UC Merced Graduates to Advanced Data Protection

UCMERCED

> "The SEPATON system more than met our expectations. No other technology could deliver the three key features we wanted: linear scaling, high performance, and complete interoperability."

Enrique Flores
Lead UNIX Systems Administrator
University of California Merced

The University of California is a network of campuses, medical schools, and research facilities serving approximately 180,000 students. When the University began construction of its tenth campus at Merced, it set out to take full advantage of innovative information technology by providing students with a personalized storage directory for all of their assignments, administrative information, and important documents. UC Merced chose SEPATON to provide a flexible, affordable way to protect this important data and ONStor to provide a simple, scalable storage solution.

UC Merced Overview

A network of campuses, medical schools, and research facilities serving approximately 180,000 students.

Backup Application

Veritas® NetBackup® by Symantec®
ONStor™ NAS Gatetway

Key Benefits

- Fast, seamless implementation
- Scalability to handle data growth
- Reduction in restore times from six hours to a few minutes

"The UC organization is forward-thinking in its use of technology," said Enrique Flores, UC Merced's Lead UNIX Systems Administrator. "We knew a physical tape system would never deliver the performance, scalability or level of flexibility that a virtual tape library could."

The Environment

Given the UC Merced phased construction plan, simple scalability was a key factor. "Since we are anticipating a large growth in data volume over the next few years, we needed a solution that would let us scale performance and capacity independently," said Flores.

They also needed a storage solution that could keep up with their anticipated growth. They wanted an integrated backup/restore appliance that could deliver at least 10 TB of usable disk space immediately, scale to an additional 3 to 6 TB of capacity over the next two years, and then to 1 PB or more after that.

The UC Merced IT staff also faced several interoperability challenges. The system they chose had to work in a heterogeneous environment. They also needed

a solution that would integrate with the tape backup solutions and Fibre Channel switch hardware used by other campuses in the UC system. "We wanted to manage all of our backup needs through the backup application's media server," said Flores. "We wanted to use our backup application to move data from disk to tape and back again and to monitor equipment status, change storage configurations, and transfer virtual tapes from one VTL to another VTL at remote locations."

The Solution

After evaluating several backup/restore solutions, UC Merced chose an ONStor NAS Gateway storage solution and a single-node SEPATON S2100®-ES2 with 14 TB of capacity. They chose NetBackup as their backup application.

A key factor in their selection process was the open architecture and compatibility offered by the SEPATON and ONStor products. The systems worked seamlessly together and with all of the other related hardware, software, and networking technology in their infrastructure.

SEPATON®

The Results

The SEPATON/ONStor solution provides IT staff with the flexibility to deploy the disk arrays of their choice and to emulate the broadest variety of physical tape libraries.

The SEPATON system also allows IT staff to manage all of their data management activities through their NetBackup application. "Centralizing our management of both virtual and physical tape cartridges through our backup application saves time and eliminates a lot of unnecessary complexity," said Flores.

"The SEPATON system lets us backup, recover, and move data as we need to," Flores continued. The SEPATON management console monitors the status of all hardware components and provides detailed information through a simple graphical interface.

With the SEPATON S2100-ES2, UC Merced IT staff can perform full backups in a few hours. The system also allows unparalleled restore times. "We can use the SEPATON system as an active archive and backup on a file-by-file basis with ease," said Flores.

The SEPATON S2100-ES2 allows IT staff to scale performance and capacity independently. The SEPATON Scalable Replication Engine (SRE®) processing nodes allow them to scale performance up to 8.6 TB/hour per appliance. The SEPATON architecture enables linear scaling of capacity from 4.8 TB to 1 PB of usable storage.

"The SEPATON system more than met our expectations," said Flores. "No other technology could deliver the three key features we wanted: linear scaling, high performance, and complete interoperability."

> "Centralizing our management of both virtual and physical tape cartridges through our backup application saves time and eliminates a lot of unnecessary complexity. The SEPATON system lets us backup, recover, and move data as we need to."
>
> **Enrique Flores**
> Lead UNIX Systems Administrator
> University of California Merced