How the mission drives multi-cloud success

A thoughtful approach to cloud adoption minimizes the impact on users, strengthens security and boosts innovation

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AGENCIES RARELY put all their systems into a single cloud. Some will continue to maintain a hybrid environment in which cloud-based workloads communicate with on-premises workloads. In addition, the right technical foundation — preferably an open one — makes it possible to shift workload locations over time, even dynamically, in response to IT leaders' wishes.

Other agencies distribute their workloads across multiple cloud providers to create a multi-cloud environment. They may do so to avoid putting all their cloud eggs in one basket, or they may want to take advantage of differences among cloud providers.

No matter what cloud approach an agency chooses, interoperability is crucial and is often made easier by using open source tools. Several technologies enable interoperability, including Kubernetes for container orchestration and the TensorFlow software library for artificial intelligence. Google designed and built both of them and then contributed them to the open source world.

In addition, Google Anthos allows agencies to manage workloads across cloud providers and on-premises systems, streamlining cloud implementation and offering an improved return on a cloud strategy.

A DEFENSE-IN-DEPTH APPROACH TO SECURITY

For government agencies, security is a key consideration when adopting cloud technologies. The latest solutions can actually help agencies improve their security posture because of the specialized and deep focus that cloud providers bring to their mission of providing scalable and secure compute, network and storage infrastructure.

> "**Once agencies understand what they want to accomplish**, they can focus on finding providers and solutions that will help them achieve their goals."

At Google, we take a defense-in-depth approach to security and have over 1,000 professionals whose sole job is to ensure the security of our customers' data and systems. They have made it their mission to prevent bad actors — whether people, companies or nation-states — from accessing customers' data.

Cloud users reap the benefits of that security, which gives agencies a tremendous head start. But they must bear in mind that security is a shared responsibility. A user can build an insecure application on top of a secure infrastructure. The key is to understand the responsibility of the developer versus the cloud provider. That changeover of responsibility happens at different places depending on whether we are talking about infrastructure, platform or software as a service.

MAKING MISSION-BASED CLOUD DECISIONS

The agency's mission should be at the heart of all cloud decisions. Once agencies understand what they want to accomplish, they can focus on finding providers and solutions that will help them achieve their goals.

Google Cloud, for example, has a number of unique qualities that provide distinct benefits for government programs. Agencies are drawn to the innovative nature of our cloud services. Google Cloud Platform is a productive, developer-friendly environment for building and deploying applications. Google Workspace is a modern, highly collaborative suite of software-as-a-service tools that includes Gmail, Meet and Drive.

Source: Robert Katzki

In addition, we have been building AI-first services for years by working with extremely large volumes of data, and as a result, our AI is recognized as highly differentiated. Agencies also choose Google for our unique global network and our security-first approach to providing services and protecting customers' systems and data.

No single cloud provider will be the best choice for all agencies and programs. Instead, agencies should start with their mission requirements and take the time to learn about the differences among cloud providers. Then they will succeed in building the right cloud environment for their needs. ■

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