Master Data Sync SAP IS-U

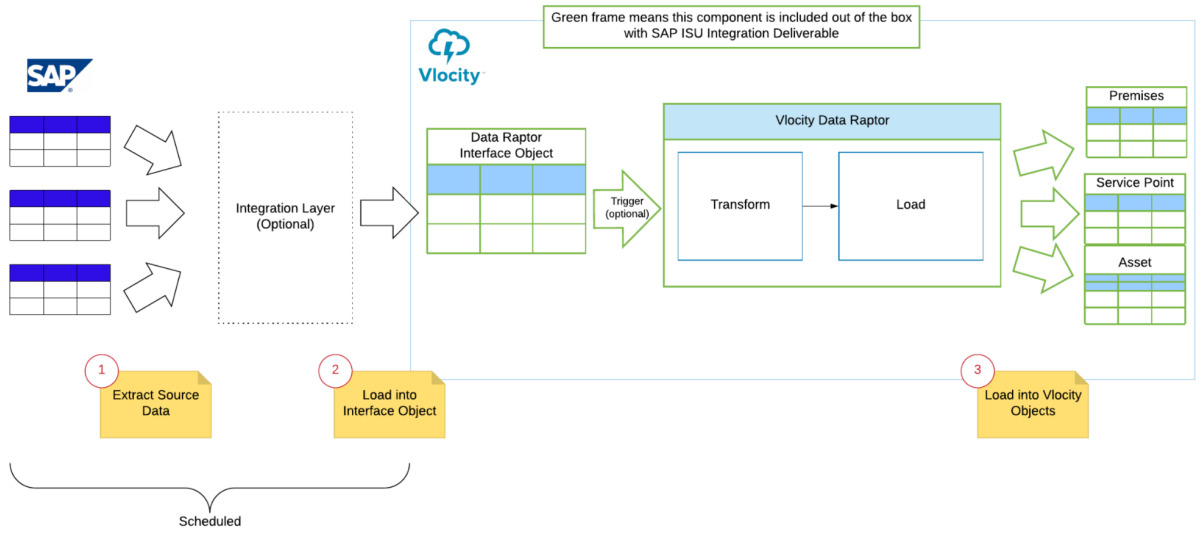
Enable scheduled upload of master data updates from SAP to Vlocity.

Overview

This Process deliverable enables users to implement a scheduled upload of Premises, Service Point and Assets (Inventory Items) updates from SAP IS-U to Salesforce Energy & Utilities Cloud.

Use this process as a design reference in planning your implementation.

Process Flow



SAP IS-U, even when integrated with Energy & Utilities Cloud, is still expected to be the master for some data including premises, service points and inventory items, which means that records will be added to SAP IS-U for these objects on a regular basis and will need to be updated in Energy & Utilities Cloud periodically. For example, new premises can be added for new houses that were built and these premises must exist in Vlocity as well for some processes to correctly function, for example a move in process.

Package Installation and Inventory

This listing Includes the following components:

- Datapack - **Master Data Sync SAP IS-U ENGY-104-1.json**
    - DataRaptor
        - VPL-SAPISUPremiseMasterData-ENGY-104-1
- Documents - **Master Data Sync SAP IS-U Batch Integration Data Mapping v2.xlsx**
    - Master Data Sync - VPL Documentation - Mapping Reference
- Salesforce Metadata - **Master Data Sync SAP IS-U SF Metadata.zip**
    - Apex Trigger
        - InterfacePremiseTechnicalMasterData
    - Custom Object
        - Interface SAP ISU Premises Master Data

This listing was developed to work on the Vlocity Summer '19 CME release and those following.

User to import the Master Data Sync SAP IS-U SF Metadata.zip file to the user's Org by following the below steps -

1. Save the ZIP file on local machine.
2. Login to workbench with below URL https://workbench.developerforce.com/
3. Select appropriate API version (40 & above) & environment should be set to Production or sandbox accordingly.
4. Enter system admin credentials of the destination org where object needs to be deployed.
5. After login, hover on the 'Migration' tab and click on 'Deploy' link.
6. Click on 'Browse' & select the zip file which is stored locally. After selection, chosen file name is displayed beside 'Browse' button.
7. Click 'Next' button & click on 'Deploy' button.
8. Success message is displayed after Class is created in destination org.

Make sure that only the relevant contents as per your required processes are only downloaded.
The components which are required for the master data sync using any sort of Integration are as follows :

- Object - "Interface SAP ISU Premises Master Data"
- Apex Trigger - "InterfacePremiseTechnicalMasterData"
- DataRaptor - "VPL-SAPISUPremiseMasterData-ENGY-104-1"

Apex trigger

The Apex trigger is optional. The trigger provides a convenient method to automatically start the data update in Vlocity once records are loaded into the interface object by firing up the data raptor that loads the data. If the trigger is not created, the user can activate the DR manually, via API or any other way that a DR can be triggered.

To create the trigger, follow these steps:

Go to Setup → Objects → Click on object "Interface SAP ISU Premises Master Data" → Go to Trigger section → Click New → Copy and paste the below code.

```
trigger InterfaceSAPISUPremisesMasterData on Interface_SAPISU_PremisesMasterData__c (after insert) {
   if(Trigger.isAfter){
      if(Trigger.isInsert){
         vlocity_cmt.DRGlobal.triggerHandler(Trigger.New);
      }
   }
}
```

Steps for Bulk Data Upload into the Vlocity Org.

Once the org is set up and the logged in user has access to create/edit the data in the Interface Object 'Interface SAP ISU Premises Master Data' the data needs to be pushed to this object by mapping the required fields.

There are multiple methods through which the data can be moved into the Salesforce Org. E.g DataLoader.

Important note: The data should contain new or updated records i.e. records that were added or modified in the source system since the last time data was pulled for sync.

Sample Data to load

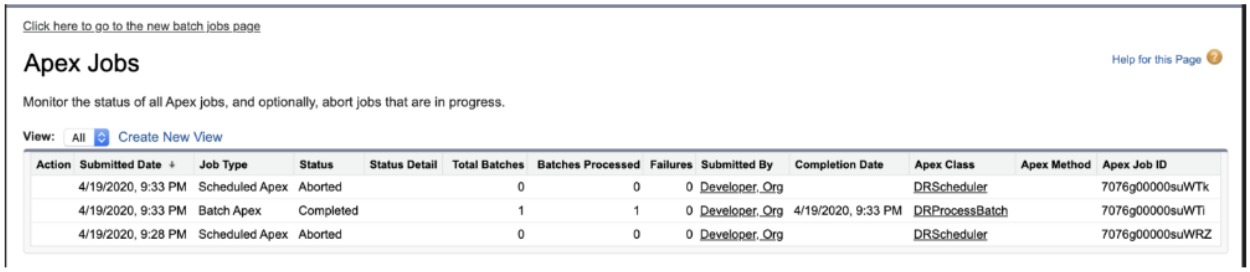
ACTIVATION_DATE_C	DRBUNDLE_NAME_C	DRSTATUS_C	END_DATE_C	INSTALLATION_NUMBER_C	METER_ID_C	NAME	PREMISE_CITY_C	PREMISE_COUNTRY_C	PREMISE_NUMBER_C	PREMISE_POSTAL_CODE_C	PREMISE_STATE_C	PREMISE_STREET_ADDRESS_C	SERVICE_TYPE_C	START_DATE_C
2018-01-01	VPL-SAPISUPremiseMasterData-ENGY-104-1	Ready	2023-01-01	458567	METERMDG001	Test 1	New York	USA	45849302	10002	NY	101-Main Street	1	2018-01-01
2015-11-19	VPL-SAPISUPremiseMasterData-ENGY-104-1	Ready	2023-01-02	458568	METERMDG002	Test 2	Walpole	USA	45849309	2081	MA	82 U.S.1	1	2015-11-19
2015-11-19	VPL-SAPISUPremiseMasterData-ENGY-104-1	Ready	2023-01-03	458569	METERMDG003	Test 3	Miineapolis	USA	45849326	55414	MN	820 Washington Ave SE	2	2015-11-19
2015-11-19	VPL-SAPISUPremiseMasterData-ENGY-104-1	Ready	2023-01-04	458570	METERMDG004	Test 4	San Francisco	USA	45849334	94111	CA	391 Market Street Suit	2	2015-11-19

Following are the fields of the Interface Object which should be used to map with the Master Data. This object needs to be manually created in the org, it is not included in the org's data model.

Field Label	Field API Name	Values	Data Type
DR Error	DRError__c	Auto-Fill	Long Text Area(32768)
DR Progress Data	DRProgressData__c	Auto-Fill	Long Text Area(32768)
DR Status	DRStatus__c	Auto-Fill	Text(255)
DRBundleName	DRBundleName__c	Required	Text(255)
Activation Date	ActivationDate__c	Optional	Date
End Date	EndDate__c	Optional	Date
Start Date	StartDate__c	Optional	Date
Installation Number	InstallationNumber__c	Required	Text(80)
MeterId	MeterId__c	Required	Text(80)
Premises State	PremisesState__c	Optional	Text(80)
Premises City	PremisesCity__c	Optional	Text(40)
Premises Country	PremisesCountry__c	Optional	Text(80)
Premises Number	PremisesNumber__c	Required	Text(80)
Premises Postal Code	PremisesPostalCode__c	Optional	Text(20)
Premise Street Address	PremisesStreetAddress__c	Required	Text(255)
Service Type	ServiceType__c	Required	Text(16)

After the data is pushed with mapped fields to the Interface object the ApexTrigger will get triggered and the Apex jobs will run. These jobs are batch apex jobs which can be tracked under 'Apex Jobs' in Salesforce org. This will initiate the DataRaptor 'VPL-SAPISUPremiseMasterData-ENGY-104-1' to load the data into the following Domain objects.

1. Premises
2. Service Point
3. Inventory Item



Click here to go to the new batch jobs page

Apex Jobs

Help for this Page

Monitor the status of all Apex jobs, and optionally, abort jobs that are in progress.

View: All Create New View

Action	Submitted Date	Job Type	Status	Status Detail	Total Batches	Batches Processed	Failures	Submitted By	Completion Date	Apex Class	Apex Method	Apex Job ID
	4/19/2020, 9:33 PM	Scheduled Apex	Aborted		0	0	0	Developer, Org		DRScheduler		7076g00000suWTk
	4/19/2020, 9:33 PM	Batch Apex	Completed		1	1	0	Developer, Org	4/19/2020, 9:33 PM	DRProcessBatch		7076g00000suWTl
	4/19/2020, 9:28 PM	Scheduled Apex	Aborted		0	0	0	Developer, Org		DRScheduler		7076g00000suWRZ

SAMPLE APEX JOBS RESULTS.
Once the Apex Job is successful, the data will be loaded into the Main Objects with the required fields filled.

The following table provides a few test results of Master Data Sync runs that were done on a newly installed org. These results are included to provide some indication of the overall time it takes to load different number of records and may vary in different orgs with different setups.

No	Records	Batch Size	Batch	Total Approx Time	Fields	Insert/Update
1	200	200	1	1 minute	All Field values provided	Insert
2	632	200	4	5:42 seconds	Few fields are blank Non-Man date fields	Insert and Update
3	632	400	2	6:27 seconds	Few fields given blank Non-Man date fields	Insert
4	1000	400	3	4 minutes	All field values provided	Insert
5	2000	400	5	11 minutes	All field values provided	Insert

User to configure below field values in the Product, Service Point object in their respective orgs.

Object	Field	Values
Product	Family	Electricity
		Gas
		Water
Service Point	%nonamespace%_ServiceType__c	Electricity
		Gas
		Water

Connection to billing system

To connect to the billing system the user will need to create a Named Credential (see Salesforce documentation) named ""SAPConnector" and point the Named Credential to the billing system in case a direct connection is used or to an integration layer if used.