

# EMC Celerra NSX Series Network-Attached Server

## Technical Specifications

### Architecture

Each X-Blade is comprised of:

- Dual Pentium 4 CPUs
- 4 GB Double Data Rate RAM
- Two FC ports for switch connectivity
- Two FC ports for tape connectivity
- Network interfaces:
  - Six 10/100/1000 Base T ports
  - Two optical Gig-E ports
- Instance of DART File Server software

Note: Compared to X-Blade 60, X-Blade 65 features one additional optical 10Gig-E port and uses 4 Gbps FC connectivity.

Connects via FC SAN to:

- Symmetrix<sup>®</sup> storage: FC disks
- CLARiiON<sup>®</sup> storage: FC or ATA disks
- Tape transports

Can add X-Blades non-disruptively

X-Blade 60s and X-Blade 65s can be mixed in a single NSX system with a standby X-Blade 65 for failover

Performance scales to approximately 300K IOPs

Capacity scales to:

- 168TB usable with Fibre Channel disks

NSX system is managed by dual Control Stations

- Dual control bus connection to each X-Blade
- Manages n+1 X-Blade failover
- Manages all file systems via GUI
- SNMP MIB II manageability
- Secure Telnet access option
- Secure HTTP server management interface

EMC Celerra NSX Series 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.



### DART File Server Facilities

Protocols supported:

- NFSv2, v3, and v4, CIFS, FTP, iSCSI
- Network Lock Manager (NLM) v1, v3, v4
- Routing Information Protocol (RIP) v1-v2
- Simple Mail Transfer Protocol (SMTP)
- 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 Protocol (LDAP)

Client Connectivity Facilities:

- Single File accessible via NFS and CIFS
- Virtual X-Blades 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
- Microsoft DFS Leaf Server
- NT LAN Manager (NTLM v1 and NTLM v2)

Optional DART software facilities:

- EMC Celerra<sup>®</sup> Manager Advanced Edition
- EMC Celerra Replicator<sup>™</sup>
- Anti-virus checking
- EMC TimeFinder<sup>®</sup>/FS (Symmetrix only)
- EMC SRDF<sup>®</sup> (Symmetrix only)
- EMC Celerra Data Migration software
- EMC Celerra HighRoad<sup>®</sup> Direct SAN Connect Data Movement via 2Gbps FC
- Celerra MPFSi Direct iSCSI SAN Connect Data Movement via Gigabit Ethernet

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## High Availability Features

### Cabinet:

- Redundant power supplies for X-Blades
- Hot-swappable power and cooling
- Integrated UPS for AC loss ride-through
- Internal environmental status monitoring

### X-Blades/DART Software:

- Ethernet Trunking
- Link Aggregation
- Failsafe Networking
- Network Interface port failover
- Up to half the X-Blades can reside in a failover pool

### Control Stations:

- Hot-swappable
- Dial-in remote maintenance
- Phone-home alerts

### Symmetrix Storage:

- Automatic cache and disk scrubbing
- Auto-call remote monitoring
- RAID 1 and RAID 5 disks
- Online hot-spare disk assemblies
- Battery backup to permit AC power loss ride-through
- Redundant power, battery, bus structures, and I/O subsystems

### CLARiiON Storage:

- Disk scrubbing
- Mirrored write cache with de-stage to disk upon AC power loss
- Redundant hot-swap power, bus structures, and I/O subsystems
- Auto-call remote monitoring
- Online global hot-spare disks
- RAID 1, RAID 3, and RAID 5 supported

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## Dimensions (approximate)

Height (in/cm)	Width (in/cm)	Depth (in/cm)	Weight (max)
75.0/191.1	24/61	41.5/105.4	1,585 lb/720.5 kg

Tile Requirements: EMC assumes 24 in (60.96 cm) floor tiles and requires 11 in (28 cm) raised floor clearance for cabling.

Service Area: 48 in (1.22 m) service clearance is required at the front and rear of the Celerra cabinet

Floor Space per Cabinet: 7.5 sq. ft (3.30 sq m)

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## Celerra NSX Power Specifications

	North America	International
Input Voltage (VAC)	208-240V, single phase	200-230V, single phase
Frequency (Hz)	50/60 Hz	50/60 Hz
Input Current (A)	18A max.	18A max.
Circuit Breaker Rating (A)	30A min.	32A min. (Country Specific per code)
Input Connectors	NEMA L6-30P Redundant (x2) per cabinet	IEC 309-332 P6 Redundant (x2) per cabinet

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## Environmental Specifications

Ambient Temperature (°F/°C) 50-104°F/10-40°C

Temperature Gradient 10°C/hr

Power Consumption (kVA) 2-3.7 (typical configuration - max. configuration)

Heat Dissipation (Btu/hr) 6.8K-12.8K (typical configuration - max. configuration)

Altitude (ft/m), max. 8,000 ft/2,438 m @ 104°F/40°C max., 10,000 ft/3,048 m @ 98.6°F/37°C max.

Relative Humidity (%), non-condensing 20-80%

Raised floor required

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## Regulatory and Agency Certifications

### Electromagnetic Emissions and Immunity

FCC Class A EN55022 Class A

CE Mark

VCCI Class A (Japan)

ICES-003 Class A (Canada)

AS/NZS CISPR22 Class A (Australia/New Zealand)

EN55024 Immunity,

BSMI Class A (Taiwan)

MIC (Korea)

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## Safety

UL 60950; CSA C22.2-60950; EN60950, TUV, GOST, IRAM



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