HITACHI
Inspire the Next

DATASHEET

Manage information more efficiently while lowering the cost of storage. Hitachi Virtual Storage Platform family delivers global virtualization to consolidate and manage all data on a single platform.

Hitachi Virtual Storage Platform Family

Unified, Virtualized: One Platform for All Data Types

Hitachi Virtual Storage Platform family delivers enterprise storage virtualization in a unified platform for midmarket to global enterprise organizations that need to manage information more efficiently. Existing storage from multiple vendors can now be centrally unified in a shared pool of data. A highly efficient architecture allows organizations to satisfy growth requirements and simplify operations to reduce the total cost of storage ownership.

Including industry-leading global storage virtualization, Virtual Storage Platform family extends ease of migration, universal data replication, and active mirroring to all storage assets. Provision and manage virtual storage machines across metro distances with active-active* remote data center replication support. Combined with remote data center replication, this mirroring is an ideal solution to meet zero recovery point and time objectives for critical applications.

With a central point of control, VSP family unifies block and file access, enabling organizations to consolidate workloads to further simplify management and defer the cost of additional storage acquisition. Using a single interface for managing both block and file storage streamlines administration. Now all data can be provisioned, managed and archived throughout its life cycle, consistently and efficiently. VSP promotes faster and easier provisioning of storage for both block and file requirements within virtualized environments, and it provides application-aware data protection for both virtualized and nonvirtualized server environments.

Hitachi Accelerated Flash storage offers a patented enterprise-class design for high-density, highly sustained performance with low and consistent response time. Active flash storage tiering* automatically promotes active data to flash media to ensure the fastest access to the most important data. Improve the performance of business-critical applications by eliminating storage bottlenecks.

Block storage is accomplished through high-performance, shared resource controllers that simplify provisioning, path management and performance optimization. Data-at-rest encryption provides strong encryption directly on your storage system regardless of media type. File storage utilizes a unique, hardware-accelerated, object-based file system using custom FPGAs, which support intelligent file tiering and migration, and virtual NAS functionality, without impeding performance or scalability. Primary file data deduplication eliminates redundant data and defers the need to purchase more capacity.

VSP family systems are built on legendary Hitachi reliability, offering complete system redundancy, hot-swappable parts, outstanding data protection and nondisruptive updates to keep storage operations up and running at optimal performance. Additional data recovery and protection tools allow for application-aware recovery, simpler backup, restore, failover and consistency across copies, reducing business risk, downtime and migration concerns.

VSP family complements virtualized server environments with its ability to consolidate multiple file and block workloads in a single system. Additional integration offloads storage-intensive processing from the server hosts to increase virtual machine density, improve performance and reduce workload contention. And it extends those benefits to legacy-attached storage via external storage virtualization.

Five models in the VSP family, based on Hitachi Storage Virtualization Operating System (SVOS), provide a uniquely scalable, software-defined storage foundation. Powered with Hitachi global storage virtualization, new software capabilities unlock IT agility and enable the lowest storage total cost of ownership.

*Separately licensed feature available after initial release. Ask your HDS representative or partner for more information.

HITACHI VIRTUAL STORAGE PLATFORM FAMILY SPECIFICATIONS

Capacity	VSP G200	VSP G400	VSP G600	VSP G800[1]	VSP G1000
Max. Raw Internal Capacity	1,058TB	1,920TB	2,880TB	5,760TB	4,511TB
Max. Raw External Capacity	8PB	16PB		64PB	255PB
Flash Module Drives	1.6TB, 3.2TB				
Small Form Factor (SFF) Drives	200GB, 400GB solid-state drive (SSD), 600GB, 1.2TB 10K RPM hard disk drive (HDD), 300GB 15K RPM HDD				400GB, 800GB SSD, 600GB, 1.2TB, 10K RPM HDD, 300GB, 600GB 15K RPM HDD
Large Form Factor (LFF) Drives	4TB 7200 RPM HDD				
Max. Drives	264	480	720	1,440	2,304 SFF, 1,152 LFF
Disk Expansion Trays	2U: 24 SFF (2.5"), 2U: 12 LFF (3.5"), 2U: 12 flash module drive (FMD), 4U: 60 LFF (3.5") and SFF (2.5")				16U: 192 SFF (2.5") 16U: 96 LFF (3.5") 16U: 96 FMD
Block Module Height (with service processor)	3U	5U			10U
Block Controllers	2				16
Host Interfaces (with drives) Note: FC = Fibre Channel FCoE = Fibre Channel over Ethernet, FICON = IBM® FICON®	16 FC: 8Gb/sec 8 FC: 16Gb/sec 8 iSCSI: 10Gb/sec	32 FC: 8Gb/sec, 16 FC: 16Gb/sec, 16 iSCSI: 10Gb/sec		48 FC: 8Gb/sec 24 FC: 16Gb/sec 24 iSCSI: 10Gb/sec	192 FC: 8Gb/sec 96 FC: 6Gb/sec 176 FICON: 8Gb/sec 192 FCoE: 10GBk/sec
Max. Cache	64GB	128GB	256GB	512GB	2,048GB
Max. LUN Size	60TB[2]				
Max. Number LUNs	2,048	4,096		16,384	65,280
RAID Supported	1+0, 5, 6				
Max. RAID Groups	84	240		480	575
File Module Height	3U per node				
Nodes per Cluster	1-8 nodes				
File System Size	256TB pool, single namespace up to maximum capacity				
Max. File Systems	128				
Max. Snapshots	1,024 per file system, 1 million clones				
Cache per Node	48GB				108GB
Protocols	NFS/SMB/FTP/iSCSI and HTTP to the cloud				
Fibre Channel Ports	4 x 8Gb/sec ports per node				
Ethernet Ports	4 x 10Gb, 6 x 1Gb per node				
Software					
Hitachi Storage Virtualization Operating System	Hitachi Infrastructure Director[3], Hitachi Device Manager, Hitachi Dynamic Provisioning, Hitachi Dynamic Link Manager Advanced and Hitachi Universal Volume Manager software; cache partition manager feature; storage system-based utilities				
File Operating System	CIFS and NFS protocols, high-availability cluster, quick snapshot restore feature, file system rollback feature, virtual server, storage pool, file system audit				
Hitachi Data Mobility	Hitachi Dynamic Tiering with active flash[3], Hitachi Tiered Storage Manager				
Hitachi Local Replication	Hitachi ShadowImage Replication, Hitachi Replication Manager, Hitachi Thin Image				
Hitachi Remote Replication	Hitachi TrueCopy remote replication, Hitachi Universal Replicator				
Hitachi File Replication	Hitachi NAS Replication, Hitachi NAS File Clone				

[1]Model available after initial release. Ask your HDS representative or partner for more information. [2]Specifications represent the maximum addressable limit in a planned future release. [3]Software product or feature will be available after initial release.

Hitachi Data Systems

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