

Oracle® Banking Digital Experience

OBO Mid-Office and Third Party Setup and Configuration Guide



Release 25.1.1.0.0
G43905-01
October 2025

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Purpose

This guide is designed to help acquaint you with the Oracle Banking application. This guide provides answers to specific features and procedures that the user need to be aware of the module to function successfully.

Before you Begin

Kindly refer to our **Getting Started User Guide** for common elements, including Symbols and Icons, Conventions Definitions, and so forth.

Pre-requisites

Specify **User ID** and **Password**, and login to **Home** screen.

Audience

This document is intended for the following audience:

- Customers
- Partners

Documentation Accessibility

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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.

Related Resources

For more information on any related features, refer to the following documents:

- Oracle Banking Digital Experience Installation Manuals
- Oracle Banking Digital Experience Licensing Manuals

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.

Convention	Meaning
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Screenshot Disclaimer

Personal information used in the interface or documents is dummy and does not exist in the real world. It is only for reference purposes; actual screens that appear in the application may vary based on selected browser, theme, and mobile devices.

Acronyms and Abbreviations

The list of the acronyms and abbreviations used in this guide are as follows:

Table 1 Acronyms and Abbreviations

Abbreviation	Description
OBDX	Oracle Banking Digital Experience

Post-requisites

After finishing all the requirements, please log out from the **Home** screen.

1

Introduction

This document is intended as a guide to set up OBDX 25.1.0.0.0 originations with OBO 14.8.0.0.0 and Third-Party releases.

2

Prerequisites OBO

This topic provides information on **Prerequisites OBO**.

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

- [OBO Version](#)
This topic provides information on **OBO Version**.
- [Eureka URL](#)
This topic provides information on **Eureka URL**.
- [OBO Users and configuration](#)
This topic provides information on **OBO Users and configuration**.
- [User Access Testing](#)
- [SSL certificate](#)
This topic provides information on **SSL certificate**.
- [OBO Business products](#)
This topic provides information on **OBO Business products**.
- [OBO Regional maintenance](#)
This topic provides information on **OBO Regional maintenance**.
- [OBO API testing via postman](#)
This topic provides information on **OBO API testing via postman**.

2.1 OBO Version


This topic provides information on **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. Refer Introduction for details on OBO-OBDX version compatibility.

2.2 Eureka URL

This topic provides information on **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 at OBO and we will config the same at OBRH to either manually add ip/port or to add the service name of the API.



[HOME](#) [LAST 1000 SINCE STARTUP](#)

System Status

Environment	test	Current time	2025-01-30T11:08:07 +0530
Data center	default	Uptime	2 days 00:25
		Lease expiration enabled	true
		Renews threshold	130
		Renews (last min)	321

DS Replicas

Instances currently registered with Eureka

Application	AMIs	Availability Zones	Status
-------------	------	--------------------	--------

2.3 OBO Users and configuration

This topic provides information on **OBO Users and configuration**.

The following 3 users must be created with required functionality / services / roles access in OBO before testing the integration with OBDX. These users are used to invoke OBO services documented in step **3.2. Eureka URL**

1. OBDX – This user is required for the **OBDX/OBRH configuration** to call **OBO endpoints** directly. These calls are made to the **OBO host** and do not pass through the **API Gateway Router**.
2. OBDXAPI1 – This user is required for the **OBDX/OBRH configuration** to communicate with the **Document Management System (DMS) also known as Content**. 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. All api-gateway or api-gateway-router requests through the API use this user.
3. OBDXUSER – This user is required to access **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.

① Note

- As per the above configuration, **DO NOT** use **OBDX** or **OBDXAPI1** to log into the **OBO application**. Doing so could cause **API failures** within the application, leading to errors such as **Bad Credential** or **Token Expired**.
- Ensure that the above three users have access to OBO services and OBRH consumers.

2.4 User Access Testing

- [Token Generation](#)
This topic provides information on **Token Generation**.

- [Access Any document related API with the Above Token](#)

This topic provides information on **Access Any document related API with the Above Token**.

2.4.1 Token Generation

This topic provides information on **Token Generation**.

The Token Generation API is used to check user access.

```
curl --location
      '<protocol>://<ip>:<port>/api-gateway/platojwtauth' \--header 'appId:
SECSRV001'
      \--header 'Content-Type: application/json'
      \--data '{"username": "<user>","password": "<password>"
      }'
```

protocol : http/https check in Eureka for service api-gateway-router

ip : api-gateway-router ip

port : api-gateway-router port

user : encrypted user

password : encrypted password

① Note

Use user/password in Base64 or PLATO encryption.

To find the encryption type, use the following query:

```
SELECT * FROM digx_fw_config_all_b WHERE CATEGORY_ID = 'authenticationConfig';
```

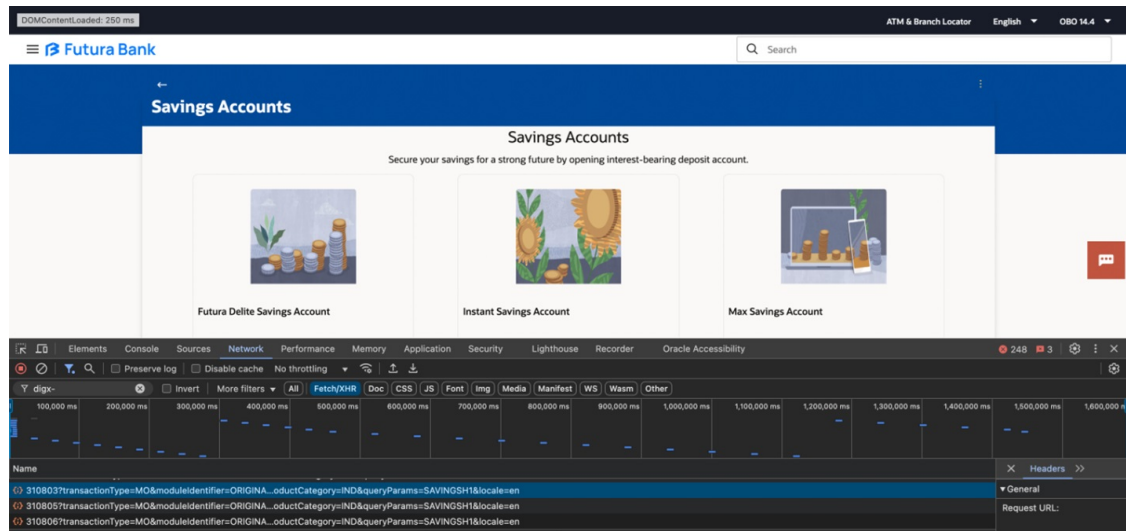
Response : The token returned by this API will be used in the subsequent API.

2.4.2 Access Any document related API with the Above Token

This topic provides information on **Access Any document related API with the Above Token**.

```
Document read api - Loading images for
product curl --location
      '<protocol>://<host>:<port>/api-gateway/cmc-document-services/cmc-
document-services/service/v1/documents?documentRefId=<image_id>'
      \--header 'Content-Type: application/json'
      \--header 'userId: <user>'
      \--header 'appId: OBREMOBPDETAILS'
      \--header 'branchCode: <branch_code>'
      \--header 'entityId: DEFAULTENTITY'
      \
      --header 'Authorization: Bearer <token>'
```

image_id : You will get this ID in the product listing API. In the above api 310803 is image_id



2.5 SSL certificate

This topic provides information on **SSL certificate**.

The OBO Eureka URL has listed discovery services. In case all these service are running securely on **https**, then an SSL certificate is mandatory to be installed on the OBDX/OBRH servers. This should be provided by the OBO team. Once certificates are installed on the OBDX and OBRH servers, only then can any OBO API be accessed through the OBDX/OBRH servers and respective applications. As per OBDX standards, all API calls should be HTTPs only.

If SSL is not installed correctly then you may get the following error. In this case, you will be required to re-install the SSL certificate.

```
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
```

2.6 OBO Business products

This topic provides information on **OBO Business products**.

Ensure that all OBO business products are maintained in OBO with the proper process set up by the OBO maintenance team, so that they are available and can be accessed by the OBDX channel before integrating with OBDX.

2.7 OBO Regional maintenance

This topic provides information on **OBO Regional maintenance**.

All regional maintenances should be in place on the OBO setup. This can be either for the US (United States) region or RW (Rest of the world). RW will always be considered as the the default configuration.

2.8 OBO API testing via postman

This topic provides information on **OBO API testing via postman**.

OBO API's testing: The below curl command is used to test the OBO APIs before integrating with OBDX application and to check if it is working with 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>
- Open Eureka URL and search for endpoint **obremo-rpm-businessproductdetails-services**
- Open result URL in new tab and refer protocol, IP, and port for use in 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>
Open Eureka URL and 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 OBO, e.g. The following API is used to fetch the list of values maintained for the Salutation dropdown.

```
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: PRTONB'
--header 'branchCode: <branch_code>'
--header 'entityId: DEFAULTENTITY'
--header 'authToken: TOEKN'
```

4. 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: SECSR001' --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>
Open Eureka URL and search for end-point **apigateway-router**
- Please refer the OBRH encoding technical documentation to check the encoding that is used by the application for user name and password setup.

Base64 is standard encoding use the same to set above username and password.

5. 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
Open Eureka URL and search for end-point **apigateway-router**
- Kindly refer the Get Token API response to set Bearer <token>

Note

Contact OBO consulting team for any query related to OBO API e.g. Product creation, maintenance and others.

3

Prerequisites OBRH

This topic provides information on **Prerequisites OBRH**.

Refer the OBRH technical documentation for details on OBRH configurations to import service consumer and other OBRH related maintenances.

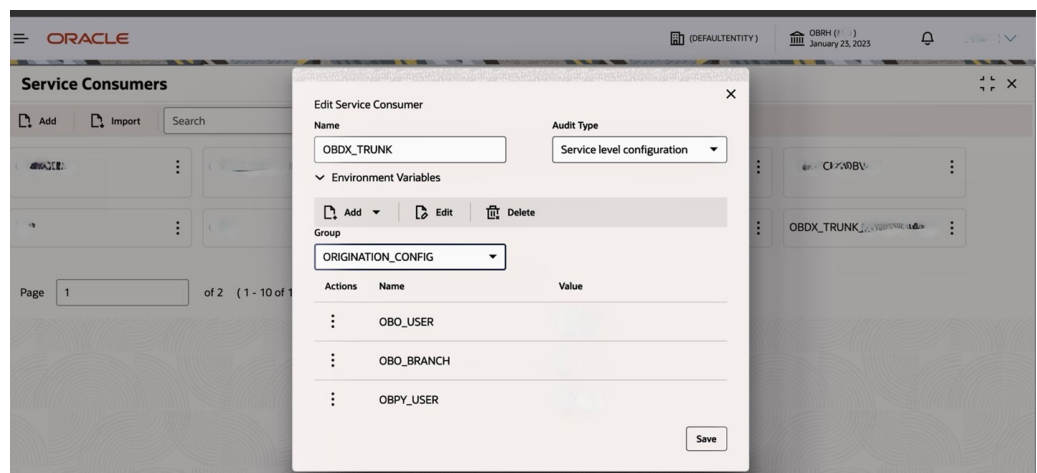
- [OBRH Origination Configuration](#)
This topic describes the systematic instruction to **OBRH Origination Configuration** option.
- [Origination Service Provider](#)
This topic provides information on **Origination Service Provider**.
- [Config Service Provider](#)
This topic provides information on **Config Service Provider**.
- [Testing Consumer service via postman](#)
This topic provides information on **Testing Consumer service via postman**.

3.1 OBRH Origination Configuration

This topic describes the systematic instruction to **OBRH Origination Configuration** option.

Follow the steps defined below to configure origination users:

1. Go to the service consumer – **OBDX_TRUNK** or **OBDX** (check the name mentioned in installer as the same needs to be imported in OBRH).
2. Click on View More. By default, the tab will be on **Environment Variables**. Select Edit Group on **ORIGINATION_CONFIG**
3. Configure the user and branch code.
 - For OBO_USER, OBO_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 (Point 2)



- 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 ...

3.2 Origination Service Provider

This topic provides information on **Origination Service Provider**.

The following list of service providers is applicable for originations and their respective their endpoints.

For more information on fields, refer to the field description table.

Table 3-1 Service Providers

Service Consumer	End Point
PLATO-APIGATEWAY-ROUTER	api-gateway
OBREMO_LOANAPPLICATIONS	obremo-rpm-lo-loanapplications
OBREMO_COMMON	obremo-rpm-cmn-applicantservices
OBREMO_RPM_CMN_APPLICANTSERVICES	obremo-rpm-cmn-applicantservices
OBREMO_PROJECTION	obremo-rpm-projection-services
OBREMO_PROCESS_DRIVER_SERVICE	obremo-rpm-process-driver-services
OBREMO_RPM_CMN_APPLICANTSERVICES	obremo-rpm-cmn-applicantservices
OBREMO_RPM_BUSINESSPRODUCTDETAILS_SERVICES	obremo-rpm-businessproductdetails-services
OBREMO-RPM-BUSINESSPROCESS-SERVICES	obremo-rpm-businessprocess-services
OBREMO_MAINTENANCE	obremo-rpm-maintenance-services
OBPY	obpy-party-maintenance-service
OBPY_PARTY_SEARCH	obpy-party-services
OBPY_PARTY_MAINTANANCE	obpy-party-maintenance-service
CMC_BUSINESS_OVERRIDES	cmc-businessoverrides-services
CMC_OPDS_QUESTIONNAIRE	cmc-opds-services
CMC_OPDS	cmc-opds-services

Table 3-1 (Cont.) Service Providers

Service Consumer	End Point
CMC_CUSTOMER_SERVICES	cmc-customer-services
CMC_CURRENCY_SERVICES	cmc-currency-services
CMC_BASE_SERVICE	cmc-base-service

3.3 Config Service Provider

This topic provides information on **Config Service Provider**.

Consider the following example as a guide on how to configure service provider e.g. PLATO-APIGATEWAY-ROUTER.

The **PLATO-APIGATEWAY-ROUTER** service provider 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.

Search **PLATO-APIGATEWAY-ROUTER** in Service Providers.

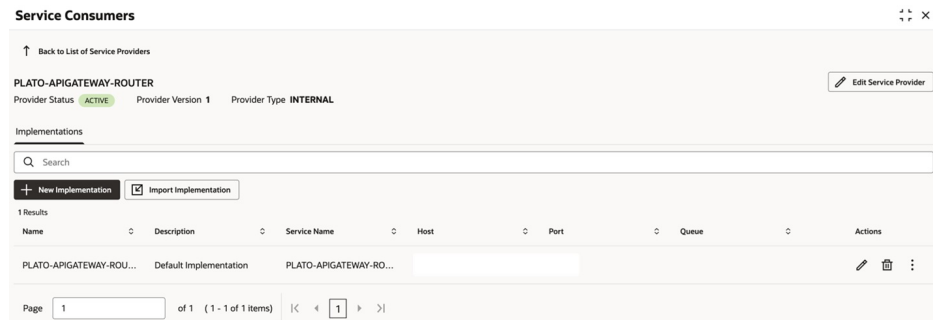
The screenshot shows the 'Service Consumers' interface. At the top, there's a 'Back to List of Service Consumers' link. Below it, the consumer name 'OBDX_TRUNK' is displayed with an 'Edit Service Consumer' button. The 'Service Providers' tab is selected, showing a search bar with 'PLATO-APIGATEWAY-ROUTER' entered. Below the search bar, there are buttons for 'Search Service Provider' and 'Import Service Provider'. A single result is shown for 'PLATO-APIGATEWAY-ROUTER', which is 'ACTIVE', has 'Version 1', and is of 'INTERNAL' type. A 'View More' button is visible next to the result. At the bottom, there's a pagination bar showing 'Page 1 of 1 (1 - 1 of 1 items)'.

Select **View More** on **PLATO-APIGATEWAY-ROUTER**, click on the **Edit** icon.

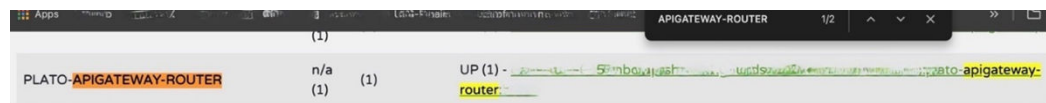
The screenshot shows the 'Service Consumers' interface, specifically the 'Implementations' section for 'PLATO-APIGATEWAY-ROUTER'. At the top, there's a 'Back to List of Service Providers' link. Below it, the provider name 'PLATO-APIGATEWAY-ROUTER' is displayed with an 'Edit Service Provider' button. The 'Implementations' tab is selected, showing a search bar. Below the search bar, there are buttons for 'New Implementation' and 'Import Implementation'. A single result is shown for 'PLATO-APIGATEWAY-ROUTER', which is 'ACTIVE', has 'Provider Version 1', and is of 'INTERNAL' type. A 'View More' button is visible next to the result. At the bottom, there's a pagination bar showing 'Page 1 of 1 (1 - 1 of 1 items)'.

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

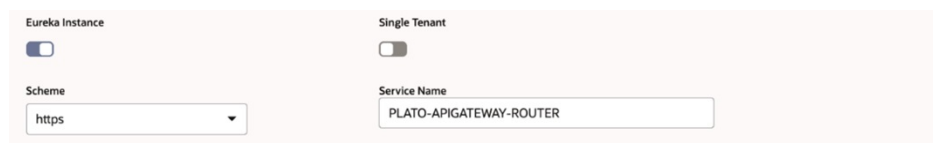
1. Manual Method: Configure protocol(https/http), host, and port, refer the **OBO API Testing: Get Token** for further information or follow the steps below.
 - Navigate to the Eureka URL
 - On this page, you can search for the endpoint that you need to configure.



- Open the Search Result in a new tab.
 - Copy Protocol(https/http), Host, and Port.
 - Configure the same in the **service provider**.
2. Using Service discovery: Enable Eureka using the **Eureka Instance** toggle button and enter the service name which is found in the Eureka search.



- For JWT_TOKEN, to config Username and Password, refer **OBO Users and configuration-step2** (This is only required in the case of the token service; it is optional for other service consumers.)



3.4 Testing Consumer service via postman

This topic provides information on **Testing Consumer service via postman**.

After the above OBRH configuration is completed, use the below curl command to test that all service consumers are functioning as expected.

Example 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 the below curl command.

3. <application_id> Enter the application number of the data you need to fetch.
4. <service_consumer> Enter the name of the 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>"}
```

4

Database Configuration

This topic provides information on **Database Configuration**. The following configurations need to be carried out post installation.

- [System Configuration](#)
This topic provides information on **System Configuration**.
- [Additional \(functional\) Configuration](#)

4.1 System Configuration

This topic provides information on **System Configuration**.

Complete day one maintenance from the admin screen. Refer the **User Manual Oracle Banking Digital Experience System Configuration** document for details on day one maintenances. These are mandatory configurations required for the application to work and should be completed before the application can be used.

Origination specific fields

Entity : OBO 14.4	
Basic Details	CC Balance Transfer Supported Y
Host Details	RPM Branch Code HEL
Bank Details	Purging Days 0
SMTP	Application Expiring Days 0
Third Party Configuration	Maximum Card Balance Transfer 3
Dynamic Module	Inactive KYC allow flag Y
Brand	Simple Term Deposit Products RPMTDA
Account	Student Loan Disclaimer Supported N
Payment	Credit Card Type Master
	Insta Account Products INSAC1,INSCUR,INSTDA,WALLET,INSPLN
	Wallet Product Code WALLET
	Customer Subtype INDIVIDUAL
	Application Expiring Days 0
	RPM Business Process Channel OBDX
	RPM Multilingual Check Required false
	Maximum Add On cards 3
	E-KYC Enabled N
	No of Days for Re-KYC Low,720,Medium,365,High,180
	External Funding Supported false
	E-KYC Checks PEP_CHECK,AML_CHECK,FATCA_CHECK

4.2 Additional (functional) Configuration

- [Configuring Repository adapter for Application](#)
This topic provides information on **Configuring Repository adapter for Application**.
- [Configuring Repository adapter for Application Tracker](#)
This topic provides information on **Configuring Repository adapter for Application Tracker**.
- [Configuring Repository adapter for Product Documents](#)
This topic provides information on **Configuring Repository adapter for Product Documents**.

- [Configuring Repository adapter for Mid Office Content Repository](#)
This topic provides information on **Configuring Repository adapter for Mid Office Content Repository**.
- [Configuring Adapter Preference for Entity](#)
This topic provides information on **Configuring Adapter Preference for Entity**.
- [Configuring Origination Workflow \(Loan Requirement Step\)](#)
This topic provides information on **Configuring Origination Workflow (Loan Requirement Step)**.

4.2.1 Configuring Repository adapter for Application

This topic provides information on **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_D
ATE, LAST_UPDATED_BY, LAST_UPDATED_DATE)

values('RPM_APPLICATION_REPOSITORY_ADAPTER','RepositoryAdapterFactories','c
om.ofss.digx.domain.Origination.
entity.application.repository.adapter.LocalApplicationRepositoryAdapter,com
.ofss.digx.domain.Origination.entity.
application.repository.adapter.RemoteApplicationRepositoryAdapter','OBDO_BU
',null,sysdate,'ofssuser',sysdate);
```

4.2.2 Configuring Repository adapter for Application Tracker

This topic provides information on **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_D
ATE, LAST_UPDATED_BY, LAST_UPDATED_DATE)

values

('APPLICATIONTRACKER_REPOSITORY_ADAPTER','RepositoryAdapterFactories','com.
ofss.digx.domain.Origination.
entity.application.repository.adapter.LocalApplicationTrackerRepositoryAdap
ter,com.ofss.digx.domain.Origination.entity.
application.repository.adapter.RemoteApplicationTrackerRepositoryAdapter',<
ENTITY_ID>,null,sysdate,'ofssuser',sysdate);
```


4.2.3 Configuring Repository adapter for Product Documents

This topic provides information on **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.LocalPr
    oductRepositoryAdapter',
    '<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 of this table below:

ID	CATEGORY	NAME	DESCRIPTION	MANDATORY	PRODUCT_CODE	PRODUCT_CATEGORY	CREATED_BY	CREATION_DATE	LAST_UPDATED_BY	LAST_UPDATED_DATE	OBJECT_STATUS	OB
1	DOC1 Address Poof	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 Poof	Aadhaar card	Aadhaar card	N	OBDSXCP	CHECKINGSH1	ofssuser	10-JUL-20 08.09.03.000000000	AM ofssuser	10-JUL-20 08.09.03.000000000	AM	A
3	DOC19 Address Poof	Aadhaar card	Aadhaar card	N	OBDOCA	CHECKINGSH1	ofssuser	10-JUL-20 08.09.03.000000000	AM ofssuser	10-JUL-20 08.09.03.000000000	AM	A
4	DOC21 Id Poof	DL	Driving license	N	OBDSXJ	SAVINGSH1	ofssuser	10-JUL-20 08.09.03.000000000	AM ofssuser	10-JUL-20 08.09.03.000000000	AM	A
5	DOC22 Id Poof	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 Poof	DL	Driving license	N	OBDSXCP	CHECKINGSH1	ofssuser	10-JUL-20 08.09.03.000000000	AM ofssuser	10-JUL-20 08.09.03.000000000	AM	A
7	DOC24 Id Poof	DL	Driving license	N	OBDOCA	CHECKINGSH1	ofssuser	10-JUL-20 08.09.03.000000000	AM ofssuser	10-JUL-20 08.09.03.000000000	AM	A
8	DOC3 Address Poof	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 Poof	PAN Card	PAN Card	N	OBUPPL	PERSONALLOANSH1	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	OBDOAL	AUTULOANSH1	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	OBDOAL	AUTULOANSH1	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	OBDOAL	AUTULOANSH1	ofssuser	04-JUL-20 04.24.43.000000000	PM ofssuser	04-JUL-20 04.24.43.000000000	PM	A
13	DOC14 Address Poof	DL	Driving license	N	OBDOAL	AUTULOANSH1	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	OBDOAL	AUTULOANSH1	ofssuser	04-JUL-20 04.24.43.000000000	PM ofssuser	04-JUL-20 04.24.43.000000000	PM	A
15	DOC16 Id Poof	PAN Card	PAN Card	N	OBDOAL	AUTULOANSH1	ofssuser	04-JUL-20 04.24.43.000000000	PM ofssuser	04-JUL-20 04.24.43.000000000	PM	A
16	DOC18 Id Poof	PAN card	PAN card	N	OBDSXCP	CHECKINGSH1	ofssuser	04-JUL-20 04.24.43.000000000	PM ofssuser	04-JUL-20 04.24.43.000000000	PM	A
17	DOC2 Id Poof	PAN card	PAN card	N	OBDSXJ	SAVINGSH1	ofssuser	04-JUL-20 04.24.43.000000000	PM ofssuser	04-JUL-20 04.24.43.000000000	PM	A

A sample query is defined below for reference:

```
Insert into DIGX_OR_PRODUCT_DOCUMENT
    (ID,CATEGORY,NAME,DESCRIPTION,MANDATORY,PRODUCT_CODE,PRODUCT_CATEGORY,
    CREATED_BY,CREATION_DATE, LAST_UPDATED_BY, LAST_UPDATED_DATE, OBJECT_STATUS, OBJECT_VERSION_NUMBER)
    values ('DOC1','Address Poof','Aadhaar card','Aadhaar card',
    'N','OBDSXJ','SAVINGSH1',
    'ofssuser',SYSDATE,'ofssuser',SYSDATE,'A',21);
```

4.2.4 Configuring Repository adapter for Mid Office Content Repository

This topic provides information on **Configuring Repository adapter for Mid Office Content Repository**.

- **OBO Host Configuration:**
No Configuration required.
- **Third Party Configuration:**
Execute the following query, which will fetch content from the local database:

```
Insert into digx_fw_config_all_o

(PROP_ID,PREFERENCE_NAME,PROP_VALUE,DETERMINANT_VALUE,CREATED_BY,CREATION_D
ATE, LAST_UPDATED_BY, LAST_UPDATED_DATE)
values

('MO_CONTENT_REPOSITORY_ADAPTER','RepositoryAdapterFactory','com.ofss.dig
x.domain.content.entity.repository.adapter.LocalContentRepositoryAdapter',
'OBDX_BU',null,sysdate,null,null);
```

4.2.5 Configuring Adapter Preference for Entity

This topic provides information on **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**

A sample adapter preference is defined 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,OBSCF14.3,AS
P14.4,INV14.4,CMS14.4,OBFCFPM14.4,OBFCFPM14.3,OBLM14.4,OBLM14.2,OBIC14.4,OBTF14
.4,MIDOFFICE1.0,TP1.0
```

Execute the 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.

4.2.6 Configuring Origination Workflow (Loan Requirement Step)

This topic provides information on **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';
```

5

Product Configuration

This topic provides information on **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>;
```

Example Complete the following steps to activate a CASA Savings product with id SAVINGSH1:

```
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', 'EDUCA  
TIONLOANH1', 'TERMDEPOSITH1', 'CREDITCARDH1' );
```

- To enable existing customers to apply 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' );
```

6

National ID Configuration

This topic provides information on **National ID Configuration**.

OBDX Origination supports National ID verification as a mode of Online KYC. To enable this KYC mode for a specific product category, customise the origination workflow for the specific product category, through the administrator login.

If the Bank wants to enable National ID verification such as Aadhar Card, then the Bank will have to undertake customization depending on the KYC vendor which they have selected for the same. OBDX provides extension to undertake customization to integrate third party National ID KYC APIs.

Figure 6-1 Origination Workflow Maintenance

The screenshot displays the 'Origination Workflow Maintenance' interface. It features a left sidebar with filters for 'Retail Workflow' and 'Business Workflow'. The main area is divided into two panels: 'Default Workflow' and 'Customize Workflow'. The 'Default Workflow' panel shows a sequence of steps: 'Online KYC' (Optional Step, green dot), 'Selfie' (toggle off), 'National ID Verification' (toggle off), 'Personal' (Required Step, orange dot), 'Ac. Specifications' (Optional Step, green dot), and 'Nominee' (Optional Step, green dot). The 'Customize Workflow' panel shows a sequence of steps: 'Personal' (Required Step, orange dot), 'Ac. Specifications' (Optional Step, green dot, toggle on), 'Nominee' (Optional Step, green dot, toggle on), 'Review' (Required Step, orange dot), and 'Terms of Service' (Required Step, orange dot). The interface also includes a 'Product Type' section with radio buttons for 'Single Product' and 'Bundled Product', an 'Application Type' section with radio buttons for 'Single' and 'Joint', and a 'Product Category' dropdown menu set to 'Savings Account'.

7

DMS Configuration

This topic provides information on **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 details on how documents can be stored locally.

8

OCR Configuration

This topic provides information on **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 post.

```
select * from DIGX_FW_CONFIG_VAR_B where PROP_ID like 'OCR_HOST%' and determinant_value in ('OBDX_BU');
```

PROP_ID	ENV_ID	PROP_VALUE	MODULE	UI_DEFINITION	DETERMINANT_VALUE
1 OCR_HOST_IP	OBDX	(null)	Origination {	"title" : "Microblink Host IP address", "validator" : "FREE_TEXT", "required" : false }	OBDX_BU
2 OCR_HOST_PORT	OBDX	(null)	Origination {	"title" : "Microblink Host port", "validator" : "PORT", "required" : false }	OBDX_BU

Note

If the bank is using **Microblink** as the third party OCR platform then the configurations defined below, need to be carried out. In case of any other platform, the 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,CREATED_BY,CREATION_DATE,
LAST_UPDATED_BY,
```

```
LAST_UPDATED_DATE,OBJECT_STATUS,OBJECT_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}');
```

9

Security Changes

This topic provides information on **Security Changes**.

The OTP authentication generates JWT Token which remains active for 15 mins. The property defined below, can be updated to change the token expiration time in the digx_fw_config_all_b table. This token expiration time is valid for each individual OTP. Hence, if the token expiration time is 15 minutes and even if the user opts to have the OTP re-sent, the new OTP will be valid for another 15 minutes after it has been sent.

ORG_REG_LINK_TIMEOUT

Enumeration Configuration

This topic provides information on **Enumeration Configuration**.

- **Configuration for local enumeration:**

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

For more information on fields, refer to the field description table.

Table 10-1 Origination related database entries

Enumeration <PROP_ID>	Type of Enumeration <PROP_VALUE >	Enum Key <ENUM_FQN>
OR_TD_MATURITY_INSTRUCTION	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_ADMISSION_STATUS	LOCAL_OPEN_ENUM	fetchEducationLoanAdmissionStatus
OR_EDUCATION_LOAN_COURSE_TYPES	LOCAL_OPEN_ENUM	fetchEducationLoanCourseTypes
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_OFFICER	LOCAL_OPEN_ENUM	getRelationshipServingOfficer
EMPLOYMENTTYPE	REMOTE_OPEN_ENUM	getEmploymentType
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

Table 10-1 (Cont.) Origination related database entries

Enumeration <PROP_ID>	Type of Enumeration <PROP_VALUE >	Enum Key <ENUM_FQN>
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
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
OR_RANK	REMOTE_OPEN_ENUM	fetchRank
OR_DEPENDENT_TYPE	REMOTE_OPEN_ENUM	fetchDependentType
OR_CONTACT_SUBTYPE	REMOTE_OPEN_ENUM	fetchContactSubType

- 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>')
```

- Remote Enum Configuration**

For remote enumeration refer following SQL script.

The following is an example of an override database entry for existing records 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.fetchSt  
ates',  
'ExtxfaceAdapterPreference','com.ofss.digx.extxface.enumeration.impl.Enumer  
ationAdapter',  
'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.im  
pl.  
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.

OBDX-OBO Kafka consumer configuration

This topic provides information on **OBDX-OBO Kafka consumer configuration**.

Below script use for verifying database based kafka consumer properties

Select * from DIGX_FW_CONFIG_ALL_B where PROP_ID like
'externalSystemAlertMessage%'

For more information on fields, refer to the field description table.

Table 11-1 Origination related database entries

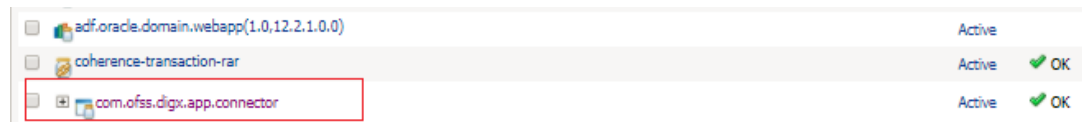
PROP_ID	PROP_VALUE	Description
externalSystemAlertMessage@auto.commit.interval.ms	1000	A commit is triggered after 1,000 messages
externalSystemAlertMessage@auto.offset.reset	earliest / latest	Is it always going to start consuming from start or last checkpoint
externalSystemAlertMessage@bootstrap.servers		List of host/port pairs to use for establishing the initial connection to the Kafka cluster.
externalSystemAlertMessage@enable.auto.commit	false	If set to true , the consumer's offset will be periodically committed in the background.
externalSystemAlertMessage@group.id	obdx-obo-consumer	Name of the group that the consumer joins to read messages from a given topic or topics.
externalSystemAlertMessage@sasl.jaas.config	org.apache.kafka.common.security.scram.ScramLoginModule required username="xxx" password="xxx";	This configuration property used to specify the Java Authentication and Authorization Service (JAAS) configuration for SASL authentication in Kafka
externalSystemAlertMessage@sasl.mechanism	SCRAM-SHA-256	This configuration property used to specify the Java Authentication and Authorization Service (JAAS) configuration for SASL authentication in Kafka
externalSystemAlertMessage@security.protocol	SASL_SSL	Type of Security protocol
externalSystemAlertMessage@session.timeout.ms	30000	Session timeout in milliseconds

Table 11-1 (Cont.) Origination related database entries

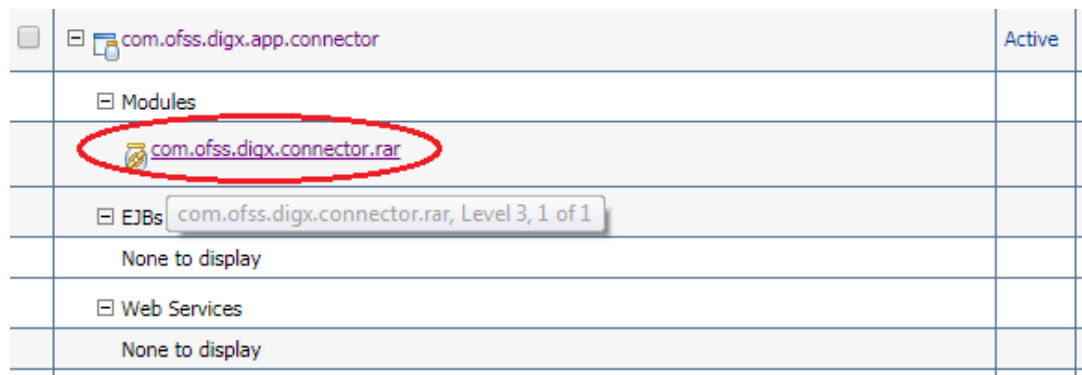
PROP_ID	PROP_VALUE	Description
externalSystemAlertMessage@ssl.endpoint.identification.algorithm		SSL Algorithm
externalSystemAlertMessage@ssl.truststore.location	/scratch/app/domain/obdx_domain/KafkaServerKeystore.jks	SSL Location
externalSystemAlertMessage@ssl.truststore.password		SSL password
externalSystemAlertMessage@target.unit	OBDX_BU	Entity name

Please follow following steps

1. Login into Weblogicconsole.
2. Click on **Deployments**.
3. Expand by clicking '+' icon present in front of **com.ofss.digx.app.connectorapplication** as shown below.



4. Click **com.ofss.digx.connector.rar** as shown below.



5. Click '**Security**' tab and then click '**Outbound Credential Mappings**' sub tab as shown below.

Settings for com.ofss.digx.connector.rar

Overview Configuration **Security** Control Testing Monitoring

Roles Policies **Outbound Credential Mappings** Inbound Principal Mappings Principals

Outbound credential mappings let you map WebLogic Server usernames to usernames in the Enterprise Information System (EIS) to which you want to connect. You can specify outbound credential mappings for all outbound connection pools in the resource adapter, or specify particular outbound credential mappings for specific outbound connection pools for this resource adapter.

[Customize this table](#)

Outbound Credential Mappings

	WLS User	EIS User	Outbound Connection Pool
There are no items to display			

6. Click on **'New'** button. Following screen will be appearing.

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 appropriate credential mapping.

[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

7. Select **'ra/DIGXConnectorAES'**.
8. Click **'Next'** button. Following screen will be appearing.

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 them. Selecting 'User for unauthenticated user' will configure the user that you are configuring. This user must be a configured WebLogic :

☐ 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**' .
10. Click '**Next**' button. Following screen will be appearing.

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.
 - EISUser Name → AES_KEY
 - EISPassword → "Desired password"
 - Confirm Password → "Desired password"

12. Restart the manage server to activate the changes.

OBRH Configuration

This topic provides information on **OBRH Configuration**.

During Bank Implementation, it is assumed that 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 under the OBRH Integration Configuration section in the OBRH Configuration document. The service provider for mid-office product OBO end-points configured in OBRH is "OBO".
2. After all the steps mentioned above are completed, the user will need 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 as follows:
For more information on fields, refer to the field description table.

Table 12-1 The list of Interface name that are integrated with OBDX-Origination using OBRH

Interface ID	OBDX Screen	Description
READ_PARTY_ADDITIONAL_DETAILS	Internal Call – no screen	This service is used to define the sections to be displayed in the application form of an existing customer.
OR_APPLICATIONOFFER_READ	Application tracker details	This service is used to fetch and display the offer letter in the application tracker.
OR_APPLICATIONOFFER_CREATE	Application tracker details	This service is called to accept or reject the offer.
APPLICATION_DELETE	Delete Application on tracker page	This service is used to delete an application form from the application tracker.

Table 12-1 (Cont.) The list of Interface name that are integrated with OBDX-Origination using OBRH

Interface ID	OBDX Screen	Description
APPLICATION_TRACKER	Application Mobile Tracker	This service is used to display the applications, mapped to a specific mobile number, in the application tracker.
OR_CLARIFICATION_LIST	Application tracker details	This service is called to invoke the to and fro communications in the application tracker.
OR_CLARIFICATION_UPDATE	Application tracker details	This service is called to update the to and fro communications in the application tracker.
EXTRACT_TEXT_BASE64	Document upload screen	Regarding the OCR document, extract information from the document.
NI_NATIONALIDVERIFICATION_VALIDATE	National ID validation	This service is used to validate the national ID number that has been entered.
NI_NATIONALIDVERIFICATION_INITIATE	National ID verification screen	This service is used to initiate the National ID verification process.
CREATE_APPLICATION	After verifying mobile number	This service is used to request the creation of an application in OBO.
ORG_PRODUCT_LIST_CREDITCARDH1	Selection of Credit card from products	This service is used to fetch and display the list of Credit Card products from OBO.
ORG_PRODUCT_LIST_TERMDEPOSITH1	Selection of Term Deposit from products	This service is used to fetch and display the list of Term Deposit products from OBO.
ORG_PRODUCT_LIST_CHECKINGH1	Selection of Checking Account from products	This service is used to fetch and display the list of Checking Account products from OBO.
ORG_PRODUCT_LIST_SAVINGSH1	Selection of Saving Account from products	This service is used to fetch and display the list of Savings Account products from OBO.

Table 12-1 (Cont.) The list of Interface name that are integrated with OBDX-Origination using OBRH

Interface ID	OBDX Screen	Description
ORG_PRODUCT_LIST_AUTOLOANH1	Selection of Auto Loan from products	This service is used to fetch and display the list of Auto Loan products from OBO.
ORG_PRODUCT_LIST_HOMELOANH1	Selection of Home Loan from products	This service is used to fetch and display the list of Home Loan products from OBO.
ORG_PRODUCT_LIST_EDUCATIONLOANH1	Selection of Education Loan from products	This service is used to fetch and display the list of Education Loan products from OBO.
ORG_PRODUCT_LIST_PERSONALLOANH1	Selection of Personal Loan from products	This service is used to fetch and display the list of Personal Loan products from OBO.
ORG_PRODUCT_LIST_WALLETH1	Selection of Wallet from products	This service is used to fetch and display the list of Wallet products from OBO.
ENUMERATION_LIST_GETSERVICEBRANCH	Personal Information screen	This service is used to fetch and display values under the Service Branch LOV, applicable for U.S. Military Service Members.
ENUMERATION_LIST_FETCHINSIDERPROFILEROLE	Personal Information Screen	This service is used to fetch and display the values under the Role LOV, that is valid for the applicant or if the applicant is related to an insider of the bank.
CITY_LIST	Personal Information Screen	This service is used to fetch and display the values under the City LOV which is part of the address list of fields.
READ_APPLICATION	On each segment / step	This service is used to fetch the details defined in the application that was initiated in OBO, so that the same can be displayed in the application tracker.

Table 12-1 (Cont.) The list of Interface name that are integrated with OBDX-Origination using OBRH

Interface ID	OBDX Screen	Description
UPDATE_APPLICATION	On each segment / step	This service is invoked after each step in the OBDX application form to update the application in OBO.
ORG_PRODUCT_LIST_CAPITALLOANH1	Selection of Working Capital Loan from business products	This service is used to fetch and display the list of Working Capital Loan Business products from OBO.
ORG_PRODUCT_LIST_TERMLOANH1	Selection of Term Loan from business products	This service is used to fetch and display the list of Term Loan Business products from OBO.
OR_CASA_OFFER_CREATE	Application tracker details	This service is used to accept or reject the CASA overdraft offer.
CASA_OFFER_DETAILS	Application tracker details	This service is used to fetch and display the CASA overdraft offer in the application tracker.
CONTENT_CREATE_ORIGINATION	Upload Document Section	This service is used to upload documents to OBO.
CONTENT_DELETE_ORIGINATION	View Document Section	Delete Uploaded Documents from OBO
CONTENT_LIST_ORIGINATION	List Uploaded Documents	This service is used to fetch and display the list of the applicant's documents, from OBO.
CONTENT_READ_ORIGINATION	Read Document	This service is used to view the applicant's documents.
ADDRESS_MAINTENANCE	After application initiated	To identify if Address is Communication / Residence from OBPY as Default
BUSINESS_OVERRIDES	After application submit	This service is used to accept all business rules / segment skipped during the application, in OBO.

Table 12-1 (Cont.) The list of Interface name that are integrated with OBDX-Origination using OBRH

Interface ID	OBDX Screen	Description
READ_PARTY_FROM_CIFID_SERVICE_MEMBER	Personal Information Screen	This service is used to read service member details from the CIF id entered.
READ_PARTY_FROM_CIFID_STAKEHOLDER	Stakeholder Information Screen	This service is used to read stakeholder details from the CIF id entered.
OR_QUESTIONNAIRE	Account Specification Screen	This service is used to fetch and display the questionnaire applicable for a CASA application, from OBO.
OR_QUESTIONNAIRE_CONSENT	Terms of Service Screen	This service is used to fetch questionnaire consents for the product application, from OBO
ENUMERATION_LIST_FETCHBUSINESSPROPERTYTYPES	Collateral screen	This service is used to fetch the values to be displayed under the Property Type LOV, in case the collateral being added is of type 'Property'.
ENUMERATION_LIST_FETCHCITIZENSHIPBY	Business Details screen	List of Citizen Ship By
ENUMERATION_LIST_FETCHCOUNTRYOFREGISTRATION	Business Details screen	This service is used to fetch the values to be displayed under the Country of Registration LOV.
ENUMERATION_LIST_FETCHEMPLOYERNAME	Employment Information Screen	This service is used to fetch the values to be displayed under the Company/ Employer Name LOV.
ENUMERATION_LIST_FETCHEMPLOYMENTCATEGORY	Employment Information Screen	This service is used to fetch the values to be displayed under the Occupation field.
ENUMERATION_LIST_FETCHEMPLOYMENTSTATUS	Employment Information Screen	This service is used to fetch the values to be displayed under the Employment Status LOV.
ENUMERATION_LIST_FETCHORGANIZATIONCATEGORY	Employment Information Screen	This service is used to fetch the values to be displayed under the Organization Category LOV.

Table 12-1 (Cont.) The list of Interface name that are integrated with OBDX-Origination using OBRH

Interface ID	OBDX Screen	Description
ENUMERATION_LIST_FETCHPREFERRED CURRENCY	Account Specification	This service is used to fetch the values to be displayed under the Preferred Currency LOV.
ENUMERATION_LIST_FETCHSUFFIX	Personal Information Screen	This service is used to fetch the values to be displayed under the Suffix LOV.
ENUMERATION_LIST_GETFINANCIALEXPENSE	Financial Information screen	This service is used to fetch the values to be displayed under the Expense Type LOV.
ENUMERATION_LIST_GETFINANCIALINCOME	Financial Information screen	This service is used to fetch the values to be displayed under the Income Mode LOV.
ENUMERATION_LIST_FINANCIALASSETTYPES	Financial Information screen	List of Financial Asset Types
ENUMERATION_LIST_GETFINANCIALLIABILITY	Financial Information screen	This service is used to fetch the values to be displayed under the Liability Type LOV.
ENUMERATION_LIST_GETGENDER	Personal Information screen	This service is used to fetch the values to be displayed under the Gender LOV.
ENUMERATION_LIST_GETMARITALSTATUS	Personal Information screen	This service is used to fetch the values to be displayed under the Marital Status LOV.
ENUMERATION_LIST_GETNOMINEERELATIONS	Nomination information screen	This service is used to fetch the values to be displayed under the Relationship with Application LOV under the Nominee/Beneficiary Information section.
OR_CREATE_DOCUMENT	Personal Information screen	This service is used to create documents in the application form.
OR_LIST_DOCUMENTS	Personal Information screen Application Tracker	This service is used to fetch the list of documents uploaded by the applicant.

Table 12-1 (Cont.) The list of Interface name that are integrated with OBDX-Origination using OBRH

Interface ID	OBDX Screen	Description
VERIFY_DEDUPE	Personal Information screen	This service is used to perform duplicate check of the applicants in case of joint applications.
OR_VALIDATE	Personal / Nominee / Guardian / Stake holder Information screen	Check whether the applicant is a minor or an adult. Check for women-specific products (applicable only in the US).
OR_ORACLE_KYC	Terms and Condition screen	This service is used to send the ID documents to the mid office for KYC, once the application is submitted.
ENUMERATION_LIST_FETCHCUSTOMERCATEGORY	SMB Business Information page	This service is used to define the customer category.
READ_PARTY_FROM_CIFID_INSIDER	Personal Information screen (US)	Read party details for cif/party id This service is used to verify details of the Insider from the CIF ID defined, in case the applicant is related to an insider of the bank.
ENUMERATION_LIST_FETCHVEHICLETYPES	Collateral	This service is used to fetch and the values under the Type of Vehicle LOV, applicable if the collateral type selected is Vehicle.
ENUMERATION_LIST_FETCHPROFESSIONS	Employment Information screen	This service is used to fetch and display the values under the Profession LOV, applicable in case the Employment Type (Occupation in OBDX) is Self Employed.
ENUMERATION_LIST_GETEMPLOYMENTTYPE	Employment Information screen	This service is used to fetch and display the values under the Employment Type (Occupation in OBDX) LOV.

Table 12-1 (Cont.) The list of Interface name that are integrated with OBDX-Origination using OBRH

Interface ID	OBDX Screen	Description
ENUMERATION_LIST_GETEXPENSEFREQUENCY	Financial Information/Profile	This service is used to fetch the supported frequency for an expense.
ENUMERATION_LIST_GETINCOMEFREQUENCY	Financial Information/Profile	This service is used to fetch the supported frequency for an income.
ENUMERATION_LIST_GETLIABILITYFREQUENCY	Financial Information/Profile	This service is used to fetch the supported frequency for a liability.
ENUMERATION_LIST_FETCHORGANIZATIONOPERATIONS	Employment Information	This service is used to fetch and display the values supported as Organization Operations (Demographics in OBO).
ENUMERATION_LIST_GETTAXTYPE[GS15]		List of Identification type
ENUMERATION_LIST_QRY_PARTY_PREFIX	Personal Information screen	This service is used to fetch and display the values supported as Title
OR_GET_DOCUMENT	Upload document screen	This service is used to fetch and display the types of documents supported to be uploaded.
OR_GET_PRODUCT_DOCUMENT_LIST	Upload document screen	This service is used to fetch and display the types of documents supported for the product that can be uploaded.
ENUMERATION_LIST_FETCHSTATES	Address right panel	This service is used to fetch and display the values to be available under the States LOV which is part of the Address list of fields.
ENUMERATION_LIST_FETCHMODEOFOPERATION	Checking/Savings Account Specifications	This service is used to fetch and display the values to be available under the Mode of Operation LOV, applicable in case of Joint Applications.
OR_BUSINESS_PROCESS	Funding	Consent sends by OBDX if skip any segment

Table 12-1 (Cont.) The list of Interface name that are integrated with OBDX-Origination using OBRH

Interface ID	OBDX Screen	Description
OR_PRODUCT_DOCUMENT_LIST	Document upload screen	List of primary category documents of products supports
ENUMERATION_LIST_FETCHAPPLICANTDOCUMENTTYPE	Document upload screen	This service fetches the types of documents that are supported, to be uploaded, for the product at the applicant level.
OR_ENUMERATION_LOOKUP	Personal Information screen	All obpy enumeration call from this API (alternate)
INITIATE_EARLY_KYC	Personal Information screen	This service is used to send the personal information required to perform early KYC, to OBO.
READ_PARTY_PERSONAL_DETAILS	Personal Information	This service is used to read the existing customer's personal information from the CIF ID.
OR_RELATIONSHIP_PRICING	EMI calculator	Relationship base Pricing calculator
OR_STANDARD_SCHEDULE	All Loan products – Loan Information	This service is used to fetch and display the standard loan repayment schedule based on information provided.
ENUMERATION_LIST_FETCHRANK	Region US – Personal Information	This service is used to fetch and display the values under the Rank LOV, applicable for Service Members.
ENUMERATION_LIST_FETCHDEPENDENTTYPE	Region US – Personal Information. Service Member / Insider	This service is used to fetch and display the values to capture relationship of the applicant with the Service Member, in case the applicant is a dependent of a service member.
ENUMERATION_LIST_FETCHREJECTREASONS	Application Tracker	this service is used to fetch the list of values to be available as reasons for rejection, in case the applicant chooses to reject the loan/CASA overdraft offer.

Table 12-1 (Cont.) The list of Interface name that are integrated with OBDX-Origination using OBRH

Interface ID	OBDX Screen	Description
GENERIC_CODE	Repayment / Disbursement screen	Fetch branch details

13

Jumio Configuration

This topic provides information on **Jumio Configuration**.

The Non-Assisted KYC flow or selfie KYC flow, requires 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' dialog box. At the top, it displays the 'Name' as 'OBDX_TRUNK' and 'Audit Type' as '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
⋮	OBPY_BRANCH	
⋮	CMC_USER	
⋮	CMC_BRANCH	
⋮	JUMIO_AUTH	Basic [redacted]

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

Trouble shooting and Assumptions

This topic provides information on **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 offerings page 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'
```

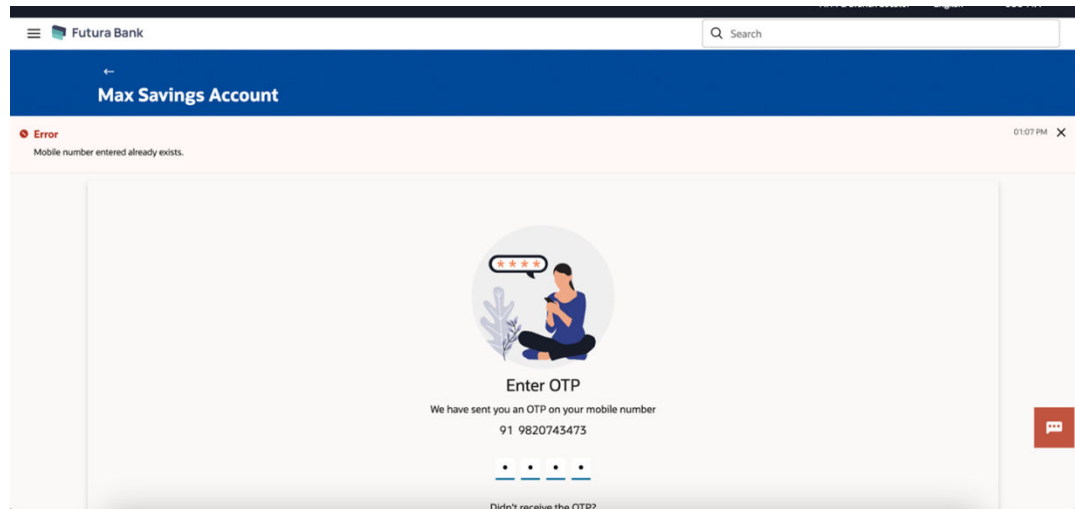
9. **Issue:** Details of the existing user are missing in originations application.
Assumption: In UBS, the expected mandatory fields might be missing. Also, check if the OBPY API is providing the same user details.
Steps to Troubleshoot: In UBS, * denotes mandatory fields, and the same will be read 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 'appId: 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

- Online KYC is entirely dependent on the bank's site. The bank will define the mode of verification that needs to be enabled for Online KYC.
- 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 example

```
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.

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