From outages to outcomes:

The telecommunications guide to continuous transformation with AI

kyndryl

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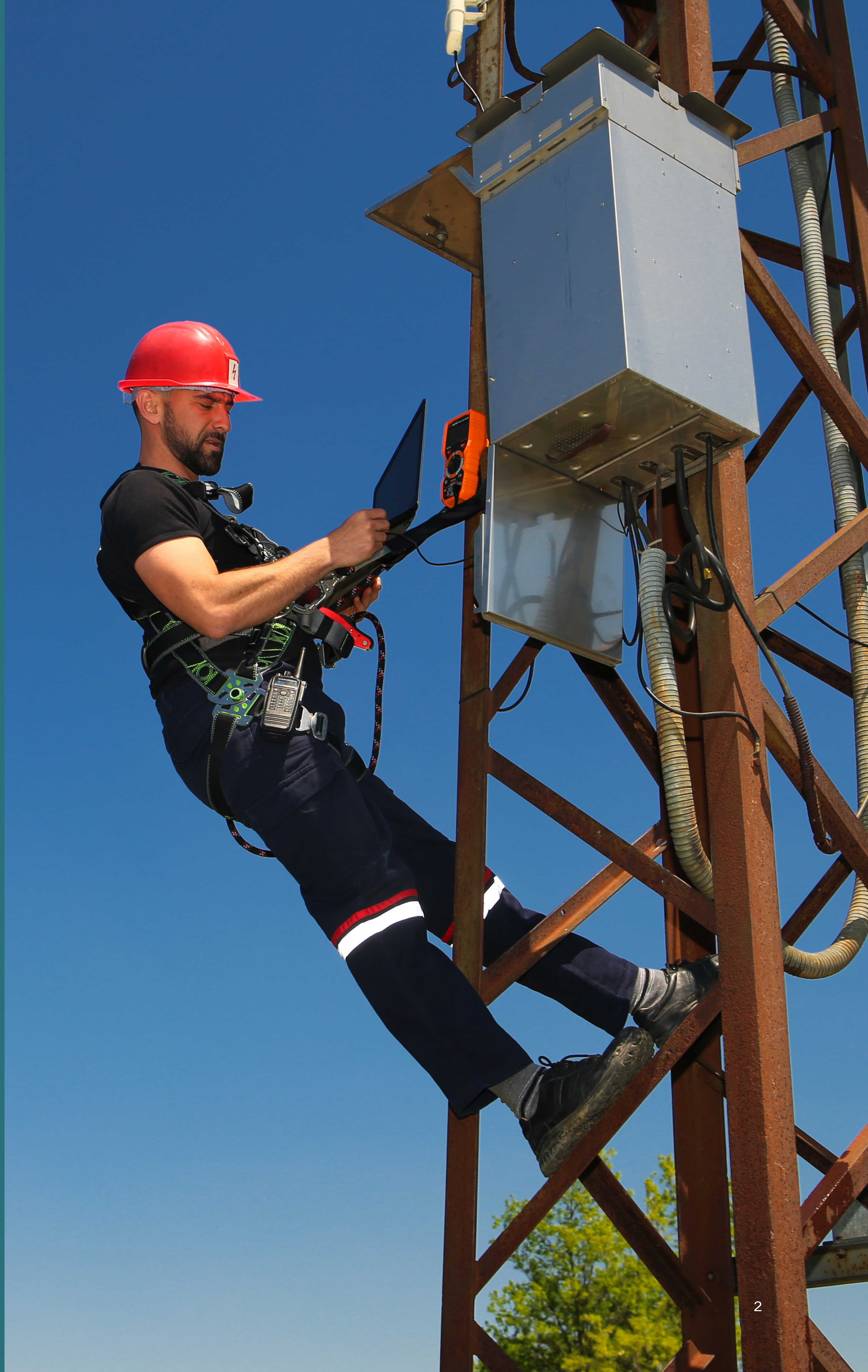


An industry in flux

Telecommunications leaders are being asked to perform two contradictory feats simultaneously: keep the lights on in a world that expects uninterrupted connectivity and reinvent the business while those expectations increase.

External forces like agentic AI, cyber risk, sovereignty, regulatory complexity and quantum computing are also converging with mounting modernization demands, making it even harder for enterprises to run and transform.

The pressure is real. Kyndryl's Telecommunications Readiness Report found that 88% of telecommunications firms experienced a significant cyber-related outage in the previous 12 months, a vivid reminder that disruptions often stem from multiple weaknesses rather than a single gap and reliability that defines the customer experience requires orchestration of people, policies and processes along the entire value chain.

At the same time, the demand to modernize for measurable business impact is intensifying. Telecommunications leaders reported an average 41% increase in AI investment, and nearly two-thirds (66%) said pressure to prove ROI on those investments also grew.

Given the stakes, transformation can't be run as a parallel program to delivery Telecommunications companies must embed modernization into how teams operate networks, resolve issues, govern change and improve performance, every day.

For an industry in flux, one thing appears clear: Telecommunications' next advantage will come from disciplined execution that strengthens reliability, tightens governance and turns AI investment into outcomes customers notice and reward with their loyalty. Leaders who embrace a continuous transformation model will distinguish themselves from competitors.

State of the telecommunications industry

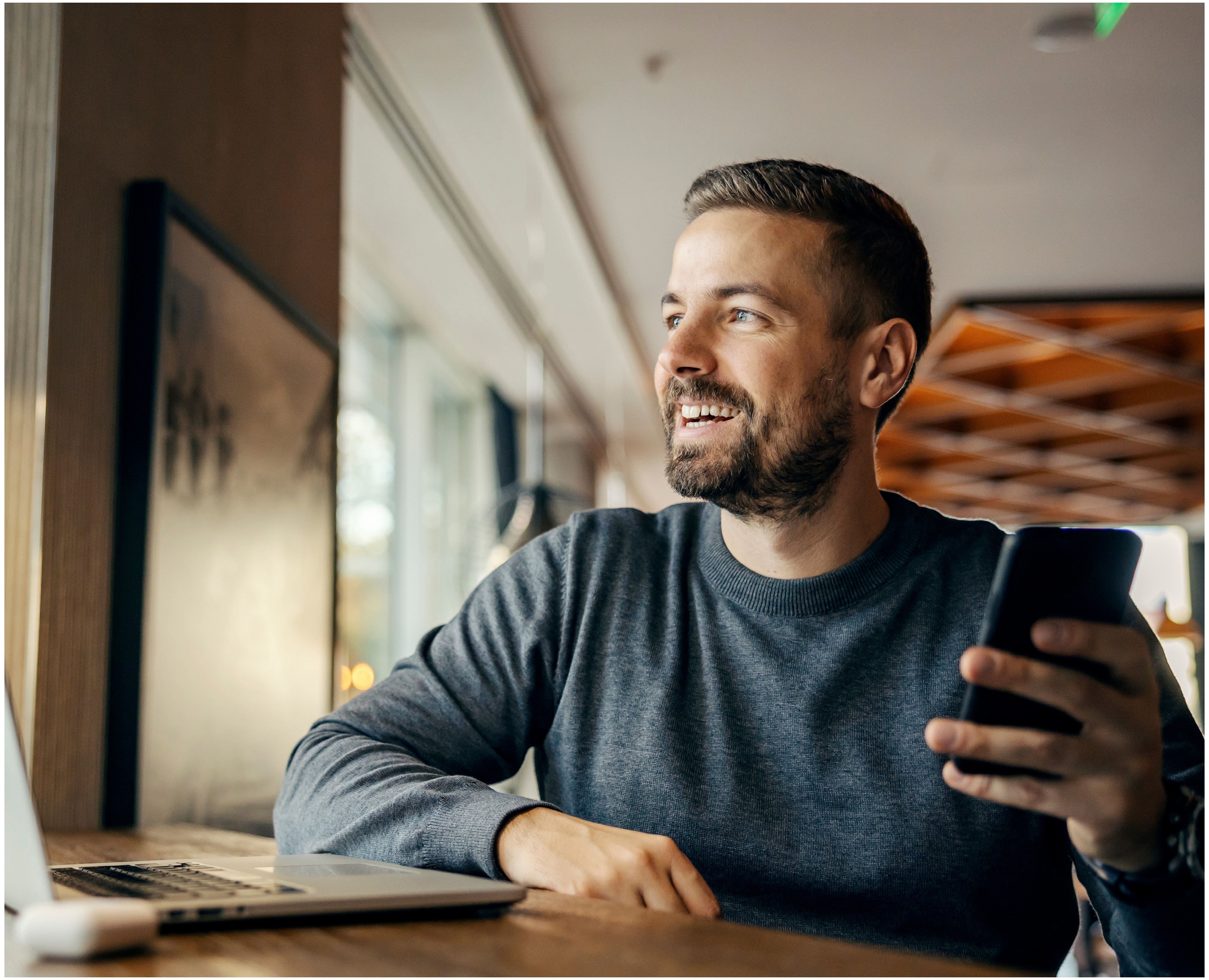
Telecommunications has always been a capital-intensive business built on delivering reliability at scale. What's changed is how little patience the market now has for inefficiency, delays or poor experiences.

Core connectivity has become commoditized, especially in mature markets. Consumers switch providers frequently to cut costs, improve service or simply try something new. This churn compresses margins, increases acquisition costs and makes it harder for telecommunications firms to differentiate.

Meanwhile, technology cycles continue to accelerate. Seventy-one percent (71%) of telecommunications leaders report struggling to keep pace with the speed of change, widening the gap between what customers expect and what organizations can realistically deliver.

AI is dialing up this pressure—but it's also reshaping the opportunity. More than half (58%) of customers indicate they'd let an AI-powered smart assistant act as a digital proxy in customer service interactions.[1] This finding signals clear demand for faster, more automated engagement models.

Agentic systems capable of autonomous decision-making and action offer a unique path forward. Deployed effectively, agentic AI can help reduce operating costs, modernize service delivery and unlock new revenue streams. The technology also enables telecommunications companies to move beyond connectivity, strengthening customer loyalty and positioning companies for growth in an increasingly saturated market.



Key challenges facing telecommunications providers

At the enterprise level, external conditions expose internal constraints that can hinder progress. Five challenges show up repeatedly as telecommunications providers try to modernize, automate and scale.

- **Operational complexity from "accidental" architectures**
  Many providers operate in hybrid environments that evolved without a clear strategy. Sixty-three percent (63%) of telecommunications leaders admit they arrived at their current cloud environment "by accident rather than design." Across industries, more than half of leaders (57%) say issues in their technology stack delay innovation efforts.[1]
- **Hidden data and system drag**
  Legacy-system complexity creates ongoing challenges. Sixty-three percent (63%) of telecommunications leaders say they have data in environments that they can't access because older technology was never properly retired.
- **Inconsistent AI value creation**
  Despite substantial investment, AI hasn't generated consistent returns across the telecommunication industry. Just over half (51%) of telecommunications leaders report positive ROI on AI spending. With nearly as many companies (49%) reporting negative returns, leaders face tough questions about whether to move ahead with current AI programs or revise their strategies.
- **Regulatory and compliance complexity**
  Kyndryl's Readiness Report found that 31% of respondents across industries cite regulatory or compliance concerns among the top barriers to scaling recent technology investments. Without agile IT systems and visibility across the entire IT estate, it's more difficult to meet rapidly changing regulatory and compliance demands in near-real-time.
- **Workforce strain and adoption issues**
  AI is moving faster than many companies can adapt. Telecommunication leaders expect sweeping role change, with 91% predicting AI will completely transform roles in their organizations within 12 months. However, only 29% say their workforce is ready to use AI efficiently and effectively.

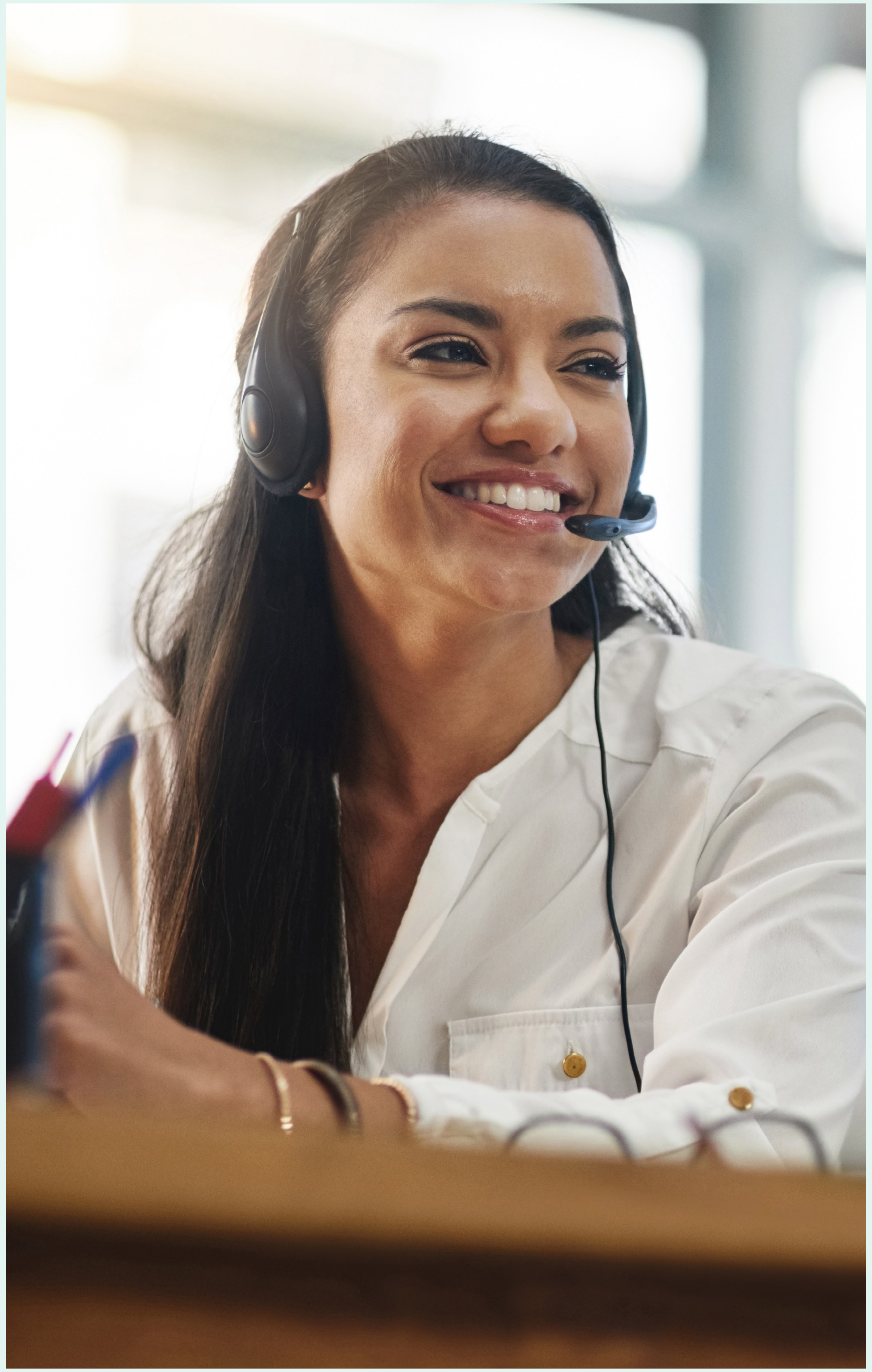
Agentic AI can address many of these challenges, but estates that are hard to see, govern and trust can undermine implementation at scale. Telecommunications companies need a cohesive, continuous transformation strategy that lays the foundation for properly governed and secure-by-design agentic AI.

Key opportunities for telecommunications' future

Obstacles aside, the telecommunications industry can dramatically improve its trajectory by focusing on delivering outcomes rather than connectivity. The opportunity isn't just to modernize the network but to redefine how value shows up for customers, employees and partners. Five opportunity areas stand out.

- **Growth through AI-powered hyper-personalization**
  Readiness forecasts point to AI-driven hyper-personalization as a near-term growth driver. Providers can help customers establish private cellular slices or enhance WiFi (or a combination of both) and then tailor bundles and experiences around location, travel behavior and experiential needs instead of relying on one-size-fits-all offers.
- **Engagement through super-app ecosystems**
  Super-apps—mobile or web applications that combine multiple services into one interface—are emerging as effective tools for engaging customers in unique ways. Research shows 38% of businesses already use super-apps to modularize tasks and workflows, indicating the model is becoming mainstream.
- **Value creation through consumption-based network models**
  Telecommunications with 5G cores that support slicing can offer network slicing as flexible, on-demand service tiers priced by usage, similar to cloud compute offerings. This packaging provides multiple revenue streams from a single network, which is promising for a Network-as-a-Service (NaaS) market projected to grow from US$21.3 billion in 2025 to US$269.3 billion by 2035.[2]
- **Operational advantage through AI and automation**
  Research shows that foundational issues in the tech stack delay innovation for 64% of telecommunications companies. By modernizing and automating core operations, providers can reduce manual troubleshooting and remediation while improving SLA performance and decreasing disruptions.[1] Engineers can, in turn, focus on deploying agentic workflows with the right governance and controls in place to optimize performance. Engineers can, in turn, focus on deploying agentic workflows with the right governance and controls in place to optimize performance.
- **Evolution through partnerships and co-creation models**
  Sustainable growth in telecommunications moving forward will hinge on how effectively leaders manage ecosystems. Research shows that telecommunications leaders who work with partners report more success in achieving ROI targets and delivering large-scale use cases within budget, on target and with security intact. Enterprises that transition from transactional supplier models to a focused set of co creation partners can cut complexity, speed modernization and lay the groundwork for AI native operations.

Translating opportunities into measurable outcomes means telecommunications companies should look beyond connectivity and focus on where they can create real value for customers, employees and partners. By pairing AI and automation with flexible network models and the right co-creation partnerships, leaders can turn modernization efforts into stronger growth, better experiences and more resilient operations.



Four strategic recommendations for telecommunications success

Four strategic moves can help telecommunications transform urgency into execution.
Each recommendation provides a practical starting point for transformation.

1 Reframe the business around outcomes

Subscriber growth and average revenue per user (ARPU) still matter, but they don't account for loyalty, trust or churn in a market where switching providers is easy. A sharper KPI set forces alignment on outcomes that highlight long-term competitive advantage.

Strategic actions for leaders

- Define a small set of KPIs like service reliability, time to resolution and digital journey completion that connect customer experience to operational performance
- Use these KPIs to determine which AI and automation projects to expand and which to keep in the pilot phase
- Treat loyalty as a core part of your operations and invest in the data and processes needed to personalize experiences at scale

2 Fix the foundation before scaling A

Deploying AI and agentic workflows at scale requires operational stability. When reliability improves and complexity drops, teams can expand automation with confidence and convert early wins into repeatable momentum. The fastest path often starts in operations, where outcomes show up quickly and credibly.

Strategic actions for leaders

- Treat observability as a business requirement rather than a tooling decision by combining multiple AIOps and data sources onto an open integration platform that enables estate-wide visibility on a single pane of glass
- Prioritize operational use cases that reduce outages, speed up incident resolution and eliminate repetitive work, starting with the workflows that carry the most revenue, risk or regulation to demonstrate impact and value
- Clean up "accidental" tech sprawl, improve data access and retire outdated systems to boost automation results

3 Make governance a growth enabler

As AI transitions from being an insights provider to an output generator, governance becomes an differentiating capability. Policy-governed workflows enable teams to move faster while keeping decisions explainable, reviewable and audit-ready. The goal isn't to slow innovation but to help scale it responsibly.

Strategic actions for leaders

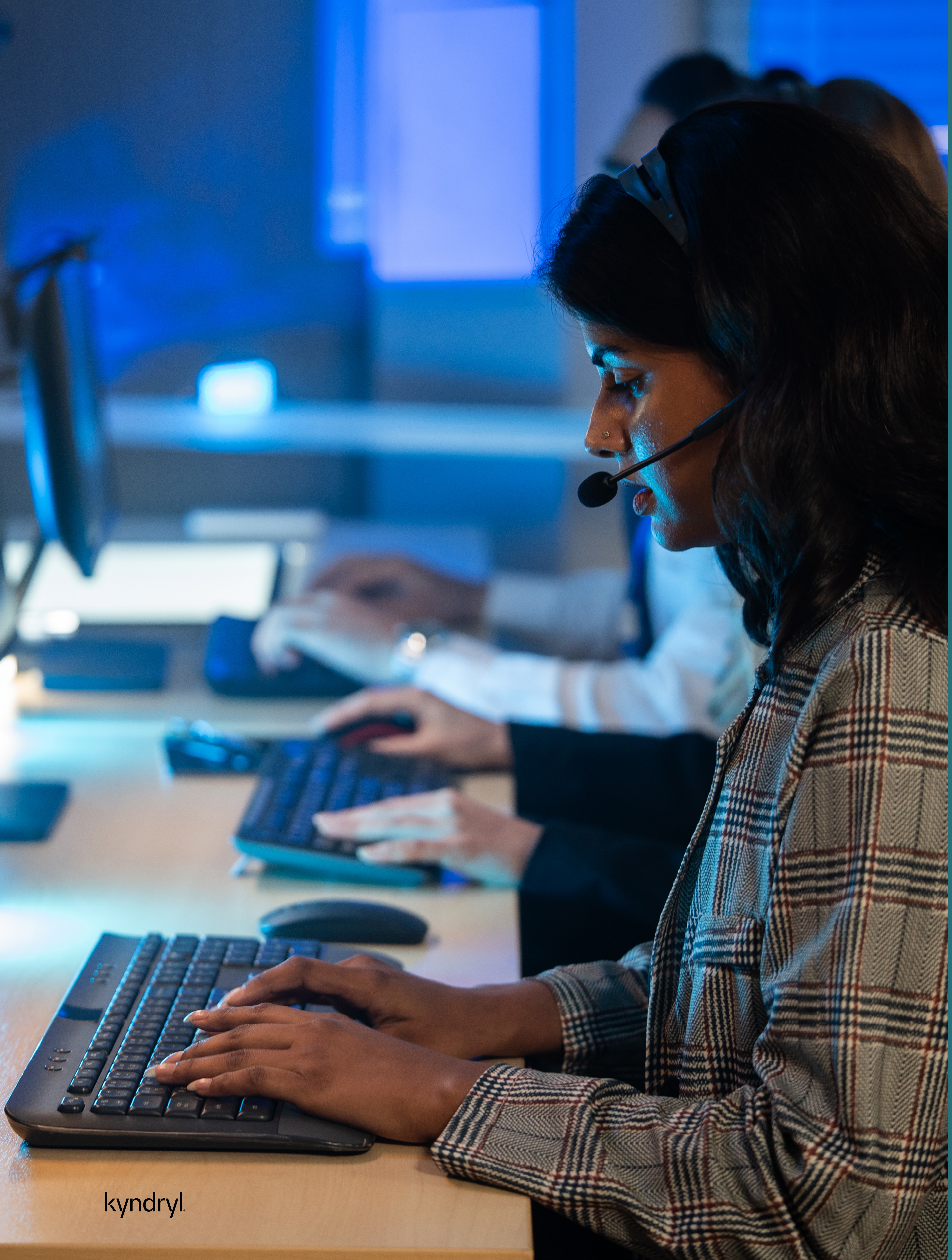
- Identify where regulatory and operational risks overlap and re-shore data and workloads to comply with national regulations and align with governance at the municipality, county and state level
- Include audit-by-design in automation and AI projects so compliance evidence is created during the process, not pieced together afterward
- Establish clear guidelines for human oversight and intervention and restructure AI workflows, operating models and experience design for how people and agents work together

4 Modernize for ambient connectivity and ecosystem-scale delivery

By integrating next-generation connectivity with platforms and partner offerings that customers value, telecommunications providers can create competitive advantage. This packaging requires modernization choices that improve time to market without adding new layers of complexity.

Strategic actions for leaders

- Modernize network and IT systems with a platform-based approach that prioritizes modular services and continuous improvement over one-time deployments
- Work with a small group of key strategic partners to co-create solutions that accelerate time to market and deliver more value than connectivity alone
- Focus on designing networks with stronger uplink capabilities and more predictable, low-latency performance so enterprise customers can run upload-heavy, machine-driven services across their enterprise



GenAI-powered reporting boosts customer satisfaction

A large telecommunications company headquartered in India needed a modern IT operations delivery model to streamline its application operations management and provide a unified and integrated cyber resilience framework.

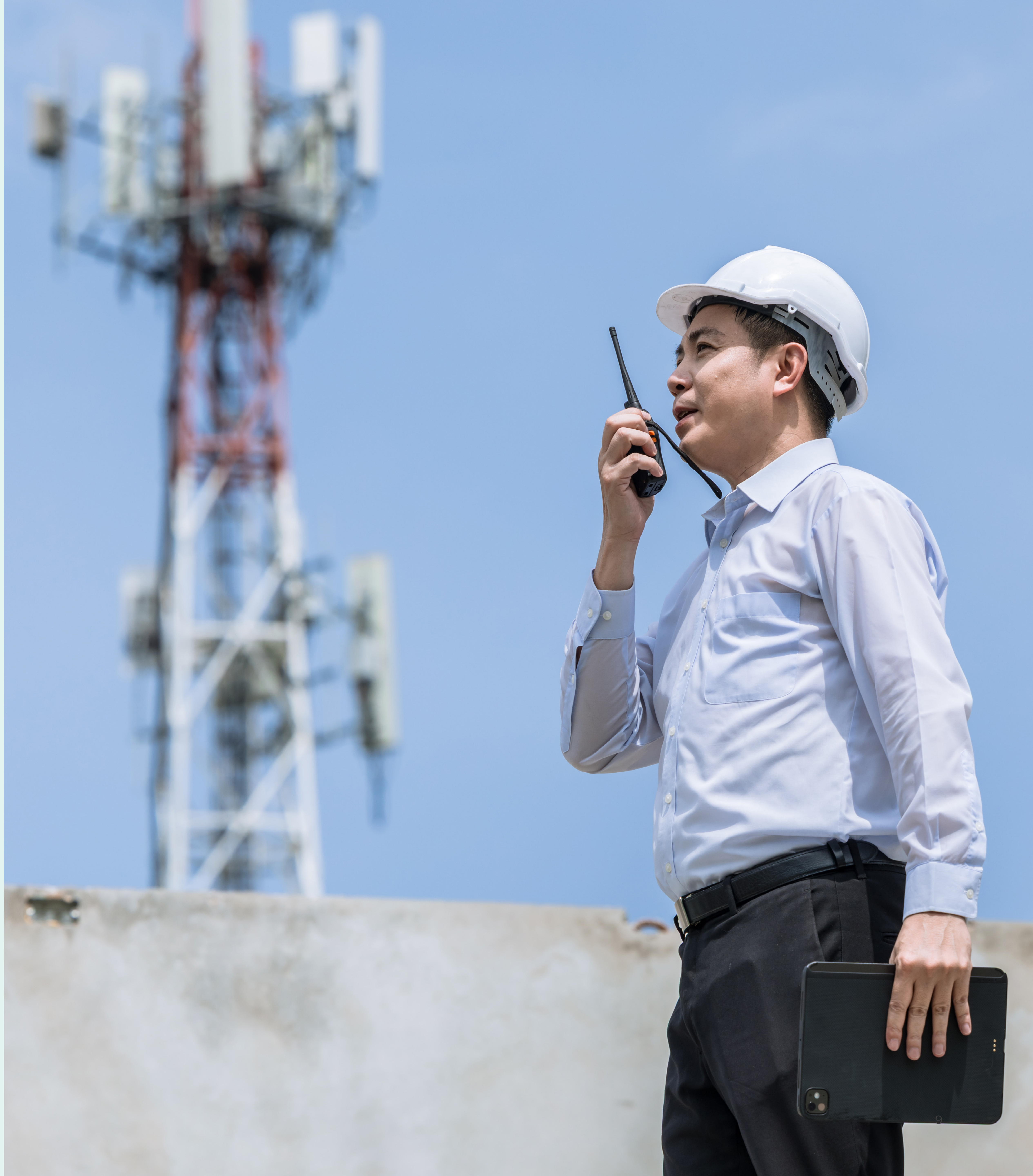
Kyndryl worked with the company to establish AI-driven automation and observability using Kyndryl Bridge, applying machine learning to reduce noise, automate remediation and provide business-service-level visibility.

Setting the stage for continuous improvement

Telecommunications leaders can no longer postpone transformation until conditions feel stable. Today, telecommunications create stability by making real, continuous improvements in how the business runs, day in and day out.

Providers that rethink their operations—not just their offerings—and incorporate AI and agentic AI in their workflows and establish enterprise-grade observability, governance and partner accountability will be positioned to turn investment into bottom-line results.

In the process, these telecommunications companies will strengthen trust and foster loyalty by delivering experiences that exceed customer and employee expectations.



Five ways Kyndryl can help telecommunications companies

Transformation succeeds when telecommunications leaders pair strategic clarity with operational follow-through. As the operating partner for mission-critical AI, we run what we transform. It's how we deliver solutions that perform in production, and not just on paper.

Our vantage point inside the run-state of the world's largest and most complex enterprises is how we help telecommunications providers safely and rapidly move from ambition to measurable results in five practical ways.

1 Simplify complex estates

Telecommunications leaders report accidental cloud environments and foundational debt that slow innovation. Kyndryl helps telecommunications leaders build flexible, secure platforms for new apps and services, adding end-to-end visibility and automation across the IT environment, and moving complex service management systems to the cloud so support teams can respond faster.

2 Improve reliability and efficiency

Operational excellence creates room for growth, but the AIOps adoption gap in telecommunications shows how much opportunity still exists. Kyndryl help telecommunications companies improve reliability and efficiency by applying AIOps, automation and observability to connect operational data across tools, correlate events, find anomalies/root causes and automate routine fixes.

3 Scale agentic AI with governance in the run time

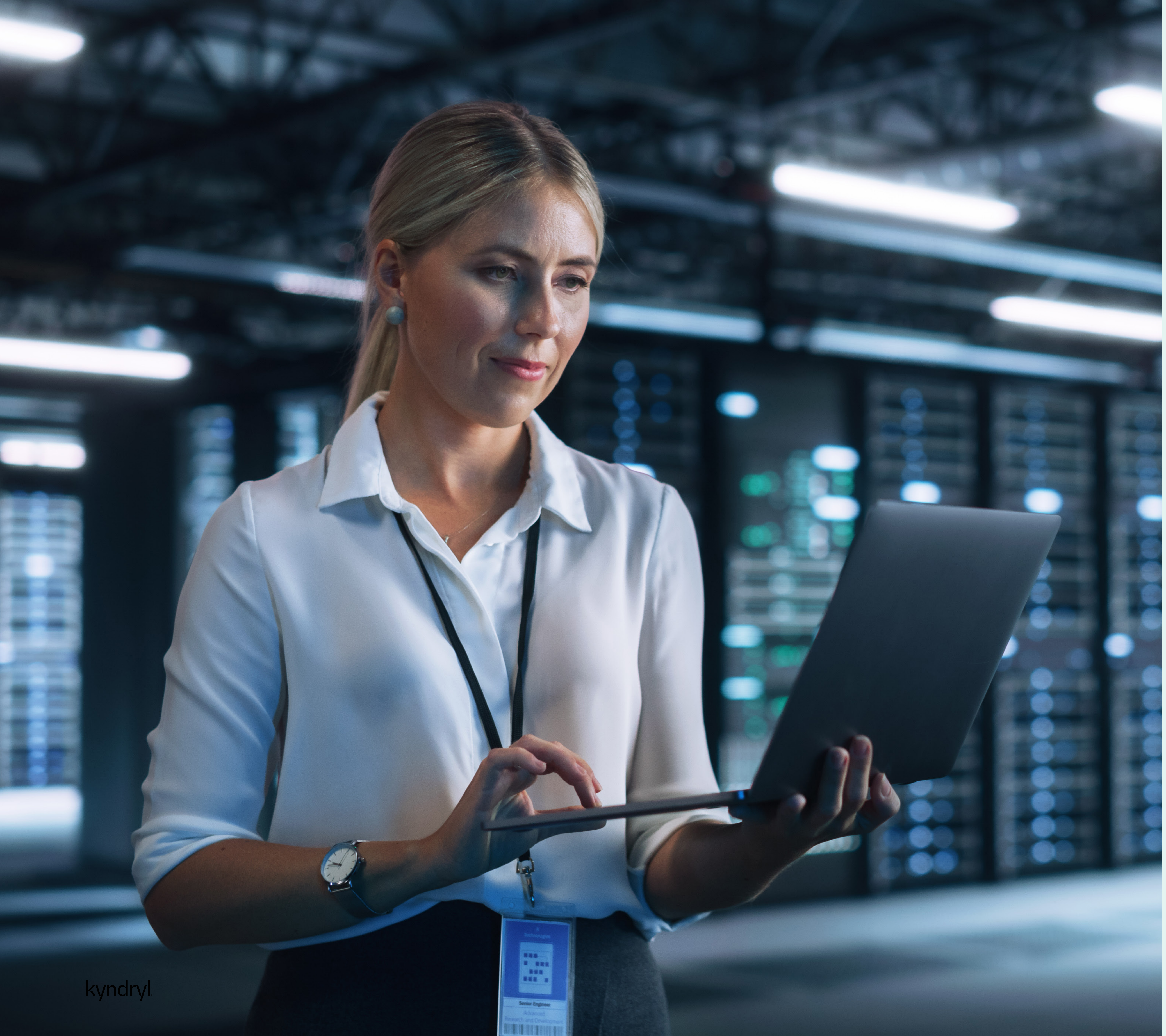
Security, compliance and regulatory issues can hinder the use and performance of AI agents. Kyndryl's policy-as-code capability translates organizational rules and regulatory requirements into machine-readable policies that govern agentic workflows directly in runtime execution—before agents act, not after—to support consistent, auditable outcomes.

4 Orchestrate partner ecosystems and modernization

Telecommunications leaders need best-in-class technology from an array of partners to deliver differentiated services and shorten time to market. Kyndryl helps design and manage vendor-neutral partner ecosystems so telecommunications providers can modernize essential systems, strengthen resilience and deliver outcomes beyond connectivity. With one of the broadest alliance ecosystems in the industry—across cloud, data, and AI—we bring the right partners and technologies together to design fit-for-purpose solutions and orchestrate AI at scale without disrupting the business.

5 Enable continuous modernization

Kyndryl helps customers move from one-time, “big bang” transformation to governed, continuous evolution with AI at the core. Our approach—powered by the Kyndryl Agentic AI Framework and managed using insights and data from Kyndryl Bridge—helps derisk agentic change while accelerating value at every stage, from strategy to the run-state.



Want to turn transformation into a competitive advantage?

Contact Kyndryl to discover how telecommunications leaders can strengthen reliability, scale agentic AI and move from transformation plans to measurable results.

Schedule a consultation →

Citations:

1. Kyndryl Readiness Report 2025, Kyndryl, September 2025
2. Network as a Service (NaaS) Market Size and Share Forecast Outlook 2025 to 2035, Future Market Insights, September 2025