



Reducing WLAN Management Costs

The mission-critical use of wireless LANs in healthcare settings requires the highest levels of uptime and uncompromising security. Most healthcare enterprises today must manage multi-vendor, multi-generational wireless networks as a result of piecemeal incremental departmental deployments and sequential facilities acquisitions. Legacy and new wireless networking gear often need to run side-by-side because of multi-year capital equipment purchasing cycles. Meeting the requirements of high reliability and security can be challenging with limited IT support staff while maintaining the multiple generations and variety of vendors' wireless LANs installed across the healthcare enterprise. Aruba's AirWave Wireless Management Suite (AWMS) is a centralized multi-vendor wireless LAN management solution that improves hospital network quality while reducing IT costs.

With the AirWave software, hospitals can easily maintain an enterprise-wide network consistent with HIPAA compliance where the diagnosis and repair of WLAN connectivity problems is dramatically reduced and resolution timeframes are greatly accelerated. AWMS also eases handling technology transitions and multi-vendor wireless LAN installations by extending the life of existing capital investments.

Use Cases

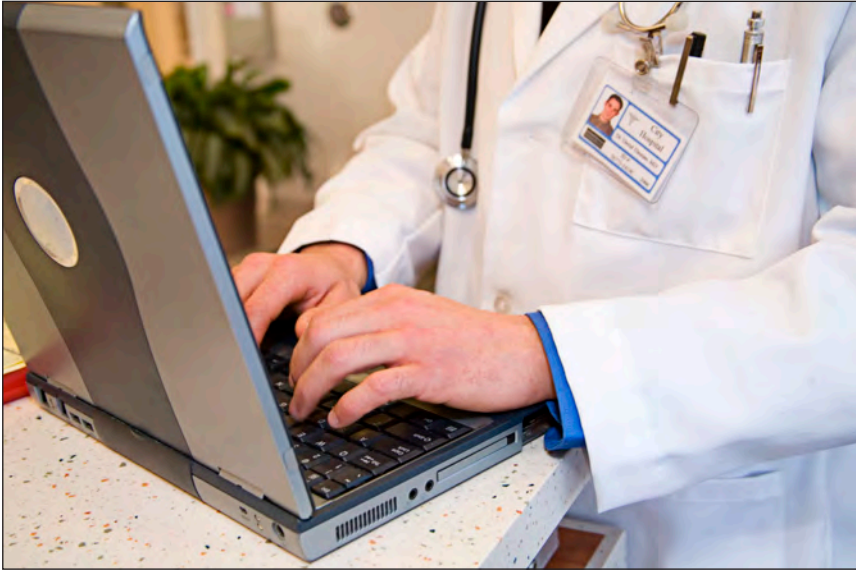
- **Maintaining a uniform configuration/operating procedure across multiple vendors' WLAN:** With a single console for managing the entire WLAN, system updates and maintenance activities do not require making duplicate changes on multiple consoles, thereby increasing uptime and decreasing IT resource requirements.
- **Automating help desk functions/reducing time to troubleshoot RF problems:** Aruba's AWMS includes a coverage visualization tool, VisualRF, which allows IT staff to immediately identify and locate problems anywhere in the wireless network.
- **Managing transition to newer wireless standards:** In order

to transition a hospital's wireless infrastructure with no down time, at least two wireless networks need to be managed simultaneously. AWMS is ideally suited for managing the entire wireless network and assuring its uptime during the migration.

- **Managing multiple remote facilities centrally:** Hospital IT departments can efficiently maintain consistent security policies and promptly dispatch uniform network upgrades throughout the healthcare enterprise from the hospital's main data center using AirWave's Wireless Management Suite.
- **Security and compliance auditing:** Automatic detection and location of unauthorized users, rogue access points, and other threats to the security of both the wired and wireless portions of the network are handled by AirWave's RAPIDS Module. At the same time, the compliance auditing required by HIPAA is performed by the AirWave Wireless Management Suite (AWMS) which provides audit logs for administrative actions for up to two years, as well as detailed audit trails and system logging of all activities on the wireless network.

What Makes Aruba Different :

- Supports multiple applications locally such as patient monitoring connectivity and EMR access
- Cost effective remote networking that is end-user installable and centrally managed
- Enterprise-grade reliability for WAN backhaul and local LAN & WLAN connectivity
- Integrated security capabilities for regulatory compliance



- **Location tracking:** Any device that can access the network can be accurately located within the healthcare enterprise using Airwave's VisualRF application without the need for proprietary sensors or location appliances.

The Airwave Wireless Management Suite Advantage:

- **Multi-Vendor and Multi-Generational:** Installed in the NOC, it is capable of efficiently managing WLAN elements from 17 different vendors and all generations of 802.11 (a/b/g/n).
- **Massively Scalable:** The AirWave Wireless Management Suite can handle over 100,000 nodes and can meet the needs of the largest right-sized wireless network edge installations, while mitigating increases in operating costs as the number of wireless users increases
- **Integrated Business Continuity and Disaster Recovery:** Failover servers maintain the manageability required in mission-critical, high-availability healthcare environments
- **Uniquely Comprehensive Manageability:** AirWave is the only Wireless Management Suite that incorporates wireless LAN management, security auditing, help desk functionality, and support for real time location services. AirWave provides complete visibility and control

of the entire network for all of the IT staff (including network engineers, helpdesk staff, IT managers and security analysts) on a single console

- **Detailed Diagnostics:** Ensures rapid problem resolution through remote trouble shooting and real-time monitoring with heat maps, and full help desk integration. The AirWave Wireless Management Suite also incorporates automated configuration management, auditing, and reporting with the ability to track years of reports, specialized to document HIPAA compliance.

The Aruba Airwave Wireless Management Suite Solution:

The AirWave Wireless Management Suite is particularly well suited to hospitals where a WLAN change would be too resource intensive and where HIPAA compliance is an issue. The Suite consists of three components: the Airwave Management Platform (AMP), the VisualRF Location and Mapping Module, and the RAPIDS Rogue Detection Module. Additionally Aruba provides the Airwave Master Console to provide scalability to thousands of managed devices via a single console, Failover Server for redundant network management environments, and Appliances for customers' who desire an integrated solution.

Healthcare Solution

- **Unified, Centralized Management:** AMP provides real-time monitoring and trend reporting for every user and device on the network. It supports hardware (WiFi, Mesh, WiMAX, point-to-point, etc.) from 90% of the enterprise-grade wireless vendors. It allows hospital IT staffs to control their hardware lifecycles by allowing them to manage both current generation and legacy infrastructures.
- **Support for Real-Time Locations Services:** VisualRF provides the accurate location of every user and device on the network without the need for proprietary sensors or 'location appliances.' In addition, VisualRF provides real-time RF coverage maps and channel maps, both of which can be integrated into Google Earth.
- **High-Level of Security:** The RAPIDS Module delivers automatic detection of unauthorized APs and performs wired scans where there are no APs or sensors. This is done using the managed APs to triangulate the location of rogue devices and identify the port with which they are associated.
- **High-Level of Availability and Reliability:** The Master Console provides a single console capable of monitoring more than 100,000 wireless nodes and works with failover servers to maintain and manage mission-critical and high-availability healthcare networks.

One Integrated Operations Management Solution**Network Engineering****Provisioning & Configuration**

- Provision System
- Centralized configuration & change control
- System Diagnostics

Security & Audit Team**Compliance Mgmt & Security**

- Automated compliance audits & reports
- Wired & wireless intrusion detection

L1/L2 Help Desk**Monitoring & Visualization**

- Full visibility to every remote user & device
- Remote diagnostics & automated troubleshooting

Executive Management**Reporting & Analysis**

- Usage & trend reports
- Triggers & alerts
- APIs for 3rd party integration



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