

Data Sheet

Radio Switch Family Increase WLAN capacity without the complexity



RS4000

Key Product Benefits:

- 400% increase in WLAN capacity
- Simplified deployment—no channel planning required
- Toll-quality Voice over WLAN (VoWLAN) with dynamic reservation of bandwidth
- Add capacity without complexity

The Meru Networks RS4000 Radio Switch Family is the only way to add capacity to your enterprise wireless LAN (WLAN) without adding complexity. With the RS4000, WLAN capacity can be scaled up with a single access point, eliminating the need to deploy multiple access points. The RS4000 Radio Switch is a plug-and-play upgrade to existing WLANs without the need to re-plan the wireless network. Built on standards-based, proven wireless networking technology, the RS4000 uses the industry-leading RF intelligence and 802.11 technologies from Meru to re-write the rulebooks for enterprise WLAN deployments. Ideal for use in branch office locations or in high user density areas along with Meru Controllers and AP200 access points, the RS4000 Radio Switch allows corporations to simultaneously deploy and use four 802.11 channels, resulting in a 400% increase of your WLAN network capacity. Meru Networks delivers the unwired office and All-Wireless Enterprise to organizations like yours today.

Product Overview:

Four Radio Omni-directional Coverage

The Meru RS4000 Radio Switch is ideal for indoor applications. Using Meru's patent-pending wideband omni-directional antenna, the RS4000 can simultaneously serve multiple 802.11b/g and 802.11a channels throughout every square foot of the coverage area. The built-in Meru Air Traffic Control™ technology controls contention on the network while Meru standards-based QoS technology dynamically reserves bandwidth over-the-air to provide unprecedented VoIP scale and quality even in the presence of heavy data traffic. With the RS4000, WLANs are no longer bound to the density/performance trade-off constraints governing traditional access points.

Eliminate RF Co-Channel Interference and Handoff Issues

Traditional WLANs require varying levels of RF knowledge in order to properly deploy and manage interference and performance issues on the network. The Meru RS4000 eliminates channel planning and trivializes RF site surveys by serving all channels simultaneously. The omni-directional antennae on the RS4000 eliminates the need for special directional antennae purchases. When deployed together with other RS4000 radio switches and a Meru Controller, all the WLAN channels extend anywhere in the building without any interruption to the wireless service. The

unique WLAN technology from Meru removes the challenges associated with RF coverage prediction, as well as channel assignments, location and distance considerations. Meru simplifies WLAN deployment so the only question that remains is, "Where do I want service?".

Upgrade Performance Without Changing Your Network

Due to the limitations of other access points, WLAN performance and price were always thought to be tied together. For example, to achieve higher density coverage, more access points must be deployed in order to serve more channels. The Meru RS4000 shatters this model by providing the performance of multiple access points in a single product. This results in a savings of over 70% in enterprise deployment and ongoing management costs. The RS4000 omni-directional antenna enables enterprise IT departments to upgrade network capacity without ever worrying about changing the coverage area. The Virtual Cells made possible by Meru WLAN technology allow every square foot of coverage area to be simultaneously served by all channels, which results in unprecedented voice and data performance at a fraction of the cost of traditional WLAN access points.



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.



RS4000

Technical Specifications

For more information about the Meru RS4000, visit: www.merunetworks.com

Or email your questions to: info@merunetworks.com

RS4000 PART NUMBERS

RS4000-BWW Radio Switch with four 802.11abg radios, includes 2.4GHz and 5 GHz 360° Omni-directional multi-channel antenna

RS4000-BWW-180 Radio Switch with four 802.11abg radios, includes 2.4GHz and 5 GHz 180° multi-channel antenna

MN-ACC-ANTRSO Radio Switch 360° 3/5dBi gain antenna, multi-channel omnidirectional antenna for simultaneous 2.4GHz & 5GHz operation

MN-ACC-ANTRSOH Radio Switch 180° 3/5dBi gain antenna, multi-channel omnidirectional antenna for simultaneous 2.4GHz & 5GHz operation

CONNECTIVITY

Wireless Configuration	Two 802.11b/g, two 802.11a
Ethernet	Two 10/100 Mbps

WIRELESS SPECIFICATIONS

Wireless Interfaces	Four radios – two 802.11a, two 802.11b/g
Antenna	Two RP-SMA jacks on housing for antenna; 5dB Omni, Indoor antenna
Wireless Medium Access	Wi-Fi compliant 802.11 MAC standard
Client Support	All Wi-Fi compatible clients Power Save clients Clients that perform active and passive scanning

MANAGEMENT

Administrative Access Configuration	SSH, Telnet, GUI – through controller Automatically downloaded from Controller Can be modified through Controller GUV/CLI or E(z)RF Management Station
Troubleshooting and Local Access	Advanced troubleshooting through controller Historical reports and alerts through E(z)RF
Remote/Central Management	E(z)RF Management Station for: Monitoring, Alerts, Reports, RF Visualization, RF Locationing
SNMP Support	SNMP v1/v2c Agent & Monitoring through controller MIBs
Remote Logging	Syslog v1 and v2—failure alerts and change notifications through controller and E(z)RF
Software Upgrade	Automatic with new controller releases

PHYSICAL SPECIFICATIONS

Dimensions	9.5" (W) X 8.5" (L) X 3.875" (H)*
Power Type	2 X Power over Ethernet (IEEE 802.3af) or optional external 5V, 25-30W power adapter
Max. Power Draw	22W
Indicators	4 LEDs for monitoring power, 802.11b/g activity, 802.11a activity, Ethernet activity

LAN/WLAN

Forwarding	802.11/802.3 Bridging
RS4000 Network Addressing	One IP address per system Can be DHCP or Manual configuration. DHCP pass-through for clients
Load-balancing	Client load-balancing across channels based on traffic

SECURITY

Security	802.11i: WEP-64, WEP-128, 802.1X with EAP-TLS/TLS/PEAP, WPA, WPA2, VPN Pass through
RADIUS Interoperability	Microsoft IAS; FreeRADIUS; Steel-Belted Radius, Cisco ACS

REGULATORY

RF Certifications	Radio Compliance: FCC Part 15 Canada RSS210 EN 300 328 V1.6.1 (11/2004) EN 301 893 V1.3.1 (08/2005) Japan Technical Regulations
EMC	FCC Part 15 EN 301 489-17 V1.2.1 (08/2002)
Safety	UL2043 (plenum) cUL 60950-1 First Edition IEC/EN 60950-1 First Edition with national deviations
Warranty Service	Hardware 1 year; Software 90 days Red Carpet Service options



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