



Integration Guide | PUBLIC

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# SAP IBP Application Jobs - Reusable Integration Flows

## Integrating with SAP IBP Application Jobs

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# 1 Document History

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

Version	Date	Description
1.0	February 1, 2026	Initial version

## 2 Introduction

The *SAP IBP Application Jobs – Schedule Sender* and *SAP IBP Application Jobs – Schedule Receiver* integration flows help you connect to application jobs in SAP IBP.

The application job template is called *Data Integration Using SAP Cloud Integration*.

Both integration flows need to be deployed for the application jobs to function.

You can find here the required steps in SAP Cloud Integration to set up the authorization and authentication as well as a description of how you can make your own integration flows conform to the application job templates interfaces.

## 3 Prerequisites

Usage of Java Message Service (JMS) is enabled as a capability. For more information, see <https://help.sap.com/docs/integration-suite/sap-integration-suite/activating-and-managing-capabilities?locale=en-US>

## 4 Authorization

In SAP Cloud Integration, **inbound** refers to the communication direction when a sender system sends a message to the integration platform. The sender in this case is the SAP IBP application job scheduler. Its authorization check is role-based: the *ESBMessaging.send* predefined role or a custom role including similar authorizations must be assigned to your user.

To configure the deployment of the *SAP IBP Application Jobs – Schedule Sender iFlow*, you need the external parameter *User Role* with your custom created role.

For more information on creating a custom role, see <https://help.sap.com/docs/integration-suite/sap-integration-suite/managing-user-roles?locale=en-US>.

# 5 Authentication

To establish a connection with SAP IBP, your BTP subaccount administrator must create two instances and their respective service keys.

## Instances

To create the first instance for the HTTP adapter in the SAP BTP Cockpit, do the following:

1. Access the sub-account used for SAP Cloud Integration.
2. Go to the *Instances and Subscriptions* tab.
3. Create a new instance and add the following information in the *Basic Info* step:
  - *Service*: Process Integration Runtime (it-rt)
  - *Plan*: integration-flow (Process Integration Flow access)
  - *Runtime Environment*: Choose Cloud Foundry.
  - *Space*: Select the appropriate space (depending on your company).
  - *Instance Name*: Enter an instance name.
4. In the *Parameters* step, select the *ESBMessaging.send* role or your custom role that you created and configured previously.
5. Choose *Next*.

Create the second instance for the SAP Cloud Integration OData API:

1. Access the sub-account used for SAP Cloud Integration.
2. Go to *Instances and Subscriptions*.
3. Create a new instance and add the following information in the *Basic Info* step:
  - *Service*: Process Integration (it-rt)
  - *Plan*: API (*Process Integration API access*)
  - *Runtime Environment*: Choose Cloud Foundry
  - *Space*: Select the appropriate space (depending on your company).
  - *Instance Name*: Enter an instance name.
4. Choose *Next*.
5. Select all of the following roles under *Parameters*:
  - *MessagePayloadsRead*
  - *AuthGroup\_ReadOnly*

## Create Service Key

After the instances have been created, to add the service key, do the following:

1. Select the row of the instance.
2. Go to the *Service Keys* tab.
3. Create the service key by entering its name.

For more information about creating service keys, see <https://help.sap.com/docs/integration-suite/sap-integration-suite/creating-service-instance-and-service-key-for-inbound-authentication?locale=en-US>.

In SAP IBP the communication scenario `SAP_COM_0B05` allows you to use both *OAuth 2.0 (Basic)* and *OAuth 2.0 (mTLS)* certificate-based authentication. We recommend that you use certificate-based authentication.

## 6 Creating Integration Flows Compatible With Application Jobs

If you want to create custom integration flows, you can learn here about how scheduling information arrives from SAP IBP.

The configuration data from the application job arrives in a JSON format. The *SAP IBP Application Jobs – Schedule Sender* integration flow transforms this data into a format acceptable for the scheduled integration flow and passes it to the *SAP IBP Application Jobs – Schedule Receiver* integration flow via JMS that will call your custom integration flow via *ProcessDirect*.

Example of a JSON payload:

### Sample Code

```
{
  "ProcessDirectId": "Example_ProcessDirectAddress",
  "External params": [
    {"ExampleExternalParam": "ExampleParamValue"},
    {"AnotherExternalizedParam": "AnotherValue"}
  ],
  "Additional params": [
    {"ParamA": "ValueA"},
    {"ParamB": "ValueB"}
  ]
}
```

The *SAP IBP Application Jobs – Schedule Sender* integration flow extracts the JSON payload. The *ProcessDirectId* and every *Externalized Parameter* are set as header parameters.

### Note

If you use the `DateFrom` and `DateTo` parameters, we evaluate possible xPath expressions when the data is extracted in the *SAP IBP Application Jobs – Scheduler Sender* integration flow. Other parameters are passed to the called integration flow without evaluation and without any change in value.

If the value of the `DateFrom` and `DateTo` parameters can't be evaluated, because the xPath is invalid or uses any variable other than `IFlowStartTimestamp` for the functions, the integration flow will throw an exception.

XPath expressions in other parameters will be sent to the called integration flow without evaluation.

Simple *Expressions* (not the xPath expression, but expressions like `${header.parameter}` or `${property.parameter}`) that require value from the header parameter list or exchange property list are evaluated, if possible. If the referenced header parameter or exchange property isn't found, the value is passed to the called integration flow without any change.

The *Additional Parameters* are transformed to XML format and set as *Message body* without any changes to their values.

## Sample Code

```
<AdditionalParams><ParamA>ValueA</ParamA><ParamB>ValueB</ParamB></AdditionalParams>
```

## Recommendations

If you want to schedule your integration flow from the SAP Cloud Integration *Application Jobs*, the *ProcessDirect Address* must be set as an externalized parameter, with the name 'SAPIBP\_PROCESS\_DIRECT\_ID'.

The *SAP IBP Application Jobs – Schedule Sender* and *SAP IBP Application Jobs – Schedule Receiver* integration flows must be deployed, no further configuration is needed.

How to set the *Address* as an *Externalized Parameter*:



1. Add the *Sender* adapter to your integration flow and connect it using *ProcessDirect* to your *Start Message*.
2. Configure the *ProcessDirect* on the *Connection* tab. Then choose *Externalize*.
3. Set parameter name to 'SAPIBP\_PROCESS\_DIRECT\_ID' on the popup.

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