

Product		NEC Storage HS6				
System Configuration		72 TB System	144 TB System	144 TB System	288 TB System	Maximum Configuration
Node Configuration		1HN Configuration	1HN+1SN Configuration	2HN Configuration	2HN+2SN Configuration	
Number of Nodes <sup>1</sup>	Hybrid Node (HN)	1	1	2	2	83
	Storage Node (SN)	0	1	0	2	82
Capacity <sup>2,3</sup>	Raw Capacity	72 TB	144 TB	144 TB	288 TB	11.88 PB
	Effective Capacity (50% Compression)	96 TB	192 TB	192TB (128TB <sup>4</sup> )	384 TB	15.84 PB
Maximum Performance <sup>5</sup>	50% Compression	1.1 TB/h	2.2 TB/h	2.2 TB/h	4.4 TB/h	178.2 TB/h
Network Interface	Standard	1000BASE-T <sup>6</sup> (Copper:RJ-45)				
	Optional	10GBASE-SR(Optical:LC) or 10GBASE-T(Copper:RJ-45)				
Number of Network Interface Ports (per Hybrid Node)	Standard	1000BASE-T <sup>6</sup> x6				
	Optional (10GbE NIC x1)	10GBASE-SR x2 + 1000BASE-T <sup>6</sup> x4 or 10GBASE-T x2 + 1000BASE-T <sup>6</sup> x4				
	Optional (10GbE NIC x2)	10GBASE-SR x4 + 1000BASE-T <sup>6</sup> x2 or 10GBASE-T x4 + 1000BASE-T <sup>6</sup> x2				
Disk Drive Specifications (per Node)	Disk Interface	3.5-inch SATA(6Gbps)				
	Capacity <sup>7</sup> /Rotations/Units	6TB/7,200rpm/12				
Supported Protocols		NFS, CIFS, Universal Express I/O <sup>8</sup> , REST <sup>8</sup>				
Data Compression		In-line Compression (Deduplication and Compression), High-Speed Image Compressor (Optional Software)				
Ambient Operating Conditions	Temperature	10 to 40°C (while operating), -10 to 55°C (on standby)				
	Humidity <sup>9</sup>	20 to 80% RH (while operating), 20 to 80% RH (on standby)				
Input Voltage		AC100-240V, 50/60Hz				
Weight		32kg	64kg	64kg	140kg	5,514kg
Dimensions (WxDxH) <sup>10</sup>		448x684x87mm(2U)	448x684x174mm(4U)		448x684x435mm(10U)	448x684x16,052mm(369U)
Maximum Power Consumption <sup>11</sup>		552 W	1,059 W	1,104 W	2,254 W	90.0 KW

\*1: The NEC Storage HS6 is expandable from 1HN up to 165 total nodes. Exact configuration will vary according to your performance/capacity requirements. For details, contact us.

\*2: Capacity for 3 parties.

\*3: Calculated where 1 GB = 1,000,000,000 bytes, 1 TB = 1,000 GB, and 1PB=1,000TB.

\*4: Capacity for a 2HN configuration when using clustering (6 parties).

\*5: Assumption: 0% duplicative and 50% compressible data.

\*6: Can also be used with 10GBASE-TX/10GBASE-T.

\*7: Unique protocol optimized for NEC Storage HS. Can be used with High Speed Data Transfer software.

\*8: Support for REST expected in CY2016/2Q.


\*9: No condensation both when operating and when on standby.


\*10: Not including the front bezel, slide rails, and protrusions.

\*11: Maximum Power Consumption when utilizing 2 x optional 10GBASE-T NICs on an HN.

Optional Software	
High-Speed Image Compressor	Software product for real-time compression and storage of image data through use of NEC proprietary still image compression engine.
Replication	Software product for replicating (copying) stored data to a remote site via a network. (Also supports AES-256bit encryption for transferred data.)
WORM Data Protection	Software product for preventing files from being changed or deleted for a given period of time.
Encryption	Software product for preventing data leakage in case of theft or disposal of disks or nodes.
Synchronized Access Grid	Software product that enables simultaneous access of a filesystem from multiple Hybrid Nodes.
High Speed Data Transfer	Performs high speed archiving using a proprietary protocol. Increases archiving speed by deduplicating the data to be transferred on the archiving server and reduces network load.

**Environmental Compliance**

● Eco Symbol	The Eco Symbol is a label placed on products that meet NEC's prescribed environmental soundness standards. Eco Symbol products must be environmentally superior and assure transparency.	
● RoHS Compliance	This product complies with the European Union's directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS).	

	<b>Safety Notice</b>	Before using this product, please read carefully and comply with the cautions and warnings in manuals such as the Installation Guide and Safety Precautions. Incorrect use may cause a fire, electrical shock, or injury.
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For further information please contact your local NEC representative or:

**Corporate Headquarters (Japan)**  
NEC Corporation  
[www.nec.com](http://www.nec.com)

**North America (USA, Canada)**  
NEC Corporation of America  
[www.necam.com](http://www.necam.com)

**APAC (South Asia, South East Asia, Oceania)**  
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[sg.nec.com](http://sg.nec.com)

**EMEA (Europe, Middle East, Africa)**  
NEC Enterprise Solutions  
[www.nec-enterprise.com](http://www.nec-enterprise.com)



Specifications and designs in this catalog are subject to change for improvement without notice.

Object Storage

# NEC Storage HS6



# Object Storage for the Age of Big Data Takes the Stage.

Daily customer analytics, log data (sensors etc.), medical/surveillance video data, email, voice recording...

Is your storage environment up to the task of daily big data processing?

If you've been looking for a solution capable of handling these new challenges, NEC Storage HS6 Object Storage is the ideal choice. The core technology of the popular NEC Storage HS series has been enhanced with the addition of Object Storage-oriented functionalities. Not only does this object storage appliance store your company's big data safely and efficiently, but also provides instant access to that data when it is needed.



**[Objective]**

**[Solution]**

**Reduce the Cost of Storing Ever-Increasing Internal Data**

- Cost of investment can be kept low initially, and capacity expanded when needed.
- Further reduction of storage costs through layered integration with tape devices.

**Safely Store Valuable Data for the Long Term**

- Automatic redistribution of data when replacing nodes.
- Data resiliency that can stand up to simultaneous failures.
- WORM and encryption features adapted for compliance.

**High-speed Storage of Large Data Volumes**

- Faster access through multi-node parallel processing.
- Instant compression & storage of images with High-Speed Image Compressor.

**Usage Example ①**

Simple and efficient storage for various types of business data

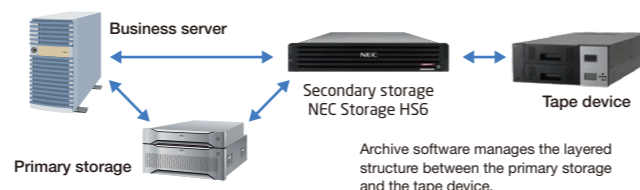
Storage requirements are constantly changing with the increase of unstructured data such as images, email or sensor logs. With NEC Storage HS6-50A, capacity can be increased as needed, and performance can also be upgraded when required. Freely scale-out in a way that best matches the traits of your business. Data management is handled as a single pool, so even when capacities move into the petabyte (PB) level, administration stays simple and capacity usage remains efficient.



**Usage Example ②**

Notable reduction of storage costs through layered management

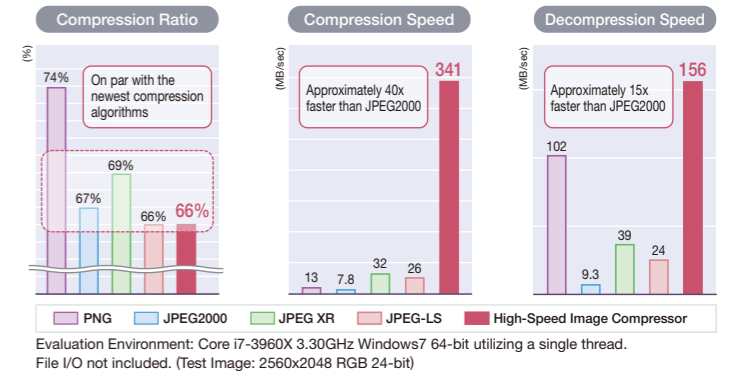
By taking advantage of specialized archive software, infrequently accessed data can be moved to the secondary storage. This not only frees up space on your primary storage, but also improves overall performance and shortens backup times. For even greater savings on storage costs, tape devices can also be layered in and used for data storage, and the entire process can be automated (by configuring policies in advance) to help reduce personnel workload.



## Fully Loaded with the Newest Features for an Advanced Archive System

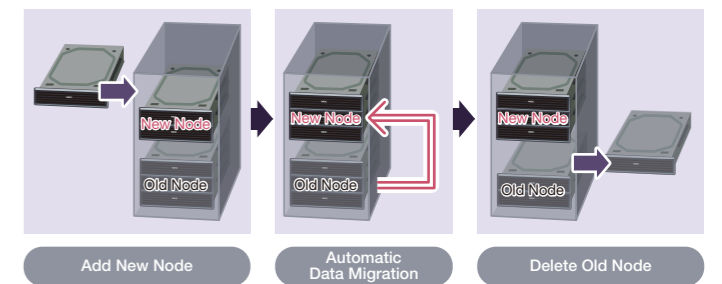
### Cutting edge high-speed image compression engine

In recent years, much attention has been focused on the collection and analysis of big data being output by image and video sensors used in multiple sectors of industry. NEC has successfully developed an image compression engine that encompasses both excellent compression ratios and high performance. From a performance standpoint, it matches the high resolution and compression of JPEG 2000 at 10 to 40 times the speed. This innovative new technology is built in to the NEC Storage HS6 and allows extremely large image files to be stored using less space with no loss in quality, and in real-time.



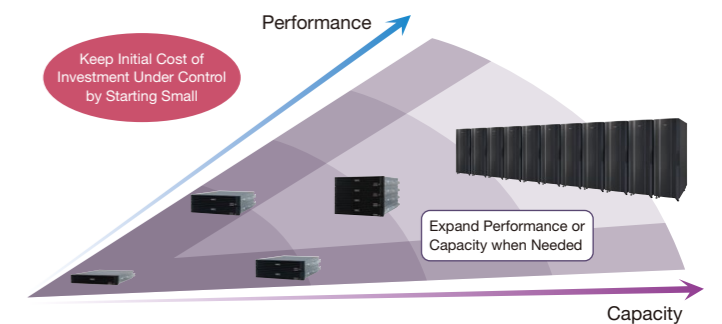
### Secure and efficient management of data for long-term retention

Data requiring long term retention (medical or surveillance image data, designs, email, etc.) can be securely managed. By sequentially replacing old nodes with new nodes, data is automatically migrated to the new nodes. Because of this, no additional expense is needed for migration even when considering data at the terabyte/petabyte scale. When compared to everything involved with constructing a new system and migrating data, the associated time and costs required are significantly lower, providing a huge benefit to your ROI.



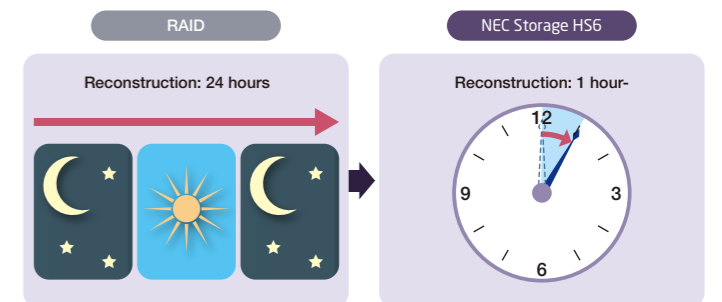
### Scale-out architecture keeps investment costs under control

In the age of big data it has become necessary to prepare for levels of data increase that are difficult to predict. NEC Storage HS6 is designed with an easy and flexible scale-out architecture which allows nodes to be added to increase performance and capacity. By starting small, and expanding only when needed to accommodate data growth, cost of investment can be optimized.



### Exceptionally dependable data protection

When archiving crucial business data, a higher level of reliability and availability is needed. The NEC Storage HS6 employs a redundant and distributed data structure that can withstand a simultaneous failure of 3 HDDs (can be configured to handle up to 6 HDDs), and with the automatic restoration function, reconstruction is performed in the shortest time possible. With this advanced technology, the risk of data loss is minimized to the lowest possible levels and provides a buffer of protection that surpasses RAID. Used in conjunction with the replication functionality to store a copy at a remote location, the risk of data loss from natural disasters can also be significantly mitigated.



### Highly reliable functionality adapted for regulatory compliance

In addition to the encryption functionality that protects against data leaks, WORM support is available to protect your data against malicious or unauthorized file alteration. Furthermore, our data shredding method fully

complies with U.S. DoD Standards (DoD 5220.22-M) to guarantee that when data is no longer needed, it is completely erased and unrestoreable.