



Wireless Site Survey & Assessment

Optimised, Secure & High-Performance Wireless Network Design
Company 86 | www.c86.tech

Executive Summary

The C86 (Company86) Wireless Site Survey & Assessment service is a comprehensive, risk-led future-focused evaluation of an organisation's Wireless network design, providing a comprehensive evaluation of the physical and technical characteristics of an organisation's wireless environment. The service combines specialist survey tools, physical assessment, and wireless expertise to assess the design (and identify any gaps) of a secure, resilient, and high-performing wireless network aligned to user experience, security, business and regulatory requirements.

The service provides a comprehensive assessment of the performance, resilience, scalability, automation, and security of the network, and defines a clear roadmap to 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 Wireless Connectivity Landscape

Wireless connectivity has become the primary access method for users, devices, and systems across modern organisations. The density and diversity of connected devices continues to increase, spanning corporate users, guest access, Third Party suppliers, BYoD, IoT devices, and specialist equipment.

To meet these demands, wireless networks must be designed with a deep understanding of the physical environment, radio frequency (RF) behaviour, device usage patterns, and security requirements. A robust wireless site survey ensures the wireless network is optimised for coverage, performance, resilience, and security from the outset. 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.

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, to this end organisation require a highly resilient secure wireless networking solution.

At the same time, many organisations face a mirid of regulatory obligations requiring clear documented reporting of their own wireless networking policies, guidance for their end users when using guest access and assurance from their supply chain of wireless design and security.

A structured independent wireless site survey assessment enables organisations to understand how evolving wireless requirements, regulatory requirements and complexity apply to their specific environment and business model. The wireless site survey 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 Wireless Site Survey & Assessment service brings together physical site analysis and advanced wireless survey tooling to provide a detailed, evidence-based view of current and future wireless requirements. The service produces a future-state wireless design optimised for coverage, capacity, security, and user experience.

Assessment Components

Wireless Site Survey Scope

The assessment includes a comprehensive review of the wireless environment, including:

- Physical assessment of the environment and building layout
- Identification of construction materials and environmental constraints
- Review of wireless use cases and device types
- Assessment of corporate, guest, BYOD and specialist wireless access requirements

Wireless Survey Tooling & Techniques

C86 utilises industry-leading wireless survey tools, including Ekahau, to perform detailed wireless analysis and modelling.

This includes:

- Predictive and active heat map surveys
- Optimal access point placement and density modelling
- RF coverage analysis
- Signal-to-noise ratio (SNR) assessment
- Identification of RF bleed-through and co-channel interference

Spectrum & Interference Analysis

Spectrum analysis is performed to identify sources of interference that may impact wireless performance. This includes non-Wi-Fi interference, channel contention, and environmental noise that can degrade user experience.

Wireless Usage & Segmentation Analysis

The assessment considers how the wireless network will be used across different user groups and devices, including:

- Corporate users and managed devices
- Guest access and transient users
- IoT, OT, and specialist wireless devices

Segmentation, access control, and policy enforcement requirements are factored into the wireless design to ensure security and performance coexist.

Assessment Deliverables

The Wireless Site Survey & Assessment delivers a set of clear, actionable outputs, including:

- Wireless heat maps and RF visualisations
- Recommended access point placement and configuration
- Capacity and scalability recommendations

- Security and segmentation considerations, including end user considerations and regulatory requirements
- A future-state wireless design aligned to business needs

Recommendations & Next Steps

C86 provides clear, practical recommendations based on the outcomes of the Wireless Sire Survey & Assessment, these are designed to help organisations prioritise current wireless networking environments, whilst also enabling the secure adoption of future technologies, including AI and automation.

- Optimised wireless coverage and performance
- Improved user experience across all device types
- Reduced interference and RF contention
- Secure, resilient wireless network design
- Wireless environment aligned to current and future business requirements

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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