



Integration Guide | PUBLIC

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Integrating Business Partner Data from SAP S/4HANA Cloud to SAP Integrated Business Planning

Integrating SAP IBP for Supply Chain 2402 with SAP S/4HANA Cloud Using SAP Cloud Integration

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Document History

The following table provides an overview of the most important changes.

Version	Date	Description
1.1	May 15, 2024	Updated Defining Additional Parameters [page 9] section.
1.0	February 16, 2024	Initial version

1 Introduction

Using the integration flow, you can integrate data from SAP S/4HANA Cloud, as part of the solution SAP S/4HANA Cloud Public Edition to SAP Integrated Business Planning for Supply Chain (SAP IBP). Using this data, you can perform demand forecasting in SAP IBP, then integrate the results back to SAP S/4HANA Cloud as planned independent requirements.

Data integration between SAP IBP and SAP S/4HANA Cloud using the integration flows in the *SAP IBP - Integration with SAP S/4HANA Cloud* package is available with SAP IBP 2402 and higher.

Using the *Integrate Business Partners from SAP S/4HANA Cloud to SAP IBP* integration flow, you can integrate customer data from SAP S/4HANA Cloud to SAP IBP. Customer data is collected using an OData API. For more information about the API, see the API reference at the SAP Business Accelerator Hub at https://api.sap.com/api/API_BUSINESS_PARTNER.

2 Prerequisites

We recommend that you have configured frequently used parameters using the *Define Default Values for Data Integration Between SAP IBP and SAP S/4HANA Cloud* integration flow.

3 How to Use the Integration Flow?

The following sections provide general guidance on how to use the *Integrate Business Partners from SAP S/4HANA Cloud to SAP IBP* integration flow.

Customer Filter

You can set filters on customer data using the `Customer Filter` parameter.

Exact Customers

You can set filters to select specific data, for example, as follows:

❖ Example

- With the following filter, the customer with the ID `TESTCUSTOMER1` is selected:
`TESTCUSTOMER1`
- The following filter expression selects multiple customers:
`TESTCUSTOMER1 , TESTCUSTOMER2 , TESTCUSTOMER5`

Ranges

You can set filters using data ranges, for example, as follows:

❖ Example

- With the following filter, customers with the ID `TESTCUSTOMER1` to `TESTCUSTOMER5` are selected:
`TESTCUSTOMER1-TESTCUSTOMER5`
- The following filter expression contains multiple filter conditions:
`TESTCUSTOMER1-TESTCUSTOMER3 , TESTCUSTOMER5-TESTCUSTOMER8`

Exact Customers and Ranges

You can set filters containing both exact IDs and data ranges, for example, as follows:

❖ Example

`TESTCUSTOMER1-TESTCUSTOMER5 , TESTCUSTOMER8`

Further Filters

The `Further Filters` parameter narrows down the selection further.

❖ Example

`Customer Filter: TESTCUSTOMER1-TESTCUSTOMER5`

`Further Filters: Customer eq 'TESTCUSTOMER3'`

As a result, only TESTCUSTOMER3 is selected.

Dummy Customer

Some processes require to have a customer. If you don't want to use a customer or you don't have customer data, you can integrate a dummy customer instead.

You can configure the `Dummy Customer ID` parameter either in the *Integrate Business Partners from SAP S/4HANA Cloud to SAP IBP* or the *Define Default Values for Data Integration Between SAP IBP and SAP S/4HANA Cloud* integration flow. The value of the `Dummy Customer ID` parameter is used in the `CUSTID` and `CUSTBUPAID` fields in SAP IBP.

Depending on the configuration of the `Dummy Customer ID` and `Customer Filter` parameters, the following results you can have:

Parameter Settings	Results
<code>Dummy Customer ID</code> is empty and <code>Customer Filter</code> is defined	Customer data is integrated from SAP S/4HANA Cloud.
<code>Dummy Customer ID</code> is defined and <code>Customer Filter</code> is empty	A dummy customer is created and integrated.
<code>Dummy Customer ID</code> and <code>Customer Filter</code> are both defined	Customer data is integrated from SAP S/4HANA Cloud and a dummy customer is created as well.
<code>Dummy Customer ID</code> and <code>Customer Filter</code> are both empty	An error occurs.

If you are using a dummy customer, you can maintain the values of different fields, such as the `CUSTDESCR` and `CUSTCHANNEL` fields using the `Field Extensions` parameter.

3.1 Configuring the Integration Flow

3.1.1 Configuring the Authentication

The integration flow connects to both the SAP S/4HANA Cloud and the SAP IBP system. Connections, including the authentication method, must be created and configured at different places depending on the respective system. Once the connections are created for both directions, you need to configure them in the integration flow under ► [Configure](#) ► [Receiver](#) ►.

Authentication Methods for the Connection to SAP IBP

You can only choose basic authentication when connecting to SAP IBP. You can configure the authentication method during the configuration of the destination. You can set the name of the destination using the `Destination for SAP IBP` parameter of the integration flow.

For more information, see [Setting Up the Integration](#).

Authentication Methods for the Connection to SAP S/4HANA Cloud

The following authentication methods are available when connecting to SAP S/4HANA Cloud:

- Basic authentication
- Client certificate (X.509 certificate)

You can select the authentication method in the integration flow under ► [Configure](#) ► [Receiver](#) ► [Authentication](#) ►. Although there are more options displayed in the list, only basic authentication and client certificate authentication are supported.

The default authentication method is client certificate.

Setting Up the Client Certificate Authentication Method

As a prerequisite of using a client certificate, add and deploy the required key pair to the keystore. You can do so in SAP Integration Suite using the [Keystore](#) tile in the [Manage Security](#) section under [Monitoring Artifacts](#). For more information, see <https://help.sap.com/docs/cloud-integration/sap-cloud-integration/managing-keystore-entries>.

If you select authentication using a client certificate when configuring the integration flow, you need to enter the private key alias.

Setting Up the Basic Authentication Method

As a prerequisite of using basic authentication, create and deploy the user credentials type of security material. You can do so in SAP Integration Suite using the [Security Material](#) tile in the [Manage Security](#) section under [Monitoring Artifacts](#). For more information, see <https://help.sap.com/docs/cloud-integration/sap-cloud-integration/managing-security-material>.

If you select basic authentication when configuring the integration flow, you need to enter the credential name.

3.1.2 Data Mapping

The following default data mapping is available in the integration flow:

Property in OData API	Field in SAP IBP	Further Hints
Customer	CUSTID	
BusinessPartner	CUSTBUPAID	
Country	CUSTCOUNTRY	
DistributionChannel	CUSTCHANNEL	
Region	CUSTREGION	
BPCustomerFullName	CUSTDESCR	
DeletionIndicator	CUSTVALID	The value of the DeletionIndicator property (TRUE or FALSE) is inverted and mapped to the CUSTVALID field.

3.1.3 Defining Additional Parameters

Under [Configure > More](#), you can find the following parameters that you can use to configure the integration flow:

Parameter Name	Default Value	How to Configure the Parameter?
Attributes in SAP IBP	CUSTID, CUSTCHANNEL, CUSTCOUNTRY, CUSTDESCR, CUSTREGION	Enter the technical names of the master data types in SAP IBP onto which you want to integrate data.
Batch Name	Business Partner: \$ {header.SAP_MplCorrelationId}	Define the name of the data batch. This name also identifies the corresponding job in the Data Integration Jobs app.

Parameter Name	Default Value	How to Configure the Parameter?
Customer Filter	-keep default-	<p>Optionally, select customers by defining specific customer IDs or intervals. Separate data by commas.</p> <div style="border: 1px solid #ccc; background-color: #f9f9f9; padding: 5px; margin-top: 10px;"> <p>❖ Example</p> <p>0001, 0002-9000, 9999</p> </div> <p>Note that only closed intervals are supported.</p>
Destination for SAP IBP	-keep default-	Enter the name of the SAP IBP system to which customer data is transferred.
Dummy Customer ID	-keep default-	Optionally, define a dummy customer instead of an existing one.
Field Extensions		<p>Optionally, you can define complex mappings for certain columns.</p> <p>If you are using a dummy customer, it has the values defined in the CUSTDESCR and CUSTCHANNEL fields.</p> <p>For further information, see Working with Field Extensions [page 11].</p>
Further Filters		<p>Optionally, define additional OData filters.</p> <div style="border: 1px solid #ccc; background-color: #f9f9f9; padding: 5px; margin-top: 10px;"> <p>❖ Example</p> <p>Customer ge '1' and le '3' and Customer eq '2'</p> </div>
Host for SAP S/4HANA Cloud	-keep default-	Define the base URL of the SAP S/4HANA Cloud API
Master Data Prefix	-keep default-	Optionally, define a three-character-long prefix to be used in SAP IBP.
OData Package Size	50000	Define the number of values to be integrated in one data package.
Planning Area	-keep default-	Define the planning area in SAP IBP from which you want data to be integrated.
Planning Area Version	-keep default-	Define the version of the target planning area in SAP IBP.

Parameter Name	Default Value	How to Configure the Parameter?
Process Unchanged Data	-keep default-	<p>If you want to skip unchanged data, regardless of SAP IBP global parameter setting for this behavior, set this parameter to false.</p> <p>If you want to process unchanged data, regardless of SAP IBP global parameter setting, set this parameter to true.</p> <p>If you leave this parameter field empty, SAP IBP global parameter will determine the behavior.</p>

To use the values defined in the *Define Default Values for Data Integration Between SAP IBP and SAP S/4HANA Cloud* integration flow, use the `-keep default-` value for the relevant parameters. This is also the default value of all parameters for which you can maintain a reusable default value in the *Define Default Values for Data Integration Between SAP IBP and SAP S/4HANA Cloud* integration flow.

3.1.4 Working with Field Extensions

With field extensions, you can specify additional attributes to integrate data from and change data mapping.

In general, the required syntax of the value of the `Field Extensions` parameter is the following:

Sample Code

```
<FIELDNAME value = 'DESIRED VALUE' skip="DESIRED VALUE" nil = "DESIRED VALUE" >
```

Note

The `FIELDNAME` must be a field that is listed in the `Attributes in SAP IBP` parameter.

The `DESIRED VALUE` can be defined as a constant value, such as `"0"` or `"TEXT"`. If you use a constant value, all the rows are filled with this value for the given field. The entered values of `skip` and `nil` are evaluated as either true or false. The value entered after `skip` is skipped, and the value entered after `nil` is nullified. Note that using the `skip` and `nil` parameters is optional, and that instead of skipping a constant value, you can skip mapping itself.

You can also define the `DESIRED VALUE` as a function mixed with an XPath expression. This way, you can select specific values from the data set or define a logic using exact values.

Example

Using the following code, you can define `CUSTOMFIELD` to be `Customfieldxxx` where `xxx` is the ID of the corresponding row in the data set:

```
<CUSTOMFIELD value = "concat('Customfield', ./ID)" >
```

❁ Example

Using the following code, you can skip the field for a certain ID value:

```
<CUSTOMFIELD value = "./DESIRED4FIELD" skip = "ID='ID value'">
```

You can define an evaluation like the above for any of the fields and with different logical functions. Operations such as `FIELD != ''` also work.

📌 Note

The value of the `DESIRED4FIELD` can be any of the fields that are requested from SAP S/4HANA Cloud. In the CDS view, you can check which fields are included in the request. You cannot extend the list of the fields in the request, however, you can cycle through the values of the data set using an XPath expression.

In general, the data structure of an XPath expression looks as follows:

🔗 Sample Code

```
<item>
<field1>value1a</field1>
<field2>value1b</field2>
</item>
<item>
<field1>value2a</field1>
<field2>value2b</field2>
</item>
...
```

Based on the above sample, to select `value1a` and `value2a`, use `./field1`, and to select `value1b` and `value2b`, use `./field2`.

Note that the structure of the data can be different at this stage, therefore, it is recommended to always check the structure of the data set before executing the XPath selection.

📌 Note

Although the integration flow validates the syntax of the field extension XML, you need to make sure that its content is defined according to your business needs.

Extending Business Partner Data

❁ Example

The following example shows how to add values in the `CUSTDESCR` and `CUSTCHANNEL` fields of the dummy customer:

🔗 Sample Code

```
<CUSTDESCR value="if(Customer!='') then CustomerDescription else 'Dummy
Customer'"/> <CUSTCHANNEL value="if(Customer!='') then CustomerChannel else
'Dummy'"/>
```

3.1.5 Scheduling the Integration Flow

You can schedule the execution of the integration flow under ► *Configure* ► *Timer* ▾.

By default, the start of the integration is scheduled for 2100-01-01 to prevent unnecessary integration jobs during the initial deployment. After you've finalized the configuration of the integration flow, you can manually set the timer according to your needs.



You can select *Run Once* to start integration directly. You can also schedule the job for a future date or make it recurring. For more information about scheduling, see <https://help.sap.com/docs/cloud-integration/sap-cloud-integration/define-timer-start-event>.

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