DATA SHEET

Aruba MMC-3000 Multi-Service Mobility Controller Series

ARUBA MMC-3000 MULTI-SERVICE MOBILITY CONTROLLER SERIES

The Aruba MMC-3000 Multi-Service Mobility Controller series is a family of three fully-featured controllers able to aggregate up to 32, 64 and 128 campus-connected access points (APs) respectively. The MMC-3000 series provides a truly user-centric network experience, delivering follow-me connectivity, identity-based access, and application continuity services. The MMC-3200 is designed for the small/branch offices, while the MMC-3400 and MMC-3600 are designed for medium/large enterprise or dense office deployments. The MMC-3000 series can be easily deployed as an overlay without any disruption to the existing wired network. Advanced voice-over-WLAN features such as Call Admission Control (CAC), voice-aware RF management and strict over-the-air QoS allow the MMC-3000 series to deliver mobile VoIP capabilities. The MMC-3000 series is managed via ArubaOS or the Aruba Mobility Management System.

Additionally, the MMC-3000 series can be deployed as a user-centric security gateway to authenticate wired and wireless users, enforce role-based access control policies and quarantine unsafe endpoints from accessing the corporate network. Guest users can be easily and safely supported with the built-in captive portal server and advanced network services. The MMC-3000 series can create a secure networking environment without requiring additional VPN/firewall devices using integrated site-to-site VPN and NAT capabilities, split-tunneling and stateful firewall. Site-to-site VPN support can be integrated with all leading VPN concentrators to provide seamless integration into existing corporate VPNs.

CONTROLLER PERFORMANCE AND CAPACITY (MMC-3200/MMC-3400/MMC-3600)

Campus-connected APs	Up to 32/64/128
Remote APs	Up to 128/256/512
Users	Up to 512/1024/2048
MAC addresses	Up to 64,000
VLAN IP interfaces	128
Gigabit Ethernet ports (RJ-45 or SFP)	4
Active firewall sessions	Up to 128,000
Concurrent IPsec tunnels	Up to 512/1024/2048
Firewall throughput	3/4/4 Gbps
Encrypted throughput (3DES, AESCBC256)	1.6/4/8 Gbps
Encrypted throughput (AES-CCM)	0.8/2/4 Gbps

WIRELESS LAN SECURITY AND CONTROL FEATURES

- 802.11i security (WFA certified WPA2 and WPA)
- 802.1X user and machine authentication
- EAP-PEAP, EAP-TLS, EAP-TTLS support
- Centralized AES-CCM, TKIP and WEP encryption
- 802.11i PMK caching for fast roaming applications
- EAP offload for AAA server scalability and survivability
- Stateful 802.1X authentication for standalone APs
- MAC address, SSID and location-based authentication Multi-SSID support for operation of multiple WLANs
- SSID-based RADIUS server selection
- Secure AP control and management over IPsec or GRE
- CAPWAP compatible and upgradeable
- Distributed WLAN mode for remote AP deployments
- Simultaneous centralized and distributed WLAN support

IDENTITY-BASED SECURITY FEATURES

- Wired and wireless user authentication
- Captive portal, 802.1X and MAC address authentication
- Username, IP address, MAC address and encryption key binding for strong network identity creation
- Per-packet identity verification to prevent impersonation
- Endpoint posture assessment, quarantine and remediation
- Microsoft NAP, Cisco NAC, Symantec SSE support
- RADIUS and LDAP-based AAA server support
- Internal user database for AAA server failover protection
- Role-based authorization for eliminating excess privilege
- Robust policy enforcement with stateful packet inspection
- Per-user session accounting for usage auditing
- Web-based guest enrollment with Aruba GuestConnect
- Configurable acceptable use policies for guest access
- XML-based API for external captive portal integration
- xSec option for wired LAN authentication and encryption (802.1X authentication, 256-bit AES-CBC encryption)

CONVERGENCE FEATURES

- Voice and data on a single SSID for converged devices
- Flow-based QoS using Voice Flow Classification
- SIP, Spectralink SVP, Cisco SCCP and Vocera ALGs
- Strict priority queuing for over-the-air QoS
- 802.11e support – WMM, U-APSD and T-SPEC
- QoS policing for preventing network abuse via 802.11e
- Diffserv marking and 802.1p support for network QoS
- On-hook and off-hook VoIP client detection
- VoIP call admission control (CAC) using VFC

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- Call reservation thresholds for mobile VoIP calls
- Voice-aware RF management for ensuring voice quality
- Fast roaming support for ensuring mobile voice quality
- SIP early media and ringing tone generation (RFC 3960)
- Per-user and per-role rate limits (bandwidth contracts)

ADAPTIVE RADIO MANAGEMENT (ARM) FEATURES

- Automatic channel and power settings for controlled APs
- Simultaneous air monitoring and end user services
- Self-healing coverage-based on dynamic RF conditions
- Dense deployment options for capacity optimization
- AP load balancing-based on number of users
- AP load balancing-based on bandwidth utilization
- Coverage hole and RF interference detection
- 802.11h support for radar detection and avoidance
- Automated location detection for active RFID tags
- Built-in XML-based Location API for RFID applications

WIRELESS INTRUSION PROTECTION FEATURES

- Integration with WLAN infrastructure
- Simultaneous or dedicated air monitoring capabilities
- Rogue AP detection and built-in location visualization
- Automatic rogue, interfering and valid AP classification
- Over-the-air and over-the-wire rogue AP containment
- Adhoc WLAN network detection and containment
- Windows client bridging and wireless bridge detection
- Denial of service attack protection for APs and stations
- Misconfigured standalone AP detection and containment
- 3rd party AP performance monitoring and troubleshooting
- Flexible attack signature creation for new WLAN attacks
- EAP handshake and sequence number analysis
- Valid AP impersonation detection
- Frame floods, Fake AP and Airjack attack detection
- ASLEAP, death broadcast, null probe response detection
- Netstumbler-based network probe detection

STATEFUL FIREWALL FEATURES

- Stateful packet inspection tied to user identity or ports
- Location and time-of-day aware policy definition
- 802.11 station awareness for WLAN firewalling
- Over-the-air policy enforcement and station blacklisting
- Session mirroring and per-packet logs for forensic analysis
- Detailed firewall traffic logs for usage auditing
- ICSA corporate firewall 4.1 compliance
- Application Layer Gateway (ALG) support for SIP, SCCP, RTSP, Vocera, FTP, TFTP, PPTP
- Source and destination Network Address Translation (NAT)
- Dedicated flow processing hardware for high performance
- TCP, ICMP denial of service attack detection and protection
- Policy-based forwarding into GRE tunnels for guest traffic
- External service interface for 3rd party security integration for inline anti-virus, anti-spam and content filtering apps
- Heath checking and load balancing for external services

VPN SERVER FEATURES

- Site-to-site VPN support for branch office deployments
- Site-to-site interoperability with 3rd party VPN servers
- VPN server emulation for easy integration into WLAN
- L2TP/IPsec VPN termination for Windows VPN clients
- XAUTH/IPsec VPN termination for 3rd Party clients
- PPTP VPN termination for legacy VPN integration
- RADIUS and LDAP server support for VPN authentication
- PAP, CHAP, MS-CHAP and MS-CHAPv2 authentication
- Hardware encryption for DES, 3DES, AES, MPPE
- Secure point-to-point xSec tunnels for L2 VPNs

NETWORKING FEATURES AND ADVANCED SERVICES

- L2 and L3 switching over-the-air and over-the-wire
- VLAN pooling for easy, scalable network designs
- VLAN mobility for seamless L2 roaming
- Proxy mobile IP and proxy DHCP for L3 roaming
- Built-in DHCP server and DHCP relay
- VRRP-based N+1 controller redundancy (L2)
- AP provisioning-based N+1 controller redundancy (L3)
- Wired access concentrator mode for centralized security
- Etherchannel support for link redundancy
- 802.1d Spanning Tree Protocol (STP)
- 802.1Q VLAN tags

CONTROLLER-BASED MANAGEMENT FEATURES

- RF Planning and AP Deployment Toolkit
- Centralized AP provisioning and image management
- Live coverage visualization with RF heat maps
- Detailed statistics visualization for monitoring
- Remote packet capture for RF troubleshooting
- Interoperable with Ethereal and Airopeek analyzers
- Multi-controller configuration management
- Location visualization and device tracking
- System-wide event collection and reporting

CONTROLLER ADMINISTRATION FEATURES

- Web-based user interface access over HTTP and HTTPS
- Quickstart screens for easy controller configuration
- CLI access using SSH, Telnet and console port
- Role-based access control for restricted admin access
- Authenticated access via RADIUS, LDAP or Internal DB
- SNMPv3 and SNMPv2 support for controller monitoring
- Standard MIBs and private enterprise MIBs
- Detailed message logs with syslog event notification

CONTROLLER POWER SPECIFICATION

Power Consumption

- Aruba MMC-3200: 35 W maximum
- Aruba MMC-3400: 45 W maximum
- Aruba MMC-3600: 60 W maximum

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POWER SPECIFICATIONS (AC INPUT REQUIREMENTS)

Aruba MMC-3200:

- AC Input Voltage: 90-264 V~, Universal Input
- AC Input Current: 1.5 A
- AC Input Frequency: 47-63 Hz

Aruba MMC-3400/Aruba MMC-3600:

- AC Input Voltage: 90-264 V~, Universal Input
- AC Input Current: 2.2 A
- AC Input Frequency: 47-63 Hz

OPERATING SPECIFICATIONS AND DIMENSIONS

Operating temperature range 0° to 40° C
Storage temperature range 10° to 70° C
Humidity, non-condensing 5 to 95%
Height 1.75″ (44 mm)
Width 13.8″ (351 mm)
Depth 11.7″ (297 mm)

Weight
Aruba MMC-3200 7.1 lbs/3.2 kgs (unboxed)
Aruba MMC-3400/MMC-3600 7.4 lbs/3.4 kgs (unboxed)

WARRANTY

Hardware 1 year parts/labor
Software 90 days

REGULATORY AND SAFETY COMPLIANCE

FCC part 15 Class A CE
Industry Canada Class A
VCCI Class A (Japan)
EN 55022 Class A (CISPR 22 Class A), EN 61000-3,
EN 61000-4-2, EN 61000-4-3, EN 61000-4-4,
EN 61000-4-5, EN 61000-4- 6, EN 61000-4-8,
EN 61000-4-11, EN 55024, AS/NZS 3548
UL 60950, EN60950
CAN/CSA 22.2 #60950
CE mark, cTUVus, GS, CB, C-tick, Anatel, NOM, MIC, IQC

ORDERING INFORMATION

PART NUMBER	DESCRIPTION
3200-AOS-STD	Aruba MMC-3200 Multi-Service Mobility Controller - 4x 10/100/1000Base-T (RJ-45) or 1000Base-X (SFP) dual personality ports (0 AP Support)
3400-AOS-STD	Aruba MMC-3400 Multi-Service Mobility Controller - 4x 10/100/1000Base-T (RJ-45) or 1000Base-X (SFP) dual personality ports (0 AP Support)
3600-AOS-STD	Aruba MMC-3600 Multi-Service Mobility Controller - 4x 10/100/1000Base-T (RJ-45) or 1000Base-X (SFP) dual personality ports (0 AP Support)
3200-8-AOS-STD	Aruba MMC-3200 Multi-Service Mobility Controller - 4x 10/100/1000Base-T (RJ-45) or 1000Base-X (SFP) dual personality ports (8 AP Support)
3400-32-AOS-STD	Aruba MMC-3400 Multi-Service Mobility Controller - 4x 10/100/1000Base-T (RJ-45) or 1000Base-X (SFP) dual personality ports (32 AP Support)
3600-64-AOS-STD	Aruba MMC-3600 Multi-Service Mobility Controller - 4x 10/100/1000Base-T (RJ-45) or 1000Base-X (SFP) dual personality ports (64 AP Support)
SFP-SX	Aruba SFP - 1000Base-SX, LC Connector
SFP-LX	Aruba SFP - 1000Base-LX, LC connector

Please contact your Aruba Networks sales representative for more information on configuring and ordering this product.

* Extended with support contract

ARUBA networks

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