3 Secrets to SD-WAN Success

Organizations are turning to software-defined wide area networks (SD-WAN) to intelligently route traffic and securely send internet and SaaS–bound traffic directly to the cloud.

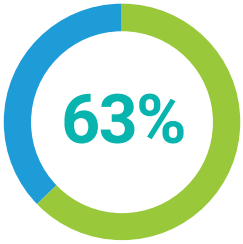
But how do you make sure SD-WAN delivers on its intended benefits? Follow along as we discuss what you need to consider when planning your secure SD-WAN journey.

WHAT'S DRIVING SD-WAN?

Applications are leaving the data center and organizations are leveraging SaaS more aggressively. A shift in the way organizations deploy applications lies behind this change. In the past, they provisioned network services to connect users to applications in data centers. With the introduction of SaaS and IaaS, organizations are moving applications to those platforms. The data centers remain, but a growing number of applications are no longer "living" there.

Organizations are increasingly turning to SD-WAN

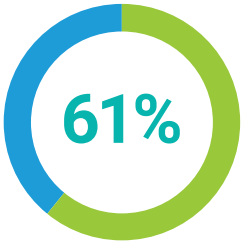
IDG



Of networking professionals have plans for SD-WAN

IDG 2018 State of the Network research findings

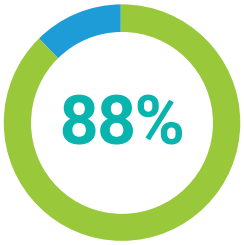
Silver Peak



Will deploy SD-WAN in the next two years

Silver Peak Research Study – https://www.helpnetsecurity.com/2018/12/04/sd-wan-demand/

NSS Labs



Of U.S. enterprises have or will adopt SD-WAN in the next 12 months

NSS Labs https://www.helpnetsecurity.com/2018/08/09/tested-sd-wan-products/

Previously, workers used applications in an on-premises data center. If they used the internet at all, it was often for non-work functions—checking the baseball scores or personal email. But now business-critical traffic is on the internet. Your organization probably uses at least one—if not more—of these applications: Office 365, Dropbox, Salesforce, and ServiceNow. All are cloud based rather than on-premises in the data center.

Legacy hub-and-spoke architectures that were designed for users and applications that reside in the data center have been unable to keep pace with the migration of applications to the cloud. Backhauling traffic from remote offices over low-bandwidth WAN links through to centralized data centers is an expensive proposition.

Benefits of SD-WAN

SD-WAN provides several features the data center generally does not:

1. **Better user experience:** A direct-to-internet architecture provides local connectivity for a fast user experience.

2. **Lower business risk:** SD-WAN enables IT departments to support business goals without requiring specialized skills. That is, IT resources can focus on adding value to the business instead of managing legacy platforms and patching servers.

3. **Business agility:** SD-WAN empowers organizations to rapidly respond to business needs, set up new locations, and support more remote workers by connecting them to the internet rather than managing legacy data centers or adding new ones.

4. **Lower TCO:** SaaS and IaaS solutions are often less expensive to set up than data centers and may deliver additional operational cost savings.

5. **Competitive advantage:** Taking advantage of the agility SD-WAN has to potential to provide a competitive advantage—companies failing to adequately leverage these benefits risk getting left behind as more companies move towards SD-WAN and local internet breakouts.

3 Secrets to getting the most out of your SD-WAN deployment

There's no denying that SD-WAN can provide a cost-effective way to establish local internet breakouts that improve the user experience and increase business agility—all while reducing costs and IT complexity. Still, many organizations struggle with the best way to prepare for and get the most out of SD-WAN. So, on the following pages, we're outlining the top three "secrets" to help you ensure a successful and secure SD-WAN deployment.

SECRET #1

NOT ALL SITES ARE THE SAME

When planning your SD-WAN deployment it is critical to rationalize your site profiles. While your business may say all sites are equal, some are more equal than others. For example, a branch office that has a few sales personnel with a phone system, a LAN switch, and some wireless access points is very different from a branch office that has 300 people running payroll centers.

The key when deploying SD-WAN is to look at your sites and break them into different groups or profiles, which dictate the level of services and redundancy at each location. For example, organizations can go from one profile, in which everyone gets two redundant connections at all locations, to three or four profiles, including a headquarters profile, a campus profile, and more.

Instead of looking at the network as a binary decision where every branch is on one standard network, profiling allows organizations to provide each site with the specific services it needs and gain access to new capabilities.

> "Instead of looking at the network as a binary decision, organizations deploying SD-WAN are able to provide each site with the specific services it needs and leverage capabilities that weren't being delivered before."
>
> Dan Shelton
> Director of Product Management, Zscaler

SECRET
#2

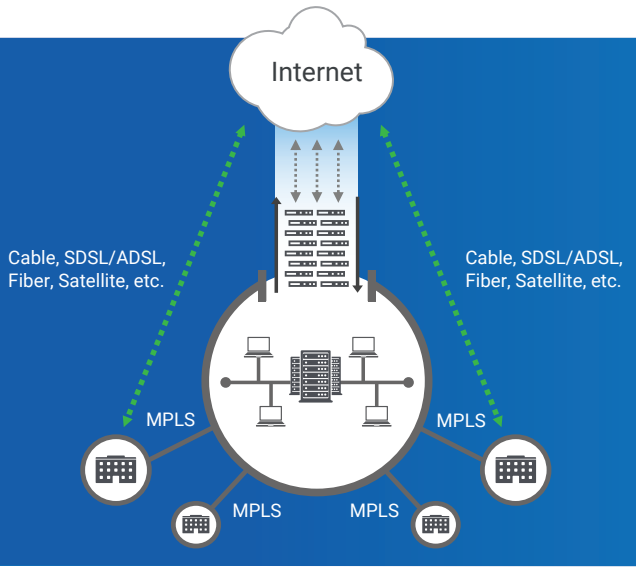
NOT ALL INTERNET CONNECTIONS ARE THE SAME

As much as sixty percent of the outbound traffic on legacy networks is destined for the internet. Using direct-to-internet connections can dramatically reduce the amount of MPLS bandwidth required to route this traffic, which can result in significant savings.

However, the internet connections that organizations can deploy across their branches are very different depending on where they are in the world. And combing through the choice of providers can be overwhelming.

For example, in the U.S., if you were to leverage just cable modem providers, you might have to choose from 30 to 40 different services. Extrapolate that across a global organization that has 900 or more locations, and the plethora of options becomes even greater. Then there's the various types of internet connections, including cable, SDSL, ADSL, and fiber. And, in some locations, wired internet service can't be delivered at all, making satellite the only option.

When looking at using SD-WAN to replace a legacy network, you must figure out what works best for your different site profiles, then consider leveraging the expertise of an ISP aggregator. This important partner can provide several service provider options based on what's available in various regions. Then, you can choose which service provider is most appropriate for each of your locations. And, the ISP aggregator takes on the administrative burden of managing all these different internet providers.



The internet connections that organizations can deploy across their branches vary dramatically depending on where in the world the branches are located.

SECRET
#3

ADDRESS THE SECURITY QUESTION BEFORE YOU START SD-WAN

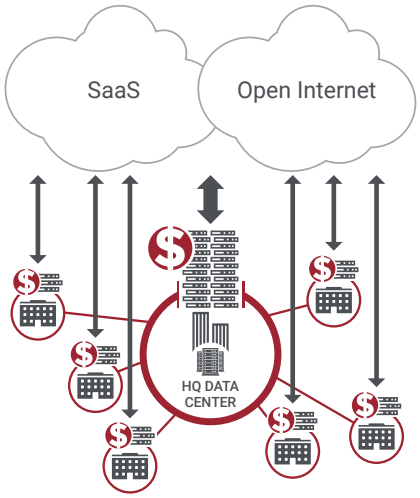
Before deploying SD-WAN, you must consider how you will manage security. If you fix this issue first, you can look forward to a faster SD-WAN deployment.

There are a couple of ways to address security challenges.

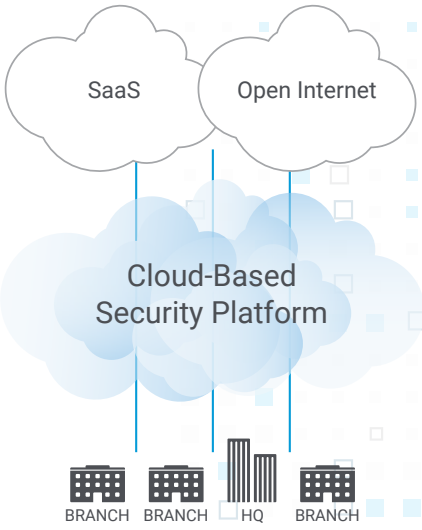
Some organizations route internet connections through the legacy data center before sending them to the open internet or SaaS platforms because their security capabilities are rooted in the legacy system. However, this approach chews up bandwidth, and routing traffic to the data center, only to go out to the internet and back to the branch, gets expensive. To provide identical protection for all users, without routing all traffic back to the data center, you'd have to replicate the HQ security stack (firewalls, DLP services, sandboxing, SSL inspection, URL filtering, IPS, antivirus, etc.) across all branch locations—which is difficult and costly to deploy and manage and diminishes the case for SD-WAN.

A better solution may be to adopt a cloud-based security platform. You can then send traffic directly to the internet, removing barriers that impede so many SD-WAN deployments. This lets you immediately leverage cost savings as each site moves to the SD-WAN architecture.

You probably can't replicate the HQ security stack in all branch locations



But you can enable internet breakouts with cloud-delivered security



Securing your SD-WAN deployment with a cloud security platform can provide the same capabilities that formerly resided in your data center. It may enable you to:

- Provide identical protection and consistent security everywhere, while enabling the organization to address the unique service needs for each site profile
- Put your end users as close to their resources as possible to enable employee productivity and fast access to the internet and SaaS applications—without circumventing security policies
- Attain the flexibility, agility, user experience, and cost benefits of deploying SD-WAN much faster

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Take the next steps

In a recent webinar, Dan Shelton, Director of Product Management at Zscaler, details his experience launching SD-WAN at his previous company. He outlines what his team did right and what they would do differently. If you're considering deploying SD-WAN at your organization, **listen to the webinar** for tips on how to plan appropriately to deliver SD-WAN success.

About Zscaler

Zscaler was founded in 2008 on a simple but powerful concept: as applications move to the cloud, security needs to move there as well. Today, we are helping thousands of global organizations transform into cloud-enabled operations.

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