SPECIFICATION SHEET

EMC Celerra NS-G8 Gateway

EMC® Celerra® NS-G8 Gateway platforms can be integral elements of a comprehensive information lifecycle management strategy—a strategy that helps your enterprise attain the maximum value from its information, at the lowest TCO, at every point in the information lifecycle. Information lifecycle management maps the right service level to the right application at the right cost—at the right time.

Technical Specifications

Architecture

The Celerra NS-G8 Gateway system supports flexible X-Blade configurations, from 2 to 8 blades. X-Blade configurations can be deployed in N+M Primary/Standby mode with N active blades and M pooled failover blades for flexible hardware availability protection (i.e., X-Blade failover).

Each X-Blade consists of the following:

- Dual Quad Core 2.3 GHz Intel® Xeon® CPUs
- 4 GB Double Data Rate RAM (333 MHz)
- Two Fibre Channel ports for back-end storage connectivity
- Two Fibre Channel ports for tape connectivity
- One 10/100/1000 management port
- Instance of DART File Server software

Ethernet Blade Options (All X-Blades in a single NS-G8 system must contain the same Ethernet configuration.):

- Option 1: 8 x 10/100/1000 BaseT ports
- Option 2: 16 x 10/100/1000 BaseT ports
- Option 3: 4 x 10/100/1000 BaseT ports + 4 Optical Gigabit Ethernet
- Option 4: 8 x 10/100/1000 BaseT ports + 8 Optical Gigabit Ethernet
- Option 5: 2 x 10 Gigabit Ethernet
- Option 6: 4 x 10 Gigabit Ethernet
- Option 7: 2 x 10 Gigabit Ethernet + 8 x 10/100/1000 BaseT ports
- Option 8: 2 x 10 Gigabit Ethernet + 4 x 10/100/1000 BaseT ports + 4 Optical Gigabit Ethernet

The Celerra NS-G8 connects via Fibre Channel SAN to:

- Symmetrix® storage systems
- CLARiiON® storage systems
- Tape transport for direct backup-to-tape (NDMP)

X-Blades can be added non-disruptively up to an eight X-Blade configuration.

Performance scales linearly up to a maximum of 7 active blades.

Platform managed by one or two Control Stations.

- Connection to each X-Blade via Gigabit Ethernet
- Manages X-Blade failover
- Manages all file systems via GUI
- SNMP MIB II manageability
- Secure Shell (SSH) for remote access
- HTTP server management interface
- Dual USB, 250 GB drive, DVD drive

DART File Server Facilities

Protocols Supported

- NFSv2, v3, and v4, CIFS (SMB 1 and SMB 2), FTP, FTP Secure, iSCSI, Fibre Channel
- Network Lock Manager (NLM) v1, v3, v4
- Routing Information Protocol (RIP) v1-v2
- Simple Network Mgmt Protocol (SNMP)
- Network Data Mgmt Protocol (NDMP) v1-v4
- Address Resolution Protocol (ARP)
- Internet Control Message Protocol (ICMP)
- Network Time Protocol (NTP) client
- Simple Network Time Protocol (SNTP)
- Kerberos Authentication
- Lightweight Directory Access Prot (LDAP)

Optional DART Software Facilities

- Celerra Event Enabler
  - Celerra Anti-virus
  - Celerra Event Publishing Agent
- Celerra Replicator™
- Celerra Manager Advanced Edition
- Celerra File-Level Retention
  - Celerra File-Level Retention—Enterprise
  - Celerra File-Level Retention—Compliance
- Celerra Multi-Path File System (MPFS)

Note: Celerra Manager-Basic, Virtual Provisioning, Deduplication, and SnapSure™ are bundled.

Client Connectivity Facilities

- File access by FTP, NFS, CIFS and MPFS
- Block access by iSCSI (for MPFS iSCSI hosts) and Fibre Channel
- Virtual Data Movers for Windows clients
- Ethernet Trunking
- Link Aggregation (IEEE 802.3ad)
- Virtual LAN (IEEE 802.1q)
- UNIX archive utilities (tar/cpio)
- Network Status Monitor (NSM) v1
- Portmapper v2
- Network Information Service (NIS) Client
- Supports Microsoft DFS as Leaf node or Root Server
- Native Windows 2000/2003/2008 support
- NT LAN Manager (NTLM)
- LDAP signing for Windows
- Microsoft Windows Server 2003 Access-based Enumeration (ABE)

High-Availability Features

NS-G8 X-Blade Enclosure

- Redundant power supplies for X-Blades and Control Stations
- Hot-swappable power and cooling
- Internal environmental status monitoring

DART Software Capabilities

- Ethernet Trunking
- Link Aggregation
- Failsafe Networking
- Network interface port failover
- N to M X-Blade failover

Control Station

- Auto-call event alerting
- Call-in remote maintenance

CLARiiON Storage

- Disk scrubbing
- Mirrored write cache with de-stage AC power loss
- Redundant hot-swap power, bus structures, and I/O subsystems
- Online global hot-spare disks
- PowerPath® failover for Windows and UNIX hosts

Symmetrix Storage

- Automatic cache and disk scrubbing
- Mirrored write cache and battery backup for AC power loss ride through
- Auto-call remote monitoring
- Redundant hot-swap power, bus structures, and I/O subsystems
- Online global hot-spare disks
- PowerPath failover for Windows and UNIX hosts

Dimensions (approximate)

Measurement Item	NS-G8—4-X-Blade system	NS-G8—6-X-Blade system	NS-G8—8-X-Blade system
Height	15.75 in. (40.0 cm), 9 NEMA units (U), including mounting rails	22.75 in. (57.8 cm), 13 NEMA units (U), including mounting rails	29.75 in. (75.6 cm), 17 NEMA units (U), including mounting rails
Width	18.92 in. (48.06 cm); mounting bars fit standard 19-inch NEMA cabinets	18.92 in. (48.06 cm); mounting bars fit standard 19-inch NEMA cabinets	18.92 in. (48.06 cm); mounting bars fit standard 19-inch NEMA cabinets
Depth	Chassis to rear: 31.58 in. (80.21 cm)	Chassis to rear: 31.58 in. (80.21 cm)	Chassis to rear: 31.58 in. (80.21 cm)
Weight	228 lbs (104kg)	333 lbs (151kg)	438 lbs (199kg)

Operating Environment

Temperature:	50–104 degrees F (10–40 degrees C)
Temperature Gradient:	18 degrees F/hr (10 degrees C/hr)
Relative Humidity:	20% to 80% (non-condensing)
Altitude	7,500 ft. (2,286.4 m) @ 104 degrees F (40 degrees C) max. 10,000 ft. (3,048 m) @ 98.6 degrees F (37 degrees C) max.

AC Power and Dissipation

Requirements are approximate. For exact power requirements, consult the EMC power calculator at http://powercalculator.EMC.com.

Requirement	NS-G8—4-X-Blade System	NS-G8—6-X-Blade System	NS-G8—8-X-Blade System
AC line voltage	180 to 240 VAC ± 10%, single-phase, 47 to 63 Hz	180 to 240 VAC ± 10%, single-phase, 47 to 63 Hz	180 to 240 VAC ± 10%, single-phase, 47 to 63 Hz
AC line current	8.4 A at 200 VAC	12.3 A at 200 VAC	16.1 A at 200 VAC
Power consumption	1,680 VA (1,600 W) max.	2,450 VA (2,350 W) max.	3,230 VA (3,100 W) max.
Power factor	0.95 min. at full load, low voltage	0.95 min. at full load, low voltage	0.95 min. at full load, low voltage
Heat dissipation	5.76 x 106 J/hr (5,500 BTU/hr) max.	8.45 x 106 J/hr (8,100 BTU/hr) max.	1.11 x 107 J/hr (10,600 BTU/hr) max.
In-rush current	105 A max. for ½ line cycle, per power supply at 240 VAC	145 A max. for ½ line cycle, per power supply at 240 VAC	185 A max. for ½ line cycle, per power supply at 240 VAC
Startup surge current	28 A pk (19.8 A rms) max. for 100 ms, at any line voltage	42 A pk (29.7 A rms) max. for 100 ms, at any line voltage	56 A pk (39.6 A rms) max. for 100 ms, at any line voltage
AC protection	20 A fuse on each power supply, both phases	20 A fuse on each power supply, both phases	20 A fuse on each power supply, both phases
AC inlet type	IEC320-C14 appliance coupler, per power supply	IEC320-C14 appliance coupler, per power supply	IEC320-C14 appliance coupler, per power supply
Ride-through time	30 ms min.	30 ms min.	30 ms min.
Current sharing	± 10% of full load, between power supplies	± 10% of full load, between power supplies	± 10% of full load, between power supplies

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EMC Corporation
Hopkinton
Massachusetts
01748-9103
1-508-435-1000
In North America 1-866-464-7381
www.EMC.com