

Versio™ IOX Scale-Out NAS SINGLE

Economical Solution for High-Performance Scalable NAS Storage



Versio™ IOX Scale-Out NAS SINGLE is an economical, entry-level storage solution designed for smaller applications that do not require high availability. It is ideal for customers who have a SAN, but need to move to a NAS to accommodate editing applications, or for customers who eventually want the higher performance of a Scale-Out NAS — but with a lower initial investment.

Delivering cost-effective, sharable and scalable storage throughout the content lifecycle, Versio IOX Scale-Out NAS SINGLE allows customers to enjoy the benefits of NAS, such as the simplicity of a single entry point and the lower scaling cost of Ethernet rather than expensive Fibre Channel.

A Versio IOX Scale-Out NAS SINGLE filesystem has a single controller active/active pair that manages the entire namespace. Its single-stack simplicity allows for easy configuration and does not require additional elements to manage. However, controllers and disks can be added to the system as separate volumes or shares, with the addition of an asset-management layer to move and duplicate media between volumes.

Versio IOX Scale-Out NAS SINGLE delivers numerous real-world benefits:

- Simplicity – Single point of access to administer one scale-up stack of storage (to the user it looks like one drive)
- Reduced operational costs – Inexpensive Ethernet connectivity for all server nodes and clients; no Fibre Channel needed
- Flexible capacity & bandwidth — Allows scaling of storage & bandwidth as business needs grow, without affecting existing media or interrupting on-air operations
- Cost-effective entry point for NAS — Stepping stone to the ultimate benefits of Scale-Out NAS
- Faster time to air - True shared storage access facilitates collaboration and eliminates file copying, providing a fast-turnaround editorial environment
- Reduced capital expenditures — Provides an economical entry-level storage solution, yet allows pay-as-you-go expansion (up to 8 expansion disks / 800 TB usable)
- Easy to manage — Allows unattended drive rebuilds, supports remote monitoring and diagnostics, and includes an informative web user interface

Details

- Tens of gigabits per second of assured streaming bandwidth, even during degraded or rebuilding modes
- Fastest client recovery of less than 20ms for uninterrupted service in the event of a catastrophic storage stack loss
- Automatic drive rebuilds require no operator action and result in no performance degradation
- High drive density with standard Hard Drive, Self-Encrypted Hard Drive, and Solid State Drives (SSD)

- Support for Windows, MacOS, and Linux client connections via Ethernet
- Tiering – Overall stack performance boost by single tray/LUN of SSD or 15k rpm high performance HDD
- Storage Pools – Allow data on in LUNs to be partitioned and bandwidth managed by user or workflow operational groups

Specifications

Specifications and designs are subject to change without notice

GENERAL INFORMATION	
Core Chasis	Active/Active controller module pair per enclosure 2x SAS I/O ports per module connecting to the controller node 1 x 4-lane 6Gb mini-SAS connector per module
Store Chasis	Dual SAS Connector modules with two 4-lane 6Gb mini-SAS connectors per module
Management/Status Reporting (some optional components and plugins require additional license)	HPE Storage Management Utility (SMU). Management access, out-of-band: WEB GUI, CLI. Interface Types: USB 100/1000 Ethernet. Protocols Supported SNMP, SMI-S, SSL, SSH, SMTP, FTP, HTTP, Telnet HPE OneView for VMware vCenter vStorage API for Array Integration in vSphere VMware Site Recovery Manager(SRM) Plugin HPE StoreFront Manager for Microsoft Hyper-V HPE MSA Remote Snap software
Maximum Stack Configuration	3.5" Controller & Expansion — 8 enclosures, total 96 drives 2.5" Controller & Expansion — 8 enclosures — total 199 drives
Maximum Single Volume Configuration	Maximum 64 LUNs (128 LUNs mirrored) IOX Storage Pools — 1 stack of up to 8 enclosures NAS — up to 8 pools, total 64 enclosures
Protection Levels	RAID-6
Hot-Swappable Components	Disk drives, PSU/cooling modules, Core RAID Controllers, Expansion SAS modules, and all cabling
Physical	Height: 8.9 cm (3.5") 2 EIA Units Width: 44.7 cm (17.6") IEC Rack Compliant Depth: 24-bay 2.5" Controller array: 19.5 in / 49.5 cm Depth: 25-bay 2.5" Expansion array: 22.3 in / 56.7 cm Depth: 12-bay 3.5" Controller/Expansion: 22.5in. / 57.2 cm Weight (no controllers): 12-bay 3.5" Controller/Expansion: 31 lbs. (DC-pwr model: 32.6 lbs) Weight (no controllers): 24-bay 2.5" Controller array: 29.1 lbs (DC-pwr model: 30.7lbs) Weight (no controllers): 25-bay 2.5" Expansion array: 38 lbs

DISK DRIVES

Drive Types and Sizes	High drive density with the following available options: 3.5" 10TB SAS 7.2K Hard Drive 3.5" 8TB SAS 7.2K Hard Drive 3.5" 6TB SAS 7.2K Hard Drive 3.5" 4TB SAS 7.2K Hard Drive 3.5" 2TB SAS 7.2K Hard Drive 3.5" 4TB SAS 7.2K Self Encrypted Hard Drive 3.5" 2TB SAS 7.2K Self Encrypted Hard Drive 2.5" 2TB SAS 7.2K Hard Drive 2.5" 1TB SAS 7.2K Hard Drive 2.5" 1.8TB SAS 10K Hard Drive 2.5" 600GB SAS 15K Hard Drive 2.5" 1.2TB SAS 10K Self Encrypted Hard Drive 2.5" 3.2TB SAS Solid State Drive (SSD) 2.5" 1.6TB SAS Solid State Drive (SSD) 2.5" 800GB SAS Solid State Drive (SSD) 2.5" 400GB SAS Solid State Drive (SSD) 2.5" 200GB SAS Solid State Drive (SSD)
Cache	6GB per controller
Read/Write Cache	4GB per controller
Mean Time Between Failures (MTBF)	1.2 million hours or higher
Annual Failure Rate (AFR) at full 24/7 operation	0.73% (at full 24x7 operation)
Transfer Rate, Sustained	147 Mb/s or higher
Power Consumption (idle)	9.0 W or lower

ENVIRONMENTAL

Input Power Requirements	110VAC 3.32A, 344-390 W; 220VAC 1.61A, 374-432W
Maximum Input Power	100-240 VAC, 50/60 Hz., 4.5-1.9A; 48-60 VDC 10.4A/8.3A
Power Supply Efficiency	Bronze Rated - high efficiency 82% @ 20% load 86% @ 80% load 85% @ 100% load
Heat Dissipation	1622 BTUs/hour
Operational Temperature	41° to 104° F (5° to 40° C)Note: Derate 2° C for every km, up to 3000 meters
Non-Operational Temperature	-40° to 158° F (-40° to 70° C)
Operational Humidity	10% to 90% RH @ 104° F (40° C), non-condensing
Non-Operational Humidity	Up to 93% RH @ 104° F (40° C), non-condensing
Operational Shock	3G's for 11 ms
Non-Operational Shock	15G's 11 ms, ½ sine
Operational Vibration	5 to 500 Hz, 0.14 g shaped
Non-Operational Vibration	3-365-3Hz, 1.22 g, z-axis, 0.85 g, X&Y axis shaped spectrum
Declared Acoustics Noise Levels	Sound Power: LWAd=6,75 B Sound Pressure: LpAm — 55 dBA

REGULATORY / CERTIFICATION

Compliance	NEBS Level 3
Safety	UL 60950-1, 1st edition (United States) CAN/CSA-C22.2 No.60950-1-03 (Canada) EN 60950-1 (European Union) IEC 60950-1 (International) EN 60950-1 (GS Mark, Germany) CCC Mark China (PRC)
Electromagnetic Compatibility Emissions	VCCI:2008-04 Class A (Japan) EN 55022 Class A (EU); CISPR 22 (International Class A) AS/NZS CISPR 22 Class A (Australia, New Zealand) VCCI Class A (Japan) KN 22 Class A (S. Korea) FCC 15:109(g) Class A (USA) ICES-003:2004 Class A (Canada)
Harmonics / Flicker Immunity	EN61000-3-2 (EU) EN 61000-3-3 (EU) EN 55024 (EU) KN 24 (S. Korea)
RoHS and WEEE	RoHS-6/6 Compliance, China RoHS, WEEE
Country Approvals	United States, Australia/New Zealand, Canada, China (PRC), European Union (EU), Germany, Japan, South Korea, Taiwan

Ordering Information

VER-HW-NAS-SINGLE	VERSIO 1RU SCALE-OUT NAS STORAGE CONTROLLER FOR SINGLE-STACK STORAGE CLUSTER
VER-SW-NAS-HDD-CAP	VERSIO SCALE-OUT NAS HDD CAPACITY LICENSE. PURCHASE 1X PER IOX STORAGE TERABYTE USEABLE CAPACITY
VST3512S	VERSIO IOX STORAGE EXPANSION KIT. 2U ENC., 12 3.5" SLOTS. ORDER 12 3.5" DRIVES PER CAPACITY REQMNT
VST37200	VERSIO IOX STORAGE 3.5" 2TB SAS 7.2K HARD DRIVE FOR VST3512-SERIES ENCLOSURE