



## [Interactions Reconciliation From SAP Marketing Cloud To ThirdPartySftp]

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Author: Oleg Veliks

### DOCUMENT CONTROL

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### Version history log

Version	Description of change	Date	Author
1.0	Initial version	10.03.2020	Oleg Veliks

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## TABLE OF CONTENTS

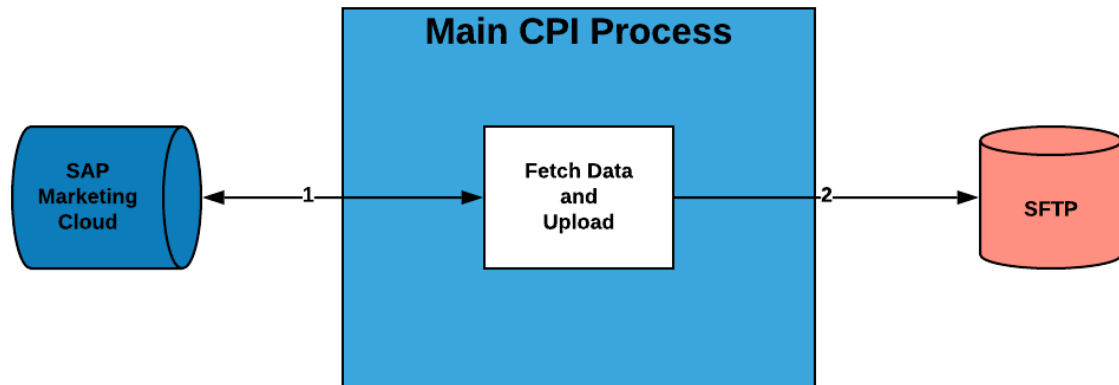
1	PURPOSE.....	3
2	OVERVIEW.....	4
3	PRE-REQUISITES .....	5
4	INTEGRATION FLOW CONFIGURATION .....	6
4.1	Configuration Parameters.....	6
5	HANA RECNCILIATION SQL SCRIPT .....	8
6	STEPS FOR TESTING THE IFLOW .....	10

### 1 PURPOSE

This document provides configuration steps of the integration flow to extract the loaded **interactions** from SAP Marketing Cloud via OData and transforms them as AWS S3 files to reconcile data between SAP Marketing Cloud and third party systems. The output files are then fed to other CPI Data Service Flows to load SAP C/4 Marketing Cloud System data into Staging DB and compare **interactions** loaded into SAP Marketing Cloud with Legacy Data in Staging DB. We used SCP HANA DB in our scenario but you can use any staging DB that CPI DS or PI supports.

## 2 OVERVIEW

This IFLOW is used to reconcile the interaction data between SAP Marketing Cloud Systems and Source Systems. The output files are then fed to CPI Data Services Flows to compare interactions loaded into SAP Marketing Cloud with Source Data Staging DB.



Step 1. Fetch interaction records via OData call in pages from SAP Marketing Cloud. This process will repeat until there are no records to be fetched.

Step 2. Convert the interaction records retrieved via OData call for each 5k page from SAP Marketing Cloud into CSV format and save it as separate files under SFTP directory.

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### 3 PRE-REQUISITES

Before configuring Integration Flow, please make sure the following prerequisites have been met:

1. SAP Marketing Cloud API for fetching Contact data is enabled and up and running.
2. Amazon Web Services account is enabled. S3 bucket is created and SFTP Transfer server is up and running. S3 bucket is a root directory of SFTP.
3. SFTP server is configured and connectivity between SAP CPI tenant and SFTP is established.
4. SFTP user having permissions to create and update folders and files.

## 4 INTEGRATION FLOW CONFIGURATION

### 4.1 Configuration Parameters

Externalized Parameter Name	Description	Sample Value
Receiver - C4M(Address)	Host address of SAP Marketing Cloud API for fetching Interactions	<a href="https://myxxx.s4hana.ondemand.com/sap/opu/odata/sap/API_MKT_INTERACTION_SRV">https://myxxx.s4hana.ondemand.com/sap/opu/odata/sap/API_MKT_INTERACTION_SRV</a>
Receiver - C4M (Credential Name)	Credential name to connect to the system as deployed in the tenant.	KAPIUSER
Receiver - C4M (Page Size)	Specify page size to retrieve required number of records from C4M	4900
Receiver - C4M (Timeout in min)	Maximum time the system wait before operation is terminated.	10
Receiver - SFTP(Directory)	File path from where log files should be written.	DevelopmentLoads/LoadFiles/Interactions/Reconciliation
Receiver - SFTP(File Name)	Name of the file name to be written.	Interactions_Reprocess_C4M.csv
Receiver - SFTP(Address)	Host name or IP address and port of the SFTP server.	<a href="https://xxx.server.transfer.eu-west-2.amazonaws.com">xxx.server.transfer.eu-west-2.amazonaws.com</a>
Receiver - SFTP(User Name)	ID of the user performing file transfer.	CPI_USER_PROD

Receiver - SFTP(Timeout)	Maximum waiting time to contact the FTP server while establishing connection or performing a write operation.	10000
Receiver - SFTP(Maximum reconnect attempts)	Maximum numbers of reconnect attempts allow to reconnect SFTP server.	3
Receiver - SFTP(Reconnect delay in ms)	Time period to wait before attempting to reconnect to the remote FTP server.	1000
Receiver - SFTP(Buffer size)	Write file content using the mentioned buffer size.	128
More (Path to XSD of XML Converter)	Specify Xpath of the record identifier. Used in XML to CSV.	/INTERACTIONS_RECONCILIATION/Records

## 5 HANA RECONCILIATION SQL SCRIPT

This step assumes that you loaded the SAP C/4 marketing cloud data into HANA DB that you extracted into AWS S3 files via SAP CPI Data Service flows. You can use the following HANA SQL script to reconcile legacy system interactions data with SAP C/4 Marketing Cloud System.

//Creation of missing Marketing Interactions:

**Description of Query:** selecting customer data from table "INTERACTIONS OF TYPE MARKETING INTERACTIONS" (Legacy Data) which is not present in table "INTERACTION\_RECONCILIATION" and inserting them into new table "INTERACTIONS\_RECONCILIATION\_C4M\_Temp\_Others".

```
create column table prod_hana_ds.INTERACTIONS_RECONCILIATION_Temp_Others as
(
  SELECT INTERACTIONCONTACTID,INTERACTIONTIMESTAMPUTC,INTERACTIONTYPE
  FROM (SELECT INTERACTIONCONTACTID,INTERACTIONTIMESTAMPUTC,INTERACTIONTYPE
  FROM prod_hana_ds.INTERACTIONS where interactiontype not in
  ('SHOP_CHECKOUT_SUCCES','SALES_ORDER','LOYALTY_VOUCHER') except SELECT
  INTERACTIONCONTACTID,INTERACTIONTIMESTAMPUTC,INTERACTIONTYPE FROM
  prod_hana_ds.INTERACTIONS_RECONCILIATION where interactiontype not in
  ('SHOP_CHECKOUT_SUCCES','SALES_ORDER','LOYALTY_VOUCHER')));
```

//Creation of missing Orders line items-

**Description of Query:** selecting customer data from table "INTERACTIONS OF TYPE ORDERS" (Legacy Data) which is not present in table "INTERACTION\_RECONCILIATION" and inserting them into new table "INTERACTIONS\_RECONCILIATION\_C4M\_Temp\_ORDERS".

```
create column table prod_hana_ds.INTERACTIONS_RECONCILIATION_Temp_ORDERS
as
(
  SELECT INTERACTIONCONTACTID,INTERACTIONTYPE,INTERACTIONTIMESTAMPUTC,INTERACTION
  SOURCEOBJECT FROM (SELECT INTERACTIONCONTACTID,INTERACTIONTYPE,INTERACTIONTIMESTAMPUTC,INTERACTION
  SOURCEOBJECT FROM prod_hana_ds.INTERACTIONS where interactiontype in
  ('SHOP_CHECKOUT_SUCCES','SALES_ORDER') except SELECT
  INTERACTIONCONTACTID,INTERACTIONTYPE,INTERACTIONTIMESTAMPUTC,INTERACTION
  SOURCEOBJECT FROM prod_hana_ds.INTERACTIONS_RECONCILIATION where
  interactiontype in ('SHOP_CHECKOUT_SUCCES','SALES_ORDER')));
```

//Creation of missing Vouchers-

**Description of Query:** selecting customer data from table "INTERACTIONS OF TYPE VOUCHERS" (Legacy Data) which is not present in table "INTERACTION\_RECONCILIATION" and inserting them into new table "INTERACTIONS\_RECONCILIATION\_C4M\_Temp\_VOUCHERS".

```
create column table prod_hana_ds.INTERACTIONS_RECONCILIATION_Temp_Vouchers
as
(
  SELECT INTERACTIONCONTACTID,INTERACTIONTYPE,INTERACTIONTIMESTAMPUTC,YY1_LOYBEN
  EFITCODE_MIA FROM (SELECT INTERACTIONCONTACTID,INTERACTIONTYPE,INTERACTIONTIMESTAMPUTC,YY1_LOYBEN
  EFITCODE_MIA FROM prod_hana_ds.INTERACTIONS where interactiontype in
  ('LOYALTY_VOUCHER') except SELECT
  INTERACTIONCONTACTID,INTERACTIONTYPE,INTERACTIONTIMESTAMPUTC,YY1_LOYBEN
```



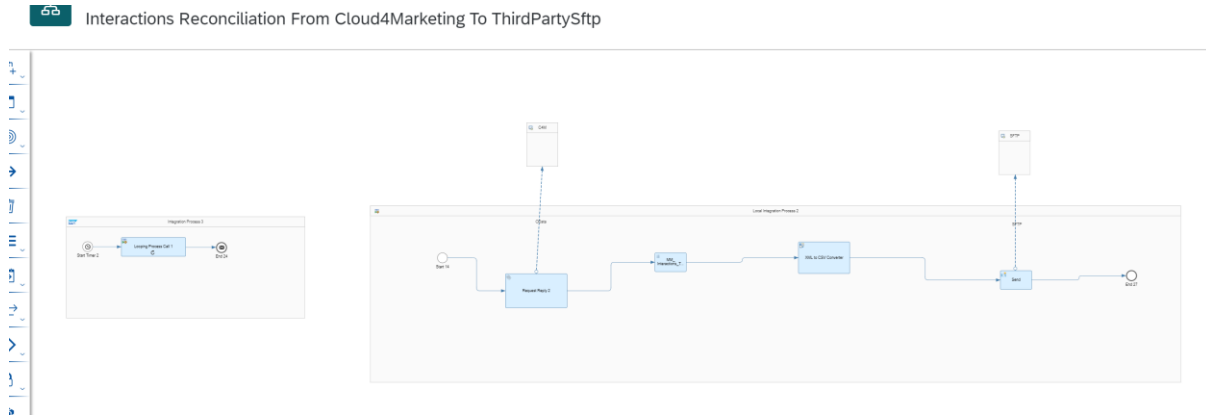
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```
EFITCODE_MIA FROM prod_hana_ds.INTERACTIONS_RECONCILIATION where  
interactiontype in ('LOYALTY_VOUCHER')));
```

## 6 STEPS FOR TESTING THE IFLOW

Step 1. Deploy iflow and wait until it is finished.

iflow Components:



Status of the message is successful.

Interactions Reconciliation From Cloud4Marketing To ThirdPartySftp Last Updated at: Feb 14, 2020, 17:31:19

Status Properties Logs

Message processing completed successfully.

Processing Time: 2 sec 840 ms

Properties

Message ID: AF5GjAwqrfw7MFhdnzb1a79VYb8  
 Correlation ID: AF5GjAzJKqWTTUxwD\_gjqXT5NEyj  
 Artifact Name: [Interactions Reconciliation From Cloud4Marketing To ThirdPartySftp](#)  
 Artifact ID: Interactions\_Reconciliation\_From\_Cloud4Marketing\_To\_ThirdPartySftp  
 Artifact Type: Integration Flow

Overview of Message Trace Logs.

Monitor Message Processing / Message Processing Run

Run Steps (11) Integration Flow Model Log Content Message Content

1 / 1

No integration flow element selected

<b>End 24</b>	Segment 1	5 ms
<b>Looping Process Call 1</b>	Segment 1	1 ms
<b>SFTP</b>	Segment 2	2 sec 140 ms
<b>Send</b>	Segment 2	
<b>Send</b>	Segment 1	2 sec 146 ms
<b>XML to CSV Converter</b>	Segment 1	6 ms
<b>MM_Interactions_To_Interactions_Reconciliation</b>	Segment 1	12 ms

Step 2. Explore SFTP directory specified in "Receiver - SFTP(Address)" and make sure all interactions which are satisfying OData filter and exist in SAP Marketing Cloud appear in file Receiver - SFTP(File Name)

Remote site: /sftp2smc/DevelopmentLoads/LoadFiles/Interactions/Reconciliation

- Interactions
  - Reconciliation

Filename	Filesize	Filetype	Last modified
..			
Interactions_Reprocess_C4M20200218114254.csv	526	Microsoft Excel Com...	02/18/20 17:12:57