Replicate Now, Vacate Never

A remote mirroring solution ensures that a 16-office staffing company can re-open for business even if its main data center goes down.

By Tom von Gunden

Like many companies, Burnett Staffing Specialists Inc. (Houston) was getting nervous about the vulnerability of its systems. In matching job candidates to open positions, Burnett runs several storage-consuming applications, including its core application, a staffing industry software program. In addition to the databases for that program, Burnett maintains between 250,000 and 300,000 electronic resumes (approximately two years' worth) in online storage.

While the staffing, training, and placement company's 16 offices (all in Texas) were connected to a central data center in Houston, Burnett did not have a secondary disaster recovery (DR) site. “The owner of the company had always been leery of the company’s capacity to re-open the doors after a natural disaster,” said Scott Hoffman, Burnett’s IT director. So, Burnett looked for a SAN (storage area network) management software product that could handle remote mirroring regardless of what kind of storage hardware resided in either DR site. They found that product in DataCore Software Corp.’s (Ft. Lauderdale, FL) SANsymphony™, which offers storage virtualization and data replication functionality. “Bringing in DataCore’s solution essentially turned the big box storage we had in our primary data center into an incredibly redundant JBOD (just a bunch of disks) unit,” said Hoffman. “It no longer made sense to pay for the maintenance costs, so we sold the hardware and replaced it with lower-priced storage.”

Installation Profile

Technology User: Burnett Staffing Specialists Inc. (Houston) is a staffing, training, and placement company with 16 offices across Texas. To make sure it can match available candidates to the skill sets required by its corporate clients, Burnett pulls resumes from various Internet sites and keeps them in online disk storage.

Problem: Burnett was concerned that its systems, including the resume archive, were vulnerable to disaster. However, replicating data from its high-end storage array to a disaster recovery site would have required the costly purchase of a second high-end array.

Solution: Burnett brought in DataCore Software Corp.’s (Ft. Lauderdale, FL) SANsymphony software suite. The software’s ability to virtualize any storage enabled the company to bring in lower-cost storage hardware set ups in two separate data centers. SANsymphony tools allow Burnett to do asynchronous mirroring across the WAN (wide area network) from site to site.

Move It Off-Site, Back It Up Faster

Burnett runs SANsymphony on three of what DataCore refers to as SDSs (storage domain servers). Two are located on a SAN (storage area network) in the primary data center in Houston, where they provide failover protection for each other. A third DataCore SDS sits on a SAN in the secondary data center and uses SANsymphony’s AIM (asynchronous IP [Internet Protocol] mirroring) to handle the data replication process. In an asynchronous mirroring environment, data is replicated periodically in a block-for-block fashion. DataCore’s AIM function monitors I/O (input/output) until it has generated 2 MB of data. Then, it moves the data to a queue before replicating it across Burnett’s WAN (wide area network) to the secondary site via T1 connections. “If we would ever need to shift our operations to the secondary site, we would just shut off the WAN router to the primary site and point the frame relay connections to the other site,” Hoffman explains. “Then, all of our offices would just log into the servers at the other site.”

With its DR strategy in place, Burnett is currently mirroring approximately 200 GB to the secondary site. Even though it expects that number to double in the next six months, the staffing company isn’t concerned about managing the growth of replicated data. The DataCore solution includes what DataCore calls NMV (network managed volumes) capabilities. “NMV allows us to create a 2 TB partition on any of our Windows-based servers,” said Hoffman. “As far as the operating system knows, the partition is 2 TB in size, but the DataCore software transfers only the amount that’s available, and we’re currently provisioning a very small portion of the 2 TB.”

Even without the anticipated data growth, the DataCore solution has helped Burnett significantly reduce nightly backup times. Hoffman attributes that benefit to two factors: 1) an increase in interconnection speed between the software and the new disk arrays, and 2) the ability to do snapshots of the replicated data before making it offline. “After we installed SANsymphony, our backup times dropped by 20 percent,” Hoffman said.

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