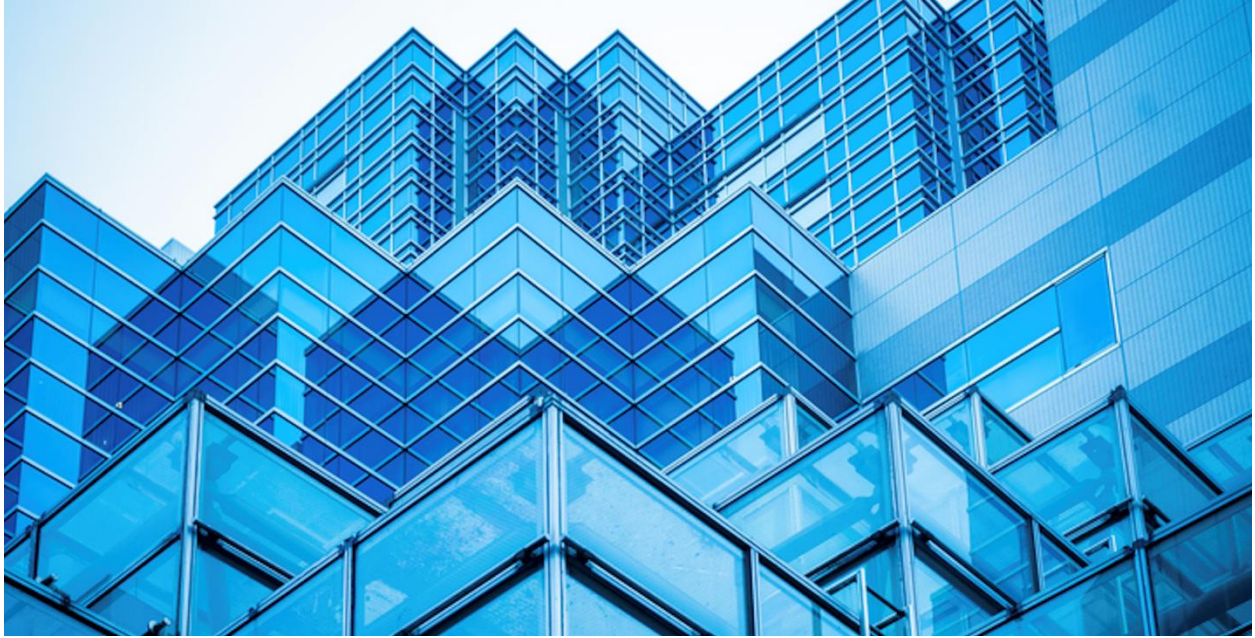




PUBLIC

SAP Build Process Automation

Automatic Picking of Outbound Deliveries

Configuration and User Guide

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Change Log

Version	Date	Description
1.0.0	November 21st, 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 artefacts that are used in this template like process definition, decision diagram, action project details, 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

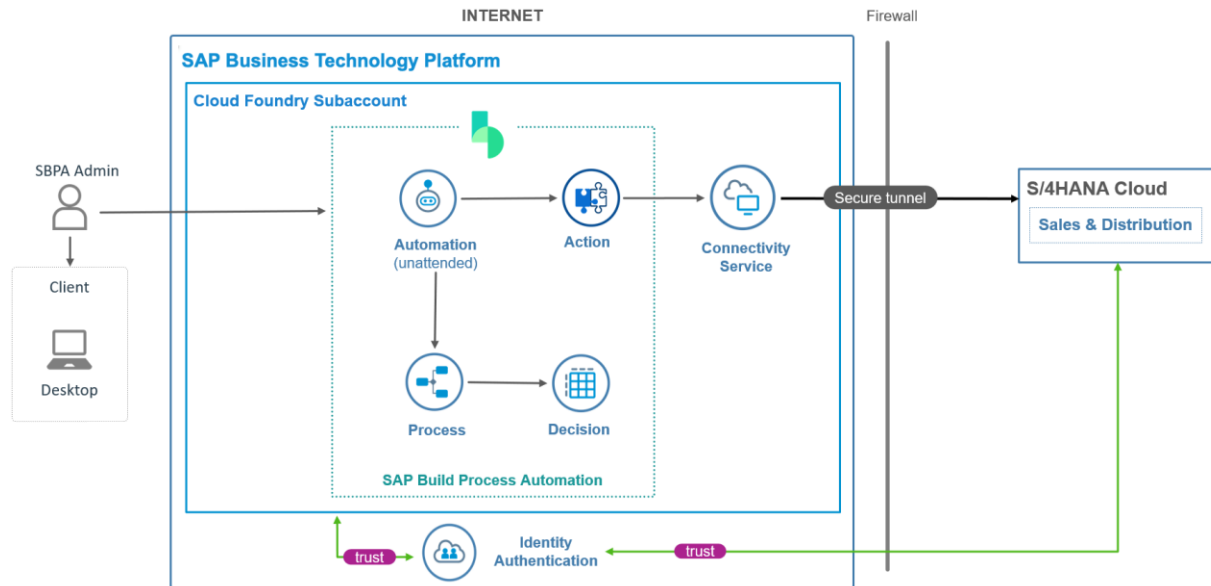
This document provides information about setting up the SAP Business Technology Platform account to consume the SAP Build Process Automation **Automatic Picking of Outbound Deliveries** template. The main audience of this document are technical IT/system administrators.

This package facilitates getting the Data based on status and post the data based on delivery document.

Features:

- This package provides functionality to get Delivery Document from SAP S/4HANA system based on the Overall Picking Status.
- After reading getting the data it will try to post it in SAP S/4HANA system based on Delivery Document
- Includes Automation to automatically generate the log file and send the email to requestor with Log File attached.

Process Flow Diagram



Steps:

1. Scheduled Job Automation will trigger initial Automation. It reads data from SAP S/4HANA system based on overall picking status.
2. Data downloaded and posted back to SAP S/4HANA System based on delivery document.
3. After processing all records log report will be generated based on Plant.
4. Generated log report sent via email to Notifier email id based on decision table.

Prerequisites

The following SAP Business Technology Platform services are required to consume the content package. Automatic Picking of Outbound Deliveries:

- 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
- 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.

Note:

- If any changes done in process & automation implementation also need to be updated to manage those changes.
- You can decide the folder by the key parameters where the excel log report should be placed.
- If those files are not active, the file will not be executed in Automation.
- The Log template has one sheet 'Logs.'
 - In log sheet the Delivery Document, Plant and post status and message will be there.
- After POST call the Log report will be generated in the name of "**LogReport_<Timestamp>.xlsx**" and will be saved in the Log Report folder which is placed in the path you have mentioned in the Environment variable (**LogReportFolderPath**) and notifies the requester through email about the completion with the log report attached to it.

Configuration Guide

Automatic Picking of Outbound Deliveries 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 Cloud System

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 Communication User
Password	<Password> of the SAP S/4HANA Communication User

Note: For SAP S/4HANA Cloud and on-premises, the API should be accessible over internet proxy type, as iRPA Automation does not support on-premises 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
Delivery Processing Integration(SAP_COM_0106)Delivery Insights Replication App Integration (Obsolete)(SAP_COM_0571)Excise Tax EMCS Integration(SAP_COM_0634)	Overview Outbound Delivery SAP Business Accelerator Hub

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
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 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 “**Automatic Picking of Outbound Deliveries**”
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 “**Automatic Picking of Outbound Deliveries**” 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>

Create a Business Process

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

Create a Decision

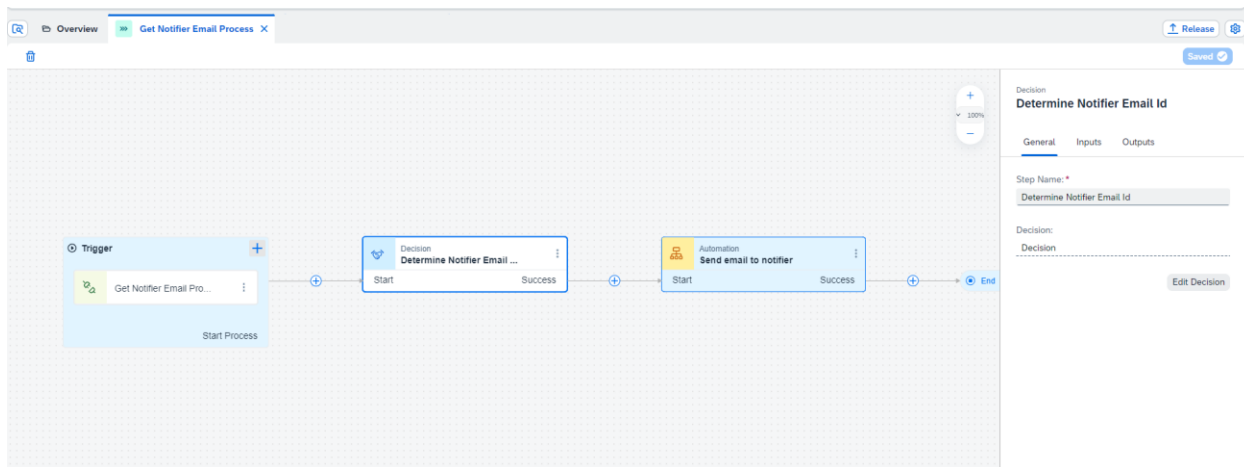
<https://help.sap.com/docs/build-process-automation/sap-build-process-automation/create-decision>

Configure Decisions

We have one decision in this template. We can configure the rules as per our requirements.

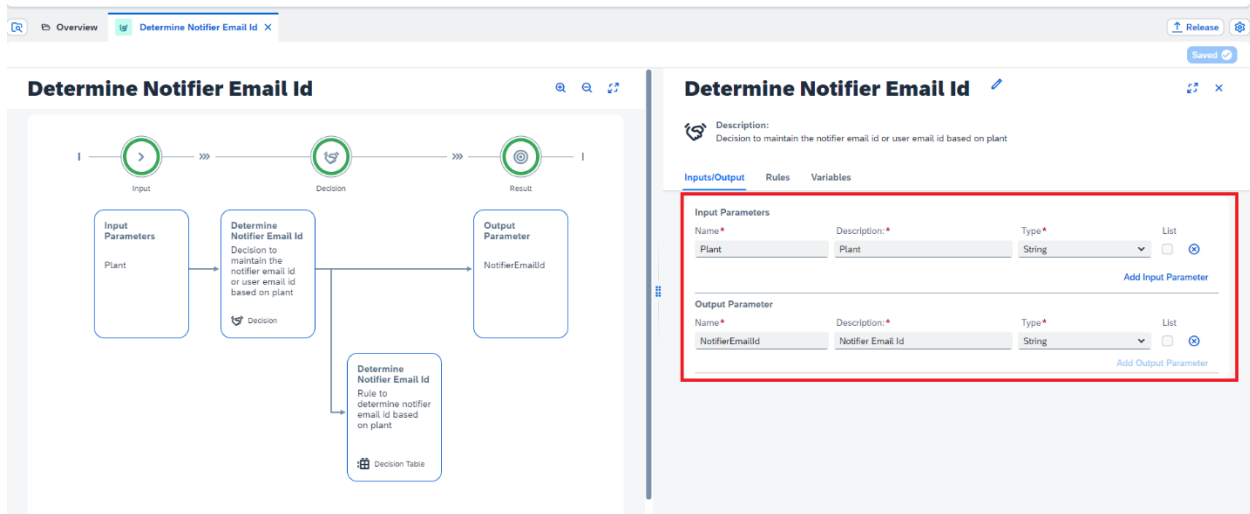
Determine Notifier Email Id:

This decision is used to maintain the notifier email id, who will receive the email for log report. This decision can be selected from process as shown below:



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.



The attributes used in the decision rule can be selected as per requirement.

Edit Rule

1 Rule Details — 2 **Configure Conditions** — 3 Configure Results — 4 Review

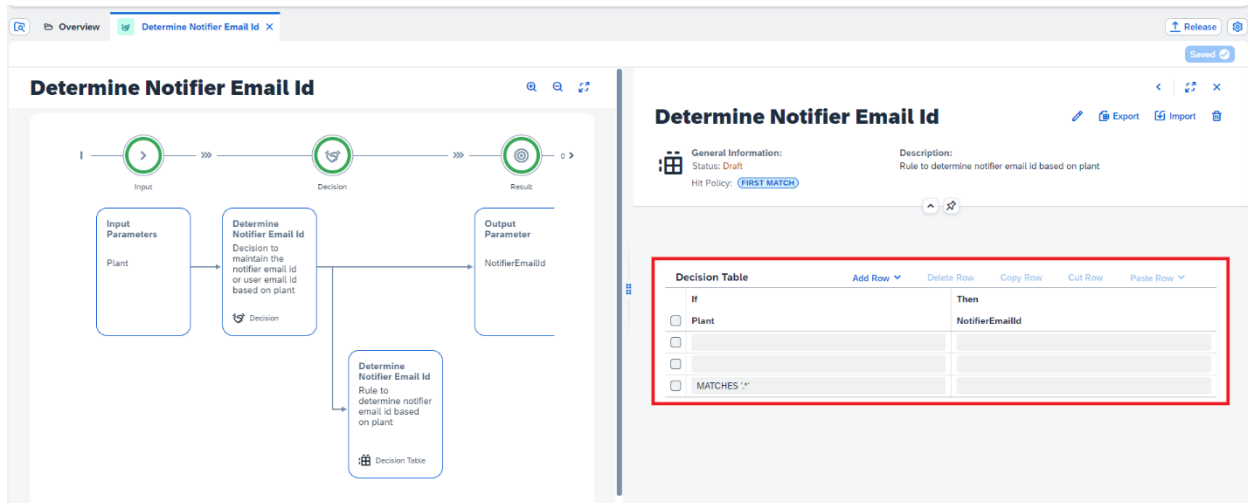
2. Configure Conditions

Click a vocabulary or its fields to configure the conditions.

Vocabulary	Condition Attributes	Label	Operator (Optional)
Plant	☐ Plant	Plant	
NotifierEmailId	☐ Use vocabulary or Ctrl+Space for expressions		

Previous Step Next Step Cancel

- Edit the rule to add more rows or update existing values.



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_CLOUD**

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 the [this link](#).

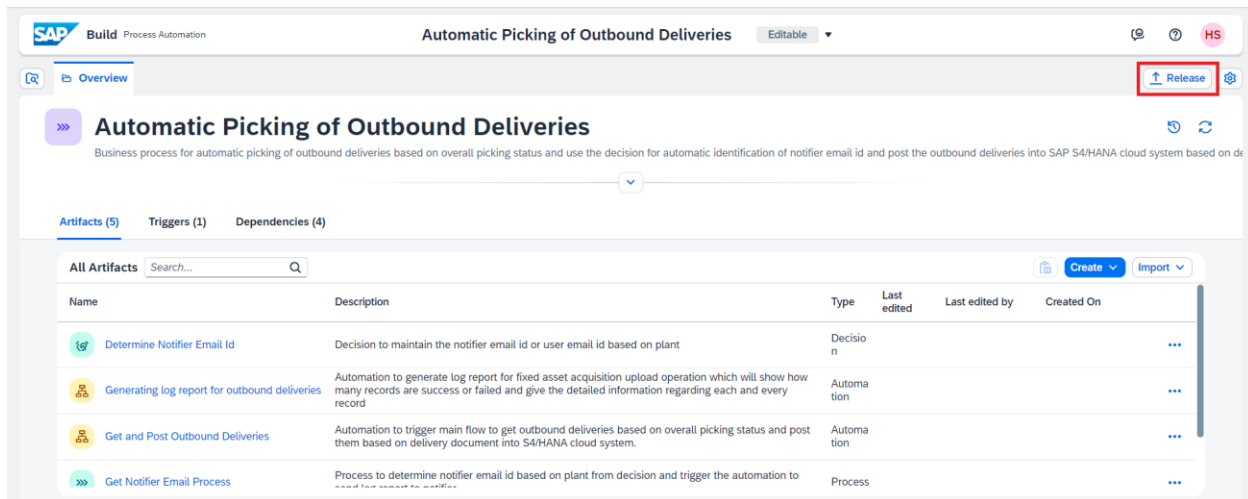
Release and Deploy the Process

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'.

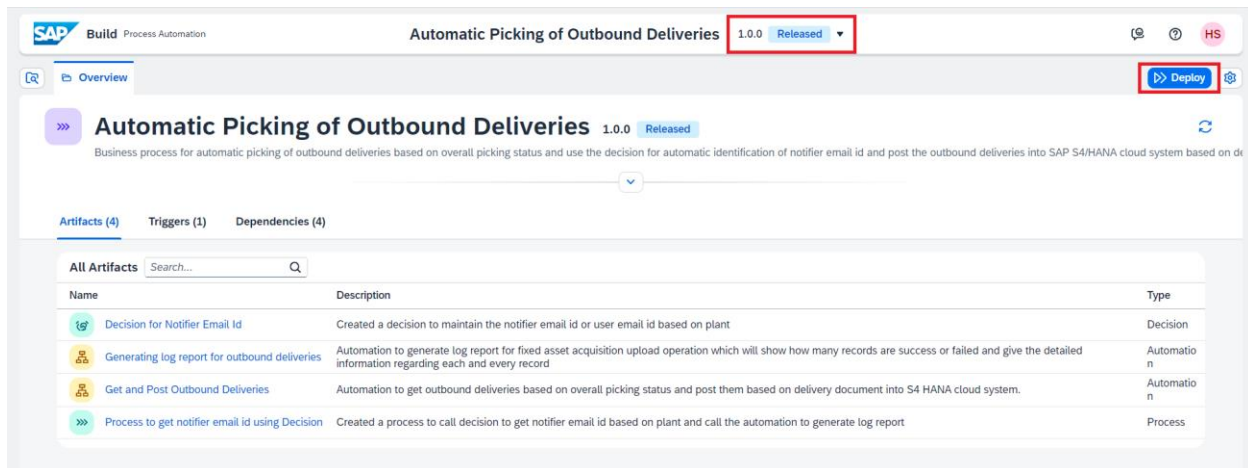


If this is the first time you've released the process, a version labelled 1.0.0 is released. For subsequent releases, you're prompted to select a version type before the process is released.

Deploy – This takes a released version of a process and enables it to be actively run and monitored.

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 Destination as an environment variable. Select the destination from the drop-down and fill other environment variables as well.

- **Destination:** SAP S/4HANA Cloud System Destination
- **LogReportFolderPath:** Path of folder where log file needs to be stored.

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.

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	Generating log report for outbound deliveries	Automation to generate log report for outbound deliveries posted into SAP S/4HANA system based on delivery document
	Automation	Get and Post Outbound Deliveries	Automation to trigger main flow to get outbound deliveries based on overall picking status and post them based on delivery document into S/4HANA cloud system.
	Automation	Send email to notifier	Automation to send email to notifier with log report based on grouping of plants
	Decisions	Determine Notifier Email Id	Decision to maintain notifier email id based on plant
	Process	Get Notifier Email Process	Process to determine notifier email id based on plant from decision and trigger the automation to send log report to notifier.

Actions

Outbound Delivery (A2X)

- **Get outbound delivery**

This action is responsible for reading the outbound delivery details for the given filter query.

- **Post outbound delivery**

Takes over delivery quantity as picked quantity for all outbound delivery items. This action is responsible for posting the outbound deliveries for delivery document for the provided data in the payload.

Automation

Generating log report for outbound deliveries

Automation to generate log report for outbound deliveries posted into SAP S/4HANA system based on delivery document

Get and Post Outbound Deliveries

Automation to trigger main flow to get outbound deliveries based on overall picking status and post them based on delivery document into S/4HANA cloud system and send the log report to notifier.

Send email to notifier

Automation to send email to notifier with log report based on grouping of plants.

Process

Get Notifier Email Process

Process to determine notifier email id based on plant from decision and trigger the automation to send log report to notifier email id.

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.

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