US WEST Protects Critical Data with Intel StorageExpress™ System

US WEST: Customer Application Story

problem In today's highly competitive market for communications services, a leading provider needs to depend on the integrity of its data. If information inadvertently becomes lost, outdated or corrupt, regaining ground can jeopardize business success.

Kevin Perkins knows firsthand that reliable data is critical to business strategy. Perkins is one of 13 departmental computerists who make up the End User Computer group in US WEST's Mass Markets Service Delivery division. The division markets communication services to residential and small business customers throughout US WEST's 14-state region.

Perkins serves as a consultant to management personnel in the marketing unit and is responsible for maintaining all of the local PCs and file servers on a 500-node Novell network spread throughout three buildings in downtown Denver, Colorado. Perkins and his partner, Mike Grant, support the entire Colorado and Wyoming region.

Desktop systems on the network run the Microsoft Office suite, plus some Harvard Graphics. Managers and personnel working on the systems track sales, market changes and similar information that ensures US WEST's market edge.

Overcoming Obstacles to Data Integrity
In addition to protecting data on the seven Novell file servers in Denver, Perkins backs up a file server in Salt Lake City, Utah, remotely over a T1 line. The need to store large amounts of data on those servers exposed the data capacity limitations of Perkins' existing software backup solution.

"Most of the servers are running with 2GB of data on them," Perkins explains. "The tape drives couldn't do a full backup in the manner I wanted them to without changing tapes."

Changing tapes was cumbersome and time-consuming, but it wasn't the only problem Perkins experienced. His existing backup solution also wasn't consistently accurate in the restore process.

"It always showed that it had backed up, but there were problems between the SCSI and the tape drive, and with the external subsystems," he recalls. " I could not depend on the backups being correct or automatic on a consistent basis."

The Mass Markets Service Delivery division also needed a 10-city solution that would support a major consolidation in process. The consolidation would create 10 "megacenters" throughout US WEST's 14-state region, with a Novell file server in each city. Several cities, however, would not have a backup system and would need to be backed up remotely.

solution
The need for an integrated backup solution that would deliver reliability, scalability, unattended operation and high capacity drove US WEST to move to Intel's StorageExpress™ Backup Server. The End User Computing group looked at several other solutions but decided that, "Out of all of them, the StorageExpress System best suits our needs and is the easiest to use."

Installed in June 1994, the StorageExpress System features dual DAT drives, plus a dual auto-changer that automatically rotates tapes. By upgrading the StorageExpress System XLC, US WEST enhanced the system's capacity to 14 tapes and up to 112GB of compressed data.

In addition, because the StorageExpress System is a fully integrated, dedicated backup server, Perkins no longer has the conflicts with multiple SCSI cards and subsystems that he did with his file server-based backup system.

Unattended backup and accuracy are the best features of Intel's StorageExpress Backup Server, according to Perkins.

"I don't have to hold its hand all the time, like I did with our other backup products," he says. "Overall it has worked tremendously—especially the ability to set up automatic backups and change them every week or every other week, depending on what I'm backing up. I can run a full backup every night on servers where data is more critical."

The auto-changer allows Perkins to customize backup to suit his environment, and it simplifies data management. The ability to put six tapes in each drive is a real asset, he says. He can format each tape to whatever name he chooses and set different jobs to go to those particular tapes. If he performs a massive storage, he can append from tape to tape. And, with the multiple tape drives, he can run multiple backups to the system at the same time from different servers. Perkins estimates that he saves as much as 4 hours a week by using the StorageExpress Backup Server with the auto-changer.

> ❝*I have not thought of backup as 'fun' before, but I really enjoy the StorageExpress System. This one really works.* ❞

Restoring Reliability

The system's File Tracker database also has proven itself as a quick, efficient way to restore data to all clients. Perkins recalls one instance when a user was cleaning up his system and mistakenly deleted a directory.

"I managed to pull it up and restore the directory within about 20 minutes," he reports. "The user was pleased, and so was I." Perkins estimates that his previous backup solution would have taken over an hour to restore the data.

In another instance, Perkins restored the configuration of a new file server in Salt Lake after a drive was added to a RAID 5 system. Using the StorageExpress System, he performed a remote backup from Denver beforehand, then ran a remote restore to bring the file server back up configured instead of rebuilding from scratch.

"The StorageExpress System restored the bindery and trustee rights completely, without any hitches for the users," he says.

Other features that Perkins values include the system's simple installation, easy-to-use Windows* software, informative LCD panel and automatic tape label printing.

Perkins recommends the StorageExpress System as a complete, convenient solution that also offers businesses the ability to expand. Within the next year, US WEST will add StorageExpress Systems to serve other megacenters, including Minneapolis, Seattle, Phoenix and Portland.

"I have been backing up Novell file servers for six years, and there has not been a product that was as pleasant to use as the StorageExpress Backup Server— and that I didn't go to the tape with fears that there was nothing on it," Perkins says. "I have not thought of backup as 'fun' before, but I really enjoy the StorageExpress System. This one really works."

For More Information
Call FaxBack*, Intel's 24-hour response service at 800-525-3019 and request document 6700 and 6701 for more information on the StorageExpress system.