When a leading university in New York decided to revamp its enterprise resource planning (ERP) system, it hoped to improve performance (especially during peak registration periods) and reduce overall total cost of ownership (TCO). The university met these goals and gained unexpected benefits by moving their systems to Red Hat Linux on servers that were integrated with SanDisk Fusion ioMemory products and SIOS LifeKeeper for Linux.

Protection is Paramount

The university comprises multiple divisions that serve more than 10,000 students. They use a mission-critical Oracle database to maintain all the information for student registration. They used an HP/UX, SAN-based storage environment with replication of its full SAN architecture between two fabrics in a cluster. It tracked costs associated with SAN storage for each fabric separately.

The university wanted an alternative that would be more cost-effective, deliver faster performance, and provide high availability and data protection for their mission-critical Oracle database.

Realizing that they needed a more robust clustering solution than they could get with a typical Linux solution, the university turned to Brian Roth of Comport Consulting for help.

“As I was researching, I found SIOS and knew it was the right solution,” says Roth. SIOS LifeKeeper for Linux provided application failover, SIOS DataKeeper provided data replication, and the SIOS Oracle Application Recovery Kit offered extra protection for the school’s database right out of the box. Roth also noted that SIOS’ strategic alliance with Western Digital could deliver a high-performance SanDisk flash solution for their clustered environment.

“We wanted a suitable clustering replacement,” said the university’s Assistant Vice President of IT. “SIOS explained that they could integrate and set up a cluster with SanDisk Fusion ioMemory products. They were completely proactive, which we appreciated.” The integration of ioMemory-based IO accelerators with both the servers and SIOS LifeKeeper for Linux offered better performance and availability than traditional legacy solutions, making the SIOS product a perfect fit.
Goodbye to SAN Cost and Complexity

With servers configured with SanDisk Fusion ioMemory-based IO accelerators, the university could replace its bulky and expensive SAN-based setup with a streamlined server set running Linux. SIOS Protection Suite provided data replication and the SIOS application recovery kit protected the dedicated Oracle machines.

SIOS field engineering team worked with the university’s IT team via conference call to install and configure the cluster. “We have a very easy-to-use, wizard-based GUI that makes setup and configuration simple,” explained the SIOS Director of Sales Engineering. “No scripting experience is necessary. We often work with clients remotely to complete the installation and configuration,” he said. “You can be anywhere in the world and collaborate remotely with SIOS.”

The university’s team performed numerous stress tests using real data in a full test environment. The new systems’ ease of use, improved performance, and high availability were immediately apparent.

Reduced Costs, Reduced Risk

“Everything just worked,” said Roth. “And the cost of three servers and the SIOS solution was less than the cost of one of their old HP/UX servers.” The university used the savings to add more memory.

The university also eliminated risk because the shared disks in a traditional SAN-based cluster can be a single point of failure. That’s why they originally had two SANs. SIOS replication with SanDisk Fusion ioMemory eliminated this single point of failure, costs far less than fabric switches and provides more data copies. And since the solution is simply two cards in the server, the university also saved on power, cooling, and data center floorspace.

Brian Roth noted that the combination of SanDisk’s flash-based Fusion ioMemory for storage and SIOS replication improved the school’s TCO, reduced data center costs, and reduced their environmental impact thanks to reduced power and cooling demands.

“Now we can perform seamless migrations without the high level of expertise needed to run a SAN,” Roth says.

Flawless Student Registration

The real test of the system came with the university’s busy spring registration session. From a technical perspective, the school enjoyed its most problem-free registration in 10 years. There were no calls to the IT help desk, and the registration ran flawlessly.

“Performance has been excellent,” said the school’s AVP of IT. “The few times we’ve had to speak with SIOS, the support has been excellent also. And they’ve been proactive in reaching out after go-live to make sure things were working properly.”

“This was my first time working with SIOS,” Roth said. “Working with the SIOS team made it easy. They were constantly reaching out, making sure things got done right. They stepped up and were engaged and proactive and knew their stuff. There was nothing we asked that they couldn’t answer. The university and I are very happy.”