

IRONPOINT MOBILITY SERIES



MOBILITY CONTROLLERS AND ACCESS POINTS FOR BEST-IN-CLASS WIRELESS VOIP PERFORMANCE AND HIGH DENSITY DEPLOYMENTS

HIGHLIGHTS

- ▶ Wireline voice quality with advanced QoS
 - 30 simultaneous voice calls per access point; 5x more than traditional wireless networks
 - Zero packet-loss & zero delay handoffs for true seamless roaming
 - Automatic detection & prioritization of SIP, H.323, Spectralink & Vocera protocols
- ▶ Unmatched performance in high density deployments
 - Supports 100 active users per access point; the highest density available
 - Automatic RF coordination eliminates co-channel interference in microcell access point deployments
 - Global load balancing ensures highest possible throughput for every wireless client
- ▶ Lowest TCO enterprise wireless solution
 - No RF planning or site surveys required
 - Plug-and-play access points
 - Certified WiFi interoperability
 - Easy management through CLI, GUI & IronView Network Manager

Overview

Today's enterprises are moving rapidly to a converged IP network for data and voice applications. At the same time, many are implementing wireless LANs to provide increased flexibility with mobile access to the enterprise applications and communications infrastructure. The IronPoint Mobility Series not only delivers all required elements for today's larger wireless LAN deployments, but goes farther by future proofing the network for wireline voice quality over wireless LANs.

- ▶ 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 from large enterprise deployments to branch office locations

Wireline Voice Quality with Advanced QoS

WirelessVoIP is a rapidly emerging application that increases corporate productivity and reduces cost. The IronPoint Mobility Series leads the industry with the highest voice capacity and advanced QoS features to ensure wireline voice quality, even in highly converged wireless networks.

- ▶ *IronPoint Mobility Controller deterministically schedules voice traffic to avoid contention*
- ▶ *30 simultaneous voice calls per IronPoint Mobility Access Point; 5x more than traditional wireless networks*
- ▶ *Zero packet-loss and zero delay handoffs for true seamless roaming*
- ▶ *Automatic detection and prioritization of SIP, H.323, Spectralink and Vocera voice protocols*

Unmatched Performance in High Density Deployments

High density of wireless clients is common in many environments, including conference centers, hospital emergency admitting rooms and university libraries and classrooms. Foundry Networks brings new methods to deal with the bandwidth demands and increased contention that a rapidly growing client population will bring.

- ▶ *IronPoint Mobility Controller delivers intelligent contention management*
- ▶ *Supports 100 active clients per IronPoint Mobility Access Point; 10-fold increase over other access points*
- ▶ *Removes direct and indirect sources of contention which causes back off*
- ▶ *Global load balancing ensures highest possible throughput for every wireless client*
- ▶ *Automatic RF coordination eliminates co-channel interference in microcell deployments*

Ensure Corporate Data Privacy with Multi-Layer Security Policies

Security concerns are primary in the mind of network administrators deploying wireless LANs. Foundry Networks 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™ interoperability for WPA security*
- ▶ *Automatic rogue access point detection and prevention without degradation of client traffic*

- ▶ *Continuously monitor and secure all channels in 2.4 GHz and 5 GHz spectrums*
- ▶ *Multiple ESSIDs with individual security policies to ensure separation of different user groups*

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. Foundry Networks uniquely solves this problem with IronPoint Mobility Series.

- ▶ *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*

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. The IronPoint Mobility Series greatly simplifies deployment and ongoing management for global deployments.

- ▶ *No RF planning or site surveys required*
- ▶ *Automatic discovery and configuration of IronPoint Mobility Access Points over any network topology*
- ▶ *RF intelligence automatically selects best power and channel settings*
- ▶ *Certified interoperability with any Wi-Fi certified device*
- ▶ *Easy management through CLI, GUI and IronView Network Manager*

Summary

IRONPOINT MOBILITY CONTROLLER	MC500	MC1000	MC3000
Application	Remote/Small Office	Small/Medium Enterprise	Large Enterprise/Campus
WiFi Certification	Yes	Yes	Yes
Maximum Mobility Access Points	5	30	150
Uplink Ethernet Interfaces	Dual Fast Ethernet 10/100 Mbps	Dual GbE 10/100/1000 Mbps	Dual GbE 10/100/1000 Mbps
Console Interface	Yes	Yes	Yes
External LCD	No	Yes	Yes
Power Consumption	27W	200W	300W
Dimensions	1.4"x7.6"x5.0"	1.75"x17.0"x13.1"	1.75"x17.0"x16.25"
Mounting	Mini-desktop	1U rack mount	1U rack mount

IRONPOINT MOBILITY ACCESS POINT	AP208	AP201
802.11a/b/g Radios	2	1
WiFi Certification	Yes	Yes
Power over Ethernet	802.3af	802.3af
External DC Power	3.3V	3.3V
Antenna Connectors	RP-SMA female	RP-SMA female
External Antenna Options	Yes	Yes
Ethernet Interface	Fast Ethernet 10/100 Mbps	Fast Ethernet 10/100 Mbps
Console Interface	Yes	Yes
Dimensions	1.5"x6.25"x8.25"	1.5"x6.25"x8.25"
Mounting	Wall/ceiling mount UL 2545 Plenum-rating	Wall/ceiling mount UL 2545 Plenum-rating
Physical Security	Kensington MicroSaver Lock compatible	Kensington MicroSaver Lock compatible

Technical Specifications

APPLICATION SUPPORT AND ADVANCED QOS

- Support for SIP and H.323v1 applications and codecs
- Configurable dynamic QoS Rules
- 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

- Support for VPN, 802.1x and open authentication
- 802.1X with EAP-Transport Layer Security (EAP-TLS), Tunnelled 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
- Support static and dynamic 40-bit and 128-bit WEP keys, TKIP with MIC, AES-CCMP
- Multiple ESSID/BSSID each with its own Security Policy
- Centralized, continuous Rogue AP detection and suppression for 802.11a and 802.11b/g spectrums

MOBILITY

- Infrastructure-controlled zero-loss handoff mechanism for standard Wi-Fi clients
- Interoperates with third-party access points for roaming
- 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

CENTRAL MANAGEMENT

- Zero-Configuration automatically selects power and channel settings
- Central and remote management and software upgrades via GUI, SNMP, Command-Line
- Interface (CLI) via serial port, HTTP, HTTPS, SSH and Telnet
- Centralized Security Policy for WLAN, Multiple ESSIDs and VLANs with their own administrative/security policies
- RF Coordination of APs with load-balancing for highest wireless client performance
- Centralized auto-discovery, auto-channel configuration, and auto-power selection for APs
- Co-channel interference management

WIRELESS SPECIFICATIONS

- IEEE 802.11 a/b/g
- IEEE 802.11i support (AES, WEP and WPA2)
- IEEE draft 802.11e support (QoS)
- IEEE 802.3af Power over Ethernet
- Wireless Medium Access Wi-Fi Compliant 802.11 MAC standard
- Transmit power control in 1 dBm increments
- Antenna RP-SMA female antennas connectors
- Frame Size Peak frame size of > 2250 bytes
- Fragmentation and Reassembly of 802.11/Ethernet frames supported
- 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 clients in both QoS mode and non-QoS mode
- Sleep Mode drivers for Wi-Fi voice handsets

IEEE 802.11A SPECIFICATIONS

- 5.180 – 5.240 GHz, 8 Channels (34, 36, 38, 40, 42, 44, 46, 48)
- 5.280 – 5.320 GHz; 4 channels (52, 56, 60, 64)
- 5.745 – 5.825 GHz; 5 channels (149, 153, 157, 161, 165) Operating Channels Configurable based on country regulations
- Data Rates 54, 48, 36, 24, 18, 12, 9 and 6 Mbps with automatic rate adaptation
- Transmit Power ~ +16 dBm (40 mW) nominal
- Receive Sensitivity -70 dBm at 54 Mbps, -86 dBm at 6 Mbps

IEEE 802.11B/G SPECIFICATIONS

- 2.4 GHz – 2.4835 GHz
- 2.4 GHz – 2.497 GHz Japan only
- Operating Channels 1-11 US/Canada, 1-13 Europe, and 1-14 Japan)
- 3 non-overlapping channels
- Transmit Power ~ +20 dBm (100 mW) nominal
- 802.11b Data Rates 11, 5.5, 2 and 1 Mbps with automatic rate adaptation
- 802.11g Data Rates 54, 48, 36, 24, 18, 12, 11, 9, 6, 5.5, 2, 1 Mbps
- 802.11b Receive Sensitivity -85 dBm at 11 Mbps, -93 dBm at 1 Mbps
- 802.11g Receive Sensitivity -73 dBm at 54 Mbps, -85 dBm at 6 Mbps

ENVIRONMENTAL

- Operating temperature: 32°F to 122°F/0°C to 50°C
- Operating humidity: 0% to 95% (non-condensing)
- Storage and transit temperature: -40°F to 185°F/-40°C to 85°C
- Storage and transit humidity: 0% to 95% (non-condensing)

Ordering Information

PRODUCT PART NUMBER	PRODUCT DESCRIPTION
IP-MAP-201	IronPoint Mobility Access Point, single radio 802.11a/b/g. Includes 2 Omni-directional antennas, mounting bracket and screws.
IP-MAP-208	IronPoint Mobility Access Point, dual radio 802.11a/b/g. Includes 2 Omni-directional antennas, mounting bracket and screws.
IP-MC-505	IronPoint Mobility Controller 500 system for 5 IronPoint Mobility Access Points
IP-MC-1015	IronPoint Mobility Controller 1000 system for 15 IronPoint Mobility Access Points
IP-MC-1030	IronPoint Mobility Controller 1000 system for 30 IronPoint Mobility Access Points
IP-MC-3025	IronPoint Mobility Controller 3000 system for 25 IronPoint Mobility Access Points
IP-MC-3050	IronPoint Mobility Controller 3000 system for 50 IronPoint Mobility Access Points
IP-MC-3075	IronPoint Mobility Controller 3000 system for 75 IronPoint Mobility Access Points
IP-MC-3100	IronPoint Mobility Controller 3000 system for 100 IronPoint Mobility Access Points
IP-MC-3150	IronPoint Mobility Controller 3000 system for 150 IronPoint Mobility Access Points



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