

BACKUP & RECOVERY

ARCHIVE

REPLICATION

RESOURCE MANAGEMENT

SEARCH

Key Benefits

- Reduce TCO and maintain availability as data ages with tiered storage polices.
- Improve Exchange system performance and reduce the size of active primary data stores and backup windows.
- Extract information value directly from data management assets with single console.
- Enable efficient, effective legal discovery.
- Provide legally defensible data management process.
- Meet security and compliance standards.
- Ease audit burden with comprehensive, point-and-click reporting.
- Improve end-user productivity by providing transparent access to business critical data.
- Leverage fully integrated resource reporting capabilities.
- Overall ease-of-use flexibility and manageability with minimal time and resource investments on the care and feeding of the system.
- Support Green IT strategies by reducing hardware, power and storage requirements.

Easily add capabilities for protection, archive, replication and snapshot recovery, all managed from the same Unified Console.

Simpana® Archive for Microsoft® Exchange Systems

Centralized Archiving for Storage Optimization, Discovery and Compliance

The Business Challenge

Messaging data continues to grow at exponential rates. IT teams are struggling to control server and storage costs associated with messaging applications. At the same time, legal and compliance teams are struggling with standards for civil litigation, such as the US Federal Rules for Civil Procedure (FRCP), industry regulations, privacy acts, evolving case law and freedom of information acts that require the long-term retention of e-mail. The size of messaging stores, coupled with increasing litigation, puts organizations at greater risk. Businesses need to control the growth and costs of storing Exchange data, while also being able to respond efficiently and effectively to eDiscovery actions.

Understanding Archiving Strategy

The convergence of archiving strategies is creating confusion for many organizations. On one hand, there are traditional data management challenges on how to control the cost of storing data. On the other, increasing pressures for compliance and discovery bring data retention discussions from the backroom to the boardroom. These challenges demand an archiving strategy that is able to adapt to change. One that is heterogeneous and highly efficient in its space saving capabilities

and that can span storage technologies, tiers and lifecycle requirements. All of this is required while maintaining seamless end-user access to e-mail, files and documents, and enabling fast access to archived content by index and search when required. In other words, a solution and strategy is needed that delivers on the original promise of information lifecycle management.

The CommVault® Simpana® Solution

CommVault Simpana software offers a modular, scalable and high-performance solution for Exchange archiving:

- CommVault Simpana Archive controls the growth and cost of primary storage.
- CommVault Simpana Archive for Exchange Compliance works with the message journaling feature of Exchange systems to archive all incoming and outgoing messages and attachments.
- Content Indexing (CI) enables the facilitation of easy, comprehensive and collaborative search and discovery of all Exchange data.

Used separately or in combination, CommVault Simpana Archive modules help control Exchange data growth, reduce costs, and manage risks associated with legal discovery and non-compliance. CommVault

Key Capabilities

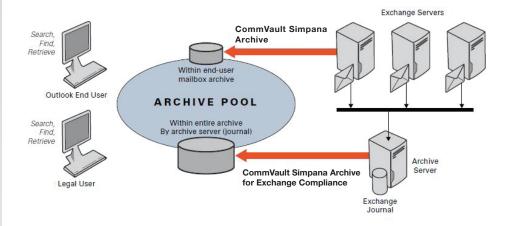
- Control data growth— Address common capacity management problems such as user quotas, .PST file proliferation and database growth.

 Reduce the time required to make back-up copies by archiving old messages out of the primary backup set. Reduce the amount of disk and tape required to store backup copies. Reduce the time required to restore Exchange databases in Disaster Recovery scenarios.
- Scalable, high-performance Content Indexing option—

Combines all copies of indexed data (protection, migration and archive) into single, searchable archive. Within Exchange, search on any word in e-mail messages and attachments when searching "To" and "From" is not enough. Work with millions of items and maintain fast and efficient content-level search. View and refine result sets before beginning retrieval processes for maximum efficiency.

- Navigate, find and select messages to retrieve with point-and-click browse of the archive using an Exchange-like folder tree.
- ➤ Archive to disk, secondary disk, Content Addressable Storage (CAS) and tape—Actively-archive data to the media of choice, using single-stage or multi-stage archive policies. Enable fine-tuned archive control with Storage Policies that define retention periods and automatically move data from media to media; for example, store 90 days on disk for fast retrieval, then automatically move to any combination of secondary disk, tape or CAS for longer-term retention.

continued on next pg.



Simpana Archive software serves mailbox endusers, administrators, legal discovery and compliance teams, and maintains highspeed performance in the face of increasing data volumes.

Meet eDiscovery, Corporate Governance and Regulatory Compliance Requirements

The threat of civil litigation impacts every organization, public or private, large or small. Courts may require administrators to provide historic e-mail messages or put information on legal hold. CommVault's singular approach allows companies to automatically classify content so it can be easily leveraged for business purposes and effectively execute legal holds across all Electronically Stored Information (ESI). Unlike traditional legal hold technologies, CommVault's legal hold feature spans e-mail, files and backup tapes to minimize corporate disruption, maximize protection and eliminate the reckless disposal of evidence based on regular retention policies. Failure to meet deadlines for producing e-mail, and incomplete responses, can damage company reputations and result in large financial penalties.

In addition, some industries are governed by regulations that specify the long-term retention of e-mail. Users abiding by internal governance or compliance rules can also leverage the legal hold feature set for adherence to company policies that mandate the retention and disposal of certain documents and information. Most organizations

are not explicitly required to keep all e-mail, but may find it easier to keep everything than to define policies for retaining only some e-mail. As the legal case law evolves, however, the policies for managing e-mail and other types of online materials are changing. Archive solutions need to enable organizations to change and adapt as policies evolve over time. CommVault Simpana Archive delivers the archive, find, search and retrieval capabilities necessary to meet the increasing demand on organizations for e-mail retention and retrieval. Storage Policies easily adapt to change, and automate policy enforcement. Furthermore, CommVault Simpana software's modular design enables organizations to choose the level of e-mail preservation and policy-based retention that they need, and to change it easily over time, without being locked into a single methodology or hardware platform. The flexible nature of CommVault Simpana software includes the capability to search and retrieve all supported data—from e-mail to files to application data. Also, CommVault Simpana software enables the universal search and retrieval of all data copies including archive and backup copies. The capability to manage Exchange archive data along with Exchange backup copies is becoming more important as courts begin to look at all ESI for discovery. CommVault Simpana software uniquely provides capabilities for search and retrieval across all supported data types and data copies with our unified software.

Key Capabilities cont'd

- Microsoft®-approved capture and preservation of every e-mail routed through the Exchange server—
 Use Microsoft Exchange journaling to eliminate risks of message alteration or loss when preservation of every e-mail is required to meet legal discovery and compliance regulations.
- Centrally manage .PST files— Auto-discover and import .PST files on user desktops or file shares directly into the archive.
 - "One-click" legal holds. Preserve authenticity and integrity of data. Legal holds can be administered globally and/or selectively across the enterprise based on search criteria and/or custodian.
 - "Post" legal hold considerations. This includes reclassification of held content, data movement, consolidation and/or timely destruction of held content, regardless of infrastructure.

Optimize Storage and Control Growth and Costs

In an attempt to control messaging growth, many organizations put quota limits on the size of mailboxes—a tactic which can backfire by encouraging the spread of .PST files on local disks across the company network. .PST files are notoriously problematic, causing lost e-mail, impacting user productivity, burdening IT and often violating company policies on e-mail retention.

CommVault Archive provides transparent archive of e-mail from end-user mailboxes. Administrators use the central Unified Console to set global thresholds and policies governing when and how e-mail is archived. Administrators can also finetune thresholds and policies to an individual group of mailboxes, to align with business priorities. For example, define Storage Policies for executive mailboxes that use near-line archives for a longer period than for the rest of the organization. Policies are defined using the CommVault Unified Console, and do not require scripting. Archived messages are replaced by self-contained "stub" messages which retain key properties of the originals but at a fraction of the storage requirement. Users recover the original items with transparent access to stubbed messages. This storage savings improves Exchange performance, lowers capacity management overhead, and can reduce or eliminate the need to buy more disk storage.

A Better Way

Innovations from CommVault are key to a flexible approach for the lifecycle management of compliance-driven data retention. Because CommVault Simpana is a holistic solution that provides end-to-end data management, you can effectively protect (backup), collect (archive), search, preserve (legal hold), and review items from one console. More importantly, you can automate ILM activity by assigning retention at

the time of collection so that data is automatically purged/deleted from the environment without human involvement. In addition to being able to content index Exchange data that has been either backed up or archived, CommVault can also content index LIVE exchange data and make it available for search to both end-user and eDiscovery users. This policy based, full-text Content Indexing unlocks information value from the archive and yields real-time search results.

Additionally, the Data Classification Enabler option allows administrators to match files to the right media based on data access needs. Data can be automatically classified according to its use type and value (for example, ownership, frequency of access), offering the flexibility to create rule sets to meet the changing needs of your organization.

Furthermore, CommVault also offers the industry's first and only integrated Storage Resource Management functionality. Most organizations today do not have any understanding of their storage asset utilization. With this offering, customers can monitor storage consumption and cost by department, project, application or platform. The offering allows for the management of storage resources across complex heterogeneous environments. Customers can identify data types, growth trends and cost metrics across the enterprise, all from a single console.

Lastly, with CommVault deduplication, the lifecycle of physical storage is dramatically extended. The amount of total storage is reduced, improving server performance and minimizing backup windows. Fewer server upgrades and backup tapes are required helping to improve bottom-line efficiencies. More data can be stored on less disk, simplifying search and discovery. Efficiency and security is further improved with data compression and encryption (see Figure 1).

CommVault® Deduplication With Simpana® Software

CommVault extends the power of Simpana® with hardware-independent, content-aware deduplication. CommVault® deduplication software eliminates all duplicate copies of backup and archive data managed within the guidelines of the Global Storage Policy, regardless of source, data type or platform. A combination of contentaware and segment-based deduplication, along with the scalable Deduplication Database delivers better results compared to other block-based approaches. Using the Deduplication database, the digital signature is compared of each segment against all the other segments of data in your global storage policy, maximizing deduplication across 100% of your backup and archive data. Combining clientbased generation of hash signatures, with integrated data compression and data encryption capabilities minimizes network bandwidth requirements and maximizes end-toend network speed and security that goes all the way from clients all the way to disk and tape-based storage tiers.

With Simpana software, you can expand the use of data deduplication across all tiers of storage, including tape, without the need to "rehydrate" the data back into full form. Using our automated, policy-based approach, you can implement a hands-free approach to migrate and manage aging data quickly and efficiently. The migration is invisible to end-users, and ensures that the deduplicated data is brought back seamlessly directly from any storage tier. CommVault® deduplication software also combines the Shared Index/Catalog with the unique SILO storage to track and retrieve just the data required, without the need for lengthy restores and searching through entire volumes of data.

Deduplication With Simpana is Especially Helpful for:

- ► End-to-end elimination of duplicate data across multiple backup cycles, and across backup and archive data stores → Greater deduplication ratios.
- Direct data restores from any storage tier and the ability to create and retain dramatically more recovery points → Faster recovery of data covering longer retention periods.

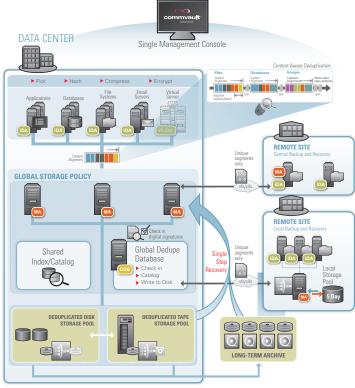


Figure 1

Automated policy-based migration/management of long-term data on tape-based backup media → Better manageability with optimized storage/tiering of data.

CommVault® Simpana® integrates deduplication with our broader platform capabilities around Backup and Recovery, Archiving, Replication, SRM and Search to deliver a holistic embedded deduplication approach that maximizes efficiency and minimizes barriers to implementation throughout the enterprise.

Maximizing Deduplication Without Sacrificing Performance

- 1. Content-aware segment-based deduplication across all data within a global Storage Policy that spans all associated clients, applications, agents, jobs, etc.
- 2. Integration with compression and encryption increases speed and security when writing unique data to disk.
- **3.** Retains dedupe to tape, and eliminates traditional VTL/appliance re-assembly "tax," for direct and selective retrieval of data from any tier (including archived data on tape).

Key Features and Benefits eDiscovery and Compliance Benefits

| Features | Benefits |
|---|--|
| Context Indexing Option available | Drive higher efficiencies with universal search and discovery by any word in the e-mail or within attachments, as well as backup and production data copies. Search both online and offline data. 77 languages and 370 data types are supported for content search. |
| Comprehensive archive search | Search all Content Indexed data types that have been archived from a user-friendly web interface. Searches can be based on dates, header fields, full text, Boolean phrases and patterns, and search within-a-search results. |
| Federated search | Search multiple data stores, sites and geographies to enable enterprise-wide eDiscovery. |
| Retrieve direct to .PST or to a specific mailbox (private folder) and cross mailboxes | Enables organizations to conduct multiple discovery-related searches and concentrate all the results into a common location, such as a .PST file, for easy delivery to a legal team. |
| Preview the results of a search before retrieve | Gives administrators the option to cull down a search set and reduce the number of items that will be retrieved, before the retrieval process begins to save time on critical legal discovery search demands and retrieval jobs, which can span millions of objects. |
| Maintain chain of custody | Uses message timestamps, audit trails and message ID's to ensure a defensible archival process. |
| Seamless integration with tamperproof storage media | Multiple safeguards to ensure non-alteration of data with WORM media for regulatory compliance or litigation support requirements. |
| Cross-server and cross-mailbox retrieve options | Extend retrieve to compliance review folders, user-defined folders, or direct to .PST files, to enable legal discovery review and other review of retrieve results. |
| Supports Exchange envelope- or message-level journaling | Ensures that every message that goes through an Exchange server can be captured, secured, indexed, easily found and efficiently retrieved, using the journaling method of choice in case of litigation. |
| Browse/Find Federated Range | Simplify recovery across multiple mailboxes from a single view. |

Key Features and Benefits cont'd

End-User Experience and Recovery Benefits

| Features | Benefits |
|---|---|
| User group roles to define span of search | Administrators can define multiple user groups with specific search capabilities to allow for different levels of authority and desired levels of access. |
| End-user Delegated Search | Extend delegated search access for authorized users. |
| Mailbox Explorer | End-users can browse, find and recover or erase messages from mailbox backups or archives. This empowers them to self-service their own needs, saving IT/Helpdesk time. It also reduces the size of the stub collection in the MB stores and empowers privacy controls for users. |
| End-user search and retrieve using Outlook® plug-in | Enables end-users to search and retrieve messages and attachments from the archive, minimizing the need for help from administrators. End-users can browse and retrieve messages that are stubbed, deleted, archived, and in archive .PST files. |
| Find/Browse and Recover | Find archived message data in the mail file using subject and name parameters. Browse data directly from the media on which they were originally archived. Additionally, mail data that has been Content-Indexed will allow end-users to search keywords and phrases contained in the message body attachments. |
| Support for include/exclude folder rules | Provides users with the facility to include or exclude archive only messages that reside in a specified mailbox folder or subfolder. |

Mailbox and Public Folder Management Benefits

| Features | Benefits |
|--|--|
| Browse View of data for administrators | Administrators can quickly and easily retrieve data from a browse view for efficient mailbox management. |
| Data Erase Backup/ Archive data | Storage policy level feature that ensures erased data cannot be recoveered once it is erased to control privacy. |
| Archive filters | Enable folder name exclusion filters and special start/stop data range filters to selectively archive time ranges of messages from legacy mailboxes when running archiving jobs against previously un-archived data. |
| Collect, index and archive e-mail message copies with tight Exchange integration | Various capture methods include Exchange message journaling, an SMTP gateway or by one-time scans of existing or restored views of Exchange private folders (mailboxes). Journaling ensures that a copy of every e-mail routed through the Exchange server is captured and preserved. |
| Intelligent "stubs" with exact meta-data location of the archived message | The stub includes the message header information and the CommVault meta-data location of the message data, allowing movement from location to location, including across volumes, and will still retrieve the appropriate file content from the archive when an end-user opens the e-mail message. Other offerings insert links, which break when stubs are moved. |

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Key Features and Benefits cont'dMailbox and Public Folder Management Benefits

| Features | Benefits |
|--|--|
| Stub or delete | Once messages have been archived, they can be stubbed or deleted to reduce torage requirements. CommVault® Simpana® deduplication further reduces the physical storage required while maintaining transparency to the end-users. |
| Create ArchiveSet and manage Exchange mailbox | Improve flexibility with the ability to use more than one set of policy rules. The Exchange mailbox supports user-defined archive sets to provide additional flexibility in grouping client data, workload balancing and scheduling. |
| Direct-to-tape active-archive | Unique capability to archive directly to tape in a journaled e-mail archive model, to enable long-term retention on tape right from the archive. |
| Mixed storage device active-archive | Unique capability to manage archive to a mix of tape, disk, content addressable storage (CAS) and optical. |
| Multi-tier active-archive | Unique capability to enable an archived message to move across a mix of storage devices, automated by policy to comply with short-, mid- and long-term retention periods. Preserves single-step retrieval for end-users. |
| Active monitoring alerts | Check journal mailbox feed rates to help optimize archiving schedules. |
| Archive existing or restored user mailboxes | Backfill archive with one-time catch-up jobs against current or restored views (older backup restores). Extend archive policies to cover additional archiving data sets while still managing a central archive. |
| Overwrite or skip existing items on a retrieve | Speeds restore of item collections, when only partial folders need to be retrieved. |
| Local migration | Create local cache of retrieved messages at the Outlook® client, to prevent retrieved messages from expanding Exchange stores, being re-archived, and slowing networks. |
| Advanced Restore/Recover/ Retrieve Option available | Option will skip errors and continue without going into pending mode. |
| Offline Archive and Recover | Message can be archived in a local cache on the Exchange client computer and recovered with the requirement of a network or internet connection. |
| Data Verification options | Use periodic Data Verification checks to ensure that data is archived coherently and is retrievable. |
| Data Classification Enabler for Microsoft Exchange | Automate different classes of data with different policies according to use and value, instead of by location. Data Classification Enabler is supported by the following agents: Microsoft® Exchange Mailbox Archiver, Exchange 2003 Mailbox, File Archiver for UNIX®, Online CI for Exchange, UNIX File System. |

Analysis and Reporting Benefits

| Features | Benefits |
|--|---|
| Point-and-click, comprehensive reporting | Easily report on all archive and retrieve jobs for compliance audits. |
| Storage Manager Option | Get reports on current Exchange mailbox capacities and size of attachments. Based upon the capacity used, an Exchange administrator can implement archiving for users who are using excessive storage. |

Additional Solutions for Exchange*

CommVault offers data management software built on the same software platform so that all capabilities work together. This makes it easy to add capabilities when and how you need them. For Exchange systems, consider adding:

► CommVault® Backup & Recovery

- Protect Exchange data and ensure granular, object-level restore.
- Enable disaster recovery of Exchange databases and systems.
- Search and retrieve Exchange and other backup copies along with archive copies, to meet expanding FRCP requirements that specify backup discovery.

► Continuous Data Replicator (CDR)

- Reduce the size of the data that needs to be replicated with CDR, by adding Archive Management at the remote sites.
- Stubs are not "broken" by replication, but maintain capability to retrieve the data remotely.

► Storage Resource Management

- Monitor and manage the amount of primary disk space being consumed by Exchange, to identify where Archive Management can help the most.
- Monitor and manage the amount of disk space being consumed by archives, backup copies and replication copies.
- Track and prove Archive Management ROI.
- Leverage reporting and archiving using the single platform.

► Vault Tracker® Software

- Automate the rotation and tracking of removable media such as tapes.
- More easily manage archive-to-tape scenarios.
- Meet long-term retention with off-site requirements directly from the archive.
- * CommVault Archive solutions enable enterprise-wide storage management and eDiscovery with solutions for e-mail, collaboration, file system and Network Attached Storage (NAS) data. With built-in tiered storage and multi-platform support including: Microsoft Exchange, Lotus Notes, and Microsoft SharePoint data, comprehensive archive management is simplified.

For more information, refer to the CommVault website at http://www.commvault.com/products-archive

System Requirements

Microsoft® Exchange Systems

5.5, 2000, 2003, 2007 versions

Operating Systems

Windows® 2000, Windows Server 2003 32-bit and x64-bit Editions,

Windows Server 2008 x64-bit Edition

Processor

All Windows compatible processors supported

Note: System Requirements are subject to change. For up-to-date System Requirements, please refer to product documentation on the CommVault website at http://www.commvault.com



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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.