

The Aruba Mobility Management System

Overview

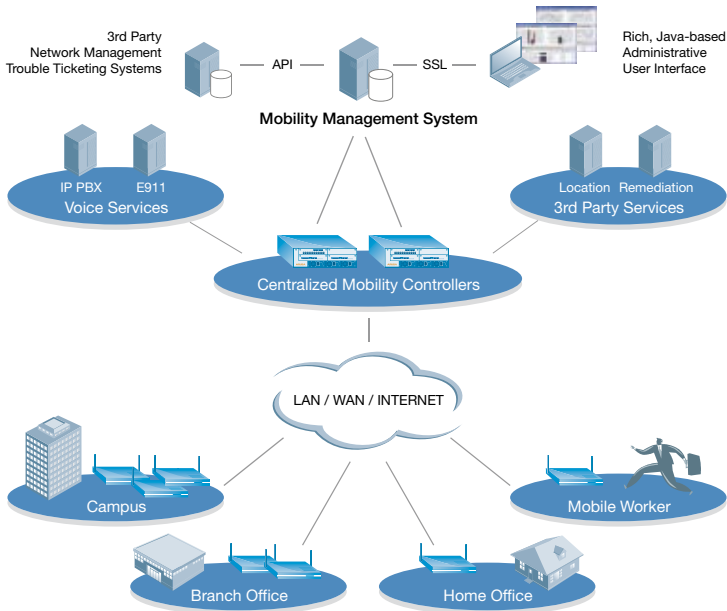
The Aruba Mobility Management System provides a comprehensive suite of applications for planning, monitoring, fault management, reporting, RF coverage and location visualization for the Mobile Edge of enterprise networks. It tightly integrates with other Mobile Edge system components such as mobility controllers and controlled access points and represents a new category of network management applications that are optimized for managing network users and not just network devices. The user centric management model allows IT administrators to rapidly scope and visualize all objects related to any given network user in real time and serves as a key differentiator of the Mobility Management System. It drastically cuts troubleshooting time ensuring fast time to repair and increased customer satisfaction scores.

The Mobility Management System reduces total cost of ownership by automatically discovering and managing hundreds of controllers and thousands of controlled APs and users simultaneously from a single network operations center. It complements the rich centralized management capabilities built into the Aruba mobility controllers themselves and provides a single reference point to track users/client devices, identify rogue devices, plan new deployments, enable rapid troubleshooting of client issues, and visualize RF coverage patterns across the entire Mobile Edge. In addition, the Mobility Management System comes with a built-in location API that permits external systems to query the current and historical location of any WLAN device. The Aruba Mobility Management System software can be deployed on any PC platform or optionally purchased as a robust, hardened network appliance system.



Applications

Aruba's Mobility Management System consists of five targeted Java-based client-server applications that can be run individually or together: Dashboard, RF Live, Monitor, RF Locate, and Reports. Each application includes context sensitive on-line help capability and can be launched easily on any computer or workstation. Additionally, the Java client applications are auto-updated using the Java Web Start capability which eliminates the need to manage Java clients and servers independently.



Dashboard

The Dashboard application gives network administrators a summary view into the Aruba Mobile Edge infrastructure (Figure 1). Major, minor and critical alarms for fault management with hierarchical rollup are displayed so that at a glance, a network administrator can instantaneously assess the health of the WLAN infrastructure. With a single mouse click and using a robust flexible search and filter engine, a network administrator can rapidly zero in on a specific client or AP, significantly streamlining the troubleshooting effort. Requested information such as user counts, encryption methods, applied firewall policies, controller modes, AP types/mode (Rogue, Valid, Interfering), and much more are all viewable within the Mobility Management System or available and exportable as raw data to a number of 3rd party applications.

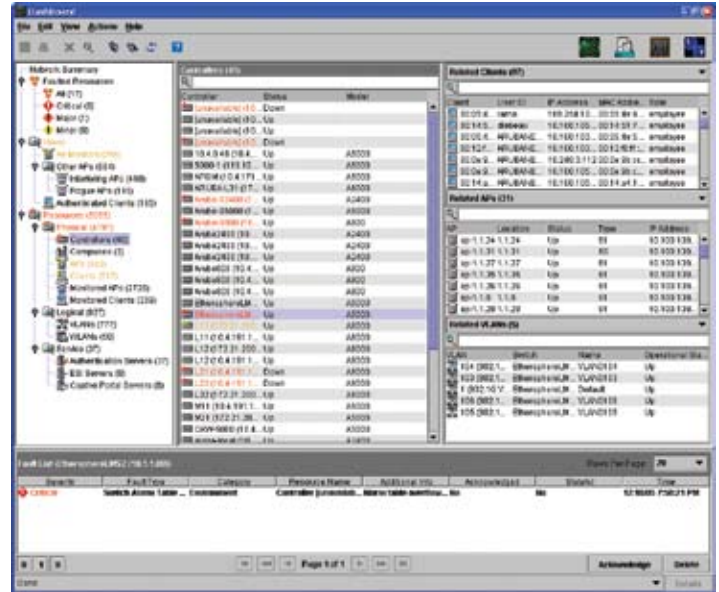


Figure 1

RF Live

The RF Live application (Figure 2) is used for pre-deployment planning and live visualization of the RF environment which is very useful for getting a quick understanding of interference patterns and coverage holes. RF parameters such as signal strength and interference are displayed in the context of floor plans using

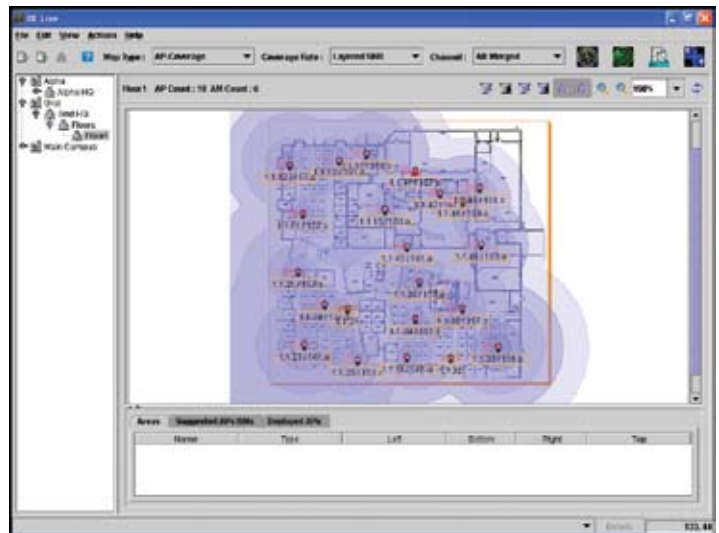


Figure 2

coverage contours and colored heat maps. Since RF Live uses dynamic information delivered by Aruba's patent-pending Adaptive Radio Management™ (ARM) algorithms, it provides a real time understanding of the evolving RF environment and eliminates the need for manual fingerprinting of RF coverage post deployment. RF Live also provides integrated tools for pre-deployment RF planning.

AutoCAD drawing (.dwg files) import allows network administrators to easily load existing floor plans into the system before the planning process begins. Once a floor plan has been imported, it can be used to determine access point placement based on coverage and capacity requirements. The planning process is a lightweight process since actual RF tuning is a dynamic, real-time process using ARM. This eliminates the need for traditional heavy duty planning tools that require a detailed understanding of building materials or an expensive manual site survey.

Monitor

The Monitor application provides real-time polling and display of Aruba mobility controller and controlled AP data via secure SNMPv3 (Figure 3). The live graphing capabilities of the Monitor application allow the network administrator to select any object and then, via drag and drop capabilities or a simple mouse click, create a live graph of the selected data for enhanced visualization capabilities. All data is exportable to 3rd party applications for further detailed processing if required.



Figure 3

RF Locate

The RF Locate application can track and locate any observed Wi-Fi device within range of the Aruba mobility infrastructure (Figure 4). Using accurate deployment layouts and triangulation algorithms, the RF Locate application enables the network administrator to rapidly locate selected client devices. Devices that can be easily located include PDAs, rogue APs/Clients, VoWLAN phones, laptops, Wi-Fi asset management tags, and more. Additionally, location data is not 'locked in the box'. Aruba offers an open XML/SOAP web services API to allow 3rd party access to location data enabling sophisticated next generation location based applications.

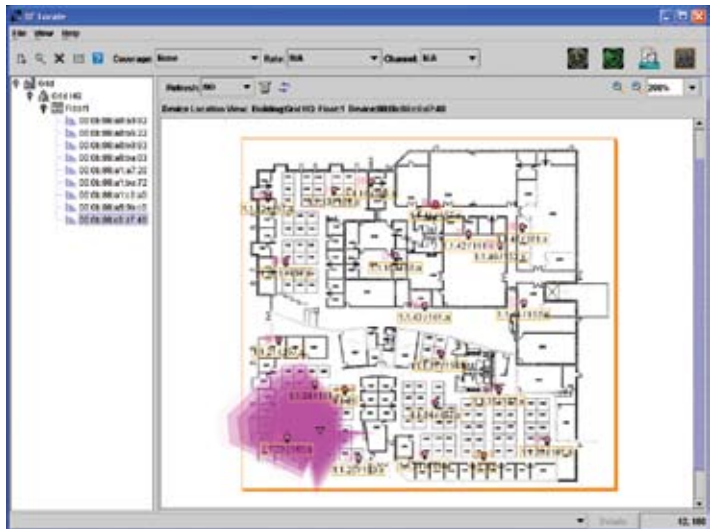


Figure 4

Reports

The Reports application allows network administrators to configure, schedule and run reports at configurable time intervals that seamlessly display data that the Aruba Mobility Management System has collected and stored for long term data archival & analysis. These reports can be reviewed by business managers interested in WLAN network health, usage trending and capacity planning. They can be grouped in variety of formats including Summary, Trending Analysis, and Top 'N' reports. In addition, custom reports can be generated by the network administrator and sent via email or displayed on the GUI. The report output is in industry standard HTML format for compatibility with a wide variety of email clients. Reports can be scheduled to run at periodic intervals without administrator action (Figure 5).

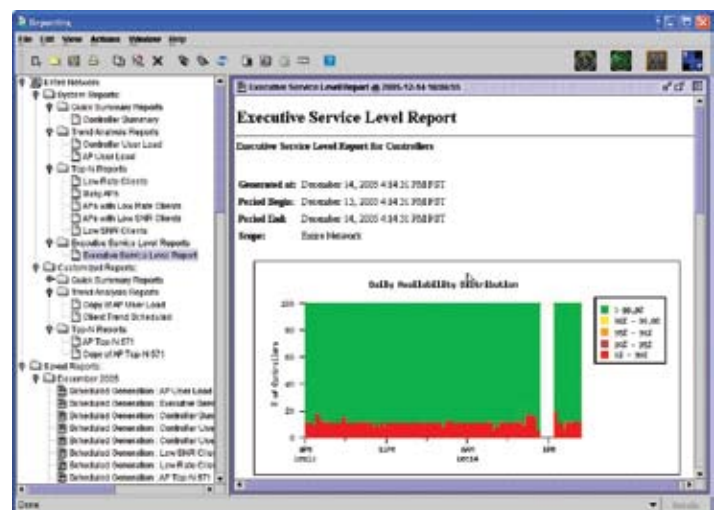


Figure 5

Features and Benefits Table

Feature	Benefit
User-centric Data Model	Rapid problem scoping and problem resolution.
Java™ Webstart UI	Easy client side software management
Autodiscovery	Provide a single IP address and the Mobility Management System discovers the rest of the Mobile Edge
User configurable reports	Customizable Reports such as mobility Network Health, usage trending & capacity planning
Powerful Visualization	See mobility related data while retaining the information that created the view
Location API	Enables open, built-in 3rd party development and innovation for location-based services.
Saved Searches	Allows network administrators to save and re-use frequently used search patterns for accelerated time to repair
Versatile Scheduling Engine	Run reports, locate stations, email reports at scheduled intervals.

Ordering Information

The Aruba Mobility Management System is available both as an integrated appliance and as a software application. The MM-100 Mobility Management System Appliance is a high performance system with pre-loaded software and initial support for 250 APs. The software version ships with support for 50 APs. Both versions can be upgraded in increments of 100 APs. Unlimited AP Expansion licenses are also available for both platforms.

Part Numbers and Product Descriptions

MM-100	<p>Aruba MM-100 Mobility Management System Appliance (Up to 250 APs) Contains: MM-100 Appliance (Dual Processor, RAID subsystem, dual power supply, 2GB RAM, 1U), 1 rackmount kit, 1 ethernet cable, software restore disk, quick start installation guide, user guide, front bezel, 2 power cords. Includes license activation certificate for 250 APs.</p>
MM-SW	<p>Aruba Mobility Management System Software (Up to 50 APs) Contains: Software distribution disk, quick start installation guide, user guide. Management of up to 50 concurrent AP. Includes license activation certificate for 50 APs. Requires Pentium 4 3.0GHZ 800FSB, 2GB DDRII RAM, 200GB SATA/SCSI HD, RedHat ES 4.0 Hardware Compatibility Compliance. Dedicated System required.</p>
LIC-MM-100	<p>Mobility Management System Expansion License - Add 100 AP Each UG-MM-100 upgrade adds management support for 100 additional APs. Upgrades are cumulative and multiple licenses can be applied to the same system. Managed APs can be local or remote.</p>
LIC-MM-UL-1	<p>Unlimited AP Expansion License for MM-SW Mobility Management System Software The LIC-MM-UL-1 upgrade provides unlimited AP support on a single MMS-SW Mobility Management System. Managed APs can be local or remote.</p>
LIC-MM-UL-2	<p>Unlimited AP Expansion License for MM-100 Mobility Management System Appliance The LIC-MM-UL-2 upgrade provides unlimited AP support on a single Aruba MM-100 Mobility Management System Appliance. Managed APs can be local or remote.</p>

