High Performance Archive for Demanding Digital Media Workflows

Highlights

- Open and flexible high performance archive software that seamlessly integrates with popular creative apps
- Automation to streamline archive workflow, including XML ingest and rich search and retrieval capabilities
- Deployable on-premises or hybrid cloud to reduce cost while maintaining flexibility and control
- Higher operational efficiency vs. traditional methods
- Easily scale capacity to meet the needs of the business
- Extreme data durability and integrity ensures media assets are protected and accurate over the long-term

Challenge

- Efficiently backup, preserve and reuse large and growing media assets
- Reduce storage cost and management complexity
- Make content easily accessible for distributed post-production teams
- Automate movement of large media assets
- Quickly adapt to changing workflow needs

Solution

Western Digital and Atempo worked together to deliver a high performance massively scalable media archive and backup solution consisting of the ASG-Digital Archive™ Software and the ActiveScale™ Object Storage System. The combined solution helps media and entertainment organizations modernize their workflow and reduce the complexity and cost of protecting, preserving and monetizing valuable media content throughout its long life.

The New Archive Role for Global Media Workflows

High resolution digital media content is being produced more quickly, distributed more easily and consumed more broadly than ever before. Smart devices have changed the landscape for how content is being consumed, fueled by mobility and ubiquitous broadband access. This is creating an enormous amount change and opportunity among content and service providers. To respond quickly, requires a streamlined and flexible approach to post-production media workflows.

As a result, the media archive is taking on a new role as a central pool of cost-effective online storage accessed throughout the workflow. Whether it is newly ingested footage, post-production work, content distribution or the archiving of completed projects, the archive needs to protect, preserve and serve valuable media content throughout the workflow. As the archive becomes a more central part of the solution, the ability to combine best-in-class media asset management applications and editing tools with the right archive storage infrastructure is more important than ever.
High Performance Archive Software

Western Digital and Atempo are working together to provide massively scale, durable and affordable media archives. ASG-Digital Archive (ADA) is an open software archive solution that can move and preserve large volumes of digital media files with automatic, end-user, and workflow-triggered archiving. ADA migrates media content from primary storage to an on-premises ActiveScale Object Storage System over an Amazon® S3™ compliant interface. The combined solution from Western Digital and Atempo helps simplify storage infrastructure and management to support the most demanding media workflows.

ADA protects and preserves digital content from the moment it is ingested. New raw footage is detected and immediately archived in the background, while leaving files in place for editors to use. For preservation projects, ADA can scale to archive several terabytes of content per hour. Flexible archive and retrieval tools allow access to the archive from all points in the workflow. To prevent performance bottlenecks, ADA can be configured with dedicated data movers that keep editor workstations and central file servers out of the data path so users are not slowed down, even at petabyte-scale.

By seamlessly integrating with popular MAM systems, ADA helps maximize storage capacity while still giving content creators direct access to assets. Migrating assets from high-performance storage to a more cost-effective ActiveScale System not only reduces cost, it can also improve the performance of the primary storage system.

Simplify Workflow with ActiveScale

Whether for broadcast, digital cinema or enterprise media organizations, everyone is under tremendous pressure to be more efficient while cutting costs. Choosing the right online archive storage system can have a huge impact on streamlining media workflows and storage management tasks. Legacy disk and tape-based systems present several challenges when dealing with multiple petabytes, including content accessibility, data protection, and the operational complexity of managing multiple storage tiers and media types.

Western Digital's ActiveScale Systems address these challenges by combining the scale and efficiency of the cloud with the performance and durability needed to support modern media workflows.

Content Accessibility

One of the biggest benefits of an ActiveScale System is content accessibility. All assets are visible and transparently available via a global namespace, which can help improve the productivity of distributed teams. Content on legacy systems are more difficult to access given hierarchical file structures and long retrieval times from tape libraries. Rapid access to archives make them easier to monetize and can help to enable new workflows and revenue opportunities.

High Resiliency

Using next generation object storage technology, ActiveScale can be configured to efficiently spread encoded data across three geographic locations. Data remains protected and accessible in the event of a full site outage without the need for costly replication.

Automatic data integrity verification and repair ensures data is accurate throughout its life. Each object can tolerate up to 1000 bit-errors, which is essential for long-term preservation of media assets. Unlike tape, there is no need to proactively refresh the underlying media that can degrade over time, because the ActiveScale system repairs data automatically.

Extreme Operational Efficiency

Managing storage systems at petabyte-scale requires advanced capabilities that minimize intervention during routine and unexpected events. ActiveScale helps improve operational efficiency by reducing complex management tasks such as scaling capacity and handling hardware or data integrity failures. Adding capacity is as simple as adding more nodes. The system will automatically detect and integrate the new capacity without the need for data migration.

ActiveScale self-protects by automatically addressing hardware and data corruption issues transparently in the background. Unlike legacy systems that degrade performance during rebuilds, there is no need to immediately swap-out the failed component in an ActiveScale system. This can be done more efficiently during regular maintenance intervals.

In addition, advanced capabilities like ActiveScale CM, a cloud-based management tool, can provide prescriptive and predictive analytics on capacity trends and performance bottlenecks, to help keep workflows running smoothly.

Conclusion

The combined solution from Western Digital and Atempo help media and entertainment organizations reduce the complexity and cost of protecting and preserving and monetizing valuable media content from the moment it enters the workflow and throughout its long life.

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