Data Sheet

Controller Family

Intelligent Architecture for Converged Voice and Data Wireless LAN

MC500/MC1000/MC3000

Key Product Benefits:

- Centralized control for easy configuration and management
- Effortless AP deployment with no need for channel planning or complex site surveys
- Toll quality voice even in dense client environments
- Seamless client mobility across subnets
- Multi-layered security including WPA, 802.11i, automatic rogue access point prevention and location-based access policies

Enabling Today's Converged Voice and Data Wireless LAN Network

Today's enterprises are moving rapidly to a single IP network for data and voice applications. At the same time, many are implementing wireless LAN to provide any time, anywhere access to business critical applications. Meru not only delivers all required elements for today's larger wireless LAN deployments, but goes farther by future proofing the network for toll quality voice over Wi-Fi.

- Centralized configuration and management for ease of deployment
- Multi-layer security approach
- Eliminates channel planning and co-channel interference problems
- Integrates easily with existing infrastructure
- Scalable solution set for large enterprise to branch offices

Support Wireless VOIP with Toll Quality

Wireless VOIP is a rapidly emerging application that increases corporate productivity and efficiency while reducing costs. Customers and partners can easily reach your employees where cell phone coverage may be spotty or unusable indoors, even when away from their offices.

- Air Traffic Control deterministically schedules voice traffic to avoid contention
- Meru's Cellular-like coordination across multiple APs allows zero hand off times
- Automatic flow recognition of SIP, H.323, Spectralink and Vocera voice protocols
- Users experience glitch-free toll quality voice

Ensure Corporate Data Privacy with Multi-Layer Security Policies

Security concerns are primary in the mind of network administrators deploying wireless LANs. Meru understands this and addresses these concerns through a multi-layer approach. Security policies follow users as they roam, without reauthentication or degradation of performance.

- Wi-Fi Alliance Certified™ for WPA
- Automatic rogue access point detection and prevention without degradation of client traffic
- Multiple ESSIDs with individual security policies to ensure separation of different user groups

Unsurpassed Performance in High Density Environments

High densities of wireless clients are common in many environments, including conference centers, hospital emergency admitting rooms and university libraries and auditoriums. The Meru WLAN Controller brings new methods to deal with the bandwidth demands and increased contention that a rapidly growing client population will bring.

- Air Traffic Control technology delivers intelligent contention management
- Removes direct and indirect sources of contention which causes back off
- Results in 10-fold increase in client density
- Removes need for complex channel planning

Deliver True Wireless Quality of Service for Multiple Applications, User Groups

Today's wireless LAN systems provide quality of service only in the downstream direction – from the access point to the client. The reverse direction - traffic from the client to the access point - is unmanaged, so high priority traffic or latency sensitive applications like voice have no method to guarantee access the channel in a timely manner. Meru uniquely solves this problem with Air Traffic Control™ technology.

- Guaranteed high priority traffic delivery for mission critical applications
- Upstream and downstream quality of service
- Quality of service prioritizes traffic from clients to access point
- No client software required
- Interoperable with any Wi-Fi certified device

Centralized Management for Ease of Deployment

Wireless LAN deployments are larger and more complex than just a few years ago. They are not only in the corporate office, but spread out to remote and branch offices. Meru greatly simplifies deployment and ongoing management for global deployments.

- Auto discovery and configuration of access points
- RF intelligence automatically selects best power and channel settings
- Centralized intelligence automatically load balances clients for consistent, reliable throughput

About Meru Networks

Meru Networks is the global leader in wireless infrastructure solutions that enable the All-Wireless Enterprise. Its industry leading innovations deliver pervasive, wireless service fidelity for business-critical applications to major Fortune 500 enterprises, universities, healthcare organizations and state, local and federal government agencies. Meru's award winning Air Traffic Control technology brings the benefits of the cellular world to the wireless LAN environment. The Meru Wireless LAN System is the only solution on the market that delivers predictable bandwidth and over-the-air Quality of Service with the reliability, scalability, and security necessary for converged voice and data services over a single WLAN infrastructure.

Controller Family

Technical Specifications

For more information about the Meru Contoller family, visit: www.merunetworks.com

Or email your questions to: info@merunetworks.com

APPLICATION SUPPORT AND OVER-THE-AIR QOS

SIP and H.323 support	Support for SIP and H.323v1 applications and codecs
QoS Rules	Configurable Dynamic QoS Rules
	Over-the-air upstream and downstream resource reservation
	Automatic, stateful flow detectors for SIP, H.323, Cisco SCCP, Spectralink SVP and Vocera
	User-configurable static and dynamic QoS rules per application (user-defined) and per user (stations, users, and port numbers)

SECURITY

Authentication	Combination of VPN, 802.1x and open authentication
	802.1X with EAP-Transport Layer Security (EAP-TLS), Tunneled TLS (EAP-TTLS), Protected EAP (PEAP) MS-CHAPv2, Smartcard/Certificate, Lightweight EAP (LEAP), EAP-FAST and EAP-MD5, with mutual authentication and dynamic, per user, per session unicast and broadcast keys
	Secure HTTPS w/customizable Captive Portal utilizing RADIUS
Encryption support	Static and dynamic 40-bit and 128-bit WEP keys, TKIP with MIC
	Historical reports and alerts through E(z)RF
Security Policy	Access control entries supported per user, per AP (MAC filtering)
	Multiple ESSID/BSSID each with its own Security Policy
Dual Radios	Centralized, continuous Rogue AP detection and suppression/permit for 802.11a and 802.11b/g

MOBILITY

Zero-loss Handoffs	Infrastructure-controlled zero-loss handoff mechanism for standard Wi-Fi clients
Multi-vendor	Interoperates with non-Meru APs for hand offs
High Availability	Active/Standby configuration for automatic failover and recovery
	No performance degradation with increased Wi-Fi clients
	Virtual cell provides load balancing coordination for improved performance and WLAN resiliency upon AP failure

CENTRALIZED MANAGEMENT

Zero-Configuration	Automatically selects power and channel settings
System management	Centralized and remote management and software upgrades via System Director Web-based GUI, SNMP, Cisco-like Command-Line Interface (CLI) via serial port, SSH, Telnet
	Centralized Security Policy for WLAN, Multiple ESSIDs and VLANs with their own administrative/security policies
Intelligent RF Management	Coordination of APs with load-balancing for predictable performance
Data Rates	Centralized auto-discovery, auto-channel configuration, and auto-power selection for APs
	Co-channel interference management

Model	MC500	MC1000	MC3000
Application	Remote Office Small Office	Mid-size Enterprise Branch office	Large Scale Enterprise
Performance APs Supported Max MTU	Up to 5 1546 Bytes	Up to 30 1546 Bytes	Up to 150 1546 Bytes
Interfaces Dual 10/100s Dual 10/100/1000s Serial port	Yes Yes	Yes Yes	Yes Yes
Indicators Power - On/Off Status Ethernet Ports	Yes Yes LED Link/Activity/ Speed	Yes Yes LED Link/Activity/ Speed	Yes Yes LED Link/Activity/ Speed
Power 110VAC/220VAC Auto Ranging	27W	200W	300W
Dimensions H x W x D	1.4in. x 7.6in. x 5in.	1.75in. x 17in. x 13.1in.	1.75in. x 17in. x 16.25in.
Mounting	Mini-desktop	1U rack mount	1U rack mount

All Controllers:

Environmental Operating:
Temperature: 0 to 50C / 32 to 122F
Humidity (RNC): < 95% @ 40C / 104F

Storage and Transit:
Temperature: -40 to +85C / -40 to 185F
Humidity (RNC): < 95% @ 40C / 104F

Compliance:
Per country certification
Safety: UL 1950
EMI: FCC Part 15, Class A; CE

Warranty:
Hardware 1 year; Software 90 days
Red Carpet Service options

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