

Upgrading from JBossMQ to JBoss Messaging in JBoss Application Server 4.2.3.GA

Overview

JBoss Messaging is the default Java Message Service provider for JBoss Application Server (AS) 4.2.3.GA. This document provides instructions for upgrading from JBossMQ to JBoss Messaging in JBoss AS 4.2.3.GA. Perform the instructions in this document **AFTER you perform step 4.1.3** in the *JBoss Messaging 1.4 User's Guide* (docs.jboss.org/jbossmessaging/docs/userguide-1.4.5.GA/html/installation.html#install).

The instructions in this document are divided into three sections:

- The first section explains how to obtain recommended versions of certain JBoss components. These components are prerequisites to performing the upgrade described in the next steps
- The second section explains how to perform an automated upgrade from JBossMQ to JBoss Messaging, with a few manual adjustments. These instructions are also found in section 4.1, "Installing JBoss Messaging on JBoss AS 4.2," of the *JBoss Messaging 1.4 User's Guide* (docs.jboss.org/jbossmessaging/docs/userguide-1.4.5.GA/html/installation.html#install)
- The third section provides addition configuration items that you should perform after JBoss Messaging is added. These configuration items are specific to your SAS installation and configuration

Follow these instructions in the order that they are provided.

Obtain Recommended Versions of JBoss Components

Follow these instructions after you complete step 4.1.3 of the [JBoss Messaging Installation](#) for JBoss AS 4.2.x.

1. Set the JAVA_HOME environment variable to the full path of the installed Java instance. This step is necessary because configuring JBoss Messaging requires that Java is pre-installed.
2. Download Apache Ant from ant.apache.org/bindownload.cgi, and then install the tool as follows:
 - a. Extract Apache Ant to a directory.
Example: C:\apache-ant-1.8.2
 - b. Set the ANT_HOME environment variable to the path of the installed Ant image that you extracted.
 - c. Add the \bin directory to your operating system's PATH variable, as shown here:
Example: C:\apache-ant-1.8.2\bin
3. Download JBoss AS 4.2.3.GA from www.jboss.org/jbossas/downloads.html, as follows:
 - a. Extract JBoss AS 4.2.3.GA to a directory.
Example: C:\jboss-4.2.3.GA
 - b. Set the JBOSS_HOME environment variable.

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4. Download JBoss Messaging 1.4.5 from www.jboss.org/jbossmessaging/downloads, and extract it to a directory.

Example: C:\jboss-messaging-1.4.5.GA

5. Download JBoss Remoting 2.2.3 SP3 from www.jboss.org/jbossremoting/downloads, and extract it to a directory.

Example: C:\jboss-remoting-2_2_3_SP3

JBoss Messaging is dependent on the JBoss Remoting component. Specifically, JBoss Messaging 1.4.4.GA requires JBoss Remoting 2.2.3.SP1. For more details about JBoss Remoting, see www.jboss.org/jbossremoting.

6. Update JBoss Remoting by copying the new version of the jboss-remoting.jar file from *JBoss-Remoting-directory/lib* to *JBoss-home-directory/server/default/lib*.

Upgrade from JBossMQ to JBoss Messaging

1. Submit the following command from the *JBoss-Messaging-directory/util* directory:

```
ant -f release-admin.xml
```

The output from this command should look similar to the following:

```
Buildfile: C:\jboss-messaging-1.4.5.GA\util\release-admin.xml

default:

validate-jboss:

prevent-messaging-overwrite:

validate-messaging-artifact:

create-server-config:
  [echo] Creating JBoss Messaging configuration 'messaging' for
C:\jboss- 4.2.3.GA based on configuration 'default' with jboss-messaging.sar
  [mkdir] Created dir: C:\jboss-4.2.3.GA\server\messaging
  [copy] Copying 313 files to C:\jboss-4.2.3.GA\server\messaging
expand-sar:
  [unjar] Expanding: C:\jboss-messaging-1.4.5.GA\jboss-messaging.sar into
C:\jboss-4.2.3.GA\server\messaging\deploy\jboss-messaging.sar
  [copy] Copying 1 file to C:\jboss-4.2.3.GA\server\messaging\lib
  [copy] Copying 2 files to C:\jboss-4.2.3.GA\server\messaging\conf\props
  [copy] Copying 1 file to C:\jboss-4.2.3.GA\server\messaging\deploy
  [copy] Copying 1 file to C:\jboss-4.2.3.GA\server\messaging\deploy

BUILD SUCCESSFUL
Total time: 3 seconds
```

2. Delete or rename the *JBoss-home-directory/server/default* directory.
3. Rename *JBoss-home-directory/server/messaging* to the *JBoss-home-directory/server/default*.

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- Specify the password for the SuckerPassword attribute in the Server Peer configuration (*JBoss-home-directory/server/default/deploy/jboss-messaging.sar/messaging-service.xml*).

Caution: To avoid a security risk, **you MUST specify** this attribute value so that the password is available only to administrators. If you do not specify a value, the configuration uses the default value. Any user who knows that default value can access all destinations on the server.

- Replace every occurrence of `jboss.mq` with `jboss.messaging` in *JBoss-home-directory/server/default/deploy/jms-ds.xml*.
- Set every occurrence of the `CreateJBossMQDestination` property to `FALSE` in *JBoss-home-directory/server/default/conf/standardjboss.xml*.
- Remove the reference to JBossMQ from the JSR-77 Management Bean that is found in *JBoss-home-directory/server/default/conf/jboss-service.xml*, as shown in the following example:

```

<!-- ===== -->
<!-- JSR-77 Single JBoss Server Management Domain -->
<!-- ===== -->
<mbean code="org.jboss.management.j2ee.LocalJBossServerDomain"

  <!-- Remove the following line. -->
<attribute name="JMSService">jboss.mq:service=DestinationManager</attribute>

```

- Remove the `jboss-mq` security policies in *JBoss-home-directory/server/default/conf/login-config.xml*, as shown in the following example:

```

<!-- Remove the following lines. -->

<!-- Security domain for JBossMQ -->
  <application-policy name = "jbossmq">
    <authentication>
      <login-module code =

"org.jboss.security.auth.spi.DatabaseServerLoginModule"
      flag = "required">
        <module-option name = "unauthenticatedIdentity">guest</module-option>
        <module-option name = "dsJndiName">java:/DefaultDS</module-option>
        <module-option name = "principalsQuery">SELECT PASSWD FROM JMS_USERS
WHERE USERID=?</module-option>
        <module-option name = "rolesQuery">SELECT ROLEID, 'Roles' FROM
JMS_ROLES WHERE USERID=?</module-option>
      </login-module>
    </authentication>
  </application-policy>

  <!-- Security domain for JBossMQ when using file-state-service.xml
  <application-policy name = "jbossmq">
    <authentication>

```

(output continued)

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```

        <login-module code = "org.jboss.mq.sm.file.DynamicLoginModule"
            flag = "required">
            <module-option name = "unauthenticatedIdentity">guest</module-option>
            <module-option name =
"sm.objectname">jboss.mq:service=StateManager</module-option>
            </login-module>
        </authentication>
    </application-policy>
-->

```

Run the JBoss Messaging Configuration

After you complete the previous steps, run the SAS® Deployment Wizard, making sure that it points to the JBoss AS 4.2.3.GA directory.

Note: If the SAS Software Depot is based on an image prior to 11w33, the SAS Deployment Wizard fails with the following error:

```

2011-06-27 11:25:29,135 DEBUG [org.jboss.deployment.SARDeployer] create
operation failed for package file:/C:/jboss-
4.2.3.GA/server/SASServer1/deploy/jms/sas-jms-service.xml
org.jboss.deployment.DeploymentException: No ClassLoaders found for:
org.jboss.mq.server.jmx.Queue; - nested throwable:
(java.lang.ClassNotFoundException: No ClassLoaders found for:
org.jboss.mq.server.jmx.Queue) at
org.jboss.system.ServiceConfigurator.install(ServiceConfigurator.java:
196)

```

The error shown in step 14 appears in ***JBoss-home-directory/server/SASServer1/log*** when you invoke JBoss. To resolve this error, follow these steps:

1. Stop the JBoss server.
2. Delete the service.xml file that resides in ***JBoss-home-directory/server/SASServer1/deploy/jms***.
3. Add the two lines that are annotated below to the ConnectionFactory ***<mbean>*** element of the connection-factories-service.xml file that resides in ***JBoss-home-directory/server/SASServer1/deploy/jboss-messaging.sar/***.

```

<mbean code="org.jboss.jms.server.connectionfactory.ConnectionFactory"
    name="jboss.messaging.connectionfactory:service=ConnectionFactory"
    xmban-dd="xmdesc/ConnectionFactory-xmbean.xml">
    <depends optional-attribute-
        name="ServerPeer">jboss.messaging:service=ServerPeer</depends>
    <depends optional-attribute-
        name="Connector">jboss.messaging:service=Connector,transport=biso
        cket</depends>
    <depends>jboss.messaging:service=PostOffice</depends>

```

(continued)

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```

<attribute name="JNDIBindings">
  <bindings>
    <!--ADD THE FOLLOWING LINE. -->
    <binding>sas/jms/QueueConnectionFactory</binding>
    <!--ADD THE FOLLOWING LINE. -->
    <binding>sas/jms/TopicConnectionFactory</binding>
    <binding>/ConnectionFactory</binding>
    <binding>/XAConnectionFactory</binding>
    <binding>java:/ConnectionFactory</binding>
    <binding>java:/XAConnectionFactory</binding>
  </bindings>
</attribute>
</mbean>

```

4. Add the following 11 **<mbean>** elements as children of the **<server>** element to the destinations-service.xml file in *JBoss-home-directory/server/SASServer1/deploy/jboss-messaging.sar/*.

```

<mbean code="org.jboss.jms.server.destination.TopicService"
  name="jboss.messaging.destination:service=Topic,name=scheduler.pip.broadcastTopic"
  xbean-dd="xmdesc/Topic-xbean.xml">
  <depends optional-attribute-name="ServerPeer">jboss.messaging:service=ServerPeer</depends>
  <depends>jboss.messaging:service=PostOffice</depends>
  <attribute name="JNDIName">sas/jms/scheduler.pip.broadcastTopic</attribute>
</mbean>

<mbean code="org.jboss.jms.server.destination.QueueService"
  name="jboss.messaging.destination:service=Queue,name=scheduler.pip.jobQueue"
  xbean-dd="xmdesc/Queue-xbean.xml">
  <depends optional-attribute-name="ServerPeer">jboss.messaging:service=ServerPeer</depends>
  <depends>jboss.messaging:service=PostOffice</depends>
  <attribute name="JNDIName">sas/jms/scheduler.pip.jobQueue</attribute>
</mbean>

<mbean code="org.jboss.jms.server.destination.QueueService"
  name="jboss.messaging.destination:service=Queue,name=scheduler.pip.outputQueue"
  xbean-dd="xmdesc/Queue-xbean.xml">
  <depends optional-attribute-name="ServerPeer">jboss.messaging:service=ServerPeer</depends>
  <depends>jboss.messaging:service=PostOffice</depends>
  <attribute name="JNDIName">sas/jms/scheduler.pip.outputQueue</attribute>
</mbean>

<mbean code="org.jboss.jms.server.destination.QueueService"
  name="jboss.messaging.destination:service=Queue,name=scheduler.pip.resultsQueue"
  xbean-dd="xmdesc/Queue-xbean.xml">
  <depends optional-attribute-name="ServerPeer">jboss.messaging:service=ServerPeer</depends>
  <depends>jboss.messaging:service=PostOffice</depends>
  <attribute name="JNDIName">sas/jms/scheduler.pip.resultsQueue</attribute>
</mbean>

<mbean code="org.jboss.jms.server.destination.TopicService"
  name="jboss.messaging.destination:service=Topic,name=SASPublishedEventTopic"
  xbean-dd="xmdesc/Topic-xbean.xml">
  <depends optional-attribute-name="ServerPeer">jboss.messaging:service=ServerPeer</depends>
  <depends>jboss.messaging:service=PostOffice</depends>
  <attribute name="JNDIName">sas/jms/SASPublishedEventTopic</attribute>
</mbean>

<mbean code="org.jboss.jms.server.destination.TopicService"
  name="jboss.messaging.destination:service=Topic,name=NotificationEventTopic"
  xbean-dd="xmdesc/Topic-xbean.xml">
  <depends optional-attribute-name="ServerPeer">jboss.messaging:service=ServerPeer</depends>
  <depends>jboss.messaging:service=PostOffice</depends>
  <attribute name="JNDIName">sas/jms/NotificationEventTopic</attribute>
</mbean>

```

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```

<mbean code="org.jboss.jms.server.destination.QueueService"
      name="jboss.messaging.destination:service=Queue,name=WorkflowEventsQueue"
      xbean-dd="xsdesc/Queue-xmbean.xml">
  <depends optional-attribute-name="ServerPeer">jboss.messaging:service=ServerPeer</depends>
  <depends>jboss.messaging:service=PostOffice</depends>
  <attribute name="JNDIName">sas/jms/app/WorkflowEventsQueue</attribute>
</mbean>

<mbean code="org.jboss.jms.server.destination.QueueService"
      name="jboss.messaging.destination:service=Queue,name=WorkflowCommandQueue"
      xbean-dd="xsdesc/Queue-xmbean.xml">
  <depends optional-attribute-name="ServerPeer">jboss.messaging:service=ServerPeer</depends>
  <depends>jboss.messaging:service=PostOffice</depends>
  <attribute name="JNDIName">sas/jms/WorkflowCommandQueue</attribute>
</mbean>

<mbean code="org.jboss.jms.server.destination.QueueService"
      name="jboss.messaging.destination:service=Queue,name=AuditQueue"
      xbean-dd="xsdesc/Queue-xmbean.xml">
  <depends optional-attribute-name="ServerPeer">jboss.messaging:service=ServerPeer</depends>
  <depends>jboss.messaging:service=PostOffice</depends>
  <attribute name="JNDIName">sas/jms/AuditQueue</attribute>
</mbean>

<mbean code="org.jboss.jms.server.destination.QueueService"
      name="jboss.messaging.destination:service=Queue,name=WorkflowQueue"
      xbean-dd="xsdesc/Queue-xmbean.xml">
  <depends optional-attribute-name="ServerPeer">jboss.messaging:service=ServerPeer</depends>
  <depends>jboss.messaging:service=PostOffice</depends>
  <attribute name="JNDIName">sas/jms/WorkflowQueue</attribute>
</mbean>

<mbean code="org.jboss.jms.server.destination.QueueService"
      name="jboss.messaging.destination:service=Queue,name=AlertQueue"
      xbean-dd="xsdesc/Queue-xmbean.xml">
  <depends optional-attribute-name="ServerPeer">jboss.messaging:service=ServerPeer</depends>
  <depends>jboss.messaging:service=PostOffice</depends>
  <attribute name="JNDIName">sas/jms/AlertQueue</attribute>
</mbean>

```

Recommended Reading

Community authored. 2010. "JBoss Messaging Documentation Library." Available at docs.jboss.org/jbossmessaging/docs/.

Community authored. 2010. "Remoting." Available at www.jboss.org/jbossremoting.

Community authored, 2009. "Chapter 4. JBoss Messaging Installation" in *JBoss Messaging 1.4 User's Guide*. Available at docs.jboss.org/jbossmessaging/docs/userguide-1.4.5.GA/html/installation.html#install.

Community authored, 2009. "JBoss Messaging 1.4 User's Guide." Available at docs.jboss.org/jbossmessaging/docs/userguide-1.4.5.GA/html/.

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