RM VIRTUALIZATION ECONOMICS **FLEXIBILITY** INNOVATE
INFORMATION GLOBAL CHANGE INTELLIGENT TECHNOLO
SIGHT OPPORTUNITY SOCIAL INFRASTRUCTURE INTEGRA

OVERVIEW

Hitachi Virtual Storage Platform Midrange Family

The No-Compromise Choice From the Leader in Storage Design

As business moves faster and grows more compli-cated, IT faces increased pressure to keep pace. Infrastructure performance has to improve, and at the same time, IT has to control risks and add new services faster than ever.

Many storage infrastructures simply cannot keep pace with today's demands. They need solutions that deliver greater performance, security and flexibility, while still being simple enough for IT gen-eralists to manage. And to meet future demands, storage solutions need to lay the foundation for the software-defined infrastructure, with the agility to quickly respond as demand grows and shifts.

HITACHI VIRTUAL STORAGE PLATFORM ANSWERS YOUR KEY CHALLENGES

Run Applications at Peak Performance

- Best-in-class, flash-optimized IOPS.
- Sub-millisecond response time.
- Automated active flash tiering.[1]

Simplify for Greater IT Efficiency

- Leading storage virtualization.
- Automation for common management tasks.
- Nondisruptive data migration.

Eliminate Risks

- Active-active high availability.[2]
- Legendary Hitachi reliability.
- Industry's only 100% data availability guarantee.

Industry-Leading Enterprise Storage: Now Available for Midrange

The Hitachi Virtual Storage Platform (VSP) family of storage systems now offers the ultimate in enterprise storage technology in your choice of midrange systems. They include the same operating system, network file services, management, migration, virtualization, replication and data protection services as the enterprise systems.

Built on 20 years of experience and an industry-leading 3,000 storage patents, the VSP midrange family provides unparalleled performance, efficiency and reliability. Hitachi is ranked highest in value among midrange storage vendors,[3] is consistently ranked among the industry leaders in reliability,[4] and offers the industry's only 100% data availability guarantee.

Compared to the previous generation, Hitachi VSP systems deliver up to eight times more cache, twice the connectivity. They provide four times more cores and three times greater performance, including the lowest response time in the industry.[5] Along with best-in-class, flash-optimized performance, the systems provide advanced capabilities only available in enterprise storage systems until now.

The Foundation for the Software-Defined Data Center

The software-defined infrastructure (SDI) is vital to businesses because it provides the integration, automation and simplicity businesses need to run and grow, quickly and efficiently. The Hitachi VSP family midrange systems are designed with this future in mind, to deliver maximum flexibility, efficiency and performance in your infrastructure, while eliminating complexity.

VSP Midrange at a Glance

VIEW NOW

Every Hitachi VSP system has storage virtualization built in, along with the ability to migrate data nondisruptively, achieve high availability for active-active sites and enjoy best-in-class performance. Hitachi VSP systems even support storage virtualization for non-Hitachi storage systems.
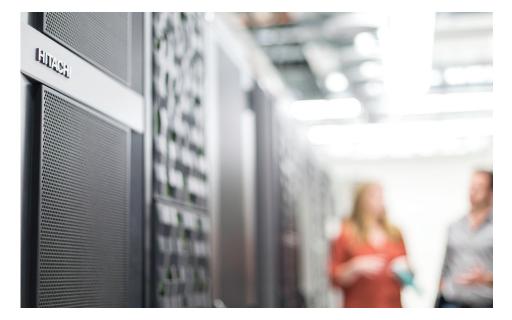
With the Hitachi VSP family midrange systems, you can:

- Create a virtualized pool of storage.
- Centralize day-to-day administration with a single management view.
- Group file systems through file virtualization.
- Enable new features on older storage.

Key features that make all this possible include:

Hitachi Storage Virtualization Operating System

Hitachi Storage Virtualization Operating System (SVOS) is the only storage operating system that scales from midrange to enterprise. It provides the foundation for virtualization, high availability, superior storage performance and tiering management.

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[1] Software feature available after initial release. Ask your HDS representative or partner for more information.
[2] Separately licensed feature available after initial release. Ask your HDS representative or partner for more information.
[3] Info-Tech Vendor Landscape Report 2013
[4] See, for example: Storage Magazine's Quality Awards, March 2013
[5] www.spec.org/sfs2008/results/sfs2008nfs.html

The enterprise-grade capabilities in Hitachi SVOS include system element management and advanced storage system features. For example, the global-active device feature enables two data centers to keep their data synchronized at all times. Additional features include:

- External storage virtualization.
- Thin provisioning and automated tiering.
- Nondisruptive data migration.
- Flash performance acceleration.
- Storage service-level controls.
- Data-at-rest encryption.
- Performance instrumentation across multiple storage platforms.

Hitachi Accelerated Flash Storage

Hitachi Accelerated Flash storage delivers best-in-class performance and efficiency in all Hitachi VSP systems. Automated active flash tiering enables Hitachi VSP systems to be more responsive to sudden changes in workload to deliver lower response times.

Accelerated Flash storage delivers up to 1.4 million IOPS, and offers enterprise-class durability. Compared to most commodity solid-state systems, it also offers greater total system capacity of up to 2PB. For businesses, these features and enhancements mean faster access and greater application quality of service.

Hitachi Infrastructure Director [6]

Hitachi Infrastructure Director eases management of Hitachi VSPs. With simplified key administrative operations, Hitachi Infrastructure Director makes storage management feasible for IT generalists and less time-consuming for experienced IT administrators.

Based on open standard APIs, the interface provides easy configurations that abstracts complex management operations into fewer steps. Hitachi Infrastructure Director also directs basic data mobility, analytics and replication management processes.

OPTIONS FOR MAXIMUM FLEXIBILITY

The Hitachi Virtual Storage Platform family includes a range of versatile, scalable storage systems to manage your choice of data.

1. **Unified Configuration: Hitachi VSP and Hitachi NAS Platform**
   Add a high-performance, clustered file option for completely unified storage that can scale to eight file nodes. Select from four models to scale to over 5PB internal capacity.

2. **Flash-Only Configuration: Hitachi VSP and Hitachi Accelerated Flash**
   Add Hitachi Accelerated Flash to scale up to 2PB of flash capacity, with high density and performance.

3. **Virtualization Only: Hitachi VSP and Hitachi Storage Virtualization Operating System**
   Use Hitachi SVOS to natively virtualize external storage, scale up to 64PB and use a single pane of glass for simplified management.

The No-Compromise Choice from the Leader in Storage Design

The Hitachi VSP family provides the ultimate in enterprise storage technology in your choice of midrange platforms. Based on the industry's leading storage technology, the systems offer reliable, enterprise-grade capabilities at the price, capacity and performance levels necessary to satisfy your unique requirements.

With our VSP midrange systems you use the same operating system, network file services, management, migration, virtualization, replication and data protection services as our enterprise platforms. You also have access to the same worldwide support and services. These systems and services help you move further down the path toward the software-defined infrastructure. And you enjoy best-in-class performance, greater IT efficiency, lower risk and far less complexity—no matter what challenges the future presents to your business.

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[6] Hitachi Infrastructure Director software feature will be available for Hitachi Virtual Storage Platform family midrange systems after initial release. Ask your HDS representative or partner for more information.

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