# Lightning Fast Rock Solid

Purpose built for mission-critical services, OceanStor Dorado V3 all flash storage adopt Huawei's proprietary FlashLink technology. The offering delivers 4 million IOPS at 500 μs consistent latency. The HyperMetro gateway-free active-active design with only 1 ms latency ensures 99.9999% reliability. while inline deduplication and compression technologies achieve a three-fold improvement in utilization of your data space.

OceanStor Dorado V3 fully satisfies the storage requirements of databases, virtual desktops, virtual servers, and other applications with high performance, reliability, and efficiency expectations, smoothing the way for customers in finance, government, telecom, and a host of other sectors in their move to the all flash era.

## Highlights

- **Outstanding Performance**

  Unique end-to-end optimizations to the operating system, chips, and SSDs

  4 million IOPS at 500 μs consistent low latency

  20x database acceleration

- **Stability and Reliability**

  Gateway-free A-A solution ensuring always-on business

  Snapshot and data replication providing comprehensive data protection

  RAID-TP, specially optimized for flash storage, tolerating 3-disk failures

- **Effiency and Convergence**

  Scale-up and scale-out, satisfying business development requirements

  Flexible deduplication and compression, increasing space utilization by 3 folds

  Efficient DR solution by reusing Huawei traditional arrays, reducing the TCO of DR by 70%

  Smooth evolution to all flash storage by supporting convergence of heterogeneous storage

## Features

### Lightning-Fast

#### High performance, low latency

4 million IOPS at 500 μs consistent latency, zero wait-time for critical services.

#### Homegrown SSDs

The only vendor to offer SSD controller chips with built-in FTL algorithms to reduce write latency to 40 μs – the lowest in the business!

#### Flash-optimized controllers

56 GB InfiniBand host ports at the front end, new-gen PCI-E 3.0 buses, and 12 Gbps SAS 3.0 high-speed disk interfaces at the back end build up end-to-end accelerations in the high-end channels. The storage system adopts Huawei exclusive dual-upload SAS mode, doubling the transmission rate. In terms of software algorithms,CPU intelligent partitioning technology improves concurrent processing performance. Intense improvements to cache algorithms improve data search and insertion speeds.

#### FlashLink

Applied to Huawei homegrown SSDs and controller, Huawei's unique FlashLink technology adopts global cold/hot data partitioning utilities to reduce the number of garbage collections. Intelligent I/O priority adjustment

technology ensures response in I/O reads and writes for the host ahead of other devices to help keep latency quick. Large block sequential write technology adjust multiple smaller segments of random data into large blocks of sequential data before writing to SSDs for improved overall storage performance.

## Linear scalability

IOPS grows linearly as more engines are added to fully satisfy future business needs.

# Rock-Solid Reliability
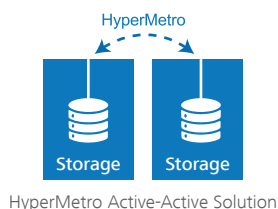
## Full hardware redundancy

Multi-controller architecture and redundant components and channels avoid interruptions from single points of failure. Fault detection, recovery, and isolation can be implemented for each component and channel independently to help improve overall system stability.

## Advanced media management

The global wear leveling technology extends SSD life (up to 3 million hour MTBF). The patent global anti-wear leveling technology prevents data loss in the event of simultaneous failures on multiple disks, improving system reliability.

## Rich data protection features

Snapshot, remote replication, and other features satisfy requirements for local and remote data protection schemes.

## Advanced active-active capabilities

HyperMetro implements gateway-free active-active mirroring with load balancing and cross-site takeover all without any service interruption, achieving 99.9999% reliability at the solution level and avoiding downtime to critical application systems. Combined with the high performance attributes of flash, the active-active feature keeps latency at 1 ms. While removing the need for a gateway helps reduce costs and simplify deployments.

HyperMetro Active-Active Solution

# Convergence and High Efficiency

## Efficient data reduction

Inline deduplication and compression deliver a three-fold improvement in space utilization, reducing upfront procurement costs.

Deduplication and compression

## Powerful convergence and interconnection

Fully interconnects with the OceanStor V3 storage portfolio, establishing an efficient data protection solution and helping you save investment.

Interconnectable with the OceanStor V3 series

## Wide-open compatibility

Interworks with wide range of applications, ensuring smooth upgrades and the flexibility to stay at the front of the data center revolution.

# Technical Specifications

| Model | OceanStor Dorado5000 V3 | | OceanStor Dorado6000 V3 |
|---|---|---|---|
| **Hardware Specifications** | | | |
| Storage processor | Multi-core processors | | |
| Maximum number of controllers | 16* | | |
| System Cache (Expanded with the Number of Controllers) | 256GB~2048GB | 512GB~4096GB | 1024GB~8192GB |
| Supported storage protocols | FC, iSCSI, InfiniBand, HTTP, FTP | | |
| Type of front-end ports | 8 Gbps/16 Gbps FC, 10GE iSCSI, 56 Gbps InfiniBand | | |
| Type of back-end ports | SAS3.0 (single port 4*12 Gbps) | PCIe 3.0 (two ports 8*8 Gbps) | SAS3.0 (single port 4*12 Gbps) |
| Max. Number of Front-end Ports (per Controller) | 12 | 12 | 28 |
| Maximum number of SSDs | 800 | 200 | 2400 |
| **Software Specifications** | | | |
| Supported RAID level | RAID5, RAID6, RAID-TP | | |
| Maximum number of hosts | 8,192 | | |
| Maximum number of LUNs | 16,384 | | |
| Value-added features | SmartDedupe (intelligent inline deduplication) SmartVirtualization (intelligent heterogeneous virtualization) SmartMigration (intelligent LUN migration) HyperMetro (gateway-free active-active solution) | | SmartCompression (intelligent inline compression) SmartThin (intelligent thin provisioning) HyperSnap (snapshot) HyperReplication (remote replication) |
| Storage management software | DeviceManager (device management) eService (remote maintenance management) | | UltraPath (multi-path management) BCManager (disaster recovery management) |
| Operating system compatibility | AIX, HP-UX, Solaris, Linux, Windows | | |
| Supported virtualization environment software | Huawei FusionSphere, VMware, XenServer, Hyper-V, and other virtualization platforms VMware VAAI, VASA, SRM, and Hyper-V and other value-added features Integration with vSphere and vCenter | | |
| **Software Specifications** | | | |
| Power supply | AC: 200~240 V | | AC: 200~240 V    DC: 192~288 V |
| Power consumption | Controller enclosure: 850 W    Disk enclosure: 240 W | | Controller enclosure: 936 W     Disk enclosure: 240 W |
| Dimensions (H x W x D) | Controller enclosure: 750 mm x 447 mm x 130.5 mm Disk enclosure: 488 mm x 447 mm x 86.1 mm | | Controller enclosure: 750 mm x 447 mm x 130.5 mm Disk enclosure: 488 mm x 447 mm x 86.1 mm |
| Weight | Controller enclosure: ≤28 kg    Disk enclosure: ≤17.5 kg | | Controller enclosure: ≤57.5 kg   Disk enclosure: ≤17.5 kg |
| Operating temperature | 5 ℃ to 40 ℃ (altitude: < 1800 m), 5 ℃ to 30 ℃ (altitude: 1800 m to 3000 m) | | |
| Operating humidity (relative humidity) | 5% RH to 95% RH | | |

*16 controllers will be available in the next version.*

**For More Information**

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

Huawei Enterprise APP

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