ARCHIWARE

Disk-to-Disk-to-Tape (D2D2T)

When planning a solid backup strategy that protects your data from creation to final archive, disk to disk to tape has been proven to be a successful approach. Data is first copied to a disk system like a RAID and then copied again to a tape library or single tape drive. Archiware P5 integrates seamlessly with disk and tape technologies and offers the functionality to synchronize, backup and archive your data in this scenario.

What storage media to choose

While setting up your backup strategy, you inevitably face the challenge to pick the right storage media. When looking at different types of media like disk or tape, many have a set belief of what's the right choice. Oftentimes, disk is viewed as the modern and fast option, while tape is overlooked. But don't judge too quickly; tape is a solid medium for storing data.

When planning your backup strategy, you need to incorporate the advantages of both storage types. Disk and Tape are not interchangeable, and each comes with its own specific advantages and disadvantages.
P5 helps implement a D2D2T workflow and maintain it on a daily basis.

How disk fits into your Sync, Backup & Archive strategy

Disk has some obvious advantages. It can be used very easily, because necessary interfaces are already available. Its price point is getting lower. Disk also lets you access your data instantly.

The problem with disk is the fact that it fails. Depending on many factors, the question is not if it will fail, but rather when. Additionally, you should move disks off-site in order to protect them from risks like fire, water, theft and so on. Moving around disk, however, is less than ideal, because it increases the risk of a failure even more. This means that for your Sync, Backup & Archive strategy, disk should not be the only storage medium you use, and it should probably not hold your archive.

How tape fits into your Sync, Backup & Archive strategy

Tape makes you leave your comfort zone, because you have to deal with a totally different type of technology than disk. It requires interfaces that cannot be found in all standard office hardware. This means you need the fitting hardware, as well as the right software to run a tape library.

But taking a second look at LTO technology is well worth it. Technically as well as financially. LTO is the only technology with a proven 30 year archive life. Tape might be more expensive in its initial purchase price, but when looking at price per TB and overtime TCO, it is a great solution, especially for long time storage. Additionally, you can use the same tape library for your Backup as well as your Archive. Even simultaneously, if you have more than one drive.

Tapes are much more durable than disks and are therefore portable for off-site storage. They are also immune to viruses and malware. It is a great option for data that has to be stored for many years due to legal requirements, such as financial business records.

LTO tape technology has been around for more than a decade and is here to stay stay. It has downward and upward compatibility. It uses an open standard that is vendor independent and gives you access to your data even many years down the road.

Sync to Disk – Backup to Tape

With Synchronize and Backup, P5 offers a Sync to Disk – Backup to Tape system allowing you to reduce your backup and recovery times. By duplicating data to disk, P5 Synchronize ensures the maximum data availability and security.

In the first step, P5 Synchronize copies all the required data to a secondary storage system. Then P5 Backup saves data to a medium of your choice. You can set the synchronize frequency, as well as the backup intervals individually. All current tape and library vendors are supported. Compatibilities (LINK).

While synchronizing your data to the secondary or fail-over storage, P5 will only look for modified files, thereby maintaining low network traffic for an optimal workflow.

If your server breaks down, you can immediately switch to use the data on your secondary storage. This data can be employed directly, no restore required. Users have instantaneous access to their data and can proceed with their work. Tape offers the option of longer retention time, because cost per TB is considerably lower than with disk. A restore from tape becomes necessary only in a total disaster scenario, e.g. due to fire or natural disasters, or when an old file is needed.

Backup to Disk – Archive to Tape

With P5 Backup and Archive it is easy to implement a backup to disk – archive to tape workflow.

A backup is a copy of your data in case your original data set is damaged or corrupted. This means that your data will exist on your primary as well as on your secondary storage. An archive, on the other hand, moves it from your primary location to tape in order to save space.

In the first step, P5 backup saves your data by running incremental as well as full backups by a scheduled plan. Retention times can be adjusted so data is kept exactly as long as you need to have access to it.

Once data is not needed on a regular basis anymore, it can be moved from your primary storage location to tape. This is oftentimes done manually, as it is difficult to know in advance when a project has been finished.

Options, Configurations, Interfaces...
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