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Datasheet: AirMagnet VoFi Analyzer PRO

AirMagnet VoFi Analyzer PRO automatically recognizes and diagnoses the unique issues that impact call quality and reliability, and provides a simple interface designed for the task of troubleshooting voice over WLAN problems. It is the only solution to calculate wireless call quality and detect voice problems even on fully encrypted networks and traffic - thus ensuring network staff can instantly diagnose any problem without compromising the security of the network.

AirMagnet VoFi Analyzer PRO offers deep analysis by integrating diagnostic data from the phone, air, and wired sides of a given call. This provides a truly complete view into any voice problem and lets staff manage any voice deployment with complete confidence.

Call Quality Made Easy

A poor or unreliable voice call can have any number of potential sources: it may be an issue in the phone, the RF environment, the WLAN itself, QoS settings, the IP-PBX and so on. This complexity can make voice problems particularly challenging and time-consuming to diagnose. AirMagnet VoFi Analyzer PRO automatically analyzes each of these areas and identifies the true source of any Wi-Fi voice problem, enabling IT staff to keep voice deployments operating at peak levels while saving hours of troubleshooting time.

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Visibility Into Call Quality

AirMagnet VoFi Analyzer PRO technology scans all 802.11a/b/g/n devices, distinguishes between voice and data traffic, and automatically scores every call in terms of WiR-Value and WiMOS score. The solution independently scores and tracks both sides of a call (AP to phone and phone to AP), allowing users to distinguish problems that are rooted on one side of the call. Each call is color-coded according to call quality, making it easy to visualize phones or calls with problems. This provides a full history of all calls on the network, and quickly reveals problems that are tied to a particular phone, channel or a given period in time.

Demystify Call Roaming

Smooth coordinated call roaming is a key to providing users with the mobility and seamless connectivity required from a wireless voice deployment. If these roaming events are not properly coordinated or if phones roam too often, it can lead to dropped calls or other issues. Utilizing multiple Wi-Fi adapters plugged into the PC, AirMagnet VoFi Analyzer PRO provides advanced details regarding all roaming transactions detected in the voice-over-wireless deployment. These details include possible reasons for the roaming instance, voice specific data (such as WiMOS, signal strength, etc.) leading up to the attempt, and packet transmission rates for the conversation. This can help network staff to identify problem phones that may be constantly roaming or "thrashing" between APs or alternatively identify problems affecting an entire channel that may be causing many phones to roam.

AirWISE®: Simple Answers to Complex Problems

AirMagnet VoFi Analyzer PRO vastly simplifies troubleshooting voice problems with a specially adapted version of the AirWISE analysis engine that automatically diagnoses more than 60 types of wireless call problems. The AirWISE engine constantly captures and analyzes live voice traffic to provide staff with immediate answers to their voice-over wireless problems. AirWISE covers all types of voice issues including QoS problems, roaming issues, power-save problems, overloaded devices,phone problems, fragmentation, one-way audio and much more. When a problem is detected, an AirWISE alarm explains the issue in detail, and names the specific phone, AP or channel at the heart of the issue. This allows network staff to immediately understand the source of voice problems and saves hours of time that would normally be spent manually investigating the problem.
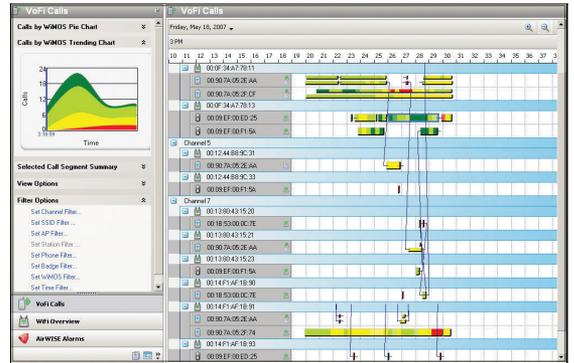

Figure 1: Call View provides a complete and concise top-down view of all calls and roaming events
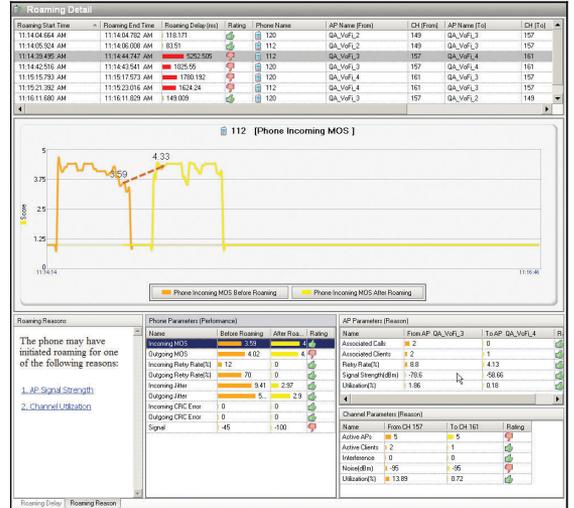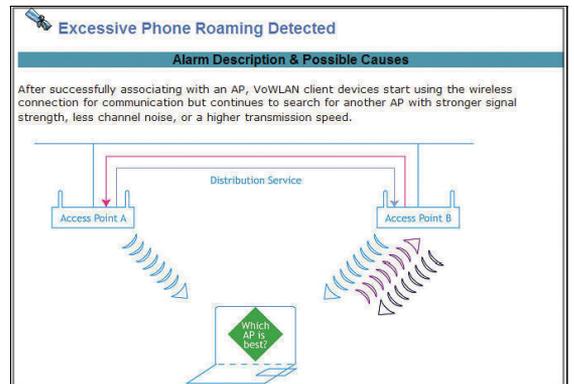

Figure 2: Advanced phone roaming analysis

Figure 3: AirWISE automatically detects, explains and recommends solutions to voice problems

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Complete Call Analysis and Troubleshooting
Correlate Call Metrics

AirMagnet VoFi Analyzer PRO users can simply click on a call to gain access to a wealth of detailed diagnostic information. The solution provides easy-to-read charts that correlate changes in call quality with more than 50 critical call metrics. For example, a user could use these charts to see if poor call quality was related to changes in packet jitter, signal quality or a spike in the number of users competing for the same AP. These call charts also show when roaming events occurred as well as when alarms were triggered, making it easy to place key events in relation to changes in performance. Users can choose from a library of pre-built graphs or construct their own from dozens of metrics including CRC errors, fragmentation, active call count, data utilization and much more.

View Calls in Context

AirMagnet VoFi Analyzer PRO provides details on how each call fits in to the overall wireless environment. The application shows how many voice and data clients are competing for the same AP and channel resources. Additionally, the solution displays the relative amounts of voice and data traffic and also tracks key 802.11e statistics such as video, best effort and background traffic. Finally, the solution gives a complete connection history for all devices on the channel illustrating which devices have roamed the most.

Combined View of AirMagnet VoFi Analyzer PRO: Air, Phone, and Wire

AirMagnet VoFi Analyzer PRO integrates call information from the wired side of a connection as well as from the Wi-Fi phones themselves. This support opens the door to an unprecedented level of analysis that combines data form air, phone and wire.

Integration with Syslog-Capable Phones

One of the key capabilities found in AirMagnet VoFi Analyzer PRO is the ability to receive call diagnostic information directly from Cisco phones (Cisco 7921) and Spectralink phones (Netlink 8020, 8030, e340, h340, i640). This enables staff to gain additional insight into call performance from the unique perspective of the end-user. When this Syslog information is available, AirMagnet VoFi Analyzer PRO shows side-byside comparisons of call quality readings taken from the air compared to those taken from the phone. Likewise, users can also chart a variety of statistics taken directly from the phones (jitter, loss rate, call quality etc) or even investigate Syslog data directly in the Decode View.
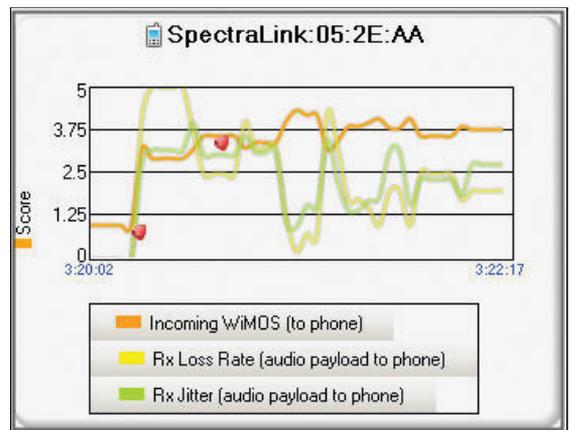

Figure 4: Call Detail charts show important trends and correlate call roaming events and alerts

Figure 5: AirMagnet VoFi Analyzer PRO integrates with leading voice solutions for correlated air, phone and wire analysis

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Integration with Cisco Call Manager

AirMagnet VoFi Analyzer PRO offers the option to integrate with Cisco's Call Manager and Call Manager Express to retrieve additional call information and diagnostics. This integration allows AirMagnet VoFi Analyzer PRO to retrieve the phone number associated with a particular call, investigate the termination reason for the call and collect a variety of call diagnostics such as latency, jitter, and lost and retried packet rates.

Integration with Vocera Server

AirMagnet VoFi Analyzer PRO offers integration with Vocera server deployments allowing the solution to retrieve a variety of user information stored in the database making it easy to tie a particular Vocera badge to its user or user role.

Integrated Voice Reports

With the touch of a button, network managers can turn their analysis and troubleshooting sessions into customized reports, covering all the critical areas of voice. Users can generate call quality reports in terms of WiMOS scores, WiR-value, detailed roaming reports, as well as device and alarm reports covering all the events captured during the session. These reports can then be exported as PDF, Word doc or Excel for easy sharing with management and staff.
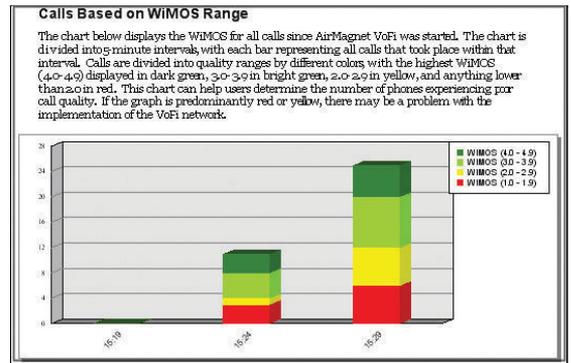

Figure 5: Customizable reports provide professional records of voice performance

Product Facts	
Product	Part Number
AirMagnet VoFi Analyzer PRO (includes integration with Cisco Call Manager, Syslog Phones and Vocera Server)	AM/A2210

Minimum System Requirements
Laptop/Notebook or Tablet PC
Microsoft® Windows 8 Pro/Enterprise, Microsoft® Windows 7 Enterprise/Business/Ultimate/Professional or 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: 64-bit Operating System supported on Windows 7 and Windows 8 for certain wireless adapters. 32-bit Operating System supported on Windows 8 for certain wireless adapters. Please refer to supported adapter list for more details.
Intel® Pentium® M 1.6 GHz (Intel® Core™ 2 Duo 2.00 GHz or higher recommended)
1 GB memory (2 GB recommended)
2 GB of free hard disk space
A CardBus, ExpressCard slot, USB port, PCI Express or Mini PCI slot (whichever applicable)