IBM TotalStorage DS400

Highlights

- *Designed to provide a low-cost storage solution for high-performing Fibre Channel (FC) storage fabrics*

- *Offer exceptional storage support for workgroup storage applications*

- *Helps leverage investments in IBM® TotalStorage® EXP400 enclosures for affordable migration from direct attach storage (DAS) to a storage area network (SAN)*

- *Includes easy-to-use IBM ServeRAID™ Manager, which provides common management software for internal, as well as external storage*

- *Utilizes hot-swap Ultra320 SCSI drives designed to offer high reliability for demanding workloads of high I/O environments*

Flexible, low-cost SAN storage

The IBM TotalStorage DS400 is an entry-level, low-cost workgroup storage subsystem for IBM @server® xSeries® and BladeCenter® servers. Designed to deliver advanced functionality at a breakthrough price, the DS400 offers an exceptional solution for workgroup storage applications, such as e-mail, file, print and Web servers, remote-boot for diskless servers, as well as collaborative databases.

The DS400 offers a simple, affordable storage area network (SAN) solution that can be used in direct-attached or network-attached environments for shared storage. For even greater flexibility, the DS400 is designed to allow simultaneous support of heterogeneous operating system (OS) environments for xSeries and BladeCenter servers—in either single- or dual-controller configurations.

SCSI reliability, with scalability for tomorrow

By utilizing hot-swap Ultra320 SCSI drives with industry-proven 2GB FC host fabric ports, the DS400 can help your business achieve high I/O processor (IOP) performance today—and allows for future growth tomorrow. The modular design of the DS400 is designed to allow you to easily perform upgrades and additions to help meet the needs of your growing, changing application environment—scaling to support increasing volumes of data flexibly and affordably.

In addition, where increased capacity is required, the external SCSI channels of the DS400 Dual Controller Model can be enabled to incorporate up to two IBM TotalStorage EXP400 storage enclosures—for a total of 40 disk drives or 12TB of physical capacity, using 300GB Ultra320 SCSI drives.

Finally, advanced software features on the DS400—including access control lists (ACLs), online array expansion, online LUN expansion, and Global HotSpare—are designed to give administrators the power to configure storage according to changing usage needs. These features are also designed to enable IT managers to share storage across multiple application servers.

Designed to ensure business continuity

At entry-level prices, the DS400 is designed with impressive redundancy features. The subsystem is a rack-mountable, 3U enclosure with 14 SCSI drives and redundant design, hot-swap power and cooling modules, the DS400 features RAID reliability and high-availability software to help maintain business continuity.

The storage subsystem supports either one or two controllers for high-availability configurations. Each controller supports two 2Gb FC ports for high bandwidth and redundant data paths so that—even if a line or a controller fails—multiple paths between servers and storage can help maintain a connection.

The DS400 also offers optional advanced features such as IBM FlashCopy® solutions, which are designed to help reduce storage backup windows and improve storage utilization for Microsoft® Exchange, Microsoft SQL Server™ 2000 and Lotus Notes® applications.

Powerful management tools

The DS400 is designed to offer excellent storage management and configuration capabilities through IBM ServeRAID Manager, helping enable clients to manage multiple IBM TotalStorage DS300 and DS400 subsystems—as well as direct-attached internal ServeRAID controllers—all through a single, easy-to-use management console with an extensive online help library. Configuration wizards simplify initial storage setup. IBM ServeRAID Manager is designed to support most common operating environments for workgroup applications.

The management software of the DS400 is built directly into the client/server workgroup manager, IBM Director. IBM Director is designed to allow IT administrators to view and track the hardware configuration of remote systems in detail, and monitor the usage and performance of critical components, such as processors, disks and memory.

IBM TotalStorage DS400 at a glance

Model	1700-1RS	1700-2RD
RAID controllers	Single	Dual
Controller upgrade	Yes	Not applicable
RAID cache memory (per controller)	256MB	256MB
Battery backup for cache	Yes	Yes
Host interface	2GB FC	2GB FC
Host ports per controller	2	2
System Memory (min/max per controller)	512MB / 1GB	512MB / 1GB
Drive interface	Ultra320 SCSI	Ultra320 SCSI
Number of drive bays	14	14
Maximum storage capacity	12TB	12TB
RAID levels	0, 1, 10, 5, 50	0, 1, 10, 5, 50
Power supplies and fans	Dual-redundant design	Dual-redundant design
Rack support	Industry-standard 19-inch rack	Industry-standard 19-inch rack
Form factor	3U	3U

For more information

Contact your IBM representative or an
IBM Business Partner, or visit:

- **ibm.com**/totalstorage
- **ibm.com**/eserver/xseries
- **ibm.com**/eserver/bladecenter

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MB, GB and TB equal 1,000,000,
1,000,000,000 and 1,000,000,000,000 bytes,
respectively, where referring to storage capacity.
Actual storage capacity will vary based upon
many factors and may be less than stated.
Some numbers given for storage capacities give
capacity in native mode followed by capacity
using data compression technology.

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