

Inline Deduplication Storage for SMB and Remote Office

HYDRAsstor[®] HS3-510



At a Glance

- Enterprise application-aware inline data deduplication
- Advanced erasure-coded data resiliency
- WAN-optimized replication for disaster recovery

Overview

NEC's HYDRAsstor HS3-510 delivers advanced enterprise-grade storage capacity optimization features to small-medium business and remote office. HYDRAsstor HS3-510 is packed with features previously found only in larger enterprise systems, extending HYDRAsstor's advanced functionality to smaller environments.

Enterprise Application-aware Inline Data Deduplication

HYDRAsstor HS3-510 provides high data ingest rates of up to 32.4TB/hr through its inline deduplication DataRedux™ technology. HYDRAsstor HS3-510 can realize high inline deduplication performance by creating application-aware filesystems accessible via CIFS, NFS, or Express I/O through 1GbE or 10GbE connectivity.

Dynamic Provisioning for Efficient Utilization

HYDRAsstor DynamicStor™ auto-provisioning technology virtualizes all available resources, and dynamically allocates storage capacity as needed. DynamicStor frees storage administrators from time-consuming configuration and planning, enabling them to quickly begin storing data.

Advanced Erasure-coded Data Resiliency

HYDRAsstor HS3-510 provides advanced data resiliency through Distributed Resilient Data™ (DRD) with Erasure-Coding. HYDRAsstor DRD delivers better protection and faster data rebuild than traditional RAID with less capacity or processing overhead. HYDRAsstor HS3-510 provides up to 150% greater protection than traditional RAID-6 with lower overhead and faster recovery. With the system default level-3 resiliency, HYDRAsstor HS3-510 can tolerate up to three concurrent disk drive failures while maintaining normal I/O.

WAN-Optimized Replication for Disaster Recovery

WAN-optimized data transfer through HYDRAsstor RepliGrid™ software option delivers highly efficient and reliable data replication. RepliGrid leverages DataRedux to ensure only unique compressed deduplicated data is replicated to the remote location, resulting in significant bandwidth savings. RepliGrid supports replication across both grid-based and single-node HYDRAsstor systems, ensuring maximum flexibility and a comprehensive DR solution. It also offers in-flight encryption capability to protect data from unauthorized access during transfer across remote sites.

Seamless Integration into Existing Environment

The HS3-510 single-node system is fully compatible with the larger scale-out grid-based HYDRAsstor systems. HYDRAsstor shares a common code base across the entire product line, delivering advanced enterprise-class functionality to large datacenter environments as well as smaller remote/branch offices and small enterprises.

Integrated System Management and Monitoring

HYDRAsstor HS3-510 provides web-based GUI administration console and Command Line Interface via SSH and RSH. The HS3-510 also delivers proactive monitoring with weekly system reports, E-mail alerts and notifications, and SNMP.

HYDRAsstor HS3-510 Specifications

	HS3-510-8	HS3-510-16	HS3-510-24
Capacity, Raw ¹	8TB	16TB	24TB
Capacity, Effective ^{1,2}	104TB	208TB	312TB
Performance (Standard)	5TB/hr		
Performance (Deduped Standard)	32.4TB/hr		
Network Interfaces	6x 1GbE, 4 x 1GbE + 2x 10GbE, or 2x 1GbE + 4x 10GbE		
Disk Drives	12x 3.5" 2TB SATA drives 7,200rpm (user data) 2x 2.5" 600GB SAS drive 10,000rpm (system)		
Dimensions (WxDxH)	17.6" x 26.9" x 3.4" (448mm x 684mm x 87mm), 2U		
Weight	70.5 lbs (32 kg)		
Power Consumption ³	476W/335W (480VA/338VA)		
Thermal Dissipation ³	1,623BTU/hr		
Input Voltage	AC 100-240V 50/60Hz		
Protocols	CIFS, NFS, OpenStorage, Express I/O		
Management	GUI, CLI, E-mail alerts and notification, SNMP		

HYDRAsstor HS3-510 Environmental Specifications

System Thermal Rating	50°F (10°C)/hr
Operating Acoustic Noise ⁴	58dB
Regulatory Approvals	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

HYDRAsstor HS3-510 Software

Standard Software Features	DynamicStor™, DataRedux™, Distributed Resilient Data™ (DRD), Application-aware Deduplication, 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), HYDRAsstor Advanced Data Services, Encryption at Rest

1 - One (1) Terabyte (TB) = 1,000,000,000,000 bytes.

2 - Assumption: full backup weekly and incremental backup daily, and 3 months retention period to achieve 20:1 data reduction ratio; 9+3 resiliency level.

3 - Specifications of the 1GbE Model

4 - Typical value per node under 77°F (25°C)

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