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## When data drives missions, the Department of Defense needs cloud capabilities – and a plan

The Department of Defense is overwhelmed with an influx of data. Continuous streams of data are generated from multiple sources, and are spread across systems, databases, and formats. As more data comes in, maintaining data quality becomes a challenge.

Data has evolved from being a mere outcome of mission activities to a crucial forcing function as DoD prepares for multi-domain operations with the Combined Joint All-Domain Command-and-Control (CJADC2) initiative. These missions are developed, deployed, adjusted, and deemed successful based on data.

When data drives missions, DoD needs a modern infrastructure to collect, store, organize, and analyze data across all collection points – and across divisions, departments, and the armed services. They also need a data management plan.

That's where **modern cloud capabilities** play a significant role.

The current data landscape in DoD demands a transformative approach to data management, and cloud capabilities play a pivotal role.

By adopting cloud-native solutions, DoD can break down data silos, integrate disparate datasets, and establish seamless data-sharing mechanisms across various offices and the armed services. Cloud capabilities facilitate real-time data processing and analysis, empowering DoD to derive timely insights and enable better decision-making

processes. When data drives missions, the Department of Defense needs cloud capabilities – and a plan.

However, cloud technologies alone are not sufficient. DoD needs modern data management strategies that incorporate cloud capabilities in order to fully adapt a data-driven paradigm. This is a critical first step as DoD decentralizes data ownership, shifts toward treating data as a product to improve decision advantage, and pursues more sophisticated analytical capabilities and responsible artificial intelligence (AI).

### Data Management in the Cloud

A data management plan can help DoD establish data standards, formats, and definitions, creating consistency – and opportunities for interoperability – across the enterprise. This allows DoD to implement processes that ensure accuracy, completeness, and reliability of collected data. A data management plan also reduces duplication of effort, redundant storage, and inconsistent data management practices.

Data initiatives outlined in a data management plan require scalable infrastructure to accommodate



Given that cloud capabilities – be it private, hybrid, public, multi, or purpose built cloud – **are required for effective data management**, cloud migration road maps and data initiatives should be approached and developed together. By doing so, **agencies can optimize their data management practices** and gain insights that lead to better mission outcomes.

growing data stores that are offered by modern cloud capabilities. Scalable features of cloud provide the infrastructure, unlimited storage capacity, and advanced analytic tools required for large-scale ingest, rapid analysis, and long-term retention of the massive volumes of data that are needed to drive modern missions.

## Incorporating Cloud Modernization into Data Initiatives

As DoD works toward improving data quality and decentralizing data access to drive increased collaboration and decision advantage, the role of the Chief Digital and AI Office (CDAO) and chief data officers (CDOs) across the enterprise is increasingly prevalent. The CDAO leads data management initiatives, establishes effective data governance, and promotes data integration and analytics. The office is also responsible for developing mechanisms to enhance data sharing, interoperability, and collaboration, breaking down data silos that typically hinder information exchanges within and between DoD components.

To succeed in their mission, the DoD CDAO and CDOs across DoD components should work with information technology (IT) teams to incorporate cloud capabilities into data initiatives. By leveraging cloud-based analytics tools and solutions, CDOs can empower DoD leaders to derive actionable insights from data, driving innovation and informed decision-making across the organization.

The DoD CDAO is a relatively new office, and faces an uphill battle as it grapples with taking control of massive amounts of data while also working through modernization road maps, deploying new responsible AI capabilities, and cultivating and maintaining data talent.

As the role of the CDAO becomes more defined, there will be a growing demand for data project managers, similar to IT project managers working under chief information officers. These data project managers will leverage modern project management tools and platforms to ensure seamless coordination, efficient resource allocation, and successful execution of data initiatives, further strengthening the CDAO's impact on DoD-wide data-driven transformation..

Leveraging our deep knowledge of public programs and **more than 40 years of experience** developing high-quality services and solutions, we partner with agencies to **understand objectives, assess current data management practices**, and define a road map to achieve desired outcomes.

## A Partner at the Center of Data Management and Cloud Infrastructure

We are a trusted government partner, collaborating with CDOs and other agency IT leaders to help establish robust data management strategies and build modern cloud infrastructures that meet agency missions.

Because cloud capabilities are crucial to data management, we guide agencies in evaluating and selecting the right cloud environment to meet their data management needs. We can also help DoD migrate data to the cloud, implement data analytics platforms, deploy advanced analytics tools, and develop data models.

DoD's various teams are key to its data strategy. We train agency staff on data management best practices, promotes data literacy, and facilitates cultural shifts towards data-driven decision making, with the goal of building internal capabilities and expertise in data management practices.

Effective data management supported by cloud computing is crucial for DoD in order to reach its goal for data-driven decision advantage. A modern infrastructure, complemented by a well-thought-out data management plan, will lay the foundation for DoD to thrive in this data-powered era.

