fail** **Executed by:**_____ **Date:**_____

☐ **Could not complete** ☐ **Accept as is** **Stakeholder Observer Initials** _____ **Date:**_____

3.19 Test Script #: SF6

3.19.1 Test Title: SmartFusion receiving/storing/sending/aggregating Parking Lot Data

Test Description: The following test will demonstrate the SmartFusion subsystem's ability to collect, store, send, and aggregate parking lot data.

Requirement #: 1.2.0.40
Description: The SmartFusion Subsystem shall receive from the Parking Management System Interface parking lot data in the corridor as defined in data dictionary table 2.4.1.

Requirement #: 1.2.0.165
Description: The SmartFusion Subsystem shall send to the Public Web parking lot data.

Requirement #: 1.2.0.270
Description: The SmartFusion Subsystem shall send to ALERT system, parking lot data.

Requirement #: 1.2.0.300
Description: The SmartFusion Subsystem shall send to the Public Web, parking lot data.

Requirement #: 1.2.0.320
Description: The SmartFusion Subsystem shall send to Interactive Voice Response Telephone system, parking lot data.

Requirement #: 1.2.0.400
Description: The SmartFusion Subsystem shall store parking lot data.

Requirement #: 1.2.0.500
Description: The SmartFusion Subsystem shall aggregate parking lot data.

Requirement #: 1.2.0.610
Description: The SmartFusion Subsystem shall send to the Decision Support Subsystem parking lot data.

3.19.1.1 Test Procedure:

Table 24: Test Script #SF6

Step#	Procedure	Associated Requirement	Expected Result
1	Open your C2C simulator parking lot XML document.		The user shall observe parking lot status data.

Step#	Procedure	Associated Requirement	Expected Result
2	Find a parking lot node and make note of the parking lot ID, parking lot name and parking lot status of the chosen parking lot in the XML document.		Parking LotID:_____ Parking Lot Name: _____ _____ Parking Lot Status:_____ _____
3	Open the ICM XML feed by clicking on the following url: https://xxxxxxxx		The user shall observe the XML feed login page.
4	Login by entering a Username and Password for a valid feed user account. Select the Parking Lot radio button and click on "Submit Query".		The user shall observe Parking Lot data presented in an XML format.
5	Locate the Parking Lot identifiers noted in step 2 in the XML feed.	1.2.0.40	The user shall observe the XML data for the identified Parking Lot. Parking Lot Name: _____ _____ Parking Lot Status:_____ _____
6	Launch the C2C DI ensuring that the DI is running in Simulation Mode and that the Simulation File being used is the correct Simulation File. Note, this step should be performed by a system administrator.		The C2C DI is launched in Simulation Mode and processes the simulated data.
7	Refresh the Parking Lot feed and search for the Parking Lot Identifiers noted in step 2.	1.2.0.400 1.2.0.500	The user shall observe identical name and status for the identified Parking Lot objects.
8	Click the browser's back button to return to the ICM XML Feed login page, close the Parking Lot Data simulation file and stop the C2C DI.		The user shall observe the login page of the ICM XML Feed login page, the C2C DI is closed and the simulation file is closed.
9	Open an Internet browser and navigate to http://xxxxxxxxxx.		The user shall observe the DFW511 homepage.
10	Click on "Traffic and Transit Conditions Map"		The user shall observe the DFW511 traffic/transit event map.

Step#	Procedure	Associated Requirement	Expected Result
11	Click on the "Parking Lots" checkbox to activate the Parking Lots layer.	1.2.0.165 1.2.0.270 1.2.0.300 1.2.0.320 1.2.0.610	The user shall observe Parking Lot icons on the map denoting the Parking Lot locations available on the 511 system.
12	Locate the Parking Lot identified in the steps above and click on the icon to open the Lot description.		The user shall find matching Parking Lot name and status for the Parking Lot selected above.
13	End test		

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☐ **Pass** ☐ **Fail** **Executed by:**_____ **Date:**_____

☐ **Could not complete** ☐ **Accept as is** **Stakeholder Observer Initials** _____ **Date:**_____

3.20 Test Script #: SF7

3.20.1 Test Title: SmartFusion receiving/storing/sending/aggregating Traffic Signal Status Data

Test Description: The following test will demonstrate the SmartFusion subsystem's ability to collect, store, send, and aggregate traffic signal status data.

Requirement #: 1.2.0.290
Description: The SmartFusion Subsystem shall receive from the SmartNET Subsystem traffic signal status data.

Requirement #: 1.2.0.550
Description: The SmartFusion Subsystem shall aggregate traffic signal status data.

Requirement #: 1.2.0.630

Description: The SmartFusion Subsystem shall send to the Decision Support Subsystem traffic signal status data.

Requirement #: 1.2.0.680
Description: The SmartFusion Subsystem shall store traffic signal status.

3.20.1.1 Test Procedure:

Table 25: Test Script #SF7

Step #	Procedure	Associated Requirement	Expected Result
1	Open the SmartNET by navigating to the following URL:		The user shall observe the SmartNET login page.
2	Login by entering a Username and Password for a valid SmartNET user account.		The user is successfully logged in to the SmartNET system.
3	Click on "Map View."		The user shall observe the SmartNET map.
4	Enable the Traffic Signal layer by checking the "Traffic Signal" checkbox.	1.2.0.290	The user shall observe the SmartNET map with the Traffic Signal layer enabled.
5	Locate a traffic signal on the map and make note of the traffic signal ID, traffic signal name and traffic signal status of the chosen traffic signal.	1.2.0.550 1.2.0.680	Traffic SignalID:_____ Traffic Signal Name: _____ _____ Traffic Signal Status:_____ _____ Note: The status shall include one the following options: Enumerated value: 0 –> Unknown Status 1 –> Unknown Network ID 2 –> Unknown Device ID 3–> Network Down 4 –> Device Online 5 –> Device Offline 6 –> Device Error
6	Open the ICM XML feed by clicking on the following URL:		The user shall observe the XML feed login page.

Step #	Procedure	Associated Requirement	Expected Result
7	Login by entering a Username and Password for a valid feed user account. Select the Traffic Signal radio button and click on “Submit Query”.		The user shall observe Traffic Signal data presented in an XML format.
8	Locate the Traffic Signal noted in step 5 in the XML feed.	1.2.0.630	The user shall observe identical XML data for the identified Traffic Signal: Traffic Signal Name: _____ Traffic Signal Status:_____
9	End test		

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☐ **Pass** ☐ **Fail** **Executed by:**_____ **Date:**_____

☐ **Could not complete** ☐ **Accept as is** **Stakeholder Observer Initials** _____ **Date:**_____

3.21 Test Script #: SF8

3.21.1 Test Title: SmartFusion receiving/storing/sending Static Traffic Map Data

Test Description: The following test will demonstrate the SmartFusion subsystem's ability to collect, store, and send static traffic map data.

Requirement #: 1.2.0.650
Description: The SmartFusion Subsystem shall send to the SmartNET Subsystem static map data.

Requirement #: 1.2.0.660
Description: The SmartFusion Subsystem shall receive from the SmartNET Subsystem static map data.

Requirement #: 1.2.0.670
Description: The SmartFusion Subsystem shall store static map data.

3.21.1.1 Test Procedure:

Table 26: Test Script #SF8

Step#	Procedure	Associated Requirement	Expected Result
1	Open the Internal ICM XML feed by clicking on the following url: https://xxxxxxxx		The user shall observe the XML feed login page.
2	Login by entering a Username and Password for a valid feed user account. Select the Traffic Point Locations radio button and click on "Submit Query".	1.2.0.650 1.2.0.670	The user shall observe Traffic Point Location data presented in an XML format.
3	Click the browser's back button to return to the ICM XML Feed login page.		The user shall observe the login page of the ICM XML Feed login page.
4	Login by entering a Username and Password for a valid feed user account. Select the Traffic Facility radio button and click on "Submit Query".	1.2.0.660	The user shall observe Traffic Facility data presented in an XML format.
5	Click the browser's back button to return to the ICM XML Feed login page.		The user shall observe the login page of the ICM XML Feed login page.

Step#	Procedure	Associated Requirement	Expected Result
6	Login by entering a Username and Password for a valid feed user account. Select the Transit Point Locations radio button and click on “Submit Query”.	1.2.0.660	The user shall observe Transit Point Location data presented in an XML format.
7	Click the browser’s back button to return to the ICM XML Feed login page.		The user shall observe the login page of the ICM XML Feed login page.
8	Login by entering a Username and Password for a valid feed user account. Select the Transit Facility radio button and click on “Submit Query”.	1.2.0.660	The user shall observe Transit Facility data presented in an XML format.
9	Click the browser’s back button to return to the ICM XML Feed login page.		The user shall observe the login page of the ICM XML Feed login page.
10	End Test		

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☐ **Pass** ☐ **Fail** **Executed by:**_____ **Date:**_____

☐ **Could not complete** ☐ **Accept as is** **Stakeholder Observer Initials** _____ **Date:**_____

3.22 Test Script #: SF9

3.22.1 Test Title: SmartFusion receiving/storing incident response plans

Test Description: The following test will demonstrate the SmartFusion subsystem’s ability to collect and store incident response plan data.

Requirement #: 1.2.0.530

Description: The SmartFusion Subsystem shall store pre-agreed incident response plans.

Requirement #: 1.2.0.540
Description: The SmartFusion Subsystem shall store history of enacted response plans.

Note: All the incident response plans available on the DSS subsystem, shall be provided to the tester for validation and observation purposes. The files shall be made available in a pdf format.

3.22.1.1 Test Procedure:

Table 27: Test Script #SF9

Step #	Procedure	Associated Requirement	Expected Result
1	Connect to the DSS feed by opening a browser window and navigating to: http://xxxxxxxx		The user shall observe the DSS XML feed.
2	Find a Plan node and make note of the Plan ID, DSS transaction ID, and Plan URL of the chosen DSS Plan in the XML document.		The user shall observe and make note of the following fields: PlanID: The plan number provided by the expert rules system DSS Transaction ID: _____ Plan URL:___ _____ Last update: Date and time of the last update
3	Open the Event XML feed by clicking on the following url: https://xxxxxxxx		The user shall observe the XML feed login page.
4	Login by entering a Username and Password for a valid feed user account. Select the Events radio button and click on “Submit Query”. Note: The username used to access the XML feed shall have read capability to the DSS data		The user shall observe the Event data presented in an XML format and containing DSS data if applicable.

Step #	Procedure	Associated Requirement	Expected Result
5	Locate the DSS Plan identifier noted in step 2 in the XML feed.	1.2.0.530	The user shall observe the following XML data for the identified DSS Plan: SmartNET Event ID: _____ PlanID: The plan number provided by the DSS XML Feed DSS Transaction ID DSS Plan Actions associated with this event Plan URL pdf:___ _____
6	Compare the PlanIDs made available in the DSS XML feed with the PlanID noted in the previous step.	1.2.0.530	The user shall observe the same IDs
7	Open the Plan URL pdf as noted in the previous step.	1.2.0.540	The user shall observe the same incident response plan content as provided by the DSS subsystem administrator.
8	Search for “enacted response” in the Event XML feed.		The user shall make note of the EventID and PlanID associated with the “enacted response” action.
9	Login to SmartNET and search for the Event noted in the previous steps		The user shall observe in the DSS dialog interface that enacted action was associated with the PlanID noted previously.
10	End Test		

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☐ **Pass** ☐ **Fail** **Executed by:**_____ **Date:**_____

☐ **Could not complete**	☐ **Accept as is**	**Stakeholder Observer Initials** _____	**Date:**_____

3.23 Test Script #: SF10

3.23.1 Test Title: SmartFusion storing/receiving profile data

Test Description: The following test will demonstrate the SmartFusion subsystem's ability to collect and store profile data. It will demonstrate the SmartFusion subsystem's ability to receive map requests from the SmartNET subsystem.

Requirement #: 1.2.0.690
Description: The SmartFusion Subsystem shall store map profile data.

Requirement #: 1.2.0.700
Description: The SmartFusion Subsystem shall store agency profile data.

Requirement #: 1.2.0.710
Description: The SmartFusion Subsystem shall store user profile data.

Requirement #: 1.2.0.730
Description: The SmartFusion Subsystem shall receive from the SmartNET Subsystem a map request.

3.23.1.1 Test Procedure:

Table 28: Test Script #SF10

Step#	Procedure	Associated Requirement	Expected Result
1	Login to the SmartNET Application		The User shall observe the SmartNET login page
2	Select Tools → User settings		The user shall observe the stored user profile data
3	Close the User settings Window		User settings window closed
4	Select Tools--> Admin View and click the Organization tab. Note: Only SmartNET administrator will have access to this component	1.2.0.690 1.2.0.700 1.2.0.710	The user shall view the list of organizations stored in SmartFusion
5	Close the Admin View Window		Admin View window closed
6	Open the SmartNET Map		The User shall observe their default map
7	Click on option and select Open		The user shall observe the list of previously saved maps

Step#	Procedure	Associated Requirement	Expected Result
8	Select one of the previously saved maps	1.2.0.690 1.2.0.730	The user shall observe the selected map stored in SmartFusion
9	End Test		

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☐ **Pass**	☐ **Fail**	**Executed by:**_____	**Date:**_____
☐ **Could not complete**	☐ **Accept as is**	**Stakeholder Observer Initials** _____	**Date:**_____

3.24 Test Script #: SF11

3.24.1 Test Title: SmartFusion storing alarm notifications

Test Description: The following test will demonstrate the SmartFusion subsystem's ability to store alarm notifications.

Requirement #: 1.2.0.720
Description: The SmartFusion Subsystem shall store alarm notifications.

3.24.1.1 Test Procedure:

Table 29: Test Script #SF11

Step#	Procedure	Associated Requirement	Expected Result
1	Open the Internal ICM XML feed by clicking on the following url: https://xxxxxxxx		The user shall observe the XML feed login page.

Step#	Procedure	Associated Requirement	Expected Result
2	Login by entering a Username and Password for a valid feed user account. Select the Alarms radio button and click on “Submit Query”.	1.2.0.720	The user shall observe Alarm Notifications data presented in an XML format.
3	End Test		

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☐ **Pass** ☐ **Fail** **Executed by:**_____ **Date:**_____

☐ **Could not complete** ☐ **Accept as is** **Stakeholder Observer Initials** _____ **Date:**_____

3.25 Test Script #: SF12

3.25.1 Test Title: SmartFusion sending data to the Regional Center to Center Interface

Test Description: The following test will demonstrate the SmartFusion subsystem's ability to send data to the Regional Center to Center Interface.

Requirement #: 1.2.0.110
Description: The SmartFusion Subsystem shall send to the Regional Center to Center interface parking lot data as defined in C2C-SICD-4.3.0.

Requirement #: 1.2.0.115
Description: The SmartFusion Subsystem shall send to the Regional Center to Center interface transit vehicle location data as defined in C2C-SICD-4.3.0.

Requirement #: 1.2.0.120
Description: The SmartFusion Subsystem shall send to the Regional Center to Center interface link dynamic data as defined in C2C-SICD-4.3.0.

Requirement #: 1.2.0.125
Description: The SmartFusion Subsystem shall send to the Regional Center to Center interface transit vehicle location data as defined in C2C-SICD-4.3.0.

Requirement #: 1.2.0.130
Description: The SmartFusion Subsystem shall send to the Regional Center to Center interface incident data as defined in C2C-SICD-4.3.0.

Requirement #: 1.2.0.135
Description: The SmartFusion Subsystem shall send to the Regional Center to Center interface construction data as defined in C2C-SICD-4.3.0.

Requirement #: 1.2.0.138
Description: The SmartFusion Subsystem shall send to the Regional Center to Center interface special event data as defined in C2C-SICD-4.3.0.

3.25.1.1 Test Procedure:

Table 30: Test Script #SF12

Step #	Procedure	Associated Requirement	Expected Result
1	Open the C2C Publisher DI latest log file Note: The tester shall have the ability to VPN to the DI server and view the C2C publisher logs		File opened
2	Parse the file for parking lot data	1.2.0.110	The user shall observe parking lot data being published
3	Parse the file for transit vehicle location data	1.2.0.115	The user shall observe transit vehicle location data
4	Parse the file for link dynamic data	1.2.0.120	The user shall observe link dynamic data
5	Parse the file for transit vehicle location data	1.2.0.125	The user shall observe transit vehicle location data
6	Parse the file for incident data	1.2.0.130	The user shall observe incident data
7	Parse the file for construction data	1.2.0.135	The user shall observe construction data
8	Parse the file for special event data	1.2.0.138	The user shall observe special event data
9	End Test		

Comments:_____

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☐ **Pass** ☐ **Fail** **Executed by:**_____ **Date:**_____

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3.1 Test Script #: DS1

3.1.1 Test Title: Decision Support Subsystem receiving ITS Device status from the SmartFusion Subsystem

Test Description: The following test will demonstrate the decision Support subsystem's ability to receive ITS device status data.

Requirement #: 1.1.0.100
Description: The decision support subsystem shall receive from the SmartFusion Subsystem HOV status data as defined in data dictionary table 2.4.4.

Requirement #: 1.1.0.110
Description: The Decision Support Subsystem shall receive from the SmartFusion Subsystem VMS Status Data as defined in data dictionary table 2.1.1.

Requirement #: 1.1.1.80
Description: The Expert Rules Subsubsystem shall receive from the Data Dissemination Subsubsystem VMS status data.

Requirement #: 1.1.1.100
Description: The Expert Rules Subsubsystem shall receive from the Data Dissemination Subsubsystem HOV status data.

Requirement #: 1.1.3.60
Description: The Prediction Subsubsystem shall receive from the **Data Dissemination** Subsubsystem VMS status data.

Requirement #: 1.1.3.70
Description: The Prediction Subsubsystem shall receive from the **Data Dissemination** Subsubsystem HOV status data

3.1.1.1 Test Procedure:

Table 31: Test Script #DS1

Step#	Procedure	Associated Requirement	Expected Result
1	Open the ICM Link Status XML feed by clicking on the following url: https://xxxxxxxx		The user shall observe the link status data presented as XML.

Step#	Procedure	Associated Requirement	Expected Result
2	On the rules manager user interface, open the links window. Click the “Facility Type” column header t sort the table by facility type. Scroll until the first HOV link is visible.	1.1.0.100 1.1.1.100	Window opens and displays HOV status data.
3	Verify that the data in the HOV status data window matches the data transmitted from SmartFusion ICM XML feed.	1.1.3.60	The user shall observe identical HOV status data (HOV_Status = Open, Closed, HOV 2, HOV 3) for the selected HOV link.
4	On the prediction Subsubsystem open file /output/dynamic data/dynamic_data_set.txt using MS Word.	1.1.3.70	File opens.
5	Verify that the data in the /output/dynamic_data_set.txt file matches the data transmitted from SmartFusion ICM XML feed.		The user shall observe identical HOV status data (HOV_Status = Open, Closed, HOV 2, HOV 3) for the selected HOV link.
6	Open the ICM XML feed by clicking on the following url: https://xxxxxxxx		The user shall observe DMS status data presented in an XML format.
7	On the rules manager user interface, open the DMS window. **Please note: Although the requirement calls for VMS verification, the term used in the C2C is DMS. The test script will refer to DMS as opposed to VMS.**	1.1.0.110 1.1.1.80	Window opens and displays DMS status data.
8	Verify that the data in the DMS status data window matches the data transmitted from SmartFusion ICM XML feed.	1.1.1.80	The user shall observe identical DMS status data.
9	On the prediction Subsubsystem open file /output/dynamic data/dynamic_data_set.txt using MS Word.	1.1.3.60	File opens.

Step#	Procedure	Associated Requirement	Expected Result
10	Verify that the data in the dynamic_data_set.txt file matches the data transmitted from SmartFusion ICM XML feed.		The user shall observe identical DMS status data.
11	End Test		

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3.2 Test Script #: DS2

3.2.1 Test Title: Decision Support Subsystem receiving Link Dynamic status data from the SmartFusion Subsystem

Test Description: The following test will demonstrate the Decision Support Subsystem's ability to receive link dynamic data.

Requirement #: 1.1.0.90
Description: The Decision Support Subsystem shall receive from the SmartFusion Subsystem Link dynamic data as defined in data dictionary table 2.4.4.

Requirement #: 1.1.1.110
Description: The Expert Rules Subsubsystem shall receive from the Data Dissemination Subsubsystem link dynamic data.

Requirement #: 1.1.3.10
Description: The Prediction Subsubsystem shall receive from the **Data Dissemination** Subsubsystem link dynamic data.

3.2.1.1 Test Procedure:

Table 32: Test Script #DS2

Step#	Procedure	Associated Requirement	Expected Result
1	Open the ICM XML feed by clicking on the following url: https://xxxxxxxx	1.1.0.90	The user shall observe Link Dynamic status data (Link Current_speed and Current_travel_time) presented in an XML format .
2	On the rules manager user interface, open the Links window.		Window opens and displays Link Dynamic status data.
3	Verify that the data in the Link Dynamic status data window matches the data transmitted from SmartFusion ICM XML feed.	1.1.1.110	The user shall observe identical Link Dynamic status data.
4	On the prediction Subsubsystem open file /output/dynamic data/dynamic_data_set.txt using MS Word.		File opens.
5	Verify that the data in the dynamic_data_set.txt file matches the data transmitted from SmartFusion ICM XML feed.	1.1.3.10	The user shall observe identical Link Dynamic data.

Step#	Procedure	Associated Requirement	Expected Result
6	End Test		

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3.3 Test Script #: DS3

3.3.1 Test Title: Decision Support Subsystem receiving Event data from the SmartFusion Subsystem

Test Description: The following test will demonstrate the Decision Support Subsystem's ability to receive Event data.

Requirement #: 1.1.0.60
Description: The Decision Support Subsystem shall receive from the SmartFusion Subsystem Incidents as defined in data dictionary table 2.5.1.

Requirement #: 1.1.0.70
Description: The Decision Support Subsystem shall receive from the SmartFusion Subsystem Construction as defined in data dictionary table 2.5.2.

Requirement #: 1.1.0.80
Description: The Decision Support Subsystem shall receive from the SmartFusion Subsystem Special events as defined in data dictionary table 2.5.3.

Requirement #: 1.1.1.190
Description: The Expert Rules Subsubsystem shall receive from the Data Dissemination Subsubsystem incident data.

Requirement #: 1.1.1.200
Description: The Expert Rules Subsubsystem shall receive from the Data Dissemination Subsubsystem construction data.

Requirement #: 1.1.1.210
Description: The Expert Rules Subsubsystem shall receive from the Data Dissemination Subsubsystem special event data.

Requirement #: 1.1.3.30
Description: The Prediction Subsubsystem shall receive from the Data Dissemination Subsubsystem incidents.

Requirement #: 1.1.3.40
Description: The Prediction Subsubsystem shall receive from the Data Dissemination Subsubsystem construction.

Requirement #: 1.1.3.50
Description: The Prediction Subsubsystem shall receive from the Data Dissemination Subsubsystem special events.

3.3.1.1 Test Procedure:

Table 33: Test Script #DS3

Step#	Procedure	Associated Requirement	Expected Result
1	Open the ICM XML feed by clicking on the following url: https://xxxxxxxx		The user shall observe Events data presented in an XML format.
2	On the rules manager user interface, open the Events data window. Click the "Type" column header to sort the table. Scroll until the first incident event is visible.	1.1.0.60	Window opens and displays Incident data.
3	Verify that the incident data in the Events data window matches the data transmitted from SmartFusion ICM XML feed.	1.1.1.190	The user shall observe identical Incident data.
4	On the prediction Subsubsystem open file /output/dynamic data/dynamic_data_set.txt using MS Word.		File opens.
5	Verify that the data in the dynamic_data_set.txt file matches the data transmitted from SmartFusion ICM XML feed.	1.1.3.30	The user shall observe identical Incidents data.
6	Open the ICM XML feed by clicking on the following url: https://xxxxxxxx		The user shall observe event data presented in an XML format.
7	On the rules manager user interface, open the events data window. Click the "Type" column header to sort the table. Scroll until the first construction event is visible.	1.1.0.70	Window opens and displays Construction data.
8	Verify that the data in the Events data window matches the data transmitted from SmartFusion ICM XML feed.	1.1.1.200 1.1.1.210	The user shall observe identical Construction data.
9	On the prediction Subsubsystem open file /dynamic data/dynamic_data_set.txt using MS Word.		File opens.

Step#	Procedure	Associated Requirement	Expected Result
10	Verify that the data in the dynamic_data_set.txt file matches the data transmitted from SmartFusion ICM XML feed.	1.1.3.40	The user shall observe identical Construction data.
11	Open the ICM XML feed by clicking on the following url: https://xxxxxxxx		The user shall observe event data presented in an XML format.
12	On the rules manager user interface, open the Events data window. Click the "Type" column header to sort the table. Scroll until the first Special event is visible.	1.1.0.80	Window opens and displays Special Events data.
13	Verify that the data in the Special Events data window matches the data transmitted from SmartFusion ICM XML feed.	1.1.1.210	The user shall observe identical Special Events data.
14	On the prediction Subsubsystem open file /output/dynamic data/dynamic_data_set.txt using MS Word.	1.1.3.50	File opens.
15	Verify that the data in the dynamic_data_set.txt file matches the data transmitted from SmartFusion ICM XML feed.		The user shall observe identical Special Events data.
16	End Test		

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☐ **Pass** ☐ **Fail** **Executed by:**_____ **Date:**_____

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3.4 Test Script #: DS4

3.4.1 Test Title: Decision Support Subsystem receiving weather alert data from the SmartFusion Subsystem

Test Description: The following test will demonstrate the Decision Support subsystem's ability to receive weather alert data.

Requirement #: 1.1.0.220
Description: The Decision Support Subsystem shall receive from the SmartFusion Subsystem weather alert data.

Requirement #: 1.1.1.160
Description: The Expert Rules Subsubsystem shall receive from the Data Dissemination Subsubsystem weather alert data.

Requirement #: 1.1.3.80
Description: The Prediction Subsubsystem shall receive from the **Data Dissemination** Subsubsystem weather alert data.

3.4.1.1 Test Procedure:

Table 34: Test Script #DS4

Step#	Procedure	Associated Requirement	Expected Result
1	Open the ICM XML feed by clicking on the following url: https://xxxxxxxx		The user shall observe Weather Alert data presented in an XML format.
2	On the rules manager user interface, open the Weather data window.		Window opens and displays Weather Alert data.
3	Verify that the data in the Weather Alert data window matches the data transmitted from SmartFusion ICM XML feed.	1.1.0.220 1.1.1.160	The user shall observe identical Weather Alert data for the identified weather link. Link Name: _____ Link Condition_____

Step#	Procedure	Associated Requirement	Expected Result
4	On the prediction Subsubsystem open file /output/dynamic data/dynamic_data_set.txt using MS Word.		File opens.
5	Verify that the data in the dynamic_data_set.txt file matches the data transmitted from SmartFusion ICM XML feed.	1.1.3.80	The user shall observe identical Weather Alert data.
6	End Test		

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☐ **Pass** ☐ **Fail** **Executed by:**_____ **Date:**_____

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3.5 Test Script #: DS6

3.5.1 Test Title: Decision Support Subsystem receiving Parking Lot Data from the SmartFusion Subsystem

Test Description: The following test will demonstrate the Decision Support Subsystem's ability to receive parking lot data.

Requirement #: 1.1.0.130
Description: The Decision Support Subsystem shall receive from the SmartFusion Subsystem parking lot data as defined in data dictionary table 2.4.1.

Requirement #: 1.1.1.150
Description: The Expert Rules Subsubsystem shall receive from the Data Dissemination Subsubsystem parking lot data.

Requirement #: 1.1.3.90
Description: The Prediction Subsubsystem shall receive from the **Data Dissemination** Subsubsystem parking lot data.

3.5.1.1 Test Procedure:

Table 35: Test Script #DS6

Step#	Procedure	Associated Requirement	Expected Result
1	Open the ICM XML feed by clicking on the following url: https://xxxxxxxx		The user shall observe Parking Lot data presented in an XML format.
2	On the rules manager user interface, open the Parking Lot data window.		Window opens and displays Parking Lot data.
3	Verify that the data in the Parking Lot data window matches the data transmitted from SmartFusion ICM XML feed.	1.1.0.130 1.1.1.150	The user shall observe identical Parking Lot data.
4	On the prediction Subsubsystem open file /output/dynamic data/dynamic_data_set.txt using MS Word.		File opens.
5	Verify that the data in the dynamic_data_set.txt file matches the data transmitted from SmartFusion ICM XML feed.	1.1.3.90	The user shall observe identical Parking Lot data.

Step#	Procedure	Associated Requirement	Expected Result
6	End Test		

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3.6 Test Script #: DS7

3.6.1 Test Title: Decision Support Subsystem receiving Traffic Signal Status Data from the SmartFusion Subsystem

Test Description: The following test will demonstrate the Decision Support Subsystem's ability to receive traffic signal status data.

Requirement #: 1.1.0.120
Description: The Decision Support Subsystem shall receive from the SmartFusion Subsystem Traffic signal status data as defined in data dictionary table 2.1.3.

Requirement #: 1.1.1.90
Description: The Expert Rules Subsubsystem shall receive from the Data Dissemination Subsubsystem Traffic Signal status data.

Requirement #: 1.1.3.20
Description: The Prediction Subsubsystem shall receive from the **Data Dissemination** Subsubsystem traffic signal data.

3.6.1.1 Test Procedure:

Table 36: Test Script #DS7

Step#	Procedure	Associated Requirement	Expected Result
1	Open the ICM XML feed by clicking on the following url: https://xxxxxxxx		The user shall observe Traffic Signal status data presented in an XML format.
2	On the rules manager user interface, open the Traffic Signal status data window.		Window opens and displays Traffic Signal status data.
3	Verify that the data in the Traffic Signal status data window matches the data transmitted from SmartFusion ICM XML feed.	1.1.0.120 1.1.1.90	The user shall observe identical Traffic Signal status data.
4	On the prediction Subsubsystem open file /output/dynamic data/dynamic_data_set.txt using MS Word.		File opens.
5	Verify that the data in the dynamic_data_set.txt file matches the data transmitted from SmartFusion ICM XML feed.	1.1.3.20	The user shall observe identical Traffic Signal Status data.

Step#	Procedure	Associated Requirement	Expected Result
6	End Test		

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3.7 Test Script #: DS20

3.7.1 Test Title: Decision Support Subsystem analyzing corridor data and selecting the appropriate response plan

Test Description: The following test will demonstrate the Decision Support Subsystem's ability to analyze corridor data and determine the appropriate response plan.

Requirement #: 1.1.0.210
Description: The Decision Support Subsystem shall send the SmartFusion Subsystem a response plan recommendation within fifteen minutes of **incident conditions that trigger a response plan recommendation arriving at the SmartFusion XML feed.**

Requirement #: 1.1.0.230
Description: The Decision Support subsystem shall analyze stored event data to determine appropriate corridor strategies and response plans.

Requirement #: 1.1.0.240
Description: The Decision Support subsystem shall analyze stored ITS device status data to determine availability in corridor strategies and response plans.

Requirement #: 1.1.0.250
Description: The Decision Support subsystem shall analyze events, network conditions, and status of devices to select appropriate response plans.

Requirement #: 1.1.0.260
Description: The Decision Support subsystem shall select a recommended ICM strategy and response plan.

Requirement #: 1.1.1.10
Description: The Expert Rules Subsubsystem Shall generate a response plan recommendation based on existing network conditions in the ICM corridor.

Requirement #: 1.1.1.490
Description: The Expert Rules Subsubsystem shall select a response plan recommendation based on the response plan list.

3.7.1.1 Test Procedure:

Table 37: Test Script #DS20

Step#	Procedure	Associated Requirement	Expected Result
1	Simulate a southbound incident between Arapaho rd. and Beltline rd. that causes a four mile queue on US-75 by using the test_SB10_MAJ_ICM XML feed. This scenario assumes all ITS devices are operational and there are no other incidents. These changes will be performed by the System Administrator.		Queue_length = 4 miles
2	Wait 2 minutes and then open the DSS XML feed by clicking on the following url: https://xxxxxxxx	1.1.0.210	Verify that a response recommending plan SB10_MAJ is present.
3	Restore network to normal conditions by replacing test_SB10_MAJ_ICM XML feed with test_normal_ICM XML feed. These changes will be performed by the System Administrator.	1.1.0.230 1.1.0.240 1.1.0.250	Queue_length = 0 miles
4	Simulate a southbound incident between Arapaho rd. and Beltline rd. that causes a four mile queue on US-75 with non-operational traffic signals along the diversion route by using test_SB10_MAJ_NoSignals_ICM XML feed. This scenario assumes all other ITS devices are operational and there are no other incidents except as noted above. These changes will be performed by the System Administrator.		Queue_length = 4 miles Traffic Signal status = non-operational
5	After 2 minutes, open the DSS XML feed by clicking on the following url: https://xxxxxxxx	1.1.0.260 1.1.1.10 1.1.1.490	Verify that a response recommending plan SB10_MAJFR is present. This Plan does not use Greenville av.

Step#	Procedure	Associated Requirement	Expected Result
6	Restore network to normal conditions.		
7	End Test		

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3.8 5Test Script #: DS25

3.8.1 Test Title: Expert Rules Subsubsystem retrieving/adding/editing/deleting/querying pre-agreed incident response plans

Test Description: The following test will demonstrate the Decision Support Subsystem's ability to receive, add, edit, delete, and query pre-agreed incident response plans.

Requirement #: 1.1.0.10
Description: The Decision Support Subsystem shall **retrieve** from the Data Store Subsubsystem pre-agreed incident response plans as defined in data dictionary table 2.9.1.

Requirement #: 1.1.0.20
Description: The Decision Support Subsystem shall provide the **DSS Administrator** the capability to add pre-agreed incident response plans for a specified incident to the Data Store Sub-subsystem.

Requirement #: 1.1.0.30
Description: The Decision Support Subsystem shall provide the **DSS Administrator** the capability to query pre-agreed incident response plans.

Requirement #: 1.1.0.40
Description: The Decision Support Subsystem shall provide the **DSS Administrator** the capability to edit pre-agreed incident response plans for a specified incident.

Requirement #: 1.1.0.50
Description: The Decision Support Subsystem shall provide the **DSS Administrator** the capability to delete pre-agreed incident response plans for specified events.

Requirement #: 1.1.1.510
Description: The Expert Rules Subsubsystem shall **retrieve** from the Data Store Subsubsystem pre-agreed incident response plans as defined in data dictionary table 2.9.1.

Requirement #: 1.1.1.520
Description: The Expert Rules Subsubsystem shall provide the **DSS Administrator** the capability to add pre-agreed incident response plans for a specified incident to the Data Store Sub-subsystem.

Requirement #: 1.1.1.530
Description: The Expert Rules Subsubsystem shall provide the **DSS Administrator** the capability to query pre-agreed incident response plans.

Requirement #: 1.1.1.540
Description: The Expert Rules Subsubsystem shall provide the **DSS Administrator** the capability to edit pre-agreed incident response plans for a specified incident.

Requirement #: 1.1.1.550
Description: The Expert Rules Subsubsystem shall provide the **DSS Administrator** the capability to delete pre-agreed incident response plans for specified events.

3.8.1.1 Test Procedure:

Table 38: Test Script #DS25

Step#	Procedure	Associated Requirement	Expected Result
1	Upload the pre-agreed incident response plan file Test_Response_Plan.htm to the response plan server		File is saved.
2	Retrieve Test: Retrieve pre-agreed incident response plan by opening Internet Explorer browser and typing the following URL: http://xxx	1.1.0.10 1.1.1.530 1.1.1.510	Pre-agreed incident Response Plan is displayed in the Internet Explorer browser.
3	Edit Test: Using MS Word open the Test_Response_Plan.htm file.	1.1.0.20 1.1.1.540	File is displayed in MS word.
4	Change Description field to XXXX and save file as Test_Response_Plan.htm.	1.1.0.20	Modified pre-agreed incident response plan is saved.
5	Upload the modified pre-agreed incident response plan to the response plan server		Old version of Test_Response_Plan.htm file is replaced with modified version.
6	Retrieve modified pre-agreed incident response plan by opening Internet Explorer browser and typing the following URL: http://xxxx	1.1.1.510	Modified Incident Response Plan is displayed in the Internet Explorer browser.
7	Add Test: Retrieve pre-agreed incident response plan by opening Internet Explorer browser and typing the following URL: http://xxx	1.1.0.30 1.1.1.520	Pre-agreed incident Response Plan is displayed in the Internet Explorer browser.
8	Change Description field to XXXX and save file as Test_Response_Plan New.htm.		New pre-agreed incident response plan is saved.
9	Upload the New pre-agreed incident response plan to the		New Test_Response_Plan.htm file is uploaded

Step#	Procedure	Associated Requirement	Expected Result
	response plan server		
10	Retrieve New pre-agreed incident response plan by opening Internet Explorer browser and typing the following URL: http://xxxx	1.1.0.40 1.1.1.540	New pre-agreed Incident Response Plan is displayed in the Internet Explorer browser.
11	Delete and Query Tests: Delete the New pre-agreed incident response plan file created in steps above from the response plan server. DSS Administrator will perform this step.	1.1.0.50 1.1.1.550	File is deleted.
12	Query New incident response plan by opening Internet Explorer browser and typing the following URL: http://xxx	1.1.1.510	Unknown URL message is displayed on browser.
13	End Test		

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3.9 Test Script #: DS30

3.9.1 Test Title: Decision Support Subsystem receiving Response Plan Decision and Agency Status from the SmartFusion Subsystem

Test Description: The following test will demonstrate the Decision Support Subsystem's ability to receive Response Plan Decision and Agency Status data.

Requirement #: 1.1.0.170
Description: The Decision Support Subsystem shall receive from the SmartFusion Subsystem the response plan decision result as defined in data dictionary table 2.9.3.

Requirement #: 1.1.0.180
Description: The Decision Support Subsystem shall receive from the SmartFusion Subsystem agency status as defined in data dictionary table 2.7.1.

Requirement #: 1.1.0.60
Description: The Expert Rules Subsubsystem shall receive from the Plan Decision Subsubsystem a plan decision result.

Requirement #: 1.1.1.240
Description: The Expert Rules Subsubsystem shall receive from the Plan Decision Subsubsystem agency status.

3.9.1.1 Test Procedure:

Table 39: Test Script #DS30

Step#	Procedure	Associated Requirement	Expected Result
1	Open the ICM XML feed by clicking on the following url: https://xxxxxxxx		The user shall observe Response Plan Decision data presented in an XML format.
2	On the rules manager user interface, open the Responses window.		Window opens and displays data.
3	Verify that the data in the Responses window matches the data transmitted from SmartFusion ICM XML feed.	1.1.0.170 1.1.0.180 1.1.0.60	The user shall observe identical Response Plan Decision data.
4	Open the ICM XML feed by clicking on the following url: https://xxxxxxxx		The user shall observe Agency status data presented in an XML format.

Step#	Procedure	Associated Requirement	Expected Result
5	On the rules manager user interface, open the Agency status data window.		Window opens and displays Agency status data.
6	Verify that the data in the Agency status data window matches the data transmitted from SmartFusion ICM XML feed.	1.1.1.240	The user shall observe identical Agency status data.
7	End Test		

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☐ **Pass** ☐ **Fail** **Executed by:**_____ **Date:**_____

☐ **Could not complete** ☐ **Accept as is** **Stakeholder Observer Initials** _____ **Date:**_____

3.10 Test Script #: DS35

3.10.1 Test Title: Decision Support Subsystem receiving Historical Data from the SmartFusion Subsystem

Test Description: The following test will demonstrate the Decision Support Subsystem's ability to receive historical data.

Requirement #: 1.1.0.190
Description: The Decision Support Subsystem shall receive from the SmartFusion Subsystem historical data as defined in data dictionary table section 2.10.

Requirement #: 1.1.2.160
Description: The Evaluation Subsubsystem shall receive from the Data Store Subsubsystem historical data.

3.10.1.1 Test Procedure:

Table 40: Test Script #DS35

Step#	Procedure	Associated Requirement	Expected Result
1	Open the ICM XML feed by clicking on the following url: https://xxxxxxxx		The user shall observe Historical data presented in an XML format.
2	On the evaluation report interface, run the Historical data report.	1.1.0.190	Report opens and displays Historical data.
3	Verify that the data in the Historical data report matches the data transmitted from SmartFusion ICM XML feed.	1.1.2.160	The user shall observe identical Historical data.
4	End Test		

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3.11 Test Script #: DS40

3.11.1 Test Title: Decision Support Subsystem predicting benefits of implementing a response plan

Test Description: The following test will demonstrate the Decision Support Subsystem's ability to predict the potential benefits of implementing a response plan. The test consists of enacting a response plan in the Predictive Subsubsystem and generating its associated predicted Measures of Effectiveness (MOE) calculated by the Predictive Subsubsystem. There are two types of MOE: a) MOE provided for enacted response plans are called *estimator MOE* (tested in script #45) and b) MOE provided for what-if scenario simulation into the future are called *predictive MOE*.

Requirement #: 1.1.0.270
Description: The Decision Support subsystem shall predict the potential benefit of implementing an ICM strategy and associated response plan.

Requirement #: 1.1.1.340
Description: The Expert Rules Subsubsystem shall receive from the Prediction Subsubsystem predicted network conditions.

3.11.1.1 Test Procedure:

Table 41: Test Script #DS40

Step#	Procedure	Associated Requirement	Expected Result
1	On the rules manager user interface, recommend response plan XXX		Response plan recommended.
2	On the rules manager user interface, select request prediction option.		Request prediction option is selected.
3	After the Prediction Subsubsystem calculates the predicted MOE results are sent to the Expert Rules Subsubsystem.	1.1.0.270	
4	On the rules manager user interface, select display predicted MOE option.	1.1.1.340	Predicted MOE are displayed.
5	End Test		

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3.12 Test Script #: DS45

3.12.1 Test Title: Decision Support Subsystem evaluating the impact of enacted response plans

Test Description: The following test will demonstrate the Decision Support Subsystem's ability to evaluate the impact of an enacted response plan. There are two types of MOE: a) MOE provided for enacted response plans are called *estimator MOE* and b) MOE provided for what-if scenario simulation into the future are called *predictive MOE* (see script #40). This test will verify that estimator MOE are continuously calculated.

Requirement #: 1.1.0.280
Description: The Decision Support subsystem shall evaluate the impact of enacted response plans on the corridor.

Requirement #: 1.1.1.440
Description: The Expert Rules Subsubsystem shall calculate measures of effectiveness.

3.12.1.1 Test Procedure:

Table 42: Test Script #DS45

Step#	Procedure	Associated Requirement	Expected Result
1	On the evaluation report interface, run the estimator MOE report.	1.1.0.280	Report opens and displays estimator MOE data.
2	Open the DSS XML feed by clicking on the following url: https://xxxxxxxx	1.1.1.440	The user shall observe the DSS XML feed page with updated estimator MOE displayed.
3	After X minutes repeat step 1.		Report opens and displays updated estimator MOE data.
4	End Test		

Comments:_____

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☐ **Pass**	☐ **Fail**	**Executed by:**_____	**Date:**_____
☐ **Could not complete**	☐ **Accept as is**	**Stakeholder Observer Initials** _____	**Date:**_____

3.13 Test Script #: DS50

3.13.1 Test Title: Expert Rules Subsubsystem sending Response Plan Recommendation to the Plan Decision Subsubsystem

Test Description: The following test will demonstrate the Expert Rules Subsubsystem's ability to send a Response Plan Recommendation to the Plan Decision Subsubsystem.

Requirement #: 1.1.1.30
Description: The Expert Rules Subsubsystem shall send to the Plan Decision Subsubsystem a response plan recommendation.

Requirement #: 1.1.1.500
Description: The Expert Rules Subsubsystem shall coordinate with the Plan Decision Subsubsystem the response plan recommendation.

3.13.1.1 Test Procedure:

Table 43: Test Script #DS50

Step#	Procedure	Associated Requirement	Expected Result
1	Using the rules manager user interface, recommend a response plan.	1.1.1.30	Response plan XXX is recommended
2	Open the DSS XML feed by clicking on the following url: https://xxxxxxxx	1.1.1.500	The user shall observe the DSS XML feed page with response plan XXX displayed.
3	End Test		

Comments:_____

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☐ **Pass** ☐ **Fail** **Executed by:**_____ **Date:**_____

☐ **Could not complete** ☐ **Accept as is** **Stakeholder Observer Initials** _____ **Date:**_____

3.14 Test Script #: DS55

3.14.1 Test Title: Expert Rules Subsubsystem sending Response Plan Recommendation to the Evaluation Subsubsystem

Test Description: The following test will demonstrate the Expert Rules Subsubsystem's ability to send a Response Plan Recommendation and the Evaluation Subsubsystem's ability to receive a response plan recommendation.

Requirement #: 1.1.1.40
Description: The Expert Rules Subsubsystem shall provide the Evaluation Subsubsystem the response plan recommendation after the ICM Coordinator confirms the response plan.

Requirement #: 1.1.2.20
Description: The Evaluation Subsubsystem shall accept from the Expert Rules Subsubsystem the recommended incident response plan within two minutes after the ICM Coordinator confirms the response plan **and confirmation is posted in the SmartFusion XML feed.**

Requirement #: 1.1.2.140
Description: The Evaluation Subsubsystem shall receive from the Expert Rules Subsubsystem a response plan recommendation.

3.14.1.1 Test Procedure:

Table 44: Test Script #DS55

Step#	Procedure	Associated Requirement	Expected Result
1	Use test ICM XML feed with Response Plan recommendation XXX as confirmed by the ICM Coordinator.		
2	Open the ICM XML feed by clicking on the following url: https://xxxxxxxx	1.1.2.20	The user shall observe Response Plan recommendation XXX presented in an XML format.
3	On the rules manager user interface, open the response plan data window.	1.1.2.140	Window opens and displays response plan data.
4	After waiting 2 minutes from step 3, on the Evaluation Subsubsystem query interface, run the response plan query.		Query results display response plan data.

Step#	Procedure	Associated Requirement	Expected Result
5	Verify that the response plan data results from the Evaluation Subsubsystem query match the data from the rules manager user interface.	1.1.1.40	The user shall observe identical response plan data.
6	End Test		

Comments:_____

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☐ **Pass**	☐ **Fail**	**Executed by:**_____	**Date:**_____
☐ **Could not complete**	☐ **Accept as is**	**Stakeholder Observer Initials** _____	**Date:**_____

3.15 Test Script #: DS60

3.15.1 Test Title: Expert Rules Subsubsystem sending ITS Device status to the Evaluation Subsubsystem

Test Description: The following test will demonstrate the Expert Rules Subsubsystem's ability to send ITS Device status data and the Evaluation Subsubsystem's ability to receive ITS Device status data.

Requirement #: 1.1.1.400
Description: The Expert Rules Subsubsystem shall send to the Evaluation Subsubsystem VMS status data.

Requirement #: 1.1.1.410
Description: The Expert Rules Subsubsystem shall send to the Evaluation Subsubsystem HOV status data.

Requirement #: 1.1.2.90
Description: The Evaluation Subsubsystem shall receive from the Expert Rules Subsubsystem VMS status data

Requirement #: 1.1.2.100
Description: The Evaluation Subsubsystem shall receive from the Expert Rules Subsubsystem HOV status data.

3.15.1.1 Test Procedure:

Table 45: Test Script #DS60

Step#	Procedure	Associated Requirement	Expected Result
1	Open the DSS XML feed by clicking on the following url: https://xxxxxxxx	1.1.1.400	The user shall observe VMS status data presented in an XML format.
2	On the Evaluation Subsubsystem query interface, run the VMS query.		Query results display VMS status data.
3	Verify that the VMS status data results from the Evaluation Subsubsystem query match the data from the DSS XML feed.	1.1.2.90	The user shall observe identical VMS status data.
4	Open the DSS XML feed by clicking on the following URL:		The user shall observe HOV status data presented in an XML format.

Step#	Procedure	Associated Requirement	Expected Result
5	On the Evaluation Subsubsystem query interface, run the HOV query.	1.1.1.410	Query results display HOV status data.
6	Verify that the HOV status data results from the Evaluation Subsubsystem query match the data from the DSS XML feed.	1.1.2.100	The user shall observe identical HOV status data.
7	End Test		

Comments:_____

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☐ **Pass** ☐ **Fail** **Executed by:**_____ **Date:**_____

☐ **Could not complete** ☐ **Accept as is** **Stakeholder Observer Initials** _____ **Date:**_____

3.16 Test Script #: DS65

3.16.1 Test Title: Expert Rules Subsubsystem sending Link Dynamic status data to the Evaluation Subsubsystem

Test Description: The following test will demonstrate the Expert Rules Subsubsystem's ability to send link dynamic data and the Evaluation Subsubsystem's ability to receive link dynamic data.

Requirement #: 1.1.1.350
Description: The Expert Rules Subsubsystem shall send to the Evaluation Subsubsystem link dynamic data.

Requirement #: 1.1.2.40
Description: The Evaluation Subsubsystem shall receive from the Expert Rules Subsubsystem link dynamic data.

3.16.1.1 Test Procedure:

Table 46: Test Script #DS65

Step#	Procedure	Associated Requirement	Expected Result
1	Open the DSS XML feed by clicking on the following url: https://xxxxxxxx	1.1.1.350	The user shall observe link dynamic data presented in an XML format.
2	On the Evaluation Subsubsystem query interface, run the link dynamic query.	1.1.2.40	Query results display link dynamic data.
3	Verify that the link dynamic data results from the Evaluation Subsubsystem query match the data from the DSS XML feed.		The user shall observe identical link dynamic data.
4	End Test		

Comments:_____

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☐ Pass	☐ Fail	Executed by:_____	Date:_____
☐ Could not complete	☐ Accept as is	Stakeholder Observer Initials _____	Date:_____

3.17 Test Script #: DS70

3.17.1 Test Title: Expert Rules Subsubsystem sending Event data to the Evaluation Subsubsystem

Test Description: The following test will demonstrate the Expert Rules Subsubsystem's ability to send Event data and the Evaluation Subsubsystem's ability to receive Event data.

Requirement #: 1.1.1.360
Description: The Expert Rules Subsubsystem shall send to the Evaluation Subsubsystem incidents.

Requirement #: 1.1.1.370
Description: The Expert Rules Subsubsystem shall send to the Evaluation Subsubsystem construction.

Requirement #: 1.1.1.380
Description: The Expert Rules Subsubsystem shall send to the Evaluation Subsubsystem special events.

Requirement #: 1.1.2.50
Description: The Evaluation Subsubsystem shall receive from the Expert Rules Subsubsystem incidents.

Requirement #: 1.1.2.60
Description: The Evaluation Subsubsystem shall receive from the Expert Rules Subsubsystem construction.

Requirement #: 1.1.2.70
Description: The Evaluation Subsubsystem shall receive from the Expert Rules Subsubsystem special events.

3.17.1.1 Test Procedure:

Table 47: Test Script #DS70

Step#	Procedure	Associated Requirement	Expected Result
1	Open the DSS XML feed by clicking on the following url: https://xxxxxxxx	1.1.1.360	The user shall observe incident data presented in an XML format.
2	On the Evaluation query interface, run the incident query.		Query results display incident data.
3	Verify that the incident data results from the Evaluation Subsubsystem query match the data from the DSS XML feed.	1.1.2.50	The user shall observe identical incident data.
4	Open the DSS XML feed by clicking on the following url: https://xxxxxxxx	1.1.1.370	The user shall observe construction data presented in an XML format.
5	On the Evaluation query interface, run the construction query.		Query results display construction data.
6	Verify that the construction data results from the Evaluation Subsubsystem query match the data from the DSS XML feed.	1.1.2.60	The user shall observe identical construction data.
7	Open the DSS XML feed by clicking on the following url: https://xxxxxxxx	1.1.1.380	The user shall observe special events data presented in an XML format.
8	On the Evaluation query interface, run the special events query.		Query results display special events data.
9	Verify that the special events data results from the Evaluation Subsubsystem query match the data from the DSS XML feed.	1.1.2.70	The user shall observe identical special events data.
10	End Test		

Comments:_____

☐ **Pass**	☐ **Fail**	**Executed by:**_____	**Date:**_____
☐ **Could not complete**	☐ **Accept as is**	**Stakeholder Observer Initials** _____	**Date:**_____

3.18 Test Script #: DS75

3.18.1 Test Title: Expert Rules Subsubsystem sending weather alert data to the Evaluation Subsubsystem

Test Description: The following test will demonstrate the Expert Rules Subsubsystem's ability to send weather alert data and the Evaluation Subsubsystem's ability to receive weather alert data.

Requirement #: 1.1.1.420
Description: The Expert Rules Subsubsystem shall send to the Evaluation Subsubsystem weather alert data.

Requirement #: 1.1.2.110
Description: The Evaluation Subsubsystem shall receive from the Expert Rules Subsubsystem weather alert data.

3.18.1.1 Test Procedure:

Table 48: Test Script #DS75

Step#	Procedure	Associated Requirement	Expected Result
1	Open the DSS XML feed by clicking on the following url: https://xxxxxxxx		The user shall observe weather alert data presented in an XML format.
2	On the Evaluation query interface, run the weather alert query.	1.1.1.420	Query results display weather alert data.
3	Verify that the weather alert data results from the Evaluation Subsubsystem query match the data from the DSS XML feed..	1.1.2.110	The user shall observe identical weather alert data.
4	End Test		

Comments:_____

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☐ **Pass**	☐ **Fail**	**Executed by:**_____	**Date:**_____
☐ **Could not complete**	☐ **Accept as is**	**Stakeholder Observer Initials** _____	**Date:**_____

3.19 Test Script #: DS80

3.19.1 Test Title: Expert Rules Subsubsystem sending Parking Lot Data to the Evaluation Subsubsystem

Test Description: The following test will demonstrate the Expert Rules Subsubsystem's ability to send parking lot data and the Evaluation Subsubsystem's ability to receive parking lot data.

Requirement #: 1.1.1.430
Description: The Expert Rules Subsubsystem shall send to the Evaluation Subsubsystem parking lot data.

Requirement #: 1.1.2.120
Description: The Evaluation Subsubsystem shall receive from the Expert Rules Subsubsystem parking lot data.

3.19.1.1 Test Procedure:

Table 49: Test Script #DS80

Step#	Procedure	Associated Requirement	Expected Result
1	Open the DSS XML feed by clicking on the following url: https://xxxxxxxx	1.1.1.430	The user shall observe parking lot data presented in an XML format.
2	On the Evaluation query interface, run the parking lot query.		Query results display parking lot data.
3	Verify that the parking lot data results from the Evaluation Subsubsystem query match the data from the DSS XML feed.	1.1.2.120	The user shall observe identical parking lot data.
4	End Test		

Comments:_____

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☐ Pass	☐ Fail	Executed by:_____	Date:_____
☐ Could not complete	☐ Accept as is	Stakeholder Observer Initials _____	Date:_____

3.20 Test Script #: DS85

3.20.1 Test Title: Expert Rules Subsubsystem sending Traffic Signal Status Data to the Evaluation Subsubsystem

Test Description: The following test will demonstrate the Expert Rules Subsubsystem's ability to send traffic signal status data and the Evaluation Subsubsystem's ability to receive traffic signal Status data.

Requirement #: 1.1.1.390
Description: The Expert Rules Subsubsystem shall send to the Evaluation Subsubsystem traffic signal status data.

Requirement #: 1.1.2.80
Description: The Evaluation Subsubsystem shall receive from the Expert Rules Subsubsystem traffic signal status data.

3.20.1.1 Test Procedure:

Table 50: Test Script #DS85

Step#	Procedure	Associated Requirement	Expected Result
1	Open the DSS XML feed by clicking on the following url: https://xxxxxxxx	1.1.1.390	The user shall observe traffic signal status data presented in an XML format.
2	On the Evaluation query interface, run the traffic signal query.		Query results display traffic signal status data.
3	Verify that the traffic signal data results from the Evaluation Subsubsystem query match the data from the DSS XML feed.	1.1.2.80	The user shall observe identical traffic signal status data.

Step#	Procedure	Associated Requirement	Expected Result
4	End Test		

Comments:_____

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☐ **Pass**	☐ **Fail**	**Executed by:**_____	**Date:**_____
☐ **Could not complete**	☐ **Accept as is**	**Stakeholder Observer Initials** _____	**Date:**_____

3.21 Test Script #: DS90

3.21.1 Test Title: Expert Rules Subsubsystem sending Agency Status Data to the Evaluation Subsubsystem

Test Description: The following test will demonstrate the Expert Rules Subsubsystem's ability to send agency status data and the Evaluation Subsubsystem's ability to receive agency status data.

Requirement #: 1.1.1.450
Description: The Expert Rules Subsubsystem shall send the Evaluation Subsubsystem agency status.

Requirement #: 1.1.2.10
Description: The Evaluation Subsubsystem shall receive from the Expert Rules Subsubsystem agency status.

3.21.1.1 Test Procedure:

Table 51: Test Script #DS90

Step#	Procedure	Associated Requirement	Expected Result
1	On the rules manager user interface, open the Agency status data window.	1.1.1.450	Window opens and displays Agency status data.
2	On the Evaluation query interface, run the agency status query.		Query results display agency status data.
3	Verify that the agency status data results from the Evaluation query match the data from the rules manager user interface.	1.1.2.10	The user shall observe identical agency status data.
4	End Test		

Comments:_____

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☐ **Pass** ☐ **Fail** **Executed by:**_____ **Date:**_____

☐ **Could not complete** ☐ **Accept as is** **Stakeholder Observer Initials** _____ **Date:**_____

3.22 Test Script #: DS95

3.22.1 Test Title: Expert Rules Subsubsystem sending Agency Status Request to the Plan Decision Subsubsystem

Test Description: The following test will demonstrate the Expert Rules Subsubsystem's ability to send agency status request.

Requirement #: 1.1.0.200
Description: The Decision Support Subsystem shall send the SmartFusion Subsystem agency status requests.

Requirement #: 1.1.1.460
Description: The Expert Rules Subsubsystem shall send the Plan Decision Subsubsystem agency status request.

3.22.1.1 Test Procedure:

Table 52: Test Script #DS95

Step#	Procedure	Associated Requirement	Expected Result
1	Open the DSS XML feed by clicking on the following url: https://xxxxxxxx	1.1.0.200 1.1.1.460	User will observe the DSS request for agency status
2	End Test		

Comments:_____

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☐ **Pass** ☐ **Fail** **Executed by:**_____ **Date:**_____

☐ **Could not complete** ☐ **Accept as is** **Stakeholder Observer Initials** _____ **Date:**_____

3.23 Test Script #: DS100

3.23.1 Test Title: Expert Rules Subsubsystem sending a summary of the Predicted Network Conditions to the Evaluation Subsubsystem

Test Description: The following test will demonstrate the Expert Rules Subsubsystem's ability to send summaries of predicted network conditions and the Evaluation Subsubsystem's ability to receive summaries of predicted network conditions.

Requirement #: 1.1.1.470
Description: The Expert Rules Subsubsystem shall send the Evaluation Subsubsystem a summary of the predicted network conditions.

Requirement #: 1.1.2.130
Description: The Evaluation Subsubsystem shall receive from the Expert Rules Subsubsystem a summary of the predicted network conditions.

3.23.1.1 Test Procedure:

Table 53: Test Script #DS100

Step#	Procedure	Associated Requirement	Expected Result
1	On the rules manager user interface, select display Summary of Predicted Network Conditions option.	1.1.1.470	Summary of Predicted Network Conditions is displayed.
2	On the evaluation report interface, run the predicted network conditions report for a predefined time period.		Report opens and displays predicted network conditions.
3	Verify that the Summary of Predicted Network Conditions from step 1 and 2 matches.	1.1.2.130	The user shall observe identical Predicted Network Conditions.
4	End Test		

Comments:_____

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☐ Pass	☐ Fail	Executed by:_____	Date:_____
☐ Could not complete	☐ Accept as is	Stakeholder Observer Initials _____	Date:_____

3.24 Test Script #: DS105

3.24.1 Test Title: Prediction Subsubsystem evaluating ICM Network Conditions to Compute the Measures of Effectiveness

Test Description: The following test will demonstrate the Prediction Subsubsystem's ability to evaluate ICM Network Conditions to Compute the MOE.

Requirement #: 1.1.3.160
Description: The Prediction Subsubsystem shall evaluate the ICM network conditions to compute the performance measures.

3.24.1.1 Test Procedure:

Table 54: Test Script #DS105

Step#	Procedure	Associated Requirement	Expected Result
1	On the rules manager user interface, run the MOE report for the current network conditions.	1.1.3.160	Report opens and displays current network conditions at time 1.
2	After waiting five minutes, re-run the same report as in step 1.	1.1.3.160	Report opens and displays current network conditions at time 2.
3	Compare both reports.	1.1.3.160	MOE are different.
4	End Test		

Comments:_____

☐ Pass	☐ Fail	Executed by:_____	Date:_____
☐ Could not complete	☐ Accept as is	Stakeholder Observer Initials _____	Date:_____

3.25 Test Script #: DS110

3.25.1 Test Title: Prediction Subsubsystem receiving/accepting Response Plan from the Data Dissemination Subsubsystem

Test Description: The following test will demonstrate the Prediction Subsubsystem's ability to receive/accept response plan data.

Requirement #: 1.1.3.100
Description: The Prediction Subsubsystem shall receive from the **Data Dissemination** Subsubsystem response plan.

Requirement #: 1.1.3.130
Description: The Prediction Subsubsystem shall accept from the **Data Dissemination** Subsubsystem the recommended incident response plan within two minutes after the ICM Coordinator confirms the response plan **and confirmation is posted in the SmartFusion XML feed.**

3.25.1.1 Test Procedure:

Table 55: Test Script #DS110

Step#	Procedure	Associated Requirement	Expected Result
1	Initiate transmission of the Response Plan data from the SmartFusion Subsystem to the Decision Support Subsystem.	1.1.3.100	XML file is populated with Response Plan data
2	Open the ICM Response Plan XML feed by clicking on the following url: https://xxxxxxxx	1.1.3.100	The user shall observe Response Plan data presented as XML.

Step#	Procedure	Associated Requirement	Expected Result
3	After waiting 2 minutes, on the prediction Subsubsystem open file /output/dynamic data/dynamic_data_set.txt using MS Word.		File opens.
4	Verify that the data in the dynamic_data_set.txt file matches the data transmitted from SmartFusion ICM XML feed.	1.1.3.130	The user shall observe identical Response Plan data.
5	End Test		

Comments:_____

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☐ **Pass** ☐ **Fail** **Executed by:**_____ **Date:**_____

☐ **Could not complete** ☐ **Accept as is** **Stakeholder Observer Initials** _____ **Date:**_____

3.26 Test Script #: DS115

3.26.1 Test Title: Evaluation Subsubsystem evaluating ICM network

Test Description: The following test will demonstrate the Evaluation Subsubsystem's ability to evaluate ICM network to calculate measures of effectiveness.

Requirement #: 1.1.2.150
Description: The Evaluation Subsubsystem shall evaluate the ICM network to calculate measures of effectiveness of the corridor.

3.26.1.1 Test Procedure:

Table 56: Test Script #DS115

Step#	Procedure	Associated Requirement	Expected Result
1	On the Evaluation Subsubsystem report interface, run the evaluation MOE report.	1.1.2.150	Report opens and displays evaluation MOE data.
2	End Test		

Comments:_____

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☐ **Pass** ☐ **Fail** **Executed by:**_____ **Date:**_____

☐ **Could not complete** ☐ **Accept as is** **Stakeholder Observer Initials** _____ **Date:**_____

3.27 Test Script #: DS120

3.27.1 Test Title: Prediction Subsubsystem sending/computing Predicted Network conditions

Test Description: The following test will demonstrate the Prediction Subsubsystem's ability to send/compute Predicted Network conditions.

Requirement #: 1.1.3.110
Description: The Prediction Subsubsystem shall compute predicted network conditions.

Requirement #: 1.1.3.120
Description: The Prediction Subsubsystem shall send to the Expert Rules Subsubsystem predicted network conditions.

3.27.1.1 Test Procedure:

Table 57: Test Script #DS120

Step#	Procedure	Associated Requirement	Expected Result
1	Pre-test conditions: DSS administrator shall verify that DIRECT (Prediction Subsubsystem) is running		DIRECT is on-line
2	Switch to the Network State Estimation view to display the current network conditions and open the Measures of Performance window to display the current network MOE	1.1.3.110	ICM map with current network conditions and window with associated MOE are displayed The user shall observe and make note of the modeling time for the current network conditions: Time: _____
3	Switch to the Periodic Prediction view to display the predicted network conditions and open the Measures of Performance window to display the predicted network MOE	1.1.3.110	ICM map with predicted network conditions and window with associated MOE are displayed The user shall observe and make note of the modeling time for the predicted network conditions: Time: _____

Step#	Procedure	Associated Requirement	Expected Result
4	Verify that the predicted modeling time is **30** minutes later than the current modeling time	1.1.3.110	Predicted modeling time is 30 minutes later than the current modeling time
5	Compare the network map and associated MOE from steps 2 and 3	1.1.3.110	Current network conditions map and associated MOE are different from the predicted network conditions map and associated MOE
6	To verify that the Prediction Subsubsystem is sending MOE to the Expert Rules Subsubsystem , open the DSS XML feed by clicking on the following URL:	1.1.3.210	The user shall observe the DSS XML feed page with MOE displayed.

Comments:_____

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☐ **Pass** ☐ **Fail** **Executed by:**_____ **Date:**_____

☐ **Could not complete** ☐ **Accept as is** **Stakeholder Observer Initials** _____ **Date:**_____

4 Appendix C - Use Case Summary

Use Case ID	Use Case Name	Primary Actor
1	View DSS Plan	Any SmartNET User
2	View DSS Plan (DSS Terminated or Event Closed)	Any SmartNET User
3	Accept Recommended Plan	ICM Coordinator
4	Accept Recommend Plan (Fail)	ICM Coordinator
5	Reject Recommended Plan	ICM Coordinator
6	Implement Accepted Plan	ICM Coordinator
7	Reject Accepted Plan	ICM Coordinator
8	Accept Plan by ICM User	ICM User
9	Reject Plan by ICM User	ICM User
10	Complete Action	ICM User
11	Reject Action	ICM User
12	DSS Engine Terminates Plan	Data Interface
13	DSS Engine Recommends Plan	Data Interface
14	DSS Event Closes	SmartNET
15	ICM Users Accepts a Recommended Plan that has been Rejected by the ICM coordinator	ICM User
16	DSS Event Reopens	SmartNET
17	DSS Transaction Missing Plan Name	Data Interface
18	Second ICM User Accepts Plan	ICM Coordinator
19	Assigning ICM Coordinators	SmartNET Super User

Description of the actors:

ICM Coordinator:
The ICM Coordinator is a SmartNET administrator belonging to DART

ICM User:
SmartNET User part of the DSS plan participant agencies

Any SmartNET user:
A SmartNET user that not an ICM User or an ICM Coordinator

Table 58: Use Case ID 1: View DSS Plan

Use Case ID	1
Use Case Name	View DSS Plan / Filtering an sorting
Description	An agency user or ICM Coordinator shall view a DSS plan associated to a SmartNET Event
Pre-condition(s)	13
Standard Flow	1. User logs into SmartNET 2. Using the Event List the user searches for an event that has an associated DSS Plan, denoted by the following icon  . The user clicks the DSS icon. 3. The user may also choose to sort using the DSS column header or filtering events with associated DSS plans.
Post Conditions	SmartNET checks to see if the event is still open and the plan has not been terminated, if not, SmartNET retrieves the necessary data and populates the DSS Dialogue window displaying the plan information, response summary, history and current plan status.
Open Issues	

Table 59: Use Case ID 2: View DSS Plan (DSS Terminated or Event Closed)

Use Case ID	2
Use Case Name	View DSS Plan (DSS Terminated or Event Closed)
Description	An agency user or ICM Coordinator would like to view a DSS plan associated to a SmartNET Event. Unfortunately, the event has closed or the plan has been terminated.
Pre-condition(s)	13
Standard Flow	1. User logs into SmartNET 2. Using the Event List the user searches for an event that has an associated DSS Plan 3. The DSS Engine Terminates Plan or event is closed by SmartNET or C2C. 4. Using the Event List the user searches for an event that has an associated DSS Plan, denoted by the following icon  . The user may also choose to sort using the DSS column header. The user should not see a DSS icon for the terminated plan. If the DSS plan has been terminated by the DSS DI, the user should verify the event action and confirm that the DSS plan was closed by the DSS DI. 5. If the event is closed the user should check the closed incidents tab and verify the event action stating that the DSS plan was terminated. 6. An email and txt notifications are sent to all the ICM Coordinators
Post Conditions	•

Open Issues	

Table 60: Use Case ID 3: Accept Recommended Plan

Use Case ID	3
Use Case Name	Accept Recommended Plan
Description	An ICM Coordinator will accept a plan that has been recommended by the DSS Engine.
Pre-condition(s)	12
Standard Flow	1. ICM Coordinator logs into SmartNET 2. Using the Event List the ICM Coordinator searches for the event that has an associated DSS Plan, denoted by the following icon . The Coordinator clicks the DSS icon. 3. SmartNET displays the DSS Dialogue window. 4. The ICM Coordinator populates an optional 'Update Status', selects "Accept" from the 'Change Status' drop-down box and clicks on the 'Submit' button. 5. A txt message notification sent to all the ICM coordinators and involved agency users that a new DSS plan has been accepted.
Post Conditions	• SmartNET calls a stored proc that verifies that the event is still active and the DSS plan has not been terminated and then records the Coordinators decision. • SmartNET writes an Event Action. • The DSS Dialogue window is updated; status now shows "Accepted", DSS History shows your most recent action • The DSS Response Summary contains a record for each organization within involved Agencies and an ICM record showing that you've accepted a plan the 'Last Update' time has been updated. • The ICM Coordinators and ICM Users receive an SMS (if applicable) and Email Notification
Open Issues	

Table 61: Use Case ID 4: Accept Recommend Plan (Terminated)

Use Case ID	4
Use Case Name	Accept Recommend Plan (Terminated)
Description	An ICM Coordinator will accept a plan that has been recommended by the DSS Engine. Unfortunately, the event has closed or the plan has been terminated.
Pre-condition(s)	13,12
Standard Flow	1. Coordinator logs into SmartNET 2. Using the Event List the Coordinator searches for the event that has

	an associated DSS Plan, denoted by the following icon  . The Coordinator clicks the DSS icon. 3. SmartNET displays the DSS Dialogue window. 4. DSS DI terminates plan 5. The ICM Coordinators and ICM Users receive an SMS (if applicable) and Email Notification for the terminated plan 6. The Coordinator populates an optional 'Update Status', selects "Accept" from the 'Change Status' drop-down box and clicks on the 'Submit' button. 7. The ICM Coordinator should not be able to apply the accept button since the plan was terminated in the background 8. A message warning should notify the ICM Coordinator that the plan was terminated
Post Conditions	• SmartNET calls a stored proc that verifies that the event is still active and the DSS plan has not been terminated and then records the ICM Coordinators decision. While SmartNET checks to see if the event is still open and the plan has not been terminated, SmartNET notices that conjunction is false and alerts the SmartNET user with an appropriate message. • The DSS Dialogue window's plan status should show 'Terminated' • An event action is written stating that the plan has been terminated • The ICM Coordinators and ICM Users receive an SMS (if applicable) and Email Notification about the plan termination
Open Issues	

Table 62: Use Case ID 5: Reject Recommended Plan

Use Case ID	5
Use Case Name	Reject Recommended Plan
Description:	An ICM Coordinator shall reject a plan that has been recommended by the DSS Engine.
Pre-condition(s)	13
Standard Flow	1. ICM Coordinator logs into SmartNET 2. Using the Event List the ICM Coordinator searches for the event that has an associated DSS Plan, denoted by the following icon  . The ICM Coordinator clicks the DSS icon. 3. SmartNET displays the DSS Dialogue window. 4. The ICM Coordinator populates a required 'Update Status', selects "Reject" from the 'Change Status' drop-down box and clicks on the 'Submit' button.
Post Conditions	• The DSS Dialogue window is updated; status now shows "Rejected", DSS History shows your most recent action, DSS Response Summary contains a record showing that you've accepted a plan and the 'Last Update' time has been updated. • SmartNET writes an Event Action about the plan Rejection.

	• The Plan has a Rejected status • The DSS Plan is no longer associated with the event
Open Issues	

Table 63: Use Case ID 6: Implement Accepted Plan

Use Case ID	6
Use Case Name	Implement Accepted Plan
Description	An ICM Coordinator would like to implement a plan that has been accepted by himself or another ICM Coordinator.
Pre-condition(s)	3
Standard Flow	1. ICM Coordinator logs into SmartNET 2. Using the Event List the ICM Coordinator searches for the event that has an associated DSS Plan, denoted by the following icon  . The ICM Coordinator clicks the DSS icon. 3. SmartNET displays the DSS Dialogue window. 4. The ICM Coordinator verifies that the participant agencies are listed under the DSS summary section with the latest recorded updated statuses 5. The ICM Coordinator populates an optional 'Update Status', selects "Implement" from the 'Change Status' drop-down box and add any additional special notes required for the implementation the clicks on the 'Submit' button. 6. The ICM Coordinators and ICM Users receive an SMS (if applicable) and Email Notification 7. All actions associated with this plan should be made available in read mode to the ICM Coordinators DSS Dialogue window.
Post Conditions	• SmartNET verifies that the event is still active and the DSS plan has not been terminated and then records the ICM Coordinators decision. • SmartNET writes an Event Action. • The DSS Dialogue window is updated; status now shows "Implement", DSS History shows your most recent action, DSS Response Summary contains a record for each involved Agency and an ICM Coordinator record showing that you've accepted a plan and the 'Last Update' time has been update • The ICM Coordinators and ICM Users receive an SMS (if applicable) and Email Notification • All actions associated with this plan should be made available in read mode to the ICM Coordinators DSS Dialogue window.
Open Issues	

Table 64: Use Case ID 7: Reject Accepted Plan

Use Case ID	7
Use Case Name	Reject Accepted Plan
Description	An ICM Coordinator would like to reject a plan that has been accepted by

	himself or another ICM Coordinator.
Pre-condition(s)	3
Standard Flow	1. ICM Coordinator logs into SmartNET 2. Using the Event List the ICM Coordinator searches for the event that has an associated DSS Plan, denoted by the following icon  . The ICM Coordinator clicks the DSS icon. 3. SmartNET displays the DSS Dialogue window with DSS status accept. 4. The ICM Coordinator populates a required 'Update Status', selects "Reject" from the 'Change Status' drop-down box and clicks on the 'Submit' button. 5. The DSS Plan is no longer associated with the event 6. The DSS plan Summary should show the user rejection 7. The DSS History should show the rejection action 8. The DSS rejection action should be listed in the event list action
Post Conditions	• SmartNET calls a stored proc that verifies that the event is still active and the DSS plan has not been terminated and then records the ICM Coordinators decision. • SmartNET writes an Event Action. • The DSS Dialogue window is updated; status now shows "Rejected", DSS History shows your most recent action, DSS Response Summary contains a record for each involved Agency and a record for the ICM Coordinator showing that you've rejected a plan and the 'Last Update' time has been updated
Open Issues	

Table 65: Use Case ID 8: Accept Plan by ICM User

Use Case ID	8
Use Case Name	Accept Plan by ICM User
Description	An Agency User would like to comment and accept a plan that has been accepted by an ICM Coordinator.
Pre-condition(s)	3
Standard Flow	1. Agency User logs into SmartNET 2. Using the Event List the Agency User searches for the event that has an associated DSS Plan, denoted by the following icon  . The Agency User clicks the DSS icon. 3. SmartNET displays the DSS Dialogue window. The DSS Dialogue window response summary shows one row for each participating organization and an ICM Coordinator row. The row contains the latest status update. 4. The Agency User populates an optional 'Update Status', selects "Accept" from the 'Change Status' drop-down box and clicks on the 'Submit' button. 5. The ICM Coordinator(s) and the ICM users part of the involved agencies will receive a txt and email messages. 6. The DSS plan Summary should show the plan acceptance

	7. The DSS History should show the acceptance action 8. The DSS acceptance action should be listed in the event list action
Post Conditions	• SmartNET verifies that the event is still active and the DSS plan has not been terminated and then records the user's decision. • SmartNET writes an Event Action. • The DSS Dialogue window is updated; DSS History shows your most recent action, DSS Response Summary contains a record for each involved Agency and one for the ICM Coordinator(s). The organization you represent now shows your comment and the readiness of 'Accept'. • In the DSS summary list, the ICM coordinator status should show accept and only organizations part of the plan should be listed.
Open Issues	

Table 66: Use Case ID 9: Reject Plan by ICM User

Use Case ID	8
Use Case Name	Reject Plan by ICM User
Description	An Agency User would like to comment and reject a plan that has been accepted by an ICM Coordinator.
Pre-condition(s)	3
Standard Flow	1. Agency User logs into SmartNET 2. Using the Event List the Agency User searches for the event that has an associated DSS Plan, denoted by the following icon  . The Agency User clicks the DSS icon. 3. SmartNET displays the DSS Dialogue window. 4. Agency User populates a required 'Comment', selects "Reject" from the 'Status' drop-down box and clicks on the 'Submit' button. 5. The DSS Plan is no longer associated with the event in the event list 6. The DSS plan Summary should show the user rejection 7. The DSS History should show the rejection action 8. The DSS rejection action should be listed in the event list action
Post Conditions	• SmartNET verifies that the event is still active and the DSS plan has not been terminated and then records the user's decision. • SmartNET writes an Event Action. • The DSS Dialogue window is updated; DSS History shows your most recent action, DSS Response Summary contains a record showing that you've rejected a plan. • Only one username per agency should be made available in the DSS Summary list
Open Issues	

Table 67: Use Case ID 10: ICM User Completes Action(s)

Use Case ID	10
Use Case Name	ICM User Completes Action(s)
Description	An Agency User shall comment and complete the action required for a plan that is in the implement phase.
Pre-condition(s)	6
Standard Flow	1. Agency User logs into SmartNET 2. Using the Event List the Agency User searches for the event that has an associated DSS Plan, denoted by the following icon  . The Agency User clicks the DSS icon. 3. SmartNET displays the DSS Dialogue window. The Agency User views a list of actions that are required to be completed by his organization. 4. The Agency User completes the action 5. The Agency User returns to the DSS Dialogue window 6. Agency User populates an optional 'Comment', selects "Completed" from the 'Status' drop-down box and clicks on the 'Submit' button.
Alternate Flow	
Post Conditions	• SmartNET verifies that the event is still active and the DSS plan has not been terminated and then records the user's action. • SmartNET writes an Event Action. • The DSS Dialogue window is updated; DSS History shows your most recent action, DSS Response's action table shows your comment and status for the action updated in Step 6. • Upon the action completion, SmartNET will calculate if 40% of the actions are completed the plan will be flagged as • implemented • The DSS Response summary shall show implemented if the actions were completed
Open Issues	

Table 68: Use Case ID 11: Reject Action(s)

Use Case ID	11
Use Case Name	Reject Action(s)
Description	An Agency shall comment and reject an action required for a plan that is in the implement phase.
Pre-condition(s)	6, 10
Standard Flow	1. Agency User logs into SmartNET 2. Using the Event List the Agency User searches for the event that has an associated DSS Plan, denoted by the following icon  .

	The Agency User clicks the DSS icon. 3. SmartNET displays the DSS Dialogue window. The Agency User views a list of actions that are required to be completed by his organization. 4. Agency User selects “Reject” from the ‘Status’ drop-down box and clicks on the ‘Submit’ button.
Post Conditions	• SmartNET verifies that the event is still active and the DSS plan has not been terminated and then records the user’s action. • SmartNET writes an Event Action. • The DSS Dialogue window is updated; DSS History shows your most recent action, DSS Response’s action table shows your comment and status for the action updated. • Comments and status for the action updated. • Upon the actions rejection, SmartNET will calculate if more than 40% of the actions were accepted and display ‘implemented.’ If not but at least 1 action was accepted then the plan will be flagged as Partially implemented •
Open Issues	

Table 69: Use Case ID 12: DSS Engine Terminates Plan

Use Case ID	12
Use Case Name	DSS Engine Terminates Plan
Description	A Systems Administrator would like to verify that a DSS Plan Termination was received by the DSS Data Interface and the Terminated status is made available in the SmartFusion system.
Pre-condition(s)	13
Standard Flow	1. System Administrator places the DSS Data Interface into Simulation Mode and points the simulation file path to the existing XML document containing the same DSS Response Plan contained in Use Case 12 with status of “Terminated.” 2. System Administrator verifies that a DSS Response already exists in the SmartFusion system with the same ID that is found in the simulation file and in Use Case 12. 3. System Administrator launches the DSS Data Interface and verifies that the Data Interface reads from the simulation file and executes properly. 4. System Administrator launches the SmartNET interface and verifies that a DSS Response Termination has been associated with the SmartNET Event from Use Case 12. 5. System Administrator launches the SmartFusion XML Web Services and verifies that the DSS Response from Use Case 12 appears in the XML response with a status of ’implement’. 6. System Administrator verifies that the DSS Response from Use Case 12 record was updated in the SmartFusion Database and now contains a status of ’implement’. 7. The DSS Plan is no longer associated with the event

	8. The DSS plan Summary should show the user rejection 9. The DSS History should show the rejection action 10. The DSS rejection action should be listed in the event list action
Post Conditions	• The SmartFusion XML Web Services properly contains a DSS Response node with status of 'implement', associated with the correct SmartNET Event ID. • The SmartFusion Database correctly contains DSS Response records with the Response ID from the simulation file, in the following tables: o tblDSSTransaction contains an updated record o tblDSSHistory contains a new record with an update transaction. • The action associated with the event should capture the DSS plan termination • The DSS Dialogue should not be available for the specific event
Open Issues	

Table 70: Use Case ID 13: DSS Engine Recommends Plan

Use Case ID	13
Use Case Name	DSS Engine Recommends Plan
Description	A Systems Administrator would like to verify that a DSS Plan Recommendation was received by the DSS Data Interface and made available to the SmartFusion system.
Standard Flow	1. System Administrator places the DSS Data Interface into Simulation Mode and points the simulation file path to an existing XML document containing at least one DSS Response Plan with status of "Recommended." 2. System Administrator verifies that a DSS Response does not already exist in the SmartFusion system with the same Response ID that is found in the simulation file. 3. System Administrator launches the DSS Data Interface and verifies that the Data Interface reads from the simulation file and executes properly. 4. System Administrator launches the SmartNET interface and verifies that a DSS Recommendation has been associated with a SmartNET Event denoted by the SmartNET Event ID found in the XML simulation file. 5. System Administrator launches the SmartFusion XML Web Services and executes the getDSSStatus method and verifies that a DSS Recommendation appears in the XML response with a status of 201. 6. System Administrator verifies that a new DSS Response record was entered into to the SmartFusion Database. 7. ICM User logs into SmartNET 8. Using the Event List the user searches for an event that has

	an associated DSS Plan, denoted by the following icon  . The user may also choose to sort using the DSS column header. The user clicks the DSS icon. The plan should have a recommended status. 9. The DSS History should show the recommended DSS plan 10. The Event action should show the recommended DSS plan 11. The ICM Coordinators should receive an email and txt notifications
Alternate Flow	
Post Conditions	• The SmartNET GUI properly displays a recommended DSS response associated with a SmartNET Event. • The SmartFusion XML Web Services getDSSStatus method properly contains a DSS Response node with status of 201, associated with the correct SmartNET Event ID. • The SmartFusion Database correctly contains a new DSS Response record with the Response ID from the simulation file, in the following tables: o tblDSSTransaction contains a new record o tblDSSHistory contains a new record with a create transaction.
Open Issues	

Table 71: Use Case ID 14: Event associated with a DSS Plan Closure

Use Case ID	14
Use Case Name	DSS Event Closes
Description	SmartNET closes an event that is associated to a DSS Plan while the plan is still active
Pre-condition(s)	3 or 6 or 8 or 10 or 11
Standard Flow	1. SmartNET closes an event 2. ICM User logs into SmartNET 3. Using the Event List the user searches for an event that has an associated DSS Plan, denoted by the following icon  . The user may also choose to sort using the DSS column header. The user clicks the DSS icon. The event should not be found in the list 4. The ICM user should open the event closed tab and locate the closed event 5. The ICM coordinator should be able to confirm in the action section that the DSS plan previously associated with this event was Terminated 6. The ICM Coordinators and ICM Users receive an SMS (if applicable) and Email Notification about the DSS plan termination 7. The DSS Plan is no longer associated with the event 8. The DSS plan Summary should show the user rejection 9. The DSS History should show the rejection action 10. The DSS rejection action should be listed in the event list action

Post Conditions	• SmartNET checks to see if a DSS plan exists, if so DSS plan is set to Terminated. • The event action should be updated
Open Issues	

Table 72: Use Case ID 15: ICM Users Accepts a Recommended Plan that has been rejected by the ICM coordinator

Use Case ID	15
Use Case Name	ICM Users Accepts a Recommended Plan that has been Rejected by the ICM coordinator
Description	An ICM user to accept a plan that has been recommended by the DSS Engine but has been rejected by the ICM coordinator.
Pre-condition(s)	3
Standard Flow	1. ICM User logs into SmartNET 2. Using the Event List the User searches for the event that has an associated DSS Plan, denoted by the following icon  . The ICM Coordinator clicks the DSS icon. 3. SmartNET displays the DSS Dialogue window. 4. The ICM coordinator Rejects the plan 5. The ICM User populates an optional 'Update Status', selects "Accept" from the 'Change Status' drop-down box and clicks on the 'Submit' button. 6. A warning message should notify the ICM User that the plan was terminated 7. The ICM Coordinators and ICM Users receive an SMS (if applicable) and Email Notification about the DSS plan termination
Alternate Flow	
Post Conditions	• SmartNET calls a stored proc that verifies that the event is still active and the DSS plan has not been terminated and then records the ICM Coordinators decision. • SmartNET writes an Event Action. • The DSS Dialogue window is updated; status now shows "Accepted", DSS History shows your most recent action, DSS Response Summary contains a record showing that you've accepted a plan and the 'Last Update' time has been updated.
Open Issues	

Table 73: Use Case ID 16: SmartNET/DSS event reopened

Use Case ID	16
Use Case Name	SmartNET/DSS event reopened
Description	A SmartNET event previously associated with a DSS plan gets reopened
Pre-condition(s)	14

Standard Flow	1. ICM User logs into SmartNET 2. Go to the Event close tab and select the event to reopen 3. Make sure that event action history is still present with the DSS termination date 4. No DSS plans should be associated with this event
Alternate Flow	
Post Conditions	• SmartNET reopens an event that was associated to a DSS Plan setting the event_status = 'open' • SmartNET writes an Event Action. • Action history should be available
Open Issues	

Table 74: Use Case ID 17: DSS Transaction Missing Plan Name

Use Case ID	17
Use Case Name	DSS Transaction Missing Plan Name
Description	A Systems Administrator would like to verify that a DSS Response containing a missing DSS Plan ID is properly handled by the DSS Data Interface.
Pre-condition(s)	
Standard Flow	1. System Administrator places the DSS Data Interface into Simulation Mode and points the simulation file path to an existing XML document containing at least one DSS Response Plan with status of "Recommended" and a Plan ID and Plan Name of "TestingDSSPlan". 2. System Administrator verifies that a DSS Response does not already exist in the SmartFusion system with the same ID that is found in the simulation file. 3. System Administrator launches the DSS Data Interface and verifies that the Data Interface reads from the simulation file and executes properly. 4. System Administrator connects to the DSS Data Interface server and verifies that a new MissingResponsePlans_mmddyyyy.log file exists and 5. System Administrator launches the SmartNET interface and verifies that a DSS Recommendation has been associated with a SmartNET Event. 6. System Administrator launches the SmartFusion XML Web Services and executes the getDSSStatus method and verifies that a DSS Recommendation appears in the XML response with a status of 201 and DSS_Plan_Name of "TestingDSSPlan". 7. System Administrator verifies that a new DSS Response record was entered into to the SmartFusion Database and contains the DSS Plan Name and ID of "TestingDSSPlan"
Alternate Flow	
Post Conditions	• The MissingResponsePlans_mmddyyyy.log file contains an entry similar to the following:

	2013-01-17 08:57:44.7770: INFO: Missing Plan ID "TestingDSSPlan" for DSS Response with ID XXXX. • The SmartFusion XML Web Services getDSSStatus method properly contains a DSS Response node with status of 201, associated with the correct SmartNET Event ID and 201 and DSS_Plan_Name of "TestingDSSPlan". • The SmartFusion Database correctly contains DSS Response records with the Response ID from the simulation file, in the following tables: o tblDSSTransaction contains a new record o tblDSSHistory contains a new record with and create transaction.
Open Issues	

Table 75: Use Case ID 18: Second ICM User Accepts Plan

Use Case ID	18
Use Case Name	Second ICM User Accepts Plan
Description	An Agency User would like to comment and accept/reject a plan that has been accepted by an ICM Coordinator. Another user from their organization already accepted or rejected the plan.
Pre-condition(s)	8 or 9
Standard Flow	1. Agency User logs into SmartNET 2. Using the Event List the Agency User searches for the event that has an associated DSS Plan, denoted by the following icon  . The Agency User clicks the DSS icon. 3. SmartNET displays the DSS Dialogue window. The Agency user views that there was already a DSS Response on this plan from a fellow organizational user. 4. The Agency User populates an optional 'Update Status', selects "Accept" from the 'Change Status' drop-down box and clicks on the 'Submit' button. 5. The DSS History should show the status action 6. The Event action should show the status action
Alternate Flow	
Post Conditions	• SmartNET verifies that the event is still active and the DSS plan has not been terminated and then records the user's decision. • SmartNET writes an Event Action. • The DSS Dialogue window is updated; DSS History shows your most recent action, DSS Response Summary was updated and now shows the comment/status posted in Step 4.
Open Issues	

Table 76: Use Case ID 19: Creating ICM Coordinators

Use Case ID	19
Use Case Name	Creating ICM Coordinators
Description	A SmartNET Admin would like to update an existing user and assign ICM Coordinator Access rights
Pre-condition(s)	
Standard Flow	1. Super User logs into SmartNET 2. Super User selects 'Tools' 3. Super User selects 'Admin View' 4. Super User chooses a user and selects 'Update' 5. Check the radio box for ICM Coordinator
Alternate Flow	
Post Conditions	• SmartNET updates the privileges for user account selected in Step 4 and gives them the ICM Coordinator role. • SmartNET should check that the ICM Coordinator can only be associated with DART Organization
Open Issues	

Table 77: Use Case ID 20: End-to-end DSS Plan implementation and termination

Use Case ID	20
Use Case Name	End-to-end DSS Plan implementation
Description	DSS plan is triggered by an event creation. The ICM Coordinator and users will go through the work flow from recommended status to terminated
Pre-condition(s)	Identify a selected DSS plan to be used for testing and the event condition triggering the DSS plan generation
Standard Flow	1. ICM User logs into SmartNET 2. The ICM User creates an event with the attributes identified in the precondition steps 3. Verify that a the DSS plan selected triggered the identified plan in the DSS webservice 4. The ICM Coordinators should receive an SMS and Email Notification. 5. The ICM Coordinator logs into SmartNET 6. Using the Event List the Agency User searches for the event that has an associated DSS Plan, denoted by the following icon  . The Agency User clicks the DSS icon. 7. SmartNET displays the DSS Dialogue window. 8. The ICM Coordinator views details on the plan (Plan name and URL) and a list of participant organizations 9. The ICM Coordinator accepts the plan 10. An email and text message notification are sent to the ICM coordinators and ICM Users 11. Using the Event List the Agency the ICM user searches for the event that has an associated DSS Plan, denoted by the following

	icon  . The Agency User clicks the DSS icon. 12. The ICM User views details on the plan (Plan name and URL) and a list of participant organizations with the latest acceptance from the ICM Coordinator 13. The ICM User accepts the plan 14. The ICM Coordinator verifies that the participant agencies are listed under the DSS summary section with the latest recorded updated statuses 15. The ICM Coordinator populates a required 'Update Status', selects "Implement" from the 'Change Status' drop-down box and add any additional special notes required for the implementation the clicks on the 'Submit' button. 16. The ICM Coordinator sees the new status implement and list of all actions part of the DSS plan in view only mode 17. An email and text message DSS plan Implement notification is sent to the ICM Users and Coordinators 18. The Agency User views a list of actions that are required to be completed by his organization. 19. The Agency User completes the action 20. The Agency User returns to the DSS Dialogue window 21. Agency User populates an optional 'Comment', selects "Completed" from the 'Status' drop-down box and clicks on the 'Submit' button. 22. The ICM user belonging to the event owning agency closes the event 23. An email and text message notification is sent to the ICM Coordinators and ICM users 24. The event should be available in the closed event tab 25. The Event action should contain the time the DSS plan was terminated and reflect the new DSS status. 26. The DSS History should show the DSS Plan termination 27. The Event action list should show the DSS Plan termination
Alternate Flow	
Post Conditions	• The SmartNET GUI properly displays a recommended DSS response associated with a SmartNET Event. • The SmartFusion XML Web Services getDSSStatus method properly contains a DSS Response node with the updated statuses, associated with the correct SmartNET Event ID. • The Event action contains the Terminated DSS plan
Open Issues	

Table 78: Use Case ID 21: End-to-end DSS Plan implementation and termination by the DSS Expert rules

Use Case ID	21
Use Case Name	End-to-end DSS Plan implementation
Description	DSS plan is triggered by an event creation. The ICM Coordinator and users will go through the work flow from recommended statuses. DSS expert

	rules will terminate the plan in the middle of an implementation
Pre-condition(s)	Identify a selected DSS plan to be used for testing and the event condition triggering the DSS plan generation
Standard Flow	1. ICM User logs into SmartNET 2. The ICM User creates an event with the attributes identified in the precondition steps 3. Verify that a the DSS plan selected triggered the identified plan in the DSS webservice 4. The ICM Coordinators should receive an SMS and Email Notification. 5. ICM User change the number of lanes affected so another DSS Plan should be recommended. 6. The ICM Coordinator logs into SmartNET 7. Using the Event List the Agency User searches for the event that has an associated DSS Plan, denoted by the following icon  . The Agency User clicks the DSS icon. 8. SmartNET displays the DSS Dialogue window. 9. The ICM Coordinator views details on the plan (Plan name and URL) and a list of participant organizations 10. The ICM Coordinator accepts the plan 11. An email and text message notification are sent to the ICM coordinators and ICM Users 12. Using the Event List the Agency the ICM user searches for the event that has an associated DSS Plan, denoted by the following icon  . The Agency User clicks the DSS icon. 13. The ICM User views details on the plan (Plan name and URL) and a list of participant organizations with the latest acceptance from the ICM Coordinator 14. The ICM User accepts the plan 15. The ICM Coordinator verifies that the participant agencies are listed under the DSS summary section with the latest recorded updated statuses 16. The ICM Coordinator populates a required 'Update Status', selects "Implement" from the 'Change Status' drop-down box and add any additional special notes required for the implementation the clicks on the 'Submit' button. 17. The ICM Coordinator sees the new status implement and list of all actions part of the DSS plan in view only mode 18. An email and text message DSS plan Implement notification is sent to the ICM Users and Coordinators 19. The Agency User views a list of actions that are required to be completed by his organization. 20. The Agency User completes the action 21. The Agency User returns to the DSS Dialogue window 22. Agency User populates an optional 'Comment', selects "Completed" from the 'Status' drop-down box and clicks on the 'Submit' button. 23. The ICM user belonging to the event owning agency closes the event

	24. An email and text message notification is sent to the ICM Coordinators and ICM users 25. The event should be available in the closed event tab 26. The Event action should contain the time the DSS plan was terminated and reflect the new DSS status. 27. The DSS History should show the DSS Plan termination 28. The Event action list should show the DSS Plan termination 29. The DSS History should show the DSS Plan termination 30. The Event action list should show the DSS Plan termination
Alternate Flow	
Post Conditions	• The SmartNET GUI properly displays a recommended DSS response associated with a SmartNET Event. • The SmartFusion XML Web Services getDSSStatus method properly contains a DSS Response node with the updated statuses, associated with the correct SmartNET Event ID. • The Event action contains the Terminated DSS plan
Open Issues	

5 Appendix D: DSS Process Flow

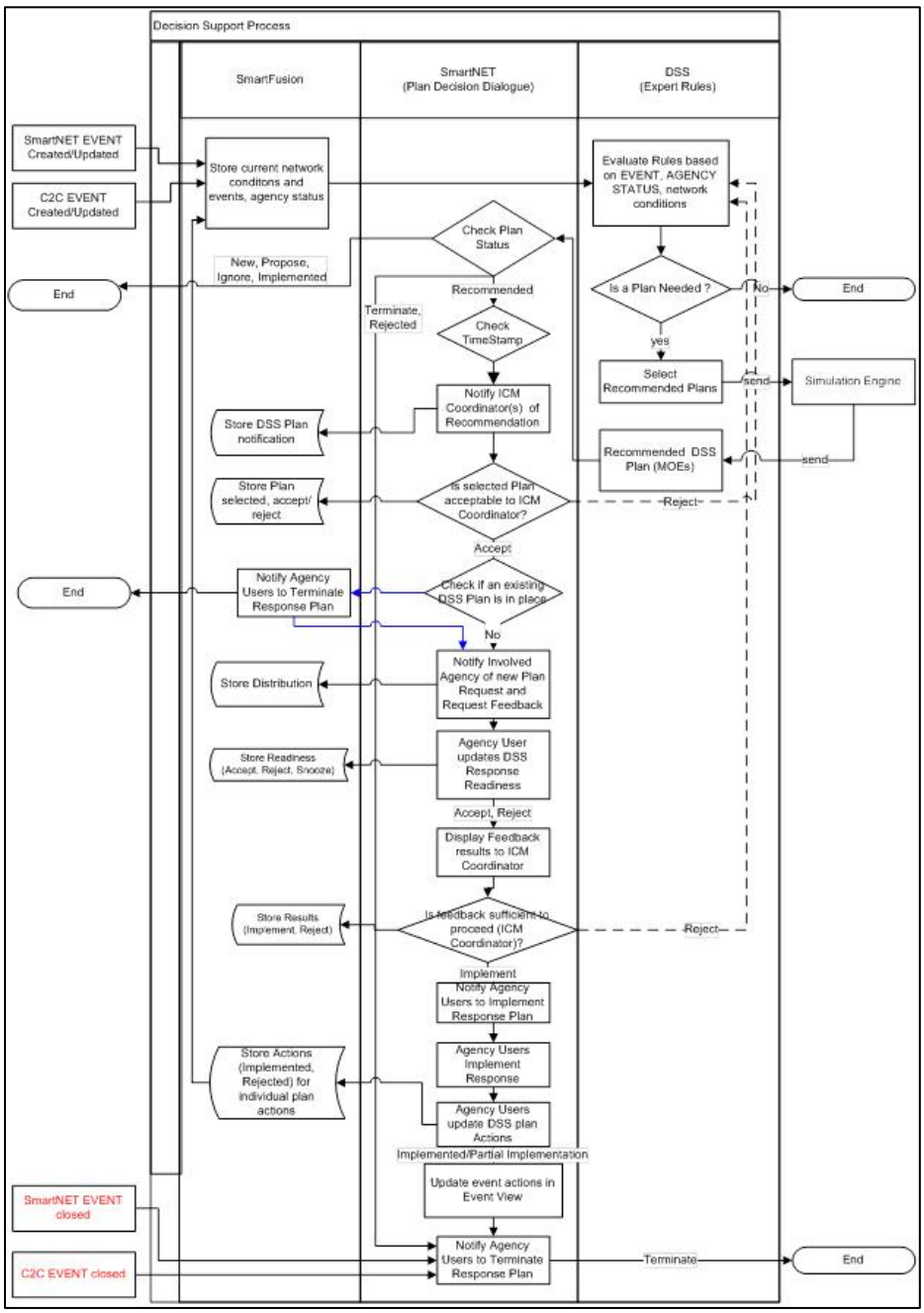

Figure 4: Decision Support Process Flow Diagram

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FHWA-JPO-13-056

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