

PHARMAPARTNERS

Unified Patient Record System

HIGHLIGHTS

SOLUTION:

Fast, Effective Healthcare

PRODUCT:

BEA WebLogic Server™ 8.1

INDUSTRY:

IT and HealthCare

COUNTRY:

The Netherlands

BUSINESS CHALLENGE

As the centralized UNIX systems became more complex and users demanded greater functionality, product development lead time grew. The environment also used character-based “green” screens, unpopular with users.

SOLUTION

Standards-based application infrastructure for the Dutch healthcare sector, based on BEA WebLogic Server 8.1 and J2EE residing in an IBM environment. Solution provides seamless, continuous communications between healthcare providers, resulting in continuity of care.

RESULTS

Enabled healthcare professionals to respond accurately and immediately to patient enquiries, using a real-time, comprehensive view of medical records. Fifty percent performance improvement by switching from Jboss to BEA WebLogic Server. Moreover, customers can manage multiple medical dossiers simultaneously.

CUSTOMER BRIEF

PharmaPartners is the Netherlands leading provider of integrated IT solutions for the primary healthcare market. During the last 25 years, the company's innovative IT solutions have helped healthcare providers and health centres to communicate and collaborate more easily. Today, more than 750 pharmacies, up to 1,600 general practitioners (GPs) and 50 health centres across the Netherlands rely on PharmaPartners solutions to support the healthcare needs of six million Dutch citizens.

BUSINESS PROCESS CHALLENGE

Every day, the Netherlands healthcare sector relies on PharmaPartners technology. General practitioners, hospital administrators, pharmacies, and other healthcare providers use the company's technology solutions to seamlessly share patient and service delivery information. Patient profiles, medical records, prescription history, regular diagnoses, and other information are instantly available to this extended user community. The result is seamless collaboration, enhanced service, and satisfied patients.

PharmaPartners undisputed market leadership in this sector is the result of product supremacy. The rich functionality embedded within the company's 'Medicom' general practitioner solution and 'Pharmacom' pharmacy solution is beyond the scope of rival solutions. Changes in Dutch healthcare legislation together with greater patient mobility have also resulted

in growing demand for collaboration among healthcare providers. With all this in mind, PharmaPartners is uniquely positioned to capitalize on the market opportunities.

But you don't stay ahead by standing still. Until now, PharmaPartners applications have been written in COBOL and resided in a centralized UNIX environment. Moreover, as the systems become more and more complex and users demanded greater functionality, time to market was becoming longer and longer. This inefficient approach to service was compounded by the continued use of outmoded character-based 'green' screens, which were becoming increasingly unpopular with users, and new customers, more accustomed to GUI environments.

"The healthcare industry is under relentless pressure to deliver joined up, citizen-centric service in the most efficient manner," says Egbert van Gelder, Product Manager/Research, PharmaPartners. "Evolving Dutch legislation and changes in the structure of the social security system mean that consumers have more choice and power than ever before. To sustain its market leadership, PharmaPartners needs to offer the best possible service to its healthcare clients. We want to be as flexible as possible, adapting continuously to the changing market."

PharmaPartners recognized that the gateway to efficient and effective healthcare is fast, uninterrupted access to a comprehensive view of patient information. It was apparent that the increasingly outmoded and expensive centralized service delivery model needed to be complemented by a next-generation healthcare

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system, based on an open, standards-based thin-client architecture residing alongside the traditional system.

The choice of application server was a crucial element of this adaptable, open strategy. PharmaPartners evaluated several alternative integration solutions, including BEA, Borland, and JBoss. Following an extensive and detailed review, which included a detailed proof of concept, van Gelder and his team reached a unanimous decision: BEA WebLogic Server was the best choice.

"We concluded that BEA WebLogic Server provides PharmaPartners with a unified solution for integrating, deploying, and managing our healthcare applications as end-to-end business processes," explains van Gelder. "The platform would enable the company to focus on business goals, instead of infrastructure integration, thereby shrinking project cycles and reducing complexity. The other decisive factor in favour of BEA was the company's experience, global reach, and professionalism. We wanted to partner with a company that would work alongside us, not just today, but over the next few years adapting and developing the infrastructure to best suit the needs of our healthcare customers."

SOLUTION

Together, PharmaPartners and BEA are implementing a showcase, standards-based application infrastructure for the Dutch healthcare sector. The concept, called 'The eHealth Information Concept', is based on BEA WebLogic Server 8.1 and J2EE residing in an IBM hardware environment. It provides the framework for seamless, continuous communications between healthcare providers.

Now, when a patient speaks to their local general practitioner, requires treatment at a hospital, or needs to purchase medication from their pharmacist, the healthcare provider has an instant, up-to-the-second knowledge of the patient's complete medical profile. They understand who the patient is, what medication they have been prescribed previously, and the history of their medical compliant.

The system also provides unique 'medication surveillance'. When prescribing medication to a patient, the system automatically checks the validity of the prescription: Has the patient used up all of their existing medication? Is it suitable for the patient? Will it work in conjunction with other medication that has been prescribed?

Drawing on the vision, insight, and experience of BEA, PharmaPartners is adopting a phased approach to the roll out of the new infrastructure. Over the next three years, the system will be deployed to all 750 pharmacies, 1,600 general practitioners, and 50 health centers across the Netherlands who currently rely on PharmaPartners solutions.

Importantly, the existing COBOL-based system will continue to operate alongside the new eHealth Information Concept system during that time so that users can become fully acquainted with eHealth Information Concept. With this in mind, BEA and PharmaPartners are using the same data structure for both the old and the new environment.

"The legacy environment incorporates millions of lines of COBOL code and is too important to lose," says van Gelder. "The BEA unified application infrastructure enables us to easily integrate and work with these existing technologies to preserve their current value, while rolling out the new J2EE environment. During the course of the next three years, the last lines of Cobol code will also be transformed to the Java environment. Because it is based on open standards, the BEA solution ensures interoperability, flexibility, and choice, enabling incremental adoption of all or parts of BEA WebLogic Server, integration with point solutions and existing infrastructure standards."

The initial rollout has concentrated on the Medicom application for general practitioners, as there was a strong demand for the latest GUI-based functionality. Deployment among the nationwide pharmacist community begins in 2005.

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Egbert van Gelder, Product Manager/Research, PharmaPartners

RESULTS

Even at the comparatively early stage in the deployment, PharmaPartners is experiencing significant value from integrated end-to-end business processes. There has been a 50 percent performance improvement by switching from Jboss to BEA WebLogic Server 8.1. Moreover, customers can manage multiple medical dossiers simultaneously. During the pilot phase, PharmaPartners conducted several tests of important tasks in the product, such as scheduling appointments or opening patient records. Using BEA WebLogic Server 8.1, the time it takes to complete these tasks was reduced significantly, from 4 to 1.5 seconds and from 10 to 5 seconds respectively. "This quantum leap in productivity means that our healthcare customers, and the patients, receive faster, more accurate service," van Gelder says.

Van Gelder is also impressed by the flexibility of the system. "We can now adapt our database management systems whichever way we choose, without slow, expensive changes to the underlying software," he says. "One part of the system records all the updates and changes users would like to see incorporated into future releases of the eHealth Information Concept. Because BEA WebLogic Server masks the complexity of the underlying infrastructure, we have a common development model that simplifies and integrates all aspects of building, extending, and integrating applications. This accelerates the release of upgrades and enhancements, and reduces development costs."



But it is the patients who benefit most. Healthcare providers now have a real-time, complete view of each patient's situation, which means that patients no longer need to repeat their enquiry every time they contact their general practitioner, hospital, or pharmacy. It reduces the opportunity for treatment errors occurring. And it helps make certain that all patients receive a fast, rewarding response to their condition.

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Healthcare provision is taking a quantum leap forward with this flexible application infrastructure. It's a 'win-win' situation for everyone. PharmaPartners is benefiting from a more streamlined and cost-effective application infrastructure; healthcare providers are benefiting from an easy-to-use, intelligent and high performance patient care system. And the patients themselves receive a more effective and satisfying service.

ABOUT BEA

BEA Systems, Inc. (Nasdaq: BEAS) provides 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, California, BEA has 71 offices in 34 countries and is on the Web at www.bea.com.

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