

CONNECTING RED HAT JBOSS MIDDLEWARE TO THE SAP LANDSCAPE

TECHNOLOGY BRIEF

Red Hat and SAP: Doing business collaboratively for more than **10 years.**

Red Hat Enterprise Linux is the leading Linux platform for SAP deployments worldwide

SAP AND RED HAT: PERFECT PARTNERS

For more than 10 years, Red Hat and SAP have collaborated to bring world-class open source and enterprise business solutions to market. The companies work closely together to optimize performance and streamline deployment of SAP Business Suite applications on Red Hat® software.

Red Hat and SAP are both involved in open source initiatives, promoting and working with strategic projects and technologies. Red Hat has built its business on the premise that open source promotes rapid innovation, interoperability, and standards compliance. Red Hat is also actively engaged in the SAP development community, optimizing its software solutions for adoption in the SAP landscape and enhancing SAP integration and development tools.

RED HAT SOLUTIONS FOR SAP

Red Hat's open source operating system, virtualization, and Java middleware platforms give companies a solid platform on which to run the SAP infrastructure and develop strategic business applications. Today, Red Hat Enterprise Linux® is preferred for SAP deployments and gives organizations flexibility in deploying the SAP stack – whether it's on bare metal, virtualized, or in the cloud.

Red Hat Enterprise Virtualization is a fully open source virtualization platform that is certified for SAP Business Applications and SAP NetWeaver. Along with benefits such as increased utilization, application mobility, and improved availability, it provides world-class virtualization capabilities with an almost unlimited number of guests and near-native scalability.

Red Hat JBoss Middleware gives your business a choice of scalable and high-performance application development frameworks, providing the platforms you need to build effective enterprise Java applications and services. JBoss features a comprehensive suite of development tooling to construct custom Java applications, including those that extract data from SAP NetWeaver.

Across the entire Red Hat solution stack, your business receives consistent benefits – performance, flexibility, stability, and great value – because the foundation of all Red Hat technologies is open source.

THE COLLABORATION CONTINUES

The long-standing collaboration between Red Hat and SAP is thriving. Engineers from both companies work together to develop new tools that further the integration of SAP Business Suite with enterprise Java applications running on Red Hat JBoss Middleware. The aim of such integration, of course, is a more intelligent, integrated enterprise – one that can maximize the value of your data assets and accelerate business decisions.

Address different JBoss and SAP interoperability requirements with:

- Lightweight Java application integration.
- SOAP web services integration.
- API-based deep application integration.

Red Hat and SAP also collaborate to solve a common dilemma faced by many enterprise Java architects, particularly those using Red Hat JBoss Middleware. When developing new Java business applications, these designers often need to tap into existing SAP data and business processes. For this reason, Red Hat is engaged in a strategic effort to enhance JBoss and SAP interoperability. The intent is to make it easier to consume SAP application data and business processes from several Red Hat solutions, including:

- Red Hat JBoss Fuse Service Works (formerly known as Red Hat JBoss Enterprise SOA Platform)
- Red Hat JBoss Fuse
- Red Hat JBoss Data Virtualization (formerly known as Red Hat JBoss Enterprise Data Services)
- Red Hat JBoss Enterprise Application Platform (EAP).

This effort will make Red Hat products the only open source solution with an open architecture that is able to abstract SAP information in this way.

Solving interoperability problems is a complex task, and generally no single solution meets the need of every development project. For this reason, Red Hat plans multiple interoperability options to address different JBoss and SAP integration requirements, including:

- Lightweight and data-centric Java applications that need to consume SAP data using JBoss Data Virtualization
- SOAP web services integration to support SOA solutions using JBoss Fuse and JBoss Fuse Service Works
- Deep application integration that requires an API-based approach using JBoss Fuse and JBoss Fuse Service Works

The initial phase addresses an emerging set of applications that target SAP data consumption via SAP Netweaver Gateway. SAP Netweaver Gateway integrates with SAP back-end systems through certified connectors that rely on open standards including:

- REST
- OData
- ATOM

These open standards allow mobile and social media consumers to easily make use of SAP data. Red Hat is working with SAP to allow Java developers to use the tools they already know – Red Hat JBoss Developer Studio and the Eclipse IDE – to discover what

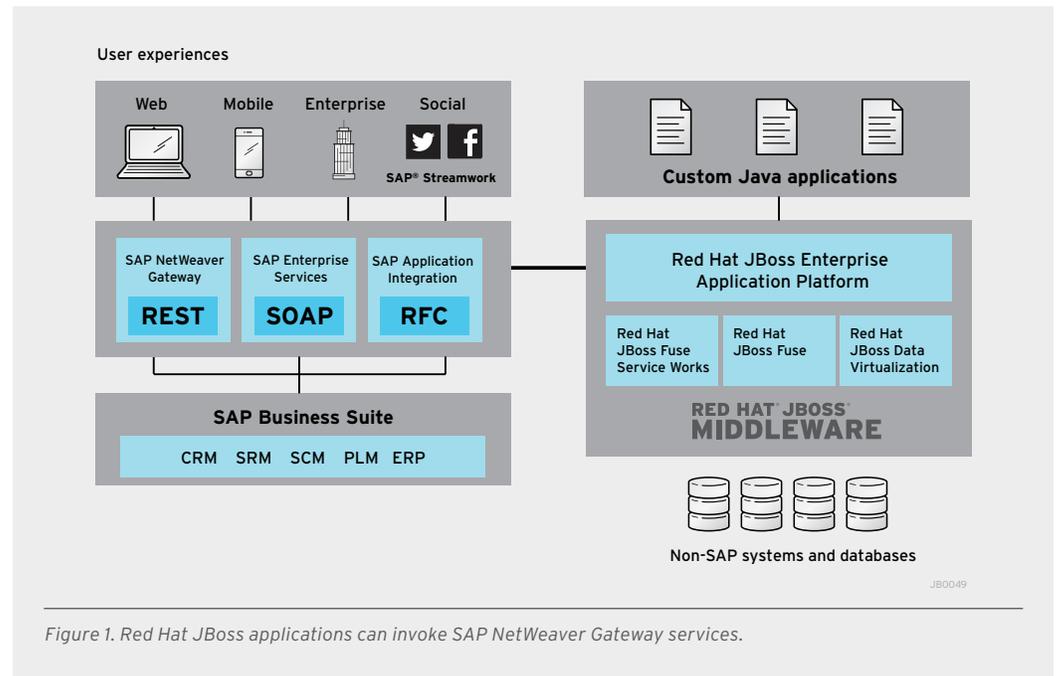
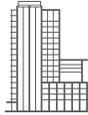


Figure 1. Red Hat JBoss applications can invoke SAP NetWeaver Gateway services.

SAP services exist. Red Hat is developing tools to generate Java proxies and the metadata needed to construct and deploy integrated applications quickly. At runtime, a JBoss application can simply invoke SAP NetWeaver Gateway services to access the required content, as depicted in Figure 1.

JBoss applications can also expose SAP Enterprise Services via SOAP connections. In this way, Java architects can connect JBoss-based web services to the SAP infrastructure, integrating SAP data and business processes with other parts of the enterprise. Through new tooling, developers will be able to make connections, browse SAP interfaces, build the appropriate application stubs, and create new applications and web services.

SAP and Red Hat are also considering the challenges posed by application-to-application interoperability and how best to simplify enterprise application integration (EAI). SAP supplies the JCo RFC library that supports Java-to-advanced business application programming (ABAP) communication, providing a technology foundation that enables Java EE applications and JBoss platforms to connect to SAP services.



ABOUT RED HAT

Red Hat is the world's leading provider of open source solutions, using a community-powered approach to provide reliable and high-performing cloud, virtualization, storage, Linux, and middleware technologies. Red Hat also offers award-winning support, training, and consulting services. Red Hat is an S&P company with more than 70 offices spanning the globe, empowering its customers' businesses.

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BENEFITS

Breaking down the walls between information silos and different parts of your business offers clear advantages for effective decision-making. Red Hat and SAP's approach to enhancing interoperability yields these additional benefits:

No SAP training required. In many cases, Java developers don't need to be well-versed in ABAP to understand the SAP landscape. Since developers can use familiar Eclipse tools, they can quickly create new JBoss applications to integrate SAP data with other parts of your business.

Access to SAP systems in real time. Applications can consume data from active SAP systems, so there's no need to generate data copies that can quickly become out of sync.

Use existing security. Since applications use vendor-supported interfaces to access the SAP backend, they automatically take advantage of configured security and access controls.

Red Hat's vision is to deliver the interoperability tools that you need to make the most of your entire IT landscape, taking the complexity out of SAP data and business process reuse.

FOR MORE INFORMATION

Contact us about your specific SAP and JBoss integration requirements. To learn more, send inquiries to sap@redhat.com.