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 a Services Oriented Storage approach to match application and business requirements to storage attributes.

Now, Hitachi Data Systems brings large and enterprise customers 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.

Flexible, Scalable Business Growth

- The Dense Expansion Tray option holds up to 48 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 and automate data replication — all from a single pane of glass.
- Reduce time spent on configuration with Hitachi Data Systems solution-ready platforms that are certified and tested with the leading business applications. Detailed technical guides assist in getting the best performance and highest scalability possible.

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 Midsized Organizations

- Hitachi Adaptable Modular Storage 2500DC
- Hitachi Adaptable Modular Storage 2500
- Hitachi Adaptable Modular Storage 2300
- Hitachi Adaptable Modular Storage 2100
Hitachi Adaptable Modular Storage 2300 Specifications

Physical Characteristics

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw capacity</td>
<td>236TB SATA</td>
</tr>
<tr>
<td></td>
<td>105TB SAS</td>
</tr>
<tr>
<td>Internal disk drives (SAS, unless otherwise noted)</td>
<td>3000GB (15K RPM)</td>
</tr>
<tr>
<td></td>
<td>4500GB (15K RPM)</td>
</tr>
<tr>
<td></td>
<td>1TB SATA II (7200 RPM)</td>
</tr>
<tr>
<td>Disk drive interface</td>
<td>SAS and SATA</td>
</tr>
<tr>
<td>Host interfaces</td>
<td>8Gb/sec or 4Gb/sec iSCSI</td>
</tr>
<tr>
<td></td>
<td>GigE</td>
</tr>
<tr>
<td>Minimum/maximum number of disk drives</td>
<td>4 – 240</td>
</tr>
<tr>
<td>Model upgrade options</td>
<td>Hitachi Adaptable Modular Storage 2500</td>
</tr>
<tr>
<td>Number of controllers</td>
<td>2</td>
</tr>
<tr>
<td>Maximum host connections</td>
<td>8 Fibre Channel or 4 iSCSI</td>
</tr>
<tr>
<td>Maximum attached hosts through virtual ports</td>
<td>1024</td>
</tr>
<tr>
<td>SAS links</td>
<td>16</td>
</tr>
<tr>
<td>Maximum number of LUNs</td>
<td>4096</td>
</tr>
<tr>
<td>Maximum LUN size</td>
<td>60TB</td>
</tr>
</tbody>
</table>

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® Monitor: YES

Performance

- Controller cache (per system): 8GB – 16GB
- Hitachi Cache Residency Manager feature
- Hitachi Cache Partition Manager feature

Software

- Management software: Hitachi Storage Navigator Modular 2 software
- Common APs: 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 LUN/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

- 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

Compliance and Data Protection

- RAID-6 ensures high availability and protection — any two drives can fail without the loss of any data.
- Hi-Track® Monitor 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.