

Cisco Spectrum Expert Wi-Fi

General

Q. What is Cisco® Spectrum Expert Wi-Fi?

- A.** Cisco Spectrum Expert Wi-Fi is the industry's first solution that allows for comprehensive visibility at the RF physical layer—that is, the RF spectrum, which is the actual backbone of any Wi-Fi deployment. Similar to the application of a traditional cable tester, Cisco Spectrum Expert Wi-Fi not only allows you to test the viability of your wireless network but also gives you insight into what is actually going on in the spectrum. The solution is designed to make wireless troubleshooting of RF-related problems (for example, connectivity loss and performance lags) easy for network administrators, empowering them with tools to identify, classify, and locate sources of wireless interference.

Q. Is the Cisco Spectrum Expert Wi-Fi software-based, hardware-based, or both?

- A.** Cisco Spectrum Expert Wi-Fi is a combination of both hardware and software. Cisco Spectrum Expert is delivered as hardware in a PC card (Cardbus) form factor and as a software install. An end user can take advantage of Cisco Spectrum Expert by simply putting the card in their PC compatible laptop's PC Card slot and running the Cisco Spectrum Expert management console software.

Q. How does Cisco Spectrum Expert Wi-Fi work?

- A.** Cisco Spectrum Expert Wi-Fi runs on a Windows-based laptop. Simply insert the PC card sensor and launch the rich spectrum management application to get immediate visibility into your Wi-Fi spectrum.

Q. How does the Cisco Spectrum Expert Wi-Fi fit in the Cisco WLAN product portfolio?

- A.** Cisco Spectrum Expert Wi-Fi is a critical complement to Cisco Unified Wireless Network solution and can be deployed as a single standalone device or collaboratively with Cisco Wireless Control System (WSC). By offering a greater degree of RF spectrum intelligence, this solution enhances the deployment of business-critical wireless networks, applications, and services, helping your network achieve greater performance, reliability, and security. Cisco Spectrum Expert Wi-Fi adds to the Cisco Unified Wireless Network vision and to overall Cisco WLAN portfolio by offering the following benefits:
- Improves performance, reliability and security of wireless services through better spectrum management
 - Empowers enterprises with the means of detecting, locating, and mitigating sources of wireless interference and disturbances
 - Lowers network management cost by streamlining the troubleshooting of wireless performance and connectivity problems

Q. What are the major benefits of Cisco Spectrum Expert Wi-Fi?

- A.** Cisco Spectrum Expert Wi-Fi offers improved performance, security, and compliance benefits for your wireless deployment.

Performance

- Troubleshoot interference causing performance loss or connection drops.
- Locate specific devices that are causing interference, by name and by type.
- Ensure your access points are providing reliable coverage with spectrum performance audits.

Security

- Find and track down non-Wi-Fi rogues devices.
- See hacked or rogue Wi-Fi devices that other intrusion detection system/intrusion protection systems (IDS/IPS) don't detect.
- Locate unauthorized devices such as Bluetooth radios and video cameras.
- Monitor for unknown wireless devices.

Compliance

- Seek out legacy non-compliant 802.11 equipment.
- Locate equipment that is operating out of power-transmit specifications.
- Determine if neighbors are interfering with your Wi-Fi network.

Since wireless interference at the RF physical layer accounts for as much as 50 percent of wireless performance lags and connectivity disruption, gaining complete visibility of the spectrum is crucial in maintaining business-ready wireless application services. Cisco Spectrum Expert Wi-Fi can detect, classify, and locate sources of wireless interference quickly and easily.

Q. What makes Cisco Spectrum Expert different?

- A.** Cisco Spectrum Expert Wi-Fi can identify devices by type, name, or other unique characteristics. Cisco Spectrum Expert can be used for many applications other than traditional spectrum analysis, such as security, performance and compliance. Troubleshooting is much easier and more accurate than with traditional spectrum analyzers that show you “wiggles and waves.”

Q. Why is interference important to manage?

- A.** Even a small amount of interference from a seemingly innocuous device can increase cost and decrease the reliability of your Wi-Fi network. Recent studies indicate that a small amount of interference can cause dramatic reductions in coverage range, dropped connections, and poor performance. Cisco Spectrum Expert Wi-Fi makes interference easy to spot and fix, making wireless networks more reliable and cost-effective to operate.

Q. Isn't a packet analyzer sufficient?

- A.** In your wired LAN, you can't troubleshoot cable problems with your packet analyzer. In Wi-Fi, you can't troubleshoot spectrum problems with a packet analyzer. Why? Packet loss is a symptom of physical layer problems. The Cisco Spectrum Expert identifies the root cause of physical layer problems.

Licensing and Support

Q. For the base product, for how long are service support and software updates offered?

A. Cisco Spectrum Expert comes with a 90-day support and service agreement.

Q. Is Cisco Spectrum Expert Wi-Fi available as a demonstration license?

A. Because the product is both software- and hardware-based, the Cisco Spectrum Expert is not currently available as a demonstration license.

Deployment

Q. What are the base system requirements for running Cisco Spectrum Expert on a laptop PC?

A. Recommended requirements are:

- PC-compatible laptop with a Type II Cardbus slot
- Windows XP SP2 or later; Windows 2000 SP4 or later; and Windows Vista SP1 or later
- 150 MB of available hard drive storage
- 1-GHz processor or better
- 800 x 600 resolution or better

Q. Why would I use Cisco Spectrum Expert Wi-Fi as a security monitoring tool? Isn't an IDS/IPS sufficient?

A. Protocol-level threats aren't the only kind of security threats that can harm your network's integrity. Physical layer threats in the "air" can be exploited via hammers or man-in-the-middle attacks from rogue access points. Cisco Spectrum Expert detects and locates hammers, Bluetooth access points, hacked access points that can create backdoors to your LAN, and video cameras for eavesdropping threats. Even rogue access points running on nonstandard channels can be detected by Spectrum Expert. None of these physical layer threats are typically detected by IDS/IPS systems.

Q. We use Cisco Wireless Control System (WCS). Is there a way to use Cisco Spectrum Expert Wi-Fi information for our WCS?

A. Cisco Spectrum Expert Wi-Fi, and more particularly multiple Cisco Spectrum Expert cards, can be used by Cisco WCS for centralized spectrum monitoring and management throughout and organization.



Americas Headquarters
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
www.cisco.com
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 527-0883

Asia Pacific Headquarters
Cisco Systems (USA) Pte. Ltd.
168 Robinson Road
#28-01 Capital Tower
Singapore 068912
www.cisco.com
Tel: +65 6317 7777
Fax: +65 6317 7799

Europe Headquarters
Cisco Systems International BV
Haarlerbergpark
Haarlerbergweg 13-19
1101 CH Amsterdam
The Netherlands
www-europe.cisco.com
Tel: +31 0 800 020 0791
Fax: +31 0 20 357 1100

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