

NEO Tape Migration Using Veeam Backup & Replication

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One of the most technical challenges of integrating new tape hardware into an existing backup infrastructure is how to migrate data from old archive media to the new hardware. This is especially the case when end-of-life hardware, such as tape library and or tape drives, is used for archival storage. Another reason is consolidating a bunch of older and smaller density media to the newest larger capacity media. When moving to a newer hardware platform, typically the need exists to copy the unexpired legacy files (scanned images, PDF, reports, documents, etc.) and associated files to the newer tape technology available.

This Technical Brief provides an overview to what the typical data migration options are for dealing with the backup data being held on older tape media. This is intended for guidance and understanding of the common options for working with legacy backup data residing on backup tapes. This document is suited for information technology workers, compliance, risk mitigation, or legal personnel who are looking to understand the basics around what to do with any existing tape-based backup data when you switch to newer hardware technology.

As an example, throughout this document we will use Veeam Backup & Replication 11 to achieve tape migration from an older library and drive technology to the latest and newest hardware. Veeam Backup & Replication 11 is a popular Small to Mid-size and Enterprises (SME) backup application to provide a solution for tape migration.

The most common solution to migrate data from older generation media if the backup software does not support a tape-2-tape migration is by using a tiered tape migration displayed in [Figure 1](#). There are two steps involved with using this solution. The first step is to restore the data from the old LTO-6 media on a NEOs T48 to a temporary location such as a large disk. The next step is to create a backup job of the restored data using a new NEOxl 80 library with LTO-9 tape drives as a primary target. Once the data is on the new hardware, there is no longer a need to keep the data on the temporary disk and the old legacy hardware can be retired. The archived data can now be restored from the new hardware.

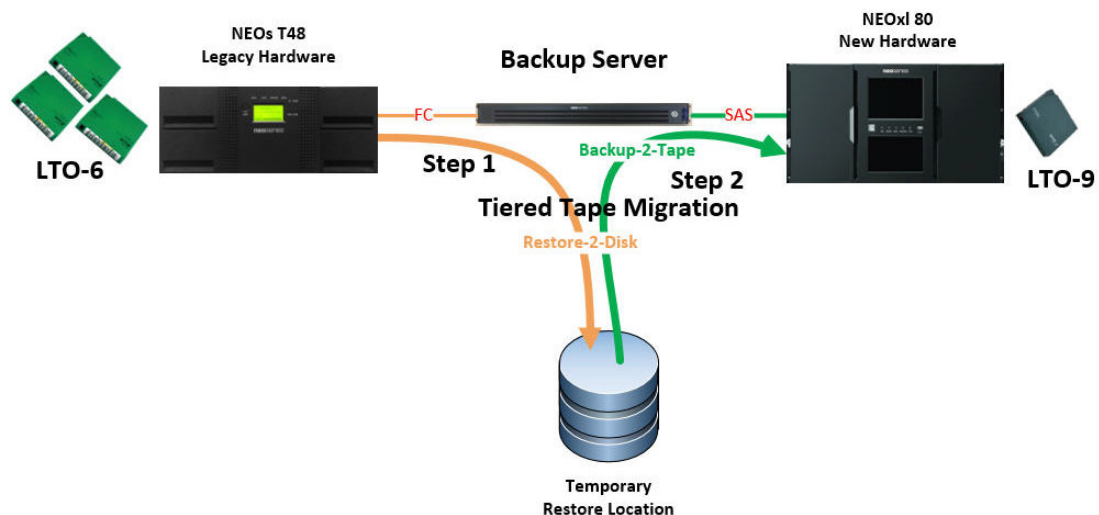


Figure 1: Common Tiered Tape Migration Solution

The alternative method and, to minimize time, effort, and, most of all, expense, it is important to know whether or not the backup application supports a direct tape-to-tape copy. Some backup applications may support it, therefore minimizing the effort of setting up a configuration as shown in Figure 1 and the time it takes to do the two-step process. In Figure 2, we have removed the temporary disk target to restore from old media and initiated a simple-to-configure Copy Tape job to copy the data from the legacy hardware to the new hardware using Veeam Backup & Replication 11. This is the best solution for migrating old archive media with Veeam Backup & Replication 11.



Figure 2: Migration Using The Veeam Backup & Replication 11 Copy Tape Feature

To migrate mission critical data which resides on older tape media with Veeam is quite simple. Veeam allows you to copy a tape (source) from one tape library to another or within the same tape library. Veeam does this by using the Copy Tape feature within the Media Pool. These steps are depicted here in Figure 3. Additional information using the Copy Tape feature can be found in the Veeam Backup & Replication 11 User Guide.

1. In the legacy device Media Pool, select the media for copy.

2. When configuring the Tape Copy Wizard choose the new LTO-9 Target Library and it's Media Pool.

3. Once the Tape Copy job is active the status followed by the results are displayed with the tape copy details.

Message	Duration
Job started at 12/10/2021 3:00:36 PM	
Processing tasks	0:27:48
Expecting 404 objects, 236 GB	
AM711L9 tape media resources have been acquired	
Building the list of objects to copy for LTO6	
Tape DV00811L6 from NEOs T48 LTO6 has been copied to AM711L9 at NEOxl 80 LTO9	0:27:04
E1 folders and 323 files have been copied	
Load: Source 98% > Proxy 3% > Network 2% > Target 0%	
Primary bottleneck: Source	
Job finished at 12/10/2021 3:28:28 PM	

Figure 3: Veeam Backup & Replication 11 Copy Tape Screens

To verify the Copy Tape task and ensure the data from the older LTO-6 tape format is duplicated to the new LTO-9 media, the restore folder properties and Restore Points will reveal this. They show the original tape as well as the new media as restore options. The LTO-6 media can now be retired.

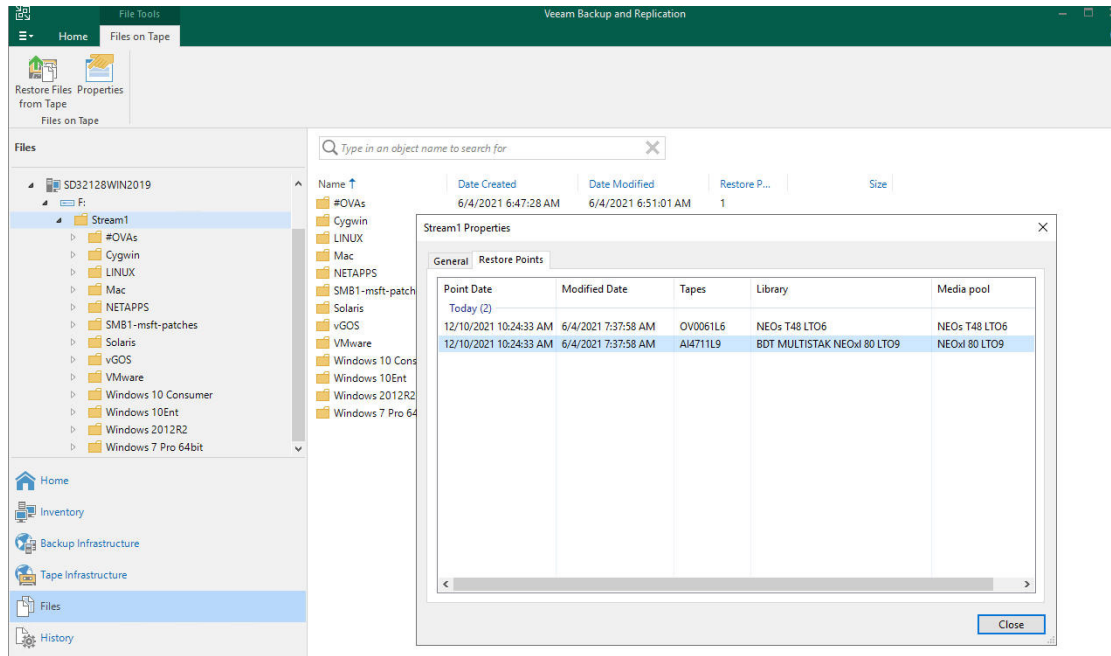


Figure 4: Veeam Backup & Replication 11 Copy Tape Screens

Special Considerations

There are many considerations to plan prior to taking on this task. Here are some of these considerations that need to be taken into account:

- Does the backup application support tape-2-tape copy (Duplicate)?
 - If **No**, do you have a large disk that can be used temporarily as a backup target? The large disk target is a staging area for backup sets that reside on the old media and then copied or backed up to new hardware.
 - If **Yes**, does the backup application support tape-2-tape copy in different tape libraries? Are additional licenses required to enable this feature? Note, some backup applications support this feature only through a Command Line Interface (CLI).
- Account for every media in a particular set. You may have multiple medias as part of a span set; it's good to know whether all tapes are readable. Creating a media report of their history may be beneficial.
- Make sure the archived tape to copy is available in the backup server database. The data may have been purged and this step is needed before a copy is initiated. Veeam Backup & Replication 11 calls this feature Catalog.
- If the media has been encrypted through the backup software, make sure you have all the credentials available to decrypt the archived media used to duplicate. For example, knowing the key phrase and secret codes, and if there was a particular user or a backup admin account.
- Duplicating a tape can be time intensive on the hardware. Therefore, if you only have one tape drive in each library, you will need to plan the time accordingly to meet your regular backup needs. For example, run the tape-2-tape copy job only on the weekends or during the part of day when time allows.

For more information, please contact your account manager or visit: www.overlandstorage.com or www.tandbergdata.com.

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