

Virtual Tape Library

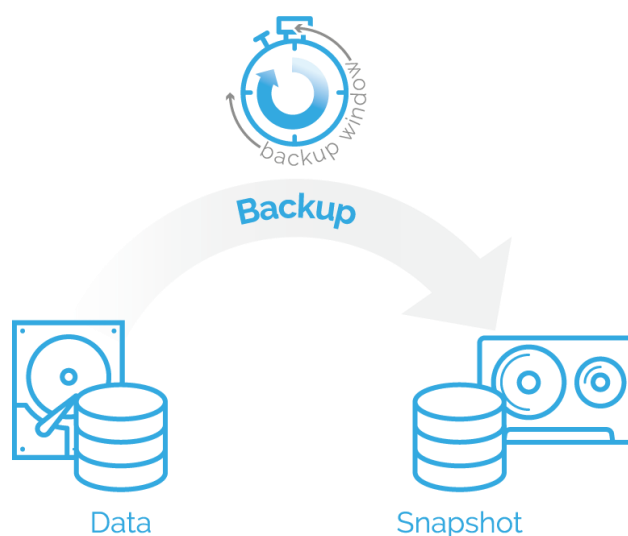
Introduction

Tape is not dead and never will be. There are few reasons that keep it alive: cheap capacity, even compared to modern high capacity SATA spindles, long-term vaulting capabilities that can last for decades, and regulatory requirements that a lot of companies or organizations are forced to adhere to. However, despite all these benefits, there still are certain challenges around tape-based backup infrastructures, which make them a legacy in a modern IT world.

Problem

Backup time doesn't fit the backup window since the amount of data that needs to be backed up increases exponentially all the time. This is the main concern that traditional tape backup solutions have in common. Snapshots are taken when the system is under a light workload. Therefore, if the backup time is longer than the backup window, the backup processes overlap with production workload, which results in two negative consequences:

- Significant downgrade of the systems performance;
- Risk remaining without a backup, leaving the data unprotected and regulatory requirements violated.



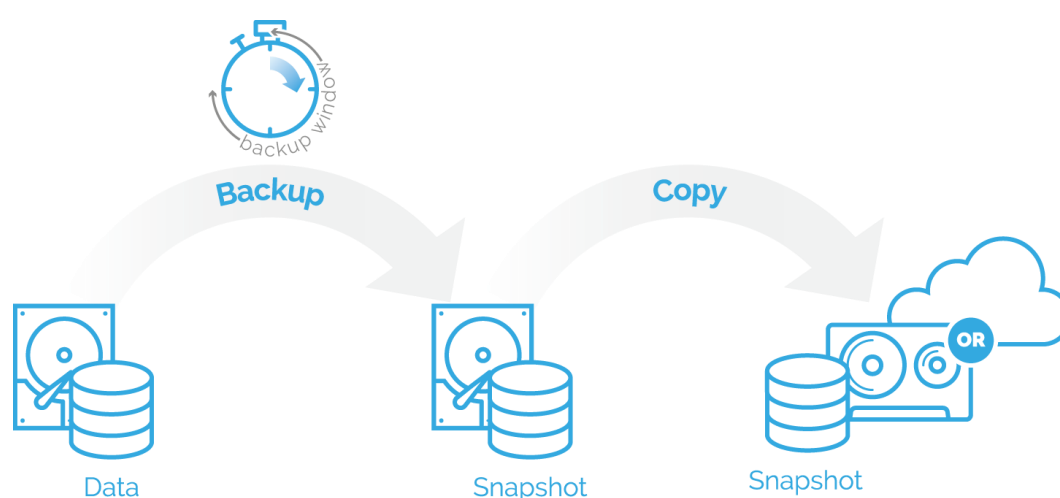
Backup to tape takes a lot of time and does not fit into backup window

Solution

StarWind Virtual Tape Library (VTL) converts the inexpensive, high capacity SATA drives into virtual tapes, emulating real existing tape hardware. StarWind VTL significantly accelerates the backup process by utilizing SATA HDDs which are faster comparing to traditional physical tapes. As the result, the backups take less time and fit the backup windows, so there's no risk of the backup process to overlap with the production processes. Thus, the performance of the production system is stable. The possibility of the backup process being interrupted is decreased, therefore, the backup will not be lost. Using StarWind VTL brings beneficial side-effects:

- It allows **implementing Disk-to-Disk-to-Tape (D2D2T) backup strategy**. Thus, each chain of the backup process link will contain 1 copy of the data, which is 1 more in comparison with D2T strategy;
- It allows **implementing Disk-to-Disk (D2D) backup strategy**, thus, the companies that are not under regulatory requirements, and are not forced to store backups on physical tapes or have no need to vault all data, can benefit from really fast backup process;
- **StarWind VTL preserves existing current infrastructure**. As the result, there is no need to get rid of existing tape backup infrastructure since StarWind seamlessly integrates it into any running infrastructure by migrating from D2T to D2D2T backup strategy.

What is more, StarWind VTL makes the backup process much more simple and automated. It allows performing backups, creating new virtual tapes and moving them between the nodes using a single interface. Thus, less dedicated staff is needed to manage the backup infrastructure, which results in lower management costs and greater flexibility.



Backup is performed on faster HDD, then to tape or public cloud in background mode

Conclusion

StarWind VTL seamlessly integrates into any existing infrastructure and allows the backup process to fit the backup window. As the result, it creates an additional snapshot copy, meets regulatory requirements, significantly decreases backup cost, and keeps the performance of the system stable by increasing the speed of the backup process. Furthermore, StarWind VTL simplifies the whole backup process. There is no more need to physically move tapes since all backup jobs are performed by the software.

In 2016, Gartner named StarWind “Cool Vendor for Compute Platforms”.

Gartner does not endorse any vendor, product or service depicted in its research publications, and does not advise technology users to select only those vendors with the highest ratings or other designation. Gartner research publications consist of the opinions of Gartner's research organization and should not be construed as statements of fact. Gartner disclaims all warranties, expressed or implied, with respect to this research, including any warranties of merchantability or fitness for a particular purpose.