

SAP BUSINESS TECHNOLOGY PLATFORM | EXTERNAL

Setup Guide

Real Estate Contract Valuation Posting Approval using SAP Workflow Management or SAP Build Process Automation

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Overview

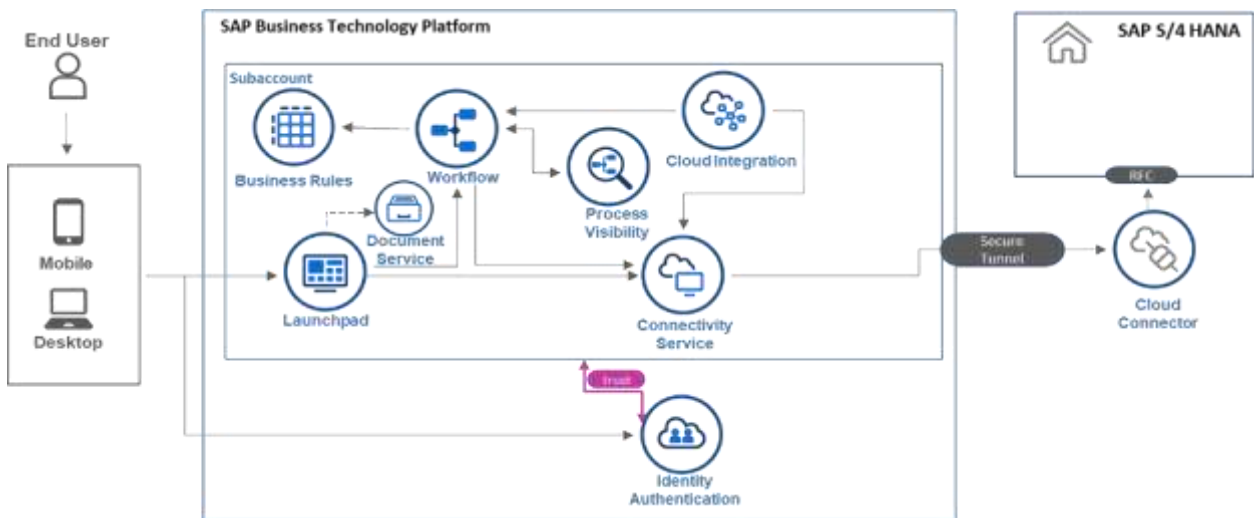
This document provides information about setting up the SAP Business Technology Platform account to consume the workflow content package **Real Estate Contract Valuation Posting Approval**. The main audience of this document are technical IT/system administrators.

Objective of this workflow is to have approval process in place for Right of Use asset values in case of any changes to contract. Valuation posting approvals are required in case of Contract Extensions, Contract Termination, Change in Interest Value etc

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 Workflow Management or SAP Build Process Automation
- Out-of-the-box visibility into key process performance indicators.

Solution Diagram



Required SAP BTP Services

The workflow content package **Real Estate Contract Valuation Posting Approval** is intended to be used for SAP S/4HANA and requires the following services in SAP BTP:

- SAP Build Process Automation or SAP Workflow Management to orchestrate the process.
- SAP Integration Suite for data activities with SAP S/4HANA
- 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

The **Real Estate Contract Valuation Posting Approval** 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 for 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
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 Build 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 SMTP Mail Destination

Configure email destination to automatically send email notification to the involved parties. For more information on configuring the destination, see [configure SMTP mail destination](#).

Configure OAuth2ClientCredentias 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>.

Configure OAuth2UserTokenExchange Destination

Configure a destination with the following parameters:

Name	sap_process_automation_workflow_useraction
Type	HTTP
Proxy Type	Internet
Authentication	OAuth2UserTokenExchange
URL	<"endpoints"."api">
Client ID	<"uaa"."clientis">
Client Secret	<"uaa"."clientsecret">

Token Service URL	<"uaa":"url"/>/oauth/token
Additional Properties:	Name: bpmprocessvisibility.triggerWorkflow Value: user

Please refer help documentation [how to get URL, Client ID, Client Secret and Token Service URL](#). For more information refer to how to [create a HTTP destination](#).

Configure SAP Workflow Management

Real Estate Contract Valuation Posting Approval content package requires SAP Workflow Management subscription or a CPEA contract. Follow the setup and configuration section of SAP Workflow Management.

<https://help.sap.com/viewer/6f55baaf330443bd8132d071581bbae6/Cloud/en-US/d7910e2bf7f64afc9d0eb21b0cc9e84d.html>

Configure Workflow Email Destination

Configure workflow email destination to automatically send email notification to the involved parties. For more information on configuring the destination, see [configure workflow email destination](#).

Configure OAuth2ClientCredentials Workflow Destination

A HTTP destination is required in the BTP subaccount where SAP Workflow Management is subscribed. Create a destination with name "Workflow" 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	Workflow
Type	HTTP
Proxy Type	Internet
Authentication	OAuth2ClientCredentials
URL	<rest_api_url>
Client ID	<client ID>
Client Secret	<client secret>
Token Service URL	<uaa.url>/oauth/token

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_START
- WORKFLOW_INSTANCE_UPDATE_CONTEXT
- WORKFLOW_INSTANCE_GET

- MESSAGE_SEND

Please refer help documentation how to get [URL](#), [Client ID](#), [Client Secret](#) and [Token Service URL](#). For more information refer to [how to create a HTTP destination](#) and [how to use Workflow APIs](#).

Configure OAuth2ClientCredentials Business Rules Destination

A HTTP destination is required in the Cloud Foundry account where SAP Workflow Management is subscribed. Create a destination with name "BUSINESS_RULES" 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	BUSINESS_RULES
Type	HTTP
Proxy Type	Internet
Authentication	OAuth2ClientCredentials
URL	<rule_runtime_url>/rules-service
Client ID	<client ID>
Client Secret	<client secret>
Token Service URL	<uaa.url>/oauth/token

Configure Destination to Enable Start & Step Conditions

To enable the usage of start conditions and step conditions on a process variant, create a destination for business rules with the configuration as mentioned in the following help document:

https://help.sap.com/viewer/6f55baaf330443bd8132d071581bbae6/Cloud/en-US/543b5dbd77d940b4b1f972298b559911.html?q=WM_BUSINESSRULES

Configure OAuth2 Client Credentials 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 Cloud 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 called CPI with either Basic Authentication (supported only for Neo environment) or OAuth2ClientCredentials.

Destination with OAuth2ClientCredentials Authentication

Name	CPI
Type	HTTP
Proxy Type	Internet
Authentication	OAuth2ClientCredentials
URL	<runtime.url>
Client Id	<client ID>
Client Secret	<client secret>
Token Service URL	<oauth.url.for.clientCredentials>

Additional Properties to Destination

Additionally, add the following properties in the destination for cloud integration.

WebIDEEEnabled	true
WebIDESystem	CPI
WebIDEUsage	odata_gen

Destination with Basic Authentication (Applicable for Neo environment only)

Name	CPI
Type	HTTP
Proxy Type	Internet
User	<USER ID>
Password	<PASSWORD>
Authentication	BasicAuthentication
URL	<runtime.url>

Additional properties will remain the same between authentication methods.

Configure APIs in SAP S/4HANA

Following APIs are needed to be configured in SAP S/4HANA to use the content package.

OData Services:

/sap/opu/odata/sap/API_COMPANYCODE_SRV

/sap/opu/odata/sap/API_COSTCENTER_SRV

/sap/opu/odata/sap/RE_CN_VALUATION_ODATA_SRV

Steps to Register OData Services in SAP Gateway

1. Go to t-code “/IWFND/MAINT_SERVICE”
2. Click on “Add Service”
3. Select the required System Alias (Select LOCAL as system alias in case of Embedded Deployment of Gateway)
4. Enter Technical Service Name as “API_COMPANYCODE_SRV” and click on “Get Services”
5. Select “API_COMPANYCODE_SRV” and click on “Add Selected Services”
6. Enter the required package and click on OK
7. Repeat steps 1-6 for all the OData services mentioned in previous section

List of BAPI/RFC which need to be available in SAP S/4 HANA

ZWF_FM_RECEEP_POST_VLTN – To post real estate contract valuation

BAPI_USER_GET_DETAIL – To get email-id of cost center owner

ZWF_FM_HR_MASTER_GET_APPR_MULT – To get approver details

Additionally following Function Modules need to be available in SAP S/4 HANA

ZWF_FM_GET_ACTIVEWF – To check active workflow

ZWF_FM_CASHFLOW_DOC_APPLI – To get cashflow details

Note: Steps to implement custom ABAP objects is mentioned in the Appendix.

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/API_COMPANYCODE_SRV	OData	ABAP System
/sap/opu/odata/sap/API_COSTCENTER_SRV	OData	ABAP System
/sap/opu/odata/sap/RE_CN_VALUATION_ODATA_SRV	OData	ABAP System
ZWF_FM_HR_MASTER_GET_APPR_MULT	RFC	ABAP System
BAPI_USER_GET_DETAIL	RFC	ABAP System
ZWF_FM_RECEEP_POST_VLTN	RFC	ABAP System

Import, configure and deploy cloud 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 “SAP Build Process Automation Integration with SAP S/4HANA for Real Estate Contract Valuation Posting Approval”

Note: If Approver Determination Strategy is selected as “External Service” in workflow configurations, then a CPI iFlow *Get Approvers for Plan Activity Prices Approval* with the below mentioned endpoint, input and output details will be called to get the required approver details. In case there is a need for implementation of custom CPI iFlow then the same needs to have the below mentioned endpoint, input and output structure.

API Attributes	Values
----------------	--------

Path	/http/getApproversrecvpawfm
HTTP Method	POST
Payload sent by workflow (sample data)	<pre>{ "d": { "positions": [{ "companyCode": "4001", "positionID": "50000508" }] } }</pre>
Response Payload from integration flow	<p>RESPONSE STATUS, Ex 200 OK</p> <pre>{ "d": { "status": "Success", "message": "Data fetched successfully", "approvers": [{ "userID": "ABC", "emailID": "abc@abc.com", "name": "ABC ABC", "companyCode": "4001", "positionID": "50000508" }] } }</pre>
Payload Type	Application / JSON

Add Workflow start UI in Fiori Launchpad Site

Configure Fiori Launch Pad site to access Workflow Monitoring applications, My Inbox, Process Visibility Workspace and Start UI application to create approval requests.

Please refer help documentation
[how to configure a start ui tiles on Central Fiori Launchpad.](#)

Deploy Custom UIs and Workflow module

The project consists of the following:

- AssetAcquisition HTML5 module – serves as the Workflow Start User Interface application for creation of Fixed Asset Acquisition requests

Configure Asset Acquisition tile on Central Fiori Launchpad Site

- Open SAP Launchpad site manager application.
- Select Content Manager and Content Explorer **com.sap.RealEstateContract.RealEstateContractPostingStartUIModule** and select SAP UI5 component.
- Click Add to My Content button to include the UI5 component.
- Select My Content tab and Search Everyone.
- Click Everyone from the result and navigate to the details.
- Click Edit button to enable all users to access the new Start UI tile.
- Click New button and Select Group to create a new group.
- Add a Title for eg: Asset Acquisition under PROPERTIES.
- Click + button and Save button.

Appendix

Creating Function Group

1) ZWF_FG_UTIL_BTPWF

Steps:

1. Go to t-code "SE37"
2. In Menu, select Go to -> Function Groups -> Create Group
3. Enter Function Group name as "ZWF_FG_UTIL_BTPWF" and enter a meaningful Short Text (Select the required package name to save this object)
4. Go to t-code "SE80"
5. Select "Function Group" from dropdown
6. Enter "ZWF_FG_UTIL_BTPWF" as the name of function group and click on Display button
7. Click on Save
8. Right click on the Function Group "ZWF_FG_UTIL_BTPWF" on the left side panel and "Click on Activate" (Click OK button on the pop-up which shows list of inactive objects)

2) ZWF_FG_RECEEP_BTPWF

Steps:

1. Go to t-code "SE37"
2. In Menu, select Goto -> Function Groups -> Create Group
3. Enter Function Group name as "ZWF_FG_RECEEP_BTPWF" and also enter a meaningful Short Text (Select the required package name to save this object)

4. Go to t-code "SE80"
5. Select "Function Group" from dropdown
6. Enter "ZWF_FG_RECEEP_BTPWF" as the name of function group and click on Display button
7. Right click on "Includes" folder and select "Create" option
8. Enter "ZWF_FG_RECEEP_BTPWF_FORMS" as the name of Include. (Select the required package and click on ok in the successive dialog boxes)
9. Copy and paste the code for "ZWF_FG_RECEEP_BTPWF_FORMS" from SAP NOTE 3167808 inside the code editor
10. Click on "Save"
11. On the left side panel, expand "Includes" folder and double click on "LZWF_FG_RECEEP_BTPWFTOP"
12. Go to edit mode and paste the code for "LZWF_FG_RECEEP_BTPWFTOP" from SAP NOTE 3167808 inside the code editor
13. Click on Save
14. Right click on the Function Group "ZWF_FG_RECEEP_BTPWF " on the left side panel and "Click on Activate" (Click OK button on the pop-up which shows list of inactive objects)

Creating Function Modules

1) ZWF_FM_HR_MASTER_GET_APPR_MULT

Steps:

1. Go to t-code "SE37"
2. Click on "Create" button
3. Enter "ZWF_FM_HR_MASTER_GET_APPR_MULT" as name of Function Module
4. Enter "ZWF_FG_UTIL_BTPWF" as Function Group
5. Enter a meaningful short text
6. Click on "Save" (Click on OK in successive pop-ups)
7. Go to "Import" tab and enter the below mentioned entries

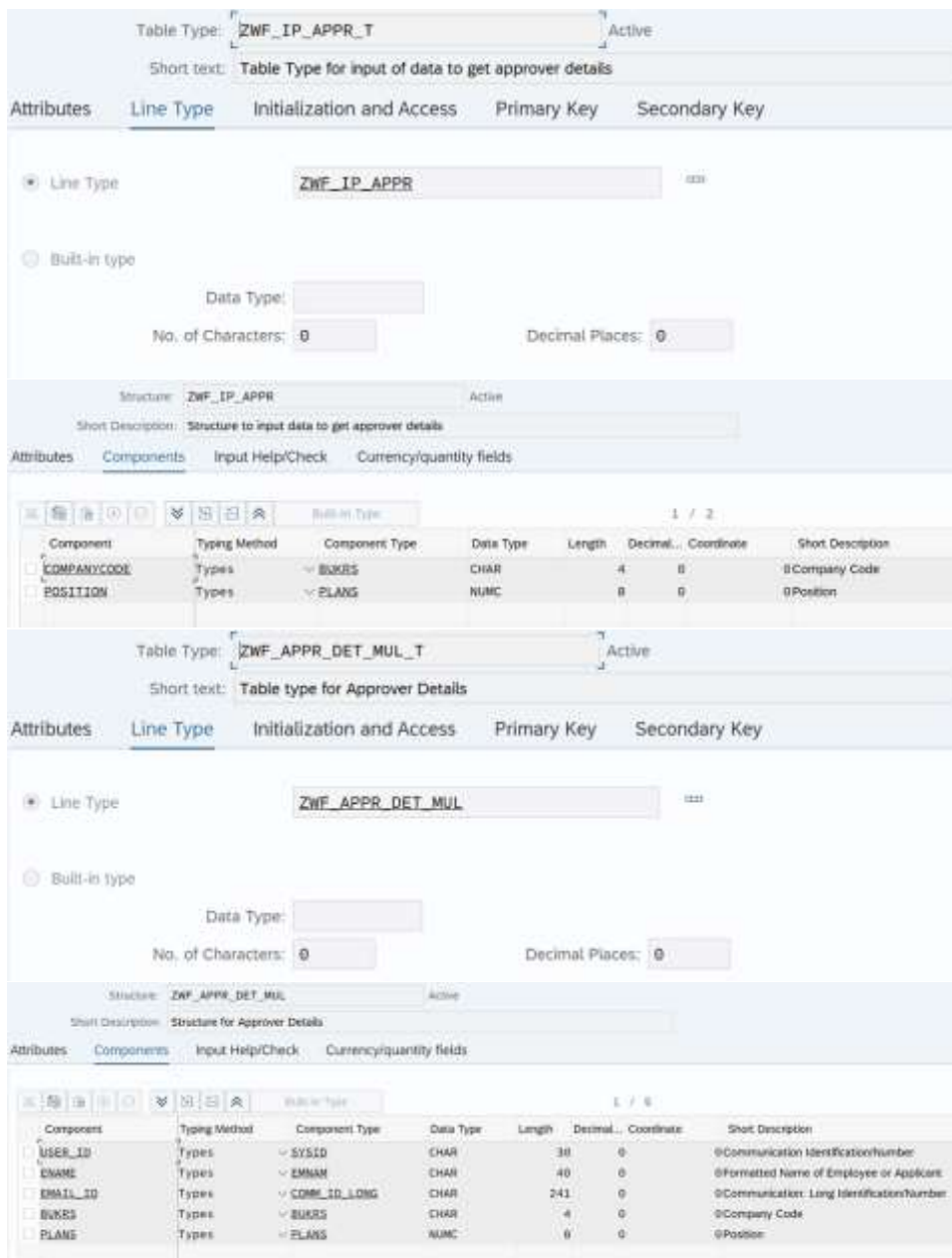
Parameter Name	Typing	Associated Type	Default value	Opti...	Pass...	Short text	Long...
I_INPUT	TYPE	ZWF_IP_APPR_T				Table Type for input of data to get approver data	Create

8. Go to "Export" tab and create the below entries

Parameter Name	Typing	Associated Type	Pass by Val...	Short text	Long Text
E_OUTPUT	TYPE	ZWF_APPR_DET_MUL_T		Table type for Approver Details	Create
E_STATUS	TYPE	BAPI_MTYPE		Message type: S Success, E Error, W Warning, I I	Create

9. Go to "Source Code" tab and paste the attached code for "ZWF_FM_HR_MASTER_GET_APPR_MULT" from SAP NOTE 3167808
10. Go to "Attributes" tab and select radio button for "Remote-Enabled"
11. Click on "Save"
12. Click on "Activate" (Click OK button on the pop-up which shows list of inactive objects)

Note: The details of required "Associated Type" (Table Type) used in the Tables tab are mentioned below:



2) ZWF_FM_CASHFLOW_DOC_APPLI

Steps:

1. Go to t-code "SE37"
2. Click on "Create" button
3. Enter "ZWF_FM_CASHFLOW_DOC_APPLI" as name of Function Module
4. Enter "ZWF_FG_RECEEP_BTPWF" as Function Group
5. Enter a meaningful short text
6. Click on "Save" (Click on OK in successive pop-ups)
7. Go to "Import" tab and enter the below mentioned entries

Function module: ZWF_FM_CASHFLOW_DOC_APPLI Active

Attributes Import Export Changing Tables Exceptions Source code

Parameter Name	Typing	Associated Type	Default value	Opt.	Pass	Short text
ITD_DOC	TYPE	RE_T_IF_RECA_DOC		<input checked="" type="checkbox"/>	<input type="checkbox"/>	References to RE Documents
IT_REFDOCID	TYPE	RE_T_REFDOCID		<input checked="" type="checkbox"/>	<input type="checkbox"/>	Table of Document Reference Numbers
IT_DOC_SUMMARY	TYPE	STANDARD_TABLE		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
IO_MSGLIST	TYPE	IF_RECA_MESSAGE_LIST		<input type="checkbox"/>	<input checked="" type="checkbox"/>	Message Collector
IO_PARAM	TYPE	IF_RECA_POSTING_PARAM_REPP		<input type="checkbox"/>	<input checked="" type="checkbox"/>	Posting Process: Parameters for Periodic Posting
IS_SUMMARY	TYPE	RECA_POSTING_SUMMARY		<input type="checkbox"/>	<input checked="" type="checkbox"/>	Summary of Results of a Posting Run
IO_MODE	TYPE	RECAPROCESSMODE		<input type="checkbox"/>	<input checked="" type="checkbox"/>	
IF_PREPARE_ONLY	TYPE	RECAIDOL	ABAP_FALSE	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
IT_CASHFLOW_LIST	TYPE	RE_T_GUI_CASHFLOW_LIST		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
IO_DOC_CONTAINER	TYPE	CL_RECA_DATA_CONTAINER		<input checked="" type="checkbox"/>	<input type="checkbox"/>	

8. Go to "Export" tab and create the below entries

Function module: ZWF_FM_CASHFLOW_DOC_APPLI Active

Attributes Import Export Changing Tables Exceptions Source code

Parameter Name	Typing	Associated Type	Pass by Val.	Short text	Long Text
ET_CASHFLOW_LIST	TYPE	ZWF_T_CASHFLOW_LIST	<input type="checkbox"/>	Display of Posted Cash Flows (Periodic Posting)	Create

9. Go to "Source Code" tab and paste the attached code for "ZWF_FM_CASHFLOW_DOC_APPLI" from SAP NOTE 3167808

10. Click on "Save"

11. Click on "Activate" (Click OK button on the pop-up which shows list of inactive objects)

Note: The details of required "Associated Type" (Table Type) used in the Tables tab are mentioned below:

Table Type: ZWF_T_CASHFLOW_LIST Active

Short text: Display of Posted Cash Flows (Periodic Posting)

Attributes Line Type Initialization and Access Primary Key Secondary Key

Line Type ZWF_REEX_CASHFLOW_LIST

Structure: ZWF_REEX_CASHFLOW_LIST Active

Short Description: Real Estate Contract Valuation Posting Output Structure

Attributes Components Input Help/Check Currency/quantity fields

Component	Typing Method	Component Type	Data Type	Length	Decimal	Coordinate	Short Description
INCLUDE	Types	→ REEX_GUI_CASHFLOW_LIST	----	8	0		Display of Posted Cash Flows (Periodic Post
ACCD0000	Types	→ BELNF_D	CHAR	18	0		Accounting Document Number

3) ZWF_FM_RECEEP_POST_VLTN

Steps:

1. Go to t-code "SE37"
2. Click on "Create" button
3. Enter "ZWF_FM_RECEEP_POST_VLTN" as name of Function Module
4. Enter "ZWF_FG_RECEEP_BTPWF" as Function Group
5. Enter a meaningful short text
6. Click on "Save" (Click on OK in successive pop-ups)
7. Go to "Import" tab and enter the below mentioned entries

Function module: ZWF_FM_RECEEP_POST_VLTN Active

Attributes Import Export Changing Tables Exceptions Source code

Parameter Name	Typing	Associated Type	Default value	Opti...	Pass...	Short text	Long...
IMP_MODE	TYPE	RECAPROCESSMODE	E	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Execution Mode of Process	Create
IMP_PSTNGDATE	TYPE	SY-DATUM		<input type="checkbox"/>	<input checked="" type="checkbox"/>	Posting Date	Create
IMP_DOCDATE	TYPE	SY-DATUM		<input type="checkbox"/>	<input checked="" type="checkbox"/>	Document Date	Create
IMP_PSTNGPERIOD	TYPE	MONAT		<input type="checkbox"/>	<input checked="" type="checkbox"/>	Fiscal period	Create
IMP_DUEDATE	TYPE	SY-DATUM		<input type="checkbox"/>	<input checked="" type="checkbox"/>	Due date	Create
IMP_CALDATETO	TYPE	SY-DATUM		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Calculation Date To	Create
IMP_DOCHEADTXT	TYPE	TEXT25		<input type="checkbox"/>	<input checked="" type="checkbox"/>	Document Header Text	Create
IT_CONTRACTS	TYPE	ZWF_T_RE_CONTRACT		<input type="checkbox"/>	<input checked="" type="checkbox"/>	Table for Real Estate Contracts	Create

8. Go to "Export" tab and create the below entries

Function module: ZWF_FM_RECEEP_POST_VLTN Active (Revised)

Attributes Import Export Changing Tables Exceptions Source code

Parameter Name	Typing	Associated Type	Pass by Val...	Short text	Lang Text
ET_OUTPUT	TYPE	ZWF_T_CASHFLOW_LIST	<input checked="" type="checkbox"/>	Display of Posted Cash Flows (Periodic Posting)	Create
ET_RETURN	TYPE	BAPIRET2_T	<input checked="" type="checkbox"/>	Return table for Errors	Create

9. Go to "Source Code" tab and paste the attached code for

"ZWF_FM_RECEEP_POST_VLTN" from SAP NOTE 3167808

10. Go to "Attributes" tab and select radio button for "Remote-Enabled"

11. Click on "Save"

12. Click on "Activate" (Click OK button on the pop-up which shows list of inactive objects)

Note: The details of required "Associated Type" (Table Type) used in the Tables tab are mentioned below:

Table Type: ZWF_T_RE_CONTRACTS Active

Short text: Table for Real Estate Contracts

Attributes Line Type Initialization and Access Primary Key Secondary Key

Line Type VICNCN_KEY

Built-in type

Data Type: []

No. of Characters: 0 Decimal Places: 0

Table Type: ZWF_T_CASHFLOW_LIST Active

Short text: Display of Posted Cash Flows (Periodic Posting)

Attributes Line Type Initialization and Access Primary Key Secondary Key

Line Type ZWF_REEX_CASHFLOW_LIST

Component	Typing Method	Component Type	Data Type	Length	Decimal	Coordinate	Short Description
INCLUDE	Types	→ REEX_GUI_CASHFLOW_LIST	""	8	0		Display of Posted Cash Flows (Periodic Post
ACCD0000	Types	→ BELNR_D	CHAR	18	0		Accounting Document Number

4) ZWF_FM_GET_ACTIVEWF

Steps:

1. Go to t-code "SE37"
2. Click on "Create" button
3. Enter "ZWF_FM_GET_ACTIVEWF" as name of Function Module
4. Enter "ZWF_FG_UTIL_BTPWF" as Function Group
5. Enter a meaningful short text
6. Click on "Save" (Click on OK in successive pop-ups)
7. Go to "Import" tab and enter the below mentioned entries

Parameter Name	Typing	Associated Type	Default value	Opt.	Pass	Short text	Long...
IP_QUERY	TYPE	STRING		<input type="checkbox"/>	<input checked="" type="checkbox"/>	Query for HTTP Request	Create

8. Go to "Export" tab and create the below entries

Parameter Name	Typing	Associated Type	Pass by Val...	Short text	Long Text
ES_RETURN	TYPE	SAPIRET2	<input checked="" type="checkbox"/>	Return Parameter	Create
ET_RESULT	TYPE	ZWF_GET_RESULT_T	<input checked="" type="checkbox"/>	Table type for Getting Status of Workflow	Create

9. Go to "Source Code" tab and paste the attached code for "ZWF_FM_GET_ACTIVEWF" from **SAP NOTE 3167808**
10. Click on "Save"
11. Click on "Activate" (Click OK button on the pop-up which shows list of inactive objects)

Note: The details of required "Associated Type" (Table Type) used in the Tables tab are mentioned below:

Line Type	Table Type	Short text
Line Type	ZWF_GET_RESULT	Table type for Getting Status of Workflow
Built-in type	Data Type: []	No. of Characters: 0
		Decimal Places: 0

Component	Typing Method	Component Type	Data Type	Length	Decimal	Coordinate	Short Description
DEFALITIONID	Types		CHAR	255	0		Workflow Definition ID
STATUS	Types		CHAR	30	0		Status of Workflow
BUSINESSKEY	Types		CHAR	100	0		Business Key
ID	Types		CHAR	30	0		Instance ID

Implementing BADI

Steps:

1. Go to t-code "SE18"
2. Enter "BADI_REC_N_CONTRACT" as the BADI Name
3. Click on "Display" button
4. In the menu, click on "Implementation" and subsequently on "Create"
5. Upon being prompted to enter the Enhancement Implementation Name, enter "ZWF_EI_RECONTRACTVAL"
6. Click on the "Okay" button in the pop-up or just press "Enter"
7. Enter a meaningful description
8. Upon being prompted to enter the BADI Implementation Name, enter "ZWF_BI_RECONTRACTVAL" and meaningful description
9. Upon being prompted to enter the Implementation Class Name, enter "ZWF_CL_RECONTRACTVAL"
10. Select "Empty class" to continue
11. Double click on the name of the implementing class and alter the method "IF_EX_REC_N_CONTRACT~CHECK_ALL" by pasting the code from "IF_EX_REC_N_CONTRACT~CHECK_ALL" from SAP NOTE 3167808 in the method
12. Save and Activate the newly created object like Class, Method, BADI implementation, Enhancement implementation

Configuration of RFC Connections:

1. Go T-Code SM59.
2. Create New RFC destination as "WF_DEST" and Connection Type as "G"
3. Under Technical Settings enter the host name of the BTP Workflow API and Path Prefix as "/workflow-service/rest/v1/workflow-instances"

RFC Destination: WF_DEST

Connection Type: G HTTP Connection to External Server

Description

Description 1: Destination for BTP Workflow API

Description 2:

Description 3:

Administration Technical Settings Logon & Security Special Options

Target System Settings

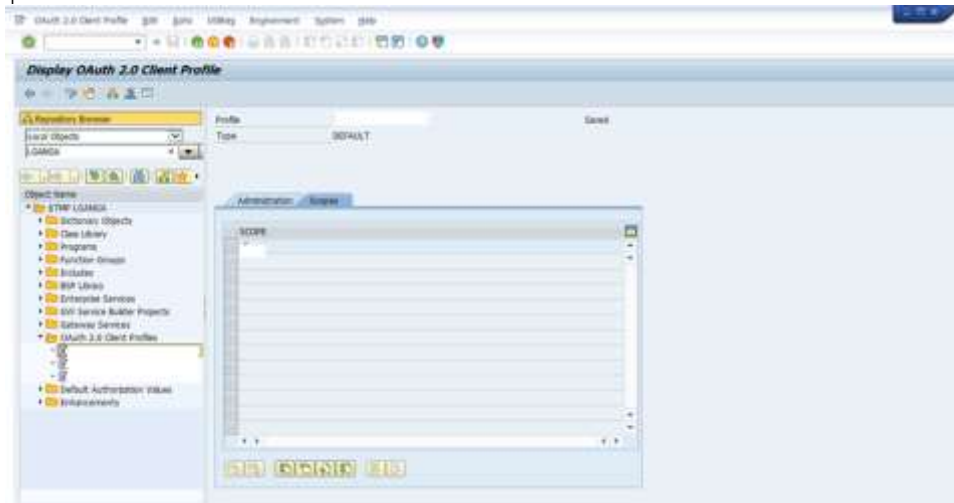
Host: api.workflow.sap.cfapps.eu10.hana.ondemand.com Port:

Path Prefix: /workflow-service/rest/v1/workflow-instances

Creating OAuth2.0 client profile:

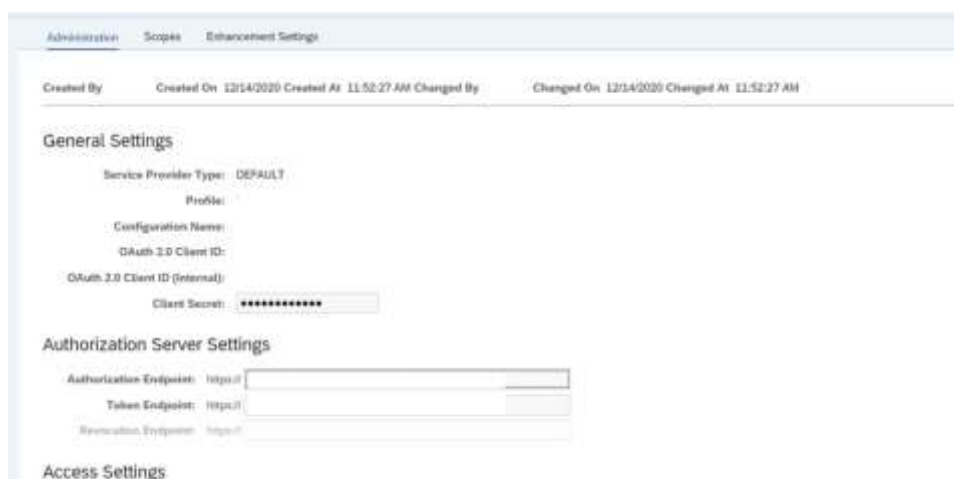
1. Start the object navigator (transaction SE80).
2. Choose Development Object in the dropdown list.

3. To create a development object in the SAP namespace, choose Create OAuth 2.0 Client Profile in the context menu of the object name.
4. Enter the object name in the Client Profile field of the popup as 'ZOAUTH_CLIENT_PROFILE'.
5. choose the type of service provider as 'DEFAULT'
6. Also provide the scope as configured in the service provider configuration and activate the client profile.



Configure the OAuth2.0 Client

1. Go to transaction OA2C_CONFIG to configure the OAuth2.0
2. Click on 'Create'.
3. Select the OAuth2.0 Client Profile as 'ZOAUTH_CLIENT_PROFILE' and provide the Client ID.
4. Maintain the Client Secret
5. Also provide the Token Endpoint.
6. Enter the Client Authentication as 'Basic', Resource Access Authentication as 'Header Field' and select grant type as 'Client Credentials'.
7. Click on save. The OAuth2.0 configuration name is 'ZOAUTH_CLIENT_PROFILE'



Now the OAuth2.0 configuration is completed.