

SAP BUSINESS TECHNOLOGY PLATFORM | EXTERNAL

Setup Guide

Vendor Onboarding in SAP ERP using SAP Build Process Automation or SAP Workflow Management

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Overview

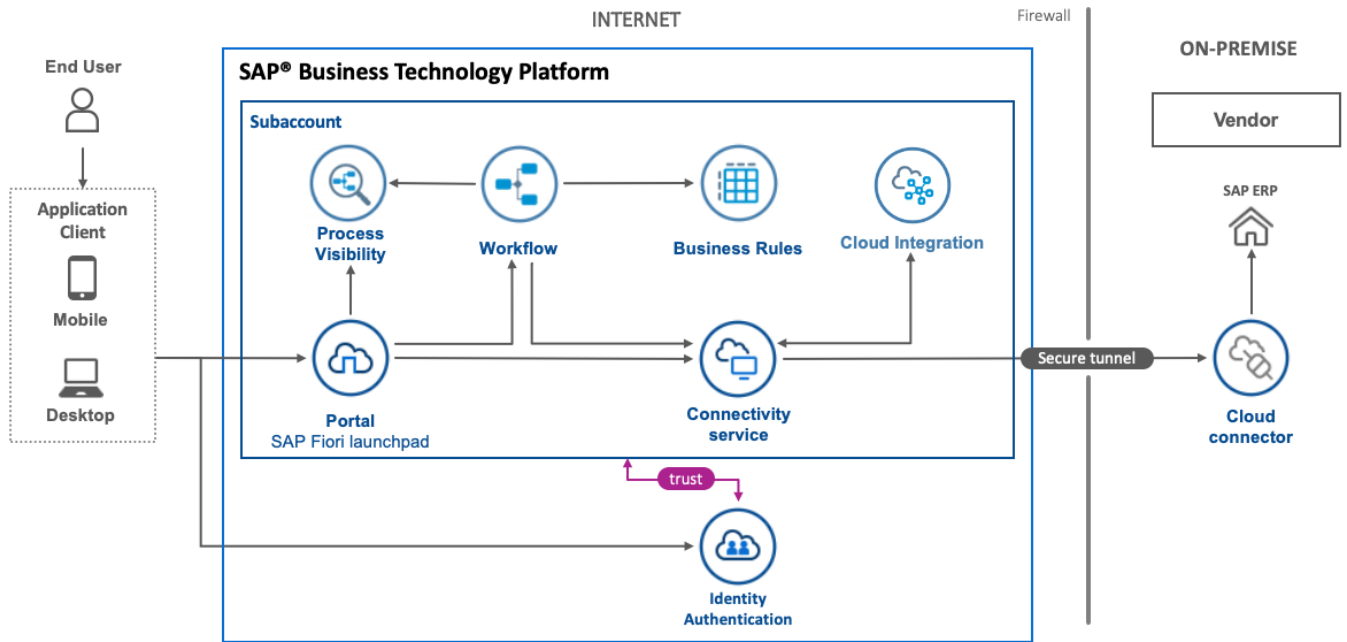
This document provides information about configuration steps to consume the live process package for **Vendor Onboarding**. The primary audience of this document is technical IT / system administrators.

Vendor Onboarding live process content package for SAP ERP enables to automate vendor creation process in a flexible and transparent way. It provides flexibility in executing a specific variant of the process depending on attributes like account group, vendor type, department, etc. When a user submits a request to register a new vendor, a pre-configured process variant is triggered in SAP Build Process Automation or SAP Workflow Management based on configurable business conditions. On approval from all parties involved, a vendor is created in SAP ERP. Salient features of this content package are:

- Plug and Play with SAP ERP without any additional development.
- Process steps are delivered to create a vendor (accounting, purchasing, centrally available & general purpose).
- New variant of the vendor onboarding process can be configured in a low-code/no-code approach.
- Configure multi-step approval in a low-code/no-code approach.
- Business Rules provides flexibility in determining process variants and approvers.
- Add custom validation on vendor attributes using Business Rules.
- Out-of-the-box visibility over key process performance indicators.
- Integration content to call SAP ERP RFCs & IDoc from SAP Workflow Management.

Disclaimer: Please note that this content package is a template to facilitate custom build extensions. A full-fledged master data management solution, with data quality management and governance capabilities is available on SAP Business Technology Platform, please see [SAP Master Data Governance](#).

SAP ERP – Vendor Onboarding



Required services in SAP Business Technology Platform

The live process package Vendor Onboarding is intended to be used for SAP ERP 6.0 and requires the following services in SAP BTP:

- SAP Build Process Automation or SAP Workflow Management to orchestrate the process.
- Cloud Integration capability within SAP Integration suite to consume the RFC, BAPI and IDoc from SAP ERP.
- SAP Cloud Connector to establish access to on-premise resources.
- SAP Cloud Portal service or SAP Launchpad service to access the apps that are involved in the process.
- SAP Cloud Identity Services - Identity Authentication (optional).
- SAP Web IDE or SAP Business Application Studio to modify/deploy the SAPUI5 applications.
- SAP BTP Cloud Foundry runtime.

Setup and Configuration

The **Vendor Onboarding** content package requires SAP Build Process Automation or SAP Workflow Management subscription or a CPEA contract. Based on which service you plan to use, follow the appropriate section to configure either SAP Build Process Automation or SAP Workflow Management

Configure SAP Build Process Automation

Follow the setup and configuration section of SAP Build Process Automation:

1. [Subscribe to SAP Build Process Automation \(Standard Plan\)](#)
2. [Configure Destinations for Live Process Projects](#)
 - a. Import Package Destination
 - b. Business Rules Destination to support start and step conditions
3. [Optional] [Configure SAP Launchpad Service for SAP Build Process Automation](#)

Configure Process Automation Destination

A HTTP destination is required in the BTP subaccount where SAP Process Automation is subscribed. Create a destination with name "sap_process_automation_service" with the following configuration if it doesn't exist already. Please refer how to [create a HTTP destination](#) OAuth 2.0 Authentication (client credentials).

Name	sap_process_automation_service
Type	HTTP
Proxy Type	Internet
Authentication	OAuth2ClientCredentias
URL	<"endpoints"."api">
Client ID	<"uaa":"clientis">
Client Secret	<"uaa":"clientsecret">
Token Service URL	<"uaa":"url"/>/oauth/token

Note: While creating the service instance for SAP Build Process Automation service, make sure that at least the required scopes are assigned (help documentation to enable technical authentication to [access the SAP Build Process Automation APIs](#)). If the scopes are not assigned, you can also [update the service instance](#) with the required scopes.

Configure OAuth2ClientCredentials SAP Build Process Automation Destination (Service Instance)

Ignore this step if there is already a destination using SAP Build Process Automation service instance created.

Create new destination to call SAP Build Process Automation APIs using a service route from SAP UI5 component. For more details, follow the help document:

<https://help.sap.com/viewer/cca91383641e40ffbe03bdc78f00f681/Cloud/en-US/685f383cebb54c009b2fac633b32c90f.html>.

Destination Configuration

Blank Template Service Instance

Service Instance: * sap_processautomation

Name: * process_atuomation_service_destination

Description: Call SAP Process Automation APIs using a service route

Additional Properties New Property

Next Cancel

Destination Configuration

Name: * process_automation_service_destination

Type: HTTP

Description: Call SAP Process Automation APIs using a s...

URL: * https://sap.com/DUMMY_URL

Proxy Type: Internet

Authentication: OAuth2ClientCredentials

Use mTLS for token retrieval

Client ID: * sb-... I9...

Client Secret: *****

Token Service URL Type: * Dedicated Common

Token Service URL: * https://... ..

Token Service User:

Token Service Password:

Additional Properties

endpoints	{ "api": "https://..."	
html5-apps-...	{ "app_host_id": "..."	
saasregistry...	true	
sap.cloud.s...	com.sap.spa.process...	
sap.cloud.s...	spa	

Use default JDK truststore

Save Cancel

Configure SAP Workflow Management

Follow the [setup and configuration section](#) of SAP Workflow Management.

Note: While creating the service instance for Workflow service, make sure that at least the following scopes are assigned (help documentation to [enable technical authentication](#) to access the workflow APIs). If the scopes are not assigned, you can also [update the service instance](#) with the following scopes.

- WORKFLOW_INSTANCE_GET
- WORKFLOW_INSTANCE_START

Configure Workflow Email Destination

Configure workflow email destination to send automatic email notifications to the parties involved in the process. See [Configure the Workflow Capability Mail Destination](#).

Configure Business Rules Destination

A HTTP destination is required in the Cloud Foundry account where SAP Workflow Management is subscribed. Create a destination with name “BusinessRules” with the following configuration, if it doesn’t exist already. Please refer how to [create a HTTP destination](#) and [how to access business rules APIs](#) using OAuth 2.0 Authentication (client credentials)

Name	BusinessRules
Type	HTTP
Proxy Type	Internet
Authentication	OAuth2ClientCredentials
URL	<rule_runtime_url>/rules-service
Client ID	
Client Secret	
Token Service URL	<uaa.url>/oauth/token

Configure OAuth2ClientCredentials Business Rules Destination (Service Instance)

Create new Destination to call Business Rules Service APIs using a Service route from SAP UI5 Component.

- Click New Destination.
- Select **Service Instance** as Destination Configuration.
- Select Service Instance as BusinessRules.
- Enter Name as BusinessRules_CFLP and click Next button.

Destination Configuration Blank Template Service Instance

Service Instance: *

Name: *

Description:

- Click **Save** button.

Destination Configuration

Name: * BusinessRules_CFLP

Type: HTTP

Description: Rules destination from SAP UI5 API calls using ...

URL: * https://sap.com/DUMMY_URL

Proxy Type: Internet

Authentication: OAuth2ClientCredentials

Client ID: *

Client Secret: *****

Token Service URL: *

Token Service User:

Token Service Password:

Additional Properties

endpoints	{"rule_repository_url":...	
html5-apps-r...	{"app_host_id": "cbd0c...	
saasregistrye...	true	
sap.cloud.se...	com.sap.bpm.rule	

Use default JDK truststore

Save Cancel

Configure OAuth2ClientCredentials Workflow Destination (Service Instance)

Similarly, create new Destination to call Workflow Service APIs using a Service route from SAP UI5 Component. For more details, follow the official help document:

<https://help.sap.com/viewer/cca91383641e40ffbe03bdc78f00f681/Cloud/en-US/685f383cebb54c009b2fac633b32c90f.html>

Configure Integration Destination

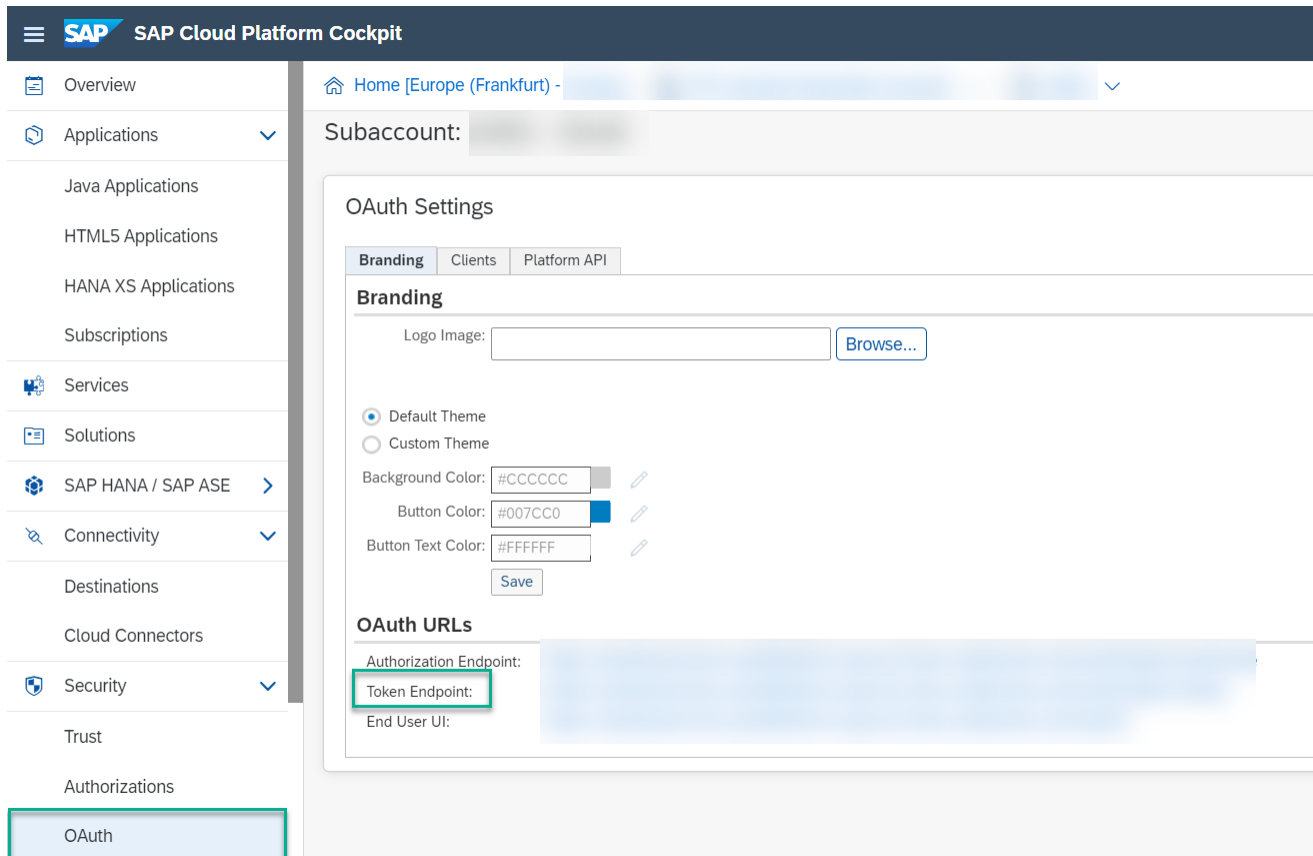
To call an integration flow, a HTTP destination is required in the SAP BTP tenant where the SAP Workflow Management is subscribed. Create a destination with name CPI with Type as HTTP, Proxy Type as Internet and Authentication as BasicAuthentication. Please refer how to [create a HTTP destination](#). The URL should be the runtime URL. Please refer how to get your SAP Integration Suite tenant [runtime URL](#).

You can also choose to configure the destination to use the Authentication as OAuth2ClientCredentials. If you are using SAP BTP Neo environment tenant, create an OAuth client and enter Client ID and Client Secret. Please refer [how to create an OAuth client in SAP BTP Neo environment](#).

Name	CPI
Type	HTTP
Proxy Type	Internet
Authentication	Basic Authentication OR OAuth2ClientCredentials
URL	<runtime.url>
Username OR Client ID	

Password OR Client Secret	
Token Service URL	<oauth.url.for.clientCredentials>

Token Service URL is available in the SAP BTP Neo tenant as displayed in below screenshot.



Assign the required [Integration roles](#) to the OAuth client (with user id in the format `oauth_client_<client ID>`).

Configure SAP ERP Destination

An RFC destination is required in the subaccount where SAP Integration Suite is subscribed. Configure destination with Type as RFC, Proxy Type as On-Premise. Add “Additional Properties” `jco.client.ashost`, `jco.client.client`, `jco.client.sysnr`

The destination name needs not be ‘ECC’ as in the screenshot below. If a different name is used, then the same needs to be configured in the SAP Integration flows.

Name	ECC or <ANYNAME> Note: You can name it as you wish but maintain the destination name in the integration flow configuration.
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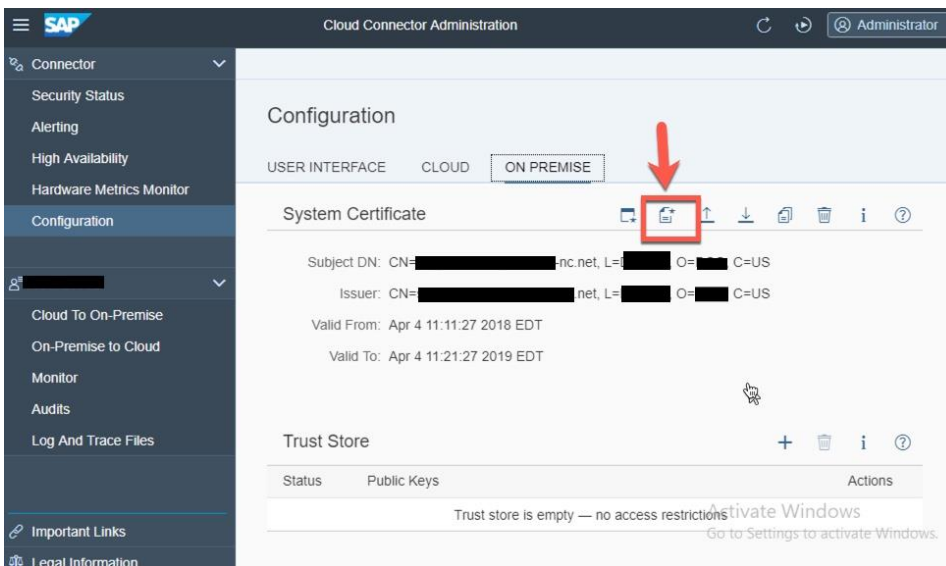
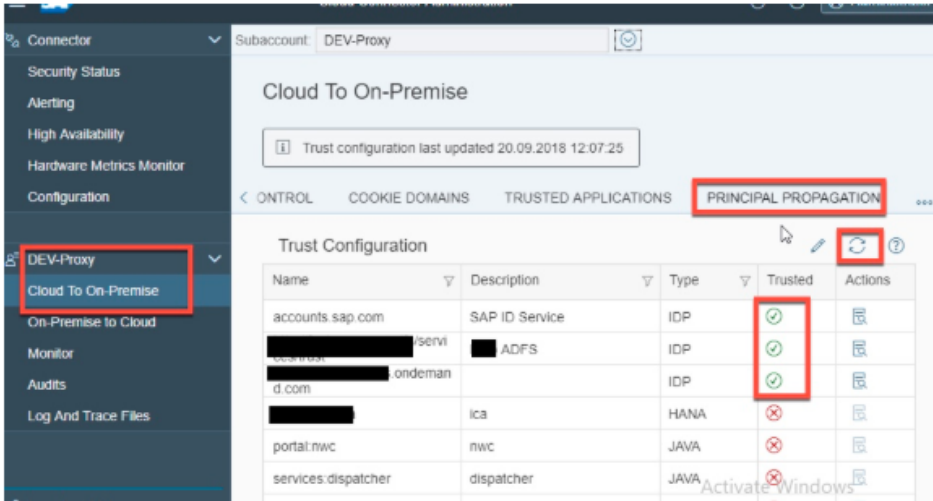
Type	RFC
Proxy Type	OnPremise
User	<ECC USER>
Password	<ECC PASSWORD>
Repository User	
Repository Password	
Location ID	<optional>
Additional Property	Name: jco.client.ashost Value: <abapServerHost> Name: jco.client.client Value: <client id> Name: jco.client.sysnr Value: <systemNumber>

Configure SAP Cloud Connector

Configure SAP Cloud Connector to enable secure tunnel for the RFC & IDoc calls.

1. Add mapping with RFC protocol and make the following RFC are accessible:
 - a. RFC_READ_TABLE- This RFC is used to fetch lookup data from specific tables and fields in SAP ERP. The specific tables and fields have been fixed in the integration flows so that only required data can be exposed.
 - b. RFCPING – This RFC is used to check the connectivity to SAP ERP.
2. Add another mapping with HTTPS protocol and enable the IDoc service - /sap/bc/srt/idoc. Also make sure the IDoc service is enabled in the SAP ERP. (To persist the vendor in SAP ERP, the CREMAS IDoc is used).

For implementing principal propagation from the integration flow to the SAP ERP, synchronize the IDP in SAP cloud connector, create the destination of type IDP and import the self-signed CA certificates.



In SAP ERP, follow these steps to enable principal propagation

1. Import Cloud Connector (SCC) System certificate in STRUSTSSO2 transaction under SSL Server Standard. This established the trust between the backend and SCC.
2. Maintain subject, issuer, cert rule parameter details in default profile – RZ10 transaction.
3. Create the rule-based mapping using sample X.509 certificate – CERTRULE transaction.
4. Restart ICM.

Configure SAP ERP

In SAP ERP configure [Partner Profiles and Port Configuration](#) for the usage of CREMAS IDoc.

Import, configure and deploy Integration content

This package utilizes Cloud Integration capability within SAP Integration Suite to provide integration between SAP ERP (or SAP S/4HANA) and SAP Build Process Automation or SAP Workflow Management. Further details can be found in dedicated integration guide of the integration package “**Vendor Onboarding**”.

Setup SAPUI5 Application

SAPUI5 application deployment

The Vendor Onboarding content package automatically deploys SAPUI5 applications for the user interface to onboard the vendor and for the approval process.

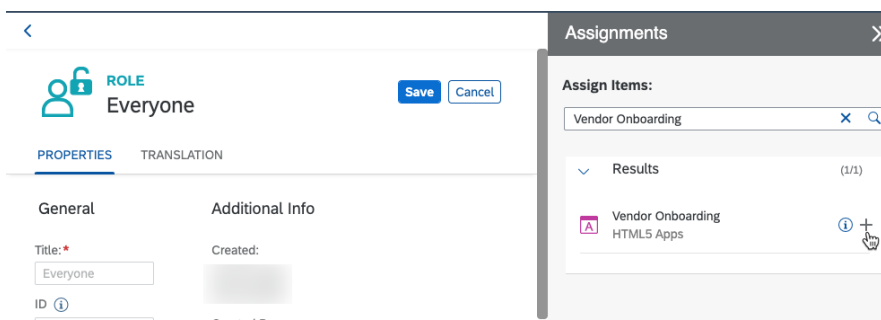
If you want to make changes to these, see below in chapter [Making Custom changes](#).

Configure SAP Central Fiori Launchpad Site for SAP Workflow Management

If you plan to use SAP Launchpad service, then configure [SAP Central Fiori Launchpad Site with Workflow Applications](#) using help documentation.

Perform the following steps to add the Vendor Onboarding app as a tile in the launchpad site:

- Open SAP Launchpad site manager application.
- Select Content Manager
- Go to Content Explorer tab.
- Under the HTML5 apps, search for com.sap.VendorOnboarding
- Select the app from the result and click ‘Add to My Content’ button to include the UI5 component.
- Go to My Content tab, and search for the role to which you want to add the app (for example, the default role called everyone).
- Click the role from the result table and navigate into it.
- Click the Edit button.
- Search for the app ‘Vendor Onboarding’ and click the + button to assign the app to the role.



- Save the changes to enable the app permission based on user role.
- You can either create a new group and add the Vendor Onboarding app to that group or you can add the Vendor Onboarding app to an existing group.

Please refer help documentation to know more about [configuring start UI tile on Central Fiori Launchpad](#).

Limitations

While creating Vendors using CREMAS IDOC there are certain limitations. Below are the Limitations:

- Email Address of the Vendor Created cannot be updated through CREMAS IDoc. For more information about the limitation and the workaround please refer to the following SAP note: <https://launchpad.support.sap.com/#/notes/1788696>
- House Number of the Vendor Created cannot be updated through CREMAS IDoc. For more information about the limitation and the workaround please refer to the following SAP note: <https://launchpad.support.sap.com/#/notes/384462>

Optional: Import Business Rule for Value Help

The SAPUI5 app has multiple fields that requires value help (36 value helps like country, region, currency, accounting group, withholding tax code, terms of payment, purchasing group, interest cycle, mode of transport, etc.). Since the value do not change frequently, the values are maintained in a business rule to make the scenario self-sufficient with minimal dependency to other services.

To setup the rule, download the rule archive from the **Sources** tab in **Manage Packages** app and [import the rule project](#) into your [Business Rules service](#). Once the project is imported, modify the decision tables to add/remove the values as per the values available in your SAP ERP system.

After updating the decision tables, activate the rule project in the following sequence

- Data Objects
- Rule
- Rule Service
- Rule Set
- Project.

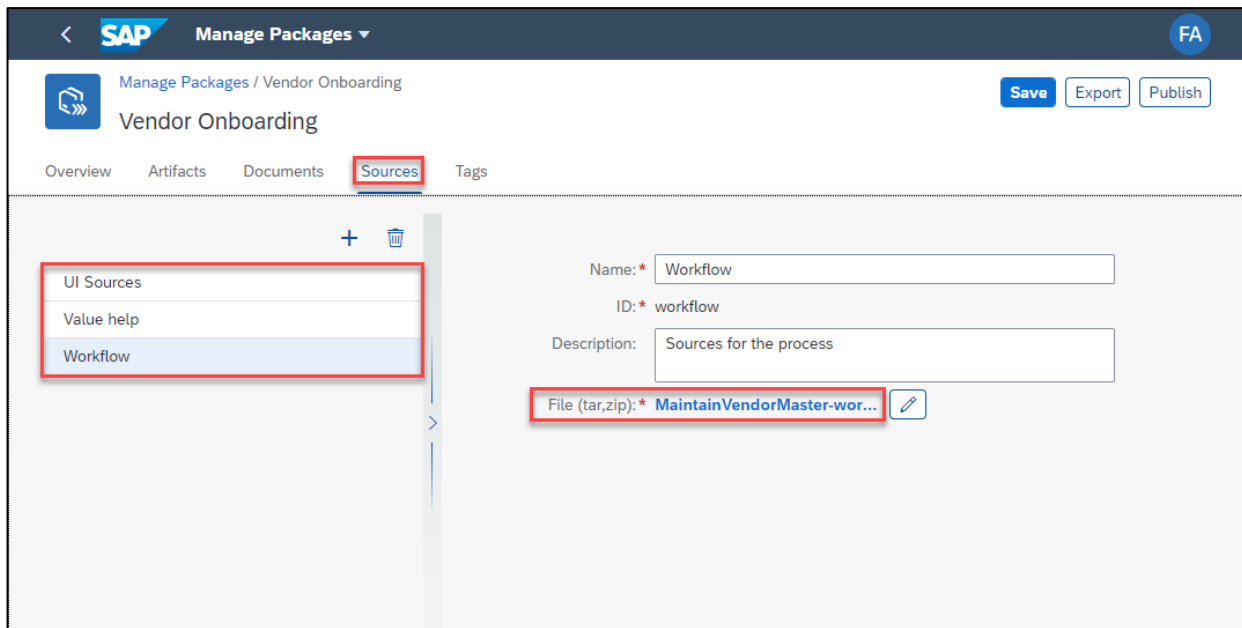
After successful activation, [deploy each rule service to Cloud Runtime](#).

If there is already a service (any REST or OData service) available in your landscape, then the same can be used instead of business rules. Look for value help methods in the controller.js under each HTML5 module.

Optional: Making Custom changes in SAP Workflow Management

Prerequisite: an account with access to SAP Business Application Studio as well as space developer permissions in BTP.

The source code for both the process and the SAPUI5-based user interfaces are available as part of the content package. With this, custom modifications can be implemented to adapt the content for specific needs.



- in **Manage Package** app, select **Sources** tab
- select the archive you want to download in the list on the left side
- click on the blue filename behind **File (tar, zip)** to download the attached source archive
- Import the archive into SAP Business Application Studio
- make any necessary modifications
- Build and deploy the MTA archive, using the space developer credentials

Please refer to the documentation for [SAP Business Application Studio](#), the documentation for [Modeling a Workflow](#) and the documentation for [Creating User Interfaces](#) for details.

Optional: Making Custom changes in SAP Build Process Automation

Prerequisite: an account with access to SAP Business Application Studio as well as space developer permissions in BTP.

The source code for both the process and the SAPUI5-based user interfaces are available as part of the content package. With this, custom modifications can be implemented to adapt the content for specific needs.

- in **Application Lobby**, search the package name and select **Sources** tab
- select the archive you want to download in the list on the left side
- click on the blue filename behind **File (tar, zip)** to download the attached source archive
- Import the archive into SAP Business Application Studio
- make any necessary modifications
- Build and deploy the MTA archive, using the space developer credentials

Please refer to the documentation for [SAP Business Application Studio](#), the documentation for [Modeling a Workflow](#) and the documentation for [Creating User Interfaces](#) for details.