Hitachi Virtual Storage Platform is the only enterprise-class unified storage for all data that helps businesses satisfy their growth requirements without compromise. It redefines unified storage for the future.

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Hitachi Virtual Storage Platform

Unified. Enterprise. Accelerated.

Hitachi Virtual Storage Platform is the only system that can centrally consolidate file, block and object data across mainframe and open systems environments as well as storage from other vendors. It optimizes support for critical applications, cloud-ready infrastructure and data center consolidations, all through a single intuitive interface.

Virtual Storage Platform is designed for organizations that seek to accelerate the performance of their business applications. With its flash acceleration, which speeds flash device I/O throughput, integrated Hitachi Accelerated Flash, and enterprise storage virtualization, Virtual Storage Platform delivers faster access to information. Database, analytics, virtual desktop and virtualized server environments benefit from superior performance and improved response times.

Hitachi Virtual Storage Platform is the only 3-D scaling storage platform designed for all data types. It is the only storage architecture that flexibly scales for performance, capacity and the virtualization of multivendor storage to optimize return on storage assets.

Virtual Storage Platform Architecture Guide

LEARN MORE

Business Benefits

Superior Data Center Efficiency, Manageability and Cost Savings

- Reduces storage costs up to 50% by consolidating your existing storage into a centrally managed pool of shared capacity.
- Enables the move to a new storage platform with up to 90% less effort and cost compared to the industry average.
- Increases performance and lowers operating cost with automated data placement across block, file and content data.
- Achieves up to 48% better power efficiency for more sustainable data centers compared to the previous generation.
- Provides high availability to satisfy resilience and availability needs of demanding enterprise applications.
- Stores up to 40% more capacity per square foot to increase data center density.
- Supports unique universal replication for open systems and mainframe environments across multiple data centers.

Feature Highlights

Unified storage with enterprise virtualization enables your administrators to centrally manage all your storage and provide centralized, end-to-end management of all virtualized internal and external storage. Hitachi Command Suite also provides a unified dashboard view of block, file and object consumers. Organizations using Command Suite have been able to reduce their operating expenses 20% to 40% through common management.

Flash-accelerated virtualization speeds flash device I/O throughput. It allows Virtual Storage Platform to deliver faster access to information and increased efficiency through central management and tiering of all storage assets. Further, it delivers more than 1,000,000 transactions per second.

Hitachi Accelerated Flash storage offers a rack-optimized design that delivers more than 300TB per system and 4 times better device performance compared to enterprise solid-state drives.

3-D scaling allows for optimal infrastructure growth. Scale up to meet increasing demands by dynamically adding processors, connectivity and capacity in a single unit. Scale out to meet demands by dynamically combining multiple units into a single logical system with shared resources. Scale deep to extend the advanced functions of Hitachi Virtual Storage Platform to multivendor storage through virtualization.

Data mobility functions give you the fastest way to move to new storage with

host-transparent migration. Lower operational risks with advanced data replication topologies. Increase performance and lower cost with automated block and file placement.

Unmatched efficiency, primary data deduplication and writable snapshots give you the highest capacity available in the least space. Automation of block and file placement brings higher performance and lower cost. It also shares a single-image global cache across all virtual storage directors for maximum performance, the lowest power consumption per capacity stored, and faster and simpler storage management.

Dynamic and intelligent file tiering automates data placement for higher performance and lower cost. It places the right data in the right place at the right time with no performance degradation.

Server virtualization integration with leading virtual server platforms delivers end-to-end visibility from individual virtual machine to storage logical unit and protects large-scale multivendor environments.

Sustainable design allows up to 40% better capacity per square foot and 48% lower power consumption per terabyte compared to the previous generation.

Data resilience is supported with in-system data replication and protection across multiple data centers using unique journal-based replication. It also offers application-aware replication management, enhanced encryption and advanced security management to protect data.

Mainframe enhancements enable virtual storage tiering to improve data management efficiency and advanced replication to reduce risk through superior data protection.

HITACHI VIRTUAL STORAGE PLATFORM SPECIFICATIONS

Block Module	
Height	13U
Aggregate Bandwidth	192GB/sec
Host Interfaces (maximum)	192 Fibre Channel: 8Gb/sec, 192 FICON: 8Gb/sec, 88 Fibre Channel over Ethernet: 10Gb/sec
Internal Raw Capacity	3,759TB (3TB 3.5" NL-SAS), 1,770TB (900GB 2.5" SAS), 338TB (1.6TB FMD)
Flash Storage Options	200GB 2.5" SAS, 400GB 2.5" SAS, 1.6TB FMD, 3.2TB FMD
Hard Disk Drive Options	146GB 2.5" SAS, 300GB 2.5" SAS, 600GB 2.5" SAS, 900GB 2.5" SAS, 1.2TB 2.5" SAS, 3TB 3.5" SAS, 4TB 3.5" nearline SAS
Minimum to Maximum Hard Drives	0–2,048 2.5" and/or 0–1,280 3.5" including spares
Maximum Number Flash Drives	256
Maximum Number of Flash Modules (FMD)	192
Back-End Disk Interface	6Gb/sec SAS
RAID Configurations	RAID-1, RAID-5, RAID-6
Cache Options	32GB to 1TB
Maximum LUNs	65,280
Volume Size	4MB to 60TB
Virtual Storage Machines	32 (maximum)
High Availability	N+1 architecture, controller clustering
File Module	
Height	3U
Nodes per Cluster	1-4 Nodes
Maximum File System Pool Size/Single Namespace up to Maximum Capacity	256TB / 16PB
Number of File Systems	128
Maximum Snapshots/File Clones	1024 per file system/1 million
Cache per Node	32GB to 108GB
Protocols	NFS/SMB/FTP/iSCSI
Fibre Channel Ports	4 x 8Gb/sec ports per node
Ethernet Ports (File Sharing)	4 x 10Gb Ethernet

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

Hitachi Data Systems

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