

#### Industry

- Higher Education

#### Customer Spotlight

- Cornell University

#### Industry Challenges

- System scalability and reliability
- Meeting user expectations for availability and performance
- Secure self-service

#### Oracle Solution

- Oracle's PeopleSoft Enterprise Campus Solutions Release 8.9
- Oracle 10g Database Release 2

#### Sun Solution

- Solaris™ 9 and Solaris 10 Operating Systems
- Sun Fire™ T2000 servers
- Sun SPARC® Enterprise V890, T5120, and M4000 servers

#### Solution Results

- One-stop self-service environment improves user satisfaction for students, staff, and major contributors
- System scalability and reliability supports peak course enrollment periods and follow-on student account management
- Endowment processing and reporting is handled in a timely and accurate manner, even during peak year-end giving periods

“Running Oracle's PeopleSoft Campus Solutions on Sun technology gives us a cost-effective approach to providing our students, staff, and contributors with a streamlined self-service environment.”

#### David Koehler

Director, Information Systems  
Cornell Information Technologies  
Cornell University

#### Overview

Cornell is the federal land-grant institution of New York State, a private endowed university, a member of the Ivy League/ Ancient Eight, and a partner of the State University of New York.

Cornell University includes 14 different colleges and schools: seven undergraduate and four graduate and professional units at the main campus in Ithaca, NY, two medical graduate and professional units in New York City, and one in Qatar. Total university enrollment, for both undergraduate and graduate studies, currently tops 20,000.

Cornell depends on Oracle's PeopleSoft Enterprise Campus Solutions to help manage its student administration and alumni development operations. These systems run on the Sun Fire™ T2000 platform, compact servers designed to deliver extremely high throughput with lower power requirements and a lower total cost of ownership.

#### PeopleSoft Enterprise Campus Solutions

The university currently runs PeopleSoft Campus Solutions Release 8.9, taking advantage of the latest e-service capabilities for student records and financials as well as contributor relations.

“Access to PeopleSoft Campus Solutions Release 8.9 brings us the benefits of open standard architecture coupled with robust Oracle infrastructure. Seamless integration with OID, WebLogic, Grid Control, WebMethods, FirstLogic, and other key applications is critical,” said Heather Damiani, Systems Integrator with Cornell's Oracle PeopleSoft Infrastructure Team.

#### Sun Technology

In 2005, Cornell began moving its PeopleSoft applications to the Sun platform, attracted by Sun's cost-effective solutions and clustering technology. The current production environment is running on the Solaris™ 9 Operating System, and the IT staff appreciates the time-saving benefits of tools such as D-trace, a capability previously not available. As new machines are added, they will run on Solaris 10, to take advantage of broader 64-bit capabilities and additional Sun tools such as resource manager and Solaris containers for virtualization.

The university's database server, application server, and Web server currently run on ten Sun Fire T2000s. Later this year, the university plans to add Sun SPARC® Enterprise T5120 servers for its Web server and application server as well as Sun SPARC Enterprise M4000 servers for its batch-processed schedulers.

Users enter Cornell's systems from a variety of environments. Most students use wireless laptops. Employees and faculty work remotely in different locations around the globe, from wireless as well as wired connections. To ensure secure operations, the staff utilizes a number of measures, such as firewalls and Secure Sockets Layer (SSL), which run well in its Oracle and Sun environment.

### Peak Enrollment Periods—Carrying the Load

With PeopleSoft Enterprise Student Records, the university manages all aspects of enrollment, from schedule maintenance to credit transfers, transcripts, and analysis. The Cornell system provides students with virtual shopping carts for all enrollment and add/drop activities, establishing a familiar self-service shopping environment and enhancing the student's level of control and confidence in the system.

As with other large universities, Cornell's system receives its greatest challenges during course enrollment. During a recent enrollment period for sophomores, 968 logons were received five minutes before the 6:30 a.m. session opening. All ten Sun Fire T2000s were used. Two were active initially, and the others were phased in every 2-3 minutes, so the entire population was active before 7:00 a.m. During the first five minutes of the session, 1,200 enrollments were added, growing to 2,200 by 6:38 and more than 15,700 by 8:00 a.m. For a similar freshmen enrollment session, the system received more than 22,000 enrollments in less than two hours.

Providing access to broadly required or popular courses can also pose a challenge. Within Cornell's well-respected, 85-year-old School of

Hotel Administration, junior and senior level students compete for enrollment in the sought after wine course. This creates a situation where students all have the same course in their baskets, and at 6:30 they all hit 'go' at once. "At times like this, we have experienced as many as 2,374 logins per minute," noted Damiani. "If we can survive the first fifteen minutes of these sessions, we're okay. And during these recent crunches, our T2000s have managed the load really well."

### Contributor Relations—Speed and Accuracy

Cornell University ranked fourth in gifts and bequests from alumni and fifth in total support from all sources (alumni, friends, corporations, and foundations) among U.S. colleges and universities reporting voluntary gift support received in fiscal year 2005-06 (the most recent data available). Currently, the university receives 12 percent of its revenue from private gifts, grants, and contracts.

"The keys to running a successful endowment system are speed and accuracy," said Damiani. "Contributors need to know their gift will be recorded accurately and in time to qualify for federal tax deductions."

December 25-31 is the key contribution period, with logins peaking in the final hours of December 31. While the total logins may not be as high as during course enrollment, accuracy is critical. For major contributors, the address, salutation, and other elements shown on the contributor list are extremely important. In addition, credit card information is processed at the same time, integrated through Sun SPARC Enterprise V890 servers running Solaris 9.

### Looking Ahead

A PeopleSoft tools upgrade later this year (to 8.4.9 from 8.4.6.05) will provide Cornell a 64-bit application that integrates with Oracle grid control to broaden capabilities even further.

In the coming months, the Cornell student enrollment system will become increasingly more streamlined, adding new capabilities such as wish lists to the current shopping cart environment and increasing user feedback. Students will gain greater control over their accounts with immediate visibility into balances owed. The university also plans to manage employee benefits in a similar way, with all transactions handled online. Future plans call for implementation of an employee e-performance system, including the ability to track training, certification status, and career growth.

Cornell also looks forward to bringing on-line Solaris 10 toolsets, including Zones and Containers, on the new Sun SPARC Enterprise M4000 server. This will enable the university to consolidate multiple applications onto one system and increase server utilization rates with the advanced functionality of Solaris 10, thereby saving on power, space, cooling, administrative, and support costs.

### Learn More

To learn more about Sun Microsystems and Oracle, please visit [sun.com/oracle](http://sun.com/oracle) and [oracle.com](http://oracle.com).

For more information on Cornell University, visit [cornell.edu](http://cornell.edu).