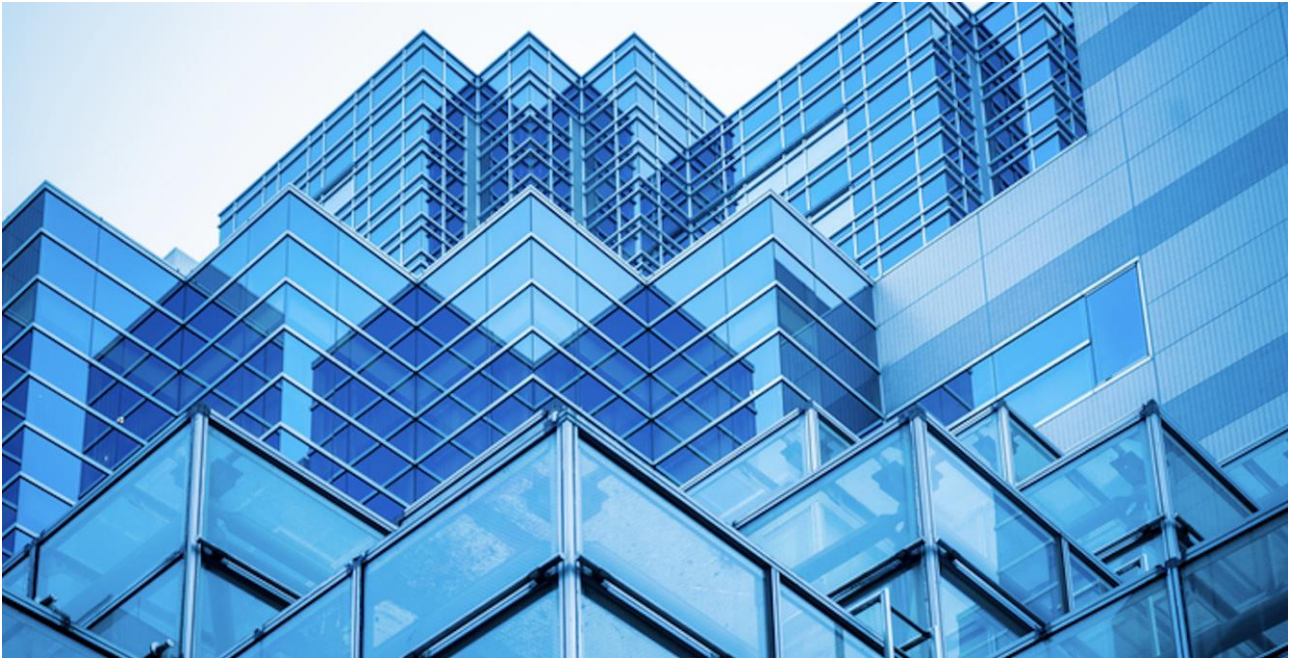




PUBLIC

SAP Build Process Automation

Ariba Purchase Requisition Approval

Configuration & User Guide

Table Of Contents

Change Log	3
Overview.....	4
Prerequisites	5
Process Flow.....	5
Configuration Guide	6
Configure SAP Ariba	6
Configure Destination to SAP Ariba	6
User Roles Configuration	7
Setup SAP Build Process Automation Content	8
Import Content.....	8
Configure and Modification.....	8
Configure Process.....	8
Configure Automation Trigger	8
Input Parameter	8
Input Parameter	9
Configure Forms (optional)	9
Configure Decisions	10
Configure Email	11
Configure Process Visibility (Optional)	13
Configure Destination Settings.....	13
Release and Deploy Process	14
Configure SAP Work Zone	15
User Guide.....	15
Capabilities	15
Forms	17
Decisions	18
Processes	18
Purchase Requisition Approval Process.....	18
Automations.....	19
Input Parameter	19
Process Visibility Scenario	20
Support.....	20
Appendix – SAP Ariba Configurations.....	21

Change Log

Version	Date	Description
1.0.0	October 16 th , 2023	Document created

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

1. **Overview:** In this section, you will get quick overview of the use case, what are high-level components used and how the template works in nutshell. Prerequisite section provides information of different services of SAP BTP that are required to use this template.
2. **Configuration Guide:** It contain sections which will guide you to setup your (a) SAP BTP Account with destination, cloud connector, user roles etc, (b) Integration Content via SAP Integration Suite, (c) SAPUI5 application via SAP Business Application Studio and (c) Import and configure the template using SAP Build Process Automation design studio and (d) SAP Work Zone to access the MyInbox or Task Center and other applications.
3. **User Guide:** This section provide details about different artefacts that are used in this template like process definition, decision diagram, Webservice 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 has to be mandatorily followed to import and configure the template.
- This template content is to accelerate your solution development. You have to 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, SAP Integration Suite and its capabilities.

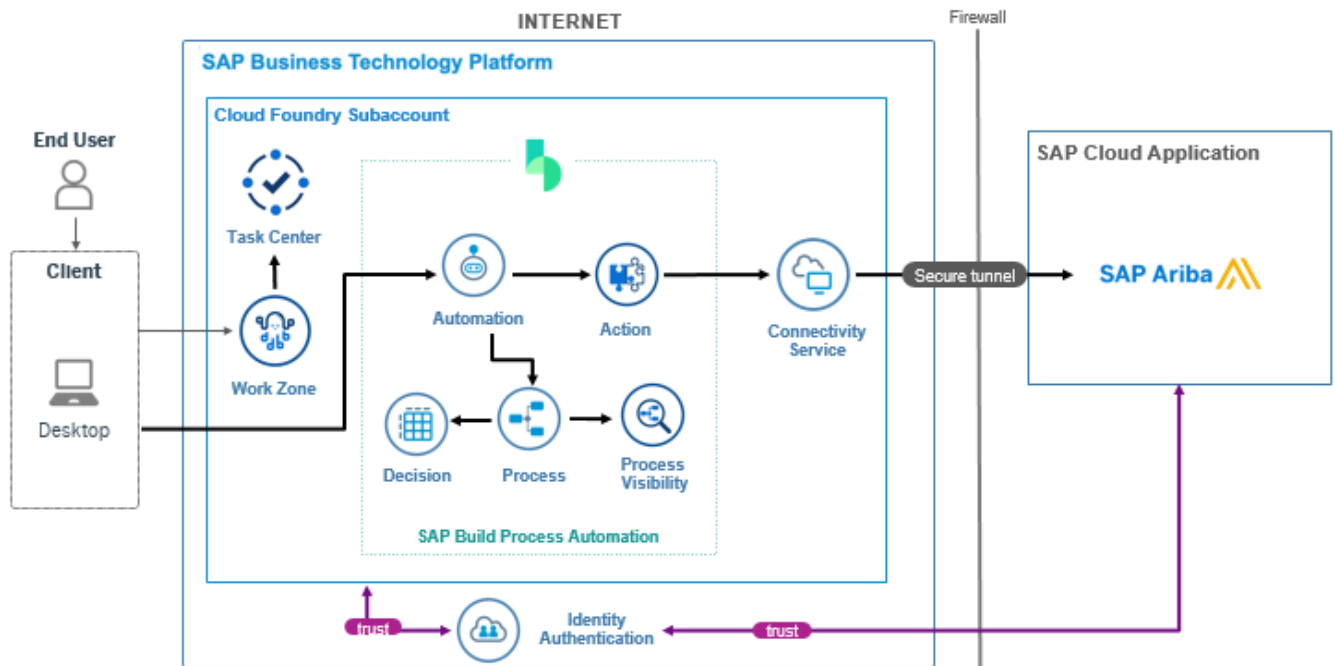
Overview

This document provides information about setting up the SAP Business Technology Platform account to consume **Ariba Purchase Requisitions Approval** template.

Ariba Purchase Requisitions Approval content package enables automation of purchase requisition approvals in a flexible way. It provides options depending on header and line-item attributes of the purchase requisitions. When a purchase requisition is submitted in SAP Ariba for external approval, a process is triggered in SAP Build Process Automation for approval. On completion of the approval flow, the purchase requisition is posted back in SAP Ariba with an appropriate approval status.

Salient features of this content package are mentioned below:

- Plug and Play with SAP Ariba without additional development.
- Pre-configured process steps for approval.
- Automatic email notification to parties involved.
- Approver determination using Decisions.
- Out-of-the-box visibility into key process performance indicators.



Prerequisites

The following SAP Business Technology Platform services are required to consume the **Ariba Purchase Requisition Approvals** template:

- SAP Build Process Automation to orchestrate the process.
- SAP Work Zone, standard edition
- SAP Cloud Identity Services - Identity Authentication (optional)
- SAP Ariba Buying
- SAP Work Zone, standard or advanced edition for accessing My Inbox and Process Visibility workspaces.
- SAP Business Technology Platform, Cloud Foundry runtime

Process Flow

1. The sales representative runs the fetch operation via the **'Main Automation – Get Approvable Documents'** automation which can run in attended and unattended modes based on the condition.
2. While fetching the purchase requisition details from SAP Ariba, there are two options available with this template based on the filter criteria:
 - a. If the filter is set to specific purchase requisition number, then the approval process will be started only for that purchase requisition.
 - b. If the filter is empty OR NA then all the the pending approvers of purchase requisitions (max 100) would be retrieved and each purchase requisition would be processed for approval.
- 3.

Note: The fetch supports querying by purchase requisition number and processing all the pending approvable purchase requisition automatically (based on filter)

4. The automation fetches the data from the Ariba system as per the selection criteria and binds the response to custom data type called “Document Approvable Details.”
5. Once the approver approves the purchase requisition, approval “state” is updated in the Ariba system
6. In the case there are no approval needed, the data will automatically be updated in Ariba system.

Configuration Guide

Ariba Purchase Requisition Approval template requires SAP Build Process Automation subscription or CPEA contract. Follow the [setup and configuration section](#).

Configure SAP Ariba

Ariba related configuration details are mentioned in the “**Appendix**” section.

Setup SAP Business Technology Platform Cockpit

Configure Destination to SAP Ariba

Create a destination to get and patch the purchase requisition approval details to SAP Ariba system via the standard Document Approval API. Please refer below on how to create an HTTP destination.

- To know more about Document Approval API, refer official help document [here](#)

Destination with OAuth2ClientCredentials

Name	<any name of your choice>
Type	HTTP
Proxy Type	Internet
Authentication	OAuth2ClientCredentials
URL	<Ariba API endpoint URL> Example https://<aribas<stem - name>/api/approval/v2/prod
Client ID	<client id from service key> refer here to get
Client Secret:	<client secret from service key> refer here to get
Token Service URL	<oauth url for client credentials>

Additional Properties to Destination

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

sap.applicationdevelopment.actions.enabled	true
sap.processautomation.enabled	true
tokenServiceURL.headers.APIKey	<value of the API key>
URL.headers.APIKey	<value of the API key>

Configure Process Automation Email Destination

Mail notifications are used in this template to send notifications to requestor, approver and admin during different stages of the process.

Follow the instructions to setup mail destination in your SAP BTP Account.

- Configuring destination, see [Configure a SMTP Mail Destination](#).
 - For more information, refer to Create [HTTP Destinations](#) and [OAuth User Token Exchange Authentication](#).

User Roles Configuration

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

Role Name	Purpose
ProcessAutomationDeveloper	To fully use this content package, you need to have an active user entitled to this role to use SAP Build Process Automation.
TaskCenterAdmin	Permission to execute calls to the Connector Status API and monitor configured destinations and running background jobs.
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 application etc., you need to have this role assigned to the respective user.

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

IMPORTANT NOTE: This template content is to accelerate your solution development. You can modify this template according to your own requirements to achieve your business goals. To use this template content, you need to have basic knowledge and understanding of SAP Build Process Automation and SAP Integration Suite and its capabilities.

Setup SAP Build Process Automation Content

Import Content

This template can be downloaded from the Store:

- 1) Navigate to the **Store** in your SAP Build Process Automation application.
- 2) Select the Project Type filter as “Process Automation”.
- 3) In the Search bar type “**Ariba Purchase Requisition Approval**”.
- 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 “**Ariba Purchase Requisition Approval**” project available for use.

Configure and 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.

Configure Process

There is no configuration needed in the process but you extend it based on your requirements

Configure Automation Trigger

This package contains one main automation that need to be triggered to fetch get approvable purchase requisitions from Ariba. Automations can be triggered in different modes. Following are the supported execution modes. Follow the instructions to setup trigger based on your requirement:

- Unattended mode. For more information click [here](#)
- Attended mode. For more information click [here](#)

Provide below input parameter for triggering “**Main Automation - Get Approvable Documents**” automation:

Input Parameter

The required input to run automation is described below, you can refer official help document [here](#).

- filter – ODATA(V2) filter to fetch document approvable for mentioned Purchase Requisition
Note: Filter only supported for “**uniqueName**” attribute and eq (equal) operation
- APIKey – Service Key used for authorization.
- realm – Unique identifier of the realm.

Edit Scheduled Trigger

Name: * Ariba_fetch_all_pending_approvables

Description: e.g. A scheduled trigger

Execute: * Main Automation - Get Approvable Documents X v

Priority: * Low v

Schedule **Input Parameter** Distribution

[≡] Show JSON editor

filter: * NA

APIKey: * 7dYJUoXWzW4Opxols8VJKa1GVv5F7xiv

realm: * SandboxMedio-T

Update Cancel

Input Parameter

The required input to run automation is described below, you can refer official help document [here](#).

- filter – set to “NA” to fetch all the pending approvables (Max 100 records)
- APIKey – Service Key used for authorization.
- realm – Unique identifier of the realm.

Configure Forms (optional)

You can update or extend the forms based on your requirements. To edit the form:

- Double click the form to open the Form Editor
- You can configure existing fields or add new layout or input fields to the form by simply dragging-and-dropping them from the side menu.

Purchase Requisition Approval Form

Review and Approve Purchase Requisitions Changes

Important Notes:

- 1) Do not change any data in editable fields except for the approval checkboxes & comments.
- 2) Any other change in data is not supported.
- 3) On clicking "Submit" button, the purchase requisition document will be considered for approval.
- 4) On clicking "Reject" button, the purchase requisition document is considered as rejected.

Purchase Requisition Header Details:

Requisition ID T

Requester T

Total Cost #

Purchase Requisition...

Description

Approval form that will be sent to respective approvers for reviewing and approving the changes to purchase.

125/1024

Release

Saved

Configure Decisions

The process contains the below decision:

- **Determine Approver** – This decision is used to determine the approver email address

These decisions must be modified for conditions and result values based on your business policies and requirements.

To modify the decision:

- In process editor, double click to open the Decision.
- Select the rule from the decision diagram.

Determine Approver

Input Parameters: Purchase Requisition Details

Decision: Determine Approver Decision to determine the approver who will review and approve...

Output Parameter: Approver

Determine Purchase Requisition Approver

Rule to determine the users who will approve the purchase...

Decision Table

If	Then	Approver Email
☐ Total Amount	Task Name	
☐ > 200	'Cost Center Approver'	'[mailto:costcenterapprover@company.com]'
☐ < 200	'Cost Center Approver'	'[mailto:costcenterapprover@company.com]'

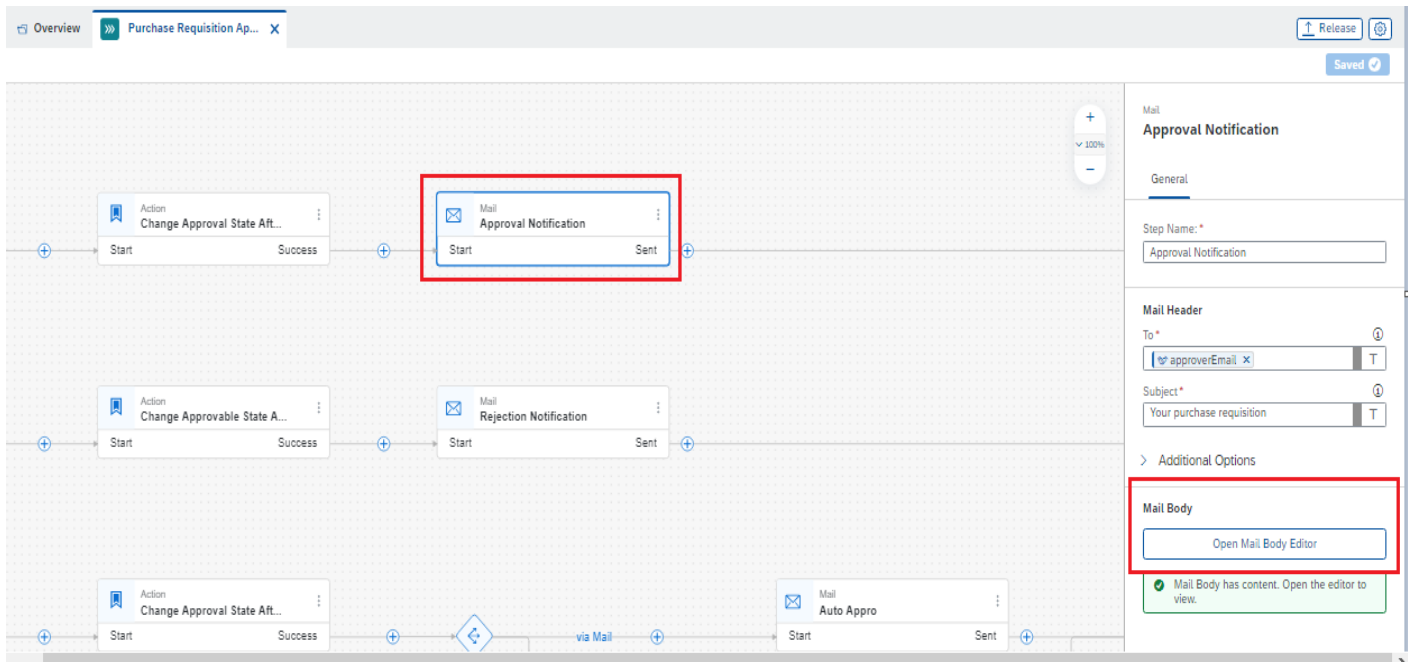
Enter mail id of the approver here

Configure Email

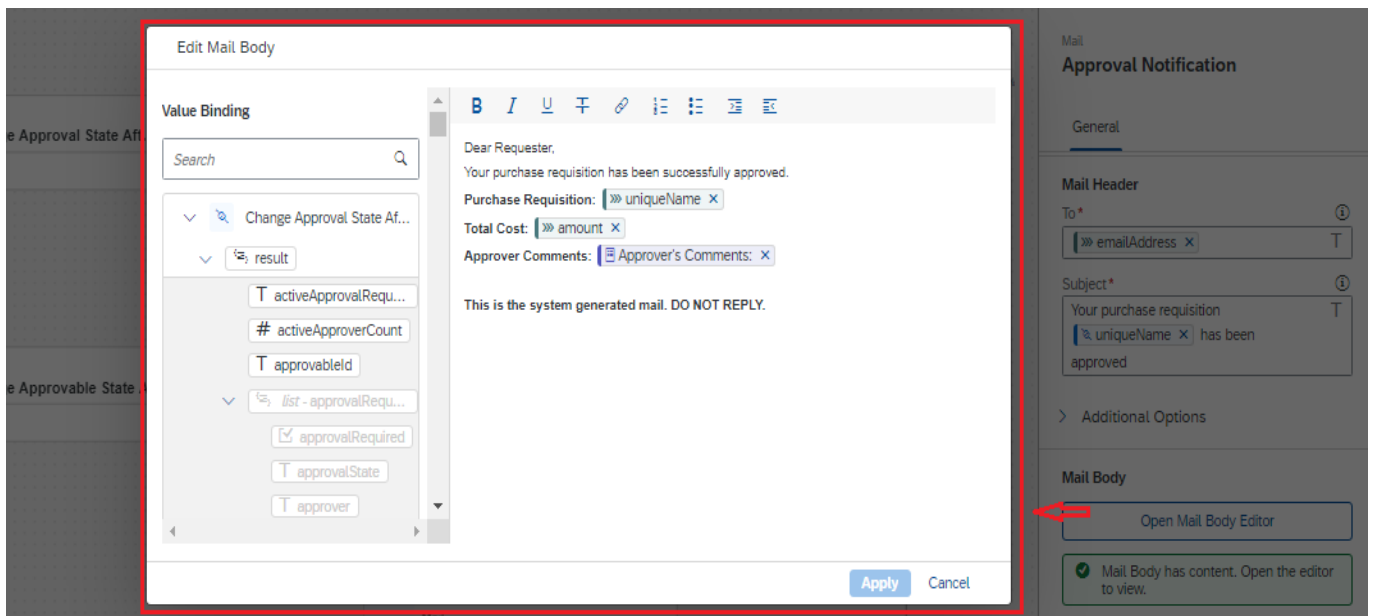
Email notifications are sent to requestor and approver at different places during process and task execution. All the email artefacts in the process have default template body which can be changed.

To update the email body content, do the following:

- Select the mail artefact in the process.
- From the **Settings** in the right-side panel, check the **Mail Header** to confirm the '**To**' field (or email recipients) and the **Subject**. You can adjust the subject and recipient, if needed.
- You may also add users in 'CC.'
- Click to '**Open Mail Body Editor**'.



- The mail editor allows you to write and adjust text according to your needs. You can also reuse information that has been collected during the process. If you want to use additional process context data, you can simply drag the fields from the left menu to the editor on the right.



For more information on email configuration and text, refer [here](#)

Configure Process Visibility (Optional)

This template has a pre-built dashboard with default business KPIs that can be used by the business users to track end-to-end processes in real-time. You can add more KPIs based on your business requirements.

To configure the visibility scenario:

- Open project '**Overview**' tab
- Select **Purchase Requisition Approval Visibility Scenario** (Visibility Scenario)
- Explore and change Phases, Attributes, Performance Indicators etc.

[Follow the documentation to learn how to configure process visibility scenario](#)

In case you don't have access to the process visibility workspace where you can access the newly created dashboards, please contact your IT admin.

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.

To configure destination,

- Click on **Settings**.
- Select **Destinations** from the left panel.
- Click **New Destination**
- Select the Ariba destination to be added.

For more information refer the [link](#)

In case you need to perform any enhancements on the below artifacts, please follow the links as specified:

Create an Automation

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

–

Create a Business Process

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

Create a Datatype

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

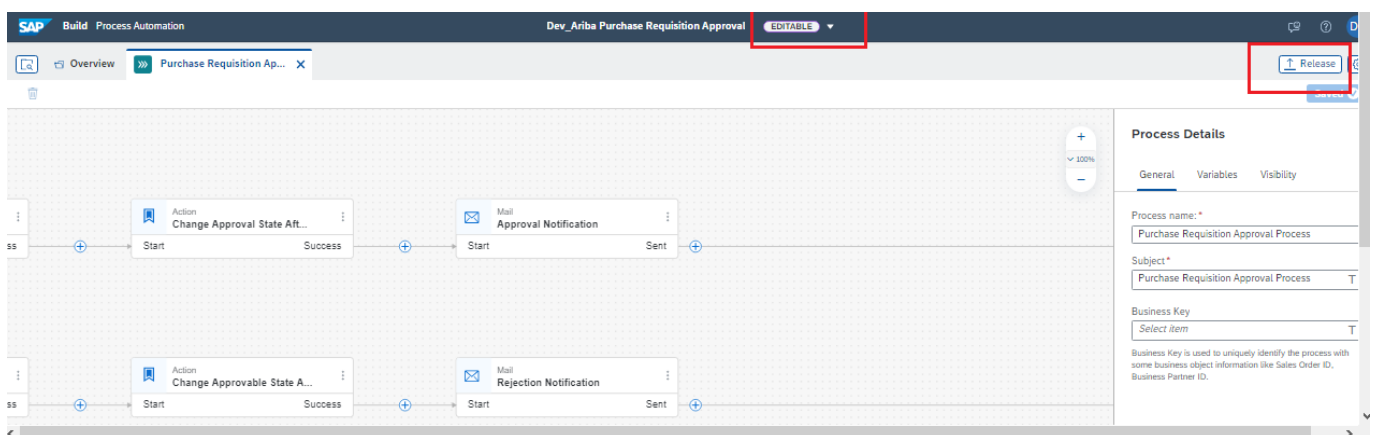
Release and Deploy Process

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'



If this is the first time you've released the process, a version 1.0.0 will be shown. 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 deploys it, which can then be used to run and monitor the process. To deploy a released version of your process:

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

For more details on deployment, please read our [documentation](#)

To deploy your project, you will be prompted to provide a Destination as an environment variable. Select the destination from the drop-down.

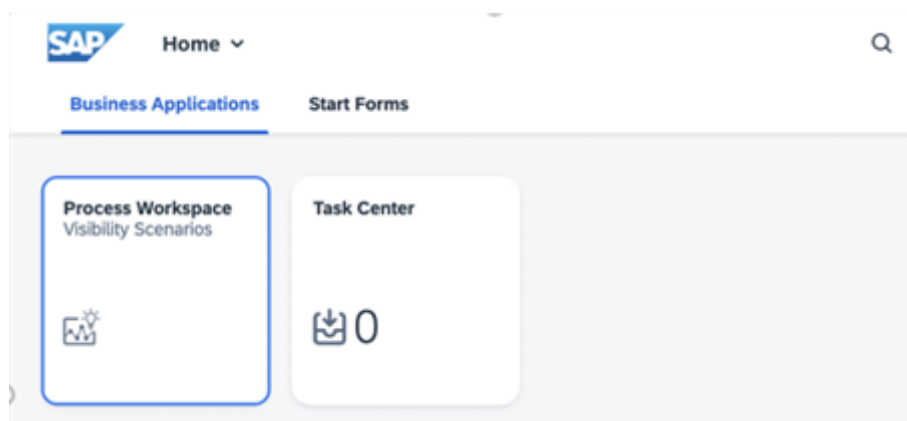
Note: If you do not map your destination environment variable with actual SAP BTP destination during deployment, then the process will enter Erroneous state when it tries to connect to the external system. For more details about the Destination artefact, please read our [documentation](#).

Configure SAP Build Work Zone

Now that the process is released and deployed, you can configure SAP Build Work Zone standard or advanced edition to give access to your business users to track the process and business KPIs using process visibility workspace.

To configure SAP Work Zone standard edition, add Process Workspace (to access the process visibility dashboard), MyInbox or Task Center tile (to provide business users the inbox where they receive the tasks to take appropriate actions) in SAP Work Zone .

Follow the tutorial to configure Work Zone with visibility tiles [here](#)



User Guide

Capabilities

This template content contains the following key artifacts: Please refer help [documentation](#) about these different artifacts.

Icon	Type	Name	Description
	Process	Purchase Requisition Approval Process	This process is responsible approving the purchase requisitions from Ariba. It determines the approver and the user that are to be notified. Once the approval is done, the state is updated in the backend system and notifications are send to designated users. If the changes are rejected, then also the email notification is sent to the requestors.

	Automation	Main Automation – Get Approvable Documents	This main automation is to fetch purchase requisitions from Ariba system and starts the approval process based on the inputs provided.
	Automation	Fetch pending Approvables	This automation fetches all the pending approvers of purchase requisitions (max 100) from Ariba and starts the approval process for each of the purchase requisitions
	Automation	Start Approval Process	The automation fetches the data from the Ariba system as per the selection criteria for the purchase requisition and binds the response to custom data type called “Document Approvable Details” and starts the approval process with the current approver details
	Decision	Determine Approver	This decision is used to determine the approver who will review and approve purchase requisitions created in SAP Ariba.
	Decision	Set Approval State To Approve	This decision used to set approval state when purchase requisition changes are approved
	Decision	Set Approval State To Deny	This decision used to set approval state when purchase requisition changes are rejected

	Form	Purchase Requisition Approval Form	Approval form which will be sent to respective approvers for reviewing and approving the changes to purchase order requisition.
	Form	Auto Approval Form	This is an auto approval form that will be sent to respective approvers as a notification for the changes to purchase requisition and its items.
	Mail	Approval Notification Mail	This mail notification is sent after the purchase requisition is approved to the requestor.
	Mail	Auto Approval Notification Mail	This mail notification is sent to the requestor if the auto-approval condition is met
	Mail	Rejection Notification Mail	This mail notification is sent after the approver rejects the purchase requisition.
	Process Visibility	Purchase Requisition Approval Visibility Scenario	This is to track the process and business KPI's using the process visibility workspace

Forms

This template includes following forms:

- **Purchase Requisition Approval Form:** Provides the purchase requisition order details to the determined approver for their approval. Approver can review & provide approval along with comments.

- **Auto Approval Form:** Provides the purchase requisition order details without any approval when the total cost is less than 200.

Decisions

This package includes few decisions that can be updated based on the requirement. These decisions allow to encapsulate the business logic from core applications and supports the reuse of decision rules across different business processes. It enables customers to adopt changes in processes without changing the underlying process flows.

Determine Approver

This decision is used for determining the approver details such as approver email, approver group etc. To check or update the input & output parameter of the decision, it can be accessed from the process.

Set Approval State To Approve

This decision is used to set approval state as “approve” when purchase requisition changes are approved

Set Approval State To Deny

This decision is used to set approval state as “deny” when the purchase requisition changes are rejected.

Processes

Purchase Requisition Approval Process

This process gets triggered by automations “Main Automation –Get Approvable Documents” by the determined approver for a PR and the approval state (approve, deny) would be updated back to the Ariba system.

Action

Change Approvable State: This webservice is responsible for updating the approval status back to Ariba based on the data provided in the payload.

Note:

- The approval state “reject” gives “500 Internal Server” error.
- The process will not be triggered when there are no active approvers, when the PR is all approved
- The process will not be triggered when there are issues with the test data. Kindly ensure to set the proper data while creating a Purchase Requisition without “null” values.

API name	API Link	Purpose
Change Approvable	https://api.sap.com/api/approval_v2/resource/Approvables /{approvableType}/{approvableId}_	PATCH - To update approval state(approve, deny) for the processed purchase requisition to Ariba

Automations

Main Automation - Get approvable documents

This is the main automation to start the approval process for Ariba. It contains 2 sub automations:

Input Parameter

The required input to run automation is described below, you can refer official help document [here](#).

- filter – ODTA(V2) filter to fetch document approvable for mentioned Purchase Requisition
Note: Filter only supported for uniqueName attribute and eq (equal) operation
OR set to “NA” to fetch all the pending approvables (Max 100 records)
- APIKey – Service Key used for authorization.
- realm – Unique identifier of the realm.

1. Fetch Pending Approvables:

This automation fetches all the pending approvers of purchase requisitions (Max 100 records) from Ariba and starts the approval process for each purchase requisition. The API mentioned in the below table to query the list of pending approvables,

API name	API Link	Purpose
Pending Approvables	https://api.sap.com/api/approval_v2/resource/Core Path/pendingApprovables_	To get the list all documents/tasks that are pending for approval

Note: This automation extracts the pending purchase requisitions not the approvers from the set of 100 records, so when the approval process starts we may not have exact 100 Purchase requisitions.

2. Start Approval Process:

This automation starts the actual approval process as the complete purchase requisition details are available in the below API

API name	API Link	Purpose
Approvables	https://api.sap.com/api/approval_v2/resource/Approvables Path <code>/[{approvableType}]_</code>	GET - Individual approvable document by "approvableId" parameter

The below API is used to query the list of approvers based on the GroupId parameter.

Users	https://api.sap.com/api/approval_v2/resource/Users Path <code>/groups/{groupId}/members</code>	GET - List of approver and their user details when only Group id is available
-------	---	---

Process Visibility Scenario

The visibility scenario is a dashboard which allows business users to track relevant process KPIs and statuses. A default dashboard is provided with this template, and it can be customized by selecting attributes from your process which you want to track in the process dashboard. You can read more [here](#)

Support

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

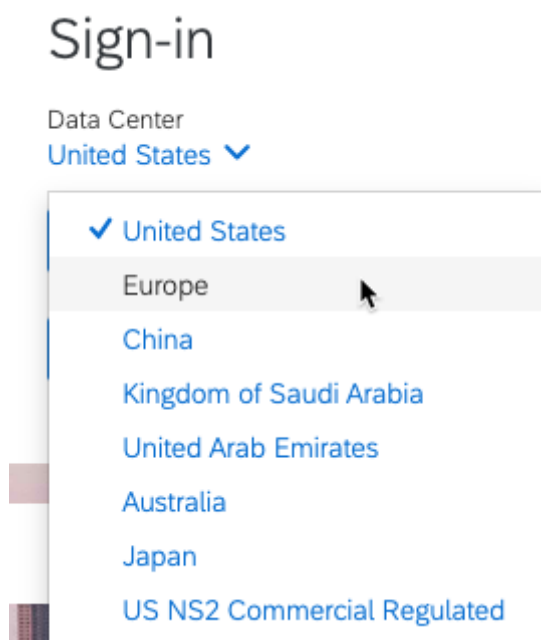
This template can be modified using SAP Process Automation. For example: add decision to determine the approver based on a certain business logic or add a Webservice to post collected information to backend SAP system. Refer [Help Portal](#) for more details.

www.sap.com

Appendix – SAP Ariba Configurations

Ariba Service – Get Client Id & Client Secret

The API is requested for each and every realm / AN. It is requested via [api](#) for realms from US1 and PROD3 datacenters. The same portal can be used for other realms but we have to change DC as per below



Please check the following note on how to use [portal](#). Once the API request is approved, you can retrieve client ID, secret and API Key from the portal as well.

Note : The requests for new realms must go via Ariba OPS team (we do not have any spare realms we can give). There is a form to be filled in and they can give you one.

Realm Configuration

To configure the Realm for external document approval, refer to the official help document [here](#)

User And Group's Configuration

Configure A Technical User as a Standard User

A technical user (i.e.: "Workflow Approver") is needed for the Purchase Requisition's approve/reject operations on SAP Ariba. When creating the technical user, it is recommended to use the Defined By '**ManuallyMaintained**' 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](#) .

Note: This user would be configured in the integration flow and used to post the document back to SAP Ariba.

Configure A Custom Group

Configure a custom group (i.e.: "External Approval") and add the technical user defined in above step to this group. Note that the Custom groups created in Ariba Administrator have this adapter source '**AribaManaged**'.

Refer to the link to [How to manage groups in Ariba Administrator](#)

Approval Flow Configuration

Configure the Purchase Requisition approval flow with only one rule, containing the custom group created in above step for the technical approver. To know more on approval process management in SAP Ariba, refer [here](#)

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](#)
- [The Operational Reporting API \(For Data Ingestion\)](#)
- [The Document Approval API \(For Document Release\)](#)

Operational Reporting API Based Custom View

To get only relevant data, a custom view template with only selected attributes should be created. Following guides describe how to create a customer view template. Regarding the needed attributes check the attached JSON structure under the "Sources" of the content package [here](#)