QSAN Hybrid Flash Storage

XCubeSAN 5316

Best Hybrid Performance for Modern Enterprise Applications

Key Benefits

Outstanding Performance

- Workload and space flexibility with dual active architecture
- Ultra-high performance with 20 GB/s and 1.8M IOPS
- Outstanding scale-up capability up to 10.9 PB

Dependable Data Experience

- 99.9999% high availability design with no single point of failure
- Cache-to-flash to protect cache data in power outage
- Non-disruptive firmware upgrade ensures continuous data service with zero downtime

Versatile Connectivity

- Each controller with built-in 4-port 10 GbE (SFP+) and maximum 12 host ports allows direct connection to multiple hosts without switches
- Optional high-speed 25 GbE iSCSI and 32 Gb Fibre Channel host cards

Modern Simplicity

- XEVO, a flash-based storage management system, minimizes the learning curve and eases maintenance through an intuitive GUI
- Data can be accessed in 5 minutes after installation
- Wake-on-SAS allows you to remotely power on / off all cascaded XCubeDAS expansion units for power saving

Flexibility for Diverse Workloads Demanding More Performance

The XCubeSAN 5316 (3.5" 3U 16-bay) is an affordable, right sized hybrid flash storage system. The new standard for enterprise-class storage workloads, it provides extreme simplicity, scalability, and a balance of performance and price. Ultra-high performance is designed to be the ideal solution for applications in mission-critical data centers, high-performance computing, virtualization, or media environments.

High Availability and Enterprise Reliability

The XCubeSAN series is a proven high availability SAN storage system with full redundancy in modular design. Its dual-active architecture and automatic failover / failback mechanism, coupled with cache-to-flash technology, enables the system to withstand critical situations.

Flexible I/O Modules and Scale-up Capacity as Needed

Each controller has two host card slots that can be configured as iSCSI, Fibre Channel, or a mix of both besides built-in 4-port 10 GbE iSCSI (SFP+). As a result, the series offers great flexibility with built-in 8-port 10 GbE iSCSI (SFP+) and up to 24 host ports in a dual-controller system. In addition, the XS5316 provides massive scale-up capabilities by connecting XCubeDAS or 3rd-party expansion units with up to 496 disk drives or 10.9 PB raw capacity for future data growth.

Proven Simplicity - "Set and Forget" Data Services

XEVO, a storage management system with intuitive GUI designs, helps to save time in storage deployment considerably. XEVO also delivers enterprise storage features including complete RAID level protection, RAID EE with fast rebuild, thin provisioning, SSD cache, auto-tiering, and more. With the help of an intuitive dashboard and reporting system, managers can analyze business usage and monitor storage status in real time.

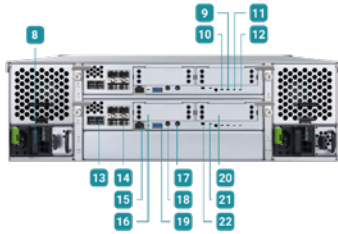## Advanced Data Protection to Safeguard Assets

To protect against data loss and downtime events, XEVO provides complete array-based backup functions including local backup and remote replication. Based on snapshot technology, a solid safety net for disaster recovery can be built to meet the required RPO and RTO.

Secure Data and Secure Management

Supporting SED (Self-Encrypting Drives) will keep your sensitive data safe even if the drives are lost, stolen, or misplaced. Additionally, RBAC (Role-Based Access Control) helps to prevent unauthorized access to your data. All management communication is secured over https.

QSAN

Appearance

1. Enclosure Status LED
2. Enclosure Access LED
3. Enclosure Power Button / LED
4. Disk Drive Status LED
5. Disk Drive Power LED
6. USB Port
7. UID (Unique Identifier) Button / LED
8. Power Supply Unit
9. Master / Slave LED (only for dual controllers)
10. Controller Status LED
11. Dirty Cache LED
12. UID (Unique Identifier) LED
13. 12 Gb/s SAS Wide Port
14. 10 GbE iSCSI (SFP+) Port
15. Management Port
16. Host Card Slot 1 (host card is an optional part)
17. Service Port
18. Console Port
19. USB Port
20. Host Card Slot 2 (host card is an optional part)
21. Reset to Factory Default Button
22. Buzzer Mute Button

System Specification

Model Name	XS5316D	XS5316S
Architecture	Dual-active controller	Single-upgradeable controller
CPU		
Processor	Intel® Xeon® 64-bit 4-core (8-core processor models are also available)	
Memory		
Memory Module Pre-installed	16 GB DDR4 ECC DIMM (per controller)	
Total Memory Slots	4 (per controller)	
Memory Expandable up to	256 GB (per controller)	
Storage		
Drive Bays	3.5" Slot x 16	
Maximum Drive Bays with Expansion Unit	496	
Compatible Drive Type	3.5" & 2.5" SAS, NL-SAS, SED HDD 2.5" SAS, SED SSD	3.5" & 2.5" SAS, NL-SAS, SED HDD 3.5" & 2.5" SATA(*) HDD 2.5" SAS, SATA(*), SED SSD
Drive Interface	SAS 12 Gb/s	SAS 12 Gb/s, SATA 6 Gb/s(*) (*) SATA drives only work with single controller systems
Maximum Internal Raw Capacity	352 TB (calculate 22 TB HDD)	
Maximum Raw Capacity with Expansion Units	10,912 TB (calculate 22 TB HDD)	
Hot Swappable Drive	Yes	
Connectivity Port		
PCIe Expansion	(Gen 3x8 Slot) x 2	
1 GbE RJ45 LAN Port	1 (onboard management port per controller)	
10 GbE SFP+ LAN Port	4 (onboard per controller) / 4 (option)	
10 GbE RJ45 LAN Port	4 (option)	
25 GbE SFP28 LAN Port	2 (option) / 4 (option)	
16 Gb SFP+ Fibre Channel	2 (option) / 4 (option)	
32 Gb SFP28 Fibre Channel	2 (option)	
Expansion and External Port		
12 Gb/s SAS Wide Port	2 (onboard per controller)	
USB Port	1 (front) / 2 (rear)	
Others	Console Port x 1, Service Port (UPS) x 1	
Software Specification		
Storage OS	XEVO	
RAID Type	0 / 1 / 3 / 5 / 6 / 10 / 30 / 50 / 60 / 5EE / 6EE / 50EE / 60EE / N-way mirror	
Storage Efficiency	Thin provisioning	
Software Acceleration	SSD cache (option) / Auto tiering (option)	
Data Protection	Snapshot / Local volume clone	
Remote Replication	Asynchronous (built-in) / Synchronous (option)	
Security	HTTPS / SSH / iSCSI CHAP / ISE & SED	
Management	Web UI / Serial console / RESTful API / S.E.S. / LCM	
Appearance		
Dimension (H x W x D) (mm)	130.4 x 438 x 515	
Net Weight (kg)	21.7	
Gross Weight (kg)	24	
Others		
Memory Protection	Cache-to-Flash (Supercapacitor Module + Flash Module) (option)	
System Fan	4 pcs	
Power Supply Unit	850 W x 2 (80 PLUS Platinum)	
Power Consumption	534 W	
Certification	CE / FCC / BSMI	
Standard Warranty	System: 3 years Supercapacitor Module: 1 year	