A proactive, automated **approach to security**

Cloud-based tools offer agencies the visibility and security they need to truly modernize

James Donlon
Oracle

Cloud technology plays a central role in modernization because of three transformative characteristics that it brings to traditional IT systems: speed, capability and cost-effectiveness.

First, cloud dramatically reduces the time it takes to go from the conception of an idea to production. There are no data center build-outs, no equipment purchases, no months-long planning cycles. With cloud, new technologies can be tested almost instantly. Second, cloud providers offer a nearly infinite selection of tools and applications that are readily available on demand. Third, it may not be universally true that cloud costs less, but when it's managed right, it absolutely should cost less than on-premises systems.

Although cloud technology presents agencies with a tremendous opportunity, trying to manage the extended enterprise as it expands into and across the cloud will require a proactive approach to monitoring and security.

Closing holes and locking down data

Agencies' IT systems continue to grow in number and complexity. Building a modern, resilient IT infrastructure begins with understanding every aspect of existing IT systems. That level of visibility was a challenge for government even before it began moving systems to the cloud, but it is essential for managing and securing multi-cloud and hybrid environments.

Part of the solution to that challenge is cloud-based automation. There really is no other way to perform activities such as continuous monitoring at scale without automation. Using these tools, agencies can continuously monitor their entire environment — including on-premises and across multiple clouds — to quickly identify and remedy vulnerabilities. Automation can also help agencies respond to one of the biggest security threats: keeping systems up-to-date. Unpatched systems are primary targets for hackers and represent the greatest threat of ransomware attacks or data breaches. Most serious vulnerabilities happen because IT systems are not patched. And they're not one or two patches behind — they're 10 behind.

Oracle Cloud Infrastructure (OCI) helps agencies by providing visibility across environments and leveraging automated patching and automated response to security threats. Oracle Cloud Guard, for example, detects misconfigured resources, insecure activity across tenants and malicious threat activities, and it provides security administrators with the visibility to triage and resolve cloud security issues. In addition, OCI security zones will even stop a system from being provisioned in the first place if it fails to meet security requirements.

It is also imperative that agencies can quickly evaluate their database security posture. Oracle Data Safe helps administrators identify, categorize and prioritize risks to help protect data wherever it resides.

Ren Ran

> Trying to manage the extended enterprise as it expands into and across the cloud **will require a proactive approach to monitoring and security.”**

Moving to the cloud in an evolutionary way

It’s exciting for agencies to be able to take advantage of the tremendous advances in cloud technology. Cloud service providers (CSPs) continue to deliver new capabilities to meet the unique needs of government. But it remains daunting because many of our government customers have a large footprint of existing applications that require the highest levels of security and availability.

As agencies continue to evaluate technology they have on-premises today and the business knowledge represented by those systems, they must ensure that CSPs deliver the best capabilities at the best cost without compromising security or performance. CSPs that provide built-in, automated monitoring and security will be in the best position to help those agencies succeed.

Oracle continues to focus on helping our customers by providing the security, reliability, performance and guarantees they have come to rely on from their existing on-premises systems as they evolve into the cloud.

Oracle and Microsoft Announce Availability of Oracle Database Service for Microsoft Azure. Read the press release. ■

James Donlon is director of solution engineering at Oracle.