

Customer Case Study

## Sun Chemical

### Service-Oriented Architecture Supports Global Operation

**Solution:**

Service-Oriented Architecture

**Product:**

BEA WebLogic Server<sup>®</sup> 8.1,  
BEA WebLogic Integration<sup>®</sup> 8.1

**Industry:**

Manufacturing

**Business challenge**

Many of Sun Chemical's applications and systems were silos. Standalone processes and isolated data sources were commonplace. This fragmented IT state impacted the company's ability to innovate and drive business process improvements.

**Solution**

The company is implementing an integration architecture and a Service-Oriented Architecture (SOA) that enable its entire IT infrastructure to work as a cohesive unit. By tying together many of its disparate systems, Sun Chemical can offer more value through its employee and customer facing portals and expose components of its IT infrastructure as services for reuse in other applications.

**Results**

Using BEA, Sun Chemical is able to align IT with business needs, and is driving business process improvements by combining services from multiple applications to deliver new functionality to the business.

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**Customer brief**

Sun Chemical, the world's largest producer of printing inks and pigments, is a leading provider of materials to the packaging, publishing, coatings, plastics, and cosmetics markets. With annual sales approaching \$4 billion, Sun Chemical has over 12,000 employees supporting customers around the world. The Sun Chemical Group of companies includes Coates Lorilleux, Hartmann, Kohl & Madden, and US Ink.

**Business process challenge**

Over the past decade, Sun Chemical has acquired a number of businesses, giving the firm 300 locations on six continents. This series of acquisitions, combined with the gradual evolution of Sun Chemical's information technology (IT) environment, resulted in a collection of applications and systems that were essentially silos. Standalone processes and isolated

pockets of data had proliferated. Many systems were unable to communicate with each other, and the development of custom connections to bridge the gaps wasn't financially feasible in most instances.

The fragmented state of IT resources was impacting the company's ability to innovate and drive business process improvements. Sun Chemical faces significant competition, and customers expect their suppliers to add value, not simply take orders. Sun Chemical recognized that it needed to take its IT infrastructure to the next level in order to solidify its leadership position and maintain a competitive advantage.

The challenge put to the IT group was to implement a flexible, scalable infrastructure that would allow Sun Chemical's existing IT assets to function as a cohesive unit, and facilitate the rapid development and adoption of new systems in the future. The intention was to more closely align IT with the needs of the business by knocking down barriers to change and accelerating project development timelines.

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*James Houghton, Director of IT,  
Sun Chemical*

"Every business person knows there is always room to improve, regardless of how well an organization is operating," said James Houghton, director of IT at Sun Chemical. "We're no exception. From an IT perspective, we want to be an enabler of process improvement, not a roadblock. We want to bring value to the business by helping our company develop tighter relationships with customers, reduce overhead, and create competitive differentiation by doing things that others companies can't match."

### Solution

Sun Chemical made the strategic decision to implement an integration framework supported by an SOA to address its business challenge. The foundation for the integration framework and SOA is BEA WebLogic Server 8.1 and BEA WebLogic Integration 8.1.

"We looked at a number of ways to bring components of our IT environment together in order to boost its value. Implementing an SOA on the BEA platform made the most sense," said Houghton. "We liked the idea of relying on open standards. We knew it would help us steer clear of vendor lock-in. It would reduce the number of skill sets we'd have to hire. And perhaps most importantly, it would simplify integration dramatically. That's essential to improving time to market with new applications, and also to integrate existing applications that weren't intended to be linked when they were originally deployed."

He added, "When you put all those benefits together, you realize that SOA can help reduce risk and improve organizational agility. Those are benefits that everyone can appreciate."

The centerpiece of the SOA is BEA WebLogic Integration 8.1, which acts as the integration hub for Sun Chemical's many existing systems. BEA WebLogic Integration is replacing Microsoft Biztalk as the standard integration technology at Sun Chemical. Sun Chemical chose to BEA WebLogic Integration over Microsoft Biztalk to reduce the cost and time-to-market for integration projects.

Rather than building custom links between data source and application, business processes flow through BEA WebLogic Integration. This enables the effective orchestration of application interactions, and provides a reliable messaging layer that ensures the timely delivery of messages, optimizes infrastructure performance, and allows IT to monitor Service-Level Agreements (SLA).

Application development and creation of Web services takes place within the BEA WebLogic Workshop® environment. BEA WebLogic Workshop lets Sun Chemical define processes, and visually build and assemble Web services, enterprise applications, Java Server Pages (JSP), Enterprise JavaBeans (EJB), and portlets. BEA WebLogic Workshop features extensive automation that helps speed time to value from development projects and allows every developer at Sun Chemical to contribute regardless of their Java expertise.

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Sun Chemical*

“We considered a number of platforms for our SOA, including IBM WebSphere, before selecting BEA,” said Houghton. “Our decision hinged on several factors. We were very impressed with BEA’s strict adherence to current and emerging standards, which we believe will maximize our infrastructure lifecycle. BEA’s scalability and clustering are proven and outstanding. And we can get projects done fast. BEA’s platform components complement one another nicely, which helps us to achieve payback on projects faster than if we had to rely on multiple point products.”

Sun Chemical utilizes a portal as the front door to nearly all enterprise applications. A portion of the portal is exposed to customers as a secure extranet. BEA WebLogic Integration connects the company’s enterprise systems to the portal leveraging internally built adapters and Web services. Examples of systems that are accessible through the portal include a Customer Relationship Management (CRM) solution from Epiphany, a global company directory, six sigma project tracking system, and capital appropriations approval/management system. Content management for the portal is provided by Interwoven TeamSite.

BEA services consultants provided a number of services to help Sun Chemical get its SOA up and running rapidly. BEA was involved in architecture and application development, and delivered product training. BEA WebLogic Integration is running on HP ProLiant Servers. The Intel® Xeon™-based servers are running Microsoft Windows 2000. The database system is Microsoft SQL Server.

## Results

“We began implementing BEA WebLogic Integration in late 2004, and the benefits started to become apparent almost immediately,” said Houghton. “For instance, we had spent months integrating one of our finance applications with our ERP system (on the pre-SOA infrastructure). We then asked BEA’s consultants for assistance. They gave us a prototype solution built on BEA WebLogic Integration in three days. That’s just one example of the benefits we see.”

He added, "SOA simplifies our work, which helps us be more productive. One of the biggest benefits of SOA is the ability to reuse proven software components, which reduces project risk and shortens development cycles."

Among the latest applications to be designed and deployed on the SOA-enabled architecture are an electronic-invoicing system and an order-tracking solution. The invoicing system will help one of Sun Chemical's business units streamline its billing processes by eliminating the time and cost associated with manually processing invoice information. Order tracking will allow customers to check the status of orders from initial placement through delivery. It's a capability that few companies in the industry are able to offer.

"These two applications are examples of IT really adding value to the business," said Houghton. "We're able to build composite applications by combining functionality from multiple systems into a single solution. These are projects that would have been extremely complex and time-consuming before we moved to SOA and BEA. In fact, we probably wouldn't have been able to cost-justify them. But now, they're very doable."

He added, "Using BEA, we've been able to reduce development time for integration and workflow projects from weeks or months to days or weeks. The improvement in time-to-market for new applications is dramatic."

Houghton summarized the value of his BEA-powered SOA by saying, "This has been a big strategic win for us. We're aligning IT capabilities with the needs of the business much more effectively than in the past. In fact, IT can even open new opportunities for our lines of business by finding value that had been buried in silos and exposing it to employees and customers. We're now able to design and build technical solutions to address cross-system business needs more efficiently than in the past. And we believe that we can do so with less risk—from both a technology and financial perspective."

### About BEA

BEA Systems, Inc. (NASDAQ: BEAS) is a world leader in enterprise infrastructure software, providing standards-based platforms to accelerate the secure flow of information and services. BEA product lines—WebLogic®, Tuxedo®, JRockit®, and the new AquaLogic™ family of Service Infrastructure—help customers reduce IT complexity and successfully deploy Service-Oriented Architectures to improve business agility and efficiency. For more information please visit [bea.com](http://bea.com).

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