SAP ERP Integration with Salesforce Configuration Guide

For SAP Cloud Platform Integration

Version 1.0 – December 2020

Contents

1 Introduction

This is the official guide for the configuration of SAP ERP Cloud Integration with Salesforce for SAP Cloud Platform Integration (SAP CPI). This guide covers all relevant information for integration developers to configure and deploy the Integration content.

Read this guide carefully before configuring the content.

1.1 Coding Samples

Any software coding and/or code lines/strings ("Code") included in this documentation are only examples and are not intended to be used in a productive system environment. The Code is only intended to better explain and visualize the syntax and phrasing rules of certain coding. We do not warrant the correctness and completeness of the Code given herein.

1.2 Internet Hyperlinks

The documentation may contain hyperlinks to the Internet. These hyperlinks are intended to serve as a hint about where to find related information. We do not warrant the availability and the correctness of this related information or the ability of this information to serve a particular purpose.

2 Business Scenario

SAP ERP is an enterprise resource planning (ERP) system. It runs on a customer on-premises landscape. Note that in the document the terms SAP ERP and SAP ECC are used to refer to the same system.

Salesforce is a cloud computing service as a software (SaaS) company that specializes in customer relationship management (CRM) and helps your automation of sales and marketing process in an enterprise.

Integration content for SAP ERP with Salesforce enables the synchronization of master data like Product, Customer, Pricing, etc.

This integration content enables the automation of some business processes by integrating SAP ERP to Salesforce using SAP Cloud Platform Integration. The information is pushed from SAP ERP using the IDOC adapter. Then in SAP CPI messages are mapped and transformed to fit the correct Salesforce structure. As a final step, this data is sent to Salesforce using the Salesforce Adapter. Furthermore, information can also be pulled from Salesforce using the Salesforce adapter. This data is then mapped and transformed before being sent to SAP ERP using the OData adapter.

3 Preparing the Systems for Integration

3.1 Prerequisites

To configure the integration content using this guide you would need access to the below-mentioned systems before starting the configuration.

Access required:

- SAP ERP access
- SAP Cloud Platform Integration Tenant Details
  - AuthGroup.IntegrationDeveloper
- Salesforce Tenant Details
  - Adequate access for your salesforce tenant

3.2 Adapter Installation

For the adapter installation, refer to the *Salesforce Adapter and Plug-in Installation Guide* that is included as part of the Salesforce adapter package.

3.3 Plug-in Installation

For the plug-in installation, refer to the *Salesforce Adapter and Plug-in Installation Guide* that is included as part of the Salesforce adapter package.

4 Configuration

SAP ERP, Salesforce, and SAP Cloud Platform Integration need to be configured and prepared before the integration content package can be configured and deployed.

Follow the steps mentioned in the below sections.

4.1 Configuration in SAP ERP

This section describes the mandatory configurations which need to be performed in the SAP ERP system before you can start implementing configuration for Salesforce or configuring integration content in SAP Cloud Platform Integration.

Follow the steps mentioned in the following sub-sections.

4.1.1 Setup SAP Cloud Connector

This SAP Cloud Connector serves as a link between SAP Cloud Platform applications and on-premise systems. It allows access to existing on-premise assets without exposing the entire internal landscape and acts as a reverse invoke proxy between the on-premise network and SAP Cloud Platform.

Procedure

1. Install the Cloud Connector: Installation.
2. Set up the connection between Cloud Connector, back-end system, and your SAP Cloud Platform subaccount: Initial Configuration, Managing Subaccounts.
3. The integration content is based on the standard BAPI for which you will have to add your SAP ERP system in Cloud Connector.

4.1.2 Configure the SAP Cloud Connector

Once the SAP Cloud Connector is setup we need to create system mappings from the **Access Control** tab. A system mapping maps a virtual host and port to your server hostname and port.

Follow the below steps to create system mapping for the SAP ERP system.

Procedure

1. Once the Cloud Connector is set up, log in to your Cloud Connector.
2. Choose Cloud To On-Premise from your Subaccount menu and go to tab Access Control.
3. Choose Add.
4. Backend Type: Select the backend system type (ABAP System or SAP Gateway for RFC); as seen in Figure **4.1**.

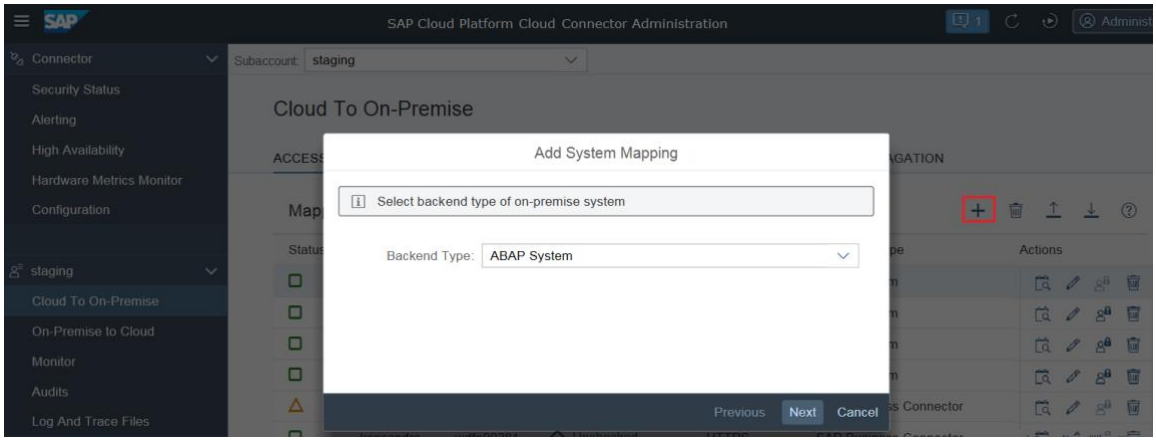

Figure 4.1 Add System Mapping

5. Choose Next.
6. Protocol: Choose RFC or RFC SNC for connecting to the backend system.
7. Choose Next.
8. Protocol: Choose RFC or RFC SNC for connecting to the backend system.
9. Specify the parameters of the backend system. This needs to be an existing network address that can be resolved on the intranet and has network visibility for the Cloud Connector.
10. Optional: You can virtualize the system information in case you like to hide your internal hostnames from the cloud. The virtual information can be a fake name that does not need to exist. The fields will be pre-populated with the values of the configuration provided in Message Server and System ID, or Application Server and Instance Number.

Note: The virtual host and instance number will be used in creating an RFC destination in SAP Cloud Platform Cockpit.

11. Now you need to whitelist the RFC/BAPI which is used in the standard integration content.
12. To define the permitted function modules (resources) for a particular backend system, choose the row corresponding to that backend system and press Add in section *Resources Accessible On...* below. A dialog will appear, prompting you to enter the specific function module name whose invoking you want to allow, as shown in Figure **4.2**.

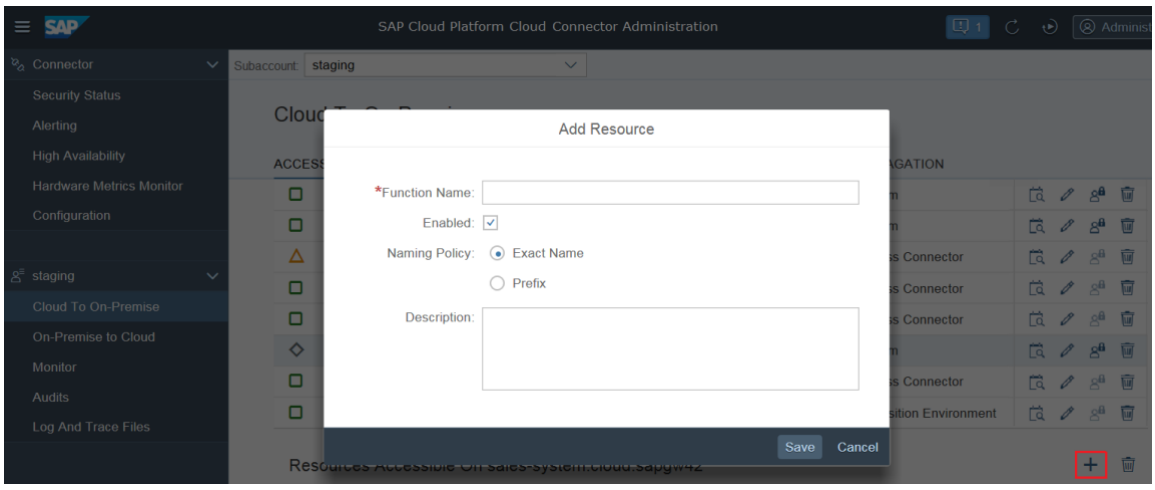

Figure 4.2 Add Resource

13. Enter "_CREATEFROMDAT2".
14. Check "Enabled" and select "Exact Name".
15. Click Save.
16. Repeat the steps from 12 – 15 for the below list of BAPI:
    - BAPI_SALESORDER_CHANGE
    - BAPI_SALESORDER_GETLIST
    - BAPI_MATERIAL_AVAILABILITY
    - BAPI_CUSTOMER_CREATEFROMDATA1
    - BAPI_CUSTOMER_CHANGEFROMDATA1
    - BAPI_CUSTOMERCONTRACT_CHANGE

- BAPI_CONTRACT_ CREATEFROMDATA1
- BAPI_TRANSACTION_COMMIT
- BAPI_TRANSACTION_ROLLBACK

4.1.3 Create Technical Communication User

A Technical Communication User is needed to call a BAPI in SAP ERP from SAP CPI (Cloud Platform Integration). Communication Users in SAP ERP are used for inbound communication and for processing messages in the system.

Follow the below steps to create a communication user in SAP ERP.

Prerequisite: Administrator user should have the required authorization to create a User in SAP ERP.

Procedure

1. Access the Transaction Code: SU01
2. On the User Maintenance: Initial screen, enter the <User ID>
3. Choose to Create.
4. On the Maintain User screen, maintain the following values, and choose Save.

   <Last Name>
   Logon data tab page
   User Type: Communication Data
   Password: <password>

Note: Ensure the user is assigned relevant authorizations to execute ODATA API Calls.

5. Click Save.

4.1.4 IDOC Configuration

This section describes the setup of IDOC based ALE distribution for communication between SAP ERP and Salesforce via SAP Cloud Platform Integration.

Procedure

1. Configuring the Logical Systems and the Distribution Model

   Follow the below steps to configure the logical system and the distribution model.

   a. Go to the SALE transaction.
   b. Choose Basic Settings > Logical Systems > Define Logical Systems and define two logical systems that represent your SAP ERP system and SAP Cloud Platform Integration.

c. Choose Modelling and Implementing Business Processes > Maintain Distribution Model and Distribute Views and define a distribution model for cost center data that connects the two logical systems you've created in the previous step.
d. Switch to the edit mode.
e. Choose Create Model View.
f. Select the model view you've just created and choose Add Message Type.
g. Make these entries, then choose Enter.
Sender: Select the logical system representing your SAP ERP system, as you've created it in the first step.
Receiver: Select the logical system representing your middleware system, as you've created it in the first step.
h. Message Type: Select: DEBMAS, MATMAS, COND_A, ORDERS, ORDCHG.

2. Configuration of RFC Connections

Follow the below steps to configure RFC connections.

a. Go to the Configuration of RFC Connections (SM59) transaction in your SAP ERP system.
b. Select the HTTP Connections to External Server (G) type and choose to Create.
c. In the Target Host field, enter the <runtime URL of your SAP Cloud Platform Integration environment> part of the URL that you have copied in the first step.
d. In the Path Prefix field, enter the /cxf/<sender address> part of the URL that you have copied in the first step.
e. In the Logon Procedure section, select the Basic Authentication option. In the Logon section, enter the user ID and password of your SAP Cloud Platform Integration communication user.
f. Repeat the above steps for DEBMAS, MATMAS, COND_A, ORDERS.

3. Creating a Port and Partner Profile

Follow the below steps to create a port and partner profile.

a. Go to the Ports in IDoc Processing (WE21) transaction.
b. Select the XML HTTP node and choose to Create.
c. Enter a name such as DEB_CPI and a description such as “Customer Replication from SAP”.
d. Select the RFC destination that you've created as described in the previous step.
e. Select the Application/x-sap.idoc content type.
f. Select the SOAP Protocol checkbox.
g. Repeat the above steps for DEBMAS, MATMAS, COND_A, ORDERS.
h. Go the Partner Profiles (WE20) transaction in your SAP ERP system.
i. Select the Partner Type LS node, choose to Create,
j. In the Partner No. field, enter the name of the logical system representing your middleware system.
k. Save your entries, then choose to Create Outbound Parameter (the plus symbol) in the Outbound Parameters section.
l. Add the entries for the following mentioned Message Types: DEBMAS, MATMAS, COND_A, ORDERS.

Note: The configuration of STRUST should be in place for the IDOC based scenario.

4.2 Configuration in Salesforce.com

This section describes the mandatory configurations which need to be implemented in Salesforce like the configuration of Security Token and OAuth Credentials and the creation of custom fields (external id) in Salesforce to store the SAP ERP ID before you can start implementing configuration for integration content in SAP Cloud Platform Integration.

4.2.1 Configuration of Security Token and OAuth Credentials

Security Token and **OAuth Credentials** are needed for a secure connection to Salesforce, to access them an app needs to be created in the Salesforce tenant. To retrieve the **Security Token** and **OAuth Credentials** follow the below procedure.

Procedure

1. Login to your Salesforce console and select **Setup**.
2. On the left panel in the **Build** overview, select **Create** > **Apps**, then **New** for the **Connected Apps** section as shown in Figure 4.3.

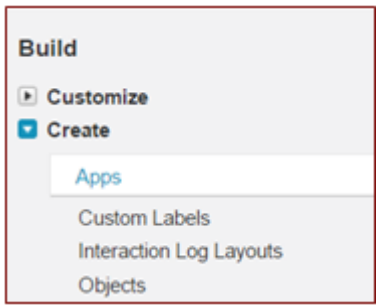

Figure 4.3. Create New App

3. In the next screen select fill and fill in basic details such as **App Name**, **API Name**, and **Contact Email**. In the **API (Enable OAuth Settings)** select **Enable OAuth Settings**; see Figure 4.4.

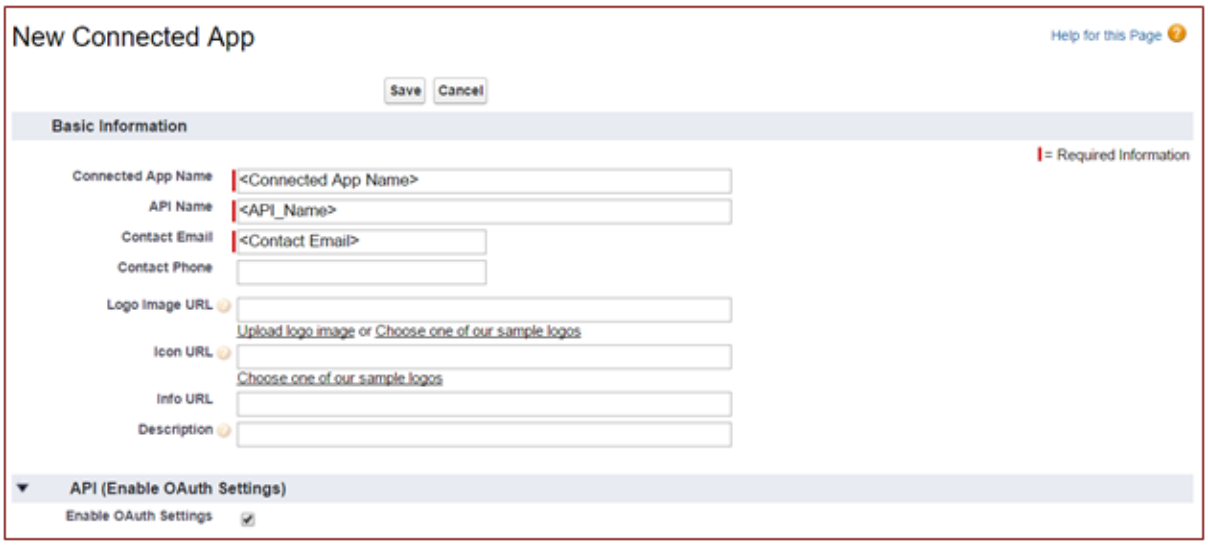

Figure 4.4. New Connected App

4. Perform the following actions:
   - Disable **Enable for Device Flow**.
   - Fill in a **Callback URL**.
   - Disable **Use digital signatures**.
   - Set **Selected OAuth Scopes** to **Full access (full)**.
   - Enable **Require Secret for Web Server Flow**.
   - Disable **Include ID Token**.
   - Disable **Enable Asset Tokens**. Select **Save** to complete the creation of the app as shown in Figure 4.5.

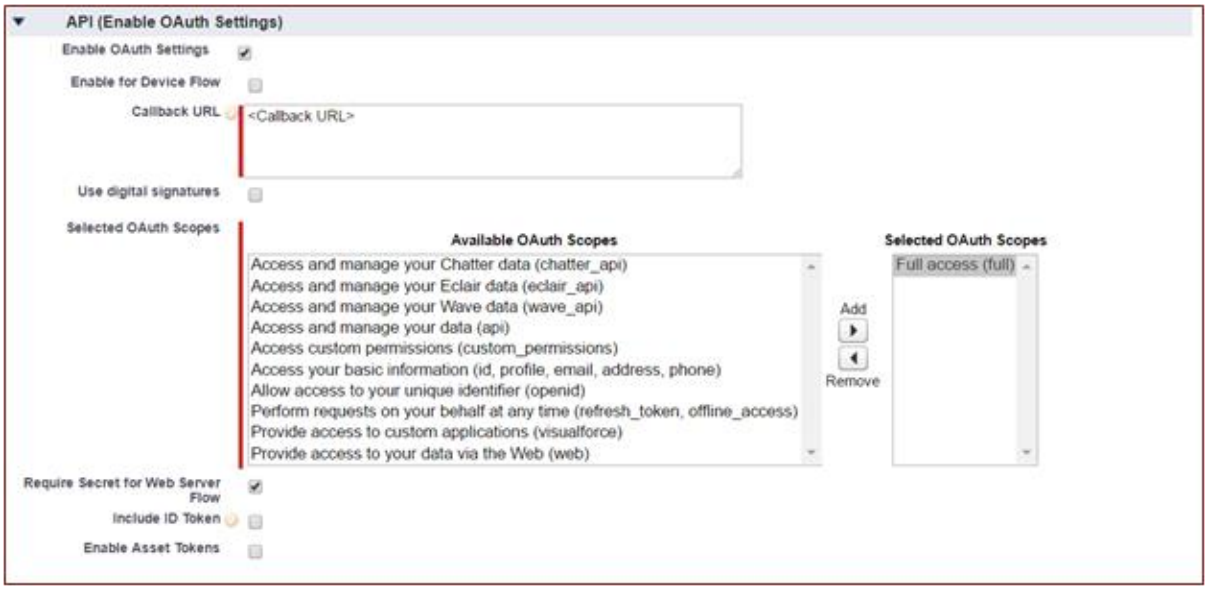

Figure 4.5. API

5. In the next overview, when you select the specific connect app, you can find the **Client ID** and **Client Secret** in the respective **Consumer Key** and **Consumer Secret** fields; see Figure 4.6.

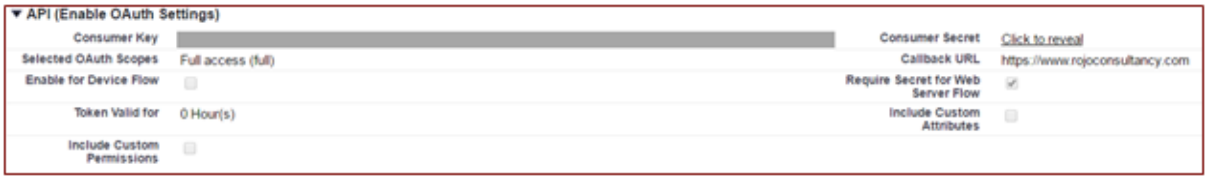

Figure 4.6. Consumer Key and Secret

4.2.2 Activate Entitlement Management in Salesforce

Entitlement management is a collection of Salesforce features that help you provide the correct service levels to your customer. Its variety of features let you define, enforce, and track service levels as part of your support management process

Follow this Salesforce guide to enable entitlement management modules in your Salesforce instance.

Procedure

1. From Setup, enter *Entitlement Settings* in the **Quick Find** box, then select Entitlement Settings.
2. Select **Enable Entitlement Management**.
3. Click Save. This takes you to a page where you can customize Entitlement Management settings. You will come back to those settings later on in the Entitlement Management Setup process.

4.2.3 Activate Quotes in Salesforce

Quotes in Salesforce represent the proposed prices of your company's products and services. You create a quote from an opportunity and its products. Each opportunity can have multiple associated quotes, and any one of them can be synced with the opportunity.

Follow this Salesforce guide to enable quotes modules in your Salesforce instance.

Procedure

1. From Setup, enter *Quote* in the **Quick Find** box, then select **Quote Settings** (Lightning Experience) or **Quotes Settings** (Salesforce Classic).
2. Select the option for enabling quotes.
3. To display the Quotes related list on the standard opportunity page layout, select **Opportunity Layout**.

4. To add the Quotes related list to all opportunity page layouts that users have customized, select Append to users' personal related list customization.
5. Save your changes.

4.2.4 Activate Multiple Currencies

Before your organization can use multiple currencies, the feature must be activated in Salesforce. Multiple currencies activation enables selecting multiple currencies throughout Salesforce.

Note: Enabling multiple currencies introduces permanent changes in your Salesforce. Before proceeding, be aware of these implications to ensure a smooth transition for your organization.

Follow this Salesforce guide to activate multiple currencies in your Salesforce instance.

Procedure

1. In Setup, enter *Company Information* in the **Quick Find** box.
2. Select **Company Information** and click **Edit**.
3. Ensure that your selected currency locale is the default currency that you want to use for current and future records.
4. Enable **Activate Multiple Currencies**, and then save your changes.

4.2.5 Adding SAP ERP References

The Integration content synchronizes data between SAP ERP and Salesforce for which the unique identifier of a record needs to be added in Salesforce which will hold SAP ERP key value. To add the reference of SAP ERP in Salesforce, follow the steps below.

Procedure

1. In the **Quick Find** box type *Accounts**** and click on Fields.
2. Scroll down and click **New**.
3. Choose **Text** as **field type** and click on Next.
4. Enter field name: *SAP_BusinessPartner_Ref*****, enter a Length of 30, and select the **External ID** checkbox.
5. Press next and next and then save.
6. Do the same for the below object types and field names.

Repeat the above steps for all this object in Table 1:

Object*	Field Name**
Products	SAP_Material_Ref
Accounts	SAP_BusinessPartner_Ref
Orders	SAP_SalesOrder_Ref
Order Products	SAP_OrderItem_Ref
Service Contracts	SAP_SalesContract_Ref
Contract Line Items	SAP_SalesContractItem_Ref
Price Book Entries	SAP_PriceBookEntry_Ref

Table 1. SAP ERP References for Salesforce

4.2.6 Adding a Released Custom Field

To have control over the Service Contracts that need to be replicated to SAP ERP a custom field needs to be created in Salesforce.

Follow the below steps to create the custom field.

Procedure

1. Enter the Setup screen.
2. Type *Service Contracts* in the **Quick Find** box and click on Fields.
3. Scroll down and click **New**.
4. Choose **Checkbox** as field data type and click **Next**.
5. Enter field name *Released* and choose **Unchecked** as the default value.
6. Press next and next and then save.
7. Repeat the steps for **Orders**.

4.2.7 Configuration for Order Process Flow

In Salesforce we need to create a record type corresponding to the partner function in SAP ERP. Record types determine the business processes, page layouts, and picklist values users have access to.

Procedure

1. Go to Setup.
2. Type *Record Types* in the **Quick Find** box and select **Record Types** in **Accounts**.
3. Click on **New** and create two new Records:
    - SAP Ship-To
    - SAP SoldTo

Note: These names are for reference, fill as necessary for your organization.

4. Check **Active** and click on **Next**.
5. Select a layout (e.g.: Account Layout) and click on **Save**.
6. Repeat for the other Record.
7. Type *Page Layouts* in the Quick Find box and select **Page Layouts** in Accounts.
8. Edit **Account Layout** (or according to your organization).
9. Select components and drag and drop Orders and Contracts to the layout and click on save.
10. Type *Page Layouts* in the **Quick Find** box and select **Page Layouts** in Opportunities.
11. Edit **Opportunity Layout**.
12. Select **Related Lists** and drag and drop Orders to the layout.
13. Save.

4.3 Configuration in SAP Cloud Platform Integration

In this section, the settings of the integration flows are detailed: prerequisites, parameters of the Sender and Receiver systems, as well as others specific to each iFlow.

4.3.1 Replicate Account from SAP ERP to Salesforce

4.3.1.1 Business Scenario

This integration flow allows the replication of the customer data by replicating the Customer master data from SAP ERP to Salesforce as Accounts. Whenever a Customer in SAP ERP is created or modified, it gets replicated to Salesforce automatically via IDOC.

Figure 4.7 depicts the business process to be implemented.

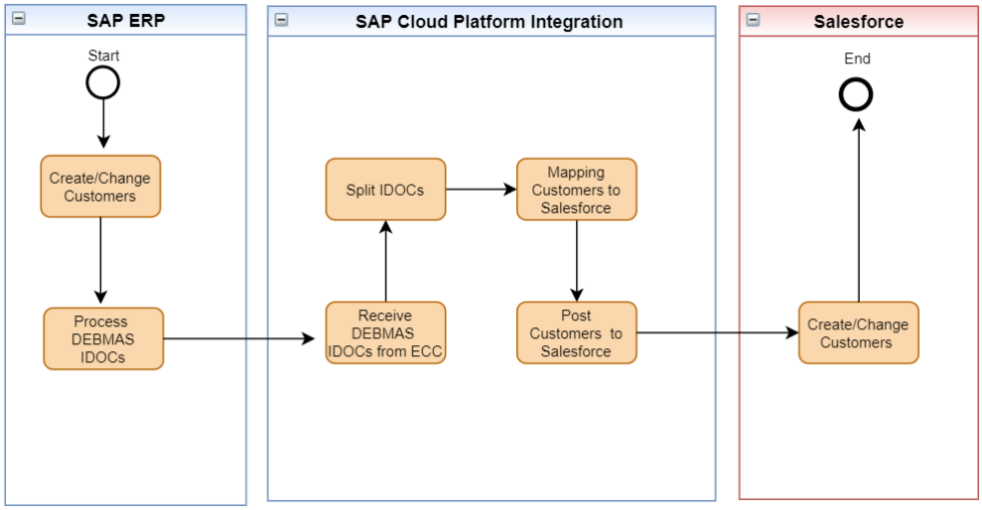

Figure 4.7 Process Diagram

The SAP CPI implementation of the process in Figure 4.7 shown in Figure 4.8.

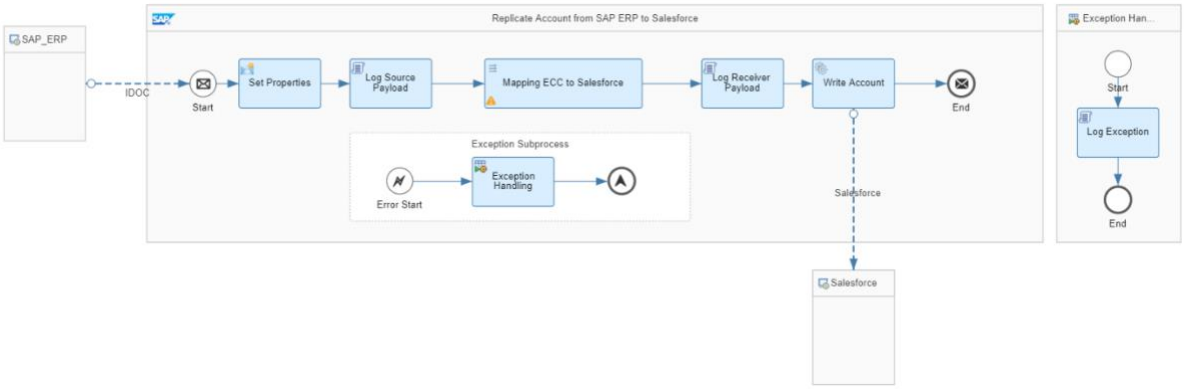

Figure 4.8 Integration Flow

4.3.1.2 Prerequisites

The following step needs to be taken as a prerequisite:

- Deploy the security artifacts that will be required during the configuration of the integration content.

4.3.1.3 Configuration

Follow the below steps to configure the integration flow:

1. Open the integration flow "Replicate Account from SAP ERP to Salesforce".
2. Click on Configure.

Note: Replace the default values of the parameters in the configurations based on your scenario and landscape. Go to Sender.

3. Configure "Sender" SAP_ERP to fit your specific landscape; see Figure **4.9**.

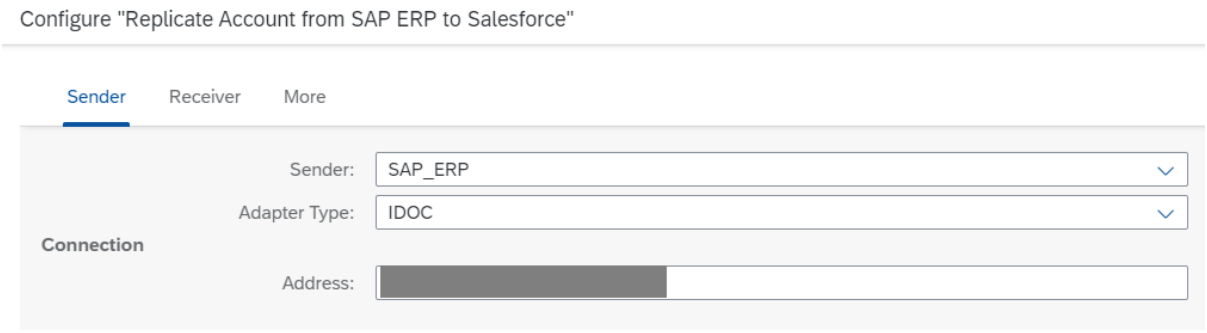

Figure 4.9 Configure Sender SAP ERP

The description of each of the Address field in Figure 4.9 is provided in the table below.

Parameter	Description
Address	The endpoint URL where your service can be accessed by a client application.

Table 2. Configure Sender SAP ERP

4. Configure the "Receiver" connector named "Salesforce". See Figure **4.10**.

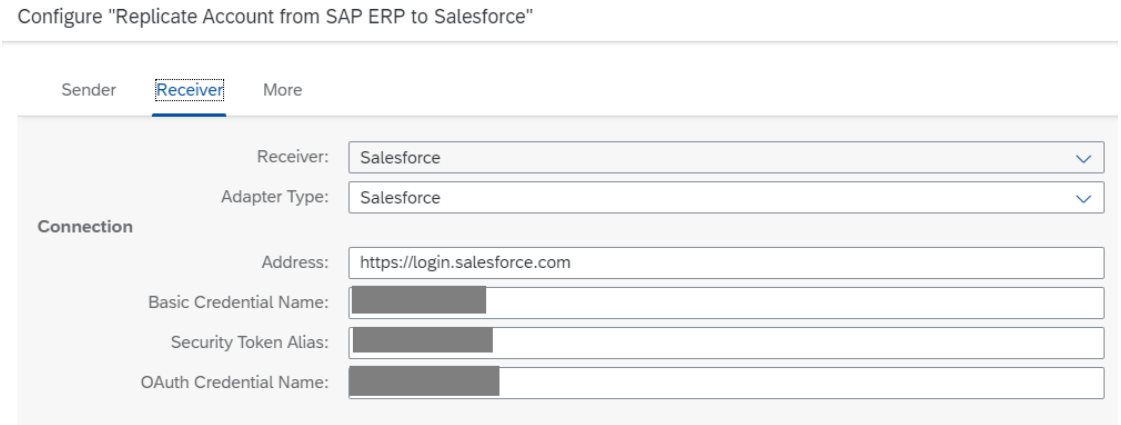

Figure 4.10 Configure Receiver Salesforce

The description of each of the fields in Figure 4.10 are provided in the table below.

Parameter	Description
Address	Specifies the recipient's endpoint URL. By default, the URL https://login.salesforce.com is used. But you can change it based on your scenario. For Salesforce production environments: https://login.salesforce.com For Sandbox environments: https://test.salesforce.com.
Basic Credential Name	Specifies the name of the User Credentials artifact that contains the credentials for basic authentication. This refers to the username-password pair used to login in Salesforce. You need to create this as a Security artifact of type User Credential. Then refer to it here in the adapter.
Security Token Alias	Specifies the name of the Secure Parameter artifact that contains the security token needed to connect to Salesforce. This property enables the system to fetch the security token from Keystore for authentication. This field can be omitted if your IP has been whitelisted on Salesforce.
OAuth Credential Name	Specifies the name of the User Credentials artifact that contains the Salesforce's OAuth Consumer key-client secret pair. This property enables the system to fetch the security token from Keystore for authentication.

Table 3. Configure Receiver Salesforce

5. Configure "More" as shown in Figure **4.11**.

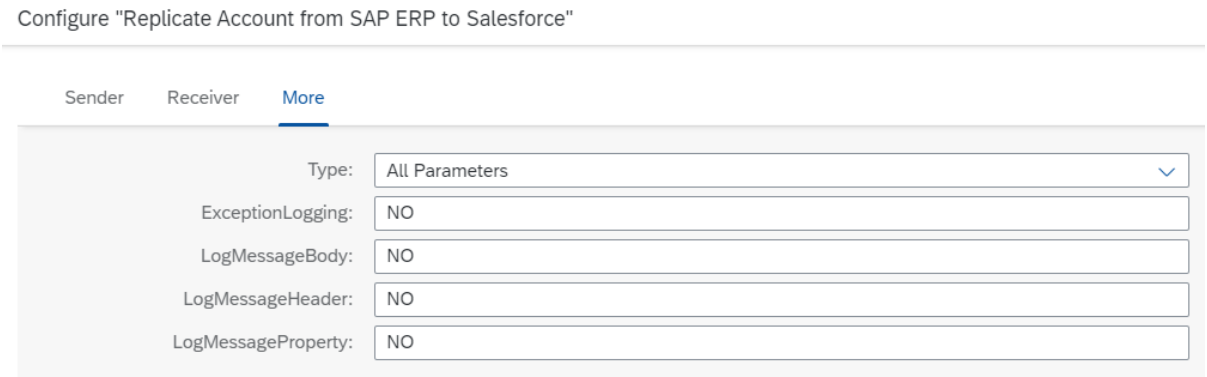

Figure 4.11 Configure More options

The description of each of the fields in Figure 4.11 is presented in the table below.

Parameter	Description
ExceptionLogging	Possible values "YES" / "NO". Specify "YES" to log the exception if any. Specify "NO" or leave blank otherwise.
LogMessageBody	Possible values "YES" / "NO". Specify "YES" to log the Message Body (Not recommended in a live environment). Specify "NO" or leave blank otherwise.
LogMessageHeader	Possible values "YES" / "NO". Specify "YES" to log the Message Header. Specify "NO" or leave blank otherwise.
LogMessageProperty	Possible values "YES" / "NO". Specify "YES" to log the Message Properties. Specify "NO" or leave blank otherwise.

Table 4. Configure More options

Note: Every Organization has its custom fields created in Salesforce, therefore the need for customization of the current integration flow. Users should create a new XSD with the Salesforce Plugin-in, change this schema in the message mapping, and add custom connections as needed. Refer to Section 5.1 for creating a new XSD.

4.3.2 Replicate Product from SAP ERP to Salesforce

4.3.2.1 Business Scenario

This integration flow enables the synchronization of Materials data by replicating the Product master data from SAP ERP to Salesforce as Products. Whenever a Material in SAP ERP is created or modified, it is automatically replicated to Salesforce after a few minutes.

Figure 4.12 depicts the business process to be implemented.

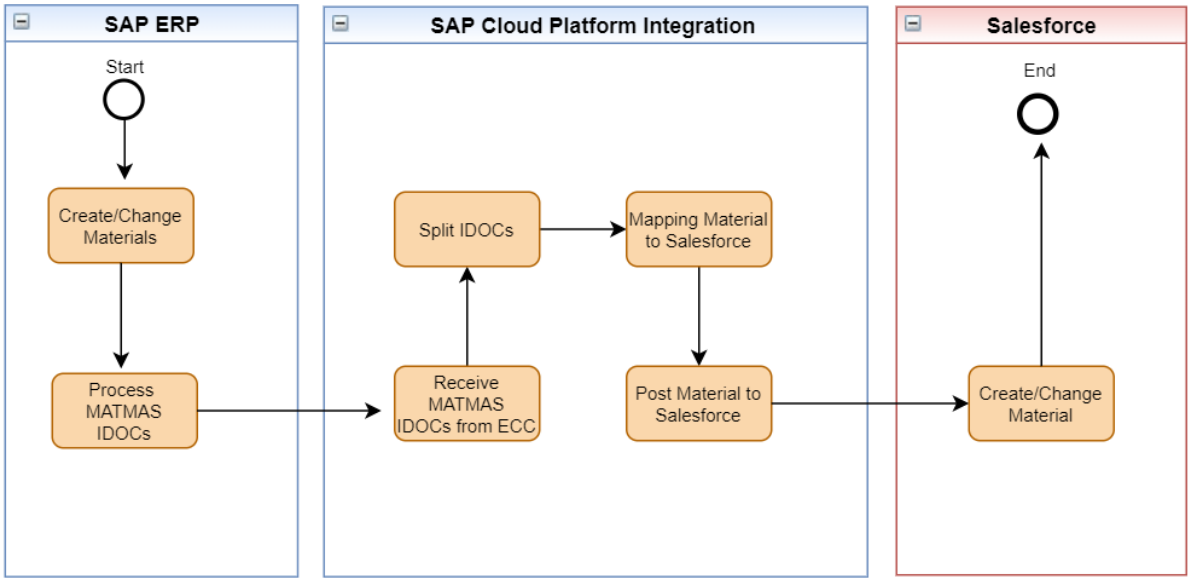

Figure 4.12. Process Diagram

The SAP CPI implementation of the process in Figure 4.12 is shown in Figure 4.13.

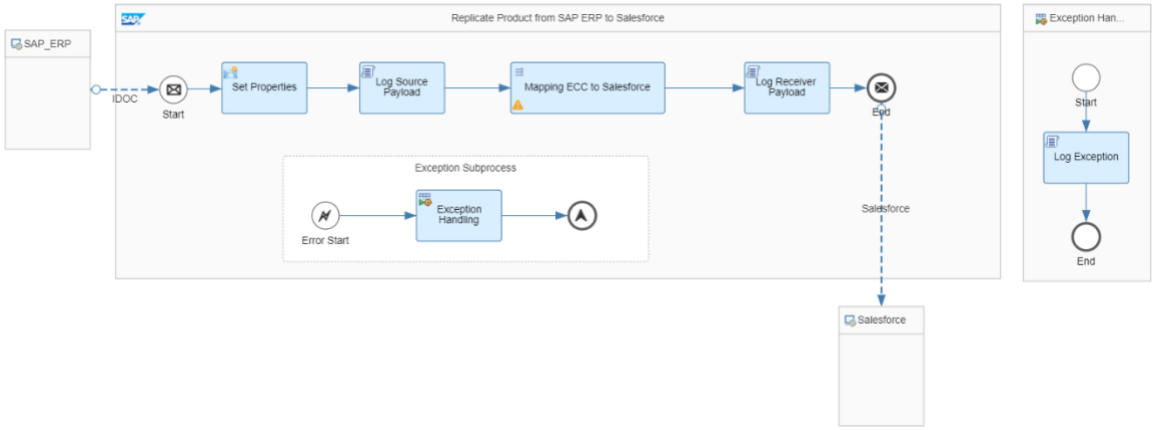

Figure 4.13. Integration Flow

4.3.2.2 Prerequisites

The following step needs to be taken as a prerequisite:

- Deploy the security artifacts that will be required during the configuration of Integration content.

4.3.2.3 Configuration

Follow the below steps to configure the integration flow.

1. Open the integration flow "Replicate Product from SAP ERP to Salesforce".
2. Click on Configure.

Note: Replace the default values of the parameters in the configurations based on your scenario and landscape.

3. Configure "Sender" named "SAP_ERP" to fit your specific landscape. See Figure **4.14**.

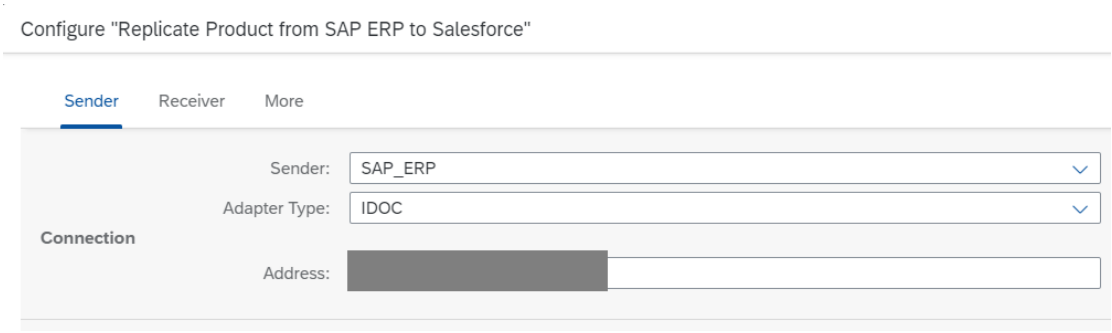

Figure 4.14 Configure Sender SAP ERP

The description of each of the fields in Figure 4.14 is presented in the table below.

Parameter	Description
Address	The endpoint URL where your service can be accessed by a client application.

Table 5. Configure Sender SAP ERP

4. Configure the "Receiver" connector named "Salesforce". See Figure **4.15**.

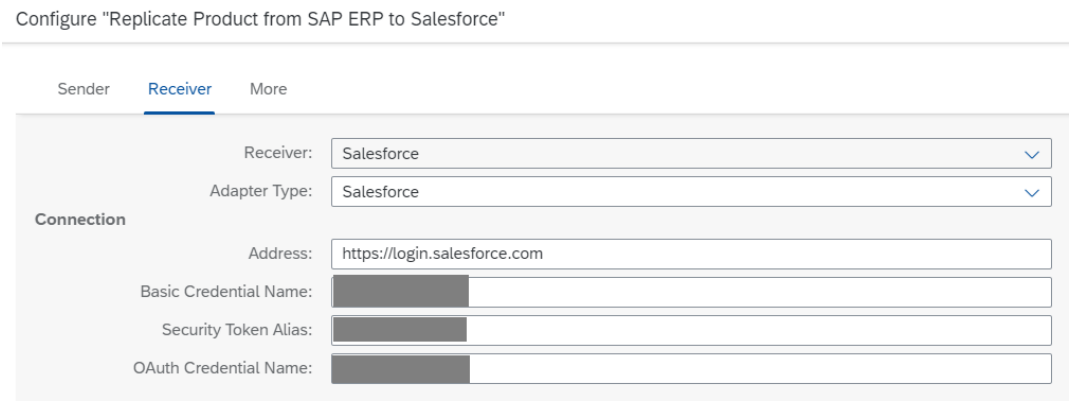

Figure 4.15 Configure Receiver Salesforce

The description of each of the fields in Figure 4.15 is presented in the table below.

Parameter	Description
Address	Specifies the recipient's endpoint URL. By default, the URL https://login.salesforce.com is used. But you can change it based on your scenario. For Salesforce production environments: https://login.salesforce.com For Sandbox environments: https://test.salesforce.com.
Basic Credential Name	Specifies the name of the User Credentials artifact that contains the credentials for basic authentication. This refers to the username-password pair used to login in Salesforce. You need to create this as a Security artifact of type User Credential. Then refer to it here in the adapter.
Security Token Alias	Specifies the name of the Secure Parameter artifact that contains the security token needed to connect to Salesforce. This property enables the system to fetch the security token from Keystore for authentication. This field can be omitted if your IP has been whitelisted on Salesforce.
OAuth Credential Name	Specifies the name of the User Credentials artifact that contains the Salesforce's OAuth Consumer key-client secret pair. This property enables the system to fetch the security token from Keystore for authentication.

Table 6. Configure Receiver Salesforce

5. Configure "More" as shown in Figure **4.16**.

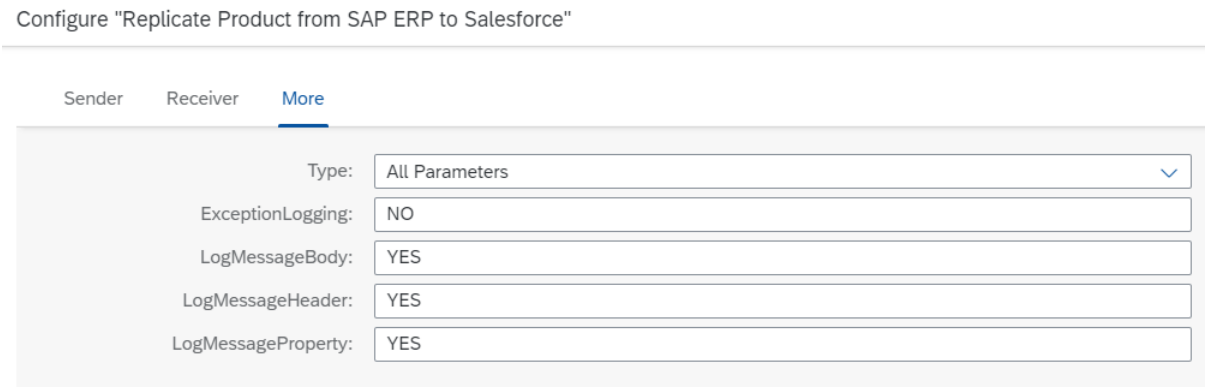

Figure 4.16 Configure More options

The description of each of the fields in Figure 4.16 is presented in the table below.

Parameter	Description
ExceptionLogging	Possible values "YES" / "NO". Specify "YES" to log the exception if any. Specify "NO" or leave blank otherwise.
InitialDate	Date from when the integration flow will replicate for the first time. Correct format: YYYY-MM-DD'T'hh:mm:ss.sss'Z'. E.g.: 1970-01-01T00:00:00.000Z.
LogMessageBody	Possible values "YES" / "NO". Specify "YES" to log the Message Body (Not recommended in a live environment). Specify "NO" or leave blank otherwise.
LogMessageHeader	Possible values "YES" / "NO". Specify "YES" to log the Message Header. Specify "NO" or leave blank otherwise.

LogMessageProperty	Possible values “YES” / “NO”. Specify “YES” to log the Message Properties. Specify “NO” or leave blank otherwise.

Table 7. Configure More options

4.3.3 Replicate Sales Order from Salesforce to SAP ERP

4.3.3.1 Business Scenario

This integration flow allows replication of sales order data by replicating Salesforce Orders to SAP ERP as Sales Orders.

Whenever an Order in Salesforce is created or modified it would be replicated to SAP ERP in the next run of the integration flow (if scheduled to recur), as long as it has the custom field *Released*, created in Section 4.2.6, checked.

Figure 4.17 depicts the business process to be implemented.

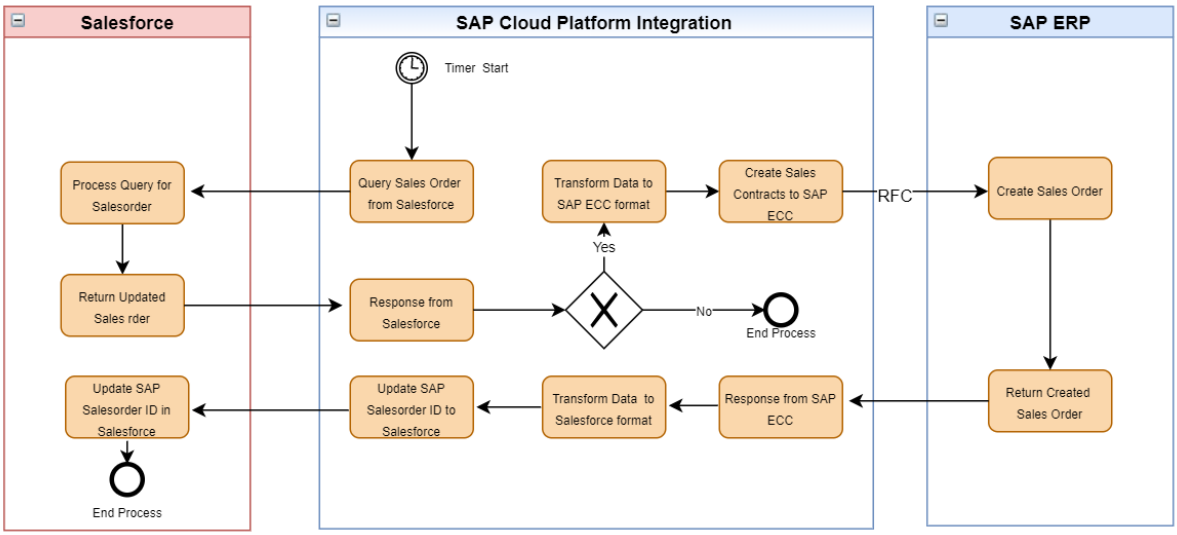

Figure 4.17 Process Diagram

The SAP CPI implementation of the process in Figure 4.17 is shown in Figure 4.18.

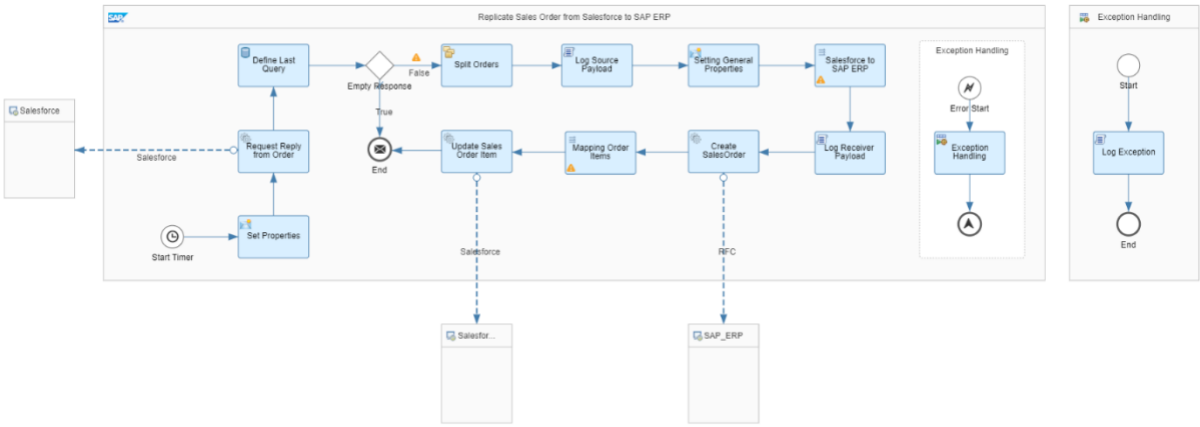

Figure 4.18 Integration Flow

4.3.3.2 Prerequisites

The following steps are the prerequisites for this integration scenario:

- Deploy the security artifacts that will be required during the configuration of Integration content.
- Customers/Accounts should have been replicated from SAP ERP to Salesforce.
- Materials/Products should have been replicated from SAP ERP to Salesforce.
- Orders were created with replicated Accounts and Products from SAP ERP.

4.3.3.3 Scope

- Users cannot create sales orders until extending customer/accounts to the respective sales area.
- Customer Payment Terms, Distribution Channel, Organization Division, Sales Order Type, Sales Organization, and Shipping Conditions are externalized in iFlow and is added to the message to correctly replicate to SAP ERP.
- Users need to define the first run date/time from when to start replicating
- This integration flow only covers new orders, update is not covered in this version.

4.3.3.4 Configuration

Follow the below steps to configure the integration flow:

1. Open the integration flow "Replicate Sales Order from Salesforce to SAP ERP".
2. Click on Configure.
3. Configure "Timer". You can choose between:
   Run Once: iFlow will be executed only once, can be used for the initial load.
   Schedule on Day: iFlow will be executed on a specific date/time.
   Schedule to Recur: iFlow will be executed at a regular interval and will replicate the changes from the source system to the target system (suggested mode).

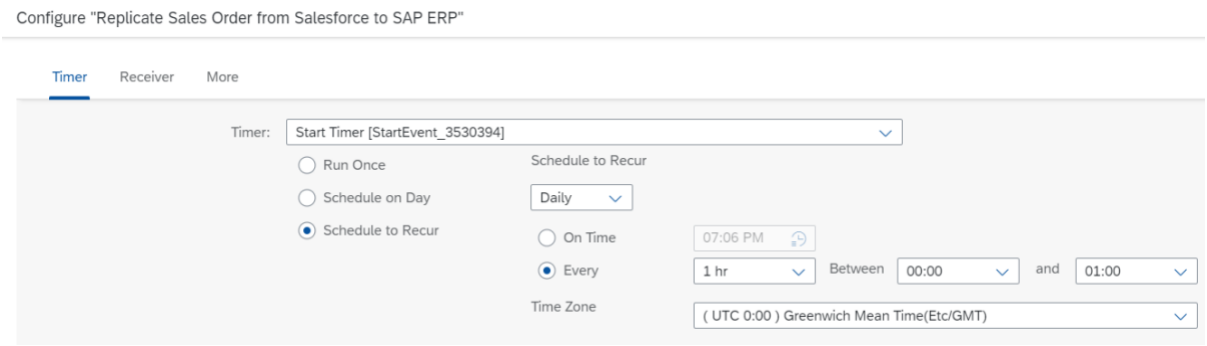

Figure 4.19 Configure Timer

Note: Replace the default values of the parameters in the configurations based on your scenario and landscape.

4. Configure the "Receiver" connector named "SAP_ERP" to fit your specific landscape. See Figure **4.20**.

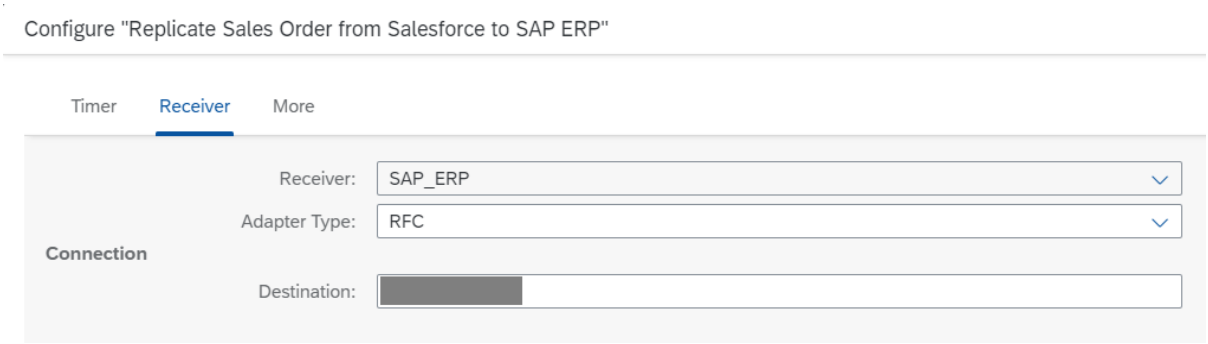

Figure 4.20 Configure Receiver SAP ERP

The description of the Destination field in Figure 4.20 is presented in the table below.

Parameter	Description
Destination	Destination configured in your SAP backend

Table 8. Configure Receiver SAP ERP

5. Configure the "Receiver" connector named "Salesforce". See Figure **4.21**.

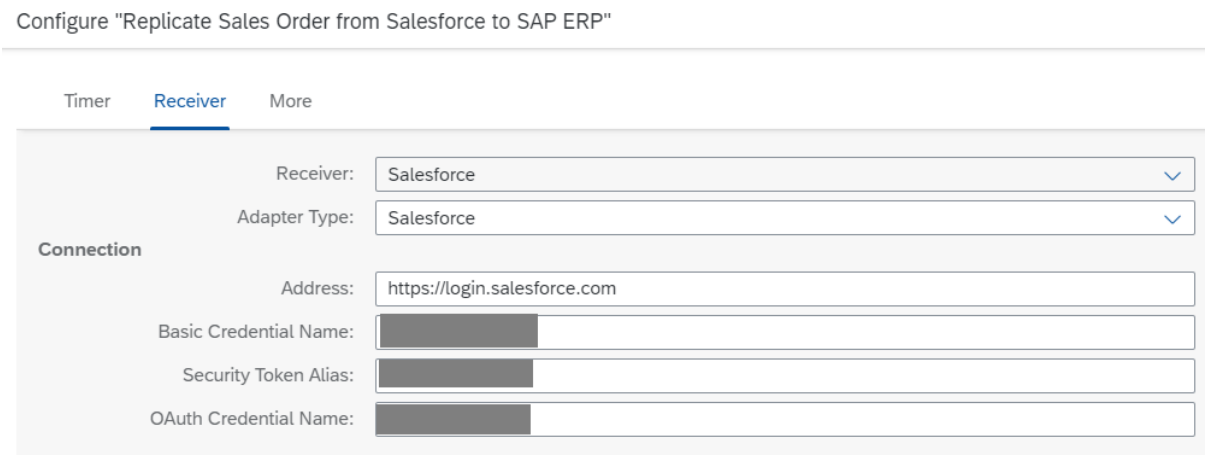

Figure 4.21 Configure Receiver Salesforce

The description of each of the fields in Figure 4.21 is presented in the table below.

Parameter	Description
Address	The data store URL for Salesforce. E.g.: https://login.salesforce.com
Basic Credential Name	Name of a deployed User Credentials artifact that holds Username and Password used to authenticate with Salesforce.
Security Token Alias	Name of a deployed Secure Parameter artifact that holds the real Security Token. The security token is required to log in to Salesforce from an untrusted network
OAuth Credential Name	Name of deployed OAuth credential name.

Table 9. Configure Receiver Salesforce

6. Configure “More” as shown in Figure **4.22**.

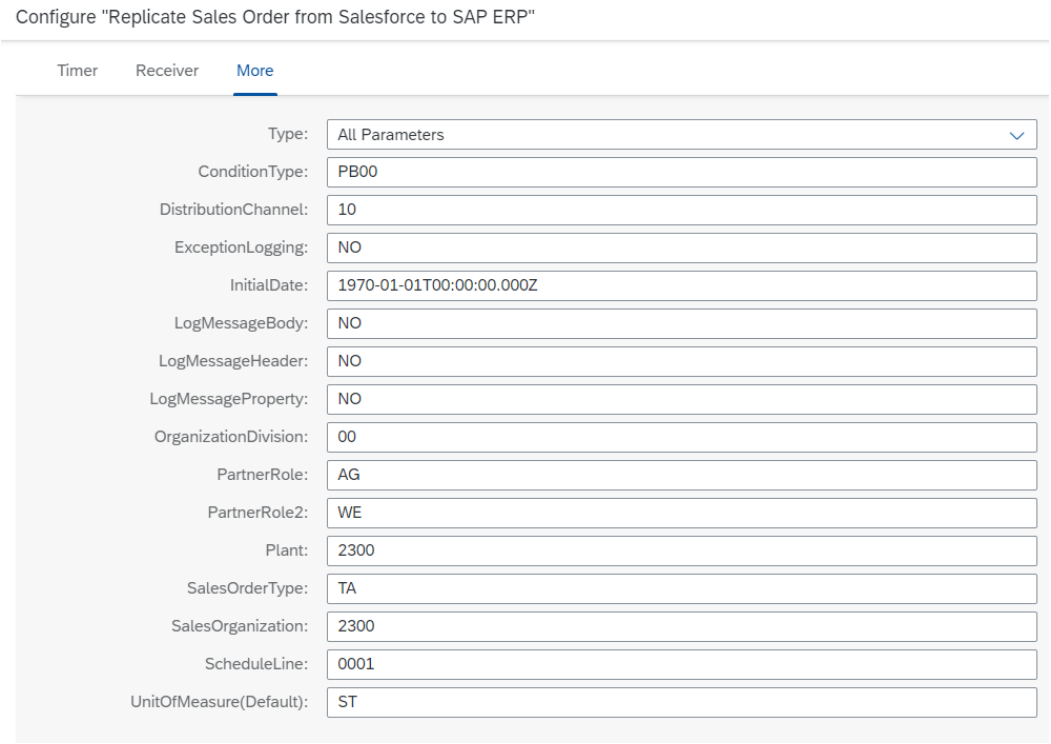

Figure 4.22 Configure More options

The description of each of the fields in Figure 4.22 is presented in the table below.

Parameter	Description
Condition Type	Specify the Condition Type to be used in the iFlow. The default value is "PB00".
Distribution Channel	Specify the distribution channel to be used in the iFlow. The default value is "10".
Organization Division	Specify the Organization Division to be used in the iFlow. The default value is "00".
Partner Role	Specify the Parter Role to be used in the iFlow. The default values are "AG" and "WE".

Plant	Specify the Plant to be used in the iFlow. The default value is “2300”.
Sales Order Type	Specify the document type to be used in the iFlow. The default value is “TA”.
Sales Organization	Specify the sales organization to be used in the iFlow. The default value is “2300”.
Schedule Line	Specify the Schedule Line to be used in the iFlow. The default value is “0001”.
Unit of Measure (Default)	Specify the default Unit of Measure to be used. Leave blank if you want to use the source Unit of Measure.
InitialDate	Date from when the integration flow will replicate for the first time. Correct format: YYYY-MM-DD’T’hh:mm:ss.sss’Z’ E.g.: 1970-01-01T00:00:00.000Z
ExceptionLogging	Possible values “YES” / “NO”. Specify “YES” to log the exception if any. Specify “NO” or leave blank otherwise.
LogMessageBody	Possible values “YES” / “NO”. Specify “YES” to log the Message Body (Not recommended in a live environment). Specify “NO” or leave blank otherwise.
LogMessageHeader	Possible values “YES” / “NO”. Specify “YES” to log the Message Header Specify “NO” or leave blank otherwise.

LogMessageProperty	Possible values “YES” / “NO”. Specify “YES” to log the Message Properties Specify “NO” or leave blank otherwise.

Table 10. Configure More options

4.3.4 Replicate Sales Contract from Salesforce to SAP ERP

4.3.4.1 Business Scenario

This integration flow allows the synchronization of Contracts by replicating the Service Contracts from Salesforce to SAP ERP as Sales Contracts and updating with a reference from SAP ERP. The custom field Released, created in Section 4.2.6, must be checked for the replication to occur.

Figure 4.23 depicts the business process to be implemented.

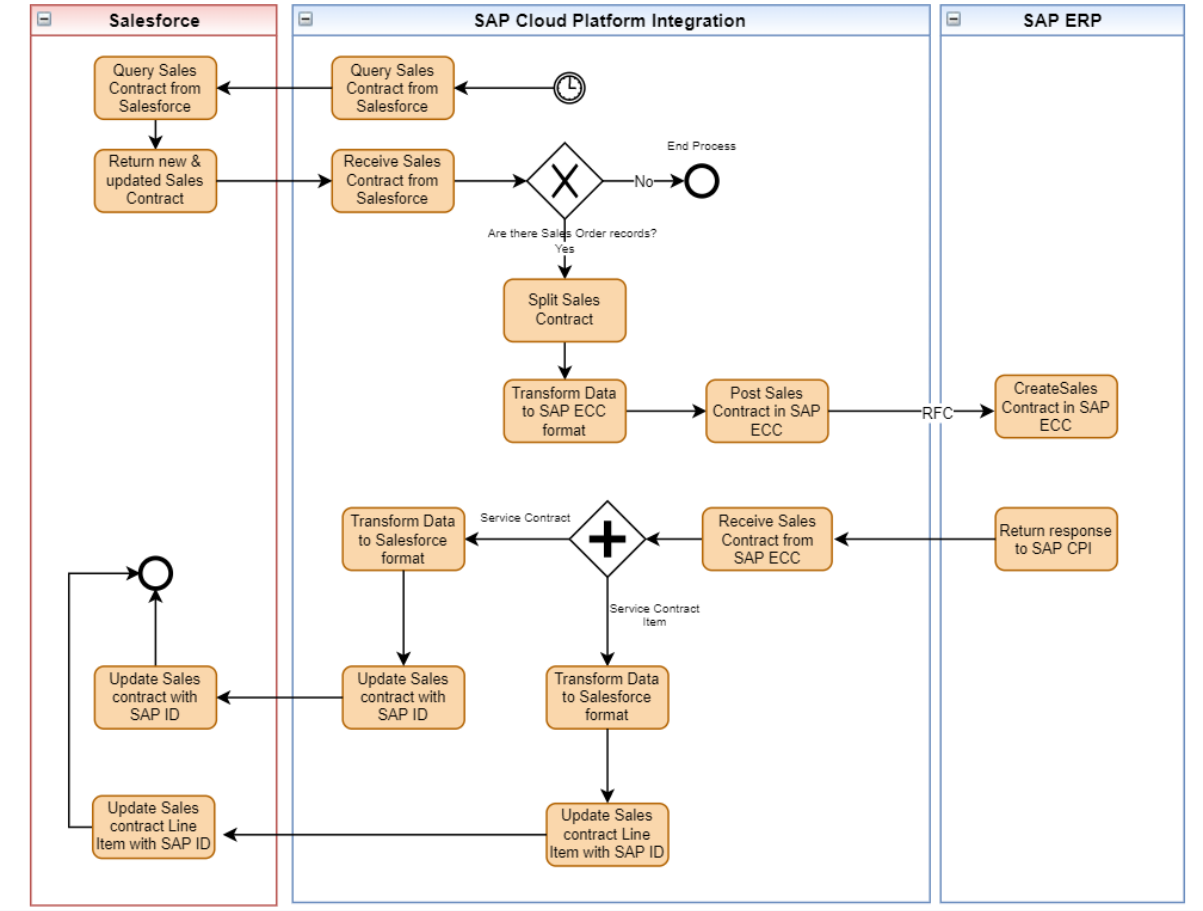

Figure 4.23 Process Diagram

The SAP CPI implementation of the process in Figure 4.23 is shown in Figure 4.24.

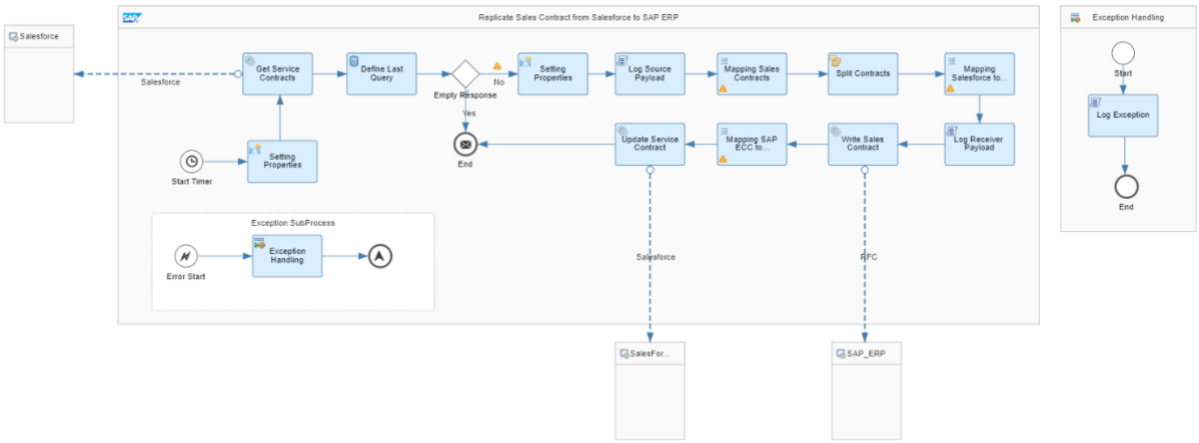

Figure 4.24 Integration Flow

4.3.4.2 Prerequisites

The following steps are the prerequisites for this integration scenario:

- Deploy the security artifacts that will be required during the configuration of Integration content.
- Salesforce Entitlement Management feature should be enabled in the user's Salesforce instance.
- Customers/Accounts should have been replicated from SAP ERP to Salesforce.
- Materials/Products should have been replicated from SAP ERP to Salesforce.
- Service Contracts were created with replicated Customer/Accounts and Materials/Products from SAP ERP.
- Service Contracts have been marked as Released.

4.3.4.3 Scope

- Users cannot create sales contracts until extending the master record to accounts.
- Some information must be hardcoded to correctly replicate to SAP ERP, such as Condition Type, Customer Payment Terms, Distribution Channel, Organization Division, Sales Contract Type, and Sales Organization.
- Users need to define the first run date/time from when to start replicating.
- This integration flow only covers new service contracts, update is not covered in this version.

4.3.4.4 Configuration

Follow the below steps to configure the integration flow:

1. Open the integration flow "Replicate Sales Contract from Salesforce to SAP ERP".
2. Click on Configure.
3. Configure "Timer". You can choose between:
   Run Once: iFlow will be executed only once, can be used for the initial load.
   Schedule on Day: iFlow will be executed on a specific date/time.
   Schedule to Recur: iFlow will be executed at a regular interval and will replicate the changes from the source system to the target system (suggested mode).

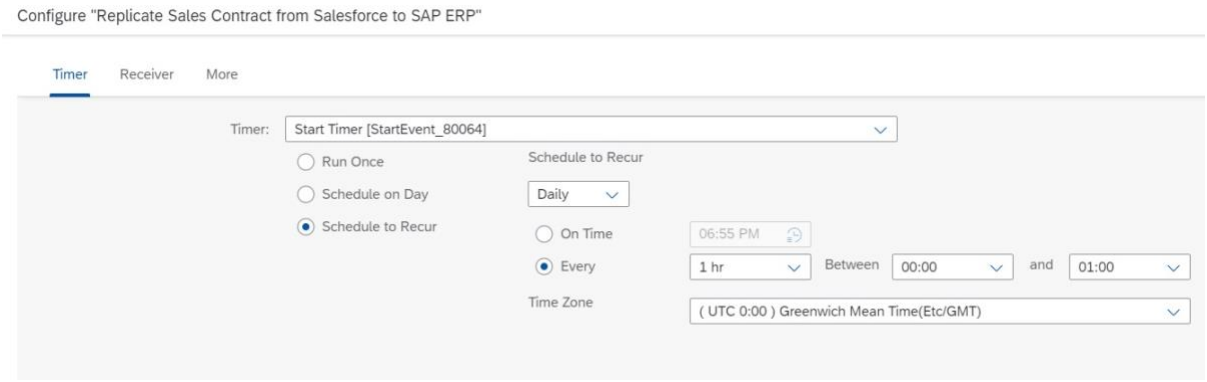

Figure 4.25. Configure Timer

Note: Replace the default values of the parameters in the configurations based on your scenario and landscape.

4. Configure the "Receiver" connector named "SAP_ERP" to fit your specific landscape. See Figure **4.26**.

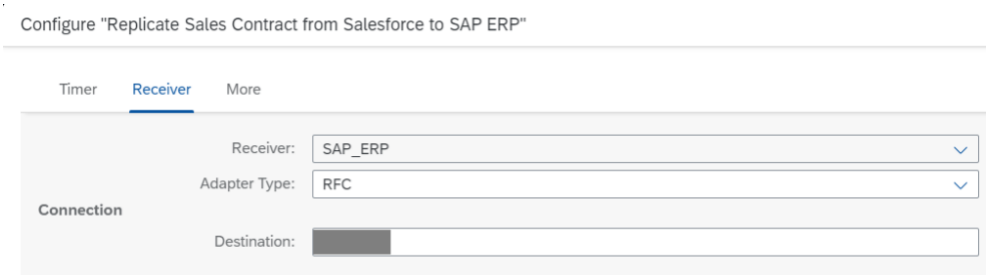

Figure 4.26 Configure Receiver SAP ERP

The description of the Destination field in Figure 4.26 is presented in the table below.

Parameter	Description
Destination	Destination configured in your SAP backend.

Table 11. Configure Receiver SAP ERP

5. Configure the "Receiver" connector named "Salesforce_Query". See Figure **4.27**.

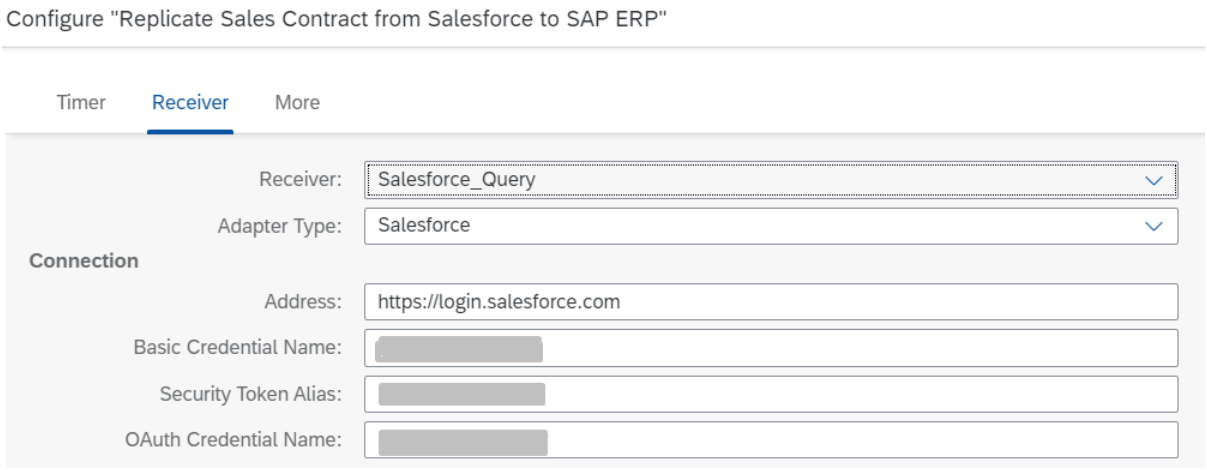

Figure 4.27 Configure Receiver Salesforce_Query

The description of each of the fields in Figure 4.27 is presented in the table below.

Parameter	Description
Login URL	The data store URL for Salesforce. Eg: https://login.salesforce.com
Basic Credential Name	Name of a deployed User Credentials artifact that holds Username and Password used to authenticate with Salesforce.
Security Token	Name of a deployed Secure Parameter artifact that holds the real Security Token. The security token is required to log in to Salesforce from an untrusted network.
OAuth Credential Name	Name of deployed OAuth credential name.

Table 12. Configure Receiver Salesforce

6. Configure the "Receiver" connector named "Salesforce_Update". See Figure **4.28**.

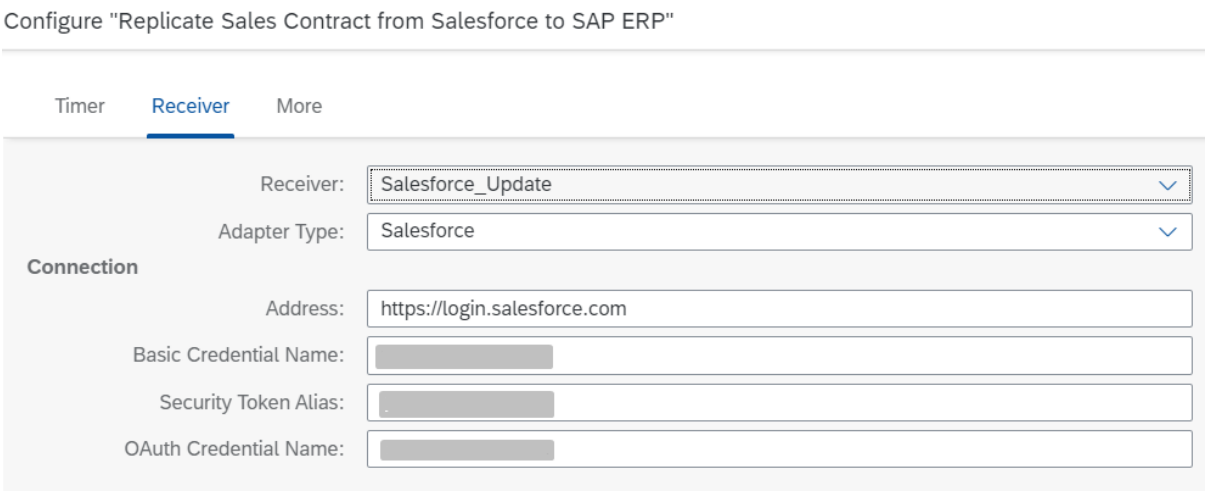

Figure 4.28 Configure Receiver Salesforce_Update

The description of each of the fields Figure 4.28 in is presented in the table below.

Parameter	Description
Login URL	The data store URL for Salesforce. Eg: https://login.salesforce.com
Basic Credential Name	Name of a deployed User Credentials artifact that holds Username and Password used to authenticate with Salesforce.
Security Token	Name of a deployed Secure Parameter artifact that holds the real Security Token. The security token is required to log in to Salesforce from an untrusted network.
OAuth Credential Name	Name of deployed OAuth credential name.

Table 13. Configure Receiver Salesforce

7. Configure “More” as shown in Figure **4.29**.

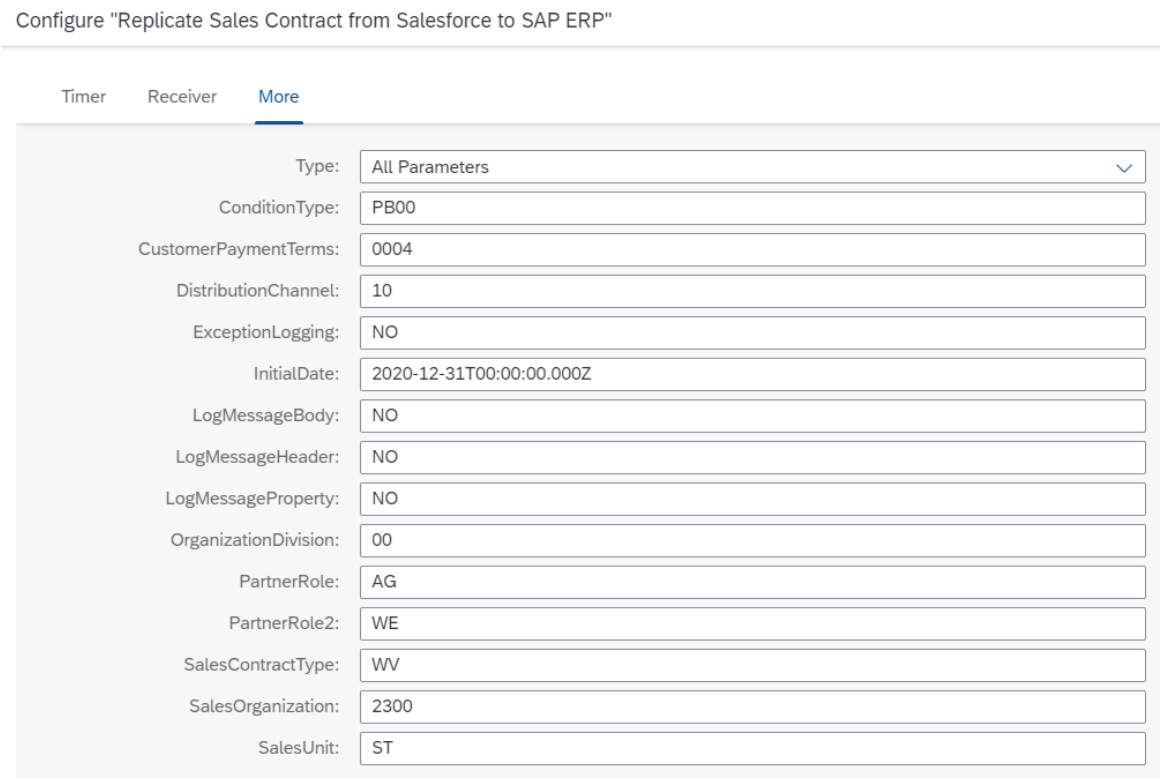

Figure 4.29 Configure More options

The description of each of the fields in Figure 4.29 is presented in the table below.

Parameter	Description
Condition Type	Specify the Condition Type to be used in the iFlow. The default value is "PB00".
Customer Payment Terms	Specify the Customer Payment Terms to be used in the iFlow. The default value is "0004".
Distribution Channel	Specify the distribution channel to be used in the iFlow. The default value is "10".
Organization Division	Specify the Organization Division to be used in the iFlow. The default value is "00".

Partner Role	Specify the Partner Roles to be used in the iFlow. Default values are “AG” and “WE”.
Sales Contract Type	Specify the document type to be used in the iFlow. The default value is “WV”.
Sales Organization	Specify the sales organization to be used in the iFlow. The default value is “2300”.
Sales Unit	Specify the Sales Unit to be used in the iFlow. The default value is “ST”.
InitialDate	Date from when the integration flow will replicate for the first time. Correct format: YYYY-MM-DD’T’hh:mm:ss.sss’Z’ (E.g.: 1970-01-01T00:00:00.000Z)
ExceptionLogging	Possible values “YES” / “NO” Specify “YES” to log the exception if any. Specify “NO” or leave blank otherwise.
LogMessageBody	Possible values “YES” / “NO” Specify “YES” to log the Message Body (Not recommended in a live environment). Specify “NO” or leave blank otherwise.
LogMessageHeader	Possible values “YES” / “NO” Specify “YES” to log the Message Header Specify “NO” or leave blank otherwise.
LogMessageProperty	Possible values “YES” / “NO” Specify “YES” to log the Message Properties Specify “NO” or leave blank otherwise.

Table 14. Configure More options

4.3.5 Receive Product availability from SAP ERP

4.3.5.1 Business Scenario

This integration flow allows users to obtain the availability of materials in a specified plant, as delivered by your SAP ERP through the SOAP protocol. This SOAP protocol can be configured in other platforms to extract current stock or check the availability of a requested quantity.

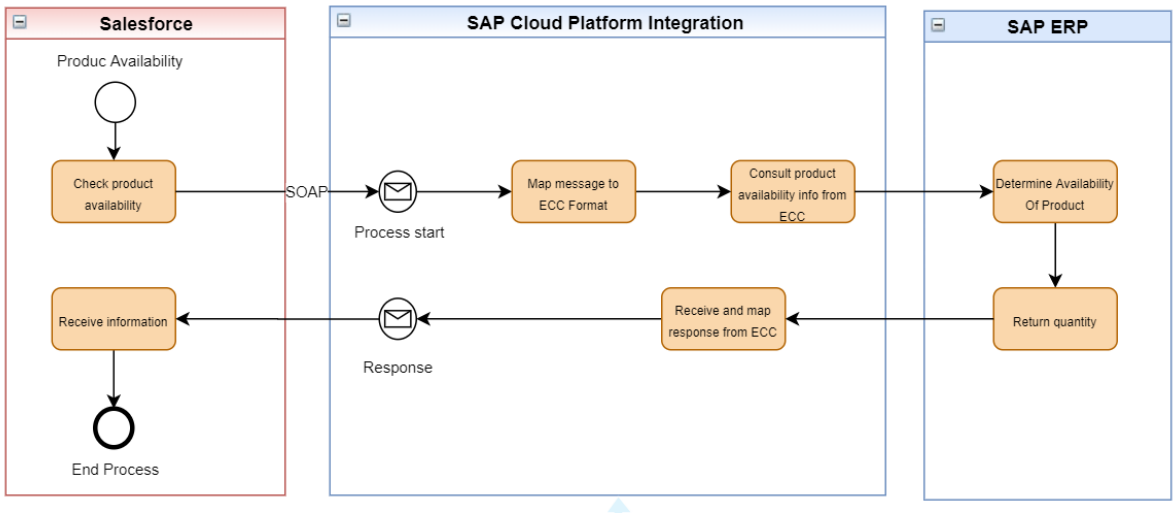

Figure 4.30 Process Diagram

The SAP CPI implementation of the process in Figure 4.30 is shown in Figure 4.31.

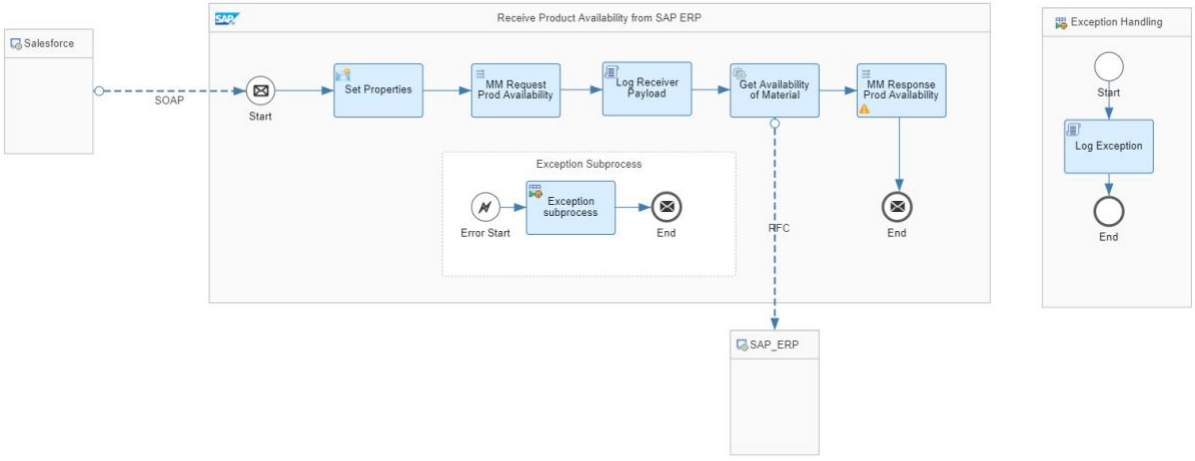

Figure 4.31 Integration Flow

4.3.5.2 Prerequisites

The following steps are the prerequisites for this integration scenario:

- Users need to implement classes to consume this web service with APEX (for reference, see (Invoking Callouts Using Apex).
- Deploy the security artifacts that will be required during the configuration of Integration content.

4.3.5.3 Scope

- The value returned is always the maximum quantity available, if any.

4.3.5.4 Configuration

Follow the below steps to configure the integration flow:

1. Open the integration flow "Receive Product Availability from SAP ERP".
2. Click on Configure.

Note: Replace the default values of the parameters in the configurations based on your scenario and landscape.

3. Configure "Sender" connector named "Salesforce" to fit your specific landscape. See Figure **4.32**.

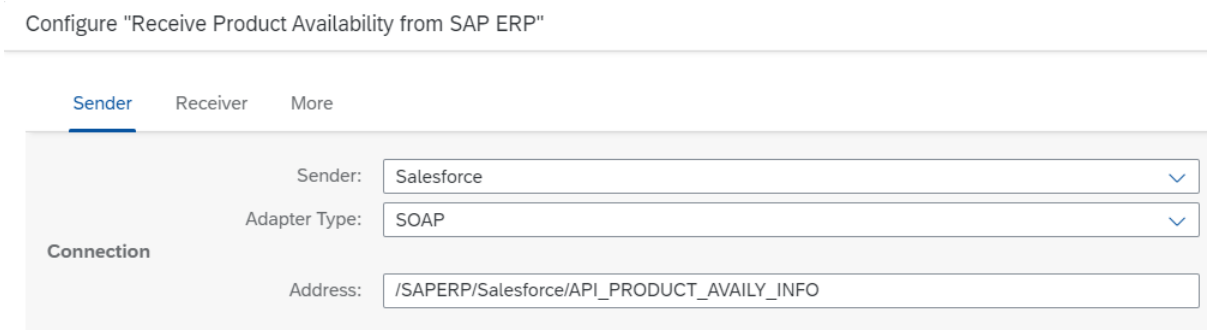

Figure 4.32 Configure Sender Salesforce

The description of the Address field in Figure 4.32 is presented in the table below.

Parameter	Description
Address	The endpoint URL where your service can be accessed by a client application.

Table 15. Configure Sender Salesforce

4. Configure "Receiver" connector named "SAP_ERP. See Figure **4.33**.

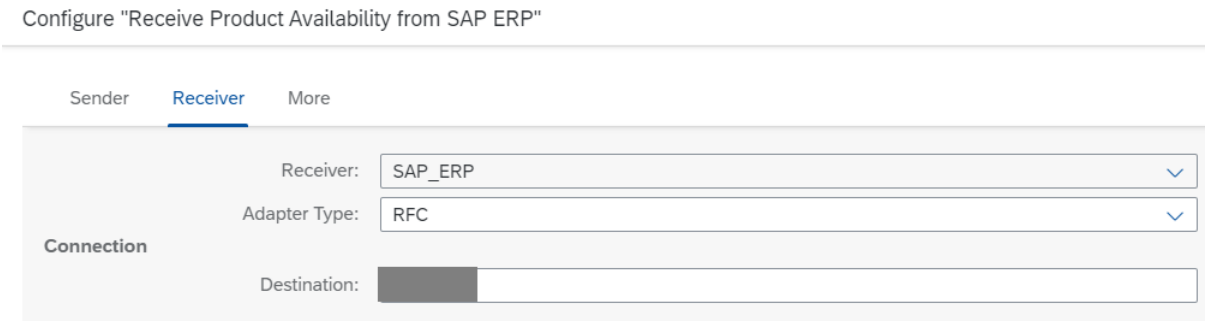

Figure 4.33 Configure Receiver SAP ERP

The description of the Destination field in Figure 4.33 is presented in the table below.

Parameter	Description
Destination	Destination configured in your SAP backend

Table 16. Configure Receiver SAP ERP

5. Configure "More" as shown in Figure **4.34**.

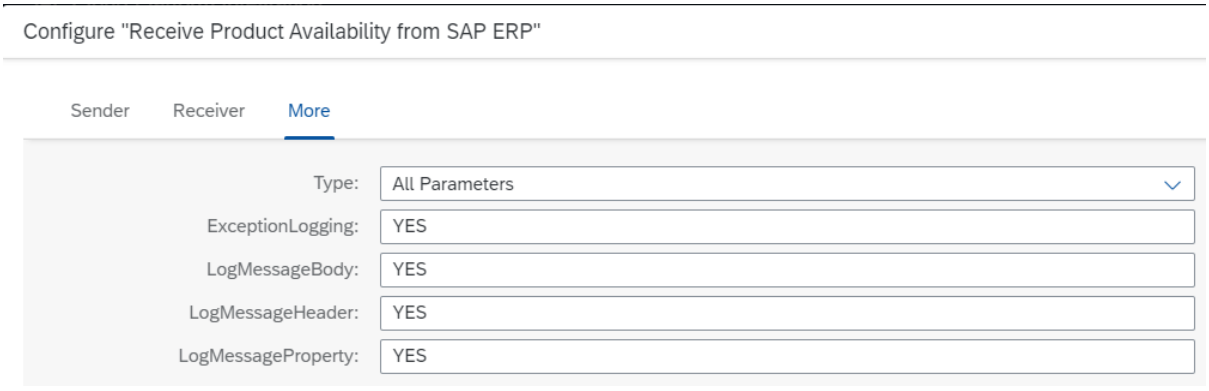

Figure 4.34 Configure More options

The description of each of the fields in Figure 4.34 is presented in the table below.

Parameter	Description
ExceptionLogging	Possible values "YES" / "NO". Specify "YES" to log the exception if any. Specify "NO" or leave blank otherwise.
LogMessageBody	Possible values "YES" / "NO". Specify "YES" to log the Message Body (Not recommended in a live environment). Specify "NO" or leave blank otherwise.
LogMessageHeader	Possible values "YES" / "NO". Specify "YES" to log the Message Header Specify "NO" or leave blank otherwise.
LogMessageProperty	Possible values "YES" / "NO". Specify "YES" to log the Message Properties. Specify "NO" or leave blank otherwise.

Table 17. Configure More options

6. "Save" your changes and "Deploy".

4.3.6 Replicate Sales Prices from SAP ERP to Salesforce

4.3.6.1 Business Scenario

This integration flow allows the replication of Pricing by replicating the sales pricing data from SAP ERP to Salesforce as a pricebook entry. Whenever a new condition in SAP ERP is created it gets replicated to Salesforce automatically.

Figure 4.35 depicts the business process to be implemented.

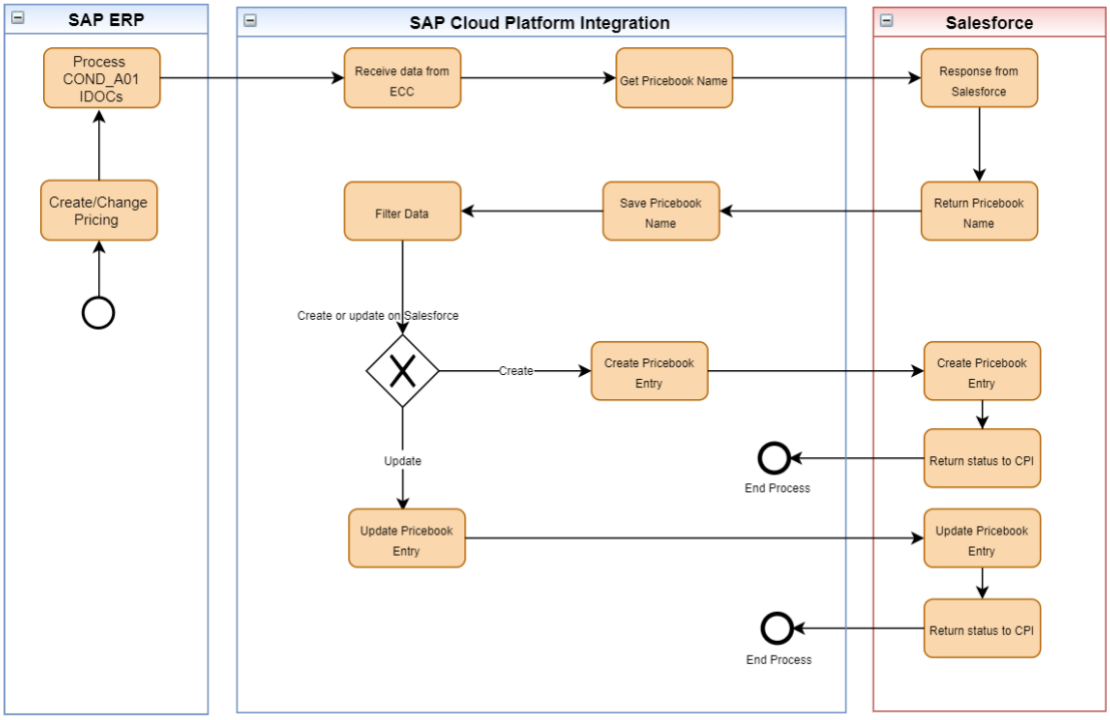

Figure 4.35 Process Diagram

The SAP CPI implementation of the process in Figure 4.35 is shown in Figure 4.36.

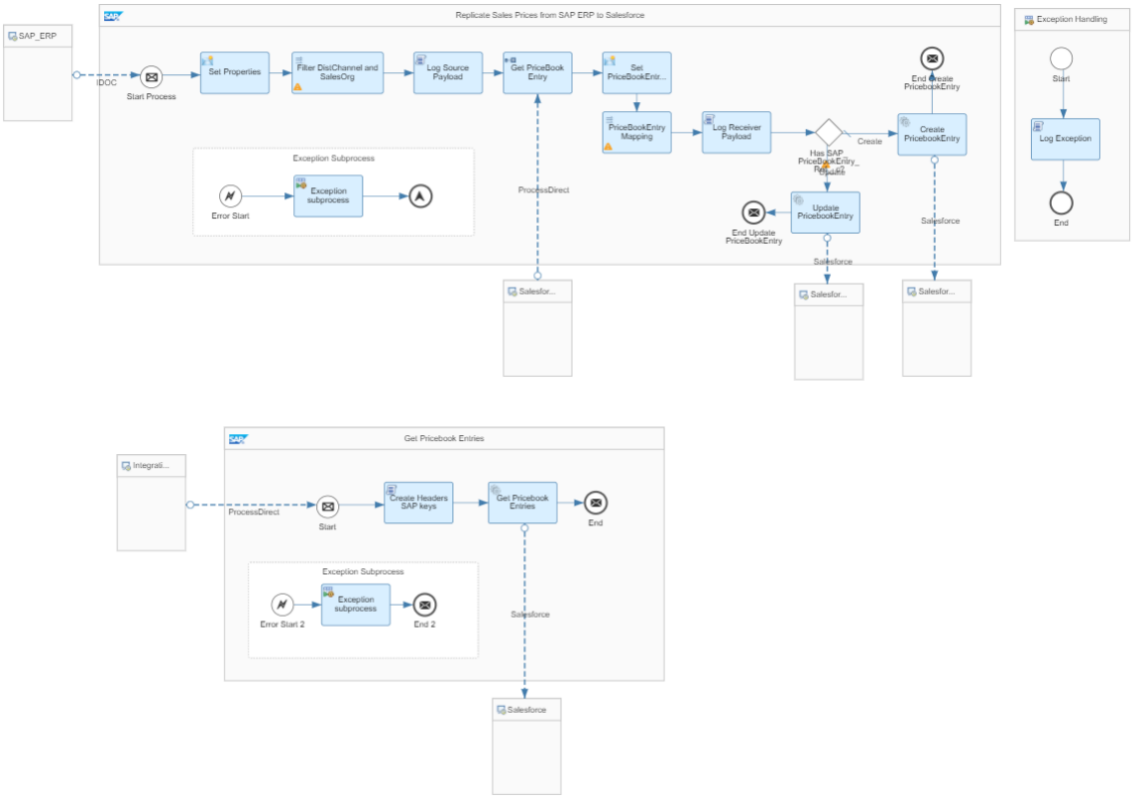

Figure 4.36 Integration Flow

4.3.6.2 Prerequisites

The following steps are the prerequisites for this integration scenario:

- Deploy the security artifacts that will be required during the configuration of Integration content.
- SAP ERP Product masters should have been replicated to Salesforce as products.

4.3.6.3 Scope

- This integration flow only covers the new sales pricing, update is not covered in this version.
- Salesforce allows only one entry of each material per price book.
- Some information must be hardcoded to correctly replicate to SAP ERP, such as Condition Type, Distribution Channel, Pricebook Name, and Sales Organization.

4.3.6.4 Configuration

Follow the below steps to configure the iFlow:

1. Open the integration flow "Replicate Sales Prices from SAP ERP".
2. Click on Configure.

Note: Replace the default values of the parameters in the configurations based on your scenario and landscape.

3. Configure "Sender" named "SAP_ERP" to fit your specific landscape. See Figure **4.37**.

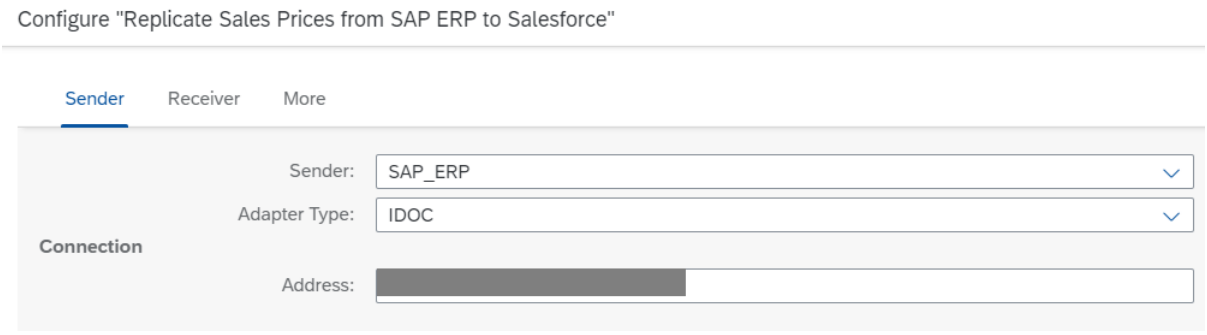

Figure 4.37. Configure Sender SAP ERP

The description of the Address field in Figure 4.37 is presented in the table below.

Parameter	Description
Address	Configure the Address field according to the path configured in your backend.

Table 18. Configure Sender SAP ERP

4. Configure the "Receiver" connector named "Salesforce". See Figure **4.38**.

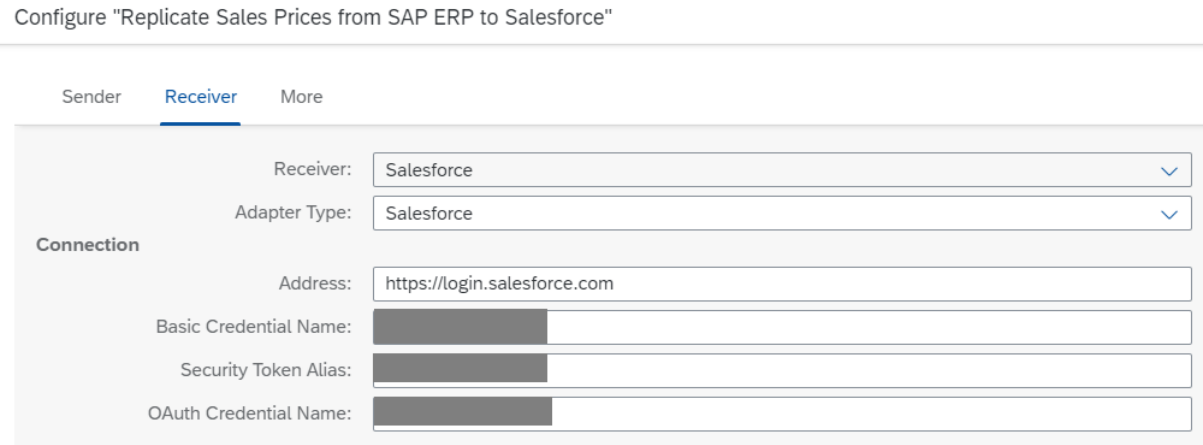

Figure 4.38 Configure Receiver Salesforce

The description of each of the fields in Figure 4.38 is presented in the table below.

Parameter	**Description**
Address	Specifies the recipient's endpoint URL. By default, the URL https://login.salesforce.com is used. But you can change it based on your scenario. For Salesforce production environments: https://login.salesforce.com For Sandbox environments: https://test.salesforce.com.
Basic Credential Name	Specifies the name of the User Credentials artifact that contains the credentials for basic authentication. This refers to the username-password pair used to login in Salesforce. You need to create this as a Security artifact of type User Credential. Then refer to it here in the adapter

Security Token Alias	Specifies the name of the Secure Parameter artifact that contains the security token needed to connect to Salesforce. This property enables the system to fetch the security token from Keystore for authentication. This field can be omitted if your IP has been whitelisted on Salesforce.
OAuth Credential Name	Specifies the name of the User Credentials artifact that contains the Salesforce's OAuth Consumer key-client secret pair. This property enables the system to fetch the security token from Keystore for authentication.

Table 19. Configure Receiver Salesforce

5. Configure "More" as shown in Figure **4.39**.

Figure 4.39 Configure More options

The description of each of the fields in Figure 4.39 is presented in the table below.

Parameter	Description
DistributionChannel	Specify the distribution channel to be used in the iFlow. The default value is "10".
SalesOrganization	Specify the sales organization to be used in the iFlow. The default value is "1710".
PricebookName	Pricebook name in Salesforce.

	The default value is “Standard Price Book”.
ExceptionLogging	Possible values “YES” / “NO”. Specify “YES” to log the exception if any. Specify “NO” or leave blank otherwise.
LogMessageBody	Possible values “YES” / “NO”. Specify “YES” to log the Message Body (Not recommended in a live environment). Specify “NO” or leave blank otherwise.
LogMessageHeader	Possible values “YES” / “NO”. Specify “YES” to log the Message Header Specify “NO” or leave blank otherwise.
LogMessageProperty	Possible values “YES” / “NO”. Specify “YES” to log the Message Properties Specify “NO” or leave blank otherwise.

Table 20. Configure More options

4.3.7 Update Account from Salesforce to SAP ERP

4.3.7.1 Business Scenario

This integration flow allows updating Accounts from Salesforce to Customers in SAP ERP. Whenever an Account is modified in Salesforce, it can be replicated to SAP ERP in the next run of the integration flow (if scheduled to recur).

Figure 4.40 depicts the business process to be implemented.

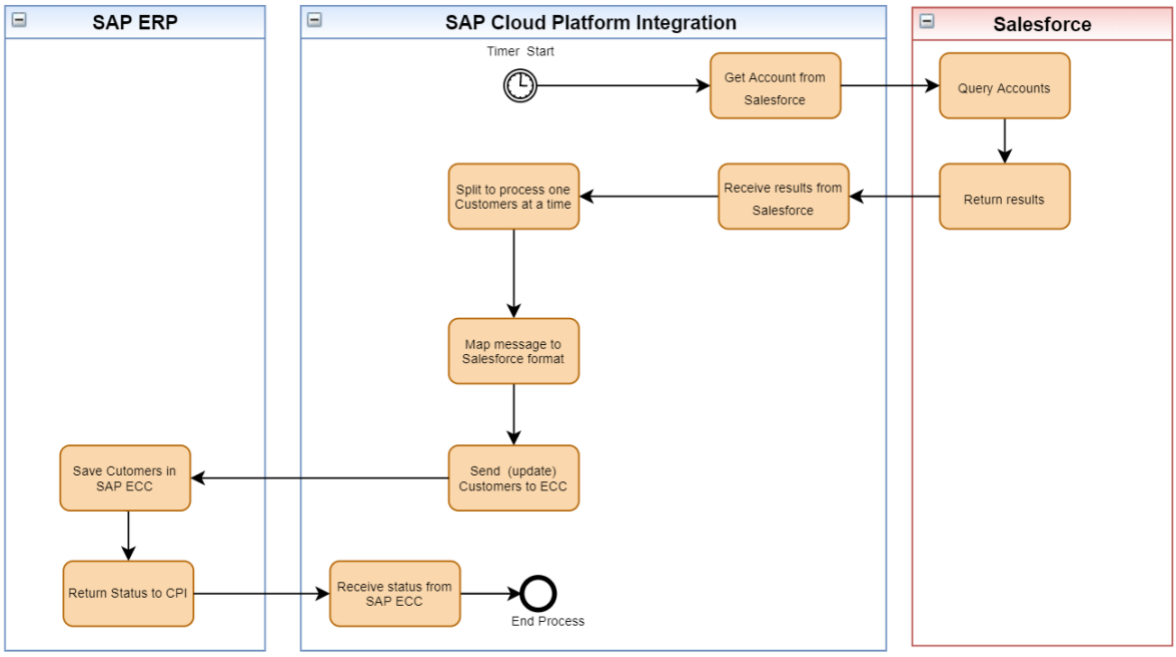

Figure 4.40 Process Diagram

The SAP CPI implementation of the process in Figure 4.40 is shown in Figure 4.41.

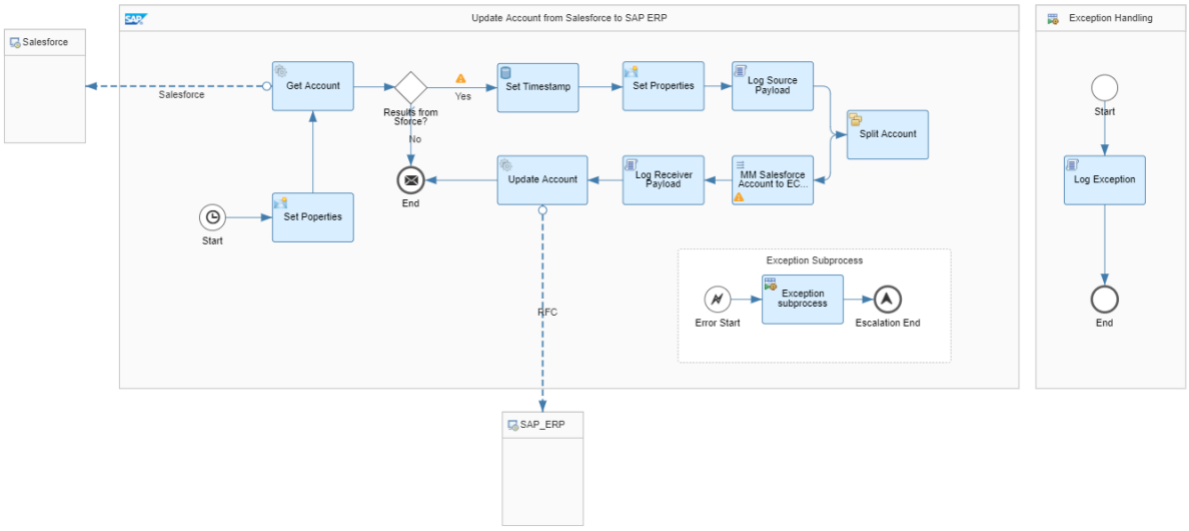

Figure 4.41 Integration Flow

4.3.7.2 Prerequisites

The following steps are the prerequisites for this integration scenario:

- Deploy the security artifacts that will be required during the configuration of Integration content.

- Customers should have been replicated from SAP ERP to Salesforce.

4.3.7.3 Scope

- This integration flow will replicate only the Accounts of the category Customers.
- Only the Accounts modified by a pre-determined user (used for replication) would be replicated.
- Users need to define the first run date/time from when to start updating.
- Name of the Accounts would be separated by spaces, the last value will be mapped to LastName in case of person or GroupBusinessPartnerName2 in case of a group, all other names will go to FirstName and GroupBusinessPartnerName1, respectively.

4.3.7.4 Configuration

To configure the related Iflow, proceed as follows:

1. Open the integration flow "Account update from Salesforce to SAP ERP".
2. Click on Configure.
3. Configure "Timer". You can choose between:
   Run Once: iFlow will be executed only once, can be used for the initial load.
   Schedule on Day: iFlow will be executed on a specific date/time.
   Schedule to Recur: iFlow will be executed at a regular interval and will replicate the changes from the source system to the target system (suggested mode).

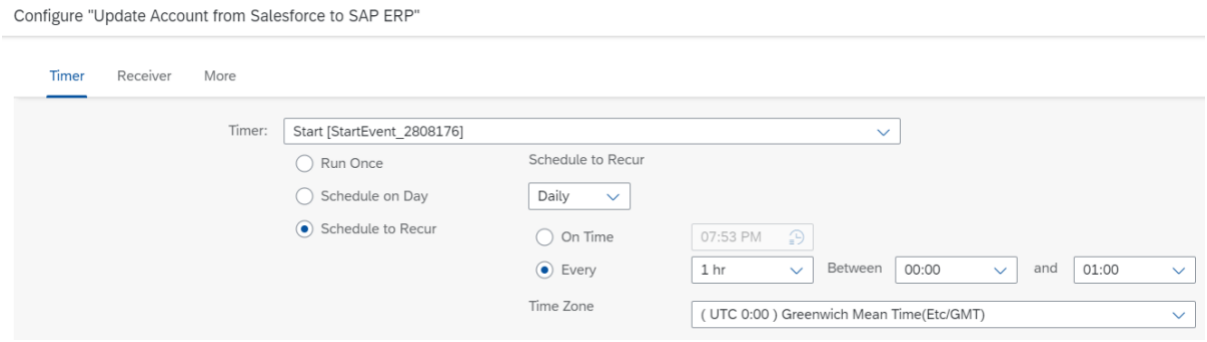

Figure 4.42. Configure Timer

4. Go to Receiver.

Note: Replace the default values of the parameters in the configurations based on your scenario and landscape.

5. Configure "Receiver" SAP_ERP. Configure the "Receiver" connector named "SAP_ERP" to fit your specific landscape. See Figure **4.43**.

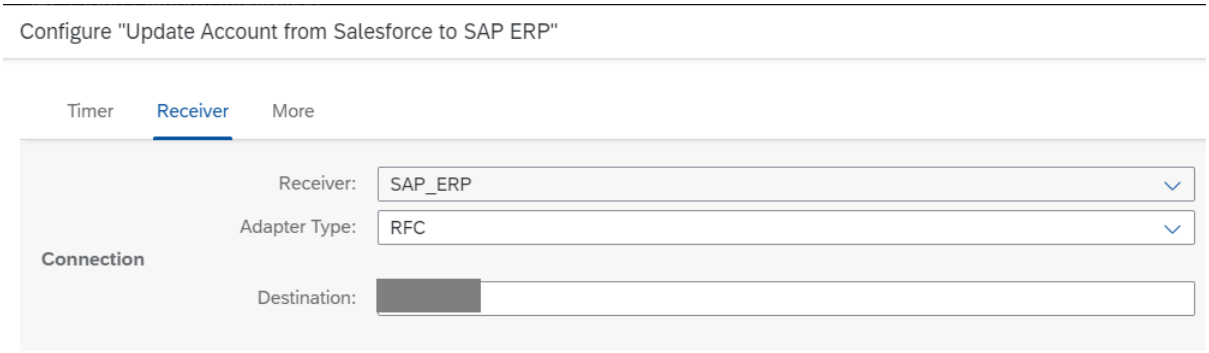

Figure 4.43 Configure Receiver SAP ERP

The description of the Destination field in Figure 4.43 is presented in the table below.

Parameter	Description
Destination	Destination configured in your SAP backend

Table 21. Configure Receiver SAP ERP

6. Configure the "Receiver" connector named "Salesforce". See Figure **4.44**.

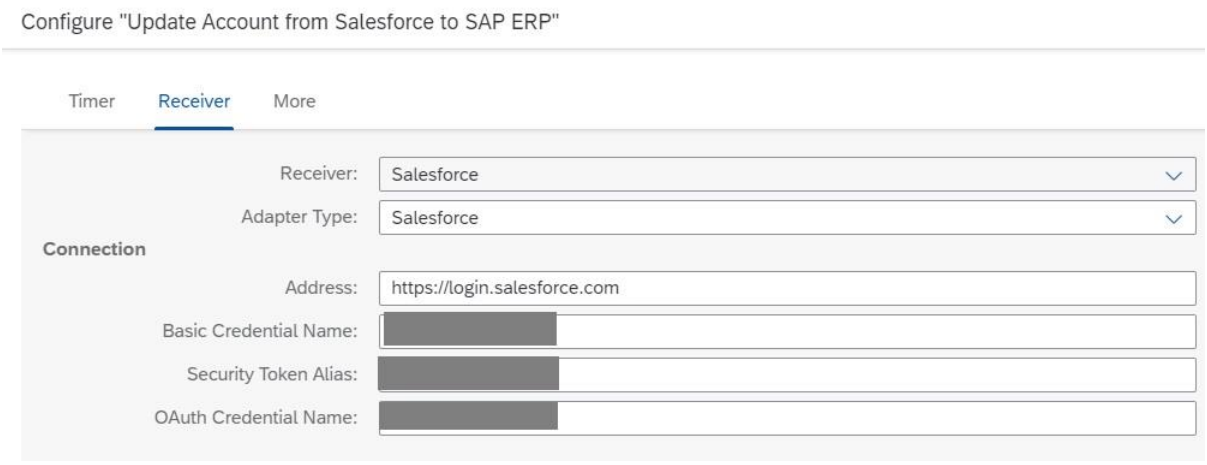

Figure 4.44 Configure Receiver Salesforce

The description of each of the fields in Figure 4.44 is presented in the table below.

Parameter	Description
Address	Specifies the recipient's endpoint URL. By default, the URL https://login.salesforce.com is used. But you can change it based on your scenario. For Salesforce production environments: https://login.salesforce.com For Sandbox environments: https://test.salesforce.com.
Basic Credential Name	Specifies the name of the User Credentials artifact that contains the credentials for basic authentication. This refers to the username-password pair used to login in Salesforce. You need to create this as a Security artifact of type User Credential. Then refer to it here in the adapter
Security Token Alias	Specifies the name of the Secure Parameter artifact that contains the security token needed to connect to Salesforce. This property enables the system to fetch the security token from Keystore for authentication. This field can be omitted if your IP has been whitelisted on Salesforce.
OAuth Credential Name	Specifies the name of the User Credentials artifact that contains the Salesforce's OAuth Consumer key-client secret pair. This property enables the system to fetch the security token from Keystore for authentication.

Table 22. Configure Receiver Salesforce

7. Configure "More" as shown in Figure **4.45**.

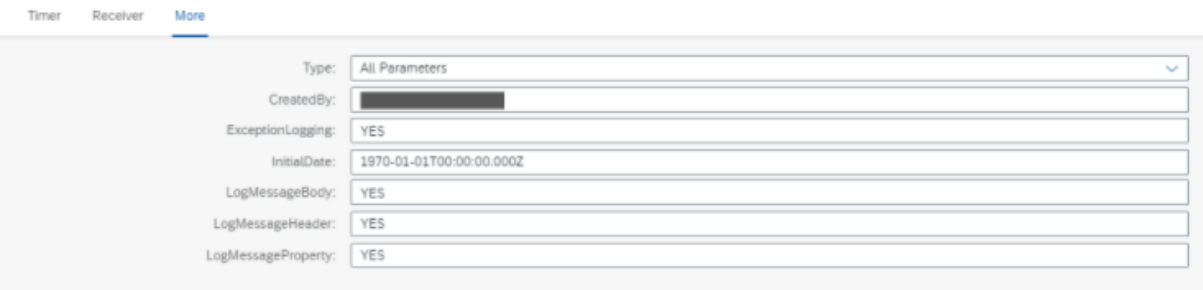

Figure 4.45 Configure More options

The description of each of the fields in Figure 4.45 is presented in the table below.

Parameter	Description
CreatedBy	Specify the Salesforce identification for the user that modifies the Accounts. This ID is generated by Salesforce can be extracted using the plug-in, the field name is CreatdById.
ExceptionLogging	Possible values "YES" / "NO". Specify "YES" to log the exception if any. Specify "NO" or leave blank otherwise.
LogMessageBody	Possible values "YES" / "NO". Specify "YES" to log the Message Body (Not recommended in a live environment). Specify "NO" or leave blank otherwise.
LogMessageHeader	Possible values "YES" / "NO" Specify "YES" to log the Message Header Specify "NO" or leave blank otherwise.
InitialDate	Date from when the integration flow will replicate for the first time. Correct format: YYYY-MM-DD'T'hh:mm:ss.sss'Z' (E.g.: 1970-01-01T00:00:00.000Z).
LogMessageProperty	Possible values "YES" / "NO". Specify "YES" to log the Message Properties. Specify "NO" or leave blank otherwise.

Table 23. Configure More options

4.3.8 Replicate Sales Order from SAP ERP to Salesforce

4.3.8.1 Business Scenario

This integration flow allows sending updates made to SAP ERP Sales Orders to Salesforce. Changes made in SAP ERP, including the addition of new materials to the Sales Order, would be replicated to Salesforce.

Figure 4.46 depicts the business process to be implemented.

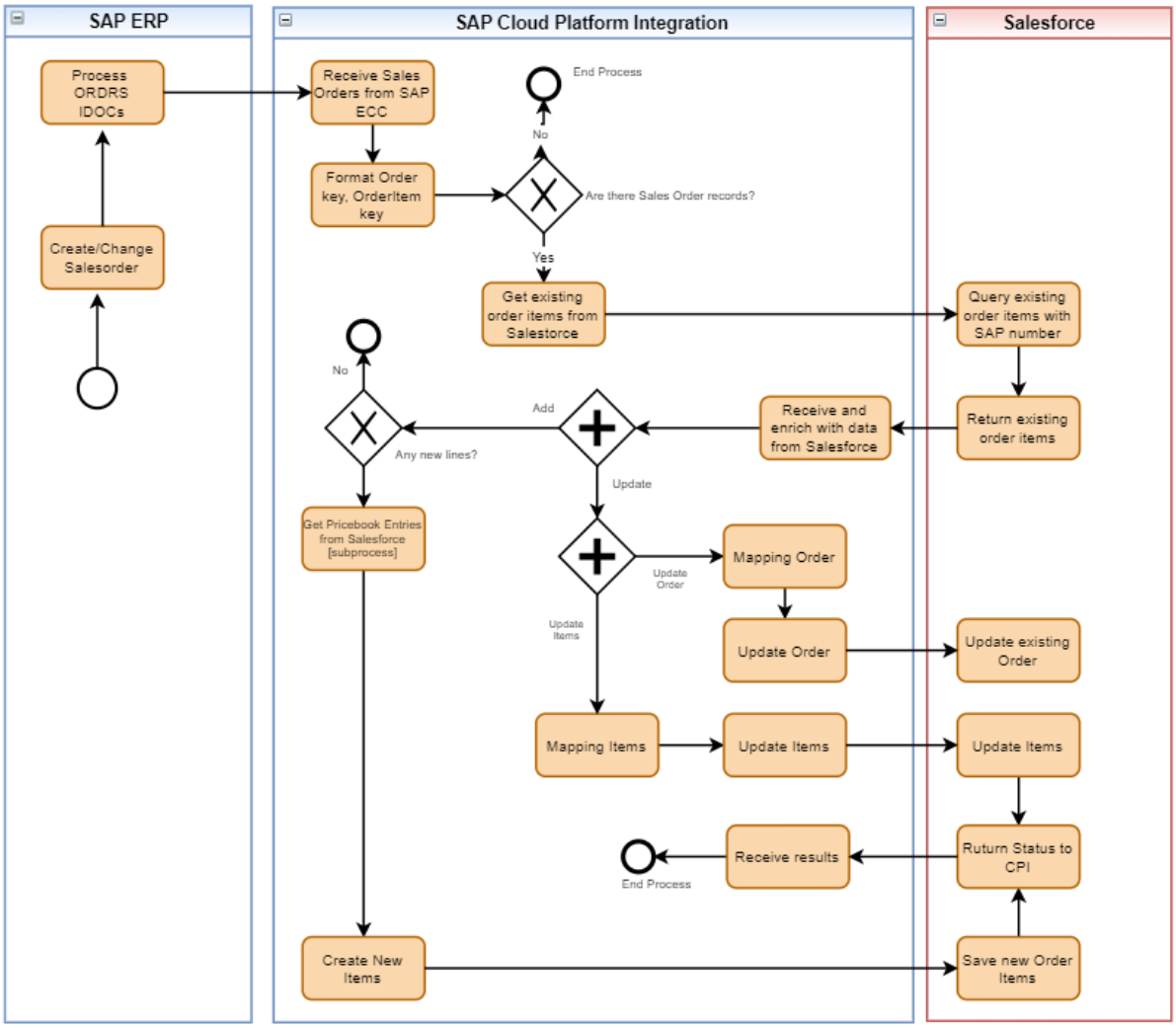

Figure 4.46 Process Diagram

The SAP CPI implementation of the process in Figure 4.46 is shown in Figure 4.47.

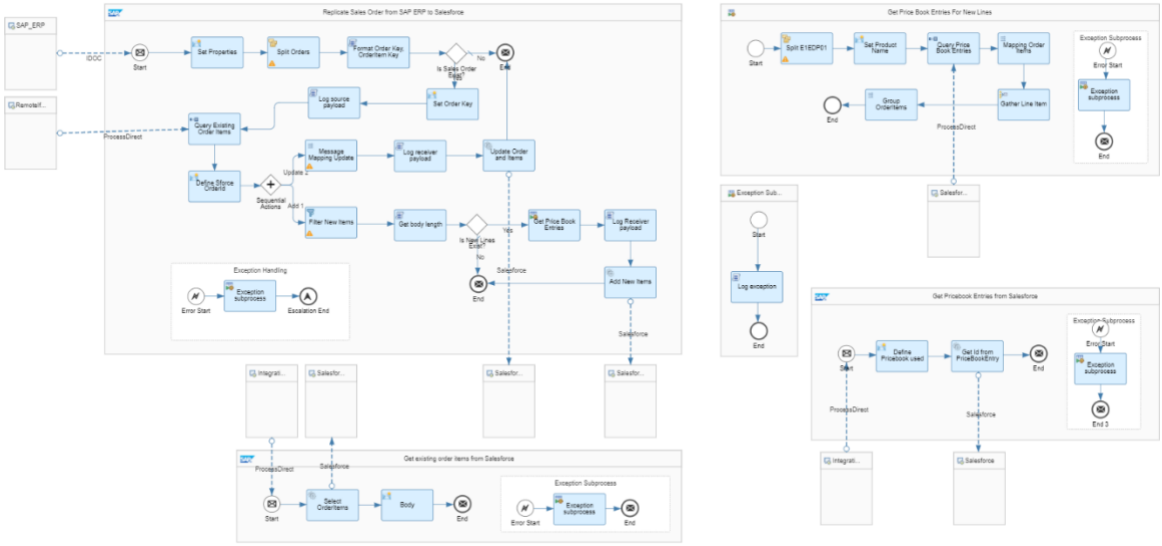

Figure 4.47 Integration Flow

4.3.8.2 Prerequisites

The following steps are the prerequisites for this integration scenario:

- Customers/Products should have been replicated from SAP ERP to Salesforce.
- The order should have been replicated from Salesforce to SAP ERP.
- The query filter uses 'createdBy'. A service user needs to be utilized in SAP ERP for Salesforce integration.

4.3.8.3 Scope

- Some information must be hardcoded to correctly replicate to Salesforce, such as: Created by User and Pricebook Name.
- Users need to define the first run date/time from when to start replicating.
- This integration flow only covers updating orders replicated from Salesforce, included adding new items.

4.3.8.4 Configuration

To configure the integration flow, follow the steps below:

1. Open the "Replicate Sales Order from SAP ERP to Salesforce" integration flow.
2. Click on Configure.

Note: Replace the default values of the parameters in the configurations based on your scenario and landscape.

3. Configure "Sender" named "SAP_ERP" to fit your specific landscape. See Figure **4.48**.

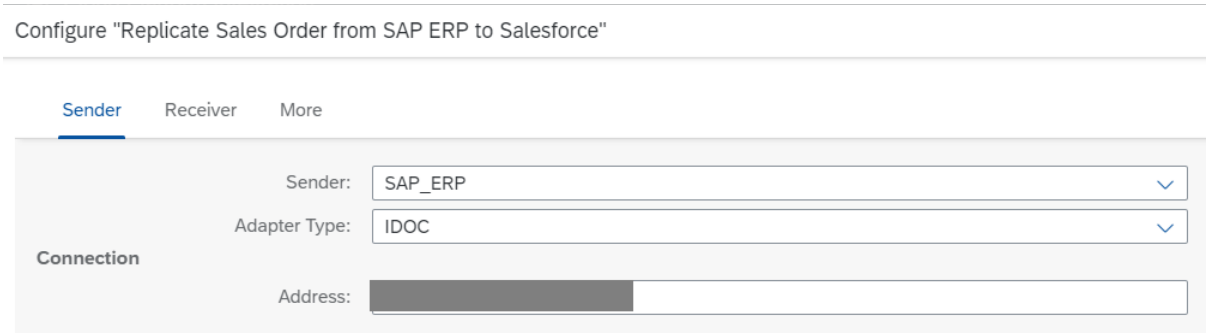

Figure 4.48 Configure Sender SAP ERP

The description of the Address field in Figure 4.48 is presented in the table below.

Parameter	Description
Address	The endpoint URL where your service can be accessed by a client application.

Table 24. Configure Sender SAP ERP

4. Configure the "Receiver" connector named "Salesforce". See Figure **4.49**.

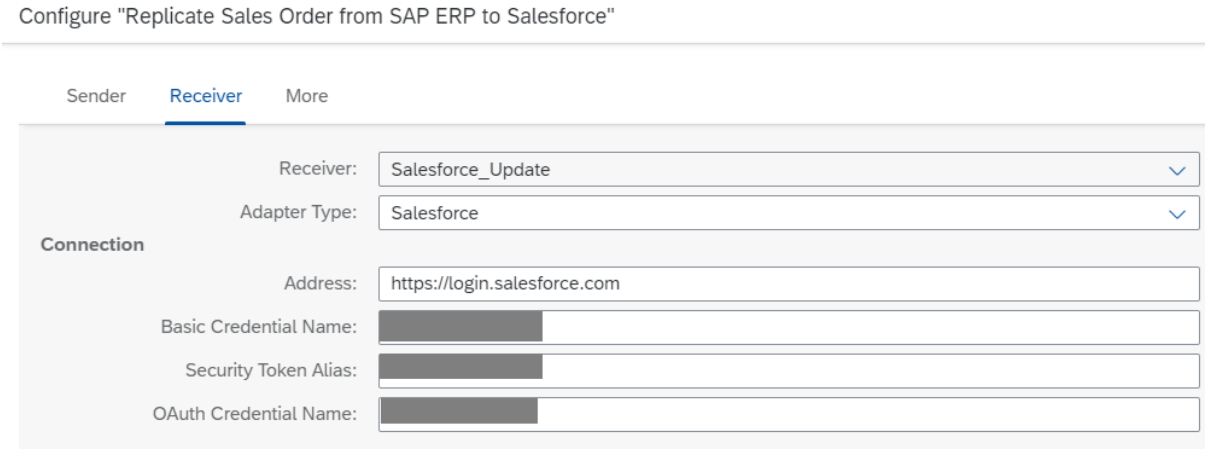

Figure 4.49 Configure Receiver Salesforce

Parameter	Description
Address	The data store URL for Salesforce. E.g.: https://login.salesforce.com
Basic Credential Name	Name of a deployed User Credentials artifact that holds Username and Password used to authenticate with Salesforce.
Security Token Alias	Name of a deployed Secure Parameter artifact that holds the real Security Token. The security token is required to log in to Salesforce from an untrusted network. Salesforce automatically generates this key. If you do not have the security token, log into your account, go to Setup > My Personal Information > Reset My Security Token.
OAuth Credential Name	OAuth credential name.

Table 25. Configure Receiver Salesforce

There are more receivers in the integration Flow. Perform the same configure as explained in Figure 4.49 for the receivers named:

- **Salesforce_PriceBookEntry**
- **Salesforce_AddLineItems**
- **Salesforce_OrderItems**

5. Configure “More” as shown in Figure **4.50**.

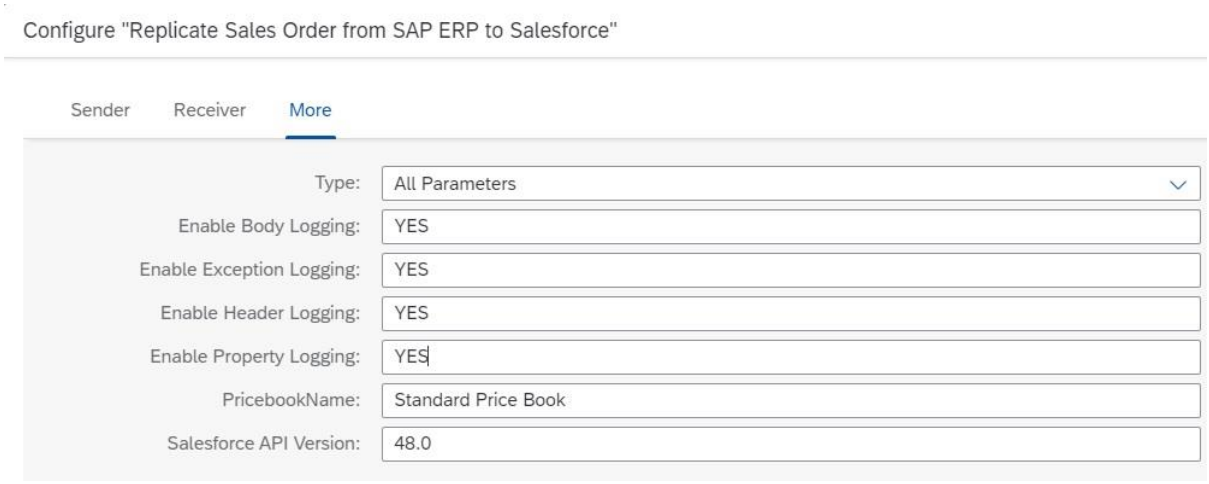

Figure 4.50 Configure More options

The description of each of the fields in Figure 4.50 is presented in the table below.

Parameter	Description
CreatedBy	Specify the Salesforce identification for the user that modifies the Accounts. This ID is generated by Salesforce can be extracted using the plug-in, the field name is CreatdById.
ExceptionLogging	Possible values "YES" / "NO". Specify "YES" to log the exception if any. Specify "NO" or leave blank otherwise.
LogMessageBody	Possible values "YES" / "NO". Specify "YES" to log the Message Body (Not recommended in a live environment). Specify "NO" or leave blank otherwise.
LogMessageHeader	Possible values "YES" / "NO". Specify "YES" to log the Message Header. Specify "NO" or leave blank otherwise.

InitialDate	Date from when the integration flow will replicate for the first time. Correct format: YYYY-MM-DD'T'hh:mm:ss.sss'Z' E.g.: 1970-01-01T00:00:00.000Z
LogMessageProperty	Possible values "YES" / "NO". Specify "YES" to log the Message Properties. Specify "NO" or leave blank otherwise.
PricebookName	Pricebook name in Salesforce. The default value is "Standard Price Book".
Salesforce API Version	Choose the version of the Salesforce API to connect to. Default is 48.0.

Table 26. Configure More options

4.3.9 Receive Sales Order History from SAP ERP

4.3.9.1 Business Scenario

This integration flow allows users to check the order history for a specific customer in a defined time frame, as delivered by your SAP ERP through the SOAP protocol. This SOAP protocol can be configured in other platforms to extract the sales order history for a specific period and sales order type.

Figure 4.51 depicts the business process to be implemented.

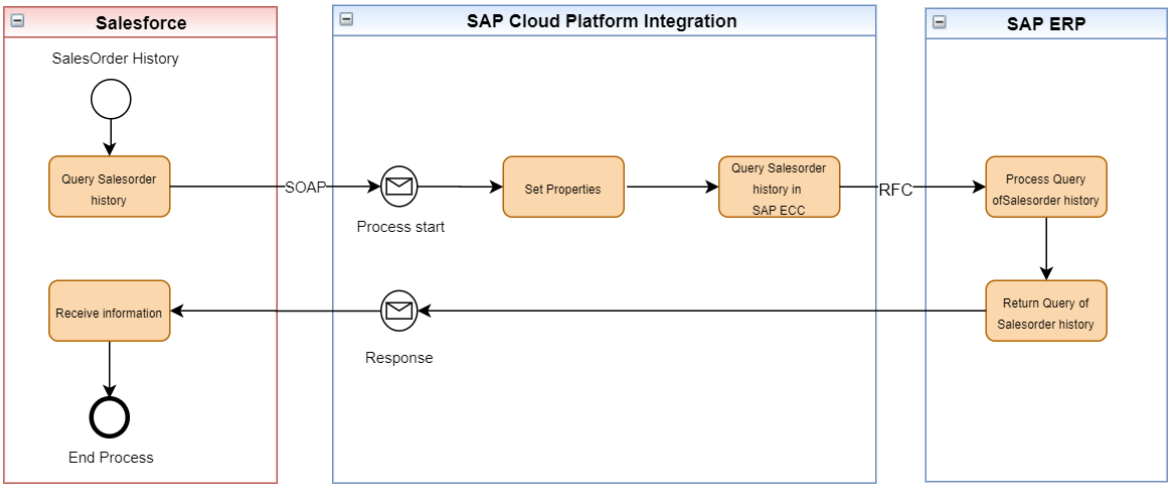

Figure 4.51 Process Diagram

The SAP CPI implementation of the process in Figure 4.51 is shown in Figure 4.52.

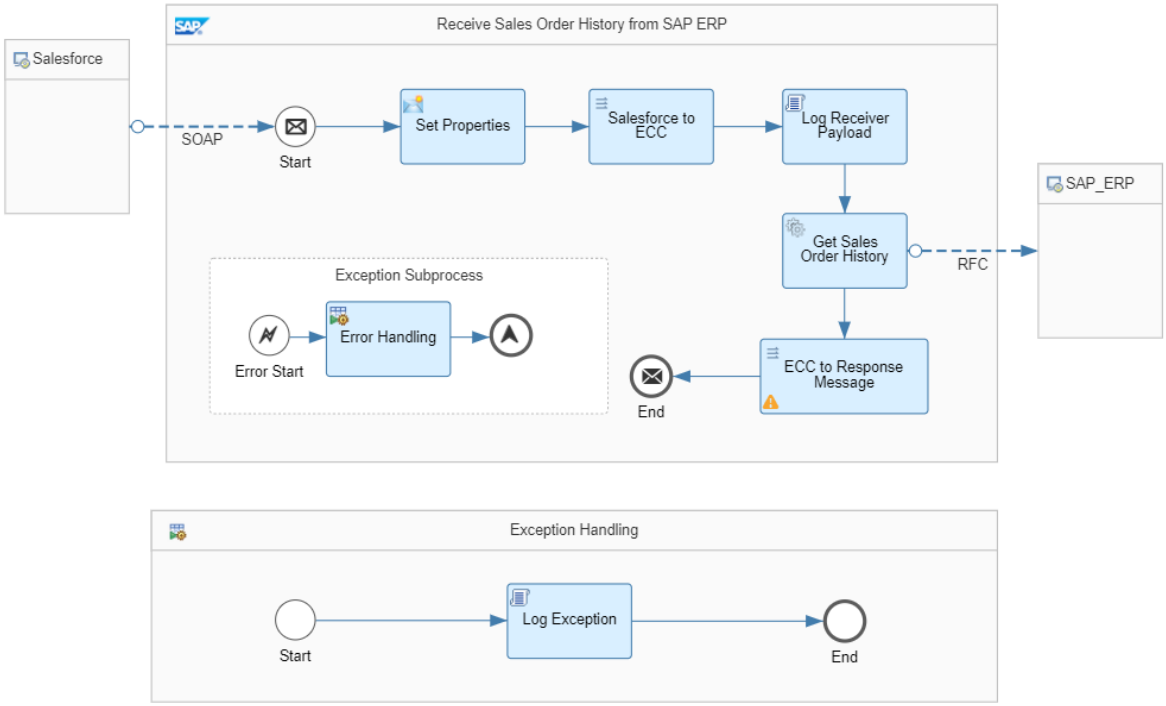

Figure 4.52 Integration Flow

4.3.9.2 Prerequisites

The following steps are the prerequisites for this integration scenario:

- Deploy the security artifacts that will be required during the configuration of Integration content.
- Users need to implement classes to consume this web service with APEX (for reference, see Invoking Callouts Using Apex).
- This SOAP protocol can be configured in other platforms to extract sales order history for a specific period and sales order type.

4.3.9.3 Configuration

Follow the below steps to configure the integration flow:

1. Open the integration flow "Receive Sales Order History from SAP ERP".
2. Click on Configure.

Note: Replace the default values of the parameters in the configurations based on your scenario and landscape.

3. Configure the "Sender" connector named "Salesforce" to fit your specific landscape. See Figure **4.53**.

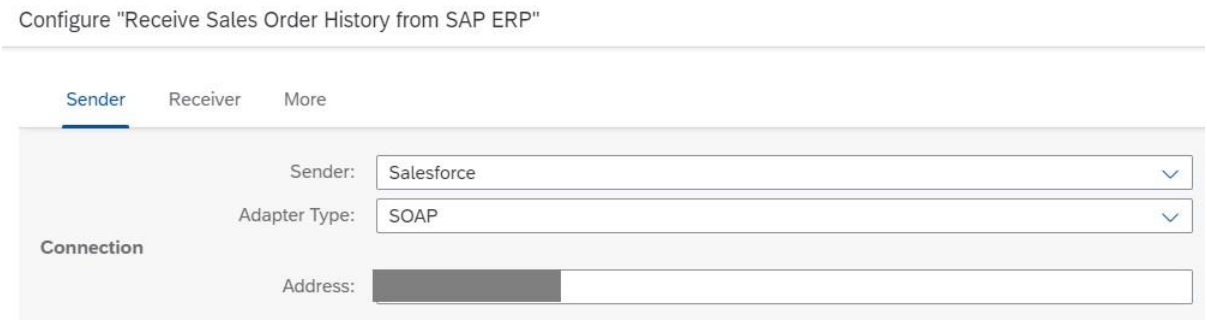

Figure 4.53 Configure Sender Salesforce

The description of the Address field in Figure 4.53 is presented in the table below.

Parameter	Description
Address	The endpoint URL where your service can be accessed by a client application.

Table 27. Configure Sender Salesforce

4. Configure "Receiver" named "SAP_ERP". See Figure **4.54**.

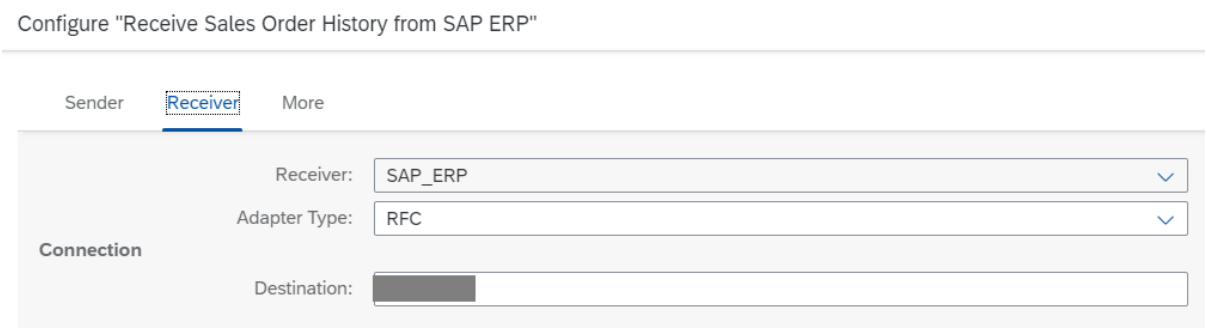

Figure 4.54 Configure Receiver SAP ERP

The description of the Destination field in Figure 4.54 is presented in the table below.

Parameter	Description
Destination	Destination configured in your SAP backend.

Table 28. Configure Receiver SAP ERP

5. Configure "More" as shown in Figure **4.55**.

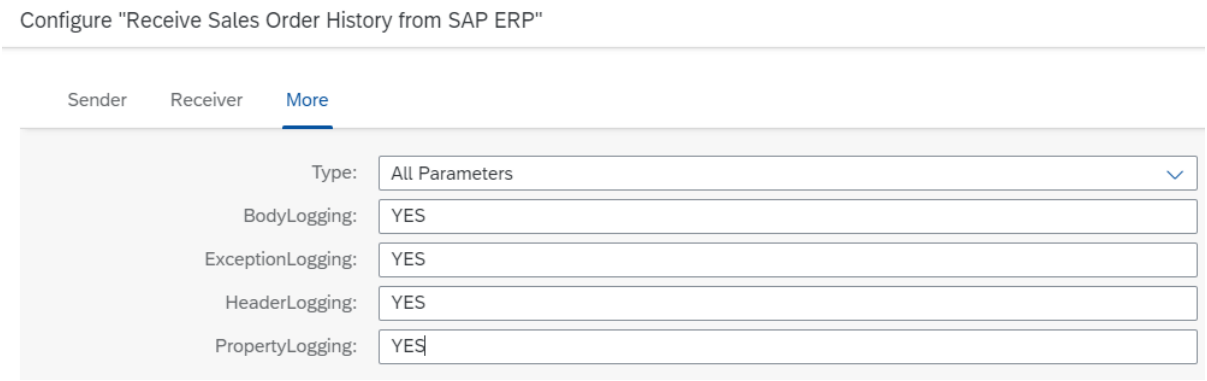

Figure 4.55 Configure More options

The description of each of the fields in Figure 4.55 is presented in the table below.

Parameter	Description
ExceptionLogging	Possible values "YES" / "NO". Specify "YES" to log the exception if any. Specify "NO" or leave blank otherwise.
LogMessageBody	Possible values "YES" / "NO". Specify "YES" to log the Message Body (Not recommended in a live environment). Specify "NO" or leave blank otherwise.
LogMessageHeader	Possible values "YES" / "NO". Specify "YES" to log the Message Header. Specify "NO" or leave blank otherwise.
LogMessageProperty	Possible values "YES" / "NO". Specify "YES" to log the Message Properties. Specify "NO" or leave blank otherwise.

Table 29. Configure More options

5 Appendix

5.1 Generating Schema from Eclipse Plug-in and Replacing Standard Schema Used in Integration Flow

Currently, the integration package works with the standard fields for Salesforce, except for specific fields created in previous sections. In case other custom fields are needed; a new XSD must be generated with the Salesforce Plug-in, the default XSD on mapping must be replaced by the created one and these fields should also be mapped.

Follow the steps below to create an XSD:

1. Open Eclipse.
2. Go to Windows > Perspective > Open Perspective > Other.
3. Select Salesforce Adapter and click open.

4. Go to XSD Generator XSD (or XSD Generator Aggregation/Composite if more than one object is needed).
5. Select a Version.
6. Select an API.
7. Select the operation that accommodates the integration flow.
8. Select an Object (or many in case of Aggregation/Composite)
9. Select Request XSD or Response XSD depending on the case.
10. Click on Save XSD and select a folder.
11. Replace default XSD from mapping in SAP CPI to recently created XSD.

5.2 Deploying Salesforce User Credentials, Token, and OAuth in SAP CPI

5.2.1 Deploying User Credentials

This is necessary to hold the Salesforce username and password information used in the authentication. Follow the steps below to deploy user credentials:

1. In your SAP CPI tenant go to Monitor.
2. In Manage Security click on Security Material.
3. Click in the Add dropdown and select User Credentials.
4. Fill Name for future use, User with Salesforce username and password.
5. Click on Deploy.

5.2.2 Deploying Token

Follow the steps below to deploy the token:

1. In your SAP CPI tenant go to Monitor.
2. In Manage Security click on Security Material.
3. Click in the Add dropdown and select Secure Parameter.
4. Fill Name for future use and Secure Parameter with your Salesforce token.
5. Click on Deploy.

5.2.3 Deploying OAuth

Follow the steps below to deploy the security Artifacts of type OAuth:

1. In your SAP CPI tenant go to Monitor.
2. In Manage Security click on Security Material.
3. Click in the Add dropdown and select User Credentials.
4. Fill Name for future use and User with your OAuth token.
5. Click on Deploy.