OceanStor 2800 V5 Storage System



Video Cloud Converged Storage System

Huawei OceanStor 2800 V5 video cloud converged storage system is a next-generation high-performance converged storage system dedicated to the video surveillance field. While retaining enterprise storage capabilities, the controllers adopt an open converged data platform, giving full play to the computing capabilities of the controllers. Users can migrate video applications that were deployed on physical severs to storage controllers. Open and direct storage of video streams, rapid video aggregation capabilities, robust data protection options, and many other easy-to-use utilities make integration with ISV service platforms simple when building large video cloud storage systems, significantly reducing TCO.

Highlights

Convergence

Convergence of computing and storage, making full use of the computing resources of storage controllers

Reliability

Enterprise-class storage, ensuring 99.9999% data availability

High performance

Leading hardware architecture, support for 1600 channels of videos per system

High Performance and Robust Scalability

Industry-leading hardware architecture

The latest Intel V5 multi-core processors, next-generation PCIe 3.0 buses, and 12 Gbit/s SAS 3.0 high-speed disk enclosure interfaces fully satisfy demands from high-bandwidth video applications, and applications involving images and small files.

High performance

One OceanStor 2800 V5 device supports concurrent recording of 400 HD video channels at 4 Mbit/s and concurrent playback of 100 HD video channels at the same rate. In IP SAN mode, one device supports concurrent recording of up to 1600 video channels at 4 Mbit/s and concurrent playback of 400 channels at the same rate.

Powerful scalability

Huawei OceanStor 2800 V5 supports high-density disk expansion enclosures and one device can house up to 750 disks.

Open Converged Data Platform

Integrate up to six physical servers

Makes full use of the computing resources of storage controllers and applications on a maximum of six physical servers be integrated on the platform.

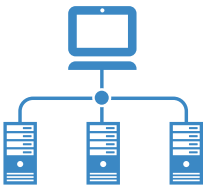
SAN and NAS convergence

A single controller provides both SAN and NAS interfaces. Users can choose between them according to the protocol interfaces of different platform software.

Architecture that converges computing and storage resources and supports open and direct storage of video streams

Open storage platform management interfaces support open and direct storage of video streams and policy management and can seamlessly integrate with ISV/SI application management platforms.

Simple to Manage, Easy to Maintain



Optimized data access path

Video data services are directly provided by the underlying storage pool, shortening the data access path. Applications in the open converged data platform are mounted to back-end storage resources through internal channels, improving system performance.

Fast resource allocation by NAS

NAS function helps quickly allocate and share storage resources, greatly simplifying service deployment and reducing the time taken.

Easy-to-use management and maintenance tool

A unified management interface supports light , SMS , and email-based alarm notifications as well as one-click online firmware upgrade, greatly reducing Operation and Maintenance (O&M) costs.

Outstanding Reliability and High Availability

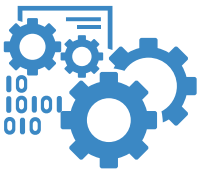


Image repair and video restoration

Huawei special image repair and video restoration technologies ensure that the system can reliably work on a 24/7 basis. If a RAID group fails, all video data can be used with no interruption to video data read and write operations.

Rapid data recovery

Compared with the reconstruction speed of traditional technologies, the new hardware platform-based RAID 2.0+ data protection technology accelerates the reconstruction speed by 20 times. Employing special hardware designs such as shock-absorbed spring plate fans and technologies such as the disk S.M.A.R.T. information test and disk bad sector repair, Sentence now appears as repair, RAID 2.0+ technology minimizes impact on services during data reconstruction events.

99.9999% data availability

The storage system supports local and remote data protection by leveraging the HyperSnap and HyperReplication features, ensuring 99.9999% data availability.

Energy Efficiency



16-level intelligent fan speed control

Intelligently tunes the fan speed based on the operating temperature, reducing fan power consumption and noise and enhancing the device's environment adaption capabilities.

Intelligent CPU frequency control

Intelligently adjusts the CPU operating frequency as service workloads change to lower the overall power consumption.

Technical Specifications

Model	OceanStor 2800 V5	
Hardware Specifications		
Number of controllers	2 (2 U architecture that integrates disks and controllers)	
Processor	Multi-core processor	
High-speed cache capacity per controller	32 GB	64 GB
Supported disk enclosure types	Common disk enclosure: 24 x 3.5-inch disks High-density disk enclosure: 75 x 3.5-inch disks	
Number of disk enclosures	Common disk enclosure: 30 High-density disk enclosure: 10	
Max. number of disks	750	
RAID level	0, 1, 3, 5, 6, 10, 50	
Onboard I/O ports per controller	2 x GE ports (maintenance network ports) 1 x serial port Front-end host ports: 4 x GE ports	
Max. number of front-end host ports per controller	8 x 10 GE ports 12 x GE ports	
Types of hot-swappable front-end host port I/O modules	4 x 10 GE I/O modules (optical or electrical) 4 x GE I/O modules	
Back-end onboard I/O ports per controller	2 x 4 x 12 Gbit/s SAS	
Max. number of back-end I/O ports per controller	6 x 4 x 12 Gbit/s SAS	
Number of hot-swappable I/O modules per controller	2	
Supported disk types	4 TB 7200 rpm 3.5-inch NL-SAS disks, 6 TB/8 TB/10 TB 7200 rpm 3.5-inch SATA disks, 600G 10K rpm 3.5-inch SAS disks, 1.92 TB/3.84 TB 3.5-inch SSD disks	
Performance Specifications		
Video input and output capabilities (configured with 4 TB/ 6 TB disks; videos stored for 30 days)	Maximum of 1600 channel input at 4 Mbit/s and 400 channel playback at 4 Mbit/s	Direct storage mode: Maximum of 400 channel input at 4 Mbit/s and 100 channel playback at 4 Mbit/s.
Software Specifications		
Max. number of storage pools	64	
Max. number of LUNs in a storage pool	4096	
Max. capacity of a LUN	256 TB	
Base system software package	Storage resource management, storage RAID protection, dynamic LUN expansion, dynamic disk expansion, online upgrade, performance statistics, alarm management, and remote power-off	
Value-added software package	SmatThin, HyperSnap, and HyperReplication	

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Technical Specifications

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Physical Specifications	
Redundant power supplies	Controller enclosure: 100 V to 240 V; 12 A to 6 A 4U disk enclosure: 100 V to 240 V; 8 A High-density disk enclosure: 100 V to 127 V; 10 A 200 V to 240 V; 5 A
Power consumption	Controller enclosure: 612 W in active mode with the maximum configuration, 441 W in unloaded mode with the maximum configuration 4U disk enclosure: 330 W in active mode with the maximum configuration, 315 W in unloaded mode with the maximum configuration High-density disk enclosure: 930 W in active mode with the maximum configuration, 910 W in unloaded mode with the maximum configuration
Dimensions (D x W x H)	Controller enclosure: 748 mm x 447 mm x 86.1 mm 4U disk enclosure: 488 mm x 447 mm x 175 mm High-density disk enclosure: 790 mm × 446 mm × 176.5 mm (excluding the cable manager) 974 mm x 446 mm x 176.5 mm (including the cable manager)
Net weight	Controller enclosure: ≤ 33 kg (excluding disk units), ≤ 42 kg (including disk units – full configuration) 4U disk enclosure: ≤ 27 kg (excluding disk units), ≤ 44 kg (including disk units – full configuration) High-density disk enclosure: ≤ 51 kg (excluding disk units), ≤ 105 kg (including disk units – full configuration)
Operating temperature	The ambient temperature is 5°C to 40°C at an altitude ranging from -60m to +1800m. The ambient temperature decreases by 1°C every time the altitude increases by 220 m at an altitude ranging from 1800 m to 3000 m.
Operating humidity	10% RH to 90% RH

For More Information

To learn more about Huawei storage, please contact the local office or visit the Huawei Enterprise website http://e.huawei.com.

Huawei Enterprise APP

Huawei IT

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