

InnerWireless, a Black Box Company, Relies on AirMagnet Survey/Planner and WiFi Analyzer to Maintain Optimum Performance for Mission-Critical Enterprise Wi-Fi Deployments Throughout North America

At a Glance

Customer:

InnerWireless, a Black Box Company

Industry:

Mission-Critical In-Building
Wireless Deployments

Location:

Headquartered in Richardson, TX
(Deployments across North America)

Challenge:

Ensure optimum performance when deploying and maintaining large, complex, mission-critical in-building wireless networks. Assess existing customer solutions, validate new wireless deployments, review, support, and troubleshoot deployed solutions.

Results:

With AirMagnet tools, the InnerWireless team is able to readily validate that deployed solutions continue operating to spec, and work with customers to quickly identify, troubleshoot and address physical-layer issues in their deployed solutions.

Products:

Fluke Networks' AirMagnet Survey, AirMagnet Planner and AirMagnet WiFi Analyzer

Overview

InnerWireless enables in-building wireless communication for healthcare, government, hospitality and other Fortune 500 organizations across North America. InnerWireless provides the design, integration, deployment and maintenance of complex, mission-critical wireless, providing solutions that simultaneously support both wide-area and local-area services.

Black Box (NASDAQ: BBOX) is a leading communications systems integrator dedicated to designing, sourcing, implementing and maintaining today's complex communications solutions. Black Box services more than 175,000 clients in approximately 150 countries with approximately 200 offices throughout the world.

Challenges

With customers requiring in-building wireless for 3G/4G smart phones, fire/life/safety, two-way radios, Wi-Fi and medical telemetry across venues that typically span several hundred thousand square feet, the InnerWireless deployment requirements are both complex and absolutely mission-critical. Comprised of both a Distributed Antenna System (DAS) and Layered Wi-Fi in a solution called Horizon4G Wireless Enterprise™, wide-area and local-area wireless connectivity is delivered. As one of the premier providers of in-building wireless, the company naturally requires the best possible wireless test and measurement tools so its team can ensure maximum performance.

"It's our business to deploy and manage complex and demanding wireless networks, so we really push our tools to the limit. And, it's our opinion that Fluke Networks' AirMagnet products are excellent for evaluating signal level, and are among the fastest troubleshooting tools for an active wireless environment."

– Janet Lind
vice president of product development
InnerWireless/Black Box Network Services

"Companies are looking to address their entire in-building wireless infrastructure, given that these networks are essential to daily communication and operation. As such, it's critical that we're able to accurately assess the existing customer environment, validate that our new deployments are operating as specified, and keep the network running at peak performance," said Janet Lind, vice president of product development at InnerWireless.

The company's layered Wi-Fi solution frequently employs multiple antennas per 802.11 Access Point (AP) for guaranteed signal levels, making it essential to accurately analyze performance and troubleshoot issues. In short, it's critical that the InnerWireless team has the right network tools to do the job.

Solution

To help plan, test and troubleshoot its massive wireless network deployments, InnerWireless selected Fluke Networks' AirMagnet Survey, AirMagnet Planner, and AirMagnet WiFi Analyzer. In fact, these tools are so fundamental in helping InnerWireless support its deployments that they have been included as a requirement from service inception.

InnerWireless uses AirMagnet Survey for a broad range of tasks, including assessment of the existing site, review of ongoing performance for Wi-Fi and the DAS network, and even as a support tool for lifecycle management. AirMagnet WiFi Analyzer helps the InnerWireless team analyze and understand over-the-air (OTA) performance when testing APs or client devices, particularly with varying Layer 1 characteristics, as well as simultaneously observe and assess multiple signal levels and traces from AP deployments.

"AirMagnet Survey and AirMagnet WiFi Analyzer are the technical team's tools of choice," Lind said. InnerWireless has even gone so far as to develop a custom user guide for using AirMagnet tools to take advantage of the large data sample size inherent in a DAS/Wi-Fi environment.

Results

InnerWireless selected the AirMagnet products when the company started working with Wi-Fi more than five years ago, and hasn't used any other approach since.

"In general, 802.11 customers have challenges detecting the root cause of performance issues. The AirMagnet tools allow us to work with customers to quickly differentiate issues at the physical layer from higher level problems, even zeroing in to specific client devices," Lind said.

AirMagnet products have become the InnerWireless Technical Team's standard tools for exchanging device OTA captures with customers while troubleshooting, and even allow the team to generate reports that demonstrate continued antenna system performance without requiring downtime to inject non-802.11 signals. InnerWireless also takes advantage of the fact that the AirMagnet WiLAN cards can be calibrated to match other InnerWireless tools for seamless administration.

"It's our business to deploy and manage mission-critical Wi-Fi networks, so we really push our tools to the limit. And it's our opinion that Fluke Networks' AirMagnet products are superior to other 802.11 wireless analyzers for evaluating signal level, and represent the fastest troubleshooting tools in an active wireless environment," Lind concluded.

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Printed in U.S.A. 4/2012 4211157A