

IMP Governance

UPDATE 2017
WORK IN PROGRESS

ATIEC 2017

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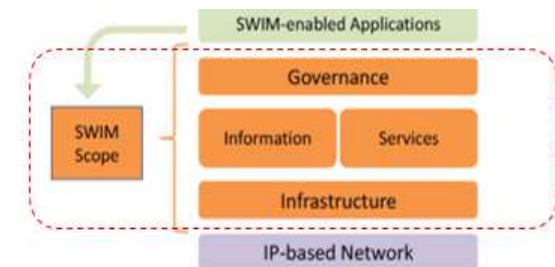


Governance WG summary

- **Scope: information, services, infrastructure**

- **Deliverables**

- **Candidate ICAO provisions** (“shalls and shoulds”)
- **Contributions to SWIM Manual**



- **Main themes**

- **Foundation**: roles and responsibilities, institutional issues
- **Information**: controlled vocabulary, governance of “XMs” + AIRM
- **Services**: description, link with **Registry**
- **Data / Information / Service Quality**
- **Compliance**

Governance WG participants

STATES

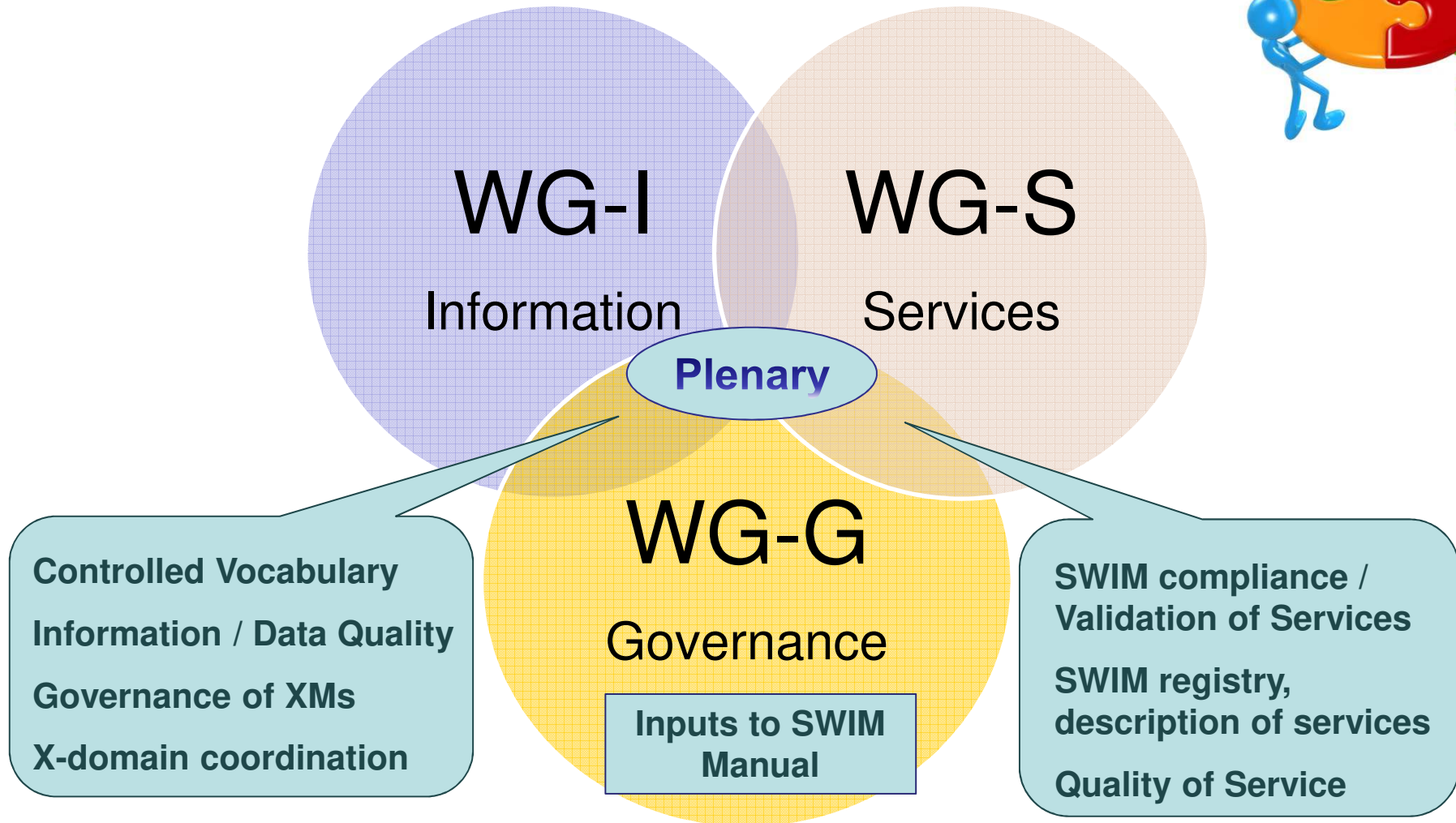
- CAAS (Singapore)
- DFS (Germany)
- NATS (United Kingdom)
- DSNA (France)
- Swedish Transport Agency (Sweden)
- FAA (United States of America)
- NAV CANADA (Canada)
- MLIT (Japan)
- UK CAA (United Kingdom)

INTERNATIONAL ORGANIZATIONS

- EUROCONTROL
- IATA
- ICCAIA
- WMO



Collaborative work



Overall progress

Governance inputs to SWIM Concept Document
Data / Information / Service quality

Governance of XMs - Cross-domain coordination / AIRM
SWIM Compliance

(Validation of Services, Criticality of a Service)

SWIM Registry

(Description of services or “Service Overview”)



Important Caveat

All following slides reflect only

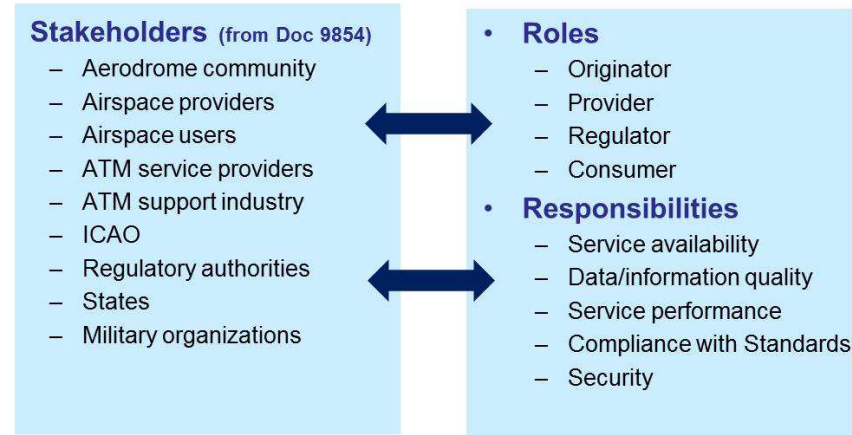


Inputs to SWIM Concept Document

- Inputs on Roles & Responsibilities
- Update to Doc 10039

4 Chapter 4: SWIM Governance.....

- 4.1 Introduction
- 4.2 Governance of Information
- 4.3 Governance of Information Services
- 4.4 Governance of Technical Infrastructure
- 4.5 Quality Management System (QMS)



INTERIM ADVANCE EDITION
Doc 10039
AN/511



**MANUAL ON SYSTEM WIDE
INFORMATION MANAGEMENT (SWIM)
CONCEPT**

Information / Data / Service Quality

- **Definitions**

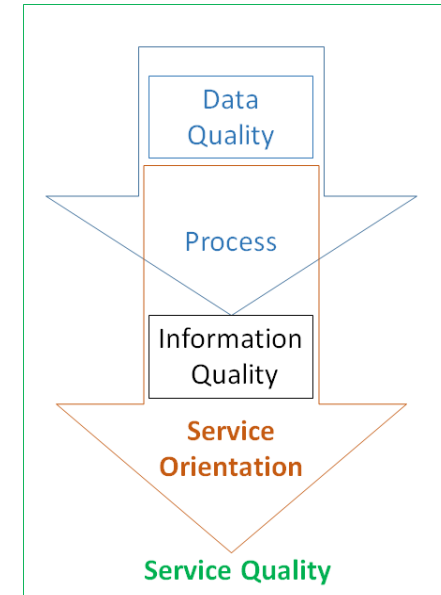
- **Data Quality:** degree or level of confidence that the data provided meet the requirements of the data user
- **Information Quality:** degree or level of confidence that both the data quality and the process used to convert data into information meet users requirements
- **Quality of Service:** degree or level of confidence that the performance of a service meet users requirements

- **Candidate provisions**

- Providers of information services shall implement and maintain a Quality Management System (**QMS**)
- Various recommended practices (“shoulds”) related to the QMS : error detection and processing, competencies, training, etc.

- **Guidance**

- Guidance material compiled from existing ICAO material as well as industry standards related to Quality Management



Quality of Service

- **Candidate provisions**

- Providers of information services shall document the quality of their services
- The documentation should include performance and security parameters

- **Performance parameters**

- Availability
- Capacity
- Response time
- Latency
- Recoverability

- **Security parameters**

- Integrity
- Confidentiality



Governance of XMs

- ## Principles

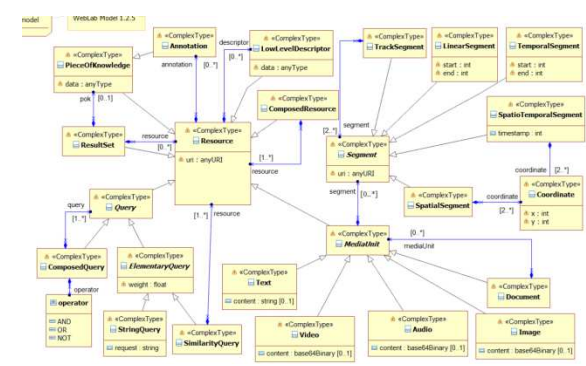
- Involvement of ICAO
- An agile approach, building existing arrangements (ATMRPP, IMP, METP)

- ## Proposed interactions with CCBs

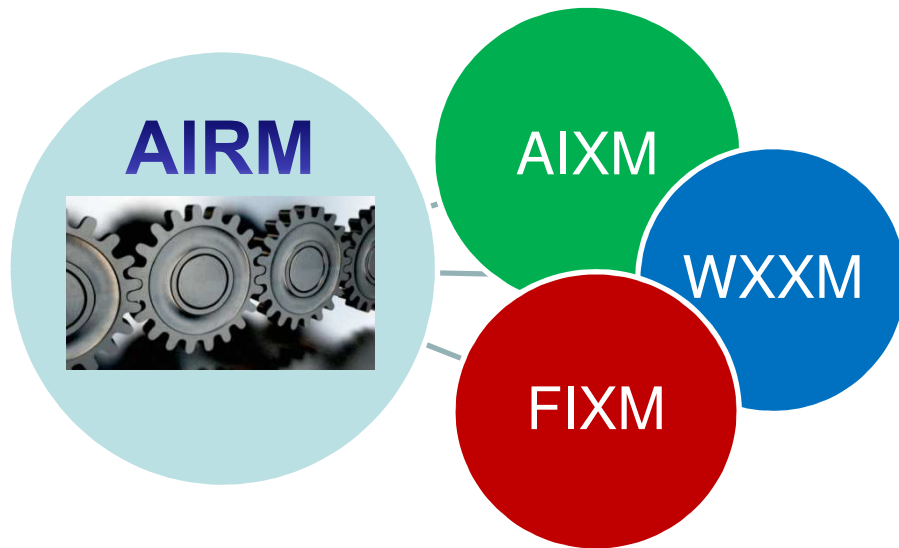
- The CCB reports to the Panel at each meeting with progress update and key points
- The Panel provides inputs and feedback to the CCB

- ## Next steps

- Further communication to ATMRPP and METP
- Implementation of proposed interactions



Cross-domain coordination



- **Objective**
 - Consistency between XMs
- **AIRM**
 - Technical reference for concepts, definitions, UoMs, etc.
- **Principles**
 - Technical work at the AIRM community level
 - Coordination with a joint ATMRPP/IMP/METP group (TBD)
 - Conclusions to be captured in AIRM for “ICAO publication” (details TBD)

SWIM Compliance

- **Objective**
 - Establishing “trust”
- **Consensus**
 - Need to have clear standards as the baseline
- **Main concern expressed**
 - How is it different for SWIM compared to other ICAO domains ?
- **Current approach**
 - Work on Service validation



Validation of services

- **Definition:** activity whereby a service is checked for conformance with the service objectives and requirements
- **Validation methods**
 - Independent validation
 - User validation
 - Self validation
 - Collaborative validation
- **Candidate provisions (extract)**
 - All SWIM services shall be validated by at least one of the methods above
 - Validation shall be based on tests
 - The validation method used shall be recorded in the service description.
 - The output of the validation activity shall be recorded in a validation report



Criticality of services

- **Principles**

- The criticality of a service is linked to potential impact of service failure to safety or operations.
- The criticality of service is determined by the service users based on its actual use. An authority may also decide on some « critical services »

- **Categories**

Critical / Essential / Routine

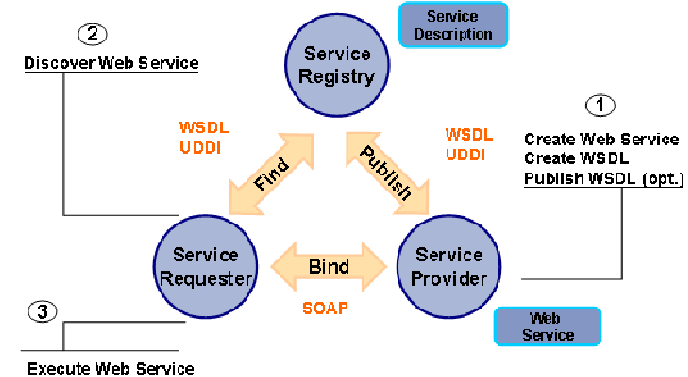
- **Future work**

- Reqts (availability, capacity, ...) for critical / essential services



Services and Registry

- A SWIM registry **should** be used as the means to discover and access SWIM services
- A SWIM registry **shall** provide **description of services**
- A SWIM registry **shall** provide registration and search functionalities.
- A SWIM registry **shall** include an access control mechanism for service registration.
- A SWIM registry **should** be made publicly available



Description of Services (or “Service overview”)

- **A Service Overview shall be provided to support service discovery and initial evaluation by the ATM community**
- **It shall include**
 - Service name
 - Service version
 - Provider organization
 - Brief description of the service
 - Geographical extent of information
 - Quality of service
 - Access restrictions
 - Message exchange pattern
 - Exchange models
 - Validation method
- **It should include**
 - Provider Point of Contact
 - Additional information access point
 - Lifecycle phase
 - Record of changes
 - Data content
 - Filtering available
 - Sources of information
 - Support availability



CONCLUSIONS

- **Good momentum**
 - Inputs to SWIM Concept
 - Significant progress on some themes (eg R&R, quality, controlled vocabulary)
 - Ongoing work with a collaborative approach
- **Some challenges ahead**
 - SWIM compliance
 - SWIM Registry / ies...
- **Let's maintain communication**
 - Governance of XMs
 - Cross-domain coordination
 - Inputs to all other topics welcome !



Questions



ATFEC

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