LeftHand
NETWORKS

Coppin State Mini Case Study

Profile of the Customer: Times have changed in the past five years in both education and technology. In 2000, Coppin State University in Maryland had the traditional classroom experience. In contrast, Coppin State won the 2005 EDUCAUSE Award for Excellence in Networking for replacing its old technology infrastructure with a converged IP infrastructure and enhanced services including 650 Voice-over-IP network phones, video, and 40 smart classrooms utilizing the Tegrity Campus application. Coppin received honorable mention as a finalist for the 2005 Storage Networking World Award for Best Practices in Systems Implementation. Coppin has also recently completed the successful implementation of the PeopleSoft ERP system. Taking the technological leap, as well as pending new health and human services and athletic facilities, has made Coppin State a very attractive school within the University System of Maryland, and attendance is poised to grow. These factors all caused Coppin State's data to grow drastically; surpassing the capacity of the fibre channel SANs the IT staff previously relied upon.

"Data growth in the field of education is an exponential function," said Mitch PreVatte, Director of Network Services at Coppin State University. "You can buy data storage and find out six months later that data has grown more than expected. We needed a solution that was simple to scale and easy to manage."

Why LeftHand was chosen: Coppin State already had two EMC Symmetrix installed on campus. The fibre channel SAN devices were cumbersome, difficult to manage, and expensive to upgrade, PreVatte said. When Coppin State ran out of capacity on the EMC Symmetrix SANs in 2005, scaling would have been a forklift upgrade. Rather than buying an 8 TB SAN, they would have had to purchase a 16 TB SAN to migrate all previous data on the SAN to the new solution.

"The LeftHand SAN fit our entire scenario," PreVatte said. "We have data protection that is equivalent to the EMC solution, but it is much easier to maintain, not to mention less expensive. For example, with the LeftHand SAN, setting up a volume online is a five to 10 minute job. This project would take a couple hours on the EMC box."

Training and the overall management of the technology were also major deciding factors for PreVatte. "We went through a two-day training on the LeftHand product and can now do whatever we need in-house. There are still functions and features that the EMC product was built to do that we can't currently utilize in-house. The LeftHand iSCSI SAN is based on the IP network. We're network guys, so this was perfect for us."

The decision to go with the LeftHand iSCSI SAN will save Coppin tens of thousands of dollars over the life of the product.

Operating system: Microsoft Windows 2003

Applications: Tegrity Campus, Microsoft Exchange, file shares

Prospective storage vendors: LeftHand Networks, EMC Symmetrix, Snap Appliance

What they purchased: 8 TB LeftHand Networks Integrated iSCSI SAN made up of 8 storage modules

How the storage modules are utilized: The IT staff at Coppin State separated the 8 TB SAN into two data centers to create a campus SAN configuration. They created two clusters, comprised of four storage modules in the first data center and four modules in the second data center. A campus SAN configuration protects data if a location is damaged by natural disaster or accident. Because of the way the modules are clustered and volumes provisioned to stripe and mirror data, PreVatte said that this configuration gives Coppin State the same capabilities and redundancy that he experiences with the synchronous replication feature on the EMC Symmetrix fibre channel SANs, but at a much better price point. See diagram on next page.

Future planning: PreVatte currently has application servers in both data centers, but the servers in the second data center are on cold standby. In the future, he would like to have two full sets of active servers for a completely redundant configuration, allowing instant and complete access to data in the event of damage to either data center. PreVatte would also like to install a third cluster in a remote location utilizing SAN/iQ Remote Copy for full disaster recovery protection.