

Mid-Office Product Setup and Configuration Guide
Oracle Banking Digital Experience
Patchset Release 21.1.3.0.0

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Mid-Office Product Setup and Configuration Guide

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1. Preface

1.1 Intended Audience

This document is intended for the following audience:

- Customers
- Partners

1.2 Documentation Accessibility

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

1.3 Access to Oracle Support

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

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

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

1.4 Structure

This manual is organized into the following categories:

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

The subsequent chapters describes following details:

- Introduction
- Preferences & Database
- Configuration / Installation.

1.5 Related Information Sources

For more information on Oracle Banking Digital Experience Patchset Release 21.1.3.0.0, refer to the following documents:

- Oracle Banking Digital Experience Installation Manuals

2. Introduction

This document is intended for setting up OBDX 21.1.1.0.0 with different Mid-Office Products.

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3. Trade Finance

3.1 Oracle Banking Trade Finance (OBTF)

All host calls are OBRH enabled.

3.1.1 OBRH Mandatory Executions

Execute the following script at OBDX digx database and restart the managed server.

```
../installables/db/OBTF/DIGX_FW_CONFIG_ALL_O.sql
```

In case of patch set installation pls execute following script

```
../patch_incrementals/modules/OBTF/DIGX_FW_CONFIG_ALL_O.sql
```

Note: '%ENTITY_ID%' should be replaced with entity identifier (For example 'OBDX_BU')

3.1.2 OBRH Configurations

Following day 1 system configuration should be available at entity level to connect OBDX with OBRH system.

```
select * from digx_fw_config_var_b where prop_id in ('OBRH_EXPIRYTIME','OBRH_HOST_IP','OBRH_HOST_PORT');
```

Please find below the details of OBDX Trade Finance requests and their corresponding services which are available inside OBDX consumer of OBRH application.

Trade Finance Request	Consumer Service
Trade applications list	TRADE_APPLICATIONS_LIST
Trade clarification list	TRADE_APPLICATION_CLARIFICATION_LIST
Trade application clarification update	TRADE_APPLICATION_CLARIFICATION_UPDATE
Download the document by given document ref id	TRADE_APPLICATION_DOCUMENT_DOWNLOAD
Link already uploaded documents to a contract	TRADE_APPLICATION_DOCUMENT_LINKAGE
Trade application document list	TRADE_APPLICATION_DOCUMENT_LIST
Trade application document upload	TRADE_APPLICATION_DOCUMENT_UPLOAD
Trade application list	TRADE_APPLICATION_LIST

Trade Finance Request	Consumer Service
Trade bank code list	TRADE_BANK_CODE_LIST
Trade bank details	TRADE_BANK_DETAILS
Trade base date list	TRADE_BASE_DATE_LIST
BC product currencies	TRADE_BC_PRODUCT_CURRENCIES
BC product list	TRADE_BC_PRODUCT_LIST
BC product read details	TRADE_BC_PRODUCT_READ_DETAILS
BG amend charges simulation	TRADE_BG_AMD_CHARGES_SIMULATION
BG amend create	TRADE_BG_AMEND_CREATE
BG amend list	TRADE_BG_AMEND_LIST
BG pending amendment listing	TRADE_BG_AMEND_PENDING_LIST
BG amend read	TRADE_BG_AMEND_READ
BG availment listing	TRADE_BG_AVAILMENT_LIST
BG bank customer read	TRADE_BG_BANK_CUSTOMER_READ
BG charges simulation	TRADE_BG_CHARGES_SIMULATION
BG claim create	TRADE_BG_CLAIM_CREATE
BG create	TRADE_BG_CREATE
BG swift and advice message read details	TRADE_BG_LEVEL_ADVICE_SWIFT_READ
BG charges listing	TRADE_BG_LEVEL_CHARGES
BG listing	TRADE_BG_LIST
BG pending amendment acceptance	TRADE_BG_PENDING_AMEND_ACCEPT
BG pending amendment check	TRADE_BG_PENDING_AMEND_CHECK
BG pending amendment rejection	TRADE_BG_PENDING_AMEND_REJECT
BG product currency listing	TRADE_BG_PRODUCT_CURRENCY_LIST
BG product free format text code listing	TRADE_BG_PRODUCT_FFT_LIST

Trade Finance Request	Consumer Service
BG product listing	TRADE_BG_PRODUCT_LIST
BG product read details	TRADE_BG_PRODUCT_READ
BG read details	TRADE_BG_READ
BG remarks	TRADE_BG_REMARK
BG summary details	TRADE_BG_SUMMARY_DETAILS
BG terms and conditions details	TRADE_BG_TERMSANDCONDITIONS_READ
BG type listing	TRADE_BG_TYPE_LIST
BG upload documents	TRADE_BG_UPLOAD_DOCUMENTS
BG version read	TRADE_BG_VERSION_READ
Bill charges list	TRADE_BILL_CHARGES_LIST
Bill charges simulation	TRADE_BILL_CHARGES_SIMULATION
Bill create	TRADE_BILL_CREATE
Bill discrepancy acceptance	TRADE_BILL_DISCREPANCY_CUST_ACCEPTANCE
Bill discrepancy listing	TRADE_BILL_DISCREPANCY_LIST
Bill discrepancy read details	TRADE_BILL_DISCREPANCY_READ
Bill swift and advice message read details	TRADE_BILL_LEVEL_SWIFT_ADVICE
Bill listing	TRADE_BILL_LIST
Bill product documents listing	TRADE_BILL_PRODUCT_DOCUMENTS
Bill product document clauses	TRADE_BILL_PRODUCT_DOCUMENTS_CLAUSES
Bill read detail	TRADE_BILL_READ
Bill settlement create	TRADE_BILL_SETTLEMENT_CREATE
Collection swift and advice message read details	TRADE_COLLECTION_ADVICE_SWIFT_READ
Collection charges list	TRADE_COLLECTION_CHARGES_LIST
Collection charges simulation	TRADE_COLLECTION_CHARGES_SIMULATION

Trade Finance Request	Consumer Service
Collection create	TRADE_COLLECTION_CREATE
Collection listing	TRADE_COLLECTION_LIST
Collection read details	TRADE_COLLECTION_READ
Contract free format text code list	TRADE_CONTRACT_FFT_LIST
Trade Customer clarification list	TRADE_CUSTOMER_CLARIFICATION_LIST
Trade detail summary snapshot	TRADE_DETAIL_SUMMARY_SNAPSHOT
Document category listing	TRADE_DOCUMENT_CATEGORY_LIST
Document content listing	TRADE_DOCUMENT_CONTENT_LIST
Document level clauses	TRADE_DOCUMENT_LEVEL_CLAUSES
Document listing	TRADE_DOCUMENT_LIST
Document category level doc type listing	TRADE_DOC_CATEGORY_LEVEL_DOC_TYPE listing
Trade equivalent amount	TRADE_EQUIVALENT_AMOUNT
Goods listing	TRADE_GOODS_LIST
Incoterm listing	TRADE_INCOTERM_LIST
LC additional conditions listing	TRADE_LC_ADDITIONAL_COND_LIST
LC advice and swift read details	TRADE_LC_ADVICE_SWIFT_READ
LC amend charges simulation	TRADE_LC_AMD_CHARGES_SIMULATION
LC amendment create	TRADE_LC_AMENDMENT_CREATE
LC amendment listing	TRADE_LC_AMENDMENT_LIST
LC amendment read details	TRADE_LC_AMENDMENT_READ
LC amend swift simulation	TRADE_LC_AMEND_SWIFT_SIMULATION
LC charges	TRADE_LC_CHARGES
LC charges simulation	TRADE_LC_CHARGES_SIMULATION
LC create	TRADE_LC_CREATE
LC availment listing	TRADE_LC_LEVEL_AVAILMENTS

Trade Finance Request	Consumer Service
LC listing	TRADE_LC_LIST
LC pending amendment listing	TRADE_LC_PENDING_AMENDMENT_LIST
LC pending amendment acceptance	TRADE_LC_PENDING_AMEND_ACCEPT
LC pending amendment rejection	TRADE_LC_PENDING_AMEND_REJECT
LC product currencies	TRADE_LC_PRODUCT_CURRENCIES
LC product documents	TRADE_LC_PRODUCT_DOCUMENTS
LC product document clauses	TRADE_LC_PRODUCT_DOCUMENT_CLAUSES
LC product listing	TRADE_LC_PRODUCT_LIST
LC product read details	TRADE_LC_PRODUCT_READ
LC read details	TRADE_LC_READ
LC swift simulation	TRADE_LC_SWIFT_SIMULATION
LC update	TRADE_LC_UPDATE
LC version read details	TRADE_LC_VERSION_READ
Trade read customer for bank code	TRADE_READ_CUST_FOR_BANK_CODE
SG advice and swift message details	TRADE_SG_ADVICE_SWIFT_READ
SG charges simulation	TRADE_SG_CHARGES_SIMULATION
SG create	TRADE_SG_CREATE
SG level charges	TRADE_SG_LEVEL_CHARGES
SG listing	TRADE_SG_LIST
SG product currency listing	TRADE_SG_PRODUCT_CURRENCY_LIST
SG product level documents	TRADE_SG_PRODUCT_LEVEL_DOCUMENTS
SG product listing	TRADE_SG_PRODUCT_LIST
SG product read details	TRADE_SG_PRODUCT__READ
SG read details	TRADE_SG_READ
Trade summary snapshot	TRADE_SUMMARY_SNAPSHOT

Trade Finance Request	Consumer Service
Export collection SWIFT message simulation	TRADE_COLLECTION_SWIFT_SIMULATION
SG charges	TRADE_SHIPPING_GUARANTEE_CHARGES_LIST
Document remarks	TRADE_UPDATE_REMARK
Application document download	TRADE_APPLICATION_DOCUMENT_DOWNLOAD
Transfer LC charges simulation	TRADE_TRANSFER_LC_CHARGES_SIMULATION
Transfer LC amendment	TRADE_TRANSFER_LC_AMENDMENT_CREATE
Corporate Deposit listing	TRADE_CORPORATE_DEPOSIT_LIST
Forex deal listing	TRADE_FOREX_DEAL_LIST
Amendable transferred LC listing	TRADE_TRANSFERRED_LC_AMEND_LIST
Transfer LC amendment SWIFT simulation	TRADE_TRANSFER_LC_AMEND_SWIFT_SIMULATION
Transfer LC SWIFT simulation	TRADE_TRANSFER_LC_SWIFT_SIMULATION
BG Cancellation charges simulation	TRADE_BG_CANCEL_CHARGES_SIMULATION
BG Cancellation SWIFT simulation	TRADE_BG_CANCEL_SWIFT_SIMULATION
BG Cancellation initiation	TRADE_BG_CANCELLATION_CREATE
Insurance policy list	TRADE_INSURANCE_POLICY_LIST
Customer direct dispatch flag read	TRADE_CUSTOMER_DIRECT_DISPATCH_READ
Export collection internal amendment	TRADE_EXPORT_COLLECTION_INTERNAL_AMENDMENT
Export collection modification charges simulation	TRADE_COLLECTION_MODIFY_CHARGES_SIMULATION
Export bill internal amendment	TRADE_EXPORT_BILL_INTERNAL_AMENDMENT
Export bill modification charges simulation	TRADE_BILL_MODIFY_CHARGES_SIMULATION
Charge and Taxes accounting entries	TRADE_TXN_CHARGE_TAXES_ACCOUNT_ENTRIES
Commission accounting entries	TRADE_TXN_COMMISSION_ACCOUNT_ENTRIES

3.2 Oracle Banking Trade Finance Process Management (OBTFPM)

Following things need to be done to enable OBDX Trade Finance with OBTFPM

3.2.1 OBTF Prerequisite

Follow the steps from section **Oracle Banking Trade Finance (OBTF)**

Note: No need to restart the manage server though it is mentioned in section **OBRH Mandatory Executions**

3.2.2 Mandatory Executions

Execute the following script at OBDX database and restart the managed server.

```
../installables/db/OBTFPM/DIGX_FW_CONFIG_ALL_O.sql
```

Note: '%ENTITY_ID%' should be replaced with entity identifier (For example 'OBDX_BU')

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4. Corporate Lending

4.1 Day One Executions

Following script needs to be executed post installation for Corporate Lending with OBCL 14.3.0.0.0 release

```
UPDATE digx_fw_config_all_o SET PROP_VALUE = CONCAT('OBCL14.1',(select
PROP_VALUE from digx_fw_config_all_o where PROP_ID like '&ENTITY_ID')) WHERE
PROP_ID LIKE '&ENTITY_ID';
```

and also update values for OBCL_HOST_IP , OBCL_HOST_PORT , OBCL_WS_VERSION in system configuration

OBCL_HOST_IP - 10.184.159.212

OBCL_HOST_PORT - 8555

OBCL_WS_VERSION- 141

Scripts mentioned in below path also needs to be executed:

installables/db/OBCL/version/DIGX_FW_CONFIG_ALL_O.sql

Run the below script for processing charges api:

```
Insert into DIGX_FW_CONFIG_ALL_O
(PROP_ID,PREFERENCE_NAME,PROP_VALUE,DETERMINANT_VALUE,CREATED_BY,CRE
ATION_DATE,LAST_UPDATED_BY,LAST_UPDATED_DATE) values
('LOAN_PRODUCT_PROCESSING_CHARGES','ExtXfaceConfig','com.ofss.digx.extxface.impl.e
ndpoint.OBRHEndPoint','%ENTITY_ID%','superadmin',sysdate,'superadmin',sysdate);
```

Note: '%ENTITY_ID%' should be replaced with entity identifier (For example 'OBDX_BU')

The list of OBCL APIs that are integrated with OBAPI using OBRH is as follows:

Interface ID	OBDX Screen	Description
LOAN_PRODUCT_PROCESSING_CHARGES	Loan Processing Charge	This API is used to fetch the processing charges

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5. Supply Chain Finance

5.1 Non Customer Onboarding using chaining

Now in the standard scenario, the core system contains the Customer data and the OBSCF mid office system contains the Non Customer data. Thus in order to onboard a noncustomer (give channel access) the system needs to inquire in OBSCF mid office.

But till now the system was inquiring only in Core system, which we still need for the onboarding of customers. Thus a concept of chaining is introduced where for a given corporate, the system will first inquire in Core system and if found then the given corporate is a customer but if not found then the system will inquire in OBSCF mid office system and if found there then the given corporate is a noncustomer.

Now, the chaining is not only implemented for 2 levels (calling only 2 systems) but it can be implemented for n levels. Also there is a provision to break a chain at any level or if there is a case that there is an overridden adapter to call a common system containing both customers and noncustomers and not want to call core system and mid office system adapters i.e. not implement/require chaining at all, then this is also possible.

For detail explanation of Chaining, how it works, chaining in case of overridden adapters and many more please refer **Chaining Section in Extensibility Document**.

Now below are the scenarios of how chaining will be used for Non Customer Onboarding in case of different possible implementations at Bank.

Considering, IPartyAdapter has 3 implementation

i1 - PartyAdapter(UBS), i2 - PartyAdapter(ASP) & i3 - PartyAdapter(TP)

Case 1:

Bank has both UBS core entity and ASP mid office as well (OBASP).

In this case, the entry for UBS core entity in DIGX_FW_CONFIG_ALL_O will be like (Assuming OBDX_BU is the determinant value for UBS core entity)

OBDX_BU | UBS, ASP, TP

Note: Here entry of TP might be for other mid offices system but not for UBS Core and OBSCF mid office as both are present with the bank according to the case.

Thus in case of chaining, it will first inquire in "i1 Adapter", if found then it will stop and return the result. If not found then it will inquire in "i2 Adapter", if found then it will stop and return the result. If not found then it will inquire in "i3 Adapter", where there are maximum chances that it won't be found because of above note. Thus finally after not able to find in "i3 Adapter", it will throw the error like it used to throw before chaining when not found in core system.

Case 2:

Bank has UBS core entity but ASP mid office is Third Party.

In this case, the entry for UBS core entity in DIGX_FW_CONFIG_ALL_O will be like (Assuming OBDX_BU is the determinant value for UBS core entity)

OBDX_BU | UBS, TP

Thus in case of chaining, it will first inquire in “i1 Adapter”, if found then it will stop and return the result. If not found then it will inquire in “i3 Adapter”. Now in case of i3, it will push the request in JMS queue which will be read by one of the middleware implementations and sent to the actual Third party mid office of ASP. If found then the result will returned but if not then it will throw the error like it used to throw before chaining when not found in core system.

** In this case, all the other functionalities of ASP mid office like Onboarding Associated Party will also be achieved by using Third Party implementation of ASP.

Case 3:

Bank has Third party core entity and Third Party ASP mid office

In this case, the entry for Third Party core entity in DIGX_FW_CONFIG_ALL_O will be like (Assuming OBDXBU1 is the determinant value for Third Party core entity)

OBDXBU1 | TP

Thus, here there is no scenarios of chaining as always only “i3 Adapter” will be picked. Now in case of i3, it will push the request in JMS queue which will be read by one of the middleware implementations and sent to the actual single system (like common core). Now that single system can have the logic to check the party in core system & ASP system if required.

** In this case, all the other functionalities of ASP mid office like Onboarding Associated Party will also be achieved by using Third Party implementation of ASP.

Case 4:

Bank has Third Party core entity but ASP mid office is of OBASP

In this case, the entry for Third Party core entity in DIGX_FW_CONFIG_ALL_O will be like (Assuming OBDXBU1 is the determinant value for Third Party core entity)

OBDXBU1 | TP, ASP

Thus in case of chaining, it will first inquire in “i3 Adapter”. Now in case of i3, it will push the request in JMS queue which will be read by one of the middleware implementations and sent to the actual Third party core system. If found then it will stop and return the result. If not found then it will inquire in “i2 Adapter”. If found then the result will be returned but if not then then it will throw the error like it used to throw before chaining when not found in core system.

** In this case, all the other functionalities of ASP mid office like Onboarding Associated Party should only be achieved by ASP host implementation (one that is qualified with OBASP). For that, **we need to override the scripts of host adapter in DIGX_FW_CONFIG_ALL_O such that for ASP functionalities it will always pick the ASP adapter and for other common functionalities like Get Non Customer party, chaining will be applied as explained above.**

We need to execute below script to fetch mid office token required for Purchase Order File Upload.

```
INSERT INTO DIGX_FW_CONFIG_OUT_RS_CFG_B (SERVICE_ID, CONTEXT_URL,
SERVICE_URL, REQUEST_MEDIA_TYPE, RESPONSE_MEDIA_TYPE, AUTHENTICATION,
AUTH_TYPE, CREDENTIAL_STORE_TYPE, CREDENTIAL_STORE_KEY, CREATION_DATE,
LAST_UPDATED_DATE) VALUES ('tokenOBSCF144',
'http://{OBSCF_HOST_IP}:{OBSCF_HOST_PORT}','api-gateway/platojwtauth',
'application/json', 'application/json', 'N', 'Bearer', 'credential_impl', 'OBSCF_14.4', sysdate,
sysdate);
```

5.2 OBRH Integration

During Bank Implementation, assuming OBRH is installed and configured as part of OBSCF installation.

For OBDX and mid Office OBSCF integration using OBRH the following configurations need to be done.

1. Carry out all the steps mentioned in **OBRH Integration Configuration** section in this document. The service provider for mid-office product OBSCF (Oracle Banking Supply Chain Finance) end-points configured in OBRH is “OBSCF”
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 end-point for the configured interfaces. The scripts are available at the following location:

/Installables/Modules/OBSCF/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 OBSCF APIs that are integrated with OBDX using OBRH is as follows:

Interface ID	OBDX Screen	Description
SCF_FINANCE_CHARGE	View/Edit Invoice	Fetches the list of finance charges.
SCF_PURCHASE_ORDER_CREATE	Purchase Order Creation	This API is used to create purchase orders.
SCF_PURCHASE_ORDER_UPDATE	View Purchase Orders	This API is used to modify purchase order details.

Interface ID	OBDX Screen	Description
SCF_PURCHASE_ORDER_ACCEPT	Accept/Reject Purchase Order	This API is used to accept purchase orders.
SCF_PURCHASE_ORDER_REJECT	Accept/Reject Purchase Order	This API is used to reject purchase orders.
SCF_PURCHASE_ORDER_CANCEL	View Purchase Orders	This API is used to cancel purchase orders.
SCF_PURCHASE_ORDER_LIST	View Purchase Orders	Fetches the list of purchase orders.
SCF_PURCHASE_ORDER_READ	View Purchase Orders	Fetches purchase order details.
SCF_LINKED_PO_LIST	View Finance Details	Fetches Purchase Orders linked to a finance.
SCF_PO_FINANCE_CREATE	Request Finance	This API is used to request finance on purchase order(s).
SCF_FINANCE_LIMITS_LIST	View Limits	Fetches the list of finance limits.
SCF_MAIN_LIST	View Limits	Fetches the list of supply chain finance maintenances for a key.
SCF_PROGRAM_LIST	View/Edit Program	Fetches the list of programs.
SCF_PROGRAM_READ	Vide/Edit Program	Fetches program details.
SCF_PROGRAMPRODUCT_LIST	Create Program	Fetches the list of Program products.
SCF_PROGRAMPRODUCT_READ	Create Program	Fetches program product details.
SCF_PROGRAM_CREATE	Create Program	Creates Program
SCF_PROGRAM_UPDATE	Edit Program	Edit program details
SCF_LINKED_FINANCE_LIST	View Invoice Details	Fetches finances linked to an invoice.
SCF_FINANCE_CREATE	Request Finance	This API is used to request finance on invoice(s).

Interface ID	OBDX Screen	Description
SCF_FINANCE_REPAYMENT	Repay Finance	Initiates request to repay finance.
SCF_FINANCE_SETTLEMENT	View Finance Details	Fetches finance settlement details
SCF_FINANCE_READ	View Finance Details	Fetches finance details
SCF_FINANCE_LIST	View Finance	Fetches list of finances
SCF_LINKED_INVOICE_LIST	View Finance Details	Fetches invoices linked to a finance.
SCF_LINK_INVOICE_TO_PROGRAM	Link Invoice To Program	Links Invoice(s) to Program

This completes the entire configuration needed for consuming OBSCF APIs in OBDX through OBRH.

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6. Associated Party Management

6.1 OBRH Integration

During Bank Implementation, assuming OBRH is installed and configured as part of OBASP installation.

For OBDX and mid Office OBASP integration using OBRH the following configurations need to be done.

1. Carry out all the steps mentioned in **OBRH Integration Configuration** section in this document. The service provider for mid-office product OBASP (Oracle Banking Associated Party Management) end-points configured in OBRH is “ASP”
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 end-point for the configured interfaces. The scripts are available at the following location:

/Installables/db/OBASP/version/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 OBASP APIs that are integrated with OBDX using OBRH is as follows:

Interface Id	OBDX Screen	Description
ASP_ASSOCIATEDPARTY_CREATE	Onboard Associated Party	This API is used to onboard an associated party.
ASP_ASSOCIATEDPARTY_LIST	View Associated Parties	Fetches the list of associated parties.
ASP_ASSOCIATEDPARTY_READ	View Associated Parties	Fetches associated party details.
ASP_ASSOCIATEDPARTY_UPDATE	Upload KYC document for Non-Customer	This API is used to update the document Id for a new associated party that is not a customer of a bank.

This completes the entire configuration needed for consuming OBASP APIs in OBDX through OBRH.

We need to execute below script to fetch mid office token required for fetching associated party information for non-customer.

```
INSERT INTO DIGX_FW_CONFIG_OUT_RS_CFG_B (SERVICE_ID, CONTEXT_URL,  
SERVICE_URL, REQUEST_MEDIA_TYPE, RESPONSE_MEDIA_TYPE, AUTHENTICATION,  
AUTH_TYPE, CREDENTIAL_STORE_TYPE, CREDENTIAL_STORE_KEY, CREATION_DATE,  
LAST_UPDATED_DATE) VALUES ('tokenASP144',  
'http://${ASP_HOST_IP}:${ASP_HOST_PORT}', 'api-gateway/platojwtauth',  
'application/json', 'application/json', 'N', 'Bearer', 'credential_impl', 'ASP_14.4', sysdate,  
sysdate);
```

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7. Invoice Management

7.1 OBRH Integration

During Bank Implementation, assuming OBRH is installed and configured as part of OBINV installation.

For OBDX and mid Office OBINV integration using OBRH the following configurations need to be done.

1. Carry out all the steps mentioned in **OBRH Integration Configuration** section in this document. The service provider for mid-office product OBINV (Oracle Banking Invoice Management) end-points configured in OBRH is “INV”
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 end-point for the configured interfaces. The scripts are available at the following location:

/Installables/db/OBINV/version/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 OBINV APIs that are integrated with OBDX using OBRH is as follows:

Interface ID	OBDX Screen	Description
INV_INVOICES_CREATE	Create Invoice	This API is used to create invoices.
INV_INVOICE_LIST	View/Edit Invoice	Fetches the list of invoices.
INV_INVOICE_READ	View/Edit Invoice	Fetches invoice details.
INV_INVOICE_UPDATE	View/Edit Invoice	This API is used to modify invoice details.
INV_INVOICES_ACCEPT	Accept Invoice	This API allows a buyer to accept invoices created by supplier.
INV_INVOICES_CANCEL	Cancel invoice	This API allows a supplier to cancel an invoice.
INV_INVOICES_UPDATE_STATUS	Manage Invoice	This API allows a user to perform various operations on invoices like Raise Dispute, Resolve Dispute etc.

Interface ID	OBDX Screen	Description
INV_INVOICES_DISPUTE_REASON	Manage Invoice	This API fetches list of dispute reasons required to raise dispute on an invoice.

This completes the entire configuration needed for consuming OBINV APIs in OBDX through OBRH.

We need to execute below script to fetch mid office token required for Invoice/Debit-Credit Note File Upload.

```
INSERT INTO DIGX_FW_CONFIG_OUT_RS_CFG_B (SERVICE_ID, CONTEXT_URL,
SERVICE_URL, REQUEST_MEDIA_TYPE, RESPONSE_MEDIA_TYPE, AUTHENTICATION,
AUTH_TYPE, CREDENTIAL_STORE_TYPE, CREDENTIAL_STORE_KEY, CREATION_DATE,
LAST_UPDATED_DATE) VALUES ('tokenINV144',
'http://{INV_HOST_IP}:{INV_HOST_PORT}', 'api-gateway/platojwtauth', 'application/json',
'application/json', 'N', 'Bearer', 'credential_impl', 'INV_14.4', sysdate, sysdate);
```

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8. Virtual Account Management

8.1 OBRH Integration

During Bank Implementation, assuming OBRH is installed and configured as part of OBVAM installation.

For OBDX and mid-office OBVAM integration using OBRH the following configurations need to be done.

1. Carry out all the steps mentioned in **OBRH Integration Configuration** section in this document. The service provider for mid-office product OBVAM (Oracle Banking Virtual Account Management) end-points configured in OBRH is “**OBVAM**” (not required to be repeated after each patch-set).
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 end-point for the configured interfaces. The scripts are available at the following location:
 - a. /installables/db/OBVAM/version/DIGX_FW_CONFIG_ALL_O.sql (part of base installer)
 - b. /patch_incrementals/modules/OBVAM/DIGX_FW_CONFIG_ALL_O.sql (for Aug PS)
 - c. /patch_incrementals/modules/OBVAM/21.1.3.0.0_DIGX_FW_CONFIG_ALL_O.sql (for Nov PS)

Note: ‘%ENTITY_ID%’ in the above scripts 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’).

All the OBVAM APIs are now consumed from OBDX via OBRH.

This completes the entire configuration needed for consuming OBVAM APIs in OBDX through OBRH.

8.2 Verify System Configurations

Following script helps in listing the VAM specific System Configurations:-

```
SELECT prop_id as PROPERTY_IN_DATABASE, NVL(SUBSTR(t.UI_definition,
INSTR(t.UI_definition, "title")+9, INSTR(t.UI_definition, ",")-11), t.UI_definition) AS
TITLE_ON_SCREEN, t.prop_value FROM digx_fw_config_var_b t where prop_id like '%VAM%'
and module = 'OTHERMODULE' and determinant_value = '*'; -- Please enter correct determinant
value
```

Ensure correct values are maintained against the above properties.

This maintenance can be done from the “System Configuration” admin screen or directly in db schema.

Do ensure to follow the **User Credential Configuration** section in this document for configuring Connector Credential store. The OBVAM credentials required to generate token for making outbound REST API calls from OBDX to OBVAM needs to be stored here (not required to be repeated after each patch-set).

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9. Cash Management System

9.1 OBRH Integration

During Bank Implementation, assuming OBRH is installed and configured as part of OBCM installation.

For OBDX and mid Office OBCM integration using OBRH the following configurations need to be done.

1. Carry out all the steps mentioned in **OBRH Integration Configuration** section in this document. The service provider for mid-office product OBCM (Oracle Banking Cash Management) end-points configured in OBRH is “OBCM”
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 end-point for the configured interfaces. The scripts are available at the following location:

/Installables/db/OBCM/version/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 OBCM APIs that are integrated with OBDX using OBRH is as follows:

Interface Id	OBDX Screen	Description
CMS_CASHFLOW_TRANSACTION_CREATE	Create Expected Cash Flow	This API is used to create expected cashflows.
CMS_CASHFLOW_TRANSACTION_LIST	View/Edit Expected Cash Flow Details	Fetches the list of cashflows.
CMS_CASHFLOW_TRANSACTION_READ	View/Edit Expected Cash Flow Details	Fetches Cashflow Details
CMS_CASHFLOW_TRANSACTION_UPDATE	View/Edit Expected Cash Flow Details	This API is used to modify expected cashflow details.
CMS_PAYMENTS_LIST	View Payments	This API is used to fetch the list of payments.
CMS_PAYMENT_READ	View Payment Details	This API is used to fetch payment details.
CMS_MANUAL_RECONCILIATION	Manual Reconciliation	This API is used to manually reconcile cashflows/invoices with payments

Interface Id	OBDX Screen	Description
CMS_LIST_RECONCILED_TRANSACTIONS	De-Reconciliation	This API is used to fetch the list of reconciled cashflows/invoices.
CMS_DERECONCILE	De-Reconciliation	This API is used to de-reconcile already reconciled cashflows/invoices.
CMS_RECONCILIATION_RULE_LIST	View/Edit Reconciliation Rules	Fetches list of reconciliation rules maintained for a party.
CMS_RECONCILIATION_RULE_CREATE	Create Reconciliation Rule	This API is used to create reconciliation/allocation rule for a party.
CMS_RECONCILIATION_RULE_UPDATE	Edit Reconciliation Rule	This API is used to modify reconciliation/allocation rule details for a party.
CMS_RECONCILIATION_RULE_READ	View Reconciliation Rule details	Fetches reconciliation rule details.
CMS_LIST_RECONCILIATION_CATEGORIES	View/Edit Reconciliation Rules	Fetches reconciliation categories
CMS_LIST_RECONCILIATION_ATTRIBUTES	View/Edit Reconciliation Rules	Fetches reconciliation attributes
CMS_LIST_ALLOCATED_TRANSACTIONS	View Payment Details	This API is used to fetch allocation details of a payment.
CMS_LIST_ALLOCATION_ACCOUNTS	Manual Allocation	This API is used to fetch virtual accounts which can be further allocated to payments.
CMS_MANUAL_ALLOCATION	Manual Allocation	This API is used to manually allocate payments to virtual account.
CMS_CASHFLOW_FETCH	Cashflow Forecasting	This API is used to fetch cashflow forecasting data.
CMS_CCM_LIST	Cash Deposits	This API is used to fetch collection maintenance details of a cash management.
CMS_DIVISION_CODE_LIST	Cash & Cheque Deposits	This API is used to fetch division code details of a given party.

Interface Id	OBDX Screen	Description
CMS_CASH_DEPOSITS_CREATE	Cash Deposits	This API is used to create multiple cash deposits for a party.
CMS_CASH_DEPOSITS_LIST	View Cash Deposits	This API is used to fetch cash collections.
CMS_CASH_DEPOSIT_READ	View Cash Deposit Details	This API is used to fetch cash collection details.
CMS_CHEQUE_LIST	View Cheque Deposits	This API is used to fetch cheque collections.
CMS_CHEQUE_READ	View Cheque Deposit Details	This API is used to fetch cheque collection details.
CMS_BRANCH_DENOMINATION_LIST	Cash Deposits	This API is used to fetch denomination details for a particular branch.
CMS_BRANCH_CODE_LIST	Cash & Cheque Deposits	This API is used to fetch all the branch.
CMS_CASH_DEPOSIT_VALIDATE	Cash Deposits	This API is used to validate cash/cheque number uniqueness.
CMS_CMM_LIST	Cash Deposits	This API is used to fetch maintenance details of a cash management.
CMS_CASH_WITHDRAWAL_LIST	View Cash withdrawal	This API is used to fetch cash withdrawal collections.
CMS_CASH_WITHDRAWAL_READ	View Cash withdrawal details	This API is used to fetch cash withdrawal collection details.
CMS_CASH_WITHDRAWAL_CREATE	Create Cash withdrawal	This API is used to create cash withdrawal for a party.
CMS_CHEQUE_DEPOSITS_CREATE	Cheque Deposits	This API is used to create multiple cheque deposits for a party.
CMS_CASHFLOW_CODE_LIST	Cashflow Forecasting	This API is used to fetch cash flow code details.
CMS_ROUTING_LIST	Cheque Deposits	This API is used to fetch routing details.

This completes the entire configuration needed for consuming OBCM APIs in OBDX through OBRH.

We need to execute below script to fetch mid office token required for Cashflow/Payment File Upload.

```
INSERT INTO DIGX_FW_CONFIG_OUT_RS_CFG_B (SERVICE_ID, CONTEXT_URL,  
SERVICE_URL, REQUEST_MEDIA_TYPE, RESPONSE_MEDIA_TYPE, AUTHENTICATION,  
AUTH_TYPE, CREDENTIAL_STORE_TYPE, CREDENTIAL_STORE_KEY, CREATION_DATE,  
LAST_UPDATED_DATE) VALUES ('tokenOBCM144',  
'http://${OBCM_HOST_IP}:${OBCM_HOST_PORT}', 'api-gateway/platojwtauth',  
'application/json', 'application/json', 'N', 'Bearer', 'credential_impl', 'OBCM_14.4', sysdate,  
sysdate);
```

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10. Credit Facility Management

10.1 Core as Third Party

During Bank Implementation, in the case that the core system is Third Party and Mid-Office is OBCFPM and ELCM (Oracle Banking Credit Facility Management), then the entry in DIGX_FW_CONFIG_ALL_O will be: Determinant value for Third Party Entity | TP1.0, OBCFPM14.4,OBCFPM14.3, ELCM14.4,ELCM14.3

For example, if the determinant value for the Third Party Entity is OBDXBU1 then the entry will look like: OBDXBU1 | TP1.0, OBCFPM14.4,OBCFPM14.3, ELCM14.4,ELCM14.3

10.2 OBRH Integration

During Bank Implementation, assuming OBRH is installed and configured as part of OBCFPM installation.

For OBDX and mid Office OBCFPM integration using OBRH the following configurations need to be done.

1. Carry out all the steps mentioned in **OBRH Integration Configuration** section in this document. The service provider for mid-office product OBCFPM (Oracle Credit facility Management) end-points configured in OBRH is “OBCFPM”
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 end-point for the configured interfaces. The scripts are available at the following location:

/installables/db/OBCFPM/DIGX_FW_CONFIG_ALL_O.sql

/installables/db/ELCM/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 OBCFPM and ELCM APIs that are integrated with OBDX using OBRH is as follows:

Interface Id	OBDX Screen	Description
CF_LIABILITY_READ	Credit Facility Overview	This API is used to fetch the liability details of particular liability.
CF_LIABILITY_LIST	Credit Facility Overview	This API is used to fetch the liability details.
CF_COLLATERALGROU P_READ	Collateral Summary	This API is used to fetch the collateral group details of particular collateral.

Interface Id	OBDX Screen	Description
CF_COLLATERALGROUP_LIST	Collateral Summary	This API is used to fetch the collateral group details.
CF_COLLATERAL_LIST	Collateral Summary	This API is used to fetch the collateral details.
CF_COLLATERAL_READ	Collateral Summary	This API is used to fetch the collateral details of particular collateral.
CF_FACILITY_LIST	Facility Summary	This API is used to fetch the facility details
CF_FACILITY_CATEGORIESERVICE	Facility Summary	This API is used to fetch the facility category of particular facility.
CF_FACILITY_UTILIZATION	Facility Details	This API is used to fetch the facility history details
CF_COLLATERALTYPES_LIST	Collateral Evaluation	This API is used to fetch the collateral types.
CF_FACILITYCATEGORY_LIST	Apply new Facility	This API is used to fetch the facility category.
CF_FACILITYCATEGORY_LIST	Apply new Facility	This API is used to fetch the facility category.
CF_DOCUMENT_READ	Apply new Facility	This API is used to fetch the document.
CF_FETCH_APPLICATION_STATUS	Apply new Facility	This API is used to fetch the application status.
CF_FACILITY_UPDATE	Apply new Facility	This API is used to create and update facility.

Interface Id	OBDX Screen	Description
CF_COLLATERAL_OFFER	Application Tracker	This API is used to accept or reject applications.
CF_EVALUATE_COLLATERAL	Collateral Evaluation	This API is used to evaluate collateral.
CF_REVALUATE_COLLATERAL	Collateral Revaluation	This API is used to revalue collateral.
CF_COLLATERAL_READ_MULTIPLE	Collateral Read Multiple	Collateral Read for multiple collateral details

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11. Liquidity Management

11.1 OBRH Integration

During Bank Implementation, assuming OBRH is installed and configured as part of OBLM installation.

For OBDX and mid-office OBLM integration using OBRH the following configurations need to be done.

1. Carry out all the steps mentioned in **OBRH Integration Configuration** section in this document. The service provider for mid-office product OBLM (Oracle Banking Liquidity Management) end-points configured in OBRH is “**OBLM**” (not required to be repeated after each patch-set).
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 end-point for the configured interfaces. The scripts are available at the following location:
 - a. /installables/db/OBLM/version/DIGX_FW_CONFIG_ALL_O.sql (part of base installer)
 - b. /patch_incrementals/modules/OBLM/21.1.3.0.0_DIGX_FW_CONFIG_ALL_O.sql (for Nov PS)

Note: ‘%ENTITY_ID%’ in the above scripts 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’).

All the OBLM APIs are now consumed from OBDX via OBRH.

This completes the entire configuration needed for consuming OBLM APIs in OBDX through OBRH.

11.2 Verify System Configurations

Following script helps in listing the LM specific System Configurations:-

```
SELECT prop_id as PROPERTY_IN_DATABASE, NVL(SUBSTR(t.UI_definition,
INSTR(t.UI_definition, "title")+9, INSTR(t.UI_definition, ",")-11), t.UI_definition) AS
TITLE_ON_SCREEN, t.prop_value FROM digx_fw_config_var_b t where prop_id like '%LM%'
and module = 'OTHERMODULE' and determinant_value = '*'; -- Please enter correct determinant
value
```

Ensure correct values are maintained against the above properties.

This maintenance can be done from the “System Configuration” admin screen.

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12. User Credential Configuration

For some of the Mid-Office Products (OBVAM, OBTFPM, OBSCF, OBCM, INV, ASP, OBCFPM, MO_IPM) by default user credential configuration is DB-Based. However, it should be changed to use connector based configuration.

Following are the steps to change user credential configuration from DB-Based to connector based

-

- i. Update CREDENTIAL_STORE_TYPE property in table DIGX_FW_CONFIG_OUT_RS_CFG_B to “credential_impl” for the particular service ID.

Sample Script-

```
UPDATE DIGX_FW_CONFIG_OUT_RS_CFG_B set  
CREDENTIAL_STORE_TYPE='credential_impl' where SERVICE_ID='tokenOBTFPM142';
```

- ii. Create/Update required Connector Credentials mapping in weblogic console for particular Host (Outbound Connection) by referring to **Oracle Banking Digital Experience Connector Credential Store Guide.pdf**

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13. OBRH Integration Configuration

To consume Mid-Office APIs in OBDX using OBRH, following configurations need to be completed:

1. To integrate OBRH with OBDX, first some generic configurations and scripts needs to be executed. The Details for the same can be referred from **Oracle Banking Digital Experience Host Integration Guide; Section 7: Configurations for OBRH Integration.**

Note: Please skip adding entries to call OBRH end-point from adapters for already provided out of the box integrations from OBDX.

2. For Consuming Mid-Office Product services via OBRH, where OBDX will act as a consumer for OBRH, OBDX Consumer configurations required by OBRH needs to be imported in OBRH. The File to be imported would be present at the following location:
/installables/obrh/OBDX_Consumer.json.

Refer **OBRH User Manual, Import Service Consumer** section for how to import a consumer JSON in OBRH

3. Once the import is done successfully, you need to update the mid-office service provider's default implementation for IP, Port, Token Username and Token Password. Refer **OBRH User Manual, Add/Edit Implementation** section for achieving the same.

Note:

- When using OBRH there is no specific host implementation adapters. We use the third party adapter implementation for all services. The request and response specifications sent and received from OBRH for an end-point can be referred from the following: **externalinterface-api.zip**

- Any other assistance required regarding OBRH, you could refer the **OBRH User Manual.**
 - Also if anymore custom fields need to be sent to host or more fields are need to be configured in response; the following changes needs to be done
 - a. Fields needs to be added in OBDX Request and Response
 - b. Transformations needs to be changed in OBRH. Refer **OBRH User Manual, Request and Response Transformation Section.**
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