



Software Performance Systems, Inc.

## CAPABILITY

# Java/J2EE

## Overview

The Java 2 Enterprise Edition (J2EE) architecture and platform is an open-source vendor independent platform used to develop and deploy large-scale enterprise applications. J2EE has been widely adopted by the industry and is supported by all the leading software and hardware companies. Recent advances in the J2EE platform include improved Web services support and support for the Service Oriented Architecture (SOA). Since systems built using J2EE can be deployed on Windows, Linux, or Unix without changing the application, development investments are protected as platform technologies evolve.

## Making IT Work. Together.

SPS has successfully delivered several solutions that leverage J2EE and Java for mission-critical enterprise systems. These have ranged from building enterprise application integration strategies for migrating from legacy systems to designing and implementing J2EE based applications.

We employ industry best practices such as the Model View Controller architecture, J2EE design patterns, and the Unified Modeling Language to speed design work while reducing risk. SPS is an expert in all J2EE technologies, Java/XML interfaces for web services, and many platforms including WebLogic, WebSphere, Apache Web Server, Netscape, and

Tom Cat running on Windows, UNIX, and LINUX.

Our services include:

- Enterprise Application Integration
- Defining and Implementing Migration Strategies
- Defining J2EE Architectures, Infrastructure, and Frameworks
- Applying the Rational Unified Process and Component Based Development
- Designing and Implementing J2EE and Java-based N-Tier Applications

## Featured Solutions

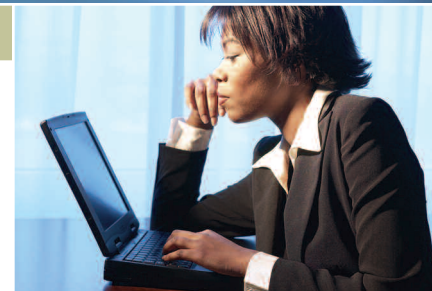
### Department of Justice (DOJ) - Joint Automated Booking System (JABS)

DOJ needed an easy to use system to book suspects. A legacy client/server system provided most functions, but software maintenance and control was becoming a big problem.

DOJ tasked SPS to build a 3-tier J2EE system to reduce software demands on user organizations, and broaden the potential JABS community. The result is JABS, a web-based N-Tier J2EE system that collects and validates offender demographics, photos, and fingerprint information. JABS receives fingerprint validation from a FBI fingerprinting system. The system employs a component-based architecture and is based on the MVC architecture and several J2EE design patterns.

### U.S. Patent and Trademark Office (USPTO) - Revenue and Accounting Management (RAM)

Patent office customers wanted to pay fees in a variety of ways over the Internet. The patent fee schedule is long and complex. Many



## CLIENT BENEFITS

- Platform Independent Architecture
- High Availability and Scalability
- Built-in Infrastructure Functions
- Non-proprietary Software and Open Specification
- Component Based Architecture
- Enterprise System Integration Interfaces

patent office systems included fee payment subsystems, each separately developed and maintained, to implement the frequently changing fees. Fee payments took days and weeks to process before deposit.

SPS developed RAM, a mission-critical, enterprise financial management system providing subsidiary ledger accounting for all revenue collection and deposit account operations for USPTO. RAM processes revenue averaging well over \$1 billion per year. The system employs a service-oriented architecture, model-view-controller design, and is implemented on a J2EE platform leveraging XML-RPC, Apache Extensible Interface for Simple Object Access Protocol (SOAP), and Java Messaging Service. Since RAM implements Web Services using J2EE and SOAP, over 20 disparate patent systems access RAM services. RAM enables same-day deposit of fee payments, realizing a very substantial increase in interest revenue.

#### **National Oceanic and Atmospheric Administration (NOAA) - NauticalCharts.gov**

NOAA was faced with a problem getting current nautical charts into the hands of mariners. Since charts were printed in large batches and stored in warehouses, chart data could be

well out of date by the time it was purchased. NOAA wanted to update, print, and deliver charts when they were actually ordered.

***“J2EE application servers are emerging as the key to developing and deploying scalable enterprise Java applications. Application servers provide the necessary infrastructure to execute, manage, and maintain business-critical applications, especially E-business applications. J2EE defines the programming model and provides the key underlying services, such as security, transaction management, and messaging.”***

—Alan Radding, *InformationWeek*:  
12/18/2000 2000.

SPS developers combined Java, XML, and e-commerce technologies to build a secure “print-on-demand” system, accessed via the NauticalCharts.gov web site. The new system surpassed one million charts ordered in early 2005. The NauticalCharts.gov system uses XML data islands to enable on-demand printing of charts overlaid with current waterway features such as cables, buoy location, channel changes, etc. Nauticalcharts.gov won two national-level government awards in 2001 - the Excellence.gov Grand Prize and the notable Pioneer 2001 Award - as well as the 2001 Grace Hopper Award.

#### **Summary**

J2EE technologies can improve return on software development investments

and facilitate connecting systems with different hardware and operating environments. SPS has successfully managed J2EE projects through all phases of the system life-cycle using industry best practices. Imagine what we can do working together! Let us put our expertise and experience to work for you.

## **ABOUT SPS**

Software Performance Systems, Inc. (SPS), a small business based in Northern Virginia, is a privately held information technology services provider. Established in 1995, SPS specializes in the design and integration of large web-based solutions for Federal, State, and Local Governments and commercial clients worldwide. SPS has been honored with many national awards, including: #10 ranking in the Computerworld Top 100 Best Places to Work in IT, Deloitte's Virginia Technology Fast 50 and North America Technology Fast 500, and as a SBA Exporter of the Year. More importantly, SPS solutions helped our clients win prestigious awards, including the Grace Hopper Federal Government Technology Leadership Award, the E-Gov Pioneer Award, the Excellence.gov Grand Prize Award, and the Government IT Agency Award for Excellence in Government. **SPS...proven over time.**