ESG SHOWCASE

SD-WAN as a Managed Service

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ABSTRACT: Modern IT environments are highly distributed and dynamic. Organizations require network solutions that can rapidly adapt to changing market and business demands. However, these new environments may require connectivity to private data centers, multiple public clouds, edge locations, and remote workers and may utilize fixed line and cellular connections. The complexity of designing, deploying, and then optimizing these environments can be very challenging. Fortunately, managed SD-WAN services from trusted providers can dramatically accelerate the time to value and operational efficiency for these solutions.

Overview

Organizations continue to distribute their applications to the cloud and edge locations. According to ESG research 95% of organizations state they currently leverage IaaS or SaaS platforms.[1] And it's not just the applications that are distributed; workers are far more distributed today as well. This creates a lot more network complexity. Plus, digital transformation initiatives are driving more adoption of cloud services, which is forcing organizations to reevaluate their network architectures.

It's no secret that in these highly distributed environments, the traditional hub-and-spoke networks based on fixed multi-protocol label switching (MPLS) networks are no longer viable for modern IT environments, as they are costly, unscalable, and hairpin all traffic through the data center to connect to cloud-based applications or other remote locations. This increased latency negatively impacts performance, employee productivity, and customer experiences. As a result, organizations have turned to SD-WAN technologies to create dynamic mesh networks, leveraging multiple connections (a combination of MPLS, broadband, or cellular) to enable direct internet access to IaaS- and SaaS-based applications, as well as other remote locations. And these benefits are just the foundation of an SD-WAN solution. Organizations are also realizing benefits around security, reliability, richer insights, and automation to scale their network and deliver much improved network-based business outcomes.
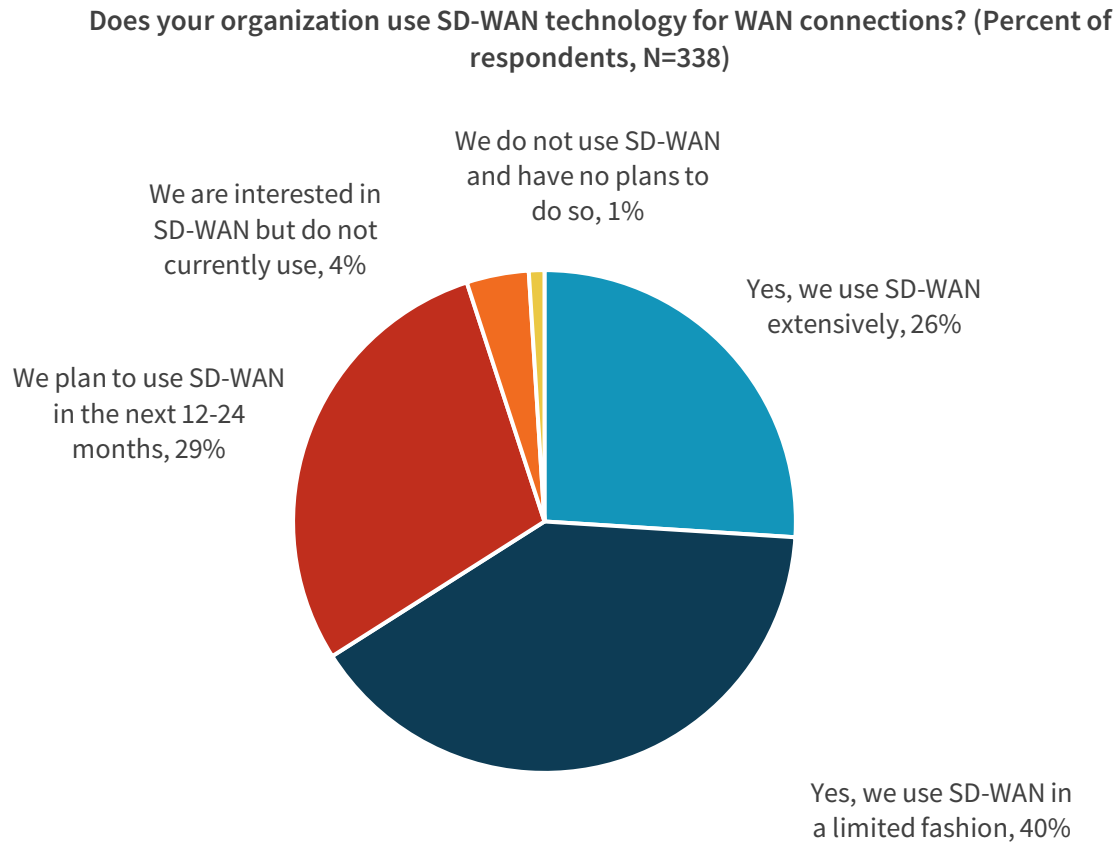
However, these network environments are not without their challenges, especially with organizations that have a national or global footprint. Trying to manage multiple broadband, MPLS, or cellular providers, as well as maintain, optimize, and secure SD-WAN connections, can detract from strategic objectives. In addition, moving to a new technology requires new skills. In the case of SD-WAN, the increase in network nodes creates new requirements for automation, security, reliability, and planning.

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[1] Source: ESG Research Report, *2022 Technology Spending Intentions Survey*, November 2021.

Analysis – SD-WAN Is Becoming Ubiquitous and Increasingly Delivered as a Managed Service

SD-WAN is rapidly becoming the de facto standard for remote site connectivity, as ESG research validates that nearly every respondent (99%) to a recent survey is either using, planning to use, or interested in SD-WAN (see Figure 1).[2]

Figure 1. SD-WAN Adoption

Does your organization use SD-WAN technology for WAN connections? (Percent of respondents, N=338)

We do not use SD-WAN and have no plans to do so, 1%

We are interested in SD-WAN but do not currently use, 4%

We plan to use SD-WAN in the next 12-24 months, 29%

Yes, we use SD-WAN extensively, 26%

Yes, we use SD-WAN in a limited fashion, 40%

Source: ESG, a division of TechTarget, Inc.

Given the inherent complexity of these distributed environments, it shouldn't be a surprise that organizations are looking to improve operational efficiency and deliver better performance. Figure 2 highlights organizations' top WAN initiatives, which include using cloud-based network management solutions, exploring the ability to use 4G and 5G for primary connections (not just tertiary links), providing direct internet access for all remote locations, increasing organizations' use of SD-WAN technology (which typically leverages cloud-based management) and obtaining more bandwidth.

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[2] Source: ESG Research Report, *Network Modernization in Highly Distributed Environments*, November 2021. All ESG research references and charts in this showcase are from this research report unless otherwise noted.

Figure 2. Top Five WAN Initiatives

What are the top initiatives for your organization's wide area network? (Percent of respondents, N=338, multiple responses accepted)

Using cloud-based network management solutions	30%
Exploring use of LTE and 5G for primary connections	29%
Direct internet access for all remote locations	27%
Increasing use of SD-WAN technology	27%
Getting more bandwidth to accommodate demand	25%

Source: ESG, a division of TechTarget, Inc.

Managed Services Gaining Traction

Organizations have recognized the strategic value of SD-WAN but have realized that ensuring peak performance, performing lifecycle management tasks (updating, patching, etc.), and keeping the environment cost-optimized can be more than a full-time job. Organizations need their skilled resources focused on strategic business initiatives. As a result, the vast majority of organizations have quickly realized that the best way to consume the technology is as a managed service.

Additional benefits of moving to a managed SD-WAN solution include:

Actionable insights: New cloud-based network management solutions yield much more data. Organizations can make better sense of the network with MSP-tailored insights that can be used to better optimize workloads, performance, and user productivity, as well as drive more efficient network planning.

Network link management: With 97% of organizations citing that it is either important or very important that MSPs manage the network links, this will be a key criterion for MSP selection. MSPs must recognize that links management will go beyond traditional fixed line ISP services and include cellular technologies as well. While today, most SD-WAN solutions are leveraging 4G for tertiary connectivity, moving forward, 5G technology opens the possibility to run as a primary link.

Security: With an increase in sites directly connecting to the internet, security becomes a bigger focus for network teams. It is important to work with a provider that has managed security capabilities as part of their SD-WAN solution or as part of a broader secure access service edge (SASE) offering.
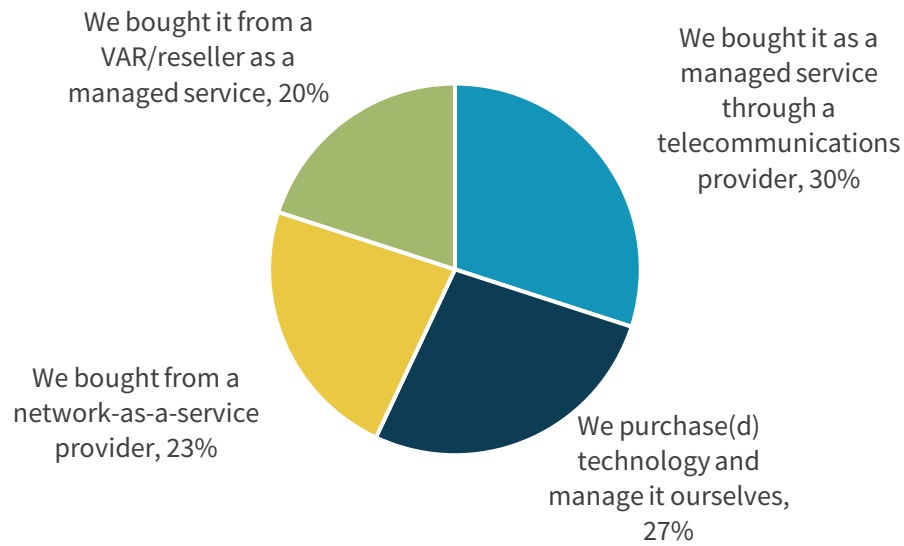
Predictable pricing: While SD-WAN technology has immense benefits for both IT teams and users, organizations can take time to realize their ultimate return on investment (ROI), given that IT teams are looking to increase their use of SD-WAN technology and ratchet up bandwidth to keep up with demand. As such, managed services with a simplified economic model combining hardware, software, and services at a single price can deliver more predictable pricing and a faster ROI.

Optimization: Finally, increasing use of SD-WAN technology may require additional skills, such as software integration and automation, as well as hardware installation and troubleshooting. MSPs can help maximize the software-defined components of the solution and quickly scale to deliver site-based support, saving businesses significant time and money.
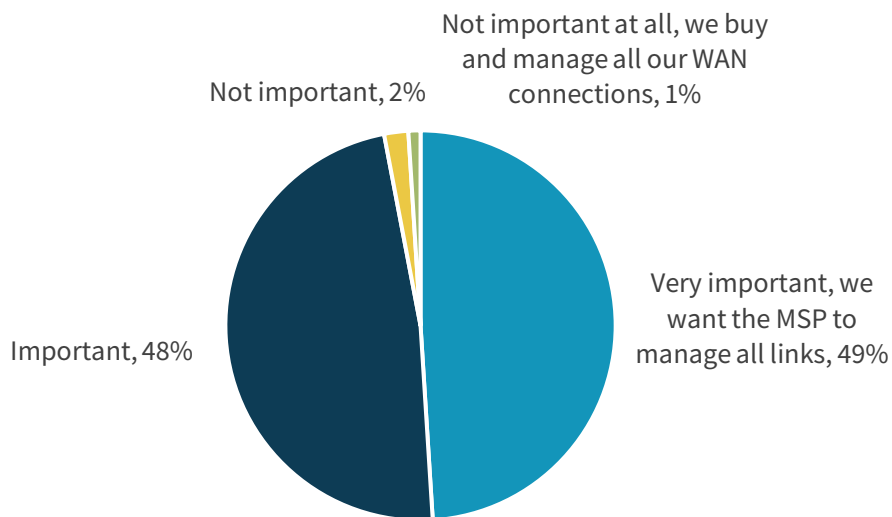
ESG research highlights that telecommunication providers, trusted value-added resellers (VARs) turned managed service providers, and network-as-a-service (NaaS) providers comprise almost three quarters (73%) of SD-WAN deployments. It should also be noted that the managed service package MSPs provide should not be just about the SD-WAN technology alone but should also include managing the network links (see Figure 3).[3]

Figure 3. SD-WAN Managed Services and Link Management

How is SD-WAN deployed in your organization's environment? (Percent of respondents, N=222)

We bought it from a VAR/reseller as a managed service, 20%

We bought it as a managed service through a telecommunications provider, 30%

We bought from a network-as-a-service provider, 23%

We purchase(d) technology and manage it ourselves, 27%

How important is it for the managed service to include both the SD-WAN equipment and MPLS, broadband, or cellular connections? (Percent of respondents, N=283)

Not important, 2%

Not important at all, we buy and manage all our WAN connections, 1%

Important, 48%

Very important, we want the MSP to manage all links, 49%

Source: ESG, a division of TechTarget, Inc.

[3] Source: Complete Survey Results, *2021 SASE Trends: Plans Coalesce But Convergence Will Be Phased*, December 2021.

It is important to note that choosing a well-run managed SD-WAN service doesn't mean completely outsourcing the technology and the organization losing control and visibility into the environment. While some organizations, especially small and midsized business, will select a fully managed option, most enterprise managed SD-WAN services are co-managed and leverage cloud-based management portals to provide full visibility and transparency. These portals enable organizations to have seamless interaction between the MSP and IT staff. Typically, the MSP will leverage its expertise and experience to provide the upfront assessment, design, and deployment of the environment and then assume responsibility for managing and optimizing day two services. However, organizations and their staff will still be responsible for defining the critical network and security policies and interacting with the MSP for moves, adds, changes, and, of course, troubleshooting.

The Bigger Truth

Cloud-first and digital transformation initiatives are creating highly distributed environments, with applications deployed across multiple data centers, public clouds, and edge locations, as well as hybrid work models, splitting employees' time between home and the office. Unfortunately, simply connecting these distributed environments using legacy network architectures is not sufficient. SD-WAN technologies are the key to modernizing network connectivity and delivering optimized experiences.

However, the time and specific skills required to effectively manage the day-to-day operations and optimization of the technology network link providers could significantly hinder other strategic network initiatives. As a result, organizations have recognized the value of engaging and relying on MSPs that bring to bear the depth and breadth of updated technical skills and expertise to assess, design, recommend, implement, and co-manage their SD-WAN solutions.

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