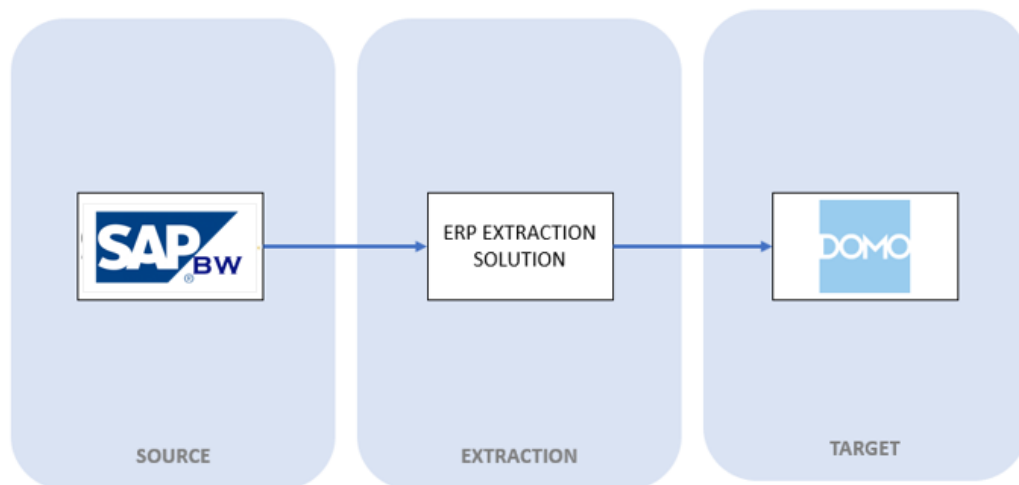# ERP Rapid Extraction Solution

The *ERP Extraction Solution* has been created to ease the transfer of data between SAP BW and DOMO. Using the *ERP Extraction Solution* means that by performing few steps data transfers can be done in an easy, timely manner without the requirement of complex IT/coding knowledge. The *ERP Extraction Solution* also enables these transfers to be done with ease across devices, including via mobile phones and tablets. The Accelerated framework acts as an automated bridge between SAP and DOMO where several operations can be performed as listed in the subsequent sections.


Fig.1. Illustration of ERP Extraction Solution acting as a bridge between SAP BW and Domo

The Centre of Excellence and assist in multiple ways; there are other methods of extraction besides from this solution that can be explored to best fit the requirements of the business.

## Performing Various Operations in the ERP Extraction Solution

1) Go to the ERP Extraction Solution Portal located at: http://erpextractionsolution.co.uk/

2) Log in using the details provided to you by the Manzeera Solutions Team in the box at the top of the webpage. These details are provided on an individual basis, for subsequent log in credentials please contact the Manzeera Solutions team on centreofexcellence@manzeerasolutions.co.uk
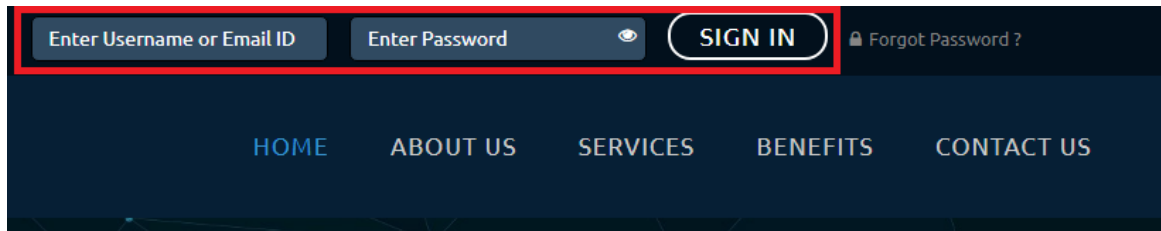
Fig.2. Log in Panel of Portal

3) Upon logging in, you will be brought to the 'Dashboard' page. This page can be accessed any time in the portal by clicking the word 'Dashboard' in the menu.
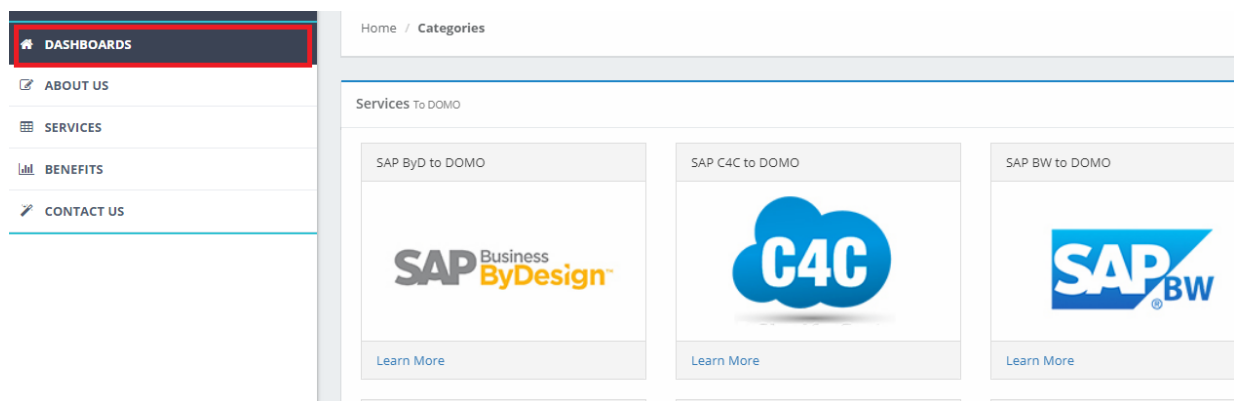
Fig.3. Dashboard and Menu Panel of Portal

4) Within the Dashboard, select the correct service you require. For example, for SAP BW click 'Learn More' to proceed.
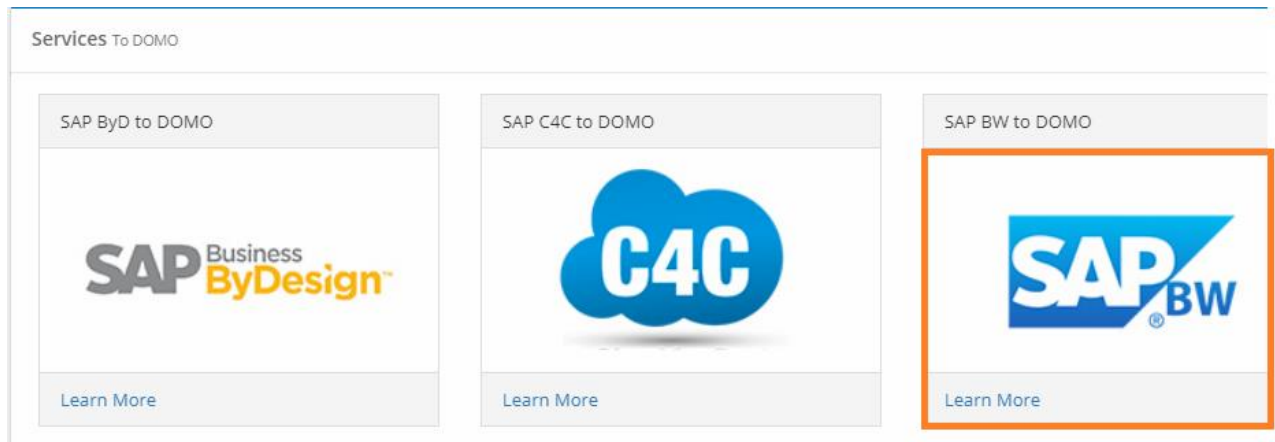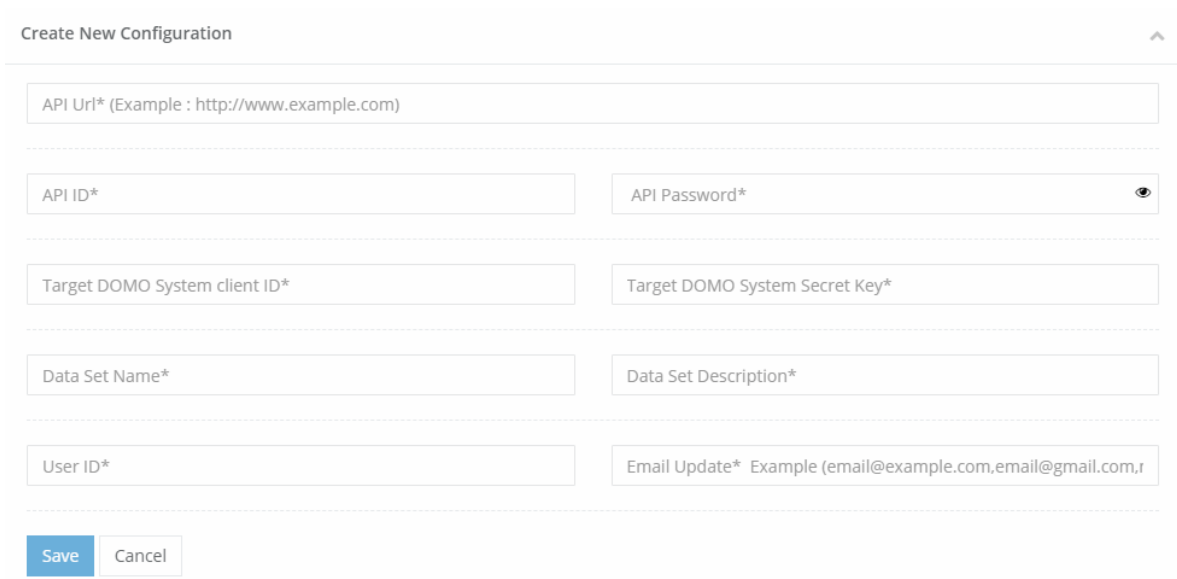
Fig.4. Illustration of SAP BW Selection in Portal Dashbaord

5) Once you have selected your desired service, you will see the option to Create a New Configuration. This New Configuration refers to a new use case of data being required to move from an SAP BW to Domo.

Fig.5. Creating a New Configuration in the Portal

The following information has to be input into the webpage in order for a New Configuration to be created:

- API URL:

In this field a suitable OData API must be provided.

SAP BW offers OData for SAP BW Analytics to access Analytics Data. Users can query and retrieve characteristics and measures used in the SAP BW reports.

Centre of Excellence proposes to use BW OData API to extract data in non-real-time mode. In order to use the accelerated framework created by CoE, providing the correctly constructed API is the most critical element of successful extraction. Following steps demonstrate the steps to create the API URL

OData Parameter

The BW OData URL consists of 4 components:

- *your system host name,*
- *a shortened name of the BW work center,*
- *a report ID, and*
- *query options.*

URL pattern: https://<your system host name>.com/sap/bw/odata/<shortened name of work center>_analytics.svc/RP<report ID>QueryResults?
<query options>

BW OData supports the following query options:

$select
Expansion: $select=<one or more specified characteristics separated by commas>

$orderby (ascending)
Expansion: $orderby=<one or more specified characteristics followed by asc, separated by commas>

$orderby (descending)
Expansion: $orderby=<one or more specified characteristics followed by desc, separated by commas>

$totals
Expansion: $totals=<one or more specified characteristics separated by commas>

$filter
Expansion: $filter=<specified characteristic> eq '<filter value>'

$top
Expansion: $top=<specified number>

$skip
Expansion: $skip=<specified number>

$count

$inlinecount
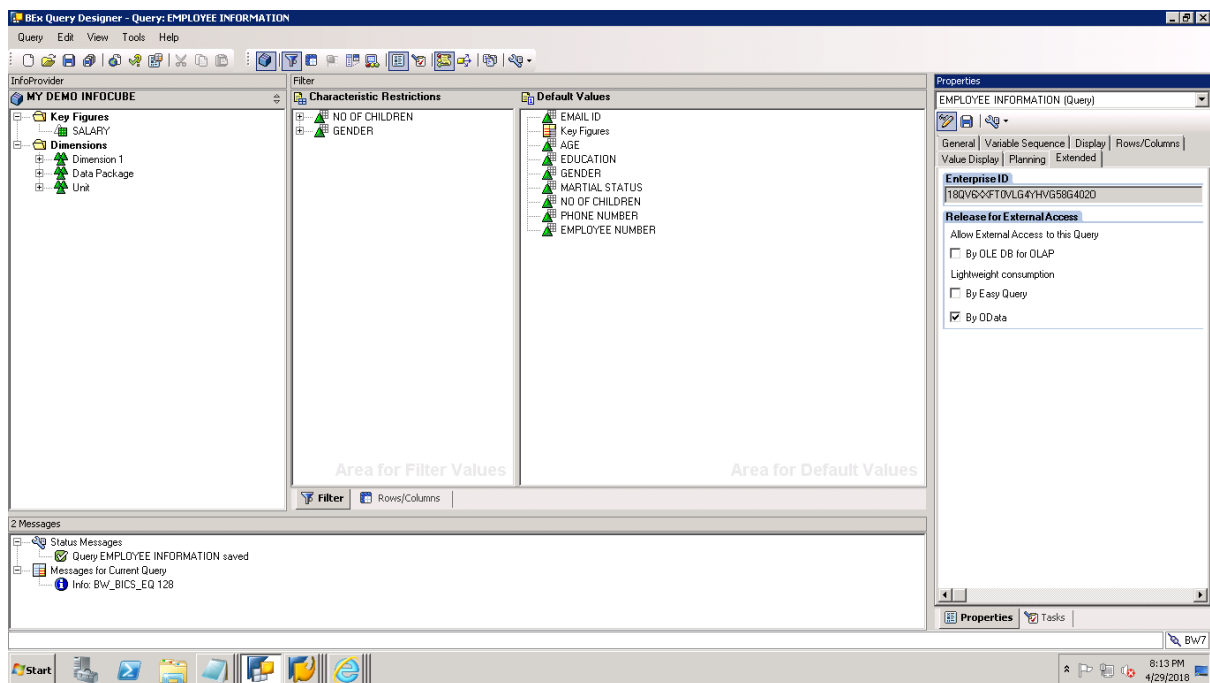
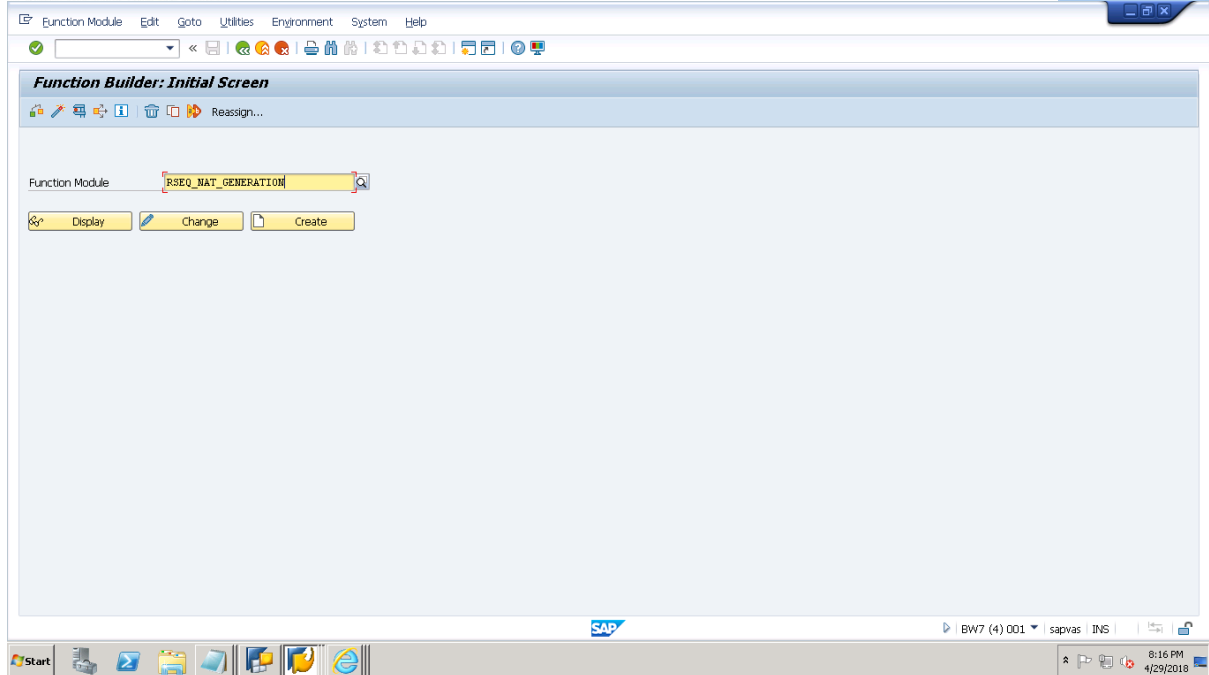*$format*

Steps required in SAP BW

The following steps need to be undertaken in SAP BW in order for the framework to be utilised.

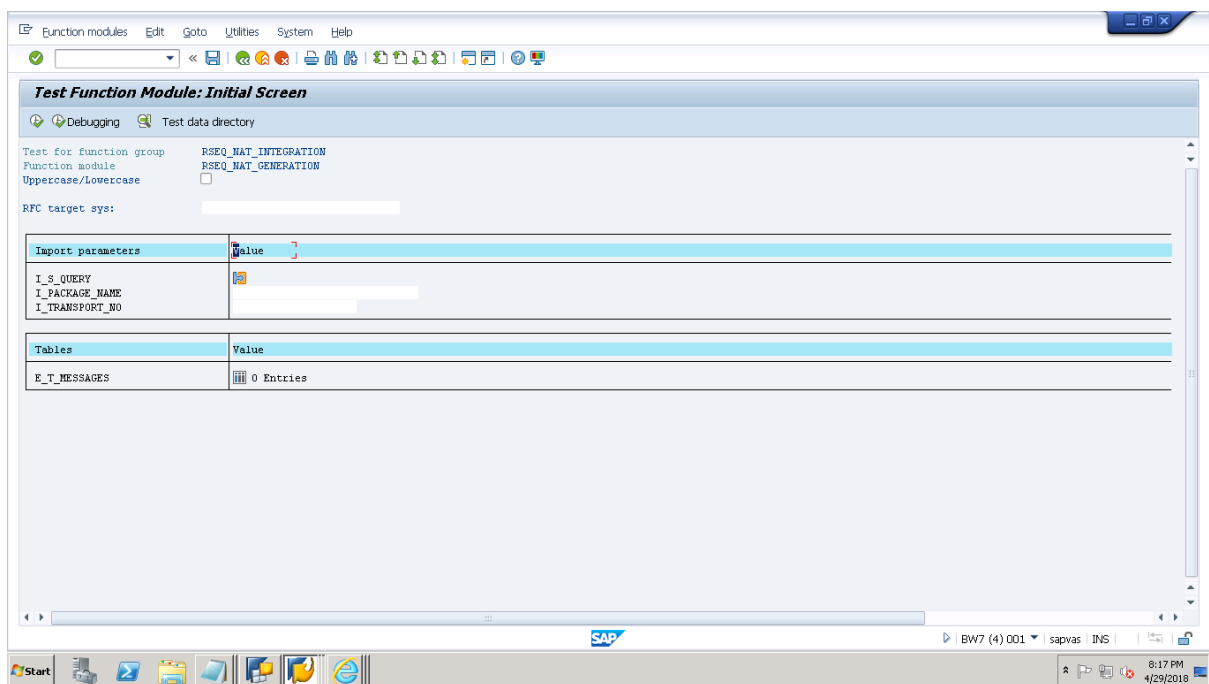The Manzeera DOMO Bridge utilises SAP BeX queries as a source to pump data to DOMO instance.

1) Mark SAP Bex for external Access in By OData

2) Activate the service using the following FM
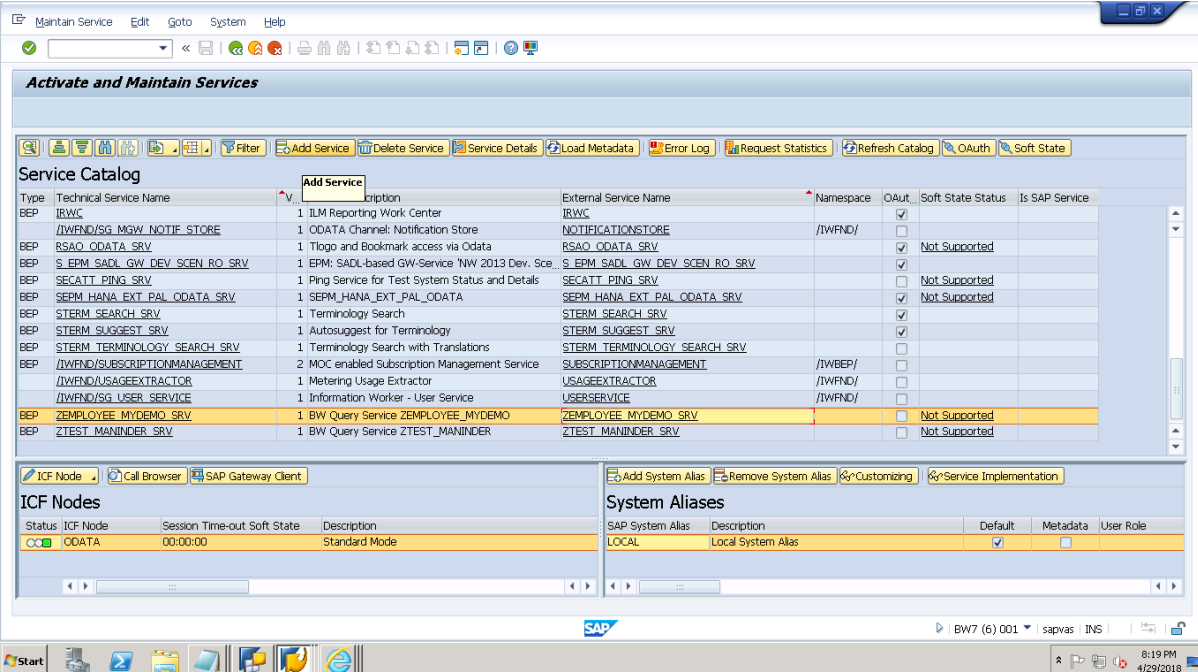
3) Execute and Enter the Query name and the package name

4) Execute the FM

5) Add the service using the following transaction:

/IWFND/MAINT_SERVICE

Click Add Service

6) Select your Query Service and Add the service
7) Test your service

```xml
<?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:DataServices m:DataServiceVersion="2.0">
    <Schema xml:lang="en" xmlns="http://schemas.microsoft.com/ado/2008/09/edm" sap:schema-version="1" Namespace="ZEMPLOYEE_MYDEMO_SRV">
      <EntityType sap:content-version="1" sap:semantics="aggregate" Name="ZEMPLOYEE_MYDEMOResult">
        <Key>
          <PropertyRef Name="ID"/>
        </Key>
        <Property Name="ID" sap:updatable="false" sap:label="ID" Nullable="false" Type="Edm.String"/>
        <Property Name="TotaledProperties" sap:updatable="false" sap:label="Totaled Properties" Type="Edm.String" sap:is-annotation="true" sap:aggregation-role="totaled-properties-list"/>
        <Property Name="ZEMP_ID" sap:updatable="false" sap:label="EMPLOYEE NUMBER" Type="Edm.String" sap:aggregation-role="dimension" sap:text="ZEMP_ID_T" sap:creatable="false" MaxLength="10"/>
        <Property Name="ZEMP_ID_T" sap:updatable="false" sap:label="EMPLOYEE NUMBER" Type="Edm.String" sap:creatable="false" sap:filterable="false"/>
        <Property Name="ZAGE" sap:updatable="false" sap:label="AGE" Type="Edm.String" sap:aggregation-role="dimension" sap:text="ZAGE_T" sap:creatable="false" MaxLength="5"/>
        <Property Name="ZAGE_T" sap:updatable="false" sap:label="AGE" Type="Edm.String" sap:creatable="false" sap:filterable="false"/>
        <Property Name="ZEDU_CA" sap:updatable="false" sap:label="EDUCATION" Type="Edm.String" sap:aggregation-role="dimension" sap:text="ZEDU_CA_T" sap:creatable="false" MaxLength="15"/>
        <Property Name="ZEDU_CA_T" sap:updatable="false" sap:label="EDUCATION" Type="Edm.String" sap:creatable="false" sap:filterable="false"/>
        <Property Name="ZEMAIL_ID" sap:updatable="false" sap:label="EMAIL ID" Type="Edm.String" sap:aggregation-role="dimension" sap:text="ZEMAIL_ID_T" sap:creatable="false" MaxLength="30"/>
        <Property Name="ZEMAIL_ID_T" sap:updatable="false" sap:label="EMAIL ID" Type="Edm.String" sap:creatable="false" sap:filterable="false"/>
        <Property Name="ZGENDER" sap:updatable="false" sap:label="GENDER" Type="Edm.String" sap:aggregation-role="dimension" sap:text="ZGENDER_T" sap:creatable="false" MaxLength="10"/>
        <Property Name="ZGENDER_T" sap:updatable="false" sap:label="GENDER" Type="Edm.String" sap:creatable="false" sap:filterable="false"/>
        <Property Name="ZMARIT_ST" sap:updatable="false" sap:label="MARTIAL STATUS" Type="Edm.String" sap:aggregation-role="dimension" sap:text="ZMARIT_ST_T" sap:creatable="false" MaxLength="10"/>
        <Property Name="ZMARIT_ST_T" sap:updatable="false" sap:label="MARTIAL STATUS" Type="Edm.String" sap:creatable="false" sap:filterable="false"/>
        <Property Name="ZNR_CHILD" sap:updatable="false" sap:label="NO OF CHILDREN" Type="Edm.String" sap:aggregation-role="dimension" sap:text="ZNR_CHILD_T" sap:creatable="false" MaxLength="5"/>
        <Property Name="ZNR_CHILD_T" sap:updatable="false" sap:label="NO OF CHILDREN" Type="Edm.String" sap:creatable="false" sap:filterable="false"/>
        <Property Name="ZPHONE_NR" sap:updatable="false" sap:label="PHONE NUMBER" Type="Edm.String" sap:aggregation-role="dimension" sap:text="ZPHONE_NR_T" sap:creatable="false" MaxLength="15"/>
        <Property Name="ZPHONE_NR_T" sap:updatable="false" sap:label="PHONE NUMBER" Type="Edm.String" sap:creatable="false" sap:filterable="false"/>
        <Property Name="A18QV6XXFT0VLG4YI7K83DGOLF" sap:updatable="false" sap:label="Employee salary" Type="Edm.Decimal" sap:aggregation-role="measure" sap:text="A18QV6XXFT0VLG4YI7K83DGOLF_F" sap:creatable="false" sap:filterable="false" Scale="34" Precision="36"/>
```

8) Activate the SAP Gateway /o/IWFND/IWF_ACTIVATE
9) If SAP Gateway is deactivated, use this transaction to activate

Deactivate SAP Gateway

SAP Gateway is currently active. Are you sure you want to deactivate it?

Deactivation will cause the SAP Gateway services to stop running and will send an error message to anyone who calls the services.

[Deactivate] [Cancel]
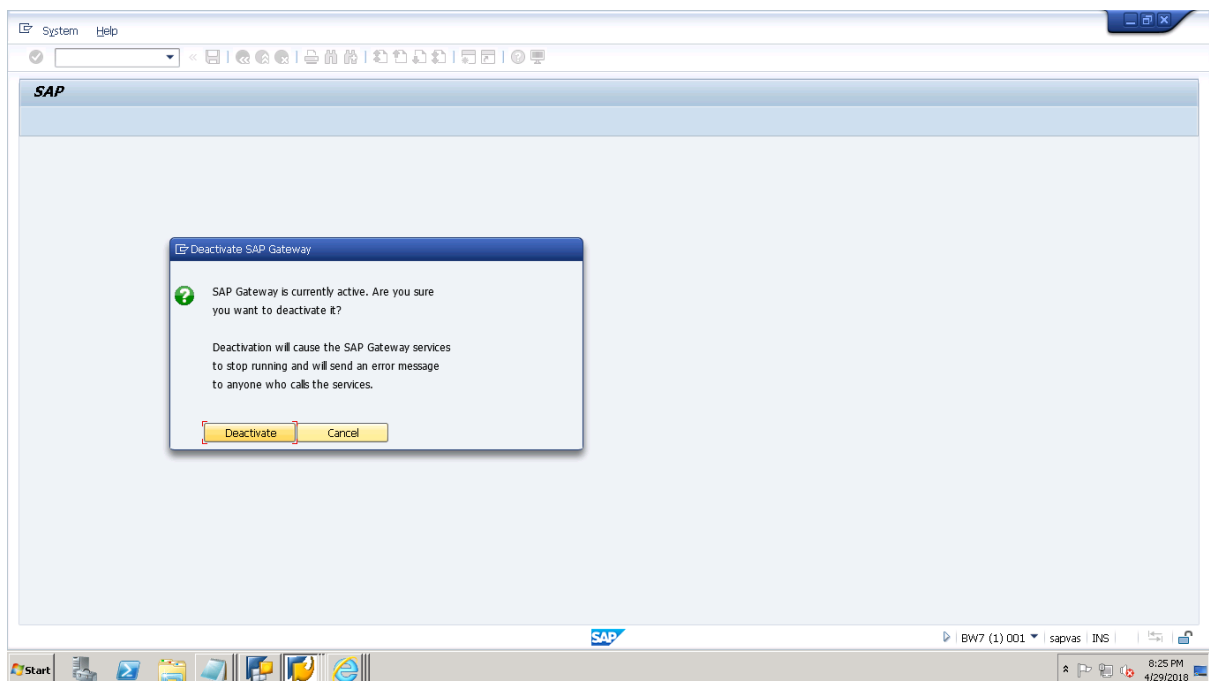
10) If ports are not opened, use transaction to open HTTP Port:

/nSMICM

11) Meta data test

http://yoursystem:portnumber/sap/opu/odata/sap/"BEX_QUERY"_SRV/$metadata

- API ID:

The API ID is the SAP BW User ID which has the required access to the suitable work centres authorised for extraction

- API Password:

This is the password of the above User ID that has the authorisation to extract data from the relevant API

- Target DOMO System Client ID:

This field is specific to your instance of Domo. Please contact Manzeera Solutions on centreofexcellence@manzeerasolutions.co.uk for the specific values applicable to your instance of Domo

- Target DOMO System Secret Key:

This field is specific to your instance of Domo. Please contact Manzeera Solutions on centreofexcellence@manzeerasolutions.co.uk for the specific values applicable to your instance of Domo

- Data Set Name:

This is the name of the dataset that will be created in Domo. As a best practice, please use this dataset for staging purposes only. No cards should be created directly onto this dataset in order to avoid disruptions or negative impact on the cards due to changes in the source structure.

- Data Set Description:

This is the description of the dataset that will be reflected in Domo.

- User ID:

This is the user ID of the portal as given by the Manzeera Solutions team. This user is responsible for a specific user case and can perform several operations such as running the use case, changing the use case, maintaining logs etc. as listed in subsequent sections.

- Email Update:

This holds the email IDs of the relevant stakeholders that need to be updated as to the success or failure of data loads when they occur.

Once these have been successfully completed, the 'Save' button should be pressed in to add the configuration to your system.

6) Underneath the 'Create New Configuration' section, you will find the 'Batch Schedule' options. This will enable you to schedule your configurations to be schedules as a single batch. The first field is the hourly interval, the second and third fields describe valid to and

valid from dates. Since this is a resource intensive activity it is recommended to contact Manzeera Solutions on centreofexcellence@manzeerasolutions.co.uk in order to define the appropriate batch schedule.

Fig.6. Batch Scheduling in the Portal

7) Underneath the 'Batch Schedule' section, you will find the catalogue of your existing configurations. In this section you will find the names of your configurations, their status and various actions that can be taken against these configurations including Update, View Logs, Run Now and Activate/Deactivate. Here various operations are performable on the different use cases.

Fig.7. Catalogue of existing Configurations

- Update:

This allows you to make changes to existing configurations by editing fields and saving updated changes

API Url

API ID

User ID

API Password

Target DOMO System client ID

Target DOMO System Secret Key

Data Set Name   projectVariance

Data Set Description   Project Variance1

Email Update

Update changes   Close

Fig.8. Update Configurations

- View Logs:

This allows you to view the history of the configuration

Dataset Name	Message	Timestamp
projectVariance	Data Uploaded for Data Set Name: projectVariance Data Set Desc: Project Variance1	Apr 9, 2018 9:37:20 PM
projectVariance	Data Uploaded for Data Set Name: projectVariance Data Set Desc: Project Variance1	Apr 9, 2018 6:17:34 PM

Fig.9. View Logs of Configurations

- Run Now

Selecting this enables the configuration to be run instantly on demand

- Activate/Deactivate:

Selecting this enables the configuration to be activated or deactivated instantly