

DEPARTMENT OF THE AIR FORCE **State of the Software Ecosystem**



Mr. Ben Homer, DAF DevSecOps (DSO) Lead, SAF/CN
August 2025



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State of the DAF Software Ecosystem

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- Cloud One
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Software Ecosystem Integration

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CIO Authorities in Directing Software Modernization



The DAF DSO Lead collaborates with AFSC/SW and other enterprise software organizations to drive enterprise efficiency across the Software Ecosystem by spearheading strategy, policy, and governance for DAF Software Modernization

SAF/CN is responsible for **policy, strategy, governance,** and **portfolio management** of the Enterprise Information Environment Mission Area (**EIEMA**)



Effective management across 14 functional areas allows for SAF/CN to provide the DAF with enterprise IT services that align to a strategic vision and can be executed through governance structures

Enterprise Information Environment Mission Area

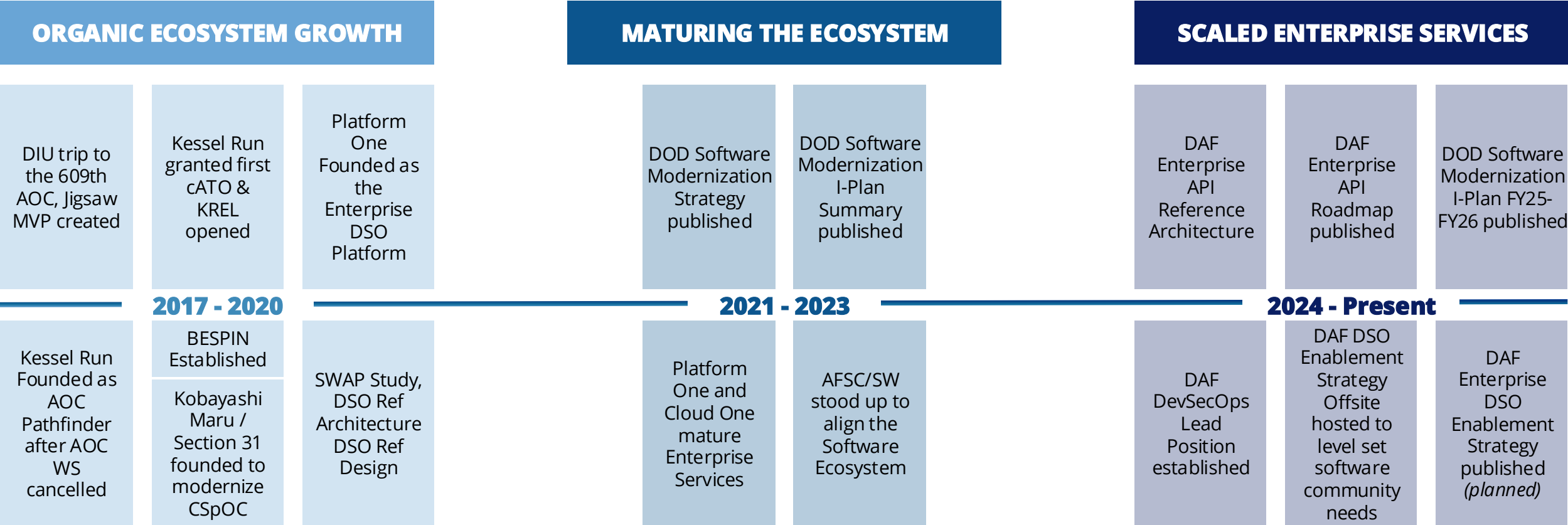


The EIEMA supplies all Mission Areas with Enterprise Services effectively prioritized based on what each Mission Area needs

History of the Software Ecosystem

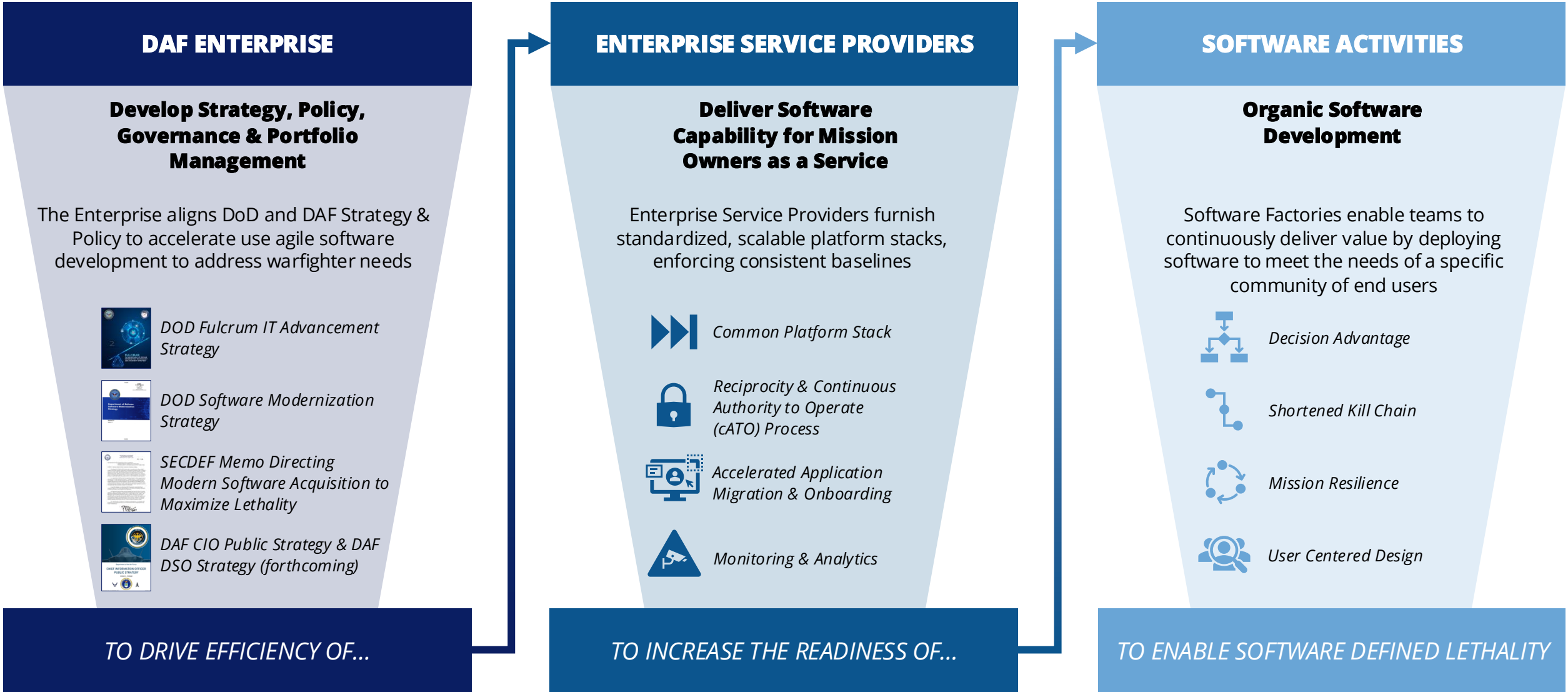


The DAF is at an inflection point in scaling DSO and maturing software defined warfare and must now build on successes to accelerate and retain the competitive edge



SAF/CN established the DAF DevSecOps Lead position to **scale the success of the ecosystem** and provide enterprise services in partnership with AQ & SQ to optimize software development at the DAF

Agile Software Development Enables Readiness & Lethality



DEPARTMENT OF THE AIR FORCE
Software Ecosystem Management Team



Department of the Air Force Information Technology & Cyberpower (DAFITC)
Ms. Kelley Keppinger, Software Directorate, Ecosystem Management Director
August 2025

The DAF Software Ecosystem chartered for execution by AFMC

ECOSYSTEM PARTICIPANTS

The ecosystem contains mature enterprise service providers (ESPs), operational capabilities, and innovation cells



SOFTWARE ACTIVITY ALIGNMENT

ENTERPRISE Service

Deliver standardized, scalable services that enforce consistent baselines across all development environments. These providers operate under an "open for business" model, offering readily accessible and reusable software services, components, data, and infrastructure to teams.

OPERATIONAL Capability

The collective software systems, infrastructure, processes, and expertise that enable an **organization** to effectively and reliably perform a specific operational task or achieve a defined mission objective.

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INNOVATION Cell

A **project** dedicated, often cross-functional, team whose primary purpose is to explore, incubate, and ultimately implement groundbreaking ideas and technologies that can significantly improve the organization's products, processes, or business models.

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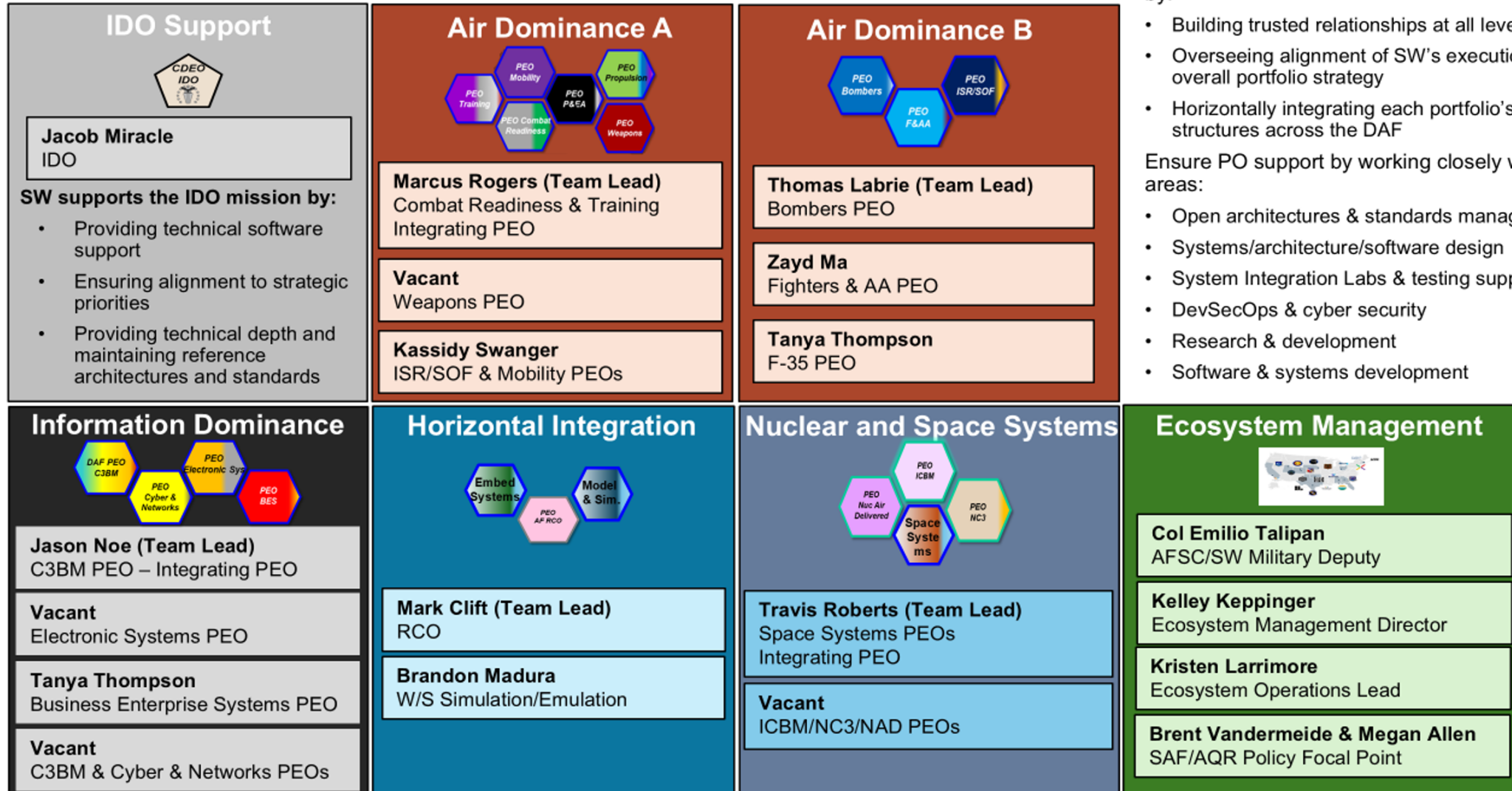
Implement: The USAF Software Ecosystem



• Key Components of a USAF Software Ecosystem

- Senior Software Advisory Team (SSAT) – A central advisory body to govern the Software Ecosystem
- Creating a reporting structure for the Ecosystem, which establishes an authoritative source for software resources, templates, processes, and tools
- AFMC & SAF/AQ CSO MOA – Designates AFSC/SW SL as the primary USAF Software Ecosystem
- Digital Marketplace – A regularly updated, comprehensive listing of DAF Software Activities and their current mission sets and 'open door' availability
- Software Activity Onboarding Process must be established and utilized to ensure effective communications across software activities
- Communication Strategy – Structured communication plan to promote collaboration within the USAF software community

Software Ecosystem & Portfolio Management Integration



Portfolio Managers

Provide strategic & technical interface for PEOs & SMLs by:

- Building trusted relationships at all levels of the PEO/PO
- Overseeing alignment of SW's execution of workloads to overall portfolio strategy
- Horizontally integrating each portfolio's architecture/data structures across the DAF

Ensure PO support by working closely with MLs in key areas:

- Open architectures & standards management
- Systems/architecture/software design
- System Integration Labs & testing support
- DevSecOps & cyber security
- Research & development
- Software & systems development



EIT & Cyber Infrastructure Division



**Lt Col Kevin Grebb,
Materiel Leader
DAF Compute & Store
AFLCMC/HNII
DATE: 26 Aug 2025**

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OV-1 Single Cloud



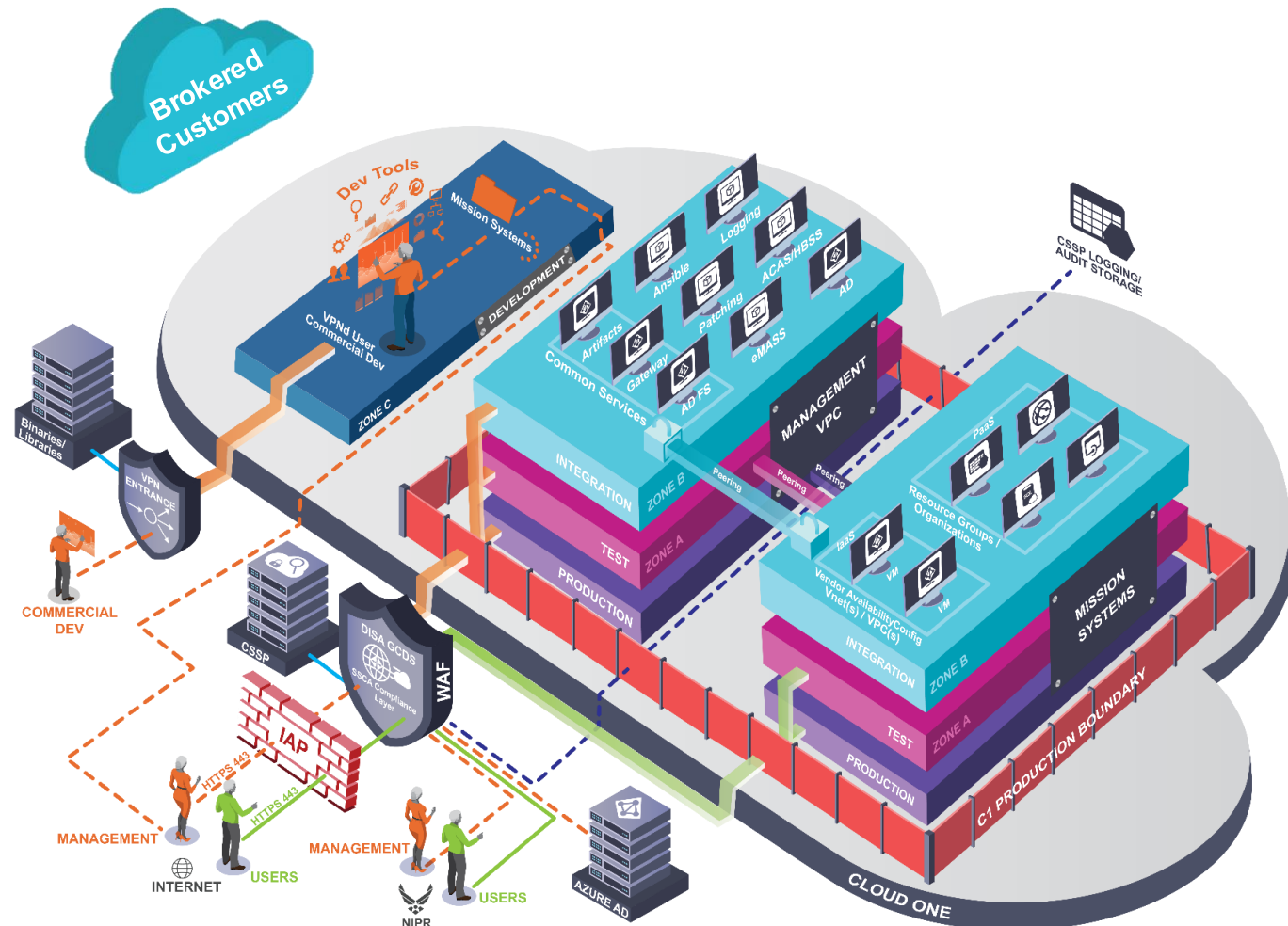
WHAT IS CLOUD ONE?

Cloud One is the Department of the Air Force's **Enterprise Cloud Environment** for non-intelligence workloads

Cybersecurity **guardrails** protect data with **Web Application Firewalls**, Internet and **Cloud Access Points**

Utilizes **DISA Cloud-Certified** Cybersecurity Service Provider (**CSSP**) to provide **SIEM** capabilities in support of mission surety and **FIAR compliance**.

Brokered Customers inherit no services or security features, but use Cloud One to pay their Compute and Store costs, e.g. A1



One Team, One Fight!



Scaled Multi-Cloud



Multi-Cloud ESP

Cloud One comprised of 14 **fully accredited (ATO) environments**

4 Cloud Service Providers

- Amazon Web Services
- Microsoft Azure
- Oracle Cloud Infrastructure
- Google Cloud Platform

4 Impact Levels

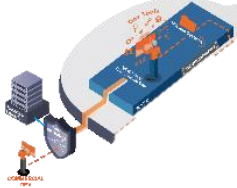
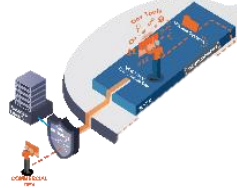
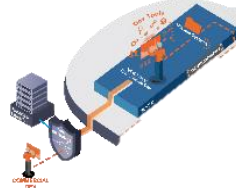
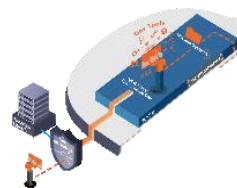
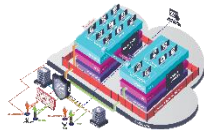
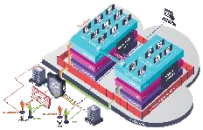
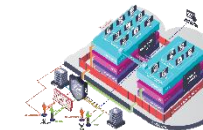
- IL2 – Unclassified
- IL4 – CUI
- IL5 – CUI/NSS
- IL6 - US SECRET

4 Zones

- Development
- Test
- Integration
- Production

Vendor Services

- Each vendor service must gain DISA Provisional Authority and is then integrated into C1 catalogue at user request

Impact Levels				
IL 2				
IL 4				
IL 5				
IL 6				
ALL ENVIRONMENTS FULLY ACCREDITED				

One Team, One Fight!



Current Capabilities

Common Services



Secure Cloud Computing Architecture

DISA's scalable, cost-effective approach to securing Cloud-Based Programs Under a Common Security Architecture [SCCA]



Cyber Security Service Provider

Cybersecurity services to protect, monitor, detect, diagnose and sustain capability of information assurance [CSSP]



Global Content Delivery Service

Cloud connection point services for a globally distributed mesh for commercial and NIPRNet connectivity [GCDS]



MobileConnect

Capability for MSOs' End-Users to authenticate into their applications using their mobile devices



Data Transport Services and Monitoring

Assistance with non-standard Port Traffic, Edge Devices, and an optional monitoring service



Compute and Store Monitoring

CloudTracker provides near real-time monitoring and depth analysis of your cloud spend



MaaS Application Analysis + Zone C

AA completed on behalf of the MSO, at no extra charge; including a Zone C environment provisioned automatically



Common Tools and Services

Development, Security and Operations (DevSecOps) focused to ensure self-service and seamless deployments



Hybrid Migration Support

Code Analysis Tool to assess applications; generates metrics on software risk, complexity, size and overall health

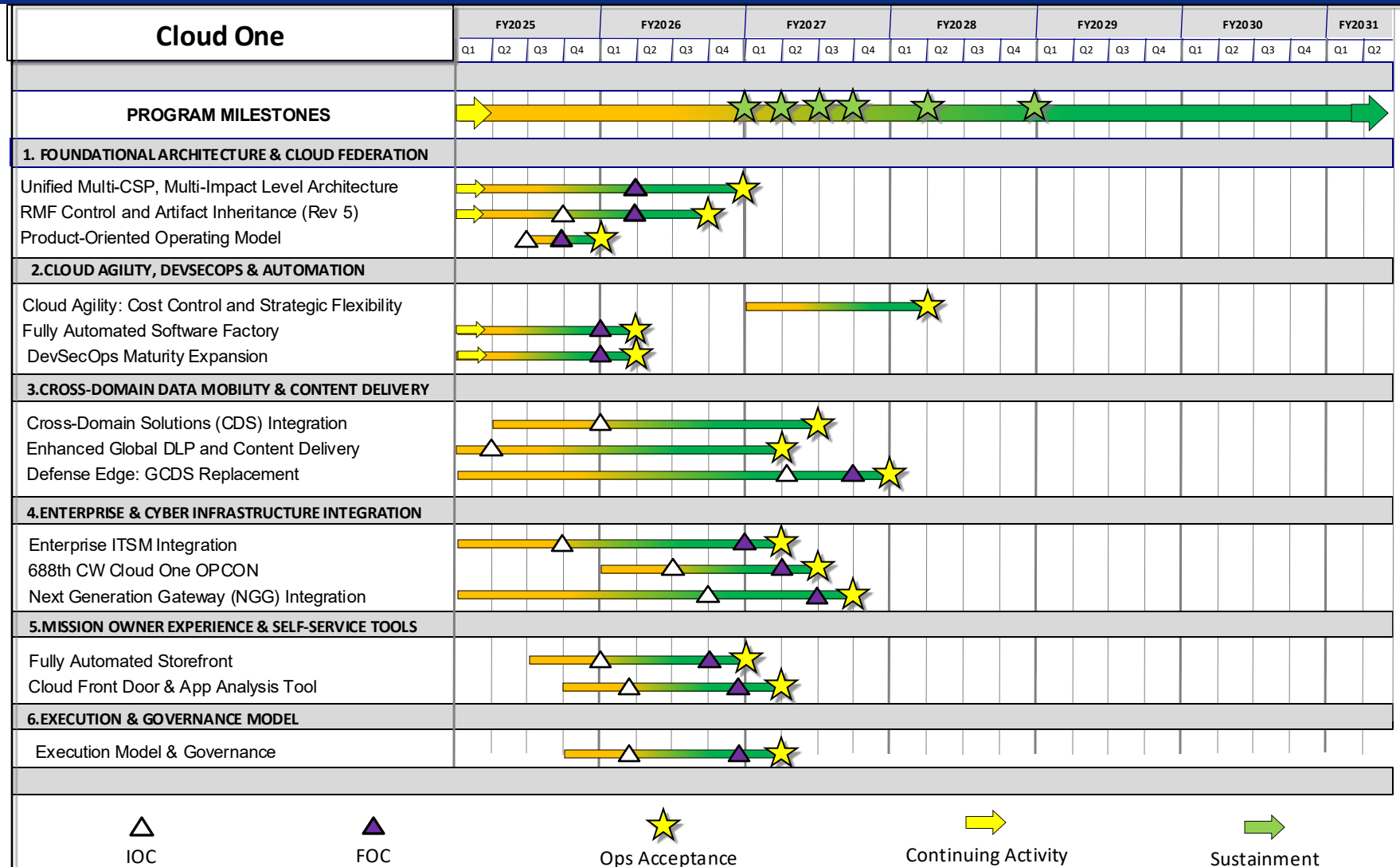


Inheritable RMF Controls for ATO

Up to 75% inheritance of RMF Controls at Control Correlation Identifier (CCI) Level (and rising)



Future State Roadmap



One Team, One Fight!



Journey to the Cloud

- **Centralized Analysis:** Cloud One centrally funds application analysis for customers who opt in
- **Flexible Migration Options:** Offers “Migrations as a Service” (**MaaS**) and supports “Hybrid Migrations” for customers bringing their own vendors
- **Mission-Aligned Approaches:** Supports Greenfield development and Brownfield refactoring to leverage Cloud One’s common services
- **Legacy Modernization:** Supplies tools and contract support aligned to multiple cloud value streams for rapid/repeatable modernization and delivery
- **JWCC Transition**



Summary

- **Designated Cloud Enterprise Service Manager for non-intelligence workloads**
- **368 Mission Systems in Cloud One (not including tenant systems)**
- **Cloud One Next is here**
- **4 CSPs fully accredited across all impact levels**
- **Guardrails protect workloads and increase inheritance**
- **Streamlining on-boarding process to provide a better customer experience**

DEPARTMENT OF THE AIR FORCE
Software Ecosystem Spotlights | Platform One



Maj Matthew "Shifty" Jordan, Chief Product Officer, Platform One, AFLCMC/HNCX



PLATFORM ONE OVERVIEW

The DoD's Software Delivery Engine

August 2025

PLATFORM ONE



Platform One (P1) is the U.S. military's software delivery engine. P1 provides open-source tools and enterprise solutions for teams to **build, deploy, and secure** better software at scale.



Who We Serve

ACQUISITION PROGRAMS

Program offices and
systems of record



DEFENSE INNOVATORS

Service members creating
new solutions



FORCE MULTIPLIERS

Enterprise infrastructure and other
service providers



Platform One Solutions



IRON BANK

Vetted container images to protect the software supply chain and inform risk decisions.



BIG BANG

Ready-to-use DevSecOps platform to simplify building and scaling secure software.



PARTY BUS

Fully managed DevSecOps Platform as a Service (PaaS) to expedite ATO timelines.



EDGEOPS

Easy-to-use DevSecOps pipelines designed for secure deployments in DDIL and air-gapped environments.



COLLABTOOLS

Secure and integrated enterprise tools for communication, project management, and code collaboration.



MARKETPLACE

Connects DoD teams with pre-assessed DevSecOps solutions and awardable vendors.

DEPARTMENT OF THE AIR FORCE
Software Ecosystem Spotlights | BESPIN



Lt Col Matthew Nelson, CTO, BESPIN, AFMC

DAF Mobile Center of Excellence

As the DAF's current Mobile Center of Excellence, BESPIN has established the people, processes and technologies needed to delivery mobile

Acquisition Expertise

BESPIN manages 4, \$100M enterprise-level IDIQs. Average Task Order Award time is 39-days.

DoD's only cATO mobile pipeline

Only organization that can deploy application updates directly to Apple, Google Play, and 4

ATO'd MDMs.

Organic Personnel

106 Airmen
- 78 1D7X
- 17 63X/17D Officers
- 11 1101/2210 Civ

Congressional Investment

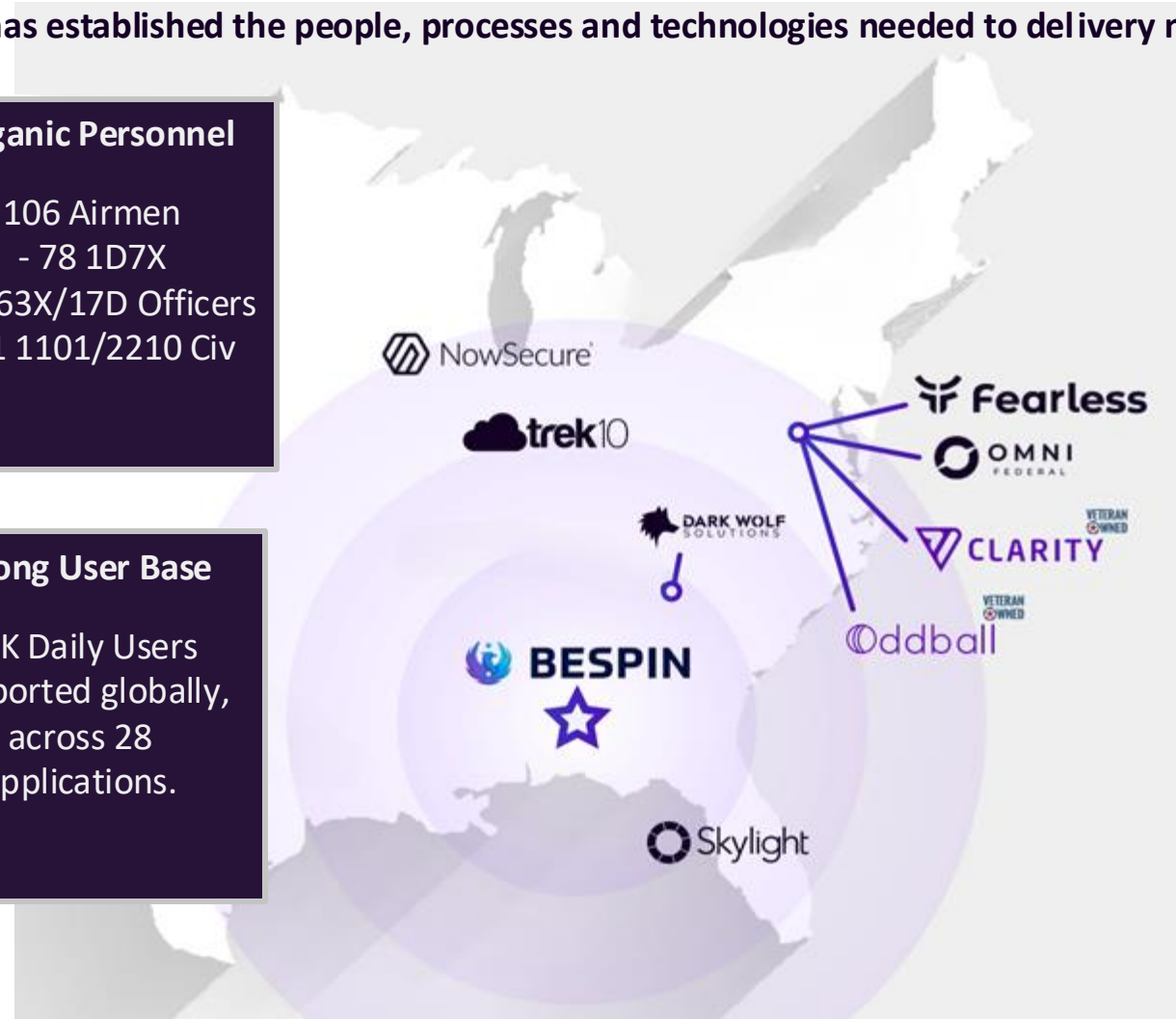
Since 2021, congress has invested \$31.5M in standing up BESPIN.

Mobile Operations

Directly supporting 36,000 electronic flight bag (EFB) users. Delivered 18 mobile applications into production.

Strong User Base

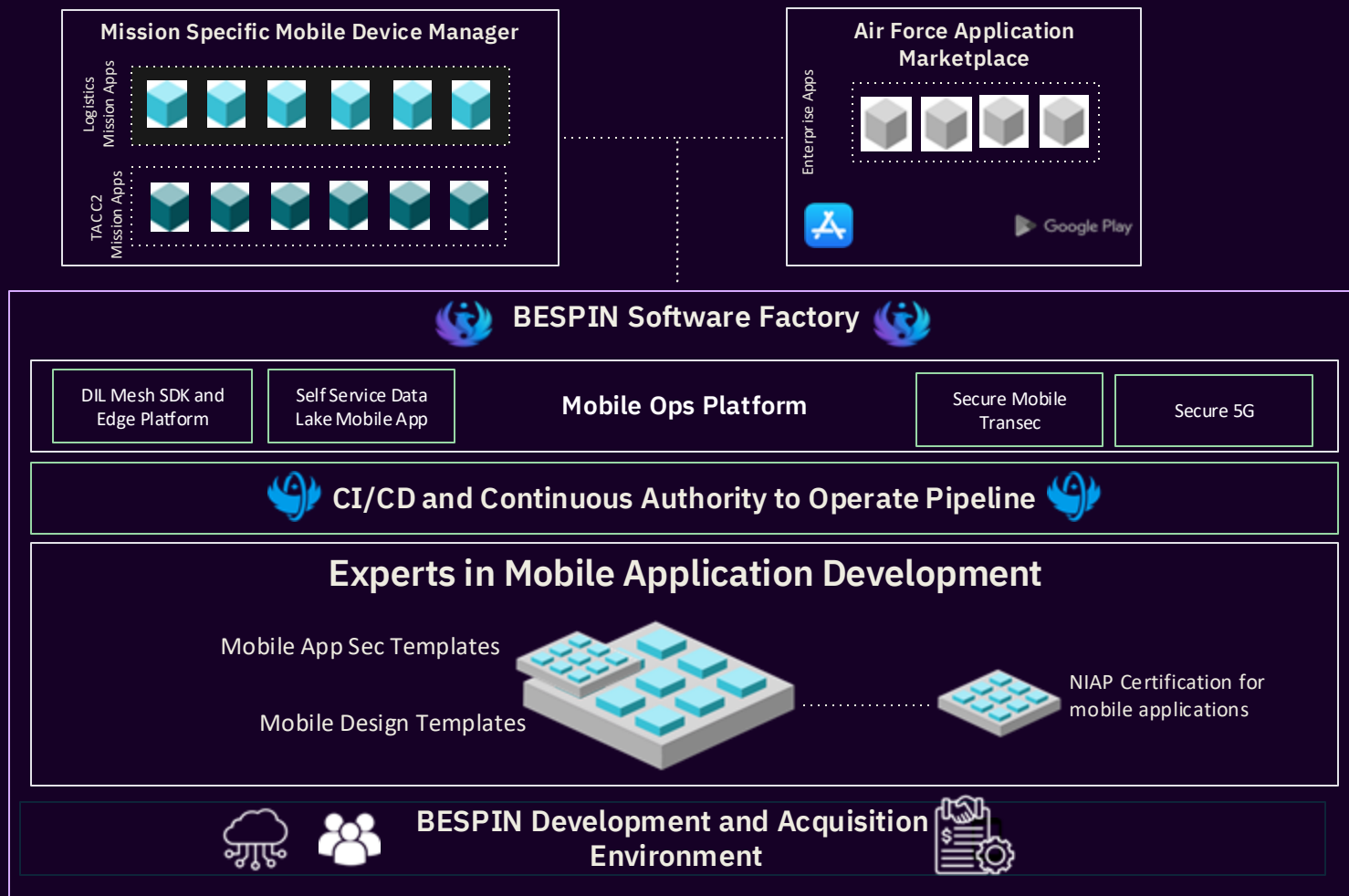
95K Daily Users Supported globally, across 28 applications.



BESPIN, the Department of the Air Force's mobile center of excellence, is ready to become the DAF's Mobile Program Management Office (PMO).

BESPIN Enterprise Services

- Mobile Application Dev and Delivery
- Mobile Cybersecurity and SW Factory
- Mobile Ops Backend as a Service & Mobile Device Management



Warfighting Capability Areas

5G connectivity and managed attribution

Disconnected, Intermittent, and Low Bandwidth (DIL) resilience

Data integration

Tactical edge AI/ML processing



DAF DevSecOps Lead Priorities



The CIO established the DSO lead role to improve integration across the Software Ecosystem and drive enterprise efficiency by spearheading strategy, policy, and governance for DAF Software Modernization, which are being prioritized while targeting impacts for the focus areas below

Enterprise Service Adoption	Governance & Reporting	Workforce	User Experience (UX)
<i>Optimize Efficient, Unified Solutions</i>	<i>Establish Unified Roles and a Clear Vision</i>	<i>Champion Career Advancement Pathways</i>	<i>Accelerate UX Common Services</i>
Increase enterprise service adoption by integrating enterprise platforms to support value streams, accelerate cloud adoption, reduce redundant solutions, and eliminate duplicative costs, resulting in more efficient and effective DAF enterprise services	Align roles, responsibilities, and guidance and drive a unified vision and enable effective, coordinated execution and reporting for software activities	Provide clear guidance on career paths, relevant trainings, and feedback to support growth and continuous improvement for DAF civilian and military software professionals	Implement efficient, automated feedback processes and set DAF-wide UX/UI standards to accelerate user-driven improvements, enhancing the software user experience

Tactics to Drive DAF Software Modernization

ENTERPRISE PLATFORM INTEGRATION
DSO ENABLEMENT STRATEGY

DAF SW MOD I-PLAN TRACKING

SW WORKFORCE OPTIMIZATION & LEADERSHIP

INTEGRATE W/ CXO ON SOFTWARE UX & DESIGN

GET INVOLVED!



UX Community of Interest (CoI)
12 SEPTEMBER | Monthly



DAF DevSecOps Community of Practice (COP)
15 SEPTEMBER | Monthly

Questions?



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Appendix

