



Red Hat AMQ 7.6

Using JON with AMQ Broker

For Use with AMQ Broker 7.6

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Abstract

This document describes how to install the AMQ Broker plug-in for JBoss Operations Network (JON) and how to discover, import, and view resources by using the JON interface.

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CHAPTER 1. OVERVIEW

JBoss Operations Network (JON) is an enterprise, Java-based administration and management platform that you can use to develop, test, deploy, and monitor JBoss middleware applications. JON is based on RHQ. When using the JON platform to manage AMQ Brokers, the system comprises three components:

- JON server
- JON agent
- Plug-in pack

The AMQ Broker plug-in is a connector that enables the JON Agent to collect information about the message brokers running in your JBoss environment.

1.1. KEY FEATURES

With the AMQ Broker plug-in for JON, you can:

- Discover and maintain an inventory of AMQ Brokers.
- Store, manage, and update AMQ Broker configurations.
- Detect configuration change, correlate them with performance history, and roll back.
- Automate and schedule execution of operations for managed resources and resource groups.

1.2. SUPPORTED CONFIGURATIONS

The supported configurations for both AMQ broker and JON server apply when you are using them together. Ensure that your systems align with the configurations documented in the following Knowledgebase articles:

- [AMQ 7 Supported Configurations](#)
- [JON Supported Configurations and Components](#)

CHAPTER 2. INSTALLATION

This chapter describes the prerequisites for installing the AMQ Broker plug-in and the process for obtaining and installing it.

2.1. PREREQUISITES

Before you can install the AMQ Broker plug-in, the following components must be installed, configured, and running:

- JBoss ON Server
- AMQ Broker
- JON Agent

Related information

- [Getting Started with AMQ Broker](#)
- [Configuring AMQ Broker](#)
- [Managing AMQ Broker](#)
- [JON 3.3 Installation Guide](#)
- [Configuring JON Servers and Agents](#)

2.2. DOWNLOADING AND INSTALLING THE AMQ BROKER PLUG-IN

JON uses plug-ins to handle specific JBoss resources, such as AMQ or EAP, and other applications. JON resource plug-ins are distributed in “plug-in packs” that are distributed separately from the JON Server and JON Agents. Plug-in packs may also require a separate subscription to download them.

When you install a plug-in pack on the JON server, its contents are available for download by JON agents. As a result, JBoss resources can be discovered and imported into the inventory to be managed.

To download and install the plug-in pack, complete the following steps:

1. Log in to the Red Hat Customer Portal and navigate to the Software Download page.
2. Select JBoss ON for AMQ from the Product drop-down menu. The Software Downloads page reloads and displays available releases.
3. Select **Download**. A dialog prompts you to open or save the zip archive file.
4. Save the zip archive and extract the files to a temporary directory, for example:

```
[smith@server rhq-agent]$ unzip jon-plugin-pack-3.3.zip -d /tmp
```

This creates a subdirectory with the name **jon-plugin-pack-3.3**.

5. Copy the extracted plug-in JAR files from the **jon-plugin-pack-plugin_3.3/** directory to the JBoss ON server plug-in directory. For example:


```
[root@server rhq-agent]# cp /tmp/jon-plugin-pack-plugin_3.3/* .jar /opt/jon/jon-server-3.3.GA/plugins
```

2.3. UPDATING THE PLUG-INS ON THE JON SERVER

On stand-alone platforms, prompt the JBoss ON server to update its plug-ins by either restarting the server or by using the JON web interface, as follows:

1. Click **Administration** > **Configuration** > **Agent Plugins**.
2. Click **Scan For Updates** in the bottom left corner.
3. Locate Red Hat JBoss AMQ 7 in the list of agent plug-ins and verify that the Last Updated timestamp is current.

On managed platforms, you can prompt agents to manually reload their plug-ins by using the **plugins** command:

```
[jsmith@server ~]$ agentRoot/rhq-agent/bin/rhq-agent.sh > plugins update
```

Alternatively, if the agents are imported into the JON inventory, this can be done in the JON GUI by scheduling an update plugins operation for an agent or a group of agents. To do so, select the agent resource entry in the inventory, open the **Operations** tab, and schedule the update plug-ins operation.

Related information

[JON 3.3 Installation Guide](#)

CHAPTER 3. CONFIGURATION

3.1. CONFIGURING AUTHORIZATION

AMQ Broker has role based access control (RBAC) that is used to restrict access to the attributes and methods of MBeans. For instructions on how this is configured see [Configuring AMQ Broker](#).

If the broker is configured to use RBAC then the JON plugin must be configured with the correct username and password so that the plugin can authenticate against the broker. Once authenticated any access to MBeans will be restricted based on the **`BROKER_INSTANCE_DIR/etc/management.xml`** configuration file.

The JON plugin's default user is 'admin' and default password is 'activemq'. You can configure the plugin to use a different user/password to connect to the broker. When the JON plugin is being initiated, it loads the JMX credentials from a configuration file located at **`BROKER_INSTANCE_DIR/etc/org.jboss.rh-messaging.amq.jon.cfg`**

This configuration file will look something like this.

```
principal = username
credentials = password
connectorAddress = service:jmx:rmi:///jndi/rmi://localhost:11099/jmxrmi
```

This configuration file also contains the **`connectorAddress`** property which is the JMX address that the plugin will use to connect to the broker.

3.2. POPULATING THE INVENTORY

The **Inventory** is where all manageable resources and groups are shown. To populate the AMQ Broker resources, perform the following steps:

1. Click **Resources > Discovery Queue** in the left navigation pane. At least one resource, an AMQ Broker instance, is displayed in the Discovery Queue window.
2. Expand the broker resource entry by clicking the down arrow in the Resource Name column. Sub-entries for at least two servers are displayed, including the AMQ 7 Server and the JMX server. The AMQ 7 Server is the entity for which we need to populate the inventory.
3. In the Resource Name column, click the checkbox next to the AMQ 7 Server sub-entry. Note that the Import and Ignore buttons are enabled in the bottom left part of the window. Click **Import**.
4. A Question dialog opens and asks if you want to discover the platform children. Click **Yes**. You should see a confirmation message stating that the resources were successfully imported.
5. Verify that the import was successful by clicking **Resources > Platform** in the left navigation pane. You should see multiple entries running in the Platforms window, such as the AMQ Server and the JON Server.

CHAPTER 4. MANAGEMENT

4.1. BROWSING BROKER INFORMATION

Now that you've populated the inventory with details about your AMQ 7 Server, you can browse information about most aspects of your AMQ Broker instances. To view details about AMQ 7 Servers, perform the following steps:

1. Click **Resources > Servers - Top Level Imports** to view the AMQ 7 Server in the Servers - Top Level Imports window.
2. Double-click the AMQ 7 Server entry. The left navigation pane now displays the AMQ Server and the areas into which you can drill down to view detailed data about your message brokers, acceptors, addresses, and more.
3. With each level you drill down into the hierarchy, the main window displays detailed information specific to the AMQ Server you selected. In addition, the main window includes a set of tabs such as Summary, Inventory, Alerts, Monitoring, and Events that you can use to view different aspects of the entities you've selected on the left.

4.2. MANAGING BROKERS

You can perform myriad monitoring, deployment, and management operations by using JON. It's strongly recommended that you browse the JON guide titled *Using JBoss Operations Network for Monitoring, Deploying, and Managing Resources* to ensure that you're taking advantage of all the benefits that JON has to offer.

Related information

[Using JBoss Operations Network for Monitoring, Deploying, and Managing Resources](#)

APPENDIX A. USING YOUR SUBSCRIPTION

AMQ is provided through a software subscription. To manage your subscriptions, access your account at the Red Hat Customer Portal.

Accessing your account

1. Go to access.redhat.com.
2. If you do not already have an account, create one.
3. Log in to your account.

Activating a subscription

1. Go to access.redhat.com.
2. Navigate to **My Subscriptions**.
3. Navigate to **Activate a subscription** and enter your 16-digit activation number.

Downloading ZIP and TAR files

To access ZIP or TAR files, use the customer portal to find the relevant files for download. If you are using RPM packages, this step is not required.

1. Open a browser and log in to the Red Hat Customer Portal **Product Downloads** page at access.redhat.com/downloads.
2. Locate the **Red Hat AMQ** entries in the **JBOSS INTEGRATION AND AUTOMATION** category.
3. Select the desired AMQ product. The **Software Downloads** page opens.
4. Click the **Download** link for your component.

Registering your system for packages

To install RPM packages on Red Hat Enterprise Linux, your system must be registered. If you are using ZIP or TAR files, this step is not required.

1. Go to access.redhat.com.
2. Navigate to **Registration Assistant**.
3. Select your OS version and continue to the next page.
4. Use the listed command in your system terminal to complete the registration.

To learn more see [How to Register and Subscribe a System to the Red Hat Customer Portal](#) .

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