Ready, set, go lean and agile! Businesses find priorities and quick assurance in the cloud

Cloud-managed networking gives
IT managers visibility, control

By Khoo Boo Leong

The impact of COVID-19 has exposed the limitations of managing existing enterprise networks. Wi-Fi data traffic and Wi-Fi calling have increased as cable broadband networks continue to support the offload of mobile data traffic.

Employees working remotely from home or from multiple sites also need the right infrastructure in place to concurrently connect to their company's virtual private networks.

"The outbreak of COVID-19 is creating a need for flexibility that will fuel the future of connectivity," said Andrew Zignani, principal analyst at ABI Research

Further, greater use of video-conferencing and other online platforms along with diversifying device categories and apps, such as Internet of Things (IoT) and video and voice-over-Wi-Fi, have added to network complexity.

With today's enterprise networks being the nerve centre of business, IT managers are challenged to ensure that they facilitate business continuity, data security and physical security. They have the opportunity to deliver excellent digital experiences to customers and employees so that their businesses can operate with agility, speed and efficiency. This necessitates more dynamic infrastructure and robust connectivity.

In other words, enterprises require simple, reliable, and adaptable networks. A single network to support multiple applications, power and data. Single-pane-of-glass insights into network performance, resource consumption and overall network health for users, devices, applications and network infrastructure across all sites.

According to market research firm Omdia, IT organisations are turning to public cloud-managed networking to keep up with accelerating growth in users, network elements, devices and device diversity. Public cloud-managed networking will account for 14% of enterprise networking revenue by 2023, and manage nearly a quarter of installed Wi-Fi access points.

"Modern cloud-managed networking and machine learning (ML) and artificial intelligence (AI)-based assurance tools provide automation and in-depth network insights, promising to give control back to the IT organisation and deliver greater efficiency," said Matthias Machowinski, Omdia senior research director, enterprise networks.

Continuous improvements

Cloud-managed networking dove-tails with Lean IT process improvement methodology that dramatically changes an IT organisation's approach to delivering strategic business value. This approach drives process ownership and proactive performance tracking to identify new infrastructure improvement opportunities.

It emphasises continuous improvement toward meeting evolving user demands more efficiently and effectively. To this end, CommScope's RUCKUS Cloud network management-as-a-service platform allows IT teams to troubleshoot faster and proactively improve user experience. Through intuitive, intent-based workflows, they can expedite provisioning, management, and control of unified wired and wireless networks across hundreds or thousands of sites from a single web dashboard or mobile app.

Already, enterprises are adopting cloud-managed networking to gain:

- Simplified lifecycle management of infrastructure— from zero-touch provisioning to monitoring to managing— across multiple locations without additional onsite IT specialists.
- Real-time visibility into network performance, resource consumption, and overall network health across all sites with ML and AI- analytics tools to enable quick response to issues and stop network anomalies from rising to the service-affecting level.
- Automatic updates of controller and connected devices, such as Wi-Fi APs and switches, to the latest feature sets and the most current security patches.
- Scalability of solution without compromising user experiences or incurring extra costs.
- Attractive total cost of ownership as optimal scalability alleviates excess CapEx, while reducing OpEx by streamlining IT training, management and helpdesk operations.

Overall, cloud-managed networking requires less time and resources. IT can manage network devices without on-premises controllers and solutions. The RUCKUS Cloud platform is built using a microservices-based, controller-in-the-cloud architecture that ensures full programmability, scalability, high availability, and rapid fix and feature rollout.

Geared to yield benefits of Lean approaches, RUCKUS Cloud enables tight IT teams while sustaining ongoing service improvements. Beyond cost reduction, it reduces time-to-market, improves service quality, reduces risk exposure and boosts employees' quality of life simultaneously.

Zero-touch maintenance and the platform's integration of Cloudpath Enrollment System help to secure wired and wireless network access for BYOD, guest users and IT-owned devices. IT teams do not have to worry about protecting networks from malicious attacks that occurred in the past like Kr00k Wi-Fi vulnerability.

By transforming streaming telemetry from network devices into deep insight, IT teams can be more efficient in network service assurance and meeting SLAs. They reduce costs and free up time to focus on keeping networks optimized and reliable.

Texas-based Del Mar College (DMC) used RUCKUS Cloud to simplify management of a campus-wide Wi-Fi network covering 45 buildings and 25,000 users. It also deployed 350 Ruckus 802.11ac wireless APs, each of which is able to support up to 100 concurrent users.

"The RUCKUS Cloud Wi-Fi dashboard is a very well designed, well thought-out management application," said Vince Villarreal, network specialist at Del Mar College. "And absolutely suited to the mobile era. We're rarely sitting at our desks. I can just check my phone to see the status of all of the locations in the network."

First things first

The reality is that even deploying the latest [Wi-Fi 6 (802.11ax)](#) APs isn't enough to ensure an [optimal Wi-Fi experience](#). With data consumption and Power over Ethernet (PoE) de-vices proliferating, businesses have to install, support and manage Category 6A cabling infrastructure and multi-gigabit switches that support the [802.3bt PoE](#) standard to its full 90 watts standard. Again, the complexity of Wi-Fi deployments makes troubleshooting challenging.

"Every network is unique," said Lakshmi Nagarajan, director of Engineering for Big Data Analytics in Ruckus Networks, CommScope. "Every AP is unique. Then how do we find an analytical model that doesn't require training for every network and for every AP?"

Applying concepts of Lean IT, the analytical model should not only highlight processes or activities that add little or no value to business but also assess and identify high-priority areas for improvement and addressing issues that have the greatest impact on users.

RUCKUS Cloud is tightly coupled with [RUCKUS Analytics](#), a cloud service for network intelligence and service assurance that uses ML techniques to determine the severity of a network incident as well as AI capabilities [to rapidly prioritise the most serious network issues](#). The cloud service uses a blend of incident detection, prioritization, and scope to ensure that network administrators also proactively stop network anomalies from rising to the service-affecting level.

To test RUCKUS Cloud out, you can start a 60-day [free trial here](#).

COMMSCOPE®

RUCKUS®

CommScope pushes the boundaries of communications technology with game-changing ideas and ground-breaking discoveries that spark profound human achievement. We collaborate with our customers and partners to design, create and build the world's most advanced networks. It is our passion and commitment to identify the next opportunity and realize a better tomorrow.

Discover more at commscope.com