



## **Configuration Guide – [BIMA] B2B Interface Migration Accelerator – ASCX12**

**BIMA - ASCX12 Essential Scripts**

**BIMA - ASCX12 Flow - Inbound\_TEMPLATE**

**BIMA - ASCX12 Flow - Outbound\_TEMPLATE**

**BIMA - ASCX12 Structure Modifier Flow - Inbound**

**BIMA - ASCX12 Structure Modifier Flow - Outbound**

**MM\_ASC850\_4010\_TO\_ORDERS05\_Sample**

**MM\_INVOIC02\_TO\_ASC810\_4010\_Sample**

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# Prerequisites

To successfully migrate ASC X12 message systems from SAP PI/PO to SAP Cloud Integration utilizing our community package, please ensure the following prerequisites are fulfilled:

## Inbound Flow (Trading Partner to Company)

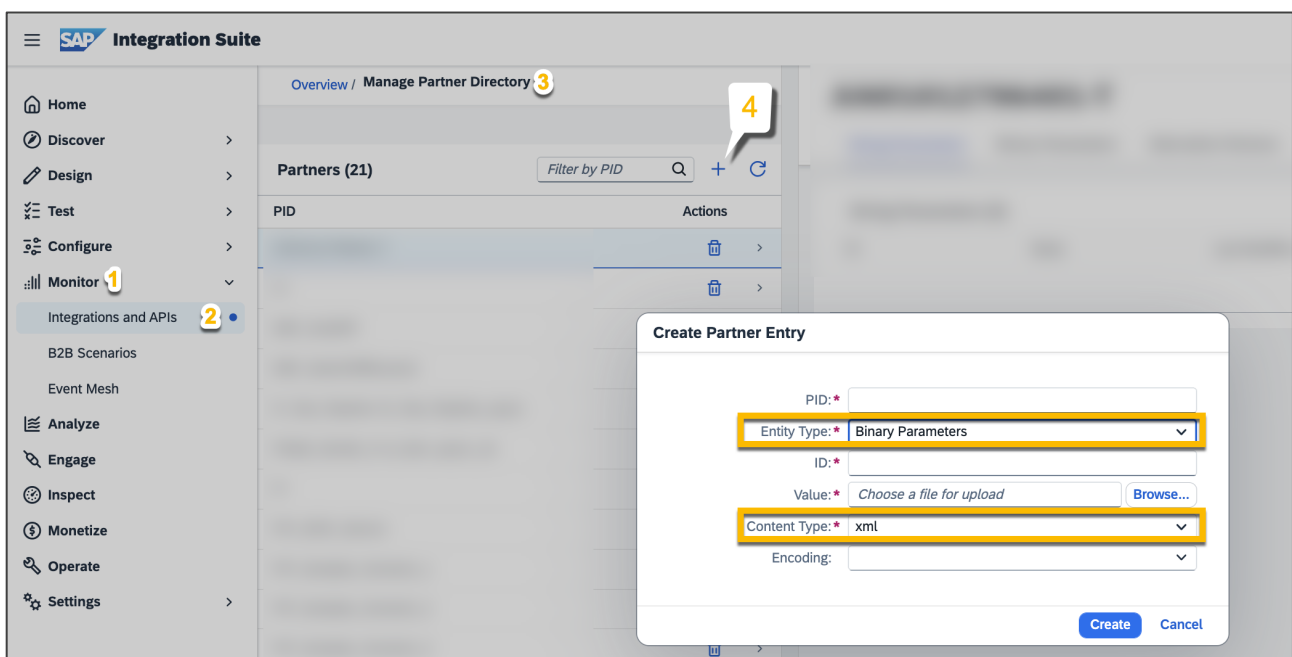
### 1. Create an XSD Schema:

- Go to Integration Suite Landing Page -> Discover -> Type Systems and select ASC X12
- Select Message Type and Version as per the requirement and click on Export XSD
- Create XSD for each message type which needs to be migrated. This XSD will be used in EDI to XML conversion within the inbound template flow.

**Note:** Focus on the XML structure rather than the data. Include all potential fields for efficient conversion. Extensive files with multiple items are not necessary; a single instance of each field suffices.

### 2. Configure a Partner Directory:

- Follow the steps as shown in the screenshot and set up a Partner Directory as follows:



- **Directory ID (PID):** SAP\_CPI\_to\_PI\_Inbound
- **Entity Type:** Binary Parameters
- **Identifier (ID):** Use the format <MessageType>\_<MessageVersion> (e.g., ASC850\_004010)
- **Value:** Upload the EDI XML payload from SAP PI/PO as a reference XML file.
- **Format (Content Type):** XML

**Note:** Focus on the XML structure rather than the data. Include all potential fields for efficient conversion. Extensive files with multiple items are not necessary; a single instance of each field suffices.

**Note:** Once the Partner Director with id: SAP\_CPI\_to\_PI\_Inbound is created, upload EDI XML payloads from SAP PI/PO as reference XML file under the same Partner Directory Id to migrate respective inbound message types and versions.

### 3. Set Up the Inbound Template Flow:

- Copy the inbound template flow into the desired package and rename it accordingly.
- Integrate and assign message mappings imported from SAP PI/PO within the mapping flow.
- Use the XSD from Step 1 for EDI to XML conversion in the converter flow.
- Establish connections for sender and receiver systems.

**Note:** Steps 1 and 2 are one-time activities for each message type and version. Complete Step 3 for each inbound interface migrating from SAP PI/PO to Cloud Integration (CPI).

## Outbound Flow (Company to Trading Partner)

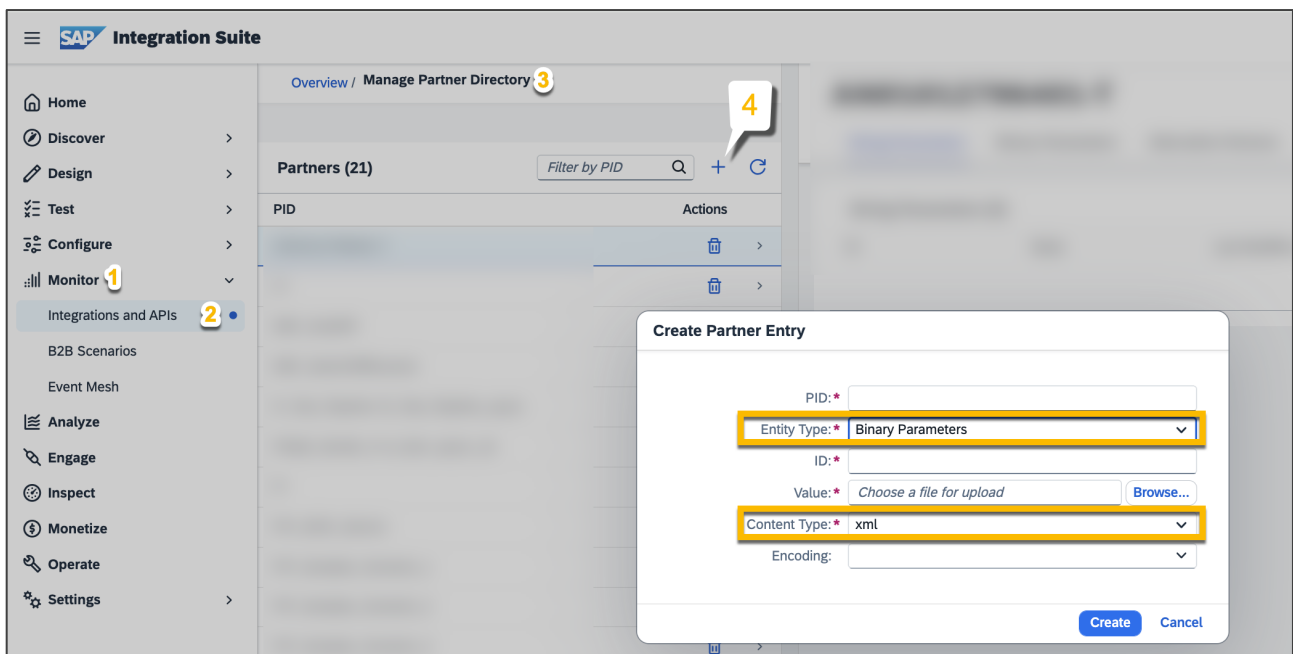
### 1. Create a Reference File:

- Develop a MIG using a sample EDI text file exchanged with trading partners, using its content for reference values.
- Export the MIG as an SAP Cloud Runtime Artifact, which provides both an XSD and an XML file.
- Prepare one MIG for each message type and version. The XML file will serve as a reference, and the XSD will facilitate XML to EDI conversion within the outbound template flow.

**Note:** Focus on the XML structure rather than the data. Include all potential fields for efficient conversion. Extensive files with multiple items are not necessary; a single instance of each field suffices.

### 2. Configure a Partner Directory:

- Follow the steps as shown in the screenshot and set up a Partner Directory as follows:



- **Directory ID (PID):** SAP\_PI\_to\_CPI\_Outbound
- **Entity Type:** Binary Parameters
- **Identifier (ID):** Use the format <MessageType>\_<MessageVersion> (e.g., ASC810\_004010)
- **Value:** Upload the EDI XML payload received in Step 1 as a reference.
- **Format (Content Type):** XML

**Note:** Once the Partner Director with id: SAP\_PI\_to\_CPI\_Outbound is created, upload EDI XML payloads from step1 as reference XML file under the same Partner Directory Id to migrate respective outbound message types and versions.

### 3. Set Up the Outbound Template Flow:

- Copy the outbound template flow to the desired package and rename it as needed.
- Incorporate the message mapping imported from SAP PI/PO and correctly assign it within the mapping flow.
- Apply the XSD from Step 1 for XML to EDI conversion in the converter flow.
- Configure connections for sender and receiver systems.

**Note:** Steps 1 and 2 are one-time tasks for each message type and version. Perform Step 3 for each outbound interface transitioning from SAP PI/PO to Cloud Integration (CPI).


# Documentation

This package includes the following seven artifacts:

1. BIMA - ASCX12 Essential Scripts
2. BIMA - ASCX12 Flow - Inbound\_TEMPLATE
3. BIMA - ASCX12 Flow - Outbound\_TEMPLATE
4. BIMA - ASCX12 Structure Modifier Flow - Inbound
5. BIMA - ASCX12 Structure Modifier Flow - Outbound
6. MM\_ASC850\_4010\_TO\_ORDERS05\_Sample
7. MM\_INVOIC02\_TO\_ASC810\_4010\_Sample

## 1. BIMA - ASCX12 Essential Scripts

This artifact provides a collection of reusable Groovy scripts essential for facilitating the migration of B2B ASC X12 interfaces from SAP PI/PO to Cloud Integration. Key functionalities of these scripts include logging payloads, setting partner IDs from incoming payloads, and performing partner directory lookups.

[\[BIMA\] B2B Interface Migration Accelerator - ASCX12 /](#) [BIMA - ASCX12 Essential Scripts /](#)

## BIMA - ASCX12 Essential Scripts

[Script Collection](#)

**References (3)**

Name	Type	Size	Actions
▼ Scripts (3)			
<a href="#">logPayload_ASCX12</a>	Groovy Script	394 Bytes	<a href="#">↓</a>
<a href="#">lookupPartnerDirectory_ASCX12</a>	Groovy Script	2 KB	<a href="#">↓</a>
<a href="#">setPartnerID_ASCX12</a>	Groovy Script	1 KB	<a href="#">↓</a>

## 2. BIMA - ASCX12 Flow - Inbound\_TEMPLATE

This artifact is an iFlow template designed to facilitate the migration of B2B ASC X12 message type inbound interfaces from SAP PI/PO to Cloud Integration. Users can copy this template into their packages and configure it according to specific requirements.

**i** Point-to-point integration pattern between sender and receiver systems where the receiver can ignore duplicate messages

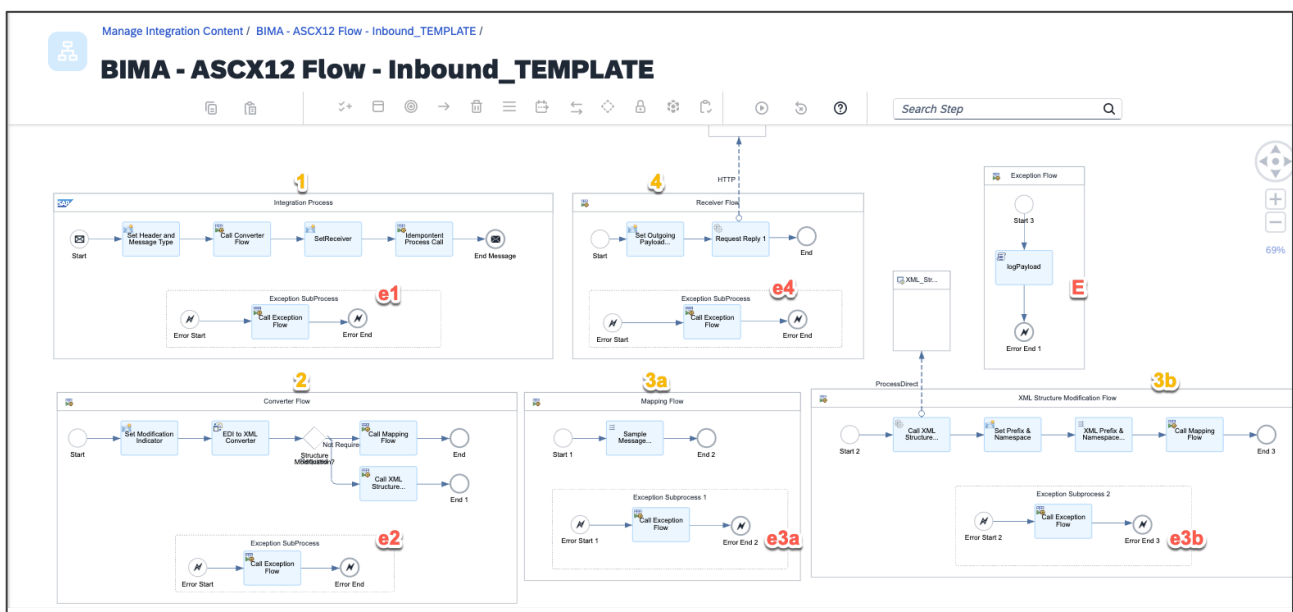
Pattern: \* **Point-to-Point Asynchronous** ?

☐ Decouple with JMS Queue **i**

☒ Idempotent Process at Receiver Side **i**

The iFlow template is structured on a Point-to-Point Asynchronous Pattern with an Idempotent Process at the receiver side. This ensures design consistency with other migrated SAP PI/PO interfaces and the B2B interfaces intended for migration.

## Components of this Template:



- **Integration Process (1):**

This is the primary integration process responsible for:

- Configuring sender system connections or process direct if you are using TPM in the flow
- Invoking the Local Integration Process named Converter Flow
- Executing the Idempotent process to engage with the Receiver Flow

- **Converter Flow (2):**

Within this Local Integration Process:

- A modification indicator is set to identify the availability of SAP standard solutions
- An EDI to XML Converter is used to transform EDI text files into EDI XML files
- If an SAP standard solution for EDI to XML conversion using SAP PI/PO specific XSD is available, the Local Integration Process Mapping Flow (3a) is invoked directly. If not, the XML Structure Modification Flow (3b) is called.

- **Mapping Flow (3a):**

In this Local Integration Process:

- Message mapping imported from the SAP PI/PO system is incorporated for data transformation

- **XML Structure Modification Flow (3b):**

Within this Local Integration Process:

- A generic flow is triggered via ProcessDirect to adjust the XML structure from Cloud Integration-specific EDI XML to SAP PI/PO specific EDI XML
- Prefixes and namespaces can be configured in the imported message mapping from SAP PI/PO
- The Mapping Flow (3a) is subsequently called for message transformation

- **Receiver Flow (4):**

This Local Integration Process manages the configuration of receiver system connections

- **Exception Flow (E):**

Across all flows, any errors encountered prompt the invocation of an Exception Subprocess, which calls the Local Integration Process named Exception Flow. The payload of the errored message can be logged for further analysis.

### 3. BIMA - ASCX12 Flow - Outbound\_TEMPLATE

This artifact is an iFlow template designed to facilitate the migration of B2B ASCX12 message type outbound interfaces from SAP PI/PO to Cloud Integration. Users can copy this template into their packages and configure it according to specific requirements.

*i* Point-to-point integration pattern between sender and receiver systems where the receiver can ignore duplicate messages

Pattern: \* Point-to-Point Asynchronous ?

☐ Decouple with JMS Queue ?

☒ Idempotent Process at Receiver Side ?

The iFlow template is structured on a Point-to-Point Asynchronous Pattern with an Idempotent Process at the receiver side. This ensures design consistency with other migrated SAP PI/PO interfaces and the B2B interfaces intended for migration.

#### Components of this Template:

- **Integration Process (1):**

This is the primary integration process responsible for:

- Configuring sender system connections or process direct if you are using TPM in the flow
- Invoking the Local Integration Process named Mapping Flow
- Executing the Idempotent process to engage with the Receiver Flow

- **Mapping Flow (2):**

In this Local Integration Process:

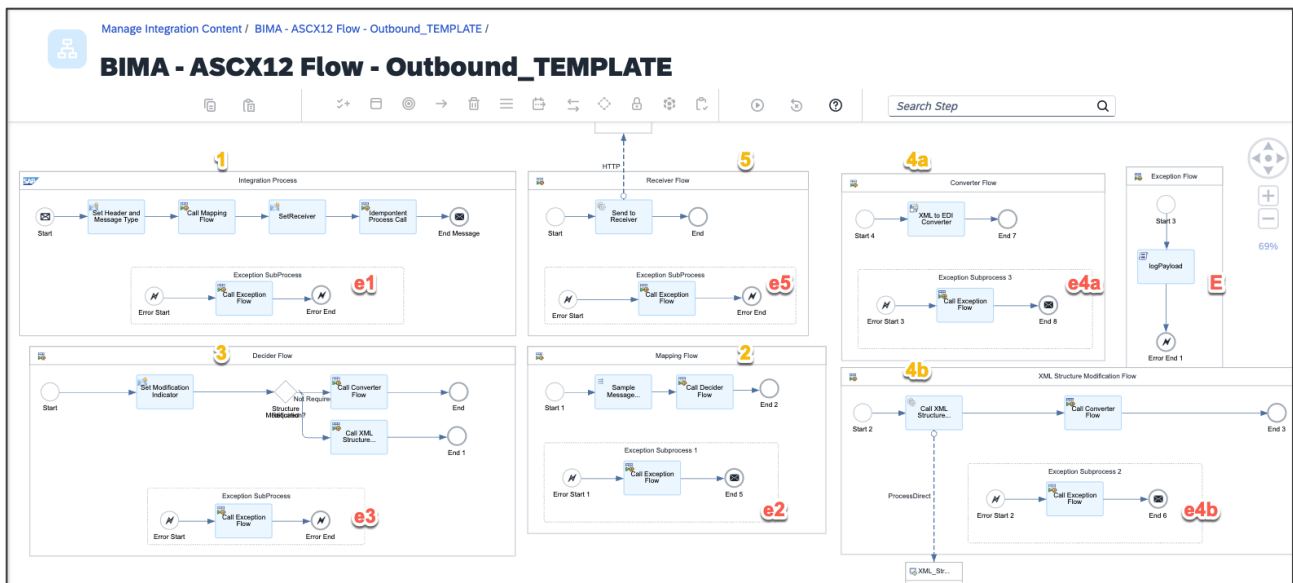
- Message mapping imported from the SAP PI/PO system is incorporated for data transformation
- Local Integration Process named Decider Flow (3) is invoked

- **Decider Flow (3):**

Within this Local Integration Process:

- A modification indicator is set to identify the availability of SAP standard solutions
- If an SAP standard solution for XML to EDI conversion using SAP PI/PO specific XSD is available, the Local Integration Process Converter Flow (4a) is invoked directly. If not, the XML Structure Modification Flow (4b) is called.





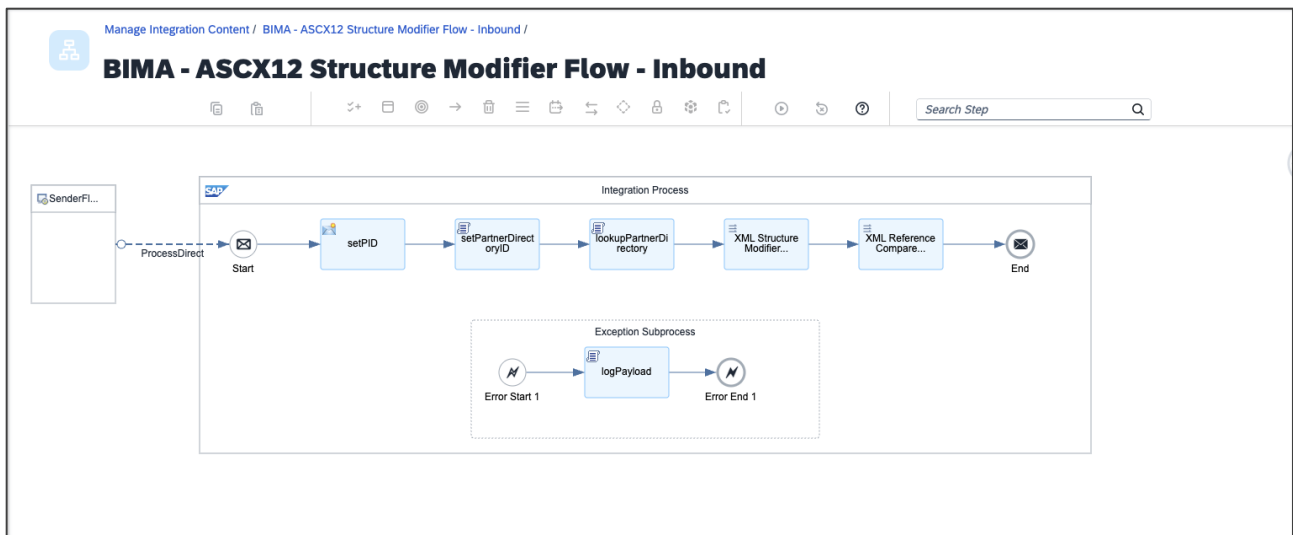
- **XML Structure Modification Flow (4b):**  
Within this Local Integration Process:
  - A generic flow is triggered via ProcessDirect to adjust the XML structure from SAP PI/PO specific EDI XML to Cloud Integration-specific EDI XML
  - Prefixes and namespaces can be configured in the imported message mapping from SAP PI/PO
  - The Converter Flow (4a) is subsequently called for XML to EDI conversion
- **Converter Flow (4a):**  
This Local Integration Process manages XML to EDI conversion
- **Receiver Flow (5):**  
This Local Integration Process manages the configuration of receiver system connections
- **Exception Flow (E):**  
Across all flows, any errors encountered prompt the invocation of an Exception Subprocess, which calls the Local Integration Process named Exception Flow. The payload of the errored message can be logged for further analysis.

## 4. BIMA - ASCX12 Structure Modifier Flow – Inbound

This artifact is a generic iFlow which is designed to facilitate the XML structure modification for B2B ASC X12 message type inbound interfaces. Users can re-use this iFlow for all the migrated B2B inbound interfaces.

This iFlow consists of following key functionalities

- Set up Partner Directory Id as SAP\_CPI\_to\_PI\_Inbound
- Extract and assign the Id from the source XML payload
- Look up Partner Directory based on the id and extract the uploaded reference XML file
- Modify the structure of the input XML payload by comparing it with the structure of the uploaded reference XML file

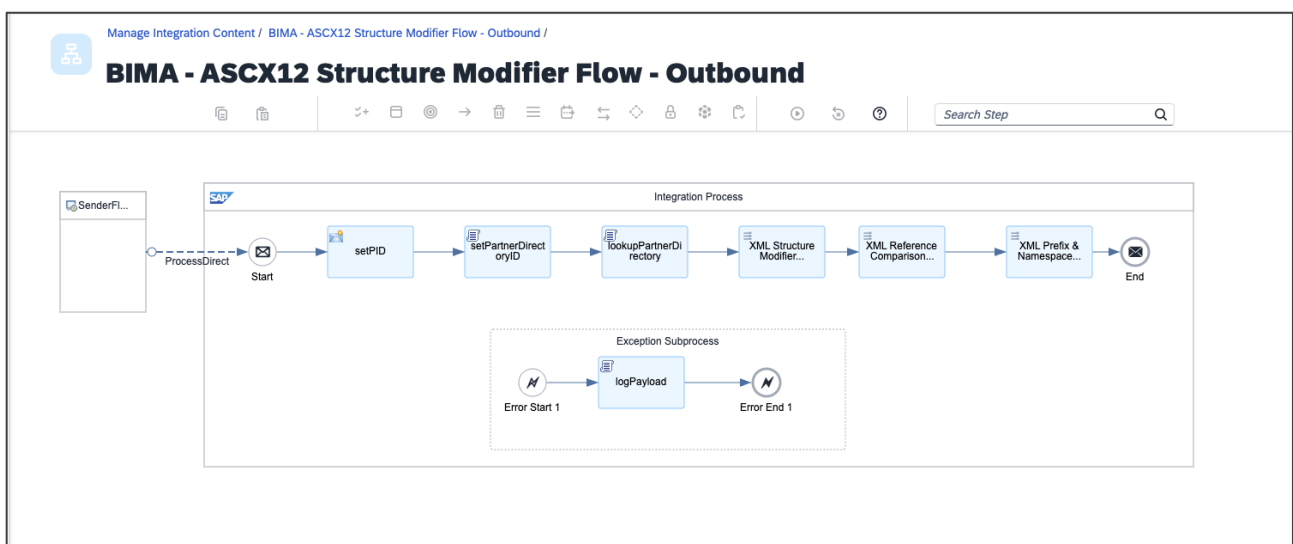


## 5. BIMA - ASCX12 Structure Modifier Flow – Outbound

This artifact is a generic iFlow which is designed to facilitate the XML structure modification for B2B ASC X12 message type outbound interfaces. Users can re-use this iFlow for all the migrated B2B outbound interfaces.

This iFlow consists of following key functionalities

- Set up Partner Directory Id as SAP\_PI\_to\_CPI\_Outbound
- Extract and assign the Id from the source XML payload
- Look up Partner Directory based on the id and extract the uploaded reference XML file
- Modify the structure of the input XML payload by comparing it with the structure of the uploaded reference XML file



## 6. MM\_ASC850\_4010\_TO\_ORDERS05\_Sample

This artifact is a sample message mapping imported from SAP PI/PO system to map inbound orders which is in ASC850 format from trading partner to ORDERS05 Idoc format

## 7. MM\_INVOIC02\_TO\_ASC810\_4010\_Sample

This artifact is a sample message mapping imported from SAP PI/PO system to map outbound invoices which is in INVOIC02 Idoc format from Company to ASC810 format

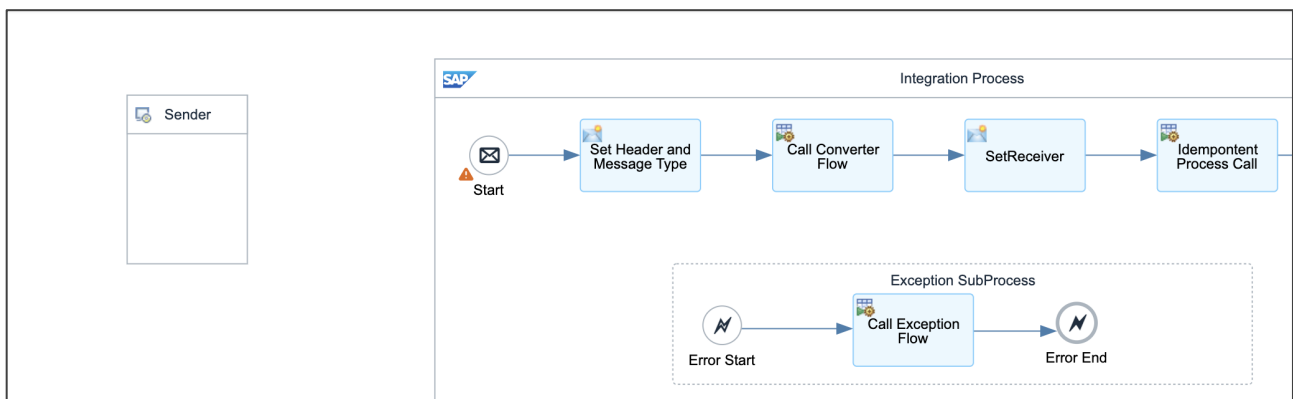
## Configuration steps on SAP Cloud Integration

Outlined below are the essential steps for configuring the migration of B2B interfaces, applicable to both Inbound and Outbound Flows.

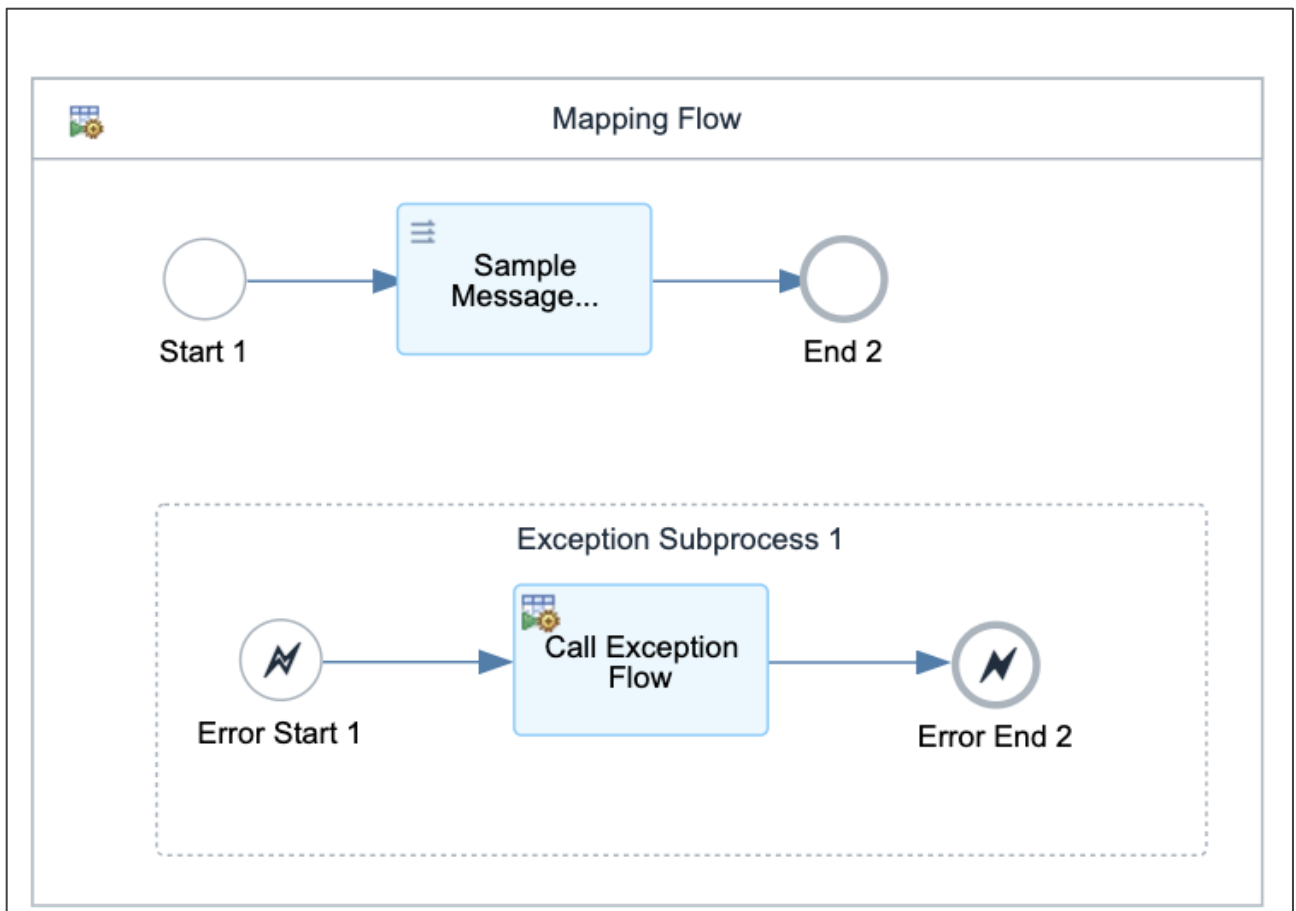
### Inbound Flow (Trading Partner to Company)

For the migration of a B2B interface in an inbound flow, please ensure the following configuration steps are completed:

1. Confirm that the prerequisites listed below are fulfilled.
  - Create a Reference File
  - Configure a Partner Directory
  - Set up the Inbound Template Flow
2. Configure Sender communication channel or process direct if you are using TPM in the flow
3. Set Header and Message Type, if needed
4. Set Receiver system, if needed
5. Create a property which can be used in Idempotent Process Call as message id, if needed or Idempotent Process Call can be removed and Receiver Flow can be called using a Local Process call



6. Configure Receiver communication channel in the Receiver Flow
7. Verify correct XSD is uploaded in EDI to XML Converter in the Converter Flow
8. Verify correct message mapping imported from SAP PI/PO is assigned and if there are any additional requirements or logic needed then it can be added in the Mapping Flow

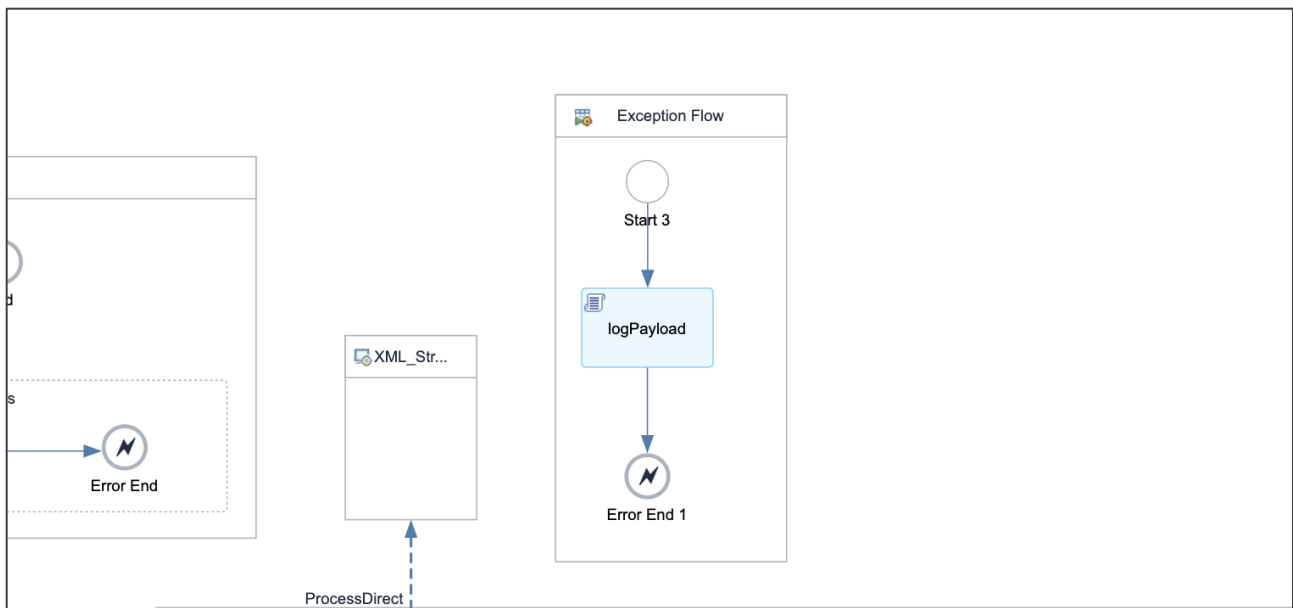


9. Configure Namespace and Namespace Prefix as per the requirement in the message mapping which is assigned in the Mapping Flow

The screenshot shows the 'Content Modifier' interface with the 'Exchange Property' tab selected. The 'Properties' section contains a table with two rows for configuring namespace and prefix properties.

Action	Name	Source Type	Source Value	Data Type
Create	prefix	Constant	#NOT_USED#	
Create	namespaceUri	Constant	#NOT_USED#	

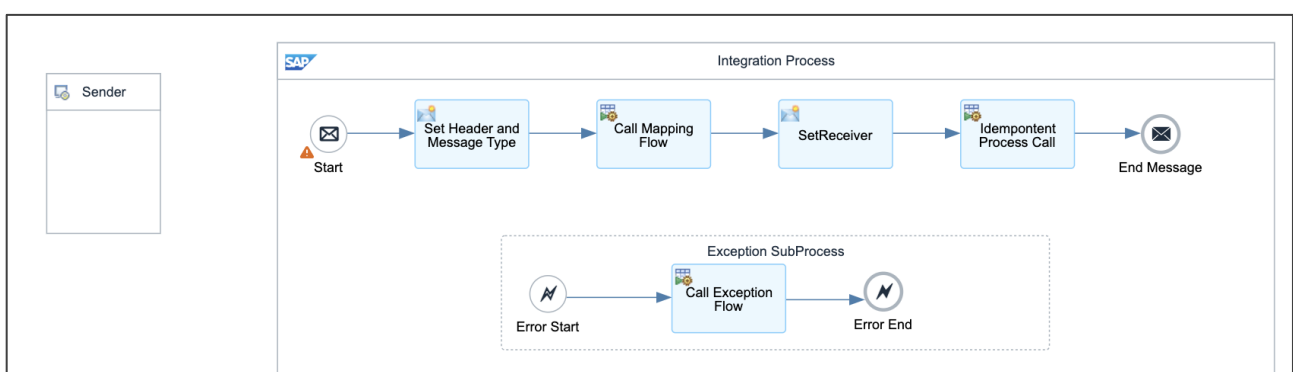
10. In the Exception Flow, currently only the errored payload is logged but if needed a retry mechanism can be added as per the requirement



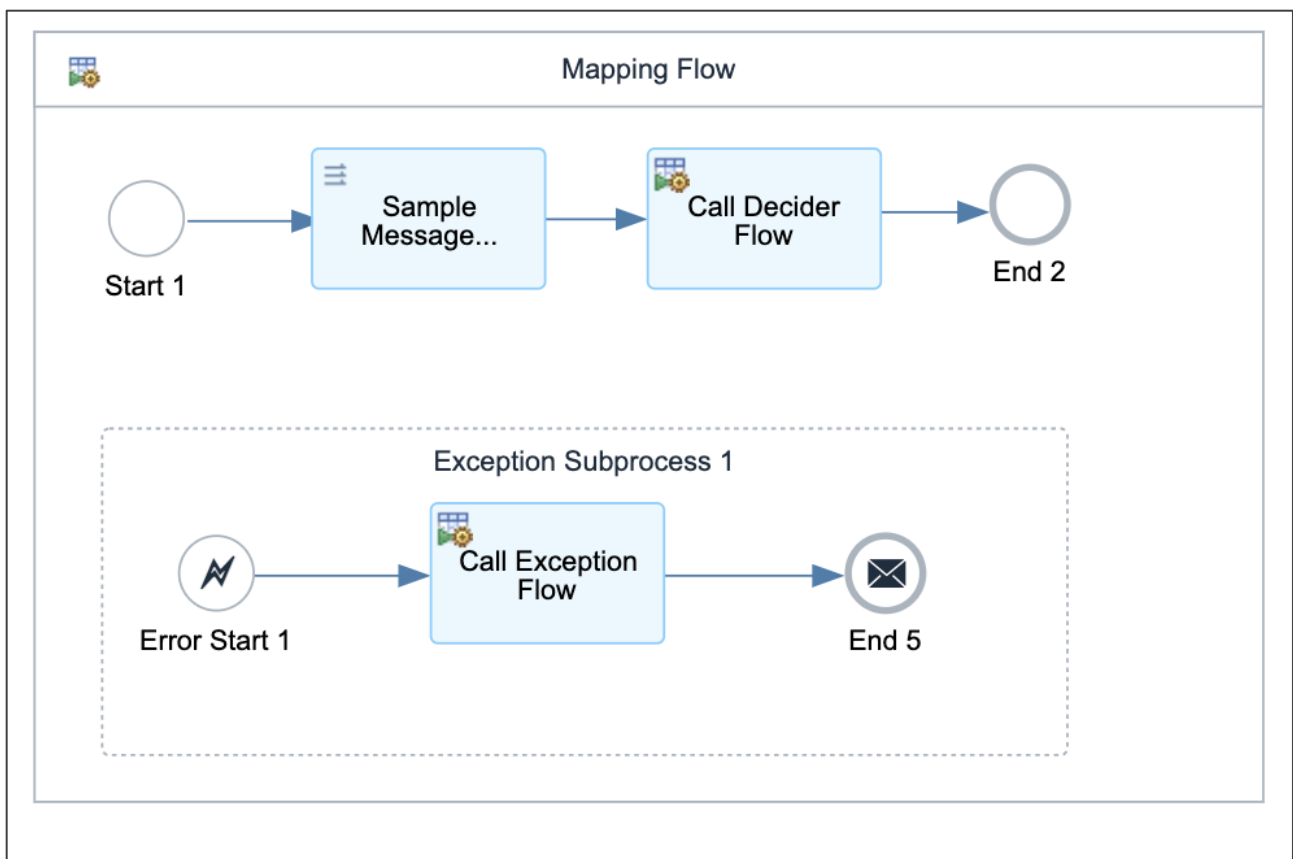
## Outbound Flow (Company to Trading Partner)

For the migration of a B2B interface in an inbound flow, please ensure the following configuration steps are completed:

1. Confirm that the prerequisites listed below are fulfilled.
  - Create a Reference File
  - Configure a Partner Directory
  - Set up the Outbound Template Flow
2. Configure Sender communication channel or process direct if you are using TPM in the flow
3. Set Header and Message Type, if needed
4. Set Receiver system, if needed
5. Create a property which can be used in Idempotent Process Call as message id, if needed or Idempotent Process Call can be removed and Receiver Flow can be called using a Local Process call



6. Configure Receiver communication channel in the Receiver Flow
7. Verify correct XSD is uploaded in XML to EDI Converter in the Converter Flow
8. Verify correct message mapping imported from SAP PI/PO is assigned and if there are any additional requirements or logic needed, it can be added in the Mapping Flow



9. In the Exception Flow, currently only the errored payload is logged but if needed a retry mechanism can be added as per the requirement

