



# Calm, cool heads in the cloud: Managers get multi-site, converged- network control to beat IoT-spawned complexity and sprawls

Cloud-managed, AI-enabled network management boosts visibility, intelligence and agility

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Today's smart building strategies entail building at least two duplicated networks – one corporate business network and one building management network. Add the sprawl of complex access networks arising from the heterogeneous nature of Internet of Things (IoT) to the mix and the entire ecosystem becomes unmanageable easily.

Admins would attest that keeping the network running smoothly is easier said than done. "Today, their network troubleshooting process is mostly reactive," says Lakshmi Nagarajan, director of Engineering, Big Data Analytics in Ruckus Networks, CommScope. "When users complain, the admin scrambles to find the root cause, which is a painstakingly slow process because several KPIs, metrics and events have to be analysed in the various layers of the network to get to the bottom of the issue."

Meanwhile, demand for ubiquitous connectivity; ultra-low latency; and reliability continues to drive [changes in network design](#). Growing mobile edge computing has resulted in network operators increasing link capacities to accommodate greater data flows between endpoint devices and compute/storage locations at the network edge.

Centralizing network management and migrating it to cloud to leverage its immense computational resource capabilities, is another important trend. Such a move also bring significant benefits in shifting expenditure from CapEx to OpEx, and minimising downtime to enable faster speed to market with auto-provisioning.

## Bring on convergence

Efforts to harness IoT and Power over Ethernet (PoE) capabilities have led operators to embark on [convergence of wireless and wireline networks](#) even while PoE technology drives convergence of power and bandwidth delivery.

A converged infrastructure eliminates unnecessary cost and complexity while improving reliability and agility. Advances in wired and wireless connectivity – complementing technology-agnostic access points and switches, converged IoT management software, and unified structured cabling – help to [integrate real estate](#), IT and facilities applications in a single architecture.

Expect a shift from proprietary links to Ethernet-based IP connectivity, whether wired or wireless, so edge network traffic can be consolidated and managed from a [single dashboard](#).

Ultimately, the great value to network admins is that convergence paves the way for a self-healing network



and the use of machine learning (ML) and artificial intelligence (AI) techniques to troubleshoot faster and proactively [improve the user experience](#).

“Networks are changing rapidly, with accelerating growth in users, network elements, devices and device diversity that’s driving a new level of network complexity, making it difficult for IT organisations to keep up,” says Matthias Machowinski, Omdia senior research director of enterprise networks. “Modern cloud-managed networking and ML/AI-based assurance tools provide [automation and in-depth network intelligence](#), promising to give control back to the IT organisation and deliver greater efficiency.”

## Analytical linings

In a move toward a more [autonomous and self-healing network](#), CommScope has introduced an [AI-enabled network](#) management as-a-service platform, with cloud-managed networking and service assurance based upon artificial intelligence and machine learning, to help enterprise IT easily manage a converged wired and wireless network.

[CommScope RUCKUS Cloud](#) requires no on-premises hardware. It merges single-pane wired and wireless management with network visibility and service assurance to expedite provisioning, management and control for deployments ranging from large venues to hundreds or thousands of sites.

“We installed RUCKUS Cloud right before the [COVID-19] pandemic,” says Tyler Faria, technology director at California-based Westside Church. “With shelter-in-place, our operating model changed overnight from live events at multiple sites to live-streaming simultaneous HD camera feeds to hundreds of members.

“Now, we manage multiple networks from one interface, remotely – even during live-streaming events – and a single Wi-Fi 6 AP at each site handles those video streams. We spend no time traveling to multiple sites and far less time managing what is now one network.”

RUCKUS Cloud subscription provides administrators with a unified view across wired and wireless networks of all venues, as well as connected APs, switches and clients. It includes zero-touch provisioning, bulk-scanning and auto firmware updates. The service also supports Wi-Fi 6



APs, which promise five times better performance than Wi-Fi 4 APs. This performance upgrade translates to reduced IT admin workload, improved productivity and tangible economic benefits.

RUCKUS Cloud ensures that every element of bandwidth and power delivery – Wi-Fi and switching, copper and fibre structured cabling, and in-building cellular connectivity – is monitored by a single analytics engine and managed from a single, cloud-based console. It is tightly coupled with RUCKUS Analytics, a network intelligence cloud service that enables IT to accelerate troubleshooting, increase efficiency in service assurance and improve the connectivity experience for end users.

“In the luxury hotel business, a great Wi-Fi user experience is a key component of guest satisfaction,” says Javier Garcia, director of global infrastructure at Mandarin Oriental Hotel Group. “When we started using [RUCKUS Analytics](#) at one of our flagship hotels, we immediately discovered new, potentially service-affecting issues that made us rethink some of our design assumptions.

“Once we made network adjustments, we were able to instantly observe the impact of those changes, right from our desks. Before, we would have been walking the hallways, then going back to make adjustments, then walking the hallways again. Our productivity has skyrocketed.” Unlike the large majority of analytics tools from other leading wired and wireless vendors RUCKUS Analytics offers [prioritisation of service incidents](#) and unsupervised ML for incident analytics.

Start a free [RUCKUS Cloud trial](#), which includes free 60-day Wi-Fi AP management, switch management and RUCKUS Analytics licenses, today, and assess how easily your organisation can define and monitor network performance against SLAs that satisfy the requirements of your users.



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