

## SERVICE PROVIDER GETS BUSINESS CONTINUITY, BACKUP & BIG COST SAVINGS FROM vESSENTIALS™

# vizioncore™

### THE SITUATION

Christian Brothers Services needed an easy-to-use system that could replicate and transfer critical virtual servers nightly to a remote disaster recovery location, and would provide on-site backup and recovery for additional VMs on a local SAN.

### THE SOLUTION

Image-level virtual replication for critical servers transferred to the disaster recovery site. Other VMs are also backed up at the image level and transferred nightly to the SAN.

### THE RESULTS

"I'm definitely more confident in our systems now. If a server were to fail, I know we could have it up and running again very quickly."

Jeff Schopp  
Computer Systems Specialist  
Christian Brothers Services

### THE SITUATION

Christian Brothers Services is a nonprofit organization that provides a variety of business, insurance and IT services to more than 2,000 institutions affiliated with the Catholic church. Clients count on Christian Brothers to keep their Web sites up and running and to manage a variety of employee benefit-related programs. With so many organizations relying on Christian Brothers to provide important applications and services, business continuity and IT disaster recovery are essential strategies that need to be deployed. The Chicago-area organization operates a disaster recovery site in another state, but needed an efficient, comprehensive way to replicate its most important systems nightly at the remote location.

The broad array of services Christian Brothers provides requires the organization to maintain multiple computer systems and applications, which include Oracle®, Lotus Notes®, e-mail, Windows®, Adobe®, Quark® and HTML applications, several types of servers and networks, and multiple security packages. Virtualization helps Christian Brothers effectively manage and support its diverse IT infrastructure. It has virtualized more than 20 Intel-based HP servers running Windows 2003 with VMware's ESX Server 3. Six of these servers need to be replicated nightly at the remote disaster recovery site, which is connected via a Gigabit network from Extreme Networks™. The remaining virtual servers are backed up locally to a storage-attached network (SAN) from Xiotech.

"We wanted something to back up our virtual machines that would be extremely easy to use, and I didn't want to deal with a manual process that could be open to operator error," said Jeff Schopp, computer systems specialist at Christian Brothers Services. "If a system is manual, someone could accidentally delete the wrong snapshot, and that could be real trouble."

A network-friendly solution was also a key requirement, because Schopp was concerned about the network's ability to deliver multiple complete server backups to the disaster recovery site.

"We wanted something that could do differential backups, because we didn't want full backups going over the WAN," Schopp said.

Christian Brothers Services worked with Merrimac Solutions, an IT services firm specializing in enterprise storage, backup and

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recovery and disaster recovery, to design a backup and disaster recovery program. Together they identified four potential approaches, and the expected cost to implement each:

1. Synchronization with a SAN – \$90,000 plus bandwidth costs.
2. Asynchronous SAN transfer – \$60,000.
3. Asynchronous integration to an appliance – \$30,000.
4. Asynchronous software-based replication – \$10,000.

“SAN replication posed some problems,” said John Quinn, technology and architecture leader for Merrimac. “The sync option was cost prohibitive because of cost of the bandwidth required to replicate the data across the country without impacting performance. Asynchronous SAN replication was considered, but this option is expensive too, for two reasons. One, to implement it right the first time, there should be a second SAN at the disaster recovery site. The second reason asynchronous SAN replication can be expensive is sometimes you need to purchase appliances and server licenses for each site.”

## THE SOLUTION

The analysis led Christian Brothers and Merrimac to seek a software-based solution that could replicate critical servers at the disaster recovery site and back up other VMs locally. Merrimac tested two solutions head-to-head in its lab and strongly recommended Vizioncore’s vEssentials suite, which includes vReplicator™ for offsite server replication, vRanger Pro™ for local nightly backup and recovery, and vCharter™ to provide real-time monitoring and management of the VMware® ESX Server environment.

“We felt the software-based replication approach from Vizioncore was a better option because of cost -- it is sold per virtual machine, and alternatives have much higher licensing costs. In addition, the solution offers flexibility, ease of implementation, and strong integration with the backup software,” said Quinn. “It also meets Christian Brothers’ recovery time objectives (RTOs) and recovery point objectives (RPOs) for the applications.”

vReplicator is used for the servers that are transferred to the disaster recovery site. It provides image-level replication of the entire virtual machine, capturing configuration settings, patches and OS-level changes in addition to applications and data. It requires no agents or other components on the source or target VM, and can replicate to and from dissimilar hardware. vReplicator provides differential backups by capturing block-level changes, and easily compresses VM images for transfer over Christian Brothers’ WAN. The process is completed in about two-and-a-half hours compared with the 11 hours it took to back up the same servers with Christian Brothers’ legacy solution.

“The speed is really nice,” said Schopp. “I really like that it creates and deletes snapshots for you -- there’s nothing manual. That saves me at least an hour a day. But more importantly, it makes the process safe and error proof.”

Christian Brothers uses vRanger Pro to execute nightly backups for about 20 more VMs that are kept on site. It creates image-level backups and can execute while the target virtual or physical machine is running. Compressed backup images are automatically transferred to Christian Brothers’ SAN, from where they can be recovered very quickly.

“The whole system is simple to use and was very simple to set up,” said Schopp. “Ease-of-use was one of our top goals and Vizioncore meets it.”

## THE RESULTS

Christian Brothers did not have to install and maintain an expensive, mirrored IT system at its remote disaster recovery site to get the business continuity assurance it sought. Image-level virtual replication has proven to be a highly reliable and cost effective option for disaster recovery. Virtual, image-level backup has been just as effective for protecting less-critical servers. The solution provides system availability and recovery capabilities that Christian Brothers and its clients need, and also provides peace of mind the organization didn’t have before.

“I’m definitely more confident in our systems now. If a server were to fail, I know we could have it up and running again very quickly,” said Schopp. “I’m more comfortable when I go home at night, and my boss is more comfortable too!”



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A QUEST SOFTWARE COMPANY

US Toll Free 866 260-2483  
International +1 847 589-2222  
[www.vizioncore.com](http://www.vizioncore.com)  
[sales@vizioncore.com](mailto:sales@vizioncore.com)