

GENESIS DX2

Scalable High Speed RAID



Genesis DX2 Advanced Features

- GENESIS DX2 ships preconfigured in a standard RAID 6 or client's configuration
- Intuitive web GUI makes installation, configuration and support simple
- Modular 2RU chassis design secured with lock and key
- Single or Dual RAID controller configurations with failover / fallback functions
- 24GBytes or 48GBytes of RAID controller Cache Memory
- RAID capacities up to ~1.1PB
- RAID 1, Triple Mirror, 5, 6, 10, 50, 60 supported
- 8x8Gb/16Gb FC / 8x 10Gb iSCSI
- Scalable enhanced 12Gb SAS Disk based on 2RU JBODs, scales deeper before latency loss
- Optional SSD or 15K SAS drive upgrades increase performance
- Optional SSD sizes from 200GB, 400GB, 1.6TB*
- Dynamically grow capacities and performance without destroying data
- Supports Windows, Mac OSX, Linux and Unix
- MAID technology promotes energy efficiency
- Redundant high efficiency 80 PLUS power supplies
- Autonomous Power monitoring reduces power usage
- Thin Provisioning optimally allocates storage capacity
- VMware certified
- Multi-path I/O offers maximum SAN fault tolerant connectivity
- Logical unit number masking and naming
- Failed drive reporting and auto-rebuild
- Simple to use troubleshooting aids and error logs
- 6TB NL-SAS(7.2k) 6TB & 2.5 SAS(10k) 1.8TB

Overview

The Genesis DX2 (GDX2) SAN Disk Array is a highly-reliable storage solution for the mission-critical datacenter that is looking to improve their green footprint with reduced power consumption without sacrificing any of the performance or reliability needed for demanding operations. Whether you are doing Seismic data collection, analyzing medical imaging data, editing the latest Hollywood movie, or creating your own cloud, the GDX2 will exceed your expectations. Through the use of a power-efficient processor the GDX2 autonomously controls the operating mode to reduce the power consumption of the entire system.

With its newly simplified browser-based GUI, systems administrators can easily apply changes to the GDX2's settings, capacity, and monitor disk loads.

The GDX2 is ideal for use in any virtualized datacenter with its flexibility for scaling based on the modular design of controllers and disk JBODs as well as support of VMware APIs.

Enterprise-level, high-reliability, capacity, and performance needs are supported by flexible, tiered, and dynamically upgradeable storage architecture.

High Performance & High Availability

GDX2 supports high-speed components and interfaces such as 12Gb SAS and SSD disks are supported. Data can be allocated to a suitable device automatically based on its access frequency.

Main components are made redundant and protected. Genesis DX2's unique "triple mirror" feature combines the high-speed performance of RAID-1 and the reliability of RAID-6's double parity configuration.

Easy Installation & Operation

The Genesis DX2 browser-based management software is bundled and allows for intuitive configuration, monitoring, and error detection.

The advanced dynamic pool enables the expansion of capacity and performance without stopping operations.

Snapshot and replication of storage pools greatly enhances data protection.

Thin provisioning allocates storage capacity optimally in a virtual environment.

LUN Masking allows sophisticated system configurations. A backup site can be easily and economically constructed for using an iSCSI interface.

The user-friendly GUI makes storage management and operation easy.

IT Cost Optimization

A mix of interfaces (FC, iSCSI, and SAS) can be matched to the environment. MAID (Massive Array of Inactive Disks) technology promotes energy efficiency.

VMware Certification allows replication and migration of virtual machines, initialization of new virtual machines, and exclusive control of storage areas

Storage Power Conserver spins down disk drives and reduces the cost to run the system.

PathManager makes redundant access paths and provides load-balancing dynamic power supplies are certified high efficiency 80PLUS GOLD.

GENESIS DX2

12/24 Bay 16Gbit FC or 1/10Gbit iSCSI with 12Gbit SAS Backplane

RAID Controller / Drive Chassis Features

Chassis	Modular compact 2U Steel and Aluminum Alloy enclosure with key lock bezel and rack mount kit Dual FRU power supplies and embedded FRU RAID controllers
RAID Controllers	Dual redundant DX FRU controllers with 24GB/48GB RAM, flash and battery backup
Max. number of disk drives	3.5: 3-240 / 2.5: 3-480
Disk Drives	3.5 / NL-SAS (7.2K) / 2TB, 4TB, 4TB(Encryption), 6TB 3.5 / SSD / 200GB, 400GB, 1.6TB 2.5 / SAS (15K) / 300GB, 600GB, 600GB(Encryption) 2.5 / SAS (10K) / 600GB, 600GB(Encryption), 1.2TB, 1.8TB 2.5 / SSD / 200GB, 400GB, 1.6TB
External I/O Ports	FC: 16Gbit x 4 or 8 ports; iSCSI - 1Gb/10Gb x 8 (Copper), 10Gb x 8 (Optical) Intermix: 8Gb/16Gb FC x 4 + 1Gb/10Gb iSCSI (Optical/Copper) x4
System Cooling	Embedded cooling fans in power supplies.

Operational Features

RAID protection	RAID 1, Triple Mirror, 5, 6, 50, 60 [RAID 6 default], Physical Drive Error Recovery. RAID controller active / active or active / passive failover
Spare Drives	Genesis DX2 configurations can support hot and cold spare drives
Background Activities	Rebuild; drive monitoring; RAID fail-back, Media health monitoring and repair.
RAID Robustness	RAID controller active / active monitoring, Physical Drive Error Recovery, Replacement drive rebuild and monitoring, Bad Sector Re-mapping, Error recovery mechanisms and automated defect elimination.

System Management

Supported OS	Windows, Mac OSX, Solaris, HP-UX, Linux, Unix, VMware
Management Tools	Embedded and External MGMT Support – Embedded GUI and CLI requires no host agent to be installed and allows basic setup and monitoring via IP address. External MGMT software on Windows enables other advanced features like snapshot and replication.
Event Notification	Email, SMP, and visible (LEDs) alerts for troubleshooting components

Mechanical Specifications

Voltage	100-240 VAC Auto-Ranging 50-60 Hz
Power Consumption	RAID chassis Redundant PS 360W Drive chassis Redundant PS 200W (under load with SAS HDD)
Operating Temperature	5°- 40°C (-40° +104°F operational)
Relative Humidity	10 – 80%
RAID Chassis Dimensions	2U - Width 18.9" (482mm) Height 3.5" (88mm) Depth 22" (556mm) / Gross Weight ~73 lbs (33kg)
Drive Chassis Dimensions	2U - Width 18.9" (482mm) Height 3.5" (88mm) Depth 22" (559mm) / Gross Weight ~64 lbs (29kg)

Easy to Install and Manage

Genesis DX2 is fully pre-configured, tested, and customized in our integration facility. Genesis DX2 is ready to use out of the box. Set up minor configuration changes onsite simply.

Service & Support

Our Engineering Services delivers a unique value proposition for our customers. We offer customized and flexible service agreements, installation, and training, an advance parts replacement to onsite option, contracted phone and web support, extended equipment warranty options, with US and EMEA customer support centers.

