

Information Management Panel (IMP)

Information Services Working Group (WG-S)

Presented to: ATIEC 2017

By: Pat Murphy

Date: October 5-6, 2017

*Information Exchange Specifications Supporting the
ICAO Global Air Navigation Plan*



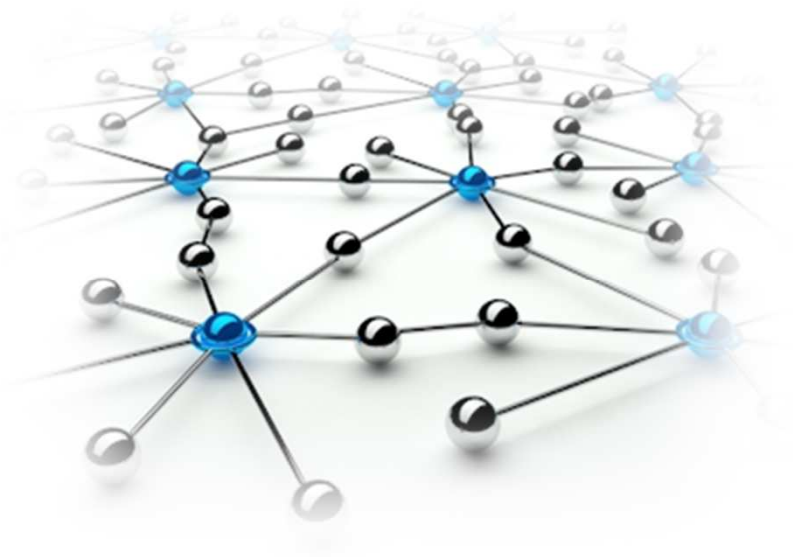
IMP Scope and Responsibility

Develop a global and harmonized interoperable approach and elaborate on necessary concepts in order to ensure effective management of information, including identifying the need for new information exchange formats, on a system-wide basis within the air navigation system.



SWIM Development

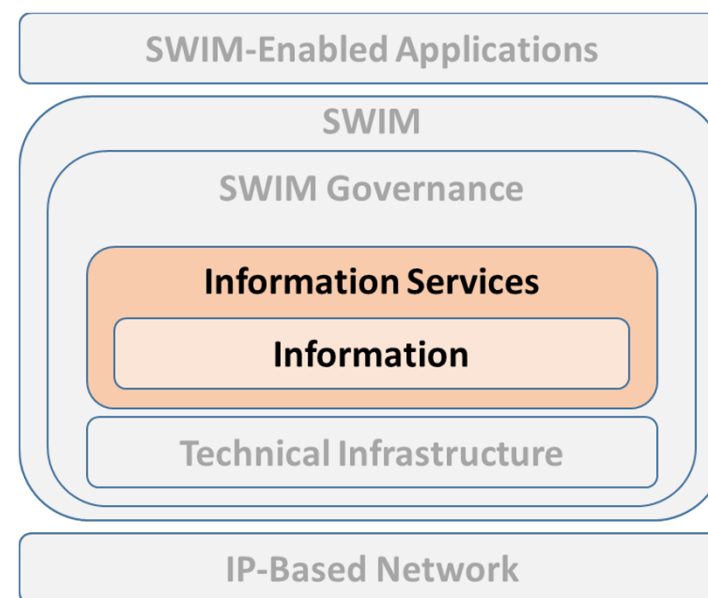
- IMP responsible for updating ICAO SWIM Manual (Doc 10039)
 - Vol. 1 – SWIM Concept
 - Vol. 2 – SWIM Implementation
- Doc 10039 update to include additional information on:
 - Governance
 - Information Architecture
 - Information Services



IMP Working Groups



- Information Governance (WG-G)
 - Ref: Job Card IMP.005.01
 - SWIM Governance managing processes, rules, and standards
- Information Architecture (WG-I)
 - Ref: Job Card IMP.002.01
 - SWIM Technical Architecture and Interoperability Framework
- Information Services (WG-S)
 - Ref: Job Card IMP.004.01
 - SWIM Information Services to replace point-to-point message exchanges



What is Information Service?

- Information services provide Air Traffic Management (ATM) business information sharing capability
 - Example information services: Aeronautical Information Publication, Flight Data Information Publication, Observed Meteorological Information Publication, etc.
- Information Service Registries help publicize information about available services (discoverability)
 - Example information: Brief description of the service, data available, exchange protocols, etc.

WG-S Recent Activities

- Information Services Concept
 - Revised and updated Concept
 - Integration of Concept text into updated SWIM Manual
- Service Overview
 - Developed and revised draft service overview elements
 - Populated draft templates with example information services (e.g., FF-ICE/1, METAR, Obstacles, NOTAM)
- Quality of Service and Validation
 - Collected industry best practices and proposed methods of Information Service validation and error handling
 - Utilized analysis to inform ongoing discussions
- WG-S/WG-G Collaboration
 - Joint meeting between held August 2017
 - Details included in WG-G report

Near-Term IMP Work Program

Task		WG-G	WG-I	WG-S
Controlled Vocabulary		Use	Lead	Use
Link with ASBUs		Support		Support
Registry & services	Registry requirements	Lead		Support
	Registry management scenario	Lead		
	Service overview	Support		Lead
	Service provider requirements	Support	Support	Lead
	Service Provider scenario	Support		Lead
	Service consumer requirements	Support		Lead
Service consumer scenario		Support		Lead
Quality of Service		Lead	Support	Support
Validation/compliance		Lead		Support
Information Management	AIRM usage scenario		Lead	Support
Doc 9965				
Control Access			Lead	Support
Transition	Transition to SWIM	Support	Lead	Support
	AMHS		Lead	
SWIM technical infrastructure	Exchange patterns as described in doc 9965		Support	Lead
	Requirements for using the different standards provided		Lead	
	Exchange formats		Lead	
AIRM		Support	Lead	
Exchange models		Lead	Support	
Impact Assessment		Support	Support	Support

Service Overview

- Registry and Services

- Service Overview

- Provide a set of fields to give user enough information to evaluate and compare services to determine whether to explore further
 - Template will guide the way information services are stored in a service repository [e.g., NAS Service Registration and Repository (NSRR)]
 - Template to be included in SWIM Manual vol. II and guide creation of ICAO Standards and Recommended Practices (SARPs) as appropriate
 - Final due November 2017

Operational Scenarios

- Registry and Services
 - Operational Scenarios
 - Describe various aspects of SWIM with a focus on specific information services used in data exchanges
 - Service provider and consumer perspectives
 - Different phases in the life cycle of a SWIM information service, etc.
 - Scenarios to be included in SWIM Manual vol. II
 - Draft due November 2017, Final due April 2018
 - Requirements
 - Operational scenarios will drive service provider and information consumer perspectives
 - Scenarios to be included in SWIM Manual vol. II
 - Draft due November 2017, Final due April 2018

Operational Scenarios cont.

- SWIM Technical Infrastructure
 - Exchange Patterns
 - Identify required message exchange patterns to support Flight and Flow Information for a Collaborative Environment (FF-ICE) (Doc 9965)
 - Review and validate relevance of exchange patterns through operational scenarios
 - Request/Reply, Publish/Subscribe, etc.
 - Scenarios to be included in SWIM Manual vol II
 - Draft due November 2017, Final due April 2018

Expected Outcome

- Identification of standardized service overview elements
- Service overview guidance document
- ICAO provisions to support implementation
- Update to ICAO SWIM Manual (Doc 10039)
 - Vol. 1 – SWIM Concept
 - Vol. 2 – SWIM Implementation
- Recommendations on FF-ICE implementation guidance

Questions?

