

PUBLIC

SAP Build Process Automation

# **Duplicate Supplier Request Rejection Configuration and User Guide**

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## Change Log

Version	Date	Description
1.0.0	November 23, 2023	Document Created

This document contains 3 sections. Each section covers different information about this template content package.

**1. Overview:** In this section, you will get a quick overview of the use case, what high-level components are used and how the template works in a nutshell. Prerequisite section provides information of different services of SAP Business Technology Platform (BTP) that are required to use this template.

**2. Configuration Guide:** It contains sections which will guide you to setup your (a) SAP BTP Account with destination, cloud connector, user roles etc., (b) Import and configure the template using SAP Build Process Automation design studio.

**3. User Guide:** This section provides details about different artifacts that are used in this template like process definition, decision diagram, action project details, forms, email notifications etc. to better understand how different capabilities are used in this template.

#### Notes:

- This documentation is not a detailed guide to setup SAP BTP services. It assumes that IT admin who is setting the content is skilled with SAP BTP environment. Configuration section must be mandatorily followed to import and configure the template.
- This template content is to accelerate your solution development. You must modify this template according to your requirements to achieve the desired business goal. To use this template content, you need to have basic knowledge and understanding of SAP Build Process Automation and its capabilities.

## Overview

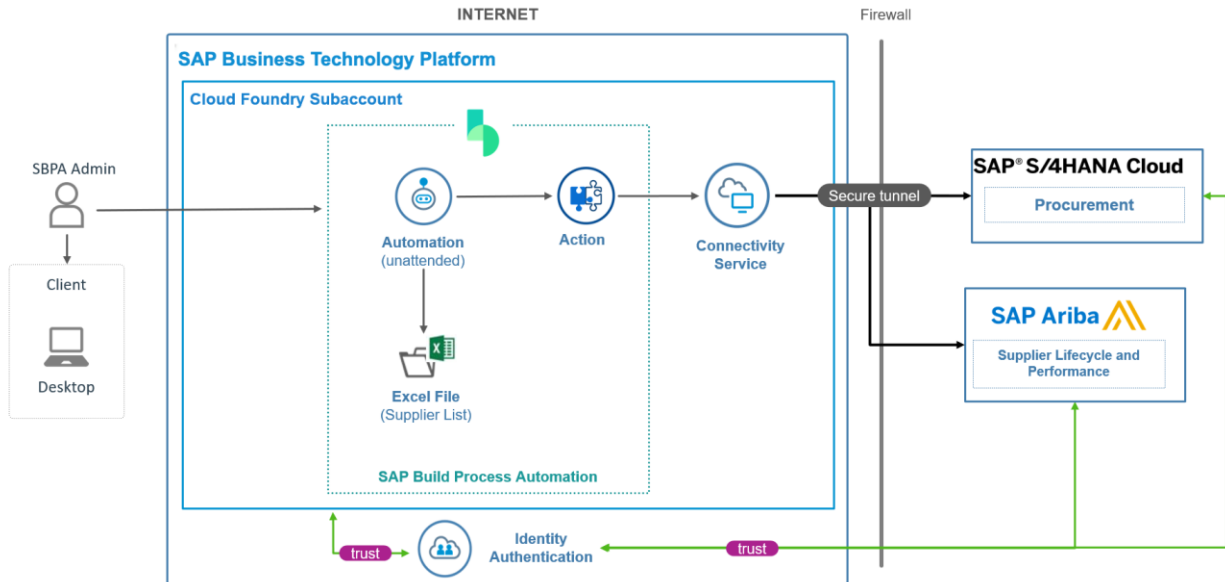
This document provides information about setting up the SAP Business Technology Platform account to consume the SAP Build Process Automation **Duplicate Supplier Request Rejection** template. The main audience of this document are technical IT/system administrators.

This package facilitates reading of the tax id and tax country code from excel template and SAP S/4HANA system to check if any duplicate supplier exists and approve or reject the request.

#### Features:

1. The scheduled automation will check the existing supplier based on the tax id and tax country code.
2. If any existing supplier is found in SAP S/4HANA system or excel template which is stored in predefined folder, then the automation will reject the task in SAP Ariba system.
3. If there is no existing supplier based on the tax id and tax country code in SAP S/4HANA and excel template, then the automation will approve the task to SAP Ariba system.
4. Then another scheduled automation will run to check the suppliers in the excel sheet are already created in SAP S/4HANA.
5. If the supplier is available in SAP S/4HANA, it means that the supplier is created already. Then the entry in the excel sheet is removed.

## Process Flow Diagram



### Steps:

1. In SAP Ariba system, supplier request will be submitted with details including supplier country code and tax id.
2. Upon submission of supplier request in SAP Ariba system, the middleware Business Technology Platform (BTP) system will call the external approval API and get the pending approval tasks and task details like supplier's country code and tax id. This information will be then sent to the SAP S/4HANA system.
3. SAP S/4HANA will validate the supplier's country code and tax id with database for duplicate check.
4. If duplicate country code and tax id is identified in SAP S/4HANA database, API call is made to deny the workflow in SAP Ariba system with review comments.
5. If duplicate country code and tax id is not identified in SAP S/4HANA database, the next check will be done on excel sheet available on the predefined file path. If there is a duplicate entry on excel, API call is made to deny the workflow in SAP Ariba system with review comments if any via BTP.
6. If there is no duplicate country code and tax id on both SAP S/4HANA database and excel sheet, the same excel sheet will be updated with country code and tax id and subsequently API call is made to approve the workflow in SAP Ariba system with review comments if any.
7. On an unattended scenario, the automation runs again on a scheduled manner. On this run, all entries in the excel sheet are queried in SAP S/4HANA. If the entry is available in SAP S/4HANA, it means that the supplier is created already. Then the entry in the excel sheet is removed.

## Prerequisites

The following SAP Business Technology Platform services are required to consume the content package Duplicate Supplier Request Rejection:

- SAP Build Process Automation to orchestrate the process.
- SAP Cloud Identity Services - Identity Authentication (Optional)
- SAP Connectivity service to establish access to SAP S/4HANA, Public Edition and SAP Ariba (Supplier Lifecycle and Performance)
- SAP Business Technology Platform, Cloud Foundry runtime

## Other Prerequisites

For this template to run successfully the following other prerequisites are needed

- SAP Desktop Agent 3.17 or higher
- Outlook mailbox configured on the system where the automations will run to send mails with attachments.

## Configuration Guide

**Duplicate Supplier Request Rejection** template requires SAP Build Process Automation subscription or CPEA contract. Follow the [setup and configuration section](#)

### Setup SAP S/4HANA

#### Configure SAP S/4HANA Destination

Configure Destination to Connect to SAP S/4HANA system.

This destination is used to call the SAP S/4HANA APIs to check existing supplier details corresponding to the tax id and tax country code.

Destination Property	Value
Name	<Name>
Type	HTTP
URL	<SAP S/4HANA endpoint> Example: https://<s4system-name>-api.xxxxxxxx

Proxy Type	Internet
Authentication	Basic Authentication
Username	<Username> of the SAP S/4HANA User
Password	<Password> of the SAP S/4HANA User

**Note:** For SAP S/4HANA Cloud and on-premise, the API should be accessible over internet proxy type, as iRPA Automation does not support on-premise as proxy type as explained in the [SAP Note](#).

**Note:** Add the following additional properties to the destination

Destination Additional Property	Value
HTML5.DynamicDestination	True
sap.applicationdevelopment.actions.enabled	True
sap.processautomation.enabled	True

Name: \* S4HANA

Type: HTTP

Description: S/4 Hana System

URL: \*





Proxy Type: Internet

Authentication: BasicAuthentication

User: \*

Password:

Additional Properties

HTML5.Dynam...	true	
sap.application...	true	
sap.processaut...	true	
TrustAll	true	

## Setup Communication

To run this template, you must have a communication user, create communication arrangements between the communication user and the following communication scenarios, and assign those communication arrangements to a communication system.

Steps to create communication system and communication arrangement are available in below documentation links:

[How to Create Communication Systems | SAP Help Portal](#)

[How to Create a Communication Arrangement | SAP Help Portal](#)

[Configuration and Role Details for accessing "Communication Systems" application.](#)

[Configuration and Role Details for accessing "Communication Arrangements" application.](#)

List of communication scenarios to be configured.

Communication Scenario	Related API
Business Partner, Customer and Supplier Integration(SAP_COM_0008)SAP Analytics Cloud for Planning Integration(SAP_COM_0087)SAP Real Estate Contract API Integration(SAP_COM_0393)Excise Tax Integration(SAP_COM_0568)Delivery Insights Replication App Integration (Obsolete)(SAP_COM_0571)Procurement - Supplier Quotation Management Integration(SAP_COM_0760)	<a href="#">Overview   Business Partner (A2X)   SAP Business Accelerator Hub</a>

## Setup SAP Ariba

### Configure SAP Ariba Destination

Configure destination to connect to SAP Ariba Cloud system

This destination is used to call the SAP Ariba API's for reading the open request for supplier creation workflow and to automatically reject the workflow task using API in case duplicate supplier is found.

Destination Property	Value
Name	<Name>
Type	HTTP
URL	< SAP Ariba API endpoint> Example: https://eu.openapi.ariba.com
Proxy Type	Internet
Authentication	OAuth2ClientCredentials Authentication
Client ID	<Client ID > <a href="#">refer here to get</a>
Client Secret	<Client Secret > <a href="#">refer here to get</a>
Token Service URL	<oauth URL for client credential>/oauth/token

Note: For authentication details configuration refer to the help document [here](#)



## Additional Properties to Destination

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

Destination Additional Property	Value
sap.applicationdevelopment.actions.enabled	true
sap.processautomation.enabled	true

## Setup Business Technology Platform Cockpit

### User Roles Configuration

To access this template, the business user will need these roles:

Role Collection Name	Purpose
Process Automation Developer	Standard Business User, can model and publish processes
ProcessAutomationParticipant	To execute (like accessing MyInbox, running the automations, etc.) this content package, you need to have this role assigned to the respective user.
ProcessAutomationAdmin	To perform process admin activities like accessing monitoring applications etc., you need to have this role assigned to the respective user.

For more information about SAP Build Process Automation roles, see [Authorizations](#)

## Setup Build Process Automation Content

Standard automation packages released by SAP will be available at the [SAP Build Store](#)

### Import Content

This template can be downloaded from the Store:

1. Navigate to the Store in your SAP Build Process Automation account.
2. Select the Project Type filter as “process automation.”
3. In the Search bar type “**Duplicate Supplier Request Rejection**”
4. Select the “Create from Template” button to add the template into your lobby.
5. After successfully adding the template, navigate back to the lobby to find the “**Duplicate Supplier Request Rejection**” template available for use.

**Caution:** Be sure to select the **Project Type** as “**Process Automation**” in the filters.

## Configuration & Modification

Once you have added the content to your lobby, you will find the project in your project list. Adapt the content template based on your requirements, and then release and deploy from the Lobby. In case any enhancement needs to be made then follow the reference links below.

### Create an Automation

<https://help.sap.com/docs/build-process-automation/sap-build-process-automation/create-automation-process-automation>

### Configure Destination Settings

Actual destinations that are created in SAP BTP cockpit will be required when you deploy the process. This actual destination will be mapped the destination environment variables during deployment.

For this package following destination needs to be configured in the SAP BTP cockpit:

- **S4HANA**
- **SAP\_Ariba**

**Note:** Above destination names have been configured in BTP but can be named as per the project requirement.

To configure destination,

- Click on **Settings**.
- Select **Destinations** from the left panel.
- Click **New Destination**

Select these destinations to be added (Created in the above section). For more information and screen shots, please refer to [this link](#) .

## Release and Deploy the Process

After configuring your process, it's time to publish, test and run it. To run a process, you must first release and deploy it.

**Release** - This locks the version of your process, meaning that no further edits can be made to that version. At this stage, the process can't be run and isn't available to participants yet.

To release a version of your process,

- First ensure that the status is listed as 'Editable'.
- Then click 'Release'.

**Duplicate Supplier Request Rejection**

Efficiently validate and eliminate duplicate supplier entries during onboarding by cross-referencing client SAP S/4HANA system. This streamlines procurement, ensures accurate vendor data, and enhances decision-making while redu...

**Update** (Last updated on: December 7, 2023) | **Creation** (Created on: December 7, 2023) | **Bundle Size** (Project Size: 143.31 KB, Estimated Package Size: 22.94 KB) | Agent version: 3.18 | Collaborators: You

**Artifacts (10)** | Triggers (0) | Dependencies (4)

Name	Description	Type	Last edited	Last edited by	Created On
Add Supplier Details in Excel	Automation to add supplier details into the excel which is already present in the predefined file path.	Automation	6 minutes ago	abhishek.karekar@accenture.com	December 7, 2023
Automatic Checking of Duplicate Supplier Requests	Automation to fetch pending supplier requests from SAP Ariba system and approve the requests when supplier doesn't exist in SAP S/4HANA system or reject the requests when supplier already exist in SAP S/4HANA system.	Automation	6 minutes ago	abhishek.karekar@accenture.com	December 7, 2023
Automatic Removal of Existing Suppliers from Excel	Automation to read supplier details from the excel and remove supplier details which already exist in SAP S/4HANA system from the excel.	Automation	6 minutes	abhishek.karekar@accenture.com	December 7, 2023

If this is the first time you've released the process, a version labelled 1.0.0 is released. For subsequent releases, you're prompted to select a version type before the process is released.

**Deploy** – This takes a released version of a process and enables it to be actively run and monitored. A deployed version of this approval process unlocks the request form, allowing participants to submit requests and the approvers to view items in their inbox.

To deploy a released version of your process,

- First ensure that the status is listed as 'Released'.
- Then click "Deploy".

**Duplicate Supplier Request Rejection** 1.0.0 Released

Efficiently validate and eliminate duplicate supplier entries during onboarding by cross-referencing client SAP S/4HANA system. This streamlines procurement, ensures accurate vendor data, and enhances decision-making while redu...

**Creation** (Created on: December 7, 2023) | **Bundle Size** (Project Size: 153.81 KB) | Agent version: 3.18 | Collaborators: You

**Artifacts (10)** | Triggers (0) | Dependencies (4)

Name	Description	Type
Add Supplier Details in Excel	Automation to add supplier details into the excel which is already present in the predefined file path.	Automation
Automatic Checking of Duplicate Supplier Requests	Automation to fetch pending supplier requests from SAP Ariba system and approve the requests when supplier doesn't exist in SAP S/4HANA system or reject the requests when supplier already exist in SAP S/4HANA system.	Automation
Automatic Removal of Existing Suppliers from Excel	Automation to read supplier details from the excel and remove supplier details which already exist in SAP S/4HANA system from the excel.	Automation
Check Supplier Details in SAP S/4HANA	Automation to check if supplier is already present or not for the corresponding tax id and tax country code in SAP S/4HANA system.	Automation













# User Guide

## Capabilities

The following are the capabilities of this template:

For detailed information about different artifacts, please refer [help documentation](#).

Icon	Type	Name	Description
	Automation	Add Supplier Details in Excel	Automation to add supplier details into the excel which is already present in the predefined file path.
	Automation	Automatic Checking of Duplicate Supplier Requests	Automation to fetch pending supplier requests from SAP Ariba system and approve the requests when supplier doesn't exist in SAP S/4HANA system or reject the requests when supplier already exist in SAP S/4HANA system.
	Automation	Automatic Removal of Existing Suppliers from Excel	Automation to read supplier details from the excel and remove supplier details which already exist in SAP S/4HANA system from the excel.
	Automation	Check Supplier Details in SAP S/4HANA	Automation to check if supplier is already present or not for the corresponding tax id and tax country code in SAP S/4HANA system.
	Automation	Delete Supplier Details from Excel	Automation to delete supplier details from the excel which is already present in the predefined file path.
	Automation	Fetch Pending Approval Tasks	Automation to get list of pending approval tasks from SAP Ariba system.
	Automation	Fetch Task Details from Task Id	Automation to get task details of the pending approval task using unique task id from SAP Ariba system.
	Automation	Read Supplier Details from Excel	Automation to read supplier details from the excel which is already present in the predefined file path.
	Automation	Send Error Messages Email to Administrator	Automation to send error messages to administrator via email in case if any error had occurred in automation.
	Automation	Take Action on Pending Approval Task	Automation to approve or reject the SAP Ariba task.

## Actions

### Read - Business Partners Tax

This action is responsible to check existing supplier details corresponding to the tax id and tax country code in SAP S/4HANA system.

## Automation

### Check Supplier Details in SAP S/4HANA

Automation to check if supplier is already present or not for the corresponding tax id and tax country code in SAP S/4HANA system.

API	API Path	Purpose
API_BUSINESS_PARTNER	/sap/opu/odata/sap/API_BUSINESS_PARTNER/A_BusinessPartnerTaxNumber?\$filter=BTaxNumber eq "" + taxId + "" and startswith(BPTaxType, "" + taxCountryCode + "")	GET call to check supplier details in SAP S/4HANA

### Fetch Task Details from Task Id

Get task details of the pending approval task using unique task id from SAP Ariba system.

API	API Path	Purpose
<a href="#">External Approval API</a>	/api/sourcing-approval/v2/prod/Task/" + taskId + "?realm=" + realm + "&user=" + userName + "&passwordAdapter=" + password	GET call to check supplier details in SAP Ariba

### Take Action on Pending Approval Task

Automation to approve or reject the SAP Ariba system task.

API	API Path	Purpose
<a href="#">External Approval API</a>	/api/sourcing-approval/v2/prod/action?realm=" + realm + "&user=" + userName + "&passwordAdapter=" + password	POST API to approve or reject SAP Ariba system task

### Fetch Pending Approval Tasks

Automation to get list of pending approval tasks from SAP Ariba system.

API	API Path	Purpose
<a href="#">External Approval API</a>	/api/sourcing-approval/v2/prod/pendingApprovables?realm=" + realm + "&user=" + userName + "&passwordAdapter=" + password	GET API to get the pending approval tasks

### Automatic Checking of Duplicate Supplier Requests

Automation to fetch pending supplier requests from SAP Ariba system and approve the requests when supplier doesn't exist in SAP S/4HANA system or reject the requests when supplier already exist in SAP S/4HANA system.

## Automatic Removal of Existing Suppliers from Excel

Automation to read supplier details from the excel and remove supplier details which already exist in SAP S/4HANA system from the excel.

## Support

There is no support available for template content. If you experience general issues with SAP Build Process Automation, raise an incident via SAP Support Portal on **BPI-PA-BPC** component.

This template can be modified using SAP Process Automation. For example: add business rules to determine the approver based on a certain business logic or add an action to post collected information to backend SAP system.

Refer [Help Portal](#) for more details.

[www.sap.com](http://www.sap.com)

## Appendix – SAP Ariba Configurations

To configure the SAP Ariba for external approval, refer to the help document [here](#).

### User Configuration

#### Configure A Technical User as a Standard User

A technical user (i.e.: “Workflow Approver”) is needed for the Supplier Request’s approve/reject operations on SAP Ariba. When creating the technical user, it is recommended to use the Defined By ‘**Manually Maintained**’ value to avoid the deactivation of the user from the standard user synchronization if full load mode is used.

Refer to the link to [How to add or modify users](#).

### Ariba API’s

APIs come as a standard from the developer portal. To get started with Ariba APIs and use them to build API based application, refer to the link [here](#).

Following blog post gives a comprehensive introduction with many valuable resources regarding this topic:

- [SAP Developer Portal](#)
- In this API [External Approval API](#) we are using the mentioned operation below:
  1. Get list of pending approvables - [/getPendingApprovables](#)
  2. Read Tax ID and Country Code – click [here](#) and use `/{entity_type}/{entity_id}` API
  3. If duplicate found reject the task else approve task - click [here](#) and use `/action` API