DATA SHEET

NEXSAN

UNITY™ NV12000

ENTERPRISE BLOCK, FILE, AND STORAGE FOR MIXED WORKLOADS

BUILT FOR AI SCALE, SPEED, AND DENSITY

The Unity™ NV12000 takes the proven Unity NV-Series™ platform to a new level of density. With support for 122.88TB QLC NVMe SSDs, a single 2U NV12000 holds up to 2.9PB of raw all-flash capacity. Add the new U2F226 NVMe JBOF, with 26 flash bays per enclosure, and scale to 15.7PB in just 10U. Higher capacity per drive means fewer drives, fewer enclosures, and less rack space to reach the same capacity. That reduces power, cooling, networking, and service overhead, not just drive count.

Powered by an advanced end-to-end PCIe 5.0 architecture and up to 512GB of DDR5 memory per controller, the NV12000 delivers exceptional performance, scalability, and flexibility. Beyond its high-density all-flash capabilities, the platform supports hybrid configurations scaling to over 16PB, combining NVMe flash acceleration and FASTier® caching, with high-capacity HDD expansion. This versatile architecture supports a wide range of enterprise storage use cases, including high-capacity primary storage, data lakes for AI and analytics, NexObject™ S3-compatible object storage, and high-performance hybrid workloads. Nexsan's all-inclusive licensing further simplifies management and delivers predictable costs.

KEY CAPABILITIES

BUILT FOR AI-SCALE DENSITY

- The NV12000 combines 122.88TB NVMe flash drives, PCIe 5.0 performance, dual-port redundancy, and up to 12,000MB/s read speeds per drive.
- Delivering exceptional density, efficiency, and scalability for demanding AI, GPU, data lake, and analytics workloads.

U2F226 NVME JBOF EXPANSION

- The new U2F226 JBOF adds 26 NVMe flash bays per enclosure, scaling all-flash capacity alongside the head unit.
- Populated with 122.88TB drives, each U2F226 adds up to 3.2PB raw. The NV12000 also supports up to eight of the U2G478 high-density chassis.

SECURITY, COMPLIANCE AND RANSOMWARE PROTECTION

- Unity's Immutable Snapshots provide advanced data protection.
- Once retention settings are applied, they cannot be altered, so snapshots prevent modification or deletion by ransomware or unauthorized users.
- Combined with NexObject object locking, AES-256 encryption, Kerberos-secured NFS, and optional Assureon® integration, Unity delivers a multi-layered defense for modern data protection

NEXObject™ OBJECT STORAGE

- NexObject is Unity's built-in S3-compatible object store.
- Administrators can run multiple NexObject instances within the same storage pool.
- Separate workloads, namespaces, and access policies while sharing pool capacity.
- NexObject object locking enforces WORM (Write Once, Read Many) immutability for compliance-driven data.

IDEAL USE CASES

AI/ML AND HPC: Accelerate GPU-intensive workloads and data processing.

DATA LAKES: Consolidate petabyte-scale datasets on high-density flash.

ANALYTICS AND DATA WAREHOUSING: Accelerate real-time analytics and business intelligence.

MEDIA AND CONTENT STREAMING: Stream high-resolution content to concurrent users.

VIRTUALIZATION AND MULTI-TENANT ENVIRONMENTS: Consolidate virtualized workloads with secure isolation.

1287 Anvilwood Avenue, Sunnyvale, CA 94089 | 1.408.724.9809 | Nexsan.com
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UNITY™ NV12000

PRODUCT FAMILY OVERVIEW



CATEGORY	FEATURE	UNITY NV12000
ENTERPRISE FEATURES	Immutable Storage; Security, Compliance and Ransomware Protection	Unity delivers immutable volume and file system snapshots, S3 object locking and integrates with Assureon® to address a wide variety of data protection use cases. Includes AES software encryption for data at rest.
	Supports Multiple Protocols	SAN (Fibre Channel, iSCSI), NAS (NFS, SMB, FTP), Object (S3) - NexObject™
	Drives Supported	NVMe | SAS SSD | SAS HDD | SED | SED FIPS
	All-inclusive Licensing	No extra fees, just all the extra features: Immutable snapshots, S3 object locking, Cloud Connector, multi-factor authentication (MFA), SMB Access Audit, FASTier® caching, in-line compression, replication, data integrity, high availability, non-disruptive upgrades, data deduplication, Assureon Connector
	Flexible Configurations	Unity is optimized to deliver the performance you need whether it's a hybrid configuration or an all-flash, making it easy and affordable to meet the application needs.
	Cloud Connector - S3 Edge Caching	The S3 Cloud Connector enables seamless edge caching with bi-directional sync between on-prem storage and cloud providers like AWS S3 and Azure. It boosts performance, reduces latency, and ensures data availability across hybrid environments.
	Data Deduplication	Maximize usable capacity with intelligent data deduplication, delivering up to 9x data reduction.
	FASTier® Caching	Nexsan's FASTier® acceleration technology leverages the power of solid-state to accelerate the performance of the underlying spinning disks by a factor of up to 10X.
	User Interface	Unity includes both a built-in GUI and a comprehensive Command Line Interface (CLI). The Unity UI allows an administrator to easily manage and monitor a Unity deployment, regardless of size, from anywhere with just a web browser.
	PCI Compliance	Unity supports TLS 1.2 for PCI compliance.
	Authentication	Active Directory, LDAP, and Local - Multi-factor Authentication (MFA) with DUO Security.
	Host Platforms	All major platforms including Windows, Linux, Mac, VMware ESX, Hyper-V, Xen
	Data Services	Advanced data reduction, thin provisioning with dead space reclamation, replication, and snapshots.
	Backup Software Compatability	Veeam, Commvault, Bacula, Arcserve, and more
	3rd Party Software Supported	Scale Computing, Windows VSS, VMware VAAI, Commvault, Veeam Ready Repository, Proxmox, XenServer, Bacula, Vates, Milestone, Genetec, Datacore & More
	High Availability	No single point-of-failure architecture with dual redundant storage controllers, redundant power supplies and RAID.
PERFORMANCE AND CAPACITY	Performance (IOPS)	Up to 3,000,000 IOPS
	Max Capacity with All-Flash | Rack U	15.72PB NVMe | 10U with 4 U2F226 22.1PB SAS SSD + NVMe | 34U
	Maximum Drives with Expansion	648 Drives with 8 U2G478 expansions
	Maximum Raw Capacity with HDD Expansions | Rack U	19.17PB | 34U

ABOUT NEXSAN

Nexsan® is a global leader in enabling customers to securely store, protect, and manage data. Established in 1999, Nexsan has earned a reputation for delivering the most highly reliable, secure, and cost-effective storage while always remaining agile to continuously deliver purpose-built storage and data management solutions that meet complex and ever-changing IT, business, and budgetary requirements. Nexsan's patented technology is ideal for a variety of use cases including backup and recovery, content delivery and streaming, scientific lab data, virtualization, evidentiary data, digital video surveillance, regulatory compliance, and healthcare records. For further information, please visit www.nexsan.com.

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