

Case Study

QUICK FACTS

Industry/Solution:

- Healthcare

Platform/File System:

- Microsoft Windows 2003

Applications:

- Microsoft Windows Server 2003
- Microsoft SQL 2005
- Microsoft Exchange 2007
- Microsoft SharePoint 2003
- Microsoft Active Directory 2003
- VMware ESX 3.5

Partner Hardware:

- EMC CLARiiON CX3-40 Storage Area Network (SAN) with 35 TBs of capacity

Challenges:

- Outgrew legacy backup and recovery platform, which led to excessive administration.
- Increasing needs to support compliance, especially in providing fast and easy access to Microsoft Exchange data.
- Sought an enterprise solution that could support growing data and information management needs, including archiving, eDiscovery and disaster recovery.

Solution:

- CommVault® Simpana® with Backup, Archive, Search and Replication modules

Benefits:

- CommVault Simpana 8 helped reduce full backups from eight to two hours, while providing point-and-click reporting for complete status updates.
- CommVault Simpana Archive software for Exchange ensures complete compliance for retention of e-mails.
- Web-based search streamlines legal discovery with content indexing and self-search capabilities to expedite search and retrieval of Exchange data.
- Complete data management capabilities, including real-time replication, boost disaster recovery while helping manage growth and lower costs.

Freeman Health System Prescribes CommVault® Simpana® Software's Single Platform Data Management Solutions to Protect Crucial Records and Improve Compliance

Customer Profile

Founded in 1922, Freeman Health System is a regional healthcare system that serves the needs of approximately 450,000 residents in Missouri, Kansas, Oklahoma and Arkansas. The Joplin, Mo.-based organization is a not-for-profit, community-owned and locally governed operation encompassing a 404-bed, three-hospital system.

In responding to the growing needs of its patients, Freeman Health continually expands its services while adding new technology aligned with best practices to deliver the highest levels of patient-centered and physician-directed healthcare. To that end, Freeman has embraced best practices, as well as strict quality assurance procedures. As a result, Freeman is the first healthcare system in Missouri and the sixth nationwide to earn the prestigious ISO 9001:2000 certification for quality management.

A widely recognized mark of quality in today's business world, ISO 9001:2000 registration is a rigorous process by which Freeman Health improves and monitors the delivery of patient care, measures quality and places the highest priority on eliminating medical errors. According to Tom Ellicott, network specialist for Freeman Health System, this focus on quality permeates all aspects of the organization, including a best-practices approach to protecting data and ensuring the integrity of all employee and medical records. "The ISO process supports consistency and continuity in everything that we do," he explains. "We take advantage of the singular data and information management capabilities in CommVault® Simpana® software to ensure the total well-being of our data and adherence to regulatory requirements."

Data Management Environment

Freeman Health System continually adopts proven leading-edge technology to best meet the health and wellness needs of the communities it serves. For example, the recent deployment of IP telephony has simplified voice administration and provided enhanced functionality. The growing use of medical imaging, including Picture Archiving and Communication Systems (PACS), has increased accessibility to vital patient files and test results. Additionally, a continuing move to a more paperless environment has spawned multiple document management and data archiving projects to digitize hospital records.

To keep pace with an ongoing increase in digital data while supporting the storage needs of approximately 3,600 employees, Freeman Health relies on an EMC CLARiiON CX3-40 storage area network with 35 TBs of capacity. The organization uses CommVault products for data protection of 45 Microsoft Windows 2003 servers with 12 TBs of data, comprising Exchange 2007, SharePoint 2003 and SQL Server 2005 files. Total data storage is expected to grow by 25 percent over the next three years.

Recently, Freeman Health also deployed VMware to extend the availability and performance of mission-critical Microsoft applications while dramatically improving server utilization. Additionally, members of the 48-person IT department oversee a MEDITECH healthcare information system, which runs on a proprietary platform.

"With Simpana software, we have found a robust solution that gives us an extra measure of data protection from disasters while also easing data movement, archiving and discovery for compliance requirements," says Ellicott.

Restoring Backup and Recovery Well-Being

In 2002, Freeman Health System embarked on a project to cure its ailing backup and recovery foundation, which had become unreliable and cumbersome to manage. The team experienced a variety of backup and recovery ills on its legacy backup platform, including failed backups and restores. "We didn't always know if a backup was successful until it came time to do a restore," recalls Ellicott. "Recovering files took a lot of administrative time as the previous version of backup software had to catalog the entire tape before the recovery could take place. Sometimes, we had to go through multiple tapes to find the right one."

Rapid recovery of Freeman Health's entire Exchange database was becoming increasingly important, as was the ability to conduct a granular restore of a single e-mail message. "Microsoft Exchange emerged as a vital application across many levels of our organization," adds Ellicott. "We realized that it was imperative to find a solution that would provide enterprise-class data protection for our file systems, applications and databases."

Freeman Health turned to Integrated Solutions Group, a regional computer technology firm specializing in solutions for all areas of communication and technology, including data and voice network integration, security, storage, virtualization and telephony. After receiving a backup software demonstration with CommVault software, Freeman Health was impressed by the number of features that could alleviate its existing administrative burden (such as web-based management, point-and-click reporting, along with efficient library and device management). "We really liked how CommVault software could perform a backup to almost anything, as well as

the ability to do message-level Exchange restores," says Ellicott. "We were sold on the fact that we could find and restore an individual mail message."

After installing CommVault software in 2002, Freeman Health continued to upgrade its backup and recovery foundation, adding disk to the equation in 2005. "Bringing in disk delivered a quantum leap in performance as we went from full backups to tape in eight hours to backing up much more data to disk in two hours," says Ellicott. "We also were able to bolster best practices for restores as we could keep up to two weeks of data on disk at all times. We could also retain 30 days of backups locally on tape in addition to offsite tape storage for long-term retention in accordance with disaster recovery and compliance procedures."

Remedy for Streamlined Legal Discovery Management

In June 2007, Freeman Health made significant strides in managing Exchange mailbox growth while easing legal discovery management compliance with the addition of the CommVault Simpana Archive module for Microsoft Exchange systems. With roughly 1,500 Outlook mailboxes, the organization grappled with rapid e-mail growth, but wanted to avoid increasing the size of individual mailboxes. "We needed to reduce the burden on our Exchange servers while enabling the Compliance Department to perform historical searches of e-mail for several years," notes Ellicott.

The team briefly looked at another vendor's archiving solution but felt CommVault Simpana software's ability to manage various data management functions from a centralized management console was the preferred approach. "It was a waste of time and effort to add a separate point product when CommVault

made sure all its various Simpana software modules interoperated seamlessly and could be centrally managed," adds Ellicott. "We would have been forced to add more hardware with another solution. Adding the Simpana Archive module was a more economical and smarter decision and once we had installed, we immediately began to realize the benefits and power of the CommVault Singular Information Management® approach."

Freeman Health currently takes advantage of data archiving for Exchange to alleviate storage on its e-mail server by archiving e-mails to disk, secondary disk and tape, according to predefined thresholds. Additionally, the organization uses Simpana software's Data Archive Compliance option to leverage Exchange's journaling feature to archive all incoming and outgoing messages and attachments. "Not only can we better control Exchange data growth, this helps ensure regulatory compliance while easing the management of risks associated with legal discovery," says Ellicott.

Aiding Legal Discovery with Web-Based Search

To empower its Compliance Department with the ability to conduct their own eDiscovery searches, Freeman Health has added the CommVault Search Web Interface to search and discover information from a single pool of data. "The capability to search across multiple data types, including backup and archive repositories, from a single console, is a big productivity booster," Ellicott adds. "Our Compliance Department can produce, retrieve and review discoverable information without intervention from the IT Department."

With content indexing, the team also will be able to conduct federated searches that span both online and offline data for expedited response to eDiscovery

events. Other expected efficiency gains include audit-ready reporting, which will complement current backup and recovery reports and alerts to give Freeman Health an up-to-the-minute view of all backup, recovery, archive and eDiscovery activities. "Our proactive litigation response plan will complement Freeman Health's overall business continuity plan to ensure we can access the information we need, whenever we need to," Ellicott says.

Ellicott is also considering adding the CommVault Simpana Deduplication feature, which eliminates duplicate copies of files and attachments in backups and archives stored on disk. "CommVault's dedupe will let us store more data on less disk, which will further simplify search and discovery," he adds. "We will continually look for ways to leverage CommVault's unified data and information management functionality to cover all the bases in terms of backup, recovery, compliance and disaster recovery."

An Extra Dose of Preventative Medicine: CommVault® Simpana® Replication Software

As an additional measure of data protection, Freeman Health has also deployed the Simpana Replication module to perform real-time replication of its vital Exchange system. Implemented in July 2008, the organization takes advantage of Simpana Replication capabilities to create a second copy of Exchange

server data at its disaster recovery location. In the event of a system failure or widespread disaster, the organization will be able to rapidly restore a current, online replica of the entire Exchange database.

The Simpana Replication module offers special application integration with Microsoft Exchange to maintain application integrity and provide consistent recovery images. As with all of Freeman Health's Simpana software data and information management capabilities, replication is managed through the centralized graphical user interface (GUI), which facilitates the creation, tracking, administration and management of the replication process along with other functions, such as backup, recovery and archive, using a single policy engine.

By anchoring its data and information management solutions on a Singular Information Management foundation, Freeman Health enjoys control over data growth, costs and risks. "CommVault Simpana software and all its modules work well to give us peace of mind in knowing that we can do much more than protect data," concludes Ellicott. "With CommVault as a strategic ally, we can continue to fulfill our mission of delivering best practices, ISO-certified healthcare excellence."



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