

Hitachi Adaptable Modular Storage 2100

For medium and large businesses, Hitachi Adaptable Modular Storage 2100 is an easy-to-use, scalable, cost-effective storage system for Microsoft Exchange Server, VMware, databases and other business applications. It is also a top choice for tiered and 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 addresses these challenges by matching application and business requirements to storage attributes. Now, Hitachi Data Systems brings medium and large organizations these proven solutions in modular, cost-effective packaging: Hitachi Adaptable Modular Storage 2100.

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 Hitachi power savings feature reduces utility charges.

- The High Density Storage Expansion Tray options 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.

Simplified, Reliable, Integrated Storage

- Rely on 99.999% data availability.
- Minimize disruption and risk with no single point of failure and mirrored cache with battery backup.
- Improve administration with wizard-based installation and configuration.
- Centralize and manage multiple systems from a single pane of glass.
- Reduce time spent on configuration with Hitachi solution-ready platforms, which are certified and tested with 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 313TB, performance to 400K IOPS and connectivity to 1024 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 2100 SPECIFICATIONS

Physical Characteristics

Raw capacity	313TB (2TB, 7200 RPM SAS or SATA) 78TB (600GB, 10K or 15K RPM SAS)
Internal disk drives	300GB SAS (10K RPM, 2.5 in.) 600GB SAS (10K RPM, 2.5 in.) 300GB SAS (15K RPM, 3.5 in.) 450GB SAS (15K RPM, 3.5 in.) 600GB SAS (15K RPM, 3.5 in.) ⁽¹⁾ 1TB SATA II (7200 RPM, 3.5 in.) 2TB SATA II (7200 RPM, 3.5 in.) 2TB SAS (7200 RPM, 3.5 in.)
Internal flash drives	200GB (SAS)
Host interfaces	Fibre Channel: 8Gb/sec iSCSI: GigE or 10GigE
Minimum/maximum number of disk drives	4 – 159 (7200 RPM or 10K RPM) 4 – 136 (15K RPM)
Maximum number of flash drives	30
Model upgrade options	Hitachi Adaptable Modular Storage 2300, Hitachi Adaptable Modular Storage 2500
Number of controllers	2
Host connection options	4 Fibre Channel or 8 Fibre Channel or 4 Fibre Channel and 4 iSCSI
Maximum attached hosts through virtual ports	1024
SAS links	16
Maximum number of LUNs	2048
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	50	

Availability

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

Performance

Controller cache (per system)	4GB – 8GB
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 feature
Host Storage Domains	Virtual storage ports and multiple LUN0/port feature
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	■ HP Tru64 UNIX	■ Apple MAC OS
■ VMware	■ Novell NetWare	■ IBM z/OS®, when externally attached to models of the Hitachi Universal Storage Platform® family
■ IBM® AIX®	■ Oracle Enterprise Linux	
■ HP-UX	■ Red Hat	
	■ SUSE	
	■ Asianux	
	■ HP OpenVMS	■ 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.

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