Scale-out Storage for Archive and Long-term Data

HYDRAstor HS6-5000A

At a Glance

- Unrestricted Independent Seamless Scalability of both Performance and Capacity

- Greater Data Resiliency with Advanced Erasure Coding

- Dynamic Auto-provisioning

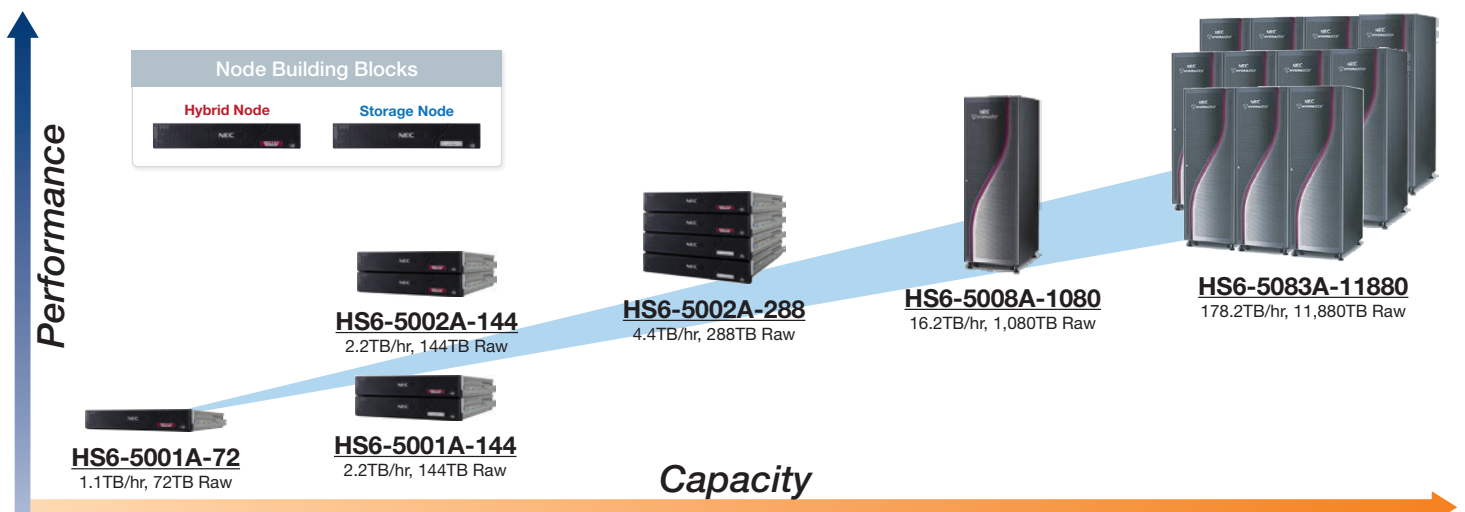- Investment Protection and In-place Hardware Refresh

Overview

NEC HYDRAstor HS6-5000A is a scale-out grid storage system, designed for efficient storage of archive and long-term data. The HS6 series supports massive seamless scalability from 1 node to 165 nodes, while minimizing storage costs with customized configurations and modular growth to meet customer needs.

HYDRAstor consists of two types of nodes: Hybrid Node (HN) for expanding both performance and capacity, and Storage Node (SN) for expanding just capacity. Combining multiple HNs and SNs within the same grid system, enterprise customers can customize the configuration with high availability with no single point of failure.

HYDRAstor also provides advanced erasure-coded data resiliency that can tolerate up to 6 concurrent hard drive failures, ensuring greater data protection than traditional RAID.

HYDRAstor can be further expanded and refreshed with no data migration by incorporating intermix of newer generation hardware into the same grid system. HYDRAstor also provides investment protection with online upgrade/expansion, as well as in-place technology refresh with intermix of multi-generation nodes within the same grid system.

Performance / **Capacity**

Node Building Blocks

Hybrid Node   Storage Node

HS6-5001A-72
1.1TB/hr, 72TB Raw

HS6-5001A-144
2.2TB/hr, 144TB Raw

HS6-5002A-144
2.2TB/hr, 144TB Raw

HS6-5002A-288
4.4TB/hr, 288TB Raw

HS6-5008A-1080
16.2TB/hr, 1,080TB Raw

HS6-5083A-11880
178.2TB/hr, 11,880TB Raw

HS6-5000A Series Specifications

	HS6-5001A-72 (1HN)	HS6-5001A-144 (1HN+1SN)	HS6-5001A-144 (2HN)	HS6-5001A-288 (2HN+2SN)	HS6-5008A-1080 (8HN+7SN)	HS6-5083A-11880 (83HN+82SN)
Capacity, Raw[1]	72 TB	144 TB	144 TB	288 TB	1,080 TB	11,880 TB
Performance[2]	1.1 TB/hr	2.2 TB/hr	2.2 TB/hr	4.4 TB/hr	16.2 TB/hr	178.2 TB/hr
Number of Hybrid Nodes	1	1	2	2	8	83
Number of Storage Nodes	0	1	0	2	7	82
Protocols	CIFS, NFS, Express IO, REST					
Management	GUI, CLI, Email alerts and notifications, SNMP					

HS6-5000A Hybrid Node Specifications

Capacity, Raw[1]	72TB
NIC Ports	6x 1GbE, 4x 1GbE + 2x 10GbE, or 2x 1GbE + 4x 10GbE
Disk Drives	12x 3.5" 6TB SATA drives 7,200rpm (user data) 2x 2.5" 900GB SAS drive 10,000rpm (system)
Weight	70.5lbs (32kg)
Dimensions (WxDxH)	17.6" x 26.9" x 3.4" (448mm × 684mm × 87mm), 2U
Power Consumption (Maximum/Typical)	519 W / 376 W (1GbE) 533 W / 390 W (2x 10GbE) 552 W / 408 W (4x 10GbE)
Thermal Dissipation	1770 BTU/hr (1GbE) 1820 BTU/hr (2x 10GbE) 1885 BTU/hr (4x 10GbE)

[1] One (1) Terabyte (TB) = 1,000,000,000,000 bytes

[2] Assumption: 0% duplicative and 50% compressible data

HS6-5000A Storage Node Specifications

Capacity, Raw[1]	72TB
Disk Drives	12x 3.5" 6TB SATA drives 7,200rpm (user data) 2x 2.5" 600GB SAS drive 10,000rpm (system)
Weight	70.5lbs (32kg)
Dimensions (WxDxH)	17.6" x 26.9" x 3.4" (448mm × 684mm × 87mm), 2U
Power Consumption	507 W / 365 W
Thermal Dissipation	1731 BTU/hr

HS6-5000A Software Specifications

Standard Software Features	DynamicStor, DataRedux®, Distributed Resilient DataTM (DRD), Filesystem Quotas, Filesystem Clones/ Snapshots, Dynamic Data Shredding, Instant File Copy
Optional Software Features	RepliGrid® WAN-Optimized Replication with In-flight Encryption, HYDRAlock® Write-Once Read Many (WORM), Encryption at Rest, Universal Express I/O

HS6-5000A Environment Specifications

System Thermal Rating	50°F (10°C)/hr
Operating Acoustic Noise	58dB
Regulatory Approval	Safety: UL 60950-1, CAN/CSA-C22.2 No.60950-1-03, EN60950-1 Electromagnetic Compatibility: FCC 15:109(g) Class A, ICES-003:2012 Class A, EN55022, CISPR22, EN61000-3-2, EN61000-3-3, EN55024, CISPR24, AS/NZS CISPR 22 Others: RoHS, WEEE

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