SAP BUSINESS TECHNOLOGY PLATFORM | EXTERNAL

Setup Guide

Treasury Payment Request Creation Approval using SAP Build Process Automation

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Overview

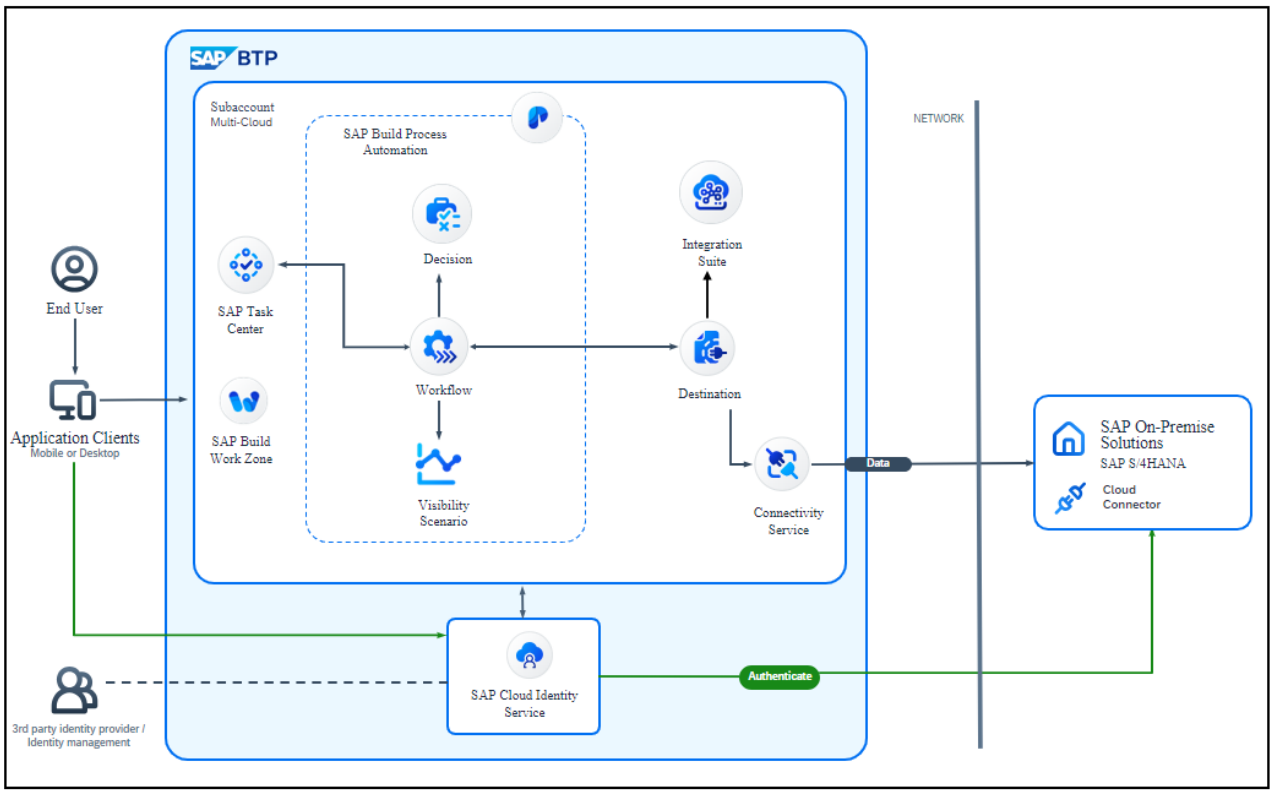
This document provides information about setting up the SAP Business Technology Platform account to consume the workflow content package **Treasury Payment Request Creation Approval**. The main audience of this document are technical IT/system administrators.

The use case deals with scenario where payments in case of treasury system or product types are involved. In general SAP creates individual l flows and individual payment request for each flow for a Money market instrument. Once the payment request is generated, the request is taken to the workflow on BTP, and posted back to SAP S/4HANA after the relevant approvals are made.

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 Decisions or external service.
- Pre-built integration content to call SAP S/4HANA from SAP Build Process Automation.
- Out-of-the-box visibility into key process performance indicators.

Solution Diagram



Required SAP Business Technology Platform Services

The workflow content package **Treasury payment Request Creation Approval** is intended to be used for SAP S/4HANA and requires the following services in SAP Business Technology Platform:

- SAP Build Process Automation
- SAP Integration Suite
- SAP Connectivity service
- SAP Business Application Studio
- SAP Application Runtime Service

1. SAP Work Zone, standard or advanced

- SAP Cloud Identity Services - Identity Authentication (optional)

Setup and Configuration

Treasury Payment Request Creation Approval content package requires SAP Build Process Automation subscription. Based on which service you plan to use, follow the appropriate section to configure SAP Build Process Automation.

SAP S/4HANA

Configure APIs in SAP S/4HANA

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

ZWF_FM_HR_MASTER_GET_APPROVER – To get approver details
ZWF_FM_FTR_POSTING – To create payment requests for treasury transaction

Additionally, the below mentioned Function Modules need to be implemented in SAP S/4HANA

ZWF_FM_TRIGGER_BTPWF – To trigger workflow
ZWF_FM_GET_ACTIVEWF – To check if workflow is active

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

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
ZWF_FM_FTR_POSTING	RFC	ABAP System
ZWF_FM_HR_MASTER_GET_APPROVER	RFC	ABAP System

SAP Business Technology Platform Cockpit

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. Decisions destination to support start and step conditions
3. Configure SAP Work Zone for SAP Build Process Automation

Configure Process Automation Destination

A HTTP destination is required in the Business Technology Platform 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.

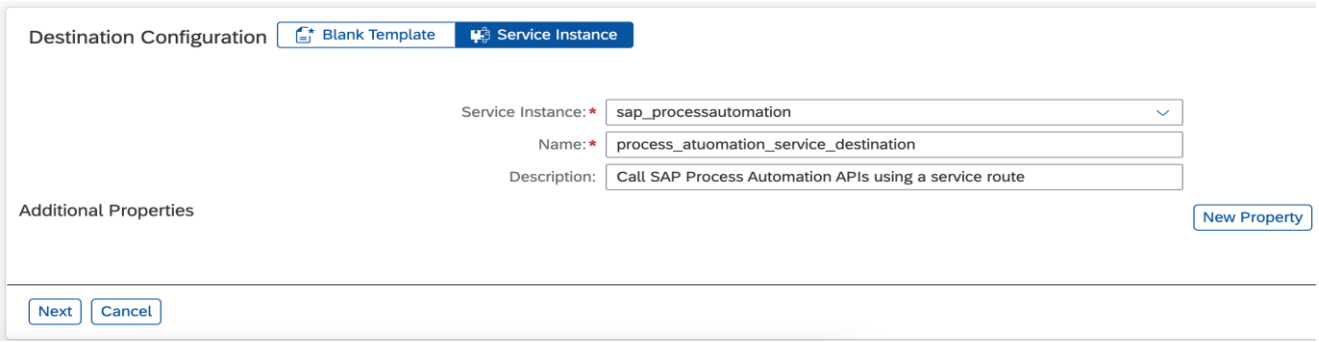
Please refer how to create a HTTP destination OAuth 2.0 Authentication (client credentials).

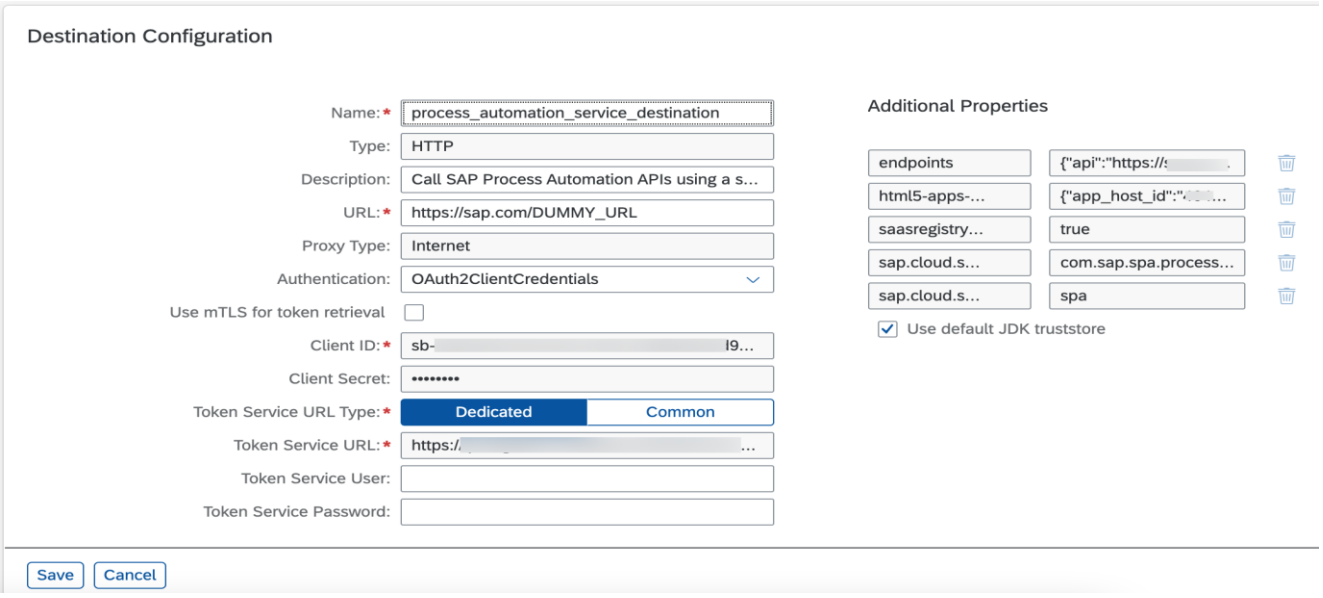
Name	**sap_process_automation_service**
Type	HTTP
Proxy Type	Internet
Authentication	OAuth2ClientCredentials
URL	<”endpoints”.”api”>
Client ID	<"uaa":"clientis”>
Client Secret	<"uaa":"clientsecret”>
Token Service URL	<"uaa":"url">/oauth/token

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:





Configure Email Destination

Configure email destination to automatically send email notification to the involved parties. For more information on configuring the destination, see configure Email destination.

Configure Integration Suite Destination

To call an integration flow, a destination is required in the SAP Business Technology Platform tenant where the SAP Build Process Automation 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 Integration Suite.

WebIDEEnabled	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 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 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 >

Setup Content Package

Import and deploy Integration Suite content

This package utilizes 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 Treasury Payment Request Creation Approval".**

Appendix

Perform the below mentioned steps for implementation of custom ABAP objects.

Creating Function Group

Steps:

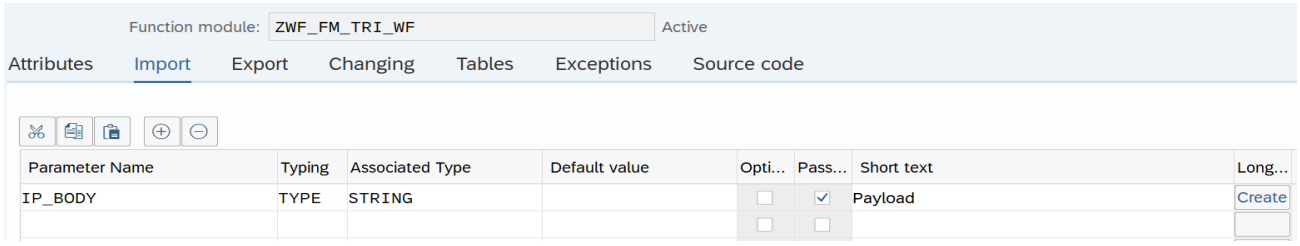
- Go to t-code “SE37”
- In Menu, select Goto -> Function Groups -> Create Group
- Enter Function Group name as “ZWF_FG_UTIL_BTPWF” and enter a meaningful Short Text (Select the required package name to save this object)
- Go to t-code “SE80”
- Select “Function Group” from dropdown
- Enter “ZWF_FG_UTIL_BTPWF” as the name of function group and click on Display button
- Click on Save
- 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)

Creating Function Modules

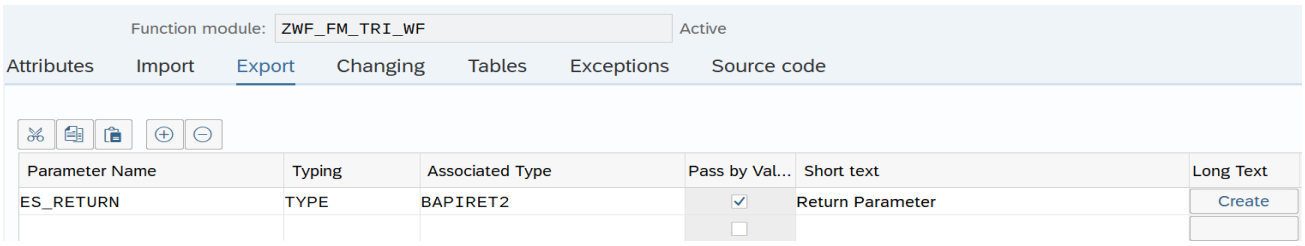
1. **ZWF_FM_TRIGGER_BTPWF**

   Steps:

   - Go to t-code “SE37”
   - Click on “Create” button
   - Enter “ZWF_FM_TRIGGER_BTPWF” as name of Function Module
   - Enter “ZWF_FG_UTIL_BTPWF” as Function Group
   - Enter a meaningful short text
   - Click on “Save” (Click on OK in successive pop-ups)
   - Go to “Import” tab and enter the below mentioned entries



- Go to “Export” tab and create the below entries

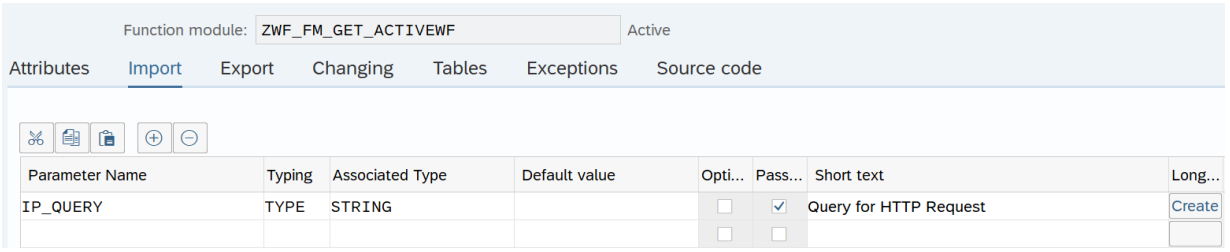


- Go to “Source Code” tab and paste the attached code for “ZWF_FM_TRIGGER_BTPWF” from SAP Note 3954295
- Click on “Save”
- Click on “Activate” (Click OK button on the pop-up which shows list of inactive objects)

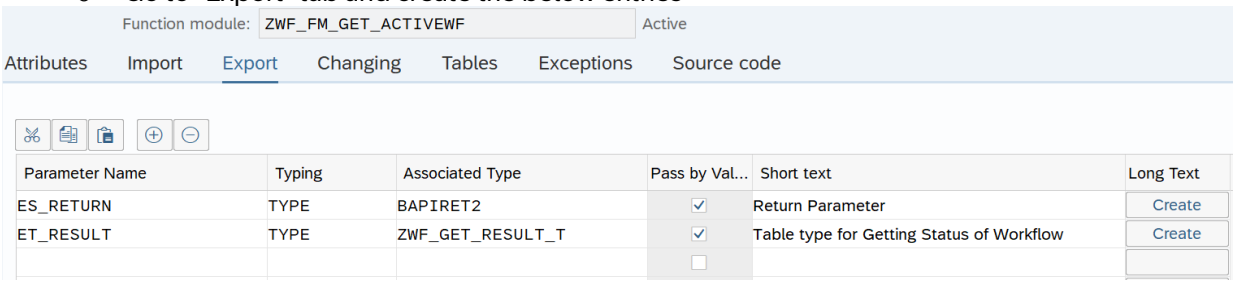
2. **ZWF_FM_GET_ACTIVEWF**

Steps:

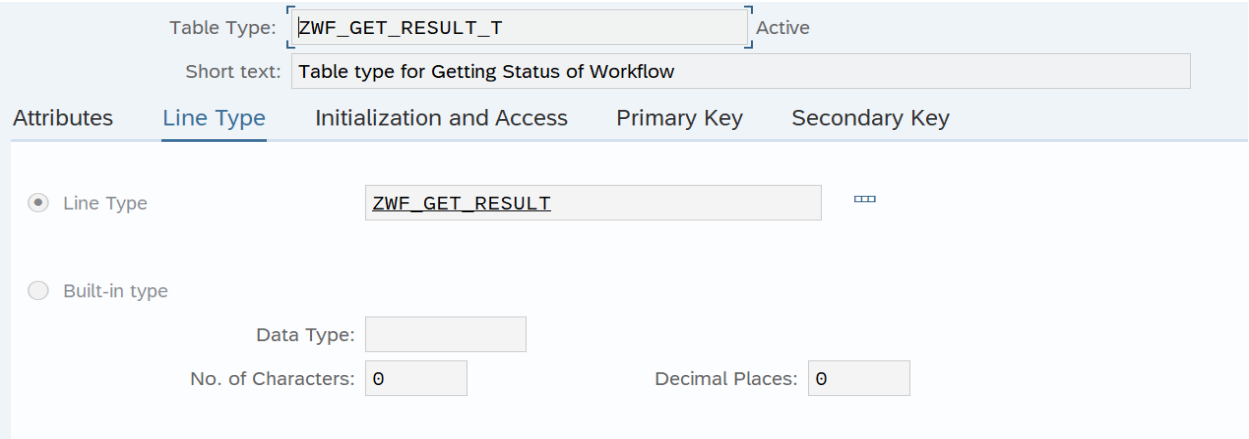
- Go to t-code “SE37”
- Click on “Create” button
- Enter “ZWF_FM_GET_ACTIVEWF” as name of Function Module
- Enter “ZWF_FG_UTIL_BTPWF” as Function Group
- Enter a meaningful short text
- Click on “Save” (Click on OK in successive pop-ups)
- Go to “Import” tab and enter the below mentioned entries

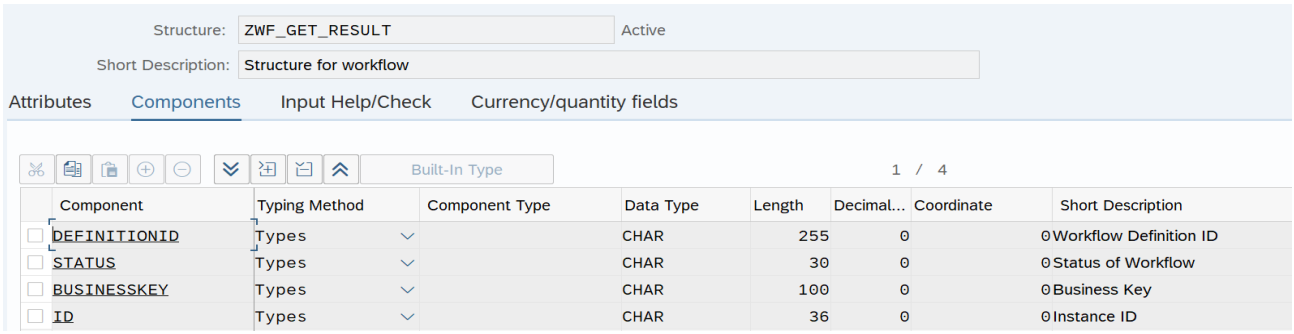


- Go to “Export” tab and create the below entries



- Go to “Source Code” tab and paste the attached code for “ZWF_FM_GET_ACTIVEWF” from SAP Note 3954295
- Click on “Save”
- 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:

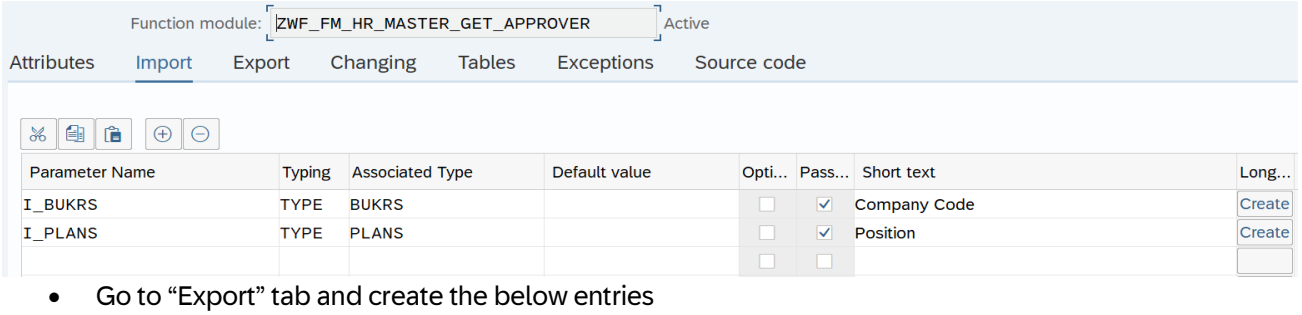




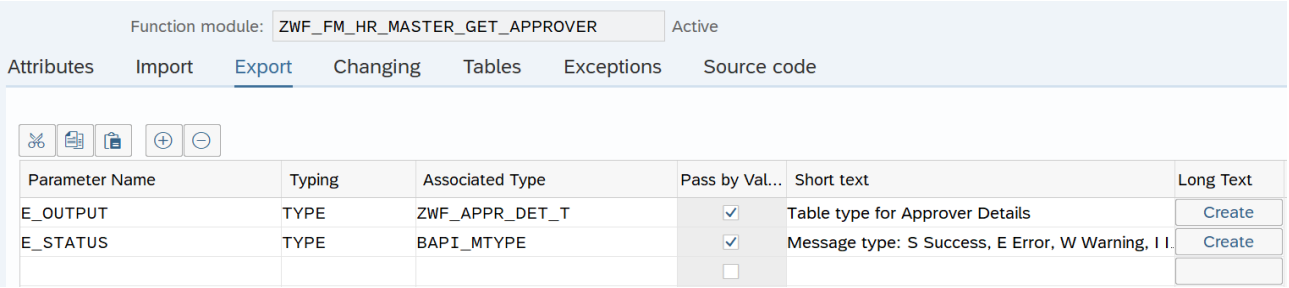
3. **ZWF_FM_HR_MASTER_GET_APPROVER**

Steps:

- Go to t-code “SE37”
- Click on “Create” button
- Enter “ZWF_FM_HR_MASTER_GET_APPROVER” as name of Function Module
- Enter “ZWF_FG_UTIL_BTPWF” as Function Group
- Enter a meaningful short text
- Click on “Save” (Click on OK in successive pop-ups)
- Go to “Import” tab and enter the below mentioned entries

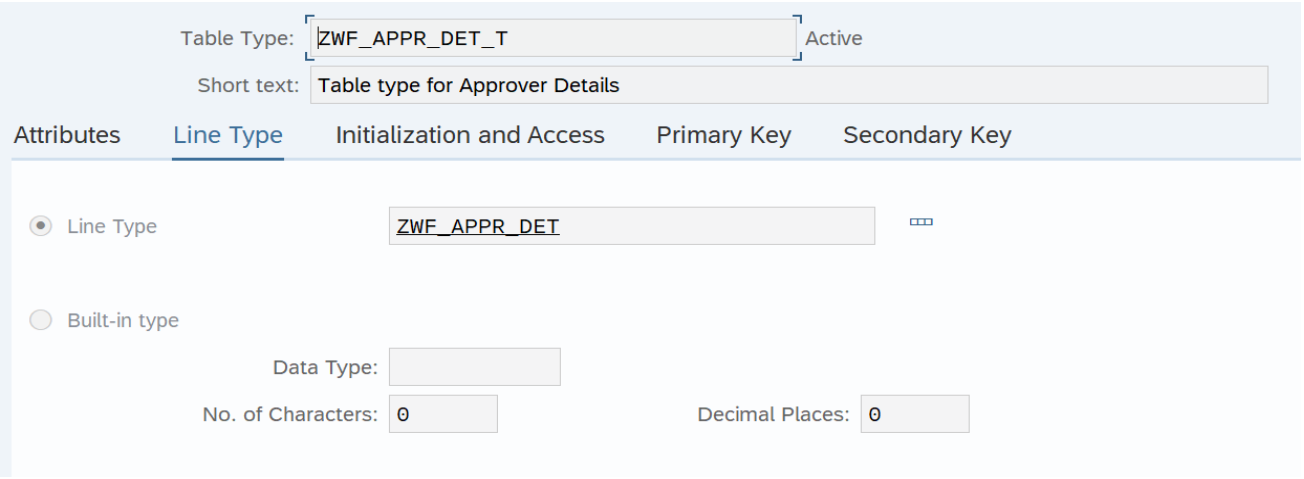


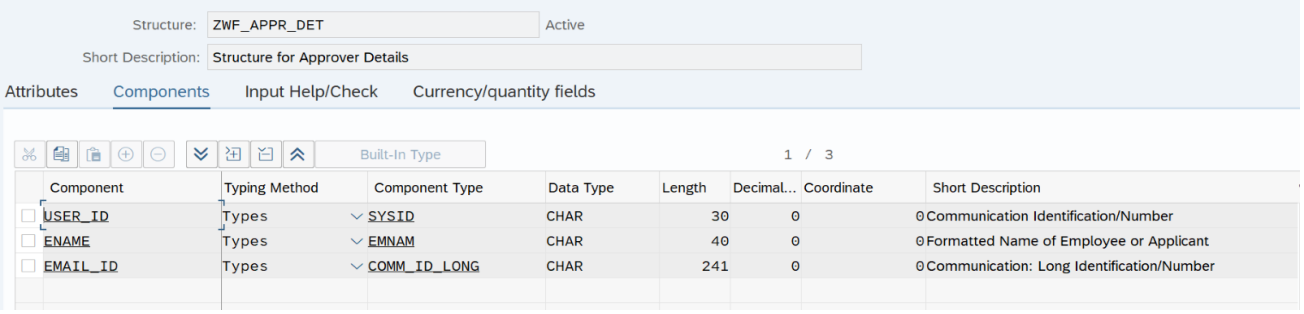
- Go to “Export” tab and create the below entries



- Go to “Source Code” tab and paste the attached code for “ZWF_FM_HR_MASTER_GET_APPROVER” from SAP Note 3954295
- Go to “Attributes” tab and select radio button for “Remote-Enabled”
- Click on “Save”
- 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:

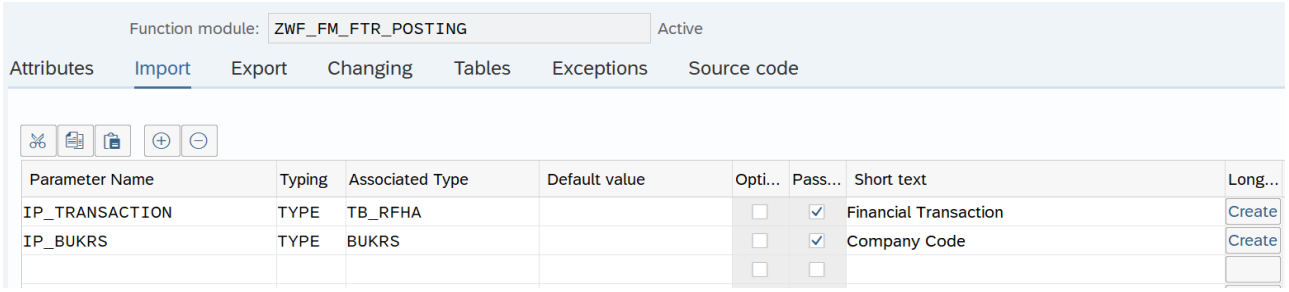




4. **ZWF_FM_FTR_POSTING**

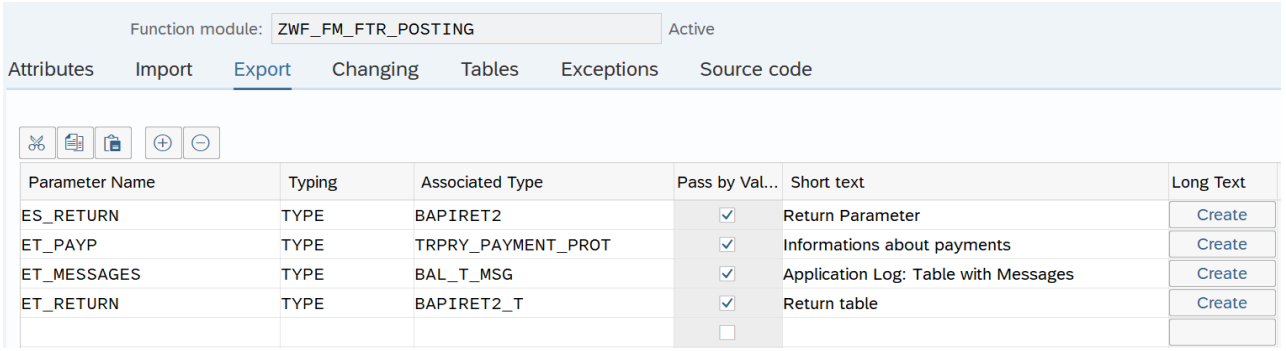
Steps:

- Go to t-code “SE37”
- Click on “Create” button
- Enter “ZWF_FM_FTR_POSTING” as name of Function Module
- Enter “ZWF_FG_UTIL_BTPWF” as Function Group
- Enter a meaningful short text
- Click on “Save” (Click on OK in successive pop-ups)
- Go to “Import” tab and enter the below mentioned entries



Parameter Name	Typing	Associated Type	Default value	Opti...	Pass...	Short text	Long...
IP_TRANSACTION	TYPE	TB_RFHA		☐	☑	Financial Transaction	Create
IP_BUKRS	TYPE	BUKRS		☐	☑	Company Code	Create
				☐	☐		

- Go to “Export” tab and create the below entries



Parameter Name	Typing	Associated Type	Pass by Val...	Short text	Long Text
ES_RETURN	TYPE	BAPIRET2	☑	Return Parameter	Create
ET_PAYP	TYPE	TRPRY_PAYMENT_PROT	☑	Informations about payments	Create
ET_MESSAGES	TYPE	BAL_T_MSG	☑	Application Log: Table with Messages	Create
ET_RETURN	TYPE	BAPIRET2_T	☑	Return table	Create
			☐		

- Go to “Source Code” tab and paste the attached code for “ZWF_FM_FTR_POSTING” from SAP Note 3954295
- Go to “Attributes” tab and select radio button for “Remote-Enabled”
- Click on “Save”
- Click on “Activate” (Click OK button on the pop-up which shows list of inactive objects)

Implicit Enhancements

The details of implicit enhancements that need to be implemented in SAP S/4HANA are mentioned below:

Program Name	Position	Type	Code
RFTBBB00	To be added before the definition of SUBROUTINE "bewegungen_buchen"	Code	Copy and paste the attached code for “Enhancement 1” from SAP Note 3954295

Implementing BADI
Steps:

1. Go to t-code “SE18”
2. Enter “FTR_TR_GENERIC” 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 “ZIMP_FTR_SAVE”
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 “ZIMP_FTR_SAVE” and meaningful description
9. Upon being prompted to enter the Implementation Class Name, enter “ZCL_IM_IMP_FTR_SAVE”
10. Select “Empty class” to continue
11. Double click on the name of the implementing class and alter the method

    “IF_EX_FTR_TR_GENERIC~EVT_APPLICATION_START” by pasting the code from

    IF_EX_FTR_TR_GENERIC~EVT_APPLICATION_START” from SAP Note 3954295 in the method
12. Save and activate the newly created object like Class, Method, BADI implementation, Enhancement

    implementation
13. Come back and alter the method “IF_EX_FTR_TR_GENERIC~EVT_TRANSACTION_SAVE_READY” by

    pasting the code from **“IF_EX_FTR_TR_GENERIC~EVT_TRANSACTION_SAVE_READY” from SAP Note**

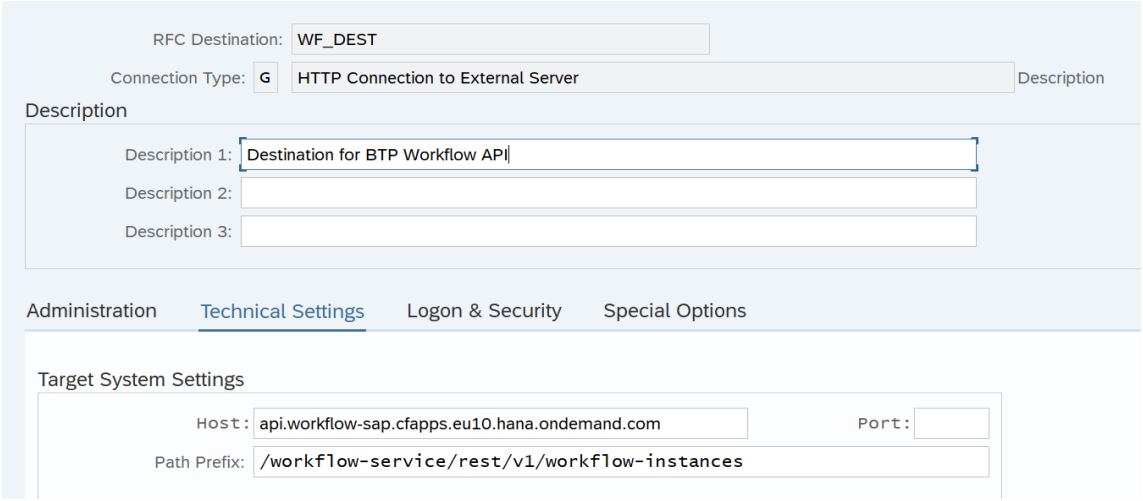
    3954295 in the method
14. Save and activate the newly created object like Class, Method, BADI implementation, Enhancement

    implementation

Note: The above-mentioned codes require RFC Connection, OAuth2.0 client and profile to be created in SAP S/4 HANA. The steps for this configuration are mentioned below:

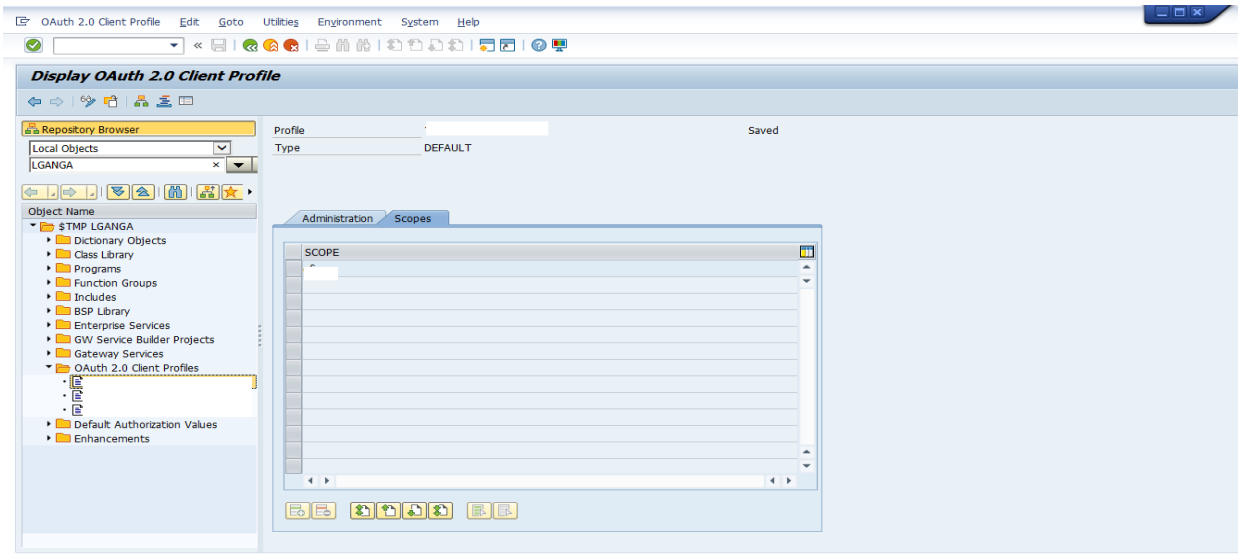
Configuration of RFC Connections:

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”**



Creating OAuth2.0 client profile:

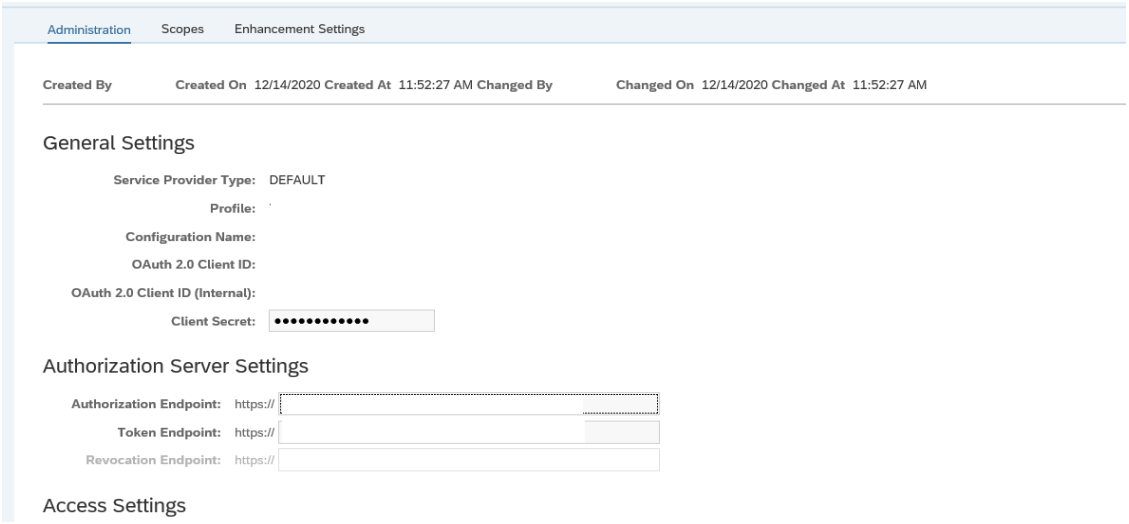
1. Start the object navigator (transaction SE80).
2. Choose Development Object in the dropdown list.
3. To create a development object in the SAP namespace, choose Create OAuth 2.0 Client Profile in the context menu of the object name.
4. Enter the object name in the Client Profile field of the popup 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.