Installation Guide Oracle Banking Digital Experience Release 20.1.0.0.0

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Installation 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 Release 20.1.0.0.0, refer to the following documents:

Oracle Banking Digital Experience Installation Manuals



## 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 Thirdparty HOST system.
- Running the installation in silent mode
- Advanced Configurations (Post installation)
- Installation Verification
- Multi-Entity Installation and configuration
- Best Practice
- Troubleshoot Overview



## 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".

#### 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

```
bash-4.2# rpm -qa | grep oracle
oraclelinux-release-7.7-1.0.5.el7.x86_64
oracle-epel-release-el7-1.0-2.el7.x86_64
oracle-instantclient19.3-basic-19.3.0.0.0-1.x86_64
oraclelinux-release-el7-1.0-8.el7.x86_64
oracle-release-el7-1.0-2.el7.x86_64
bash-4.2#
```

**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

```
[devops@ /]$ 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

import urwid (Press Enter)

urwid.\_\_version\_\_

```
[ urwid-1.3.1] # python
Python 2.7.5 (default, May 8 2014, 17:35:19)
[GCC 4.8.2 20140120 (Red Hat 4.8.2-16)] on linux2
Type "help", "copyright", "credits" or "license" for more information.
>>> import urwid
>>> urwid.__version__
'1.3.1'
```

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

import cx\_Oracle (Press Enter)

cx\_Oracle.version

```
[devops@ /]$ python
Python 2.7.5 (default, Apr 11 2018, 17:41:36)
[GCC 4.8.5 20150623 (Red Hat 4.8.5-28.0.1)] on linux2
Type "help", "copyright", "credits" or "license" for more information.
>>> import cx_Oracle
>>> cx_Oracle.version
'7.3.0'
```

If version is displayed, then cx\_Oracle is installed and available for use.

**Note:** Ensure cx\_Oracle 7.3.0 supported version is installed. Above command should reflect the same.

#### Python 3.8 for Linux Operating System: --

Step 1: Execute below commands to install the dependencies

yum -y groupinstall development

yum -y install zlib-devel



```
yum install openssl-devel -y
        yum install zlib-devel bzip2-devel openssl-devel ncurses-devel sqlite-devel
        yum install zlib-devel bzip2-devel openssl-devel ncurses-devel sqlite-devel -y
        yum install python38-pip -y
        yum install libreadline-gplv2-dev libncursesw5-dev libssl-dev libsqlite3-dev tk-dev
                                                                                                 libgdbm-
dev libc6-dev libbz2-dev -y
        yum install -y libffi-devel
        yum install python36u-devel -y
        yum install python38u-devel -y
        yum install yum-utils -y
        yum install epel-release -y
        yum install python3.8-pip -y
        yum install python3-pip -y
Note: In case wget is not installed, perform following step to install wget
        yum install wget
        #Download the python.tar.xz of the required version
        wget https://www.python.org/ftp/python/3.8.0/Python-3.8.0.tar.xz
        #Untar the Python tar file
        tar xJf Python-3.8.0.tar.xz
        #Navigate to the Python-<version> directory and run the below commands
        cd Python-3.8.0
        ./configure
        make
        make install
Step 2: To install the Python3 compatible libraries to Python2.7, configuration of pip needs to be
done
        cd /root
        mkdir .pip
        vi ~/.pip/pip.conf
```



[global]

trusted-host = pypi.python.org

pypi.org

files.pythonhosted.org

Step3: Give permission to pip.conf file and a soft link needs to be created.

Note: pip version 20.1.1

In -s ~/.pip/pip.conf /etc/pip.conf

Is -Irt ~/.pip/pip.conf

chmod 777 /root/.pip/pip.conf

Is -Irt ~/.pip/pip.conf

pip3 list

pip3 install --upgrade pip

Step4: Once above steps are executed successfully install the following required modules.

pip3 install cx-Oracle==7.3.0

pip3 install urwid==2.1.0



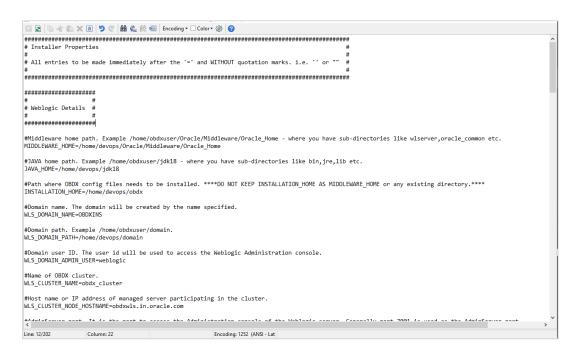
### 4. Installation

#### **Pre-Installation**

Install all the prerequisite software and packages mentioned above

#### Steps of Installation

- Download and extract the installer zip file (Base).
- 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 WLS\_JDBC\_DIGX\_NAME, WLS\_JDBC\_DIGX\_JNDI, Flag values etc) available in "Factory Shipped" section.
- Ensure there is no blank space after "=" sign, except specific flavor specific configuration.
- Throughout this document consider UBS as UBS core banking with OBPM as payments engine.



Only below parameters should be set in installer.properties file.

Component	Parameter	Description	Example
	OBDX_DATABASE_HOSTNAM E	Enter the hostname of the database server which would host the database schema for OBDX and Weblogic RCU	abc.xyc.com
	OBDX_DATABASE_PORT	Enter the port number of the database listener	1521
	OBDX_DATABASE_SID	Enter the Oracle <b>Service Name</b> for database instance	obdxdb.in.oracle .com
	OBDX_DATABASE_SYS_USE R	Enter the username with 'sys' privileges	Sys
DB details (for Weblogic RCU and	POST_FIX	For OBDX schema name like "OBDX_DEV" POST FIX is 'DEV'. SHOULD BE IN UPPERCASE ONLY.	DEV
OBDX schema)	OBDX_DBA_DIRECTORY_NA ME	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.	OBDX_DIR
	OBDX_AUDIT_DBA_DIRECT ORY_NAME	Enter the directory name in which you want the OBDX AUDIT tablespace datafile to be created. Enter Logical name (i.e. DIRECTORY_NAME column) from DBA_DIRECTORIES table NOT the physical path.	OBDX_AUDIT_ DIR



Component	Parameter	Description	Example
	EHMS_DATABASE_HOSTNAME	Enter the hostname for EHMS database server	abc.xyz.com
	EHMS_DATABASE_PORT	Enter the port number of EHMS database listener	1521
	EHMS_SCHEMA_NAME	Enter the Complete OBDX-EXT (B1A1) HostInterfaceschema name you want installer to create as new schema.  SHOULD BE IN UPPERCASE ONLY.	EHMS182SCH EMA
EHMS DB details (to be configured only in-case of FLAVOR as UBS,FCORE &OBPM)	EHMS_DBA_DIRECTORY_NAME	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.	OPATCH_LOG _DIR
	EHMS_DATABASE_SYS_USER	Enter the username with 'sys' privileges	Sys
	EHMS_DATABASE_SID	Enter the EHMS database Service Name	obdxehms.in.or acle.com
	EHMS_HOST_SCHEMA_NAME	Enter the EXISTING EHMS HOST schema name	OBDXUBS
	EHMS_CCY(to be configured for UBS and OBPM HOST only)	Enter the Country code for EHMS HOME Branch	GB
	EHMS_HB (to be configured for UBS and OBPM HOST only)	Enter the Branch code for code for EHMS HOME Branch	AT3



EHMS_FCORE_FCUBS_SCHEM A_NAME (to be configured for FCORE HOST only)	FCORE-FCUBS schema name	FCRUBSHOST
--	-------------------------	------------



**Ins**tallation

Component	Parameter	Description	Example
		Oracle Weblogic Middleware home path. Example	
	MIDDLEWARE_HOME	/home/obdxuser/Oracle/Middleware /Oracle_Home - where you have sub-directories like wlserver,oracle_common etc.	/home/obdxuse r/Oracle/Middle ware/Oracle_H ome
	JAVA_HOME	Path where JAVA (JDK) is installed	/home/obdxuser/j dk18
	INSTALLATION_HOM	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
	WLS_DOMAIN_PATH	Path where OBDX Weblogic domain should be created. Users can now enter custom path as per their requirements.	/home/obdxuser/ domains
	WLS_CLUSTER_NAME	Name of cluster; this cluster would have one single managed server.	obdx_cluster
Weblogic server details		Host name or IP address of managed server participating in the cluster. Currently only single node is supported.	
	WLS_CLUSTER_NODE _HOSTNAME		abc.xyz.com
	WLS_ADMIN_SERVER _PORT	Weblogic AdminServer port. It is the port to access the administration console of the Weblogic server. Generally port 7001 is used as the AdminServer port. Custom port are supported.	7001
	WLS_ADMIN_SERVER _SSL_PORT	AdminServer SSL port. It is the port used to securely access (https) the administration console of the Weblogic server.	7002
	WLS_NODE_PORT	Node Manager Port. It is the port used by Node Manager to be configured for OBDX domain. Generally, 5556 is utilized as Node	5556



	Manager Port. Custom ports are supported.	
WLS_MS_SERVER_NA ME	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 clip1.	clip
WLS_MS_SERVER_PO	Managed Server Port. Managed server will utilize this port for hosting OBDX components and associated resources. Custom ports are supported.	9001
WLS_DOMAIN_NAME	Enter Weblogic Domain name.	obdx_domain1
WLS_DOMAIN_ADMIN _USER	Domain user ID. The user id will be used to access the Weblogic Administration console.	weblogic
WLS_JMS_FILEUPLO AD_PS (to be configured for all OBDX supported HOST)	Set the paths for the persistent store of the FileUpload JMS modules. DO NOT KEEP path as INSTALLATION_HOME or as sub directory inside INSTALLATION_HOME.	/scratch/obdx/ FileUpload
WLS_JMS_AUDIT_PS (to be configured for all OBDX supported HOST)	Set the paths for the persistent store of the Audit JMS modules. DO NOT KEEP path as INSTALLATION_HOME or as sub directory inside INSTALLATION_HOME.	/scratch/obdx/A udit
WLS_JMS_REPORT_P S (to be configured for all OBDX supported HOST)	Set the paths for the persistent store of the Reports JMS modules. DO NOT KEEP path as INSTALLATION_HOME or as sub directory inside INSTALLATION_HOME.	/scratch/obdx/R eports
WLS_JMS_JPA_PS (to be configured for all OBDX supported HOST)	Set the paths for the persistent store of the JPA JMS modules. DO NOT KEEP path as INSTALLATION_HOME or as sub directory inside INSTALLATION_HOME.	/scratc h/obdx/ JPA
WLS_JMS_EXTSYSRE CEIVER_PS	Set the paths for the persistent store of the ExtSystemReceiver JMS modules. <b>DO NOT KEEP path</b>	/scratc h/obdx/



	(to be configured for all OBDX supported HOST)	as INSTALLATION_HOME or as sub directory inside INSTALLATION_HOME.	Receiv er
	WLS_JMS_EXTSYSSE NDER_PS (to be configured for all OBDX supported HOST)	Set the paths for the persistent store of the ExtSystemSender JMS modules. DO NOT KEEP path as INSTALLATION_HOME or as sub directory inside INSTALLATION_HOME.	/scratc h/obdx/ Sender
RCU	OBDX_RCU_STB_PRE FIX	STB schema name prefix. If schema pre- fix is 'OBDX' then 'OBDX_STB' would be the STB schema name.	OBDX_STB
OBDX Application Administrator	OBDX_ADMIN_USERN AME	Set username for OBDX application Admin user. USERNAME IS CASE SENSITIVE. In-case of OUD as provider username should be the User ID mentioned during user creation steps mentioned in prerequisite document (refer To create User and mapping it to the Group section)	superadmin
user details	OBDX_ADMIN_EMAIL	Enter the Email ID for OBDX application admin user.	superadmin@ora cle.com
	OBDX_ADMIN_CONTA CT_NO	Enter the mobile number for OBDX application admin user. COUNTRY CODE IS MUST.	+911234567890

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's maintained in installer.properties exists and user running the installer has read-write permissions.



#### **Installation Steps:**

From your terminal navigate to <OBDX INSTALLER DIR>/

```
| OBDX_Installer|$ pwd

/scratch/OPSFE/OBDX_Installer

| OBDX_Installer|$ 1s -1tr

| TOUGH 20

-rwxrwxrwx 1 54323 wheel 2569 Jun 28 12:04 runInstaller.py

| drwxrwxrwx 12 54323 wheel 4096 Jun 28 12:04 | Installer.py

| drwxrwxrwx 1 54323 wheel 0 Jun 28 12:04 | Init_.py

| drwxrwxrwx 5 54323 wheel 4096 Jun 29 13:15 | Init_.py

| drwxrwxrwx 5 54323 wheel 4096 Jun 29 13:15 | Init_.py

| drwxrwxrwx 7 54323 wheel 4096 Jun 29 13:15 | Init_.py

| drwxrwxrwx 7 54323 wheel 4096 Jun 29 13:15 | Init_.py

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| drwxrwxrwx 7 54323 wheel 4096 Jun 29 13:15 | Init_.py

| drwxrwxrwx 7 54323 wheel 4096 Jun 29 13:15 | Init_.py

| drwxrwxrwx 7 54323 wheel 4096 Jun 29 13:15 | Init_.py

| drwxrw
```

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 "Reinstall" 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



#### Oracle FLEXCUBE Universal Banking (OBDX with UBS)

Select Installation mode





#### **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 to taken end-user input



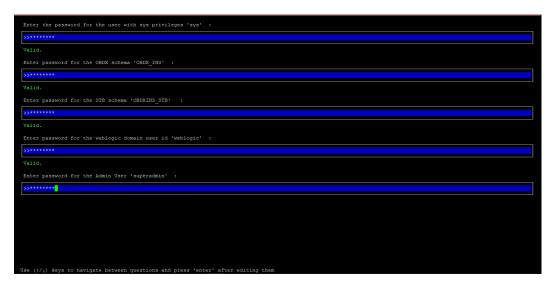
#### **Enter below passwords:**

- 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 EHMS schema password
- Password for OBDX application administrative user (In-case of OUD as provider, password should be similar to one used while user creation in OUD (or User Password field))



#### Third Party System (OBDX with THP)

Post Third Party System selection, enter the required credentials details



#### **Enter below passwords:**

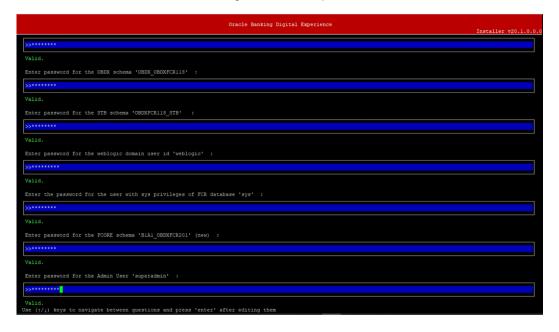
- SYS privilege user password where OBDX schema would be created
- OBDX schema password
- OBDX STB schema password
- Weblogic console administrator user password

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))



#### Oracle FLEXCUBE Core Banking (OBDX with FCORE)

Post Oracle FLEXCUBE Core Banking, 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 FCORE host schema exists
- New OBDX EHMS schema password
- Password for OBDX application administrative user (In-case of OUD as provider, password should be similar to one used while user creation in OUD (or User Password field))



#### Oracle FLEXCUBE Universal Banking with Oracle Banking Payments (OBDX with OBPM)

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 OBPM host schema exists
- Existing OBPM HOST schema password
- New OBDX EHMS schema password
- Password for OBDX application administrative user (In-case of OUD as provider, password should be similar to one used while user creation in OUD (or User Password field))

#### **Mode of Installation - Reinstall**





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 EHMS schema in-case of OBDX UBS;OBPM and FCORE flavor) and RCU schema.

Over-write the policies files (Day0Policy.csv; Entitlement.csv; Resources.csv and Task.csv) from OBDX Product zip into <OBDX INSTALLER DIR>/installables/policies directory

#### **Key pointers**

- OBDX schema (and OBDX EHMS 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 (all files/ sub-directories would be deleted) and re-created again.

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.

```
Tarting OBCK Inthase Installation with OBPM FLAVOR
tracting Tablespace.

Tarting Tablespace | Tarting T
```



#### When the installation completes, the below message is displayed

```
Installer/installables/app/components/obds/deploy/obdx.app.cost.domin.ear], to obdx.cluster AdminServer .>
1889 5 300 3113115 MP (Components Code (deploy) obdx.app.cost.domin.ear], to obdx.cluster AdminServer .>
1889 5 300 3113115 MP (Components Code (deploy) obdx.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost.app.cost
```



## 5. Installation using 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 parameters (flavor; mode; passwords etc) from the environment variables (same session in which installer is executed) and installer properties that you set before beginning the installation. The installation program does not display any configuration options during the installation process.

#### **Steps for Silent-Mode 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)
   \*\*Refer to page 9 to 14 (step 4) for filling up installer.properties.
- Set the environment variables, as shown below

```
export FLAVOUR=OBPM
export MODE=New
export DB_SYS_PASSWORD=welcome1
export SCHEMA_PASS=welcome1
export STBPassword=welcome1
export DomainPassword=welcome1
export EHMS_DATABASE_SYS_PASS=welcome1
export EHMS_HOST_SCHEMA_NAME_PASS=welcome1
export EHMS_SCHEMA_PASS=welcome1
export EHMS_SCHEMA_PASS=welcome1
export DBAuthPassword=welcome1
export LD_LIBRARY_PATH=/usr/lib/oracle/19.3/client64/lib/:$LD_LIBRARY_PATH
```



Below parameters should be set as environment variables, depending on the Host system the installer should be executed.

Host	Parameter	Description	Example
Environment	FLAVOUR	Flavour for installation  UBS for Oracle FLEXCUBE Universal Banking 14.4.0.0.0 (OBDX with UBS)	export FLAVOUR=OBPM or export FLAVOUR=FCORE
variables to set for flavor:UBSFC ORE		FCORE for Oracle FLEXCUBE Core Banking 11.8.0.0.0 (OBDX with FCORE)	
	MODE	Mode of installation.  'New' in-case of a fresh installation of OBDX for the first run on server	export MODE=New or export MODE=Clean
		'Clean' in-case of an existing OBDX installation that you want to overwrite OR in case of a previously failed installation or re- installation	
	DB_SYS_PASSWORD	Sys user password of OBDX database (Existing)	export DB_SYS_PASSWORD=obdx18 2sys
	SCHEMA_PASS	Password for new schema on OBDX database	export SCHEMA_PASS=obdx#182
	STBPassword	Password for RCU STB schema	export STBPassword=obdx182#stb



	DomainPassword	Password for Weblogic Administrator console	export DomainPassword=wlsadmn
	EHMS_DATABASE_SY S_PASS	Sys user password of EHMS HOST database (Existing)	export EHMS_DATABASE_SYS_PASS =obdxehmssys
	EHMS_HOST_SCHEM A_NAME_PASS	Password of existing EHMS HOST schema	export EHMS_HOST_SCHEMA_NAME _PASS =obdxehmshost
	** Only required for UBS & OBPM Host. Ignore this parameter in-case of FCORE Host	(Existing)	
	EHMS_SCHEMA_PASS	Password for new OBDX EHMS schema on EHMS HOST database	export EHMS_SCHEMA_PASS=obdx1 82ehms
	DBAuthPassword	Password for new OBDX Administrator user of OBDX application (In-case of OUD as provider, password should similar to one used while user creation in OUD(or User Password field))	export DBAuthPassword=obdxadmn
	FLAVOUR	Flavour for installation  'OBDX' for Third Party System 1.0 (OBDX with THP)	export FLAVOUR=OBDX
Environment variables to set for flavor:	Mode	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 or reinstallation	export MODE=New or export MODE=Clean



OBDX (Third posts)	DB_SYS_PASSWORD	Sys user password of OBDX database (Existing)	export DB_SYS_PASSWORD= obdx182sys
(Third-party HOST)	SCHEMA_PASS	Password for new schema on OBDX database	export SCHEMA_PASS=obdx#182
	STBPassword	Password for RCU STB schema	export STBPassword=obdx#stb
	DomainPassword	Password for Weblogic Administrator console	export DomainPassword=wlsadmn
	DBAuthPassword	Password for new OBDX Administrator user of OBDX application (In-case of OUD as provider, password should similar to one used while user creation in OUD(or User Password field))	export DBAuthPassword=obdxadmn



Run the runInstaller.py file with '--silent' argument along with '--base' option

```
[ OBDX_Installer]$
[ OBDX_Installer]$ python runInstaller.py --silent --base
```

#### **Installation Status**

The status is displayed on the terminal to indicate the progress of the installation.

```
teating OBDX Database Installation with OBDM FLAVOR
Teating Tablespace...
Tablespace Created
Teating Tablespace...
Teating Dote...
Teating Dote...
Teating Dote...
Teating Dote...
Teating Gote...
Teating Tablespace...
T
```

When the installation completes, the below message is displayed

```
Trailer/installables/app/components/obds/deploy/obds app.core.domain.est], to obds_cluster Administrate .?

Asy 5, 2003 s13115 N GHT. cintor CIEE Peployment S1D. dEEA-260131. Cintizating deploy operation for application, obds.thirdparty.app.domain [archive: /scratch/obds/
HOX_Installer/installables/app/components/obds/deploy/obds.thirdparty.app.domain.est], to obds_cluster Administrater = Admini
```



## 6. Installer Verification

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

Log Description	PATH
Summarized Installer Activity Log	<pre><obdx dir="" installer="">/ExecInstances/<ddmonthhhmm> /logs/obdx_installer.log</ddmonthhhmm></obdx></pre>
Summarized Database Logs	<pre><obdx dir="" installer="">/ExecInstances/<ddmonthhhmm> /logs/db/DB_installation.log</ddmonthhhmm></obdx></pre>
Detailed OBDX DB Logs per SQL file	<obdx dir="" installer="">/ExecInstances/<ddmonthhhmm> /logs/db/OBDX/*</ddmonthhhmm></obdx>
Detailed EHMS schema Logs per SQL file (specific to EHMS host	<obdx dir="" installer="">/ExecInstances/<ddmonthhhmm> /logs/db/<ehmshost>/*</ehmshost></ddmonthhhmm></obdx>
system only)	<ehmshost> - values such as; FCORE; OBPM;; UBS</ehmshost>
RCU Logs	<pre><obdx dir="" installer="">/ExecInstances/<ddmonthhhmm> /logs/app/obdx_stb_rcu_1600.log</ddmonthhhmm></obdx></pre>
Weblogic Configuration Logs	<pre><obdx dir="" installer="">/ExecInstances/<ddmonthhhmm> /logs/app/obdx_wls_post.log</ddmonthhhmm></obdx></pre>
	<pre><obdx dir="" installer="">/ExecInstances/<ddmonthhhmm> /logs/db/Entitlement.log</ddmonthhhmm></obdx></pre>
	<pre><obdx dir="" installer="">/ExecInstances/<ddmonthhhmm> /logs/db/Task.log</ddmonthhhmm></obdx></pre>
	<pre><obdx dir="" installer="">/ExecInstances/<ddmonthhhmm> /logs/db/Dashboard_seed.log</ddmonthhhmm></obdx></pre>
Detailed OBDX policy seeding logs	Note: Check for SEVERE keyword; If found refer to Troubleshot section to re-run the policy
	<pre><obdx dir="" installer="">/ExecInstances/<ddmonthhhmm> /logs/db/seedPolicies.log</ddmonthhhmm></obdx></pre>
Policy seeding execution Log	Note: Should be empty if no errors during policy execution. In-case non-empty refer to Troubleshot section to re-run the policy

Check all the logs for any errors.



# 7. Installer Scope

OBDX Installer currently covers below activities:

Flavor: Third Party system (OBDX with THP)

Flavor	Activity	Detailed Activity List	New Installation	Reinstall
		Create Tablespace		NA
		Create Schema and Role	V	√ (drop and recreate objects)
	ODDY DD Catura	Grants	√	√
	OBDX DB Setup	Load DB object (DDL's and DML's)	V	<b>V</b>
		Compile Schema	√	√
	Policy Seeding  RCU schema and Create Domain  Create and Configure AdminServer, Machine,	√		
			V	√ (drop and recreate RCU schema's)
OBDX with THP		AdminServer, Machine, Managed Server and	V	√
		Configure NodeManager	√	√
		Configure JDBC	√	√
		Authenticator, JMS servers, Persistent	V	√
		Application Deployment	V	√
		JTA	√	√
		Enable Production Mode	1	√
		Start AdminServer and NodeManager	V	1



	OBDX Configuration	Copy config files into OBDX Installation Home	V	√ (Delete old and copy new from installer zip)	
--	--------------------	---	---	--	--

### Flavor: Oracle FLEXCUBE Core Banking (OBDX with FCORE)

Flavor	Activity	Detailed Activity List	New Installation	Reinstall
	OBDX DB Setup	Create Tablespace	√	NA
		Create Schema and Role	<b>√</b>	√ (drop and recreate objects)
		Grants	√	√
		Load DB object (DDL's and DML's)	√	V
		Compile Schema	√	√
		Policy Seeding	√	√
	EHMS DB Setup	Create Tablespace	√	NA
OBDX		Create Schema and Role	√	√ (drop and recreate objects)
with FCORE		Grants	√	√
FCORE		Load DB object (DDL's and DML's)	V	<b>V</b>
		Compile Schema	√	√
	Weblogic Setup and Configuration	RCU schema and Create Domain	√	√ (drop and recreate RCU schema's)
		Create and Configure AdminServer, Machine, Managed Server and Cluster	√	√
		Configure NodeManager	√	V
		Configure JDBC	√	√



Flavor	Activity	Detailed Activity List	New Installation	Reinstall
		Configure DB Authenticator, JMS servers, Persistent stores and JMS Modules	V	V
		Application Deployment	√	√
		JTA	√	√
		Enable Production Mode	V	V
		Start AdminServer and NodeManager	V	V
	OBDX Configuration	Copy config files into OBDX Installation Home	V	√ (Delete old and copy new from installer zip)



#### Flavor: Oracle FLEXCUBE Universal Banking with Oracle Banking Payments (OBDX with OBPM)

Flavor	Activity	Detailed Activity List	New Installation	Reinstall
	OBDX DB Setup	Create Tablespace	√	NA
		Create Schema and Role	<b>√</b>	√ (drop and recreate objects)
		Grants	√	√
		Load DB object (DDL's and DML's)	√	√
		Execute OBPM HOST specific scripts	<b>√</b>	√
		Compile Schema	√	
		Policy Seeding	√	√
	EHMS DB Setup	Create Tablespace	√	NA
OBDX with OBPM (14.4.0.0.0 version)		Create Schema and Role	√	√ (drop and recreate objects)
		Grants	√	√
		Load DB object (DDL's and DML's)	V	√
		Compile Schema	√	√
	Weblogic Setup and Configuration	RCU schema and Create Domain	<b>V</b>	√ (drop and recreate RCU schema's)
		Create and Configure AdminServer, Machine, Managed Server and Cluster	√	√
		Configure NodeManager	√	√
		Configure JDBC	√	√
		Configure DB Authenticator, JMS servers, Persistent stores and JMS Modules	√	√



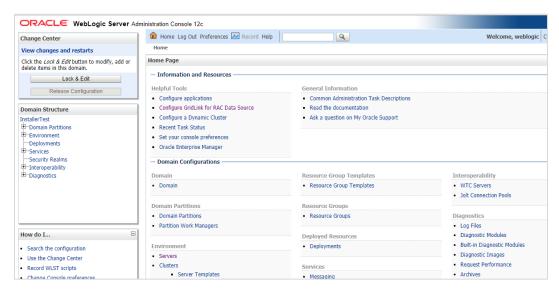
Flavor	Activity	Detailed Activity List	New Installation	Reinstall
		Application Deployment	$\checkmark$	
		JTA	$\checkmark$	√
		Enable Production Mode	√	√
		Start AdminServer and NodeManager	V	√
	OBDX Configuration	Copy config files into OBDX Installation Home	V	√ (Delete old and copy new from installer zip)



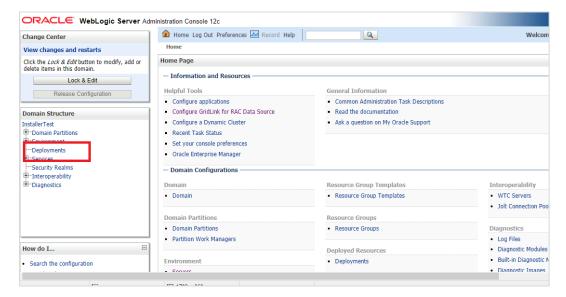
## 8. Post Installation Steps

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

Login Weblogic Admin console.



In the left panel of the Console, Click on **Deployments**, A table in the right pane displays all deployed Enterprise Applications and Application Modules.

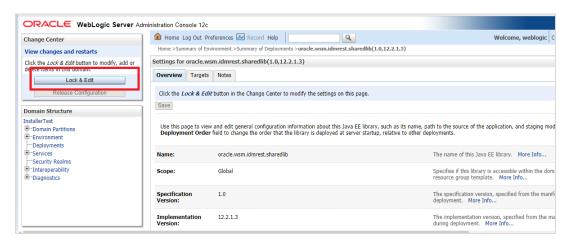




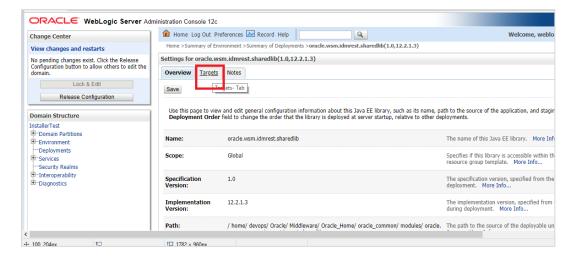
In the table, locate the **oracle.wsm.idmrest.sharedlib(1.0,12.2.1.3)** library to re-target and click on its name.



### Click on Lock & Edit

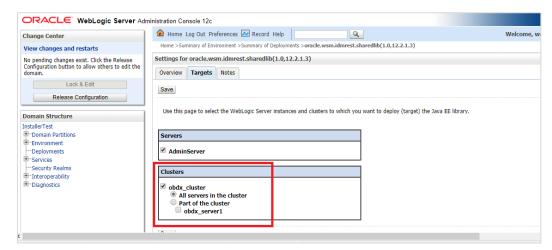


### Click on Targets Tab

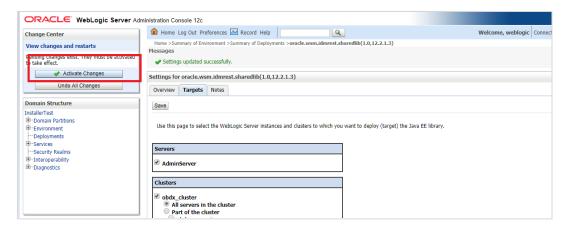




In the Servers box, select **Cluster** if it is not already selected and click **Save**.

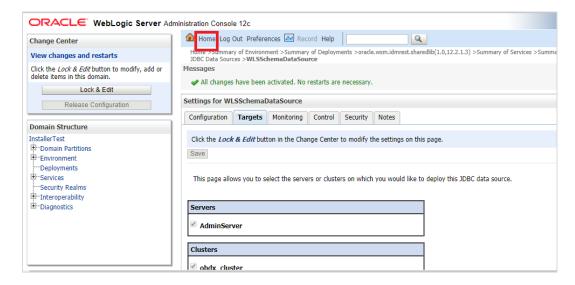


# Click on Activate Changes.

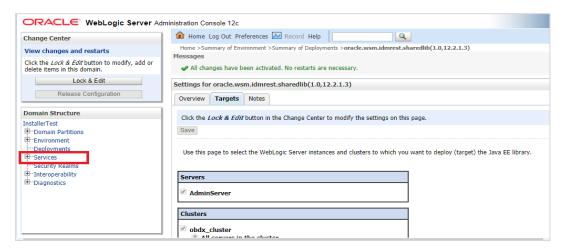




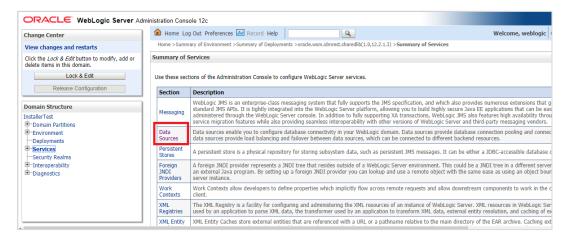
#### Click on Home Tab



In the left panel of the Console, Click on Services,

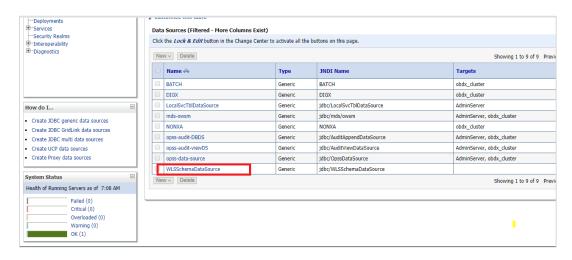


### Click on Data Sources

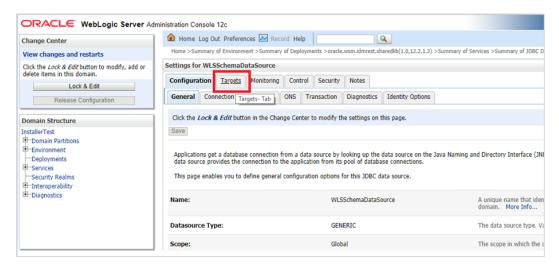


Locate WLSSchemaDataSource to change target ,click on its name

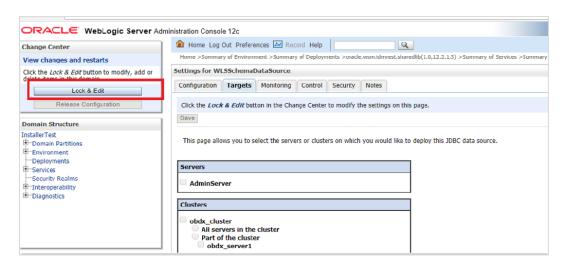




# Click on Targets Tab

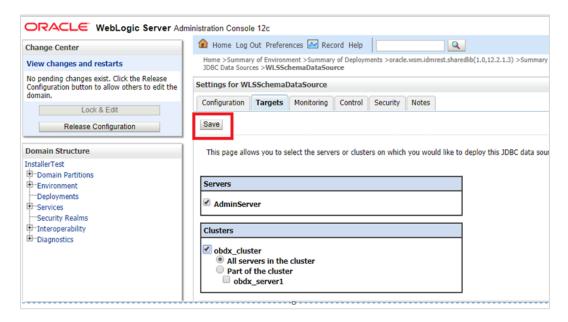


#### Click on Lock & Edit

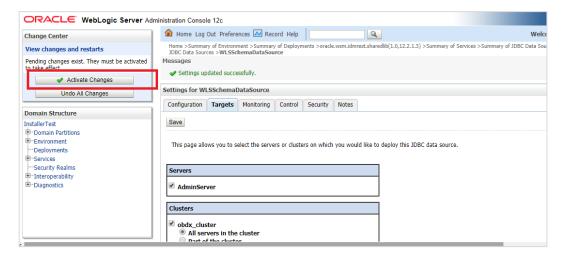




### In the Servers Box, select AdminServer & OBDX Cluster and Click on Save



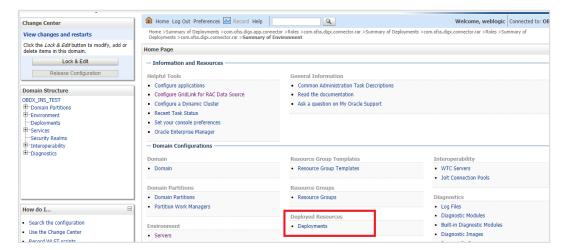
### Click on Activate Changes





# **Outbound credential mappings**

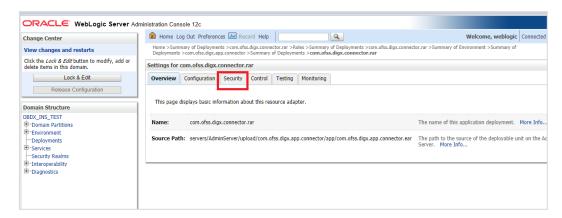
Login Weblogic Admin Console. Click on Deployments.



Click on com.ofss.digx.app.connector > com.ofss.digx.connector.rar



### Click on Security Tab > Outbound Credential Mappings

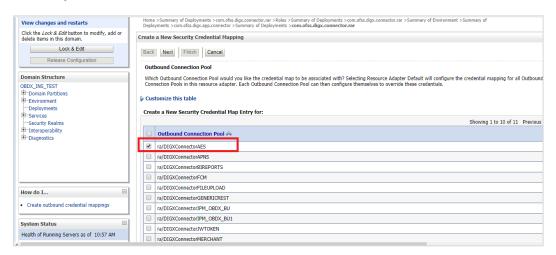




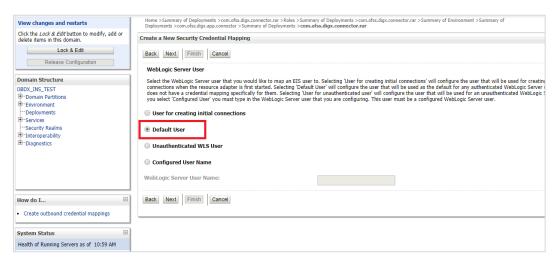
#### Click on New



### Select ra/DIGXConnectorAES > Next



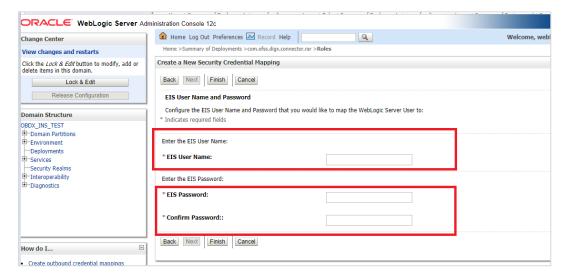
# Select "Default User" > Next



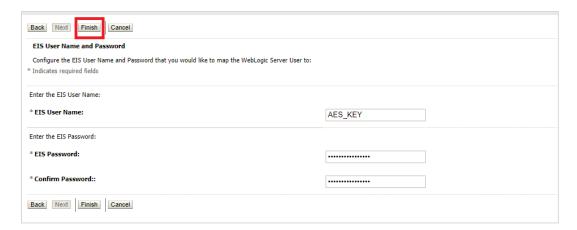


# Enter "EIS User Name" should be set to AES\_KEY

Enter "EIS Password" . Password should be any 16 characters.



#### Click 'Finish'



### Check AES\_KEY mapping is created successfully.





### **Apply JRF Template**

To apply JRF template follow below steps.

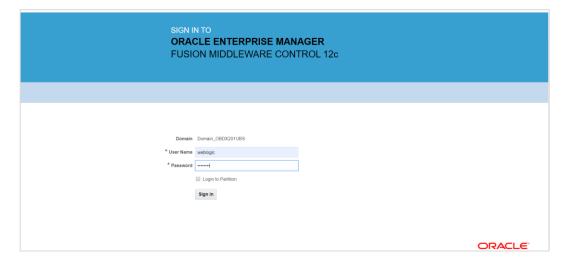
 To do this, ensure that the Admin Server is running. Login to the EM (Enterprise Manager) Console using the following URL:

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".

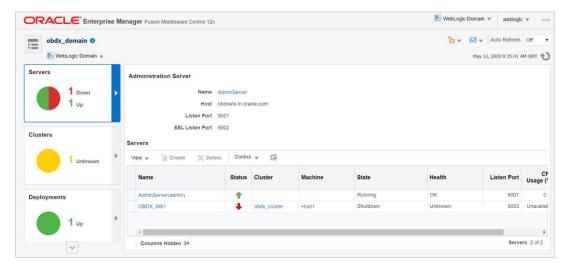


 Enter Weblogic administrator username and password (same used for Weblogic administrator console login)

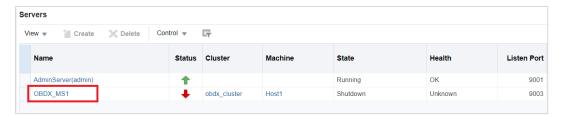




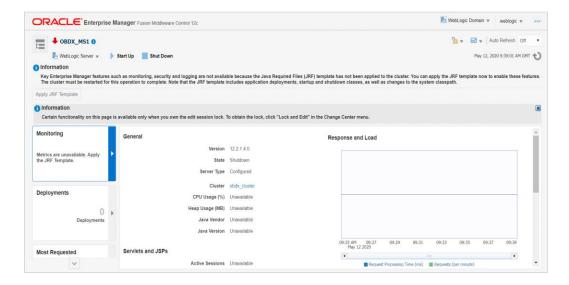
Click on Sign In



Click on the Managed Server (as highlighted below)

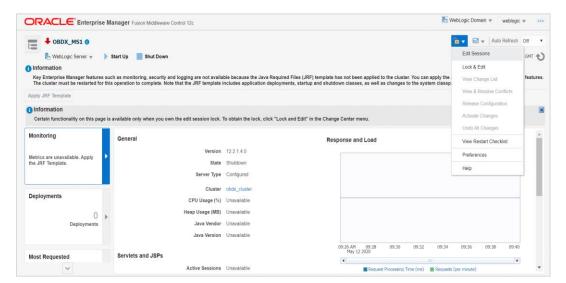


Note: Depending on installer.properties, Managed server will differ from above screenshot.

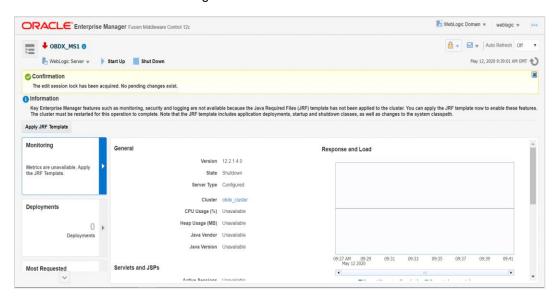




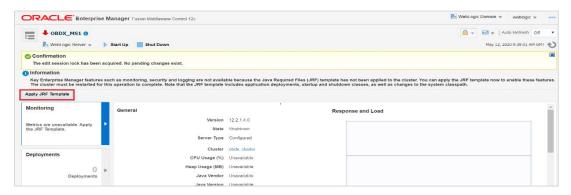
Click on "Lock and Edit" option (as shown in screenshot).



You will see below screen stating the edit session confirmation



Click on "Apply JRF Template" option (as shown in screenshot).

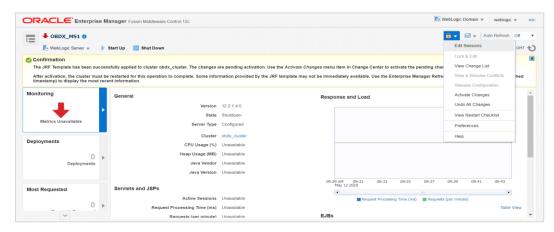


Is JRF successfully applied, you will get below Confirmation.

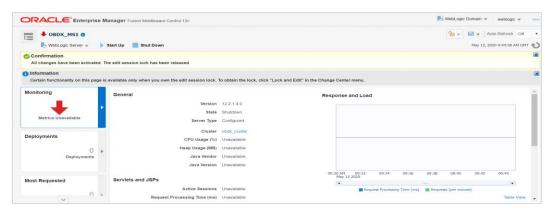




• Click on "Activates Changes" option (as shown in screenshot).



Post activation you will receive below Confirmation.



### **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.pdf

Functionality / Module	OutBound Connection Pool Name
VAM	ra/DIGXConnectorOBVAM



# **Configure User Lockout attributes in Weblogic**

The User Lockout attributes in Weblogic under Home>Security Realms>myrealm need to be in sync with the Password Policy Maintained in LDAP or DBAuthenticator.In case of DBAuthenticator it has to be in sync with Password Policy Maintenance in OBDX.

Check for below values & change accordingly.

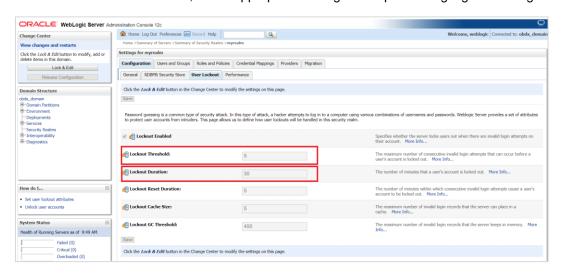
1]Lockout Threshold: It should be equal to Invalid attempts of Password Policy Maintenance.

2]Lockout Duration : It should be equal to property under prop\_id "USER\_LOCK\_PERIOD" maintained in DIGX\_FW\_CONFIG\_ALL\_B table.

In case of OUD or other LDAP it needs to be sync with the Password Policy configured in LDAP. For e.g.: Refer to below values configured in OUD.



Once the values are available, make appropriate change in respective highlighted configuration.



Save and Activate Changes

Restart AdminServer

#### **OBDX Application logging**



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

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.

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:

Note: Replace the #BANKCODE# with bank code.

Below is a sample implementation for loggers file



### **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

# 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

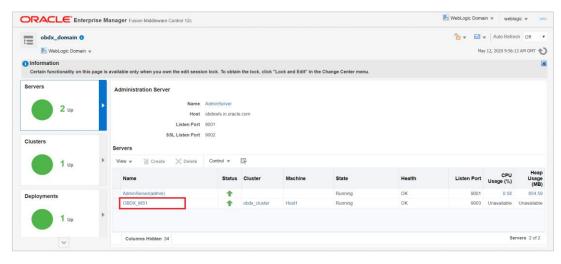
**Note:** EM console would be available on same hostname and port which was used for Weblogic Admin Console for OBDX domain (created via installer), just replace the "/console" with "/em".





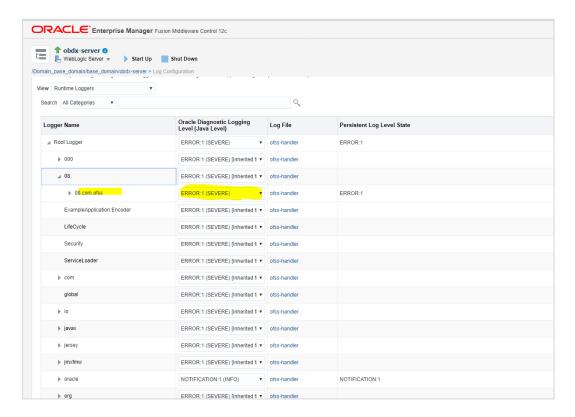
Click on OBDX\_MS1

# 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.

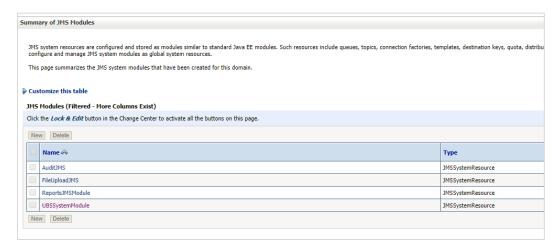


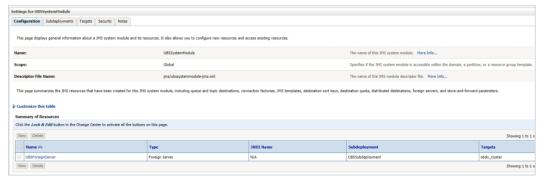
# Oracle FLEXCUBE Universal Banking (OBDX with UBS)

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

# **Foreign Server**

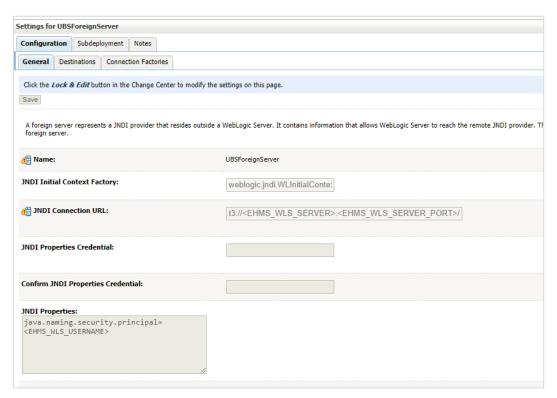
 Login into Weblogic Admin console (OBDX domain created using installer) and Browse to Summary of JMS Modules > UBSSystemModule (as shown below)



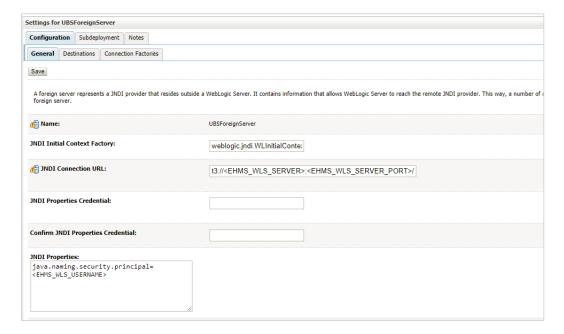


Click on UBSForeignServer





### Click on Lock & Edit





Set below configurations with:

JNDI Connection URL –Replace <EHMS\_WLS\_SERVER> with hostname or IP address of UBS HOST Weblogic server and <EHMS\_WLS\_SERVER\_PORT> with port number of UBS HOST Weblogic Managed server (where NOTIFY\_DEST\_QUEUE and NOTIFY\_DEST\_QUEUE\_FCDB are mapped).

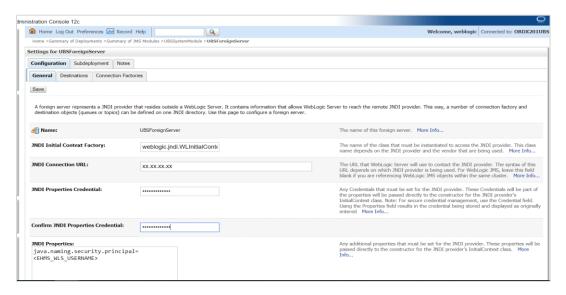
JNDI Properties Credential – Password for username set in JNDI properties

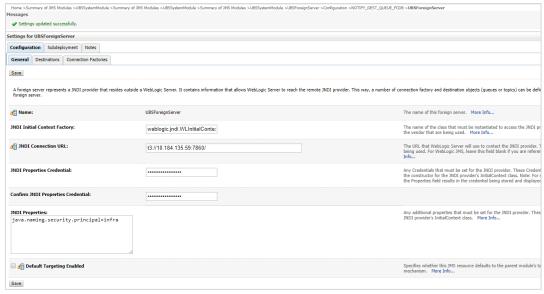
Confirm JNDI Properties Credential - Confirm password for username set in JNDI properties

**JNDI Properties** – Value to be set as "java.naming.security.principal=<EHMS\_WLS\_USERNAME>", where

username is the login user of UBS Weblogic Admin Console (user which created the primary local queues for UBS).

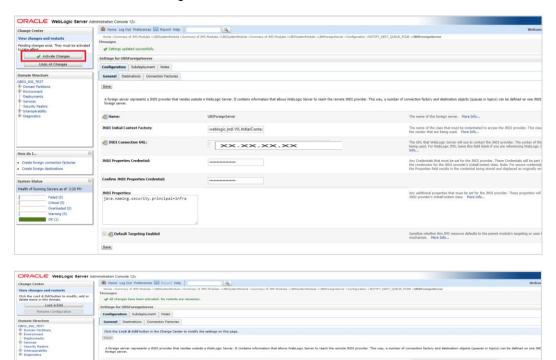
Click on Save







Click on Activate Changes



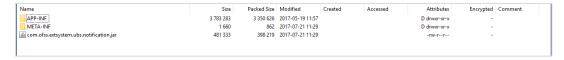
(3) P10 104 116 60 7060/

# **Deployment of notification MDB application**

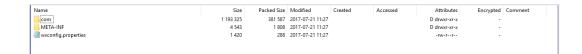
Before deployment of obdx.externalsystem.ubs.notification.mdb.ear application, kindly perform below steps:

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)

Any additional properties that must be set for the INDL propeler's Initial Contest class. More Info.

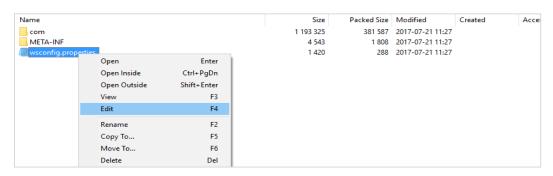


Double click on com.ofss.extsystem.ubs.notification.jar





Open the wsconfig.properties to edit





 Change the URL for AlertProcessorService.url, FileProcessedNotifProcessorService.url and AlertProcessorService.targetUnit(Note the hostname and port should be of OBDX managed server created by installer. Entity ID should be OBDX BU for Base entity)

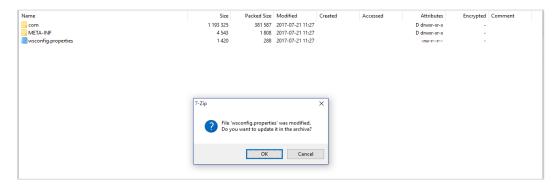








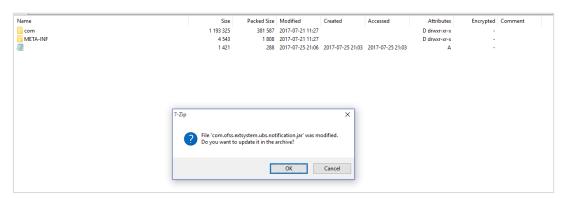
- Save changes.
- Click OK.



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

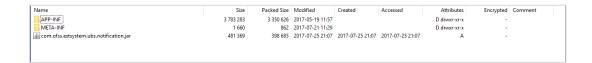


Click OK



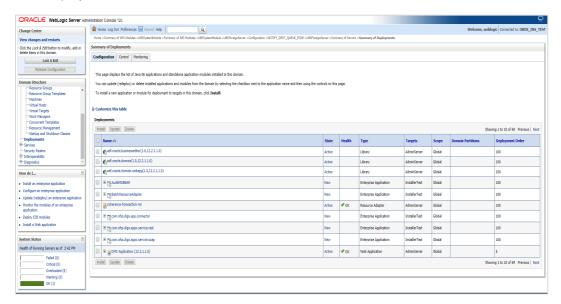


The date-timestamp would be updated (as seen below) once the change is saved.

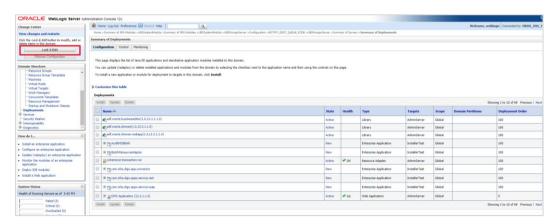


Deploy the updated obdx.externalsystem.ubs.notification.mdb.ear using below steps.

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



Click Lock & Edit





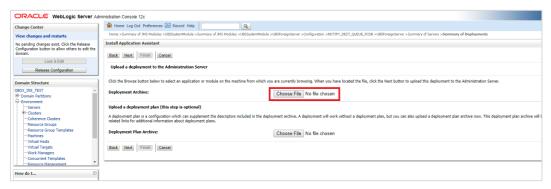
Click on Install



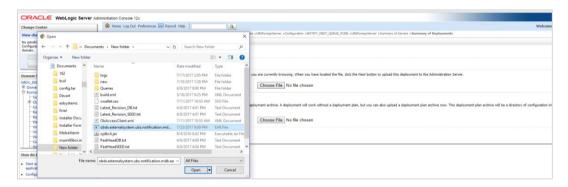
Click on Upload your file(s)



Click on Choose File under Deployment Archive



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





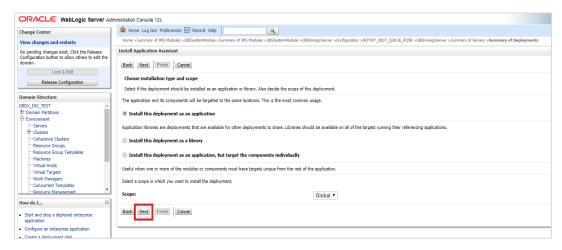
#### Click Next



#### Click Next

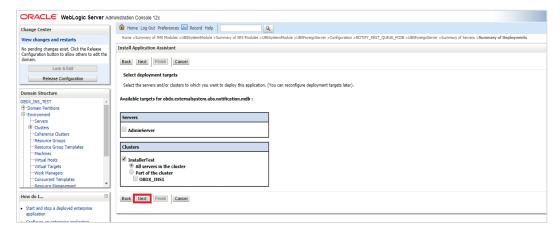


Select "Install this deployment as an application" and click Next

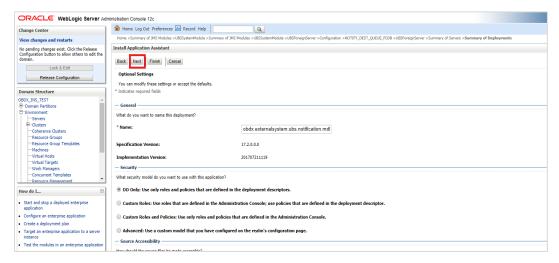


Select Cluster as target and click Next

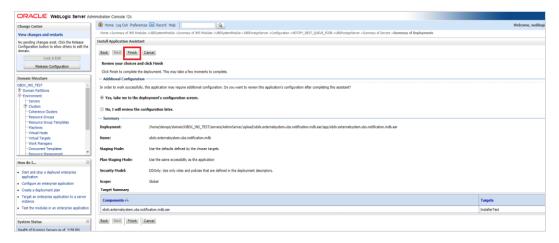




#### Click Next

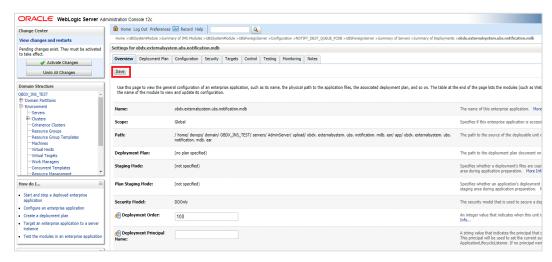


#### Click Finish.

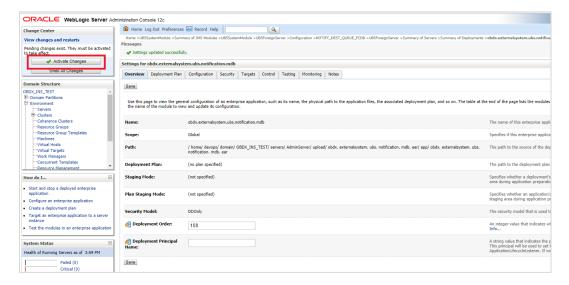


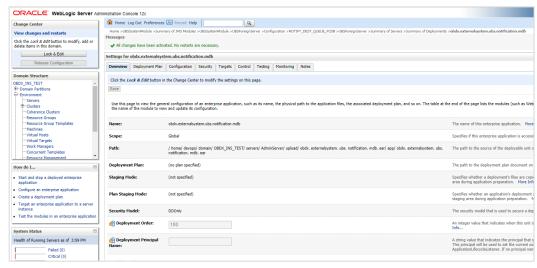
#### Click Save.





### Click Activate Changes







# Oracle FLEXCUBE Universal Banking with Oracle Banking Payments (OBDX with OBPM)

If during installer execution Oracle FLEXCUBE Universal Banking with Oracle Banking Payments (OBDX with OBPM) 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 > OBPMSystemModule > OBPMForeignServer (as shown below)



Refer to earlier steps mentioned for **UBS HOST UBSForeignServer and make similar changes in OBPMForeignServer**.

### **Deployment of notification MDB application**

Before deployment of obdx.externalsystem.obpm.notification.mdb.ear application, make changes similar to obdx.externalsystem.ubs.notification.mdb.ear before deployment.

### 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

### Trade Finance (LC and BG) with OBTFPM

Refer below document for enabling 'Letter Of Credit' issuance and 'Bank Guarantee' issuance with Oracle Banking Trade Finance Management.



Oracle Banking Mid-Office Product Setup and Configuration Guide

# <u>OHS</u>

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

#### Feedback module:

In order to enable Scale (Rating) icons please refer the section **Creating Procedure** of **Oracle Banking Digital Experience Content Upload Guide** user manual.

**Home** 



# 9. OBDX Product Verification

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



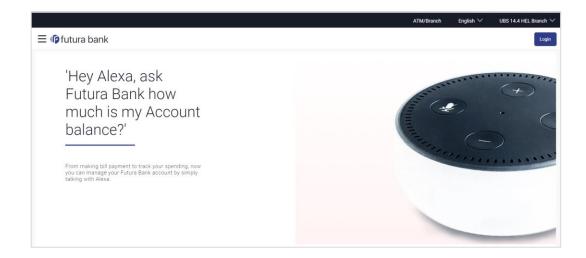
To login into application, new user needs to be created (if not already done) in OUD refer section Creating Groups and System Admin User on LDAP Server of document "Oracle Banking Digital Experience Installer Pre-Requisite Setup Manual" mentioned in section 8.5 Related Information Sources.

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



### **Chat Bot Configuration:**

Refer below document for Chat Bot configuration.

Oracle Banking Digital Experience Chatbot Configuration

# 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

### Mid Office Configuration:

Refer below document for Mid Office Configurations i.e. Trade Finance, Corporate Lending.

Oracle Banking Mid-Office Product Setup and Configuration Guide.

#### **Account Uniqueness Configuration:**

Some core banking systems support same account number in multiple branches within the entity. OBDX has support for such core banking systems. However, the configuration is not enabled by default. In case the Bank has core banking system which supports and provides same account numbers across multiple branches, the following scripts should be executed per entity for enabling the support.

```
Insert into DIGX_FW_CONFIG_ALL_O (PROP_ID, PREFERENCE_NAME, PROP_VALUE,
    DETERMINANT_VALUE, CREATED_BY, CREATION_DATE, LAST_UPDATED_BY,
    LAST_UPDATED_DATE)
    values
    ('obdx.host.account.uniqueness','ExtSystemsConfig','BRANCH','<ENTITY_ID>','ofssu ser',sysdate,'ofssuser',sysdate);

Insert into DIGX_FW_CONFIG_ALL_O (PROP_ID, PREFERENCE_NAME, PROP_VALUE,
    DETERMINANT_VALUE, CREATED_BY, CREATION_DATE, LAST_UPDATED_BY,
    LAST_UPDATED_DATE)
    values
    ('obdx.host.accountbranch.delimiter','ExtSystemsConfig','@~','<ENTITY_ID>','ofss user',sysdate,'ofssuser',sysdate);
```

**Note:** Please ensure that <ENTITY\_ID> has been replaced with correct Entity ID for the corresponding entity.

**Home** 



# 10. Configuration for OUD/OAM

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

### Weblogic configuration/ deployment

### 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\obdx.app.rest.ear).

Refer to manual deployment steps provided for obdx.externalsystem.ubs.notification.mdb.ear application

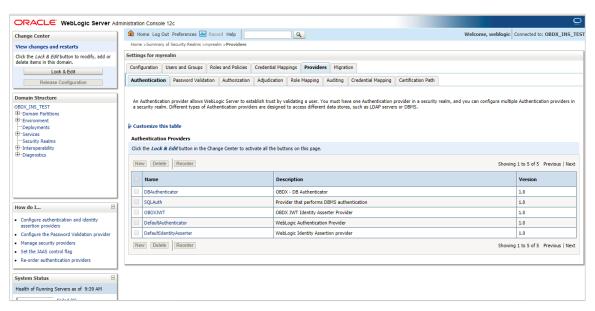
### Security Realms

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

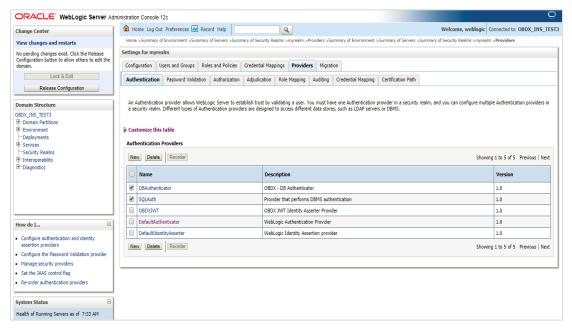


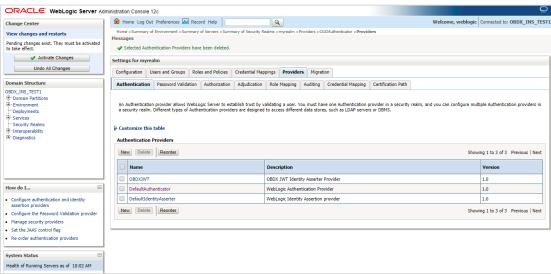


- Now click on "Lock & Edit" in order to edit the details.
- Delete the following Authenticators under providers-> Authentication:

# **DBAuthenticator**

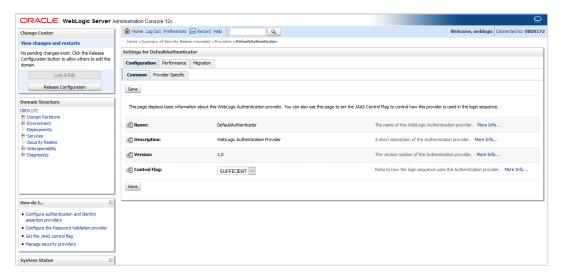
#### **SQLAuth**



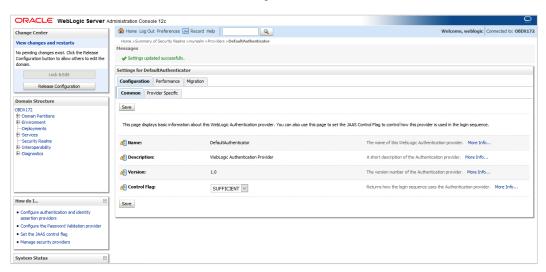




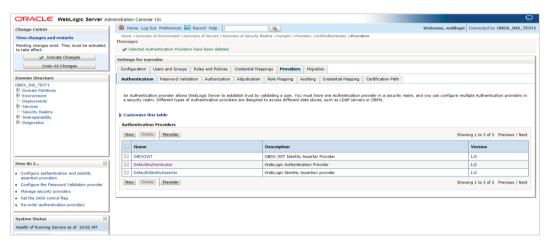
Click on 'DefaultAuthenticator" provider and change the Control Flag to SUFFICIENT



Click on Save button to save the changes



Navigate Back to Security Realms > myrealm > Providers

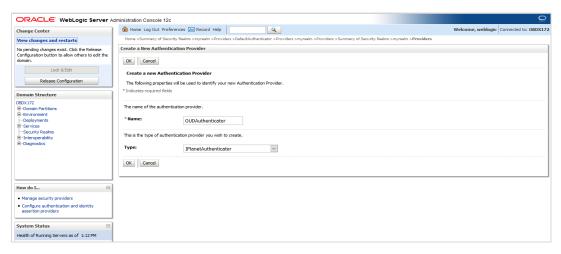


Now, click on New and enter the below details and click Save.

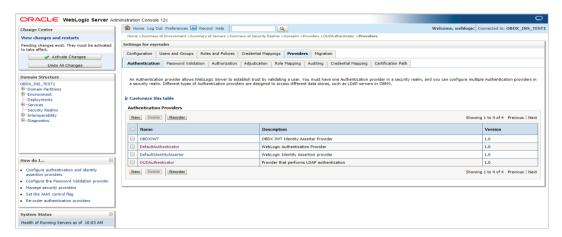


Name: OUDAuthenticator

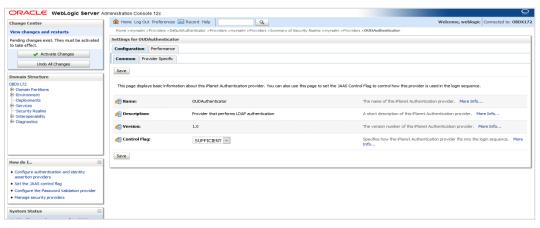
Type: OracleUnifiedDirectoryAuthenticator



Click on OK Button.

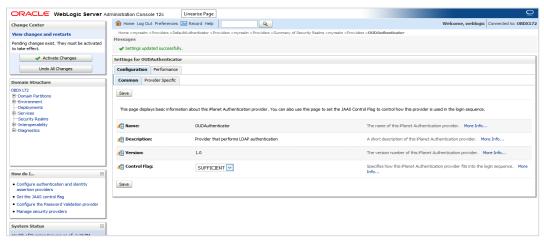


## Now Click on OUDAuthenticator and select Control Flag as "SUFFICIENT"



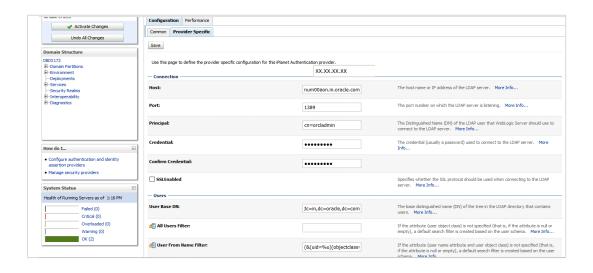
Click on Save Button.



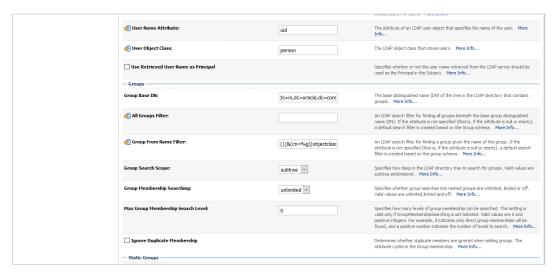


• Now under Provider Specific tab set the details of LDAP where the server should point. Refer to the following table for more information:

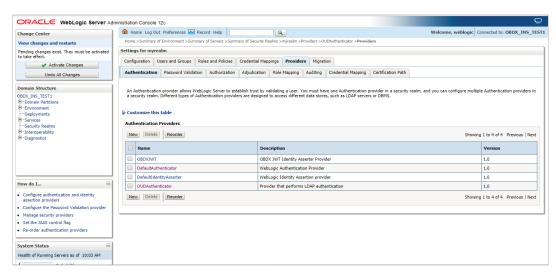
Property	Value	
Host	This is the LDAP Server (OUD) Hostname	
Port	This is the LDAP Server (OUD) Port. E.g. 1389	
Principal	This is the Administrator Account name. E.g. cn=orcladmin	
Credential	This is the Administrator Account password.	
Confirm Credential	Confirm the Administrator Account password.	
UserBase DN	This is the OUD user search base For e.g.: cn=Users, dc=in,dc=oracle,dc=com	
GroupBase DN	This is the OUD group search base For e.g.: cn=Groups, dc=in,dc=oracle,dc=com	







- Click on Save to update the changes.
- Navigate Back to Security Realms > myrealm > Providers

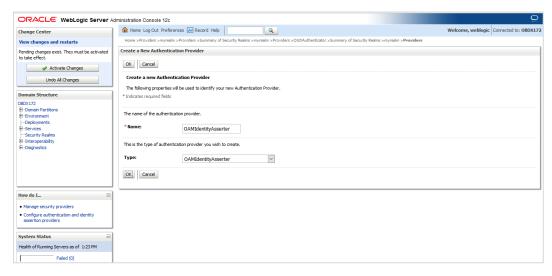


Now, click on New and enter the below details and click Save.

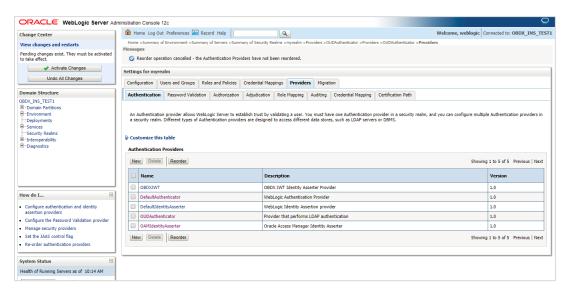
Name: OAMIdentityAsserter

Type: OAMIdentityAsserter

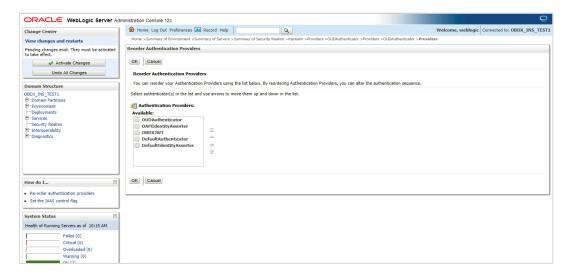




Click on OK Button.

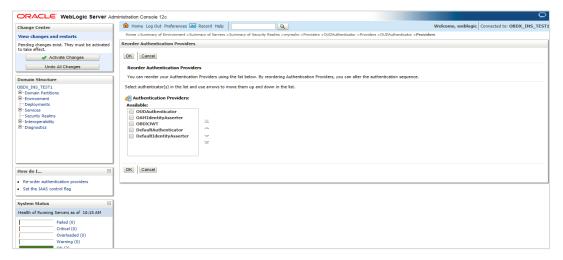


Click on Reorder Button.

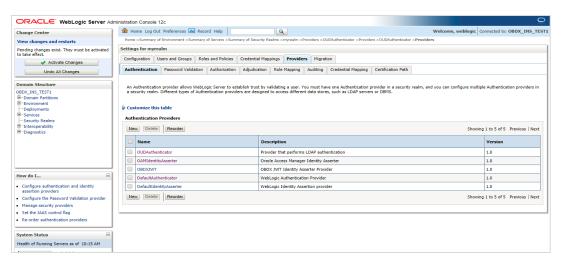




 Reorder the providers so that LDAP Provider (OUDAuthenticator) gets highest priority followed by OAMIdentityAsserter, OBDXJWT, DefaultAuthenticator, DefaultIdentityAsserter.



Click on OK Button.



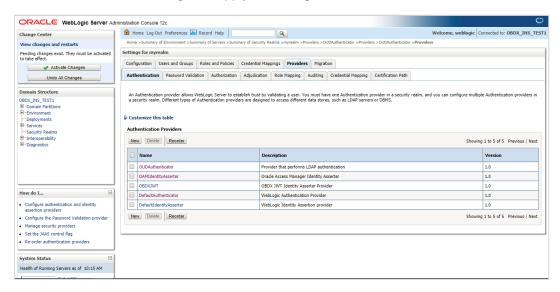
Set the OAuth URL for OBDXJWT





Sample OAuth URL: <a href="http://<hostname>:<port>/digx-auth/v1/token/info">http://<hostname>:<port>/digx-auth/v1/token/info</a> (hostname and port should be replaced with OAM Server setup).

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"/>

```
</serviceInstance>
    <serviceInstance name="policystore.db" provider="policystore.provider">
       propertySetRef ref="props.db.1"/>
    </serviceInstance>
 </serviceInstances>
  <jpsContexts default="default">
     <jpsContext name="default">
       <serviceInstanceRef ref="keystore.db"/>
       <serviceInstanceRef ref="policystore.db"/>
       <serviceInstanceRef ref="audit.db"/>
       <serviceInstanceRef ref="trust"/>
       <serviceInstanceRef ref="pdp.service"/>
       <serviceInstanceRef ref="attribute"/>
       <serviceInstanceRef ref="idstore.custom"/>
     <jpsContext name="bootstrap_credstore_context">
       <serviceInstanceRef ref="pootstrap.credstore"/:
<serviceInstanceRef ref="keystore"/>
    </jpsContext>
    </p
    </jpsContext>
/jpsConfig>
```



```
serviceInstance name="policystore.db" provider="policystore.provider"
        cpropertySetRef ref="props.db.1"/>
    </serviceInstance>
 </serviceInstances>
 <jpsContexts default="default">
    <jpsContext name="default">
       <serviceInstanceRef ref="credstore.db"/>
       <serviceInstanceRef ref="keystore.db"/>
       <serviceInstanceRef ref="policystore.db"/>
        <serviceInstanceRef ref="audit.db"/>
       <serviceInstanceRef ref="trust"/>
       <serviceInstanceRef ref="pdp.service"/>
       <serviceInstanceRef ref="attribute"/>
       <serviceInstanceRef ref="idstore.ldap"/>
    </jpsContext>
    <jpsContext_name="bootstrap_credstore_context">
    <serviceInstanceRef_ref="bootstrap.credstore"/>
        <serviceInstanceRef ref="keystore"/>
    </jpsContext>
    <jpsContext name="bootstrap_credstore_context_local">
        <serviceInstanceRef ref="bootstrap.credstore.local"/>
    </jpsContext>
 </ipsContexts>
/jpsConfig>
```

- Now Shutdown the Admin server.
- Now, again start the Admin Server using the command,

<DOMAIN\_PATH>/<DOMAIN\_NAME>/bin/startWeblogic.sh

Run the following script into OBDX Schema:

```
update DIGX_FW_CONFIG_ALL_B set prop_value = 'ipm1.0,ORACLEBI12.2.1.2,GENERIC1.0,OAM122130,OUD1.0' where prop_id = '01' and category id = 'extxfaceadapterconfig';
```

commit;

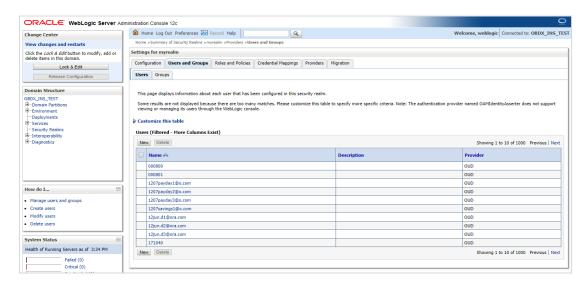
Restart Managed Server

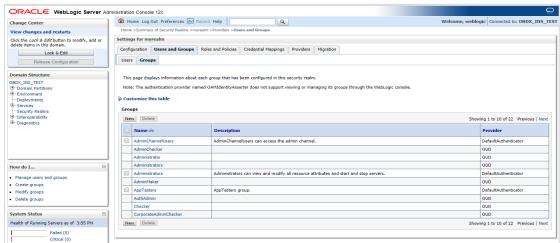
#### Verification

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.









# 11. Multi Entity

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

- Add entity through OBDX Web application, using
  - User Manual Oracle Banking Digital Experience System Configuration User Manual
- In case of OBTFPM integration, following document should be referred.
- Oracle Banking Mid-Office Product Setup and Configuration Guide Running OBDX installer

Ensure that Managed server should be down and Admin server should be running state.

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 details (OBDX DB; WLS etc) are maintained in installer.properties 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'



Below screen will appear after selecting add entity

```
Enter the entity code :

SOBOX_BU1

Valid.
Enter password for the OBDX Schema :

S>********
```



Enter below information:

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

If an entity code belongs to UBS / OBPM host following screen (below screenshot are for OBPM; for UBS same input are required) will appear:

```
Enter the OBFM143 DB port :

Enter the OBFM143 DB port :

Enter the OBFM143 DB port :

Enter the OBFM143 SID :

Enter the Directory name for Tablespace creation (DBA_DIRECTORIES) :

Enter the Directory name for Tablespace creation (DBA_DIRECTORIES) :

Enter the username with 'sys' privileges :

Enter password for the user with sys privileges :

Enter existing veblogic admin password :

Enter existing veblogic admin password :

Use (1/1) keys to navigate between questions and press 'enter' after editing them
```

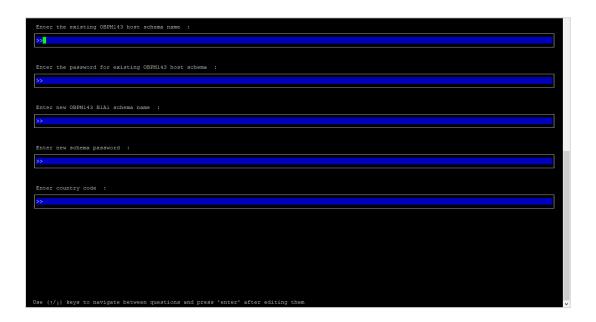
```
Enter the OBFM143 DB hostname :

| SMBUMBA012:In.oracle.com
| Valid. |
| Enter the OBFM143 DB port :
| SMBUMBA013: |
| SMBUMBA014: |
| SMBUMBA014: |
| SMBUMBA014: |
| SMBUMBA014: |
| SMBUMBA015: |
| SMBUMBA016: |
| SMBUMBA
```



## Enter below details:

- Hostname of the database host server
- Port of the database host server
- 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 Host schema name
- Password for EXISTING schema
- Complete EHMS (HostInterface) schema name you want installer to create as new schema
- Password for New schema
- Country Code of entity branch



## Installation Status in case of UBS / OBPM

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

```
Geographomous | 12 pythom runinstaller.py |

TEATING COS DETAILED TRANSPORTED | 12 pythom runinstaller.py |

TEATING COS DETAILED TRANSPORTED | 12 pythom runinstaller.py |

TEATING COS DETAILED TRANSPORTED | 12 pythom runinstaller.py |

TEATING COS DETAILED TRANSPORTED | 12 pythom runinstaller.py |

TEATING COS DETAILED TRANSPORTED | 12 pythom runinstaller.py |

TEATING COS DETAILED TRANSPORTED | 12 pythom runinstaller.py |

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TEATING COS DETAILED TRANSPORTED | 12 pythom runinstaller.py |

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TEATING TEATING COST DETAILED TRANSPORTED | 12 pythom runinstaller.py |

TEATING TEATING TRANSPORTED | 12 pythom runinstaller.py |

TEATING TRANSPORTED | 12 pythom runins
```

When the installation completes, the below message is displayed

```
P @obdowls:/scratch/obdu/v4/08DX_183.0.0.0
 Execution of ubs_object_scripts.sql completed 
Execution of execute-seeds.sql started
 xecution of execute-seeds.sql completed
  CCESSFULLY installed UBS database
 xecuted DIGX_FW_CONFIG_ALL_O.sql successfully
 tarting Entity Configuration
 Calling WLST
 Initializing WebLogic Scripting Tool (WLST) ...
Welcome to Weblogic Server Administration Scripting Shell
Type help() for help on available commands
 onnecting to t3://obdxwls.in.oracle.com:9001 with userid weblogic ...
uccessfully connected to Admin Server "AdminServer" that belongs to domain "CBIX183INS".
 arning: An insecure protocol was used to connect to the server.
 o ensure on-the-wire security, the SSL port or Admin port should be used instead.
 ocation changed to edit tree.
 This is a writable tree with DomainWBean as the root.
 To make changes you will need to start an edit session via startEdit().

To more help, use help('edit').
 tarting an edit session
  ctivating all your changes, this may take a while .
 he edit lock associated with this edit session is released once the activation is completed.
 BDX_BUL_BIA1 created successfully.
Exiting WebLogic Scripting Tool.
[devops@obdxwls
```



Post successful installation refer to "Section 8: Post Installation steps" for manual steps to be performed for UBS additional entity (sub-section : Oracle FLEXCUBE Universal Banking (OBDX with UBS)).

## If an entity code belongs to Third-party host following screen will appear:

```
[devops@ OBDX_Installer]$ export Entity_Code=OBDX_BU1
[devops@ OBDX_Installer]$ export SCHEMA_PASS=welcome1
[devops@ OBDX_Installer]$ export FLAVOUR=OBDX
[devops@ OBDX_Installer]$ python runInstaller.py --silent --addEntity
Password validated for OBDX_183INS
Execution of DB script for OBDX_BU1 started
Executed DIGX_FW_CONFIG_ALL_O.sql successfully
Execution completed.
[devops@ OBDX_Installer]$

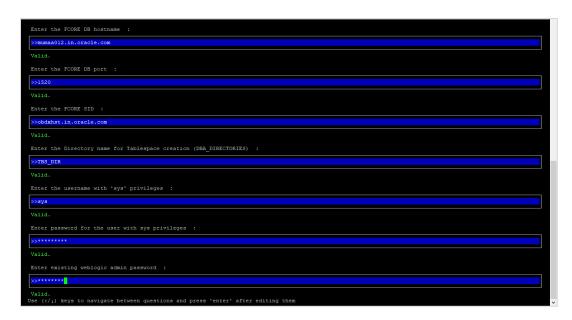
OBDX_Installer]$
```

No additional steps/ configuration are required.



# If an entity code belongs to Oracle FLEXCUBE Core Banking host following screen will appear:



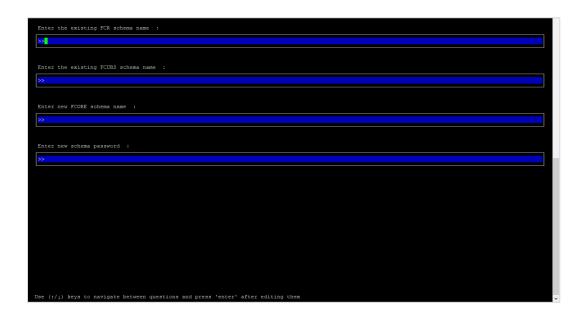


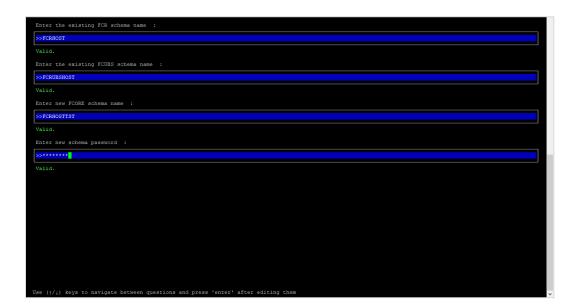
#### Enter below details:

- Hostname of the FCORE database host server
- Port of the FCORE database host server
- FCORE 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 FCORE schema would be created



Weblogic console administrator user password





#### Enter below details:

- EXISTING FCORE HOST schema name
- EXISTING FCORE FCUBS schema name
- Complete EHMS (HostInterface) schema name you want installer to create as new schema
- Password for New EHMS schema

## **Installation status for FCORE Add entity**



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

```
(sorops8 SONC_tentalics[8 system runinstalies_sy --silent --addEntity
Fassword validated for COCC_183HS
Fassword validated for sys

Starting FCORE Deshbase Installation...
Creating Palespace...
Tablespace Created
Created Desr...
Oser Created
Creating Bole...
Soles Created
Executing Sole...
Executing Sole...
Executing Sole...
Executing the sole of table-soripts.sql started
Execution of table-soripts.sql completed
Execution of foole_object_sorapts.sql started
```

```
### Cobdomoto/control/obd/CBDX/initialize

Execution of foore_Object_position.sql started

Execution of tecore_Object_position.sql started

Execution of execute-seeds.sql septemed

Execution of execute-seeds.sql septemed

Execution of execute-seeds.sql completed

Execution of execute-seeds.sql completed

SUCCESSFULLY interalled FOORE database

Starting Entity Configuration

Calling WLST

Initializing WebLogic Scripting Tool (WLST) ...

Welcome to WebLogic Scripting Tool (WLST) ...

Welcome to WebLogic Scripting Server Administration Scripting Shell

Type help() for help on available commands

Connecting to 13://obdavis.in.oracle.com:9001 with userid weblogic ...

Successfully connected to Admin Server "Adminiserver" that belongs to domain "OBDXI83INS".

Warning: An insecure protocol was used to connect to the server.

To ensure on-the-wire security, the SSL port or Admin port should be used instead.

Location changed to edit tree.

This is a writable tree with DomainWBean as the root.

To make change you will need to start an edit session via startEdit().

For more help, use help('edit').

Creating Data source OBDX_BUR_BIAL

Starting an edit session, be sure to save and activate your changes once you are done.

Activating all your changes, this may take a while ...

The edit lock associated with this edit session is released once the activation is completed.

Activation completed

Entity successfully configured.

[deveps@bobbards GBDX_Installer]:
```

## No additional steps/ configuration are required.

Post successful installation refer to "Section 8: Post Installation steps" for manual steps to be performed for OBPM additional entity (sub-section: Oracle FLEXCUBE Universal Banking with Oracle Banking Payments (OBDX with OBPM)).



# 12. Multi-entity installation using 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, as shown below.

```
OBDX_Installer]$ export Entity_Code=OBDX_BU7
OBDX_Installer]$ export SCHEMA_PASS=welcome1
OBDX_Installer]$ export ENTITY_EHMS_DATABASE_HOSTNAME=hostanme.in.oracle.com
OBDX_Installer]$ export ENTITY_EHMS_DATABASE_PORT=1520
OBDX_Installer]$ export ENTITY_EHMS_DATABASE_SID=obdxdb.in.oracle.com
OBDX_Installer]$ export ENTITY_EHMS_DATABASE_SID=obdxdb.in.oracle.com
OBDX_Installer]$ export ENTITY_EHMS_DATABASE_SYS_USER=sys
OBDX_Installer]$ export ENTITY_EHMS_DATABASE_SYS_USER=sys
OBDX_Installer]$ export ENTITY_EHMS_DATABASE_SYS_PASS=welcome1
OBDX_Installer]$ export ENTITY_EHMS_SCHEMA_NAME=welcome1
OBDX_Installer]$ export ENTITY_EHMS_SCHEMA_PASS=welcome1
OBDX_Installer]$ export ENTITY_EHMS_HOST_SCHEMA_NAME_FCUBS140
OBDX_Installer]$ export ENTITY_EHMS_HOST_SCHEMA_NAME_PASS=welcome1
OBDX_Installer]$ export ENTITY_EHMS_HOST_SCHEMA_NAME_PASS=FCUBS140
OBDX_Installer]$ export ENTITY_EHMS_HOST_SCHEMA_NAME_PASS=FCUBS140
OBDX_Installer]$ export ENTITY_EHMS_HOST_SCHEMA_NAME_PASS=FCUBS140
OBDX_Installer]$ export ENTITY_EHMS_HOST_SCHEMA_NAME_PASS=FCUBS140
OBDX_Installer]$ export ENTITY_EHMS_CCY=GB
OBDX_Installer]$ export ENTITY_EHMS_CCY=GB
```

Below parameters should be set in environment variables

	Parameter	Description	Example
Environmen t variables to set for flavor:	Entity_Code	Entity code which has been entered from screen	export Entity_Code=OBDX_BU7
	SCHEMA_PASS	Password for existing OBDX schema	export SCHEMA_PASS=devops#obdx182
	ENTITY_EHMS_DATABAS E_HOSTNAME	Hostname of the EHMS HOST database host server	export ENTITY_EHMS_DATABASE_HOSTNA ME=xx.xx.xx.xx



	Parameter	Description	Example
UBS (14.4.0.0.0 release) OBPM (14.4.0.0.0 release)	ENTITY_EHMS_DATABAS E_PORT	Port of the EHMS HOST database host server	export ENTITY_EHMS_DATABASE_PORT=1 521
	ENTITY_EHMS_DATABAS E_SID	EHMS Host database Service Name	export ENTITY_EHMS_DATABASE_SID=obd xdb.in.oracle.com
	ENTITY_EHMS_DBA_DIR ECTORY_NAME	Oracle Directory name in which you want the EHMS (HostInterfa ce) schema datafile (dbf). Enter only the name and NOT the path	export ENTITY_EHMS_DBA_DIRECTORY_N AME=TBS_DIR
	ENTITY_EHMS_DATABAS E_SYS_USER	Username with 'sys' privileges	export ENTITY_EHMS_DATABASE_SYS_US ER=sys
	ENTITY_EHMS_DATABAS E_SYS_PASS	Password for EHMS sys user	export ENTITY_EHMS_DATABASE_SYS_PA SS=devops@sys
	ENTITY_EHMS_SCHEMA_ NAME	Complete EHMS (HostInterfa ce) schema name you want installer to create as new schema.	export ENTITY_EHMS_SCHEMA_NAME=OB DXEHMS
	ENTITY_EHMS_SCHEMA_ PASS	Password for new EHMS schema on EHMS HOST database	export ENTITY_EHMS_SCHEMA_PASS=dev ops#ehms



	Parameter	Description	Example
	ENTITY_EHMS_HOST_SC HEMA_NAME	EXISTING EHMS Host schema name	export ENTITY_EHMS_HOST_SCHEMA_NA ME=EHMSHOST
	ENTITY_EHMS_HOST_SC HEMA_NAME_PASS  **This parameter is only required for UBS & OBPM Host	Password of existing HOST EHMS schema (Existing)	export ENTITY_EHMS_HOST_SCHEMA_NA ME_PASS=ehmshst
	WLS_DOMAIN_PASS	Password for Weblogic admin console	export WLS_DOMAIN_PASS=weblogic182
	**This parameter is only required for UBS & OBPM Host	Country Code for new or additional entity home branch	export ENTITY_EHMS_CCY=GB
	ENTITY_EHMS_FCORE_F CUBS_SCHEMA_NAME **This parameter is only required for FCORE	FCORE- FCUBS HOST schema name	export ENTITY_EHMS_FCORE_FCUBS_SCH EMA_NAME=FCRUBSHOST
Environmen t variables to set for flavor: OBDX (Third-party HOST)	Entity_Code	Entity code which has been entered from screen	export Entity_Code=OBDX_BU1
	SCHEMA_PASS	Password for existing OBDX schema	export SCHEMA_PASS=welcome1

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



```
devops@
[devops@
                          /]$ export Entity_Code=OBDX_BU7
                          [devops@
                          /]$ export ENTITY_EHMS_DATABASE_PORT=1521
/]$ export ENTITY_EHMS_DATABASE_SID=obdxdb.in.oracle.com
/]$ export ENTITY_EHMS_DBA_DIRECTORY_NAME=TBS_DIR
[devops@
[devops@
[devops@
                         /]$ export ENTITY_EHMS_DATABASE_SYS_USER=sys
/]$ export ENTITY_EHMS_DATABASE_SYS_USER=sys
/]$ export ENTITY_EHMS_DATABASE_SYS_PASS=devops@sys
/]$ export ENTITY_EHMS_SCHEMA_NAME=OBDXEHMS
/]$ export ENTITY_EHMS_SCHEMA_PASS=devops#ehms
/]$ export ENTITY_EHMS_HOST_SCHEMA_NAME=FCUBS140
/]$ export ENTITY_EHMS_HOST_SCHEMA_NAME_PASS=FCUBS140HST
[devops@
[devops@
[devops@
[devops@
[devops@
[devops@
[devops@
                          /]$ export WLS_DOMAIN_PASS=weblogic182
[devops@
                          /]$ export ENTITY_EHMS_CCY=GB
                          /]$ python runInstaller.py --silent --addEntity
[devops@
```

# Installation Status in case of Oracle FLEXCUBE Core Banking, Oracle FLEXCUBE Universal Banking, Oracle FLEXCUBE Universal Banking with Oracle Banking Payments

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

```
Execution of ubs_object_scripts.sql completed
Execution of execute-secds.sql started
Execution of execute-secds.sql started
Execution of execute-secds and completed
Executed DIGN_TM_CONTG_ALL_0.sql successfully

Starting Entity Configuration

Calling MLST

Initializing MebLogic Scripting Tool (MLST) ...

Welcome to WebLogic Scripting Tool (MLST) ...

Welcome to WebLogic Scripting Tool (MLST) ...

Welcome to WebLogic Scripting Tool (MLST) ...

Welcome to Scripting Execution Scripting Shell

Type help() for help on available commands

Connecting to 53://bdxwls.in.oracle.com;9001 with userid weblogic ...
Successfully connected to Admin Server "AdminsFerver" that belongs to domain "OBDX183INS".

Warning: An insecure protocol was used to connect to the server.

To ensure on-the-wire security, the SSL pot or Admin port should be used instead.

Location changed to edit tree.

This is a writable tree with DemainSeen as the root.

To make changed you will need to start an edit session via startEdit().

For more help, use help("edit").

Creating Data source OBDX_BSL_BSLAl

Starting and source OBDX_BSL_BSLAl

Starting and stit session. ...

Started edit session, be sure to save and activate your changes once you are done.

Activating all your changes, this may take a while ...

The edit look associated with this edit session is released once the activation is completed.

GBDL_BIAL created successfully.

Exiting WebLogic Scripting Tool.

Entity successfully configured.
```

Post successful installation refer to "Section 8: Post Installation steps" for manual steps to be performed for

- UBS additional entity (sub-section : Oracle FLEXCUBE Universal Banking Solution (OBDX with UBS))
- OBPM additional entity (sub-section: Oracle FLEXCUBE Universal Banking with Oracle Banking Payments (OBDX with OBPM))

## Installation Status in case of other hosts as Add Entity

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

THP(third party as entity)

```
[devops] OSEX_Installer]& python runInstaller.py --silent --addEntity
Password validated for OSEX_183INS
Execution of DB script for OSEX_BUI started
Executed DIGX_FW_CONFIG_ALL_O.sql successfully
Execution completed.
```



# 13. OBDX Product Security

Refer below document for OBDX product security configuration

Oracle Banking Digital Experience Security Guide



# 14. OBDX Product - Best Practice

# 14.1 Tablespace for AUDIT INDEX

The index's used by AUDIT table should be moved into new tablespace from current AUDIT tablespace.

Follow below steps

- Create a new tablespace
- Give quota to OBDX schema

alter user <OBDX\_SCHEMA> quota unlimited on <OBDX\_AUDIT\_INDEX\_TABLESPACE>;

- Drop and create below index by mapping the newly created tablespace
  - OBDX\_Installer\installables\db\OBDX\ddl\oracle\audit\ IDX\_DIGX\_AL\_API\_AUDIT\_LOGGING.sql
  - OBDX\_Installer\installables\db\OBDX\ddl\oracle\audit\ IDX\_DIGX\_AL\_API\_AUDIT\_LOG\_HIST.sql
  - OBDX\_Installer\installables\db\OBDX\ddl\oracle\audit\IDX\_DIGX\_AL\_AUDIT\_LOGGIN G.sql
  - OBDX\_Installer\installables\db\OBDX\ddl\oracle\audit\ IDX\_DIGX\_AL\_AUDIT\_LOGGING\_1.sql
  - OBDX\_Installer\installables\db\OBDX\ddl\oracle\audit\ IDX\_DIGX\_AL\_AUDIT\_LOGGING\_2.sql
  - OBDX\_Installer\installables\db\OBDX\ddl\oracle\audit\ IDX\_DIGX\_AL\_AUDIT\_LOGGING\_3.sql
  - OBDX\_Installer\installables\db\OBDX\ddl\oracle\audit\ IDX\_DIGX\_AL\_AUDIT\_LOGGING\_4.sql
  - OBDX\_Installer\installables\db\OBDX\ddl\oracle\audit\IDX\_DIGX\_AL\_AUDIT\_LOGGIN G\_DETAILS.sql



# 15. JPA and OBDX multi-cluster

In a multi-cluster environment, below JPA related changes should be implemented

- Go to Weblogic server
- > Open config\META-INF\persistence.xml
- Append below configuration for all data-source

Replace with respective hostname or IP and Port no (this should be the managed server port number which hosts the JPA queues in the cluster)

## Key pointers;

- Multi-cluster here refer's to :
  - Single cluster with multiple nodes (2 or more physical servers hosting the OBDX product)
  - 2 or more Weblogic cluster's
- Ensure these (persistence.xml) changes are available to all Managed server by maintaining appropriate classpath



# 16. 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:

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:



Execute the below command:

```
export LD_LIBRARY_PATH=/usr/lib/oracle/19.3/client64/lib:$LD_LIBRARY_PATH python
```

```
import cx_Orace
cx Oracle. version
```

```
[devops@ /|$ export LD_LIBRARY_PATH=/usr/lib/oracle/18.3/client64/lib/:$LD_LIBRARY_PATH
[devops@ /|$ python
Python 2.7.5 (default, Apr 11 2018, 17:41:36)
[GCC 4.8.5 20150623 (Red Hat 4.8.5-28.0.1)] on linux2
Type "help", "copyright", "credits" or "license" for more information.
>>> import cx_Oracle
>>> cx_Oracle.__version__
'7.3_0'
```

### **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 13:45:41,051 DEBUG Executed /scratch/jenkins/OBDX_Installer/ExecInstances/13Jul1338/db/UBS/seed/MSTFORMATS.sql successful 2017-07-13 13:45:41,081 DEBUG Executed /scratch/jenkins/OBDX_Installer/ExecInstances/13Jul1338/db/UBS/seed/mstdevice.sql successful 2017-07-13 13:45:41,747 DEBUG Executed /scratch/jenkins/OBDX_Installer/ExecInstances/13Jul1338/db/UBS/seed/MSTENTITYUSERTYPELANG.sql successful 2017-07-13 13:45:41,796 ERROR Executed /scratch/jenkins/OBDX_Installer/ExecInstances/13Jul1338/db/UBS/seed/mstlang.sql failed
```

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:

```
Policy seeding failed. Please see logs for more details
```

Try one of the following:

Check if Entitlement.log is created on following path <OBDX INSTALLER DIR>/ExecInstances/<DDMonthHHMM>/logs/db/ and contains any SEVERE errors for Entitlement policy seeding.

Check if Task.log is created on following path <OBDX INSTALLER DIR>/ExecInstances/<DDMonthHHMM>/logs/db/ and contains any SEVERE errors for Task policy seeding.

Check if Dashboard\_seed.log is created on following path <OBDX INSTALLER DIR>/ExecInstances/<DDMonthHHMM>/logs/db/ and contains any SEVERE errors for Dashboard policy seeding.



Check the seedPolicies.log in <OBDX INSTALLER</li>
 DIR>/ExecInstances/<DDMonthHHMM>/logs/db/ directory if it contains any runtime errors generated during execution of the policies Seeding in OBDX schema

Fix the problem by following below steps:

- Login to OBDX installer server
- Over-write the policies files (Day0Policy.csv; Entitlement.csv; Resources.csv and Task.csv) from OBDX Product zip into <OBDX INSTALLER DIR>/installables/policies directory
- ➢ Browse to <OBDX INSTALLER DIR>\ installables\policies
- Edit Entitlement\_log4j.properties , Task\_log4j.properties & Dashboard\_seed\_log4j.properties . Replace <logs\_path> with directory where policy seeding logs will be generated

e.g

```
# default file output is in user's home directory.
"java.acil.logging.fileHandler.paccern %"/java%a.log
java.util.logging.FileHandler.pattern = <logs_path>/Task.log
java.util.logging.FileHandler.limit = 50000
java.util.logging.FileHandler.count = 1
#java.util.logging.FileHandler.formatter = java.util.logging.XMLFormatter
java.util.logging.FileHandler.formatter = java.util.logging.SimpleFormatter
java.util.logging.SimpleFormatter.format= [%1$tc] %4$s: %2$s - %5$s %6$s%n
# Limit the message that are printed on the console to INFO and above.
java.util.logging.ConsoleHandler.level = OFF
java.util.logging.ConsoleHandler.formatter = java.util.logging.SimpleFormatter
# default file output is in user's home directory.
#java.util.logging.FileHandler.pattern = %h/java%u.log
java.util.logging.FileHandler.pattern = /scratch/Task.log
java.util.logging.FileHandler.limit = 50000
java.utii.logging.FileHandier.count = i
#java.util.logging.FileHandler.formatter = java.util.logging.XMLFormatter
java.util.logging.FileHandler.formatter = java.util.logging.SimpleFormatter
java.util.logging.SimpleFormatter.format= [%1$tc] %4$s: %2$s - %5$s %6$s%n
```

Run below command manually if "SEVERE" error logs are found in Task.log

java -jar -Djava.util.logging.config.file='<logs.properties>' com.ofss.digx.utils.feed.data.task.jar "Task.csv" "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 -Djava.util.logging.config.file='Task\_log4j.properties' com.ofss.digx.utils.feed.data.task.jar 'Task.csv' "oracle.jdbc.OracleDriver,OBDX\_THP181,Welcome#1,jdbc:oracle:thin:@xx.xx.xx:1521/OBDX"

Run below command manually if "SEVERE" error logs are found in Entitlement.log

java -jar -Djava.util.logging.config.file='<logs.properties>'
com.ofss.digx.utils.entitlement.feed.data.jar 'Resources.csv,Entitlement.csv,Day0Policy.csv'
'KERNEL' "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 -Djava.util.logging.config.file='Entitlement\_log4j.properties' com.ofss.digx.utils.entitlement.feed.data.jar 'Resources.csv,Entitlement.csv,Day0Policy.csv' 'KERNEL' "oracle.jdbc.OracleDriver,OBDX\_THP201,Welcome#1,jdbc:oracle:thin:@xx.xx.xx.xx:1521/OBDX"

Note: Please remove the space between multiple csv's if there is any.

Run below command manually if "SEVERE" error logs are found in Dashboard\_seed.log

java -jar -Djava.util.logging.config.file='<logs.properties>' com.ofss.digx.utils.dashboard.jar '<path>/ dashboard\_json' "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 -Djava.util.logging.config.file= Dashboard\_seed\_log4j.properties' com.ofss.digx.utils.dashboard.jar '/installables/policies/dashboard\_json' "oracle.jdbc.OracleDriver,OBDX\_THP201,Welcome#1,jdbc:oracle:thin:@xx.xx.xx.xx:1521/OBDX"

Post successfully execution, restart Managed server.

