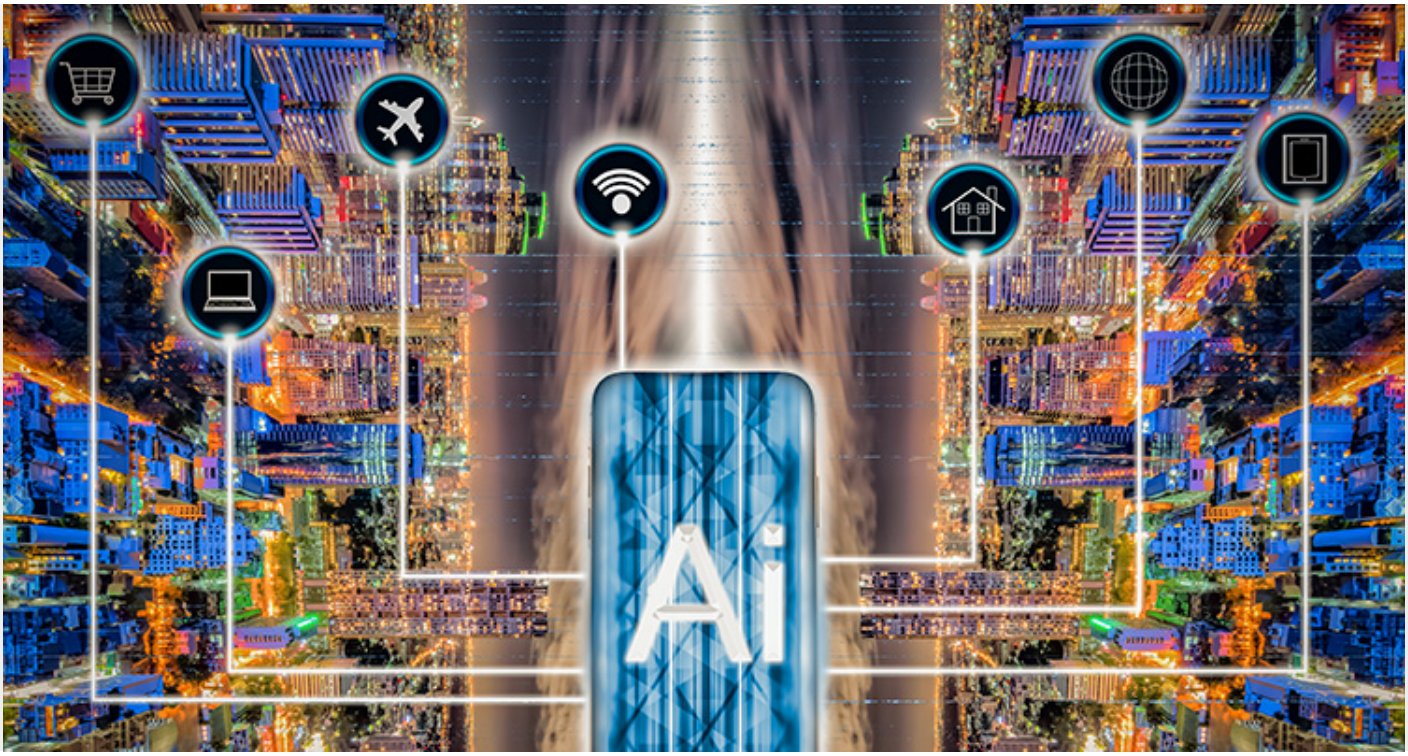
DEMANDING MARKETS DRIVE CSPS TO TRANSFORM NETWORK SERVICE MANAGEMENT



With many global communications markets saturated, one of the most important ways operators can grow their business is by convincing customers to switch from a competitor. That means delivering a better customer experience—or, conversely, avoiding the kind of poor experience that forces subscribers to seek an alternative. This intensified focus on quality is revealing critical liabilities in traditional communication service provider (CSP) operations defined by siloed data, tools, and practices. Transformation has become essential to deliver greater customer satisfaction, more efficiently, as part of the wider journey towards a zero touch, zero trouble future.

As they seek to modernize the way they run their networks and their business, operators are looking to the example of hyperscalers like Amazon Web Services (AWS), Google Cloud, Meta, and Microsoft Azure—companies that work at a similar scale to CSPs, but with far greater levels of speed, agility, and profitability. Telco clouds can help them reengineer their infrastructure for today's requirements, but they're only part of the answer. To remove the operational friction that can undermine service assurance, degrade efficiency, and slow innovation, CSPs must also break down silos and unify workflows across their increasingly converged IT and network domains.

Legacy silos undermine quality and slow innovation

The rapid evolution of communications markets has dramatically reshaped customer expectations. Just a few years ago, subscribers were willing to accept multiple provider touchpoints for different services. Instead of getting unified notifications or having a single point of contact for problems with

products, services, and accounts, they understood that any given issue might take a few tries through different channels to resolve. This reflected the reality on the operator's side, in which an IT environment delivered processes like billing and customer service management, and a separate network environment focused on actual service delivery.

Today, these separate domains generally remain the norm—at least in operational terms. IT and network operations (ITOps and NetOps) teams have their own separate workflow systems. The technologies used across these domains are often duplicative—two sets of tools to pay for and support and two sets of data—customized to meet specific, often legacy objectives. Integrations between the two domains are complex and brittle, if they exist at all.

Designed for a slower-moving era with more modest customer expectations, this fragmented environment makes network service management frustratingly inefficient for both customers and staff. If a customer has an issue with a network-enabled service or application, the request comes in through the IT system, waits to be passed over to a network team for resolution, and then waits to be pushed back to the IT system to update the customer.

But while the siloed nature of network and IT technologies has been slow to change, customer expectations have shifted more quickly. While customer and user interactions with CSPs are slow, unreliable, opaque, and fragmented, other technology companies offer far more seamless and satisfying experiences. This disparity makes it impossible for operators to project a fully modern brand image for the digital era.

Within CSPs, fragmentation slows innovation and business agility. Siloed IT and network data and processes are poorly suited to the new generation of converged delivery infrastructure, where virtualized networking runs on a commodity platform of hypervisors and containers. Cumbersome change management processes make service assurance a brake on the deployment of new services.

While some elements of IT and network will remain in separate domains—fixing a software error is an entirely different prospect than repairing failed hardware at a remote network site—there are vast areas of operations where a unified approach is both practical and increasingly essential. To meet the demands of today's customers and the competitive imperatives of modern communications, CSPs need to drive convergence to the furthest extent possible.

Network service management for an autonomous future

As part of a wider journey toward a zero touch, zero trouble future, many operators are already looking to break down operational and process silos with a unified workflow platform across increasingly converged IT and network domains. After all, when you're delivering virtualized network services (VNS) and converged network services (CNS) over containerized and virtual machine (VM)-based hybrid cloud infrastructures, many or most issues will involve technologies, data, and personnel across both domains.

Bridging the two through common data, tools, visibility, and services can enable ITOps and NetOps teams to collaborate more efficiently and deliver greater customer satisfaction. Specific capabilities can be tailored to meet the needs of various IT and network technical consumers, but teams will no longer need to waste time with manual information-sharing workarounds like email.

Traditionally, networks have been managed by technologies, with highly specialized teams dedicated to individual areas such as transport, access, mobility, orchestration, and so on. As

networking becomes increasingly software-defined, this model is beginning to be replaced with teams organized around products, each spanning multiple constituent technologies. These small, agile teams follow more of a DevOps model, working together to solve issues and create solutions in minutes, not weeks.

Here, too, replacing separate IT and network management workflows with a unified platform saves cost while supporting new ways of working more efficiently, with everyone sharing common data and gaining visibility into the converged environment. New digital and network products can be brought to market quicker, and personnel can spend less time supporting the platform to devote their attention to transformation.

As CSPs move toward more autonomous networks, converged data and workflows enable the replacement of many types of manual toil by both task automation and higher-level artificial intelligence (AI)-powered functions. Operators can use AI innovation to address key challenges around change and incident management, common cause detection, and proactive service management, using data to prevent many problems from arising in the first place, and solving them more quickly and effectively when they do occur. Eliminating repetitive fixes while increasing productivity, operators can reduce cost-to-serve, accelerate mean time to resolution (MTTR), and improve customer satisfaction—with the kinds of experiences that retain existing customers while attracting new ones.

Building unified discovery and AIOps into network service management

The increasing convergence of IT and network technologies demands a greater understanding of the dependencies between the virtualized network and the underlying hybrid cloud platform on which it runs. That makes unified observability a crucial requirement to ensure optimal service for the new breed of network-enabled applications. The vision for converged discovery across converged infrastructure is explored in our earlier blog, “Modern CSPs Need Unified Visibility Across Hybrid Cloud.”

Meanwhile, both zero touch and zero trouble networking require AIOps to reduce noise, improve prediction, find the root causes of service disruptions, and remediate problems automatically. In our next blog, we’ll discuss the essential role of AIOps in the new generation of CSP network and technology operations.

To learn more, read the first two blogs in this series, Modern CSPs Need Unified Visibility Across Hybrid Cloud and Zero Touch, Zero Trouble Starts with AIOps-Enabled Service Assurance

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