

Better Backups

New disk-storage system provides speedy, dependable backup processes and eliminates hassles with tape.

When you're in charge of IT for a regional library system, you have to be sure you have backups. Libraries possess a huge amount of information, and citizens expect library services to be available. If information is lost, the library has failed the public. The importance of IT is multiplied when the library system has many branches.

The Sno-Isle library district is based in Marysville, Wash., about 35 miles north of Seattle. Sno-Isle Libraries has 22 locations throughout Snohomish and Island counties, and serves more than 640,000 residents.

The district's IT staff turned to CDW•G when it needed to quickly replace its backup system. One of the library system's legacy applications began causing the IT staff to frequently turn to backup tapes — a laborious process.

"We had an older legacy application that was in the midst of being replaced," said John Mulhall, IT director of Sno-Isle Libraries. "The database became corrupt quite frequently, and we got really tired of pulling stuff off the tape."

The collaboration between Sno-Isle Libraries and CDW•G resulted in a speedy solution. The new system led to improved dependability and efficiency in a cost-effective manner. It also saved space and power. The library system worked with CDW•G to realize these benefits in only a few weeks.

CDW•G helped the libraries find their current setup, a hard drive-based backup system from Data Domain. Data compression employed by Data Domain means much less space is required for backups, yet information is easily and quickly restored when needed.

Speed and Power

With the change, the library system satisfied more than one need. It reduced the amount of tape, and also created a building block for developing a disaster recovery system. "In trying to figure out what tech-



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nology we wanted to go with in terms of disaster recovery, this seemed to fit really well," Mulhall said. "It fit both of those purposes. So we really wanted to move forward with this new technology."

The Data Domain software compresses data. The hardware component sits on the network, making the disk quickly and easily accessible. "It really made it easier for restoring files or any corrupt or lost data in a really quick fashion," said Mulhall. The new, streamlined system replaces a number of tape drives and backup components that had been pieced together over the years.

The Data Domain device now backs up all of the library system's Windows-based servers at the main headquarters, including finance, human resources, e-mail and Office documents.

Data Domain uses data deduplication, a powerful data-reduction technique that compares segments of data being written to disk storage with data segments that were previously stored. If duplicate data is found, a pointer to the original data is created, instead of storing the duplicate segments.

This removes, or "deduplicates," redundant segments from the storage system, improving backup processes and requiring much less space. It also lowers power and cooling consumption. This type of storage is much easier to work with than tape backup systems, and there is no tape to dispose of later, which benefits the environment.

Quick Solution

"We needed some sort of data deduplication device so we could have some speedier

access to backup files,” Mulhall said. While improved speed is a huge benefit, the library system made sure it chose a system with numerous long-term benefits. It wasn't just looking for a quick “Band-Aid” approach. The result is a much more streamlined, dependable system than it had before.

Problems with the earlier system reached a boiling point, so Mulhall acted quickly to get this unbudgeted project approved. In a short period of time, he had to get CDW•G on site to help assess the library district's needs. After meetings between CDW•G and IT staff, it was time to go to the decision-makers for the funds.

“We had to make the case to them for purchasing this unbudgeted device,” Mulhall said. “We were going to do it anyway the following year. We had already planned on doing something like this, so were able to successfully pitch it.”

A big factor in putting the project together quickly was Mulhall's ability to get all the stakeholders together. He was able to impress upon everyone the importance of fixing the problem, and of the benefits of doing it sooner rather than later. He showed the stakeholders that the new system would save time and money for the entire library system, not just for IT.

CDW•G helped by working closely with the Sno-Isle library system to find the right solution. The company had been working with the libraries for a long time, so there was a lot of trust in place already. When the

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call came, CDW•G had an engineer on site quickly. After analyzing existing equipment and meeting with IT staff, CDW•G met with the stakeholders to review the library system's overall needs and concerns. Once the solution was found, it was quickly approved and implemented.

Savings Multiplied

“It was getting time for us to do a replacement anyway, and it also fit into the first step of our disaster recovery project,” said Mulhall. “We want to have two of these data deduplication devices so they can mirror each other. In the middle of the night, if our main headquarters were to burn down, we'd have our secondary device at our remote location with all of the data on it.”

Now the libraries can retrieve data more quickly when needed, and the library system will be better prepared for disaster recovery. They've also eliminated various tape drives and the need for more space to store more tapes. Less staff time is devoted to backups now. Fewer servers are needed, so the data center uses less energy. All of these things mean cost savings well into the future.

While getting the stakeholders together for quick action was a challenge, there were other challenges as well. “The biggest challenge was setting up the myriad jobs to be performed every night, and every week and every month — identifying the different data elements, whether or not we wanted to do the incrementals, the fulls — really, designing what it's going to perform every night,” Mulhall said. CDW•G helped tremendously with this, he added.

Working with CDW•G, Sno-Isle Libraries found the ideal solution for its backup and disaster recovery needs. After the company came on site and did its interviews and research, it provided a proposal which helped library executives decide to fund the project. Then CDW•G arranged the installation and setup of the new system, along with the training. “It saved us a lot of time,” said Mulhall. The new backup system also saves money, and will continue to do so for years to come.

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