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The AI advantage begins at the network and edge

Organizations should not confine AI to centralized environments — leaders are deploying it where data is created: at the edge. For AI to deliver its full potential, network, cloud and edge infrastructure must work together. That's why AI leaders are building cloud-native, software-defined, edge-enabled architectures. These new architectures support massive data movement, ultra-low latency, secure connectivity, and resilient operations across distributed environments.

The result? A scalable digital foundation that reduces costs, accelerates innovation, and enables new AI-driven workflows from the data center to the edge.

The challenge

From predictive analytics to real-time customer engagement, AI is an increasingly important enabler of innovation, efficiency, and business growth. However, legacy networks are threatening to hold back AI adoption and leave organizations lagging behind their competitors.

Equally, the edge is where data is generated, decisions are made in real time, and AI can deliver immediate business value. Without a modern, secure, and scalable edge infrastructure, organizations therefore risk bottlenecks, latency issues, and missed opportunities for innovation. Here, scaling from the AI pilot stage requires a holistic approach: modernizing both the core network and the edge to ensure seamless, secure, and intelligent data flows from device to cloud.

Organizations are already struggling with the challenges of running hybrid-cloud infrastructure, which tends to create silos of tooling and restrict cross-environment visibility. What's more, 30% of enterprises are expected to automate more than half of their network activities by 2026, an increase from under 10% in mid-2023.[1] This automation will further increase pressure on legacy networks, as will growing concerns around cloud security risks and remote working.

All of these challenges are compounded by rapidly rising data volumes and demands for real-time processing in the age of AI. Data bottlenecks caused by legacy networks can starve AI models, potentially stalling new use cases.

The imperative for network modernization

Network modernization is no longer just an IT upgrade; it's a strategic imperative. By moving from hardware-heavy, on-premises networks to cloud-native, software-defined hybrid networks, organizations can achieve faster time-to-market, reduced outages, improved security, and enhanced agility for new AI-enriched business models. And by preparing the edge of the network for the demands of AI, organizations can tap into rich data from sensor networks and other external sources to drive real-time decision making.

Kyndryl helps leading organizations modernize their networks for accelerated data flow, reduced latency and increased resilience. Our network modernization services span:

→ **Advisory & Assessment** for optimized strategy, risk and visibility. Determine your network's capability to support next-gen technologies including Agentic AI and edge computing.

→ **Managed Network & Security** for resilience and proactive threat detection. Introduce expert 24/7 monitoring, rigorous SLAs, and integrated Security Network Operations Center (SNOC).

→ **Intelligent & AI-Driven Networking** for predictive insights, automated recovery, and uninterrupted network performance. Build a self-optimizing network that adapts to your changing business needs in real time.

→ **Secure & Zero Trust Architectures** for end-to-end protection. Boost your resilience and compliance-readiness with Zero Trust, SASE, micro-segmentation, and quantum-safe networking.

→ **Cloud, Edge & Next-Gen Enablement** for scalable infrastructure. Enable rapid, effective rollout of new AI-powered processes while controlling costs and complexity.

Benefits

Kyndryl network modernization services can enhance your competitiveness in the AI-powered, cloud-first economy. Our deep expertise in mission-critical infrastructure, combined with AI-driven intelligence and global-scale delivery, empowers us to transform legacy networks into engines of innovation and ROI.

Kyndryl can help you not just accelerate and scale your network but also make it edge-ready for the demands of AI, automation, and future innovation.

In network operations, network modernization boosts automation and efficiency; for security teams, it enforces zero trust; and for application owners, it delivers a step change in performance and user experience.

Why Kyndryl

Kyndryl has deep expertise in designing, running, and managing the most modern, efficient, and reliable technology infrastructure that the world depends on every day. We are deeply committed to advancing the critical infrastructure that powers human progress. We're building on our foundation of excellence by creating systems in new ways: bringing in the right partners, investing in our business, and working side-by-side with our customers to unlock potential.

Connect with us

To know more, visit https://www.kyndryl.com/us/en/services/network/modernization.

Or book a consultancy session at https://www.kyndryl.com/in/en/services/network/consult.

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Source:

1. Gartner Says 30% of Enterprises Will Automate More Than Half of Their Network Activities by 2026, Gartner, September 2024