SWIM USERS FORUM

June 13, 2019
Washington, D.C.
Presented By:
SWIM Program Office

Federal Aviation
Administration

Agenda

PROGRAM UPDATES

FAA CLOUD UPDATE

FINAL COMMENTS & USER FEEDBACK

SWIM
update

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NATIONAL CLOUD INTEGRATION SERVICE (NCIS) STATUS BRIEFING

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Federal Aviation Administration

NCIS Mission and Vision

Problem Statement: FAA Programs are not leveraging EIM and cloud and must find ways to accelerate development while reducing risk
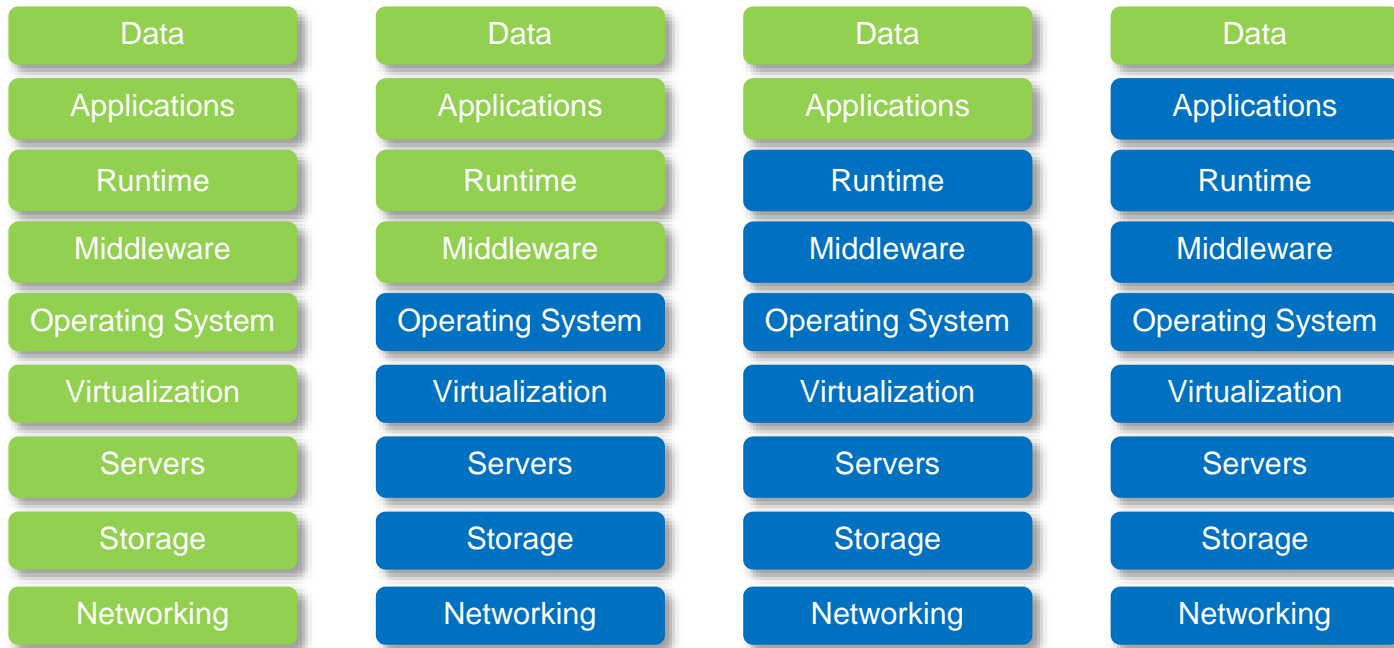
Mission: Partner with Programs to innovate, form fit and accelerate cloud and enterprise infrastructure adoption for FAA modernization

Vision:

– Accelerate innovation to key strategic initiatives

– Streamline modernization development & acquisition (i.e., Sandbox, vehicles)

– Improve efficiency in development cost & deployment (i.e., prototype to Ops)

Cloud Service Models

Data	Data	Data	Data
Applications	Applications	Applications	Applications
Runtime	Runtime	Runtime	Runtime
Middleware	Middleware	Middleware	Middleware
Operating System	Operating System	Operating System	Operating System
Virtualization	Virtualization	Virtualization	Virtualization
Servers	Servers	Servers	Servers
Storage	Storage	Storage	Storage
Networking	Networking	Networking	Networking

Inherits Controls

Control ←——————————————————————————→ **Agility**

On Premise
- **Owner assumes full responsibility**

IaaS
- **CSP assumes responsibility for servers, storage, OS and network**

(e.g. AWS EC2, S3, Azure compute, RedHat, Windows)

PaaS
- **CSP assumes responsibility for IaaS, runtime libraries and middleware**

(e.g. AWS RDS, Azure SQL DB)

SaaS
- **CSP assumes responsibility for everything but data**

(e.g. Office 365)

Legend

Owner Responsibility
CSP Responsibility

FAA Cloud Services (FCS) Offerings

FCS Clouds	Security and Compliance Highlights	Key Considerations	Network Access	
AWS Government Community Cloud Mission Support	• ITAR • FedRAMP Mod • Security Control Inheritance	• Cost slightly higher than Public • Fewer services than AWS Commercial • Extension of FAA mission support network (FAA IPs)	• FTI • No Internet Access planned	
AWS Public Mission Support	• FedRAMP Mod • Security Control Inheritance	• Extension of FAA mission support network (FAA IPs)	• FTI • Internet accessible via TIC	
Azure Public Mission Support	• FedRAMP Mod • Security Control Inheritance	• Extension of FAA mission support network (FAA IPs)	• FTI • No Internet Access planned.	
AWS Public External	• FedRAMP Mod • Security Control Inheritance	• Internet accessible (Public IPs)	• Uses CSP internet, not via FAA TIC	
AWS Public	• FedRAMP Mod • **No Security Control Inheritance**	• Internet accessible (Public IPs)	• Uses CSP internet, not via FAA TIC	
Under Consideration TBD Government Community Cloud NAS	• FedRAMP High	• FAA NAS Ops IPs and network	TBD	

NCIS Immediate Goals and Priorities

- **Cloud Services**
  - FCS architecture and interface documentation for deployment
  - Develop Service Model in support of future program cost planning
  - Develop AMS-compliant process for 'Commoditized' Service Catalog

- **EIM Service**
  - EIM architecture documentation for solution vendor integration
  - EIM Service interface documentation
  - Cost and Performance Model for future cost-estimation projections

- **Deployment and Operations Support**
  - Deployment and operations support for SWIM Cloud (SCDS)

Consolidated Plan		FY19 Q3	FY19 Q4			FY20 Q1		
Project Element	Activity	June	July	August	September	October	November	December
Base	Build and test complete Sandbox environment	▓	▓					
	Develop and deploy catalog of re-usable services		▓	▓	▓			
	Industrialize EIM deployment, synchronize EIM platform	▓	▓	▓	▓	▓	▓	
	Establish EIM Service (PaaS) for FCS				▓	▓	▓	
	Develop FTI-like enterprise acquisition model	▓	▓	▓	▓	▓		
	Engineering support for FAA programs seeking cloud benefits	▓	▓	▓	▓	▓	▓	▓
	Support programs prototype and testing in Sandbox	▓	▓	▓	▓	▓	▓	▓