

## CommVault Delivers Enterprise Backup Solution for Five Hospitals

### QUICK FACTS

#### Industry/Solution:

- Healthcare

#### Platform/File System:

- Microsoft Windows Server 2003 & 2000
- Novell
- Linux
- Citrix

#### Applications:

- Microsoft SQL
- Oracle
- Novell GroupWise email
- Cerner Millennium medical records
- Ross financials
- Kronos time keeping
- IDX scheduling
- Philips PACS
- Numerous internally-developed healthcare management applications

#### Partner Hardware:

- Dell servers
- 2 EMC Storage Area Networks (CX 300 and FC 4700)
- Xiotech SAN
- StorageTek L700 & SL500 tape libraries

#### Challenges:

- Need for an enterprise backup solution
- Need for reliable backups
- Need for a backup solution compatible with a heterogeneous environment (Novell, Windows, Linux)
- Fast growing backup requirements, driven by newly installed PACS

#### Solution:

- CommVault Galaxy Backup & Recovery
- AUX Copy

#### Benefits:

- Reliable backups
- Backups in multiple environments using consistent management tools
- Reduced backup management time, while number of servers backed up more than tripled
- Plans to use CommVault DataArchiver to move infrequently used files to less expensive storage media
- Fast, easy restores save time and eliminate user frustration

#### Customer Profile

The University of New Mexico Hospitals are a system of five hospitals in Albuquerque, New Mexico, all associated with the University of New Mexico. They have a total of 548 beds, support numerous clinics throughout the Albuquerque metropolitan area, and are served by 4,000 employees and 800 doctors associated with UNM Health Sciences Center.

#### Data Management Environment

The UNM Hospitals Information Technology (IT) Department supports all five hospitals. IT resources included 2,000 PCs, 600-plus Win-Terminals (thin clients with no disks), and over 200 Dell servers. The majority of the servers run the Microsoft Windows operating system, but some run Novell and Linux, and there are 40 Citrix servers.

Major applications include the Cerner Millennium medical records system, IDX scheduling system, Ross financials, Kronos time keeping, GroupWise (Novell) email, Web services, and numerous home-grown applications, including bed management, some HR functions, and non-medical inventory control. Databases are primarily Oracle, along with some Microsoft SQL.

Storage infrastructure at the Hospitals includes direct attached storage (DAS), along with a Xiotech storage area network (SAN) and two EMC SANs, a CX 300 and a FC4700. In addition, the Sleep Clinic has its own network attached storage (NAS).

All of the Hospitals' servers and SANs are backed up with CommVault Galaxy data protection software. The total full backup across the whole hospital system is six to eight terabytes, and is growing by four to five

TB per year. The Hospitals installed a Philips PACS (Picture Archive & Communication Systems) at the end of 2005. The PACS is backed up using CommVault; in fact, one of the big reasons the Hospitals chose CommVault was its "futurability" – its ability to respond to growth and change. Those characteristics will be increasingly important with the growth of the PACS, which will create an explosion in the amount of data to be backed up.

#### Backup Routine

The backup routine at the Hospitals includes daily incremental backups and full backups on weekends. Backups are done to tape, the original tapes are copied using CommVault AUX Copy, and the copy tapes are sent off-site for disaster recovery. They keep two months' original backup tapes in the library for restores.

The Hospitals have two tape libraries: a StorageTek L700 LTO library, and a StorageTek SL500 at the Sleep Center. Currently backups are done disk-to-tape, but as the available backup window keeps getting smaller, the Hospitals are exploring moving to disk-to-disk backup, which would enable faster backups. They plan to free up the Xiotech SAN and use it for disk-to-disk backup.

The Hospitals' plans also include implementing CommVault DataMigrator, which will allow them to systematically take files that have been untouched for years but are still on spinning disks and move them to less expensive storage, where they will still be available if needed.

### Problems with Backup

CommVault software was installed at the Hospitals at the end of 2003. Before that, they had used Computer Associates ArcServe backup software. They made the change for two reasons. First was difficulty with the ArcServe database. "Almost every time we had to do a restore the ArcServe database would get corrupted, and we had to re-index the database," explains Mike Campbell, Director of PC Systems and Support. "We were constantly re-indexing the database, and it was just killing us. The database had grown too big for ArcServe to handle."

Second, they realized that they were using a departmental backup solution, and that they needed an enterprise backup solution. "We had grown up," says Campbell. "That was a big part of the decision to go to CommVault. We liked the way CommVault was built from the ground up for enterprise backup. We were extremely pleased with how the database worked."

Because they have a number of Novell servers, they looked at products that were compatible with Novell. "We thought that CommVault had less experience with Novell than they had with some other environments," says Campbell, "and initially we had some Novell-related issues. But that actually turned out to be a good experience. The CommVault technical support people were extremely responsive and did an excellent job working out the problems. I came away from the experience convinced that the CommVault technical support team is one of the best I know of."

### Restores are a Big Winner

The Hospitals IT staff has found that, with CommVault, restores are so easy that the Help Desk can handle them without IT support, freeing IT time for more productive work. CommVault restores are a "point and click" process – find the server, open up the file in question, and restore it. If the file in question is an older file that is no longer on the library, CommVault generates prompts to order the tape from the off-site archive.

"Restores are very fast," says Campbell. "The time lag from the time you hit 'restore' until you get the file off tape is one or two minutes." CommVault restores save time, effort, and frustration for everyone. Explains Campbell, "With our previous software, users would call for a restore, and ninety percent of the time the database would get corrupted. Then it would take four to eight hours to re-index the database and do the restore, versus about five minutes with CommVault. Users were frustrated because they could not get restores for a day or two. All our people were frustrated, because restores were eating up time. And restores were just killing me. Restores are the big winner in terms of savings with CommVault."

### The Same Management Tools for Multiple Environments

Before they installed CommVault, the Hospitals were only backing up their Novell servers and a few of the Windows servers, a total of about 60 out of 200 servers. "With CommVault, we can back up everything," says Campbell. "With CommVault, it's very easy to do backups for the different environments – Novell, Windows, Linux. You use all the same management tools, look at the same windows, in the same place." When they were using ArcServe, one staff person was spending 70 to 80 percent of his time on backup management. Now one person spends 40 or 50 percent of his time on backup. "But we are doing much more in less time," says Campbell. "We are backing up 200 servers versus 60. So we spend a lot less time and back up three times as many servers."

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