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/ The Benefits of SD-WAN

# What are the Benefits of SD-WAN?

For enterprises and midmarket businesses with multiple branches or locations, SD-WAN represents an opportunity to cut costs, increase efficiency, and empower greater reliability. But if you're interested in going this route, you can't turn a blind eye to security. It must be a core element of your strategy.

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Hey there 🙌 Welcome back! I think I can help you!

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# What is SD-WAN?

A traditional WAN (wide area network) served the purpose of connecting users at various campuses or branches to applications hosted on servers inside of a data center. This required the data center to leverage dedicated MPLS circuits to ensure reliable connectivity, uptime, and security. But as we've shifted into the new world of cloud computing, this approach is no longer sustainable for cloud-first enterprises.

Over the past five years, businesses have shifted their focus to the adoption of SaaS and infrastructure-as-a-service (IaaS) applications across multiple clouds. Along the way, IT departments have come to realize that user experience on these applications is less than ideal.

Why is this? Well, it's partially rooted in the fact that WANs aren't designed for the cloud era. This sudden growth in traffic has created issues that simply can't be handled by the traditional WAN setup. Factors like data vulnerability, management complexity, and the unpredictability of application-level performance are real.

Then there's the issue of compliance. When an enterprise puts itself out there by using the cloud, major threats begin to swirl. As networks are accessed across a wide swath of branches and by a diverse workforce (this includes employees, vendors, contractors, business partners, and even guests), protecting sensitive enterprise data becomes very difficult.

In light of this shift to the cloud, traditional WANs have basically become obsolete. And as they've been pushed aside, a new network model has arisen. It's called a Software Defined Wide Area Network, or SD-WAN. [/cyber-hub/network-security/what-is-sd-wan/]

In the most basic sense, an SD-WAN is a virtual architecture that enables enterprises and large organizations to utilize any combination of transport services they need – such as LTE, MPLS, and basic broadband internet – to connect users to applications in a secure manner.

SD-WAN leverages smart routing to provide appropriately optimized bandwidth for each application. (This includes latency-sensitive apps such as VoIP.) Migration to cloud applications can be accommodated through intentional traffic routing from each branch directly to the cloud without ever having to pass through the data center. It's a shift away from physical locations/devices and towards software.

## The Top Benefits of SD-WAN

Now that we have a very basic understanding of what SD-WAN is, let's get clear on *why* it matters. More specifically, let's explore a few of the top benefits that enterprises enjoy (when compared to a traditional, outdated WAN):

- **Increased agility.** In today's marketplace, speed matters more than almost anything else. Customers have high expectations and they want what they want when they want it. SD-WAN ensures enterprises with multiple branches are able to connect in an efficient and streamlined manner that satiates this desire for immediacy.
- **Superior application performance.** Many businesses rely on their applications to be successful. If your application goes down, everything else subsequently falls apart. With SD-WAN, there's increased application performance across the board. What does this mean? High availability with very predictable service; dynamically routed application traffic for improved user experience; and greater consistency at all application touchpoints.
- **Simplified management.** At the end of the day, SD-WAN simplifies everything from a management perspective and makes connectivity easier for everyone involved. And with fewer issues comes greater reliability.

# SD-WAN Security Challenges and Issues

SD-WAN is highly beneficial in today's cloud-first environment, but it's far from perfect. As enterprises make the shift, new security challenges and issues arise. Here are some of the top concerns that must be dealt with:

- **Bigger attack surface.** For all of the benefits that come with SD-WAN, it's hard to ignore the fact that it opens enterprises up to a bigger attack surface. With a traditional setup, each branch uses an MPLS connection that routes traffic to HQ (where it then passes through a corporate firewall). This prevents remote locations from being exposed to the internet. The connection is secured at HQ and everything is fairly safe. With SD-WAN, each branch has a physical connection to the internet. This exposes each location to the possibility of attacks.
- **Adaptability.** When it comes to SaaS applications, organizations have to make sure all applications are verified. Furthermore, privileges must be evaluated, traffic inspected, etc. And because connectivity can change, any security solution must have the ability to adapt on a dynamic, ever-evolving basis to keep up with these network changes. Any SD-WAN security solution needs a comprehensive stack of enterprise-grade security. (This includes web-filtering, NGFW, [IPS \(/cyber-hub/network-security/what-is-ips/\)](#), anti-malware, etc.)
- **Encryption.** Any data that passes across a public network needs to be encrypted. Whether it's connections to data centers, the internet, SaaS applications and services, or between branch offices, encryption is a must. And along with this increased volume of encrypted traffic comes a greater need for high-performance [NGFW \(/cyber-hub/network-security/what-is-next-generation-firewall-ngfw/\)](#) that can inspect traffic at blistering network speeds.
- **Proprietary security solutions.** Businesses can't make the shift to SD-WAN and continue to use legacy security solutions. They simply don't provide the protection needed. (They weren't designed to support the dynamic requirements that come with connecting multiple

branch offices.) This means enterprises must totally retool their approach to security, which can be costly and disruptive on the front-end.

While it's important to recognize the distinct challenges that come with SD-WAN, this isn't meant to dissuade enterprises from pursuing this model. SD-WAN is the recommended approach, but you must layer it with the appropriate security solutions.

## Check Point SD-WAN Security

Security is always going to be one of the top concerns for organizations deploying SD-WAN. And as the technology matures, so do the expectations for enterprises.

At Check Point, we believe enterprises should be able to deploy SD-WAN and simultaneously enjoy robust security that strengthens against outside attacks, shores up vulnerabilities, and promotes greater trust among all users. Our SD-WAN security solution (/solutions/sd-wan-security/)s are dynamic, flexible, and efficient. We offer both on-premises and cloud-based security for SD-WAN software solutions.

For more information – or a free demo (<https://pages.checkpoint.com/cloudguard-connect-demo.html>) – please don't hesitate to contact us today!

## Recommended Resources

(<https://resources.checkpoint.com/embed-stream-network-security-awareness/quantum-security-appliance-brochure>)



Quantum Security Appliance Brochure



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(<https://resources.checkpoint.com/embed-stream-network-security-awareness/sd-wan-security-buyers-guide>)



(<https://resources.checkpoint.com/embed-stream-network-security-awareness/esg-guide-to-adopting-sase-network-security>)



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## ESG SHOWCASE

# A Guide to Adopting Secure Access Service Edge Network Security

**Date:** March 2023 **Author:** John Gaddy, Senior Analyst

## ESG Guide to Adopting SASE Network Security

**ABSTRACT:** The shift to cloud and remote work has been massively accelerated over the last year due to global events, forcing organizations to rethink their approach to network security. As a result, secure access services edge, or SASE, has seen significant interest as a means to converge previously disparate security controls, centralize management, and push enforcement to the edge to more efficiently secure today's distributed enterprise environment. Check Point's Harmony Connect delivers on the SASE vision by unifying management and threat visibility across a range of security tools, protecting both users and applications from known and unknown threats regardless of location, and delivering a

[READ GUIDE](#)

## Get Started

Must-Haves of an SD-WAN Solution – eBook ([https://resources.checkpoint.com/network-security/must-haves-of-an-sd-wan-solution-ebook?utm\\_term=cyber-hub](https://resources.checkpoint.com/network-security/must-haves-of-an-sd-wan-solution-ebook?utm_term=cyber-hub))

Personal Demo of Quantum SD-WAN ([https://pages.checkpoint.com/quantum-sd-wan-demo-request.html?utm\\_term=cyber-hub](https://pages.checkpoint.com/quantum-sd-wan-demo-request.html?utm_term=cyber-hub))

SD-WAN Security (</solutions/sd-wan-security/>)

Branch Cloud Security (</products/branch-cloud-security/>)

Branch Virtual Security Gateway (</products/branch-virtual-security-gateway/>)

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What is SASE? (</cyber-hub/network-security/what-is-secure-access-service-edge-sase/>)

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