Building block Configuration Guide
Bundesanzeiger SAP S/4HANA GTS Integration via CPI
April 2020
Deutsch

CUSTOMER

Bundesanzeiger Integration with SAP S/4HANA GTS System OnPremise via SAP Cloud Integration

Document History

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1 Prerequisites

Access tot he following systems:

1. SAP S/4HANA GTS OnPremise System (Admin role)
2. Bundesanzeiger (User and Password necessary)
3. BTP Subaccount for SAP Cloud Integration (Admin Roles)
4. SAP Cloud Integration (Configuration Roles)
5. System Landscape Directory (Admin Role)

2 Configuration steps on SAP Cloud Integration

In this scenario the SAP CI is used as a middleware in order to integrate the Bundesanzeiger with the SAP GTS OnPremise. It is replicating the SLP sanction list in a regular basis.

2.1 Import Bundesanzeiger certificate on SAP CI

Download the Certificate from Bundesanzeiger and import it into the SAP CI via

SAP CI → Monitor → Keystore

Note

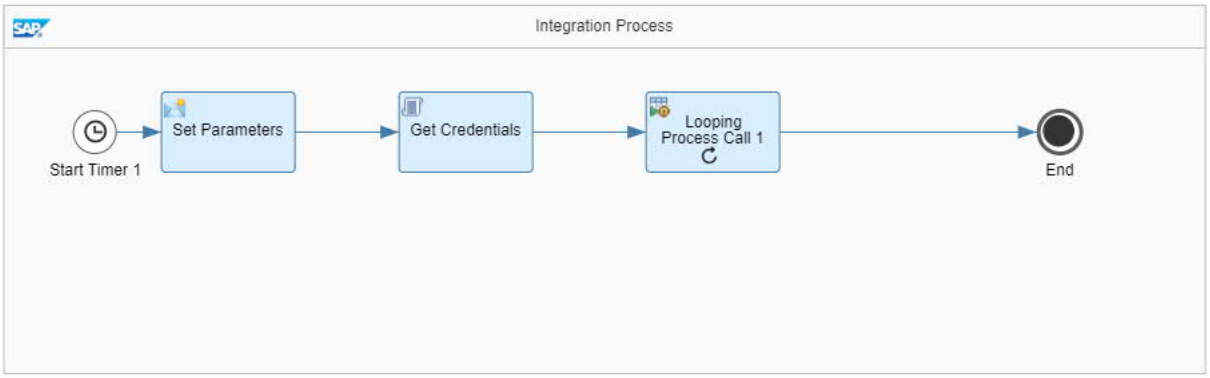
Based on the validation date the certificate needs to be renewed.

2.2 Create Artefact for Bundesanzeiger Credential

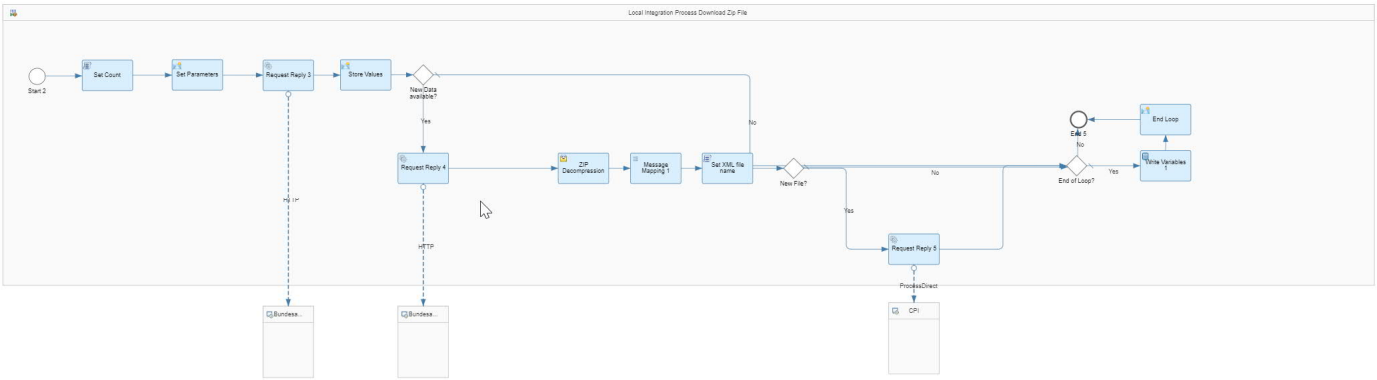
Configure the Bundesanzeiger Artefact in the Security Material area.

2.3 Query and send SanctionsList from Bundesanzeiger to SAP S/4HANA GTS

The main process defines some parameters and starts the looping process in order to retrieve all necessary files from Bundesanzeiger (3 in total):



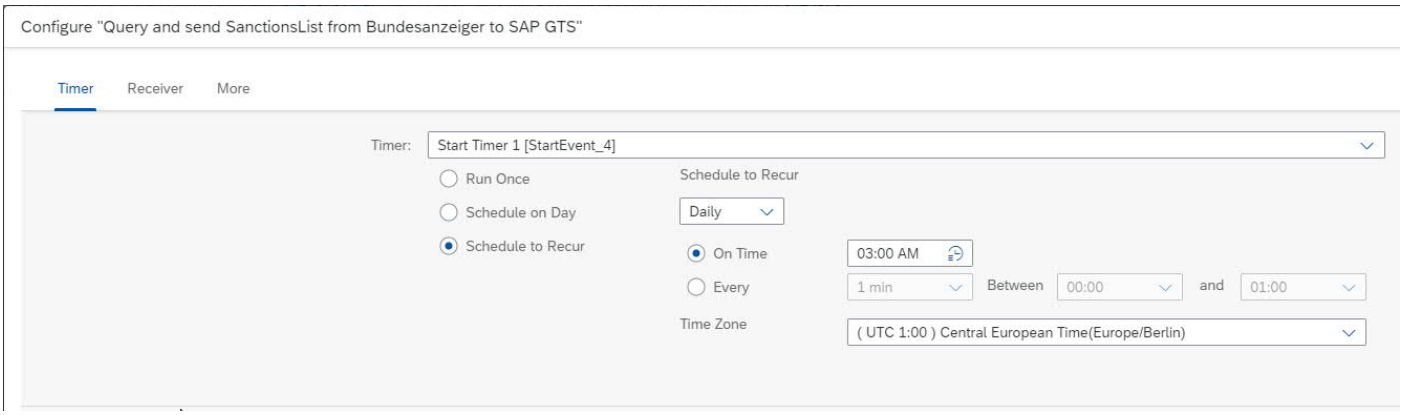
The looping Subprocess checks for each file if it has a new date as well as a new file name. If this is the case the is mapped with a configured Provider ID and then replicated via another Iflow, which is called by a ProcessDirect Adapter, to the SAP S/4 HANA GTS System.



2.4 Configuration Steps - Query and send SanctionsList from Bundesanzeiger to SAP S/4HANA GTS

Timer:

Set the Timer on a daily regular basis.



Receiver Bundesanzeiger_GetInfos

Configure the Host Name of the Bundesnazeiger URL.

The query is set by properties in the Iflow itself.

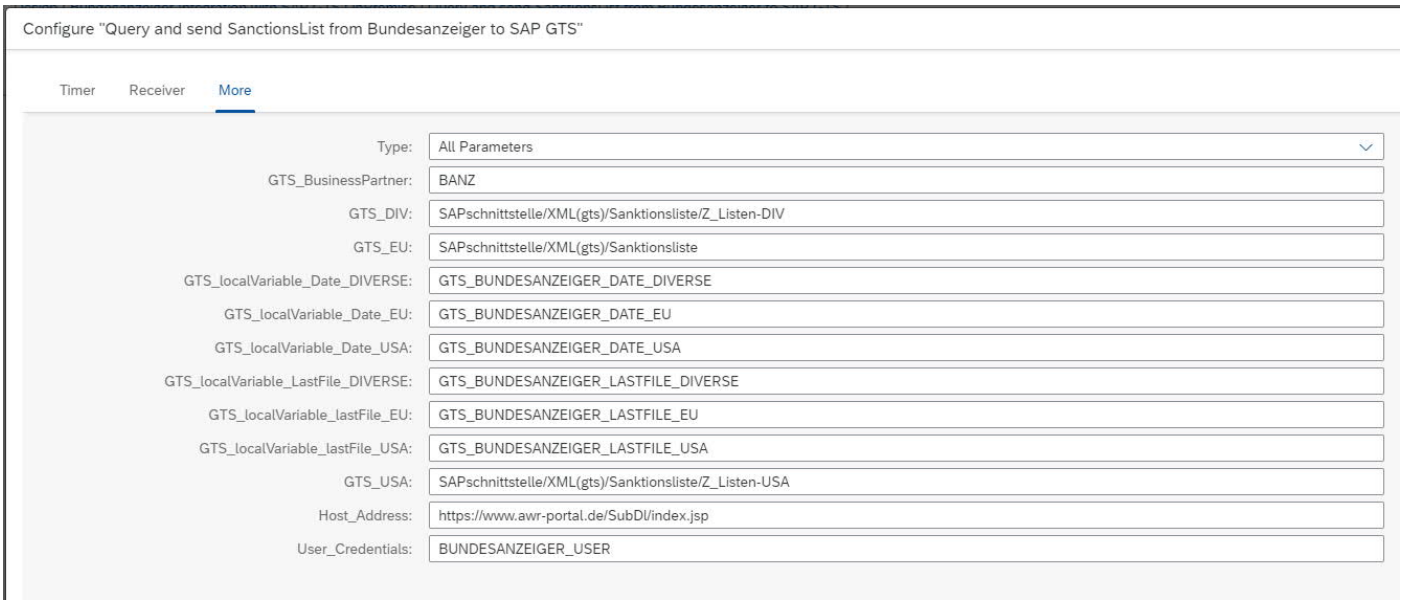
Receiver Bundesanzeiger2

Configure the Host Name of the Bundesnazeiger URL.

The query is set by properties in the Iflow itself

More:

Configure the parameters set in the content modifier:



GTS_BusinessPartner: BusinessPartner created in SAP S/4HANA GTS in order to trigger the processing in SAP S/4HANA GTS.

GTS_DIV: Query Path for retrieving the Diverse SanctionList from Bundesnazeiger

GTS_EU: Query Path for retrieving the Europe SanctionList from Bundesnazeiger

GTS_USA: Query Path for retrieving the USA SanctionList from Bundesnazeiger

GTS_localVariable_Date_DIVERSE: Local variable for the date of the diverse sanction list

GTS_localVariable_Date_EU: Local variable for the date of the Europe sanction list

GTS_localVariable_Date_USA: Local variable for the date of the USA sanction list

GTS_localVariable_LastFile_DIVERSE: Local variable for the name of the diverse sanction list file

GTS_localVariable_LastFile_EU: Local variable for the name of the Europe sanction list file

GTS_localVariable_LastFile_USA: Local variable for the name of the USA sanction list file

Host_Address: Configure the Host Name of the Bundesnazeiger URL.

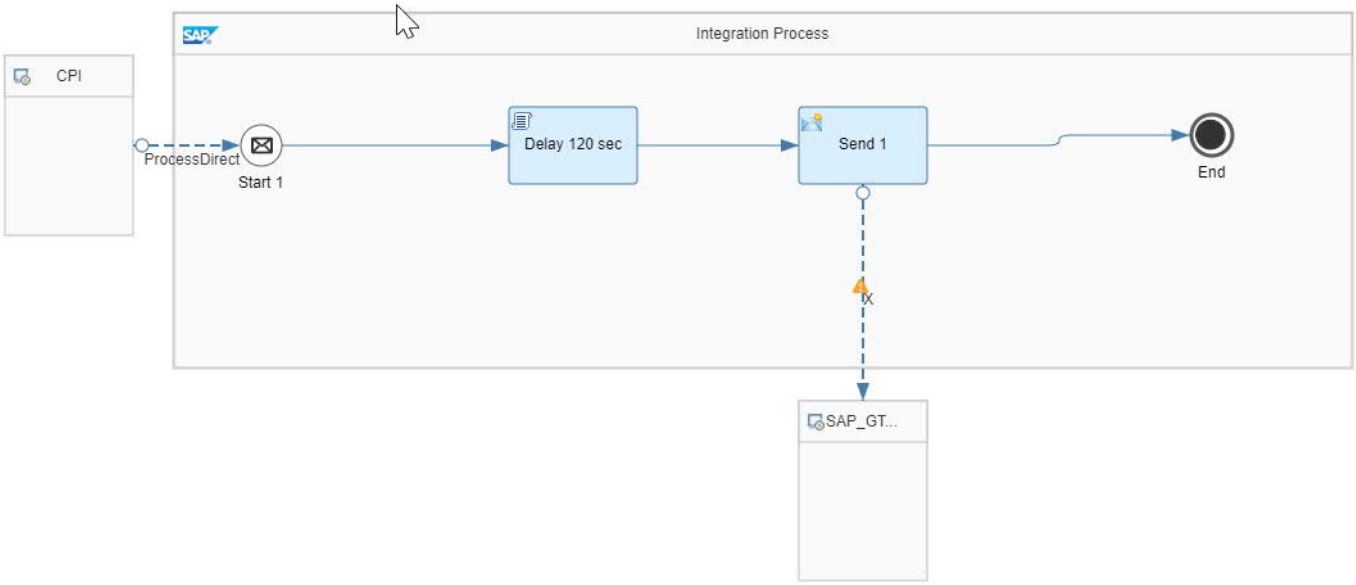
User_Credentials: Credential Artefact on the SAP CI for the Bundesanzeiger

2.5 Send SanctionsList to SAP S/4HANA GTS

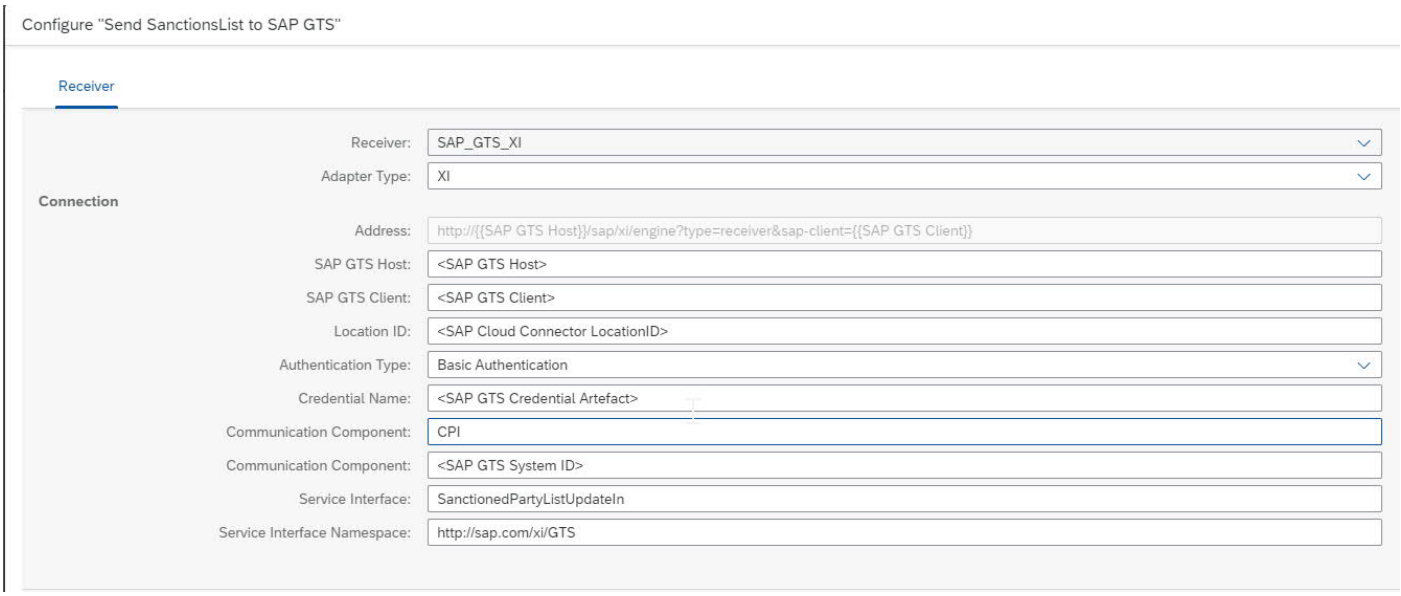
This iflow is called by the Main Iflow Query and send SanctionsList from Bundesanzeiger to SAP S/4HANA GTS in order to replicate the data to SAP S/4HANA GTS OnPremise system.

The script delays the call so that there wont be time out error in the S4 system.

The XI protocol is used for the replication.



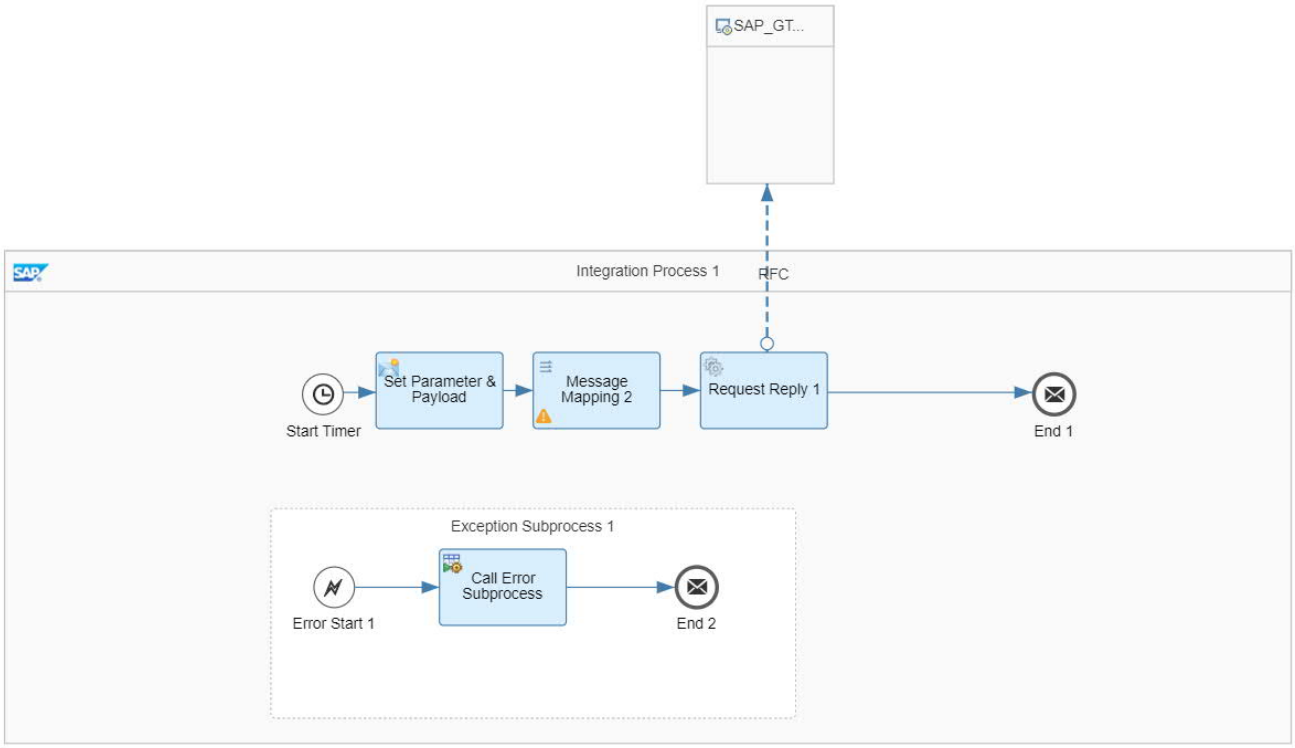
2.6 Configuration Steps - Send SanctionsList to SAP S/4HANA GTS



- SAP S/4HANA GTS Host: Host of the SAP S/4HANA GTS OnPremise system configured in the Cloud Connector
- SAP S/4HANA GTS Client: Client of SAP S/4HANA GTS OnPremise
- Location ID: Location ID of the Cloud Connector
- Authenication Type: Basic Authenication
- Credential Name: Artefact name configured in Step 2.2
- Communication Component: Communication Component of the Sender → CPI
- Communication Component: Communication Component of the receiver → System ID of the SAP S/4HANA GTS OnPremise
- Service Interface: SanctionedPartyListUpdateIn
- Service Interface Namespace: http://sap.com/xi/GTS

2.7 Trigger Sanction Lists processing in SAP S/4HANA GTS

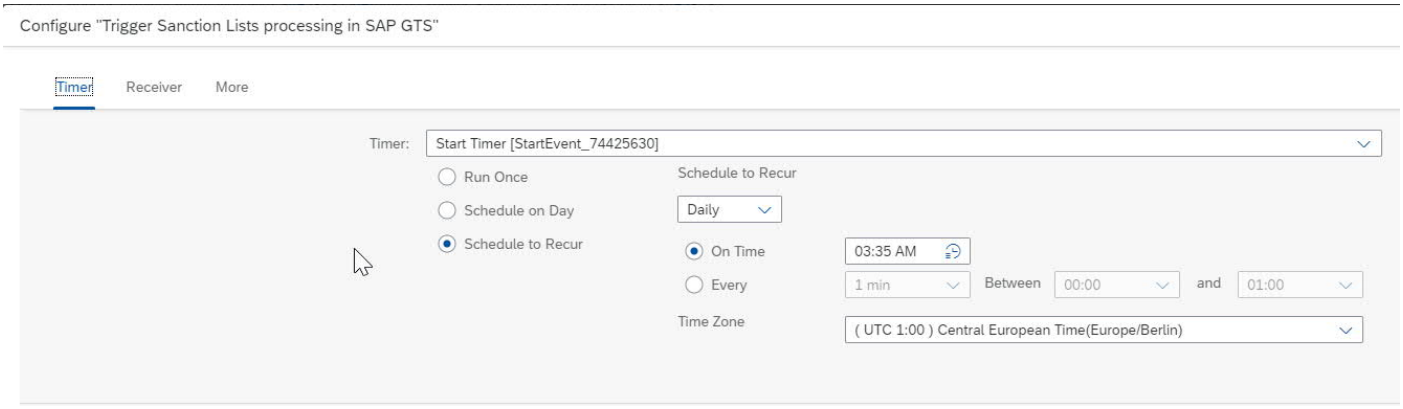
This Iflows should start 10 minutes later after the Query and send SanctionsList from Bundesanzeiger to SAP S/4HANA GTS has been triggered in order to start the downstreamed process in SAP S/4HANA GTS.



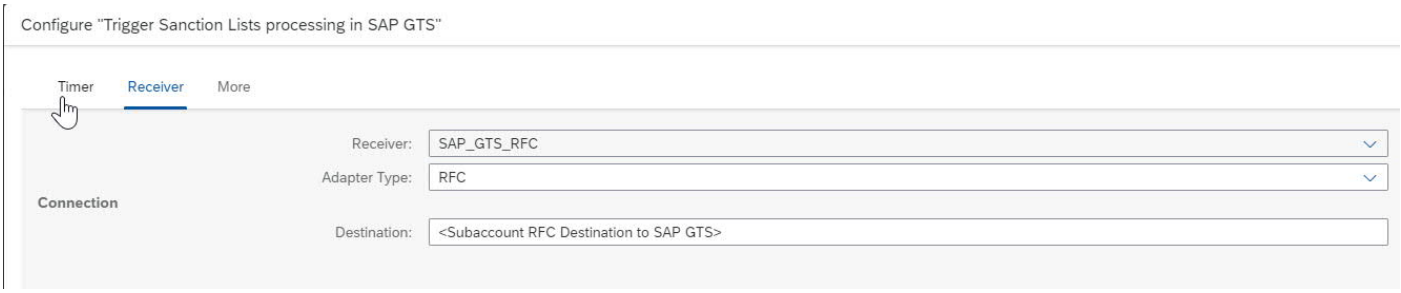
One has to configure the parameters, that have been defined in the SAP S/4HANA GTS, in the SAP CI in order to start the custom BAPI.
The Message Mapping those parameters are mapped to the RFC BAPI inbound payload.
The error subprocess catches the error.

2.8 Configuration Steps - Trigger Sanction Lists processing in SAP S/4HANA GTS

Timer:
Set the Timer on a daily regular basis and 10 minutes after the Query and send SanctionsList from Bundesanzeiger to SAP S/4HANA GTS flow.

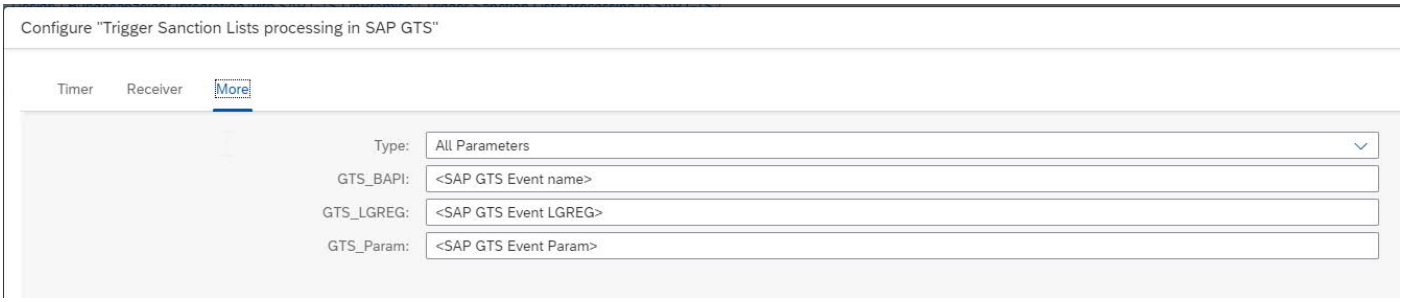


Receiver SAP_GTS_RFC



Destination: RFC Destination configured in the SAP BTP (see Chapter 3 SAP BTP – Subaccount RFC Destination)

More:



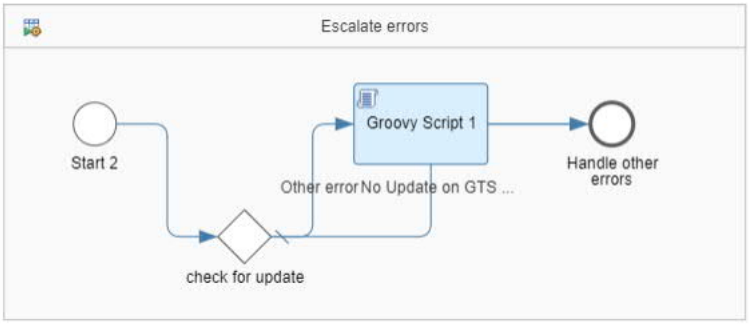
GTS_BAPI: Name of the event configured in SAP S/4HANA GTS

GTS_LGREG: Name of the LGREG Parameter defined in the Event in SAP S/4HANA GTS

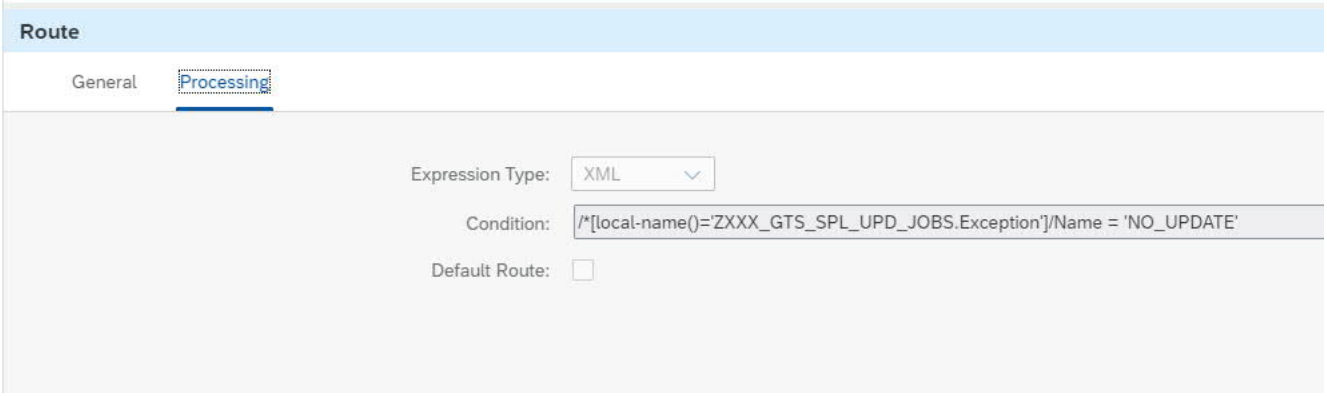
GTS_Param: Name of the Param Parameter defined in the Event in SAP S/4HANA GTS

2.9 Adjust Error Handling Process

In the Subprocess “Escalate errors” the Router checks for specific errors, reading the response of the customer function module.

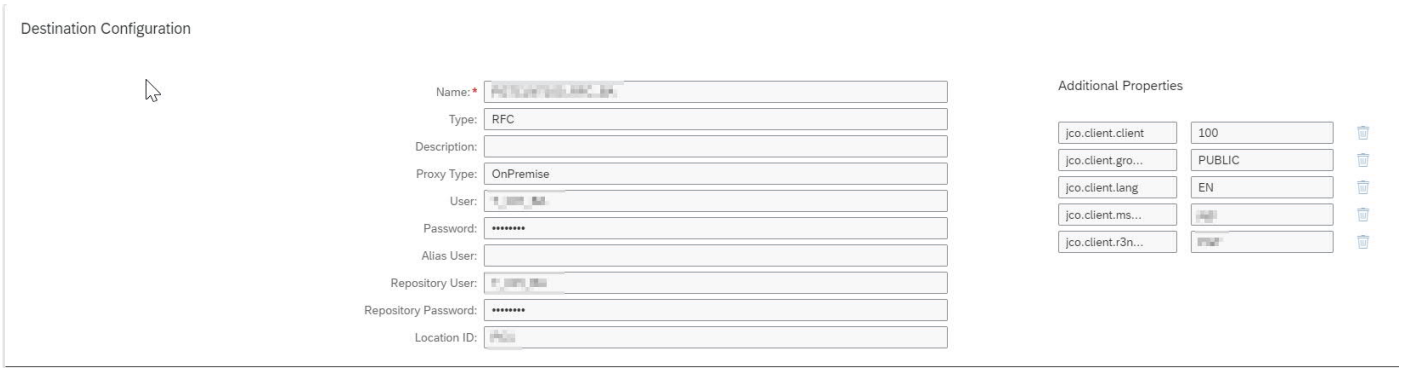


Therefore please adjust the XPath in route “No Update on GTS side” accordingly:



3 SAP BTP – Subaccount RFC Destination

Configuration of the RFC Destination on the BTP subaccount



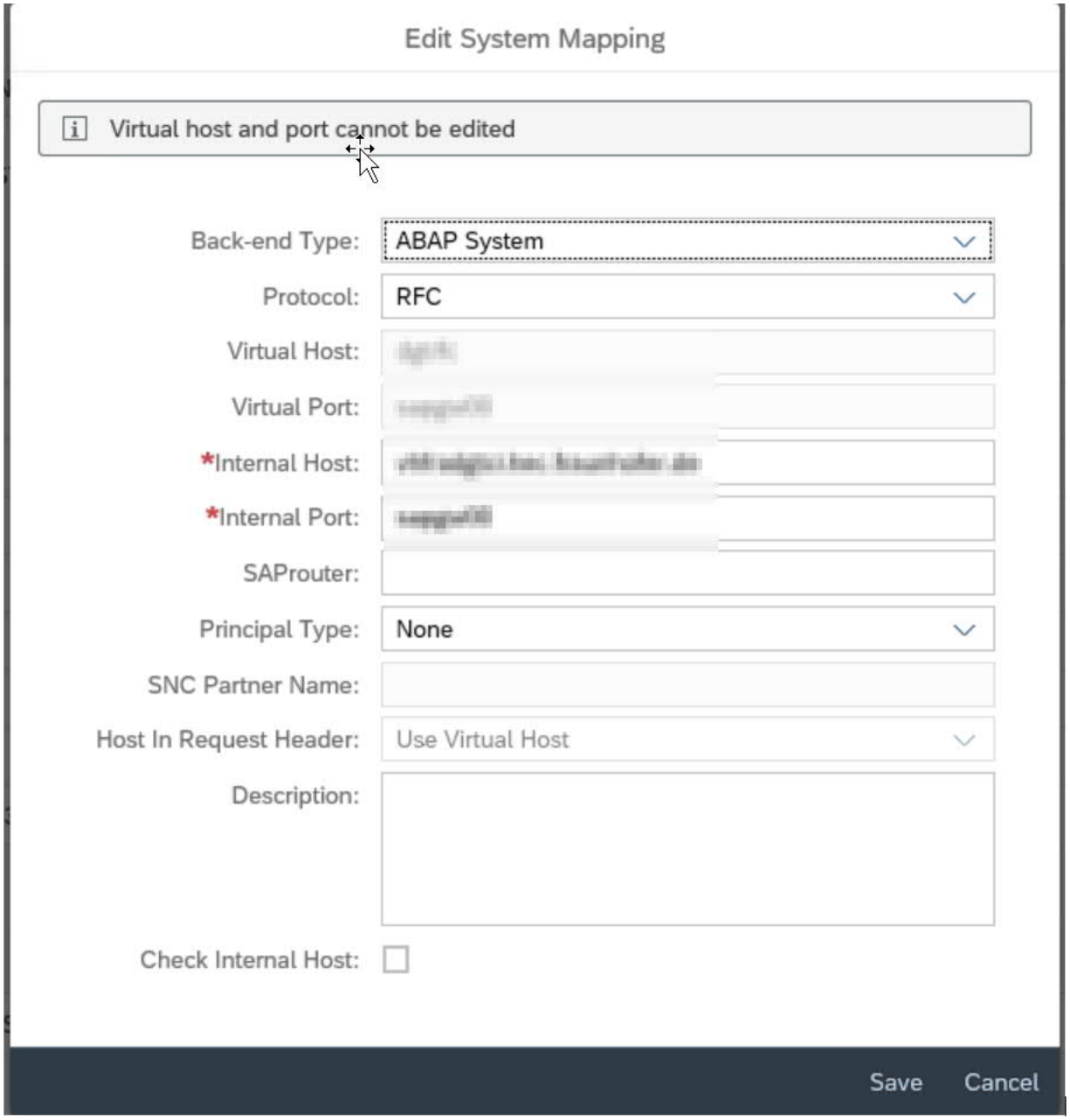
- Type: RFC
- Proxy Type: OnPremise
- User: communication user defined in the SAP S/4HANA GTS System
- Password: Passwort of this communication user
- LocationID: location ID of the cloud connector

Additional Properties:

- Jco.client.amshost: xxx (as defined in the Cloud Connector
- jco.client.r3name: xxx (as defined in the Cloud Connector
- Jco.client.client: SAP S/4HANA GTS client
- Jco.client.lang: EN (System language)
- jco.client.group: PUBLIC

4 Cloud Connector

The cloud connector is used as a reverse inbound proxy in order to be able to communicate from Cloud to an OnPremise system. One has to configure the RFC Destination to the SAP S/4HANA GTS backend system.



Please also allow the following resource:

- ZXXX_GTS_SPL_UPD_JOBS (this is the name of the custom BAPI in SAP S/4HANA GTS).

5 Configuration in the SAP S/4HANA GTS System

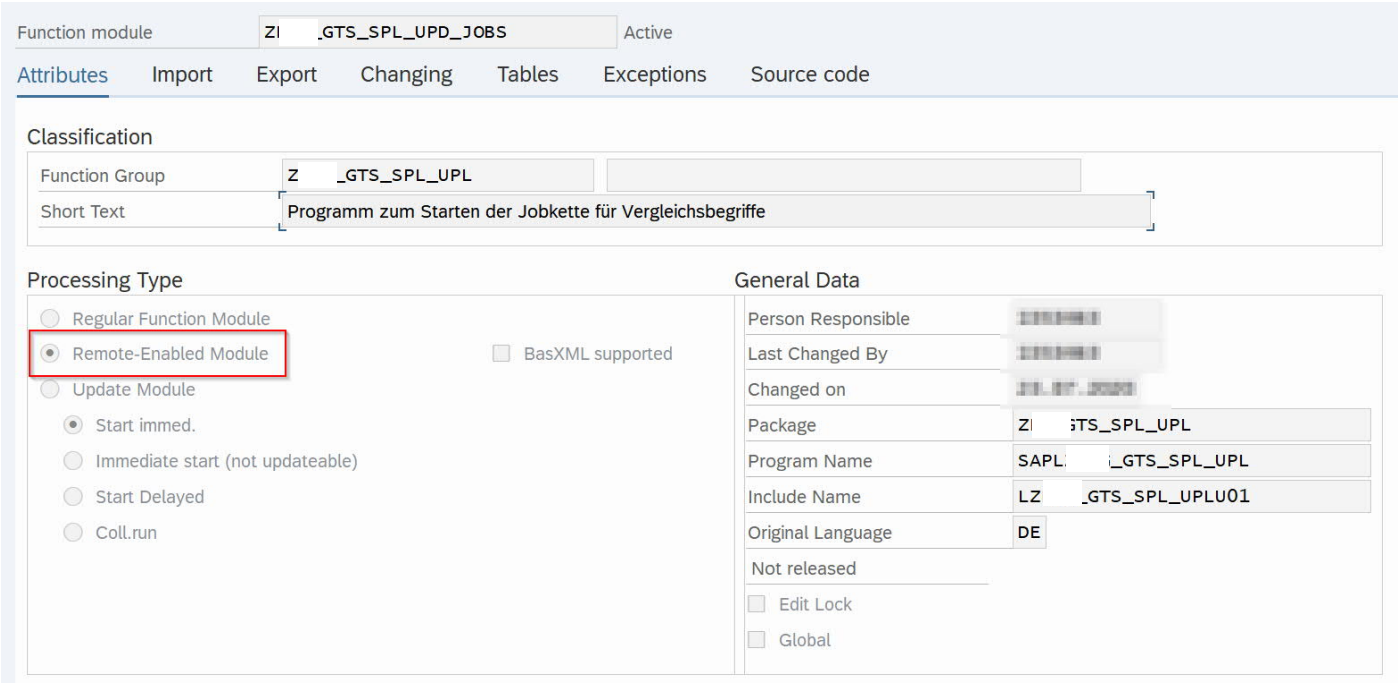
5.1 ABAP Coding - ZXXX_GTS_SPL_UPD_JOBS

```
/******
FUNCTION zXXX_gts_spl_upd_jobs.
*"----------------------------------------------------------------------
*"*"Lokale Schnittstelle:
*"  IMPORTING
*"     VALUE(IV_LGREG) TYPE  /SAPSLL/LGREG
*"     VALUE(IV_EVENT) TYPE  BTCEVENTID
*"     VALUE(IV_PARAM) TYPE  BTCEVTPARM
*"  EXPORTING
*"     VALUE(EV_OK) TYPE  ADSFLAG
*"  EXCEPTIONS
*"      NO_UPDATE
*"      WRONG_EVENT
*"----------------------------------------------------------------------

DATA:   lt_corulobj TYPE STANDARD TABLE OF /sapsll/corulobj,
        lt_lgreg TYPE STANDARD TABLE OF /sapsll/t606g,
        wa_lgreg TYPE /sapsll/t606g,
        lv_lgreg TYPE /sapsll/lgreg,
        so_date  TYPE /sapsll/datab_r_t,
        lr_lgreg TYPE /sapsll/lgreg_r_t,
        lr_date TYPE /sapsll/datab_r_t,
        lr_udat TYPE /sapsll/tzntstmps_r_t,
        gs_debug  TYPE /sapsll/debug_s.

CLEAR ev_ok.

CONSTANTS: BEGIN OF gc_date,
             alpha TYPE sy-datlo VALUE '19000101',
             omega TYPE sy-datlo VALUE '99991230',
           END   OF gc_date.

FIELD-SYMBOLS
        <fs_date>         TYPE /sapsll/datab_r_s.

*------ Gesetzliche Grundlage
IF iv_lgreg CS '*'.
  REPLACE '*' WITH '%' INTO iv_lgreg.
ENDIF.

SELECT * FROM /sapsll/t606g INTO TABLE lt_lgreg
  WHERE lgreg LIKE iv_lgreg.

LOOP AT lt_lgreg INTO wa_lgreg.
    CLEAR lv_lgreg.
    lv_lgreg = wa_lgreg-lgreg.

*------ Baustein zur Konvertierung
  CALL FUNCTION '/SAPSLL/APPEND_RANGE'
    EXPORTING
      iv_value_low            = lv_lgreg
      is_debug                = gs_debug
    CHANGING
```

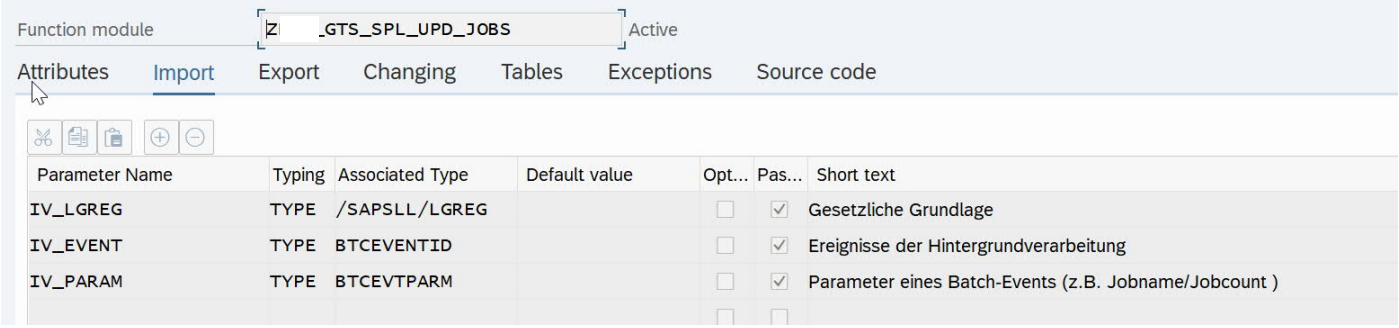
```
      ct_range               = lr_lgreg[]
    EXCEPTIONS
      invalid_range_structure = 1
      OTHERS                 = 2.

*------ Fehlerverarbeitung
  IF sy-subrc <> 0.
    MESSAGE ID sy-msgid TYPE sy-msgty NUMBER sy-msgno
            WITH sy-msgv1 sy-msgv2 sy-msgv3 sy-msgv4.
  ENDIF.

ENDLOOP.

*------ Baustein zur Konvertierung
  CALL FUNCTION '/SAPSLL/APPEND_RANGE'
    EXPORTING
      iv_value_low           = sy-datum
      is_debug               = gs_debug
    CHANGING
      ct_range               = so_date[]
    EXCEPTIONS
      invalid_range_structure = 1
      OTHERS                 = 2.

*------ Fehlerverarbeitung
  IF sy-subrc <> 0.
    MESSAGE ID sy-msgid TYPE sy-msgty NUMBER sy-msgno
            WITH sy-msgv1 sy-msgv2 sy-msgv3 sy-msgv4.
  ENDIF.

*------ Datum vorkonvertieren zur Baustein-Nutzung
  MOVE so_date[] TO lr_date[].
  LOOP AT lr_date ASSIGNING <fs_date>.
    IF <fs_date>-low IS INITIAL AND NOT <fs_date>-high IS INITIAL.
      <fs_date>-low = gc_date-alpha.
    ENDIF.
  ENDLOOP.

*------ Datum in Zeitstempel konvertieren
  CALL FUNCTION '/SAPSLL/CONVERT_DATE_STAMP_RNG'
    EXPORTING
      ir_date       = lr_date
     iv_timezone    = sy-zonlo
    IMPORTING
      ir_time_stamp = lr_udat.

REFRESH: lt_corulobj.

SELECT * FROM /sapsll/corulobj INTO TABLE lt_corulobj
  WHERE objky IN lr_lgreg
  AND uldat IN lr_udat.

  IF sy-subrc IS NOT INITIAL.
    RAISE no_update.
    EXIT.
  ENDIF.

CALL FUNCTION 'BP_EVENT_RAISE'
  EXPORTING
    eventid                      = iv_event
```

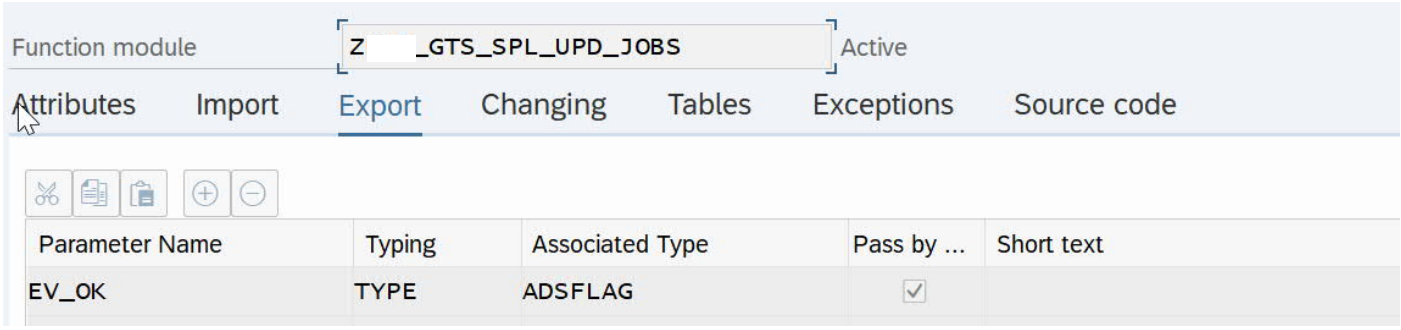
```
    eventparm                    = iv_param
 EXCEPTIONS
   bad_eventid                  = 1
   eventid_does_not_exist       = 2
   eventid_missing              = 3
   raise_failed                 = 4
   OTHERS                       = 5
          .
IF sy-subrc <> 0.
RAISE wrong_event.
ELSE.
 ev_ok = 'X'.
ENDIF.


ENDFUNCTION.


***/
```

Attributes

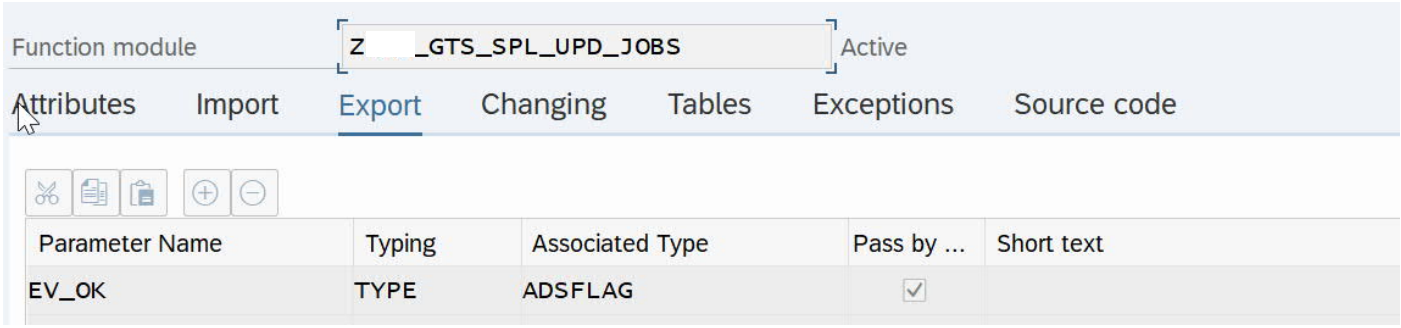


Import Paramenter

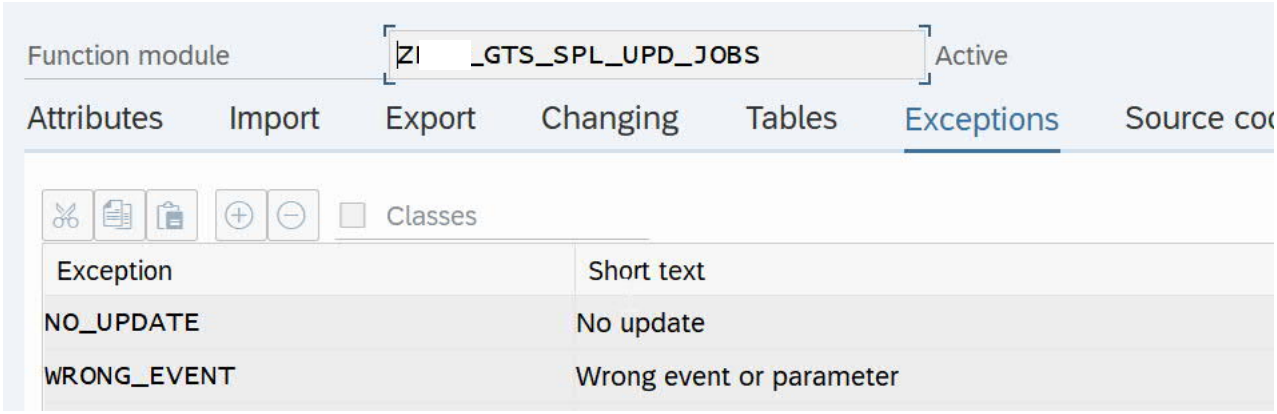




Export Parameters

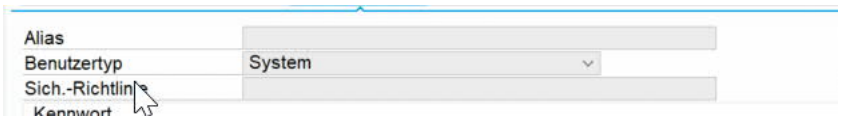


Exceptions



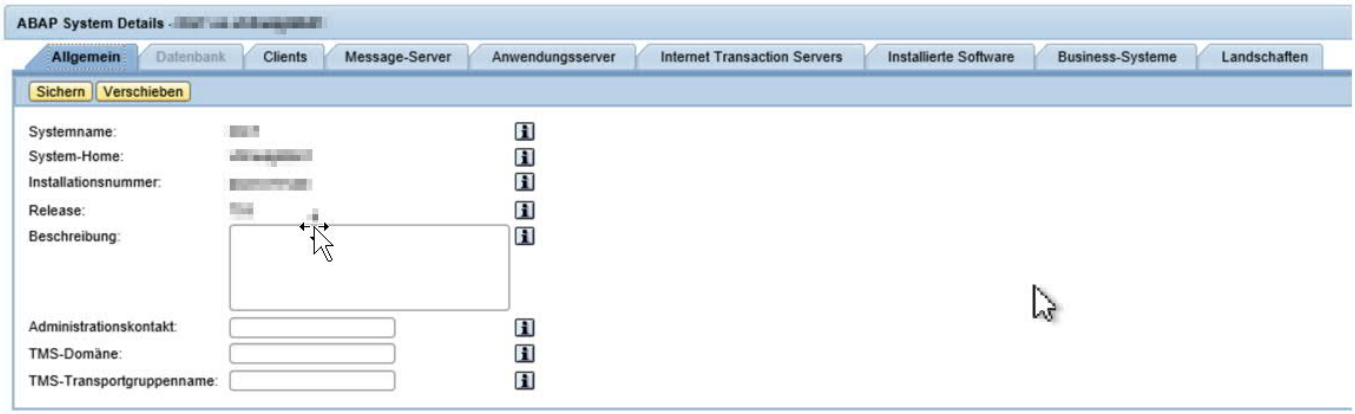
5.2 Create Communication user

Inbound User in SAP S/4HANA GTS System:
User Type: System (technical User)



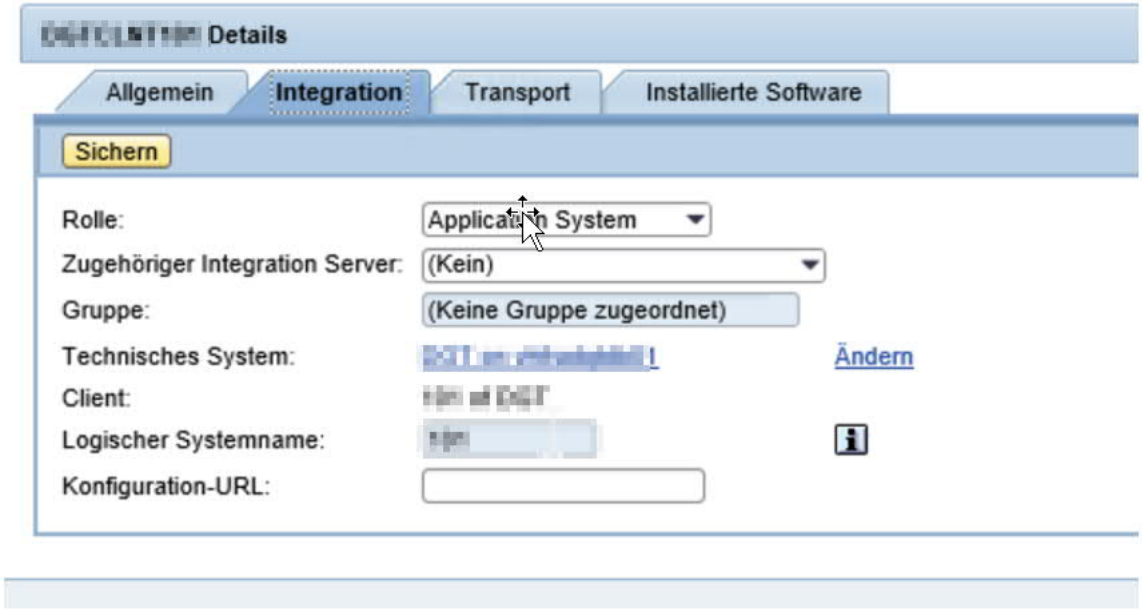
5.3 Connect to System Landscape Directory

Configuration in SLD System
Create technical System in the SLD:



- Typ: AS ABAP
- AS ABAP Name (SID): SystemID of the SAP S/4HANA GTS System
- Installation number: installation number of the SAP S/4HANA GTS System (SAP S/4HANA GTS System: System → Status
- databank-Hostname: Hostname of the SAP S/4HANA GTS Systems
- Message Server Port: 443 (for http)
- Instance number: 00
- Add new client: Client of the SAP S/4HANA GTS System
-

Create new business System:

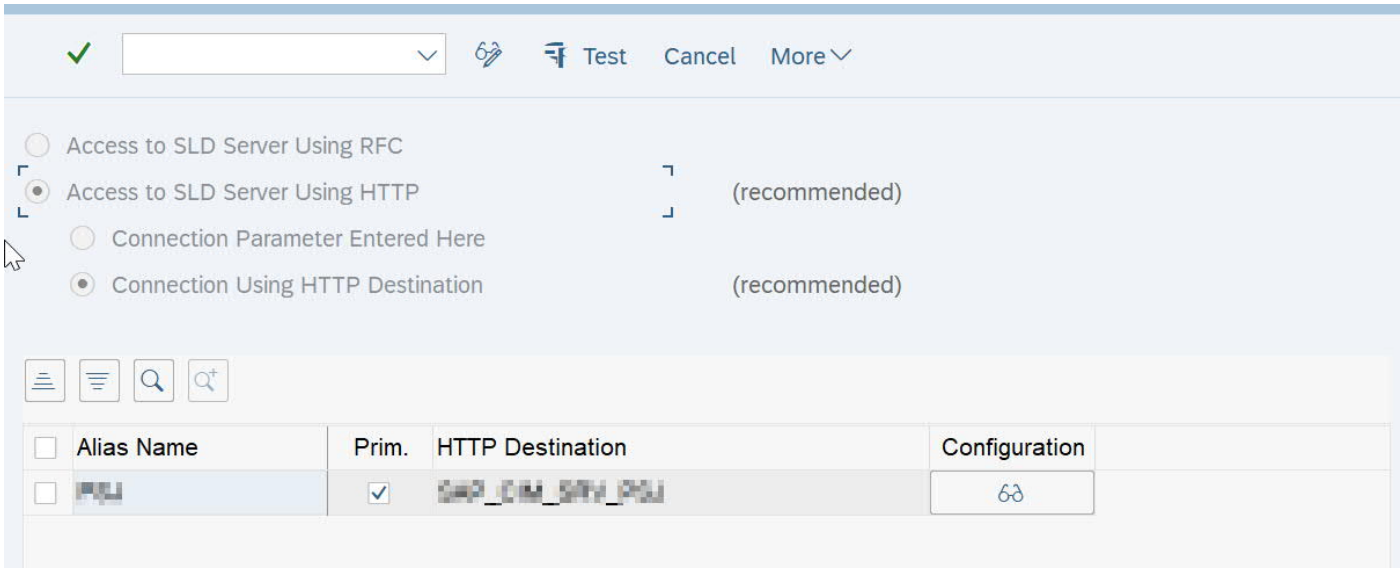


In SAP S/4HANA GTS System:

- Configure connection to SLD from SAP S/4HANA GTS System

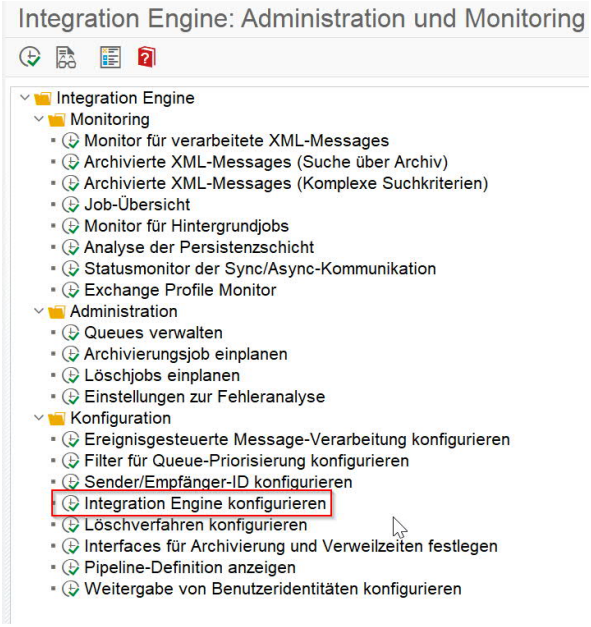
TCode: SLDAPICUST:

- Hostname: Hostname of the SLD Server
- Port
- User: technical User as defined in SLD

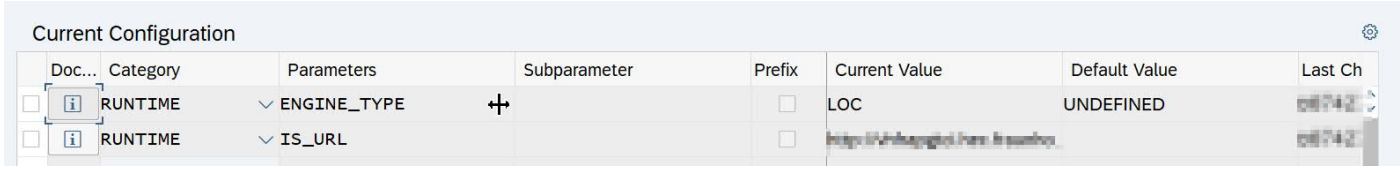


Configure Integration Engine in SAP S/4HANA GTS System

TCode SXMB_ADMIN:



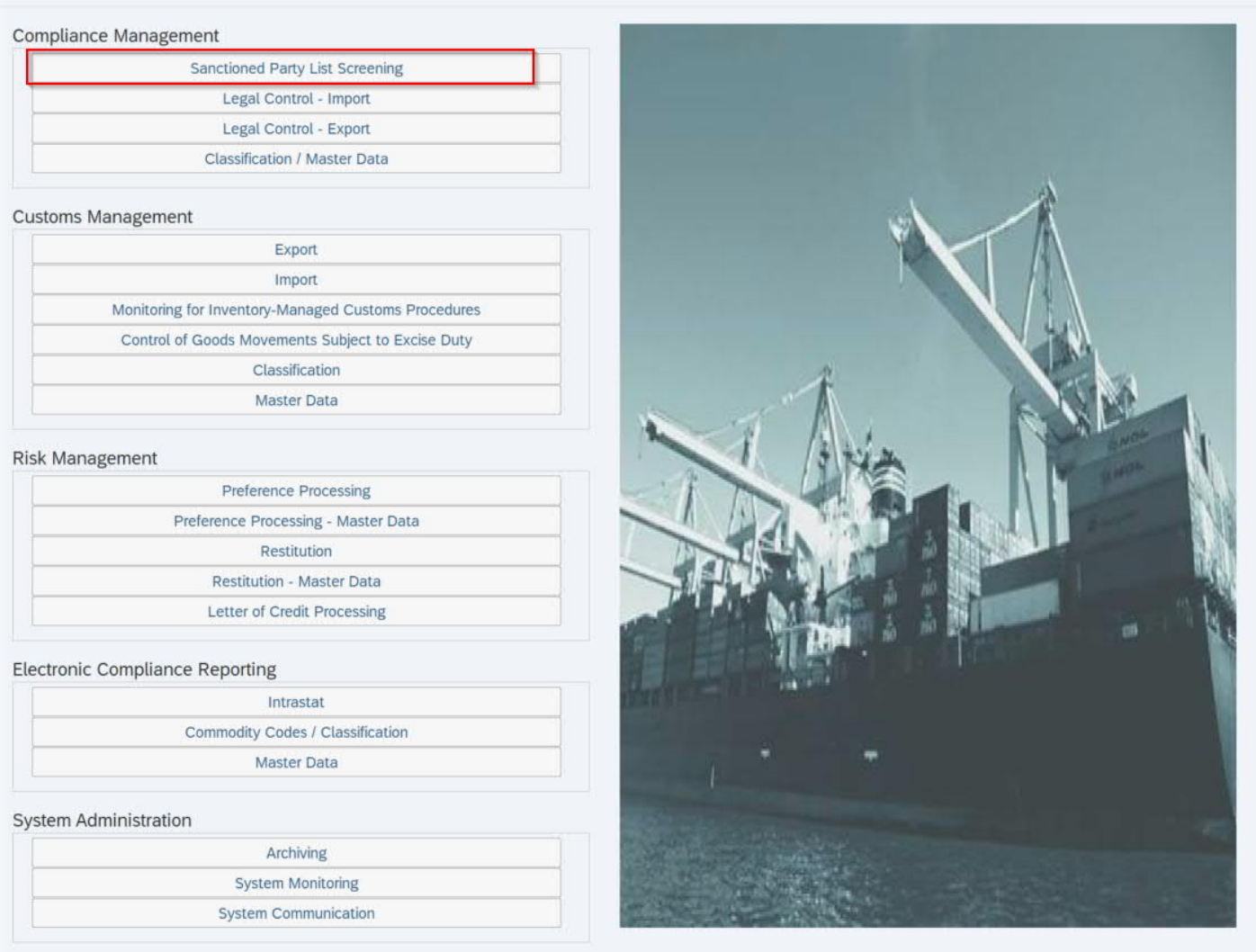
Via configuration → new entry maintain the following entries



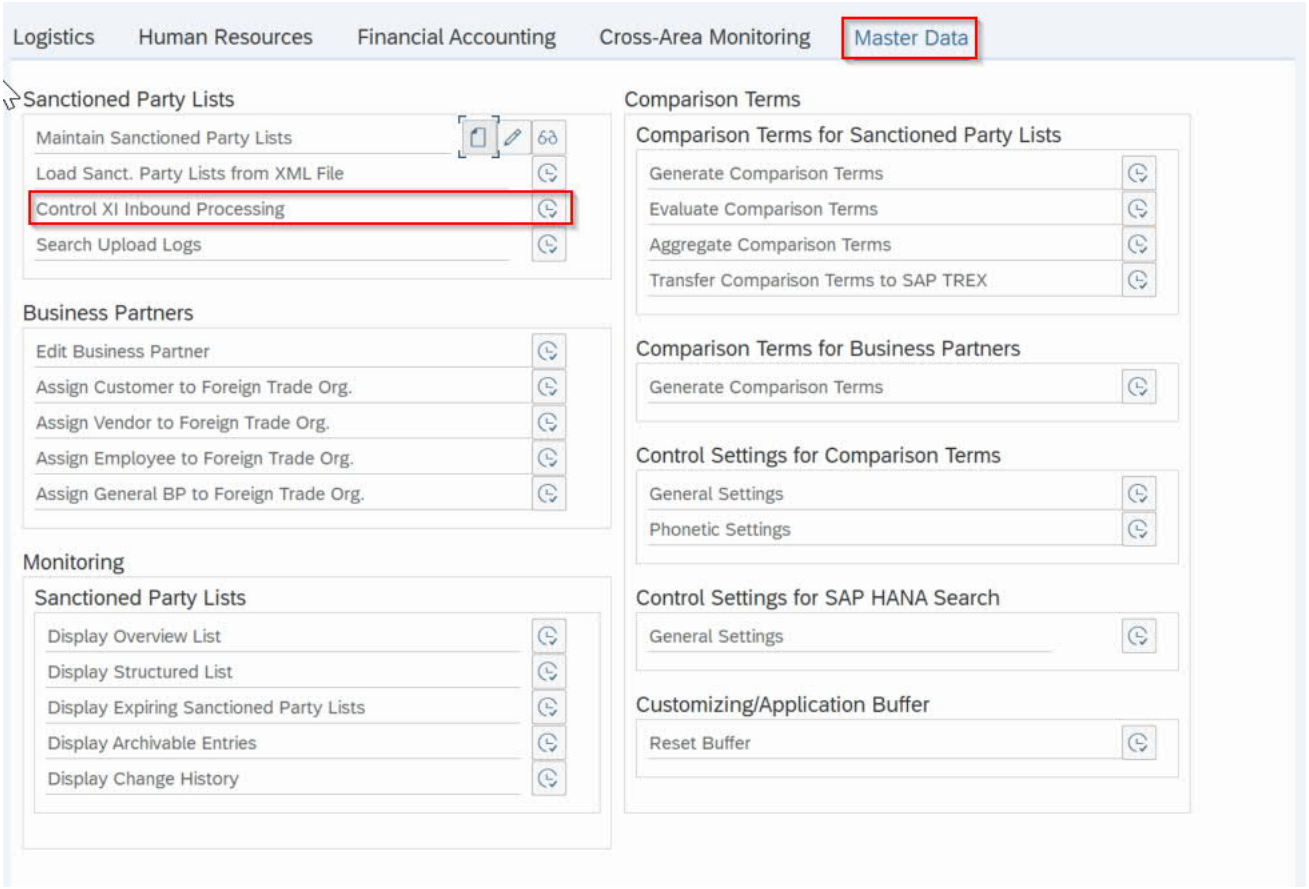
5.4 Configuration in SAP S/4HANA GTS menu

In the SAP S/4HANA GTS menu one has to define the master data for the upload.

Open GTS Menu: TCode /SAPSLL/MENU_LEGAL



- Control XI Inbound Processing



Maintain the following Parameters:

5.5 Create Business Partner for processing the data

For processing the upload of the data from Bundesanzeiger a Business partner needs to be created in the SAP S/4HANA GTS System. This Business Partner needs to be maintained in the Iflow.