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Making Space for Data:

How Storage Can Enable a Successful Cloud Environment for Federal Agencies

With so much data at their fingertips, federal agencies are embracing a hybrid cloud approach. But to successfully operate in a cloud environment and ensure data is managed and used effectively, agencies must look to integrate software-defined data storage solutions into their architecture.

AT TODAY'S FEDERAL AGENCIES, data is everywhere. From analyzing nationwide COVID-19 vaccination rates to understanding threats from foreign adversaries, agencies are tasked with rummaging through troves of data to meet the mission.

This high volume of data, of course, is a double-edged sword. In the best case, it provides agencies with valuable insights that help them make decisions. But too much unstructured data and not enough room to store it can lead to inaccurate analyses that can have direct consequences on constituents.

With these challenges in mind, organizations are embracing a hybrid cloud approach, one that offers agencies the flexibility to operate in public and private cloud environments. According to a report from IBM, moving to a hybrid cloud environment allows agencies to strengthen their cyber resilience, take full advantage of multiple cloud resources, adjust to evolving requirements, and lower IT costs. In fact, according to a study commissioned by IBM, hybrid cloud has the power to generate 2.5 times more value than a single cloud approach.

But to successfully operate in a hybrid cloud environment and ensure data is managed and used effectively, agencies must look to integrate data storage solutions, such as software-defined storage, into their IT infrastructures.

The Data Storage Challenge

Successful hybrid cloud adoption cannot and should not happen overnight. It requires planning, collaboration, and a culture of innovation to effectively implement. An effective hybrid cloud infrastructure ensures agencies can support their digital goals and initiatives, while reducing IT complexity. But those goals only become reality when IT staff can access, manage and control their data.

Indeed, for many agencies, data storage that serves the needs of the organization — and the people — is merely a pipe dream. According to one report, today's organizations cite data migration, security and backup as their most significant data storage challenges. And as data continues to grow, these IT environments increase in their complexity. That can delay key processes, like sending data to the right location and analyzing storage usage.

Moreover, with so much data at their fingertips, agencies are met with resourcing challenges. Without the infrastructure or the personnel to handle this high volume of data, organizations are set up to fail before they can even begin. IT staffing shortages have made it nearly impossible for federal agencies to hire skilled personnel to help accelerate operations. In fact, according to a survey from Enterprise Strategy Group, one-third of senior IT executives noted they are experiencing staff shortages in the areas of IT and cloud architecture and planning. What's more, 67% of storage administrators said the majority of the hiring they expect to do in the next year will be for IT generalists as opposed to storage administrators and other specialist roles.

A SIMPLIFIED, CONSOLIDATED STORAGE OPTION

While agencies are finding it increasingly difficult to staff up, investing in automated storage solutions can help them make the most of a small IT team.

A single, consolidated storage platform can automate and accelerate storage activities, while making it possible for organizations to manage data across locations. This approach relies on software-defined storage capabilities to achieve an enhanced level of efficiency. SDS embeds a layer of software between an application host and the storage hardware. The result? A flexible and functional foundation that can run on-premises and on multiple clouds.

This consolidated approach simplifies operations by eliminating storage silos and providing agencies a birds-eye view of their data architecture. A software-defined foundation that extends across a hybrid cloud environment supports all storage systems with consistent APIs, procedures and processes — no matter the vendor.

It also enables enhanced flexibility, scalability and control by allowing agency IT administrators to move data from one cloud or on-premises environment to another, without common disruptions.

Today's storage solutions must be built with today's challenges in mind, while taking into account the innovations and technological advancements of the future. Software-defined storage solutions can help pave the way for a future where federal agencies leverage AI, machine learning and edge computing to understand and analyze their data. And, in supporting these growing innovations, a consolidated storage approach can help solve government challenges of today and tomorrow.

Learn more about how your agency can effectively manage data with IBM's software-defined storage solutions, along with Presidio Federal's ability to provide access to and implementation of those solutions.