



WIRELESS SITE SURVEY SERVICES

A large, light gray silhouette of a globe is positioned on the left side of the page, partially overlapping the text "Technical Capabilities".

Technical Capabilities

*How Longhill Strategic Services can
deliver provide detailed wireless site
survey services*



Longhill Strategic Services
&
Wireless Site Survey

Services Overview

To properly survey a site for future WiFi installation many factors must be considered. Among them are the types of coverage desired. The user application(s) that will run over the Wireless LAN or WLAN. What data rates are required by the user's application(s)? If there are other WLANs present in the customer's location or adjacent spaces that will affect operation. Also, the physical environment must be considered. Are there going to be constant changes in configuration of office furnishings or cubicles. Will there be inventory levels that change. Are the temperature and/or humidity going to be a factor? Then there are the actual RF issues such as channelization concerns, roaming requirements and quality of service. Below is a simplified procedural check list for surveying a site for WLAN implementation.

Survey Procedures

1. Pre-Planning
 - a. Obtain a completed Pre Site Survey Questionnaire from the customer.
 - b. Go over the questionnaire with the customer to verify all answers and to bring up any other concerns.
 - c. Obtain floor plan drawings for input into AirMagnet Surveyor.
 - d. Verify proper tools and equipment is in the survey kit.
 - e. Check configuration of test access points.
 - f. Test AirMagnet with Cisco wireless card to be used to ensure its MAC address is coded for the AirMagnet Surveyor Pro version in the kit.
 - g. Make sure the battery packs are charged and operational.

2. General Survey Procedures
 - a. Upon arrival to the site verify the drawings match the site and go over the scope with the site contact(s).
 - b. Unpack the survey kit and double check all equipment is present and un-damaged from shipping.
 - c. Identify the first area to be surveyed and load the correct floor plan drawing into AirMagnet Surveyor Pro on the laptop PC.
 - d. Configure the power and other hardware settings on the access points and client card for the area being tested.
 - e. Run the primary check for rogues and check the noise floor in the area.
 - f. Mount the 1st 2 access points in locations appropriate for the coverage, overlapping coverage (if required) and data rates to be used.
 - g. Pick a starting point under the primary access point and start the AirMagnet Survey.
 - h. Repeat the survey for the next 2 access point mounting locations until all areas have been tested.



- i. Merge and save the survey and view the results to verify that requirements have been met. If any requirements are not met, make appropriate changes to antenna type or placement or access point locations and re-survey. Repeat these steps until all customer requirements have been met or exceeded.
 - j. Save the final survey report.
 - k. Be sure to mark all final access point locations.
 - l. Be sure to record all information gathered in the survey including antenna types, power settings and any other pertinent information.
 - m. Document each step taken on paper for inclusion the final report.
 - n. Document all access point location with digital photographs. (Remember the installer may not be you) Also document the MDF's, IDF's and any physical location details.
 - o. Before departing, go over the preliminary results with the site contacts.
3. Specific Site Physical Issues
- a. Wall, floor and ceiling construction can either absorb or reflect the radio signal causing either attenuation or multiple signals. Attenuation means the signal will loose power. Multiple signals cause multi-path interference.
 - b. Be aware of any dynamic nature of fixed objects such as cubicles, shelving, inventory stock or anything else that may change in size or location periodically.
 - c. Check for any rogue access points with AirMagnet and report them to the site and technical contacts.
4. Tools and Software
- a. AirMagnet Surveyor Pro site survey software.
 - b. Minimum of 2 AP1200 series Cisco access points with a/b/g radios.
 - c. Cisco Aironet Cardbus wireless NIC.
 - d. Survey kit with battery packs, antennas, cable attenuator, access point mounting markers, console cables, crossover cables, labels and other misc items.
 - e. Laptop PC with available Cardbus slot.
 - f. 12 foot step ladder.

Why Longhill Strategic Services?

Longhill has years of experience in the telecommunications industry with a nationwide footprint through our partners that enable us to provide services in most major cities in the US including Alaska, Hawaii and Puerto Rico.

Our design and staging teams are certified on various voice, data and wireless platforms. We have high end staging and lab facilities, which can handle any volume of equipment.

Our implementation teams are qualified and experienced in all phases of telephony and data systems installation and maintenance.

Longhill's support engineers are available 7 days a week to ensure minimal downtime in the event of equipment malfunctions or other emergencies.