

By Deni Connor

Protective Order

The Louisiana Supreme Court and other state and local agencies rely on continuous data protection to recover data.



Peter Haas strengthened protection of the Louisiana Supreme Court's data by rolling out new backup and recovery.

Recovering from Hurricane Katrina gave the Louisiana Supreme Court the impetus not only to revamp its disaster-recovery plan, but also to implement a new backup and recovery scheme that uses continuous data protection (CDP).

Peter Haas, director of technology for the Louisiana Supreme Court, relocated the court to Baton Rouge during the hurricane. In its aftermath, he created a disaster-recovery hot site and implemented data-replication and backup and recovery software. CDP offers the ability to back up data every time a change is made and recover it from almost any point in time.

Haas installed CA XOssoft High Availability (formerly CA XOssoft WANSynCHA) replication software for disaster recovery and XOssoft Enterprise

RECOVERY TIME

CDP is implemented in two forms: continuous and near-continuous. Continuous software backs up data as changes to files or blocks of data occur, while near-continuous software takes snapshots of changed data on a scheduled basis.

Rewinder CDP software for everyday use. If the Louisiana Supreme Court had been using CDP during the hurricane, his file servers in New Orleans would have automatically switched over to Baton Rouge. "Using [CA's XOssoft High Availability] would have saved us trips into New Orleans during Katrina," says Haas.

Product Particulars

With CDP, IT administrators can "roll back" operations to any previous point in time or to a time in advance of the snapshot, and recover data from that time. CDP takes the periodicity out of backup because recovery-point objectives do not need to be defined in advance of the actual recovery.

The data that CDP packages can back up is distinguished either as files or blocks of information. Some packages, such as IBM Tivoli Continuous

Data Protection for Files or Microsoft System Center Data Protection Manager (DPM), work with files only. Others, such as HP StorageWorks Continuous Information Capture Solution or EMC RecoverPoint, back up blocks of data stored on physical storage or volumes.

Vendors such as CA, CommVault and SteelEye Technology have enhanced their data-replication wares with CDP capabilities. CommVault, for instance, has Continuous Data Replicator, which continuously captures and asynchronously replicates any file changes from a remote office to a central data center. CA gained CDP capabilities in 2006 with the acquisition of XOssoft.

CDP has proved useful for the Louisiana Supreme Court. Since deploying CA XOssoft High Availability in 2006, "we have had zero burps, blue screens or anything of that nature," says Haas. "We've failed-over a couple of times.

Using the product is so easy my 5-year-old grandson could do it."

Haas hasn't had to recover data using Enterprise Rewinder yet, but says it can potentially aid patch management. "When a patch blows up one of our processes or locks up a server, we could use Enterprise Rewinder to pull back to a much healthier situation."

The Louisiana Supreme Court spent about \$13,000 for the CDP software. While Haas hasn't measured the monetary savings he gets, he says the return on investment is clearly there. The court can stay live during disasters and gains another level of protection for the data it controls.

Counting on CDP

Gary Gregg, IS manager for the City of Southlake, Texas, has also benefited from CDP. Until late 2006, when Gregg first installed Microsoft System

CDP CONSIDERATIONS

Keep in mind the following factors when choosing CDP technology:

- **Determine the granularity of information you need to recover.** CDP software lets you recover volumes, volume groups, file systems and e-mail message boxes; or individual folders, files, e-mail messages or database objects.
- **Determine the type of data you are protecting.** Some CDP packages back up and recover file-oriented data. Other CDP packages let you recover block-based storage area network data. Most CDP packages let you protect databases, such as Microsoft Exchange, SQL Server, Oracle, Sybase, and IBM's DB2 and Informix. File-oriented CDP packages tend to be near-continuous, but also the least expensive.
- **Decide if you need user self-service.** As an IT administrator you need to decide whether you will handle all data recoveries or whether you will let end users recover files they have inadvertently erased. Most near-continuous data protection packages offer user self-service.

Like Haas, Gregg says that his ROI from using CDP software is hard to quantify. "It's like an insurance policy," he explains. "The issue is you can't show value until you die. What is the value of lost data? For example, if we had 25 people having to redo eight hours of work, we'd lose \$10,000 easily, and that's not counting the aggravation, the mis-keying and all the other work that needs to go on. It's a soft ROI, not a hard one."

Jim Rose, systems administration manager at the Office of Technology for the state of Indiana, is able to quantify his return on investment in CDP technology. Rose spent about \$36,000 for Symantec NetBackup PureDisk and about \$22,500 on labor and consulting fees.

"We began looking for a product about two years ago that would let us consolidate our remote-site backup," Rose says. "The state had gone through a consolidation of IT infrastructure and we became responsible for about 250 remote offices that had servers located in them."

Most of Rose's remote sites had used tape backup and had little, if any, IT support. Like many remote offices, it suffered from unsuccessful backups or improperly administered procedures for taking tapes offsite. If there were a disaster, they'd lose all their data.

"We are relying on PureDisk now entirely for the remote offices," says Rose, who estimates that data store at about 4.5 terabytes. "We've recovered an entire server, portions of data, single files or several folders," he says. Recovery that once took several hours can now be accomplished in less than 30 minutes to an hour.

Rose estimates the ROI to be about 60 days. "We have 98 percent to 99 percent successful backups now," he says.

Because of the benefit CDP technology brings to the data-protection process, there will be a time in the future when CDP capability will be a checklist item for any IT manager purchasing backup software. **IST**

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Center DPM, he had been relying on nightly backups.

"I needed a method to automate continuous or near-continuous backup of some of our critical data," says Gregg. "In particular I needed the ability to have previous versions and restore documents that I had backed up during the day as well as being able to roll back SQL databases in 15-minute increments."

Gregg is looking forward to trying the recently released Microsoft DPM 2007. It supports not only Microsoft SQL databases, but also Microsoft Exchange and SharePoint servers, 64-bit computers and 512 snapshots.