



Simplifying and Securing Edge Deployments with VMware Edge Compute Stack

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IDC's Quick Take

VMware announced a new integrated virtual machine and container-based stack during its virtual VMware 2021 conference. Called the VMware Edge Compute Stack, the solution is designed to help customers innovate with edge resources and tackle the complexity of deploying, securing, and managing distributed and hybrid resources.

Product Announcement Highlights

During its annual VMware event, held virtually in 2021, VMware charted its vision to support customers as they extend IT service to new locations. The company [unveiled](#) a purpose-built virtual machine and container-based stack to help organizations rapidly deploy modernized and secure resources at the edge. This announcement is the latest VMware offering in a suite of solutions designed to enable digital-first business. Following are highlights of the announcement and an overview of the broader VMware Edge strategy:

- **VMware Edge Compute Stack.** Designed as a combined server and management platform, this solution enables the ability to process data closer to its point of creation. This stack is available in Standard, Advanced, and Enterprise editions, with a lightweight version planned for future rollout. Lenovo was first to announce an integrated offering running on its ThinkSystem SE350 Edge servers, which are ruggedized and have enhanced security features built in. Deployment is streamlined by the systems shipping to the customer's edge location with VMware Edge preloaded. VMware Edge Compute Stack is also integrated with the ruggedized Dell EMC VxRail D Series that is optimized for edge deployments.
- **VMware SASE.** This highly distributed secure access service edge combines SD-WAN capabilities with cloud-delivered security functions delivered in an as-a-service way. By provisioning this service across service provider points of presence (POPs), VMware states that it can deliver sub 2ms latency to customers. The built-in security functions for edge and endpoint processing include Zero Trust network access, Secure Web Gateway, and firewalling. VMware continues its partnership with Zscaler to simplify edge security.
- **VMware Telco Cloud Platform.** Service providers are integral to extending edge services, and VMware continues to support their modernization efforts through the Telco Cloud Platform. With this platform, CSPs are able to deploy cloud-native and virtual network functions throughout their 4G and 5G core to radio access networks. By modernizing their networks, the CSPs are better able to provide edge services to their own consumer and enterprise customers.

IDC's Point of View

Organizations are creating competitive differentiation, as well as improving operations and business resilience, through investments in edge initiatives. Digital-first operations and business requires organizations to infuse IT into new processes and operations across their business. Extending IT service to new edge locations presents organizations with juxtaposition of priorities. They need control and have concerns about security, business resilience, and data sovereignty. At the same time, they are recognizing that deploying and managing distributed resources is often exponentially more difficult as the scale and scope increases. Managing 1,000 servers at one location is very different from managing 1 server at 1,000 different locations. As compute-intensive workloads requiring real-time data processing migrate out to endpoints, new AI models are required that allow for faster inference at the edge. VMware's vision for provisioning edge resources acknowledges that organizations want the freedom to retain control and choice – and continued sovereignty over their resources. In its suite of edge-related announcements at VMworld 2021, a common thread was enabling choice and control. Edge decisions are not either/or decisions. IDC believes that when customers are presented a menu of edge choices, they will opt for the buffet. One "type" of edge will not meet all their needs as they extend IT infrastructure to new locations to support digital-first business and operations.

Because of the diverse, hybrid nature of edge and core environments, having a platform that can meet customers where they are today while offering a path for future management strategies is highly appealing. VMware is acutely aware of growing role of edge resources in driving digital-first transformation. Ease of scaling and managing resources will be key purchase criteria, and VMware has addressed these pain points by delivering a platform that streamlines management of distributed and remote resources.

Additionally, VMware recognizes with these new releases that the growth of edge is generating new use cases and workloads that it deems "edge-native applications". These applications are edge-reliant to their use function, compared to how we've seen edge used in the past to improve reactivity and lower costs for existing use cases. Examples like AR/VR and AI-connected vehicles with a complex web of workloads-particularly the quickly developing unstructured data management and analysis workload-and infrastructure requirements compound the needs for a continuum of services and platforms as part of an edge ecosystem. VMware is looking to approach this with its new release as part of its multi-cloud ecosystem strategy. Its solutions should enable organizations to easily integrate these newer applications into their existing edge infrastructure to meet their security and latency needs across the spectrum. Organizations that are well on their way in the edge journey have recognized that core and edge resources don't operate as isolated siloes, but as part of an interconnected continuum. Gaining the most value from data requires interoperable platforms and processes to secure data flows. Building edge resources that enable deep connection and coordination across the core takes a thoughtful strategy – one that is open yet secure, standardized yet customizable, and autonomous. As organizations build this strategy, they are seeking solutions that enable cloud interoperability and management, industry-standard, open-source platforms, and support for AI. VMware's approach enables customers to focus on business outcomes by streamlining the deployment of new IT services - which are increasingly residing in distributed edge locations.

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