VMware SD-WAN Client

The VMware SD-WAN Client, available soon, is a simple, secure, and high-performance remote access service that follows the principles of zero trust to securely connect remote workers’ endpoints and mobile devices without hardware edges while providing visibility and insight into the user’s application experience using integrated AIOps.

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 work**
These key remote work 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 has the responsibility to ensure these devices are deployed to handle the scale of remote users and are highly available and up to date with software patches and hardware refreshes, adding 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 who 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 SD-WAN Client**
The VMware SD-WAN Client will provide enterprise IT with an easy and secure remote access solution for remote workers 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 will ease the support burden for enterprise IT.
The VMware SD-WAN Client is an extension of SD-WAN to remote workers that follows zero trust principles for consistent connectivity, performance, and security.

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 remote workers’ desktop or mobile devices and 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: VMware SD-WAN Client will provide remote access and network path optimization to mobile devices and laptops 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**: VMware SD-WAN Client 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**: VMware SD-WAN Client mitigates poor performance on the last-mile access network, ensures optimal connectivity to the nearest PoP, and removes any dependency on hardware. This improves worker satisfaction and productivity through fast and reliable connections to applications.

- **Simplified operations including AIOps**: VMware SD-WAN Client supports B2B private networks. No hardware is required for optimization from the users across a private network or the last mile to the nearest PoP. As a cloud-hosted solution, it is fast to set up as a VPN replacement and to establish peer-to-peer networks. VMware SD-WAN Client is supported on end devices including mobile devices, laptops, desktops, and servers. Operations will get visibility into user experience because SASE AIOps is integrated with VMware SD-WAN. The solution will provide proactive insights when any deviation in normal user experience is detected and undertake corrective action through self-healing or operator-assisted remediation.
Common use cases for the VMware SD-WAN Client include VPN replacement and business-to-business private access.

**VPN replacement**

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 who need access to enterprise resources. VPN gateways become a choke point, increasing latency and frustrating remote workers. The cloud-based remote access service takes minutes to set up and is optimized to deliver a rich user experience through the VMware SD-WAN Client while avoiding unnecessary backhaul.

![Figure 2: VPN replacement with VMware SD-WAN Client](image)

**Business to business private access**

Secure and optimal connectivity is needed not just for the workforce inside the organization but also for third parties. VMware SD-WAN Client 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 based on principles of zero trust.

![Figure 3: B2B private access implemented with VMware SD-WAN Client](image)

The VMware SD-WAN Client will be able to cater to additional use cases including secure device to device communication in IoT, server to server communication in a distributed application architecture, and more.
Learn more
- VMware SD-WAN and the VMware SD-WAN Client: 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

Part of VMware SASE
The VMware SD-WAN Client seamlessly combines with the rest of the VMware SD-WAN and SASE platform providing further consistent connectivity, performance, and security through:

- Globally distributed SASE PoPs: VMware and its partners provide global network of 200+ SASE PoPs to bring services closer to users. This ensures that users, no matter where they are working, have a direct path to cloud and SaaS providers.
- VMware Cloud Web Security™: A cloud-hosted service that protects users and infrastructure accessing SaaS and Internet applications from threats, offering visibility, control, and compliance.
- VMware Edge Network Intelligence™: Gaining visibility into user experience and managing digital experience for the distributed workforce is easy with VMware SD-WAN. Integrated VMware Edge Network Intelligence gathers performance metrics from different vantage points in the network including wireless and wired LAN, SD-WAN, applications, clients and network services. Analyzing the information in real time helps the solution provides actionable insights into each user’s experience accessing all applications.
- VMware Secure Access™: For customers who use VMware Workspace ONE for unified endpoint management, VMware Secure Access provides the ability for Workspace ONE users to connect securely while working remotely.

Summary
The VMware SD-WAN Client will provide enterprise IT with an easy and secure VPN replacement for remote workers that optimizes connections to deliver a better application experience. Beyond productivity benefits for the end user, the SD-WAN Client, like VMware SD-WAN, will feature advanced visibility, analytics and troubleshooting through the integration with VMware Edge Networking Intelligence.

The VMware SD-WAN Client 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 and without requiring hardware edges.