

# Hitachi Adaptable Modular Storage 200

For small and midsized organizations, Hitachi Adaptable Modular Storage 200 offers a highly scalable, reliable and cost-effective platform for Microsoft® Exchange Server and other business applications, tiered storage, consolidation, first SAN deployment, backup or data archiving.

## Enterprise-class Solutions for Small and Midsized Customers

Small and midsized organizations 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 that match application and business requirements to storage attributes. Hitachi Data Systems provides proven solutions in modular, cost-effective packaging — including Hitachi Adaptable Modular Storage 200.

## Business Benefits

- 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 connectivity is supported.
- Match data value to storage cost with a system that supports native Fibre Channel SAN and cost-effective Serial ATA (SATA) intermix drives.
- Support very large numbers of servers and applications with 512 LUNs.
- Scale to 94TB (intermix of SATA and Fibre Channel drives) to keep up with data growth.

- Migrate volumes from Fibre Channel to SATA or expand RAID groups without interrupting the application or server.
- 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.
- Choose Fibre Channel, SATA II or intermix to host any workload on the most economical storage system.

## Protect Critical Data

- Enhanced SATA data protection for unmatched data availability and resiliency
- RAID-6 for high availability and rapid RAID group rebuild
- Hi-Track® Monitor for 24/7 diagnostics
- Fully redundant and hot-swappable components to keep applications online
- Within-system volume replication or incremental copies for frequent backups
- Flexible sparing, eliminating the need to copy back after a RAID group rebuild
- Audit logging to track all system changes
- Account authorization to limit authority to change the system

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

# Adaptable Modular Storage 200 Specifications

## Physical Characteristics

Raw capacity	94.4TB Fibre Channel-SATA Intermix 41.2TB Fibre Channel
Internal disk drive operations (Fibre Channel, unless otherwise noted)	73GB (15K RPM) 146GB (15K RPM) 300GB (10K & 15K RPM) 400GB (10K RPM) 500GB SATA (7200 RPM) 750GB SATA (7200 RPM) 1TB SATA (7200 RPM)
Disk drive interface	SATA-Fibre Channel intermix
Host interface	Fibre Channel: 4 @ 1, 2, or 4 Gb/sec iSCSI: 4 @ 1Gb/sec
Minimum/maximum number of disk drives	4-105 Fibre Channel 0-90 SATA
Model upgrade options	Adaptable Modular Storage 500 (upgradable on Fibre Channel versions)
Number of controllers	1 or 2
Maximum host connections (Adaptable Modular Storage 200 supports Fibre Channel and iSCSI on same device with an optional bridge)	4 Fibre Channel OR 4 iSCSI
Maximum attached hosts through virtual ports	512
Active loops per number of disk drives (Active loops per drive tray/disk drives per tray)	2/15
LUNs	512

## 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	
Nondisruptive microcode updates	
Hi-Track® Monitor	

## Performance

Minimum-maximum cache	1GB-4GB
Cache binding	Hitachi Cache Residency Manager feature
Logical partitioning	Hitachi Cache Partition Manager feature 2-8 partitions

## Software

Management software	Hitachi Resource Manager utility package, and Hitachi Storage Command Suite
Common APIs	YES — Across Hitachi data storage systems
Point-in-time copy	Hitachi ShadowImage® Replication software and Hitachi Copy-on-Write Snapshot software
Backup	Hitachi Data Protection Suite, powered by CommVault®
LU-change-ownership	
LUN security	Hitachi Volume Security
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 Command Suite

## Operating Systems Support

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

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

## Build a First Storage Network or Extend an Existing One

- Plug-and-play SAN Kit for Hitachi Modular Storage (for Microsoft Simple SAN and SAN Starter solutions) for easy deployment
- Diskless boot for SAN-attached servers
- Systems management and configuration using Hitachi Storage Command Suite software

## Leverage for Applications or Enterprise Tiered Storage

- Exchange Server, ERP, CRM, database, backup or tape replacement
- Archival and long-term tamperproof data retention to meet regulatory requirements
- Combine with Hitachi enterprise-class storage for data lifecycle management solutions in tiered storage environment

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