



## Wireless Site Survey

Unlike other more conventional technologies, wireless networks are subject to a wide range of external factors, including placement of access points and configuration of channels and bands, as well as signal to noise ratio and radio frequency interference. With an ever-growing need to remain connected on any device, in any location, at any time - whether for customers, partners or across all facets of your business - a poor wireless experience (including drop-outs, dead spots, signal conflicts and poor connection speeds) can lead to frustration, increased support tickets and a loss of both productivity and confidence in IT.

Independent studies have shown that most wireless networks are poorly designed, not optimised and do not provide the required quality of service. With the proliferation of mobile end user computing (EUC) solutions, an RF site survey is essential in order to deliver robust wireless capabilities, including aspects such as VoIP and real-time location services. Ultima can help overcome these challenges by planning and designing a wireless network that delivers the required coverage, data rates, network capacity, roaming capability and quality of service required, while taking into consideration the risks associated with RF interference and the most optimal location for each access point.

### Scope

Whether you are preparing to build a new wireless network, or simply want to ensure that your existing infrastructure is fit for purpose, Ultima has a survey to meet your needs:

- **Predictive** - A remote, virtual survey against a single site, designed to provide insight into potential wireless options
- **Location Only** - An on-site, visual inspection, to define the most appropriate access point (AP) locations
- **Full** - Delivers a comprehensive survey report, including costs for an Ultima-managed Cisco Meraki wireless network

### Engagement Approach

Ultima adopts a simple, but effective, four stage process, interrogating each site and delivering an assessment for your existing, or new, WLAN (Wireless Local Area Network) solution.

\* The time required to deliver each engagement will be based on the output from the requirement and specification questionnaire.

### ➤ Step 1 - Analyse

Our consultant will lead a planning call to agree the scope and objectives of the site survey, and further understand issues and operational challenges affecting any existing service. Once completed, we will issue a schedule of engagement to confirm the activities and days required to deliver the survey across your estate:

Activities	Predictive	Location Only	Full
Review requirements and specification questionnaire	✓	✓	✓
Review floor plans of the areas to be covered	✓	✓	✓
Assess existing WLAN infrastructure and identify additional coverage required	✓	✓	✓
Undertake a visual inspection of the site, noting wall, ceiling and floor construction	-	✓	✓
Identify known RF interference risks and signal to noise ratio	-	-	✓
Position multiple survey AP's to test coverage and determine logical AP location	-	✓	✓
Establish and photograph potential mounting points	-	✓	✓
Draft AP location plan, including nearest power and networking	Partial	✓	✓

### ➤ Step 2 - Review

We will examine the data captured to ensure optimal placement of an existing or new WLAN, alongside the suggested wireless infrastructure and switching to support your requirements.

### ➤ Step 3 - Define

We will articulate the findings of the site survey, detailing actions required to support the introduction of a new wireless network - or a health check of an existing WLAN. Our comprehensive report will provide your organisation with the following insights:

Activities	Predictive	Location Only	Full
Confirmation of existing frequencies in use across the site	-	-	✓
Access point cell size and coverage, based on 2.4Ghz and 5Ghz	✓	✓	✓
Coverage area of a single access point, in relation to other AP's	✓	✓	✓
List the channels each access point will use on 2.4Ghz and 5Ghz	-	-	✓
Map RF interference and signal to noise ratio against the floor plan	-	-	✓
Production of a heat "coverage" map of the site in question	Projected	-	Actual
Document AP location, antenna type, power and ethernet source on the floor plan	Limited	✓	✓
Create a bill of materials for a WLAN solution, based on Cisco or Meraki	Optional	Optional	Optional
Produce final survey	Basic	Standard	Full

### ➤ Step 4 - Present

Ultima will email the report for review, before presenting the management summary via Skype. Depending on the engagement taken, we will drill down into the findings, covering everything from access point placement, models, channels and frequencies, to Ultima's cloud-based and on premise Wi-Fi managed service. You will receive advice and guidance from our experts, helping you to plan the next generation of wireless networking within your organisation.

### Wireless Site Survey Summary

#### Key Benefits

- Establish effective wireless coverage for your business
- Optimise an existing, or design a new, managed network
- Use floor plans to provide insight into AP locations

#### Prerequisites

- Completed requirements and specification questionnaire
- Provision of appropriate floor plans
- On-site support for Location Only and Full surveys

#### Key Deliverables

- Comprehensive wireless survey report
- Present findings to your business, detailing next steps

**Predictive** 2 Days \*

**Location Only** 3 Days \*

**Full** 4 Days \*

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