

PREPARATION FOR CONNECTING AN SAP (PDC) SYSTEM TO THE ICARO BAPI-HANDLER

1. Network

The connection between SAP and subsystem occurs as an IDOC transfer in the ALE distribution model via tRFC.

This requires the SAP standard port for RFC communication, Port 33xx / TCP to be open, where xx corresponds to the SAP system number (instance).

The communication can also traverse one or several SAP routers, in which case only the port of the first saprouter (from the subsystem view, usually port 3299 / TCP) must be accessible from the subsystem. The saproustab must of course be maintained accordingly.

2. SAP RFC SDK

The current licensing regulations of SAP no longer allow us to deliver SAP programs (here: DLLs).

Please therefore make even the DLL's available; You can for instance download the software

here: [SAP Marketplace](#) .

! Currently we use the SDK version 7.50

3. Authorizations in SAPP

To set up (Customizing) in SAP, you need access to the following transactions:

- - BD54 Create new logical system (LS) for the subsystem (can be transported)
- - SM59 new RFC destination (TCP / IP) for receiving the master data
- - BD97 map default Destination for the ICARO BAPI-HANDLER (BAPI), if the logical system and RFC are named differently.

- - BD64 distribution model for the IDOC flow in both directions
- - WE21 Manual creation of the (EDI) PORT, if generation from BD64 fails
- - WE20 Manual maintenance of partner profiles if generation from BD64 fails

and possibly:

- - WE05 IDOC Monitor
- - SM58 RFC-Queue/ tRFC Monitor
- - BD87 process possibly unprocessed IDOCs again

and for the test:

- - PT80 manual operation of the HR-PDC interface

As a rule, our experts do not create their own SAP users for customizing, but the ICARO expert does support customizing efforts in the presence of and with the SAP user of the SAP customer. So it is sufficient if, on the day of the setup, "someone" who has the required rights in SAP and with whom the customizing can be performed is either on site at the customer's premises or is at least available by phone. Your supporting colleague or colleagues do not have to know anything special, they just have to „allow“ our experts to complete their installation activities.

4. Communications user for the upload transaction

Since a so-called dynamic repository query is mandatory when using the SAP NetWeaver libraries, the „CPIC“ or „communications user“ needs some extended rights.

The BAPI handler suppresses unnecessary round trips, so SAP Note 1456826 does not need to be considered.

For companies that are subject to regular audits, we recommend that you refer to „SAP Note 460089 - Minimum Authorization Profiles for External RFC Programs“. The actual required permissions are listed there quite well in the Section 5: „5. Sending and Receiving IDocs“.

To the best of our knowledge, SAP Note 460089 is incomplete. If the dialog process in use does not have sufficient resources to completely process the input IDOC immediately, SAP automatically schedules a background job for subsequent processing of the input data. If, however, the assigned user does not have the required authorizations, the input IDOC remains in the input queue in status 64. In such cases, the authorization trace routine usually indicates that the user has not been assigned the authorization object „S_IDOCMONI“.

For „urgent cases“ we recommend a role with authorizations for the objects B_ALE_ALL and S_A.USER.

The incoming message type e.g. for B_ALE_RECV / EDI_MESTYP is HRCC1UPTEVEN.

All told, the message types used are as follows, according to the specification of the standard SAP interface HR-PDC:

-- for data output::

HRCC1DNPERSO
HRCC1DNBALAN
HRCC1DNTEVGR
HRCC1DNATTAB
HRCC1DNCOSTC
HRCC1DNINORD
HRCC1DNWBSEL
HRCC1DNOBJID
HRCC1DNEXTWT
HRCC1REQUPTVEN
HRCC1REQUPEXTWT

-- for data input:

HRCC1UPTEVEN
HRCC1UPEXTWT

5. SAP Gateway-Security¹

The master data is received via a „registered server program“ (SM59 TCP / IP connection). If gateway security is active (GW / ACL_MODE = 1), the reginfo file must be appropriately maintained, and the program ID and the subsystem host must be entered.

... TP = <program ID from SM59>; HOST = <subsystem host>; ...

The program ID is completely freely selectable. If the reginfo file has been maintained in advance, please communicate the program ID entered there to us

(N.B.: case sensitive), or alternatively please grant our experts the authorization for the transaction SMGW for „self-checking“.

In any case, the topic of gateway security should be clarified beforehand. For older SAP releases, maintaining the reginfo file requires access to the operating system level, which is usually difficult and time consuming.

Full maintenance of reginfo from SAP is possible as of version EHP8.

¹ https://help.sap.com/doc/erp2005_ehp_06/6.0.6/de-DE/e2/16d0427a2440fc8bfc25e786b8e11c/content.htm?no_cache=true
ICARO BAPI HANDLER – PREPARATION FOR INSTALLATION