

SAP BUSINESS TECHNOLOGY PLATFORM | EXTERNAL

## Setup Guide

# Fixed Asset Transfer Approval using SAP Workflow Management or SAP Build Process Automation

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# Overview

This document provides information about setup steps to consume the package **Fixed Asset Transfer Approval**. The main audience of this document are Business Process Experts and Process Operators.

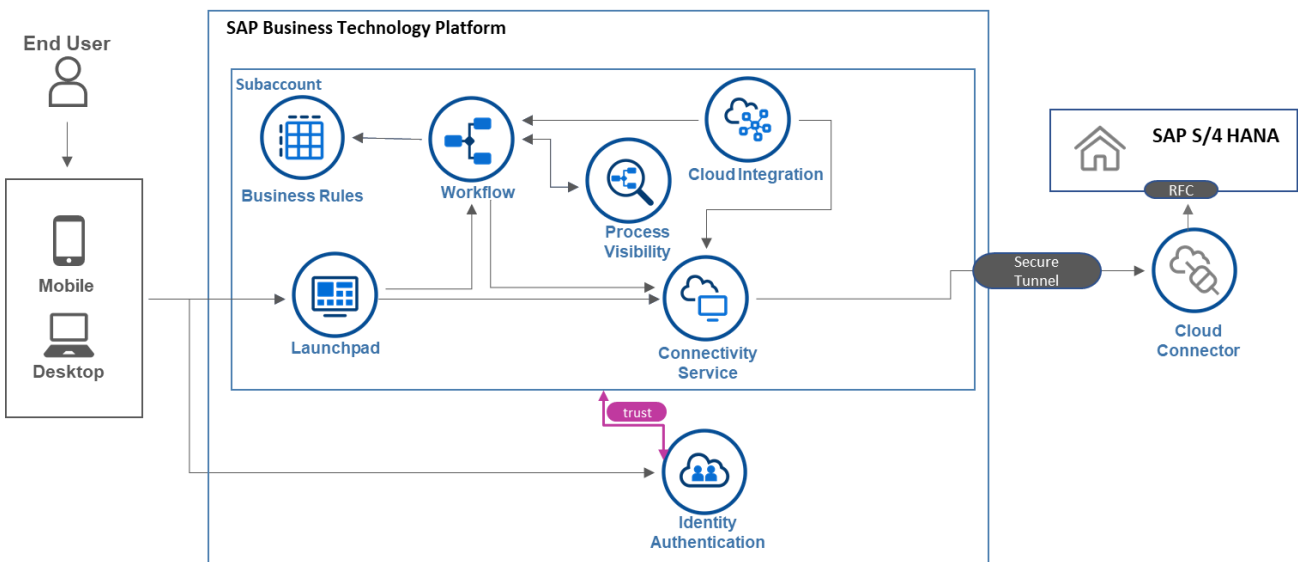
Objective of this workflow is to have approval process in place for Fixed asset transfers so that these transactions can be tracked and monitored before actual document postings in SAP S/4 HANA.

Fixed asset transfers (both Intercompany and Intra Company) transactions are usually high value items which should not get posted in the SAP S/4HANA system without notice. This workflow will help business in obtaining approvals for transfers of Fixed assets based on Approval determination. This helps in better governance practice.

## 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 Business Technology Platform Services

The workflow content package Fixed Asset Transfer 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 Fixed Asset Transfer information.
- 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 - Identity Authentication (optional)**

# Setup and Configuration

**Fixed Asset Transfer 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 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 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
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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

**Fixed Asset Transfer 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>

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
- WORKFLOW\_INSTANCE\_CANCEL

### 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](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 or OAuth2ClientCredentials.

### Destination with Basic Authentication

Name	S4HANA
Type	HTTP
Proxy Type	On-Premise
User	<ONPREMISE_USER>
Password	<ONPREMISE_PASSWORD>
Authentication	BasicAuthentication
URL	<OData base URL of SAP S/4HANA>
Additional Properties	sap-client: <client number>

### 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

## Configure SAP S/4HANA Destination

Configure a S/4 HANA destination to connect with SAP S/4HANA on-premise .

Note: This destination is required by Cloud Platform Integration and Start UI.

Name	S4HANA
------	--------

Type	HTTP
Proxy Type	On-Premise
User	<ONPREMISE_USER>
Password	<ONPREMISE_PASSWORD>
Authentication	BasicAuthentication
URL	<OData base URL of SAP S/4HANA>
Additional Properties	sap-client: <client number>

## 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\_COSTCENTER\_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\_COSTCENTER\_SRV” and click on “Get Services”
5. Select “API\_COSTCENTER\_SRV” and click on “Add Selected Services”
6. Enter the required package and click on OK

### List of BAPIs which need to be available in S/4 HANA On-premise

BAPI\_ASSET\_TRANSFER\_POST - Post Intracompany Transfer  
 BAPI\_FIXEDASSET\_GETLIST – Get Asset Details  
 BAPI\_FIXEDASSET\_CREATE1 – Create Asset  
 BAPI\_USER\_GET\_DETAIL - Read User Details  
 BAPI\_TRANSACTION\_COMMIT – Commit posting of data  
 BAPI\_TRANSACTION\_ROLLBACK – Rollback posting of data

## Create and Configure the Core Data Services to populate the Value Helps

The Custom Task UIs based on SAP UI5 uses a couple of backend services to populate the value helps for Depreciation Areas and Asset Class information.

Depreciation Area Value Help URL –

{S4HANA\_Dest}/sap/opu/odata/sap/ZZ1\_DEPRAREAFORLEDGERVH\_CDS/ZZ1\_DeprAreaForLedgerVH

Asset Class Value Help URL –

{S4HANA\_Dest}/sap/opu/odata/sap/ZZ1\_ASSETCLASS\_CDS/ZZ1\_AssetClass

Create the necessary Custom CDS Views in your SAP S/4HANA system to use the Live Process Package. Refer to the Appendix for more details

## 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 Platform Integration.

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_COSTCENTER_SRV	HTTPS	ABAP System
/sap/opu/odata/sap/ZZ1_DEPRAREAFORLEDGERVH_CDS	HTTPS	ABAP System
/sap/opu/odata/sap/ZZ1_ASSETCLASS_CDS	HTTPS	ABAP System

BAPI_ASSET_TRANSFER_POST	RFC	ABAP System
BAPI_FIXEDASSET_GETLIST	RFC	ABAP System
BAPI_FIXEDASSET_CREATE1	RFC	ABAP System
BAPI_USER_GET_DETAIL	RFC	ABAP System
BAPI_TRANSACTION_COMMIT	RFC	ABAP System
BAPI_TRANSACTION_ROLLBACK	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 “<name>”.

## Appendix

To get the list of Depreciation Areas and Asset Class Values from SAP S/4HANA, we are going to create a Custom CDS Views.

### Pre-requisite

You have the necessary tools and rights to create Custom Core Data Service Views. Please refer to the following - [SAP HANA Core Data Services \(CDS\) Reference](#)

### Create Custom CDS View for Depreciation Areas

#### Procedure

1. Create a Custom CDS View with the Name ZZ1\_DeprAreaForLedgerVH (CDS Name is case-sensitive) and Label “DeprAreaForLedgerVH”.
2. Select Scenario “External API”
3. Choose Add > Add Primary Data Source.
4. Choose the data source with the name “I\_DepreciationAreaForLedger”.
5. Choose Save Draft.
6. Choose Elements tab.
7. Select the fields as listed in below screenshot (Click on Add -> Elements if the fields are not selected by default)

Key	Alias	Type	Path	Label	Calculation	Status
<input checked="" type="checkbox"/>	CompanyCode	CHAR (4)	I_DepreciationAreaForLedger.CompanyCode	Company Code		
<input checked="" type="checkbox"/>	Ledger	CHAR (2)	I_DepreciationAreaForLedger.Ledger	Ledger		
<input checked="" type="checkbox"/>	AssetDepreciationArea	NUMC (2)	I_DepreciationAreaForLedger.AssetDepreciationArea	Depreciation Area		
<input type="checkbox"/>	Language	LANG (1)	I_DepreciationAreaForLedger_Text.Language	Language Key		
<input type="checkbox"/>	AssetDepreciationArea_Text	CHAR (50)	I_DepreciationAreaForLedger_Text.AssetDepreciationAreaName	Dep. Area Name		

8. Choose Publish.

## Create Custom CDS View for Asset Class

### Procedure

1. Create a Custom CDS View with the Name ZZ1\_AssetClass (CDS Name is case-sensitive) and Label "AssetClass".
2. Select Scenario "External API"
3. Choose Add > Add Primary Data Source.
4. Choose the data source with the name "I\_AssetClassText".
5. Choose Save Draft.
6. Choose Elements tab.
7. Select the fields as listed in below screenshot (Click on Add -> Elements if the fields are not selected by default)

Key	Alias	Type	Path	Label	Calculation	Status
<input checked="" type="checkbox"/>	AssetClass	CHAR (8)	I_AssetClassText.AssetClass	Asset Class		
<input checked="" type="checkbox"/>	Language	LANG (1)	I_AssetClassText.Language	Language Key		
<input type="checkbox"/>	AssetClassName	CHAR (20)	I_AssetClassText.AssetClassName	Asset Class Name		

8. Choose Publish.

## Setup OData services for Custom CDS views

### Procedure

1. Login into SAP GUI
2. Go to t-code "/IWFND/MAINT\_SERVICE"
3. Click on "Add Service"
4. Select the required System Alias
5. Enter Technical Service Name as "ZZ1\_DEPRAREAFORLEDGERVH\_CDS" and click on "Get Services"
6. Select "ZZ1\_DEPRAREAFORLEDGERVH\_CDS" and click on "Add Selected Services"
7. Enter the required package and click on OK
8. Repeat steps 2 to 7 for Technical Service "ZZ1\_ASSETCLASS\_CDS"

# Configure SAP Central 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:

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

## Configure AFE Planner Tile on Central Fiori Launchpad Site

- Open SAP Launchpad site manager application.
- Select Content Manager and Content Explorer
- Search com.sap.fatransfers.FATransferStartUIModule and select SAP UI5 component.
- Click Add to My Content button to include the UI5 component.

---

My Content    **Content Explorer**

---

Explore your content providers and add content items to your subaccount

HTML5 Apps    FATransferStart    **+ Add to My Content**

---

Items (1)

<input type="checkbox"/>	Title	Description	ID	
<input checked="" type="checkbox"/>	<b>A</b> Fixed Asset Transfers	Fixed Asset Transfers	com.sap.fatransfers.FATransferStartUIModule	<b>X</b> Remove

- 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: Fixed Asset Transfer under PROPERTIES.
- Click + button and Save button.