

Digital Rich Media Applications for Heterogeneous Environments

As users require ever richer and higher resolution media content, the bandwidth and delivery requirements of digital storage systems in content delivery / distribution applications will increase dramatically. A combination of rich media such as voice, data and video is used to develop content, which in turn drives the need for large volumes of storage. Digital storage is used in both content creation/editing and content delivery into homes and businesses worldwide. Additionally, the massive growth in high bandwidth Internet access is further increasing the demand for high bandwidth, high capacity data storage systems.

The various editing functions include encoding, rendering, ingest/output, and asset management. Both hardware and software components of a storage system must be optimized in order to support the requirements of such rich media applications, providing rapid access to random data for dynamic data, and delivering content in a continuous streaming fashion for static data.

Share files on a high performance SAN

In environments where there are multiple hosts requiring access to the same files on a SAN, a shared file system is deployed to manage file access requests from the hosts. Without file access coordination, when two hosts access (read or write) the same file simultaneously, there is a possibility that data may get corrupted. A shared file system coordinates file access and ensures that reads and writes are consistent among the hosts. It enables a variety of workstations and servers to share data from a common central disk via a SAN. This process is faster and easier to manage than it is to deal with traditional file systems which allow users to share files by duplicating the data and moving the data from server to server. A SAN shared file system manages high performance access to files stored on disk resources over a switched fabric. Additionally, when the hosts use different operating systems, there is a need for a shared file system to handle file access restrictions between heterogeneous operating systems.

Until now, no integrated storage system could address the price / performance as well as ease-of-use requirements in rich-media environments.

The Magellan storage systems combined with the SANmp shared file system, provide the ability to scale primary and secondary storage, delivering high performance data access, as well as management of shared volumes among heterogeneous hosts.

The RAID solution with SANmp shared file system software provides a storage environment that offers the SAN users the flexibility of sharing files and data volumes. Using this solution, multiple technicians in a workgroup can work on the same file. For example, one technician may be editing the video portion while another technician is editing the audio and yet a third technician may be doing rendering. Without the capability to share volumes within the SAN, there is a possibility for data corruption in addition to reduced productivity.

The RAID solution enables concurrent file sharing across heterogeneous systems with high speed benefits of a SAN. Hosts now have direct access to a single copy of the file through the san, without the delays associated with transferring large media files through a LAN.

Benefits

- Enables concurrent file sharing across heterogeneous systems, allowing the hosts to have direct access to a single copy of the file through the san, without the delays associated with transferring large media files through a LAN.
- Eliminates movement of data over LAN by connecting hosts directly to shared SAN storage devices.
- Increases productivity by enabling multiple users to work on the same file simultaneously.