SNAP:
The Four Forces Redefining the CIO Agenda in 2026

TATA COMMUNICATIONS | CIO DIVE

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Executive Summary

Escalating pressures on CIOs

Today's CIOs are tasked with navigating volatile, high-pressure environments. They face a daunting set of challenges: more complex enterprise technology ecosystems, evolving AI capabilities, growing cyber risks, geopolitical uncertainties, and higher expectations from consumers and employees.

Networks return to center stage

This means the expectations of CIOs' IT estates – and especially their networks – are changing fast. No longer simply organizational "plumbing", networks are now the backbone that supports productivity, operational resilience and ongoing revenue generation. As essential infrastructure, networks must perform flawlessly, scale instantly and adapt continuously to keep up with new demands.

Operating without a playbook

There are no playbooks for leading organizations through unprecedented technological change. CIOs will need to rethink the design of their infrastructures, the management of their networks and the shape of their partner ecosystems. They'll need to adapt quickly—as fast as the snap of a finger or the blink of an eye.

Four crucial forces

As a leading digital ecosystem enabler, working across hundreds of customers in North America, Tata Communications helps CIOs manage complex digital agendas. Through these conversations, we have identified four overarching forces that characterize the pressures CIOs currently face. We call these forces **SNAP**, a reflection of how fast leaders are expected to respond.

These four forces are:

S

Simplification imperative

IT ecosystems are sprawling, bringing both cost and coordination challenges. CIOs need to work with the right digital ecosystem partner to urgently simplify this operational complexity. By streamlining vendor management and consolidating visibility across disparate systems within a single platform, enterprises can better identify impact, make more informed decisions, and ultimately move faster.

N

Network as a strategic asset

Fast, secure and reliable connectivity is more essential than ever for today's globally dispersed organizations. To best balance cost and performance, CIOs must manage their networks dynamically and thoughtfully accommodate the pace of technology transformation. By adopting a platform-centric approach to their digital fabric, leaders can benefit from greater visibility and resilience across multiple vendors and solutions.

A

AI readiness

Accelerating AI adoption is increasing the strain on enterprise networks—and changing what the network of tomorrow will look like. In future, global, AI-centric digital fabrics will connect multiple clouds, data centers and regions, requiring networks to be re-architected into intelligent, programmable platforms. Virtualization and software-defined networking will become essential, as will the consolidation of multiple networking partners to enable enhanced visibility and control.

P

Precedent-free leadership

All of these forces make the CIO role more difficult and pressurized than ever. Their responsibilities and expectations are expanding. Success will come from focusing relentlessly on business outcomes, and not being distracted by technological novelties. AI is a case in point: it has transformative potential but could also increase cost and complexity. Working with a partner who can simplify and optimize AI systems will be vital.

Read on to hear reflections from CIOs and industry experts on these forces and get advice on how to navigate them.

FORCE 1

Simplification Imperative

It's been nearly two decades since the mass migration of enterprise workloads to the cloud was set in motion. Driven by economics and a desire for agility, companies have been adopting cloud-based infrastructure at an accelerating pace. According to Gartner, cloud customers are now spending more than $723 billion per year on public cloud services, representing an increase of nearly 22% from last year. Increasing integration of AI into business operations will likely amplify this trend, since cloud providers can readily supply the significant computing resources that AI systems require.

Stakeholders might have dreamed of efficiency when they first looked to the cloud, but today's reality is that these environments are often enormously complex. Multi-cloud is now the norm, with analysts concurring that more than 90% of today's enterprises operate across multiple public cloud environments. And hybrid computing models are increasing in prevalence as growing numbers of data-intensive AI workloads demand both on-premises and cloud resources. Gartner forecasts that 90% of organizations will have hybrid cloud deployments by 2027.

These technologies promise to create new business models and value streams, drive unprecedented efficiencies and power innovation. But, for CIOs, they're also creating a degree of operational complexity that threatens to slow the business down, in a world where expectations for speed, reliability and performance are higher than they've ever been.

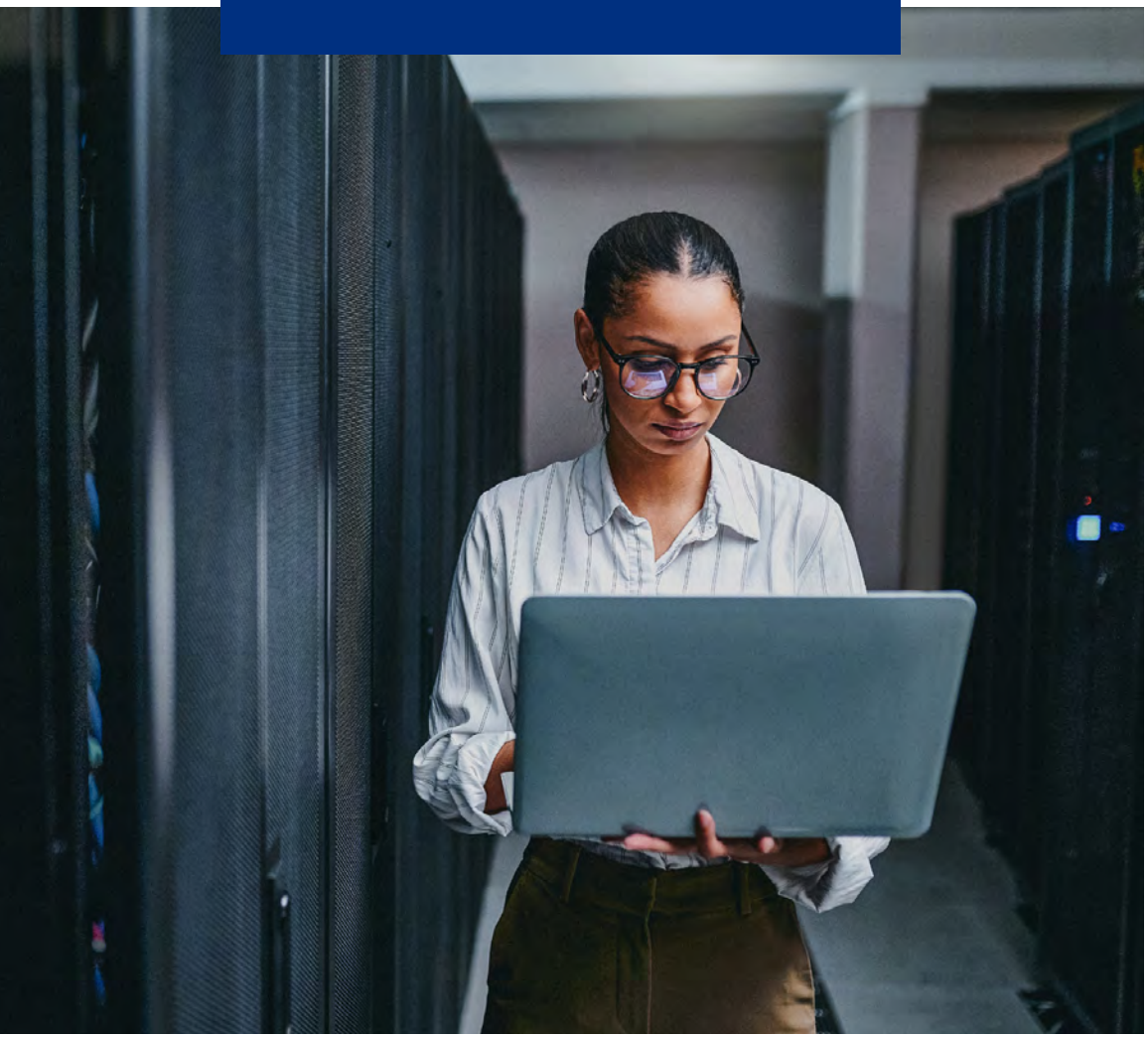
Ever-growing complexity

Today's computing ecosystems are sprawling and interconnected. "There are four areas where I see rapid growth right now," says Murali Krishnan, Associate Vice President and Head of the Strategic Products Group for the Americas at Tata Communications. "One is SaaS—large enterprises have SaaS footprints that exceed 250 applications. Another is hyperscalers, the third is private cloud and the fourth is AI. They all have to communicate. AI applications have to talk to hyperscalers, which have to communicate with SaaS apps. If I had to draw lines representing the data transport paths to support a single application, there would be many thousands of them."

With infrastructure complexity on the rise, CIOs are also tasked with navigating an ever-growing number of vendor relationships, says Rajarshi Purkayastha, Vice President of Pre-Sales for the Americas at Tata Communications.

"For networking alone, I see companies who are working with 30 to 60 different vendors," he explains. "From the LAN to the WAN to the SD-WAN, the more vendors they're working with, the harder—and more expensive—it is to manage all that complexity. But each additional vendor also introduces more risk. What if that vendor closes their business? What if they pull out of a region where you do business?"

Complexity slows everything down, says a CTO and IT transformation leader. "In environments where cloud, data platforms, applications, and security protocols proliferate—each with their own dependencies and quirks—teams spend more time untangling architecture than building features. I lived this challenge firsthand: release cycles dragged, resiliency issues stacked up, and it often felt like we were patching leaks instead of driving forward."



Accelerating pace of change

At the same time, shrinking technology lifecycles contribute to this complexity. CIOs have to keep pace with ever-changing dynamics across the IT landscape. “You can never stay ahead of the technology curve,” says the Chief Technology Officer of a fast-growing AI startup. “Major technology shifts used to happen every three years. Now it’s less than six months.”

“The speed of adoption of AI creates more challenges,” says George Michalitsianos, Vice President of Information Security at Ansell. “It seems like every week there’s a new model or a new feature or something new to talk about. There are so many potential use cases for AI, and our company’s leaders are eager to harness the technology’s potential to help us reach our goals.”

Rising expectations

From online banking to e-commerce platforms and healthcare patient portals, today's consumers are used to always-on digital services, with zero downtime now perceived as table stakes. Meeting these expectations requires releasing new products faster, understanding and responding to customer demands faster, and delivering convenience and personalization faster.

"In people's homes and offices and schools today, everything is connected," says the AI startup's CTO. "Appliances, cars, lighting systems, utilities—all connected. No matter what I do as a consumer or a business user, I'm generating data that has to be processed somewhere. The velocity of everyday life now depends on the speed of network connectivity."

"Everybody wants everything connected at the snap of a finger," says a Vice President expert. "What's expected of networks has changed. It used to be okay if it took five minutes to send a file. That's no longer the case. And CIOs are often held responsible for delivering this speed."

These expectations from customers and partners means organizations are being pushed forward, adds the FinTech CTO. "Event-driven architectures, automated failover, real-time monitoring—all underpinned by scalable global cloud infrastructure and network connectivity—are now vital."

Harnessing this force

When it comes to the consequences of complexity, CIOs are in the crosshairs. Whether there's a service outage that impacts the entire organization or a hardware failure that frustrates the CEO, it's usually the CIO who takes the blame. Yet today's complex IT ecosystems and multi-layered networking environments cannot be overseen by a single individual, especially if large numbers of vendors are involved.

The **right digital ecosystem partner** ccn carry much of the load. Not only can this partner simplify the process of managing multiple vendors, but your partner can streamline operations by **consolidating visibility across disparate systems within a single platform**. With a single view across multiple different technologies—even from different vendors—you can understand how services are performing, offer end users capabilities like self-service provisioning and make informed decisions about rationalizing your infrastructure.

Amidst today's complexity, the right partner can do far more than systems integration or managed service delivery. "Our customers are no longer looking for vendors," says Rajesh Mongia, Associate Vice President and Global Head of Next-Gen Connectivity and Cloud Services at Tata Communications. "They are looking for partners who can co-create with them. They're looking for someone who can help them build innovation labs and run technical workshops, so that they can experiment with new ideas to see what will drive business outcomes. They're not looking for someone who will just tell them what technology to adopt."

FORCE 2

Network as a Strategic Asset

Gone are the days when CIOs could liken the network to plumbing. What used to be infrastructure is now the nervous system of the enterprise. As the number of digital touchpoints explodes, consumer and employee interactions span multiple communication and media platforms. Meanwhile, the rise of hybrid work and cloud-first architectures has made secure and seamless connectivity—from any device, at any location, anytime—mandatory. Extending this connectivity to growing fleets of IoT devices, smart vehicles and industrial endpoints means that always-on global networking is now requisite for production operations, too, not just human collaboration.

In much the same way that networks transformed the media industry, they are now poised to revolutionize everything from manufacturing to healthcare. In an AI-powered world, enterprises that lack agile, intelligent networking backbones will not be able to compete. The future will see much more processing at the edge, which will depend upon seamless and reliable data exchange.

Underpinning the entire enterprise

Today's enterprise cannot function without an available, secure network. "We are a multinational manufacturer," says Michalitsianos. "The digitization of our production processes makes it so that we need real-time connectivity, all the way down to the IoT devices on the shop floor, 24/7. When connectivity is disrupted, it can impact manufacturing and logistics. For us, IT networking underpins success at the enterprise level."

"The expectation is that our network will always work," continues the Vice President expert. "Today, that's a non-negotiable. When you walk into a room and flip the switch, the power should come on. It's the same with the network: when connectivity, bandwidth and speed are needed, they should be there, at the flip of a switch. These things are like oxygen for the modern enterprise."

Global workforces need global connectivity

Over the last five years, remote work and cross-border hiring have sharply increased, making workforces far more global and distributed than they were at any point in the past. For CIOs, this creates an imperative to extend the same user experiences—and consistent security—across a near-infinite number of locations.

"One thing I'm being asked to do is deliver user experiences that are the same everywhere," says Kirk Joubert, Senior Vice President and Head of Network Services and Communications at a Fortune 500 Financial Company. "When enterprises support hybrid and remote work, employees expect the same exact connectivity, whether they're at home, in a local coffee shop, or in the office. They don't care if it's SD-WAN, a virtual private network (VPN) or virtual desktop infrastructure (VDI). They just expect it to work."

Globalization inevitably leads to greater cloud and SaaS adoption, since these technologies can readily support work-from-anywhere employees. "If your foundational infrastructure is in the cloud, and if you're relying on more and more SaaS, how do you design your network to support that distributed model?" Joubert asks. "We have to align what we're doing with what our end users want, but we also have to make sure we're meeting our security needs. It's not possible to achieve zero trust in the cloud if the network wasn't built for that."

Delivering top-notch experiences

Consumer expectations continue to climb, Purkayastha says. "Tomorrow's leaders in retail and banking think proactively about responding to their future customers' needs. It's already clear that zero downtime is an expectation, but so is top-notch performance. Connectivity needs to be robust and resilient, no matter how heavy the traffic becomes."

"In delivering customer experiences—as in networking overall—we're in the middle of a massive shift," he continues. "In the past, the model was reactive. Great customer service was calling someone and getting your issue fixed immediately. Now, it's becoming proactive—effortless service that goes along without a hiccup. In the future, it will become cognitive. AI-driven systems will be able to anticipate future customer requirements and meet them. In this world, every service is mission critical."

Harnessing this force

On the one hand, fast and reliable connectivity is more important than it has ever been. On the other, budgets remain limited. This creates a dilemma for CIOs, who are challenged to balance network performance with economics. Thinking of the network as a strategic asset doesn't mean that funding is infinite. Instead, CIOs have to think carefully about investing in assets that will deliver the maximum-possible ROI.

Successful technology leaders understand that network management is fundamentally dynamic in nature. Designing, building and integrating a network is a one-time process, but the network will need to change over time to accommodate accelerating technology transformation. The right partner can help CIOs balance cost and sustainable innovation, which both need to be top priorities in a world where demands for availability and uptime will only continue to increase.

Adopting a **platform-centric approach**, which provides visibility across multiple vendors' solutions within the ecosystem, also supports resilience. This type of **digital fabric** inherently simplifies hyperconnected, multi-cloud, multi-vendor environments. Fragmentation, management complexity and security risks all increase as technology environments become global. If you have **a partner who can deliver always-on connectivity across all the countries and regions where you do business**, that relationship can become a strategic enabler of your future success.

FORCE 3

AI Readiness

AI adoption is increasing the demands on enterprise networks at the same time that it is highlighting their criticality. Global network traffic is forecast to increase as much as 10x by 2030, while about one-third of organizations have already seen their internal traffic double due to the demands of AI workloads. Tomorrow's networks will still be a utility, but one whose performance determines the success of the business.

Building, training and deploying AI models—especially GenAI and large-scale inference models—requires high-capacity, ultra-low-latency, long-haul connectivity between clouds and data centers in different regions. Ever-increasing AI adoption will also necessitate intelligent, automated traffic handling. Tomorrow's data-aware global network fabric will be optimized for AI traffic flows, routing packets efficiently between the edge, core and cloud AI factories.

Exponential increases in traffic

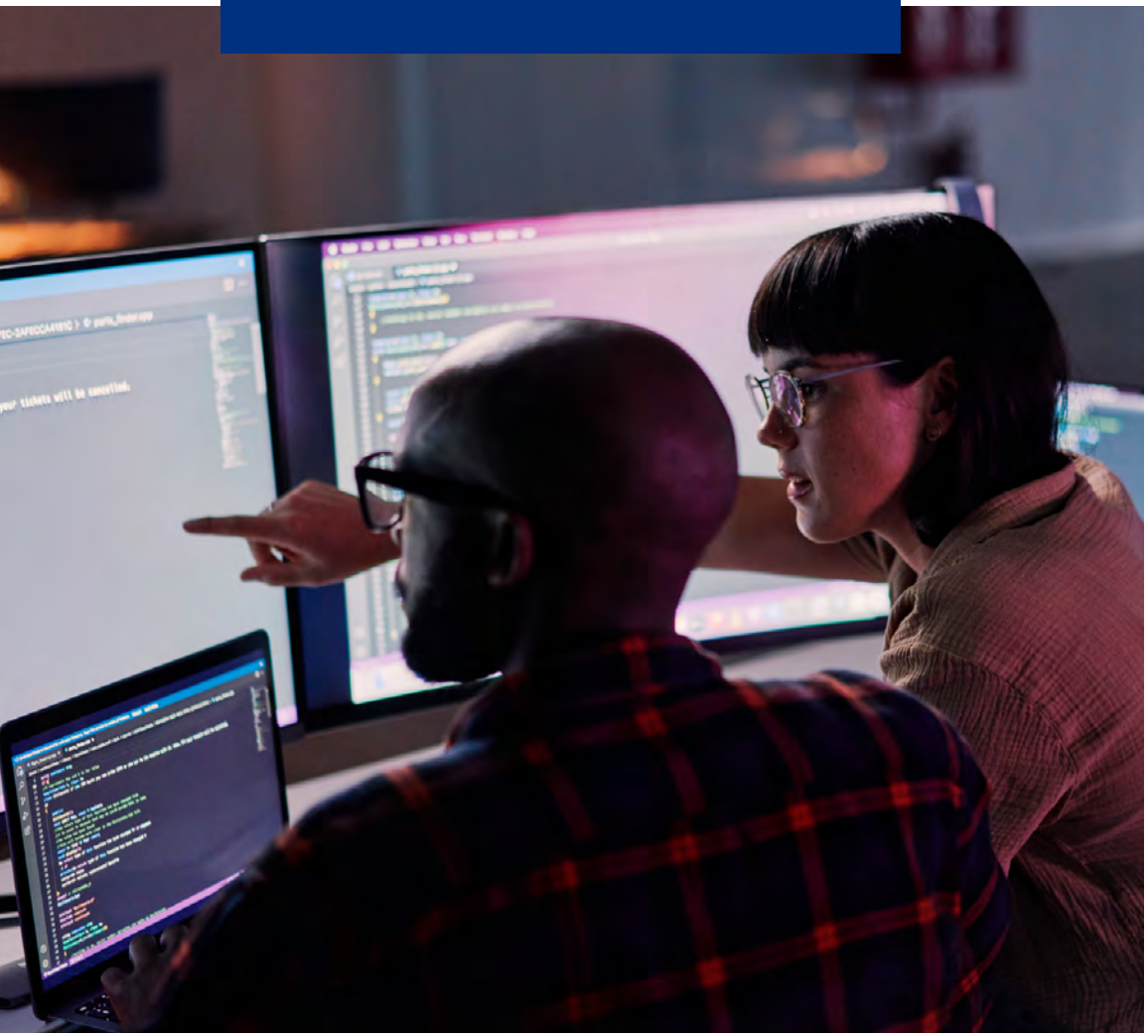
As AI, machine learning and automation become part of a growing number of core operational processes, the need for reliable connectivity will only increase. But from a technical standpoint, infrastructures have to deliver much more. Traffic volumes will grow at the same time that workload criticality increases.

"The level of speed, agility and flexibility that used to be okay, three to five years ago, is absolutely unacceptable today," the Vice President expert explains. "It's even more the case with AI and GPUs coming into play. The expectations have changed at lighting speed—and the expectations are for lightning speed."

Another expert agrees: "Many organizations are excited about AI, but few have the foundations to deploy it properly. In my experience, meaningful AI depends on clean, well-governed data; real-time, reliable pipelines; consolidated platforms; and strong infrastructure. Without those, AI tends to introduce noise rather than insight—and often adds risk rather than value."

Changes across the application estates that enterprises rely on will require changes in networking, says the CTO of a FinTech company. "For training an AI model, you need an enormous data set, which creates a whole new category of demands on the network. AI agents will eventually require new protocols and routing systems, just so people can reach them faster. AI will create a more dynamic world, driving a need for huge increases in bandwidth and better performance."

Industry analysts agree that investments in networking technologies will increase over the next few years. Purkayastha sees this in the future, too. "The network is going to become sexy again," he says. "A growing portion of the transformational IT budget will be spent on networking.



The coming revolution in networking

The only way that tomorrow's networks will be able to meet the demands that AI will place upon them is if their designers turn to AI for help. "Eventually, networks will become cognitive," says Purkayastha. "This means they'll be able to self-diagnose issues and self-heal problems. Cognitive networks will allow us to get ahead of service disruptions before they even occur. It's what every service provider wants to move towards."

But as AI is rapidly integrated into the network control plane, new integration challenges are emerging, Joubert explains. "AI is already beginning to have a tremendous impact on the world of network administration. It can give you an immediate answer about the state of your WAN, your utilization percentage, how well your Wi-Fi is working. But every enterprise network still has some legacy components. The new challenge is getting AI to interface with all the tools and products that are already in place. AI and network automation has enormous potential, but it has to work across the entire business's network."

Harnessing this force

Tomorrow's networks will be part of a **global, AI-centric digital fabric** with direct, high-capacity links between multiple clouds and data centers across regions. This fabric should support seamless connectivity between the edge, the core and cloud AI factories, placing compute and data close to end users and devices while still providing fast, reliable paths to centralized model training and analytics platforms. Moving to this model will mean **re-architecting the network** into an intelligent, programmable platform tailored to support AI workloads. It can't be accomplished simply by adding more bandwidth to yesterday's topology.

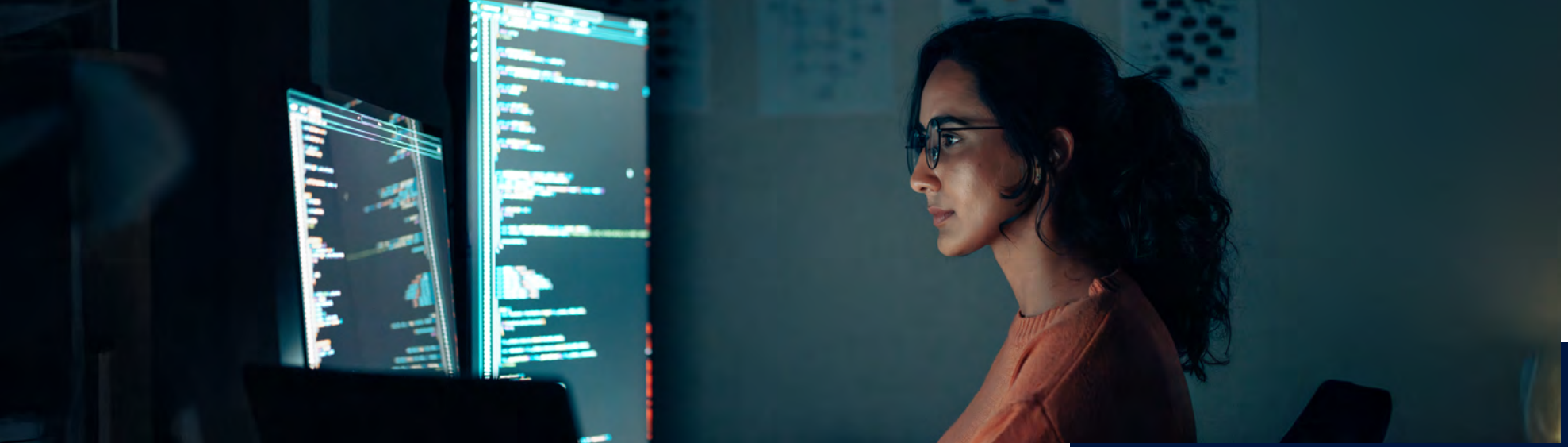
Adopting **virtualization and software-defined networking** will be increasingly essential in the near future. SD-WAN technology can automatically route traffic based on application criticality, so that more important applications rely on 5G links or broadband networks while less important traffic follows a slower path. Emerging unified communications (UC) solutions make it possible to manage and optimize connectivity across multi-cloud environments. **Consolidating multiple networking partners' solutions in a single platform** enables visibility and control across the entire application layer in just one place.

FORCE 4

Precedent-Free Leadership

The above forces—increasing complexity alongside rising expectations—combine to make the CIO role more difficult and pressure-filled than at any time in the past. Average CIO tenures—at 4.7 years—are now significantly shorter than the average CEO tenure, and CIOs are more likely to be hired from outside the organization than any other member of the C-suite.

On the one hand, CIOs must navigate massive and continuous upheaval as the pace of economic, technological and organizational change keeps speeding up. On the other, tolerance for failure is dropping to zero. CIOs face simultaneous challenges on multiple fronts, and each requires innovative thinking and new ways of making decisions. There's no established playbook for success in this environment. Instead, CIOs have to rewrite it in real time as they go along.



A daunting to-do list

In the past, CIOs were mainly answerable for internal technology decisions. Those days are long over, the CTO at an AI startup says. “Today, customer experience is at the core of digital transformation. Security, speed and transaction efficiency directly translate into customer experience, which brings in revenue for the company. How well CIOs are able to support these end users—customers—is what they’re being measured on.”

Today’s technology leaders are expected to range far beyond IT departmental silos. The Vice President expert explains, “We’re an innovation team. That doesn’t mean we spend all day sitting around, thinking about how to innovate.

Instead, it means we collaborate actively with business leaders, talking about the challenges they face and how technology can help solve them. This job requires excellent communication skills and a flair for collaboration. You also have to maintain a laser focus on business outcomes.”

They’re also expected to operate in an environment of continuous upheaval. “Dynamics are constantly changing right now,” says Michalitsianos. “Our leaders are always looking to implement technologies that can make our operations more efficient, improve the health and safety of our workers and keep our global production sites up and running 24/7. My role isn’t just to make sure everyone has internet access. It’s to de-risk the manufacturing process as much as possible.”

The AI imperative

Right now, there's intense pressure from many CEOs and boards to adopt AI as quickly as possible. This doesn't always translate into implementation success. "Many AI projects haven't delivered the value that leaders had hoped for," Purkayastha says. "What has happened is that the loudest and flashiest ideas are the ones that are getting attention, not the ones that can solve real-world problems for individual organizations. Today's CIOs need to make decisions based on what's right for their own companies, clients, and employees. Sometimes this will feel like swimming upstream."

"A lot of people are trying to grab their AI strategy off the shelf and then throw a big dataset at it," says Shane Guthrie, Vice President of Operations at F5 Security. "That's not likely to work. Instead, you have to plan the infrastructure around it and build it out just as you would if you were implementing a traditional algorithm for analytical purposes."

"One thing that I keep seeing is that baking AI into the technology ecosystem tends to be more successful than plugging AI into it," Krishnan says. "Because AI thinks, acts and responds faster than a human would, you can't just force-fit it into operations that used to be centered around humans. You need to adopt a design methodology that considers how AI will drive ROI from the outset."

Harnessing this force

As the CIO's responsibilities—and stakeholder expectations—continue to expand, the leaders who will be most successful are those who can maintain a **north-star focus on business outcomes**. It's important to avoid shiny-object syndrome, or implementing new technologies solely for novelty's sake. Starting discussions and projects with a clear, business value-driven use case in mind is imperative for realizing returns on technology investments.

AI does have transformative potential across multiple areas of the business, but it also has the potential to increase operational costs and complexity. Working with a **partner who can simplify the process of designing, deploying, managing and optimizing new AI systems** is key, since it allows leaders to keep their minds on the bigger-picture business problems that made AI adoption valuable in the first place.

Conclusion

There's a clear through-line that connects the four forces shaping present-day technology ecosystems. In the face of mounting complexity, the increasing importance of networking and mounting pressure to integrate AI, CIOs are being asked to do more, innovate faster and keep everything running flawlessly at all times. Technology lifecycles are shrinking while expectations rise, and global operations now depend on uninterrupted, real-time connectivity. The demands on CIOs just keep getting more urgent.

Rising to this challenge calls for a partner who can simplify your operations, streamline your multi-vendor environment and help you build the agility you'll need to thrive in the dynamic AI era. Adopting a platform approach—one that's centered in a digital fabric—can make complexity more manageable. Leaning on a strategic partner with global reach and deep expertise in building robust, resilient networks can relieve the pressure. Turning to someone you can trust for advice can help achieve what matters most: driving meaningful business outcomes.

This is where Tata Communications can deliver unmatched value. With deep expertise across connectivity, cloud, security and next-generation networking, Tata helps enterprises build the speed, resilience and simplicity their futures depend on. By delivering unified visibility, co-creation capabilities and a digital fabric approach, we empower CIOs to navigate unprecedented pressures with greater confidence.

TATA COMMUNICATIONS

Tata Communications is a leading Commtech player that powers its customers' hyperconnected ecosystems through its digital fabric.

Tata communications brings together tools, platforms, skills and expertise to help its customers build agile infrastructure, enable compelling employee and customer experiences, deploy connected solutions and build cyber resilience.

With our solutions-oriented approach, proven managed service capabilities and cutting-edge infrastructure, we enable a hyperconnected ecosystem powered by network, cloud, mobility, Internet of Things (IoT), collaboration and security services.

Our network is connected to over 35% of the world's internet routes and we connect businesses to 80% of the world's cloud providers and 4 out of 5 mobile subscribers. Our customers consistently rely on us for our expertise and our industry-leading NPS is a testimony to that.

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