BROCADE M1620 SAN ROUTER

STORAGE AREA NETWORK

An Affordable SAN Routing Solution

HIGHLIGHTS

Affordability and Lower TCO

- Low entry price for mid-range markets
- Hardware-based compression to lower WAN bandwidth costs
- E_Port for integration into existing multi-vendor FC fabrics
- Call Home support for reduced downtime

Unbeatable Flexibility

- Blended Fabric: FC, Ethernet, iSCSI and iFCP connectivity on demand
- Choice of Fast Ethernet or Gigabit Ethernet in the same box
- Support for full fabric, private and public loop FC devices

Superior Functionality

- Adaptive Rate Limiting maximizes WAN bandwidth utilization
- Fast Write for maximizing throughput and minimizing latency across long distances
- Storage-optimized TCP to mitigate network impairments
- Quality of Service (QoS): Bandwidth Management and VLAN tagging

The Brocade® M1620 is a SAN router with unprecedented functionality and cost-effectiveness. The Brocade M1620 is part of our family of robust storage networking products that use standards-based IP, Gigabit Ethernet (GE) and Fibre Channel (FC) for wire-speed storage fabric connectivity.

With support for standard protocols such as iSCSI, iFCP and E_Port, the Brocade M1620 can connect to IP backbones, Fibre Channel (FC) fabrics and/or directly connect to end systems such as FC servers, FC storage and iSCSI initiators. The Brocade M1620 can be deployed for multiple concurrent applications, including business continuance/disaster recovery, storage consolidation, remote tape vaulting, content distribution and iSCSI access to FC storage.

For disaster recovery, the backup site can be geographically dispersed without distance limitations, thanks to Brocade's patent-pending Fast Write™ technology, which can sustain wire-speed throughput in spite of the high link latency. Hardware-based compression on the GE ports enables very high-speed data transfers for high-performance applications. Storage-optimized TCP allows for use of less-than-ideal WAN links without suffering performance loss. Support for Adaptive Rate Limiting, bandwidth management and VLAN tagging ensure optimized bandwidth utilization as well as traffic segmentation in a shared network. The GE ports on the Brocade M1620 can support iSCSI access to FC storage for customers looking to connect remote servers into the data center.

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The highly reliable and manageable storage fabric extends seamlessly from the data center to the metro area and beyond. Brocade's products are fully compatible with the millions of IP-based LAN, MAN and WAN routers and switches already installed and mastered by IT professionals. Brocade's SAN routers are qualified with all major storage platforms, including EMC, Engenio (formerly LSI Logic), Hitachi Data Systems, HP, IBM, Sun/StorageTek and XIOtech.

MAXIMIZING SAN INVESTMENTS

Brocade and its partners offer complete SAN solutions to meet a wide range of technology and business requirements. These solutions include education and training, support, service, and professional services to help optimize SAN investments. For more information, contact an authorized Brocade sales partner or visit www.brocade.com.

BROCADE M1620 SAN ROUTER SPECIFICATIONS

Model Description	
Brocade M1620	SAN router with two 1G Fibre Channel ports and two intelligent ports; Intelligent ports provide TCP/IP support for connecting to IP campus or WAN backbones
Protocol Support	
Ethernet	Full duplex IEEE 802.3 Gigabit Ethernet (1,000 Mb/s each direction) or Fast Ethernet (100 Mb/s each direction) standard on each port; 802.3x symmetric flow control
Internet Protocol	
(IP)	TCP
Fibre Channel	FC-AL, FC-AL-2, FC-FLA, FC-GS-2, FC-GS-3, FC-FG, FC-PH, FC-PH-2, FC-PH-3, FCPLDA, FC-SW, FC-SW-2, FCP, F_Port and E_Port
IP Storage Protocol	iSCSI, iFCP
QoS	Adaptive Rate Limiting, Bandwidth Management, VLAN Tagging
Performance	Wire-rate performance on all ports; exclusive Fast Write technology for improved write performance over long distances; support for jumbo frames; hardware- and software-based compression; storage-optimized TCP

Physical Media	
SFP	The GE and FC interfaces use SFP modules, which support multi-mode fiber (MMF), single-mode fiber (SMF) and copper cables.
1000Base-SX	550m over MMF
1000Base-LX	10Km over SMF
1000Base-ZX	80Km over SMF
100-M5-SN-I	550m over MMF (1Gb FC)
100-SM-LL-L	10Km over SMF (1Gb FC)
100-TW-EL-S	33m over shielded twisted pair (1Gb FC)
RJ-45	Supported on 1620 TCP/IP uplinks
100Base-T	100m over shielded twisted-pair
1000Base-T	100m over unshielded twisted-pair (copper GE)
LED Indicators	
CPU heartbeat, GE/FC/100Base-T link, port activity, port fault, 10/100 Ethernet management port	
Management	
SANvergence® Manager	Centralized Java-based Graphical User Interface (GUI) for network-wide management such as zoning, E_Port configuration, iSCSI LUN virtualization and device discovery for all SANs in the enterprise.
EFCM	GUI-based client/server application with centralized, end-to-end visualization for proactive monitoring and comprehensive management of multi-vendor, multi-protocol and multi-site SANs through a single interface.
Element Manager	Web-based Java applet for configuring, monitoring and troubleshooting individual Eclipse switches
Management Interface	Out-of-band 10/100 Ethernet management port In-band management through TCP ports Standard SNMP Fibre Alliance MIB v3.0, MIB-II, RMON groups 1 (statistics), 2 (history), 3 (alarms), and 9 (events), Brocade MIBs Full Command Line Interface (CLI) via Telnet, SSHv2 and/or console port

BROCADE M1620 SAN ROUTER SPECIFICATIONS (CONTINUED)

Security	
Authentication via RADIUS, SSHv2, password encryption	
Storage Name Service (SNS)	
Directory Services for storage devices Interoperates with existing Fibre Channel SNS SNMP support	
Power Requirements	
U.S./Japan	nominal 100/120 VAC, 50 to 60 Hz
Europe/Australia	nominal 220/240 VAC, 50 to 60 Hz
Maximum input current	1.8Aac
Power Consumption	
Redundant Dual output power supplies, 125 watts maximum power each.	
Environmental Requirements	
Temperature	41° to 104° F (5° to 40°C)
Humidity	20% to 85% non-condensing
Size and Weight	
Height	1.67 in. (42.4mm)
Width	17.18 in. (436.4mm)
Depth	17.82 in. (452.5mm)
Weight	14 lb (6.35 Kg)
Regulatory Compliance	
Meets safety and emissions requirements CB, CE, ULcUL, UL AR +S, GS, GOST, NOM / NYCE, AUS/NZ, FCCA, IECS 003, MIC, VCCI, CCC, BSMI, SII	

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