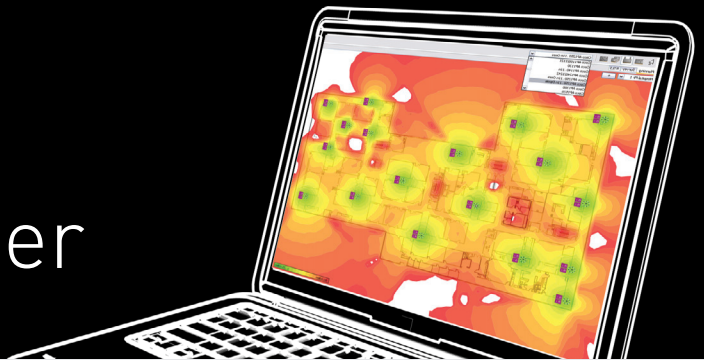# Site Survey
with 3D Wi-Fi Planner

Wi-Fi Planning, Verification, Troubleshooting

Ekahau Site Survey (ESS) is an easy-to-use design, verification, and troubleshooting tool for Wi-Fi networks. It has been developed for all wireless engineers, from systems integrators to IT administrators. It runs on laptops and tablets running Windows (including Mac using Bootcamp).

Ekahau Site Survey ensures high performance and capacity (BYOD) for any Wi-Fi network (802.11ac/n/legacy). If a Wi-Fi network is not yet in place, ESS will automatically suggest access point placement and configurations for optimal set-up. For Wi-Fi networks already in place, ESS allows quick and easy site surveys, performance and capacity analysis, optimization, and troubleshooting.

3D Wi-Fi Planner

ESS automatically creates a multi-floor Wi-Fi network plan based on specified performance and capacity requirements. Within seconds, ESS will identify the optimal number of access points, as well as the best locations and channels for Aps, revealing how the Wi-Fi network will perform before going on-site. The 3D Planner considers signal leakage between floors to help minimize inter-floor channel interference.

Site Survey Verification

During a single, quick walkthrough, ESS collects active survey, passive survey and spectrum analysis* information simultaneously, using multiple Wi-Fi adapters and optional Ekahau Spectrum Analyzer USB devices. Once the walkthrough is complete, ESS delivers maps depicting the network coverage and connectivity. ESS also discovers all the audible access points and automatically locates them. Both pre-deployment and post-deployment surveys are fully supported.

▶ 802.11ac / n Fully Supported

Network Planning
- ▶ Automated AP placement and optimization
- ▶ Automated wall detection from floor plan*
- ▶ Coverage and performance simulation
- ▶ Supports hundreds of 3D antennas & APs
- ▶ Integrates with Cisco Prime

Site Surveys
- ▶ Passive and active surveys
- ▶ Throughput (iPerf) surveys
- ▶ Spectrum surveys**
- ▶ Multi-adapter support
- ▶ GPS outdoor surveys
- ▶ USB survey adapter included
- ▶ Integrates with Cisco Prime

Analysis / Reports
- ▶ Clear visualizations:
  - – Signal strength, SNR
  - – Noise / interference
  - – Channel overlap
  - – Data rate, overlap
  - – Roaming, RTT, packet loss
  - – Network health analysis
  - – Capacity (BYOD) analysis
  - – Spectrum channel power / utilization
- ▶ Locates access points
- ▶ Template-based reporting

Troubleshooting
- ▶ Real Time Frequency Monitor / Survey Inspector
  - ▶ All-in-one troubleshooter:
    - – Passive Wi-Fi tests
    - – Active Wi-Fi tests
    - – Spectrum analysis**
  - ▶ Identify coverage issues, interference problems, Wi-Fi equipment failures, misconfigurations, roaming problems, and more
- ▶ Capacity troubleshooting
- ▶ VoIP, video, RTLS: Wi-Fi issues per application

* Automatic wall detection requires CAD floor plan
** Spectrum Analyzer sold separately

Analyze and Report

ESS makes in-depth network analysis easy with accurate, color-coded heat maps. Map options include e.g. signal strength, data rate, packet loss, roaming, overlap, spectrum utilization* and various other characteristics. ESS also has the most comprehensive capacity analysis tools out there. All of the findings can be compiled into a report using Ekahau reporting systems. For super-easy reporting, use the standard report, or join the many ESS users that are already saving weeks of reporting time per year with the 100% customizable report templates.

Optimize, Troubleshoot, Simulate

ESS helps identify and fix Wi-Fi network issues such as misconfigured access points, undetected rogue access points, missing SSIDs and security settings, throughput problems, interference problems, signal leakage, and coverage holes. Advanced simulation capabilities allow users to create what-if-scenarios, such as moving or replacing access points, increasing network load, or increasing the number of devices in the network.

ESS provides two main methods for troubleshooting: On-the-spot troubleshooting, where the network is tested and analyzed in real time, and post-survey troubleshooting, where users will see the issues and their impact on a map.

ESS fully integrates with Ekahau Spectrum Analyzer* and uniquely combines Wi-Fi and spectrum data in the Real-Time Frequency Monitor view for rapid, simple and comprehensive troubleshooting.

*Ekahau Spectrum Analyzer required (sold separately)

More information, videos, and images available at:
www.ekahau.com

Shipped with ESS

NIC-300 USB Survey Adapter

System Requirements

OS: Windows 7, 8 or 10 (64 and 32bit), Mac OS 10.11 (Beta version)

Processor: 1.5+GHz, multi-core recommended

Memory: 4+ GB RAM, 8GB RAM recommended, 16GB+ RAM recommended for very large projects

Hard disk space: 1GB required

Wi-Fi Adapter: Ekahau NIC-300 recommended and included with each purchase

Floor plan (jpeg/png/etc, CAD, SVG)

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