

FILM STUDIO USES RAIDIX TO PROTECT DIGITAL CONTENT WHILE ACCELERATING POST-PRODUCTION COLOR CORRECTION



Challenge

When the resolution of digital content is 2K or 4K, over four times the resolution of standard high definition, a feature film can be up to two terabytes in size.

Storing and accessing large files, such as medical images that can be a hundred gigabytes in size, can be challenging. One industry, however, Media and Entertainment, works with files that are truly gargantuan. When the resolution of digital content is 2K or 4K, over four times the resolution of standard high definition, a feature film can be up to two terabytes in size.

Working with files this large is formidable. A case in point is Sharp Image, a premium, full-service, animation and visual effects production studio located in Karachi, Pakistan. Since 1994, the award-winning firm has worked on feature films, animations, commercials, and other digital content for such clients as Colgate Palmolive, the Pepsi Cola Company, and Unilever. Poised to become a global player in its industry, the studio delivers world-class post-production services often on enormous 2K and 4K digital files.

Its artists must store terabyte-sized files and then stream them for post-production effects using applications like Blackmagic Design's DaVinci Resolve 12 for editing, advanced color grading, and finishing. When two artists worked on the same file, however, the files often suffered from data corruption, compromising production schedules and the integrity of files. Additionally, the size of the files taxed the NAS storage system. The 10Gb Ethernet links between the storage and workstations caused bottlenecks that further jeopardized deadlines.

To preserve its competitive edge, Sharp Image had to improve the performance and capabilities of its storage environment. The firm required faster links to support streaming and the means to safeguard files from corruption as multiple users worked on them. Yet it wanted to avoid the costs of deploying a hardware-based metadata controller, which would allow users to safely access the same blocks on a storage volume.

Solution

"Our artists have I/O performance fast enough to stream the largest files without congestion, and they no longer worry about data corruption. Our storage environment is now optimized for performance, availability, and data protection."

Arifeen Yousufi,
Deputy IT Manager,
Sharp Image

Sharp Image turned to cost-efficient software-defined storage (SDS) for data protection, metadata controller functionality, and scalability to accommodate future growth. It also sought 16Gb Fibre Channel (FC) speeds to eliminate I/O latency, even for the largest media files. The studio evaluated one storage software solution, but found that it compromised FC performance. Additionally, it was not designed for media production, particularly for 2K and 4K content.

To achieve high-speed 16Gb/s throughput, Sharp Image deployed Celerity™ FC host bus adapters from ATTO Technology. The vendor then recommended RAIDIX for the studio's SDS solution.

The RAIDIX storage software provides function-rich control of storage clusters, including SAN and scale-out NAS architectures, and supports all major protocols such as Fibre Channel. The software prioritizes data streams and optimizes I/O performance by excluding the slowest drives in an array.

The RAIDIX software also offers metadata and RAID controller functionality, a key requirement for Sharp Image. Whereas RAID controllers generally support no more than 32 drives in an array, the RAIDIX architecture can support up to 64 for greater scalability.

With color rendering critical to its services, Sharp Image requested pre-sales assistance from RAIDIX technical support. RAIDIX technicians tested the software on the same hardware that the studio intended to use. This proof of concept verified the data speeds that Sharp Image demanded.

Because the RAIDIX software provides RAID capabilities, Sharp Image economized by using commodity hardware rather than buying a pricey RAID array.

Business impact

Sharp Image installed the RAIDIX software on a high-density chassis from SuperMicro provisioned with 24 4TB SATA drives for 96 terabytes of capacity. Because the RAIDIX software provides RAID capabilities, Sharp Image economized by using commodity hardware rather than buying a pricey RAID array. Additionally, RAIDIX is more scalable than hardware based RAID controllers, ensuring the firm can cost-effectively scale out its environment as needed.

RAIDIX offers Sharp Image additional value thanks to its web-based management interface. Users can easily monitor and manage storage systems, and view statistics to confirm performance and accelerate troubleshooting. They also configure settings to meet the demands of any job and can change read/write access to files.

For further protection against issues that might impede workflows, Sharp Image contracted for the RAIDIX premium support plan for comprehensive support services, including system maintenance that can be performed during off-hours or on weekends to accommodate production schedules.