Configuration Guide
SAP ERP Master Data Integration with SAP S/4HANA Cloud
January 2023
English

Create or Update Customer Master Data from SAP ERP to SAP S4HANA Cloud

SAP

Content

1   Prerequisites

The Iflow consists in sending a Customer Master Data from SAP ERP (SAP ECC) to S/4HANA Cloud.

- Configuration steps in SAP ERP (SAP ECC):
    - o   Setting up of IDoc Communication for create and update scenario which includes:
        - ▪   Define Logical Systems, Assign Logical Systems, Create the RFC Destination, Create Port for IDOC Processing, Maintain ALE Distribution Model, Manually Maintain Partner Profile.
- Configuration steps in SAP S/4HANA Cloud:
    - o   Configuration of Communication Arrangement for Scenario ID SAP_COM_0008 Related OData connection details for create and update scenario which includes:
        - ▪   Address, Proxy Type and Authorization.

2 Documentation

Regardless of whether the Customer IDoc defined in SAP ERP is DEBMAS07 or ZZ_DEBMAS_360, the flow will filter by the main IDoc node to process all messages as if they were one.

What will define if the Customer is a creation or a change is a call to the API OData with the Customer number to check if the Customer exists in S/4HANA Cloud, if it exists, it follows the change route, if not the creation route.

Customer Creation or Change in S/4HANA Cloud is triggered by SOAP API call related to communication Scenario SAP_COM_0008 - Business Partner, Customer and Supplier Integration.
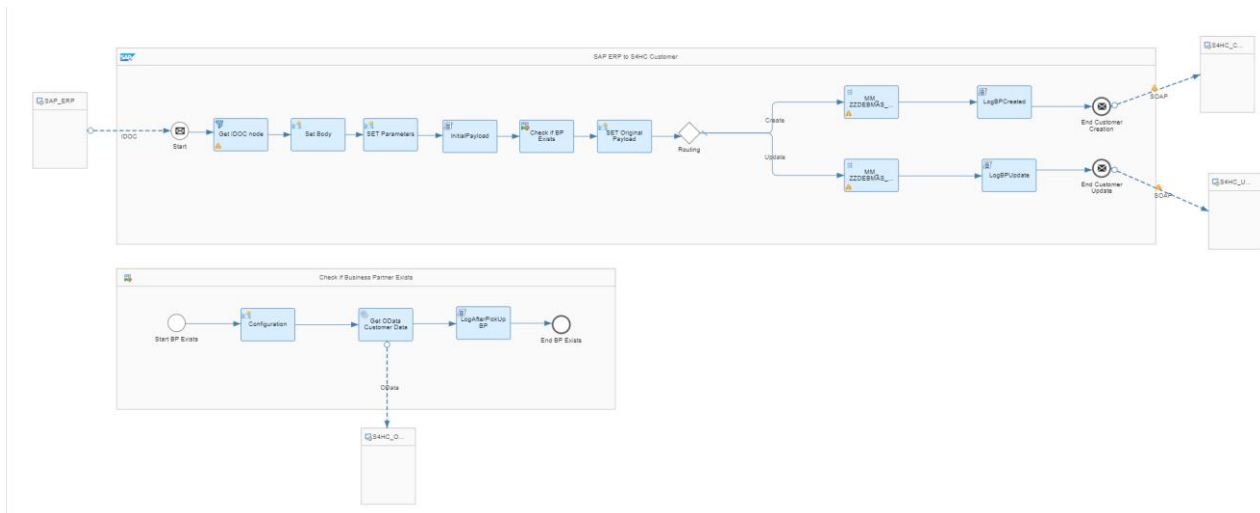
3 Configuration steps on SAP Cloud Integration

To set up the IDOC

Try to define specific section, such as:

- Receiver Configuration
- Sender Configuration
- Cloud Connector Configuration
- Sender System Configuration
- Receiver System Configuration

If there are any backend system configuration needed, please describe them here shortly.

The following subsections are only proposals and can be changed.>

3.1 Configure Sender IDOC Adapter

IDOC

General | Connection | Processing | Conditions

Name: IDOC_SND_ERP

CHANNEL DETAILS

Direction: Sender

System: SAP ERP

Description:

ADAPTER DETAILS

Adapter Type: IDOC

Transport Protocol: HTTPS

Message Protocol: IDoc SOAP

IDOC

General | Connection | Processing | Conditions

CONNECTION DETAILS

Address: /Customer/IDOC/DEBMAS07

Authorization: User Role

User Role: ESBMessaging.send

Address	Enter the URL of the SAP ERP system to connect to.
Authorization	Enter the authorization option. In this case, it was used "User Role" type, since this is based on roles defined on the tenant for the user associated with the inbound request.
User Role	Enter the User Role. It is a predefined role provided by SAP which authorizes a sender system to process messages on a tenant.

IDOC

General | Connection | Processing | Conditions

PROCESSING DETAILS

Invalid XML Character Handling: Throw Exception

IDOC	⑦ _ ⤢

General   Connection   Processing   **Conditions**

MAXIMUM MESSAGE SIZE

Body Size (in MB):	40
Attachments Size (in MB):	100

For further information:

IDOC Adapter:

https://help.sap.com/docs/CLOUD_INTEGRATION/368c481cd6954bdfa5d0435479fd4eaf/6042250661aa437c81dc8b3b4de567c4.html?locale=en-US

3.2 Configure Receiver ODATA Adapter (GET Customer)

The receiver OData Adapter for Get Customer data is described below:

Address	Enter the address of the OData service.
	Note: In this case, it is used the API:
	https://mysystem.api.s4hana.ondemand.com/sap/opu/odata/SAP/API_BUSINESS_PARTNER
Proxy Type	The type of proxy you want to use for establishing connection with OData Service.
	Currently, you can choose between Internet (default) and On-Premise.
	Define Internet for S/4HANA Cloud. For On-Premise systems it is required to define Location ID.
Location ID (Only Proxy Type as On-Premise)	Location ID that you've configured in the cloud connector installed on your system.
Authentication	Enter the authentication method for connecting to the OData service. E.g Basic, client certificate.
Credential Name	Credential name of the credentials that is deployed in Security Material section of 👁 (Operations View)
Private Key Alias (Only for Client Certificate Authentication).	Enter the private key alias that enables the system to fetch the private key from keystore for authentication.
CSRF Protected	Check. By default, option.

OData

General   Connection   **Processing**

PROCESSING DETAILS

Operation Details:	Query (GET)
Resource Path:	A_BusinessPartner
Query Options:	$select=Customer,BusinessPartner,Supplier,AcademicTitle,AuthorizationGroup,BusinessPartnerCategory,BusinessPartnerFu llName,BusinessPartnerGrouping,BusinessPartnerName,BusinessPartnerUUID,CorrespondenceLanguage,CreatedByUser,C reationDate,CreationTime,FirstName,FormOfAddress,Industry,InternationalLocationNumber1,InternationalLocationNumber2 ,IsFemale,IsMale,IsNaturalPerson,IsSexUnknown,GenderCodeName,Language,LastChangeDate,LastChangeTime,LastChan [Preview]
Enable Batch Processing:	☐
Custom Query Options:	
Content Type:	Atom
Page Size:	
Process in Pages:	☐
Timeout (in min):	1

HEADER DETAILS

Request Headers:	
Response Headers:	

METADATA DETAILS

Request Headers:	
Custom Query Parameters:	

Operation Details	Enter the operation preferred. For this step, please define Query GET.
Resource Path	Select the Model Operation where you can find and select the entity preferred and after the fields for model operation. In this case, define *A_BusinessPartner*
Query Options	Select the fields from Resource Path (entity that you're performing the operation on). In this case, consider this select all fields and add this filter: $select=Customer,BusinessPartner,Supplier,AcademicTitle,.........&$filter=Customer eq '${property.Customer}'

For further information:

OData Adapter | SAP Help Portal

API Business Partner A2X Create, read, update or delete the master data for business partner, supplier or customer using this synchronous inbound service:

Overview | Business Partner (A2X) | SAP API Business Hub

3.3 Configure Receiver SOAP Adapter (CREATE Customer)

The receiver SOAP Adapter for Create Customer data is described below:

SOAP

| General | Connection | Processing |

CHANNEL DETAILS

Name: SOAP_RCV_S4HC_Create

Direction:	Receiver		Adapter Type:	SOAP
System:	S4HC_Create		Transport Protocol:	HTTP
Description:			Message Protocol:	SAP RM

ADAPTER DETAILS

SOAP

| General | Connection | Processing |

CONNECTION DETAILS

Address:	https://mysystemcode-api.s4hana.ondemand.com/sa
URL to WSDL:	
Service:	
Endpoint:	
Operation Name:	
Proxy Type:	Internet
Authentication:	Basic
Credential Name:	S4HC_PROD_API_USER
Timeout (in ms):	60000
Compress Message:	☐
Allow Chunking:	☑
Return HTTP Response Code as Header:	☐
Clean-up Request Headers:	☑

Address	Enter the address of the SOAP service.
	Note: In this case, it is used the API: https://mysystem.api.s4hana.ondemand.com/sap/bc/srt/scs_ext/sap/businesspartnersuitebulkreplic
Proxy Type	The type of proxy you want to use for establishing connection with SOAP Service.
	Currently, you can choose between Internet (default) and On-Premise.
	Define Internet for S/4HANA Cloud. For On-Premise systems it is required to define Location ID.
Location ID (Only Proxy Type as On-Premise)	Location ID that you've configured in the cloud connector installed on your system.
Authentication	Enter the authentication method for connecting to the OData service. E.g Basic, client certificate.
Credential Name	Credential name of the credentials that is deployed in Security Material section of 👁 (Operations View)
Private Key Alias (Only for Client	Enter the private key alias that enables the system to fetch the private key from keystore for authentication.

Certificate Authentication).	

For further information:

SOAP (SAP RM) Adapter | SAP Help Portal

API Business Partner Replicate from Client to SAP S/4HANA Cloud:

Business Partner A2A

3.4 Configure Receiver SOAP Adapter (UPDATE Customer)

The receiver SOAP Adapter for Customer Update is described below:

Address	Enter the address of the SOAP service.
	Note: In this case, it is used the API: https://mysystem.api.s4hana.ondemand.com/sap/bc/srt/scs_ext/sap/businesspartnersuitebulkreplic?MessageId=${header.MessageId}
Proxy Type	The type of proxy you want to use for establishing connection with SOAP Service.
	Currently, you can choose between Internet (default) and On-Premise.
	Define Internet for S/4HANA Cloud. For On-Premise systems it is required to define Location ID.
Location ID (Only Proxy Type as On-Premise)	Location ID that you've configured in the cloud connector installed on your system.
Authentication	Enter the authentication method for connecting to the OData service. E.g Basic, client certificate.
Credential Name	Credential name of the credentials that is deployed in Security Material section of ⦿ (Operations View)
Private Key Alias (Only	Enter the private key alias that enables the system to fetch the private key from keystore for authentication.

for Client Certificate Authentication).	

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SOAP                                                    ⑦ _ ⌐⌐

  General   Connection   Processing

PROCESSING DETAILS

  SAP RM Message ID     Reuse        ⌄
  Determination:
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For further information:

SOAP (SAP RM) Adapter | SAP Help Portal

API Business Partner Replicate from Client to SAP S/4HANA Cloud:

Business Partner A2A

3.5 Configure Receiver system (SAP S/4HANA Cloud)

This section describes how to set up the communication scenario SAP_COM_0008 for Business Partner, Customer and Supplier Integration by using the Communication Arrangement tool.

3.5.1 Prerequisites

You must create a business role by using the template SAP_BR_ADMINISTRATOR and assign this to the administrator in the SAP S/4HANA Cloud system. For more information, refer to Maintain Business Roles.https://uacp.hana.ondemand.com/http.svc/rc/PRODUCTION/1a93686c176845f0832a2a73221dd90b/1611%20500/en-US/frameset.htm?8980ad05330b4585ab96a8e09cef4688.html

3.5.2 Communication User

The communication user defined in the SAP S/4HANA Cloud system is used for inbound communication and for processing messages in the system.

Procedure

1. Access the SAP S/4HANA Cloud system and log on as an Administrator.
2. Choose the Maintain Communication Users tile under Communication Management.
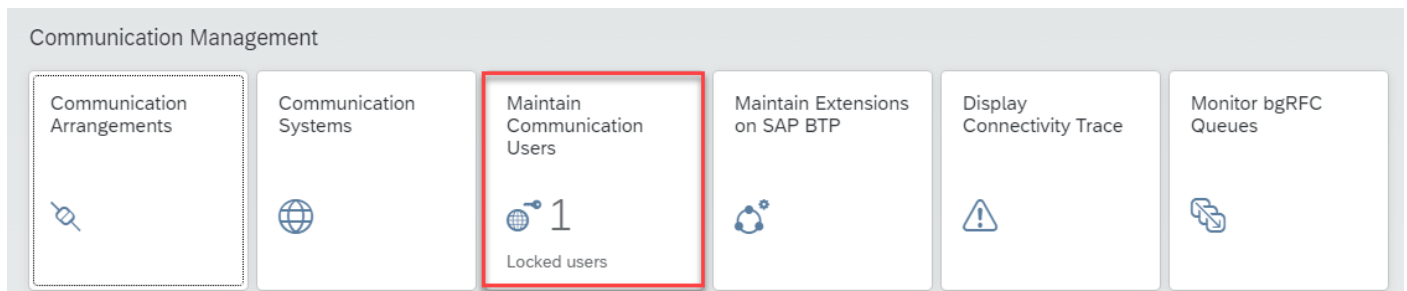
3. Choose New.

4. Enter the User Name and Description.
5. Enter a password. You can also upload an SSL client certificate.
6. Choose Create.

3.5.3 Communication System

The communication system defined in the SAP S/4HANA Cloud system is used as the source or target system.

Procedure

1. Access the SAP S/4HANA Cloud system and log on as an Administrator.
2. Choose Communication Systems tile under Communication Management.
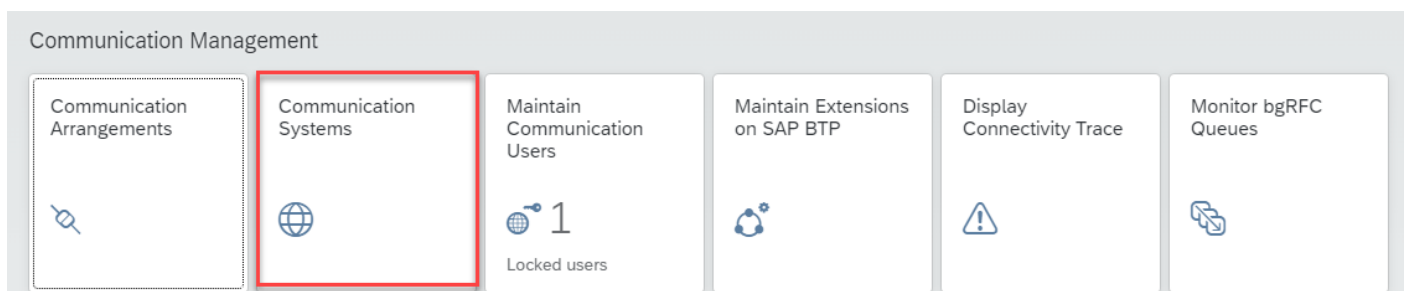
3. In the next window, choose New. The following screen appears.
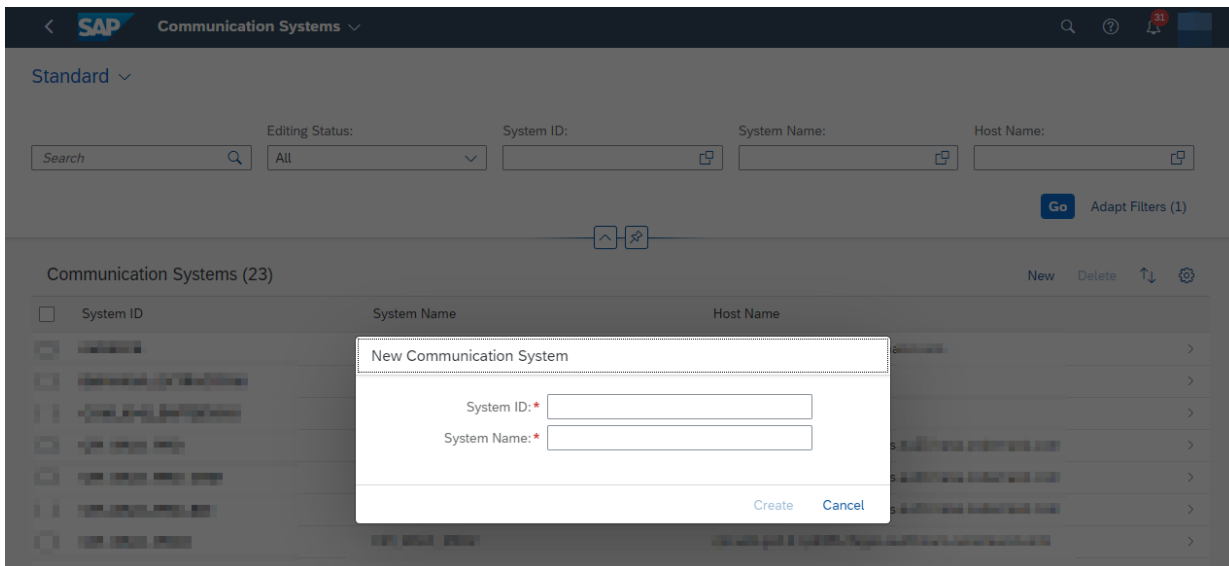
4. Enter the System ID. Optionally, you can enter the ID to recognize the integration system, which relates to the SAP S/4HANA Cloud system.
5. Enter a descriptive name in the System Name field.
6. Choose Create.

7. In the Host Name field, enter the SAP Runtime URL without HTTPS://
8. Enter the Log System ID as the SAP tenant ID.
9. Enter the Business System ID as the SAP tenant ID.
10. Under User for Inbound Communication, choose Add.

11. Choose an Authentication Method as per your requirements and specify a relevant UserNname. Choose OK.

12. User for Outbound communication, choose the User Name and Authentication Method as per your requirements.
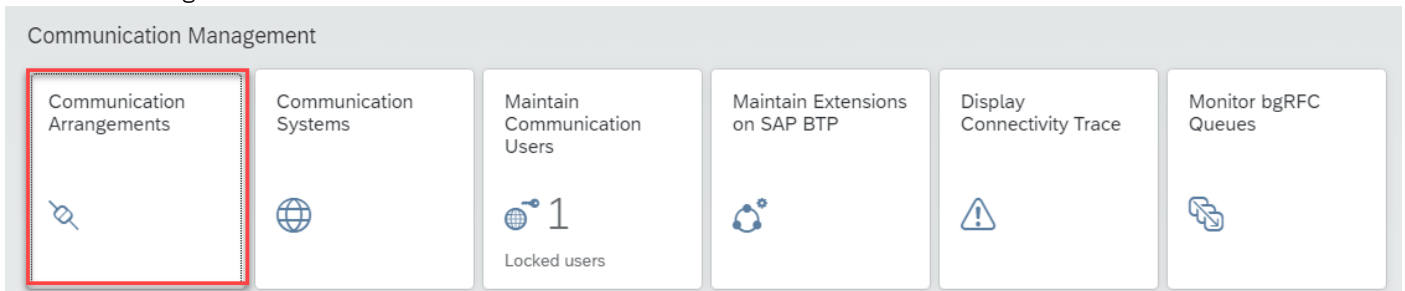

13. Choose Create.

14. Choose Save.

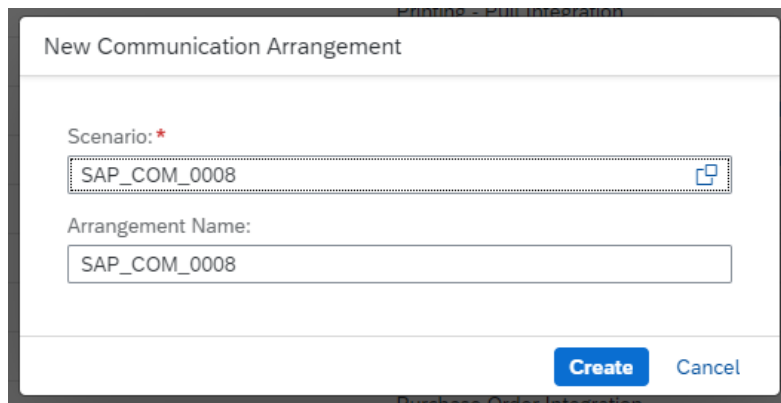## 3.5.4 Communication Arrangement

The Communication Arrangements defined in S/4HANA Cloud systems enables key users to create and edit communication arrangements that your company has set up with a communication partner.

Procedure

1. Access the SAP S/4HANA Cloud system and log on as an Administrator and open the app Communication Arrangements.

2. Choose New.

3. Choose the scenario SAP_COM_0008 from the value help
4. Enter an Arrangement Name.
5. Choose Create.

6. Choose Communication System ID from the value help.
7. Under Inbound Communication, choose User Name using value help. By default, the user, who is associated with Communication System will be shown in the value help. Choose the same.
8. Choose Save.