

SAP BUSINESS TECHNOLOGY PLATFORM | EXTERNAL

Setup Guide

Create Social Security Certificate using SAP Build Process Automation or SAP Workflow Management

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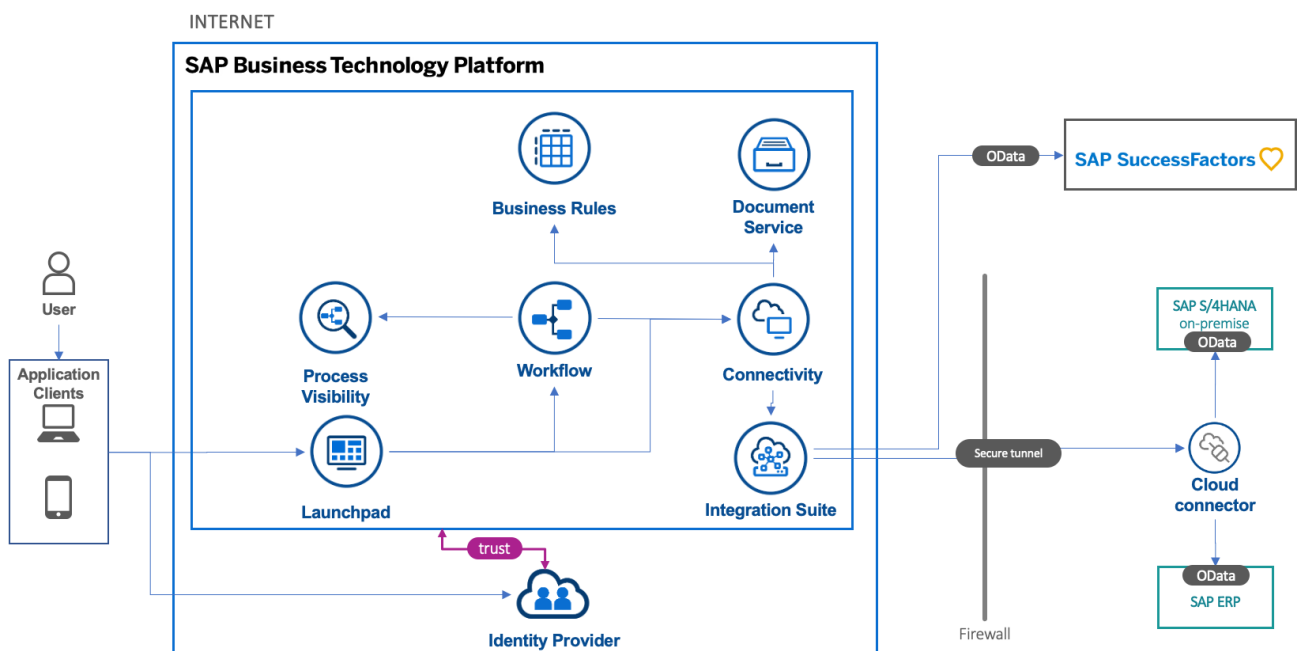
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Overview

This document provides information about how to setup the SAP BTP tenant to consume the Create Social Security Certificate content package using SAP Build Process Automation or SAP Workflow Management. Administrators & IT are the target users of this document.

An employee needs to travel and creates a Social Security Certificate Request. As he/she travels to a country where a social security agreement exists (e.g., EU, Switzerland, Liechtenstein, Iceland, UK or Northern Ireland), the respective social security certificate, e.g., A1, D/USA 101, VRC/D 101 etc., has to be obtained. To do so, the HR department needs to send out a form to the respective organization to receive the needed certificate. This workflow increases the transparency between HR and employees.

- By using integration into SAP SuccessFactors, SAP S4/HANA or SAP ERP Central Component (ECC), the overall data quality of the request is increased.
- The attachments are sent out using SAP Document Management System, which reduces the number of files sent via mail and automatically controls access.



Required SAP BTP Services

The content package *Create Social Security Certificate* is intended to be used for requesting *Social Security Certificate* for travel purposes and requires the following services in SAP Business Technology Platform.

- SAP Build Process Automation or SAP Workflow Management to orchestrate the process.
- SAP Integration Suite to get the employee and BP data from SAP SFSF or S/4HANA
- SAP Connectivity service (cloud connector) to establish access to SAP S/4HANA on-premise or SAP ERP.
- SAP Cloud Portal service or SAP Launchpad service to access the apps that are involved in the process.
- SAP Business Application Studio to modify the SAPUI5 applications (optional).
- SAP BTP, Cloud Foundry runtime.

Based on your system landscape, the following systems can be integrated to enhance the user experience.

- SAP S4/HANA Version 2021 and above – Read the business partner address data using the standard A_BusinessPartnerAddress API. Then filter out the Business partner based on the BP Role which is configured as a constant header parameter (BusinessPartnerRole).
- SAP ERP Central Component - Read the business partner data from BAPI BAPI_BUPA_SEARCH and BAPI_BUPA_ADDRESS_GETDETAIL
- SuccessFactors – Read the Employee personal, email and address data using the API's (PerPersonal, PerEmail and CompoundEmployee).

Setup and Configuration

The **Create Social Security Certificate** 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 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:

<https://help.sap.com/viewer/cca91383641e40ffbe03bdc78f00f681/Cloud/en-US/685f383cebb54c009b2fac633b32c90f.html>.

Destination Configuration

Blank Template Service Instance

Service Instance: * sap_processautomation

Name: * process_atuomation_service_destination

Description: Call SAP Process Automation APIs using a service route

Additional Properties New Property

Next Cancel

Destination Configuration

Name: * process_automation_service_destination

Type: HTTP

Description: Call SAP Process Automation APIs using a s...

URL: * https://sap.com/DUMMY_URL

Proxy Type: Internet

Authentication: OAuth2ClientCredentials

Use mTLS for token retrieval

Client ID: * sb- [redacted] I9...

Client Secret: [redacted]

Token Service URL Type: * Dedicated Common

Token Service URL: * https:// [redacted] ...

Token Service User: [redacted]

Token Service Password: [redacted]

Additional Properties

endpoints	{ "api": "https://[redacted]" }	🗑️
html5-apps...	{ "app_host_id": "[redacted]" }	🗑️
saasregistry...	true	🗑️
sap.cloud.s...	com.sap.spa.process...	🗑️
sap.cloud.s...	spa	🗑️

Use default JDK truststore

Save Cancel

Configure SAP Workflow Management

Follow the [setup and configuration section](#) of SAP Workflow Management.

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

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 Workflow Destination

A HTTP destination is required in the SAP 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

Configure OAuth2ClientCredentials Workflow Destination (Service Instance)

Ignore this step if there is already a destination using Workflow service instance created.

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 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 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	CPI
Type	HTTP
Proxy Type	Internet
Authentication	Basic Authentication
URL	https://<customerhost>/http/Wfm/CancelCustomerInvoice
Username	<user>

Password	<password>
----------	------------

For more information refer how to [create a HTTP destination](#) and Authentication (client credentials).The URL should be the runtime url Please refer how to get your Integration tenant [runtime url](#)

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>

Configure Document Management Service Repository

SAP Document Management service, in short Document Management, is the content management solution on the Cloud Foundry environment of SAP Business Technology Platform. For the Cancel Customer Invoice, you need to subscribe to 'Document Management, Integration Option' in order to upload the Cancel Customer Invoice related documents and other supporting documents for the approval process.

Create and configure root Document Management Service repository by following the steps described in [Initial Setup for Document Management, Integration Option](#) and [Connect to Document Management, Repository Option Using API \(incl. Prerequisites\)](#). Save generated Repository ID from the response to be used the destination configuration as described in the next section.

Configure Document Management Destination

Configure a Document Management Service destination with the following parameters.

Name	bpmworkflowruntime_attachments
Type	HTTP
Proxy Type	Internet
Authentication	OAuth2UserTokenExchange
URL	<"endpoints":"ecmservice":"url">/browser/ <Repository_ID>/root/
Token Service URL	<"uaa":"url">/oauth/token
Token Service URL Type	Dedicated

Populate Client ID and Client Secret with the values from the Service Key created on the previous step (see [Create Service Keys Using the Cockpit](#)). For more information refer to [Create HTTP Destinations](#) and [OAuth User Token Exchange Authentication](#). Make sure that the users which are going to use the application have "SDM_Admin" or "SDM_User" roles assigned to them.

Custom User Interfaces

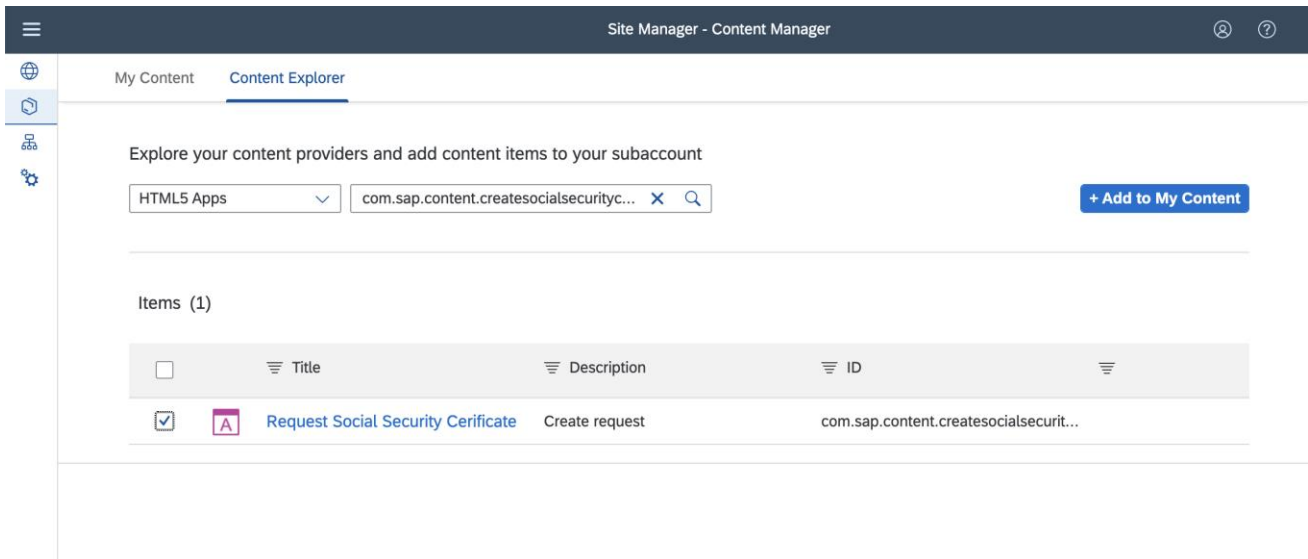
The content package requires two SAPUI5 user interfaces, and both of them are automatically deployed in the SAP BTP tenant when the content package is imported. If the standard behavior needs to be altered to meet custom requirements, then the sources for the user interface and workflows are available in the Sources tab (Manage Package app). The source files can be imported into the SAP Business Application Studio or SAP WebIDE to make further enhancements & deploy into the SAP BTP tenant.

Configure SAP Central Fiori Launchpad Site for SAP Workflow Management

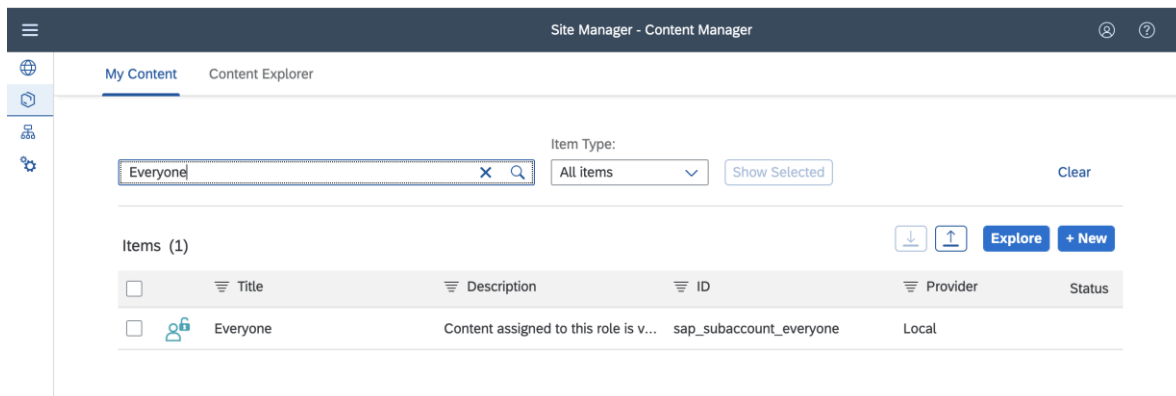
If you plan to use SAP Launchpad service, then configure [SAP Central Fiori Launchpad Site with Workflow Applications](#) using help documentation.

Add Workflow start UI in Fiori Launchpad Site

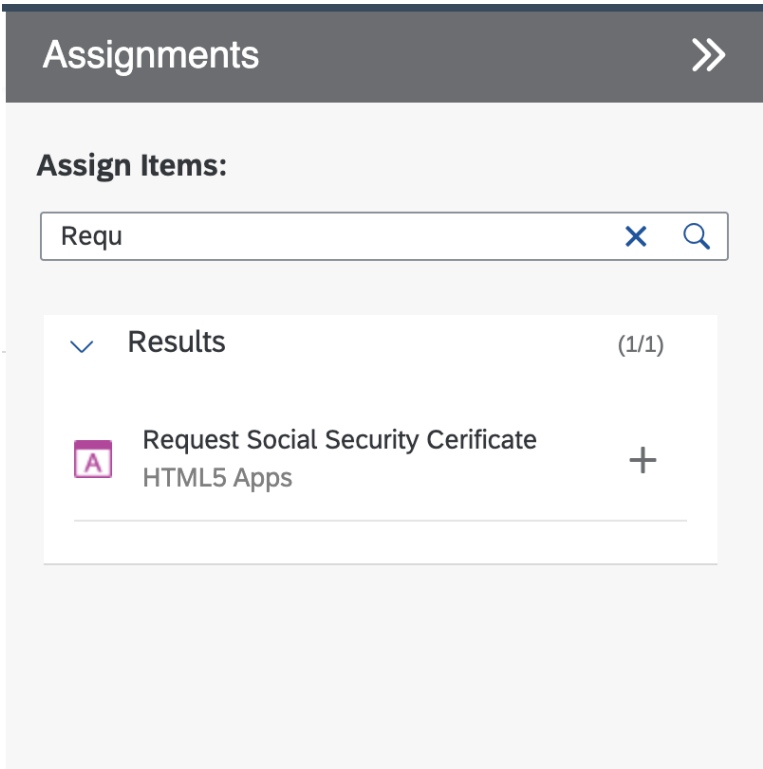
- Open SAP Launchpad site manager application.
- Select Content Manager and Content Explorer.
- Search com.sap.content.createsocialsecuritycertificateUI and select SAP UI5 component.



- Click Add to My Content button to include the UI5 component.
- Select My Content tab and Search Everyone.
- Click the role where you want to enable this application (for ex, Everyone) from the result and navigate to the details.



- Click Edit button to enable all users to access the new Start UI tile.
- Search for Document and select Document Centric Approval Request.
- Click the + button and Save the changes



- Finally, add the application Request Social Security Certificate to the group (existing or new).

(Optional) Configure OData API in SAP ERP

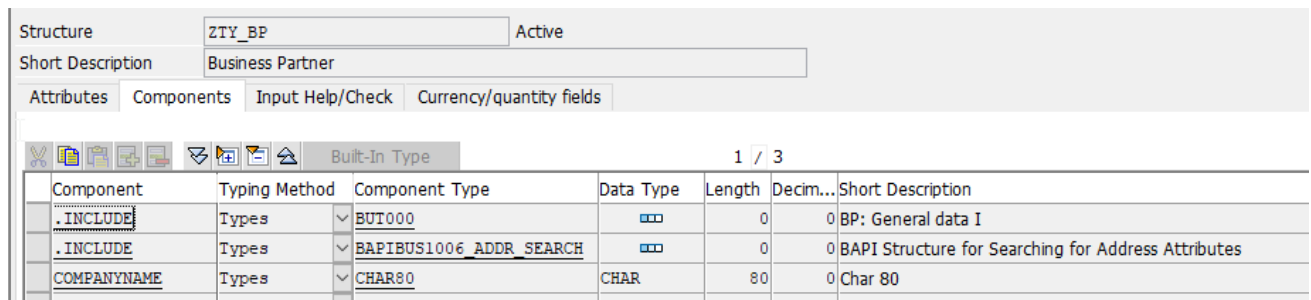
The below configuration is needed only for those customers who need to pull the Business partner data from the SAP ERP Central Component (SAP ECC). If you are already using the SAP S/4HANA then this configuration steps are not needed.

Following custom Odata service needed to be configured in SAP ERP to use the content package. Please follow this step to create the SEGW Odata service.

Create OData Service

Create Dictionary elements for Service Data Model Entity Type BusinessPartner

- Go to transaction SE11 and Create new Structure ZTY_BP add short Description “Structure for Business Partner”.
- Add includes BUT000 and BAPIBUS1006_ADDR_SEARCH and the component COMPANYNAME.



Component	Typing Method	Component Type	Data Type	Length	Decim...	Short Description
.INCLUDE	Types	BUT000	----	0	0	BP: General data I
.INCLUDE	Types	BAPIBUS1006_ADDR_SEARCH	----	0	0	BAPI Structure for Searching for Address Attributes
COMPANYNAME	Types	CHAR80	CHAR	80	0	Char 80

Component	Type	Component Type
.INCLUDE	Types	BUT000
.INCLUDE	Types	BAPIBUS1006_ADDR_SEARCH
COMPANYNAME	Types	CHAR80

- Create a Table Type ZTYT_BP for the Structure ZTY_BP created before.

Table Type	ZTYT_BP	Active
Short text	Type Table ZTY_BP	
<input type="radio"/> Attributes <input type="radio"/> Line Type <input type="radio"/> Initialization and Access <input type="radio"/> Primary Key <input type="radio"/> Secondary Key		
<input checked="" type="radio"/> Line Type	ZTY_BP	
<input type="radio"/> Predefined Type	Data Type: <input type="text"/> No. of Characters: <input type="text"/> Decimal Places: <input type="text"/>	
<input type="radio"/> Reference type	<input type="radio"/> Referenced Type: <input type="text"/>	
<input type="radio"/> Reference to Predefined Type	Data Type: <input type="text"/> Length: <input type="text"/> Decimal Places: <input type="text"/>	

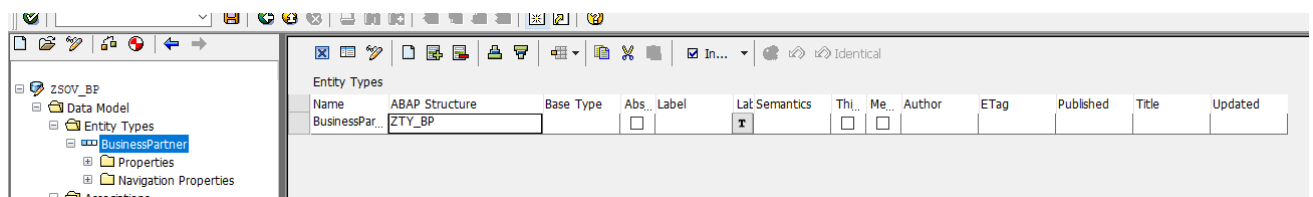
Create Service

- Go to transaction SEGW.
- Create new Project ZSOV_BP with attributes. (Follow this [link](#) on how to create a Project).
Project type: "Service SAP Annotations"
Generation Strategy: "Standard"

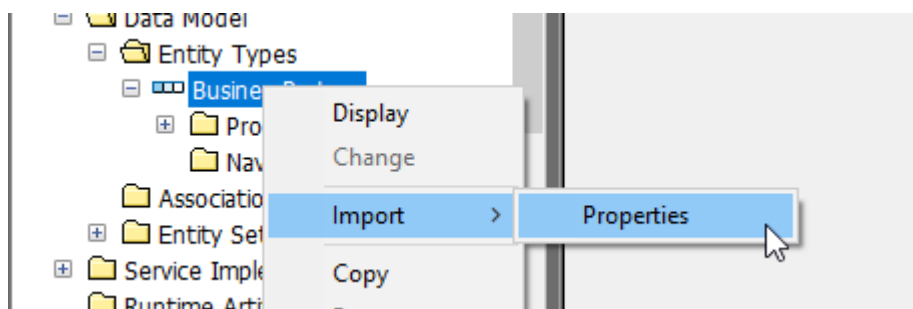
Attributes

Project Type	Service with SAP Annotations
Generation Strategy	Standard

- Add your Package.
- Add New Entity Type "BusinessPartner" with reference to the structure created before "ZTY_BP".



- Right-Click in Entity Type "BusinessPartner" and click in Import->Properties



- Add the fields bellow and click as KEY the Partner field.

Modify Entity Type

Is E...	Complex/Entity Type	ABAP Name	Is K...	Type	Name	Label
<input checked="" type="checkbox"/>	BusinessPartner	PARTNER	<input checked="" type="checkbox"/>	CHAR	Partner	BusinessPartner
<input checked="" type="checkbox"/>	BusinessPartner	NAME_ORG1	<input type="checkbox"/>	CHAR	NameOrg1	Name 1
<input checked="" type="checkbox"/>	BusinessPartner	NAME_ORG2	<input type="checkbox"/>	CHAR	NameOrg2	Name 2
<input checked="" type="checkbox"/>	BusinessPartner	NAME_ORG3	<input type="checkbox"/>	CHAR	NameOrg3	Name 3
<input checked="" type="checkbox"/>	BusinessPartner	NAME_ORG4	<input type="checkbox"/>	CHAR	NameOrg4	Name 4
<input checked="" type="checkbox"/>	BusinessPartner	MC_NAME1	<input type="checkbox"/>	CHAR	McName1	Name 1/Last Nm
<input checked="" type="checkbox"/>	BusinessPartner	MC_NAME2	<input type="checkbox"/>	CHAR	McName2	Name2/First Nme
<input checked="" type="checkbox"/>	BusinessPartner	CITY1	<input type="checkbox"/>	CHAR	City1	City
<input checked="" type="checkbox"/>	BusinessPartner	POSTL_COD1	<input type="checkbox"/>	CHAR	PostlCod1	Postal Code
<input checked="" type="checkbox"/>	BusinessPartner	COUNTRY	<input type="checkbox"/>	CHAR	Country	Country
<input checked="" type="checkbox"/>	BusinessPartner	REGION	<input type="checkbox"/>	CHAR	Region	Region
<input checked="" type="checkbox"/>	BusinessPartner	STREET	<input type="checkbox"/>	CHAR	Street	Street
<input checked="" type="checkbox"/>	BusinessPartner	CITY2	<input type="checkbox"/>	CHAR	City2	District
<input checked="" type="checkbox"/>	BusinessPartner	COMPANYNAME	<input type="checkbox"/>	CHAR	Companyname	Char80

Back Finish Cancel







- Save and click in Generate 





Create Service Handler Class

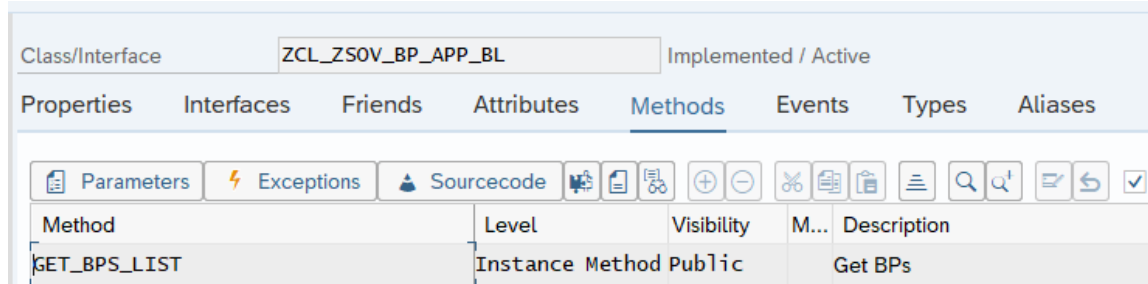
- Go to transaction SE24.
- Enter object type name as **ZCL_ZSOV_BP_APP_BL** & Click on create button.
- Click Source Code-Based button to toggle to the source code-based class builder.
- Copy the code for the class from *SAP NOTE 3164551*.
- The class should now have the types, and one method as shown in the screen shot below.
- Save and Activate the class.

Class/Interface: **ZCL_ZSOV_BP_APP_BL** Implemented / Active

Properties Interfaces Friends Attributes Methods Events **Types** Aliases

Properties       Filter

Type	Visibility	Typing	Associated...	Description
TY_COMPANYNAME_RANGE	Public			
TY_COUNTRY_RANGE	Public			
TY_CITY1_RANGE	Public			
TY_PARTNER_RANGE	Public			



Redefine method in Service Class ZCL_ZSOV_BP_DPC_EXT

- After generating the oData Service and the Service Handler Class created, go to transaction SE24 and open class ZCL_ZSOV_BP_DPC_EXT.
- Click Source Code-Based button to toggle to the source code-based class builder.
- Redefine Method BUSINESSPARTNERS_GET_ENTITYSET.
- Copy the Source Code from the *SAP Note 3164551*.

Parameters of Method BUSINESSPARTNERS_GET_ENTITYSET

Parameter	Type	P...	Optional	Typing Method	Associated Type	D
IV_ENTITY_NAME	Importing	<input type="checkbox"/>	<input type="checkbox"/>	Type	STRING	
IV_ENTITY_SET_NAME	Importing	<input type="checkbox"/>	<input type="checkbox"/>	Type	STRING	
IV_SOURCE_NAME	Importing	<input type="checkbox"/>	<input type="checkbox"/>	Type	STRING	
IT_FILTER_SELECT_OPTIONS	Importing	<input type="checkbox"/>	<input type="checkbox"/>	Type	/IWBEP/T_MGW_SELECT_OPTION	
IS_PAGING	Importing	<input type="checkbox"/>	<input type="checkbox"/>	Type	/IWBEP/S_MGW_PAGING	
IT_KEY_TAB	Importing	<input type="checkbox"/>	<input type="checkbox"/>	Type	/IWBEP/T_MGW_NAME_VALUE_PAIR	
IT_NAVIGATION_PATH	Importing	<input type="checkbox"/>	<input type="checkbox"/>	Type	/IWBEP/T_MGW_NAVIGATION_PATH	
IT_ORDER	Importing	<input type="checkbox"/>	<input type="checkbox"/>	Type	/IWBEP/T_MGW_SORTING_ORDER	
IV_FILTER_STRING	Importing	<input type="checkbox"/>	<input type="checkbox"/>	Type	STRING	
IV_SEARCH_STRING	Importing	<input type="checkbox"/>	<input type="checkbox"/>	Type	STRING	
IO_TECH_REQUEST_CONTEXT	Importing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Type Ref To	/IWBEP/IF_MGW_REQ_ENTITYSET	
ET_ENTITYSET	Exporting	<input type="checkbox"/>	<input type="checkbox"/>	Type	ZCL_ZSOV_BP_MPC=>TT_BUSINESSSP...	
ES_RESPONSE_CONTEXT	Exporting	<input type="checkbox"/>	<input type="checkbox"/>	Type	/IWBEP/IF_MGW_APPL_SRV_RUNTIM...	

(Optional) Configure Communication Scenarios in SAP S/4HANA

If you are using SAP S/4HANA to get the business partner information, then the following Communication Scenario is needed to be configured in SAP S/4HANA to use the Business Partner API.

SAP_COM_0008

Inbound Services consumed:

/sap/opu/odata/SAP/API_BUSINESS_PARTNER

Follow the documentation on how to [Create Communication Arrangement](#) for Communication Scenario SAP_COM_0008.

(Optional) Configure Cloud Connector

If you are using SAP S/4HANA or SAP ERP Central Component (ECC) to get the business partner information, configure cloud connector to enable secure tunnel to access the resources from an SAP BTP tenant. Please refer the help documentation to [configure Cloud Connector](#).

When using SAP S/4HANA

If you are using SAP S/4HANA to get the business partner information, then configure cloud connection to define a new ABAP system with HTTPS protocol and whitelist the following resource.

OData Resource

Backend Type	Protocol	Endpoint URL
ABAP System	HTTPS	/sap/opu/odata/sap/API_BUSINESS_PARTNER

When using SAP ERP Central Component (ECC)

When using SAP ERP Central Component to get the business partner information, then configure cloud connection to define a new ABAP system with HTTPS protocol and whitelist the following resource.

Backend Type	Protocol	Endpoint URL
ABAP System	HTTPS	/sap/opu/odata/sap/ZSOV_BP_SRV

Register OData Service

1. Go to t-code "SICF".
2. Go to path: default_host/sap/opu/odata/sap/zsov_bp_srv.
3. Activate the service.

Follow this [link](#) on how to activate the SICF related service for the odata.

Path	/default_host/sap/opu/odata/sap/	
Service Name	zsov_bp_srv	<input checked="" type="checkbox"/> Service (Active) Altern. Name: zsov_bp_srv
Lang.	English	<input type="button" value="→ Other Languages"/>
Description		
Description 1	ZSOV_BP_SRV	
Description 2		
Description 3		

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 "ZSOV_BP_SRV" and click on "Get Services"
5. Select "ZSOV_BP_SRV" and click on "Add Selected Services"
6. Enter the required package and click on OK.