Agenda Item 5: SWIM Transition

David Leow

6 May 2024

CAAS
Civil Aviation Authority of Singapore

Introduction

- Transitioning from an AMHS environment into a SWIM environment is not going to be a trivial exercise.
- AMHS currently used for distribution of the following data items
  - Flight Plans
  - NOTAMS
  - AIDC / ATS messages
- It is expected that SWIM and AMHS will co-exists for quite some time, even after 2036
  - Need to address how such an environment can work?

AMHS and SWIM

- It is expected that AMHS will continue to exist beyond 2036
  - There is no agreed SWIM format to cover AIDC / ATS messages which are still necessary for cross border coordination.
  - Therefore, AIDC / ATS messages will likely still be transmitted via AMHS
- APAC SWIM expected by 2026
  - Not all states will be connected to the APAC SWIM immediately in 2026
  - There will be some states still expecting flight plans to come from AMHS
  - How do we ensure that flight plans from eASPs reach the ASPs and vice versa?
- Singapore's intention
  - Our airlines will be asked to file FPL2012 and eFPL in AMHS and SWIM respectively
  - Singapore does not intend to convert between FPL2012 and eFPL for retransmission
  - Any conversion will be for internal use.

eFPL routing in SWIM

- AMHS routes FPL2012 messages to the intended recipients using a recipient list
- How will SWIM do this?
  - Clauses in ICAO Annex 10 forbids to examination of the message content by intermediate nodes.
  - Cannot look into message body to route message
- Options:
  - Message headers
  - Message properties
  - Topics and queues
  - Send to everyone
- Need to have an agreed common method to ensure that the eFPL reach the intended recipient.
- Type of SWIM architecture will affect the choice for routing.