

OBO and Third Party Setup and Configuration Guide
Oracle Banking Digital Experience
Patchset Release 22.2.5.0.0

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OBO and Third Party Setup and Configuration Guide

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1. Preface

1.1 Purpose

Welcome to the User Guide for Oracle Banking Digital Experience. This guide explains the operations that the user will follow while using the application.

1.2 Audience

This manual is intended for Customers and Partners who setup and use Oracle Banking Digital Experience.

1.3 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>.

Access to Oracle Support

Oracle customers that have purchased support 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 Critical Patches

Oracle advises customers to get all their security vulnerability information from the Oracle Critical Patch Update Advisory, which is available at [Critical Patches, Security Alerts and Bulletins](#). All critical patches should be applied in a timely manner to ensure effective security, as strongly recommended by [Oracle Software Security Assurance](#).

1.5 Diversity and Inclusion

Oracle is fully committed to diversity and inclusion. Oracle respects and values having a diverse workforce that increases thought leadership and innovation. As part of our initiative to build a more inclusive culture that positively impacts our employees, customers, and partners, we are working to remove insensitive terms from our products and documentation. We are also mindful of the necessity to maintain compatibility with our customers' existing technologies and the need to ensure continuity of service as Oracle's offerings and industry standards evolve. Because of these technical constraints, our effort to remove insensitive terms is ongoing and will take time and external cooperation.

1.6 Conventions

The following text conventions are used in this document:

| Convention | Meaning |
|-----------------|--|
| boldface | Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary. |

| | |
|---------------|--|
| <i>Italic</i> | Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values. |
| monospace | Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter. |

1.7 **Screenshot Disclaimer**

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.

1.8 **Acronyms and Abbreviations**

The list of the acronyms and abbreviations that you are likely to find in the manual are as follows:

| Abbreviation | Description |
|---------------------|-----------------------------------|
| OBDX | Oracle Banking Digital Experience |

2. Introduction

This document is intended for setting up OBDX 22.2.5.0.0 originations with OBO 14.7.8.0.0 and Third Party releases.

3. Prerequisites OBO

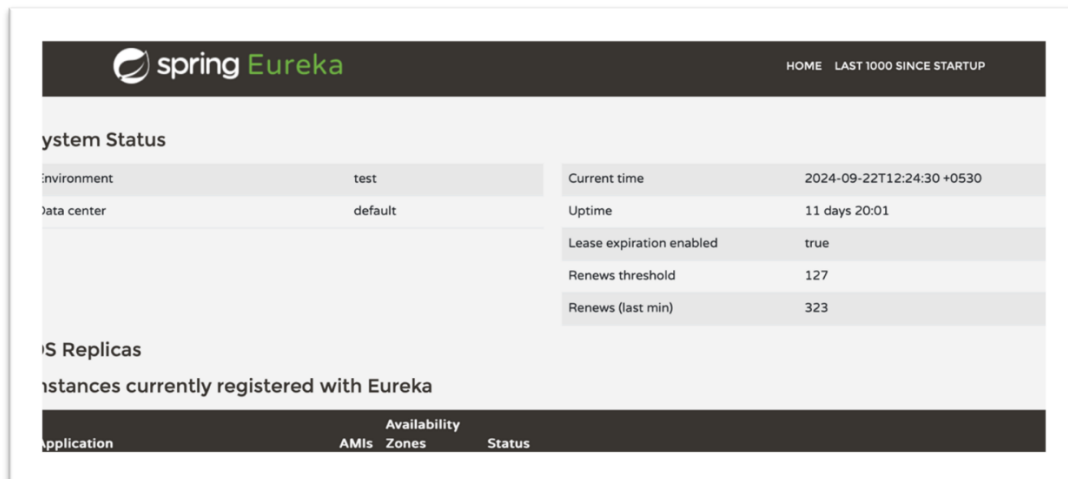
The following are the prerequisites required in **Oracle Banking Origination (OBO)** to successfully integrate with **Oracle Banking Digital Experience (OBDX)**.

3.1 OBO version

This information is required to identify the version of OBO that is integrated with OBDX. Depending on the OBO and OBDX versions, integrated features and services may vary, making it essential to confirm the specific version for accurate setup and configuration.

3.2 Eureka URL

The OBO Eureka URL, which is shared by the OBO team, is mandatory for the configuration of OBRH-OBDX. Eureka is used to list down all the services that are up and running on OBO.



3.3 OBO Users and configuration

The following three users must be created with the required functionality, services, and role access in **Oracle Banking Origination (OBO)** before testing the integration with **Oracle Banking Digital Experience (OBDX)**. These users will be used to invoke the OBO services as documented in the **Section: Eureka URL**.

1. OBDXAPI1 – This user is required for the **OBDX/OBRH configuration** to call **OBO REST endpoints** directly. These calls are made to the **OBO host** and do not pass through the **API Gateway Router**.
2. OBDXAPI2 – This user is required for the **OBDX/OBRH configuration** to communicate with the **Document/Content Management System (DMS)**. The DMS is used to manage all documents centrally across both **OBDX** and **OBO**. Since both systems use a centralized DMS, maintaining this user and its permissions is mandatory.

3. OBDXAPI3 – This user is required for **OBO AppShell application login** to perform tasks such as verifying **product maintenance**, managing **business processes**, acquiring tasks, processing applications, and handling other OBO-related tasks. This ensures that all applications submitted through **OBDX** are correctly processed and validated within the **OBO** system.

Note: As per the above configuration, **DO NOT** use **OBDXAPI1** or **OBDXAPI2** for logging into the **OBO application**. Doing so could cause **API failures** within the application, leading to errors such as **Bad Credential** or **Token Expired**.

3.4 **SSL certificate**

The **OBO Eureka URL** lists discovery services, and if these services are running securely on **https**, an **SSL certificate** is mandatory to be installed on the **OBDX/OBRH servers**. This SSL certificate must be provided by the **OBO team**. Only after the certificates are installed on the OBDX and OBRH servers can the OBO APIs be accessed through the OBDX/OBRH servers and respective applications. In line with **OBDX standards**, all API calls must be made over **HTTPs** to ensure secure communication.

If the **SSL certificate** is not installed correctly, you may encounter errors such as failed API calls or connection issues. In this case, the system will prompt an error related to SSL, and you will need to **re-install the SSL certificate** on the OBDX/OBRH servers.

```
javax.ws.rs.ProcessingException: javax.net.ssl.SSLHandshakeException:  
PKIX path building failed:  
sun.security.provider.certpath.SunCertPathBuilderException: unable to  
find valid certification path to requested target at
```

3.5 **OBO Business products**

Ensure that all **OBO business products** are properly maintained in OBO, following the processes established by the OBO maintenance team. This ensures that the products are available and accessible through the OBDX channel prior to integration with OBDX.

3.6 **OBO Regional maintenance**

All regional maintenance configurations should be established in the OBO setup. This applies to both the **US (United States)** region and **RW (Rest of the World)**. Note that RW will always be regarded as the default configuration.

3.7 **OBO API testing via postman**

OBO API's testing: The following curl command is utilized to test the OBO APIs prior to integration with the OBDX application. This command checks whether the APIs are functioning correctly with the expected headers.

1. Product listing

This API is used to fetch the list of products that are maintained in OBO.

```
curl --location '<protocol>://<ip>:<port>/obremo-rpm-  
businessproductdetails-  
services/web/businessproducts?channel=OBDX&productType=<product_type  
>&productCategory=IND' \  
  
--header 'Content-Type: application/json' \  
  
--header 'userId: <user_id>' \  
  
--header 'appId: OBREMOBPDETAILS' \  
  
--header 'branchCode: <branch_code>' \  
  
--header 'entityId: DEFAULTENTITY'
```

To verify and set <protocol>://<ip>:<port>

- Navigate to the Eureka URL
- Search for endpoint **obremo-rpm-businessproductdetails-services**
- Click on the result URL of the endpoint you searched, and note the **protocol**, the **IP address**, and the **port number** use in the curl.
- <user_id> : User created in OBO e.g. OBDXAPI1
- <branch_code> : OBO branch code
- <product_type> :
 - S for savings
 - C for current account
 - L for loan
 - T for term deposit
 - R for credit card
 - V for auto loan
 - H for home loan
 - E for education loan

2. Read application

This API is used to fetch application details using the application number.

```
curl --location '<protocol>://<host>:<port>/obremo-rpm-process-  
driver-services/service/getData/<application_id>' \  
  
--header 'branchCode: <branch_code>' \  
  
--header 'appId: RMPPROCESSDRIVER' \  

```

```
--header 'entityId: DEFAULTENTITY' \
```

```
--header 'userId: <user_id>' \
```

```
--header 'Content-Type: application/json'
```

- Follow the steps of **Product listing api** to set <protocol>, <host>, <port>, <branch_code>, <user_id>
 1. Navigate to the Eureka URL
 2. Search for endpoint **obremo-rpm-process-driver-services**
- <application_id>, enter the application number for which you have to fetch details

3. Enumeration

This API fetches a list of values from the OBO. For example, the following API is used to fetch the list of values maintained for the Salutation dropdown menu.

```
curl --location '<protocol>://<host>:<port>/obpy-party-maintenance-  
service/service/v1/retail/getAll?entityCode=<entity_code>' \
```

```
--header 'Content-Type: application/json' \
```

```
--header 'userId: <user_id>' \
```

```
--header 'appId: PRT0NB' \
```

```
--header 'branchCode: <branch_code>' \
```

```
--header 'entityId: DEFAULTENTITY' \
```

```
--header 'authToken: TOEKN'
```

- Follow the steps of Product listing api to set <protocol>, <host>, <port>, <user_id>, <branch_code>
 1. Navigate to the Eureka URL
 2. Search for endpoint **obpy-party-maintenance-service**
- Use <entity_code> as **SAL**. This code is used to fetch values maintained for the salutation dropdown in OBPY..
- It will list all OBPY enumeration LOV's, without query param.

3. Get Token

This API is used to generate a token. This token will further be used in any api-gateway call.

```
curl --location '<protocol>://<host>:<port>/api-  
gateway/platojwtauth/' \
```

```
--header 'appId: SECSRV001' \
```

```
--header 'Content-Type: application/json'
```

```
--data '{
```

```
"username": "<encoded_user_name>",
```

```
"password": "<encoded_password> "
```

```
}'
```

- Follow the steps of **Product listing api** to set <protocol>, <host>, <port>
 1. Navigate to the Eureka URL
 2. Search for endpoint **apigateway-router**
- To check the encoding used by the application for username and password setup, refer to the OBRH encoding technical documentation.

Use Base64 encoding as the standard method for setting the username and password.

3. Document type

This API is used to fetch the list of primary document types that the user can upload in the application.

```
curl --location '<protocol>://<ip>:<port>/api-gateway/cmc-  
documentmanagement-services/documenttype' \
```

```
--header 'Content-Type: application/json' \
```

```
--header 'userId: <user_id>' \
```

```
--header 'appId: CMNCORE' \
```

```
--header 'branchCode: <branch_code>' \
```

```
--header 'entityId: DEFAULTENTITY' \
```

```
--header 'Authorization: Bearer <token>'
```

- Follow the steps of **Product listing api** to set <protocol>, <host>, <port>, <user_id>, <branch_code>\B
 4. Navigate to the Eureka URL
 5. Search for endpoint **apigateway-router**
- To set the Bearer <token>, refer the Get Token API response

Note: For any queries related to the OBO API, including product creation, maintenance, and other inquiries, reach out to the OBO consulting team.

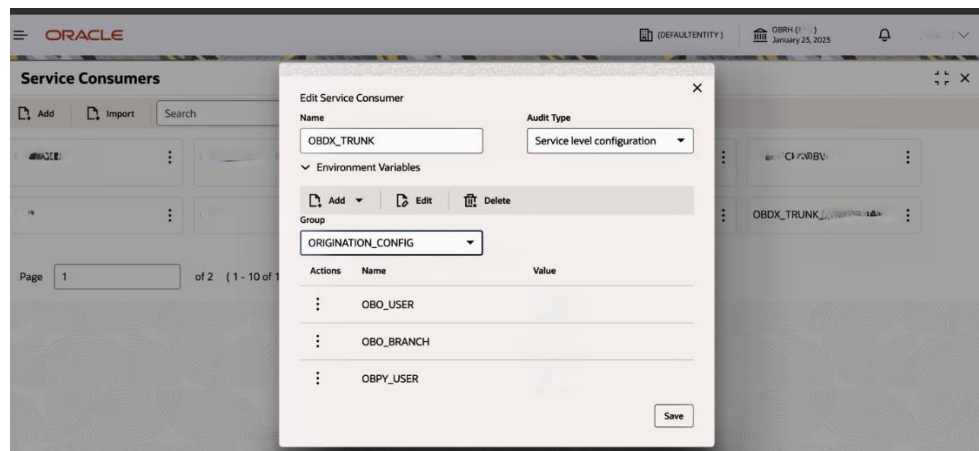
4. Prerequisites OBRH

Follow OBRH technical documentation for OBRH configuration to import service consumer and other OBRH related maintenances.

4.1 OBRH Origination Configuration

Follow the steps to configure origination users:

1. Go to the service consumer.
2. Click on the kebab menu, and select **B**.
3. From the **Group** drop-down list, and select **ORIGINATION_CONFIG**.
4. Configure the user and branch code.
 - For OBDX_USER, OBDX_BRANCH, OBPY_USER, OBPY_BRANCH configuration, refer **OBO Users creation and configuration-step2**.
 - For CMC_USER, CMC_BRANCH configuration, refers **OBO Users creation and configuration-step2**.



- For JUMIO_AUTH : Check with the bank to check if Jumio vendor integration with the license version is enabled for KYC purposes; if not, keep these value as blank or configure the Jumio bearer token, followed by Basic ... , refer **Jumio Configuration**.

| Actions | Name | Value |
|---------|------------|---------------------|
| ⋮ | JUMIO_AUTH | Basic [redacted]... |

4.2 Origination service consumer

The following list of service consumers are applicable for originations, which are routed internally by the OBDX application to perform rest calls on Consumer service.

| Service Consumer | End Point |
|-------------------------------|--|
| DMS | apigateway-router(v1), cmc-document-services(v2) |
| OBREMO_LOANAPPLICATIONS | obremo-rpm-lo-loanapplications |
| OBREMO_COMMON | obremo-rpm-cmn-applicantservices |
| OBREMO | obremo-rpm-businessproductdetails-services |
| OBREMO_PROJECTION | obremo-rpm-projection-services |
| OBREMO_PROCESS_DRIVER_SERVICE | obremo-rpm-process-driver-services |
| OBREMO_MAINTENANCE | obremo-rpm-process-driver-services |
| OBPY | obpy-party-maintenance-service |
| OBPY_PARTY_SEARCH | obpy-party-services |
| OBPY_PARTY_MAINTANANCE | obpy-party-maintenance-service |
| CMC_OPDS_QUESTIONNAIRE | cmc-opds-services |
| CMC_OPDS | cmc-opds-services |
| CMC_CUSTOMER_SERVICES | cmc-customer-services |
| CMC_CURRENCY_SERVICES | cmc-currency-services |
| CMC_BASE_SERVICE | cmc-base-service |

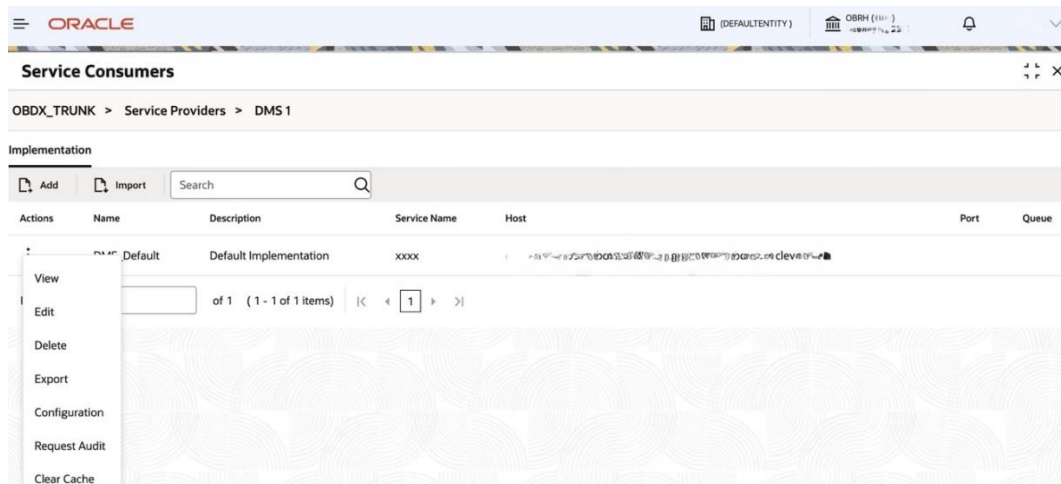
The above table contains the list of service consumers and their endpoints.

4.3 Config service consumer

Consider the following example to configure service consumer e.g. DMS(v1).

The **DMS(v1)** service consumer is utilized for generating API gateway tokens prior to using any document API. As documents uploaded by users contain sensitive information that is important for both the bank and the user. Therefore, it is essential to transmit these documents securely through the API gateway.

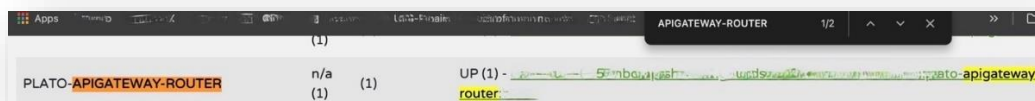
Navigate to : Select **DMS**, click on the **kebab menu**, and then choose **Edit**.



In the screenshot attached below, you must configure the following:

There are two ways to configure the host and port: using the manual method or through service discovery.

- From the manual method, configure scheme, host, and port, refer the **OBO API Testing: Get Token** for further information.
 - Navigate to the Eureka URL
 - Search service consumer endpoint.
 - Open the Search Result in new tab.
 - Copy Protocol, Host, and Port
 - Configure the Endpoint.



- Service discovery: Enable Eureka using toggle button, and enter service name which is found in Eureka search, refer the following images.

- For JWT_TOKEN, to config Username and password, refer **OBO Users and configuration-step2** (This is optional for other service consumers)

4.4 Testing Consumer service via postman

After the above OBRH configuration is correctly done, the below curl command used to test any service consumer is functioning as expected.

e.g. Testing READ_APPLICATION Consumer service

1. Generate token and configure <protocol>, <ip>, <port>, <user_id>, <Bearer_Token> first refer to **OBO API Testing: Get Token**
2. Use Bearer token in below curl command.
3. <application_id> Put the application number which data you have to fetch.
4. <service_consumer> name of service consumer e.g. OBDX_TRUNK
5. <consumer_service> Here we are fetching data from READ_APPLICATION

```
curl --location '<protocol>://<ip>:<port>/api-gateway/cmc-obrh-services/route/dispatch' \
```

```
--header 'Content-Type: application/json' \
```



```
--header 'appId: CMNCORE' \  
--header 'userId: <user_id>' \  
--header 'branchCode: <branch_code>' \  
--header 'SERVICE-CONSUMER: <service_consumer>' \  
--header 'SERVICE-CONSUMER-SERVICE: <consumer_service>' \  
--header 'entityId: DEFAULTENTITY' \  
--header 'Authorization: <Bearer Token>' \  
--data '{"applicationId": "<application_id>"}'
```

5. Database Configuration

Following configurations need to be done post installation.

5.1 System Configuration

Complete day one maintenance from admin screen. Refer **User Manual Oracle Banking Digital Experience System Configuration** document for day one maintenance. These are mandatory configurations for application to work. It should be completed before using the application.

5.1.1 Origination specific fields

←

System Configuration

Entity : OBO 14.4

✓ Basic Details

✓ Host Details

✓ Bank Details

✓ SMTP

✓ Third Party Configuration

✓ Dynamic Module

> Brand

> Account

> Payment

CC Balance Transfer SupportedY

Customer SubtypeINDIVIDUAL

RPM Business Process CHANNELOBDX

RPM Multilingual Check Requiredfalse

Maximum Add On cards3

Simple Term Deposit ProductsRPMTDA

N

No of Days for Re-KYCLow,720,Medium,365,High,180

External Funding Supportedfalse

Insta Account ProductsINSAC1,INSCUR,INSTDA,WALLET,INSPLN

Microblink Host port8080

Wallet Product CodeWALLET

Purging Days0

Maximum Card Balance Transfer3

Inactive KYC allow flagY

OCR Document Categories

Issuer List

Student Loan Disclaimer SupportedN

Credit Card TypeMaster

Microblink Host IP addresswhf00mej

OCR Authorization tokenBearerNDcyMDFmMWZjMzQzNDlmNGE3NTQ0NDM2NjBjMPEP_CHECK,AML_CHECK,FATCA_CHECK

5.1.2 Description of fields under origination tab:

| Configuration of OBPY API | |
|-----------------------------------|--|
| RPM Branch code | Branch code for OBPY rest |
| Configurations of OBO API | |
| RPM BP Channel | Channel for OBO rest |
| Application tracker Configuration | |
| App Expiring Days | Days window used for setting application Expiry date |
| Purging Days | Days window for which application is active. |
| Credit Card Configuration | |
| Maximum Card Balance Transfer | Maximum number of Card Balance transfer supported |
| Issuer List | List of issuers separated by comma |
| CC Balance Transfer Supported | Should be set to "Y" if balance transfer is supported. |

| | |
|-----------------------------------|---|
| Maximum Add on Cards | Maximum number of Add on card. |
| OCR Configuration | |
| Microblink Host IP | IP Address for OCR |
| Microblink Host port | Port for OCR |
| OCR Authorization token | Bearer token for OCR access |
| OCR Document Categories | List of documents supports for OCR |
| Other Configuration | |
| RPM Multilingual Check required: | Default value: false. Can be set to true if multilingual hooks required for product catalogue. |
| Student Loan Disclaimer Supported | Y/N should be set to Y if disclaimer pop-up is required for student loan. |
| Inactive KYC allow flag | Should be set to Y if applicant is allowed to apply for product in case of inactive KYC. |
| External Funding Supported | Should be set to "true" if External Funding is supported. |
| Wallet Product Code | Business product code of wallet product. |
| Customer Subtype | "Customer subtype" tag value for OBO API |
| Insta Account Products | Comma separated business product codes which are insta products. |
| No of Days for Re-KYC | <p>No of days for Re-KYC as per Risk category. Eg. "Low,720,Medium,365,High,180"</p> <p>Here 720 days is validity of KYC for Low risk category level. 365 days is for medium and 180 days for High risk application. No of days as per risk category is configurable.</p> |

5.2 Additional (functional) Configuration

5.2.1 Configuring Repository adapter for Application:

- **OBO Host Configuration**

No Configuration required.

- **Third Party Configuration**

If local (database) storage is required for third party entity following query needs to be executed.

```
Insert into DIGX_FW_CONFIG_ALL_O
(PROP_ID,PREFERENCE_NAME,PROP_VALUE,DETERMINANT_VALUE,CREATED_
BY,CREATION_DATE,LAST_UPDATED_BY,LAST_UPDATED_DATE) values
('RPM_APPLICATION_REPOSITORY_ADAPTER','RepositoryAdapterFactories','com.ofs
s.digx.domain.origination.entity.application.repository.adapter.LocalApplicationRepository
Adapter,com.ofss.digx.domain.origination.entity.application.repository.adapter.RemoteAp
plicationRepositoryAdapter','OBDX_BU',null,sysdate,'ofssuser',sysdate);
```

5.2.2 Configuring Repository adapter for Application Tracker:

- **OBO Host Configuration**

No Configuration required.

- **Third Party Configuration**

If local (database) storage is required for third party entity following query needs to be executed.

```
Insert into digx_fw_config_all_o
(PROP_ID,PREFERENCE_NAME,PROP_VALUE,DETERMINANT_VALUE,CREATED_
BY,CREATION_DATE,LAST_UPDATED_BY,LAST_UPDATED_DATE) values
('APPLICATIONTRACKER_REPOSITORY_ADAPTER','RepositoryAdapterFactories','co
m.ofss.digx.domain.origination.entity.application.repository.adapter.LocalApplicationTrac
kerRepositoryAdapter,com.ofss.digx.domain.origination.entity.application.repository.adap
ter.RemoteApplicationTrackerRepositoryAdapter',<ENTITY_ID>,null,sysdate,'ofssuser',sy
sdate);
```

5.2.3 Configuring Repository adapter for Product Documents

- **OBO Host Configuration**

No Configuration required.

- **Third Party Configuration**

If bank wants to fetch list of documents from OBDX local storage, then a separate entry in DIGX_FW_CONFIG_ALL_O table is required.

```
Insert into DIGX_FW_CONFIG_ALL_O (PROP_ID, PREFERENCE_NAME,
PROP_VALUE, DETERMINANT_VALUE, CREATED_BY, CREATION_DATE,
LAST_UPDATED_BY, LAST_UPDATED_DATE)
```

values ('PRODUCT_DOCUMENT_REPOSITORY_ADAPTER',
'RepositoryAdapterFactories',
'com.ofss.digx.domain.Origination.entity.product.repository.adapter.LocalProductRepositoryAdapter', '<Entity ID>', null, SYSDATE, 'ofssuser',SYSDATE);

Note: This local storage table for product documents is
DIGX_OR_PRODUCT_DOCUMENTS

Insert queries as per the screenshot below of this table.

| ID | CATEGORY | NAME | DESCRIPTION | MANDATORY | PRODUCT_CODE | PRODUCT_CATEGORY | CREATED_BY | CREATION_DATE | LAST_UPDATED_BY | LAST_UPDATED_DATE | OBJE |
|----|-------------------------------------|--------------------|--------------------|-----------|--------------|------------------|------------|---------------------------------|-----------------|---------------------------------|------|
| 1 | DOC1 Address Proof | Aadhaar card | Aadhaar card | N | OBDSJ | SAVINGSH1 | ofssuser | 10-JUL-20 08.09.03.000000000 AM | ofssuser | 10-JUL-20 08.09.03.000000000 AM | A |
| 2 | DOC17 Address Proof | Aadhaar card | Aadhaar card | N | OBDSJ | CHECKINGSH1 | ofssuser | 10-JUL-20 08.09.03.000000000 AM | ofssuser | 10-JUL-20 08.09.03.000000000 AM | A |
| 3 | DOC18 Address Proof | Aadhaar card | Aadhaar card | N | OBDSJ | CHECKINGSH1 | ofssuser | 10-JUL-20 08.09.03.000000000 AM | ofssuser | 10-JUL-20 08.09.03.000000000 AM | A |
| 4 | DOC21 ID Proof | DL | Driving license | N | OBDSJ | SAVINGSH1 | ofssuser | 10-JUL-20 08.09.03.000000000 AM | ofssuser | 10-JUL-20 08.09.03.000000000 AM | A |
| 5 | DOC22 ID Proof | DL | Driving license | N | SAADVT | SAVINGSH1 | ofssuser | 10-JUL-20 08.09.03.000000000 AM | ofssuser | 10-JUL-20 08.09.03.000000000 AM | A |
| 6 | DOC23 ID Proof | DL | Driving license | N | OBDSJ | CHECKINGSH1 | ofssuser | 10-JUL-20 08.09.03.000000000 AM | ofssuser | 10-JUL-20 08.09.03.000000000 AM | A |
| 7 | DOC24 ID Proof | DL | Driving license | N | OBDSJ | CHECKINGSH1 | ofssuser | 10-JUL-20 08.09.03.000000000 AM | ofssuser | 10-JUL-20 08.09.03.000000000 AM | A |
| 8 | DOC3 Address Proof | Aadhaar card | Aadhaar card | N | SAADVT | SAVINGSH1 | ofssuser | 10-JUL-20 08.09.03.000000000 AM | ofssuser | 10-JUL-20 08.09.03.000000000 AM | A |
| 9 | DOC10 ID Proof | PAN Card | PAN Card | N | OBDSJ | PERSONALSH1 | ofssuser | 04-JUL-20 04.24.43.000000000 PM | ofssuser | 04-JUL-20 04.24.43.000000000 PM | A |
| 10 | DOC11 Proof of Income | Property Documents | Property Documents | N | OBDSJ | AUTISH1 | ofssuser | 04-JUL-20 04.24.43.000000000 PM | ofssuser | 04-JUL-20 04.24.43.000000000 PM | A |
| 11 | DOC12 Proof of Income | Salary Proof | Salary Proof | N | OBDSJ | AUTISH1 | ofssuser | 04-JUL-20 04.24.43.000000000 PM | ofssuser | 04-JUL-20 04.24.43.000000000 PM | A |
| 12 | DOC13 Proof of Identity and Address | Aadhaar card | Aadhaar card | N | OBDSJ | AUTISH1 | ofssuser | 04-JUL-20 04.24.43.000000000 PM | ofssuser | 04-JUL-20 04.24.43.000000000 PM | A |
| 13 | DOC14 Address Proof | DL | Driving license | N | OBDSJ | AUTISH1 | ofssuser | 04-JUL-20 04.24.43.000000000 PM | ofssuser | 04-JUL-20 04.24.43.000000000 PM | A |
| 14 | DOC15 Proof of Identity and Address | Passport | Passport | N | OBDSJ | AUTISH1 | ofssuser | 04-JUL-20 04.24.43.000000000 PM | ofssuser | 04-JUL-20 04.24.43.000000000 PM | A |
| 15 | DOC16 ID Proof | PAN Card | PAN Card | N | OBDSJ | AUTISH1 | ofssuser | 04-JUL-20 04.24.43.000000000 PM | ofssuser | 04-JUL-20 04.24.43.000000000 PM | A |
| 16 | DOC18 ID Proof | PAN card | PAN card | N | OBDSJ | CHECKINGSH1 | ofssuser | 04-JUL-20 04.24.43.000000000 PM | ofssuser | 04-JUL-20 04.24.43.000000000 PM | A |
| 17 | DOC2 ID Proof | PAN card | PAN card | N | OBDSJ | SAVINGSH1 | ofssuser | 04-JUL-20 04.24.43.000000000 PM | ofssuser | 04-JUL-20 04.24.43.000000000 PM | A |

Sample query is given below for reference:

Insert into DIGX_OR_PRODUCT_DOCUMENT
(ID,CATEGORY,NAME,DESCRIPTION,MANDATORY,PRODUCT_CODE,PRODUCT_C
ATEGORY,CREATED_BY,CREATION_DATE,LAST_UPDATED_BY,LAST_UPDATED_
DATE,OBJECT_STATUS,OBJECT_VERSION_NUMBER) values ('DOC1','Address
Poof','Aadhaar card','Aadhaar
card','N','OBDSJ','SAVINGSH1','ofssuser',SYSDATE,'ofssuser',SYSDATE, 'A',21);

5.2.4 Configuring Repository adapter for Mid Office Content Repository

- **OBO Host Configuration**

No Configuration required.

- **Third Party Configuration**

Execute following query, this will fetch content from local database.

Insert into digx_fw_config_all_o
(PROP_ID,PREFERENCE_NAME,PROP_VALUE,DETERMINANT_VALUE,CREATED_
BY,CREATION_DATE,LAST_UPDATED_BY,LAST_UPDATED_DATE) values
('MO_CONTENT_REPOSITORY_ADAPTER','RepositoryAdapterFactories','com.ofss.dig
x.domain.content.entity.repository.adapter.LocalContentRepositoryAdapter', 'OBDSJ',n
ull,sysdate,null,null);

5.2.5 Configuring Adapter Preference for Entity

- **OBO Host Configuration**

Execute following query to find adapter preference of the entity.

```
select * from digx_fw_config_all_o where prop_id = 'OBDX_BU';
```

Update prop value of above selected record such that **RPM14.4 should be after UBS12.4**

Sample adapter preference as below.

UBS14.4,UBS14.3,UBS14.2,UBS14.1,UBS14.0,UBS12.4,
RPM14.4,OBCL14.3,OBCLPM14.3,ELCM14.3,OBVAM14.4,OBVAM14.3,OBSCF14.4,O
BSCF14.3,ASP14.4,INV14.4,CMS14.4,OBCFPM14.4,OBCFPM14.3,OBLM14.4,OBLM14
.2,OBIC

14.4,OBTF14.4,MIDOFFICE1.0,TP1.0

Execute following query to update adapter preference.

```
update digx_fw_config_all_o set prop_value='<Updated_Adapter_Preference>' where  
prop_id = 'OBDX_BU';
```

- **Third party Configuration**

No Configuration required.

5.2.6 Configuring Origination Workflow (Loan Requirement Step)

- **OBO Host Configuration**

No Configuration required.

- **Third party Configuration**

Execute following queries to update UI component names of origination workflow steps.

```
update digx_or_steps set ui_definition='{ "ui-component": "auto-loan-  
requirement", "showInReview": true, "category": "LOANS", "productClass":  
"AUTOMOBILE" }'
```

```
where step_id='AUTOLNINFO' and determinant_value='OBDX_BU';
```

```
update digx_or_steps set ui_definition='{ "ui-component": "home-loan-  
requirements", "showInReview": true, "category": "LOANS", "productClass":  
"HOME_LOAN" }'
```

```
where step_id='HOMELNINFO' and determinant_value='OBDX_BU';
```

6. Product Configuration

- To enable products, execute the following script.

```
update digx_or_product_category set status='ACTIVE' where  
determinant_value=<entity_id> and id=<required_product>;
```

eg. For activating CASA Savings product with id SAVINGSH1 can be activated as follows.

```
update digx_or_product_category set status='ACTIVE' where  
determinant_value='OBDX_BU' and id='SAVINGSH1';
```

- To enable all supported products., execute the following script.

```
update digx_or_product_category set status='ACTIVE' where  
determinant_value='OBDX_BU' and id in  
( 'SAVINGSH1','CHECKINGH1','AUTOLOANH1','PERSONALLOANH1','HOMELOANH1','  
EDUCATIONLOANH1','TERMDEPOSITH1','CREDITCARDH1','TERMLOANH1',  
'CAPITALLOANH1');
```

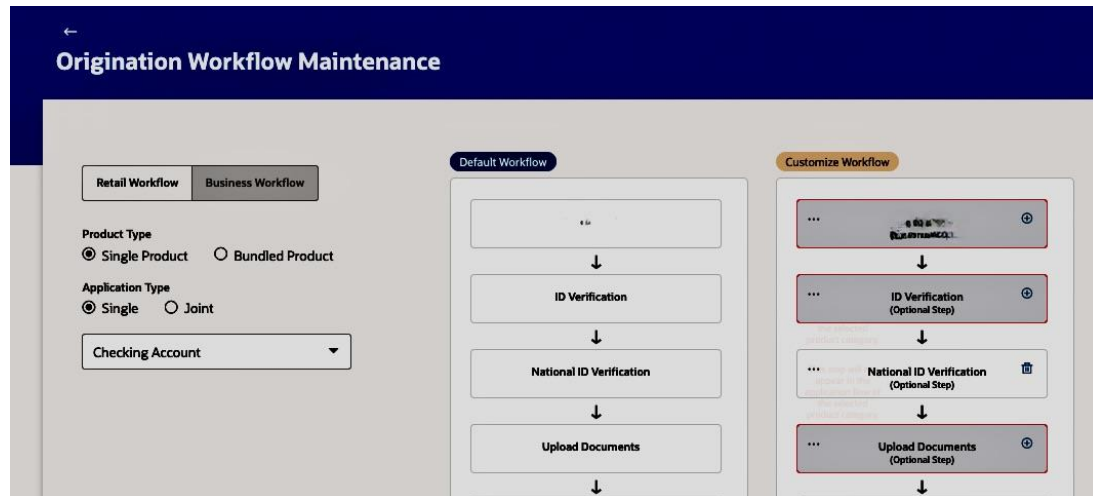
- To enable existing user for all supported products., execute the following script.

```
update digx_or_product_category set EXISTING_CUST_FLOW='Y' where  
determinant_value='OBDX_BU' and id in  
( 'SAVINGSH1','CHECKINGH1','AUTOLOANH1','PERSONALLOANH1','HOMELOANH1','  
EDUCATIONLOANH1','TERMDEPOSITH1','CREDITCARDH1','TERMLOANH1',  
'CAPITALLOANH1');
```

7. National ID Configuration

OBDX Origination supports the National ID verification. To enable this step for a specific product, customise the origination workflow through admin to make changes in the origination workflow maintenance.

If Bank wants to enable National ID verification like Aadhar Card, Driving License or any such, then Bank have to do customization depending on the KYC vendor which they have selected for the same. OBDX provide extension to do customization to integrate third party National ID KYC API.



8. DMS Configuration

A **Document Management System** is mandatory for OBDX and OBO integration. In OBDX, documents are either stored locally in the database or sent to the OBO team, which manages in their DMS server.

Refer **Adapter database** script for store documents locally.

9. OCR Configuration

Post Day 1 configuration for OCR:

In DIGX_FW_CONFIG_VAR_B, make entry of hostname and port corresponding to determinant value or change via System configuration follow Origination specific fields Microblink Host IP address and Microblink Host port

Note: If bank is using "Microblink" as third party OCR platform then below configurations needs to be done. In case of any other platform hostname and port number should be changed accordingly.

Insert into DIGX_FW_CONFIG_VAR_B
(PROP_ID,ENV_ID,PROP_VALUE,FACTORY_SHIPPED_FLAG,PROP_COMMENTS,CREATE
D_BY,CREATION_DATE,LAST_UPDATED_BY,LAST_UPDATED_DATE,OBJECT_STATUS,OB
JECT_VERSION_NUMBER,MODULE,DETERMINANT_VALUE,TYPE,UI_DEFINITION) values
('DOC_TYPE','OBDX','<Document categories supporting OCR>',null,'Document
Type','ofssuser',sysdate,'ofssuser',null,'A',1,'Origination','OBDX_BU','TXT',{'title':"OCR
Document Categories","validator":"ALPHANUMERIC","required":false});

10. Security Changes:

The OTP authentication generates JWT Token which remains active for 15 mins. Below property in `digx_fw_config_all_b` table can be updated to change the token expiration time. If user select to re-send OTP the number of re-send counts will be reduced based on this timeout. Token reduces OTP re-send count if last token send time plus 15 mins is after current time.

ORG_REG_LINK_TIMEOUT

11. Enumeration Configuration:

11.1 Configuration for enumeration

- Following table contain origination related database entries in DIGX_FW_CONFIG_ALL_B, DIGX_FW_CONFIG_ALL_O and DIGX_FW_ENUM_REPRESENTATIONS

| Enumeration <PROP_ID> | Type of Enumeration < PROP_VALUE > | Enum Key <ENUM_FQN> |
|---|---------------------------------------|---------------------------------------|
| OR_TD_MATURITY_INSTRUC TION | LOCAL_CLOSE_ENUM | fetchTDMaturityInstruction |
| CHEQUEBOOKLEAVES | LOCAL_OPEN_ENUM | getChequeBookLeaves |
| COUNTRY | LOCAL_OPEN_ENUM | getCountry |
| ISDCODE | LOCAL_OPEN_ENUM | getISDCode |
| OR_APPLICANT_RELATIONS | LOCAL_OPEN_ENUM | fetchApplicantRelations |
| OR_DIMENSION_MEASURE_ TYPE | LOCAL_OPEN_ENUM | fetchDimensionMeasureType |
| OR_DISBURSEMENT_MODE | LOCAL_OPEN_ENUM | fetchDisbursementMode |
| OR_EDUCATION_LOAN_ADM ISSSION_STATUS | LOCAL_OPEN_ENUM | fetchEducationLoanAdmissio nStatus |
| OR_EDUCATION_LOAN_COU RSE_TYPES | LOCAL_OPEN_ENUM | fetchEducationLoanCourseTy pes |
| OR_HOME_LOAN_PURPOSE | LOCAL_OPEN_ENUM | fetchHomeLoanPurpose |
| OR_INSIDER_PROFILE | LOCAL_OPEN_ENUM | fetchInsiderProfile |
| OR_PROPERTY_STATUS | LOCAL_OPEN_ENUM | fetchPropertyStatus |
| OR_REPAYMENT_MODE | LOCAL_OPEN_ENUM | fetchRepaymentMode |
| OR_STAKEHOLDER_TYPES | LOCAL_OPEN_ENUM | fetchStakeHolderTypes |
| OR_STATE | LOCAL_OPEN_ENUM | getUsState |
| OR_VEHICLE_CATEGORY | LOCAL_OPEN_ENUM | fetchVehicleCategory |
| RELATIONSHIP_SERVING_O FFICER | LOCAL_OPEN_ENUM | getRelationShipServingOffice r |
| EMPLOYMENTTYPE | REMOTE_OPEN_ENUM | getEmploymentType |

| Enumeration <PROP_ID> | Type of Enumeration < PROP_VALUE > | Enum Key <ENUM_FQN> |
|-------------------------------|---------------------------------------|----------------------------|
| OR_APPLICANT_DOCUMENT_TYPE | REMOTE_OPEN_ENUM | fetchApplicantDocumentType |
| OR_APPLICANT_LOCATION | REMOTE_OPEN_ENUM | fetchApplicantLocation |
| OR_COUNTRY_OF_REGISTRATION | REMOTE_OPEN_ENUM | fetchCountryOfRegistration |
| OR_CUSTOMER_CATEGORY | REMOTE_OPEN_ENUM | fetchCustomerCategory |
| OR_EMPLOYER_NAME | REMOTE_OPEN_ENUM | getEmployerNames |
| OR_INSIDER_PROFILE_ROLE | REMOTE_OPEN_ENUM | fetchInsiderProfileRole |
| OR_MODE_OF_OPERATION | REMOTE_OPEN_ENUM | fetchModeOfOperation |
| OR_PREFERRED_CURRENCY | REMOTE_OPEN_ENUM | fetchPreferredCurrency |
| OR_PROFESSIONS | REMOTE_OPEN_ENUM | fetchProfessions |
| OR_STATES | REMOTE_OPEN_ENUM | fetchStates |
| OR_SUFFIX | REMOTE_OPEN_ENUM | fetchSuffix |
| SERVICE_BRANCH | REMOTE_OPEN_ENUM | getServiceBranch |
| FINANCIAL_ASSETS_TYPE | REMOTE_OPEN_ENUM | financialAssetsTypes |
| FINANCIAL_EXPENSE_FREQUENCY | REMOTE_OPEN_ENUM | getExpenseFrequency |
| FINANCIAL_EXPENSE_TYPE | REMOTE_OPEN_ENUM | getFinancialExpense |
| FINANCIAL_INCOME_FREQUENCY | REMOTE_OPEN_ENUM | getIncomeFrequency |
| FINANCIAL_INCOME_TYPE | REMOTE_OPEN_ENUM | getFinancialIncome |
| FINANCIAL_LIABILITY_FREQUENCY | REMOTE_OPEN_ENUM | getLiabilityFrequency |
| FINANCIAL_LIABILITY_TYPE | REMOTE_OPEN_ENUM | getFinancialLiability |
| GENDER | REMOTE_OPEN_ENUM | getGender |
| IDENTIFICATIONTYPES | REMOTE_OPEN_ENUM | GetTaxType |
| MARITALSTATUS | REMOTE_OPEN_ENUM | getMaritalStatus |

| Enumeration <PROP_ID> | Type of Enumeration < PROP_VALUE > | Enum Key <ENUM_FQN> |
|----------------------------|---------------------------------------|-----------------------------|
| OR_CITIZENSHIP_BY | REMOTE_OPEN_ENUM | fetchCitizenshipBy |
| OR_EMPLOYMENT_CATEGORY | REMOTE_OPEN_ENUM | fetchEmploymentCategory |
| OR_ORGANIZATION_CATEGORY | REMOTE_OPEN_ENUM | fetchOrganizationCategory |
| OR_ORGANIZATION_OPERATIONS | REMOTE_OPEN_ENUM | fetchOrganizationOperations |

11.2 Local Enum Configuration

Refer to the following SQL script for store enum locally to fetch LOV from the database.

```
Insert into DIGX_FW_CONFIG_ALL_B (PROP_ID, PREFERENCE_NAME, PROP_VALUE,
DETERMINANT_VALUE, CREATED_BY, CREATION_DATE, LAST_UPDATED_BY,
LAST_UPDATED_DATE) values
('GENDER','EnumerationConfig','LOCAL_OPEN_ENUM','OBDX_BU',null,sysdate,null,null)
```

For local enumeration, the respective data is stored in the below table. Refer to column 3 for the **ENUM_FQN**.

```
select * from DIGX_FW_ENUM_REPRESENTATIONS where ENUM_FQN in ('<Enum Key>')
```

11.3 Remote Enum Configuration

For remote enumeration refer following SQL script.

In below example is override database entry for existing record in DIGX_FW_CONFIG_ALL_B table.

```
Insert into DIGX_FW_CONFIG_ALL_O (PROP_ID, PREFERENCE_NAME, PROP_VALUE,
DETERMINANT_VALUE, CREATED_BY, CREATION_DATE, LAST_UPDATED_BY,
LAST_UPDATED_DATE) values
('OR_STATES','EnumerationConfig','REMOTE_OPEN_ENUM','OBDX_BU',null,sysdate,null,null)
```

Here OR_STATES fetch the LOV from integrated Mid office enumeration maintenance route via OBRH, so below 2 database sql scripts are required.

```
Insert into DIGX_FW_CONFIG_ALL_O (PROP_ID, PREFERENCE_NAME, PROP_VALUE,
DETERMINANT_VALUE, CREATED_BY, CREATION_DATE, LAST_UPDATED_BY,
LAST_UPDATED_DATE) values
('OBDX_BU.com.ofss.digx.extxface.common.adapter.IEnumerationAdapter.fetchStates','Extxface
AdapterPreference','com.ofss.digx.extxface.enumeration.impl.EnumerationAdapter','01','ofssuser',
sysdate,'ofssuser',sysdate);
```

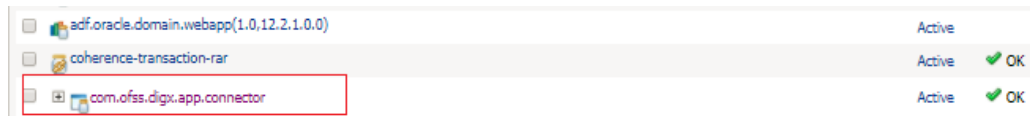
Insert into DIGX_FW_CONFIG_ALL_O (PROP_ID, PREFERENCE_NAME, PROP_VALUE, DETERMINANT_VALUE, CREATED_BY, CREATION_DATE, LAST_UPDATED_BY, LAST_UPDATED_DATE) values
(('ENUMERATION_LIST_FETCHSTATES','ExtXfaceConfig','com.ofss.digx.extxface.impl.endpoint.OBRHEndPoint','OBDX_BU','ofssuser',sysdate,'ofssuser',sysdate));

Note: To convert a remote enumeration to a local one, update the PROP_VALUE from REMOTE_OPEN_ENUM to LOCAL_OPEN_ENUM and make the corresponding entry in the DIGX_FW_ENUM_REPRESENTATIONS table.

12. Security Credential Mapping for connector.ear

Follow following steps:

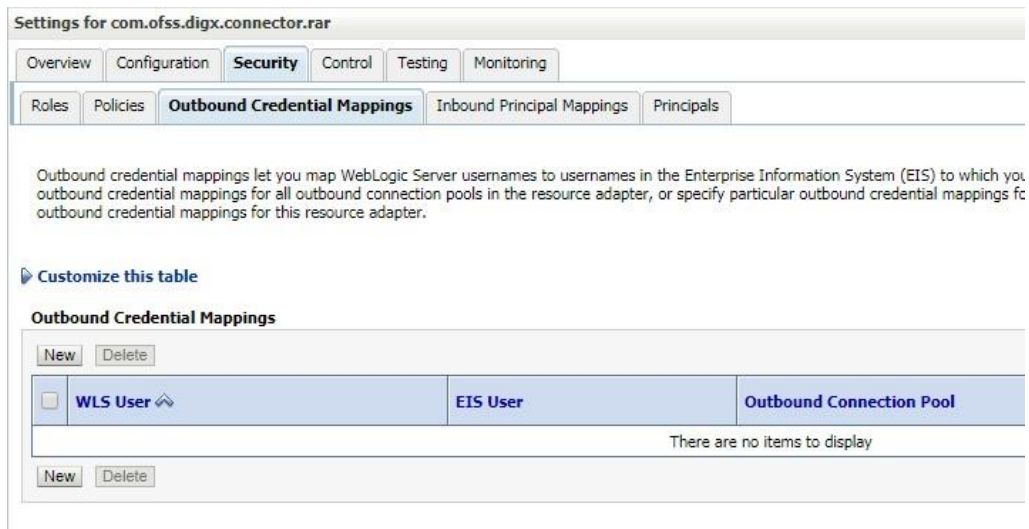
1. Login into Weblogic console.
2. Click on **Deployments**.
3. Click + icon to expand against the **com.ofss.digx.app.connector** application .



4. Click **com.ofss.digx.connector.rar**.



5. Click **Security** tab, and then click **Outbound Credential Mappings** sub tab.



- Click on **New** button. Following screen appears.

Back Next Finish Cancel

Outbound Connection Pool

Which Outbound Connection Pool would you like the credential map to be associated with? Each Outbound Connection Pool can then configure themselves to use the credential map.

[Customize this table](#)

Create a New Security Credential Map Entry for:

| | |
|--------------------------|----------------------------|
| <input type="checkbox"/> | Outbound Connection Pool ▾ |
| <input type="checkbox"/> | ra/DIGXConnectorAES |
| <input 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 **ra/DIGXConnectorAES** option
- Click **Next** button.

Back Next Finish Cancel

WebLogic Server User

Select the WebLogic Server User that you would like to map an EIS resource adapter is first started. Selecting 'Default User' will configure the user. Selecting 'User for unauthenticated user' will configure the user for unauthenticated access. 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

9. Select **Default User** option.
10. Click **Next** button.

Back Next Finish Cancel

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::**

Back Next Finish Cancel

11. Enter following details, and then click **Finish** button.
 - EIS User Name → AES_KEY
 - EIS Password → "Desired password"
 - Confirm Password → "Desired password"
12. Restart the manage server to activate the changes.

13. OBRH Configuration

During Bank Implementation, assuming OBRH is installed and configured as part of OBO installation. For OBDX and mid Office OBO integration using OBRH the following configurations need to be done.

1. Carry out all the steps mentioned in OBRH Integration Configuration section in OBRH Configuration document. The service provider for mid-office product OBO end-points configured in OBRH is “OBO”
2. After all the above steps are completed, user needs to execute some scripts for the host APIs that are to be consumed via OBRH. These are the scripts to pick the third party adapter implementation instead of the host specific implementations as well as to call the OBRH endpoint for the configured interfaces. The scripts are available at the following location:

/Installables/db/OFLO/DIGX_FW_CONFIG_ALL_O.sql

Note: '%ENTITY_ID%' should be replaced with the entity identifier (For Example if the entity during implementation is OBDX_BU then '%ENTITY_ID%' should be replaced by 'OBDX_BU').

3. The list of Interface name that integrated with OBDX-Origination using OBRH are as follows:

| Interface Id | OBDX Screen | Description |
|-------------------------------|------------------------------------|--|
| READ_PARTY_ADDITIONAL_DETAILS | Internal Call – no screen | Existing customer workflow |
| OR_APPLICATIONOFFER_READ | Application tracker details | Read the offer of applicant |
| OR_APPLICATIONOFFER_CREATE | Application tracker details | Accept / Reject the offer |
| APPLICATION_DELETE | Delete Application on tracker page | Delete the ongoing applicant application |
| APPLICATION_TRACKER | Application Mobile Tracker | This API is used to continue application related to specific mobile number |
| OR_CLARIFICATION_LIST | Application tracker details | To and fro communication |
| OR_CLARIFICATION_UPDATE | Application tracker details | Update To and fro communication |
| EXTRACT_TEXT_BASE64 | Document upload screen | Document OCR |

| Interface Id | OBDX Screen | Description |
|---|---|--|
| NI_NATIONALIDVERIFICATION_VALIDATE | National ID validation | Validate input national ID |
| NI_NATIONALIDVERIFICATION_INITIATE | National ID verification screen | Initiate National ID verification process |
| CREATE_APPLICATION | After verifying mobile number | Request to create application on OBO |
| ORG_PRODUCT_LIST_CREDITCARDH1 | Selection of Credit card from products | List of Credit card products |
| ORG_PRODUCT_LIST_TERMDEPOSITH1 | Selection of Term Deposit from products | List of TD products |
| ORG_PRODUCT_LIST_CHECKINGH1 | Selection of Checking Account from products | List of Checking Account products |
| ORG_PRODUCT_LIST_SAVINGSH1 | Selection of Saving Account from products | List of Saving Account products |
| ORG_PRODUCT_LIST_AUTOLOANH1 | Selection of Auto Loan from products | List of Auto Loan products |
| ORG_PRODUCT_LIST_HOMELOANH1 | Selection of Home Loan from products | List of Home Loan products |
| ORG_PRODUCT_LIST_EDUCATIONLOANH1 | Selection of Education Loan from products | List of Education Loan products |
| ORG_PRODUCT_LIST_PERSONALLOANH1 | Selection of Personal Loan from products | List of Personal Loan products |
| ORG_PRODUCT_LIST_WALLETH1 | Selection of Wallet from products | List of Wallet products |
| ENUMERATION_LIST_GETSERVICEBRANCH | Personal Information screen | Armed force service member type of service |
| ENUMERATION_LIST_FETCHAPPLICATIONLOCATION | Personal Information screen | List of locations |

| Interface Id | OBDX Screen | Description |
|--|---|---|
| ENUMERATION_LIST_FETCHINSIDER PROFILEROLE | Personal Information Screen | If applicant's relative is bank member so his/her role in bank |
| CITY_LIST | Personal Information Screen | List of cities |
| ORG_PRODUCT_LIST | On selection of Product Categories | List of All Main Products |
| READ_APPLICATION | On each segment / step | Read application details initiated from OBO |
| UPDATE_APPLICATION | On each segment / step | After each step's save call, it will update segment information on OBO |
| ORG_PRODUCT_LIST_CAPITALLOAN H1 | Selection of Working Capital Loan from business products | List of Working Capital Loan business products |
| ORG_PRODUCT_LIST_TERMLOANH1 | Selection of Term Loan from business products | List of Term Capital Loan business products |
| OR_CASA_OFFER_CREATE | Application tracker details | Accept / Reject the offer |
| CASA_OFFER_DETAILS | Application tracker details | Read the offer of applicant |
| CONTENT_CREATE_ORIGINATION | Upload Document Section | Upload Documents to OBO |
| CONTENT_DELETE_ORIGINATION | View Document Section | Delete Uploaded Documents from OBO |
| CONTENT_LIST_ORIGINATION | List Uploaded Documents | Get all uploaded Documents of applicant from OBO |
| CONTENT_READ_ORIGINATION | Read Document | Read / Download Document from OBO |
| ADDRESS_MAINTENANCE | After application initiated | To identify if Address is Communication / Residence from OBPY as Default |
| BUSINESS_OVERRIDES | After application submit | To accept all business rules / segment skipped during application in OBO |

| Interface Id | OBDX Screen | Description |
|---|--------------------------------|---|
| READ_PARTY_FROM_CIFID_SERVICE_MEMBER | Personal Information Screen | Read service member details from CIF id |
| READ_PARTY_FROM_CIFID_STAKEHOLDER | Stakeholder Information Screen | Read stakeholder details from CIF id |
| OR_QUESTIONNAIRE | Account Specification Screen | Read questionnaire from OBO |
| OR_QUESTIONNAIRE_CONSENT | Terms of Service Screen | Read consent for products from OBO |
| ENUMERATION_LIST_FETCHBUSINESSPROPERTYTYPES | Business Details screen | List of Business Property Type |
| ENUMERATION_LIST_FETCHCITIZENSHIPBY | Business Details screen | List of Citizen Ship By |
| ENUMERATION_LIST_FETCHCOUNTRYOFREGISTRATION | Business Details screen | List of Country of Registration |
| ENUMERATION_LIST_FETCHEMPLOYERNAME | Employment Information Screen | List of Employer Name |
| ENUMERATION_LIST_FETCHEMPLOYMENTCATEGORY | Employment Information Screen | List of Employment Category |
| ENUMERATION_LIST_FETCHEMPLOYMENTSTATUS | Employment Information Screen | List of Employment Status |
| ENUMERATION_LIST_FETCHORGANIZATIONCATEGORY | Employment Information Screen | List of Organization Category |
| ENUMERATION_LIST_FETCHPREFERRED CURRENCY | Account Specification | List of Preferred Currency |
| ENUMERATION_LIST_FETCHSUFFIX | Personal Information Screen | List of Suffix |
| ENUMERATION_LIST_FINANCIALASSETTYPES | Financial Information screen | List of Financial Asset Types |
| ENUMERATION_LIST_GETFINANCIAL EXPENSE | Financial Information screen | List of Financial Expense |
| ENUMERATION_LIST_GETFINANCIAL INCOME | Financial Information screen | List of Financial Income |
| ENUMERATION_LIST_FINANCIALASSETTYPES | Financial Information screen | List of Financial Asset Types |
| ENUMERATION_LIST_GETFINANCIAL LIABILITY | Financial Information screen | List of Financial Liability |

| Interface Id | OBDX Screen | Description |
|--|---|---|
| ENUMERATION_LIST_GETGENDER | Personal Information screen | List of Gender |
| ENUMERATION_LIST_GETMARITALSTATUS | Personal Information screen | List of Marital Status |
| ENUMERATION_LIST_GETNOMINEE RELATIONS | Nomination information screen | List of Nominee Relation |
| OR_CREATE_DOCUMENT | Personal Information screen | New Document creation |
| OR_LIST_DOCUMENTS | Personal Information screen Application Tracker | List of customer uploaded documents |
| VERIFY_DEDUPE | Personal Information screen | Dedupe validation |
| OR_APPLICANT_AGE | Personal / Nominee / Guardian / Stake holder Information screen | Check for applicant is minor or major (Only for US country) |
| OR_ORACLE_KYC | Terms and Condition screen | On application submit National Identification documents send to midoffice for KYC |
| ENUMERATION_LIST_FETCHCUSTOMERCATEGORY | SMB Business Information page | List of SMB Customer category |
| READ_PARTY_FROM_CIFID_INSIDER | Personal Information screen (US) | Read party details for cif/party id |
| ENUMERATION_LIST_FETCHVEHICLE TYPES | | List types of vehicle |
| ENUMERATION_LIST_FETCHPROFESSIONS | Employment Information screen | List of type of Self Employee |
| ENUMERATION_LIST_GETEMPLOYMENTTYPE | Employment Information screen | List of Employment types |
| ENUMERATION_LIST_GETEXPENSEFREQUENCY | | List of Frequency type for Expense |
| ENUMERATION_LIST_GETINCOMEFREQUENCY | | List of Frequency type for Income |
| ENUMERATION_LIST_GETLIABILITYFREQUENCY | | List of Frequency type for Liability |

| Interface Id | OBDX Screen | Description |
|---|------------------------------------|--|
| ENUMERATION_LIST_FETCHORGANIZATIONOPERATIONS | Employment Information | List of Organise Operation level |
| ENUMERATION_LIST_GETTAXTYPE | | List of Identification type |
| ENUMERATION_LIST_QRY_PARTY_PREFIX | Personal Information screen | List of prefixes |
| OR_GET_DOCUMENT | Upload document screen | List of documents |
| OR_GET_PRODUCT_DOCUMENT_LIST | Upload document screen | List of product level documents |
| ENUMERATION_LIST_FETCHSTATES | Address right panel | List of states |
| ENUMERATION_LIST_FETCHMODEOFOPERATION | | List of mode of operation |
| OR_BUSINESS_PROCESS | Terms and Condition screen | Consent sends by OBDX if skip any segment |
| OR_PRODUCT_DOCUMENT_LIST | Document upload screen | List of primary category documents of products supports |
| ENUMERATION_LIST_FETCHAPPLICATIONDOCUMENTTYPE | Document upload screen | List of subcategory documents |
| OR_ENUMERATION_LOOKUP | | All obpy enumeration call from this API (alternate) |
| INITIATE_EARLY_KYC | Personal Information screen | Personal Information captured data send to Midoffice for KYC |
| READ_PARTY_PERSONAL_DETAILS | | Existing Customer read personal details with cifid |
| OR_RELATIONSHIP_PRICING | EMI calculator | Relationship base Pricing calculator |
| OR_STANDARD_SCHEDULE | All Loan products repayment screen | Loan schedule display |

14. Jumio Configuration

The Non-Assisted KYC flow or selfie KYC flow, allows users to activate the Jumio check for licensing verification.

1. Login to <https://customer-portal.netverify.com/>, and note bearer token.
2. Bearer token is required to update in OBRH Service consumer.
3. Go to environment variables.

The screenshot shows a 'View Service Consumer' window. At the top, it displays 'Name: OBDX_TRUNK' and 'Audit Type: Service level configuration'. Below this, there is a section for 'Environment Variables' with 'Export' and 'Import' buttons. A dropdown menu is set to 'ORIGINATION_CONFIG'. A table lists the environment variables:

| Actions | Name | Value |
|---------|-------------|------------------|
| ⋮ | OBDX_BRANCH | ... |
| ⋮ | CMC_USER | ... |
| ⋮ | CMC_BRANCH | ... |
| ⋮ | JUMIO_AUTH | Basic [redacted] |

The row for 'JUMIO_AUTH' is highlighted with a yellow border.

15. Trouble shooting and Assumptions

1. **Issue:** Content API failing, or Origination product details cannot be seen on screen.

Assumption: This is due to the content API IP and port not being properly configured in the database.

Steps to Troubleshoot:

- First, test the API using Postman. Refer: **OBO API testing via postman-steps 4and5**.
- Configure the user and branch name correctly. Refer to the **OBRH Origination config** for CMC user configuration, and properly configure the **Origination service consumer** for the DMS server.

2. **Issue:** Final submit is failing for mandate details.

Assumption: This is because we are not sending all segments to OBO, as the OBDX channel is responsible for sending only the mandatory segments to OBO.

Steps to Troubleshoot: Check the request and response OBRH logs for BUSINESS_OVERRIDE, as after calling this API from OBDX, it is responsible for sending consents to OBO to handle the remaining mandatory segments managed by OBO.

3. **Issue:** National ID Verification failed, and access denied for doc upload.

Assumption: This is a UI issue; some required fields might not be loaded on the Personal Information screen due to the regional requirements of the framework.

Steps to Troubleshoot: UI validation needs to be handled to check which fields are present on the Personal Information screen.

4. **Issue:** "TIMED OUT EXCEPTION." While fetching workflows after login.
OR
Not able to proceed after login as registered user

Assumption: This is an existing user use case in which the user logs in, navigates to the Origination product from the kebab menu, starts a new application, selects any product, and the API fails with a timeout error. If you check the OBDX logs, you might find the error as shown below.

```
ERROR com.ofss.digx.app.origination.service.product.Product - Exception from  
fetchDocuments() for requestDTO DomainObjectDTO [auditSequence=1, createdBy=null,  
creationDate=null, entityStatus=null, lastUpdatedBy=null, lastUpdatedDate=null,  
recordStatus=null, version=1] in class com.ofss.digx.app.origination.service.product.Product  
com.ofss.digx.infra.exceptions.Exception: null
```

Steps to Troubleshoot: This is because the content API is not configured correctly. Refer to issue no.1 to fix any content API failures.

5. **Issue:** Document type ID, **name** and Description in Remote Product Repository Adapter.

Assumption: OBDX either stores the document locally in the database or sends it to OBO. Since we are configuring the remote adapter, the document will be sent to the DMS server. We need to ensure that the maintenance of this API is correctly done on the OBO side.

Steps to Troubleshoot: Refer **OBO API testing via Postman-point5**. There are two APIs: List of Categories and Category Sub-Type. The second API depends on the response of the first API.

Test with Postman first before testing via the OBDX application.

6. **Issue:** After entering financial information, Application update call failed.

Assumption: In the financial information section, there is a bug that was rectified and fixed in the previous release, and the same fix has been added in this release.

7. **Issue:** Personal Loan Application for new customer is failing at OBDX with Error "SUM OF INDIVIDUAL REPAYMENT SHARES SHOULD BE EQUAL TO 100%".

Assumption: This issue might be related to the mandate segment.

Steps to Troubleshoot: This issue needs to be rectified from the logs, and the OBDX request should check if the mandatory details have been sent to OBO, as well as whether the same mandate segment is received in the OBO response.

8. **Issue:** JUMIO Flow is failing.

Assumption: This could be a Jumio API issue that gives us a non-compliance response

Steps to Troubleshoot: Test the Jumio API with Postman and check if it is giving a compliance response or not. If it is giving a non-compliance response, check with the Jumio team.

```
curl --location
'<protocol>://<host>:<port>//netverify.com/api/netverify/v2/scans/<reference_no>/data' \

--header 'Accept: application/json,text/plain,image/jpeg,*/*' \

--header 'Authorization: Basic xxxx'
```

9. **Issue:** Details are missing for existing user in originations application

Assumption: In UBS, the expected mandatory fields might be missing. Also, check if the OBPY API is giving the same user details.

Steps to Troubleshoot: In UBS, * denotes mandatory fields, and the same will be read in OBDX.

Refer to the API below that fetches user details from OBPY, and verify the UBS API response details.

```
curl --location '<protocol>://<host>:<port>/obpy-party-services/service/v1/getParty/<party_id>' \

--header 'branchCode: <branch_code>' \

--header 'applId: PRTONB \

--header 'entityId: DEFAULTENTITY' \

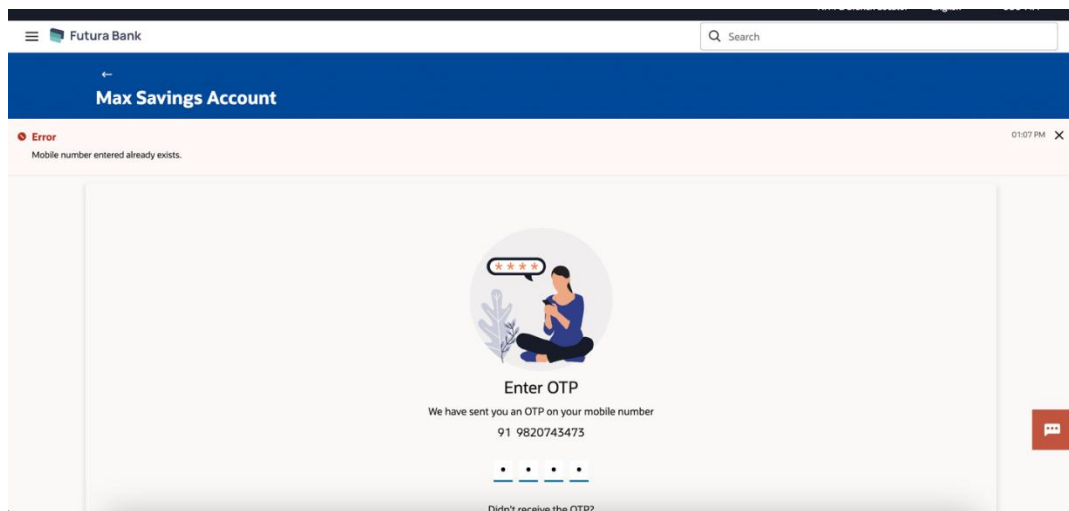
--header 'userId: <user_id>' \

--header 'Content-Type: application/json'
```

10. **Issue:** Mobile number entered already exists.

Assumption: This issue occurs when an existing customer tries to initiate a new application using the prospect flow with an existing mobile number.

Steps to Troubleshoot: An already onboarded user attempting to use the same mobile number to initiate the prospect flow is an invalid use case. Ask them to log in and initiate the application.



Below are a few assumptions

- KYC is entirely dependent on the bank's site, and which verification steps need to be enabled.
- A DMS server is mandatory from the OBDX perspective, as required documents are read, uploaded, or deleted from that system.
- If the bank is using a customized alert system for email, SMS, or other media, the bank is responsible for troubleshooting any issues related to integration with other systems.
- If any OBO API takes more than 1 minute, check with the OBO team to resolve the issue.
- Check the type of encoding used in the system to encode the username and password e.g.

`select * from digx_fw_config_all_b where prop_id='OBRH_ENCODING' update value to PLATO_ENCRYPTION`

- If OBO APIs are using HTTPS, then check for SSL installation on the OBDX and OBRH servers.