



WIRELESS SURVEYS BY EMPOWERED



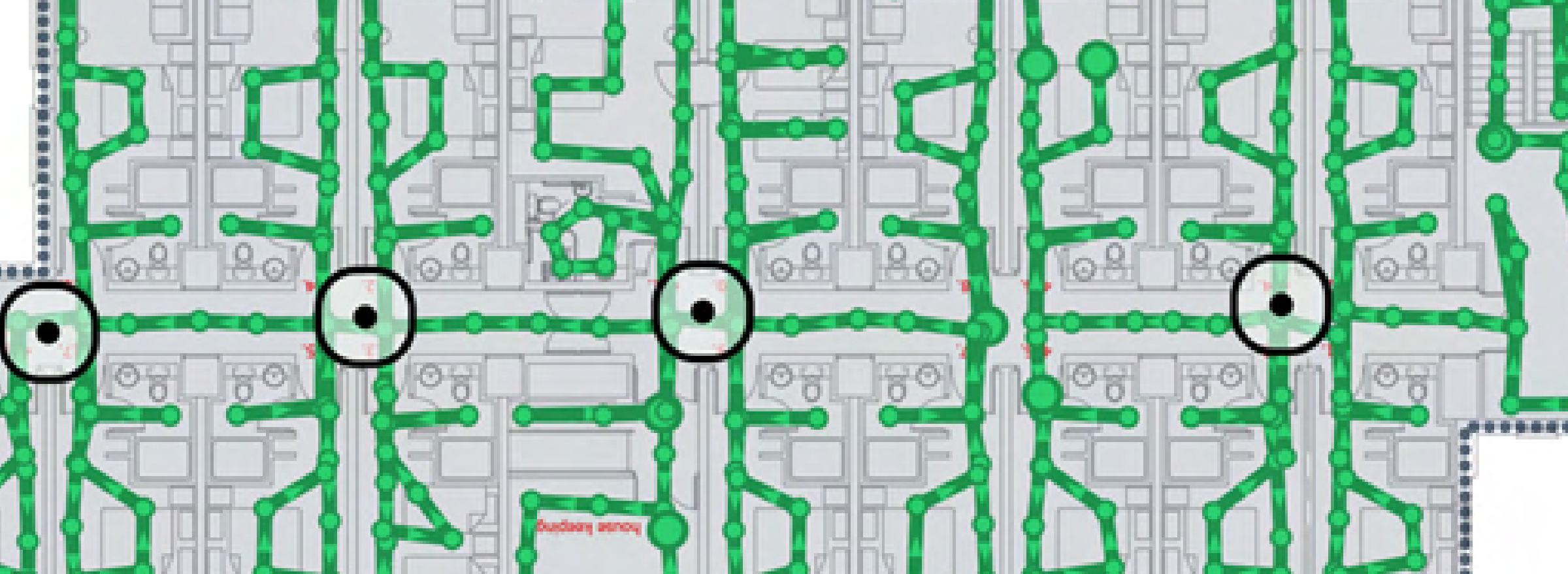
INTRODUCTION

At Empowered, we understand that as organisations continue to evolve and the importance of flexible working in the workplace remains a priority, the demands on the corporate wireless infrastructure must adapt to deliver reliable and secure connectivity to the user.

With the introduction of WiFi-6 technology (or 802.11ax standard), all major vendors have offerings, both cloud-based and traditional on premise and customers want to take advantage of the enhanced capabilities and significantly higher data throughputs it delivers, together with enhanced security features and performance analytics.

How does an organisation know they are ready and prepared for the future?

In advance of any decisions being made, we highly recommended that a wireless and underlying cabling survey is performed to ensure all environmental and RF characteristics are considered. The survey and corresponding report helps partners to have informed discussions with their customers and enables them to make the right decisions to drive their own future strategies.



OUR APPROACH TO SURVEYS

By its very nature, a wireless network is subject to various outside influences. RF propagation and functionality can be greatly affected by physical changes within the boundaries of the network, together with competing networks and other sources of interference.

Empowered has twenty years of experience in conducting wireless site surveys covering data, voice and RTLS/RFID requirements for all market-leading vendors, including Cisco/Meraki, HPE/Aruba Networks, Fortinet, Juniper Mist, Extreme, Motorola, Ruckus, Cambium, Ubiquiti and Mojo Networks.

Empowered utilises industry-leading tools to undertake its wireless surveys from Ekahau and will conduct the survey using customer supplied site floor plans and a completed pre-site survey questionnaire. The cable engineer will need access to all data cabinets and roof voids to check all relevant cable routes.

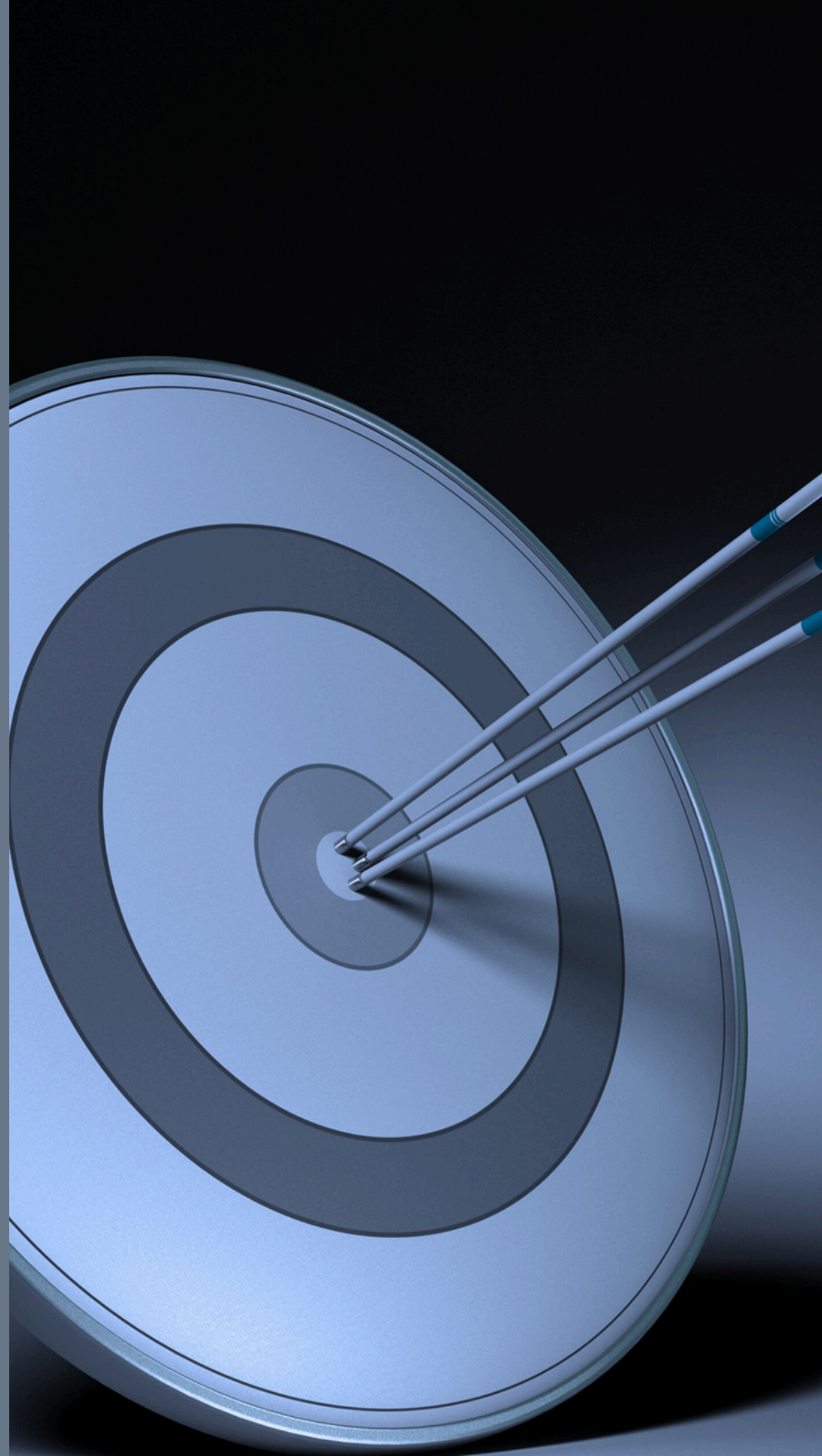
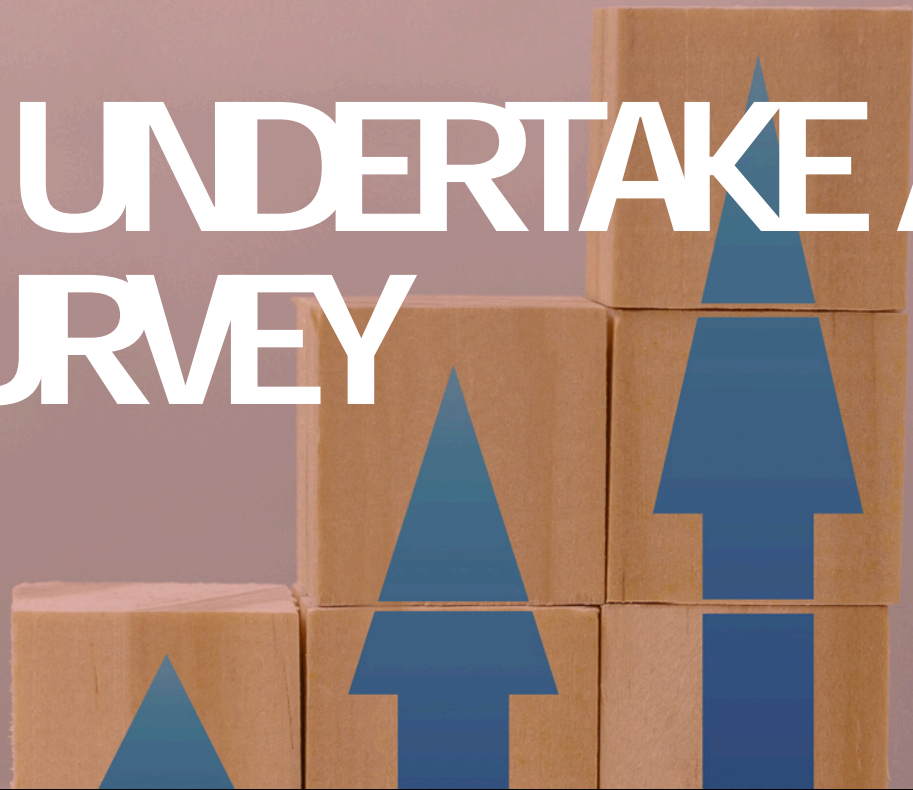


TYPES OF SURVEY

Survey types depend on specific customer requirements and can be summarised as follows:

- 1. Predictive (Desktop) Survey:** A model of the RF environment is created using the survey software with a core purpose to identify the access point (AP) quantity and optimum location placement.
- 2. Passive (Pre-Deployment) Survey or APOS:** An “AP on a stick” survey is used for greenfield sites and is where the engineer emulates the existing APs in areas without real APs installed.
- 3. Remediation Survey:** This survey is primarily for environments where there are existing access points installed and the customer wants to supplement or improve its current RF coverage.
- 4. Validation Survey:** The validation survey is primarily a coverage check and is used to identify the precise position of existing APs, Wi-Fi, and non-Wi-Fi interferers.
- 5. Performance Validation Survey:** The performance validation survey is the same as the Validation Survey but also includes measuring round-trip time (RTT), throughput rates and packet loss.

REASONS TO UNDERTAKE A WIRELESS SURVEY



The main reasons for conducting a RF survey are as follows:

- New wireless network planned. This can be in a new build (Greenfield) or in an existing building
- Extension to an existing network
- Change in support requirement, i.e. voice and / or location-based / tracking
- Replacement of existing network – new technology has greater coverage capability



DELIVERING EFFECTIVE OUTCOMES

Once the survey is complete, a detailed white labelled report is provided. The report will include details of the recommended AP placement details, coverage heatmaps, BOM and structured cabling requirements.

Any other observations including lifting equipment required, asbestos register details and mains power availability will be provided and can be presented to the customer.

The survey document details not only the coverage areas and required equipment, but also comprehensive data cabling requirements and where appropriate any associated electrical installation requirements.

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