



commvault[®]

solving forward[™]

Singular Information Management[®]

A Better Way to Manage Data
for Increased Business Value

DATA PROTECTION

ARCHIVE

REPLICATION

RESOURCE MANAGEMENT

SEARCH

The Singular Approach.

SELECT AMONG THESE SINGULAR CAPABILITIES

Common Technology Engine

- Establishes a foundation for data movement and management
- Provides shared services like encryption and reporting, which benefit all Singular Information Management® products
- Breaks through traditional data silos to allow a 360° view of all managed data
- Enables shared servers, networks and devices

Data Protection

- Provides reliable, efficient backup and recovery for file systems, applications and database systems
- Reduces the burden on administrative teams by automating tasks using policies, unifying the backup and restore process for all types of data, and by building in point-and-click reporting
- Reduces the need for additional storage devices and tape costs

Archive

- Actively archives data from file systems, NAS and Microsoft® Exchange Server systems to secondary storage which can span disk and tape
- Controls data growth, decreases storage spending, and enables electronic discovery and compliance
- Scales to millions of files and messages

Replication

- Protects critical applications and remote office data with snapshots and byte-level replication
- Manages hardware-based snapshots seamlessly as part of the data management process
- Enables re-sync from last good snapshot

Resource Management

- Provides historical data and trend analysis across all data, primary and secondary, world-wide
- Enables accurate cost-accounting and monitoring across divisions, geographies, and applications
- Automates delivery of comprehensive CxO-ready performance summaries

Search

- Content indexing provides full-text search and retrieval of messages and attachments
- Role-specific search portals are provided as an extension of the Microsoft® Outlook client interface
- Transforms off-line data archives into accessible business information

CommVault® has pioneered a radically better way to manage data. Our exclusive single-platform architecture gives companies unprecedented control over data growth, costs and risk. Our software was designed to work together seamlessly from the ground up, sharing a single code and common function set, to deliver superlative Data Protection, Archive, Replication, and Resource Management. More companies every day join the thousands who have discovered the unparalleled efficiency, performance, reliability, and control only CommVault can offer.

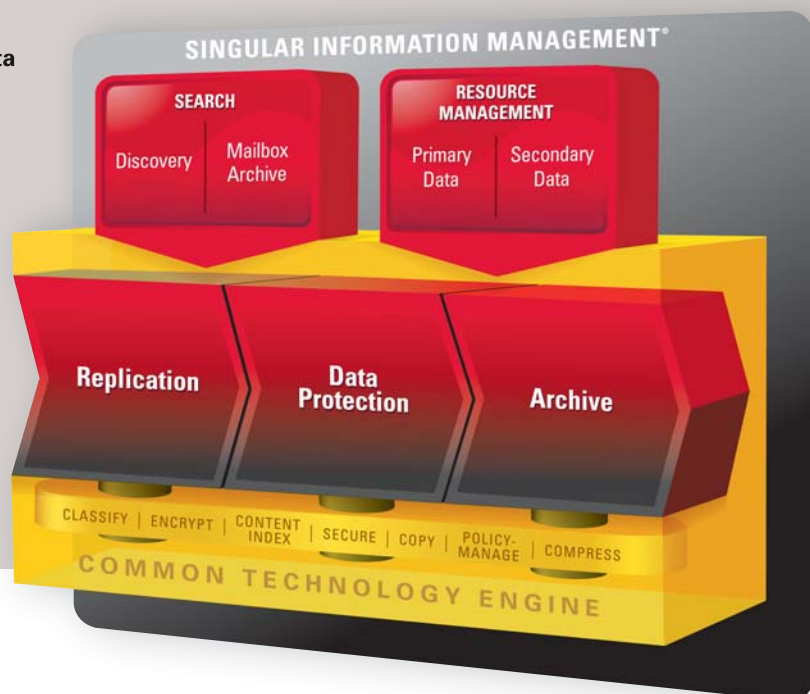
Singular Benefits

When you take the Singular approach to data management, you gain operational efficiencies that you did not think were possible. You gain this value because the CommVault Singular architecture allows you to share a single set of common services used for backup, recovery, replication, copy, archive and retrieve operations.

The CommVault Singular architecture is called the Common Technology Engine. This engine delivers optimized data movement, easy expansion to support changing business requirements, and secure control. This value is provided in software services used commonly for all data management. Disk-based capabilities make it possible to provide more access to users, and raise the value of managed data to your business.

Bottom-Line Efficiencies for Managing Data

- Control the growth and cost of storage
- Avoid and reduce capital expenditures
- Speed backup and recovery
- Enable easy data archive
- Maximize the use of your storage devices and networks
- Gain time and cost-savings efficiencies
- Avoid the need for additional purchases of devices
- Maximize tape and disk use
- Plan ahead for storage



Top-Line Business Value of Transforming Data into Information

- Increased productivity for users and administrators
- Lower-cost legal discovery
- Faster ramp-up for new employees
- Higher customer satisfaction for your business
- Improved competitiveness
- Collaboration across operational silos

Singular Efficiencies

What makes CommVault software so much better than any other data management software is how the Singular approach enables you to manage data through an entire lifecycle. Data management is simple and easy because the underlying single code-base architecture allows administrators to define policies which carry data through replication, protection and archive stages.

Find out how the Singular approach can benefit your data management by working with the CommVault team to walk through the details and see the numbers. Let us help you take the Singular approach for maximum return on time and resources in your environment.

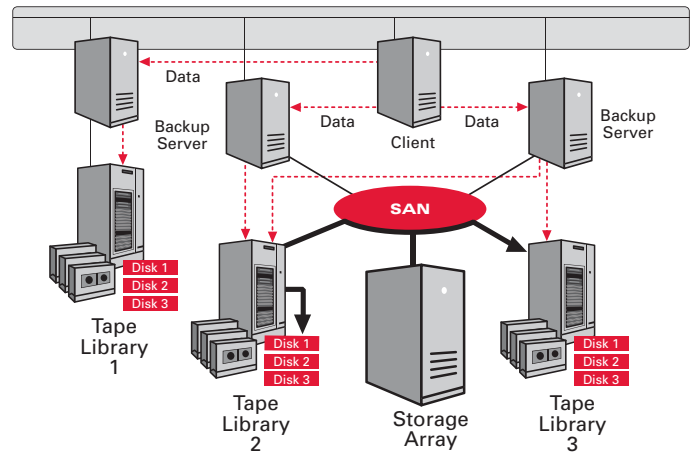
Singular Information Value

Usually, the process of managing data is a process of managing costs. However, taking the Singular approach to managing data opens up new opportunities to add value to your business.

When data is managed efficiently and as a virtualized pool, it creates a foundation for access by business people.

CommVault software makes this possible by providing efficient tools for searching, sorting and retrieving data from the managed data pool from users' desktops. With this access, users can easily browse and restore their own backup and archive data rather than relying on administrators. Also, legal teams can easily search archives and collect the files and email required to respond to legal discovery actions.

CommVault software makes search fast and easy by providing capabilities from within the Microsoft® Outlook client interface. This easy access transforms managed data into information with the power to improve the competitiveness and productivity of your business.



GridStor™ reliability is provided by capabilities for failover-resume, load balancing and device and tape spanning.



In today's on-demand information and regulatory environment, and with email being such a critical communications medium, our IT team relies on rapid access to data when and where they need it. Using CommVault®, what used to take us two months, now takes us two days. The ability to enable end-users to search and retrieve relevant business information across all our data saves our administrators a huge amount of time. By reducing the effort required, this also translates into bottom line cost savings which delivers top line business value.



VP of IT,
Design Within Reach

Innovative Capabilities: Common Services

Advanced capabilities for data management which are built in to the CTE benefit any and all of the CommVault data management products that you choose to operate in your environment. These advanced capabilities include:

- CommVault GridStor™ operations, for higher systems reliability
- CommVault Encryption, for secure data management
- CommVault Auxiliary Copy, for cost-efficient use of storage tiers
- CommVault Vault Tracker™ capabilities, for built-in management of removable media
- CommVault Unified Console, for single pane-of-glass control
- CommVault Reporting, for point-and-click verification
- CommVault Self-Managed Indexing, for maximum operational performance with least administrative burden

Higher Reliability: GridStor™ Services

GridStor operations are built into the CTE which raises the reliability of getting your data management job done. GridStor failover capabilities complete jobs when servers and networks go down by resuming those jobs on alternate network paths. Jobs are resumed—not restarted—which helps critical jobs complete when windows are tight and you cannot restart long jobs.

The Singular approach means that GridStor capabilities benefit all data management jobs including backup, recovery, copy, archive and retrieve.

GridStor capabilities also span storage devices and drives, and append data copies to partially full tapes. This typically results in less disk and tape used. The CTE preserves easy, one-step recovery making it practical to get the best value from your storage equipment.

Secure Data Management: Built-In Encryption

The CTE also builds in encryption options, to ensure that data moved across networks and data stored on devices is secure from hacking, sniffing and theft when tapes go missing.

Robust key management makes CommVault software better, because keys can be stored where and how required. Encryption is only as secure as the decryption keys. Also, the same encryption policies can be applied to replication, backup and archive data copies with comprehensive key management automated as part of the process.



Having a single unified architecture for data protection and beyond is exactly what people want. Give them seamless access to data and an integrated workflow and the unwashed masses will cheer wildly. Who wants more disparate elements in this day and age? This story is a good one – and one the eternal suffering should find the time to listen to.

Steve Duplessie,
 Founder/Sr. Analyst,
 The Enterprise Strategy Group, Inc.



Efficient Data Movement: Auxiliary Copy

Getting the best value from a tiered storage environment requires the capability to move data efficiently from one class of device to another as data ages, becomes less frequently accessed and less valuable. The CommVault Singular approach builds efficient data movement into the process, by providing Auxiliary (Aux) Copy capabilities.

Aux Copies of backup and archive data copies can be made at any time, on-demand, and from any copy under management. Aux Copies can be made inline, at the time the initial backup or archive copy is made, such as by creating a backup copy on disk and tape at the same time. Aux Copies can be made from other copies, such as when making a copy from near-line to less expensive off-line storage after the short-term retention period expires. Aux Copy prunes the original data copy from the original disk, to free it for other use as part of the copy process.

Aux Copy capabilities are automated by CTE Storage Policies, to maximize efficiency, and span any type of disk, tape, and optical devices to maximize cost-savings options. Because the Singular approach applies to everything, automated Aux Copy makes it simple for archive pools to span disk and tape media.



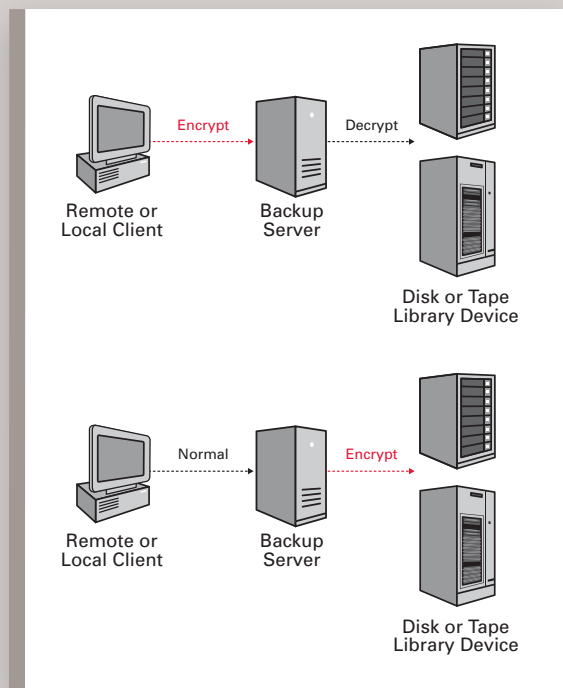
Safeguarding Removable Media: Vault Tracker™ Capabilities

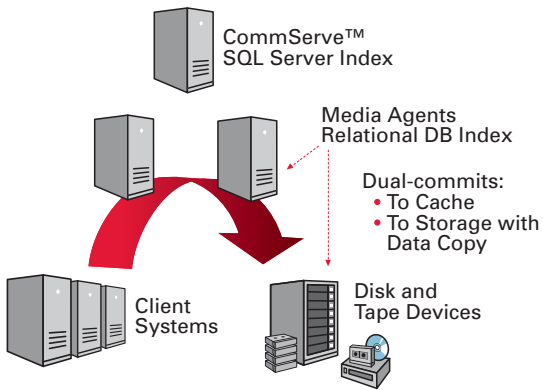
Tracking removable media such as tapes can be easy when it is built into the normal process of managing data. Data is only useful when it can be found and recovered. Data stored on removable media is most often rotated to off-site locations, significantly increasing the challenge of tracking and finding the data.

CommVault Vault Tracker capabilities simplify the challenge by building in capabilities for managing rotation cycles, tracking the location of individual media and bins, and notifying administrators when media are due back. All of the bells and whistles are included, like FTP notification, foreign media tracking, bar code capabilities and easy, fast reporting.

Single Pane-of-Glass Control: CommVault® Unified Console

CommVault software gives you total management control of data management from a single, unified browser console. This console is easy to learn, efficient to use, and comprehensive in its capability.





Fast, Point-and-Click Verification: Built-In Reporting

CommVault software enables easy, fast reporting as part of the process. Selected with the touch of a button from the Unified Console, you can create reports for replication, backup and archive with point-and-click simplicity.

Schedule reports, attach them to email for easy distribution, and export them in comma-delimited format for spreadsheet analysis. Prove the value of data management with easy, comprehensive reports.

Scalable, Self-Managed Index: An Enterprise-Class Foundation

Unique self-managed, self-describing index capabilities are the foundation of the CommVault Singular approach to data management. The CommVault “master” server, called the CommServe™ storage manager, stores only the tip of the iceberg of meta-data in a SQL Server index. The vast majority of the CommVault meta-data is managed and stored by CommVault Media Agents in a dual-commit process which reduces administrative requirements for managing the index while simultaneously raising its reliability.

The CommVault SQL Server index is relatively small. Its protection is built into the regular backup cycle by default. You can rebuild an entire CommVault data environment at a hot site, quickly and easily, using just the catalog contained in the SQL Server index.

CommVault Media Agents manage the real work of indexing the backup and archive data copies,

and use a distributed relational database to ensure fast performance and scalability. As operational loads increase and change, you can easily add and re-allocate Media Agents. The distributed index is self-managing, because it is written in chunks to storage along with managed data. In the event that the index cannot be found on the Media Agent or when tapes are being read at disaster recovery sites the index is read directly from the storage device along with the data.

In short, the normal headaches associated with index management just do not exist with the CommVault Singular Foundation: tape scanning, dedicating tape pools to index protection, and manual management of index protection are all overcome with CommVault software.

CommVault Media Agents run on your choice of UNIX, Linux, NetWare and Microsoft® Windows systems in any combination. In this way, CommVault software gives you the power of enterprise computing as the foundation for data management across your environment.

Use the single, Unified Console to:

- Configure
- Backup
- Restore
- Monitor
- Copy
- Archive
- Search
- Retrieve
- Replicate
- Snapshot
- Report



Before we had CommVault Galaxy® software, we used to have to look at all the backup logs for all the servers and workstations and put the information on a spreadsheet that we built manually. Now, Galaxy does all that. Galaxy creates Pass/Fail reports on everything, and automatically sends the reports to the appropriate people in the different parts of the company. Before, we had to do this all by hand. With seven days worth of logs, it took a lot of time, and there was always a chance of making errors. Now Galaxy does it, and it's always right.

Network Support Manager,
FlightSafety International (FSI)



Application-Aware Capability: CommVault® Core Competency

The CommVault Singular approach of managing all copies of data for all of your key systems and applications with a single solution provides you with unmatched efficiency, control and capability for managing data across your entire environment. In this way, CommVault software provides an environment for Solving Forward™ solutions as you change and expand your systems deployment over time.

File Systems	Applications	Database	NAS NDMP Systems
AIX	Lotus Notes Services	DB2	Archivas
FreeBSD	Lotus Notes/Domino Server	Informix	Agami
HP-UX	Microsoft® Exchange Server	Microsoft® SQL Server	BlueArc
Macintosh	Microsoft® SharePoint Technologies and Products	Oracle systems	EMC Celerra*
Microsoft® Windows & Active Directory	Novell GroupWise	Oracle RAC systems	Hitachi
Microsoft® Virtual Systems	SAP R3 and NetWeaver solutions	Sybase	NetApp
NetWare Server			ONstor
Red Flag Linux			Pillar Data
Red Hat Linux			
SGI Irix64			* EMC Centera is also supported, for data archive
Solaris			
SuSE OES Linux			
Tru64			
VMware Virtual Machines			

Take the CommVault® Singular Approach to Data Management: Gain Dramatic Efficiencies and Business Value with the CommVault® Software Suite

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