

SAP BUSINESS TECHNOLOGY PLATFORM | EXTERNAL

Setup Guide

Manage Delivery and Billing Block in Sales Order
using SAP Build Process Automation or SAP
Workflow Management

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Overview

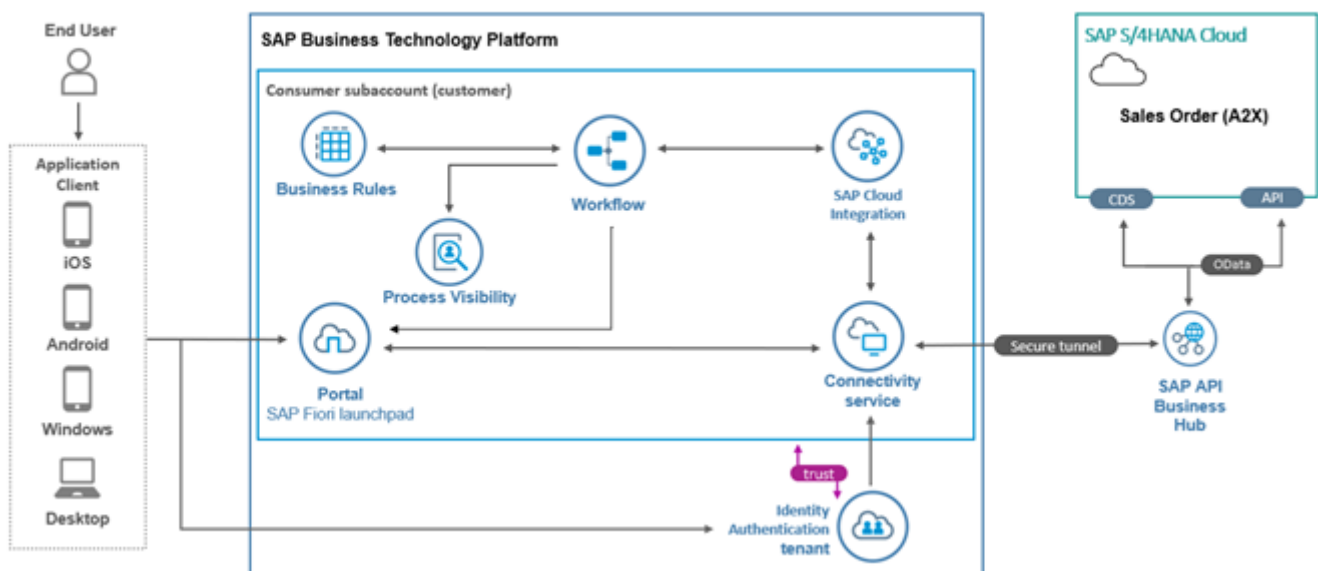
This document provides information about configuration steps to consume the live process package **Manage Delivery and Billing Block in Sales Order**. The primary audience of this document is technical IT / system administrators.

Manage Delivery and Billing Block in Sales Order content package for **SAP S/4HANA** automates removal of delivery and billing block Approvals in a flexible and transparent approach. It provides flexibility in executing a specific variant of the process depending on attributes such as sales order, net value etc. When a removal of delivery and billing block is updated in SAP S/4HANA and is configured for external approval, a pre-configured process variant is triggered in SAP Build Process Automation or SAP Workflow Management based on configurable business conditions. The removal of delivery and billing block is performed 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 removal of delivery and billing block.
- Automatic email notification to parties involved.
- Business Rules provides flexibility in determining approver determination strategy and approvers
- 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 Manage Delivery and Billing Block in Sales Order

Manage Delivery and Billing Block in Sales Order



Required SAP Business Technology Platform Services

The workflow content package **Manage Delivery and Billing Block in Sales Order** is intended to be used for SAP S/4HANA or S4/HANA Cloud system and requires the following services in SAP Business Technology Platform.

- SAP Build Process Automation or SAP Workflow Management to orchestrate the process.
- SAP Business Application Studio to modify/deploy the SAPUI5 applications.
- SAP Cloud Portal service or SAP Launchpad service to access the apps that are involved in the process.
- SAP Document Management Service, Integration Option.
- SAP Cloud Identity Services - Identity Authentication [Optional]
- SAP BTP, Cloud Foundry runtime.

Setup and Configuration

Manage Delivery and Billing Block in Sales Order content package requires SAP Build Process Automation or SAP Workflow Management subscription or a CPEA contract. Based on which service you plan to use, follow the appropriate section to configure either SAP Build Process Automation or SAP Workflow Management.

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 OAuth2ClientCredentials 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 left, and a 'New Property' button on the right.

The screenshot shows the 'Destination Configuration' dialog box with the 'Additional Properties' tab selected. The 'Name' field is 'process_automation_service_destination' and the 'Type' is 'HTTP'. The 'URL' is 'https://sap.com/DUMMY_URL'. The 'Authentication' is 'OAuth2ClientCredentials'. The 'Token Service URL Type' is 'Dedicated' and the 'Token Service URL' is 'https://...'. The 'Additional Properties' table lists several properties: 'endpoints' with value '{*api":"https://...', 'html5-apps-...' with value '{*app_host_id":"...', 'saasregistry...' with value 'true', 'sap.cloud.s...' with value 'com.sap.spa.process...', and 'sap.cloud.s...' with value 'spa'. There is a checked checkbox for 'Use default JDK truststore'.

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 to automatically send email notification to the involved parties. For more information on configuring the destination, see [configure workflow email destination](#).

Configure Workflow Destination

A HTTP destination is required in the BTP subaccount where SAP Workflow Management is subscribed. Create a destination with name “Workflow” 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	Workflow
Type	HTTP
Proxy Type	Internet
Authentication	OAuth2ClientCredentias
URL	<a href="https://api.workflow.<region-host>.hana.ondemand.com/workflow-service/rest">https://api.workflow.<region-host>.hana.ondemand.com/workflow-service/rest
Client ID	<Client ID>
Client Secret	<Client Secret>
Token Service URL	<"uaa":"url"/>/oauth/token

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_START
- WORKFLOW_INSTANCE_UPDATE_CONTEXT
- WORKFLOW_INSTANCE_GET
- MESSAGE_SEND

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 Business Rules Destination

A HTTP destination is required in the Cloud Foundry account where SAP Workflow Management is subscribed. Create a destination with name “BUSINESS_RULES” with the following configuration if it doesn’t exist already. Please refer how to [create a HTTP destination](#) and [how to access business rules APIs](#) using OAuth 2.0 Authentication (client credentials)

Name	BUSINESS_RULES
Type	HTTP
Proxy Type	Internet
Authentication	OAuth2ClientCredentials
URL	<rule_runtime_url>/rules-service
Client ID	<client ID>
Client Secret	<client secret>
Token Service URL	<uaa.url>/oauth/token

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: * BusinessRules

Name: * BusinessRules_CFLP

Description: Rules destination from SAP UI5 API calls using routes

Next
Cancel

- Click **Save** button.

Destination Configuration

Name: * BusinessRules_CFLP

Type: HTTP

Description: Rules destination from SAP UI5 API calls using ...

URL: * https://sap.com/DUMMY_URL

Proxy Type: Internet

Authentication: OAuth2ClientCredentials

Client ID: *

Client Secret: *****

Token Service URL: *

Token Service User:

Token Service Password:

Additional Properties

endpoints	{"rule_repository_url":...	
html5-apps-r...	{"app_host_id": "cbd0c...	
saasregistrye...	true	
sap.cloud.se...	com.sap.bpm.rule	

Use default JDK truststore

Save Cancel

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

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

Name	S4HANA
Type	HTTP
Proxy Type	Internet

User	<COMMUNICATION_USER>
Password	<COMMUNICATION_USER_PASSWORD>
Authentication	BasicAuthentication
URL	<OData base URL of SAP S/4HANA>

Configure Cloud Integration Destination

To call an integration flow, a HTTP destination is required in the SAP BTP tenant where the SAP Build Process Automation or 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	https://<customerhost>/http/Wfm/SalesOrder/Del/Bill/Block/Removal
Username	<user>
Password	<password>

For more information refer how to [create a HTTP destination](#) and Authentication (client credentials).The URL should be the runtime url Please refer how to get your Integration tenant [runtime url](#)

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>

Configure Document Management Service Repository

SAP Document Management service, in short Document Management, is the content management solution on the Cloud Foundry environment of SAP Business Technology Platform. For the Removal of Delivery and Billing block, you need to subscribe to 'Document Management, Integration Option' in order to upload the removal of delivery and billing block related documents and other supporting documents for the approval process.

Create and configure root Document Management Service repository by following the steps described in [Initial Setup for Document Management, Integration Option](#) and [Connect to Document Management, Repository Option Using API \(incl. Prerequisites\)](#). Save generated Repository ID from the response to be used the destination configuration as described in the next section.

Configure Document Management Destination

Configure a Document Management Service destination with the following parameters.

Name	bpmworkflowruntime_attachments
Type	HTTP
Proxy Type	Internet
Authentication	OAuth2UserTokenExchange
URL	<"endpoints":"ecmservice":"url">/browser/ <Repository_ID>/root/
Token Service URL	<"uaa":"url">/oauth/token
Token Service URL Type	Dedicated

Populate Client ID and Client Secret with the values from the Service Key created on the previous step (see [Create Service Keys Using the Cockpit](#)). For more information refer to [Create HTTP Destinations](#) and [OAuth User Token Exchange Authentication](#). Make sure that the users which are going to use the application have "SDM_Admin" or "SDM_User" roles assigned to them.

Custom CDS View and Custom communication scenario

To call the APIs related to **Manage Delivery and Billing Block in Sales Order**, the following CDS Views and custom communication scenarios along with communication arrangement should be enabled for the communication user. The SAP S/4HANA custom communication scenario consists of the external API details which is used to display the Sales document details, division, distribution channel, net value and Sales order item details. This application is developed based on [CDS as external ODATA API](#) and [creation of custom communication scenario](#). The creation of Custom CDS View as external API's and custom communication scenario setup is provided in another **Manage Delivery and Billing Block in Sales Order - CDS Setup guide**.

Import, Configure and deploy Integration Content

This package utilizes Cloud Integration capability within SAP Integration Suite to provide integration between SAP ERP (or SAP S/4HANA) and SAP Build Process Automation or SAP Workflow Management. Further details can be found in dedicated integration guide of the integration package “SAP S/4HANA Integration with SAP Build Process Automation for Sales Order”.