

SAP BUSINESS TECHNOLOGY PLATFORM | EXTERNAL

# Integration Guide

SAP Build Process Automation Integration with SAP S/4HANA for Manage Emissions Data

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# Overview

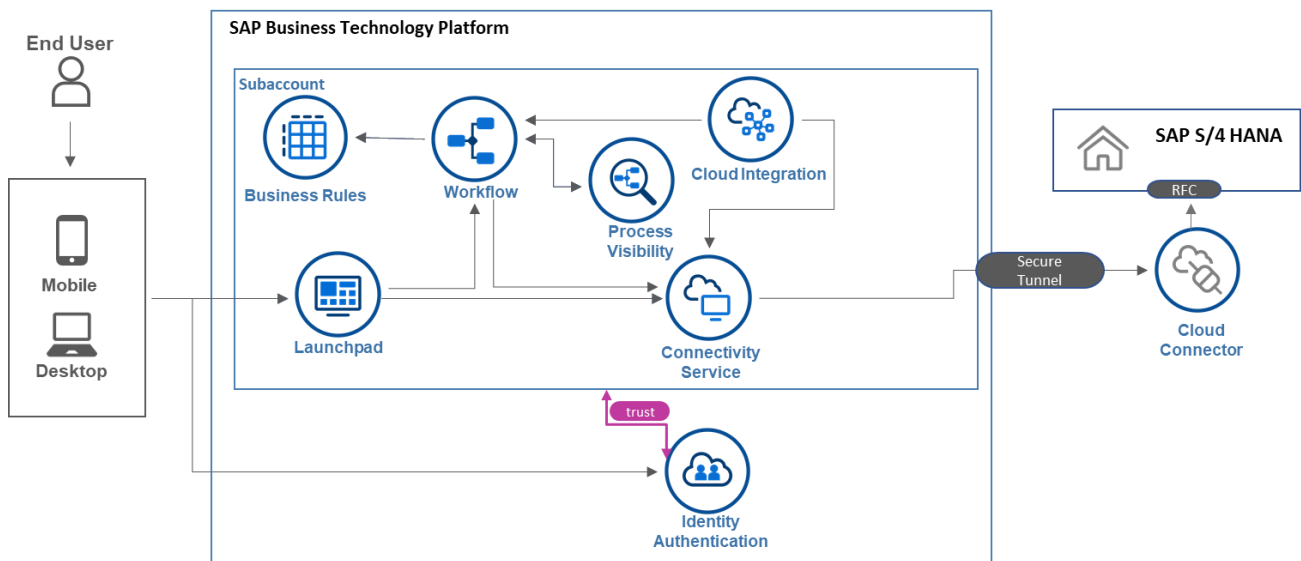
This document provides information about setup steps to consume the integration package for **Manage Emissions Data**.

The SAP Emission Management process is used to Collect and Monitor the emission data for different frequencies – Hourly, Daily, Monthly, Half-yearly, Yearly. This process is integrated with the Plant Maintenance and Incident Management process.

## Features

- Plug and Play with SAP S/4HANA without additional development.
- New Process variants can be configured in a no-code approach.
- Agent/approver determination using Business Rules or external service.
- Pre-built integration content to call SAP S/4HANA from SAP Build Process Automation or SAP Workflow Management
- Out-of-the-box visibility into key process performance indicators.

## Solution Diagram



This Integration Package contains the following salient features:

- Get Approvers for Emission Data integration flow gets approver details for Emissions Data from SAP S/4HANA to SAP Build Process Automation or SAP Workflow Management.
- Trigger Workflow for Emission Data integration flow reads Emission Data from SAP S/4HANA and trigger workflows in SAP Build Process Automation or SAP Workflow Management.

- Update Emission Data Status integration flow gets approval status from SAP Build Process Automation or SAP Workflow Management and update status of Emission Data in SAP S/4HANA

# Required SAP Business Technology Platform Services

The workflow content package **Manage Emissions Data** is intended to be used for SAP S/4HANA (on-premise) and requires the following services in SAP BTP:

- SAP Build Process Automation or SAP Workflow Management to orchestrate the process.
- Cloud integration capability withing SAP Integration Suite.
- SAP Connectivity service (cloud connector) to establish access to SAP S/4HANA.
- SAP Launchpad service to access the apps that are involved in the process.
- SAP Business Application Studio to modify/deploy the SAPUI5 applications.
- SAP BTP, Cloud Foundry runtime.
- SAP Cloud Identity Services (Optional)

# Setup and Configuration

This section will explain how to setup the integration content that is required for the workflow content package **Manage Emissions Data**.

## Configure RFC Destination

Configure a RFC destination to connect with SAP S/4HANA on-premise. Below is a destination configuration for SAP S/4HANA on-premise.

Note: This destination is required by Cloud Integration (Suite).

Name	<RFC_DESTINATION_NAME>
Type	RFC
Proxy Type	OnPremise
User	<ONPREMISE_USER>
Password	<ONPREMISE_PASSWORD>
Repository User	<ONPREMISE_USER>
Repository Password	<ONPREMISE_PASSWORD>

Additional Properties	jco.client.ashost: <host>
Additional Properties	jco.client.client:<client number>
Additional Properties	jco.client.lang: <language>
Additional Properties	jco.client.sysnr:<system number >

## Configure Cloud Connector

For SAP S/4HANA on-premise landscape, configure cloud connector to enable secure tunnel to SAP BTP tenant. Please refer the help documentation to [configure Cloud Connector](#).

Services/Resources that need to be exposed from SAP S/4HANA on-premise using Cloud Connector

Resources	Protocol	Backend-Type
/sap/opu/odata/sap/EM_MONITORDATA_SRV	OData	ABAP System

ZWF RFC EMISSIONS_GET_APPR	RFC	ABAP System
BAPI_USER_GET_DETAIL	RFC	ABAP System

## Import, configure and deploy cloud integration content

This workflow content requires the cloud integration to process the – Emission Data in SAP S/4HANA. The integration content package SAP Build Process Automation Integration with SAP S/4HANA for Manage Emissions Data is available in SAP API Business hub to integrate SAP Build Process Automation or SAP Workflow Management with SAP S/4HANA. Integration models use RFC and OData to integrate with SAP S/4HANA. The following integration models are available in this package.

1. Get Approvers for Emission Data
2. Trigger Workflow for Emission Data
3. Update Emission Data Status

Import the integration package to your SAP Cloud Integration tenant. To be able to import and deploy integration flows, you need the role AuthGroup. IntegrationDeveloper (in Neo environment) or PI\_Integration\_Developer (in cloud foundry environment) assigned in your tenant.

### Import pre-packaged Integration content in SAP Integration Suite

- Access your SAP Integration Suite tenant management node (<https://<integrationtenant>/itspaces>).
- View all pre-packaged integration flow under Discover->Integration. (<https://<integrationtenant>/itspaces/shell/discover>)
- Search content package “**SAP Build Process Automation Integration with SAP S/4HANA for Manage Emissions Data**”.
- Click on the package “**SAP Build Process Automation Integration with SAP S/4HANA for Manage Emissions Data**”.
- Click Copy to import the Integration content package to your workspace.
- Navigate to the *Monitor* view (<https://<integrationtenant>/itspaces/shell/monitoring>) to setup the security materials required for the package.
- Deploy the following credentials using the Security Material app. In Integration Suite, open Operations view, then click on Security Material to create and deploy security materials.

- **S4HANA** – (User Credentials) To call the OData APIs.
- **WF\_CREDENTIAL** – (OAuth2 Client Credentials) To start the approval workflows in SAP Build Process Automation or SAP Workflow Management ([help documentation to determine the service configuration parameters](#)). Make sure that the process automation service instance or workflow service instance was created with the following scopes - WORKFLOW\_INSTANCE\_GET

Note: The credential names can be different from what is mentioned above. Make sure that you configure the appropriate credential names in the integration flow's OData/HTTP adapter configuration.

### RFC Adapter Configuration

- Open the integration model *Trigger Workflow Emission Data*
- Click **Configure** button, choose receiver "SAP\_S4HANA\_RFC" and set the required destination name.
- Save the integration model.
- Maintain the same RFC Adapter settings for receiver "SAP\_S4HANA" in *Get Approvers for Emission Data* integration model and save the same.

### OData Adapter Configuration

- Open the integration model *Trigger Workflow for Emission Data*.
- Click **Configure** button, choose receivers "SAP\_S4HANA\_GET\_Emission", "SAP\_S4HANA\_GET\_Previous", "SAP\_S4HANA\_GET\_ScenarioLimit", "SAP\_S4HANA\_GET\_Scenario" and set the respective endpoint (the host and port as applicable) and credential names.
- Go to More tab and enter the Client\_No and if required, change the values for Data Store Name, HTTP Session Reuse and Transaction Handling.

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Configure "Trigger Workflow for Emission Data"

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Timer   Receiver   **More**

Type:

Client\_No:

Data\_Store\_Name:

HTTP\_Session\_Reuse:

Transaction\_Handling:



- Save the integration model.
- Maintain the same OData Adapter settings for receiver “SAP\_S4HANA” in *Update Emission Data Status* integration model and save the configurations.
- Also, maintain the same “More” tab settings in *Update Emission Data Status* integration model and save the configurations.

### HTTP Adapter Configuration

- Open the integration model *Trigger Workflow for Emission Data*.
- Click **Configure** button, choose receivers “SAP\_WorkflowManagement\_POST” and “SAP\_WorkflowManagement\_GET” and set the respective endpoint and credential names.
- Save the integration model.

Similarly, configure the other integration models. Once all the required configurations are done, deploy all the integration models.