



SURVEY TYPES EXPLAINED

ON-SITE DATA COLLECTION & ANALYSIS

For any business interested in deploying a high-performance Wi-Fi network, a wireless site survey is not a luxury; it is a necessity. A proper survey will eliminate the guesswork, avoid costly mistakes, ensure reliability, and improve efficiencies. Whether you are planning to deploy a new Wi-Fi network or fortify an existing network, understanding the different types of surveys and the role they play is a great place to start.

SURVEY TYPE	SURVEY DETAILS	USE CASE EXAMPLE
PASSIVE SURVEY	Collects WiFi data and creates heatmaps showing signal strength levels (RSSI), co-channel interference, signal-to-noise ratio, etc... <i>*Does not require connection to WLAN</i>	Used in virtually all survey engagements to gain a base level understanding of WiFi activity and performance
ACTIVE SURVEY	Collects real-time performance statistics from a wireless network. Includes statistics for data throughput, round trip time (RTT), packet loss, access point roaming. <i>*Requires connection to WLAN</i>	A new wireless implementation has been completed and real-time performance statistics must be verified.

WIRELESS DESIGN

SURVEY TYPE	SURVEY DETAILS	USE CASE EXAMPLE
<p>PREDICTIVE SURVEY W/O ON-SITE SURVEY</p>	<p>Creates a simulation of expected wireless performance based on a facility's existing floorplans.</p> <p><i>*Provides estimates for access point locations. Used for planning purposes</i></p>	<p>Small branch office or facility requires design, but an on-site technician visit is not feasible.</p> <p>Floorplans exist but facility may not be planned or under construction.</p>
<p>PREDICTIVE SURVEY W/ ON-SITE SURVEY</p>	<p>Creates a simulation of expected wireless performance based on existing floorplans, facility's environmental considerations and measured wireless statistics captured on-site.</p> <p><i>*Provides detailed access point locations and installation notes</i></p>	<p>Large facility requires design with complex layouts or high user densities.</p>
<p>'AP-ON-A-STICK' SURVEY</p>	<p>Physical access point hardware is used to create a design using real-world WiFi measurements within the facility</p> <p><i>*Provides exact location of proposed access points and detailed installation notes</i></p>	<p>Large facility requires design with complex layouts or high user densities.</p> <p>Highly accurate design reporting is required</p>

HEALTH CHECK & TROUBLESHOOTING

SURVEY TYPE	SURVEY DETAILS	USE CASE EXAMPLE
POST-DEPLOYMENT / VALIDATION SURVEY	Checks that the network has been deployed and configured properly and that the performance is meeting the expectations of the predictive design.	A new wireless implementation has been completed, and third-party validation is required to ensure proper setup.
HEALTH CHECK SURVEY	Proactively checks Wi-Fi performance on an ongoing basis to spot potential interference, coverage, or capacity problems before they become costly outages.	Any entity that wants to be proactive about eliminating common WiFi problems that limit productivity.
TROUBLESHOOTING WI-FI SURVEY	Reactive survey to track down issues reported by users.	WiFi coverage seems to be adequate but users report performance and connectivity issues are.