commvault®

solving forward®

The CommVault® Simpana® Software Solution— Using Deduplication to Reduce Storage Costs, Simplify Data Management, Meet Recovery Time Objectives, Compliance and eDiscovery SLAs

Meets Data Growth Challenges; Provides Immediate Cost Savings; Faster Restores and "Green" Advantages
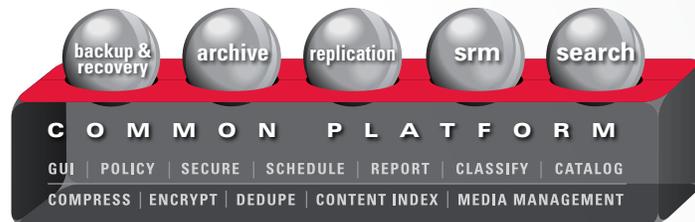
The Business Challenge

It's generally known that the amount of production data being stored, managed, administered and protected by organizations is exploding. The cost of backing up and archiving that same data is increasing even faster in absolute terms. For every terabyte (TB) of production data, there can be more than 17TBs of secondary and archival data in your IT infrastructure. Valuable resources are being diverted to manage and administer your secondary and archival storage and to pay for more of it in the future. Power and cooling demands are draining budgets. Recovery SLAs and eDiscovery deadlines are increasingly difficult to meet.

A significant contributor to the problem is duplicate data resulting from the practice of storing, backing up, restoring and managing multiple copies of even more data. For example, imagine how many slides from your general corporate presentation now reside on your various backup and archive storage media as a result of hundreds or even thousands of users pasting particular slides into their own customer presentations. Each duplicate slide represents an incremental and redundant cost when backing up or archiving data.

Fortunately, there is a solution. CommVault embedded global data deduplication software eliminates multiple redundant copies of data, saving money, accelerating backups and restores, and freeing organizations from the administrative and financial burden of redundant data transmission, monitoring and management.

The CommVault® Simpana® Software Solution

CommVault enables global deduplication for better manageability, faster and easier data recovery, and reduced costs and complexity. We do this by integrating our content-aware deduplication approach with singular and flexible management that spans multiple vendors and storage tiers. CommVault software relies on a segment-based block-level deduplication that delivers better reduction in data footprints versus alternative software and hardware-based approaches.

CommVault® Simpana® Software's Singular Information Management® Architecture

Hardware and Media Independence

With CommVault deduplication software, you can retain and recover deduplicated data on the storage system of your choice. This reduces the time and costs of implementing deduplication within your existing storage infrastructure and maximizes flexibility when recovering deduplicated data back directly to production. CommVault deduplication spans disk with multiple interface types and can be complemented with tape ensuring that deduplicated data can be retained on offline tape for long term retention without having to be re-hydrated. You can take advantage of the flexibility of adding different devices from different vendors as needed. You now have the flexibility to introduce new storage devices into the environment and immediately gain the benefits afforded by CommVault deduplication software.

■ **Global Policy-Based Embedded Deduplication**— Ensures that all data pointing to a global dedupe policy is deduplicated regardless of the number of data paths, disk types or streams in the policy, avoiding isolated islands of deduplication.

■ **Hardware Agnostic**—Works on any disk type, without the need for specialized hardware or VTL interface.

■ **No Reassembly Tax**—Powerful indexing and random access disk I/O eliminates reassembly of blocks during read operations. The hash table (SIDB) is not required during read operations as the media agent directly reads and transfers back segments of desired data in the correct order to the client, minimizing impact on data restore speeds.

■ **Automatic Forward Referencing**— Caps off hash table at periodic intervals, ensuring that newer data does not reference very old blocks, thus protecting against block corruption. Prevents a single point of failure and allows deduplication stores to scale to a very high degree.

■ **Extend Deduplication to Tape**—Seamlessly transfer data from disk to tape in deduped format (without rehydrating), creating a long term archival copy using a smaller number of tapes and tape drives.

■ **Transparent Recovery to Tape**—Seamlessly and selectively bring back requested data directly from tape device, eliminating the need to first copy back the entire tape to disk and improving recovery speed.

■ **Client Site Hashing**—Enables distribution of the deduplication workload, leading to higher throughput.

■ **Deduplication of Encrypted Data**—Client site integration of deduplication with encryption minimizes network traffic while securing data from unexpected loss or theft.

■ **Content Aware Deduplication**—Enables better alignment of data across multiple backups for better deduplication.

■ **In-Memory Deduplication**—Only unique data is written to disk, thus reducing the I/O overhead and increasing backup throughput.

■ **No Transmission of Duplicate Data Before it Gets to Disk**—Saves valuable network bandwidth and processing power at the target storage device.

■ **Ultra-Rapid Deduplication Deployment with Existing Infrastructure**—Simpana is easy to install, configure and manage. Support for a wide range of platforms and applications makes it easier to integrate with your existing systems environment.

SIMPANA
software

CommVault® Simpana® Backup & Recovery, Archive, Replication, Resource Management and Search software is designed to work together seamlessly from the ground up, sharing a single code and common function set. This exclusive single-platform architecture enables unparalleled software efficiency, performance and reliability for unprecedented control over data growth, costs and risk.

Improved Data Recovery

CommVault deduplication software eliminates redundant data across all of your backup and archive storage tiers, reducing the amount of stored data and making recovery simpler and faster. A richer repository of recovery points on your existing disk storage reduces recovery times, while CommVault software's unique distributed index architecture ensures faster access to specific data for rapid recovery without reassembly penalty. Administrators can simply point-and-click to recover data directly whether it is local, remote, on disk or on tape. Employ direct-access read-from-disk to ensure fast recovery performance, eliminating reassembly latencies.

Improved Manageability

Multiple redundant copies of data dispersed across various locations can quickly add complexity and management costs for IT departments. With Simpana® software, organizations can eliminate that burden by deploying a single-platform solution to manage more data with less storage and fewer resources. CommVault® Simpana® software provides better management of deduplicated data, reducing power and space requirements. The reduced data demands also minimize network bandwidth requirements, which means organizations can complete backups within required windows, meeting SLAs, eDiscovery and compliance requirements. For added security, the Simpana software can encrypt data and still deduplicate it for easy storage efficiency.

Conclusion: Better Storage Cost-Efficiency Without the Complexity

By eliminating data redundancy across backup and archive data, you will be able to store more data on your existing storage devices without adding unnecessary storage capacity or management complexity. You'll reduce initial storage acquisition costs and lengthen the intervals between storage capacity upgrades. By eliminating duplicate copies of data, you can store 8x to 20x more data on your existing backup or archive storage media, thereby improving operations reliability, reducing capital infrastructure spending, and reducing operational costs for consumables.

Available on both disk and tape, CommVault® deduplication software enables IT organizations to fully deploy end-to-end D2D2T solutions that leverage the benefits of deduplication across all storage tiers. CommVault® Simpana® software is the only product that delivers data deduplication across backup and archive as part of a proven and Unified Data Management ®solution. CommVault software's unique, single architecture keeps compressed data on shared storage resources while delivering fast restores of data—all managed from a single console.

About CommVault

A singular vision—a belief in a better way to address current and future data management needs—guides CommVault in the development of Singular Information Management® solutions for high-performance data protection, universal availability and simplified management of data on complex storage networks.

CommVault's exclusive single-platform architecture gives companies unprecedented control over data growth, costs and risk. CommVault's Simpana® software suite of products was designed to work seamlessly from the ground up, sharing a single code and common function set, to deliver superlative backup and recovery, archive, replication, search and storage resource management capabilities. More companies every day join those who have discovered the unparalleled efficiency, performance, reliability, and control only CommVault can offer. Information about CommVault is available at www.commvault.com. CommVault's corporate headquarters is located in Oceanport, New Jersey in the United States.

For more information on CommVault solutions for deduplication environments:
www.commvault.com/solutions/deduplication

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