JOnAS Versions Migration Guide

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Abstract

contains instructions in order to migrate from one JOnAS version to another.

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1. JOnAS 4.7.x to JOnAS 4.8 EE

Applications developed for JOnAS 4.7.x do not require changes.

1.1. Configuration changes

No configuration changes

1.2. New JORAM version(JORAM_4_3_25)

This implementation required changes to the message persistance module. Therefore, JORAM's stored messages from previous versions are not compliant with this new version; the JORAM persistance directory (s0 by default) must be deleted before the migration.

Note

remember that this directory is created in the JOnAS's working directory at run time

1.3. Updating $JONAS_BASE

if starting from an existing JONAS_BASE, it must be updated in order to upgrade to the latest ear/war/jar/rar files provided (e.g. new versions of the JORAM or JDBC rars).

```
cd $JONAS_ROOT
ant update_jonasbase
```

2. JOnAS 4.6.x to JOnAS 4.7.x

Applications developed for JOnAS 4.6.x do not require changes; The main changes occur within the JOnAS configuration files. Therefore, it is recommended that customizations be reported in the new JOnAS 4.7.x configuration files, especially for those mentioned below.

2.1. Configuration changes

The most visible configuration changes are the following:

1. A new JORAM configuration file for defining the JMS objects. This file, named `joramAdmin.xml`, replaces `joram-admin.cfg`. The new format allows clustered JMS destinations, DMQ, and other information to be defined. See in Configuring JMS Resource Adapters [???]for a full description.

2. A new configuration file for the domain management. This file, named `domain.xml`, enables definition of the domain without need of the discovery service. Additionally, the JOnAS instances are visible from jonasAdmin console even when they are stopped. See here [Domain.html#Domain]for a full description.

3. A new CMI configuration file for specifying the JGroups's configuration stack. This file, named `jgroups-cmi.xml`, can be customized to fit with the network environnement being used. See here [Cmi.html] for a full description.

2.2. Updating $JONAS_BASE

If starting from an existing JONAS_BASE, it must be updated in order to upgrade to the latest ear/war/jar/rar files provided (e.g. new versions of the JORAM or JDBC rars).

```
cd $JONAS_ROOT
ant update_jonasbase
```

2.3. JORAM 4.3.0

JOnAS 4.4.1 integrates the new JORAM 4.3.0 which contains:

• performance optimizations

• new feature: SSL for client-server communications

• new feature of SoftReference Messages allowing swap out: ability to send large messages, destinations can store more and more messages, the messages are not held in memory.

The last implementation required changes to the message persistance module. Therefore, JORAM's stored messages from previous versions are not compliant with this new version; the JORAM persistance directory (s0 by default) must be deleted before the migration.

2.4. Domain management restrictions

Due to evolutions in the discovery protocol, mixing 4.6 and 4.7 JOnAS servers within a management domain is not allowed. To take advantage of the new domain and cluster management features, all the servers that were started in a same domain with the discovery service activated and using the same multicast address for discovery, must be JOnAS 4.7 version servers.

3. JOnAS 4.3.x to JOnAS 4.4.1

Applications developed for JOnAS 4.3.x do not require changes. The main changes occur within the JOnAS configuration files. THerefore, it is recommended that customizations be reported in the new JOnAS 4.4.1 configuration files, especially for those mentioned below.

3.1. Applications redeployment

This JOnAS version offers a new mechanism to ensure application redeployment during the migration. At deployment time, GenIC is automatically launched by the server, whether or not a version change is detected.

3.2. Configuration changes

The most visible configuration changes are the following:

• Tomcat 5.0 -> Tomcat 5.5. More information may be found here [https://wiki.objectweb.org/jonas/Wiki.jsp?page=Tomcat-To-JOnAS].

3.3. Update your $JONAS_BASE

• If starting from an existing JONAS_BASE, it must be updated in order to upgrade to the lastest ear/war/jar/rar files provided (e.g. new versions of the JORAM or JDBC rars).

```
cd $JONAS_ROOT
ant update_jonasbase
```

• mejb is packaged as an ear in the new version, while it was delivered in an ejbjar in the previous version. Thus the old ejbjar must be deleted.

```
cd $JONAS_BASE/ejbjars/autoload
rm mejb.jar
```

4. JOnAS 4.1 to JOnAS 4.3.x

Applications developed for JOnAS 4.1 do not require changes; however, they should be redeployed (GenIC). The main changes occur within the JOnAS configuration files. Therefore, it is recommended that customizations be reported in the new JOnAS 4.3.2 configuration files, especially for the ones mentioned below.

4.1. Configuration changes

The most visible configuration changes are the following:

1. JORAM's rar usage is set by default instead of the jms service

2. JOnAS no longer uses the JRE ORB implementation; it uses the JacORB implementation. The default iiop model now used is the POA model. Thus, GenIC should be relaunched on all previously generated beans.

Configuration files with significant changes:

- `conf/jonas.properties`: the jms service is removed from the jonas.services property.

- `conf/joram-admin.cfg`: this file is used for specifying the creation of JMS-administered objects when using the JORAM connector. The JMS destinations previously defined in the `jonas.properties` file (jonas.service.jms.queues and jonas.service.jms.topics) must be moved into this file.

- The configuration file of JacORB is the `$JONAS_BASE/conf/jacorb.properties` file.

4.2. Update your $JONAS_BASE

- If starting from an existing JONAS_BASE, it must be updated in order to upgrade to the last built-in provided ear/war/jar/rar files(e.g. new versions of the JORAM or JDBC rars).

```
cd $JONAS_ROOT
ant update_jonasbase
```

- If it is desirable to keep the jms service and not use the JORAM's rar, the `$JONAS_BASE/rars/autoload/joram_for_jonas_ra.rar` must be removed.

5. JOnAS 3.3.x to JOnAS 4.1

Applications developed for JOnAS 3.3.x do not require changes; however, they should be redeployed (GenIC). The main changes occur within the JOnAS configuration files, and it is recommended that customizations be reported in the new JOnAS 4.1 configuration files, especially for the ones mentioned below.

5.1. Configuration changes

The two most visible configuration changes are the following:

1. HTTP port numbers have moved from the 8000 range to the 9000 range, e.g. the JOnAS server index page with default configuration on a given host is now http://localhost:9000/index.jsp

2. the three RMI communication protocols, jrmp, jeremie and iiop can now be used simultaneously, the incompatibility between Jeremie and rmi/iiop and the "ant installiiop" step have been suppressed. In any case, the "ant install" phase (in JONAS_ROOT) is no longer needed.

Configuration files with significant changes:

- conf/server.xml: this file is a customized Tomcat 5 configuration file, while in JOnAS 3.3.x it was a Tomcat 4 configuration file. Moreover, package names of JOnAS-related security files have changed, e.g. org.objectweb.jonas.security.realm.web.catalina50.JACC replaces org.objectweb.jonas.security.realm.JRealmCatalina41. The JAAS classname realm is org.objectweb.jonas.security.realm.web.catalina50.JAAS.

- conf/jetty5.xml replaces conf/jetty.xml. In the web-jetty.xml files (in war), the package name of the Realm class has changed, e.g. org.objectweb.jonas.security.realm.web.jetty50.Standard replaces org.objectweb.jonas.security.realm.JRealmJetty42 class. The JAAS classname realm is org.objectweb.jonas.security.realm.web.jetty50.JAAS.

- conf/jonas.properties: many changes

  - some properties for web services

  - some package names have changed (e.g. for the Web JOnAS service)

  - the XML validation is activated by default for EJBs

  - new properties for the service 'db' (by default it uses HSQL as java database)

- conf/joram-admin.cfg: this is a new configuration file used for specifying the creation of JMS- administered objects when using the JORAM connector (J2EE CA 1.5 JMS resource adapter). The default file corresponds to the default-administered objects created when using the JOnAS JMS service.

5.2. Running EJB 2.1 Message-driven Beans

The use of EJB 2.1 message-driven beans (MDBs) requires changing the JOnAS configuration. While for EJB 2.0 MDBs the JOnAS **jms** service was required, EJB 2.1 Message-driven beans can only be used through a JMS Connector (J2EE CA 1.5 resource adapter). The JOnAS **jms** service and the JMS connector cannot work at the same time. Therefore, it is necessary to suppress the **jms** service from the list of JOnAS services (jonas.services in `jonas.properties` file) and to add the JORAM connector in the list of resource adapters to be deployed by the JOnAS resource service (jonas.service.resource.resources in `jonas.properties`).

5.3. Deploying Resource Adapters

The **RAConfig** Resource Adapter configuration tool did not generate the DOCTYPE information in JOnAS 3.3.x versions. If you are using resource adapters that were customized through **RAConfig**, it is recommended that the tool be run again on these Resource Adapters.