Media Archive Solutions from Scality and ASG Software Solutions® (Atempo)

The Media and Entertainment industry is characterized by fast and continuous technology innovation. Feature film production has become fully digitized, 4K resolution has become the standard and 8K is around the corner. This shift dramatically impacts storage requirements: 4K video is about four times the resolution of standard HD and requires four times as much storage - just 2-3 minutes of uncompressed 4k film, or the length of a movie trailer, can be up to 500GB.

New compression technologies allow production houses to soften the impact of these large file sizes in the post-production workflows. But the archiving of RAW dailies, post-processing files and final cuts — in many different formats to adapt to different screen sizes — still create huge challenges.

ASG Software Solutions® (Atempo) and Scality have partnered to solve this problem with an integrated next-generation active archive solution, built on ASG-Digital Archive (ADA) and the Scality RING™ software-defined storage. The solution addresses the massive storage needs of media and entertainment companies and enables petabyte-scale active archives that are fully integrated with media production workflows. The ADA + RING solution, meets all scalability, availability and cost requirements for digital media archiving.

ADA Benefits

Scalable and centrally-managed archives

Extend expensive storage capacity by tiering data to the Scality RING

Simplify the repurposing of archived data as data is enriched with metadata

Fully-active archive powered by its seamless integration with business workflows

Key RING Benefits

Exabyte scalability

No more manual data migration

Better retrieval and data value than tape

High throughput, moderate latency, solid IOPS

Data integrity assurance

Why Active Archives ?

The most expensive part of a feature film production is the actual recording. Think of the costs related to send film crews on location, or using professional recording studios. Re-shooting original recordings is not an option, so before "dailies" are loaded onto the post-production SANs, several copies are made of the RAW recordings – typically on tape. While tape as a medium has benefits, there are many disadvantages: dailies archiving on tape is a very manual process. When originals are required during the post-production process, staff have to go fetch the physical tapes, which makes the workflow slower and during which time one of the copies is at risk. Therefore, many post-production companies are investing in disk-based « cache archives ».

The post-production process multiplies the volume of data for film production: on top of the dailies, there is the post-production data and the final cuts. All this data needs to be stored in a long term archive for when a film is ready to be released.
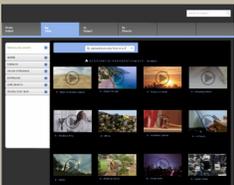
Tape is attractive from a cost point of view because of the low media cost and power efficiency, but the management cost (data migration) and the overhead that is needed to ensure data integrity add a lot to the overall TCO. Also, when archived data needs to be accessed – for sequels or future releases – tape archives are very cumbersome.

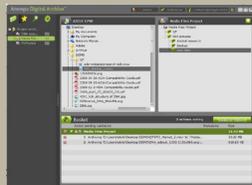## The ADA + RING Petabyte-Scale Active Archive Solution

ASG-Digital Archive (ADA) and Scality RING provide a tightly integrated active archive solution that delivers both a very fast online archive and a deep archive with no scalability limitations. The solution combines ADA's archiving and data movement capabilities with the RING's massive storage capabilities, high performance read/write abilities and intelligent data protection. The result is a cost-efficient active archive platform that can store billions of files and is able to provide fast and instant retrieval of content to multiple editors simultaneously.
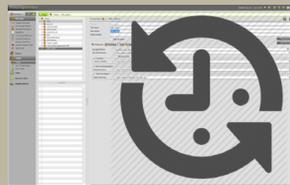
1 User Initiated & Automatic Workflows:
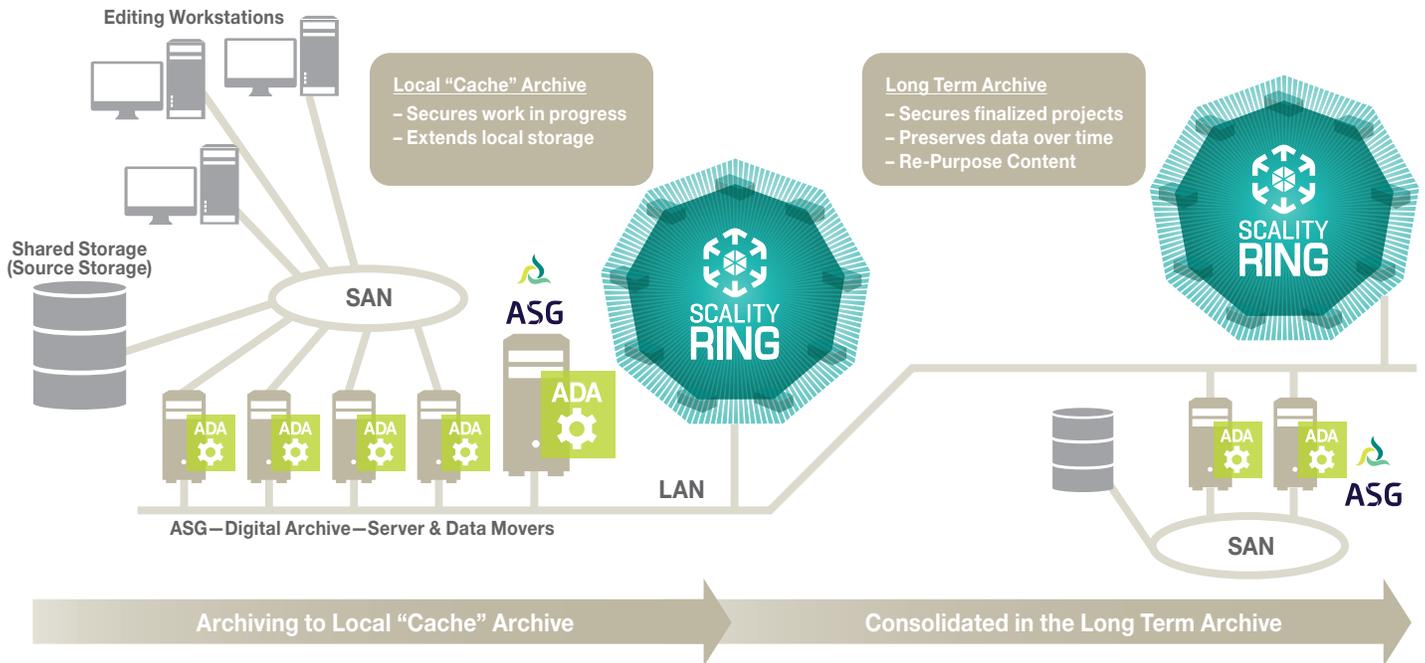
In-House MAM   ADA User Interfaces   ADA Tasks Scheduling

2 Collecting data on the shared storage

3 Archiving data to the local cache archive

4 Automatic replication in the long term archive

Editing Workstations

Local "Cache" Archive
– Secures work in progress
– Extends local storage

Long Term Archive
– Secures finalized projects
– Preserves data over time
– Re-Purpose Content

Shared Storage
(Source Storage)

SAN

ASG

SCALITY RING

ADA

ADA ADA ADA ADA

LAN

ASG—Digital Archive—Server & Data Movers

SCALITY RING

ADA ADA

ASG

SAN

Archiving to Local "Cache" Archive

Consolidated in the Long Term Archive

Value of ADA + RING Solution

Immediate securing of "dailies" and newly ingested data

Long term preservation of media projects

Integration of the archive with post-production workflows

Faster asset retrieval from the archive

Archive is accessible to remote resources

Support for off-site copies for DR

Why ADA + RING?

Higher end-user productivity

Increase asset availability

Avoid data migration

Lowest storage TCO

> *ADA + RING Solution – The Exabyte-Scale Active Archive - A cost-efficient active archive platform that stores billions of files and provides fast and instant retrieval of content.*

ASG-Digital Archive (ADA)

ASG-Digital Archive (ADA) is an Open Archive software solution that moves and preserves massive volumes of data. As a very robust and highly scalable archiving platform, it integrates with existing storage solutions ranging from shared disk and NAS to tape and all the way to object storage and private or public cloud, so customers can easily combine their existing storage technology with the latest storage trends.

As an Open Archive solution, ADA preserves digital assets with their associated business metadata in open formats on disk or on tape (TAR or LTFS), which guarantees the preservation of data over time.

ADA offers multiple and complementary modes for integrating the archiving with new or existing business workflows, user interface to perform simple drag and drop archiving, native integration with state of the art Media & Entertainment applications and automatic or scheduled archiving policies.

ADA is the perfect match for volume intensive environments such as media post-production, science and research providing them with the archive solution that dramatically improves the scope and economics of their storage, while combining flexibility, robustness and high scalability.

Scality RING

The Scality RING is software-based, software-defined storage designed for petabyte scalability. The RING runs on standard x86 servers, providing deployment flexibility, simpler support, many hardware options, rapid adoption of hardware innovation, and multi-generation hardware support. This provides distinct advantages for storage-hungry media content.

The RING leverages an object storage core to scale out linearly as a single distributed, protected system across multiple active sites, thousands of servers, hundreds of petabytes, and unlimited objects without adding administrators. The RING uses scale-out and parallelization techniques to provide high throughput, high IOPS performance, and low latency to collapse

traditional object storage and NAS, and address 80% of the storage workloads across file, object, and OpenStack applications. This means that the RING can scale with media businesses even as video formats keep getting richer and bigger, content gets more interactive, and workflows are completely digitized.

Finally, the RING's shared-nothing architecture and multi-mode, multi-geo data protection enables 100% uptime and data durability through hardware failures, capacity expansions, software upgrades, and hardware generations with minimal intervention. This supports continuous uptime in today's increasingly on-demand, and online media business models.