



## CUSTOMER SUCCESS STORY



# OPTIMIZING IT

## *Sunoco, OpenDemand and ITP*

*“To test the performance of our ERP system, we needed to generate large volumes of data transactions within a short window of time and we did not have the manpower or time to key all the information manually. With OpenLoad™’s automated testing capabilities we were able to configure our requirements and stress test our critical application shortly after installation. Key to Sunoco’s decision to select OpenLoad™ was its open standards architecture, flexibility and scalability that allowed us to seamlessly integrate it with our existing application for proper performance testing.”*

- Robert Giannotti (Manager, HR and Legal Applications, Sunoco)

### **Challenge**

Sunoco, Inc. was ready to go live with a new PeopleSoft application for human resources, payroll and benefits that would be deployed enterprise wide to over 7,000 employees. The main concern was ensuring the system could handle large user loads without over burdening their Web and mainframe environments. Sunoco had never before conducted load testing for PeopleSoft 8 applications and had a very short window in which to complete testing.

### **Solution**

The Sunoco HR and Legal Applications team enlisted help from Integrated Technology Partners (ITP) to lead the implementation of OpenDemand Systems, Inc. core product OpenLoad for pre-deployment load testing. OpenLoad is used for load, performance, and scalability testing and works by emulating hundreds or thousands of users and stressing the entire infrastructure from a single point of control without the need for complicated scripting or complex data analysis.

### **Business Value**

The OpenDemand OpenLoad solution enabled ITP and the HR and Legal Applications team to complete the necessary testing in a short amount of time and correct all system issues that could have prevented a smooth rollout.

*"If Sunoco had attempted to test the portal manually, it would have taken them hundreds of man hours and still not yielded the results they needed. They would have needed to gather hundreds of employees together for hours at a time to manually test the application concurrently and had to rely upon people's perception of the site's performance rather than the accurate metrics provided by OpenLoad."*

*- Richard Haller,  
ITP PeopleSoft  
Consultant*

## Highlights

- ITP helped Sunoco save thousands of man-hours testing and ensured the load testing project would be a success by recommending OpenDemand OpenLoad.
- Pre-deployment testing using OpenLoad enabled Sunoco and ITP to identify and address performance problems that would have interfered with a smooth PeopleSoft rollout.
- ITP began using OpenLoad to help the HR and Legal Applications team with troubleshooting and improving system performance shortly after installation.

## Benefits

- Load testing with OpenLoad enabled the HR and Legal Applications team to identify performance problems and reconfigure existing software and hardware components to handle user loads up to 10 times higher than before.
- Changes made to the Web- and application-server configurations enabled the PeopleSoft system to process thousands of transactions in a short time frame.
- Working with ITP, the HR and Legal Applications team gained valuable experience in load testing and tuning their PeopleSoft environment that will help them make informed decisions in the future.

## Summary

Sunoco, Inc., headquartered in Philadelphia, Pa., is a leading manufacturer and marketer of petroleum and petrochemical products. Sunoco operates four domestic refineries with approximately 730,000 barrels per day of crude oil processing capacity; markets gasoline under the Sunoco® brand through approximately 4,300 retail outlets primarily in 23 states from Maine to Florida, including the District of Columbia, and west to Indiana; has interests in over 11,000 miles of crude oil and refined product pipelines and 34 product terminals; has gross annual production capacity of petrochemicals exceeding 5 billion pounds, largely chemical intermediates used in the manufacture of fibers, plastics, film and resins; produces two million tons per year of metallurgical-grade coke; and employs approximately 14,000 men and women dedicated to bringing quality products and services to the marketplace.

In March of 2004, Sunoco replaced a legacy system with PeopleSoft and started using it for human resources services. The application they deployed is a self-service portal that enables employees to manage their own payroll, benefits, and HR related information. For example, an employee could log into the portal and update their direct deposit information, check pay stubs for the last four years, update their W2, request a W4, etc.; all without the need to contact someone in the HR department. Given the number of

employees Sunoco has, stream lining the HR process meant a huge cost savings.

### **Managing PeopleSoft Rollout Risk**

Pre-deployment testing was critical to ensure a smooth rollout, but Sunoco had never conducted it before. "At Sunoco, we needed to measure the performance of a new online component of our mission critical HR application, so we could proactively maintain and support optimum service levels, rather than react to performance degradations," explained Manager for HR and Legal Applications Robert Giannotti. "To test the performance of our ERP system, we needed to generate large volumes of data transactions within a short window of time and we did not have the manpower or time to key all the information manually."

Since the HR and Legal Applications team had no had experience load testing a multi-tiered Web-based J2EE application, members soon realized that implementing a legacy test tool was out of the question due to the high learning curve and difficult as well as time consuming process required to manually script complex business transactions.

### **OpenDemand OpenLoad Identifies Potential Bottlenecks**

Giannotti turned to OpenDemand for its script-free, browser-based load testing offering, OpenLoad®. After an extensive survey of the test tools market, Integrated Technology Partners (ITP) recommended that the HR and Legal Applications team work with OpenLoad because of its ability to quickly generate transactional data and accelerate the testing of Sunoco's PeopleSoft environment, including the server, network and DBMS components. "If Sunoco had attempted to test the portal manually, it would have taken them hundreds of man hours and still not yielded the results they needed," said ITP PeopleSoft Consultant Richard Haller. "They would have needed to gather hundreds of employees together for hours at a time to manually test the application concurrently and had to rely upon people's perception of the site's performance rather than the accurate metrics provided by OpenLoad."

With ITP leading the effort, Giannotti and the HR and Legal Applications team spent less than a day setting up the tests as OpenLoad enabled them to quickly build a suite of fully automated business transactions shortly after installation. ITP also ensured the appropriate load-testing PCs and duplicate production databases were set up and worked with HR and Legal Applications to write the SQL scripts to initialize test data. The plan encompassed load testing Sunoco's Web servers, application servers, database servers, and mainframes.

Based on the load-testing results, ITP and the HR and Legal Applications team made significant changes to the Web server and application server

configurations to eliminate potential bottlenecks and improve performance. Tuning based on an iterative load-testing process enabled them to reconfigure existing software and hardware to handle more than 10 times the number of concurrent users.

### **Maximizing Hardware and Software Performance**

Once ITP and the HR and Legal Applications team implemented the necessary changes, the system was able to process thousands of transactions within a short time frame. At the end of the engagement, the HR and Legal Applications team were able to support 400 concurrent users with reasonable response times for a sustained period, which they found quite impressive considering that prior to testing with OpenLoad, the process of logging into the portal took over a minute with just 40 concurrent users on the system.

In addition to cost and performance benefits, the HR and Legal Applications team gained security and peace of mind. The level of confidence the team gained that this high profile system would work was a large part of the return on investment for Giannotti along with learning some important lessons to apply to future projects. "OpenLoad provided Sunoco the ability to handle the complex testing needs of a major Web-based ERP application," Giannotti shared. "It has also saved us hours of manual testing time and associated expense and provided us with a potential solution to satisfy additional future Web-based application integration testing requirements."

### **About OpenDemand**

OpenDemand is the global leader in customer experience optimization (CEO). We are committed to helping customers optimize the business value of IT.

**[www.OpenDemand.com](http://www.OpenDemand.com)**

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