

**COMPANY:**

Liberal arts institution

INDUSTRY:

Education

PLATFORM:

Microsoft® Windows®, UNIX®, SuSE Linux, Novell®

APPLICATIONS:

Oracle® Database; SunGard SCT Banner; SAS data warehouse; Groupwise; BakBone® NetVault™; general business, research, and distant learning applications

CHALLENGES:

Stop server proliferation and build a high performance SAN for all applications, particularly for ERP upgrade with integrated database

SOLUTION:

Two PS200Es in data center support ERP and other applications; one PS200E at DR site for remote replication – six additional PS200Es for additional applications and capacity

LEARN MORE:

Visit www.nccu.edu

NORTH CAROLINA CENTRAL UNIVERSITY INNOVATES WITH PS SERIES SAN

North Carolina Central University (NCCU) is a liberal arts institution on the move, retaining excellence in its traditional disciplines while increasing its focus on science and technology. A new science complex houses a state-of-the-art biotechnology research center, and a bio-manufacturing research institute is due to open in 2007. Located in Durham, North Carolina, NCCU is part of the 16-member University of North Carolina (UNC) system. Its 8,200 students pursue undergraduate degrees in more than 100 disciplines and graduate degrees in more than 40. Faculty and staff number about 1,600.

STOP THE SERVER MADNESS

The 40-member IT staff is lead by CIO Greg Marrow. IT Director Cecil White leads the server team. Before installing their EqualLogic PS Series-based storage area network (SAN), Marrow and White relied on more than 50 servers (primarily on Windows, Linux, UNIX, and Novell platforms) with direct attached storage (DAS). This architecture was inflexible and difficult to manage. Each server was backed up locally using VERITAS® Backup Exec™. NCCU's most critical application, SunGard SCT Banner ERP, contained individual applications for student information and financial records and ran on its own Sun 880 VMS servers.

While the Banner system had its own backup, White says he was running out of space on a daily basis for backing up e-mail and other applications. In addition, NCCU needed to "stop the server madness," as Marrow recalls. Servers were proliferating in every department solely to gain storage space – for radio station music files, art department images, and data for every discipline. There might be available storage space, but it was captive behind individual servers. Maintaining all these servers was expensive, and the required downtime interrupted information flow. Security and compliance issues were also a problem – it was extremely difficult to adhere to the policies set by the University, the UNC system, and state government with servers in individual shops all over campus.

"What caught my attention first was that all the features we needed – snapshots, back-up/recovery, remote replication – were built into the product. We got the functionality we wanted and still kept within our budget."

– CIO, North Carolina Central University
Greg Marrow

THE DRIVING FORCE – INTEGRATED SCT BANNER DATABASE

The general business applications, distance education technologies, research applications, and SAS data warehouse would all benefit from a new storage infrastructure, but its driving force was the deployment of a new version of SCT Banner. This upgrade would enable NCCU to use an integrated Oracle database running on a UNIX platform to share information, instead of having student information, finance, financial aid, HR, and other key applications run separately. This integrated database would store masses of data and require storage that could grow easily; in addition, it needed excellent performance, 24 x 7 availability, and total data protection – not only reliable backup, but remote replication and disaster recovery.

VERISTOR SUGGESTS EQUALLOGIC

Having decided that a SAN was the answer, White and Marrow began extensive research. After evaluating Fibre Channel SANs for some time, NCCU ultimately found the right solution with the help of enterprise storage solutions provider VeriStor Systems, Inc. Recalls VeriStor Account Executive Brian Hull, "Once we understood what NCCU's challenges were, it was clear that EqualLogic was the best fit. They needed high-performance, reliable, consolidated storage, advanced functionality, and ease of rapid expansion – EqualLogic could deliver on today's requirements and help them plan for future growth."

Marrow and White made the decision to install the EqualLogic iSCSI SAN for three key reasons – functionality, cost, and staff skill set. "What caught my attention first," says Marrow, "was that all the features we needed – snapshots, backup/recovery, remote replication – were built into the product. We got the functionality we wanted and still kept within our budget." Also, the IT staff was already skilled in Ethernet, so the transition would be quick – there was no

learning curve as there would have been with Fibre Channel. In addition, Fibre Channel could tie them down to one vendor, while iSCSI would not.

Finally, they felt that other solutions had potential hidden costs – add-on software, more costly expansion, and forklift upgrades – while EqualLogic did not.

PS SERIES SAN WORKS WONDERS

NCCU now has two PS200Es running RAID 10 in the data center, with a third running RAID 50 at the disaster recovery site 15 miles away. Because Oracle is CPU intensive, iSCSI HBAs were installed on the Oracle servers to offload TCP/IP traffic and maximize performance. In addition to PS Series auto-replication, NCCU has implemented disk-to-disk-to tape backup for quick restore and maximum database availability – PS Series snapshots are executed and sent to an Overland Storage® REO 9000, which operates as the backup target and writes to tape. They are transitioning to BakBone NetVault backup software. Six more PS Series arrays have been purchased so far – one additional for the remote site and five that will be used for other applications and to add capacity over time.

FUTURE INNOVATIONS

In addition to continued growth, NCCU envisions potentially using the PS Series SAN in a utility model, enabling smaller UNC institutions to use their data center as needed. This win-win proposition could enable other institutions to improve data services while helping NCCU recover costs.

SIMPLIFYING NETWORKED STORAGE

EqualLogic PS Series solutions deliver the benefits of storage consolidation in an intelligent, enterprise-class storage system that is easy to install, manage and grow. Let us show you what simplifying networked storage can mean for your business, visit our web site at www.equallogic.com.



110 Spit Brook Road, Building ZK02, Nashua, NH 03062
Tel 603.579.9762 / Fax 603.579.6910 / www.equallogic.com