

VMware SD-WAN: Connecting to VMware Cloud on AWS

vmware®

SD-WAN™

“According to business decision makers surveyed, 21% say poor web or cloud application performance due to network connectivity is among their biggest productivity drains.”

ESG Research¹

Hybrid cloud combines the best of both public and private clouds—accessibility, elasticity, agility, and cost benefits of public cloud, along with the control, security and reliability of private cloud. At the same time, if the user experience and performance of the applications deployed anywhere are not consistent while using either IT delivery model, the benefits of hybrid cloud or any cloud model fall flat. To support the transition to cloud while maintaining the desired user experience, enterprise network architects are reevaluating the design of their wide area network (WAN) architectures to efficiently route Internet traffic. To take advantage of inexpensive and ubiquitous broadband Internet services, customers are turning to software-defined wide area networking (SD-WAN).

VMware SD-WAN™ is a cloud hosted networking service of VMware SASE™ (Secure Access Service Edge) that ensures users located at any branch or remote offices get reliable, efficient, and optimal connectivity to applications in public cloud, data centers and SaaS destinations. The solution is centrally managed by the VMware SASE Orchestrator to enable connectivity between VMware SD-WAN Edges located in branches, data centers, and in Amazon Web Services (AWS). Users working remotely or on the road can use the VMware SD-WAN client on laptops or mobile devices for access to applications in the cloud. The solution also uses a global network of points of presence (PoPs) to offer VMware SD-WAN Gateways that provide easy on-ramp to AWS.

VMware SD-WAN uses optimization to steer traffic on the optimal path and remediates degradations on WAN links. The VMware SASE Orchestrator offers a single pane of glass, enabling admins to define policies, deploy new services, and monitor and manage all the deployed VMware SD-WAN Edges. The combination connects the user and application through a low-latency and highly reliable path without any major change required from the customer side.

¹ ESG Research, [The Emergence of Network Edge Platforms](#), June 2019

VMware Cloud on AWS highlights

- VMware SDDC running on dedicated AWS EC2 elastic, bare metal infrastructure
- Sold, operated and supported by VMware and its partners
- On-demand capacity and flexible consumption
- Full operational consistency with on-premises SDDC
- Fast and simple bi-directional workload migration
- Seamless large-scale workload portability and hybrid operations
- Global AWS footprint, reach, availability over time
- Direct access and integration with native AWS services
- Spin up entire SDDC in under 2 hours and scale host capacity in minutes

VMware SD-WAN delivers zero-touch, enterprise-grade connectivity for VMware NSX workloads on AWS.

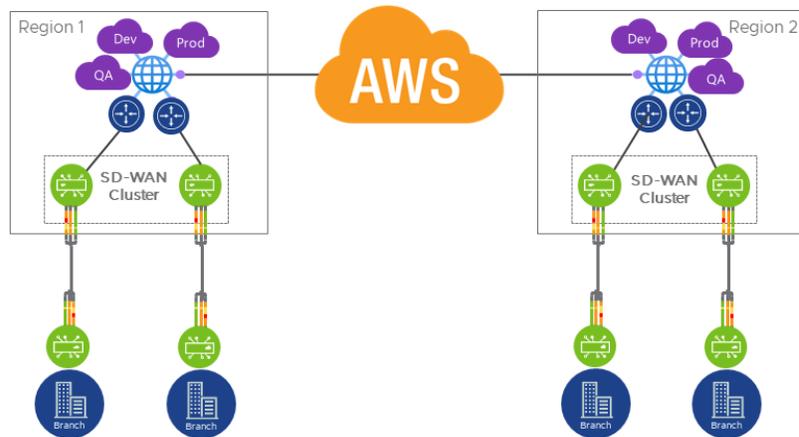


Figure 1: Connecting users to hybrid cloud with VMware SD-WAN Edges

An enterprise with users in one region can access applications in another region by simply connecting these users to the virtual Edges in the local region and then leveraging the cloud provider backbone to access those applications.

VMware Cloud on AWS

Customers across industries are accelerating adoption of both AWS Cloud and VMware infrastructure. Many of them want the ability to integrate their on-premises data center environments with AWS using existing tools and skill sets within a common operating environment based on familiar VMware software. VMware Cloud™ on AWS delivers on this promise by providing a unified infrastructure framework that bridges the gap between private and public clouds.

VMware Cloud on AWS delivers a seamlessly integrated hybrid cloud that extends on-premises VMware vSphere environments to a VMware Software-Defined Data Center (SDDC) running on Amazon EC2 elastic, bare-metal infrastructure and is fully integrated as part of the AWS cloud. VMware Cloud on AWS enables enterprise IT and operations teams to continue to add value to their business in the AWS cloud, while maximizing their VMware investments, without the need to buy new hardware. This offering enables customers to quickly and confidently scale up or down capacity, without change or friction, for any workload with access to native cloud services.

VMware Cloud on AWS is powered by VMware Cloud Foundation, the unified VMware SDDC platform that integrates VMware vSphere®, VMware vSAN and VMware NSX® virtualization technologies. This service is optimized to run on dedicated, elastic, bare-metal AWS infrastructure and is delivered, sold and supported by VMware and its partners. The service provides access to the broad range of AWS services, together with the functionality, elasticity, and security customers have come to expect from the AWS cloud.

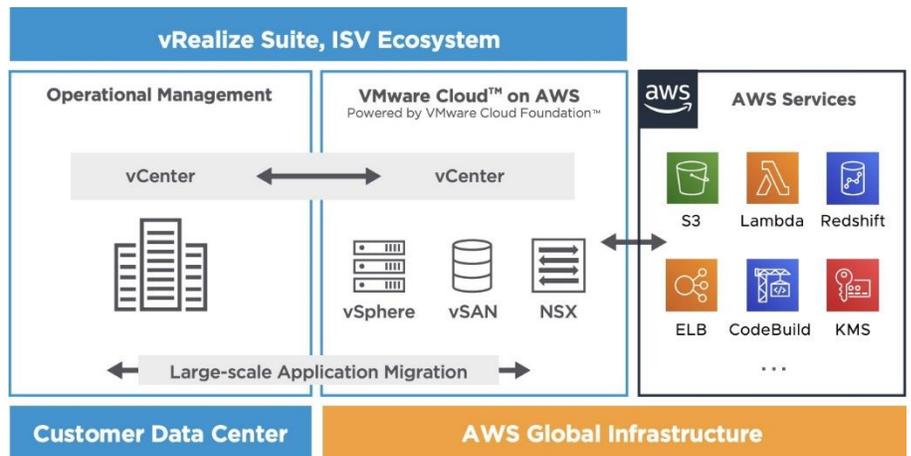


Figure 2: Hybrid cloud with VMware Cloud on AWS

Optimize connectivity with VMware SD-WAN

VMware Cloud on AWS provides a seamlessly integrated hybrid cloud empowering users to enjoy the flexibility of public cloud while at the same time controlling the distribution of workloads based on their business intent. Networks connecting users and workloads, whether deployed on customer premises or on AWS, play a pivotal role in deciding the performance and experience for the end user.

Connectivity to cloud applications over the last mile can be greatly enhanced by using VMware SD-WAN to deliver better user experience and real time visibility into application and network performance. VMware SD-WAN Edges logically aggregate all types of WAN connections emerging from branch offices or other remote locations, widening the bandwidth for the applications. In addition, remote users get a consistent experience when accessing applications using the VMware SD-WAN Client.

Over 200 PoPs from VMware and its partners are deployed at interconnect points around the world to provide scalability, redundancy, and flexibility in traffic steering. VMware SD-WAN Gateway services are hosted in these PoPs to optimize routes to workloads deployed in the cloud, enabling optimal delivery of services from the cloud. These highly available cloud devices perform dynamic application-aware, per-packet link steering and path conditioning to deliver enterprise-class network quality and performance for the most demanding applications anywhere.

Learn more

- VMware SD-WAN, sase.vmware.com/sd-wan
- VMware SASE, sase.vmware.com
- VMware Secure Access, sase.vmware.com/products/vmware-secure-access
- VMware Cloud Web Security, sase.vmware.com/products/cloud-web-security
- VMware Edge Network Intelligence, sase.vmware.com/products/edge-network-intelligence

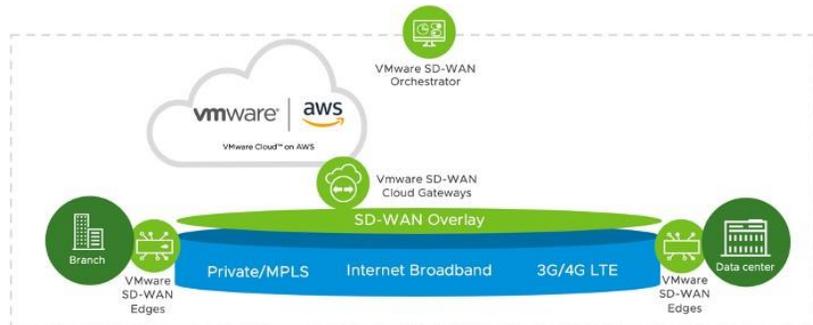


Figure 3: Secure and reliable cloud-delivered SD-WAN

Another key benefit of using VMware SD-WAN with VMware Cloud on AWS is that users get all the features of VMware SD-WAN even when there is no VMware SD-WAN Edge installed at the AWS zones where VMware SDDC is deployed. In this scenario, the VMware SD-WAN Gateways in the PoPs are used to construct the last mile VPN. The VMware SD-WAN Gateways establish IPsec tunnels to this location.



Figure 4: Connecting users to hybrid cloud with VMware SD-WAN Gateways

VMware Cloud on AWS enables users to run, manage, and secure production applications in a seamlessly integrated hybrid IT environment. VMware SD-WAN ensures the desired performance of those workloads and the experience of the users at the branches.