Red Hat JBoss A-MQ 6.1

JBoss A-MQ for xPaaS Release Notes

What's new in Red Hat JBoss A-MQ for xPaaS

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What's new in Red Hat JBoss A-MQ for xPaaS

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Abstract

These notes provide an overview of the changes between each release of the Red Hat JBoss A-MQ cartridge for OpenShift Enterprise.

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CHAPTER 1. WHAT'S NEW

Abstract

This section describes the main features in version 6.1.1 of the Red Hat JBoss A-MQ cartridge and the differences between the cartridge and the standalone JBoss A-MQ product.

For detailed information about how to get started, including installation and configuration instructions, see the JBoss Fuse Cloud Deployment Guide or the JBoss A-MQ Cloud Deployment Guide.

INSTALLATION COMPONENTS

The JBoss A-MQ cartridge is shipped as an RPM package. You download the package from the JBoss A-MQ product page on the Customer Portal and install the cartridge with **yum** in the same way you install other OpenShift Enterprise components.

WHAT'S DIFFERENT IN THE JBOSS A-MQ CARTRIDGE

When you create and run JBoss A-MQ applications in the OpenShift Enterprise domain, note the following differences between the cartridge and the standalone JBoss A-MQ product:

`Fabric management`

- Each JBoss A-MQ application that you create is deployed with fabric by default.

- Some fabric profiles, such as Gateway and Tomcat, are not supported.

- You cannot create child containers. Each container that you deploy acts as a standalone application in the domain.

- The first application that you create includes the ZooKeeper instance with the user credentials and environment variables that subsequent applications require to run.

- Secured shared file systems are not supported.

`Ports and networking`

- You can use only 3 private application ports to connect to the JBoss A-MQ applications. The ports are defined in system properties.

- The PublicPortMapper tool maps the private application ports to public ports before external clients can connect to the JBoss A-MQ applications.

- UDP connections are not supported.

`High availability`

- The first JBoss A-MQ application in the OpenShift Enterprise domain acts as the master node in the cluster.

- You must install a standalone JBoss A-MQ instance and configure the ZooKeeper ensemble outside of the OpenShift Enterprise domain to manage applications inside the domain.

- You must configure the cluster to use JDBC Master Slave or Replicated LevelDB Store.

- Auto-scaling is not supported.

TECHNICAL PREVIEW FEATURES

The following features are provided on a technical preview basis and are not fully supported in version 6.1.1:

- Fuse Builder cartridge

CHAPTER 2. KNOWN ISSUES

This section lists known issues in version 6.1.1 of the JBoss A-MQ cartridge.

For general known issues in version 6.1.0 of JBoss A-MQ, see the Known Issues section of the Red Hat JBoss A-MQ 6.1 Release Notes.

Restoring JBoss A-MQ applications from a snapshot is not supported

If you create a snapshot of multiple JBoss A-MQ applications with the **snapshot-save** command, you cannot restore the snapshots with the **snapshot-restore** command.

You must delete containers with the same tool that you used to create the containers

For example, if you create a container from the Fuse Management Console and then delete the container from the OpenShift Enterprise command line utility, the utility might not completely remove the container from the fabric. The deleted container then might re-register to the fabric with incomplete information and generate run-time errors or failures.

You cannot move the primary JBoss A-MQ application between nodes

To move a JBoss A-MQ application from one OpenShift Enterprise node to another node, you can use the **oo-admin-move** command. However, you cannot move the first application that you created between nodes. You can use the command to move only subsequent applications that you create.

The PortMapper tool does not translate TLS ports

When you define connection URLs in CXF endpoints, you cannot specify SNI ports that use the TLS protocol, such as **APP_TLS_PORT_1**. Instead, you must specify one of the non-TLS ports, such as **APP_PORT_1**, when you configure the CXF endpoint.

When the the JBoss A-MQ application reconnects to the fabric server, the Karaf log throws an exception

When the connection between the JBoss A-MQ application and the fabric server is suspended and then resumed, the following error message might appear in the Karaf log:

```
java.util.concurrent.RejectedExecutionException Task
java.util.concurrent.FutureTask@27458911
rejected from java.util.concurrent.ThreadPoolExecutor@4629cf3b
[Terminated, pool size = 0, active threads = 0, queued tasks = 0,
completed tasks = 9]

...
```

This message reports a problem with an obsolete CuratofFramework listener.

Workaround: Ignore the message.

The Fuse Builder cartridge does not support HTTPS connections

To connect to the Maven repository of the Fuse Builder cartridge, you must use an HTTP connection.

You cannot use the publicip resolver when you create a JBoss A-MQ application

The **publicip** resolver connects the application to the Git repository of the OpenShift Enterprise node. However, the resolver might not translate the public IP address of the node correctly and redirect the connection to an HTML page.

`Some OpenShift Enterprise processes might stop before the JBoss A-MQ application is created`

In some environments, you cannot create the JBoss A-MQ application because some OpenShift Enterprise components, such as `mcollective` and `rhc`, reach the maximum timeout limit and stop before the application is created.

For general information about the default timeout values of OpenShift Enterprise components, see the Component Timeout Value Location section of the OpenShift Enterprise Administrator Guide.

Workaround: Increase the timeout values of the OpenShift components. For a detailed description of this workaround, see the following knowledge base article: https://access.redhat.com/solutions/1238583

`The JBoss A-MQ cartridge creates a JBoss Fuse application by default`

When you install the JBoss A-MQ and create an application, the default type is JBoss Fuse. If you do not have the JBoss Fuse cartridge installed, the creation process fails.

Workaround: In the fabric server, open the **`openshift.profile/io.fabric8.openshift.properties`** file and change the value of the **`default.cartridge.url`** property in the following format:

```
default.cartridge.url=id:amq-<version_number>
```

For example, to set the default cartridge to JBoss A-MQ version 6.1.1, specify the following value:

```
default.cartridge.url=id:amq-6.1.1
```

CHAPTER 3. RESOLVED ISSUES

3.1. MESSAGING

Table 3.1, "Messaging Issues Resolved in 6.1.1" lists the issues resolved in version 6.1.1.

Table 3.1. Messaging Issues Resolved in 6.1.1

Issue Number	Description
AMQ-2876	Message received from Queue before its expiration and acknowledged after it, is put to deadletter queue in error
AMQ-3454	Contention on a mutex during a stress when using SimpleAuthenticationPlugin
AMQ-4182	Memory Leak for ActiveMQBytesMessage with Compression as true
AMQ-4349	ActiveMQ 5.8.0 thows nullpointer exception while shutting down (NIO + LevelDB + pending Non Peristent Messages)
AMQ-4485	Skipped message dispatch with concurrent transacted sends at cursor memory limit
AMQ-4555	Locking in SimpleCachedLDAPAuthorizationMap can lead to delays in Message dispatch.
AMQ-4719	Enable "Link Stealing" as an option on a Connector
AMQ-4930	java.lang.OutOfMemoryError: Java heap space Exception when sending big amount(1000+) of 1M non persistent messages to broker
AMQ-4952	When duplicate message occur from network producer, messages blocked by cursor audit are blocked till restart
AMQ-5068	Support hardening/persisting the JMSRedeliveryFlag across restarts
AMQ-5080	RAR - missing messages on master slave failover
AMQ-5119	broker redeliveryPlugin: after message redelivery, all subsequent "producer.send()" using same message are "scheduled" for delivery to queue rather than delivered to queue as normal
AMQ-5121	Browse command is no more working with Karaf
AMQ-5140	ArithmeticException: / by zero in HealthView.healthList() when using JMX-Health-Operations
AMQ-5146	RedeliveryPolicy exceeded for crashing consumer
AMQ-5156	Multiple tests using durable subs are failing

Issue Number	Description
AMQ-5189	Rollback on XASession when closing back to pool
AMQ-5212	Deadlock with duplicate detection and dlq processing in kahadb
AMQ-5241	Spurious WARN FailoverTransport - Transport .. failed, reason: , attempting to automatically reconnect java.io.EOFException
AMQ-5256	AMQP WARN Transport Connection failed: java.io.IOException
AMQ-5266	Stuck Messages in Single Broker when using JDBC Persistent Store
AMQ-5274	Stuck messages and CPU churn when aborted transacted message expires
AMQ-5279	failover redelivery to alternative consumers with pending transaction causes rollback *and* dlq processing
AMQ-5288	Return proper error codes to MQTT client on failed connect.
AMQ-5307	MQTT Transport codec does not properly deal with partial read of frame header
AMQ-5311	XAException message should encode the xaErrorCode
AMQ-5379	AMQP - allow setting prefetch size
ENTMQ-678	HTML in message header can prevent ActiveMQ Web Console from displaying correctly
ENTMQ-684	Stomp Tests hang on Solaris
ENTMQ-685	[ActiveMQ 5.9.0.redhat-610379] - NullPointerException at org.fusesource.hawtdispatch.package$RichExecutor.execute() during shutdown
ENTMQ-703	Stuck Messages in Single Broker when using JDBC Persistent Store
ENTMQ-792	When an AMQP client receives some messages from a queue, all JMSRedelivered headers of the remained messages are changed to true.
ENTMQ-815	mqtt: incorrect wild card replacement in mqtt topics

3.2. CONTAINER

Table 3.2, "Container Issues Resolved in 6.1.1" lists the issues resolved in version 6.1.1.

Table 3.2. Container Issues Resolved in 6.1.1

Issue Number	Description
ARIES-1014	inconsistencies in org.apache.aries.proxy versions
ARIES-885	In container managed mode, a single non thread safe entity manager is used to service all requests when no transaction is active
ENTESB-1681	Conccurent access issue for Aries JPA + Hibernate
FELIX-3360	Bundle location is statically set for dynamically bound bundles
FELIX-3712	FileInstall throws Interrupted exception when refreshed
FELIX-3714	Error when when fragment bundle is updated
FELIX-4071	ConcurrentModificationException in DirectoryWatcher.bundleChanged
ENTESB-1726	Use EventAdmin to provide an audit trail of events, but it's lacking the authenticated Subject who performed the action

3.3. FUSE FABRIC

Table 3.3, "Fuse Fabric Issues Resolved in 6.1.1" lists the issues resolved in version 6.1.1.

Table 3.3. Fuse Fabric Issues Resolved in 6.1.1

Issue Number	Description
FABRIC-593	Provisioning a profile stalls at "Installing" state forever
FABRIC-1121	Unable to deploy FAB to fabric containers
FABRIC-1090	Ports out of sync when removing a container from fabric which has been "joined" and added back to fabirc
FABRIC-1052	Unable to recreate fabric on Windows
FABRIC-1051	Profile updates get slower and slower
FABRIC-1068	Cannot change Fabric registry default port
FABRIC-1041	Camel-insight not able to store camel exchanges into ES
FABRIC-1043	Using wrap protocol with OSGi header options in a feature file does not work
FABRIC-1770	JBoss Fuse cartridge exposes credentials over httpJBoss Fuse cartridge exposes credentials over http

Issue Number	Description
FABRIC-1443	CVE-2014-0114 Apache Struts 1: Class Loader manipulation via request parameters [fuse-6]

3.4. CONSOLE

Table 3.4, "Console Issues Resolved in 6.1.1" lists the issues resolved in version 6.1.1.

Table 3.4. Console Issues Resolved in 6.1.1

Issue Number	Description
ENTESB-1326	notices generation doesn't work for Maven 3.1.1
ENTESB-1573	NullPointerException when adding a features url
ENTESB-1609	Can not install fuse as system service on AIX7.1
ENTESB-1627	Command console not working on HP-UX
ENTESB-1735	Fuse is closed when "u" char is pressed
KARAF-2910	Properties login module seems to leak a PropertiesInstaller reference results in OOM
KARAF-2982	Command history is off by one
KARAF-3021	Keyboard still read after log:tail cancelled
KARAF-3044	Can't shutdown karaf via wrapper on AIX
KARAF-3056	Upgrade to JLine 2.12

CHAPTER 4. ENHANCEMENTS

4.1. MESSAGING

Table 4.1, "Messaging Enhancements in 6.1.1" lists the enhancements in version 6.1.1.

Table 4.1. Messaging Enhancements in 6.1.1

Enhancement	Description
AMQ-5114	AbortSlow*ConsumerStrategy with abortConnection=false; ensure consumers are always removed from the broker
AMQ-5163	Enable durable topic subscriptions using individual ack mode.
AMQ-5214	Security errors for sync commands are only logged at debug levels
AMQ-5264	Allow optional manual transaction management on a rar managedConnection
AMQ-5292	Add support for publishing to MQTT '$' Topics (that start with the prefix '$')
AMQ-3519	Allow getJMSRedelivered flag to survive a restart
KARAF-3068	Update to Spring 3.2.9.RELEASE_1
AMQ-5077	Improve performance of virtual topic fanout and persistent asyncSend

4.2. CONTAINER

Table 4.2, "Container Enhancements in 6.1.1" lists the enhancements in version 6.1.1.

Table 4.2. Container Enhancements in 6.1.1

Enhancement	Description
ARIES-1038	be able to easily use Blueprint inside a WAR in any servlet container using blueprint-noosgi and a ServletContextListener to boot up all the blueprint XML files
ARIES-1069	Publish a single interface for better integration of the TransactionManager with other low-level components
ARIES-1082	Add a way to use property placeholders to define filters on service references
ARIES-998	Support a subset of blueprint outside OSGi
FELIX-4316	Packages imported dynamically should also be imported statically with an optional flag
FELIX-4317	SCR implementation should avoid using bundleContext.getBundle()

Enhancement	Description
FELIX-4339	Make the use of escape characters deterministic
FELIX-4343	[DS] rationalize log levels
FELIX-3997	Provide an abstract bundle extender
FELIX-2702	File Install should be smarter about starting failed bundles

4.3. CONSOLE

Table 4.3, "Console Enhancements in 6.1.1" lists the enhancements in version 6.1.1.

Table 4.3. Console Enhancements in 6.1.1

Enhancement	Description
KARAF-2789	Upgrade to sshd 0.11.0
KARAF-2623	Karaf client script only returns a non zero status if there is exception
KARAF-3045	Simplify console branding
KARAF-3068	Update to Spring 3.2.9.RELEASE_1

CHAPTER 5. SUPPORTED CONFIGURATIONS

For information about supported configurations, standards, and components in version 6.1, see the following Customer Portal articles:

- Red Hat JBoss A-MQ 6.1 Supported Configurations

- Red Hat JBoss A-MQ 6.1 Supported Standards and Protocols

CHAPTER 6. APACHE DEPENDENCIES

The following Apache projects are used in version 6.1:

Apache ActiveMQ

Red Hat JBoss A-MQ includes Apache ActiveMQ 5.9

Apache Karaf

Red Hat JBoss A-MQ includes Apache Karaf 2.3