January 2021

MARKET REPORT

Cloud networks: Shifting into hyperdrive

Global IT leaders express growing confidence despite security concerns. »

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Contents

Introduction

The evolving cloud landscape

Public cloud is driving digital innovation. As IT organizations around the world continue to radically transform their infrastructures, evolve the way services are provided, and deal with security issues, cloud use and dependence continue to grow. In addition to day-to-day operations, for many businesses, public cloud is now seen as a prerequisite for innovation-driven growth.

This report takes an in-depth look at public cloud, access constraints, security concerns, emerging solutions, and a variety of related issues.

Methodology

Barracuda commissioned independent market researcher Censuswide to conduct a survey of IT decision makers responsible for their organization's cloud infrastructure. There were more than 800 global survey participants, representing organizations of all sizes from a broad range of industries, including construction, education, finance, healthcare, technology, manufacturing, retail, transportation, and others. The survey was fielded in October 2020.

Key findings

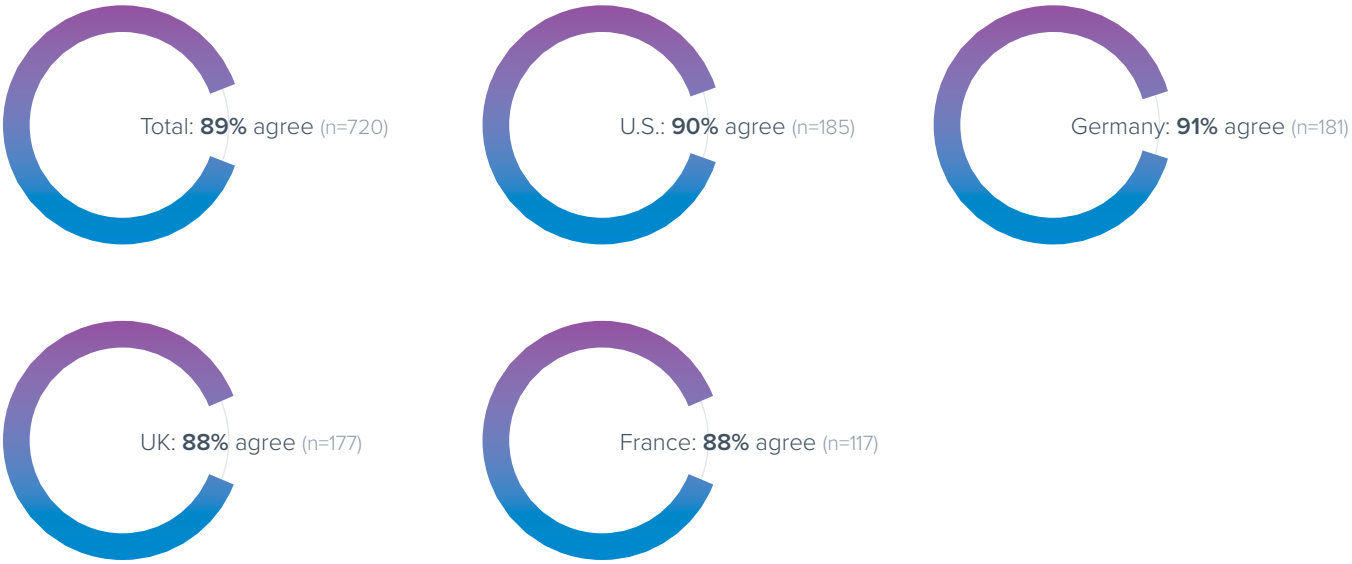
FINDING #1

IT professionals are gaining confidence in the cloud.

Roughly 90% of respondents in all four countries say that their organization understands the Shared Responsibility Model for cloud security used by Amazon Web Services and Microsoft Azure. The cloud vendor is responsible for security of the cloud, while the organization is responsible for the security of what they put in the cloud.

More than three-quarters of respondents use multiple cloud providers, such as Amazon Web Services, Microsoft Azure, and Google Cloud Platform. Nearly 80% say their organization has deployed an Azure-based network.

My organization understands the Shared Responsibility Model for cloud security.



Key findings

FINDING #2

Organizations face growing constraints when it comes to cloud access.

A majority of respondents across all regions are struggling to ensure seamless availability and "always-on" access to cloud applications for their organizations. That number is notably higher in the U.S. with 69% struggling in this area. On average across all four countries, 60% say they've considered Microsoft ExpressRoute or AWS Direct Connect, but it was not available or is too expensive for all their locations.

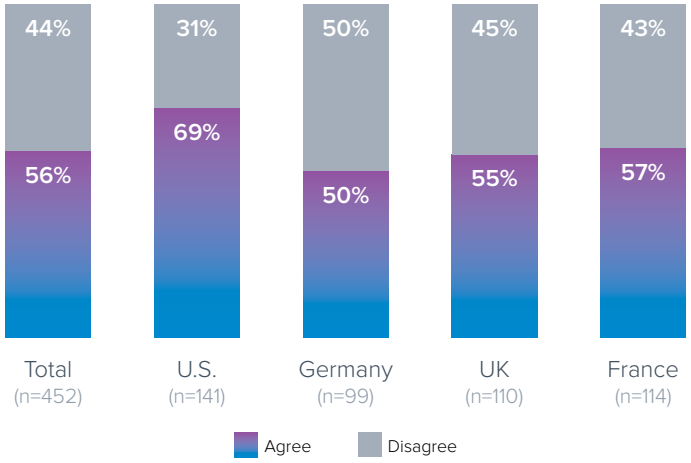
An even larger number—nearly 70%—experience latency and performance issues running SaaS workloads, such as Office 365. The percentage was highest in the U.S. (80%) and lowest in the UK (53%). This trend will increase as workloads drive the growing use of—and larger dependency on—the cloud.

As organizations consume more cloud computing and capacity, they are encountering a number of constraints. For example, downtime is always cited as an issue. While it's a rare occurrence, clouds do go down. More common are service outages from the endpoint itself, such as the ISP or connectivity provider. Organizations that need high availability or guaranteed uptimes need fail-over providers and connections to avoid this constraint.

Bandwidth is a far more common constraint. In business computing, data files can be huge, including commonplace video and multimedia files, and they all impact bandwidth.

Organizations using a traditional network that backhauls traffic through a centralized data center—often for security—find their users and networks suffer from increasing latency and the inability to cope with traffic requirements.

We are struggling to ensure seamless availability and "always-on" access to cloud applications.



Key findings

FINDING #3

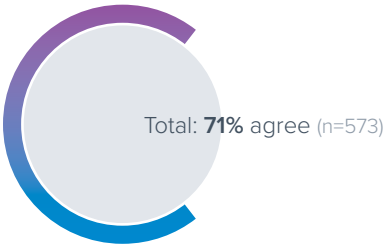
Current network infrastructure is growing increasingly costly.

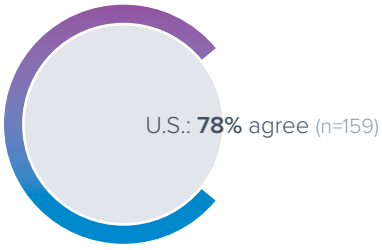
On average across all regions, 71% of respondents are using traditional access methods, such as MPLS, in their organization's network. Regional differences ranged from 78% in the U.S. to 69% in France.

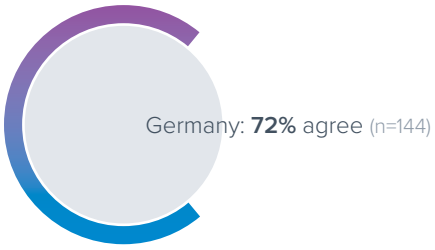
Overall, 62% say their MPLS costs increase heavily due to seasonal workload peaks. A similar percentage (61%) says they believe MPLS lines are expensive and inflexible for business needs. This sentiment was most common in the U.S. (72%) and least common in the UK (53%).

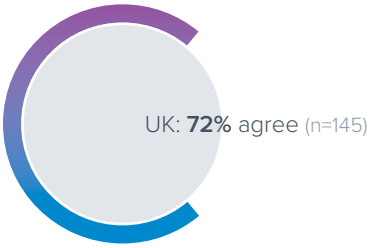
Dedicated, leased lines, such as MPLS lines, are the solution most companies have traditionally used to interconnect network infrastructure, especially for the internet and the cloud. While MPLS lines were a good idea a few years ago, they are an anti-pattern when it comes to cloud-heavy computing. These lines are fixed, meaning they suffer from throughput caps. To make matters worse, the leases are generally long-term, and they often penalize organizations in need of additional and faster bandwidth. MPLS solutions also don't scale up and down to match peaks and valleys in throughput. As a result, there's often a capacity mismatch, so companies frequently find they're paying more than they should for the insurance of extra capacity they don't need around the clock.

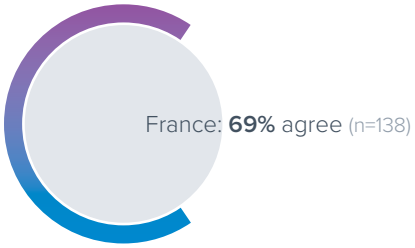
We are using traditional access methods (such as MPLS) in the organization's network.











Key findings

FINDING #4

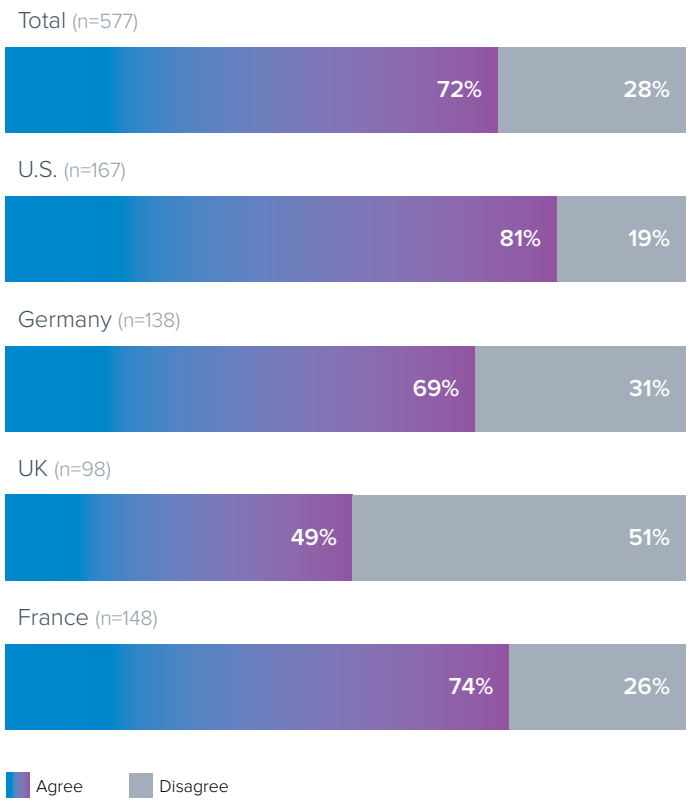
IT professionals are looking for easier and more economical connectivity.

To address constraints, organizations are turning to next-generation networks. Across all four regions, 88% of respondents know about Microsoft Virtual WAN. More than 7 in 10 have plans to implement an SD-WAN solution in the next 12 months to address cloud-connectivity issues. This number was highest in the U.S. (81%) and lowest in the UK (49%).

At the same time, nearly 58% of all respondents say their organization is hesitant to adopt an SD-WAN solution because of fears that they are complex and expensive. This percentage was lowest in Germany (54%) and notably higher in the UK (74%).

Recent product offerings are changing that perception by combining endpoint security, Zero Trust Access, and simplified management.

My organization is planning to implement SD-WAN as a solution to address cloud connectivity issues in the next 12 months.



Key findings

FINDING #5

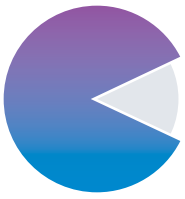
Security is front and center in cloud networks.

A total of 86% of organizations in all four regions have separate solutions for networking and security. Similarly, a total of 91% of all respondents believe security should be incorporated throughout the network, not only applied at the data center.

A total of 71% identify security as a major worry for the organization when deploying an SD-WAN solution. This concern was highest in the U.S. (81%), and lower in Germany (65%), the UK (62%), and France (62%). More than 80% are familiar with the notion of Secure Access Service Edge (SASE) and say their organization sees the value of implementing a solution that leverages Zero Trust security at the network edge. Regional differences ranged from 88% in France to 78% in the UK.

In today's environment, networks are fluid, often hybrid, and the cloud presents new security challenges. Data is now going outside the tightly-controlled corporate network, and cloud-facing apps and remote access provide new vectors for attack and data loss. While most network security solutions treat connectivity and security as separate activities, network solutions that embrace SASE and combine access, connectivity, and security are making cloud networking less complicated.

I have separate solutions for networking and security, i.e. separate products that focus specifically on networking or security.

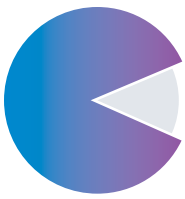


Total: **86%** agree (n=691)

U.S.: **89%** agree (n=182)

Germany: **86%** agree (n=171)

UK: **81%** agree (n=163)



France: **87%** agree (n=175)

Key findings

FINDING #6

IT professionals expect cloud providers to play a pivotal role with SD-WAN solutions.

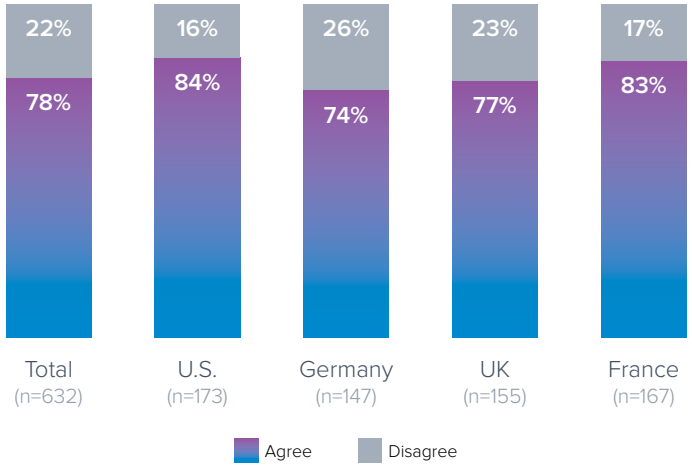
Overall, 78% of IT professionals across all four countries prefer deploying a unified, secure SD-WAN solution in the cloud.

In addition, more than three-quarters of all respondents are interested in evaluating:

- A cloud-connectivity solution that leverages the Microsoft Global Network as its backbone (80%)
- An SD-WAN solution built into a public cloud provider's infrastructure (76%)
- A connectivity solution that could operate in parallel with existing network and security infrastructure (78%)

Many companies are dealing with aging infrastructures, making SD-WAN a logical choice to alleviate performance and cost constraints inherent in those older architectures.

I would prefer to deploy a unified SD-WAN/security solution in the cloud.



Conclusion

Securing the network edge.

Secure Access Service Edge (SASE) solutions are relatively new, but they are the next logical infrastructure change for cloud-focused organizations. Highly-flexible, SASE solutions provide organizations of all sizes and types with the ability to improve connectivity, simplify management, and strengthen security.

Since the infrastructure focus is on the cloud, the level to which a SASE solution is integrated with a cloud vendor is key. Organizations show a distinct preference to consider SD-WAN solutions that are built directly into a public cloud provider's infrastructure. Organizations also consider the ability to run connectivity across a cloud's network backbone, such as the Microsoft Global Network, as another attractive benefit of implementing a cloud-based SD-WAN solution.

Finally, security remains a paramount concern. Most respondents see Zero Trust Access as implicit for deployments, and they are looking for solutions that unify access, security, and networking, as opposed to treating them as separate entities.

By deploying a natively-built, all-in-one solution that combines security and network optimization to create a secure SD-WAN framework, organizations can reap the full benefits of public cloud.

Security remains a paramount concern. Most respondents see Zero Trust Access as implicit for deployments, and they are looking for solutions that unify access, security, and networking, as opposed to treating them as separate entities.

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.

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