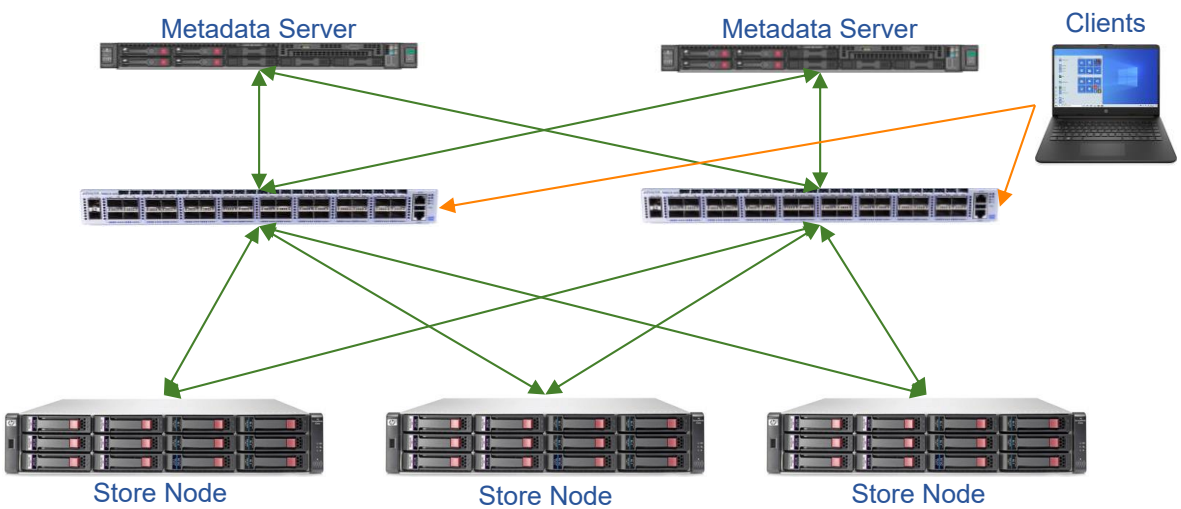
Datasheet

IOX Express NAS

Scalable Broadcast Storage System

IOX NAS Storage provides broadcast and production facilities with an economical, easy-to-manage, high-availability, shared storage solution for XVR playout servers, Versio™ integrated playout servers, and Nexio+™ AMP SDI servers. This storage solution enables easy scaling of capacity or bandwidth without having to take the system off-air — a true shared online storage, ideal for fast-turnaround environments such as news and sports.

The file system features multiple controller active/active pairs that contribute their attached storage to a single namespace storage pool. As more controllers and storage are added, performance and capacity increases are achieved without adding shares, mountpoints or volumes. IOX provides the fastest client recovery in the event of catastrophic storage loss and the highest level of service SLA on the market. Featuring the EditShare® EFS solution and built on Hewlett Packard Enterprise (HPE) enterprise-grade hardware, IOX is designed for optimal operation in the most demanding environments. It is offered in bundles of predefined capacity and bandwidth, and delivered with preinstalled software.



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Solutions IOX NAS Express

For those that are smaller and looking for more affordable solutions, meet the IOX Express Single storage. This storage option (IOX-EXP-SINGLE) offers a cost-effective entry point for editing, channel launch, and channel management. Covering a plethora of differing environments, a smaller broadcast facility, ingest, production environments and disaster recovery locations the all-in-one box storage node provides 3,000 Mb/s shared bandwidth (guaranteed), 40/80TB of capacity of which this is set in a RAID-6 storage protection. This small storage solution is a non-redundant model.

A solution for an entry-level channel launch. customers with lower bandwidth requirements but still require real-time performance and peace-of-mind redundancy, then the 1+1 storage model will be a good fit. Providing storage in Copy2 protection (mirroring) architecture. This model provides a higher bandwidth - 4,000 Mb/s. Plus providing 56/112TB of capacity.

A solution that covers a fully redundant storage model that scales for the small to large broadcasters, we have the Highly Available (HA) storage architecture. A scalable storage model that provides fully redundant IOX storage with 2+1, 3+1, 4+1 storage nodes to 12+ 1 storage nodes. Ranging from 8/12/16 Gb/s to 48 Gb/s of shared bandwidth (guaranteed). Along with a storage capacity ranging from 112/252/336 TB to 2.3 PB of capacity. Providing High Availability storage at N+1 protection. A suitable solution for broadcasters and playout productions, demanding real-time on-air applications, supporting extreme bandwidth environments. A solution fit for the largest multichannel systems, multipurpose collaborative environments with dozens of concurrent file import/export transfers, NLE workstations and file transcoders.

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Benefits

- Flexible capacity & bandwidth: allows scaling storage size and throughput as business needs grow, without affecting existing media or interrupting on-air operations
- High availability: enables continuous broadcast operations, with no performance degradation in the event of multiple and simultaneous failures
- Facilitates collaboration: true shared storage access eliminates file copying, providing a fast-turnaround editorial environment and a shorter time to air
- Reduces capital expenditures: provides an economical storage solution, yet allows unlimited pay-as-you-go expansion
- Administer as one system: save time administering as single system regardless of size
- Easy to manage: allows unattended drive rebuilds, supports remote monitoring and diagnostics, and includes an informative web user interface for storage statistics and health status
- Exceptional performance: Hardware RAID features storage pools and tiering, to avoid performance degradation
- Tailored designs: storage to be sized depending on the total requirements of bandwidth and capacity, with multiple possible topologies depending on the level of redundancy required

Features

- High availability in read/write streaming operations with Nexio and Versio media servers under real-time multichannel ingest and playout, file transfer, transcode, edit, and render/conform.
- On-air scalability
    - Scales from 40 TB to over 2 PB (~9years @ XDCAM50)
    - Scales from 3 Gbps to over 48 Gbps (guaranteed bandwidth in degraded or rebuilding modes)
- Multiple stack parity topology supported
    - Single = Stack RAID6 internal parity only
    - 1+1 = Stack Mirroring (HA Copy2)
    - N+1 = Single-Stack Parity (HA XOR)
- Fastest client recovery of less than 20ms for uninterrupted service to on-air playback servers or to editing applications
- Automatic drive rebuilds require no operator action and result in no performance degradation
- Internal node storage controllers
- High drive density with standard Hard Drive in 12x and 16x storage nodes
- Support for Windows, macOS, and Linux client connections via Ethernet
- Storage pools with partitioned data
- Bandwidth managed by user or workflow operational groups
- Redundant metadata controllers
- Media files stored in native wrapper (e.g., MXF OP1a, MOV)
- Files openly accessible over SMB, CIFS, FTP or EFS client – no gateways required
- Inexpensive Ethernet connectivity for all server nodes and clients: 1, 10, 25, 40 or 100 GbE interfaces
- Supports collaborative content between multiple NLE systems (Avid Media Composer, Adobe Premiere, FCP, DaVinci, etc.)
- Fully client-side-offloaded parity processing, allowing storage architecture to use extremely low-cost bridge nodes instead of competitive high-performance storage processing nodes
- Ability to create different media spaces or directories to store main and redundant copies
- Create two separate storage domains to split main & backup operations
- Alternatively, main & backup Nexio / Versio servers connecting to a common shared storage

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Specifications

Specification	IOX-EXP-G11-MDC	IOX-EXP-451	IOX-EXP-201
System	HPE DL325, AMD 8-core EPYC CPU	HPE DL345, AMD 8-core EPYC CPU	HPE DL345, AMD 8-core EPYC CPU
Memory	64GB DDR5	64GB DDR5	64GB DDR5
Network	Quad 1GB + Dual 10/25GB	Quad 1GB + Dual 10/25GB	Quad 1GB + Dual 10/25GB
Drive Controller	N/A	12Gb/s Hardware RAID Controller and standard RAID 6 protection	12Gb/s Hardware RAID Controller and standard RAID 6 protection
Drive Options	N/A	16 x enterprise-grade HDDs in 4TB or 8TB capacities	12 x enterprise-grade HDDs in 4TB or 8TB capacities
System Drives	Mirrored 480GB NVMe OS Drives	Mirrored 480GB NVMe OS Drives	Mirrored 480GB NVMe OS Drives
Power Supply	1000W Titanium Hot Swappable	1000W Titanium Hot Swappable	1000W Titanium Hot Swappable
Form Factor	1RU	2 RU	2 RU
Racked Weight (w/HDD)	14.57 kg (32.12 lb)	35.67 kg (78.63 lb)	35.67 kg (78.63 lb)
Dimensions	4.28cm (H) x 64.94cm (D) x 43.46cm (W) (1.69” x 25.57” x 17.12”)	8.75cm (H) x 66.31cm (D) x 44.80cm (W) (3.44” x 26.1” x 17.63”)	8.75cm (H) x 66.31cm (D) x 44.80cm (W) (3.44” x 26.1” x 17.63”)
Input Voltage	100-240	100-240	100-240
Input Frequency	50-60	50-60	50-60
Power Consumption	300-400 peak	550-600 peak	500-550 peak
Thermal Emmisions	3629-3764 BTU-Hr	3582-3741 BTU-Hr	3582-3741 BTU-Hr
Operating Temperature	10°C to 35°C (50°F to 95°F)	10°C to 35°C (50°F to 95°F)	10°C to 35°C (50°F to 95°F)
Operating Humidity	8% tp 90%	8% tp 90%	8% tp 90%
Storage Temperature	-30°C to 60°C (-22°F to 140°F)	-30°C to 60°C (-22°F to 140°F)	-30°C to 60°C (-22°F to 140°F)
Storage Humidity	5% to 95%	5% to 95%	5% to 95%

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Ordering Information

IOX Express NAS bundles are offered in four different topologies to support customers' requirements and workflows: high-availability parity stack (N+1), Copy2 high availability (1+1), non-high availability and single server systems.

All bundles include metadata hardware and/or store hardware nodes with drives, software licenses, basic hardware warranty, Dual Port 10/25G SFP28, and a spare hard drive for each store node. Additional support available through Imagine's MyCare.

Topology	IC SKU	Bandwidth (Gbps)	Capacity (Usable TB)	Bundle HW Systems
HA	IOX-EXP-BNDL-G11-HA1	8	112	2 x IOX-EXP-G11-MDC 3 x IOX-EXP-451-64TB
	IOX-EXP-BNDL-G11-HA2B	12	168	2 x IOX-EXP-G11-MDC 4 x IOX-EXP-451-64TB
	IOX-EXP-BNDL-G11-HA3B	16	224	2 x IOX-EXP-G11-MDC 5 x IOX-EXP-451-64TB
	IOX-EXP-BNDL-G11-HA4B	20	280	2 x IOX-EXP-G11-MDC 6 x IOX-EXP-451-64TB
	IOX-EXP-BNDL-G11-HA5	20	560	2 x IOX-EXP-G11-MDC 6 x IOX-EXP-451-128TB
COPY2	IOX-EXP-G11-BNDL-C2A	4	56	2 x IOX-EXP-G11-MDC 2 x IOX-EXP-451-64TB
	IOX-EXP-G11-BNDL-C2B	4	112	2 x IOX-EXP-G11-MDC 2 x IOX-EXP-451-128TB
Non-HA	IOX-EXP-G11-BNDL-NH1	3	40	1x IOX-EXP-201-48TB
	IOX-EXP-G11-BNDL-NH2B	6	80	2x IOX-EXP-201-48TB
	IOX-EXP-G11-BNDL-NH3B	9	120	3x IOX-EXP-201-48TB
SINGLE	IOX-EXP-SINGLE-1	3	40	1x IOX-EXP-201-48TB
	IOX-EXP-SINGLE-2	3	80	1x IOX-EXP-201-96TB
	IOX-EXP-SINGLE-3	4	56	1 x IOX-EXP-G11-MDC 1 x IOX-EXP-451-64TB

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