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: the Hitachi Adaptable Modular Storage 2300.

Business Benefits

Reduce Management, Facilities and Energy Costs

- Hitachi Dynamic Load Balancing Controller automatically reduces controller bottlenecks; it is ideal for VMware environments.

- Hitachi Dynamic Provisioning software provides "virtual storage capacity" to eliminate application service interruptions, reduce costs and simplify administration.

- The Dense Expansion Tray option holds up to 48 SATA or 38 SAS disks in a 4U (176mm) high tray to reduce facility costs.

- The Power Savings feature reduces utility charges.

Simplified, Reliable, Integrated Storage

- Rely on 99.999 percent 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 472TB, performance to 400K IOPS 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 two 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.

- 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	472TB SATA, 138TB SAS
Internal disk drives (SAS, unless otherwise noted)	300GB (15K RPM) 450GB (15K RPM) 600GB (15K RPM) 1TB SATA II (7200 RPM) 2TB SATA II (7200 RPM)
Internal flash drives	200GB (SAS)
Host interfaces	Fibre Channel: 8Gb/sec iSCSI: GigE
Minimum/maximum number of disk drives	4 – 240
Maximum number of flash drives	15
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-5
- RAID-1
- RAID-6
- RAID-1+0

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	Hitachi Cache Residency Manager feature
Logical partitioning	Hitachi Cache Partition Manager feature

Software

Management software	Hitachi Storage Navigator Modular 2
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
LUN security	SAN Security software
LUN grow/LUN shrink	YES
Online RAID group expansion	YES
Move data between RAID groups	Modular Volume Migration software
System security	Account Authentication and Audit Logging
Host Storage Domains	Virtual Storage Ports, Multiple LUN0/port
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 Storage 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

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