

Technology Companies Realize Transformative Benefits From Advanced SD-WAN With Integrated Security

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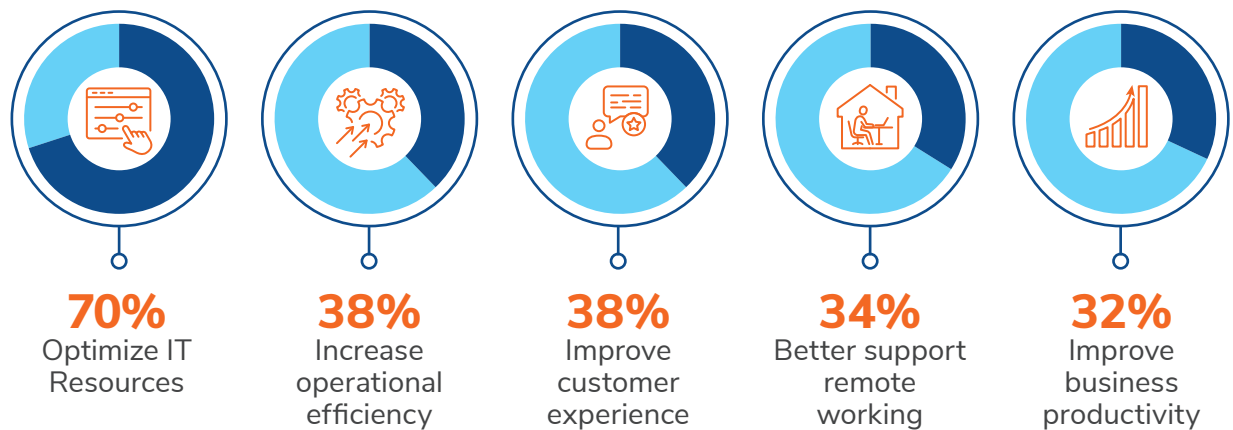
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Introduction

Technology-driven organizations have the lead in embracing new technology trends for their digital transformation initiatives. The COVID-19 pandemic introduced unprecedented challenges in terms of disrupted operations, changed delivery models, and the urgent need to support remote work for enterprises in all industries. Technology companies were best able to adjust to the new circumstances, since most were already well into their digital transformation journey. The pandemic further emphasized the need to accelerate digital maturity and align IT investments with changing business needs. Organizations are thus prioritizing solutions that enable IT resource optimization; operational efficiency and customer experience improvement; as well as support an increasingly distributed workforce.

SD-WAN solutions are an integral part of WAN transformation strategies. SD-WAN enables fast deployment of WAN services to remote and branch offices with minimal disruption to business operations. It also allows centralized configuration, making it easier to deploy new applications or enforce new security policies across global branch offices/remote offices more efficiently.

EXHIBIT 1: Top Business Drivers for Technology Companies' Digital Transformation Initiatives

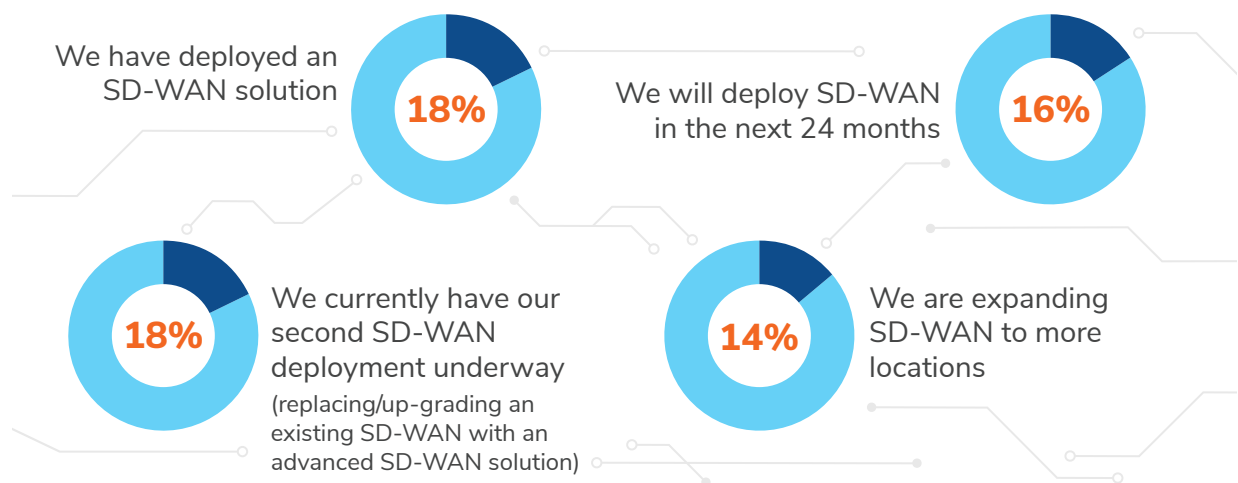


Source: Frost & Sullivan

Hybrid/Multi-cloud Trends and Remote/Hybrid Working Trends Driving SD-WAN Adoption in Technology Industry

Collaborating effectively across globally distributed offices, improving operational efficiency and customer experience are some of the top reasons businesses turn to technology. Hence, it is no surprise that SD-WAN adoption is high among technology organizations. Frost & Sullivan's 2021 Global Enterprise WAN Virtualization Trends survey report shows 50% respondents of technology companies are already in their first, second or further SD-WAN deployment (see Exhibit 2).

EXHIBIT 2: SD-WAN Deployment Trends in Technology Industry



Source: Frost & Sullivan

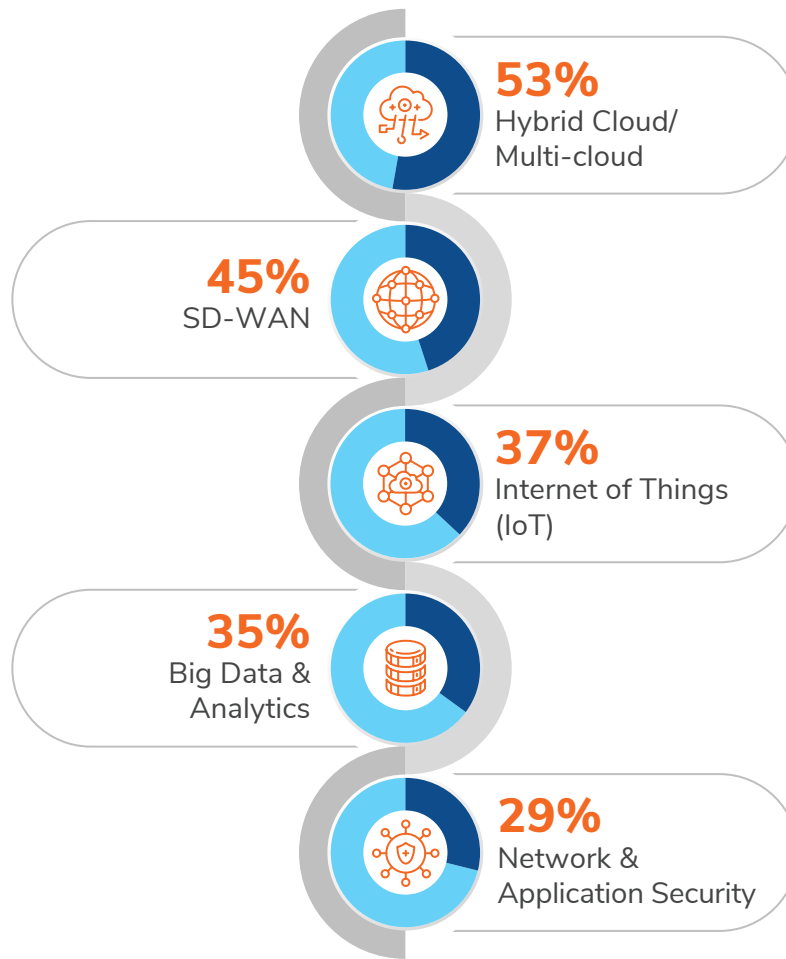
Furthermore, 18% of the respondents in the technology industry stated they currently have a second SD-WAN deployment underway. This result is in line with Frost & Sullivan's research that shows early adopters of SD-WAN are currently in the process of upgrading their solution as the SD-WAN 2.0 offerings are more mature in terms of feature sets, such as integrated security and a platform-centric approach.

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Cloud is clearly the top focus for technology companies as they continue to invest heavily in hybrid and multi-cloud platforms as part of their distributed IT infrastructure. With the rapid increase in remote workers, and the fact that these employees are accessing the same enterprise applications as office-based workers, moving applications to the cloud ensures all users can access them more efficiently. Hybrid and multi-cloud environments require a reliable WAN architecture to facilitate optimal connectivity of branch locations/remote users to cloud. Most technology organizations have globally distributed teams of engineers, developers, and operations teams that need to use bandwidth-heavy enterprise applications (e.g., collaboration tools, access to key databases, and development platforms).

As companies look to improve business efficiency by embracing cloud, connectivity is a critical component of their digital transformation strategy. SD-WAN technology enables them to predefine business policies through the SD-WAN controller and to specify which cloud applications are suitably accessed directly through the Internet versus backhauled to a hub site.

EXHIBIT 3: **Technology Trends in Order of Priority for Technology Industry Companies in the Next 24 Months**

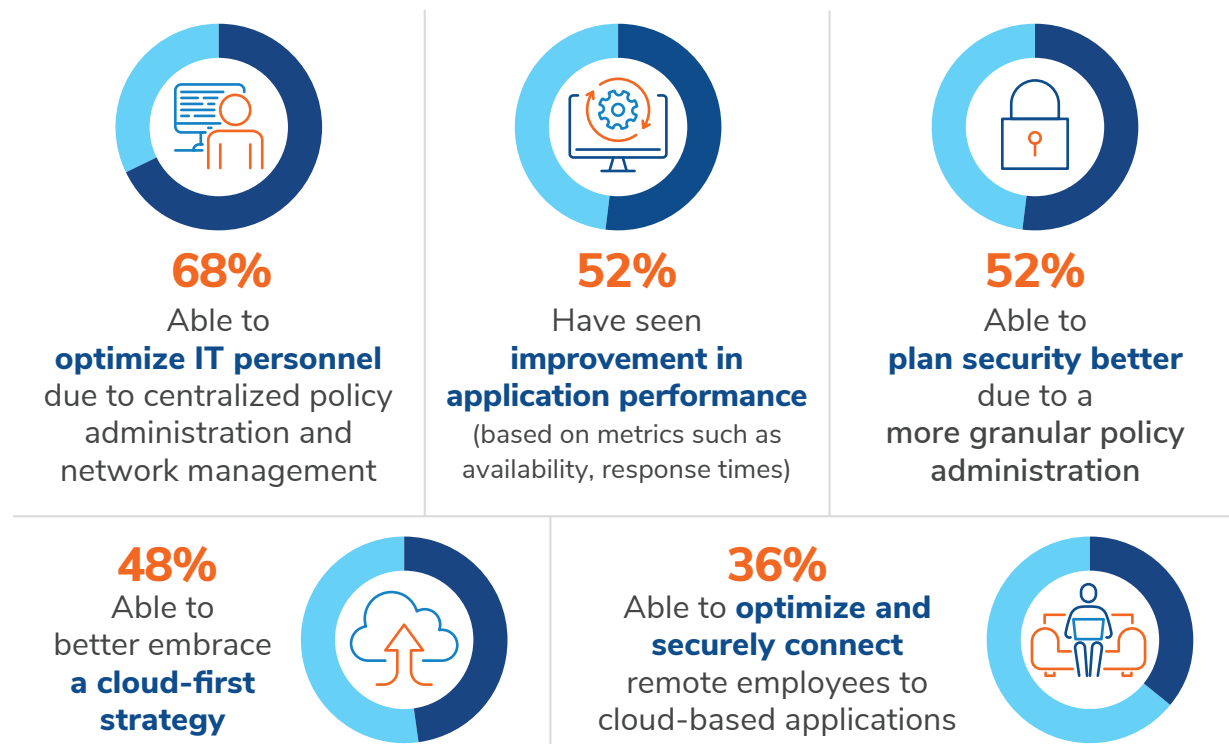


Source: Frost & Sullivan

Technology Companies Realize Quantifiable Benefits After SD-WAN Deployment

Technology industry IT managers, while at the forefront of adopting new technology trends, are also under immense pressure to deliver on the digital strategy with limited personnel and budgets. SD-WAN technology enables centralized policy configuration, making it easier to manage and control critical business services and applications, eliminating IT personnel's need to configure it manually. The value of centralized policy configuration became clear during the pandemic as most offices shut down operations but IT teams, even with grossly scaled down resources, were still able to strategize and reconfigure traffic flow across their WAN architecture.

EXHIBIT 4: Benefits Technology Companies Have Achieved from SD-WAN Deployment

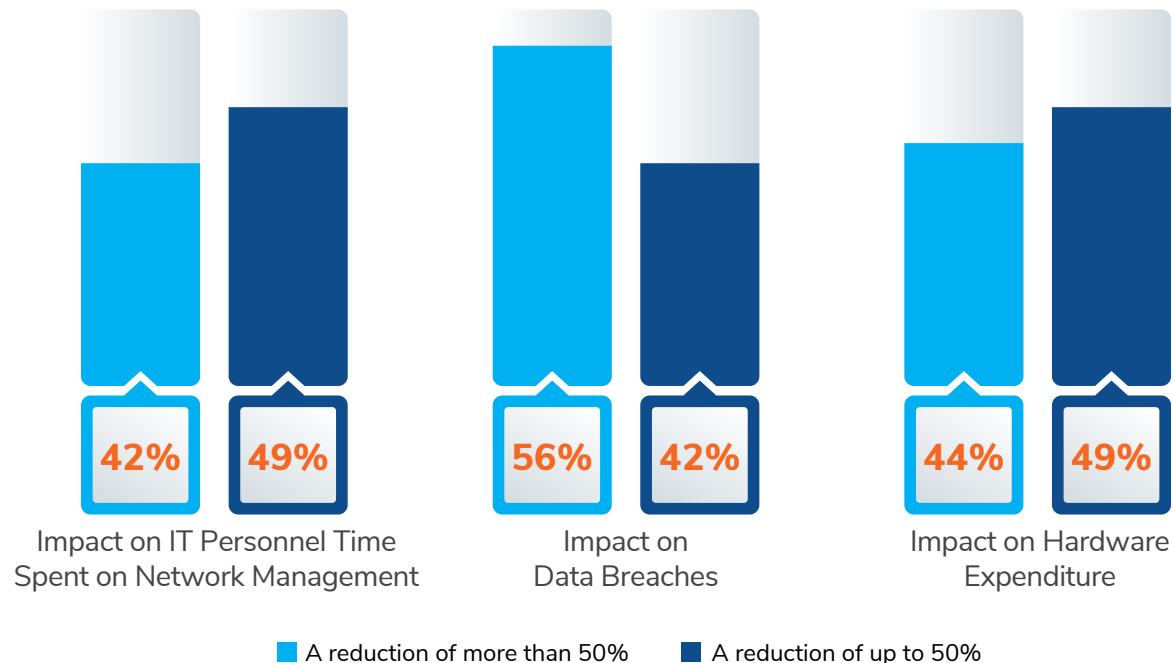


Source: Frost & Sullivan

SD-WAN technology enables IT administrators to apply granular security policies to segregate access rights by different lines of businesses and user identity, thus enhancing security measures across enterprise applications while connecting highly distributed offices and users.

As early adopters, technology companies are increasingly adopting network function virtualization (NFV) technology and are experiencing substantial operational and cost efficiencies by consolidating multiple virtual network functions (VNF) on a single device or universal consumer premise equipment (uCPE).

EXHIBIT 5: Impact of Replacing Branch Firewalls with SD-WAN Appliance with Integrated SD-WAN and Security CPE by Technology Companies



Source: Frost & Sullivan

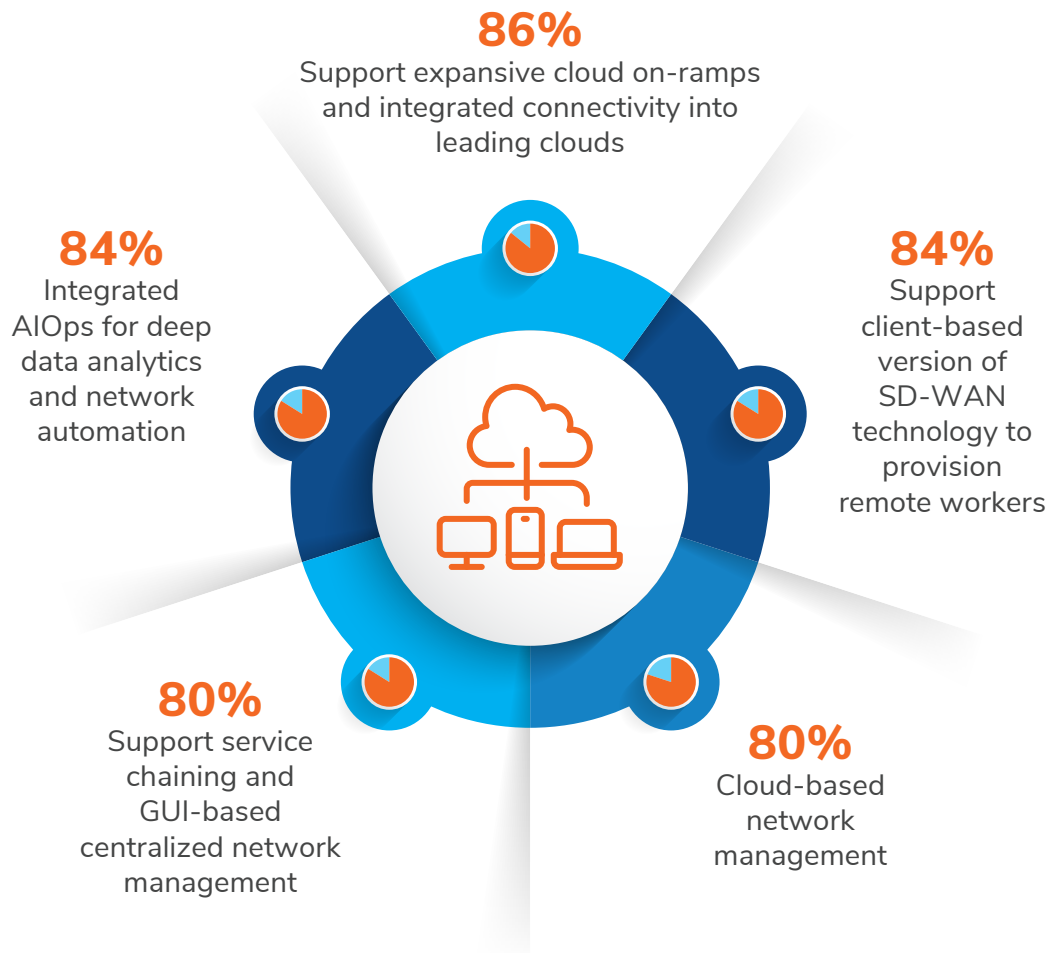
Multifunction VNF solutions deliver security, SD-WAN, WAN optimization, and routing in a single appliance or a single VM. By switching to an SD-WAN appliance that comes with built-in security functionality (and routing in many vendor solutions) technology companies are experiencing well-measured impacts on optimizing IT personnel time, since they do not have to handle extensive hardware; reduction in data breaches given the access to advanced security features; and reduction in overall hardware expenditure by consolidating multiple functions into a single uCPE.

By switching to an SD-WAN appliance that comes with built-in security functionality technology companies are experiencing well-measured impacts.

What Technology Organizations Expect From Their SD-WAN Solution

Technology companies expect their SD-WAN vendor to offer cloud on-ramp connectivity to the public cloud and integrate its solution with major cloud vendors to optimize enterprise cloud connectivity. Having a geographically distributed workforce, the same experience is required for their remote users while they access key enterprise applications such as email, voice, video, and collaboration, as they would in-office. And last, technology companies require an integrated AIOps solution that simplifies network operations and management for the IT teams.

EXHIBIT 6: Parameters that Technology Industry IT Decision Makers Value in an SD-WAN Solution



Source: Frost & Sullivan

The Last Word

While WAN technology is evolving to support distributed users and applications, security has remained largely centralized. Connecting distributed users to cloud-based applications in a secure and optimized manner remains a challenge in the present day as traditional infrastructure-based security concentrated in company headquarters is not sufficient when business applications are deployed across multiple clouds.

SD-WAN is a linear path to simplify, better design, and manage enterprise WAN architectures. Measurable benefits technology companies are realizing include superior application performance, real-time network monitoring, and consistent, policy-based network management for granular and centralized security administration.

Frost & Sullivan survey data indicates that as part of the broad enterprise WAN transformation initiatives in technology companies, there is an increased focus on approaching networking and security in a holistic manner to address the needs of cloud and edge deployments including support for work-from-anywhere. In order to gain optimal benefits technology companies should look for advanced SD-WAN solutions that offer integrated security; consolidate SD-WAN, next-generation firewall, advanced routing and ZTNA access proxy into one operating system and management platform; and deliver transparent network visibility and analytics. A robust SD-WAN solution builds a foundation for Zero Trust Edge that forms a new perimeter to deliver the convergence of security and networking everywhere, in addition to providing explicit access to applications based on context and continuous validation of user and device identity.





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