



Delivers Industry Leading Price, Performance and Flexibility to Wiring Closets, Desktops and Server Farms

Provides High-density 10/100 Mbps Ethernet and Gigabit Ethernet Copper Connectivity to Workstations and Servers

Foundry's IronCore Architecture Ensures Non-blocking Gigabit Ethernet Riser Connectivity

High Availability Chassis-based Switches Offer Hot Swappable Modules and Hot Swappable Redundant Power

Field Upgradeable to Foundry's Award-winning IronWare Multi-protocol Routing Services

FASTIRON II SWITCHES

Foundry Networks' award winning FastIron II family of switches provides high-density 10/100/1000 Mbps connectivity to workstations and servers and non-blocking Gigabit Ethernet riser connectivity. Organizations that require high performance and full resiliency can deploy the FastIron II family as wiring closet, desktop or server farm switches.

The FastIron II family includes the FastIron II and FastIron II Plus for high density 10/100 to Gigabit Ethernet edge connectivity, and the FastIron II GC and the FastIron II Plus GC for high density Gigabit Ethernet copper connectivity.

The FastIron II is a redundant, non-blocking chassis-based switch that provides 72 auto-sensing, auto-negotiating

10/100 Mbps ports and from 2 to 8 Gigabit Ethernet fiber ports or 144 10/100 and 16 Gigabit Ethernet fiber ports.

Enterprises that require greater 10/100 Mbps port density can deploy the FastIron II Plus for up to 168 10/100 Mbps ports and 2 to 8 Gigabit Ethernet fiber ports.

The FastIron II GC and FastIron II Plus GC offer industry standard 1000Base-T connectivity for organizations that require greater bandwidth to power workstations and servers. The FastIron II GC is available in two base configurations; 24 1000 Mbps ports or 16 1000 Mbps ports + 24 10/100 Mbps ports. An open slot provides the flexibility for additional 10/100 or 1000 Mbps port density. The FastIron II Plus GC offers

the industry's highest Gigabit Ethernet copper density with 64 ports.

All members of the FastIron II family are based on Foundry's non-blocking IronCore architecture, which ensures wire-speed performance and less than 5 microseconds of latency.

FastIron II switches support Foundry's award-winning IronWare routing services. A simple field upgrade provides IP/RIP, IPX/RIP/SAP, OSPF, Appletalk, IGMP, DVMRP, PIM, VRRP and FSRP protocol support for full investment protection. With Foundry's IronWare routing services, FastIron II switches can be deployed as a high-density distributed switching router for enterprises that require wire-speed, multi-protocol routing at the network edge.

IronCore Architecture

The FastIron II family is built on Foundry's fully non-blocking IronCore architecture. The IronCore architecture provides switching capacity in the core and on each module.

The core consists of a backplane and crosspoint switching fabric that supports up to 8 interface modules. The crosspoint switching fabric includes a high speed ASIC that provides up to 128 Gbps of effective switching capacity and 96,000,000 pps.

Each interface module utilizes a high bandwidth, shared memory switching fabric that switches up to 32 Gbps of bandwidth. This local switching fabric houses the forwarding engines and includes ASICs that provide packet switching functions such as priority handling. Each interface module also contains ASICs that perform high speed Layer 2, Layer 3 and Layer 4 look-ups and forwarding, including IP subnet look-ups and packet modifications of IP and IPX packets. Additionally, each interface module has an 8 Gbps full-duplex data path to the crosspoint fabric that provides separate priority queues for each module destination.

The combination of local switching interface modules and the non-blocking crosspoint backplane delivers a two level switching system that easily scales up to 64 Gigabit Ethernet ports. To ensure compatibility with existing infrastructures and provide long-term investment protection, the architecture supports interfaces ranging from 10/100 Mbps to 1 Gbps today and 10 Gbps in the future.

IronWare Advanced Features

High Bandwidth and Availability

The FastIron II family enables users to increase the performance and reliability of their network with load-sharing and fault tolerant inter-switch trunk groups that provide up to 16 Gigabits of full-duplex bandwidth. Up to 22 server trunk groups can also be created to provide up to 800 Mbps of full-duplex redundant bandwidth per group. And, like all of Foundry's award-winning products,

FastIron II switches support a redundant switch/router capability that ensures sub-second fail-over.

When deployed with Foundry's optional IronWare routing services, FastIron II switches include Foundry Standby Router Protocol (FSRP) and industry-standard Virtual Router Redundancy Protocol (VRRP) to provide a fail-safe mechanism in routed environments. With FSRP and VRRP, FastIron II switches act as a backup to other routers in the network. In the event of a failure, a FastIron II switch automatically performs the tasks of the failed router.

The resiliency features of FastIron II switches, combined with hot swappable modules and hot swappable redundant power, ensure that mission critical sessions continue to flow, vital communication paths remain active and applications are available to end-users.

VLANs for Optimized Network Performance and Simplified Management

With FastIron II switches, enterprises have a flexible, high performance solution that seamlessly interoperates with existing networks. Network managers can assign up to 4,096 VLANs on a port, station, protocol, sub-net and IEEE 802.1p/q tagged basis. Flexible support for such a large number of VLANs ensures that large enterprises can easily design their network for optimal performance.

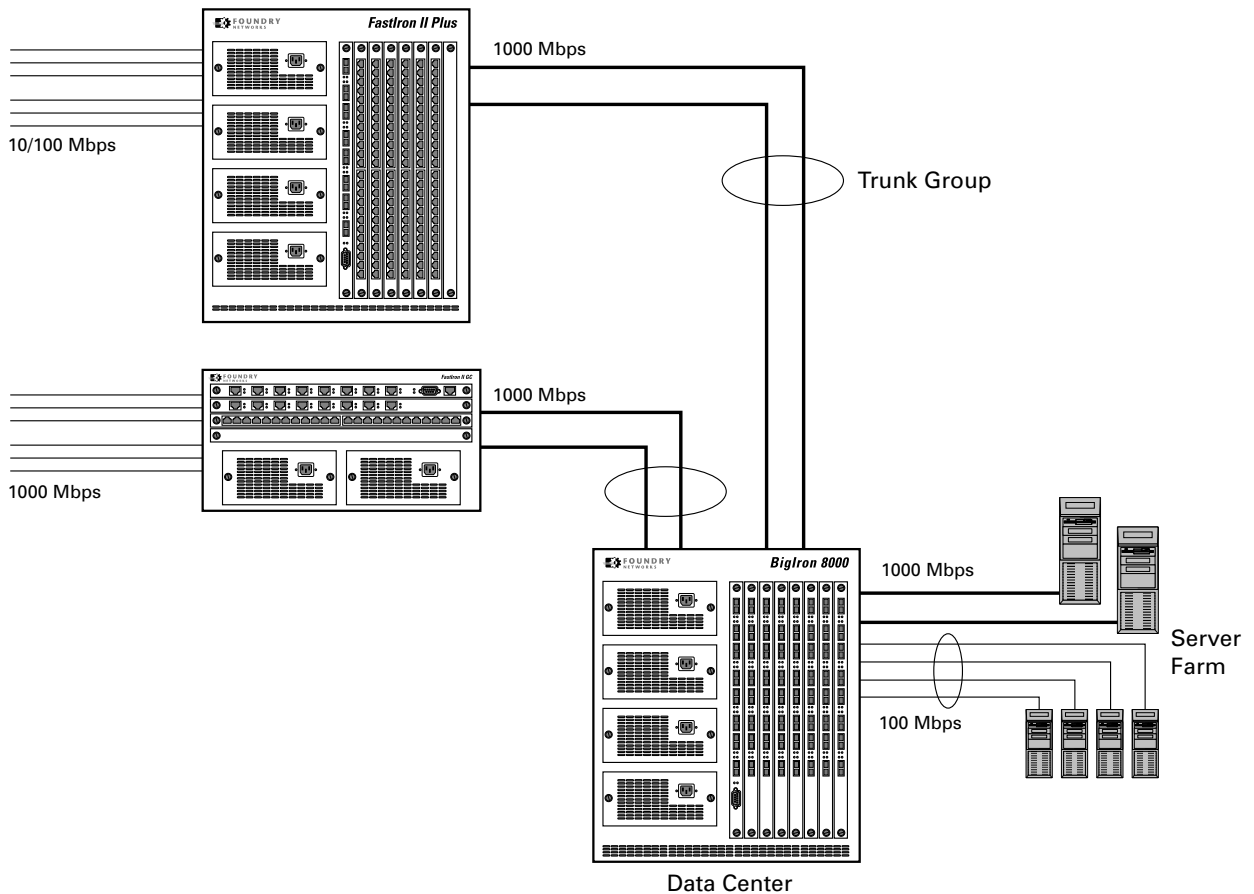
VLANs simplify network address administration and increase available bandwidth by allowing network managers to logically partition users and devices into virtual communities of interest.

Port-based VLANs give network managers the ability to group specific port traffic into different broadcast domains. This eliminates broadcast storms by maintaining distinct spanning tree domains.

Sub-net and protocol-based VLANs increase network performance and provide a high degree of network design flexibility. With sub-net VLANs, devices within a common sub-net can be resident across multiple ports. This increases performance by providing a greater pool of bandwidth for all devices.

FIGURE 1

Wiring Closets



Foundry's 802.1p/q standard VLAN tagging enables the creation of VLANs that cross-switch boundaries. With tagging, multiple port-based VLANs can be easily set up across a port or between switches, easing network management and ensuring interoperability between devices.

QoS for Delay Sensitive and Traffic Prioritization

FastIron II switches provide industry-leading support for delay sensitive traffic with Quality of Service (QoS). Network managers can utilize IEEE 802.1p/q and four levels of hardware prioritization. This easy to use capability ensures that critical applications receive the required bandwidth and prioritization.

FastIron II switches also include Layer 4 QoS capabilities that enable network managers to prioritize and manage TCP and UDP traffic. Packets are prioritized based on a combination of source and destination address and source and destination port number. This allows network managers to give

mission critical traffic a higher class of service to ensure priority delivery.

Extensive Support for Multicast Applications

Enterprises that deploy many-to-one applications, such as video on demand, can use Foundry's industry leading multicast support to ensure high network performance. Internet Group Membership Protocol (IGMP) multicast hardware filtering and broadcast/multicast threshold options efficiently support multicast applications while conserving bandwidth. FastIron II switches that include Foundry's optional IronWare routing services also support Distance Vector Multicasting Routing Protocol (DVMRP) and Protocol Independent Multicast (PIM) for IP environments.

Hardware Based Filtering Ensures Network Security

FastIron II switches include Foundry's unique Layer 2/3/4 hardware-based access control feature that allows network managers to easily build fire-

walls that prevent unauthorized network access. Filters can be created based on IP source destination addresses, as well as protocol type and port number, to ensure that designated addresses cannot access corporate resources. The FastIron II family also supports high performance Layer 2 and Layer 3 access control lists. This feature is used to control network traffic and limit network access without impacting performance. Access control lists can be used to ensure secure Internet access.

IronView Network Configuration and Management

IronView network management includes a comprehensive set of tools to simplify configuration and management. Simple Network Management Protocol (SNMP) device management and configuration applications are available on HP OpenView for Sun Solaris and Windows NT and standalone Windows NT platforms. A Command Line Interface (CLI) is included for local and remote management and configuration. FastIron II switches can also be configured and managed using Web/HTTP. Remote Monitoring (RMON) and mirror port options provide leading network monitoring and troubleshooting features.

Application Scenarios

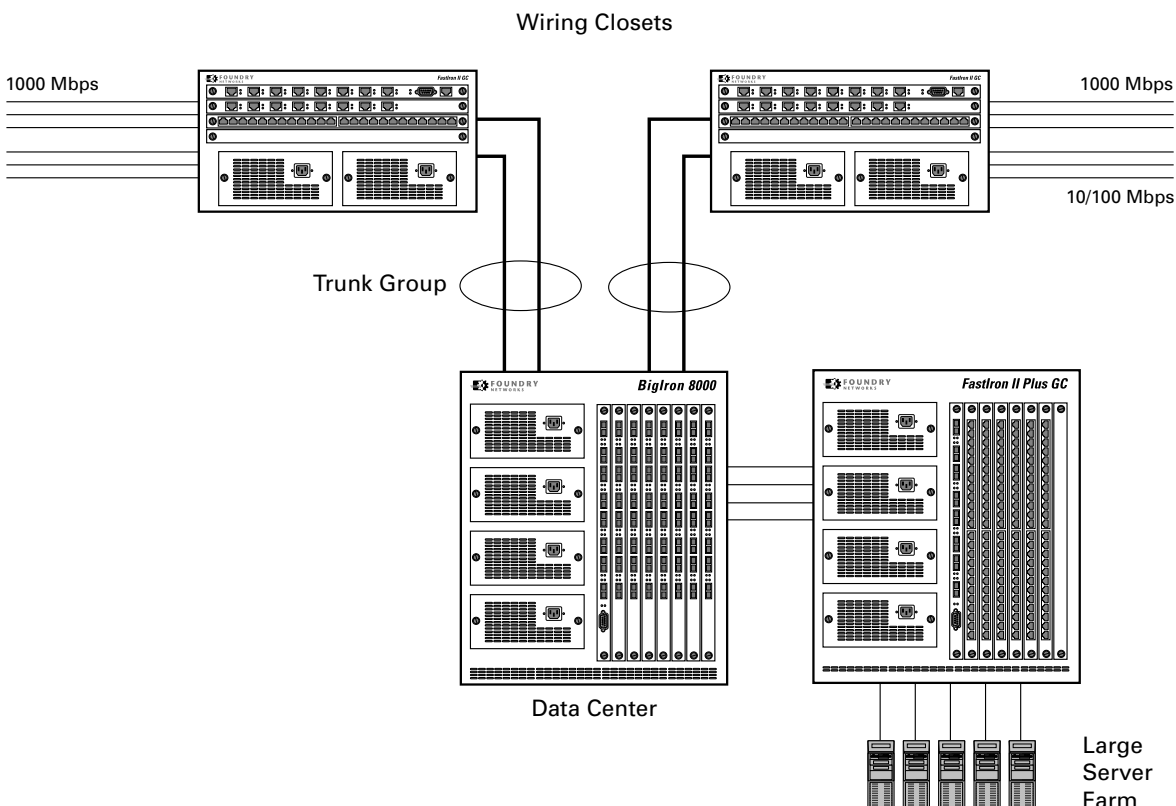
High Performance 10/100/1000 Wiring Closet and Desktop Connectivity

High density 10/100 Mbps Ethernet, non-blocking Gigabit Ethernet riser connectivity and a resilient architecture, make FastIron II and FastIron II Plus ideal wiring closet solutions. Enterprises can deploy up to 168 auto-sensing, auto negotiating 10/100 Mbps ports to workstations and servers. Two to 8 Gigabit Ethernet links provide high-speed riser connectivity to Gigabit Ethernet switches or routers located in the core of the network. A FastIron II GC switch provides Gigabit Ethernet copper connectivity to power workstations and servers that support very high bandwidth applications. [FIGURE 1]

Gigabit Ethernet Copper Connectivity for Power Desktops and Servers

Organizations that require high bandwidth to power desktops and servers can deploy FastIron II GC and FastIron II Plus GC in wiring closets and server farms. FastIron II Gigabit Copper switches provide industry standard 1000 Mbps connectivity over existing Category 5 cabling. This simplifies installation and protects users' networking investment by eliminating the need to rewire the existing infrastructure. [FIGURE 2]

FIGURE 2



Technical Specifications

Switching Capacity

128 Gbps shared memory

Throughput

Up to 96,000,000 pps

Latency

< 5 microseconds

Standards Compliance

802.3 10BaseT

802.3u 100BaseTX

802.3z 1000BaseSX

802.3ab 1000BaseT

802.3x Flow Control

802.1p/q VLAN Tagging and Prioritization

802.1d Bridging

802.3 Ethernet Like MIB

Repeater MIB

Ethernet Interface MIB

SNMPV1

SNMP MIB II

Protocol Support

IP

RFC 1058 RIP

RFC 1354 IP forwarding table MIB

RFC 1723 RIPV2

RFC 2131 BootP/DHCP Relay

RFC 2178 OSPF

RFC 2328 OSPF V2

IPX/RIP/SAP

AppleTalk

RFC 1112 IGMP

DVMRP V3

RFC 2338 VRRP

Foundry Standby Router Protocol (FSRP)

DNS Client

PIM Dense Mode

PIM Sparse Mode

RFC 1256 Router Discover Protocol

RFC 783 TFTP

RFC 1542 BootP

RFC 951 BootP

RFC 854 Telnet

RFC 1757 RMON Groups 1,2,3,9

RFC 2068 HTTP

Network Management

Integrated Command Line Interface

Telnet

SNMP

RMON Groups 1,2,3,9

Standalone Windows NT

HP OpenView for Sun Solaris, Windows NT
and others

Web/HTTP

Physical Dimensions:

FastIronII and FastIron II GC:

8.75"h x 17.5"w x 15"d (22.2 x 44.5 x 38.1 cm)

Weight: 60 lbs. (29.9 kg) fully loaded

FastIron II Plus and FastIron II Plus GC:

20.75"h x 17.5"w x 15"d (52.7 x 44.5 x 38.7 cm)

Weight: 117 lbs. (43.7 kg) fully loaded

Power Requirements

90-250VAC, 5.5A, 50-60 Hz per auto-sensing,

auto-switching power supply

Environmental

Operating Temperature: 32 to 104° F (0-40° C)

Relative Humidity: 5 to 90%, non-condensing

Maximum BTUs for fully populated FastIron II and

FastIron IIGC: 4552

Maximum BTUs for fully populated FastIron II Plus and

FastIron II Plus GC: 9000

Storage Temperature: -25° to 70°

Storage Humidity: 95% maximum relative humidity,

non-condensing

Storage Altitude: 10,000 ft (3,000 m) maximum

Safety Agency Approvals

UL 1950

CISPR Safety, Paragraph 9

TUV EN 60950, EN 60825-1, EN60825-2

Electromagnetic Emissions Certifications

EN55022 Class A

FCC Part 15 Class A

VCCI Class A

EN50082-1

Warranty

1 year hardware

90 days software

Mounting Options

19" Universal EIA (telco) Rack

Tabletop

Base Configuration Options

FastIron II:

72 10BaseT/100BaseTX ports and
2 1000BaseSX or LX ports

72 10BaseT/100BaseTX ports and
4 1000BaseSX or LX ports

72 10BaseT/100BaseTX ports and
8 1000BaseSX or LX ports

FastIron II Plus:

144 10BaseT/100BaseTX ports and
2 1000BaseSX or LX ports

144 10BaseT/100BaseTX ports and
4 1000BaseSX or LX ports

144 10BaseT/100BaseTX ports and
8 1000BaseSX or LX ports

FastIron II GC:

24 1000BaseT ports

16 1000BaseT ports and

24 10BaseT/100Base TX ports

FastIron II Plus GC:

64 1000BaseT ports

Specifications subject to change without notice



FOUNDRY
NETWORKS

680 W. Maude Avenue
Suite 3
Sunnyvale, CA 94086
Tel 408.731.3800
Fax 408.731.3899
www.foundrynet.com

Rev 09.99