

EMC Celerra NS-120 Unified Storage



EMC® NS-120 systems 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 NS-120 unified storage platform supports both single and dual X-Blade configurations. Dual X-Blade configurations can be deployed in Primary/Primary mode for highest performance or Primary/Standby for additional hardware availability protection (i.e., X-Blade failover).

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 switch connectivity
- 1 Fibre Channel port for tape connectivity
- 4 10/100/1000 BaseT ports
- 1 10/100/1000 management port
- Instance of DART File Server software

Single X-Blade configurations can be upgraded non-disruptively to dual X-Blade configurations.

Platform managed by a Control Station.

- Connection to each X-Blade via 10/100 interface
- 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

NS-120 comes with integrated CLARiiON® storage with the following drive attributes:

- 6 to 120 disks in up to 8 drive trays. Each tray can be configured with either:
 - FC drives
 - SATA II drives
 - Enterprise Flash drives

NS-120 is available in three port configurations on the integrated CLARiiON storage

- Zero additional ports for a NAS-only connectivity
- 8 Optional Fibre Channel ports for SAN host or MPFS connectivity
- 8 Optional iSCSI ports for MPFS connectivity

DART File Server Facilities

Protocols Supported

- NFSv2, v3, and v4, CIFS, FTP, iSCSI, Fibre Channel and MPFS
- 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® Anti-virus
- Celerra Event Publishing Agent
- Celerra Replicator™
- Celerra Manager Advanced Edition
- Celerra File-Level Retention
- Celerra Multi-Path File System (MPFS)

Note:

- SnapSure™ is bundled
- Celerra Manager-Basic is bundled

Client Connectivity Facilities

- File access 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
- NT LAN Manager (NTLM)
- LDAP signing for Windows
- Microsoft Windows Server 2003
- Access-based Enumeration (ABE)

Optional CLARiiON Software Facilities

- Navisphere®
- SnapView™
- MirrorView™
- PowerPath®
- SAN Copy™

High Availability Features

NS-480 X-Blade Enclosure

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

DART Software Capabilities

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

Control Station

- Auto Dial-out event alerting
- Dial-in remote maintenance

CLARiiON Storage

- Disk scrubbing
- Mirrored write cache with de-stage for 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)

	NS-120 with 1 15 disk tray	Expansion Disk Tray (can add 7)
Height	14.0 in. (35.6 cm), 8 NEMA units (U), including mounting rails	5.25 in.(13.34 cm) 3 NEMA units (U)
Width	18.92 in. (48.06 cm); mounting bars fit standard 19-inch NEMA cabinets	17.72 in. (45.0 cm)
Depth	Chassis to rear: 31.58 in. (80.21 cm)	14.00 in. (35.56 cm)
Weight	SPE (max): 150 lbs (92.4 kg) (NS-120 with 1 15 disk tray)	68 lbs (30.8 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	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

AC line voltage	100 to 240 VAC ±10%, single phase
Frequency	47 to 63 Hz, full auto-ranging
AC line current	11.2 A maximum at 100 V, 5.6 A maximum at 200 V (configured with 15 disks)
Power consumption	1,115 VA (970 W) maximum (configured with 15 disks)
Startup surge current	59 A peak (configured with 15 disks), at any line voltage
Power factor	0.98 minimum at full load, low voltage
Heat dissipation	3,490 KJ/hr (3,400 Btu/hr) max
In-rush current	138 A max estimate for 1/2 line cycle per line cord at 240 VAC 69 A peak estimate for 1/2 line cycle per line cord at 120 VAC
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