

SAP BUSINESS TECHNOLOGY PLATFORM | EXTERNAL

# Setup Guide

Cancel Customer Invoice using SAP Workflow Management or SAP Build Process Automation

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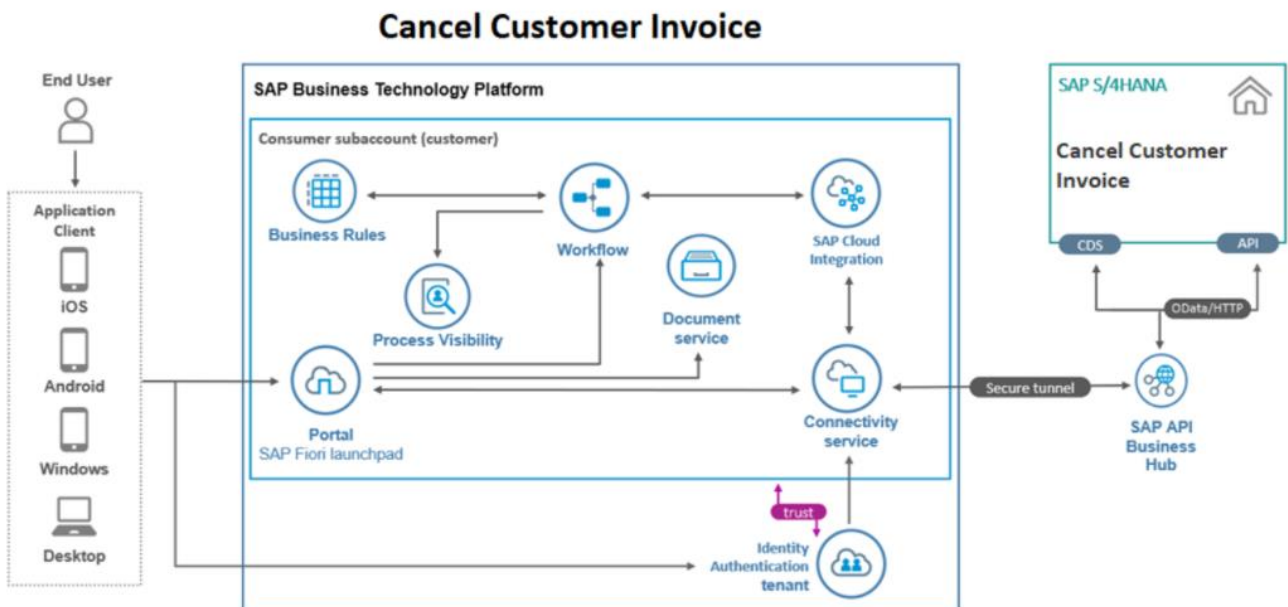
# Overview

This document provides information about configuration steps to consume the live process package **Cancel Customer Invoice**. The primary audience of this document is technical IT / system administrators.

**Cancel Customer Invoice** content package for **SAP S/4HANA** automates Cancel Customer Invoice Approvals in a flexible and transparent approach. It provides flexibility in executing a specific variant of the process depending on attributes such as company code, customer number etc. When a Cancel Customer Invoice 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 Cancel Customer Invoice 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 Cancel Customer Invoice.
- 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 Cancel Customer Invoice



# Required SAP Business Technology Platform Services

The workflow content package **Cancel Customer Invoice** 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 Workflow Management or SAP Build Process Automation 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

The **Cancel Customer Invoice** 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 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 Packages](#)
  - 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 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	OAuth2ClientCredentials
URL	<"endpoints"."api">
Client ID	<"uaa":"clientid">
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' and '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

Cancel Customer Invoice content package requires SAP Workflow Management subscription or a CPEA contract. 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.&lt;region-host&gt;.hana.ondemand.com/workflow-service/rest">https://api.workflow.&lt;region-host&gt;.hana.ondemand.com/workflow-service/rest</a>
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

## 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 . 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	S/4HANA
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 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/CancelCustomerInvoice
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 Cancel Customer Invoice, you need to subscribe to 'Document Management, Integration Option' in order to upload the Cancel Customer Invoice 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 **Cancel Customer Invoice**, 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 billing document details, division, distribution channel, company code, net value, sales organization, invoice type and value help used in Cancel Customer Invoice application. 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 **Cancel Customer Invoice- CDS Setup guide**.

## Import, Configure and deploy Integration Content

The workflow content requires cloud integration to process Customer Refund request to SAP S/4HANA. The integration content package **SAP S/4HANA Integration with SAP Build Process Automation to Cancel Customer Invoice** is available in SAP API Business hub to integrate SAP Build Process Automation or SAP Workflow Management with SAP S/4HANA content.

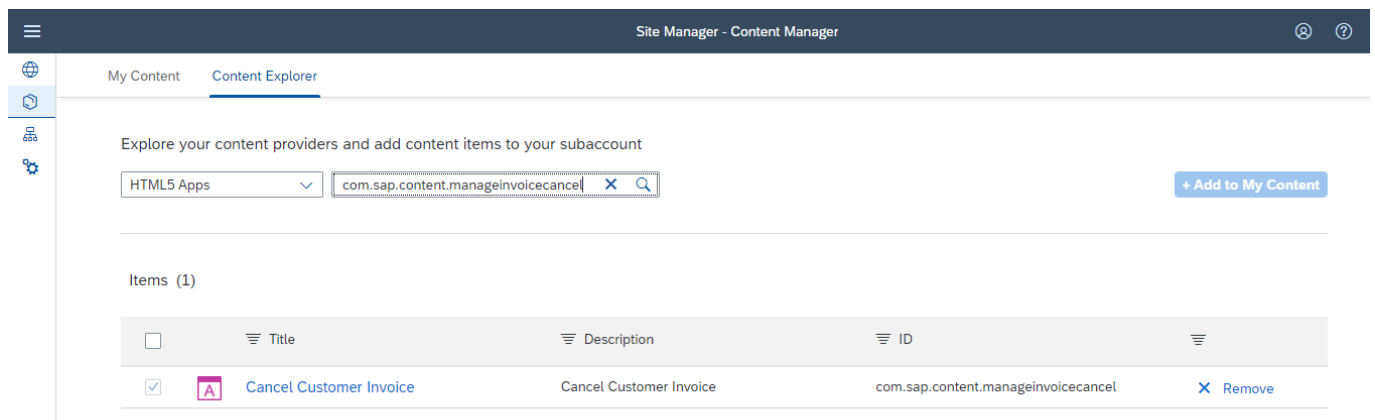
## Configure SAP Central Fiori Launchpad Site for SAP Workflow Management or SAP Build Process Automation

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

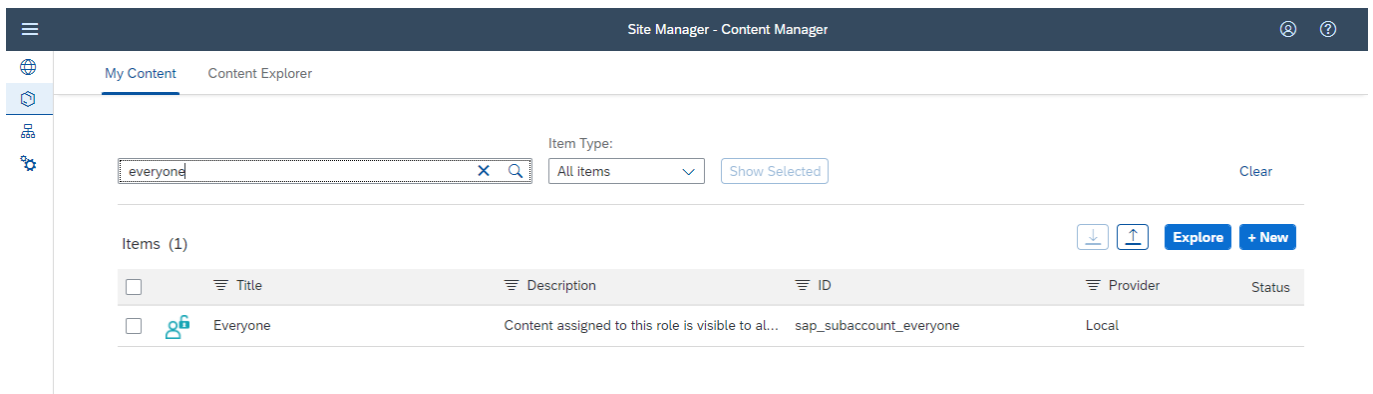
### Deploy Custom UI and Configure Cancel Customer Invoice tile on Central Fiori Launchpad Site

Perform the following steps to add the Cancel Customer Invoice app as a tile in the launchpad site:

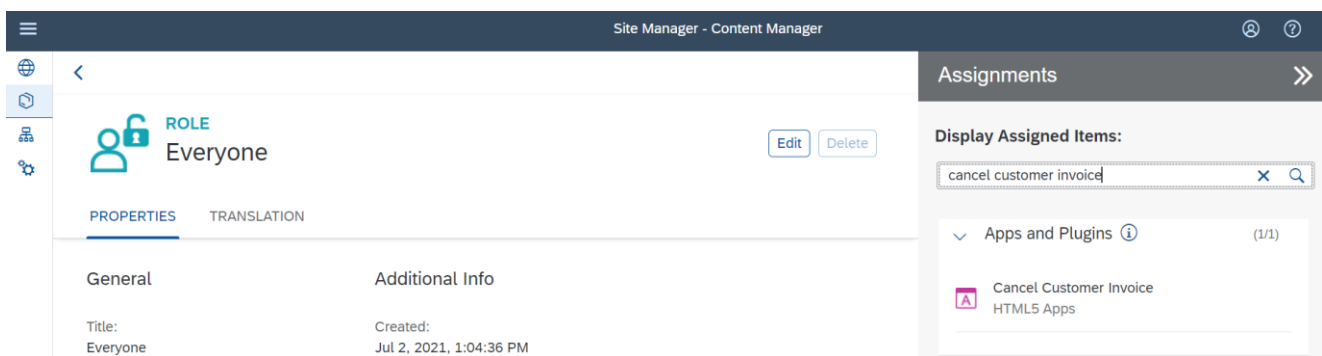
- Open SAP Launchpad site manager application.
- Select Content Manager
- Go to Content Explorer tab.
- Under the HTML5 apps, search for 'com.sap.content.manageinvoicecancel' or 'Cancel Customer Invoice'.



- Select the app from the result and click 'Add to My Content' button to include the UI5 component.
- Go to My Content tab, and search for the role to which you want to add the app (for example, the default role called **Everyone**).



- Click the role from the result table and navigate into it.
- Click the Edit button.
- Search for the app 'Cancel Customer Invoice' and click the + button to assign the app to the role.



- Save the changes to enable the app permission based on user role.
- You can either create a new group and add the Cancel Customer Invoice app to that group or you can add the Cancel Customer Invoice app to an existing group.

Please refer help documentation to know more about [configure start UI tile on central Fiori Launchpad](#) .