

FAA SWIM Updates

Kristin Cropf

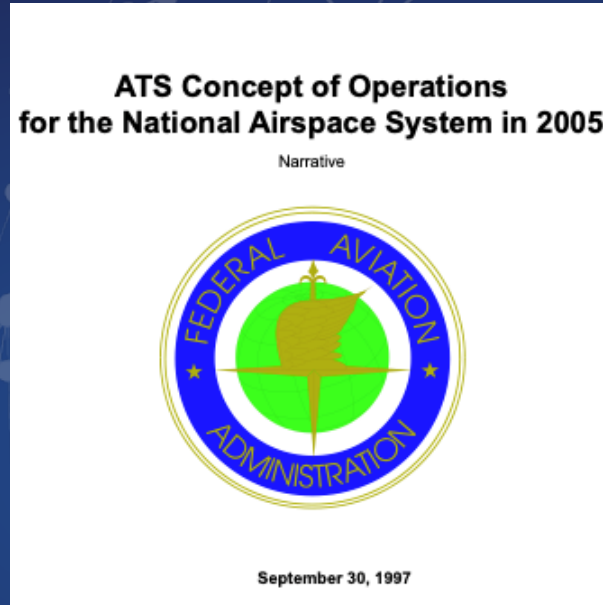
FAA SWIM Program Manager

Stefanie Calabrese

FAA SWIM Project Lead

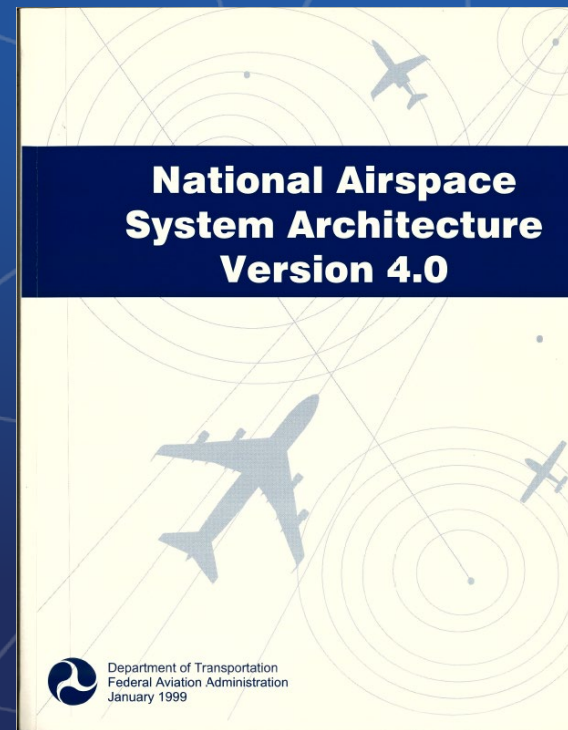
Deciding with Data | Leveraging information to make better data-driven choices.

SWIM started as an Idea...



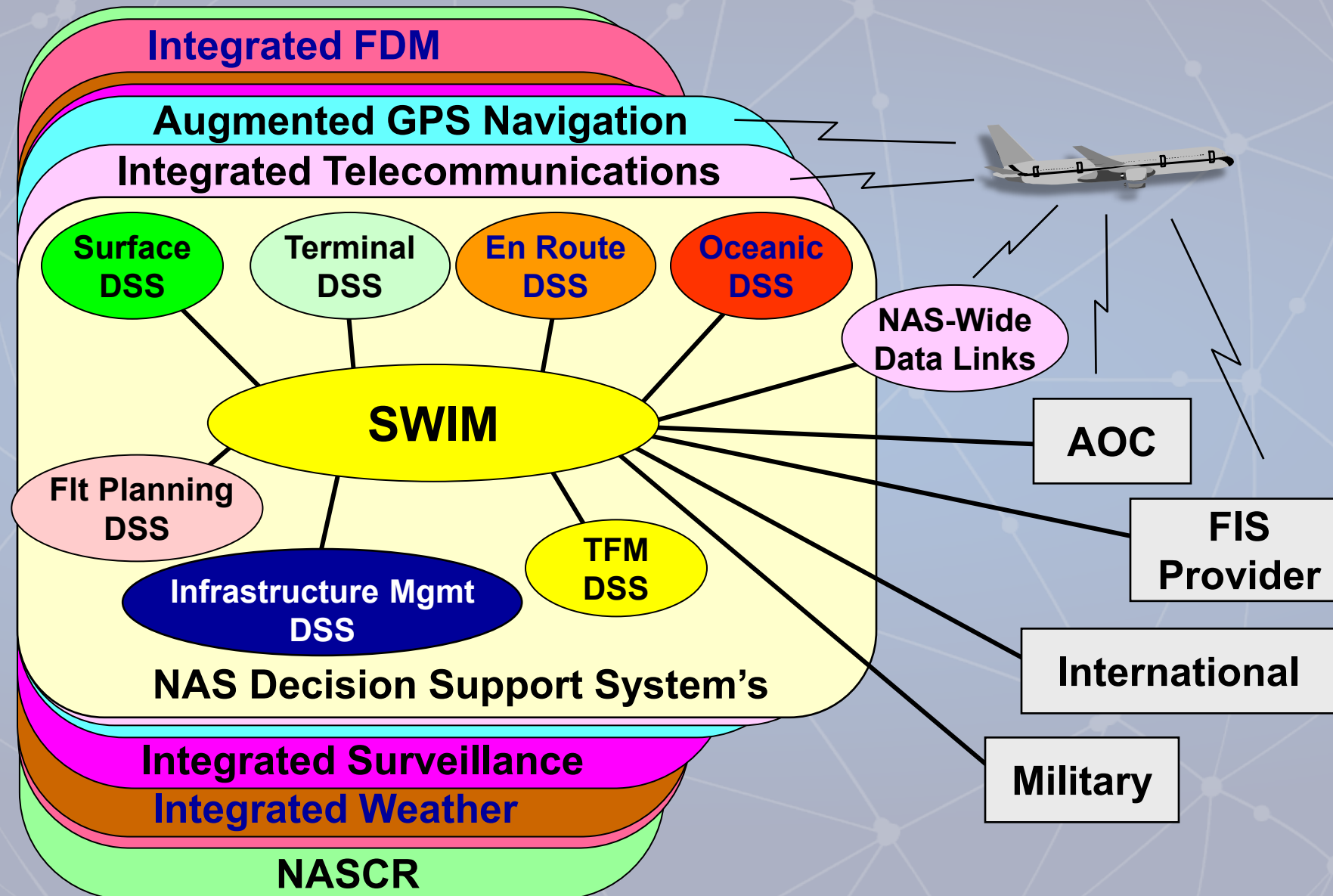
NAS-WIS

A NAS-wide information system distributes timely and consistent information across the NAS, for both user and service provider planning.

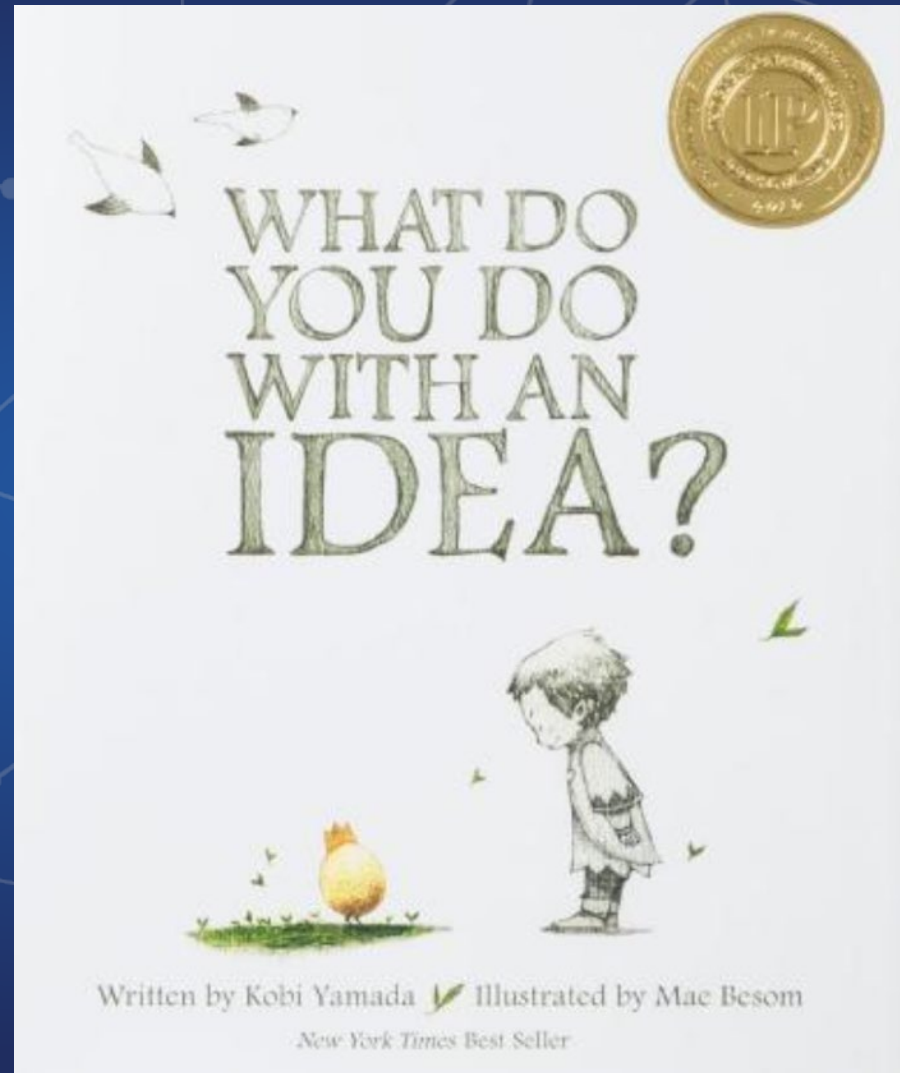


The NAS information services offer a new collaborative capability for information sharing between and FAA and NAS users and throughout the FAA.

Systems View of the Future CONOPs



What do you do with an Idea?



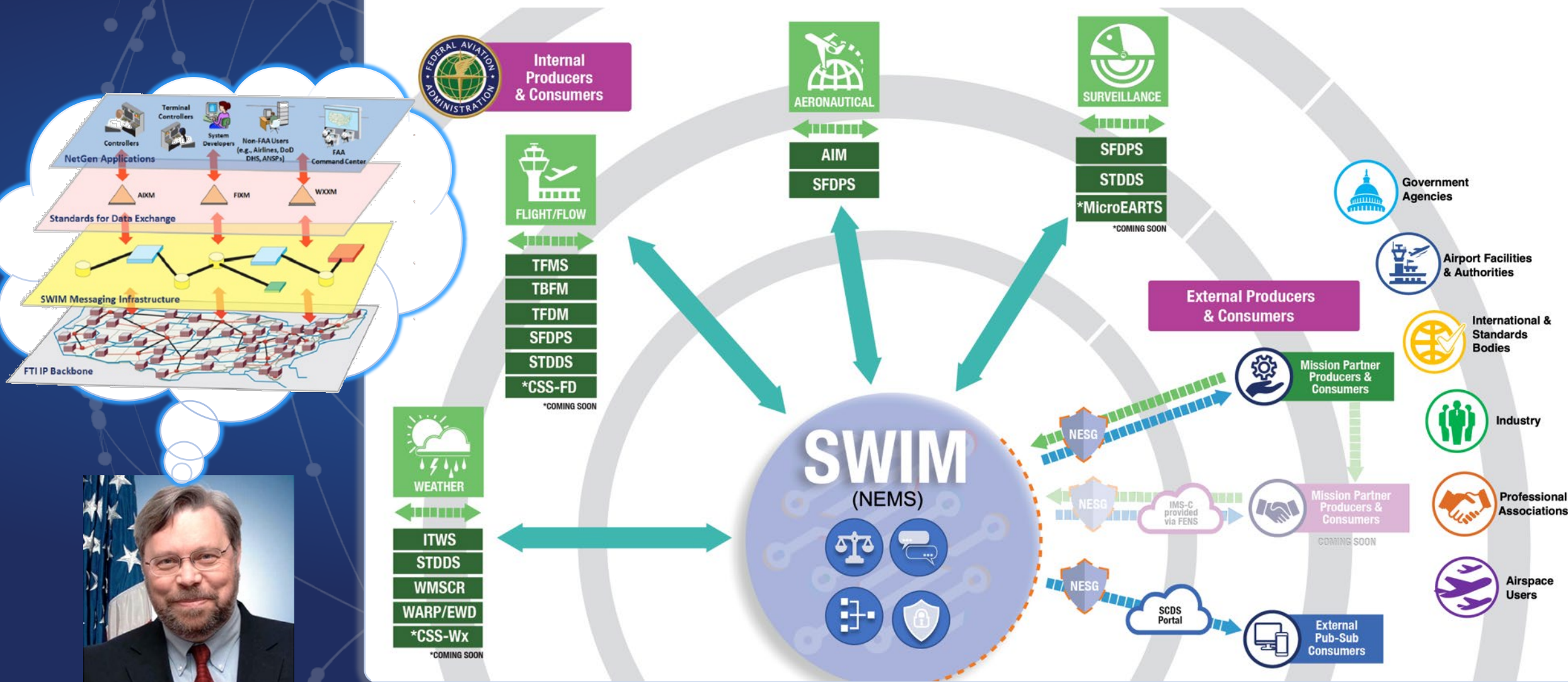
Ref: What do you do with an Idea?, Kobi Yamada

What do you do with an Idea?



***...protect it, care for it,
feed it good food, and
most of all give it
attention...***

Our community turned this idea into reality...



The SWIM Idea in Reality

28



**NUMBER OF
PRODUCERS**

100+



**NUMBER OF
SERVICES**

400+



**NUMBER OF
CONSUMERS**

- NEMS Internal
- NEMS External
- SCDS

~70%

**OF FAA'S
CLOUD DATA
EXCHANGE**

**SWIM
CLOUD
DISTRIBUTION
SERVICE (SCDS)**



**259
MILLION**

**TOTAL
MESSAGES
DELIVERED
PER DAY**



Challenge of Shared Information Environment

Area of Impact if Lost

Magnitude of Impact if Lost

Criticality of ATM Function

Criticality of Information

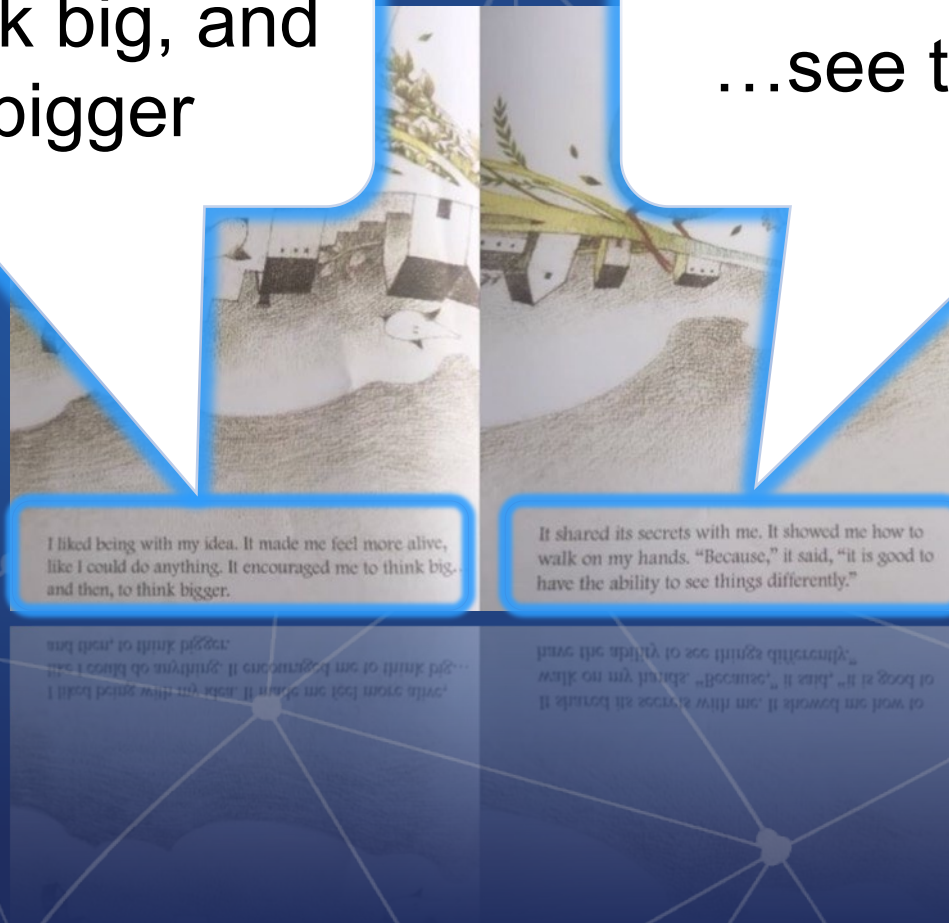
SWIM must be Robust and Resilient

Recognizing our Hurdles...



Encourage to think big, and
then, to think bigger

...see things differently...



I liked being with my idea. It made me feel more alive, like I could do anything. It encouraged me to think big, and then, to think bigger.

It shared its secrets with me. It showed me how to walk on my hands. "Because," it said, "it is good to have the ability to see things differently."

Where does SWIM fit in?



Legacy Systems

Decoupling of new applications from legacy interfaces



Budget

Reduce telecom service costs and enterprise service efficiencies



Security

Policy enforcements for new and legacy applications



Acquisition Cycle

Incremental updates with backwards compatibility

....ideas grow....



...spreads its wings, took flight, and burst into the sky

SWIM Services Deployment (Near-Term Milestones)



 Weather
  SWIM Capability
  Flight/Flow
  Surveillance
  Aeronautical

*Calendar year dates, subject to change

What's New?

TFMData: R15 Patch 2 deployment targeting March 2023.

NCR: R1.1 Available. Allows for consolidating and correlating NAS data and filtering 4DT constraints based on submitted flight route.

STDDS: R6.1 targeting key sites Summer 2024. Under development..

TFDM Build 1: Targeting 2023. Key site IOC achieved at CLE 2022. Includes TFDM/TTP airport and electronic flight data, surface scheduling and traffic restrictions information.

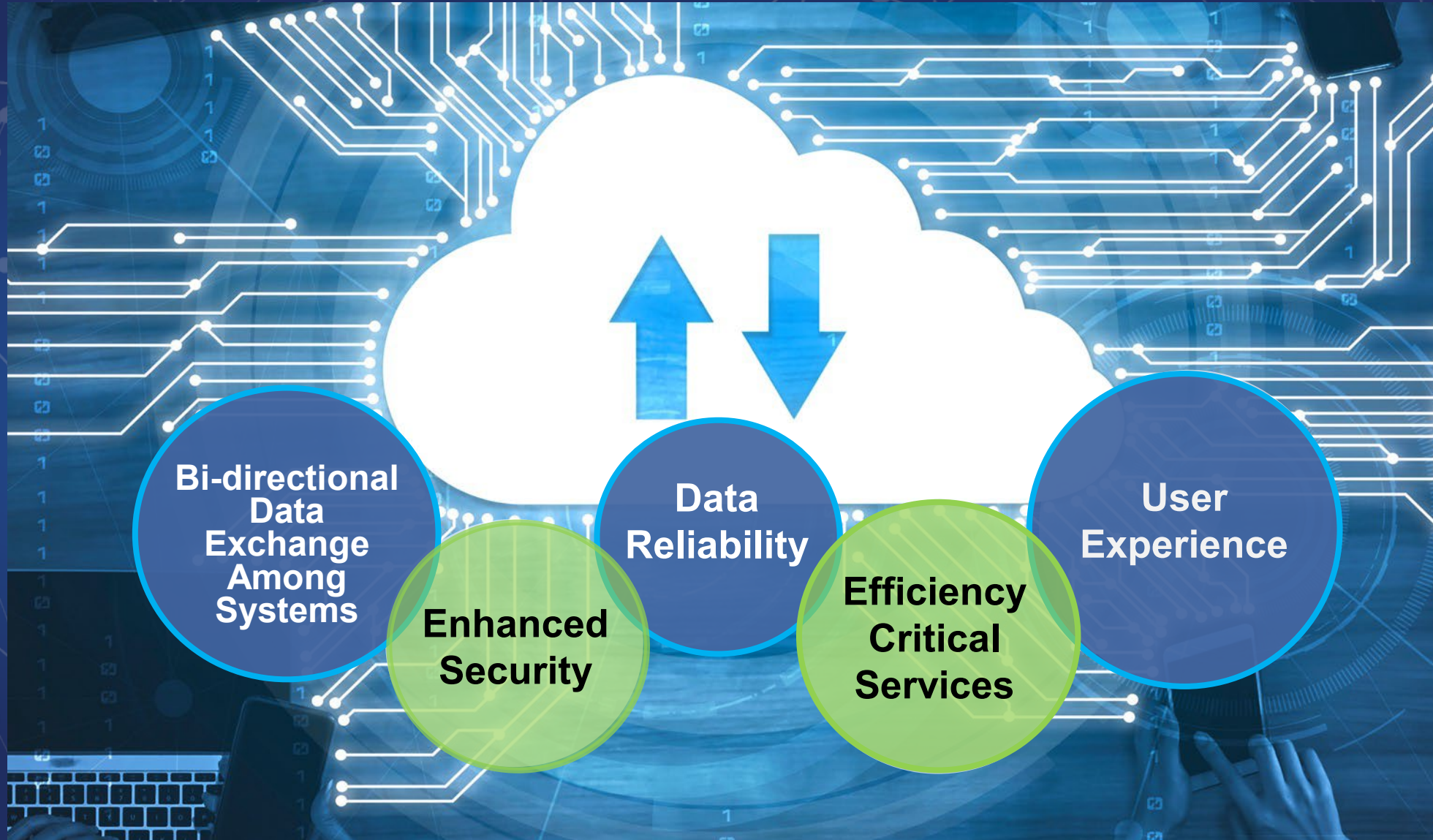
TFDM Build 2: Key Site IOC at CLT targeting Spring 2024. Includes SMP information and TFDM Request/Reply service (TFCS) undergoing development and testing.

NWP: IOC targeting 2024. Provides real time weather radar info, 0-8 hour aviation weather products and Convective Weather Avoidance Fields

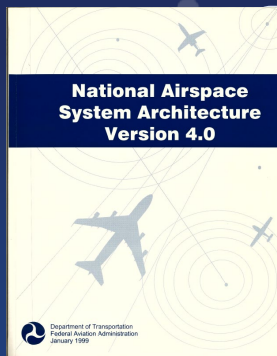
CSS-Wx: Single provider of weather products within NAS using standards-based dissemination. Includes NOAA, NOW and other sources

WMSCR: Targeting Deployment End 2023. Allows for submitting PIREP in XML. Distributes to PIREP data users in and outside of NAS

Future State of SWIM



Next Evolution of SWIM Infrastructure



“...collaborative capability for information sharing...”



Information Management Services (IMS)

Advanced SWIM Services

Flexible and Robust Governance

	Current	Future SWIM
Guaranteed Messaging	✓	✓
Efficiency Critical Services	✗	✓
Enhanced End-to-End Monitoring and Control of Service Flows	✗	✓
Bi-directional Cloud Messaging	✗	✓
Automated Provisioning	✗	✓
API and Service Management	✗	✓
Automated Certificates and Authentication	✗	✓

Supporting Future Operations



Flight information management and transition to the FF-ICE information exchange environment



https://www.icao.int/Meetings/anconf12/Documents/9965_cons_en.pdf

What do you with an Idea?



And then, I realized what you do with an idea...

You change the world

Connect with SWIM



portal.swim.faa.gov

(SWIM Industry-FAA Team)

- Explore SWIM data, subscribe to services, and collaborate with other users



Users Forum www.faa.gov/air_traffic/technology/swim/users_forum

- Hear latest updates from the SWIM Program Office, provide user input and feedback
- Email SWIM@FAA.gov to be added to be notified about future events

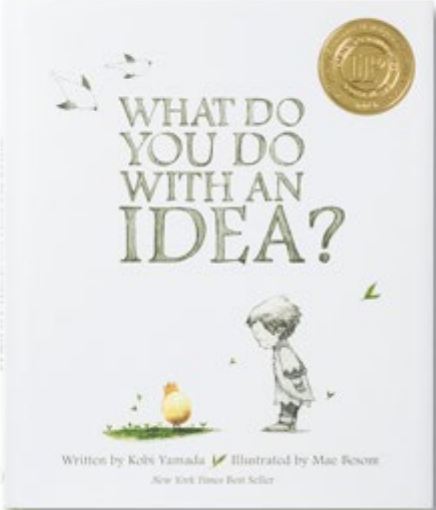


Meetings www.faa.gov/air_traffic/technology/swim/swift/

- Collaborate with airspace partners to innovate, solve common challenges, and improve system interoperability
- Explore SWIM data, subscribe to services, and collaborate with other users

Link to book

<https://shop.live-inspired.com/catalog/product/kids-baby/illustrated-childrens-books/what-do-you-do-with-an-idea/>



Written by Kobi Yamada ✓ Illustrated by Mae Besom
New York Times Best Seller

WHAT DO YOU DO WITH AN IDEA?

\$17.95 ☆☆☆☆☆ Write a review

1 ⬆ ⬇ ⬆ 🛒 ADD TO CART ❤

THE DETAILS

Written by [Kobi Yamada](#)

Illustrated by Mae Besom

What do you do with an idea? Especially an idea that's different, or daring, or a little wild? This is the story of one brilliant idea and the child who helps to bring it into the world. It's a story for anyone, at any age, who's ever had an idea that seemed too big, too odd, too difficult. It's a story to inspire you to welcome that idea, to give it space to grow, and to see what happens next.

What Do You Do With an Idea? has won several awards, including the Independent Publisher's Book Gold Award, the Washington State Book Award, and the Moonbeam Children's Book Award.

It has also hit multiple best-seller lists, such as Publisher's Weekly, the New York Times, the Wall Street Journal, and USA Today.

Discover our What Do You Do With an Idea? activity sheet [here](#).



Questions?

Contact

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Thank You!

ATIEC 2023

AIR TRANSPORTATION INFORMATION EXCHANGE CONFERENCE