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FAA IWXXM Implementation Status

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Webinar on the implementation of the ICAO Meteorological
Information Exchange Model (IWXXM), 27 to 29 October 2020





FAA IWXXM Description

- FAA is developing AMHS to SWIM Gateway (ASG)
- Supports exchange of XML-formatted data
- Integrates with FAA's AMHS system
- Sends/receives IWXXM OPMET data using AMHS FTBP





FAA IWXXM Description (cont'd)

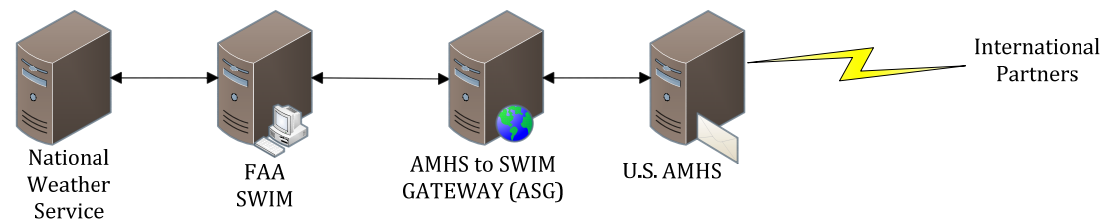
- ASG connects to FAA SWIM
- U.S. NWS also connects to FAA SWIM
- NWS will publish/consume IWXXM data to/from FAA SWIM
- ASG extracts data from FAA SWIM, creates FTBP, and transmits via AMHS
- ASG also receives data from AMHS, extracts IWXXM portion from the FTBP, and publishes the data to FAA SWIM





FAA IWXXM Description (cont'd)

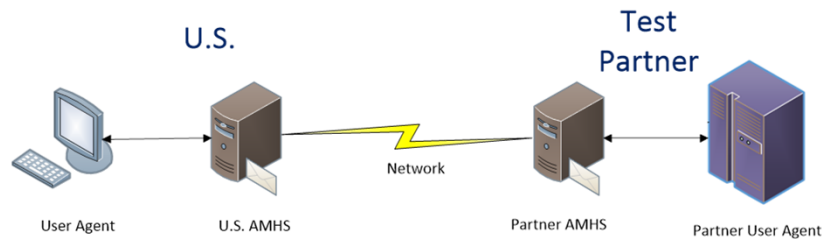
- What it looks like...



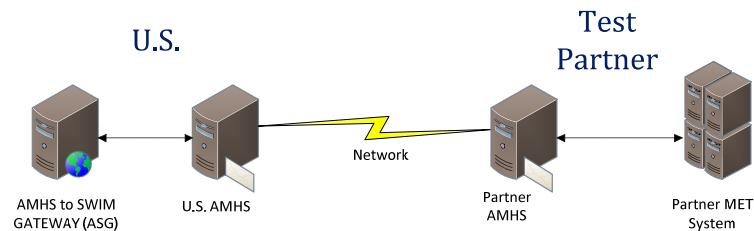


Test Phases & Status

- Phase 1: FTBP
 - Cuba & Japan complete



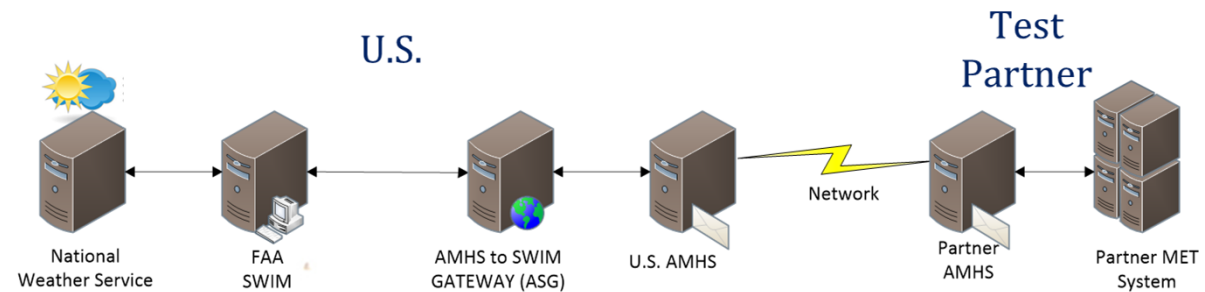
- Phase 2: ASG
 - Cuba complete
 - Japan - November





Test Phases & Status (cont'd)

- Phase 3: End-to-End
 - TBD





Test Procedures

- Numerous sources for test cases, primarily “EUR AMHS Interoperability Test Guidelines for COM Centres with FTBP Relay Capabilities”
- Exchanges of various weather products
- Verification of message profile
- Compressed data, comparing files sent separately
- Load tests, up to 8,000 messages sent simultaneously in each direction; message FTBP approximately 3,500 bytes
 - 4,000 messages with FTBP
 - 4,000 messages with text body part





Current Status

- Completing updates to support IWXXM 3.0
- Establishing NWS to FAA SWIM connection
- Complete internal and external testing
- Operational implementation: first quarter 2021





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THANK YOU