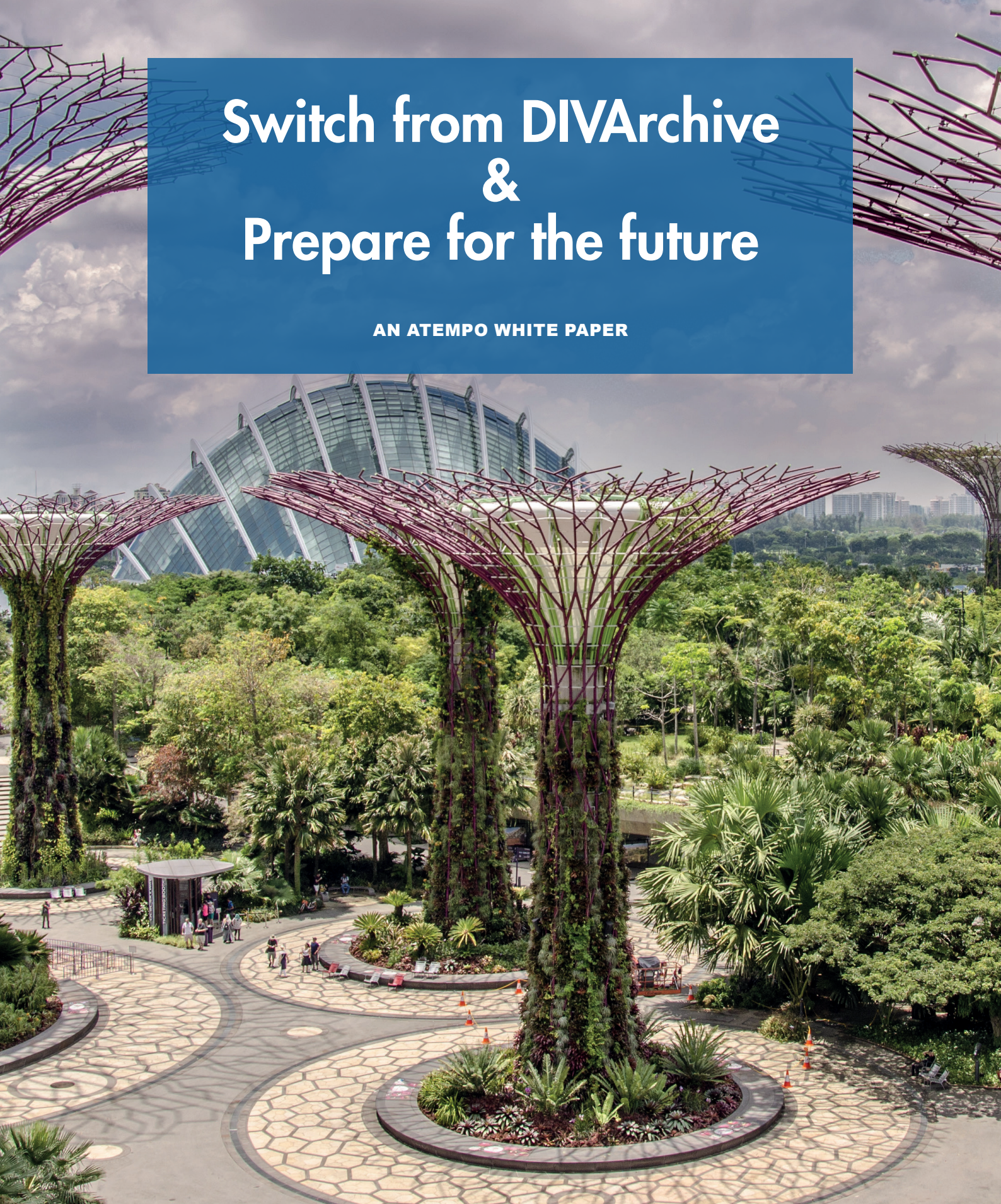


# Switch from DIVArchive & Prepare for the future

AN ATEMPO WHITE PAPER





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## Executive Summary

Storage has always played a central role into Media and Entertainment. With the exponential growth of individual assets that accompanies technical evolutions (3D, 4K, 8K etc.), archiving status has changed from a peripheral to a core M&E workflow. Archives are central to preserving new footage, but also to finding and reusing material from previous projects.

Preparing the future while preserving access to precious assets archived on legacy LTOs is the challenge faced by archive managers. Archiving needs to offer a broad choice of supported storages and must cope with performance needs while providing long-term conservation.

In addition, modern archiving solutions now play a key role in keeping storage costs under control by performing background storage data movement, like moving archived data between On-Prem storages or between clouds. This capability is a key when selecting a “future-proof” solution. And if this solution can also act as a **stand-alone data management platform** that can cope with the challenges of growing storage volumes and costs.

Atempo is well known for its archiving solution, formerly known as “Atempo Digital Archive (ADA)” which is now a core component of the Miria platform called “Miria for Archiving”. On top of its archiving capabilities, Miria is a complete Data Management solution that delivers backup, file synchronization and file migration between storages. Multiple storages media are supported, such as disk, tape, object storages, cloud and hybrid-cloud, and any combination of these.

At the request of our M&E customers, Atempo has developed a service offer to accompany and guide them during their switch from DIVArchive to Miria for Archiving. The resulting solution integrates with existing applications and workflows, powered by flexible Data Movers to move data to the required storages, whether private cloud, public cloud, or hybrid – providing full and instant access to DIVArchive legacy LTOs.

**This guide will help you plan your DIVArchive migration project to avoid the most frequent issues.**



## Context

The question of storage has always been central in the Media & Entertainment industry and this has not changed in the last 10 years with the “born digital” content. Storage provides the means to edit and transform assets, to protect and preserve content over time. It is also the key to reusing assets and serving customers in a timely manner.

Companies today certainly get more storage for their money, but their needs have grown exponentially over the last 10 years.

Archiving is now playing a key role in keeping content protected and accessible.

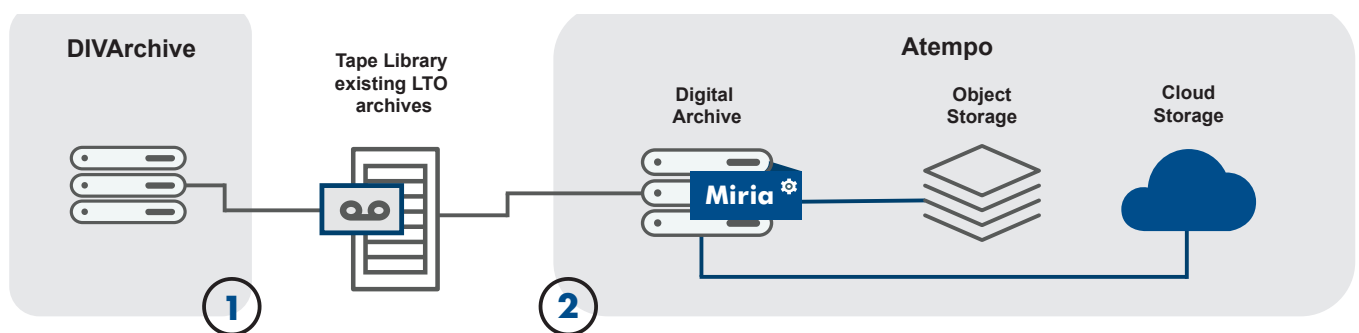
In the age of “born digital” content, LTO tapes remain a central element of most M&E archives. Many M&E companies have petabytes size LTO storage vaults. Switching to a new archive solution requires taking this legacy into account.

Changing your archiving tool to prepare for the future is without doubt a stressful project. The overriding condition is to ensure the continuity of vital integrations and workflows between the two systems.

Preparing for the future also means preserving existing legacy media: LTO-based assets must remain accessible in the new system.

This document is an overview of a global archive migration process and will detail the specificities of the switch from DIVArchive. At the end of this switch, your existing DIVArchive LTOs can be accessed natively from Miria for Archiving, workflows are migrated and impact to businesses is minimal.

**Here is our 7-step plan to guarantee your project's success.**



Switch from DIVArchive (1) to prepare for the future with Miria (2)

# Successful archive migration in 7 stages

Every day, Atempo experts provide field support with complex migration projects of large volumes of unstructured data between storages and NAS or Cloud.

We have built from this experience a methodology that is common to all the migrations we perform, be it an enterprise replacing or consolidating its file storages or the migration of an M&E DIVArchive to Miria for Archiving.

Based on this methodology, we have assembled the following recommendations to guide you toward a successful project in 7 steps.

1

## IDENTIFY THE BUSINESS REQUIREMENT

When starting Archive migration projects with our customers, they frequently start the project with a detailed map of their current architecture: they have a precise list of storages to support, a sound idea of the content to maintain accessible. However, they often need to finalize the list of applications and workflows to integrate with.

In addition, they also have a side list of all the technical limitations they want to work around.

What we frequently recommend to the project manager is to enrich the above scope by involving business and infrastructure needs: this guarantees that they have a complete view of upcoming storage requirements and integration projects. Spending some time preparing for the future is the right path to go down.

Atempo Professional Service resources help the project manager translate business needs into technical imperatives. At this stage, they determine which part of the archive requires:

- a database **import**, which is for instance the case with LTO-based DIVArchive assets. In this way it is not necessary to perform individual migration of the LTOs,
- an operation to **retrieve** data from several storage locations and **consolidate** it on new storage.

## MAP THE MIGRATION PROJECT

The migration team continues its prerequisite inventory and focuses on:

- the nature of the data: migrations of archived data often involve collecting the structured view linking multiple media files and meta data which can poses specific challenges depending on the size, number and organization.
- the volume of data: more and more migration projects involve several hundreds terabytes, even petabytes of data.
- the complexity of the archive: shared storage, different tape formats, different network protocols, transition to a new storage manufacturer, etc. The devil is in the details, and it worth taking a little time checking on them.
- the interconnectivity of the archive: accessed from applications, leveraged by automatated workflows, different MAMs, in-house scripts etc.

The precision of this preparation broadly determines the success of the migration project.

## PREPARE THE DATA FOR MIGRATION

These requirements must be implemented before the migration takes place! Whether you are planning a complete migration or just the switch of your DIVArchive tapes to Miria, now is the time to clean up. This operation involves:

- **validating** format standards and rules for naming files – not two data management solution has the same default for organizing your content. Checking this early makes it simple to configure Miria for Archiving exactly as expected from the start.
- **analyzing** the existing archive content: structure of the source archive storage: number of tapes and items per tape, support for partial retrieve, access to metadata, etc.
- If you are integrating applications and workflows, analyzing requires **identifying** the syntax to emulate, the source and target data path as well as the error reporting mechanism to clone.
- **detecting and reporting errors** in the existing archive database before the actual start of the migration process – it is always easier to try to fix any misconfiguration in the source archive.

- If applicable, **deleting** duplicates and orphan elements because there is no need to transfer them,
- **deciding** the migration priorities, to make sure that the data is transferred to the right place at the right time and is fully protected during the migration.

It is also the time to **scheduling the migration** : even if the actual migration can take just a few hours. Ideally, business teams will be involved in this stage to reduce the impact on their activity and to plan for as many test operations as possible. Overall this step is key to reducing the risk of error and keeping content accessible to users during the migration process.

## 4

## PAY SPECIAL ATTENTION TO LEGACY TAPE ARCHIVES

Atempo professional services are driving the switch of your legacy LTOs from DIVarchive to Miria.

The solution comprises a suite of processes that analyze your DIVarchive database, collect information on tapes, tape content, as well as on the assets and their associated metadata – before importing this material into Miria for Archiving. It is a database switch only, your LTOs are untouched by this process. No painful and risky retrieve and re-archiving, the above processes preserves the integrity of each LTO media.

Here is a more detailed view of the process:

- **Collecting and parsing** the DIVarchive database content. This part of the process creates a map of all assets and their associated locations.
  - **Error checking** – The process reports any errors detected with orphan files or suspicious file size in the source database. No need to duplicate errors into the new archive...
  - **Format translation** – Validated content is written into the new Miria for Archiving database.
  - **Validation** – An appropriate timeframe is selected to run an end to end test.
- The tape library is connected to Miria and a full retrieval is made on a selected list of tests assets. Each individual asset is retrieved from the library and checked against the MD5 codes created during its initial archiving.
- **Full database migration**  
Once the validation process is conclusive, all LTO tape-based assets are migrated to the new database with their associated metadata. If all the application integration and workflows have been migrated to use Miria, the tape library is definitively connected to the Miria Server.

## CHOOSE THE BEST SOLUTION FOR A COMPLEX ARCHIVE MIGRATION PROJECT

The market for M&E archiving software has exploded. But most of tools quite simply do not have the capacity to handle several petabytes of data in complex, different environments. Others, which are simply too expensive, are designed for major international groups.

**Miria for Archiving** from Atempo has a long track record of success in the M&E sector and here's why:

- It can handle **many petabytes of data** safely and securely.
- It focuses on **data integrity and assets protection**.  
All object information (e.g. checksums, provenance etc.) and configuration data is stored in an enterprise-level MAXDB database engine that guarantees robustness and security. Whenever needed, object metadata is also encapsulated in the LTFS or TAR container and stored on the storage media.
- It rapidly detects changes or additions in the very extensive tree structure of your file-based storages - only Miria's FastScan can do this **within the time constraints**.
- It is **independent from suppliers** and yet compatible with a long list of storage manufacturers. To name a few, NetApp, Dell / EMC Isilon / ECS, Qumulo, Lustre, DDN GRIDScaler, IBM Spectrum Storage, Panasas, Quantum, Avid, etc., many object storage, and cloud suppliers.
- It adapts to a wide choice of file systems and **maintains the ACLs** (Access Control Lists).
- It has the capability to migrate assets from one tape generation to a new tape generation as a background task,
- It performs archived content **migration between different storage platforms possible**, between manufacturers type or between technologies. For instance, from many NAS to cloud, from cloud to disk, or from one cloud supplier to another.
- It can restrain use of bandwidth over **selected time-frames** to avoid monopolizing storage bandwidth to the great inconvenience of end-users and avoid impacting business. Its use of bandwidth can be reduced or, on the contrary, be pushed to saturate a 10 GB network (for example) to accelerate file transfer.



- It **rolls out Data Movers on demand** to make data movement quick, scalable and accommodate multi-storage solutions.
- Although distributed in nature, Miria can be monitored, configured and controlled from remote workstations through web-based Graphical UI. The solution also provides rich APIs to integrate with application and workflows.

## 6

### RUN A DATA MIGRATION PILOT TEST

A **field test** is part of the migration process recommended by Atempo.

It is a fundamental part of any migration project and an imperative regarding:

- Workflows migration – you test scope must not only archive and retrieve new assets, it must also make sure you are able to retrieve older content.
- Application integration – here again, you must not forget to test the retrieval of earlier content, in addition to archiving new elements and retrieving them.
- Legacy LTO tape – if switching from DIVArchive to Miria, testing the end-to-end retrieval of assets of an integrated part of the process driven by our service consultants.

## 7

### CHECK THE SUCCESS OF THE DATA MIGRATION

No file migration project is complete without a precise assessment of the target storage. This involves:

- An **inspection of the target storage** by the storage manager and the migration consultants.
- The assessment of **end-user satisfaction**, using the business requirement from the launch of the migration project.
- A **test of the migrated data**, using predetermined test scripts (location, access rights, etc.).

# Atempo solutions



- **Miria:** Backup, archiving, synchronisation, migration and copy solution specific to unstructured data and very large volumes - peta files and storage



- **Tina (Time Navigator):** Backup and protection of servers and applications for data centres, remote sites and distributed environments



- **Lina (Live Navigator):** Continuous data protection (CDP) solution for desktops, laptops and file servers

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# About Atempo

Atempo is an independent software company based in Europe with an established global presence, providing solutions to protect, store, move and retrieve all critical data for thousands of businesses worldwide. With over 25 years of experience in data protection, Atempo offers a complete range of proven solutions for backing up physical and virtual servers, workstations and migrating very large volumes of data between different storage systems. Atempo's three flagship solutions, Lina, Miria and Tina, are labelled "Used by the French Armed Forces" and "France Cybersecurity".

Selected as part of the French Tech 120 government program to create 25 unicorns by 2025, the company, headquartered in Paris, has a powerful network of value-added wholesalers, resellers, manufacturers, integrators and managed service providers.



For more information: [www.atempo.com](http://www.atempo.com)