

## Los Rios Community College District: Successful Switch to Online Registration

### Key Challenges:

- Enable online course registration for up to 900 students at a time
- Prevent performance problems with PeopleSoft release 8 upgrade and Blackboard Academic Suite

### Juniper Networks DX platform Key Benefits:

- Delivered consistent registration experience, even for students with slower connections
- Increased security by adding another layer
- Simplified programming and ensured consistency
- Reduced bandwidth for PeopleSoft by 60 percent and 40 percent for Blackboard Academic Suite

Los Rios Community College District serves more than 75,000 students in the greater Sacramento, CA region. Los Rios is a two-year public college district offering AA/AS degrees and certificates in over 70 career fields. Brian Roach, the director of technical services, is responsible with his staff for maintaining the centralized data center of Los Rios Community College District.

Responsibilities include maintaining the network, the system hardware, the telephone system, telecom cabling, and security for the IT infrastructure. Cory Starr, a consultant to Los Rios and principal at Point to Point Consulting, works with Roach and is the district's Windows architect. Starr also handles the tuning of the front-end Web servers, to ensure they continue supporting students and administrators.

Three years ago, Los Rios Community College District implemented PeopleSoft release 7 as a student administration system. Los Rios used PeopleSoft release 7 to manage human resource functions, financial functions, and online student registration. After a year, Los Rios decided to upgrade to PeopleSoft release 8, the Web-enabled version, and began a Web-based registration system – a whole new ball game. Roach, Starr, and many others in the IT department started planning the switch to the Web-based registration system.

“We started feeling the stress from an IT perspective,” said Roach. “Given our student numbers, we were entering a brave new world with online registration. We heard of other organizations experiencing problems with capacity and performance in this environment. We thought about doubling our application servers to improve performance.”

“With the PeopleSoft application being used for registration, we were concerned about saving bandwidth, compression, and the end-user browser response time,” added Starr. “We had an intense upgrade effort to get ready for PeopleSoft release 8 at both the application layer and the technical level.”

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with online registration.”*

**Brian Roach**  
Director of Technical Services  
Los Rios Community College District

## Enterprise Application Processor Approach

Roach and Starr knew the system's performance needed improving. During past registration phases, the number of concurrent users had approached 900 at peak times.

"Our performance responsiveness to the student queries online was barely adequate," said Roach. "In fact, we had heard stories about other organizations doubling the number of applications servers to compensate for PeopleSoft 8. This had us worried."

Roach read an article about Juniper Networks solving similar problems for Santa Clara University in Silicon Valley. As an early user of the Web-enabled version of the PeopleSoft application suite, SCU tried a number of solutions, including adding servers and using performance management/tuning software. They turned to the Juniper Networks DX™ 3250 application acceleration platform, and the university's application performance woes were solved.

"We looked at what Juniper Networks could do to save bandwidth for our campuses connected to the district office, which serves as the centralized data center," said Roach. "Several campuses connected to the district office have issues with capacity. We were concerned about being able to speed up applications and conserve network bandwidth."

Roach and Starr installed a DX 3250 appliance, one of a family of application front ends designed to make applications in the enterprise data center faster, more secure, more reliable, and less costly to run. The DX platforms serve as intelligent front-end processors for the applications, compressing data and managing independent sets of connections and requests for both application servers and end users.

## Delivering Results

"We immediately saw some compression upon installation, and PeopleSoft release 8 bandwidth usage on the network dropped 60 percent," said Starr. "The implementation effort with Juniper Networks made it easy. We had the DX 3250 appliance up and running in five minutes, and did not need to tweak it. It was a major selling point to deal with Juniper Networks, since they had previous experience optimizing networks to work with PeopleSoft release 8."

According to Roach and Starr, the DX 3250 platform also addressed a performance issue they were having with their Blackboard Academic Suite e-learning application. "Juniper Networks was able to get good compression out of the Blackboard program. We immediately had positive remarks from administrators."

In addition to increasing speed and handling capacity, Roach and Starr found that the DX platform adds another security layer to its data center. "The DX 3250 restricts access to applications it knows. It blocks illegal requests and does not allow access to the Web server," said Starr. "From an application standpoint, Juniper Networks offers a much needed tool to make sure applications are kept secure."

"The sales and customer service surpassed our expectations," added Roach. "Other vendors came in with a dog and pony show and did not address our needs. The sales representative could talk to both sales and engineering. Hands down, Juniper Networks eases the pain associated with managing Web applications."

"The DX 3250 appliance performs consistently – like a toaster. We forget about it even though we use it and rely on it every day. We intend to implement Microsoft Outlook behind the DX platform. Each of our campuses has Outlook Web access. We predict the Juniper Networks system will improve performance with this application, as well."



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