

XStream EFS 300

Enterprise-scale High-performance Shared Storage for Larger Media Operations



XStream EFS 300 Enterprise Scale-out Storage

XStream EFS 300 is scale-out shared storage that delivers the benefits of EditShare File System-based storage in configurations that can meet the performance and capacity requirements of the largest postproduction environments. Thanks to its simple building-block approach scaling capacity and bandwidth as the needs of the organization grow is as easy as plugging additional storage nodes.

Whether configured as a single 32TB node or a fully expanded 5PB cluster, the EFS 300 always presents a single namespace to manage. This eliminates administrative tasks like balancing user workloads between volumes or workspaces as well as building multiple sets of user accounts and/or permission sets.

The XStream EFS 300 employs the EFS Native Client, an advanced, multi-threaded driver whose low overhead and latency provides Windows, OS X and LINUX workstations with exceptional performance. By supporting bonded Ethernet ports, it extends the usefulness of legacy 1G and 10G networks by supporting payloads in excess of the native network bandwidth. In addition, this allows the use of fault-tolerant MLAG protocols to eliminate switch-related single points of failure.

In multi-node EFS 300 clusters, the EFS Native Client provides further performance benefits by enabling parallel transactions between workstations and storage nodes to avoid the typical "hot spots" associated with NAS clusters. Also, depending on the number of nodes present, an EFS 300 can support XOR and COPY protection schemes that can tolerate the loss of one or more storage nodes.

Finally, EditShare [SwiftRead](#) permits client workstations to seek parity or copy data from elsewhere in the cluster when a storage node is congested or down.

A Complete Post Production Environment

The rich feature set of the EFS 300 separates it from other storage solutions. In addition to providing ultra-reliable, ultra-scalable high performance storage, it includes powerful applications to address the most common video production requirements.

XStream EFS 300 is equipped with [Flow Production Asset Management](#) to provide file-based ingest, logging, cataloging, searching, cuts-only editing and drag and drop to Final Cut Pro, Adobe Premier and other NLE applications as well as provide web-based access via AirFlow and remote editing via Flow Story.

[Ark Media Archive](#) is also bundled with the EFS 300. It permits users to set up automatic tasks to backup critical media assets and to park unused assets in nearline disk and offline tape storage. Ark users can also restore backups from nearline and offline destinations.

[EditShare Manager](#) is a comprehensive application that enables system administrators to manage users, permissions, quotas, workspaces, projects, reporting and other aspects of system usage. Like all members of the XStream EFS storage family, the EFS 300 never requires maintenance windows for tasks like defragmentation, storage expansion or software updates.

[EditShare Connect](#) is client software that enables collaboration between project members. It provides access to permitted media assets and workstations, it enforces read and write permissions, quotas and implements project sharing and bin locking.

An EFS 300 master node can support a small number of direct connected client workstations and can also host a tape library via an optional SAS HBA. A larger number of clients can be supported with the addition of an appropriate network switch.

EFS 300 Scalability

An XStream EFS 300 offers unlimited scalability. A single master node will support the addition of 2 additional storage nodes. Further expansion, up to 5PB total storage, is possible by adding one or more dedicated metadata controllers and dedicated servers for Flow and Ark. Additionally, for existing owners of EditShare storage, an EFS 300 can be added to any existing ESA server group.

EFS 300 Storage Nodes



EFS Metadata



Flow PAM



Ark



Expanded XStream EFS 300 storage production platform



XStream EFS 300 Front



XStream EFS 300 Rear

XStream EFS 300 Product Information

MODELS AND OPTIONS

All-in-One Master Server 3U Server with 16 HDD:
 - select 32TB / 64TB / 96TB / 128TB / 160TB raw capacity
 - select standard dual 10G RJ-45 or optional dual 10G SFP+ or dual 40G QSFP+ NIC
 Includes Flow Media Asset Management application, 10/2 Flow/Flow ingest licenses, Ark Media Archiving application

Storage Server 3U Server with 16 HDD:
 - select 32TB, 64TB, 96TB, 128TB or 160TB raw capacity
 - select standard dual 10G RJ-45 or optional dual 10G SFP+ or dual 40G QSFP+ NIC

HARDWARE SPECIFICATION

- Next-generation 3U Chassis with 28" tool-less slide rail and covers
- Motherboard with powerful 6 core CPU optimized for I/O intensive applications
- 64 GB DDR4 - 2400MHz ECC High Speed RAM¹
- Mirrored 512GB SSD OS drives, hot-swappable, rear-accessible
- 12Gb/s Hardware RAID Controller and standard RAID 6 protection
- 16 enterprise-grade HDDs in 2, 4, 6, 8 or 10TB capacities
- Hot-swappable Power Supplies, Fans, Media and OS drives
- Dual port 10GbE Network Card²

SOFTWARE SPECIFICATION

- Ubuntu 64-bit Operating System
- EFS Native Client driver for Windows, Mac OS and LINUX
- Supports SMB, AFP and FTP protocols

Technical Specifications

ELECTRICAL

Input Voltage	100-260 VAC
Input Frequency	50/60 Hz
Power Consumption	330W/402W peak

ENVIRONMENTAL

Operating Temperature	0°C (32°F) - 50°C (122°F)
Operating Humidity	5% - 95%, non-condensing
Storage Temperature	-20°C (-4°F) - 60°C (140°F)
Storage Humidity	5% - 95%, non-condensing

THERMAL EMISSIONS

Typical Thermal Output	1126 BTU/hr
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DIMENSIONS

Height/Width/Depth	483/132/645 mm 19/5.2/25.4 in
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WEIGHTS

Shipping Weight	40.1 kg / 88.5 lb
Racked (no HDD)	18.3 kg / 40.5 lb
Racked (16 HDD installed)	31.9 kg / 70.5 lb

¹ 32GB RAM in XSTREAM EFS 300 Storage nodes

² Other network interfaces are also supported