



2021 State of SD-WAN Study

Reliability, security, and hybrid access matter most



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Key takeaways

SD-WAN is gaining traction in the digital business environment

SD-WAN adoption is expected to rise to 92% of companies and 64% of sites by 2026 with most adopting it for efficiency (38%), cost savings (38%), and agility (34%).



Performance and security matter most

Solution reliability (~50%) and security (~60%) are top priorities for selecting an SD-WAN provider.

SASE (Secure Access Service Edge) is not yet understood

Most buyers are now familiar with the term SASE, but 50%+ of them don't have a good understanding of its impact and business implications.

538% to use hybrid access

Majority of companies will use hybrid SD-WAN

While increased SD-WAN adoption will lead to more companies using public network access, the majority of them (~58%) expect to use a hybrid access model (a mix of both public and private access) over the next five years.

Both private-only and public-only access users are considering a shift to hybrid access.

Among respondents using a public-only or internet-only approach to SD-WAN, 50% said they would incorporate more private access because performance is insufficient for their critical applications.

Companies are relying more on SD-WAN service providers

Today only 23% use a do-it-yourself solution and 77% use a fully managed or co-managed solution. Moreover, 48% of those using a co-managed service expect to offload more of their IT work to their partners. Also, 76% of buyers say that their networks have become increasingly complex over time, and many companies do not have the internal capabilities to manage them effectively.

Private connectivity is here to stay

Private connectivity will continue to play a prominent role in backing up SD-WAN architectures, particularly in hybrid access environments for sites and applications with higher performance or security needs.

> want a co-managed or fully managed solution

Digital business calls for SD-WAN

While the fast-paced pivots of 2020 are now in the rear view mirror, companies everywhere are still optimizing their IT infrastructure for the new normal, ensuring their digital business models are sustainable in 2021 and beyond. For many IT leaders, this means investments in SD-WAN and Secure Access Service Edge (SASE) technologies, which are often key components for improving business continuity strategies and supporting hybrid workforces where employees are working in the office, at home, and on the go.

Altman Solon, the world's largest strategy consulting firm focused exclusively on the telecommunications, media and technology sectors, conducted a research study on behalf of Masergy to understand where businesses are in their journey to SD-WAN. In February 2021, Altman Solon surveyed 314 IT decision makers in U.S. headquartered businesses across more than 20 industries, exploring adoption rates, top criteria for selection, deployment approaches, as well the business benefits recognized after implementation. The survey reflects new trends in the importance of reliability, security, and a growing preference for hybrid access.









Adoption expected to continue to grow with SD-WAN at more locations

The survey findings show 79% of companies have adopted SD-WAN and by 2026, adoption rates are expected to rise to 92%. While overall adoption rates are high, some companies are in early adoption phases today, having rolled out SD-WAN to only a portion of their business locations.

Results show 38% of locations use SD-WAN now, and location penetration is expected to increase to 64% by 2026. How many companies will deploy SD-WAN at all sites? Only a small portion of enterprises are "mostly" SD-WAN today, but that is expected to change as 38% of enterprises expect to have SD-WAN fully deployed at all locations in five years (see Figure 1).

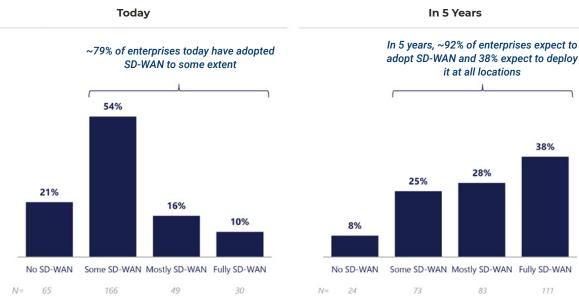
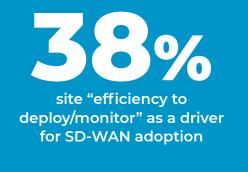


Figure 1: SD-WAN adoption today vs. in 5 years

Notes: 1) Adoption defined by percentage of locations with SD-WAN - 0% = No SD-WAN, <50% = Some SD-WAN, <100% = Mostly SD-WAN, 100% = Fully SD-WAN Sources: Altman Solon ITDM Survey (February 2021), Altman Solon Research and Analysis

38%

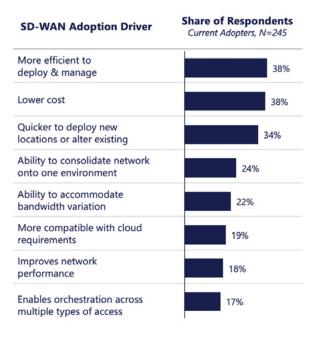
The survey asked respondents to explain their reasons for investing in SD-WAN. Most buyers are adopting the technology due to ease of management, greater visibility, cost savings, and faster service provisioning times for new business locations (see Figure 2).



24%

site ability to "consolidate network onto one environment" as a driver for SD-WAN adoption

Figure 2: Reasons for adopting SD-WAN



Notes: Question - What were your primary reasons for adopting SD-WAN? Sources: Altman Solon ITDM Survey (February 2021), Altman Solon Research and Analysis

Click to expand

The appeal of SD-WAN is stronger than ever in 2021 due to the growth of remote work and the necessity of e-commerce. SD-WAN is being recognized as a key technology giving companies of all sizes greater efficiencies and the ability to protect their business continuity, security, and the digital user experience.

At Masergy, we're seeing a marked increase in interest since the pandemic, with IT leaders looking to leverage our Work-from-Anywhere SD-WAN solutions to separate, prioritize, and secure bandwidth for remote employees."

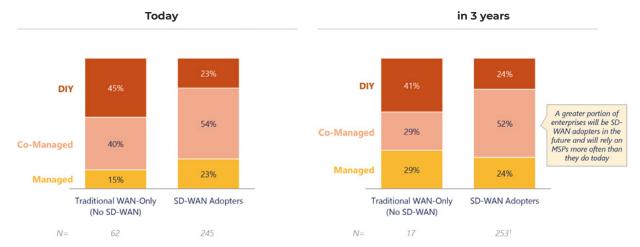


<mark>Terry Traina</mark> CTO, Masergy

Service is critical as co-management and IT offloading increase

Every company takes a different approach to SD-WAN, whether they attempt to implement and manage it using their own IT resources, or they partner with a provider to leverage SD-WAN as a managed service--selecting either a fully managed service or a co-managed service. According to the Altman Solon survey, the majority (77%) of SD-WAN adopters are using a fully managed or co-managed service today, and survey results suggest IT leaders will largely continue to select managed service partners for SD-WAN (see Figure 3). Many companies will rely more on their providers, as survey results showed that nearly half (48%) of companies using a co-managed SD-WAN service expect to offload more of their IT work to their partners.

Figure 3: Network management today vs. in 3 years



Many IT leaders see co-management as a happy medium when their teams need to get more familiar with SD-WAN technology but still want to make network changes themselves.

At Masergy, we commonly see clients build confidence and trust after using a co-managed solution. As they do, they tend to transition more responsibilities in order to save more time and productivity. It's the perfect starter model, offering a gradual migration path toward a fully managed service."



Terry Traina CTO, Masergy

What is co-managed SD-WAN?

A co-managed model is a shared responsibility arrangement, where clients benefit from distancing themselves from the administration burdens of setup and network performance management yet still retain control over their network services. Centralized management capabilities, cloud-based services, and online consoles make co-management possible.

Key purchase criteria: Solution reliability, security

With most IT decision makers preferring a co-managed or fully managed service, it's no surprise that they seek a partner and service that is both trustworthy and secure. Respondents indicated that solution reliability (~50%) and security (~60%) are their top Key purchase criteria (KPC) when selecting a managed services provider (see Figure 4).

Solution reliability includes network uptime, application availability, and service level agreements, all of which determine whether critical business systems are performing at acceptable levels. For most IT leaders, keeping employees productive and connected to information is of primary importance. Likewise, security is a growing concern as today's networks must reach beyond the walls of the office, securely serving users anywhere, on any device, and on any network.

Figure 4: Key purchase criteria for SD-WAN managed services

Purchase Criteria	% citing as top 2 KPC	Top Criteria
Reliability & Performance	~50%	Solution reliability & performance, including SLAs , were a common consideration
Security	~60%	Network security is a critical component and enterprises are not willing to consider any MSPs that do not meet their security requirements

Sources: Altman Solon ITDM Survey (February 2021), Altman Solon Research and Analysis

Click to expand

Application performance is everything today. The success of remote work and digital interactions are measured based on the user experience. When video conferencing is more important than calling services, and the cloud is putting more pressure on the network, IT is under pressure to deliver a predictable experience that is both secure and globally consistent.

That's why advanced SD-WAN and SASE solutions now come with Al engines to help IT managers intelligently predict and prevent application outages. Known as AlOps (Al for IT Operations), these virtual network assistants are automating IT operations to help solve the problems of application performance management. As the technology becomes more sophisticated and as more companies begin using AlOps, we should see these reliability concerns dissipate. We will soon automate our way out of today's problems."



Ray Watson VP of Global Technology, Masergy

Gradual evolution to SD-WAN

There are many ways to go about implementing SD-WAN, but the survey shows more companies opt for an incremental approach to deployment. According to 52% of respondents, modernizing the IT infrastructure with SD-WAN is more of a gradual evolution, rather than a rapid process or rip-and-replace approach (just 4%).



These gradual migrations are triggered by company growth and digital transformation initiatives where the new addition of office locations and cloud applications cause network congestion and inefficiencies. Contrastingly, rapid implementations are marked by the need for hardware replacement and budget cuts. Security concerns requiring immediate action may also accelerate SD-WAN deployments.

52%

view modernizing the IT infrastructure with SD-WAN as a gradual evolution Companies often need a flexible approach to SD-WAN that offers ancillary services in the way of firewalls, cloud security technologies, endpoint security, as well as threat detection and response services that help ease the burdens of 24/7 cybersecurity risk mitigation. This explains the popularity of SD-WAN solutions that bundle security as well as SASE solutions that help companies converge network and security capabilities all in one cloud-based service.

SASE is making transformation faster and easier by helping IT teams tackle a swath of challenges and implement a constellation of technologies with one partner and one dashboard. And with Masergy, you don't have to do it all once."



Ray Watson VP of Global Technology, Masergy

SASE is not yet understood

Most buyers are now familiar with the term SASE, but 50%+ of them do not yet have a good understanding of its impact. According to the survey, roughly 82% of respondents were familiar with the term SASE, though only 32% of them had a deep understanding of the term and the implications for their business (see Figure 5). SD-WAN users had higher familiarity and deeper understanding of SASE than traditional WAN users (90% overall familiarity vs 79%).

rigule 5. SASE familiancy		
Familiar & Deep Understanding	Somewhat Familiar, Unsure of Impact	Not Familiar
32%	50%	18%

There is still a lot of confusion about SASE in the market. Conceptually SASE makes sense, but turning its framework into a tactical plan can be challenging for many IT leaders. This is where Masergy can help companies of all sizes design a pragmatic approach, mapping SASE against their broader network and security strategies and using a blend of both cloud and on-premise security features to build a solution that makes sense given their business needs and priorities."



Figure 5. SASE familiarity

Terry Traina CTO, Masergy



SD-WAN access: Majority will use hybrid, MPLS is here to stay

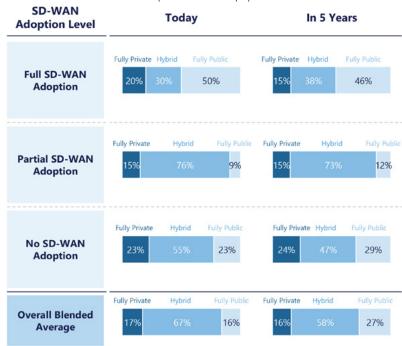
Another key consideration when implementing SD-WAN is deciding which network access methodology (public, private, or hybrid) to use when connecting each office location, application, and remote user to the corporate network.



The survey shows that while increased SD-WAN adoption will lead to more companies using public access, the majority of them (~58%) expect to use a hybrid access model (a mix of both public and private access) over the next five years (see Figure 6). SD-WAN allows orchestration across different access types, and enterprises will often have multiple access connections at SD-WAN enabled locations, while optimizing traffic and routing for each application/use-case. MPLS will remain integral to SD-WAN deployments particularly for sites and applications with higher reliability or security needs.

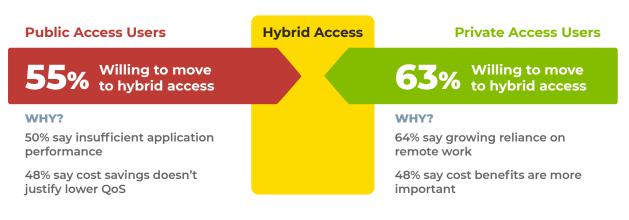
Figure 6: Access adoption trends

% of US Enterprises (above 250 emps)



Sources: Altman Solon ITDM Survey (February 2021), Altman Solon Research and Analysis

Both private and public access users are considering a shift to hybrid access



These are arguably the most interesting conclusions, because they highlight important lessons learned around the ROI of SD-WAN. They also help explain why access-agnostic SD-WAN and in-net SD-WAN service adoption continues to skyrocket.

These are the managed services allowing companies to mix and match any network access type and back their cost-effective public access with a highly reliable private network service. When access flexibility and fast failover are present, IT leaders can strike the right balance between price and performance, custom designing hybrid connectivity to meet the needs of every location, application, and user."



Ray Watson VP of Global Technology, Masergy



Private-only users highly interested in shifting to hybrid

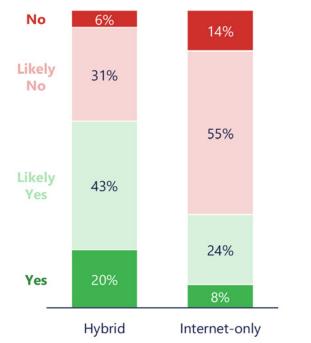
Among current private-only SD-WAN access users, 63% would consider moving to a hybrid model. However, a combined 69% said "no" or "likely no" when asked if they would move to an internet-only model (see Figure 7).

There are many reasons for this interest in hybrid access.

Of those willing to shift to hybrid, 64% of respondents anticipate a growing reliance on public access due to remote work, 36% reported cost benefits as the driver behind their switch to hybrid, and 27% noted that public and/ or hybrid works best with cloud applications. (See Figure 7).

Of those not willing to consider more public access, reliability and security requirements are preserving private access. Concerns over quality of service and security (89%) are the primary reasons private access users won't incorporate more public access (see Figure 7). Figure 7: Access adoption trends - Private access user perspectives

Would you consider moving to a hybrid/internet-only SD-WAN in the next 3 years? N=51



Sources: Altman Solon ITDM Survey (February 2021), Altman Solon Research and Analysis

89%

of private access users won't incorporate more public access due to concerns over the quality of service.

Click to expand

Majority of public-only users also interested in shifting to hybrid

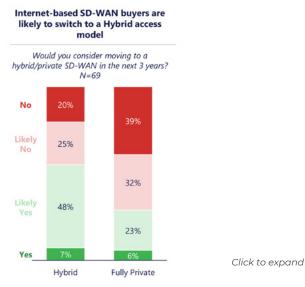
When current public users were asked if they would consider moving to hybrid/private access in the next 3 years, 55% said "yes" or "likely yes." Unlike private users who seek hybrid access for the advantages of remote work and cost savings, public SD-WAN users are looking to gain better reliability and performance for their network and cloud applications. In fact, 50% say that public access does not provide sufficient performance, and 48% say the cost savings do not justify the lower quality of service.

Those satisfied with public access typically don't foresee needing private access. That is because they either don't have applications that require hybrid or private SD-WAN (56%), or they have most of their applications already in the cloud (52%). Others view hybrid and private options as too costly (36%).

50%

of public users say public access does not provide sufficient performance, and 48% say the cost savings do not justify the lower quality of service.

Figure 8: Access Adoption Trends - public access user perspectives



Sources: Altman Solon ITDM Survey (February 2021), Altman Solon Research and Analysis

Conclusion

SD-WAN continues to gain traction in today's digital and remote business environment with peak investments expected in next few years. As companies adopt SD-WAN, they will increasingly rely on managed service partners to help them address a wider scope of technologies all at once and expand their capabilities, gradually offloading more administrative burdens. In selecting their partners, IT leaders have security and solution reliability at the top of their criteria list, but they should also consider the flexibility of their SD-WAN solutions, particularly as it relates to management and network access.

The research indicates IT leaders prefer co-managed models and will primarily adopt hybrid network architectures with a combination of public and private connectivity. Many who have adopted public-only and private-only approaches to SD-WAN access are looking to move to hybrid access in order to enable remote work and protect their business continuity, striking a balance between price and performance. These findings offer important takeaways as more companies turn to SD-WAN and SASE for IT speed and security simplicity.



About Masergy

Masergy is the software-defined network and cloud platform for the digital enterprise. Recognized as the pioneer in software-defined networking, Masergy enables unrivaled application performance across the network and the cloud with Managed SD-WAN, UCaaS, CCaaS, and Managed Security solutions. Industry-leading SLAs coupled with an unparalleled customer experience enable global enterprises to achieve business outcomes with certainty.

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