

## HIGH-PERFORMANCE ETHERNET SWITCHING

# **Application Acceleration, Availability and Security**

#### **HIGHLIGHTS**

- Industry's most feature-rich entry-class application and content management switch family to deliver acceleration, availability and security to businesscritical applications
- Purpose-built switches optimized for IP, VoIP, Web and secure Web application delivery in small- and mid-sized data centers, and server farms
- Comprehensive features for local and global application traffic management, Web acceleration, and server farm and application security
- Switch model with integrated hardwarebased SSL acceleration support for secure Web and other SSL-enabled applications
- FIPS 140-2 Level 2 certification for SSL acceleration
- Features TrafficWorks OS and integrated Global Server Load Balancing (GSLB) proven on high-end ServerIron systems in the world's most demanding networks

The Brocade® ServerIron® 4G family of application delivery controllers are designed to meet the growing demand for secure and accelerated delivery of Web and triple-play services in small- and mid-sized data centers. The product family, which includes two of the industry's most feature-rich and affordable switches, supports a broad range of IP- and Web-based applications in enterprise, e-commerce, service provider and government organizations.

As IP-based applications become a critical business foundation for these organizations. market demand for cost-effective application acceleration and delivery solutions that maintain optimized and always-on services is growing. Brocade ServerIron 4G switches meet this demand, and help businesses see an immediate improvement in the performance and uptime of critical applications, including the ones that run on Oracle, BEA, IBM, Microsoft and Web platforms. With purpose-built features for such applications, organizations can accelerate the delivery of business-critical services to local and remote users from a global network of data centers.



The Brocade ServerIron 4G family of switches maximizes application uptime, security and performance by leveraging highly-advanced traffic management and security features. With highly integrated and standards-based global server load balancing (GSLB), the ServerIron 4G provides service redundancy across multiple data center locations to ensure business continuity during disasters. Using an ASICbased security feature implementation, the ServerIron 4G protects server farms and applications against near wire-speed Gigabit rate denial of service (DoS) attacks without compromising application performance to legitimate users.

The ServerIron 4G. 4G-SSL and 4G-SSL-FIPS share a common ASIC-based architecture. The ServerIron 4G switch offers data-center class resiliency, and hardware-based security and acceleration features to ensure uptime and protection of businesscritical applications. The ServerIron 4G-SSL switch additionally features integrated hardware-based Secure Sockets Layer (SSL) acceleration to increase the performance of secure Web transactions by offloading SSL processing from servers. The ServerIron 4G-SSL switch also helps centralize and simplify SSL certificate management. The ServerIron 4G-SLL-FIPS comes with a Federal Information Processing Standard (FIPS) 140-2 Level 2 certified SSL accelerator. FIPS specifies that computer and telecommunication systems (including voice systems) must be certified and protect unclassified information by a cryptographic module.

#### **PLATFORM FEATURES AND BENEFITS**

- Integrated SSL Acceleration: Model with integrated hardware SSL acceleration for secure Web applications
- Redundant Power Supplies: Support for redundant, removable and hot-swappable AC and DC power supplies
- Flexible Connectivity: Copper and fiber gigabit combination media options and support for 100 Mbps copper connectivity
- Network Design Flexibility: Seamless network integration with support for onearm, in-line and DSR topology designs
- Security: Hardware-assisted wire-speed DoS/DDoS prevention, ACLs, and sFlow network monitoring combined with highly secure embedded real-time OS
- FIPS 140-2 Level 2 certified powered by Brocade FIPS 140-2 Cryptographics Module (Hardware Versions: FN1120-VBD-03-0200: 4.6.1)
- Reliability: Resilient switching and routing foundation with advanced support for RIPv2, OSPF, VRRP and VRRP-E

#### **BROCADE SERVERIRON 4G SPECIFICATIONS**

| Feature  | ServerIron 4G   | Serveriron 4G-SSL | ServerIron 4G-SSL-FIPS |
|--|---|-------------------|------------------------|
| Concurrent Session   | 5,000,000   | 5,000,000         | 5,000,000              |
| Application Throughput   | 1.5 Gbps  | 1.5 Gbps          | 1.5 Gbps               |
| Layer 4 Connection Performance (CPS)                                       | 40,000  | 40,000            | 40,000                 |
| Layer 4 Transaction Performance (TPS)                                      | 350,000   | 350,000           | 350,000                |
| Layer 7 Connection Performance (CPS)                                       | 15,000  | 15,000            | 15,000                 |
| Layer 7 Transaction Performance (TPS)                                      | 35,000  | 35,000            | 35,000                 |
| SSL Transaction Performance (TPS)  | N/A   | 8,500             | 7,200                  |
| SSL Bulk Throughput  | N/A   | 500 Mbps          | 300 Mbps               |
| Concurrent SSL Sessions  | N/A   | 16,000            | 16,000                 |
| SSL Certificates   | N/A   | 512               | 512                    |
| DDoS and DoS (SYN Flood)<br>Protection (SYN/Sec)                           | 1 million   | 1 million         | 1 million              |
| Number of 100 Mbps Ports   | 4   | 4                 | 4                      |
| Number of Copper Gigabit Ports   | 4   | 4                 | 4                      |
| Number of Fiber Gigabit Ports  | 4   | 4                 | 4                      |
| Total Number of Ports  | 4   | 4                 | 4                      |
| Base Layer 3 Features  | Supports servers on different subnets from that of Virtual IP address   |                   |                        |
| Advanced Layer 3 Features<br>(Premium TrafficWorks OS<br>Upgrade Required) | OSPF, RIPv2, VRRP, VRRP-E, Static Routing   |                   |                        |
| Physical Dimensions  | 2.625"h x 17.5"w x 23"d (6.67 x 44.5 x 58.4 cm)   |                   |                        |
| Weight   | 30 lbs (15 kg)  | 30 lbs (15 kg)    | 30 lbs (15 kg)         |
| Power Requirements   | AC input voltage: 100vAC @ 3.5A MAX, 240vAC @ 1.5A MAX, 50-60Hz per auto-sensing, auto-switching power supply DC input voltage: -36vDC to -48vDC @ 9.0A MAX |                   |                        |

### **BROCADE SERVERIRON 4G ORDERING INFORMATION**

| Base Platforms       |  |  |
|----------------------|--|--|
| Part Number          | Description  |  |
| SI-4G                | 1.5 RU fixed configuration ServerIron with 4-port combo (fiber and copper) and one AC power supply (RPS5)  |  |
| SI-4G-SSL            | 1.5 RU fixed configuration SSL-integrated ServerIron with 4-port combo (fiber and copper) and one AC power supply (RPS5)                               |  |
| SI-4G-SSL-FIPS       | 1.5 RU fixed configuration SSL-integration FIPS 140-2 level 2 certified ServerIron with 4-port combo (fiber and copper) and one AC power supply (RPS5) |  |
| Power Supply Options |  |  |
| RPS5                 | Redundant AC Power Supply for ServerIron 4G and 4G-SSL   |  |
| Mini GBIC Options    |  |  |
| E1MG-SX              | 1000Base-SX mini-GBIC optic, MMF, LC connector   |  |
| E1MTG-SX             | 1000Base-SX mini-GBIC optic, MMF, MTRJ connector   |  |
| E1MG-LX              | 1000Base-LX mini-GBIC optic, SMF, LC connector   |  |
| E1MG-LHA             | 1000Base-LHA mini-GBIC optic, SMF, LC connector  |  |
| E1MG-LHB             | 1000Base-LHB mini-GBIC optic, SMF, LC connector, 150 km Maximum reach  |  |
| E1MG-TX              | 1000BASE-TX Mini-GBIC Copper, RJ-45 Connector  |  |
| Premium Software     |  |  |
| SI-4G-TW-PREM        | ServerIron 4G Premium TrafficWorks GSLB and Advanced Layer 3 Upgrade   |  |

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