ARUBA MSR1200 INDOOR WIRELESS MESH ROUTER

The Aruba MSR1200 wireless mesh router delivers high-performance networking to indoor environments where wired connectivity is impractical or unavailable.

Ensuring seamless mobility with Aruba outdoor wireless mesh networks, the MSR1200 is ideal for indoor deployments where backhaul cabling is difficult to deploy, such as in large retail centers, convention sites, warehouses or when a temporary network is needed.

A multi-radio, multi-frequency architecture and adaptive Layer 3 technology make the MSR1200 unique. Together, they provide unparalleled speed, reliability and low latency for voice, video and other real-time applications.

Flexible, high-performance architecture

The MSR1200 consists of two independent 802.11a/b/g/n radios for flexible indoor wireless mesh deployments using 2.4-GHz and 5-GHz bands. Each radio is capable of providing a maximum aggregate transmit power of up to 23 dBm.

Each radio may be configured to operate as an access point (AP) and provide full mesh backhaul. This two-radio architecture separates client access and mesh backbone data while optimizing radio resources for both types of traffic to ensure high throughput and low latency.

Intelligent wireless mesh routing

The MSR1200 leverages Aruba’s Adaptive Wireless Routing™ (AWR) technology, which automatically optimizes traffic routes between multiple wireless mesh routers. AWR creates a truly adaptive mesh infrastructure that adjusts dynamically to traffic levels and RF signal strength to ensure high availability and zero performance degradation across multiple hops.

Aruba’s MobileMatrix™, another key Layer 3 technology inherent in the MSR1200, allows clients to move between wireless mesh routers in under 50 milliseconds, maintaining a seamless connection for latency-sensitive applications such as video and voice.

HD-quality video

The MSR1200 employs Active Video Transport™ (AVT) traffic shaping and load balancing technology across long-range directional links to deliver HD-quality video from mobile and fixed surveillance cameras, monitors and recording systems.

AVT delivers enhanced video at up to 30 frames per second across the distributed wireless mesh infrastructure using deep packet inspection, MAC protocol optimization, an in-network retransmission protocol, and adaptive video jitter removal.

Reduced capital and operating costs

The MSR1200 reduces capital and operating costs by simplifying deployment and eliminating the need for cabling in indoor environments. Aruba wireless mesh routers eliminate the high cost of installing copper or fiber optic cabling, as well as monthly fees for leased line, digital subscriber line (DSL) and metro Ethernet services.

APPLICATION
- Two-radio indoor wireless mesh router designed for high-performance, latency-sensitive applications

OPERATING MODE
- Each radio may be configured to operate in the following modes:
  - 802.11a/b/g/n access point for client access
  - 802.11a/b/g/n mesh router for backhaul

RADIOS
- Two multifunction radios capable of 2.4-GHz or 5-GHz operation
- Radios implement 2x2 MIMO with two spatial streams, providing up to 300 Mbps data rate per radio
- Maximum aggregate transmit power per radio: Up to 23 dBm
- Dual receiver chain maximal ratio combining (MRC) for improved receiver performance

RF MANAGEMENT
- RF interference detection and avoidance
- Four BSSID, 16 SSID
- Flexible baud rate control

WIRELESS RADIO SPECIFICATIONS
- AP type: indoor, two radio, dual band
- Supported frequency bands (country-specific restrictions apply):
  - 2.400 to 2.483 GHz
  - 5.150 to 5.250 GHz
  - 5.250 to 5.350 GHz
  - 5.470 to 5.725 GHz
  - 5.725 to 5.850 GHz
- Available channels: Dependent on configured regulatory domain
- Maximum transmit power: 23 dBm (limited by local regulatory requirements)
**ARUBA MSR1200 INDOOR WIRELESS MESH ROUTER**

- Supported radio technologies:
  - 802.11b: Direct-sequence spread-spectrum (DSSS)
  - 802.11a/g/n: Orthogonal frequency division multiplexing (OFDM)
  - 802.11n: 2x2 MIMO with two spatial streams
- Supported modulation types:
  - 802.11b: BPSK, QPSK, CCK
  - 802.11a/g/n: BPSK, QPSK, 16-QAM, 64-QAM
- Association Rates
  - 802.11b: 1, 2, 5.5, 11
  - 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54
  - 802.11n: MCS0 - MCS15 (6.5 Mbps to 300 Mbps)
  - 802.11n high-throughput (HT) support: HT 20/40
  - 802.11n packet aggregation: A-MPDU, A-MSDU

**ANTENNA**
- Four RP-SMA type interfaces for external antenna support
- Feeder cable used for external antenna deployments

**ROUTING FEATURES**
- Adaptive Wireless Routing (AWR)
- IPv4/IPv6 dual stacks
- DHCP v4/v6 Server, Relay, Client
- Network Address Translation (NAT)

**ADVANCED FEATURES**
- Fast roaming up to 50 milliseconds
- Active Video Transport (AVT) technology performs deep packet inspection, adaptive jitter removal and corrects transmission packet loss
- Quality of service: Wi-Fi Multimedia (WMM), 802.11e, 802.1p, Differentiated Services (DiffServ)
- Advanced Encryption Standard (AES), WEP, WPA/WPA2
- TKIP (128 bit), PSK, AES (128 bit), TLS and TTLS

**POWER**
- Power
  - 12-48 V DC (AC adapter available separately)
  - 802.3af PoE input
- Power consumption: 10 watts max

**INTERFACES**
- 1x 10/100/1000BASE-T
- USB console interface
- Four RP-SMA type antenna connectors

**MOUNTING**
- Mounting kit:
  - Wall mounting

**MECHANICAL**
- Dimensions/weight (unit)
  - 260 mm x 160 mm x 48 mm (10.1” x 6.2” x 1.9”)
  - 1.6 kg (3.5 lbs)

**ENVIRONMENTAL**
- Operating:
  - Temperature: 0°C to 50°C (32°F to 122°F)
  - Humidity: 10% to 95% non-condensing
- Storage and transportation temperature range:
  - -30°C to 70°C (-22°F to 158°F)
- Shock and vibration: ETSI 300-19-2-4 spec T41.E class 4M3
- Transportation: ISTA 2A

**REGULATORY**
- Safety
  - EN 60950-1
  - IEC60950-1
  - UL 60950-1
  - CAN/CSA-C22.2 No.60950-1
- EMC
  - EN301 48
  - EN55022
  - EN61000
  - FCC Part 15
  - RSS-21
  - EN 300 328
  - EN 301 893
- Certification
  - FCC
  - IC
  - CE
  - CB
  - cTUVus
  - RoHS
  - SRRC (China)

**ORDERING INFORMATION**
MSR1K2SN0-US (US only)/MSR1K2SN0-JP (Japan only)/MSR1K2SN0-IL (Israel only)/MSR1K2SN0 (rest of world)
- Aruba MSR1200 Indoor Wireless Mesh Router
- Single 802.11 a/b/g/n 200 mW radios (2.4 GHz, 5 GHz)
- Power input via 802.3af (PoE) Ethernet interface or DC power input, 4.5m power cord included
- 10/100/1000BASE-T Ethernet interface (RJ45)

**ACCESSORIES**
<table>
<thead>
<tr>
<th>Part number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PD-3001G-AC</td>
<td>PoE Power Injector (802.3af, 15 watts)</td>
</tr>
<tr>
<td>AACPGEKIT-00</td>
<td>48 V AC/DC power adapter</td>
</tr>
<tr>
<td>ACONGESTD-00</td>
<td>USB console cable, 1.5 m</td>
</tr>
<tr>
<td>AETHGEL05-00</td>
<td>5m shielded Ethernet cable with RJ-45 connectors</td>
</tr>
</tbody>
</table>

WWW.ARUBANETWORKS.COM | 1344 Crossman Avenue, Sunnyvale, CA 94089
1-866-55-ARUBA | Tel. +1 408.227.4500 | Fax. +1 408.227.4550 | info@arubanetworks.com

© 2011 Aruba Networks, Inc. AirWave®, Aruba Networks®, Aruba Mobility Management System®, Bluescanner, For Wireless, That Works®, Mobile Edge Architecture®, People Move, Networks Must Follow®, The All-Wireless Workplace is Now Open For Business, RFprotect®, Green Island, and The Mobile Edge Company® are trademarks of Aruba Networks, Inc. All rights reserved. All other trademarks are the property of their respective owners. Aruba Networks reserves the right to change, modify, transfer, or otherwise revise this publication and the product specifications without notice. While Aruba uses commercially reasonable efforts to ensure the accuracy of the specifications contained in this document, Aruba will assume no responsibility for any errors or omissions. Note: All scaling metrics outlined in this document are maximum supported values. The scale may vary depending upon the deployment scenario and features enabled.