AI-driven Networking for Unified Observability and Enterprise Network Transformation

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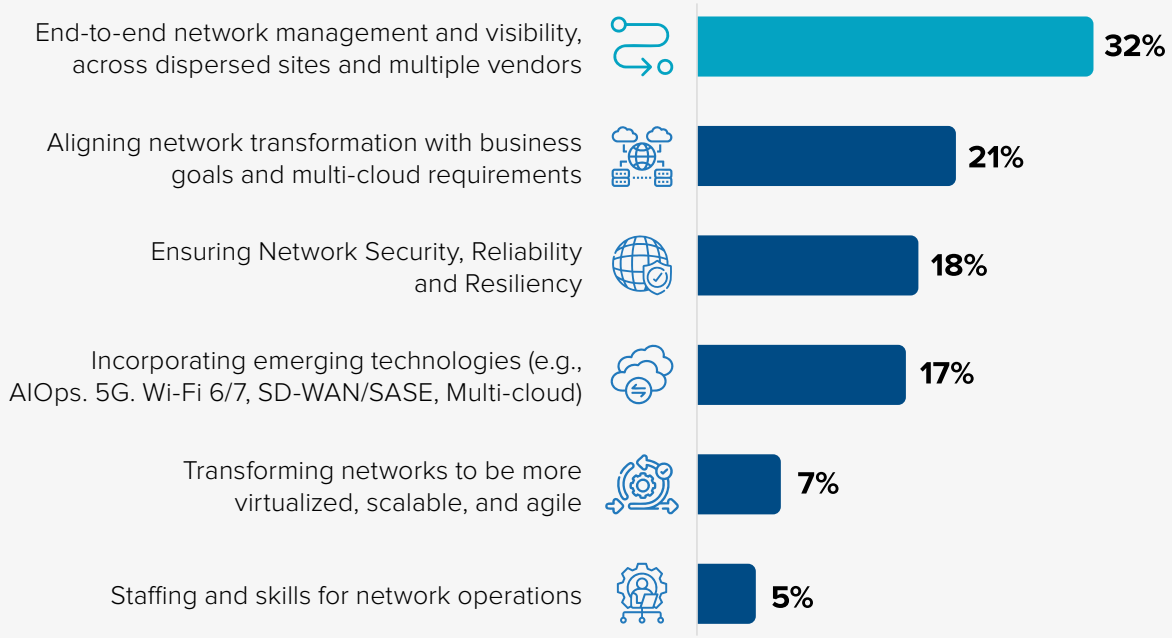
FIGURE 1

End-to-end Network Visibility and Management - The Top Challenge

Q. From a networking perspective, what are the top 3 connectivity-related challenges experienced by your organization?



Source: IDC Asia/Pacific Enterprise Connectivity Survey 2024, 2024 (n=700)

Complexity of Managing a Distributed, Multi-Vendor Enterprise Networking Environment

In today's hyperconnected digital business environment, the reformation of network architectures, technologies, staff, and management practices must accelerate as business and IT pressures continue to rise dramatically. Resilient, expansive, and dynamic networks connecting the network edge (e.g., remote workers, branches, stores, and things) and major sites (e.g., campuses, warehouses, factory floors, and hospitals) to private datacenters and public cloud services are increasingly critical, complex, and costly.

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At the same time, networking budgets, staff shortages, tool constraints, and legacy systems undermine service delivery and advancement efforts. For organizations with limited tools, resources and skill sets, engineering and operating an efficient and fully effective network is becoming almost untenable.

IDC's Asia/Pacific Enterprise Connectivity Survey 2024 (Figure 1) highlights that organizations in Asia/Pacific are struggling to modernize their networks while managing growing complexity and risk. The survey highlighted that the biggest challenge is achieving end-to-end network management and visibility across dispersed sites and multiple vendors (32%), as fragmented tools, connectivity mediums and vendors make it difficult to ensure application performance. At the same time, aligning network transformation initiatives with business goals and multi-cloud strategies (21%) adds another layer of complexity. Network security, reliability, and resiliency (18%) continues to remain an ongoing challenge, with organizations seeking to mitigate cybersecurity risks and ensure reliable connectedness across the organization. **Together, these challenges highlight the growing need for AI-driven networking, which can enhance visibility, automate management, and enable enterprises to build more agile, resilient, and intelligent networks.**

AI-Augmented Networking and Unified Management is the Key to Unlocking True Enterprise Connectedness

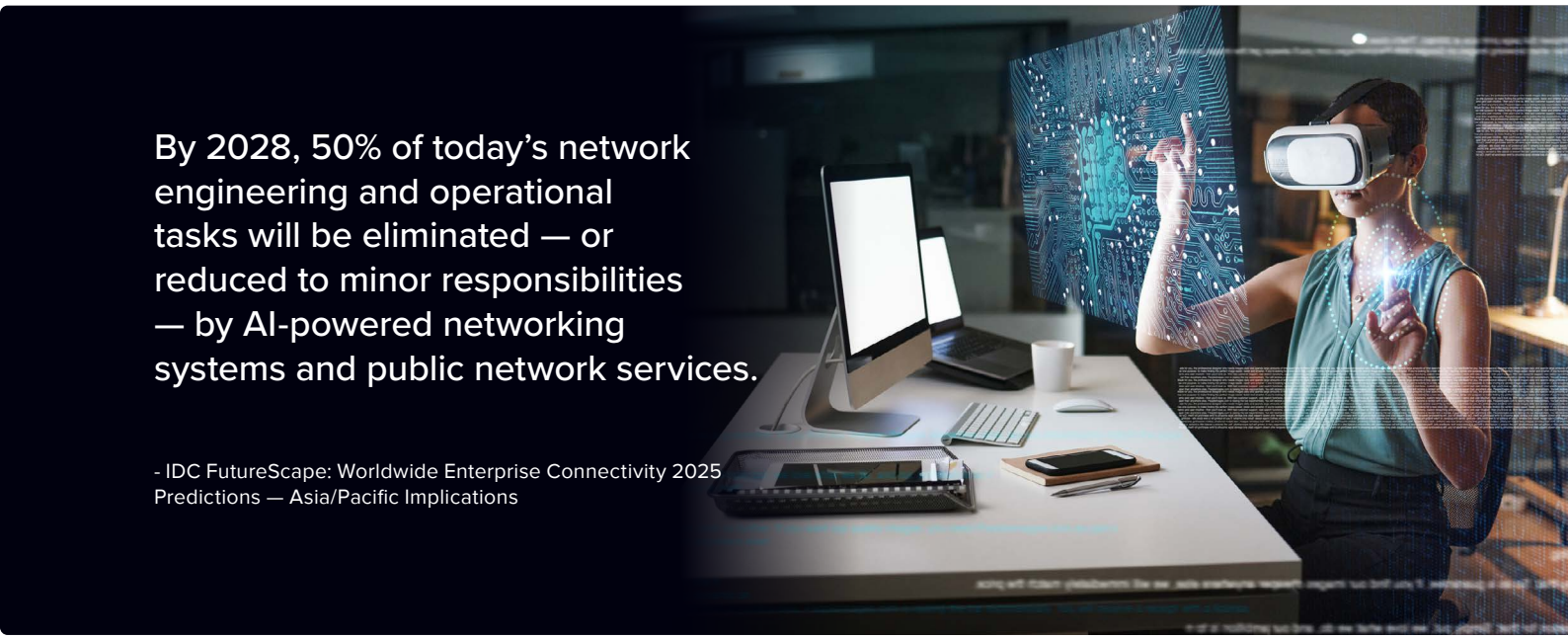
Given the criticality of a resilient network strategy to business success today, the reality is that organizations will always rely on a mix of diverse network infrastructure from multiple vendors and service providers to achieve redundancy and required performance.

As a result, network systems and services that leverage comprehensive intelligence and in-depth insights to direct or even execute precise "self-driving actions" reduce staff tactical engineering and operational responsibilities. Network deployments, monitoring, protection, problem-solving, and enhancements are all areas served by the smarter and simpler network.

This more enlightened and energized network eliminates many of the mundane, laborious, and time-consuming tasks handled almost entirely by the networking staff today. And relief on the tactical side of network management enables networking staff to take on more strategic roles and responsibilities — for example, network design and innovation, cross-IT collaboration, and digital business acceleration.

By 2028, 50% of today's network engineering and operational tasks will be eliminated — or reduced to minor responsibilities — by AI-powered networking systems and public network services.

- IDC FutureScape: Worldwide Enterprise Connectivity 2025 Predictions — Asia/Pacific Implications



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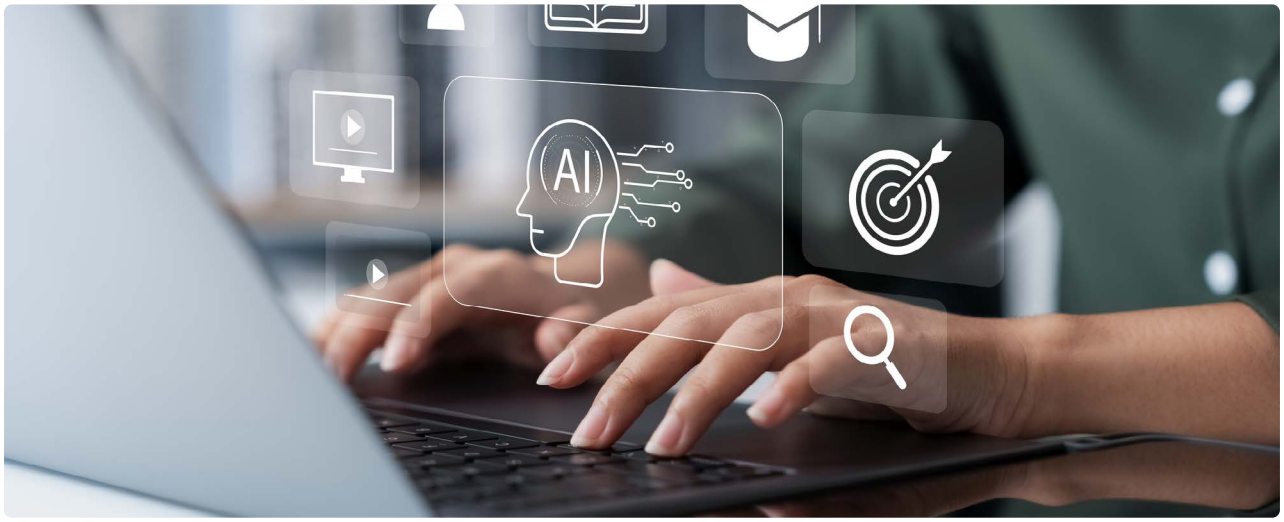
However, selecting the right technology partner is critical to this AI-networking journey. Consider the following areas when evaluating the potential partners:

- The ability of the service provider to de-risk the deployment journey through AI/ML and automation spanning the planning, proof of concept, design, configuration, and deployment phases.
- The depth and real-time aspects of end-to-end performance management, including underlay, overlay, and application layer.
- End-to-end observability and visibility of multi-vendor networking environment, with an intuitive UI and dashboard customisation options based on user profiles.
- The maturity of the client portal to simplify configuration management and strive toward self-management.
- A unified view of performance metrics, and associated costs for the entire networking environment.
- Flexible contractual models to better align with business requirements.
- The inclusion of integrated, multilayer network security solutions that mitigate attacks and guard against intrusion and malicious actors.



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