Configuration Guide
Microsoft Dynamics CRM Integration with SAP S/4HANA Cloud and SAP ERP
January 2023
English

Create or Update Customer with Sales Data from Microsoft Dynamics CRM to SAP S4HANA Cloud and SAP ERP

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1 Prerequisites

The Iflow consists in sending a Customer with Sales Data from External/Legacy System to SAP S4HANA Cloud and SAP ERP (SAP ECC).

- Configuration steps in External/Legacy System:
    - Configuration of HTTPS connection details which includes:
        - Address, Authorization and User Role.

- Configuration steps in SAP S4HANA Cloud:
    - Communication Arrangement Configuration in SAP S4HANA Cloud
        - Scenario ID: SAP_COM_0008
        - Scenario: Business Partner, Customer and Supplier Integration
    - Configuration of OData connection details for create and update scenario which includes:
        - Address, Proxy Type and Authorization.

- Configuration steps in SAP ERP (SAP ECC):
    - Setting up of IDoc Communication for create and update scenario which includes:
        - Logical Systems, Assign Logical Systems, Create the RFC Destination, Create Port for IDOC Processing, Maintain ALE Distribution Model, Manually Maintain Partner Profile.

2 Documentation

A message is triggered from Microsoft Dynamics CRM system to SAP. The first step is an erpsystemtype field evaluation. If erpsystemtype is equal to the constant S/4HANA Cloud, the message is sent to SAP S/4HANA Cloud branch. In this case, the next step is checking if the customer sent by Microsoft Dynamics CRM has already existed in S4 S/4HANA Cloud. If the customer already exists, it will follow the update route, otherwise, it will follow the create branch and a new customer is created in S4 S/4HANA Cloud. Both customer creating and updating are done via OData API.

In the other hand, if erpsystemtype is different from S/4HANA Cloud, the message is sent to SAP ERP branch (default route). The next validation is based on the erpaccount field and in this case, if erpaccount is sent, an IDoc is triggered to SAP ERP via IDoc adapter. Otherwise, the message is sent to a third branch and if erpsystemtype field is equal to ECC, an IDoc is triggered to SAP ERP. Otherwise, the message is discarded (default route).

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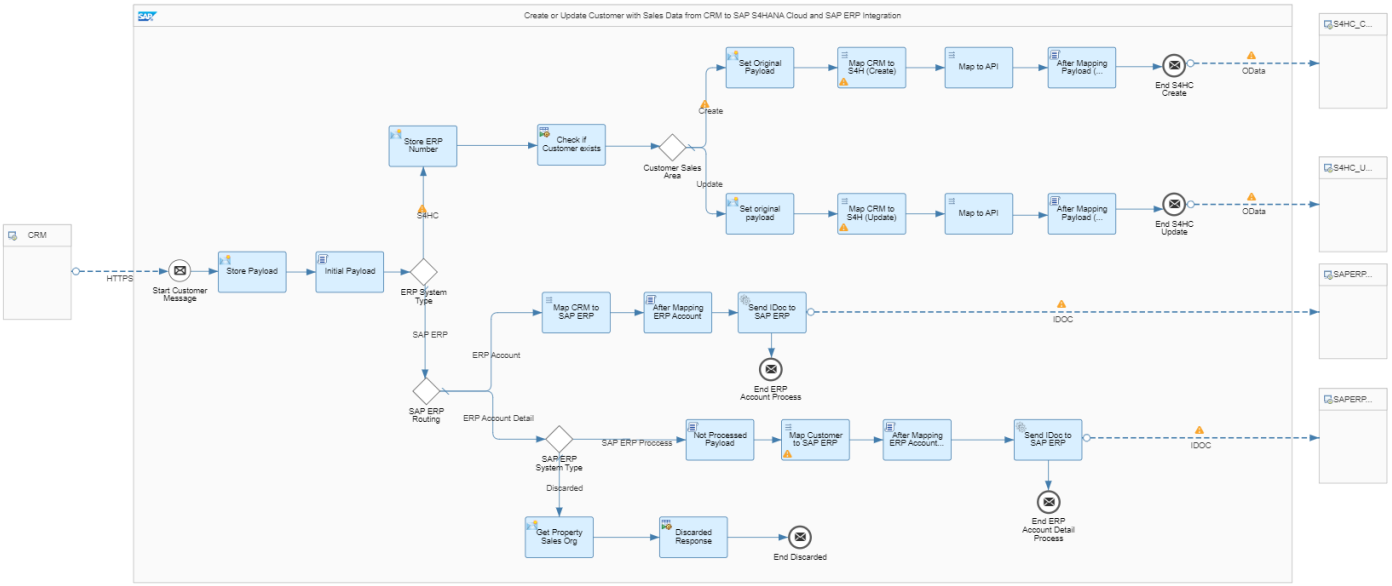
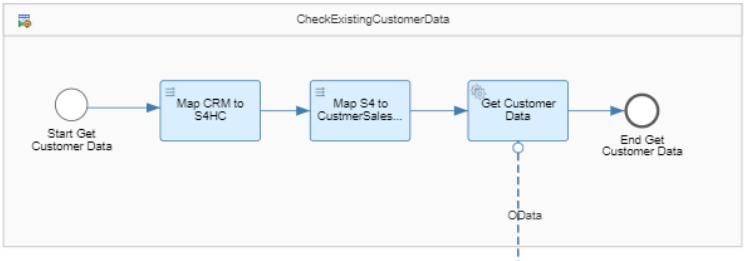
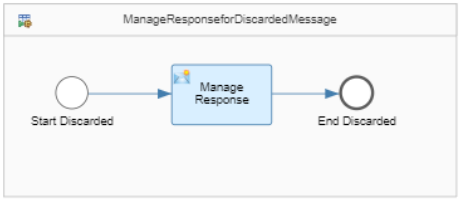
The customer creation or update in SAP S/4HANA Cloud is triggered by OData API call related to communication Scenario SAP_COM_0008 - Business Partner, Customer and Supplier Integration scenario.







3 Configuration steps on SAP Cloud Integration

For setting up the Https Adapter connectivity, please check:

https://help.sap.com/docs/CLOUD_INTEGRATION/368c481cd6954bdfa5d0435479fd4eaf/0ae4a78909c4479cbc3cc414250919de.html

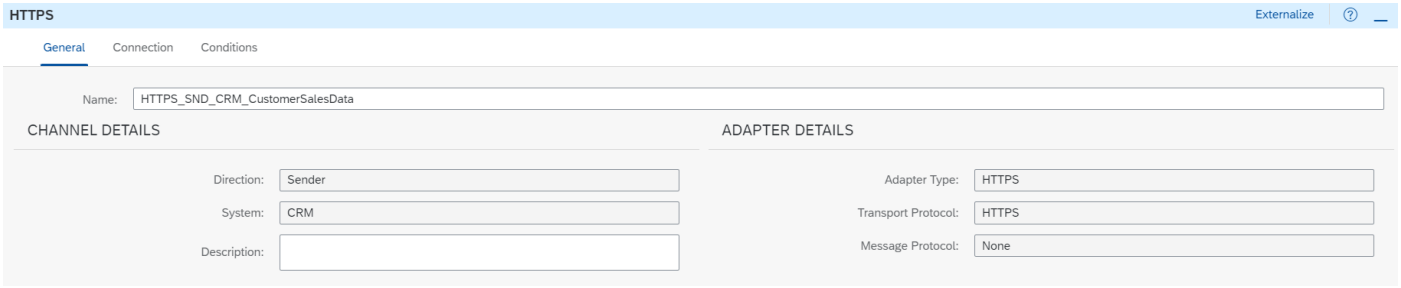
For setting up the ODATA Adapter connectivity, please check:
https://help.sap.com/docs/CLOUD_INTEGRATION/368c481cd6954bdfa5d0435479fd4eaf/c5c2e38e0c87472e996dfda04920bfc4.html

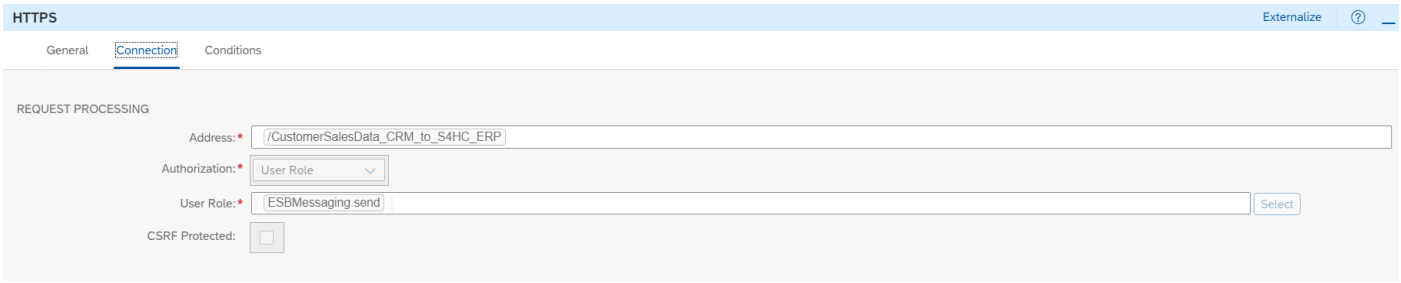
For further information regarding, API API_BUSINESS_PARTNER, please check:

https://api.sap.com/api/API_BUSINESS_PARTNER/overview

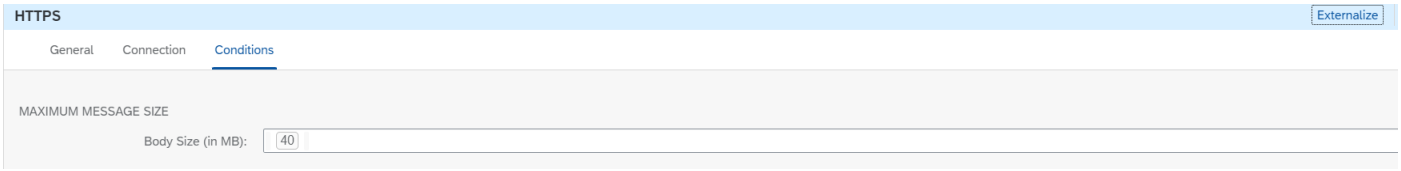
For setting up the IDoc Adapter connectivity, please check:
https://help.sap.com/docs/CLOUD_INTEGRATION/368c481cd6954bdfa5d0435479fd4eaf/018aa88b6d284ca2b8476b6e6053cfeb.html

3.1 Configure Sender HTTPS Adapter



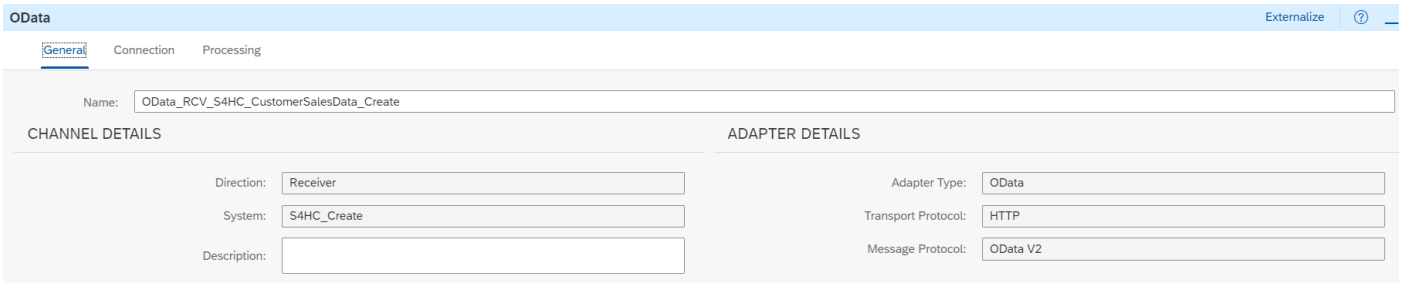


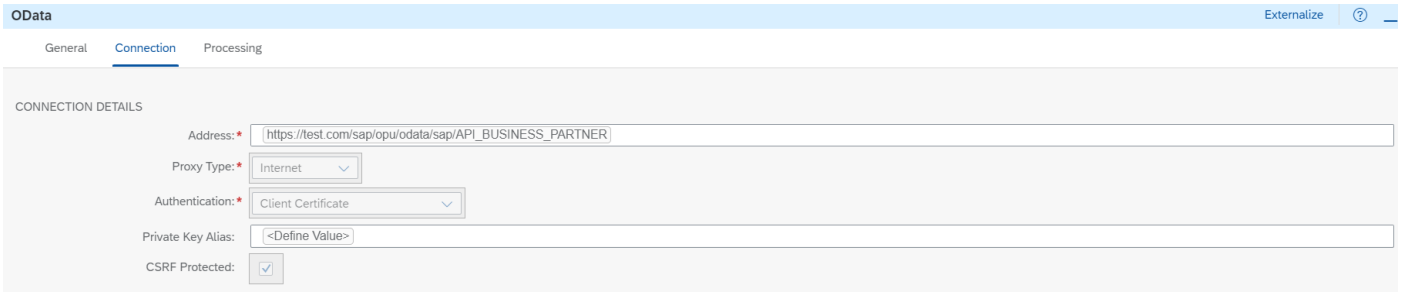
Address	Enter the URL of the HTTP system to connect to.
Authorization	Enter the authorization option. In this case, it was used “User Role” type, since this is based on roles defined on the tenant for the user associated with the inbound request.
User Role	Enter the User Role. It is a predefined role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



3.2 Configure Receiver OData Adapter (Create Customer)

The receiver OData Adapter for Customer creation is described below:



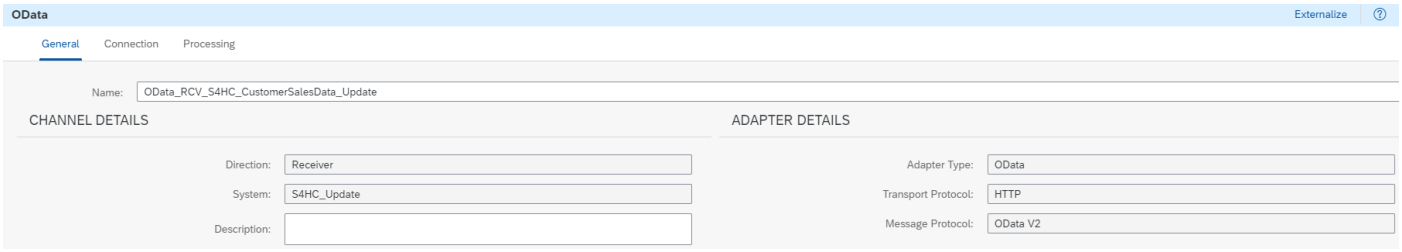


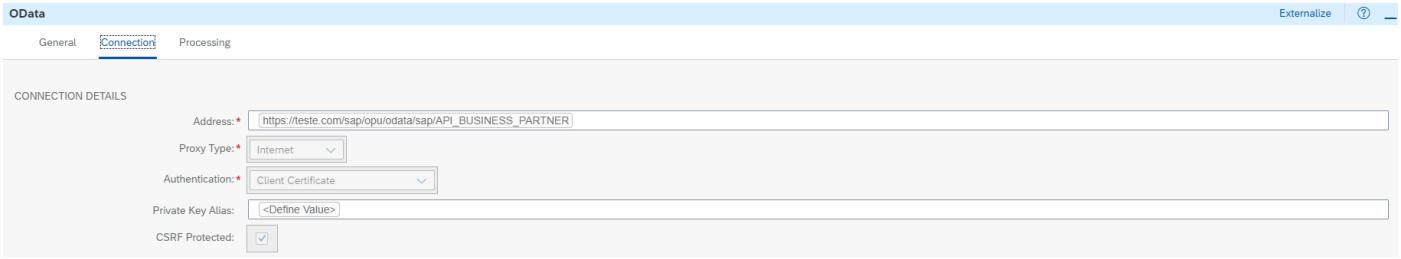
Address	Enter the address of the OData service. *Note: In this case, it is used the API:* *https://mysystem.s4hana.ondemand.com/sap/opu/odata/sap/API_BUSINESS_PARTNER*
Proxy Type	Enter the proxy type.
Authentication	Enter the authentication method for connecting to the OData service.
CSRF Protected	Check. By default, option.

Operation Details	Enter the operation preferred.
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_CustomerSalesArea.*
Fields	Select the fields from Resource Path (entity that you're performing the operation on).

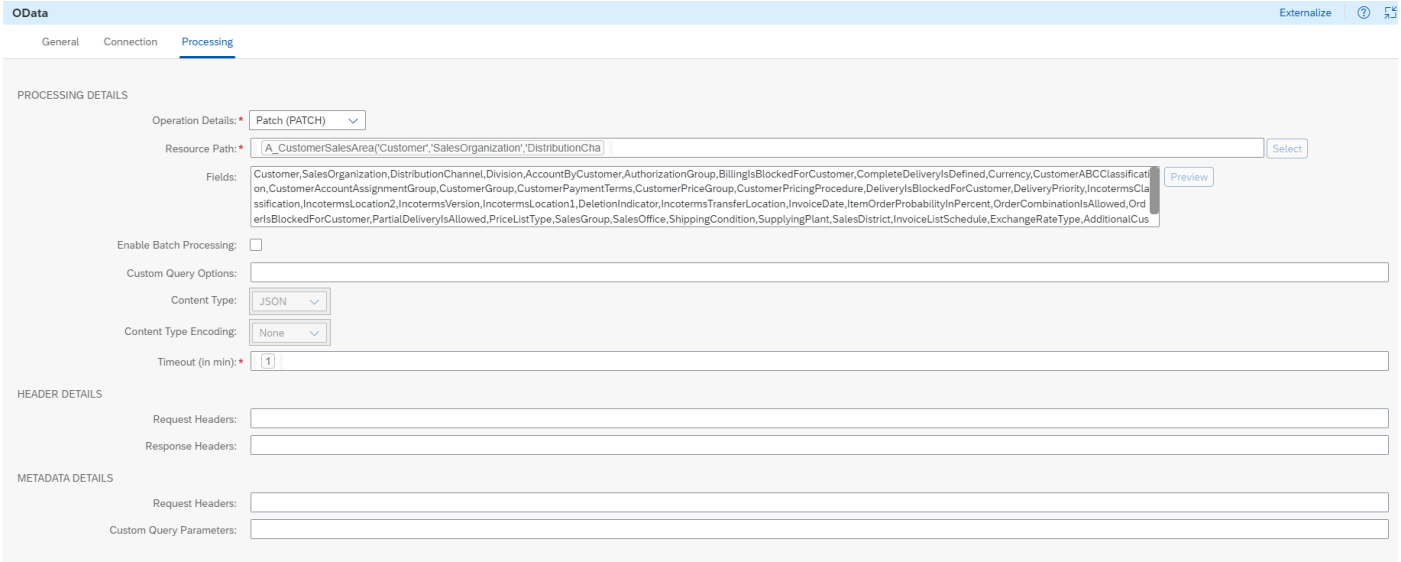
3.3 Configure Receiver OData Adapter (Update Customer)

The receiver OData Adapter for Customer update is described below:





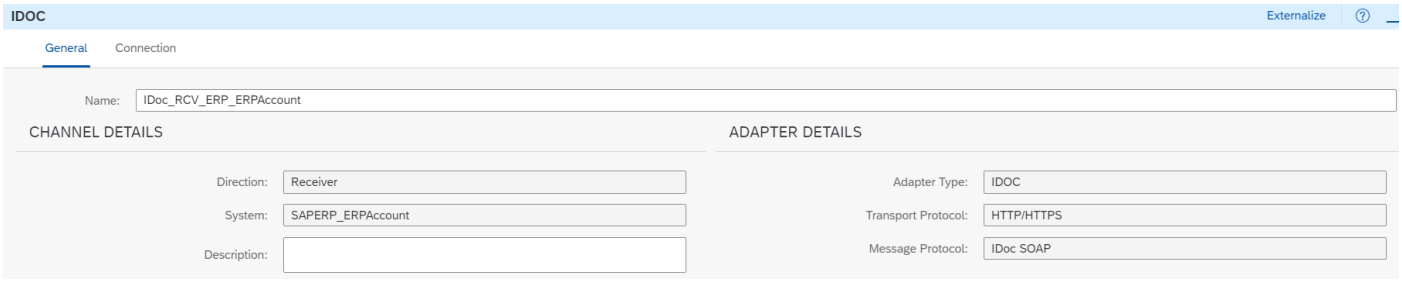
Address	Enter the address of the OData service. *Note: In this case, it is used the API:* *https://mysystem.s4hana.ondemand.com/sap/opu/odata/sap/API_BUSINESS_PARTNER*
Proxy Type	Enter the proxy type.
Authentication	Enter the authentication method for connecting to the OData service.
CSRF Protected	Check. By default, option.

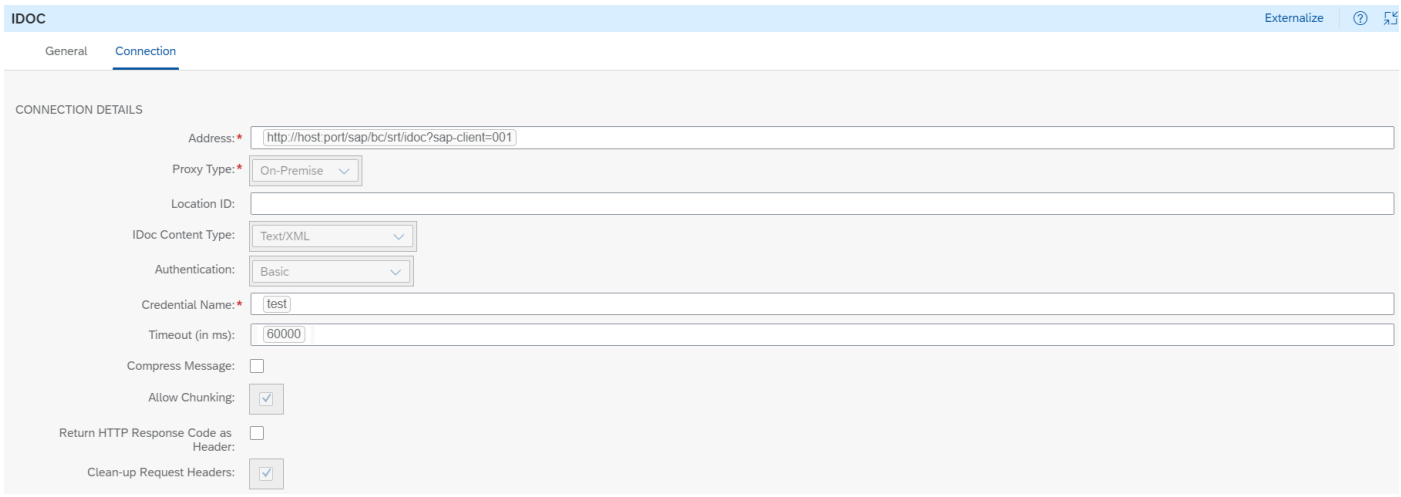


Operation Details	Enter the operation preferred.
Resource Path	Select the Model Operation where you can find and select the entity preferred and after the fields for model operation. In this case, define *A_CustomerSalesArea('Customer','SalesOrganization','DistributionChannel','Division').*
Fields	Select the fields from Resource Path (entity that you're performing the operation on).

3.4 Configure Receiver IDoc Adapter (ERP Account)

The receiver IDoc Adapter for ERP Account is described below:

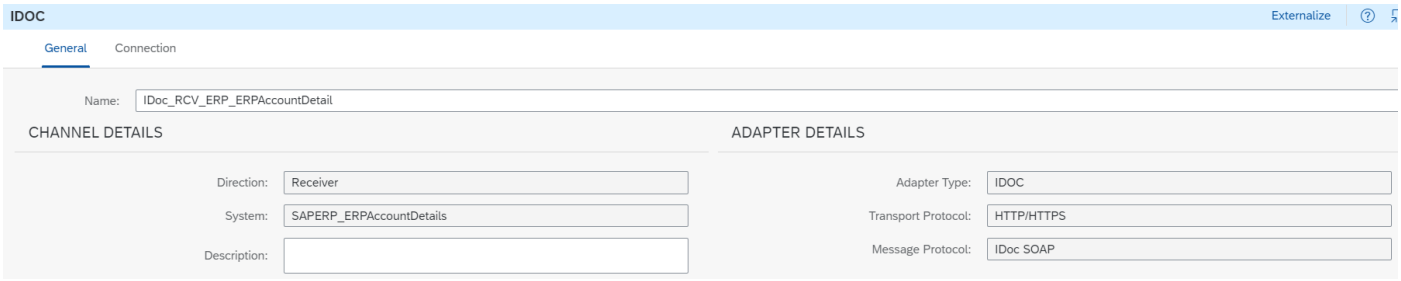


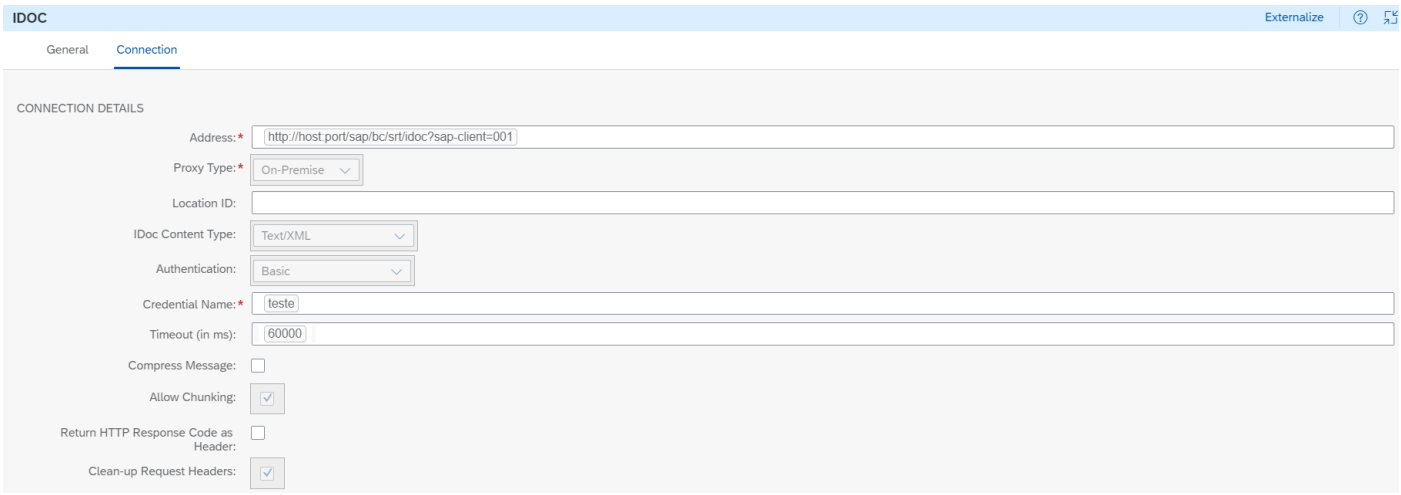


Address	Enter the endpoint address on which SAP Cloud Integration posts the outbound message.
Proxy Type	Enter the proxy type (On-premise SAP ERP).
IDoc Content Type	Enter the IDoc Content Type.
Authentication	Enter the authentication method.
Credential Name	Enter the Credential Name.

3.5 Configure Receiver IDoc Adapter (ERP Account Detail)

The receiver IDoc Adapter for ERP Account Detail is described below:





Address	Enter the endpoint address on which SAP Cloud Integration posts the outbound message
Proxy Type	Enter the proxy type (On-premise SAP ERP).
IDoc Content Type	Enter the IDoc Content Type.
Authentication	Enter the authentication method.
Credential Name	Enter the Credential Name.

3.6 Configure Backend 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.

1.1.1. 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.

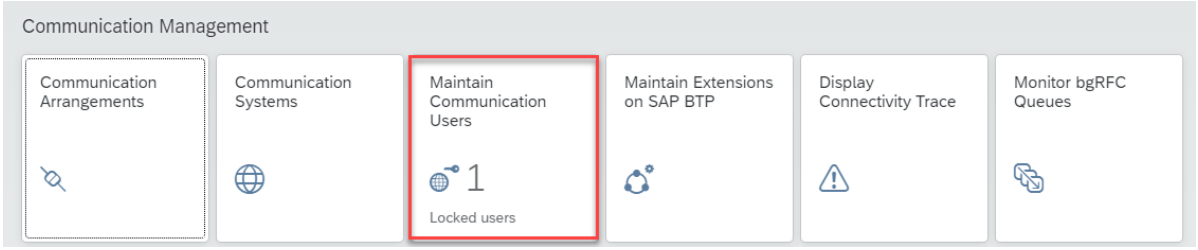
For more information, refer to Maintain Business Roles
https://uacp.hana.ondemand.com/http.svc/rc/PRODUCTION/1a93686c176845f0832a2a73221dd90b/1611%20500/en-US/frameset.htm?8980ad05330b4585ab96a8e09cef4688.html

1.1.2. Communication User

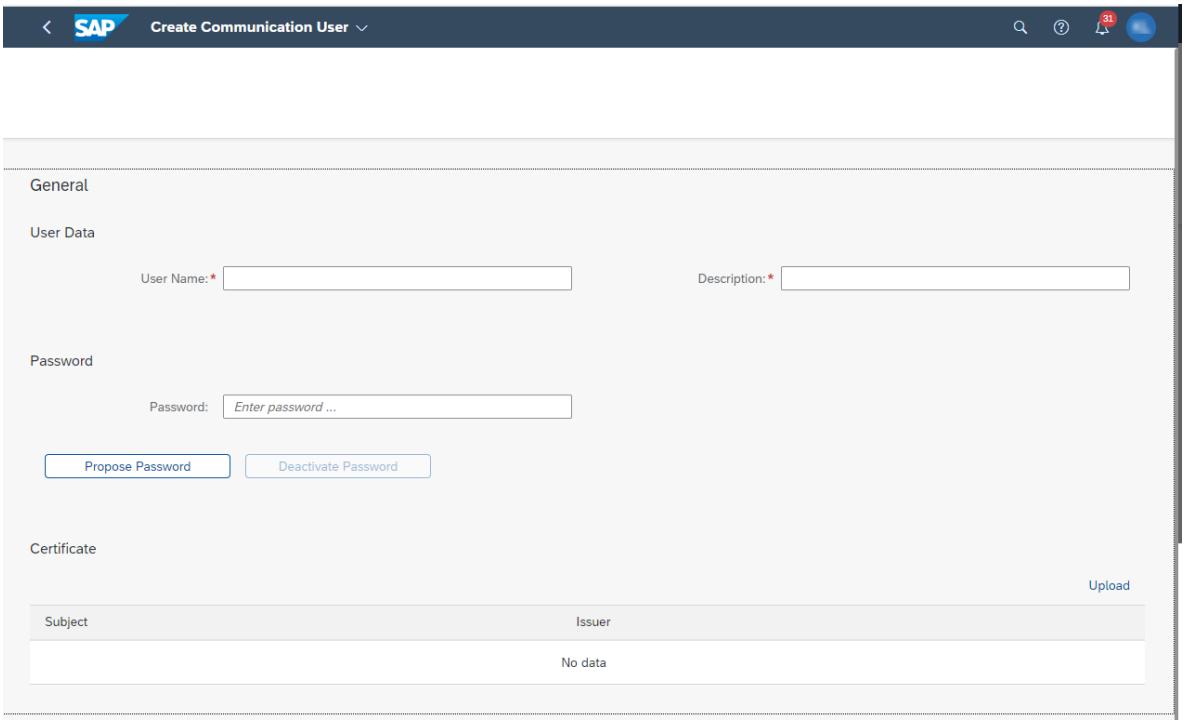
The communication user defined in the SAP S/4HANA Cloud system is used for inbound communication and for processing messages in the system.

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.

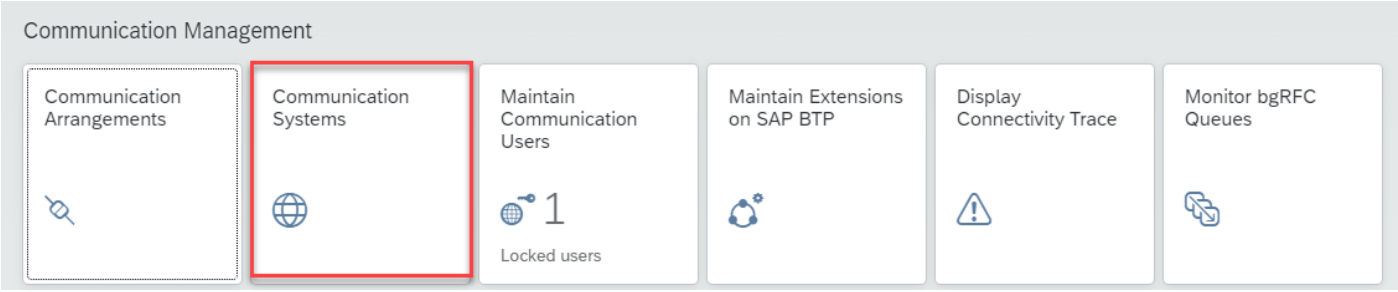
5. Enter a password. You can also upload an SSL client certificate.
6. Choose Create.

1.1.3. Communication System

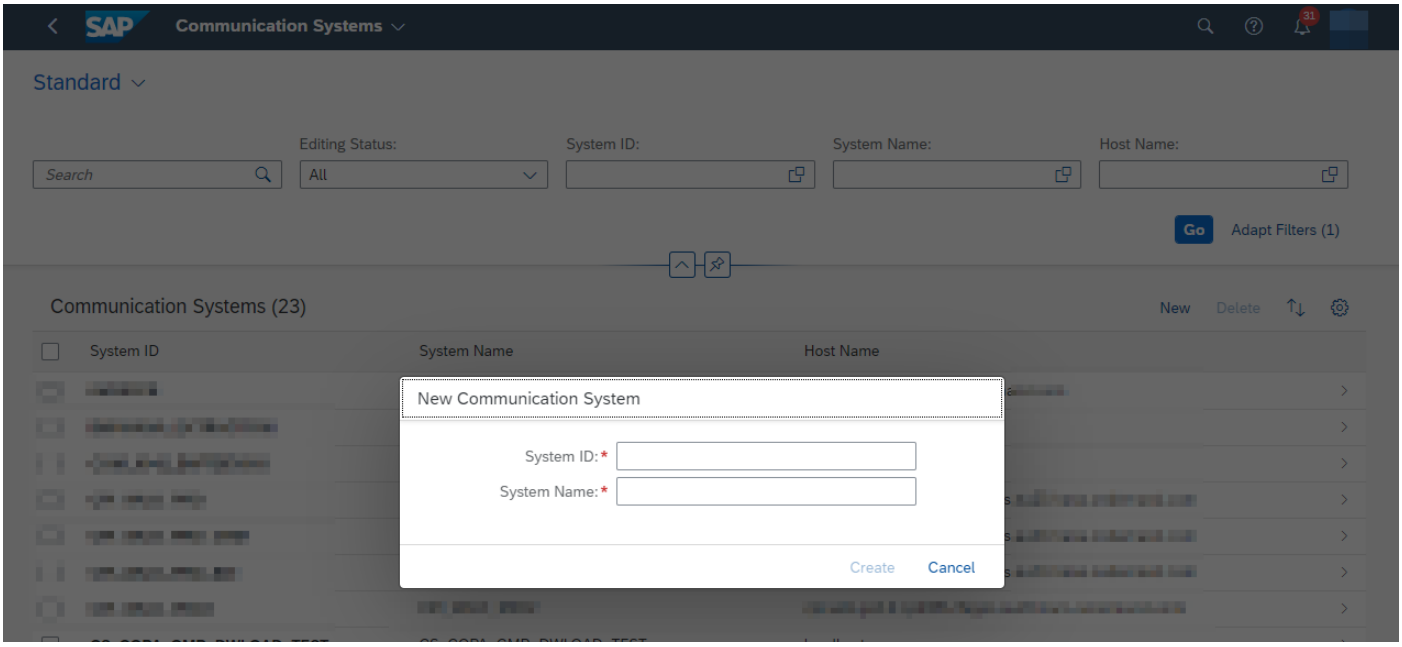
The communication system defined in the SAP S/4HANA Cloud system is used as the source or target system.

Procedure

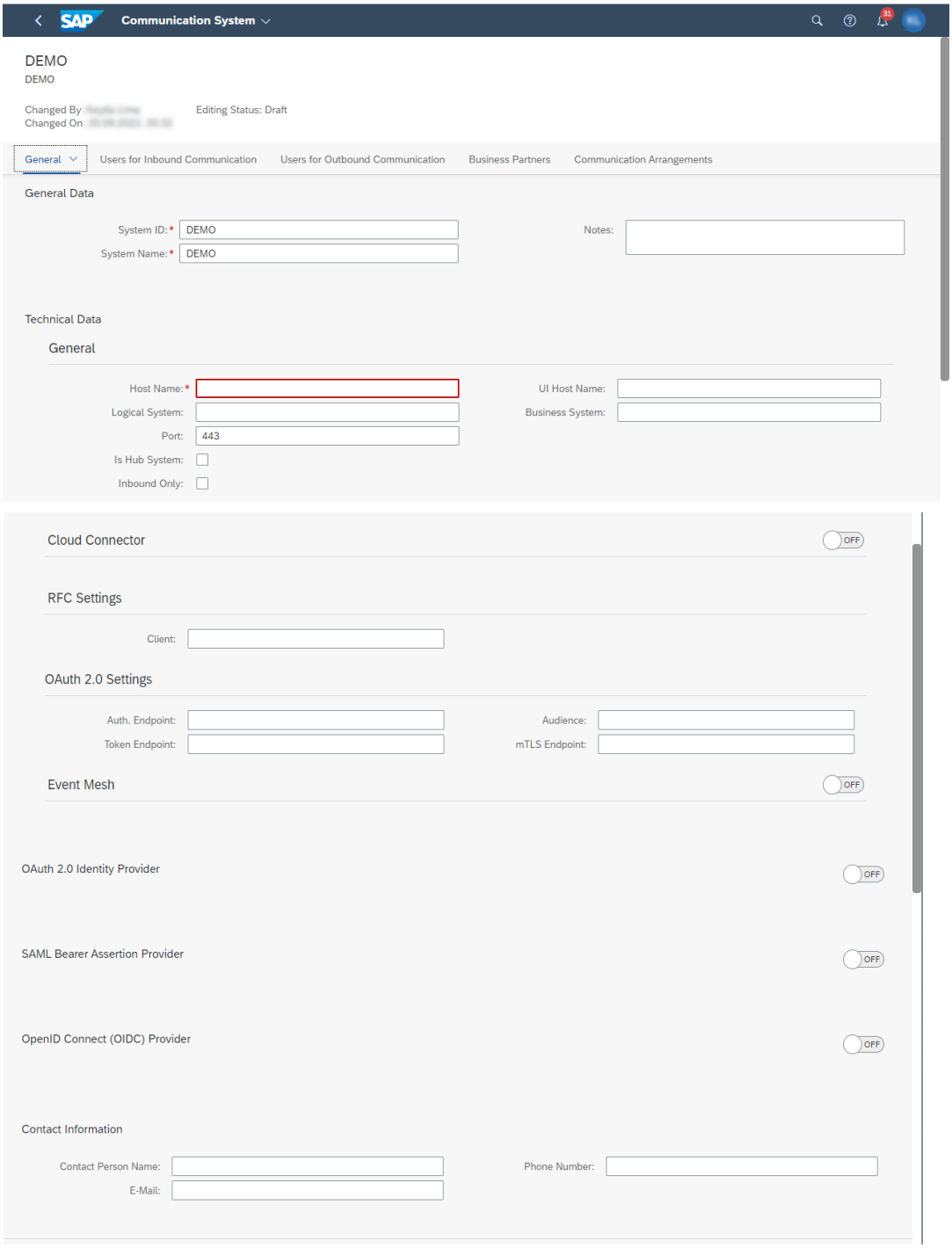
1. Access the SAP S/4HANA Cloud system and log on as an Administrator.
2. Choose Communication Systems tile under Communication Management.



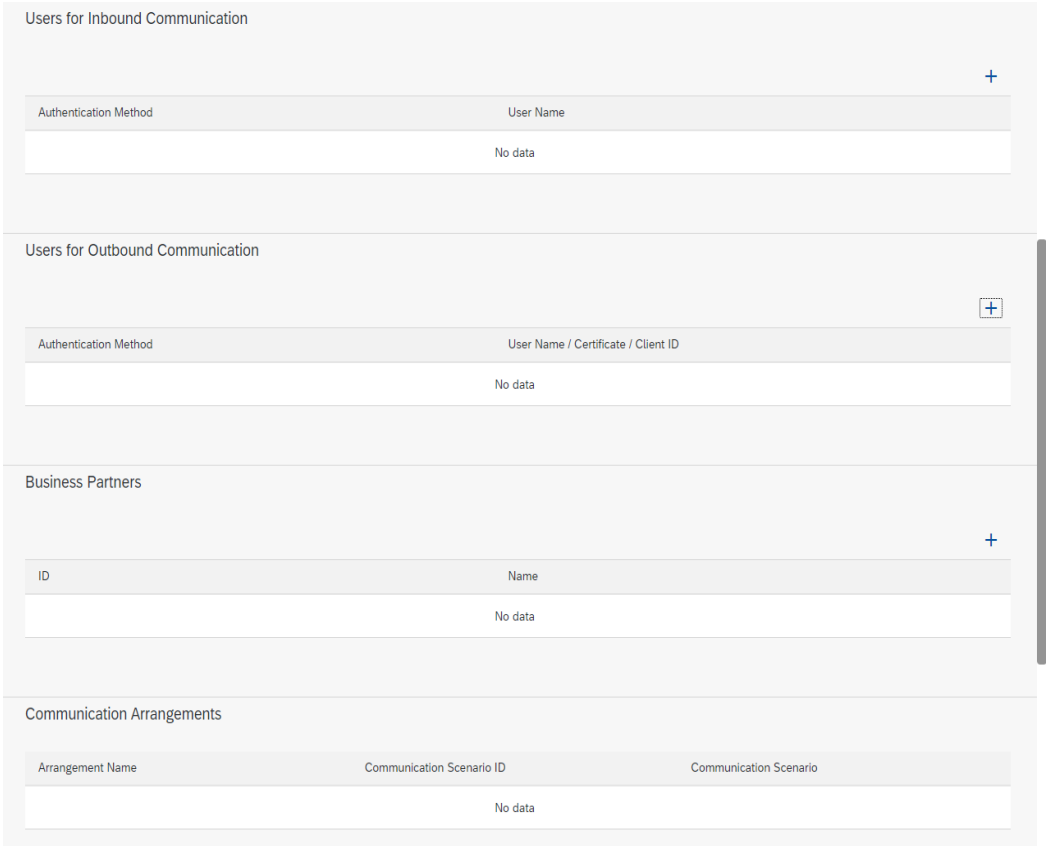
3. In the next window, choose New. The following screen appears.



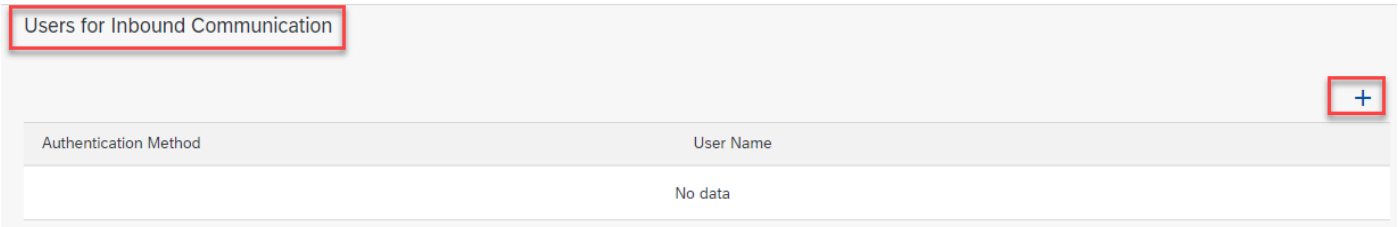
4. Enter the System ID. Optionally, you can enter the ID to recognize the integration system, which is connected with the SAP S/4HANA Cloud system.
5. Enter a descriptive name in the System Name field.
6. Choose Create.


Communication System
DEMO
DEMO
Changed By
Changed On
Editing Status: Draft
General
Users for Inbound Communication
Users for Outbound Communication
Business Partners
Communication Arrangements
General Data
System ID: *
DEMO
System Name: *
DEMO
Notes:
Technical Data
General
Host Name: *
Logical System:
Port:
443
Is Hub System:
Inbound Only:
UI Host Name:
Business System:

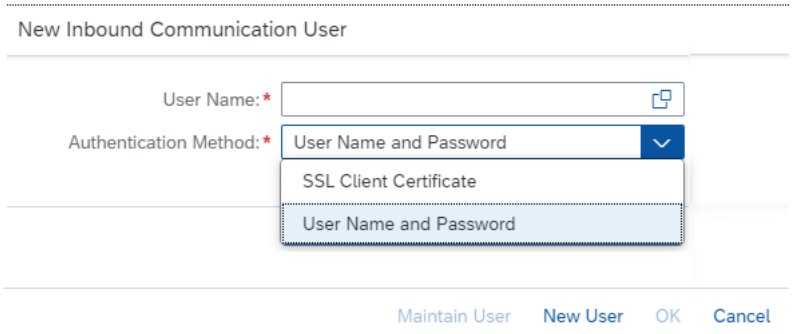
Cloud Connector
OFF
RFC Settings
Client:
OAuth 2.0 Settings
Auth. Endpoint:
Token Endpoint:
Audience:
mTLS Endpoint:
Event Mesh
OFF
OAuth 2.0 Identity Provider
OFF
SAML Bearer Assertion Provider
OFF
OpenID Connect (OIDC) Provider
OFF
Contact Information
Contact Person Name:
E-Mail:
Phone Number:



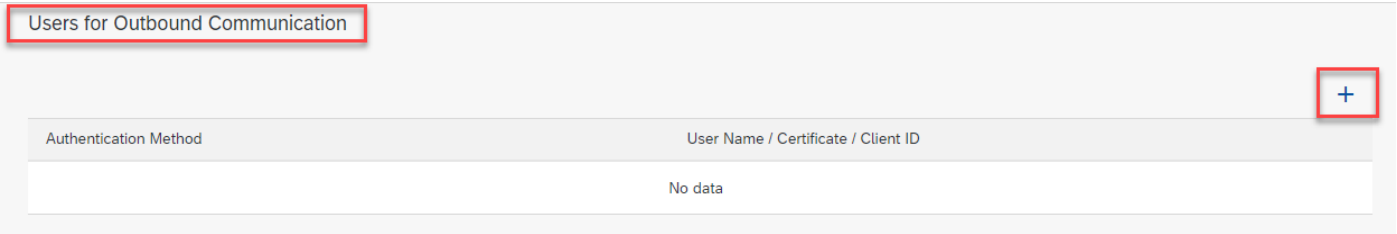
7. In the Host Name field, enter the SAP Runtime URL without HTTPS://
8. Enter the Log System ID as the SAP tenant ID.
9. Enter the Business System ID as the SAP tenant ID.
10. Under User for Inbound Communication, choose Add.



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



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



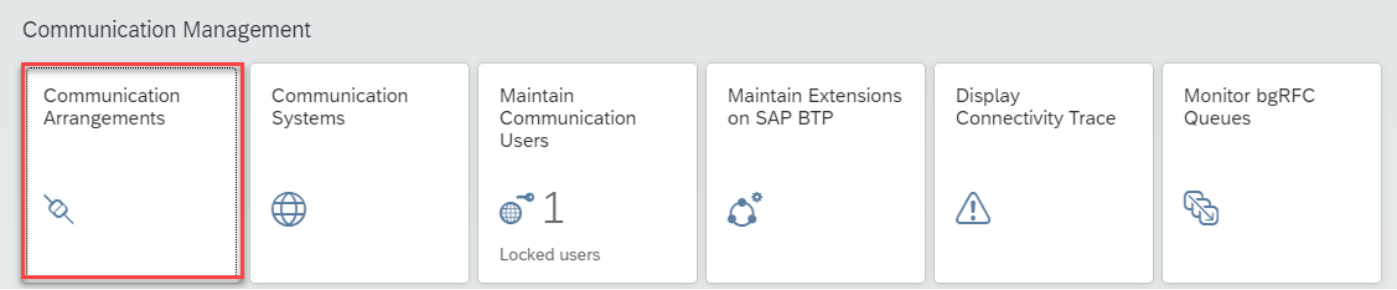
13. Choose Create.
14. Choose Save.

1.1.4. Communication Arrangement

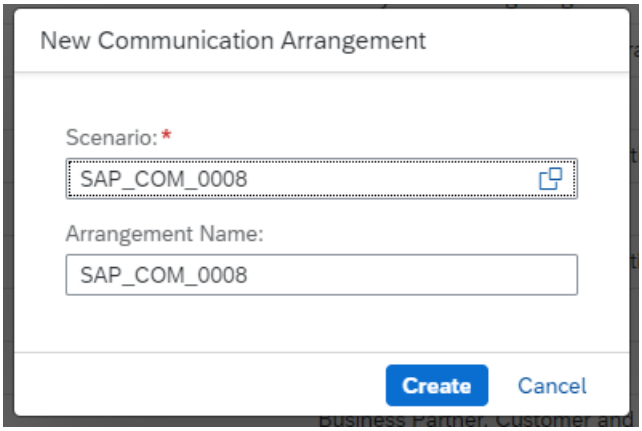
The Communication Arrangements defined in SAP S/4HANA Cloud systems enables key users to create and edit communication arrangements that your company has set up with a communication partner.

Procedure

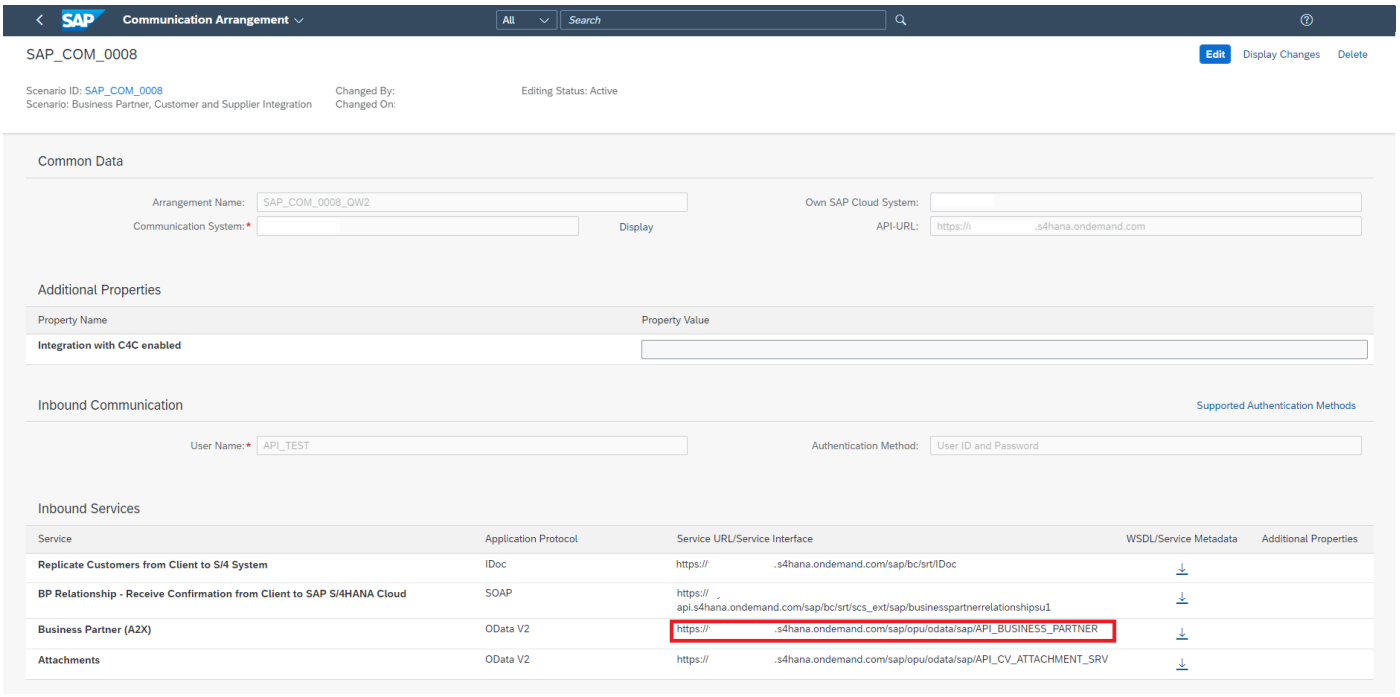
1. Access the SAP S/4HANA Cloud system and log on as an Administrator and open the app Communication Arrangements.



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.

3.7 Configure Backend system (SAP ERP)

- Setting up of IDoc Communication for create and update scenario which includes:
    - Logical Systems, Assign Logical Systems, Create the RFC Destination, Create Port for IDOC Processing, Maintain ALE Distribution Model, Manually Maintain Partner Profile.