



Features

- FC-to-FC RAID Subsystem
- Highest density, 12 drives in 2U rack space
- Auto switch cache policy and Auto shutdown
- Up to 64TB capacity per Logical Drive (LD)
- RAID subsystems scalable with multiple JBOD enclosures

Highlights

- 2Gbps Fibre Host Channels; Transfer rate up to 200MB/sec for each channel
- Two FC Drive Channels supporting 12 FC drives with transfer rate up to 200MB/sec
- Two 2Gbps FC Expansion Ports shared with drive channels; Transfer rate up to 200MB/sec for each channel
- Multiple Logical Drive configurations, each with a different RAID level
- Auto-detection, auto-rebuild, hot-spare, and hot-swappable
- LUN Filtering RAID-based and centralized access management in SAN
- Up to 1024 LUNs for host mapping
- Intelligent Drive Handling for managing bad blocks during rebuild and the manual Media Scan function for data maintenance
- Up to 64TB per LD
- Up to 1GB SDRAM
- Variable rebuild priority to meet a variety of applications
- RAIDWatch: Browser-based GUI Manager on all major platforms
- Auto-Cache Flush and Auto-Switch Caching Mode
- Auto-Shutdown shuts down the controller when certain critical environmental thresholds are exceeded

Overview

Delivering unprecedented performance and reliability, the scalable Comet Fibre 12 RAID subsystems integrate Caen's highly acclaimed fibre-to-fibre RAID controllers with a wide range of 12 hot-swappable, high performance, industry-standard FC-2G drives in a single, uniquely designed, highly accessible storage enclosure that is able to endure the extreme physical stresses placed on storage subsystems today. Featuring two FC-2G host channels the embedded FC-2G controller ensures superior performance, extreme reliability and exceptional data availability in today's most data-intensive storage environments. Two FC-2G host channels guarantee high levels of data availability and security. Two additional FC-2G expansion channels provide scalability options enabling users to increase the overall capacity of the storage network. Equipped with three fully redundant, hot-swappable cooling fan modules and two fully redundant,

hot-swappable power supply units, the uniquely designed 19-inch rack mountable enclosure has been customized to perform in the most rigorous storage environments where data availability is an imperative.

Architecture

Running on architecture trusted by the most demanding applications, the subsystem is capable of a high level of performance. Its 64-bit separate-bus backbone is built around the dedicated XOR engines running at twice the data bus speed. The calculation of parity and distribution of data can be optimized with the free association between individual logical arrays and different optimization modes.

Featuring a 64-bit 133 MHz memory bus, the unparalleled bandwidth makes the subsystem's high data throughput more than sufficient for small to mid-sized servers or workstations. Data can be distributed at a burst rate up to 1066MB/sec. The dual independent PCI bus design virtually eliminates all imminent bottlenecks on IO traffic, providing sufficient throughput for a wide range of applications on fibre-based PCs, single-user workstations, NT, Linux, or Unix-based servers. These applications include disk-to-disk backup, Video on Demand, CCTV, and stream editing.

Intelligent Drive Handling

Media Scan is an innovative Intelligent Drive Handling function that can be used for data retrieval from degraded or damaged hard drives. If two bad blocks occur on two member drives of an array, the integrity of the stored data will be endangered. Intelligent Drive Handling capabilities can be used to retrieve data from the damaged sectors. Media Scan is able to handle low quality drives in both the degraded mode and during the rebuild process. Other Intelligent Drive Handling features, which provide further data security, include the transparent resetting of hung hard drives, power failure management and bad drive handling during LD expansion.

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SPECIFICATIONS

RAID Controller

- State-of-the-art 400MHz RISC processor with 256KB embedded L2 cache
- Proprietary ASIC133 with XOR engine and ECC inside
- Standard 256MB 1GB cache memory in one SDRAM with optional BBU (Register Memory Only)
- LCD controller panel interface

Management

- Firmware-embedded Java-based GUI RAID manager
- Centralized management of multiple arrays over in-band or Ethernet
- Real-time event notification over Email, LAN broadcast, or SNMP traps
- Auto on-lining of cascaded enclosures
- SES modules on JBODs
- SNMP 2.0 MIBs with get and set commands
- Firmware-embedded utility via LCD keypad or RS-232C port

Components

- Redundant, hot-swappable components, designed for no single point of failure
- 2U RAID enclosure
- Single RAID controller
- 12 drive trays
- Dual redundant power supplies
- 2 hot-swappable fan modules

Drive Interface

- 3.5", 1" high disk drives
- 12 hot-swappable drive trays
- Automatic bad sector reassignment
- Drive hot-swappable via SCA-II connectors
- Single dual loop across 12 drives within enclosure

Maintenance and Availability

- Optional Li-ion battery support
- Immediate array availability
- Drive roaming, array configuration on drives

Auto-Switch cache policy and Auto-Shutdown

When a RAID controller detects conditions exceeding preset thresholds, the following actions will be exerted to protect the hardware:

1. Automatically flush cached data and switch the array's caching mode from write-back to write-through
2. Commence an auto shutdown

Environmental thresholds associated with the auto-shutdown feature are user-configurable. Caching mode changes back to write-back once normal condition is restored.

Physical/Electrical Interfaces

- 4 SFP sockets using a short-wavelength adapter
- One DB-9 RS-232C serial port (38400, n, 8, 1)
- One RJ-45 Ethernet port

Power supply

2 redundant, hot-swappable power supplies with PFC
Input: 90~260VAC, 47~63Hz
Output: +5V, 25A max.; +12V, 24A max.; +3.3V, 20A max.; 350watts capacity

Cooling fan

3 cooling fans in three separate modules:
Operating temperature: 5 to 40°C
Non-operating temperature: -20 to 60°C
Relative humidity: 10~95%, non-condensing
Operating altitude: sea level to 10,000ft

Dimensions

Chassis dimensions: 88H x 446.2W x 486.5D mm
(w/ protrusions): 88H x 481W x 525D mm
Package dimensions: 344H x 600W x 670D mm

System weight (w/o drives)

Net weight: 18kg
Gross weight: 25.5kg

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