



OceanStor 2200 V5 Intelligent Hybrid Flash Storage System

Multi-Level Reliability Design for Always-On Services

- Component: Wear and anti-wear leveling
- Architecture and product: Tolerating single point of failure (SPOF) of controllers
- Solution: Integrated solution for SAN and NAS

Efficient O&M with Intelligent Edge- Cloud Synergy

3-layer intelligent management:

- 365-day capacity trends prediction
- 60-day performance bottleneck prediction
- 14-day disk fault prediction
- Immediate solutions for 93% of problems located
- SAN & NAS and convergence across different storage generations for efficient resource utilization

Huawei OceanStor 2200 V5 entry-level storage system is an intelligent hybrid flash storage product designed for enterprise applications. It combines a converged storage operating system, a powerful next-generation hardware platform, and intelligent management software to provide industry-leading features, efficiency, reliability, and intelligent O&M. This system meets both the general data storage requirements (OLTP/OLAP database, file sharing) of growing enterprises, and the backward and forward compatibility required in the development of new services. In addition, the OceanStor 2200 V5 provides efficient, flexible, and diverse backup and disaster recovery solutions to ensure service continuity and data reliability. It is designed to provide customers with excellent storage services, making it the perfect choice for governments and enterprises in the energy, media, education, and healthcare sectors.

Highlights

Ultimate Convergence Lower TCO for growing businesses

With the latest OceanStor OS installed, the OceanStor 2200 V5 provides users with a converged, flexible, and unified resource pool and ensures data is reliable and easy to access through:

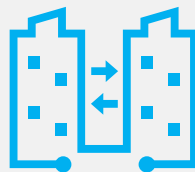
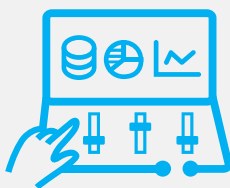
Convergence of flash storages: SSDs and HDDs are converged to maximize the performance of both types of media in hybrid scenarios. Meanwhile, multiple SSD acceleration modes (SSD cache, intelligent tiering) for blocks and files deliver optimal performance and capacity. In addition, interconnection between different types, levels, and generations of Huawei flash storage allow for the convergence of data, management, and O&M.

Convergence of SAN and NAS: The combination of SAN and NAS creates elastic storage, improves storage resource utilization, and slashes the total cost of ownership (TCO). Both SAN and NAS services are directly provided by the underlying storage resource pool, which shortens storage resource access paths for industry-leading performance and service functionality.

Convergence of storage resource pools: The heterogeneous virtualization feature enables the OceanStor 2200 V5 to efficiently take over the storage arrays from other mainstream vendors and integrate them into a unified resource pool. The advantages of this include the elimination of data silos, unified resource management,



SSD

Active-active
storage solutionData Protection
Solution

Intelligent O&M

automation and service orchestration, and interruption-free data migration. What's more, Huawei's automatic migration tool reduces the migration time by an average of 60%.

Ultimate Performance Meeting the demands of growing enterprises

Flash-oriented storage architecture: Flash-optimized designs (multi-core optimization, cache adaptive algorithm, etc.) ensure the storage system provides < 1 ms stable and fast I/O response while processing massive service access requests. The architecture offers optimal experience for key applications.

Leading component design: OceanStor 2200 V5 supports 32 Gbit/s FC and 25 Gbit/s Ethernet host ports, as well as 12 Gbit/s SAS 3.0 high-speed hard disk ports, meeting high performance requirements.

Comprehensive efficiency boost: The Smart series value-added features (SmartTier, SmartQoS, etc.) greatly improve application efficiency.

High Reliability 6-nines high availability at product and solution levels

Multi-controller load balancing: Load balancing among multiple controllers helps to eliminate single points of failure (SPOF), ensuring the high-availability of the system and the stable running of services.

Unique fast data recovery technology: Block-level virtualization technology cuts the reconstruction time of 1 TB data from 10 hours to 30 minutes, slashing the risk of data failure caused by disk faults by 95% compared with traditional storage.

Extensive data protection solutions: The Hyper series data protection technologies (HyperSnap, HyperClone, etc.) meet users' intra-system, local and remote, and multi-site data protection requirements, delivering 99.9999% service continuity and data availability.

Leading SAN active-active protection: OceanStor 2200 V5 supports SAN active-active deployment for high availability of database services. The HyperMetro active-active solution enables load-balanced active-active mirroring and non-disruptive cross-site takeover, ensuring zero loss of core application data and zero service interruption. In addition, the gateway-free design reduces TCO and deployment complexity, allowing smooth upgrade of single device to active-active deployment.

Smart Support AI-based O&M management

Smart O&M: Smart remote monitoring enables 24/7 cloud-based proactive monitoring and remote maintenance, automatic inspection, minute-level fault sensing, automatic fault reporting, and automatic ticket creation. Smart fault diagnosis enables automatic fault location based on host-storage path visualization and performance association analysis.

Smart prediction and evaluation: Smart risk prediction identifies system risks in advance based on analysis of disks, configuration, and others. Smart service planning allows for early planning of system performance and capacity based on host service load feature analysis and system capacity prediction.

Technical Specifications

Model	OceanStor 2200 V5
Controller Enclosure Specifications	
Storage processor	Multi-core processor
System cache	16 GB/32 GB
Maximum number of controllers	2
Supported storage protocols	FC, iSCSI, NFS, CIFS, HTTP, FTP
Front-end port types	8/16/32Gbps FC, 1/10/25Gbps Ethernet
Back-end port types	SAS3.0
Maximum number of hot-swappable I/O modules per controller	2
Maximum number of disk slots for dual controllers	300
Hard disk types	SSD、SAS、NL-SAS
Supported RAID levels	RAID 0,1,3,5,6,10,50
Key Software Features	
Data protection software	HyperSnap HyperClone HyperCopy HyperMirror HyperReplication HyperLock HyperVault SmartEncryption
Resource efficiency improvement	SmartMigration SmartVirtualization SmartMulti-tenant SmartQuota SmartThin SmartTier SmartMotion SmartErase SmartQoS SmartCache
Storage management software	DeviceManager BCManager eSight UltraPath eService
Virtualization Features	
Heterogeneous virtualization	Consolidates storage resources of mainstream products to flexibly manage and allocate storage resources
Block-level virtualization	Enables balanced data distribution and quick fault recovery
Virtual environment features	Supports virtualization platforms such as FusionSphere, VMware, XenServer, and Hyper-V Supports value-added features such as VMware VAAI/VASA/SRM and Hyper-V Supports vSphere and vCenter integration

Physical Specifications

Power supply	AC: 100 V to 240 V (adaptive to high-voltage DC) High-voltage DC (not supported in North America): 240 V DC
Dimensions (H x W x D)	Controller enclosure: 86.1mm × 447mm × 410mm 86.1mm × 447mm × 488mm
	2 U disk enclosure: 86.1mm × 447mm × 410mm 4 U disk enclosure: 175mm × 447mm × 488mm
Weight	2 U controller enclosure(without disk units): 16.4kg(25 disks) 16.3kg(12 disks)
	2 U disk enclosure (without disk units): 13.3kg 4 U disk enclosure (without disk units): 26.5kg
Operating temperature	5°C to 40°C (altitude: < 1,800 m), 5°C to 35°C (altitude: 1,800 m to 3,000 m)
Operating humidity	10%~90%R.H.

For More Information

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



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