

SOLUTION BRIEF

Pure FlashArray™ File Protection with Commvault

Scalable, high-performance file backup and restore for Pure Storage® FlashArray.

It can be challenging to protect large file environments without a high-performance backup solution. Legacy protocols like NDMP, designed at a time when file data sets were much smaller, are too slow and cumbersome for today's ever-growing unstructured data environments. Commvault software delivers rapid and scalable file system protection using a parallel backup model that lets you scale backup data as file data grows. This functionality allows load balancing, alternate data paths, and dramatically increases the speed of the backups. Combined with the inherent all-flash speed of Pure FlashArray, users can expect exceptional backup performance.

[Commvault® Backup & Recovery](#) uses a parallel backup model that provides easy performance scaling, a wealth of data management features, and everything you need to backup and restore your FlashArray file data.

Commvault Backup & Recovery also supports incremental-forever backups of file systems. After your first full backup, incremental backups capture only changed data, reducing backup time and impact. It also supports synthetic full backups, which can have an even more dramatic effect on reducing backup times. And Commvault synthetic full backups won't slow down your data recovery.

High-Performance All-Flash Backup Storage

Pure Storage [FlashBlade®](#) is the industry's first unified fast file and object storage platform, and is ideal as a high-performance repository for Commvault backup jobs. With FlashBlade, you can grow your backup storage non-disruptively by simply adding more blades. Each blade adds both capacity and compute, ensuring linear performance scaling.



Enhanced Backup Performance

Commvault's parallel backup model provides easy performance scaling for superior backup performance.



Flexible File Recovery

Intelligent file recovery options simplify data recovery management.



Complete Data Management

Commvault provides far more than file backup, including content indexing, analytics, reporting and more.

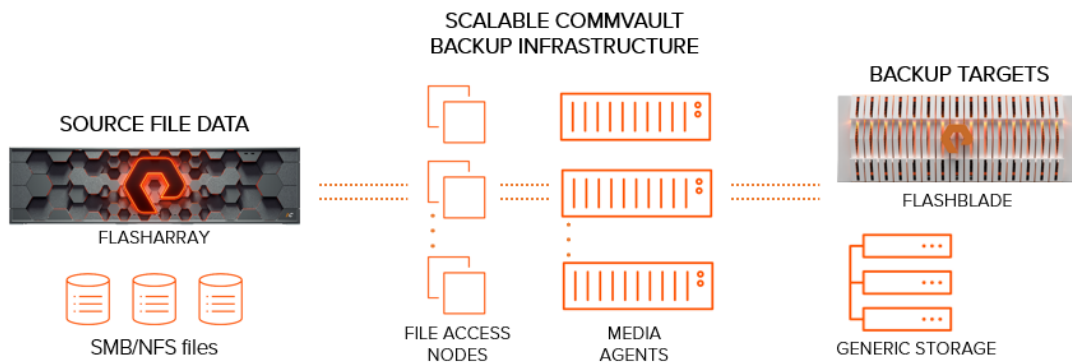


Figure 1. Solution architecture. Commvault’s scalable architecture allows you to increase performance by adding multiple file access nodes and media agents. These can scale both file scanning and backup and restore data movement, giving you high-power performance to handle large numbers of files. Pure Storage FlashBlade® provides a high-performance backup repository offering rapid data recovery at scale as well as protection from ransomware. However, you can use generic storage platforms as well.

FlashBlade provides industry-leading [rapid restore](#) capability with up to 270TB per hour of restore bandwidth, allowing you to take full advantage of Commvault’s scalable architecture. In addition, FlashBlade helps safeguard your backup data from [ransomware attacks](#) through secure data snapshots that protect your backup copies from both hackers and rogue administrators.

The FlashBlade Amazon S3 interface enhances backup performance, which simplifies the Commvault software deployment. A single FlashBlade object “bucket” that configures in minutes can support any number of Commvault Media Agents. Scaling is as simple as adding blades; you won’t need additional configuration. FlashBlade can expand to 10 chassis with 150 blades and over 4 PB of storage, all with linear performance scaling.

Unlike single-purpose backup appliances, you can use FlashBlade for [multiple other purposes](#), eliminating data silos. It provides a platform for data analytics, EDA, Splunk, and numerous other workloads that require high-performance, unstructured data. It also delivers excellent performance for data re-use, letting you use backup copies for functions such as DevTest and reporting. While Commvault software can backup to multiple disk and tape targets, FlashBlade offers a premium data protection experience.

Flexible File Recovery

Commvault Backup & Recovery gives you multiple options when recovering files, including restoring files to their original location or an alternate path. Through a self-service web console, you can quickly locate files and perform browse, restore, and download operations.

Commvault also offers intelligent file recovery options:

- **Unconditional overwrite:** Overwrites all files in the target location.
- **Overwrite if backup file is newer:** Overwrites the existing file with the backup copy only if the backup copy is newer than the existing file.
- **Restore only if target exists:** Skips files that don't exist in the destination. Commvault won't restore files that exist on the backup media but not in the restore path.

Commvault also gives you flexibility in restoring file Access Control Lists (ACLs), helping to alleviate a common file recovery challenge. Recovery can include file data and ACLs together, file data only, or ACLs only. You can use ACL-only restores to apply file permissions back to files restored without ACLs or to recover permissions only (e.g., to restore them to an earlier state). Like backups, recovery can scale across multiple streams and data nodes to speed recovery times.

Storage Efficiency

Commvault provides data deduplication that optimizes the use of storage media by eliminating duplicate blocks of data. It also reduces network traffic and backup times by sending only unique data during backup operations. Commvault deduplication is global, thereby maximizing data reduction. And you can scale deduplication processing across multiple nodes, allowing data reduction to scale along with backup resources.

Data Management Features

Commvault software provides far more than just file backup; it delivers a full range of data management capabilities, including data encryption, compression, data verification, content indexing, analytics, and reporting. [Commvault Activate](#), an add-on to Commvault Backup & Recovery, offers data analytics, which provides actionable insights across both your production and backup data sources to increase storage efficiency, enables faster responses to compliance requests, and lowers your data risks.

Explore FlashArray File Services

FlashArray file services are [natively integrated](#) into FlashArray, allowing users to gain the benefits of familiar FlashArray capabilities such as global deduplication and compression across both block and file, along with snapshots and other data protection features. By adding Commvault for file backup, users have a complete file storage solution.

Additional Resources

- Learn more about [Pure FlashArray File Services](#).
- Watch [FlashArray File Services in action](#).

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