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DATA SYSTEMS



Hitachi TagmaStore™ Network Storage Controller Model NSC55

Partner Beyond Technology





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The NSC55 delivers proven enterprise-class functionality—virtualization of external storage, logical resource partitioning, and universal replication—in cost-effective modular, rackmounted packaging for midsized companies.

Delivering Enterprise-class Functionality to Midsized Companies

As pressure from government and regulatory agencies for long-term data protection and retention has intensified, midsized companies have been confronted with storage issues resembling those that burden their larger counterparts. Escalating data growth, application performance and availability, business continuity, backup windows, and complex infrastructures are among the challenges they face. Unlike bigger businesses, however, midsized companies are limited by budget, staff, and data center space.

The Hitachi TagmaStore™ Network Storage Controller model NSC55, powered by the Hitachi Universal Star Network™ crossbar switch architecture, delivers the proven enterprise-class functionality introduced with the industry-leading Hitachi TagmaStore Universal Storage Platform—virtualization of external storage, logical resource partitioning, and universal replication—in a rackmounted, small-footprint package, priced well within reach of midsized enterprises.

With this lineage, the NSC55 provides performance, availability, and reliability as well as advanced storage management and data replication features previously not available to the midrange market. Customers can now aggregate heterogeneous storage devices into a virtual pool that can be managed through a single, centralized console using a common set of tools, simplifying their storage environments, maximizing the use of existing resources, and reducing total cost of ownership.

A New Category of Storage

According to IDC, the Universal Storage Platform represents a new category of storage, “potentially market-changing” products in the storage solutions market. The NSC55 extends this category to midsized companies, providing:

- :: Controller-based virtualization and management of as much as 16PB of internal and attached storage
- :: Eight logical partitions, dedicating cache, ports, and internal and external capacity to ensure application quality of service (QoS)
- :: Universal replication across heterogeneous storage for business continuity

This enables the deployment of applications within a new framework, fully leveraging—and adding value to—current investments, while more closely aligning IT and business initiatives. As an integral component of Application Optimized Storage™ solutions from Hitachi Data Systems, the NSC55 provides a foundation for matching application requirements to different classes of storage in open systems and mainframe environments.

And, for larger enterprises, the NSC55 can serve in distributed storage environments, as a remote site target for remote replication, or for cost-effective mainframe archival of virtualized SATA-based storage. With more than 50 percent of the Fortune 100 companies on its roster of long-standing customers, Hitachi Data Systems has the experience and technology to meet the storage challenges of companies of every size.

Business Benefits

Simplify Management

- :: Improve utilization and flexibility by aggregating internal NSC55 storage and externally attached Hitachi and third-party storage systems (Sun, IBM, and EMC) into a single, flexible virtual pool.
- :: Use a single console and a common set of software tools to manage any storage resources connected to the NSC55.
- :: Automate storage management functions to help enhance administrator productivity.

Model NSC55 Specifications

Software	
Hitachi HiCommand® Suite	Yes
Hitachi Universal Volume Manager	Yes
Hitachi Virtual Partition Manager	Yes
Hitachi Universal Replicator	Yes
Hitachi ShadowImage™ In-System Replication	Yes
Hitachi TrueCopy™ Remote Replication	Yes
Hitachi Copy-on-Write Snapshot	Yes
Hitachi Data Retention Utility	Yes
Hitachi Business Continuity Manager	Yes
Hitachi Server Priority Manager	Yes
Hitachi Volume Migration	Yes
Hitachi Compatible Mirroring for IBM® FlashCopy® V2	Yes
Hitachi Compatible PAV for IBM z/OS®	Yes
Hitachi Compatible Replication for IBM XRC	Yes
Hardware	
Connectivity: Minimum/Maximum Host Ports	16/48 Fibre Channel, 16 FICON, 16 ESCON, 8 NAS
Maximum Virtual Host Ports	24,576
Maximum LUNs	16,384
Minimum/Maximum Disk Drives	5/240
Drive Types (Fibre Channel)	73GB, 146GB, 300GB
Maximum Internal Capacity	72TB
Maximum Internal and External Capacity	16PB
Minimum/Maximum Cache	4GB/64GB
Minimum/Maximum Control Memory	2GB/6GB
Private Virtual Storage Machines	8

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

Maximize Availability and Performance

- Build on the proven, third-generation Universal Star Network crossbar switch architecture.
- Ensure application QoS by partitioning storage resources.
- Match application requirements to storage attributes and improve storage cost-effectiveness, meet service level agreements, and respond quickly to evolving business needs.
- Ensure business continuity by simplifying and unifying data replication between heterogeneous storage systems.

Facilitate Regulatory Compliance

- Meet regulatory compliance and corporate governance requirements for tamperproof long-term data retention.
- Build the foundation of a complete data lifecycle management solution by enabling the dynamic, nondisruptive movement of data between different tiers of storage.
- Lower costs by archiving mainframe data to virtualized SATA-based storage systems.

Optimize the Data Center Environment

- Gain enterprise-class availability, performance, and connectivity in a space-conscious, rackmounted modular storage system.
- Deploy applications within a new framework, whether for tiered storage, for business continuity, or to simplify the storage infrastructure.

- Consolidate open systems, mainframe, and NAS data onto fewer physical storage devices to minimize maintenance costs and lower software license fees, capital expenditures, and environmental costs.
- Protect investments and reduce total cost of ownership by extending the useful life of existing storage systems.

Feature Highlights

- Delivers enterprise-class embedded virtualization capabilities
- Scales to 72TB of internal capacity
- Enables management of as much as 16PB of internal and external storage through a single console
- Tunes and balances workloads in real time in a manner transparent to users
- Allows the creation of eight Private Virtual Storage Machines, dedicating capacity, cache, and ports to applications and ensuring QoS
- Supports heterogeneous multiplatform connectivity: Fibre Channel, IBM ESCON® and FICON®, NAS, and iSCSI
- Provides a comprehensive set of storage management services, including application-centric storage area management
- Facilitates transparent, nondisruptive movement of data between heterogeneous storage tiers
- Supports heterogeneous data replication when used with Hitachi Universal Replicator software
- Leverages the third-generation Universal Star Network architecture
- Provides enterprise-class functionality in a form factor scaled to fit data centers in midsized enterprises

Enable Enterprise-class Availability and Reliability in a Modular System That's Scaled to the Midrange. We're at Your Service.

The Hitachi Data Systems Global Solution Services team can help you design and implement the optimal storage infrastructure to meet your business and application requirements with assessment, planning, design, and implementation services that support the NSC55 and the entire suite of Hitachi storage products. Global Solution Services consultants assist with identifying and prioritizing your performance, availability, and cost requirements; designing and cost-justifying the most appropriate storage infrastructure; and implementing and configuring the optimal solution to meet your needs.

Complementary Solutions

[Hitachi HiCommand Suite](#)

[Hitachi HiCommand Tiered Storage Manager Software](#)

[Hitachi Universal Replicator Software](#)

[Hitachi Universal Volume Manager Software](#)

[Hitachi ShadowImage In-System Replication Software](#)

[Hitachi Virtual Partition Manager Software](#)

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