IBM TotalStorage DS4000 family of storage products offers new enhancements

Overview

IBM TotalStorage® FASiT storage products renamed to IBM TotalStorage DS4000 Mid-range Disk Systems

The IBM TotalStorage FASiT family of storage products has been renamed. IBM is renaming and aligning its full range of disk products to the IBM TotalStorage DS family to help small to large enterprises select the right solutions for their needs. This renaming includes the FAST products and future IBM storage products. This is a name change only, with no change in function or warranty. These products will remain functionally equivalent and (other than announced enhancements) fully interoperable.

DS4000 family enhancements

The IBM TotalStorage DS4000 family of mid-range disk systems (formerly the IBM TotalStorage FASiT Storage Server family) is enhanced with the following features and capability:

DS4000 Storage Manager V9.10

DS4000 Storage Manager V9.10 supplies the latest level of DS4000 host and controller firmware and is the base for the new Enhanced Remote Mirror feature for all DS4500, DS4400, and DS4300 with Turbo Mid-range Disk Systems.

Enhanced Remote Mirror option

This option builds on the existing Remote Mirror option by adding Global Copy and Global Mirroring, and by enhancing Metro Mirroring (asynchronous and synchronous technologies).

DS4100 option for larger capacity configurations

The IBM TotalStorage DS4100 Mid-range Disk System can now scale up to 28 TB, doubling the storage capacity of this Serial ATA Disk System.

Support for EXP100 Serial ATA Expansion Units attached to DS4400s

The DS4000 EXP100 Storage Expansion Unit can now be attached to a DS4400 Disk System that has Storage Manager V9.10 firmware installed.

DS4000 Intermix Attachment feature for Fibre Channel and Serial ATA Disk Expansion Units

With this new feature, the IBM TotalStorage DS4500, DS4400, and DS4300 Turbo Mid-range Disk Systems are capable of supporting concurrent attachment of DS4000 EXP700, and DS4000 EXP100 Storage Expansion Units.

Key Prerequisites

IBM TotalStorage DS4500, DS4400, DS4100, or DS4300 Turbo Mid-range Disk Systems supporting:

- IBM @server pSeries® and selected RS/6000® servers
- IBM @server xSeries® and selected Netfinity® servers
- Selected Sun and HP UNIX® servers and Intel®-based servers running Windows™ 2000, Windows Server 2003, Linux™, Novell NetWare, or VMware

For availability dates, configuration options, supported server models, operating system levels, system levels, and attachment capabilities, visit

http://www.ibm.com/storage/disk/fasttt

At a Glance

Enhancements to the IBM TotalStorage DS4000 Mid-range Disk Systems:

- DS4000 Storage Manager V9.10 for the DS4500, DS4400, and DS4300 with Turbo Disk Systems for improved function and serviceability
- DS4000 Enhanced Remote Mirroring that includes Global Copy, Global Mirroring, and Metro Mirroring with synchronous suspend/resume capability, and double the number of mirrored volumes
- DS4400 Disk System support of the EXP100 Serial ATA Storage Expansion Unit with Storage Manager V9.10
- Optional EXP100 attachment feature that doubles the storage capacity of the DS4100 Disk System
- DS4000 FC/SATA Enclosure Intermix for concurrent attachment of Fiber Channel and SATA Storage Expansion Units to a single DS4000 system

Planned availability dates

- September 15, 2004, except FC/SATA Enclosure Intermix (features 7206, 7306, 7356)
- November 24, 2004, FC/SATA Enclosure Intermix (features 7206, 7306, 7356)

This announcement is provided for your information only. For additional information, contact your IBM representative.

IBM Europe, Middle East, Africa  IBM is a registered trademark of International Business Machines Corporation. ZG04-0478
**IBM TotalStorage DS family**

The IBM TotalStorage DS family of disk systems provides a broad range of disk systems ranging from entry level to enterprise class. The DS family of products is built on a common set of principles (common management platform, common suite of copy services, ability to be part of virtualized tiered storage pools) that enables you to create information on demand environments.

The IBM TotalStorage DS family of products provides a foundation for businesses seeking a single vendor who can address their immediate and ever-growing storage needs as well as those seeking to deploy tiered storage environments.

The FASIT products are an integral part of the DS family and are being renamed as the DS4000 series. DS4000 series storage controllers offer an external SAN attached storage solution for departmental and smaller deployments, especially in heterogeneous UNIX and Windows environments. The DS4000 series offers low-cost, scalable, high-performance RAID storage subsystems that have a highly reliable architecture with hot-swap redundant power supplies, redundant controllers, and dual-ported 2 Gbps Fibre Channel drives. All members of the DS4000 series use common components including expansion enclosures, disk drive modules, and Storage Manager, offering investment protection as you upgrade. The Serial ATA drawer (EXP100) and controller (DS4100), for example, are well-suited for capacity-oriented storage deployments (retention managed data) and near-line storage (tiered storage) deployments.

**DS4000 Disk Systems enhancements**

The IBM TotalStorage DS4000 Mid-range Disk Systems are enhanced with these new features:

- **DS4000 Storage Manager V9.10** for the DS4500, DS4400, and DS4300 with Turbo Disk Systems
- **Global Copy, Global Mirroring, and Metro Mirroring with Enhanced Remote Mirroring**
- **DS4100 EXP100 Attachment feature**
- **Support for attachment of the DS4000 EXP100 Serial ATA Expansion Unit to the DS4400 Disk System**
- **DS4000 Intermix Attachment of FC/SATA Storage Expansion Units**

**DS4000 Storage Manager V9.10**

Storage Manager V9.10 can be downloaded from the Internet for all DS4500, DS4400, and DS4300 with Turbo Disk Systems. Storage Manager V9.10 includes the latest level of DS4000 controller firmware and is the basis for the new Enhanced Remote Mirror feature. DS4000 Storage Manager V9.10 includes a full command-line interface, improved firmware downloads, and improved serviceability features. Storage Manager V9.10 replaces all previous versions of host-based code for DS4000 Disk Systems and provides a new level of firmware code (06.10.xx.xx) for the DS4500, DS4400, and DS4300 with Turbo Disk Systems.

**Enhanced Remote Mirror feature**

This optional feature adds Global Copy and Global Mirroring support, and enhances Metro Mirroring with the ability to suspend and resume synchronous mirroring. On the DS4500 and DS4400, this feature can double the maximum number of volume pairs and enables FlashCopy® operations to be performed on the remote mirrored volume. On the DS4300 with Turbo, this feature is designed to support up to 32 mirrored volume pairs. This feature is available for the DS4500, DS4400, and DS4300 with Turbo Disk Systems upgraded to Storage Manager V9.10 firmware. DS4500 and DS4400 Disk Systems that already have Remote Mirror features 7302 and 7202 enabled have all the functions of the Enhanced Remote Mirror features when upgraded to Storage Manager V9.10 firmware.

**DS4100 option for larger capacity configurations**

The DS4100 Mid-range Disk System can now support up to 28 TB of storage capacity. With the new optional feature #7369, you obtain the authorization to attach four to seven additional EXP100 Expansion Units to your DS4100 system to support up to 112 Serial ATA disk drives. This new feature provides the attachment authorization for DS4100 Disk Systems that need to expand beyond the three EXP100 attachment authorization (up to 56 disk drives) that is provided with the DS4100 system, doubling its capacity.

**Support for EXP100 Serial ATA Expansion Units attached to DS4400s**

The EXP100 Storage Expansion Unit is now supported when attached to the DS4400 Disk System that has Storage Manager V9.10 firmware installed. Where the capabilities of the DS4400 Disk System are appropriate, it can now be used for fixed content and data reference applications that use Serial ATA disks.

**DS4000 Intermix feature for attachment of Fiber Channel and Serial ATA Disk Storage Expansion Units**

The IBM TotalStorage DS4500, DS4400, and DS4300 Turbo Mid-range Disk Systems with this new feature can support attachment of both DS4000 EXP700 Fibre Channel Disk Expansion units and DS4000 EXP100 Serial ATA Disk Expansion units concurrently. This feature requires the DS4500, DS4400, or DS4300 Turbo systems be upgraded to the DS4000 Storage Manager V9.10 firmware (06.10, or later) and host-based code (Storage Manager V9.10, or later). With this feature, you can create and manage distinct array groups that are built from either FC disks or SATA disks and allocate logical drives to the appropriate applications utilizing a single DS4000 system. Those applications that demand high performance and have high I/O rates could use the FC-based drives, while near-line, secondary storage data can be maintained on the SATA-based drives.

This feature addresses the Statement of Direction for concurrent attachment of mirrors for EXP100 and EXP700 enclosures that was made in Product Announcement letter ZG03-0638 dated October 29, 2003.
### Mapping of FASTT names to DS4000 series names

<table>
<thead>
<tr>
<th>Naming prior to September 7, 2004</th>
<th>New naming as of September 7, 2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM TotalStorage FASTT Storage Server</td>
<td>IBM TotalStorage DS4000</td>
</tr>
<tr>
<td>FASTT</td>
<td>DS4000</td>
</tr>
<tr>
<td>FASTT Family</td>
<td>DS4000 Mid-range Disk Systems</td>
</tr>
<tr>
<td>FASTT Storage Manager Vx.y (example FSM V9.10)</td>
<td>DS4000 Storage Manager Vx.y (example SM V9.10)</td>
</tr>
<tr>
<td>FASTT600</td>
<td>DS4300</td>
</tr>
<tr>
<td>FASTT600 with Turbo feature</td>
<td>DS4300 Turbo</td>
</tr>
<tr>
<td>FASTT700</td>
<td>DS4400</td>
</tr>
<tr>
<td>FASTT900</td>
<td>DS4500</td>
</tr>
<tr>
<td>EXP100</td>
<td>DS4000 EXP100</td>
</tr>
<tr>
<td>EXP700</td>
<td>DS4000 EXP700</td>
</tr>
<tr>
<td>FASTT FlashCopy</td>
<td>FlashCopy for DS4000</td>
</tr>
<tr>
<td>FASTT VolumeCopy</td>
<td>VolumeCopy for DS4000</td>
</tr>
<tr>
<td>FASTT Remote Mirror (RVM)</td>
<td>Enhanced Remote Mirroring for DS4000</td>
</tr>
</tbody>
</table>

---

### Statement of general direction

IBM intends to provide a remote monitoring solution for the DS4000 product family. This solution will include an automated “call home” capability to notify IBM in the event of a product hardware problem. Once notified, IBM can invoke the service process based on the warranty service or maintenance agreement in place at the time. This solution will also allow IBM to access the DS4000 system to perform remote problem diagnosis and additional log retrieval. The remote monitoring solution will extend beyond the current Service Alert offering by enabling two-way service communications. This function is currently under development and is planned for availability after final product testing.

All statements regarding IBM’s plans, directions, and intent are subject to change or withdrawal without notice.

### Trademarks

The e-business logo, TotalStorage, pSeries, RS/6000, Netfinity, xSeries, and FlashCopy are registered trademarks of International Business Machines Corporation in the United States or other countries or both.

Intel is a trademark of Intel Corporation.

Windows is a trademark of Microsoft Corporation.

UNIX is a registered trademark of the Open Company in the United States and other countries.

Linux is a trademark of Linus Torvalds in the United States, other countries or both.

Other company, product, and service names may be trademarks or service marks of others.