Release notes for Red Hat Process Automation Manager 7.13
Abstract

# Table of Contents

**PREFACE** ................................................................. 5  
**MAKING OPEN SOURCE MORE INCLUSIVE** .......................... 6  
**CHAPTER 1. PRODUCT OVERVIEW** .................................. 7

**CHAPTER 2. NEW FEATURES** ........................................... 8

1. **ABILITY TO ONLY ENABLE DECISION MANAGEMENT COMPONENTS AND FUNCTIONALITY** 8  
2. **ABILITY TO CHANGE THE ROUTE TERMINATION AND ENABLE EDGE TERMINATION** 8  
3. **ABILITY TO USE A CUSTOM REGISTRY AND SPECIFIC IMAGES** 8  
4. **ABILITY TO OUTPUT ERROR LOGS OF EAGER INITIALIZATION OF KAFKA EMITTERS** 8  
5. **ABILITY TO USE A SECRET FOR ADMIN USER DURING KIEAPP CONFIGURATION** 8  
6. **ABILITY TO CHANGE THE ROUTE TERMINATION AND ENABLE EDGE TERMINATION** 8  
7. **PROCESS DESIGNER** ............................................. 8  
   7.1. Ability to set the priority of a task as a process variable in Business Central 8  
8. **PROCESS ENGINE** .................................................. 8  
   8.1. Support for exploded installation of Spring Boot business automation applications 8  
   8.2. Ability to remove the process ID from the EJB timer column 9  
9. **DMN DESIGNER** ................................................... 9  
   9.1. Drools DMN Engine support for DMN Specification v1.4 9  
10. **RED HAT OPENS Shift CONTAINER PLATFORM** ............. 9  
   10.1. Process Instance Migration Service now uses Quarkus 9  
   10.2. Configurable startup strategy when using the Operator installer 9  
   10.3. Custom hostname routes 9  
   10.4. Improved SSL configurability 9  
   10.5. Default configuration for Cross Domain Resource Sharing (CORS) 9  
   10.6. Red Hat Data Grid user name and password configuration on Red Hat OpenShift Container Platform 9  
11. **RED HAT B UILD OF OPTAPLANNER** ............................. 9  
   11.1. Red Hat build of OptaPlanner solver with Micrometer 10  
12. **SPRING BOOT** ................................................... 10  
13. **RED HAT OPENS Shift CONTAINER PLATFORM** ............. 10  
   13.1. Custom host name routes 10  
   13.2. Improved SSL configurability 10  
   13.3. Default configuration for cross domain resource sharing (CORS) 10

**CHAPTER 3. SUPPORT AND COMPATIBILITY** ......................... 11

**CHAPTER 4. DEPRECATED COMPONENTS** ............................ 12

1. **BUSINESS OPTIMIZER** ........................................... 12  
2. **OPTAPLANNER 7** ................................................ 12  
3. **OPTAPLANNER TOOLING COMPONENTS IN BUSINESS CENTRAL** 12  
4. **RED HAT OPENS Shift CONTAINER PLATFORM 3** ............ 12  
5. **RED HAT ENTERPRISE LINUX 7** ............................... 12  
6. **SUPPORT FOR JDK 8** ............................................. 12  
7. **LEGACY KIE-PMML DEPENDENCY** ............................... 12  
8. **SUPPORT FOR OSGI FRAMEWORK INTEGRATION** ........... 13  
9. **SUPPORT FOR THE RULEUNIT API** ............................. 13  
10. **LEGACY TEST SCENARIOS TOOL** .............................. 13  
11. **SUPPORT FOR HACEP** ......................................... 13

**CHAPTER 5. REMOVED COMPONENTS** ................................ 14

1. **LEGACY PROCESS DESIGNER** ................................. 14
CHAPTER 13. FIXED ISSUES IN RED HAT PROCESS AUTOMATION MANAGER 7.13.3
13.1. BUSINESS CENTRAL 34
13.2. PROCESS ENGINE 34
13.3. RED HAT BUILD OF KOGITO 34
13.4. DMN DESIGNER 34
13.5. RED HAT OPENSSHIFT CONTAINER PLATFORM 34
13.6. DECISION ENGINE 34

CHAPTER 14. KNOWN LIMITATIONS IN RED HAT PROCESS AUTOMATION MANAGER 7.13.4
14.1. BUSINESS CENTRAL 36

CHAPTER 15. FIXED ISSUES IN RED HAT PROCESS AUTOMATION MANAGER 7.13.4
15.1. BUSINESS CENTRAL 37
15.2. PROCESS ENGINE 37
15.3. KIE SERVER 37
15.4. RED HAT OPENSSHIFT CONTAINER PLATFORM 37
15.5. DECISION ENGINE 38

APPENDIX A. VERSIONING INFORMATION 39

APPENDIX B. CONTACT INFORMATION 40
These release notes list new features, features in technology preview, known issues, and issues fixed in Red Hat Process Automation Manager 7.13.
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 Process Automation Manager is an open-source business automation platform that combines business process management (BPM), case management, business rules management, and resource planning. It enables business and IT users to create, manage, validate, and deploy business processes, cases, and business rules.

Red Hat Process Automation Manager uses a centralized repository where all resources are stored. This ensures consistency, transparency, and the ability to audit across the business. Business users can modify business logic and business processes without requiring assistance from IT personnel.

Red Hat Process Automation Manager 7.13 provides increased stability, several fixed issues, and new features.

Red Hat Process Automation 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 Process Automation Manager, see the Release maintenance plan for Red Hat Decision Manager 7.x and Red Hat Process Automation Manager 7.x.
CHAPTER 2. NEW FEATURES

This section highlights new features in Red Hat Process Automation Manager 7.13.

2.1. ABILITY TO ONLY ENABLE DECISION MANAGEMENT COMPONENTS AND FUNCTIONALITY

You can now configure the deployment to only enable decision management related components and functionality so that jBPM and case management features are disabled.

2.2. ABILITY TO CHANGE THE ROUTE TERMINATION AND ENABLE EDGE TERMINATION

During configuration of the environment, you can now change the route termination, enable edge termination, and set optional credentials.

2.3. ABILITY TO USE A CUSTOM REGISTRY AND SPECIFIC IMAGES

You can now configure the custom registry to use specific images during the configuration of the environment.

2.4. ABILITY TO OUTPUT ERROR LOGS OF EAGER INITIALIZATION OF KAFKA EMITTERS

You can now set the `org.kie.jbpm.event.emitters.eagerInit` property to `true` to output the error log when KIE Server starts and initializes the Kafka emitter.

2.5. ABILITY TO USE A SECRET FOR ADMIN USER DURING KIEAPP CONFIGURATION

You can now use a secret containing the credentials for the Admin user during KieApp configuration.

2.6. ABILITY TO CHANGE THE ROUTE TERMINATION AND ENABLE EDGE TERMINATION

During configuration of the environment, you can now change the route termination, enable edge termination and set optional credentials.

2.7. PROCESS DESIGNER

2.7.1. Ability to set the priority of a task as a process variable in Business Central

It is now possible to set the priority of a task as an MVEL expression.

2.8. PROCESS ENGINE

2.8.1. Support for exploded installation of Spring Boot business automation applications
It is now possible to get support for exploded installations of Spring Boot business automation applications. If the application working directory is not the default directory, you can set it with the org.kie.maven.resolver.folder=/my-workspace/ variable. Note that for the Spring Boot image you must copy this variable into the JAVA_TOOL_OPTIONS: "-Dorg.kie.maven.resolver.folder=..." environment variable.

2.8.2. Ability to remove the process ID from the EJB timer column

It is now possible to remove the process ID from the EJB timer column. You can now correlate process-instance-id and ejb-timer-id.

2.9. DMN DESIGNER

2.9.1. Drools DMN Engine support for DMN Specification v1.4

Red Hat Process Automation Manager now provides runtime support for DMN Specification v1.4 in the Drools DMN engine.

2.10. RED HAT OPENShift CONTAINER PLATFORM

2.10.1. Process Instance Migration Service now uses Quarkus

Process Instance Migration Service now uses Quarkus instead of Thorntail.

2.10.2. Configurable startup strategy when using the Operator installer

When you deploy Red Hat Process Automation 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.

2.10.3. Custom hostname routes

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

2.10.4. Improved SSL configurability

You can now enable or disable SSL in the operator and expose the SSL route.

2.10.5. Default configuration for Cross Domain Resource Sharing (CORS)

You can now specify whether to use a default or user customized CORS configuration.

2.10.6. Red Hat Data Grid user name and password configuration on Red Hat OpenShift Container Platform

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

2.11. RED HAT BUILD OF OPTAPLANNER
2.11.1. Red Hat build of OptaPlanner solver with Micrometer

Additional metrics are available for monitoring the OptaPlanner solver with Micrometer.

2.12. SPRING BOOT

The start.jpbm.org website is no longer available. To create Spring Boot business applications use Maven archetype commands.

2.13. RED HAT OPENSSHIFT CONTAINER PLATFORM

2.13.1. Custom host name routes

You can now set custom host names for external routes by using the routeHostname property.

2.13.2. Improved SSL configurability

You can now enable or disable SSL in the operator and expose the SSL route.

2.13.3. Default configuration for cross domain resource sharing (CORS)

You can now specify whether to use a default or user-customized CORS configuration.
CHAPTER 3. SUPPORT AND COMPATIBILITY

This section highlights supported version updates in Red Hat Process Automation Manager 7.13.

NOTE

Oracle WebLogic Server (WLS) was not tested or verified for Red Hat Process Automation Manager 7.13.4 SP2.

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

Table 3.1. Supported configurations in Red Hat Process Automation Manager 7.13

<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>2.7.x</td>
<td>NA</td>
</tr>
<tr>
<td>Red Hat JBoss EAP</td>
<td>7.4.x</td>
<td>Red Hat Process Automation Manager now supports Red Hat JBoss EAP version 7.4.2 or later</td>
</tr>
<tr>
<td>Spring Boot</td>
<td>2.5.12</td>
<td>NA</td>
</tr>
<tr>
<td>AMQ Streams</td>
<td>2.2</td>
<td>Supported for high-availability event-driven decisions</td>
</tr>
<tr>
<td>Red Hat JBoss Web Server</td>
<td>5.6</td>
<td>NA</td>
</tr>
<tr>
<td>Red Hat OpenShift Container Platform</td>
<td>4.12</td>
<td>NA</td>
</tr>
</tbody>
</table>
CHAPTER 4. DEPRECATED COMPONENTS

The components listed in this section have been deprecated.

4.1. BUSINESS OPTIMIZER

Business Optimizer (OptaPlanner) 8.13.x, included as part of Red Hat Process Automation Manager, is in maintenance support. For the latest supported versions of OptaPlanner (8.29 and later) upgrade to Red Hat build of OptaPlanner, the newest addition to Red Hat Application Foundations. For more info, see Red Hat build of OptaPlanner is now available in Red Hat Application Foundations.

4.2. OPTAPLANNER 7

Both OptaPlanner 7 and OptaPlanner 8 are included with Red Hat Process Automation Manager 7.13, 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.

4.3. OPTAPLANNER TOOLING COMPONENTS IN BUSINESS CENTRAL

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

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

4.4. RED HAT OPENShift CONTAINER PLATFORM 3

Support for Red Hat OpenShift Container Platform 3 is removed in this release.

4.5. RED HAT ENTERPRISE LINUX 7

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

4.6. SUPPORT FOR JDK 8

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

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

4.7. LEGACY KIE-PMML DEPENDENCY

The legacy kie-pmml dependency was deprecated with Red Hat Process Automation Manager 7.10.0 and will be replaced in a future Red Hat Process Automation Manager release. For more information, see Designing a decision service using PMML models.
4.8. SUPPORT FOR OSGI FRAMEWORK INTEGRATION

Support for integration with the OSGi framework is deprecated in Red Hat Process Automation 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 with Fuse version 7.8. If you intend to use the OSGi framework, continue to use Red Hat Process Automation Manager version 7.9 with Fuse version 7.7 until Fuse version 7.9 is available and certified.

4.9. SUPPORT FOR THE RULEUNIT API

The Red Hat Process Automation Manager RuleUnit API is deprecated due to incompatibility with the Kogito RuleUnit API.

4.10. LEGACY TEST SCENARIOS TOOL

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

4.11. SUPPORT FOR HACEP

High available (HA) event-driven decisioning, including Complex Event Processing (CEP), is deprecated due to end of support for AMQ Streams 1.x.
CHAPTER 5. REMOVED COMPONENTS

The components listed in this section are removed.

5.1. LEGACY PROCESS DESIGNER

The legacy process designer in Business Central is removed in Red Hat Process Automation Manager 7.13.4. If you intend to use the new process designer, start migrating your processes to the new designer and create new processes in the new process designer. For information about migrating projects to the new designer, see Managing projects in Business Central.
CHAPTER 6. TECHNOLOGY PREVIEW

This section lists features that are in Technology Preview in Red Hat Process Automation Manager 7.13. 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. PREDICTION SERVICE API

You can use the prediction service API to provide a prediction service that assists with user tasks. The prediction service can use artificial intelligence (AI). For example, you can use the Predictive Model Markup Language (PMML) models or Statistical Machine Intelligence and Learning Engine (SMILE) to implement the service.

6.2. DEPLOYING A HIGH-AVAILABILITY AUTHORING ENVIRONMENT ON RED HAT OPENSHEET CONTAINER PLATFORM 4.X

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

6.3. OPENSHEET OPERATOR INSTALLER WIZARD

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

6.4. 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.

6.5. 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.

### 6.6. 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 the `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.

### 6.7. SUPPORT FOR QUARKIVERSE FILE VAULT AND KEYSTORE FILES WITH THE PROCESS INSTANCE MIGRATION KEYSTORE VAULT

You can use the Quarkiverse File Vault extension to store credentials as keystore files and use the `file` method to use the keystore files with the Process Instance Migration (PIM) Keystore Vault.
CHAPTER 7. KNOWN ISSUES IN RED HAT PROCESS AUTOMATION MANAGER 7.13

This section lists known issues with Red Hat Process Automation Manager 7.13.

7.1. PROCESS DESIGNER

The JavaScript language in an On Entry Action property produces an error after changing a node to multiple instances [RHPAM-3409]

Issue: When the language of the On Entry Action property is set to JavaScript and you change the node to Multiple Instance, you receive a system error.

Steps to reproduce:

1. Create a new business process.
2. Create a user task and set it to the Multiple Instance property.
3. Enter any string to On Entry Action or On Exit Action.
4. Select the JavaScript language.
5. Select the Multiple Instance check box.

Actual result: You receive a system error.

Expected result: You do not receive an error either in the UI or in the server log file.

Workaround: None.

customCaseRoles metadata attribute is not added [RHPAM-4410]

Issue: It is not possible to add a new customCaseRoles metadata attribute in a case process definition.

Steps to reproduce:

1. Create a case project.
2. Create a case definition.
3. Open Case Management in the Properties panel and add a new case role as owner:1.
4. Save, close, and reopen the case.
5. In the Properties panel, check the Metadata Attributes under the Advanced section.

Actual result: The Metadata Attributes section is empty.

Expected result: The Metadata Attributes section contains the customCaseRoles:owner:1.

Workaround: None.

DataObject from canvas is missing in assignments when the case file variable is present [RHPAM-4420]

Issue: The DataObject from the canvas is missing in assignments when the case file variable is present.

Steps to reproduce:

1. Create a new business process.
2. Create a user task and set it to the Multiple Instance property.
3. Enter any string to On Entry Action or On Exit Action.
4. Select the JavaScript language.
5. Select the Multiple Instance check box.

Actual result: You receive a system error.

Expected result: You do not receive an error either in the UI or in the server log file.

Workaround: None.
Issue: The **DataObject** from the canvas is missing in assignments when the case file variable is present. This applies to both top-level nodes as well as nodes placed in sub-processes.

Steps to reproduce:

1. Create a case project.
2. Create a case definition.
3. Add a case file variable to the process.
4. Create a **DataObject** on the canvas.
5. Create a node with assignments on the canvas or in the sub-process.
6. Activate the node that has the assignments, open the assignments, and click **Source/Target**.

Actual result: The **DataObject** is missing from the listed items.

Expected result: Both the case file variable as well as the **DataObject** from the canvas is present in the listed items.

Workaround: None.

**Custom data object in multiple variables causes error in case project** [RHPAM-4422]

Issue: When you create a custom data object in multiple variables, you receive an error in a case project.

Steps to reproduce:

1. Create a case project.
2. Create a case definition.
3. Create a custom data object in the same project.
4. Add a process variable and a case file variable with the same **CustomDataObject** type.
5. Create a multiple instance node or data object on the canvas.
6. If you set a multiple instance node, set the **MI Collection** input/output and try to change **Data Input/Output** type.
7. If you set a data object, try to change the data type.

Actual result: You receive an error.

Expected result: No errors occur.

Workaround: None.

### 7.2. PROCESS ENGINE

**When you abort a process instance, the timer is not deleted** [RHPAM-4380]

Issue: Aborting a process instance with an active timer does not delete the timer. The timer then fires at the defined trigger date, which is silently dismissed by the system, so this is not a functional problem. However, it populates the EJB timer subsystem with orphaned timers, especially if the timers are long-
running and the number of aborted process instances is high.

Workaround: None.

**When you use Spring Boot, the UserGroupCallback implementation is not injected into KIE Server [RHPAM-4281]**

Issue: When you are using an engine embedded in a KIE Server packaged as a Spring Boot application, the bean defined as `userGroupCallback` is not injected into the engine. Then, when you try to call some of the rest endpoints fetching some tasks based on the user or groups assigned to them (such as `potOwner`, `stakeHolders`, `businessAdmin`, and so on) they do not work as expected because the UserGroupCallback implementation used in the engine is different from the one defined at the Spring boot application level. Note that this only applies to cases and not to processes.

Steps to reproduce:

1. Start KIE Server as a Spring Boot app with a default identity provider and a `UserGroupCallback` implementation.
2. Try to fetch some tasks assigned to a group by using some rest endpoints such as `potOwner`, `stakeHolders`, or `businessAdmins`.

Workaround: None.

**Kafka-clients contain misalignment with any supported AMQ Streams version [RHPAM-4417]**

Issue: Kafka dependencies for the community are not aligned with Red Hat Process Automation Manager 7.13. The current Kafka community version is 2.8.0 and it must be aligned with the version used by AMQ Streams 2.1.0 which is 3.1.0 for the community.

Workaround: None.

### 7.3. SPRING BOOT

**Wrong managed version of Spring Boot dependencies [RHPAM-4413]**

Issue: The Spring Boot version (2.6.6) in the Maven repository is not certified by Red Hat yet. Therefore, you will receive a mismatch for the Narayana starter in productized binaries.

Workaround: In your `pom.xml` file, define the following properties to override the current versions:

```xml
<version.org.springframework.boot>2.5.12</version.org.springframework.boot>
<version.me.snowdrop.narayana>2.6.3.redhat-00001</version.me.snowdrop.narayana>
```

### 7.4. RED HAT BUILD OF KOGITO

**Red Hat build of Kogito is aligned with a non-supported Spring Boot version [RHPAM-4419]**

Issue: Red Hat build of Kogito Spring Boot versions are managed in the `kogito-spring-boot-bom` file, which imports dependency management from the `org.springframework.boot:spring-boot-dependencies` BOM. The currently aligned version is 2.6.6, which does not map to any Red Hat supported versions. The latest supported version is 2.5.12. You must override dependency management with a BOM aligning to the Red Hat supported version which is 2.5.12.
Workaround:

1. To maintain the order of the imported BOM files, first include the Spring Boot BOM and then include the Red Hat build of Kogito specific BOM file:

```
<dependencyManagement>
  <dependencies>
    <dependency>
      <groupId>dev.snowdrop</groupId>
      <artifactId>snowdrop-dependencies</artifactId>
      <version>2.5.12.Final-redhat-00001</version>
      <type>pom</type>
      <scope>import</scope>
    </dependency>
    <dependency>
      <groupId>org.kie.kogito</groupId>
      <artifactId>kogito-spring-boot-bom</artifactId>
      <version>1.13.2.redhat-00002</version>
      <type>pom</type>
      <scope>import</scope>
    </dependency>
  </dependencies>
</dependencyManagement>
```

2. Align the version of `spring-boot-maven-plugin` to the same version in your project build configuration file:

```
<plugins>
  <plugin>
    <groupId>org.kie.kogito</groupId>
    <artifactId>kogito-maven-plugin</artifactId>
    <version>1.13.2.redhat-00002</version>
    <extensions>true</extensions>
  </plugin>
  <plugin>
    <groupId>org.springframework.boot</groupId>
    <artifactId>spring-boot-maven-plugin</artifactId>
    <version>2.5.12</version>
    <executions>
      <execution>
        <goals>
          <goal>repackage</goal>
        </goals>
      </execution>
    </executions>
  </plugin>
</plugins>
```

Red Hat build of Kogito on Spring Boot leads to misalignment of Kafka-clients version [RHPAM-4418]

Issue: The Kafka-clients dependency version for Red Hat build of Kogito Spring Boot is by default managed by the `org.springframework.boot:spring-boot-dependencies` BOM. Depending on which Spring Boot version is used, users might end up with an unsupported or vulnerable version of Kafka-clients. You must override the default dependency in your `kogito-spring-boot-bom` to make sure you have the expected Kafka-clients version.
Workaround: In your projects, define `dependencyManagement` explicitly for `org.apache.kafka:kafka-clients` dependency to use the version released by AMQ Streams.
CHAPTER 8. FIXED ISSUES IN RED HAT PROCESS AUTOMATION MANAGER 7.13

Red Hat Process Automation Manager 7.13 provides increased stability and fixed issues listed in this section.

8.1. BUSINESS CENTRAL

- When you migrate to 7.12.0 version from a previous version, Business Central fails to start with the no marshaller for type: org.guvnor.structure.contributors.Contributor error [RHPAM-4152]
- Importing a project via SSH is not working over a proxy [RHPAM-3954]
- The guided rule expression editor text box splits the expression in multiple text boxes separated by dot(.) [RHPAM-3679]
- In guided decision table, allow the search feature for the data from an external datasource [RHPAM-3415]

8.2. BUILD AND ASSEMBLY

- When you are reading a specifically crafted TAR archive, an Apache Ant build allocates a large amount of memory that leads to an out-of-memory error even for small inputs [RHPAM-3802]

8.3. KIE SERVER

- if JSONMarshaller cannot find a class com.nonexisting.Person from a classloader, it deserializes the object as a LinkedHashMap with a com.nonexisting.Person key and it may result in no matching rule [RHPAM-4134]
- The GET "instances/(processInstanceId)/timers" is not returning the timers for process SLA [RHPAM-4055]

8.4. PROCESS ENGINE

- With the large number of timers the loop in the EJBTimerScheduler.getTimerByName() function is inefficient and it leads to a bad performance due to a large number of database requests [RHPAM-4289]
- You can add username and password as parameters to the WebserviceWorkItemHandler [RHPAM-4199]
- In some multi-node environments, when you set org.jbpm.ejb.timer.tx property to true and correct config, you receive an error with the null pointer exception [RHPAM-4192]
- Database failure during TX in WorkItemHandler spawns the error handling process [RHPAM-4156]
- A high number of instances waiting for the signal adversely impacts an execution time [RHPAM-4150]
- Allow to define number of retries using RETRY handling strategy to handle the exception with REST WorkItemHandler [RHPAM-4103]
In human task notification, if you include a newline in a mail body and try to send an email notification, it fails to work with the warning, and the notification is not sent [RHPAM-4089]

When org.kie.server.bypass.auth.user property is used with JAASUserGroupCallbackImpl, you receive an incorrect response for REST service [RHPAM-4087]

It is not possible to create an AsyncSignalEventCommand through REST API, it fails with ClassCastException exception [RHPAM-4059]

Process instance migration does not the update command data [RHPAM-4057]

A process with multiple timer startNodes only triggers once [RHPAM-4051]

Process Instance Migration (PIM) tool UI does not support an option to select all the process instances [RHPAM-4029]

Process Instance Migration (PIM) tool UI does not support migration of a large number of process instances [RHPAM-4028]

When you execute a LogCleanupCommand with skipExecutorLog=false set, it deletes the records from an ExecutionErrorInfo [RHPAM-3996]

Make the kieservice client timeout value configurable in RestKieServicesClientProvider used by a controller [RHPAM-3988]

When the process variables are fetched, the process instance is not retrieved in read-only mode and you receive an OptimisticLockException exception [RHPAM-3943]

8.5. PROCESS DESIGNER

- Business Central with lots of process instances blocks the query filters [RHPAM-4170]

8.6. RED HAT BUILD OF KOGITO

- 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 [RHPAM-4068]

8.7. DMN DESIGNER

- When you try to invoke a Business Knowledge Model (BKM) function from included DMN model, the validation fails [RHDM-1395]

- When you are validating a DMN file invoking a java function, you receive an error message [RHPAM-3500]

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

- When you are publishing a decision model using the Documentation tab in the DMN Modeller, a PDF file is generated. In the Data Types section, data type names are not readable when they are longer. The part of the data type names are replaced with three dots. [RHDM-1690]

- A standalone DMN editor is missing isDirty indication and fails to reflect changes in the data types or included models [RHDM-1560]

8.8. CERTIFICATION
- Dropping the support of HA CEP reference implementation due to end of life of AMQ Streams 1.x [RHPAM-4416]

8.9. RED HAT OPENShift CONTAINER PLATFORM

- When LDAP is integrated by an operator on Red Hat OpenShift Container Platform 4, the LDAP authentication fails because `direct-verification=true` is not set in LDAP realm [RHPAM-4148]

- Add a capability to configure route termination from CRD files [RHPAM-4125]

- when a `postconfigure.sh` script is introduced as an extension, it is not executed as custom KieServer S2I script unless another `delayedpostconfigure.sh` script is present [RHPAM-3665]

- The `ImageStreams` objects are not updated with the new image releases, it needs `importPolicy` [RHPAM-4167]

8.10. DECISION ENGINE

- The KJAR build fails with an executable model when you are comparing a `BigDecimal` type and `String` type property [RHDM-1880]

- The `varargs` argument invocations are not jitted correctly, the varargs argument is wrapped into an array even when not necessary [RHPAM-4186]

- Inconsistent property reactivity with `JoinNode` and `FromNode` [RHDM-1881]

- An executable model generates `BigDecimal` expressions without using a `MathContext` [RHDM-1878]

- The `SegmentPropagator` does not deal with a tuple staged as update and you receive an error [RHDM-1875]
9.1. BUSINESS CENTRAL

Unable to deploy Business Central using JDK version 11.0.16 [RHPAM-4497]
Issue: It is not possible to deploy Business Central if your installation uses JDK version 11.0.16.
Actual result: Business Central does not deploy when launched.
Expected result: Business Central deploys successfully.
Workaround: Use a previous JDK version such as 11.0.5 or earlier.

9.2. FORM MODELER

Date type process variable is empty when the process is started using Business Central form with the showTime set to false [RHPAM-4514]
Issue: When you use the default form rendering in Business Central and the process variable field has showTime=false, the started process instance shows that the variable is empty. The affected types are java.time.LocalDateTime, java.time.LocalDate, java.time.LocalTime, and java.util.Date.
Steps to reproduce:
1. Define the process variable with a specific type.
2. Generate a form.
3. Open a form and set showTime=false for a specified field.
4. Deploy the project.
5. Open the process form.
6. Specify the value in the process form.
7. Check the process instance variables. The value for the specified variable is empty.
Workaround: None.

Form in KIE Server with a java.util.Date field does not allow the time to be inserted [RHPAM-4513]
Issue: When a process has a variable of type java.util.Date, the generated form, if the showTime attribute is true, does not allow inserting the time part. Then after submitting the Date variable shows all zeros in the time part of the datatype.
Workaround: None.

9.3. PROCESS DESIGNER
BPMN2 files in XML editor have a Properties panel that contains a data from other processes [RHPAM-4468]

Issue: If two processes are open, where one process is open in the XML editor (a legacy process with the BPMN2 extension) and one process is open in the new process designer, the properties in the Properties panel, as well as the diagram in the Explore Diagram window from the new process designer, are shown in the XML editor of the other process. The XML editor should not have any Properties or Diagram panel.

Steps to reproduce:

1. Open any new process designer process.
2. Do not close the process.
3. Open the legacy process, for example legacy.bpmn2, in the XML editor.
4. Open the Properties panel. Actual result: The Properties and Explore diagram from a new process designer process are shown in the XML editor panel.

Expected result: No Properties or Explore diagram panels are present in the XML editor.

Workaround: None.

A custom data object in multiple variables causes an error in a case project [RHPAM-4422]

Issue: The custom data object in the multiple variables causes an error in a case project. You receive a UI exception with the following error:

Uncaught exception: Exception caught: Duplicate value: CustomDataObject
[com.myspace.caseproject] Caused by: Duplicate value: CustomDataObject
[com.myspace.caseproject]

Steps to reproduce:

1. Create a case definition in a case project.
2. Create a custom data object in the same project.
3. Add a procVar process variable and caseVar case file variable with the same CustomDataObject type.
4. Save the changes.
5. Create a multiple instance node or a Data Object on the canvas.
6. In the multiple instance node, set MI Collection input/output and try to change the Data Input/Output type.
7. In the Data Object on the canvas, try to change the data type.

Actual result:

- On a Chrome browser: It is not possible to set the type with the first click. The custom type is chosen.
- On a Firefox browser: An unexpected error occurs.
Expected result: It is possible to set the type correctly. No errors occur.

Workaround: None.

### 9.4. RED HAT OPENSSHIFT CONTAINER PLATFORM

**PostgreSQL 13 Pod won’t start because of an incompatible data directory [RHPAM-4464]**

**Issue:** When you start a PostgreSQL pod after you upgrade the operator, the pod fails to start and you receive the following message:

*Incompatible data directory. This container image provides PostgreSQL '13', but data directory is of version '10'. This image supports automatic data directory upgrade from '12', please carefully consult image documentation about how to use the 'POSTGRESQL_UPGRADE' startup option.*

**Workaround:**

1. Check the version of PostgreSQL:
   
   ```
   $ postgres -V
   ```

2. If the PostgreSQL version returned is 12.x or earlier, upgrade PostgreSQL:

<table>
<thead>
<tr>
<th>Red Hat Process Automation Manager version</th>
<th>PostgreSQL version</th>
<th>Upgrade instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.13.1</td>
<td>7.10</td>
<td>Follow the instructions in Upgrading database (by switching to newer PostgreSQL image version) to upgrade to PostgreSQL 12.x.</td>
</tr>
</tbody>
</table>
   | 7.13.2                                    | 7.10               | 1. Follow the instructions in Upgrading database (by switching to newer PostgreSQL image version) to upgrade to PostgreSQL 12.x.  
                                             |                    | 2. Follow the instructions in Upgrading database (by switching to newer PostgreSQL image version) to upgrade to PostgreSQL 13.x. |
   | 7.13.2                                    | 7.12               | Follow the instructions in Upgrading database (by switching to newer PostgreSQL image version) to upgrade to PostgreSQL 13.x. |

3. Verify that PostgreSQL has been upgraded to your required version:

   ```
   $ postgres -V
   ```
CHAPTER 10. FIXED ISSUES IN RED HAT PROCESS AUTOMATION MANAGER 7.13.1

Red Hat Process Automation Manager 7.13.1 provides increased stability and fixed issues listed in this section.

10.1. BUSINESS CENTRAL

- The test scenario returns an error when it is executed in the `mvn test` command [RHDM-1539]

10.2. KIE SERVER

- A `ClassCastException` occurs if you submit a form in a `kie-server` that contains the date process variable [RHPAM-4326]

- The EJB service `saveContentFromUser` method does not work with the custom `usercallback` and you receive an error message [RHPAM-4234]

- The custom query response does not return the `SLAdueDate` with the `UserTasksWithCustomVariables` mapper [RHPAM-4232]

- The `EventEmitter` returns wrong task statuses [RHPAM-4091]

- The properties on custom settings are not available on the KIE Server deployments [RHPAM-3976]

- Class retention by `JSONMashaller ObjectMapper._typeFactory._typeCache` [RHDM-1933]

- The class retention by `JSONMashaller ObjectMapper._typeFactory._typeCache` and you receive `OutOfMemoryError: Metaspace` error [RHDM-1933]

10.3. PROCESS ENGINE

- Process instance creation fails with the `org.xmlpull.v1.XmlPullParserException` error in `VariableScope.validateVariable` [RHPAM-4482]

- Unable to update the task description with a long string of more than 255 characters, you receive an error with an exception [RHPAM-4445]

- The task operations such as claiming a task using the REST API with container alias work with Red Hat Process Automation Manager version 7.11 but not with Red Hat Process Automation Manager version 7.12 [RHPAM-4453]

- Selecting from `PROCESSINSTANCELOG` takes too long to execute [ RHPAM-4425]

- The kafka-clients misalignment with any supported AMQ Streams version [RHPAM-4417]

- Orphan sessions in memory due to an exception on `PerRequestRuntimeManager` [RHPAM-4386]

- The timer is not deleted at the process instance abort [RHPAM-4380]
The event emitter generates a `TaskInstanceView` object when a task event is produced. But the `description` field in that object contains the same value that the task has in `subject` when in this case the `description` field is empty [RHPAM-4371]

- Non-existent timer with session id=0 is displayed when you are using the REST API to list all the available timers in a migrated process instance [RHPAM-4312]

- Abort fails with `SessionNotFoundException` for process instances with multiple REST WorkItemHandlers and `RETRY` strategy [RHPAM-4296]

- When you abort the workItem through the `kie-server` REST API, it does not execute WorkItemHandler’s `abortWorkItem` method. The engine must call the `abortWorkItem` method from WorkItemHandler after performing the workItem operation [RHPAM-4282]

- The `UserGroupCallback` implementation is not getting injected into KIE Server when using Spring Boot [RHPAM-4281]

- The current index settings might cause `DeadLocks` in the SQL server [RHPAM-4253]

- An aborted stage remains active in the process engine [RHPAM-4252]

- When you are trying to update the process instance description through a script task inside the process definition, the updated value is not getting reflected immediately [RHPAM-4251]

- The task operations fail intermittently when using `LDAPUserGroupCallback` and you receive an error message [RHPAM-4247]

- The transaction timeout is reported even if the `RecordsPerTransaction` parameter is used in `LogCleanupCommand` [RHPAM-4184]

- Incorrect response for REST service when `org.kie.server.bypass.auth.user` is used with Spring Boot runtime [RHPAM-4151]

- Incorrect groups are returned when `org.kie.server.bypass.auth.user` is set and `JAASUserGroupCallbackImpl` is used [RHPAM-4136]

- The `ClusteredJobFailOverListener` fails to remove the data from cache memory [RHPAM-4070]

### 10.4. PROCESS DESIGNER

- The field with `LocalDateTime` is forcing you to enter a value even though the field is not marked as `Required` [RHPAM-4310]

- The task form with the `LocalDateTime` datatype displays the time format even when the option is unflagged [RHPAM-4189]

- If the form contains an `org.jbpm.document.Document` object and you are uploading a file greater than 2 MB, you receive an angular page hanging error [RHPAM-3995]

### 10.5. RED HAT BUILD OF KOGITO

- Kogito aligned with non supported Spring Boot version [RHPAM-4419]

### 10.6. DMN DESIGNER
- In the DMN designer, a text annotation is not saved correctly if it created by copying and pasting [RHDM-1890]
- Unable to include the DMN model [RHDM-1850]

### 10.7. CONFIGURATION
- Wrong managed version of Spring Boot dependencies [RHPAM-4413]

### 10.8. RED HAT OPENSFIGHT CONTAINER PLATFORM
- Upgrade Red Hat JBoss EAP version to 7.4.6 on RHPAM image [RHPAM-4481]
- Sensitive information such as user names and passwords are exposed in environment variables and pod logs [RHPAM-4438]
- The Kie Server OpenShift startup strategy watcher is closed and the DeploymentConfig is not updated [RHPAM-3333]

### 10.9. DECISION ENGINE
- When you are using generics in accumulate inline code, you receive an error with the ClassNotFoundException exception [RHPAM-4444]
- The metrics of rule execution must include the rules fired from a BPMN process [RHPAM-4248]
- The kie-server-client fails to unmarshall a response suddenly with the NumberFormatException [RHDM-1942]
- The build fails with a "_this cannot be resolved" message during the compilation of a generated executable model [RHDM-1940]
- In an executable model, you receive a NullPointerException in LambdaConsequence error with global variable [RHDM-1920]
- Fails to parse a constraint connected with OR with a bind variable on right side in an executable model [RHDM-1910]
- In an executable model, when a BigDecimal literal is set to a variable with a MVEL dialect, you receive the ClassCastException exception [RHDM-1908]
- In an executable model, a prop with method invocation is not recognized in a modify block [RHDM-1907]
- In an executable model, an arithmetic operation with a String coercion in constraint fails to execute [RHDM-1905]
- In an executable model, an arithmetic operation with a BigDecimal in constraint fails [RHDM-1904]
CHAPTER 11. KNOWN ISSUES IN RED HAT PROCESS AUTOMATION MANAGER 7.13.2

This section lists known issues with Red Hat Process Automation Manager 7.13.2.

11.1. RED HAT OPENSIGNED CONTAINER PLATFORM

PostgreSQL 13 Pod won’t start because of an incompatible data directory [RHPAM-4464]

Issue: When you start a PostgreSQL pod after you upgrade the operator, the pod fails to start and you receive the following message:

**Incompatible data directory. This container image provides PostgreSQL '13’, but data directory is of version ‘10’. This image supports automatic data directory upgrade from '12', please carefully consult image documentation about how to use the $POSTGRESQL_UPGRADE startup option.**

Workaround:

1. Check the version of PostgreSQL:
   
   $ postgres -V

2. If the PostgreSQL version returned is 12.x or earlier, upgrade PostgreSQL:

<table>
<thead>
<tr>
<th>Red Hat Process Automation Manager version</th>
<th>PostgreSQ L version</th>
<th>Upgrade instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.13.1</td>
<td>7.10</td>
<td>Follow the instructions in Upgrading database (by switching to newer PostgreSQL image version) to upgrade to PostgreSQL 12.x.</td>
</tr>
</tbody>
</table>
   | 7.13.2                                    | 7.10                | 1. Follow the instructions in Upgrading database (by switching to newer PostgreSQL image version) to upgrade to PostgreSQL 12.x.  
   |                                           |                     | 2. Follow the instructions in Upgrading database (by switching to newer PostgreSQL image version) to upgrade to PostgreSQL 13.x. |
   | 7.13.2                                    | 7.12                | Follow the instructions in Upgrading database (by switching to newer PostgreSQL image version) to upgrade to PostgreSQL 13.x. |

3. Verify that PostgreSQL has been upgraded to your required version:

   $ postgres -V
CHAPTER 12. FIXED ISSUES IN RED HAT PROCESS AUTOMATION MANAGER 7.13.2

Red Hat Process Automation Manager 7.13.2 provides increased stability and fixed issues listed in this section.

12.1. BUSINESS CENTRAL

- You cannot save a DMN model if you use the (not) function [RHDM-1895]
- You cannot deploy a KJAR to a remote maven repository that requires access via a proxy in Business Central [RHPAM-4509]
- The Table 'rhpam.taskEvent' doesn't exist error appears after upgrading to 7.12.0 or later [RHPAM-4578]
- The commit history of the Metrics tab is not refreshed on branches other than the main branch [RHPAM-2603]

12.2. KIE SERVER

- Cannot commit a session during a retry of the parent process [RHPAM-4499]
- Unable to connect to a PostgresSQL DB over SSL from a kieserver image [RHPAM-4400]
- When a process has variable of type java.util.Date, if the showTime attribute on the generated form is set to true, you cannot inser the time part [RHPAM-4513]
- The ISPN000474 error is generated by kie-server when two nodes are configured to support failover [RHPAM-4223]

12.3. PROCESS ENGINE

- Orphaned records in the sessionInfo table [RHPAM-4403]
- Signals inside a multinode process are not captured correctly by that process [RHPAM-4548]
- Event types in the TaskLifeCycleEventListener interface do not match with the human task life cycle status [RHPAM-3934]
- A signal with a process scope is sent twice in a Case project [RHPAM-4603]
- The PIM tool allow process instances to migrate even when they have different definitions from the source migration plan [RHPAM-4544]
- Migrations that take more time to complete that the value of the quarkus.transaction-manager.default-transaction-timeout parameter are not persisted [RHPAM-4608]
- If the entity manager references are not closed, an exception might occur [RHPAM-4613]
- Avoid any escape characters in SOAP headers [RHPAM-4501]

12.4. RED HAT OPENSSHIFT CONTAINER PLATFORM
• Cannot use special characters in passwords in the Business Central operator [RHPAM-4529]

• The `baseFilter(AUTH_LDAP_BASE_FILTER)` filter is incompatible with versions earlier than 7.12.0 [RHPAM-4147]

• Upgrade Red Hat JBoss EAP version to 7.4.8 on Red Hat Process Automation Manager image [RHPAM-4616]

12.5. DECISION ENGINE

• Equality conditions between the BigDecimal property and a numeric value does not work correctly in a non-executable model [RHDM-1944]

• An unexpected rule fires after upgrading from 7.10.1 to 7.12.1 when capitalized property is updated in modify block [RHDM-1945]

• The non-executable-model does not react to the bind-only Map property with map access operator [RHDM-1952]

• Even after modifying, a non-matching rule is fired again when modified facts are provided by a `from` statement [RHDM-1951]
CHAPTER 13. FIXED ISSUES IN RED HAT PROCESS AUTOMATION MANAGER 7.13.3

Red Hat Process Automation Manager 7.13.3 provides increased stability and fixed issues listed in this section.

13.1. BUSINESS CENTRAL

- Dashbuilder does not support the type MILLISECOND [RHPAM-4659]
- An exception occurs while using expressions with the $ character in BRL condition in GDST [RHDM-1938]

13.2. PROCESS ENGINE

- IntermediateThrowingSignal node from subprocess and the subprocess is not getting marked as executed. [RHPAM-4653]
- With jbpm-kie-services and Servicesorm.xml the incorrect version of orm is used [RHPAM-4649]
- Unable to abort process instances that encounter the issue reported in RHPAM-4296 [RHPAM-4625]
- Some events are missed in event emitters (elastic search) [RHPAM-4584]
- Update Quarkus version in PIM to support Keystore and trustore passwords to be stored on vault [RHPAM-4423]

13.3. RED HAT BUILD OF KOGITO

- BPMN files containing (Java) ServiceTask created using VSCode BPMN Editor causes parser errors in maven build [RHPAM-4604]

13.4. DMN DESIGNER

- [GSS](7.13.3) DMN extend rule to catch non-normalized named elements [RHDM-1957]

13.5. RED HAT OPENShift CONTAINER PLATFORM

- Red Hat Process Automation Manager Kogito Operator 7.x installation is failing with OOMKilled and CrashLoopBackOff [RHPAM-4629]

13.6. DECISION ENGINE

- NullPointerException in mvel MathProcessor with equality check when null property is on right side [RHPAM-4642]
- **executable-model** fails with BigDecimal arithmetic when it’s a scope of a method call [RHDM-1966]
- The **str** operator with bind variable fails after **mvel** jitting [RHDM-1965]
- The executable model build fails when setting negative BigDecimal literal value [RHDM-1959]
CHAPTER 14. KNOWN LIMITATIONS IN RED HAT PROCESS AUTOMATION MANAGER 7.13.4

This section lists known limitations with Red Hat Process Automation Manager 7.13.4.

14.1. BUSINESS CENTRAL

Business Central EAP7 deployable zip from 7.13.4 cannot be updated by the update tool [RHPAM-4838]

Issue:

If you use the update tool to update an Red Hat Process Automation Manager 7.13.4 rhpam-business-central-eap7-deployable installation to release 7.13.4SP1, the update fails with the following error:

ERROR - The patch is not valid for the distribution and version!

Workaround:

1. Download the build.metadata file attached to RHPAM-4838 to the business-central.war/META-INF directory in your Business Central installation.

2. Run the update tool again.
CHAPTER 15. FIXED ISSUES IN RED HAT PROCESS AUTOMATION MANAGER 7.13.4

Red Hat Process Automation Manager 7.13.4 provides increased stability and fixed issues listed in this section.

15.1. BUSINESS CENTRAL

- Dashbuilder does not support the type MILLISECOND [RHPAM-4659]
- Standalone Business Central does not start on Red Hat Enterprise Linux (RHEL) [RHPAM-4715]
- Data filter is not working as expected [RHPAM-4664]

15.2. PROCESS ENGINE

- You cannot updated the service-level agreement (SLA) because of the date of process instance [RHPAM-4752]
- Scheduled jobs do not keep configured execution time [RHPAM-4750]
- PIM removes dynamic task descriptions of human tasks [RHPAM-4749]
- Processes with timers that have different config and async tasks are triggered at same time using the PER_REQUEST runtime strategy [RHPAM-4703]
- The EJB timer throws the SessionNotFoundException exception even after the sub process and parent process successfully completes [RHPAM-4610]

15.3. KIE SERVER

- The ClassNotFoundException occurs when launching a business application with the command mvn spring-boot:run [RHDM-1984]
- Behavior of the ClassCastException exception changed after RHPAM 7.13.0 for empty values in the request [RHPAM-4725]
- The NoSuchMethodError occurs when retrieving Kie server information on SpringBoot [RHPAM-4714]
- The productized cxf-rt-bindings-soap dependency in kie-camel is invalid [RHPAM-4683]
- The NullPointerException (NPE) occurs on TupleSetsImpl.setNextTuple with SubnetworkTuple [RHDM-1968]

15.4. RED HAT OPENSSHIFT CONTAINER PLATFORM

- Upgrade JBoss Enterprise Application Server to 7.4.12 on RHPAM and BAMOE images [RHPAM-4762]
- Unable to set direct-verification=true individually in LDAP realm by operator [RHPAM-4754]
- Unable to connect to an external PostgreSQL database over SSL from kie-server on OpenShift Container Platform [RHPAM-4740]
- Do not set URL envs if the `jdbcUrl` property is not set [RHPAM-4713]
- Legacy datasource scripts do not consider XA properties for the `mariadb` driver [RHPAM-4712]
- Correctly set the XA Connection URL property [RHPAM-4711]
- KIE Server `configMap` points to SSL routes when SSL is disabled [RHPAM-4709]
- Can’t login into Business Central without SSL configured [RHPAM-4705]
- `NoSuchMethodException`: Method `setURL` not found [RHPAM-4704]
- The `pom.xml` file in `rhpam-7-openshift-image/quickstarts/router-ext` contains the wrong version [RHPAM-4682]

15.5. DECISION ENGINE

- Unnecessary warning message appears when executing a DRL file [RHPAM-4758]
- The `NullPointerException` error occurs in `MemoryFileSystem` when `kbase.name` is empty in `kmodule.xml` [RHPAM-4755]
- With a non-executable model and the `mvel` dialect, when the modify-block is placed inside a block such as the `if-block` in RHS, the modify does not work correctly [RHDM-1985]
- After upgrading to 7.13.2, rules fire incorrectly when BigDecimal equality is involved in a pattern [RHDM-1974]
- The executable model doesn’t resolve bind variables from another pattern of the same type in method call in LHS for property reactivity [RHDM-1969]
- The executable model doesn’t resolve bind variables in a method call in LHS for property reactivity [RHDM-1967]
APPENDIX A. VERSIONING INFORMATION

Documentation last updated on Thursday, November 16th, 2023.
APPENDIX B. CONTACT INFORMATION

Red Hat Process Automation Manager documentation team: brms-docs@redhat.com