

# OceanStor 2800 V3 Video Cloud Converged Storage System



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Huawei OceanStor 2800 V3 video cloud converged storage system is a next-generation high-performance virtual storage system dedicated to the video surveillance field. While retaining IP-SAN access capabilities, the controllers of Huawei OceanStor 2800 V3 have an open converged data platform, giving full play to computing capabilities of the controllers. Users can migrate video applications that were deployed on physical servers to storage controllers. Huawei OceanStor 2800 V3 provides important and useful functions such as open direct storage of video streams, rapid video aggregation, and efficient data protection, making it easy to integrate ISV service platforms to construct a large video cloud storage system and dramatically reduce customers' total cost of ownership (TCO).

## Product Features

### High Performance and Robust Scalability

- Industry-leading hardware architecture: The latest Intel multi-core processor, next-generation PCIe 3.0 bus, 12 Gbit/s SAS 3.0 high-speed disk enclosure interface, is best suited for high-bandwidth applications such as videos and large file transmission.
- High performance: One OceanStor 2800 V3 device supports concurrent recording of 400 HD videos and concurrent playback of 100 HD videos.
- Powerful scalability: Huawei OceanStor 2800 V3 supports high-density disk expansion enclosures and one device can house up to 750 disks.
- Multi-protocol host ports: GE and 10GE

### Open Converged Data Platform

- Open converged data platform: Have an open converged data platform, make full use of the computing resources of storage controllers and applications on a maximum of six physical servers can be integrated on the platform.
- Architecture that converges computing and storage resources and supports open direct storage of video streams: Open storage platform management interfaces support open direct storage of video streams and policy management and can perfectly integrate with ISV/SI application management platforms.
- Flexible configuration template: Different configuration templates are available based on platform software types and services can be rolled out rapidly.

### High Efficiency and Ease of Use

- 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.
- Easy-to-use management and maintenance tool: A unified management interface supports sound-, 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. When a RAID group fails, all video data can be used with no video data reading and writing interruption.
- Rapid data recovery: Being compared with the reconstruction speed of traditional technologies, the new hardware platform-based RAID 2.0+ data protection technology improves the reconstruction speed by 20 times. Employing special hardware designs such as shock-absorbed spring plate fans and technologies such as disk S.M.A.R.T. information test and disk bad sector repair, the RAID 2.0+ technology minimizes data reconstruction's impact on services.

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## Energy Efficiency

- 16-level intelligent fan speed control: Huawei OceanStor 2800 V3 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: Huawei OceanStor 2800 V3 intelligently adjusts the CPU operating frequency as service workloads change to lower the overall power consumption.

## Technical Specifications

Model	OceanStor 2800 V3
Hardware Specifications	
Number of controllers	2 (2 U architecture that integrates disks and controllers)
Processor	Multi-core processor
High-speed cache capacity per controller	48 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 10GE ports 12 x GE ports
Types of hot-swappable front-end host port I/O modules	4 x 10GE I/O modules 4 x GE I/O modules
Back-end onboard I/O ports per controller	2 x 12 Gbit/s SAS
Max. number of back-end I/O ports per controller	6 x 12 Gbit/s SAS
Number of hot-swappable I/O modules per controller	2
Supported disk types	4000 GB 7200 rpm 3.5-inch NL-SAS disks 6000 GB 7200 rpm 3.5-inch SATA disks 10 TB 7200 rpm 3.5-inch SATA disks

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Model	OceanStor 2800 V3
<b>Software Specifications</b>	
Video input and output capabilities	Direct storage Mode: 400(4Mbps)recording, 100(4Mbps)playback IPSAN Mode: 1600(4Mbps)recording, 400(4Mbps)playback
Video modes	Direct storage of video streams, IP-SAN, and video playback
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
<b>Physical Specifications</b>	
Redundant power supplies	Controller enclosure: 200 V to 240 V, 960 W, 6 A Common disk enclosure: 100 V to 240 V, 600 W, 8 A High-density disk enclosure: 100 V to 127 V, 800 W, 10 A 200 V to 240 V, 800 W, 5 A 800 W power supplies in 2 + 2 backup mode
Power consumption	Controller enclosure: 612 W in active mode with the maximum configuration, 441 W in unloaded mode with the maximum configuration Common 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 Common disk enclosure: 488 mm x 447 mm x 175 mm High-density disk enclosure: 790 mm x 446 mm x 176.5 mm (excluding the cable manager) 974 mm x 446 mm x 176.5 mm (including the cable manager)
Net weight	Controller enclosure: 30 kg (excluding disk units), 39.02 kg (including disk units) Common disk enclosure: 23.4 kg (excluding disk units), 40.8 kg (including disk units) High-density disk enclosure: ≤ 35 kg (excluding disk units), ≤ 91 kg (including disk units)
Operating temperature	The ambient temperature is from 5°C to 40°C at an altitude ranging from -60 m to +1800 m. 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
Noise	Controller enclosure: 65.1 dB Common disk enclosure: 66.3 dB High-density disk enclosure: 75.4 dB

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