Nuxeo Reinvents Content Management with JBoss Enterprise Middleware

FAST FACTS

Industry: Technology

Geography: Europe

Challenge: To meet demanding new customer and integration partner requirements, Nuxeo decided to re-architect its flagship enterprise content management (ECM) solution. This involved migrating from the Python programming language to Java. Nuxeo needed to do this fast to minimize impact on its sales cycle, but more importantly, to be ready for a major forthcoming revision to Java: Java Platform, Enterprise Edition 5.0 (Java EE 5).

Solution:
•   **Software:** JBoss Application Server, JBoss Cache, JBoss jBPM, JBoss Rules, JBoss Seam.
•   **Services:** JBoss Training, JBoss Certification

Benefits:
- Because JBoss played a leading role in the Java Community Process (JCP) responsible for the Java EE 5 overhaul, Nuxeo was ensured a partner that was always current with the latest Java EE 5 developments and specifications.
- By going with a Java leader and its J2EE 1.4 certified platform, Nuxeo did not need to worry about staying on top of Java developments. Instead, Nuxeo could focus fully on developing and differentiating its core business: enterprise content management.
- With JBoss expert training, combined with the simple set up for JBoss Enterprise Middleware, Nuxeo was able to quickly jump start the migration project, improving overall productivity.
- As an open source company, JBoss had an open and transparent development process that allowed Nuxeo to contribute to the evolution of JBoss Enterprise Middleware. Simply put, Nuxeo had a voice in adding new features and improvements.

ABOUT NUXEO

Founded in 2000, Nuxeo is a leader in open source enterprise content management (ECM) solutions, which include Nuxeo Enterprise Platform (previously called Nuxeo CPS), a document and process management solution, and Nuxeo RCP, a rich client platform for building applications that can run natively on any operating system. The company supplies large corporate clients, both in France and worldwide, with global solutions to help them manage the production, publication, and storage of their documents. A team of experts provides a complete range of professional services such as consulting, development, integration, training, certification, and support. Nuxeo has headquarters in Paris, an office in Grenoble, and subsidiaries in the United Kingdom, Romania, and Senegal. Nuxeo also works with a network of integration partners such as Capgemini, Euriware, LogicaCMG/Unilog, and Sword.

OPPORTUNITY

For over six years, Nuxeo successfully marketed and sold Nuxeo CPS (Collaborative Portal Server), an open source enterprise content management (ECM) solution, to large corporations and public sector firms. Nuxeo CPS is built on the Zope web application server, which is written in Python, a popular dynamic programming language.

While the decision to build its ECM solution on Zope and Python had enabled Nuxeo to quickly get to market, by 2006 it became clear that the system had matured to a point where it needed an enterprise foundation.

"We needed to provide our integrator partners and clients with proven and supported Java technologies in order to make our applications better integrated with their IT infrastructures and to optimize their internal competences," said Eric Barroca, executive vice president of operations, Nuxeo. Specifically, as Nuxeo CPS became increasingly critical to customers and integration partners, the more demanding their requirements. This included the proliferation of data sources and volume, e-mail, regulatory compliance, online/offline work, Web 2.0 technologies, and mobility, among others.

Nuxeo made the decision in February to re-architect its flagship product by migrating to Java, the de facto enterprise programming language for developing and running distributed multi-tier architecture applications. Barroca explained: "With its flexibility, robustness, standards, speed of development, and large, dynamic ecosystem, Java was a perfect fit for the requirements of the next-generation Nuxeo ECM solution, Nuxeo 5. The timing was critical, as Java was undergoing a major revision."

Java Enterprise Edition 5.0 (Java EE 5) was expected to be finalized in 2007 and Nuxeo wanted to be able to take advantage of highly anticipated new features such as Enterprise JavaBeans 3.0 (EJB3), Java Persistence API (JPA), and JavaServer Faces (JSF). The Java EE 5 migration project was launched, with the goal of delivering the Nuxeo 5 platform in 4Q 2006.

Now, it came down to choosing a Java application platform.

SOLUTION

With the final release of Java EE 5 not expected for another year, Nuxeo wanted an application deployment platform that was compliant with the existing J2EE (Java 2 Platform, Enterprise Edition), but cutting edge enough to have early implementations of EJB3, JSF, and other forthcoming Java EE 5 features that they could start trying out. The key criterion for Nuxeo, however, was that the Java application platform be open source, which was essential to keeping Nuxeo 5 open source as well.

There was one clear name when it comes to open source Java: JBoss.

"The JBoss Application Server was an obvious choice because it is at the core of an open source software package, of which we had already tested several modules that were indispensable for our project," noted Barroca. Nuxeo had already begun using JBoss Enterprise Middleware products such as JBoss Cache, JBoss jBPM, JBoss Rules, and JBoss Seam in the development of its new ECM platform.

Barroca continued, "We were already testing several JBoss Enterprise Middleware components, so what could be more natural than to use JBoss Application Server, which provides excellent performance and is the market leader. Moreover, at the time we made our decision, JBoss was the only supplier with a credible offering that incorporates all Java EE 5 features."

Nuxeo 5 uses JBoss Cache to provide the ECM platform's distributed temporary storage for frequently accessed data; JBoss jBPM to provide business process management and workflow; JBoss Rules to enable the creation of business rules; and JBoss Seam, an innovative component programming framework, to provide a dynamic and extensible web layer that unifies Java EE 5 features like EJB3 and JSF, as well as Web 2.0 technologies like Asynchronous JavaScript and XML (Ajax). Running the business logic behind Nuxeo 5 is JBoss Application Server. The microkernel that underpins JBoss Application Server also provides Nuxeo with the flexibility to create Nuxeo Runtime, the core infrastructure of Nuxeo's platform for creating OSGi-based extensible components.

Barroca stated, "Apart from the excellence of JBoss products, we were also attracted by the maturity and quality of JBoss expert support. In fact, to develop close and reciprocal collaboration with JBoss, we became a certified JBoss technology partner."

After a year of successful work, Nuxeo achieved the migration of its entire technological foundation to Enterprise Java running on JBoss Enterprise Middleware with the release of Nuxeo EP 5.0 GA in February 2007.

BENEFITS

With its choice of JBoss, Nuxeo was also choosing a leading Java vendor. As an Executive Committee member in the Java Community Process (JCP), elected by members of the JCP, JBoss helps guide the evolution of Java technologies, including votes on specifications and new requests. As a result, JBoss was cognizant of the latest Java developments, ensuring that its JBoss Enterprise Middleware remained at the forefront. For Nuxeo, this meant they did not have to concern themselves with the latest Java issues or become Java experts. Instead, Nuxeo could concentrate on delivering and differentiating its core business: enterprise content management.

By turning its focus and resources to its core business, Nuxeo improved its ability to innovate and deliver higher value to customers through new features such as simplified integration with their information systems, high availability of critical applications, and the capacity to handle peak requirements and manage high volumes of data. The continuity of its Nuxeo 5 platform offering was now fully ensured through a new single platform that can manage all content used and produced by companies.

Nuxeo has also saw dramatic productivity gains thanks to constructive expert training from JBoss and the quick and simple set up for JBoss Enterprise Middleware. In addition, Nuxeo was able to resolve technical issues rapidly through close collaboration with JBoss' accessible technical experts. Barroca explained, "Reducing initial training time and providing standard recognized technology like Java EE 5 for which it is easy to find skilled workers gives both our developers and customers highly competitive and measurable assets."

Lastly, as a provider of open source solutions, Nuxeo appreciated JBoss' open, collaborative development process, which welcomed participation and contribution from customers, partners, and individuals. This is the antithesis to commercial software where development is done behind closed doors and software arrives in a black box. Through its user experience with JBoss Enterprise Middleware, Nuxeo is able to contribute to the direction of JBoss development. Ultimately, it's about having a voice and being heard.