OSD CLOUD MIGRATION STRATEGIC VISION

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Foreword from the OSD CIO Chief Technology Officer

Since its inception in September 2022, the Office of the Secretary of Defense (OSD) Chief Information Officer (CIO)'s primary focus has been on improving the common information technology (IT) user experience within the OSD IT enterprise. While this remains an important focus area for OSD CIO, we recognize mission IT capabilities developed by each organization are also critical for advancing a resilient OSD ecosystem in alignment with the National Defense Strategy. The OSD CIO's FY26-FY30 OSD IT Digital Modernization Roadmap recognizes this; building a resilient joint force is predicated on **protected DoD data**, which includes protecting OSD IT missions systems from cyber threats via an increased focus on cybersecurity risk management and **secure cloud migrations**.

This document outlines the OSD CIO's vision for leveraging cloud technology for OSD mission needs, laying a foundation for the forthcoming OSD Cloud Strategy and OSD Cloud Playbook documents that will provide actionable guidance for cloud migrations. We look forward to iteratively advising, advocating, and partnering with the OSD IT enterprise as we work together towards enabling an efficient cloud transition for OSD's critical mission systems.

Matthew Jue
OSD CIO Chief Technology Officer

Background

We must migrate to ensure relevance in the digital age.

The Office of the Secretary of Defense (OSD) faces growing mission demands, years of prior underinvestment in digital modernization, and hostile adversaries seeking to undermine its mission through digital warfare. Legacy and siloed information technologies hinder OSD from becoming the modern, digital, growth-minded, and effective organization needed for the 21st century. To continue supporting the modern workforce, OSD must begin the challenge of migrating essential data, applications, and critical workloads to the cloud to deliver automation, collaboration, and accelerated decision making for OSD's leaders and workforce.

Cloud technologies have enabled connectivity and data-sharing capabilities by expanding ideas, content, and innovation and informing data driven decision-making which has profoundly changed how people work. The cloud migration journey offers the opportunity for OSD to reimagine and reengineer existing processes, technologies, and staffing in a way that enhances business operations, decision making, and performance by facilitating OSD's ability to leverage artificial intelligence (AI) and machine learning (ML) into its business operations. Cloud migration must be executed through a structured and repeatable process that helps facilitate and inform all OSD organizations on their cloud migration journeys.

The cloud is a network of information technology (IT) services (e.g., servers, software, databases) hosted in data centers distributed around the globe that enable access to data securely at any time or place. Cloud migration is the process of moving existing infrastructure, users, and data to a cloud-hosted service provider, which provides enhanced security, reliability, scalability, productivity, and enabling cost efficiencies to the organization. While this concept seems straightforward, cloud migration begins before any data is moved or a cloud provider is selected. This document establishes a vision for OSD organizations to use as a "North Star" to guide their cloud migration journeys. However, a vision alone is not enough; a process that facilitates migration, highlights pitfalls and roadblocks, and guides decision makers to thoughtfully plan for securely migrating OSD data and applications into the cloud is essential. To help facilitate this journey, this strategic vision from the OSD Chief Information Officer (CIO) is the first part of a series of documents intended to provide enterprise guidance for OSD's cloud migrations.

Cloud migration success will rely heavily on leadership support, collaboration, and proper resources. As OSD organizations execute their cloud migrations, they must maintain unwavering focus on the outcomes – **a more effective and unified OSD IT environment and a more empowered OSD workforce.**

Vision

OSD's cloud migration strategy will enable a consistent, secure, and efficient transition of mission-critical applications and data to the cloud, while minimizing disruption to ongoing operations and ensuring the highest levels of security and compliance.

This document provides the unifying vision OSD will refer to during cloud migration execution across the OSD IT enterprise. Cloud migration is a complex endeavor that is riddled with risks and challenges. The most successful organizations are those that can identify and plan for overcoming these risks and challenges. Additional documents providing more detail and structure are forthcoming to support OSD cloud migrations:

- **OSD Cloud Strategy**: OSD's Cloud Strategy will leverage and nest under the [Department of Defense (DoD) Software Modernization Strategy](#). The OSD's Cloud Strategy will outline how OSD will use cloud technologies to reach its business goals and define the approach to migrating to the cloud, managing cloud services, and using cloud infrastructure to its full potential by making operations more efficient, flexible, and scalable, reducing costs and increasing security.

- **OSD Cloud Playbook**: The playbook will provide a framework to empower OSD leaders and decision makers to advance their cloud migrations. It will focus on OSD-specific challenges while using a phased approach to cloud adoption and applying best-practice workflows and processes that lead to successful migrations. The playbook will be dynamic and updated based on continuous customer feedback and evolving needs. It will provide flexibility to enable solutions that adapt quickly to emerging business needs, requirements, and evolving solutions.

Goal

OSD will adopt a phased approach to cloud migration, prioritizing applications and workloads based on their criticality, complexity, and readiness for migration. The approach will include select pilot partners to improve scalability and adaptability. We will also leverage automation and orchestration tools to streamline the migration process and minimize manual intervention, ensuring that our cloud infrastructure is optimized for performance, scalability, and cost effectiveness.

Our cloud migration strategy is based on a multi-cloud approach that will leverage enterprise cloud contracts. This approach, which utilizes both commercial and government cloud providers, ensures we have the right mix of capabilities and services to meet OSD's diverse needs. OSD will also adopt a development, security, and operations (DevSecOps) approach to cloud management, integrating security and compliance considerations into every stage of the migration and deployment lifecycle. Ultimately, our goal is to ***enable OSD to leverage the full potential of cloud computing to improve mission outcomes, reduce overhead, and enhance the security and resilience of our critical systems and data.*** OSD will achieve this by working closely with stakeholders to identify their needs and requirements and by adopting a collaborative and iterative approach to cloud migration that ensures the success of each phase of the migration process.

Objectives

Cloud migration unlocks improved capabilities and greater automation. Migrations must be driven by strong leadership, powered by technical talent, and leveraged by an upskilled workforce. The OSD cloud strategy and playbook will offer processes and standards that take cloud migration from concept to reality. Although task execution and cloud migration success will rely heavily on OSD Components performing the legwork associated with budget planning and task completion, the OSD CIO will support cloud migration through active participation with the objectives of the following:

1. **Advising OSD organizations with cloud migrations.**
2. **Advocating and reducing process impediments to pursuing migrations.**
3. **Establishing an authoritative source for tracking OSD cloud migration activities.**
4. **Enabling adoption of true process transformation and people development.**

As described in the [FY26-FY30 OSD IT Digital Modernization Roadmap](#), OSD CIO plans to increase the number of systems migrated to cloud to 50% by FY28. Further, the transformation of processes and roles is a key element of cloud migration. This transformation provides a game-changing opportunity to unlock and layer new technologies such as machine learning, artificial intelligence, and process automation for OSD organizations. A successful migration is the first step towards this exciting future.

Conclusion

Today, the OSD information environment consists of multiple siloed and outdated systems; this must change. Relevant data must flow through OSD systems securely and quickly, and leadership must be able to capitalize on critical information to make timely data-based decisions. The vision outlined in this document provides the approach for moving forward by establishing a "North Star" and an outline for future success. It creates a foundation for improved collaboration and emphasizes the need for a unified effort while building on individual OSD organizations' current momentum, innovation, and successes.

The OSD's cloud migration vision is a comprehensive and strategic approach to modernizing OSD's IT infrastructure and improving the delivery of mission-critical services. By leveraging the capabilities of cloud computing, OSD will be able to increase agility, improve security, and reduce costs, while also enabling new and innovative ways of working. The successful implementation of this vision will require a collaborative effort across OSD, as well as partnerships with industry and academia, to ensure that OSD is able to take full advantage of the latest technologies and best practices. Ultimately, the OSD's cloud migration vision will enable OSD to better support the warfighter, protect the Nation's security, and advance the interests of the United States.