

Next Generation

Connectivity

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As digital platforms, applications, and solutions become integral to business success, the role of IT grows increasingly crucial. Rob Price explores Next Generation Connectivity, emphasising its strategic importance, sustainability, and smart infrastructure development.

Attributes of a Modern Network

Connectivity: A modern network must connect everything efficiently. According to our CIO Report, 75% of respondents see connectivity infrastructure as a significant barrier. Ensuring this infrastructure is fit for purpose is essential.

Reach: The Internet of Things (IoT) demands extensive reach, connecting previously unconnected areas such as mines, offshore wind farms, and airports. Technologies like Private 5G, LoRaWAN, and Ultra Reliable Wireless Broadband expand network reach to meet these needs.

Agility: Networks have become increasingly complex, often consuming IT resources just to maintain them. Software Defined Networking (SDN) reduces operational overhead, allowing IT to focus on driving digital outcomes. Combining SDN with AIOps technologies brings us closer to zero-touch networks.

Security: With 83% of CIOs reporting cyber-attacks in the past year, security must be embedded by design, not added later.

At-A-Glance

Attributes of a Modern Network:

- Connectivity
- Reach
- Agility
- Security
- Observability

Leveraging the Network:

- Private 5G
- Artificial Intelligence (AI)
- Internet of Things (IoT)
- Sustainability

Observability: As digital reliance grows, monitoring network performance is critical. Rapid fault identification and remediation protect service levels and user experience.

Attributes of a Modern Network

Once an agile, secure, and observable network is established, it is essential to maximise its value:

Private 5G: This technology revolutionises connectivity infrastructure, offering unparalleled reach, speed, reliability, and security. It enhances operations in smart buildings through automation and IoT integration.

Artificial Intelligence (AI): AI's rise is transforming IT operations. Our recent CIO report showed 89% of respondents are incorporating AI into their businesses. AI simplifies IT activities through assistants (Bots) and enhances security and observability analytics. Beyond IT, AI is revolutionising business operations, from task automation to content generation and software coding.

Internet of Things (IoT): IoT connects billions of devices, driving value through their interactions. Use cases vary by industry; for instance, IoT in retail differs from manufacturing. Smart buildings exemplify IoT's potential, integrating systems like lighting, HVAC, surveillance, and access control to improve user experience, security, and operational efficiency.

Sustainability: IT can significantly impact organisational sustainability. In our CIO survey, 96% of respondents are involved in sustainability planning. This includes ethical IT asset disposal, minimising IT's carbon footprint, and using IT to reduce energy consumption in other systems.

Navigating Next Generation Connectivity requires vigilance, innovation, and collaboration. By harnessing connectivity, we can drive meaningful change, enhance sustainability, and create smarter living environments, propelling organisations into a future of limitless possibilities.