



Veritas and NetApp — *Unigration* in the Name of Data Protection

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Management Summary

IT vendors announce partnerships all the time. It is part of the ebb and flow of the industry. Products must work together to deliver full solutions to enterprises. Customers also encourage these interlinks because it saves time and money and creates more capable solutions. Like human relationships, most vendor partnerships are superficial and a few are substantial.

Veritas and NetApp recently announced the latest fruits of their partnership: **integration between Veritas NetBackup 6.0 and NetApp Snapshot, SnapRestore, SnapVault, and NearStore**. NetBackup is the market-leading backup and restore solution. Snapshot, SnapRestore, and SnapVault are software tools for protecting data on NetApp storage platforms, and NearStore is secondary or nearline disk storage. In a nutshell, NetBackup now manages Snapshot, SnapRestore, and SnapVault. It also backs up data to NearStore, which can then translate it between NetBackup's TAR format and NetApp's native WAFL.

For enterprises that use these products together, this means:

- **Better recoverability through disk-based backup**
- **Lower management costs via a single control point**
- **Lower storage costs through block-level single instance storage**
- **Enhanced user productivity through direct restores**

These new capabilities are the result of a large co-development effort between the vendors. In fact, Veritas spent 20% of its R&D resources for the NetBackup 6.0 release on this project. These linkages - at both management and data layers - are deeper than typical integrations. One might even say it amounts to unification, except the products and vendors remain separate and distinct. Perhaps a better phrase is something in between - *unigration!*

The point is that Veritas and NetApp went to great lengths to link their products together. Read on for details about why, how, and what it means for enterprise customers.

Data Protection Is One Process

Data protection is a necessity. Business operations rely on information access, and its loss or unavailability costs time, money, and productivity. When a system failure, data corruption, or disaster occurs, an enterprise must know it can recover quickly. The purpose of data protection is to safeguard and maintain access to this information. It is about recovery.¹ Data protection is a single process, though it can involve multiple technologies. Most enterprises employ backup and restore systems, which increasingly use disk as a staging point before moving data to tape (also known as *disk-to-disk-to-tape*). Disk offers faster backups and restores, so enterprises can keep up with growing data and rising service-level requirements. Snapshot or point-in-time copies on local disk are useful for rapid restores to a recent point in time and for facilitating non-disruptive

¹ See **The Clipper Group Explorer** dated January 28, 2005, entitled *Recovery in Perspective - Ensuring Access to Enterprise Data* and available at <http://www.clipper.com/research/TCG2005003.pdf>.

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backups. Synchronous, asynchronous, and/or periodic replication to remote failover sites protect from local and regional disasters. All of these technologies protect data by copying² and perhaps moving it. They operate on the principal of a spare tire in a car trunk – you want it available just in case. But they address different aspects of data protection, often complementing and occasionally overlapping one another. Many enterprises use multiple data protection technologies to meet their full set of requirements.

However, these technologies historically have not worked together. They have been separate products with separate management tools, despite being part of the same fundamental process. **What if data protection technologies could work together in a way that maximized the use of redundant data (i.e., copies) and minimized the management overhead?** That would be valuable – lowering the costs of data protection while making the process more reliable.

Veritas and NetApp Unigration

The guiding philosophy behind the Veritas and NetApp joint development effort is creating a unified and synergistic data protection process. As such, they interlinked their products at both management and data layers.

Management Layer

Veritas *NetBackup 6.0* now controls and schedules activities for *Snapshot*, *SnapVault*, and *SnapRestore*, which are software tools for protecting data primarily on NetApp storage platforms (*FAS*, *NearStore*, *V-series*). *Snapshot* creates instant, low-overhead copies. *SnapRestore* quickly recovers from *Snapshot* copies. *SnapVault* back ups data to local or remote NetApp disk storage platforms, especially the *NearStore* secondary storage system. *NetBackup* can also move backup data from *NearStore* to tape. In this environment, *NetBackup* becomes the central management point for NetApp data protection activities and its own. This is in keeping with Veritas' intention of making it a universal recovery tool.

Data Layer

NetBackup can back up a heterogeneous environment in terms of servers and applications to a consolidated *NearStore* platform. The Data ONTAP operating system running on *NearStore* then translates the data from *NetBackup*'s *TAR* format (Tape ARchive) to NetApp's native *WAFL* (Write Anywhere File Layout). *WAFL* is the special file system technology inside all NetApp storage platforms. From there, *SnapVault* can compress data through redundant block elimination, saving disk capacity. It also makes files available for

self-service restores from user desktops, such as with *Window Explorer*. In short, this linkage allows *NetBackup* to take advantage of advanced capabilities on *NearStore* in backup-to-disk configurations.

Business Benefits

The business benefits of employing both Veritas and NetApp products for data protection include:

- **Better recoverability through disk-based backup** – Backup to and recovery from low-cost disk arrays like *NearStore* are faster and involve less management overhead than tape. The high bandwidth of a disk array, its ability to read and write random, intermittent streams of data, and avoidance of media handling make it a favorable backup target. It helps enterprises keep up with data growth and meet stricter requirements for time-to-recovery and business continuance. But tape still plays an important role because of its very low cost point and portability. Therefore, many advocate a tiered backup infrastructure (i.e., disk-to-disk-to-tape).
- **Lower management costs via a single control point** –The *NetBackup* Master Server becomes the central control point for not only its own heterogeneous backup and restore activities, but also for NetApp data protection solutions and other third-party snapshot technologies. This approach is easier and less confusing, resulting in a more consistent and reliable process. It means significant cost savings because management is the largest cost component, in the long run.
- **Lower storage costs through data compression** – NetApp's redundant block elimination technology allows enterprises either to store more backup data on disk (for better recoverability) or buy less disk (for cost savings), whichever makes more sense.
- **Enhanced user productivity through direct restores** – Individual users frequently need to restore accidentally deleted or corrupted files, and it is time-consuming both for them and for administrators when they must call the helpdesk to do it. Self-service restores enhance everyone's productivity.

Conclusion

The Veritas and NetApp “unigration” has real value for enterprises. After all, data protection is all one process. If you already have Veritas *NetBackup* and NetApp data protection solutions in your environment, be sure to leverage these new capabilities. If you only have one of them, this would be a reason in favor of considering the other. In any case, we need more vendors go to these lengths to integrate – or rather *unigrate* – their products for the benefit of mutual customers.



² See **The Clipper Group Explorer** dated December 18, 2004, entitled *Data Copying – a Toolbox of Business Solutions* and available at <http://www.clipper.com/researchTCG2004101.pdf>.

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