

QUICK FACTS

Industry/Solution:

- Disaster Recovery

Platform/File System:

- Microsoft Windows

Applications:

- Microsoft Exchange,
- Microsoft Active Directory
- Microsoft SharePoint
- Microsoft SQL
- Microsoft Dynamics
- VMware vSphere 4.1

Partner Hardware:

- EMC Celera SAN and various iSCSI network-attached storage devices

Challenges:

- Aggressive data growth of about 1 TB each week taxed legacy Backup Exec platform; completing a full backup could take up to two months.
- Backup challenges were exacerbated because jobs couldn't resume if WAN problems were encountered.
- Continuous database corruptions encountered with Symantec deduplication and compression capabilities led to lost backups and caused excessive administration.
- Increased business continuity efforts increased requirements for a platform with more robust disaster recovery functionality to meet RTO/RPO goals.

LWG Consulting Takes Business Continuity to the Next Level With CommVault's Simpana Software & Modern Data Management Approach

Customer Profile

LWG Consulting is a global company focused on delivering certainty to its clients when they need it most—when equipment, systems, structures or data have been threatened by catastrophe or litigation. Headquartered in Northbrook, Ill., LWG works primarily with insurance companies to determine the nature and extent of damage or loss while also providing a full range of disaster recovery solutions to help organizations better protect their assets.

LWG's team of equipment damage experts, forensic scientists and engineers as well as electronic data specialists are trusted advisors with broad expertise and capabilities. Tracing its roots to 1975, the company has grown to 275 employees across 22 locations worldwide to provide the highest levels of assurance no matter the type of loss or location.

According to Paul Slager, director of IT for LWG Consulting, most of the company's investigations involve a significant amount of high-resolution photography, which has fueled a spike in data storage growth. "We're adding about a terabyte of storage each week as we take on more projects," he explains. "We'll reach a petabyte with continued aggressive growth, so we need a scalable storage infrastructure and powerful data management."

Data Management Environment

A dedicated three-person team oversees LWG Consulting's technology environment, which includes the corporate network, file servers, storage, applications, data protection and desktops. A major Microsoft shop, the company is running the latest versions of Windows, Office, Exchange, Active Directory, SharePoint, Dynamics CRM and SQL Server. LWG also is 99-percent virtualized, relying on VMware vSphere 4.1 to support around 150 virtual machines (VMs). A VMware ESX cluster also runs at a satellite office in Columbus, Ohio, which serves as an offsite disaster recovery location.

On the storage front, LWG Consulting has a mix of iSCSI network-attached storage (NAS) devices that support approximately 100 TBs of storage with another 16 TBs of business-critical data residing on an EMC Celerra SAN. In keeping with corporate best practices, all photo- and report-related data captured during insurance investigations are kept for 12 years.

Compliance with corporate standards and aggressive business growth led the team to revisit its business continuity plan in September 2010. In storing and protecting millions of files for 12 years, it became apparent a more modern approach to data management was needed. "We developed a 15-item checklist for consideration and

QUICK FACTS (continued)

Solution:

- CommVault Simpana software Backup & Recovery, Deduplication and Replication .

Benefits:

- Global deduplication has significantly reduced the company's backup footprint, which has produced a 92.6% storage space savings at all locations.
- Compressions ratios of 79 percent also have helped reduce the backup window; full backups of 100 TBs, which once took two months to complete, now can be performed in two hours.
- Application restores are easy and efficient; Microsoft Exchange 2010 message restores enable LWG to recover individual emails, RSS feeds and LinkedIn contacts.
- CommVault offered lower TCO and faster ROI; the company estimates that Simpana software has saved them more than \$1 million in costs when compared to what it would have cost ultimately to use a competing product, such as Avamar, Data Domain or IBM TSM.

were told by a reseller that you can't have everything," recalls Slager. "Then we came upon CommVault Simpana software and were pleased to find we could get it all in one platform while also saving more than \$1 million in overall costs when compared to competing solutions."

Dedupe Dilemma Prompts Symantec Switch

LWG Consulting embarked on its data management overhaul after experiencing persistent performance problems with its Symantec Backup Exec platform. As LWG describes it, the legacy solution couldn't keep pace with the company's ongoing data surge while Symantec's deduplication and compression functionality didn't reduce enough traffic going over the network. As a result, completing a full backup could take up to two months. Moreover, backups couldn't resume if WAN bandwidth limitations interrupted a particular job.

LWG Consulting also encountered serious challenges with Symantec's deduplication databases. "We kept experiencing database corruption issues, and twice lost a month of backups," says Slager. "Symantec's engineers couldn't fix the issues and I worked a lot of extra hours, sometimes even a whole day, trying to resolve backup problems."

When the company started on a broader business continuity initiative, it became clear that it was time for a more robust disaster recovery plan that met all the RTO and RPO goals. This effort led to the development of the 15-item checklist encompassing 'must-have' features, including both client-side and global deduplication, compression, as well as the ability to backup virtual machines easily and then restore them just as easily at the backup or file level. The addition of archiving and replication also were

important considerations as LWG Consulting began evaluating the leading, enterprise-class data management solutions.

Simpana® Software Surpasses Avamar, Data Domain & Tivoli System Manager

In upgrading its data protection infrastructure, LWG Consulting evaluated EMC Corp.'s Avamar and Data Domain systems along with IBM Tivoli Storage Manager (TSM) and CommVault® Simpana® software. In addition to deduplication and compression, the team wanted to ensure that the prospective platform could accomplish the following: backup files over a slow WAN link and resume backups if necessary, replicate backups to another site, and backup both physical and virtual machines running vSphere 4.1.

Equally important was the ability to take full-image backups of VMs, which would enable restorations of an entire VM or just a single file on the "C" drive with the same backup file. The ability to perform Microsoft SQL Server, Active Directory and SharePoint application backups was on the "make it or break it" list, as was performing Exchange message-level backups.

Cost was another consideration, especially in weighing the pros and cons of hardware- vs. software-based deduplication. "The approach of hardware-based deduplication vendors is to lock you into an expensive device that makes it more difficult to grow," Slager notes. "Still we were somewhat concerned that software dedupe might not perform as well." In addition to cost and functionality, ease of use was a factor as the small team sought an easy-to-use interface with powerful reporting. Looking to the future, LWG Consulting also wanted the ability to archive backups as well as apply legal holds and governance policies.

In sizing up the competitive landscape, LWG Consulting determined that EMC Avamar was too expensive in terms of initial purchase price and cost prohibitive when they realized it would require the purchase of multiple Avamar storage arrays to get the capacity they required. "It was around \$150,000 for a two-terabyte device, so the starting point was \$300,000 since you had to buy two devices. We'd need much more space than that," says Slager. "Plus, we'd be locked into using Avamar's storage array instead of being able to use the storage we already owned."

In contrast, CommVault's Simpana software would let LWG Consulting take full advantage of its existing iSCSI storage arrays for substantial cost savings. CommVault's third-generation deduplication software offers fully integrated source- and target-side deduplication to dramatically reduce backup windows and network impact.

Other drawbacks to Avamar as well as Tivoli Storage Manager were the disparate nature of the solution architecture, which would have required buying separate point products to achieve the same level of functionality of CommVault's singular platform. "With all the other vendors, you had to buy other software packages and they didn't flow together well," adds Slager. "We were leery of all the point solutions as well as the need for a separate storage device to handle archiving."

Based on a total cost of ownership (TCO) comparison, CommVault was much less expensive than EMC and IBM. LWG Consulting realized that only Simpana software delivered the desired function-

ality at the right price point to accommodate escalating storage growth. "In addition to better TCO and big-ticket items, like global dedupe, CommVault technology also handled the finer details, such as suspending or resuming backups, which we knew would be huge for us with our limited WAN pipe," comments Slager.

Modern Data Management Delivers Tangible Benefits

Following a smooth and uneventful migration to Simpana software, LWG Consulting set up backup and recovery, deduplication and replication in about a week and a half. Almost immediately, the team experienced better-than-expected deduplication ratios and was able to dispel any concerns about software-based deduplication performance.

"CommVault's global deduplication exceeded all our expectations," says Slager. "It significantly reduced our backup footprint to yield an 92.6 percent space savings between all our servers at every location." A 79 percent compression ratio was achieved across the board with backups. As a result, LWG Consulting now can perform a full backup in less than two hours—a major improvement over the two months it took previously.

Each day, LWG Consulting conducts incremental backups of 6 to 7 TBs, which occur reliably and only require about five minutes of administrative time to review reports. "Once Simpana backup and recovery is set up, you just let it run and look at the email reports that tell you everything is OK," says Slager. "This has helped our company

immensely as backups used to be a big issue. Now I can move onto other initiatives." Thanks to Simpana software's scalability, Slager is much better prepared to handle the frequent spikes in storage that accompany new projects. "Probably the biggest spike recently was the need to add another 4 TBs in a week, which we handled effortlessly," he says. "With CommVault Simpana software, it was a blip. Had we gone with Avamar, we would have spent a fortune and might not have been able to scale that quickly."

CommVault also has helped boost LWG Consulting's business continuity efforts with Simpana software's replication module. LWG Consulting replicates all backups to disk housed at its disaster recovery site as an extra measure of protection. "It's been great to take advantage of Simpana's replication module to make our DR site a reality this fast," notes Slager. "We expect this capability to help us meet our RTO/RPO goals."

When it comes to data recovery, LWG Consulting has additional accolades for Simpana software. "Application restores are incredibly easy and efficient," explains Slager. "In testing Exchange 2010 restores, we were able to recover both the entire mailbox database and a single message. We can drill down and capture all data in the mailbox, including LinkedIn contacts, RSS feeds—everything you can think of."

SharePoint restoration was equally straightforward, which is highly advantageous as LWG Consulting has lots of users on many different versions. "We really appreciate just how flexible, versatile and granular data restores are with Simpana software," he adds.

Initially, LWG Consulting projected that selecting Simpana software would save around \$600,000 compared to competing solutions. Now that the team has spent time deploying and managing the integrated functionality with a simple "single pane of glass" interface, however, the projected savings have increased. "I won't be surprised if we have saved more than a \$1 million in costs over some of the other products," Slager says. "If we had gone with Avamar or Data Domain, for example, we estimated that our costs would easily have exceeded \$1 million and we still wouldn't have gotten all the things on our checklist."

Looking ahead, LWG Consulting plans to expand its Simpana software footprint with a full deployment of the archiving module to reclaim even more space on primary storage while reducing the data that needs to be backed up daily. "CommVault Simpana software is the clear winner for us in terms of functionality, cost and customer support," concludes Slager. "We're nine months ahead of our initial ROI projection, mostly due to the great results we're seeing. On top of that, CommVault's customer support is probably the best I have ever experienced with any product. Our CEO also is very pleased with our progress as CommVault meets our business needs and allows us all to breathe a bit easier knowing our data is fully protected."

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