EITaaS at the Air Force

Managing complexity moving from Risk Reduction Effort (RRE) to production

Bottomline upfront

Technological advancements have developed beyond custom systems enabling commercially available enhanced tools globally for Airmen and Guardians to attain and quickly respond to mission imperatives in 2022, better than any time in history. The path to successful digital transformation for the Department of the Air Force (DAF) starts with the vision of what tools your Airmen/Guardians require and working with trusted vendors to deliver a consolidated service platform at scale and maintained through the full program lifecycle.

The DAF, as a leader in developing the warfighter of the future in digital transformation, with an objective of increasing operational efficiencies while managing costs, has taken a sound approach developing its Enterprise IT as a Service (EITasS) roadmap through the Risk Reduction Efforts (RRE).

The DAF direction is clear, calling its pursuit of EITaaS a strategic decision intended to get its personnel out of the business of providing end-user services and refocusing instead on offensive and defensive cybersecurity operations, as well as other core missions. As user experiences significantly improve, Airmen and Guardians can focus on their primary missions, namely warfare superiority and cyber security.

LUMEN®
TECHNOLOGIES

Through the RRE, the DAF has conducted EITaaS pilots on a limited basis with plans to move those pilots into production mode as early as 2022. That transition presents an opportunity to revisit EITaaS requirements and consider some of the RRE lessons learned. As the DAF moves to EITaaS at scale, we share our experience and approach to delivery and management of programs at scale, such as EITaaS. These topics include:

- No two bases are alike: The complexity of deploying EITaaS.
- Mitigating EITaaS rollout issues.
- A thoughtful transition to EITaaS.

At Lumen, we are proud of our relationship supporting the DAF and the Department of Defense (DoD) for more than 20 years. Lumen is a trusted provider that understands delivering and managing services at scale. The intent of this white paper is to explore options and recommendations to assist the DAF with strategies as it moves forward with the EITaaS program.

Why Lumen?

- One of the most significant transport service providers supporting the DoD Information Networks (DODIN) infrastructure and the DAF.
- Lumen has 30 Air Force bases on-net and is currently assessing other bases that are near net.
- Support in Security Technical Implementation Guide (STIG)-compliant managed Wi-Fi services today for components in multiple branches of the DoD.
- Cabinet and Federal Agency-level, Metro Ethernet Forum (MEF) 3.0-compliant Managed Local Area Network (LAN) services, help desk, and desktop support in the National Capital Region (NCR).
- Air Education and Training Command (AETC) IT support at 24 Air Force Bases with more being added. Lumen provides secure managed Wi-Fi, ATO-compliant services for the Air Force nationally.
- DoD Education and Activity (DODEA) schools IT support around the world. Lumen provides 90 dispersed international locations with Virtual Private Network Service (VPNS), Internet Protocol Service (IPS), and Internet Protocol Virtual Service (IPVS) services.

LUMEN®
TECHNOLOGIES

No two bases are alike: The complexity of deploying EITaaS

EITaaS as a complex business approach, with its many moving parts and multiple stakeholders, is challenged to deliver on program objectives. Digital transformation efforts to date have often resulted in a mix of systems that can be hard to integrate, maintain and refresh. By modernizing and consolidating networks, as well as making use of shared services to enable future networks, DAF IT leaders are making strides toward closing gaps in fragmented IT infrastructures, moving away from capital expenses (CAPEX) to operational expenses (OPEX) models.

Successful global modernization and transition of deeply embedded in-service global infrastructure requires upfront, detailed understanding of the customer and infrastructure imperatives to reduce risk and deployment delays. Physical topography and unique mission requirements make no two bases alike.

Physical considerations:

- All these bases are in different geographic locations, and mission requirements surrounded by differing topographic realities with varying proximity to backbone infrastructure, such as fiber networks.
- Some are relatively modern, and some are composed of buildings constructed long before modern considerations of network connections.
- Wi-Fi coverage and other aspects of technology-driven operations vary. Infrastructure in some instances differs wildly between bases.

Mission and unique base considerations:

- Strategic and tactical commands can operate out of a multitude of bases. Those operations are often distinct from day-to-day base operations.
- A single base could be the headquarters of one command, while hosting wings and support personnel for other commands.
- Approach and support of other tenants, whether DoD, or contractor should be considered as the DAF moves to EITaaS full-scale rollout to help ensure that operating cost is accounted and paid for at the lowest level, while exceeding customer satisfaction.

As the DAF has observed during the RRE, missing or pushing out service delivery times will negatively impact delivery interval, customer satisfaction and costs. Understanding physical, logical, and customer mission requirements helps mitigate many "unforeseen" delivery issues building upon upfront asset and base command integration. Proper program staff planning reviews at initiation will reduce delays which is an important lesson learned from the RRE.

LUMEN®
TECHNOLOGIES

Mitigating EITaaS rollout issues

Success of EITaaS at scale will be the result of thousands of smaller successes at bases and work centers everywhere. Deploying EITaaS successfully at scale includes close coordination with other in-flight IT transformation projects to minimize schedule, cost, and customer impact resulting in the success of all efforts, such as the DAF's embrace of cloud and edge computing.

Moving to EITaaS expands the benefits of a vendor-provided managed services approach, a contracting form where an outside provider has day-to-day responsibility for IT infrastructure or services, freeing up internal resources for more strategic efforts, reducing CAPEX and mitigating obsolescence costs through an OPEX approach driven by service level agreements (SLAs). EITaaS objectives change the approach to what the "norm" has been in the DAF for decades, in some cases requiring significant change to processes and the constant battle to keep up with the latest technological advances. Lumen's programmatic rollout success at scale includes working with DAF personnel on a well-executed Organizational Change Management (OCM) approach to ensure DAF and vendor staff clearly understand and are prepared to move their respective sites to full EITaaS deployment.

Lumen believes success of EITaaS depends on consistent approaches, reproducible processes and unified approaches globally in the purest sense. Practicality of re-engineering an existing global business at scale requires constant review and continued improvement processes to anticipate and minimize impact to schedule and cost. Mitigating the complexity issues can be done with some small steps easily implemented in the contracting process to avoid the "one size fits all" approach to implementation.

The DAF has effectively recognized the need for a fundamental shift in how it procures and manages information technology, with an emphasis on consolidation, innovation, flexibility, agility and partnering with industry to provide services. EITasS is that path. The DAF is leading the way in this new chapter of federal government IT procurement.

LUMEN®
TECHNOLOGIES

For the DAF, where many facilities, commands, and types of personnel are involved and overlap, Lumen recommends building the appropriate contractual foundations which will help to mitigate delays and frustrations from overly standardized plans that struggle to adapt to the realities of practical differences from base to base. These mitigation steps include but are not limited to the following:

- Contract flexibility – multi-award contract to provide the DAF an ability to realize the strength of global vendors, manage costs and help mitigate delays.
- Include asset and operational evaluation as part of organization change management evaluation. EITaaS can scale to accommodate any size enterprise, it also can be tailored to fit specific needs or organizations.
- Continued learning and evaluation beyond the RRE. Rollout awards into logical groups of bases. By breaking the contract awards into groups of bases (perhaps 25 to 50 bases per group), their differences will become more visible faster allowing the DAF and the vendor to respond quickly utilizing an Information Technology Infrastructure Library (ITIL) model. These groupings could be awarded to different vendors who could then focus on the needs of those specific bases.
- Logical approach to group bases is to start with operational commands and the distributed bases associated with that command and its subordinate units.

By building upon the lessons learned during the RRE, success should be measured on the impact on DAF as a whole and perhaps not limited to EITaaS. Focusing on understanding and working with the base commands holistically will improve delivery and cost control by assessing outside a "one size fits all" framework.

With RRE moving to full deployment, these mitigation steps can speed the tailoring of the EITaaS high-level template to the realities on the ground in the deployment phase.

A thoughtful transition to EITaaS

As the DAF moves forward with larger deployments of EITaaS, even with strong uniform requirements and excellent vendor relationships in place, this is a complex undertaking with significant risks that must be mitigated at program initiation. To achieve program goals and objectives while reducing risks requires the selection of vendors, with a proven record of success, who currently manage and deliver on a global level at scale. Characteristics necessary for program success include:

- A strong programmatic approach required as the DAF and your trusted vendors work closely to ensure the partnership exceeds the vision of the Air Force and Space missions.
- Adherence to a Governance model supporting common tools and methods by which EITaaS strategy is defined, authorized, and monitored.
- Nimble contracting interaction for change management.
- Organizational change management.
- Strong subcontract management.

EITaaS will simplify IT management for the DAF but getting to that point is not simple. Many lessons learned through the RRE have provided invaluable information for deploying at scale, building and maturing an acquisition strategy built for program success. EITaaS is a complex endeavor that requires collaboration with trusted partners who understand the challenges and have the capabilities to help implement the solutions successfully.

> Lumen is that trusted partner. As a Global service provider to the DoD, Lumen has the experience, cleared staff, and network capabilities across the DoD today to help reduce risk to the DAF as they lead global digital transformation.

The company operates one of the world's largest, deeply peered networks with approximately 500,000 route miles of fiber, to effectively cover the DoD's various geographies, global bases and regional commands. Lumen is already one of the most significant transport service providers supporting the DODIN infrastructure. Lumen supplies 100% of Defense Information Systems Agency's internet traffic to meet its exacting cyber security requirements and is a mission-critical partner providing DoD global service to regions, such as Europe and Asia Pacific. This expertise and understanding allows Lumen to significantly reduce risk integrating DAF-approved devices to the data, information, mission application, and enterprise services for interoperability with the DODIN under the EITaaS program.

LUMEN®
TECHNOLOGIES

The Lumen platform of adaptive networking, edge computing, connected security and collaboration services provides connections to the top cloud providers and the ability to securely move cloud capability out to the edge. Lumen brings extensive experience with DAF and DoD needs and stands ready to support integrated government and multi-contractor teams as the promise of EITaaS becomes a reality.

> " Programs such as EITaaS are highly complex at scope and scale. Don't let anyone tell you achieving transition success is not difficult with significant programmatic risks to overcome. EITaaS needs industry partners who can deliver on time, at cost and on schedule. As a 40,000-person-strong IT services company, providing the full spectrum of IT and telecommunication services worldwide, Lumen is ready and fully capable of performing all the work in support of the EITaaS program. Access to highly skilled resources and our commitment to excellence are the things that set us apart from our competitors. We have successfully completed transitions for complex programs, similar in size and scope of EITaaS, and we're ready and committed to do it again."
>
> — Zain Ahmed, Senior Vice President, Public Sector

888-597-2455 | **lumen.com/public-sector** | **public.sector@lumen.com**

LUMEN®
TECHNOLOGIES