



SWIM Compliance Report for R5 V&V Exercise 713

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Abstract

This report is evidence that the P07.06.02 VP-713 has services that have been assessed for SWIM Compliance. It provides the SWIM Compliance Level for the ExtendedFlightPlanSubmission and FlightPlanDataDistribution services assessed in the Validation Exercise.

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None.

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43 Executive Summary

44 This report is evidence that the **Validation Exercise EXE-07.06.02-VP-713** has services that have
45 been assessed for SWIM Compliance. It provides the SWIM Compliance Level for
46 ExtendedFlightPlanSubmission and FlightPlanDataDistribution services.

47 1 Introduction

48 1.1 Purpose of the Document

49 This SWIM compliance report is part of the SWIM Compliance Framework, produced in the context of
50 SWIM Compliance for Validation Exercises that want to demonstrate the SWIM Compliance level. The
51 SWIM Compliance Criteria for R5 (please see [21]) explain the criteria that we use to assess for
52 SWIM Compliance. This report provides the evidence to satisfy the Compliance Criteria. The steps in
53 completing the report are the following:

- 54 1. The SWIM Compliance Applicant¹ person responsible for the Validation Exercise, with
55 assistance from WP 8 and WP 14 experts, produces the SWIM Compliance Report.
- 56 2. The report is then handed over to the SWIM Compliance Acceptance Team, who performs
57 the assessment and completes this template report into the final SWIM Compliance
58 Assessment Report, including a **SWIM Compliance Level**.

59 This report is meant to contain all evidences that show the SWIM compliance for the Service
60 Technical Design Description (STDD) for ExtendedFlightPlanSubmission and
61 FlightPlanDataDistribution services (please see [24] and [25]).

62 1.2 Intended Readership

- 63 • WP8 / WP14: for ensuring compliance and be informed with respect to service definition and
64 design
- 65 • WP3: for verification purposes
- 66 • Persons participating in the EXE-07.06.02- VP-713 Validation Exercise: for validation and
67 verification of the services
- 68 • System Projects
- 69 • SWIM Compliance Acceptance Team

70 1.3 Acronyms and Terminology

Term	Definition
Capability	The collective ability to deliver a specified type of effect or a specified course of action . Within the context of the SESAR Programme a capability is therefore the ability to support the delivery of a specific operational concept to an agreed level of performance. Source: Common working meeting between B41 EA study and B43 T5. In bold, the NATO Architecture Framework V3 definition
Governance	Ability of decision-makers to set policies regarding stakeholders, services, and their relationships
Information Exchange	A specification of the information that is to be exchanged. An Information Exchange must have a unique identifier. Source: NATO Architecture Framework V3 definition.
Information Exchange Requirement	An Information Exchange Requirement (IER) is the description, in terms of characteristics, of the requirement to transfer information between two or more end users. The characteristics described include source, recipients, content, size, timeliness, security and trigger. IERs are defined as independent of the communications medium. An IER may express both current and future requirements.

¹ For definition and example of SWIM Compliance Applicant, see SWIM Compliance Criteria document.

Term	Definition
	Note: an information element is the descriptor of the content in the IER. Source: (British) Ministry of Defence, Information Exchange Requirements.
Infrastructure profile	A set of features characterising the enabling infrastructure, including the QoS and security that the infrastructure provides, technical constraints, user behaviour patterns and characteristics. Profiles relate to legacy and/or new infrastructures such as the SWIM technical infrastructure. Source: B43 T5 study
Means of compliance	Means to demonstrate that an 'Object under Assessment' conforms to a rule (such rule being as e.g., a specification, policy, standard or law)
Node	A logical entity that performs Operational Activities specified independently of any physical implementation , e.g. a stakeholder type providing and/or consuming operational information within a network of other stakeholders. Source: Common working meeting between B41 EA study and B43 T5. In bold, the NATO Architecture Framework V3 Definition.
Object under Assessment	Item (i.e., specifications, mechanisms, activities, individuals) upon which an assessment method is applied during an assessment. In this document, the Object under Assessment (OuA) is the Service Technical Design Description for a service.
Operational Focus Area	A limited set of dependent operational and technical improvements related to an Operational Sub-Package, comprising specific interrelated OIs designed to meet specific performance expectations of the ATM Performance Partnership. Source: ATM Lexicon
Policy	Principle or rule with a view to guiding decisions and achieving one or more rational outcomes
Registry	The SWIM registry is a trusted, managed, complete and consolidated source of reference for service information and related regulations (policies, standards, certifications and taxonomies). It holds all SWIM metadata regarding: - stakeholders, - service definitions (ISRM), - service instances, and the links between them. Source: Registry ConOps
Service	The contractual provision of something (a non-physical object), by one party, for the use of one or more other parties. Services involve interactions between providers and consumers, which may be performed in a digital form (data exchanges) or through voice communication or written processes and procedures. Source: ATM Lexicon
Service definition	The specification of a service as it appears in the Service Description Document and Service Interface Definition. The Service Description Document consists of a mix of textual information and graphics (expressed in a UML notation). The Service Interface Definition consists of machine-interpretable constructs specified according to the selected technical

Term	Definition
	platform, including the necessary technology bindings, e.g. complete WSDL (and XSD), IDL, AMQP, DDS, etc. Source: B4.3 Working Method on Services.
Service interface	The mechanism by which a service communicates. Service providers and consumers need to implement service interfaces in order to be able to collaborate. A service interface includes service operations that enable access to the functionality of the services identified, as well as the data used in the service interaction. Source: B43 T5 study.
Service instance	Service which has been implemented in accordance with its specification in the service catalogue (during the SESAR Development Phase, the service definitions are available in the ISRM) by a service provider (by itself or contracted to a third party). Source: SWIM ConOps
Service level	A value specification for one or more service attributes indicating the level to which a technical system (or resource if including non-automated services) delivers a service in a particular environment. Example: A "Service Response time" may be defined in relation to a service. A given technical system could have a corresponding Service Level, e.g. "Less than 3 seconds". Source: B43 T5 study.
Service consumer	Stakeholder which consumes service(s) provided by other stakeholder(s)
Service lifecycle	The lifecycle defines the sequence of phases followed by a service.
Service Payload definition	The data/information exchange model represented in UML contained in the Service Description Document.
Service provider	Stakeholder which provides service(s) that can be consumed by other stakeholder(s)
SWIM	System-wide information management. SWIM consists of standards, infrastructure and governance enabling the management of ATM information and its exchange between qualified parties via interoperable services. Source: SWIM ConOps.
SWIM Common Component	A SWIM infrastructure element managed by the 'SWIM authority' and implementing a shared capability, e.g. registry, PKI, etc. Source: SWIM ConOps.
SWIM Compliance Acceptance Team	The group of experts who perform the SWIM Compliance Assessment and provide the final SWIM Compliance Level.
SWIM Infrastructure	The sum of all the SWIM infrastructure elements which are needed to support SWIM services. Source: B43 T5 study.
SWIM Profile	A SWIM profile is a coherent, appropriately sized grouping of middleware functions/services for a given set of technical constraints/requirements which permit a set of stakeholders to share information
Service Technical Design Description	A set of one or more published documents that express meta information about a service. The fundamental part of a service contract consists of the service description documents that express its technical interface. These form the Service Technical Design Description (STDD) which essentially establishes an API into the functionality offered by the service.

Term	Definition
	<p>The service interface definition in the STDD is mainly given as a machine-readable format usually provided in a standard definition language such as IDL, WSDL or others. The STDD also describes such aspects as the message exchange pattern between provider and consumer, plus the chosen SWIM profile and requirements (bindings) on the technical infrastructure.</p> <p>A STDD can further reference human-readable documents, such as Service Level Agreement (SLA) that describes additional quality-of-service features, behaviours and limitations.</p>

71 1.4 Acronyms and Terminology

Term	Definition
AIRM	ATM Information Reference Model.
ADQ	Aeronautical Data Quality
ATM	Air Traffic Management
CLDM	Consolidated Logical Data Model
ConOps	Concept of operations
DDS	Data Distribution Service
DOD	Detailed Operational Description
EA	Enterprise Architecture
EAEA	European ATM Enterprise Architecture
EASA	European Aviation Safety Agency
EC	European Commission
EU	European Union
ESB	Enterprise Service Bus
EUROCAE	European Organization for Civil Aviation Equipment
IBP	Industry Based Prototype
ICAO	International Civil Aviation Organisation
ICD	Interface Control Document
IER	Information Exchange Requirements
INTEROP	Interoperability Requirements
IRS	Interface Requirements Specification

Term	Definition
ISO	International Organisation for Standardisation
ISRM	Information Services Reference Model
IT	Information Technology
ITIL	IT Infrastructure Library (ITIL® provides a Best Practice guidance framework for IT Service Management)
MET	Meteorology
NAF	NATO Architecture Framework
OFA	Operational Focus Area
OI	Operational Improvement
OPS	Operational
OSED	Operational Service and Environment Definition
OuA	Object under Assessment
PKI	Public Key Infrastructure
QoS	Quality of Service
RPC	Remote Procedure Call
RTCA	Radio Technical Commission for Aeronautics
SACG	SWIM Architect Co-ordination Group
SCG	Service Coordination Group
SCL	SWIM Compliance Level
SDD	Service Description Document
SES	Single European Sky
SESAR	Single European Sky ATM Research Programme
SESAR Programme	The programme which defines the research and development activities and projects for the SJU
SID	Service Identification Document
SIR	Service Identification Report
SJU	SESAR Joint Undertaking (Agency of the European Commission)
SJU Work Programme	The programme which addresses all activities of the SESAR Joint Undertaking Agency.

Term	Definition
SLA	Service Level Agreement
SOA	Service Oriented Approach
SOAP	Simple Object Access Protocol
SoaML	Service Oriented Architecture Modelling Language
SVA	Service Activity
SWIM	System Wide Information Management
SWIM TI	SWIM Technical Infrastructure
SYS	System Projects
TAD	Technical Architecture Description
TS	Technical Specification
STDD	Service Technical Design Description
UDDI	Universal Description, Discovery and Integration
UML	Unified Modelling Language
URN	Uniform Resource Name
WP	Work Package
WSDL	Web Services Description Language
XSD	XML Schema Definition

73 **2 SWIM Compliance Report Summary**

74 This section summarises the main information about the compliance assessment.

STDD Name and Version	SESAR Service Technical Design Description_EFPL_Submission FIXM version 00.01 SESAR Service Technical Design Description_EFPL_Distribution FIXM version 00.01
Services assessed for SWIM Compliance	ExtendedFlightPlanSubmission FlightPlanDataDistribution
Version of the AIRM	AIRM 4.0.1
Version of the ISRM	ISRM 1.4
Version of the TI	SWIM Profile v 3.0
Version of SWIM Compliance Framework applied	SWIM Compliance Framework Criteria D48 edition 00.02.11
Reason for the Assessment	Demonstrate the SWIM Compliance for services in Validation Exercises VP-713
Responsible for service requirements	
SWIM Support	
Name of the SWIM Acceptance Team	<i>AIRM: Eric Roelants, FJ Crabiffosse</i> <i>ISRM: Eric Roelants, FJ Crabiffosse</i> <i>TI: Eric Roelants, FJ Crabiffosse</i>
SWIM Compliance Level per service and compliance domain	ExtendedFlightPlanSubmission: AIRM Ready, ISRM Compliant, TI Binding Yellow Profile Compliant FlightPlanDataDistribution: AIRM Ready, ISRM Compliant, TI Binding Yellow Profile Compliant

75

76 3 Details of the Compliance Assessment

77 This section expands of the summary contained in section 2. It covers the main information about the
78 compliance assessment in the three areas (Technical Infrastructure (TI), Information Exchange
79 Services (ISRM), Information (AIRM)) and provides additional details where needed.

80 The detailed criteria are available in the SWIM Compliance Framework for R5 V&V exercises [21].

81 3.1 Description of the services

82

Service Name	Description
<u>ExtendedFlightPlanSubmission Version 1.2</u>	The ExtendedFlightPlanSubmission provides the following operations: <i>validateExtendedFlightPlanFIXM,</i> <i>fileNewExtendedFlightPlanFIXM.</i>
<u>FlightPlanDataDistribution Version 1.2</u>	The FlightPlanDataDistribution provides the following operations: <i>retrieveExtendedFlightPlanFIXM.</i>

83

84 **3.2 Contacts**

85

Service Name	Contacts
<u>ExtendedFlightPlanSubmission</u> <u>FlightPlanDataDistribution</u>	<i>AIRM Contacts: Hubert Lepori – hubert.lepori@eurocontrol.int</i> <i>Information Exchange Service (ISRM): Mehtap Karaarslan – mehtap.karaarslan@eurocontrol.int</i> <i>TI Contacts:</i>

86

87 3.3 Information Service Compliance

88 3.3.1 General Evidence

89 The purpose of checking the Information Exchange Service Compliance is to ensure that the OuA (i.e.
90 the STDD describing the realisation of the service within the used technology context) meets the
91 description of the logical service in the SDD.

Service Name	Logical Service Name	Logical Service Origin and Version Number
ExtendedFlightPlanSubmission	ExtendedFlightPlanSubmission	SDD Version 00.02.01 Service Definition Version 1.2
FlightPlanDataDistribution	FlightPlanDataDistribution	SDD Version 00.02.01 Service Definition Version 1.2

92 3.3.2 Evidence for Information Service Compliance

93 The following section provides the evidence for Information Exchange Service compliance as required
94 by the SWIM Compliance Framework Criteria Document [21].

95 The relevant mappings are provided in the sections below.

96 3.3.2.1 Operations mapping (IS-1)

97 IS-1: "The operations described in the STDD are mapped to the operations required by the SDD, i.e.
98 each operation in the SDD is mapped from an operation in the STDD fulfilling the same operational
99 purpose. All the SDD operations which are stated as mandatory shall be covered. The STDD must
100 state which interface(s) it implements and must implement all operations of the chosen interface(s)
101 from the SDD."

102 **ExtendedFlightPlanSubmission:**

Operation name per STDD	Operation name per SDD
validateExtendedFlightPlanFIXM	requestExtendedFPL Validation
fileNewExtendedFlightPlanFIXM	requestExtendedFPL Submission

103

104

105 FlightPlanDataDistribution:

Operation name per STDD	Operation name per SDD
<i>retrieveExtendedFlightPlanFIXM</i>	<i>requestExtendedFlightPlan</i>

106

107 3.3.2.2 Payload mapping (IS-2)

108 IS-2: *“For all the operations mapped as per IS-1, the physical message description given in the STDD*
109 *shall be mapped to the logical service description in the SDD, i.e. each element in the SDD payload is*
110 *put in correspondence with an element in the STDD payload having the same meaning. All the entity*
111 *item attributes of the SDD payload shall be covered.”*

112 The following table contains the mapping for the ExtendedFlightPlanSubmission and
113 FlightPlanDataDistribution services.

VP-713 Part B Payload Structure (according to the WSDL)			ISRM 1.4			
WSDL Element	Name	Type	Service	Operation	Entity Item	Attribute
service	FlightPreparationService		ExtendedFlightPlanSubmission			
portType	FlightPreparationService					
operation	validateExtendedFlightPlanFIXM			requestExtendedFPLValidation		
input message	flightfixm:EfpIValidationRequest				ExtendedFlightPlanMessage	
part	parameters	flightfixm:EfpIValidationRequest (<-common:Request)			N/A (wrapper)	
element	efplFlight	fixmext:EfpIFlightType				extendedFlightPlan
output message	flightfixm:EfpIValidationReply				ValidationOperationalReplyMessage	
part	parameters	flightfixm:EfpIValidationReply (<-common:Reply)			N/A (wrapper)	
element	data	flightfixm:EfpIValidationReplyData			N/A (wrapper)	
element	ifpsErrors	flight:IFPSError				errorList
element	efplFlight	fixmext:EfpIFlightType			ExtendedFlightPlanMessage	extendedFlightPlan
element	profileTuningRestrictions	flight:ProfileTuningRestriction				
service	FlightFilingService		ExtendedFlightPlanSubmission			
portType	FlightFilingService					
operation	fileNewExtendedFlightPlanFIXM			requestExtendedFPLSubmission		
input message	flightfixm:EfpICreationRequest				ExtendedFlightPlanMessage	
part	parameters	flightfixm:EfpICreationRequest (<-flight:FilingRequest)			N/A (wrapper)	
element	efplFlight	fixmext:EfpIFlightType				extendedFlightPlan
output message	flightfixm:EfpICreationReply				OperationalReplyMessage	
part	parameters	flightfixm:EfpICreationReply (<-common:Reply)			N/A (wrapper)	
element	data	flightfixm:EfpICreationReplyData (<-flight:FilingReplyData)			N/A (wrapper)	
element	efplFlight	fixmext:EfpIFlightType				extendedFlightPlan
ExtendedFlightPlanDistribution						
service	FlightManagementService		FlightPlanDataDistribution			
portType	FlightManagementService					
operation	retrieveExtendedFlightPlanFIXM			requestExtendedFlightPlan		
input message	flightfixm:EfpIRetrievalRequest				RequestFlightPlanMessage	
part	parameters	flightfixm:EfpIRetrievalRequest (<-common:Request)			N/A (wrapper)	
element	flightId	flight:FlightIdentificationInput				
output message	flightfixm:EfpIRetrievalReply	common:Reply			ExtendedFlightPlanMessage	
part	parameters	flightfixm:EfpIRetrievalReply (<-common:Reply)			N/A (wrapper)	
element	data	flightfixm:EfpIRetrievalReplyData			N/A (wrapper)	
element	efplFlight	fixmext:EfpIFlightType				extendedFlightPlan



FIXM EFPL Services
ISRM Mapping.xlsx

The source file of the mapping can be found in the attachment:

3.3.2.3 MEP mapping (IS-3)

IS-3: “For all the interfaces involved in the mapping as per IS-1, the messaging exchange patterns (MEPs) stated in the STDD are matched to the MEPs required by the SDD, according to a certain ruleset found in B.1 (of [18]).”

SDD				STDD
Service	Operation	MEP	Proposed SWIM-TI Profile	MEP
<u>ExtendedFlightPlanSubmission</u>	<i>requestExtendedFPLValidation</i>	Synchronous Request/Reply	Yellow Profile v3.0	SRR-MEP
	<i>requestExtendedFPLSubmission</i>			
<u>FlightPlanDataDistribution</u>	<i>requestExtendedFlightPlan</i>	Synchronous Request/Reply	Yellow Profile v3.0	SRR-MEP

3.3.2.4 Service in ISRM (IS-4)

IS-4: “The referenced logical service is part of the ISRM.”

The ExtendedFlightPlanSubmission Service is part of ISRM 1.4.

The FlightPlanDataDistribution Service is part of ISRM 1.4.

3.3.2.5 NFR mapping (IS-5)

IS-5: “For all the interfaces involved in the mapping as per IS-1, all NFRs required by the SDD are mapped to either NFRs in the STDD or fulfilled by design decisions.”

No specific requirements set. Yellow Profile 3.0 applied.

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3.3.3 Assessment Result - Information Service Compliance Level

Service Name	Information Service Compliance Level-Claimed	Information Service Compliance Level-approved	Remarks (optional)
<u>ExtendedFlightPlanSubmission</u>	Statement on the level of compliance claimed by the Compliance Applicant: Information Service Compliant	The evidence provided supports the Information Service Compliant level of compliance.	No remarks.
<u>FlightPlanDataDistribution</u>	Statement on the level of compliance claimed by the Compliance Applicant: Information Service Compliant	The evidence provided supports the Information Service Compliant level of compliance.	No remarks.

3.4 Information Compliance

3.4.1 Evidence for Information Compliance – General Case

Table 1. General information (one table per service)

Service Name	<u>ExtendedFlightPlanSubmission</u>
AIRM version	4.0.1
Reference to AIRM	[20]
Reference to OuA (Physical Messages)	<i>EfpValidationRequest</i> <i>EfpValidationReply</i> <i>EfpCreationRequest</i> <i>EfpCreationReply</i>

Service Name	<u>FlightPlanDataDistribution</u>
AIRM version	4.0.1
Reference to AIRM	[20]
Reference to OuA (Physical Messages)	<i>EfpRetrievalRequest</i> <i>EfpRetrievalReply</i>

Table 2. Evidence for semantic correspondence with AIRM

Entity	Property	URN kind	URN	Comment (out of scope)
flightfixm:EfplValidationRequest (inherits from common:Request)	efplFlight	CLDM	See fixmext:EfplFlightType	
flightfixm:EfplValidationReply (inherits from common:Reply)	data	CLDM	See flightfixm:EfplValidationReplyData	
flightfixm:EfplValidationReplyData	ifpsErrors	CLDM	Out of scope	Oos system meta-data
	efplFlight	CLDM	See fixmext:EfplFlightType	
	profileTuningRestrictions	CLDM	urn:x-ses:sesarju:airm:v401:ConsolidatedLogicalDataModel:SubjectFields:AirTrafficOperations:DemandAndCapacityBalancing:FlightRestriction urn:x-ses:sesarju:airm:v401:InformationModel:SubjectFields:Stakeholders:DocumentAndAgreement:LetterOfAgreement@profileTuningRestriction	
flightfixm:EfplCreationRequest (inherits from flight:FilingRequest)	efplFlight	CLDM	See fixmext:EfplFlightType	
flightfixm:EfplCreationReply (inherits from common:Reply)	data	CLDM	See flightfixm:EfplCreationReplyData	
flightfixm:EfplCreationReplyData (inherits from flight:FilingReplyData)	efplFlight	CLDM	See fixmext:EfplFlightType	
flightfixm:EfplRetrievalRequest (inherits from common:Request)	flightId	CLDM	See flight:FlightIdentificationInput	
flightfixm:EfplRetrievalReply (inherits from common:Reply)	data	CLDM	See flightfixm:EfplRetrievalReplyData	
flightfixm:EfplRetrievalReplyData	efplFlight	CLDM	See fixmext:EfplFlightType	
fixmext:EfplFlightType		CLDM	urn:x-ses:sesarju:airm:v401:InformationModel:SubjectFields:Flight:Flight	
flight:FlightIdentificationInput		CLDM	urn:x-ses:sesarju:airm:v401:ConsolidatedLogicalDataModel:SubjectFields:Flight:Flight@ifplIdentifier	
common:Request	endUserId	CLDM	Out of scope	Oos message meta-data
	sendTime	CLDM	Out of scope	Oos message meta-data
common:Reply	requestReceptionTime	CLDM	Out of scope	Oos message meta-data
	requestId	CLDM	Out of scope	Oos message meta-data
	sendTime	CLDM	Out of scope	Oos message meta-data
	status	CLDM	Out of scope	Oos message meta-data
	inputValidationErrors	CLDM	Out of scope	Oos message meta-data
	outputValidationErrors	CLDM	Out of scope	Oos message meta-data
	warnings	CLDM	Out of scope	Oos message meta-data
	slaError	CLDM	Out of scope	Oos message meta-data
	reason	CLDM	Out of scope	Oos message meta-data
flight:FilingRequest (inherits from common:Request)	additionalAddresses	CLDM	Out of scope	Oos message meta-data
FilingReplyData (inherits from common:Reply)	filingStatus	CLDM	urn:x-ses:sesarju:airm:v401:ConsolidatedLogicalDataModel:SubjectFields:Flight:Flight@statusFFICE	
	validFiling	CLDM	urn:x-ses:sesarju:airm:v401:ConsolidatedLogicalDataModel:SubjectFields:Flight:Flight@statusFFICE	
	queuedFiling	CLDM	urn:x-ses:sesarju:airm:v401:ConsolidatedLogicalDataModel:SubjectFields:Flight:Flight@statusFFICE	
	rejectedFiling	CLDM	urn:x-ses:sesarju:airm:v401:ConsolidatedLogicalDataModel:SubjectFields:Flight:Flight@statusFFICE	



FIXM EFPL Services
payload mapping to A

The source file of the mapping can be found in the following attachment:

3.4.2 Evidence for Information Compliance – reuse of existing approved compliance report

N/A

3.4.3 AIRM Change Requests

N/A

3.4.4 Out of Scope Justifications

See Table 2. Evidence for semantic correspondence with AIRM

3.4.5 Assessment Result - Information Compliance Level

Service Name	Information Compliance Level - Claimed	Information Compliance Level- Approved	Remarks (optional)
<i>ExtendedFlightPlanSubmission</i>	Statement on the level of compliance claimed by the Compliance Applicant: Information Ready.	The evidence provided supports the Information Ready level of Compliance.	<i>No remarks.</i>
<i>FlightPlanDataDistribution</i>	Statement on the level of compliance claimed by the Compliance Applicant: Information Ready.	The evidence provided supports the Information Ready level of Compliance.	<i>No remarks.</i>

Note: The AIRM is available: [20].

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3.5 Compliance with SWIM-TI TS

3.5.1 Evidence for TI Compliance

Table 3. Evidence for TI Compliance (one table per service)

Field name	Reference to TI criteria condition	Evidence
Service Name	(N/A)	<i>ExtendedFlightPlanSubmission</i>
SWIM Profile	(N/A)	<i>Yellow</i>
SWIM Profiles Version	TI-1	<i>3.0</i>
MEP ²	TI-2	<i>SRR-MEP is in the catalogue of Yellow Profile.</i>
	TI-5	<i>The Interface Binding REQ-14.01.04-TS-0901.0790 has the MEP SRR-MEP which matches the MEP chosen in the STDD.</i>
Technology	TI-3	<i>SOAP 1.1 over HTTPS POST over TCP</i>
Interface Binding	TI-4	<i>Interface binding code: REQ-14.01.04-TS-0901.0790</i>
Link to the service interface	TI-6	<u>Service Interface definition</u>
Requirements coverage	TI-7	<u>NM Verification Report</u>

Field name	Reference to TI criteria condition	Evidence
Service Name	(N/A)	<i>FlightPlanDataDistribution</i>
SWIM Profile	(N/A)	<i>Yellow</i>
SWIM Profiles Version	TI-1	<i>3.0</i>
MEP ³	TI-2	<i>SRR-MEP is in the catalogue of Yellow Profile.</i>

² As the catalogue of MEP and the catalogue of SWIM-TI Interface Bindings are on-going, we refer to the MEP and the Interface Bindings in the specific WP14 documents (SWIM-TI TAD and TS and the SWIM Profiles document). [14][15][16][13][14][15][16]

	TI-5	<i>The Interface Binding REQ-14.01.04-TS-0901.0790 has the MEP SRR-MEP which matches the MEP chosen in the STDD.</i>
Technology	TI-3	<i>SOAP 1.1 over HTTPS POST over TCP</i>
Interface Binding	TI-4	<i>Interface binding code: REQ-14.01.04-TS-0901.0790</i>
Link to the service interface	TI-6	<u>Service Interface definition</u>
Requirements coverage	TI-7	<u>NM Verification Report</u>

3.5.2 Assessment Result – TI Compliance Level

Service Name	TI Compliance Level - Claimed	TI Compliance Level- approved	Remarks (optional)
<i>ExtendedFlightPlan Submission</i>	Statement on the level of compliance claimed by the Compliance Applicant: TI Binding Yellow Profile Compliant.	The evidence provided supports the TI Binding Yellow Profile Compliant level of Compliance.	A reference to a Non-Executive Verification Report that traces the verification tests with the applicable requirements would be preferable.
<i>FlightPlanDataDistribution</i>	Statement on the level of compliance claimed by the Compliance Applicant: TI Binding Yellow Profile Compliant.	The evidence provided supports the TI Binding Yellow Profile Compliant level of Compliance.	A reference to a Non-Executive Verification Report that traces the verification tests with the applicable requirements would be preferable.

³ As the catalogue of MEP and the catalogue of SWIM-TI Interface Bindings are on-going, we refer to the MEP and the Interface Bindings in the specific WP14 documents (SWIM-TI TAD and TS and the SWIM Profiles document). [14][15][16][13][14][15][16]

3.6 Post-conditions for SWIM Compliance

3.6.1 Post-condition on payload compliance

N/A

4 Feedback from SWIM Compliance Acceptance Team

4.1 Service assessment: conclusions and way forward

The evidence provided is in general solid and supports the Compliance claims made by EXE-07.06.02-VP-713. The evidence for Compliance with TI-7 (satisfaction of Interface and Network Requirements of the Technical Infrastructure) is of an indirect nature, this is a common problem shared by different exercises using the Network Manager. Direct evidence of satisfaction of said requirements would be preferable. The following evidence is suggested as a more definite proof:

- A reference to a Verification Report (Non-Executive) supported with traceability to specific Verification Tests passed and Requirements covered.

Nevertheless, the assessment of SWIM Yellow Profile 3.0 Binding Compliant has been granted on the assumption that the perfect satisfaction of all requirements related to Network Communications (not related with Publish/Subscribe which is out of scope this Exercise) implies, albeit indirectly, that the Interface Bindings and Network Bindings are satisfied.

It was discussed with the Exercise the possibility of providing evidence to support AIRM Compatible level of Compliance. It is believed likely by the SWIM Compliance Assessment Team as well as the responsible members of AIRM Compliance within the Exercise that this level of Compliance could be satisfied by EXE-07.06.02-VP-713 but the effort required to provide a complete mapping at Entity and Attribute level is not justifiable at this point in time. The following statement from EXE-07.06.02-VP-713 is provided verbatim:

1. Service Payload Description

The payload of the Web services for VP-713 Part B exercise is based on core FIXM 3.0 supplemented with an EFPL Extension v1.0 Beta. This extension contains the elements specific to the EFPL that are not captured by core FIXM v3.0 and is designed in accordance with the FIXM guidelines.

2. SWIM Compliance

[AIRM compliance]

The AIRM 4.0.1, released on 14-Dec-2015, covers the whole content of the SESAR E-FPL:

- *Coverage of the ICAO FPL 2012 content as described in ICAO Doc 4444 is ensured:*
 - *Main ICAO FPL 2012 content promoted during AIRM initial load*
 - *Several AIRM CRs were approved by the AIRM CCB and implemented over time for correcting bugs and ensuring completeness against ICAO FPL 2012: CR00481, CR00528, CR00529, CR00578, CR00579, CR00580...*
- *Coverage of the specific E-FPL content was addressed through several AIRM CRs approved by the AIRM CCB: CR00415, CR00560...*

Therefore, the payload of the Web services for VP-713 Part B exercise, which uses the ICAO FPL 2012 subset of FIXM v3.0 and the E-FPL extension, is already expected to be semantically traceable to the AIRM 4.0.1.

[Remarks – formal AIRM compliance report]

As of December 2015, EUROCONTROL does not see any benefit in investing available resources to perform the formal AIRM mapping for FIXM 3.0 + the E-FPL Extension:

- *The AIRM 4.0.1 supports already the E-FPL content. A formal compliance report will not be useful for further improving the AIRM content.*
- *FIXM v3.0 does not qualify yet for a global standard (*) and FIXM 4.0, to be released in 2016, will be significantly different in scope from 3.0 (v4.0 to be based on the ICAO provisions for FF-ICE/1). The SESAR AIRM is currently*

used “indirectly” by 08.01.03 for supporting the FIXM v4.0 development but the FIXM CCB does not formally acknowledge the SESAR AIRM which is a European standard only. In this context, a formal AIRM mapping of FIXM v3.0 will not deliver direct benefits to the FIXM community and will eventually be lost.

()The following statement was added to all FIXM v3.0 materials upon SESAR request: In support of ICAO FF-ICE, the content of [FIXM v3.0] reflects the continuous progress and evolution under discussion. Global convergence is expected to be achieved in FIXM 4.0*

4.2 SWIM Compliance Criteria feedback

N/A

5 References

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Appendix A Operations Parameters

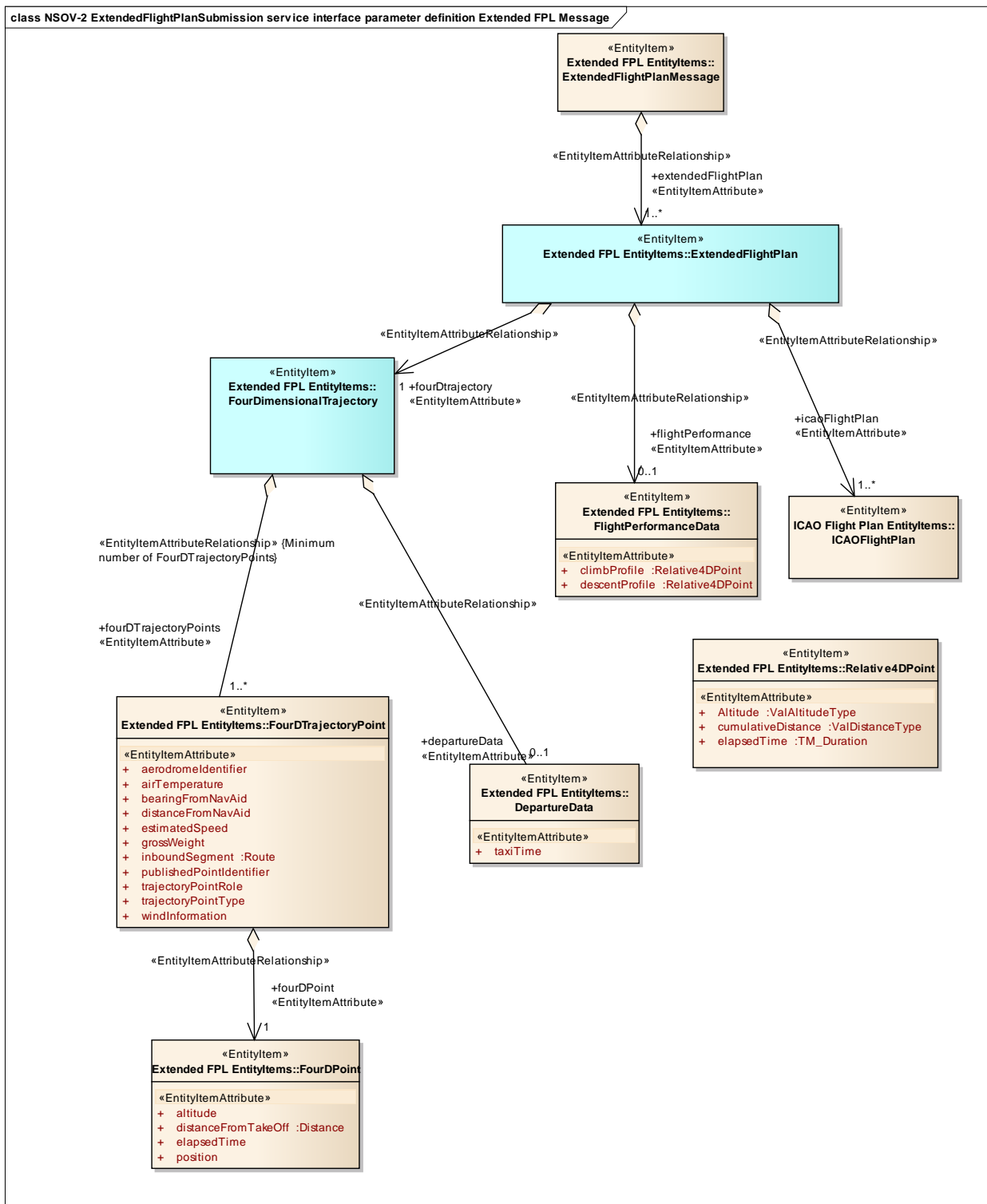


Figure 1 NSOV-2 ExtendedFlightPlanSubmission service interface parameter definition Extended FPL Message

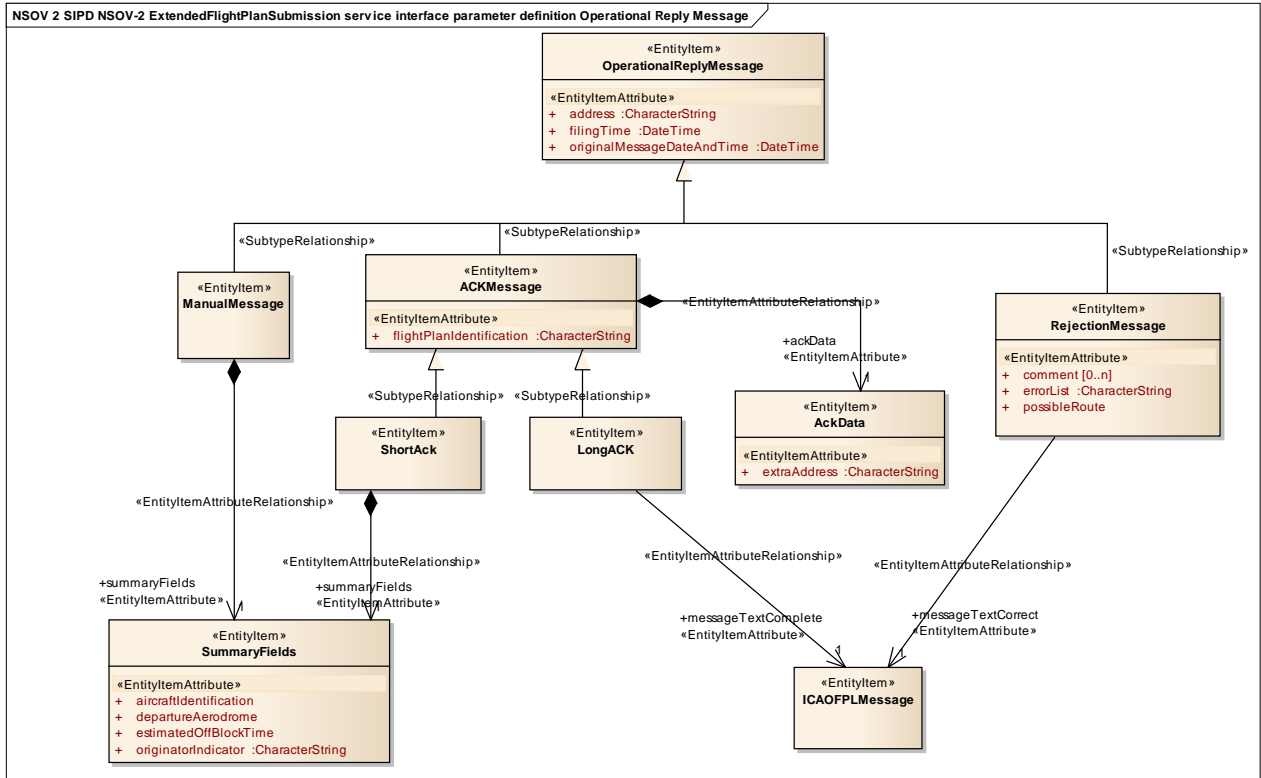


Figure 2 NSOV-2 ExtendedFlightPlanSubmission service interface parameter definition Operational Reply Message

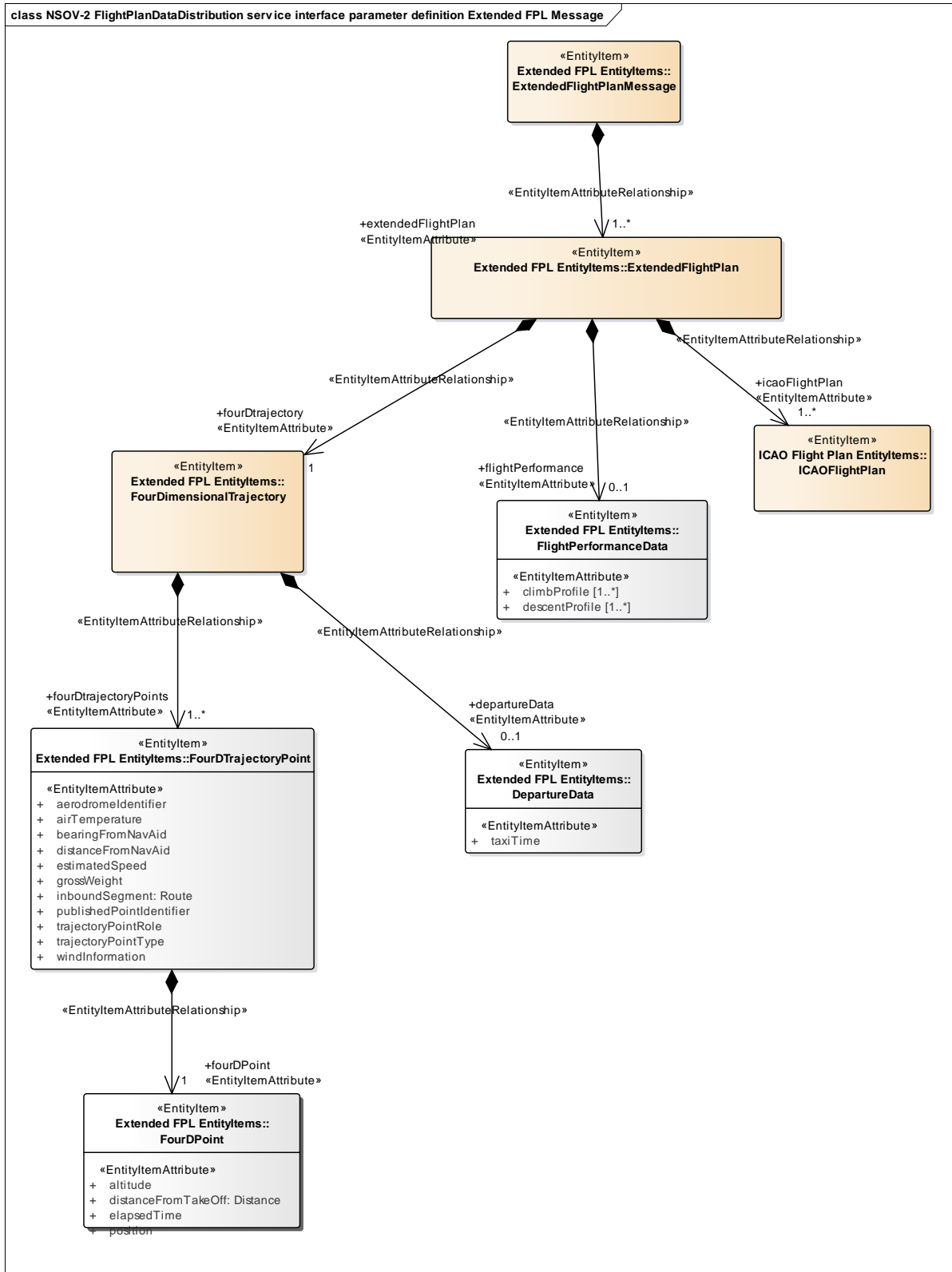


Figure 3 NSOV-2 FlightPlanDataDistribution service interface parameter definition Extended FPL Message

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