# Red Hat Decision Manager 7.2

## Deploying a Red Hat Decision Manager trial environment on Red Hat OpenShift Container Platform

Last Updated: 2021-02-22

# Red Hat Decision Manager 7.2 Deploying a Red Hat Decision Manager trial environment on Red Hat OpenShift Container Platform

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## Legal Notice



## Abstract

This document describes how to deploy a Red Hat Decision Manager 7.2 trial environment on Red Hat OpenShift Container Platform.

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# PREFACE

As a system engineer, you can deploy a Red Hat Decision Manager trial environment on Red Hat OpenShift Container Platform to evaluate or demonstrate development and use of rules and other business assets.

**Prerequisites**

- At least three gigabytes of memory must be available in the OpenShift cluster/namespace.
- The OpenShift project for the deployment must be created.
- You must be logged in to the project using the **oc** command. For more information about the **oc** command-line tool, see the OpenShift CLI Reference. If you want to use the OpenShift Web console to deploy templates, you must also be logged on using the Web console.

# CHAPTER 1. OVERVIEW OF RED HAT DECISION MANAGER ON RED HAT OPENSHIFT CONTAINER PLATFORM

You can deploy Red Hat Decision Manager into a Red Hat OpenShift Container Platform environment.

In this solution, components of Red Hat Decision Manager are deployed as separate OpenShift pods. You can scale each of the pods up and down individually, providing as few or as many containers as necessary for a particular component. You can use standard OpenShift methods to manage the pods and balance the load.

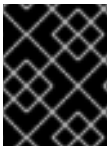
The following key components of Red Hat Decision Manager are available on OpenShift:

- Decision Server, also known as *Execution Server* or *KIE Server*, is the infrastructure element that runs decision services and other deployable assets (collectively referred to as *services*) . All logic of the services runs on execution servers.
  You can freely scale up a Decision Server pod, providing as many copies as necessary, running on the same host or different hosts. As you scale a pod up or down, all its copies run the same services. OpenShift provides load balancing and a request can be handled by any of the pods.

  You can deploy a separate Decision Server pod to run a different group of services. That pod can also be scaled up or down. You can have as many separate replicated Decision Server pods as necessary.

- Decision Central is a web-based interactive environment for authoring services. It also provides a management console. You can use Decision Central to develop services and deploy them to Decision Servers.
  Decision Central is a centralized application. However, you can configure it for high availability, where multiple pods run and share the same data.

  Decision Central includes a Git repository that holds the source for the services that you develop on it. It also includes a built-in Maven repository. Depending on configuration, Decision Central can place the compiled services (KJAR files) into the built-in Maven repository or (if configured) into an external Maven repository.



**IMPORTANT**

In the current version, high-availability Decision Central functionality is a technology preview.

You can arrange these and other components into various environment configurations within OpenShift.

The following environment types are typical:

- *Authoring or managed environment* : An environment architecture that can be used for creating and modifying services using Decision Central and also for running services on Decision Servers. It consists of pods that provide Decision Central for the authoring work and one or more Decision Servers for execution of the services. Each Decision Server is a pod that you can replicate by scaling it up or down as necessary. You can deploy and undeploy services on each Decision Server using Decision Central. For instructions about deploying this environment, see *Deploying a Red Hat Decision Manager authoring or managed server environment on Red Hat OpenShift Container Platform*.

- *Deployment with immutable servers* : An alternate environment for running existing services for staging and production purposes. In this environment, when you deploy a Decision Server pod, it builds an image that loads and starts a service or group of services. You cannot stop any service

on the pod or add any new service to the pod. If you want to use another version of a service or modify the configuration in any other way, you deploy a new server image and displace the old one. In this system, the Decision Server runs like any other pod on the OpenShift environment; you can use any container-based integration workflows and do not need to use any other tools to manage the pods. For instructions about deploying this environment, see *Deploying a Red Hat Decision Manager immutable server environment on Red Hat OpenShift Container Platform*.

You can also deploy a *trial* or evaluation environment. This environment includes Decision Central and a Decision Server. You can set it up quickly and use it to evaluate or demonstrate developing and running assets. However, the environment does not use any persistent storage, and any work you do in the environment is not saved. For instructions about deploying this environment, see *Deploying a Red Hat Decision Manager trial environment on Red Hat OpenShift Container Platform*.

To deploy a Red Hat Decision Manager environment on OpenShift, you can use the templates that are provided with Red Hat Decision Manager.

# CHAPTER 2. ENSURING THE AVAILABILITY OF IMAGE STREAMS AND THE IMAGE REGISTRY

To deploy Red Hat Decision Manager components of Red Hat OpenShift Container Platform, you must ensure that OpenShift can download the correct images from the Red Hat registry. To download the images, OpenShift requires the information about their location (known as *image streams*). OpenShift also must be configured to authenticate with the Red Hat registry using your service account user name and password.

Some versions of the OpenShift environment include the required image streams. You must check if they are available. If image streams are available in OpenShift by default, you can use them if the OpenShift infrastructure is configured for registry authentication server. The administrator must complete the registry authentication configuration when installing the OpenShift environment.

Otherwise, you can configure registry authentication in your own project and install the image streams in the same project.

**Procedure**

1. Determine whether Red Hat OpenShift Container Platform was configured with the user name and password for Red Hat registry access. For details about the required configuration, see Configuring a Registry Location. If you are using an OpenShift Online subscription, it is configured for Red Hat registry access.

2. If Red Hat OpenShift Container Platform was configured with the user name and password for Red Hat registry access, run the following commands:

```
$ oc get imagestreamtag -n openshift | grep rhdm72-decisioncentral-openshift
$ oc get imagestreamtag -n openshift | grep rhdm72-kieserver-openshift
```

   If the outputs of both commands are not empty, the required image streams are available in the **openshift** namespace and no further action is required.

3. If the output of one or both of the commands is empty or if OpenShift was not configured with the user name and password for Red Hat registry access, complete the following steps:

   a. Ensure you are logged in to OpenShift with the **oc** command and that your project is active.

   b. Complete the steps documented in Registry Service Accounts for Shared Environments. You must log on to Red Hat Customer Portal to access the document and to complete the steps to create a registry service account.

   c. Select the **OpenShift Secret** tab and click the link under **Download secret** to download the YAML secret file.

   d. View the downloaded file and note the name that is listed in the **name:** entry.

   e. Run the following commands:

```
oc create -f <file_name>.yaml
oc secrets link default <secret_name> --for=pull
oc secrets link builder <secret_name> --for=pull
```

   Where **<file_name>** is the name of the downloaded file and <secret_name> is the name that is listed in the **name:** entry of the file.

f. Download the **rhdm-7.2.0-openshift-templates.zip** product deliverable file from the Software Downloads page and extract the **rhdm72-image-streams.yaml** file.

g. Complete one of the following actions:

- Run the following command:

```
$ oc create -f rhdm72-image-streams.yaml
```

- Using the OpenShift Web UI, select **Add to Project → Import YAML / JSON** and then choose the file or paste its contents.

NOTE

If you complete these steps, you install the image streams into the namespace of your project. If you install the image streams using these steps, you must set the **IMAGE_STREAM_NAMESPACE** parameter to the name of this project when deploying templates.

# CHAPTER 3. DEPLOYING A TRIAL ENVIRONMENT

You can deploy a trial (evaluation) Red Hat Decision Manager environment. It consists of Decision Central for authoring or managing services and Decision Server for test execution of services.

This environment does not include permanent storage. Assets that you create or modify in a trial environment are not saved.

This environment is intended for test and demonstration access. It supports cross-origin resource sharing (CORS). This means that Decision Server endpoints can be accessed using a browser when other resources on the page are provided by other servers. Decision Server endpoints are normally intended for REST calls, but browser access can be needed in some demonstration configurations.

The procedure is minimal. There are no required settings and all passwords are set to a single value (the default password is **RedHat**).

To deploy a trial environment, use the **rhdm72-trial-ephemeral.yaml** template file. You can extract this file from the **rhdm-7.2.0-openshift-templates.zip** product deliverable file. You can download the file from the Software Downloads page of the Red Hat Customer Portal.

**Procedure**

1. Use one of the following methods to deploy the template:
   - In the OpenShift Web UI, select **Add to Project → Import YAML / JSON** and then select or paste the **rhdm72-trial-ephemeral.yaml** file. In the **Add Template** window, ensure **Process the template** is selected and click **Continue**.
   - To use the OpenShift command line console, prepare the following command line:

     ```
     oc new-app -f <template-path>/rhdm72-trial-ephemeral.yaml
     ```

     In this command line, replace **<template-path>** with the path to the downloaded template file.
2. Optionally, set any parameters as described in the template. A typical trial deployment requires only the following parameter:
   - **ImageStream Namespace** (**IMAGE_STREAM_NAMESPACE**): The namespace where the image streams are available. If the image streams were already available in your OpenShift environment (see Chapter 2, *Ensuring the availability of image streams and the image registry*), the namespace is **openshift**. If you installed the image streams file, the namespace is the name of the OpenShift project.
3. Complete the creation of the environment, depending on the method that you are using:
   - In the OpenShift Web UI, click **Create**.
     - A **This will create resources that may have security or project behavior implications** pop-up message might be displayed. If it is displayed, click **Create Anyway**.
   - Complete and run the command line.

# CHAPTER 4. OPENSHIFT TEMPLATE REFERENCE INFORMATION

Red Hat Decision Manager provides the following OpenShift templates. To access the templates, download and extract the **rhdm-7.2.0-openshift-templates.zip** product deliverable file from the Software Downloads page of the Red Hat customer portal.

- **rhdm72-trial-ephemeral.yaml** provides a Decision Central and a Decision Server connected to the Decision Central. This environment uses an ephemeral configuration without any persistent storage. For details about this template, see Section 4.1, "rhdm72-trial-ephemeral.yaml template".

## 4.1. RHDM72-TRIAL-EPHEMERAL.YAML TEMPLATE

Application template for an ephemeral authoring and testing environment, for Red Hat Decision Manager 7.2

### 4.1.1. Parameters

Templates allow you to define parameters which take on a value. That value is then substituted wherever the parameter is referenced. References can be defined in any text field in the objects list field. Refer to the Openshift documentation for more information.

| Variable name | Image Environment Variable | Description | Example value | Required |
|---|---|---|---|---|
| **APPLICATION_NAME** | – | The name for the application. | myapp | True |
| **DEFAULT_PASSWORD** | **KIE_ADMIN_PWD** | Default password used for multiple components for user convenience in this trial environment | RedHat | True |
| **KIE_ADMIN_USER** | **KIE_ADMIN_USER** | KIE administrator username | adminUser | False |
| **KIE_SERVER_USER** | **KIE_SERVER_USER** | KIE server username (Sets the org.kie.server.user system property) | executionUser | False |
| **KIE_SERVER_BYPASS_AUTH_USER** | **KIE_SERVER_BYPASS_AUTH_USER** | KIE server bypass auth user (Sets the org.kie.server.bypass.auth.user system property) | false | False |

| Variable name | Image Environment Variable | Description | Example value | Required |
|---|---|---|---|---|
| **KIE_SERVER_CONTROLLER_USER** | **KIE_SERVER_CONTROLLER_USER** | KIE server controller username (Sets the org.kie.server.controller.user system property) | controllerUser | False |
| **KIE_MBEANS** | **KIE_MBEANS** | KIE server mbeans enabled/disabled (Sets the kie.mbeans and kie.scanner.mbeans system properties) | enabled | False |
| **DROOLS_SERVER_FILTER_CLASSES** | **DROOLS_SERVER_FILTER_CLASSES** | KIE server class filtering (Sets the org.drools.server.filter.classes system property) | true | False |
| **KIE_SERVER_HOSTNAME_HTTP** | **HOSTNAME_HTTP** | Custom hostname for http service route. Leave blank for default hostname, e.g.: <application-name>-kieserver-<project>.<default-domain-suffix> | – | False |
| **KIE_SERVER_ACCESS_CONTROL_ALLOW_ORIGIN** | **AC_ALLOW_ORIGIN_FILTER_RESPONSE_HEADER_VALUE** | Sets the Access-Control-Allow-Origin response header value in the KIE Server (useful for CORS support) | * | False |
| **KIE_SERVER_ACCESS_CONTROL_ALLOW_METHODS** | **AC_ALLOW_METHODS_FILTER_RESPONSE_HEADER_VALUE** | Sets the Access-Control-Allow-Methods response header value in the KIE Server (useful for CORS support) | GET, POST, OPTIONS, PUT | False |

| Variable name | Image Environment Variable | Description | Example value | Required |
|---|---|---|---|---|
| **KIE_SERVER_ACCESS_CONTROL_ALLOW_HEADERS** | **AC_ALLOW_HEADERS_FILTER_RESPONSE_HEADER_VALUE** | Sets the Access-Control-Allow-Headers response header value in the KIE Server (useful for CORS support) | Accept, Authorization, Content-Type, X-Requested-With | False |
| **KIE_SERVER_ACCESS_CONTROL_ALLOW_CREDENTIALS** | **AC_ALLOW_CREDENTIALS_FILTER_RESPONSE_HEADER_VALUE** | Sets the Access-Control-Allow-Credentials response header value in the KIE Server (useful for CORS support) | true | False |
| **KIE_SERVER_ACCESS_CONTROL_MAX_AGE** | **AC_MAX_AGE_FILTER_RESPONSE_HEADER_VALUE** | Sets the Access-Control-Max-Age response header value in the KIE Server (useful for CORS support) | 1 | False |
| **DECISION_CENTRAL_HOSTNAME_HTTP** | **HOSTNAME_HTTP** | Custom hostname for http service route. Leave blank for default hostname, e.g.: <application-name>-rhdmcentr-<project>.<default-domain-suffix> | – | False |

| Variable name | Image Environment Variable | Description | Example value | Required |
|---|---|---|---|---|
| **IMAGE_STREAM_NAMESPACE** | – | Namespace in which the ImageStreams for Red Hat Middleware images are installed. These ImageStreams are normally installed in the openshift namespace. You should only need to modify this if you installed the ImageStreams in a different namespace/project. | openshift | True |
| **KIE_SERVER_IMAGE_STREAM_NAME** | – | The name of the image stream to use for KIE server. Default is "rhdm72-kieserver-openshift". | rhdm72-kieserver-openshift | True |
| **IMAGE_STREAM_TAG** | – | A named pointer to an image in an image stream. Default is "1.1". | 1.1 | True |
| **KIE_SERVER_CONTAINER_DEPLOYMENT** | **KIE_SERVER_CONTAINER_DEPLOYMENT** | KIE Server Container deployment configuration in format: containerId=groupId:artifactId:version\|c2=g2:a2:v2 | – | False |
| **MAVEN_REPO_ID** | **MAVEN_REPO_ID** | The id to use for the maven repository, if set. Default is generated randomly. | my-repo-id | False |

| Variable name | Image Environment Variable | Description | Example value | Required |
|---|---|---|---|---|
| **MAVEN_REPO_URL** | **MAVEN_REPO_URL** | Fully qualified URL to a Maven repository or service. | http://nexus.nexus-project.svc.cluster.local:8081/nexus/content/groups/public/ | False |
| **MAVEN_REPO_USERNAME** | **MAVEN_REPO_USERNAME** | Username to access the Maven repository, if required. | – | False |
| **MAVEN_REPO_PASSWORD** | **MAVEN_REPO_PASSWORD** | Password to access the Maven repository, if required. | – | False |
| **DECISION_CENTRAL_MAVEN_USERNAME** | **KIE_MAVEN_USER** | Username to access the Maven service hosted by Decision Central inside EAP. | mavenUser | True |
| **GIT_HOOKS_DIR** | **GIT_HOOKS_DIR** | The directory to use for git hooks, if required. | **/opt/eap/standalone/data/kie/git/hooks** | False |
| **DECISION_CENTRAL_MEMORY_LIMIT** | – | Decision Central Container memory limit | 2Gi | False |
| **KIE_SERVER_MEMORY_LIMIT** | – | KIE server Container memory limit | 1Gi | False |
| **SSO_URL** | **SSO_URL** | RH-SSO URL | https://rh-sso.example.com/auth | False |
| **SSO_REALM** | **SSO_REALM** | RH-SSO Realm name | – | False |
| **DECISION_CENTRAL_SSO_CLIENT** | **SSO_CLIENT** | Decision Central RH-SSO Client name | – | False |

| Variable name | Image Environment Variable | Description | Example value | Required |
|---|---|---|---|---|
| **DECISION_CENTRAL_SSO_SECRET** | **SSO_SECRET** | Decision Central RH-SSO Client Secret | 252793ed-7118-4ca8-8dab-5622fa97d892 | False |
| **KIE_SERVER_SSO_CLIENT** | **SSO_CLIENT** | KIE Server RH-SSO Client name | – | False |
| **KIE_SERVER_SSO_SECRET** | **SSO_SECRET** | KIE Server RH-SSO Client Secret | 252793ed-7118-4ca8-8dab-5622fa97d892 | False |
| **SSO_USERNAME** | **SSO_USERNAME** | RH-SSO Realm Admin Username used to create the Client if it doesn't exist | – | False |
| **SSO_PASSWORD** | **SSO_PASSWORD** | RH-SSO Realm Admin Password used to create the Client | – | False |
| **SSO_DISABLE_SSL_CERTIFICATE_VALIDATION** | **SSO_DISABLE_SSL_CERTIFICATE_VALIDATION** | RH-SSO Disable SSL Certificate Validation | false | False |
| **SSO_PRINCIPAL_ATTRIBUTE** | **SSO_PRINCIPAL_ATTRIBUTE** | RH-SSO Principal Attribute to use as username. | preferred_username | False |
| **AUTH_LDAP_URL** | **AUTH_LDAP_URL** | LDAP Endpoint to connect for authentication | ldap://myldap.example.com | False |
| **AUTH_LDAP_BIND_DN** | **AUTH_LDAP_BIND_DN** | Bind DN used for authentication | uid=admin,ou=users,ou=exmample,ou=com | False |
| **AUTH_LDAP_BIND_CREDENTIAL** | **AUTH_LDAP_BIND_CREDENTIAL** | LDAP Credentials used for authentication | Password | False |

| Variable name | Image Environment Variable | Description | Example value | Required |
|---|---|---|---|---|
| **AUTH_LDAP_JAAS_SECURITY_DOMAIN** | **AUTH_LDAP_JAAS_SECURITY_DOMAIN** | The JMX ObjectName of the JaasSecurityDomain used to decrypt the password. | – | False |
| **AUTH_LDAP_BASE_CTX_DN** | **AUTH_LDAP_BASE_CTX_DN** | LDAP Base DN of the top-level context to begin the user search. | ou=users,ou=example,ou=com | False |
| **AUTH_LDAP_BASE_FILTER** | **AUTH_LDAP_BASE_FILTER** | LDAP search filter used to locate the context of the user to authenticate. The input username or userDN obtained from the login module callback is substituted into the filter anywhere a {0} expression is used. A common example for the search filter is (uid={0}). | (uid={0}) | False |
| **AUTH_LDAP_SEARCH_SCOPE** | **AUTH_LDAP_SEARCH_SCOPE** | The search scope to use. | **SUBTREE_SCOPE** | False |
| **AUTH_LDAP_SEARCH_TIME_LIMIT** | **AUTH_LDAP_SEARCH_TIME_LIMIT** | The timeout in milliseconds for user or role searches. | 10000 | False |

| Variable name | Image Environment Variable | Description | Example value | Required |
|---|---|---|---|---|
| **AUTH_LDAP_DISTINGUISHED_NAME_ATTRIBUTE** | **AUTH_LDAP_DISTINGUISHED_NAME_ATTRIBUTE** | The name of the attribute in the user entry that contains the DN of the user. This may be necessary if the DN of the user itself contains special characters, backslash for example, that prevent correct user mapping. If the attribute does not exist, the entry's DN is used. | distinguishedName | False |
| **AUTH_LDAP_PARSE_USERNAME** | **AUTH_LDAP_PARSE_USERNAME** | A flag indicating if the DN is to be parsed for the username. If set to true, the DN is parsed for the username. If set to false the DN is not parsed for the username. This option is used together with usernameBeginString and usernameEndString. | true | False |
| **AUTH_LDAP_USERNAME_BEGIN_STRING** | **AUTH_LDAP_USERNAME_BEGIN_STRING** | Defines the String which is to be removed from the start of the DN to reveal the username. This option is used together with usernameEndString and only taken into account if parseUsername is set to true. | – | False |

| Variable name | Image Environment Variable | Description | Example value | Required |
|---|---|---|---|---|
| **AUTH_LDAP_USERNAME_END_STRING** | **AUTH_LDAP_USERNAME_END_STRING** | Defines the String which is to be removed from the end of the DN to reveal the username. This option is used together with usernameEndString and only taken into account if parseUsername is set to true. | – | False |
| **AUTH_LDAP_ROLE_ATTRIBUTE_ID** | **AUTH_LDAP_ROLE_ATTRIBUTE_ID** | Name of the attribute containing the user roles. | memberOf | False |
| **AUTH_LDAP_ROLES_CTX_DN** | **AUTH_LDAP_ROLES_CTX_DN** | The fixed DN of the context to search for user roles. This is not the DN where the actual roles are, but the DN where the objects containing the user roles are. For example, in a Microsoft Active Directory server, this is the DN where the user account is. | ou=groups,ou=example,ou=com | False |

| Variable name | Image Environment Variable | Description | Example value | Required |
|---|---|---|---|---|
| **AUTH_LDAP_ROLE_FILTER** | **AUTH_LDAP_ROLE_FILTER** | A search filter used to locate the roles associated with the authenticated user. The input username or userDN obtained from the login module callback is substituted into the filter anywhere a {0} expression is used. The authenticated userDN is substituted into the filter anywhere a {1} is used. An example search filter that matches on the input username is (member={0}). An alternative that matches on the authenticated userDN is (member={1}). | (memberOf={1}) | False |
| **AUTH_LDAP_ROLE_RECURSION** | **AUTH_LDAP_ROLE_RECURSION** | The number of levels of recursion the role search will go below a matching context. Disable recursion by setting this to 0. | 1 | False |
| **AUTH_LDAP_DEFAULT_ROLE** | **AUTH_LDAP_DEFAULT_ROLE** | A role included for all authenticated users | guest | False |

| Variable name | Image Environment Variable | Description | Example value | Required |
|---|---|---|---|---|
| **AUTH_LDAP_ROLE_NAME_ATTRIBUTE_ID** | **AUTH_LDAP_ROLE_NAME_ATTRIBUTE_ID** | Name of the attribute within the roleCtxDN context which contains the role name. If the roleAttributeIsDN property is set to true, this property is used to find the role object's name attribute. | name | False |
| **AUTH_LDAP_PARSE_ROLE_NAME_FROM_DN** | **AUTH_LDAP_PARSE_ROLE_NAME_FROM_DN** | A flag indicating if the DN returned by a query contains the roleNameAttribute ID. If set to true, the DN is checked for the roleNameAttribute ID. If set to false, the DN is not checked for the roleNameAttribute ID. This flag can improve the performance of LDAP queries. | false | False |
| **AUTH_LDAP_ROLE_ATTRIBUTE_IS_DN** | **AUTH_LDAP_ROLE_ATTRIBUTE_IS_DN** | Whether or not the roleAttributeID contains the fully-qualified DN of a role object. If false, the role name is taken from the value of the roleNameAttribute Id attribute of the context name. Certain directory schemas, such as Microsoft Active Directory, require this attribute to be set to true. | false | False |

| Variable name | Image Environment Variable | Description | Example value | Required |
|---|---|---|---|---|
| **AUTH_LDAP_REFERRAL_USER_ATTRIBUTE_ID_TO_CHECK** | **AUTH_LDAP_REFERRAL_USER_ATTRIBUTE_ID_TO_CHECK** | If you are not using referrals, you can ignore this option. When using referrals, this option denotes the attribute name which contains users defined for a certain role, for example member, if the role object is inside the referral. Users are checked against the content of this attribute name. If this option is not set, the check will always fail, so role objects cannot be stored in a referral tree. | – | False |
| **AUTH_ROLE_MAPPER_ROLES_PROPERTIES** | **AUTH_ROLE_MAPPER_ROLES_PROPERTIES** | When present, the RoleMapping Login Module will be configured to use the provided file. This property defines the fully-qualified file path and name of a properties file or resource which maps roles to replacement roles. The format is original_role=role1,role2,role3 | – | False |
| **AUTH_ROLE_MAPPER_REPLACE_ROLE** | **AUTH_ROLE_MAPPER_REPLACE_ROLE** | Whether to add to the current roles, or replace the current roles with the mapped ones. Replaces if set to true. | – | False |

### 4.1.2. Objects

The CLI supports various object types. A list of these object types as well as their abbreviations can be found in the Openshift documentation.

#### 4.1.2.1. Services

A service is an abstraction which defines a logical set of pods and a policy by which to access them. Refer to the container-engine documentation for more information.

| Service | Port | Name | Description |
|---|---|---|---|
| **${APPLICATION_NAME}-rhdmcentr** | 8080 | http | All the Decision Central web server's ports. |
| | 8001 | git-ssh | |
| **${APPLICATION_NAME}-kieserver** | 8080 | – | All the KIE server web server's ports. |

#### 4.1.2.2. Routes

A route is a way to expose a service by giving it an externally-reachable hostname such as **www.example.com**. A defined route and the endpoints identified by its service can be consumed by a router to provide named connectivity from external clients to your applications. Each route consists of a route name, service selector, and (optionally) security configuration. Refer to the Openshift documentation for more information.

| Service | Security | Hostname |
|---|---|---|
| **${APPLICATION_NAME}-rhdmcentr-http** | none | **${DECISION_CENTRAL_HOSTNAME_HTTP}** |
| **${APPLICATION_NAME}-kieserver-http** | none | **${KIE_SERVER_HOSTNAME_HTTP}** |

#### 4.1.2.3. Deployment Configurations

A deployment in OpenShift is a replication controller based on a user defined template called a deployment configuration. Deployments are created manually or in response to triggered events. Refer to the Openshift documentation for more information.

##### 4.1.2.3.1. Triggers

A trigger drives the creation of new deployments in response to events, both inside and outside OpenShift. Refer to the Openshift documentation for more information.

| Deployment | Triggers |
|---|---|
| **${APPLICATION_NAME}-rhdmcentr** | ImageChange |

| Deployment | Triggers |
|---|---|
| **${APPLICATION_NAME}-kieserver** | ImageChange |

#### 4.1.2.3.2. Replicas

A replication controller ensures that a specified number of pod "replicas" are running at any one time. If there are too many, the replication controller kills some pods. If there are too few, it starts more. Refer to the container-engine documentation for more information.

| Deployment | Replicas |
|---|---|
| **${APPLICATION_NAME}-rhdmcentr** | 1 |
| **${APPLICATION_NAME}-kieserver** | 1 |

#### 4.1.2.3.3. Pod Template

##### 4.1.2.3.3.1. Service Accounts

Service accounts are API objects that exist within each project. They can be created or deleted like any other API object. Refer to the Openshift documentation for more information.

| Deployment | Service Account |
|---|---|
| **${APPLICATION_NAME}-rhdmcentr** | **${APPLICATION_NAME}-rhdmsvc** |
| **${APPLICATION_NAME}-kieserver** | **${APPLICATION_NAME}-rhdmsvc** |

##### 4.1.2.3.3.2. Image

| Deployment | Image |
|---|---|
| **${APPLICATION_NAME}-rhdmcentr** | rhdm72-decisioncentral-openshift |
| **${APPLICATION_NAME}-kieserver** | **${KIE_SERVER_IMAGE_STREAM_NAME}** |

##### 4.1.2.3.3.3. Readiness Probe

**${APPLICATION_NAME}-rhdmcentr**

```
/bin/bash -c curl --fail --silent -u '${KIE_ADMIN_USER}:${DEFAULT_PASSWORD}'
http://localhost:8080/kie-drools-wb.jsp
```

**${APPLICATION_NAME}-kieserver**

-

```
/bin/bash -c curl --fail --silent -u ${KIE_ADMIN_USER}:${DEFAULT_PASSWORD}
http://localhost:8080/services/rest/server/readycheck
```

#### 4.1.2.3.3.4. Liveness Probe

##### ${APPLICATION_NAME}-rhdmcentr

```
/bin/bash -c curl --fail --silent -u '${KIE_ADMIN_USER}:${DEFAULT_PASSWORD}'
http://localhost:8080/kie-drools-wb.jsp
```

##### ${APPLICATION_NAME}-kieserver

```
/bin/bash -c curl --fail --silent -u ${KIE_ADMIN_USER}:${DEFAULT_PASSWORD}
http://localhost:8080/services/rest/server/readycheck
```

#### 4.1.2.3.3.5. Exposed Ports

| Deployments | Name | Port | Protocol |
|---|---|---|---|
| **${APPLICATION_NAME}-rhdmcentr** | jolokia | 8778 | **TCP** |
| | http | 8080 | **TCP** |
| | git-ssh | 8001 | **TCP** |
| **${APPLICATION_NAME}-kieserver** | jolokia | 8778 | **TCP** |
| | http | 8080 | **TCP** |

#### 4.1.2.3.3.6. Image Environment Variables

| Deployment | Variable name | Description | Example value |
|---|---|---|---|
| **${APPLICATION_NAME}-rhdmcentr** | **KIE_ADMIN_USER** | KIE administrator username | **${KIE_ADMIN_USER}** |
| | **KIE_ADMIN_PWD** | Default password used for multiple components for user convenience in this trial environment | **${DEFAULT_PASSWORD}** |
| | **KIE_MBEANS** | KIE server mbeans enabled/disabled (Sets the kie.mbeans and kie.scanner.mbeans system properties) | **${KIE_MBEANS}** |

| Deployment | Variable name | Description | Example value |
|---|---|---|---|
| | **KIE_SERVER_CONTROLLER_USER** | KIE server controller username (Sets the org.kie.server.controller.user system property) | **${KIE_SERVER_CONTROLLER_USER}** |
| | **KIE_SERVER_CONTROLLER_PWD** | Default password used for multiple components for user convenience in this trial environment | **${DEFAULT_PASSWORD}** |
| | **KIE_SERVER_USER** | KIE server username (Sets the org.kie.server.user system property) | **${KIE_SERVER_USER}** |
| | **KIE_SERVER_PWD** | Default password used for multiple components for user convenience in this trial environment | **${DEFAULT_PASSWORD}** |
| | **WORKBENCH_ROUTE_NAME** | – | **${APPLICATION_NAME}-rhdmcentr** |
| | **MAVEN_REPO_ID** | The id to use for the maven repository, if set. Default is generated randomly. | **${MAVEN_REPO_ID}** |
| | **MAVEN_REPO_URL** | Fully qualified URL to a Maven repository or service. | **${MAVEN_REPO_URL}** |
| | **MAVEN_REPO_USERNAME** | Username to access the Maven repository, if required. | **${MAVEN_REPO_USERNAME}** |
| | **MAVEN_REPO_PASSWORD** | Password to access the Maven repository, if required. | **${MAVEN_REPO_PASSWORD}** |
| | **KIE_MAVEN_USER** | Username to access the Maven service hosted by Decision Central inside EAP. | **${DECISION_CENTRAL_MAVEN_USERNAME}** |
| | **KIE_MAVEN_PWD** | Default password used for multiple components for user convenience in this trial environment | **${DEFAULT_PASSWORD}** |

| Deployment | Variable name | Description | Example value |
|---|---|---|---|
| | **GIT_HOOKS_DIR** | The directory to use for git hooks, if required. | **${GIT_HOOKS_DIR}** |
| | **SSO_URL** | RH-SSO URL | **${SSO_URL}** |
| | **SSO_OPENIDCONNECT_DEPLOYMENTS** | – | ROOT.war |
| | **SSO_REALM** | RH-SSO Realm name | **${SSO_REALM}** |
| | **SSO_SECRET** | Decision Central RH-SSO Client Secret | **${DECISION_CENTRAL_SSO_SECRET}** |
| | **SSO_CLIENT** | Decision Central RH-SSO Client name | **${DECISION_CENTRAL_SSO_CLIENT}** |
| | **SSO_USERNAME** | RH-SSO Realm Admin Username used to create the Client if it doesn't exist | **${SSO_USERNAME}** |
| | **SSO_PASSWORD** | RH-SSO Realm Admin Password used to create the Client | **${SSO_PASSWORD}** |
| | **SSO_DISABLE_SSL_CERTIFICATE_VALIDATION** | RH-SSO Disable SSL Certificate Validation | **${SSO_DISABLE_SSL_CERTIFICATE_VALIDATION}** |
| | **SSO_PRINCIPAL_ATTRIBUTE** | RH-SSO Principal Attribute to use as username. | **${SSO_PRINCIPAL_ATTRIBUTE}** |
| | **HOSTNAME_HTTP** | Custom hostname for http service route. Leave blank for default hostname, e.g.: <application-name>-rhdmcentr-<project>.<default-domain-suffix> | **${DECISION_CENTRAL_HOSTNAME_HTTP}** |
| | **AUTH_LDAP_URL** | LDAP Endpoint to connect for authentication | **${AUTH_LDAP_URL}** |
| | **AUTH_LDAP_BIND_DN** | Bind DN used for authentication | **${AUTH_LDAP_BIND_DN}** |

| Deployment | Variable name | Description | Example value |
|---|---|---|---|
| | **AUTH_LDAP_BIND_CREDENTIAL** | LDAP Credentials used for authentication | **${AUTH_LDAP_BIND_CREDENTIAL}** |
| | **AUTH_LDAP_JAAS_SECURITY_DOMAIN** | The JMX ObjectName of the JaasSecurityDomain used to decrypt the password. | **${AUTH_LDAP_JAAS_SECURITY_DOMAIN}** |
| | **AUTH_LDAP_BASE_CTX_DN** | LDAP Base DN of the top-level context to begin the user search. | **${AUTH_LDAP_BASE_CTX_DN}** |
| | **AUTH_LDAP_BASE_FILTER** | LDAP search filter used to locate the context of the user to authenticate. The input username or userDN obtained from the login module callback is substituted into the filter anywhere a {0} expression is used. A common example for the search filter is (uid={0}). | **${AUTH_LDAP_BASE_FILTER}** |
| | **AUTH_LDAP_SEARCH_SCOPE** | The search scope to use. | **${AUTH_LDAP_SEARCH_SCOPE}** |
| | **AUTH_LDAP_SEARCH_TIME_LIMIT** | The timeout in milliseconds for user or role searches. | **${AUTH_LDAP_SEARCH_TIME_LIMIT}** |
| | **AUTH_LDAP_DISTINGUISHED_NAME_ATTRIBUTE** | The name of the attribute in the user entry that contains the DN of the user. This may be necessary if the DN of the user itself contains special characters, backslash for example, that prevent correct user mapping. If the attribute does not exist, the entry's DN is used. | **${AUTH_LDAP_DISTINGUISHED_NAME_ATTRIBUTE}** |

| Deployment | Variable name | Description | Example value |
|---|---|---|---|
| | **AUTH_LDAP_PARSE_USERNAME** | A flag indicating if the DN is to be parsed for the username. If set to true, the DN is parsed for the username. If set to false the DN is not parsed for the username. This option is used together with usernameBeginString and usernameEndString. | **${AUTH_LDAP_PARSE_USERNAME}** |
| | **AUTH_LDAP_USERNAME_BEGIN_STRING** | Defines the String which is to be removed from the start of the DN to reveal the username. This option is used together with usernameEndString and only taken into account if parseUsername is set to true. | **${AUTH_LDAP_USERNAME_BEGIN_STRING}** |
| | **AUTH_LDAP_USERNAME_END_STRING** | Defines the String which is to be removed from the end of the DN to reveal the username. This option is used together with usernameEndString and only taken into account if parseUsername is set to true. | **${AUTH_LDAP_USERNAME_END_STRING}** |
| | **AUTH_LDAP_ROLE_ATTRIBUTE_ID** | Name of the attribute containing the user roles. | **${AUTH_LDAP_ROLE_ATTRIBUTE_ID}** |

| Deployment | Variable name | Description | Example value |
|---|---|---|---|
| | **AUTH_LDAP_ROLES_CTX_DN** | The fixed DN of the context to search for user roles. This is not the DN where the actual roles are, but the DN where the objects containing the user roles are. For example, in a Microsoft Active Directory server, this is the DN where the user account is. | **${AUTH_LDAP_ROLES_CTX_DN}** |
| | **AUTH_LDAP_ROLE_FILTER** | A search filter used to locate the roles associated with the authenticated user. The input username or userDN obtained from the login module callback is substituted into the filter anywhere a {0} expression is used. The authenticated userDN is substituted into the filter anywhere a {1} is used. An example search filter that matches on the input username is (member={0}). An alternative that matches on the authenticated userDN is (member={1}). | **${AUTH_LDAP_ROLE_FILTER}** |
| | **AUTH_LDAP_ROLE_RECURSION** | The number of levels of recursion the role search will go below a matching context. Disable recursion by setting this to 0. | **${AUTH_LDAP_ROLE_RECURSION}** |
| | **AUTH_LDAP_DEFAULT_ROLE** | A role included for all authenticated users | **${AUTH_LDAP_DEFAULT_ROLE}** |

| Deployment | Variable name | Description | Example value |
|---|---|---|---|
| | **AUTH_LDAP_ROLE_NAME_ATTRIBUTE_ID** | Name of the attribute within the roleCtxDN context which contains the role name. If the roleAttributeIsDN property is set to true, this property is used to find the role object's name attribute. | **${AUTH_LDAP_ROLE_NAME_ATTRIBUTE_ID}** |
| | **AUTH_LDAP_PARSE_ROLE_NAME_FROM_DN** | A flag indicating if the DN returned by a query contains the roleNameAttributeID. If set to true, the DN is checked for the roleNameAttributeID. If set to false, the DN is not checked for the roleNameAttributeID. This flag can improve the performance of LDAP queries. | **${AUTH_LDAP_PARSE_ROLE_NAME_FROM_DN}** |
| | **AUTH_LDAP_ROLE_ATTRIBUTE_IS_DN** | Whether or not the roleAttributeID contains the fully-qualified DN of a role object. If false, the role name is taken from the value of the roleNameAttributeId attribute of the context name. Certain directory schemas, such as Microsoft Active Directory, require this attribute to be set to true. | **${AUTH_LDAP_ROLE_ATTRIBUTE_IS_DN}** |

| Deployment | Variable name | Description | Example value |
|---|---|---|---|
| | **AUTH_LDAP_REFERRAL_USER_ATTRIBUTE_ID_TO_CHECK** | If you are not using referrals, you can ignore this option. When using referrals, this option denotes the attribute name which contains users defined for a certain role, for example member, if the role object is inside the referral. Users are checked against the content of this attribute name. If this option is not set, the check will always fail, so role objects cannot be stored in a referral tree. | **${AUTH_LDAP_REFERRAL_USER_ATTRIBUTE_ID_TO_CHECK}** |
| | **AUTH_ROLE_MAPPER_ROLES_PROPERTIES** | When present, the RoleMapping Login Module will be configured to use the provided file. This property defines the fully-qualified file path and name of a properties file or resource which maps roles to replacement roles. The format is original_role=role1,role2,role3 | **${AUTH_ROLE_MAPPER_ROLES_PROPERTIES}** |
| | **AUTH_ROLE_MAPPER_REPLACE_ROLE** | Whether to add to the current roles, or replace the current roles with the mapped ones. Replaces if set to true. | **${AUTH_ROLE_MAPPER_REPLACE_ROLE}** |
| **${APPLICATION_NAME}-kieserver** | **DROOLS_SERVER_FILTER_CLASSES** | KIE server class filtering (Sets the org.drools.server.filter.classes system property) | **${DROOLS_SERVER_FILTER_CLASSES}** |
| | **KIE_ADMIN_USER** | KIE administrator username | **${KIE_ADMIN_USER}** |

| Deployment | Variable name | Description | Example value |
|---|---|---|---|
| | **KIE_ADMIN_PWD** | Default password used for multiple components for user convenience in this trial environment | **${DEFAULT_PASSWORD}** |
| | **KIE_MBEANS** | KIE server mbeans enabled/disabled (Sets the kie.mbeans and kie.scanner.mbeans system properties) | **${KIE_MBEANS}** |
| | **KIE_SERVER_BYPASS_AUTH_USER** | KIE server bypass auth user (Sets the org.kie.server.bypass.auth.user system property) | **${KIE_SERVER_BYPASS_AUTH_USER}** |
| | **KIE_SERVER_CONTROLLER_USER** | KIE server controller username (Sets the org.kie.server.controller.user system property) | **${KIE_SERVER_CONTROLLER_USER}** |
| | **KIE_SERVER_CONTROLLER_PWD** | Default password used for multiple components for user convenience in this trial environment | **${DEFAULT_PASSWORD}** |
| | **KIE_SERVER_CONTROLLER_SERVICE** | – | **${APPLICATION_NAME}-rhdmcentr** |
| | **KIE_SERVER_CONTROLLER_PROTOCOL** | – | ws |
| | **KIE_SERVER_ID** | – | **${APPLICATION_NAME}-kieserver** |
| | **KIE_SERVER_ROUTE_NAME** | – | **${APPLICATION_NAME}-kieserver** |
| | **KIE_SERVER_USER** | KIE server username (Sets the org.kie.server.user system property) | **${KIE_SERVER_USER}** |
| | **KIE_SERVER_PWD** | Default password used for multiple components for user convenience in this trial environment | **${DEFAULT_PASSWORD}** |

| Deployment | Variable name | Description | Example value |
|---|---|---|---|
| | **KIE_SERVER_CONTAINER_DEPLOYMENT** | KIE Server Container deployment configuration in format: containerId=groupId:artifactId:version | c2=g2:a2:v2 |
| | **${KIE_SERVER_CONTAINER_DEPLOYMENT}** | **MAVEN_REPOS** | – |
| | RHDMCENTR,EXTERNAL | **RHDMCENTR_MAVEN_REPO_SERVICE** | – |
| | **${APPLICATION_NAME}-rhdmcentr** | **RHDMCENTR_MAVEN_REPO_PATH** | – |
| | **/maven2/** | **RHDMCENTR_MAVEN_REPO_USERNAME** | Username to access the Maven service hosted by Decision Central inside EAP. |
| | **${DECISION_CENTRAL_MAVEN_USERNAME}** | **RHDMCENTR_MAVEN_REPO_PASSWORD** | Default password used for multiple components for user convenience in this trial environment |
| | **${DEFAULT_PASSWORD}** | **EXTERNAL_MAVEN_REPO_ID** | The id to use for the maven repository, if set. Default is generated randomly. |
| | **${MAVEN_REPO_ID}** | **EXTERNAL_MAVEN_REPO_URL** | Fully qualified URL to a Maven repository or service. |
| | **${MAVEN_REPO_URL}** | **EXTERNAL_MAVEN_REPO_USERNAME** | Username to access the Maven repository, if required. |
| | **${MAVEN_REPO_USERNAME}** | **EXTERNAL_MAVEN_REPO_PASSWORD** | Password to access the Maven repository, if required. |
| | **${MAVEN_REPO_PASSWORD}** | **SSO_URL** | RH-SSO URL |
| | **${SSO_URL}** | **SSO_OPENIDCONNECT_DEPLOYMENTS** | – |

| Deployment | Variable name | Description | Example value |
|---|---|---|---|
| | ROOT.war | **SSO_REALM** | RH-SSO Realm name |
| | **${SSO_REALM}** | **SSO_SECRET** | KIE Server RH-SSO Client Secret |
| | **${KIE_SERVER_SSO_SECRET}** | **SSO_CLIENT** | KIE Server RH-SSO Client name |
| | **${KIE_SERVER_SSO_CLIENT}** | **SSO_USERNAME** | RH-SSO Realm Admin Username used to create the Client if it doesn't exist |
| | **${SSO_USERNAME}** | **SSO_PASSWORD** | RH-SSO Realm Admin Password used to create the Client |
| | **${SSO_PASSWORD}** | **SSO_DISABLE_SSL_CERTIFICATE_VALIDATION** | RH-SSO Disable SSL Certificate Validation |
| | **${SSO_DISABLE_SSL_CERTIFICATE_VALIDATION}** | **SSO_PRINCIPAL_ATTRIBUTE** | RH-SSO Principal Attribute to use as username. |
| | **${SSO_PRINCIPAL_ATTRIBUTE}** | **HOSTNAME_HTTP** | Custom hostname for http service route. Leave blank for default hostname, e.g.: <application-name>-kieserver-<project>.<default-domain-suffix> |
| | **${KIE_SERVER_HOSTNAME_HTTP}** | **AUTH_LDAP_URL** | LDAP Endpoint to connect for authentication |
| | **${AUTH_LDAP_URL}** | **AUTH_LDAP_BIND_DN** | Bind DN used for authentication |
| | **${AUTH_LDAP_BIND_DN}** | **AUTH_LDAP_BIND_CREDENTIAL** | LDAP Credentials used for authentication |

| Deployment | Variable name | Description | Example value |
|---|---|---|---|
| | **${AUTH_LDAP_BIND_CREDENTIAL}** | **AUTH_LDAP_JAAS_SECURITY_DOMAIN** | The JMX ObjectName of the JaasSecurityDomain used to decrypt the password. |
| | **${AUTH_LDAP_JAAS_SECURITY_DOMAIN}** | **AUTH_LDAP_BASE_CTX_DN** | LDAP Base DN of the top-level context to begin the user search. |
| | **${AUTH_LDAP_BASE_CTX_DN}** | **AUTH_LDAP_BASE_FILTER** | LDAP search filter used to locate the context of the user to authenticate. The input username or userDN obtained from the login module callback is substituted into the filter anywhere a {0} expression is used. A common example for the search filter is (uid={0}). |
| | **${AUTH_LDAP_BASE_FILTER}** | **AUTH_LDAP_SEARCH_SCOPE** | The search scope to use. |
| | **${AUTH_LDAP_SEARCH_SCOPE}** | **AUTH_LDAP_SEARCH_TIME_LIMIT** | The timeout in milliseconds for user or role searches. |
| | **${AUTH_LDAP_SEARCH_TIME_LIMIT}** | **AUTH_LDAP_DISTINGUISHED_NAME_ATTRIBUTE** | The name of the attribute in the user entry that contains the DN of the user. This may be necessary if the DN of the user itself contains special characters, backslash for example, that prevent correct user mapping. If the attribute does not exist, the entry's DN is used. |

| Deployment | Variable name | Description | Example value |
|---|---|---|---|
| | **${AUTH_LDAP_DISTINGUISHED_NAME_ATTRIBUTE}** | **AUTH_LDAP_PARSE_USERNAME** | A flag indicating if the DN is to be parsed for the username. If set to true, the DN is parsed for the username. If set to false the DN is not parsed for the username. This option is used together with usernameBeginString and usernameEndString. |
| | **${AUTH_LDAP_PARSE_USERNAME}** | **AUTH_LDAP_USERNAME_BEGIN_STRING** | Defines the String which is to be removed from the start of the DN to reveal the username. This option is used together with usernameEndString and only taken into account if parseUsername is set to true. |
| | **${AUTH_LDAP_USERNAME_BEGIN_STRING}** | **AUTH_LDAP_USERNAME_END_STRING** | Defines the String which is to be removed from the end of the DN to reveal the username. This option is used together with usernameEndString and only taken into account if parseUsername is set to true. |
| | **${AUTH_LDAP_USERNAME_END_STRING}** | **AUTH_LDAP_ROLE_ATTRIBUTE_ID** | Name of the attribute containing the user roles. |
| | **${AUTH_LDAP_ROLE_ATTRIBUTE_ID}** | **AUTH_LDAP_ROLES_CTX_DN** | The fixed DN of the context to search for user roles. This is not the DN where the actual roles are, but the DN where the objects containing the user roles are. For example, in a Microsoft Active Directory server, this is the DN where the user account is. |

| Deployment | Variable name | Description | Example value |
|---|---|---|---|
| | **${AUTH_LDAP_ROLES_CTX_DN}** | **AUTH_LDAP_ROLE_FILTER** | A search filter used to locate the roles associated with the authenticated user. The input username or userDN obtained from the login module callback is substituted into the filter anywhere a {0} expression is used. The authenticated userDN is substituted into the filter anywhere a {1} is used. An example search filter that matches on the input username is (member={0}). An alternative that matches on the authenticated userDN is (member={1}). |
| | **${AUTH_LDAP_ROLE_FILTER}** | **AUTH_LDAP_ROLE_RECURSION** | The number of levels of recursion the role search will go below a matching context. Disable recursion by setting this to 0. |
| | **${AUTH_LDAP_ROLE_RECURSION}** | **AUTH_LDAP_DEFAULT_ROLE** | A role included for all authenticated users |
| | **${AUTH_LDAP_DEFAULT_ROLE}** | **AUTH_LDAP_ROLE_NAME_ATTRIBUTE_ID** | Name of the attribute within the roleCtxDN context which contains the role name. If the roleAttributeIsDN property is set to true, this property is used to find the role object's name attribute. |

| Deployment | Variable name | Description | Example value |
|---|---|---|---|
| | **${AUTH_LDAP_ROLE_NAME_ATTRIBUTE_ID}** | **AUTH_LDAP_PARSE_ROLE_NAME_FROM_DN** | A flag indicating if the DN returned by a query contains the roleNameAttributeID. If set to true, the DN is checked for the roleNameAttributeID. If set to false, the DN is not checked for the roleNameAttributeID. This flag can improve the performance of LDAP queries. |
| | **${AUTH_LDAP_PARSE_ROLE_NAME_FROM_DN}** | **AUTH_LDAP_ROLE_ATTRIBUTE_IS_DN** | Whether or not the roleAttributeID contains the fully-qualified DN of a role object. If false, the role name is taken from the value of the roleNameAttributeId attribute of the context name. Certain directory schemas, such as Microsoft Active Directory, require this attribute to be set to true. |
| | **${AUTH_LDAP_ROLE_ATTRIBUTE_IS_DN}** | **AUTH_LDAP_REFERRAL_USER_ATTRIBUTE_ID_TO_CHECK** | If you are not using referrals, you can ignore this option. When using referrals, this option denotes the attribute name which contains users defined for a certain role, for example member, if the role object is inside the referral. Users are checked against the content of this attribute name. If this option is not set, the check will always fail, so role objects cannot be stored in a referral tree. |

| Deployment | Variable name | Description | Example value |
|---|---|---|---|
| | **${AUTH_LDAP_REFERRAL_USER_ATTRIBUTE_ID_TO_CHECK}** | **AUTH_ROLE_MAPPER_ROLES_PROPERTIES** | When present, the RoleMapping Login Module will be configured to use the provided file. This property defines the fully-qualified file path and name of a properties file or resource which maps roles to replacement roles. The format is original_role=role1,role2,role3 |
| | **${AUTH_ROLE_MAPPER_ROLES_PROPERTIES}** | **AUTH_ROLE_MAPPER_REPLACE_ROLE** | Whether to add to the current roles, or replace the current roles with the mapped ones. Replaces if set to true. |
| | **${AUTH_ROLE_MAPPER_REPLACE_ROLE}** | **FILTERS** | – |
| | AC_ALLOW_ORIGIN,AC_ALLOW_METHODS,AC_ALLOW_HEADERS,AC_ALLOW_CREDENTIALS,AC_MAX_AGE | **AC_ALLOW_ORIGIN_FILTER_RESPONSE_HEADER_NAME** | – |
| | Access-Control-Allow-Origin | **AC_ALLOW_ORIGIN_FILTER_RESPONSE_HEADER_VALUE** | Sets the Access-Control-Allow-Origin response header value in the KIE Server (useful for CORS support) |
| | **${KIE_SERVER_ACCESS_CONTROL_ALLOW_ORIGIN}** | **AC_ALLOW_METHODS_FILTER_RESPONSE_HEADER_NAME** | – |
| | Access-Control-Allow-Methods | **AC_ALLOW_METHODS_FILTER_RESPONSE_HEADER_VALUE** | Sets the Access-Control-Allow-Methods response header value in the KIE Server (useful for CORS support) |

| Deployment | Variable name | Description | Example value |
|---|---|---|---|
| | **${KIE_SERVER_ACCESS_CONTROL_ALLOW_METHODS}** | **AC_ALLOW_HEADERS_FILTER_RESPONSE_HEADER_NAME** | – |
| | Access-Control-Allow-Headers | **AC_ALLOW_HEADERS_FILTER_RESPONSE_HEADER_VALUE** | Sets the Access-Control-Allow-Headers response header value in the KIE Server (useful for CORS support) |
| | **${KIE_SERVER_ACCESS_CONTROL_ALLOW_HEADERS}** | **AC_ALLOW_CREDENTIALS_FILTER_RESPONSE_HEADER_NAME** | – |
| | Access-Control-Allow-Credentials | **AC_ALLOW_CREDENTIALS_FILTER_RESPONSE_HEADER_VALUE** | Sets the Access-Control-Allow-Credentials response header value in the KIE Server (useful for CORS support) |
| | **${KIE_SERVER_ACCESS_CONTROL_ALLOW_CREDENTIALS}** | **AC_MAX_AGE_FILTER_RESPONSE_HEADER_NAME** | – |
| | Access-Control-Max-Age | **AC_MAX_AGE_FILTER_RESPONSE_HEADER_VALUE** | Sets the Access-Control-Max-Age response header value in the KIE Server (useful for CORS support) |

#### 4.1.2.4. External Dependencies

##### 4.1.2.4.1. Secrets

This template requires the following secrets to be installed for the application to run.

## 4.2. OPENSHIFT USAGE QUICK REFERENCE

To deploy, monitor, manage, and undeploy Red Hat Decision Manager templates on Red Hat OpenShift Container Platform, you can use the OpenShift Web console or the **oc** command.

For instructions about using the Web console, see Create and build an image using the Web console .

For detailed instructions about using the **oc** command, see CLI Reference. The following commands are likely to be required:

- To create a project, use the following command:

```
$ oc new-project <project-name>
```

For more information, see Creating a project using the CLI .

- To deploy a template (create an application from a template), use the following command:

```
$ oc new-app -f <template-name> -p <parameter>=<value> -p <parameter>=<value> ...
```

For more information, see Creating an application using the CLI .

- To view a list of the active pods in the project, use the following command:

```
$ oc get pods
```

- To view the current status of a pod, including information whether or not the pod deployment has completed and it is now in a running state, use the following command:

```
$ oc describe pod <pod-name>
```

You can also use the **oc describe** command to view the current status of other objects. For more information, see Application modification operations.

- To view the logs for a pod, use the following command:

```
$ oc logs <pod-name>
```

- To view deployment logs, look up a **DeploymentConfig** name in the template reference and run the following command:

```
$ oc logs -f dc/<deployment-config-name>
```

For more information, see Viewing deployment logs.

- To view build logs, look up a **BuildConfig** name in the template reference and run the command:

```
$ oc logs -f bc/<build-config-name>
```

For more information, see Accessing build logs.

- To scale a pod in the application, look up a **DeploymentConfig** name in the template reference and run the command:

```
$ oc scale dc/<deployment-config-name> --replicas=<number>
```

For more information, see Manual scaling.

- To undeploy the application, you can delete the project by using the command:

```
$ oc delete project <project-name>
```

Alternatively, you can use the **oc delete** command to remove any part of the application, such as a pod or replication controller. For details, see Application modification operations.

# APPENDIX A. VERSIONING INFORMATION

Documentation last updated on Monday, December 21, 2020.