

Hitachi Adaptable Modular Storage 1000

For medium- to large-sized businesses, Hitachi Adaptable Modular Storage is a flexible, scalable, cost-effective storage system for Microsoft® Exchange Server, ERP, CRM and other business applications, as well as tiered and standalone storage, consolidation, SAN deployment, backup or data archiving.

Enterprise-class Solutions at a Modular Price

Medium-sized businesses are facing big-company challenges of escalating data growth, availability and protection as well as regulatory compliance and complex storage infrastructures. With many years of experience serving FORTUNE 500® companies, Hitachi Data Systems understands these challenges and has developed Services Oriented Storage Solutions to match application and business requirements to storage attributes. Now Hitachi Data Systems brings medium-sized/midsized customers these proven solutions in modular, cost-effective packaging—including Hitachi Adaptable Modular Storage 1000.

Business Benefits

High-end Performance and Capacity

- Move from server-internal storage to scalable external storage, consolidate multiple storage systems into one or build a first storage area network (SAN); iSCSI and/or Fibre Channel are supported.
- Deliver application-specific performance, availability and protection across systems—from a few terabytes (TB) to 324TB—with both Serial ATA (SATA) and Fibre Channel drives.
- Consolidate SAN, iSCSI and network attached storage (NAS) onto a single platform (any two protocols supported).

- Use NAS connectivity options for collaborative file-sharing applications.
- Use advanced features—Cache Partition Manager and RAID-6—to help improve performance, reliability and usability.
- Partition and dedicate cache to maximize performance of high-I/O applications.
- Reduce utility charges with Power Savings Service.
- Support outstanding performance for virtually any workload with 4,096 logical units (LUNs).
- Choose Fibre Channel, SATA II or intermix to host any workload on the most economical storage system.

Consolidate Storage, Expect Growth

- Consolidate and centralize management to reduce costs.
- Scale capacity to over 324TB (SATA-Fibre Channel intermix) or to 135TB (Fibre Channel).
- Combine with Hitachi enterprise-class storage for complete data lifecycle management solutions within a tiered storage environment.

Ensure Compliance, Protection

- Enhanced SATA data protection provides unmatched data availability and resiliency.
- RAID-6 ensures high availability and flexibility in RAID group rebuild.

Business Solutions

Hitachi Data Systems and its Hitachi TrueNorth™ Channel Partners offer industry-leading technology to help organizations of all sizes meet their unique requirements for business continuity, regulatory compliance and data recovery. Together, we provide cost-effective storage products and solutions that leverage world-renowned Hitachi global R&D resources to deliver performance, availability and scalability—supporting business critical applications and strengthening competitive advantage.

Modular Storage for the Midrange Market

- Hitachi Adaptable Modular Storage 1000
- Hitachi Adaptable Modular Storage 500
- Hitachi Adaptable Modular Storage 200
- Hitachi Workgroup Modular Storage 100

Adaptable Modular Storage 1000 Specifications

Physical Characteristics

Raw capacity	324TB Fibre Channel-SATA Intermix 135TB Fibre Channel
Internal disk drive operations (Fibre Channel, unless otherwise noted)	73GB (10K & 15K RPM) 146GB (10K & 15K RPM) 300GB (10K & 15K RPM) 500GB SATA (7200 RPM) 750GB SATA (7200 RPM)
Disk drive interface	SATA-Fibre Channel intermix
Host interface	Fibre Channel: 8 @ 1, 2, or 4 Gbit/sec iSCSI: 4 @ 1Gbit/sec; NAS: 8 @ 1Gbit/sec
Minimum/maximum number of disk drives	4-450 Fibre Channel 0-420 SATA
Model upgrade options	No
Number of controllers	2
Maximum host connections (Adaptable Modular Storage 1000 supports Fibre Channel, NAS, and iSCSI; any two protocols supported on same device)	8 Fibre Channel OR 4 Fibre Channel AND 4 iSCSI OR 4 Fibre Channel AND 8 NAS OR 4 iSCSI AND 8 NAS
Maximum attached hosts through virtual ports	1024
Active loops per number of disk drives (Active loops per drive tray/disk drives per tray)	8/15
LUNs	4096

RAID Support

- RAID-0 (Fibre Channel only)
- RAID-1
- RAID-1+0
- RAID-5
- RAID-6

Availability

Nondisruptive component replacement	MAJOR FRU
Nondisruptive hot-pluggable disks	YES
Nondisruptive microcode updates	YES
Hi-Track® Monitor	YES

Note: All capacities are based on 1GB = 1,000,000,000 bytes; 1TB = 1000GB

Performance

Minimum-maximum cache	4GB-16GB
Cache binding	Hitachi Cache Residency Manager feature
Logical partitioning	Hitachi Cache Partition Manager feature 4-32 partitions

Software

Management software	Hitachi Resource Manager™ utility package, and Hitachi Storage Management Suite and HiCommand® Suite
Common APIs	YES—Across Hitachi data storage systems
Remote copy	Hitachi TrueCopy® Synchronous and Hitachi TrueCopy Extended Distance software
Point-in-time copy	Hitachi ShadowImage® Replication software and Hitachi Copy-on-Write Snapshot software
Backup	Hitachi Data Protection Suite, powered by CommVault®
Nondisruptive volume migration	
LUN security	Hitachi Volume Security software
Host Storage Domains; Virtual Storage Ports; Multiple LUN0/port	
Storage system-based “write once, read many” (WORM) data protection	Hitachi Data Retention Utility
Dynamic LUN management	YES
Host failover	Hitachi Dynamic Link Manager software
Heterogeneous SAN management	Hitachi Storage Management and HiCommand Suite software

Operating Systems Support

- IBM® AIX®
- Sun Solaris
- VMWare
- HP-UX
- HP Tru64 UNIX
- Apple MAC OS
- Microsoft Windows 2000, Windows Server 2003
- SGI IRIX
- IBM z/OS®, when externally attached to models of the Hitachi Universal Storage Platform™ family
- Novell NetWare
- Linux
- Microsoft Simple SAN compliant
- HP OpenVMS

- Hi-Track® Monitor for 24/7 diagnostics keeps potential issues from becoming problems.
- Fully redundant and hot-swappable components keep applications online.
- Within-system volume replication or incremental copies provide frequent and nondisruptive backups.
- Remote replication is enabled by Hitachi TrueCopy® Remote Replication software bundle.
- Flexible sparing eliminates the need to copy back after a RAID group rebuild.
- Audit logging keeps track of all system changes.
- Account authorization limits authority to change the system.

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DS-029-A DG November 2007