Innovative Solutions for the Security, Performance and Compliance of Wireless Networks

AIRMAGNET Wireless Network Assurance
The consequences of this model are two-fold. First, rogue access via Wi-Fi can provide an easy entrée to the organization’s entire network. Secondly, wireless end-users, APs and their traffic can be directly exposed to a variety of external dangers including Denial of Service attacks, phishing, identity spoofing and hundreds of readily available hacking tools that can cause disruptions of service.

But security is not the only challenge of Wi-Fi. Network performance and reliability is another huge issue because wireless LANs pose unique challenges requiring specialized network management tools and applications that are different from those used for wired networks. Without these resources, organizations must rely on haphazard testing and diagnostics by “wireless gurus” — a sad throwback to the early days of networking.

The other major challenge of wireless is finding the capability to audit all wireless access traffic for each user. Without this data, organizations cannot verify compliance with enterprise policies, or with industry regulations for safeguarding the privacy of personally identifiable information.

**Expert Intelligence for Wireless Deployments**

AirMagnet solutions provide a common intelligence that is a prerequisite for real control over WiFi security and performance. Unlike the periodic “self-monitoring” found in most modern APs, AirMagnet solutions are based on the active, first-hand observation of the entire wireless environment. This means that AirMagnet Analyzers continuously inspect every wireless conversation, every device, all possible WiFi channels and the entire WiFi spectrum for problems. This unabridged insight into WiFi provides the details needed to understand a problem and the ability to proactively identify hundreds of security and performance problems that simply can’t be seen via a periodic snapshot.

For example, in the 60 seconds between an AP snapshot, AirMagnet could see a hacker compromise an end-user’s computer, spoof that user’s identity, track all packets and traffic from the attacker and begin remediation for the threat. A passive (indirect) solution would not likely see the threat and certainly could never give the details needed to help staff know what actually happened.

In order to keep a network secure, or to quickly understand and fix a problem, you must collect and base decisions on a complete set of data from the real-world environment. This is precisely what AirMagnet provides across all of its solutions — direct, deep and active analysis of everything in the wireless LAN.
AirMagnet Wireless Network Assurance

AirMagnet provides the only comprehensive solution for managing all risks associated with wireless networks so that business applications are secure, reliable and compliant.

Proactive Security Stops Threats

AirMagnet solutions detect and stop all types of wireless security threats by tracking all devices, channels and traffic. Mobile diagnostic tools enable tracking the source of any threat, hacker or vulnerability. AirMagnet 24x7 intrusion detection instantly spots rogue devices and hundreds of additional threats, and pinpoints their exact physical location on the network. Alerts notify network staff to wireless vulnerabilities in access points and devices using the network. Wireless attacks are automatically blocked, and AirMagnet prevents threats from penetrating the enterprise network with wire-side blocking. Centralized correlation and analysis statistically finds security anomalies that would be missed by less advanced systems. Independent sensors deployed throughout the enterprise ensure comprehensive and accurate monitoring. The architecture is designed for fault-tolerant operation of security controls.

Automatic Audit and Verification of Compliance

Organizations often find that complying with policy and legal regulations can require countless hours of collecting data, verifying compliance, and documenting the results in reports that conform to requirements of the law. Typical regulations requiring action by the IT staff include PCI DSS, HIPAA, GLBA, Sarbanes-Oxley, DoD 8100.2 and others. AirMagnet automatically tests for compliance with these and many other regulations. Every standard compliance report includes an overview of the regulation and how it applies to WLANs; details of compliant and non-compliant devices; details of violations by relevant sections of the regulation, what led to each violation and a detailed pass/fail report card by device. Users can also create reports based on their own internal policies for internal reporting and compliance.

Security
• 24x7 intrusion detection and prevention
• Track all devices, channels and traffic
• Pinpoint exact location of rogue devices and threats

Performance
• Proactively identify wireless problems
• Understand how wireless relates to key requirements
• Analyze data in simple terms for rapid adjustments to WLAN performance

Compliance
• Automatically report for compliance with PCI DSS, HIPAA, GLBA, Sarbanes-Oxley and more
• Verify WLAN compliance with internal policies
• Pass/fail report card by device

"AirMagnet has always understood that wireless security must extend beyond access points."

Ronald Shaul, Director, Smart City Networks

Improper setting in the WLAN infrastructure, or any of dozens of other wireless issues. AirMagnet automatically and proactively identifies the root-cause of the wireless problems so that issues can be fixed quickly. Results of raw wireless data analysis are presented in simple terms to enable precise, rapid adjustments to WLAN performance.

Expert Systems Pinpoint Problem Roots to Fine-Tune Performance

The performance and reliability of a WLAN is just as important as security. If a network doesn’t run well, then users are far more likely to install their own rogue access points to try and compensate. Unfortunately, troubleshooting wireless performance problems can be notoriously time consuming. The sources of problems could be related to RF, interference, client-side glitches, an improper setting in the WLAN infrastructure, or any of dozens of other wireless issues. AirMagnet automatically and proactively identifies the root-cause of the wireless problems so that issues can be fixed quickly. Results of raw wireless data analysis are presented in simple terms to enable precise, rapid adjustments to WLAN performance.
AirMagnet Solution Suite

AirMagnet provides software tools and systems designed to match requirements for each point of the WLAN lifecycle, including network design and planning, deployment, optimization, intrusion detection, vulnerability assessment, operations, troubleshooting, audit, reporting and compliance.

AirWISE Analysis Engine

Unique technology underpinning every AirMagnet solution

AirWISE is the intelligent Wi-Fi analysis engine that translates raw wireless data collected by AirMagnet solutions into actionable intelligence written in simple terms. AirWISE detects and processes wireless events that can impact security, performance or compliance. The engine translates analytics and complex concepts into easy-to-understand terms, explains Wi-Fi events in detail, and prioritizes the most threatening or important issues.

AirWISE presents deep background on each wireless issue – making it easy for networking technicians to deploy and maintain WLANs with the same confidence as wired networks. AirWISE prescribes the best solution for each issue, so you get concrete guidance on solving wireless problems.

Easy-to-understand analysis of issues relating to:
- Security
- Rogues
- Encryption
- Access Points
- Channels
- Signal
- Traffic
- Coverage
- RF interference
- VoWLAN
- Compliance
AirMagnet Enterprise Solutions

AirMagnet Enterprise solutions help CIOs, IT, network and security managers by giving them precise insight and control over wireless LANs. AirMagnet Enterprise solutions enable businesses to centrally manage and troubleshoot global WLAN deployments, streamline security policies across the entire enterprise, and actively diagnose and fix problems remotely.

AirMagnet Enterprise is the only centralized solution in the world to use intelligent sensors to locally collect and analyze every wireless packet, device, and conversation for security and performance problems. A centralized server correlates events from all AirMagnet Sensors world-wide and integrates with other systems, while console software provides the user-interface and enables remote troubleshooting of global WLAN locations. The architecture is designed for fault-tolerant performance with automatic local redundancy and recovery for sensors and servers. It supports wireless equipment from all vendors and infrastructures, allowing AirMagnet Enterprise users to get a single, consolidated view of security and performance for all Wi-Fi in the distributed enterprise. The solution is ideal for enterprises whose businesses depend on wireless networking, require strict security and compliance, or need to troubleshoot multiple WLAN locations.

Capabilities include:
- Continuously monitor for hundreds of wireless threats (covering all 200 Wi-Fi channels)
- Proactively suppress all wireless threats with a combination of wired and wireless suppression techniques, including tracing and locating the origin of each wireless threat
- Continuously monitor for dozens of real-world performance issues including overloaded resources, bandwidth problems, RF issues and interference via Spectrum Sensors
- Set policies for all WLAN locations to streamline security standards, log approved devices, trigger automatic responses to events, and audit for 100% compliance
- Set conditional thresholds for alarms and assign specific users to be notified based on security policies, individual preferences, or send alarms to a third-party SIM
- Use active network diagnostic and testing tools to troubleshoot connectivity problems in any remote WLAN location, including any WLAN link and DHCP server

StreetWISE

Endpoint Security Control

AirMagnet StreetWISE is a family of endpoint security software products that protects all enterprise laptops from dangerous wireless activity and end user behavior, regardless of where they are and where they go. StreetWISE enables IT to set strict security policies for all types of wireless connections and hardware devices, while automatically preventing end user mistakes that put the laptop, and enterprise, at risk.

Enterprise Analyzer

Real-Time Remote Troubleshooting for Cisco® and Aruba Networks®

AirMagnet offers a customized AirMagnet Enterprise Analyzer for both Cisco and Aruba wireless infrastructures. The AirMagnet Enterprise Analyzer is a software solution enabling IT and network managers to use their existing wireless APs and controllers to troubleshoot and analyze Wi-Fi issues at remote locations. This cost-effective approach gives IT and network managers a real-time enterprise-wide help desk application that can quickly diagnose and fix problems remotely as soon as they arise. This lets organizations save time and money by resolving problems faster, maintaining high network uptime and reducing the need to travel on-site to remediate problems. Key features and benefits include:
- Automatically identify hundreds of WLAN problems, including traffic, configuration and connectivity issues
- Use diagnostic and testing tools to remotely troubleshoot connectivity, signal quality, and jitter (for voice)
- Investigate any device or channel in detail, including utilization, throughput, CRC error rates, and more
- Turn Wi-Fi sessions into customizable reports, and audit for federal compliance (optional)
AirMagnet Mobility Solutions

AirMagnet Mobility Suite is a collection of software-based solutions that provide expert analysis of the wireless LAN for quick and effective troubleshooting or planning. Its intelligent insight into RF and network level information enables network managers to pinpoint the source of issues that pose risks to the enterprise or disrupt performance. AirMagnet also ensures cutting-edge WLAN applications, such as Voice-Over-Wireless-LAN (VoWLAN) maintain integrity throughout deployment and expansion phases.

The integrated AirMagnet Planner and AirMagnet Survey solution is ideal for planning and designing a wireless LAN for optimal performance, security and compliance. This combined solution not only predicts the ideal quantity, placement and configuration of access points, but also validates those settings in a live RF environment using actual wireless performance metrics from your organization’s users. AirMagnet Survey goes beyond just verifying strong RF coverage by plotting actual network performance in terms of connection speed, packet statistics and total interference. The end result is a complete Wi-Fi “weather map” of all critical RF and end-user performance metrics. Advanced features allow users to integrate with AirMagnet Spectrum Analyzer, generate survey reports, perform GPS assisted surveys and do detailed end user capacity planning.

AirMagnet Laptop Analyzer and AirMagnet Handheld Analyzer are the industry standard tools for auditing and troubleshooting enterprise Wi-Fi networks in the field. Both solutions help IT staff quickly solve end user issues while automatically detecting security threats and other wireless network vulnerabilities. AirMagnet Analyzers include the industry’s only suite of active WLAN diagnostic tools, enabling network managers to easily test and diagnose dozens of common wireless performance issues including connectivity problems, device conflicts and signal multi-path problems. AirMagnet Laptop Analyzer also includes a full compliance reporting engine, which automatically maps collected network information to requirements for compliance with policy and regulations. AirMagnet Laptop Analyzer also integrates with AirMagnet Spectrum Analyzer for simultaneous Layer 1 and Layer 2 Wi-Fi troubleshooting.

AirMagnet VoFi Analyzer offers end-to-end analysis of VoWLAN deployments, making it easy for network staff to easily troubleshoot and maintain real-world voice deployments. VoFi Analyzer provides full analysis of encrypted WLAN traffic, scoring all calls in terms of call quality and proactively identifying all types of problems including phone issues, roaming issues, QoS issues, RF, etc. AirMagnet VoFi Analyzer integrates with leading voice solutions to collect and correlate diagnostic information from the phone, air and wired-side of the connection. Analyzing all three data sources, VoFi Analyzer provides complete voice analysis and enables network staff to confidently deploy and operate voice over a Wi-Fi infrastructure.

AirMagnet Spectrum Analyzer proactively identifies, classifies, and locates sources of RF interferences that impact the performance of Wi-Fi networks. Unlike earlier generations of spectrum analyzers, AirMagnet Spectrum Analyzer provides an IT-friendly user interface that identifies interfering devices by type — Bluetooth, cordless phones, etc. — and pinpoints their physical location for fast, easy Layer 1 troubleshooting.

“Using AirMagnet Survey PRO, I have reduced time taken to deploy wireless networks by 80%”

“AirMagnet’s Laptop Analyzer PRO helps materialize the invisible”

Network Computing
Leadership and Innovation for Wireless

Since its founding in 2001, AirMagnet has become the clear leader for innovation in wireless security, performance and compliance. More than 6,000 enterprise customers have some of the world’s largest and most complex WLAN environments, including 75 of the Fortune 100.

Proven deployments from corporate skyscrapers to military battlefields include customers across all major business sectors – manufacturing, financial, retail, service, health care, utility, energy and transportation, education, telecommunications, media, government and technology.

AirMagnet customers receive outstanding customer service from our world-class support team and global channel partners.

AirMagnet has been first in the wireless industry to: deliver threat blocking for wireless and wire-side; automate intrusion prevention; deliver a complete threat detection library; include spectrum analysis for Layer 1 attacks and interferers; provide the only fault tolerant enterprise solution; and provide the only VoWLAN analyzer for encrypted WLANs.

AirMagnet partners with best-of-breed technology and market leaders through the AirMagnet Technology Alliance Program. Partners include:

AirMagnet also has an unmatched record in independent third-party evaluations. AirMagnet has won dozens of industry awards and more head-to-head competitive reviews than all other competitors combined.
Learn More

AirMagnet solutions give enterprises full confidence in their wireless deployments – and the assurance they are operating secure, well-performing and compliant networks. We invite you to learn more about Wireless Network Assurance, and how AirMagnet can help your enterprise take full control of WLAN security, performance and compliance. For more information, please contact AirMagnet at +1 408-400-0200 or visit us on the web at www.airmagnet.com.

About AirMagnet

AirMagnet Inc. is the leader in security, performance and compliance solutions for wireless LANs. The company’s innovative products include AirMagnet Enterprise, the leading 24x7 WLAN security and performance management solution, and AirMagnet Laptop Analyzer – which is known as the “de facto tool for wireless LAN troubleshooting and analysis.” Other products provide WLAN site survey and design, RF interference detection, remote diagnostics, and the world’s first voice over Wi-Fi analysis solution. AirMagnet has more than 6,000 customers worldwide, including 75 of the Fortune 100. The company, based in Sunnyvale, California, has offices worldwide.