

Case Study

QUICK FACTS

Industry/Solution:

- Education

Platform/File System:

- Predominantly Microsoft Windows 2003 and 2008, with some Linux and Mac servers.

Applications:

- Microsoft Windows Server 2003 and 2008
- Mac OSx
- Microsoft SQL Server 2005
- Microsoft SharePoint 2007
- Microsoft Exchange 2007
- PeopleSoft
- Jenzabar
- OASIS Student Portal

Partner Hardware:

- Two EMC CLARiiON CX Series SANs
- Compellent SAN
- Infortrend SATA storage array

Challenges:

- Migration to Exchange and SharePoint 2007 as well as increased move to virtualization prompted upgrade to enterprise data management.
- Increased focus on virtualization added data protection complexity.
- Aggressive storage growth, which doubled annually, drove need to reduce data and deploy centralized archiving solution.
- Emerging eDiscovery demands required faster and more efficient response to legal discovery requests.
- Desire to consolidate remote backups to elevate disaster recovery while reducing the need to manage multiple tape libraries.

Solution:

- CommVault Simpana software with Backup & Recovery, Deduplication, Archive for Microsoft Exchange, Search, Content Indexing and Replication

Columbia College Chicago Graduates to Enterprise Data Management with CommVault's Best-of-Class Simpana Software

Customer Profile

Columbia College Chicago is the largest and most diverse private arts and media college in the nation with more than 120 academic programs and nearly 12,500 students. Located in Chicago's South Loop, the college comprises 22 buildings, including a state-of-the-art media production center with two soundstages, a motion-capture studio and animation lab.

The facility typifies the college's commitment to inspire a new way of teaching while fostering a lifelong passion for art, media and self-expression. Columbia counts Academy Award winner Mauro Fiore among its highly accomplished alumni who took advantage of the college's unparalleled array of courses and exceptional technological resources. Fiore won an Oscar in 2010 for Best Cinematography for *Avatar*.

According to Matt Piccirilli, system administrator for Columbia College Chicago, the use of leading-edge technology extends beyond the school's film and video department to encompass enterprise data management. Columbia College has deployed CommVault® Simpana® software to (protect) vital information, consisting mostly of Microsoft Exchange data while also safeguarding a heavily virtualized environment running VMware's vSphere version 4. Additionally, the college relies on the singular Simpana platform and advanced functionality to reduce redundant data, manage a central Exchange messaging archive and ensure simple, direct data access to

meet legal discovery requirements. "With Simpana software, we've covered our bases in terms of protecting, managing, reducing and discovering data," explains Piccirilli. "When it comes to reliable backup and recovery, streamlining key business processes and expediting access to electronically stored information, Simpana software does it all."

Data Management Environment

A team of eight network and telecom experts oversees the IT environment at Columbia College Chicago, which comprises approximately 80 file servers, of which nearly half are virtualized. The environment is predominantly Microsoft Windows 2003 and 2008 with a small selection of Linux and Apple Macintosh servers. Aside from the usual Microsoft applications, including Microsoft Windows, Active Directory, Exchange 2007, SharePoint 2007 and SQL Server 2005, the college supports PeopleSoft human resources management systems, Jenzabar and OASIS Student Portal.

As part of his duties, Piccirilli handles Microsoft Exchange backup and recovery for approximately 5,000 faculty and staff members. He also is responsible for daily backups of Exchange data. Additionally, he manages a Compellent SAN, two EMC CLARiiON CX Series SANs and 24 TBs of Infortrend external disk storage.

QUICK FACTS (continued)

Benefits:

- Simpana software simplifies backup and recovery for critical Exchange data residing on physical and virtual servers; Universal Virtual Server Agent shaves considerable time off process with off-host backups.
- Automated discovery and set-up of virtual machines enables new virtual machines to be protected in minutes instead of hours.
- Simpana-embedded deduplication software has cut backup window by more than half, reducing full Exchange backups to less than seven hours.
- Off-line mining tool has decreased restore times for critical databases from 50 hours to approximately 30 minutes.
- Journaling feature in the Simpana Archive module for Microsoft Exchange has lowered the time to produce discovery results from hours to 10 minutes.
- The Simpana Search module has streamlined access and discovery of ESI while improving overall productivity and lowering risk.
- CommVault's singular architecture enabled adding incremental data protection, archiving, search and replication functionality, all of which is managed using a centralized console.

For the past two years, storage growth at Columbia College Chicago has doubled annually, partly because of a faculty-wide upgrade to Microsoft Exchange 2007. "Our data growth coincided with the physical growth we experienced when expanding our Exchange environment," recalls Piccirilli. "We also started to shift to virtualization to improve operational efficiencies and reduce capital spend, which led to changes on the data protection front."

Adding a Higher Level of Data Protection

Several years ago, Columbia College Chicago migrated from Symantec Veritas Backup Exec to CommVault Simpana software as part of an enterprise data management upgrade. The college was planning a move to Microsoft's 64-bit Exchange 2007, which Backup Exec didn't support. Backup Exec also lacked support for SharePoint, which was gaining traction as a tool for boosting campus-wide collaboration.

"It was clear the college had outgrown Backup Exec as we started to experience pain on several levels," Piccirilli says. "Managing multiple backup environments became an administrative nightmare as Backup Exec lacked a centralized console and robust reporting to ease remote backup management. Additional problems were caused by difficulties coordinating multiple tape libraries that didn't talk to each other."

As part of its goal to simplify backups as well as support Exchange and SharePoint 2007 while elevating enterprise data management, Columbia College Chicago researched prospective solutions before concluding that CommVault Simpana software was a step ahead of the competition. "One of the things that set Simpana software apart was the product did much more than just handle backups," notes Piccirilli. "By standardizing on CommVault technology, we would gain

access to a scalable, flexible platform for addressing a host of evolving data management and eDiscovery requirements."

Another factor in CommVault's favor: the ability to automate backup and recovery processes, all of which could be easily managed using a centralized console. "We really liked how CommVault's multiple media agents worked together," adds Piccirilli. "We could view everything in the centralized console and immediately know the status of our backups."

High Marks for CommVault's Universal Virtual Server Agent

Columbia College Chicago deployed Simpana software to support an ever-increasing move to virtualization, which has helped reduce capital expenditures and improve operational efficiencies. The increased focus on virtualization, however, also created a new level of complexity for data protection and disaster recovery.

Yet armed with CommVault's Universal Virtual Server Agent, Columbia College Chicago has improved the management and protection of data residing on virtual servers. In particular, the team likes performing off-host backups without requiring local agents on the virtual servers. "CommVault's virtual server agent is too good to be true," says Piccirilli. "It works seamlessly with our VMware vStorage API to shave considerable time off block-level incremental image, volume-level or file-level backups."

In addition to leveraging multiple backup options, Columbia College takes advantage of multiple, granular recovery options that enable restoration of single files or mailboxes as well as entire virtual machines. "Simpana software offers a lot of flexibility in managing our virtualized environment," adds Piccirilli. "With the Universal Server Agent, I can just as easily and quickly back up a file as I can drill down and restore it."

Columbia College also relies on Simpana software to automatically discover and set up virtual machines by adding them to default protection policies, which saves considerable time and ensures immediate protection. "Since we no longer have to add each virtual machine individually, it's possible to protect new virtual machines in minutes instead of the hours it took previously," notes Piccirilli.

Embedded Deduplication Reduces Data by Degrees

Recently, Columbia College further expanded its Simpana software platform with embedded deduplication to reduce redundant data in keeping pace with aggressive storage growth. Initially, the team looked at hardware-based options but decided against the hefty price tag. "We couldn't justify adding a dedupe appliance, which easily would have cost more than twice as much as adding CommVault's deduplication software," says Piccirilli. "We didn't want to add more hardware and liked CommVault's holistic dedupe approach as it spanned both disk and tape tiers of storage."

After weighing the options, Columbia College Chicago deployed CommVault's embedded deduplication and saw results almost immediately. "We cut our Exchange backup window in half, which was pretty impressive considering Exchange is a beast that sometimes cannot be tamed," adds Piccirilli. "Instead of needing 15 hours to perform a full backup, we reduced redundant data by 50 percent and complete full backups in less than seven hours."

Columbia College Chicago also has decreased administration and recovery times. The college takes advantage of CommVault's offline mining tool for Exchange, which facilitates granular recovery of messages and documents directly from database

recovery copies. This functionality is beneficial since the college typically only retains up to two days of data on disk before offloading to tape. "It took us up to 50 hours to restore a 600 GB Exchange database—just to retrieve four e-mails," notes Piccirilli. "With CommVault's offline mining capabilities and our Compellent SAN, we can now perform that type of recovery in minutes."

Adding Simpana Archive, Search and Replication to the Roster

Columbia College Chicago also added the Simpana Archive for Microsoft Exchange and Simpana Search modules. With the Simpana Archive module, the team can better control the growth and costs of Exchange data storage as well as respond faster and more efficiently to legal discovery requests. "When the need for centralized archiving surfaced, we briefly considered a standalone solution, such as Mimosa," says Piccirilli. "But then we decided it made more sense to once again leverage the singular Simpana software platform instead of having to learn and manage a disparate point product that wouldn't necessarily work well with other facets of our data management strategy."

Adding the Simpana Archive module for Microsoft Exchange has enabled the college to take advantage of the journaling feature in Exchange to archive all incoming and outgoing messages and attachments. Using Microsoft Exchange journaling not only eliminates the risks of message alteration or loss, it has streamlined the overall discovery process. "Because legal requests come in waves, we need to be prepared to respond quickly, which was always a problem previously as it could take hours to produce results," says Piccirilli. "Now, all we have to do is run the journal and we can offer a response in less than 10 minutes."

The Simpana Search module also has proven to be a time saver by letting users search a number of different sources with a single query. Most important, the college's small administration team has been able to equip its legal staff with a powerful, yet straightforward web-based search tool for indexing content. The result eases the process of locating files and e-mails using attributes and content that can be found anywhere within the file, document or e-mail. "The 'self-serve' search functionality is really appealing to our legal department since we've empowered them to perform their own searches and restores without IT involvement which saves us several hours at a time," says Piccirilli. "With the Simpana Search module, we've been able to streamline both access and discovery of electronically stored information while improving productivity and reducing risk."

Equally compelling for the legal team is the ease with which they can put information on legal hold. Unlike traditional legal-hold technologies, Simpana software's feature spans e-mail, files and backup tapes to meet ever-increasing legal and compliance demands. "One-click" legal holds can be performed based on a flexible array of search criteria.

Columbia College Chicago has plans to extend its search and archive capabilities to its file systems to further reduce storage costs and provide users with direct, web access to files managed by Simpana software. "The ability to reclaim valuable primary storage by automatically moving stale file data to low-cost secondary storage is on the radar," says Piccirilli. "Enterprise-wide

search also will play an increasingly important role in the college's overarching compliance, eDiscovery and information management strategies."

Of interest is CommVault's partnership with Group Logic, which extends file system archiving to Mac environments for improved space management and storage hardware cost savings. "Our administrators are moving to Macs, so it's good to know that CommVault can manage heterogeneous archive data under the same storage and data protection policies," Piccirilli adds. "That way I can avoid bringing on yet another disparate point product that would require more time and effort to manage."

Also on the horizon is the Simpana Replication module, which will help consolidate remote backups for heightened, economical disaster recovery as well as reduce the need to manage multiple tape libraries. By adding replication, Columbia College will be able to perform local backups and push them to disk at its main site nightly before offloading backup data to disk. "Our goal is to centralize disaster recovery and minimize tape libraries in our environment," concludes Piccirilli. "CommVault provides a simple, cost-effective DR solution for accomplishing that and more. It's gratifying to know we have access to a single platform that does it all. It's just a question of turning on the capabilities when we need them. As a result, whenever we contemplate doing something new to protect our data, it always comes back to leveraging CommVault first."



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