VMware VeloCloud SD-Access by Digital Carbon

VMware VeloCloud SD-Access™ (formerly called VMware SD-WAN Client) is a simple, secure, and high-performance remote access service to securely connect remote workers' endpoints and devices without hardware edges while providing visibility and insight into the user's application experience using integrated AIOps.

Enterprises need an SD-WAN solution for employees on the road, when a hardware appliance is not feasible, or to manage IoT devices.

VMware VeloCloud SD-Access provides enterprise IT with an easy and secure remote access solution for remote workers and IoT devices anywhere that optimizes connections for speed and reliability—bridging the needs of IT and OT.

Transforming the enterprise

Distributed applications and workforces are key components for today's organizations to innovate and scale. Enterprises are modernizing their businesses to be more agile and stay competitive in today's world by transforming applications, adopting cloud or SaaS, and allowing users to access these applications from the office, home, or away. Some companies are undergoing wholesale transformations, while others are making incremental changes in response to business demands. No matter where an organization falls on that spectrum, enterprise IT is embracing these initiatives:

• Multi-cloud transformation: Migrating enterprise data, apps, and software to the cloud or to SaaS services. In this context, cloud is not a single location, but many locations, including public and private cloud.

• Workforce transformation: Embracing different workplaces, styles, devices, and tools to attract and retain employees while also ensuring they are productive and protected against an ever-evolving set of security threats. The complexities of these distributed networks require automation to reduce operating time and costs.

• Operations transformation: Organizations struggle with a lack of IT personnel to troubleshoot and resolve issues in a timely manner to avoid user frustration. Automation is needed to provide visibility into the end user's experience with an application, provide diagnostics, and (if authorized) to automatically resolve issues.

Today, what keeps admins up at night are a slew of security and connectivity issues. The home network is now a key attack path into the enterprise. At the same time, employees need the speed and reliability they had come to expect when in the office. Finally, IT organizations need visibility, analytics, and intelligence to simplify the support of users working remotely.

Top IT challenges of remote access

These key remote access challenges are no longer well addressed by a legacy business VPN solution or by first-generation SASE solutions:

Network complexities and inefficiencies

Traditional VPN solutions require regional VPN concentrators. IT is responsible for ensuring these devices are deployed to handle the scale of remote users and devices, are highly available, and are up to date with software patches and hardware refreshes. This adds cost and complexity to network operations.

Insufficient security

Organizations are under constant attack from those who want to ransom or steal information. Security checks in traditional VPN solutions are light. They allow access with just a password to all resources on the network, jeopardizing the security of organizations' users and data. Because traditional VPN solutions are hard appliances, IT is challenged to keep them secure with the timely application of software patches.

Poor network conditions

Legacy VPNs focus on connectivity, but they do not have awareness of network conditions and as a result have no way to perform network optimization. Any variation in the network performance can directly impact user productivity.

Inconsistent user access

Legacy VPNs are designed to backhaul traffic to VPN concentrators that may at best be deployed in a few regional locations. For users and devices that are remote or on the move, the traffic is routed to the destination via these concentrators. Any added latency due to sub-optimal path selection impacts user experience.

Operational complexities and expense

The modern network of today is delivered as a cloud-first service over a wireless-first infrastructure. Device heterogeneity and device mobility, combined with high transaction and data volume, have made the network far more dynamic and operations significantly more complex at the edge.

VMware VeloCloud SD-Access

VMware VeloCloud SD-Access provides enterprise IT with an easy and secure remote access solution for workers and devices that boosts productivity by optimizing connections for speed and quality. It provides robust security with connections that are encrypted end-to-end after zero-trust interrogation. At the same time, integrated AIOps capabilities ease the support burden for enterprise IT.

The cloud-managed service sets up in minutes and replaces expensive and inflexible VPN infrastructure to deliver a high-performance private network fabric between servers, clouds, and devices—remote workers' desktop or

mobile devices, IoT devices or machines—without requiring hardware edges. It reduces overhead and maintenance costs while providing a better application experience for users working remotely or while traveling.
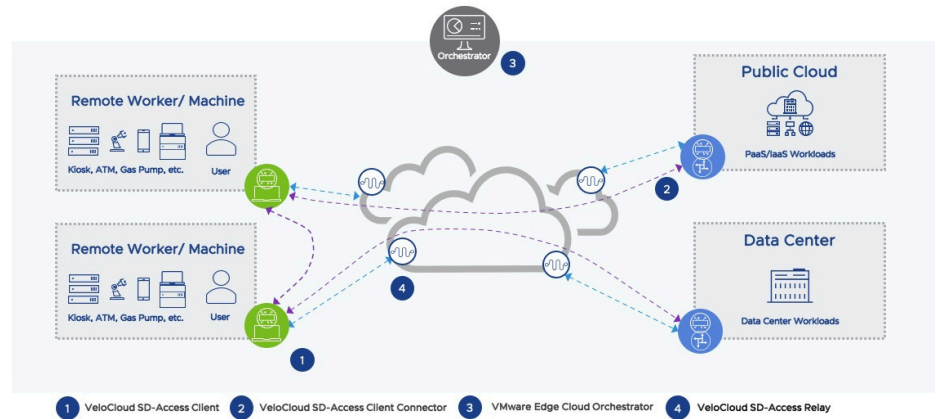

Figure 1: VeloCloud SD-Access provides remote access and route optimization to users, including IoT devices and machines, working anywhere

Key benefits include:

• Uncompromised security: The solution allows access to only the resources a user is entitled to, based on their identity and device posture (for example, the system will check if anti-virus software is installed). Remote access tunnel is encrypted end-to-end and is based on the principles of zero trust.

• Easy access: VeloCloud SD-Access does not require centralized VPN concentrators that take time to set up. It's easy to set up on-demand secure tunnels that can also build an autonomous, decentralized network.

• Improved user experience: VeloCloud SD-Access mitigates poor performance on the last-mile access network, ensures optimal connectivity to the nearest VMware Edge PoP, and removes any dependency on hardware. This improves worker satisfaction and productivity through fast and reliable connections to applications.

Common applications for VeloCloud SD-Access include a new approach to VPN, and business-to-business private access.

New approach to VPN

Traditional VPN-based remote access solutions are no longer viable in the modern distributed enterprise. These solutions do not scale to address the number of remote users and devices that need access to enterprise resources. VPN gateways become a choke point, increasing latency, frustrating remote workers, and slowing business functions. VeloCloud SD-Access is a cloud-based remote access service that takes minutes to set up and is optimized to deliver a rich user experience while avoiding unnecessary backhaul.

Business to business private access

Secure and optimal connectivity is needed not just for the workforce inside the organization but also for third parties. VeloCloud SD-Access offers a private network to connect with suppliers and business partners that is easy to set up and manage, scales up or down, is secure, and is based on principles of zero trust.
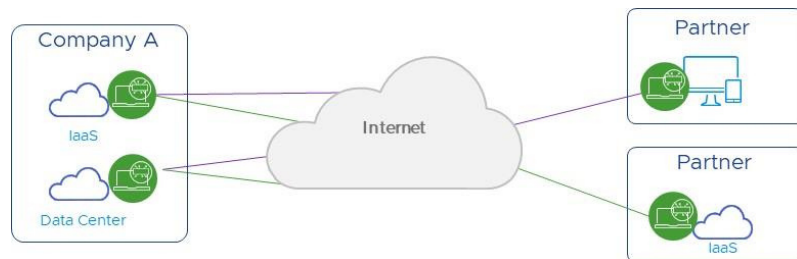

Figure 2: B2B private access implemented with VMware VeloCloud SD-Access

VeloCloud SD-Access can cater to additional use cases including secure device to device communication in IoT, server to server communication in a distributed application architecture, and more.

Part of the VMware VeloCloud Portfolio

VeloCloud SD-Access is a part of the VeloCloud portfolio that provides further consistent connectivity, performance, and security. The VeloCloud portfolio offers:

• VMware Edge Cloud Orchestrator™: A unified management console for networking connectivity and operations that delivers centralized monitoring, analytics, and control. VMware Edge Cloud Orchestrator enables zero-touch deployment and implementation of network-wide business policies across distributed locations, for users located at the branch, home, or anywhere.

• VMware VeloCloud SD-WAN™: Best-in-class SD-WAN solution that optimizes application performance over any WAN link to deliver the quality of service (QoS) users need. It delivers content across multiple transports using policy-based prioritization, intelligent traffic steering, continuous link monitoring, and automatic remediation. Advanced analytics powered by AI/ML provide insights into user experience and help proactively remediate issues.

• Globally distributed VMware Edge PoPs: VMware and its partners provide a global network of 200+ PoPs to bring services closer to users. This ensures that users, no matter where they work, have a direct path to cloud and SaaS providers.

• VMware VeloCloud SASE, Secured by Symantec: The single-vendor SASE solution features VMware SD-WAN and Symantec SSE to enable users to access any application in a secure, reliable and efficient manner.

Learn more

- VMware VeloCloud SD-Access:
  sase.vmware.com/products/sdaccess

- VMware VeloCloud SD-WAN,
  sase.vmware.com/sd-wan

- VMware SASE,
  sase.vmware.com/sase

- VMware Cloud Web Security,
  sase.vmware.com/products/cloud-
  web-security

• VMware VeloCloud Cloud Web Security™: A cloud-hosted service powered by Symantec SSE to protect users and infrastructure accessing SaaS and Internet applications from threats, offering visibility, control, and compliance.
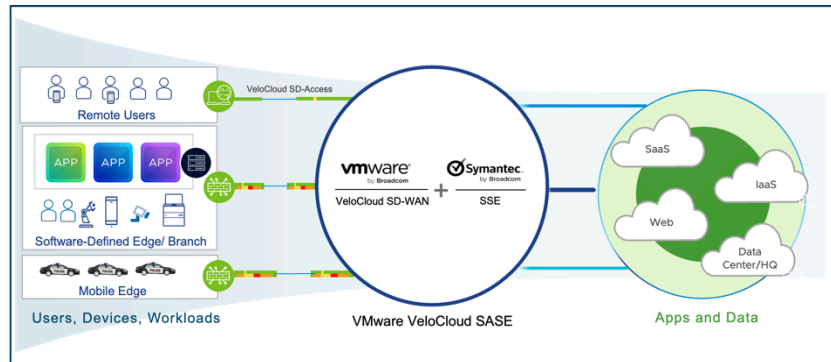

Figure 3: VMware VeloCloud SD-Access: Part of the VeloCloud portfolio

Summary

VMware VeloCloud SD-Access will provide enterprise IT with an easy and secure VPN replacement for remote workers that optimizes connections to deliver a better application experience.

VeloCloud SD-Access sets up in minutes, provides a rich user experience, and incorporates zero trust principles to reduce organizational risks against breaches. It will replace expensive and inflexible VPN infrastructure to deliver a high-performance private network fabric between servers, clouds, and remote workers' desktop or mobile devices without requiring hardware edges.

To learn more about VeloCloud SD-Access, book a 20 minute discovery call with Digital Carbon:

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