SWIM The Current
System Wide Information Management /// Federal Aviation Administration /// www.swim.gov

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Welcome Message from the Program Manager

Welcome to the second issue of *The Current*, the SWIM Program's newsletter distributed to Federal Aviation Administration (FAA) staff, SWIM Implementing Programs (SIPs), and other interested parties.

Many of you are already familiar with the SWIM program, while others are learning about SWIM for the first time. My goal in delivering this newsletter is to keep all programs that could benefit from or are affected by SWIM abreast of new innovations and accomplishments, as well as to communicate to newcomers the resources available through SWIM.

I would like to provide some background to you on the purpose and objectives of SWIM. SWIM is an advanced technology program designed to facilitate greater sharing of Air Traffic Management (ATM) system information, such as airport operational status, weather information, flight data, status of special use airspace, and National Air Space (NAS) restrictions. SWIM supports current and future NAS programs by providing a flexible and secure information management architecture for sharing NAS information. SWIM uses commercial off-the-shelf (COTS) hardware and software to support a Service Oriented Architecture (SOA) to facilitate the addition of new systems and data exchanges, and increase common situational awareness.

The primary objective of the SWIM Program is to improve the FAA's ability to manage the efficient flow of information through the NAS. This includes:

- Reducing costs for NAS users to acquire NAS data
- Improving shared situational awareness among the NAS user community
- Providing secure data exchange among the NAS user community that meets FAA security standards

The SWIM program is an integral part of FAA's transformation to Next Generation Air Transportation System (NextGen), requiring programs and technologies to provide more efficient operations and streamlined communications.

I hope you will join me in learning more about SWIM services and accomplishments. I encourage you to visit us for more information at www.SWIM.gov or to attend our first SWIMposium (see page 3).

Thank you,
Ahmad Usmani

In This Issue

SWIM Accomplishments

The SWIM Program continued to pursue an aggressive agenda in FY09, and has accomplished a number of activities in the fourth quarter. Chief among these accomplishments include:

- Successfully briefed the FAA's Joint Resources Council (JRC), resulting in approval of the SWIM Program Office's request for program funding for FY11-FY15, to complete the development and deployment of SWIM Segment 1 capabilities.
- Announced an Enterprise Service Bus (ESB) Protoytpe effort to support planning for SWIM Segment 2.
- Announced the availability of Progress Software's FUSE, including four open source Service Oriented Architecture (SOA) components, for the FAA community.
- Published the Core Architecture Evolution Concepts Document for the SWIM program by MITRE to support the basis for the development of the SWIM Segment 2 architecture.
- Announced the availability of new products via the Integrated Terminal Weather System (ITWS)-SWIM Prototype Service (see article below).
- Released a Request for Offer (RFO)/Screening Information Request (SIR) for a requirement for Service Registry/Repository Software to the FAA Contract Opportunities website. (Proposals are under review.)
- Briefed at the 2009 NAS Enterprise Architecture Conference. Topics included the To Be SV-4, Reference Architecture, and SOA Governance.

Issue Spotlight: ITWS-SWIM Prototype Service

The SWIM Program Office would like to announce the new products available via the Integrated Terminal Weather System (ITWS)-SWIM Prototype Service. Users now have access to the following weather products:

Product	Description
Airport Lightning Warning	Contains airport lightning warning data for specific areas of interest called critical regions
Tornado Detections Product	Provides the location, speed, and direction of all tornadoes as extracted from the Next Generation Radar Tornadic Vortex Signature (NEXRAD TVS) product
Tornado Alert Product	Contains the alphanumeric text for the tornado alerts
Precipitation 5 nm Product	Contains the 5 nm resolution precipitation
Precipitation Terminal Radar Approach Control (TRACON) Product	Contains the ITWS TRACON area precipitation
Precipitation Long Range Product	Contains the Long Range Precipitation which is derived from one or more NEXRAD and Terminal Doppler Weather Radars (TDWR)

These products will be added to the existing list of available products, including Microburst TRACON Map, Gust Front TRACON Map, Terminal Weather Text, and Configured Alerts.

Issue Spotlight: Implementation of SOA Governance and the SWIM Governance Policies

SWIM provides the basis for information exchange between systems based on the principles of a Service Oriented Architecture (SOA). SOAs help organizations align their software applications with business requirements, and provide the flexibility and agility to respond to change better, faster, and cheaper. A SOA leverages reusable technology and information to streamline operations and increase business agility. The key aspect of SOA includes decoupling the development of business capabilities (e.g., air traffic management) from Information Technology (IT) capabilities.

Implementation of SOA requires breaking down a system, a system of systems, or enterprise into a collection of service providers and consumers. This has been done for SWIM's first segment and is currently being worked for future segments. For these providers and consumers to be interoperable, SOA governance is being implemented to ensure that they act as a community, sharing information among each other. The goal is ultimately to provide the benefits of service reuse and the elimination of duplicative functionality across traditional organizational boundaries, enabling greater agility of the enterprise to adapt to changing business requirements. Therefore, ensuring interoperability and reuse are key goals of the governance effort.

SWIM SOA Governance is characterized by the people, policies, and processes required for leading, communicating, guiding, and enforcing the organizational behaviors needed to produce the desired outcome for the NAS. SWIM's Requirements and Governance team has developed a SWIM Governance Policies document to guide SWIM's development of a process toward realizing a SOA in the NAS (see www.swim.gov "What is SWIM compliance").

SWIMposium: An Informational Panel on 9/22/09

Event: "SWIMposium"

Date: September 22, 2009

Time: 1– 2:30 pm

Location: FOB 10A - 3rd Floor Auditorium

Are you wondering what SWIM is, and how you can be a part of it? Do you have what it takes to become SWIM-compliant? Would you like to know what is next for SWIM, and what that means for your program?

If the answer is YES to any of these questions, we invite you to participate in our first SWIMposium. Please join us to learn more about the state of the SWIM program. The featured agenda includes: an Overview of the SWIM Program, SWIM-Compliance, FUSE Software Overview, SWIM Requirements for Your JRC Package, A Look Ahead: Next Steps for SWIM, How to Learn More, and a Question and Answer Session.

Issue Spotlight: FAA releases Qualified Vendors List (QVL) for XML Gateway

The vendors on this list have met the FAA's XML Gateway requirements and have successfully passed a technical evaluation of their product's installation and initial configuration, as well as system performance. Their products were deemed capable of providing support to the SWIM Implementing Programs (SIPs).

Company Name	Product	POC Name	POC Phone	POC email
Layer 7 Technologies	Secure Span	Jim Rice	301-315-1005	jrice@gov.layer7tech.com
Cisco Systems, Inc.	ACE XML Gateway	Steve Dempsey	703-447-4740	sdempsey@cisco.com
Vordel, Inc.	VXG2 XML Gateway	Greg Hudson	714-685-1434	Greg.hudson@vordel.com

SWIM XML Gateway Qualified Vendors List

This QVL is valid through March 31, 2015. The QVL will be reviewed annually. The XML Gateway requirements document can be viewed on the SWIM website at www.swim.gov. For more information on the purchase and price of the products on the Qualified Vendor's List, please contact Kathy St Hill, Contracting Officer, at Kathy.StHill@faa.gov.

SWIM Question & Answer (Q&A)

The SWIM Program has posted a list of commonly asked questions (Q&As) at www.swim.gov. Each quarter, two questions and responses will be highlighted in the SWIM newsletter.

What is Net-Centricity? How does it relate to SWIM?

Net-centricity refers to an evolving, complex community of people, information, and services interconnected by a communication network to optimize resources and maximize benefits. Net-centricity includes a shift from standardized, predefined point-to-point interfaces to a many-to-many exchange of data, thereby enabling many users and applications to leverage the same data. The goal of net-centricity is to provide information and capabilities that are readily visible, accessible, and understandable to known and potential consumers. SWIM is contributing to a net-centric environment by making it easier for users to share NAS information.

How did SWIM originate?

Eurocontrol initially presented the SWIM concept to the FAA in 1997, where it has been under development ever since. In 2005, the International Civil Aviation Organization Global ATM Operational Concept adopted the SWIM concept to promote information-based ATM integration. SWIM is now part of development projects in both the United States (NextGen) and the European Union (Single European Sky ATM Research - SESAR).

Practitioner Highlight: Jim Robb, Requirements and Governance Lead

As the SWIM Requirements and Governance Lead, Jim is responsible for the development and maintenance of the SWIM functional and non-functional requirements. He is also responsible for the development of SOA governance for SWIM. Jim also works closely with stakeholders of existing FAA processes to help those processes evolve to the governance of NextGen.

Previously, Jim was the Program Manager for the NAS Infrastructure Management System Program. He was responsible for the technical support of NAS systems. Jim began his career with the FAA in 2000 after working as a contractor for four years supporting several NAS programs. Jim served 20 years in the United States Air Force as a Program Manager and Engineer. He holds a Bachelor of Science in Electrical Engineering from Texas Tech University and a Master of Science from USC. Jim is a certified Project Management Professional.

Jim enjoys shopping, exploring new places to eat out, playing Sudoku and traveling to places he has never seen before. He has a passion for teaching personal finance courses.

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SWIM Newsletter provided to you courtesy of the following: Andrea Freeman, Emily Smith, Lesley Woodburn, and the SWIM Team.

All documents are available to the public on the SWIM external website at www.swim.gov.

SWIM Awards

Rhonda Thomas with 2009 Procurement Official of the Year Award

In July 2009, Rhonda Thomas was recognized as the 2009 Procurement Official of the Year at the FAA National Small Business Procurement Opportunities Training and Trade Show.

Earlier this year, the FAA Small Business Development Program also honored small business advocates at Headquarters. Ahmad Usmani, SWIM Program Manager, and Rhonda Thomas were recognized for excellence in support of businesses with fewer than 500 employees.