



Trading Partner Management: Setting up the generic integration flow

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1. INTRODUCTION

This document depicts the steps needed to deploy the integration flows in Cloud Integration for the trading partner agreements configured in Trading Partner Management (TPM). This means, sending and receiving messages to/from your trading partners with no more configuration than the done in Trading Partner Management.

2. PREREQUISITES

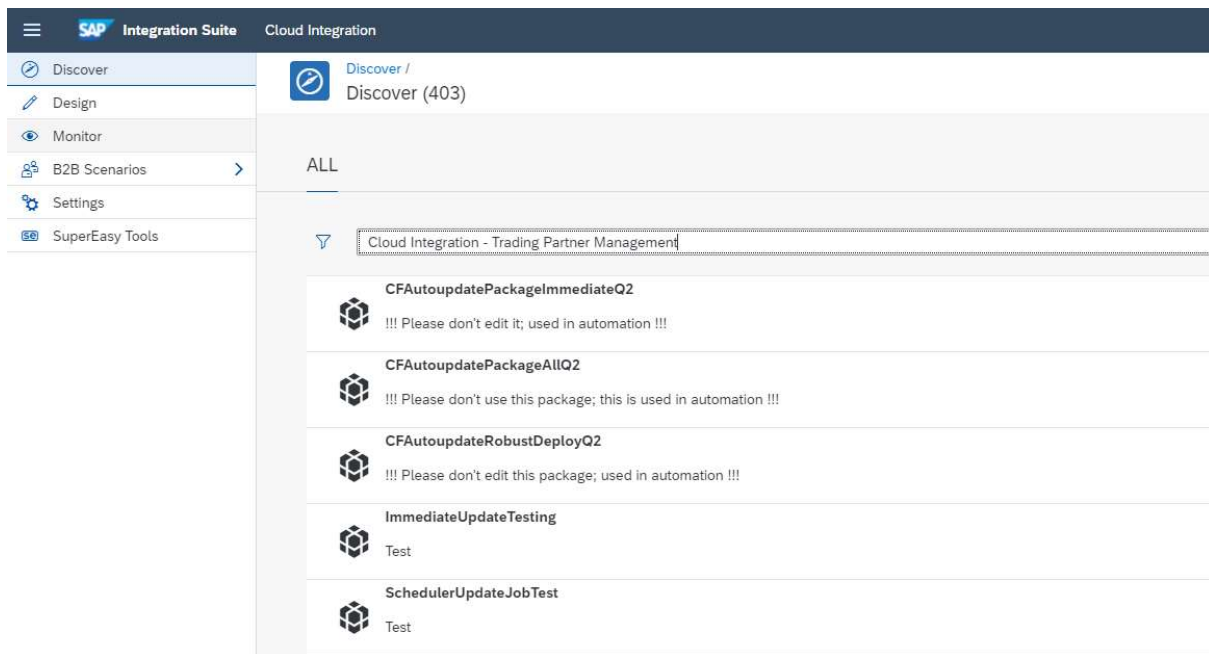
You have Trading Partner Management enabled in your Cloud Integration tenant and the necessary partners and agreements are configured there.

3. SETTING UP INTEGRATION FLOWS

The first step is to set up the integration package and its integration flows.

3.1. Discover Package

Go to the Discover section of Cloud Integration and search for the package “Cloud Integration – Trading Partner Management”.



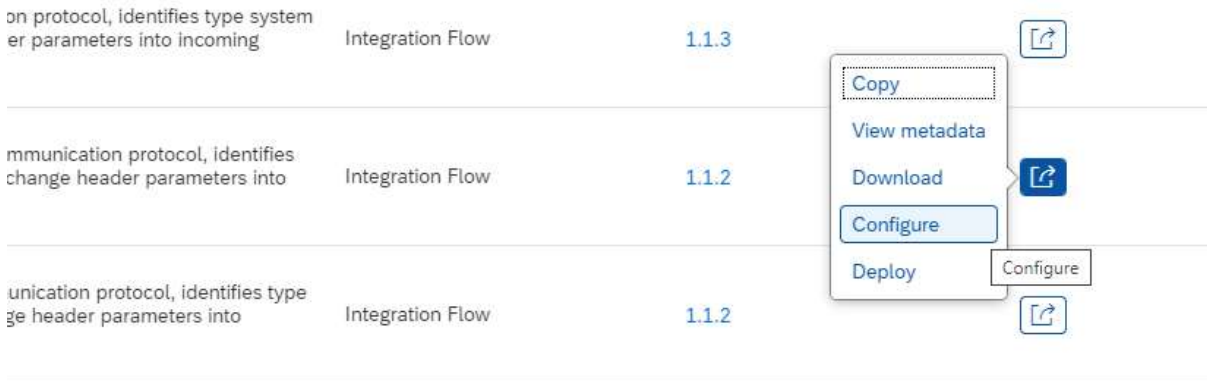
Click on the package and copy it to your workspace.



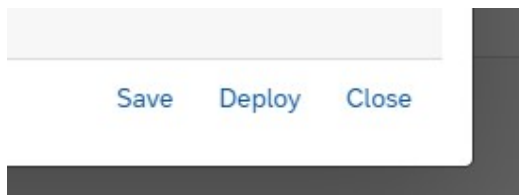
3.2. Configure Integration Flows

Go to the Design section of your Cloud Integration tenant and click on the “Cloud Integration – Trading Partner Management” package you just copied.

For each Integration Flow in the package select the Configure option as shown in the picture below



In the configuration pop-up fill in the information as explained in the next chapters and click on save button.



3.2.1. Step 1 – Sender AS2 Communication Flow

This integration flow has the following configurable parameters:

Sender		
AS2_Sender		
Parameter	Default Value	Description
Address		Address of the endpoint to start the integration flow
Message ID Left Part	.*	Left part of the message Id from the incoming message expected in the incoming message. It can be a placeholder
Message ID Right Part	.*	Right part of the message Id from the incoming message expected in the incoming message. It can be a placeholder
Partner AS2 ID	.*	Partner ID (sender) from the incoming message expected in the sender AS2 channel. It can be a placeholder
Own AS2 ID	.*	Own company ID (receiver) from the incoming message expected in the sender AS2 channel. It can be a placeholder
Message Subject	.*	Subject from the incoming message expected in the sender AS2 channel. It can be a placeholder
User Role	ESBMessaging.send	Role needed to call the integration flow, in case of User Role Authorization
Receiver		
Receiver1		
Parameter	Default Value	Description
Queue Name	INBOUND_Q	JMS queue where the incoming message are persisted

3.2.2. Step 1 – Sender IDOC Communication Flow

This integration flow has the following configurable parameters:

Sender		
IDOC_Sender		
Parameter	Default Value	Description
Address	/tpm/b2b/idoc/	Address of the endpoint to start the integration flow
User Role	ESBMessaging.send	Role needed to call the integration flow, in case of User Role Authorization

Receiver		
Receiver		
Parameter	Default Value	Description
Queue Name	INBOUND_Q	JMS queue where the incoming message are persisted

3.2.3. Step 1 - Sender SOAP Communication Flow

This integration flow has the following configurable parameters:

Sender		
SOAP_Sender		
Parameter	Default Value	Description
Address	/tpm/b2b/soap/	Address of the endpoint to start the integration flow
User Role	ESBMessaging.send	Role needed to call the integration flow, in case of User Role Authorization

Receiver		
Receiver		
Parameter	Default Value	Description
Queue Name	INBOUND_Q	JMS queue where the incoming message are persisted

3.2.4. Step 2 – Interchange Processing Flow

This integration flow has the following configurable parameters:

Sender		
JMS-Sender-Q		
Parameter	Default Value	Description
Queue Name	INBOUND_Q	JMS queue where the messages are taken from. Those are the incoming messages persisted in step 1

Receiver		
JMS-Receiver-Q		
Parameter	Default Value	Description
Queue Name	OUTBOUND_Q	JMS queue where the outgoing messages are persisted before being sent

More		
Parameter	Default Value	Description
Maximum Retries Number	1	Maximum number of retries in case of errors

3.2.5. Step 3 – Receiver Communication Flow

This integration flow has the following configurable parameters:

Sender		
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Sender		
Parameter	Default Value	Description
Queue Name	OUTBOUND_Q	JMS queue where the messages are taken from. Those are the outgoing messages persisted in step 2
More		
Parameter	Default Value	Description
Maximum Retries Number	1	Maximum number of retries in case of errors

3.3. Deploy Integration Flows

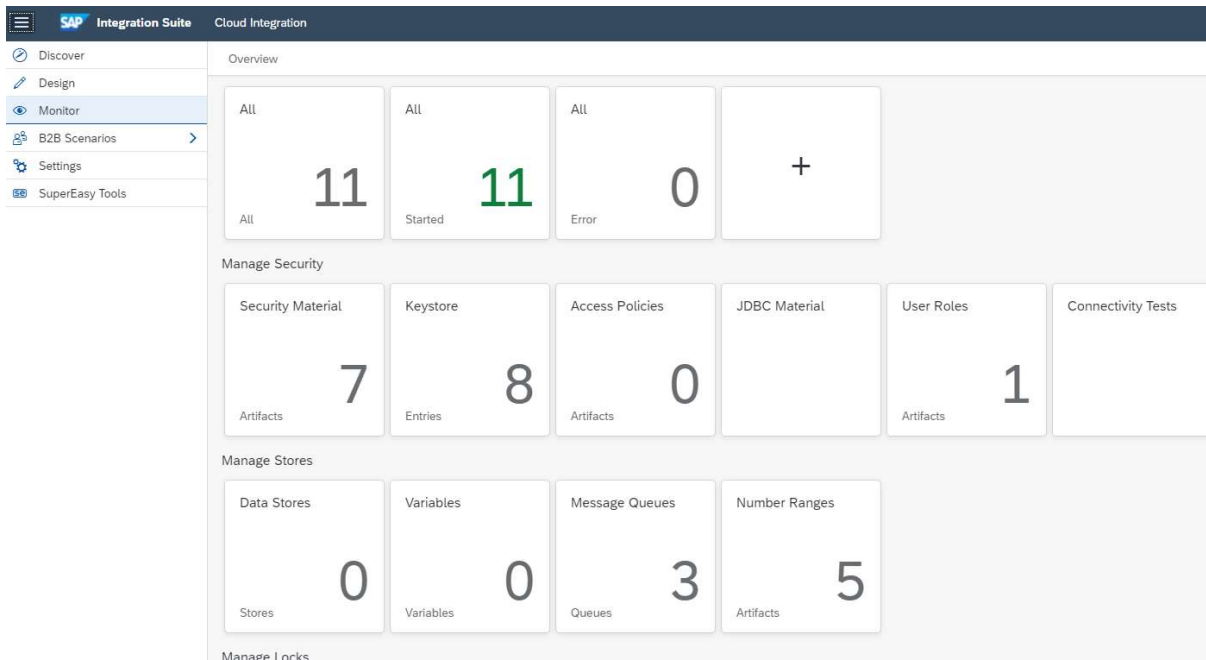
Once the integration flows are configured you can deploy them as shown below.

The screenshot displays the SAP Cloud Integration management console. The main content area shows a list of artifacts under the heading 'Cloud Integration - Trading Partner Management'. The artifacts are as follows:

Name	Type	Version	Actions
Reusable Groovy Scripts Script collection with all needed functionality (events, PD lookup, log, B2B monitor, number ranges...) Modified	Script Collection	1.1.4	View metadata, Download, Deploy
Step 1 - Sender AS2 Communication Flow This sender communication flow receives messages from sender via AS2 communication protocol, identifies type system (document standard) and writes payload together with required Camel exchange header parameters into incoming message queue. Modified	Integration Flow	1.1.3	Deploy
Step 1 - Sender IDOC Communication Flow This sender communication flow receives messages from sender via IDOC (HTTPS) communication protocol, identifies type system (document standard) and writes payload together with required Camel exchange header parameters into incoming message queue. Modified	Integration Flow	1.1.2	Deploy
Step 1 - Sender SOAP Communication Flow This sender communication flow receives messages from sender via SOAP V1.x communication protocol, identifies type system (document standard) and writes payload together with required Camel exchange header parameters into incoming message queue. Modified	Integration Flow	1.1.2	Deploy
Step 2 - Interchange Processing Flow This integration flow is processes the source interchange based on sender conventions into target interchange based on receiver conventions. These conventions will be invoked from PD. The final target interchange will be written into outbound msg. queue. Modified	Integration Flow	1.1.2	Deploy
Step 3 - Receiver Communication Flow This flow picks the ready to sent interchanges from outbound message queue and sends it to the final receiver by the agreed communication protocols using the receiver communication protocol parameters provided by the Camel exchange properties. Modified	Integration Flow	1.0.1	Deploy

4. CREATE NUMBER RANGES

The last step is to create the number ranges for the outgoing documents. For that, go to the Monitor section in your Cloud Integration tenant and select the Number Ranges tile.



You need to create there the number ranges that you are referring to in your Trading Partner Management. For that, select the Add button and enter the following information:

- **Name:** Number range name as used in Trading Partner Management
- **Description**
- **Minimum Value**
- **Maximum Value**
- **Field Length:** If it is 0, then takes the length from Maximum Value
- **Rotate:** Indicate if the number range next value will start again with minimum value in case of exhausted values

In case you do not want to reference to a number range for each partner in Trading Partner Management, you can create the following default number ranges:

Name	Description	Minimum Value	Maximum Value	Field Length	Rotate
ICN_ASC_X12	Interchange reference number for type system: X12	0	999999999	9	True
ICN_DEFAULT	Default interchange reference number	0	9999999999	10	True
ICN_SAP_IDOC	Interchange reference number for type system: IDOC	0	99999999999999	0	True
ICN_UN_EDIFACT	Interchange reference number for type system: EDIFACT	0	99999999999999	0	True
ICN_SAP_SOAP	Interchange reference number for type system: SOAP	0	99999999999999	0	True