Red Hat Decision Manager 7.12 Release notes for Red Hat Decision Manager 7.12
Abstract
This document contains release notes for Red Hat Decision Manager 7.12.
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PREFACE

These release notes list new features, features in technology preview, known issues, and issues fixed in Red Hat Decision Manager 7.12.
MAKING OPEN SOURCE MORE INCLUSIVE

Red Hat is committed to replacing problematic language in our code, documentation, and web properties. We are beginning with these four terms: master, slave, blacklist, and whitelist. Because of the enormity of this endeavor, these changes will be implemented gradually over several upcoming releases. For more details, see our CTO Chris Wright’s message.
CHAPTER 1. PRODUCT OVERVIEW

Red Hat Decision Manager is an open-source decision management platform that combines business rules management, complex event processing, Decision Model & Notation (DMN) execution, and Red Hat build of OptaPlanner for solving planning problems. It automates business decisions and makes that logic available to the entire business.

Business assets such as rules, decision tables, and DMN models are stored in a central repository. This ensures consistency, transparency, and the ability to audit across the business. Business users can modify business logic without requiring assistance from IT personnel.

Red Hat Decision Manager 7.12 provides increased stability, several fixed issues, and new features.

Red Hat Decision Manager is fully supported on Red Hat OpenShift Container Platform and can be installed on various platforms.

For information about the support policy for Red Hat Decision Manager, see the Release maintenance plan for Red Hat Decision Manager 7.x and Red Hat Process Automation Manager 7.x.
CHAPTER 2. RED HAT BUILD OF KOGITO FEATURES INCLUDED WITH RED HAT DECISION MANAGER

Red Hat build of Kogito is a cloud-native business automation technology for building cloud-ready business applications. Red Hat build of Kogito in Red Hat Decision Manager is optimized for a hybrid cloud environment and adapts to your domain and tooling needs. The core objective of Red Hat build of Kogito is to help you mold a set of decisions into your own domain-specific cloud-native set of services.

This section highlights the Red Hat build of Kogito features included with Red Hat Decision Manager.

2.1. ABILITY TO MIGRATE BUSINESS CENTRAL PROJECTS TO RED HAT BUILD OF KOGITO MICROSERVICES PROJECTS

You can now migrate your existing Business Central projects developed using DMN, PMML, or DRL to Red Hat build of Kogito microservices projects. For more information, see Migrating to Red Hat build of Kogito microservices.

2.2. SUPPORT FOR SPRING BOOT STARTERS

You can now add Spring Boot starters to your Red Hat build of Kogito project to get started with Red Hat build of Kogito quickly. For more information, see Getting started with Red Hat build of Kogito in Red Hat Decision Manager.
CHAPTER 3. NEW FEATURES

This section highlights new features in Red Hat Decision Manager 7.12.

3.1. RED HAT DECISION MANAGER 7.12 KOGITO DECISION SERVICES SUPPORT

3.1.1. IBM Power support in Red Hat OpenShift Container Platform 4.10

Starting with Red Hat Decision Manager 7.12, IBM Power supports Red Hat OpenShift Container Platform 4.10 using Open JDK 11. For a complete list of supported configurations, see Red Hat Decision Manager 7 Supported Configurations.

3.2. ABILITY TO SEND COOKIES IN THE REST WORK ITEM HANDLER

You can now send cookies to the REST work item handler using the Cookie header and cookie parameters in a REST API as shown in the following example:

```java
cookieParam1=cookieParam1_Value;cookieParam2=cookieParam2_Value
```

You can also define the path for which the cookie is valid using the CookiePath header. By default, the value of CookiePath is set to /.

3.3. SUPPORT FOR THE GENERAL NPM REGISTRY FOR STANDALONE EDITORS

You can now use the general NPM registry to install the standalone editors including BPMN and DMN editors. For more information about standalone editors, see Designing business processes using BPMN models and for more information about the NPM registry, see https://www.npmjs.com/package/@kogito-tooling/kie-editors-standalone.

3.4. DISTANCE-BASED CLUSTERING MODEL IN PMML

Red Hat Decision Manager now includes consumer conformance support for the distance-based clustering model in PMML. You can now integrate clustering models with your decision services in Red Hat Decision Manager. For more information about clustering models, see Designing a decision service using PMML models.

3.5. FILE-BASED USER DATA STORAGE

Red Hat Decision Manager can now store user data in sets of files instead sets of properties. File-based storage provides several extra features, such as SSH login and a user maintenance UI.

3.6. KIE SERVER

3.6.1. Support for adding a request identifier to the JMS header

A new KIE Server system property, org.kie.executor.jms.jobHeader, was added to Red Hat Decision Manager. If the value of this property is set to true, the jobID JMS header property will contain the request identifier.
For a list of KIE Server system properties, see *Managing and monitoring KIE Server*.

## 3.7. RED HAT BUILD OF OPTAPLANNER

### 3.7.1. OptaPlanner quickstarts

The following quickstarts are included in the Red Hat Decision Manager 7.12.0 Kogito and OptaPlanner 8 Decision Services Quickstarts download ([rhdm-7.12.0-kogito-and-optaplanner-quickstarts.zip](rhdm-7.12.0-kogito-and-optaplanner-quickstarts.zip)):

- **optaplanner-quickstarts-8.11.1.Final-redhat-00006/hello-world**
- **optaplanner-quickstarts-8.11.1.Final-redhat-00006/technology**
  - java-activemq-quarkus
  - java-quarkus
  - java-spring-boot
  - kotlin-quarkus
- **optaplanner-quickstarts-8.11.1.Final-redhat-00006/use-cases**
  - call-center
  - facility-location
  - maintenance-scheduling
  - school-timetable
  - vaccination-scheduling

### 3.7.2. Micrometer with OptaPlanner

Red Hat build of OptaPlanner exposes metrics through Micrometer, a metrics instrumentation library for Java applications. You can use Micrometer with popular monitoring systems to monitor the OptaPlanner solver. For information about using Micrometer with OptaPlanner, see *Developing Solvers with Red Hat Decision Manager*.

## 3.8. RED HAT OPENShift CONTAINER PLATFORM

### 3.8.1. Configurable startup strategy when using the Operator installer

When you deploy Red Hat Decision Manager on Red Hat OpenShift Container Platform using the operator installer, by default the deployment uses the `OpenShiftStartupStrategy` setting. You can now switch to the Controller startup strategy in the configuration user interface if necessary.

### 3.8.2. Custom hostname routes

You can now set custom hostnames for external routes by using the `routeHostname` property.

### 3.8.3. Improved SSL configurability
You can now enable or disable SSL in the operator and expose the SSL route.

3.8.4. Default configuration for Cross Domain Resource Sharing (CORS)
You can now specify whether to use a default or user customized CORS configuration.

3.8.5. LDAP configuration changes for Red Hat OpenShift Container Platform
When deploying Red Hat Decision Manager on Red Hat OpenShift Container Platform, LDAP security configuration now uses the Elytron subsystem. To support the Elytron subsystem, the following configuration settings were removed:

- AUTH_ROLE_MAPPER_REPLACE_ROLE
- AUTH_LDAP_DISTINGUISHED_NAME_ATTRIBUTE
- AUTH_LDAP_JAAS_SECURITY_DOMAIN
- AUTH_LDAP_USERNAME_BEGIN_STRING
- AUTH_LDAP_USERNAME_END_STRING
- AUTH_LDAP_PARSE_ROLE_NAME_FROM_DN
- AUTH_LDAP_PARSE_USERNAME
- AUTH_LDAP_REFERRAL_USER_ATTRIBUTE_ID_TO_CHECK
- AUTH_LDAP_ROLE_ATTRIBUTE_IS_DN
- AUTH_LDAP_ROLE_NAME_ATTRIBUTE_ID

The following configuration settings were added:

- LDAP_AUTH_RECURSIVE_SEARCH
- AUTH_LDAP_MAPPER_KEEP_MAPPED
- AUTH_LDAP_MAPPER_KEEP_NON_MAPPED
- AUTH_LDAP_REFERRAL_MODE
- LDAP_AUTH_NEW_IDENTITY_ATTRIBUTES
- AUTH_LDAP_LOGIN_FAILOVER

3.8.6. Red Hat Data Grid user name and password configuration on Red Hat OpenShift Container Platform
When deploying a high-availability Red Hat Decision Manager environment on Red Hat OpenShift Container Platform, you can now configure the user name and password for the Red Hat Data Grid component.

3.8.7. Post-configuration scripts for Red Hat OpenShift Container Platform
When deploying Red Hat Decision Manager on Red Hat OpenShift Container Platform, running post-
configuration scripts on Red Hat JBoss EAP on the Business Central and KIE Server pods is now
supported. You can use these scripts to configure Elytron users.

3.8.8. Role mapping configuration for Red Hat OpenShift Container Platform
without a file

When deploying Red Hat Decision Manager on Red Hat OpenShift Container Platform, you can now
configure role mapping for Red Hat Single Sign-On or LDAP configuration by entering the configuration
directly in the settings, without using a role mapping configuration file. The use of a role mapping
configuration file is now optional but still supported.
CHAPTER 4. SUPPORT AND COMPATIBILITY

This section highlights supported version updates in Red Hat Decision Manager 7.12.

For a complete list of supported configurations, see Red Hat Decision Manager 7 Supported Configurations.

Table 4.1. Supported configurations in Red Hat Decision Manager 7.12

<table>
<thead>
<tr>
<th>Component</th>
<th>Supported Version</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red Hat build of Quarkus</td>
<td>2.2.x</td>
<td>NA</td>
</tr>
<tr>
<td>Red Hat OpenShift Container Platform</td>
<td>4.8</td>
<td>NA</td>
</tr>
<tr>
<td>Red Hat Data Grid</td>
<td>8.1</td>
<td>Exclusively for a clustered setup of Business Central</td>
</tr>
<tr>
<td>Red Hat JBoss EAP</td>
<td>7.4.x</td>
<td>Red Hat Decision Manager now supports Red Hat JBoss EAP version 7.4.2 or later</td>
</tr>
<tr>
<td>Red Hat AMQ</td>
<td>7.8.2</td>
<td>NA</td>
</tr>
<tr>
<td>Red Hat Single Sign-On</td>
<td>7.5.0</td>
<td>NA</td>
</tr>
<tr>
<td>AMQ Streams</td>
<td>1.8.0</td>
<td>Supported for high-availability event-driven decisions</td>
</tr>
<tr>
<td>Red Hat JBoss Web Server</td>
<td>5.5</td>
<td>NA</td>
</tr>
</tbody>
</table>
CHAPTER 5. DEPRECATED COMPONENTS

The components listed in this section have been deprecated.

5.1. UNIFIED PRODUCT DELIVERABLE AND DEPRECATION OF RED HAT DECISION MANAGER DISTRIBUTION FILES

In Red Hat Process Automation Manager 7.13 release, the distribution files for Red Hat Decision Manager will be replaced with Red Hat Process Automation Manager files. Note that there will not be any change to the Red Hat Decision Manager subscription and the support entitlements and fees will remain the same. Red Hat Decision Manager is a subset of Red Hat Process Automation Manager, and Red Hat Decision Manager subscribers will continue to receive full support for the decision management and optimization capabilities. The business process management (BPM) capabilities are exclusive to Red Hat Process Automation Manager and will be available for use by Red Hat Decision Manager subscribers but with development support services only. Red Hat Decision Manager subscribers can upgrade to a full Red Hat Process Automation Manager subscription at any time to receive full support for BPM features.

5.2. RED HAT ENTERPRISE LINUX 7

Support for Red Hat Enterprise Linux 7 is deprecated in Red Hat Decision Manager and features and will be removed in a future release.

5.3. OPTAPLANNER 7

Both OptaPlanner 7 and OptaPlanner 8 are included with Red Hat Decision Manager 7.12, but OptaPlanner 7 is deprecated and might be removed in a future release. For information about migrating your OptaPlanner 7 projects to OptaPlanner 8, see Upgrading your Red Hat build of OptaPlanner projects to OptaPlanner 8.

5.4. OPTAPLANNER TOOLING COMPONENTS IN BUSINESS CENTRAL

The following OptaPlanner tooling in Business Central is part of OptaPlanner 7. It is deprecated and might be removed in a future release.

- Data modeler annotations
- Guided rule editor actions for OptaPlanner score modification
- Solver assets

5.5. SUPPORT FOR JDK 8

Support for JDK 8 is deprecated in Red Hat Decision Manager and might be removed in a future release.

For a complete list of supported JDK configurations, see Red Hat Decision Manager 7 Supported Configurations.

5.6. LEGACY KIE-PMML DEPENDENCY
The legacy kie-pmml dependency was deprecated with Red Hat Decision Manager 7.10.0 and will be replaced in a future Red Hat Decision Manager release. For more information, see Designing a decision service using PMML models.

5.7. SUPPORT FOR OSGI FRAMEWORK INTEGRATION

Support for integration with the OSGi framework is deprecated in Red Hat Decision Manager. It does not receive any new enhancements or features and will be removed in a future release. The decision and process engine integration with the OSGi framework is currently incompatible in Fuse version 7.8. If you intend to use the OSGi framework, continue to use Red Hat Decision Manager version 7.9 with Fuse version 7.7 until Fuse version 7.9 is available and certified.

5.8. SUPPORT FOR THE RULEUNIT API

The Red Hat Decision Manager RuleUnit API is now deprecated due to incompatibility with the Kogito RuleUnit API.

5.9. LEGACY TEST SCENARIOS TOOL

The legacy Test Scenarios tool was deprecated in Red Hat Decision Manager version 7.3.0. It will be removed in a future Red Hat Decision Manager release. Use the new Test Scenarios designer instead.

5.10. SUPPORT FOR RED HAT OPENShift CONTAINER PLATFORM 3.X

From Red Hat Decision Manager version 7.5, images and templates for Red Hat OpenShift Container Platform 3.x are deprecated. The deprecated images and templates are not supported with new features but remain available until the end of Red Hat OpenShift Container Platform version 3.x support. For more information about the full support lifecycle phase for Red Hat OpenShift Container Platform version 3.x, see Red Hat OpenShift Container Platform Life Cycle Policy (non-current versions).

Consider deploying Red Hat Decision Manager using the operator on Red Hat OpenShift Container Platform 4.x.
CHAPTER 6. TECHNOLOGY PREVIEW

This section lists features that are in Technology Preview in Red Hat Decision Manager 7.12. Business Central includes an experimental features administration page that is disabled by default. To enable this page, set the value of the `appformer.experimental.features` property to `true`.

**IMPORTANT**

These features are for Technology Preview only. Technology Preview features are not supported with Red Hat production service level agreements (SLAs), might not be functionally complete, and Red Hat does not recommend using them for production. These features provide early access to upcoming product features, enabling customers to test functionality and provide feedback during the development process.

For more information on Red Hat Technology Preview features, see Technology Preview Features Scope.

6.1. DEPLOYING A HIGH-AVAILABILITY AUTHORING ENVIRONMENT ON RED HAT OPENSShift CONTAINER PLATFORM 4.X

You can deploy a high-availability Red Hat Decision Manager authoring environment on Red Hat OpenShift Container Platform 4.x using the operator.

6.2. OPENSShift OPERATOR INSTALLER WIZARD

An installer wizard is provided in the Red Hat OpenShift Container Platform operator for Red Hat Decision Manager. You can use the wizard to deploy a Red Hat Decision Manager environment on Red Hat OpenShift Container Platform with the operator.

6.3. AUTHORING PERSPECTIVE CUSTOMIZATION

You can perform the following tasks to customize the Business Central authoring perspective:

- Open a Business Central project directly using an URL path parameter, without going through a list of spaces and projects.
- Hide or show the project toolbar, **Metrics** tab, and **Change Request** tab according to your requirements.
- Enhance the pagination.
- Customize the number of assets present on the project screen.

6.4. RED HAT BUILD OF OPTAPLANNER NEW CONSTRAINT COLLECTORS

In order to provide a full implementation of some pre-existing OptaPlanner examples using the Constraint Streams API, the standard library of constraint collectors has been extended to include the following constraint collectors:

- One constraint collector takes point values such as dates, orders them on a number line, and makes groups of consecutive values with breaks between the groups available downstream.
Another constraint collector takes interval values such as shifts, creates clusters of consecutive and possibly overlapping values with breaks between clusters, and makes the clusters available downstream.

These new collectors are in technology preview. Their interfaces, names, and functionality are subject to change. They have been placed in an experimental package outside of the public API to encourage public feedback before they become an officially supported part of the OptaPlanner public API.

6.5. RED HAT BUILD OF KOGITO AND KAFKA INTEGRATION

Red Hat build of Kogito decision microservices integration with managed Kafka by using the org.kie.kogito:kogito-addons-{quarkus|springboot}-events-decisions event-driven add-on is now available as technology preview. On Red Hat build of Quarkus, you can add the io.quarkus:quarkus-kubernetes-service-binding dependency to the application to handle the service binding created by the managed kafka. On Spring boot, you must add mappings field to the created service binding which must contain the required environment variables needed by the application. Another solution is to use the custom configuration maps available in the Red Hat build of Kogito operator.
CHAPTER 7. KNOWN ISSUES IN RED HAT DECISION MANAGER 7.12.0

This section lists known issues with Red Hat Decision Manager 7.12.

7.1. BUSINESS CENTRAL

In the test scenarios table, today() and now() functions are not evaluated correctly [RHDM-1816]

Issue: In the test scenarios table, today() and now() functions are not evaluated correctly. For example, the string(today()) function should produce output similar to 2021-05-11 but instead it displays a null value.

Steps to reproduce:

Import the check-today-1.dmn and check-today-test-1.scesim files attached in the [RHDM-1816] issue and check the results.

Workaround: None.

7.2. RED HAT BUILD OF KOGITO

Unable to run the tests for Red Hat build of Kogito examples with scenario simulations [RHPAM-4068]

Issue: It is not possible to run the tests for Red Hat build of Kogito examples which contain scenario simulation dependency. The Surefire plugin fails with an exception.

The following two modules in the Red Hat build of Kogito examples fail because there is a mismatch of JUnit version dependency:

- dmn-pmml-quarkus-example
- dmn-quarkus-example

These examples are included in the sources.zip and kogito-quickstarts.zip files.

Steps to reproduce:

1. Download the Red Hat build of Kogito examples.
2. Execute the mvn clean install command for dmn-quarkus-example or dmn-pmml-quarkus-example.

Workaround: Override the transitive JUnit dependency of kogito-scenario-simulation file and use the version 4.13.1.redhat-00001.

7.3. KIE SERVER

When you initialize Swagger on WebSphere, you receive an IllegalArgumentException error [RHPAM-3949]

Issue: When you use the KIE Server Swagger extension on WebSphere, KIE Server is unavailable and it returns the HTTP 500 error with an IllegalArgumentException exception.
Steps to reproduce:

1. Start KIE Server with basic configuration on WebSphere.
2. Try to access the http://localhost:9080/kie-server/services/rest/server URL. You receive the HTTP 500 error.

Workaround: Disable Swagger UI by setting the value of the org.kie.swagger.server.ext.disabled system property to true.

7.4. DMN DESIGNER

Elbow lines for object connections do not work [RHDM-1856]

Issue: You can adjust the DMN connections shape by adding control point to it. However this feature does not work for connections with the text annotation nodes.

Steps to reproduce for Red Hat build of Kogito:

2. Import the association.dmn file attached in the [RHDM-1856] issue.
3. In the Import field, upload the association.dmn file.
4. Run the project.

Steps to reproduce for Business Central:

1. Open an existing project or create a new one.
2. Import the association.dmn file attached in the [RHDM-1856] issue.
3. Build the project and observe the results.

Workaround: None.

7.5. RED HAT OPENSSHIFT CONTAINER PLATFORM

When you set the default role variable as AUTH_LDAP_DEFAULT_ROLE, Red Hat OpenShift Container Platform images ignore the LDAP roles [RHPAM-4132]

Issue: For Red Hat OpenShift Container Platform images, when you set the LDAP default roles as AUTH_LDAP_DEFAULT_ROLE, all the roles from LDAP are ignored and you can not log in to the Business Central application. But when you do not set the default roles, all the roles from the LDAP are used correctly and you can log in to the Business Central application.

Steps to reproduce for operator on Red Hat OpenShift Container Platform 4.x:

1. Create a KieApp application and set the default role as follows:

```yaml
spec:
  auth:
    ldap:
```
... defaultRole: guest
...

2. Log in to the Business Central.

Steps to reproduce for templates on Red Hat OpenShift Container Platform 3.11:

1. Create a template.

2. Set the `AUTH_LDAP_DEFAULT_ROLE` environment variable as `AUTH_LDAP_DEFAULT_ROLE = "guest"`.

3. Log in to the Business Central.

Workaround for operator on Red Hat OpenShift Container Platform 4.x: Remove the set `defaultRole: guest` from your KieApp application.

Workaround for templates on Red Hat OpenShift Container Platform 3.11: Do not set the environment variable as `AUTH_LDAP_DEFAULT_ROLE = "guest"`.

When the KieApp instance containing one server configuration to pull the image from a given registry, the operator fails to deploy the server and you receive errors [RHPAM-3787]

Issue: When deploying Red Hat Decision Manager on Red Hat OpenShift Container Platform using the operator, you can not use a docker image for the KIE Server by enabling the Set KIE Server Image option and setting the `Kind` value to DockerImage. To use a docker image for the KIE Server, you must set the image Context, name, and image tag fields from the from the custom registry.

Steps to reproduce:

1. Install the operator on Red Hat OpenShift Container Platform platform.

2. Configure one KieApp instance using DockerImage image as `Kind` value and provide the image name including the registry name.

3. Click Set KIE Server image

4. Change the `Kind` value to DockerImage, and then provide the image name including the registry name, but without the version tag

Workaround: None.

Authorization fails while using the role mapping [RHPAM-4146]

Issue: When you set the roleMapper, authorization fails and it is not specified in the KIELdapSecurityDomain security-domain.

Workaround:

1. Create the workaround.cli script as follows:

   ```bash
   embed-server --std-out=echo --server-config=standalone-openshift.xml batch
   /subsystem=elytron/security-domain=KIELdapSecurityDomain:write-
   ```
2. Create an empty file as `delayedpostconfigure.sh`.

3. Create the `postconfigure.sh` file and add the following content:

   ```bash
   echo "trying to execute /opt/eap/bin/jboss-cli.sh --file=/opt/eap/extensions/workaround.cli 
   /opt/eap/bin/jboss-cli.sh --file=/opt/eap/extensions/workaround.cli
   echo "END - cli script executed"
   
   echo "trying to execute /opt/eap/bin/jboss-cli.sh --file=/opt/eap/extensions/workaround.cli " 
   /opt/eap/bin/jboss-cli.sh --file=/opt/eap/extensions/workaround.cli
   echo "END - cli script executed"
   ``

4. Create the `config-map` and add the following content:

   ```bash
   oc create configmap postconfigure --from-file=workaround.cli=workaround.cli 
   --from-file=delayedpostconfigure.sh=delayedpostconfigure.sh 
   --from-file=postconfigure.sh=postconfigure.sh
   ``

5. To mount the `config-map`, follow the steps mentioned in Operator method.

You will receive the following message in the logs during Red Hat JBoss EAP startup:

```
trying to execute /opt/eap/bin/jboss-cli.sh --file=/opt/eap/extensions/workaround.cli
19:15:55,744 INFO [org.jboss.modules] (CLI command executor) JBoss Modules version 1.11.0.Final-redhat-00001
... The batch executed successfully
process-state: reload-required
19:16:04,757 INFO [org.jboss.as] (MSC service thread 1-1) WFLYSRV0050: JBoss EAP 7.4.1.GA (WildFly Core 15.0.4.Final-redhat-00001) stopped in 18ms
END - cli script executed
```

The security domain is also updated as follows:

```
<security-domain name="KIELdapSecurityDomain" default-realm="KIELdapRealm" permission-mapper="default-permission-mapper">
    <realm name="KIELdapRealm" role-decoder="from-roles-attribute" role-mapper="kie-custom-role-mapper"/>
</security-domain>
```
CHAPTER 8. FIXED ISSUES IN RED HAT DECISION MANAGER 7.12.0

Red Hat Decision Manager 7.12.0 provides increased stability and fixed issues listed in this section.

8.1. BUSINESS CENTRAL

- Business Central fails to start when a wildcard host is set to nonProxyHosts in the settings.xml file [RHPAM-3856]
- In standalone editors, the setContent method implementation must receive path and content [RHPAM-3629]
- The Controller periodically pings the list of registered KIE Server. However if this ping fails, the KIE Server template is automatically removed [RHPAM-3627]
- When you execute the Business Central REST API through Swagger, the pop-up window for the user name and password fails to open [RHPAM-3560]
- When you create a project using the REST API, it must include the project name in the response of the REST API [RHPAM-3519]
- When you set the org.jbpm.wb.forms.renderer.ext system property to true and you try to attach a document, the Upload button fails to display [RHPAM-3515]
- When you clone a Git project from outside of Business Central, you can clone the project even though it is not shown in Business Central because of lack of permissions [RHPAM-3375]
- When you migrate a Git project from version 6.4 to version 7.8.1, you receive an error message [RHPAM-3232]
- Editing a data object in the guided decision table fails with the null response [RHDM-1781]
- The test scenario tool is unable to execute models using imported inputs and/or decisions nodes and you receive an error message [RHDM-1645]
- When the KIE Server is connected to Business Central using ws protocol, you can not stop the KIE container via Business Central user interface and you receive Not supported for WebSocket implementation error [RHPAM-3814]

8.2. BUILD AND ASSEMBLY

- When a system log contains an attacker controlled string value, remote code execution happens in the Java logging library of Log4j 2.x [RHPAM-4077]
- JBoss Java EE 8 with Red Hat Business Automation now references Jakarta EE 8 dependencies instead of Java EE 8 dependencies [RHPAM-3858]
- In an XStream security framework, by manipulating the processed input stream, a remote attacker can obtain sufficient rights to execute commands. The highest threat from this vulnerability is to data confidentiality, integrity, and system availability
- App Fomer Maven integration is not honoring the nonProxyHosts property [RHPAM-3638]
8.3. KIE SERVER

- JSON marshalling is slow due to inefficient `com.fasterxml.jackson.databind.type.TypeFactory.findClass` call methods [RHPAM-3855]
- Synchronize the system properties from `standalone-*.xml` file with the `default-kieserver.xml` file [RHPAM-3738]

8.4. INSTALLER

- When you use the JAR installer on Red Hat JBoss EAP 7.3.8, the installation fails with the Cannot start embedded Host Controller error message [RHPAM-3803]
- Red Hat Decision Manager now supports Red Hat JBoss EAP 7.4.0 [RHPAM-3510]

8.5. OPTAPLANNER

- OptaPlanner requires an immutable class for an `@PlanningId` such as Long, long, String or UUID. As of now for version 8.4.0, `ConstraintVerifier` throws an exception if it’s not a Long [RHDM-1771]

8.6. RED HAT OPENShift CONTAINER PLATFORM

- An installer wizard provided in the Red Hat OpenShift Container Platform operator throws a 500 internal error [RHPAM-4101]

8.7. DECISION ENGINE

- When you are upgrading Red Hat Decision Manager from 7.8 to 7.10, there is a change to the `FactHandleId` values when disposing a KieSession instance [RHDM-1796]
- When you build a rule written in the MVEL dialect with the executable model disabled and run the rule, a MVEL optimization concurrency issue occurs [RHDM-1790]
- When a bind variable produced by accumulate function is used in the condition of subsequent accumulate, you receive a compilation error [RHDM-1772]
- When you call `fireAllRules` simultaneously from multiple threads, you receive an exception inside the `MVELConsequence#evaluate` class [RHDM-1764]
- When you are executing `mvn clean compile -DgenerateModel=YES` on a project which contains a rule using the custom accumulate function, the build fails and you receive an error message [RHDM-1754]
- There is a performance difference while using JDK 8 and JDK 11 [RHDM-1735]
- Reduce an unnecessary classloading by parent classloader [RHDM-1728]
CHAPTER 9. FIXED ISSUES IN RED HAT DECISION MANAGER 7.12.1

Red Hat Decision Manager 7.12.1 provides increased stability and fixed issues listed in this section.

9.1. BUSINESS CENTRAL

- When you have two data objects, form generation enters into an infinite loop when it reaches the first nested form [RHPAM-3366]
- An inaccurate alert about duplicate rule name after copying a rule in Business Central [RHPAM-2871]
- In the test scenarios designer, `today()` and `now()` functions are not evaluated correctly [RHDM-1816]
- When you delete a column from a guided decision table and try to validate that guided decision table, you receive an error [RHDM-1813]
- When you are converting a guided decision table to XLS, a backslash is added before the double quotes and you receive an error [RHDM-1723]

9.2. BUILD AND ASSEMBLY

- In the Spring framework, versions 5.3.0 - 5.3.10, 5.2.0 - 5.2.17, and an older unsupported versions, it is possible for a user to provide malicious input to cause the insertion of additional log entries [RHPAM-4098]

9.3. DMN DESIGNER

- When the same FEEL object-access invocation is used by two KIE containers, you receive DMN evaluation errors [RHDM-1877]

9.4. RED HAT OPENShift CONTAINER PLATFORM

- When you install different versions of the Red Hat OpenShift Container Platform operator in each namespace on the same Red Hat OpenShift Container Platform cluster, you receive a validation error and CRD conflict [RHPAM-4158]
- Authorization fails while using role mapping [RHPAM-4146]
- When you set the default role variable as `AUTH_LDAP_DEFAULT_ROLE`, Red Hat OpenShift Container Platform images ignore the LDAP roles [RHPAM-4132]
- The DockerImage type is not accepted in the business automation operator with JDBC extension images [RHPAM-3787]
- The `kie_server_container_started_total` counter displays the total number of containers with the status `STARTED` and `DEACTIVATED`, but it counts the `DEACTIVATED` containers as well and gives the wrong count [RHPAM-3784]

9.5. DECISION ENGINE
• When you use `RuleTerminalNodeLeftTuple`, the delete or insert child facts causes a loop in `PhreakJoinNode.doRightInserts()` function and you receive an `OutOfMemoryError` error [RHDM-1865]

• When you are executing the rules multiple times, you receive a random exception in a specific rule after constraint jitting [RHDM-1861]

• You must define the `allVars` field as `final` in the `org.mvel2.util.VariableSpaceModel` class [RHDM-1854]

• The result type of the `BigDecimal` operation with one or more null value operands must not be a `String` or `Boolean` type value [RHDM-1852]

• Already expired events are remaining forever in a working memory while entering a session [RHDM-1843]

• `NotNode` proceeds with unmatched facts [RHDM-1827]

• An executable model fails to build a rule which contains `&&` constraint with a bind variable on right side [RHDM-1820]
APPENDIX A. VERSIONING INFORMATION

Documentation last updated on Tuesday, April 05, 2022.
APPENDIX B. CONTACT INFORMATION

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