

Oracle Banking APIs

File Upload Report Configuration Guide

Release 18.2.0.0.0

Part No. E97825-01

June 2018

ORACLE®

File Upload Report Configuration Guide

June 2018

Oracle Financial Services Software Limited

Oracle Park

Off Western Express Highway

Goregaon (East)

Mumbai, Maharashtra 400 063

India

Worldwide Inquiries:

Phone: +91 22 6718 3000

Fax: +91 22 6718 3001

www.oracle.com/financialservices/

Copyright © 2018, Oracle and/or its affiliates. All rights reserved.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate failsafe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

This software or hardware and documentation may provide access to or information on content, products and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services.

Table of Contents

1. Preface.....	4
2. File Uploads	5
3. Reports	12

1. Preface

1.1 Intended Audience

This document is intended for the following audience:

- Customers
- Partners

1.2 Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

1.3 Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit

<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit

<http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

1.4 Structure

This manual is organized into the following categories:

Preface gives information on the intended audience. It also describes the overall structure of the User Manual.

Introduction provides brief information on the overall functionality covered in the User Manual.

The subsequent chapters provide information on transactions covered in the User Manual.

Each transaction is explained in the following manner:

- Introduction to the transaction
- Screenshots of the transaction
- The images of screens used in this user manual are for illustrative purpose only, to provide improved understanding of the functionality; actual screens that appear in the application may vary based on selected browser, theme, and mobile devices.
- Procedure containing steps to complete the transaction- The mandatory and conditional fields of the transaction are explained in the procedure.

If a transaction contains multiple procedures, each procedure is explained. If some functionality is present in many transactions, this functionality is explained separately.

1.5 Related Information Sources

For more information on Oracle Banking APIs Release 18.2.0.0.0, refer to the following documents:

- Oracle Banking APIs Licensing Guide
- Oracle Banking APIs Installation Manuals

2. File Uploads

(i) OutsideIn (For MS Excel processing)

This is used for parsing XLS, XLSX in file uploads module. This library for Linux x64 is shipped with OBAPIs. For other platforms, download from

<http://www.oracle.com/technetwork/middleware/webcenter/content/oit-dl-otn-097435.html>

Search Export – 8.5.3

Update the path for exepath in sx.cfg located at config/outsidein/linux64

Eg.

exepath /scratch/container/config/outsidein/linux64/exporter

For other platforms merge the sx.cfg configurations

Grant 777 privileges for OutsideIn directory

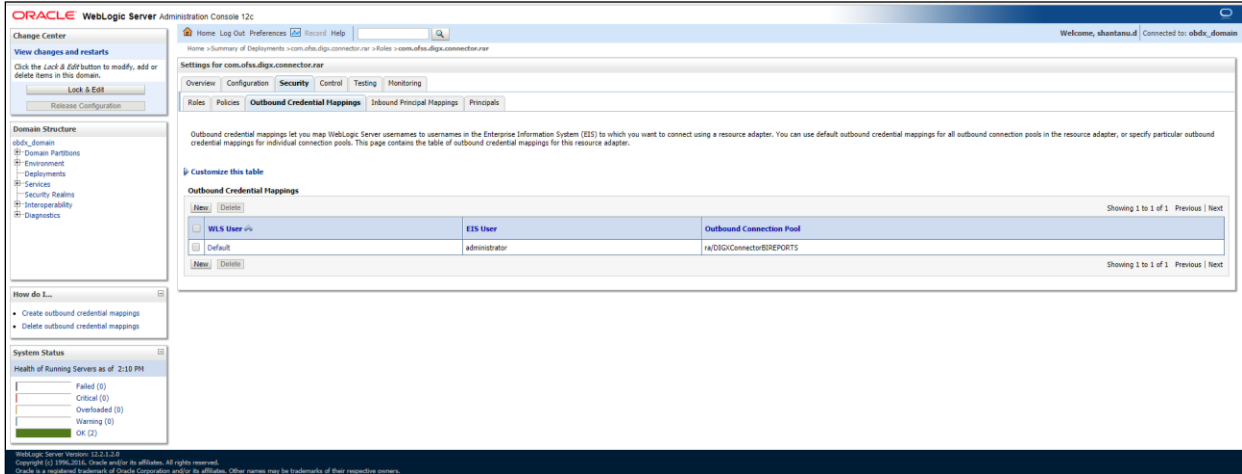
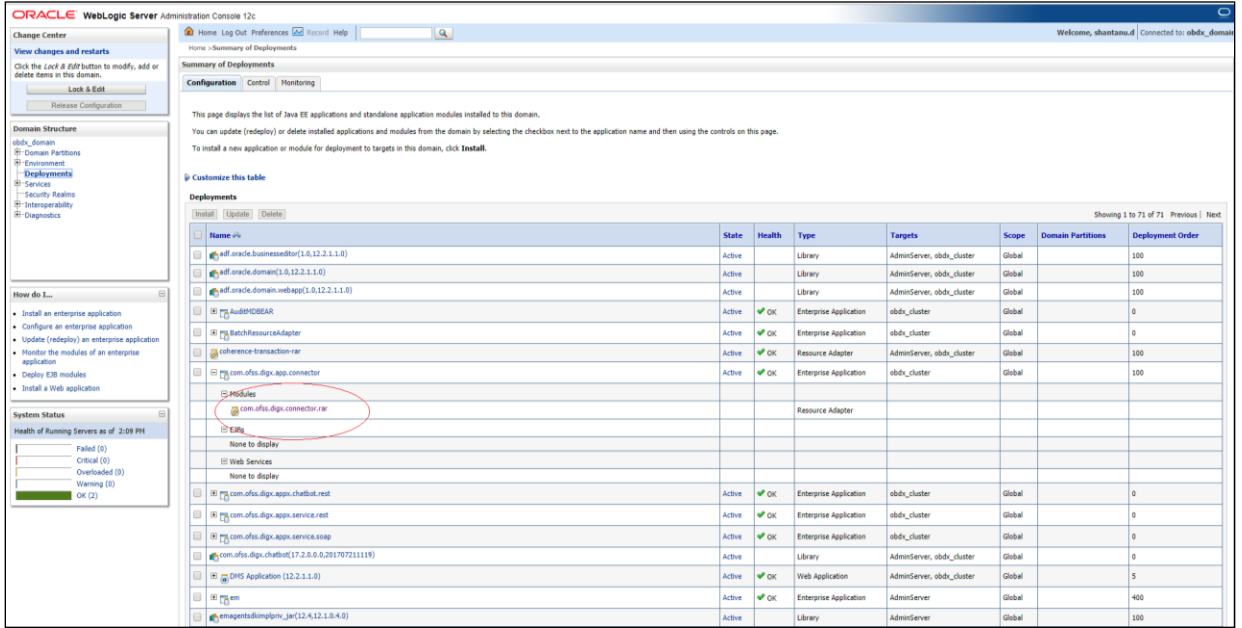
/scratch/config/outsidein/linux64/				
Name	Size	Changed	Rights	Owner
xxredir	115 KB	12/29/2017 7:11:01 PM	rw-rw-rw-	root
sxsample	8 KB	12/29/2017 7:11:01 PM	rw-rw-rw-	root
sx.cfg	26 KB	12/29/2017 7:11:01 PM	rw-rw-rw-	root
process_isolate_sample_unix	17 KB	12/29/2017 7:11:01 PM	rw-rw-rw-	root
oilink	624 KB	12/29/2017 7:11:01 PM	rw-rw-rw-	root
libwv_gdlib.so	86 KB	12/29/2017 7:11:01 PM	rw-rw-rw-	root
libwv_core.so	4,696 KB	12/29/2017 7:11:01 PM	rw-rw-rw-	root
libvs_zip.so	18 KB	12/29/2017 7:11:01 PM	rw-rw-rw-	root
libvs_yim.so	21 KB	12/29/2017 7:11:01 PM	rw-rw-rw-	root
libvs_xy.so	28 KB	12/29/2017 7:11:01 PM	rw-rw-rw-	root
libvs_xps.so	41 KB	12/29/2017 7:11:01 PM	rw-rw-rw-	root
libvs_xmp.so	13 KB	12/29/2017 7:11:01 PM	rw-rw-rw-	root
libvs_xml.so	22 KB	12/29/2017 7:11:01 PM	rw-rw-rw-	root
libvs_xlsb.so	194 KB	12/29/2017 7:11:01 PM	rw-rw-rw-	root
libvs_xl12.so	229 KB	12/29/2017 7:11:01 PM	rw-rw-rw-	root
libvs_xl5.so	292 KB	12/29/2017 7:11:01 PM	rw-rw-rw-	root
libvs_ws2.so	20 KB	12/29/2017 7:11:01 PM	rw-rw-rw-	root
libvs_ws.so	30 KB	12/29/2017 7:11:01 PM	rw-rw-rw-	root
libvs_wpw.so	50 KB	12/29/2017 7:11:01 PM	rw-rw-rw-	root
libvs_wpml.so	22 KB	12/29/2017 7:11:01 PM	rw-rw-rw-	root
libvs_wpl.so	26 KB	12/29/2017 7:11:01 PM	rw-rw-rw-	root
libvs_wpg2.so	48 KB	12/29/2017 7:11:01 PM	rw-rw-rw-	root

(ii) Configuration for storing key for decrypting uploaded files and creating encrypted response files

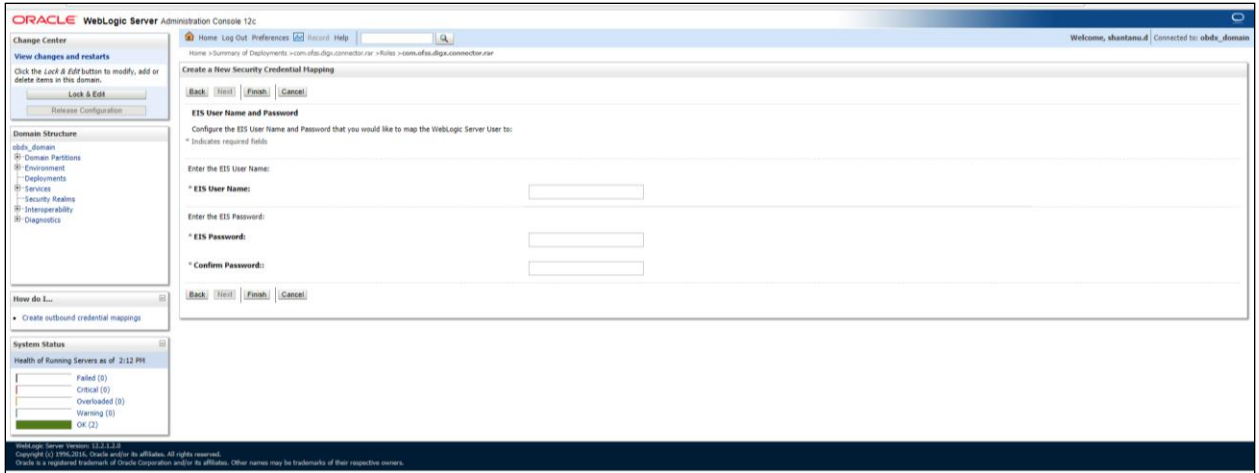
The key used for file decryption by default decryptor is stored in database in digx_fw_config_all_b with prop_id as 'ENCRYPTION_KEY'. If this is to be stored in WLS connector update the property as below

```
update digx_fw_config_all_b set prop_value='KEY_STORE' where
prop_id='ENCRYPTION_KEY_LOCATION';
```

Update the encryption key in connector as below –



Click New > Select ra/DIGXConnectorFILEUPLOAD > Next > Select Default User
In password field, enter the encryption key



(iii) Using Enrichers in File Uploads

(For custom defined templates only, not required for out of box templates)

- Enrichers are used to enrich or fetch a value for a given field. Let's say the field is Debit Account Id and enricher is Account Currency, so it means that the currency for that debit account Id needs to be fetched or enriched.
- Enricher can have enricher arguments. These arguments are passed when the enricher is invoked.
- Enrichers are of 2 types
 - Upload File Enrichers
 - Static arguments (enricherArgs) – Value is passed directly from template to enricher as label string
 - Dynamic arguments (enricherDynArgs) – Value is derived from a previous field of the record.
- Extract (Response) File Enrichers

How Enrichers are used in File Upload ?

- In File Upload XML template, the field **which will** enrich other fields must have 'enricher' attribute. This attribute **must not be specified for the fields which would be** enriched.
- The value of this 'enricher' attribute is the 'ENRICHMENT_ID' which is a column in table 'DIGX_FW_ENRICHMENTS_B'. Currently OBAPIs support only Java enrichers. Enrichers can be in any package but must implement the 'IEnrichment' interface.
- On the basis of the 'enricher' attribute value mapping is done from table 'DIGX_FW_ENRICHMENTS_B' and the corresponding 'ENRICHMENT_VALUE' column value is fetched and enrich() method of the specified Java class is invoked
Eg.
- Refer to the following figure of File Template : InternalFT.xml .


```

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<FileDefinition fileName="InternalFT"
  fileHandlerClassName="com.ofss.digx.app.fileupload.handlers.InternalFTFileHandler"
  decryptionClass="" charset="UTF-8" delimiter="," comments=""
  isFirstRecHeader="false" simpleOrMixed="M" fillchar="" partialProcessing="100" transactionType="ITG">
  <RecordDefinition
    recordHandlerClassName="com.ofss.digx.app.fileupload.handlers.InternalFTRecHandler"
    recordType="B"
    dtoClassName="com.ofss.digx.domain.fileupload.entity.InternalFTDTO"
    multiplicity="-1" maxFields="10" comments=""
    parent="" length="" transaction="ITG"
    mixedIdentifier="A">
    <Field name="mixedIdentifier"/>
    <Field name="partyId"/>
    <Field name="debitAccountId" enricher="ACCTCURR" enricherArgs=""/>
    <Field name="amount" type="CD"/>
    <Field name="amountCurr"/>
    <Field name="valueDate" enricher="DATE" enricherArgs="dd-MM-yyyy"/>
    <Field name="creditAccountId" enricher="ACCTDETAILS"/>
    <Field name="debitNarrative"/>
    <Field name="creditNarrative"/>
    <Field name="purpose"/>
  </RecordDefinition>
  <RecordDefinition
    recordHandlerClassName="com.ofss.digx.app.fileupload.handlers.InternalFTRecHandler"
    recordType="B"
    dtoClassName="com.ofss.digx.domain.fileupload.entity.InternalFTBeneDTO"
    multiplicity="-1" maxFields="10" comments=""
    parent="" length="" transaction="ITGBEN"
    mixedIdentifier="B">
    <Field name="mixedIdentifier"/>
    <Field name="partyId"/>
    <Field name="debitAccountId" enricher="ACCTCURR" enricherArgs=""/>
    <Field name="amount" type="CD"/>
    <Field name="amountCurr"/>
    <Field name="valueDate" enricher="DATE" enricherArgs="dd-MM-yyyy"/>
    <Field name="beneId" enricher="BENE" enricherArgs="INTERNAL"/>
    <Field name="debitNarrative"/>
    <Field name="creditNarrative"/>
    <Field name="purpose"/>
  </RecordDefinition>
</FileDefinition>

```

Static Enrichers

- In above template, the field name 'debitAccountId' has a enricher 'ACCTCURR' with no enricherArgs. In this case 'DIGX_FW_ENRICHMENTS_B' will be queried and search for 'ACCTCURR' and 'AccountCurrencyEnricher' class is invoked.

This enricher derives the debitAccountCurr. Hence this attribute must be present in the record DTO with its setters defined.

```

@Override
public HashMap<String, Object> enrich(HashMap<String, Object> parameters) throws Exception {

    SessionContext sessionContext = (SessionContext) ThreadAttribute.get(ThreadAttribute.SESSION_CONTEXT);
    FileUploadPolicyHelper policyHelper = FileUploadPolicyHelper.getInstance();
    policyHelper.fetchAccountId(sessionContext, new Account(parameters.get("value").toString()),
        parameters.get("fileRefId").toString());
    HashMap<String, Object> fields = new HashMap<String, Object>();
    String curr = policyHelper.fetchCurrencyForAccount(new Account(parameters.get("value").toString()),
        parameters.get("fileRefId").toString());
    fields.put("debitAccountCurr", curr == null ? "" : curr);
    fields.put("debitAccountId", parameters.get("value"));
    return fields;
}

```

- The field name 'valueDate' has static enricherArgs 'dd-MM-yyyy' meaning that the date has to be specifically in 'dd-MM-yyyy' format. This value is simply available to the enricher for processing purpose. This enricher does not add any new field but simply modifies the value of the current field.

```

@Override
public HashMap<String, Object> enrich(HashMap<String, Object> parameters) throws Exception {
    DateFormat df = new SimpleDateFormat(parameters.get("enricherArgs").toString());
    Date date = null;
    HashMap<String, Object> fields = new HashMap<String, Object>();
    try {
        df.setLenient(false);
        date = df.parse(parameters.get("value").toString());
        fields.put(parameters.get("field").toString(), new com.ofss.fc.datatype.Date(date));
    } catch (ParseException e1) {
        Exception e = new Exception();
        e.setErrorCode(UploadErrorConstants.FU_INVALID_VALUE_DATE);
        throw e;
    }
    return fields;
}

```

Dynamic Enrichers

If 'enricherDynArgs' is specified

Eg. enricherDynArgs="beneld~beneName" on beneficiary address field, the parser simply invokes getters on beneld and beneName fields and passes the values to the enricher in a map. It should be noted that these fields must be defined previously/above the beneficiary address field, so that parser has already completed the setter operation.

```

<Field name=" beneld"/>
<Field name=" beneName "/>
<Field name="beneAddr" enricher="ADDRESSENRICHER" enricherDynArgs=" beneld~beneName
"/>

```

Eg.

Extract (Response) File Enrichers

```

1 <?xml version="1.0" encoding="UTF-8" standalone="yes"?>
2 <FileDefinition fileType="csv" delimiter="," handler="com.ofss.digx.framework.fileupload.extract.CSVHandler" encryptionClass="">
3   <RecordDefinition recordType="H">
4     <Field name="record" label="RECORD" />
5     <Field name="recRefId" label="RECORD REF NO" />
6     <Field name="fileRefId" label="FILE REF NO" />
7     <Field name="digxRefId" label="E-BANKING REF NO" />
8     <Field name="contractRefId" label="CONTRACT REF NO" />
9     <Field name="recStatus" label="RECORD STATUS" />
10    <Field name="errCode" label="STATUS CODE" />
11    <Field name="errMsg" label="STATUS DESCRIPTION" />
12  </RecordDefinition>
13  <RecordDefinition query="ResponseList" recordType="B">
14    <Field name="record" no="1" wrapchar="" />
15    <Field name="recRefId" no="2" />
16    <Field name="fileRefId" no="3" />
17    <Field name="digxRefId" no="4" />
18    <Field name="contractRefId" no="5" />
19    <Field name="recStatus" no="6" />
20    <Field name="errCode" no="7" enricher="ERRORMSG" enricherArgs="" />
21    <Field name="errMsg" no="8" />
22  </RecordDefinition>
23 </FileDefinition>

```

Enrichers can be added to response file templates. The enricher class is invoked in the same way as upload templates. Eg, in above case, localized error message need to be added to extracts from 'errCode'. Extract enrichers do not support dynamic arguments

File Copy Configuration (with FCR only as the host system)

In case of FCR as host, for **file level** uploads in OBAPIs, the files are generated in FCR formats after approval at OBAPIs end is complete. These files are stored in a directory on OBAPIs server and then need to be periodically copied to FCR rjsin folder

In `digx_fw_config_all_b`, update 'HANDOFF_FILE_PATH' → Files in FCR format will be generated in this folder. Ensure appropriate permission are given to this directory.

Then invoke below script using cron to copy and then move copied files to backup directory.

```

scp -r handoff/* <USERNAME>@<FCR
HOST>:/scratch/weblogic/FLEX_117_Sanity/runarea/rjsin/mv handoff/* backup/

```

3. Reports

Reports in OBAPIs can be used with Internal Reports Engine or Oracle BI.

(i) Reports – Internal Report Engine

In installer scripts, all reports point to Internal report engine, no additional configuration is required.

Note - A8_C2_PENDING_APPROVALS works only with BI.

(ii) Reports – BI Configuration

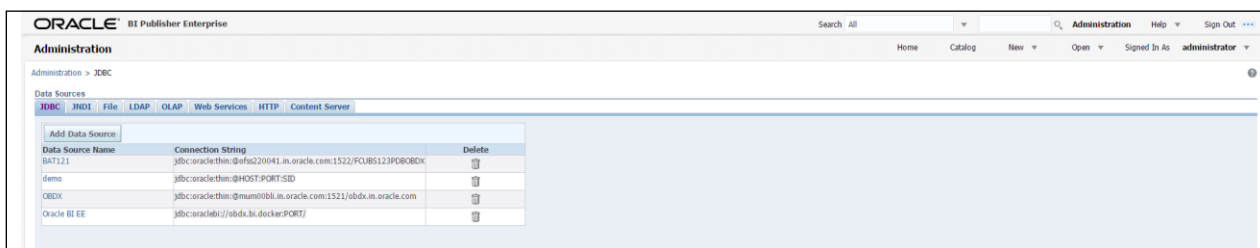
- Execute below query for those reports which need to pointed to BI
 update digx_rp_definition set provider='BI', allowed_formats='PDF~XLSX' and report_id not in ('A17', 'A01', 'A02', 'A03');

Update BI webservice URL as

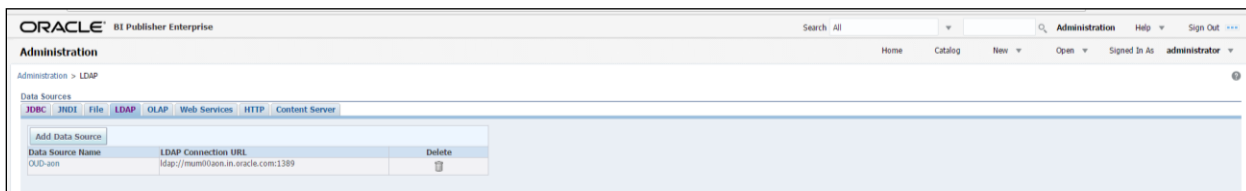
Update digx_fw_config_out_ws_cfg_b set url='http://<BI Host>:<BI Port>/xmlpserver/services/v2/ReportService?WSDL' where service_id='runReport'

Note – FATCA & CRS & EBPP reports works only with internal report engine and not with BI

- Login to BI and navigate to Administration link. Add JDBC data source
 - OBAPIS → Points to OBAPIs schema
 - BAT121 → Points to UBS EXT schema



- Add OUD data source – OUD-aon (Required only for User Creation Report and using LDAP to store users)



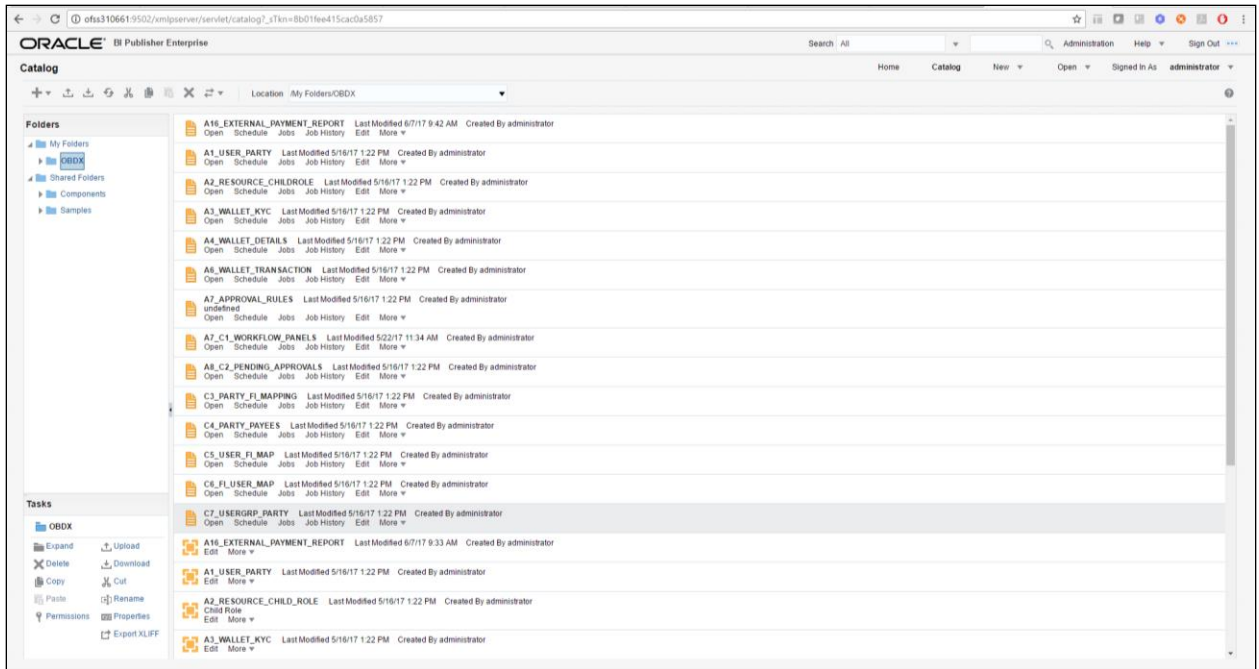
- Upload all xdoz and xdmz from config/resources/report/obi117 (Some reports may have more than one xdmz's) (All xdoz and xdmz can be copied inside OBAPIS.xdrz and uploaded at once. Empty xdrz is supplied in the 'config/resources/report/obi117')

Eg. A1_USER_PARTY.xdmz – (OUD)

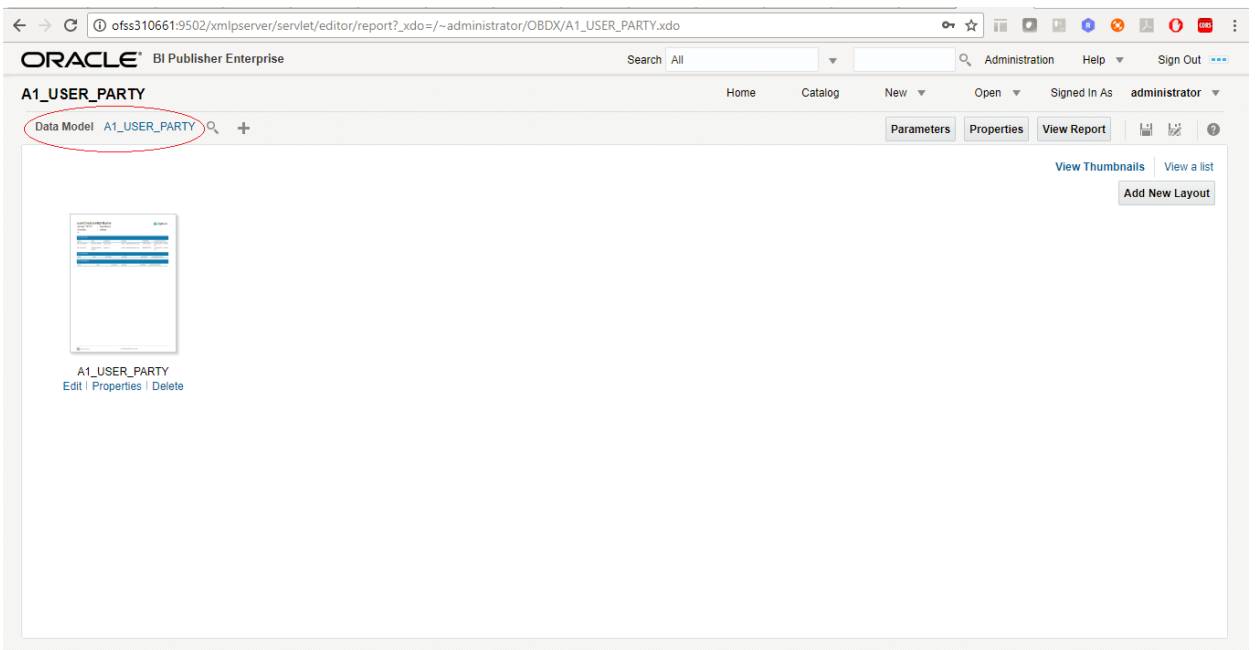
A1_USER_PARTY_DBAUTH.xdmz – (DB Authenticator)

A1_USER_PARTY_OPEN_LDAP – (Open LDAP)

Select the appropriate xdmz and map to xdoz as shown below -



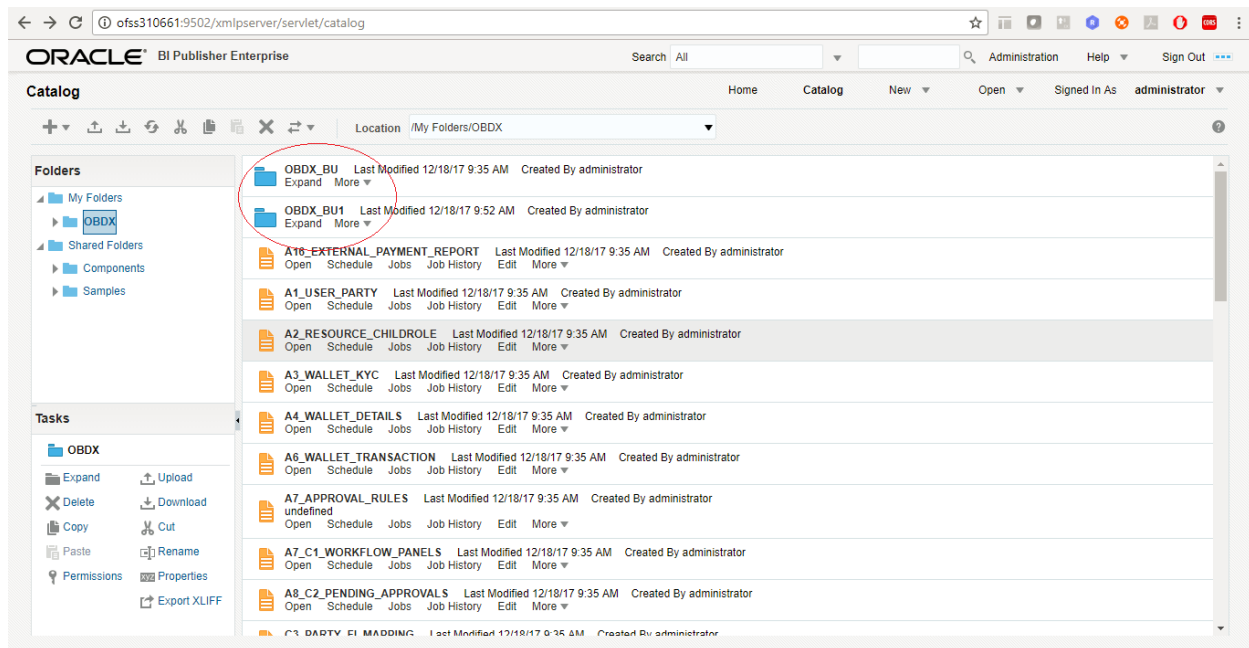
Click Edit → Data model



Select the data model and save.

For multi entity reports, create separate directories as shown below

U3 and U4 are multi entity reports



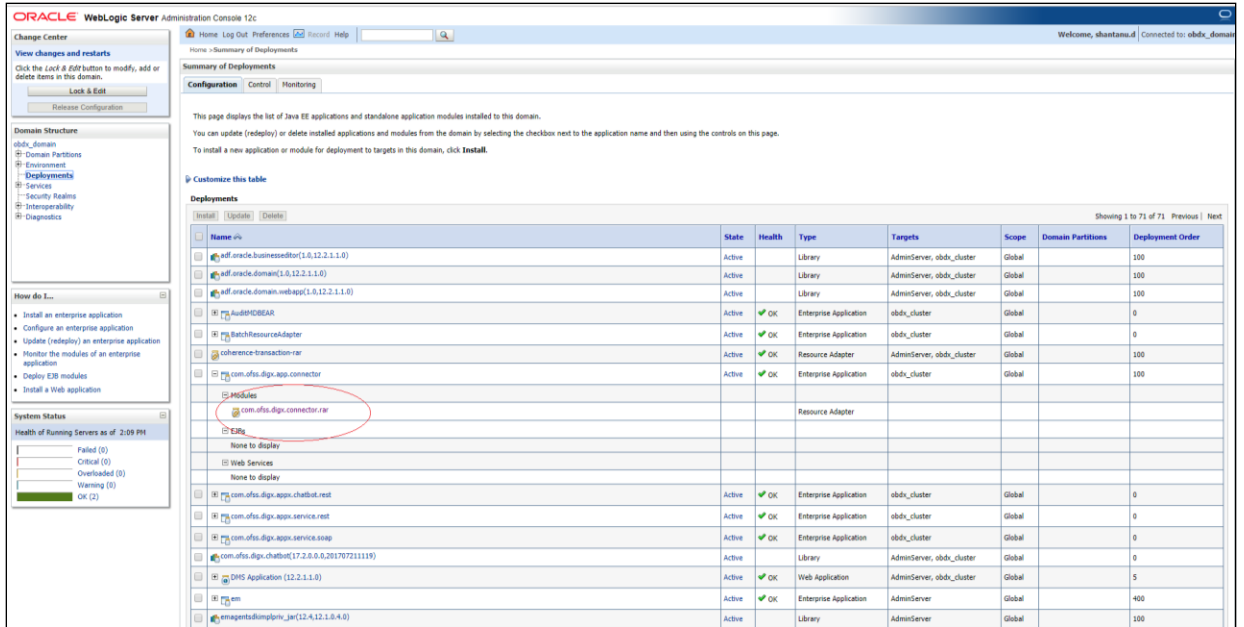
Use separate connections for host in these reports to point to required hosts.

- Note the user used for BI console and the folder in which these artifacts are uploaded.

Update the paths if required –

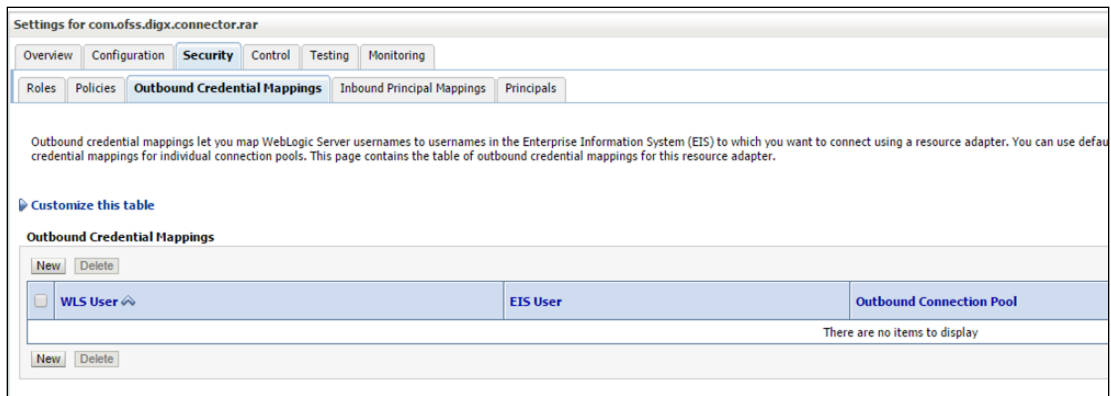
```
select * from digx_fw_config_all_b where category_id='reportconfig' and prop_id like 'BI_ABSPATH%'
```

Oracle BI Credentials are stored in WLS connector



Add outbound credentials for this application, by following below steps.

- Browse to the deployed connector application > Security > Outbound Credential Mapping section



- Click new and select ra/DIGXConnectorBIPREPORTS

Create a New Security Credential Mapping

Back Next Finish Cancel

Outbound Connection Pool

Which Outbound Connection Pool would you like the credential map to be associated with? Selecting Resource Adapter Default will configure

[Customize this table](#)

Create a New Security Credential Map Entry for:

<input type="checkbox"/>	Outbound Connection Pool ^
<input checked="" type="checkbox"/>	ra/DIGXConnectorBIREPORTS
<input type="checkbox"/>	ra/DIGXConnectorFILEUPLOAD
<input type="checkbox"/>	ra/DIGXConnectorMERCHANT
<input type="checkbox"/>	Resource Adapter Default

Back Next Finish Cancel

- Select Default user option

Create a New Security Credential Mapping

Back Next Finish Cancel

WebLogic Server User

Select the WebLogic Server User that you would like to map an EIS user to. Selecting 'User for creating initial connections' will create an unauthenticated WebLogic Server user that does not have a credential mapping specifically for them. Selecting 'Default User' will create a WebLogic Server user that has a credential mapping specifically for them. This user must be a configured WebLogic Server user.

User for creating initial connections
 Default User
 Unauthenticated WLS User
 Configured User Name

WebLogic Server User Name:

Back Next Finish Cancel

- Enter administrator credentials of BIP and click Finish

Create a New Security Credential Mapping

EIS User Name and Password

Configure the EIS User Name and Password that you would like to map the WebLogic Server User to:

* Indicates required fields

Enter the EIS User Name:

* **EIS User Name::**

Enter the EIS Password:

* **EIS Password::**

* **Confirm Password::**