AP1000i SERIES

Meru NETWORKS®

MERU **AP 1000i ACCESS POINT**

The AP1000i series is an enterprise class 802.11n Access Point based on Meru's virtualized wireless LAN technology.

DUAL OR SINGLE RADIO
802.11n ACCESS POINT

Putting budget first shouldn't mean sacrificing service quality. World class mobile connectivity aggressively priced.

PRODUCT OVERVIEW

With the AP-1000i 802.11n wireless access point, Meru redefines what's possible in the extended enterprise by taking an uncompromising approach to designing world-class connectivity and performance and meeting aggressive budget requirements.

- Businesses need to rely on connectivity and the AP1000i was engineered to provide the world's most reliable mobile connectivity.

- Supporting both the 2.4GHz and the 5GHz spectrum and backwards compatible with 802.11a, 802.11b and 802.11g, the AP1000i is an ideal solution to transition your network to 802.11n without leaving your legacy clients behind.

- Zero-touch configuration and optimization of airspace for warehousing, manufacturing, remote schools, offices, or retail branches.

- Stop worrying about what the RF plan is and how you'll have to maintain it. The AP1000i eliminates the need for RF planning at remote office sites at installation or if the remote site is reconfigured.

- Ceiling and wall mounting with a security lock allows for the most flexible mounting options available.

Product Benefits

:: Plug and Play deployment using centralized Meru Controller

:: Powered by a standard 802.3af power source

:: Supports all 802.11a/b/g/n devices

:: 802.11n support in both 2.4GHz and 5GHz frequency bands using 40MHz channel bonding

:: Increase scalability and efficiency with virtualization

TECHNICAL SPECIFICATIONS

SECURITY

Authentication
Combination of captive portal, 802.1x and open authentication
Advanced security using WPA2
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, AES

Security Policy
Radius Assisted, Per User and Per ESSID Access control via MAC Filtering
Multiple ESSID/BSSID each with flexibility of separate and shared Security Policy

Rogue Detection and Suppression
All radios capable of scanning 802.11n, 802.11a and 802.11b/g for rogue devices

MOBILITY

Zero-loss Handoffs
Infrastructure-controlled zero-loss handoff mechanism for standard Wi-Fi clients
Preemptive roaming and load balancing with band steering is built in by design

CENTRALIZED MANAGEMENT

Zero-Configuration
Automatically selects power and channel settings
Automatically discovers controllers and downloads configuration settings
Zero touch, plug and play deployments

System Management
Centralized and remote management and software upgrades via System Director web-based GUI, SNMP, Command-Line Interface (CLI) via serial port, SSH, Telnet, centrally managed via E(z)RF Management Suite
Centralized Security Policy for WLAN, Multiple ESSIDs and VLANs with their own administrative/security policies

Intelligent RF Management
Coordination of access points with load-balancing for predictable performance
Centralized auto-discovery, auto-channel configuration, and auto-power selection for APs
Co-channel interference management

WIRELESS SPECIFICATIONS

Wireless Standards
IEEE 802.11 a/b/g/n, IEEE 802.11i support (AES, WEP, WPA, WPA2), IEEE 802.11e, WMM

Power Management
Ability to disable unused radios via software to lower power consumption

Antenna
Internal, MIMO, Dual Band, Omni directional antennas.
Antenna Gain - 4.0 dBi for 2.4 GHz and 5.0 dBi for 5 GHz.
(Antenna gain not included in Average Transmit Power specified)
Beam Width - Azimuth = 360 degrees, Elevation ~ 110 degrees

Client Support
Support for clients that perform active scanning and passive scanning
Support for clients that pre-authenticate
Support for clients that change to and from power save mode rapidly
Power Save Mode for mobile battery operated clients

IEEE802.11

Frequency Band
802.11bgn: 2.412 to 2.472 GHz, 13 channels
802.11an: 5.18 to 5.320 GHz, 8 channels; 5.500 to 5.700 GHz, 8 channels (excluding 5.600 to 5.640 GHz); 5.745 to 5.825 GHz, 5 channels

Operating channels
802.11bgn: 1-11 US/Canada, 1-13 Europe, 1-13 Japan (AP1020i 2nd radio works for channel 14), non-overlapping channels
802.11an: 5 GHz Band: 36 through 165
5.180 – 5.240 GHz; 8 Channels (36, 38, 40, 42, 44, 46, 48), 5.280 – 5.320 GHz; 4 Channels (52, 56, 60 and 64), 5.745 -5.825 GHz; 5 Channels (149, 153, 157, 161, and 165), 5500-5700: 11 channels (100, 104, 108, 112, 116, 120, 124, 128, 132, 136, 140)

Data Rates (Mbps)
802.11b Data Rates: 11, 5.5, 2 and 1 Mbps with automatic rate adaptation
802.11g and 802.11a Data Rates: 54, 48, 36, 24, 18, 12, 9, 6, Mbps with automatic rate adaptation
802.11 n+20: 130, 117, 104, 78, 65, 58.5, 54, 52, 48, 39, 36, 26, 24, 19.5, 18, 13, 12, 11, 9, 6.5, 5.5, 2, 1 Mbps
802.11n+40: 300, 270, 243, 216, 162, 135, 121.5, 108, 81.5, 81, 54, 48, 40.5, 36, 27.5, 27, 24, 18, 13.5, 12, 11, 9, 6, 5.5, 2, 1 Mbps with automatic rate adaption

Average Transmit Power
802.11b 18 dBm, 802.11g 17 dBm
2.4n (20_{HT}): 16 dBm, 2.4n (40_{HT}): 16 dBm
802.11a 17 dBm
5.0n (20_{HT}): 15 dBm, 5.0n (40_{HT}): 15 dBm

Receive Sensitivity at highest data rates
802.11b = -89 dBm
802.11g = -74 dBm
802.11g(n+20) = -70 dBm
802.11g(n+40) = -70 dBm
802.11a = -68dBm
802.11a(n+20) = -67 dBm
802.11a(n+40) = -67 dBm

PHYSICAL SPECIFICATIONS

Dimensions
171mm Wide x 171mm Deep x 57mm High
6 ¾" Wide x 6 ¾" Deep x 2 ¼" High

Weight
With Internal Antennas: 455 grams / 1lb

Power
802.3af PoE or 802.3at
Draws 9.5W (two radio operation)

Environmental
Operating Temperature: 0° to 50° C (32° F to 122° F)
Operating Humidity: 90% (non-condensing)
Storage Temperature: -10° to +70° C ambient Storage Humidity: 95% (non-condensing)

Interfaces
1 Auto sensing 10/100/1000 Base-TX Ethernet (RJ-45) Dual-band Radios support a combination of 802.11n, 802.11a, 802.11b, 802.11g
1 RJ45 console port (reserved for future use)
2 LEDs for monitoring power, Ethernet activity, 802.11 activity and 802.11 receive
1 USB port

Standard Warranty
Limited lifetime warranty

Part Numbers

AP1010i Single radio 802.11a/b/g/n AP, includes integrated dual band 802.11 a/b/g/n antennas

AP1020i Dual radio 802.11a/b/g/n AP, includes integrated dual band 802.11a/b/g/n antennas

Certifications

Standards Safety
UL 60950-1
CAN/CSA-C22.2 No. 60950-1
IEC 60950-1

For full radio approvals, please contact your local Meru representative.

Meru Networks | develops and markets 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 local, state and federal government agencies. Meru's award-winning Air Traffic Control technology brings the benefits of the cellular world to the wireless LAN environment, and its WLAN 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 to deliver converged voice and data services over a single WLAN infrastructure.

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