
JBoss Enterprise SOA Platform 4.3

Release Notes

Late breaking & important information related to the 4.3GA release



Copyright © 2008 Red Hat, Inc.. This material may only be distributed subject to the terms and conditions set forth in the Creative Commons Attribution-Noncommercial-Share Alike 3.0 Unported License (which is presently available at <http://creativecommons.org/licenses/by-nc-sa/3.0/>).

Red Hat and the Red Hat "Shadow Man" logo are registered trademarks of Red Hat, Inc. in the United States and other countries.

All other trademarks referenced herein are the property of their respective owners.

The GPG fingerprint of the security@redhat.com key is:

CA 20 86 86 2B D6 9D FC 65 F6 EC C4 21 91 80 CD DB 42 A6 0E

1801 Varsity Drive
Raleigh, NC 27606-2072USAPhone: +1 919 754 3700
Phone: 888 733 4281
Fax: +1 919 754 3701
PO Box 13588Research Triangle Park, NC 27709USA

Abstract

Late breaking and important information for this release

| | |
|---|---|
| 1. Updated Release Notes | 2 |
| 2. Overview | 2 |
| 3. Components of the 4.3 GA Release | 3 |
| 4. Hardware Requirement Recommendations | 3 |
| 5. Important Notes | 4 |

- 5.1. Upgrades & Migrations from different versions. 4
- 5.2. Standalone distribution versus Embedded EAP distribution 4
- 5.3. Included Documentation 4
- 5.4. Embedded Hypersonic Database 5
- 5.5. Supported ActiveEndpoints BPEL Engine 5
- 5.6. Securing the server for production environments 5
- 6. Product Support and License Website Links 7
- 7. Obtaining Source Code 7
- 8. Known Issues in this release 7
 - 8.1. Issues Affecting JON for SOA 7
 - 8.2. Service Registration will fail if the ESB EPR URL exceeds 2000 characters 8
 - 8.3. **groovy_gateway** Quickstart & HSQLDB Manager incompatible with 'headless' server 9
 - 8.4. Hibernate UserTransaction property requirement in SOA 4.3 9
 - 8.5. ESB Webservice EndPoint Deployment 9
 - 8.6. Deploying Queues 9
 - 8.7. QuickStarts and minimised configurations 9
 - 8.8. QuickStarts and EJB3 warnings 10
 - 8.9. Supported SOAPUI Version 10
 - 8.10. Using Microsoft SQL Server as a database 10
 - 8.11. jUDDI / Scout compatibility between JBoss Enterprise SOA Platform and JBoss Enterprise Application Platform 10
 - 8.12. Using jms-jca-provider with queues on other nodes 10
 - 8.13. Aggregator and other stateful actions are not supported in a clustered environment..... 11
 - 8.14. Issue with MySQL / Linux / JBPM combination 11
 - 8.15. Multiprocessor machines running jbpm_orchestration2 quickstart using HSQLDB 11
 - 8.16. Some Gateways do not provide load balancing 12
 - 8.17. JBPM operations fail with constraint violation exceptions using Oracle/PostgreSQL..... 12
 - 8.18. Development tools not bundled with JBoss Enterprise SOA Platform 12
 - 8.19. JBPM Decision node expressions should not contain trailing spaces 12
 - 8.20. JBPM Performance Issues 12
- A. Revision History** **13**

1. Updated Release Notes

These Release Notes contain important and late-breaking information related to the 4.3 GA release of the JBoss Enterprise SOA Platform.

For the latest version of these release notes please refer to the online documentation available at http://www.redhat.com/docs/en-US/JBoss_SOA_Platform/.

2. Overview

JBoss Enterprise SOA Platform is a certified, tested, and supported platform for developing Enterprise Application Integration and Service Oriented Architecture solutions.

It integrates a number of stable and scalable open source frameworks and solutions including Hibernate, Seam, JBoss Transactions, JBoss Clustering, the JBoss Application Server, and JBoss Enterprise Service Bus (ESB) to provide an infrastructure for enterprise SOA applications.

These community developed and enterprise certified and supported products have been combined and tested to provide a solid, robust, and scalable platform. Powered by legendary JBoss innovation

and backed by Red Hat engineering and quality assurance, JBoss Enterprise SOA Platform is the platform of choice for a new generation of enterprise applications.

3. Components of the 4.3 GA Release

Included Components

| Component | Version |
|-------------------------------------|--------------------------|
| JBoss Enterprise Application Server | 4.3 CP02 + FP01 (Seam 2) |
| JBoss Enterprise Service Bus | 4.4 |
| JBoss Transactions | 4.2.3SP5 |
| JBoss Messaging | 1.4.0SP2 |
| JBoss Rules | 4.0.7 |
| JBoss jBPM | 3.2.2CP1 |
| JBoss Web Services | 2.0.1CP02 |
| JBoss RESTeasy | 1.0 |

4. Hardware Requirement Recommendations

These recommendations do not represent an absolute minimum requirement for running the SOA Platform but rather present a baseline for reasonable performance. The SOA Platform will run on far lesser hardware although your performance will suffer accordingly.

Also note that performance is affected by other factors such as the sub-systems of the hardware platform. When using 'non-server class' hardware such as a laptop for development & testing, performance results may be less than those when deployed in your production environment.

These guidelines also do not take into account the requirements of the server's operating system or other applications, nor does it include your own applications and services deployed on the SOA Platform. It is the developers' responsibility to provide performance requirements for their own services & applications to be deployed.

CPU

Minimum: Pentium4 class. Recommended: Dual-core or greater.

MEMORY

1 Gigabyte of memory is a recommended minimum. Increasing memory is often the most effective means of increasing performance.

STORAGE SPACE

The full installation of the SOA Platform server requires 660 megabytes of harddrive space. The standalone ESB server only requires 220 megabytes of space. You will also require additional space for log files. 10 Gigabytes is considered adequate for a production environment with log rotation configured.

5. Important Notes

5.1. Upgrades & Migrations from different versions.

If you are upgrading from JBoss ESB 4.2 or 4.3, JBoss EAP 4.2 or JBoss SOA Platform 4.2 you should refer to *Upgrading or Migrating to JBoss Enterprise SOA Platform* in the included Getting Started Guide before doing so.

5.2. Standalone distribution versus Embedded EAP distribution

There are two versions of the JBoss Enterprise SOA Platform:

1. the "standalone" version - **standalone-soa-4.3.0**
2. the "embedded EAP" version - **soa-4.3.0**

The standalone version is intended for use in environments where a lightweight solution is required; for example when a Java Application Server is already installed on the network. It does not include the JBoss Enterprise Application Platform with JBoss Application Server, Seam, Hibernate, or clustering. It provides core ESB (Enterprise Service Bus) functionality only.

The embedded EAP version includes, in addition to the Enterprise Service Bus functionality, the JBoss AS server and other components and frameworks to provide a fully-fledged application development environment. This version provides services such as clustering, transactions, and persistence through the JBoss Enterprise Application Platform.

5.3. Included Documentation

In addition to these release notes, there is a **docs** directory that contains the included documentation for the JBoss Enterprise SOA Platform. You should read the Getting Started Guide first. It contains instructions for installing and configuring the platform.

The JBoss SOA Platform documentation

| Document | filename |
|-----------------------------|--|
| SOA Administration Guide | Administration_Guide.pdf |
| SOA Getting Started Guide | Getting_Started_Guide.pdf |
| JBoss Rules Reference Guide | JBoss_Rules_Reference_Guide.pdf |
| jBPM Reference Guide | JBPM_Reference_Guide.pdf |
| SOA Programmer's Guide | Programmers_Guide.pdf |
| SOA Services Guide | Services_Guide.pdf |

Updated version of these documents are made available at http://www.redhat.com/docs/en-US/JBoss_SOA_Platform/.

The embedded JBoss EAP version of the JBoss SOA platform also includes the JBoss EAP documentation. In that version the **docs** directory contains two sub-directories, one containing the JBoss EAP documents and the other containing the JBoss SOA Platform documents. The stand-alone version only includes the JBoss SOA Platform documents in the **docs** directory.



Note

The documentation paths referred to in the EAP documents will differ from the actual location of the EAP documents embedded with the SOA Platform.

5.4. Embedded Hypersonic Database

The included Hypersonic SQL database provides default "out of the box" database functionality for evaluation and development use only. It is NOT recommended or supported as a production-use database. Technical support is not available for this component, and while we are happy to accept bugs filed against this component, we do not make any commitment to fix them within a specific timeframe.

Instructions to change the database provider are in the Post-Installation Configuration section of the JBoss Enterprise SOA Platform Getting Started Guide.

5.5. Supported ActiveEndpoints BPEL Engine

The following versions of the ActiveEndpoints ActiveBPEL Engine are supported on the JBoss Enterprise SOA Platform:

- ActiveBPEL 5.0.2

They can be downloaded from the ActiveEndpoints website at: <http://www.activevos.com/community-open-source-engine-download.php>

The ActiveEndpoints ActiveBPEL Engine open-source license terms can be found here: <http://www.activevos.com/community-open-source-license.php>.

5.6. Securing the server for production environments



Warning

The following are important notes relating to the security of your system.

5.6.1. Securing the JBPM Console

Two distinct **jbpm-console.war** files are shipped with the platform. One is a development version which allows unauthenticated access to deploy processes to the server, for use with a graphical process design tool such as JBoss Developer Studio while developing applications. The other is a production version which secures the console against remote deployment. *You should not run your server in a production environment with the unsecured development version of **jbpm-console.war** deployed.* Doing so poses a threat to the security of your server.

Standalone version of JBoss Enterprise SOA Platform

In the standalone version, we ship with the unsecured uploader console by default. *Initially, your server is configured for development.* The jBPM JPDL will be able to deploy processes. Before putting it into production you should secure the console.

Procedure 1. To secure the console in the standalone version

- Copy the file `/tools/resources/jbpm-console-production.war` to `/server/default/deploy/jbpm.esb/jbpm-console.war`.

Procedure 2. To enable remote deployment of processes in the standalone version

- Copy `/tools/resources/jbpm-console-development.war` to `/server/default/deploy/jbpm.esb/jbpm-console.war`.

In each case the file must be overwritten. You can not have two versions of the `war` in the deployment directory.

Embedded JBoss Enterprise Application Platform version of JBoss Enterprise SOA Platform

In the embedded JBoss Enterprise Application Platform version, the "**all**" profile has the development version of the `war`, and the "**production**" profile has the production version. *By default your server is configured to operate in a secure mode.* To enable it for development mode you need to run in the unsecured mode of operation.

Procedure 3. To secure the console in the embedded EAP version

- Start the server with no command line parameters or with the parameter "**-c production**"

Procedure 4. To enable remote deployment of processes in the embedded EAP version

- Start the server using the parameter "**-c all**"

We do not recommend running the server on an unsecured network with the `jbpm-console-development.war` deployed or using the `all` profile without appropriate modification.

5.6.2. Preventing download of non-RMI classes on Port 8083 in the standalone version of the server

If you use RMI (Remote Method Invocation) you will want to make Port 8083 of your server accessible to clients. The EAP version of the server is configured out of the box to restrict the classes that it serves on this port. The standalone server, however, is configured out of the box to serve all deployable classes via this port. This has been done to allow the quickstarts to function correctly by default.

To change this behaviour you need to modify the following line in `default/conf/jboss-service.xml`:

```
<!-- Should non-EJB .class files be downloadable -->
<attribute name="DownloadServerClasses">false</attribute>
```

The value for this attribute is set as **true** out of the box, and it should be set to **false** in actual production deployment to prevent the server from serving all deployable classes on Port 8083.

6. Product Support and License Website Links

Support Processes

<http://www.redhat.com/support/process/>¹

Production Support Scope of Coverage

<http://www.redhat.com/support/policy/soc/production>²

Production Support Service Level Agreement

<http://www.redhat.com/support/policy/sla/production/>³

Developer Support Scope of Coverage

<http://www.redhat.com/support/policy/soc/developer/>⁴

Developer Support Service Level Agreement

<http://www.redhat.com/support/policy/sla/developer/>⁵

Product Update and Support Policy by Product

http://www.redhat.com/security/updates/jboss_notes/⁶

JBoss End User License Agreement

http://www.redhat.com/licenses/jboss_eula.html⁷

7. Obtaining Source Code

The source code for the JBoss Enterprise SOA Platform is available via anonymous ftp from <ftp://ftp.redhat.com/pub/redhat/soa-p/4.3.0/en/source/soa-4.3.0.zip>⁸.

8. Known Issues in this release

8.1. Issues Affecting JON for SOA

These issues are related to the JON for SOA product.

¹ <http://www.redhat.com/support/process/>

² <http://www.redhat.com/support/policy/soc/production>

³ <http://www.redhat.com/support/policy/sla/production/>

⁴ <http://www.redhat.com/support/policy/soc/developer/>

⁵ <http://www.redhat.com/support/policy/sla/developer/>

⁶ http://www.redhat.com/security/updates/jboss_notes/

⁷ http://www.redhat.com/licenses/jboss_eula.html

⁸ <ftp://ftp.redhat.com/pub/redhat/soa-p/4.3.0/en/source/soa-4.3.0.zip>

The 'Overall Bytes' metrics are only collected at the *action* level

The metrics of Overall Bytes, Overall Bytes Processed, Overall Bytes Failed are only collected at the *action* level of each ESB deployment. This means these metrics when displayed at the service level are always zero.

Additional information: <https://jira.jboss.org/jira/browse/SOA-785>

Exception thrown when changing the Metric Baseline on a chart

Changing the Metric Baseline value for a JON chart will cause a `javax.ejb.EJBTransactionRolledbackException` exception to be thrown. This occurs when you click the **Save Value** link.

Additional information: <https://jira.jboss.org/jira/browse/SOA-902>

Total Message Count values may appear misleading

The Total Message Count values do not start from zero for the period you have specified. The displayed values start from the totals accrued at that point.

Additional information: <https://jira.jboss.org/jira/browse/SOA-949>

ESB Statistic averages may be inaccurate

An underlying RHQ issue is causing errors in averages displayed in the JON UI.

Additional information: <https://jira.jboss.org/jira/browse/SOA-950>

Wrong "Low" value in JBoss ESB Statistics metrics

The "Low" value reported in the ESB Statistics does not match the figures reported from the embedded ESB Management Console

Additional information: <https://jira.jboss.org/jira/browse/SOA-957>

Uninventoried ESB archives do not appear in the ESB deployments when redeployed

Once an ESB archive has been uninventoried, redeploying via the JON UI it will not cause it to appear in the list of ESB deployments. The deployment will appear if you repeat the deployment using the JON UI or if you force a discovery using **discovery -f** command with the JON agent.

Additional information: <https://jira.jboss.org/jira/browse/SOA-976>

8.2. Service Registration will fail if the ESB EPR URL exceeds 2000 characters

jUDDI, the default UDDI registry, stores the ESB EndPoint Reference (EPR) URL with a maximum size of 2000 characters as the size of most EPR URLs are expected to be slightly less than this. However if the EPR URL is longer than 2000 characters the table insert will fail, causing the service registration to fail.

A future update will address this by increasing this maximum.

If this is an immediate problem then you can manually alter the column from its existing datatype of `varchar(2000)` to the recommended `varchar(4000)`. The table is `binding_template` and the column is

access_point_url. Increasing the size to varchar(4000) should provide ample space. If this table is already populated with data you should create a backup before attempting any changes.

Additional information: <http://jira.jboss.org/jira/browse/SOA-919>

8.3. groovy_gateway Quickstart & HSQLDB Manager incompatible with 'headless' server

The default configuration for the SOA Platform includes the setting java.awt.headless set to **true**. This is required for the embedded console to function. However both the **groovy_gateway** Quickstart and the Hypersonic database manager require that this value be set to **false** and will not work. If you require either of these items you can change this setting in **run.conf**, but doing this will disable the embedded console.

Additional information: <http://jira.jboss.org/jira/browse/SOA-906>

8.4. Hibernate UserTransaction property requirement in SOA 4.3

Due to changes in transaction lookup in jBPM 3.2.3 it is now necessary in JBoss SOA Platform 4.3 to set jta.UserTransaction property in **hibernate.cfg.xml** to **UserTransaction**.

This was not required in earlier releases.

8.5. ESB Webservice EndPoint Deployment

It is possible for the WebService EndPoints for an ESB service to successfully deploy even if the ESB service that it represents fails to deploy.

This is due to the WAR archives automatically created by the ESB deployer not containing a dependency on the originating ESB archives. These dependancies should be included but have been disabled due to an issue in JBossWS.

Additional information: <http://jira.jboss.com/jira/browse/SOA-726>

8.6. Deploying Queues

Once a queue is undeployed you cannot deploy a new queue with the same name if either of the queues is a clustered queue and the other queue is not. You must delete the destination from the JBM_POSTOFFICE table before the new queue can be deployed successfully.

Additional information: <http://jira.jboss.com/jira/browse/SOA-570>

8.7. QuickStarts and minimised configurations

The following QuickStarts have been noted to not work when the specified optional or otherwise replaceable core services of the SOA Platform are not deployed.

| QuickStart | Required Service |
|---------------------|------------------|
| aggregator | smooks.esb |
| wiretap | jbrules.esb |
| recipient_list | jbrules.esb |
| webservice_producer | soap.esb |

Additional information: <http://jira.jboss.com/jira/browse/SOA-577>

8.8. QuickStarts and EJB3 warnings

When some QuickStarts (eg. business_Service) that contains EJB3 are deployed using a database other than HSQLDB they generate the following warning:

```
2008-08-25 02:39:13,381 WARN [org.jboss.ejb.txtimer.DatabasePersistence
Policy] Unable to get timer handles for containerId: jboss.j2ee:service
=EJB3,jar=business_service-ejb.jar,name=HelloWorldBean java.sql.SQLExce
ption: ORA-00942: table or view does not exist
```

These warnings do not have any negative impact on the QuickStarts & will be fixed in a future version.

Additional information: <http://jira.jboss.com/jira/browse/SOA-702>

8.9. Supported SOAPUI Version

The 4.3 GA Release of the JBoss Enterprise SOA Platform only supports SOAPUI version 2.0.2.

8.10. Using Microsoft SQL Server as a database

Microsoft SQL Server does not automatically deallocate the harddrive space occupied by data in a database when that data is deleted. If used as a datastore for services that temporarily store many records, such as a messaging service, the disk space used will quickly grow to be much greater than the amount of data actually being stored.

Your database administrator should implement database maintenance plans to ensure that unused space is reclaimed. Please refer to your Microsoft SQL Server documentation for the DBCC commands ShrinkDatabase & UpdateUsage for guidance.

8.11. jUDDI / Scout compatibility between JBoss Enterprise SOA Platform and JBoss Enterprise Application Platform

The behaviour of JBoss Enterprise SOA Platform differs from that of JBoss Enterprise Application Platform in some JAXR Scout tests in our testsuite. This indicates differences between the jUDDI / Scout implementations that may have an effect on applications. At this stage there are no known instances of these differences affecting applications.

Additional Information: <http://jira.jboss.com/jira/browse/SOA-354>.

8.12. Using jms-jca-provider with queues on other nodes

To enable a jms-jca-provider to talk to queues on other nodes you will need to use a provider adapter.

You will need to define an MBean representing the provider adapter, for example:

```
<mbean code="org.jboss.jms.jndi.JMSProviderLoader"
name="jboss.esb:service=JMSProviderLoader,name=RemoteJMSProvider,server=remote">
  <attribute name="ProviderName">remoteProvider</attribute>
  <attribute name="ProviderAdapterClass">
```

```
    org.jboss.jms.jndi.JNDIProviderAdapter
  </attribute>
  <!-- The queue connection factory -->
  <attribute name="QueueFactoryRef">XAConnectionFactory</attribute>
  <!-- The topic factory -->
  <attribute name="TopicFactoryRef">XAConnectionFactory</attribute>
  <!-- Connect to JNDI on the host "remote" port 1099 -->
  <attribute name="Properties">

    java.naming.factory.initial=org.jnp.interfaces.NamingContextFactory
      java.naming.factory.url.pkgs=org.jnp.interfaces
      java.naming.provider.url=remote:1099
    </attribute>
  </mbean>
```

This MBean should be defined in **ha-jndi.xml** on the node where the queue is really deployed

Then, in the definition of the **.jms-jca-provider** you need to add a **providerAdapterJNDI** attribute, e.g:

```
providerAdapterJNDI="java:/remoteProvider"
```

The JCA adapter will use the provider adapter from JNDI to create the JNDI context.

Additional Information: <http://jira.jboss.com/jira/browse/JBESB-1460>

8.13. Aggregator and other stateful actions are not supported in a clustered environment

As mentioned throughout the Programmers Guide, high-availability services within JBossESB are currently only supported if they are stateless. The Aggregator action is a stateful instance, which necessarily means that if it is used within the Action Pipeline/Chain of a service, that service is no longer stateless and therefore cannot be used in a high-availability manner.

Additional information: <http://jira.jboss.com/jira/browse/SOA-421>

8.14. Issue with MySQL / Linux / JBPM combination

When JBPM is deployed on Linux using MySQL version 5.0.45 as the database concurrent signalling from multiple threads has been detected. As such, this combination is currently *not recommended* for production use. This issue is not present with MySQL version 5.0.27.

Additional Information: <http://jira.jboss.com/jira/browse/SOA-196>.

8.15. Multiprocessor machines running jbp_m_orchestration2 quickstart using HSQLDB

Various errors and warnings are logged when running the **jbp_m_orchestration2** quickstart on a machine with multiple CPUs using HSQLDB or H2 as the database. The HSQLDB database is provided with the platform as an out-of-the-box db provider for testing purposes, but it is not a supported production database. These errors are not logged when using a Tier 1 supported database.

Additional Information: <http://jira.jboss.com/jira/browse/SOA-417> | <http://jira.jboss.com/jira/browse/SOA-410>

8.16. Some Gateways do not provide load balancing

In this release the following gateways do not use the `ServiceInvoker`, and therefore do not provide load balancing:

- `JmsGatewayListener.java`
- `HibernateInterceptor.java`
- `SqlTableGatewayListener.java`

Load balancing is performed when a raw message is transformed into an `ESBMessage`, or when an `ESBMessage` is sent to an ESB listener. Be aware that a raw (non-ESB) message sent through one of the above three gateways will not be load balanced.

When one of these gateways is deployed on multiple ESBs that listen to the same clustered queue they will share the load through JBM clustering, but there is no failover to another type of EPR.

These gateways will have load balancing enabled in a future release.

8.17. JBPM operations fail with constraint violation exceptions using Oracle/PostgreSQL

When the server is under load JBPM operations have been observed to fail with a constraint violation exception when using Oracle or PostgreSQL. This has not been observed with MySQL. We've made calls to JBPM from the SOA server asynchronous and JBPM should retry these failures. It is a consequence of JBPM's optimistic locking policy.

Additional Information: <http://jira.jboss.com/jira/browse/JBESB-1511>.

8.18. Development tools not bundled with JBoss Enterprise SOA Platform

This version of JBoss Enterprise SOA Platform does not bundle development tools such as the Graphical Process Designer (GPD) for JBPM-PDL or a Rules Editor plug-in for Eclipse. These development tools and others are available in JBoss Developer Studio.

8.19. JBPM Decision node expressions should not contain trailing spaces

Adding a trailing space to a decision node expression will cause an exception to be thrown. To avoid this exception decision node expressions should not have a trailing space.

Additional Information: <http://jira.jboss.com/jira/browse/SOA-450>

8.20. JBPM Performance Issues

Some issues have been observed with message throughput in JBPM. In this release JBPM logging is disabled by default to address this.

Additional Information: <http://jira.jboss.com/jira/browse/SOA-429>.

A. Revision History

Revision History

Revision 1.0

Fri Sep 5 2008

DarrinMison dmison@redhat.com

Created

