



SET-UP INSTRUCTIONS | PUBLIC
SAP S/4HANA

Setting Up *Central Purchase Contracts* (2ME)

Content

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1 Purpose

The purpose of this document is to describe the general configuration steps required to manually set up the configuration within the system landscape that has already been installed using the corresponding installation or configuration guides for installation.

This document describes additional configuration steps that have to be carried out by customers in order to activate the Central Purchase Contracts. As these configuration steps are customer-specific, they cannot be delivered by SAP, and must be carried out by the customer.

The following figure provides you with an overview of the systems and their connection within Central Purchase Contracts.

If you want to install SAP S/4HANA locally (on-premise) and if you do not want to configure manually and prefer an automated installation process using BC Sets and other tools, you can set up a best-practice client and activate the implementation content. For more information, see the Administration Guide for the Implementation of SAP S/4HANA, on premise edition which is linked in the content library (included in the documentation package).

2 Preparation



2.1 Business Roles

- SAP_BR_BPC_EXPERT
- SAP_BR_ADMINISTRATOR

2.2 Important Definitions

Table 1:

| Terms | Meaning |
|------------------------|--|
| SAP S/4HANA Hub system | Identifies the SAP S/4HANA system from releases 1909 OP. The SAP S/4HANA system acts as a hub system when it is connected to multiple Connected Systems. <div><div>· Note</div><div>You can find detail information in the following SAP Note: 2689143 - SAP S/4HANA for central procurement 1809: Release Information Note</div></div> |

| Terms | Meaning |
|------------------|---|
| Connected System | <p>Any ERP system from release ERP6.06 releases and above, with add-on HUBERPI is considered as the connected system.</p> <p>Any S/4HANA On-Premise 1709 and higher, with add-on HUBS4IC is considered as connected system.</p> <p>Any S/4HANA Cloud 1908 is considered as connected system.</p> <div> <p>· Note</p> <p>You can find detail information for Integration Component HUBERPI and HUBS4IC in the following SAP Notes:</p> <p>2491065  Release Information Note for HUBERPI Integration Component in SAP S/4HANA for Central Procurement</p> <p>2573672  Release Information Note to Enable SAP S/4HANA as a Back-End for Central Procurement</p> </div> |
| Logical System | <p>Identifies a unique combination of system ID and client of a connected system. This unique combination enables data exchange between the connected system and the SAP S/4HANA Hub system.</p> |

3 Configure the S/4HANA Hub System on On-Premise

3.1 Configure Communication from Hub system to Connected System

3.1.1 Create RFC

Use

In this activity, you create the RFC for the Connected System.

Procedure

1. Login into the S/4HANA Hub system and execute transaction SM59.
2. Choose *Create*.
3. In the *RFC Destination* screen, enter the following entries
 - *RFC Destination*: <Enter the RFC Destination name for Connected System, for example, XXXCLNTYYY (XXX: System ID, YYY: Client)>
 - *Connection Type*: H
 - *Description 1*: <Enter the RFC Description>Under *Technical Settings* Tab, enter the following entries:
 - *Host*: <Host of the Connected System>
 - *Port*: <HTTPS Port>
 - *Path Prefix*: /sap/opu/odata/sap/?sap-client=<Client of Connected System>Under *Logon & Security* Tab, enter the following entries:
 - *Basic authentication*: X
 - *Language*: <Your Language>

- *Client:* <Client of Connected System>
- *User:* <User>
- *Password:* <Password>

In *Security Options* area, enter the following entries:

- *SSL:* **Active**
- *SSL Certificate:* <Select the SSL Certificate>

4. Choose *Save*.

3.1.2 Create Logical System

Use

In this activity, you create the logical system for the Connected System.

Procedure

1. Login into the S/4HANA Hub system and execute transaction BD54.
2. Confirm the Information dialog box, and then choose *New Entries*.
3. In the *New Entries: Overview of Added Entries* screen, enter the following entries:
 - *Log.System:* <Enter the Logical System name for Connected System, for example, XXXCLNTYYY (XXX: System ID, YYY: Client)>
 - *Name:* <Enter the Logical System Name>
4. Choose *Save*.

3.1.3 Assign RFC Destinations for Synchronous Method Calls

Use

In this activity, you assign the RFC destination for BAPI calls.

Procedure

1. Login into the S/4HANA Hub system and execute transaction BD97.
2. Select the Logical System you created in the previous step, and then choose *Standard BAPI destination*.
3. In the *Assign RFC Destinations for Synchronous Method Call* pop-up, enter the following entries:
 - o *RFC destination for BAPI calls: <Enter the RFC you created in the previous step>*
4. Choose *Continue* and *Save*.

3.1.4 Integration Options and SOA Services

In On-Premise, the communication from the S/4HANA Hub system to the connected system can be P2P or via PI and vice versa.

In both cases, the following services/namespaces needs to be configured:

- Namespace in S/4HANA On-Premise HUB system: <http://sap.com/xi/APPL/sProc>
- Namespace in Connected System: <http://sap.com/xi/HubERPI>

SAP S/4HANA Hub System:

- PurchaseContractDistributionReplicationRequest_Out
- PurchaseContractDistributionConfirmationRequest_In

Connected System:

- PurchaseContractDistributionReplicationRequest_In
- PurchaseContractDistributionConfirmationRequest_Out

For detail web service configuration steps, please refer to [Configuring Web Services in SOA Manager](#).

3.2 S/4HANA Hub System Configuration Steps

3.2.1 Active SAP S/4HANA Procurement Hub and Scenarios

Use

In this activity, you enable SAP S/4HANA as a procurement hub system and activate hub scenarios.

Procedure

1. Login into the S/4HANA Hub system and execute transaction `SPRO`.
2. Navigate to configuration activity: [SAP Reference IMG](#) > [Materials Management](#) > [Purchasing](#) > [Central Procurement- Settings in Hub System](#) > [Active SAP S/4HANA Procurement Hub and Scenarios](#)
3. On the *Change View “Hub Activation”: Overview* screen, choose *New Entries* and then enter the following entries:
 - *Activate HUB:* **check**
4. Choose *Save*.
5. In dialog box which show `Setting once saved cannot be changed, Do you want to continue?`, choose *Save* if you need to active SAP S/4HANA Procurement Hub in the system
6. In *Dialog structure* area, choose *Scenario Activation*.
7. In the *Change View “Scenario Activation”: Overview* screen, choose *New Entries* and then enter the following entries:
 - *Activate Scenarios for Procurement Hub:* **Central Contract Management**
 - *Activation status:* **check**
8. Choose *Save*.

3.2.2 Define Connected System

Use

In this activity, you configure the connected system in S/4HANA Hub system.

Procedure

1. Login into the S/4HANA Hub system and execute transaction `SPRO`.
2. Navigate to configuration activity: [SAP Reference IMG](#) > [Materials Management](#) > [Purchasing](#) > [Central Procurement- Settings in Hub System](#) > [Define Company Code, Plant, Purchasing Organization for Connected System](#)
3. On the *Change View “Connected Systems”: Overview* screen, choose *New Entries* and then enter the following entries:
 - *Connected System ID:* **<Your Connected System ID>**
 - *Connected Sys Name:* **<Your Connected System Name>**
 - *Logical System:* The Logical system defined in step [Create Logical System \[page 8\]](#)
4. Choose *Save*.

3.2.3 Configure Control Plane for the APIs of Central Procurement

Use

In this activity, you can configure the control plane for the APIs of central procurement to perform several business operations.

Procedure

1. Login into the S/4HANA Hub system and execute transaction `SPRO`.
2. Navigate to configuration activity: [SAP Reference IMG](#) > [Materials Management](#) > [Purchasing](#) > [Central Procurement- Settings in Hub System](#) > [Configure Control Plane for the APIs of Central Procurement](#)
3. On the Change View [Change View “API Control Plane for Bounded Context”: Overview](#) screen, choose [New Entries](#) and then make the following entries:

• Note

The connected system ID is defined in the step [Define Connected System \[page 10\]](#).

| Connect ed System ID | Bound ed Contex t | Operati on | Messag e Protoc ol | API Name | API Versio n | API Driver | Activa te Driver |
|--------------------------------|----------------------------|---|-----------------------------|-------------------------|--------------------|--------------------------------|------------------------|
| con- nected system ID | CCM | 2AH Archive Local Con- tracts | ODATA | MM_PUR_CCTR_ARCHIVE_SRV | 1 | CL_MMPUR_CENTRL_CTR_D RIVER | check |
| con- nected system ID | CCM | 2CD Central Con- tract Check Distri- bution | ODATA | MM_PUR_CCTR_CHECK_SRV | 1 | CL_MMPUR_CENTRL_CTR_D RIVER | check |

| | | | | | | | |
|--------------------------------|-----|---|-------|--|---|--------------------------------|-------|
| con- nected system ID | CCM | 2DI Central Con- tract Distrib- ute | SOAP | PURCHASECONTRACTDISTRIBU- TIONREPLICATIONREQUEST_IN | 1 | CL_MMPUR_CENTRL_CTR_D RIVER | check |
| con- nected system ID | CCM | 2OM Central Pro- cure- ment Opera- tions Moni- tor for CCM | ODATA | MM_PUR_CPROC_OPS_MNTR_CC TR_BE_SRV | 1 | CL_MMPUR_CENTRL_CTR_D RIVER | check |
| con- nected system ID | CCM | 2RD Central Con- tract Read Re- lease Info | ODATA | MM_PUR_CCTR_CALLOFF_SRV | 1 | CL_MMPUR_CENTRL_CTR_D RIVER | check |
| con- nected system ID | CCM | 2RM Central Con- tract Read Mate- rial | ODATA | MMPUR_BE_VALUE_HELP_SRV | 1 | CL_MMPUR_CENTRL_CTR_D RIVER | check |
| con- nected system ID | CCM | 2RR Central Con- tract Read Re- lated Infor- mation | ODATA | MMPUR_CCTR_BE_SRV | 1 | CL_MMPUR_CENTRL_CTR_D RIVER | check |

4. Choose [Save](#).

3.2.4 Define Company Code, Plant, Purchasing Organization for Connected System

Use

In this activity, you specify a unique combination of the Connected Company Code, Connected Plant, Connected Purchasing Organization and Logical System.

Procedure

1. Login into the S/4HANA Hub system and execute transaction `SPRO`.
2. Navigate to configuration activity: [SAP Reference IMG](#) > [Materials Management](#) > [Purchasing](#) > [Central Procurement- Settings in Hub System](#) > [Define Company Code, Plant, Purchasing Organization for Connected System](#)
3. On the change view "[Connected Company Codes](#)": [Overview](#) screen, choose [New Entries](#) and then make the following entries:
 - Conn. Company Code: [Your Company Code in connected system](#)
 - Company Code ID: [Your Company Code Unique ID](#)
 - Company Name: [Your Company Name](#)
 - Register: [check](#)

• Note

The Company Code ID is a unique ID that represents the combination of Connected Company Code and Connected System.

4. Choose [Save](#).
5. Choose the Connected Company Code you created and double click [Connected Plants](#) in Dialog Structure.
6. On the change view "[Connected Plants](#)": [Overview](#) screen, choose [New Entries](#) and then make the following entries:
 - Connected Plant: [Your Plant in connected system](#)
 - Plant Name: [Your Plant Name](#)
 - Plant Unique ID: [Your Plant Unique ID](#)
 - Register: [check](#)

• Note

The Plant Unique ID is a unique ID that represents the combination of Connected Plant and Connected System.

7. Choose [Save](#).
8. Choose the Connected System you created and double click [Connected Purchasing Organization](#) in Dialog Structure.

9. On the change view *"Connected Purchasing Organization": Overview* screen, choose *New Entries* and then make the following entries:

- Connected Purch Org: **Your Purchasing Organization in connected system**
- Conn. Purch Org ID: **Your Purchasing Organization Unique ID**
- Conn. Purch Org Name: **Your Purchasing Organization Name**
- Register: **check**

· Note

The Purch Org ID is a unique ID that represents the combination of Connected Purchasing Organization and Connected System.

10. Choose *Save*.

3.2.5 Define Local Connected System

Use

In this activity, you define the same S/4HANA Hub system as connected system for local scenario.

Procedure

1. Login into the S/4HANA Hub system and execute transaction **SPRO**.
2. Navigate to configuration activity: **SAP Reference IMG** > **Materials Management** > **Purchasing** > **Central Procurement- Settings in Hub System** > **Define Company Code, Plant, Purchasing Organization for Connected System** >
3. On the *Change View "Connected Systems": Overview* screen, choose *New Entries* and then make the following entries:
 - **Connected System ID: <S/4HANA Hub System ID> for example: LOCAL**
 - **Connected Sys Name: <S/4HANA Hub System Name>**
 - **Logical System: Logical System for S/4HANA Hub system**
4. Choose *Save*.
5. On the change view *"Connected Company Codes": Overview* screen, choose *New Entries* and then make the following entries:
 - Conn. Company Code: **Your Local Company Code**
 - Company Code ID: **Your Company Code Unique ID**
 - Company Name: **Your Local Company Name**
 - Register: **check**

• Note

The Company Code ID is a unique ID that represents the combination of Connected Company Code and Connected System.

6. Choose [Save](#).
7. Choose the Connected Company Code you created and double click [Connected Plants](#) in Dialog Structure.
8. On the change view "[Connected Plants](#)": [Overview](#) screen, choose [New Entries](#) and then make the following entries:
 - Connected Plant: **Your Local Plant**
 - Plant Name: **Your Local Plant Name**
 - Plant Unique ID: **Your Plant Unique ID**
 - Register: **check**

• Note

The Plant Unique ID is a unique ID that represents the combination of Connected Plant and Connected System.

9. Choose [Save](#).
10. Choose the Connected System you created and double click [Connected Purchasing Organization](#) in Dialog Structure.
11. On the change view "[Connected Purchasing Organization](#)": [Overview](#) screen, choose [New Entries](#) and then make the following entries:
 - Connected Purch Org: **Your Local Purchasing Organization**
 - Conn. Purch Org ID: **Your Purchasing Organization Unique ID**
 - Conn. Purch Org Name: **Your Local Purchasing Organization Name**
 - Register: **check**

• Note

The Purch Org ID is a unique ID that represents the combination of Connected Purchasing Organization and Connected System.

12. Choose [Save](#).

3.2.6 Define Material Groups from Respective Connected System into the Hub system

Use

In this activity, you harmonize the Material Group which exists in the Connected System to the Hub system.

Procedure

1. Login into the S/4HANA Hub system and execute transaction SPRO.
2. Navigate to configuration activity: [SAP Reference IMG](#) > [Logistics-General](#) > [Material Master](#) > [Settings for Key Fields](#) > [Define Material Groups](#)
3. On the [Change View “Material Groups”: Overview](#) screen, choose [New Entries](#) and then enter the following entries:
 - o Material Group: **Your material group in the connected system**
 - o Material Group Description: **Your Material Group Description**
4. Choose [Save](#).

3.2.7 Maintain Condition Type Mapping for Purchasing Documents

Use

In this activity, you enable the mapping of conditions for central purchase contracts in the SAP S/4HANA hub system with the conditions for central purchase contracts in the connected systems.

Procedure

1. Login into the S/4HANA Hub system and execute transaction SPRO.
2. Navigate to configuration activity: [SAP Reference IMG](#) > [Materials Management](#) > [Purchasing](#) > [Central Procurement- Settings in Hub System](#) > [Maintain Condition Type Mapping for Purchasing Documents](#)
3. On the [Change View “Maintain Condition Type Mapping for Purchasing Documents”: Overview](#) screen, choose [New Entries](#) and then enter the following entries:
 - o **Sys ID: <Your Connected System ID defined in the previous step>**
 - o **Con. Typ. in HUB Sys.: <Your Condition Type in S/4HANA Hub System>**
 - o **Con. Type in Backend: <Your Condition Type in Connected System>**
4. Choose [Save](#).

3.2.8 Activate AIF Content

Use

In this activity, you activate the AIF content which is required for central purchase contracts in the hub systems.

Procedure

1. Login into the S/4HANA Hub system and execute transaction `SE38`.
2. Enter the Program name `/AIF/CONTENT_EXTRACT_NEW` and run the program.
3. Enter Deployment Scenario `SAP_COM_0243` and choose *Execute*.

3.3 UI Integration

UI integration enables the central purchaser to navigate from S/4HANA Hub system to connected system and perform actions like editing purchase requisition and purchase order and so on.

· Note

To enable UI Integration, user in connected system should have enough authorization for transaction `MMPURPAMEREQ` and `MMPURPAMEPO`.

To enable Single Sign-On Between S/4HANA Hub system and connected system for UI navigation, you can refer to [User Authentication and Single Sign-On -> Integration in Single Sign-On \(SSO\) Environments -> Single Sign-On for Interaction Between Systems](#).

The steps in this chapter can be done by executing task list `SAP_GATEWAY_ADD_SYSTEM` in the S/4HANA Fiori frontend system.

For more details, please refer to [Configuration Using Task Lists](#)

3.3.1 Configure destination for connected system on Frontend System

To connect an SAP System (Connected System) to an SAP Gateway System (Frontend), you need to carry out the following steps in this chapter: Create ABAP / HTTP(S) Connections for SAP System (SM59) Create Aliases for SAP System.

3.3.1.1 Create RFC destination of type ABAP Connection

Use

In this activity, you create the RFC destination of type ABAP connection for the Connected System.

Procedure

1. Log on to the S/4HANA Fiori frontend system and execute transaction SM59.
2. Choose *Create*.
3. On the *RFC Destination* screen, make the following entries:
 - *RFC Destination*: <Connected System>_RFC, for example, XXXCLNTYYY_RFC (XXX: System ID, YYY: Client)
 - *Connection Type*: 3
 - *Description 1*: <Enter the RFC Description>On the *Technical Settings* tab, make the following entries:
 - *Target Host*: <Host of the Connected System>
 - *Instance No.*: <Instance number of Connected System>On the *Logon & Security* tab, make the following entries:
 - *Language*: <Your Language>
 - *Client*: <Client of Connected System>
 - *Current User*: checked
4. Choose *Save*.

3.3.1.2 Create RFC destination of type HTTP Connection to ABAP system for HTTPS connection

Use

In this activity, you create the RFC destination of type HTTP connection to ABAP system for HTTPS connection for the Connected System.

Procedure

1. Log on to the S/4HANA Fiori frontend system and execute transaction SM59.
2. Choose *Create*.
3. On the *RFC Destination* screen, make the following entries:
 - *RFC Destination*: <Connected System>_HTTPS, for example, XXXCLNTYYY_HTTPS (XXX: System ID, YYY: Client)
 - *Connection Type*: H
 - *Description 1*: <Enter the RFC Description>On the *Technical Settings* tab, make the following entries:
 - *Host*: <HTTPS Host of Connected System>
 - *Port*: <HTTPS Port of Connected System>On the *Logon & Security* tab, make the following entries:
 - *Trust Relationship*: X
 - *Language*: <Your Language>
 - *Client*: <Client of Connected System>
 - *Current User*: checkedOn the *Security Options* tab, make the following entries:
 - *SSL*: Active
 - *SSL Certificate*: DEFAULT SSL Client (Standard)
4. Choose *Save*.

3.3.1.3 Create RFC destination of type HTTP Connection to ABAP system for HTTP connection

Use

In this activity, you create the RFC destination of type HTTP connection to ABAP system for HTTP connection for the Connected System.

Procedure

1. Log on to the S/4HANA Fiori frontend system and execute transaction SM59.
2. Choose *Create*.
3. On the *RFC Destination* screen, make the following entries:
 - *RFC Destination*: <Connected System>_HTTP, for example, XXXCLNTYYY_HTTP (XXX: System ID, YYY: Client)

- *Connection Type*: **H**
 - *Description 1*: **<Enter the RFC Description>**
- On the *Technical Settings* tab, make the following entries:

- *Host*: **<HTTP Host of Connected System>**
- *Port*: **<HTTP Port of Connected System>**

On the *Logon & Security* tab, make the following entries:

- *Trust Relationship*: **X**
- *Language*: **<Your Language>**
- *Client*: **<Client of Connected System>**
- *Current User*: **checked**

On the *Security Options* tab, make the following entries:

- *SSL*: **Inactive**

4. Choose *Save*.

3.3.1.4 Create SAP Gateway System Alias

Use

In this activity, you create the system alias mapping UI navigation.

Procedure

1. Log on to the S/4HANA Fiori frontend system and execute transaction SM30.
2. In the *Table/View* field, enter the view **/IWFND/V_DFSYAL** and choose *Maintain*.
3. On the *Change View "Manage SAP System Aliases": Overview* screen, choose *New Entries* and make the following entries.
 - *SAP System Alias*: **<Connected System Alias>**, for example, **XXXCLNTYYY** (**XXX**: System ID, **YYY**: Client)
 - *Description*: **<Description for Connected System Alias>**
 - *RFC Destination*: **<Connected System>_RFC**, the RFC Destination with connection type 3 created in the step [Create RFC destination of type ABAP Connection \[page 18\]](#).
 - *Software Version*: **DEFAULT**
 - *System ID*: **<Your Connected System ID>**
 - *Client*: **<Your Connected System Client>**
4. Choose *Save*.

3.3.1.5 Create System Alias for Connected System

Use

In this activity, you create the customer system alias for the connected system for UI navigation.

Procedure

1. Log on to the S/4HANA Fiori frontend system and execute transaction `SM30`.
2. In the *Table/View* field, enter the view `/UI2/VC_SYSALIAS` and choose *Maintain*.
3. On the *Change View “UI2: Maintenance of Customer System Aliases”* screen, choose *New Entries* and make the following entries.
 - *Alias*: Connected System ID defined in the step [Define Company Code, Plant, Purchasing Organization for Connected System \[page 13\]](#).
4. Choose *Save*.

3.3.1.6 Configure System Alias Mapping

Use

In this activity, you create the system alias mapping UI navigation.

Procedure

1. Log on to the S/4HANA Fiori frontend system and execute transaction `SM30`.
2. In the *Table/View* field, enter the view `/UI2/V_ALIASMAP` and choose *Maintain*.
3. On the *Change View “UI2: Maintenance of System Alias Mapping”* screen, choose *New Entries* and make the following entries.
 - *Source*: Alias defined in the step [Create System Alias for Connected System \[page 21\]](#).
 - *Target System Alias*: `<Connected System>` of the RFC Destination with connection type H created in the step [Create RFC destination of type HTTP Connection to ABAP system for HTTPS connection \[page 18\]](#), for example, `XXXCLNTYYY` (`XXX`: System ID, `YYY`: Client)
4. Choose *Save*.

3.3.1.7 Register Connected System as safe host (Optional)

Use

In this activity, you register connected system as safe host in HTTP_WHITELIST table.

Procedure

1. Log on to the S/4HANA Fiori frontend system and execute transaction SM16.
2. In the *Table Name* field, enter the table **HTTP_WHITELIST** and choose *Create Entries*.
3. On the *Table HTTP_WHITELIST Insert* screen, make the following entries.
 - *ENTRY_TYPE*: '
 - *SORT_KEY*: next to existing ones (for example 0002)
 - *PROTOCOL*: *
 - *HOST*: Host of Connected System
 - *PORT*: leave field empty
 - *URL*: *
4. Choose *Save*.

3.4 Master Data

To create a central purchase contract in SAP S/4HANA Hub system and distributed to multi connected systems, you need to make the following data for creating central purchase contract also exist in connected system.

- Supplier
- Pricing Schema
- Inco-terms
- Payment Terms
- Unit of Measures
- Currency
- Tax code

3.5 Extend Central Purchase Contract using BADIs

The following BADI's are implemented for Central Purchase Contract extensions:

- [**MM_PUR_S4_CCTR_CHECK**](#): BADI for Check of Central Purchase Contract Before Saving.

This BADI is used in the Fiori UI for Manage Purchase Contracts (MM-FIO-PUR-SQ-CON) component. You can use this BADI raise to messages when processing central purchase contracts. This may be necessary, for example, if a new error message needs to be raised based on your own validations.

- [**MM_PUR_S4_CCTR_MODIFY_HEADER**](#): BADI for Change of Central Purchase Contract Before Saving.

This BADI is used in the Fiori UI for Manage Purchase Contracts (MM-FIO-PUR-SQ-CON) component. You can use this BADI to modify header data in central purchase contracts. This may be necessary, for example, if new customs fields are introduced in central purchase contracts at header level.

- [**MM_PUR_S4_CCTR_MODIFY_ITEM**](#): BADI for Change of Central Purchase Contract Item Before Saving.

This BADI is used in the Fiori UI for Manage Central Purchasing Contracts (MM-FIO-PUR-SQ-CON) component. You can use this BADI to modify item data in central purchase contracts. This may be necessary, for example, if new custom fields are introduced at item level in central purchase contracts.

- [**MM_PUR_S4_CCTR_FIELDCONTROLS**](#): BADI to manage field controls for Central Contracts

This BADI is used in the Fiori UI for Manage Central Purchasing Contracts (MM-FIO-PUR-SQ-CON) component. You can use this BADI to modify the properties of different fields that appear on the user interface of central purchase contract app. You can make the fields hidden, read-only, mandatory, or optional as per your requirements.

3.6 Configure User-Defined Search

3.6.1 Configure User-Defined Search for SOA Services

Purpose

In the activity, you configure user-defined search to enable search for asynchronous Web service operations using attributes from the XML payload. The user-defined search is required for Central Purchase Contracts Scenario of Central Procurement Operations Monitor.

• Note

This step is required if you setup the communication from the S/4HANA HUB system to the connected system via P2P.

Procedure

1. Log on to the connected system and enter transaction `SOAMANAGER`.
2. On the newly opened *SOA Management* page, go to *Monitoring* tab and choose *User-Defined Search*.
3. On the *User Defined Search: Configuration* screen, choose *Create*.
4. On the *Create Configuration* screen, search for `PurchaseContractDistributionReplicationRequest_In` by entering the *Interface*. Select the Interface and choose *Create*.
5. On the *Field* section, search String `PurchaseContract`. Right click field `PurchaseContract` under `PurchaseContract` and choose *Add* from the context menu.
6. On the *Details of Configuration - Attribute* section, enter following entries:
 - *Status:* **Active**
 - *Extraction Type:* **Direct: extract search results at message runtime**
7. On the *Details of Configuration - Search Parameters* section, change *Search Name* and check *XML Path* with following values:
 - *Search Name:* **ProcmtHubCentralContract**
 - *XML Path:* **{http://sap.com/xi/APPL/sProc}PurchaseContractDistributionReplicationRequest/PurchaseContract/PurchaseContract**
8. Choose *Save* to save the user-defined search.
9. Choose *Back*.
10. On the *User Defined Search: Configuration* screen, choose *Create*.
11. On the *Create Configuration* screen, search for `PurchaseContractDistributionConfirmationRequest_Out` by entering the *Interface*. Select the Interface and choose *Create*.
12. On the *Field* section, search String `PurchaseContract`. Right click field `PurchaseContract` under `PurchaseContractConfirmation` and choose *Add* from the context menu.
13. On the *Details of Configuration - Attribute* section, enter following entries:
 - *Status:* **Active**
 - *Extraction Type:* **Direct: extract search results at message runtime**
14. On the *Details of Configuration - Search Parameters* section, change *Search Name* and check *XML Path* with following values:
 - *Search Name:* **ProcmtHubCentralContract**
 - *XML Path:* **{http://sap.com/xi/APPL/sProc}PurchaseContractDistributionConfirmationRequest/PurchaseContractConfirmation/PurchaseContract**
15. Choose *Save* to save the user-defined search.

· Note

To make created user-default search help take effect for historical messages, please execute report `SRT_UDS_INDEX` for receiver interface `PurchaseContractDistributionReplicationRequest_In`, sender interface `PurchaseContractDistributionConfirmationRequest_Out`.

3.6.2 Configure User-Defined Search for Integration Engine

Purpose

In the activity, you configure user-defined search to enable search for asynchronous Web service operations using attributes from the XML payload. The user-defined search is required for Central Requisitioning Scenario of Central Procurement Operations Monitor.

· Note

This step is required if you setup the communication from the S/4HANA HUB system to the connected system via PI.

Procedure

1. Log on to the connected system and enter transaction `SXMS_LMS_CONF`.
2. On the *Manage Filters and Search Criteria* screen, choose *Add*.
3. On the *Entry Filter* screen, enter following entries and choose *Continue*.
 - **Name:** `PurchaseContractDistributionReplicationRequest_In`
 - **Namespace:** `http://sap.com/xi/HubERPI`
 - **Description:** `Central Contract`
4. Double click the filter you created, on the *Search Criteria for Selected Filter* section, choose *Add*.
5. On the *Extractor Data* screen, enter following entries and choose *Continue*:
 - **Name:** `PROCMTHUBCENTRALCONTRACT`
 - **Description:** `Central Contract ID`
 - **XPath:** `/n0:PurchaseContractDistributionReplicationRequest/PurchaseContract/PurchaseContract`
 - **Extract During Message Processing:** `check`
 - **Extract Using External Job:** `check`
6. On the *Namespace Prefixes for Selected Filter* section, choose *Add*.
7. On the *Entry Namespace Prefix* screen, enter following entries and choose *Continue*:
 - **Prefix:** `n0`
 - **Namespace:** `http://sap.com/xi/APPL/sProc`
8. Choose *Active* to activate the user-defined search.
9. On the *Manage Filters and Search Criteria* screen, choose *Add*.
10. On the *Entry Filter* section, enter following entries and choose *Continue*.
 - **Name:** `PurchaseContractDistributionConfirmationRequest_Out`
 - **Namespace:** `http://sap.com/xi/HubERPI`
 - **Description:** `Central Contract`
11. Double click the filter you created, on the *Search Criteria for Selected Filter* section, choose *Add*.

12. On the *Extractor Data* screen, enter following entries and choose *Continue*:
 - *Name*: **PROCMT HUBCENTRALCONTRACT**
 - *Description*: **Central Contract ID**
 - *XPath*: **/n0:PurchaseContractDistributionConfirmationRequest/
PurchaseContractConfirmation/PurchaseContract**
 - *Extract During Message Processing*: **check**
 - *Extract Using External Job*: **check**
13. On the *Namespace Prefixes for Selected Filter* section, choose *Add*.
14. On the *Entry Namespace Prefix* screen, enter following entries and choose *Continue*:
 - *Prefix*: **n0**
 - *Namespace*: **http://sap.com/xi/APPL/sProc**
15. Choose *Active* to activate the user-defined search.

· **Note**

To make created user-default search help take effect for historical messages, please execute report **SXMS_EXTRACT_MESSAGES** for receiver interface *PurchaseContractDistributionReplicationRequest_In*, sender interface *PurchaseContractDistributionConfirmationRequest_Out*.

4 Configure the Connected System

The necessary steps which is needed in the Connected System.

4.1 ERP or S/4HANA On-premise as Connected System

4.1.1 Create Trusted Connection from Connected System to SAP S/4HANA Fiori Frontend System

In this chapter, you establish the trusted connection from connected system to S/4HANA Fiori frontend system.

· Note

To enable Single Sign-On Between S/4HANA Hub system and connected system for UI navigation, you can refer to [User Authentication and Single Sign-On](#) -> Integration in Single Sign-On (SSO) Environments -> Single Sign-On for Interaction Between Systems.

The trusted connection from connected system to S/4HANA Fiori frontend system can be done by executing task list SAP_SAP2GATEWAY_TRUSTED_CONFIG in the connected system.

For more details, please refer to [Configuration Using Task Lists](#) and SAP Note [2510134](#) .

4.1.2 Configure OData Services

Use

In this activity, the following OData Services need to be registered in the connected system.

- **Back-end Data for Central Contracts:** MMPUR_CCTR_BE_SRV
This OData service is used to fetch the data for Partners, Scheduling Agreement type, etc from connected system which are used in the central contracts application.
- **Calloff against Central contracts:** MM_PUR_CCTR_CALLOFF_SRV
This OData service is used to extract the release orders which are created for the replicated contracts.

- **Central Contract Archive:** MM_PUR_CCTR_ARCHIVE_SRV
This OData service is used to perform archiving actions on the replicated contracts when the Central Contract(s) are archived.
- **Material Value Help Service:** MMPUR_BE_VALUE_HELP_SRV
This OData service is used to fetch the Material from connected system.
- **Check backend contract creation/update from Cntrl Contract:** MM_PUR_CCTR_CHECK_SRV
This OData service is used to check the Outline Agreement if it still has errors in the connected system.
- **Central Procurement Admin Monitor Backend Status for CCTR:** MM_PUR_CPROC_OPS_MNTR_CCTR_BE_SRV
This OData service is the Connected System service which is used to determine whether the connected system is S/4HANA or ERP and is required to navigate to connected system by clicking *Investigate* in *Central Procurement Interface Monitor* application.

Procedure

For information of how to activate and maintain the OData services, please refer to [SAP Gateway Foundation \(SAP_GWFND\)](#)

Search for the chapter *Activate and Maintain Services* : ► [SAP Gateway Foundation \(SAP_GWFND\)](#) ► [SAP Gateway Foundation Developer Guide](#) ► [OData Channel](#) ► [Basic Features](#) ► [Service Life-Cycle](#) ► [Activate and Maintain Services](#) ► .

· Note

For SAP Gateway Configuration, please refer to *SAP Gateway Foundation Configuration Guide* in [SAP Gateway Foundation \(SAP_GWFND\)](#) .

4.1.3 Cleaning up Gateway Cache

Use

This activity allows you to clear the cache for SAP gateway.

Cleaning up the cache is an operational activity that you can perform on a regular basis to ensure that irrelevant files are removed from your system.

Procedure

To clear the cache for gateway in the connected system, perform the following steps:

1. Log onto the connected system and enter transaction [/N/IWFND/CACHE_CLEANUP](#).
2. Check [Cleanup Cache for all Models](#) and choose [Execute](#).
3. Enter transaction [/N/IWBEP/CACHE_CLEANUP](#).
4. Check [Cleanup Cache for all Models](#) and choose [Execute](#).

4.1.4 Configure Batch Parallelization for Gateway

Use

A parallelization of consecutive queries in a batch request is used to optimize the performance of the batch request processing.

When a user requests for Catalog extraction, multiple batch requests are sent to the connected system. For performance optimization, we recommend the user to activate batch parallelization for Gateway in the connected system.

Configuration Parameters

The following parameters are valid for the current SAP client:

- "Activate Parallelization for Batch Queries": Mark or unmark this option to enable or disable the parallelization.
- "Maximum Number of Parallel Queries": Specify the maximum number to limit the amount of parallel processing queries to save system resources.

Procedure

To configure the batch parallelization for gateway in the connected system, perform the following steps:

1. Log onto the connected system and enter transaction `SPRO`.
2. Navigate to the configuration activity: [SAP NetWeaver](#) > [Gateway Service Enablement](#) > [Back-end OData Channel](#) > [Configuration Settings](#) > [Define Parallelization of Batch Queries](#).
3. Check the [Activate Parallelization for Batch Queries](#) checkbox.
4. Choose [Save](#).

Result

Performance Optimization

In case of serialization, the duration of the consecutive queries is the sum of all query processing times. Contrary to this, the total duration in the parallel mode is just the maximum duration of these query processing times and a minimal overhead for parallelization.

4.2 S/4HANA Cloud as Connected System

4.2.1 SAP Cloud Connector Installation and Configuration

To enable communication between cloud systems and on-premise, it is recommended to use the SAP Cloud Platform Cloud Connector (Cloud Connector) in your SAP S/4HANA Cloud environment.

You need to carry out the following step in this chapter:

- Create a communication arrangement for the scenario SAP Cloud Connector Integration (SAP_COM_0200)
- Install the SAP Cloud Platform Cloud Connector
- Configure the Cloud Connector

For more information, go to the [SAP Help Portal](#) and search for the SAP S/4HANA Cloud product page. In the Product Assistance, navigate to the following chapter: SAP S/4HANA Cloud > Generic Information > General Functions for the Key User > Integration Scenarios > How to Set Up SAP Cloud Platform Cloud Connector.

• Note

When configuring the access control list for the cloud to on-premise scenario, you need to specify URL paths (resources) which can be invoked on the on-premise host. The SAP Cloud Platform Cloud Connector uses very strict whitelists for its access control.

Add following permitted URL paths (Resources) in accessible resource.

- /sap/bc/srt/scs_ext/sap/purchasecontractconfirmationin
- /sap/bc/srt/scs_ext/sap/purchasecontractdistributionr2
- /sap/opu/odata/sap/API_CENTRAL_PURCHASECONTRACT_SRV

4.2.2 Configure Communication Management

A communication arrangement describes a communication scenario with a remote system during configuration time. It provides the required metadata for the service configuration, such as credentials, outbound ports, destinations, URLs, and other service specifications which contain technical data to enable inbound and outbound communications. The activation of a Communication Arrangement will populate the required configuration tables of the Web Service such as logical ports and RFC destinations, as well as the authorization settings for the communication user.

4.2.2.1 Create Communication User

Use

In this activity, you create the communication user for the outbound communication scenarios.

Procedure

1. Log on to the SAP S/4HANA Fiori UI launchpad with the user that has the role template `SAP_BR_ADMINISTRATOR`.
2. Under the *Communication Management* section, navigate to the *Maintain Communication Users* application
3. On the *Maintain Communication Users* screen, choose *New*.
4. Under *User Data*, make the following entries:
 - User Name
 - Description
 - Password
5. Choose *Create*.
6. Make a note of user data. This is required when you create the communication arrangement.

4.2.2.2 Create Communication Systems

Use

In this activity, you create the communication system for the S/4HANA On-premise hub system. This enables data exchange between the connected S/4HANA Cloud system and the S/4HANA On-premise Hub system.

Procedure

1. Log on to the SAP S/4HANA Fiori UI launchpad with the user that has the role template `SAP_BR_ADMINISTRATOR`.
2. In the *Communication Management* section, navigate to the *Communication Systems* application.
3. On the *Communication System* screen, choose *New*.
4. On the *New Communication System* screen, enter the following entries and choose *Create*.

- [System ID: Your Communication System ID](#)
- [System Name: Your Communication System Name](#)

· Note

Make a note of this name as it is required in later steps

5. In the [General Data](#) area, retain the default system name.
6. In the [Technical Data](#) area, maintain the values for following fields:

Table 2:

| Fields | Values |
|----------------------|---|
| Host Name | The virtual host name for the S/4HANA On-premise hub system maintained in cloud connector |
| HTTPS Port | The https port for the S/4HANA On-premise hub system maintained in cloud connector |
| User Cloud Connector | X |
| Instance Number | For example: 00 |
| Client | For example: 100 |

7. In the [Contact Information](#) area, maintain the values for the following fields:

Table 3:

| Fields | Values |
|---------------------|--|
| Contact Person Name | For example: John Smith |
| Phone Number | For example: +918888333322 |
| E-Mail | For example: abc@xyz.com |

8. To add the [User for Inbound Communication](#) area, choose [Add](#).
9. In the [New Inbound Communication User](#) dialog box, choose the [Authentication Method](#) with [User Name and Password](#) and enter the user name that you created in step [Create Communication User \[page 31\]](#). Confirm with [OK](#).
10. To add the [User](#) for the [Outbound Communication](#) area, choose [Add](#).
11. In the [New Outbound User](#) dialog box, choose the [Authentication Method](#) with [User Name and Password](#) and enter the user name, password of the SAP S/4HANA On-premise Hub system. Confirm with [Create](#).
12. Choose [Save](#).

4.2.2.3 Create Communication Arrangements for Central Purchasing

Use

In this activity, you create a communication arrangement that describes a communication scenario with a remote system during configuration. It provides the required metadata for the service configuration, such as credentials, outbound ports, destinations, URLs and other service specifications. This contains technical data to enable inbound and outbound communications.

Procedure

1. Log on to the Fiori launchpad with user that has the role template `SAP_BR_ADMINISTRATOR`.
2. In the *Communication Management* section, navigate to the *Communication Arrangements* application.
3. On the *Maintain Communication Arrangements* screen, choose *New*.
4. On the *New Communication Arrangement* screen, make the following entries and then choose *Create*:
 - *Scenario*: `SAP_COM_0243` (SAP S/4HANA Procurement Hub - Central Contract Management Integration)
 - *Arrangement Name*: Your Communication Arrangement Name
5. On the *Communication Arrangement* screen, make the following entries:
 - *Communication System*: Maintain the communication system ID defined in step [Create Communication Systems \[page 31\]](#)
6. On the *Outbound Services* screen, make the following entries:
 - *Outbound HTTP Connections*: Maintain Path `/sap/opu/odata/sap/?sap-client=<S/4HANA hub system client number>`
 - *Central Contract Replication Confirmation*: Maintain Path `/sap/bc/srt/scs_ext/sap/purchasecontractconfirmationin/?sap-client=<S/4HANA hub system client number>`
7. Choose *Save*.

4.2.3 Maintain Clickjacking Protection Whitelist

User

In this activity, you maintain S/4HANA Hub system as trusted host in S/4HANA Cloud as connected system.

Procedure

1. Log on to the SAP S/4HANA Fiori UI launchpad with the user that has the role template `SAP_BR_ADMINISTRATOR`.
2. In the *Security* section, navigate to the *Maintain Clickjacking Protection Whitelist* application.
3. On the *Maintain Clickjacking Protection Whitelist* screen, choose *Create*.
4. Under *Add Trusted Host*, make the following entries:
 - *Trusted Host Name*: host name of S/4HANA Fiori frontend system
 - *Schema*: **HTTPS**
 - *Port*: https port of S/4HANA Fiori frontend system
5. Choose *Add*.

5 Monitoring and Error Handling

For monitoring the integration of the SAP S/4HANA system (hub system) with the connected systems, you can use the Application Interface Framework (AIF) in the SAP S/4HANA system (hub system).

For more information, please refer the document *Operation Guide* at the SAP Help Portal under https://help.sap.com/viewer/p/SAP_S4HANA_ON-PREMISE

Navigate to following section in chapter *Central Procurement*.

- Monitoring and Error Handling in the SAP S/4HANA System (Hub System)
- Monitoring and Error Handling in the SAP ERP Back-End System
- Monitoring and Error Handling in the SAP S/4HANA Back-End System

6 Appendix

6.1 Known Restrictions

The following are the known restrictions of the *Extended Procurement* scenario in the Cloud system:



- Central Contract item with Account Assignment Category - Unknow (U) is only supported.
- Contract item with item category 'Standard' is only supported
- Purchasing document types MK, WK are only supported (Quantity Contract, Value Contract)
- Creation of Attachments, Partners is not supported

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