**SAP Integration Suite   
Cloud Integration - Technical Specification  
 iFlow Name : Post\_Bulk\_Order\_SV**

Version: 1.0

Author: Generated by AI

Date: 2025-10-27

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# 1. Change History

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Date** | **Author** | **Description** |
| 1.0 | 2025-10-27 | Generated by AI | Initial version |

# 2. Overview

This technical specification document serves as a comprehensive blueprint for the Post\_Bulk\_Order\_SV iFlow. It details the iFlow's configuration, including communication channels, adapter settings, and security aspects. The document outlines sender and receiver endpoints, message flow properties (e.g., OData connection details, HTTPS settings), and relevant parameters for proper iFlow execution. This ensures consistent deployment and aids in troubleshooting by providing a single source of truth for the iFlow's technical design. This document version reflects component version 1.2.

# 3. High level iFlow Design

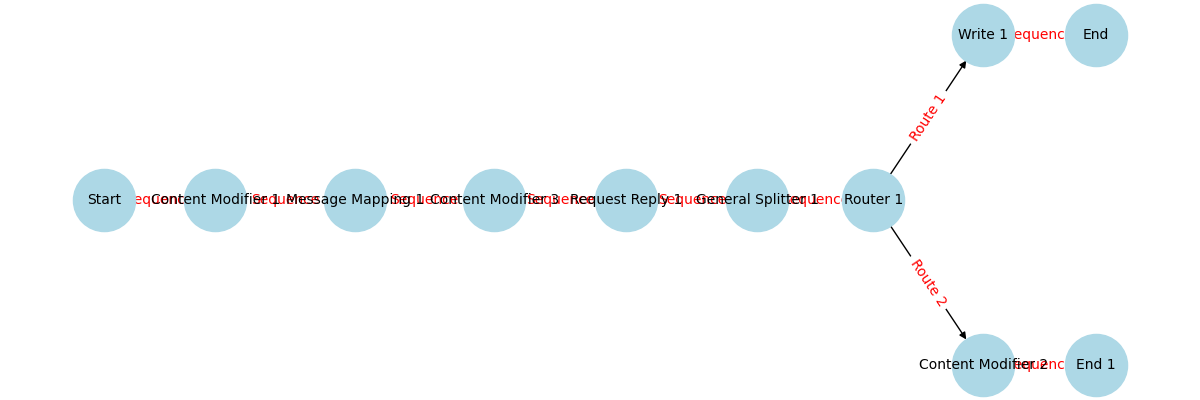


Figure: High level BPMN iFlow message and sequence flow

# 4. Message Flow

The iFlow contains two message flows: one using the OData V2 receiver adapter and another employing the HTTPS sender adapter. The OData flow, named "OData", retrieves data from `http://sentrydev:44300/sap/opu/odata/sap/API\_SALES\_CONTRACT\_SRV` using Basic Authentication and proxy type `sapcc`. It sends messages from `ServiceTask\_75189` to `Participant\_75188` using the "Create(POST)" operation and specifies fields like `SalesContract` and `SalesContractItem`. The HTTPS flow, named "HTTPS", exposes the `/post\_bulk/order\_sv` endpoint, handles incoming HTTPS requests from `Participant\_1` and sends to `StartEvent\_2` with a maximum body size of 40 and a role based user role of `ESBMessaging.send`.

|  |  |  |
| --- | --- | --- |
| **Source** | **Target** | **Name** |
| Request Reply 1 | Receiver1 | OData |
| Sender | Start | HTTPS |

# 5. Technical Description

## 5.1. Main Integration Process

|  |  |  |
| --- | --- | --- |
| **Component Name** | **Key** | **Value** |
| Integration Process | Transaction Timeout | 30 |
| Integration Process | Component Version | 1.2 |
| Integration Process | Cmd Variant Uri | ctype::FlowElementVariant/cname::IntegrationProcess/version::1.2.1 |
| Integration Process | Transactional Handling | Not Required |

### serviceTask Request Reply 1 Properties

|  |  |
| --- | --- |
| **Key** | **Value** |
| Component Version | 1.0 |
| Activity Type | ExternalCall |
| Cmd Variant Uri | ctype::FlowstepVariant/cname::ExternalCall/version::1.0.4 |

### endEvent End Properties

|  |  |
| --- | --- |
| **Key** | **Value** |
| Component Version | 1.1 |
| Cmd Variant Uri | ctype::FlowstepVariant/cname::MessageEndEvent/version::1.1.0 |

### endEvent End 1 Properties

|  |  |
| --- | --- |
| **Key** | **Value** |
| Component Version | 1.1 |
| Cmd Variant Uri | ctype::FlowstepVariant/cname::MessageEndEvent/version::1.1.0 |

### callActivity Content Modifier 2 Properties

|  |  |
| --- | --- |
| **Key** | **Value** |
| Body Type | expression |
| Property Table | <row><cell id='Action'>Create</cell><cell id='Type'>xpath</cell><cell id='Value'>//batchChangeSetPart/A\_SalesContract//A\_SalesContractItemType/Material</cell><cell id='Default'></cell><cell id='Name'>Material\_Number</cell><cell id='Datatype'>java.lang.String</cell></row> |
| Header Table |  |
| Wrap Content | Order is not created Sucessfully ${header.Mat2} |
| Component Version | 1.6 |
| Activity Type | Enricher |
| Cmd Variant Uri | ctype::FlowstepVariant/cname::Enricher/version::1.6.0 |

### callActivity Content Modifier 1 Properties

|  |  |
| --- | --- |
| **Key** | **Value** |
| Body Type | constant |
| Property Table |  |
| Header Table |  |
| Wrap Content | <ROOT>  <select\_response>  <row>  <BULK\_ORDER\_NO>16101702</BULK\_ORDER\_NO>  <BULKTYPE/>  <START\_DATE>2017-10-16T00:00:00</START\_DATE>  <LASTEDTDT>2018-10-16T00:00:00</LASTEDTDT>  <SAP\_MATERIAL\_ID>TG12</SAP\_MATERIAL\_ID>  <ORDER\_QTY>1</ORDER\_QTY>  <UOM>EA</UOM>  <CURRENCY>USD</CURRENCY>  <SOLDTO>17100001</SOLDTO>  <STYLE\_NO>TAMFD30TAR</STYLE\_NO>  <COLCD>JS0</COLCD>  <TEAMKEY>817</TEAMKEY>  <SIZ>M </SIZ>  <LOGOCD>4YV</LOGOCD>  <PACKNOTES>HWSF</PACKNOTES>  </row>  <row>  <BULK\_ORDER\_NO>16101701</BULK\_ORDER\_NO>  <BULKTYPE/>  <START\_DATE>2017-10-16T00:00:00</START\_DATE>  <LASTEDTDT>2018-10-16T00:00:00</LASTEDTDT>  <SAP\_MATERIAL\_ID>TG12</SAP\_MATERIAL\_ID>  <ORDER\_QTY>1</ORDER\_QTY>  <UOM>EA</UOM>  <CURRENCY>USD</CURRENCY>  <SOLDTO>17100001</SOLDTO>  <STYLE\_NO>TAMFD30TAR</STYLE\_NO>  <COLCD>JS0</COLCD>  <TEAMKEY>817</TEAMKEY>  <SIZ>M </SIZ>  <LOGOCD>4YV</LOGOCD>  <PACKNOTES>HWSF</PACKNOTES>  </row>  <row>  <BULK\_ORDER\_NO>16101703</BULK\_ORDER\_NO>  <BULKTYPE/>  <START\_DATE>2017-10-16T00:00:00</START\_DATE>  <LASTEDTDT>2018-10-16T00:00:00</LASTEDTDT>  <SAP\_MATERIAL\_ID>INVALID\_MAT</SAP\_MATERIAL\_ID>  <ORDER\_QTY>-5</ORDER\_QTY>  <UOM>ZZ</UOM>  <CURRENCY>XXX</CURRENCY>  <SOLDTO>00000000</SOLDTO>  <STYLE\_NO>TAMFD30TAR</STYLE\_NO>  <COLCD>JS0</COLCD>  <TEAMKEY>817</TEAMKEY>  <SIZ>M </SIZ>  <LOGOCD>4YV</LOGOCD>  <PACKNOTES>HWSF</PACKNOTES>  </row>  </select\_response> </ROOT> |
| Component Version | 1.6 |
| Activity Type | Enricher |
| Cmd Variant Uri | ctype::FlowstepVariant/cname::Enricher/version::1.6.0 |

### callActivity Content Modifier 3 Properties

|  |  |
| --- | --- |
| **Key** | **Value** |
| Body Type | constant |
| Property Table |  |
| Header Table | <row><cell id='Action'>Create</cell><cell id='Type'>xpath</cell><cell id='Value'>//A\_SalesContractItemType/Material</cell><cell id='Default'></cell><cell id='Name'>Mat2</cell><cell id='Datatype'>java.lang.String</cell></row> |
| Wrap Content |  |
| Component Version | 1.6 |
| Activity Type | Enricher |
| Cmd Variant Uri | ctype::FlowstepVariant/cname::Enricher/version::1.6.0 |

### exclusiveGateway Router 1 Properties

|  |  |
| --- | --- |
| **Key** | **Value** |
| Component Version | 1.1 |
| Activity Type | ExclusiveGateway |
| Cmd Variant Uri | ctype::FlowstepVariant/cname::ExclusiveGateway/version::1.1.2 |
| Throw Exception | false |

### startEvent Start Properties

|  |  |
| --- | --- |
| **Key** | **Value** |
| Component Version | 1.0 |
| Cmd Variant Uri | ctype::FlowstepVariant/cname::MessageStartEvent/version::1.0 |

### callActivity General Splitter 1 Properties

|  |  |
| --- | --- |
| **Key** | **Value** |
| Expr Type | XPath |
| Streaming | true |
| Stop On Execution | true |
| Splitter Threads | 10 |
| Split Expr Value | /batchPartResponse/batchChangeSetResponse/batchChangeSetPartResponse |
| Parallel Processing | false |
| Component Version | 1.6 |
| Activity Type | Splitter |
| Cmd Variant Uri | ctype::FlowstepVariant/cname::GeneralSplitter/version::1.6.0 |
| Grouping | 1 |
| Split Type | GeneralSplitter |
| Time Out | 300 |

### callActivity Message Mapping 1 Properties

|  |  |
| --- | --- |
| **Key** | **Value** |
| Mappinguri | dir://mmap/src/main/resources/mapping/Bulk2.mmap |
| Mappingname | Bulk2 |
| Mapping Source Value |  |
| Mapping Type | MessageMapping |
| Mapping Reference | static |
| Mappingpath | src/main/resources/mapping/Bulk2 |
| Component Version | 1.3 |
| Activity Type | Mapping |
| Cmd Variant Uri | ctype::FlowstepVariant/cname::MessageMapping/version::1.3.1 |
| Message Mapping Bundle Id |  |

### callActivity Write 1 Properties

|  |  |
| --- | --- |
| **Key** | **Value** |
| Visibility | global |
| Alert | 2 |
| Encrypt | true |
| Expire | 30 |
| Message Id | Post\_BO\_SV |
| Component Version | 1.7 |
| Override | true |
| Activity Type | DBstorage |
| Cmd Variant Uri | ctype::FlowstepVariant/cname::put/version::1.7.1 |
| Operation | put |
| Storage Name | Post\_BO\_SV |
| Include Message Headers | false |

### sequenceFlow Route 1 Properties

|  |  |
| --- | --- |
| **Key** | **Value** |
| Expression Type | XML |
| Component Version | 1.0 |
| Cmd Variant Uri | ctype::FlowstepVariant/cname::GatewayRoute/version::1.0.0 |

### sequenceFlow Route 2 Properties

|  |  |
| --- | --- |
| **Key** | **Value** |
| Expression Type | XML |
| Component Version | 1.0 |
| Cmd Variant Uri | ctype::FlowstepVariant/cname::GatewayRoute/version::1.0.0 |

## 5.2. Local Integration Process

The SAP iFlow "Process\_1" orchestration executes a sequential integration process. It begins with a Content Modifier step named "Start," likely setting initial message properties. The core logic then utilizes an Integration Process (Sub-Process) named "Process\_A," encapsulating a reusable set of integration steps. Subsequently, a Router step named "Router" directs the message flow based on content or conditions. Finally, the integration concludes with another Content Modifier step named "End," potentially performing final message transformations or logging.

No process with id='Process\_1' found.

## 5.3. Sender

|  |  |
| --- | --- |
| **Key** | **Value** |
| Component Type | HTTPS |
| Description |  |
| Maximum Body Size | 40 |
| Component N S | sap |
| Component Version | 1.5 |
| Url Path | /post\_bulk/order\_sv |
| Name | HTTPS |
| Transport Protocol Version | 1.5.2 |
| Component S W C V Name | external |
| System | Sender |
| Xsrf Protection | 0 |
| Transport Protocol | HTTPS |
| Cmd Variant Uri | ctype::AdapterVariant/cname::sap:HTTPS/tp::HTTPS/mp::None/direction::Sender/version::1.5.2 |
| User Role | ESBMessaging.send |
| Sender Auth Type | RoleBased |
| Message Protocol | None |
| Message Protocol Version | 1.5.2 |
| Component S W C V Id | 1.5.2 |
| Direction | Sender |
| Client Certificates |  |

## 5.4. Receiver

The receiver component in this SAP iFlow is an OData V2 adapter (`HCIOData`) targeting the `API\_SALES\_CONTRACT\_SRV` service at `http://sentrydev:44300/sap/opu/odata/sap/API\_SALES\_CONTRACT\_SRV`. The adapter uses HTTP transport with Basic Authentication, connecting through a SAP Cloud Connector (SCC) with location ID `UST-OPTUM-CPI`. The operation is set to `Create (POST)` with atom+xml content type. It enables MPL attachments and supports batch processing. The resource path used is `A\_SalesContract`, and the adapter uses an EDMX file `edmx/sentrydev\_44300\_sap\_opu\_odata\_sap\_API\_SALES\_CONTRACT\_SRV.edmx` for metadata.

|  |  |
| --- | --- |
| **Key** | **Value** |
| Description |  |
| Pagination | 0 |
| Odata Cert Auth Private Key Alias |  |
| Api Artifact Type |  |
| Provider Auth |  |
| Component N S | sap |
| Resource Path | A\_SalesContract |
| Custom Query Options |  |
| Metadata Allowed U R I Params |  |
| Name | OData |
| Internet Proxy Type |  |
| Transport Protocol Version | 1.25.0 |
| Proxy Port |  |
| Component S W C V Name | external |
| Enable M P L Attachments | true |
| Receive Time Out | 1 |
| Alias | UST\_S4\_Cred |
| Content Type | application/atom+xml |
| Component S W C V Id | 1.25.0 |
| Provider Name |  |
| Message Protocol | OData V2 |
| Direction | Receiver |
| Scc Location Id | UST-OPTUM-CPI |
| Metadata Allowed Headers |  |
| Component Type | HCIOData |
| Address | http://sentrydev:44300/sap/opu/odata/sap/API\_SALES\_CONTRACT\_SRV |
| Query Options |  |
| Proxy Type | sapcc |
| Is C S R F Enabled | false |
| Component Version | 1.25 |
| Proxy Host |  |
| Edmx File Path | edmx/sentrydev\_44300\_sap\_opu\_odata\_sap\_API\_SALES\_CONTRACT\_SRV.edmx |
| Provider Url |  |
| Enable T L S Session Reuse | true |
| Odatapagesize |  |
| System | Receiver1 |
| Authentication Method | Basic |
| Whitelist Response Headers |  |
| Enable Batch Processing | 1 |
| Transport Protocol | HTTP |
| Character Encoding | none |
| Fields | SalesContract,SalesContractType,SalesOrganization,DistributionChannel,SalesContractValidityStartDate,SalesContractValidityEndDate,SalesContractValidityPerdUnit,CustomerPurchaseOrderType,OrganizationDivision,SoldToParty,CustomerPurchaseOrderDate,PurchaseOrderByCustomer,to\_Item/SalesContractItem,to\_Item/SalesContract,to\_Item/Material,to\_Item/RequestedQuantity |
| Cmd Variant Uri | ctype::AdapterVariant/cname::sap:HCIOData/tp::HTTP/mp::OData V2/direction::Receiver/version::1.25.0 |
| Whitelist Request Headers |  |
| Operation | Create(POST) |
| Message Protocol Version | 1.25.0 |
| Provider Relative Url |  |

## 5.5. Mappings

### Mapping Activity 1 Properties

|  |  |
| --- | --- |
| **Key** | **Value** |
| mappinguri | dir://mmap/src/main/resources/mapping/Bulk2.mmap |
| mappingname | Bulk2 |
| mappingSourceValue |  |
| mappingType | MessageMapping |
| mappingReference | static |
| mappingpath | src/main/resources/mapping/Bulk2 |
| componentVersion | 1.3 |
| activityType | Mapping |
| cmdVariantUri | ctype::FlowstepVariant/cname::MessageMapping/version::1.3.1 |
| messageMappingBundleId |  |

## 5.6. Security

The iFlow's security configuration defines an HTTPS sender requiring role-based authentication with role `ESBMessaging.send`, disabling XSRF protection and limiting the maximum body size to 40MB. Basic Authentication is disabled on the Sender. CORS is disabled and no HTTP Session handling. It integrates with an OData V2 receiver using Basic Authentication, communicating with `http://sentrydev:44300/sap/opu/odata/sap/API\_SALES\_CONTRACT\_SRV` through a SAP Cloud Connector proxy, and enabling TLS Session Reuse. Logging is set to "All events" and exceptions are not returned to the sender.

|  |  |
| --- | --- |
| **Key** | **Value** |
| Namespace Mapping |  |
| Http Session Handling | None |
| Access Control Max Age |  |
| Return Exception To Sender | false |
| Log | All events |
| Cors Enabled | false |
| Exposed Headers |  |
| Component Version | 1.2 |
| Allowed Header List |  |
| Server Trace | false |
| Allowed Origins |  |
| Access Control Allow Credentials | false |
| Allowed Headers |  |
| Allowed Methods |  |
| Cmd Variant Uri | ctype::IFlowVariant/cname::IFlowConfiguration/version::1.2.4 |

## 5.7. Groovy Scripts

The iFlow `Post\_Bulk\_Order\_SV` leverages Groovy scripting indirectly through Content Modifiers. Specifically, `CallActivity\_341642` "Content Modifier 3" uses an XPath expression `//A\_SalesContractItemType/Material` within its header table definition to create the header `Mat2`. `CallActivity\_75198` "Content Modifier 2" uses the `${header.Mat2}` value from the header table to build an message string which is created based on whether the Order is created Successfully, this is not exactly groovy script but it uses similar principles. No explicit Groovy Script elements are present in this XML representation of the iFlow.

No Groovy scripts found in the specified folder.

## 5.8. Error Handling & Logging

The iFlow configuration lacks explicit error handling mechanisms defined within the `<Exceptions>` tag. This implies a reliance on default platform error handling, potentially resulting in less granular control over fault conditions. Custom exception handling, like specific error subprocesses or fault rules, are not implemented in this example based on the missing content inside the tag. Standard platform logging will be in effect to track process execution and errors. Without explicit configuration, developers may not be able to define detailed log messages or specific error handling for process failure.

No exception subprocesses found in the iFlow.

# 6. Version and Metadata

|  |  |
| --- | --- |
| **Key** | **Value** |
| componentVersion | 1.0 |
| ComponentNS | sap |
| ComponentSWCVName | external |
| ComponentSWCVId | 1.5.2 |

This SAP iFlow component has a version of `1.0`. It belongs to the `sap` namespace and is designated as an external component. The Software Component Version Name (SWCV Name) is `external`. The Software Component Version ID (SWCV Id) is `1.5.2`, identifying the specific software component version within the SAP landscape. This metadata helps track and manage the iFlow's dependencies and compatibility.

# 7. Appendix

This iFlow contains several key integration artifacts. It includes three Content Modifiers: "Content Modifier 1" sets a constant body, "Content Modifier 2" enriches the message using an XPath expression, and "Content Modifier 3" creates a header using an XPath expression. A "General Splitter 1" splits the message based on the XPath expression `/batchPartResponse/batchChangeSetResponse/batchChangeSetPartResponse`. A message mapping "Message Mapping 1" uses the "Bulk2.mmap" mapping artifact. Finally, "Write 1" persists data to the storage "Post\_BO\_SV."

|  |  |
| --- | --- |
| **Key** | **Value** |
| mappinguri | dir://mmap/src/main/resources/mapping/Bulk2.mmap |
| mappingname | Bulk2 |
| mappingType | MessageMapping |
| mappingReference | static |
| mappingpath | src/main/resources/mapping/Bulk2 |