

SAP BUSINESS TECHNOLOGY PLATFORM | EXTERNAL

## Setup Guide

# Vendor Onboarding in SAP ERP using SAP Workflow Management

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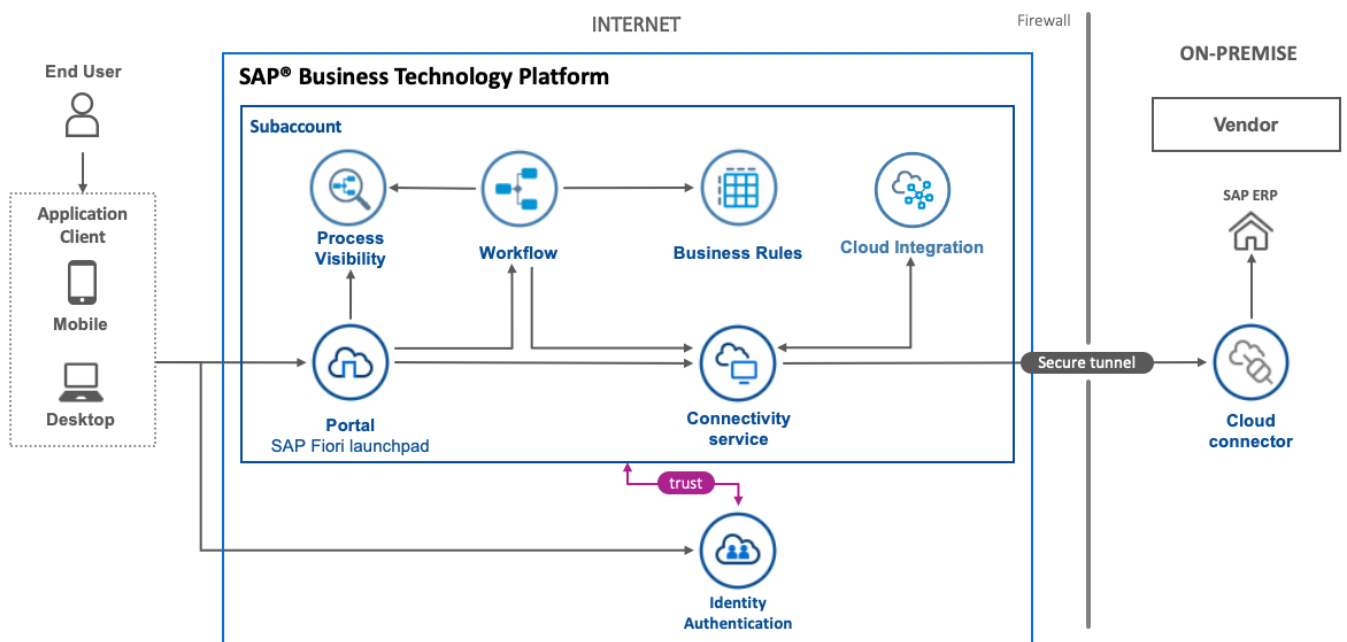
# Overview

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 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.

## 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 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 live process content package requires SAP Workflow Management subscription or a CPEA contract. Follow the [Initial Setup](#) guide to correctly configure SAP Workflow Management. Please [create a service instance of workflow](#) and name it as **Workflow**.

### Configure Workflow Email Destination

Configure workflow email destination to send automatic email notifications to the parties involved in the process. See [configure workflow email 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: \*

Type:

Description:

URL: \*

Proxy Type:

Authentication:

Client ID: \*

Client Secret:

Token Service URL: \*

Token Service User:

Token Service Password:

Additional Properties

endpoints	{"rule_repository_url": "...	<input type="button" value=""/>
html5-apps-r...	{"app_host_id": "cbd0c...	<input type="button" value=""/>
saasregistrye...	true	<input type="button" value=""/>
sap.cloud.se...	com.sap.bpm.rule	<input type="button" value=""/>

Use default JDK truststore

## 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>

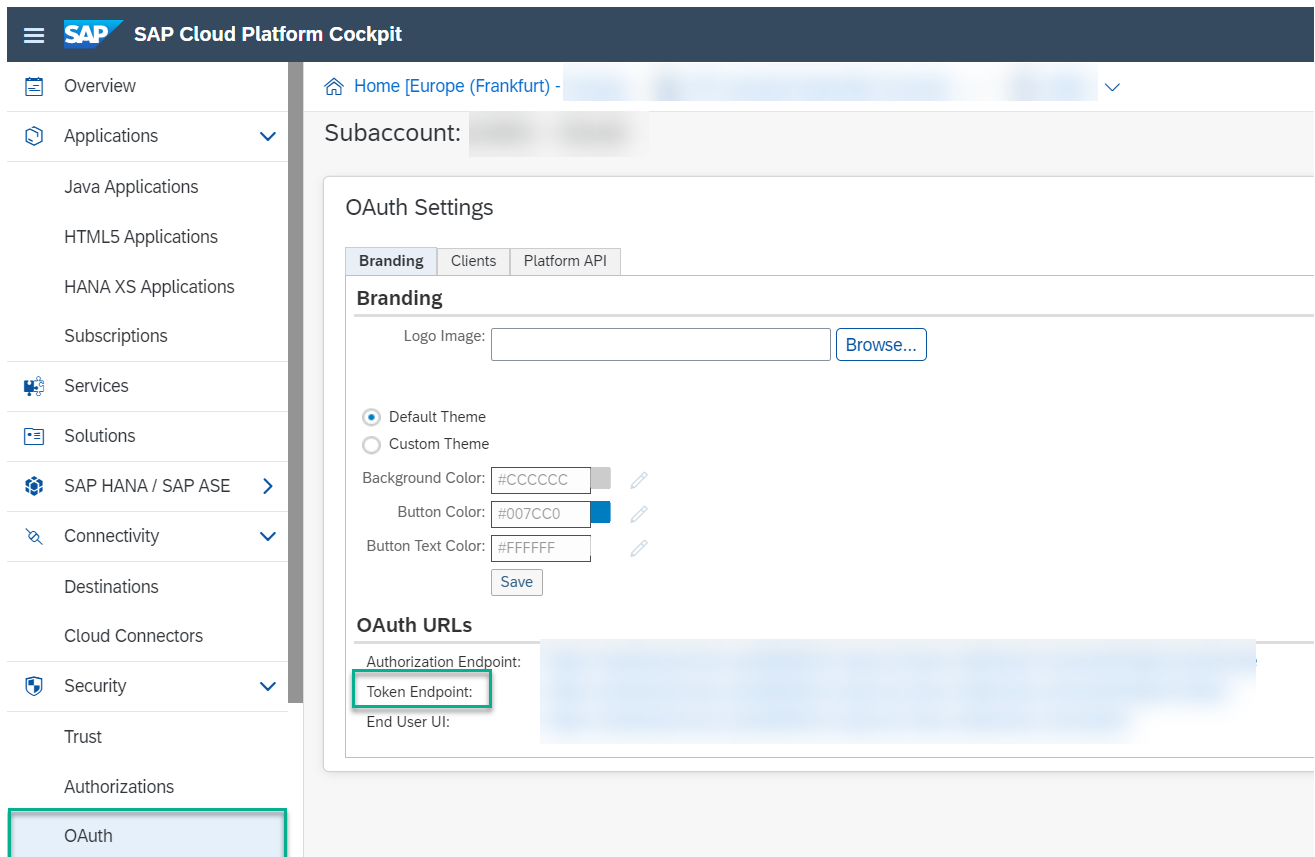
## Configure Integration Destination

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.
Type	RFC
Proxy Type	OnPremise
User	<ECC USER>



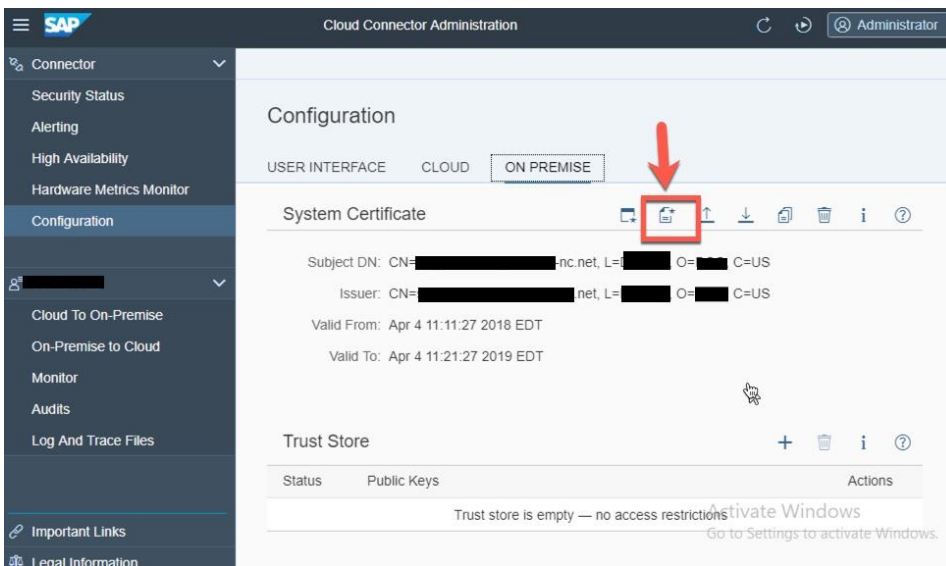
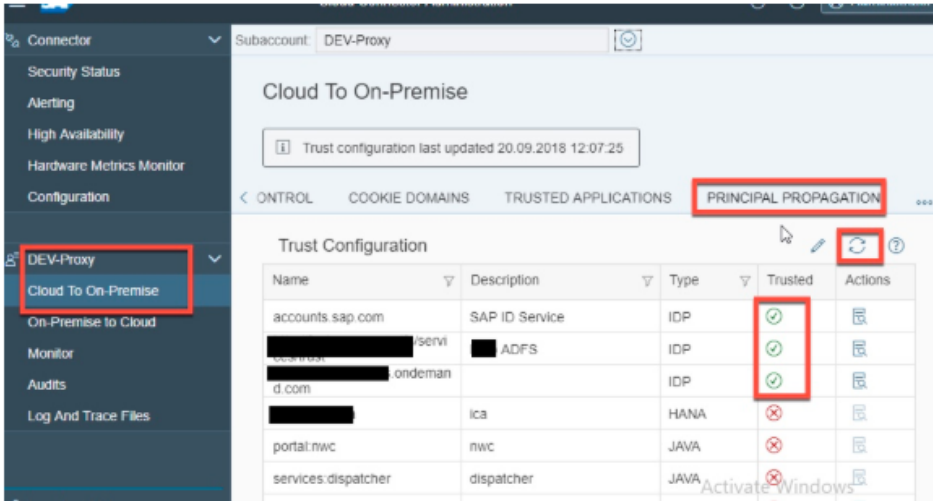
Password	<ECC PASSWORD>
Repository User	
Repository Password	
Location ID	<optional>
Additional Property	Name: jco.client.ashost Value: <abapServerHost>  Name: jco.client.client Value: <client id>  Name: jco.client.sysnr Value: <systemNumber>

## 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 Live Process content package require SAP Integration Suite in Neo Platform to create a vendor in SAP ERP. The integration content package SAP ERP Integration with SAP Workflow Management - Vendor Master is available in SAP API Business hub to integrate SAP Workflow Management with SAP ERP. The following Integration models are available in this package. Integration models use RFC or IDOC Adapters to integrate with SAP ERP.

The screenshot displays the SAP Cloud Integration interface for the package "SAP ERP Integration with SAP Workflow Management - Vendor Master". The main description reads: "Create a new vendor in SAP ERP with an automated approval process using SAP Workflow Management." Additional details include "Vendor: SAP", "Mode: Editable", and "Version: 1.0.0". Below this, there are tabs for "Overview", "Artifacts (9)", "Documents (2)", "Tags", and "Comments". The "Artifacts (9)" tab is active, showing a table of integration flows.

<input type="checkbox"/>	Name	Type	Version	Actions
<input type="checkbox"/>	<b>Create Accounting Vendor in SAP ERP</b> Creates an accounting vendor in SAP ERP. Modified	Integration Flow	1.0.1	
<input type="checkbox"/>	<b>Create General Vendor in SAP ERP</b> Creates a generally available vendor in SAP ERP. Modified	Integration Flow	1.0.1	
<input type="checkbox"/>	<b>Create Purchasing Vendor in SAP ERP</b> Creates a purchasing vendor in SAP ERP. Modified	Integration Flow	1.0.1	
<input type="checkbox"/>	<b>Create Vendor Centrally in SAP ERP</b> Creates a vendor that is centrally available in SAP ERP. Modified	Integration Flow	1.0.1	
<input type="checkbox"/>	<b>Get Alternative Payee List from SAP ERP</b> Query to get available alternate payees from SAP ERP. Modified	Integration Flow	1.0.1	
<input type="checkbox"/>	<b>Get Customer List from SAP ERP</b> Query to get available customers from SAP ERP. Modified	Integration Flow	1.0.1	
<input type="checkbox"/>	<b>Get Instruction Key List from SAP ERP</b> Query to get available Instruction keys from SAP ERP. Modified	Integration Flow	1.0.1	
<input type="checkbox"/>	<b>Get Partner Function List from SAP ERP</b> Query to get available partner functions from SAP ERP. Modified	Integration Flow	1.0.1	
<input type="checkbox"/>	<b>Get Purchasing Group List from SAP ERP</b> Query to get available purchasing groups from SAP ERP. Modified	Integration Flow	1.0.1	

Import the content package to your SAP Integration Suite tenant. To be able to import and deploy integration flows, you need the AuthGroup.IntegrationDeveloper role assigned in your tenant.

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

- Access your SAP Integration Suite tenant management node (<https://<cpitenant>.hana.ondemand.com/itspaces>). Please refer [help documentation](#) on how to get tenant management node address.
- View all pre-packaged integration flow under Discover->Integration. (<https://<cpitenant>.hana.ondemand.com/itspaces/shell/discover>)
- Search content package "SAP ERP Integration with SAP Workflow Management - Vendor Master".
- Click on the package SAP ERP Integration with SAP Workflow Management - Vendor Master.

- Click Copy to import the Integration content package to your workspace.
- Navigate to the *Design* view (<https://<cpitenant>.hana.ondemand.com/itspaces/shell/design>) to open the imported content package.
- Deploy a user credential to connect with SAP ERP in CPI tenant under *Manage Security* material tab. This credential will be used in the IDoc adapter configuration.

Security Material (2)			
Name	Type	Status	Deployed By
ERP	Credentials	Deployed	

### IDoc Adapter Configuration

- Open the following vendor type integration models one after the other:
  - Create Accounting Vendor in SAP ERP
  - Create General Vendor in SAP ERP
  - Create Purchasing Vendor in SAP ERP
  - Create Vendor Centrally in SAP ERP
- Click Configure button and set configured values for IDoc adapter and for IDoc control record parameters as mentioned in screenshot.

The screenshot shows a configuration form for an IDoc adapter. At the top, there are two tabs: 'Receiver' (which is selected and highlighted with a blue underline) and 'More'. Below the tabs, the form is titled 'Connection' and contains four input fields:

- Receiver: SAP\_ERP
- Adapter Type: IDOC
- Address: http://...i/sap/bc/srt/idoc?sap-client=...
- Credential Name: ERP

- Go to the More tab and configure IDoc control record parameters, as per the CREMAS inbound configuration performed in SAP ERP.

Receiver [More](#)

Type:	All Parameters
RCVPOR:	SAP0000
RCVPRN:	0000000000
RCVPRT:	00
SNDPOR:	SAP_ERP
SNDPRN:	000000
SNDPRT:	00

### RFC Adapter Configuration

- Open the following integration flows:
  - Get Alternative payee List from SAP ERP
  - Get Customer List from SAP ERP
  - Get Instruction key List from SAP ERP
  - Get Partner Function List from SAP ERP
  - Get purchasing Group List from SAP ERP
- Set configured values for RFC destination created in the section **Configure SAP ERP Destination** of this document. Use the destination name created in the earlier section.

Configure "Get Purchasing Group List from SAP ERP"

[Receiver](#)

Receiver:	SAP_ERP
Adapter Type:	RFC
<b>Connection</b>	
Destination:	ECC

- Deploy all the integration models.

## Setup SAPUI5 Application

### Import SAPUI5 application

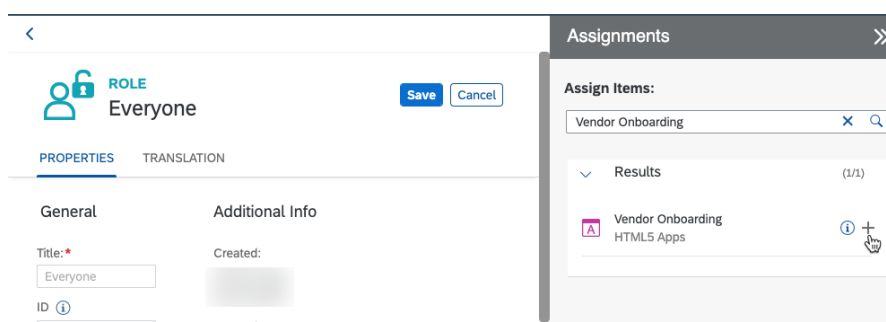
The Vendor Onboarding content package requires two SAPUI5 applications to onboard the vendor and for the approval process. You can download the source code of the SAPUI5 applications from the [SAP Workflow Samples repository in GitHub](#). Follow the instruction as maintained in the GitHub to import both SAPUI5 apps into the SAP BTP tenant using SAP Web IDE or SAP Business Application Studio.

### Configure SAP Central Fiori Launchpad Site

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>