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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 cover following:

- Introduction
- Prerequisites
- Installation
- Post Installation Steps
- Product Verification
- Multi-Entity Installation and configuration

1.5 Related Information Sources

For more information on Oracle Banking Digital Experience Release 18.1.0.0.0, refer to the following documents:

- Oracle Banking Digital Experience Licensing Guide
- Oracle Banking Digital Experience Installer Pre-Requisite Setup Manual
- Oracle Banking Digital Experience OBP Base Setup and Configuration
- Oracle Banking Digital Experience OBP US LZN Setup and Configuration
- Oracle Banking Digital Experience OFSLL Setup Configuration
- Oracle Banking Digital Experience Origination Social Media Integration
- Oracle Banking Digital Experience OHS User Interface Configuration
- Oracle Banking Digital Experience Chatbot Configuration
• Oracle Banking Digital Experience Mobile Application Builder-Android
• Oracle Banking Digital Experience Mobile Application Builder-iOS
• Oracle Banking Digital Experience Security Guide
• Oracle Banking Digital Experience System Configuration
• User Manual Oracle Banking Digital Experience Core
• Oracle Banking Digital Experience File Upload Report Configuration
2. Introduction

2.1 Purpose of the Document

The purpose of the OBDX Installation Manual is to provide a step by step overview on the installation process of the solution.

It includes:

- Reference to prerequisites software installation required for OBDX & OBDX installer
- Setup of OBDX with Oracle’s own Core Banking and Origination Products along with Third-party HOST system.
- Running the installation in silent mode
- Advanced Configurations (Post installation)
- Installation Verification
- Multi-Entity Installation and configuration
3. **Prerequisites**

OBDX pre-requisite software should be installed and available before proceeding.

For OBDX pre-requisite software setup refers document "Oracle Banking Digital Experience Installer Pre-Requisite Setup Manual" mentioned in section 1.5 Related Information Sources.

**Installer Pre-requisite verification**

Post installation of OBDX Installer prerequisite software’s, verification can be done using below steps.

**Note:** Verification should be performed on Server where Oracle Weblogic is locally installed and by OS user (which is owner for Oracle Weblogic home directory) for non-root steps. The same user will be used to execute installer.

**Oracle Instant client**

**Step 1:** Login using root user.

**Step 2:** Run below command to verify if Oracle Instant client is installed.

```
rpm –qa | grep oracle
```

```
[root@ ]# rpm –qa | grep oracle
oraclelinux-release-7.3-1.0.4.el7.x86_64
oracle-logos-70.0.3-4.0.7.el7.noarch
oracle-instantclient12.2-basic-12.2.0.1.0-1.x86_64
```

**Note:** Above package verification command is specific to Oracle Linux and RHEL distributions only. For other Linux distributions or OS please refer to OS specific package manager documentation.

**Python**

**Step 1:** Execute python –V command

```
python -V
```

```
[ ]# python -V
Python 2.7.5
```

**Note:** Ensure Python 2.7.5 supported version is installed. Above command should reflect the same.

**cx_Oracle & Urwid**

**Step 1:** Execute python command

```
python
```

**Note:** Ensure Python 2.7.5 version should be available in PATH variable. Above execution should be done using Python 2.7.5.
Step 2: Import Urwid and check version

```python
import urwid (Press Enter)
urwid.__version__
```

If version is displayed, then Urwid is installed and available for use.

**Note:** Ensure Urwid 1.3.1 supported version is installed. Above command should reflect the same.

Step 3: Similarly import cx_Oracle and check version

```python
import cx_Oracle (Press Enter)
cx_Oracle.version
```

If version is displayed, then cx_Oracle is installed and available for use.

**Note:** Ensure cx_Oracle 5.2.1 supported version is installed. Above command should reflect the same.
4. Installation

Pre-Installation

- Install all the prerequisite software and packages mentioned above

Steps of Installation

- Download and extract the installer zip file (Base – non localization version).
- Navigate to “<OBDX INSTALLER DIR>/core/config”
- Open the “installer.properties” file to maintain key configurations for BASE ENTITY (OBDX_BU)

**IMPORTANT:**

- Enter the values right after the “=” sign
- DO NOT change anything to the left of the “=”
- DO NOT change any of the flag values or pre-filled values (such as DataSourceName, DataSourceJNDI, Flag values etc) available post “Factory Shipped” section.
- Ensure there is no blank space after “=” sign
Only below parameters should be set in installer.properties file.

<table>
<thead>
<tr>
<th>Component</th>
<th>Parameter</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>DB details (for Weblogic RCU and OBDX schema)</td>
<td>DatabaseHostName</td>
<td>Enter the hostname of the database server which would host the database schema for OBDX and RCU</td>
<td>ofss310759</td>
</tr>
<tr>
<td></td>
<td>DatabaseHostPort</td>
<td>Enter the port number of the database listener</td>
<td>1521</td>
</tr>
<tr>
<td></td>
<td>DatabaseHostSID</td>
<td>Enter the Oracle Service Name for database instance</td>
<td>OBDXSID</td>
</tr>
<tr>
<td></td>
<td>DB_SYS_USER</td>
<td>Enter the username with 'sys' privileges</td>
<td>sys</td>
</tr>
<tr>
<td></td>
<td>POST_FIX</td>
<td>For OBDX schema name like &quot;OBDX_DEV&quot; POST FIX is 'DEV'. SHOULD BE IN UPPERCASE ONLY.</td>
<td>DEV</td>
</tr>
<tr>
<td></td>
<td>DIRECTORY_NAME</td>
<td>Enter the directory name in which you want the OBDX schema tablespace datafile to be created. Enter Logical name (i.e. DIRECTORY_NAME column) from DBA_DIRECTORIES table NOT the physical path.</td>
<td>OPATCH_LOG_DIR</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>Parameter</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>UBS DB details (to be configured only in-case of FLAVOR as UBS)</td>
<td>DatabaseHostNameUBS</td>
<td>Enter the hostname for the UBS HOST database host server</td>
<td>ofss310759</td>
</tr>
<tr>
<td></td>
<td>DatabaseHostPortUBS</td>
<td>Enter the port number of the UBS database listener</td>
<td>1521</td>
</tr>
<tr>
<td></td>
<td>SCHEMA_NAME_UBS</td>
<td>Enter the Complete OBDX-EXT (B1A1) HostInterfaceschema name you want installer to create as new schema. SHOULD BE IN UPPERCASE ONLY.</td>
<td>UBSSCHEMA123</td>
</tr>
<tr>
<td></td>
<td>DIRECTORY_NAME_UBS</td>
<td>Enter the directory name in which you want the OBDX-EXT (B1A1) schema tablespace datafile to be created. Enter Logical name (i.e. DIRECTORY_NAME column) from DBA_DIRECTORIES table NOT the physical path.</td>
<td>OPATCH_LOG_DIR</td>
</tr>
</tbody>
</table>
### Installation Guide

**Component** | **Parameter** | **Description** | **Example**
--- | --- | --- | ---
WEBLOGIC server details | MiddlewareHome | Middleware home path. Example `/home/obdxuser/Oracle/Middleware/Oracle_Home` - where you have directories like `wlserver`, `oracle_common` etc. | `/home/obdxuser/Oracle/Middleware/Oracle_Home`
 | JAVA_HOME | Path where JAVA (JDK) is installed | `/home/obdxuser/jdk18`
 | INSTALLATION_HOME | Path where OBDX is to be installed. All configuration files will be copied as a sub-directory “config” under this directory. **DO NOT KEEP INSTALLATION_HOME AS MiddlewareHome.** | `/home/obdxuser/obdx`
 | DOMAIN_PATH | Path where OBDX Weblogic domain should be created. Users can now enter custom path as per their requirements. | `/home/obdxuser/domains`
 | ClusterName | Name of cluster; this cluster would have one single managed server. | `obdx_cluster`
 | ClusterMachineName List | Host name or IP address of managed server participating in the cluster. **Currently only single node is supported.** | `ofss310759`
<table>
<thead>
<tr>
<th><strong>HostMachinePort</strong></th>
<th>AdminServer port. It is the port to access the administrative console of the Weblogic server. Generally port 7001 is used as the AdminServer port.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HostMachineSSLPort</strong></td>
<td>AdminServer SSL port. It is the port used to securely access (https) the administrative console of the Weblogic server. Generally port 7002 is used as the AdminServer port.</td>
</tr>
<tr>
<td><strong>NodeManagerPort</strong></td>
<td>Node Manager Port. It is the port used by Node Manager to be configured for OBDX domain. Generally, 5556 is utilized as Node Manager Port. <strong>Custom ports are supported.</strong></td>
</tr>
<tr>
<td><strong>ManagedServerName</strong></td>
<td>Managed server name. This will be the name of the managed server created in the cluster followed by indexes. eg- If this is set as 'clip' managed servers would be clip1etc.</td>
</tr>
<tr>
<td><strong>ManagedServerPort</strong></td>
<td>Managed Server Port. Managed server will utilize this port for hosting OBDX components and associated resources.</td>
</tr>
<tr>
<td><strong>DomainName</strong></td>
<td>Enter Weblogic Domain name.</td>
</tr>
<tr>
<td><strong>DomainUserID</strong></td>
<td>Domain user ID. The user id will be used to access the Weblogic Administrative console.</td>
</tr>
<tr>
<td><strong>FileUploadFileStore</strong> (to be configured for all OBDX supported HOST)</td>
<td>Set the paths for the persistence stores of the FileUpload JMS modules. <strong>DO NOT KEEP path as INSTALLATION_HOME or as sub directory inside INSTALLATION_HOME.</strong></td>
</tr>
<tr>
<td><strong>AuditFileStore</strong> (to be configured for all OBDX supported HOST)</td>
<td>Set the paths for the persistence stores of the Audit JMS modules. <strong>DO NOT KEEP path as INSTALLATION_HOME or as sub directory inside INSTALLATION_HOME.</strong></td>
</tr>
<tr>
<td><strong>ReportsFileStore</strong> (to be configured for all OBDX supported HOST)</td>
<td>Set the paths for the persistence stores of the Reports JMS modules. <strong>DO NOT KEEP path as</strong></td>
</tr>
</tbody>
</table>

**Installation Guide**
**Note:** Apart from above any other property values should not be modified

Ensure ORACLE_HOME, JAVA_HOME variable are set and their binaries are available in PATH variable before proceeding.

Login with OS user which was used to perform OBDX pre-requisite software installation (or has ownership on Oracle Weblogic home directory)

Ensure OBDX Installation home and filestore path maintained in installer.properties exists and user running the installer has read-write permissions.

- From your terminal navigate to `<OBDX INSTALLER DIR>/`
- Enter the following command

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>INSTALLATION_HOME or as sub directory inside INSTALLATION_HOME.</td>
<td>/scratch/obdx/Receiver</td>
</tr>
<tr>
<td>ExtSystemReceiverFileStore (to be configured for Third-party OBDX host only)</td>
<td>Set the paths for the persistence stores of the ExtSystemReceiver JMS modules. <strong>DO NOT KEEP path as INSTALLATION_HOME or as sub directory inside INSTALLATION_HOME.</strong></td>
</tr>
<tr>
<td>ExtSystemSenderFileStore (to be configured for Third-party OBDX host only)</td>
<td>Set the paths for the persistence stores of the ExtSystemSender JMS modules. <strong>DO NOT KEEP path as INSTALLATION_HOME or as sub directory inside INSTALLATION_HOME.</strong></td>
</tr>
<tr>
<td>JMSForeignServerURL (to be configured for UBS host only)</td>
<td>Set the IP and port for UBS Managed server where JMS queue are available (Specific to OBDX – UBS flavor)</td>
</tr>
<tr>
<td>STBSchemaPrefix</td>
<td>STB schema name prefix. If schema pre-fix is ‘OBDX’ then ‘OBDX_STB’ would be the STB schema name.</td>
</tr>
<tr>
<td>RCU</td>
<td></td>
</tr>
<tr>
<td>STBSchemaPrefix</td>
<td></td>
</tr>
<tr>
<td>OBDXAuthenticator Admin user details</td>
<td></td>
</tr>
<tr>
<td>DBAuthUser</td>
<td>Set username for OBDX application Admin user. <strong>USERNAME IS CASE SENSITIVE. In-case of OUD as provider username should be the User ID mentioned during user creation steps mentioned in pre-requisite document (refer To create User and mapping it to the Group section)</strong></td>
</tr>
<tr>
<td>DBAuthMailID</td>
<td>Enter the Email ID for OBDX application admin user.</td>
</tr>
<tr>
<td>DBAuthPhoneNo</td>
<td>Enter the mobile number for OBDX application admin user. <strong>COUNTRY CODE IS MUST.</strong></td>
</tr>
</tbody>
</table>

- Login with OS user which was used to perform OBDX pre-requisite software installation (or has ownership on Oracle Weblogic home directory)
- Ensure OBDX Installation home and filestore path maintained in installer.properties exists and user running the installer has read-write permissions.
- From your terminal navigate to `<OBDX INSTALLER DIR>/`
- Enter the following command
python runInstaller.py

Select the appropriate type of Installation

- **OBDX Installation**: This option should be used for first-time installation or for first entity only. Existing installation should not utilize this option unless performing “Clean and Install” on already installed environment.
- **New Entity Creation**: This option should be used for multi-entity installation only.

Post selection of installation type.
Select the appropriate host system for Installation
Post selection of host system below installation mode would be available
Mode of Installation - New Installation

- New installation

In-case of a fresh installation of OBDX with appropriate host system for the first run on server. Below screens would appear with respective to host selected
Universal Banking Solution (OBDX with UBS)

Select the version of UBS HOST system from available options

Post UBS HOST version selection, enter the required credentials details
Enter below passwords:

- SYS privilege user password where OBDX schema would be created
- OBDX schema password
- OBDX STB schema password
- Weblogic console administrator user password
- SYS privilege user password where UBS host schema exists
- Existing UBS HOST schema password
- New OBDX EXT schema password
- Password for OBDX application admin user (In-case of OUD as provider, password should be similar to one used while user creation in OUD (or User Password field))

**Oracle Banking Platform (OBDX with OBP)**
No additional input required. Screen is same as available in Third Party System.

**Oracle Financial Services Lending and Leasing (OBDX with OFSLL)**
No additional input required. Screen is same as available in Third Party System.
Third Party System (OBDX with THP)

Post Third Party System selection, enter the required credentials details

Enter below passwords:

- SYS privilege user password where OBDX schema would be created
- OBDX schema password
- OBDX STB schema password
- Weblogic console administrator user password
- OBDX application admin user password (In-case of OUD as provider, password should similar to one used while user creation in OUD (or User Password field))
**Mode of Installation - Clean and Install**

In-case of an existing OBDX installation that you want to overwrite OR in case of a previously failed installation user can opt for this option.

**Pre-requisites**

- Weblogic domain processes should be down (i.e. AdminServer, NodeManager, Managed Servers, Derby etc)
- No open session (user should not be logged-in) with OBDX database schema (and OBDX EXT schema in-case of OBDX UBS flavor) and RCU schema.

**Key pointers**

- OBDX schema (and OBDX EXT schema in-case of OBDX UBS flavor) and RCU schema would be dropped and recreated (as per installer.properties). Tablespace would be re-used.
- Weblogic domain (as per installer.properties) would be deleted and created again.
- Installation Home would be cleaned up and all files/ sub-directories would be deleted.

**Note:** All input screens are similar to new installation option and as per the host system opted.
Installation Status

After selecting the mode and entering all required details, the status is displayed (as shown below) on the terminal to indicate the progress of the installation.

When the installation completes, the below message is displayed.
5. Installation In Silent Mode

This chapter describes how to run the OBDX installer in silent mode.

What is silent-mode installation?

During installation in silent mode, the installation program reads the details for your configuration from the environment properties and installer.properties that you set for the session before beginning the installation. The installation program does not display any configuration options during the installation process.

Steps for Silent-Mode Installation

- Set the environment variables

```bash
[OBDX_Installer]$ export FLAVOUR=UBS
[OBDX_Installer]$ export MODE=New
[OBDX_Installer]$ export DB_SYS_PASSWORD=welcome
[OBDX_Installer]$ export SCHEMA_PASS=welcome
[OBDX_Installer]$ export STBPassword=welcome
[OBDX_Installer]$ export DomainPassword=welcome
[OBDX_Installer]$ export DBAuthPassword=Welcome1
[OBDX_Installer]$ export DB_SYS_PASSWORD_UBS=welcome
[OBDX_Installer]$ export UBS_PASS=UBS123
[OBDX_Installer]$ export SCHEMA_PASS_UBS=welcome
[OBDX_Installer]$ export...
```

...
Below parameters should be set in environment variables

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLAVOUR</td>
<td>Flavour for installation 'UBS' for Universal Banking Solution (Installation with UBS)</td>
</tr>
<tr>
<td>MODE</td>
<td>Mode of installation. 'New' in-case of a fresh installation of OBDX for the first run on server 'Clean' in-case of an existing OBDX installation that you want to overwrite OR in case of a previously failed installation</td>
</tr>
<tr>
<td>DB_SYS_PASSWORD</td>
<td>Sys password of OBDX database (Existing)</td>
</tr>
<tr>
<td>SCHEMA_PASS</td>
<td>Password for new schema on OBDX database</td>
</tr>
<tr>
<td>STBPassword</td>
<td>Password for STB schema</td>
</tr>
<tr>
<td>DomainPassword</td>
<td>Password for weblogic admin console</td>
</tr>
<tr>
<td>DB_SYS_PASSWORD_UBS</td>
<td>Sys password of UBS database (Existing)</td>
</tr>
<tr>
<td>UBS_PASS</td>
<td>Password of existing HOST UBS schema (Existing)</td>
</tr>
<tr>
<td>SCHEMA_PASS_UBS</td>
<td>Password for new B1A1 schema on UBS database</td>
</tr>
<tr>
<td>DBAuthPassword</td>
<td>Password for new Admin user of the application (In-case of OUD as provider, password should similar to one used while user creation in OUD(or User Password field))</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLAVOUR</td>
<td>Flavour for installation 'OBP' for Oracle Banking Platform (OBDX with OBP) 'OBDX' for Third Party System (OBDX with THP) 'FLL' for Oracle Financial Services Lending and Leasing (OBDX with OFSLL)</td>
</tr>
<tr>
<td>Mode</td>
<td>Mode of installation. 'New' in-case of a fresh installation of OBDX for the first run on server 'Clean' in-case of an existing OBDX installation that you want to overwrite OR in case of a previously failed installation</td>
</tr>
<tr>
<td>DB_SYS_PASSWORD</td>
<td>Sys password of OBDX database (Existing)</td>
</tr>
<tr>
<td>SCHEMA_PASS</td>
<td>Password for new schema on OBDX database</td>
</tr>
<tr>
<td>STBPassword</td>
<td>Password for STB schema</td>
</tr>
<tr>
<td>DomainPassword</td>
<td>Password for weblogic admin console</td>
</tr>
<tr>
<td>DBAuthPassword</td>
<td>Password for new Admin user of the application (In-case of OUD as provider, password should similar to one used while user creation in OUD (or User Password field))</td>
</tr>
</tbody>
</table>
Run the runInstaller.py file with ‘--silent’ argument along with ‘--base’ option

```
OE_DXInstaller$ python runInstaller.py --silent --base
```

**Installation Status**

After all passwords are entered, the status is displayed on the terminal to indicate the progress of the installation.

When the installation completes, the below message is displayed
6. Installer Verification

Each execution creates a new directory as `<DDMonthHHMM>` under `<OBDX INSTALLER DIR>/ExecInstances` directory where output logs as described are stored.

<table>
<thead>
<tr>
<th>Log Description</th>
<th>PATH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summarized Installer Activity Log</td>
<td><code>&lt;OBDX INSTALLER DIR&gt;/ExecInstances/&lt;DDMonthHHMM&gt;/logs/obdxinstaller.log</code></td>
</tr>
<tr>
<td>Summarized Database Logs</td>
<td><code>&lt;OBDX INSTALLER DIR&gt;/ExecInstances/&lt;DDMonthHHMM&gt;/logs/db/DB_installation.log</code></td>
</tr>
<tr>
<td>Detailed OBDX DB Logs per SQL file</td>
<td><code>&lt;OBDX INSTALLER DIR&gt;/ExecInstances/&lt;DDMonthHHMM&gt;/logs/db/OBDX/*</code></td>
</tr>
<tr>
<td>Detailed UBS DB Logs per SQL file (specific to UBS host system only)</td>
<td><code>&lt;OBDX INSTALLER DIR&gt;/ExecInstances/&lt;DDMonthHHMM&gt;/logs/db/UBS/*</code></td>
</tr>
<tr>
<td>RCU Logs</td>
<td><code>&lt;OBDX INSTALLER DIR&gt;/ExecInstances/&lt;DDMonthHHMM&gt;/logs/app/obdx_stb_rcu_1600.log</code></td>
</tr>
<tr>
<td>Weblogic Configuration Logs</td>
<td><code>&lt;OBDX INSTALLER DIR&gt;/ExecInstances/&lt;DDMonthHHMM&gt;/logs/app/obdx_wls_post.log</code></td>
</tr>
<tr>
<td>Detailed policy seeding logs per SQL Statement</td>
<td><code>&lt;OBDX INSTALLER DIR&gt;/ExecInstances/&lt;DDMonthHHMM&gt;/logs/db/out.log</code></td>
</tr>
<tr>
<td>Detailed policy seeding logs if SQL execution fails</td>
<td><code>&lt;OBDX INSTALLER DIR&gt;/ExecInstances/&lt;DDMonthHHMM&gt;/logs/db/error.log</code></td>
</tr>
</tbody>
</table>

**Note:** It will be created in case of failure during execution of policies.

Policy seeding jar failure Log

Check all the logs for any errors.
7. **Installer Scope**

OBDX Installer currently covers below activities:

**Flavor: Third Party system (OBDX with THP)**

<table>
<thead>
<tr>
<th>Flavor</th>
<th>Activity</th>
<th>Detailed Activity List</th>
<th>New Installation</th>
<th>Clean and Install</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBDX (Installation with Third Party System)</td>
<td>OBDX DB Setup</td>
<td>Create Tablespace</td>
<td>✓</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Create Schema and Role</td>
<td>✓</td>
<td>✓ (drop and create)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Grants</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Load DB object (DDL's and DML's)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Compile Schema</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Weblogic Setup and Configuration</td>
<td>RCU schema and Create Domain</td>
<td>✓</td>
<td>✓ (drop and create)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Create and Configure AdminServer, Machine, Managed Server and Cluster</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Configure NodeManager</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Configure JDBC</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Configure DB Authenticator, JMS servers, Persistent stores and JMS Modules</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Application Deployment</td>
<td>✓</td>
<td>✓</td>
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<td></td>
<td></td>
<td>JTA</td>
<td>✓</td>
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<td></td>
<td></td>
<td>Enable Production Mode</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Start AdminServer and NodeManager</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>OBDX Configuration</td>
<td>Copy Config files into OBDX Installation Home</td>
<td>✓</td>
<td></td>
<td>✓ (Delete old and copy new from installer zip)</td>
</tr>
</tbody>
</table>
## Flavor: Universal Banking Solution (OBDX with UBS)

<table>
<thead>
<tr>
<th>Flavor</th>
<th>Activity</th>
<th>Detailed Activity List</th>
<th>New Installation</th>
<th>Clean and Install</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBDX DB Setup</td>
<td>Create Tablespace</td>
<td>√</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Create Schema and Role</td>
<td>√</td>
<td>√ (drop and create)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grants</td>
<td>√</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Load DB object (DDL's and DML's)</td>
<td>√</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Compile Schema</td>
<td>√</td>
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</tr>
<tr>
<td>OBDX EXTSYSTEM DB Setup</td>
<td>Create Tablespace</td>
<td>√</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Create Schema and Role</td>
<td>√</td>
<td>√ (drop and create)</td>
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<td>Grants</td>
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<td></td>
<td>Load DB object (DDL's and DML's)</td>
<td>√</td>
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</tr>
<tr>
<td></td>
<td>DB Link pointing to OBDX Schema</td>
<td>√</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Compile Schema</td>
<td>√</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Weblogic Setup and Configuration</td>
<td>RCU schema and Create Domain</td>
<td>√</td>
<td>√ (drop and create)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Create and Configure AdminServer, Machine, Managed Server and Cluster</td>
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<tr>
<td></td>
<td>Configure NodeManager</td>
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<td></td>
<td>Configure JDBC</td>
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<tr>
<td></td>
<td>Enable Production Mode</td>
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</tr>
</tbody>
</table>
### Installer Scope

<table>
<thead>
<tr>
<th>Flavor</th>
<th>Activity</th>
<th>Detailed Activity List</th>
<th>New Installation</th>
<th>Clean and Install</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBDX</td>
<td>Start AdminServer and NodeManager</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Configuration</td>
<td>Copy Config files into OBDX Installation Home and configure Preferences.xml (set AdapterFactories)</td>
<td></td>
<td>✓</td>
<td>✓ (Delete old and copy new from installer zip)</td>
</tr>
</tbody>
</table>

#### Flavor: Oracle Banking Platform (OBDX with OBP)

<table>
<thead>
<tr>
<th>Flavor</th>
<th>Activity</th>
<th>Detailed Activity List</th>
<th>New Installation</th>
<th>Clean and Install</th>
</tr>
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<tr>
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<td>NA</td>
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<td>(Installation with Oracle Banking Platform)</td>
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<td>✓</td>
<td>✓ (drop and create)</td>
</tr>
<tr>
<td></td>
<td>Grants</td>
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<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Load DB object (DDL’s and DML’s)</td>
<td></td>
<td>✓</td>
<td>✓</td>
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<tr>
<td></td>
<td>Compile Schema</td>
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<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Weblogic Setup and</td>
<td>RCU schema and Create Domain</td>
<td></td>
<td>✓</td>
<td>✓ (drop and create)</td>
</tr>
<tr>
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<td>Create and Configure AdminServer, Machine, Managed Server and Cluster</td>
<td></td>
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<td>✓</td>
</tr>
<tr>
<td></td>
<td>Configure NodeManager</td>
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<td>✓</td>
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<td></td>
<td>Configure JDBC</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
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<td></td>
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<td>JTA</td>
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<td></td>
<td>Enable Production Mode</td>
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<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Start AdminServer and NodeManager</td>
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<td>✓</td>
<td>✓</td>
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<tr>
<td></td>
<td>OBDX</td>
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<td>✓</td>
<td>✓ (Delete old</td>
</tr>
</tbody>
</table>

Installation Guide
<table>
<thead>
<tr>
<th>Flavor</th>
<th>Activity</th>
<th>Detailed Activity List</th>
<th>New Installation</th>
<th>Clean and Install</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Configuration</td>
<td>Installation Home</td>
<td></td>
<td>and copy new from installer zip</td>
</tr>
</tbody>
</table>

**Flavor: Oracle Financial Services Lending and Leasing (OBDX with OFSLL)**

<table>
<thead>
<tr>
<th>Flavor</th>
<th>Activity</th>
<th>Detailed Activity List</th>
<th>New Installation</th>
<th>Clean and Install</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBDX DB Setup</td>
<td>Create Tablespace</td>
<td>√</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Create Schema and Role</td>
<td>√</td>
<td>√ (drop and create)</td>
<td></td>
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<td></td>
<td>Grants</td>
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<tr>
<td></td>
<td>Compile Schema</td>
<td>√</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>OBDX with OFSLL</td>
<td>RCU Schema and Create Domain</td>
<td>√</td>
<td>√ (drop and create)</td>
<td></td>
</tr>
<tr>
<td>(Installation with Oracle Financial Services Lending and Leasing)</td>
<td>Create and Configure AdminServer, Machine, Managed Server and Cluster</td>
<td>√</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Configure NodeManager</td>
<td>√</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Configure JDBC</td>
<td>√</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>Weblogic Setup and Configuration</td>
<td>Configure DB Authenticator, JMS servers, Persistent stores and JMS Modules</td>
<td>√</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Application Deployment</td>
<td>√</td>
<td>√</td>
<td></td>
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<tr>
<td></td>
<td>JTA</td>
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<td></td>
<td>Enable Production Mode</td>
<td>√</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Start AdminServer and NodeManager</td>
<td>√</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>OBDX Configuration</td>
<td>Copy Config files into OBDX Installation Home and configure Preferences.xml (set AdapterFactories)</td>
<td>√</td>
<td>√ (Delete old and copy new from installer zip)</td>
<td></td>
</tr>
</tbody>
</table>
8. **Post Installation Steps**

Once installation is successful and no errors are observed, proceed with below set of steps.

**Apply JRF Template**

To apply JRF template follow below steps.

- To do this, ensure that the Admin Server is running. Login to the EM (Enterprise Manager) Console using the following URL:

  \[http://<hostname>:<admin_port>/em\]

**Note:** EM console would be available on same hostname and port which was used for Weblogic Admin Console for OBDX domain (created via installer), just replace the “/console” with “/em”.

---

![Image of EM Console login](image-url)

**Sign In To**

**ORACLE ENTERPRISE MANAGER**

**FUSION MIDDLEWARE CONTROL 12c**

![Image of EM Console login](image-url)

**Domain**

**Domain_OBDX_INS_TEST**

**User Name**

**Password**

[Login & Partition]  
[Sign In]
- Enter Weblogic administrator username and password (same used for Weblogic administrator console login)
Click on Sign In

![Managed Server Highlighted](image)

- Click on the Managed Server (as highlighted below)

<table>
<thead>
<tr>
<th>Name</th>
<th>Status</th>
<th>Cluster</th>
<th>Machine</th>
<th>State</th>
<th>Health</th>
<th>Listen Port</th>
</tr>
</thead>
<tbody>
<tr>
<td>AdminServer</td>
<td>Running</td>
<td></td>
<td></td>
<td></td>
<td>OK</td>
<td>9001</td>
</tr>
<tr>
<td>ODBX_INS1</td>
<td>shutdown</td>
<td>Installer</td>
<td>Host1</td>
<td></td>
<td>Unknown</td>
<td>9003</td>
</tr>
</tbody>
</table>

Note: Depending on installer.properties, Managed server will differ from above screenshot.
- Click on “Lock and Edit” option (as shown in screenshot).
You will see below screen stating the edit session confirmation

- Click on “Apply JRF Template” option (as shown in screenshot).
Is JRF successfully applied, you will get below Confirmation.

- Click on “Activates Changes” option (as shown in screenshot).
Post activation you will receive below Confirmation.

**OBDX Application logging**

To enable OBDX activation logging make below change to logging.xml present at
$\{domain.home\}/config/fmwconfig/servers/$\{ManagedServer\}.

Open logging.xml and make a new entry under `<log_handlers>` tag using below code template:
Below is a sample implementation for log_handlers file.

```xml
<log_handler name='obdx-handler' level='ERROR' class='oracle.core.ojdl.logging.ODLHandlerFactory'>
  <property name='path' value='${domain.home}/servers/${weblogic.Name}/logs/obdx.log' />
  <property name='maxFileSize' value='10485760' />
  <property name='maxLogSize' value='104857600' />
  <property name='encoding' value='UTF-8' />
  <property name='useThreadName' value='true' />
  <property name='supplementalAttributes' value='J2EE_APP.name, J2EE_MODULE.name, WEBSERVICE.name, WEBSERVICE_PORT.name, composite_instance_id, component_instance_id, composite_name, component_name' />
</log_handler>
```

Add loggers under `<loggers>` tag using below template:

```xml
<logger name='com.ofss' level='ERROR' useParentHandlers='false'>
  <handler name='obdx-handler' />
</logger>

<logger name='#BANKCODE#.com.ofss' level='ERROR' useParentHandlers='false'>
  <handler name='obdx-handler' />
</logger>
```
Post Installation Steps

Note: Replace the #BANKCODE# with bank code.

Below is a sample implementation for loggers file

```xml
<logger name='com.ofss' level='ERROR' useParentHandlers='false'>
    <handler name='obdx-handler' />
</logger>

<logger name='000.com.ofss' level='ERROR' useParentHandlers='false'>
    <handler name='obdx-handler' />
</logger>
```

Eclipselink logging

To modify eclipselink logging make changes in `<INSTALLATION_HOME>/config/META-INF/persistence.xml` using below link:

[https://wiki.eclipse.org/EclipseLink/Examples/JPA/Logging](https://wiki.eclipse.org/EclipseLink/Examples/JPA/Logging)
Change logging level during runtime

To change OBDX application logging level at runtime (when OBDX application is up and running) do following steps.

To do this, ensure that the Admin Server is running. Login to the EM (Enterprise Manager) Console using the following URL:

http://<hostname>:<admin_port>/em

**Note:** EM console would be available on same hostname and port which was used for Weblogic Admin Console for OBDX domain (created via installer), just replace the “/console” with “/em”.
• Click on obdx-server

**Note:** Depending on installer.properties, Managed server will differ from above screenshot.
- In Weblogic Domain menu click on Logs -> Logs Configurations

- Select the logger and change the logging level and then click on apply.
Note: Logger name should be defined in logging.xml.

Universal Banking Solution (OBDX with UBS)

If during installer execution Universal Banking Solution (OBDX with UBS) is selected, then below steps needs to be done manually.

Foreign Server

- Login into Weblogic Admin console (OBDX domain created using installer) and Browse to Summary of JMS Modules > UBSSystemModule (as shown below)
### Post Installation Steps

**Summary of JMS Modules**

JMS system resources are configured and stored as modules similar to standard Java EE modules. Such resources include queues, topics, connection factories, templates, destination keys, quotas, distributed queues, distributed topics, foreign servers, and JMS is configured and managed by system modules in global system resources.

This page summarizes the JMS system modules that have been created for this domain.

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Scope</th>
<th>Domain Partitions</th>
</tr>
</thead>
<tbody>
<tr>
<td>RemoteJMS</td>
<td>JMSSystemResource</td>
<td>Global</td>
<td></td>
</tr>
<tr>
<td>JMS</td>
<td>JMSSystemResource</td>
<td>Global</td>
<td></td>
</tr>
<tr>
<td>MailChannelJMS</td>
<td>JMSSystemResource</td>
<td>Global</td>
<td></td>
</tr>
<tr>
<td>ReportsJMS</td>
<td>JMSSystemResource</td>
<td>Global</td>
<td></td>
</tr>
<tr>
<td>UBESystemModule</td>
<td>JMSSystemResource</td>
<td>Global</td>
<td></td>
</tr>
</tbody>
</table>

**Settings for UBESystemModule**

This page displays general information about a JMS system module and its resources. It also allows you to configure new resources and access existing resources.

- **Name:** UBESystemModule
- **Scope:** Global
- **Descriptor File Name:** jms/ubeystemmodule-jms.xml

This page summarizes the JMS resources that have been created for this JMS system module, including queues and topic destinations, connection factories, JMS templates, destination sort hierarchies, destination quotas, distributed destinations, foreign servers, and store-and-forwarding.

**Summary of Resources**

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>JMSI Name</th>
<th>Subdeployment</th>
</tr>
</thead>
<tbody>
<tr>
<td>UBEForeignServer</td>
<td>Foreign Server</td>
<td>N/A</td>
<td>UBEDeployment</td>
</tr>
</tbody>
</table>
• Click on UBSForeignServer

![Image of UBSForeignServer settings](image)

- **Name:** UBSForeignServer
- **JNDI Initial Context Factory:** weblogic.jndi.WLInitialContext
- **JNDI Connection URL:** 127.184.135.69:7860
- **JNDI Properties Credential:** 

```
java.security.principal=infra
```

- **Default Targeting Enabled**

  ![Image of Lock & Edit](image)

• Click on Lock & Edit

  ![Image of Lock & Edit settings](image)
Set below configurations with:

**JNDI Connection URL** – UBS HOST Weblogic t3 URL for Managed server (where NOTIFY_DEST_QUEUE and NOTIFY_DEST_QUEUE_FCDB are mapped)

**JNDI Properties Credential** – Password for username set in JNDI properties

**Confirm JNDI Properties Credential** – Confirm password for username set in JNDI properties

**JNDI Properties** – Value to be set as "java.naming.security.principal=<username>", where username is the login user of UBS Weblogic Admin Console (user which created the primary local queues for UBS).

- Click on Save
- Click on Activate Changes
Deployment of notification MDB application

Before deployment of obdx.externalsystem.ubs.notification.mdb.ear application, kindly perform below steps:

- Open the obdx.externalsystem.ubs.notification.mdb.ear (EAR file is available <OBDX INSTALLER DIR>/installables/app/components/ubs/deploy/obdx.externalsystem.ubs.notification.mdb.ear) using any archiving tools (i.e.: 7-zip)

- Double click on com.ofss.extsystem.ubs.notification.jar

- Open the wsconfig.properties to edit
• Change the URL for AlertProcessorService.url and FileProcessedNotifProcessorService.url (Note the hostname and port should be of OBDX managed server created by installer)
Post Installation Steps

- Save changes.
- Click OK.
**Post Installation Steps**

- Navigate back to `obdx.externalsystem.ubs.notification.mdb.ear`

<table>
<thead>
<tr>
<th>Name</th>
<th>Size</th>
<th>Packed Size</th>
<th>Modified</th>
<th>Created</th>
<th>Accessed</th>
<th>Attributes</th>
<th>Encrypted</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>com</td>
<td>1 193 325</td>
<td>381 587</td>
<td>2017-07-21 11:27</td>
<td>2017-07-21 11:27</td>
<td>D driver-x</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>META-INF</td>
<td>4 543</td>
<td>1 006</td>
<td>2017-07-21 11:27</td>
<td>2017-07-21 11:27</td>
<td>D driver-x</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>wsoconfig.properties</td>
<td>1 421</td>
<td>268</td>
<td>2017-07-21 11:27</td>
<td>2017-07-21 11:27</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

- Click OK

<table>
<thead>
<tr>
<th>Name</th>
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<tr>
<td>wsoconfig.properties</td>
<td>1 421</td>
<td>268</td>
<td>2017-07-25 21:06</td>
<td>2017-07-25 21:03</td>
<td>A</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>
Deploy the updated obdx.externalsystem.ubs.notification.mdb.ear using below steps.

- Login into Weblogic Admin Console (OBDX domain created using installer) and navigate to Deployments

- Click Lock & Edit
- Click on Install

- Click on Upload your file(s)
- Click on Choose File

- Navigate to customized obdx.externalsystem.ubs.notification.mdb.ear and click Open

- Click Next
- Click Next
- Select “Install this deployment as an application” and click Next

- Select Cluster as target and click Next
• Click Next

• Click Finish.
- Click Save.

- Click Activate Changes.
Fileupload with UBS
Refer below document for File upload configuration with UBS
Oracle Banking Digital Experience File Upload Report Configuration

Origination with UBS
Refer below document (section 5 and 6) for enabling Origination with UBS
Oracle Banking Digital Experience UBS Origination Setup and Configuration

OBDX with OBP Base (Installation with Oracle Banking Platform)
Refer below document (section 5.2 OUD configurations in OBP) for User Authentication required for integration with OBP
Oracle Banking Digital Experience OBP Base Setup and Configuration

OBDX US LZN with OBP US LZN (Installation with Oracle Banking Platform US LZN)
Once OBP Base setup and configuration is complete, refer below document to apply LZN Installer required for integration with OBP 2.5.0.2 US LZN.
Oracle Banking Digital Experience OBP US LZN Setup and Configuration

OBDX with OFSLL (Installation with Oracle Services Lending and Leasing)
Refer below document for OFSSL Installer required for integration with OFSL.
Oracle Banking Digital Experience OFSSL Setup Configuration
OFSSL supports social media integration. Refer Oracle Banking Digital Experience Origination Social Media Integration document.

OHS
OHS server needs to be configured for all FLAVOR’s as a mandatory activity.
To configure OHS server follow steps mentioned in below document before proceeding further.
Oracle Banking Digital Experience OHS User Interface Configuration
9. Configuring the Connector Credential Store

This step is required to setup the encryption key required for encryption of certain sensitive data within the OBDX application.

For more information, refer the Oracle Banking Digital Experience Connector Credential Store Guide.docx
10. OBDX Product Verification

Start managed server and verify all deployed applications are in Active state (as shown below).

To login into application, new user needs to be created (if not already done) in OUD refer section Creating the Attributes, Object Class, Users, Groups and Adding Optional Attributes on LDAP Server of document "Oracle Banking Digital Experience Installer Pre-Requisite Setup Manual" mentioned in section 1.5 Related Information Sources.

To verify the installation, launch below URL

http://<OHS server ip or hostname>:<OHS port>

Check if the page loads successfully.
Day1 Configuration

Universal Banking Solution (OBDX with UBS)

Refer below document (Section 3. System Configuration) for Day1 configuration required for integration with UBS

Oracle Banking Digital Experience System Configuration

Once day1 is completed, application is available for end-user transactions.

Note: Post Day1 restart of Managed server is mandatory

Third Party System (OBDX with THP)

Refer below document (Section 5. System Configuration – Host System as Third Party) for Day1 configuration required for integration with Third-party System

Oracle Banking Digital Experience System Configuration

Once day1 is completed, application is available for end-user transactions.

Note: Post Day1 restart of Managed server is mandatory

Oracle Banking Platform (OBDX with OBP)

Refer below document (Section 4 System Configuration – Host System as OBP Base and US LZN) for Day1 configuration required for integration with OBP
Oracle Banking Digital Experience System Configuration

Once day1 is completed, application is available for end-user transactions.

**Note:** Post Day1 restart of Managed server is mandatory

---

**Oracle Banking Platform US LZN (OBDX with OBP US LZN)**

Refer below document (Section 4 System Configuration – Host System as OBP Base and US LZN) for Day1 configuration required for integration.

Oracle Banking Digital Experience System Configuration

Once day1 is completed, application is available for end-user transactions.

**Note:** Post Day1 restart of Managed server is mandatory

---

**Oracle Financial Services Lending and Leasing (OBDX with OFSLL)**

Refer below document (section 5.1 System Configuration) for Day1 configuration required for integration with OFSLL.

Oracle Banking Digital Experience OFSLL Setup Configuration

Once day1 is completed, application is available for end-user transactions.

**Note:** Post Day1 restart of Managed server is mandatory

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**Chat Bot Configuration:**

Refer below document for Chat Bot configuration.

Oracle Banking Digital Experience Chatbot Configuration

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**Mobile Application Builder:**

Refer below documents for Mobile Applications build and setup.

Oracle Banking Digital Experience Mobile Application Builder-Android
Oracle Banking Digital Experience Mobile Application Builder-iOS
11. Configuration for OUD/OAM

In-case installation needs to be done using OUD/ OAM provider, below steps needs to be performed manually.

**Weblogic configuration**

- **REST EAR deployment:**
  Undeploy obdx.app.rest.idm from deployments.
  Deploy obdx.app.rest from Installer zip (`<OBDX INSTALLER DIR>\installables\app\components\obdx\deploy`).

- **Security Realms**

  To configure your own Oracle LDAP to use instead of the default embedded LDAP, which comes with Oracle Weblogic Server.

  - To do this, ensure that the Admin Server is running. Login to the Weblogic Console for OBDX domain (created by Installer) using the following URL:
    
    `http://<hostname>:<admin_port>/console`

  - Now, go to Security Realms > myrealm > Providers

    ![Weblogic Console Screenshot](image.png)

    - Now click on “**Lock & Edit**” in order to edit the details.
    - Delete the following authenticators under providers->authenticators:
      DBAuthenticator
SQLAuth

- Click on ‘DefaultAuthenticator’ provider and change the Control Flag to SUFFICIENT
- Click on Save button to save the changes

- Navigate Back to Security Realms > myrealm > Providers
• Now, click on New and enter the below details and click Save.
  
  **Name:** OUDAuthenticator  
  **Type:** IPlanetAuthenticator  

• Click on OK Button.
Now Click on OUDAuthenticator and select Control Flag as "SUFFICIENT"

- Click on Save Button.
Now under Provider Specific tab set the details of LDAP where the server should point. Refer to the following table for more information:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Host</td>
<td>This is the LDAP Server (OUD) Hostname</td>
</tr>
<tr>
<td>Port</td>
<td>This is the LDAP Server (OUD) Port. E.g. 1389</td>
</tr>
<tr>
<td>Principal</td>
<td>This is the Administrator Account name. E.g. cn=orcladmin</td>
</tr>
<tr>
<td>Credential</td>
<td>This is the Administrator Account password.</td>
</tr>
<tr>
<td>Confirm Credential</td>
<td>Confirm the Administrator Account password.</td>
</tr>
<tr>
<td>UserBase DN</td>
<td>This is the OUD user search base</td>
</tr>
<tr>
<td></td>
<td>For e.g.: cn=Users, dc=in,dc=oracle,dc=com</td>
</tr>
<tr>
<td>GroupBase DN</td>
<td>This is the OUD group search base</td>
</tr>
<tr>
<td></td>
<td>For e.g.: cn=Groups, dc=in,dc=oracle,dc=com</td>
</tr>
</tbody>
</table>
- Click on Save to update the changes.
- Navigate Back to Security Realms > myrealm > Providers
• Now, click on New and enter the below details and click Save.
  
  Name : OAMIdentityAsserter
  Type : OAMIdentityAsserter

• Click on OK Button.
- Click on Reorder Button.

- Reorder the providers so that LDAP Provider (OUDAuthenticator) gets highest priority followed by OAMIdentityAsserter, OBDXJWT, DefaultAuthenticator, DefaultIdentityAsserter.
- Click on OK Button.

- Click on Activate Changes to apply the changes.
Now go to the <DOMAIN_PATH>/<DOMAIN_NAME>/config/fmwconfig/

Open jps-config.xml

Replace the line: `<serviceInstanceRef ref="idstore.custom"/>

With `<serviceInstanceRef ref="idstore.ldap"/>"
- Now Shutdown the Admin server.
- Now, again start the Admin Server using the command,
  ```bash
  <DOMAIN_PATH>/<DOMAIN_NAME>/bin/startWeblogic.sh
  ```
- Run the following script into OBDX Schema:
  ```sql
  update DIGX_FW_CONFIG_ALL_B set prop_value='com.ofss.digx.app.sms.adapter.impl.user.OUDUserAdapterFactory' where PROP_ID='USER_MANAGEMENT_ADAPTER_FACTORY' and CATEGORY_ID='adapterfactoryconfig'; commit;
  ```
- Restart Managed Server
Verification

Post Admin and Managed Servers restart, login into Admin Console and browse to Security Realms > myrealm > Users and Groups.

Under Users tab additional LDAP users would be populated and additional LDAP groups can be seen under Groups tab.
12. **Multi Entity**

To add entity to existing OBDX with supported host system follow below steps.


> Run OBDX installer

  Ensure that managed server should be down and admin server should be running.

  Ensure ORACLE_HOME, JAVA_HOME variable are set and their binaries are available in PATH variable before proceeding.

  Login with OS user which was used to perform OBDX software installation (or has ownership on Oracle Weblogic home directory)

  Ensure OBDX Installation home and filestore path maintained in installer.properties exists and user running the installer has read-write permissions.

  - From your terminal navigate to `<OBDX INSTALLER DIR>`
  - Enter the following command

    ```
    python runInstaller.py
    ```

Select installation type as ‘New Entity Creation’

![Image of installation interface](image.png)
Below screen will appear after selecting add entity

[Image of the screen displaying the entity code and password fields]

Enter below information:

- Entity code which has been added from screen
- OBDX schema password

If an entity code belongs to UBS host following screen will appear:
Enter below details:

- Hostname of the UBS database host server
- Port of the UBS database host server
- UBS Host database Service Name
- Oracle directory name in which you want the database datafile (dbf) to be created. Enter only the name NOT the path.
- Username with 'sys' privileges
- SYS privilege user password where UBS schema would be created
- Weblogic console administrator user password
Enter below details:

- EXISTING UBS Host schema name
- Password for EXISTING UBS schema
- Complete UBS B1A1 (HostInterface) schema name you want installer to create as new schema
- Password for New UBS schema
- Country Code of entity branch
Installation Status in case of UBS

After entering all required details, the status is displayed (as shown below) on the terminal to indicate the progress of the installation.

When the installation completes, the below message is displayed

Installation Status in case of other hosts
After entering all required details (Entity code and OBDX schema password), the status is displayed (as shown below) on the terminal to indicate the progress of the installation.
13. **Multi-entity installation In Silent Mode**

This chapter describes how to run the OBDX installer for add entity in silent mode.

Ensure that managed server should be down and admin server should be running.

Ensure ORACLE_HOME, JAVA_HOME variable are set and their binaries are available in PATH variable before proceeding.

Login with OS user which was used to perform OBDX software installation (or has ownership on Oracle Weblogic home directory)

**Steps for Silent-Mode Installation**

- Set the environment variables

```bash
$ OBDX_Installer$
$ export Entity_Code=OBDX_BUL
$ export SCHEMA_PASS=welcome
$ export ENTITY_UBS_HOSTNAME=mum00bzt
$ export ENTITY_UBS_PORT=1522
$ export ENTITY_UBS_SID=ubs
$ export ENTITY_DIRECTORY_NAME_UBS=DATA_PUMP_DIR
$ export ENTITY_SYS_USER=sys
$ OBDX_Installer]$
```
Below parameters should be set in environment variables

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entity_Code</td>
<td>Entity code which has been entered from screen</td>
</tr>
<tr>
<td>SCHEMA_PASS</td>
<td>Password for existing schema on OBDX database</td>
</tr>
<tr>
<td>ENTITY_UBS_HOSTNAME</td>
<td>Hostname of the UBS database host server</td>
</tr>
<tr>
<td>ENTITY_UBS_PORT</td>
<td>Port of the UBS database host server</td>
</tr>
<tr>
<td>ENTITY_UBS_SID</td>
<td>UBS Host database SID or Service Name</td>
</tr>
<tr>
<td>ENTITY_DIRECTORY_NAME_UBS</td>
<td>Oracle Directory name in which you want the UBS B1A1 (HostInterface) schema datafile (dbf). Enter only the name and NOT the path</td>
</tr>
<tr>
<td>ENTITY_SYS_USER</td>
<td>username with 'sys' privileges</td>
</tr>
<tr>
<td>ENTITY_SYS_PASS</td>
<td></td>
</tr>
<tr>
<td>ENTITY_NEW_SCHEMA_NAME</td>
<td>Complete UBS B1A1 (HostInterface) schema name you want installer to create as new schema.</td>
</tr>
<tr>
<td>ENTITY_NEW_SCHEMA_PASS</td>
<td>Password for new B1A1 schema on UBS database</td>
</tr>
<tr>
<td>ENTITY_UBS_SCHEMA</td>
<td>EXISTING UBS Host schema name</td>
</tr>
<tr>
<td>ENTITY_UBS_SCHEMA_PASS</td>
<td>Password of existing HOST UBS schema (Existing)</td>
</tr>
<tr>
<td>ENTITY_DomainPassword</td>
<td>Password for weblogic admin console</td>
</tr>
<tr>
<td>ENTITY_UBS_CCY</td>
<td>Country Code for entity home branch</td>
</tr>
</tbody>
</table>

Add entity with other hosts

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entity_Code</td>
<td>Entity code which has been entered from screen</td>
</tr>
<tr>
<td>SCHEMA_PASS</td>
<td>Password for existing schema on OBDX database</td>
</tr>
</tbody>
</table>

- Run the runInstaller.py file with `--silent` argument along with `--addEntity`

```
[OBDX_Installer]$ python runInstaller.py --silent --addEntity
```
Installation Status in case of UBS

After entering all required details, the status is displayed (as shown below) on the terminal to indicate the progress of the installation.

When the installation completes, the below message is displayed

Installation Status in case of other hosts

After entering all required details, the status is displayed (as shown below) on the terminal to indicate the progress of the installation.
14. **OBDX Product Security**

Refer below document for OBDX product security configuration

Oracle Banking Digital Experience Security Guide
15. Troubleshoot Overview

This section describes how to troubleshoot OBDX setup.

Invalid database password

This topic contains troubleshooting information if you receive an error when attempting to connect to the database server.

If you get the following error:

![Image of the error message](image)

Try one of the following:

- Verify that the database is running.
- Check Network connectivity between Weblogic Server and Database server.
- Check the database configuration in installer.properties file
- Verify that the entered password is correct.

cx_oracle module

This topic contains troubleshooting information about problems with cx_Oracle python module.

If you get the following error:

```
[python]
Python 2.7.6 (default, Sep 5 2016, 02:30:38)
[GCC 4.8.5 20150523 (Red Hat 4.8.5-9)] on linux2
Type "help", "copyright", "credits" or "license" for more information.
>>> import cx_Oracle
Traceback (most recent call last):
  File "stdin". line 1, in <module>
ImportError: libcxorache.so.12.1: cannot open shared object file: No such file or directory

>>> exit()
```

Execute the below command:

```
export LD_LIBRARY_PATH=/usr/lib/oracle/12.2/client64/lib:$ LD_LIBRARY_PATH
```
Failed Database Scripts
This topic contains troubleshooting information in case of database script failures.

If you get the following error in DB_installation.log:

```
2017-07-13 15:45:41,747 DBUG Executed /scratch/jenkins/OBDX_Installer/ExecInstances/1204111338/db/DB/seed/PROPERTY/PROPERTY.sql successful
2017-07-13 15:45:41,796 DBUG Executed /scratch/jenkins/OBDX_Installer/ExecInstances/1204111338/db/DB/seed/PROPERTY.sql failed
2017-07-13 15:45:41,796 DBUG total scripts=15
2017-07-13 15:45:41,797 DBUG scripts successfully executed=14
```

Check the detailed log of the failed SQL file at <OBDX INSTALLER DIR>/ExecInstances/<DDMonthHHMM>/logs/db folder.

Failure of Policy Seeding
This topic contains troubleshooting information if policy seeding fails during installation.

If you get the following error:
Try one of the following:

- Check if error.log is created on following path <OBDX INSTALLER DIR>/ExecInstances/<DDMonthHHMM>/logs/db/error.log. This log contains runtime SQL execution errors.

- If the above mentioned file does not exist, then check the seedPolicies.log on <OBDX INSTALLER DIR>/ExecInstances/<DDMonthHHMM>/logs/db/seedPolicies.log. This log file contains errors generated during execution of the seed policies jar.

Fix the problem by following below steps:

- Login to OBDX installer server
- Browse to <OBDX INSTALLER DIR>/installables/policies
- Run below command manually

```
java -jar SeedPolicies.jar "Clip.csv,Admin.csv" "CLIP,ADMIN" "<Directory where logs needs to be created>" "INS-oracle.jdbc.OracleDriver,<OBDX Schema name>,<OBDX Schema
```
password>jdbc:oracle:thin:@<OBDX DB hostname or IP>:<OBDX DB listener port>/<OBDX Service Name>"
for e.g.:
java -jar SeedPolicies.jar "Clip.csv,Admin.csv" "CLIPL_ADMIN" "/tmp/" "INS-
oracle.jdbc.OracleDriver,OBDX_THP181,Welcome#1.jdbc:oracle:thin:@10.44.169.255:1521/OBDX"

➢ Post successfully execution, restart Managed server.