

Cloud Platform Integration - IFlow Documentation Template



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**Revision History**

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

|  |  |  |  |
| --- | --- | --- | --- |
| Version | Issue date | Editor | Changes / Remarks |
| 0.1 | 21.04.2017 | Mirko Göpfrich | Creation |
| 0.2 | 21.04.2017 | Christian Simon | Extension |
|  |  |  |  |

# Introduction

The SAP Cloud Platform includes the Cloud Platform Integration (CPI), which offers diverse approaches, to connect your IT systems with other cloud or on premise system landscapes. This makes cloud integration simple and reliable. Hence it is SAP’s strategic integration platform for SAP Cloud customers. It provides out-of-the-box connectivity across cloud and on-premise solutions. Since the CPI is operated by SAP, you don't need to worry about basic activities. Additionally, SAP is offering prepackaged integration content as reference templates, that allows customers to quickly realize new business scenarios. This drastically reduces integration project lead times and lowers resource consumption significantly.

This template offers an overview, about the object elements of SAP CPI. You can use this document as a template, that you can maintain the documentation of your iFlows. As CPI development is always on the move and thus delivering new features on a regular basis, this document may not always be up to date.

# Integration Flow

|  |  |
| --- | --- |
| **Integration Flow** | |
| Name |  |
| Description |  |
| Runtime Configuration | |
| Product Profile |  |
| Namespace Mapping |  |
| Message Processing Log |  |
| Allowed Header(s): |  |
| HTTP Session Handling |  |
| Enable Debug Trace |  |
| Error Configuration | |
| Return Exception to Sender |  |
| Resources | |
| Resources (Name, Type, Actions) |  |

# Integration Process

|  |  |
| --- | --- |
| **Integration Process** | |
| General | |
| Name |  |
| Processing | |
| Transaction Handling |  |
| Timeout (in min) |  |

|  |  |
| --- | --- |
| **Local Integration Process** | |
| General | |
| Name |  |
| Processing | |
| Transaction Handling |  |

|  |  |
| --- | --- |
| **Exception SubProcess** | |
| Name |  |

# Events

## Start Events

|  |
| --- |
| **Start Event** |

|  |
| --- |
| **Start Message** |

|  |  |
| --- | --- |
| **Timer Start** | |
| **General** | |
| Name |  |
| **Scheduler** | |
| Run Once |  |
| Schedule on Day |  |
| Schedule to Recur |  |

## End Events

|  |
| --- |
| **End Event** |

|  |
| --- |
| **End Message** |

|  |  |
| --- | --- |
| **Escalation End** | |
| Category |  |

# Call

## Local Call

|  |  |
| --- | --- |
| **Process Call** | |
| Local Integration Process |  |

|  |  |
| --- | --- |
| **Looping Process Call** | |
| Local Integration Process |  |
| Loop Condition Details | |
| Expression Type |  |
| Condition Expression |  |
| Max. Number of Iterations |  |

## ExternalCall

|  |  |
| --- | --- |
| **Content Enricher** | |
| Aggregation Algorithm |  |

|  |
| --- |
| **Send** |

|  |
| --- |
| **Request Reply** |

# Routing

## Router

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Router** | | |  | | |
| Error Handling | | | | | |
| Raise Alert | | |  | | |
| Throw Exception | | |  | | |
| Routing Condition | | | | | |
| Order | Route Name | Expression Type | | Condition Expression | Default Route |
| 1 |  |  | |  |  |
| 2 |  |  | |  |  |
| **Route 1** | | | | | |
|  | | | | | |
| **Route 2** | | | | | |
|  | | | | | |

|  |  |
| --- | --- |
| **Aggregator** | |
| **General** | |
| Name |  |
| **Correlation** | |
| Correlation Expression (XPath) |  |
| **Aggregation Strategy** | |
| Incoming Format |  |
| Aggregation Algorithm |  |
| Message Sequence Expression (XPath) |  |
| Last Message Condition (XPath) |  |
| Completion Timeout (in min) |  |
| Data Store Name |  |

|  |  |
| --- | --- |
| **Gather** | |
| **General** | |
| Name |  |
| **Aggregation Strategy** | |
| Incoming Format |  |
| Aggregation Algorithm |  |

|  |  |
| --- | --- |
| **Join** | |
| **General** | |
| Name |  |

## Multicast

|  |  |
| --- | --- |
| **Sequential Multicast** | |
| Sequence Order | Sequence Name |
| 1 |  |
| 2 |  |
| **Route 1** | |
| Name |  |
|  | |
| **Route 2** | |
| Name |  |
|  | |

|  |
| --- |
| **Parallel Multicast** |
| **Route 1** |
|  |
| **Route 2** |
|  |

## Splitter

|  |  |
| --- | --- |
| **General Splitter** | |
| Expression Type |  |
| XPath Expression |  |
| Grouping |  |
| Streaming |  |
| Parallel Processing |  |
| Stop on Exception |  |

|  |
| --- |
| **IDoc Splitter** |

|  |  |
| --- | --- |
| **Iterating****Splitter** | |
| Expression Type |  |
| Token |  |
| Grouping |  |
| Streaming |  |
| Parallel Processing |  |
| Stop on Exception |  |

|  |  |
| --- | --- |
| **PKCS#7/CMS Splitter** | |
| Payload File Name |  |
| Signature File Name |  |
| Wrap by Content Info |  |
| Payload First |  |
| Base64 Payload |  |
| Base64 Signature |  |

# Participants

|  |  |
| --- | --- |
| **System** |  |
| Name |  |

|  |  |
| --- | --- |
| **Sender** |  |
| Name |  |
| Authorization |  |

|  |  |
| --- | --- |
| **Receiver** |  |
| Name |  |

# Sender Channel

## SOAP

|  |  |
| --- | --- |
| **Receiver Channel** | *Description* |
| General | |
| Name |  |
| Direction |  |
| System |  |
| Adapter Type | SOAP |
| Transport Protocol |  |
| Message Protocol |  |
| Adapter Specific | |
| General | |
| Address |  |
| URL to WSDL |  |
| Service |  |
| Endpoint |  |
| Operation Name |  |
| Timeout (in ms) |  |
| Compress Message |  |
| Allow chunking |  |
| Connect without Client Authentication |  |
| WS-Security | |
| WS-Security Configuration |  |
|  |  |
|  |  |
|  |  |

# Receiver Channel

## SOAP

|  |  |
| --- | --- |
| **Receiver Channel** | *Description* |
| General | |
| Name |  |
| Direction |  |
| System |  |
| Adapter Type | SOAP |
| Transport Protocol |  |
| Message Protocol |  |
| Adapter Specific | |
| General | |
| Address |  |
| Proxy Type |  |
| URL to WSDL |  |
| Service |  |
| Endpoint |  |
| Operation Name |  |
| Timeout (in ms) |  |
| Compress Message |  |
| Allow chunking |  |
| Connect without Client Authentication |  |
| WS-Security | |
| WS-Security Configuration |  |
| Options |  |
| Credentials Name |  |
| WS-Security Type |  |

## OData

|  |  |  |  |
| --- | --- | --- | --- |
| **Channel** |  | | |
| General | | | |
| Name |  | | |
| Direction |  | | |
| System |  | | |
| Adapter Type | OData | | |
| Transport Protocol |  | | |
| Message Protocol |  | | |
| Adapter Specific | | | |
| General | | | |
| Address |  | | |
| Proxy Type |  | | |
| Authentication | |  | |
| Credential Name | |  | |
| Operation | | |  |
| Resource Path | | |  |
| EDMX | | |  |
| Fields | | |  |
| Custom Query Options | | |  |
| Enable Batch Processing | | |  |
| Content Type | |  | |
| Content Type Encoding | |  | |
| Page Size | |  | |

# Transformation

## Content Modifier

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Content Modifier** | | *Description* | | | | |
| Message Header | | | | | | |
| Action | Name | | Type | Data Type | Value | Default |
|  |  | |  |  |  |  |
| Exchange Property | | | | | | |
| Action | Name | | Type | Data Type | Value | Default |
|  |  | |  |  |  |  |
| Message Body | | | | | | |
|  | | | | | | |

## Converter

|  |  |  |
| --- | --- | --- |
| **JSON To XML Converter** | | |
| Name |  | |
| Use Namespace Mapping |  | |
| Namespace Mapping | | |
| JSON Prefix | | XML Namespace |
|  | |  |
| JSON Prefix Separator |  | |
| **XML to JSON Converter** | | |
| Name |  | |
| JSON Output Encoding |  | |
| Namespace Mapping |  | |
| Suppress JSON Root Element |  | |
| Streaming |  | |
| **XML To CSV Converter** | | |
| **General** | | |
| Name |  | |
| **Processing - BASIC ELEMENTS** | | |
| Path to Source Element in XSD |  | |
| Field Separator in CSV |  | |
| Include Field Name as Headers |  | |
| **Processing - PARENT ELEMENT** | | |
| Include Parent Element |  | |
| Include Attribute Values |  | |
| **CSV To XML Converter** | | |
| **General** | | |
| Name |  | |
| **Processing** | | |
| XML Schema |  | |
| Path to Target Element in XSD |  | |
| Record Marker in CSV |  | |
| Field Separator in CSV |  | |
| Exclude First Line Header |  | |

## Decoder

|  |  |
| --- | --- |
| **ZIP Decompression - No Properties Defined** | |
| **MIME Multipart Message Decoder** | |
| Multipart Headers Inline |  |
| **GZIP Decompression - No Properties Defined** | |
| **Base64 Decoder - No Properties Defined** | |

## Encoder

|  |  |
| --- | --- |
| **ZIP Compression - No Properties Defined** | |
| **MIME Multipart Encoder** | |
| Multipart Subtype |  |
| Add Multipart Headers Inline |  |
| **GZIP Compression - No Properties Defined** | |
| **Base64 Encoder - No Properties Defined** | |

## Filter

|  |  |
| --- | --- |
| **Enter a name and an XPath** | |
| Name: |  |
| XPath Expression |  |
| Value Type |  |

## Message Digest

|  |  |
| --- | --- |
| **Hash of payload or specific element** | |
| Filter (XPath) |  |
| Canonicalization Method |  |
| Digest Algorithm |  |
| Target Header |  |

## Script

|  |
| --- |
| **JavaScript** |
| **GroovyScript** |

# Mapping

## Message Mapping

|  |  |
| --- | --- |
| **Mapping** | *Description.* |
| Name |  |
| Resource |  |
| Type | Message Mapping |

## XLST Mapping

|  |  |
| --- | --- |
| **Mapping** | *Description.* |
| Name |  |
| Resource |  |
| Type | XLST Mapping |
| Output Format |  |

|  |  |
| --- | --- |
| **Script** | *Description.* |
| Name |  |
| Script File |  |
| Script Function |  |

# Security

## Decryptor

|  |  |
| --- | --- |
| **PKCS7/CMS Decryptor** | |
| **GENERAL DETAILS** | |
| Name |  |
| Body is Base64 Encoded |  |
| Signatures |  |
| **PGP Decryptor** | |
| **GENERAL DETAILS** | |
| Name |  |
| Signatures |  |

## Encryptor

|  |  |
| --- | --- |
| **PKCS7/CMS Encryptor** | |
| **GENERAL DETAILS** | |
| Name |  |
| Block Size (in bytes) |  |
| Encode Body with Base64 |  |
| Signatures |  |
| Content Encryption Algorithm |  |
| Secret Key Length |  |
| Receiver Public Key Alias |  |
| Public Key Alias |  |
| **PGP Encryptor** | |
| **GENERAL DETAILS** | |
| Name |  |
| Signatures |  |
| Content Encryption Algorithm |  |
| Secret Key Length |  |
| Compression Algorithm |  |
| Armored |  |
| Integrity Protected Data Packet |  |
| Encryption Key User IDs |  |
| Encryption User ID of Key(s) from Public Keyring |  |

## Signer

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **PKCS7/CMS Signer** | | | | | | |
| Name | |  | | | | |
| Block Size (in bytes): | |  | | | | |
| Include Content in Signed Data | |  | | | | |
| Encode Signed Data with Base64 | |  | | | | |
| Signer Parameters | | | | | | |
| Private Key Alias | Signature Algorithm | | | Include Certificates | | Include Signing Time |
|  |  | | |  | |  |
| **XML Signer** | | | | | | |
| **General** | | | | | | |
| Name | |  | | | | |
| Private Key Alias | |  | | | | |
| Signature Algorithm | |  | | | | |
| Digest Algorithm | |  | | | | |
| Signature Type | |  | | | | |
| KEY INFO CONTENT | | | | | | |
| X.509 Certificate Chain | |  | | | | |
| X.509 Certificate | |  | | | | |
| Issuer Distinguished Name and Serial Number | |  | | | | |
| Key Value | |  | | | | |
| Sign Key Info | |  | | | | |
| **Advanced** | | | | | | |
| Signature ID | |  | | | | |
| Output Encoding | |  | | | | |
| Exclude XML Declaration | |  | | | | |
| Disallow DOCTYPE Declaration | |  | | | | |
| **XAdES-BES(1)** | | | | | | |
| ADD SIGNING TIME AND CERTIFICATE | | | | | | |
| Time | |  | | | | |
| Certificate | |  | | | | |
| SIGNER ROLE | | | | | | |
| Claimed Role | |  | | | | |
| Certified Roles | | | | | | |
| Attribute Certificate (Base64 Encoded) | | | Encoding | | ID | |
|  | | |  | |  | |
| DATA OBJECT FORMAT | | | | | | |
| Time | |  | | | | |
| Description | |  | | | | |
| MIME Type: | |  | | | | |
| Identifier | |  | | | | |
| Name | |  | | | | |
| Qualifier | |  | | | | |
| Description: | |  | | | | |
| Documentation Reference | |  | | | | |
| **XAdES-BES(2)** | | | | | | |
| PRODUCTION PLACE | | | | | | |
| City | |  | | | | |
| State/Province | |  | | | | |
| Postal Code | |  | | | | |
| Country | |  | | | | |
| COMMITMENT TYPE | | | | | | |
| Commitment | |  | | | | |
| XML DOCUMENT PARAMETERS | | | | | | |
| Namespace | |  | | | | |
| Namespace Prefix | |  | | | | |
| **XAdES-EPES** | | | | | | |
| Signature Policy | |  | | | | |
| **Simple Signer** | | | | | | |
| Name | |  | | | | |
| Private Key Alias | |  | | | | |
| Signature Algorithm | |  | | | | |
| Signature Header Name | |  | | | | |

## Verifier

|  |  |
| --- | --- |
| **PKCS7 Signature Verifier** | |
| Name |  |
| Header is Base64 Encoded |  |
| Body is Base64 Encoded |  |
| Private Key Aliases |  |
| **XML Signature Verifier** | |
| Name |  |
| Expected Signature Type |  |
| Check for Key Info Element |  |
| Exclude XML Declaration |  |
| Disallow DOCTYPE Declaration |  |
| Private Key Aliases |  |

# Persistence

## Data Store Operations

|  |  |
| --- | --- |
| **Select** | |
| Data Store Name |  |
| Visibility |  |
| Number of Polled Messages |  |
| Delete After Fetch |  |
| **Get** | |
| Data Store Name |  |
| Visibility |  |
| Entry ID |  |
| Delete After Fetch |  |
| **Write** | |
| Data Store Name |  |
| Visibility |  |
| Entry ID |  |
| Retention Threshold for Alerting (in d) |  |
| Expiration Period (in d) |  |
| Encrypt Stored Message |  |
| Overwrite Existing Message |  |
| **Delete** | |
| Data Store Name |  |
| Visibility |  |
| Entry ID |  |

## Persist Message

|  |  |
| --- | --- |
| **Persist Message** | |
| Step ID |  |
| Encrypt Stored Message |  |

## Write Variables

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Write Variables** | | | | | |
| **General** | | | | | |
| Name | |  | | | |
| **Processing** | | | | | |
| Variables | | | | | |
| Name | Type | | Data Type | Value | Global Scope |
|  |  | |  |  |  |

# XML Validator

|  |  |
| --- | --- |
| **XML Validator** | |
| **General** | |
| Name |  |
| **Validation** | |
| XML Schema |  |
| Prevent Exception on Failure |  |