

FEATURES

Centralized, Easy Management

- Single point for configuration and policy management
- All APs, users, devices and security policies centrally controlled

Secure Authentication and Encryption

- 802.1x authentication with WPA and WPA2
- Captive portal authentication with standard web browser
- Hardware-based encryption for AES and all other popular protocols

RF Management

- Live Site Survey for real-time monitoring and display of RF coverage and interference
- Adaptive Radio Management (ARM) self-configures in real time
- Automatic modeling, planning and placement of APs and RF monitors based on capacity, coverage and security requirements

Wireless Intrusion Protection

- Detects intrusions, attacks, impersonations and misconfiguration
- Eliminates need for overlay of wireless appliances and sensors

Policy Enforcement Firewall

- Secure each traffic flow individually
- Stateful user identification and role-based user access controls

Location Tracking

- Automatic location triangulation of any 802.11 user or device
- Real-time display of multiple devices' locations accurate within one meter

Resiliency

- Redundant controller arrays using VRRP
- Automatic RF fault tolerance avoids radio dead spots and provides AP back-up

VPN Server

- Central termination of L2TP/IPsec, IPsec- XAUTH and PPTP traffic VPN clients

Secure Remote Access

- Extend 802.1x framework across untrusted networks using IPsec
- No client software required on remote machines

Powerful Advanced AAA Capabilities

- SSID-, realm- or domain-based authentication server selection

Secure Voice-over-Wireless

- Supports voice-aware RF scanning and multiple queues over the air
- Stateful flow classification for prioritization of VoIP and streaming media
- Bandwidth contracts to enforce usage limits
- Fast handoffs between APs for VoIP mobility

Aruba

ArubaOS Mobility Software



ArubaOS is a robust and sophisticated software suite that serves as the operating system and application engine for all Aruba mobility controllers. Standard with every Aruba mobility controller, ArubaOS provides unprecedented control over the entire wireless and mobile user environment with centralized wireless LAN switching and enterprise mobility management.

The base feature set of ArubaOS includes sophisticated authentication and encryption, seamless mobility with fast roaming, RF management and analysis tools, centralized configuration, location tracking, and more.

Add-on modules provide advanced capabilities such as wireless intrusion protection (WIP), policy enforcement, and secure remote wireless access using IPsec. ArubaOS modules include Wireless Intrusion Protection, Policy Enforcement Firewall, VPN Server, Client Integrity, Remote AP, External Services Interface, Advanced AAA (authentication, authorization and accounting) and xSec Advanced L2 Encryption.

ArubaOS gives administrators a single point of control from which to locate and shut down rogue APs, identify and thwart malicious attacks and impersonations, load-balance traffic, detect coverage holes and interference and create stateful role-based security policies that follow users as they move.

With ArubaOS, wireless and mobile environments can be easily secured, centrally managed and automatically optimized.

SECURE MOBILITY

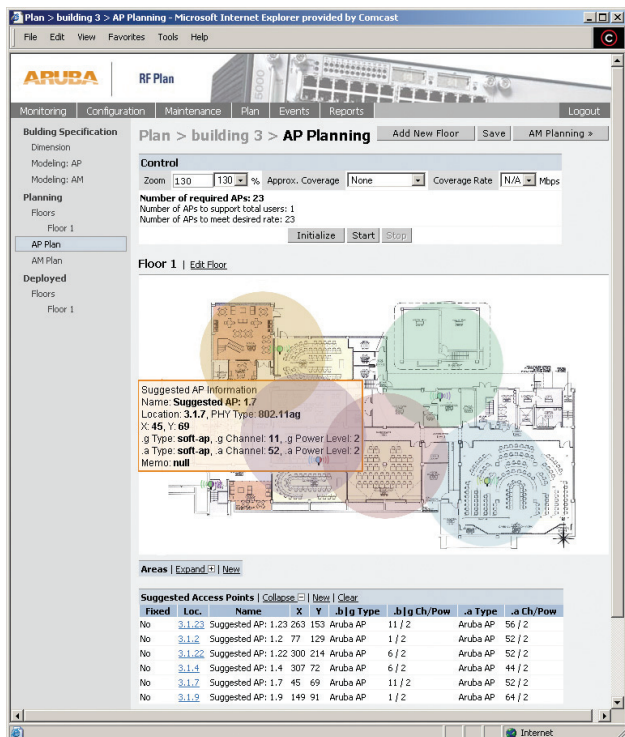
ArubaOS delivers industry-leading capabilities for securing the air, devices, users and data on the mobile enterprise network. ArubaOS provides Layer 2 authentication and encryption technologies including 802.1x, WEP, WPA and WPA2. An optional policy enforcement firewall and VPN server provide per-user policy enforcement and granular, role-based access control incorporating a variety of user credentials such as authentication method, device type, location and time of day. Comprehensive wireless intrusion protection detects and stops all unauthorized “rogue” APs and users in the enterprise environment.

ArubaOS provides seamless wireless connectivity as users move throughout the network. With roaming cutover times of 2-3 milliseconds, delay-sensitive and persistent applications, such as voice and Citrix, experience uninterrupted performance. ArubaOS integrates proxy Mobile IP and proxy DHCP functions letting users roam between subnets, APs and controllers without special client software. Aruba’s mobility capabilities work with all third-party access points.

NETWORK MANAGEMENT

Aruba’s network management system (NMS) eases management during all stages of the WLAN lifecycle—from planning and deploying to monitoring, analyzing and troubleshooting.

With Aruba’s NMS, administrators can centrally view, configure and manage all APs and mobility controllers, even those distributed in branch and regional offices.



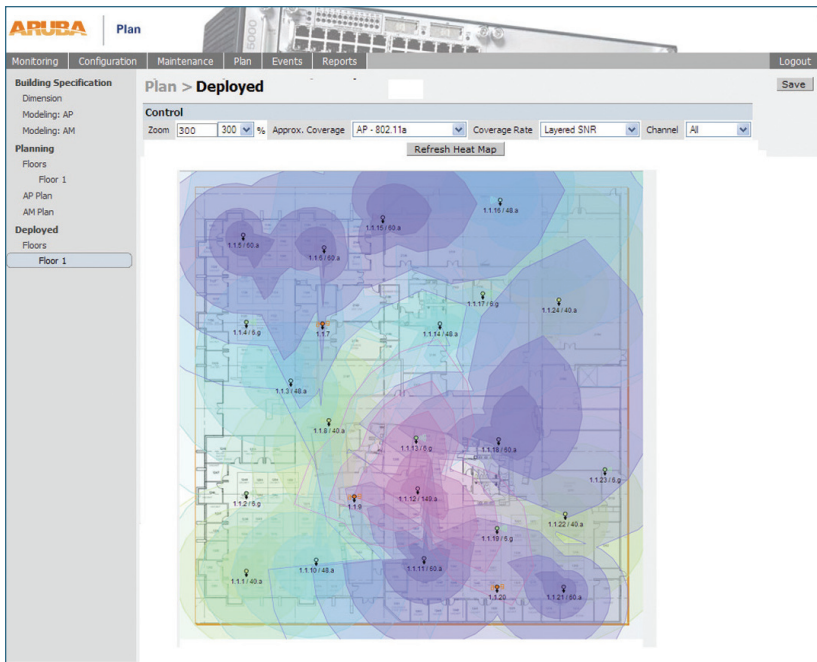
Live Site Survey automatically determines AP placement for optimal coverage and performance

FEATURE	BENEFIT
Centralized management and configuration	Ease of use. Single point for configuration, upgrades and global policy creation
Standards-based enterprise mobility	Delivers secure enterprise-wide mobility across subnets, APs and controllers using proxy Mobile IP and proxy DHCP Allows mobility for all users and applications Eliminates client software requirement for transparent mobility Enables VPN tunnel persistence as users roam across subnets
Enterprise-class security	Integrated stateful firewall and VPN server provide role-based policy enforcement Role-based authorization for granular access control using a variety of user credentials such as authentication method, device-type, user location and time of day Full-featured wireless security to lock the air and disable all unauthorized APs and wireless connections within the enterprise
Automatic blacklisting	Upon triggering pre-defined events, such as failed authentications, users are automatically disallowed from accessing the network
RF planning	Eliminates costly, time consuming site surveys and automates AP deployment
RF analysis	Real-time monitoring and packet capture from a single location Rapid and effective analysis and troubleshooting of entire global network from single point
Multi point RF location tracking	Any 802.11 device can be tracked and physically located within one meter of accuracy Single point of visibility for locating 802.11 devices and users

Standards-based network management with SNMP and syslog support
Enables Aruba mobility controllers to be integrated into commonly used network management systems

Software upgrades and policies are configured centrally and propagated to all controllers. Administrators can secure and control the RF environment, capture wireless traffic and remotely troubleshoot problems anywhere on the wireless network.

The NMS includes an easy-to-use Web-based GUI, a familiar command line interface (CLI), and full support for SNMP (v3). Aruba’s NMS easily integrates with third-party management systems such as HP OpenView or CA’s Unicenter. A plug-in capability enables the integration of third party applications for advanced analysis and troubleshooting, location-based services and more.



ArubaOS provides a full view and complete control of the wireless environment from a single location

LIVE SITE SURVEY AND AUTOMATIC RF PLANNING

Aruba's Live Site Survey feature provides a real-time, color display of the RF environment showing signal strength, coverage and interference. It eliminates wireless network deployment and tuning guess work. The intuitive and easy-to-use three dimensional RF modeling tool enables real-time WLAN coverage and capacity planning, and precludes the need for frequent, expensive, and complex manual site surveys.

Administrators import floor plans and input desired coverage options such as coverage rates, number of users per AP and minimum connection speeds per user. Sophisticated algorithms then determine AP placement for optimal coverage and performance.

AUTOMATIC LOCATION TRACKING

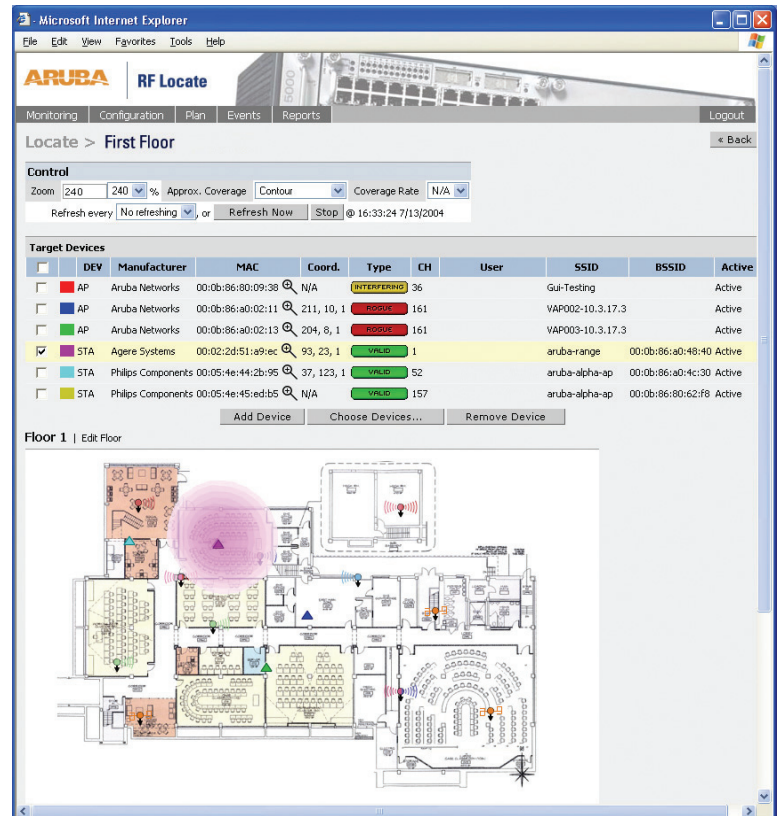
Locating a mobile user, access point or other wireless devices has never been easier. Aruba's mobility system includes advanced location visualization and tracking of 802.11 devices. RF signature-based location triangulation allows administrators to physically locate any 802.11 user or device within one meter of accuracy. With Aruba's real-time location tracking capabilities, multiple devices can be continuously located and tracked simultaneously.

RF ANALYSIS AND WLAN TROUBLESHOOTING

ArubaOS contains real-time monitoring and unique packet capture tools that deliver detailed information about the entire wireless environment. Working with Aruba access points and air monitors to constantly scan across all the channels in the 2.4 Ghz and 5 Ghz bands, ArubaOS collects aggregate and raw statistics on a per station, per channel and per user basis. Threshold-based events can be configured for proactive management.

Among the stats gathered are frame retries, fragmentation rates, frame errors, bandwidth rates, frame receive errors, packet or byte counts, frame sizes, frame transmit rates, frame types, physical errors and MAC errors. All stats are available via SNMP and easily integrated into third-party management or analysis applications through Aruba's plug-in capability.

With this detailed information, administrators can quickly troubleshoot user problems, determine top wireless talkers and diagnose congested APs.



Multipoint location tracking lets administrators accurately locate 802.11 devices and users in real time.

ARUBAOS MOBILITY SOFTWARE



ArubaOS Wireless Intrusion Protection module provides patented classification technology that identifies and protects against malicious attacks such as denial of service, vulnerabilities such as rogue APs and ad-hoc networks, and client and AP impersonation (Man-in-the-Middle) attacks.

ArubaOS Policy Enforcement Firewall module delivers user and group policy enforcement through an integrated ICSA-certified stateful firewall. Security policies can be centrally defined and enforced on a per-user or per-group basis, following users as they move. Policies are enforced dynamically, taking into account a variety of metrics such as user location, time-of-day, device type, authentication method and others.

ArubaOS VPN Server module provides integration support for a variety of virtual private network implementations, eliminating the need for discrete, external VPN concentrators. Hardware acceleration provides LAN-speed VPN connectivity. Supported VPN protocols include L2TP/IPsec, IPsec/XAUTH and PPTP.

ArubaOS Client Integrity module provides wired and wireless network integration for client remediation services, protecting the network against infection from malware such as viruses and worms that take advantage of mobile devices. The Client Integrity module supports Sygate on Demand™ for client remediation services, virtual desktop with file and cache cleaner and safe guest access with protection against “zero-day” threats.

ArubaOS Remote AP module lets network managers securely extend corporate wireless functionality to any location with an Internet connection. Neither client software nor a downloadable applet is required on remote terminals to achieve seamless corporate-like WLAN connectivity at home, a remote office or anywhere a mobile user chooses to work.

ArubaOS External Services Interface module enables any Aruba mobility controller to communicate with external service devices. The ESI module selectively redirects interior network traffic, based on policy, to devices providing inline network services such as anti-virus, network intrusion detection, content filtering, content transformation and usage auditing. Full load balancing and health checking are supported.

ArubaOS Advanced AAA module extends authentication and authorization features of standard ArubaOS, including per-SSID selection of authentication server for wireless networks, domain- and realm-based selection of authentication server, dynamic authentication and authorization using RFC 3576 and an XML API for building external portal and authentication systems.

ArubaOS xSec module provides termination of highly secure xSec client sessions, offering link-layer 256-bit AES-CBC encryption with complete header obscuration for highly sensitive environments. The xSec module also enables the encryption of trunk ports between Aruba mobility controllers based on the same strong encryption standard.



ARUBA

1322 crossman avenue | sunnyvale california 94089

tel 408 227 4500 | fax 408 227 4550

www.arubanetworks.com