

SD-WAN: Meeting the Demands of Digital Business

AS THE NEED FOR NEW APPLICATIONS AND AGILITY INCREASES, SD-WAN PLAYS A SIGNIFICANT ROLE IN NETWORK OPTIMIZATION.

Every organization faces the imperative to transform its operations and business models to compete in a highly dynamic, digital business environment. This transformation is dependent on the underlying information systems that provide the foundation for the future. The “nervous system” that supports these information systems is the corporate network.

However, many corporate networks are not capable of supporting the future demands of the organization. Upgrading existing wide-area networks (WAN) to provide a “future ready” environment is a priority for many IT professionals. The most attractive option for doing so is to deploy a Software-Defined WAN (SD-WAN) solution.

IDG Research Services and Masergy surveyed key IT

executives on the most important WAN issues and learned that nearly half of IT professionals have relatively low confidence levels in their current network abilities to meet future needs.

This survey also identified the key business requirements of modernization and the role of the SD-WAN in meeting them. With more than 100 respondents, the survey provides important insights that can help organizations better understand the challenges, business needs, and the actions IT and network managers are taking.

The State of the WAN today – Meeting the Requirements of the Real World

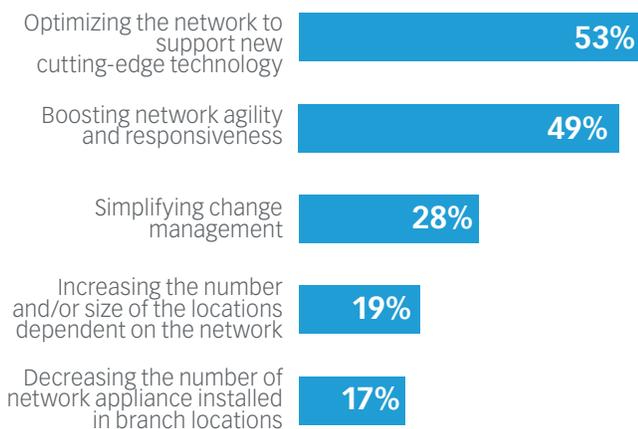
Asked to assess their top three connectivity challenges over the next 12 months, survey respondents indicated the leading issues are:

- Controlling cost
- Increasing complexity (number of users/devices/locations)
- Improving security for branch office/remote workers
- Simplifying management (cutting the time-consuming processes for moves/adds/changes, and location setup)

These challenges cover many of the daily activities necessary for WAN operations. These factors, in combination, illustrate the need to move beyond legacy WAN administration and cost structures. This list also matches well with the benefits



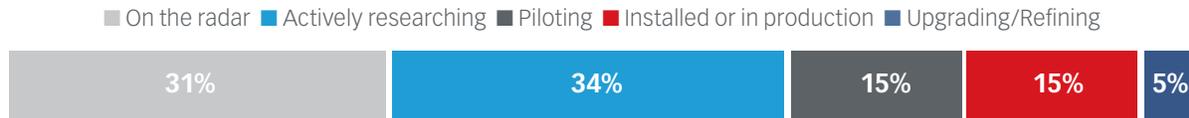
Fig. 1 **Most important WAN goals in the next 12 months**



SOURCE: IDG RESEARCH SERVICES, JULY 2017



Fig. 2 Adoption of SD-WAN



SOURCE: IDG RESEARCH SERVICES, JULY 2017

provided by an SD-WAN managed services offering.

The challenges survey respondents cite are an outgrowth of the changing work styles of employees. The modern employee has an increased reliance on innovative new applications that utilize more data and require robust application response and service levels. With no end in sight for new applications and workloads, these “disruptor” applications driving digital business will continue to put new strains on the WAN.

For network managers/administrators and IT staff, this presents a challenge to balance service levels and costs. Put simply, there is no way every workload or application can be treated as “Priority 1” on the network, as costs would soon spiral out of control. The SD-WAN provides far greater agility, the ability to match the network capabilities to the application’s needs, and improved security among other benefits.

Most Important Goals for the WAN

The most important WAN goals for the next 12 months, according to survey respondents, highlight this dynamic of new workloads, agility, and the ability to effectively manage the WAN. Respondents could pick two answers, and two key goals stand out.

The top response, optimizing the network, is no surprise. With all of the existing and emerging new demands on the network, optimization is critical in order to provide the requisite service levels without blowing the budget. The second most common response is tightly aligned with the first. Improving agility and responsiveness is central to meeting new application and workload requirements. And with greater agility, it becomes possible to modify network routing and usage to meet different demands. To do this, IT and network teams will have to look to new technologies and solution types.

One answer is SD-WAN offerings with innovative

technology that maximizes the budget while providing operational flexibility to support new workloads. The ability to balance cost and features is critical for IT to stay within budgets. Although business management may be focused on the outcome, there is still a requirement to use a cost effective solution.

SD-WAN Becoming the “Go-To” Technology

SD-WAN technology adoption is on the rise. Indeed, nearly 69% of the respondents are either actively researching, piloting, or have SD-WAN in production. And of those, more than half are actually using the technology today.

Respondents cite two primary drivers of SD-WAN adoption. The need to support cloud services and deployment plans is the primary response, cited by 71% of the respondents as the most or second most important driver. The second most common answer, the need to meet the requirements of bandwidth intensive applications and workloads was listed as the first or second most important driver by 69% of the respondents.

The desire to implement SD-WAN as a means of meeting future needs is also driven by a lack of certainty that existing WAN architectures can meet future needs. The survey found that only 54% of respondents express that they are extremely or very confident their current WAN architecture can support future needs.

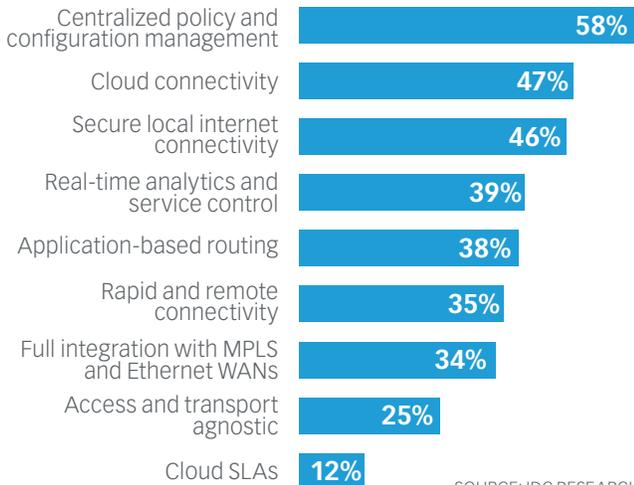
Meeting Key Challenges and Goals

The survey finds SD-WAN technology is an excellent fit to meet the key challenges and goals of the technical staff supporting the organization’s evolution to a digital enterprise. In particular, there are several key benefits:

- **Improved transport options** – The ability to utilize various transport options provides the flexibility and



Fig. 3 Most Important SD-WAN Capabilities



SOURCE: IDG RESEARCH SERVICES, JULY 2017

agility to make cost/performance choices based on different service levels and types of service.

- **Better security** – With a single security architecture and deployment that is used consistently across all WAN links, SD-WAN helps provide better and more comprehensive protection.
- **Centralized and automated provisioning** – Control is the name of the game, and with a centralized point of management that allows the network management team to create optimized policies and process, it is now possible to meet the needs for fast provisioning without high costs.
- **Application/workload-based path control** – The ability to automate the process of assigning network paths based on workload demands is critical for the digital business. This does require a central point of management so that all workloads are part of the process and can utilize all types of WAN links.

The SD-WAN also provides the simplest and most effective way to augment the capabilities of the existing WAN. This improves the leverage from current network investments and staff training. Reducing the disruption from implementing new technologies or new business demands enhances efficiency and responsiveness. Indeed, this synergy with the current WAN is an important issue for IT and

network management. Fifty percent of respondents say they prefer to adopt SD-WAN as an augmentation of existing WAN services, with an additional 30% desiring a complement to the existing WAN services.

The SD-WAN is also expected to help solve many of the current problems that technical teams face. Nearly half of respondents (49%) expect that network management will be, or has been, simplified with SD-WAN. The second most common benefit is the ability to centralize orchestration and policy management, according to 46% of respondents. The need to “future-proof” the WAN has been well documented above, and 40% of the respondents indicate that this is possible with SD-WAN.

Clearly, SD-WANs are expected to meet many of the critical demands that are impacting the WAN as IT strives to meet the needs of the business and deliver true organizational benefits. For instance, 60% of respondents indicate they expect to increase agility. Additionally, 52% report they should be able to increase the efficiency of the network, and perhaps most important, 45% indicate they expect enhanced security to be an outcome of deploying an SD-WAN.

When asked to identify the most important capabilities of the SD-WAN, survey participants point to the functionality that supports these goals and needs. The data in the chart below shows the strong alignment between demands, needs, goals, and benefits.

Two Approaches to SD-WAN Deployments

The experiences of leading SD-WAN suppliers show that there are two primary drivers that impact how a business approaches the SD-WAN decision process. One focuses on supporting innovation while the other looks to improve efficiency and deliver value:

- **Innovation based** – New and disruptive business processes demand more than the current WAN can provide, creating a need for capabilities SD-WAN delivers. This approach requires a partner that will put in substantial up-front time for consulting and planning to ensure success. Suppliers that don’t have the necessary expertise or the commitment to this activity are poor choices. Vendors must commit to the time investment to ensure technology alignment to business goals.
- **Value based** – These projects start with a focus on

reducing current expenditures by more effective use of lower-cost links. Many of these initiatives will leverage managed services to augment internal expertise. In many ways, the customer is “leveraging” this expertise to their best advantage. There is a strong requirement that the supplier understand the current cost structure, and have the expertise to recognize where savings are possible.

SD-WAN provides the simplest and most effective way to augment the capabilities of the existing WAN, leveraging current network investments and staff training.

A Checklist for Evaluating SD-WAN Vendors

Many organizations have limited experience with SD-WAN solutions. Therefore, choosing the right technology partner is critical to success. When selecting an SD-WAN supplier, survey respondents cite security, flexibility, and visibility/control as important criteria, along with features/functionality and customization capabilities.

When evaluating suppliers, organizations should ask the following questions:

- Can the provider deliver the right level of skills and support to work effectively with your internal IT and network staff?
- Does the provider have a strong cyber security skill set?
- Are the offerings easily customized so you are not forced into predefined solutions/products?
- Does the SD-WAN offer substantial flexibility in both deployment and usage?

- Does the SD-WAN provide visibility and control over the network?
- Does the solution offer a broad range of features/functions?

Summary

The stresses on the corporate WAN are increasing dramatically as organizations deploy new and more demanding applications and workloads while on the road to digital transformation. IT professionals recognize that the existing WAN cannot meet these requirements. This is why the use of SD-WAN is rapidly increasing, as it offers the necessary agility, control, and efficiency essential to delivering a platform for supporting a dynamic organization. For many customers, success with SD-WAN will be greatly impacted by the vendor partner they choose. In addition to features/functionality, key considerations should include the solution’s security, flexibility, and visibility/control, along with ability to customize. Most important, the supplier needs the skill level and experience to work with and effectively support your internal IT and network staff.

About Masergy

Masergy is a provider of high-performance managed network, cyber security, and unified communications solutions for enterprises around the globe. The company is 17 years old, serves customers in 75 countries, and has the largest independent software-defined network in the world.

Masergy provides a legendary customer experience, with a 99% customer retention rate. This commitment to the customer is further demonstrated by an industry best Net Promoter score of 74. The company’s managed services solutions include hybrid networking, SD-WAN, managed security, and cloud communication services.

For more information. Go to <http://www.masergy.com>