



MIDANPIRG (CNS SG/15) SWIM OVERVIEW

May 11- May 14, 2026



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SWIM Overview

WHAT IS SWIM?

System Wide Information Management (SWIM) service aims to contribute to better information sharing between aviation stakeholders. It supports digital transformation by allowing systems and organizations to share real time information.

The INFRASTRUCTURE

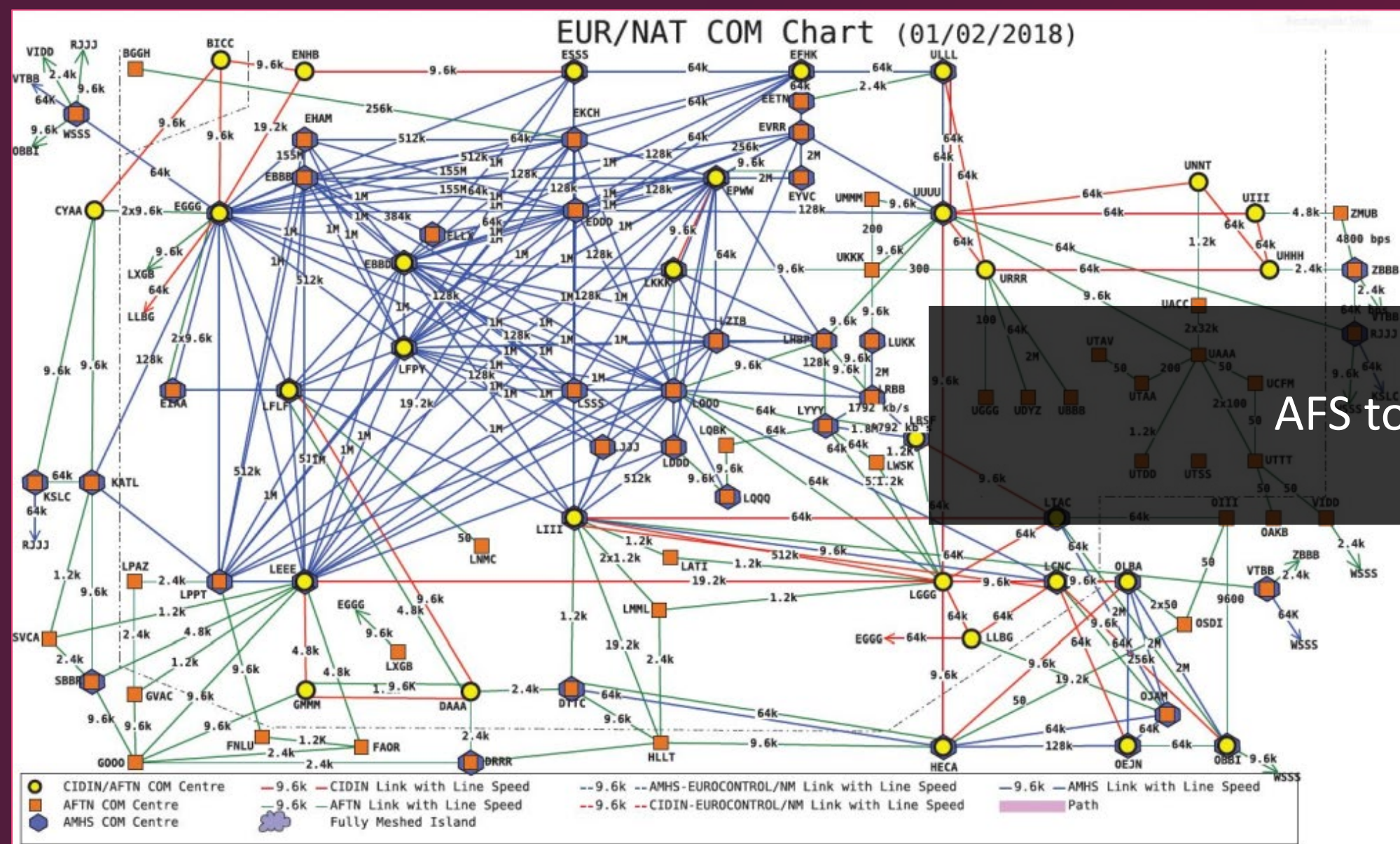
System Wide Information Management (SWIM) defines a modern IP based communication infrastructure that will eventually replace the current AFTN/AMHS network



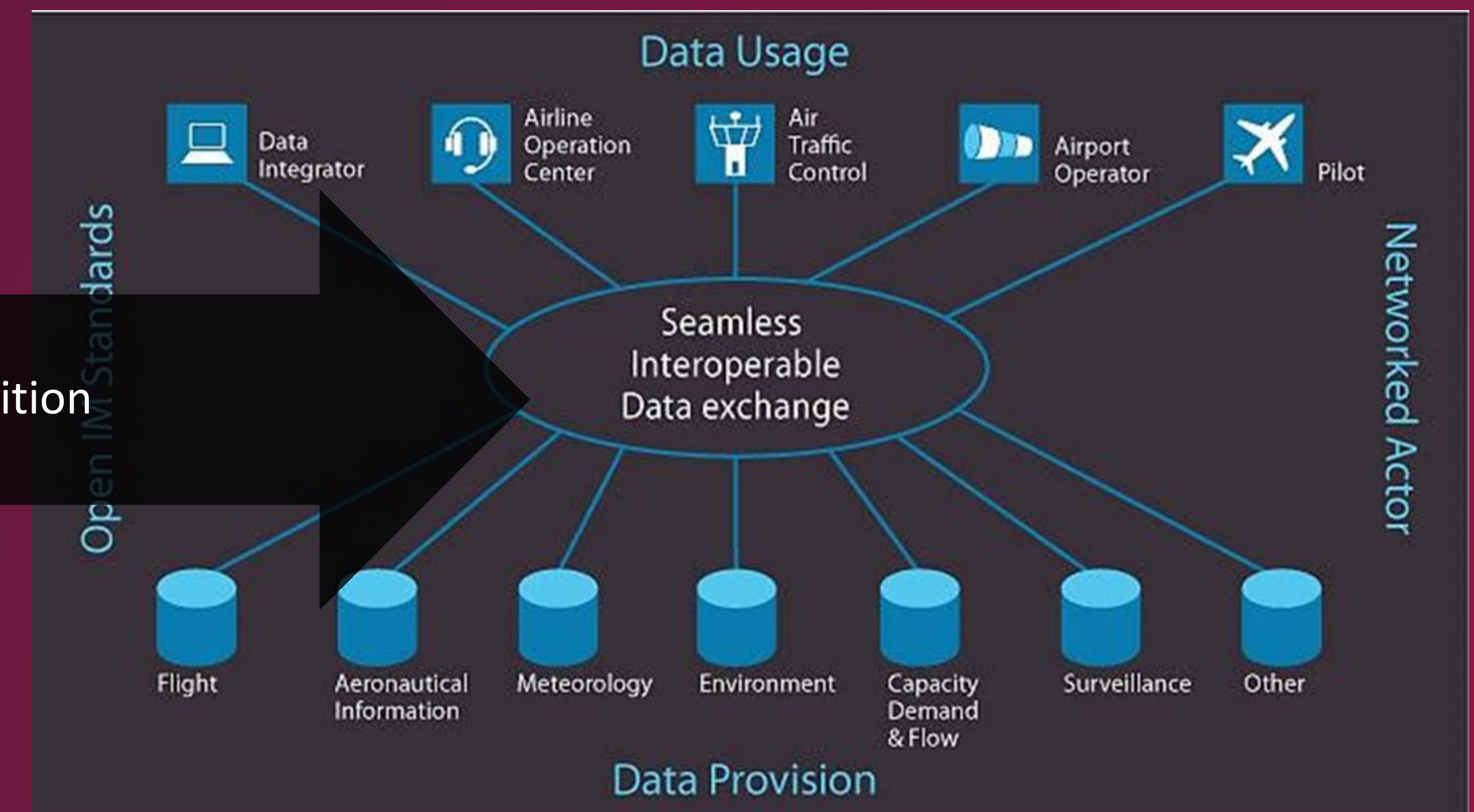


Why SWIM?

1. Automation: exchange of information between automated systems by enabling machine to machine information exchange.
2. It reduces complexity and operational costs by moving from legacy communication technologies towards modern IP based technology.
3. Make the data easily accessible and use it for new services which supports digital aviation services.



AFS to SWIM transition



Swim – ICAO Doc 10039 (2015)

Manual on System wide information Management
(SWIM) Concept

1.1.4 The Global Air Traffic Management (ATM) Operational Concept (Doc 9854) envisages the application of SWIM to promote information-based ATM integration, stated as follows:

“The ATM operational concept envisages the application of a **system-wide information management concept**, where information management solutions will be **defined at the overall system level**, rather than individually at each major subsystem (programme/ project/ process/ function) and interface level, as has happened in the past.”

INTERIM ADVANCE EDITION
Doc 10039
AN/511

Interim advanced edition,
Published 2015



MANUAL ON SYSTEM WIDE INFORMATION MANAGEMENT (SWIM) CONCEPT

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Advanced edition (unedited)

International Civil Aviation Organization





SWIM Implementation in Qatar

Qatar Civil Aviation Authority (QCAA), through Qatar AIM, has implemented SWIM services in a phased approach to support secure and efficient aeronautical information exchange in line with ICAO digital transformation initiatives.

The current SWIM environment supports

- 1. SWIM service registry capabilities**
- 2. Digital NOTAM (DNOF)**
- 3. Digital aeronautical datasets**

through REST/HTTPS and AMQP-based services.

QCAA continues to progressively expand SWIM capabilities to support future interoperability, digital ATM services, and regional information exchange.

SWIM Service Registry



Seamless Access to ATM Service Information SWIM Service Registry

The SWIM Registry serves as your gateway to discovering a wide array of SWIM services. Through a structured registration process, it organizes, catalogs and maintains essential service information, empowering seamless access and efficient management of ATM service data.

Please Sign In

The goal of the Service Registry is to enhance the discoverability and accessibility of SWIM services. Both service providers and service consumers share a common library of SWIM services.

The QCAA SWIM service registry is a technology-agnostic run-time and design-time registry of QCAA SWIM services, aiming to increase the visibility and accessibility of QCAA SWIM services.

<https://aim.gov.qa/serviceregistry/>



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قطر QATAR

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Digital Data Sets Portal

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Sign In

SWIM Datasets

Qatar AIM provides digital aeronautical datasets through its SWIM environment to support data interoperability and digital aviation services. The available datasets is in standardized digital formats such as AIXM 5.1. These datasets are accessible through secure HTTPS-based services and are intended to support automated data exchange

Interested Users can access the webpage through <https://aim.gov.qa/datasets.html>



FUTURE ROADMAP

Future roadmap activities include the planned implementation of FF-ICE services by November 2026 to support digital flight information exchange, including eFPL filing capability using FIXM. This will contribute to the progressive expansion of QCAA SWIM capabilities in line with ICAO digital ATM transformation objectives.

implementation for digital meteorological information exchange IWXXM by December 2026.

NOV 2026

FF-ICE

Dec 2026

IWXXM

QCAA aims to progressively expand its SWIM capabilities in line with ICAO digital aviation initiatives and future ATM interoperability requirements.



Thank you

Any Questions?





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Civil Aviation Authority

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