

# ContinuStordirector

## The ContinuStor Director

### System Features

The ContinuStor™ Director is an intelligent storage management solution with storage virtualization and mirroring capabilities that can present a single storage image across the enterprise.

### The ContinuStor Director System Cluster

- Each ContinuStor Director cluster consists of between one and four nodes
- Each node contains up to 8 ports for host and/or storage connectivity
- Fibre Channel and SCSI interfaces are provided

### Connectivity

- Each port may connect to either a host or a storage system
- Fibre Channel connections may be point-to-point, arbitrated loop, or switched fabric
- SCSI connections may be point-to-point or shared
- Inter-ContinuStor Director connections may be Fibre Channel (SAN) or TCP/IP (WAN or LAN)

### Storage Virtualization

- Support for heterogeneous storage is provided
- Mix of SCSI and Fibre Channel device and protocol support
- Dynamic storage allocation
- Dynamic LUN expansion

### Mirroring

- Up to 64 mirror pairs may be supported
- Mirror secondaries may be of a different size than the primary (same size or larger)
- Mix and match Protocol (SCSI, Fibre Channel)
- Mix and match topology (RAID 0/1/2/3/4/5)
- Mix and match Operating parameter (size, speed)
- Location (local or remote (SAN or WAN))
- Automatic resynchronization, failover, and recovery
- Mirrors may be cascaded
- Multiple Point-in-time mirror copies

### Remote ContinuStor Director Clusters

- Provide a single storage domain across SAN and location boundaries
- Provide remote mirrors
- Cross mirroring capability
- Connections via Fibre Channel and TCP/IP

### Data Protection

- Dynamic multi-pathing for host and storage load-balancing and alternate pathing
- Synchronous, asynchronous, and adaptive synchronous write modes
- Primary and secondary placement can span across multiple storage systems
- Automatic secondary promotion on primary failure
- Automatic spare promotion as mirror replacement
- Selectable protection modes on LUN and node basis
- Mirrors protect against LUN, system, and site outages

### ContinuStor Director Applications

- High availability systems
- Data migration
- Data replication
- Storage consolidation
- Offline backup
- Disaster recovery

### SAN management features

- Standard masking, zoning and partitioning features
- Shared LUN access, LUN write-protection, and mirrored LUN access
- Single view of entire ContinuStor Director storage domain

### Availability

- Each system node is UPS-protected against power outages
- Redundant internal hard disks are used to protect against extended power outages
- High-availability option (requires 2 Fibre Channel ports)

### Specifications

**Power:** ContinuStor Director integrated UPS will be a 220V/50-60Hz unit.

**Temperature:**

	Temperature range	Temperature range per hour
<b>Operating range</b>	10°C to 40°C (50°F to 104°F)	10°C (18°F) per hour
<b>Storage range</b>	-10°C to 50°C (14°F to 120°F)	15°C (27°F) per hour
<b>Transit range</b>	-40°C to 60°C (-40°F to 140°F)	20°C (36°F) per hour
3.3°C per 1000 m (1.8°F per 1000 ft) derating if operating between 1,000 m (3,280 ft) and 3,000 m (9,850 ft)		

### Humidity:

Operating Range	20% to 80%
Storage Range	10% to 90%
Transit Range	5% to 95%
Maximum dew point is 26C (79F)	
Maximum humidity gradient is 10% per hour.	

### Altitude:

Operating	30.5 m (100 ft) below to 3,000 m (9,840 ft) above sea level
Storage	30.5 m (100 ft) below to 3,000 m (9,840 ft) above sea level
Transit	30.5 m (100 ft) below to 12,000 m (40,000 ft) above sea level

### Sound:

ES 2-10-02 Standard Level 2	0.5 bels margin
Sound power (normal operation)	6.0 bels
Sound pressure (normal operation)	60 dBA

### Agency Certifications

- FCC Class A, parts 2 and 15 (U.S.)
- CISPR Publication 22 (U.S.)
- VCCI (Japan)
- CE (Europe)
- EN55022:1987 (Europe)
- EN50082-1:1992 (Europe)
- UL1950/CSA C22.2 No. 950
- EN60950-TUV
- IEC60950-CB
- AS/NZS 3548 (Australia)
- CNS 13438 (Taiwan)
- C108.8 (Canada)
- CEEE/CC1B (China)