Peraton

WHITEPAPER

ACHIEVING THE AIR FORCE EITaaS VISION

DO IT THE CAN/T BE DONE!

EXECUTIVE SUMMARY

As the U.S. Air Force embarks on its quest to deploy enterprise IT as a service (EITaaS), it appropriately has designated the ultimate measure of success as the increased effectiveness it will bring to Air Force missions. This will have a complex set of metrics involving many stakeholders:

- Cost reduction goals
- User experience enhancement expectations
- Time spent supporting mission and cyber capabilities instead of making IT work
- Greater flexibility of the infrastructure to support changing mission needs
- Enhanced enterprise security

Delivering on the promise of EITaaS will require a foundational digital transformation framework with enterprise services, measurements, and transparency. In this paper, Peraton makes recommendations for achieving the Air Force's vision based on its 50-year history of integrating commercial technologies to support U.S. Department of Defense (DoD) missions. Peraton's success in creating and supporting the Navy/Marine Corps Intranet (NMCI), the Defense Health Agency Global Service Center (DHAGSC), and other large-scale programs reinforces the credibility of these recommendations.

The sections below describe Peraton's view of critical success factors in meeting key EITaaS objectives:

- Rock-Solid Digital Foundation
- User Experience for Warfighter Effect
- Enabling Digital Talent
- Ruthlessly Attack Manual Process, Outdated Policy and Redundant IT

CREATING A ROCK-SOLID DIGITAL FOUNDATION FOR EITAAS

As the Air Force has found from past risk-reduction efforts, implementing enterprise services doesn't always deliver end user experience improvements without the associated service management discipline, governance and integration required to capitalize on the new capabilities. To build the rock-solid digital foundation required to support new capabilities like JADC2 and ABMS, the Air Force requires infrastructure services that work in concert to deliver secure, end-to-end connectivity and services. This is a digital transformation program.

The EITaaS foundation set forth in Wave 1 must provide:

- A digital dashboard providing service status, analytics, and automation to speed response to events
- An effective Multi-sourcing Service Integration (MSI) team made up of government and Wave 1 contractor staff to provide consistent oversight and implementation
- A well-defined governance structure to coordinate actions across all IT services
- A single suite of integrated ITIL processes that support the on-boarding of future EITaaS services and providers which also integrates with other current and future Air Force environments
- A digitized single source of truth for EITaaS information enabling automated analysis and response to events and requests
- A secure environment and services that can be trusted to support mission needs while improving cybersecurity posture
- A transition and transformation approach that employs automation and efficiencies, aligns with funding sources, and limits mission risk while the legacy and new EITaaS co-exist and work together

For every service that drives toward achieving these foundational elements, there will be both functional and technical requirements around performance measurement, service visibility and financial reporting—a significant improvement in enterprise-wide visibility within the Air Force and its commands.

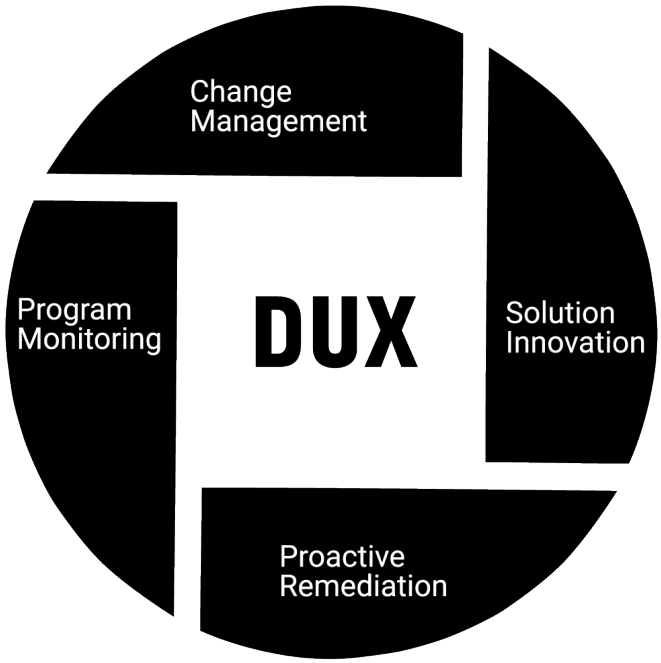
There will also be a need for the MSI team to enable interaction among providers with shared service-level agreements (SLAs) and operating-level agreements (OLAs). Known as dependency mapping, this is a crucial part of establishing an MSI construct and identifying the controls required for a collaborative environment; service providers must understand and be held responsible for services within their control. At Peraton, we ensure this occurs through journey map sessions that identify value streams for specific mission needs. This allows us to find the end-to-end linkages and metrics required to measure services from an end user's perspective. We also utilize process integration workshops to define the gives and gets from each service provider, whether they are legacy or new EITaaS providers. This enables effective information flows while minimizing any negative impact on the mission.

Peraton is utilizing this process as we deploy the new modernized SIPRNet infrastructure for the Air Force. From this and other experiences we have learned that IT service management (ITSM) support is best accomplished with a flexible approach that avoids complete definition of every governance, financial, service, measurement and reporting process. Instead, the model allows processes to evolve as better pathways are discovered and technologies are introduced. It accounts for incorporation of new capabilities, eliminating overlaps and inefficiencies. Ultimately, it represents a single, consistent, and stable way for mission owners to obtain the services they need and incentivizes collaborative behavior across all service providers.

Finally, since the endpoint represents the overall convergence point for all services and threats, this requires that a special emphasis be placed on these assets. Having protected over 300,000 endpoint devices for the Navy for almost 20 years, Peraton has experience merging commercial best practices with DoD requirements to deliver support for military environments. At this scale, the integration, complexity and every other factor gets magnified and demands management experienced with similar transformations.

DELIVERING USER EXPERIENCE FOR WARFIGHTER EFFECT

The digitalization of everything and shift to 'X as a service' models are at the center of the so-called fourth industrial revolution. To address ever-changing threats, diminishing budgets, and the need for continuous innovation, the DoD is looking to technology to help accelerate how it work. The need for state-of-the-art automation, analytics, and system integration capabilities is at an all-time high. While technology is a critical element of digital transformation, it is the collaborations among technology, people, processes, and data that create lasting change. This is where a focus on defense user experience (DUX) can be applied to drive solution adoption, engagement, retention and satisfaction.



The purpose of Peraton's commercial-to-DoD user experience approach is to develop solutions that use technology to improve mission readiness. Our efforts build a foundation for digital modernization that solve challenges involving security, network, cloud management, and information technology. Our focus is on managing the delivery of performant enterprise IT, staying up to date with high-speed technological advancements while maintaining positive defense user experience outcomes. We maintain an efficient and intuitive experience by building an infrastructure centered around four components: Solution Innovation, Change Management, Program Monitoring, and Proactive Remediation.

The distributed nature of a DoD enterprise system means multiple employees can experience specific systems and processes. Our defense experience model builds on this premise and combines technology and advanced analytics to provide organizations with evidence-based recommendations for generating solutions. Operationally, DUX as a managed service also offers ways to reduce IT system costs, wasted resources, and challenges that negatively impact an end user's experience. This strategy reverses the idea of strict adherence to SLAs because it addresses complex challenges and requirements while ensuring enterprises and IT services are continuously evaluated and updated.

ENABLING DIGITAL TALENT TO EMPOWER AIRMEN

EITaaS represents a transformational change for how the Air Force will function, and with that comes a need for new processes, skills, and capabilities. Supporting this will be an organizational change management (OCM) program that is necessary to overcome resistance and ensure Airmen and Guardsmen work effectively. A successful OCM approach must combine government change management knowledge, workplace transformation experience, along with an appreciation for DoD and Air Force culture.

A one-size fits all OCM approach and strategy is not effective in enabling a sustainable change, especially in an agile, technology-driven transformation. The Air Force needs a strategy focused on optimizing user acceptance across a broad range of stakeholders to enable EITaaS adoption. The OCM strategy sets a critical foundation for Air Force EITaaS transformation: it establishes the change vision and overarching approach and maps the path to achieve specific goals and outcomes.

Airmen and Guardsmen are the main implementers of change, so it's vital to have a program of preparation, execution, and reinforcement of the positive impact EITaaS will have on their specific jobs. This includes communicating the vision, reskilling, setting short-term goals, developing a timeline of activities, recognizing milestones and accomplishments, and developing the shared value of continuous improvement. Most importantly, OCM incorporates opportunities for user input on what works well and what needs improvement.

Change management also covers comprehensive training so that users understand how to make the most of new technologies and processes.

Peraton, along with support from partners, has led digital transformation initiatives and is equipped to provide training for:

- Systems engineering modernization from certified SAFe, and DevSecOps practitioners
- ITSM from an accredited ITIL training organization
- Intelligent automation support services to help Air Force teams automate both digital and manual processes
- Application transformation experts to assist the Air Force in modernizing mission systems
- Cybersecurity training to assist Airmen and Guardsmen as they pivot to focus on defensive and offensive cyber operations

USING AUTOMATION TO RUTHLESSLY ATTACK MANUAL PROCESSES

Since it was founded in 1947, the Air Force has developed its own way of accomplishing its mission and accumulated numerous processes. Some of these no longer fit in the digital world and hinder efficiency, so Peraton is prepared to address this through digital transformation.

This effort will move from paper baselines to digital representations that will stand up Infrastructure as Code (IaC) and automate repetitive steps through Robotic Process Automation (RPA). Digital transformation also sets the stage for higher value Artificial Intelligence and Machine Learning (AI/ML) mechanisms to be applied against the digital data, which will unlock even more information and insight. This transformation will make Air Force more productive as people can focus on higher value work, make automated or better-informed decisions via digital decision aids, and leverage intelligent automation across multiple IT disciplines.

Former Air Force Assistant Secretary Dr. Will Roper started the conversation with a call to action for Air Force acquisition professionals to understand and adopt the principles and the solutions for "going digital." Coining the phrase, "The Digital Trinity," the senior most acquisition official in the Air Force pushed his team toward open, agile, and to "eCreate before you aviate." This third component is to drive toward digital engineering that builds models and simulations for virtual experimentation before spending money on building the physical product.

In enterprise IT, a digital twin might exist for configuration control of a system on the Air Force Network (AFNET), but a replica of the AFNET is not on par with the actual network. The AFNET is never frozen. Digital threats morph and constantly advance, driving patches or other security actions that cause configuration changes. New software releases are delivered in a continuous deployment model with automated tests and approvals. Hardware is constantly replaced, and new users and technologies are added. This dynamic environment needs the maturity of automation to discover, build, scan, check and report on the status of the IT, and digital engineering helps the Air Force adapt to continuous change.

HOW DIGITAL ENGINEERING APPLIES TO ENTERPRISE IT

Peraton has built systems and migrated paper-based architectures and artifacts to digital baselines and made exceptional use of automation in the process. Historically, the main challenge that delayed getting new capabilities in the hands of Air Force users was attaining approval for the Authority to Operate (ATO). For the ATO, humans are evaluating paper ATO packages that consist of 1000s of lines of subjective information and manually checking compliance to voluminous controls. This approach will never provide the velocity necessary to stay ahead of cyber adversaries.

A digital twin for a component of the enterprise IT environment accelerates the delivery of capabilities as the modelled technical baseline can be tested and scanned continuously throughout the system's lifecycle. When a configuration item (CI) changes, the system owners can plug CIs into the digital model and let the software run.

The "twin" would kick off its functional tests, measure the impact on performance, begin automated compliance checks, spit out RMF updates, and provide an overall impact for the CI. This happens in minutes, not days, and it enables engineers to focus on a few deltas instead of an entire solution. The digital transformation with the model and the automation accelerates CIs and new solutions by through what used to be a labor-intensive deployment process to a semi-automated process.

From automating manual processes using RPA, to reducing ATO package compilation times from months to days for the Navy, to automating environment builds and security scanning using IaC and automated security tools in our DevSecOps engineering processes, Peraton is on the leading edge of applying digital engineering to support DoD customers.

CONCLUSION

Peraton supports the EITaaS vision and has deep experience supporting the Air Force on programs like SIPRNet Modernization, and Air Force NaaS risk-reduction effort under Microsoft. This mission understanding along with our experience delivering transformation for customers like the Navy and DHS make us uniquely qualified to successfully deliver on the EITaaS promise.

Peraton

Learn more at

PERATON.COM