SAP Sales Cloud and SAP Service Cloud Version 2 Integration with SAP ERP

THE BEST RUN **SAP**

Content

1   Integration with SAP ERP

This document describes how to integrate SAP Sales Cloud and SAP Service Cloud Version 2 with SAP ERP.

SAP does not deliver the configuration steps as they are customer specific, and the customer must complete those. 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, create a ticket using the `CEC-CRM-INT` component.

2 Prerequisites

Prerequisites for integrating SAP ERP with SAP Sales Cloud and SAP Service Cloud Version 2.

The following are the prerequisites:

- You have the `ECC 6.0 EhP8` *SAP ERP* release, and you have synchronized the business partner with the customer/debtor master.
  For more information, see Integration of C4C with SAP S/4HANA, SAP ERP, and SAP MDG via Web Services and Master Data Synchronization respectively.
- You have installed the SAP Sales Cloud and SAP Service Cloud Version 2 provided add-on for SAP ERP.
  For more information, see Install SAP ERP Software Components [page 4].
- You have maintained trust between the SAP Cloud Integration tenant and the *SAP ERP* system. For more information, see Connecting a Customer System to Cloud Integration.
- You have the integration developer persona assigned to your user in your SAP Cloud Integration tenant to import and deploy iFlows on SAP Cloud Integration.

2.1 Install SAP ERP Software Components

Purpose

SAP Sales Cloud and SAP Service Cloud Version 2 provides an add-on for SAP ERP that mainly contains the following:

- Missing interfaces for the SAP Sales Cloud and SAP Service Cloud Version 2-ERP integration
- Convenience functionality to simplify the setup of the integration

The add-on does not modify any core ERP coding, and hence is modification-free.

Procedure

1. Go to SAP ONE Support Launchpad (Launchpad.https://support.sap.com)
2. Click on *Software Downloads*.
3. Search for `COD_ERP_INT 6.00`.
4. For initial installation, click *Installation Software Component* ▶ *INSTALLATION* .
   For support package installation, click ▶ *Maintenance Software Component* *SUPPORT PACKAGES* .

3 Configuration

Configurations required for integrating SAP ERP with SAP Sales Cloud and SAP Service Cloud Version 2.

3.1 Configure SAP Sales Cloud and SAP Service Cloud Version 2

Procedure

1. Create the value mapping.
2. Create the communication system.
3. Create the communication configuration with the required template from the following:
   - *Integrate Master Data with SAP ERP* to replicate master data from SAP ERP to SAP Sales Cloud and SAP Service Cloud Version 2
   - *Integrate Opportunity with SAP ERP* to create follow-up sales quotes in SAP ERP from the opportunities of SAP Sales Cloud and SAP Service Cloud Version 2
   - *Integrate Sales Quote with SAP ERP* to create follow-up sales orders in SAP ERP from the sales quotes of SAP Sales Cloud and SAP Service Cloud Version 2

Related Information

Create Value Mapping
Create Communication Systems
Create Communication Configurations
Create Value Mapping
Create Communication Systems
Create Communication Configurations

3.2 Configure SAP Cloud Integration

SAP provides prepackaged, generic integration content called integration flows (iFlows) for the integration of SAP Sales Cloud and SAP Service Cloud Version 2 with SAP ERP systems using SAP Cloud Integration.

3.2.1 Copy Integration Package

Procedure

1. Log in to the *SAP Cloud Integration* tenant.
2. From ≡ *(Menu)*, select *Discover*.
3. In *All*, search for the required package from the following:
   - *SAP Sales Cloud and SAP Service Cloud Version 2 Integration for Master Data with SAP ERP*
   - *SAP Sales Cloud Version 2 Integration for Sales Processes with SAP ERP*
4. Select the package.
5. Click *Copy*.

3.2.2 Deploy Security Credentials

Context

The communication between SAP Cloud Integration and SAP Sales Cloud and SAP Service Cloud Version 2 is established via basic authentication over HTTPS. For this, user credential needs to be deployed in the SAP Cloud Integration tenant, which is used for sending messages to SAP Sales Cloud and SAP Service Cloud Version 2.

Procedure

1. Log in to the SAP Cloud Integration tenant.
2. From ≡ *(Menu)*, select *Monitor*.
3. In *Manage Security*, select *Security Material*.

4. From the *Create* dropdown, select *User Credentials*.

5. In *Create User Credentials*, enter the required details.

   The user credential artifact must use the credential maintained in ▶ *SAP Sales Cloud and SAP Service Cloud Version 2* ❯ *Settings* ❯ *Integration* ❯ *Communication Systems* ❯ *Inbound* ◀.

6. Click *Deploy* to deploy the user credential artifact.

7. **Optional:** For basic authentication of inbound messages in SAP ERP, repeat the above steps for the user authorized to execute messages in the SAP ERP system.

3.2.3 Configure and Deploy iFlows

This procedure provides a generic description of iFlow configurations.

Procedure

1. Log in to the SAP Cloud Integration tenant.

2. To configure the iFlows, from ☰ *(Menu)*, select *Design*.

3. Select the copied integration package.

   All iFlows are displayed on the *Artifacts* tab.

4. Select the required iflow.

5. From the *Actions* menu, select *Configure*.

6. Configure the sender system (**ERP**) and the receiver system (**SAP Sales Cloud and SAP Service Cloud Version 2**) details:

   a. In the *Sender* tab, select the *Authorization* option.

      For SAP ERP as sender, both basic and client certificate authentication are supported.

      For more information, see Configuring Inbound Communication for your environment (Cloud Foundry or Neo) and authentication type.

   b. Click the *Receiver* tab and do the following:

      • In *CNS-Host*, enter the URL for **SAP Sales Cloud and SAP Service Cloud Version 2** tenant. Only host name as protocol is prefilled.

      • From the *Authentication* dropdown, select *Basic*.

      • In *Credential Name*, enter the name of the credential deployed in Deploy Security Credentials [page 6].

   c. Click *Save All* and *Deploy All*.

   d. Repeat steps **a** to **c** for all the iFlows that have the same sender (*ERP*) and the receiver (**SAP Sales Cloud and SAP Service Cloud Version 2**) systems.

7. Select the iFlow to configure the sender system (**SAP Sales Cloud and SAP Service Cloud Version 2**) and receiver system (**ERP**) details.

   a. In the *Sender* tab, select the *Authorization* and the *User Role* options.

> ⓘ **Note**
>
> Only basic authorization is supported between SAP Cloud Integration and **SAP Sales Cloud and SAP Service Cloud Version 2**.

    b. Click the *Receiver* tab.

    c. In *Address*, enter the endpoint address of the receiving ERP system.

       The URL needs to start with a protocol, host and port name of the ERP system. Contact your system administrator for the details.

    d. From the *Proxy Type* dropdown, select *On-Premise* (for connectivity via SAP Cloud Connector) or *Internet* (for connectivity via reverse proxy based infrastructure).

> ⓘ **Note**
>
> For Internet based connectivity, you can choose between the client certificate authentication or the basic authentication. For more information, see Configuring Outbound Communication.

    e. Click *Save All* and *Deploy All*.

    f. Repeat the same procedure for all the iFlows that have the same sender (**SAP Sales Cloud and SAP Service Cloud Version 2**) and the receiver (**ERP**) systems.

  The integration flows are deployed in the SAP Cloud Integration tenant.

8. To see status of the deployed artifacts, from ☰ *(Menu)*, select *Monitor* and then select *Manage Integration Content*.

  The status of the iFlow must be green for successful deployment.

9. Click the required tile.

10. In *Integration Content*, search for *Value mapping for SAP Service Cloud Integration with SAP ERP*.

11. In *Artifact Details*, click *View deployed Artifact*.

12. In *Value Mappings*, do the following:

    a. Map the logical system name of the **SAP Sales Cloud and SAP Service Cloud Version 2** tenant to the communication system.

> ⓘ **Note**
>
> The logical system name must be the same as the logical system entered in configuring SAP ERP. For more information, see Configure SAP ERP for Replicating Master Data [page 9].

    b. Map the logical system name defined in the *ERP* system to the communication system.

3.3 Configure SAP ERP

3.3.1 Configure SAP ERP for Replicating Master Data

Procedure

1. Run the *SPRO* transaction.

2. Go to ▌▶ *SAP Refrence IMG* ❯ *Integration with Other mySAP.com Components* ❯ *Integration with SAP Cloud for Customer* ▌.

3. Click *Activate BC Sets* and activate the *COD_BYD_ERP_INT* BC set.

4. Go to ▌▶ *Communication Setup* ❯ *Automatically Generate Integration Settings for Data Exchange* ▌.

5. Select *SAP Cloud Platform Integration*.

6. Click *Next*.

7. Define the *Scope* of your integration:

    a. In *Organization Structure*, select *Do you want to replicate organizational structures from SAP ERP to your cloud solution?*.

    b. In *Business Partner*, select *Do you want to replicate accounts and contacts from SAP MDG via SOAP Service to your cloud solution?*, *Do you want to replicate accounts and contacts from your cloud solution via SOAP service to SAP MDG?*, and *Do you want to replicate account hierarchies from SAP ERP to your cloud solution?*.

    c. In *Employees*, select *Do you want to replicate employees from SAP ERP to your cloud solution?*.

    d. In *Products*, select *Do you want to replicate products from SAP ERP to your cloud solution?* and *Do you want to replicate product hierarchy/material group from SAP ERP to your cloud solution?*.

    e. In *Equipments/Functional Locations*, select *Do you want to replicate equipments and functional locations from SAP ERP to your cloud solution?* and *Do you want to replicate equipments from your cloud solution to SAP ERP?*.

8. Click *Next*.

9. In *Logical System*, enter the logical system of **SAP Sales Cloud and SAP Service Cloud Version 2**.

> ⓘ Note
>
> You must map the logical system to the tenant ID of **SAP Sales Cloud and SAP Service Cloud Version 2**. For more information, see Configure and Deploy iFlows [page 7].

10. Click *Next*.

11. *In SAP Cloud Platform Integration Connection Detail*, enter SAP Cloud Integration connection details:

    a. In *Runtime URL*, enter the runtime URL.

       You can retrieve the runtime URL from the provisioning email. For more information, contact your system administrator.

    b. In *Service No.*, enter *443*.

    c. Enter proxy details, if a proxy is used. For more information, contact your system administrator.

    d. In *Logon Procedure*, do one of the following:

    • Select *SSL Client Certificate* and import the certificate you downloaded from the SAP SAP Cloud Integration tenant

- Select *Basic Authentication* and enter the credentials from the technical SAP SAP Cloud Integration user.

12. Click *Next*.

13. In *URL Access Path*, adjust the URL access path to the sender connection address of the corresponding integration flow.

14. In *Summary*, review your settings from the previous steps.

15. Click *Generate*.

16. Run the *DRFIMG* transaction and do the following:

> ⓘ Note
>
> If the message `Switch MDG_DRF_MAIN_05 is inactive` appears when you run the *DRFIMG* transaction, activate the business function *DRF_FOUNDATION* using the transaction *SFW5*.

   a. Go to ▌ *Define Custom Settings for Data Replication* ❯ *Define Technical Settings* ❯ *Define Technical Settings for Business Systems* ▐.

   b. In *Define Business System*, define the business system.

   c. In *Dialog Structure*, click *Define Bus. Systems, BOs* and define the `986` BO type for the business system.

   d. In *Dialog Structure*, click *Define Bus. Systems, BOs, Communication Channel* and define the *Replication via Services* communication channel for the business system.

   e. Navigate back to *Define Custom Settings for Data Replication*.

   f. Click *Define Replication Models*.

   g. Define the replication model.

   h. Click the *Assign Outbound Implementation*, and assign the `986_3` outbound implementation to the replication model.

   i. Assign the target system to the replication model.

      For more information, see *Configuration Help*.

17. Run the *SM30* transaction and do the following:

   a. In *Table/View*, enter *MDGV_BP_SYS_PAR*.

   b. For your business system, select the *Filter Reflexive Partner Functions Active* and the *C4C Specific Processing (CTIs) Active* flags.

18. **Optional:** Implement BAdI to replicate business partners from SAP Sales Cloud and SAP Service Cloud Version 2 to SAP ERP. For more information, see 3290399 - Partner functions in business partner replication between SAP S/4HANA or ERP and SAP Service and Sales Cloud Version 2 .

3.3.2 Configure SAP ERP for Sales Processes

Procedure

1. Go to ▮ *SOAMANAGER* ❯ *Service Administration* ❯ *Simplified Web Service Configuration* ▮.
2. Create service provider configurations for the required service definitions from the following:

Services for Sales Process

Sales Process	Services
Follow-Up Sales Quotes from Opportunities	• CustomerQuoteERPCreateRequestConfirmation_In • CustomerQuoteERPBasicDataByElementsQueryResponse_In • SalesDocumentPrintPreviewQuery
Follow-Up Sales Orders from Sales Quotes	• SalesOrderERPCreateRequestConfirmation_In_V2 • SalesOrderERPByIDQueryResponse_In_V3

3.4 Configure SAP Cloud Connector

Procedure

• To configure SAP Cloud Connector (SCC), see Connecting a Customer System to Cloud Integration.

4 Replicate Code Lists from SAP ERP

Replicate code lists from SAP ERP to SAP Sales and Service Cloud Version 2.

Prerequisites

You have done one of the following in *SAP ERP*:

- You have installed the *74* support package of the *CODERINT* software component.
- You have implemented the 3429245, 3428717, 3425734, 3423873, and 3456769 notes.

Context

This is the prerequisite for loading business partners, business partner relationships, and products.

Procedure

1. In SAP Sales Cloud Version 2 or SAP Service Cloud Version 2, add the required inbound configuration to the communication configuration or copy the *Integrate Master Data with SAP ERP* communication configuration.
2. In SAP ERP, configure the *COD_GET_CODE_LIST* service using *Simplified Service Configuration* in SOAManager.
3. In *SAP Cloud Integration*, configure and deploy the required iFlow with the following parameters:

   - CNS_Credential: Communication user in SAP Sales Cloud Version 2 or SAP Service Cloud Version 2
   - CNS_Business_User: Business user in SAP Sales Cloud Version 2 or SAP Service Cloud Version 2
   - ERP_CRED_NAME: User in SAP ERP
   - Initial Load: Enter one of the following:
     - false: updates existing codes and adds new codes
     - true: creates new codes, updates existing codes, and deletes codes in SAP Sales Cloud Version 2 or SAP Service Cloud Version 2 that are not available in SAP ERP
   - Language: A list of comma separated languages for which you must load the descriptions, for example, `DE,EN,FR,JA`.
   - Scheduler: The schedule on which the iflows are deployed. The code lists start to load when the iflows are deployed. The default value is *Run Once*.

> ⓘ **Note**
>
> In the iflow *Replicate Product Type from SAP ERP*, configure the following value mappings for *ERP, ProductType* and *CNS, ProductUsage* to map product types to product usages:
>
> Value Mapping
>
> | Product Usage | Product Usage Code |
> |---|---|
> | Material | 1 |
> | Service Product | 2 |
> | Subscription | 3 |
>
> If you do not configure value mapping, **Material** is set as the default value mapping.

Iflows

Communication Configuration	Iflow	Code List
Replicate Academic Title from SAP ERP	Replicate Academic Title from SAP ERP	Academic Title
Replicate Business Partner Identification Type from SAP ERP	Replicate Business Partner Identification Type from SAP ERP	Business Partner Identification Type
Replicate Company Legal Form from SAP ERP	Replicate Company Legal Form from SAP ERP	Company Legal Form
Replicate Customer Group from SAP ERP	Replicate Customer Group from SAP ERP	Customer Group
Replicate Customer Price List Type from SAP ERP	Replicate Customer Price List Type from SAP ERP	Customer Price List Type
Replicate Delivery Blocking Reason from SAP ERP	Replicate Delivery Blocking Reason from SAP ERP	Delivery Blocking Reason
Replicate Delivery Priority from SAP ERP	Replicate Delivery Priority from SAP ERP	Delivery Priority
Replicate Department from SAP ERP	Replicate Department from SAP ERP	Department
Replicate Distribution Channel from SAP ERP	Replicate Distribution Channel from SAP ERP	Distribution Channel
Replicate Division from SAP ERP	Replicate Division from SAP ERP	Division
Replicate Functional Title from SAP ERP	Replicate Functional Title from SAP ERP	Functional Title
Replicate Incoterms Classification from SAP ERP	Replicate Incoterms Classification from SAP ERP	Incoterms

Communication Configuration	Iflow	Code List
Replicate Industrial Sector from SAP ERP	Replicate Industrial Sector from SAP ERP	Industrial Sector
Replicate Invoicing Blocking Reason from SAP ERP	Replicate Invoicing Blocking Reason from SAP ERP	Invoicing Blocking Reason
Replicate Marital Status from SAP ERP	Replicate Marital Status from SAP ERP	Marital Status
Replicate Nielsen ID from SAP ERP	Replicate Nielsen ID from SAP ERP	Nielsen Region
Replicate Order Blocking Reason from SAP ERP	Replicate Order Blocking Reason from SAP ERP	Order Blocking Reason
Replicate Cash Discount Terms from SAP ERP	Replicate Cash Discount Terms from SAP ERP	Payment Terms
Replicate Price Specification Customer Group from SAP ERP	Replicate Price Specification Customer Group from SAP ERP	Price Specification Customer Group
Replicate VIP Reason from SAP ERP	Replicate VIP Reason from SAP ERP	VIP Reason
Replicate Product Type from SAP ERP	Replicate Product Type from SAP ERP	Product Type
Replicate Region from SAP ERP	Replicate Region from SAP ERP	Region

5 Replicate Master Data Initial Load

In the following sections, we describe the replication of sales organization, material groups, material, equipment and functional location, and business partners. You must load the master data in this sequence.

Procedure

1. Load sales organizations.
2. Load material groups.
3. Load material.
4. Load employees.
5. Load business partner and business partner replication.
6. Load account hierarchy.
7. Load equipment.
8. Load functional locations.

> ⓘ Recommendation
>
> - Start loading data in small chunks, check if they are loaded successfully, and then later increase the size of the data.
> - After loading the data, go to ▶ *SAP Sales Cloud and Service Cloud Version 2* ❯ *Integration* ❯ *Message Monitoring* ▶ and check the status of the operation.

5.1 Load Sales Organizations

1. Go to the transaction code *COD_INT_MENU*.
2. Execute the report *Load or Resend Organizational Hierarchy*.
3. In *Selection of Organisational Units*, select the required organisational units.
4. In ▶ *Communication Settings* ❯ *Logical System* ▶, enter the logical system.
5. Click *Execute*.
6. After successfully executing the report, go to the transaction *WE05* to view the status of the IDocs in the monitor. Alternatively, you can use *BD87* to monitor and process IDocs.

5.2 Load Material Groups

Procedure for the initial load of material group from SAP ERP to **SAP Sales Cloud and SAP Service Cloud Version 2**.

1. Select *Load or Resend Material groups or Product Hierarchies* from area menu *COD_INT_MENU*.
2. Enter the required details to execute the report.
   You can run the report to replicate material group during a single run of the report. This is decided by selecting the desired radio button *Material group*.
   None of the input fields are mandatory except logical system which should be filled with the logical system of the **SAP Sales Cloud and SAP Service Cloud Version 2** system to which the data should be replicated.
   For IDocs to be triggered and actual replication to happen, uncheck the *Test Mode* checkbox.
   The Maximum objects per IDoc is defaulted as 1000 and can be changed to any non-zero value according to your system capacity.
3. After successfully executing the report, go to the *WE05* transaction code to view the status of the IDocs.

5.3 Load Materials

Prerequisites

You have replicated material groups.

Procedure

1. For material replication, select *Load or Resend Materials* from *COD_INT_MENU*.
2. Enter selection criteria for the sending materials and the logical system.
3. Execute the report.
4. After successfully executing the report, go to transaction code *WE05* to view the status of the IDocs.

5.4 Load Functional Locations

Prerequisites

You have loaded the sales organization and accounts.

Procedure

1. Select *Load or Resend Functional Locations* from *COD_INT_MENU*.
2. Enter the selection criteria for functional location and the logical system.
3. Execute the report.

5.5 Load Equipment

Equipment in SAP ERP is replicated as registered products in **SAP Sales Cloud and SAP Service Cloud Version 2**.

Prerequisites

You have loaded the sales organization, accounts, and functional locations.

Procedure

1. Select *Load or Resend Functional Locations* from *COD_INT_MENU*.
2. Enter the selection criteria for the equipment and the logical system.
3. Execute the report.

   The documentation on the report in *COD_INT_MENU* describes where to find errors in case of issues in the initial load.

5.6 Load Employees

Prerequisites

- You have loaded sales organizations.

Procedure

1. Enter *Load* or *Resend Employees* from *COD_INT_MENU*
2. To execute the report, do the following:
    - In *Plan Version*, enter *01*.
    - In *Object Type*, enter *P*.
    - In *Transfer Mode*, select *Insert*.
    - In *Receiver Partner No.*, enter the logical system.
    - In *Message Type*, enter *HRMD_A_CFS*.
3. After successfully executing the report, go to transaction code *WE05* to view the status of the IDocs.

5.7 Load Business Partner and Business Partner Relationships

For business partners you must use data replication framework.

Procedure

1. Run the *DRFOUT* transaction code.
2. In *Replication Model*, select your replication model.
3. In *Outbound Implementation*, select *986_3* .
4. In *Replication Mode*, select *Manual*.
5. Click *Manual replication Filter Criteria*.
6. Select the required business partners and relations.

5.8 Load or Resend Account Hierarchy

Procedure

1. Go to the transaction code *COD_INT_MENU*.
2. Execute the report *Load or Resend Account Hierarchy*.
3. In *Selection of Organisational Units*, select the required organisational units.
4. In ▶ *Communication Settings* ❯ *Logical System* ❯, enter the logical system.

5. Click *Execute*.

6. After successfully executing the report, go to the transaction *WE05* to view the status of the IDocs in the monitor. Alternatively, you can use *BD87* to monitor and process IDocs.

Important Disclaimers and Legal Information

Hyperlinks

Some links are classified by an icon and/or a mouseover text. These links provide additional information.
About the icons:

- Links with the icon : You are entering a Web site that is not hosted by SAP. By using such links, you agree (unless expressly stated otherwise in your agreements with SAP) to this:

  - The content of the linked-to site is not SAP documentation. You may not infer any product claims against SAP based on this information.

  - SAP does not agree or disagree with the content on the linked-to site, nor does SAP warrant the availability and correctness. SAP shall not be liable for any damages caused by the use of such content unless damages have been caused by SAP's gross negligence or willful misconduct.

- Links with the icon : You are leaving the documentation for that particular SAP product or service and are entering an SAP-hosted Web site. By using such links, you agree that (unless expressly stated otherwise in your agreements with SAP) you may not infer any product claims against SAP based on this information.

Videos Hosted on External Platforms

Some videos may point to third-party video hosting platforms. SAP cannot guarantee the future availability of videos stored on these platforms. Furthermore, any advertisements or other content hosted on these platforms (for example, suggested videos or by navigating to other videos hosted on the same site), are not within the control or responsibility of SAP.

Beta and Other Experimental Features

Experimental features are not part of the officially delivered scope that SAP guarantees for future releases. This means that experimental features may be changed by SAP at any time for any reason without notice. Experimental features are not for productive use. You may not demonstrate, test, examine, evaluate or otherwise use the experimental features in a live operating environment or with data that has not been sufficiently backed up.
The purpose of experimental features is to get feedback early on, allowing customers and partners to influence the future product accordingly. By providing your feedback (e.g. in the SAP Community), you accept that intellectual property rights of the contributions or derivative works shall remain the exclusive property of SAP.

Example Code

Any software coding and/or code snippets are examples. They are not for productive use. The example code is only intended to better explain and visualize the syntax and phrasing rules. SAP does not warrant the correctness and completeness of the example code. SAP shall not be liable for errors or damages caused by the use of example code unless damages have been caused by SAP's gross negligence or willful misconduct.

Bias-Free Language

SAP supports a culture of diversity and inclusion. Whenever possible, we use unbiased language in our documentation to refer to people of all cultures, ethnicities, genders, and abilities.

20 PUBLIC

SAP Sales Cloud and SAP Service Cloud Version 2 Integration with SAP ERP
Important Disclaimers and Legal Information

THE BEST RUN **SAP**