BEA SYSTEMS, INC.

Knowledge Management Portal Implemented on a Service-Oriented Architecture

HIGHLIGHTS

SOLUTION:
Employee Self Service

PRODUCT:
BEA WebLogic Platform™ 8.1

INDUSTRY:
Software

PARTNER:
Documentum

PROBLEM

Ensuring the worldwide sales force had ready access to all of its internal tools, customer information, and most current company and product information was becoming more and more difficult.

SOLUTION

BEA deployed a knowledge management portal—known as Knowledge Express—on a service-oriented architecture (SOA). It is built on BEA WebLogic Platform 8.1 and integrated with applications and data stores that are exposed to the portal as services.

RESULTS

Salespeople have reported saving up to four hours per week with KE's personalization and search features. On the implementation side, the design phase of KE lasted seven weeks, and it was actually built in nine weeks. BEA estimates that BEA WebLogic Workshop™, and the ability to reuse services leveraged by the SOA, cut development time by 50 percent.

OVERVIEW

In recent years, BEA has invested significantly in a service-oriented architecture (SOA) that includes applications for processing orders, managing software licenses, and providing customer support. Its customers were benefiting from BEA's automated Web applications, and BEA wanted to implement additional functionality on the SOA to support its salespeople in servicing existing customers and securing new customers.

BEA implemented a knowledge management portal—known as Knowledge Express—to provide the sales force with one-stop access to content and functionality. Previously, in order to find critical sales resources such as reference accounts, case studies, product collateral and technical specifications, salespeople had to spend valuable time hunting through BEA's vast intranet with minimal searching capabilities. There was no way to customize the intranet experience to streamline the search process. And even if an individual was able to find a seemingly relevant document or report, there was no way to verify that the content was current. These issues were amplified for new sales reps.

After talking to the sales force and identifying its needs, the company deployed Knowledge Express (KE), a Web-based knowledge management portal, on the existing SOA. The infrastructure for KE is BEA WebLogic Platform 8.1.

KE provides a unified desktop for the sales force. Salespeople have access to consolidated customer

information, including customer support cases, so that a rep can review any outstanding support issues prior to meeting with the customer.

The portal's search capability is particularly compelling. Content is managed by Documentum WebPublisher. This enables BEA to describe each document with metadata. This, in turn, saves reps valuable time by enabling more refined searches that can be narrowed by relevancy. Reps can search for previous sales proposals, customer case studies, marketing and technical literature, and an abundance of other data in BEA's knowledge base. Reps can save common searches for one-click access.

KE also includes a download cart that is similar to an e-commerce shopping cart. Salespeople can place documents in the download cart and save them to a disk, forward them to colleagues, or organize the documents for easy reference in the future.

KE is linked to the company-wide SOA via an Integration Hub built on BEA WebLogic Integration™. KE leverages existing assets as services, including Clarify, Siebel, eLicense, PeopleSoft, and Factiva, as well as User authentication and profiles.

Salespeople have reported saving up to four hours per week due to the personalization and search features in KE. That translates into 25 days per year that reps can spend selling rather than chasing down information. The improved flow of information to the sales force can only increase BEA's professionalism in the eyes of customers.

BUSINESS PROCESS CHALLENGES

Managing a sales force spread across five continents is challenging. Ensuring that each salesperson has the marketing resources, product literature, customer references, and technical support needed to sell effectively requires a tremendous amount of organizational planning and preparation.

In order to find critical sales resources such as support history, reference activity, case studies, product collateral, and technical specifications, salespeople had to spend valuable time searching through BEA's vast intranet—a disparate collection of Web sites, applications spreadsheets, and other information silos. In short, there was no single place that a salesperson could go to get the information they needed to effectively support their customers.

"I would describe the resources available to sales reps as vast but unwieldy," said Carey Garibay, senior director of business operations. "Information and materials were buried in many applications. There was no way to narrow searches by relevancy. Document version control was weak. In short, we had some of the most capable salespeople in the world, but we weren't doing everything possible to help them succeed. We knew that change was needed."

In recent years, BEA has invested significantly in an SOA that serves as the foundation for Web-based systems that process orders, manage software licenses, and provide customer support. While SOA can realize dramatic cost savings associated with data integration, it is in building next generation composite applications where much of the SOA vision is realized. A composite application simply put is an application that is assembled rather than built from the ground up, leveraging existing services and assembling those services into an application designed for a particular audience or business process. Knowledge Express is a composite portal application, designed to drive efficiency in the sales process leveraging BEA's existing SOA infrastructure.

SOLUTION

The first step was to talk with the sales force. The project team, which included personnel from across marketing and sales operations, had to find out what content and functionality the salespeople needed, and how best to deliver it. The goal was to develop an online resource, available 24/7, that would meet the business requirements of the sales force.

After identifying those needs, the project team brought in developers from BEA's information technology (IT) staff to design and build an appropriate solution. The result was an integrated portal application, named

Knowledge Express (KE) and implemented on BEA's existing SOA. The infrastructure software for KE is BEA WebLogic Platform 8.1.

"When people hear about KE, they often think we selected BEA WebLogic Platform because it's our own product," said Rhonda Hocker, BEA's chief information officer. "While we're obviously partial to our own product, there was no corporate mandate to build on it. Sales activity is the lifeblood of every company. Our one and only goal was to build the best possible support system for our reps."

KE provides the first steps towards a unified desktop for the sales force, designed from the ground up. Salespeople receive alerts and messages from the BEA executive team to ensure that they are always aware of current events, competitive information and news, product promotions and partner information. They have access to all open support cases for a given customer so that a rep can review any outstanding issues before approaching the customer regarding a new sales opportunity. They can reach an exhaustive information library known as the "knowledgebase" to assist them in finding the tools and information that they need to drive efficiency in the sales process. KE also provides a series of productivity features including the ability to download information assets analogous to an e-commerce shopping cart. Salespeople can place documents in the download cart and then save them to a disk, forward them to colleagues, or organize the documents for easy reference in the future. In summary, Knowledge Express is a process portal that is designed to drive sales force efficiency.

The portal's search capability is particularly compelling. Content is managed by Documentum WebPublisher. This enables BEA to attach metadata to every document, making the information in Knowledge Express self-describing. This, in turn, saves reps valuable time by enabling more refined searches that can be narrowed by product, solution and industry relevancy. Reps can search for previous sales proposals, customer case studies, presentations, marketing and technical literature, and an abundance of other data in BEA's knowledge base con-

textually based on their current needs in supporting their customers. Reps can save and share common searches for one-click access to the information they need, saving time and increasing productivity.

KE also provides a unique feature known as Workspaces. Workspaces are akin to templates that allow for a single view of information related to products, solutions, industries and most importantly of their customers. For example, an account executive who is responsible for managing a specific customer can create an account workspace that provides specific news feeds, stock quotes, customer support records, case studies and project level information that are relevant to that customer.

KE's presentation layer is built on BEA WebLogic Portal™. It is linked to the company-wide SOA via an Integration Hub built on BEA WebLogic Integration. The hub takes data and functionality that reside elsewhere in the enterprise, including Clarify, Siebel, eLicense, PeopleSoft, and Factiva, and passes these to KE as services.

"We make significant IT investments across the organization everyday," said Hocker. "The beauty of an SOA is that we can leverage those assets whenever appropriate. If something works, if it's reliable and useful, we just reuse it again and again. There is no infrastructure redundancy. This allowed us to build a robust sales portal—in only a couple of months—for a tiny fraction of the price that we would have paid had we started from scratch."

Garibay added, "The SOA that we have in place enables us to implement change based on the needs of the business. That sounds trite, but it's surprisingly uncommon. Many companies are hamstrung by the limitations of their IT infrastructures. We're fortunate. Our SOA makes us very agile. It absolutely gives us a competitive edge."

The KE application runs on a cluster of two 4 CPU Intel Xeon processors. The operating system is Red Hat Advanced Server Linux. BEA is running BEA WebLogic JRockit™ Java Virtual Machine (JVM) on the server to optimize the performance and availability of

KE. The database for KE is Oracle 8, which is running on a Unix server from Sun Microsystems.

RESULTS

Knowledge Express was designed to take advantage of BEA's latest technology and is BEA's first application where the entire end-to-end environment—including development, QA, performance testing, staging and production—is all running on Linux. All code was developed with BEA WebLogic Workshop.

The presentation layer leverages many WebLogic Portal features, including netui Java Server Page (JSP) tags to render content quickly and efficiently, and page flows to simplify navigation. KE uses BEA's unique XMLBean technology to read XML content, and the development team made use of Workshop's Enterprise JavaBean (EJB) generation capabilities to simplify and accelerate the development of business logic.

The design phase of the KE project lasted seven weeks. The portal was actually built in nine weeks. BEA estimates that WebLogic Workshop, and the use of existing services that were leveraged via the SOA, cut development time by 50 percent. KE went live in Spring 2004. The company-wide roll-out required minimal user training.

"If you can use a browser, you can use Knowledge Express," said Hocker. "To maximize user adoption, we wanted this to be a no-brainer. And because our reps are away from their desks so often, we made KE accessible remotely. In fact, reps have actually pulled up information from their laptops while sitting in customer meetings to help close deals."

On the content side, KE automatically alerts content owners every 90 days to review their documents for accuracy and relevancy. This ensures that salespeople will always have available the latest and greatest sales tools and information.

"Anyone who has ever sold technology products knows how difficult it can be to keep up with changes coming from marketing and product development," said Michael Monaco, director of product marketing at BEA. "Change is constant. Frankly, salespeople don't have time to stay on top of it all. They have to concentrate on selling. KE lets them do that. They can maintain laser-like focus on selling and still be confident that they're armed with the latest product information."

Among the many quantifiable metrics that BEA is using to evaluate the business payoff from KE is time savings. Salespeople have reported that they are saving up to four hours per week due to the personalization and search features in KE. That translates into 25 days per year that reps can spend selling rather than chasing down information. The improved flow of information to the sales force can only increase BEA's professionalism in the eyes of customers.

ABOUT BEA

BEA Systems, Inc. (Nasdaq: BEAS) is the world's leading application infrastructure software company, providing the enterprise software foundation that allows thousands of companies to benefit from service-oriented architectures. With more than 15,000 customers around the world, including the majority of the Fortune Global 500, BEA and its WebLogic® and Tuxedo® brands are among the most trusted names in business. Headquartered in San Jose, Calif., BEA has 71 offices in 34 countries and is on the Web at www.bea.com.

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