

## 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

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](http://www.merunetworks.com)

Or email your questions to:  
[info@merunetworks.com](mailto: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<br>Power Save clients<br>Clients that perform active and passive scanning |

### MANAGEMENT

|                                     |                                                                                                                                                              |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Administrative Access Configuration | SSH, Telnet, GUI – through controller<br>Automatically downloaded from Controller<br>Can be modified through Controller GUI/CLI or E(z)RF Management Station |
| Troubleshooting and Local Access    | Advanced troubleshooting through controller<br>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<br>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<br>Canada RSS210<br>EN 300 328 V1.6.1 (11/2004)<br>EN 301 893 V1.3.1 (08/2005)<br>Japan Technical Regulations |
| EMC               | FCC Part 15<br>EN 301 489-17 V1.2.1 (08/2002)                                                                                               |
| Safety            | UL2043 (plenum)<br>cUL 60950-1 First Edition<br>IEC/EN 60950-1 First Edition with national deviations                                       |
| Warranty          | Hardware 1 year; Software 90 days                                                                                                           |
| Service           | Red Carpet Service options                                                                                                                  |



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