

SAP Business Technology Platform | EXTERNAL

Setup Guide

SAP Build Process Automation Integration with SAP ERP for Invoice

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Overview

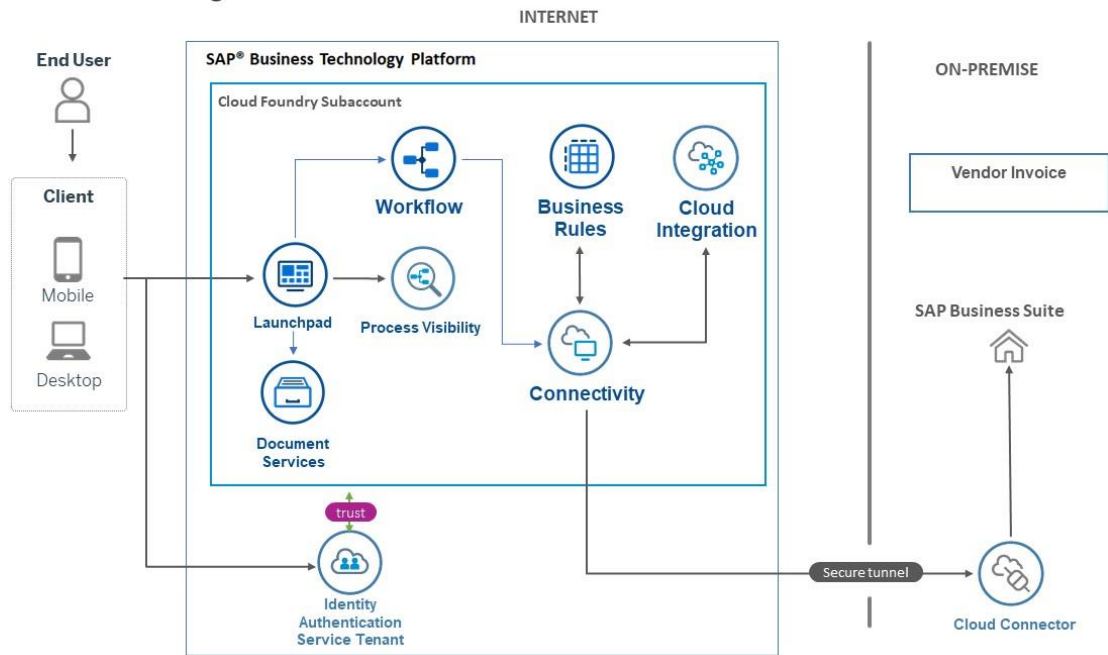
This document provides information to setup the integration package to consume the live process packages **Manage Invoice without Purchase Order** or **Intelligent Processing of Invoices without Purchase Orders**. The main audience of this document are technical IT Administrators and Integration Developers.

Manage Invoice without Purchase Order or **Intelligent Processing of Invoices without Purchase Orders** application helps customer to post Invoice data into ERP, and check and display an existing invoice. For creation and change of the invoice, customers can enable approval process before updating in SAP ERP. The application provides flexibility in choosing process variants depending on attributes like *Post Invoice*, *Check Invoice*, *Plant*, *Tax Calculation* etc. When a Non-PO vendor invoice is created or changed in the application, pre-configured Process Variants are triggered in SAP Build Process Automation or SAP Workflow Management.

Salient features of this content package are

- Plug and Play with SAP ERP without additional development.
- Net new process variants can be configured in a low-code no-code approach.
- Agent determination achieved in any of the following ways - using Business Rules, or SAP ERP, or external systems.
- Validate Line-item attributes using Business Rules.
- Achieve process visibility with key process performance indicators out-of-the-box.
- Determine which process variant to trigger and whom to assign the approval tasks using Business Rules
- Pre-built integration content to call the RFC in SAP ERP from SAP Build Process Automation or SAP Workflow Management.
- Line-Item data validated using Business Rules before approval.
- Approvers are determined using a Business Rule / external system.
- Processor and approvers are notified via email.
- Approvers have two decision options (Approve, Reject), and based on the decision, the next approval step will be created or terminate the approval process.
- After approval, the vendor Invoice will be created automatically in SAP ERP.

SAP ERP – Manage Invoice without Purchase Order



Required SAP Business Technology Platform Services

The following SAP BTP services are required to setup the integration content for SAP ERP 6.0 and above:

- SAP Build Process Automation or SAP Workflow Management
- Cloud integration capability within SAP Integration suite

Setup and Configuration

Manage Invoices Without Purchase Order or Intelligent Processing of Invoices without Purchase Orders content package requires SAP Build Process Automation or SAP Workflow Management subscription or a CPEA contract. Refer to setup guides of the respective packages to prepare the SAP BTP tenant to consume this integration package.

Configure Integration Destination

A HTTP destination is required in the Cloud Foundry account where SAP Build Process Automation or SAP Workflow Management is subscribed.

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>

Refer to this link [how to get your Integration tenant runtime url](#).

If you would like to use OAuthClientCredentials flow, then create an OAuth client in SAP Integration Neo tenant and enter Client ID and Client Secret. Assign the required [roles](#) to your OAuth client (oauth_client_<client ID>).

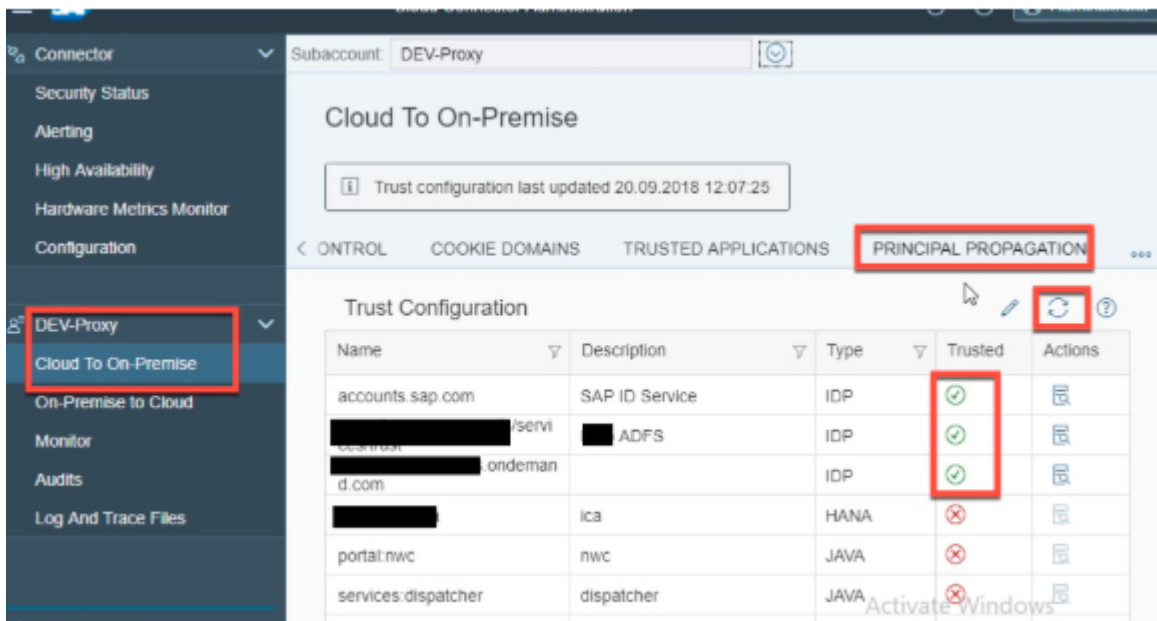
Configure SAP ERP Destination

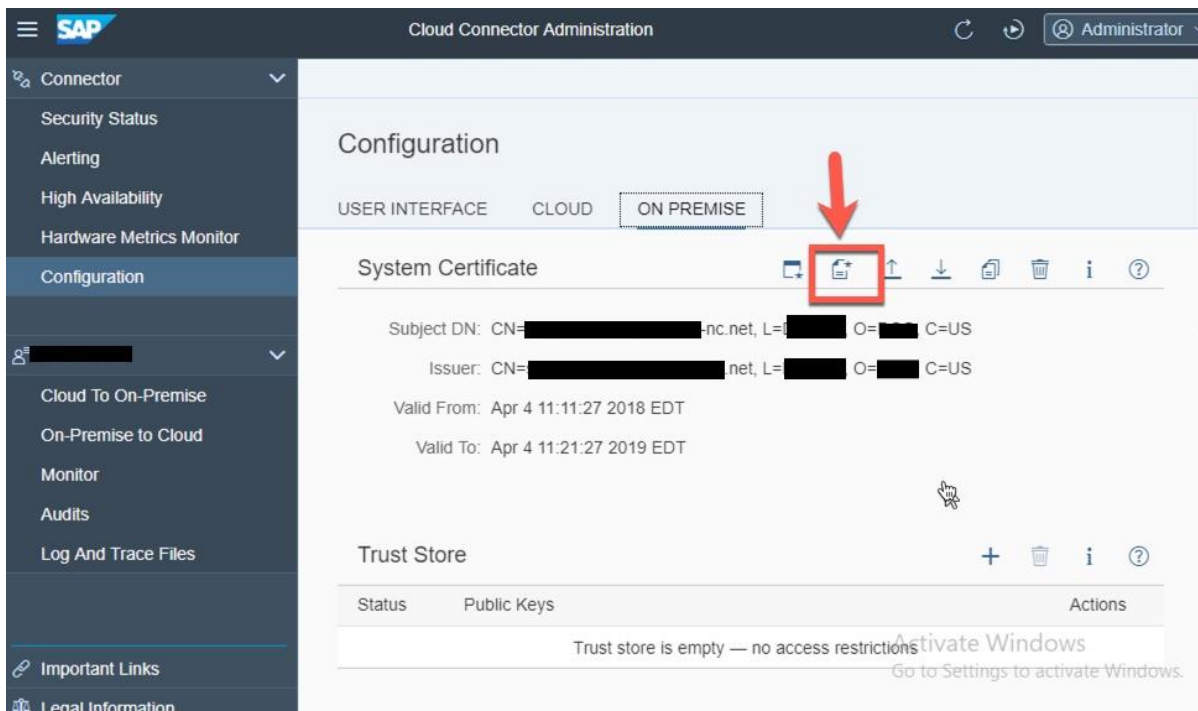
Create an RFC destination with the following properties in the SAP BTP account where SAP Cloud Integration is subscribed.

Name	<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	<ECCUSER>
Password	

Repository User	
Repository Password	
Location ID	<uaa.url>/oauth/token
Additional Property	Name: jco.client.ashost Value: <abapServerHost> Name: jco.client.client Value: <client id> Name: jco.client.sysnr Value: <systemNumber>

For implementing Principal propagation customer needs to synchronize the IDP in SAP cloud connector, create the destination of type IDP and import the self-signed CA certificates.





Follow these steps in the SAP ERP (ECC) 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 Cloud Connector

Configure your SAP Integration Suite account and ERP system in Cloud Connector to enable secure tunnel for RFC calls. Please refer the help documentation to [configure Cloud Connector](#).

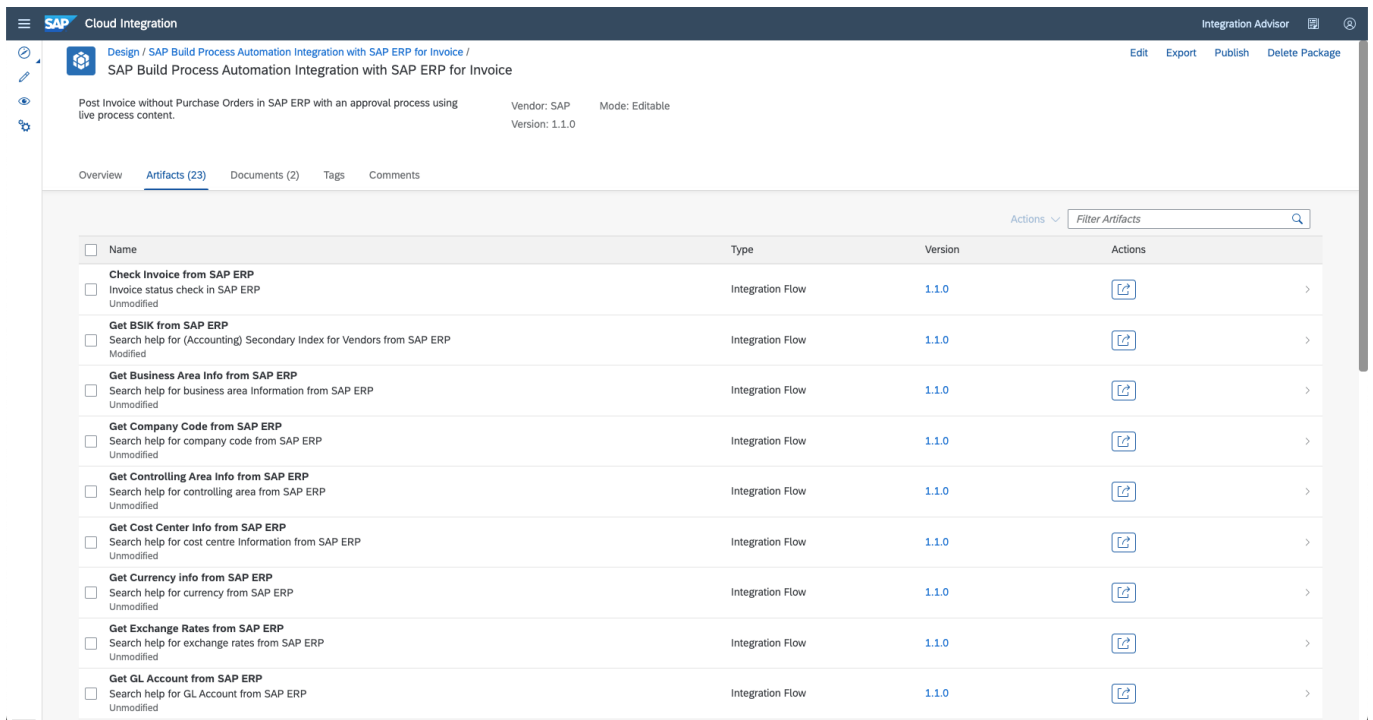
Customer needs to expose the following BAPI in cloud connector to be able to access the function modules

- BAPI_GL_ACC_GETLIST
- BAPI_COMPANYCODE_GETLIST
- MMPUR_UI_GET_SUPPLIERS
- BAPI_BUSINESSAREA_GETLIST
- BAPI_PROFITCENTER_GETLIST
- BAPI_COSTCENTER_GETLIST
- /SAPNEA/SMAPI_PLANT_GETLIST
- RFC_READ_TABLE
- BPAR_C_FI_TERM_OF_PAYMENT_KEY

- BAPI_CONTROLLINGAREA_FIND
- FI_TAX_SERVICES_CALCULATE
- BAPI_ACC_DOCUMENT_POST
- BAPI_ACC_DOCUMENT_CHECK
- BAPI_VENDOR_GETDETAIL
- BAPI_COMPANYCODE_GETDETAIL
- BAPI_USER_GETLIST
- BAPI_EXCHRATE_GETCURRENTRATES

Import, Configure and Deploy Integration Content

The live process content package Manage Invoice without Purchase Order or Intelligent Processing of Invoices without Purchase Orders requires cloud integration capability within **SAP Integration Suite** to create, modify and release Non-PO Vendor Invoice line items. An integration content package **SAP Build Process Automation Integration with SAP ERP for Invoice** is available in SAP API Business hub to integrate SAP Build Process Automation or SAP Workflow Management with SAP ERP. The following Integration models are available in this package. All integration models are using RFC Adapter to call the required APIs in SAP ERP.



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 Prepackaged Integration content using SAP Integration Suite

- Access your SAP Integration Tenant management node. Please refer [help documentation](#) on how to get Tenant management node address.
- Please refer help documentation on how to [import content packages](#).
- View all pre-packaged integration flow under **Discover->Integration**
- Search content package 'SAP Build Process Automation Integration with SAP ERP for Invoice'
- Click on the package SAP Build Process Automation Integration with SAP ERP for Invoice

- Click **Copy** to import the Integration content package to your workspace.
- Navigate to **Design** to open the imported content package.
- For each Integration models, select Externalized Parameters, set configured value as RFC Destination created in the section **Configure SAP ERP Destination**

Configure "Post Invoice from SAP ERP"

The screenshot shows a configuration window titled "Configure 'Post Invoice from SAP ERP'". It features a "Receiver" tab and a "Connection" section. The "Receiver" section includes a "Receiver:" dropdown menu set to "SAPERP" and an "Adapter Type:" dropdown menu set to "RFC". The "Connection" section includes a "Destination:" text input field containing "ECC" and a "Send Confirm Transaction:" checkbox that is checked.

- Deploy the integration model

These Integration models are used from the Live Process content package **Manage Invoices without Purchase Order**.

Appendix

Determining approvers through External Service

The SAP Build Process Automation or SAP Workflow Management content provides the option to determine approvers based on External Service instead of the Business Rule – Determine Approvers. To determine approvers through an external service the following steps need to be implemented by the consumer:

- Create an integration flow with HTTP Adapter as Sender
- Set the Address for Request Processing as `/wfm/invoicewopo/determineApprovers`

Note: the endpoint is fixed and coupled with the workflow

- **Expected Input payload format**

```
{
  "Vocabulary":[
    {
      "InvoiceDetails":{
        "CompanyCode":"","
        "CostCenter":"","
        "ApprovalLevel":"","
        "CurrencyKey":"","
        "PaymentTerms":"","
        "PaymentMethod":"","
        "GLAccount":"","
        "VendorCode":"","
        "ExchangeRate":"","
        "ProfitCenter":"","
        "BusinessArea":"","
        "ThresholdInvoiceAmount":""
      }
    }
  ]
}
```

- **Output payload header**

Content-Type: application/json

- Expected Output payload

```
{
  "Result":[
    {
      "ApproverDetails":{
        "DueDurationReference":""," //"Task" OR "Workflow"
        "TaskDueDuration":1, //Duration type integer
        "Email":"user@example.com", //EMAIL
        "UnitOfTime":"h", // Can be one of the following – Y/M/D/h/m
        "UserId":""," //UserID in SAP BTP
        "IsApprovalRequired":true, // true or false
        "UserGroup":""," //GroupID in SAP BTP
      }
    }
  ]
}
```