

Loyola University: Juniper Networks Helps Take Preventive Action Against PeopleSoft 8 Performance Problems

LOYOLA UNIVERSITY CHICAGO

Site:

- www.luc.edu

Business:

- One of the nation's largest Jesuit universities, with 13,000 students

Problem:

- Anticipated slowdown in student portal performance following deployment of PeopleSoft 8 Web-enabled application suite

Key Benefits:

- Fast access to student portal, even from dial-up connections
- Load balancing provided freedom to take servers offline for maintenance and troubleshooting without service interruption
- No need to purchase additional servers/software licenses
- Eliminated browser errors caused by previous server-based compression solution
- Reduced network bandwidth usage by 60 percent

Loyola University Chicago was jumping from the mainframe-computer era straight into the Internet age. The school, one of the nation's largest Jesuit universities, had decided to decommission its old mainframe and set up a three-tier architecture on its metro-area network, which links three city campuses. The PeopleSoft 8 family of Web-enabled enterprise resource planning (ERP) applications would be the foundation of an administrative portal enabling students to register online for classes, view grades, read campus news, seek financial aid, deal with billing issues, and more.

At least Loyola wasn't heading for uncharted waters. Though PeopleSoft 8 was an emerging solution for educational institutions, a number of other schools had already taken the leap. But rumor had it that the new applications were plagued by performance problems.

"We'd heard that some universities had just kept adding more servers to try to speed application access, but it wasn't helping," said Jerry Sanders, Loyola's chief information officer. "So we went in knowing that, even if we acquired a lot of server hardware, we would still have to deal with application-performance issues. We had no mechanism in place to do any load balancing, a capability we knew would be critical."

Then Sanders and his staff came across an article detailing the deployment of PeopleSoft 8 by another school, Santa Clara University in Silicon Valley. SCU had been one of the earliest users of the Web-enabled version of the popular PeopleSoft ERP application suite, and had tried a number of solutions, including adding servers and using performance management/tuning

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CIO
Loyola

software. Finally they had installed a new network appliance: the DX™ 3250 application acceleration platform from Juniper Networks. The DX 3250 device is a multifunction platform that performs load balancing, data compression, Transmission Control Protocol (TCP) connection management, and other server-offload tasks. Santa Clara's application-performance problems had disappeared.

Voice of Experience Leads Loyola to Solution

"We benefited from Santa Clara's experience and decided to install the Juniper Networks appliance before we ran into problems," Sanders said.

Before putting the DX 3250 platform to work in front of PeopleSoft 8, Loyola's manager of server operations tested the unit on the university's internal GroupWise e-mail/ collaboration application. The DX 3250 platform was installed in February 2004 between Loyola's routers/switches and two GroupWise Web servers. "We had been looking at adding another Web server for GroupWise – at a cost of at least \$7500 – and possibly a dedicated load balancer as well," Sanders said. "But after the DX 3250 was installed, users immediately commented that they saw a big performance improvement. They assumed we had put in a new server."

The success with GroupWise gave Walt Slazyk, Loyola's PeopleSoft systems administrator, "the confidence to move forward with spring registration." A second DX 3250 platform was installed in front of the university's PeopleSoft 8 Web servers in March 2004, just weeks before the early April undergraduate registration for fall classes was to begin.

"The DX 3250 appliance performed as advertised and without a flaw," Slazyk said. "In fact, it enabled us to address an issue we'd had with PeopleSoft right up until the Saturday before registration. One of the 'cookies' used by PeopleSoft was generated with a name that included periods, as in 'www.luc.

edu.' This kept crashing the Web servers. Because of the DX 3250's load balancing, we were able to take a crashed server out of operation to troubleshoot the problem, and still provide students and staff with virtually continuous service. For those people whose service was interrupted, a simple page reload brought them back into action."

Fast Portal Access — Regardless of Connection Speed

The Juniper Networks DX 3250 platform brought several other key benefits. Previously Loyola's WebLogic servers had performed data compression, which had led to server errors in some users' Web browsers; once compression was offloaded onto the DX 3250 platform (and turned off on the servers), those errors disappeared. Also, because there were some graphics-heavy pages on the registration Web site, Slazyk had expected complaints about response time from those users with slow dial-up connections. But the anticipated gripes didn't materialize. "It's nice to know that we're delivering good service to everyone, regardless of how they are connected," he said. Additionally, bandwidth usage for the applications was reduced, resulting in significant cost savings.

The Juniper Networks DX 3250 platform has eliminated the need to purchase additional servers and has provided a "safety net" for Loyola's PeopleSoft deployment, according to Sanders. "Having fewer servers has saved us expensive software licensing fees. And the powerful load balancing capability has made server maintenance much easier. We can bring one server offline for maintenance, then put it back and take out another, with no interruption in service. And the DX 3250 appliance is easy to manage centrally through a Web interface."

Future plans call for the Juniper Networks units to be put to work accelerating two additional Web servers that host Loyola's main public-facing Web pages.



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