

Case Study

QUICK FACTS

Industry/Solution:

- Construction/Real Estate

Platform/File System:

- Microsoft Windows 2003

Applications:

- Microsoft Windows Server 2003
- Microsoft SQL 2000 and 2003
- Microsoft Exchange 2003
- Microsoft SharePoint 2003
- Microsoft Active Directory 2003
- Microsoft Internet Information Services

Partner Hardware:

- EqualLogic iSCSI Storage Area Network (SAN)
- Promise iSCSI Storage Array

Challenges:

- Growing reliance on email resulted in storage growing by 30 percent or more annually.
- Backups at remote offices were not effective, consistent, reliable or scalable.
- Full backups were exceeding 24 hours.
- Recovery process was slow and problematic. Could take up to two weeks to recover from tape as manual effort and offsite tape retrieval was required.

Competitive Challengers:

- Symantec VeritasNetBackup and ultrabac for backup and recovery
- DoubleTake Software for replication

Solution:

- CommVault Data Protection and Continuous Data Replicator (CDR)

Benefits:

- CommVault's Singular Information Management integrates data management for all data protection and replication functions.
- CommVault's CDR works transparently with company's Microsoft environment to eliminate cost, complexity and inefficiencies of remote data management and to expedite disaster recovery.
- Total savings of more than 300 hours in company-wide data protection management, resulting in 25 percent increase in strategic IT projects completed each quarter.
- Backups reduced from 24 hours to less than eight; recoveries to less than one hour.
- CommVault's centralized GUI requires less administrative resources for managing data while unified architecture provides a seamless structure to meet current and future business needs.

Gilbane Inc. Builds a Solid Enterprise Foundation for Data Protection & Business Continuity with CommVault Backup and Continuous Data Replicator Software

Customer Profile

Gilbane Inc. is one of the largest privately held family-owned companies in the construction and real estate industry. With annual revenues topping \$2.5 billion, the company employs nearly 2,000 people in 30 offices nationwide. Today, the fourth generation continues to build on the legacy of 135 years of excellence by continuing to set industry standards for innovation, customer advocacy, quality, financial results and community service.

As pioneers in construction management, Gilbane consistently delivers superior construction and development services in the life sciences, transportation, healthcare, convention/cultural, government, education, mission-critical, corporate, sports/recreation and criminal justice markets. Among its high-profile projects are the New Jersey Devils' sports arena, Smithsonian's National Air and Space Museum as well as the World War II and Vietnam War Memorials in Washington, D.C.

According to Lance Osijnicki, CTO of Gilbane, shared vision, leadership and structure ensures the success of its two subsidiaries, Gilbane Building Company and Gilbane Development Company. "As architects for the future of the enterprise, we focus on best practices that enable us to reach new levels of success for the businesses," he says. "This is especially true on the technology front, where we strive to provide leading-edge products and consistent IT services across the company."

Data Management Environment

Gilbane's adoption of the latest technologies has created a surge in storage for the past two years, especially as email continues to proliferate rapidly. While the technology team has instituted 1 GB mailbox limits to curb exponential growth, there's hesitation to make further restrictions to mailbox quotas. "We recognize that email is the No. 1 application people are using to get their jobs done," explains Osijnicki. "This is causing our storage to rise by 30 percent or more annually."

In addition to Microsoft Exchange 2003, Gilbane employs Windows Server 2003, SharePoint 2003, Active Directory 2003, SQL Server 2000 and 2005, as well as Microsoft's Internet Information Services for web services. The company relies on an EqualLogic iSCSI Storage Area Network (SAN) for tier one and two storage along with a Promise iSCSI storage array for tier three. A total of 25 TBs is allocated for storage with 14 TBs in use.

In bolstering business continuity efforts throughout the organization, Gilbane leverages CommVault's Singular Information Management® approach to achieve one efficient, scalable data management platform for performing a range of data protection and replication functions. With CommVault® software, the IT team has centralized corporate-wide backup and recovery for seamless protection of up to 7 TBs of mission-critical data. Gilbane has taken advantage of CommVault Continuous Data Replicator (CDR) software to centralize management of backup operations for

30 remote sites and to deploy a cost effective, reliable data protection strategy for fast, efficient disaster recovery and increased data availability across the enterprise. "CommVault's CDR works transparently with our Microsoft environment to eliminate the cost, complexity and inefficiencies of remote data management," says Osijnicki. "The result is a highly effective and efficient disaster recovery and data management solution without having to spend a fortune or dedicate a team to manage the process."

CommVault's Singular Information Management architecture, which provides common services for every data management application in the company's product suite, enables Gilbane to run replication and backup using the same interface and back-end hardware. "We're much more strategic in the project skills and resources we can offer now that one centralized team can monitor data protection and replication from the same console," adds Osijnicki. "Instead of worrying about how to recover from a disaster, we've made a quantum leap in productivity to deliver breakthrough solutions that elevate company-wide remote access and efficiency to the next level."

Unstable Data Protection Underpinnings

Before deploying CommVault Simpana software for backup and replication, Gilbane used versions of Symantec's Veritas Backup Exec to backup data to tape libraries and autoloaders at its corporate data center in Providence, R.I., and dispersed offices. Over time, however, this approach became increasingly difficult to maintain and led to islands of inconsistent backups that couldn't scale to meet the rapidly growing environment.

As a result, Gilbane was often unable meet its full backup window, which began to exceed 24 hours, for safeguarding 7 TBs of data. Even more troubling was the recovery process, which was painfully slow and fraught with problems. If tape drives were used for backups, they couldn't be used for restores until the job was completed as Backup Exec didn't handle starts and stops well. Additionally, the timeframe for recovering files from tape was up to two weeks since a lot of manual effort was required to retrieve offsite tapes and then sift through them to locate desired data. "Backups were broken and fixing them was a big priority," notes Osijnicki. "We also wanted to increase our level of DR support by deploying replication at our remote sites, but were concerned that available solutions were costly and complicated."

To alleviate backup and recovery pain, Gilbane embarked on a review of different data protection software solutions, including Ultrabac Backup, CommVault Galaxy backup and Symantec Veritas NetBackup. The goal: to centralize and automate company-wide data backup and recovery, as well as add disk to speed operations. The company also sought roles-based access control security with scalability to keep pace with evolving needs. Additionally, seamless integration with Microsoft applications was a top priority. At the same time, the team initiated research into DoubleTake Software's replication product and the real-time replication provided by Microsoft's CDP offering.

Model Microsoft Integration

"It was crucial for the data protection and replication solutions to work transparently with our Microsoft applications," explains Osijnicki. "We solicited Microsoft's input and learned

CommVault was used in their own lab environment to safeguard SQL and Exchange data. This high-level endorsement went a long way in easing our decision to unseat Veritas with CommVault."

Gilbane's IT team also discovered CommVault's replication software received high marks from industry peers for its SQL and Exchange "application awareness," which was instrumental in maintaining application integrity. "CommVault allowed us to create application-consistent recovery points or snapshots to ensure replicated and production data were the same," adds Osijnicki. "Without this capability, replicated data can become inconsistent and therefore unusable. We needed to be able to restore our Microsoft Exchange and SQL Server databases with complete confidence."

When Gilbane started its replication search several years ago, Microsoft's CDP offering lacked application awareness. The team also discovered that DoubleTake's solution required lots of manual scripting and precise steps to implement the DR component. Only CommVault CDR ensured that Exchange and SQL data could be replicated in a unified, automated fashion, which cemented the decision to embark on a phased rollout, starting with CommVault's data protection.

Following successful completion of an internal pilot project, Gilbane moved forward with enterprise deployment of CommVault's data protection software as well as disk-to-disk-to-tape backup and recovery. The team leveraged the unified management console to automate and monitor company-wide backups while taking advantage of faster disk technology to reduce full backups from 24 to less than eight hours. Meanwhile, granular, object-level

data recovery can be completed in less than an hour—a vast improvement over the two weeks it used to take to locate and re-catalog tapes in hopes of finding the data.

“Now, whatever we want to do, it’s completely seamless and transparent,” notes Osijnicki. “We don’t need to know where the restore resides as CommVault manages all that data and we just click on what needs to be recovered.” Gilbane also takes advantage of point-and-click reporting to monitor backup jobs and replication status while also generating reports about job histories, tape tracking and rotation, operator and administrator audit tracking and other metrics.

Reaping Replication Rewards

About a year after its initial CommVault deployment, Gilbane tested CDR with a single Exchange email server. The pilot exceeded all expectations, especially after the team projected a performance hit of less than 10 percent to its Exchange mailbox store and was pleasantly surprised when the impact was barely noticeable at one-to-two percent. “Often, replication is looked at as complex and cumbersome to set up, but rolling out CDR was very straightforward and seamless on our source and target systems,” says Osijnicki. “It only took a couple of weeks to complete our corporate-wide rollout and everything worked with minimum impact to our production environment.”

Additionally, Gilbane took advantage of scheduled bandwidth throttling to provide the designated amount of bandwidth needed for replication while accommodating increasing use of bandwidth-intensive video conferencing applications. “We test our DR plan regularly and transparent failover has been successful every time, which has significantly elevated our disaster recovery preparedness,” says Osijnicki.

Architecting a Scalable Support Structure

Perhaps the most dramatic difference in Gilbane’s environment with CommVault backup and replication is the amount of time saved by centralizing operations. “CommVault has saved us 20 hours a week on data management, backup and business continuity at headquarters and close to 10 hours at each remote location for a total savings of more than 300 hours company-wide,” Osijnicki says. “Since moving to CommVault’s scalable data management platform, we have increased our project deliverables by more than 25 percent each year, which means we can take on many strategic initiatives, such as remote access and the delivery of advanced IT services to all locations.”

In the near future, Gilbane plans to enhance its CommVault foundation by upgrading to Simpana 7.0 to take advantage of 64-bit architecture support and more streamlined management capabilities. The company also is preparing to test CommVault’s data migration and archive software to address evolving storage management and e-discovery demands. “The big draw for CommVault is its unified architecture, which requires less administrative resources for managing data, and provides a scalable, seamless structure for supporting business needs both now and in the future,” concludes Osijnicki.



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