

SAP BUSINESS TECHNOLOGY PLATFORM | EXTERNAL

# Setup Guide

Manage Credit Memo Requests using SAP Workflow Management or SAP Build Process Automation

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# Overview

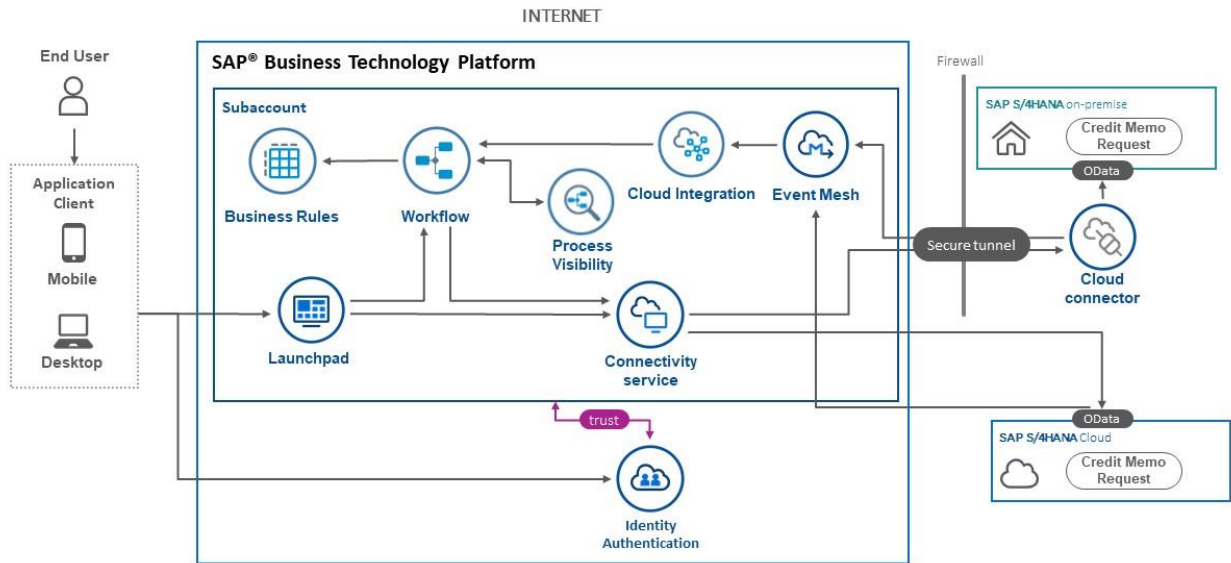
This document provides information about configuration steps to consume the live process package **Manage Credit Memo Requests**. The primary audience of this document is technical IT / system administrators.

**Manage Credit Memo Requests** content package for **SAP S/4HANA** automates Credit Memo Request Approvals in a flexible and transparent approach. It provides flexibility in executing a specific variant of the process depending on attributes such as total net amount, transaction currency etc. When a credit memo request is created in SAP S/4HANA and is configured for external approval, a pre-configured process variant is triggered in SAP Workflow Management or SAP Build Process Automation based on configurable business conditions. The credit memo request is either **Released** or **Rejected** based on the approvals and validations performed in the process.

Salient features of this content package are:

- Plug and Play with SAP S/4HANA without any additional development.
- Process steps delivered to approve a credit memo request
- Automatic email notification to parties involved.
- Business Rules provides flexibility in determining approver determination strategy and approvers
- Custom validation on credit memo 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 Credit Memo Request

# SAP S/4HANA – Manage Credit Memo Request Approvals



# Required SAP Business Technology Platform Services

The following SAP BTP services are required to consume the content package Manage Credit Memo Requests Process for SAP S/4HANA

- SAP Workflow Management or SAP Build Process Automation
- SAP Launchpad service
- SAP Business Application Studio
- SAP Cloud Identity Services - Identity Authentication [Optional]

# Setup and Configuration

The Manage Credit Memo Requests content package requires SAP Build Process Automation or SAP Workflow Management subscription or a CPEA contract. Follow the [setup and configuration section](#) of SAP Workflow Management or SAP Build Process Automation.

## Configure SAP Build Process Automation

Follow the setup and configuration section of SAP Build Process Automation:

1. [Subscribe to SAP Build Process Automation \(Standard Plan\)](#)
2. [Configure Destinations for Live Process Projects](#)
  - a. Import Package Destination
  - b. Business Rules Destination to support start and step conditions
3. [Optional] [Configure SAP Launchpad Service for SAP Build Process Automation](#)

### Configure Process Automation Destination

A HTTP destination is required in the BTP subaccount where SAP Build Process Automation is subscribed. Create a destination with name "sap\_process\_automation\_service" with the following configuration if it doesn't exist already. Please refer how to [create a HTTP destination](#) OAuth 2.0 Authentication (client credentials).

Name	sap_process_automation_service
Type	HTTP
Proxy Type	Internet
Authentication	OAuth2ClientCredentias
URL	<"endpoints"."api">
Client ID	<"uaa":"clientis">
Client Secret	<"uaa":"clientsecret">
Token Service URL	<"uaa":"url">/oauth/token

Note: While creating the service instance for SAP Build Process Automation service, make sure that at least the required scopes are assigned (help documentation to enable technical authentication to [access the SAP Build Process Automation APIs](#)). If the scopes are not assigned, you can also [update the service instance](#) with the required scopes.

### Configure OAuth2ClientCredentias SAP Build Process Automation Destination

## (Service Instance)

Ignore this step if there is already a destination using SAP Build Process Automation service instance created.

Create new destination to call SAP Build Process Automation APIs using a service route from SAP UI5 component. For more details, follow the help document:

<https://help.sap.com/viewer/cca91383641e40ffbe03bdc78f00f681/Cloud/en-US/685f383cebb54c009b2fac633b32c90f.html>.

The screenshot shows the 'Destination Configuration' dialog box with the 'Service Instance' tab selected. The 'Service Instance' dropdown is set to 'sap\_processautomation'. The 'Name' field contains 'process\_atuomation\_service\_destination' and the 'Description' field contains 'Call SAP Process Automation APIs using a service route'. There are 'Next' and 'Cancel' buttons at the bottom.

The screenshot shows the 'Destination Configuration' dialog box with detailed configuration options. The 'Name' is 'process\_automation\_service\_destination', 'Type' is 'HTTP', and 'URL' is 'https://sap.com/DUMMY\_URL'. The 'Authentication' is set to 'OAuth2ClientCredentials'. The 'Token Service URL Type' is 'Dedicated' and the 'Token Service URL' is 'https://...'. The 'Additional Properties' section includes 'endpoints', 'html5-apps...', 'saasregistry...', 'sap.cloud.s...', and 'sap.cloud.s...' with their respective values and a 'Use default JDK truststore' checkbox checked. There are 'Save' and 'Cancel' buttons at the bottom.

## Configure SAP Workflow Management

Follow the setup and configuration section of SAP Workflow Management.

<https://help.sap.com/viewer/6f55baaf330443bd8132d071581bbae6/Cloud/en-US/d7910e2bf7f64afc9d0eb21b0cc9e84d.html>

Note: While creating the service instance for Workflow service, make sure that at least the following scopes are assigned (help documentation to [enable technical authentication](#) to access the workflow APIs). If the scopes are not assigned, you can also [update the service instance](#) with the following scopes.

- WORKFLOW\_INSTANCE\_GET

- WORKFLOW\_INSTANCE\_START
- WORKFLOW\_INSTANCE\_CANCEL

### Configure Workflow Email Destination

Configure workflow email destination. For more information on configuring destination, see [configure workflow email destination](#).

### Configure OAuth2ClientCredentials Workflow Destination

Use an existing or create a new Workflow service instance with at least the following authorities (scopes):

WORKFLOW_INSTANCE_START
WORKFLOW_INSTANCE_GET

Please refer to the documentation on how to [Enable Technical Authentication](#) with specific authorities.

Configure a destination with the following parameters:

Name	Workflow
Type	HTTP
Proxy Type	Internet
Authentication	OAuth2ClientCredentials
URL	https://api.workflow.<region-host>.hana.ondemand.com/workflow-service/rest
Client ID	
Client Secret	
Token Service URL	<"uaa":"url">/oauth/token
Additional Properties:	Name: bpmprocessvisibility.triggerWorkflow Value: system

Please refer help documentation [how to get URL, Client ID, Client Secret and Token Service URL](#). For more information refer to how to [create a HTTP destination](#) and [how to use Workflow APIs](#).

### Configure OAuth2UserTokenExchange Workflow Destination

Configure a destination with the following parameters:

Name	WorkflowActions
Type	HTTP
Proxy Type	Internet



Authentication	OAuth2UserTokenExchange
URL	https://api.workflow.<region-host>.hana.ondemand.com/workflow-service/rest
Client ID	
Client Secret	
Token Service URL	<"uaa":"url">/oauth/token
Additional Properties:	Name: bpmprocessvisibility.triggerWorkflow Value: user

Please refer help documentation [how to get URL, Client ID, Client Secret and Token Service URL](#). For more information refer to how to [create a HTTP destination](#) and [how to use Workflow APIs](#).

### Configure OAuth2ClientCredentials Business Rules Destination

Configure a Business Rules destination with the following parameters:

Name	BUSINESS_RULES
Type	HTTP
Proxy Type	Internet
Authentication	OAuth2UserTokenExchange
URL	https://bpmruleruntime.<region-host>.hana.ondemand.com/rules-service
Client ID	
Client Secret	
Token Service URL	<"uaa":"url">/oauth/token

Please refer help documentation [how to get URL, Client ID, Client Secret and Token Service URL](#). For more information refer to how to [create a HTTP destination](#) and [how to access business rules APIs](#) using OAuth 2.0 Authentication (client credentials)

### Configure OAuth2ClientCredentials Business Rules Destination (Service Instance)

Ignore this step if there is already a destination using Business Rules service instance created. Create new Destination to call Business Rules Service APIs using a service route from SAP UI5 Component.

- Click New Destination.
- Select **Service Instance** as Destination Configuration.
- Select Service Instance as BusinessRules.
- Enter Name as BusinessRules\_CFLP and click Next button.

Destination Configuration Blank Template Service Instance

Service Instance: \*

Name: \*

Description:

- Click **Save** button.

Destination Configuration

Name: \*

Type:

Description:

URL: \*

Proxy Type:

Authentication:

Client ID: \*

Client Secret:

Token Service URL: \*

Token Service User:

Token Service Password:

Additional Properties

endpoints	{"rule_repository_url":...	<input type="button" value=""/>
html5-apps-r...	{"app_host_id": "cbd0c...	<input type="button" value=""/>
saasregistrye...	true	<input type="button" value=""/>
sap.cloud.se...	com.sap.bpm.rule	<input type="button" value=""/>

Use default JDK truststore

## Configure Destination to Enable Start & Step Conditions

To enable the usage of start conditions and step conditions on a process variant, create a destination for business rules with the configuration as mentioned in the following help document:

[https://help.sap.com/viewer/6f55baaf330443bd8132d071581bbae6/Cloud/en-US/543b5dbd77d940b4b1f972298b559911.html?q=WM\\_BUSINESSRULES](https://help.sap.com/viewer/6f55baaf330443bd8132d071581bbae6/Cloud/en-US/543b5dbd77d940b4b1f972298b559911.html?q=WM_BUSINESSRULES)

## Configure OAuth2ClientCredentials Workflow Destination (Service Instance)

Ignore this step if there is already a destination using Workflow service instance created. Similarly, create new Destination to call Workflow Service APIs using a service route from SAP UI5 Component. For more details, follow the official help document:

<https://help.sap.com/viewer/cca91383641e40ffbe03bdc78f00f681/Cloud/en-US/685f383cebb54c009b2fac633b32c90f.html>.

## Configure a Destination to SAP S/4HANA system

Create a destination to connect to either SAP S/4HANA or SAP S/4HANA Cloud system. For example, in this case you see the destination to connect to SAP S/4HANA Cloud system.

Configure a destination with the name "S4HANA", with Type as HTTP, Proxy Type as Internet, URL as hostname of your SAP S/4HANA Cloud tenant, and authentication as BasicAuthentication. Please refer how to [create an HTTP destination](#)

Name	S4HANA
Type	HTTP
Proxy Type	Internet
User	<COMMUNICATION_USER>
Password	<COMMUNICATION_PASSWORD>
Authentication	BasicAuthentication
URL	<OData base URL of SAP S/4HANA cloud>
Additional Properties	sap-client: <client number>

## Configure Cloud Integration Destination

To call an integration flow, a HTTP destination is required in the SAP BTP tenant where the SAP Workflow Management is subscribed. Create a destination called CPI with either Basic Authentication or OAuth2ClientCredentials.

### Destination with Basic Authentication

Name	CPI
Type	HTTP
Proxy Type	Internet
Authentication	Basic Authentication
URL	<runtime.url>
Username	<user>
Password	<password>

### Destination with OAuth2ClientCredentials Authentication

Name	CPI
Type	HTTP
Proxy Type	Internet
Authentication	OAuth2ClientCredentials
URL	<runtime.url>
Client Id	<client ID>
Client Secret	<client secret>
Token Service URL	<oauth.url.for.clientCredentials>

### Additional Properties to Destination

Additionally, add the following properties in the destination for cloud integration.

WebIDEEEnabled	true
WebIDESystem	CPI
WebIDEUsage	odata_gen

## Configure Communication Scenarios in SAP S/4HANA

Following Communication Scenarios are needed to be configured in SAP S/4HANA or SAP S/4HANA Cloud to use the Manage Credit Memo Requests content package.

### SAP\_COM\_0158

Inbound Services consumed:

/sap/opu/odata/sap/API\_CREDIT\_MEMO\_REQUEST\_SRV

### SAP\_COM\_0087

Inbound Services consumed:

/sap/opu/odata/sap/API\_DIVISION\_SRV

/sap/opu/odata/sap/API\_DISTRIBUTIONCHANNEL\_SRV

/sap/opu/odata/sap/API\_SALESORGANIZATION\_SRV

Follow the documentation on how to [Create Communication Arrangement](#) for Communication Scenario SAP\_COM\_0109. On similar lines, create the configuration for other communication

scenarios as well.

## Configure Cloud Connector

For SAP S/4HANA on-premise landscape, configure cloud connector to enable secure tunnel to SAP BTP tenant. Please refer the help documentation to [configure Cloud Connector](#).

## Configure SAP S/4HANA to push Credit Memo Request Events to SAP Event Mesh

SAP Event Mesh can receive events from SAP S/4HANA (on-premise/cloud). Use the following blogs to perform the necessary configuration.

SAP S/4HANA on-premise

<https://blogs.sap.com/2019/09/16/sap-enterprise-messaging-for-s4hana-on-premises/>

SAP S/4HANA cloud

<https://blogs.sap.com/2020/08/19/sap-s-4hana-cloud-enterprise-event-enablement-whats-new-with-cloud-2008/>

The following business events are required for the Credit Memo Request package:

1. /sap/s4/beh/creditmemorequest/v1/CreditMemoRequest/Created/v1
2. /sap/s4/beh/creditmemorequest/v1/CreditMemoRequest/Changed/v1
3. /sap/s4/beh/creditmemorequest/v1/CreditMemoRequest/Deleted/v1

Note: At the end of this configuration, you will have the credit memo request events from SAP S/4HANA (on-premise or cloud) available in the queue created using SAP Event Mesh.

## Import, Configure and deploy Integration Content

This package utilizes SAP Cloud Integration to provide integration between SAP ERP and SAP Workflow. Further details can be found in dedicated integration guide of the integration package “SAP S/4HANA Integration with SAP Build Process Automation for Credit Memo”.

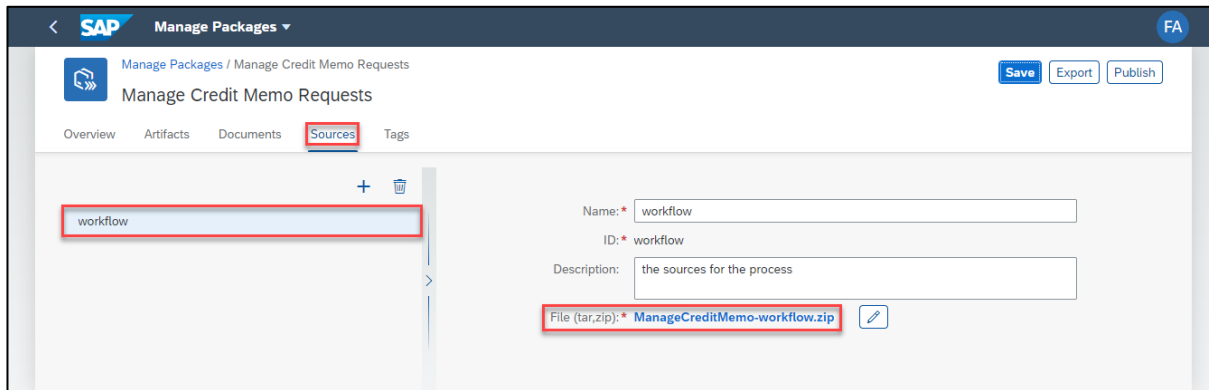
## Configure SAP Central Fiori Launchpad Site for SAP Workflow Management

If you plan to use SAP Launchpad service, then configure [SAP Central Fiori Launchpad Site with Workflow Applications](#) using help documentation.

## Optional: Making Custom changes

**Prerequisite:** an account with access to SAP Business Application Studio as well as space developer permissions in BTP.

The source code the process is available as part of the content package. With this, custom modifications can be implemented to adapt the content for specific needs.



- in **Manage Package** app, select **Sources** tab
- select the archive you want to download in the list on the left side
- click on the blue filename behind **File (tar, zip)** to download the attached source archive
- Import the archive into SAP Business Application Studio
- make any necessary modifications
- Build and deploy the MTA archive, using the space developer credentials

Please refer to the documentation for [SAP Business Application Studio](#), the documentation for [Modeling a Workflow](#) and the documentation for [Creating User Interfaces](#) for details.