Managing Petabyte-Scale Active Media Archives Solution

Challenge
Using tape for archiving large-scale media files is slow, expensive and difficult to manage:
• Costs increase as data is accessed
• Slow restores due to tape load times
• Ensuring data integrity over time
• Media refreshes and migration

Solution
Private cloud active media archive solution that is highly durable and easy to manage with a lower total cost of ownership compared to traditional methods.
• Cost effective private / hybrid cloud archive
• Seamless integration using CIFS or NFS
• Fast archive store and retrieve using disk
• Retention periods for lifecycle management
• Reliable long term content preservation
• Compatible with all MAM or DAM solutions

Archiving Petabytes Made Easy
The combined solution (Figure 1) from Western Digital and QStar addresses these needs and delivers compelling business benefits. Using industry leading technology designed for Media & Entertainment workflows, Western Digital and QStar optimize the ingest and
archiving of valuable video content. The solution also provides another key benefit with standard access over file protocols. This enables a familiar and convenient way to store, access and manage large-scale media files in an online manner.

**Policy-Based Asset Management**

QStar’s Archive Replicator software creates a gateway for an ActiveScale cloud object storage system and provides a quick and easy method of archiving any file-based media asset by presenting the archive as a network share or mount point.

Using standard file protocols (CIFS or NFS) on the front-end, the solution seamlessly integrates with existing applications. Servers or clients can easily store, search and retrieve data within the ActiveScale archive. The gateway can be used on any Windows, Linux, AIX or Solaris server. On the backend, the gateway communicates with ActiveScale using an Amazon®-compliant S3TM interface. With decades of enterprise storage experience, QStar can ensure archived digital assets are preserved for rapid access in a very cost effective format.

QStar software also allows retention periods to be set, converting data into a secure read-only format for a set period of time. Data can be automatically removed at the end of this period allowing the freed storage capacity to be easily reused. Multiple retention periods can be created to support different data sets to meet varying business requirements. Optionally, the QStar Archive Replicator can be configured to replicate archive data to a public cloud, remote site for creating additional disaster prevention copies if needed.

**Cloud-Scale Storage On-Premises**

Organizations are finding tremendous value in having their archived media assets (video, images, audio), large documents and other digital assets on disk-based systems – readily available for reuse. ActiveScale Cloud Object Storage Systems are designed specifically for building highly durable and cost effective large-scale disk-based active archives of unstructured data.

Using next generation object storage technology and innovative helium filled hard drives, the system delivers cloud-scale economics on-premises with industry leading durability in a high density low power footprint. System capacity can be easily scaled up and scaled out to address the growing storage requirements of modern media formats. The system is easy to manage as it self-protects and automatically handles maintenance tasks in the background without user disruption.

Data durability is an important consideration for archives using high-capacity disk drives. ActiveScale solves this key issue using advanced rateless erasure coding. ActiveScale cloud object storage systems deliver up to 19 nines durability using less storage capacity than traditional methods. Regular and granular data integrity checks ensure data is safe from corruption over the long-term.

The system can be configured to spread a single copy of data across system components in three different geographic locations, making it ideal for distributed post-production teams. In this configuration, the system delivers higher durability with lower capacity overhead than traditional RAID + replication, and it can tolerate a full site outage without risking data loss or user disruption – built-in disaster prevention.

**Conclusion**

The combined solution from ActiveScale and QStar addresses these needs and delivers compelling business benefits. Using industry leading technology designed for Media & Entertainment workflows, ActiveScale and QStar optimize the ingest and archiving of valuable video content. This enables all MAM or DAM systems to integrate with an ActiveScale Cloud Object Storage System using standard networking interfaces, for a simple and convenient way to store, access and manage large-scale media environments. To learn more visit westerndigital.com/solutions/health-care-research