XCubeNAS 8100 & 5100 Series

Flash-Ready Rackmount NAS for SMB

Key Benefits

Performance Ready for Intensive Workloads

- Flash ready with built-in quad 10 GbE to accelerate I/O-intensive workloads with nimble data transmission speeds, ensuring smooth user experience.

I/O Scale-Up for Large Bandwidth

- Scalability up to the multi-petabyte level, with no practical limitations to volume or pool size. Maximize availability according to your needs to conveniently store mission-critical data in a single pool.

Multi-Layer Security

- WORM (Write Once Read Many), pool encryption, and SED (Self-Encrypting Drive) allow powerful folder, pool, and drive levels of security that shield users from cyberattacks and physical theft.

Overview

XCubeNAS 8100 & 5100 series are next generation network attached storages crafted for SMB and remote offices with flash-ready architecture to deliver uncompromising server-grade performance. Designed for a seamless experience, XCubeNAS series for SMB maximize investment value through supreme performance, high I/O flexibility, and reliable multi-level security to fulfill modern enterprise needs for speed and scalability. The XN8100 series' high-density architecture, built-in quad 10 GbE SFP+ and extra capacity satisfies new demands of I/O intensive workloads, while the XN5100 series' compact chassis generates a small carbon footprint and is versatile for storage and expansion for all purposes.

Leading Enterprise-Level Operating System

QSM (QSAN Storage Manager) is an innovative storage operating system designed for XCubeNAS products. Based on Linux and 128-bit ZFS (Zeta-byte File System), QSM not only inherits the outstanding native features of ZFS but also adjust with several bespoke optimization enhancements that make the XCubeNAS series a high-performance, efficient and superior network attached storage device.

Compression

QSM drives pervasive cost reduction with data for your storage investment and get the best balance with the performance. Helping administrators to reduce the amount of storage you need to purchase and maintain.

Inline Deduplication

QSM provides an inline, block-level function that checks the block similarity of data as it enters the system, which will auto remove of the redundant data object to reduce the usage of storage capacity.
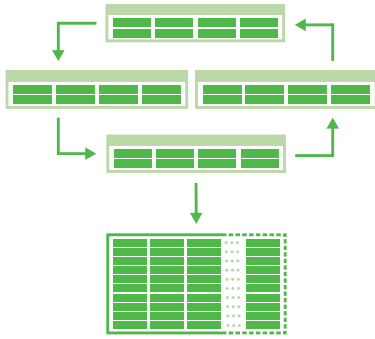
Hybrid SSD Cache

Comprehensive performance improvements design, one SSD to provide both read and write cache to achieve cost-efficiency without compromising performance.

Directory Service and Permission Control

Windows AD and LDAP Directory Services. Windows ACLs and Advanced ACLs.

Data Backup & Archiving Strategy

As data is growing exponentially and treated as the foundation for every business to drive innovation, a smart backup and archiving strategy provided by XCubeNAS based on comprehensive backup application and PB-level scalability which is the perfect solution for modern IT.

- XMirror

  Regularly synchronizes a volume, or the contents of a folder between multiple XCubeNAS devices, any modification to documents will be replicated to other XCubeNAS.

- Real-time Remote Replication

  By periodically copying data to different branches, your data can be recovered in the unfortunate event that a disaster happens.

- Snapshot & Replica

  Administrators can better control data versions and execute point-in-time recovery on folders and LUNs by snapshot.

- High Scalability

  Support up to 426 bays and 9.3 PB. Easy to expand the capacity without stopping service.

Data Safeguard

Developing a comprehensive enterprise security strategy can facilitate more significant control over your threat management activities and help improve the protection of your critical data assets. XCubeNAS helps you to minimize the risk of data breaches with comprehensive protection solutions on both your data and the entire system.

Data Safety

Physical Protection **SED**	
Network	**Software**
IP-Blocking	WORM
Internet SSL	Antivirus
Firewall	AES-256
Service Binding	Security Evolving

XN8100 & XN5100 Series Specification Highlights

Model	XN8112R (LFF + SFF + M.2) XN8112RE (LFF + M.2)	XN8104R (LFF + M.2)	XN5112R (LFF + SFF + M.2) XN5112RE (LFF + M.2)	XN5104R (LFF + M.2)
Form Factor	2U 18-bay / 2U 14-bay[1]	1U 6-bay	2U 18-bay / 2U 14-bay[1]	1U 6-bay
Processor	Intel® Xeon® 64-bit 4-core		Intel® Xeon® 64-bit 2-core	
Memory	8 GB DDR4 ECC DIMM (up to 256 GB)			
Max. Drive (Expansion Units)	426 / 422[1]	414	426 / 422[1]	414
Compatible Drive Type	3.5" SATA HDD & 2.5" SATA SSD 2.5" NVMe U.2 SSD[2] NVMe M.2 SSD[3]	3.5" SATA HDD & 2.5" SATA SSD 2.5" NVMe U.2 SSD NVMe M.2 SSD[3]	3.5" SATA HDD & 2.5" SATA SSD 2.5" NVMe U.2 SSD[2] NVMe M.2 SSD[3]	3.5" SATA HDD & 2.5" SATA SSD NVMe M.2 SSD[3]
Drive Interface	SATA 6 Gb/s, NVMe U.2 (Gen 3x2)[2], NVMe M.2 (Gen 3x2)[3]			
Max. Capacity (Expansion Units)[4]	333 TB (up to 9,309 TB) 272 TB (up to 9,248 TB)[1]	96 TB (up to 9,072 TB)	333 TB (up to 9,309 TB) 272 TB (up to 9,248 TB)[1]	96 TB (up to 9,072 TB)
2.5 GbE RJ45 LAN Port	4 (onboard)			
10 GbE SFP+ LAN Port	4 (onboard) / 2 (option)		2 (option)	
10 GbE RJ45 LAN Port	2 (option)			
25 GbE SFP28 LAN Port	2 (option)			
12 Gb/s SAS Wide Port	2 (option)			
Certification	CE / FCC / BSMI			
Standard Warranty	3 years			
Notes	1. RE model 2. Not supported in RE model 3. Two M.2 slots in controller 4. Calculated with 22 TB HDD, 15.36 TB U.2 SSD, and 4 TB M.2 SSD			

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