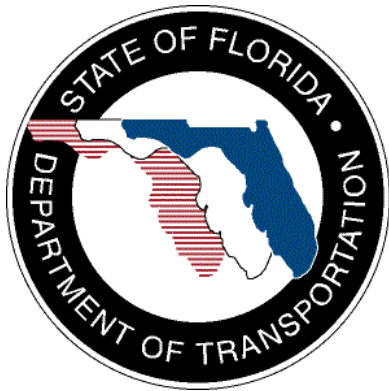


**SunGuide™:**

# **Event Management Interface Control Document**

**SunGuide-EM-ICD-3.0.1**



Prepared for:

Florida Department of Transportation  
Traffic Engineering and Operations Office  
605 Suwannee Street, M.S. 90  
Tallahassee, Florida 32399-0450  
(850) 410-5600

December 19, 2007

<b>Document Control Panel</b>			
File Name:	SunGuide-EM-ICD-3.0.1.doc		
File Location:	SunGuide CM Repository		
CDRL:	6-1		
	<b>Name</b>	<b>Initial</b>	<b>Date</b>
Created By:	John Boguslawski, IBI Group	JJB	4/25/07
Reviewed By:	Steve Dellenback, SwRI	SWD	4/26/07
	Steve Dellenback, SwRI	SWD	12/19/07
Modified By:	John Boguslawski, IBI Group	JJB	4/25/07
	John Boguslawski, IBI Group	JJB	12/17/07
Completed By:			

## Table of Contents

<b>1.</b>	<b>Scope</b> .....	<b>1</b>
1.1	<i>Document Identification</i> .....	<i>1</i>
1.2	<i>Project Overview</i> .....	<i>1</i>
1.3	<i>How to Use This Document</i> .....	<i>2</i>
1.4	<i>Related Documents</i> .....	<i>2</i>
1.5	<i>Contacts</i> .....	<i>3</i>
<b>2.</b>	<b>Data</b> .....	<b>4</b>
2.1	<i>Schema</i> .....	<i>4</i>
2.2	<i>Subsystem communication</i> .....	<i>9</i>
2.3	<i>Subsystem Schemas</i> .....	<i>13</i>
<b>3.</b>	<b>Notes</b> .....	<b>25</b>

## **List of Figures**

Figure 1-1 - High-Level Architectural Concept.....	1
Figure 1-2 - SunGuide Developer Documentation .....	2

## **List of Acronyms**

ATMS	Advanced Traffic Management System
DOT	Department of Transportation
EM	Event Management
FDOT	Florida Department of Transportation
ITS	Intelligent Transportation Systems
ITN	Invitation to Negotiate
SwRI	Southwest Research Institute
TMC	Traffic Management Center
XML	Extensible Markup Language

## **REVISION HISTORY**

<b>Revision</b>	<b>Date</b>	<b>Changes</b>
3.0.0	April 25, 2007	Initial Release
3.0.1	December 19, 2007	Added "how to use this document" section

# 1. Scope

## 1.1 Document Identification

This Interface Control Document (ICD) describes the interface between individual SunGuide™ clients and the Event Management (EM) subsystem and between the EM subsystem and other subsystems. The general base architecture of the XML communications including connection information, byte order and base transaction classes is delineated in this document. This ICD defines Extensible Markup Language (XML) schemas upon which XML requests shall be based in communicating amongst the various processes. Refer to the SunGuide-General-ICD document for details regarding data transfer.

## 1.2 Project Overview

The Florida Department of Transportation (FDOT) is conducting a program that is developing SunGuide software. The SunGuide software is a set of Intelligent Transportation System (ITS) software that allows the control of roadway devices as well as information exchange across a variety of transportation agencies. The goal of the SunGuide software is to have a common software base that can be deployed throughout the state of Florida. The SunGuide software development effort is based on ITS software available from the state of Texas; significant customization of the software is being performed as well as the development of new software modules. The following figure provides a graphical view of the software to be developed:

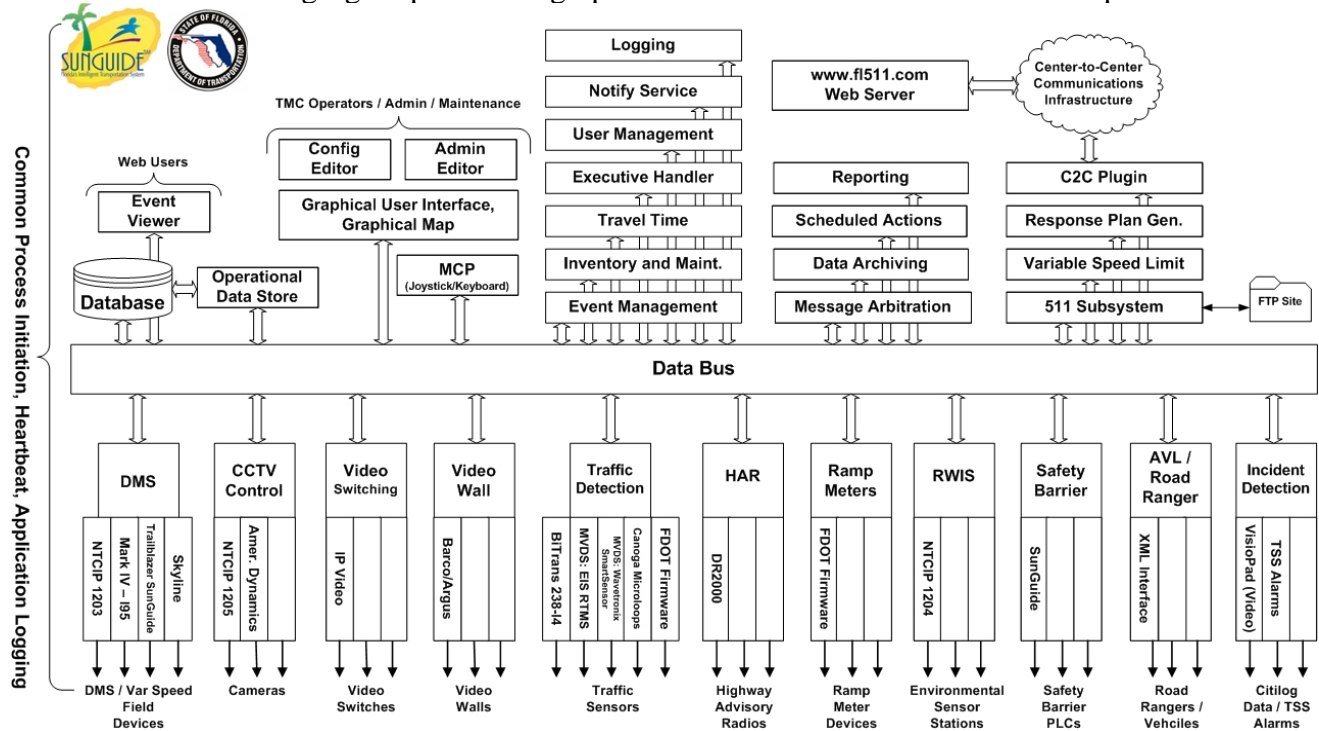
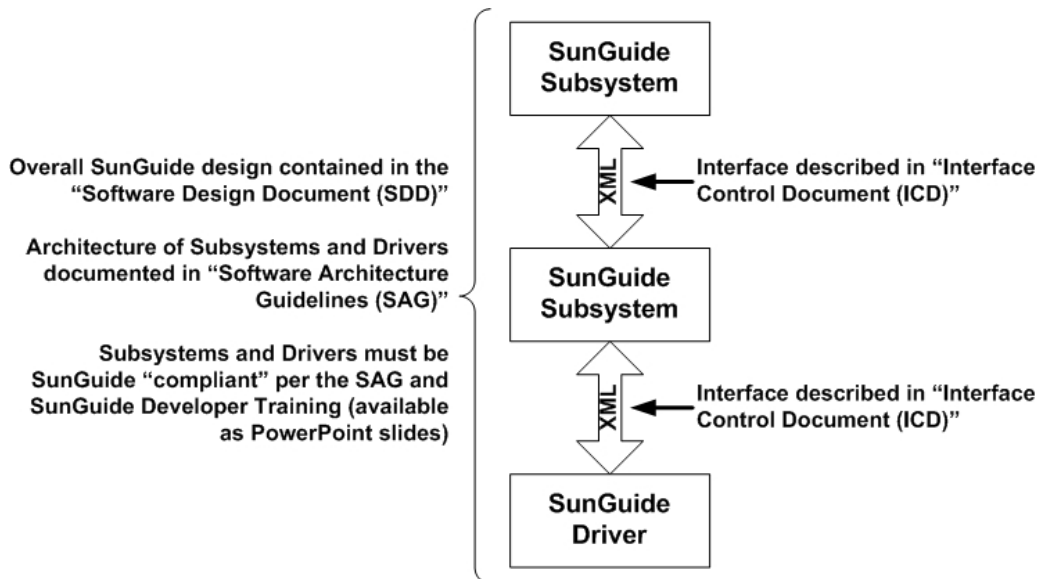


Figure 1-1 - High-Level Architectural Concept

### **1.3 How to Use This Document**

The ICDs describe the specific interface between two SunGuide subsystems or between a SunGuide subsystem and a SunGuide driver. The relationship of appropriate documents is shown in the Figure 1-2.



**Figure 1-2 - SunGuide Developer Documentation**

This document describes an *internal* SunGuide interface. The interface described is between two SunGuide compliant processes. The reader should review the following document to gain an understanding of how SunGuide compliant application is created (this will vary if the application is a driver or subsystem):

#### *SunGuide Software Architecture Guidelines (SAG)*

The SAG describes what needs to be included in a SunGuide application to assure that it will work cooperatively in the SunGuide environment. Once the SAG is reviewed, the following document should be reviewed:

#### *SunGuide Software Design Document (SDD)*

The SDD will provide an understanding of how individual components of SunGuide were designed. Finally the ICD, along with the associated schema should be reviewed to determine what data needs to be exchanged on the interface being defined in this document.

Additionally, a SunGuide “Developer Training” class is available that provides the students with an introduction into developing SunGuide processes. The SunGuide source code repository has a generic subsystem and a generic driver available that can be used as the basis for developing a new application.

### **1.4 Related Documents**

The following documents were used to develop this document:



- SwRI Qualification Response: *Response to the Invitation to Negotiate (ITN): Statewide Transportation Management Center Software Library System, Negotiation Number: ITN-DOT-02/03-9025-RR*, SwRI Proposal No. 10-35924, dated: November 18, 2002.
- SwRI Technical Proposal: *Technical Proposal for Invitation to Negotiate (ITN): Statewide Transportation Management Center Software Library System, Negotiation Number: ITN-DOT-02/03-9025-RR*, SwRI Proposal No. 10-35924, dated: January 31, 2003.
- SwRI Cost Proposal: *Cost Proposal for Invitation to Negotiate (ITN): Statewide Transportation Management Center Software Library System, Negotiation Number: ITN-DOT-02/03-9025-RR*, SwRI Proposal No. 10-35924, dated: January 31, 2003.
- SwRI BAFO letter: *Southwest Research Institute<sup>®</sup> Proposal No. 10-35924, “Invitation to Negotiate (ITN): Statewide Transportation Management Center Software Library System”, Reference: Negotiation Number: ITN-DOT-02/03-9025-RR*, dated: May 5, 2003.
- FDOT procurement document: *Invitation To Negotiate (ITN), Negotiation Number: ITN-DOT-02/03-9025-RR, Statewide Transportation Management Center Software Library System*, dated: October 21, 2002.
- FDOT Scope of Services: *Statewide Transportation Management Center Software Library System: Scope of Services*, September 22, 2003.
- FDOT Requirements Document: *Statewide Transportation Management Center Software Library System: Requirements Specification*, June 3, 2003.
- Southwest Research Institute, *TMC Software Study*, November 15, 2001.
- Southwest Research Institute, *Introduction to an Operational Concept For the Florida Statewide Library*, FDOT – OCD – 1.0, March 31, 2002.
- World Wide Web Consortium (W3) website: <http://www.w3.org>.
- SunGuide Project website: <http://suguide.datasys.swri.edu>.

## **1.5 Contacts**

The following are contact persons for the SunGuide software project:

- Elizabeth Birriel, ITS Central Office, [elizabeth.birriel@dot.state.fl.us](mailto:elizabeth.birriel@dot.state.fl.us), 850-410-5606
- Trey Tillander, FDOT SunGuide Project Manager, [trey.tillander@dot.state.fl.us](mailto:trey.tillander@dot.state.fl.us), 850-410-5617
- John Bonds, Senior ITS Specialist, [jbonds@pbsj.com](mailto:jbonds@pbsj.com), 408-873-2514
- David Chang, ITS Specialist, [David.Chang@dot.state.fl.us](mailto:David.Chang@dot.state.fl.us), 850-410-5622
- Steve Dellenback, SwRI Project Manager, [sdellenback@swri.org](mailto:sdellenback@swri.org), 210-522-3914
- Robert Heller, SwRI Software Project Manager, [rheller@swri.org](mailto:rheller@swri.org), 210-522-3824

The following are contacts that will be used by the SunGuide software project team to assure consistency with other FDOT projects and FDOT procedures:

- Liang Hsia, FDOT TERL, [liang.hsia@dot.state.fl.us](mailto:liang.hsia@dot.state.fl.us), 850-410-5615

## **2. Data**

The following sections detail the XML transactions that can be exchanged between client and server applications.

### **2.1 Schema**

The schemas for these transactions may be located in the Schemas directory. The objects directory contains common data schemas that are used by the various request, messages, and responses. Schemas are organized in the following tree structure:

- Messages
  - addEventUpdateMsg.xsd
  - suggestResponsePlanMsg.xsd
- Objects
  - Activity.xsd
  - Agency.xsd
  - Color.xsd
  - CommentType.xsd
  - Contact.xsd
  - County.xsd
  - EmailRecipient.xsd
  - Event.xsd
  - EventChronology.xsd
  - EventComment.xsd
  - EventContact.xsd
  - EventDetails.xsd
  - EventDmsAssingment.xsd
  - EventLaneBlockage.xsd
  - EventLocationCongestion.xsd
  - EventResponder.xsd
  - EventRrProcError.xsd
  - EventStatus.xsd
  - EventStatusAudit.xsd
  - EventTimestamps.xsd
  - EventType.xsd
  - EventVehicle.xsd
  - EventVehicleResponse.xsd
  - InjuryType.xsd
  - Lane.xsd
  - LaneMap.xsd
  - LaneType.xsd
  - Location.xsd
  - Maillist.xsd
  - OffsetType.xsd
  - Organization.xsd

- ProceduralError.xsd
- ReferencePoint.xsd
- Roadway.xsd
- State.xsd
- VehicleMake.xsd
- VehicleMatch.xsd
- VehicleModel.xsd
- VehicleType.xsd
- WeatherCondition.xsd
  
- Requests
  - activateResponsePlanReq.xsd
  - addActivityReq.xsd
  - addAgencyContactReq.xsd
  - addAgencyReq.xsd
  - addColorReq.xsd
  - addCommentTypeReq.xsd
  - addCountyReq.xsd
  - addEventCommentReq.xsd
  - addEventContactReq.xsd
  - addEventDmsAssignmentReq.xsd
  - addEventLocationCongestionReq.xsd
  - addEventReq.xsd
  - addEventRrProcErrorReq.xsd
  - addEventStatusReq.xsd
  - addEventTypeReq.xsd
  - addEventVehicleReq.xsd
  - addInjuryTypeReq.xsd
  - addItemToResponsePlanReq.xsd
  - addLaneMapReq.xsd
  - addLaneTypeReq.xsd
  - addLocationReq.xsd
  - addMaillistReq.xsd
  - addOrganizationReq.xsd
  - addProceduralErrorReq.xsd
  - addReferencePointReq.xsd
  - addRoadwayReq.xsd
  - addStateReq.xsd
  - addVehicleMakeReq.xsd
  - addVehicleModelReq.xsd
  - addVehicleTypeReq.xsd
  - arriveVehicleReq.xsd
  - cancelVehicleReq.xsd
  - cloneEventReq.xsd
  - departVehicleReq.xsd
  - dispatchVehicleReq.xsd

- getEventLaneBlockageAuditReq.xsd
- getEventReq.xsd
- getEventResponderAuditReq.xsd
- getEventStatusAuditReq.xsd
- getEventVehicleResponseAuditReq.xsd
- getVehicleMatchReq.xsd
- modifyActivityReq.xsd
- modifyAgencyContactReq.xsd
- modifyAgencyReq.xsd
- modifyColorReq.xsd
- modifyCommentTypeReq.xsd
- modifyCountyReq.xsd
- modifyEventContactReq.xsd
- modifyEventDetailsReq.xsd
- modifyEventLocationCongestionReq.xsd
- modifyEventOwnerReq.xsd
- modifyEventRrProcErrorReq.xsd
- modifyEventStatusReq.xsd
- modifyEventTypeReq.xsd
- modifyEventVehicleReq.xsd
- modifyInjuryTypeReq.xsd
- modifyLaneMapReq.xsd
- modifyLaneTypeReq.xsd
- modifyLocationReq.xsd
- modifyMaillistReq.xsd
- modifyOrganizaitonReq.xsd
- modifyProceduralErrorReq.xsd
- modifyReferencePointReq.xsd
- modifyRoadwayReq.xsd
- modifyStateReq.xsd
- modifyVehicleMakeReq.xsd
- modifyVehicleModelReq.xsd
- modifyVehicleTypeReq.xsd
- modifyWeatherConditionReq.xsd
- removeActivityReq.xsd
- removeAgencyContact.xsd
- removeAgencyReq.xsd
- removeColorReq.xsd
- removeCommentTypeReq.xsd
- removeCountyReq.xsd
- removeEventContactReq.xsd
- removeEventRrProcErrorReq.xsd
- removeEventStatusReq.xsd
- removeEventTypeReq.xsd
- removeEventVehicleReq.xsd
- removeInjuryTypeReq.xsd

- removeItemFromResponsePlanReq.xsd
- removeLaneMapReq.xsd
- removeLaneTypeReq.xsd
- removeLocationReq.xsd
- removeMaillistReq.xsd
- removeOrganizationReq.xsd
- removeProceduralErrorReq.xsd
- removeReferencePointReq.xsd
- removeRoadwayReq.xsd
- removeStateReq.xsd
- removeVehicleMakeReq.xsd
- removeVehicleModelReq.xsd
- removeVehicleTypeReq.xsd
- retrieveDataReq.xsd
- revokeResponsePlanReq.xsd
- setEventLaneBlockageReq.xsd
- setEventResponderListReq.xsd
- setEventWeatherConditionReq.xsd
- setVehicleActivityReq.xsd
- subscribeReq.xsd
- Response
  - activateResponsePlanResp.xsd
  - addActivityResp.xsd
  - addAgencyContactResp.sd
  - addAgencyResp.xsd
  - addColorResp.xsd
  - addCommentTypeResp.xsd
  - addCountyResp.xsd
  - addEventCommentResp.xsd
  - addEventContactResp.xsd
  - addEventDmsAssignmentResp.xsd
  - addEventLocationCongestionResp.xsd
  - addEventResp.xsd
  - addEventRrProcErrorResp.xsd
  - addEventStatusResp.xsd
  - addEventTypeResp.xsd
  - addEventVehicleResp.xsd
  - addInjuryTypeResp.xsd
  - addItemToResponsePlanResp.xsd
  - addLaneMapResp.xsd
  - addLaneTypeResp.xsd
  - addLocationResp.xsd
  - addMaillistResp.xsd
  - addOrganizationResp.xsd
  - addProceduralErrorResp.xsd
  - addReferencePointResp.xsd

- addRoadwayResp.xsd
- addStateResp.xsd
- addVehicleMakeResp.xsd
- addVehicleModelResp.xsd
- addVehicleTypeResp.xsd
- arriveVehicleResp.xsd
- cancelVehicleResp.xsd
- cloneEventResp.xsd
- departVehicleResp.xsd
- dispatchVehicleResp.xsd
- getEventLaneBlockageAuditResp.xsd
- getEventResp.xsd
- getEventResponderAuditResp.xsd
- getEventStatusAuditResp.xsd
- getEventVehicleResponseAuditResp.xsd
- getVehicleMatchResp.xsd
- modifyActivityResp.xsd
- modifyAgencyContactResp.xsd
- modifyAgencyResp.xsd
- modifyColorResp.xsd
- modifyCommentTypeResp.xsd
- modifyCountyResp.xsd
- modifyEventContactResp.xsd
- modifyEventDetailsResp.xsd
- modifyEventLocationCongestionResp.xsd
- modifyEventOwnerResp.xsd
- modifyEventRrProcErrorResp.xsd
- modifyEventStatusResp.xsd
- modifyEventTypeResp.xsd
- modifyEventVehicleResp.xsd
- modifyInjuryTypeResp.xsd
- modifyLaneMapResp.xsd
- modifyLaneTypeResp.xsd
- modifyLocationResp.xsd
- modifyMaillistResp.xsd
- modifyOrganizaitonResp.xsd
- modifyProceduralErrorResp.xsd
- modifyReferencePointResp.xsd
- modifyRoadwayResp.xsd
- modifyStateResp.xsd
- modifyVehicleMakeResp.xsd
- modifyVehicleModelResp.xsd
- modifyVehicleTypeResp.xsd
- modifyWeatherConditionResp.xsd
- removeActivityResp.xsd
- removeAgencyContact.xsd

- removeAgencyResp.xsd
- removeColorResp.xsd
- removeCommentTypeResp.xsd
- removeCountyResp.xsd
- removeEventContactResp.xsd
- removeEventRrProcErrorResp.xsd
- removeEventStatusResp.xsd
- removeEventTypeResp.xsd
- removeEventVehicleResp.xsd
- removeInjuryTypeResp.xsd
- removeItemFromResponsePlanResp.xsd
- removeLaneMapResp.xsd
- removeLaneTypeResp.xsd
- removeLocationResp.xsd
- removeMaillistResp.xsd
- removeOrganizationResp.xsd
- removeProceduralErrorResp.xsd
- removeReferencePointResp.xsd
- removeRoadwayResp.xsd
- removeStateResp.xsd
- removeVehicleMakeResp.xsd
- removeVehicleModelResp.xsd
- removeVehicleTypeResp.xsd
- retrieveDataResp.xsd
- revokeResponsePlanResp.xsd
- setEventLaneBlockageResp.xsd
- setEventResponderListResp.xsd
- setEventWeatherConditionResp.xsd
- setVehicleActivityResp.xsd
- subscribeResp.xsd

## **2.2 Subsystem communication**

The following table shows the various subscriptions a client may request.

Subscription	Description	Updates Received
activityData	Receive updates to activity data	AddActivityResp, ModifyActivityResp, RemoveActivityResp
agencyData	Receive updates to agency data	AddAgencyResp, ModifyAgencyResp, RemoveAgencyResp, AddAgencyContactResp, ModifyAgencyContactResp, RemoveAgencyContactResp

*EM Interface Control Document*

Subscription	Description	Updates Received
cuntyData	Receive updates to county data	AddCountyResp, ModifyCountyResp, RemoveCountResp
evntTypeData	Receive updates to event type data	AddEventTypeResp, ModifyEventTypeResp, RemoveEventTypeResp
evntStatusData	Receive updates to event status data	AddEventStatusResp, ModifyEventStatusResp, RemoveEventStatusResp
injuryTypeData	Receive updates to injury type data	AddInjuryTypeResp, ModifyInjuryTypeResp, RemoveInjuryTypeResp
offsetTypeData	Receive updates to offset type data	
organizationData	Receive updates to organization data	AddOrganizationResp, ModifyOrganizationResp, RemoveOrganizationResp
laneMapData	Receive updates to lane map data	AddLaneMapResp, ModifyLaneMapResp, RemoveLaneMapResp
laneTypeData	Receive updates to lane type data	AddLaneTypeResp, ModifyLaneTypeResp, RemoveLaneTypeResp
weatherConditionData	Receive updates to weather condition data	ModifyWeatherconditionResp
vehicleTypeData	Receive updates to vehicle type data	AddVehicleTypeResp, ModifyVehicleTypeResp, RemoveVehicleTypeResp
vehicleMakeData	Receive updates to vehicle make data	AddVehicleMakeResp, ModifyVehicleMakeResp, RemoveVehicleMakeResp
roadwayData	Receive updates to roadway data	AddRoadwayResp, ModifyRoadwayResp, RemoveRoadwayResp
referencePointData	Receive updates to reference point data	AddReferencePointResp, ModifyReferencePointResp, RemoveReferencePointResp
locationData	Receive updates to location data	AddLocationResp, ModifyLocationResp, RemoveLocationResp
maillistData	Receive updates to Maillist	AddMaillistResp, ModifyMaillistResp,



Subscription	Description	Updates Received
	data	RemoveMaillistResp
commentTypeData	Receive updates to comment type data	AddCommentTypeResp, ModifyCommentTypeResp, RemoveCommentTypeResp
stateData	Receive updates to state data	AddStateResp, ModifyStateResp, RemoveStateResp
proceduralErrorData	Receive updates to procedural error data	AddProceduralErrorResp, ModifyProceduralErrorResp, RemoveProceduralErrorResp
colorData	Receive updates to color data	AddColorResp, ModifyColorResp, RemoveColorResp
eventVehicleData	Receive updates to event vehicle matches	
UserData	Receive notification of changes to user permissions.	updateSystemDataMsg
eventData	Receive updates to event data	ActivateResponsePlanResp, AddEventCommentResp, AddEventContactResp, AddEventDmsAssignmentResp, AddEventLocaitonCongestionResp, AddEventResp, AddEventRrProcErrorResp, AddEventVehicleResp, AddItemToResponsePlanResp, ArriveVehicleResp, CancelVehicleResp, CloneEventResp, DepartVehicleResp, DispatchVehicleResp, ModifyEventContactResp, ModifyEventDetailsResp, ModifyEventLocationCongestionResp, ModifyEventOwnerResp, ModifyEventRrProcErrorResp, ModifyEventVehicleResp, RemoveEventContactResp, RemoveEventRrProcErrorResp, RemoveEventVehicleResp, RemoveItemFromResponsePlanResp, RevokeResponsePlanResp,

*EM Interface Control Document*

---

Subscription	Description	Updates Received
		SetEventLaneBlockageResp, SetEventResponderListResp, SetEventWeatherConditionResp, SetVehicleActivityResp

### **2.3 Subsystem Schemas**

FC (From Client), TC (To Client), TD (To Driver), FD (From Driver)

Usage Description	Requests	FC	TD	Responses	FD	TC	Messages	TD	FD	TC
Used to activate a response plan for an event	activateResponsePlanReq.xsd	X		ActivateResponsePlanResp.xsd		X				
Used to add an activity to the system (configuration)	addActivityReq.xsd	X		AddActivityResp.xsd		X				
Used to add a contact a specific an agency and to the system (configuration)	addAgencyContactReqxsd	X		AddAgencyContactRespxsd		X				
Used to add an agency to the system (configuration)	addAgencyReq.xsd	X		AddAgencyResp.xsd		X				
Used to add a color to the system (configuration)	addColorReq.xsd	X		AddColorResp.xsd		X				
Used to add a comment type to the system (configuration)	addCommentTypeReq.xsd	X		AddCommentTypeResp.xsd		X				
Used to add county to the system (configuration)	addCountyReq.xsd	X		AddCountyResp.xsd		X				
Used to add a comment to an Event	addEventCommentReq.xsd	X		addEventCommentResp.xsd		X				

*EM Interface Control Document*

---

Usage Description	Requests	FC	TD	Responses	FD	TC	Messages	TD	FD	TC
Used to add a contact to an Event	addEventContactReq.xsd	X		AddEventContactResp.xsd		X				
Used to assign a dms to an Event	addEventDmsAssignmentReq.xsd	X		addEventDmsAssignmentResp.xsd		X				
Used to add a location (and/or congestion) to an Event	addEventLocationCongestionReq.xsd	X		addEventLocationCongestionResp.xsd		X				
Used to add an event to the system	addEventReq.xsd	X		AddEventResp.xsd		X				
Used to add a Road Ranger Procedural Error to an Event	addEventRrProcErrorReq.xsd	X		AddEventRrProcErrorResp.xsd		X				
Used to add a status to the system (configuration)	addEventStatusReq.xsd	X		AddEventStatusResp.xsd		X				
Used to add an event type to the system (configuration)	addEventTypeReq.xsd	X		addEventTypeResp.xsd		X				
Used to add a Vehicle to an Event	addEventVehicleReq.xsd	X		AddEventVehicleResp.xsd		X				
Used to add an Injury Type to the system (configuration)	addInjuryTypeReq.xsd	X		AddInjuryTypeResp.xsd		X				
Used to add an Item to a response plan (attached to an event)	addItemToResponsePlanReq.xsd	X		AddItemToResponsePlanResp.xsd		X				

Usage Description	Requests	FC	TD	Responses	FD	TC	Messages	TD	FD	TC
Used to add a lane map to the system (configuration)	addLaneMapReq.xsd	X		AddLaneMapResp.xsd		X				
Used to add a lane type to the system (configuration)	addLaneTypeReq.xsd	X		addLaneTypeResp.xsd		X				
Used to add a location to the system (configuration)	addLocationReq.xsd	X		addLocationResp.xsd		X				
Used to add a maillist to the system (configuration)	addMaillistReq.xsd	X		addMaillistResp.xsd		X				
Used to add an organization to the system (configuration)	addOrganizationReq.xsd	X		AddOrganizationResp.xsd		X				
Used to add a procedural error to the system (configuration)	addProceduralErrorReq.xsd	X		AddProceduralErrorResp.xsd		X				
Used to add a reference point to the system (configuration)	addReferencePointReq.xsd	X		AddReferencePointResp.xsd		X				
Used to add a roadway to the system (configuration)	addRoadwayReq.xsd	X		AddRoadwayResp.xsd		X				
Used to add a state to the system	addStateReq.xsd	X		AddStateResp.xsd		X				

*EM Interface Control Document*

---

Usage Description	Requests	FC	TD	Responses	FD	TC	Messages	TD	FD	TC
(configuration)										
Used to add a vehicle make to the system (configuration)	addVehicleMakeReq.xsd	X		AddVehicleMakeResp.xsd		X				
Used to add a vehicle model to the system (configuration)	addVehicleModelReq.xsd	X		AddVehicleModelResp.xsd		X				
Used to add a vehicle type to the system (configuration)	addVehicleTypeReq.xsd	X		AddVehicleTypeResp.xsd		X				
Used to arrive a road ranger vehicle to an event	arriveVehicleReq.xsd	X		ArriveVehicleResp.xsd		X				
Used to cancel a road ranger vehicle from an event	cancelVehicleReq.xsd	X		CancelVehicleResp.xsd		X				
Used to clone an event	cloneEventReq.xsd	X		CloneEventResp.xsd		X				
Used to depart a vehicle from an event	departVehicleReq.xsd	X		DepartVehicleResp.xsd		X				
Used to dispatch a vehicle to an event	dispatchVehicleReq.xsd	X		DispatchVehicleResp.xsd		X				
Used to retrieve the audit lane blockage for an event	getEventLaneBlockageAuditReq.xsd	X		getEventLaneBlockageAuditResp.xsd		X				
Used to retrieve an event	getEventReq.xsd	X		GetEventResp.xsd		X				

*EM Interface Control Document*

---

Usage Description	Requests	FC	TD	Responses	FD	TC	Messages	TD	FD	TC
Used to retrieve responder audit for an event	getEventResponderAuditReq.xsd	X		GetEventResponderAuditResp.xsd		X				
Used to retrieve event status audit for an event	getEventStatusAuditReq.xsd	X		getEventStatusAuditResp.xsd		X				
Used to retrieve event vehicle response (dispatch) audit for an event	getEventVehicleResponseAuditReq.xsd	X		GetEventVehicleResponseAuditResp.xsd		X				
Used to retrieve vehicle match (by tag) for an event	getVehicleMatchReq.xsd	X		GetVehicleMatchResp.xsd		X				
Used to modify an activity in the system (configuration)	modifyActivityReq.xsd	X		ModifyActivityResp.xsd		X				
Used to modify agency contact in the system (configuration)	modifyAgencyContactReq.xsd	X		modifyAgencyContactResp.xsd		X				
Used to modify agency in the system (configuration)	modifyAgencyReq.xsd	X		ModifyAgencyResp.xsd		X				
Used to modify color in the system (configuration)	modifyColorReq.xsd	X		ModifyColorResp.xsd		X				
Used to modify comment type in the system (configuration)	modifyCommentTypeReq.xsd	X		ModifyCommentTypeResp.xsd		X				

*EM Interface Control Document*

---

Usage Description	Requests	FC	TD	Responses	FD	TC	Messages	TD	FD	TC
Used to modify county in the sytem (configuration)	modifyCountyReq.xsd	X		ModifyCountyResp.xsd		X				
Used to modify a contact in the event	modifyEventContactReq.xsd	X		modifyEventContactResp.xsd		X				
Used to modify details of the event	modifyEventDetailsReq.xsd	X		modifyEventDetailsResp.xsd		X				
Used to modify the location (and/or congestion) in the event	modifyEventLocationCongestionReq.xsd	X		ModifyEventLocationCongestionResp.xsd		X				
Used to modify the event owner of an event	modifyEventOwnerReq.xsd	X		modifyEventOwnerResp.xsd		X				
Used to modify the road ranger procedural error in the event	modifyEventRrProcErrorReq.xsd	X		modifyEventRrProcErrorResp.xsd		X				
Used to modify event status (configuration)	modifyEventStatusReq.xsd	X		ModifyEventStatusResp.xsd		X				
Used to modify event type (configuration)	modifyEventTypeReq.xsd	X		modifyEventTypeResp.xsd		X				
Used to modify a vehicle in an event	modifyEventVehicleReq.xsd	X		modifyEventVehicleResp.xsd		X				
Used to modify an injury type in the system (configuration)	modifyInjuryTypeReq.xsd	X		modifyInjuryTypeResp.xsd		X				
Used to modify lane map in the system	modifyLaneMapReq.xsd	X		modifyLaneMapResp.xsd		X				



*EM Interface Control Document*

---

Usage Description	Requests	FC	TD	Responses	FD	TC	Messages	TD	FD	TC
(configuration)										
Used to modify lane type in the system (configuration)	modifyLaneTypeReq.xsd	X		modifyLaneTypeResp.xsd		X				
Used to modify location in the system (configuration)	modifyLocationReq.xsd	X		modifyLocationResp.xsd		X				
Used to modify maillist in the system (configuration)	modifyMaillistReq.xsd	X		modifyMaillistResp.xsd		X				
Used to modify organizaiton in the system (configuration)	modifyOrganizaitonReq.xsd	X		modifyOrganizaitonResp.xsd		X				
Used to modify procedural error in the system (configuration)	modifyProceduralErrorReq.xsd	X		modifyProceduralErrorResp.xsd		X				
Used to modify reference point in the system (configuration)	modifyReferencePointReq.xsd	X		modifyReferencePointResp.xsd		X				
Used to modify roadway in the system (configuration)	modifyRoadwayReq.xsd	X		modifyRoadwayResp.xsd		X				
Used to modify state in the system (configuration)	ModifyStateReq.xsd	X		ModifyStateResp.xsd		X				

*EM Interface Control Document*

Usage Description	Requests	FC	TD	Responses	FD	TC	Messages	TD	FD	TC
Used to modify vehicle make in the system (configuration)	modifyVehicleMakeReq.xsd	X		modifyVehicleMakeReqpsd		X				
Used to modify vehicle model in the system (configuration)	modifyVehicleModelReq.xsd	X		modifyVehicleModelResp.xsd		X				
Used to modify vehicle type in the system (configuration)	modifyVehicleTypeReq.xsd	X		modifyVehicleTypeResp.xsd		X				
Used to modify weather conditions in the system (configuration)	modifyWeatherConditionReq.xsd	X		modifyWeatherConditionResp.xsd		X				
Used to remove an activity from the system (configuration)	removeActivityReq.xsd	X		removeActivityResp.xsd		X				
Used to remove contact from agency and system (configuration)	removeAgencyContactReq.xsd	X		removeAgencyContactResp.xsd		X				
Used to remove agency from the system (configuration)	removeAgencyReq.xsd	X		removeAgencyResp.xsd		X				
Used to remove color from the system (configuration)	removeColorReq.xsd	X		removeColorResp.xsd		X				

*EM Interface Control Document*

---

Usage Description	Requests	FC	TD	Responses	FD	TC	Messages	TD	FD	TC
Used to remove comment type from the system (configuration)	removeCommentTypeReq.xsd	X				X				
Used to remove county from the system (configuration)	removeCountyReq.xsd	X		removeCountyResp.xsd		X				
Used to remove contact from an event	removeEventContactReq.xsd	X		removeEventContactResp.xsd		X				
Used to remove road ranger procedural error from an event	removeEventRrProcErrorReq.xsd	X		removeEventRrProcErrorResp.xsd		X				
Used to remove event status from the system (configuration)	removeEventStatusReq.xsd	X		RemoveEventStatusResp.xsd		X				
Used to remove event type form the system (configuration)	removeEventTypeReq.xsd	X		removeEventTypeResp.xsd		X				
Used to remove vehicle from an event	removeEventVehicleReq.xsd	X		RemoveEventVehicleResp.xsd		X				
Used to remove injury type from the system (configuration)	removeInjuryTypeReq.xsd	X		RemoveInjuryTypeResp.xsd		X				
Used to remove item from response plan (in an event)	removeItemFromResponsePlanReq.xsd	X		removeItemFromResponsePlanResp.xsd		X				

*EM Interface Control Document*

---

Usage Description	Requests	FC	TD	Responses	FD	TC	Messages	TD	FD	TC
Used to remove lane map from the system (configuration)	removeLaneMapReq.xsd	X		removeLaneMapResp.xsd		X				
Used to remove lane type from the system (configuration)	removeLaneTypeReq.xsd	X		removeLaneTypeResp.xsd		X				
Used to remove location from the system (configuration)	removeLocationReq.xsd	X		removeLocationResp.xsd		X				
Used to remove Maillist from the system (configuration)	removeMaillistReq.xsd	X		removeMaillistResp.xsd		X				
Used to remove organization from the system (configuration)	removeOrganizationReq.xsd	X		removeOrganizationResp.xsd		X				
Used to remove procedural error from the system (configuration)	removeProceduralErrorReq.xsd	X		removeProceduralErrorResp.xsd		X				
Used to remove reference point from the system (configuration)	removeReferencePointReq.xsd	X		removeReferencePointResp.xsd		X				
Used to remove roadway from the system (configuration)	removeRoadwayReq.xsd	X		removeRoadwayResp.xsd		X				

*EM Interface Control Document*

Usage Description	Requests	FC	TD	Responses	FD	TC	Messages	TD	FD	TC
Used to remove state from the system (configuration)	removeStateReq.xsd	X		removeStateResp.xsd		X				
Used to remove vehicle make from the system (configuration)	removeVehicleMakeReq.xsd	X		removeVehicleMakeResp.xsd		X				
Used to remove vehicle model from the system (configuration)	removeVehicleModelReq.xsd	X		removeVehicleModelResp.xsd		X				
Used to remove vehicle type from the system (configuration)	removeVehicleTypeReq.xsd	X		removeVehicleTypeResp.xsd		X				
Used to retrieve data from the system	RetrieveDataReq.xsd	X		RetrieveDataResp.xsd		X				
Used to revoke the response plan (for an event)	revokeResponsePlanReq.xsd	X		revokeResponsePlanResp.xsd		X				
Used to set the lane blockage for an event	setEventLaneBlockageReq.xsd	X		setEventLaneBlockageResp.xsd		X				
Used to set the event responder list for an event	setEventResponderListReq.xsd	X		setEventResponderListResp.xsd		X				
Used to set the weather condition for an event	setEventWeatherConditionReq.xsd	X		setEventWeatherConditionResp.xsd		X				
Used to set the vehicle activity list	setVehicleActivityReq.xsd	X		setVehicleActivityResp.xsd		X				

*EM Interface Control Document*

---

Usage Description	Requests	FC	TD	Responses	FD	TC	Messages	TD	FD	TC
for an event										
Used to subscribe to event and configuration data	subscribeReq.xsd	X		subscribeResp.xsd		X				
Used to indicate an event was added to the system							AddEventUpdate Msg			X
Used to indicate an event was deleted from the system							deleteEventMsg			X

### **3. Notes**

Information about XML and schemas can be found at the World Wide Web Consortium (W3) website at <http://www.w3.org>.