

# EMC Celerra NS40G Gateway

## Technical Specifications

### Architecture

The EMC<sup>®</sup> Celerra<sup>®</sup> NS40G product supports both single and dual X-Blade configurations. X-Blade configurations can be deployed in primary/primary mode for performance-oriented environments or primary/standby mode for additional hardware availability protection.

Each X-Blade consists of the following:

- Dual 2.8 GHz Pentium IV CPUs
- 4 GB Double Data Rate RAM (266 MHz)
- 2 Fibre Channel ports for back-end storage connectivity
- 2 Fibre Channel ports for tape connectivity
- 4 10/100/1000 BaseT ports, or 2 optical Gigabit Ethernet ports and 2 10/100/1000 BaseT ports
- 1 10/100/1000 management port
- Instance of DART File Server software

A single X-Blade configuration can be upgraded non-disruptively to a dual X-Blade configuration.

Platform managed by a Control Station.

- Connection to each X-Blade via Gigabit Ethernet
- Manages X-Blade failover
- Manages all file systems via GUI
- SNMP MIB II manageability
- Telnet access option
- HTTP server management interface
- Dual USB, 40 GB ATA, CD

The NS40G connects via Fibre Channel SAN to:

- Symmetrix<sup>®</sup> storage systems
- CLARiiON<sup>®</sup> storage systems

EMC Celerra NS40G Gateway platform can be an integral element 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.

### DART File Server Facilities

#### Protocols Supported

- NFSv2, v3, and v4, CIFS (SMB 1 and SMB 2), FTP, 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)

#### Client Connectivity Facilities

- File can be accessed by FTP, NFS, CIFS, and MPFS
- Block access by iSCSI 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)

#### Optional DART Software Facilities

- Celerra Event Enabler
    - Celerra Anti-virus
    - Celerra Event Publishing Agent
  - Celerra Replicator<sup>™</sup>
  - Celerra Manager Advanced Edition
  - Celerra File-Level Retention
    - Celerra File-Level Retention—Enterprise
    - Celerra File-Level Retention—Compliance
  - Celerra Multi-Path File System (MPFS)
  - TimeFinder<sup>®</sup> FS (Symmetrix only)
  - SRDF<sup>®</sup> Synchronous, Asynchronous, and Dynamic SRDF (Symmetrix only)
- Note: Celerra Manager-Basic, Virtual Provisioning, Deduplication, and SnapSure<sup>™</sup> are bundled.



## High Availability Features

### NS40GX-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

### 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

### 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

## Dimensions (approximate)

Measurement Item	NS40G	Control Station
Height	1.71 in. (4.34 cm), 1 NEMA units (U), including mounting rails	1.75 in. (4.45 cm)
Width	18.92 in. (48.06 cm); mounting bars fit standard 19-inch NEMA cabinets	17.5 in. (44.45 cm)
Depth	Chassis to rear: 31.58 in. (80.21 cm)	29.5 in. (75.64 cm)
Weight	SPE (max): 46.91 lbs (21.3 kg) (fully configured)	28 lbs (12.73 kg)

## Operating Environment

(See CLARiiON Environmental and Regulatory Specification)

**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

8,000 ft. (2438.4 m) @ 104 degrees F (40 degrees C) max.

10,000 ft (3048 m) @ 98.6 degrees F (37 degrees C) max.

## AC Power and Dissipation

**AC line voltage:** 100 to 240 VAC +10%, single phase

**Frequency:** 47 to 63 Hz, full auto-ranging

**AC line current:** 5.2 A maximum at 100 V, 2.6 A maximum at 200 V; 14.0 A maximum at 100 V, 7.5 A maximum at 200 V (configured with 15 disks)

**Power consumption:** 520 VA (510 W) maximum; 1,229 VA (1,168 W) maximum (configured with 15 disks)

**Startup surge current:** 15 A peak at any line voltage; 59 A peak (configured with 15 disks) at any line voltage

**Power factor:** 0.98 minimum at full load, 100 VAC

**Heat dissipation:** 1,840 KJ/hr (1,740 Btu/hr) gateway configured estimate; 3,422 KJ/hr (3,236 Btu/hr) estimate configured with 15 disks

**In-rush current:** 25 A peak estimate for 1/2 line cycle per power supply @ 240 VAC, 15 A peak estimate for 1/2 line cycle per power supply @ 120 VAC (gateway configured); 116 A peak estimate for 1/2 line cycle per power supply @ 240 VAC, 65 A peak estimate for 1/2 line cycle per power supply @ 120 VAC (configured with 15 disks)

**AC protection:** 10 A internal fuse (non-serviceable)

**AC inlet type:** IEC320-C14 appliance coupler

**Ride-through:** 30 ms minimum at full load

**Current sharing:** 60% maximum, 40% minimum between power supplies



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