

DELL TECHNOLOGIES

# Transforming multicloud management with AI

Layering artificial intelligence into multicloud environments boosts security, performance and cost-effectiveness



**Mansour Yusuf**  
Dell Technologies

Artificial intelligence has the potential to significantly transform many government operations. When it comes to the management of multicloud environments, AI can introduce advanced capabilities that include automation, optimization and more intelligence-driven decision-making.

The technology can run analytics against infrastructure and software to develop an understanding of the health of the overall environment and individual systems so it can anticipate issues as they begin to occur. It can also analyze historical data to understand what has happened with these types of workloads previously and identify impending failures or potential resource constraints.

environments. Protecting cloud-based resources from cyberthreats requires a comprehensive approach that leverages AI technology alongside traditional cybersecurity measures. When those approaches are combined, they allow for a much tighter-knit capability. They also allow agencies to make greater use of anomaly detection, behavioral analyses of systems and threat intelligence capabilities.

Once agencies have layered AI into their zero trust and other cybersecurity tools, AI can glean insights from historical security data to understand how the network has been affected by zero-day events and other attacks in the past.



Artificial intelligence can run analytics against infrastructure and software to develop an understanding of the health of the overall environment and individual systems.”

When those sorts of insights are tied into dynamic workload management and automated resource provisioning, AI allows complex decision-making to come into play in an automated fashion.

## Augmenting traditional security measures with AI

Security is also becoming a key area where AI shines, especially as zero trust gains traction in managing multicloud

The more data, the better for AI success. A long timeframe of historical data strengthens AI's ability to run an appropriate threat analysis and achieve the ultimate goal of generating predictive

analytics about what may happen in the future while providing threat analysis and automating the response to any vulnerabilities or attacks.

## Ensuring interoperability and mitigating vendor lock-in

Choosing a multicloud vendor requires considering several key factors because agencies are selecting more than just a vendor. They are looking for a partner

iStock



that will help them meet requirements related to performance, security compliance and cost-effectiveness.

In addition, different providers offer different capabilities, so it's important to know who provides what and gain an understanding of a potential partner's performance and reliability. It's also important to focus on the need to mitigate vendor lock-in while also gaining the most capability from each cloud provider in a multicloud environment.

Another key consideration is whether a cloud partner has an environment that meets the individual agency's

requirements for the security of its data. The answer should also cover the region in which the agency accesses its data. For example, will an agency receive the same level of service if it has operations that happen outside the U.S.? Government agencies need to be aware of concerns about data sovereignty that relate to a provider's flexibility and scalability beyond the country's borders.

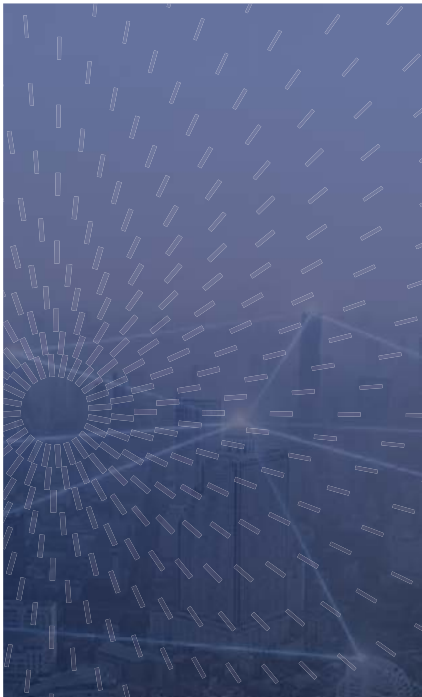
At Dell Technologies, we help agencies answer questions about the performance, security, scalability and cost management of their multicloud environments. We also have conversations about ensuring

interoperability and mitigating vendor lock-in because knowing what vendor X provides compared to vendor Y is one thing, but knowing how to get the two vendors to work together is a different conversation.

Ultimately, we work with agencies to provide a multicloud service fabric — an overall management plane so they can access all their cloud-based resources in one place. And we help them layer in AI to maximize the capabilities of their multicloud environments. ■

---

**Mansour Yusuf** is chief cloud/edge architect at Dell Technologies.



## Make the Move to Multicloud by Design

For more information, please visit [Dell.com](https://Dell.com)

**DELL**Technologies

carahsoft.