

EFS 200

High-performance scale-out shared storage for expanding media facilities



EFS 200 Media Production Storage

EFS 200 is scale-out shared storage that delivers the benefits of EditShare Filesystem-based storage in a size that meets the capacity and budget requirements of collaboration teams and smaller media shops. Thanks to its simple building-block approach, scaling storage capacity and throughput as the needs of the organization grow is as easy as adding more storage nodes.

Whether configured as a single 24 terabyte storage node or a fully expanded 360 terabyte cluster with three storage nodes, the EFS system always presents a single storage namespace to manage. This eliminates administrative tasks like balancing user workloads between volumes or workspaces or building multiple sets of user accounts or permissions.

The EFS 200 includes the EFS client, an advanced, multi-threaded filesystem driver whose low overhead and latency provide Windows, Mac OS, and Linux workstations with exceptional performance. The EFS client can take advantage of bonded network interfaces, which can extend the usefulness of 1 gigabit and 10 gigabit ethernet networks by allowing throughput in excess of a single network interface. Additionally, this allows using fault-tolerant networking features like multi-chassis link aggregation (MLAG) that can eliminate network-related single points of failure.

In systems with multiple EFS 200 storage nodes, the EFS client provides further performance benefits by enabling parallel transactions between workstations and storage nodes to avoid the typical “hot spots” associated with other, simpler NAS systems. Also, when an EFS system contains two or more EFS 200 storage nodes, various data replication strategies are possible, which allows the system to tolerate the loss of one or more storage nodes. Finally, the

EFS client features SwiftRead, which allows it to fetch data from alternate storage nodes when a storage node is underperforming or offline.

A Complete Post-production Environment

The complete suite of bundled software included with the EFS 200 separates it from other storage solutions. In addition to providing ultra-reliable, ultra-scalable, high performance shared storage, it includes powerful applications to address the most common multimedia production requirements.

The management features are comprehensive but easy to use. An administrator can manage user accounts, permissions, quotas, workspaces, projects, reporting, and other aspects of system usage.

The EditShare Connect client application permits a user to access only the workspaces that the administrator has allowed, and after the connection to a workspace has been made, the workspace's permissions and quotas are enforced. Additionally, EditShare Connect provides access to project sharing and bin locking features that are compatible with any application.

The FLOW production asset management system provides file-based ingest, logging, cataloging, searching, cuts-only editing, and drag-and-drop interchange with Final Cut Pro, Premiere Pro, and other NLE applications as well as web-based access through AirFLOW and remote editing with FLOW Story.

The Ark backup and archiving system permits users to set up automatic tasks to backup critical media assets or to park unused assets in either hard disk-based nearline servers or an LTO tape library. Ark can restore entire workspaces and also features single file restoration (from Ark Disk or Ark Tape) and partial file restoration (from Ark Disk only).

EFS 200 Scalability

An EFS 200 server can be expanded with up to two additional EFS 200 storage nodes. Scaling the storage even further is possible with additional EFS metadata nodes and storage nodes. Owners of legacy EditShare storage servers can manage them together with an EFS 200 in an ESA group.

EFS 200 Product Information

Hardware Specification

- Based on HPE DL380 Gen10 Rack-mountable 2U server with 12 HDDS
- Motherboard with powerful 12 core CPU
- 64 GB of RAM
- Boot disks: 2 x 480 GB SSDs, hot-swappable, rear-accessible, RAID-1 protection (1+1)
- Storage disks: 12 x enterprise-grade HDDs in 2, 4, 6, 8, or 10 TB capacities, hot-swappable, front-accessible, RAID-6 protection (10+2)
- 12 Gb/s RAID controller with 16 SATA/SAS ports (dedicated RAID controller for each 16-drive set)
- Hot-swappable Power Supplies, Fans, Media, and OS drives



EFS 200 Front

A single EFS 200 server can support a small workgroup of directly connected workstations with an optional two- or four-port NIC. A larger number of workstations can be supported with the addition of an appropriate network switch and NIC.

To take advantage of the bundled Ark Tape software, the EFS 200 can connect directly to an LTO tape library through an optional SAS HBA.

- 4 x 1 Gb ports included
- 10GBASE-T, 10 GbE SFP+, 10/25G SFP28, and 100/50/40G QSFP28 NIC options available

Software Specification

- EditShare Linux 64-bit server operating system
- EditShare Storage, FLOW, and Ark application software
- Native EFS client for Windows, Mac OS, and Linux
- Additionally supports SMB and NFS connections



EFS 200 Rear

Technical Specifications

Electrical

Input Voltage	100-240 VAC
Input Frequency	50/60 Hz
Power Consumption	500W

Environmental

Operating Temperature	10°C (50°F) - 35°C (95°F)
Operating Humidity	8% - 90%, non-condensing
Storage Temperature	-30°C (-22°F) - 60°C (140°F)
Storage Humidity	5% - 95%, non-condensing

Thermal Emissions

Typical Thermal Output	1902 BTU/hr (557 W)
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Weights

Shipping Weight	17.1 kg (37.75 lbs)
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Dimensions

Height/Width/Depth	8.73 x 44.54 x 73.02 cm 3.44 x 17.54 x 28.75 in
Shipping Dimensions	27.00 x 60.02 x 96.85 cm 10.63 x 23.63 x 38.13 in