Deliver SD-WAN Services with Ease Using VMware SD-WAN by VeloCloud

As your customers seek better performance and agility from the network and as their applications move to the cloud, your service provider business needs to continue to evolve, adapt, and expand to meet your customers' needs. VMware SD-WAN™ by VeloCloud® enables service providers to increase network agility and deliver advanced services to increase revenue and acquire and retain customers. With VMware SD-WAN, service providers can deliver elastic transport, performance for cloud-hosted applications, and integrate advanced services using zero-touch deployment edge devices and a cloud-delivered management model.

VMware SD-WAN seamlessly integrates with existing service provider networks as a virtual overlay that is a transformational approach for Wide Area Network (WAN) architectures. VMware SD-WAN enables bandwidth on-demand, provides direct & optimal access to cloud-based applications, simplifies deployment of services and improves operational efficiency through automation and policy-based networking.
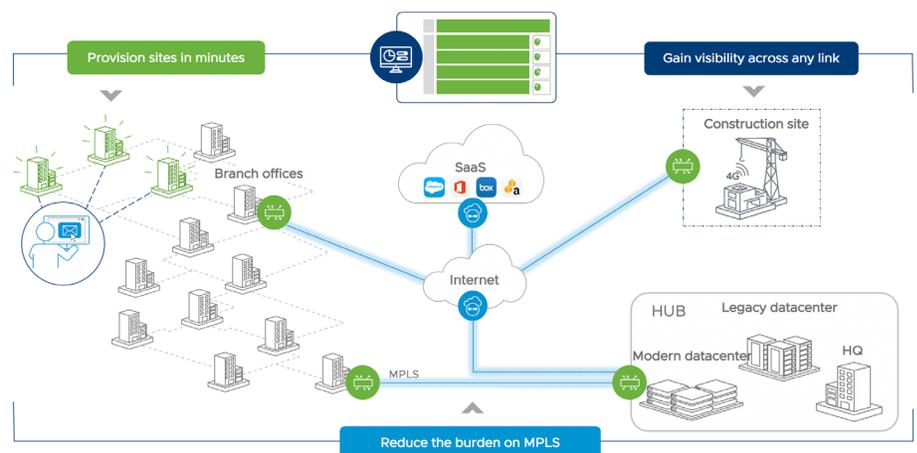

Figure 1: VMware SD-WAN network architecture.

VMware SD-WAN Capabilities

Unified Elastic Transport

With VMware SD-WAN, service providers can meet their enterprise customers' demands for agile and economical bandwidth expansion by augmenting MPLS private networks with Internet connections. VMware SD-WAN Dynamic Multipath Optimization™ (DMPO) combines multiple physical links into a single logical link that enables a secure, high performance WAN between enterprise sites and their applications. The VMware SD-WAN overlay network can serve any location where applications are hosted, including hybrid-cloud deployments and Internet connected sites. The VMware SD-WAN Orchestrator provides centralized control and visibility to all sites, including to off-net IP-VPN connected customer sites.

On-ramp to the Cloud

The VMware SD-WAN solution enables enterprise customers to connect to cloud-hosted applications using an agile, transport independent overlay that ensures private network performance, reliability, and manageability. It uses policy-based, application-aware forwarding of selected traffic to cloud data centers from the VMware SD-WAN Edge device. Multitenant cloud-hosted VMware SD-WAN Gateways are deployed at service provider points-of-presence (PoPs) to provide secure handoffs segmented by customer to the applications.

Virtualized Services Delivery

The VMware SD-WAN Edge employs an NFV infrastructure to host multiple virtualized network functions (VNFs) that deliver services locally at the remote locations. This model reduces the number of appliances required at the location and the provider truck rolls to install them. Virtual VMware SD-WAN Edges delivering VMware SD-WAN services can be deployed as VNFs on a service provider's universal CPE eliminating, the need for specific hardware. Service agility is improved for faster time to revenue and reduced operational cost.

Network Service Insertion

Cloud orchestrated network services insertion forwards site traffic by application to selected services deployed at cloud POPs and service provider regional "hubs". New services provisioning is effortless with one-click virtual services insertion. VMware has established relationships with vendors to seamlessly connect to their platforms that provide security and other network services.

Policy-based Automation

The VMware SD-WAN Orchestrator enables quick configuration of edge devices at branch sites. It is a multitenant, cloud-based dashboard for monitoring, configuration, and troubleshooting that enables efficient delivery of revenue generating managed services. Visibility into service performance is available to the end customer via the orchestrator to improve customer satisfaction. An open API enables integration with other management tools.

Why VMware SD-WAN?

To satisfy the needs of their customers for application delivery with reliability and high performance in the changing cloud-enabled environment, service providers need a solution that effectively augments their existing network services. Service providers have an opportunity to deliver SD-WAN as a service to their enterprises customers to achieve this end. SD-WAN adapts the network architecture to accommodate the shift of applications to the cloud and to increase bandwidth at a lower cost while maintaining the expected levels of reliability, performance, and security.

By offering SD-WAN as a service the service provider can protect their MPLS network investment by augmenting it with other connection types and add value for their customers by providing a more agile and better performing network.

For more information visit the *VMware SD-WAN by VeloCloud* site.