

Transform your data center with flash. Hitachi Flash Storage (HFS) is an all-flash storage system designed to be powerful, efficient and simple. Optimize HFS for capacity efficiency when you want it and performance when you need it. HFS reduces costs, allows seamless growth and improves responsiveness. Use HFS to reliably deliver better and faster services that have never been possible before.

Hitachi Flash Storage: Powerful, Efficient, Simple

Optimize Flash Performance: It Has Never Been Easier

Powerful

HFS is built for performance and capacity (see Table 1). Its high-availability design includes a pair of high-performance controllers and up to 60 solid-state disks (SSDs) in a single 2U high tray. No other all-flash storage system packs as much power into such a small footprint. With up to 384TB of effective capacity and 1 million IOPS, it is easy to consolidate multiple applications to reduce footprint and management headaches. Deploy HFS for virtual desktops, virtual servers or database applications, and exceed even the most stringent service level agreements (SLAs).

Every HFS comes with a set of advanced features.

- **Data deduplication and compression:** Realize an average of 5:1 capacity savings by reducing data before it is written to the SSDs. Optional tuning of deduplication block sizes is available to balance data reduction rates with performance.

- **Thin provisioning:** Save even more space by allocating capacity on demand from a pool of logical volumes.
- **Snapshots and clones:** Protect data with up to 64 copy-on-write snapshots that can be created per logical volume. Full clones of logical volumes can also be created.
- **Remote replication:** Logical volumes can be copied to a second HFS system with either asynchronous or synchronous writes.
- **Quality-of-service controls:** Maximum IOPS and bandwidth consumption can be set for logical volumes to minimize contention for system resources.

Efficient

The space savings design and energy efficiency of HFS are unlike any other all-flash storage system. Its capacity density (TB/U) is 5 to 10 times better than competitive models and its energy consumption (Watts/TB) is up to 10 times lower.

What also sets HFS apart is that its data services are user selectable. Administrators can achieve the right balance of performance and storage efficiency for their environment. This enables HFS to keep running at high speed, even as data capacity amounts grow.

Simple

HFS is very easy to install, so you can be up and running in minutes. Ongoing operations are also simple, with an easy-to-use graphical user interface (GUI) for management of the system and its features. A powerful set of reporting tools for analyzing performance levels and data reduction rates is included with the software.

HFS can also be virtualized as a high-performance tier of storage within a Hitachi Storage Virtualization Operating System (SVOS) environment. The benefits of this are powerful automation tools and integrated workflows across your data center.

TABLE 1: HITACHI FLASH STORAGE SPECIFICATIONS

	HFS A220	HFS A250	HFS A270
Controllers	Dual, active-active	Dual, active-active	Dual, active-active
Raw Capacity	16TB	48TB	96TB
Effective Capacity	64TB	192TB	384TB
Height	2U	2U	2U
Maximum Read IOPS	700,000	900,000	1,000,000
Maximum Bandwidth	4GB/sec	5GB/sec	8GB/sec
Average Response Time	<1 millisecond	<1 millisecond	<1 millisecond
Solid-State Disks (SSDs)	10 x 1.6TB	30 x 1.6TB	60 x 1.6TB
Host Ports	16 x 8Gb/sec Fibre Channel (FC) 8 x 10Gb/sec iSCSI 8 x 40Gb/sec iSCSI	16 x 8Gb/sec FC 8 x 10Gb/sec iSCSI 8 x 40Gb/sec iSCSI	16 x 8Gb/sec FC 8 x 10Gb/sec iSCSI 8 x 40Gb/sec iSCSI
Cache	128GB	128GB	256GB
Weight	74.0 lbs / 33.6 kg	80.8 lbs / 36.7 kg	91.0 lbs / 41.3 kg
Maximum Power Consumption	570W	750W	880W
Software Features	In-line data deduplication, in-line data compression, thin provisioning, quality-of-service controls, snapshots, clones, data replication, data encryption*, system and data analytics reporting.		

*Data encryption requires a software update available after initial release. Contact your HDS representative or HDS reseller for details regarding availability.

Hitachi Data Systems

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