PUBLIC

Set-Up Instructions

SAP Service Cloud Version 2 for Utilities Integration with SAP S/4HANA

Contents

1 Purpose

This document describes the procedure to configure the integration between SAP Service Cloud Version 2 integration with SAP S/4 HANA system using SAP Cloud Integration (SCI).

As these configuration steps are customer-specific, they can’t be delivered by SAP, and must be completed by the customer. This document describes the general configuration steps to manually set up the configuration within the existing system landscape.

If you have any queries or feedback about this document, please create a ticket using the utilities component CEC-CRM-UTIL.

2 Preparation

2.1 Required Information

You’re required to enter or provide system-specific information. To ensure a smooth and efficient integration of SAP Service Cloud Version 2 integration with SAP S/4 HANA, we recommend that you have the information listed in the following table before starting the integration process.

Information required:
SAP Cloud Integration (SACI) tenant details
SAP S/4 HANA on-premise system details
SAP Service Cloud Version 2 (SCv2, also referred to as CNS) tenant details

2.2 Prerequisites

You've access to your SAP S/4HANA system. This includes:

- Initial user and access information for your SAP S/4HANA System.

You've access to SAP Service Cloud V2 system. This includes:

- Initial user and access information for your SAP Service Cloud V2 tenant provided via email by Cloud Management Service.

You've access to SAP Cloud Integration system. This includes:

- Initial user and access information for your SAP Cloud Integration tenant.
- SAP Cloud Integration Client Certificate

3 Configuration

The following sections describe all settings required for this scope item. This can be divided into the following main groups:

- Configuration in SAP Service Cloud Version 2
- Configuration in SAP Cloud Integration
- Configuration in SAP S/4 HANA

3.1 Configuration in SAP Service Cloud Version 2

3.1.1 Create Value Mapping

Procedure

1. Log on to SAP Service Cloud Version 2.
2. Navigate to the user menu and click on *Settings*.
3. Click on *All Settings* > *Integration* > *Value Mapping*.
4. In *Mapping*, click on the *add* icon.
5. From *Mapping Group*, select one of the following:
   Add new *Mapping Group* if you want to add a new group
   Or
   One of the existing groups
6. From *Code List Name*, select the data type name.
7. From *Rule for Missing Mapping*, select the rule.
8. Click *Save*.

3.1.2 Create Communication System

Procedure

1. Log on to SAP Service Cloud Version 2.
2. Navigate to the user menu and click on *Settings*.
3. Click on *All Settings* > *Integration* > *Communication Systems*.
4. Click the *add* icon.

> Note: Display ID must be the Business System ID of your SAP S/4HANA system.

5. Enter *Display ID*.
6. In the *Inbound tab*, do one of the following:
    a. Enter the password in *Set Password*

    Or

    b. Upload the file in Certificate File

> Note: The communication user is created by default with the creation of communication system. The communication user ID is the same name as the communication system and the password is the one maintained in the inbound communication tab of the communication system.

7. In the *Outbound* tab, enter *Host Name*, *Authentication Method*, and *Description*.
8. Click *Save and Activate*.

3.1.3 Create Communication Configuration

Procedure

For Asynchronous Service Integration

1. Log on to SAP Service Cloud Version 2.
2. Navigate to the user menu and click on *Settings*.
3. Click on *All Settings* > *Integration* > *Communication Configuration*.

4. Select the *Integrate Service Cloud Utilities Master Data with SAP S/4 HANA* template.
5. Click the *copy* icon.
6. Navigate to the *Communication Configuration* page and click the newly created communication configuration.
7. Edit *Communication System* and select the name of the communication system.
8. Edit *Value Mapping Group* and select the value mapping group.
9. Under *All Inbound Configurations*, use the search icon to select the inbound configurations relevant to your scope.

Inbound Configurations
Replicate Utilities Technical Master Data from SAP S/4 HANA
Replicate Contract Account from SAP S/4HANA- https://help.sap.com/docs/SAP_S4HANA_ON-PREMISE/e88ba58a6e71437caa4e67d6bc456a00/2ef46d6ffba344f6a57ada781726a33a.html?version=2021.000

For Synchronous Service Integration

1. Select the *Integrate Service Cloud Utilities with SAP S/4 HANA* template.
2. Click the copy icon.
3. Navigate to the Communication Configuration page and click on the newly created communication configuration.
4. Edit Communication System and select the name of the communication system.
5. Edit Value Mapping Group and select the value mapping group.

   Under All Outbound Configurations, user the search icon to select the Outbound configurations relevant to your scope.

Outbound Configurations
Get Contract Account Details from SAP S/4HANA
Get Payment Specifications from SAP S/4HANA
Perform Installment Plan Actions
Create Payment Specification
Create Bank Account
Perform Promise-to-Pay Actions
Get Customer Bank Details from SAP S/4HANA
Get Open Items from SAP S/4HANA
Get Premise Overview from SAP S/4HANA

Create Move-In Document
Get Device Details from SAP S/4HANA
Create MDT Move-In Document
Get Security Deposit from SAP S/4HANA
Get Premise Details from SAP S/4HANA
Get Premise Services from SAP S/4HANA
Create MDT Contract Account
Get Contract Accounts from SAP S/4HANA
Get Bank Details from SAP S/4HANA
Get Customer and Contract Account Overview from SAP S/4HANA
Get Premise Details from SAP S/4HANA
Find Premise from SAP S/4HANA
Get Object value help from SAP S/4HANA
Get Move-in Customer and Contract Account Details from SAP S/4HANA
Get Meter-read Estimate from SAP S/4HANA
Perform Meter Reading Actions
Get Promise-to-Pay Details from SAP S/4HANA
Get Meter Readings from SAP S4HANA
Perform Budget Billing Actions

Note: The Target Message Entity API Path must match the respective iflow endpoints.

3.2 Configuration in SAP Cloud Integration

Note SAP provides prepackaged, generic integration content called integration flows (iFlows) for the integration of SAP Service Cloud Version 2 for Utilities Integration with SAP S/4HANA.

Prerequisites

To import and deploy iFlows, you need the `AuthGroup.IntegrationDeveloper` role assigned to your user in your SCI tenant.

3.2.1 Get the SAP Cloud Integration runtime URL

The SAP Cloud Integration (SCI) runtime URL is included in the SCI provisioning email.

Alternatively, you can get it once the iFlow Replicate Technical Master Data from SAP S/4HANA has been deployed. See chapter Configure and Deploy the iFlows Using Web UI.

In the SCI Web UI, navigate to *Operations View*. Choose the *Started* tile. Search for the iFlow Replicate Technical Master Data from SAP S/4HANA. Choose the status *Started*. The first part of the listed endpoint is the required SCI tenant runtime URL. Example: `https://<tenant>-iflmap.hana.ondemand.com`

3.2.2 Get the SAP Cloud Integration (SCI) Client Certificate

In the SAP Cloud Integration (SCI) provisioning email, follow the link under *Certificate Information*. On the next screen, choose X509 Certificate with option Binary CER. Download it to your local machine.

3.2.3 Upload Client Certificates for Authentication in SAP Cloud Integration

The client certificate that has been downloaded from the client systems (SAP S/4HANA or SAP Service Cloud Version 2) needs to be uploaded to the Keystore in the SAP Cloud Integration tenant.

1. Log on to your SAP Cloud Integration tenant.
2. Navigate to *Operations View*.
3. Choose the tile *Keystore* from the section *Manage Security*.

4. Choose *Add > Certificate*.
5. Give a meaningful Alias.
6. Upload the certificate that you've downloaded from the target systems by choosing *Browse*.

> Note In case you are using basic authentication, please upload the Inbound Communication Users of the target systems (for example, SAP S/4HANA, SAP Service Cloud Version 2).

7. Choose *Add* the client certificate of the target system is now uploaded.

Please enter the communication authentication type you are choosing for SAP S/4HANA and SAP Service Cloud Version 2 systems. In case you are using Basic authentication, please maintain the User Credential of the target System.

In case you are using Client Certificate authentication, please maintain the PV key alias for the target System.

> Note The root certificates also need to be uploaded using the same procedure. The root certificates of the target systems can be obtained from the browser of the target system's web application.

3.2.4 Copy Integration Package

Procedure

1. Connect to the tenant management node of the *SAP CI systemcdrtype_CiasHref_CIAS.SYSTEM.CI_WEBUI.ACCESS_URL.END* with the URL `http://<tenant management node URL>/itspaces`.
2. On the *Discover* tab, click on *All* and search for the package SAP Service Cloud Version 2 for Utilities Integration with SAP S/4HANA.
3. Choose *Copy* on the top-right corner of the package overview page.
4. If the integration package is being created for the first time, then you would see the message Integration Package Created. Otherwise, you can decide to either create a new copy of the package or overwrite the existing integration package content. Choose *Overwrite*.

3.2.5 Configure and deploy the iFlows

Purpose

This procedure provides a generic description of iFlow configurations.

In the subsequent sections, you find more details on the configuration of iFlows. This contains the information on the communication scenario and outbound service from the sender and inbound service from the receiver for each iFlow.

With this information, the sender, receiver address and authentication details are easily retrieved for iFlow configuration.

Procedure

> Note If you've redeployed key store (system.jks) in your SAP Cloud Integration (SCI) tenant, you need to redeploy all the iFlows or restart them to avoid any caching related issues.

1. Log on to the tenant management node of the SCI system with the URL:

Field	User Action or Values
URL	`https://<tenant management node>/itspaces`

2. To configure the iFlows, choose the *Design* mode from the navigation on the left.
3. Select the integration package copied.
4. All iFlows are displayed on the *Artifacts* tab of the package.
5. Choose the iFlows mentioned in the table below (one after the other) by choosing *Actions > Configure*.
6. Configure the *sender system* (in this example, S4) and *receiver system* (in this example, SCV2) details as follows:
    1. Choose the *Sender* tab and then choose *Authorization* as *Client Certificate*.
    2. *Browse* for the certificate and upload it. Refer to chapter Create Communication System for Integration for details on SAP S/4HANA Cloud client certificate
    3. Choose the *Receiver* tab and create the following entries:
        - *Host*: **`SCV2 tenant's URL (without https://)`**
        - *Port*: **`443`**
    4. Choose *Proxy type* as *Internet*
    5. Choose *Allow Chunking*
    6. Deselect *Basic Authentication*
    7. Choose the *Private Key alias* as maintained in your SAP Cloud Integration Keystore
    8. Choose *Save* and choose *Deploy*.
    9. Repeat the same procedure for all the iFlows that have the same sender (S4) and receiver (SCV2) systems.
7. Choose *iFlow* to configure the *sender system* (in this example SCV2) and *receiver system* (in this example S4HANA) details.
    1. Choose the *Sender* tab and then choose *Authorization* as *Client Certificate*
    2. *Browse* for the certificate. Import the SAP Service Cloud Version 2 communication arrangement X.509 certificate.
    3. Choose *Receiver* tab: Enter the *Protocol-Host-Port* name of the S/4HANA system. Contact your system administrator for these details.
    4. Choose *Proxy type* as *Internet*
    5. Choose the *Authentication* as *Client Certificate*
    6. Choose the *Private Key alias* as maintained in your SAP Cloud Integration Keystore
    7. Choose *Save* and choose *Deploy*.

8. Repeat the same procedure for all the iFlows that have the same sender (SCV2) and receiver (S4) systems.
   - For the S/4HANA system URL, refer to chapter How to Get the SAP S/4HANA System URL [page] Error! Bookmark not defined.
   - For the iFlows, which have receiver as SCV2, the host of SCV2 is the URL of the SAP Service Cloud Version 2 system without HTTPS prefix, that is, myXXXXX.XXXX.XXXXXXX.com.
   - For *Private Key alias*, specify an alias for the private key that is to be used to sign the response message. The tenant private key must be part of the tenant keystore.
8. The integration flows are deployed in the SCI tenant.
9. To see status of the deployed artifacts, check *Monitor > Integration Content Monitor*.
10. The status of the iFlow should be green for successful deployment.

3.4.5.1 Configuration of Utilities Technical Master Data Replication iFlows

Name of the iFlow	Direction of the Message flow	Receiver Communication Scenario: Inbound Service
Replicate Technical Master Data from S4HANA	S4 (Sender) to SCV2 (Receiver)	Replicate Utilities Technical Master Data from SAP S/4HANA

3.4.5.2 Configuration of Contract Account Replication iFlows

Name of the iFlow	Direction of the Message Flow	Receiver Communication Scenario: Service
Replicate Utilities Contract Account from S4HANA	S4 (Sender) to SCV2 (Receiver)	Replicate Contract Account from SAP S/4HANA

3.4.5.3 Configuration of Utilities Synchronous Services iFlows

Name of the iFlow	Direction of the Message Flow	Sender Communication Scenario: Service
Get Contract Account Overview from SAP S4HANA	SCV2 (Sender) to S4 (Receiver)	Get Contract Account Details from SAP S/4HANA
Get Payment Specification from SAP S4HANA	SCV2 <-> S4	Get Payment Specifications from SAP S/4HANA
Perform Installment Plan Actions	SCV2 <-> S4	Perform Installment Plan Actions
Create Payment Specification	SCV2 <-> S4	Create Payment Specification
Create Bank Account	SCV2 <-> S4	Create Bank Account
Perform Promise-To-Pay Actions	SCV2 <-> S4	Perform Promise-to-Pay Actions
Get Customer Bank Details from SAP S4HANA	SCV2 <-> S4	Get Customer Bank Details from SAP S/4HANA
Get Open Items from SAP S4HANA	SCV2 <-> S4	Get Open Items from SAP S/4HANA
Get Premise Overview from SAP S4HANA	SCV2 <-> S4	Get Premise Overview from SAP S/4HANA
Get Device Details from SAP S4HANA	SCV2 <-> S4	Get Device Details from SAP S/4HANA
Create Move-In Document	SCV2 <-> S4	Create Move-In Document
Create MDT Move-In Document	SCV2 <-> S4	Create MDT Move-In Document
Get Security Deposit from SAP S4HANA	SCV2 <-> S4	Get Security Deposit from SAP S/4HANA
Get Premise Services from SAP S4HANA	SCV2 <-> S4	Get Premise Services from SAP S/4HANA
Create MDT Contract Account	SCV2 <-> S4	Create MDT Contract Account
Get Contract Accounts from SAP S4HANA	SCV2 <-> S4	Get Contract Accounts from SAP S/4HANA
Get Bank Details from SAP S4HANA	SCV2 <-> S4	Get Bank Details from SAP S/4HANA
Get Customer and Contract Account Overview From SAP S4HANA	SCV2 <-> S4	Get Customer and Contract Account Overview from SAP S/4HANA
Get Premise Details from SAP S4HANA	SCV2 <-> S4	Get Premise Details from SAP S/4HANA
Find Premise from SAP S4HANA	SCV2 <-> S4	Find Premise from SAP S/4HANA
Get Object Value Help from SAP S4HANA	SCV2 <-> S4	Get Object value help from SAP S/4HANA
Get Customer and Contract Account Overview From SAP S4HANA	SCV2 <-> S4	Get Move-in Customer and Contract Account Details from SAP S/4HANA
Get Meter Read Estimate from SAP S4HANA	SCV2 <-> S4	Get Meter-read Estimate from SAP S/4HANA
Perform Meter Reading Actions	SCV2 <-> S4	Perform Meter Reading Actions

Get Promise2Pay Details from SAP S4HANA	SCV2 <-> S4	Get Promise-to-Pay Details from SAP S/4HANA
Get Meter Reading from SAP S4HANA	SCV2 <-> S4	Get Meter Readings from SAP S4HANA
Perform Budget Billing Actions	SCV2 <-> S4	Perform Budget Billing Actions
Get Contract Account Overview from SAP S4HANA	SCV2 <-> S4	Get Contract Account Details from SAP S/4HANA

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