

EMC Celerra NS-G2 Gateway



The EMC[®] Celerra[®] NS-G2 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. Reach new heights of availability, scalability, and flexibility with the entry-level Celerra NS-G2 Gateway IP platform.

Specifications

Architecture

The NS-G2 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 for additional hardware availability protection.

Each X-Blade Consists of the Following:

- 64-bit Intel[®] Xeon[®] Processor LV 2.80 GHz CPUs
- 4 GB Double Data Rate RAM (266 MHz)
- 2 Fibre Channel ports for storage connectivity
- 2 Fibre Channel ports for tape connectivity
- Four 10/100/1000 BaseT ports, or two 1 Gigabit Ethernet Optical ports and two 10/100/1000 BaseT ports, or two 10 Gigabit Ethernet Optical ports and two 10/100/1000 BaseT ports
- One 10/100/1000 management port
- Instance of DART File Server software

The NS-G2 Connects via Fibre Channel SAN to:

- EMC Symmetrix[®] storage systems
- EMC CLARiiON[®] storage systems

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
- Management connection via 10/100/1000 Ethernet port
- Manages X-Blade failover
- Manages all file systems via GUI
- SNMP v1 MIB II manageability
- Telnet access option
- HTTP server management interface
- Dual USB, 40 GB ATA, CD

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 Management Protocol (SNMP v1)
- Network Data Management 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 Protocol (LDAP)



Optional DART Software Facilities

- Celerra Event Enabler (CEE): Integration facilities with third-party vendors
 - Celerra Anti-virus: Celerra integration with industry-leading, anti-virus vendors
 - Celerra Event Publishing Agent: Celerra integration with industry-leading, quota-management vendors
 - EMC Celerra Replicator™: Replicate over IP for disaster recovery, backup, and/or testing
 - Celerra Manager Advanced Edition: Extended management and monitoring of multiple Celerra systems
 - Celerra File-Level Retention (FLR): Create WORM (write once/read many) file systems with specified retention periods
 - Celerra File-Level Retention–Enterprise
 - Celerra File-Level Retention–Compliance
 - Celerra Multi-Path File System (MPFS): Delivers improved performance and scalability over traditional NAS
- Note: Celerra Manager-Basic, Virtual Provisioning, Deduplication and EMC SnapSure™ licenses are bundled.

Client Connectivity Facilities

- File can be accessed by FTP, NFS, CIFS (SMB 1 and SMB 2), and MPFS
- Block access by native array connectivity (iSCSI and FC)
- Virtual Data Movers for Microsoft® 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

The NS-G2 X-Blade Enclosure

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

DART Software Capabilities

- Celerra Manager: Web-based configuration and management
- Automated Volume Management (AVM): File system provisioning
- Virtual Provisioning: Allows for logical sizing and physical provisioning
- SnapSure: Creates read-only or read-write, point-in-time logical snaps
- Monitoring: At-a-glance system status and performance statistics
- Data Deduplication: File-based deduplication and compression
- FileMover API: Open API for automated, transparent data movement between tiers of storage
- Ethernet trunking
- Link aggregation
- Failsafe networking
- Network interface port failover
- X-Blade failover

Optional VMware Facilities

- Celerra Plug-in for VMware®: For provisioning, management, cloning, and deduplication
- EMC PowerPath®/VE: Path management for iSCSI and Fibre Channel
- Site Recovery Manager (SRM): Managing failover and failback making disaster recovery rapid and reliable
- Replication Manager: Host-based management of array-based copies of data.

Additional Facilities

- Celerra Fully Automated Storage Tiering (FAST): Automated, policy-based file tiering within cabinet, between cabinets, or to purpose-built storage
- PowerPath: Path management
- Replication Manager: Host-based management of array-based copies of data
- EMC Rainfinity® File Management Appliance (FMA and FMA/VE): File virtualization for transparent data mobility

Control Station

- Administration and management
- X-Blade installation and configuration
- X-Blade failover
- Monitor diagnostics
- Configuring network interfaces
- Creating and exporting file systems
- File-system consistency checks
- Extending file systems
- Auto call-out event alerting
- Call-in remote maintenance

Dimensions (approximate)

Measurement Item	NS-G2: X-Blade enclosure	NS-G2: Control Station
Height	1.71 in. (4.34 cm), 1 NEMA units (U), including mounting rails	1.7 in. (4.32 cm)
Width	18.92 in. (48.06 cm); mounting bars fit standard 19-inch NEMA cabinets	16.93 in. (43 cm)
Depth	Chassis to rear: 31.58 in. (80.21 cm)	20 in. (50.8 cm)
Weight	46.91 lbs (21.3 kg)	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

Requirement	Description
AC line voltage	100 to 240 VAC +10%, single phase
Frequency	47-63 Hz, full auto-ranging
AC line current	5.2 A maximum at 100 V, 2.6 A maximum at 200 V
Power consumption	520 VA (510 W) maximum (gateway configured)
Startup surge current	15 A peak at any line voltage
Power factor	0.98 minimum at full load, 100 VAC
Heat dissipation	1,840 KJ/hr (1,740 Btu/hr); 3,422 KJ/hr (3,236 Btu/hr) estimate
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)
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



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