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Secure SD-WAN: the launch pad into cloud.

IT decision makers declare a strong preference for secure, native solutions in the latest global survey. »

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Introduction

A Software-Defined Wide-Area Network (SD-WAN) is the preferred technology solution to secure cloud deployments for most global organizations.

In a recent Barracuda survey, 23% of the respondents said they have already deployed SD-WAN and another 51% are either in the process of deploying or expect to deploy within the next 12 months. In addition to resolving network issues, SD-WAN solutions are being used to address security concerns; SD-WAN is being used by more than half of those who have added security to their public cloud. IT professionals realize that a cloud provider's native security solutions may not provide sufficient capabilities and they're looking for third-party providers to help overcome adoption barriers.

While the percentage of IT infrastructure in public cloud is expected to rise from 45% to 76% in the next five years, security is the top concern restricting faster adoption. 7 of 10 organizations say the security of public cloud infrastructure, the impact of cyberattacks, and the security of applications deployed in public cloud are inhibiting their public cloud adoption. Network integration is also a major concern, including integrating public cloud with legacy technologies, better integration with private cloud, and enhanced integration with on-premises infrastructure. (See how organizations are removing security barriers for faster public cloud adoption in the related report, [Future shock: The cloud is the new network](#)).

As public cloud continues to drive digital and business innovation, IT organizations are radically transforming how they deliver services to internal and external customers as a result. Gartner predicts the market for public cloud services will grow at roughly three times the rate of the overall IT services market, topping \$331 billion by 2022.

This report takes an in-depth look at global SD-WAN adoption trends, acquisition preferences, driving factors, variations by industry, and a variety of related issues.

Methodology

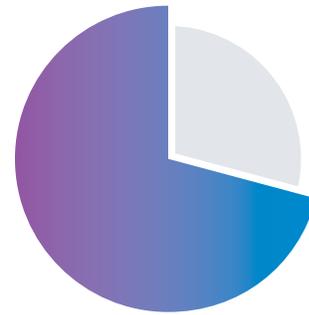
Barracuda commissioned independent market researcher Vanson Bourne to conduct a global survey of **750 IT decision makers** who are responsible for their organization's cloud infrastructure. Survey participants from the **U.S., EMEA, and APAC** represented organizations of all sizes from a broad range of industries. The survey was fielded in January 2020.

Key findings

FINDING #1

A fully-integrated, secure SD-WAN is the solution of choice.

Organizations looking to achieve a securely-integrated network for cloud deployments are choosing SD-WAN technology. **74% of respondents** have either already deployed SD-WAN or are expecting to do so **within the next 12 months**. The U.S. is slightly ahead of APAC and EMEA when it comes to SD-WAN deployments. Globally, SD-WAN deployments vary greatly by industry.



74% of respondents have deployed SD-WAN or are expecting to **within the next 12 months**.

FINDING #2

Acquiring SD-WAN via a cloud provider is the overwhelming preference.

Organizations around the world are consistent in their desire to acquire an SD-WAN solution from a cloud provider. In the U.S. and APAC, simplicity and knowledge are the overall driving factors when it comes to acquisition. In EMEA, the priority is getting a tailored solution or the best price. Globally, driving factors also vary greatly by industry, based on their differing business needs.



>50% desire to acquire an SD-WAN solution via a cloud provider.

FINDING #3

Microsoft Azure is the preferred public-cloud platform.

Microsoft Azure is way ahead of Amazon Web Services (AWS) and Google Cloud Platform (GCP) as the preferred cloud platform. Azure also gets the top scores when it comes to security and being user friendly. Since security is the biggest blocker for moving to public cloud, it makes sense that Azure would be so strongly preferred, as it's perceived to be the most secure platform.



Azure gets the top scores when it comes to security and being user friendly.

Perspectives

SD-WAN deployment is in its early stages, U.S. slightly ahead of the crowd.

Despite being in its infancy as a technology, there is potential for explosive growth in the next 12 months and beyond. Very few have no plans for SD-WAN and they could be the ones who get left behind. This growing adoption trend is seen across all global regions, strengthening the worldwide demand for SD-WAN solutions.

Does your organization have or is it planning to deploy SD-WAN?

(n=750)



Perspectives

SD-WAN deployments vary greatly by industry.

In the highly-regulated financial services industry, SD-WAN is the most deployed, with **35% of organizations** saying it is already in use. **Another 41% are in the process** of deploying SD-WAN or are expecting to do so in the next 12 months.

In the energy sector, which includes oil, gas and utility companies, SD-WAN is the second least deployed, by just 10% of organizations. **Another 63% are in the process** of deploying SD-WAN or are expecting to do so in the next 12 months.

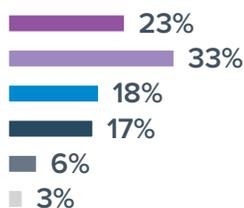
SD-WAN is least deployed in the public sector, which has traditionally been behind current technology due to budget restrictions, lack of internal expertise, and other factors.

Although **only 7% currently have SD-WAN deployed**, another 36% are in the process of deploying SD-WAN or are expecting to do so in the next 12 months.

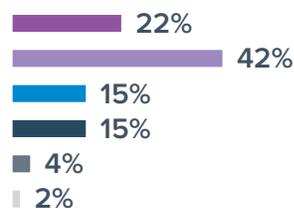
Does your organization have or is it planning to deploy SD-WAN?

(n=750)

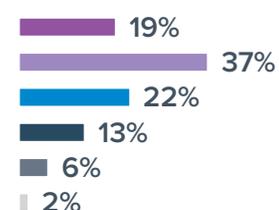
Total (n=750)



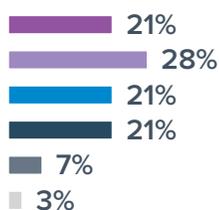
IT, technology and telecoms (n=128)



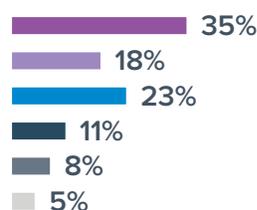
Manufacturing and production (n=99)



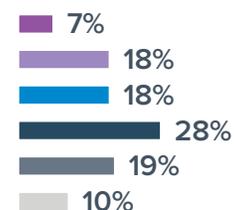
Retail, distribution and transport (n=76)



Financial services (n=92)



Public sector (n=68)

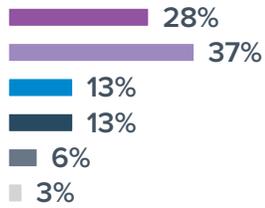


- We have SD-WAN deployed and in use at the majority of our sites
- We will deploy SD-WAN in the next 12 months
- We have no plans for SD-WAN
- We are in the process of deploying SD-WAN
- We are considering SD-WAN
- Don't know

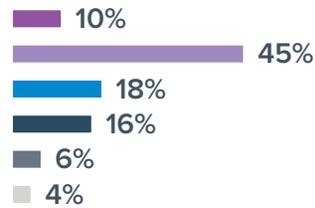
Does your organization have or is it planning to deploy SD-WAN?

(n=750)

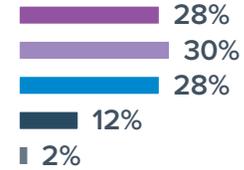
Business and professional services (n=78)



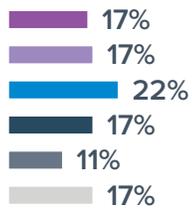
Energy, oil/gas and utilities (n=49)



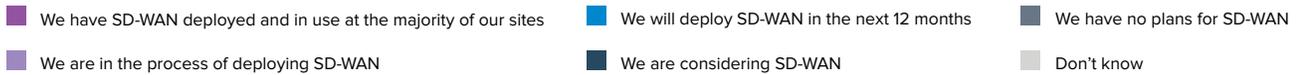
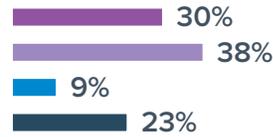
Construction and property (n=50)



Media, leisure and entertainment (n=18)



Other commercial sectors (n=92)



Perspectives

Securely accessing the public cloud presents organizations with multiple challenges.

SD-WAN can help overcome the top two security challenges organizations are facing when it comes to public cloud: lack of access control and backhauling traffic.

When data and applications reside in a data center, a firewall is typically used to set strict policy on who can access which information. Survey respondents are concerned about losing that control when moving to public cloud. In this case, SD-WAN provides the proper solution to enforce policy and maintain that control.

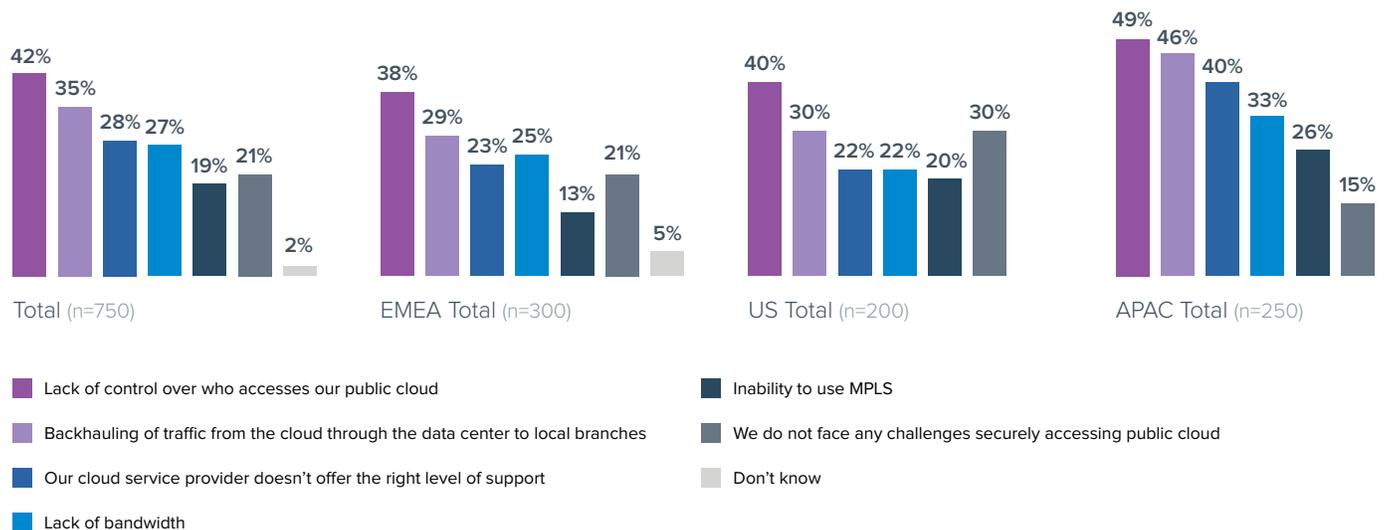
Similarly, without SD-WAN, the only way to maintain security is to backhaul traffic from the cloud through the data center to local branches. This traditional method is a poor solution for

public cloud scenarios because it leads to loss of performance, including increased latency for users. Plus, backhauling is an expensive way to route traffic, as it relies on costly MPLS lines.

More than one-quarter of organizations said their cloud service provider doesn't offer the right level of support, indicating the need for a third-party security solution.

Does your organization face any challenges in securely accessing its public cloud?

(n=750)



Perspectives

Half of those who have added security to the public cloud use an SD-WAN solution.

Which of the following additional security solutions has your organization added to your public cloud to protect it during access?

Asked to respondents whose organization has added additional security solutions to its public cloud.

(n=393)



Branch locations' traffic being routed via private WAN to our headquarters then passed to the cloud using a dedicated MPLS circuit or a similar technology in a central location



The use of an SD-WAN solution to combine multiple access methods or multiple internet uplinks



Branch locations have fully functional local breakouts providing secure internet access and VPN connectivity to cloud resources over broadband uplinks



The use of an access hub(s) managed by a third-party company

Perspectives

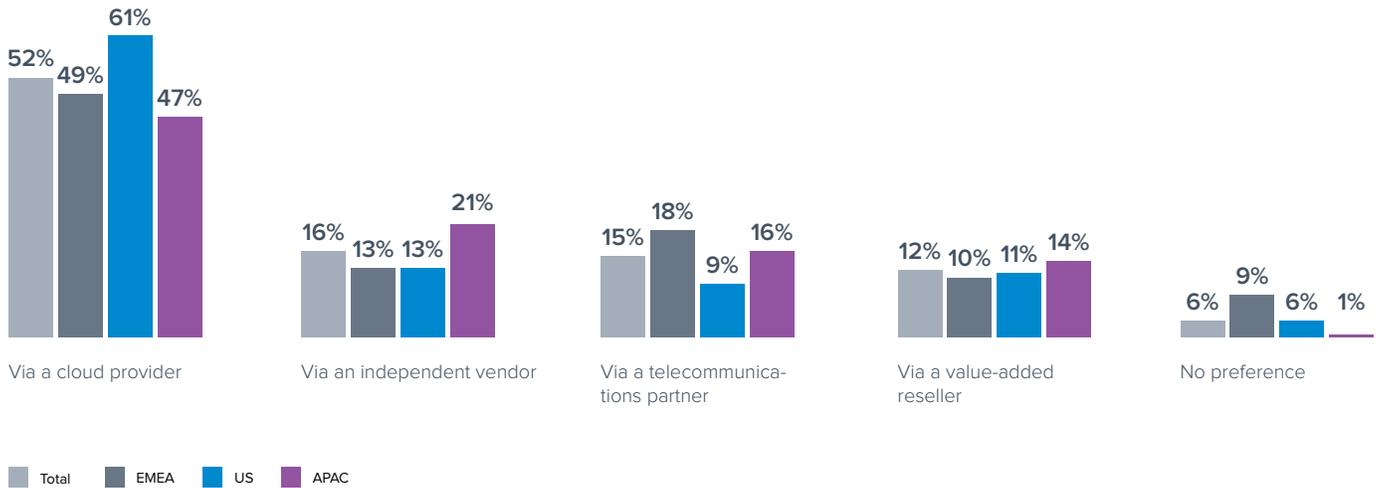
Acquiring SD-WAN via a cloud provider is the overwhelming preference.

Organizations around the world are consistent in their desire to acquire an SD-WAN solution from a cloud provider, with the **U.S. leading the way at about 10% above the global average.**

How would your organization prefer to acquire SD-WAN?

Asked to respondents whose organization has deployed SD-WAN, is in the process of doing so, is planning to deploy, or is considering SD-WAN, split by respondents region.

(n=677)



Perspectives

Simplicity and knowledge are the overall driving factors when it comes to acquisition.

Overall, organizations are acquiring SD-WAN from external vendors based on their knowledge and the simplicity of adoption. The exception is in EMEA, where the priority is getting a tailored solution or the best price, with a simple adoption.

Why does your organization prefer to acquire SD-WAN from an external vendor?

Asked to respondents whose organization has deployed SD-WAN, is in the process of doing so, is planning to deploy, or is considering SD-WAN and would prefer to acquire it via a telecommunications partner, independent vendor, cloud provider, or value added reseller, split by respondent region.

(n=639)



Perspectives

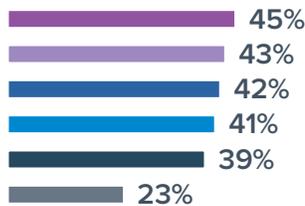
Driving factors vary greatly by industry.

Based on their differing business needs, it's not surprising that the factors driving SD-WAN adoption vary greatly by industry. Simplicity of adoption is key for Retail and Business and Professional Services. For Manufacturing, having a good relationship with the vendor and the availability of a tailored solution are the driving factors. Price is the most important factor for IT, public sector and energy.

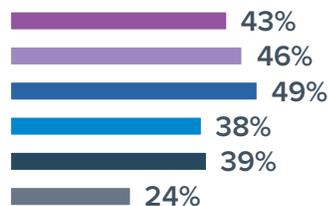
Why does your organization prefer to acquire SD-WAN from an external vendor?

(n=639)

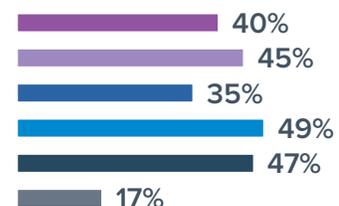
Total (n=639)



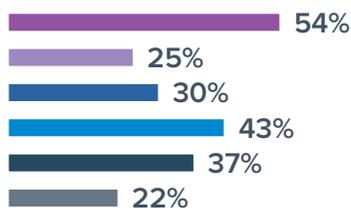
IT, technology and telecoms (n=114)



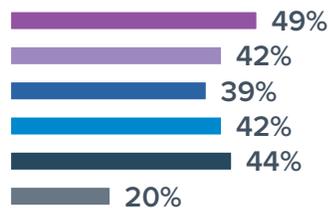
Manufacturing and production (n=86)



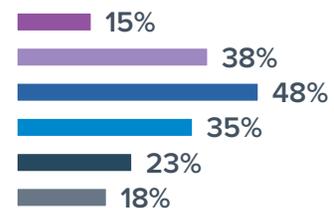
Retail, distribution and transport (n=63)



Financial services (n=71)



Public sector (n=40)

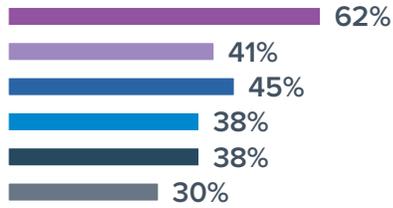


- Simplicity of adoption
- Offer the best price
- Offer a tailored solution
- Other
- They have the best knowledge
- We have a good relationship with them
- It's what we have always done

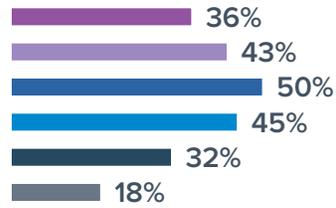
Why does your organization prefer to acquire SD-WAN from an external vendor?

(n=639)

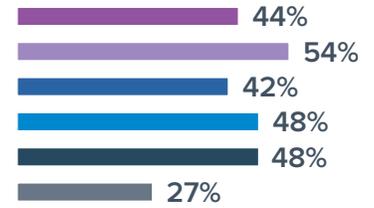
Business and professional services (n=69)



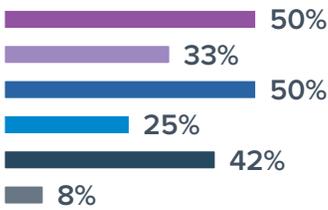
Energy, oil/gas and utilities (n=44)



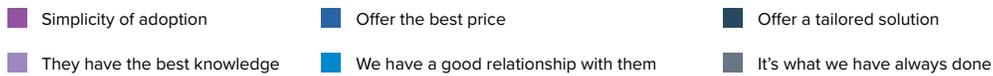
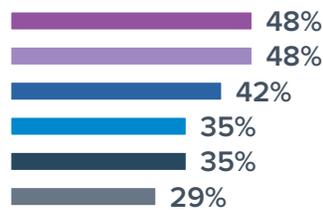
Construction and property (n=48)



Media, leisure and entertainment (n=12)



Other commercial sectors (n=92)



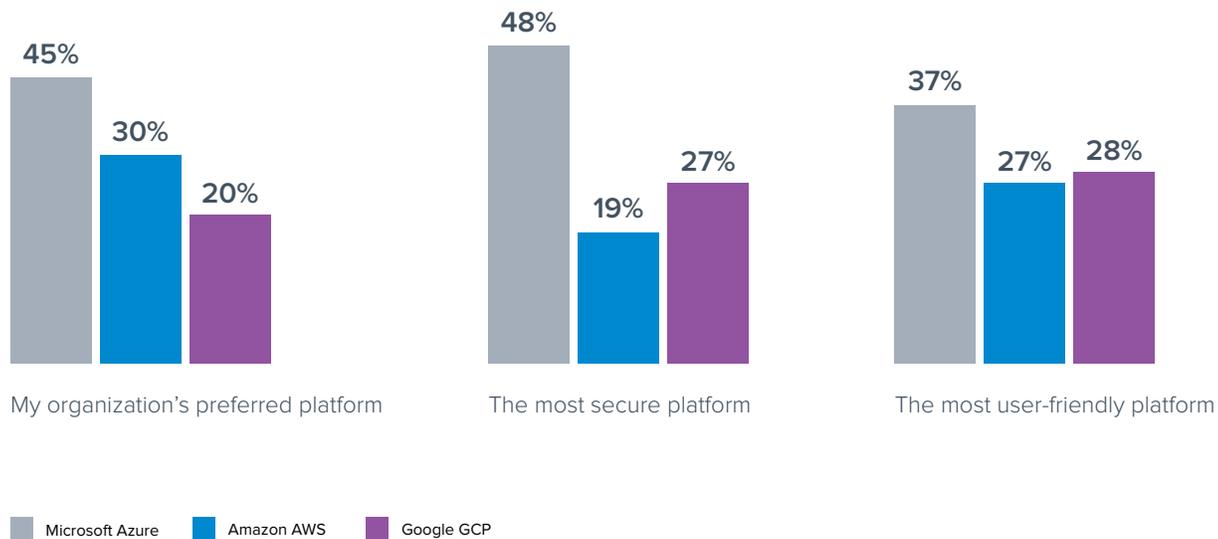
Perspectives

Microsoft Azure is the preferred public-cloud platform.

Microsoft Azure is 50% more preferred than AWS and 125% more preferred than GCP. Azure is perceived to be far more secure than AWS and GCP. Similarly, respondents believe Azure is more user friendly than AWS and GCP. Since security is the biggest blocker for moving to public cloud, it makes sense that Azure would be so strongly preferred, as it's perceived to be the most secure platform.

In your opinion, which of the following are...?

(n=750)



Conclusion

Organizations around the world are moving to public cloud, but security remains the prime concern. As they migrate their infrastructures, IT professionals prefer the cloud platforms they believe are intrinsically more secure, and Microsoft Azure stands out from the rest.

Most organizations intend to leverage the many benefits of SD-WAN, including stronger security, better performance, improved user experience and cost optimization. 74% have already deployed, are in the process of deploying, or expect to deploy SD-WAN in the next year.

For best results, an SD-WAN solution needs to be fully secure. The ideal solution combines security and network optimization to create an all-in-one, secure SD-WAN framework.

In turn, a secure SD-WAN framework needs to be fully integrated into the public cloud network; it should be natively built into the cloud.

By deploying an all-in-one, secure SD-WAN solution natively built into the public cloud network, organizations can reap the full benefits of public cloud.

For best results, an SD-WAN solution needs to be fully secure. The ideal solution combines security and network optimization to create an all-in-one, secure SD-WAN framework.

About Barracuda

At Barracuda, we strive to make the world a safer place.

We believe every business deserves access to cloud-enabled, enterprise grade security solutions that are easy to buy, deploy and use. We protect email, networks, data and applications with innovative solutions that grow and adapt with our customers' journey.

More than 200,000 organizations worldwide trust Barracuda to protect them—in ways they may not even know they are at risk—so they can focus on taking their business to the next level.

Get more information at barracuda.com.

