New-Gen OceanStor 5120/5220
Hybrid Flash Storage Systems

Simplified, easy-to-use, and intelligent — Huawei New-Gen OceanStor 5120/5220 Hybrid Flash Storage systems are designed for SMEs. The systems provide convenient and efficient data infrastructure, fully utilizing the value of enterprise data and helping enterprises complete digital transformation.

Equipped with powerful hardware platforms and intelligent management software, OceanStor 5120/5220 Hybrid Flash Storage systems provide ultimate convergence capabilities. Supporting database OLTP/OLAP, server virtualization, VDI, and file sharing, the systems are ideal choices for the government, finance, healthcare, education, energy, and manufacturing sectors. They can ensure business continuity and data resilience, maximizing the return on investment (ROI) and making it inclusive to all industries.

Product Features

Ultimate Convergence with Excellent Performance

Protocol convergence with flexible services

SAN and NAS are converged to provide elastic storage for service development and improve storage resource utilization. Through convergence of SSDs and HDDs, the systems can maximize the performance of different types of media in mixed configurations. With the built-in virtualization function, the systems can efficiently take over storage arrays from other mainstream vendors and integrate them into a unified resource pool.

Upgraded architecture delivering excellent performance

The systems feature the multi-controller active-active (A-A) technology, a high-end Huawei storage technology. This allows a single LUN to be load balanced among multiple controllers, maximizing controller performance in any scenario and supporting business reliability. The flash-ready system architecture implements E2E data acceleration and frees up performance. The systems guarantee stable and low-latency responses even if a large number of services are accessed, ensuring the ultimate performance of critical applications.

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Data acceleration with ultra-fast experience

The systems use the built-in hot data acceleration algorithm — SmartAcceleration — to dynamically and adaptively adjust data layout. They also deploy the neural network multi-dimensional feature learning algorithm to detect cold and hot data globally, delivering a better data layout. This realizes efficient prefetch of potential hot data and 100% higher performance than conventional hybrid flash storage. With SmartAcceleration, the NL-SAS HDDs can be used to replace SAS HDDs to achieve higher performance at lower costs.

Available, Reliable, and Resilient Data

Advanced gateway-free integrated SAN and NAS A-A solution

The systems adopt the gateway-free A-A solution for SAN and NAS to reduce faulty nodes, simplify system deployment, and improve system reliability. In addition, the A-A solution implements load balancing A-A mirroring and non-disruptive cross-site failover, preventing core applications from breakdown. It is the industry's only NAS A-A solution that ensures efficient and reliable NAS performance. Furthermore, this solution can be upgraded to the geo-redundant 3DC DR solution without interruption to services, providing higher-level data protection.

Extensive data protection solutions

The Hyper series data protection software includes technologies such as A-A, snapshots, clones, remote replication, and others. They can satisfy users' data protection requirements in the local, remote, and multi-site systems and achieve 99.9999% availability, ensuring business continuity and data availability to the greatest extent.

Non-disruptive upgrade

The systems adopt the modular software architecture, meaning nearly 95% of the upgrades can be performed in the user mode within 1 second, with no need to restart controllers.

Secure snapshots ensuring solid resilience of data backup

The systems support retention period setting for snapshots. Snapshot data within the retention period cannot be deleted, preventing snapshot data from being deleted accidentally or intentionally.

Intelligent, Easy Use and O&M

AI-based prediction

The systems provide Huawei's powerful AI prediction feature. They automatically predict capacity expansion needs for the following year based on the customer's workload and performance/capacity increase trend, and they promptly notify users of budget application and capacity expansion operations.

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Behavioral learning supporting three-step deployment

The systems feature built-in self-learning function. They automatically orchestrate and set parameters based on administrators' operation procedures in common configuration scenarios and Huawei's extensive best practices. This means a new service can be deployed in just three steps, largely reducing the deployment time for users.

Cloud-edge integration with enhanced O&M

The systems integrate customized edge intelligence and general-purpose cloud intelligence. They feature a built-in intelligent hardware platform for incremental training and deep learning of service characteristics, improving customer experience. The DME IQ Intelligent Cloud O&M Platform collects statistics of more than 190,000 devices on the live network in real time and extracts common rules to enhance basic O&M capabilities.

Technical Specifications

Model	OceanStor 5120	OceanStor 5220
Hardware Specifications		
System Cache (Dual-Controller)	32 GB/64 GB	64 GB/96 GB
Maximum Cache (Dual-Controller; Expands with Controllers)	32 GB to 256 GB	64 GB to 384 GB
Supported Storage Protocols	FC, iSCSI, NFS, CIFS	
Front-End Port Types	8/16/32 Gbps FC, 1/10/25 Gbps Ethernet	
Back-End Port Types	SAS 3.0	
Maximum Number of Hot-Swappable I/O Modules per Controller Enclosure	4	
Maximum Number of Front-End Ports per Controller Enclosure	28	
Disk Types	SSD, SAS, NL-SAS	
Software Specifications		
Supported RAID Levels	RAID 10*, RAID 5, RAID 6, RAID-TP (tolerating simultaneous failures of 3 disks)	
Value-Added Features	SmartAcceleration, SmartThin, SmartMigration, HyperSnap, SmartQoS, HyperLock, SmartMulti-Tenant, SmartQuota, SmartErase, HyperVault, HyperMetro*, HyperReplication*, HyperClone*, SmartVirtualization*, HyperCDP*, HyperEncryption*, SmartCompression*, SmartMobility*, SmartMigration for NAS*	
Storage Management Software	UltraPath, DeviceManager, BCManager, DME IQ	
Physical Specifications		
Power Supply	100 V to 240 V AC ± 10%, 192 V to 288 V DC −38.4 V to −75 V DC (only supported by disk enclosures)	
Dimensions (H x W x D)	2.5-inch controller enclosure: 86.1 mm × 447 mm × 410 mm 3.5-inch controller enclosure: 86.1 mm × 447 mm × 488 mm	
Weight (Excl. Disk Units)	2.5-inch controller enclosure: 16.4 kg 3.5-inch controller enclosure: 16.3 kg	
Operating Temperature	−60 m to +1800 m altitude: 5°C to 35°C (cabinet) or 40°C (enclosure) 1800 m to 3000 m altitude: The maximum temperature threshold decreases by 1°C for every altitude increase of 220 m	
Operating Humidity	10% to 90% RH	

*Contact Huawei sales staff if you need this specification.

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HUAWEI eKit App

HUAWEI eKit – Data Storage Mall