

BIGIRON RX-4, RX-8, RX-16



MODULAR LAYER 2/3 ETHERNET SWITCH FAMILY

Overview

The role of data networks in our daily lives continues to expand and grow. Emerging needs such as application convergence, non-stop operation, scalability and IPv6-readiness place new demands on the network. Modern network solutions must be assessed across a wider set of attributes than earlier generation equipment. In particular, the network must be evaluated on merits that include performance, reliability, scalability, quality of service, security and total cost of ownership (TCO).

The BigIron RX Series of Layer 2/3 Ethernet switches excels in all of these areas, enabling network designers to deploy an Ethernet infrastructure that addresses today's requirements with a scalable and future-ready architecture that will support network growth and evolution for years to come. BigIron RX Series incorporates the latest advances in switch architecture, system resilience, quality of service and switch security in a family of modular chassis setting leading industry benchmarks for price-performance, scalability and TCO.

Available in three chassis models, the BigIron RX Series allows network designers to standardize on a single product family for aggregation and backbone switching. In addition to its enterprise role, the BigIron RX Series, with its high-density and compact design, is an ideal IP solution for high-performance computing

environments and Internet Exchanges and Internet Service Providers (IXPs and ISPs) where non-blocking, high-density Ethernet switches are needed.

All three BigIron RX systems are designed for non-stop operation, supporting 1:1 management module redundancy, N+1 switch module redundancy, M+N power module redundancy and N+1 fan redundancy. Additionally, BigIron RX Series supports hitless software upgrades and graceful restart routing for fast convergence in the event of a management module failure.

At the heart of the BigIron RX architecture is an adaptive self-routing Clos switch fabric with a virtual output queue (VOQ) design. This non-blocking architecture is optimized for maximum throughput and low latency for all size packets. Scalable to over one billion packets per second, the BigIron RX Series is the most powerful Ethernet switch family in the industry. This advanced and scalable design ensures the reliable deliver of all IP-based voice, video and data applications.

The BigIron RX switches ship with field-proven IronWare networking software and IronShield security, embedded sFlow per port, advanced Ethernet switching, IPv4/IPv6 routing and multilayer security services. BigIron RX Series enables a user to deploy a reliable, secure and scalable networking solution today that is ready to accommodate tomorrow's applications and technologies.



FOUNDRY
NETWORKS



Product Highlights

- ▶ Full system redundancy (switch, management and power) across all three BigIron RX chassis—BigIron RX-4, BigIron RX-8 and BigIron RX-16
- ▶ Interchangeable half-height line modules reduce sparing costs and provide cost-effective modular growth (i.e., invest as needed)
- ▶ Compact chassis design supports very high-density single rack configurations—up to 192 wire-speed 10-Gigabit Ethernet and 2,304 wire-speed Gigabit Ethernet in standard 7-foot Telco rack
- ▶ Industry's first switch to ship ready to support 100-Gigabit Ethernet
- ▶ Scalable hardware-based IP routing to 512,000 IP routes per line module
- ▶ Powerful suite of unicast and multicast IPv4 and IPv6 protocol support
- ▶ Robust and scalable protocols for fast service restoration in the event of equipment failure or topology change
- ▶ Advanced virtual output queue (VoQ) design eliminates head of line blocking and provides scalable quality of service for over 250,000 traffic flows
- ▶ Flexible traffic policies supported with single rate and dual-rate traffic policing with three color marking for over 250,000 traffic flows
- ▶ End to End QoS supported with hardware based honoring and marking and congestion management
- ▶ Network Security ensured with line rate filtering, QoS protections and traffic monitoring
- ▶ High-capacity 80 Gbps cross-module link aggregation supports high-bandwidth inter-switch trunking
- ▶ High-availability design features redundant and hot-pluggable hardware, hitless software upgrades and graceful BPG and OSPF restart
- ▶ Advanced non-blocking Clos fabric features adaptive self-routing with graceful system degradation in the event of two or more module failures
- ▶ Embedded sFlow per port supports scalable hardware-based traffic monitoring across all switch ports without impacting performance

System Summary



FEATURE	BIGIRON RX-4	BIGIRON RX-8	BIGIRON RX-16
I/O Module Slots	4	8	16
Switching capacity per system			
Available data capacity	384 Gbps	768 Gbps	1.54 Tbps
Total switch capacity	960 Gbps	1.92 Tbps	3.84 Tbps
Packet forwarding capacity per system	286 Mpps	571 Mpps	1,142 Mpps
Max 10-GbE ports per system	16	32	64
Max 10-GbE ports per 7' rack	176	192	192
Max 1-GbE ports per system	192	384	768
Max 1-GbE ports per 7' rack	2,112	2,304	2,304
Power supply redundancy	M+N	M+N	M+N

(M = Number of supplies needed for fully loaded system and N = 1 to M supply redundancy)

Purpose-built Feature Set for Demanding Networks

INDUSTRY LEADING PERFORMANCE AND SCALABILITY

The BigIron RX Series is the industry's most powerful switch family, delivering up to 1.54 terabits per second data throughput per system and 100 Gbps full-duplex throughput per full-height chassis slot.

HIGH-AVAILABILITY DESIGN

Redundant and resilient design ensures high availability operation for demanding environments.

- ▶ **Redundant, hot-swappable components provide non-stop service delivery**
 - **Management module:** Systems configured with dual management modules see sub-second detection and fail-over
 - **Switch Fabric Element Redundancy:** Systems configured with a redundant switch fabric module support millisecond fail-over performance
 - **Hitless Management Failover (HMF):** Stateful failover ensures that the forwarding engines on the line modules are not impacted by a management failover. This capability enables non-stop packet forwarding in the event of a management module failover
 - **Redundant Power Supplies:** All three chassis support M+N power module redundancy for AC and DC power configurations.
- ▶ **Distributed Forwarding Architecture**—Advanced network processors, high-performance CPU and high-speed memory on each interface module provide for a scalable high-performance architecture
- ▶ **IEEE 802.3ad link aggregation up to eight links**—Scalable, cross-module trunking provides for resilient high-capacity connections between switches.
- ▶ **Resilient Layer 2 and Layer 3 protocols provide fast service restoration in event of link or equipment failures**
 - Metro Ring Protocol optimized for ring topologies, IEEE 802.1s and 802.1w for general Layer 2 topologies, VSRP for redundant switch configurations and VRRP/VRRP-E for redundant router configurations, ECMP for routed backbones

ROBUST LAYER 3 FEATURE SET

Foundry's IronWare software suite includes scalable EGP and IGP routing protocols.

- ▶ **BGPv4**—Scalable to 4 million routes, 256 peers and 14,000 attributes with MR2 management module
- ▶ **OSPF**—Scalable to over 400,000 routes
- ▶ **IS-IS**—Support for Level 1 and Level 2, includes 25,000 routes and 512 adjacencies
- ▶ **Foundry Direct Routing (FDR)**—The forwarding information base (FIB) is downloaded to the hardware-based forwarding engine on each line module. This memory can be pre-populated with as many as 512,000 IPV4 and 64,000 IPV6 routes for wire-speed routing performance.
- ▶ **Policy-based Routing (PBR)**—Support customizable routing policies using access control lists (ACLs). This feature can be used to balance network usage by controlling the network paths for different traffic flows.
- ▶ **Comprehensive multicast feature set**—Provides hardware-based support for a number of multicast protocols including DVMRP, MSDP, PIM-SM (Sparse Mode) and PIM-DM (Dense Mode), allowing network managers to efficiently deploy next-generation multicast applications
- ▶ **VRRP and VRRPE (Enhanced VRRP)**—Enables the BigIron RX to operate as a backup router to other network routers. In the event of a router failure, the BigIron RX will automatically and seamlessly perform the tasks of the failed router.

INDUSTRY LEADING LAYER 2 FEATURES

To provide self-healing topologies in Layer 2 configurations, the BigIron RX supports industry standard Ethernet protocols including Spanning Tree Protocol (STP), Rapid Spanning Tree (RSTP), perVLAN STP (PVST) and perVLAN group STP (PVGST). The BigIron RX also supports Foundry's Metro Ring Protocol (MRP) for sub-second service restoration in ring topologies. Additionally, the BigIron RX supports multi-instance spanning tree, VLAN topology grouping and VLAN tunneling for advanced Layer 2 service configurations.

- ▶ **Metro Ring Protocol (MRP)**—An alternative to Spanning Tree Protocol, MRP provides sub-second fault detection and fail-over for Ethernet ring topologies. MRP works in conjunction with VSRP and 802.3ad based link aggregation to provide bandwidth scalability and SONET-like resilience.

- ▶ **Virtual Switch Redundancy Protocol (VSRP)**—Supports sub-second fault detection and fail-over for mesh topologies in which redundant switches provide back-up operation for one another
- ▶ **Single-instance STP**—Provides a single instance of STP to run on all port-based VLANs within a single device, interoperable with others that are 802.1d compliant
- ▶ **Rapid Spanning Tree Protocol based on IEEE 802.1w**—Dramatically improves the spanning tree convergence time to sub-second by automatically renegotiating port roles in case of a link failure without relying on timers
- ▶ **Per VLAN Spanning Tree (PVST)**—Allows for control of STP on an individual VLAN basis for traffic engineering VLAN traffic (i.e., load distribution)
- ▶ **Per VLAN Group Spanning Tree (PVGST)**—Dramatically improves VLAN scalability by servicing up to 4,096 VLANs with 2 to 16 STP or Rapid STP group instances
- ▶ **Topology Groups**—Goes beyond PVGST to scale all supported Layer 2 control protocols including STP, RSTP, MRP and VSRP
- ▶ **Super Aggregated VLANs (SAVs)**—Allows transparent tunneling of multiple VLANs through a single backbone VLAN
- ▶ **PIM and IGMP Snooping**—Offers efficient handling of multicast traffic in Layer 2 topologies by identifying ports that request a multicast stream and forwarding the stream only on these ports. This dramatically improves the performance of multicast applications, allowing for many more streams to be transiting the network.

ADVANCED QUALITY OF SERVICE

- ▶ **Advanced QoS**—Allows administrators to enforce QoS policies based on port, VLAN, source MAC, ACL rules, 802.1p priority, Type of Service (ToS), DiffServ settings or Rate Limiting status
- ▶ **Very low latency across all packet sizes**—Consistent low latency for strict priority applications such as voice over IP, high performance computing and video over IP
- ▶ **Configurable combinations of queuing disciplines and congestion control policies**—Combinations of Strict Priority (SP) and Weighted Fair Queuing (WFQ) provide flexibility for network administrators. In the event of egress port congestion, traffic policies can be configured for tail drop or weighted random early detection (WRED) operation.
- ▶ **Advanced Bandwidth Management**—Allows intelligent bandwidth management using hardware based enforcement of Committed Information Rate (CIR) with Excess Burst control capabilities and seamless integration with other advanced QoS features including priority marking and honoring.

COHESIVE, UNIFIED AND EASY-TO-USE NETWORK MANAGEMENT

- ▶ **Centralized network management**—Foundry's IronView Network Manager is a web-based, graphical interface tool that empowers network operators to seamlessly control software and configuration updates
- ▶ **Command Line Interface (CLI)**—Industry-standard configuration interface, consistent and common throughout all Foundry's products
- ▶ **Web interface**—Provides easy-to-use Graphical User Interface (GUI) for system configuration from standard Web browsers
- ▶ **sFlow (RFC 3176)**—Provides scalable, wire-speed network monitoring and accounting with no impact on network performance

IRONSHIELD™ SECURITY

- ▶ **Wire-speed extended Layer 2, Layer 3 & 4 Access Control Lists (ACL)**—Control packet forwarding and restricts access to the system management interface, while providing wire-speed switching and routing:
 - **Extensible ACL Implementation for Layer 3 & 4 Information:** Identifies traffic based on source or destination IP address, IP protocol type, TCP or UDP port, IP precedence or ToS values
 - **Flexible ACL Implementation for Layer 2 Information:** Identifies traffic based on source or destination MAC address, Ethernet type, VLAN-ID values and 802.1p values
 - **ACL scalability:** Support for up to 8,000 ACLs
 - **Ease of administration:** Identify an ACL by name or number, or add a comment line for ease of administration
 - **Secure Shell and Secure Copy:** Provides secure access to the administration and management interface over the network
- ▶ **Protection against Denial of Service (DoS) attacks**—Prevents or minimizes network downtime from malicious users by limiting TCP SYN and ICMP traffic and protects against broadcast storms
- ▶ **User authentication**—Authentication with AAA, 802.1x, RADIUS, TACACS, and TACACS+ prevents unauthorized network access
- ▶ **MAC Port Security**—Controls the MAC addresses allowed per port
- ▶ **sFlow (RFC 3176)**—Provides cost-effective, scalable, wire-speed network monitoring to detect unusual network activity
- ▶ **SNMPv3**—Secured SNMP management with authentication and privacy services
- ▶ **BGP-Guard**—Complements MD5 security for BGP sessions to protect against session disruption by restricting the number of hops the BGP session can traverse

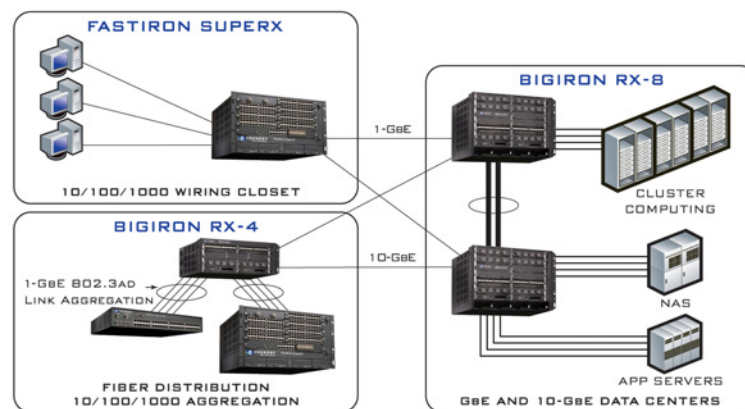
Applications

FOUNDRY ENTERPRISE INFRASTRUCTURE SOLUTIONS

Today's Enterprise network is critical to the ongoing operations of the organization. Network administrators are concerned about zero downtime on the network, securing the network from DoS attacks, cyber-spying, and malicious users, and maintaining data integrity and confidentiality, without adding excessive cost or impacting performance. All this in a structure that allows for graceful growth as the Enterprise grows.

The BigIron RX Series incorporates exceptional resiliency, security and scalability in an architecture designed to scale from the edge to the core to minimize TCO. The resilient design includes redundant management modules, switch fabrics, fans and power supplies. This hardware resiliency is enhanced with software resiliency including hitless system failover, graceful restart, MRP, VSRP, and VRRP for

Layer 2 and Layer 3 resiliency. High priority voice and data traffic fly through the chassis utilizing the high performance hardware-based QoS features of the RX Series. Wire-speed security is maintained by locking out unauthorized users with port security, by filtering DoS and unauthorized traffic with ACLs, and by monitoring traffic flows with sFlow. The BigIron RX Series allows you to grow from just 24 ports of 10/100/1000 at the edge up to 768 ports of 10/100/1000 or 64 ports of 10-Gigabit Ethernet in the core. BigIron RX Series provides one common architecture that meets the demands of today's, and tomorrow's Enterprise network needs with high performance, resiliency, security and scalability with low TCO.

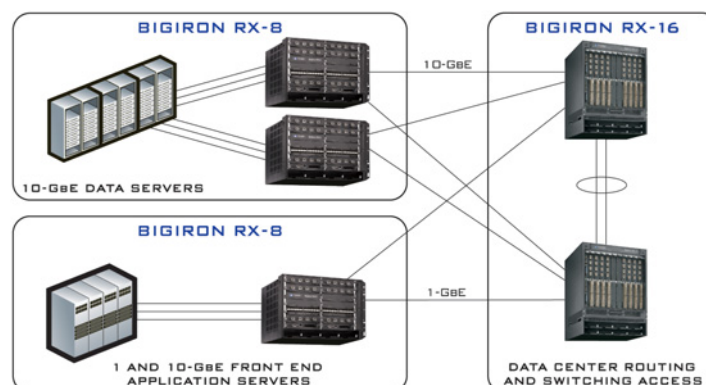


FOUNDRY FOR ENTERPRISE AND APPLICATION HOSTING SOLUTIONS

Data centers are the core of business operations requiring high density, high performance, high security and low latency switching to ensure connectivity to mission critical applications. The increasing value of the data center to business operations necessitates that data and network integrity, confidentiality and security must be maintained without impacting performance.

The BigIron RX Series addresses these needs by acting as the gateway and switch fabric of the data center. The density of the RX Series allows for growth from the smallest to the largest data center. Port aggregation allows for high performance interconnects up to 80 Gbps increasing the availability of the server farm.

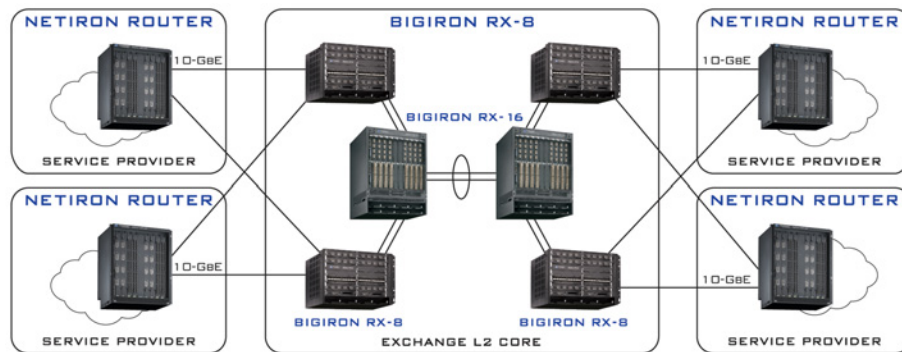
Foundry's hardware based IronShield™ security features protect the server farm against Denial of Service (DoS) attacks and provide security for maintaining network integrity. The sFlow functionality supplies the network access information required to track who has accessed which server on the network as a means to provide network usage audit trails. Utilizing Foundry's wire-speed switching and filtering to screen and direct traffic to the appropriate server and block undesired traffic with minimal latency ensure the optimal operation, security and integrity of the network and data center.



FOUNDRY FOR INTERNET EXCHANGE SOLUTIONS

Internet Exchanges (IX) demand high-performance Layer 2 topologies with high density Gigabit and 10-Gigabit Ethernet ports. These cross-roads of the Internet connect high-performance routers from many Service Providers in peering relationships without requiring a full mesh of router ports.

The BigIron RX Series excels in this environment. Offering high density 1-Gigabit and 10-Gigabit Ethernet together with the resiliency features of the chassis make the BigIron RX Series an extremely cost effective and robust solution.

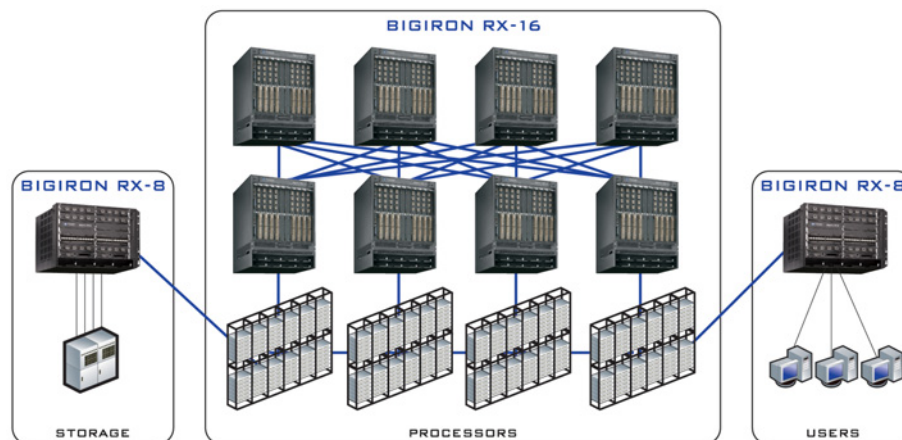


FOUNDRY FOR HIGH-PERFORMANCE COMPUTING SOLUTIONS

High-performance computing has entered the mainstream marketplace with Ethernet switching as the technology of choice. Ultra-low latency and high-density Ethernet switching are required for successful deployment.

The BigIron RX Series chassis are ideal for this environment. They offer low latency through the switch with unparalleled densities of 10/100/1000 Ethernet, fiber Gigabit Ethernet and 10-Gigabit Ethernet in compact size chassis—up to 768 ports

of Gigabit Ethernet or 64 ports of 10-Gigabit Ethernet in a single 14 rack unit high chassis. The high-performance architecture offers up to 1.54 Tbps of data switching capacity to meet the needs of the most demanding HPC environment. The combination of performance, density and reliability makes the BigIron RX Series an excellent choice for Enterprise HPC environments.



Technical Specifications

IEEE COMPLIANCE

- 802.3ae 10-Gigabit Ethernet
- 802.3x Flow Control
- 802.3ad Link Aggregation
- 802.1QVLAN Tagging
- 802.1D Bridging
- 802.1w Rapid STP
- 802.1X User authentication
- 802.3 Ethernet Like MIB
- Repeater MIB
- Ethernet Interface MIB
- SNMP v1, v2c and V3
- SNMP MIB II

RFC COMPLIANCE

BGPv4

- RFC 1771 BGPv4
- RFC 1745 OSPF interactions
- RFC 1997 Communities & Attributes
- RFC 2439 route flap dampening
- RFC 2796 route reflection
- RFC 1965 BGP4 confederations
- RFC 2842 Capability Advertisement
- RFC 2918 Route Refresh Capability
- RFC 1269 Managed Objects for BGP
- RFC 2385 BGP Session Protection via TCP MD5

OSPF

- RFC 2178 OSPF
- RFC 1583 OSPF v2
- RFC 1587 OSPF NSSA
- RFC 1745 OSPF Interactions
- RFC 1765 OSPF Database Overflow
- RFC 1850 OSPF Traps
- RFC 2154 OSPF w/Digital Signatures (Password, MD-5)
- RFC 2328 OSPF v2
- RFC 1850 OSPF v2 MIB
- RFC 2370 OSPF Opaque LSA Option

IS-IS

- RFC 1195 Routing in TCP/IP and Dual Environments
- RFC 1377 PPP
- RFC 2763 Dynamic Host Name Exchange
- RFC 2966 Domain-wide Prefix Distribution

RIP

- RFC 1058 RIP v1
- RFC 1723 RIP v2
- RFC 1812 RIP Requirements

IP Multicast

- RFC 1122 Host Extensions
- RFC 1122 DVMRP Host Requirements
- RFC 1256 ICMP Router Discovery Protocol
- RFC 1112 IGMP
- RFC 2236 IGMP v2
- RFC 2362 PIM-SM
- PIM-DM v1
- DVMRP v3-07
- RFC 2336 IGMP v2
- MSDP
- RFC 2283 MBGP

General Protocols

- RFC 791 IP
- RFC 792 ICMP
- RFC 793 TCP
- RFC 783 TFTP
- RFC 826 ARP
- RFC 768 UDP
- RFC 894 IP over Ethernet
- RFC 903 RARP
- RFC 906 TFTP Bootstrap
- RFC 1027 Proxy ARP
- RFC 951 BootP
- RFC 1122 Host Requirements
- RFC 1256 IRDP
- RFC 1519 CIDR
- RFC 1542 BootP Extensions
- RFC 1812 General Routing
- RFC 1541 and 1542 DHCP
- RFC 2131 BootP/DHCP Helper
- RFC 2338 VRRP
- RFC 854 TELNET
- RFC 1591 DNS (client)

Others

- RFC 1354 IP Forwarding MIB
- RFC 1757 RMON Groups Partial 1, full for 2, 3, 9
- RFC 2068 HTTP
- RFC 2030 SNTP
- RFC 2138 RADIUS
- RFC 3176 sFlow
- Draft-ietf-tcpm-tcpsecure-00

IPv6 Core

- RFC 2460 IPv6 Specification
- RFC 2461 IPv6 Neighbor Discovery
- RFC 2462 IPv6 Stateless Address Auto-configuration
- RFC 2463 ICMPv6
- RFC 3513 IPv6 Addressing Architecture
- RFC 1981 IPv6 Path MTU Discovery
- RFC 3587 IPv6 Global Unicast Address Format
- RFC 2375 IPv6 Multicast Address Assignments
- RFC 2464 Transmission of IPv6 over Ethernet Networks
- RFC 2711 IPv6 Router Alert Option
- RFC 3363 DNS support

IPv6 Routing

- RFC 2080 RIPv6 for IPv6
- RFC 2740 OSPFv3 for IPv6
- IETF Draft_ietf_isis_IPv6 IS-IS for IPv6
- RFC 2545 Use of MP-BGP-4 for IPv6

IPv6 Multicast

- RFC 2362 PIM-SM
- RFC 2710 Multicast Listener Discovery (MLD) for IPv6
- RFC 3306 Unicast-Prefix-based IPv6 Multicast Addresses
- IETF Draft-vida-mld-v2

IPv6 Transitioning

- RFC 2893 Transition Mechanisms for IPv6 Hosts and Routers
- RFC 3056 Connection of IPv6 Domains via IPv4 Clouds

NETWORK MANAGEMENT

- IronView Network Manager (INM) Web-based graphical user interface
- Integrated Standard-based Command Line Interface (CLI)
- sFlow (RFC 3176)
- Telnet
- SNMP
- RMON
- HP OpenView for Sun Solaris, HP-UX, IBM's AIX, Linux and Windows NT

ELEMENT SECURITY OPTIONS

- AAA
- RADIUS
- Secure Shell (SSH v2)
- Secure Copy (SCP)
- TACACS/TACACS+
- Username/Password (Challenge and Response)
- Bi-level Access Mode (Standard and EXEC Level)
- Protection for Denial of Service attacks, such as TCP SYN or Smurf Attacks

ENVIRONMENTAL

- Operating Temperature: 0 °C to 40 °C (32 °F to 104 °F)
- Relative Humidity: 5 to 90%, @40 °C (104 °F), non-condensing
- Operating Altitude: 10,000 ft (3,000 m)
- Storage Temperature: -25 °C to 70 °C (-13 °F to 158 °F)
- Storage Humidity: 95% maximum relative humidity, non-condensing
- Storage Altitude: 15,000 ft (4,500 m) maximum

SAFETY AGENCY APPROVALS

- CAN/CSA-C22.2 No. 60950-00/UL 60950 - Third Edition, Safety of Information Technology Equipment
- EN 60825-1 Safety of Laser Products - Part 1: Equipment Classification, Requirements and User's Guide
- EN 60825-2 Safety of Laser Products - Part 2: Safety of Optical Fibre Communication Systems
- EN 609500 Safety of Information Technology Equipment

ELECTROMAGNETIC EMISSION CERTIFICATION

- CSA 950 Electromagnetic Emission Certification
- FCC Class A
- EN 55022/CISPR-22 Class A/VCCI Class A

IMMUNITY

- EN 61000-3-2 Power Line Harmonics
- EN 61000-4-2 ESD
- EN 61000-4-3 Radiated Immunity
- EN 61000-4-4 EFT
- EN 61000-4-5 Surge
- EN 61000-4-6 Low Frequency Common Immunity
- EN 61000-4-11 Voltage Dips and Sags Generic: EN 50082-1
- ESD: IEC 61000-4-2; 4 kV CD, 8 kV AD
- Radiated: IEC 61000-4-3; 3V/m
- EFT/Burst: IEC 61000-4-4; 1.0 kV (power line), 0.5 kV (signal line)
- Conducted: IEC 61000-4-6; 3V

WARRANTY

- 1-year hardware
- 90-day software

MOUNTING OPTIONS

- 19" Universal EIA 310 (Telco) Rack or Tabletop

BIGIRON RX SERIES SYSTEM SPECIFICATIONS

SYSTEM MAX	@ 100 VAC			@ 200 VAC			@ -48VDC		
	Current Amps	Power Watts	Thermal Output BTU/HR	Current Amps	Power Watts	Thermal Output BTU/HR	Current Amps	Power Watts	Thermal Output BTU/HR
BI-RX-16-xC	7.1	714	3,019	3.6	714	3,019	14.7	704	2,929
BI-RX-8-xC	2.5	248	1,046	1.2	248	1,046	5.1	244	1,015
BI-RX-4-xC	2.5	250	1,057	1.3	250	1,057	5.1	246	1,025
RX-BI-MR*	0.4	37	157	0.2	37	157	0.8	37	152
RX-BI-MR2	0.4	37	157	0.2	37	157	0.8	37	152
RX-BI-SFM3*	0.7	66	277	0.3	66	277	1.3	65	269
RX-BI2XG	1.3	127	433	0.6	127	433	2.6	125	427
RX-BI-SFM1*	0.2	24	99	0.1	24	99	0.5	23	96
RX-BI4XG	2.4	236	999	1.2	236	999	4.9	233	969
RX-BI24F	1.3	125	528	0.6	125	528	2.6	123	513
RX-BI24HF	1.3	125	427	0.6	125	427	2.6	123	420
RX-BI24C	1.3	126	534	0.6	126	534	2.6	124	518
RX-BI48T	2.3	234	799	1.6	234	799	4.6	230	787

*Power consumption of redundant component.

RX-ACPWR-SYS	AC Input Voltage: 100VAC to 240VAC Power Output Rating: 1200 Watts Power Input Rating: 1,485 Watts Current Draw: 14.9A @ 100VAC; 7.4@ 200VAC AC Frequency: 47 – 63 Hz
Power supply module	

PHYSICAL SPECIFICATIONS	BIGIRON RX-4	BIGIRON RX-8	BIGIRON RX-16
Dimensions	17.45"w x 6.96"h x 22.5"d 44.32w x 17.68h x 57.15d cm	17.45"w x 12.21"h x 22.5"d 44.32w x 31.01h x 57.15d cm	17.45"w x 24.47"h x 25.5"d 44.32w x 62.15h x 64.77d cm
Weight Fully-loaded	78 lbs 35 kg	131 lbs 60 kg	236 lbs 107 kg

Ordering Information

PART NUMBER	DESCRIPTION
BI-RX-16-AC	BigIron RX-16 chassis with four AC power supplies, three switch fabric elements, one management module and a fan tray assembly
BI-RX-8-AC	BigIron RX-8 chassis with two AC power supplies, two switch fabric elements, one management module and a fan tray assembly
BI-RX-4-AC	BigIron RX-4 chassis with one AC power supply, two switch fabric elements, one management module and a fan tray assembly
BI-RX-16-DC	BigIron RX-16 chassis with four DC power supplies, three switch fabric elements, one management module and a fan tray assembly
BI-RX-8-DC	BigIron RX-8 chassis with two DC power supplies, two switch fabric elements, one management module and a fan tray assembly
BI-RX-4-DC	BigIron RX-4 chassis with one DC power supply, two switch fabric elements, one management module and a fan tray assembly
BI-BI2XG	2-port 10-Gigabit Ethernet XFP module for BigIron RX Series
RX-BI4XG	4-port 10-Gigabit Ethernet XFP module for BigIron RX Series
RX-BI24C	24-port 10/100/1000 Ethernet RJ-45 module for BigIron RX Series
RX-BI24F	24-port Gigabit Ethernet SFP module for BigIron RX Series
RX-BI24HF	24-port 100/1000 Ethernet SFP module for BigIron RX Series
RX-BI48T	48-port 10/100/1000 Ethernet MRJ-21 module for BigIron RX Series
RX-BI-MR	Management Module for BigIron RX Series chassis, 512MB memory
RX-BI-MR2	Management Module for BigIron RX Series, 2GB memory
RX-BI-SFM1	Switch Fabric Element for BigIron RX-4
RX-BI-SFM3	Switch Fabric Element for BigIron RX-8 and RX-16
RX-ACPWR-B-SYS	90 – 264VAC Power Supply for BigIron RX-4 chassis
RX-ACPWR-F-SYS	90 – 264VAC Power Supply for BigIron RX-8 and RX-16 chassis
RX-DCPWR-B-SYS	-48VDC Power Supply for BigIron RX-4 chassis
RX-DCPWR-F-SYS	-48VDC Power Supply for BigIron RX-8 and RX-16 chassis
10G-XFP-SR	850nm serial pluggable XFP optic only (LC) over MMF
10G-XFP-LR	1310nm serial pluggable XFP optic only (LC) for up to 10km over SMF
10G-XFP-ER	1550nm serial pluggable XFP optic only (LC) for up to 40km over SMF
10G-XFP-ZR	1550nm serial pluggable XFP optic only (LC) for up to 80km over SMF



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