HITACHI
Inspire the Next

Hitachi Adaptable Modular Storage 2300

For large and enterprise businesses, Hitachi Adaptable Modular Storage 2300 is a highly reliable, flexible and scalable storage system for Microsoft Exchange Server, VMware, databases and other business applications. It is also an optimal choice for tiered or standalone storage, consolidation, business continuity, data replication, backup and archiving.

Resilient, Enterprise-class Storage at a Modular Price

Burgeoning data growth and complex storage infrastructures are prevalent challenges facing most organizations today, along with the need for high availability, performance, scalability and data protection — usually all at once. Hitachi Data Systems understands these challenges and has developed an approach to match application and business requirements to storage attributes. Now, Hitachi Data Systems brings large and enterprise organizations these proven solutions in modular, cost-effective packaging: Hitachi Adaptable Modular Storage 2300.

Business Benefits

Reduce Management, Facilities and Energy Costs

- Hitachi dynamic load balancing controllers automatically reduce controller bottlenecks; this is ideal for VMware environments.
- Hitachi Dynamic Provisioning software provides "virtual storage capacity" to eliminate application service interruptions, reduce costs and simplify administration.
- The high density storage expansion tray option holds up to forty-eight 3.5 inch disks in a 4U (176mm) high tray or twenty-four 2.5 inch disks in a 2U (88mm) high tray to reduce facility costs.
- The Hitachi power savings feature reduces utility charges.

Simplified, Reliable, Integrated Storage

- Rely on 99.999% data availability.
- Eliminate unplanned system downtime and run applications continuously, with no single point of failure and mirrored cache with battery backup.
- Improve administrative efficiencies with wizard-based installation and configuration.
- Centralize and manage multiple systems for greater efficiencies from a single pane of glass.
- Reduce time spent on configuration with solution-ready Hitachi platforms, which are certified and tested with the leading business applications. Detailed technical guides assist in getting the best performance and highest scalability possible.

Flexible, Scalable Business Growth

- Protect investments to meet the data storage growth requirements of any business with the ability to scale capacity to 708TB and connectivity to 2048 virtual server ports.
- Intermix high-performance SAS drives and cost-optimized SATA drives in the same system for tiered storage solutions.
- Attach to Fibre Channel and iSCSI storage networks for exceptional levels of storage consolidation.
- Expand as business grows with easy data-in-place upgrades.

Compliance and Data Protection

- RAID-6 ensures high availability and protection: any 2 drives can fail without the loss of any data.
- Hi-Track® Remote Monitoring system for 24/7 diagnostics keeps potential issues from becoming problems.
- Within-system volume replication or incremental copies enable frequent backups.

- Flexible sparing eliminates the need to copy back after a RAID group rebuild.
- Audit logging tracks all system changes.
- Self-encrypting drive option adds data security.
- Hitachi Data Retention Utility software protects data from overwrites or erasures for long periods of time.

HITACHI ADAPTABLE MODULAR STORAGE 2300 SPECIFICATIONS

Physical Characteristics

Raw capacity	708TB (3TB, 7200 RPM SATA) 138TB (600GB, 15K RPM SAS)
Internal disk drives	300GB SAS (10K RPM, 2.5 in.) 600GB SAS (10K RPM, 2.5 in.) 300GB SAS (15K RPM, 3.5in.) 600GB SAS (15K RPM, 3.5in.)[1] 3TB SATA II (7200 RPM, 3.5 in.) 2TB SAS (7200 RPM, 3.5in.)
Internal flash drives	200GB (SAS)
Host interfaces	Fibre Channel: 8Gb/sec iSCSI: GigE, 10GigE
Minimum/maximum number of disk drives	4 – 240
Maximum number of flash drives	60
Model upgrade options	Hitachi Adaptable Modular Storage 2500
Number of controllers	2
Host connection options	8 Fibre Channel or 16 Fibre Channel or 8 Fibre Channel and 4 iSCSI
Maximum attached hosts through virtual ports	2048
SAS links	16
Maximum number of LUNs	4096
Maximum LUN size	60TB

RAID Support

- RAID-0 (SAS drives only)
- RAID-1
- RAID-1+0
- RAID-5
- RAID-6

Maximum number of RAID groups	75

Availability

Nondisruptive component replacement	Major FRU
Nondisruptive hot-pluggable disks	YES
Nondisruptive microcode updates	YES
Hi-Track® Remote Monitoring system	YES

Performance

Controller cache (per system)	8GB – 16GB
Cache binding	Cache residency manager feature
Logical partitioning	Cache partition manager feature

Software

Management software	Hitachi Storage Navigator Modular 2 program
Common APIs	YES — across Hitachi data storage systems
Thin provisioning	Hitachi Dynamic Provisioning software
Remote copy (over IP and Fibre Channel networks)	Hitachi TrueCopy® Synchronous and Hitachi TrueCopy Extended Distance software
Point-in-time copy	Hitachi ShadowImage® Replication and Hitachi Copy-on-Write Snapshot software
Backup	Hitachi Data Protection Suite, powered by CommVault®
Heterogeneous data replication	Hitachi Dynamic Replicator software
LUN change ownership	LUN manager feature
LUN security	SAN security feature
LUN grow/LUN shrink	YES
Online RAID group expansion	YES
Move data between RAID groups	Modular volume migration feature
System security	Account authentication and audit logging features
Host Storage Domains	Virtual storage ports and multiple LUN0/ port features
Storage system–based “write once, read many” (WORM) data protection	Hitachi Data Retention Utility software
Storage management security	SSL/TLS
Maintenance port security	SSL/TLS
SNMP agent support	YES
Performance monitor	YES
Heterogeneous SAN management	Hitachi Command Suite software

Operating Systems Support

- Microsoft Windows 2000, Windows Server 2003, Windows Server 2008, Hyper-V
- VMware
- IBM® AIX®
- HP-UX
- HP Tru64 UNIX
- Novell NetWare
- Oracle Enterprise Linux
- Red Hat
- SUSE
- Asianux
- HP OpenVMS
- Apple MAC OS
- IBM z/OS®, when externally attached to models of the Hitachi Universal Storage Platform® family
- Sun Solaris

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

[1] 600GB SAS (15K RPM) drive is optionally available with data encryption software.

Hitachi Data Systems

Corporate Headquarters
750 Central Expressway
Santa Clara, California 95050-2627 USA
www.HDS.com

Regional Contact Information
Americas: +1 408 970 1000 or info@hds.com
Europe, Middle East and Africa: +44 (0) 1753 618000 or info.emea@hds.com
Asia Pacific: +852 3189 7900 or hds.marketing.apac@hds.com

Hitachi is a registered trademark of Hitachi, Ltd., in the United States and other countries. Hitachi Data Systems is a registered trademark and service mark of Hitachi, Ltd., in the United States and other countries.

IBM, AIX and z/OS are registered trademarks of International Business Machines Corporation. All other trademarks, service marks and company names in this document or website are properties of their respective owners.

Notice: This document is for informational purposes only, and does not set forth any warranty, expressed or implied, concerning any equipment or service offered or to be offered by Hitachi Data Systems Corporation.

© Hitachi Data Systems Corporation 2011. All Rights Reserved. DS-071-K DG December 2011