Red Hat Process Automation Manager 7.0

Using the Showcase application for case management

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Abstract

This document describes how to use the Showcase application for case management projects in Red Hat Process Automation Manager 7.0.

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PREFACE

As a case worker or process administrator, you can use the Showcase application to manage and monitor case management applications while case work is carried out in Business Central.

Case management differs from business process management (BPM) in that it focuses on the actual data being handled throughout the case and less on the sequence of steps taken to complete a goal. Case data is the most important piece of information in case handling, while business context and decision-making is in the hands of the human case worker.

Use this document to install the Showcase application and start a case instance using the IT Orders sample case management project in Business Central. Use Business Central to complete the tasks required to complete an IT Orders case.

Prerequisites

- Red Hat JBoss Enterprise Application Platform 7.1.0 is installed. For installation information, see the *Red Hat JBoss EAP 7.1.0 Installation Guide* .

- Red Hat Process Automation Manager is installed and configured with Process Server. For more information see *Installing and configuring Red Hat Process Automation Manager on Red Hat JBoss EAP 7.1*.

- **KieLoginModule** is configured in **standalone-full.xml**. This required to connect to the Process Server. For more information about configuring the Process Server, see *Planning a Red Hat Process Automation Manager installation*.

- Red Hat Process Automation Manager is running and you can log in to Business Central with a user that has both **kie-server** and **user** roles. For more information about roles, see *Planning a Red Hat Process Automation Manager installation*.

- The IT Orders sample project has been imported in Business Central and deployed to the Process Server. For more information about case management, see *Getting started with case management*.

CHAPTER 1. CASE MANAGEMENT

Case management is an extension of Business Process Management (BPM) that enables you to manage adaptable business processes.

BPM is a management practice for automating tasks that are repeatable and have a common pattern, with a focus on optimization by perfecting a process. Business processes are usually modeled with clearly defined paths leading to a business goal, often with a starting point that is structurally connected to build an end-to-end flow of work and data. This requires a lot of predictability, usually based on mass-production principles. However, many real-world applications cannot be described completely from start to finish (including all possible paths, deviations, and exceptions). Moreover, using a process-oriented approach in certain cases may lead to complex solutions that are hard to maintain.

Case management provides problem resolution for non-repeatable, unpredictable processes as opposed to the efficiency-oriented approach of BPM for routine, predictable tasks. It manages one-off situations when the process cannot be predicted in advance. Case definition usually consists of loosely coupled process fragments that can be connected directly or indirectly to lead to certain milestones and ultimately a business goal, while the process is managed dynamically in response to changes that occur during run time.

In Red Hat Process Automation Manager, case management includes the following core engine features:

- Case file instance

- A **Per case** runtime strategy

- Case comments

- Milestones

- Stages

- Ad hoc fragments

- Dynamic tasks and processes

- Case identifier (correlation key)

- Case lifecycle (close, reopen, cancel, destroy)

In Red Hat Process Automation Manager, case management authoring uses Business Process Model and Notation (BPMN2) rather than Case Management Model and Notation (CMMN) for both modeling and execution. This means that there is no need to choose between BPM or case management; you can use both, taking advantage of your existing knowledge of BPM, while also benefiting from the dynamic capabilities of case management.

Case definition is always an ad hoc process definition and does not require an explicit start node. The case definition is the main entry point for the business use case.

Process definition can still be introduced as a supporting construct of the case and can be invoked either as defined in the case definition or dynamically to bring in additional processing when required. A case definition defines the following new objects, though they are not all mandatory or required for every case:

- Activities (required)

- Case file (required)

- Milestones

- Roles

- Stages

CHAPTER 2. CASE MANAGEMENT SHOWCASE APPLICATION

The Showcase application is included in the Red Hat Process Automation Manager distribution to demonstrate the capabilities of case management in an application environment. Showcase is intended to be used as a proof of concept that aims to show the interaction between business process management (BPM) and case management. You can use the application to start/close, monitor, and interact with cases.

Showcase must be installed in addition to the Business Central application and Process Server. The Showcase application is required to start new case instances, however the case work is still performed in Business Central.

After a case instance is created and is being worked on, you can monitor the case in the Showcase by clicking the case in the **Case List** to open the case **Overview** page.

Showcase Support

The Showcase application is not an integral part of Red Hat Process Automation Manager and is intended for demonstration purposes for case management. Showcase is provided to encourage customers to adopt and modify it to work for their specific needs. The content of the application itself does not carry product-specific Service Level Agreements (SLAs). We encourage you to report issues, request for enhancements, and any other feedback for consideration in Showcase updates.

Red Hat Support will provide guidance on the use of this template on a commercially reasonable basis for its intended use, excluding the provided example UI code provided within.

> **NOTE**
>
> Production support is limited to the Red Hat Process Automation Manager distribution.

CHAPTER 3. INSTALLING AND LOGGING IN TO THE SHOWCASE APPLICATION

The Showcase application is included with the Red Hat Process Automation Manager 7.0 distribution in the add-ons Zip file. The purpose of this application is to demonstrate the functionality of case management in Red Hat Process Automation Manager and enable you to interact with cases created in Business Central. You can install the Showcase application in a Red Hat JBoss Enterprise Application Platform instance or on OpenShift. This procedure describes how to install the Showcase application in Red Hat JBoss EAP.

Prerequistes

- Business Central and Process Server are installed in an Red Hat JBoss EAP instance.

- You have created a user with **kie-server** and **user** roles. Only users with the **user** role are able to log in to the Showcase application. Users also require the **kie-server** role to perform remote operations on the running Process Server.

- Business Central is not running.

Procedure

1. Navigate to the Software Downloads page in the Red Hat Customer Portal (login required), and select the product and version from the drop-down options:

   - Product: Red Hat Process Automation Manager

   - Version: 7.0

2. Download **Red Hat Process Automation Manager 7.0.0 Add Ons**(**rhpam-7.0.0-add-ons.zip**).

3. Extract the (**rhpam-7.0.0-add-ons.zip**). file. The (**rhpam-7.0-case-mgmt-showcase-eap7-deployable.zip**). file is in the unzipped directory.

4. Extract the (**rhpam-7.0-case-mgmt-showcase-eap7-deployable.zip**). archive to a temporary directory. In the following examples this directory is called *TEMP_DIR*.

5. Copy the contents of the **_TEMP_DIR/rhpam-7.0-case-mgmt-showcase-eap7-deployable/jboss-eap-7.1** directory to *EAP_HOME*.
   When asked to overwrite files or merge directories, select **Yes**.

   > **WARNING**
   >
   > Ensure the names of the Red Hat Process Automation Manager deployments you are copying do not conflict with your existing deployments in the Red Hat JBoss EAP instance.

6. Add the following system property to your deployment's EAP_HOME/jboss-eap-7.1/standalone/configuration/standalone-full.xml file: **<property name="org.jbpm.casemgmt.showcase.url" value="/rhpam-case-mgmt-showcase"/>**

7. In a terminal window, enter the following command to start Business Central:
   EAP_HOME/bin/standalone.sh -c standalone-full.xml

8. In a web browser, enter **localhost:8080/business-central**.
   If Red Hat Process Automation Manager has been configured to run from a domain name,
   replace **localhost** with the domain name, for example:

   http://www.example.com:8080/business-central

9. In the upper-right corner in Business Central, click the **Apps launcher** button to launch the
   Case Management Showcase in a new browser window.
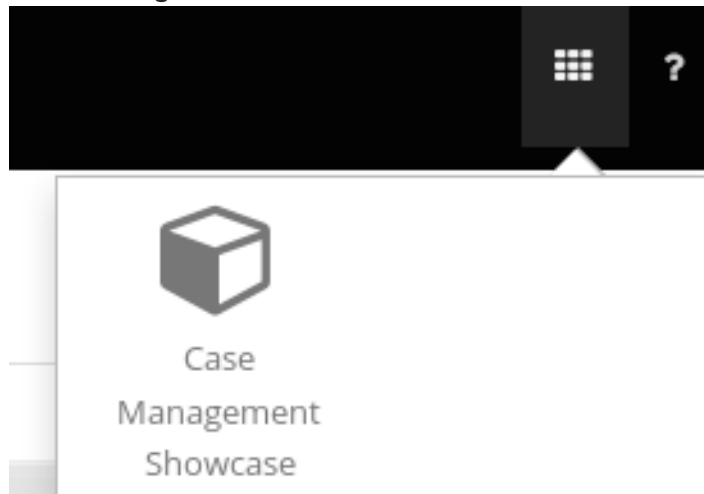
10. Log in to the Showcase application using your Business Central user credentials.

CHAPTER 4. CASE ROLES

Case roles provide an additional layer of abstraction for user participation in case handling. Roles, users, and groups are used for different purposes in case management.

Role

> Roles drive the authorization for the case instance, and can be used for user activity assignments. The only role that is predefined is **Owner**. A user or one or more groups can be assigned to the owner role. The owner is whoever the case belongs to. Roles are not restricted to a single set of people or groups as part of case definition. Roles should always be used for task assignment rather than assigning a specific user or group in order to ensure the case remains dynamic.

Group

> A group is a number of people who are able to carry out a particular task or have a set of specified responsibilities. There can be any number of people assigned to a group, and a group can be assigned to a role. Members of a group can be added or changed at any time, which is why a group should never be hardcoded to a particular task.

User

> A user is an individual who can be given a particular task by assigning them a role or adding them to a group.

The following illustrate how the preceding case management concepts apply to a hotel reservation.

- Role = **Guest**

- Group = **Receptionist**, **Maid**

- User = **Marilyn**

The role assignment (**Guest**) affects the specific work of the case and is unique to all case instances. The number of users or groups that can be assigned to a role is limited by the **Case Cardinality**, which is set during role creation in the process designer. For example, there may be only one guest in a hotel reservation case, or there may be two suppliers of IT hardware as in the IT Orders sample project.

When the roles are defined, case management must ensure that these are not hardcoded to single set of people or groups as part of case definition and that they can differ for each case instance. This is where case role assignments become important. Role assignments can be assigned or removed in the following ways:

- When a case starts.

- At any given point in time while a case is active.

- Removed at any given point in time while a case is active.

The second and third options do not alter the task assignments for active tasks.

Roles are optional and not a case requirement, however, you should use roles within case definitions.

IMPORTANT

Always use roles for task assignments instead of actual user or group names. This ensures the case remains dynamic and actual user or group assignment can be made as late as possible.

Roles are assigned to users or groups and authorized to perform tasks when a case instance is started either in an application or by using the REST API.

For more information about how to assign and authorize roles, see Starting an IT Orders case in the Showcase application.

CHAPTER 5. AD HOC AND DYNAMIC TASKS

You can use case management to carry out tasks in an ad hoc way, rather than following a strict end-to-end process. Tasks can also be added to a case dynamically during run time when required.

Ad hoc tasks are defined in the case modeling phase. Ad hoc tasks that are not configured as **Adhoc autostart** are optional and may or may not be worked on during a case. Therefore, they must be triggered by a signal event or by Java API to be available to be worked on during a case.

Dynamic tasks are defined during the case execution and are not present in the case definition model. Dynamic tasks address specific needs that arise during the case. They can be added to the case and worked on at any time using a case application, as demonstrated in the Red Hat Process Automation Manager Showcase application. Dynamic tasks can also be added by Java and Remote API calls.

Dynamic tasks can be user or service activities, while ad hoc tasks can be any type of task.

Dynamic processes are any reusable sub-process from a case project.

Ad hoc nodes with no incoming connections can be configured with the **Adhoc autostart** property, which is a property of the node itself. These tasks are triggered automatically when the case instance is started.

CHAPTER 6. STARTING DYNAMIC TASKS AND PROCESSES

You can add dynamic tasks and processes to a case during run time. Dynamic actions are a way to address changing situations, where an unanticipated change during the case requires a new task or process to be incorporated into the case.

Use a case application to add a dynamic task during run time. For demonstration purposes, the Business Central distribution includes a Showcase application where you can start a new dynamic task or process for the IT Orders application. For more information about installing and running the Showcase application, see

Prerequisites

- The Process Server is deployed and connected to Business Central.

- The IT Orders project is deployed to Process Server.

- The Showcase application **.war** file has been deployed alongside Business Central.

Procedure

1. With the IT Orders project deployed and running in the Process Server, in a web browser, navigate to the Showcase login page **http://localhost:8080/rhpam-case-mgmt-showcase/**. Alternatively, if you have configured Business Central to display the **Apps launcher** button, use it to open a new browser window with the Showcase login page.
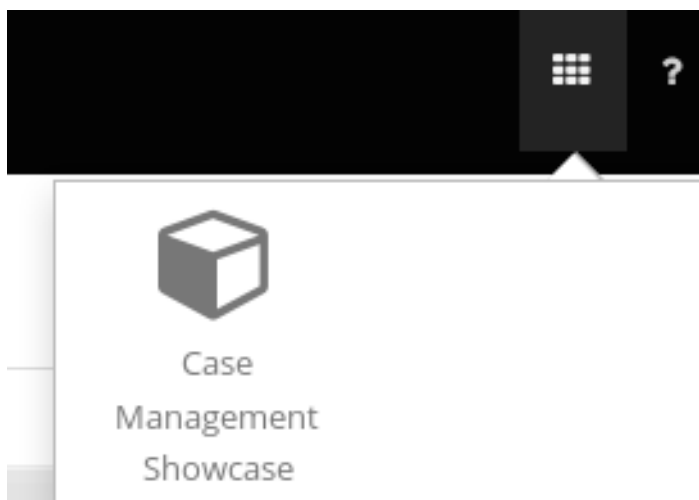
For instructions on how to configure the **Apps launcher** button in Business Central see
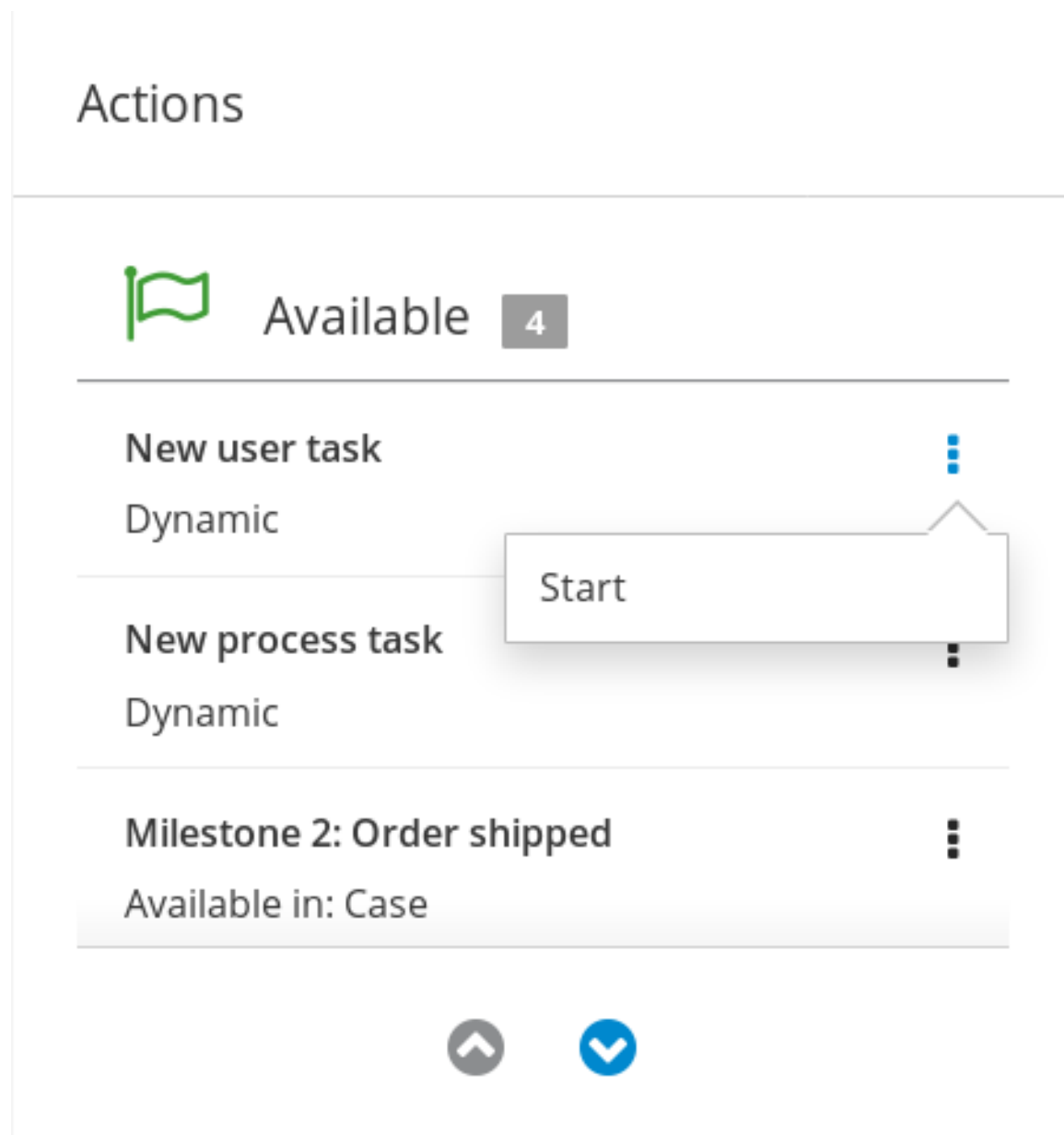
2. Log in to the Showcase application using your Business Central login credentials.

3. Select an active case instance from the list to open it.

4. Under **Overview → Actions → Available**, click the ⋮ button next to **New user task** or **New process task** to add a new task or process task.

Figure 6.1. Showcase dynamic actions

Actions

Available 4

New user task ⋮

Dynamic

Start

New process task ⋮

Dynamic

Milestone 2: Order shipped ⋮

Available in: Case

- To create a dynamic user task, start a **New user task** and complete the required information:

- To create a dynamic process task, start a **New process task** and complete the required information:

5. To view a dynamic user task in Business Central, click **Menu → Track → Task Inbox**. The user task that was added dynamically using the Showcase application appears in the **Task Inbox** of users assigned to the task during task creation.

a. Click the dynamic task in the **Task Inbox** to open the task. A number of action tabs are available from this page.

b. Using the actions available under the task tabs, you can begin working on the task.

c. In the Showcase application, click the refresh button in the upper-right corner. Case tasks and processes that are in progress appear under **Overview → Actions → In progress**.

d. When you have completed working on the task, click the **Complete** button under the **Work** tab.

e. In the Showcase application, click the refresh button in the upper-right corner. The completed task appears under **Overview → Actions → Completed**.

6. To view a dynamic process task in Business Central, click **Menu → Manage → Process Instances**.

a. Click the dynamic process instance in the list of available process instances to view information about the process instance.

b. In the Showcase application, click the refresh button in the upper-right corner. Case tasks and processes that are in progress appear under **Overview → Actions → In progress**.

CHAPTER 7. STARTING AN IT ORDERS CASE IN THE SHOWCASE APPLICATION

You can start a new case instance for the IT Orders sample case management project in the Showcase application.

The IT Orders sample case management project includes the following roles:

- **owner** – the employee who is making the hardware order request. There can be only one of these roles.

- **manager** – the employee's manager; the person who will approve or deny the requested hardware. There is only one manager in the IT Orders project.

- **supplier** – the available suppliers of IT hardware in the system. There is usually more than one supplier.

These roles are configured at the case definition level:

Figure 7.1. ITOrders Case Roles
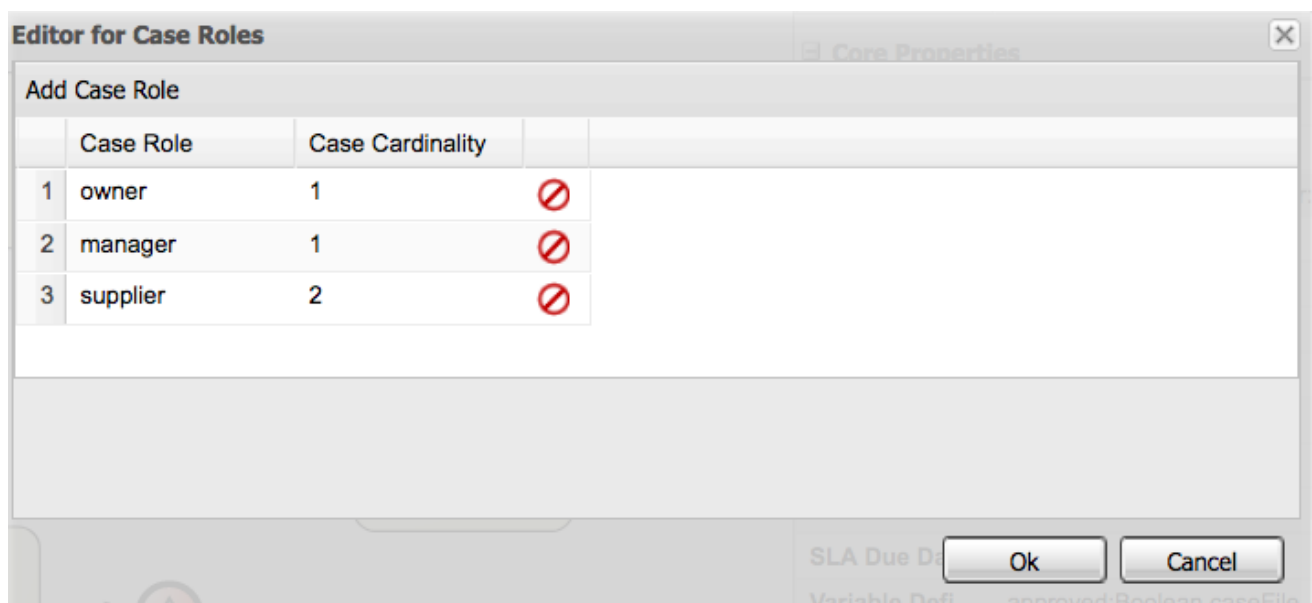
Assign users or groups to these roles when starting a new case file instance.

Prerequisites

- You have imported and deployed the IT Orders sample project in Business Central.

- You have installed and logged in to the Showcase application as instructed in Chapter 3, *Installing and logging in to the Showcase application* .

Procedure

1. In the Showcase application, start a new case instance by clicking the **Start Case** button.

2. Select the **Order for IT hardware** case name from the list and complete the role information as shown:

In this example, Aimee is the case **owner**, Katy is the **manager**, and the supplier group is **supplier**.

3. Click **Start** to start the case instance.

4. Select the case from the **Case List**. The **Overview** page opens.
From the **Overview** page, you can monitor the case progress, add comments, start new dynamic tasks and processes, and complete and close cases.

NOTE

Cases can be started and closed using the Showcase application, but they cannot be reopened using this application. You can only reopen a case using a JMS or REST API call.

# CHAPTER 8. COMPLETING THE IT ORDER CASE USING SHOWCASE AND BUSINESS CENTRAL

When a case instance is started using the Showcase application, tasks that are configured as **Adhoc autostart** in the case definition are automatically assigned and made available to users with the role assignment for each task. Case workers can then work on the tasks in Business Central and complete them to move the case forward.

In the IT Orders case project, the following case definition nodes are configured with the **Adhoc autostart** property:

- **Prepare hardware spec**

- **Hardware spec ready**

- **Manager decision**

- **Milestone 1: Order placed**

1 - Order for IT hardware
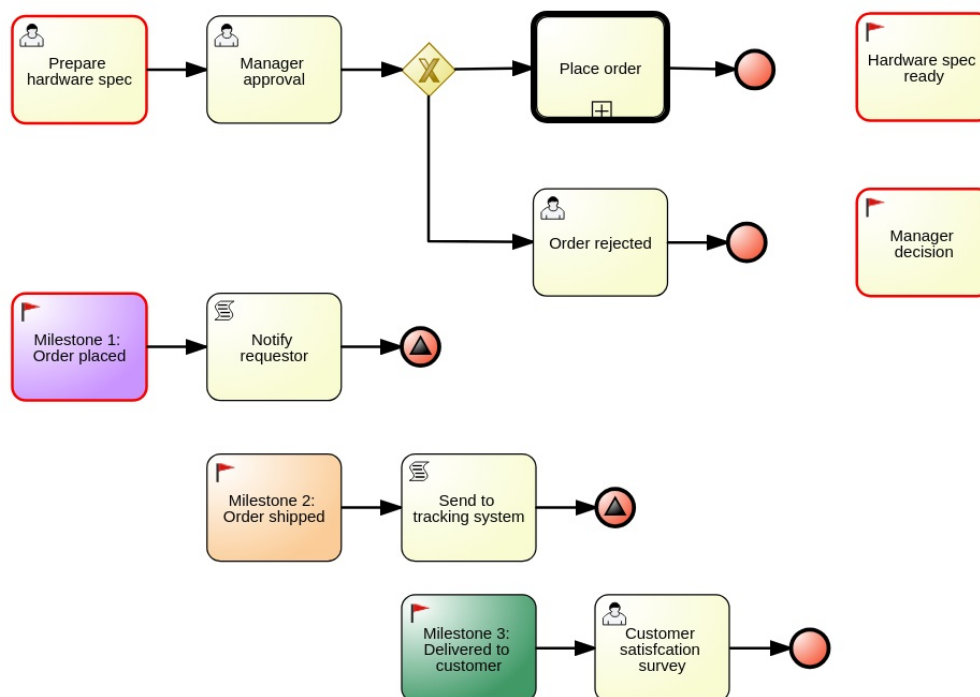
Of these, the only user task is **Prepare hardware spec**, which is assigned to the **supplier** group. This is the first human task to be completed in the IT Orders case. When this task is complete, the **Manager approval** task becomes available to the user assigned to the **manager** role, and after the rest of the case work is finished, the **Customer satisfaction survey** task is assigned to the case owner for completion.

Prerequisite

As the user **Aimee**, you have started an IT Orders case in the Showcase application with the case ID **IT-0000000001**. For more information about how to start the IT Orders case instance, see *Chapter 7, Starting an IT Orders case in the Showcase application* .

Procedure

1. Log out of Business Central, and log back in as a user that belongs to the **supplier** group. This example has the user **Lenovo** configured as a member of the **supplier** group.

Showing user Lenovo ⌄

Lenovo ✏ Edit

Groups   Roles   Permissions
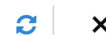
supplier

rest-all

kie-server

Total 3 groups assigned

2. Go to **Menu → Track → Task Inbox**.

3. Open the **Prepare hardware spec** task and click **Claim**. This assigns the task to the logged in user.

4. Click **Start** and click [icon] to locate the hardware specification file. Click [icon] to upload the file.

Home » Task Inbox » Task: 1

1 - Prepare hardware spec   ⟳ | ✕

Work   Details   Assignments   Comments   Logs

Upload hardware specification *

| valid-spec.pdf | 🗋 ⬆ |

| Save | Release | **Complete** |

Click **Complete**.

5. In Showcase, click **Refresh** in the upper-right corner. Notice that the **Prepare hardware task** user task and the **Hardware spec ready** milestone appear in the **Completed** column.

Actions

6. Log out of Business Central and log back in again as **Katy**.

7. Go to **Menu → Track → Task Inbox**. Open the **Manager approval** task for Katy.

   a. Click **Claim**, then **Start**.

   b. Check the **approve** box for the task that includes the **valid-spec.pdf** file, then click **Complete**.

8. Go to **Menu → Manage → Process Instances** and open the **Order for IT hardware** process instance.

   a. Open the **Diagram** tab. Note that the **Place order** task is complete.
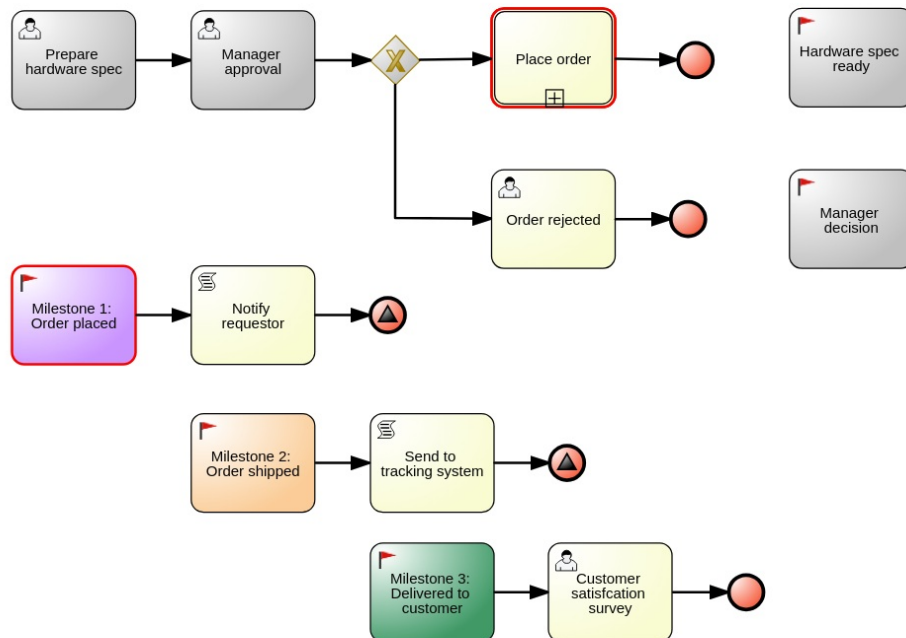
   b. Refresh the Showcase page to see that the **Manager approval** task and the **Manager decision** milestone are in the **Completed** column. The **Milestones** pane in the lower-left corner of the Showcase overview page also shows the completed and pending milestones.

9. Log out of Business Central and log back in again as **Aimee**.

10. Go to **Menu → Manage → Tasks**. Click the **Place order** task to open it.

   a. Click **Claim**, then **Start**.

   b. Select the **Is order placed** check box and click **Complete**.

The process instance diagram now shows the following case progress:
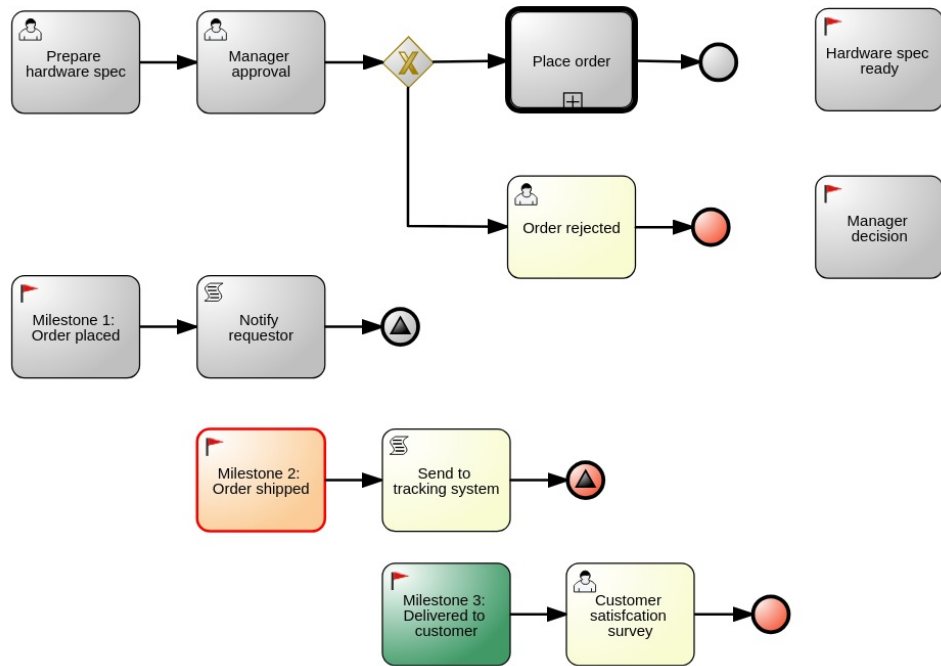
c. Refresh the Showcase page to view the case progress.

11. Go to **Menu → Manage → Process Instances** and open the **Order for IT hardware**.

a. Open the **Process Variables** tab. Locate the **caseFile_shipped** variable and click **Edit**.

b. In the **Edit** window, type **true** and click **Save**.

   c. Refresh the Showcase page. Note that the **Milestone 2: Order shipped** milestone is shown as **Completed**.
The final milestone, **Milestone 3: Delivered to customer** is In progress.

12. Go to **Menu → Manage → Process Instances** and open the **Order for IT hardware**.

   a. Open the **Process Variables** tab. Locate the **caseFile_delivered** variable and click **Edit**.

   b. In the **Edit** window, type **true** and click **Save**.

   c. Refresh the Showcase page. Note that the **Milestone 3: Delivered to customer** milestone is shown as **Completed**. All milestones under the **Milestones** pane in the lower-left corner are shown as complete.
The final task of the IT Orders case, **Customer satisfaction survey** is shown under **In progress**.

Actions

Available 3	In progress 1	Completed 11
New user task Dynamic	**Customer satisfcation survey** 18/07/2018 (Human Task - Aimee)	**Hardware spec ready** 18/07/2018 (Milestone)
New process task Dynamic		**Prepare hardware spec** 18/07/2018 (Human Task)
Prepare hardware spec Available in: Case		**Manager decision** 18/07/2018 (Milestone)

13. As Aimee, open Business Central and go to **Menu → Track → Task Inbox**. Click the **Customer satisfaction survey** task to open it.
This task is already reserved for Aimee.

14. Click **Start** and fill out the survey.

4 - Customer satisfcation survey

Work   Details   Assignments   Comments   Logs

Survey

☑ Satisfied

☑ Delivered on time?

Missing Equipment

> None.

Comment

> Delivered on time and as ordered. Thank you.|

Save   Release   **Complete**

Click **Complete** when finished.

15. Go to **Menu → Manage → Process Instances** and open the **Order for IT hardware** process instance.

    a. Open the **Diagram** tab. This shows that all required case process nodes are complete and there is nothing left to do for this case instance.

Order for IT hardware v.1.0 (itorders.orderhardware)
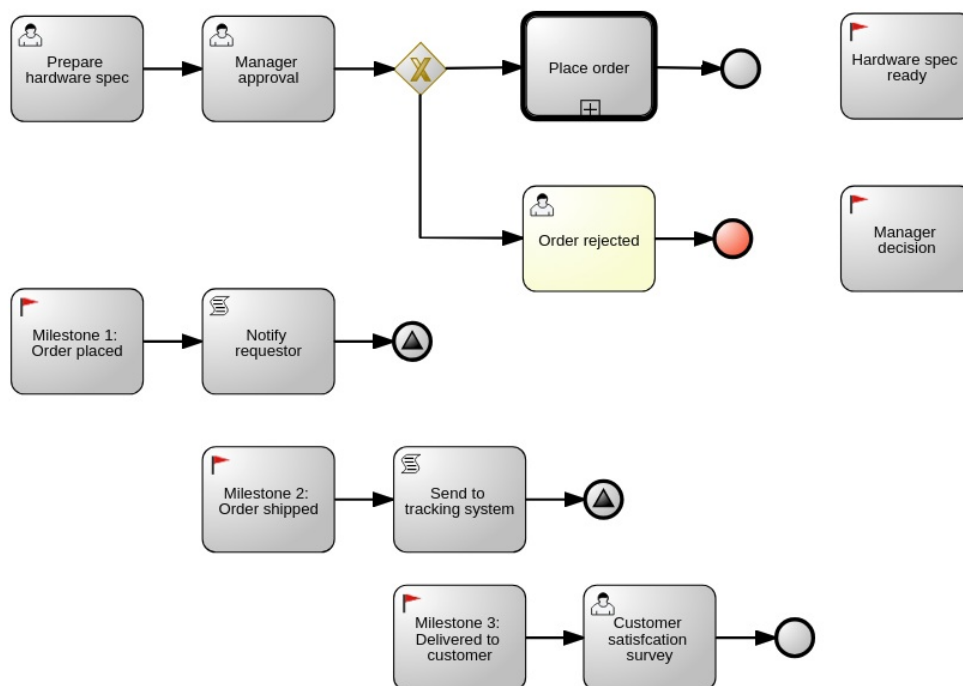
b. Refresh the Showcase page and note that there are no actions under **In progress**.

16. In Showcase, type a comment in to the field under **Comments**. Click ➕ to add the comment to the case file.

17. Click **Close** in the upper-right corner of the Showcase page to complete and close the case. The case can be reopened at any time using the REST API.

For more information about the **Adhoc autostart** configuration property and case definitions, see *Getting started with case management* .

APPENDIX A. VERSIONING INFORMATION

Documentation last updated on: Monday, October 1, 2018.