Practical application to deliver Solutions

Presented to: ATIEC 2016
By: Bretton Wells
Date: 21 September 2016
Information Sharing Opportunities

- Opportunity for new architectures to enable operational goals
- Need for Collaborative Decision Making (CDM) process, tools, improved situational awareness, and training across regional Air Traffic Management (ATM) stakeholders
- Data access and exchange across regional Air Navigation Service Providers (ANSPs), Airlines, and Airports is insufficient
A Problem we aim to solve...

**Problem:**
- Conflicting multiple information sources
- Point-to-point system connections
- Limited data sharing and isolated
- Inability for true situational awareness and decision implications

**Solution:**
- A single shared information source for data and apps
- A system-wide integrated data (SWIM)
- Open data sharing and collaborative decision making
- Holistic view of operations
Benefits: Data Convergence

Global and Regional Goals

Stakeholder Surveys, Feedback, and Discussions

Convergence on needs for ATFM/CDM and SWIM

Industry Studies

Quantitative Research

www.iata.org/SkyFusion
SWIM: Enabler to Solution

Enabling sharing of information through data standards in order to achieve system to system data exchange

www.iata.org/SkyFusion
SWIM Enables....

- Improves situational awareness at home and abroad
- Provides tools for collaboration across borders
- Supports enhanced decision making
- Serves to link airlines with ATM network via SWIM-enabled information network

Airline

- Create Information and tools that complement existing decision support systems
- Enables common situational awareness, and effective dialogue between stakeholders
- Future-proofs ATM systems

ANSP

- Improves situational awareness unconstrained by borders
- Provides collaboration tool
- Provides a means to interconnect Airport CDM system via ATM network

Airport
SWIM Benefits: Air Traffic Flow Management (ATFM)

- Reduction of holding can save airlines as much as 71 USD per minute avoided
- SWIM can enable data for command center function to enhance CDM capabilities
- Information that provides situational awareness to users on impacts

*source ACI study delay minute 2014
SWIM Benefits: Empowering Decisions

- 95% Passengers are Happiest in Dwelling Time
- #1 thing passengers demand is accurate information
- Happy passengers spend 45% more
- Revenue enhancement of $10 Average opportunity during delay which has been accurately communicated to passengers

*95% source SITA 2015 IT report, 45% JD Power Study, #1 surveyed disruption

www.iata.org/SkyFusion
Application: What is SkyFusion?

- In-cloud Data Exchange Platform
- Application Framework
- Situational Awareness Tools & Beyond

Stakeholder Groups
- ANSP
- Airport
- Airline

Application Platform
- Traffic Monitor
- Traffic Display
- Information System
- New Apps to Scale

Data Transformation

• Enterprise Messaging Service

Demand Prediction

Aviation Data Systems

www.iata.org/SkyFusion

New Apps to Scale
Solution: Functional Cloud Environment
SWIM Helps: CDM and ATFM

- SWIM enables cross border and cross organization data sharing
- Airlines, ANSPs and Airports are empowered to make decisions that are best for their operations
- SWIM enables cross border and cross organization data sharing
- Contributes to reducing inefficiencies avoidable with CDM & ATFM: >3B USD by 2020

*source A4A ATFM study 2014
SkyFusion Benefits

SkyFusion is a platform that:
- Connects disparate aviation stakeholder systems; and
- Hosts software-as-a-service (SAAS) applications

SkyFusion solves two core needs:
- Enables sharing of data across systems from multiple stakeholders in internationally recognized, SWIM standard format
- Provides a one-stop shop for applications
  - Built on the data exchange, simplifying integration and lowering development cost
Learning by doing....

Let’s move from **demonstration and theory** to a real operational environment

**SkyFusion**

[www.iata.org/skyfusion](http://www.iata.org/skyfusion)