



Strategically Migrate
Applications to the Cloud
for Secure Access, Improved
Resiliency, and Lower Costs

Cloud migration has emerged as a priority for government agencies, especially in light of mandates to accelerate the adoption of cloud-based solutions. The current shift toward more digital services further bolsters the need for IT modernization initiatives.

But without a clear vision for a strategy that best supports their mission, organizations struggle to achieve the full rewards and benefits that come with the move to the cloud.

Successful cloud implementation requires overcoming barriers such as security concerns, cost uncertainties, and external system dependencies. In partnership with Amazon Web Services (AWS), Leidos helps agencies migrate applications to the cloud strategically, using a three-pillar approach focused on people, processes, and technology.

Together, Leidos and AWS help customers to:

- ▶ Develop and execute a sustainable, cost-effective, secure cloud strategy that aligns with their mission
- ▶ Avoid common pitfalls such as choosing the wrong migration model/approach or overlooking operational and staff impacts
- ▶ Maintain applications availability while optimizing spend

A THREE-PILLAR APPROACH

When organizations plan their cloud strategy, the technology aspect is typically the focal point.

"Customers often don't know how their applications will operate once we move them to the cloud—there's a gap in experience around how the mission operates in the data center today and how that's going to translate and change once they migrate into the cloud," says David Chou, Director of Cloud Capabilities with the Digital Modernization Accelerator unit at Leidos.

Organizations are also keen to identify the external dependencies of each application to avoid risks that can quickly derail the project. Solving these and other technology problems is critical, but two other important elements can't be overlooked: people and processes.

"Moving the system to AWS is only one piece. You also have to modernize the processes and the people around it," says Chou. "If people and processes are too difficult to operate in the cloud, you put the mission at risk."

By incorporating all three pillars holistically during the customer's migration journey, Leidos ensures that the applications will run in the cloud and that the mission team can manage and operate them sustainably.

- ▶ To prevent delays when the deployment project moves into production, Leidos begins educating the customer's mission application team at the beginning of migration so they understand the impact on their operations and can ask the right questions.
- ▶ To create a sustainable foundation that enables the mission application team to take over cloud management after the migration, Leidos trains and upskills staff throughout the engagement.
- ▶ Leidos experts analyze how the customer's system aligns with internal processes such as approvals and billing. This enables organizations to modernize their processes at the same time as the technology so they can take full advantage of all the functionalities provided by the cloud.

"Both Leidos and the AWS teams have experience working with a variety of customers' organizations, which has given us a comprehensive picture of common challenges and concerns. Leidos uses this knowledge to deliver a made-to-measure solution to our customers as they modernize their processes and mission systems," Chou says.

In addition to taking into consideration people, processes, and technology, Leidos helps customers optimize their spend, as well as understand anticipated project costs to ensure they're enabling their missions with high reliability and availability at a set price point.

SECURING THE CLOUD WITH A ZERO-TRUST MODEL

Digital modernization initiatives such as cloud migration raise a host of new questions around security and whether it's as safe as relying on an on-premises data center. "But there are many controls that we add for Zero Trust and security-in-depth, and walk all our customers through the benefits and tradeoffs," Chou says.

In the data center, protecting the perimeter is often the main priority, whereas cloud security is all-encompassing. "In the cloud, we assume that nothing is secure, so even when a user is inside the network, we don't assume that it's a trusted entity. Leidos's expertise in Zero Trust cloud architectures and patterns deliver the differentiation and confidence our customers appreciate." Chou says.

Designing the AWS architecture with security in mind, Leidos applies Zero Trust principles, such as:

- ▶ **Never trust, always verify:** Whether a connection or access request originates externally or internally, it requires authorization and authentication before granting access.
- ▶ **Least privilege:** Access controls are based on policies and strictly enforced.
- ▶ **Dynamic verification:** The authentication and authorization cycle is continuous and based on a multitude of factors, ranging from user identity and location to behavioral anomalies.

This approach ensures that:

- ▶ Every user's identity is continuously verified.
- ▶ All the data is encrypted, both in transit and at rest.
- ▶ Only authorized users can access the data.

For example, a [U.S. military customer needed to migrate](#) more than two dozen applications from multiple on-premise data centers to the AWS GovCloud environment, with security as a priority. The Leidos-led team re-architected and re-factored the applications to be SAML-enabled and to use CloudTrail for security monitoring. In addition, the Authority-to-Operate (ATO) process was streamlined to expedite the customer's ability to obtain application-specific ATOs in the dedicated

AWS Virtual Private Clouds. Engaging the customer's security team early in the process helped to directly address the customer's concerns and prevented problems down the road.

OPTIMIZING SPEND AND PERFORMANCE WITH LEIDOS AND AWS

Simply moving an application to a statically allocated cloud environment doesn't create the cost efficiencies that organizations seek. The Leidos-AWS partnership enables organizations to:

- ▶ Benefit from economies of scale provided by AWS.
- ▶ Leverage expertise from Leidos to fully realize cost efficiencies.

"Cloud spend usually spikes highest during migration, but we can show the customer how spend will decrease and that the cost-benefit to the mission in the cloud environment is compared to their on-premises solution," Chou explains.

A [U.S. government agency slashed its website hosting costs by 75%](#) after Leidos led the move from on-premises architecture to the AWS cloud and leveraging AWS managed services, which also provides more mission flexibility. Because the AWS cloud is responsive and scalable, Leidos was able to minimize performance bottlenecks that the agency's servers and databases previously experienced in its legacy environment.



ENHANCING CAPABILITIES WITH AN EDGE-TO-CLOUD INFRASTRUCTURE

For government agencies whose mission depends on real-time processing of data collected from distributed environments, the Leidos-AWS partnership offers the ability to execute edge-to-cloud operations securely and at scale.

With a holistic edge-to-cloud ecosystem, machine learning models, and Zero Trust capabilities, we enable organizations to:

- ▶ Break data silos between disparate data sets and gain consistent data flows and computing capabilities.
- ▶ Push data to the cloud and applications to the edge for fast analysis and correlation.
- ▶ Analyze data and make mission-critical decisions in minutes or hours instead of days or weeks.

ADVANTAGES OF WORKING WITH AN AWS PREMIER CONSULTING PARTNER

There are just over a hundred Premier Consulting Partners in the AWS Partner Network (APN), and Leidos is one of them. Premier is the highest APN tier, and Premier Tier Partners are leaders in the markets they serve. To qualify, partners must provide deep technical expertise and have multiple AWS partner programs and a large number of successful AWS deployments under their belts.

An APN partner since 2014 and an AWS Premier Consulting Partner since 2018, Leidos has made significant investments to help customers implement cloud initiatives. Among the benefits of this partnership include having a team within AWS that's exclusively dedicated to supporting Leidos and its customers, as well as having exclusive access to beta releases and other early programs.

In addition, Leidos has achieved the following certifications:

- ▶ **AWS Managed Service Provider certification**, which qualifies a company to help customers plan, design, build, migrate, run, and optimize an AWS cloud environment.
- ▶ **AWS Government Competency certification** for three industries: national security and defense, citizen services, state and local governments, and public healthcare.
- ▶ **AWS Healthcare Competency certification** enables Leidos to work with customers across the continuum of care to improve clinical, operational, and financial outcomes to advance the next generation of care.

The recognition goes both ways. AWS is one of only two Leidos Corporate Alliance Partners, which is the highest level in the Leidos Alliance Partner Network. Being a Corporate Alliance partner brings advantages such as joint investments into a robust number of well-funded independent research and development cloud projects.

Today, government agencies are looking for agility to deploy applications faster, with higher levels of security and optimized cost. "They want to enable their mission at a price point that delivers higher reliability, security, and availability compared to their data centers," Chou says.

Through a strategic relationship with AWS, Leidos can provide customers with the value they seek and ensure their digital modernization efforts unlock the full benefits of the cloud.

For more information on Leidos cloud solutions and our partnership with AWS, please visit leidos.com/cloud.