



# Migration Toolkit for Applications 4.2

## Web Console Guide

Use the Red Hat Application Migration Toolkit's web console to group your applications into projects for analysis.



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## Abstract

This guide describes how to use the Migration Toolkit for Applications web console to simplify migration of Java applications.

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# CHAPTER 1. INTRODUCTION

## 1.1. ABOUT THE WEB CONSOLE GUIDE

This guide is for engineers, consultants, and others who want to use Migration Toolkit for Applications (MTA) to migrate Java applications or other components. It describes how to install and use the web console to manage migration projects and analyze applications.

## 1.2. ABOUT MIGRATION TOOLKIT FOR APPLICATIONS

### What is Migration Toolkit for Applications?

Migration Toolkit for Applications (MTA) is an extensible and customizable rule-based tool that helps simplify migration of Java applications.

MTA examines application artifacts, including project source directories and application archives, then produces an HTML report that highlights areas needing changes. MTA can be used to migrate Java applications from previous versions of *Red Hat JBoss Enterprise Application Platform* or from other containers, such as *Oracle® WebLogic Server* or *IBM® WebSphere® Application Server*.

### How Does Migration Toolkit for Applications Simplify Migration?

Migration Toolkit for Applications looks for common resources and highlights technologies and known trouble spots when migrating applications. The goal is to provide a high-level view into the technologies used by the application and provide a detailed report organizations can use to estimate, document, and migrate enterprise applications to Java EE and Red Hat JBoss Enterprise Application Platform.

### How Do I Learn More?

See the [Getting Started Guide](#) to learn more about the features, supported configurations, system requirements, and available tools in the Migration Toolkit for Applications.

## 1.3. ABOUT THE WEB CONSOLE

The web console for Migration Toolkit for Applications is a web-based system that allows a team of users to assess and prioritize migration and modernization efforts for a large number of applications. It allows you to group applications into projects for analysis and provides numerous reports that highlight the results.

## CHAPTER 2. INSTALLING THE WEB CONSOLE

The web console can be installed either using the [ZIP distribution](#) or on [OpenShift](#).

### 2.1. ZIP INSTALLATION

When installed using the ZIP distribution, the MTA web console is deployed on Red Hat JBoss Enterprise Application Platform, uses Red Hat Single Sign-On for authentication, and is backed by an H2 database for storage.

#### 2.1.1. Prerequisites

Verify that you meet the following prerequisites.

- Java Platform, JRE version 8+
- A minimum of 8 GB RAM; 16 GB recommended



#### NOTE

If you are running macOS, it is recommended to set the maximum number of user processes, **maxproc**, to at least **2048**, and the maximum number of open files, **maxfiles**, to **100000**.

#### 2.1.2. Install the Web Console

1. Download the web console from the [MTA Download page](#).
2. Extract the ZIP file to a directory of your choice.  
The path to the directory created by unzipping this file is referred to as ***RHAMT\_HOME*** throughout this guide.

#### 2.1.3. Start the Web Console

Run the script to start the web console.

```
$ RHAMT_HOME/run_rhamt.sh
```



#### NOTE

In a Windows environment, use the **run\_rhamt.bat** script.

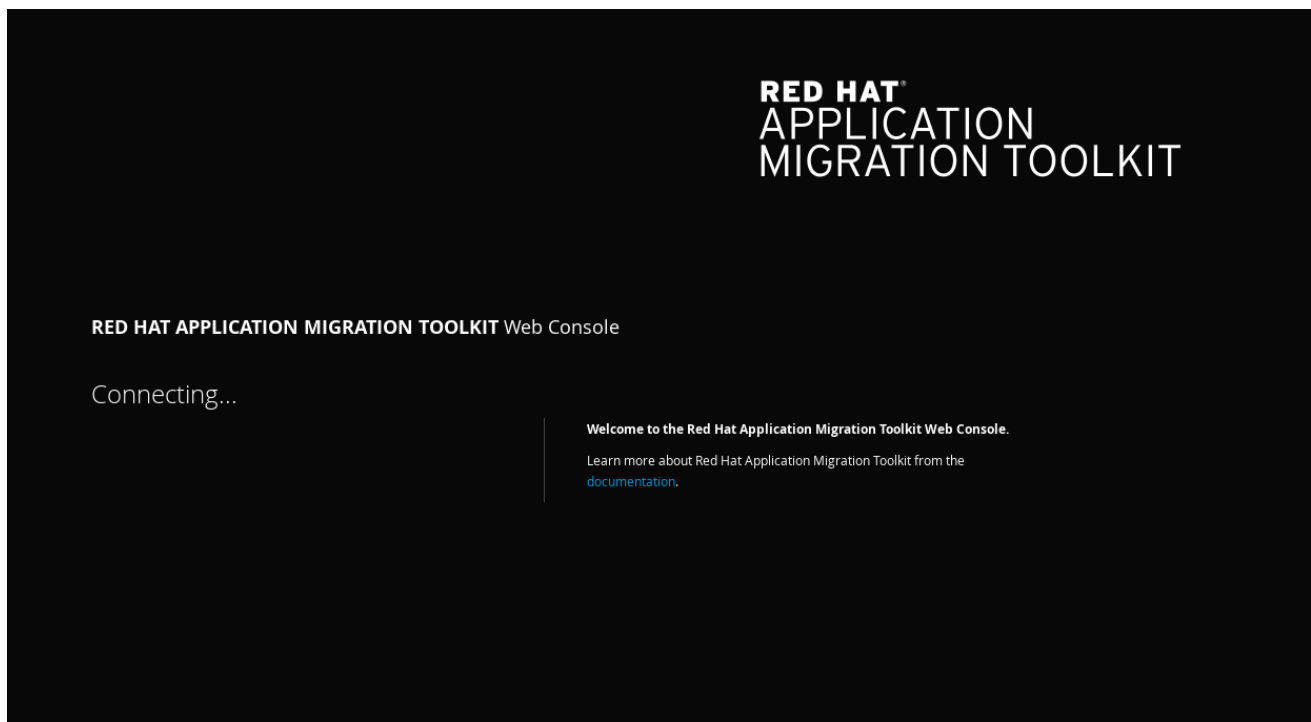
You can now [access the web console](#) from a browser.

#### 2.1.4. Access the Web Console

Once [started](#), the web console is accessible from a browser by default on the local host at <http://localhost:8080/rhamt-web>.



Figure 2.1. Welcome Page



The web console uses a default user to automatically authenticate. The default user's credentials are **rhamt** and **password**. See [Configuring Authentication for the Web Console](#) to require individual users to authenticate in order to access the web console.

## 2.2. OPENSIFT INSTALLATION

When installed on OpenShift, the MTA web console is deployed on Red Hat JBoss Enterprise Application Platform, uses Red Hat Single Sign-On for authentication, and is backed by a PostgreSQL database for storage.

### 2.2.1. Prerequisites

Verify that you meet the following prerequisites.

- You must have access to an instance of OpenShift Container Platform version 3.5 or higher.
- Your OpenShift instance must have the middleware image streams installed.
- You must have the OpenShift Container Platform CLI installed on your local machine.
- You must be running Linux or macOS on your local machine. Windows is not currently supported.

See the [OpenShift Container Platform documentation](#) for assistance.

### 2.2.2. Understanding the Web Console OpenShift Image

Red Hat offers containerized images for MTA that are designed for use with OpenShift. Using these images developers can quickly and easily manage migration projects and analyze applications.

The OpenShift images include three separate pods:

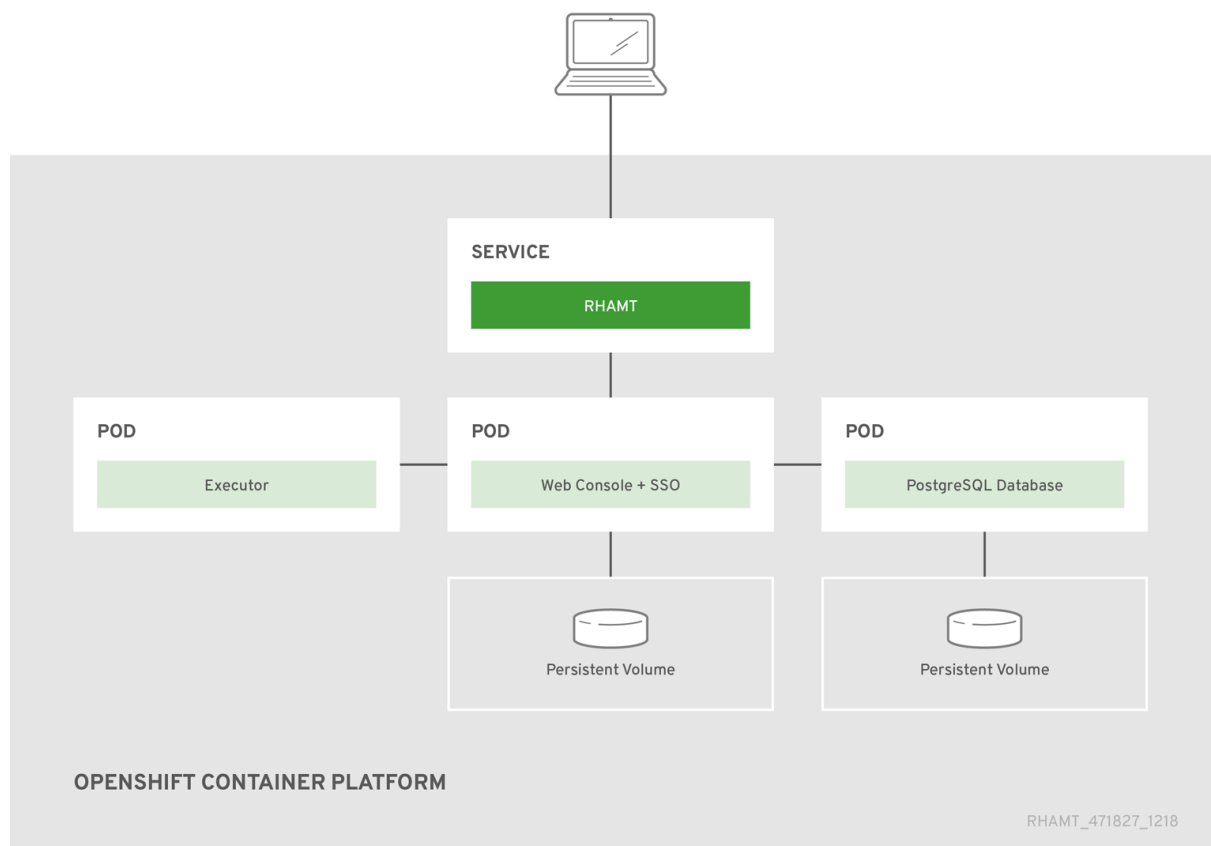
- The executor, responsible for running the analysis and generating the reports

- The web console interface and SSO, which provide access to the web console itself
- The PostgreSQL database, which stores the project's configuration and analysis tracking information

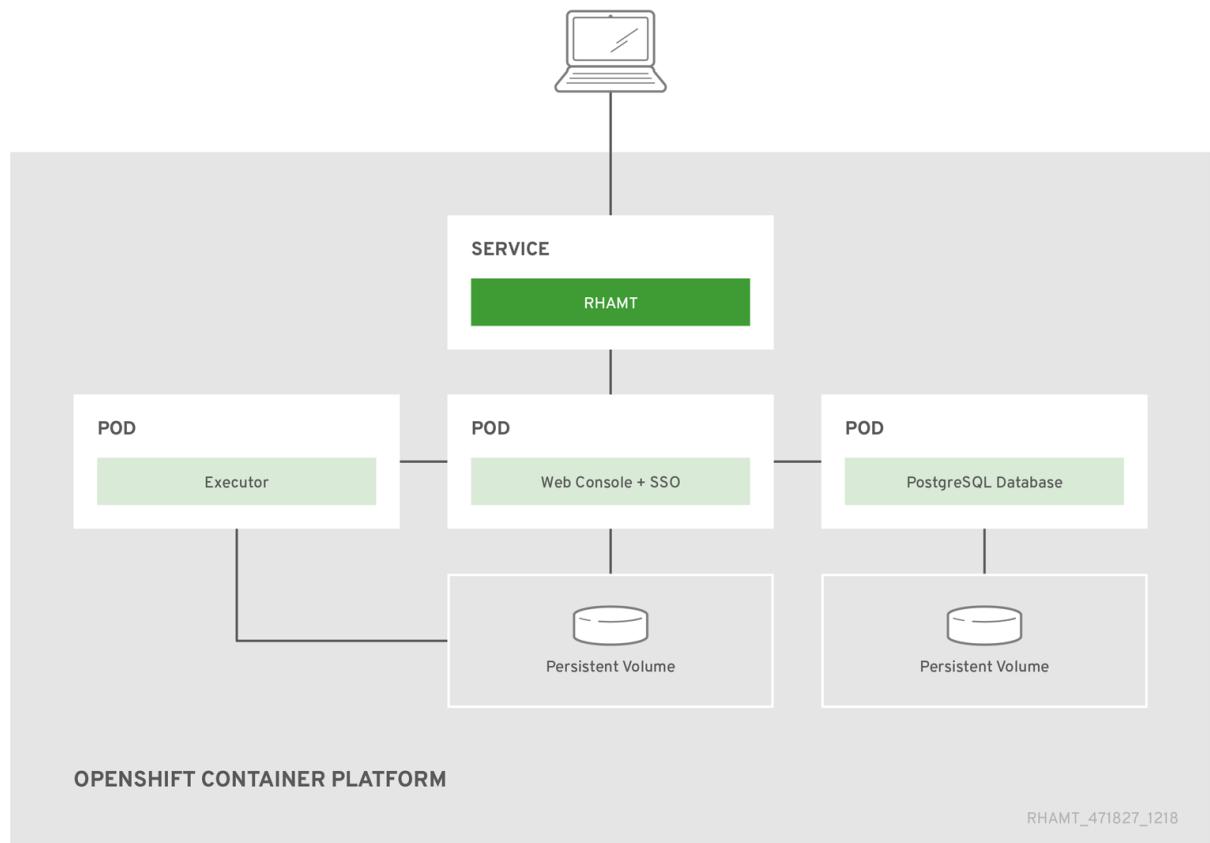
A separate persistent volume is used for the web console interface and the PostgreSQL pods; however, the executor's storage is dependent on the template used.

- The **web-template-empty-dir-executor.json** is the recommended template. It configures the executor pod to use temporary storage on a single machine, and has no defined persistent volume. The analysis data is sent between the executor and web console pods using a RESTful web service.

Figure 2.2. **web-template-empty-dir-executor.json**



- The **web-template-empty-dir-executor-shared-storage.json** is an alternative template available for use. This template configures the executor pod and the web console pod to use a shared persistent volume. All instances of these pods read and write to the same persistent volume, mounted as **ReadWriteMany** in OpenShift.

Figure 2.3. `web-template-empty-dir-executor-shared-storage.json`

### OpenShift Template Environment Variables

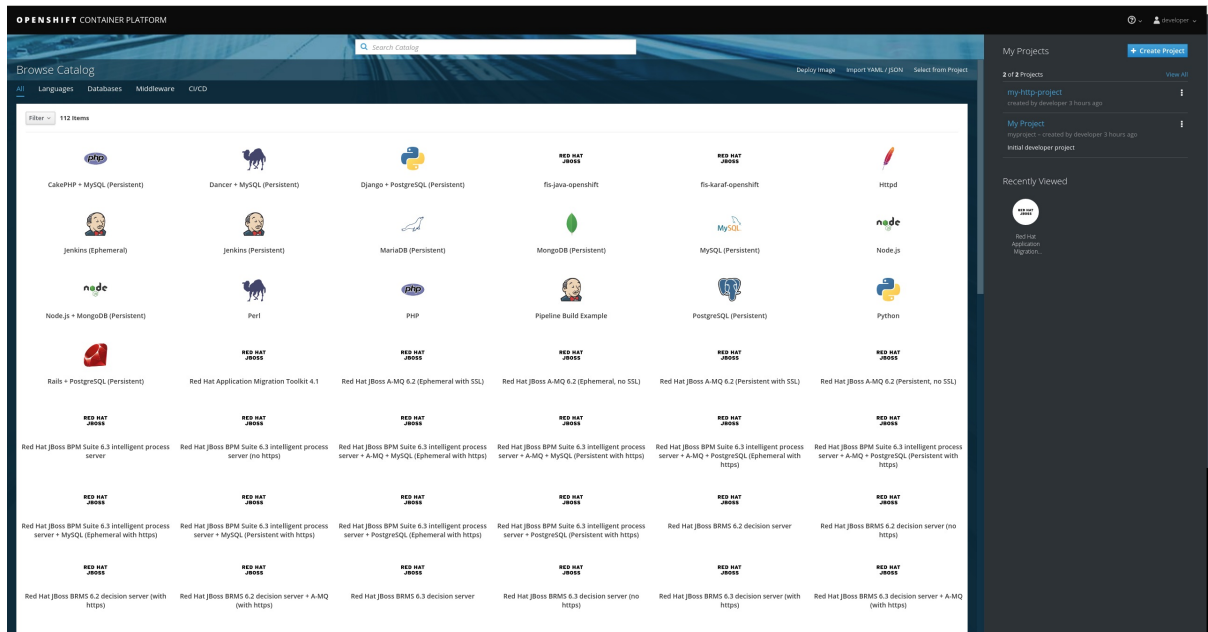
The OpenShift image environment variables are configured as a baseline for application analysis, and work well in a variety of environments. No additional configuration is required to perform an analysis.

The most common environment variables modified are the CPU and memory resources allocated to each image. These contain a pattern of ***NODE\_NAME*** followed by ***REQUESTED\_RESOURCE***. For instance, ***EXECUTOR\_REQUESTED\_CPU*** indicates the number of CPU cores to request for the executor pod, while ***EXECUTOR\_REQUESTED\_MEMORY*** indicates the amount of memory to request for the executor pod.

All of the environment variables are found within each template, along with a description of each.

### 2.2.3. Deploy the MTA Application

1. Download the web console from the [MTA Download page](#).
2. Extract the ZIP file to a directory of your choice.  
The path to the directory created by unzipping this file is referred to as ***RHAMT\_HOME*** throughout this guide.
3. Access the OpenShift web console. It should appear similar to the following image.



4. Click the **Import YAML / JSON** button in the top-right corner of the web console.
5. Provide the following information in the window that appears, as seen below.

**Import YAML / JSON**
✕

YAML / JSON
Results

1
2

**Create Project**

**\* Project Name**

A unique name for the project.

**Project Display Name**

**Project Description**

Create or replace resources from their YAML or JSON definitions. If adding a template, you'll have the option to process the template.

Browse...

Upload a file by dragging & dropping, selecting it, or pasting from the clipboard.

1

{

"kind": "Template"

Cancel
< Back
Create

- a. Define a **Project Name**, such as **rhamt**.
- b. Optionally, define a **Project Display Name** to help describe the project.
- c. Optionally, define a **Project Description** to help provide context on how the project will be used.

- d. Click the **Browse** button and import the desired web console template. These are included in **RHAMT\_HOME/openshift/templates**. Once imported, the JSON is visible in the bottom text area.
6. Click the **Create** button to proceed to the next screen.
7. If you would like to save the template as a resource for future projects, check the **Save template** box.
8. Click the **Continue** button to proceed to the next screen.
9. Review the default values provided, adjusting as necessary. For instance, the **web-template-empty-dir-executor.json** file defines 2 CPUs, 4GB of memory, and a 20GB persistent volume.
10. Click the **Create** button to import the template into your project.

Once completed, you can [access the web console](#) from a browser.

### 2.2.4. Access the Web Console

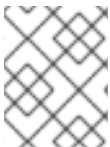
Once the web console has been [deployed on OpenShift](#), you can access it from a browser. The **deploy.sh** script outputs the link, shown in the example below as **WEB\_CONSOLE\_URL**, to use to open the web console.

#### Example: deploy.sh Output

```
...
-> Deploy RHAMT Web Console ...
Upload, build and deployment successful!

Open WEB_CONSOLE_URL to start using the RHAMT Web Console on OpenShift
(user='rhamt',password='password')
```

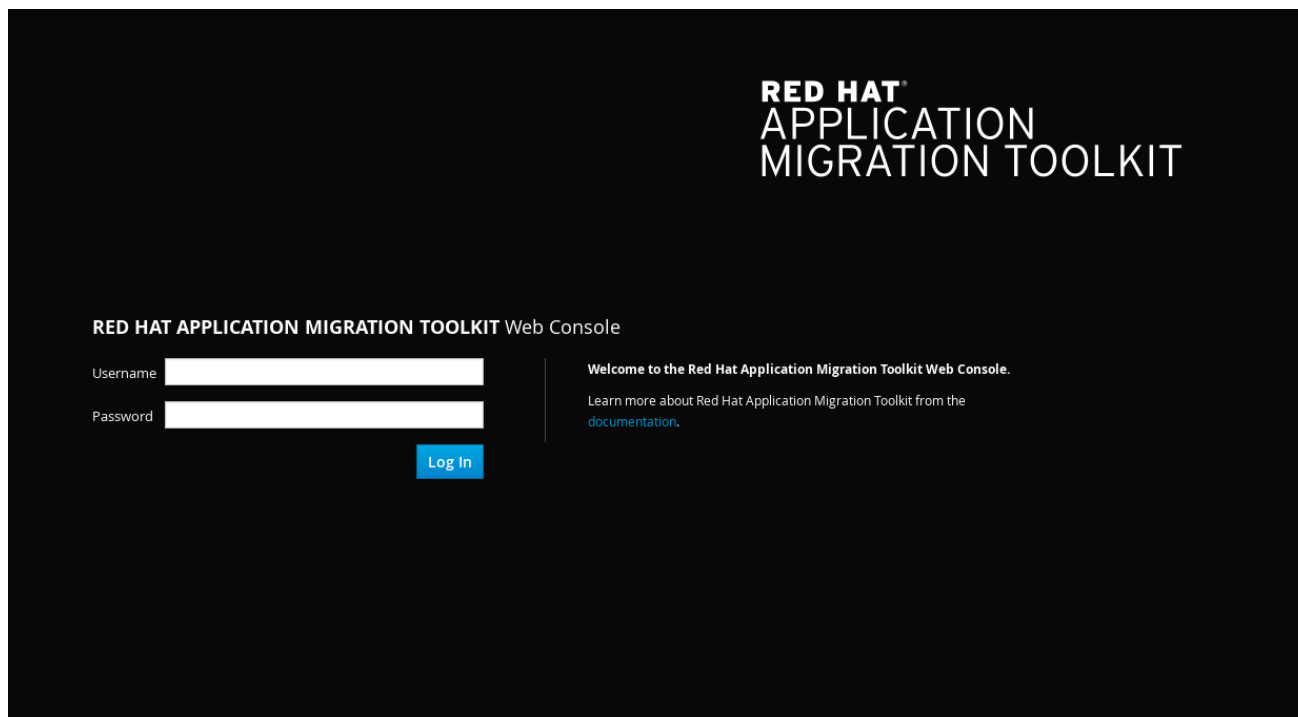
You can also access the web console from the OpenShift console at **OPENSIFT\_URL/console/project/rhamt/overview** by clicking the link in the **RHAMT WEB CONSOLE HTTP** application. If you renamed the OpenShift project when [deploying](#), be sure to replace **rhamt** in this URL with the name of your project.



#### NOTE

If the web console does not load immediately, check the status of the project in the OpenShift console to see if it is still processing or if there were errors.

Figure 2.4. Welcome Page



Authentication is required in order to access the web console. The default user's credentials are **rhamt** and **password**. See [Configuring Authentication for the Web Console](#) for more information on configuring authentication for the web console.

## 2.2.5. Troubleshoot the Web Console OpenShift Install

The following steps discuss common techniques for troubleshooting the web console in an OpenShift environment. These instructions are focused on issues specific to the web console, for OpenShift specific issues refer to the following troubleshooting sections.

- [Troubleshooting OpenShift SDN](#)
- [Build Troubleshooting](#)

### 2.2.5.1. Ensure Latest Image Version

The first step in troubleshooting in an OpenShift environment is to ensure that the latest image is in use.



#### NOTE

If you have deployed the web console by pasting in a JSON template, then no image stream is created and the following steps are not applicable.

From your OpenShift environment perform the following steps.

1. Access the OpenShift console by navigating to **`OPENSIFT_URL/console/project/rhamt/overview`**. If you renamed the OpenShift project when [deploying](#), be sure to replace **rhamt** in this URL with the name of your project.
2. Hover over **Builds** along the left side of the console.
3. Click **Images** from the options that appear.

4. Ensure that the column under **Tags** indicates that each image is on the **latest** stream.
5. If the latest image is not in use, follow the steps at [OpenShift Installation](#) to redeploy the latest image of the web console.

### 2.2.5.2. Examine and Collect the Web Console Logs

Each pod is configured to provide detailed logging that assists with narrowing down the precise cause of an issue. The following steps discuss viewing and obtaining these logs.

#### 2.2.5.2.1. Using the OpenShift Console

The following steps walk through the process to examine the logs for each pod.

1. Access the OpenShift console by navigating to **`OPENSIFT_URL/console/project/rhamt/overview`**. If you renamed the OpenShift project when [deploying](#), be sure to replace **rhamt** in this URL with the name of your project.
2. Hover over **Applications** along the left side of the console.
3. Click **Pods** from the options that appear.
4. Click the name of the pod that you wish to examine. To examine the current web console pod, select the **rhamt-web-console-*POD\_NAME*** that is in a **Running** state.
5. Click **Logs** from the options along the top.
6. To download the log file navigate to the top of the page and click **Download**.

#### 2.2.5.2.2. Using the OpenShift Client

1. Determine the pod name by executing **`oc get pods`** and search for the **web-console** entry with a **Running** status.

```
$ oc get pod
sNAME          READY   STATUS    RESTARTS   AGE
eap-builder-1-build 0/1     Completed 0           1d
rhamt-postgresql-1-hfbdn 1/1     Running   0           1d
rhamt-sso-1-build   0/1     Completed 0           1d
rhamt-web-console-1-build 0/1     Completed 0           1d
rhamt-web-console-1-vt7s5 1/1     Running   1           1d
sso-1-wjl2n        1/1     Running   1           1d
```

In the above example this is **rhamt-web-console-1-vt7s5**.

2. Use **`oc logs`** to examine the current pod's log.

```
oc logs POD_NAME
```

3. The output may be redirected to obtain a copy of the current log.

```
oc logs POD_NAME > ./rhamt-openshift-POD_NAME.log
```

### 2.2.5.3. Common Issues with Web Console OpenShift

### 2.2.5.3.1. Executor Pod Throws **NoRouteToHostException**

When accessing the executor pod's logs the following error is seen.

```
13:44:03,501 SEVERE [org.jboss.windup.web.messaging.executor.ExecutorBootstrap] (main) Could not start messaging listener due to: Failed to connect to any server. Servers tried: [http-remoting://192.0.2.4:8080 (java.net.NoRouteToHostException: No route to host)]: javax.naming.CommunicationException: Failed to connect to any server. Servers tried: [http-remoting://192.0.2.4:8080 (java.net.NoRouteToHostException: No route to host)] [...]
```

**What it means:**

A **NoRouteToHostException** indicates that this pod isn't able to connect to the web console pod.

**How to resolve it:**

In a new deployment this is expected, as the executor starts before the web console. Otherwise, examine the web console pod and resolve any errors seen here. Once the web console is running successfully this error should be resolved.

### 2.2.5.3.2. Pod Reports Insufficient Resources

After attempting to deploy Web Console on OpenShift, the pod is unable to start, and the following error is seen in the **Events** tab.

```
0/9 nodes are available: 4 Insufficient cpu, 4 MatchNodeSelector, 9 Insufficient memory.
```

**What it means:**

The resource quota for the OpenShift project has been met, and the pod is unable to obtain the requested resources.

**How to resolve it:**

Perform either of the following:

- Increase the quota for the OpenShift project. For additional information on OpenShift quotas, see [Quotas and Limit Ranges](#) and [Setting Limit Ranges](#).
- Reduce the requested resources for the web console OpenShift project. It is recommended to have at least 2 CPUs and 4 GB of memory for the project.

Once the request is within the available quota, attempt the deployment once again.

### 2.2.5.3.3. Pod Takes Longer than 600 seconds to become available

After attempting a deployment, the **-deploy** pods timeout and report the following error.

```
error: update acceptor rejected rhamt-web-console-executor-1: pods for rc 'rhamt/POD_NAME' took longer than 600 seconds to become available
```

These errors appear after the pods timeout and are placed into an error state.

**What it means:**



The deployment pods are unable to successfully launch the pods.

This error can be caused by a number of sources, with the following being the most common:

- The OpenShift instance is currently out of resources to deploy the pod in a timely manner.
- The images were unable to be successfully pulled from the registry.

#### How to resolve it:

Attempt the deployment again, and view the logs and events of the non deployment pods while they are being created. These messages will provide context to the underlying errors resulting in the deployment pod timeouts.

- To address the first issue reported, where the OpenShift instance is out of resources, follow the instructions in [Analyzing Cluster Capacity](#) from the *Cluster Administration* guide in the OpenShift documentation to determine the cluster capacity. Once the capacity has increased, or there are fewer jobs executing, attempt the deployment once again.
- To address the second issue reported, where the images are unable to be pulled from the registry, [access the registry](#) to ensure the images are present. This link also includes instructions on examining the logs for the Docker registry, and can be used to troubleshoot the issue further.

#### 2.2.5.4. Report Issues with Web Console OpenShift

{ProductName} uses JIRA as its issue tracking system. If you encounter any issues while using the web console, please file a JIRA Issue by following the below instructions.



#### NOTE

If you do not have one already, you must sign up for a JIRA account in order to create a JIRA issue.

1. Open a browser and navigate to the JIRA [Create Issue](#) page.  
If you have not yet logged in, click the **Log In** link at the top right side of the page and enter your credentials.
2. Choose the following options and click the **Next** button.
  - **Project:** Choose *Red Hat Application Migration Toolkit (WINDUP)*.
  - **Issue Type:** *Bug*
3. On the next screen complete the following fields.
  - **Summary:** Enter a brief description of the problem or issue.
  - **Environment:** Indicate that this is an OpenShift installation of the web console, and include any environment variables in use with the image.
  - **Description:** Provide a detailed description of the issue. Be sure to include any errors encountered and exception traces.
  - **Attachment:** Include the logs obtained in [Examine and Collect the Web Console Logs](#). At a minimum this should include the logs from each pod.

If the application or archive causing the issue does not contain sensitive information and you are comfortable sharing it with the MTA development team, attach it to the issue using the **browse** button.

4. Click the **Create** button to create the JIRA issue.

## CHAPTER 3. USING THE WEB CONSOLE TO ANALYZE APPLICATIONS

In order to use the web console to analyze applications, you must create a project. Each project is a way to group applications for analysis and specifies the settings to use during the analysis of its applications. The analysis process generates reports that provide information about the changes necessary for a migration or modernization effort.

Follow these steps to use the web console to analyze your applications and review the results.

1. [Add a project.](#)
2. [Add applications to the project.](#)
3. [Specify the analysis configuration.](#)
4. [Execute the analysis.](#)
5. [View the results of the analysis.](#)



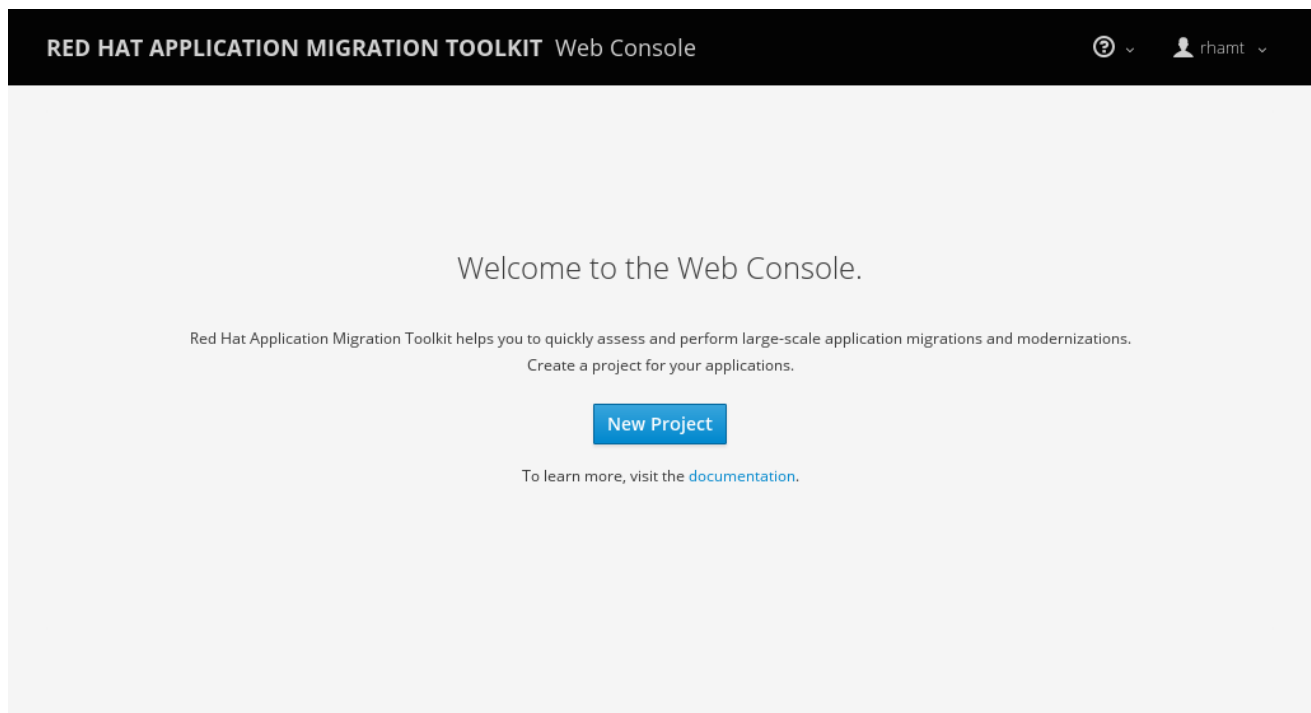
### NOTE

Click the **Projects** link at the top of the web console to return to the project list at any time. Visit the help menu for an **About** page and a link to the MTA documentation.

### 3.1. ADD A PROJECT

When you first access the web console, you will be prompted to set up a new project.

Figure 3.1. Home



Click the **New Project** button to launch the wizard to set up a new migration project.

Figure 3.2. Add Project

The screenshot shows the 'Create Project' step in the Red Hat Application Migration Toolkit Web Console. The header bar is black with the text 'RED HAT APPLICATION MIGRATION TOOLKIT Web Console' on the left and a help icon and user 'rhamt' on the right. Below the header, there are three steps in a horizontal sequence: 'Create Project' (highlighted in blue), 'Add Applications', and 'Configure the Analysis'. The main content area is titled 'Create Project' and contains two form fields: 'Name' with the value 'Test Project' and a description 'A unique name for the project', and 'Description' with a placeholder 'A short description of the project.' and a text area. At the bottom right, there are 'Cancel' and 'Next' buttons.

Specify a name and an optional description for this project and press **Next** to continue.

## 3.2. ADD APPLICATIONS TO A PROJECT

Specify the applications to add to this project. You can either [upload applications](#) or [register a server path](#) that contains applications.

Figure 3.3. Add Applications

The screenshot shows the 'Add Applications' step in the Red Hat Application Migration Toolkit Web Console. The header bar is black with the text 'RED HAT APPLICATION MIGRATION TOOLKIT Web Console' on the left and a help icon and user 'rhamt' on the right. Below the header, there are three steps in a horizontal sequence: 'Create Project', 'Add Applications' (highlighted in blue), and 'Configure the Analysis'. The main content area is titled 'Add Applications' and shows a progress bar for 'jee-example-app-1.0.0.ear (0.90 MB)' at 100% completion. Below the progress bar, there are two tabs: 'Upload' (selected) and 'Server Path'. The 'Upload' tab contains a text area with the instruction 'Choose files to upload to your project. You can select more than one file at a time. You can also drag and drop files to start uploading.' and a 'Choose Files' button. Below the text area is a dashed box with the text 'Drop files here.' At the bottom right, there are 'Back' and 'Next' buttons.

### Upload Applications

You can use the **Choose Files** button to select applications, or you can drag and drop applications into the area provided. This uploads the selected applications to the MTA server.

### Register a Server Path

Select the **Server Path** tab and enter a path on the server that contains applications to be included in this project. This does not copy the files to the MTA server, but instead evaluates the applications in the specified location.

This is useful for the following cases:

- You want to register an existing directory on the server that contains applications, for example, from a nightly automatic build process. This way, the MTA server will analyze the latest versions of applications.
- You want to register an application as an exploded Java archive. In this case, be sure to check the **Directory is an exploded Java application archive** checkbox.

Once you have specified one or more applications for this project, press **Next** to continue.

### 3.3. SPECIFY THE ANALYSIS CONFIGURATION

Configure the settings for the analysis, such as the transformation path, packages, and other advanced options.

Figure 3.4. Configure Analysis

RED HAT APPLICATION MIGRATION TOOLKIT Web Console

Create Project Add Applications **Configure the Analysis**

#### Analysis Configuration

**\* Transformation path**

☒ Migration to JBoss EAP 7
 ☐ Migration to JBoss EAP 6
 ☐ Cloud readiness only

Select the transformation path for your applications.

☐ Cloud readiness analysis

Check this box to also assess your applications for cloud and container readiness.

**Included packages**

- ☐ com
- ☐ org
- ☐ weblogic

Select the Java packages to decompile and analyze. If no packages are selected, all will be analyzed.

[Exclude packages](#)
[Use custom rules](#)
[Advanced options](#)

Back Save Save & Run

#### Transformation Path

Select the transformation path for your applications. The current options are:

- **Migration to JBoss EAP 7**  
Execute rules to migrate your applications to Red Hat JBoss Enterprise Application Platform 7.
- **Migration to JBoss EAP 6**  
Execute rules to migrate your applications to Red Hat JBoss Enterprise Application Platform 6.
- **Cloud readiness only**

Only execute rules to assess your applications for cloud and container environment.

If you select migration to JBoss EAP, you can also run cloud readiness rules by checking the **Cloud readiness analysis** checkbox.

#### Include Packages

Select which packages to analyze. If none are selected, all packages will be decompiled and analyzed.

#### Exclude Packages

Select which packages to exclude from analysis.

#### Custom Rules

Select which custom rulesets to use during analysis. See [Using Custom Rules](#) for instructions on registering and removing custom rules.

Once a custom ruleset has been registered, it may be selected for execution by clicking on the displayed rule to highlight it. Clicking a highlighted rule will deselect it for the project. During execution, all highlighted rules will be included in the analysis.

To select all of the custom rulesets click **Select All**, and to deselect all of the custom rulesets click **Clear All**.

#### Advanced Options

Set additional MTA options. See the [MTA Command-line Arguments](#) section of the *MTA CLI Guide* for a description of each MTA argument.

Press **Save** to save the analysis configuration, or press **Save & Run** to save and [execute the analysis](#) using these settings.

### 3.4. EXECUTE THE ANALYSIS

From the analysis configuration page, click the **Save & Run** button to execute the analysis.

On the **Analysis** page, the progress of the analysis that is currently executing is shown. Completed, queued, and in-progress executions are listed in the table. Click the **Run Analysis** to execute the analysis again with the latest configuration.

### 3.5. VIEW THE RESULTS OF AN ANALYSIS

Once you have executed MTA analysis on a project, the analysis is listed in a table that provides the analysis ID, status, and date started. Each row includes actions available for that analysis, including viewing the analysis details and generated reports, as well as canceling or deleting the analysis.

Figure 3.5. Analysis List

RED HAT APPLICATION MIGRATION TOOLKIT Web Console

Project: Test Project

Analysis Results

Active Analysis

Analysis: #4 Task: MigrationRulesPhase - weblogic-eap7-eap7 - weblogic-eap7-10000 (218/533)

Analysis Results

Analysis	Status	Start Date	Applications	Actions
#4	In progress for 14 seconds	7/3/2017, 4:12 PM	1	<a href="#">i</a> <a href="#">x</a>
#3	Cancelled after 5 seconds	7/3/2017, 4:11 PM	1	<a href="#">i</a> <a href="#">x</a>
#2	Completed in 26 seconds	7/3/2017, 4:11 PM	1	<a href="#">i</a> <a href="#">x</a>
#1	Completed in 45 seconds	7/3/2017, 4:09 PM	1	<a href="#">i</a> <a href="#">x</a>

Click the link in the **Analysis** column to [view the reports](#) or click the information icon in the **Actions** column to [view the analysis details](#).

### 3.5.1. Examine Analysis Details

The details of an analysis can be viewed by clicking the information icon in the **Actions** column of the Analysis Results table.

Figure 3.6. Analysis Details

RED HAT APPLICATION MIGRATION TOOLKIT Web Console

Project: Test Project

Analysis Results

Analysis #4

Details Applications (1) Rules Logs

Status

Status ✓ Completed

Started 7/3/2017, 4:12 PM

Duration 24 seconds

Report [Open](#)

Configuration

Transformation path Migration to JBoss EAP 7

This page provides the following tabs with information about this analysis.

#### Details

This tab shows the status, start date, and duration of the analysis as well as the configuration settings that were used for this analysis.

#### Applications

This tab lists the applications that were included in this analysis.

### Rules

This tab lists the rules that were evaluated during this analysis.



#### NOTE

You can view all system and custom rules by selecting **Rules Configuration** from the user drop down.

### Logs

This tabs shows the output from this MTA analysis engine execution.

## 3.5.2. Review the Reports

From the analysis table, click the report link in the **Actions** column to view the reports for this analysis. This opens a new window with the generated MTA reports.

See the [Review the Reports](#) section of the MTA *CLI Guide* for information on the MTA reports and how to use them to assess your migration or modernization effort.

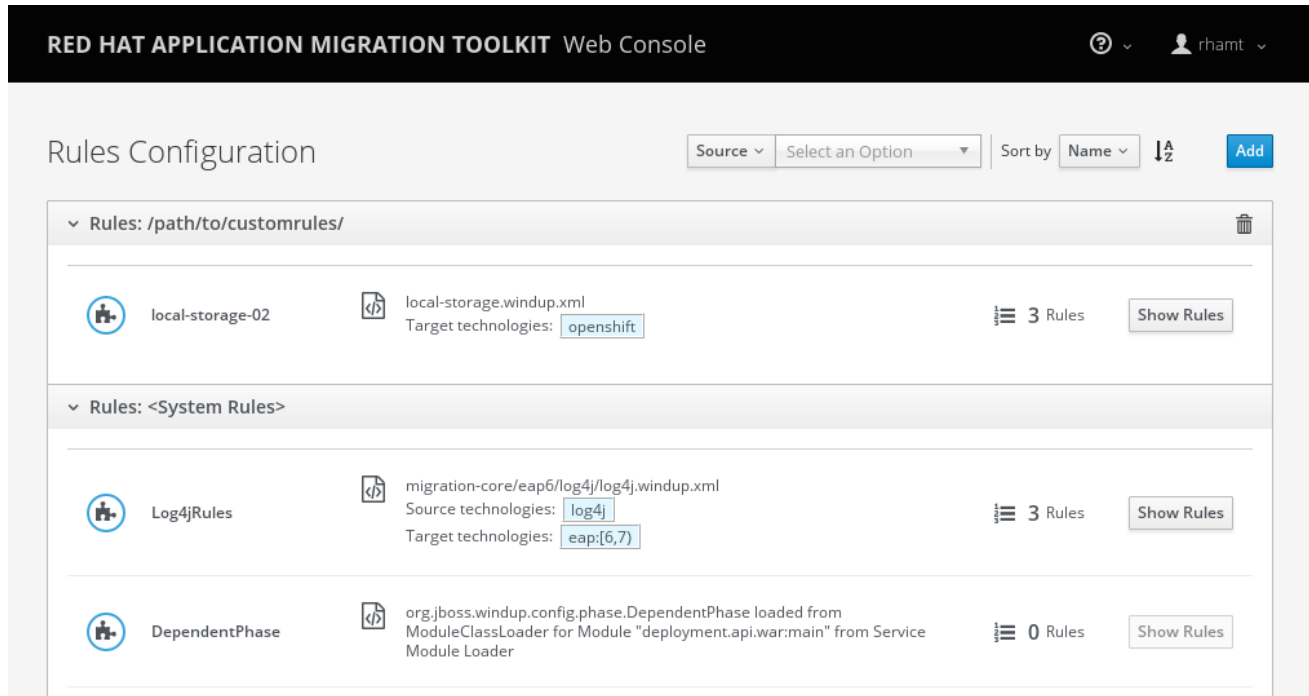


## CHAPTER 4. USING CUSTOM RULES

You can add your own custom rules to use during analysis of your applications. For information on writing custom MTA rules, see the MTA [Rules Development Guide](#).

Select **Rules Configuration** from the user drop down to view all existing system and custom rules.

Figure 4.1. Add Custom Rules



To add your own custom rules, click the **Add** button. You can either upload rules or register a server path that contains the rules.

### Upload Rules

You can use the **Choose Files** button to select ruleset files, or you can drag and drop the files into the area provided. This uploads the selected ruleset files to the MTA server. Click **Add** to upload the rules.

### Register a Server Path

Select the **Server Path** tab and enter a path on the server that contains rules to be available to projects. This does not copy the files to the MTA server, but instead uses the rules found in the specified location during analysis. This way, if the rules are updated in this location, the MTA server will always use the latest versions of rules during analysis. Click **Add** to register the rules.

Custom rulesets may be selected individually during a project analysis. To enable these select the ruleset in the **Use local custom rules** section of the [analysis configuration](#).

## CHAPTER 5. CONFIGURING AUTHENTICATION FOR THE WEB CONSOLE

You can configure the web console to require authentication, which is handled by Red Hat Single Sign-On. When enabled, users will be required to authenticate before being granted access to the web console.

It is recommended to complete the following steps to configure authentication for the web console.

1. [Enable authentication for the web console.](#)



### NOTE

If you have [installed web console on OpenShift](#), authentication is already enabled and cannot be disabled.

2. [Change the administrative user's credentials.](#)
3. [Remove the default web console user.](#)
4. [Add web console users.](#)

### 5.1. ENABLE AUTHENTICATION FOR WEB CONSOLE



### NOTE

If you have [installed web console on OpenShift](#), authentication is already enabled and cannot be disabled.

Run the following script to require users to log in before accessing the web console. This script configures the Red Hat Single Sign-On login page to require users to authenticate before granting access to the web console.

```
$ RHAMT_HOME/switch_to_authentication_required.sh
```



### NOTE

In a Windows environment, use the **switch\_to\_authentication\_required.bat** script.

Now, whenever you [start the web console](#), users will be required to authenticate to access it.

### 5.2. CHANGE THE ADMINISTRATIVE USER'S CREDENTIALS

When you [enable authentication](#) for the web console, a default administrative user is provided with the username **admin** and password **password**. You should change this password so that only those that are authorized can make further changes to web console users.

Follow these steps to change the default administrative user's password.

1. Make sure that the web console is [running](#).

2. Open the Red Hat Single Sign-On administration console.
  - For a ZIP installation:
    - a. Navigate to <http://localhost:8080/auth/> in a browser.
    - b. Select **Administration Console** to access the Red Hat Single Sign-On administration console.
  - For an OpenShift installation:
    - a. Navigate to **OPENSIFT\_URL/console/project/rhamt/overview** in a browser.

**NOTE**

If you renamed the OpenShift project when [deploying](#), replace **rhamt** with the name of your project.

- b. Click the link in the **SSO HTTPS** application and add `/auth` to the end of the URL.
  - c. Select **Administration Console** to access the Red Hat Single Sign-On administration console.
3. Log in with the default credentials of **admin** and **password**.
4. In the upper left corner, select the **Master** realm from the drop down.
5. In the left-side navigation menu, select **Users** and then click **View all users**.
6. From the **admin** user's row, click **Edit**.
7. Select the **Credentials** tab.
8. Enter the new password in the **New Password** and **Password Confirmation** fields.
9. Change the **Temporary** field to **OFF** to not require the user to change the password upon next login.
10. Click **Reset Password** and then click **Change password** in the popup.

You can also remove this default administrative user completely and create your own administrative users. However, be sure to add the new users before removing the default user.

### 5.3. REMOVE THE DEFAULT WEB CONSOLE USER

A default web console user is provided with the web console with the username **rhamt** and password **password**. When you [enable authentication](#) for the web console, you should remove this user so that the web console can only be accessed by authorized users.

Follow these steps to remove the default web console user.

1. Make sure that the web console is [running](#).
2. Open the Red Hat Single Sign-On administration console.
  - For a ZIP installation:

- a. Navigate to <http://localhost:8080/auth/> in a browser.
  - b. Select **Administration Console** to access the Red Hat Single Sign-On administration console.
- For an OpenShift installation:
    - a. Navigate to ***OPENSIFT\_URL/console/project/rhamt/overview*** in a browser.

**NOTE**

If you renamed the OpenShift project when [deploying](#), replace **rhamt** with the name of your project.

- b. Click the link in the **SSO HTTPS** application and add `/auth` to the end of the URL.
  - c. Select **Administration Console** to access the Red Hat Single Sign-On administration console.
3. Log in with an administrative user's credentials. The default credentials are **admin** and **password**.
  4. In the upper left corner, select the **Rhamt** realm from the drop down.
  5. From the left-side navigation menu, select **Users** and then click **View all users**.
  6. From the **rhamt** user's row, click **Delete** and confirm.

## 5.4. ADD A NEW WEB CONSOLE USER

When [authentication is enabled](#) for the web console, administrators will need to add users so that they can access the web console.

Follow these steps to add a new web console user.

1. Make sure that the web console is [running](#).
2. Open the Red Hat Single Sign-On administration console.
  - For a ZIP installation:
    - a. Navigate to <http://localhost:8080/auth/> in a browser.
    - b. Select **Administration Console** to access the Red Hat Single Sign-On administration console.
  - For an OpenShift installation:
    - a. Navigate to ***OPENSIFT\_URL/console/project/rhamt/overview*** in a browser.

**NOTE**

If you renamed the OpenShift project when [deploying](#), replace **rhamt** with the name of your project.

- b. Click the link in the **SSO HTTPS** application and add `/auth` to the end of the URL.

- c. Select **Administration Console** to access the Red Hat Single Sign-On administration console.
3. Log in with an administrative user's credentials. The default credentials are **admin** and **password**.
4. In the upper left corner, select the **Rhamt** realm from the drop down.
5. From the left-side navigation menu, select **Users** and then click **Add user**.
6. Enter the **Username**, **First Name**, **Last Name**, and any other required fields and click **Save**.
7. Once the user has been added, select the **Credentials** tab.
8. Enter a temporary password in the **New Password** and **Password Confirmation** fields, and leave the **Temporary** field set to **ON**.
9. Click **Reset Password** and then click **Change password** in the confirmation popup.

The user is enabled by default and will be required to set a new password when they log in to the web console with this temporary password.

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