



AirMagnet WiFi Analyzer

AN AIRMAGNET MOBILITY SOLUTION



AirMagnet WiFi Analyzer is the industry's "de-facto" tool for managing enterprise Wi-Fi networks. At the heart of the WiFi Analyzer is the AirWISE® engine, which automatically detects the root-cause of dozens of security and performance problems, explains alarms in plain English, and offers recommendations on how to solve or manage complex issues. The Analyzer provides instant visibility into all wireless channels, devices, conversations, speeds, interference issues and the RF spectrum. AirMagnet WiFi Analyzer is available in two versions: "WiFi Analyzer Express" provides the core building blocks of WiFi troubleshooting and auditing with the ability to see devices, automatically identify common problems and physically locate specific devices. "WiFi Analyzer PRO" significantly extends all the capabilities found in the Express version and adds many more to provide a WiFi tool to solve virtually any type of performance, security or reporting challenge in the field.

WIRELESS LAN ANALYSIS AND TROUBLESHOOTING

Complete 802.11 a/b/g/n Monitoring

Wi-Fi Packet & Interference Analysis

AirWISE® GUI with Expert Advice

Hands-on Education and Guidance

Superior Security Threat Detection

Superior Performance Monitoring

Active Troubleshooting Toolkit

Compliance Auditing and Reporting

Multiple Platform Support





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Wi-Fi Device Inventory

Device	MAC	Channel	Status
AP-12345	00:11:22:33:44:55	12	Open
AP-67890	AA:BB:CC:DD:EE:FF	6	WPA2-E
STA-11111	11:22:33:44:55:66	12	Open
STA-22222	22:33:44:55:66:77	6	WPA2-E

AirMagnet WiFi Analyzer provides an inventory of all 802.11a, 11b, 11g, 11n and 4.9 GHz devices (4.9 GHz monitoring supported on PRO version only) operating in the wireless environment. It provides detailed information on the configuration settings that are available or are in use on the devices, including critical parameters such as signal strength, noise, SSID, security setting in use, associated devices, 802.11n properties, and many more.

Wi-Fi device inventory

Built-In Wireless Expertise

At the heart of the Analyzer is the AirWISE® engine, which automatically detects the root-cause of dozens of Wi-Fi issues across the spectrum. AirWISE® eliminates the need for users to manually interpret complex packet decodes and wireless data by taking the proactive role of identifying and explaining more than hundreds of threats and performance issues before they impact the network. The user-friendly AirWISE® interface explains alarms in straightforward details, provides access to additional diagnostic data, and offers advice on corrective actions.

AirMagnet WiFi Analyzer also includes “How To” guides to walk IT administrators through the identification of an issue, including security, performance, interference, device configuration issues, and guide them to solving those problems. The library also includes information on the major functions of the analyzer and their usage in identification and resolution of Wi-Fi problems.



Rogue Devices, Intrusions and Network Weaknesses Alerts

AirMagnet’s WiFi Analyzer automatically detects and alerts the user to dozens of wireless intrusions, penetration attempts and hacking strategies including rogue Devices, “stumbler tools”, devices sending unencrypted data and a host of potentially damaging security configurations. These proactive measures enable IT to take corrective action before a problem ever occurs. The PRO version additionally detects sophisticated wireless attacks against the network. Refer to the WiFi Analyzer PRO version features section for more details.

AirWISE Expert screen

AirMagnet Analyzer’s Find Tool locks onto an unauthorized/rogue or policy violating AP or station and guides the user to its physical location.

Network Performance Alerts

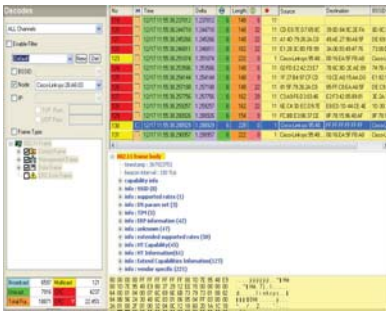
Even the most secure network will fail to meet its objectives if it does not reliably meet the demands of network users. Furthermore, certain performance issues can escalate and open up the network to unknown risks. For this reason, AirMagnet has developed over 50 alerts to identify an entire range of performance issues including traffic patterns, bandwidth utilization, device configuration issues and infrastructure or hardware failures or resets.

Real-time Wi-Fi troubleshooting



AirMagnet WiFi Analyzer Express provides in-depth frame statistics for every channel and device operating in the 2.4 GHz and 5 GHz spectrum. With the channel utilization and throughput trending graphs, users can solve many of the issues that lower the overall performance of the Wi-Fi network. Users can view trending graphs for Signal strength, Noise, frames, errors, retries and bandwidth for every Wi-Fi channel and device. These valuable graphs provide critical pointers to issues that are influencing the Wi-Fi network performance. For example, graphs for packet retry and error rates reveal areas where WiFi communications are failing.

Trending graphs for detailed analysis



View raw Wi-Fi frames

Decode Wi-Fi frames

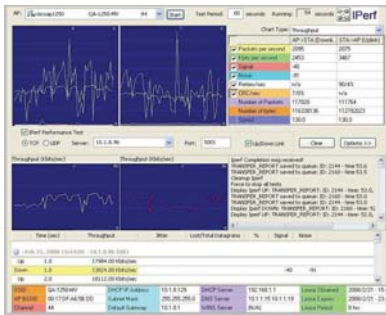
WiFi Analyzer users can view real-time packet flows for any Wi-Fi asset. Users can track 802.11 frames, watch CRC errors, utilization, packet speed, media type and more. The Analyzer decodes the most popular protocols such as FTP, HTTP, SMTP, POP, and Telnet, with advanced filtering options that allow the user to focus on particular conversations based on IP address or port number.

Analyze Top talkers in the network

AirMagnet WiFi Analyzer Express lists the top talkers in the network based on speed, number of frames, Retry/Frag, Address and Media type. This information is very helpful for pin-pointing Wi-Fi devices that are potentially choking the Wi-Fi network bandwidth.

AirMagnet WiFi Analyzer PRO

AirMagnet WiFi Analyzer PRO is a separate version of the Analyzer software containing all the functionality of the basic Express version plus an additional set of features tailored to the needs of the wireless expert. Additional features include:



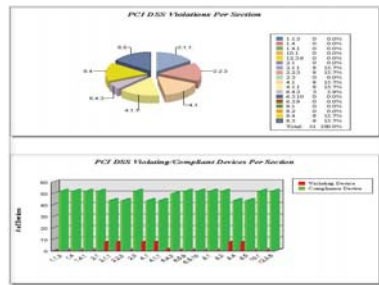
Throughput measurement tool

Active troubleshooting tools

AirMagnet WiFi Analyzer PRO includes a suite of active troubleshooting tools available at the user's fingertips to help them quickly pinpoint wireless network problems. This includes troubleshooting users not being able to connect to the network, users experiencing slower connections, 802.11n mis-configurations, traffic/infrastructure overloads, hardware failures, roaming problems, multipath interference problems and more.

Sophisticated wireless attack detection

In addition to the unauthorized device and stumbling tools detection, the AirMagnet WiFi Analyzer PRO's AirWISE® engine detects sophisticated attacks launched against the corporate wireless network, that are aimed at disrupting the wireless services. These include Denial of Service attacks against the corporate AP/STA/Infrastructure, such as RF Jamming attacks, association and encryption-based DoS attacks, wireless disconnection attacks, and many more. Analyzer PRO also detects penetration attempts against the wireless infrastructure, including a variety of dictionary attacks, fake access points, WEP cracking tools, man the middle attacks, illegal wireless frame attack, hotspot attacks, honeypot attacks, etc.

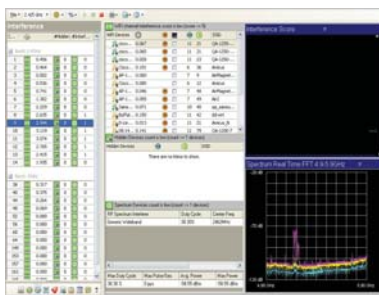


AirMagnet Compliance reports

Analyzer allows the scanning of 200+ extended channels in the 5 GHz spectrum. Since wireless hackers won't necessarily restrict their efforts to the commonly used channels, the ability to scan a wider range of the spectrum is becoming increasingly necessary.

Integrated Reporting

AirMagnet's integrated reporter makes it easy to turn the Wi-Fi analysis sessions into professional customized reports. Choose from a library of pre-built reports or generate targeted reports by selecting specific items of interest from the user interface. Reports cover all areas of management including RF statistics, channel reports, device reports, security/performance issue reports and compliance reports for a variety of regulatory standards including HIPAA, PCI, SOX and more. Reports provide a step-by-step pass/fail assessment of each section of the standard.

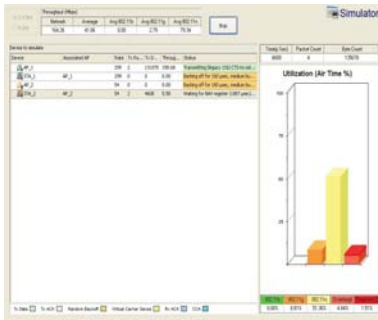


Wi-Fi & non Wi-Fi Interference analysis

Complete Wi-Fi Interference detection & analysis

Wi-Fi Interference occurs due to co-channel/adjacent channel interference from the corporate or neighbor's WLAN, hidden nodes in the environment or sources outside of the 802.11 band. AirMagnet's Interference status indicator lists the overall interference status for each Wi-Fi channel, calculated based on the Wi-Fi interference score for the devices contributing to the interference; a list of hidden nodes and non Wi-Fi devices (*non Wi-Fi detection requires WiFi Analyzer PRO and AirMagnet Spectrum Analyzer or Cisco Spectrum Expert installed on the same machine*) operating in the channel. This enables AirMagnet users to plan future Wi-Fi deployments or modify their existing to increase network performance.

AirMagnet WiFi Analyzer PRO



Simulate performance of the network



Analyze 802.11n conversations

802.11n Troubleshooting Toolkit and Alarms

AirMagnet WiFi Analyzer includes a new serial toolkit to walk users through 11n optimization and troubleshooting. AirMagnet AirWISE® also automatically detects and explain the 802.11n network mis-configurations.

The WLAN Throughput Simulator tool: It calculates the network throughput, utilization and the overhead under user-specified conditions by simulating the existing network or simulating the addition of new APs or stations in the network.

Throughput/perf tool: It allows users to run a performance test on any AP in the environment and measure the maximum WLAN bandwidth at a particular location; find the optimum configuration for maximizing WLAN throughput and test devices under various traffic stress scenarios.

802.11n Efficiency Tool: It analyzes conversations between 802.11n APs and Stations, and indicates if the network is using 802.11n to its full potential using simple color legends. The tool provides guidance on what option is not being well-used and how to better use it along with an independent visibility into the uplink and downlink performance.

802.11n Analysis Tool: It provides detailed statistics (20/40 MHz, SGI, MCS, PHY Data Rate, A-MPDU) for any AP-Station conversation helping the user to pin-point low throughput problems.

Device Calculator Tool: Users can simply enter the 802.11n AP specifications within this tool to calculate the expected network performance.

Product Facts

Product	Part Number
WiFi Analyzer PRO	A1150
WiFi Analyzer Express	B1170
Upgrade Module from Express to PRO	A1173
AirMagnet Spectrum Analyzer (optional)	A4030
AirMagnet WiFi Analyzer PRO & Survey PRO bundle	A1354
AirMagnet WiFi Analyzer/Survey Express Bundle	B1510
AirMagnet 802.11a/b/g/n Wireless PC Card	C1060

Patents: U.S. Patent No. 7009957, 7236460, 7292562, 7289465, ZL030807586, 7385948 and 7130289. Additional patents pending.

Minimum System Requirements

Microsoft® Windows Vista™ Business/Ultimate (SP1) or XP™ Professional (SP3) / Tablet PC Edition 2005 (SP3) or MAC OS X Leopard™ (Apple® MacBook® Pro running Windows XP™ PRO with SP3 using Boot Camp®). **Note:** Use Windows XP™ SP2 if using AirMagnet Spectrum Analyzer as a standalone application on the same machine.

Intel® Pentium® M 1.6 GHz (Intel® Core™ 2 Duo 2.0 GHz or higher recommended)

1 GB memory (2 GB recommended) for Windows XP™. 2 GB or higher required for Windows Vista™

An AirMagnet Spectrum Analyzer Adapter and license (Required for viewing spectrum data and classifying non-802.11 devices.)

200 MB of free disk space for installation

Cardbus, Expresscard, USB port or mini PCI slot

Supported wireless adapter

For NetBook platform support: Intel® Atom N270/1.6 GHz CPU, Microsoft® Windows XP™ Home Edition, 1 GB memory (2 GB recommended), 1024X600 resolution; AirMagnet supported wireless adapter; CardBus, Express-Card slot, USB port, or built-in slots (whichever applicable)

For More Information

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DEMO DOWNLOAD: <http://www.airmagnet.com/products/demo/?demo=wifi>

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of these URLs



Corporate Headquarters:
830 E. Arques Ave.
Sunnyvale, CA 94085 - United States
Tel: +1 408.400.1200 / Fax: +1 408.744.1250



EMEA Headquarters:
6-9 The Square, Stockley Park, Uxbridge,
Middlesex UB11 1FW, United Kingdom
Tel: +44 203 178 7926 / Fax: +44 870 139 5156