



Network Assessment

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Executive Summary

The C86 (Company86) Network Assessment is a comprehensive, risk-led future-focused evaluation of an organisation's wired and wireless network environments. The service assesses current state performance, resilience, scalability, automation, and security of the networking environment. Delivering a clear roadmap to enable an organisation to implement a unified, intelligent, and future-proof network capable of supporting exponential data growth, increased connectivity, and advanced technologies such as AI and automation. The assessment supports informed decision-making across both the technical teams and senior leadership.

The Evolving Organisational Networking Landscape

Enterprise networks are operating on an unprecedented scale. The number of connected users, devices, applications, and data sources continues to grow exponentially, driven by cloud adoption, mobility, IoT, AI adoption, edge computing, data-intensive workloads and the forward view to adoption of Quantum computing.

In response, network technologies are evolving rapidly. Modern networks increasingly rely on unified service delivery, higher levels of automation, and intelligent control planes to manage complexity, optimise traffic flows, and maintain consistent performance at scale.

Artificial intelligence and advanced analytics are now being applied across network environments to enhance visibility, predict congestion, automate remediation, and continuously optimise traffic delivery across the entire network estate.

At the same time, many organisations face a miriad of regulatory obligations requiring clear documented reporting of their own networking and that of their supply chain. The network plays a critical role in security. It must act as an intelligent line of defence, enforcing policy,

controlling access, inspecting traffic, and providing deep visibility into what is happening across the environment to ensure performance and security are both assured.

A structured independent Network assessment enables organisations to understand how evolving networking requirements, regulatory requirements and complexity apply to their specific environment and business model. The Network Assessment enables organisations identify gaps understand their exposure, and develop practical, prioritised recommendations to protect against current threats, while preparing for future technological change.

Service Overview

The Network Assessment evaluates the current-state wired and wireless network environment against defined current, future-state requirements, regulatory requirements and business impact. It identifies tactical improvements to address immediate issues and defines a strategic future-state architecture aligned to business growth, automation, AI adoption, and evolving technology and security requirements.

Assessment Components – Wired, Wireless & Network Security

The assessment spans the full network and network security landscape, including:

- Core, distribution, and access network layers
- Local Area Networks (LAN) and Wide Area Networks (WAN)
- Wireless LAN (WLAN) and campus wireless environments
- Network performance, capacity, and resilience
- Network automation, orchestration, and unified management
- Network security services and enforcement points

Network security is assessed as an integral part of service delivery, including next-generation firewalling, network access control, segmentation, regulatory requirements, policy enforcement, and advanced visibility into network traffic and behaviour. This ensures the network is both performant and assured.

Current & Future-State Network Requirements

C86 works collaboratively with stakeholders to define current and future-state requirements, which may include:

- Growth in connected devices, users, and machine identities
- Increased east-west and north-south traffic volumes
- Support for AI, automation, and data-intensive workloads
- Intelligent, automated, or AI-assisted network operations
- Support for future technologies such as Quantum Computing

- Enhanced security visibility, segmentation, and access control

Network Maturity Model

The Network Assessment applies a maturity model to establish a baseline, identify gaps and define a clear, aspirational future state. This model provides a shared vision roadmap and investment decisions.

Foundational	Standardised	Integrated	Intelligent	Adaptive
Basic connectivity Manual operations Limited visibility	Consistent designs Improved reliability Baseline security	Unified wired & wireless Integrated security Centralised management	Automation & analytics High visibility Optimised traffic flows	AI-driven optimisation Self-healing Highly resilient & secure

Value Mapping & Prioritisation

As part of the assessment defined network requirements and maturity targets are mapped to business value. This value mapping enables prioritisation of initiatives based on performance gains, resilience improvements, risk mitigation, regulatory requirements, security assurance, and operational efficiency.

Optional Advanced & Specialist Analysis

Optional components can be added to deepen insight and validation, including:

- Layer 7 application and traffic flow analysis
- Advanced traffic visibility and optimisation analysis
- Physical network assessments and environmental reviews
- Wireless site surveys and WLAN capacity modelling
- Quantum Computing readiness assessments

Assessment Deliverables

The Networking Assessment includes the following deliverables:

The Network Assessment delivers a structured set of recommendations across three horizons:

- Current-state findings highlighting bottlenecks, gaps, risks, and constraints
- Tactical improvements to enhance performance, resilience, and security
- Strategic future-state architecture for a unified, intelligent network

Recommendations & Next Steps

C86 provides clear, practical recommendations based on the outcomes of the Network Assessment, designed to help organisation's prioritise current networking environments, whilst also enabling the secure adoption of future technologies, including AI and automation.

- Clear visibility of wired and wireless network performance and risk
- Improved automation, optimisation, and operational efficiency
- Stronger network security and policy enforcement
- Network readiness for AI, automation, data growth and future proofing for Quantum.
- A clear, prioritised roadmap aligned to business outcomes

Why C86?

C86 specialises in security, risk, and IT transformation services in the public and private sector. Our consultants combine deep technical expertise with strong business insight, enabling organisations to improve security maturity, reduce risk, and adopt new technologies with confidence.

Contact Us

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