Red Hat JBoss A-MQ 6.1

Management Console User Guide

Manage your Fuse environment from the Web

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Legal Notice

Abstract

The Management Console User Guide describes the Fuse Management Console user interface and the tasks you can perform to manage containers and fabrics. This guide assumes that you are familiar with Red Hat JBoss Fuse components, Apache components, and the processing requirements for your organization.

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PART I. INTRODUCTION

Abstract

You use the Fuse Management Console to manage containers and fabrics. You can deploy containers to a fabric, set container and fabric properties, manage versions, and monitor resources and system performance.

You access the Fuse Management Console from a Web browser. Before you use the console, you must install and start Red Hat JBoss Fuse. To manage fabric properties, you must create a fabric or join an existing fabric.

CHAPTER 1. FUSE MANAGEMENT CONSOLE OVERVIEW

Abstract

The Fuse Management Console provides a central interface to manage and configure Fuse entities. You can use the Fuse Management Console to configure and deploy containers, Apache ActiveMQ brokers, and fabrics. You also monitor JBoss Fuse and system resources, perform updates, and start or stop services.

USER INTERFACE OVERVIEW

The management console consists of the following areas:

Welcome Page

Introduction to the management console and help topics.

Menu Bar

Global and user options. The Menu bar contains the following options:

Option	Description
Container	Opens the `Container` perspective. Use this perspective to manage features, bundles, and runtime properties for a specific container.
Fabric	Opens the `Fabric` perspective. Use this perspective to manage containers, profiles, and monitor overall system status for all containers. This perspective is available only if you create or join a fabric.
Logging Console	Opens the logging console in a drop-down pane.
Help	Opens the `Welcome` page and shows the wiki help.
User > Preferences	Opens the `Preferences` page. Use the page to configure global options for the user.
User > Log Out	Logs out of the management console.
User > About	Opens the `About` dialog box that shows version information.

Container Perspective

Container management options. The actual areas depend on the container features and bundles. The Container perspective can contain the following options:

Option	Description
ActiveMQ	Tree view and details of running Apache ActiveMQ brokers. This page is available only when you connect to a container with an ActiveMQ profile.

Option	Description
Camel	Tree view and details of running Apache Camel routes. This page is available only when you connect to a container with a Camel profile.
Connect	Connection page to a remote server or a local JVM with a running Jolokia agent.
Dashboard	Overview of the management console status, services status, and system performance. You can add views to the dashboard and create additional dashboards. If you create or join a fabric, this toolbar option is not available. Use the **Dashboard** page in the **Fabric** perspective to view information for all containers in the fabric. For more information, see Dashboard Page.
Health	List and status of running health mbeans. This page shows any available container health mbeans. If you create or join a fabric, this toolbar option is not available. Use the **Health** page in the **Fabric** perspective to view fabric and container health mbeans. For more information, see Health Page.
JMX	Tree view of the JMX domains and mbeans. You can view details and execute commands on the mbeans.
Logs	List of log entries. Use this page to view activity details and error messages.
OSGi	Detailed view of the JBoss Fuse OSGi environment. Use this page to manage bundles, features and configurations, and view details of Java packages and OSGi services.
Terminal	Emulator view of the Karaf console. Use this page to run JBoss Fuse commands in the same way you run commands in the Karaf console.
Threads	List of active threads and stack trace details for each thread.
Wiki	Explorer view of the fabric configuration repository and wiki content. The repository contains files that affect the behavior of the fabric during runtime. This toolbar option is available only if you create or join a fabric, and opens the **Wiki** page in the **Fabric** perspective. For more information, see Wiki Page.

Fabric Perspective

Fabric management options. Available only if you create or join a fabric. The Fabric perspective contains the following options:

Option	Description

Option	Description
Runtime	Fabric runtime management options. Contains the following pages: • Containers • Profiles • Manage • MQ • APIs • EIPs • Registry • Map
Wiki	Explorer view of the fabric configuration repository and wiki content. The repository contains files that affect the behavior of the fabric during runtime.
Dashboard	Overview of the management console status, services status, and system performance. You can add views to the dashboard and create additional dashboards.
Health	List and status of running health mbeans. This page shows any available container or fabric health mbeans.

CHAPTER 2. ACCESSING THE MANAGEMENT CONSOLE

Abstract

You use a Web browser to access the Fuse Management Console. Before you access the management console, you must set up a user name and password and start the Karaf console. If you want to manage fabric properties, you create a fabric from the Karaf console.

OVERVIEW

The Fuse Management Console is available by default when you install Red Hat JBoss Fuse. After you start the Karaf console, you can use the default URL to access the console locally or a custom URL to connect to a remote host.

PREREQUISITES

Before you access the management console, you must configure user credentials and start JBoss Fuse and configure user credentials.

> **NOTE**
>
> If you use JBoss Fuse on OpenShift, you can skip this task and access the management console directly with the JBoss Fuse application URL after you deploy the JBoss Fuse cartridge. For more information about how to get started with JBoss Fuse on OpenShift, see *Cloud Computing with Fabric*.

To configure user credentials and start JBoss Fuse:

1. In the command line, navigate to the directory in which you installed JBoss Fuse and run the following command:

   ```
   ./fuse
   ```

   The Karaf console starts and shows version information, the default management console URL, and a list of common commands.

2. If no user exists for JBoss Fuse, run the esb:create-admin-user command to create a user. You can also define the user name and password directly in the `users.properties` file. For more information, see the *Red Hat JBoss Fuse Installation Guide*.

ACCESSING THE MANAGEMENT CONSOLE

You access the Fuse Management Console from a Web browser. For a list of supported browsers, see access.redhat.com.

To access the management console:

1. In a Web browser, enter the URL to connect to the management console in the following format:

   ```
   http://<host_name>:<port_number>
   ```

For example, use the following default URL to connect to the management console locally:

```
http://localhost:8181
```

> **NOTE**
>
> You can configure the pax-web property to support HTTPS connections for a specific container.

2. In the login page, enter the user name and password and click **Log In**.

   If you created or joined a fabric, the management console opens to the **Fabric** perspective. Otherwise, only the **Container** perspective is available. By default, the management console shows the **Welcome** page. You can choose to hide the **Welcome** page at the bottom of the page.

CHAPTER 3. SECURING THE MANAGEMENT CONSOLE

Abstract

The Management Console has authentication enabled by default. You can optionally enable SSL/TLS security to provide message encryption, thereby protecting username/password credentials from on-the-wire snooping.

OVERVIEW

There are two main aspects to securing the Management Console:

- Authentication (enabled by default)

- SSL/TLS security

AUTHENTICATION

Authentication is enabled by default on the Management Console and is required in order for the Management Console to function correctly. For your information, the authentication mechanism consists of the following key elements:

- *HTTP BASIC authentication protocol*—the standard HTTP protocol for transferring username/password credentials is the BASIC authentication protocol. This protocol sends username/password credentials in plaintext, so these credentials are *vulnerable to snooping*, unless you enable SSL/TLS security.

- *JAAS authentication*—the Java Authentication and Authorization Service (JAAS) is a pluggable framework for authenticating credentials on the server side. The Jetty servlet container (which hosts the Management Console) is configured to use the `karaf` JAAS realm by default. This ensures that the Management Console uses the same pool of user credentials as the other standard container services (where the user credentials are usually stored in the `etc/users.properties` file by default, in a standalone container).

SSL/TLS SECURITY

SSL/TLS security is *not* enabled by default for the Management Console. It is recommended that you enable SSL/TLS security on the Management Console to protect username/password credentials from snooping. For detailed instructions on how to enable SSL/TLS security, please see the following reference:

- [chapter "Securing the Jetty HTTP Server" in "Security Guide"](#)

PART II. CONTAINER MANAGEMENT

Abstract

You use the Fuse Management Console to deploy containers to a fabric and manage container properties. You can manage properties for each container such as the JMX domains, versions, and hosts. You can also review log entries and monitor system status and performance while the container runs.

CHAPTER 4. CONTAINER PERSPECTIVE

When you log in to the management console, you use the **Container** perspective to configure and monitor runtime information about a specific container. By default, the Container perspective shows information about the root container. You can also select and connect to any container from the **Fabric** perspective.

The **Container** perspective contains a toolbar that you use to manage and monitor container components. The actual areas depend on the container features and bundles and whether the container is deployed to a fabric. The toolbar can contain the following options:

Option	Description
ActiveMQ	Tree view and details of running Apache ActiveMQ brokers. This page is available only when you connect to a container with an ActiveMQ profile.
Camel	Tree view and details of running Apache Camel routes. This page is available only when you connect to a container with a Camel profile.
Connect	Connection page to a remote server or a local JVM with a running Jolokia agent.
Dashboard	Overview of the management console status, services status, and system performance. You can add views to the dashboard and create additional dashboards. If you create or join a fabric, this toolbar option is not available. Use the **Dashboard** page in the **Fabric** perspective to view information for all containers in the fabric. For more information, see Dashboard Page.
Health	List and status of running health mbeans. This page shows any available container health mbeans. If you create or join a fabric, this toolbar option is not available. Use the **Health** page in the **Fabric** perspective to view fabric and container health mbeans. For more information, see Health Page.
JMX	Tree view of the JMX domains and mbeans. You can view details and execute commands on the mbeans.
Logs	List of log entries. Use this page to view activity details and error messages.
OSGi	Detailed view of the JBoss Fuse OSGi environment. Use this page to manage bundles, features and configurations, and view details of Java packages and OSGi services.
Terminal	Emulator view of the Karaf console. Use this page to run JBoss Fuse commands in the same way you run commands in the Karaf console.
Threads	List of active threads and stack trace details for each thread.
Wiki	Explorer view of the fabric configuration repository and wiki content. The repository contains files that affect the behavior of the fabric during runtime. This toolbar option is available only if you create or join a fabric, and opens the **Wiki** page in the **Fabric** perspective. For more information, see Wiki Page.

CHAPTER 5. MANAGING CONTAINERS

OVERVIEW

You can create, edit, and delete a container from the **Fabric** perspective of the management console. The type of container you create depends on the purpose and location of the container.

You can create a child container, a cloud container, or an ssh container. If you create a cloud container, make sure you have the credentials to your cloud account. If you create an ssh container, make sure you have the remote host properties.

You can access the container from multiple areas of the **Fabric** perspective. For example, you can use the **Containers** page in the **Runtime** area or the **Wiki** page.

If the **Fabric** perspective is not available, make sure that your fabric is available or create a new fabric. If you do not create or join a fabric, you must use the Karaf console to create the container and use the **Container** perspective to view and manage container properties.

CREATING A CONTAINER

Depending on the location from which you create the container, the management console auto-fills one or more container properties. For example, if you create a container for an existing profile from the **Wiki** page, the profile name appears in the **Selected Profiles** list.

To create a container:

1. Click the **Create** button to open the **Create New Container** page.

2. Set the container properties, such as the name and user credentials to use when JBoss Fuse runs the container.

3. Click the **Create Container** button to save the container. The **Containers** page opens and shows the container name and status. It may take some time to download and assign all the container features and dependencies.

   > **NOTE**
   >
   > If you create an OpenShift container, the container also appears as an application on the OpenShift applications page.

EDITING CONTAINER PROPERTIES

You can access the **Container Details** page from multiple areas in the Fabric perspective of the management console.

To edit a container, click the container name and edit the container properties in the **Container Details** page. If you added or removed profiles, bundles, or other components, the management console shows the progress of the changes and the state of the container.

DELETING ONE OR MORE CONTAINERS

You can delete containers from various areas of the management console, such as the **Containers** page or the **Manage** page of the **Runtime** area.

To delete the containers, select one or more containers from the list and click the **-** icon or the `Delete` button.

CHAPTER 6. ACTIVEMQ PAGE

Abstract

You view and and manage Apache ActiveMQ brokers in the **ActiveMQ** page. You can view broker attributes, run commands, add destinations, and monitor broker status.

OVERVIEW

You access the **ActiveMQ** page from the **Container** perspective. This page is available only when you connect to a container that uses one or more ActiveMQ brokers.

The following image shows an example of the **ActiveMQ** page:
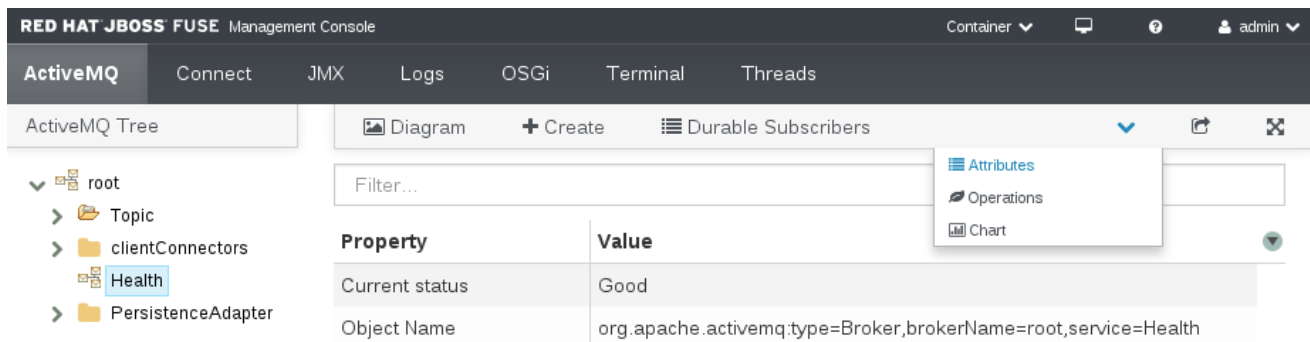
The ActiveMQ page contains the following sections:

ActiveMQ Tree

Tree view of running ActiveMQ brokers organized in folders. You can click a folder to show the folder contents, and select a topic, queue, or broker to show the details in the details pane.

Toolbar

Options to view attributes, run commands, and view or create charts for the selected entity. You can also add the current view to the dashboard and toggle full screen mode. If you select a topic, you can also manually send the message to an endpoint.

Details Pane

Detailed view of the selected entity. The contents of this pane depend on the toolbar option that you select. You can filter the details pane to show only values that match the text string that you enter.

CHAPTER 7. CAMEL PAGE

Abstract

You view and and manage Apache Camel routes and dependencies in the **Camel** page. You can view route attributes and source code, debug and trace the route, and monitor route status.

OVERVIEW

You access the **Camel** page from the **Container** perspective. This page is available only when you connect to a container that uses one or more Camel routes.

The following image shows an example of the **Camel** page:

The Camel page contains the following sections:

Camel Tree

Tree view of running Camel routes and dependencies organized in folders. You can click a folder to show the folder contents, and select a route, endpoint, or mbean to show the details in the details pane.

Toolbar

Options to view attributes, run commands, and view or create charts for the selected entity. You can also add the current view to the dashboard and toggle full screen mode. If you select a route, you can also debug or trace messages through the route.

Details Pane

Detailed view of the selected entity. The contents of this pane depend on the toolbar option that you select. You can filter the details pane to show only values that match the text string that you enter.

CHAPTER 8. CONNECT PAGE

Abstract

You view and manage local and remote connections in the **Connect** page. You can connect to a remote server with a running jolokia agent, or connect to a local server if you have a local JVM with a jolokia agent.

For more information about Jolokia JMX agents, see the Jolokia Web site at the following address: http://www.jolokia.org/

OVERVIEW

You access the **Connect** page from the **Container** perspective. By default, this page opens to the **Remote** tab.

The following image shows an example of the **Remote** tab:

The **Connect** page contains the following sections:

Navigation Bar

> Tabbed view of available connection types. The **Remote** tab always appears. If you have a local JVM with a jolokia agent, the **Local** tab also appears. You can tab between the connection types or click the **Refresh** button to update the **Saved Connections** list.

Saved Connections List

> Drop-down list of default and custom connections. You can select a connection from the list and connect to the server or delete the connection. You can also select **New Connection** and click the **+** icon to create a new connection.

Connection Settings

User credentials and connection properties, such as the connection name and host properties. When you save the connection a new browser window opens and connects to the remote server. If you select a saved connection you can edit the connection properties in this section.

CHAPTER 9. JMX PAGE

Abstract

You view and manage JMX domains and mbeans in the **JMX** page. You can view mbean attributes, run commands, and create charts that show statistics for the mbeans.

OVERVIEW

You access the **JMX** page from the **Container** perspective.

The following image shows an example of the **JMX** page:

The JMX page contains the following sections:

JMX Tree

> Tree view of the active JMX domains and mbeans organized in folders. You can click a folder to show the mbeans, and select an mbean to show the details in the details pane.

Toolbar

> Options to view attributes, run commands, and view or create charts for the selected mbean. You can also add the current view to the dashboard and toggle full screen mode. If you select a broker mbean, you can view additional information about the broker and manage durable subscribers.

Details Pane

> Detailed view of the selected mbean. The contents of this pane depend on the toolbar option that you select. You can filter the details pane to show only values that match the text string that you enter.

CHAPTER 10. LOGS PAGE

Abstract

You view log entries for JBoss Fuse in the **Logs** page. You can filter the page to show specific log types, and drill down to each log entry to view detailed information about the log entry.

OVERVIEW

You access the `Logs` page from the `Container` perspective.

The following image shows an example of the **Logs** page:

The **Logs** page contains the following sections:

Action Bar

> Options to filter the log entries section according to a text string or the logging level. You can also add the current view to the dashboard.

Log Entries

> List view of the log entries. By default, the list shows log entries in descending order. You can change the default sorting in the `Preferences > Logs` page. You can click the log entry link to drill down to details about the log entry, such as the bundle name, thread, and the full message text.

CHAPTER 11. OSGI PAGE

Abstract

You view and manage the JBoss Fuse OSGi environment in the `OSGi` page. You can view and manage container bundles, features, and configurations, as well as Java packages and OSGi services.

OVERVIEW

You access the `OSGi` page from the `Container` perspective. The page contains a toolbar with options for each container component.

The following image shows an example of the `Bundles` page:
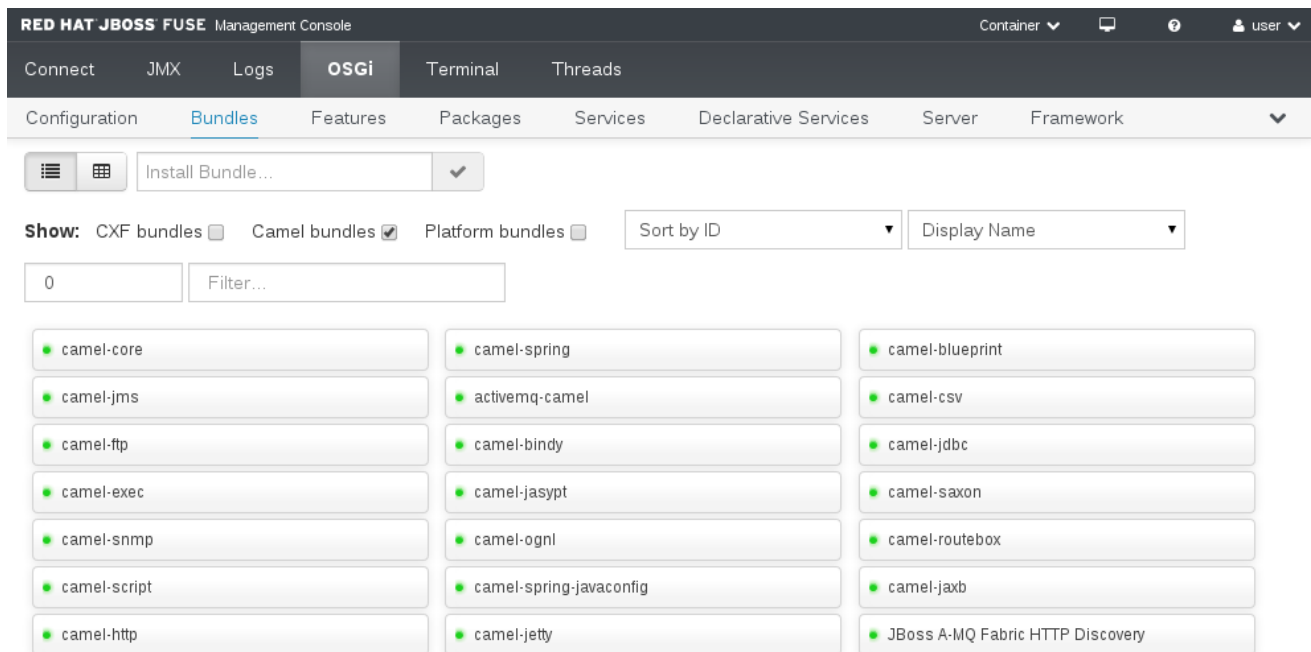
The `OSGi` page contains the following toolbar options:

Configuration

List of configuration objects. You can view the state of each object and drill down to view or edit object details. You can also create a new configuration object.

Bundles

List of installed bundles. You can install and uninstall bundles, start and stop bundles, and edit bundle properties. You can also filter the list and toggle between list and grid view.

Features

List of available features. You can install and uninstall features or feature repositories, and drill down to view feature details.

Packages

List of installed Java packages. You can view package versions and associated bundles.

Services

List of running services. You can view service IDs, associated bundles and object classes.

Declarative Services

List of declarative OSGi services. You can view the service state and drill down to view service details. You can also activate and deactivate services.

Server

Detailed information about the local or remote host in read-only mode.

Framework

Configuration options for the container OSGi framework. You can set the framework start level and the initial bundle start level.

Dependencies

Dynamic diagram view of the bundles, services, and packages. You can click each element to view details in the right pane. You can also drag, zoom in, and zoom out of the diagram.

CHAPTER 12. THREADS PAGE

Abstract

You view and monitor the state of threads in the **Threads** page. You can filter the page to show threads by status, and drill down to each thread to view stack trace information about the thread.

OVERVIEW

You access the **Threads** page from the **Container** perspective.

The following image shows an example of the **Threads** page:

The **Threads** page contains the following sections:

Filter

Options to filter the thread list according to the thread state. You can click each state to filter the page, or click **Total** to show all threads. Each state shows the number of threads with that state. You can also enter a text string in the Filter box to show only thread names that match the text string.

Thread List

List view of active threads. By default, the thread list shows all threads in descending ID order. You can click each column header to sort the list by that column. You can also click each thread to drill down to detailed information, such as the lock class name and full stack trace for that thread.

PART III. FABRIC MANAGEMENT

Abstract

You use the Fuse Management Console to deploy containers to a fabric and assign containers to profiles. You can start, stop, and connect to containers. You can also update container versions, manage profiles and dependencies, and monitor the system status and performance.

CHAPTER 13. FABRIC PERSPECTIVE

When you log in to the management console, you use the **Fabric** perspective to configure and manage containers, profiles, and general fabric properties.

The **Fabric** perspective contains a toolbar that you use to manage and monitor fabric areas. The toolbar contains the following buttons:

Option	Description
Runtime	Fabric runtime management options. Contains the following pages: • Containers • Profiles • Manage • MQ • APIs • EIPs • Registry • Map
Wiki	Explorer view of the fabric configuration repository and wiki content. The repository contains files that affect the behavior of the fabric during runtime.
Dashboard	Overview of the management console status, services status, and system performance. You can add views to the dashboard and create additional dashboards.
Health	List and status of running health mbeans. This page shows any available container or fabric health mbeans.

CHAPTER 14. CREATING OR JOINING A FABRIC

OVERVIEW

To view and manage fabric properties, you must create or join a fabric. You create or join a fabric from the Karaf console. Before you create or join a fabric, make sure that JBoss Fuse is running and that your system is connected to the network.

CREATING OR JOINING A FABRIC

You create or join a fabric from the Karaf console or from the **Terminal** page in the **Container** perspective of the management console. You use the same command syntax in the Karaf console and the **Terminal** page.

To create a fabric, run the following command:

```
fabric:create
```

The Karaf console shows the default zookeeper password to use when you access the fabric.

To join a fabric, run the following command:

```
fabric:join <zookeeper_URL> <container_name>
```

You can set optional arguments, such as the profile or the port range. For more information, see the [Red Hat JBoss Fuse Console Reference].

CHAPTER 15. MANAGING PROFILES

OVERVIEW

A profile is a set of instructions to use when you run containers in a fabric. For example, a profile might contain one or more bundles, features, or configuration objects that you want to assign to multiple containers.

JBoss Fuse provides a default set of profiles based on the distribution that you install. You must create or join a fabric before you can manage profiles. You can create, edit, and delete profiles. You can also add or remove features, bundles, or feature repositories from an existing profile.

CREATING A PROFILE

1. In the **Profiles** section of the **Manage** page or the **Wiki** page, click the **+** icon. The **Create New Profile** dialog box opens. To create a profile in an existing folder, you can drill down to the folder in which you want to create the profile and click the **+** icon.

2. Enter a name for the profile. Use dash characters to create directory levels. Each dash character adds a level to the directory hierarchy. For example, if you enter **MyProfile-Profile1**, the management console creates the directory **MyProfile** under the main profiles directory and creates the **Profile1** in that directory.

   If you create a profile from an existing folder, you do not need to use the dash character to create a directory. The profile appears in the directory from which you create the profile.

3. If you want the profile to inherit features, bundles, or other configuration properties from one or more existing profiles, select the profiles from the list.

4. Save the profile. The **Manage** pages shows the profile and the parent directory. You can click the profile name to edit the profile.

EDITING A PROFILES

1. In the **Profiles** section of the **Manage** page or the **Wiki** page, click a profile name. The **Profile Details** page opens.

2. Edit the profile properties and save the changes. The management console updates the profile properties and deploys the changes to any container to which you assigned the profile.

DELETING ONE OR MORE PROFILES

1. In the **Profiles** section of the **Manage** page, select one or more profiles.

2. Click the **-** icon and confirm the deletion. The management console deletes the profiles and removes the deleted profiles from assigned containers.

CHAPTER 16. ASSIGNING PROFILES TO CONTAINERS

OVERVIEW

You can assign one or more profiles to a container in a fabric. Each profile contains configuration information, such as features, bundles, or system properties. You must create or join a fabric before you can assign profiles to containers.

CREATING A CONTAINER WITH AN ASSIGNED PROFILE

1. Open the **Create New Container** page to create a new container. You can create a new container from multiple locations in the management console, such as the **Containers** page or the **Configuration** page.

2. In the **Profiles** section of the **Create New Container** page, click a folder to show the available profiles for that category or enter a filter string to search the profile list for a specific profile.

3. Select one or more profiles and enter the container properties in the same way that you enter the container properties for a standalone container.

ASSIGNING OR REMOVING A PROFILE FROM AN EXISTING CONTAINER

1. Open the **Container Details** page for the container that you want to edit. In most areas of the management console, you click the container name to drill down to the container details. The **Container Details** page shows the assigned profiles on the left pane.

2. Choose whether to add or remove profiles from the container.

   - To add profiles to the container, click the **Add** button and select one or more profiles from the list. You can add profiles based on the profiles that you already assigned to the container. For example, you cannot add a JON profile to a container that runs with a SOAP profile.

   - To remove profiles from the container, select one or more profiles and click the **Remove** button. If you remove all profiles from a container, JBoss Fuse assigns the **default** profile to the container.

ASSIGNING MULTIPLE PROFILES TO MULTIPLE CONTAINERS

1. In the **Manage** page of the **Runtime** area, select one or more profiles from the **Profiles** section.

2. Select one or more containers from the Containers section. A green arrow appears in the Profiles section.

3. Click the green arrow to apply the selected profiles to the selected containers.

CHAPTER 17. PATCHING A FABRIC

OVERVIEW

This section explains how to apply patches to a fabric. In a fabric, patches are applied to individual containers, so you can choose whether you want to apply a given patch to just some or all containers in a fabric.

PATCHING A FABRIC

To patch a fabric container (or containers) from the Management Console, perform the following steps:

1. In the dropdown box below the **Versions** button, select the version that you are going to apply the patch to. Now click the *box* icon on the left of the **+** icon, on the **Versions** button:
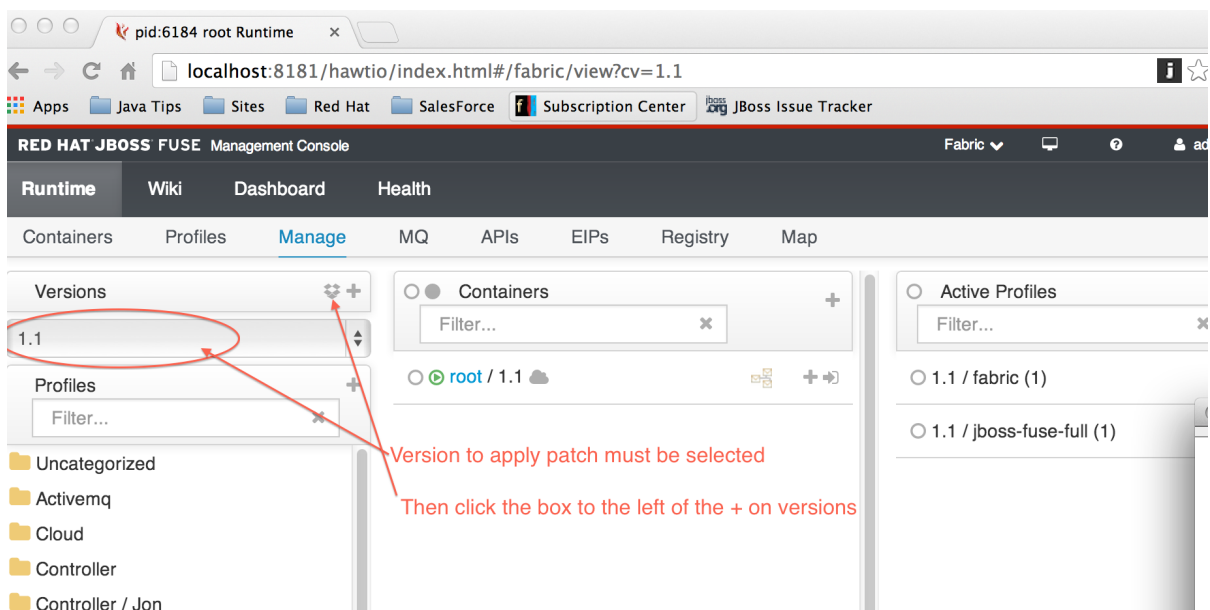
2. The **Applying patch to version 1.1...** page appears:

Fill in the fields on this page as follows:

1. Use the **Add** button to add one or more patch files.

2. *(Optional)* Enter a name for the new version (to which the patch will be applied).

> **IMPORTANT**
>
> The version name must be a pure *numeric* string, such as **1.1**, **1.2**, **2.1**, or **2.2**. You cannot incorporate alphabetic characters in the version name (such as **1.0.patch**).

3. Enter the administrator credentials, **User Name** and **Password**.

4. Click **Apply**.

3. Apply the patched version to a container (or containers) from the **Manage** page.
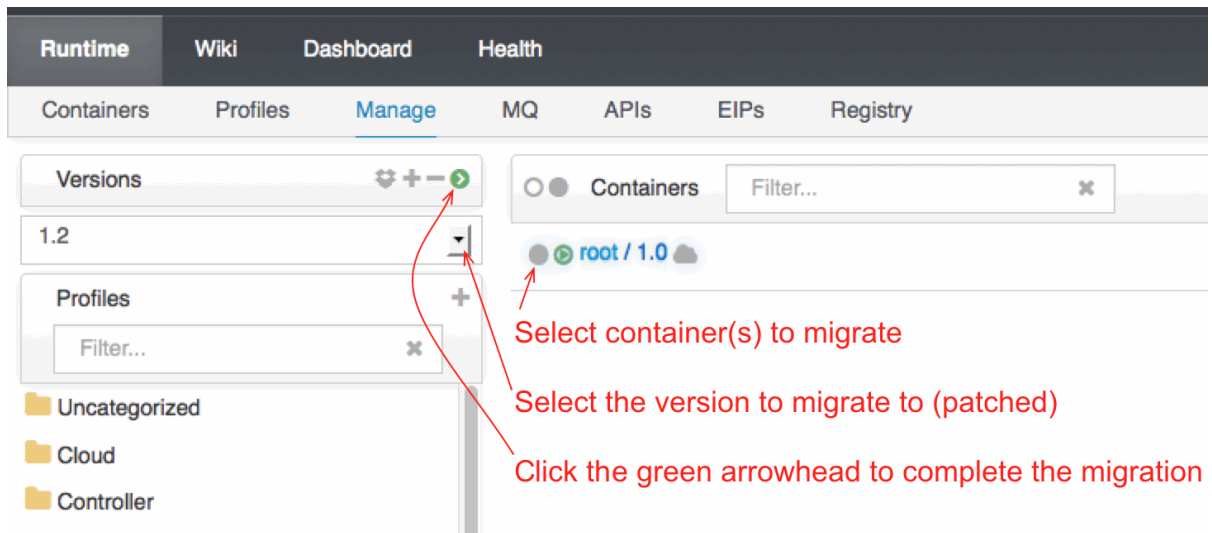
Perform the following steps:

1. Select the container(s) to migrate, by clicking on the circle next to the container name.

2. Use the dropdown list to select the patched version that you want to migrate to.

3. Click the green arrowhead on the **Versions** button to complete the migration.

4. If the migration is successful, you should see the changed version of the container on the **Manage** page. For example, in the preceding example, the **root / 1.0** container would change to **root / 1.2**.

CHAPTER 18. RUNTIME AREA

Abstract

You use the **Runtime** area to view and manage containers, profiles, ActiveMQ brokers, and APIs. You can perform rolling updates to entities, monitor registered services, and view the location of your containers on a map.

18.1. RUNTIME AREA OVERVIEW

You access the **Runtime** area from the **Fabric** perspective. If the **Fabric** perspective is not available, make sure that your fabric is available or create a new fabric.

The **Runtime** area contains a toolbar that you use to access management pages for fabric entities. The **Runtime** area contains the following pages:

Containers

List of available containers. Use this page to view container status, drill down to container details, and create containers in the fabric.

Profiles

List of containers with assigned profiles. Use this page to view profile and container details and define minimum and maximum container requirements for each profile.

Manage

Detailed view of containers and profiles. Use this page to assign multiple profiles to multiple containers and update profile and container versions.

MQ

Graphical view of ActiveMQ brokers in a broker topology. Use this page to move, group, and connect containers.

APIs

List of installed Apache CXF Web Services APIs. Use this page to view and manage API properties, such as parameter values and exceptions.

EIPs

Dynamic diagram of installed Apache Camel containers. Use this page to view the details of the Camel route endpoints and dependencies.

Registry

List of registered services. Use this page to drill down to services and view service details and status.

Map

Locations of deployed containers according to the fabric geoIP data.

18.2. CONTAINERS PAGE

Abstract

You view and manage containers in a fabric in the `Containers` page. You can view the list of containers, drill down to container details, and create containers.

Overview

You access the `Containers` page from the `Fabric` perspective. If the `Fabric` perspective is not available, make sure that your fabric is available or create a new fabric.

The following image shows an example of the `Containers` page:
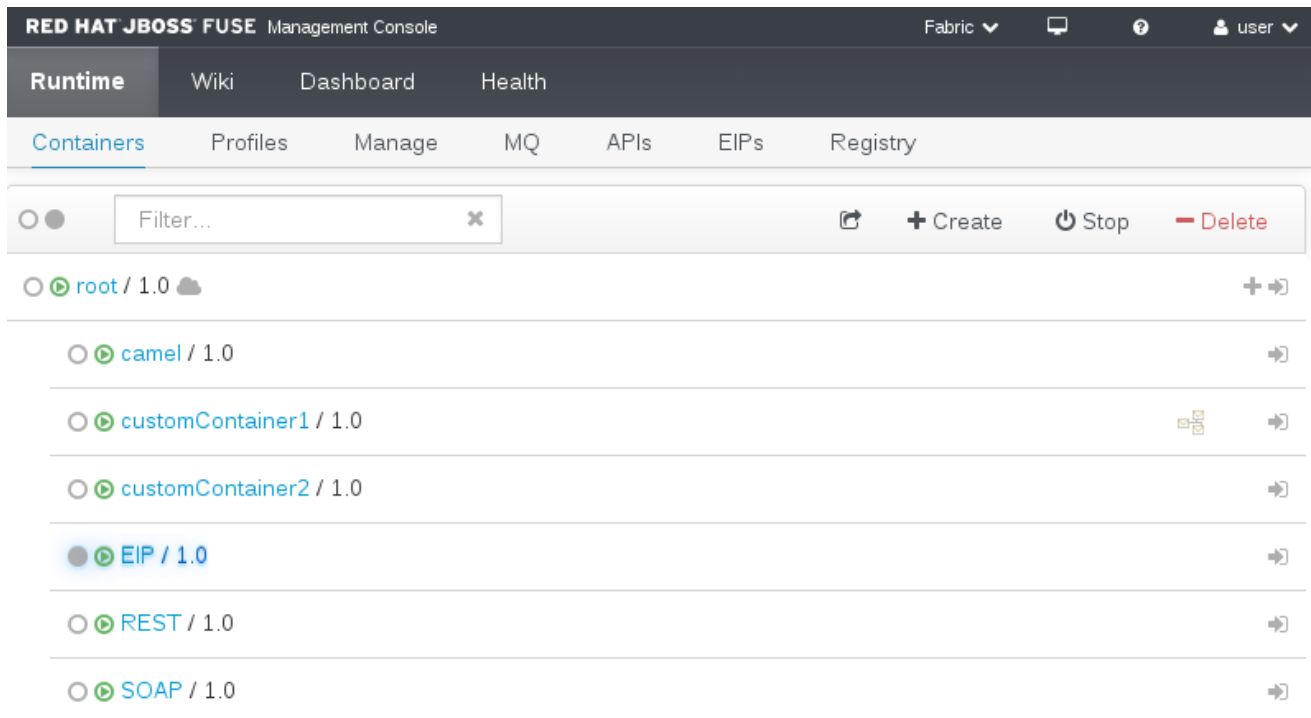
The `Containers` page contains the following sections:

Action Bar

> Options to filter the container list, add the view to the dashboard, or create a new entity. When you select one or more containers, the Action Bar shows container options.

Container List

> List of deployed containers. Click the name of the container to drill down to the `Container Details` page. You can also create a child container for a specific container directly from the container list.

Action Bar

The Action Bar contains the following options:

Select All / Select None

> Selects all containers in the list or clears all selections.

Filter

Filters the container list to show only containers that match a string that you enter in the text box. The container list refreshes as you type. To clear the filter, you click the **X** icon.

Add to Dashboard

Adds the current view to the dashboard. The view appears in the fabric dashboard.

Create

Opens the `Create New Container` page. The new container appears as a root container in the container list.

Start / Stop

Starts or stops the selected containers. Available when you select one or more containers.

Delete

Deletes the selected containers. Available when you select one or more containers.

Migrate

Updates the version of the selected containers. Available when you select one or more containers and if multiple versions exist in JBoss Fuse.

Container List

The container list contains the following elements:

Select

Icon that you click to select a container from the list.

Status

Icon that shows the status of the container.

Container Name

Name of the container. You click the container name to drill down to the `Container Details` page.

Version

Version number of the associated profile.

Cloud

Icon that shows whether the container is a member of the ZooKeeper ensemble.

JMX Domain

JMX domain of the container, such as Apache ActiveMQ or Apache Camel.

Create Child Container

Icon that you click to open the `Create New Container` page and create a child container. The container appears under the selected container in the container list.

Open in New Window

> Opens a new tab or window and shows the `Container` perspective for the selected container.

18.3. PROFILES PAGE

Abstract

You view and manage containers with assigned profiles in a fabric in the `Profiles` page. You can drill down to profile and container details and create containers for the profiles. You can also define profile requirements for the fabric.

Overview

You access the `Profiles` page from the `Fabric` perspective. If the `Fabric` perspective is not available, make sure that your fabric is available or create a new fabric.

The following image shows an example of the `Profiles` page:
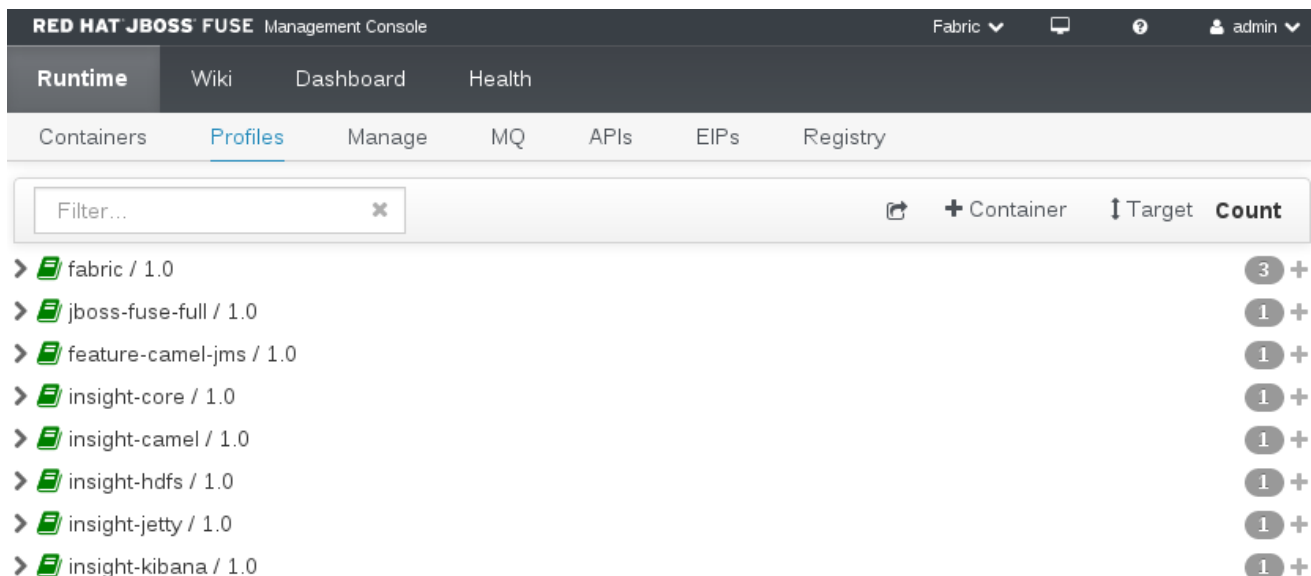
The `Profiles` page contains the following sections:

Action Bar

> Options to filter the container list, add the view to the dashboard, or create a new container.

Container List

> List of containers with assigned profiles. The containers are grouped by profile.You can click the name of the container to drill down to the `Container Details` page. You can also create a container for a specific profile directly from the list.

Action Bar

The Action Bar contains the following options:

Filter

Filters the container list to show only containers that match a string that you enter in the text box. The container list refreshes as you type. To clear the filter, you click the **X** icon.

Add to Dashboard

Adds the current view to the dashboard. The view appears in the fabric dashboard.

Container

Opens the `Create New Container` page. If you use this button to create a container, you must manually assign the container to a profile.

Target

Opens the `Edit Requirements` dialog box. In the dialog box, you can change the minimum and maximum number of containers to run for each profile. You can also add or remove dependent profiles for each profile.

Count

Shows the number of running containers for each profile.

Container List

The container list contains the following elements:

Show / **Hide**

Arrow icon to show or hide containers for each profile. Each container shows the same information as the container list on the `Containers` page.

Profile

Name and version of the profile. You click the profile name to drill down to the `Profile Details` page.

Container

Name and basic details of the container. You click the container name to drill down to the `Container Details` page.

Instances

Icon that shows the number of profile instances. You can click the icon to create additional containers for the profile.

18.4. MANAGE PAGE

Abstract

You view and manage containers and profiles in the `Manage` page. You can create, delete, and assign multiple profiles to containers, and update profile and container versions.

Overview

You access the **Manage** page from the **Fabric** perspective. If the **Fabric** perspective is not available, make sure that your fabric is available or create a new fabric.

The following image shows an example of the **Manage** page:
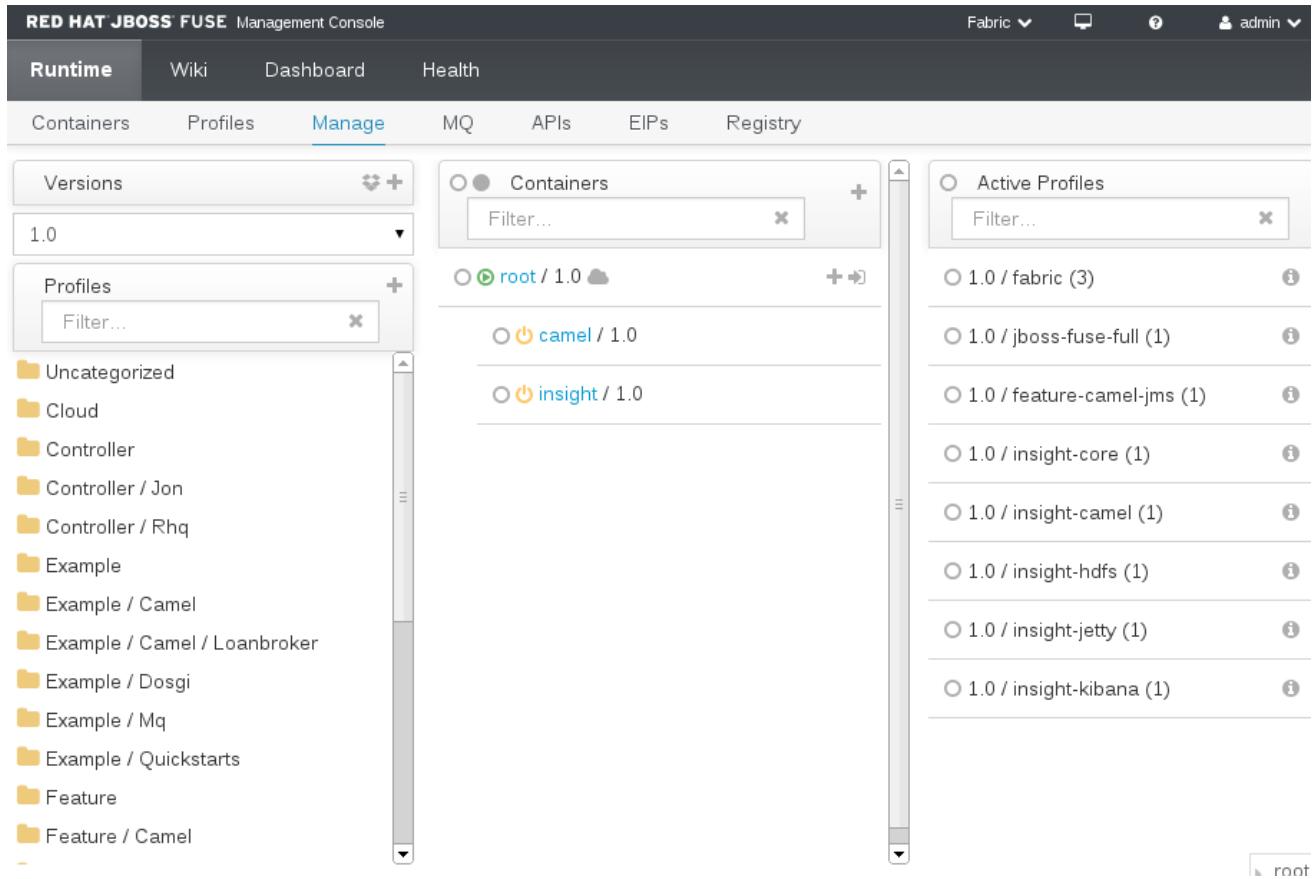
The **Manage** page contains the following sections:

Versions

> List of available versions and version control options.

Profiles

> List of profiles organized in folders.

Containers

> List of deployed containers and container management options.

Active Profiles

> List of active profiles and profile management options. Active profiles are profiles that you assigned to containers.

Versions

The **Versions** section contains the following options:

Apply Patch

> Imports a patch and updates the version number for the selected entities.

Create Version

Creates a version number. The version number appears in the versions list.

Apply to Selected Containers

Applies the version number to one or more containers. Available when you select one or more containers in the **Containers** section.

Version List

Drop-down list of available versions. The list shows the default version to assign to new containers and profiles. To select a different version, you click the arrow and select a version from the drop-down list.

Profiles

The **Profiles** section contains the following elements:

Create Profile

Opens the **Create New Profile** dialog box. When you create the profile, the profile version is assigned based on the version number in the Manage page.

Delete Profiles

Deletes the selected profiles. Available when you select one or more profiles in the profile list.

Apply to Selected Containers

Assigns the selected profiles to a container. Available when you select one or more containers in the **Containers** section.

Filter

Filters the profile list to show only profiles that match a string that you enter in the text box. The profile list refreshes as you type. To clear the filter, you click the **X** icon.

Profile List

List of profiles organized in folders. You can expand a folder to view the profiles, and click the profile name to drill down to the profile details.

Containers

The Containers section contains the following elements:

Select All / Select None

Selects all containers in the list or clears all selections.

Create Container

Opens the **Create New Container** page. The new container appears as a root container in the container list.

Delete Container

Deletes the selected containers. Available when you select one or more containers.

Start / Stop

Starts or stops the selected containers. Available when you select one or more containers.

Filter

Filters the profile list to show only profiles that match a string that you enter in the text box. The profile list refreshes as you type. To clear the filter, you click the **X** icon.

Container List

List of deployed containers. You can click the name of the container to drill down to the `Container Details` page. You can also create a child container for a specific container directly from the container list.

Active Profiles

The Active Profiles section contains the following elements:

Clear Selection

Clears all selections in the active profile list.

Filter

Filters the active profile list to show only active profiles that match a string that you enter in the text box. The active profile list refreshes as you type. To clear the filter, you click the **X** icon.

Active Profile List

List of active profiles. You can click the information icon to open the `Profile Details` page. You can select one or more active profiles.

18.5. MQ PAGE

Abstract

You view and manage Apache ActiveMQ brokers in the `MQ` page. You can create and organize ActiveMQ brokers in topologies, and monitor broker status during runtime.

Overview

You access the `MQ` page from the `Fabric` perspective. If the `Fabric` perspective is not available, make sure that your fabric is available or create a new fabric.

The following image shows an example of the `MQ` page:
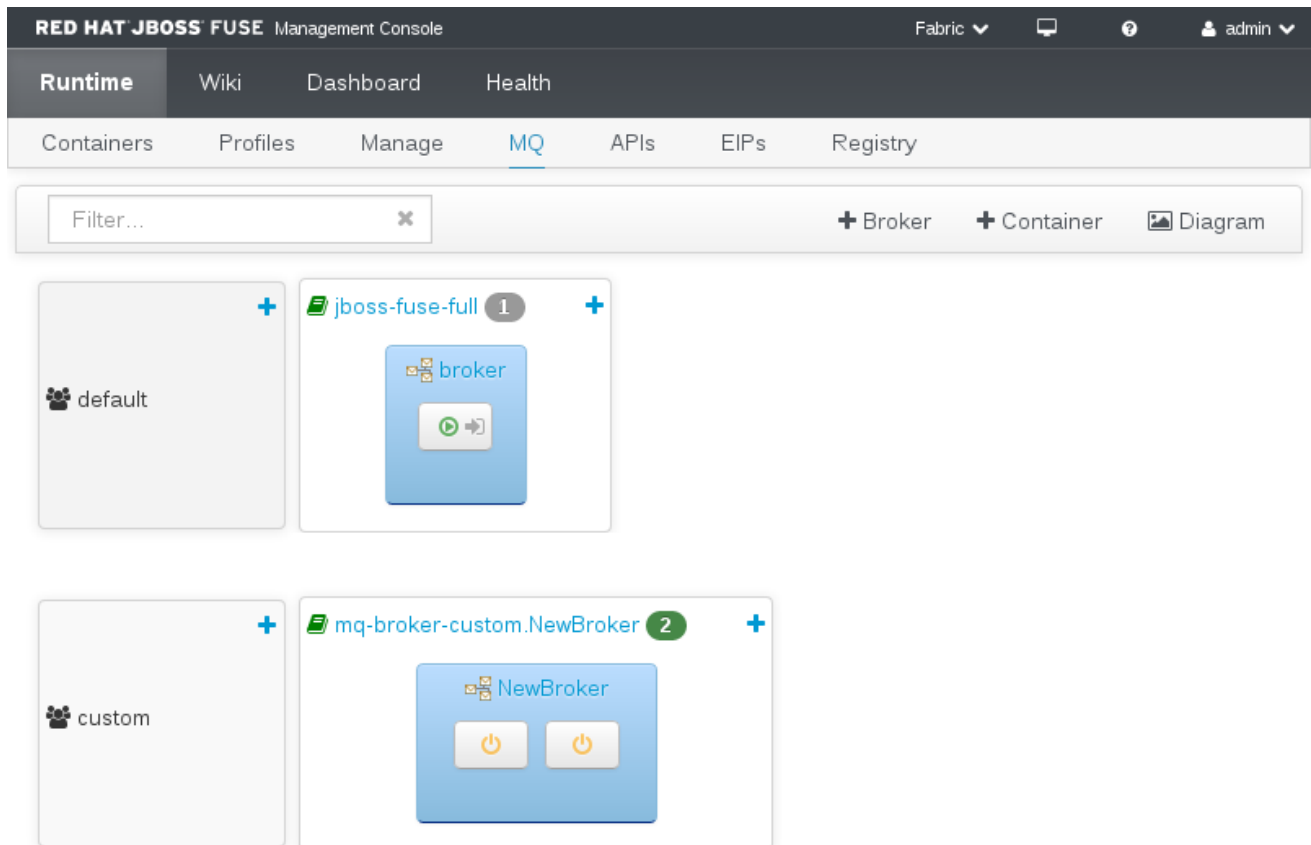
The **MQ** page contains the following sections:

Action Bar

> Options to filter the topology viewer, add brokers and containers.

Topology Viewer

> Graphical overview of Apache ActiveMQ brokers, profiles, and topologies.

Action Bar

The **Action Bar** contains the following options:

Filter

> Filters the topology viewer to show only brokers that match a string that you enter in the text box. The topology viewer refreshes as you type. To clear the filter, you click the **X** icon.

Broker

> Opens the **Master Slave Broker** page. In this page, you create a broker configuration that acts as a fabric profile. If you create a broker from the Action Bar, you must manually specify in which group to create the broker.

Container

> Opens the **Create New Container** page. The new container appears as a root container in the container list.

Topology Viewer

The topology viewer contains the following elements:

Group

> Broker group with one or more profiles. Each group appears as a box that shows the name of the group. You can click the **+** to create a broker in the group. When you create a broker in the group, you can choose to assign the broker to an existing profile in the group or choose a different profile.

Profile

> Profile with one or more brokers. Each profile appears as a box that shows the name of the profile and one or more nested boxes that represent brokers. You can click the profile name to drill down to the profile details. You can also click the + icon to create a broker in the group. The broker is assigned to the existing profile.

Broker

> Apache ActiveMQ broker with one or more containers. Each broker appears as a box that shows the name of the broker and icons that represent the containers of the broker. You can click the broker name to view the configuration properties of the broker.

Container

> One or more active containers that run with the parent profile and broker. Each container appears as a box that shows the container icon. You can hover over the container icon to view the container name, and click the icon to drill down to container details.
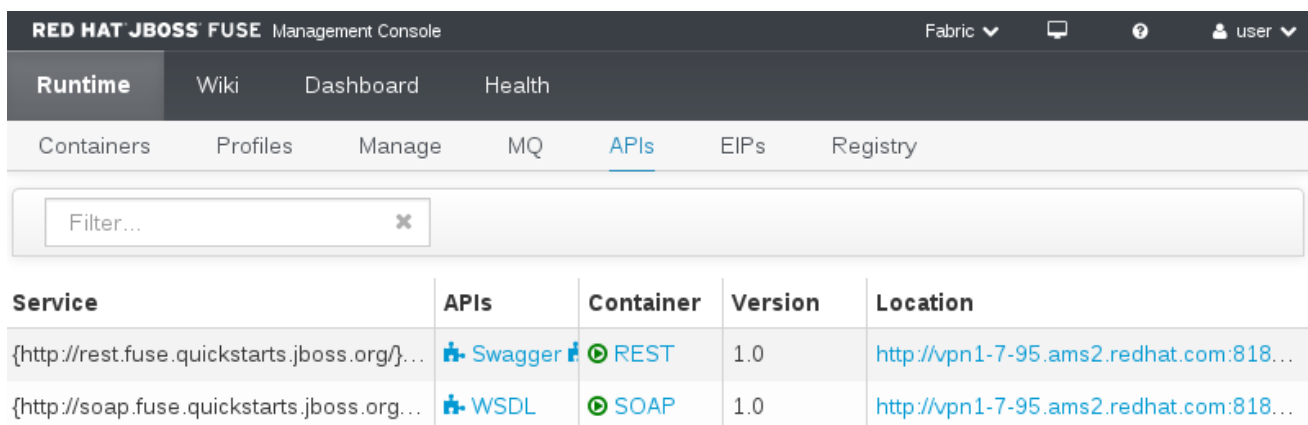
18.6. APIS PAGE

Abstract

You view and manage Apache CXF Web Services APIs in the `APIs` page.

Overview

You access the `APIs` page from the `Fabric` perspective. If the `Fabric` perspective is not available, make sure that your fabric is available or create a new fabric.

The following image shows an example of the `APIs` page:

The `APIs` page contains the following sections:

Filter

Filters the API list to show only APIs that match a string that you enter in the text box. The API list refreshes as you type. To clear the filter, you click the **X** icon.

API List

List of active Web Services APIs. Each API shows the service name, a link to the available operations, the container that uses the API, and the location of the Web Service.

18.7. EIPS PAGE

Abstract

You view Apache Camel routes and dependencies in the Enterprise Integration Pattern (**EIPs**) page.

Overview

You access the **EIPs** page from the **Fabric** perspective. If the **Fabric** perspective is not available, make sure that your fabric is available or create a new fabric.

The **EIPs** page contains the following sections:

Action Bar

Options to filter and show or hide entities from the route viewer.

Route Viewer

Graphical overview of Apache Camel routes and dependencies. You can click each entity to display the properties in the right pane.

Action Bar

The Action Bar contains the following options:

Filter

Filters the route viewer to show only entities that match a string that you enter in the text box. The route viewer refreshes as you type. To clear the filter, you click the **X** icon.

View

Drop-down list of entity types. You select or clear the check box next to each entity type that you want to show or hide.

Route Viewer

The route viewer shows active Camel routes and dependency clusters. You can use the mouse scroll button to zoom in and out. You can also use the mouse to drag the clusters in the pane. When you click each entity, you can view details and properties in the right pane.
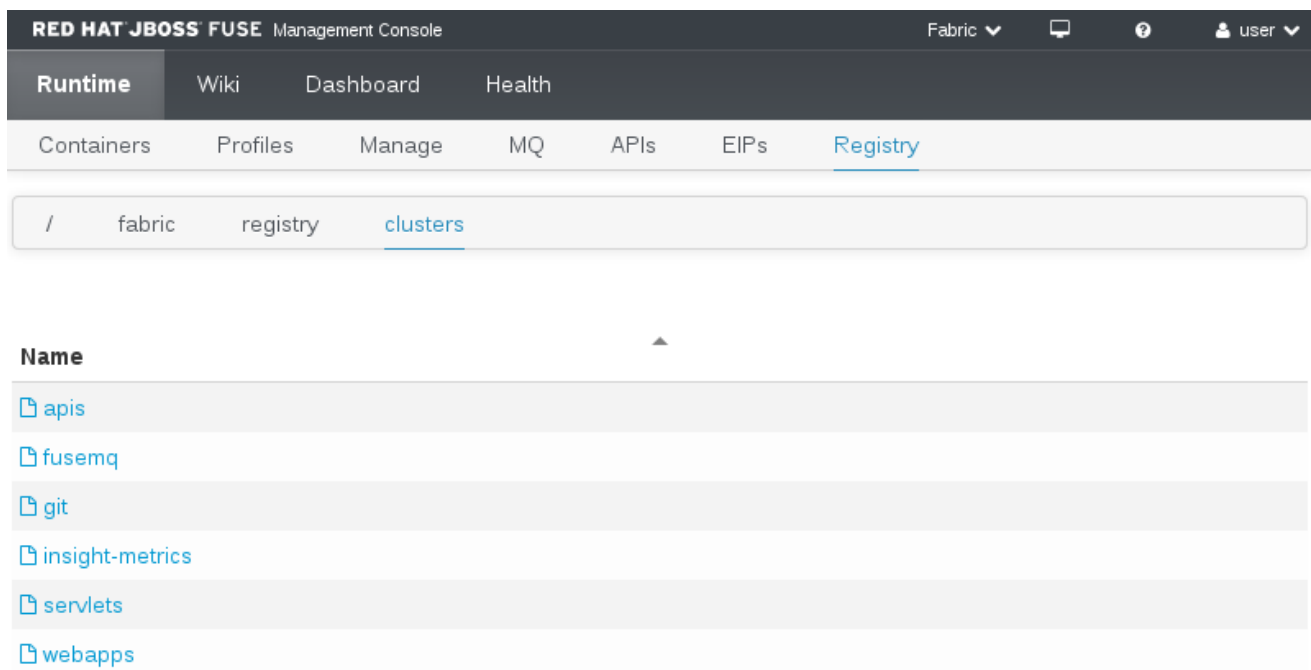
18.8. REGISTRY PAGE

Abstract

You view the status and manage registered services in the `Registry` page. You can view the details and monitor the status for entities such as clusters, servlets, webapps, and repositories.

Overview

You access the `Registry` page from the `Fabric` perspective. If the `Fabric` perspective is not available, make sure that your fabric is available or create a new fabric.

The following image shows an example of the `Registry` page:

The `Registry` page contains the following sections:

Navigation Bar

Breadcrumb view of the location in the service list.

Service List

List view of the registered services.

Navigation Bar

The Navigation Bar shows a breadcrumb view of the location in the service list. Each node in the hierarchy appears as a link. You can click each link to drill up in the hierarchy. By default, the `Registry` page shows the `clusters` node.

Service List

The service list shows registered services in folders. You click the folder to drill down to the service details. When the service list shows folders, you can sort the folders in ascending or descenging alphabetical order.

When you drill down to service details, you can view the following general properties:

ID

Identifier of the service.

Container

Name of the container that uses the service.

Services

URL of the service.

Each service can show additional properties based on the type of service and the profile that runs the container.

18.9. MAP PAGE

Abstract

You view the location of deployed containers in the `Map` page.

Overview

You access the `Map` page from the `Fabric` perspective. If the `Fabric` perspective is not available, make sure that your fabric is available or create a new fabric.

The `Map` page contains the following sections:

Container Tree

Tree view of the deployed containers. You can click a container in the tree to center the map to the location of the container.

Map

Google Map control that shows the location of the container. You can switch between the map view and the satellite view. You can also zoom in and out of the map.

CHAPTER 19. WIKI PAGE

Abstract

You view and manage the fabric configuration repository and integrated wiki content in the **Wiki** page. You can view the list of configuration objects, drill down to object details, and manage wiki documents.

OVERVIEW

You access the **Wiki** page from the **Fabric** perspective. If the **Fabric** perspective is not available, make sure that your fabric is available or create a new fabric.

The following image shows an example of the **Wiki** page:
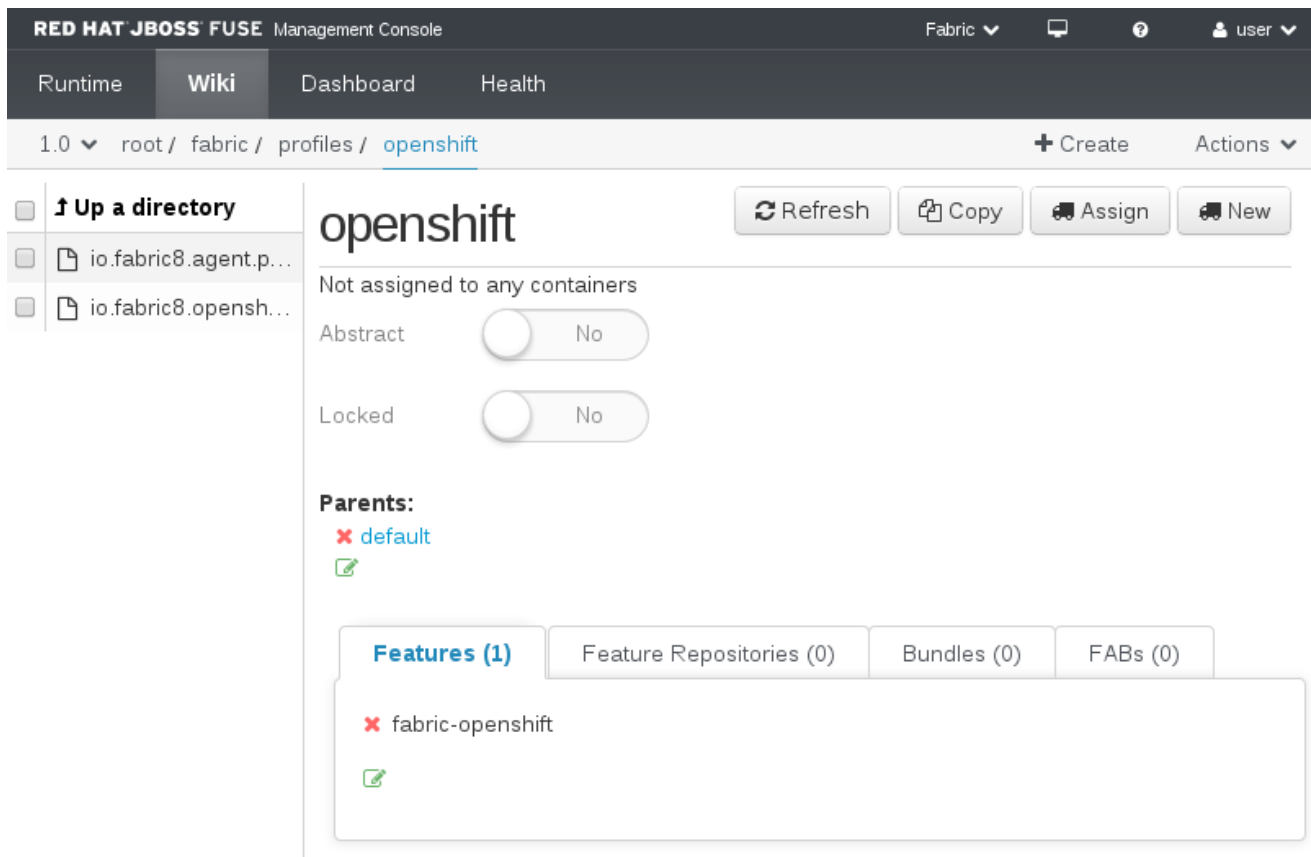
The **Wiki** page contains the following sections:

Action Bar

Breadcrumb view of the location in the configuration repository and document management options.

Repository Explorer

Tree view of the fabric configuration repository and wiki documents.

Details Pane

Detailed view of the configuration object or wiki content.

ACTION BAR

The Action Bar contains the following options:

Version

> Version of the repository branch to view. You can open the drop-down list to switch versions.

Navigation Bar

> Breadcrumb view of the location in the repository. Each hierarchical level appears as a link. You can click each link to drill up to the parent directory. By default, the `Wiki` page opens to the main profiles directory.

Create

> Opens the Create Document dialog box. You can use this dialog box to create configuration objects such as profiles, property files, Camel routes, or wiki pages. You cannot use this dialog box to create profiles or containers.

Edit

> Switches the details pane to a wiki markdown view. You can edit the wiki markdown content directly in the page and save the updated wiki document.

Actions Menu

> Object management options based on the contents of the details pane. For example, when you edit a profile you can use the `Actions` menu to change the profile parent, assign the profile to a new container, or edit the profile features. Use the mouse to hover over the menu options and view the description.

REPOSITORY EXPLORER

The repository explorer shows a tree view of all configuration objects and wiki documents organized in folders. You can click a folder in the tree to show the folder contents, or click a profile or a wiki document to show the details in the details pane.

You can select one or more objects and use the `Actions` menu to move, delete, or view the version history of the selected objects. You can also hover over each object to view the last modified date and time and the size of the object.

DETAILS PANE

Detailed view of the configuration object or wiki content. When you edit a profile, this pane shows the profile details. When you drill down to a directory with a wiki document, this pane shows the contents of the wiki document.

If the directory does not contain a wiki document, this pane is empty.

CHAPTER 20. DASHBOARD PAGE

Abstract

You monitor system performance and runtime status in the **Dashboard** page. You can view recent log entries, active profiles, running containers, and system services. You can also create custom dashboards or import JSON dashboards.

OVERVIEW

You access the **Dashboard** page from the **Fabric** perspective. If the **Fabric** perspective is not available, make sure that your fabric is available or create a new fabric.

The Dashboard page contains the following sections:

Navigation Bar

Tabbed view of available dashboards and management options.

Active Dashboard Pane

Detailed view of the active dashboard.

NAVIGATION BAR

The navigation bar shows a tabbed view of available dashboards. Custom dashboards that you create or import appear in the navigation bar. You can click the dashboard name to switch between dashboards.

You can click the **Manage** button to create or import custom dashboards. You can also select one or more dashboards and export the dashboards in JSON gist format.

ACTIVE DASHBOARD PANE

The active dashboard pane shows a detailed view of the selected dashboard. By default, this pane shows the **Welcome** dashboard. You can use the **Add Current View to Dashboard** button in various areas of the management console to customize the default dashboard or create a new dashboard.

You can click and drag each area in the dashboard to arrange the dashboard. You can also click the edit icon next to each area title to edit the area name.

The **Welcome** dashboard contains the following areas:

Java Heap Memory

Pie chart view of used and free Java heap memory.

Java Non Heap Memory

Pie chart view of used and free Java non-heap memory.

Containers

List of deployed containers and container management options.

Active Profiles

List of active profiles and profile management options. Active profiles are profiles that you assigned to containers.

Loaded Classes

Pie chart view of loaded classes and unloaded classes.

Process CPU Load

Graphical view of CPU usage.

Threads

Timeline view of running threads and status information, such as thread count and thread user time.

Logs

List of recent log entries. You can click the log type to view basic information about the log entry, or click the log entry link to open the full log entry syntax.

CHAPTER 21. HEALTH PAGE

Abstract

You view the status of health mbeans for containers and fabrics in the `Health` page. Health mbeans continuously check running Java code and services for syntax errors.

You can view the status for each broker and profile. The actual content of this page depends on the active brokers and profiles.

OVERVIEW

You access the `Health` page from the `Fabric` perspective. If the `Fabric` perspective is not available, make sure that your fabric is available or create a new fabric.

The following image shows an example of the `Health` page:
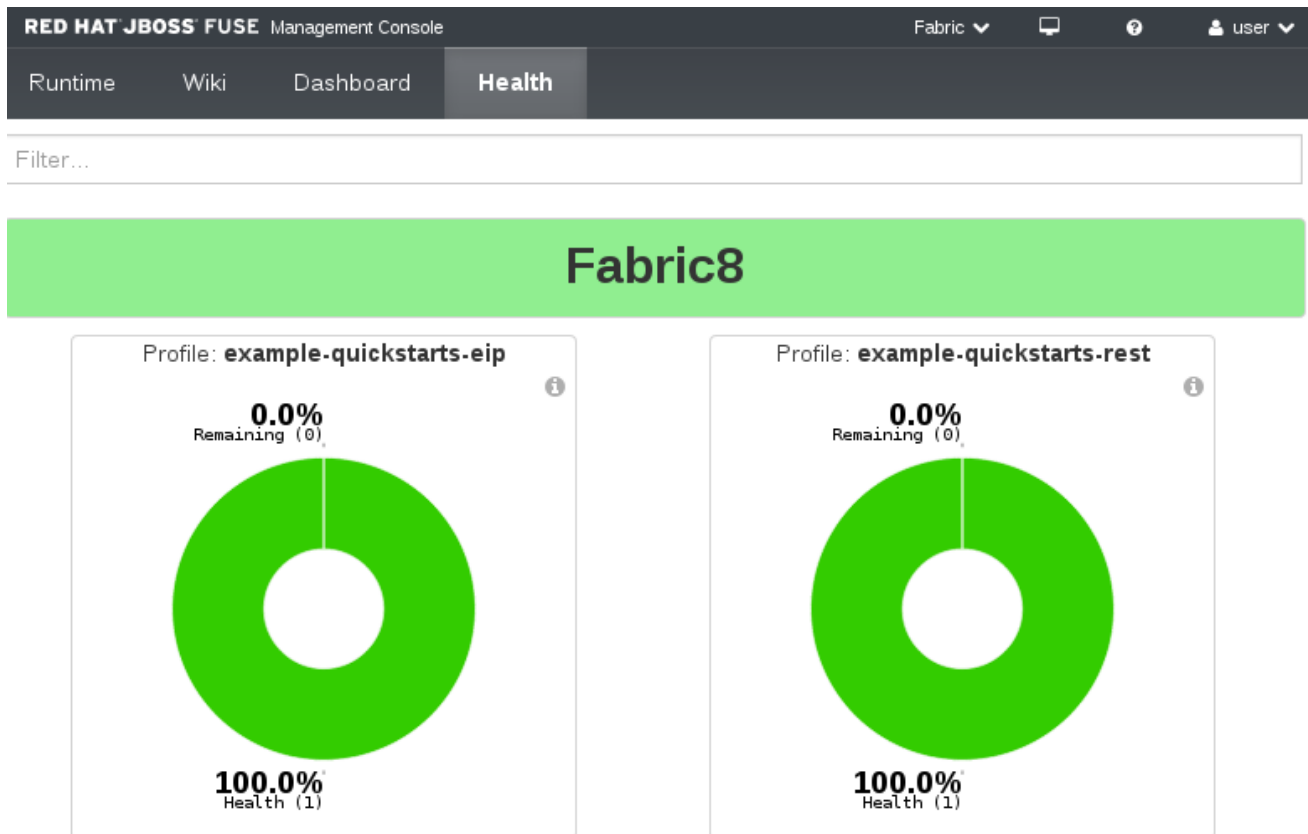
The `Health` page contains the following sections:

Filter

Filters the brokers and profiles pane to show only brokers or profiles that match a string that you enter in the text box. The pane refreshes as you type. To clear the filter, you click the **X** icon.

Brokers and Profiles Pane

Graphical view and service names for the active brokers and profiles. Each broker and profile shows the name and type of the broker or profile. You can click the information icon to expand the details pane for the seleected broker or profile.