

# ENABLING SECURE AND SCALABLE NETWORKS FOR AI-DRIVEN ENTERPRISES

## The AI readiness gap

AI has become a boardroom priority, with CEOs mandating rapid adoption to unlock transformational value. Yet despite significant investments in data, cloud, and compute, only 5% of organisations have achieved true AI readiness at scale, leaving most enterprises stuck in pilots and fragmented deployments.<sup>1</sup>

By 2030, an estimated 70% of data centre capacity will be consumed by AI workloads<sup>2</sup>. The real bottleneck won't be AI models or data; it will be the network. Existing enterprise networks are not designed to support the performance, scale, and security requirements of distributed, data-intensive AI workloads.

At the same time, 93% of IT leaders expect meaningful cost savings from smarter, more adaptive network infrastructure, reinforcing that network modernisation is central to unlocking AI value.<sup>3</sup>

## Why networks must evolve?

AI drives exponential demands on bandwidth, speed, traffic, and global connectivity, making traditional networks inadequate. Traditional networks, built as static “plumbing,” cannot meet these demands. Simply scaling capacity isn't enough; the network must be re-architected for AI and evolve from passive to predictive, self-healing platforms.

Figure 1: AI-driven enterprises demand a new class of connectivity



This requires enterprises to transition to a next-generation network architecture that is intelligent, adaptive, and secure by design, enabling dynamic workload awareness, automation, unified visibility, multi-cloud and multi-data centre abstraction, and embedded security and sovereignty by design.

# From connectivity to cognitive network platform

This transformation to an AI-ready network can be achieved pragmatically without requiring a complete overhaul. Enterprises should take a phased approach by assessing their current readiness, validating impact through targeted pilots, and scaling systematically into a future-ready architecture. As they evolve, networks must become workload-aware, predictive, and self-healing, with real-time visibility across multi-cloud or multi-data centre environments.

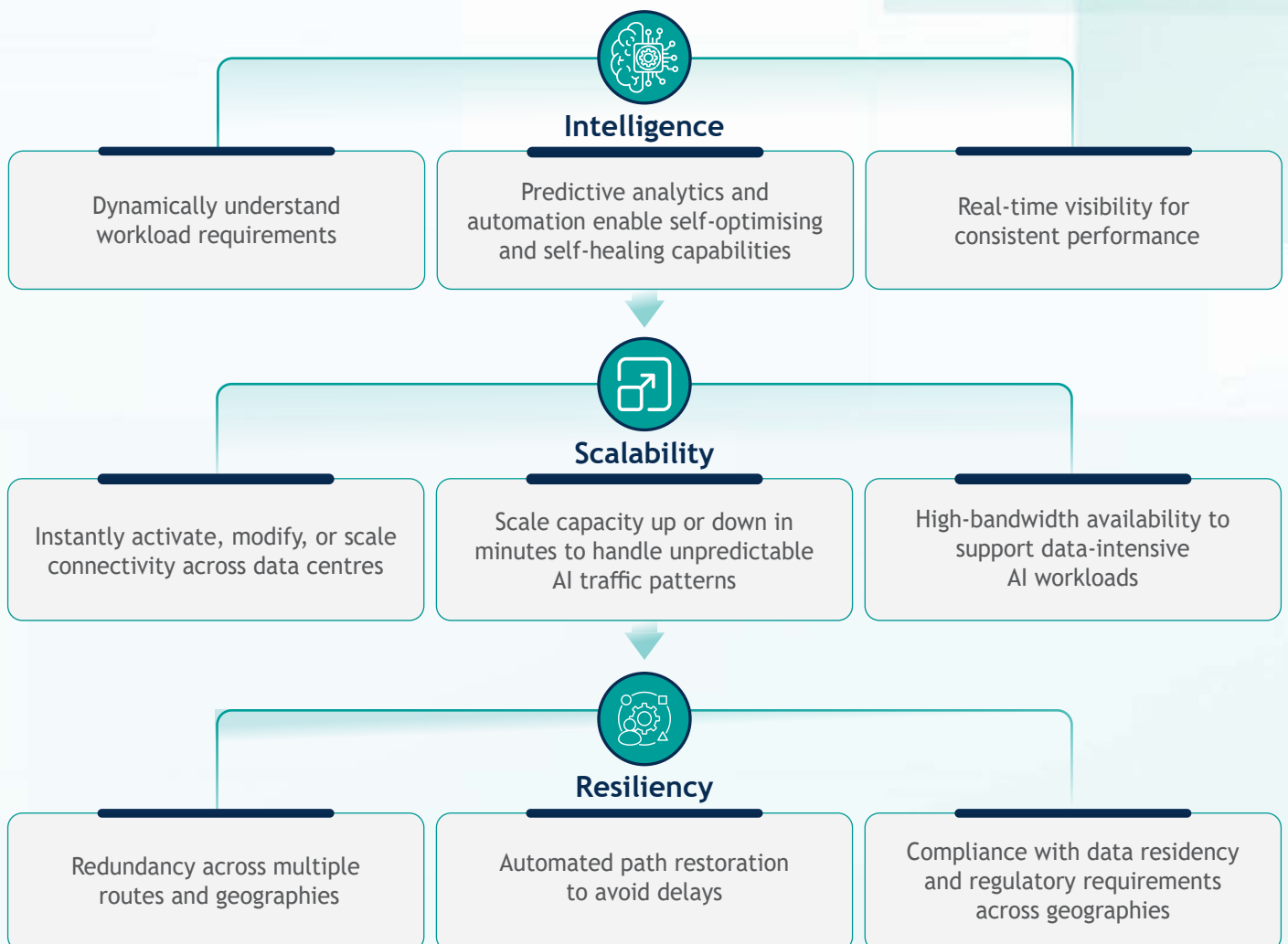
The network must evolve into a strategic asset, the control plane that enables seamless scalability, dynamic performance, resiliency and built-in security. This means supporting flexible bandwidth for AI traffic, simplifying complexity and embedding resiliency into the network fabric. Organisations that act now will accelerate AI deployment and gain competitive advantage, while those that delay risk rising costs, stalled AI initiatives, increased operational complexity, and loss of market agility.

## Building an AI-ready network

To become AI-ready, networks must evolve from passive, content-based infrastructure to predictive, context-aware platforms. They must intelligently detect workload needs such as high-intensity AI training and dynamically optimise performance through low-latency, dedicated paths, bypassing conventional routing to ensure consistency, speed, and scale. The network must evolve into an intelligent, self-healing system that proactively detects disruptions and seamlessly switches to alternate paths, ensuring uninterrupted performance and business continuity.

To enable AI at scale, the network must evolve into a strategic platform with three foundational pillars:

**Figure 2: The three pillars to build a secure and scalable network**

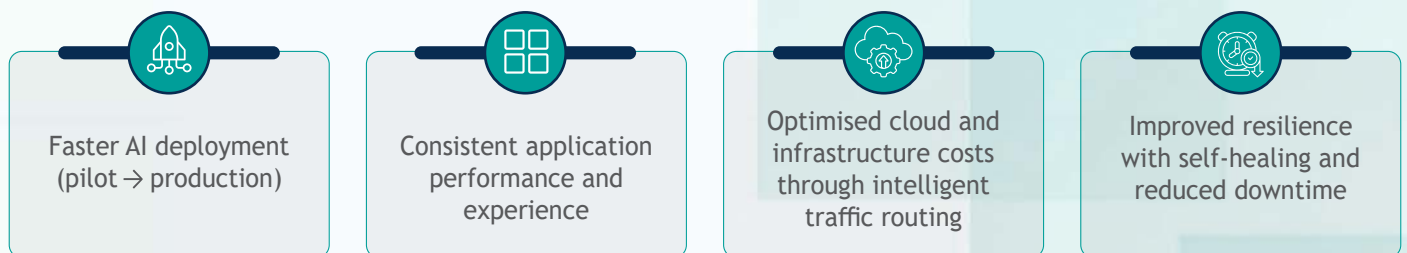


## From network modernisation to business impact

Enterprise networks are evolving beyond cloud-centric models to support AI-driven data flows, distributed workloads, and real-time decisioning. The network is no longer just an enabler—it is becoming the critical factor in translating AI ambition into measurable business outcomes.

As AI adoption scales, success depends not just on model accuracy, but on the network’s ability to securely, efficiently, and reliably move data across distributed environments. This shift elevates the network from infrastructure to a strategic control plane that directly impacts AI performance at scale.

Figure 3: The business impact is immediate and measurable



As a result, connectivity evolves beyond transport to enable connected intelligence, driving agility, innovation, and faster decision-making.

## The mandate for enterprise leaders

The window to build this advantage is narrowing.

A new network blueprint is emerging that is built on intelligence, scalability, and resilience by design. Organisations that modernise now will scale AI faster, more reliably, and sustainably.

Figure 4: The risks of delay in action



The mandate is clear - Reimagine the network as an intelligent, scalable, and secure foundation for AI.

Those who act decisively will gain a durable competitive edge. Those who wait risk falling behind.

The time to act is now.

Sources: 1. The state of AI (Survey), McKinsey, 2025 | 2. Data center demands, McKinsey, 2025 | 3. A major infrastructure shift is underway, Cisco research, 2025