

Extensibility Guide

Document Version: 2.0 - 2018-02-26

SAP Hybris Cloud for Customer

How to Extend SAP Hybris Cloud for Customer for Marketing Purposes

Document History

Document Version	Description
1.0	Initial Version
2.0	Updated Version: Adapted screenshots, product names, help links

Table of Contents

1	Purpose of this Document	4
2	Extending Interfaces in SAP Cloud for Customer	5
2.1	Extending Interfaces Using Key User Tool (KUT)	5
2.2	Extending Interfaces Using SDK (PDI)	10
3	Extending the Mapping in Middleware	11
3.1	Extensions in SAP HANA Cloud Platform Integration (CPI)	11
3.2	Extensions in SAP NetWeaver Process Integration (PI)	14
4	Extending SAP Hybris Marketing.....	23
4.1	Extending SAP Hybris Marketing, On Premise.....	23
4.2	Extending SAP Hybris Marketing Cloud.....	23
4.2.1	How to Determine Host Address in the Cloud	25
4.2.2	Prerequisites for Conversion.....	25
4.2.3	Conversion of XML File	26

1 Purpose of this Document

This document is intended as a how-to guide for customers and partners who are facing the requirement to add custom fields to SAP Hybris Cloud for Customer and to make those fields available in the integrated Marketing solution.

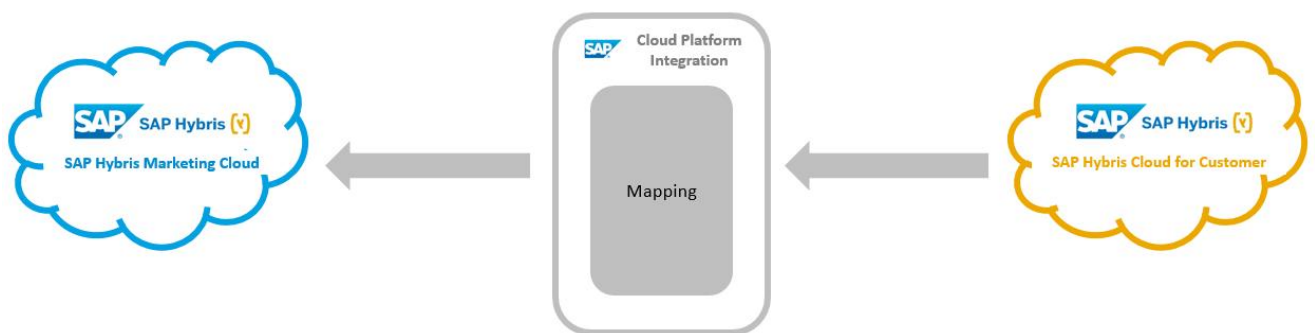
The how-to guide covers both the Marketing cloud solution (SAP Hybris Marketing Cloud) and on premise solution (SAP Hybris Marketing).

As a sample use case, this guide shows how to add a custom field in the opportunity header in SAP Hybris Cloud for Customer, and what needs to be covered for the replication of the information via SAP Cloud Platform Integration (CPI), formerly known as SAP HANA Cloud Integration (HCI), or SAP NetWeaver Process Integration (PI) to the marketing interaction.

In general, the following objects of SAP Hybris Cloud for Customer are in scope:

- Opportunity
- Lead
- Activity

Business Partner (Account, Contact, Individual Customer).



For Hybris Marketing, see the Integration Guide on SAP Help Portal page:

- Cloud: <http://help.sap.com/mkt> -> *Integration*
- On Premise: https://help.sap.com/viewer/p/SAP_HYBRIS_MARKETING -> *Integration*

2 Extending Interfaces in SAP Cloud for Customer

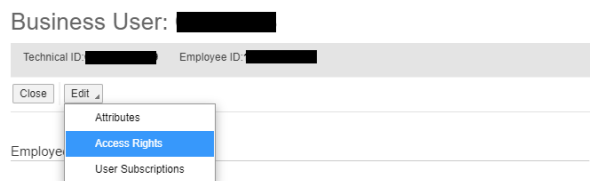
This guide describes how the lead management process that integrates Marketing (On Premise and Cloud solution) with SAP Hybris Cloud for Customer can be enhanced with additional customer fields. In this example, a field in the opportunity header is added that is replicated via SAP Cloud Platform Integration (CPI) or SAP NetWeaver Process Integration (PI) to a marketing interaction.

There are two options for extending your SAP Hybris Cloud for Customer application,

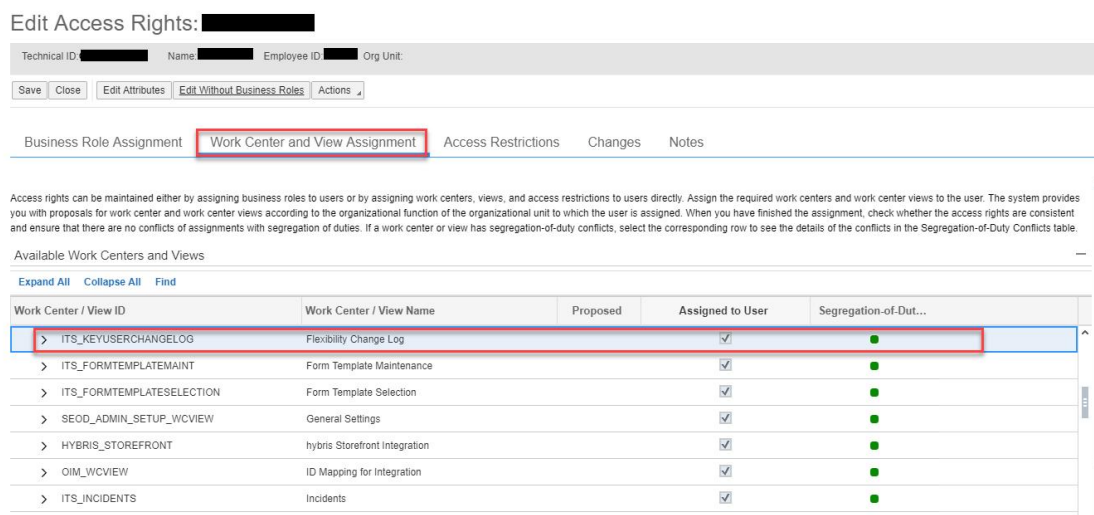
- Key User Tool (KUT)
- SAP Cloud Applications Studio (SDK), previously known as Partner Development Infrastructure (PDI)

2.1 Extending Interfaces Using Key User Tool (KUT)

- On the Work Center *Administrator* and *General Settings* click on the entry *Business Users*. Look up the user who will implement the enhancement. On the detail page of the business user you can push the *Edit* button and choose from the drop menu the entry *Access Rights*.

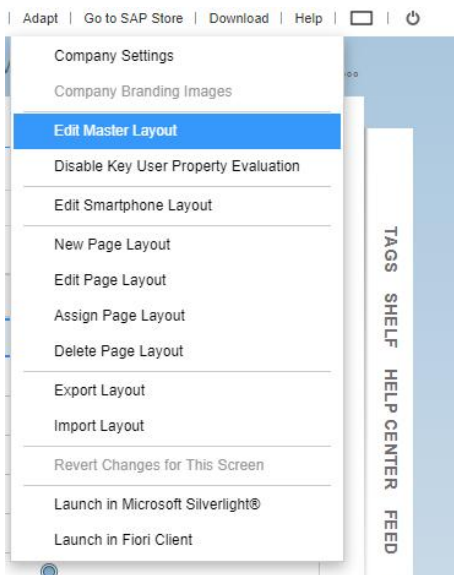


- Navigate on the *Access Right* page to the tab *Work Center and Assignment* and make sure that the work center *Flexibility Change Log* is assigned to the user.

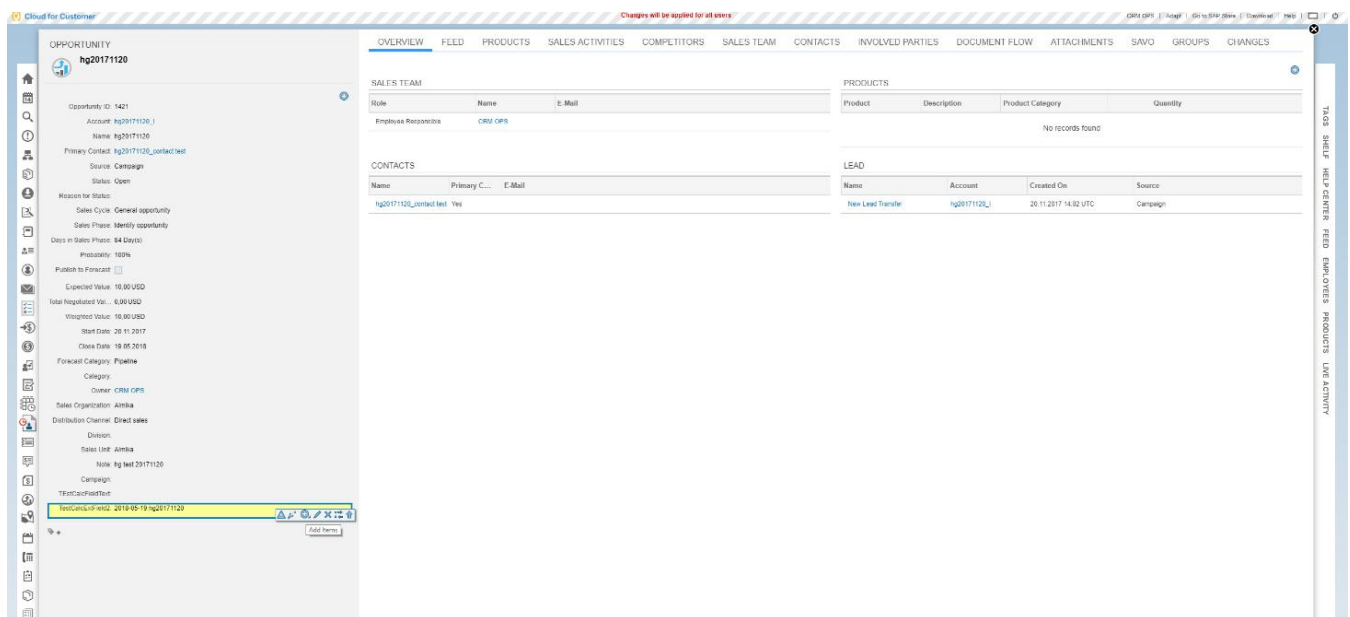


3. Save and close.

4. Click *Adapt and Edit Master Layout* to activate the Key User Tool (KUT) mode.



5. In this example, the *Opportunity* screen in SAP Hybris Cloud for Customer is extended, and a new field *ABC Indicator* is added.



6. Select the UI area under which you wish to have the newly extended field appear, for example *Header*.

7. Choose *Add Items -> Add Fields*.

8. Press the button *New Field*

Additional Fields

Add Fields Add Other Fields				
+ New Field				
Select	Label	Description	Control Type	Ext. F...
<input type="checkbox"/>	Sales Office		Object Value Selector	
<input type="checkbox"/>	Sales Group		Object Value Selector	
<input type="checkbox"/>	Territory ID		Object Value Selector	
<input type="checkbox"/>	Territory Name		Static Text	
<input type="checkbox"/>	Sales Order		Link	
<input type="checkbox"/>	Created On		Static Text	
<input type="checkbox"/>	Created By		Link	
<input type="checkbox"/>	Changed On		Static Text	

9. Enter the details of the newly extended field, such as *Business Context*, *Field Label* and *Tooltip* before saving your entries

Additional Fields

Add Fields Add Other Fields	
+ New Field	
Select	Label
<input type="checkbox"/>	Docu
<input type="checkbox"/>	Extern
<input type="checkbox"/>	Top L
<input type="checkbox"/>	Paren
<input type="checkbox"/>	Priori
<input type="checkbox"/>	Consi
<input type="checkbox"/>	Prima
<input type="checkbox"/>	Rever
<input type="checkbox"/>	Rever
<input type="checkbox"/>	Deal

Extension Field

* Business Context: Opportunity

* Label: ABC Indicator

* Technical Name: ABCIndicator1

Calculated: ☐

* Type: Text

* Sub Type: Short Text (40)

Data Protection Level: None

Default Value:

Save and Close Cancel

Apply Cancel

10. Verify the field is visible in the *Header* section of the screen

Division:

Sales Unit: Almika

Note: hg test 20171120

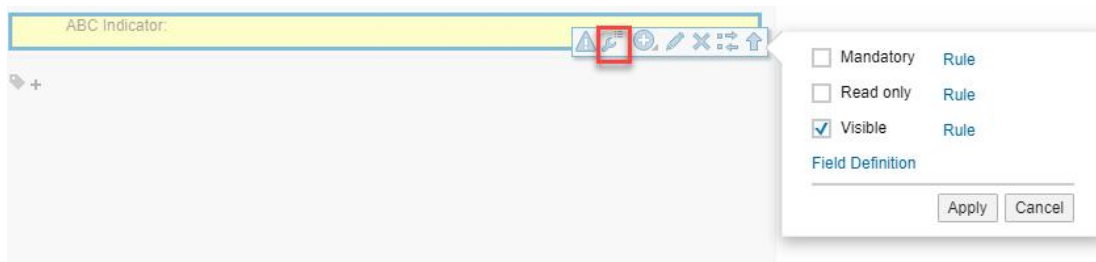
Campaign:

TTestCalcFieldText:

TestCalcExtField2: 2018-05-19 hg20171120

ABC Indicator:

11. To ensure that the newly extended field is reflected in the Web service for the opportunity, click on *Change Properties* and make sure that the flag *Visible* is set. Click on *Field Definition*.



12. Choose Edit, and select the corresponding Web service to which the extended field needs to be added.

EDIT FIELD

ABCIndicator

Opportunity

Type: Text

Default Value:

Data Protection Level: None

Created By: CRMOPS

Created On: 14.04.2016 12:10:23

Last Changed By: CRMOPS

Last Changed On: 15.04.2016 11:52:19

GENERAL DATA

FORM TEMPLATES

REPORTING

ENTERPRISE SEARCH

EXTENSION SCENARIOS

SERVICES

ODATA SERVICES

Services

You are about to add the extension field to a web service. The field name is derived when saving your data. Note that you have to adapt your web service consumer or provider implementations. You can download the enhanced iManagement work center.

Show Field Name

Service Description	Service	Operation	Message	Communication Direction	Field Added	Action
Opportunity - General Data	CustomerQuoteRequestCreationO...	RequestCustomerQuoteRequestC...	CustomerQuoteRequestCreateRe...	Outbound	<input type="checkbox"/>	
Opportunity - General Data	OpportunityReplicationInitiatedByE...	BulkReplicateOpportunity	OpportunityBulkReplicationRequest	Inbound	<input type="checkbox"/>	
Opportunity - General Data	OpportunityBulkReplicationOut	RequestBulkOpportunityReplication	OpportunityReplicationBulkRequest	Outbound	<input type="checkbox"/>	
Opportunity - General Data	OpportunityReplicationInitiatedByE...	ReplicateOpportunity	OpportunityReplicationRequest	Inbound	<input type="checkbox"/>	
Opportunity - General Data	OpportunityReplicationOut	RequestOpportunityReplication	OpportunityReplicationRequest	Outbound	<input checked="" type="checkbox"/>	
Opportunity - General Data	SalesOrderPricingInformationReq...	PricingInformationRequest	SalesOrderPricingInformationResp...	Inbound	<input type="checkbox"/>	
Opportunity - General Data	SalesOrderPricingInformationReq...	PricingInformationRequest	SalesOrderPricingInformationQuer...	Outbound	<input type="checkbox"/>	
Opportunity - General Data	SalesOrderRequestCreationOut	RequestSalesOrderRequestCreati...	SalesOrderRequestCreateRequest	Outbound	<input type="checkbox"/>	
Opportunity - General Information	ManageOpportunityIn	MaintainBundle	OpportunityBundleMaintainReque...	Inbound	<input type="checkbox"/>	
Opportunity - General Information	QueryOpportunityIn	FindByElements	OpportunityByElementsQuery_syn...	Inbound	<input type="checkbox"/>	
Opportunity - General Information	QueryOpportunityIn	FindByElements	OpportunityByElementsResponse...	Outbound	<input type="checkbox"/>	
Opportunity OData - General Info...	QueryOpportunityForOData	FindByElements	OpportunityODataResponseMess...	Outbound	<input type="checkbox"/>	
Opportunity to Followup Business...	FollowupDocumentCreationReque...	FollowupDocumentRequestCreation	OpportunityReplicationRequest	Outbound	<input type="checkbox"/>	

13. Save your settings, and close.
14. Afterwards, you can leave the UI change mode by selecting *Adapt and End Layout Changes*.
15. Go to the *Administrator* and *General Settings* work center and click on *Communication Arrangements*. Download the WSDL file for the communication arrangement Opportunity Replication to SAP Business Suite.

Communication Arrangement Overview: Opportunity Replication to SAP Business Suite

Status: **Active** Communication Method: **Direct Connection** Predefined: **No**

[Close](#) [Preview](#) [Display Documentation](#)

Communication System My Communication Data

System Instance ID: XXXXXXXXXX My System: XXXXXXXXXX

Communication System: XXXXXXXXXX

Code List Mapping: SAP On Premise Integration


Inbound Communication Services

[Download WSDL](#) [Display Documentation](#)

Communication...	Service	Application Protocol	Service URL
	Confirm Opportunity Replication from SAP Business Suite	Web Service Reliable Messaging 1	XXXXXXXXXX

Outbound Communication

[Check Connection](#) [Download WSDL](#)

Communication...	Service	Application Protocol	Service URL
	Replicate Opportunity Attachment to SAP Business Suite	Format Conversion	XXXXXXXXXX
	Replicate Opportunity to SAP Business Suite	Format Conversion	XXXXXXXXXX
	Deprecated: Replicate Opportunity to SAP Business Suite	Format Conversion	XXXXXXXXXX

16. Save the WSDL locally on your desktop. Verify the extended field is present in the WSDL.

```

</xsd:sequence>
</xsd:complexType>
<!--xsd:group name="BusDocMsgHeaderTestContainer"-->
  <!--xsd:sequence-->
    <xsd:element name="TestID" type="xi5:BusinessScopeID" form="qualified" minOccurs="0"/>
    <xsd:element name="TestRunID" type="xi5:BusinessScopeInstanceID" form="qualified" minOccurs="0"/>
    <xsd:element name="ProcessComponentPair" type="BusDocMsgHeaderTestPCs" form="qualified" minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name="BusinessConfigurationSimulationInformation" type="BusinessConfigurationSimulationInformation" form="qualified" minOccurs="0" n
  </xsd:sequence>
</xsd:group>
<xsd:attributeGroup name="BusDocMsgHeaderTestContainer"/>
</xsd:schema>
<!--xsd:schema targetNamespace="http://sap.com/xi/AP/CustomExtension/BYD/ZZZZ" xmlns="http://sap.com/xi/AP/CustomExtension/BYD/ZZZZ" xmlns:xi10
xmlns:xi5="http://sap.com/xi/AP/Common/GDT" xmlns:xi4="http://sap.com/xi/AP/CRM/Global" xmlns:xi3="http://sap.com/xi/SAPGlobal20/Global" xmlns:xi2="I
xmlns:ccts="urn:un:unece:unefact:documentation:standard:CoreComponentsTechnicalSpecification:3.0"-->
  <xsd:import namespace="http://sap.com/xi/AP/Extensibility/GeneratedObjects"/>
  <!--xsd:group name="Ext00163E12BA401ED5B29ED6CE69F65027"-->
    <!--xsd:sequence-->
      <xsd:element name="ABCIndicator" type="xi10:Ext00163E12BA401EE5B1B9E6C258D66A26" form="qualified" minOccurs="0"/>
    </xsd:sequence>
  </xsd:group>
  <xsd:attributeGroup name="Ext00163E12BA401ED5B29ED6CE69F65027"/>
</xsd:schema>
<!--xsd:schema targetNamespace="http://sap.com/xi/SAPGlobal20/Global" xmlns="http://sap.com/xi/SAPGlobal20/Global" xmlns:xi10="http://sap.com/xi/AP/Exten
xmlns:xi5="http://sap.com/xi/AP/Common/GDT" xmlns:xi4="http://sap.com/xi/AP/CRM/Global" xmlns:xi3="http://sap.com/xi/SAPGlobal20/Global" xmlns:xi2="I
xmlns:ccts="urn:un:unece:unefact:documentation:standard:CoreComponentsTechnicalSpecification:3.0"-->
  <xsd:import namespace="http://sap.com/xi/AP/CRM/Global"/>
  <xsd:element name="OpportunityReplicationRequest" type="xi4:OpportunityReplicationRequest"/>
</xsd:schema>
<!--xsd:schema targetNamespace="http://sap.com/xi/AP/CRM/Global" xmlns="http://sap.com/xi/AP/CRM/Global" xmlns:xi10="http://sap.com/xi/AP/Extensibility/C
xmlns:xi5="http://sap.com/xi/AP/Common/GDT" xmlns:xi4="http://sap.com/xi/AP/CRM/Global" xmlns:xi3="http://sap.com/xi/SAPGlobal20/Global" xmlns:xi2="I

```

2.2 Extending Interfaces Using SDK (PDI)

Although it is possible to use SAP Cloud Applications Studio (SDK) to create an extension field, it is only recommended in case you have to introduce complex business logic along with the extension. For simple extensions, KUT is recommended over PDI. For more details on using SDK (PDI) please refer to <https://help.sap.com/sdk>

3 Extending the Mapping in Middleware

Once you have extended the source and target interfaces, the next step is to map the extended field(s) using either SAP NetWeaver Process Integration (PI) or SAP Cloud Platform Integration (CPI).

3.1 Extensions in SAP HANA Cloud Platform Integration (CPI)

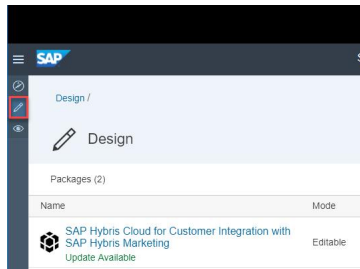
1. Launch Cloud Platform Integration Web UI
2. Switch to *Discover* and select the Integration package *SAP Hybris Cloud for Customer Integration with SAP Hybris Marketing* and press the button *Copy* in the right upper corner.

The screenshot displays the SAP Cloud Platform Integration (CPI) Discover page. The interface includes a search bar, filter options, and a list of integration packages. The first package, "SAP Hybris Cloud for Customer Integration with SAP Hybris Marketing", is highlighted with a red box. This package is published about 4 hours ago, version 1802, and has a 4 out of 5 star rating. The left sidebar shows filters for Supported Platforms (SAP Cloud Platform Integration, SAP NetWeaver PI, SAP NetWeaver Process Integration, SAP Process Integration, SAP Process Orchestration) and Vendor (SAP, Advantco International LLC, Rojo Consultancy B.V., KaTe GmbH, Qfort B.V.). The bottom section lists Lines Of Business (Human Resources, Marketing, Finance, Sales, Service).

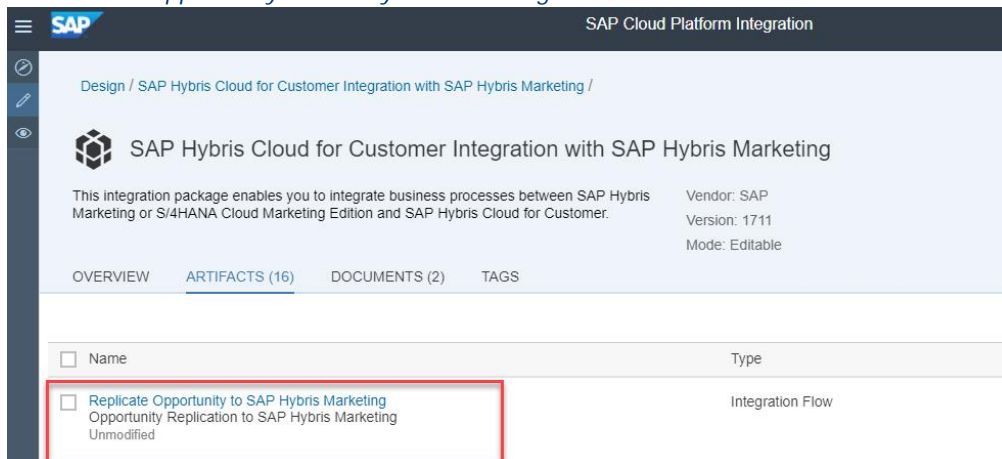
Filter by	17 package(s) found
Supported Platforms	
<input type="checkbox"/> SAP Cloud Platform Integration 123	
<input type="checkbox"/> SAP NetWeaver PI 1	
<input type="checkbox"/> SAP NetWeaver Process Integration 1	
<input type="checkbox"/> SAP Process Integration 1	
<input type="checkbox"/> SAP Process Orchestration 1	
Vendor	
<input type="checkbox"/> SAP 110	
<input type="checkbox"/> Advantco International LLC 4	
<input type="checkbox"/> Rojo Consultancy B.V. 4	
<input type="checkbox"/> KaTe GmbH 3	
<input type="checkbox"/> Qfort B.V. 1	
Lines Of Business	
<input type="checkbox"/> Human Resources 41	
<input type="checkbox"/> Marketing 18	
<input type="checkbox"/> Finance 16	
<input type="checkbox"/> Sales 13	
<input type="checkbox"/> Service 12	

Package Name	Description	Published	Version	Vendor	Rating
SAP Hybris Cloud for Customer Integration with SAP Hybris Marketing	This integration package enables you to integrate business processes between SAP Hybris Marketing or SAP Hybris Marketing Cloud and SAP Hybris Cloud for Customer.	Published: about 4 hours ago	Version: 1802	SAP	4 out of 5 (1)
SAP Hybris Marketing Cloud Integration with SAP Hybris Customer Attribution	Import campaign success data from SAP Hybris Customer Attribution, and direct navigation to SAP Hybris Customer Attribution	Published: 5 days ago	Version: 1.0	SAP	4 out of 5 (1)
SAP Hybris Cloud for Customer Integration with SAP S/4HANA	This integration package enables you to integrate business processes between SAP S/4HANA on-premise and SAP Hybris Cloud for Customer.	Published: 6 days ago	Version: 1802	SAP	4 out of 5 (1)
SAP Hybris Cloud for Customer Integration with SAP ERP	The integration scope includes replication of master data such as Customer, Material, ...	Published: 6 days ago	Version: 1802	SAP	5 out of 5 (1)
SAP Hybris Cloud for Customer Integration with SAP S/4HANA Cloud	This integration package enables you to integrate business processes between SAP S/4HANA Cloud and SAP Hybris Cloud for Customer.	Published: 6 days ago	Version: 1802	SAP	4 out of 5 (1)
SAP Hybris Cloud for Customer Integration with SAP CRM	This integration package enables you to integrate business processes between SAP Hybris Cloud for Sales, SAP Hybris Cloud for Service, and SAP Hybris Cloud for Social Engagement with SAP CRM.	Published: 7 days ago	Version: 1802	SAP	4 out of 5 (1)
SAP Hybris Cloud for Customer for Utilities Solution - Integration with SAP ERP	The integration scope includes replication of technical, functional master data and	Published: 7 days ago	Version: 1802	SAP	4 out of 5 (1)

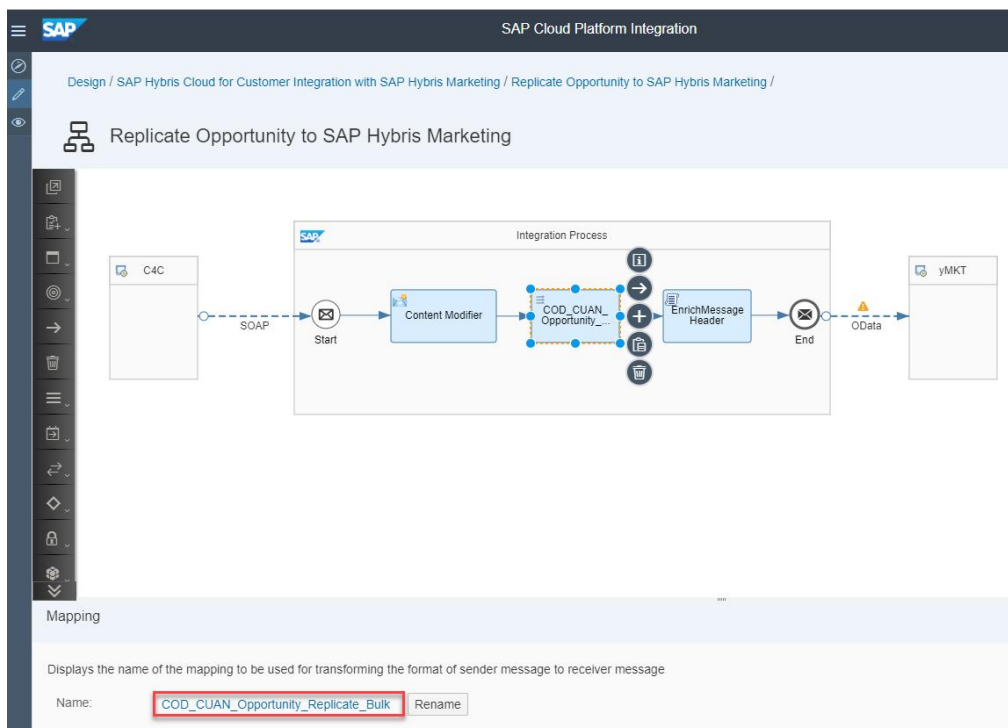
3. Go to design and click on the copied integration package. *Customer Integration with SAP Hybris Marketing.*



4. Within the integration package navigate to the tab *Artifacts* and click on the integration flow *Replicate Opportunity to SAP Hybris Marketing.*



5. Switch to the Edit mode by *Edit*



-
6. Within the iFlow project, select the mapping entity – in this example, [COD_CUAN_Opportunity_Replicate_Bulk](#) and click on the link to open the mapping
 7. In the mapping editor, click on edit button to import the extended WSDL.
 8. Choose [Edit](#) on the respective structure: Source or Target. In the example, the extension was done on the target message [OpportunityReplicationRequest](#).
 9. Choose [Upload from the File System](#) to import the extended WSDL.
 10. Choose the WSDL that was downloaded from the [SAP Hybris Cloud for Customer - Communication Arrangement](#).
 11. After importing the WSDL select the message type within the WSDL
 12. Click OK, to accept the change in the structure
 13. Save and deploy the iFlow.

Note

The same principle applies for importing the on premise WSDL, as well. Ensure that the source and target WSDL have the same name before importing into the WSDL folder

3.2 Extensions in SAP NetWeaver Process Integration (PI)

The following chapter describes steps required to extend the mapping in SAP NetWeaver PI. These steps are also applicable if you just want to modify the mapping logic in the standard mapping. There you can ignore the steps concerning importing extended WSDL.

1. From the SAP NetWeaver PI welcome page, open [Enterprise Services Builder](#).



2. Open the mapping that needs the extension. Example: COD_CUAN_Opportunity_Replicate from the software component version C4CMKT_IC 100.

Display Message Mapping Status: Active

Name: **COD_CUAN_Opportunity_Replicate**

Namespace: **http://sap.com/xi/C4CYMKT**

Software Component Version: **C4CYMKT_IC 100**

Description:

Definition Test Signature Functions Compare Versions

External Message: OpportunityReplicationRequest

Structure	Occurrences	Type
OpportunityReplicationRequest	1..1	p5:OpportunityReplicationRequest
MessageHeader	1..1	p6:BusinessDocumentMessageHeader
ID	0..1	p6:BusinessDocumentMessageID
UUID	0..1	p6:UUID
ReferenceID	0..1	p6:BusinessDocumentMessageID
ReferenceUUID	0..1	p6:UUID
CreationDateTime	1..1	p8:GLOBAL_DateTime
TestDataIndicator	0..1	p6:Indicator
ReconciliationIndicator	0..1	p6:Indicator
SenderBusinessSystemID	0..1	p6:BusinessSystemID
RecipientBusinessSystemID	0..1	p6:BusinessSystemID
SenderParty	0..1	p6:BusinessDocumentMessageHeader
InternalID	0..1	p6:PartyInternalID
StandardID	0..unbounded	p6:PartyStandardID
ContactPerson	0..1	p6:BusinessDocumentMessageHeader

External Message: ImportHeaders

Structure	Occurrences
ImportHeaders	1..1
ImportHeader	1..unbounded
Timestamp	0..unbounded
SourceSystemType	0..unbounded
SourceSystemId	0..unbounded
Id	1..unbounded
BusinessDocuments	0..unbounded
BusinessDocument	0..unbounded
ActionCode	0..unbounded
PredecessorId	0..unbounded
Currency	0..unbounded
ExpectedRevenue	0..unbounded
Content	0..unbounded
ExternalTimeStamp	0..unbounded
ExternalStatusCode	0..unbounded
ExternalId	0..unbounded

Mapping Logic: Constant (1) → Business...

3. Navigate to *Signature*, and note down the software component versions that require extension

Display Message Mapping Status: **Active** Displayed Language: **English**

Name: **COD_CUAN_Opportunity_Replicate**

Namespace: **http://sap.com/xi/C4CYMKT**

Software Component Version: **C4CYMKT_IC 100**

Description:

Definition | **Test** | **Signature** | **Functions** | **Compare Versions**

Source Message(s)

Software Component Version: **SAP BYD 2.40**

Type	Name	Namespace	Occurrence
External Mess...	OpportunityReplicationRequest	http://sap.com/xi/1	1

Target Message(s)

Software Component Version: **HYBRIS MARKETING 1.2**

Type	Name	Namespace
External Mess...	ImportHeaders	http://sap.com/xi/1

- i SAP BYD 2.40
- i HYBRIS MARKETING 1.2

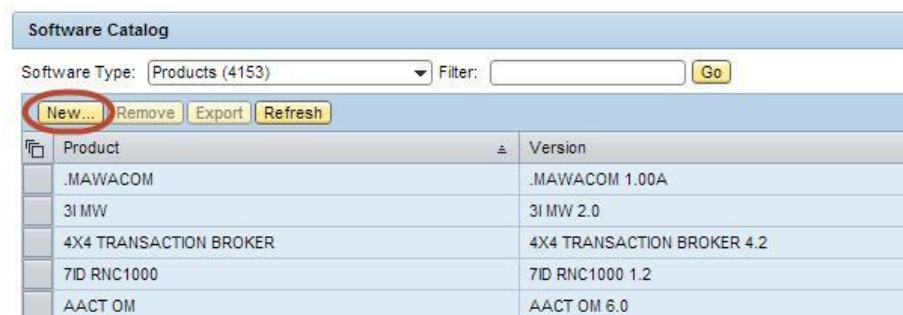
4. Open SLD (Systems Landscape Directory) from SAP NetWeaver PI start page.



5. Select *Products* under the section *Software Catalogs*



6. Choose *New* to create a new product



7. Choose Action Type *Create a new product and version*.

1 Action Type 2 Product 3 Product Instance 4 Create Software Component and Version

Select the type of action you want to perform

☐ Create a new version for an existing product

☒ Create a new product and version

☐ Copy selected product version with its software components and dependencies to a new version

Next Cancel

Enter the product details as shown below

- i Product Name: <The Extension product name, such as C4CCRMEXT>
- i Product Vendor: <Customer namespace, such as example.com>
- i Product Version: 1.0

1 Action Type 2 Product 3 Product Instance

Add Non-SAP Product Version to Software Catalog

Product Name: * C4CCUAN

Product Vendor: * customer.com

Product Version: * 1.0

Back Next Cancel

8. Enter an Instance Name.

Home Administration Log Off Help

1 Action Type 2 Product 3 Product Instance

Add a new non-SAP product instance

Product: C4CCUAN

Vendor: customer.com

Version: 1.0

Instance Name: * C4CCUAN

Back Next Cancel

9. Enter the Software Component details as shown below and choose *Finish*.

§ Name : <Extension software component name, such as C4CCUAN>

§ Version: 1.0

Add Software Component Version to Non-SAP Product

Product Version: C4CCUAN 1.0 of custom

Product Instance: C4CCUAN

Vendor: * customer.com

Name: * C4CCUAN

Version: * 1.0

Production State: released

Back Finish Cancel

10. Navigate to the SLD home screen and select *Software Components* from the *Software Catalogs* section.



11. Search for the Software Component that was created in the previous step, such as C4CCUAN.

Software Catalog

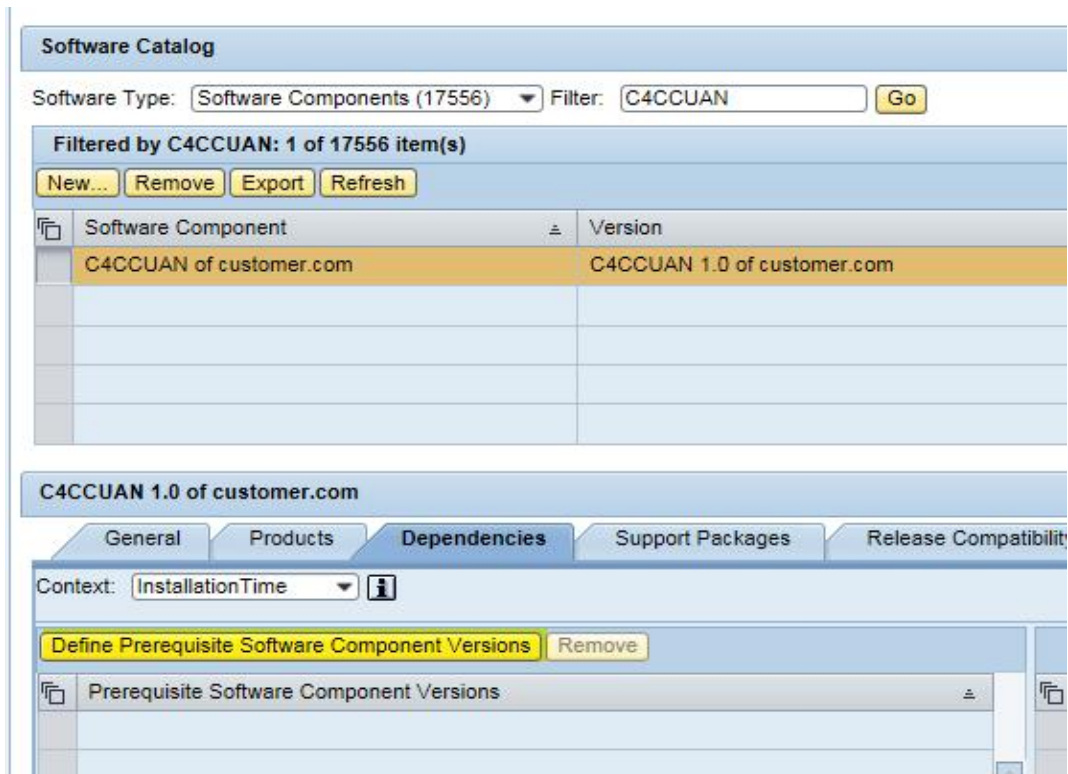
Software Type: Software Components (17556) Filter: C4CCUAN x Go S

Filtered by C4CCUAN: 1 of 17556 item(s)

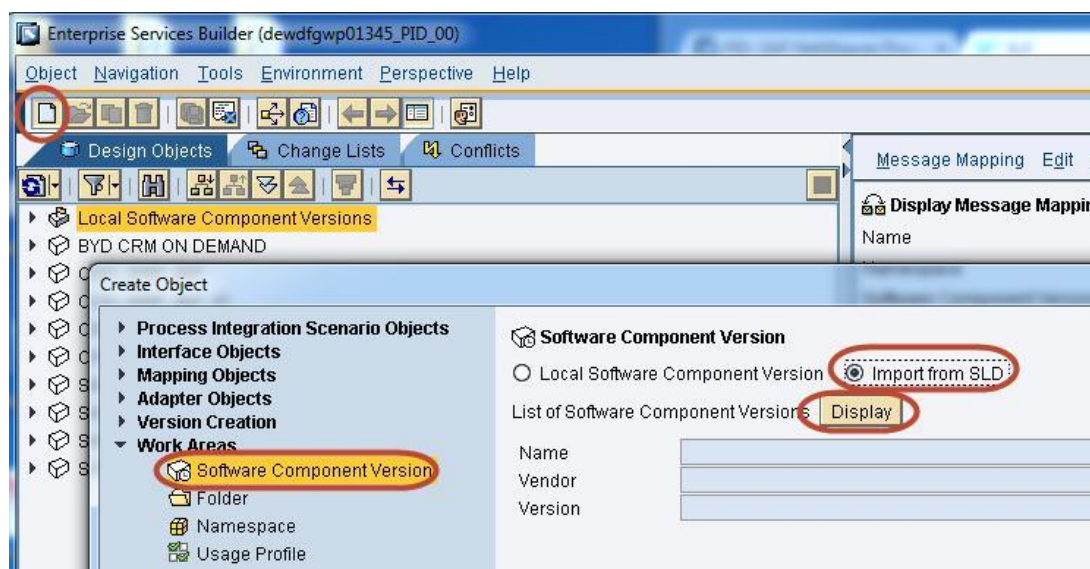
New... Remove Export Refresh

Software Component	Version	Vendor
C4CCUAN of customer.com	C4CCUAN 1.0 of customer.com	customer.com

12. Navigate to *Dependencies*, and choose *Define Prerequisite Software Component Version*.



13. Search for the software component that requires extensions, and choose "*Define as Prerequisite Software Components*"
14. Open *Enterprise Service Builder*, and import the Software Component Version that was created for extension, such as C4CCUAN. Choose *Create*, select *Software Component Version* and choose *Display*.



Make sure the option *Import from SLD* is selected.

15. Search and select the software component that you wanted to import, such as C4CCUAN, and choose *Import*. Choose *Create* to create the Software Component Version.

Import of Software Component Versions

List of Software Component Versions

Search

	Description	Vendor	Name	Version	Element Type ID	ID
2888	BYD TEM ANDROID ...	sap.com	BYD_TEM_ANDROI...	1405	6783780010020002...	0050568f0aac1ee3...
2889	BYD TEM ANDROID ...	sap.com	BYD_TEM_ANDROI...	500	6783820010020002...	0577ce900bda11e2...
2890	BYD TEM IPAD 1302	sap.com	BYD_TEM_IPAD	1302	6783780010020002...	00727cc35a7611e2...
2891	BYD TEM IPAD 1305	sap.com	BYD_TEM_IPAD	1305	6783780010020002...	00727cc45a7611e2...
2892	BYD TEM IPAD 1308	sap.com	BYD_TEM_IPAD	1308	6783780010020002...	0050568f0aac1ed2...
2893	BYD TEM IPAD 2.0	sap.com	BYD_TEM_IPAD	200	0120031469020001...	5d072ca1853f1e0...
2894	BYD TEM IPAD 3.0	sap.com	BYD_TEM_IPAD	300	0120031469020001...	edf46f40054411e1b...
2895	BYD TEM IPAD 4.0	sap.com	BYD_TEM_IPAD	400	6783820010020001...	1f860ed39ea411e1...
2896	BYD TEM IPAD 5.0	sap.com	BYD_TEM_IPAD	500	6783780010020002...	b39f5bf2ead311e19...
2897	BYD TEM ON DEMA...	sap.com	BYD_ODT	200	0120031469020001...	9be045d0595a11e...
2898	BYD TEM ON DEMA...	sap.com	BYD_ODT	300	0120031469020001...	ae74c392053c11e1...
2899	BYD TEM ON DEMA...	sap.com	BYD_ODT	400	6783820010020001...	e7fc9bf28ecc11e18f...
2900	BYD TEM ON DEMA...	sap.com	BYD_ODT	500	6783780010020002...	8a0c5431eac11e1...
2901	BYD TEM ON DEMA...	sap.com	BYD_ODT	520	6783820010020002...	9d64f0c213911e2...
2902	BYD TEM WINDOW...	sap.com	BYD_TEM_WIN	1402	6783780010020002...	0050568f0aac1ee3...
2903	BYD TEM WINDOW...	sap.com	BYD_TEM_WIN	1405	6783780010020002...	0050568f0aac1ee3...
2904	BYD WIN MOBILE W...	sap.com	BYD_WINMOBILE_...	201	0120031469020001...	11301a21e1cb11df...
2905	BYD WIN MOBILE W...	sap.com	BYD_WINMOBILE_...	210	0120031469020001...	bf7b73b3e74611df8...
2906	BYD WIN MOBILE W...	sap.com	BYD_WINMOBILE_...	235	0120031469020001...	d64f0e4c77eb11e0...
2907	BYD WIN MOBILE W...	sap.com	BYD_WINMOBILE_...	240	0120031469020001...	cd9203200a0811e1...
2908	BZIP2 1.0.4	sap.com	BZIP2	1.0.4	6783780010020002...	0050568f0aac1ed2...
2909	C&C 1.0	sap.com	CC_SYSTEM	1.0	0120031469020001...	b39efdb0438b11de...
2910	C3PO 0.9.1	sap.com	C3PO	091	0120031469020001...	21378cd0599611e0...
2911	C3PO 0.9.2.1	sap.com	C3PO	0.9.2.1	6783780010020002...	0050568f0aac1ed2...
2912	C4BCM 3	sap.com	C4BCM	3	0120031469020001...	1377ec60437311de...
2913	C4C_ANDROID RT...	sap.com	C4C_ANDROID_RTL	1405	6783820010020002...	0050568f0aac1ed3...
2914	C4C_B2C RETAIL S...	sap.com	C4C_B2C_RETAIL_...	1405	6783820010020002...	0050568f0aac1ee3...
2915	C4C_IPHONE RTL ...	sap.com	C4C_IPHONE_RTL	1405	6783820010020002...	0050568f0aac1ed3...
2916	C4CCRMEXT 1.0 of ...	example.com	C4CCRMEXT	1.0	0	6932fce0b9e711e3...
2917	C4CCUAN 1.0 of cu...	customer.com	C4CCUAN	1.0	0	f0eb7870ca5611e5...

Create Object

- Process Integration Scenario Objects
- Modeling
- Interface Objects
- Mapping Objects
- Adapter Objects
- Version Creation
- Work Areas
 - Software Component Version**
 - Folder
 - Namespace
 - Usage Profile

Software Component Version

☐ Local Software Component Version ☒ Import from SLD

List of Software Component Versions

Name	C4CCUAN 1.0 of customer.com
Vendor	customer.com
Version	1.0

16. On the new Software Component Version, select the Language **English**.

Edit Software Component Version

Name: C4CCUAN 1.0 of customer.com

ID: f0eb7870ca5611e5c452eacb0a445110

Definition Details SLD Information

Object Properties

☒ Objects Are Original Objects ☒ Objects Are Modified

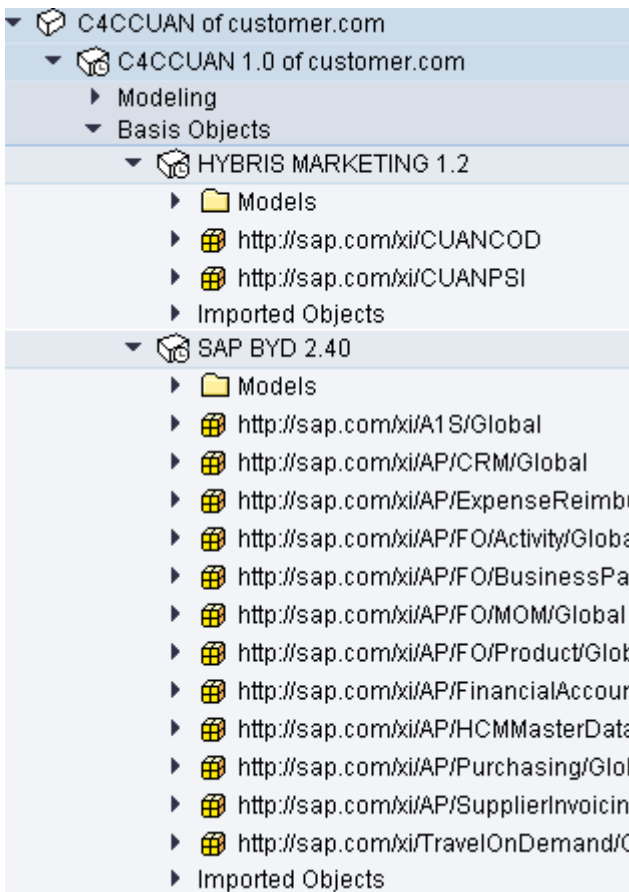
Use of Interface Objects: SAP NetWeaver 7.1

Original Language*: English

Permitted Target Languages for Translations:

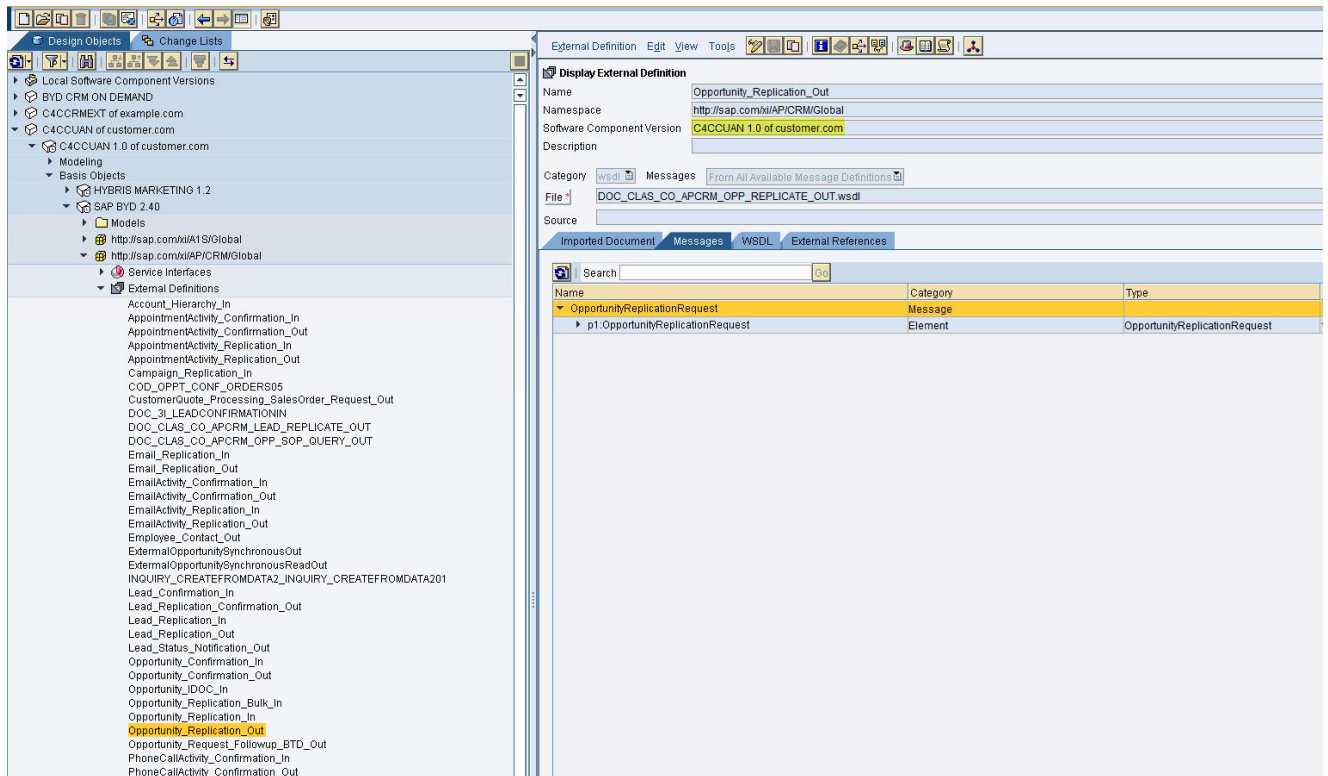
☐ Uses External Documentation

17. Navigate to the SLD Information tab to verify if the underlying software components contains HYBRIS MARKETING 1.2 and SAP BYD 2.40
18. Save the Software Component Version, and check it appears on the left tree view.
19. Expand the Software Component to view the **Basis Objects** containing the software component version.

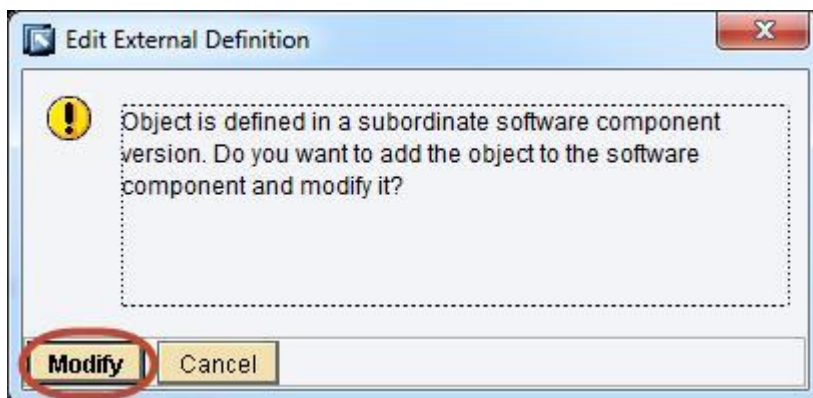


20. Open the External Definition Opportunity_Replication_Out.

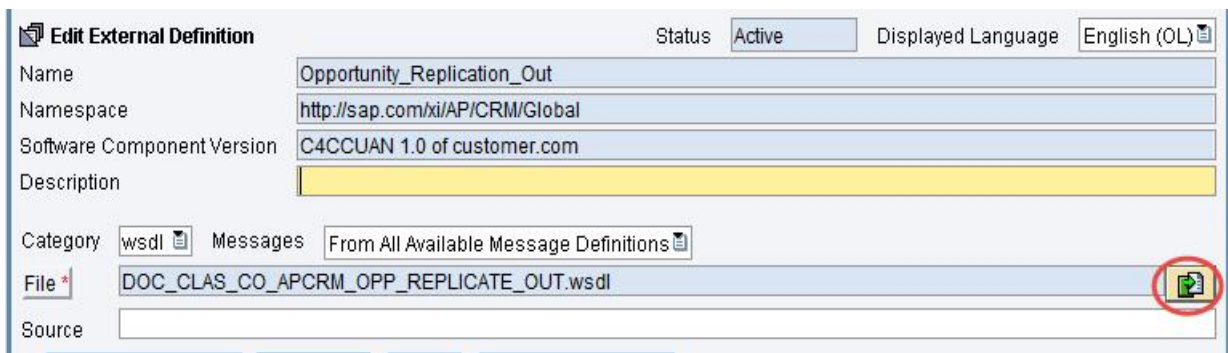
To find the External Definition, first identify the Service Interface that is configured for this interface from the Integration Builder and from the Service Interface one can determine the External Definition that is being used.



21. Switch to the Edit mode, and import the extend WSDL from SAP Hybris Cloud for Customer.



22. Import the WSDL using the *Import* button and select the WSDL to be imported.



Edit External Definition Status: **Active** Displayed Language: **English (OL)**

Name: **Opportunity_Replication_Out**

Namespace: **http://sap.com/xi/API/CRM/Global**

Software Component Version: **C4CCUAN 1.0 of customer.com**

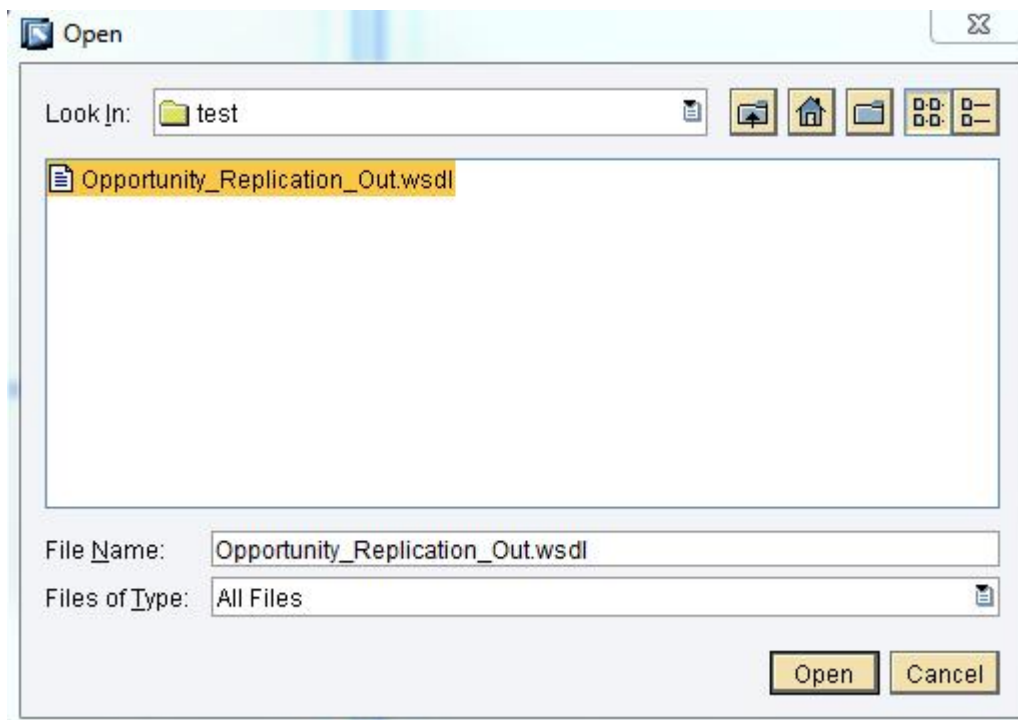
Description:

Category: **wsdl** Messages: **From All Available Message Definitions**

File *: **DOC_CLAS_CO_APCRM_OPP_REPLICATE_OUT.wsdl**

Source:

23. Save the External Definitions.



24. Once saved, the left tree view will show the object as modified. Activate the external definition.
25. Open the message mapping in the Software Component Version C4CYMKT_IC 100 in edit mode, and refer to the new external definition. Save the mapping.
26. Switch to the *Definition*, and the mapping should contain the new field which can be mapped as per the requirement.
27. Save all the changes, and activate the objects.
28. Make sure to change the *Interface Determination* in Integration Builder to use the interface mapping from the new software component, such as C4CCRMEXT. In case of Java only SAP PI (AEX) installations, change the Integrated Configuration to use the mapping from the new software component.

4 Extending SAP Hybris Marketing

4.1 Extending SAP Hybris Marketing, On Premise

1. Log on to your Marketing system and go to transaction SE11 and enter the structure INCL_EEW_CUAN_CE_IA_ROOT. Add the field name and component type of the field that should be added. Activate the structure.

2. Get the metadata information of the OData service.

Enter the URL from below in your web browser in order to get the meta data document.

<<SYSTEM_URL>>/sap/opu/odata/sap/CUAN_BUSINESS_DOCUMENT_IMP_SRV/\$metadata

<<SYSTEM_URL>> must be replaced by your system URL.

3. Save the metadata information as XML file.

3. Convert the XML file to a XSD file as described in chapter 4.2.3.

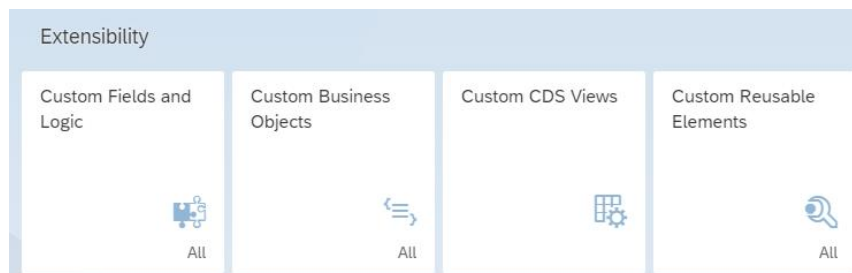
4. Upload the WSDL file to your PI or CPI system in the message mapping on the receiver side.

See also Extensibility Guide on SAP Help Portal at https://help.sap.com/viewer/p/SAP_HYBRIS_MARKETING -> Development

4.2 Extending SAP Hybris Marketing Cloud

Each maintained extensibility feature is available in the SAP Fiori App *Customer Fields and Logic* of catalog role *Extensibility* (SAP_BCR_CORE_EXT). Extensions, such as field extensions are created as local objects in the test system. The transport of extensions takes place in the SAP Fiori Apps *Manage Software Collection* of catalog role *Software Collection Export* (SAP_BCR_CORE_SL_EXP) and *Import Software Collection* of catalog role *Software Collection Import* (SAP_BCR_CORE_SL_IMP). When opening *Manage Software Collection* in the test system, a list of changed, deleted and new objects is shown. You can decide to release those objects to production. The system immediately creates a transport of copies, and releases this transport. In the production system, you open *Import Software Collection* to finally import the extensions.

1. Log on to the SAP S/4HANA Cloud system, and open the app custom fields and logic.



2. Choose [Create](#), and enter the values for the new fields.

The additional field from the C4C opportunity is mapped to the marketing interaction. Choose [Marketing Interaction](#) as business context.

Choose [Create](#).

New Field

Field Properties

*Business Context: Marketing: Interaction

*Label: ABCINDICATOR

*Identifier: YY1_ ABCINDICATOR

*Tooltip: ABCINDICATOR

*Type: Text

*Length: 40

Business Context Capacity: 1%

Create Create and Edit Cancel

3. Publish the new field by selecting it, choosing [Publish](#).

Custom Fields (89)

Search

<input type="checkbox"/>	Name	Identifier	Type	Status	Business Context	Created By	Created On	Changed By	Changed On	Original L
<input checked="" type="checkbox"/>	ABCINDICATOR	YY1_ABCINDICATOR_MIA	Text	Published	Marketing: Interaction	Oliver Adams	8.2.2016	Oliver Adams	8.2.2016	English
<input type="checkbox"/>	Amount 1	YY1_amount1_Tb	Amount	Published	TSM Business	DEHN	5.2.2016	DEHN	5.2.2016	English

Publish Discard Changes

4. Get the metadata information of the OData service

Enter the URL from below in your web browser to get the meta data document.

<<SYSTEMURL>>/sap/opu/odata/sap/CUAN_BUSINESS_DOCUMENT_IMP_SRV/\$metadata?saml2=disabled

<<SYSTEMURL>> must be replaced by your system URL.


```

<?xml version="1.0" encoding="UTF-8"?>
- <edmx:Edmx xmlns:sap="http://www.sap.com/Protocols/SAPData" xmlns:m="http://schemas.microsoft.com/ado/2007/08/dataservices/metadata" xmlns:edmx="http://schemas.microsoft.com/ado/2007/06/edmx" Version="1.0">
  <edmx:DataService m:DataServiceVersion="2.0">
    <Schema xmlns:lang="en" xmlns="http://schemas.microsoft.com/ado/2008/09/edmx" sap:schema-version="1" Namespace="CUAN_BUSINESS_DOCUMENT_IMP_SRV">
      <EntityType sap:content-version="1" Name="ImportHeader">
        <Key>
          <PropertyRef Name="Id"/>
        </Key>
        <Property Name="Id" sap:updatable="false" sap:label="ID" MaxLength="32" Nullable="false" Type="Edm.String"/>
        <Property Name="Timestamp" sap:updatable="false" sap:label="Timestamp" Type="Edm.DateTime" Precision="7"/>
        <Property Name="SourceSystemType" sap:updatable="false" sap:label="Source System Type" MaxLength="3" Type="Edm.String"/>
        <Property Name="SourceSystemId" sap:updatable="false" sap:label="Source System ID" MaxLength="20" Type="Edm.String"/>
        <NavigationProperty Name="BusinessDocuments" sap:label="Business Documents" ToRole="ToRole_HeaderBusinessDocument" FromRole="FromRole_HeaderBusinessDocument" Relationship="CUAN_BUSINESS_DOCUMENT_IMP_SRV.HeaderBusin
      </EntityType>
      <EntityType sap:content-version="1" Name="BusinessDocument">
        <Key>
          <PropertyRef Name="Id"/>
        </Key>
        <Property Name="Id" sap:updatable="false" sap:label="Key" MaxLength="32" Nullable="false" Type="Edm.String"/>
        <Property Name="ContactIdOrigin" sap:updatable="false" sap:label="Contact ID Origin" MaxLength="20" Type="Edm.String"/>
        <Property Name="ContactId" sap:updatable="false" sap:label="Contact ID" MaxLength="255" Type="Edm.String"/>
        <Property Name="InternalContactId" sap:updatable="false" sap:label="Internal Contact ID" MaxLength="255" Type="Edm.String"/>
        <Property Name="InternalObjectType" sap:updatable="false" sap:label="Business Document Type" MaxLength="20" Type="Edm.String"/>
        <Property Name="ExternalObjectType" sap:updatable="false" sap:label="Internal Object Type" MaxLength="30" Type="Edm.String"/>
        <Property Name="ExternalId" sap:updatable="false" sap:label="External Id" MaxLength="50" Type="Edm.String"/>
        <Property Name="ExternalStatusCode" sap:updatable="false" sap:label="Status Code" MaxLength="2" Type="Edm.String"/>
        <Property Name="ExternalTimeStamp" sap:updatable="false" sap:label="External Time Stamp" Type="Edm.DateTime" Precision="7"/>
        <Property Name="Content" sap:updatable="false" sap:label="Business Document Content" Type="Edm.String" sap:sortable="false"/>
        <Property Name="ExpectedRevenue" sap:updatable="false" sap:label="Expected Revenue" Type="Edm.Decimal" Precision="31" sap:unit="Currency" Scale="2"/>
        <Property Name="Currency" sap:updatable="false" sap:label="Currency" MaxLength="5" Type="Edm.String" sap:semantics="currency-code"/>
        <Property Name="PredecessorId" sap:updatable="false" sap:label="Predecessor ID" MaxLength="50" Type="Edm.String"/>
        <Property Name="ActionCode" sap:updatable="false" sap:label="Action Code" MaxLength="2" Type="Edm.String"/>
        <Property Name="Boolean1" sap:label="TRUE" Type="Edm.Boolean" sap:is-extension-field="true"/>
        <Property Name="Boolean2" sap:label="TRUE" Type="Edm.Boolean" sap:is-extension-field="true"/>
        <Property Name="Text201" sap:label="Text" MaxLength="20" Type="Edm.String" sap:is-extension-field="true"/>
        <Property Name="Text401" sap:label="Text" MaxLength="40" Type="Edm.String" sap:is-extension-field="true"/>
        <Property Name="Text402" sap:label="Text" MaxLength="40" Type="Edm.String" sap:is-extension-field="true"/>
        <Property Name="Text1201" sap:label="Text" MaxLength="120" Type="Edm.String" sap:is-extension-field="true"/>
        <Property Name="YY1_ABCINDICATOR_MIA" sap:label="Text" MaxLength="40" Type="Edm.String" sap:is-extension-field="true"/>
        <Property Name="YY1_TEST_FIELD_MIA" sap:label="Text" MaxLength="20" Type="Edm.String" sap:is-extension-field="true"/>
        <NavigationProperty Name="Company" ToRole="ToRole_BusinessDocumentCompany" FromRole="FromRole_BusinessDocumentCompany" Relationship="CUAN_BUSINESS_DOCUMENT_IMP_SRV.BusinessDocumentCompany"/>
        <NavigationProperty Name="Person" ToRole="ToRole_BusinessDocumentPerson" FromRole="FromRole_BusinessDocumentPerson" Relationship="CUAN_BUSINESS_DOCUMENT_IMP_SRV.BusinessDocumentPerson"/>
        <NavigationProperty Name="ProductItems" ToRole="ToRole_BusinessDocumentProductItem" FromRole="FromRole_BusinessDocumentProductItem" Relationship="CUAN_BUSINESS_DOCUMENT_IMP_SRV.BusinessDocumentProductItem"/>
      </EntityType>
      <EntityType sap:content-version="1" Name="Company">
        <Key>
          <PropertyRef Name="Id"/>
          <PropertyRef Name="IdOrigin"/>
        </Key>
        <Property Name="Id" sap:label="Company ID" MaxLength="100" Nullable="false" Type="Edm.String"/>
        <Property Name="IdOrigin" sap:label="Company ID Origin" MaxLength="20" Nullable="false" Type="Edm.String"/>
        <Property Name="InternalId" sap:label="YMKT Company ID" MaxLength="100" Nullable="false" Type="Edm.String"/>
        <Property Name="LastChangeDate" sap:label="Last Change Date" Nullable="false" Type="Edm.DateTime" Precision="7"/>
        <Property Name="CompanyName" sap:label="Company Name" MaxLength="60" Type="Edm.String"/>
        <Property Name="CountryCode" sap:label="Country Code" MaxLength="3" Type="Edm.String"/>
        <Property Name="RegionCode" sap:label="Region Code" MaxLength="3" Type="Edm.String"/>
        <Property Name="CityName" sap:label="City Name" MaxLength="40" Type="Edm.String"/>
        <Property Name="PostalCode" sap:label="Postal Code" MaxLength="10" Type="Edm.String"/>
        <Property Name="Street" sap:label="Street" MaxLength="60" Type="Edm.String"/>
        <Property Name="HouseNumber" sap:label="House Number" MaxLength="10" Type="Edm.String"/>
        <Property Name="EmailAddress" sap:label="Email Address" MaxLength="241" Type="Edm.String"/>
        <Property Name="PhoneNumber" sap:label="Phone Number" MaxLength="30" Type="Edm.String"/>
        <Property Name="FaxNumber" sap:label="Fax Number" MaxLength="30" Type="Edm.String"/>
        <Property Name="WebSite" sap:label="Web URI" MaxLength="1000" Type="Edm.String"/>
        <Property Name="IndustryCode" sap:label="Industry Code" MaxLength="4" Type="Edm.String"/>
        <Property Name="LanguageCode" sap:label="Preferred Language Code" MaxLength="2" Type="Edm.String"/>
        <Property Name="Boolean1" sap:label="TRUE" Type="Edm.Boolean" sap:is-extension-field="true"/>
        <Property Name="Boolean2" sap:label="TRUE" Type="Edm.Boolean" sap:is-extension-field="true"/>
        <Property Name="Date1" sap:label="Date" Type="Edm.DateTime" Precision="0" sap:is-extension-field="true"/>
        <Property Name="YY1_CUSTOMERSMOOD_ENH" sap:label="Customers Mood" MaxLength="3" Type="Edm.String" sap:is-extension-field="true"/>
        <Property Name="YY1_NAXENLANGE_ENH" sap:label="Naxenlange" Type="Edm.Decimal" Precision="2" Scale="0" sap:is-extension-field="true"/>
        <Property Name="YY1_SHOESIZE_ENH" sap:label="Shoe Size" Type="Edm.Decimal" Precision="2" Scale="0" sap:is-extension-field="true"/>
        <Property Name="YY1_TSHIRTSIZE_ENH" sap:label="T-shirt Size" MaxLength="3" Type="Edm.String" sap:is-extension-field="true"/>
        <NavigationProperty Name="BusinessDocument" ToRole="FromRole_BusinessDocumentCompany" FromRole="ToRole_BusinessDocumentCompany" Relationship="CUAN_BUSINESS_DOCUMENT_IMP_SRV.BusinessDocumentCompany"/>
      </EntityType>
    </edmx:DataService>
  </edmx:Edmx>

```

5. Save the metadata document as XML file.

4.2.1 How to Determine Host Address in the Cloud

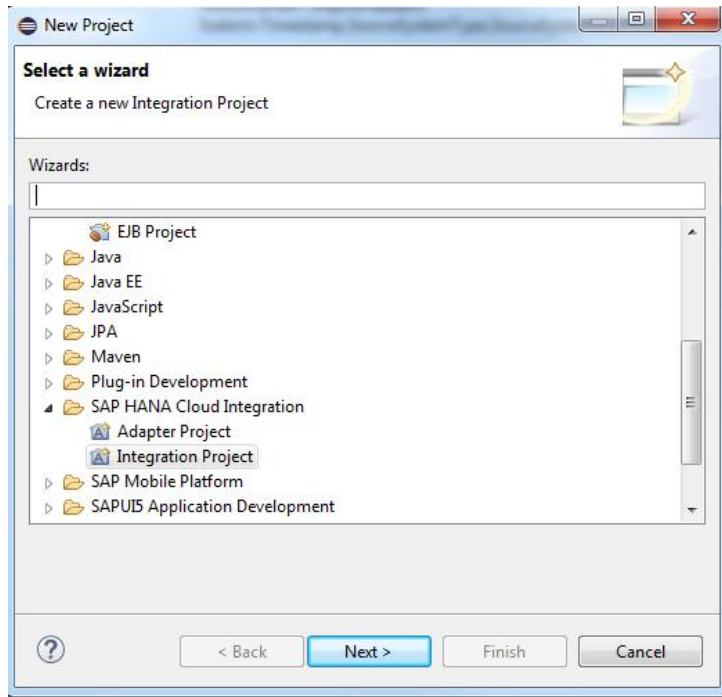
The SAP S/4HANA system URL is included in the SAP S/4HANA provisioning email which was provided from SAP and which includes system access and administrative information

4.2.2 Prerequisites for Conversion

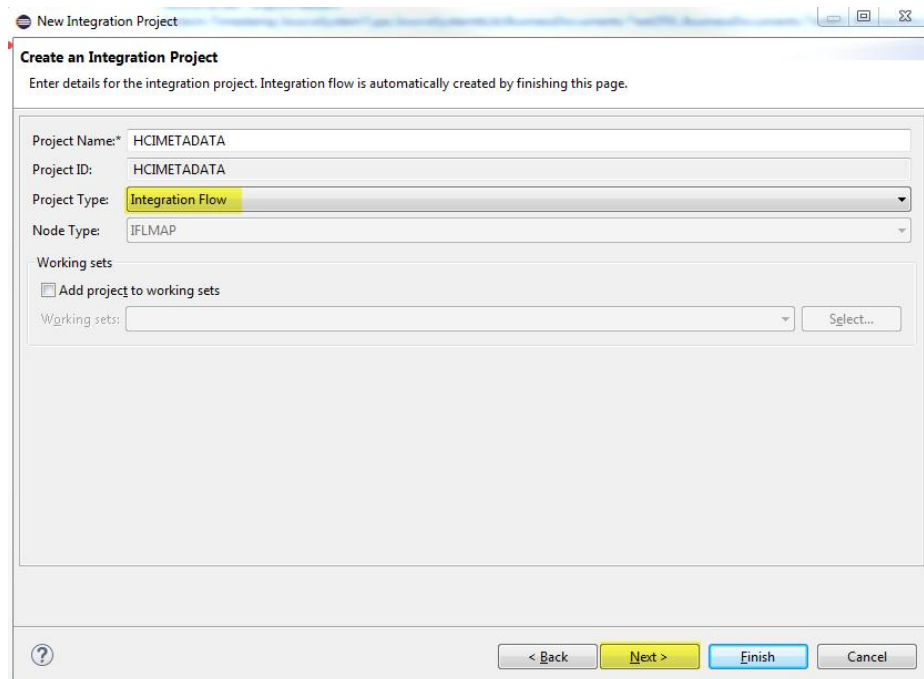
In order to use the downloaded XML file in PI or CPI it must be converted into a XSD file. You can achieve with the *SAP Cloud Platform Integration Tools*. Go to the web side <https://tools.hana.ondemand.com/#cloudintegration> and install eclipse on your local PC as described on this page.

4.2.3 Conversion of XML File

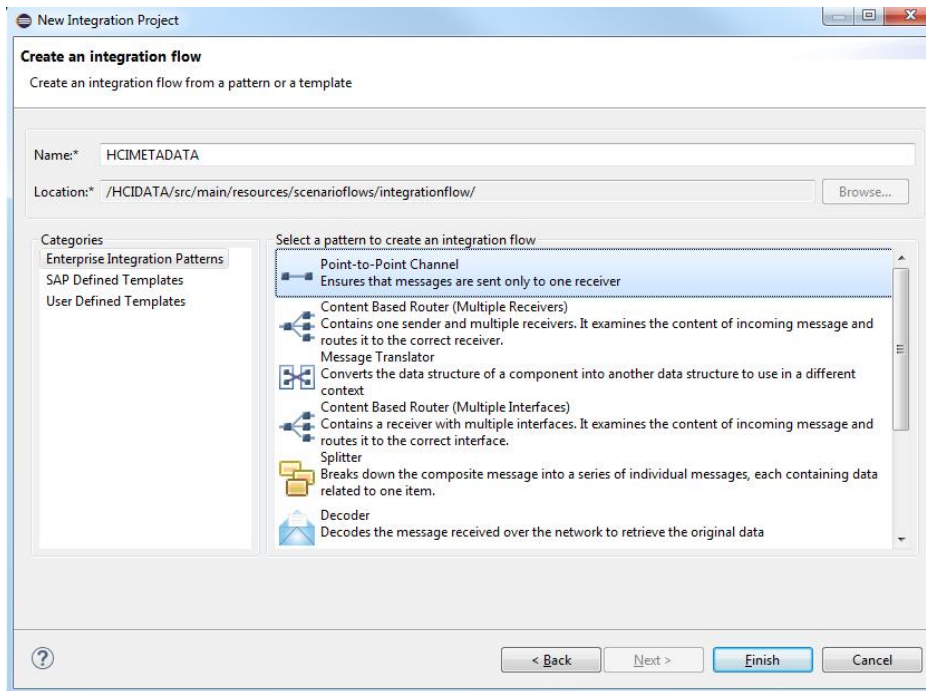
1. Start Eclipse and create a new project of the type integration flow



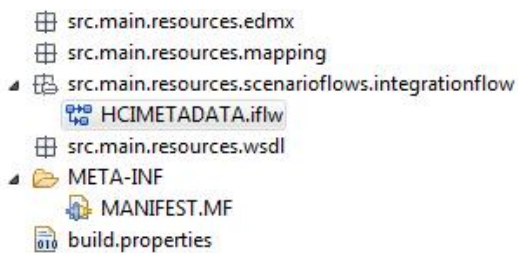
2. Enter a new project name, choose the value Integration flow for the field project type, and choose *Next*.



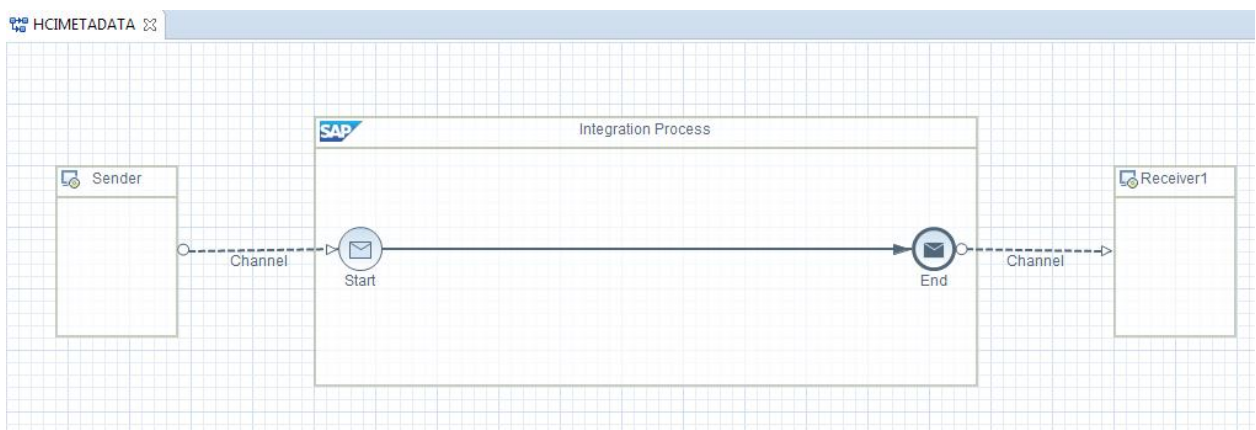
3. In the next step, select *Point-to-Point Channel*, and choose *Finish*.



4. When the project is create open up the folder for the integration flows and double click the integration flow.

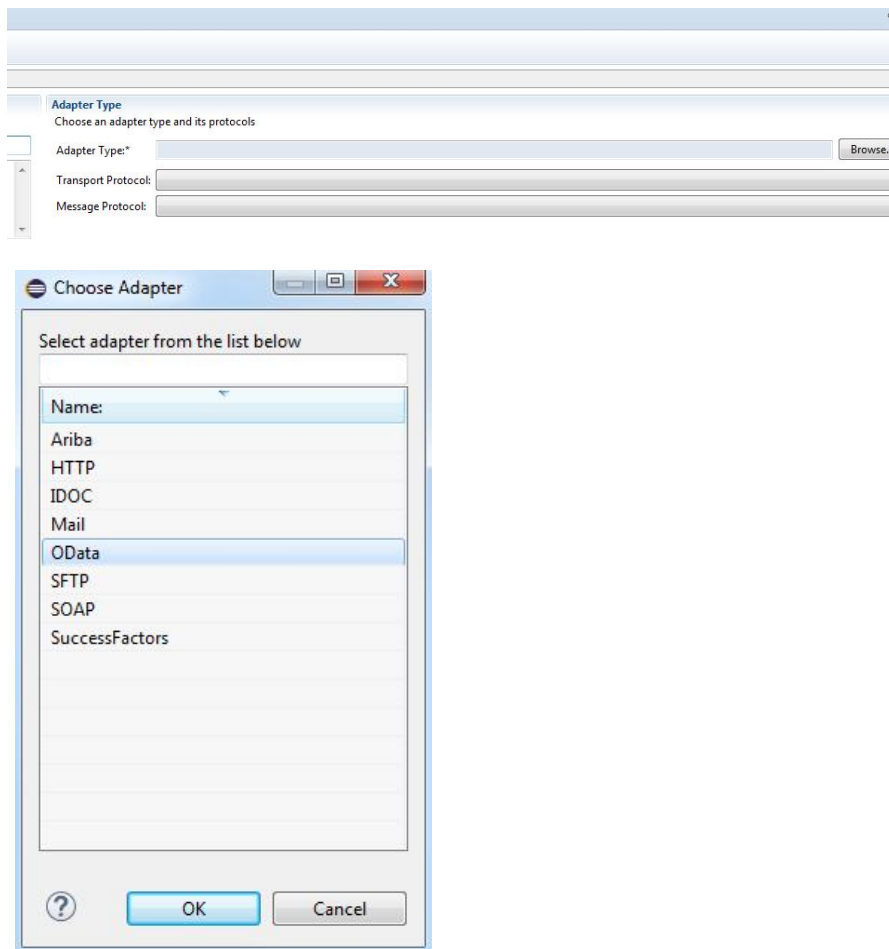


5. Double click on the arrow with the text *Channel* that points to *Receiver1*.



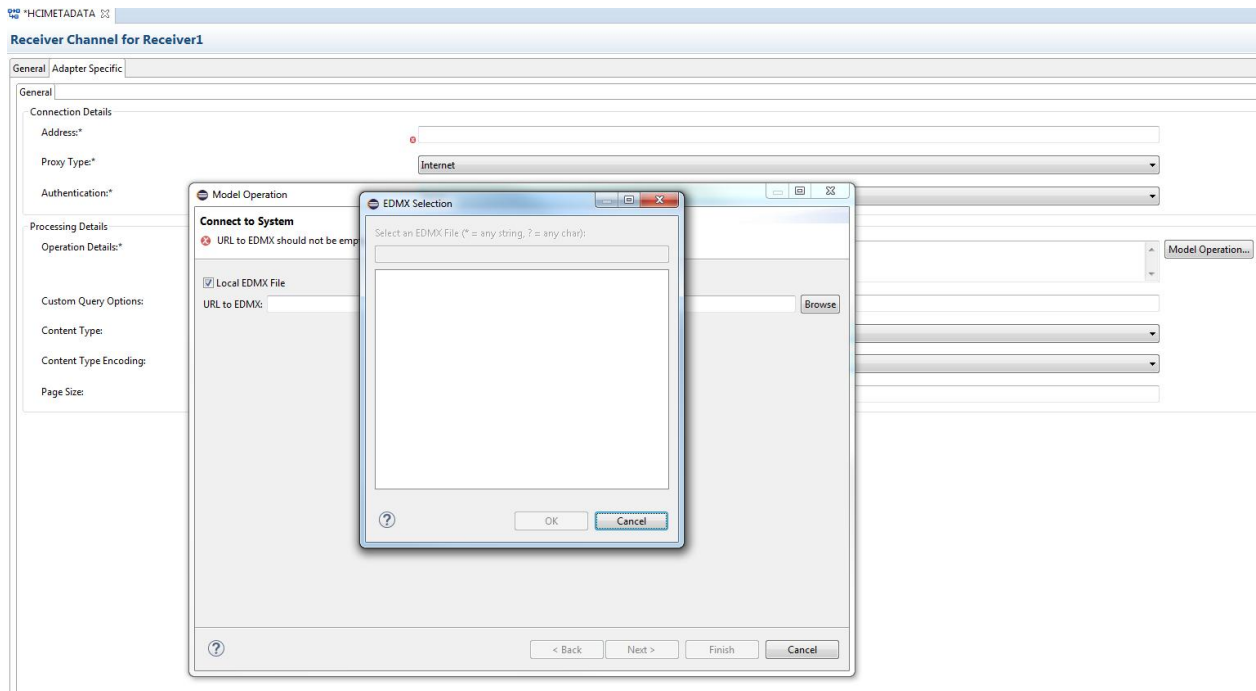
6. Navigate to *Adapter specific*.

7. On the receiver channel, click *Browse*, and choose *OData* as Adapter.

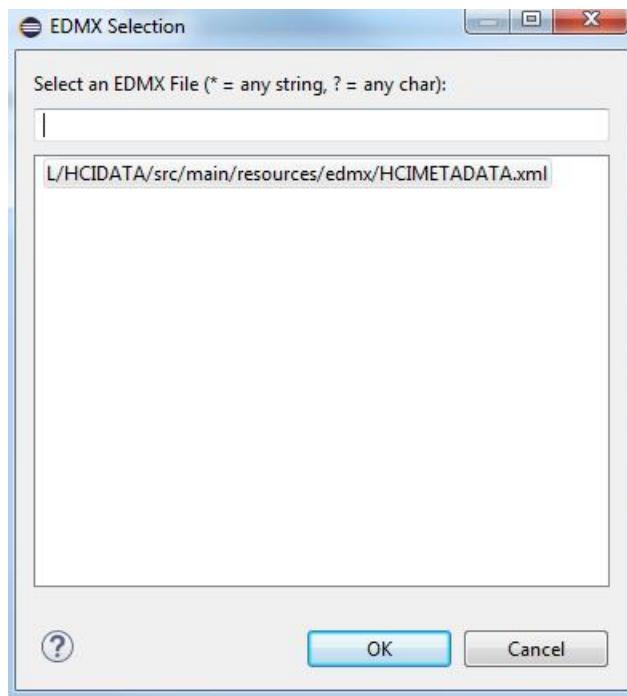


8. Navigate to *Adapter specific*

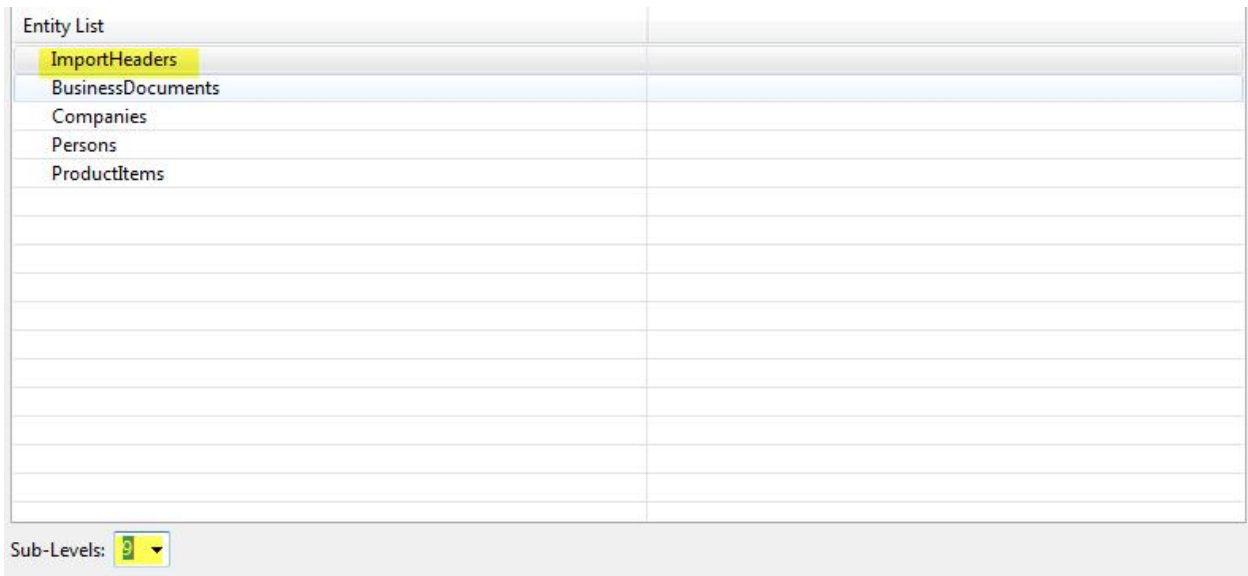
9. On the adapter specific screen, choose **Model Operation**. In the pop up, select the field local EDMX file, and choose **Browse**. A new folder is created called `src.main.resources.edmx`. Close the pop up by **Cancel**.



10. Upload the metadata file created in step 5 into this folder by drag and drop.
11. Repeat step 9 XML file is visible in the pop up. Select the file and press OK.
Chose **Next**.

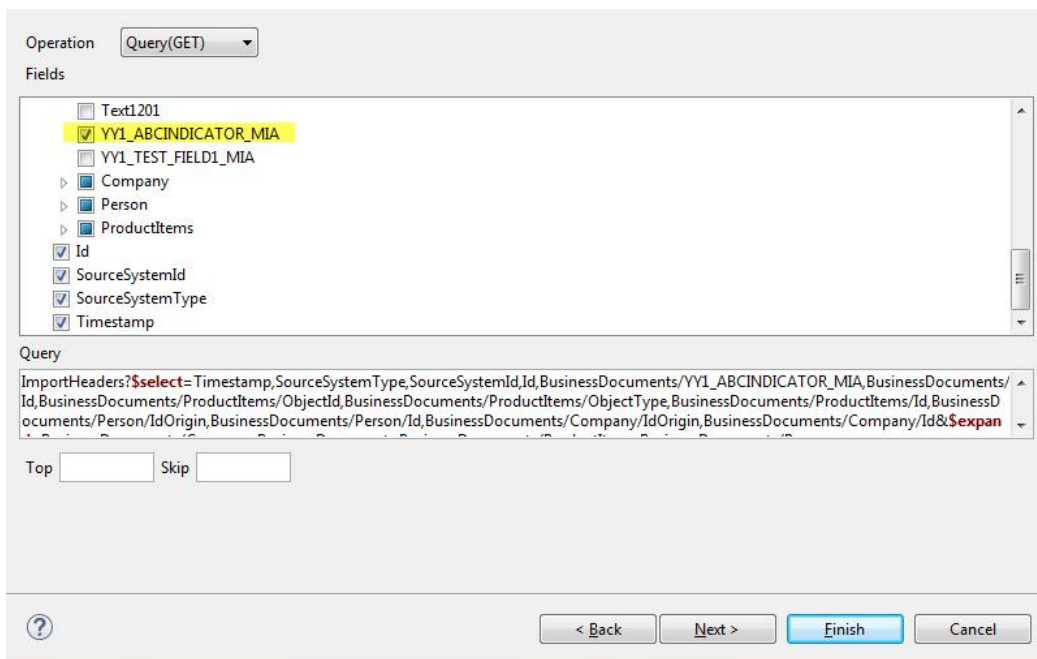


12. Select *ImportHeaders*, and on *SubLevel* enter the value "9". Choose *Next*.



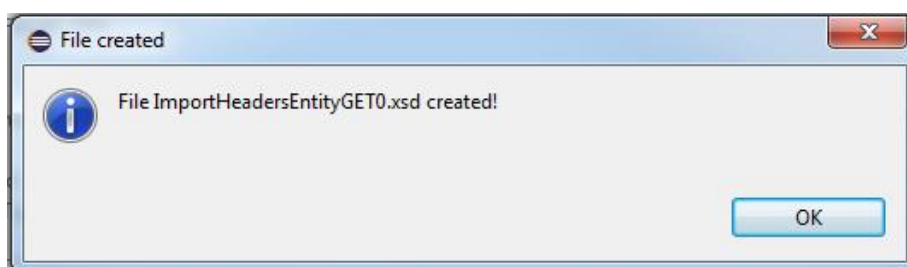
The 'Entity List' dialog box shows a table with the following entities: ImportHeaders, BusinessDocuments, Companies, Persons, and ProductItems. The 'ImportHeaders' entity is highlighted. Below the table, the 'Sub-Level:' dropdown menu is set to '9'.

13. Activate all fields that are relevant for the interface as well as the newly created field. Choose *Finish*.



The 'Query' configuration dialog box shows the 'Operation' set to 'Query(GET)'. Under 'Fields', the following fields are selected: YY1_ABCINDICATOR_MIA, YY1_TEST_FIELD1_MIA, Company, Person, ProductItems, Id, SourceSystemId, SourceSystemType, and Timestamp. The 'Query' text area contains the following query: `ImportHeaders?$select=Timestamp,SourceSystemType,SourceSystemId,Id,BusinessDocuments/YY1_ABCINDICATOR_MIA,BusinessDocuments/Id,BusinessDocuments/ProductItems/ObjectId,BusinessDocuments/ProductItems/ObjectIdType,BusinessDocuments/ProductItems/Id,BusinessDocuments/Person/IdOrigin,BusinessDocuments/Person/Id,BusinessDocuments/Company/IdOrigin,BusinessDocuments/Company/Id&$expand=`. The 'Top' and 'Skip' fields are empty. The 'Finish' button is highlighted.

14. An XSD file is created. This file is located below the folder `src.main.resources.wsdL`.



-
15. Upload the XSD file to your PI or CPI system as described in chapter 3. in the message mapping on the receiver side.

A close-up photograph of dandelion seeds with their feathery parachutes, floating against a clear, light teal background. The seeds are scattered across the frame, with some in sharp focus and others blurred, creating a sense of movement and depth.

www.sap.com/contactsap

© 2018 SAP SE or an SAP affiliate company. All rights reserved.

No part of this publication may be reproduced or transmitted in any form or for any purpose without the express permission of SAP SE or an SAP affiliate company.

The information contained herein may be changed without prior notice. Some software products marketed by SAP SE and its distributors contain proprietary software components of other software vendors. National product specifications may vary.

These materials are provided by SAP SE or an SAP affiliate company for informational purposes only, without representation or warranty of any kind, and SAP or its affiliated companies shall not be liable for errors or omissions with respect to the materials. The only warranties for SAP or SAP affiliate company products and services are those that are set forth in the express warranty statements accompanying such products and services, if any. Nothing herein should be construed as constituting an additional warranty.

SAP and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP SE (or an SAP affiliate company) in Germany and other countries. All other product and service names mentioned are the trademarks of their respective companies.

Please see www.sap.com/corporate-en/legal/copyright/index.epx for additional trademark information and notices.