

Installation Guide  
Oracle Banking APIs  
Patchset Release 21.1.4.0.0

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**ORACLE®**

Installation Guide

February 2022

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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 APIs Patchset Release 21.1.4.0.0, refer to the following documents:

- Oracle Banking APIs Installation Manuals

---

## 2. Introduction

### 2.1 Purpose of the Document

The purpose of the OBAPI 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 & OBAPI installer
- Setup of OBAPI with Oracle's own Core Banking and Origination Products along with Third-party HOST system.
- Running the installation in silent mode
- Advanced Configurations (Post installation)
- Installation Verification
- Multi-Entity Installation and configuration
- Best Practice
- Troubleshoot Overview

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## 3. Prerequisites

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

For OBAPI pre-requisite software setup refers document “**Oracle Banking APIs Installer Pre-Requisite Setup Manual**” .

### Installer Pre-requisite verification

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

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

### Oracle Instant client

Step 1: Login using root user.

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

**rpm -qa | grep oracle**

```
[root@cfss-vm-172-17-14 ~]# rpm -qa | grep oracle
oracle-cloud-agent-1.11.4-5207.el8.x86_64
oraclelinux-release-8.3-1.0.4.el8.x86_64
oraclelinux-release-el8-1.0-16.0.1.el8.x86_64
oracle-cloud-agent-1.10.0-4792.el8.x86_64
oraclelinux-developer-release-el8-1.0-6.el8.x86_64
oracle-epel-release-el8-1.0-3.el8.x86_64
oracle-logos-80.5-1.0.6.el8.x86_64
oracle-instantclient19.10-basic-19.10.0.0-1.x86_64
[root@cfss-vm-172-17-14 ~]#
```

**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

**python3.8 -V**

```
[root@cfss-vm-172-17-14 ~]# python3.8 -V
Python 3.8.0
[root@cfss-vm-172-17-14 ~]#
```

**Note:** Ensure Python 3.8.0 supported version is installed. Above command should reflect the same.

**cx\_Oracle & Urwid:**

Step 1: Execute python command

**python**

**Note:** Ensure Python 3.8.0 version should be available in PATH variable. Above execution should be done using Python 3.8.0.

---

Step 2: Import Urwid and check version

**import urwid (Press Enter)**

**urwid.\_\_version\_\_**

```
[root@cf50c111 ~]# python3.8
Python 3.8.0 (default, Jun  8 2021, 11:06:31)
[GCC 8.4.1 20200928 (Red Hat 8.4.1-1.0.1)] on linux
Type "help", "copyright", "credits" or "license" for more information.
>>> import urwid
>>> urwid.__version__
'2.1.2'
>>>
```

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

**Note:** Ensure Urwid 2.1.2 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**

```
[root@cf50c111 ~]# python3.8
Python 3.8.0 (default, Jun  8 2021, 11:06:31)
[GCC 8.4.1 20200928 (Red Hat 8.4.1-1.0.1)] on linux
Type "help", "copyright", "credits" or "license" for more information.
>>> import cx_Oracle
>>> cx_Oracle.version
'8.1.0'
>>>
```

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

**Note:** Ensure cx\_Oracle 8.1.0 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 python 3.8.0

```

dnf groupinstall 'development tools'

dnf install bzip2-devel expat-devel gdbm-devel ncurses-devel openssl-devel
readline-devel wget sqlite-devel tk-devel xz-devel zlib-devel libffi-devel

wget https://www.python.org/ftp/python/3.8.0/Python-3.8.0.tgz

tar -xzvf Python-3.8.0.tgz

cd Python-3.8.0

./configure --enable-optimizations

make altinstall

python3.8 --version

```

```

[root@~ - ~]# python3.8 -V
Python 3.8.0

```

Step2: Once above steps are executed successfully install the following required modules.

```
pip3.8 install --upgrade pip
```

```
pip3.8 install cx-Oracle==8.1.0
```

```

root@~ - Python-3.8.0]# pip3.8 install cx-Oracle==8.1.0
Collecting cx-Oracle==8.1.0
  Downloading https://files.pythonhosted.org/packages/5f/3a/f63cf2cee42b32874af13f0a2deb5d4a1448b2fc39bfff36ab1e3369f00c/cx_Oracle-8.1.0-cp38-cp38-manylinux1_x86_64.whl (825kB)
    |#####| 829kB 138kB/s
Installing collected packages: cx-Oracle
Successfully installed cx-Oracle-8.1.0

```

```
pip3.8 install urwid==2.1.2
```

```

[root@~ - Python-3.8.0]# pip3.8 install urwid==2.1.2
Collecting urwid==2.1.2
  Using cached urwid-2.1.2.tar.gz (634 kB)
  Using legacy 'setup.py install' for urwid, since package 'wheel' is not installed.
Installing collected packages: urwid
  Running setup.py install for urwid ... done
Successfully installed urwid-2.1.2

```

[Home](#)



## 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 “<OBAPI INSTALLER DIR>/core/config”
- Open the “installer.properties” file to maintain key configurations for BASE ENTITY (OBDX\_BU)

```
#####
# Installer Properties #
# All entries to be made immediately after the '=' and WITHOUT quotation marks. i.e. '' or "" #
#####

#####
# Weblogic Details #
#####

#Middleware home path. Example /home/obdxuser/Oracle/Middleware/Oracle_Home - where you have sub-directories like wlsserver,oracle_common
etc.
MIDDLEWARE_HOME=/home/devops/Oracle/Middleware/Oracle_Home

#JAVA home path. Example /home/obdxuser/jdk18 - where you have sub-directories like bin,jre,lib etc.
JAVA_HOME=/home/devops/jdk1.8.0_241

#GRADLE home path. Example /home/obdxuser/flyway - where you have sub-directories like bin,jre,lib etc.
FLYWAY_HOME=/scratch/obdx/flyway-7.5.1

#Path where OBDX config files needs to be installed. ****DO NOT KEEP INSTALLATION_HOME AS MIDDLEWARE_HOME or any existing directory.****
INSTALLATION_HOME=/scratch/obdx/INS

#Domain name. The domain will be created by the name specified.
WLS_DOMAIN_NAME=OBDX211TEST1

#Domain path. Example /home/obdxuser/domain.
WLS_DOMAIN_PATH=/home/devops/domain

#Domain user ID. The user id will be used to access the Weblogic Administration console.
WLS_DOMAIN_ADMIN_USER=weblogic
```

### 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
DB details (for OBAPI schema)	<b>OBAPI_DATABASE_HOST NAME</b>	Enter the hostname of the database server which would host the database schema for OBAPI	abc.xyc.com
	<b>OBAPI_DATABASE_PORT</b>	Enter the port number of the database listener	1521
	<b>OBAPI_DATABASE_SID</b>	Enter the Oracle <b>Service Name</b> for database instance	obapidb.in.oracle.com
	<b>OBAPI_DATABASE_SYS_USER</b>	Enter the username with 'sys' privileges	Sys
	<b>POST_FIX</b>	For OBAPI schema name like "OBAPI_DEV" POST FIX is 'DEV'. <b>SHOULD BE IN UPPERCASE ONLY.</b>	DEV
	<b>OBAPI_DBA_DIRECTORY_NAME</b>	Enter the directory name in which you want the OBAPI schema tablespace datafile to be created. Enter Logical name (i.e. <b>DIRECTORY_NAME</b> column) from <b>DBA_DIRECTORIES</b> table NOT the physical path.	OBAPI_DIR
	<b>OBAPI_AUDIT_DBA_DIRECTORY_NAME</b>	Enter the directory name in which you want the OBAPI AUDIT tablespace datafile to be created. Enter Logical name (i.e. <b>DIRECTORY_NAME</b> column) from <b>DBA_DIRECTORIES</b> table NOT the physical path.	OBAPI_AUDIT_DIR

Component	Parameter	Description	Example
EHMS DB details (to be configured only in-case of FLAVOR as UBS,FCORE &OBPM)	<b>EHMS_DATABASE_HOSTNAME</b>	Enter the hostname for EHMS database server	abc.xyz.com
	<b>EHMS_DATABASE_PORT</b>	Enter the port number of EHMS database listener	1521
	<b>EHMS_SCHEMA_NAME</b>	Enter the Complete OBAPI-EXT (B1A1) HostInterfaceschema name you want installer to create as new schema. <b>SHOULD BE IN UPPERCASE ONLY.</b>	EHMS182S CHEMA
	<b>EHMS_DBA_DIRECTORY_NAME</b>	Enter the directory name in which you want the OBAPI-EXT (B1A1) schema tablespace datafile to be created. Enter Logical name (i.e. <b>DIRECTORY_NAME</b> column) from <b>DBA_DIRECTORIES</b> table NOT the physical path.	OPATCH_L OG_DIR
	<b>EHMS_DATABASE_SYS_USER</b>	Enter the username with 'sys' privileges	Sys
	<b>EHMS_DATABASE_SID</b>	Enter the EHMS database Service Name	obapiehms.i n.oracle.co m
	<b>EHMS_HOST_SCHEMA_NAME</b>	Enter the EXISTING EHMS HOST schema name	OBDXUBS
	<b>EHMS_CCY(to be configured for UBS and OBPM HOST only)</b>	Enter the Country code for EHMS HOME Branch	GB
	<b>EHMS_HB (to be configured for UBS and OBPM HOST only)</b>	Enter the Branch code for code for EHMS HOME Branch	AT3
	<b>EHMS_FCORE_FCUBS_SCHEMA_NAME (to be configured for FCORE HOST only)</b>	FCORE-FCUBS schema name	FCRUBSHO ST

Component	Parameter	Description	Example
Weblogic server details	<b>MIDDLEWARE_HOME</b>	Oracle Weblogic Server home path. Example  /home/obapiuser/Oracle/Middleware/Oracle_Home - where you have sub-directories like wls_server,oracle_common etc.	/home/obapiuser/Oracle/Middleware/Oracle_Home
	<b>JAVA_HOME</b>	Path where JAVA (JDK) is installed	/home/obapiuser/jdk18
	<b>FLYWAY_HOME</b>	Path where FLYWAY is installed	/home/obapiuser/flyway-7.9.2
	<b>INSTALLATION_HOME</b>	Path where OBAPI is to be installed. All configuration files will be copied as a sub-directory "config" under this directory. <b>DO NOT KEEP INSTALLATION_HOME AS MiddlewareHome.</b>	/home/obapiuser/obapi
	<b>WLS_DOMAIN_PATH</b>	Path where OBAPI Weblogic domain should be created. Users can now enter custom path as per their requirements.	/home/obapiuser/domains
	<b>WLS_CLUSTER_NAME</b>	Name of cluster; this cluster would have one single managed server.	obapi_cluster
	<b>WLS_CLUSTER_NODE_HOSTNAME</b>	Host name or IP address of managed server participating in the cluster. <b>Currently only single node is supported.</b>	abc.xyz.com
	<b>WLS_ADMIN_SERVER_PORT</b>	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. <b>Custom port are supported.</b>	7001
	<b>WLS_ADMIN_SERVER_SSL_PORT</b>	AdminServer SSL port. It is the port used to securely access (https) the administration console of the Weblogic server.	7002

	<b>WLS_NODE_PORT</b>	Node Manager Port. It is the port used by Node Manager to be configured for OBAPI domain. Generally, 5556 is utilized as Node Manager Port. <b>Custom ports are supported.</b>	5556
	<b>WLS_MS_SERVER_NAME</b>	Managed server name. This will be the name of the managed server created in the cluster followed by indexes. eg- <b>If this is set as 'clip' managed servers would be clip1.</b>	Clip
	<b>WLS_MS_SERVER_PORT</b>	Managed Server Port. Managed server will utilize this port for hosting OBAPI components and associated resources. <b>Custom ports are supported.</b>	9001
	<b>WLS_DOMAIN_NAME</b>	Enter Weblogic Domain name.	obapi_domain1
	<b>WLS_DOMAIN_ADMIN_USER</b>	Domain user ID. The user id will be used to access the Weblogic Administration console.	weblogic
	<b>WLS_JMS_FILEUPLOAD_PS (to be configured for all OBAPI supported HOST)</b>	Set the paths for the persistent store of the FileUpload JMS modules. <b>DO NOT KEEP path as INSTALLATION_HOME or as sub directory inside INSTALLATION_HOME.</b>	/scratch/obapi/FileUpload
	<b>WLS_JMS_AUDIT_PATHS (to be configured for all OBAPI supported HOST)</b>	Set the paths for the persistent store of the Audit JMS modules. <b>DO NOT KEEP path as INSTALLATION_HOME or as sub directory inside INSTALLATION_HOME.</b>	/scratch/obapi/Audit
	<b>WLS_JMS_REPORT_PATHS (to be configured for all OBAPI supported HOST)</b>	Set the paths for the persistent store of the Reports JMS modules. <b>DO NOT KEEP path as INSTALLATION_HOME or as sub directory inside INSTALLATION_HOME.</b>	/scratch/obapi/Reports
	<b>WLS_JMS_JPA_PATHS (to be configured for all OBAPI supported HOST)</b>	Set the paths for the persistent store of the JPA JMS modules. <b>DO NOT KEEP path as INSTALLATION_HOME or as sub</b>	/scratch/obapi/JPA

		<b>directory inside INSTALLATION_HOME.</b>	
	<b>WLS_JMS_EXTSYS RECEIVER_PS</b>  (to be configured for all OBAPI supported HOST)	Set the paths for the persistent store of the ExtSystemReceiver JMS modules. <b>DO NOT KEEP path as INSTALLATION_HOME or as sub directory inside INSTALLATION_HOME.</b>	/scratch/obapi/R eceiver
	<b>WLS_JMS_EXTSYSS ENDER_PS</b>  (to be configured for all OBAPI supported HOST)	Set the paths for the persistent store of the ExtSystemSender JMS modules. <b>DO NOT KEEP path as INSTALLATION_HOME or as sub directory inside INSTALLATION_HOME.</b>	/scratch/obapi/S ender
<b>OBAPI Application Administrator user details</b>	<b>OBAPI_ADMIN_USE RNAME</b>	Set username for OBAPI application Admin user. <b>USERNAME IS CASE SENSITIVE. In-case of OUD as provider username should be the User ID mentioned during user creation steps mentioned in pre-requisite document (refer To create User and mapping it to the Group section)</b>	superadmin
	<b>OBAPI_ADMIN_EMA IL</b>	Enter the Email ID for OBAPI application admin user.	superadmin@or acle.com
	<b>OBAPI_ADMIN_CON TACT_NO</b>	Enter the mobile number for OBAPI application admin user. <b>COUNTRY CODE IS MUST.</b>	+91 1234567890

---

**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 OBAPI pre-requisite software installation (or has ownership on Oracle Weblogic home directory)

Ensure OBAPI 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 <OBAPI INSTALLER DIR>/

```
[ OBDX_Installer]$ pwd
/scratch/OPSFE/OBDX_Installer
[ OBDX_Installer]$ ls -ltr
Total 20
-rwxrwxrwx 1 54323 wheel 2569 Jun 28 12:04 runInstaller.py
drwxrwxrwx 12 54323 wheel 4096 Jun 28 12:04 installables
-rwxrwxrwx 1 54323 wheel  0 Jun 28 12:04 init__.py
drwxrwxrwx 5 54323 wheel 4096 Jun 29 13:15 core
drwxrwxrwx 5 54323 wheel 4096 Jun 29 13:15 framework
drwxrwxrwx 7 54323 wheel 4096 Jul  2 10:47 ExecInstances
[ OBDX_Installer]$
```

- Enter the following command

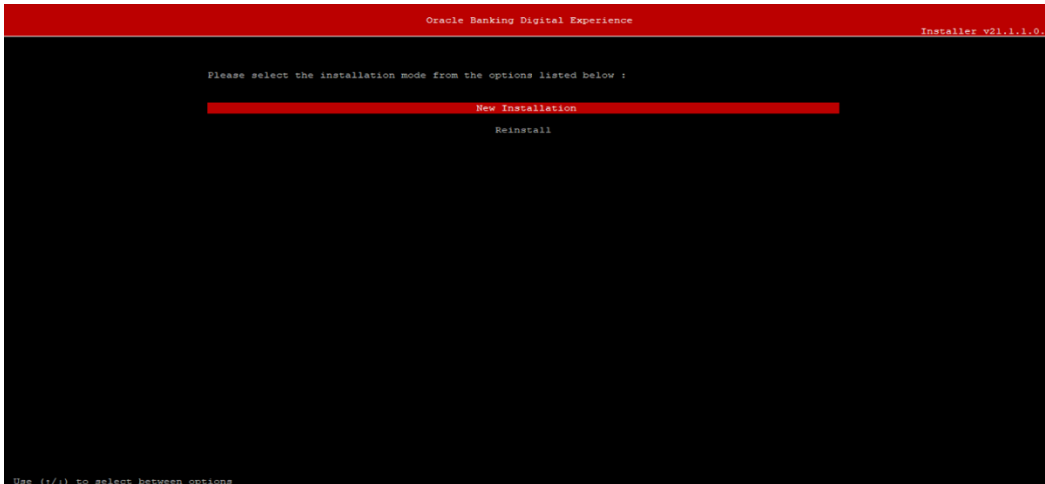
**python3.8 runInstaller.py**

Select the appropriate host system for Installation

```
Oracle Banking Digital Experience Installer v21.1.1.0.0
Please select the host system from the options listed below :
Oracle FLEXCUBE Universal Banking
Oracle FLEXCUBE Core Banking
Third Party System
Use (↑/↓) to select between options
```

**Oracle FLEXCUBE Universal Banking (OBAPI with UBS)**

Select Installation mode



### Mode of Installation - New Installation

- New installation

In-case of a fresh installation of OBAPI 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 OBAPI schema would be created
- OBAPI schema password
- Weblogic console administrator user password
- SYS privilege user password where UBS host schema exists
- Existing UBS HOST schema password
- New OBAPI EHMS schema password
- Password for OBAPI 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 (OBAPI with THP)

Post Third Party System selection, enter the required credentials details

```

Oracle Banking Digital Experience
Installer v21.1.1.0.0

Enter the password for the user with sys privileges 'sys' :
>>*****
Valid.
Enter password for the OBDX schema 'OBDX_FINS2111' :
>>*****
Valid.
Enter password for the weblogic domain user id 'weblogic' :
>>*****
Valid.
Enter password for the Admin User 'superadmin' :
>>*****
Valid.

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

```

#### Enter below passwords:

- SYS privilege user password where OBAPI schema would be created
- OBAPI schema password
- Weblogic console administrator user password
- OBAPI application admin user password

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

Post Oracle FLEXCUBE Core Banking, enter the required credentials details

```

Oracle Banking Digital Experience                                     Installer v21.1.1.0.0
Enter the password for the user with sys privileges 'sys' :
>>*****
Valid.
Enter password for the OBDX schema 'OBDX_PINS2111' :
>>*****
Valid.
Enter password for the weblogic domain user id 'weblogic' :
>>*****
Valid.
Enter the password for the user with sys privileges of FCR database 'sys' :
>>*****
Valid.
Enter password for the FCOBE schema 'BIA1_OBDXP2111INS' (new) :
>>*****
Valid.
Enter password for the Admin User 'superadmin' :
>>*****
Valid.
Use (/;) keys to navigate between questions and press 'enter' after editing them

```

### Enter below passwords:

- SYS privilege user password where OBAPI schema would be created
- OBAPI schema password
- Weblogic console administrator user password
- SYS privilege user password where FCOBE host schema exists
- New OBAPI EHMS schema password
- Password for OBAPI application administrative user

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

Enter the required credentials details

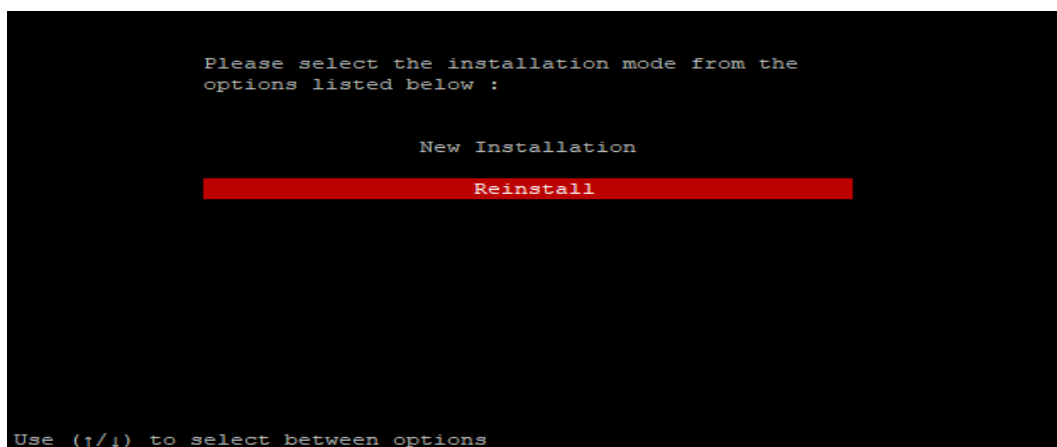
```

Oracle Banking Digital Experience                                     Installer v21.1.1.0.0
>>*****
Valid.
Enter password for the OBDX schema 'OBDX_PINS2111' :
>>*****
Valid.
Enter password for the weblogic domain user id 'weblogic' :
>>*****
Valid.
Enter the password for the user with sys privileges of OBPM database 'sys' :
>>*****
Valid.
Enter password for the OBPM schema 'COD144_ITR' (Existing) :
>>*****
Valid.
Enter password for the OBPM schema 'BIA1_OBDXP2111INS' (new) :
>>*****
Valid.
Enter password for the Admin User 'superadmin' :
>>*****
Valid.
Use (/;) keys to navigate between questions and press 'enter' after editing them

```

**Enter below passwords:**

- SYS privilege user password where OBAPI schema would be created
- OBAPI schema password
- Weblogic console administrator user password
- SYS privilege user password where OBPM host schema exists
- Existing OBPM HOST schema password
- New OBAPI EHMS schema password
- Password for OBAPI application administrative user

**Mode of Installation – Reinstall**

In-case of an existing OBAPI 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 OBAPI database schema (and OBAPI EHMS schema in-case of OBAPI UBS;OBPM and FCORE flavor).

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

**Key pointers**

- OBAPI schema (and OBAPI EHMS schema in-case of OBAPI UBS flavor) 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.

```

[devops@obdxwls OBDX_Installer]$ python3.8 runinstaller.py

>>>> STARTING OBX PRODUCT INSTALLATION <<<<

Starting OBX Database Installation with OBPM FLAVOR
Creating Tablespace...
Tablespace Created
Creating User...
User Created
Creating Role...
Role Created
Executing Grants...
OBPM Scripts execution on progress...Please hold on it might take sometime
OBX Scripts execution Successfully
SUCCESSFULLY installed OBX database

Starting OBPM Database Installation...
Creating Tablespace...
Tablespace Created
Creating User...
User Created
Creating Role...
Roles Created
Executing Grants...
Executing OBPM Grants...
OBPM Scripts execution on Progress...Please hold on it might take sometime
Scripts execution Successfully
SUCCESSFULLY installed OBPM database
Executed DIGX_FW_CONFIG_ALL_0.sql successfully
Executed DIGX_FW_CONFIG_OBPM.sql successfully
Executed DIGX_FW_CONFIG_VAR_B.sql successfully
Executed DIGX_FW_CONFIG_UBS_ALL_0.sql successfully
Policy seeding successful

Starting WEBLOGIC Setup and Configuration...
Initializing WebLogic Scripting Tool (WLST) ...

Python scans all the jar files it can find at first startup. Depending on the system, this process may take a few minutes to complete, and WLST may not return a prompt
right away.

```

When the installation completes, the below message is displayed

```

.../installables/app/components/individuals/digx-ecf.war], to obdx_cluster .>
Jun 4, 2021 11:47:11 AM UTC <Info> <J2EE Deployment SPI> <BEA-260121> <Initiating deploy operation for application, digx-security [archive: /scratch/obdx/OBDX_Install
er/installables/app/components/individuals/digx-security.war], to obdx_cluster .>
Jun 4, 2021 11:47:19 AM UTC <Info> <J2EE Deployment SPI> <BEA-260121> <Initiating deploy operation for application, digx-ems [archive: /scratch/obdx/OBDX_Installer/in
stallables/app/components/individuals/digx-ems.war], to obdx_cluster .>
Jun 4, 2021 11:47:24 AM UTC <Info> <J2EE Deployment SPI> <BEA-260121> <Initiating deploy operation for application, digx-smsbanking [archive: /scratch/obdx/OBDX_Insta
ler/installables/app/components/individuals/digx-smsbanking.war], to obdx_cluster .>
Jun 4, 2021 11:47:27 AM UTC <Info> <J2EE Deployment SPI> <BEA-260121> <Initiating deploy operation for application, digx-social [archive: /scratch/obdx/OBDX_Installer
/installables/app/components/individuals/digx-social.war], to obdx_cluster .>
Jun 4, 2021 11:47:32 AM UTC <Info> <J2EE Deployment SPI> <BEA-260121> <Initiating deploy operation for application, digx-spendanalysis [archive: /scratch/obdx/OBDX_Insta
ler/installables/app/components/individuals/digx-spendanalysis.war], to obdx_cluster .>
Jun 4, 2021 11:47:40 AM UTC <Info> <J2EE Deployment SPI> <BEA-260121> <Initiating deploy operation for application, digx-sr [archive: /scratch/obdx/OBDX_Installer/in
stallables/app/components/individuals/digx-sr.war], to obdx_cluster .>
Jun 4, 2021 11:47:49 AM UTC <Info> <J2EE Deployment SPI> <BEA-260121> <Initiating deploy operation for application, digx-td [archive: /scratch/obdx/OBDX_Installer/in
stallables/app/components/individuals/digx-td.war], to obdx_cluster .>
Jun 4, 2021 11:47:58 AM UTC <Info> <J2EE Deployment SPI> <BEA-260121> <Initiating deploy operation for application, digx-tradefinance [archive: /scratch/obdx/OBDX_Insta
ller/installables/app/components/individuals/digx-tradefinance.war], to obdx_cluster .>
Jun 4, 2021 11:48:07 AM UTC <Info> <J2EE Deployment SPI> <BEA-260121> <Initiating deploy operation for application, digx-ukaisp [archive: /scratch/obdx/OBDX_Installer
/installables/app/components/individuals/digx-ukaisp.war], to obdx_cluster .>
Jun 4, 2021 11:48:15 AM UTC <Info> <J2EE Deployment SPI> <BEA-260121> <Initiating deploy operation for application, digx-ukobpii [archive: /scratch/obdx/OBDX_Installe
r/installables/app/components/individuals/digx-ukobpii.war], to obdx_cluster .>
Jun 4, 2021 11:48:23 AM UTC <Info> <J2EE Deployment SPI> <BEA-260121> <Initiating deploy operation for application, digx-ukpisp [archive: /scratch/obdx/OBDX_Installer
/installables/app/components/individuals/digx-ukpisp.war], to obdx_cluster .>
Jun 4, 2021 11:48:31 AM UTC <Info> <J2EE Deployment SPI> <BEA-260121> <Initiating deploy operation for application, digx-user [archive: /scratch/obdx/OBDX_Installer/i
nstallables/app/components/individuals/digx-user.war], to obdx_cluster .>
Jun 4, 2021 11:48:40 AM UTC <Info> <J2EE Deployment SPI> <BEA-260121> <Initiating deploy operation for application, digx-vam [archive: /scratch/obdx/OBDX_Installer/in
stallables/app/components/individuals/digx-vam.war], to obdx_cluster .>
Jun 4, 2021 11:48:48 AM UTC <Info> <J2EE Deployment SPI> <BEA-260121> <Initiating deploy operation for application, digx-wallet [archive: /scratch/obdx/OBDX_Installer
/installables/app/components/individuals/digx-wallet.war], to obdx_cluster .>
Jun 4, 2021 11:48:57 AM UTC <Info> <J2EE Deployment SPI> <BEA-260121> <Initiating deploy operation for application, digx-wm [archive: /scratch/obdx/OBDX_Installer/in
stallables/app/components/individuals/digx-wm.war], to obdx_cluster .>
Applications deployed successfully
Starting AdminServer
AdminServer started
Successfully created and configured OBON11TEST1 domain
Jun 4, 2021 11:49:25 AM UTC <Warning> <JNDI> <BEA-050001> <WLContext.close() was called in a different thread than the one in which it was created.>

Successfully Setup and Configured WEBLOGIC...

>>>> OBX PRODUCT INSTALLATION COMPLETED SUCCESSFULLY <<<<

```

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## 5. Installation using Silent Mode

This chapter describes how to run the OBAPI 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 “<OBAPI 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

```
[devops@obdxwls OBDX_Installer]$ export FLAVOUR=OBPM
[devops@obdxwls OBDX_Installer]$ export MODE=New
[devops@obdxwls OBDX_Installer]$ export DB_SYS_PASSWORD=welcome1
[devops@obdxwls OBDX_Installer]$ export SCHEMA_PASS=welcome1
[devops@obdxwls OBDX_Installer]$ export DomainPassword=welcome1
[devops@obdxwls OBDX_Installer]$ export EHMS_DATABASE_SYS_PASS=welcome1
[devops@obdxwls OBDX_Installer]$ export EHMS_HOST_SCHEMA_NAME_PASS=welcome1
[devops@obdxwls OBDX_Installer]$ export EHMS_SCHEMA_PASS=welcome1
[devops@obdxwls OBDX_Installer]$ export DBAuthPassword=welcome1
[devops@obdxwls OBDX_Installer]$ export LD_LIBRARY_PATH=/usr/lib/oracle/19.10/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 variables to set for flavor:UBSFC ORE	FLAVOUR	Flavour for installation	<b>export FLAVOUR=OBPM</b> <b>or</b> <b>export FLAVOUR=FCORE</b>
		<b>UBS</b> for Oracle FLEXCUBE Universal Banking 14.4.0.0.0 (OBAPI with UBS)  <b>FCORE</b> for Oracle FLEXCUBE Core Banking 11.8.0.0.0 (OBAPI with FCORE)	

<b>MODE</b>	Mode of installation. <b>'New'</b> in-case of a fresh installation of OBAPI for the first run on server <b>'Clean'</b> in-case of an existing OBAPI installation that you want to overwrite OR in case of a previously failed installation or re-installation	<b>export MODE=New</b> <b>or</b> <b>export MODE=Clean</b>
<b>DB_SYS_PASSWORD</b>	Sys user password of OBAPI database (Existing)	<b>export DB_SYS_PASSWORD=obapi182sys</b>
<b>SCHEMA_PASS</b>	Password for new schema on OBAPI database	<b>export SCHEMA_PASS=obapi#182</b>
<b>DomainPassword</b>	Password for Weblogic Administrator console	<b>export DomainPassword=wlsadm</b>
<b>EHMS_DATABASE_SYS_PASS</b>	Sys user password of EHMS HOST database (Existing)	<b>export EHMS_DATABASE_SYS_PASS=obapiehmssys</b>
<b>EHMS_HOST_SCHEMA_NAME_PASS</b>  <b>** Only required for UBS &amp; OBPM Host. Ignore this parameter in-case of FCORE Host</b>	Password of existing EHMS HOST schema (Existing)	<b>export EHMS_HOST_SCHEMA_NAME_PASS =obapiehmshost</b>
<b>EHMS_SCHEMA_PASS</b>	Password for new OBAPI EHMS schema on EHMS HOST database	<b>export EHMS_SCHEMA_PASS=obapi182ehms</b>

	<b>DBAuthPassword</b>	Password for new OBAPI Administrator user of OBAPI application (In-case of OUD as provider, password should similar to one used while user creation in OUD(or User Password field))	<b>export DBAuthPassword=obapiadmn</b>	
<b>Environment variables to set for flavor:</b>	<b>FLAVOUR</b>	Flavour for installation  <b>'OBAPI'</b> for Third Party System 1.0 (OBAPI with THP)	<b>export FLAVOUR=OBAPI</b>	
	<b>Mode</b>	Mode of installation.  <b>'New'</b> in-case of a fresh installation of OBAPI for the first run on server  <b>'Clean'</b> in-case of an existing OBAPI installation that you want to overwrite OR in case of a previously failed installation or re-installation	<b>export MODE=New</b> <b>or</b> <b>export MODE=Clean</b>	
	<b>OBAPI (Third-party HOST)</b>	<b>DB_SYS_PASSWORD</b>	Sys user password of OBAPI database (Existing)	<b>export DB_SYS_PASSWORD=obapi182sys</b>
		<b>SCHEMA_PASS</b>	Password for new schema on OBAPI database	<b>export SCHEMA_PASS=obapi#182</b>
		<b>DomainPassword</b>	Password for Weblogic Administrator console	<b>export DomainPassword=wlsadmn</b>

	<p><b>DBAuthPassword</b></p>	<p>Password for new OBAPI Administrator user of OBAPI application (In-case of OUD as provider, password should similar to one used while user creation in OUD(or User Password field))</p>	<p><b>export</b> <b>DBAuthPassword=obapiadmn</b></p>
--	------------------------------	--	--

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

```
[devops@obdxwls OBDX_Installer]$ python3.8 runInstaller.py --silent
```

### Installation Status

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

```
devops@obdxwls OBDX_Installer]# python3.8 runInstaller.py
>>>> STARTING OBDX PRODUCT INSTALLATION <<<<

Starting OBDX Database Installation with OBPM FLAVOR
Creating Tablespace...
Tablespace Created
Creating User...
User Created
Creating Role...
Role Created
Creating Grants...
OBDX Scripts execution on progress...Please hold on it might take sometime
Scripts execution Successfully
SUCCESSFULLY installed OBDX database

Starting OBPM Database Installation...
Creating Tablespace...
Tablespace Created
Creating User...
User Created
Creating Role...
Role Created
Creating Grants...
OBPM Scripts execution on progress...Please hold on it might take sometime
Scripts execution Successfully
SUCCESSFULLY installed OBPM database
Executed DIGX_FW_CONFIG_ALL_O.sql successfully
Executed DIGX_FW_CONFIG_USD_ALL_O.sql successfully
Executed DIGX_FW_CONFIG_USD_ALL_O.sql successfully
Policy seeding successful

Starting WEBLOGIC Setup and Configuration...
Initializing WebLogic Scripting Tool (WLST) ...

Python scans all the jar files it can find at first startup. Depending on the system, this process may take a few minutes to complete, and WLST may not return a prompt right away.
```

When the installation completes, the below message is displayed

```
.../app/components/individuals/digx-ssf.war), to obdx_cluster ->
Sun 4, 2021 11:47:11 AM UTC <Info> <J2EE Deployment SPI> <BEA-260121> <Initiating deploy operation for application, digx-security [archive: /scratch/obdx/OBDX_Installe
r/installables/app/components/individuals/digx-security.war], to obdx_cluster ->
Sun 4, 2021 11:47:19 AM UTC <Info> <J2EE Deployment SPI> <BEA-260121> <Initiating deploy operation for application, digx-sms [archive: /scratch/obdx/OBDX_Installe
r/installables/app/components/individuals/digx-sms.war], to obdx_cluster ->
Sun 4, 2021 11:47:24 AM UTC <Info> <J2EE Deployment SPI> <BEA-260121> <Initiating deploy operation for application, digx-embanking [archive: /scratch/obdx/OBDX_Installe
r/installables/app/components/individuals/digx-embanking.war], to obdx_cluster ->
Sun 4, 2021 11:47:27 AM UTC <Info> <J2EE Deployment SPI> <BEA-260121> <Initiating deploy operation for application, digx-social [archive: /scratch/obdx/OBDX_Installe
r/installables/app/components/individuals/digx-social.war], to obdx_cluster ->
Sun 4, 2021 11:47:32 AM UTC <Info> <J2EE Deployment SPI> <BEA-260121> <Initiating deploy operation for application, digx-spandanalysis [archive: /scratch/obdx/OBDX_Installe
r/installables/app/components/individuals/digx-spandanalysis.war], to obdx_cluster ->
Sun 4, 2021 11:47:40 AM UTC <Info> <J2EE Deployment SPI> <BEA-260121> <Initiating deploy operation for application, digx-er [archive: /scratch/obdx/OBDX_Installe
r/installables/app/components/individuals/digx-er.war], to obdx_cluster ->
Sun 4, 2021 11:47:49 AM UTC <Info> <J2EE Deployment SPI> <BEA-260121> <Initiating deploy operation for application, digx-td [archive: /scratch/obdx/OBDX_Installe
r/installables/app/components/individuals/digx-td.war], to obdx_cluster ->
Sun 4, 2021 11:47:55 AM UTC <Info> <J2EE Deployment SPI> <BEA-260121> <Initiating deploy operation for application, digx-tradefinance [archive: /scratch/obdx/OBDX_Installe
r/installables/app/components/individuals/digx-tradefinance.war], to obdx_cluster ->
Sun 4, 2021 11:48:07 AM UTC <Info> <J2EE Deployment SPI> <BEA-260121> <Initiating deploy operation for application, digx-ukaisp [archive: /scratch/obdx/OBDX_Installe
r/installables/app/components/individuals/digx-ukaisp.war], to obdx_cluster ->
Sun 4, 2021 11:48:15 AM UTC <Info> <J2EE Deployment SPI> <BEA-260121> <Initiating deploy operation for application, digx-ukobpii [archive: /scratch/obdx/OBDX_Installe
r/installables/app/components/individuals/digx-ukobpii.war], to obdx_cluster ->
Sun 4, 2021 11:48:23 AM UTC <Info> <J2EE Deployment SPI> <BEA-260121> <Initiating deploy operation for application, digx-ukpiisp [archive: /scratch/obdx/OBDX_Installe
r/installables/app/components/individuals/digx-ukpiisp.war], to obdx_cluster ->
Sun 4, 2021 11:48:31 AM UTC <Info> <J2EE Deployment SPI> <BEA-260121> <Initiating deploy operation for application, digx-user [archive: /scratch/obdx/OBDX_Installe
r/installables/app/components/individuals/digx-user.war], to obdx_cluster ->
Sun 4, 2021 11:48:40 AM UTC <Info> <J2EE Deployment SPI> <BEA-260121> <Initiating deploy operation for application, digx-vam [archive: /scratch/obdx/OBDX_Installe
r/installables/app/components/individuals/digx-vam.war], to obdx_cluster ->
Sun 4, 2021 11:48:48 AM UTC <Info> <J2EE Deployment SPI> <BEA-260121> <Initiating deploy operation for application, digx-wallet [archive: /scratch/obdx/OBDX_Installe
r/installables/app/components/individuals/digx-wallet.war], to obdx_cluster ->
Sun 4, 2021 11:48:57 AM UTC <Info> <J2EE Deployment SPI> <BEA-260121> <Initiating deploy operation for application, digx-wa [archive: /scratch/obdx/OBDX_Installe
r/installables/app/components/individuals/digx-wa.war], to obdx_cluster ->
Applications deployed successfully
Starting AdminServer
AdminServer started
Successfully created and configured OBDX11TEST1 domain
Sun 4, 2021 11:49:25 AM UTC <Warning> <JNDI> <BEA-050001> <WLContext.close() was called in a different thread than the one in which it was created.>
Successfully Setup and Configured WEBLOGIC...

>>>> OBDX PRODUCT INSTALLATION COMPLETED SUCCESSFULLY <<<<
```



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## 6. Installer Verification

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

Log Description	PATH
Summarized Installer Activity Log	<OBAPI INSTALLER DIR>/ExecInstances/<DDMonthHHMM>/logs/obapi_installer.log
Summarized Database Logs	<OBAPI INSTALLER DIR>/ExecInstances/<DDMonthHHMM>/logs/db/DB_installation.log
Detailed OBAPI DB Logs per SQL file	<OBAPI INSTALLER DIR>/ExecInstances/<DDMonthHHMM>/logs/db/OBAPI/OBAPI.log
Detailed EHMS schema Logs per SQL file (specific to EHMS host system only)	<OBAPI INSTALLER DIR>/ExecInstances/<DDMonthHHMM>/logs/db/<EHMSHOST>/<EHMSHOST>.log  <EHMSHOST> - values such as; FCORE; OBPM;
Weblogic Configuration Logs	<OBAPI INSTALLER DIR>/ExecInstances/<DDMonthHHMM>/logs/app/obapi_wls_post.log
Detailed OBAPI policy seeding logs	<OBAPI INSTALLER DIR>/ExecInstances/<DDMonthHHMM>/logs/db/Entitlement.log  <OBAPI INSTALLER DIR>/ExecInstances/<DDMonthHHMM>/logs/db/Task.log  <OBAPI INSTALLER DIR>/ExecInstances/<DDMonthHHMM>/logs/db/Dashboard_seed.log  Note: Check for SEVERE keyword; If found refer to Troubleshoot section to re-run the policy
Policy seeding execution Log	<OBAPI INSTALLER DIR>/ExecInstances/<DDMonthHHMM>/logs/db/seedPolicies.log  Note: Should be empty if no errors during policy execution. In-case non-empty refer to Troubleshoot section to re-run the policy

Check all the logs for any errors.

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## 7. Installer Scope

OBAPI Installer currently covers below activities:

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

Flavor	Activity	Detailed Activity List	New Installation	Reinstall
OBAPI with THP	OBAPI DB Setup	Create Tablespace	√	NA
		Create Schema and Role	√	√ (drop and re-create objects)
		Grants	√	√
		Load DB object (DDL's and DML's)	√	√
		Compile Schema	√	√
		Policy Seeding	√	√
	Weblogic Setup and Configuration	Create and Configure AdminServer, Machine, Managed Server and Cluster	√	√
		Configure NodeManager	√	√
		Configure JDBC	√	√
		JMS servers, Persistent stores and JMS Modules	√	√
		Application Deployment	√	√
		JTA	√	√
		Enable Production Mode	√	√
		Start AdminServer and NodeManager	√	√
	OBAPI Configuration	Copy config files into OBAPI Installation Home	√	√ (Delete old and copy new from installer zip)

**Flavor: Oracle FLEXCUBE Core Banking (OBAPI with FCORE)**

Flavor	Activity	Detailed Activity List	New Installation	Reinstall
<b>OBAPI with FCORE</b>	OBAPI DB Setup	Create Tablespace	√	NA
		Create Schema and Role	√	√ (drop and re-create objects)
		Grants	√	√
		Load DB object (DDL's and DML's)	√	√
		Compile Schema	√	√
		Policy Seeding	√	√
	EHMS DB Setup	Create Tablespace	√	NA
		Create Schema and Role	√	√ (drop and re-create objects)
		Grants	√	√
		Load DB object (DDL's and DML's)	√	√
		Compile Schema	√	√
	Weblogic Setup and Configuration	Create and Configure AdminServer, Machine, Managed Server and Cluster	√	√
		Configure NodeManager	√	√
		Configure JDBC	√	√
		JMS servers, Persistent stores and JMS Modules	√	√
		Application Deployment	√	√
		JTA	√	√
Enable Production Mode		√	√	

Flavor	Activity	Detailed Activity List	New Installation	Reinstall
		Start AdminServer and NodeManager	√	√
	OBAPI Configuration	Copy config files into OBAPI Installation Home	√	√ (Delete old and copy new from installer zip)

**Flavor: Oracle FLEXCUBE Universal Banking with Oracle Banking Payments (OBAPI with OBPM)**

Flavor	Activity	Detailed Activity List	New Installation	Reinstall
<b>OBAPI with OBPM (14.4.0.0.0 version)</b>	OBAPI DB Setup	Create Tablespace	√	NA
		Create Schema and Role	√	√ (drop and re-create objects)
		Grants	√	√
		Load DB object (DDL's and DML's)	√	√
		Execute OBPM HOST specific scripts	√	√
		Compile Schema	√	√
		Policy Seeding	√	√
	EHMS DB Setup	Create Tablespace	√	NA
		Create Schema and Role	√	√ (drop and re-create objects)
		Grants	√	√
		Load DB object (DDL's and DML's)	√	√
		Compile Schema	√	√
	Weblogic Setup and Configuration	Create and Configure AdminServer, Machine, Managed Server and Cluster	√	√
		Configure NodeManager	√	√
		Configure JDBC	√	√
		JMS servers, Persistent stores and JMS Modules	√	√
		Application Deployment	√	√
		JTA	√	√
		Enable Production Mode	√	√

Flavor	Activity	Detailed Activity List	New Installation	Reinstall
		Start AdminServer and NodeManager	√	√
	OBAPI Configuration	Copy config files into OBAPI Installation Home	√	√ (Delete old and copy new from installer zip)

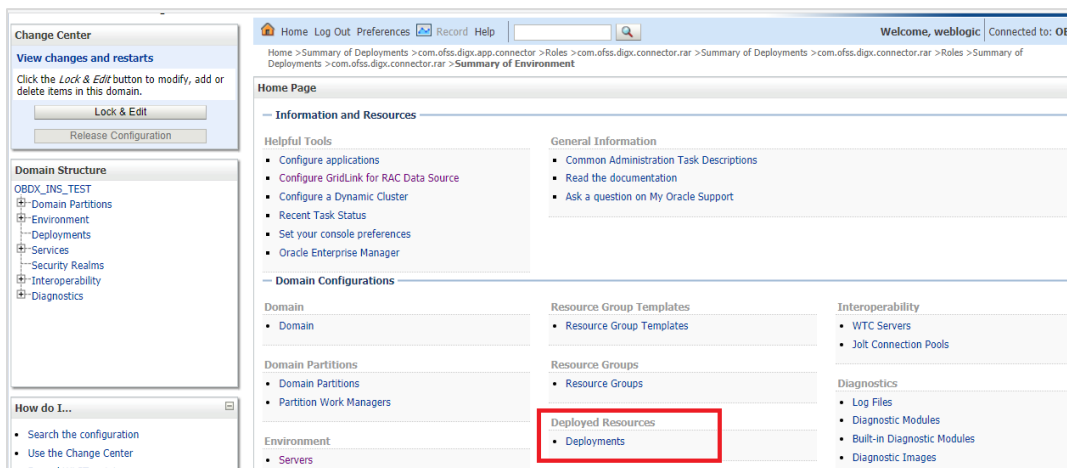
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# 8. Post Installation Steps

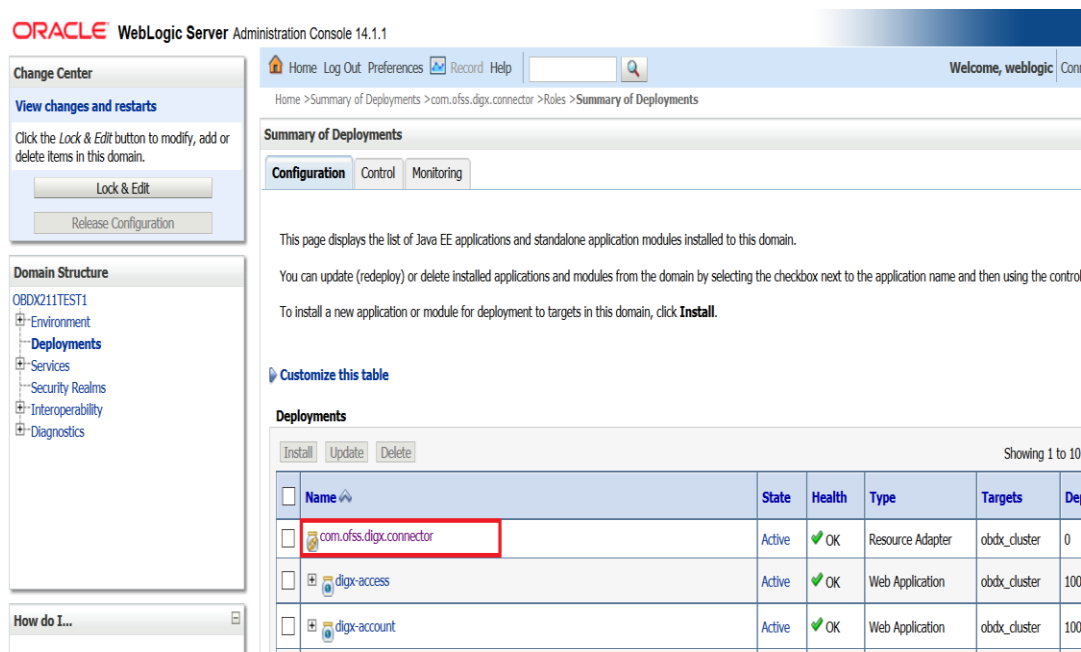
## Outbound credential mappings

Login Weblogic Admin Console. Click on Deployments.



Click on com.ofss.digx.connector

Click on **Security Tab > Outbound Credential Mappings**



ORACLE WebLogic Server Administration Console 14.1.1

Home > Summary of Deployments > com.ofss.digx.connector > Roles > Summary of Deployments > com.ofss.digx.connector > Roles > com.ofss.digx.connector

Settings for com.ofss.digx.connector

Overview | Deployment Plan | Configuration | **Security** | Targets | Control | Testing | Monitoring | Notes

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

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

Customize this table

Outbound Credential Mappings

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

Click on **New**

ORACLE WebLogic Server Administration Console 14.1.1

Home > Summary of Deployments > com.ofss.digx.connector > Roles > Summary of Deployments > com.ofss.digx.connector > Roles

Settings for com.ofss.digx.connector

Overview | Deployment Plan | Configuration | **Security** | Targets | Control | Testing | Monitoring | Notes

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

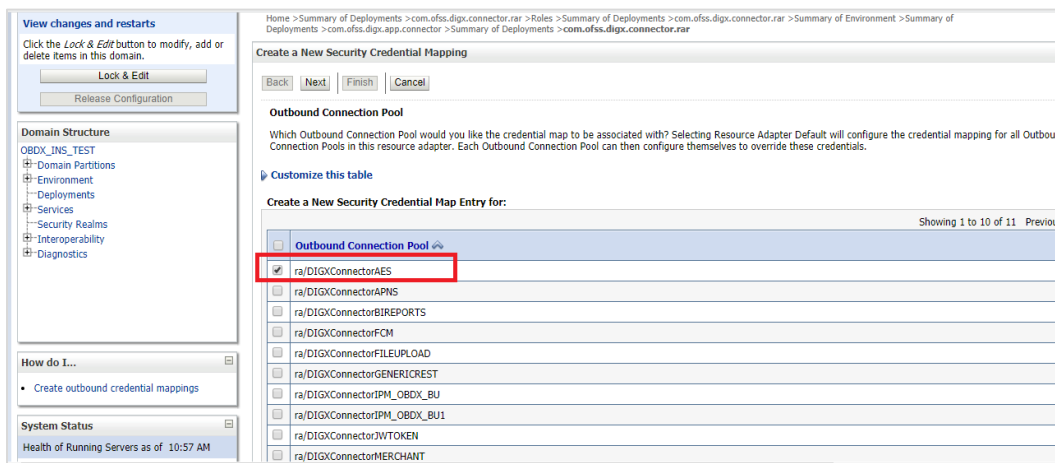
Outbound credential mappings let you map WebLogic Server usernames to usernames in the Enterprise Information System (EIS) to specify particular outbound credential mappings for individual for this resource adapter.

Customize this table

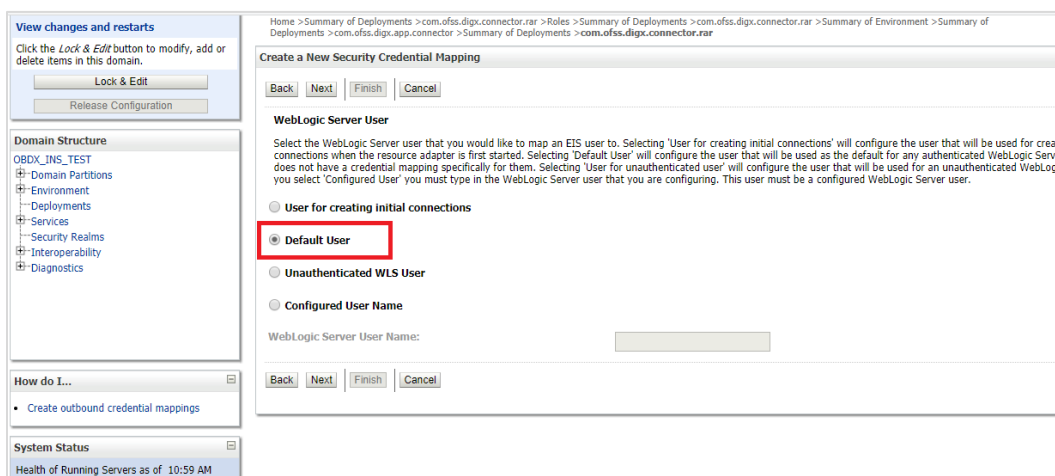
Outbound Credential Mappings

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

Select **ra/DIGXConnectorAES > Next**

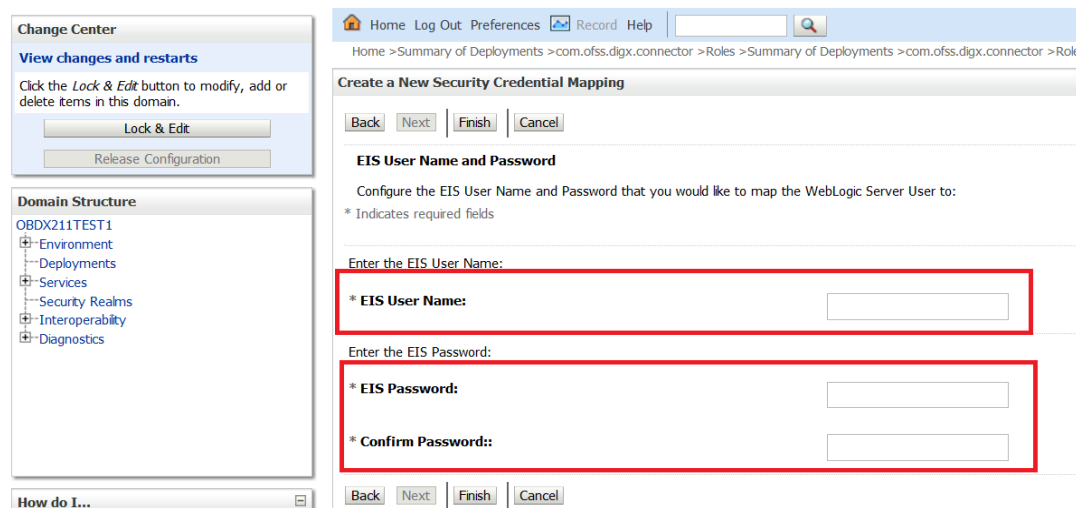


Select "Default User" > Next



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

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



Click **'Finish'**

Back Next **Finish** Cancel

**EIS User Name and Password**  
 Configure the EIS User Name and Password that you would like to map the WebLogic Server User to:  
 \* Indicates required fields

Enter the EIS User Name:  
 \* EIS User Name: AES\_KEY

Enter the EIS Password:  
 \* EIS Password: .....

\* Confirm Password:: .....

Back Next Finish Cancel

Check AES\_KEY mapping is created successfully.

Customize this table

**Outbound Credential Mappings**

New Delete

	EIS User	Outbound Connection Pool
<input type="checkbox"/> WLS User ↕		
<input type="checkbox"/> Default	AES_KEY	ra/DIGXConnectorAES

New Delete

### Configuring the Connector Credential Store

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

For more information, refer the **Oracle Banking APIs Connector Credential Store Guide.pdf**

Functionality / Module	OutBound Connection Pool Name
VAM	ra/DIGXConnectorOBVAM

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

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

#### Foreign Server

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

**Summary of JMS Modules**

JMS system resources are configured and stored as modules similar to standard Java EE modules. Such resources include queues, topics, connection factories, templates, destination keys, quota, distributed destinations, and foreign servers. This page summarizes the JMS system modules that have been created for this domain.

[Customize this table](#)

**JMS Modules (Filtered - More Columns Exist)**

Click the **Lock & Edit** button in the Change Center to activate all the buttons on this page.

New Delete

<input type="checkbox"/>	Name ↕	Type
<input type="checkbox"/>	AuditJMS	JMSSystemResource
<input type="checkbox"/>	FileUploadJMS	JMSSystemResource
<input type="checkbox"/>	ReportsJMSModule	JMSSystemResource
<input type="checkbox"/>	UBSSystemModule	JMSSystemResource

New Delete

**Settings for UBSSystemModule**

Configuration Subdeployments Targets Security Notes

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

**Name:** UBSSystemModule The name of this JMS system module. [More Info...](#)

**Scope:** Global Specifies if the JMS system module is accessible within the domain, a partition, or a resource group template.

**Descriptor File Name:** jms/ubssystemmodule-jms.xml The name of the JMS module descriptor file. [More Info...](#)

This page summarizes the JMS resources that have been created for this JMS system module, including queue and topic destinations, connection factories, JMS templates, destination sort keys, destination quota, distributed destinations, foreign servers, and store-and-forward parameters.

[Customize this table](#)

**Summary of Resources**

Click the **Lock & Edit** button in the Change Center to activate all the buttons on this page.

New Delete Showing 1 to 1 of 1

<input type="checkbox"/>	Name ↕	Type	JNDI Name	Subdeployment	Targets
<input type="checkbox"/>	UBSForeignServer	Foreign Server	N/A	UBSSubdeployment	obdx_cluster

New Delete Showing 1 to 1 of 1

- Click on UBSForeignServer

**Settings for UBSForeignServer**

Configuration Subdeployment Notes

General Destinations Connection Factories

Click the **Lock & Edit** button in the Change Center to modify the settings on this page.

Save

A foreign server represents a JNDI provider that resides outside a WebLogic Server. It contains information that allows WebLogic Server to reach the remote JNDI provider. The foreign server.

**Name:** UBSForeignServer

**JNDI Initial Context Factory:** weblogic.jndi.WLInitialConte;

**JNDI Connection URL:** t3://<EHMS\_WLS\_SERVER>:<EHMS\_WLS\_SERVER\_PORT>/

**JNDI Properties Credential:**

**Confirm JNDI Properties Credential:**

**JNDI Properties:**

```
java.naming.security.principal=
<EHMS_WLS_USERNAME>
```

- 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

Home > Summary of JMS Modules > UBSSystemModule > Summary of JMS Modules > UBSSystemModule > Summary of JMS Modules > UBSForeignServer > Configuration > NOTIPPY\_DEST\_QUEUE\_FQDN > UBSForeignServer

Messages  
 Settings updated successfully.

Settings for UBSForeignServer

Configuration Subdeployment Notes

General Destinations Connection Factories

Save

A foreign server represents a JNDI provider that resides outside a WebLogic Server. It contains information that allows WebLogic Server to reach the remote JNDI provider. This way, a number of connection factory and destination objects (queues or topics) can be defined on a foreign server.

Name: UBSForeignServer  
 The name of this foreign server. [More Info...](#)

JNDI Initial Context Factory: weblogic.jndi.WLInitialContextFactory  
 The name of the class that must be instantiated to access the JNDI provider. This class must be in the vendor that are being used. [More Info...](#)

JNDI Connection URL: t3://10.184.135.59:7860/  
 The URL that WebLogic Server will use to contact the JNDI provider. The syntax of this URL is described in the [WebLogic JMS](#) documentation. For WebLogic JMS, leave this field blank if you are referencing a WebLogic JMS resource. [More Info...](#)

JNDI Properties Credential: \*\*\*\*\*  
 Any Credentials that must be set for the JNDI provider. These Credentials will be part of the constructor for the JNDI provider's InitialContext class. Note: For secure credential, the Properties field results in the credential being stored and displayed as originally entered. [More Info...](#)

Confirm JNDI Properties Credential: \*\*\*\*\*

JNDI Properties:  
 java.naming.security.principal=infra  
 Any additional properties that must be set for the JNDI provider. These properties will be part of the constructor for the JNDI provider's InitialContext class. [More Info...](#)

Default Targeting Enabled  
 Specifies whether this JMS resource defaults to the parent module's targeting or uses its own mechanism. [More Info...](#)

Save

- Click on Activate Changes

ORACLE WebLogic Server Administration Console 12c

Change Center Home Log Out Preferences Record Help

View changes and restarts  
 Pending changes exist. They must be activated.  
 Activate Changes  
 Undo All Changes

Settings updated successfully.

Settings for UBSForeignServer

Configuration Subdeployment Notes

General Destinations Connection Factories

Save

A foreign server represents a JNDI provider that resides outside a WebLogic Server. It contains information that allows WebLogic Server to reach the remote JNDI provider. This way, a number of connection factory and destination objects (queues or topics) can be defined on one JNDI foreign server.

Name: UBSForeignServer  
 The name of this foreign server. [More Info...](#)

JNDI Initial Context Factory: weblogic.jndi.WLInitialContextFactory  
 The name of the class that must be instantiated to access the JNDI provider. This class must be in the vendor that are being used. [More Info...](#)

JNDI Connection URL: t3://x.x.x.x:7860/  
 The URL that WebLogic Server will use to contact the JNDI provider. The syntax of this URL is described in the [WebLogic JMS](#) documentation. For WebLogic JMS, leave this field blank if you are referencing a WebLogic JMS resource. [More Info...](#)

JNDI Properties Credential: \*\*\*\*\*  
 Any Credentials that must be set for the JNDI provider. These Credentials will be part of the constructor for the JNDI provider's InitialContext class. Note: For secure credential, the Properties field results in the credential being stored and displayed as originally entered. [More Info...](#)

Confirm JNDI Properties Credential: \*\*\*\*\*

JNDI Properties:  
 java.naming.security.principal=infra  
 Any additional properties that must be set for the JNDI provider. These properties will be part of the constructor for the JNDI provider's InitialContext class. [More Info...](#)

Default Targeting Enabled  
 Specifies whether this JMS resource defaults to the parent module's targeting or uses its own mechanism. [More Info...](#)

Save

ORACLE WebLogic Server Administration Console 12c

Change Center Home Log Out Preferences Record Help

View changes and restarts  
 Click the Lock & Edit button to modify, add or delete items in this domain.  
 Lock & Edit  
 Release Configuration

Settings updated successfully.  
 All changes have been activated. No restarts are necessary.

Settings for UBSForeignServer

Configuration Subdeployment Notes

General Destinations Connection Factories

Save

Click the Lock & Edit button in the Change Center to modify the settings on this page.

A foreign server represents a JNDI provider that resides outside a WebLogic Server. It contains information that allows WebLogic Server to reach the remote JNDI provider. This way, a number of connection factory and destination objects (queues or topics) can be defined on one JNDI foreign server.

Name: UBSForeignServer  
 The name of this foreign server. [More Info...](#)

JNDI Initial Context Factory: weblogic.jndi.WLInitialContextFactory  
 The name of the class that must be instantiated to access the JNDI provider. This class must be in the vendor that are being used. [More Info...](#)

JNDI Connection URL: t3://x.x.x.x:7860/  
 The URL that WebLogic Server will use to contact the JNDI provider. The syntax of this URL is described in the [WebLogic JMS](#) documentation. For WebLogic JMS, leave this field blank if you are referencing a WebLogic JMS resource. [More Info...](#)

JNDI Properties Credential: \*\*\*\*\*  
 Any Credentials that must be set for the JNDI provider. These Credentials will be part of the constructor for the JNDI provider's InitialContext class. Note: For secure credential, the Properties field results in the credential being stored and displayed as originally entered. [More Info...](#)

Confirm JNDI Properties Credential: \*\*\*\*\*

JNDI Properties:  
 java.naming.security.principal=infra  
 Any additional properties that must be set for the JNDI provider. These properties will be part of the constructor for the JNDI provider's InitialContext class. [More Info...](#)

Default Targeting Enabled  
 Specifies whether this JMS resource defaults to the parent module's targeting or uses its own mechanism. [More Info...](#)

Save

## **Oracle FLEXCUBE Universal Banking with Oracle Banking Payments (OBAPI with OBPM)**

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

### **Foreign Server**

- Login into Weblogic Admin console (OBAPI domain created using installer) and Browse to Summary of JMS Modules > OBPMSystemModule > OBPMForeignServer (as shown below)

The screenshot shows the 'Settings for OBPMSystemModule' page in the Oracle WebLogic Admin console. The 'Configuration' tab is active. The page displays the following information:

- Name:** OBPMSystemModule
- Scope:** Global
- Descriptor File Name:** jms/obpmssystemmodule-jms.xml

Below this information is a 'Summary of Resources' table:

Name	Type	JNDI Name	Subdeployment
OBPMForeignServer	Foreign Server	N/A	OBPMSubdeployment

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

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

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

### **Fileupload with UBS**

Refer below document for File upload configuration with UBS

- **Oracle Banking APIs File Upload Report Configuration**

### **Origination with UBS**

Refer below document (section 5 and 6) for enabling Origination with UBS

- **Oracle Banking APIs 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

**OHS**

OHS server needs to be configured for all FLAVOR's as a mandatory activity.

To configure OHS server follow steps mentioned in below document before proceeding further.

- **Oracle Banking APIs OHS User Interface Configuration**

**Feedback module:**

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

**WAR deployments and dependencies**

<b>Mandatory deployment</b>		
<b>Sr No</b>	<b>Module</b>	<b>Description</b>
1	digx-alerts	Alerts configuration and management
2	digx-approval	Transaction approvals for admin and corporate business user
3	digx-audit	Audit logging for all transactions
4	digx-auth	Login authentication & oAuth functionality
5	digx-brand	Brand Management
6	digx-common	Common REST APIs used across all modules like enumerations
7	digx-config	System configuration & dashboard management
8	digx-cutoff	Transaction cutoff management
9	digx-eureka-server	Service registration of modules
10	digx-finlimit	Limits Maintenance and Utilization
11	digx-login	Manages user login and logout functionality
12	digx-me	Multientity management
13	digx-party	Party management
14	digx-security	Authorization and Authentication management
15	digx-shared-libs	Common framework libraries shared across all modules
16	digx-sms	User & Credential management
17	digx-user	User profile management
18	digx-account	Accounts framework
19	digx-dda	Demand deposits
20	digx-connector	Weblogic connector to store secure information / credentials

Optional WAR deployment			
Sr. No	War	Dependent Modules	Functionality
1	digx-access		Account and transaction access management for party and user
2	digx-oauth		oAuth Maintenance
3	digx-accountaggregation		Account aggregation feature allows retail users to link their external bank accounts to OBAPI.
4	digx-accountrelationship		To set up the transaction access logic for Bank's retail customers from OBAPI based on their account -mode of operation or relationship.
5	digx-analytics		Capturing UI events for analytics
6	digx-associatedparty	digx-content	Associated Party Management for corporate user
		digx-scf	
7	digx-berlinaisp	digx-obc	Berlin Open Banking Accounts
8	digx-berlinpiisp	digx-obc	Berlin Open Banking Funds Confirmation
9	digx-berlinpisp	digx-obc	Berlin Open Banking Payments
10	digx-budget	digx-common	Budget management for retail user
		digx-payment	
		digx-spendanalysis	
11	digx-bulkadmin		File upload maintenances for admin
12	digx-bulkcms	digx-bulkadmin	File upload in Cash management for corporate user
13	digx-bulkinvoice	digx-bulkadmin	File upload in Invoice management for corporate user
14	digx-bulkpayment	digx-bulkadmin	File upload in Payments for corporate user
15	digx-bulkscf	digx-bulkadmin	File upload in Supply chain finance for corporate user
16	digx-bulktradefinance	digx-bulkadmin	File upload in Trade finance for corporate user
		digx-tradefinance	
17	digx-bulkvam	digx-bulkadmin	File upload in Virtual account management for corporate user
		digx-vam	
18	digx-card	digx-payment	Credit card operations for retail user
		digx-dda	
		digx-location	
19	digx-chatbot		Chatbot functionality for retail and corporate user
20	digx-cms	digx-associatedparty	Cash management module for corporate user
		digx-dda	
		digx-forexdeal	
		digx-invoice	
		digx-pm	

		digx-vam	
21	digx-collaboration	digx-content	Mailers are information or messages published by the Bank, to communicate about the Bank's Products, services and other information to its users.
22	digx-content		File document upload , read and deletion related operation by retail, corporate and admin users.
23	digx-creditfacility	digx-processmanagement digx-content	Credit facility module for corporate user
24	digx-ebpp	digx-dda digx-account digx-content digx-location digx-card	Electronic bill payments for retail user
25	digx-extxfacesimulator		Simulator for Third Party Host Implementation
26	digx-feedback	digx-security	Feedback module for retail and corporate user
27	digx-forexdeal	digx-payment digx-pm	Forex deal for corporate user
28	digx-goal	digx-common digx-content digx-payment digx-dda	Goal module for retail user
29	digx-insight		Provides insight to retail user according to his activities
30	digx-invoice	digx-associatedparty digx-cms digx-scf	Invoice management module for corporate user
31	digx-liquiditymanagement	digx-forexdeal	Liquidity management module for corporate user
32	digx-loan	digx-dda digx-location digx-payment	Loan module for retail and corporate user
33	digx-loanapplication	digx-loan digx-account digx-content digx-creditfacility digx-processmanagement	Loan origination module for corporate user
34	digx-location		Location module for retail and corporate user
35	digx-mobile		Mobile module
36	digx-nlp	digx-content digx-invoice digx-scf	Enables corporate users to perform operations like Automatic Invoice Creation and Automatic

			Purchase Order Creation in Invoice Management and Supply Chain Finance.
37	digx-obc		Openbanking Fine Graining Of Consent
38	digx-origination	digx-content	Origination module for retail user
		digx-payment	
		digx-td	
		digx-dda	
		digx-config	
		digx-common	
		digx-user	
39	digx-payment	digx-forexdeal	Payments module for retail and corporate user
		digx-party	
		digx-location	
		digx-pm	
		digx-content	
		digx-vam	
		digx-social	
		digx-wallet	
40	digx-pm		Product maintenance related operations
41	digx-processmanagement		
42	digx-report	digx-security	Report module for retail and corporate user
		digx-user	
		digx-sms	
		digx-payment	
		digx-party	
		digx-dda	
43	digx-rewards		Rewards module for retail user
44	digx-scf	digx-associatedparty	Supply chain finance module for corporate user
		digx-invoice	
		digx-pm	
45	digx-smsbanking		SMS banking
46	digx-social		Twitter Payments
47	digx-spendanalysis	digx-dda	Spend analysis module for retail user
		digx-payment	
48	digx-sr	digx-dda	Service request module
		digx-content	
49	digx-td	digx-dda	Term deposit module for retail and corporate user
		digx-location	
		digx-payment	
50	digx-tradefinance	digx-content	Trade finance module for corporate user
		digx-creditfacility	
		digx-dda	
		digx-forexdeal	
51	digx-ukaisp	digx-obc	UK Open Banking Accounts

52	digx-ukcbpii	digx-obc	UK Open Banking Funds Confirmation
53	digx-ukpisp	digx-obc	UK Open Banking Payments
54	digx-vam	digx-location	Virtual account management for corporate user
		digx-account	
55	digx-wallet	digx-payment	Wallet module for retail user
		digx-dda	
		digx-sms	
56	digx-wm	digx-party	Wealth management module for retail user
		digx-pm	
		digx-user	
		digx-dda	

---

**Note** – After executing Post installation steps please refer **User Manual Oracle Banking APIs Core - Section 40:Security Keys** and perform **API key generation** to help authentication server handle non authenticated requests.

---

[Home](#)

# 9. OBAPI Logging Configuration

## Logging Configuration in WebLogic Standard Edition

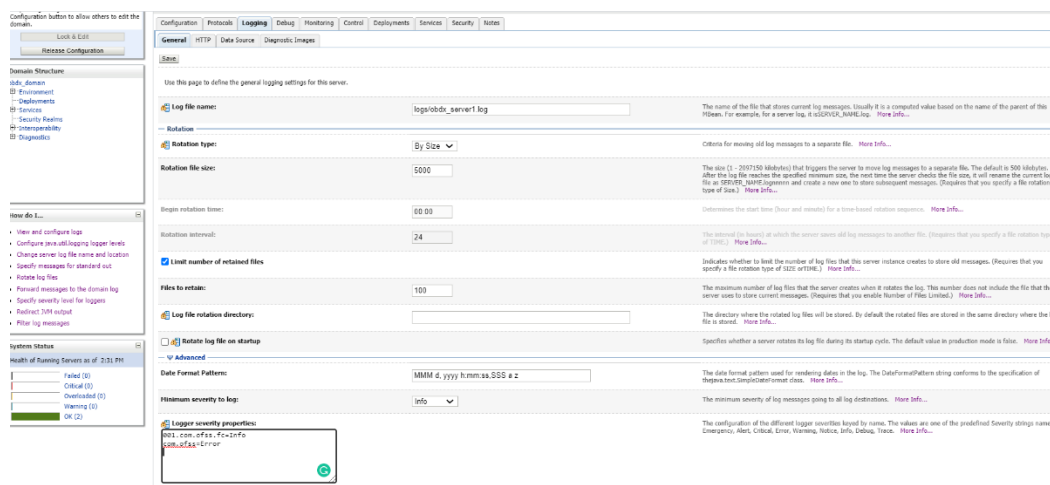
WebLogic converts the **java.util.logging** levels into WebLogic Logging Levels when we use Platform Loggers. Refer Table (Fig-A) for Logging Level conversion. (**Case Sensitive**)

To change the logging level at package level in OBAPI Application can be achieved with below Steps

1. Go to the OBAPI Application Server à Click Logging
2. Go to **Advance** and set the values in **Platform Loggers Levels** as per the Package level logging requirements.  
e.g. To set the logging level for package **<bankcode>.com.ofss.fc** and **com.ofss.digx**
  - i. <bankcode>.com.ofss.fc=Info
  - ii. com.ofss.digx=Error
3. **Save and Restart** the server




















JAVA	WebLogic
SEVERE	Error
WARNING	Warning
INFO	Info
CONFIG	Debug
FINE	Debug
FINER	Trace
FINEST	Trace




















(Fig-A)



## 10. OBAPI Product Verification

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

<input type="checkbox"/>	 com.ofss.digx.connector	Active	✔ OK	Resource Adapter	obdx_cluster	0
<input type="checkbox"/>	 digx-access	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>	 digx-account	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>	 digx-accountaggregation	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>	 digx-accountrelationship	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>	 digx-alerts	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>	 digx-analytics	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>	 digx-approval	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>	 digx-associatedparty	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>	 digx-audit	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>	 digx-auth	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>	 digx-berlinaisp	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>	 digx-berlinpiisp	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>	 digx-berlinpisp	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>	 digx-brand	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>	 digx-budget	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>	 digx-bulkadmin	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>	 digx-bulkcms	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>	 digx-bulkinvoice	Active	✔ OK	Web Application	obdx_cluster	100

<input type="checkbox"/>	 digx-bulkpayment	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>	 digx-bulkscf	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>	 digx-bulktradefinance	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>	 digx-bulkvam	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>	 digx-card	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>	 digx-chatbot	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>	 digx-cms	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>	 digx-collaboration	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>	 digx-common	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>	 digx-config	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>	 digx-content	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>	 digx-creditfacility	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>	 digx-cutoff	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>	 digx-dda	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>	 digx-ebpp	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>	 digx-eurekaserver	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>	 digx-extfacesimulator	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>	 digx-feedback	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>	 digx-finlimit	Active	✔ OK	Web Application	obdx_cluster	100

<input type="checkbox"/>		digx-forexdeal	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>		digx-goal	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>		digx-insight	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>		digx-invoice	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>		digx-liquiditymanagement	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>		digx-loan	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>		digx-loanapplication	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>		digx-location	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>		digx-login	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>		digx-me	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>		digx-mobile	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>		digx-nlp	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>		digx-oauth	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>		digx-obc	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>		digx-origination	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>		digx-party	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>		digx-payment	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>		digx-pm	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>		digx-processmanagement	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>		digx-report	Active	✔ OK	Web Application	obdx_cluster	100

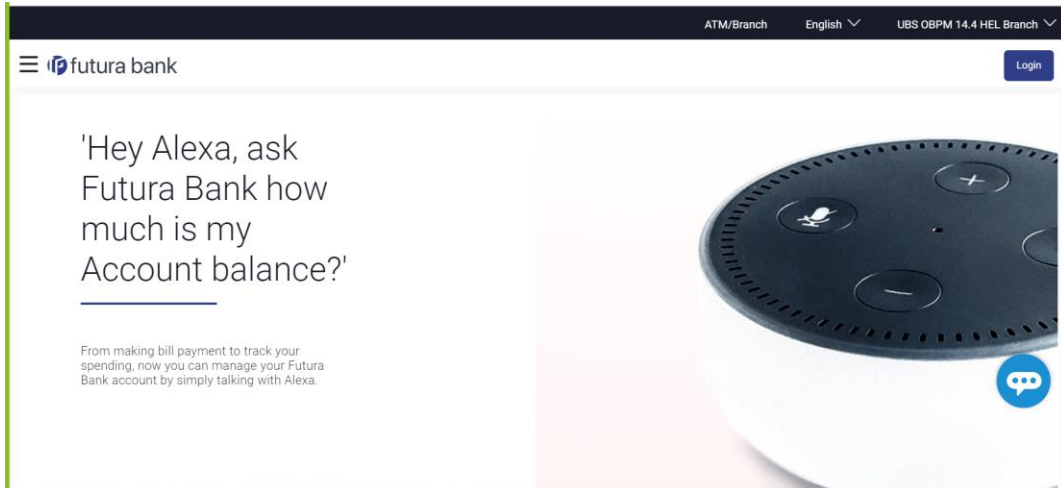
<input type="checkbox"/>		digx-rewards	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>		digx-scf	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>		digx-security	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>		digx-shared-libs (21.1.0.0.0,312)	Active		Library	AdminServer, obdx_cluster	0
<input type="checkbox"/>		digx-sms	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>		digx-smsbanking	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>		digx-social	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>		digx-spendanalysis	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>		digx-sr	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>		digx-td	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>		digx-tradefinance	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>		digx-ukaisp	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>		digx-ukcbpii	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>		digx-ukpisp	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>		digx-user	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>		digx-vam	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>		digx-wallet	Active	✔ OK	Web Application	obdx_cluster	100
<input type="checkbox"/>		digx-wm	Active	✔ OK	Web Application	obdx_cluster	100

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 (OBAPI with UBS)**

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

Oracle Banking APIs 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 (OBAPI 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 APIs 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 APIs 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. OBAPI 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
('obapi.host.account.uniqueness', 'ExtSystemsConfig', 'BRANCH', '<ENTITY_ID>', 'ofss
user', 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
('obapi.host.accountbranch.delimiter', 'ExtSystemsConfig', '@~', '<ENTITY_ID>', 'ofs
suser', sysdate, 'ofssuser', sysdate);

```

---

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

---

[Home](#)

## 11. Multi Entity

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

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

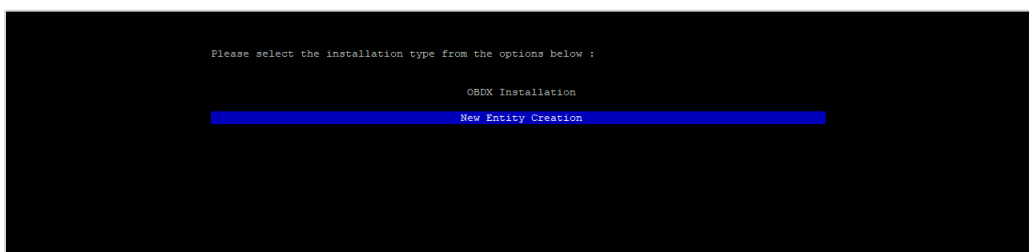
Login with OS user which was used to perform OBAPI software installation (or has ownership on Oracle Weblogic home directory)

Ensure OBAPI installation details (OBAPI DB; WLS etc) are maintained in installer.properties and user running the installer has read-write permissions.

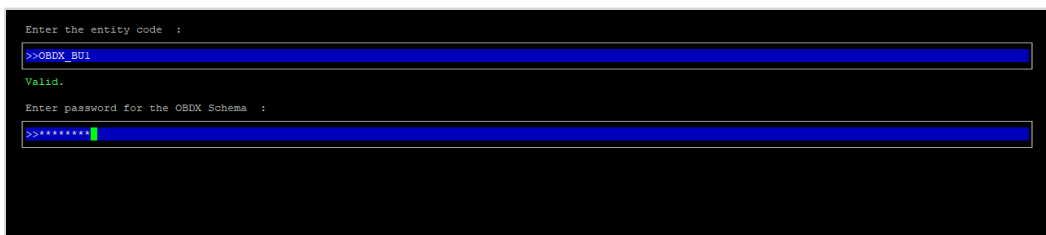
- From your terminal navigate to <OBAPI INSTALLER DIR>
- Enter the following command

**python3 runInstaller.py**

Select installation type as 'New Entity Creation'



Below screen will appear after selecting add entity



Enter below information:

- Entity code which has been added from screen
- OBAPI 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 OBPM DB hostname :
>>

Enter the OBPM DB port :
>>

Enter the OBPM SID :
>>

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 weblogic admin password :
>>

Use (t/;) keys to navigate between questions and press 'enter' after editing them

```

```

Enter the OBPM DB hostname :
>>whf00jml.in.oracle.com
Valid.
Enter the OBPM DB port :
>>1522
Valid.
Enter the OBPM SID :
>>ora19c.in.oracle.com
Valid.
Enter the Directory name for Tablespace creation (DBA_DIRECTORIES) :
>>TBS_DIR
Valid.
Enter the username with 'sys' privileges :
>>sys
Valid.
Enter password for the user with sys privileges :
>>*****
Valid.
Enter existing weblogic admin password :
>>*****
Use (t/;) keys to navigate between questions and press 'enter' after editing them

```

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 the existing OBPM host schema name :
>>

Enter the password for existing OBPM host schema :
>>

Enter new OBPM BIAL schema name :
>>

Enter new schema password :
>>

Enter country code :
>>

```

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.

```

[c:\tools\apps\obpm\...?2\OBPM_Installer]$ python3 runInstaller.py

Starting OBPM Database Installation...
Creating Tablespace...
Tablespace Created
Creating User...
User Created
Creating Role...
Roles Created
Executing Grants...
Executing OBPM Grants...
OBPM Scripts execution on progress...Please hold on it might take sometime
Scripts execution Successfully
SUCCESSFULLY installed OBPM database
Executed DIGX_FW_CONFIG_ALL_O.sql successfully
Executed DIGX_FW_CONFIG_UBS_ALL_O.sql successfully

```

When the installation completes, the below message is displayed

```

Starting Entity Configuration
Calling WLST
Initializing WebLogic Scripting Tool (WLST) ...
Welcome to WebLogic Server Administration Scripting Shell
Type help() for help on available commands
Connecting to t3://100.76.133.230:7001 with userid weblogic ...
Successfully connected to Admin Server "AdminServer" that belongs to domain "OBDX211TEST".
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 DomainMBean as the root.
To make changes you will need to start an edit session via startEdit().
For more help, use help('edit').

Creating Data source OBDXBU2_B1A1
Starting an edit 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 lock associated with this edit session is released once the activation is completed.
Activation completed
OBDXBU2_B1A1 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 (OBAPI with UBS)).

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

```

[obdx@obdx ~]$ python3 runInstaller.py
Execution of DB script for OBDXBU4 started
Executed DIGX_FW_CONFIG_ALL_0.sql successfully
Execution completed.

```

**No additional steps/ configuration are required.**

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

```

Enter the FCORE DB hostname :
>>

Enter the FCORE DB port :
>>

Enter the FCORE SID :
>>

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 weblogic admin password :
>>

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

```

```

Enter the FCORE DB hostname :
>>mumasa012.in.oracle.com
Valid.

Enter the FCORE DB port :
>>1520
Valid.

Enter the FCORE SID :
>>obdxhst.in.oracle.com
Valid.

Enter the Directory name for Tablespace creation (DBA_DIRECTORIES) :
>>TBS_DIR
Valid.

Enter the username with 'sys' privileges :
>>sys
Valid.

Enter password for the user with sys privileges :
>>*****
Valid.

Enter existing weblogic admin password :
>>*****
Valid.

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

```

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 the existing FCR schema name :
>>

Enter the existing FCUBS schema name :
>>

Enter new FCORE schema name :
>>

Enter new schema password :
>>

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

```
Enter the existing FCR schema name :
>>FCRHOST
Valid.
Enter the existing FCUBS schema name :
>>FCRUBSHOST
Valid.
Enter new FCORE schema name :
>>FCRHOSTTST
Valid.
Enter new schema password :
>>*****
Valid.

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

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.

```
[obdx211test@obdx211test ~]$ python3 runInstaller.py

Starting FCORE Database Installation...
Creating Tablespace...
Tablespace Created
Creating User...
User Created
Creating Role...
Roles Created
Executing Grants...
FCORE Scripts execution on progress...Please hold on it might take sometime
Scripts execution Successfully
SUCCESSFULLY installed FCORE database
Executed DIGX_FW_CONFIG_ALL_O.sql successfully
```

```
Starting Entity Configuration
Calling WLST

Initializing WebLogic Scripting Tool (WLST) ...

Welcome to WebLogic Server Administration Scripting Shell

Type help() for help on available commands

Connecting to t3://100.76.133.230:7001 with userid weblogic ...
Successfully connected to Admin Server "AdminServer" that belongs to domain "OBDX211TEST".

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 DomainMBean as the root.
To make changes you will need to start an edit session via startEdit().
For more help, use help('edit').

Creating Data source OBDXBU3_B1A1
Starting an edit 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 lock associated with this edit session is released once the activation is completed.
Activation completed
OBDXBU3_B1A1 created successfully.

Exiting WebLogic Scripting Tool.

Entity successfully configured.
```

**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 (OBAPI with OBPM)).

## 12. Multi-entity installation using Silent Mode

This chapter describes how to run the OBAPI 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 OBAPI 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=hostname.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_DBA_DIRECTORY_NAME=TBS_DIR
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 WLS_DOMAIN_PASS=welcome1
OBDX_Installer]$ export ENTITY_EHMS_HOST_SCHEMA_NAME_PASS=FCUBS140
OBDX_Installer]$ export ENTITY_EHMS_CCY=GB
OBDX_Installer]$ python runInstaller.py --silent --addEntity

```

Below parameters should be set in environment variables

	Parameter	Description	Example
<b>Environment variables to set for flavor:</b> <b>FCORE UBS (14.4.0.0.0 release)</b>  <b>OBPM (14.4.0.0.0 release)</b>	<b>Entity_Code</b>	Entity code which has been entered from screen	<b>export Entity_Code=OBDX_BU7</b>
	<b>SCHEMA_PASS</b>	Password for existing OBAPI schema	<b>export SCHEMA_PASS=devops#obapi182</b>
	<b>ENTITY_EHMS_DATABASE_HOSTNAME</b>	Hostname of the EHMS HOST database host server	<b>export ENTITY_EHMS_DATABASE_HOSTNAME=xx.xx.xx.xx</b>

	Parameter	Description	Example
	<b>ENTITY_EHMS_DATABASE_PORT</b>	Port of the EHMS HOST database host server	<b>export ENTITY_EHMS_DATABASE_PORT=1521</b>
	<b>ENTITY_EHMS_DATABASE_SID</b>	EHMS Host database Service Name	<b>export ENTITY_EHMS_DATABASE_SID=obapidb.in.oracle.com</b>
	<b>ENTITY_EHMS_DB_A_DIRECTORY_NAME</b>	Oracle Directory name in which you want the EHMS (HostInterface) schema datafile (dbf).  Enter only the name and NOT the path	<b>export ENTITY_EHMS_DB_A_DIRECTORY_NAME=TBS_DIR</b>
	<b>ENTITY_EHMS_DATABASE_SYS_USER</b>	Username with 'sys' privileges	<b>export ENTITY_EHMS_DATABASE_SYS_USER=sys</b>
	<b>ENTITY_EHMS_DATABASE_SYS_PASS</b>	Password for EHMS sys user	<b>export ENTITY_EHMS_DATABASE_SYS_PASS=devops@sys</b>
	<b>ENTITY_EHMS_SCHEMA_NAME</b>	Complete EHMS (HostInterface) schema name you want installer to create as new schema.	<b>export ENTITY_EHMS_SCHEMA_NAME=OBDXEHMS</b>
	<b>ENTITY_EHMS_SCHEMA_PASS</b>	Password for new EHMS schema on EHMS HOST database	<b>export ENTITY_EHMS_SCHEMA_PASS=devops#ehms</b>
	<b>ENTITY_EHMS_HOST_SCHEMA_NAME</b>	EXISTING EHMS Host schema name	<b>export ENTITY_EHMS_HOST_SCHEMA_NAME=EHMSHOST</b>

	Parameter	Description	Example
	<b>ENTITY_EHMS_HOST_SCHEMA_NAME_PASS</b>  <b>**This parameter is only required for UBS &amp; OBPM Host</b>	Password of existing HOST EHMS schema (Existing)	<b>export</b> <b>ENTITY_EHMS_HOST_SCHEMA_NAME_PASS=ehmshst</b>
	<b>WLS_DOMAIN_PAS S</b>	Password for Weblogic admin console	<b>export</b> <b>WLS_DOMAIN_PASS=weblogic182</b>
	<b>ENTITY_EHMS_CCY</b>  <b>**This parameter is only required for UBS &amp; OBPM Host</b>	Country Code for new or additional entity home branch	<b>export</b> <b>ENTITY_EHMS_CCY=GB</b>
	<b>ENTITY_EHMS_FCORE_FCUBS_SCHEMA_NAME</b>  <b>**This parameter is only required for FCORE</b>	FCORE-FCUBS HOST schema name	<b>export</b> <b>ENTITY_EHMS_FCORE_FCUBS_SCHEMA_NAME=FCRUBSHOST</b>
<b>Environment variables to set for flavor: OBAPI (Third-party HOST)</b>	<b>Entity_Code</b>	Entity code which has been entered from screen	<b>export</b> <b>Entity_Code=OBDX_BU1</b>
	<b>SCHEMA_PASS</b>	Password for existing OBAPI schema	<b>export</b> <b>SCHEMA_PASS=welcome1</b>

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

```

[devops@ /]$
[devops@ /]$ export Entity_Code=OBDX_BU7
[devops@ /]$ export SCHEMA_PASS=devops#obdx182
[devops@ /]$ export ENTITY_EHMS_DATABASE_HOSTNAME=XX.XX.XX.XX
[devops@ /]$ export ENTITY_EHMS_DATABASE_PORT=1521
[devops@ /]$ export ENTITY_EHMS_DATABASE_SID=obdxdb.in.oracle.com
[devops@ /]$ export ENTITY_EHMS_DBA_DIRECTORY_NAME=TBS_DIR
[devops@ /]$ export ENTITY_EHMS_DATABASE_SYS_USER=sys
[devops@ /]$ export ENTITY_EHMS_DATABASE_SYS_PASS=devops@sys
[devops@ /]$ export ENTITY_EHMS_SCHEMA_NAME=OBDXEHMS
[devops@ /]$ export ENTITY_EHMS_SCHEMA_PASS=devops#ehms
[devops@ /]$ export ENTITY_EHMS_HOST_SCHEMA_NAME=FCUBS140
[devops@ /]$ export ENTITY_EHMS_HOST_SCHEMA_NAME_PASS=FCUBS140HST
[devops@ /]$ export WLS_DOMAIN_PASS=weblogic182
[devops@ /]$ export ENTITY_EHMS_CCY=GB
[devops@ /]$ python runInstaller.py --silent --addEntity

```

### **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

```

Starting Entity Configuration
Calling WLST
Initializing WebLogic Scripting Tool (WLST) ...
Welcome to WebLogic Server Administration Scripting Shell
Type help() for help on available commands
Connecting to t3://100.76.133.230:7001 with userid weblogic ...
Successfully connected to Admin Server "AdminServer" that belongs to domain "OBDX211TEST".
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 DomainMBean as the root.
To make changes you will need to start an edit session via startEdit().
For more help, use help('edit').
Creating Data source OBDXBU2_B1A1
Starting an edit 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 lock associated with this edit session is released once the activation is completed.
Activation completed
OBDXBU2_B1A1 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 (OBAPI with UBS))
- OBPM additional entity (sub-section: Oracle FLEXCUBE Universal Banking with Oracle Banking Payments (OBAPI 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@... OBDX_Installer]$ python runInstaller.py --silent --addEntity
Password validated for OBDX_183INS
Execution of DB scripts for OBDX_BUI started
Executed BIDX_FW_CONFIG_ALL_0.sql successfully
Execution completed.
```

---

## 13. OBAPI Product Security

Refer below document for OBAPI product security configuration

Oracle Banking APIs Security Guide

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---

## 14. OBAPI 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 OBAPI schema

```
alter user <OBAPI_SCHEMA> quota unlimited on  
<OBAPI_AUDIT_INDEX_TABLESPACE>;
```

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

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---

## 15. JPA and OBAPI 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

```
<property name="eclipselink.cache.coordination.jms.host" value="t3://<WEBLOGIC-HOST-NAME OR IP>:<MANAGED-SERVER-PORT>/" />
```

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 OBAPI product)
  - 2 or more Weblogic cluster's
- Ensure these (persistence.xml) changes are available to all Managed server by maintaining appropriate classpath

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## 16. Troubleshoot Overview

This section describes how to troubleshoot OBAPI 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:



```

Oracle Banking Digital Experience

Enter the password for the user with sys privileges 'sys' :
>>*****
Invalid input. Please enter a valid password.

```

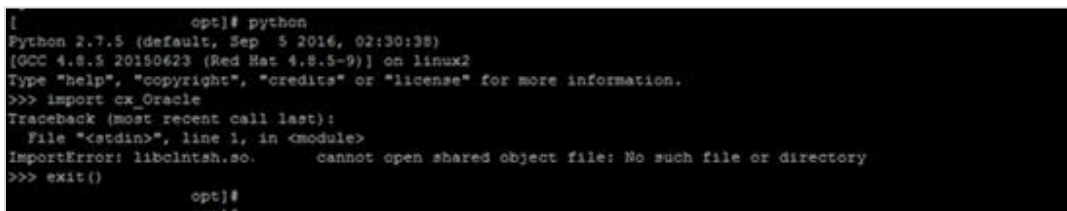
Try one of the following:

- 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:



```

[ opt]# python
Python 2.7.5 (default, Sep  5 2016, 02:30:38)
[GCC 4.8.5 20150623 (Red Hat 4.8.5-9)] on linux2
Type "help", "copyright", "credits" or "license" for more information.
>>> import cx_Oracle
Traceback (most recent call last):
  File "<stdin>", line 1, in <module>
ImportError: libclntsh.so.11.1: cannot open shared object file: No such file or directory
>>> exit()

[ opt]#

```

Execute the below command:

```
export LD_LIBRARY_PATH=/usr/lib/oracle/19.10/client64/lib:$LD_LIBRARY_PATH
```

```
python
```

```
import cx_Oracle
```

```
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/MSTENTITYUSERYPELANG.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 <OBAPI 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 <OBAPI INSTALLER DIR>/ExecInstances/<DDMonthHHMM>/logs/db/ and contains any SEVERE errors for Entitlement policy seeding.

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

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

Fix the problem by following below steps:

- Login to OBAPI installer server
- Over-write the policies files (Day0Policy.csv; Entitlement.csv; Resources.csv and Task.csv) from OBAPI Product zip into <OBAPI INSTALLER DIR>/installables/policies directory
- Browse to <OBAPI 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.util.logging.FileHandler.pattern = %h/java%.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%.log
java.util.logging.FileHandler.pattern = /scratch/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

```

- 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,<OBAPI Schema name>,<OBAPI Schema
password>,jdbc:oracle:thin:@<OBAPI DB hostname or IP>:<OBAPI DB listener port>/<OBAPI
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,OBAPI_THP181,Welcome#1,jdbc:oracle:thin:@
xx.xx.xx.xx:1521/OBAPI"
```

- 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,<OBAPI Schema name>,<OBAPI Schema
password>,jdbc:oracle:thin:@<OBAPI DB hostname or IP>:<OBAPI DB listener port>/<OBAPI
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,OBAPI_THP201,Welcome#1,jdbc:oracle:thin:@
xx.xx.xx.xx:1521/OBAPI"
```

---

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,<OBAPI Schema name>,<OBAPI Schema
password>,jdbc:oracle:thin:@<OBAPI DB hostname or IP>:<OBAPI DB listener port>/<OBAPI
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,OBAPI_THP201,Welcome#1,jdbc:oracle:thin:@xx.xx.xx.xx:1521/OBAPI
"
```

- Post successfully execution, restart Managed server.

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