Cloud Transformation Leads to Better Outcomes for Government Agencies

Cloud computing is touted as a solution for many of the problems plaguing government agencies: high costs, lack of scalability, and lack of agility. Many of the promised benefits have been realized; however, cloud migration is a complicated process and agencies often find that cloud doesn't produce the cost savings that they anticipated. Overspending on cloud is a common problem. In fact, Gartner predicts that through 2024, 60 percent of infrastructure and operations leaders will encounter public cloud cost overruns.

Cloud Migration vs. Cloud Transformation

Cloud migration – the "lift and shift" of workloads to the cloud without modifying them – duplicates, rather than replaces, agencies' on-premises computing. Systems are always on, even when they are not needed. As a result, agencies may realize minimal or no cost savings. Cloud transformation, on the other hand, involves rewriting applications in a cloud-native way or replacing them with software-as-a-service alternatives. Services only run when they are needed.

"The difference between cloud migration and cloud transformation is like the difference between buying and renting a car," says Nic Perez, chief technology officer at ThunderCat Technology. "If I buy a car, I'm paying for it when it sits in the driveway – even if I'm on vacation. If I rent a car, I'm only paying for it when I need it. And I can rent different cars depending on my needs. I don't have to have a pickup, minivan, and convertible sitting in my driveway."

Potential savings on data analytics with cloud transformation can be profound, Perez notes. "High-performance computing on premises is like having an F-35 fighter jet waiting for a mission, and you've got 15 people on standby. They're very expensive, and they're waiting for something

to do. With cloud services, on the other hand, agencies don't need to maintain the technology. They're getting access to the latest innovations in artificial intelligence and machine learning, and they're only paying for the services they use."

Challenges Facing Agencies

Cloud operates in ways that run counter to traditional procurement procedures, posing a significant challenge to Federal agencies pursuing cloud transformation. Same-day delivery of applications and features from big vendors has revolutionized the cloud marketplace. Agencies can purchase a tool or change how their system operates with the push of a button. The change becomes a line item on their cloud bill; there is no need to go through a lengthy process of RFPs, bids, and contracts.

This improves agency IT shops' scalability and agility, but at the same time, it is difficult for procurement officers to adjust to a world where systems – and costs – can rapidly change at the call of an application programming interface. Every month the bill is different, which is a foreign situation for procurement officers who are accustomed to contracts with a set ceiling amount or task orders with a funded amount.

Another primary challenge is the ability to leverage multiple hyperscale clouds and to move workloads across those clouds. This typically requires agencies to leverage new tools that facilitate migration and workload rebalancing for scale, compliance, security, and cost management.

Vendors Help Address These Challenges

Fortunately, agencies do not need to face cloud transformation and hyperscale cloud challenges on their own; vendors, integrators, and resellers can help them

find the right technologies and approaches to meet their needs. They might discover useful capabilities in existing technology – without requiring agencies to purchase new solutions. Or they may identify virtual versions of technologies that agency employees already use. These services can be added as transactions to the hyperscaler's bill without the need for a lengthy bidding process. Vendors can also help with the training of agency and contractor staff, a process that is made easier if the staff is working with familiar technology.

Vendors and resellers can help agencies think strategically about the move to the cloud. Customers often assume they will start by migrating small, less essential systems. However, many agencies have discovered that moving a big, mission-critical system into the cloud is more successful. This approach requires every element – operations, security, design, budgeting, and governance – to work together during the move, and means everyone must buy into the process.

Working with vendors also enables agencies to be creative about how they will operate and fund their cloud initiatives. For example, the Department of the Interior funded the massive Recreation.gov website by splitting the revenue it generates with the vendor, Booz Allen Hamilton. The cloud enabled Interior to be creative in managing risks and costs.

The NetApp Advantage

One example of speed and efficiency that agencies can get from tools already in their environment is NetApp Cloud Volumes ONTAP. Many agencies are already using NetApp to move data between their on-premises primary data center and their secondary site for backup and disaster recovery, and they know NetApp for its cost-effective, secure, enterprise-grade solutions. NetApp ONTAP data management software allows applications to thrive in data centers and with hyperscalers Amazon Web Services, Microsoft Azure, and Google Cloud – in one environment, or all of them.

NetApp Cloud Volumes ONTAP is a software-defined storage offering that delivers advanced data management for file and block workloads. Cloud Volumes ONTAP offers

many of the advantages that agencies are seeking from cloud transformation. It makes it as seamless to move data to and from the cloud as it is to move data to disaster recovery – and easily allows agencies to replicate data among all the hyperscalers.

With Cloud Volumes ONTAP, agencies do not need to write code to tell hyperscale clouds how to optimize the cloud environment or worry about de-duplication and compression. The processes are built in and function automatically. Users can focus on the application rather than how the data is operating behind the scenes.

How ThunderCat Can Help

ThunderCat Technology, a technology solutions provider to government and industry, brings an innovative approach to solving customer problems with strategies for cloud transformation, data management, networking, and cybersecurity. ThunderCat helps agencies map and execute their cloud transition, developing solutions together to meet mission requirements. ThunderCat can help agencies transform to the cloud, leveraging secure, performant, efficient tools that agencies already use in their on-premises environments and growing IT shops' cloud knowledge along the cloud journey.

In addition, ThunderCat has created tools to address some of the problems facing agencies that are transforming to the cloud. To help agencies track cloud spending, ThunderCat developed program reporting dashboards. The dashboards map cloud accounts and subscriptions up to the department level, enabling organizations to easily track spending and project costs for a project, group, bureau, or department.

ThunderCat also enables agencies to test new cloud solutions. Customers often want to try new products and features, but they don't have sandboxes for trials. ThunderCat created small validation environments for each hyperscale cloud provider and other cloud partners. Testing a cloud solution or feature is as simple as checking a box in a service catalog, and the solution or feature is automatically provisioned.

Enable your cloud transformation with ThunderCat.
To learn more, visit: https://www.thundercattech.com/partners/netapp/.

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