

12 Essential Steps for Migrating to SD-WAN

An aerial photograph of a dense forest with a dirt road winding through it. The image is partially obscured by a green rectangular overlay on the right side, which contains the title text.

It's a Brave New World of Business

A conventional approach to business is destined to produce conventional results. Today's IT infrastructure must support agile and flexible business processes — and the specific technologies that put them in motion. This includes artificial intelligence (AI), machine learning, the Internet of Things (IoT), virtual reality and augmented reality, 3D manufacturing, and advanced mobile services. Responding to this complex, zero perimeters landscape requires new thinking—and new IT infrastructure.

Organizations that can migrate from legacy systems to a more advanced cloud-based infrastructure that supports a compute anywhere-world are far better positioned to compete and thrive. At the heart of this new IT is the ability to put SD-WAN to maximum use. Software-defined networking environments have the potential to transform an enterprise by greatly simplifying management and operations and lowering costs.

Why It's Time to Rethink Infrastructure

It's not unusual for enterprises to find themselves boxed in by the limitations of legacy technology. At the heart of the problem is the traditional hub-and-spoke approach. Not only is it expensive to manage and maintain all the connection points within these IT environments, the network can't deliver the bandwidth and performance required for today's needs or use the best approach for specific situations and locations.

The result is a chaotic and frustrating situation. Lines are frequently saturated, data flows unevenly and erratically, and bandwidth limitations negatively affect the business. Even with load balancers and the ability to provision bandwidth dynamically, critical applications and services that underperform and underdeliver — problems that can ripple out to business partners and customers.

Security typically suffers too. New gaps and vulnerabilities can occur as an enterprise combines physical and virtual infrastructure to produce hybrid and multi-cloud environments. These risks can extend from backend servers and appliances to front-end devices and applications. In many cases, organizations wind up managing dozens of point security solutions that, invariably, leave gaps and exposure to cyber attacks.

The end result is subpar performance, higher operating costs, increased security risk, and a drain on staff time and resources. However, adding more appliances and incrementally adding bandwidth won't fix the problem.



Tackling the Complexity Equation

Organizations benefit when they can focus time and energy on strategic initiatives rather than tactical tasks. Monitoring a vast array of systems, components, and software can lead an enterprise down the proverbial rabbit hole of constant patches, upgrades, and reconfigurations.

All signs point to a need for greater standardization and efficiency. But while a software-defined wide area network (SD-WAN) is a natural step in the evolution of enterprise IT — and it can address many of the challenges facing an organization — it too can create additional complexity and security concerns. And, as the IoT and new networking requirements such as edge and fog computing move into the mainstream, additional challenges can emerge. In the end, an organization may wind up with multiple administrative and security tools that add to cost while creating even more gaps.

The answer is a purpose-built managed service platform that more easily integrates with existing enterprise systems and resources. This includes robust and easy-to-use controls along with next-generation security features designed for today's multi-location, multi-cloud, and hybrid cloud networks. Used effectively, an enterprise reduces dozens or

hundreds of monitoring and control points to one central place where it's possible to manage everything.

This SD-WAN environment, combined with the right service platform, boosts management and oversight across a widely dispersed network with numerous physical offices or locations. It delivers deeper visibility into data, improves accessibility, and supports far more robust security and regulatory controls. All of this simplifies connecting any physical location with the cloud, helping to reduce or even eliminate the need for new data centers.

A managed services approach to SD-WAN can also simplify regulatory compliance. For example, a person in the U.S. receives a U.S. experience, a Swiss user receives a Swiss experience, and a Chinese user receives a Chinese experience.

The end result is a highly scalable IT framework that fully supports an enterprise — and emerging technologies, DevOps, and next-gen security — all while lowering operational costs and security risks.



An abstract graphic on the left side of the page. It depicts a person's silhouette holding a large, glowing, circular ring. From the center of the ring, numerous thin, white, curved lines radiate outwards, resembling a network or a field of energy. The background is dark blue.

Taking Your Enterprise to a Best Practice Level

A starting point for approaching a more sophisticated IT framework is to stop thinking of your network as a network. **What exactly does this mean?**

Today, enterprise networks do more than connect devices and people. Data and apps are everywhere: on premises, in legacy data centers, in different clouds, even on the endpoint and in IoT devices.

Think of the network as a vast fabric that supports applications, data, security, and more. By framing thinking this way, it becomes apparent that while it's still important to connect users to resources as efficiently as possible, it's also critical to think about how the entire environment can function most effectively. This holistic view reaches into the cloud for services, functionality, and code.

This shift in mindset is profound and has real implications for an organization. In the end, an SD-WAN should neither be only edge-delivered nor only cloud-delivered. Ultimately, it should be both, and a user shouldn't be concerned about where resources reside. What's important is maximizing performance, lowering costs, and delivering more comprehensive security across an entire enterprise.



**Think of the network
as a vast fabric that
supports applications,
data, security, and more.**

A person is standing on a rocky outcrop, looking out over a misty valley. The person is wearing a dark jacket and pants. The background shows a valley with trees and a misty atmosphere.

6 Essential Steps for Transforming Your Enterprise

1. **EVALUATE YOUR CURRENT INFRASTRUCTURE.**

Understand what's in place and what changes would benefit your organization both today and to meet future network and security needs. This includes whether providers actually offer an enterprise class service platform that can scale to accommodate changes. Your objective: achieve high performance and ROI, manage costs, and enable robust security.

2. **FOCUS ON CONNECTIVITY, DESIGN, AND AVAILABILITY.**

A migration to a more advanced SD-WAN requires your organization to fully understand its business and IT framework. This includes critical software applications, including SaaS; physical site classifications; support for legacy data centers; infrastructure as a service (IaaS); and other essential requirements. Mobile capabilities, multi-cloud workloads, IoT, edge computing, and other emerging technologies are key considerations.

3. CREATE STANDARDS FOR SITES.

A set of standards is critical, but it must consider the communications, bandwidth, and IT limitations of particular locations. Can the environment support an Office 365 migration or a move to Oracle, Azure, or other cloud? With a clear understanding of what's necessary — and what's possible — you can more easily sort through cloud and application strategies and establish optimal SLAs.

4. ESTABLISH A TIMELINE FOR THE TRANSITION.

It's essential to establish a realistic and accurate timeline for introducing a new SD-WAN infrastructure. Work within ISP lead times to provide new building access, when needed. During the transition, the service platform overlay of SD-WAN can run atop existing systems to maximize performance, streamline the transition, and ratchet up resource visibility.

5. INSTALL THE NEW INFRASTRUCTURE AND MAKE THE SWITCHOVER.

Minimize disruption by installing the new framework side by side with existing infrastructure. Connect existing lines and extend the mode of operations, including greater bandwidth and connectivity, to accommodate the migration. Follow this with pre-migration, switchover, and post-migration testing.

6. IDENTIFY ISSUES AND MAKE THE NECESSARY ADJUSTMENTS.

If you and your service provider have devoted adequate time and energy to the planning process, the transition should be smooth. However, some tweaks and adjustments are inevitable. Plan for these and set user expectations accordingly.



Avoid Roadblocks

A bit of planning can go a long way toward minimizing headaches and avoiding ill-fledged problems. Here are six ways to diffuse inevitable issues and smooth the transition to a more advanced SD-WAN.

1. **DRIVE INTERNAL COMMUNICATION.**

It's vital to understand fully the requirements of different departments, groups, and users. It's also crucial for an IT team driving the change to keep groups informed — and incorporate feedback to adjust and adapt resources as needed. Establish methods for educating users about changes and to keep them informed along the way. Tout success stories to gain mindshare and build support.

2. **DEVELOP A ROBUST GOVERNANCE STRUCTURE.**

Establish a common set of rules, procedures, and guidelines for the organization. Embed the governance structure into the managed SD-WAN environment to minimize — and even eliminate — exceptions and the problems they cause.

3. DO THE NECESSARY TECHNICAL PLANNING.

A transition to a more advanced SD-WAN framework requires some heavy lifting. Ensure that you understand the needs of different groups before making any decisions. Perform due diligence on vendors to understand what they can offer your organization.

4. ENSURE END-TO-END SECURITY.

As you migrate, you don't want to leave gaps in security that can put your network at risk of cyber attacks. Make sure the solution you choose offers a unified security platform that addresses detection, analysis and incident response. Look for SOC as a service that monitors and detects, then remediates or contains threats inside the SD-WAN 24/7.

5. CHOOSING THE RIGHT PARTNER.

Ideally, the vendor you choose will serve as a trusted partner. It will provide more than commodity systems and boost the value proposition by delivering expertise, along with excellent service and support.

6. TEST, TEST AND TEST.

Ensure that all systems operate effectively — and under realistic conditions — before switching over part or all of a network to a new framework. Programmatic testing based on runbooks that can be automated or delegated to assure business continuity is key when undergoing this transformation.

A Secure and Unified WAN is More Than a Technology Solution

It's critical to choose the right partner and build out a framework that supports today's business and security requirements — but also a framework that is also equipped to deal with future demands. A partner that delivers expertise, engineering, software and tools that fully address the task can aid an organization in the quest to take business and IT performance and costs to a best-practice level. Organizations that adopt a more streamlined approach to SD-WAN, including a managed services framework, are better equipped to navigate — and conquer — the challenges of digital business.

FOR MORE INFORMATION

If you're interested in exploring the advantages of managed SD-WAN at a deeper level, download the Open Systems e-book: **The Definitive Guide to SD-WAN.**



Open Systems is a leading global provider of a secure SD-WAN that enables enterprises to grow without compromise. With assured security, AI-assisted automation and expert management that free valuable IT resources, Open Systems delivers the visibility, flexibility and control you really want with the performance, simplicity and security you absolutely need in your network. Learn more at open-systems.com.