



Cloud Networking

BUYER'S GUIDE



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Why Cloud Networking?

Cloud networking introduces a new way to deploy and manage networks. It delivers enterprise-class network management capabilities for Wi-Fi access points, switches and routers, via a cloud infrastructure that requires little or no capital investment in additional hardware and software platforms or in IT resources.

Unlike traditional locally hosted on-premises solutions, cloud networking simplifies highly complex tasks, enabling organizations to deploy locations in minutes and providing unprecedented levels of centralized control and network visibility. It also allows for seamless growth without bottlenecks caused by products, and supports headquarters and remote locations alike, significantly reducing the need for local intervention and truck rolls.

State of Cloud

The cloud migration started long before the pandemic, but since the world went upside-down, the shift accelerated to light speed. Research indicates over 90% of enterprises have a multi-cloud strategy, and more than 80% have a hybrid cloud strategy in place. Nearly 40% of enterprises spend in excess of \$12 million annually on public cloud. Across verticals, IT decision-makers are choosing cloud.

Extreme research highlights 98% of healthcare organizations have at least one solution in the cloud, with email/productivity tools, workforce management/scheduling software and EMR/HER being the leading three deployed. Education is singing a similar tune, with 94% of institutions hosting at least one solution in the cloud and email/productivity taking the top spot, followed by learning management systems and student information systems.

Retailers are reveling in a cloud-driven future, already leveraging cloud to manage switches, SD-WAN and Wi-Fi, hosting email/productivity applications, CRM and workforce management software in the cloud.

State and Local government IT leaders agree, putting email/productivity tools and WFM software in the cloud, as well. Over 40% of municipal IT decision-makers stated plans to move their network to the cloud in the next five years.

These verticals represent diverse, unique network demands, yet share the same cloud journey. Each references legacy pitfalls, like network availability issues and the inability to proactively detect network problems before they affect business results. Ease of management, anywhere access to resources and agility are a few of the top reasons for cloud migration.

Cloud networking represents flexibility, visibility, security, mobility, cost savings and a brand new outlook on operations.

Welcome to the New Ways of Working

Is the office a relic from the past? No. BUT... more and more we continue to witness the warm embrace of remote working and accelerated digital transformation initiatives to operate effectively, agnostic of location. The new ways of working cross the threshold of business survival toward business prosperity. Like the mantra goes: adapt and overcome.

According to Global Workplace Analytics, the number of people working from home rose 159% from 2009 - 2019. While remote work was a trend pre-pandemic, during COVID work from home accelerated exponentially. An October 2020 Pew Research survey noted 71% of Americans were working from home marking a jump from 20% pre-pandemic. Per Owl Labs, 16% of companies globally are fully remote. Here are a couple more fun facts while we've got your attention. If given the choice, 99% of people would choose to work remotely for the rest of their life. Compound that with a CoSo Cloud study noting 77% of remote workers say they are more productive when working from home.

As you can see, and likely experienced, the new ways of working require the proper components to realize the brave new reality of the infinite enterprise. Moving beyond the growing pains of the previous year, there are three pillars a modern organization learned to lean on: Cloud, Data Mobility,

The infinite enterprise is expressed in a multi-cloud, multi-location nature, supporting hundreds, if not thousands of locations, empowering team members with data-driven decision-making and increased efficiency. For leadership,

they can rest easy – well, easier – knowing users are put in a position to succeed, by advancing a consumer-centric experience over an infinitely distributed network at scale.

Our anywhere, anytime, always-on, always plugged-in world demands secure access to critical resources and applications. Regardless if you're the CEO or a sales representative, these are non-negotiable. Geography cannot impede to productivity.

Data will deliver, if you let it be a disruptive force spurring operational efficiency as well as explosive bottom-line growth.

Get Your Head in the Cloud!

The cloud allows the optimization of network capabilities to achieve operational excellence. Remote access and troubleshooting capabilities enhance IT teams by significantly reducing travel, time and cost requirements for dense or geographically distributed environments. Subscription-based licensing delivers a predictable cost structure that streamlines operational costs. Automatic connectivity and unlimited scalability enable organizations to effectively evolve and digitally transform. Cloud provides a centralized and comprehensive view of the entire network, which simplifies management.

Advance today by maximizing investment with resilience, continuous innovation and up to date security. Find greater stability with cloud, as these next generation networking solutions are built on top of reliable, consistent and decentralized infrastructure, making them inherently resilient against failure and eliminating any downtime, business impact, and its associated costs. Network performance is underpinned by seamless, automated and controllable updates to eliminate disruption. The software delivery framework of cloud solutions provides innovative enhancements that evolve with organizational needs and maximizes network investment.

Is the cloud secure? Absolutely. Continuous advancements and automatic provisioning of security policies ensure the highest levels of regulation, compliance and privacy.

Keep an eye to the future, gain invaluable business insight via verifiable data. Cloud enables organizations to automatically detect, collect, and store an infinite repository of verifiable data for effective use – namely, organizational empowerment. Introduce Artificial Intelligence (AI)/ Machine Learning (ML) in the cloud, and organizations to transform data into meaningful business insight to proactively fuel prosperous change.

Anywhere, Anytime is Game Time

Successful anywhere, everywhere connectivity is not optional – period, full stop. Adopting an “anywhere” connectivity approach allows organizations to reach customers, enable employees and deliver business services anywhere.

Today’s workplace is mobile and dynamic, which has increased networking complexity significantly. It is critical that networks can adapt on command and create a seamless experience for users to connect any Bring Your Own Device (BYOD) and IoT devices. Uninterrupted, secure, scalable connectivity for all users, devices, applications is the foundation that gives employees the tools to perform their jobs more effectively. A vital piece of the mobility conversation is security. Organizations need to evolve and scale the network as needed, providing staff and end users seamless and secure connections. Put your team in a position for success, while eliminating vulnerability.

The digital journey cannot be disjointed. A holistic mobility approach seamlessly stitches together a wired, wireless and cellular network creating endless continuity for connectivity. IT leaders must rethink the architecture of core and edge networks to support the need for infinitely distributed connectivity – i.e. the infinite enterprise. Wi-Fi is the top technology for enterprises everywhere and a requirement for delivering distributed connectivity. As we begin to see 5G make the main stage, it complements current connectivity options and gives the network flexibility to choose the right technology for the right problem, connect niche applications and technologies vital for business, and creates a more reliable network overall.

Users deserve an exceptional experience. The rapid increase in corporate, guest, BYOD and IoT devices are flooding networks. The right mobility solutions will ensure these high demand networks can cope with them all, at the same time, without latency, providing an improved experience.

Enabling mobile access is now the standard for networks. IoT devices and APIs need to connect to the wireless network seamlessly. This offers users robust functionality with faster connections, more capacity, longer battery life, and the ability to drive innovation.

Creating effortless mobility must enable a customer-centric and consistent experience across the network. Delivering predictable, high-quality experiences for any user, any device on the network is not a herculean task; it simply requires the right cloud networking solutions.

Data Delivers ... If You Let It

Unleashing the massive amount data networks create can drive greater revenue and exponential growth. Understanding network data available can help fuel greater efficiencies, proactively diagnose issues, and take action to prevent them, ensuring operational continuity and galvanizing IT operations.

Through simple tools and native APIs, the right cloud-networking partner will transform a vast store of untapped data into the actionable intelligence required to personalize the customer experience and make the decisions necessary to thrive.

For the IT team, the appropriate partner will enable you to organize, understand and report data in a way that simplifies the collection process and eliminates the need for data specialists’ interpretation.

Data plays defense for you – and defense travels. Data can protect your organization from digital and physical threats anywhere. Data analytics extends beyond digital security and aids in tracking the movement of people and devices through facilities. Understanding what is running on your network can help reduce the impact of Shadow IT and mitigate the impact of intrusion by developing policies that raise alerts when variances are detected. Following incidents, efficient root cause analysis aids in hardening systems and processes by developing smarter automatic threat mitigation and closed-loop automated workflows.

Know compliance and regulations well because ISO and PCI-DSS, for example, are security certifications that enable organizations to freely leverage data and help them avoid sanctions due to data protection non-compliance.

As network usage grows, AI/ML capabilities evolve to augment organizational impact. The copious amount of data you produce is invaluable, offering the ability to observe years of historical patterns that influence future business growth. The cloud delivers unlimited access to an infinite repository of data to fuel ML/AI to achieve new levels of accuracy and precision. Central to leveraging data is understanding data. Operators must easily be able to interpret real-time data, and that comes with the right AI/ML tools capable of creating digestible, actionable data by filtering out the “data noise” and offering explanations into why critical events are occurring and actions to take to resolve them.

The Choice is Yours

A cornucopia of cloud networking solutions and services are available, but how can you cut through the noise and find the right fit for your enterprise? This is not a knee jerk decision. Big picture; it's necessary to prioritize outcomes. Embrace this era of change by understanding the new ways of working, and evolving to meet the needs of network users, which includes access regardless of location. Some questions to consider as you vet cloud-networking partners:

- What cloud networking services do you provide? – Obviously, research is central to your search. By the time IT starts working its way down the directory of potential providers, networking audits have illustrated needs, and this makes for an easy way curate the list.
- What cloud environment option work best? – The cloud is not a one size fits all proposition, with each organizations possessing unique demands befitting a public, private, on-premises or hybrid deployment.
- What is your cloud security strategy? – What are your cloud security needs? Connecting users to corporate resources and the network from anywhere requires more than legacy. A zero trust approach anchored by identity-based access and proactive threat monitoring is best practice. Period: point blank.
- What about certifications and compliance? – From ISO to HIPAA, to PCI-DSS, GDPR and more, each industry carries its own compliance measures, and not all cloud networking partners can promise to meet certain requirements. With customer data comes great responsibility.
- What about flexibility and scalability of the network? – Is your existing wired/wireless infrastructure capable of supporting current and future networking needs? The cloud grows with your operational demands.
- What are my business needs for cloud? – Internal IT departments determine pain points, areas of opportunity and build a network wish list. Network access control and visibility are not nice to haves: they are must haves. Discuss your application and network requirements with each vendor. Develop a roadmap and timeline for your transition.
- How do we measure success? – The migration to cloud-based networking is complete. Establish KPIs for user experience, application performance and infrastructure. The data-driven network delivers experience management. Create a baseline, and reap the spoils of your migration.

- What advanced capabilities are on the table? – Artificial Intelligence and Machine Learning are critical to the next generation of networking in the cloud. Addressing SLAs, providing actionable intelligence and threat monitoring is just base camp for automation in the enterprise.

The Extreme Edge

The Extreme portfolio of award-winning cloud networking solutions is in place to empower the infinite enterprise. Extreme earned recognition as a Leader in the Gartner 2020 Magic Quadrant for Wired and Wireless LAN Access Infrastructure, marking the third straight year of the distinction.

Major League Baseball named Extreme Networks Official Wi-Fi Solutions provider for access to the intersection of cloud, mobility and analytics. As a Partner of MLB All-Star Week, we powered a number of events and game-day experiences. We've found a home on the gridiron, as well, as the Official Wi-Fi Solutions Provider of the NFL going on nine seasons as an NFL league partner. We just wrapped our third year as the Official Wi-Fi Solutions Provider of the Super Bowl and eighth season as the Official Wi-Fi Analytics Provider for the Super Bowl. In addition to keeping teams and fans connected, our robust portfolio supports analytics operations for 25 NFL franchises.

Here's how we deliver championship quality cloud networking:

- Unmatched infrastructure potential and choice with multi-cloud, multi-deployment, and multi-domain capabilities;
- Superior levels of information security and data protection as the ONLY cloud network management platform that is ISO 27017, 27701, and 27001 certified;
- ISO and PCI security certification ensure organizations can freely leverage data and avoid sanctions due to data non-compliance;
- Straightforward access to available data via simple tools and native APIs;
- Easy interpretation of real-time data for operators via AI/ML tools that not only filter irrelevant data but also explain the occurrences of critical events and appropriate actions for resolution.

Closing Thoughts

Change is inevitable. It's not always easy, nor wanted, but it is necessary. Reticence about the cloud has given way to a stampede of adoption and positive outcomes. Our new ways of working may start with culture, but rely on cloud networking. The Cloud offers opportunity for operational excellence, enhanced efficiency through data-driven action and optimized network capabilities. As the chapter title notes, Data delivers but only if you allow it. Propel growth and boost the bottom line by unleashing network data.

Understanding available data opens the door to proactive network intervention, operational continuity as well as monetization opportunities. Our new ways of working demand nothing short of anytime, anywhere connectivity to engage customers, deliver business services and empower employees.

Advance a consumer-centric experience over an infinitely distributed network at scale. Transform into an infinite enterprise.



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