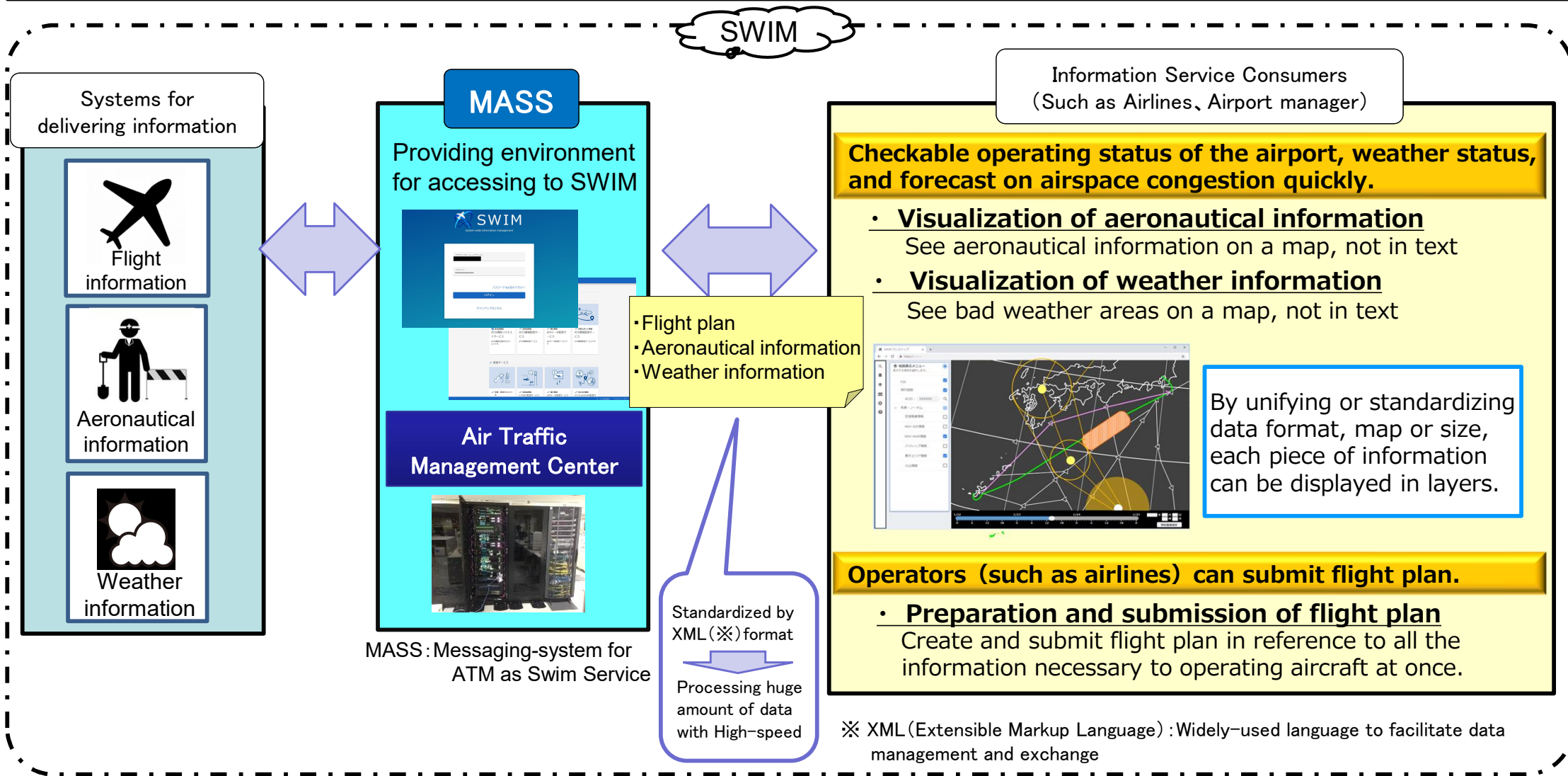


66 SWIM (System-Wide Information Management)

SWIM (System-Wide Information Management) is a cross-system “information management framework” that enables aviation professionals to use “reliable information services” in “reliable environment”.

Since more information than ever before needs to be processed for the purpose of coping with the future growth in air traffic, it supports ATM stakeholders in improving their situational awareness and make decision making quickly by digitalize information and facilitate information exchange.



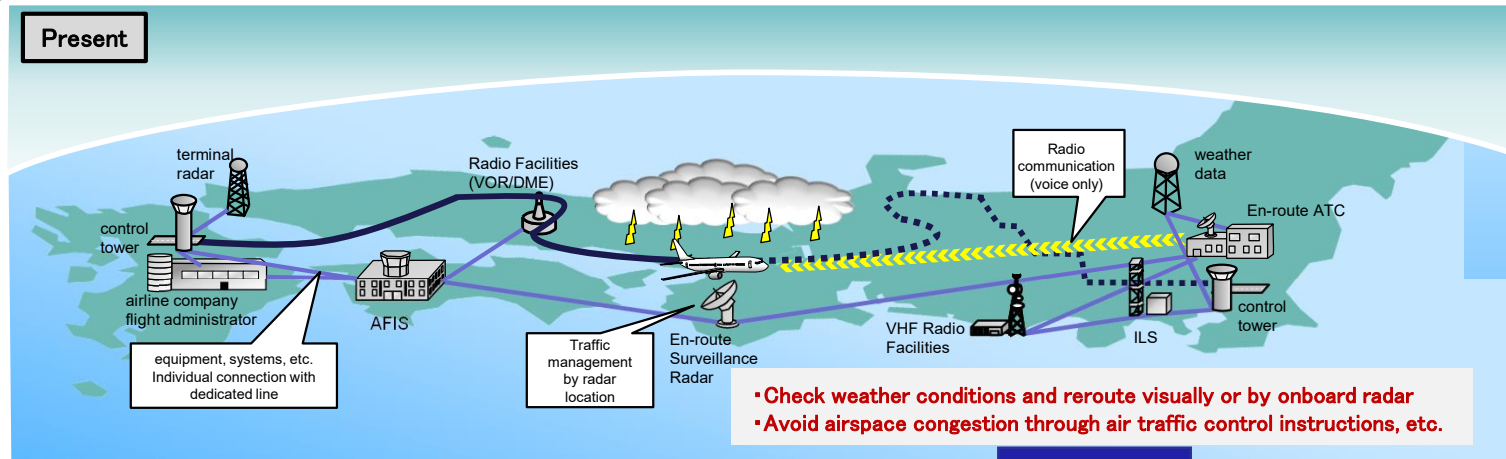
67 TBO (Trajectory Based Operations)

OTBO (Trajectory Based Operations) is a concept whereby aircraft trajectories are shared in real time by digital technology to air traffic control and aviation stakeholders, and this information is used to optimize control operations.

○The TBO will enable ①safer and more comfortable flights, ②smooth response to sudden weather changes (e.g., cumulonimbus clouds and volcanic eruptions), and ③contributes to carbon neutrality by reducing fuel consumption.

✕Trajectory is an onboard computer calculation of the expected route by adding latitude, longitude, altitude, and time information.

Present



Realization of TBO

Step 4
Cooperation with neighboring countries

Step 2
Synchronization of air to Ground
FF-ICE, CPDLC, ADS, DAPS

Step 5
Dynamic application
FF-ICE (in-flight), Dynamic metering etc.

Step 3
Time Management
CFDT (CTO), Fixed Metalingue, Fixed Metalingue AMAN/DMAN

Step 1
Digitization
SWIM, FIXM/AIXM/IWXXM

TBO

• Digital technology enables real-time sharing of weather information and changes to optimal routes.
• Real-time management of all aircraft trajectories to improve and alleviate airspace congestion

IP network technology connects aircraft, equipment, systems, etc.

