

SAP BUSINESS TECHNOLOGY PLATFORM | EXTERNAL

Integration Guide

SAP Build Process Automation Integration with SAP S/4HANA for Service Order Date Change Notification

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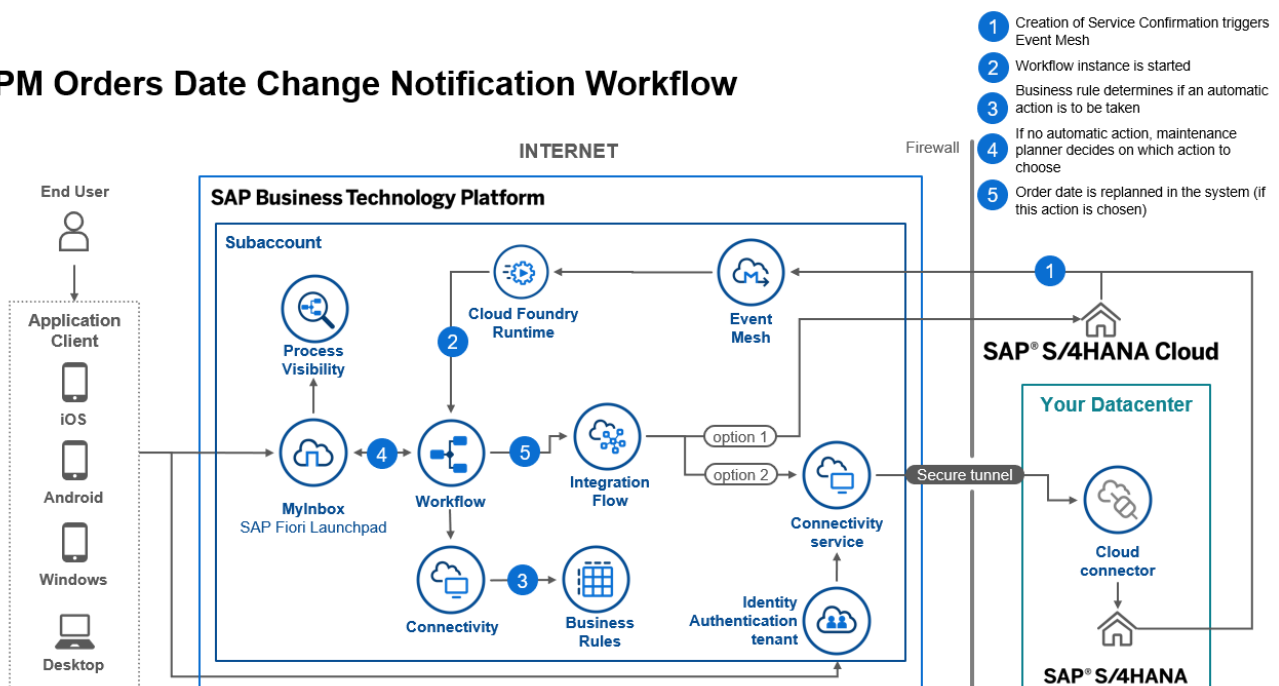
Overview

This document provides information about steps to setup the integration content to consume the live process content packages **SAP Build Process Automation Integration with SAP S/4HANA for Service Order Date Change Notification**. The primary audience of this document is integration administrators and developers. The integration package is used to start the workflow instance and update maintenance order schedule date.

Salient features of this content package are:

- Start workflow instance on SAP Build Process Automation or SAP Workflow Management
- Update maintenance order
- Retrieve order details from SAP S/4HANA

PM Orders Date Change Notification Workflow



Required SAP Business Technology Platform Services

The live process content packages **SAP Build Process Automation Integration with SAP S/4HANA for Service Order Date Change Notification** is intended to be used for SAP S/4HANA (on-premise and cloud) and requires the following services in SAP BTP:

- SAP Build Process Automation or SAP Workflow Management.
- Cloud Integration capability within SAP Integration Suite.
- SAP Connectivity service (cloud connector) to establish access to SAP on-premise.
- SAP Event Mesh

Setup and Configuration

This section will explain how to setup the integration content that is required for the live process content packages **Plant Maintenance Order Date Change Notification**.

Configure SAP S/4HANA to push Purchase Order Events to SAP Event Mesh

SAP Event Mesh can receive events from SAP S/4HANA (on-premise/cloud). Use the following blogs to perform the necessary configuration.

SAP S/4HANA (on-premise)

<https://blogs.sap.com/2019/09/16/sap-enterprise-messaging-for-s4hana-on-premises/>

SAP S/4HANA Cloud

<https://blogs.sap.com/2020/08/19/sap-s-4hana-cloud-enterprise-event-enablement-whats-new-with-cloud-2008/>

The following business event is required for the **SAP Build Process Automation Integration with SAP S/4HANA for Service Order Date Change Notification**:

1. /sap/s4/beh/purchaseorder/v1/PurchaseOrder/*

Note: At the end of this configuration, you will have the **Purchase Order** events from SAP S/4HANA (on-premise or cloud) available in the queue created using SAP Event Mesh.

Configure SAP S/4HANA Destination

Configure a HTTP destination to connect with SAP S/4HANA on-premise or SAP S/4HANA Cloud, refer to documentation [here](#) for the same. The below is a destination configuration for SAP S/4HANA Cloud.

Name	S4HANA
Type	HTTP
Proxy Type	Internet
User	<COMMUNICATION_USER>
Password	<COMMUNICATION_PASSWORD>
Authentication	BasicAuthentication

URL	<OData URL of SAP S/4HANA System>
Additional Properties	sap-client: <client 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](#).

Expose the following BAPI/RFC in the SAP Cloud Connector:

- BAPI_ALM_ORDER_MAINTAIN

Configure Event Mesh

You need to maintain 2 queues which will call the respective Integration Flows. Go to the Event Mesh Cockpit and open the message client. Create the following queues. For each queue, under 'Actions' click on 'Queue Subscriptions' and add the Subscribed Topic names

Queue 1: Assign

(Suggested) Queue Name	Subscribed Topic Name	Endpoint (Webhook URL)
sap/<messageClient>/em/PurchaseOrder	sap/<messageClient>/em/sap/s4/beh/purchaseorder/v1/PurchaseOrder/*	https://<Cloud Integration Tenant>/http/startMaintenanceOrderWorkflow

Create webhooks per queue.

(Suggested) Subscription Name	Queue Name	Webhook URL	Handshake Status
PurchaseOrderToCpiWorkflow	Sap/<messageClient>/em/PurchaseOrder	https://<Cloud Integration Tenant>/http/startMaintenanceOrderWorkflow	Exempted

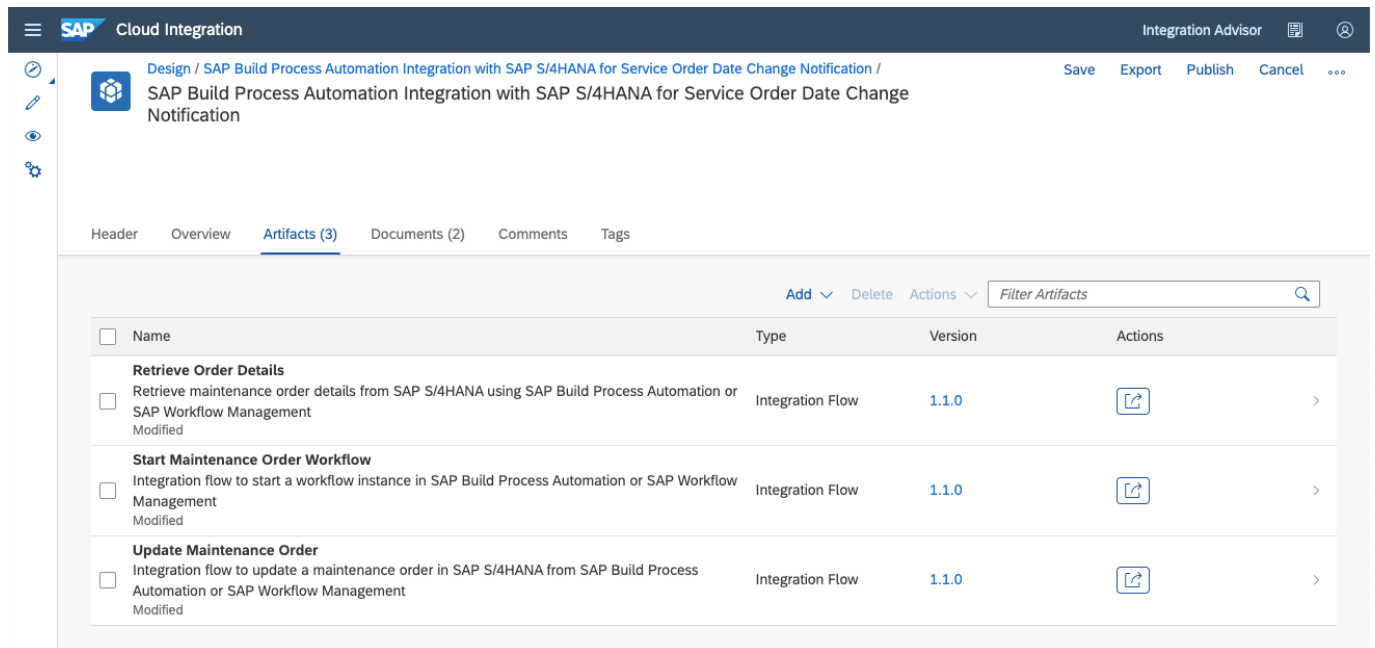
Ensure to choose right authentication type (Basic Authentication/oAuth2ClientCredentials) and provide relevant details.

Once you create the Webhook, select Actions and then Trigger Handshake.




Note: At the end of this configuration, you will have the Purchase Order request events from SAP S/4HANA (on-premise or cloud) available in the queue created using SAP Event Mesh.

Import, configure and deploy cloud integration content

This workflow content requires the cloud integration to process the **Purchase Order** in SAP S/4HANA. The integration content package **SAP Build Process Automation Integration with SAP S/4HANA for Service Order Date Change Notification** is available in SAP API Business hub to integrate SAP Build Process Automation or SAP Workflow Management with SAP S/4HANA. Integration models use OData APIs to integrate with SAP S/4HANA. The following integration models are available in this package.



The screenshot displays the SAP Cloud Integration interface. The top navigation bar includes the SAP logo, 'Cloud Integration', and 'Integration Advisor'. The main header shows the current design path: 'Design / SAP Build Process Automation Integration with SAP S/4HANA for Service Order Date Change Notification / SAP Build Process Automation Integration with SAP S/4HANA for Service Order Date Change Notification'. Below the header, there are tabs for 'Header', 'Overview', 'Artifacts (3)', 'Documents (2)', 'Comments', and 'Tags'. The 'Artifacts (3)' tab is active, showing a table of integration artifacts. The table has columns for 'Name', 'Type', 'Version', and 'Actions'. Three artifacts are listed, all of type 'Integration Flow' and version '1.1.0'. Each artifact has a 'Copy' icon in the 'Actions' column.

Name	Type	Version	Actions
Retrieve Order Details Retrieve maintenance order details from SAP S/4HANA using SAP Build Process Automation or SAP Workflow Management Modified	Integration Flow	1.1.0	 >
Start Maintenance Order Workflow Integration flow to start a workflow instance in SAP Build Process Automation or SAP Workflow Management Modified	Integration Flow	1.1.0	 >
Update Maintenance Order Integration flow to update a maintenance order in SAP S/4HANA from SAP Build Process Automation or SAP Workflow Management Modified	Integration Flow	1.1.0	 >

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 Service Order Date Change Notification**.
- Click on the package **SAP Build Process Automation Integration with SAP S/4HANA for Service Order Date Change Notification**.
- 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.
 - **Workflow** – (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 workflow service instance was created with the following scopes - WORKFLOW_INSTANCE_GET, WORKFLOW_INSTANCE_START, WORKFLOW_INSTANCE_CANCEL.

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 HTTP adapter configuration.

HTTP Adapter Configuration

- Open the integration model **Start Maintenance Order Workflow**
- Click **Configure** button, choose the appropriate receivers (workflow, process visibility or SAP S/4HANA) and set their respective API endpoint and credential names.

Configure "Start Maintenance Order Workflow"

Sender Receiver

Receiver: SAP_Workflow

Adapter Type: HTTP

Connection

Address: {{Workflow Runtime Host}}/rest/v1/workflow-instances

Workflow Runtime Host: https://api.endpoint/workflow-path/path

Credential Name: Workflow_Credentials

- Save and Deploy the integration model.
- Similarly, configure the other integration models and deploy them.