



## FOR IMMEDIATE RELEASE

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## JBoss Releases JBoss Seam 1.0

*Red Hat middleware division provides first Web 2.0 application framework to unify and integrate popular SOA technologies*

**JBoss WORLD, Las Vegas, June 13, 2006**— JBoss, a division of Red Hat (NASDAQ: RHAT), today announced the general availability of JBoss Seam 1.0, a powerful, new application framework for Web 2.0 applications that unifies and integrates popular service-oriented architecture (SOA) technologies such as Asynchronous JavaScript and XML (AJAX), JavaServer Faces (JSF), Enterprise JavaBeans (EJB) 3.0, Java portlets, business process management (BPM) and workflow. Since its initial developer release, JBoss Seam has seen strong community interest and has played a driving role for a new standards initiative for Web Beans through the Java Community Process (JCP).

Designed to eliminate complexity at the architecture and application programming interface (API) level, JBoss Seam enables developers to assemble complex web applications with simple annotated POJOs (plain old Java objects), componentized UI widgets and simple XML. To accomplish this, JBoss Seam extends the annotation-driven and configuration-by-exception programming model of EJB 3.0 into the entire web application stack. It bridges the artificial gap between EJB 3.0 and JSF in the Java Platform, Enterprise Edition 5.0 (Java EE 5.0) architecture. The result is a unifying, tightly integrated application model that enables stateless, stateful, transactional and process-driven applications such as workflow and page flow. The simplicity of Seam 1.0 will enable easy integration with other JBoss SOA technologies and Java Business Integration (JBI) in the future.

Gavin King, founder and project lead of JBoss Seam and founder of Hibernate, commented: “Enabling the next generation of web development requires a major reconsideration of the underlying web application architecture. Until EJB 3.0, that had not been possible. As the first unifying and integrated framework for SOA technologies, JBoss Seam offers developers a rapid development environment and programming model that extends from the simple to the most complex web applications.”

Key features of JBoss Seam 1.0 include:

- **EJB-based development.** EJB 3.0 has changed the notion of EJBs as coarse-grained, heavy-weight objects to EJBs as lightweight POJOs with fine-grained annotations. In JBoss Seam, everything is an EJB. JBoss Seam embraces the Web 2.0 concept that the web is the platform, and as such, JBoss Seam eliminates the distinction between presentation tier components and business logic components. Even session beans, for example, can be used as JSF action listeners.

- **AJAX-based remoting layer.** JBoss Seam Remoting allows EJB 3.0 session beans to be called directly from the web browser client via AJAX. The session beans appear as simple JavaScript objects to the JavaScript developer, hiding the complexity of XML-based serialization and the XMLHttpRequest API. Web clients may even subscribe to JMS topics and receive messages published to the topic as asynchronous notifications.
- **Declarative state management for application state.** Currently, Java EE applications implement state management manually, an approach that results in bugs and memory leaks when applications fail to clean up session attributes. JBoss Seam eliminates almost entirely this class of bugs. Declarative state management is possible because of the rich context model defined by JBoss Seam.
- **Support for new types of stateful applications.** Before JBoss Seam, HTTP session was the only way to manage web application states. JBoss Seam provides multiple stateful contexts of different granularity from the conversation scope to the business process scope, liberating developers from the limitation of HTTP sessions. For example, developers can write web applications with multiple workspaces that behave like a multi-window rich client.
- **Support for process-driven applications.** JBoss Seam integrates transparent business process management via JBoss jBPM, making it easier than ever to implement complex workflow and page flow applications. Future versions of JBoss Seam will allow for the definition of presentation-tier conversation flows by the same means.
- **Portal integration.** JBoss Seam supports JSR-168 compliant portals such as JBoss Portal.

#### Availability

JBoss Seam 1.0 is free to download and use under the GNU Lesser General Public License (LGPL). JBoss Seam 1.0 works with any application server that supports EJB 3.0, including JBoss. For download and additional information, visit [www.jboss.com/products/seam](http://www.jboss.com/products/seam).

#### About Red Hat, Inc.

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