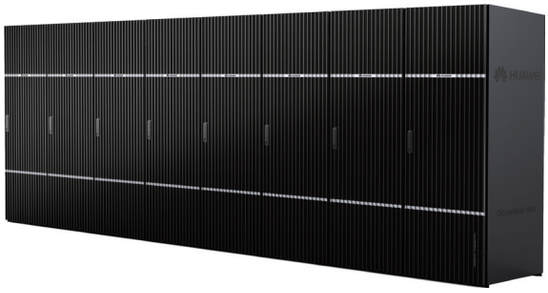
OceanStor Enterprise-Level Storage System



OceanStor HVS85T/HVS88T

Huawei's OceanStor HVS-series enterprise storage system is an optimum storage platform for next-generation data centers that feature virtualization, hybrid cloud, simplified IT, and low carbon footprints. Flexible and efficient, the HVS series meets the demanding core business requirements of industries including finance, government sector, energy, manufacturing, transportation, education, and telecommunications.

Highlights

Architecture

- Smart matrix architecture: A unique storage system architecture that dynamically expands system resources by adding HVS distributed storage engines. The smart matrix shatters the physical barriers of legacy system architectures.
  - The smart matrix architecture is based on the PCIe 2.0 network. All HVS engines are interconnected and communicate with each other through this fully switched network. The bandwidth reaches 1 TB/s. Each HVS engine contains two controllers and internal interconnected redundant interfaces. Each controller integrates front-end, global cache and back-end functions.
  - The smart matrix architecture can linearly expand system resources and distribute up to eight HVS engines in the data center.

4S Scalability

- Scale-Up: Boosts system performance, capacity, and connectivity by adding memory, capacities, and service ports.
- Scale-Out: Linearly expands system resources by adding HVS engines. The smart matrix couples all resources and expands, on demand, to improve online capacity and performance and the increasing needs of applications.
- Scale-Deep: consolidates heterogeneous storage systems under the centralized management of HVS, eliminating information islands and protecting existing investment.
- Scale-In: smart volume automatically balances performance and capacity among storage systems without adding hardware resources.

3D Data Flows

- Vertical Data Flows: Based on fine-grain data access statistics technology, data is stored on different storage media according to access frequency. With tiered storage management, data is automatically migrated between storage tiers. Furthermore, users can specify certain data for access acceleration, doubling overall storage system performance.
- Horizontal Data Flows: enables data to intelligently flow horizontally within a storage system, distributing the data evenly on all system resources, eliminating the uneven use of resources, and improving overall system performance
- Deep Data Flows: performs centralized and virtualized management of heterogeneous storage systems and, by implementing HVS features, enables data to freely flow throughout those systems.

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Technical Specifications

Model		OceanStor HVS85T	OceanStor HVS88T
Hardware Specifications			
System architecture		Smart matrix architecture	
Max. number of controllers		8	16
Max. number of processors		8 x 1 x 6-core Intel Xeon	16 x 2 x 6-core Intel Xeon
Max. cache		768 GB	3,072 GB
Max. number of host ports		96 (Fibre Channel, iSCSI, FCoE)	192 (Fibre Channel, iSCSI, FCoE)
Max. number of disks		1,584	3,216
Supported disk type		2.5-inch: SSD, SAS, NL-SAS 3.5-inch: SSD, SAS, NL-SAS	
Software Specifications			
Max. number of hosts		65,536	
Max. number of LUNs		65,536	
Data protection software		HyperSnap HyperClone HyperCopy HyperReplication	
Data efficiency software		SmartThin SmartMotion Smart Tier Smart QoS Smart Virtualization	
Application software		UltraAPM, UltraVR, UltraPath, DiskGuard, SmartX Insight	
Operating system compatibility		AIX, HP-UX, Solaris, Linux, Windows	
Virtual environment		Virtual platforms such as VMware, XenServer, and Hyper-V Value-added features such as VMware VAAI/VASA and Hyper-V ODX/TP Integration of VMware vSphere and vCenter	
Physical Specifications			
Power supply	System cabinet	200 V to 240 V, 5100 W, 30 A	
	Disk cabinet	200 V to 240 V, 3800 W, 30 A	
Dimensions and weight	Dimensions (H x W x D)	Cabinet frame dimensions (dimensions of the cabinet itself): 1,891 mm x 600 mm x 1,050 mm Maximum cabinet dimensions (including the dimensions of wheels and base anchors): 1,940 mm x 600 mm x 1,100 mm	
	Weight	Disk cabinet in full configuration: 717 kg System cabinet in full configuration: 796 kg (with 2.5-inch disks) or 812 kg (with 3.5-inch disks)	
Operating ambient temperature		5°C to 40°C (altitude: < 1,800 m), 5°C to 30°C (altitude: 1,800 m to 3,000 m)	
Operating ambient humidity		5% RH to 90% RH	

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