

IRONPOINT-FES



WIRELESS LANS: IRONPOINT FASTIRON EDGE SWITCH, IRONPOINT 200, AND IRONVIEW

Overview

The IronPoint™ FastIron® Edge switch (IronPoint FES) expands the capability of IronPoint 200 wireless access points (APs) and helps enterprises achieve a truly integrated wired and wireless network.

The IronPoint FES is built upon Foundry's FastIron Edge switch family, which delivers a full complement of standards-based, feature-rich switching. The IronPoint FES offers all the wire-speed switching and security benefits that come with the FastIron Edge switch, plus the latest developments in wireless technology. Edge-switching features of the IronPoint FES include comprehensive hardware and software redundancy, complete quality of service (QoS) controls that provide prioritization and rate limiting, standard and extended access control lists (ACLs), integrated copper Gigabit Ethernet ports,

sFlow, and Power over Ethernet (PoE). In addition, the IronPoint FES supports wireless features such as port-based Wi-Fi enablement, wireless mobility, fast roaming, and Web authentication.

In large campus environments, IronPoint 200 APs and the IronPoint FES together can provide easy and rapid touchless deployment, low-latency Voice over IP (VoIP) roaming, Layer 3 mobility roaming, enhanced security and monitoring, and high-availability features.

Foundry's integrated network management system, IronView® Network Manager (INM), enables network managers to centrally manage, configure, and monitor the IronPoint FES and IronPoint 200 APs in both large and small wireless deployments. As a result, network managers gain enterprise-wide visibility to both their wired and wireless networks.



INM also collects and monitors sFlow data sent from the IronPoint FES. This capability allows INM to accurately monitor traffic accounting from Layer 2 to Layer 7, including traffic accounting based on 802.1x username. This traffic accounting data also helps detect intrusions and identify network bottlenecks.

The combination of the IronPoint FES, IronPoint 200 APs, and INM help network managers more easily integrate their wired and wireless networks and provide the access that today's enterprise users demand.

Key Features and Benefits of IronPoint FastIron Edge Switch

- ▶ *Simplifies management of IronPoint 200 wireless APs*
 - Central management of as many as 100 IronPoint 200 wireless APs using the IronPoint FES 2402
 - Central management of as many as 150 IronPoint 200 wireless APs using the IronPoint FES 4802
 - Automatic discovery and configuration of IronPoint 200 wireless APs
 - Capability to deploy multiple IronPoint 200 wireless APs
 - Health and status monitoring of IronPoint 200 wireless APs
- ▶ *Provides port-level protection*
 - Automatic port disablement if an IronPoint 200 is unplugged
 - 802.1x port authentication
- ▶ *Enables wireless mobility*
 - Fast roaming for VoIP
 - Layer 3 mobility roaming for highly subnetted networks
 - Tracking and monitoring of wireless clients—dynamic exchange of client roaming information between multiple IronPoint FES
- ▶ *Includes multiple security authentication methods*
 - 802.1x dynamic virtual LAN (VLAN) with guest VLAN fallback
 - Remote Authentication Dial-In User Service (RADIUS) Media Access Control (MAC)
 - Web authentication
- ▶ *Provides ability to allow only VPN traffic to pass through the network*

Technical Specifications

STANDARDS COMPLIANCE

- 802.1d Bridging
- 802.1d-1999 Ethernet bridging
- 802.1q/p VLAN tagging and priority
- 802.1w Rapid Spanning Tree
- 802.1x Port-based authentication
- 802.3 10Base-T
- 802.3 Ethernet-like Management Information Base (MIB)
- 802.3ad Link aggregation
- 802.3af Power over Ethernet
- 802.3u 100Base-TX
- 802.3x Flow control
- 802.3z 1000Base-SX/LX/TX

PROTOCOL SUPPORT

- AppleTalk
- DNS client
- IP (RFC 1812)
- IPX RIP/SAP
- SAAP
- FAAP

IP MULTICAST

- DVMRP Host Requirements (RFC 1122)
- DVMRPv2
- IGMP snooping
- IGMPv1 (RFC 1112)
- IGMPv2 (RFC 2236)
- PIM-DM (draft-ietf-v2-dm-03)
- PIM-SM (RFC 2362)

LAYER 2 ENHANCEMENTS

- 4,096 VLANs
- 64,000 MAC addresses
- Address lock filtering
- Dual-mode VLANs
- Fast port span
- Fast uplink span
- Generic VLAN Registration Protocol
- MAC-layer filtering mirror/monitor ports
- PerVLAN Group Spanning Tree (PVGST)
- PerVLAN STP (PVST/PVST+)
- Server trunk groups
- Single-instance Spanning Tree

MANAGEMENT AND CONTROL

- 802.3 MAU MIB (RFC 2239)
- Architecture for Describing SNMP Framework (RFC 2571)
- BootP (RFC 951 and RFC 1542)
- BootP/DHCP Relay (RFC 2131)
- Bridge MIB (RFC 1493)
- Configuration logging
- Ethernet Interface MIB (RFC 1643)
- Ethernet MIB (RFC 1643)
- Embedded HTTP
- ICMP Router Discovery Protocol (RFC 1256)
- Industry-standard command line interface (CLI)
- Integration with HP OpenView for HP-UX, IBM AIX, Sun Solaris, and standalone Microsoft Windows NT

- IP Forwarding Table MIB (RFC 1354)
- IronView Network Manager (INM) Web-based graphical user interface
- JetScope/sFlow (RFC3176)
- MIB-II (RFC 1213)
- Repeater MIB (RFC 1516)
- RIPv2 MIB (RFC 1724)
- RMON MIB (RFC 1757)
- SNMP Message Processing and Dispatching (RFC 2572)
- SNMP MIB II (RFC 1573)
- SNMPView-based Access Control Model SNMP (RFC 2575)
- SNMPv1/v2c (RFC 1157)
- SNMPv3 Applications (RFC 2573)
- SNMPv3 Intro to Framework (RFC 2570)
- SNMPv3 User-based Security Model (RFC 2574)
- Support for multiple SysLogD servers
- TELNET (RFC 854)
- TFTP (RFC 783)

ELEMENT SECURITY OPTIONS

- Authentication, Authorization, & Accounting (AAA)
- Bi-level access mode (standard and executive level)
- Protection for denial of service attacks
- RADIUS
- Secure Copy (SCP)
- Secure Shell
- TACACS/TACACS+
- Username/password

PERFORMANCE

- FES2402-PoE:
 - Switching capacity: 38.4 Gbps
 - Forwarding rate: 6.6 Mpps
- FES4802-PoE:
 - Switching capacity: 38.4 Gbps
 - Forwarding rate: 10.2 Mpps

PHYSICAL DIMENSIONS

- FES2402-PoE:
 - 2.63" (H) x 17.5" (W) x 19.6" (D)
 - 6.68 cm (H) x 44.45 cm (W) x 49.78 cm (D)
- FES4802-PoE:
 - 2.63" (H) x 17.5" (W) x 19.6" (D)
 - 6.68 cm (H) x 44.45 cm (W) x 49.78 cm (D)

WEIGHT

- FES2402:
 - 29 lbs (13.15 kg) fully loaded, including dual redundant power
 - 17.5 lbs (7.95 kg) empty
- FES4802:
 - 29 lbs (13.15 kg) fully loaded, including dual redundant power
 - 17.5 lbs (7.95 kg) empty
- RPS8:
 - 5.75 lbs (2.61 kg)

ENVIRONMENTAL RANGES

- Operating temperature: 32° to 104°F (0° to 40°C)
- Relative humidity: 5% to 90%, non-condensing
- Storage temperature: -23° to 158°F (-25° to 70°C)
- Storage altitude: 10,000 ft (3,000 m) maximum
- FES2402-PoE
 - Maximum BTUs: 316 BTU/Hr (150W)
- FES4802-PoE
 - Maximum BTUs: 462 BTU/Hr (150W)

POWER REQUIREMENTS

- AC input voltage: 100vAC @ 3.5A MAX, 240vAC @ 1.5A MAX, 50-60Hz per auto-sensing, auto-switching power supply

SAFETY CERTIFICATIONS

- EN 60950
- IEC 950
- UL 1950
- CSA 950

ELECTROMAGNETIC EMISSION CERTIFICATIONS

- To FCC Class A
- EN 55022
- CISPR-22 Class A
- VCCI Class A

IMMUNITY

- Generic: EN 50082-1

WARRANTY

- 5-year limited lifetime hardware warranty
- 90-days software

Ordering Information

PART NUMBER	DESCRIPTION
FES2402-WLAN	24-port 10/100 and 2-port combo Gigabit Ethernet with advanced wireless features
FES2402-PoE-WLAN	24-port 10/100 802.3af PoE and 2-port combo Gigabit Ethernet with advanced wireless features
FES4802-WLAN	48-port 10/100 and 2-port combo Gigabit Ethernet with advanced wireless features
FES4802-PoE-WLAN	48-port 10/100 802.3af PoE and 2-port combo Gigabit Ethernet with advanced wireless features
FES9604-WLAN	96-port 10/100 and 4-port combo Gigabit Ethernet with advanced wireless features
FESWLANU	Wireless upgrade for FES2402, FES4802, FES 9604, FES2402-PoE, FES4802-PoE





Foundry Networks, Inc.
Corporate Headquarters
4980 Great America Parkway
Santa Clara, CA 95054

U.S. and Canada Toll-free:
1-888-TURBOLAN (887-2652)
Tel: +1 408.586.1700
Fax: +1 408.586.1900
info@foundrynet.com
www.foundrynetworks.com

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