



PUBLIC

SAP Build Process Automation  
**Case External Approvals in SAP Service Cloud  
Version 2 and SAP Enterprise Service  
Management**

Configuration & User Guide



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## Introduction

This document provides information about setting up the SAP Business Technology Platform account to consume the SAP Build Process Automation **Case External Approvals in SAP Service Cloud Version 2 and SAP Enterprise Service Management template**. The main audience of this document are technical IT/system administrators.

This document contains the following 3 sections:

1. **Overview:** In this section, provides an overview of the use case, the high-level components used, and how the template works. Prerequisite section provides information of different services of SAP BTP that are required to use this template.
2. **Configuration Guide:** It provides information to setup your (a) *SAP BTP Account* with destination, cloud connector, user roles and so on, (b) Import and configure the template *using SAP Build Process Automation* design studio.
3. **User Guide:** This section provides details about different artefacts that are used in this template like process definition, decision diagram, action project details, forms, email notifications and so on to understand how different capabilities are used in this template.

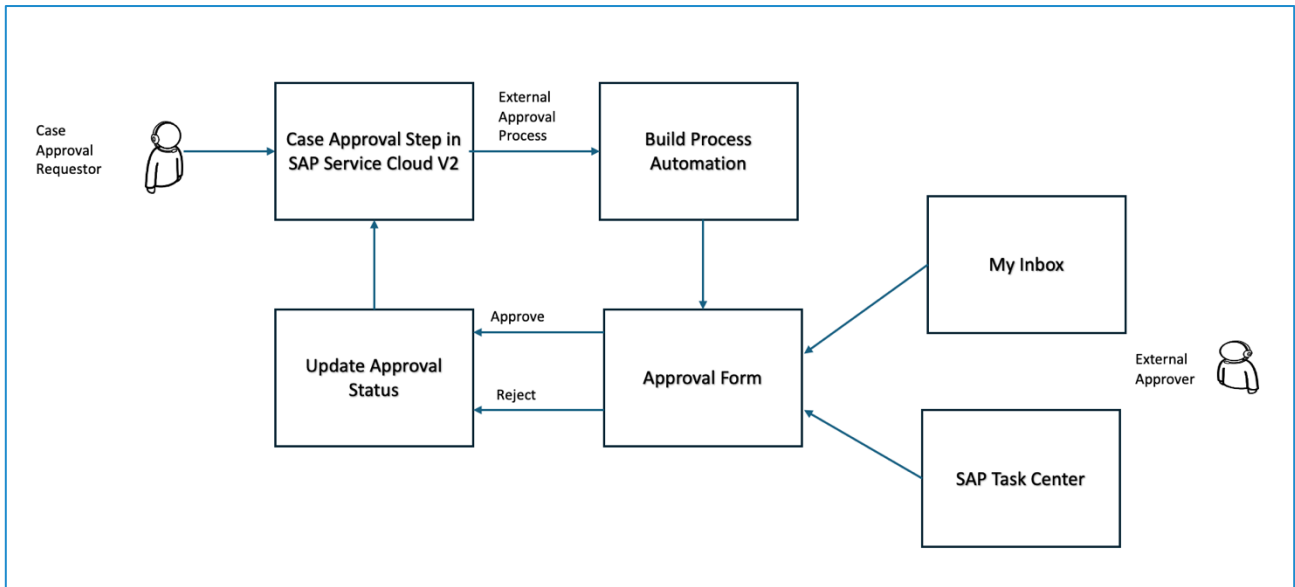
**Note: Learning content is published only for demo and reference purposes. We do not provide any support for learning / sample content unless it is an issue with the template content.**

Note: This documentation is not a detailed guide to setting up SAP BTP services. It assumes that the IT Admin who is setting the content is skilled with SAP BTP environment. Instructions in the **Configuration section must be followed**.

Note: Use this template content 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, SAP Integration Suite, and its capabilities.

## Overview

The Case External Approvals in SAP Service Cloud Version 2 and SAP Enterprise Service Management streamlines the external approval process through SAP Build Process Automation. The process in SAP Build Process automation reads case data in SAP Service Cloud Version 2 or SAP Enterprise Service Management which can then be used in decision rules of approval as well as approval forms. The external stakeholders can access the SAP Build Process Automation approval task via the SAP Task Center and thus participate in approval process without needing an access or user in SAP Service Cloud Version 2 or SAP Enterprise Service Management.



The following steps are included as a part of the template:

- **Trigger:** Case API trigger – Case, Approval and Requestor Information. The template uses the API: Case Service - /sap/c4c/api/v1/case-service/cases/{id} . For more information, see [Case Service](#)
- **Action:** Retrieve a case by ID
- **Decision Branch:** To check Escalation Status
- **Decision:** Approval Determination decision rules
- **Form:** Case Approval Form
- **Decision:** To Set Approval Status
- Approval status updated back in the Approval Step of Case in SAP Service Cloud Version 2 / SAP Enterprise Service Management

This structured process ensures that the process moves through an efficient and automated workflow updating back the approval status in Case entity of **SAP Service Cloud Version 2 or SAP Enterprise Service Management template**

For more information on how to get the official icons & samples, see [Use Official Icons and Samples for SAP Business Technology Platform Solution Diagrams](#)

## Prerequisites

The **External Approvals in SAP Service Cloud Version 2 and SAP Enterprise Service Management** template is intended to be used for SAP Service Cloud Version 2 and SAP Enterprise Service Management and requires the following services in SAP Business Technology Platform.

- SAP Service Cloud Version 2 or SAP Enterprise Service Management
- SAP Build Process Automation to orchestrate the process
- SAP Cloud Identity Services - Identity Authentication (optional)
- SAP BTP, Cloud Foundry runtime

## Process Flow

- 1) Case API Trigger:**  
The requestor starts the external approval process by triggering the “Submit Approval” action in the external approval step of Case in **SAP Service Cloud Version 2 and SAP Enterprise Service Management**. The trigger should be configured with case ID, requestor data.
- 2) Retrieve a Case by ID**  
This action retrieves the respective case data from the **SAP Service Cloud Version 2 and SAP Enterprise Service Management** system
- 3) Check Escalation Status**  
Checks if the case is escalated and if an approval process is required. If approval is required, then the approval determination is followed. Otherwise, the case approval is auto approved and the same would be reflected back in Case as Auto Approved.
- 4) Determine Approver**  
If approval process is required based on the escalation status, the responsible approvers are determined based on the case priority value and are assigned as the approvers
- 5) Case Approval Form**  
The approvers receive the approval form with case related data and approver can then take a decision of Approving or Rejecting and add a note as well.
- 6) Set Approval Status**  
Based on the decision, approval status is set and sent back to Case Approval step.

## Configuration Guide

**External Approvals in SAP Service Cloud Version 2 and SAP Enterprise Service Management** template requires SAP Build Process Automation subscription or CPEA contract. Follow the [setup and configuration section](#).

# Setup SAP Business Technology Platform Cockpit

## Sample Destination Configuration

Name: \* SSCV2\_ESM

Type: HTTP

Description:

URL: \* https://myxxxxxx.de1.crm.cloud.sap/

Proxy Type: Internet

Authentication: BasicAuthentication

User: \* USERNAME

Password: .....

### Additional Properties

sap.applicatio... true 

sap.processa... true 

Use default JDK truststore

Destination Properties	Value
sap.applicationdevelopment.actions.enabled	True
sap.processautomation.enabled	True

## User Roles Configuration

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

Role Name	Purpose
ProcessAutomationDeveloper	To be provided to a Standard Business User, can model and publish processes
ProcessAutomationAdmin	To be provided to a user who monitors different processes and automations. Can also configure environments and agents, and manage business users
ProcessAutomationParticipant	To be provided to an approver or form step assignee, can also contribute to runtime

- To create Communication system, Communication Configuration, External Approval Process and to link this within a Case type in SAP Service Cloud Version or SAP Enterprise Service management, the system admin will need to be assigned a role with these service assignments:
  - sap.crm.service.approvalService
  - sap.crm.service.caseService



- sap.crm.service.dataConnectorService
- sap.crm.service.caseTypeService

## Setup SAP Build Process Automation Content

### Import Content

1. This template can be downloaded from the Store:
2. Navigate to the Store in your SAP Build Process Automation application.
3. Select the Project Type filter as “Process Automation.”
4. In the Search bar type “Case External Approvals”
5. Select the “Create from Template” button to add the template into your lobby. After successfully adding the template, navigate back to the lobby to find the “Case External Approvals” project available for use.

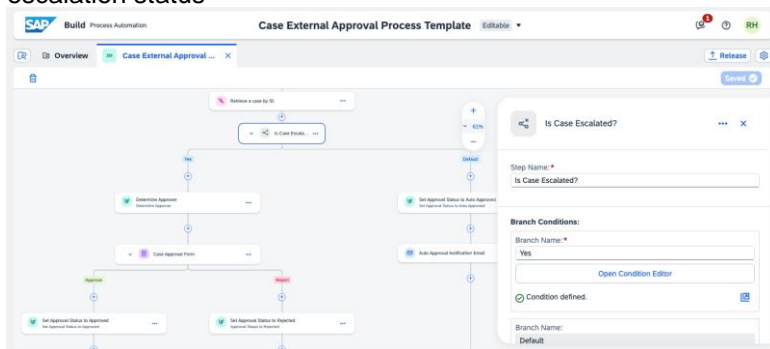
Caution: Ensure that you select the Project Type as “Process Automation” in the filters.

### Configure Process

**Once the template process is copied and available, artefacts like branch, decisions and forms can be configured as required.**

#### Configure Decisions

The decision whether an approval is required or not can be configured based on any case attribute e.g. escalation status

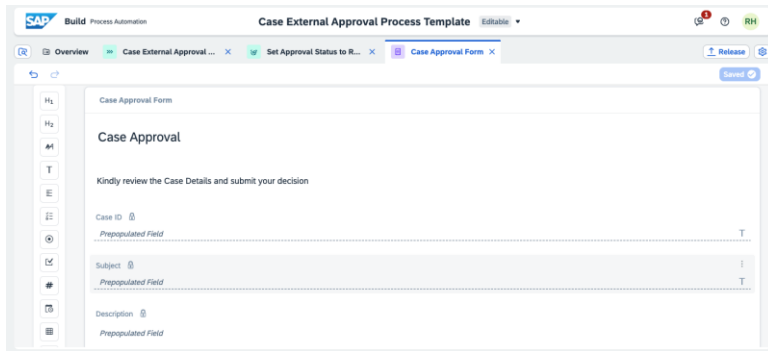


The approver determination decisions can be configured based on any case attribute, for example, priority code.

**Note: Output Parameter name in Set Approval Status decisions should not be changed.**

### Configure Forms

The Case Approval Form can be configured to include/exclude case attributes in read only mode which approvers need to refer to, before deciding.



**Note - Approval Note input field in form should not be renamed.**

## 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 in the destination environment variables during deployment. To configure destination:

1. Click on Control Tower.
2. Select Destinations from the right panel.
3. Click New Destination
4. Select the destinations to be added.

### Create a Service Instance

A service instance would be required for SAP Build Process Automation to run in.

Please follow the steps as described in [Create a Service Instance for SAP Build Process Automation](#)

### Create a Service Key

Please follow the steps as described in [Service Keys](#)

Click on “View Credentials” and note the clientid, clientsecret & url. These would be required when configuring the Communication System in the SAP Service Cloud Version 2 / SAP Enterprise Service Management tenant.

### Create API Key

An API key is a special token that can be used as an authorization to execute API triggers and read access to API triggers. API keys are used in addition to client credentials for different public endpoints.

Please follow the steps as described in [API Keys](#)

Generated Key will be displayed only once. User should ensure to copy and keep safe as this would be later configured in communication configuration headers for the pre-delivered communication configuration in SAP Service cloud Version 2 or SAP Enterprise Service Management

## Release and Deploy Process

After configuring your process, it is time to publish, evaluate 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 cannot run and is not 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 have released the process, a version labeled 1.0.0 is released. For subsequent releases, you are 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 process can be used to be configured an external approval process within a Case Type in SAP Service Cloud Version 2 or SAP Enterprise Service Management, email notification to notifiers.

To deploy a released version of your process,

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

To deploy your project, you will be prompted to provide a destinations as an environment variable. Select the destinations for SAP Service Cloud Version 2 / SAP Enterprise Service Management from the drop down

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

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## Configuration on SAP Service Cloud V2 / SAP Enterprise Service Management

External approval process is applicable only for Cases, and customers having SAP Build Process Automation license will have to request external approval process activation via an incident on CEC-CRM-APR.

## Create Communication Systems

Create communication systems to connect to the source or the target system that are used in the integration.

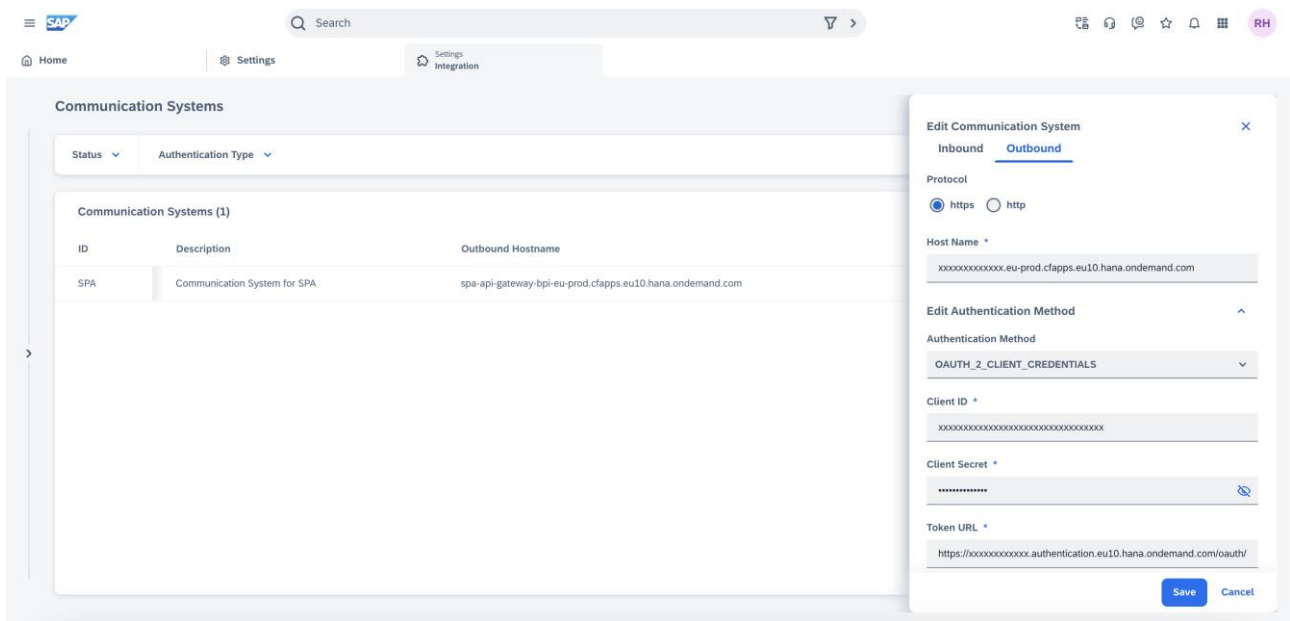
Context

A communication system has all the information of the external system you connect to or the information for the external system that connects to your system. Using the communication system the right host name is addressed, and the authentication method is executed.

During integration, source systems connect to target systems using communication systems.

Outbound communication systems are for connecting to the external system to send data and inbound communication systems are for the external systems to connect to SAP Service Cloud Version 2 / SAP Enterprise Service Management to receive data.

On the Communication Systems page, you can filter the communication systems by status and authentication type. You can create and edit communication systems to exchange data across systems electronically.



## Procedure

1. Go to User Menu =>Settings => All Settings => Integration Message Monitoring Communication Systems.
2. Click Create.  
**Note:** Display ID must be the Business System ID of your external system.
3. In the Display ID field, enter the display ID for the communication system.
4. In the Description field, enter a meaningful description for the communication system.
5. In the Inbound tab, click the Create button, enter a password in the Set Password field or upload a certificate using the Drop or Browse Files option.  
**Note:** Ensure your password meets the password criteria.
6. When you set a password, the display ID you add is taken as the username and the password you set is used as the communication user's password.
7. The user generated here can be viewed in Users and Control Users Technical Users. The external system uses this user to connect to our system.
8. In the Outbound tab, click the Create button. Select the protocol. The options are http and https
  - In the Host Name field, enter the host name of the outbound system.
  - From the Authentication Method dropdown, select the authentication method for the host name.  
**Note:** None is selected by default.

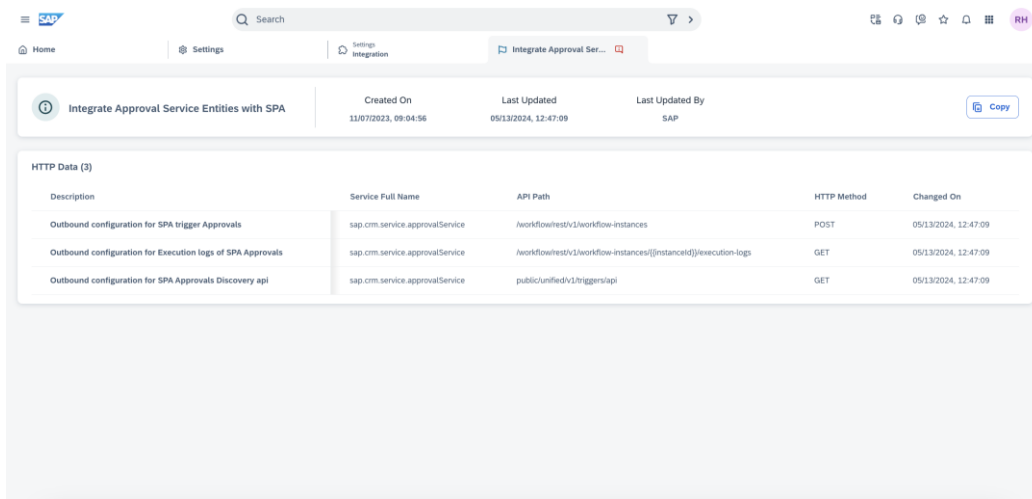
**Recommendation:** Do not use the Basic authentication method in productive tenants for security reasons.

9. Click Save or Save and Activate.

## Create Communication Configuration

Configure communication between SAP Service Cloud Version 2 / SAP Enterprise Service Management and the application you are integrating it with.

Communication configuration comprises all the required information for integrating SAP Service Cloud Version 2 / SAP Enterprise Service Management with other applications. It contains the communication system, mapping of code values, and all inbound and outbound communications that must be executed for integration.



Description	Service Full Name	API Path	HTTP Method	Changed On
Outbound configuration for SPA trigger Approvals	sap.com.service.approvalService	/workflowrest/v1/workflow-instances	POST	05/13/2024, 12:47:09
Outbound configuration for Execution logs of SPA Approvals	sap.com.service.approvalService	/workflowrest/v1/workflow-instances/{instanceId}/execution-logs	GET	05/13/2024, 12:47:09
Outbound configuration for SPA Approvals Discovery api	sap.com.service.approvalService	public/unified/v1/triggers/api	GET	05/13/2024, 12:47:09

Login to the SAP Service Cloud Version 2 / SAP Enterprise Service Management system, go to User Menu => Settings => All Settings => Integration Communication Configuration.

1. Click the Integrate Approval Service Entities with SPA communication configuration template.
2. Click Copy.
3. Go to the Communication Configuration page and click the copied communication configuration.
4. Edit Communication System and select the name of the communication system.
5. In the HTTP Data section, edit the HTTP Header Data and add the HTTP header name and HTTP key value from the SAP Business Process Automation tenant.
6. Maintain the api-key against the discover api public/unified/v1/triggers/api. (this is applicable only for the unified v1 api triggers)
7. Activate the configuration system that you created.

## Configure External Approval

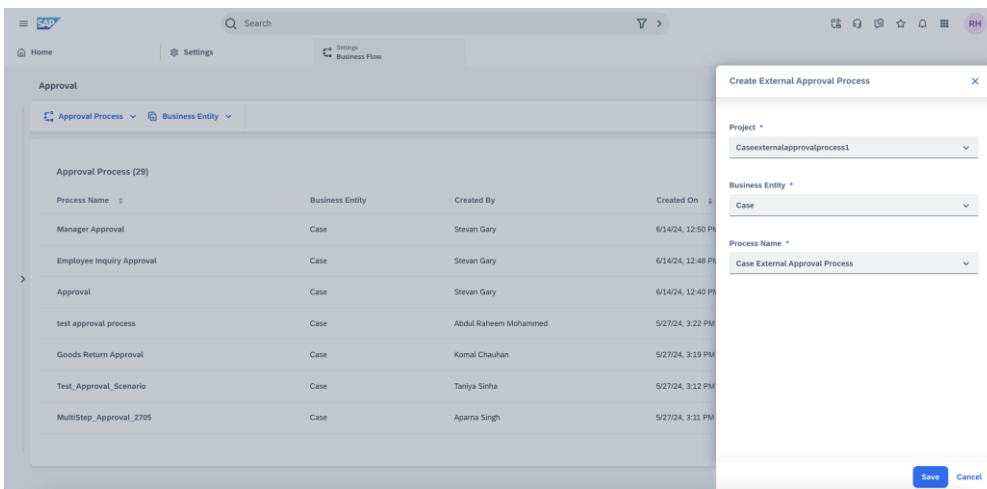
As an administrator, you can configure external approval processes for your business.

### Prerequisites

To configure external approval process, you must integrate the SAP Service Cloud Version 2 / SAP Enterprise Service Management system with SAP Build Process Automation system and create a business process.

### Procedure

1. Go to your user menu and select Settings => All Settings =>Business Flow => Approval.
2. Select + and choose Create External Approval Process.
3. Select the SAP Build Process Automation project from the dropdown, business entity as Case, and process name within the selected Project defined for executing the Approval process
4. Click Save.



## User Guide

### Capabilities

This template consists of following capabilities.

Please refer [help documentation](#) to know more about these different artifacts.

Name	Description
Process - Case External Approval Process	This process contains the trigger, case data retrieval, decision step to determine if approval process is required, approver determination and approval status setting.
Form – Case Approval Form	This form is meant for approvers to refer to Case Data and take a decision to approve or reject the Case Approval
Decision – Determine Approver	This decision determined the approver responsible via the condition rules based on case attributes e.g. priority code



Decision – Set Approval Status to Approved	This decision sets the approval status to Approved based on the form action by the approver
Decision – Set Approval Status to Rejected	This decision sets the approval status to Rejected based on the form action by the approver
Decision – Set Approval Status to Auto Approved	This decision sets the approval status to Auto Approved if the approver process is not required based on the decision condition

## Support

There is no support available for template content. If you experience general issues with Approvals in SAP Service cloud Version 2 or SAP Enterprise Service Management, raise an incident via SAP Support Portal on **CEC-CRM-APR** 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)