SAP BUSINESS TECHNOLOGY PLATFORM | EXTERNAL

Configuration Guide

Manage Customer Refund Request using SAP Build Process Automation or SAP Workflow Management

THE BEST RUN

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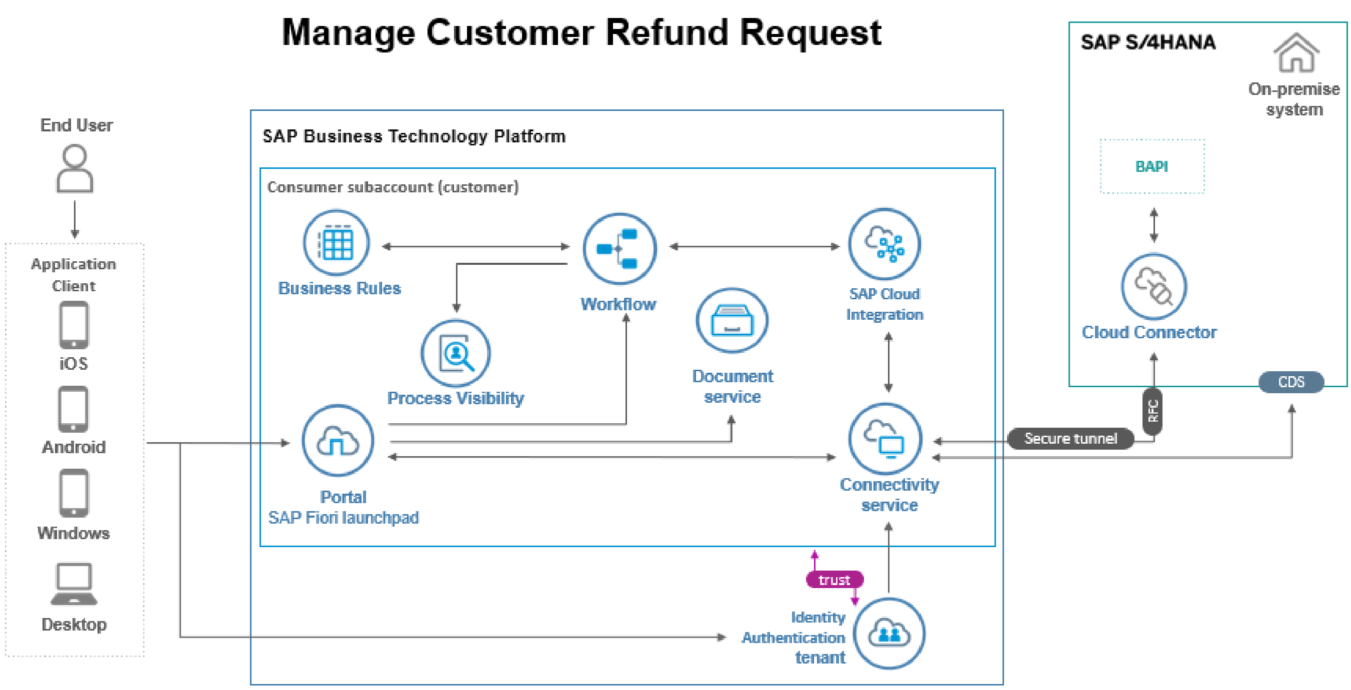
Overview

This document provides information about configuration steps to consume the live process package Manage Customer Refund Request. The main audience of this document are Sales Managers, Finance Managers, Developers and Product owners.

The Manage Customer Refund Request content package enables SAP S/4HANA customers to automate the approvals required for customer refund request using SAP Build Process Automation or SAP Workflow Management without additional development in SAP S/4HANA.

Salient features of this content package are:

- Plug and Play with SAP S/4HANA without any additional development.
- Process steps delivered to approve customer refund request.
- Automatic email notification to parties involved.
- Business Rules provide flexibility in determining approver determination strategy and approvers.
- Custom validation on customer refund request attributes using Business Rules.
- New variant of the process can be created using the pre-delivered process steps in a no-code / low-code approach.
- Out-of-the-box visibility into key process performance indicators of the customer refund request.



Live Process Artifacts

A package consists of process templates, process steps, decisions, and process visibility models. Please refer help documentation about these artifacts.

Process

A process template is a set of business activities and tasks that, once completed, fulfills an organization approval process. The **Manage Customer Refund Request** package contains the following process template:
Manage Customer Refund Request in SAP S/4HANA with a multilevel approval process. It includes start and end process steps for easy no-code/low-code configuration.
A business process can be broken down logically into smaller parts or steps. Each process step is a collection of activities to perform a specific task. For example, an approval process step can contain an activity to determine the approvers, an approval task itself, notifications activities, and handle the approval result. Table 1 represents the list of process steps available to be used in Manage Customer Refund Request.

Table 1. Process Steps

Process Steps	Cardinality	Detailed Description
RefundRequestValidation	1..1	Based on the company code and customer number it will validate the customer refund request.
A RefundRequestApproval	1.. N	This step initiates and completes one level of approval for the customer refund request. This step can occur multiple times in the process variant. Based on the number of approvals required, this step can be re-used multiple times. It is possible to rename the step to appropriate approval roles, for example, 'Approval by Sales Manager. The approver is determined based on various conditions using a business rule. The requestor and the approver are automatically notified via mail about the decision and approval task, respectively.
RefundRequestCreation	1..1	Create customer refund request in SAP S/4HANA system after completion of all the configured approval steps. This step can occur only once, and it should be the last step in a process variant. If there is any success or error while creating or updating the customer refund request, notification mail will be triggered to the Initiator.

A process step can have customizable properties and they could determine the outcome of the process step. For example, the Approval step can be reused multiple times and based on these properties the approver is determined.
Approver can see customer refund request approval history based on customer refund request details. Please see Table 2 for more details

Table 2. Process Step Properties

Process Step	Properties	Detailed Description
RefundRequestApproval	Level Name	Based on the name of the approval level, the approver is determined using a business rule. Default value is Finance, and it can be configured to any approval level, provided the same approval level name is configured in the business rule

The process has attributes, and these attributes are available in process visibility to search approval process instances and to define process performance indicators. Please see Table 3 for more details.

Table 3. Process Attributes.

Process Attributes	Detailed Description
companyCode	Company Code
customerNumber	Customer Number
date	Date
netBalance	Net Balance
approvalStatus	Approval Status
currencyCode	Currency Code
initiatorUserId	Initiator User Id
initiatorEmail	Initiator Email Id

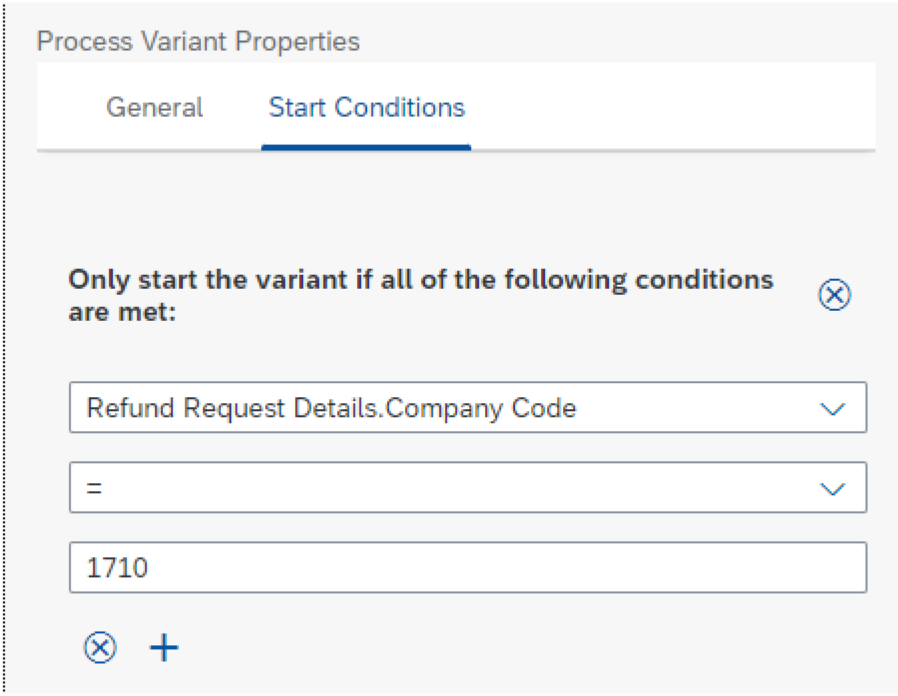
The following (sample) context with Start Conditions required to start the Customer Refund Request Workflow


```
{
  "RefundRequestDetails": {
    "companyCode": "1710",
    "customerNumber": "17100007"
  },
"RefundRequestCreationDetails": {
    "companyCode": "1710",
    "date": "1/4/22",
    "leadingWFInstanceId": "4bc722c1-6d47-11ec-a402-eeee0a944ffa",
    "companyDesc": "Company Code 1710 (1710)",
    "netBalance": 40,
    "customerNumber": "17100007",
    "customerDesc": "Domestic US Subcontractor A (17100007)",
    "requestor": "John",
    "initiatorUserId": "fb80c228-b72f-4375-af66-dfa376220259",
    "isValidated": true,
    "requestDate": "2022-01-04T10:15:55.430Z",
    "isApproved": "",
    "currencyCode": "USD",
    "initiatorEmail": "john.doe@example.com"
  }
}
```

Sample Conditions to directly start a variant workflow


```
{
    "RefundRequestDetails": {
    "companyCode": "1710",
    "customerNumber": "17100007"
  }
}
```

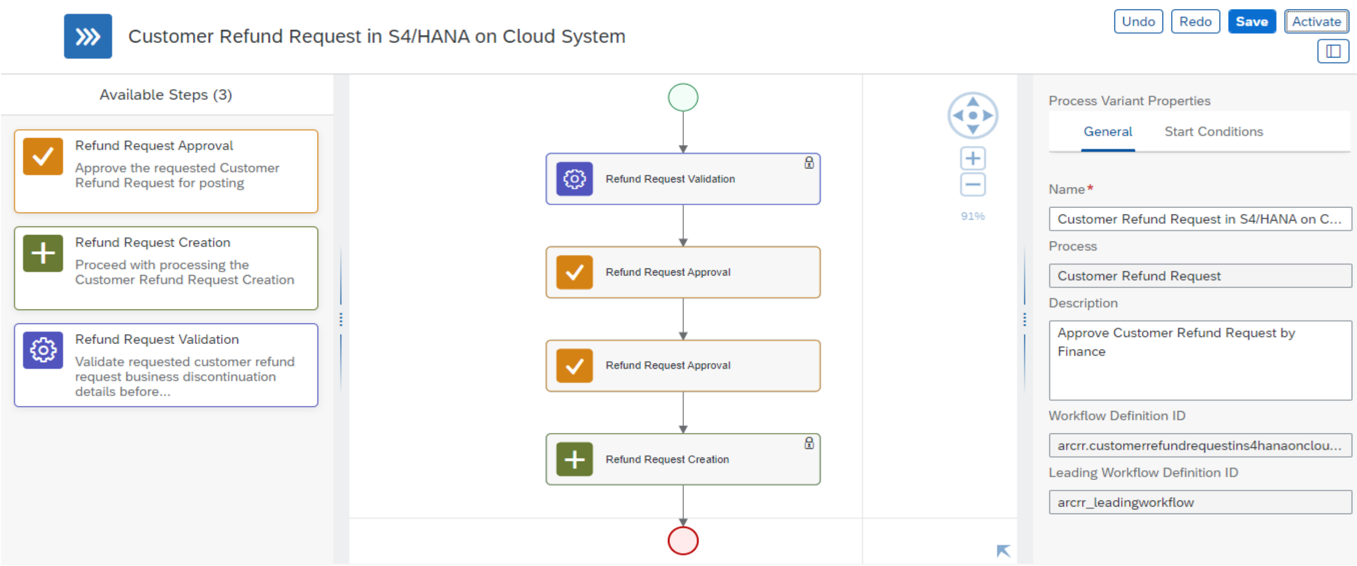

Example:



Process Variants

A process variant consists of multiple process steps configured by a line of business experts. It is possible to create multiple variants of the same process.
Please refer [help documentation] about how to import content packages and configure a process variant.

An example of Manage Customer Refund Request variant is given below. It is possible to configure multiple variants of this process.



Import Manage Customer Refund Request and Configure Process Variants with SAP Build Process Automation

1. In the SAP Build Process Automation Store, search for live process package Manage Customer Refund Request and import the same. This content package has one process template and process variant(s) for that template.
2. In the Application Development Lobby, click to open the package with name Manage Customer Refund Request. This opens the package in a new tab/window.
3. Click the + icon next to the process template to create a new process variant.
4. Enter Name of the new Process Variant (ex, Two Step Approval).
5. Click the newly created Process Variant tile to save and activate the process variant.
6. The process variant has a default implementation with two steps and at least one level of approval.
7. It is possible to remove steps like "Approval for Manage Customer Refund Request" from a process variant only if there are multiple approvals. Please note that whether a step is mandatory or optional, and how many a times any step can be used within a variant, are dependent on the constraints defined on the process steps.
8. Save and activate the variant. A successful activation will create a new workflow definition in the account that can be viewed in the Monitor Processes and Workflows app.

Import Manage Customer Refund Request and Configure Process Variants with SAP Workflow Management

1. In Process Flexibility Cockpit app, search for content package Manage Customer Refund Request. and import the same. Please refer the standard help document about how to import a content package. This content package has one process template and process variant(s) for that template are required.
2. Open content package in Flexibility Cockpit and click Process Variants tile.

3. Click New Process Variant.
4. Enter Name of the new Process Variant (ex, default) and select "Customer Refund Request" as Process.
5. Click the newly created Process Variant tile to save and activate the process variant.
6. The process variant has a default implementation with two steps and at least one level of approval.
7. It is possible to remove steps like "Refund Request Approval" from a process variant only if there are multiple approvals. Please note that whether a step is mandatory or optional, and how many a times any step can be used within a variant, are dependent on the constraints defined on the process steps.
8. Save and activate the variant. A successful activation will create a new workflow definition in the account that can be viewed in the Monitor Workflows – Workflow Definition app in SAP Fiori Launchpad.
9. The system whether **S/4HANA Cloud or On-Premise** can be handled in the Start Conditions and the variant can be named accordingly. The Start Conditions use Company Code and Customer Number to define which variant to be executed.

Decisions & Policies

Decisions allow to encapsulate the business logic from core applications and supports the reuse of business rules across different business processes. Decisions enable customers to adopt changes in processes without changing the underlying workflows or application logic. SAP Build Process Automation or SAP Workflow Management has business rules capabilities that enables customers to centrally manage all decisions. Please go through the business rules capabilities in SAP Build Process Automation or SAP Workflow Management.

Manage Customer Refund Request process will enable the customers to flexibly configure decisions to gain the flexibility.

1. Determine Validations for Customer Refund
2. Determine Approver
3. Approver Determination Strategy
4. Determine Process Administrator
5. Determine Finance User

Determine Validations for Customer Refund

With this decision, it is possible to add any business-specific validation on Customer Refund Request. For Example, enable/disable the cloud application for a specific company code, customer number etc.

Rule Service: Refund Request Validation
Input Data Object: Refund Request Record Details (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
Company Code	String	Company Code of requested Refund
Customer Number	String	Customer Number of requested Refund
Level Name	String	Approval Level Name for which specific approver will approve the request

Output: Validation Result (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
Validation Message	String	Validation Message
Is Validated	Boolean	'True' if validation is successful and 'False' if validation failed.

Rule Definition

Rule service is used to add additional validation as per the business requirement. For example, you can exclude company code 5000 to use this application

Determine Approvers

Rule service used to identify the potential approvers based on different company policy. Approver will be determined depending on company code and Customer Number. In this business rules Due date will be this business rules determined by a text rule based on asset details. Every approver will have their respective due date in their approval task.

Rule Service: Determine Approver
Input Data Object: Refund Request Record Details (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
Company Code	String	Company Code of requested Refund
Customer Number	String	Customer Number of requested Refund
Level Name	String	Approval Level Name for which specific approver will approve the request

Along with the above attributes the other attributes can also be added as input parameters in this business rule.

Output: Approver Details (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
User Id	String	User ID of the individual approver.
Group ID	String	The user group who can approve the step-in workflow. .

Mail ID	String	Email address of the approver or approvers.
Is Approval Required	Boolean	Check if approval is required. True for required and false not required.

Rule Definition

Rule service used in the approval process step to identify the potential approvers based on different company policies

Due Date Determination Policy

Determine the due date duration for each approval step of the asset creation approval process. Based on the reference to determine the due date and the due duration, the approval task's deadline is calculated automatically.

Rule Name: Determine Task Due Date
Input Data Object: Refund Request Record Details (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
Company Code	String	Company Code of requested Refund
Customer Number	String	Customer Number of requested Refund
Level Name	String	Approval Level Name for which specific approver will approve the request

Output: Duration Due (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
Duration Reference	String	Reference event in workflow that is used to determine the due date of user task
Unit of Time	String	Unit of Time
Duration	Number	Duration

Approver Determination Strategy

To identify the approver determination strategy below rule service will be used.

Rule Service: Approver Determination Strategy
Input Data Object: Refund Request Record Details (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
Company Code	String	Company Code of requested Refund
Customer Number	String	Customer Number of requested Refund
Level Name	String	Approval Level Name for which specific approver will approve the request

Output: Approver Determination Strategy (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
Determination Strategy	String	Determination strategy can either "Business Rule" or "External Service" depending on Invoice details.

Rule Definition

Rule service used in the approval process step to identify the approver determination type. It can be 'Business Rules' based or 'External Service' based

Determine Process Administrator

Determine the process administrator to decide action.

Rule Service: Determine Process Administrator
Input: Refund Request Record Details (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
Company Code	String	Company Code of requested Refund
Customer Number	String	Customer Number of requested Refund
Level Name	String	Approval Level Name for which specific approver will approve the request

Output Process Administrator Details (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
Administrator User IDs	String	User ID List (comma separated)
Administrator Group IDs	String	Group ID List (comma separated)
Administrator Email IDs	String	Email ID List (comma separated)

Rule Definition

Rule Service used to determine the Process Administrators that need to be notified to resolve any issue with the process

Determine Finance User

Determine the finance user to decide action.

Rule Service: Determine Finance User
Input: Refund Request Record Details (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
Company Code	String	Company Code of requested Refund
Customer Number	String	Customer Number of requested Refund
Level Name	String	Approval Level Name for which specific approver will approve the request

Output Process Finance User Details (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
Finance User IDs	String	User ID List (comma separated)
Finance Group IDs	String	Group ID List (comma separated)
Finance Email IDs	String	Email ID List (comma separated)

Rule Definition

Rule Service used to determine the Finance User that need to be notified to resolve any issue with the process

Customer Refund Request Vocabulary

For Manage Customer Refund Request Workflow start condition or step condition a separate business rules project will be used, named as Customer Refund Request Vocabulary. Depending on Customer Refund Request Vocabulary process variant will be determined.

Input: Refund Request Details (Structure)

ATTRIBUTE	TYPE	DESCRIPTION
Company Code	String	Company Code of requested Refund
Customer Number	String	Customer Number of requested Refund

Approver Determination Strategy – External Service

The process content provides an option to determine approvers using an alternative strategy, i.e., External Service instead of Business Rule.

To leverage this strategy, the Approve Process step has a provision to call an iFlow with the following configuration. This iFlow needs to be implemented as per your business requirement.

Destination	CPI [Refer to Setup Guide]
CPI Adapter	HTTP
Endpoint	/http/RefundRequestApproverDetermination
HTTP Method	POST
Request Payload Type	JSON(application/json)
Request Payload Structure	{ "RefundRequestApproverPayload": { "CustomerNumber": "17100008", "LevelName": "Finance", "CompanyCode": "1710" } }
Response Payload Structure	{

	"Result": [
	{
	"ApproverDetails": {
	"DueDurationReference": "Task",
	"UnitOfTime": "h",
	"UserID": "xyz@example.com",
	"DueDuration": 2,
	"IsApprovalRequired": true,
	"GroupID": "Approver_GroupId",
	"MailID": "xyz@example.com"
	}
	}
	]
	}

Process Visibility

Process Visibility capability in SAP Build Process Automation or SAP Workflow Management enables Process Owners and Process Operators to gain real time visibility on processes and key process performance indicators. It also enables customers gain out of the box process visibility into their deployed processes. Please refer help documentation for more details.

Manage Customer Refund Request process content package provides out of the box visibility on all the process variants in SAP Build Process Automation or SAP Workflow Management. Line of business expert will be able to enhance the visibility scenario to their requirements.

Configure Visibility Scenarios in SAP Build Process Automation

1. Go to the Application Development Lobby.
2. Select Manage Customer Refund Request Project.
3. Click to open **Manage Customer Refund Request** scenario.
4. Click Activate button.

Please go through the help documentation on how to configure the visibility scenario.

Configure Visibility Scenarios in SAP Workflow Management

1. Go to Process Visibility Cockpit.
2. Select Manage Customer Refund Request tile.
3. Click Visibility Scenarios tile.
4. Select **Manage Customer Refund Request** scenario

Please go through help documentation on how to model a visibility scenario

Access Process Workspace in SAP Build Process Automation

1. The process visibility scenario can be accessed using SAP Launchpad Service. Refer to the help document for creating UI applications on central SAP Fiori Launchpad for SAP Build Process Automation.
2. Once you have added the applications process Visibility Scenario Instances (with app ID com.sap.spa.pv.instances) and Visibility Scenario Dashboard (with app ID com.sap.spa.pv.ovp), follow the below steps to add a tile to access the Manage Customer Refund Request dashboard.
    a. Navigate into "Visibility Scenario Dashboard".
    b. On the screen that opens, choose Create a Local Copy.
    c. To use custom texts, choose Edit and adapt the texts in the General section.
    d. You can use a custom title, description, and subtitle for the tile.
    e. Choose the Navigation tab.
    f. Under the Intent section, ensure that the value in the Action tab is unique for every application.
    g. Under the Parameters section, provide the following:

Parameter Name	Parameter Value
Name	scenarioId
Default Value	com.sap.content.arcrr
Required	Toggle to Yes

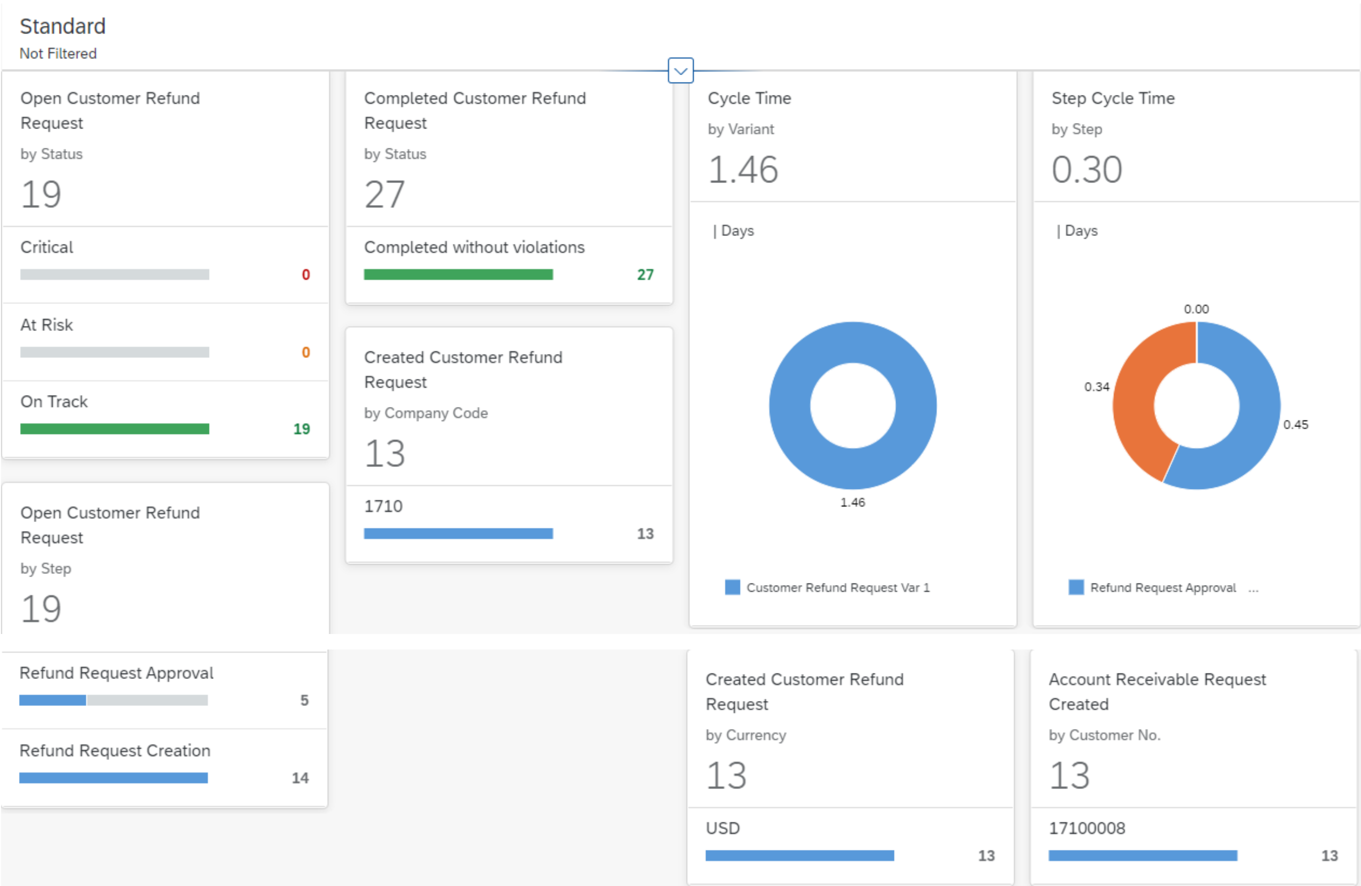
    h. Choose Save.
    i. Assign the local copy to a group and make sure that they're visible to users. For more information, see Assign Apps to a Group and to a Catalog and Assign Content to a Role.

3. Once created, select app that corresponds to "Manage Customer Refund Request".
4. User will see the process visibility dashboard below.

Access Process Workspace in SAP Workflow Management

1. Go to Process Flexibility Cockpit
2. Select Manage Customer Refund Request
3. Click Live Process Insights Manage Customer Refund Request
4. User will see the below process visibility dashboard.

Please go through help documentation on how to access process workspace.


Standard
Not Filtered
Open Customer Refund Request
by Status
19
Critical
0
At Risk
0
On Track
19
Completed Customer Refund Request
by Status
27
Completed without violations
27
Created Customer Refund Request
by Company Code
13
1710
13
Cycle Time
by Variant
1.46
| Days
1.46
Customer Refund Request Var 1
Step Cycle Time
by Step
0.30
| Days
0.00
0.34
0.45
Refund Request Approval ...
Open Customer Refund Request
by Step
19
Refund Request Approval
5
Refund Request Creation
14
Created Customer Refund Request
by Currency
13
USD
13
Account Receivable Request Created
by Customer No.
13
17100008
13