Oracle Banking APIs
Installation Guide
Release 19.1.0.0.0

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ORACLE®

Installation Guide

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1. Preface

1.1 Intended Audience

This document is intended for the following audience:

- Customers
- Partners

1.2 Documentation Accessibility

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

1.3 Access to Oracle Support

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

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

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

1.4 Structure

This manual is organized into the following categories:

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

The subsequent chapters cover following:

- Introduction
- Prerequisites
- Installation
- Post Installation Steps
- Product Verification
- Multi-Entity Installation and configuration
- Best Practice
- Troubleshoot Overview

1.5 Related Information Sources

For more information on Oracle Banking APIs Release 19.1.0.0.0, refer to the following documents:

- Oracle Banking APIs Licensing Guide
- Oracle Banking APIs Installer Pre-Requisite Setup Manual
- Oracle Banking APIs Origination Social Media Integration
- Oracle Banking APIs OHS User Interface Configuration
- Oracle Banking APIs Security Guide
- Oracle Banking APIs System Configuration

- Oracle Banking APIs Core

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 OBAPI & 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” mentioned in section 1.5 Related Information Sources.

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

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

Python:

Step 1: Execute python –V command

python -V

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

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

cx_Oracle & Urwid:

Step 1: Execute python command

python

Note: Ensure Python 2.7.5 version should be available in PATH variable. Above execution should be done using Python 2.7.5.

Step 2: Import Urwid and check version

import urwid (Press Enter)

urwid.__version__

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

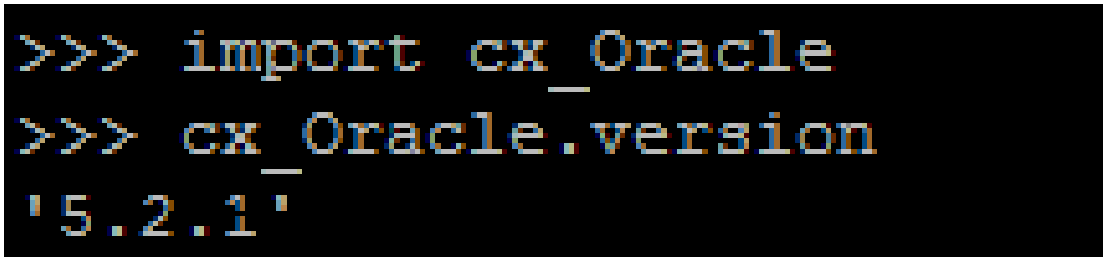
If version is displayed, then Urwid is installed and available for use.

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

Step 3: Similarly import cx_Oracle and check version

import cx_Oracle (Press Enter)

cx_Oracle.version



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

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

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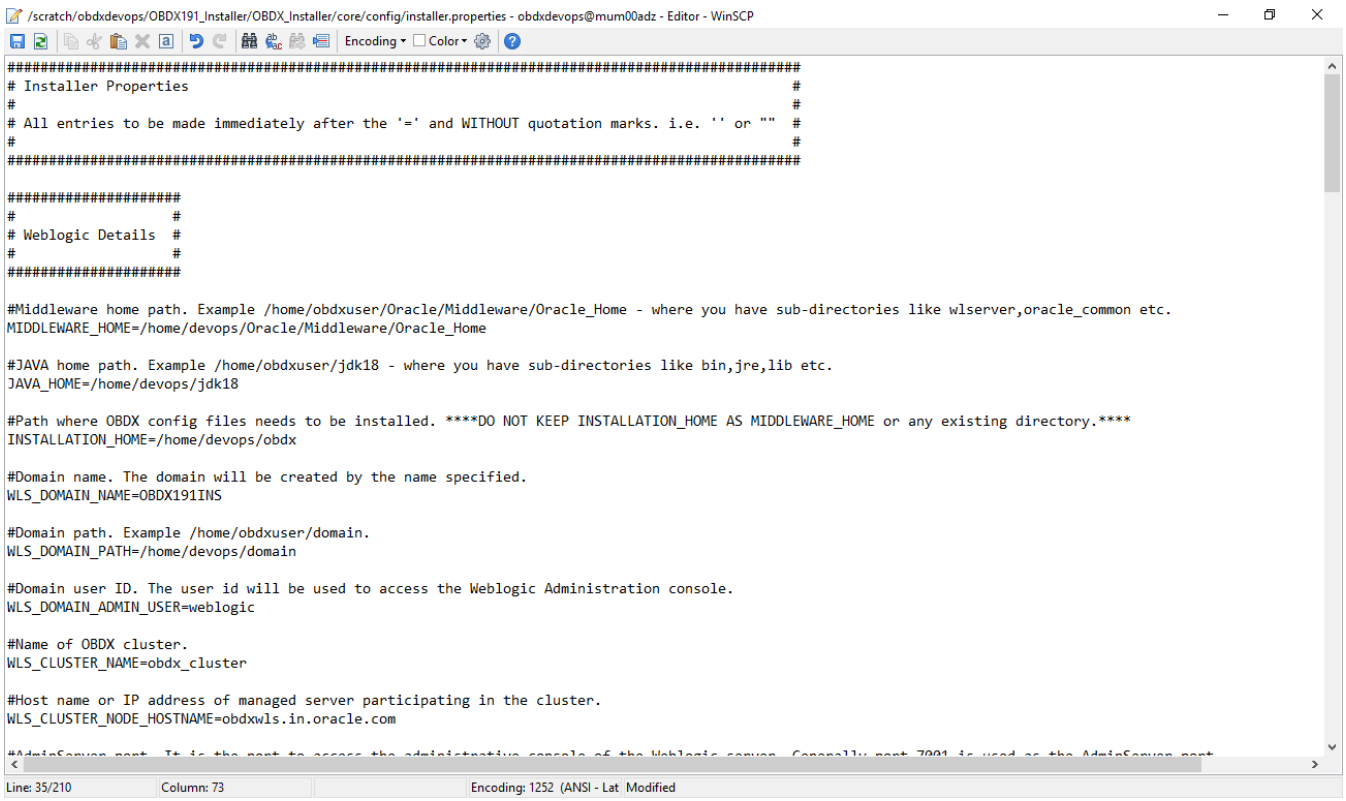
4. Installation

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)



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

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

Component	Parameter	Description	Example
DB details (for Weblogic RCU and OBAPI schema)	**OBAPI_DATABASE_HOSTNAME**	Enter the hostname of the database server which would host the database schema for OBAPI and Weblogic RCU	ofss310759
	OBAPI_DATABASE_PORT	Enter the port number of the database listener	1521
	OBAPI_DATABASE_SID	Enter the Oracle **Service Name** for database instance	obapidb.in.oracle.com
	OBAPI_DATABASE_SYS_USER	Enter the username with 'sys' privileges	Sys
	POST_FIX	For OBAPI schema name like "OBAPI_DEV" POST FIX is 'DEV'. **SHOULD BE IN UPPERCASE ONLY.**	DEV
	OBAPI_DBA_DIRECTORY_NAME	Enter the directory name in which you want the OBAPI schema tablespace datafile to be created. Enter Logical name (i.e. **DIRECTORY_NAME** column) from **DBA_DIRECTORIES** table NOT the physical path.	OBAPI_DIR
	OBAPI_AUDIT_DBA_DIRECTORY_NAME	Enter the directory name in which you want the OBAPI AUDIT tablespace datafile to be created. Enter Logical name (i.e. **DIRECTORY_NAME** column) from **DBA_DIRECTORIES** table NOT the physical path.	OBAPI_AUDIT_DIR

Component	Parameter	Description	Example
EHMS DB details (to be	**EHMS_DATABASE_HOSTNAME**	Enter the hostname for EHMS database server	ofss310759

configured only in-case of FLAVOR as UBS,FCORE &OBPM)	**EHMS_DATABASE_PORT**	Enter the port number of EHMS database listener	1521
	EHMS_SCHEMA_NAME	Enter the Complete OBAPI-EXT (B1A1) HostInterfaceschema name you want installer to create as new schema. **SHOULD BE IN UPPERCASE ONLY.**	EHMS182SCHEMA
	EHMS_DBA_DIRECTORY_NAME	Enter the directory name in which you want the OBAPI-EXT (B1A1) schema tablespace datafile to be created. Enter Logical name (i.e. **DIRECTORY_NAME** column) from **DBA_DIRECTORIES** table NOT the physical path.	OPATCH_LOG_DIR
	EHMS_DATABASE_SYS_USER	Enter the username with 'sys' privileges	Sys
	EHMS_DATABASE_SID	Enter the EHMS database Service Name	obapiehms.in.oracle.com
	EHMS_HOST_SCHEMA_NAME	Enter the EXISTING EHMS HOST schema name	OBAPIUBS
	EHMS_CCY(to be configured for UBS and OBPM HOST only)	Enter the Country code for EHMS HOME Branch	GB
	EHMS_HB (to be configured for UBS and OBPM HOST only)	Enter the Branch code for code for EHMS HOME Branch	AT3
	EHMS_FCORE_FCUBS_SCHEMA_NAME (to be configured for FCORE HOST only)	FCORE-FCUBS schema name	FCRUBSHOST

Component	Parameter	Description	Example
Weblogic server details	**MIDDLEWARE_HOME**	Oracle Weblogic Middleware home path. Example /home/obapiuser/Oracle/Middleware/Oracle_Home - where you have sub-directories like wlserver,oracle_common etc.	/home/obapiuser/Oracle/Middleware/Oracle_Home
	JAVA_HOME	Path where JAVA (JDK) is installed	/home/obapiuser/jdk18
	INSTALLATION_HOME	Path where OBAPI is to be installed. All configuration files will be copied as a sub-directory "config" under this directory. **DO NOT KEEP INSTALLATION_HOME AS MiddlewareHome**.	/home/obapiuser/obapi
	WLS_DOMAIN_PATH	Path where OBAPI Weblogic domain should be created. Users can now enter custom path as per their requirements.	/home/obapiuser/domains
	WLS_CLUSTER_NAME	Name of cluster; this cluster would have one single managed server.	obapi_cluster
	WLS_CLUSTER_NODE_HOSTNAME	Host name or IP address of managed server participating in the cluster. **Currently only single node is supported.**	ofss310759
	WLS_ADMIN_SERVER_PORT	Weblogic AdminServer port. It is the port to access the administration console of the Weblogic server. Generally port 7001 is used as the AdminServer port. **Custom port are supported.**	7001
	WLS_ADMIN_SERVER_SSL_PORT	AdminServer SSL port. It is the port used to securely access (https) the administration console of the Weblogic server.	7002
	WLS_NODE_PORT	Node Manager Port. It is the port used by Node Manager to be configured for OBAPI domain. Generally, 5556 is utilized as Node Manager Port. **Custom ports are**	5556

		supported.	
	WLS_MS_SERVER_NAME	Managed server name. This will be the name of the managed server created in the cluster followed by indexes. eg- **If this is set as 'clip' managed servers would be clip1**.	clip
	WLS_MS_SERVER_PORT	Managed Server Port. Managed server will utilize this port for hosting OBAPI components and associated resources. **Custom ports are supported.**	9001
	WLS_DOMAIN_NAME	Enter Weblogic Domain name.	obapi_domain1
	WLS_DOMAIN_ADMIN_USER	Domain user ID. The user id will be used to access the Weblogic Administration console.	weblogic
	WLS_JMS_FILEUPLOAD_PS (to be configured for all OBAPI **supported HOST)**	Set the paths for the persistent store of the FileUpload JMS modules. **DO NOT KEEP path as INSTALLATION_HOME or as sub directory inside INSTALLATION_HOME.**	/scratch/obapi/FileUpload
	WLS_JMS_AUDIT_PS (to be configured for all OBAPI **supported HOST)**	Set the paths for the persistent store of the Audit JMS modules. **DO NOT KEEP path as INSTALLATION_HOME or as sub directory inside INSTALLATION_HOME.**	/scratch/obapi/Audit
	WLS_JMS_REPORT_PS (to be configured for all OBAPI **supported HOST)**	Set the paths for the persistent store of the Reports JMS modules. **DO NOT KEEP path as INSTALLATION_HOME or as sub directory inside INSTALLATION_HOME.**	/scratch/obapi/Reports
	WLS_JMS_JPA_PS (to be configured for all OBAPI **supported HOST)**	Set the paths for the persistent store of the JPA JMS modules. **DO NOT KEEP path as INSTALLATION_HOME or as sub directory inside INSTALLATION_HOME.**	/scratch/obapi/JPA
	WLS_JMS_EXTSYSRECEIVER_PS (to be configured for all OBAPI	Set the paths for the persistent store of the ExtSystemReceiver JMS modules. **DO NOT KEEP path as INSTALLATION_HOME or as sub directory inside**	/scratch/obapi/Receiver

	supported HOST)	**INSTALLATION_HOME.**	
	WLS_JMS_EXTSYSSENDER_PS **(to be configured for all** OBAPI **supported HOST)**	Set the paths for the persistent store of the ExtSystemSender JMS modules. **DO NOT KEEP path as INSTALLATION_HOME or as sub directory inside INSTALLATION_HOME.**	/scratch/obapi/Sender
RCU	**OBAPI_RCU_STB_PREFIX**	STB schema name prefix. If schema pre-fix is 'OBAPI' then 'OBAPI_STB' would be the STB schema name.	OBAPI_STB
OBAPI Application Administrator user details	**OBAPI_ADMIN_USERNAME**	Set username for OBAPI application Admin user. **USERNAME IS CASE SENSITIVE. In-case of OUD as provider username should be the User ID mentioned during user creation steps mentioned in pre-requisite document (refer To create User and mapping it to the Group section)**	superadmin
	OBAPI_ADMIN_EMAIL	Enter the Email ID for OBAPI application admin user.	superadmin@oracle.com
	OBAPI_ADMIN_CONTACT_NO	Enter the mobile number for OBAPI application admin user. **COUNTRY CODE IS MUST.**	+911234567890

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

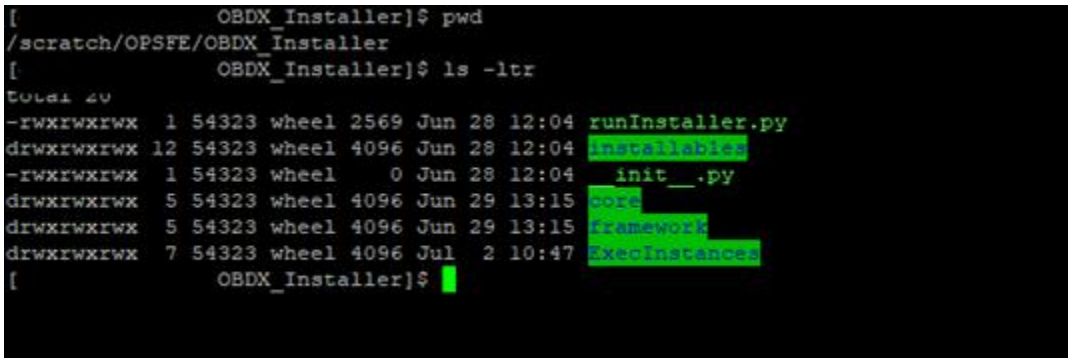
Ensure ORACLE_HOME, JAVA_HOME variable are set and their binaries are available in PATH variable before proceeding.

Login with OS user which was used to perform 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:

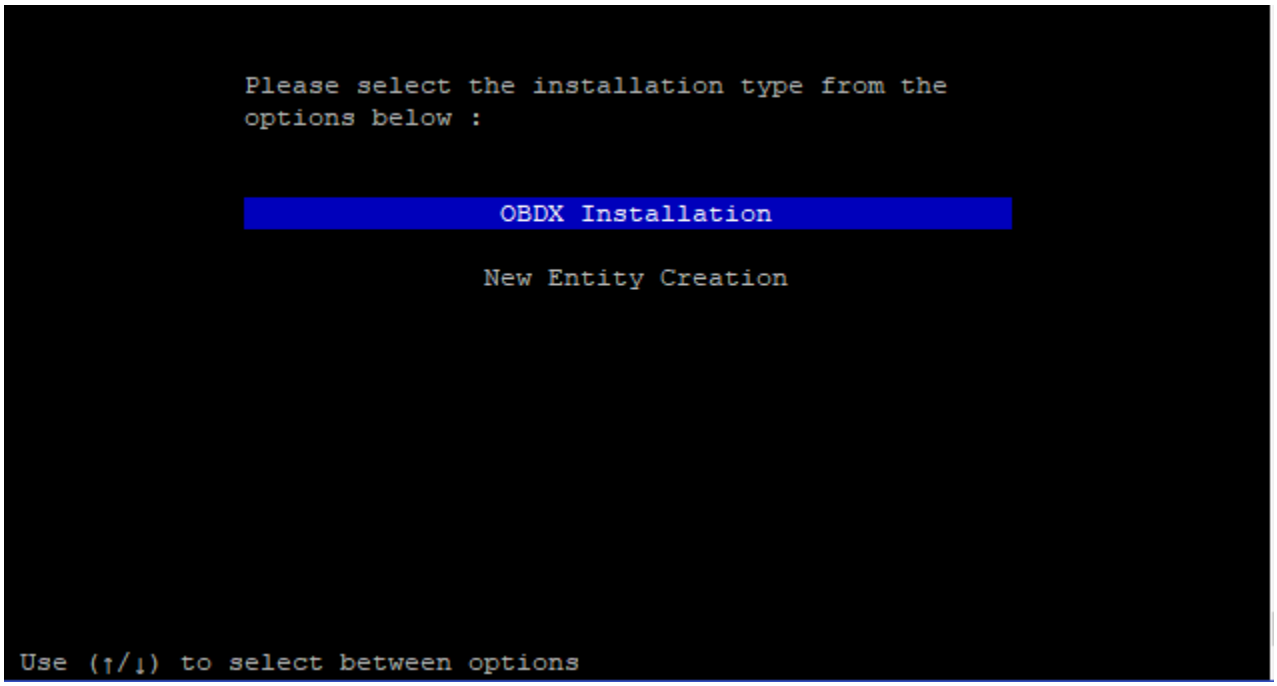
- From your terminal navigate to <OBAPI INSTALLER DIR>/



- Enter the following command

python runInstaller.py

Select the appropriate type of Installation

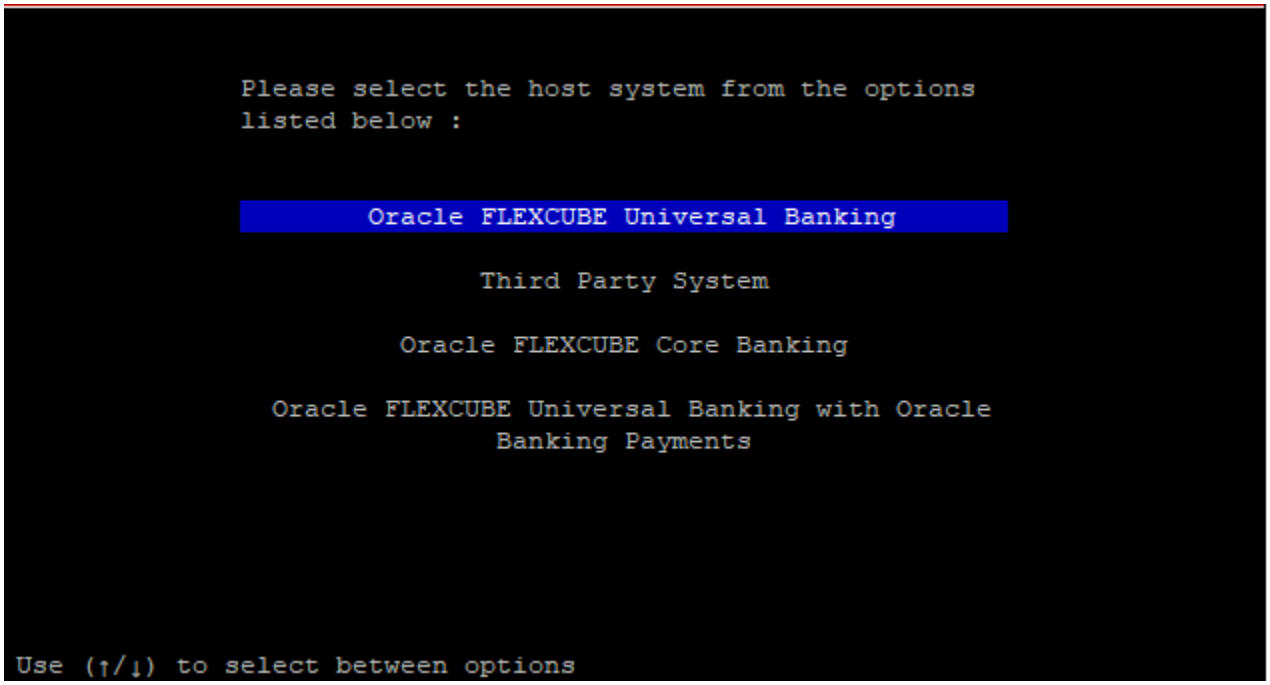


- OBAPI Installation: This option should be used for first-time installation or for first entity only. Existing installation should not utilize this option unless performing “Reinstall” on already installed environment.

- New Entity Creation: This option should be used for multi-entity installation only.

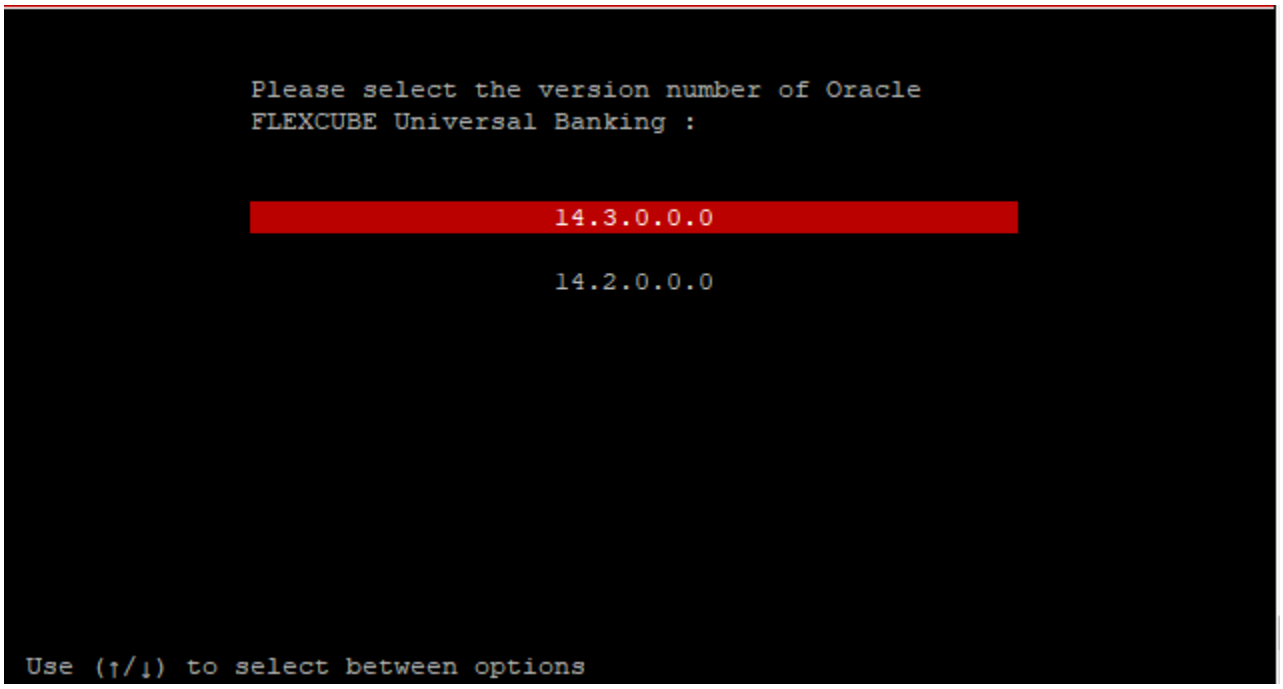
Post selection of installation type.

Select the appropriate host system for Installation

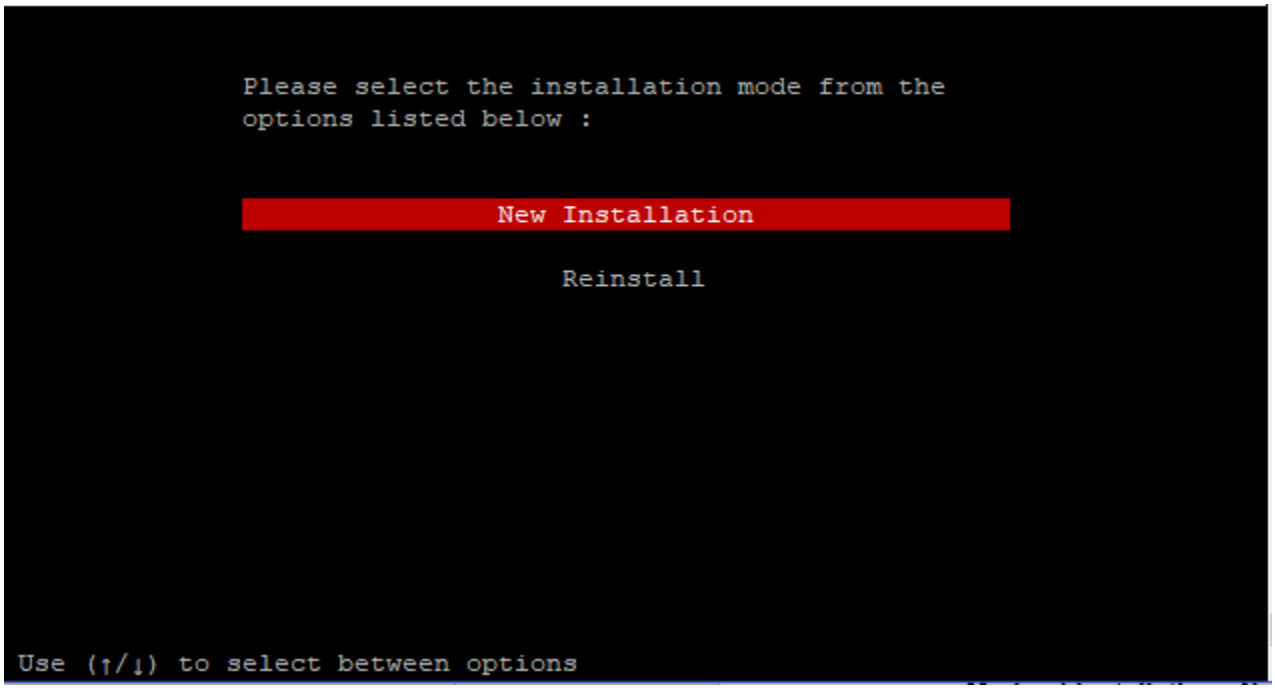


Oracle FLEXCUBE Universal Banking (OBAPI with UBS)

Select the version of UBS HOST system from available options



Post UBS HOST version selection, 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


>>********
Valid.
Enter password for the OBDX schema 'OBDX_191INS' :
>>********
Valid.
Enter password for the STB schema 'OBDX191INS_STB' :
>>********
Valid.
Enter password for the weblogic domain user id 'weblogic' :
>>********
Valid.
Enter the password for the user with sys privileges of UBS database 'sys' :
>>*********
Valid.
Enter password for the UBS schema 'FC142OSDC' (Existing) :
>>************
Valid.
Enter password for the UBS schema 'B1A1_UBS143_191INS' (new) :
>>********
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
- OBAPI STB 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

Enter below passwords:

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

  OBAPI application admin user password (In-case of OUD as provider, password should similar to one used while user creation in OUD (or User Password field))

Oracle FLEXCUBE Core Banking (OBAPI with FCORE)

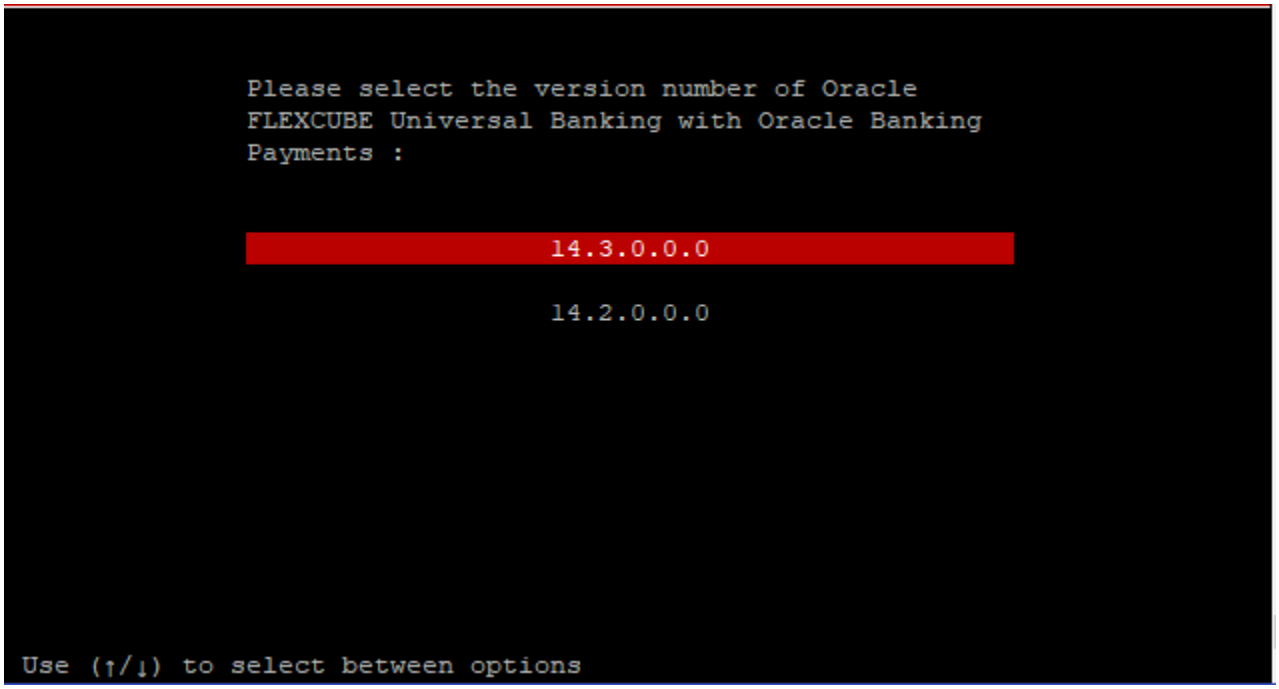
Post Oracle FLEXCUBE Core Banking, enter the required credentials details

Enter below passwords:

- SYS privilege user password where OBAPI schema would be created
- OBAPI schema password
- OBAPI STB schema password
- Weblogic console administrator user password
- SYS privilege user password where FCORE host schema exists
- 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))

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

Select the version of UBS HOST system from available options



Post selection of Oracle FLEXCUBE Universal Banking with Oracle Banking Payments version, enter the required credentials details

Enter below passwords:

- SYS privilege user password where OBAPI schema would be created
- OBAPI schema password
- OBAPI STB 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 (In-case of OUD as provider, password should be similar to one used while user creation in OUD (or User Password field))

Mode of Installation – Reinstall

In-case of an existing 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) and RCU schema.

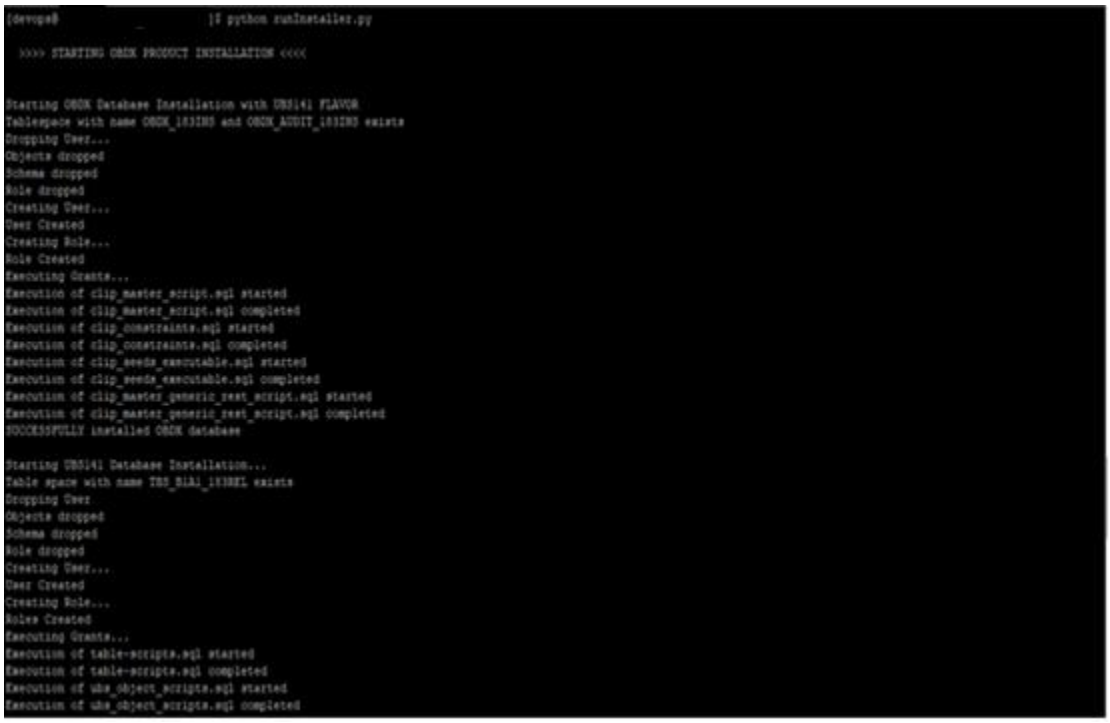
Key pointers

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

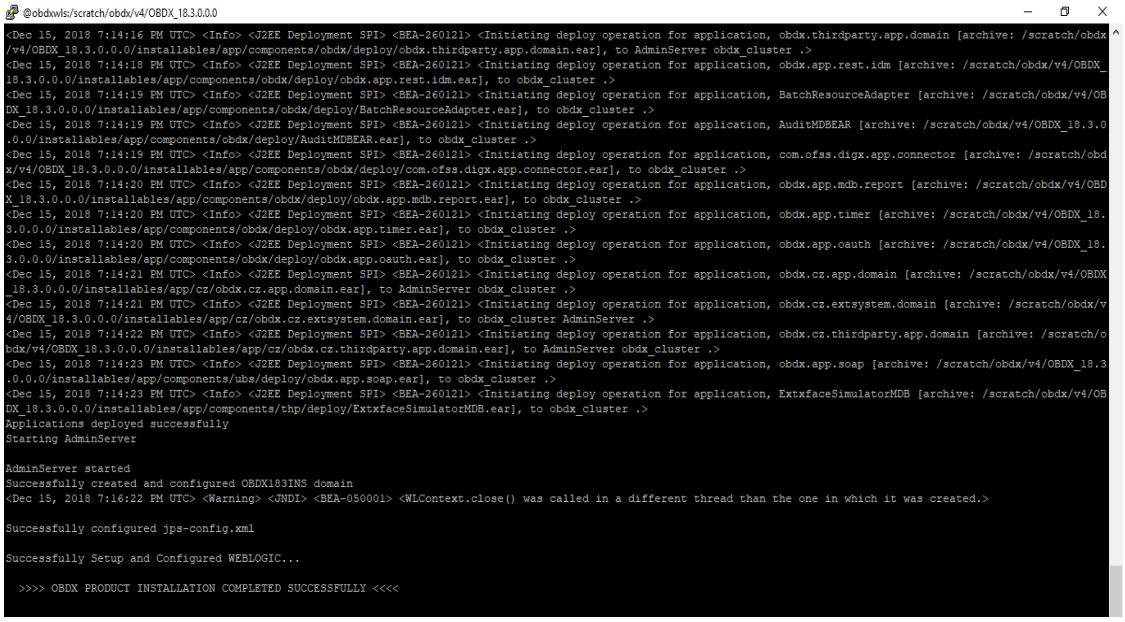
Note: All input screens are similar to new installation option and as per the host system opted.

Installation Status

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



When the installation completes, the below message is displayed



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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

```
OBDX_Installer]$
OBDX_Installer]$ export FLAVOUR=UBS
OBDX_Installer]$ export MODE=New
OBDX_Installer]$ export DB_SYS_PASSWORD=welcome1
OBDX_Installer]$ export SCHEMA_PASS=welcome1
OBDX_Installer]$ export STBPassword=welcome1
OBDX_Installer]$ export DomainPassword=welcome1
OBDX_Installer]$ export EHMS_DATABASE_SYS_PASS=devopshst
OBDX_Installer]$ export EHMS_HOST_SCHEMA_NAME_PASS=FC140UBS
OBDX_Installer]$ export EHMS_SCHEMA_PASS=welcome1
```

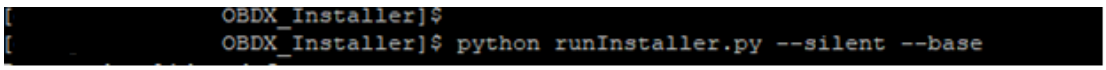
Below parameters should be set as environment variables, depending on the Host system the installer should be executed.

Host	Parameter	Description	Example
Environment variables to set for flavor: **FCORE;** **UBS (14.3.0.0.0 and 14.2.0.0.0 release)** **OBPM(14.3.0.0.0 and 14.2.0.0.0)**	**FLAVOUR**	Flavour for installation **UBS** for Oracle FLEXCUBE Universal Banking 14.2.0.0.0 (OBAPI with UBS) **UBS143** for Oracle FLEXCUBE Universal Banking .14.3.0.0.0 (OBAPI with UBS) **OBPM** for Oracle FLEXCUBE Universal Banking with Oracle Banking Payments 14.2.0.0.0 (OBAPI with OBPM) **OBPM143** for Oracle FLEXCUBE Universal Banking with Oracle Banking Payments 14.3.0.0.0 (OBAPI with OBPM) **FCORE** for Oracle FLEXCUBE Core Banking 11.7.0.0.0 (OBAPI with FCORE)	**export FLAVOUR=UBS or** **export FLAVOUR=UBS143 or** **export FLAVOUR=OBPM or** **export FLAVOUR=OBPM143 or** **export FLAVOUR=FCORE**
	MODE	Mode of installation. '**New**' in-case of a fresh installation of OBAPI for the first run on server '**Clean**' in-case of an existing OBAPI installation that you	**export MODE=New** **or** **export MODE=Clean**

		want to overwrite OR in case of a previously failed installation or re-installation	
	DB_SYS_PASSWORD	Sys user password of OBAPI database (Existing)	**export DB_SYS_PASSWORD=obapi182sys**
	SCHEMA_PASS	Password for new schema on OBAPI database	**export SCHEMA_PASS=obapi#182**
	STBPassword	Password for RCU STB schema	**export STBPassword=obapi182#stb**
	DomainPassword	Password for Weblogic Administrator console	**export DomainPassword=wlsadmn**
	EHMS_DATABASE_SYS_PASS	Sys user password of EHMS HOST database (Existing)	**export EHMS_DATABASE_SYS_PASS=obapiehmssys**
	EHMS_HOST_SCHEMA_NAME_PASS **** Only required for UBS & OBPM Host. Ignore this parameter in-case of FCORE Host**	Password of existing EHMS HOST schema (Existing)	**export EHMS_HOST_SCHEMA_NAME_PASS=obapiehmshost**
	EHMS_SCHEMA_PASS	Password for new OBAPI EHMS schema on EHMS HOST database	**export EHMS_SCHEMA_PASS=obapi182ehms**
	DBAuthPassword	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))	**export DBAuthPassword=obapiadmn**
Environment	**FLAVOUR**	Flavour for installation **'OBAPI'** for Third Party System 1.0 (OBAPI with THP)	**export FLAVOUR=OBAPI**

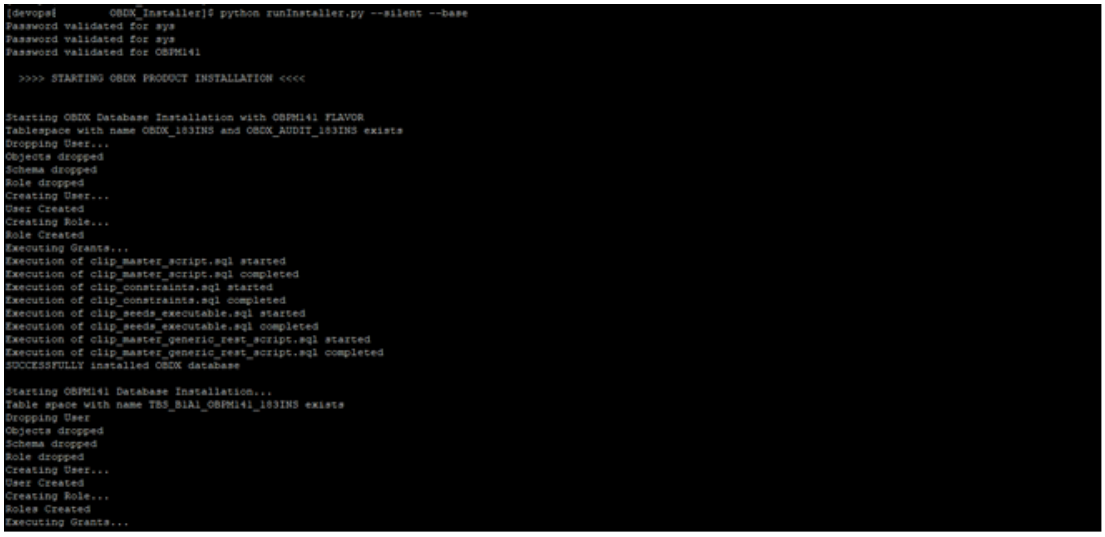
variables to set for flavor: **OBAPI (Third-party HOST)**			
	Mode	Mode of installation. '**New**' in-case of a fresh installation of OBAPI for the first run on server '**Clean**' in-case of an existing OBAPI installation that you want to overwrite OR in case of a previously failed installation or re-installation	**export MODE=New** **or** **export MODE=Clean**
	DB_SYS_PASSWORD	Sys user password of OBAPI database (Existing)	**export DB_SYS_PASSWORD= obapi182sys**
	SCHEMA_PASS	Password for new schema on OBAPI database	**export SCHEMA_PASS=obapi#182**
	STBPassword	Password for RCU STB schema	**export STBPassword=obapi#stb**
	DomainPassword	Password for Weblogic Administrator console	**export DomainPassword=wlsadmn**
	DBAuthPassword	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))	**export DBAuthPassword=obapiadmn**

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

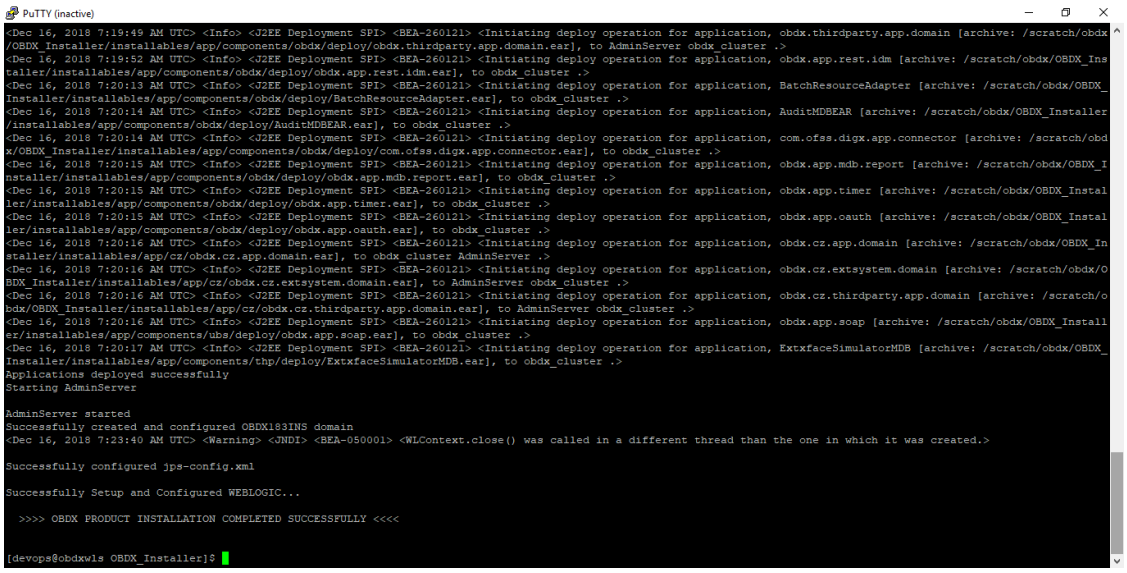


Installation Status

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



When the installation completes, the below message is displayed



Home

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/*
Detailed EHMS schema Logs per SQL file (specific to EHMS host system only)	< OBAPI INSTALLER DIR>/ExecInstances/<DDMonthHHMM> /logs/db/<EHMSHOST>/* <EHMSHOST> - values such as; FCORE; OBPM; OBPM143; UBS; UBS143
RCU Logs	< OBAPI INSTALLER DIR>/ExecInstances/<DDMonthHHMM> /logs/app/obapi_stb_rcu_1600.log
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 Troubleshot 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 Troubleshot 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	RCU schema and Create Domain	√	√ (drop and re-create RCU schema's)
		Create and Configure AdminServer, Machine, Managed Server and Cluster	√	√
		Configure NodeManager	√	√
		Configure JDBC	√	√
		Configure DB Authenticator, JMS servers, Persistent stores and JMS Modules	√	√
		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 Universal Banking (OBAPI with UBS)

Flavor	Activity	Detailed Activity List	New Installation	Reinstall
OBAPI with UBS (14.3.0.0.0 and 14.2..0.0.0 both version)	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 UBS 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	RCU schema and Create Domain	√	√ (drop and re-create RCU schema's)
		Create and Configure AdminServer, Machine, Managed Server and Cluster	√	√
		Configure NodeManager	√	√
		Configure JDBC	√	√
		Configure DB Authenticator, JMS servers, Persistent stores and JMS	√	√

Flavor	Activity	Detailed Activity List	New Installation	Reinstall
		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
OBAPI with FCORE	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	√	√

Flavor	Activity	Detailed Activity List	New Installation	Reinstall
	Weblogic Setup and Configuration	RCU schema and Create Domain	√	√ (drop and re-create RCU schema's)
		Create and Configure AdminServer, Machine, Managed Server and Cluster	√	√
		Configure NodeManager	√	√
		Configure JDBC	√	√
		Configure DB Authenticator, JMS servers, Persistent stores and JMS Modules	√	√
		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 Universal Banking with Oracle Banking Payments (OBAPI with OBPM)

Flavor	Activity	Detailed Activity List	New Installation	Reinstall
OBAPI with OBPM (14.3.0.0.0 and 14.2..0.0.0 both version)	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	√	√

Flavor	Activity	Detailed Activity List	New Installation	Reinstall
		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	RCU schema and Create Domain	√	√ (drop and re-create RCU schema's)
		Create and Configure AdminServer, Machine, Managed Server and Cluster	√	√
		Configure NodeManager	√	√
		Configure JDBC	√	√
		Configure DB Authenticator, JMS servers, Persistent stores and JMS Modules	√	√
		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)

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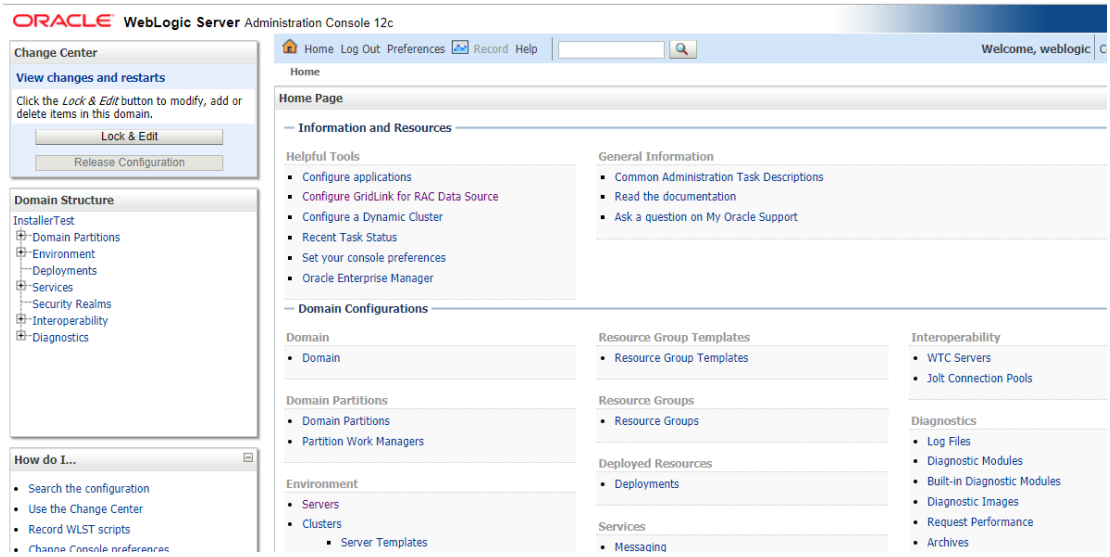
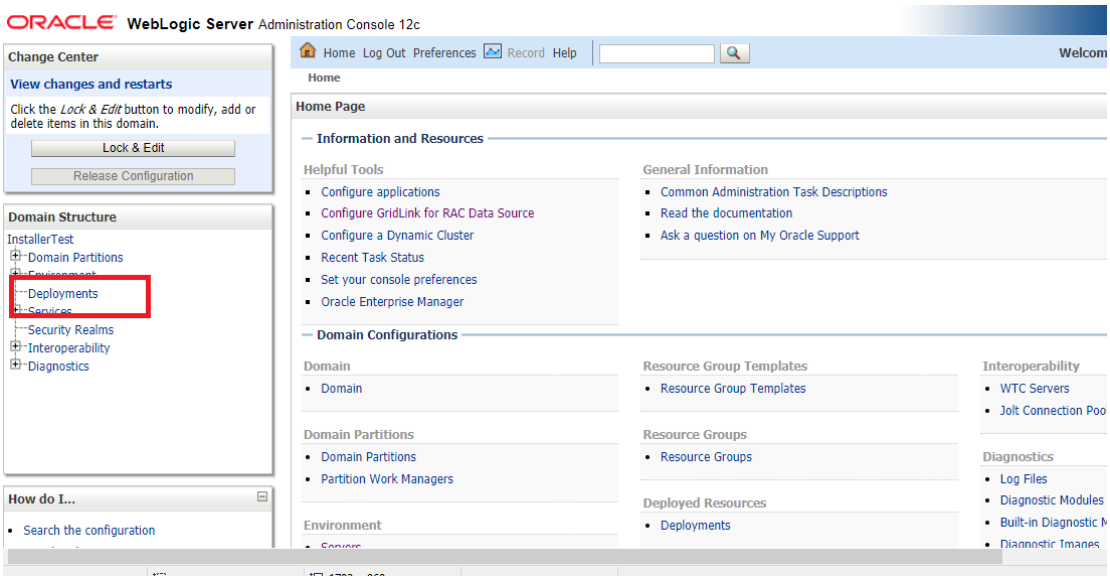
8. Post Installation Steps

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

Login Weblogic Admin console.



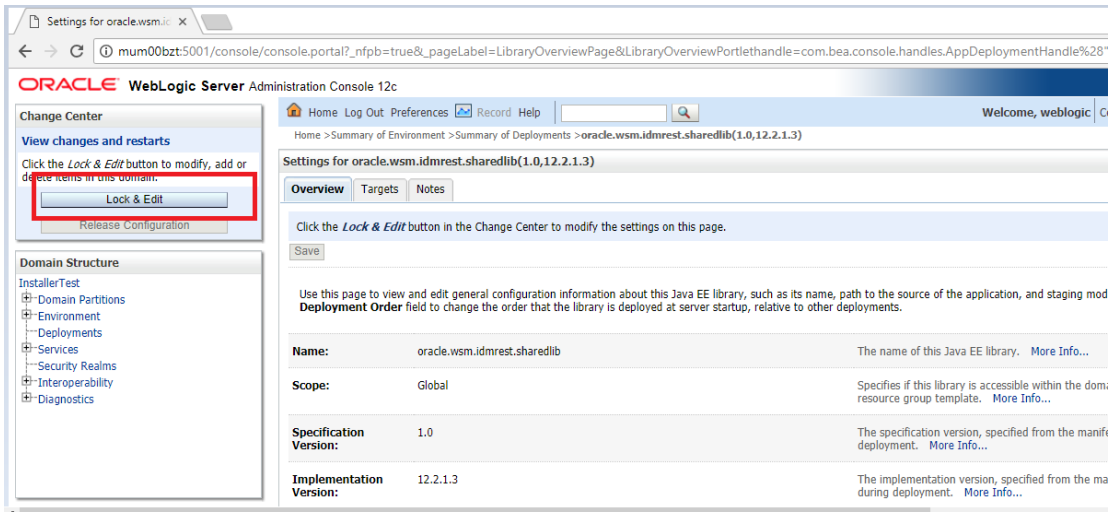
In the left panel of the Console, Click on **Deployments**, A table in the right pane displays all deployed Enterprise Applications and Application Modules.



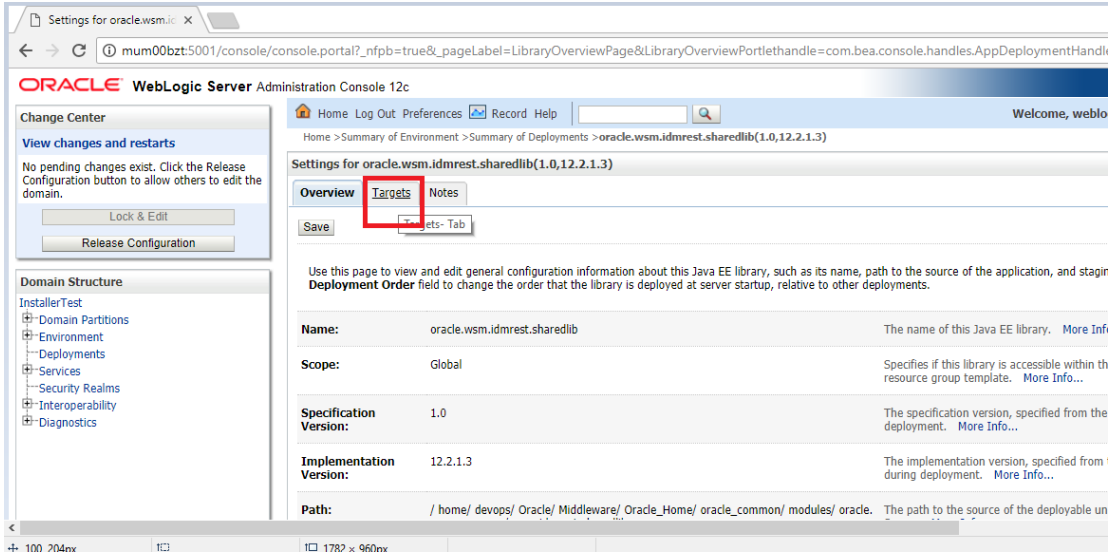
In the table, locate the **oracle.wsm.idmrest.sharedlib(1.0,12.2.1.3)** library to re-target and click on its name.

oracle.bi.jbips(11.1.1,0.1)	Active		Library	AdminServer	Global		100
oracle.dconfig-infra(2.0,12.2.1)	Active		Library	AdminServer	Global		100
oracle.jrf.system.filter	Active		Library	AdminServer	Global		100
oracle.jsp.next(12.2.1,12.2.1)	Active		Library	AdminServer	Global		100
oracle.pwdgen(2.0,12.2.1)	Active		Library	AdminServer	Global		100
oracle.sdp.client(2.0,12.2.1.3.0)	Active		Library	AdminServer	Global		100
oracle.sdp.messaging(2.0,12.2.1.3.0)	Active		Library	AdminServer	Global		100
oracle.webcenter.composer(2.0,12.2.1)	Active		Library	AdminServer	Global		300
oracle.webcenter.skin(2.0,12.2.1)	Active		Library	AdminServer	Global		300
oracle.wsm.console.core.view(1.0,12.2.1.3)	Active		Library	AdminServer	Global		311
oracle.wsm.idmrest.sharedlib(1.0,12.2.1.3)	Active		Library	AdminServer	Global		100
oracle.wsm.seedpolicies(2.0,12.2.1.3)	Active		Library	AdminServer	Global		100
orai18n-adf(11,11.1.1.1.0)	Active		Library	AdminServer	Global		100
owasp.esapi(2.0,12.2.1)	Active		Library	AdminServer	Global		100
state-management-provider-memory-rar	Active	OK	Resource Adapter	AdminServer	Global		100
UIX(11,12.2.1.3.0)	Active		Library	AdminServer	Global		100
wsm-pm	New		Enterprise Application	obdx_cluster	Global		5

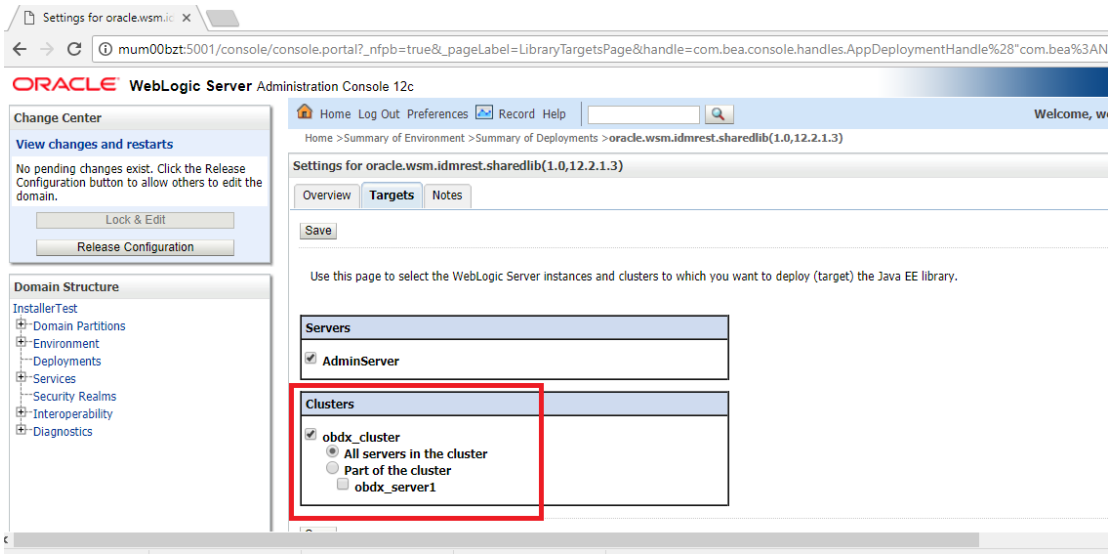
Click on **Lock & Edit**



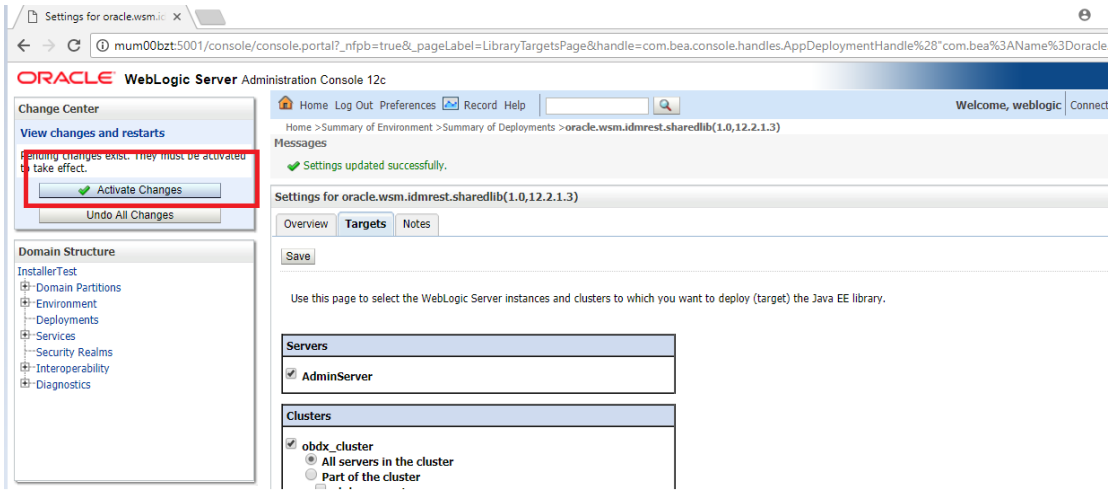
Click on **Targets** Tab



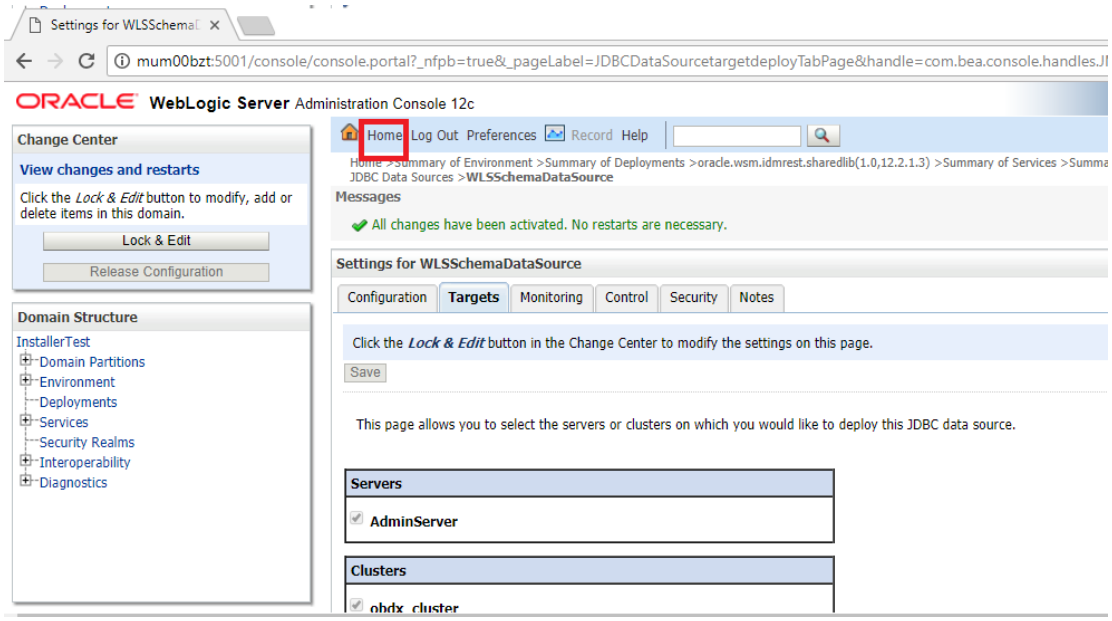
In the Servers box, select **Cluster** if it is not already selected and click **Save**.



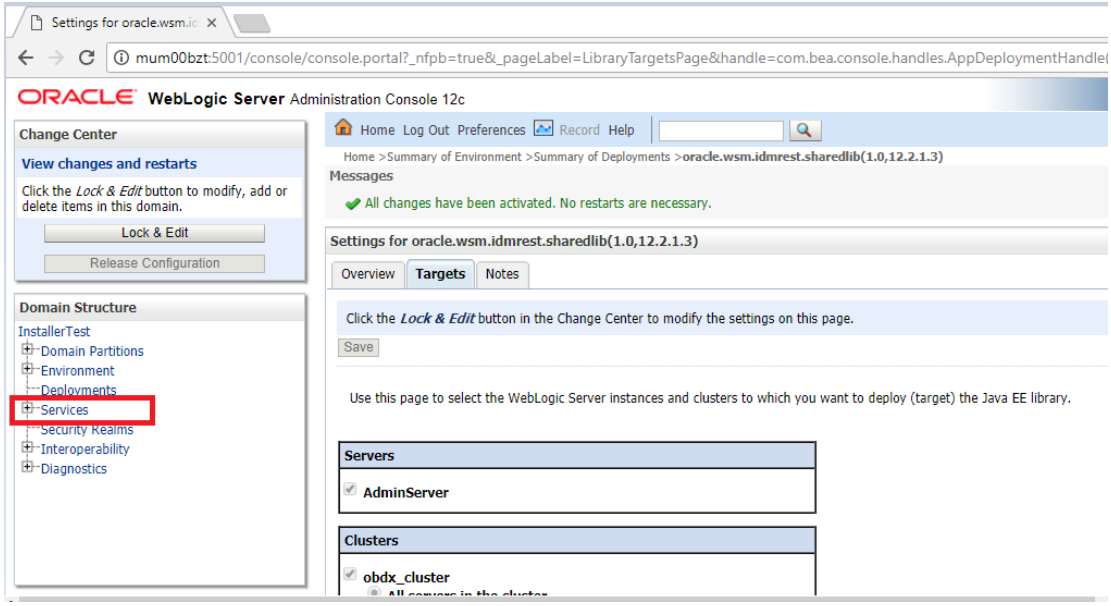
Click on **Activate Changes.**



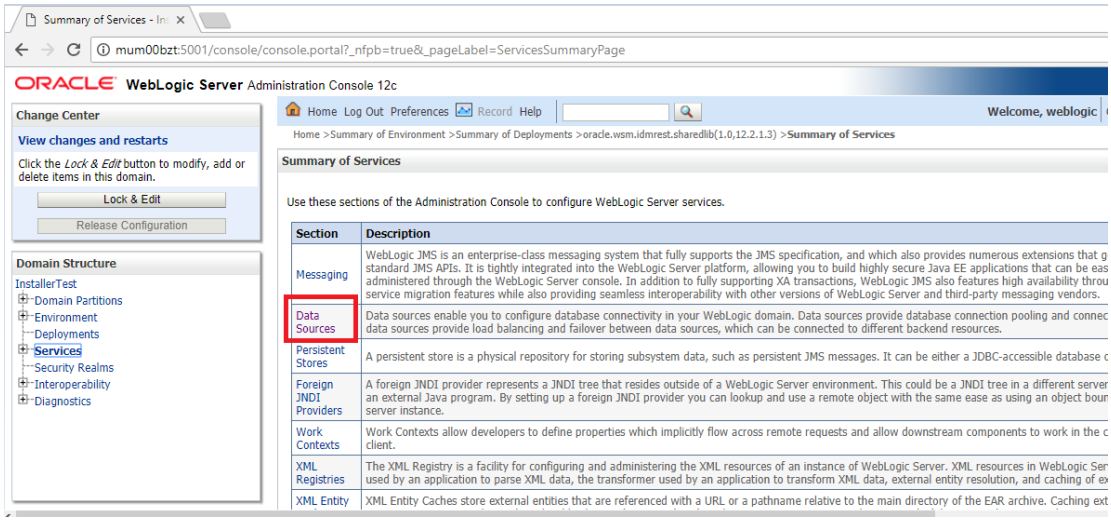
Click on **Home Tab**



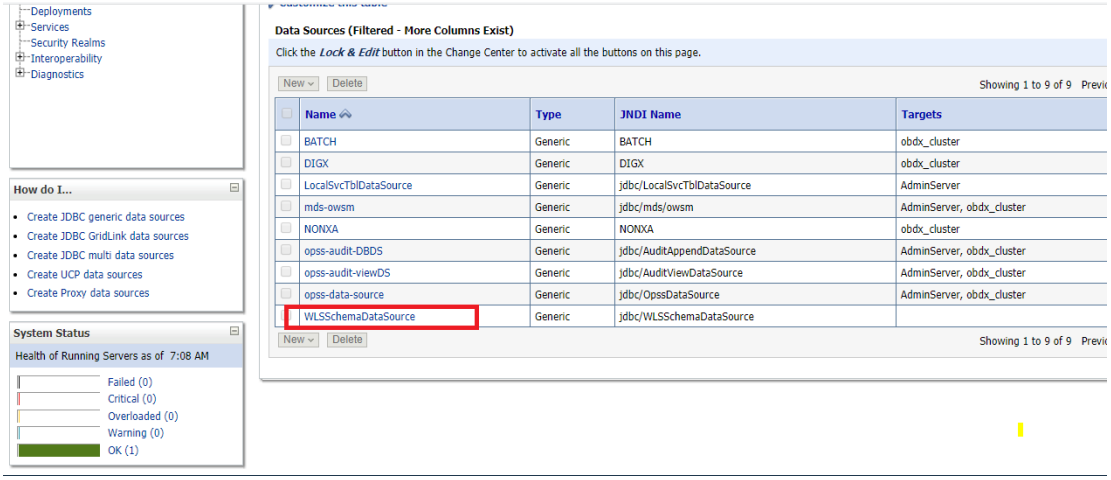
In the left panel of the Console, Click on **Services**,



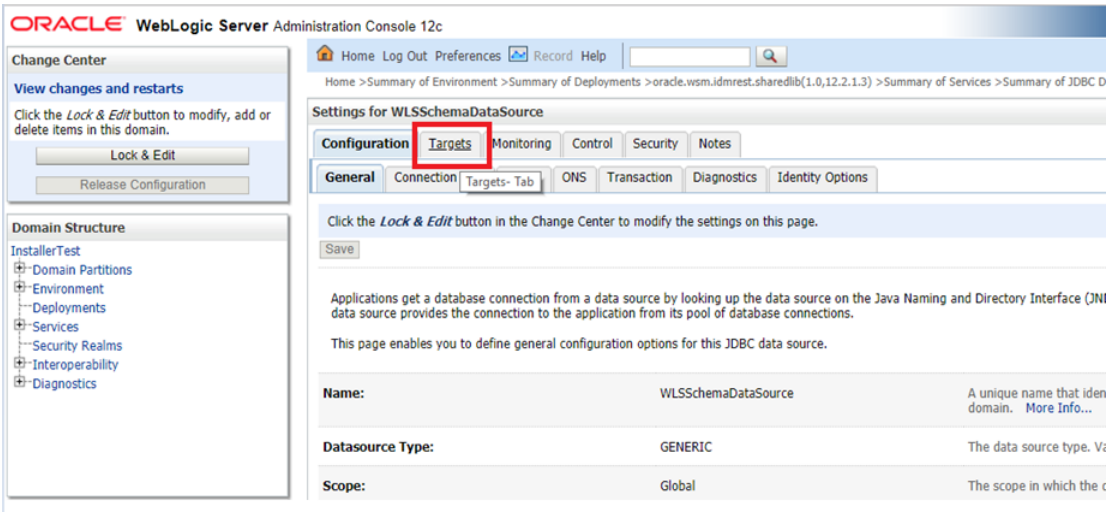
Click on **Data Sources**



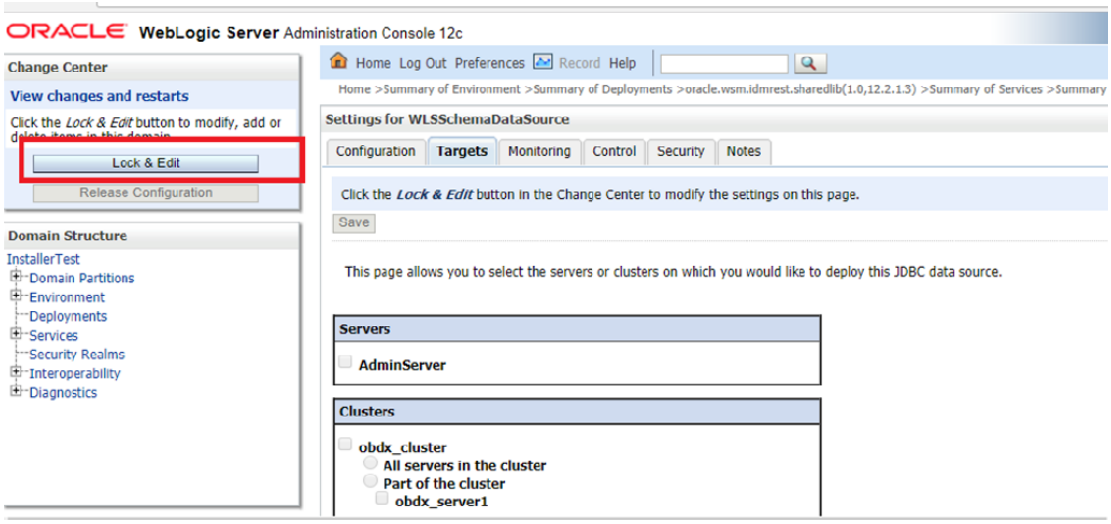
Locate **WLSSchemaDataSource** to change target ,click on its name



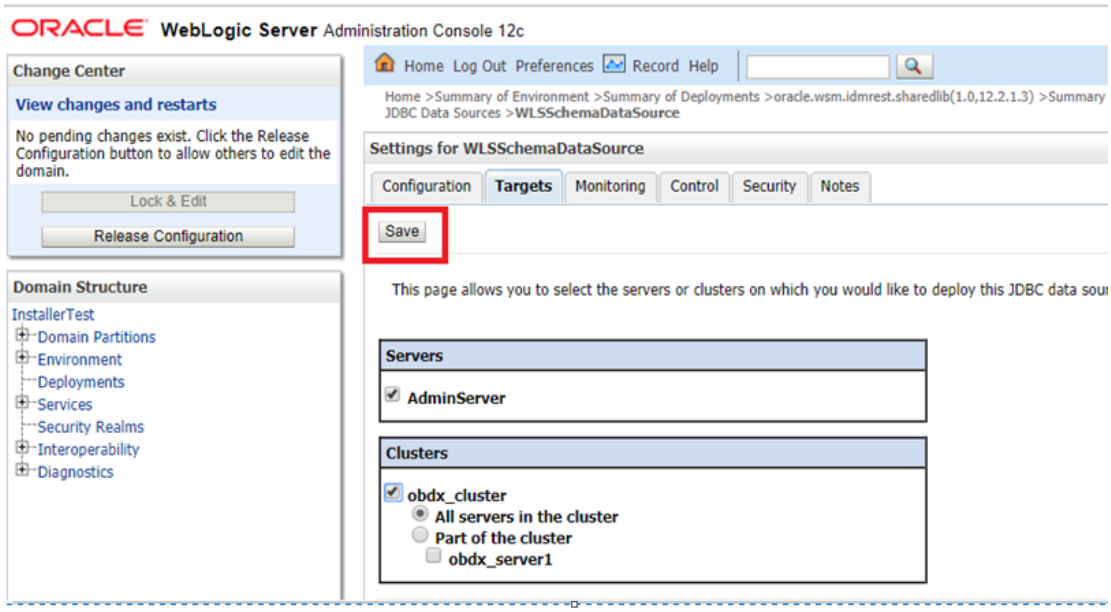
Click on **Targets** Tab



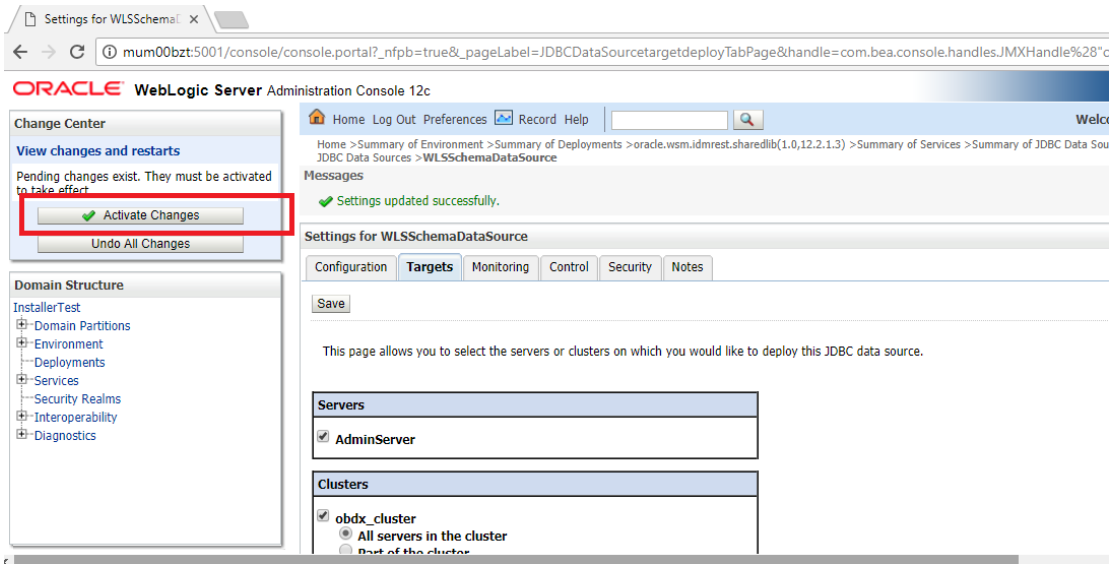
Click on **Lock & Edit**



In the Servers Box, select **AdminServer** & OBAPI **Cluster** and Click on **Save**

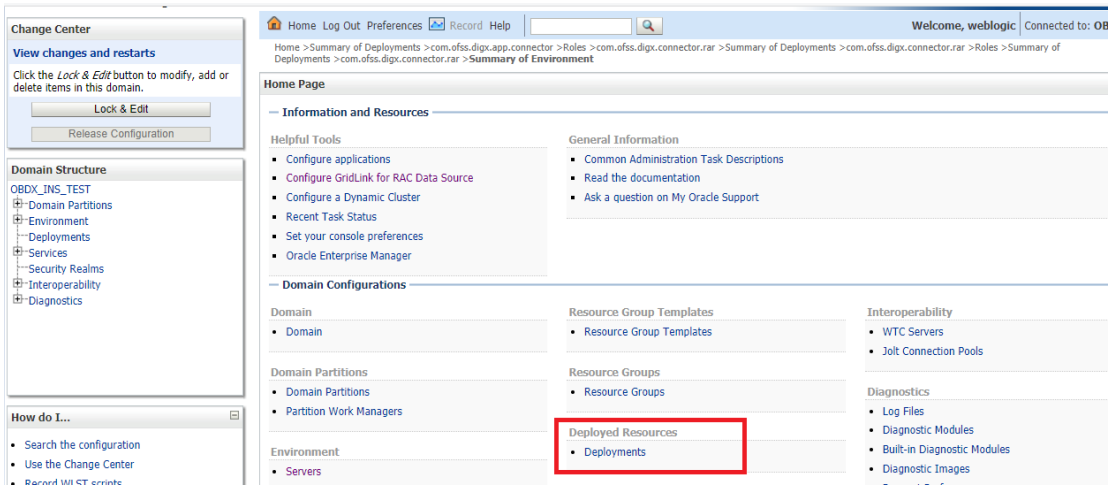


Click on **Activate Changes**



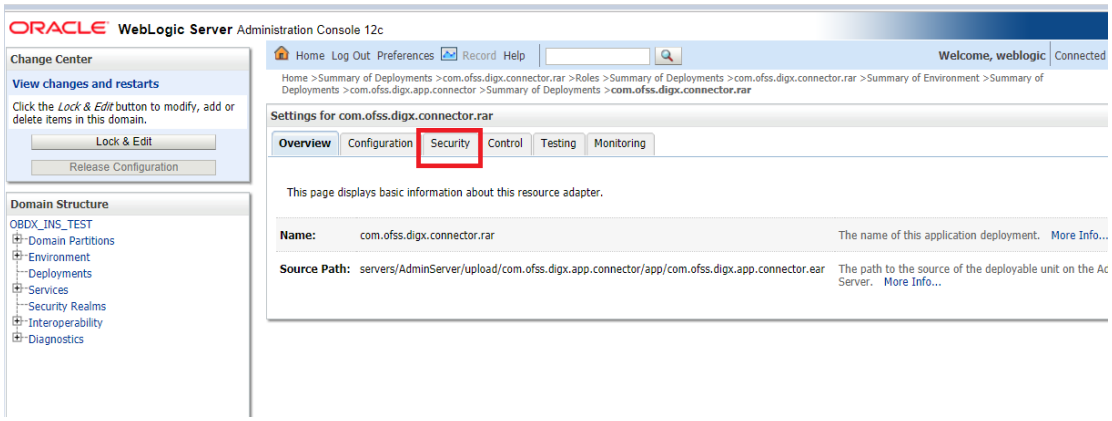
Outbound credential mappings

Login Weblogic Admin Console. Click on Deployments.

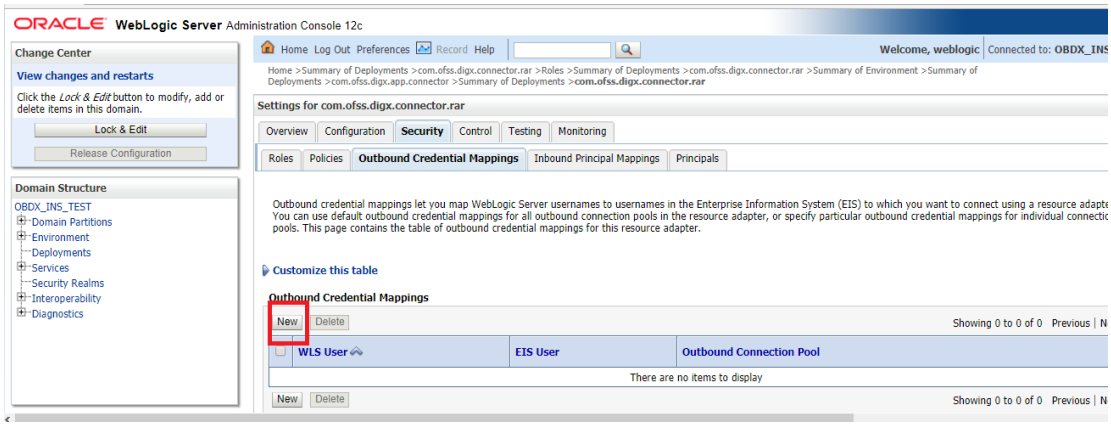


Click on com.ofss.digx.app.connector > com.ofss.digx.connector.rar

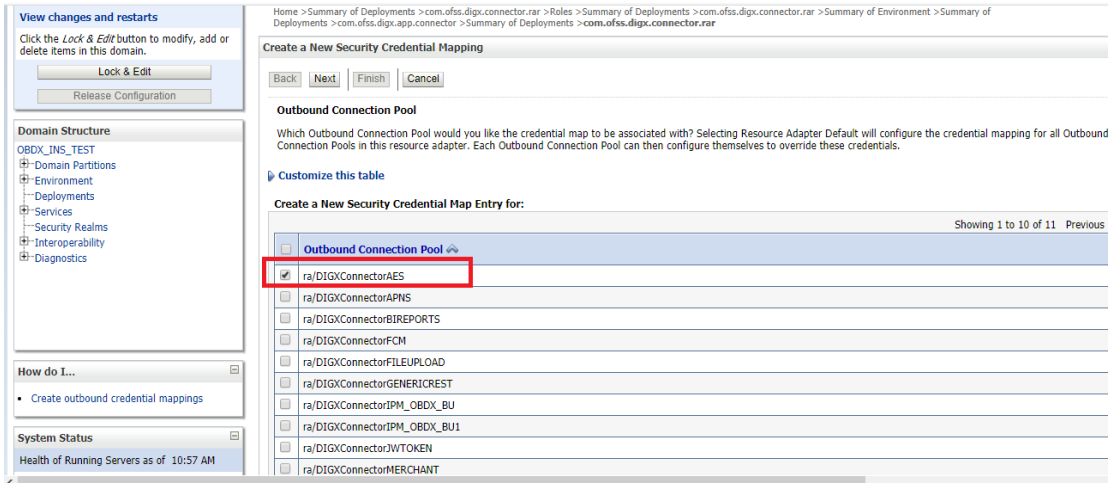
Click on **Security** Tab > **Outbound Credential Mappings**



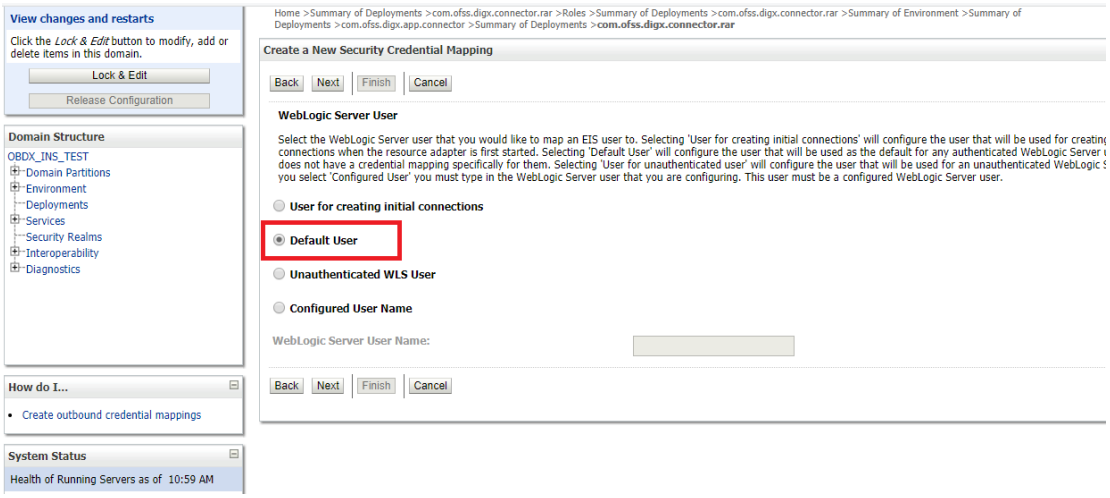
Click on **New**



Select **ra/DIGXConnectorAES > Next**

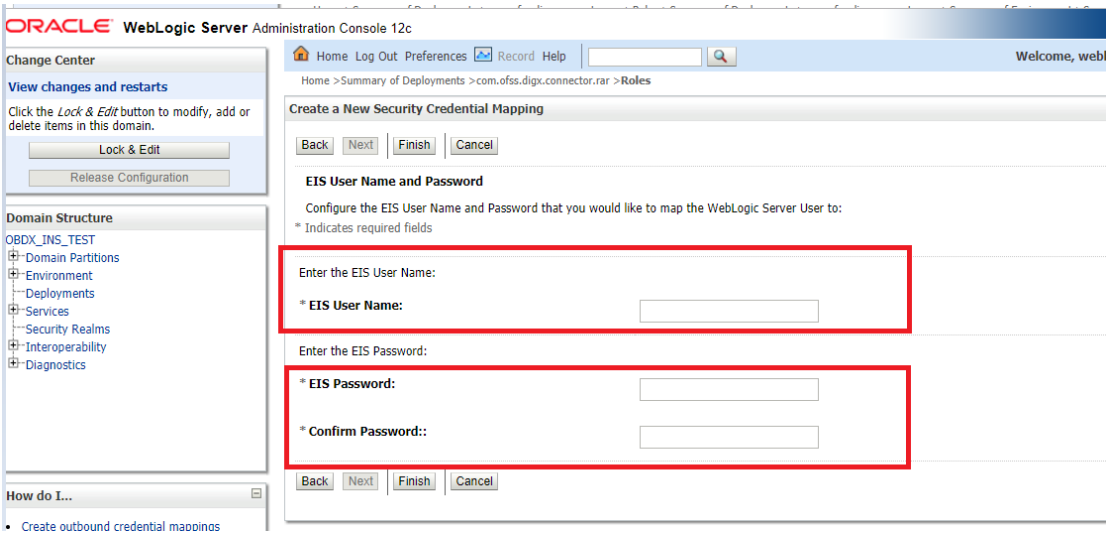


Select "**Default User**" > **Next**

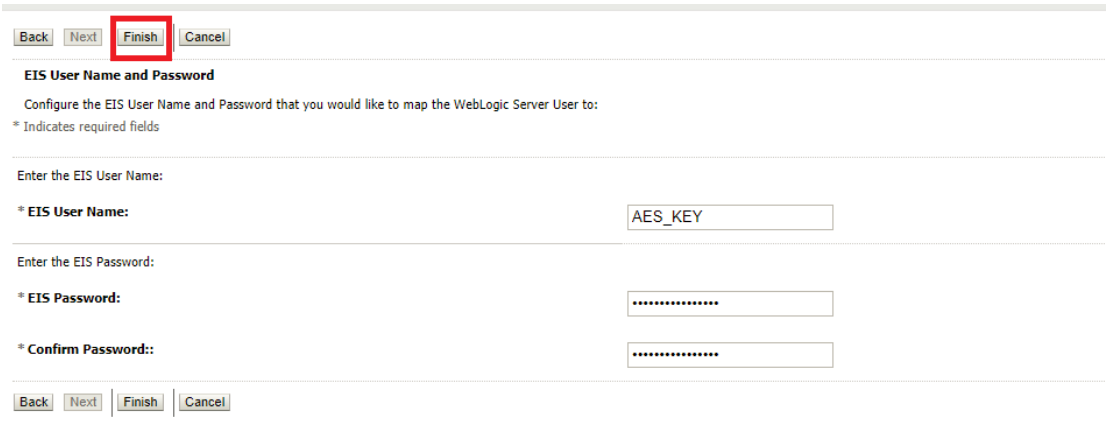


Enter "EIS User Name" should be set to AES_KEY

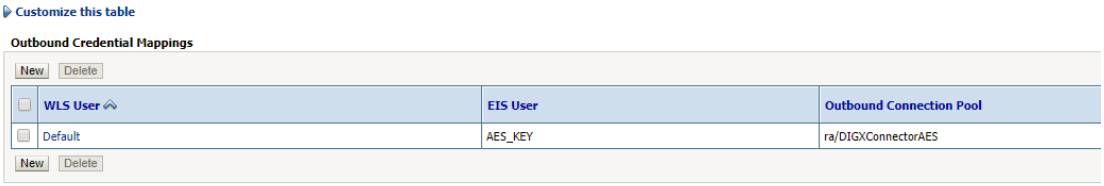
Enter "EIS Password" . Password should be any 16 characters.



Click '**Finish**'



Check AES_KEY mapping is created successfully.



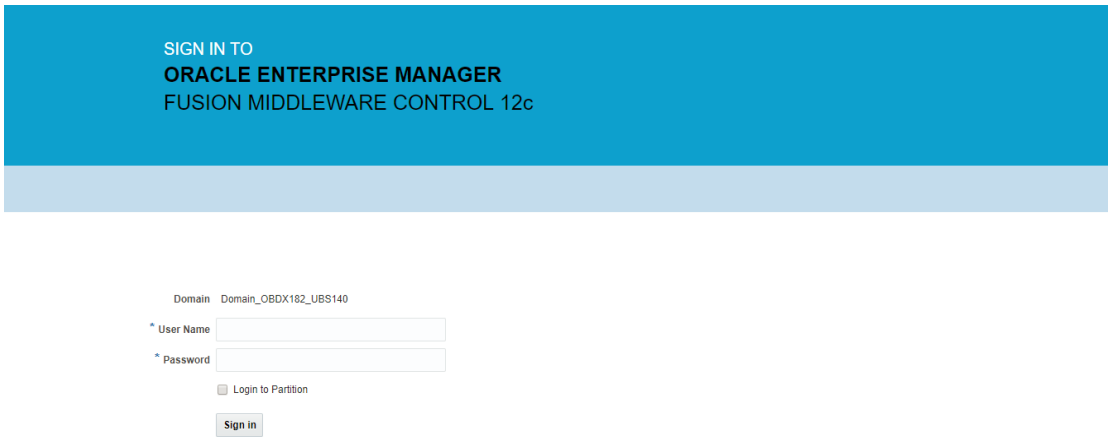
Apply JRF Template

To apply JRF template follow below steps.

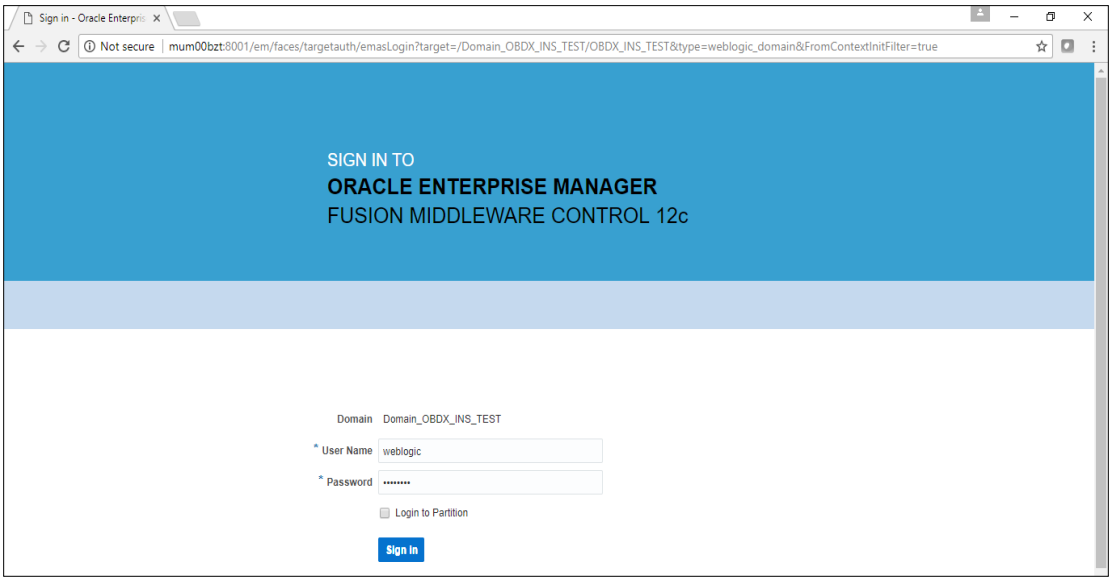
- To do this, ensure that the Admin Server is running. Login to the EM (Enterprise Manager) Console using the following URL:

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

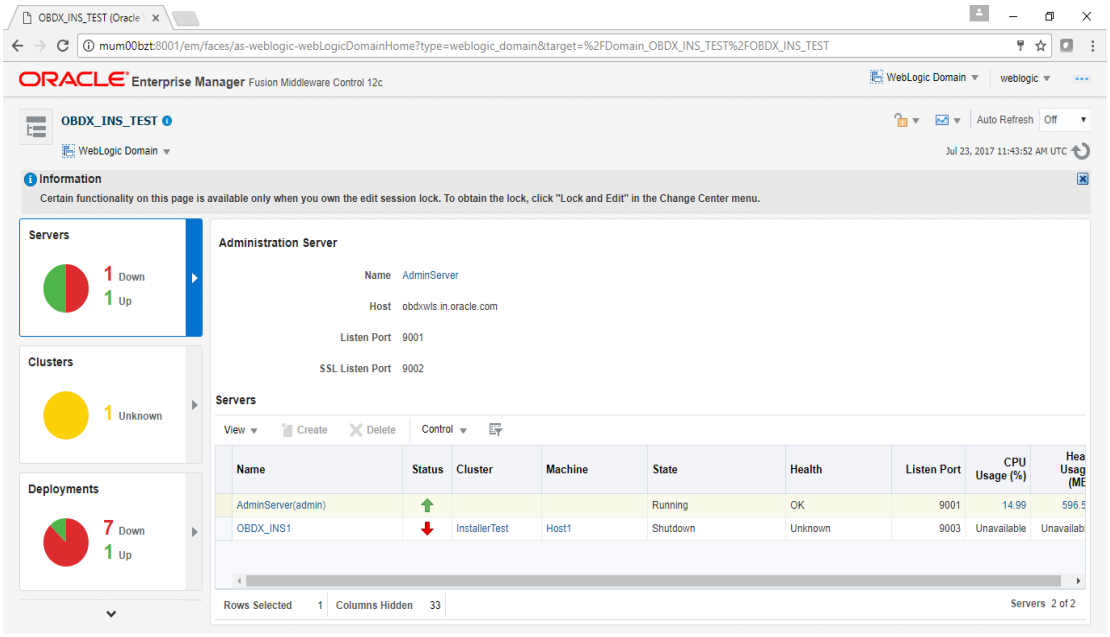
Note: EM console would be available on same hostname and port which was used for Weblogic Admin Console for OBAPI domain (created via installer), just replace the "/console" with "/em".



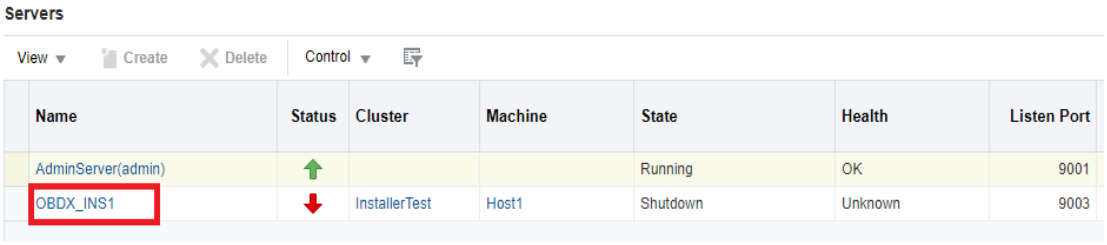
- Enter Weblogic administrator username and password (same used for Weblogic administrator console login)



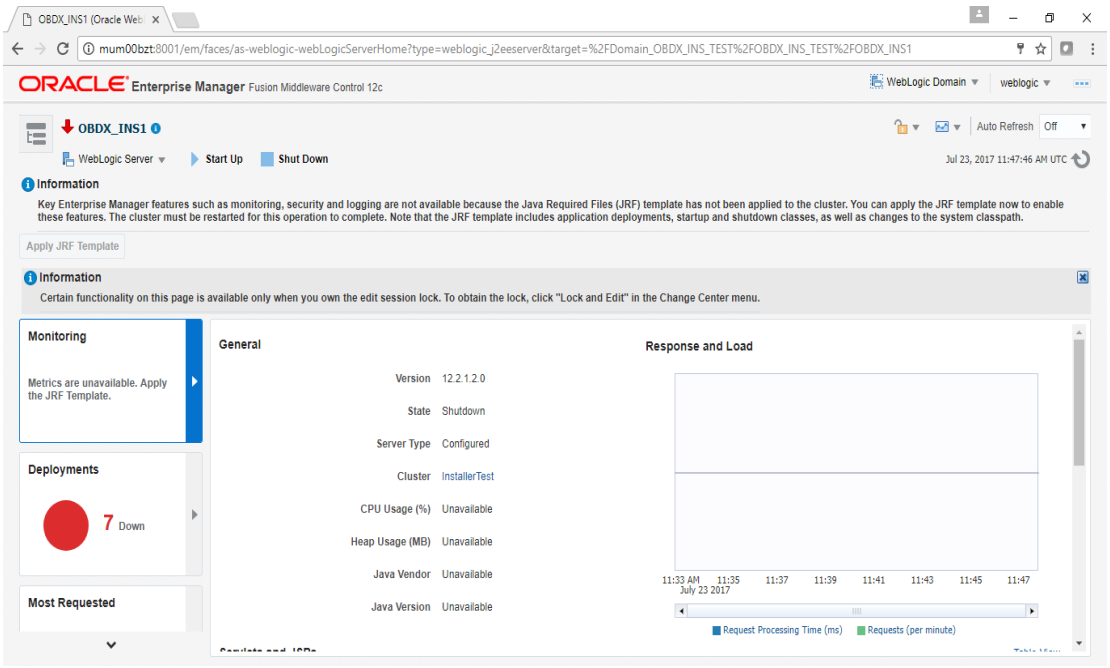
- Click on Sign In



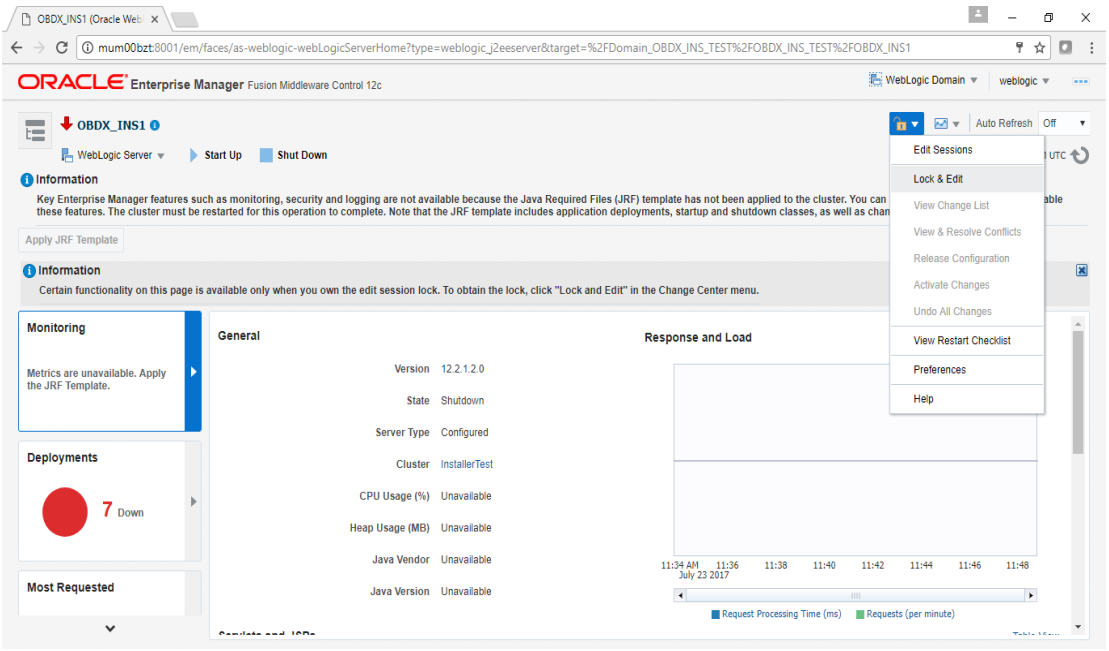
- Click on the Managed Server (as highlighted below)



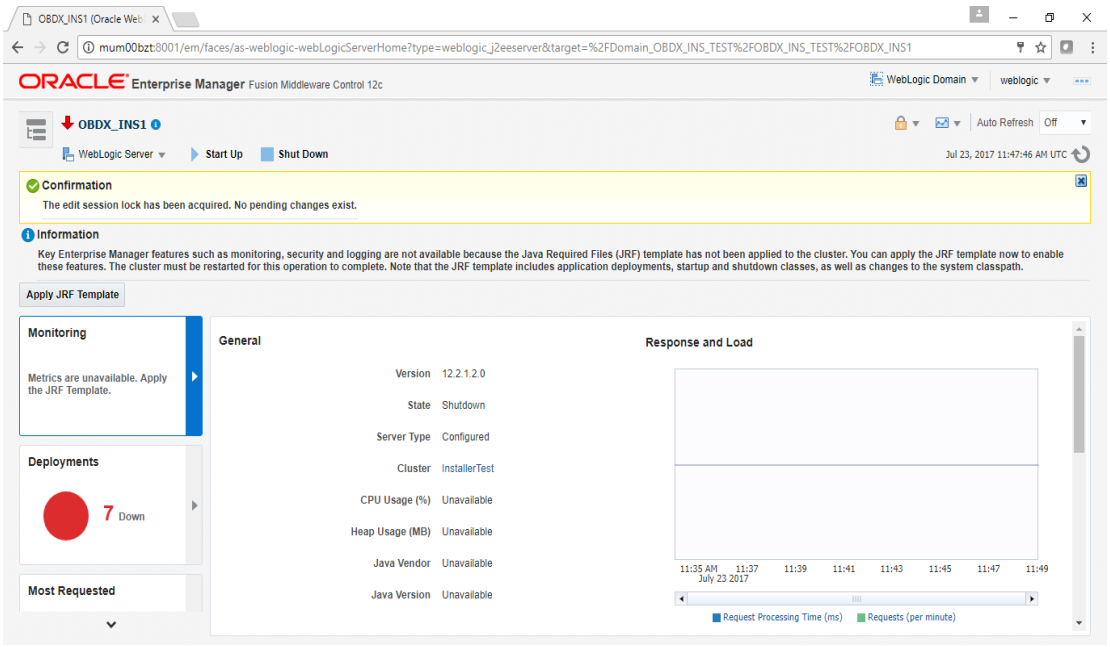
Note : Depending on installer.properties, Managed server will differ from above screenshot.



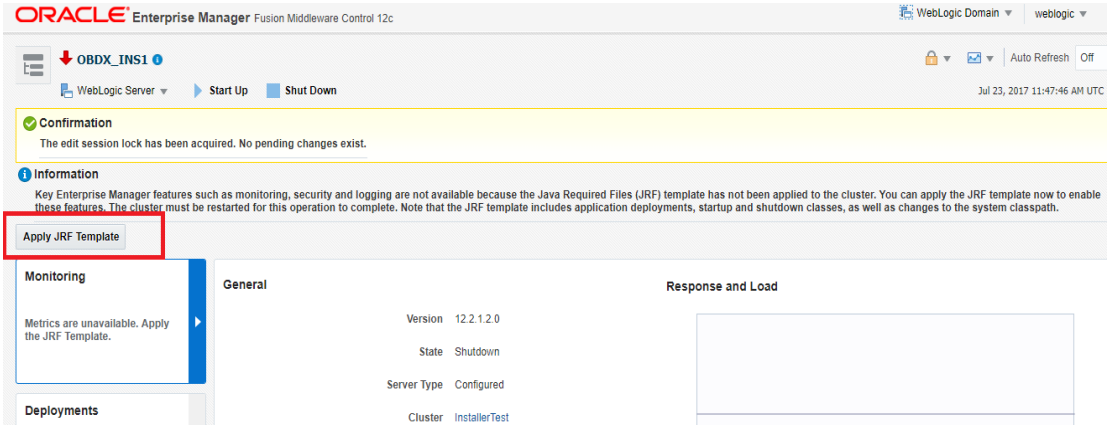
- Click on “Lock and Edit” option (as shown in screenshot).



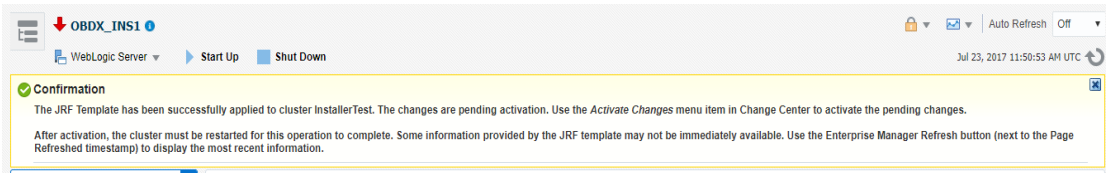
You will see below screen stating the edit session confirmation



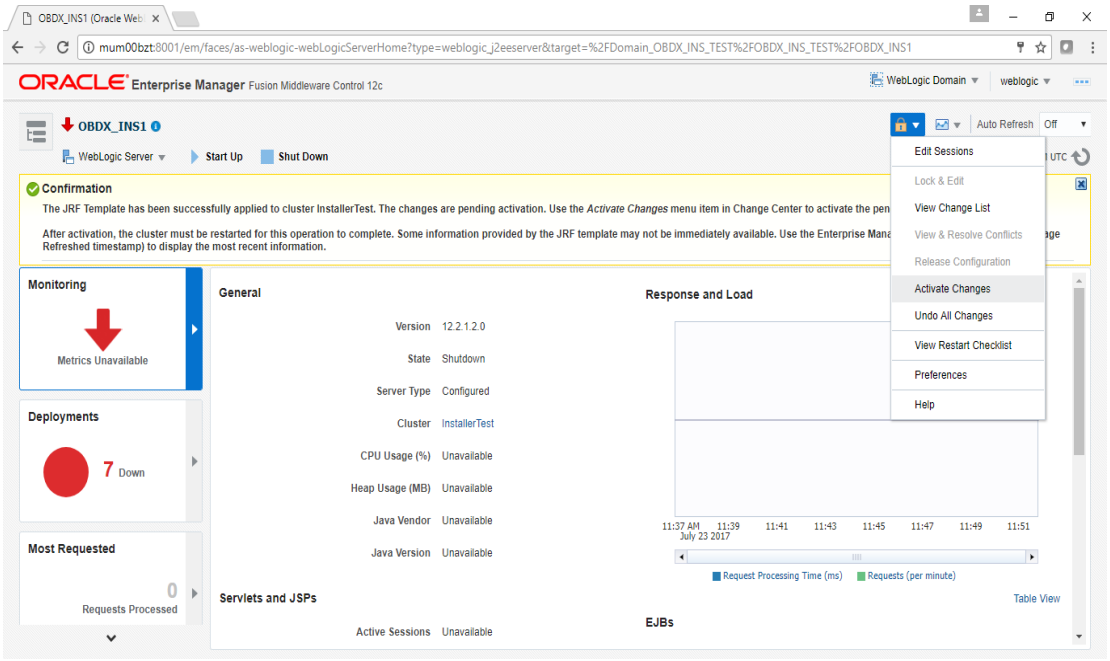
- Click on “Apply JRF Template” option (as shown in screenshot).



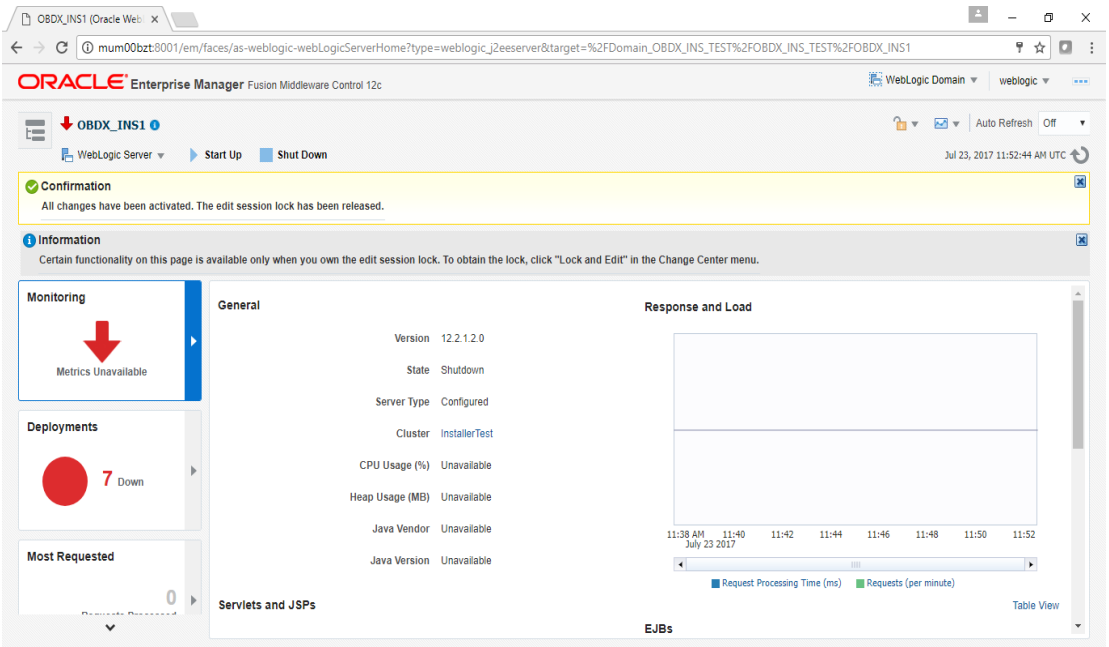
Is JRF successfully applied, you will get below Confirmation.



- Click on “Activates Changes” option (as shown in screenshot).



Post activation you will receive below Confirmation.



Configuring the Connector Credential Store

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

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

Functionality / Module	OutBound Connection Pool Name
VAM	ra/DIGXConnectorOBVAM

Configure User Lockout attributes in Weblogic

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

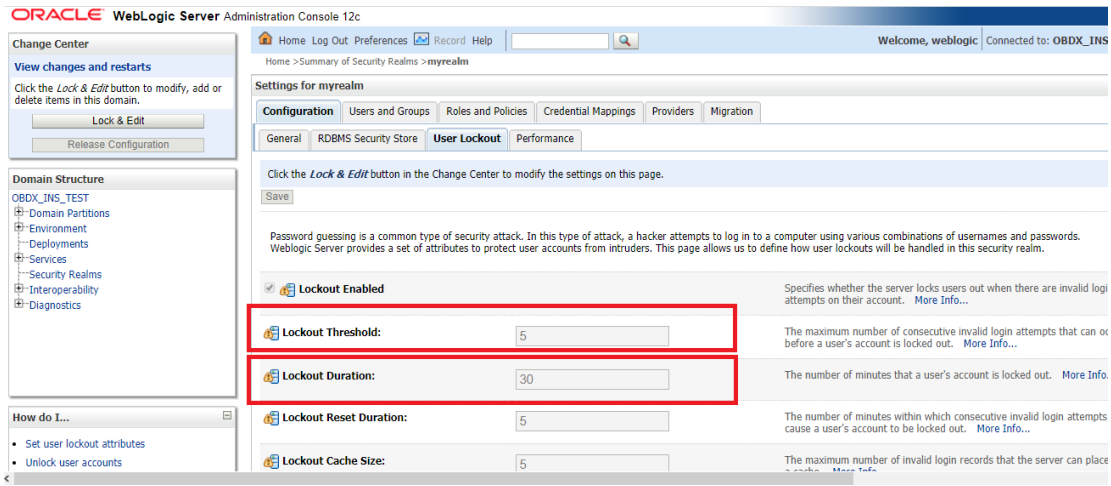
Check for below values & change accordingly.

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

2]Lockout Duration : It should be equal to property under prop_id "USER_LOCK_PERIOD" maintained in DIGX_FW_CONFIG_ALL_B table.

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

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



Save and Activate Changes

Restart AdminServer

OBAPI **Application logging**

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

```
[devops@        ~]$ cd /home/devops/domain/OBDX182_UBS140/config/fmwconfig/servers/OBDX_UBS141/
[devops@        OBDX_UBS141]$ ls -ltr
total 36
drwxr-x--- 2 devops devops  4096 Jul  4 06:33 diagnostics-registration
drwxr-x--- 2 devops devops  4096 Jul  4 06:33 mbeans
-rw-r----- 1 devops devops  2286 Jul  4 06:33 dms_config.xml
drwxr-x--- 2 devops devops  4096 Jul  4 06:33 dfw
-rw-r----- 1 devops devops  1796 Jul  4 06:33 dfw_config.xml
-rw-r----- 1 devops devops 11250 Jul  4 06:33 logging.xml
-rw-r----- 1 devops devops   109 Jul  4 06:35 loggers.exclude
[devops@        OBDX_UBS141]$
```

Open logging.xml and make a new entry under <log_handlers> tag using below code template:

<log_handler name='obapi-handler' level='**<LOGLEVEL>**'
class='oracle.core.ojdl.logging.ODLHandlerFactory'>

<property name='path' value='**<path for OBAPI log>/<OBAPI log filename>**' />

<property name='maxFileSize' value='**<The maximum size in bytes for each log file>**' />

<property name='maxLogSize' value='**<The maximum size in bytes for the entire log>**' />

<property name='encoding' value='**<encoding>**' />

<property name='useThreadName' value='true' />

<property name='supplementalAttributes' value='**<supplementalAttributes>**' />

</log_handler>

Below is a sample implementation for log_handlers file.

<log_handler name='obapi-handler' level='ERROR' class='oracle.core.ojdl.logging.ODLHandlerFactory'>

<property name='path' value='${domain.home}/servers/${weblogic.Name}/logs/obapi.log' />

<property name='maxFileSize' value='10485760' />

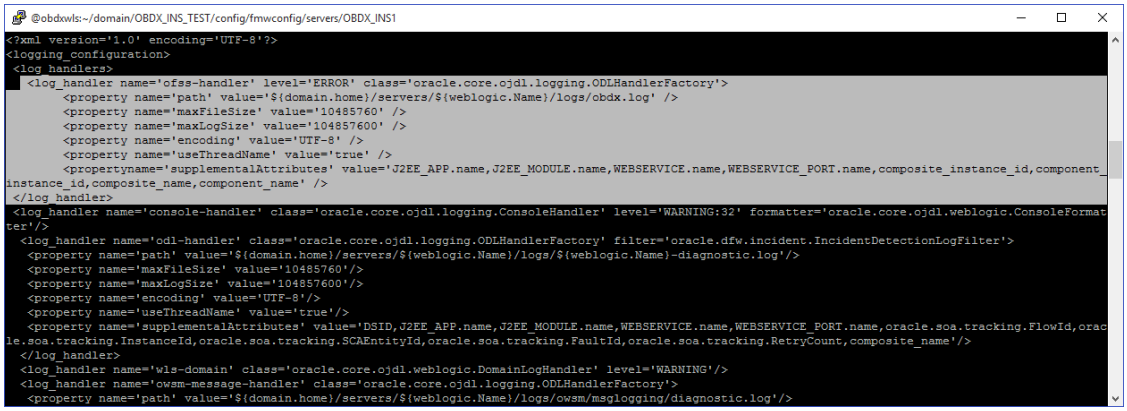
<property name='maxLogSize' value='104857600' />

<property name='encoding' value='UTF-8' />

<property name='useThreadName' value='true' />

<property name='supplementalAttributes'
value='J2EE_APP.name,J2EE_MODULE.name,WEBSERVICE.name,WEBSERVICE_PORT.name,composite_instance_id,component_instance_id,composite_name,component_name' />

</log_handler>



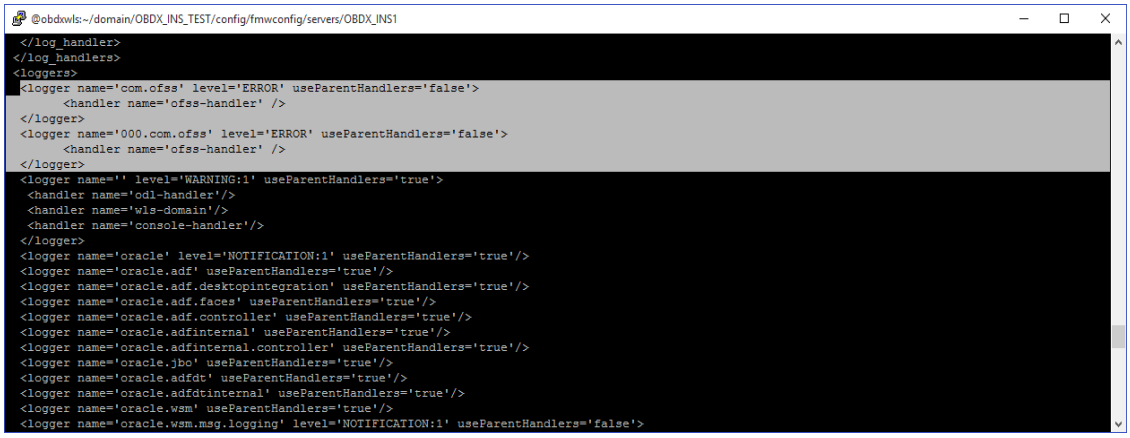
Add loggers under <loggers> tag using below template:

<logger name='com.ofss' level='ERROR' useParentHandlers='false'>
<handler name='obapi-handler' />
</logger>
<logger name='#BANKCODE#.com.ofss' level='ERROR' useParentHandlers='false'>
<handler name='obapi-handler' />
</logger>

Note: Replace the #BANKCODE# with bank code.

Below is a sample implementation for loggers file

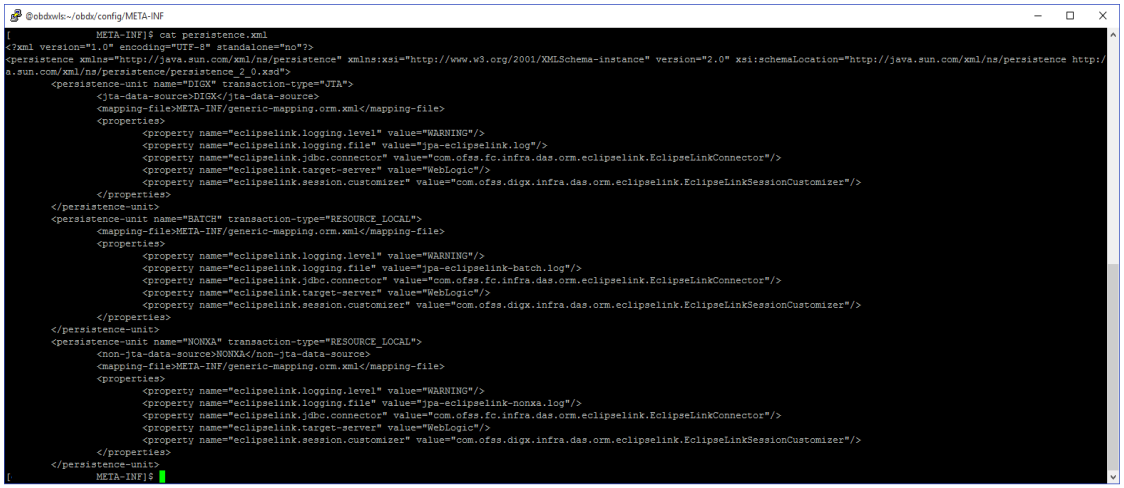
<logger name='com.ofss' level='ERROR' useParentHandlers='false'>
<handler name='obapi-handler' />
</logger>
<logger name='000.com.ofss' level='ERROR' useParentHandlers='false'>
<handler name='obapi-handler' />
</logger>



Eclipselink logging

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

https://wiki.eclipse.org/EclipseLink/Examples/JPA/Logging



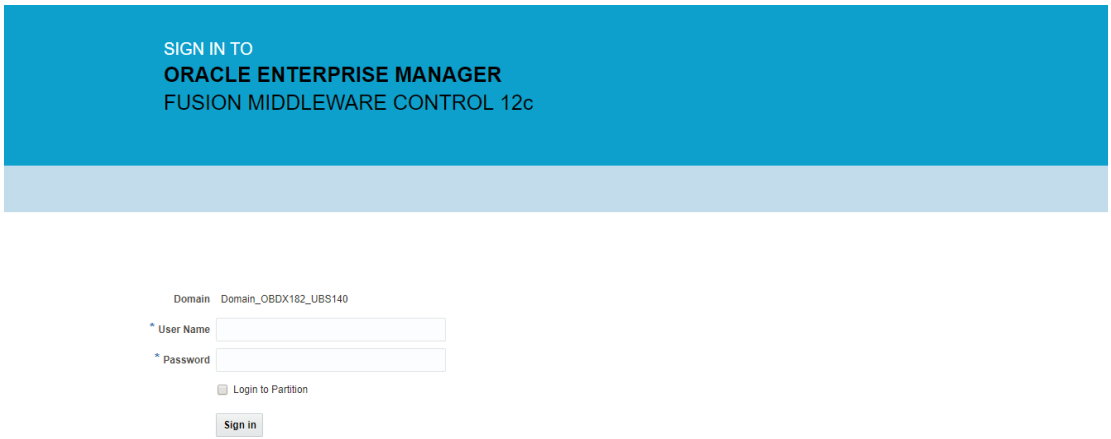
Change logging level during runtime

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

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

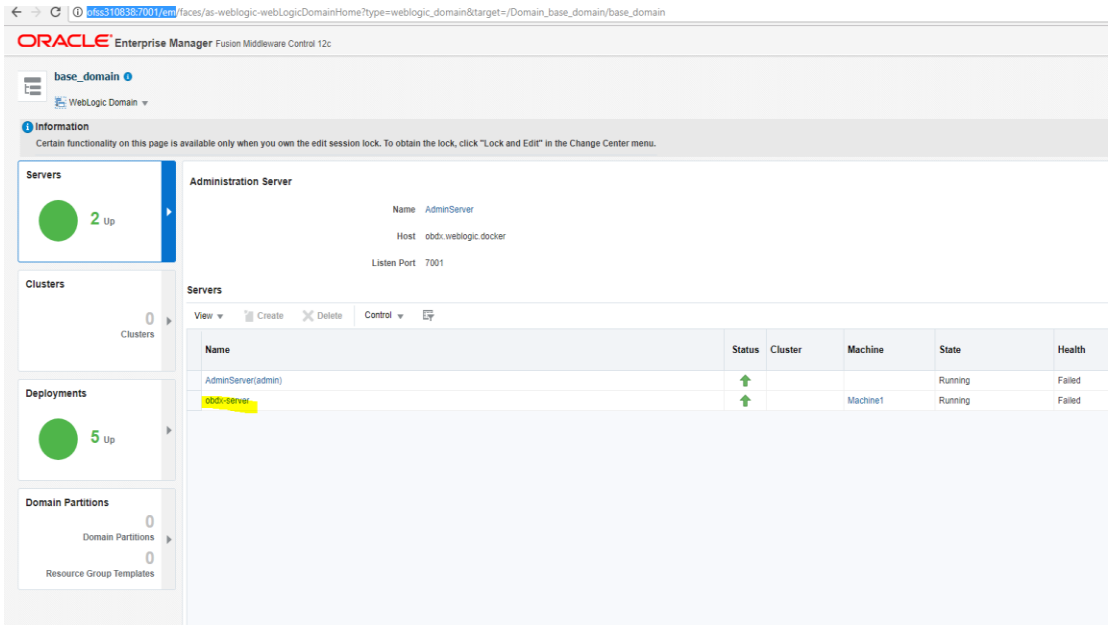
http://<hostname>:<admin_port>/em

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

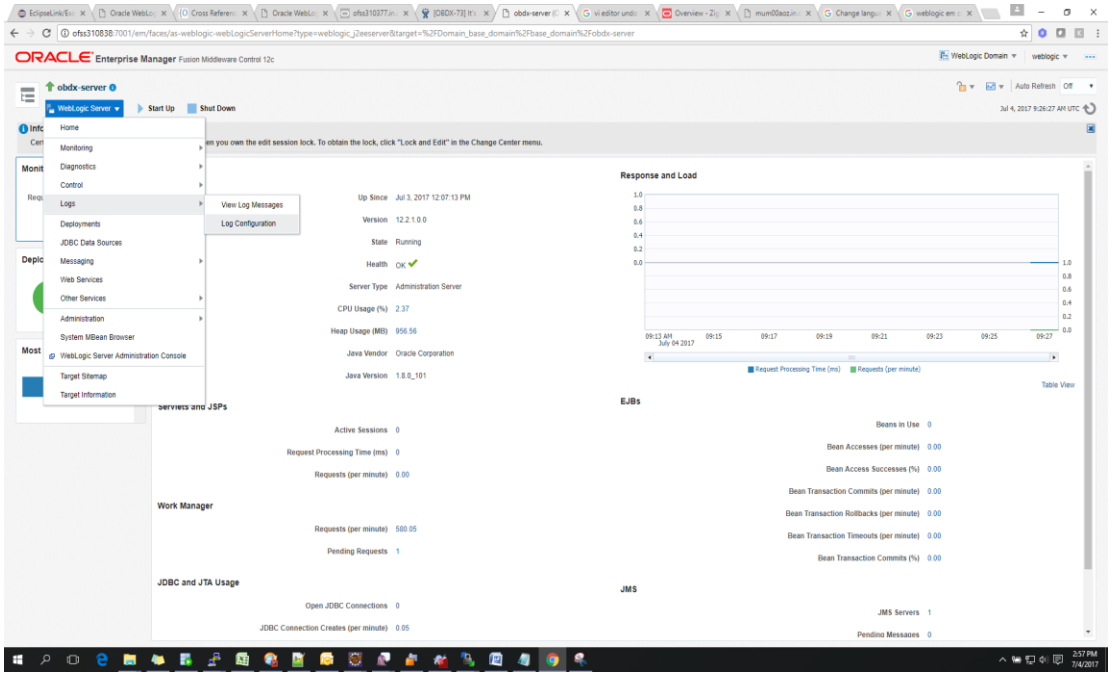


- Click on obapi-server

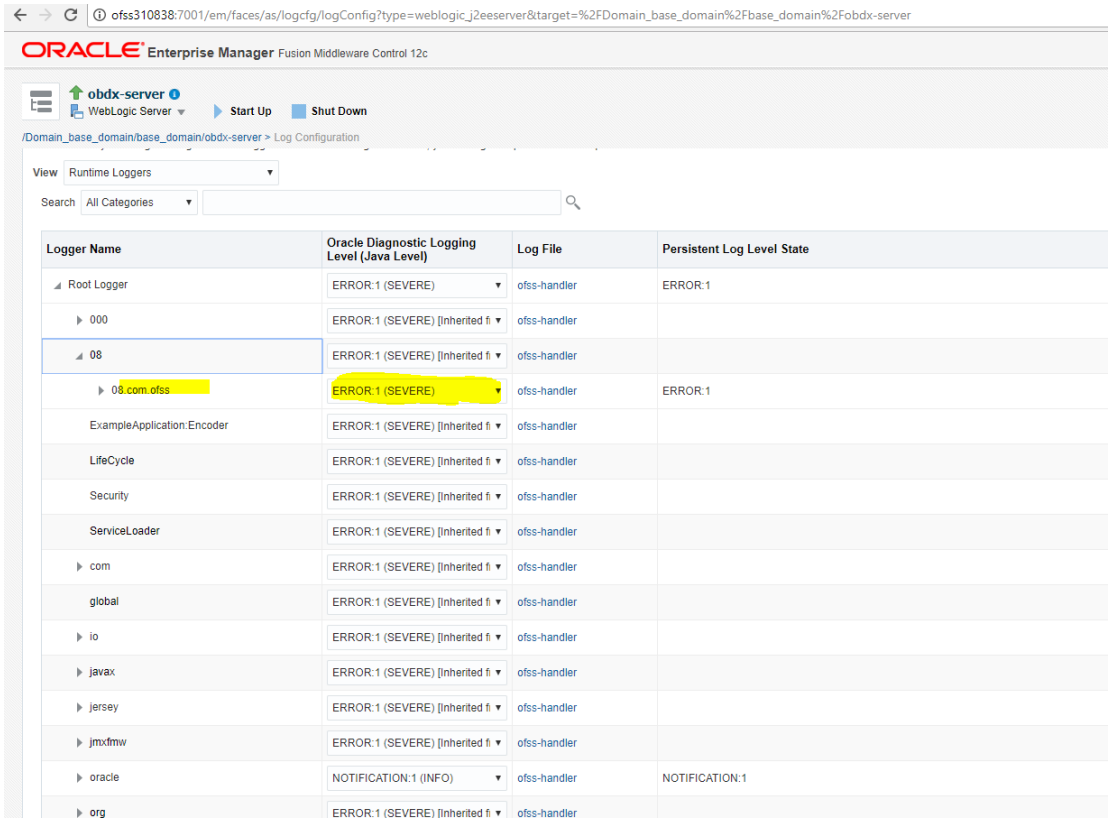
Note : Depending on installer.properties, Managed server will differ from above screenshot.



- In Weblogic Domain menu click on Logs -> Logs Configurations



- Select the logger and change the logging level and then click on apply.



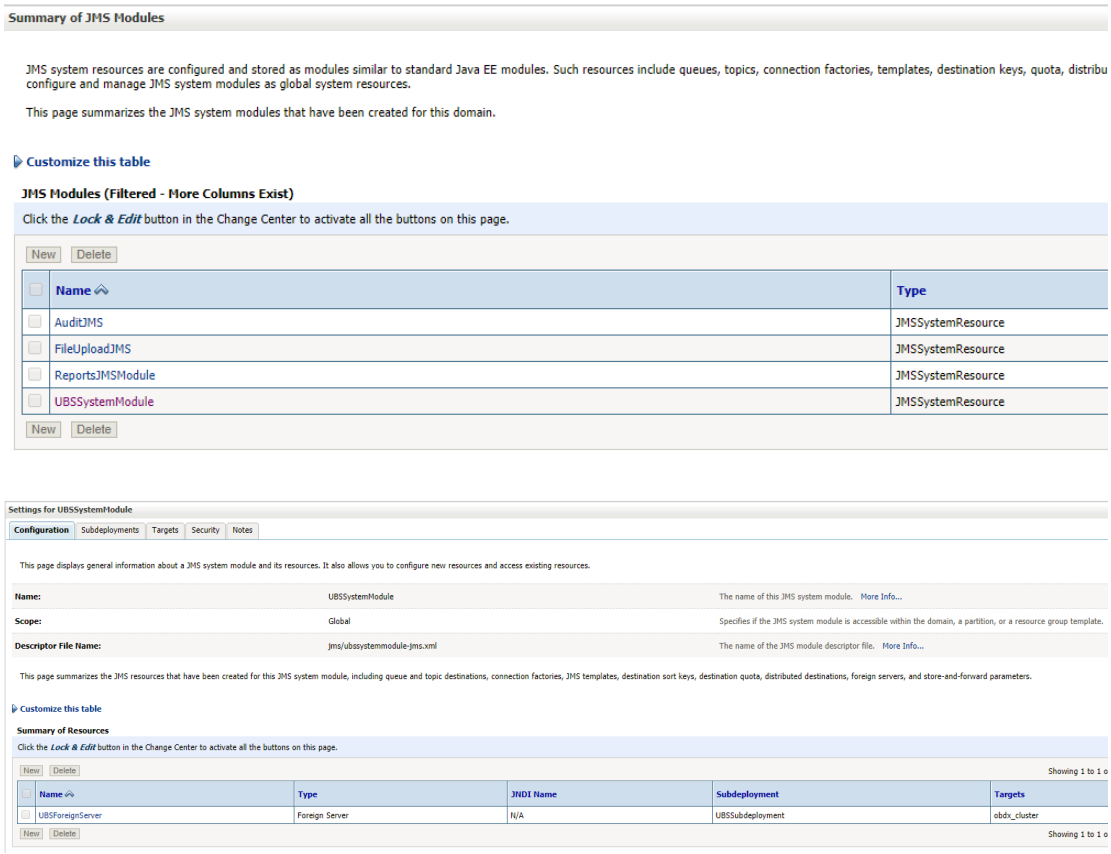
Note : Logger name should be defined in logging.xml.

Oracle FLEXCUBE Universal Banking (OBAPI with UBS)

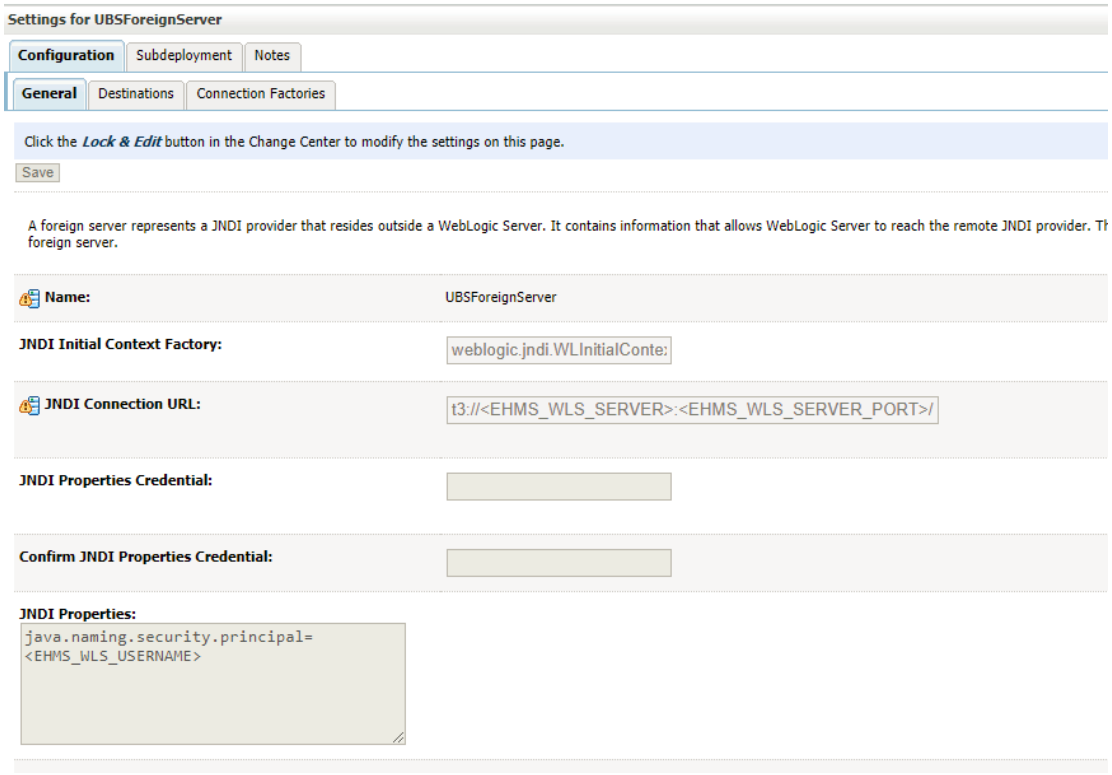
If during installer execution Oracle FLEXCUBE Universal Banking (OBAPI with UBS) is selected, then below steps needs to be done manually.

Foreign Server

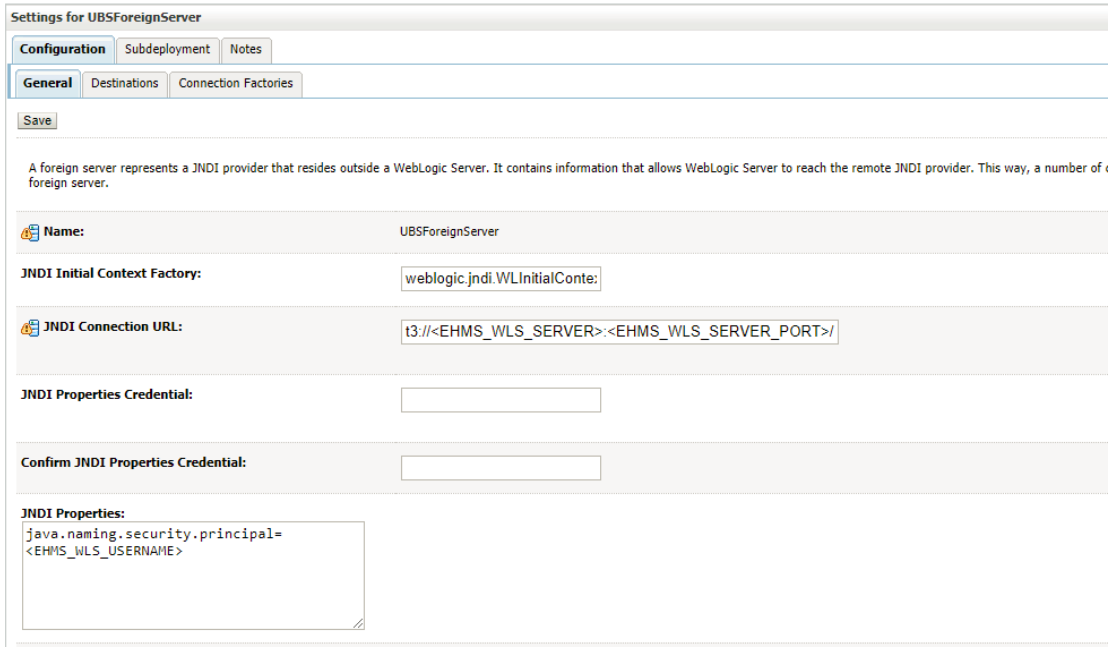
- Login into Weblogic Admin console (OBAPI domain created using installer) and Browse to Summary of JMS Modules > UBSSystemModule (as shown below)



- Click on UBSForeignServer



- Click on Lock & Edit



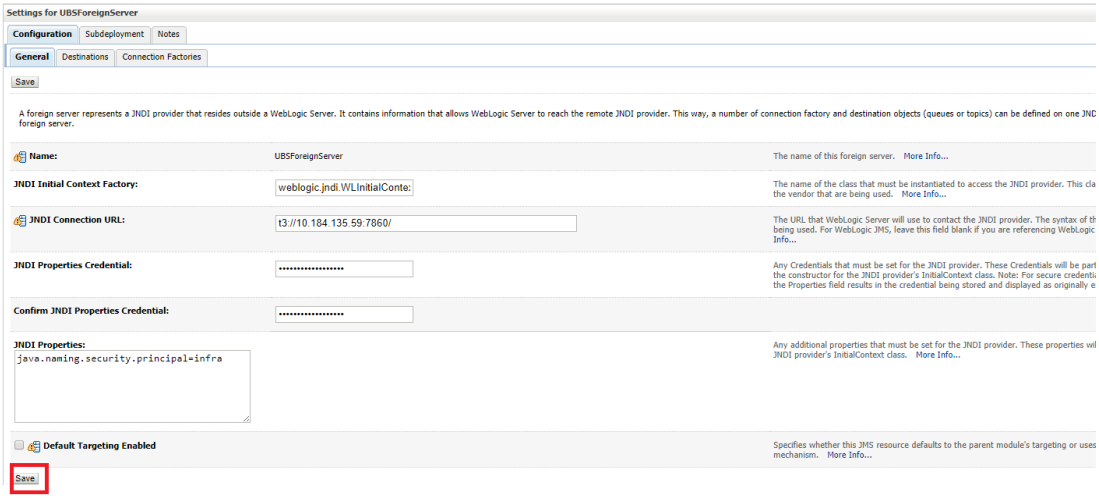
Set below configurations with:

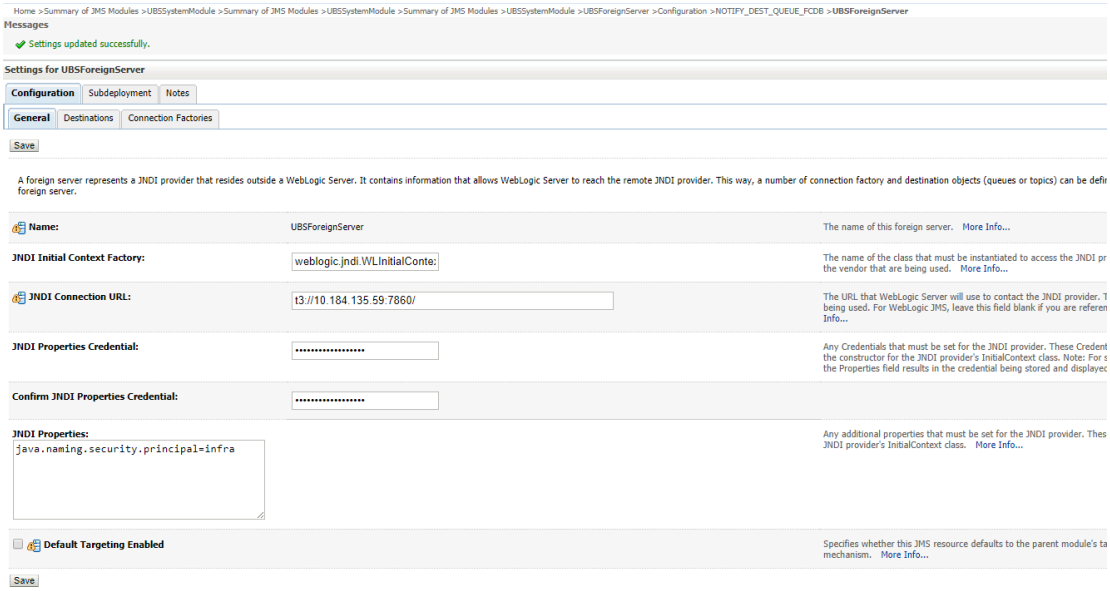
JNDI Connection URL –Replace <EHMS_WLS_SERVER> with hostname or IP address of UBS HOST Weblogic server and <EHMS_WLS_SERVER_PORT> with port number of UBS HOST Weblogic Managed server (where NOTIFY_DEST_QUEUE and NOTIFY_DEST_QUEUE_FCDB are mapped).
JNDI Properties Credential – Password for username set in JNDI properties

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

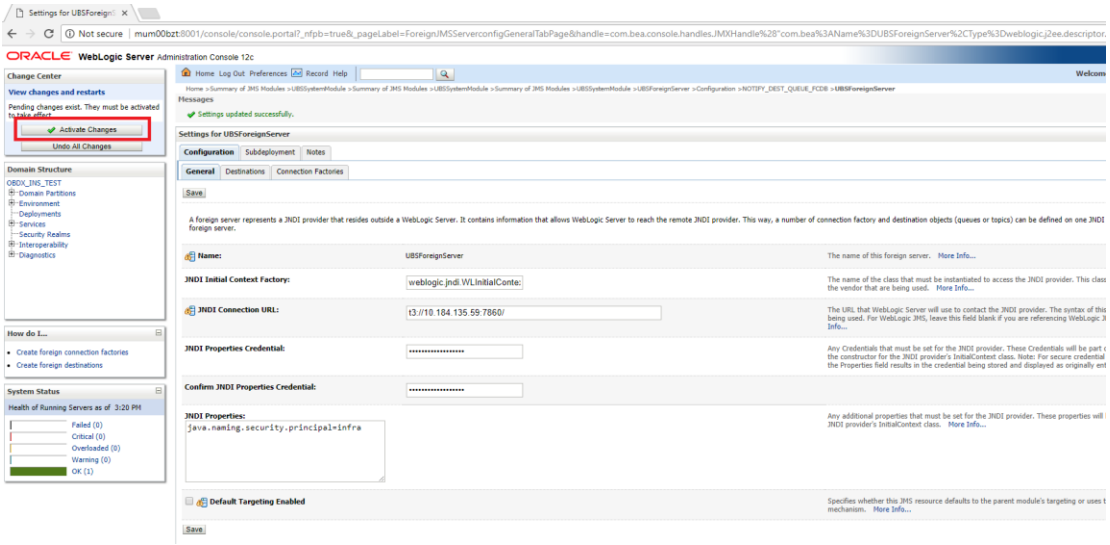
JNDI Properties – Value to be set as "java.naming.security.principal=<EHMS_WLS_USERNAME>", where
username is the login user of UBS Weblogic Admin Console (user which created the primary local queues for UBS).

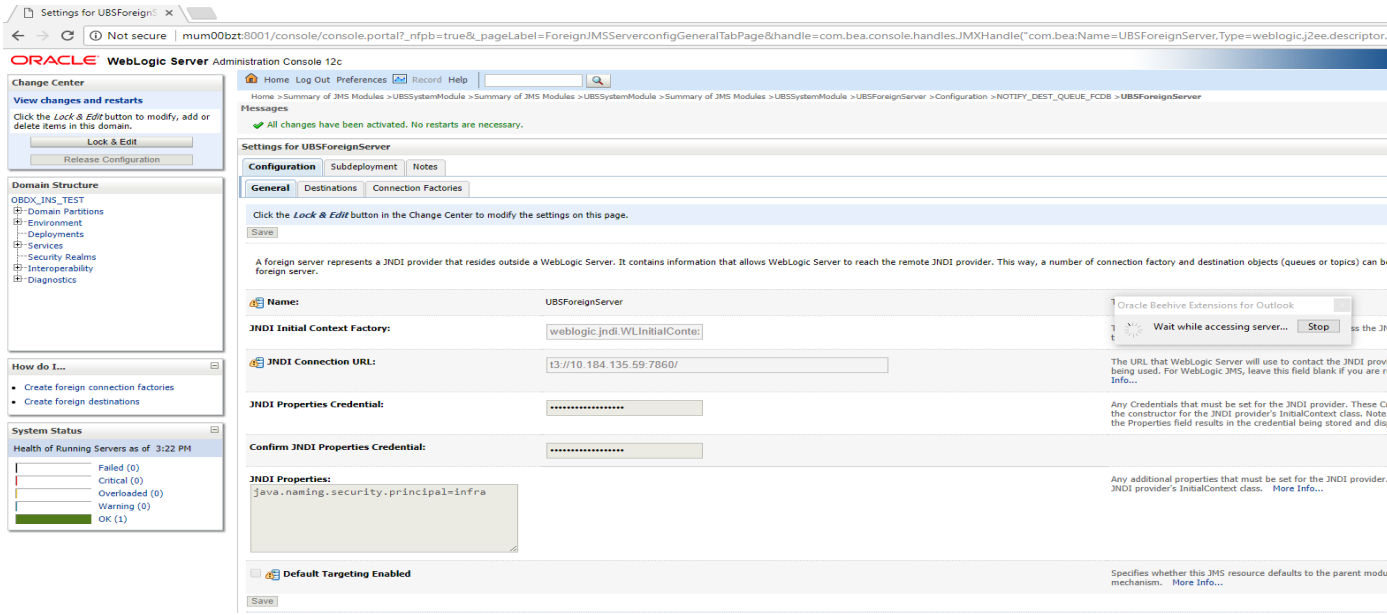
- Click on Save





- Click on Activate Changes

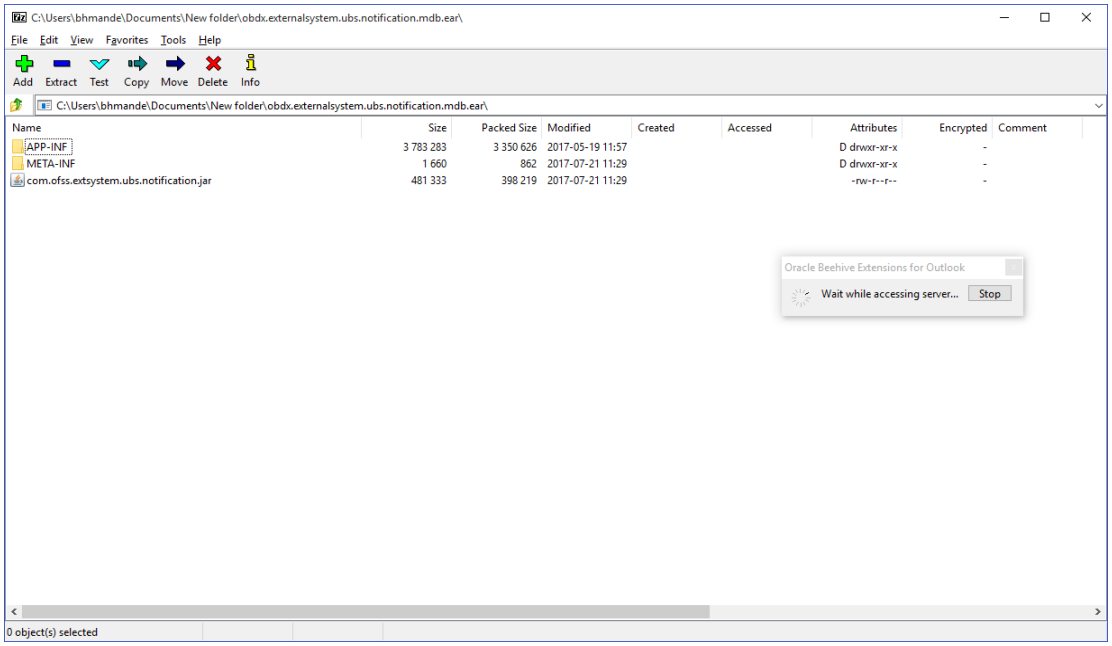




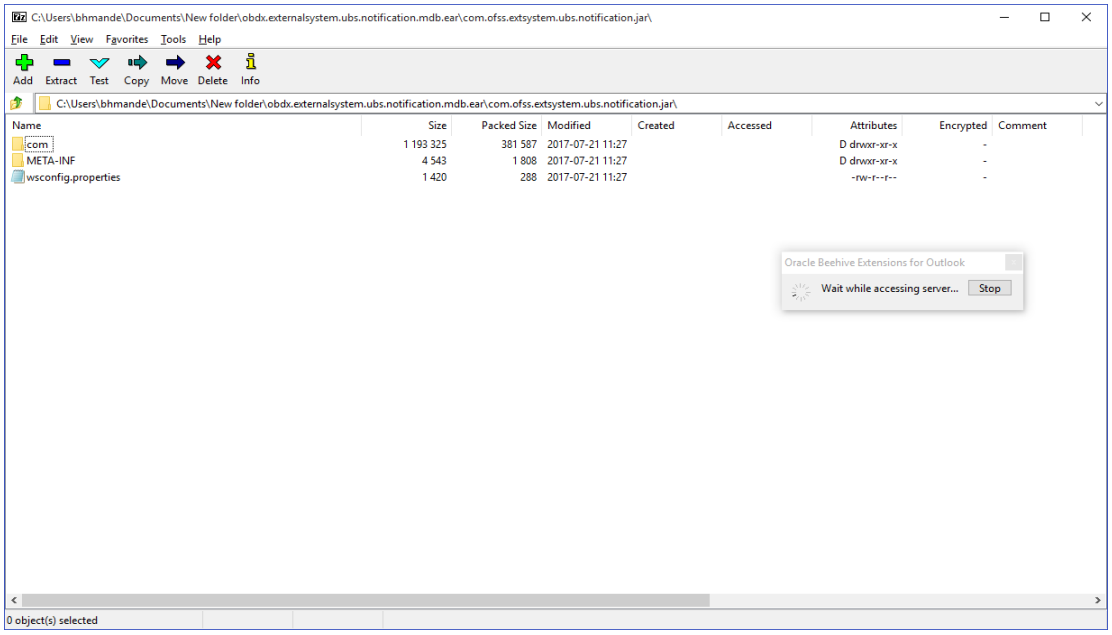
Deployment of notification MDB application

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

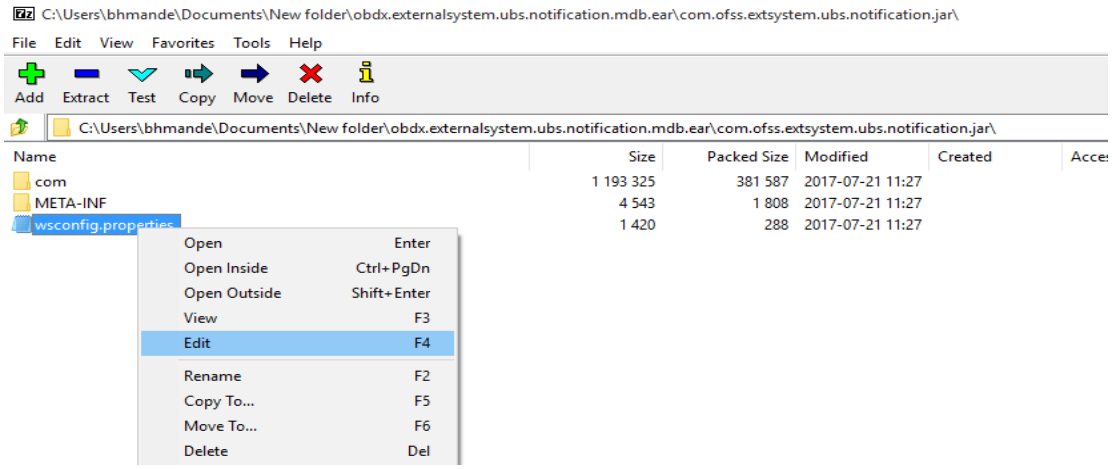
- Open the obapi.externalsystem.ubs.notification.mdb.ear (EAR file is available <OBAPI INSTALLER DIR>/installables/app/components/ubs/deploy/obapi.externalsystem.ubs.notification.mdb.ear) using any archiving tools (i.e.: 7-zip)

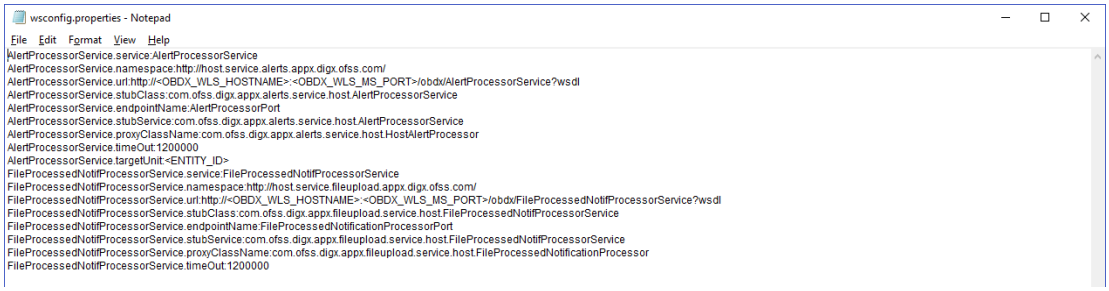


- Double click on com.ofss.extsystem.ubs.notification.jar

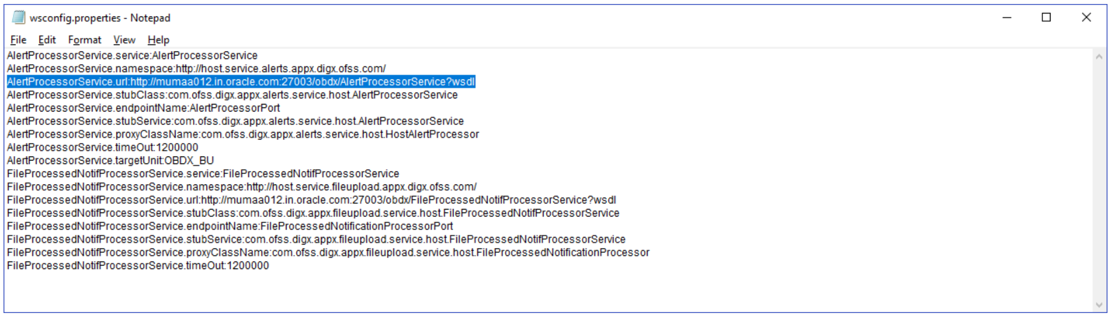


- Open the wsconfig.properties to edit

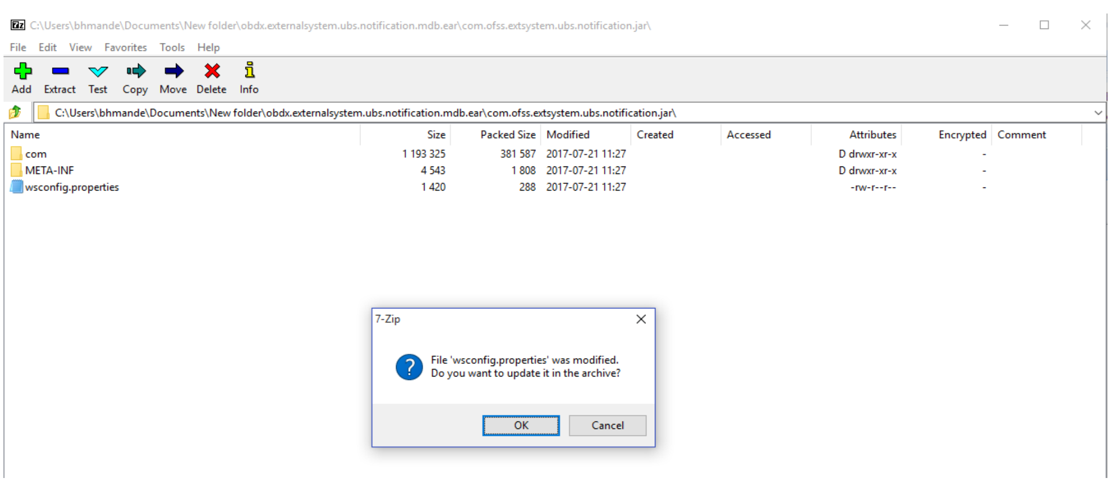




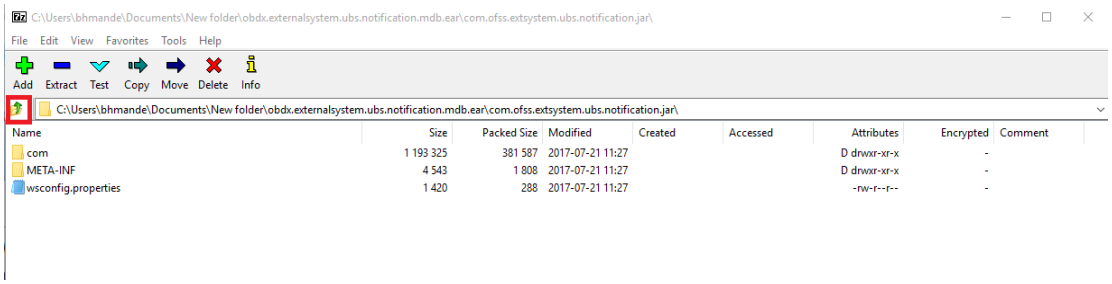
- Change the URL for AlertProcessorService.url,FileProcessedNotifProcessorService.url and AlertProcessorService.targetUnit(Note the hostname and port should be of OBAPI managed server created by installer. Entity ID should be OBDX_BU for Base entity)



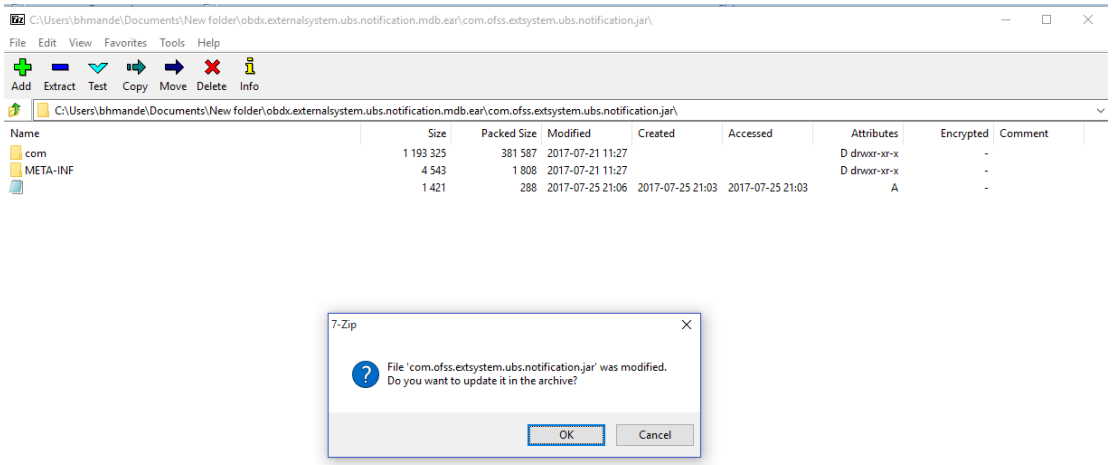
- Save changes.
- Click OK.

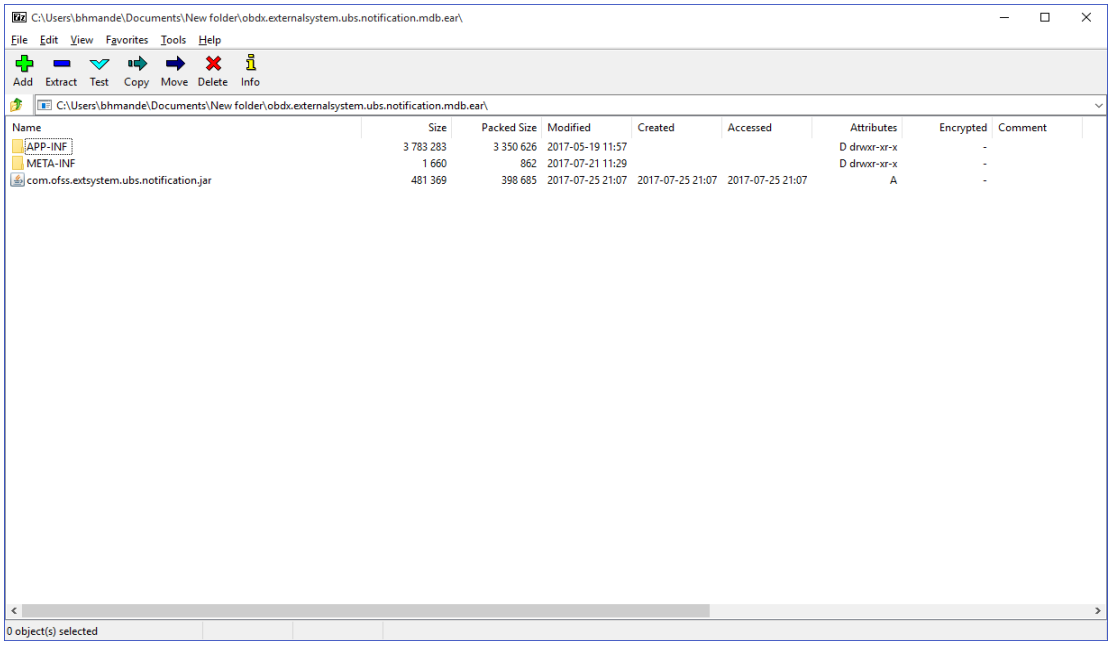


- Navigate back to obapi.externalsystem.ubs.notification.mdb.ear



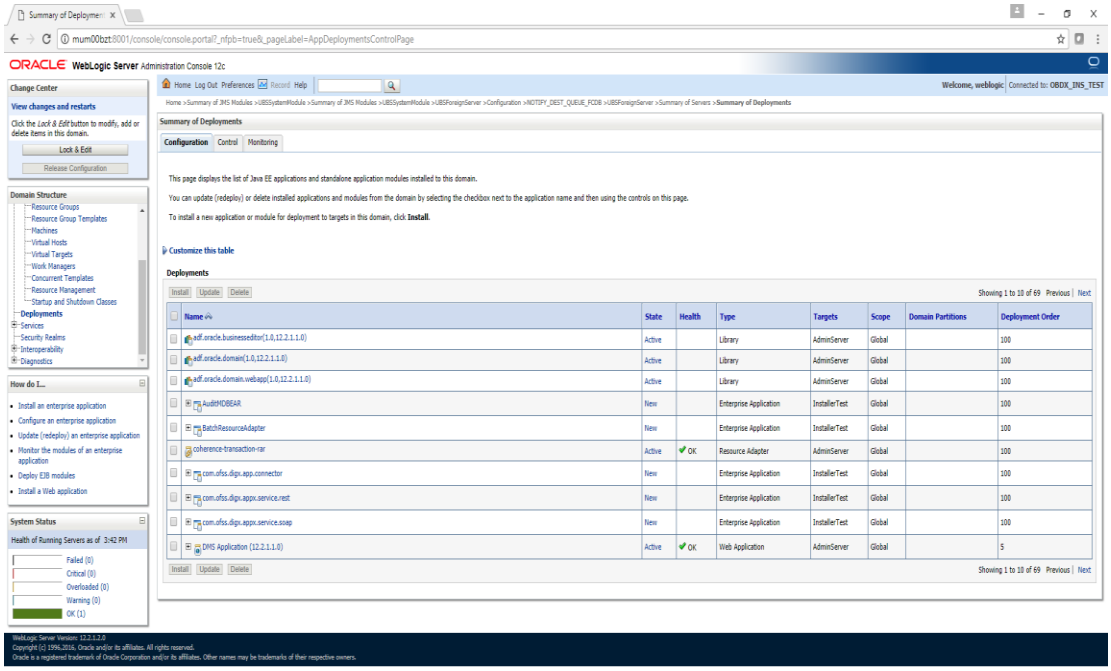
- Click OK



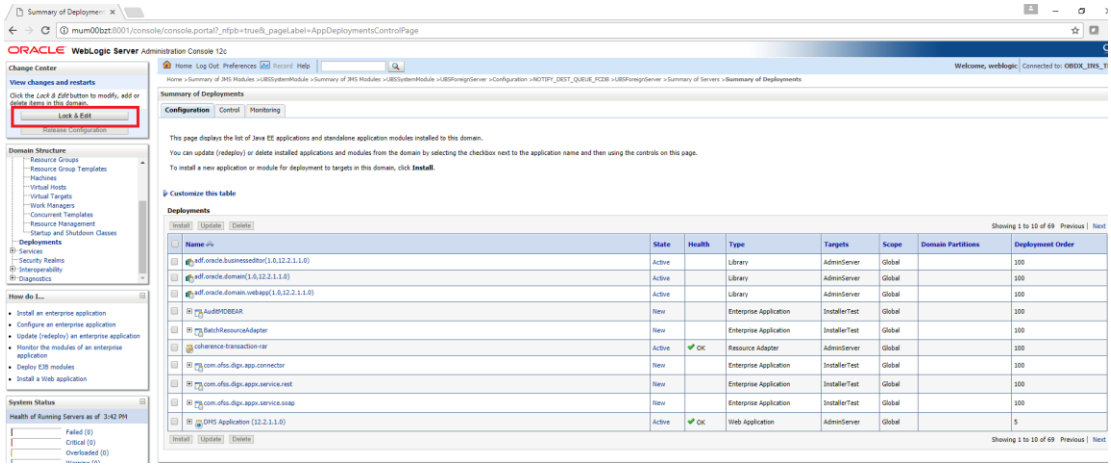


Deploy the updated obapi.externalsystem.ubs.notification.mdb.ear using below steps.

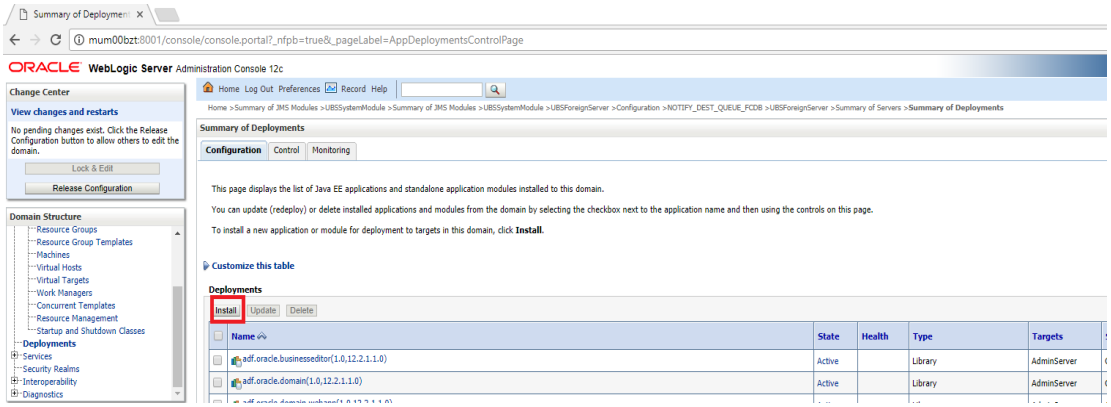
- Login into Weblogic Admin Console (OBAPI domain created using installer) and navigate to Deployments



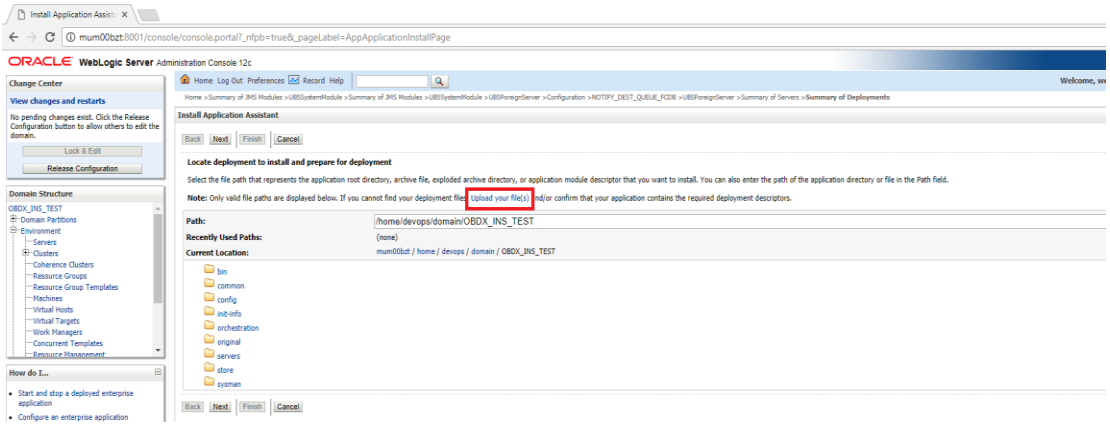
- Click Lock & Edit



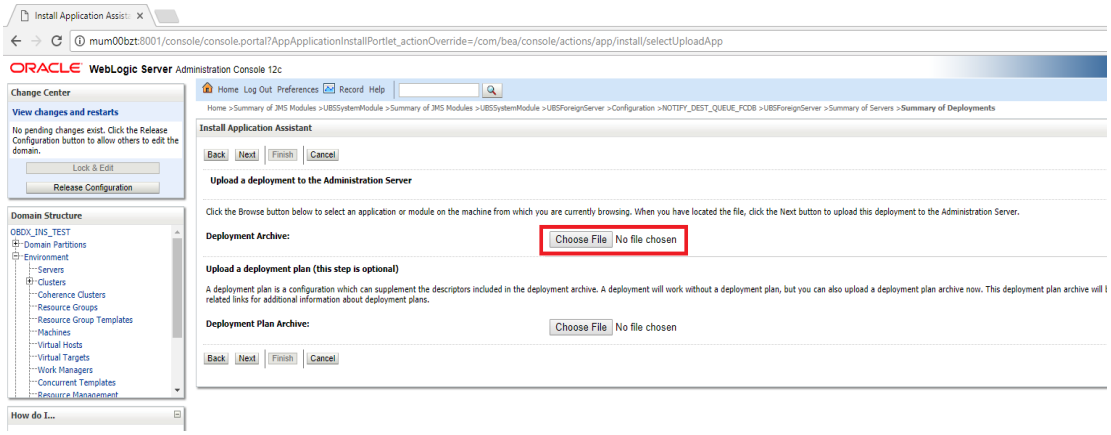
- Click on Install



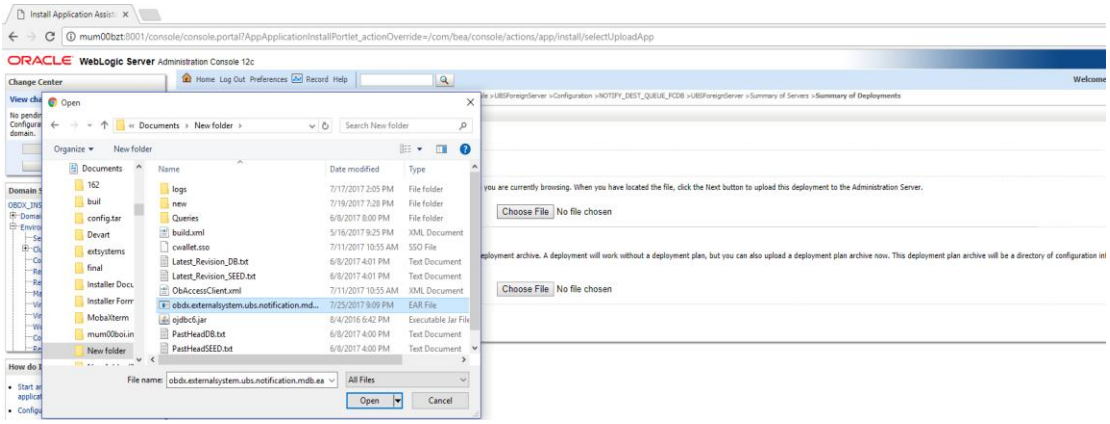
- Click on Upload your file(s)



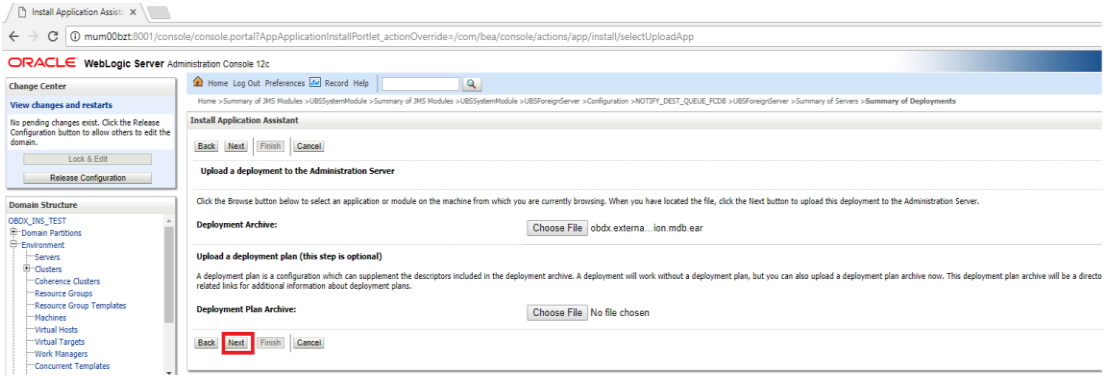
- Click on Choose File under Deployment Archive



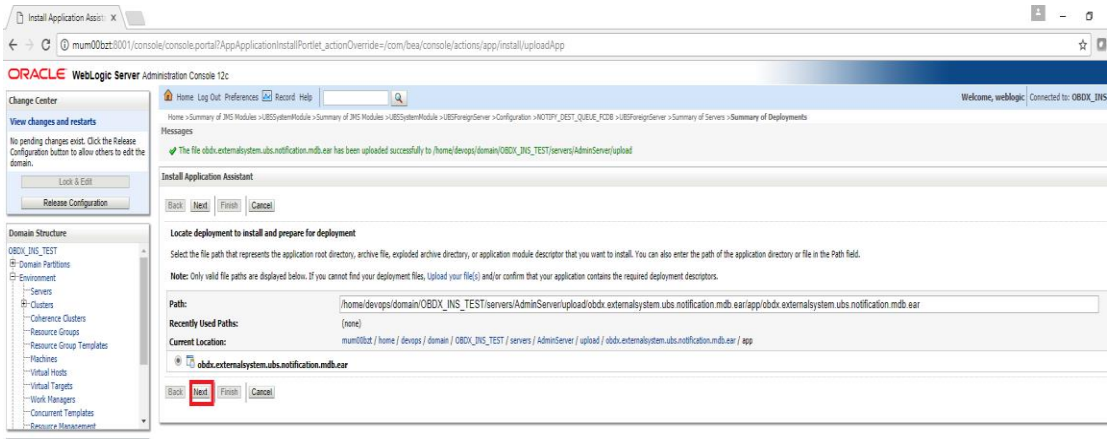
- Navigate to customized obapi.externalsystem.ubs.notification.mdb.ear and click Open



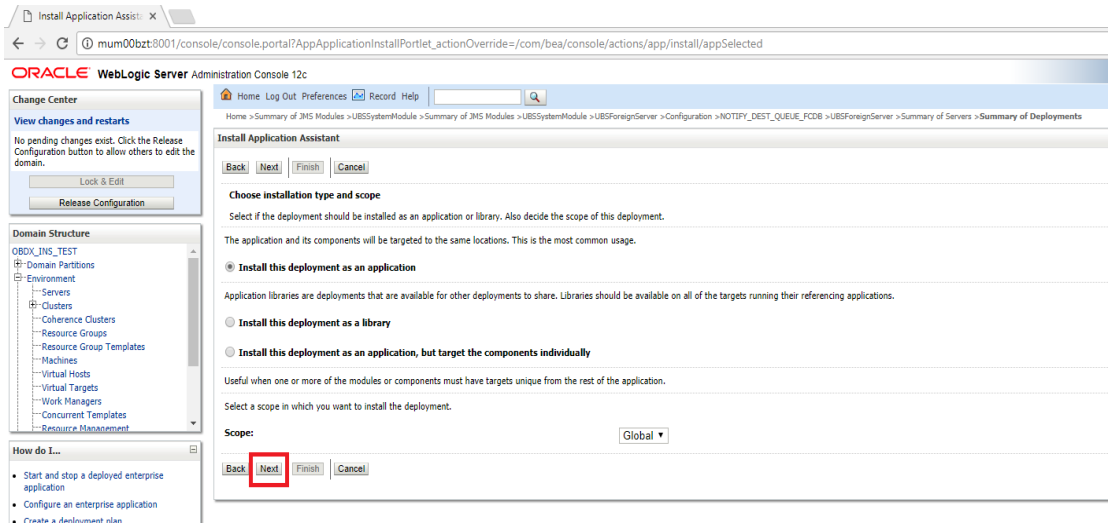
- Click Next



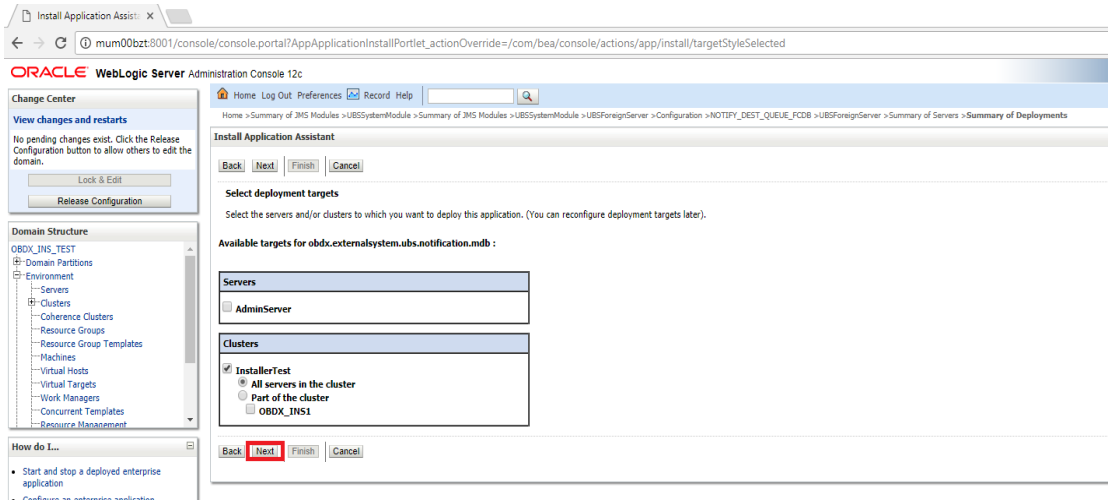
- Click Next



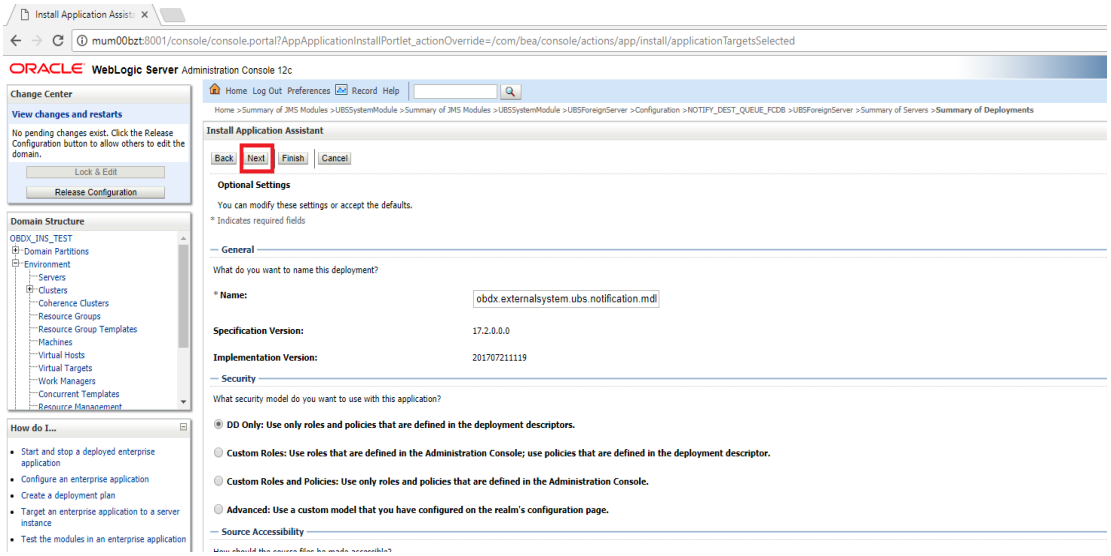
- Select “Install this deployment as an application” and click Next



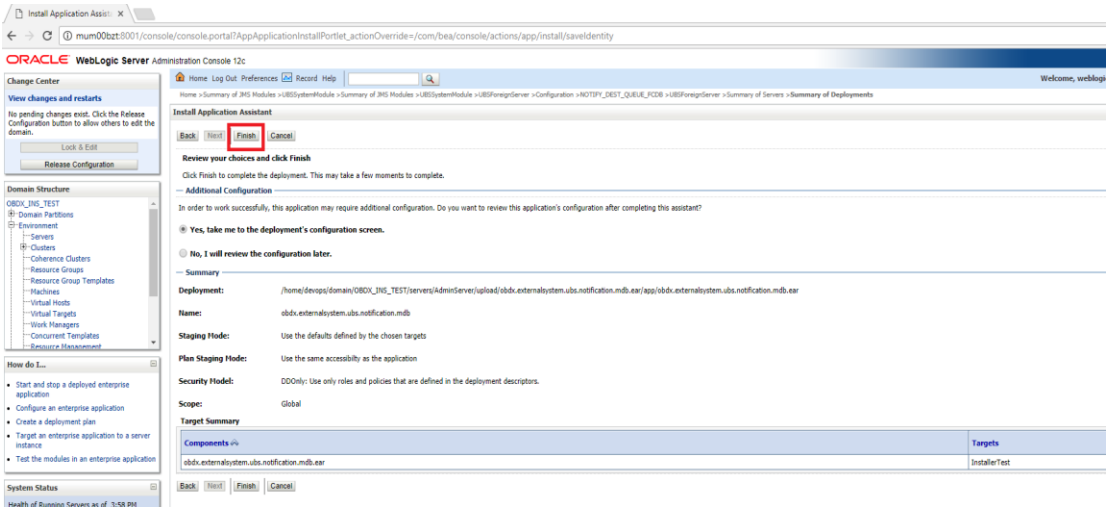
- Select Cluster as target and click Next



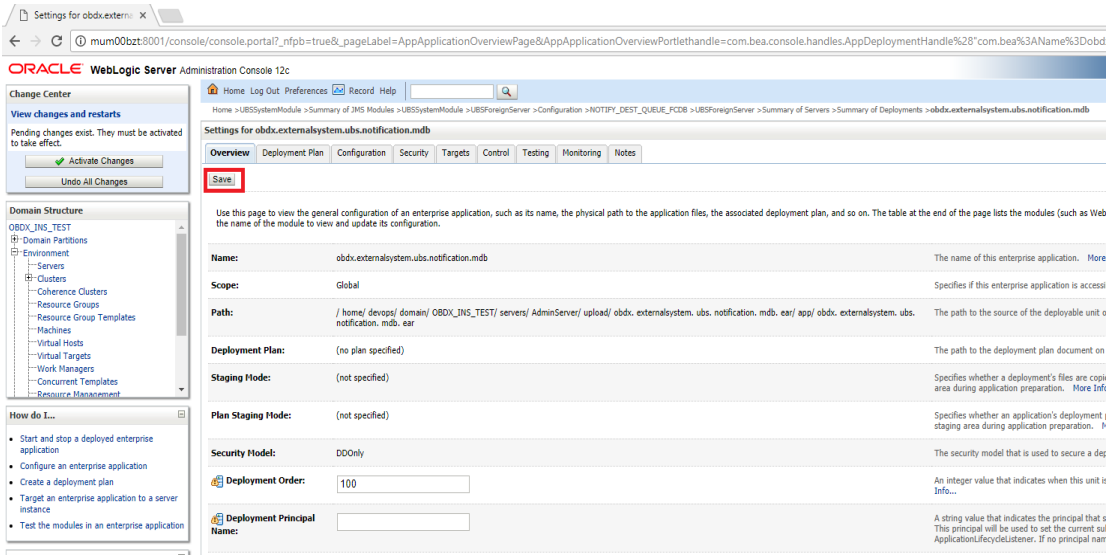
- Click Next



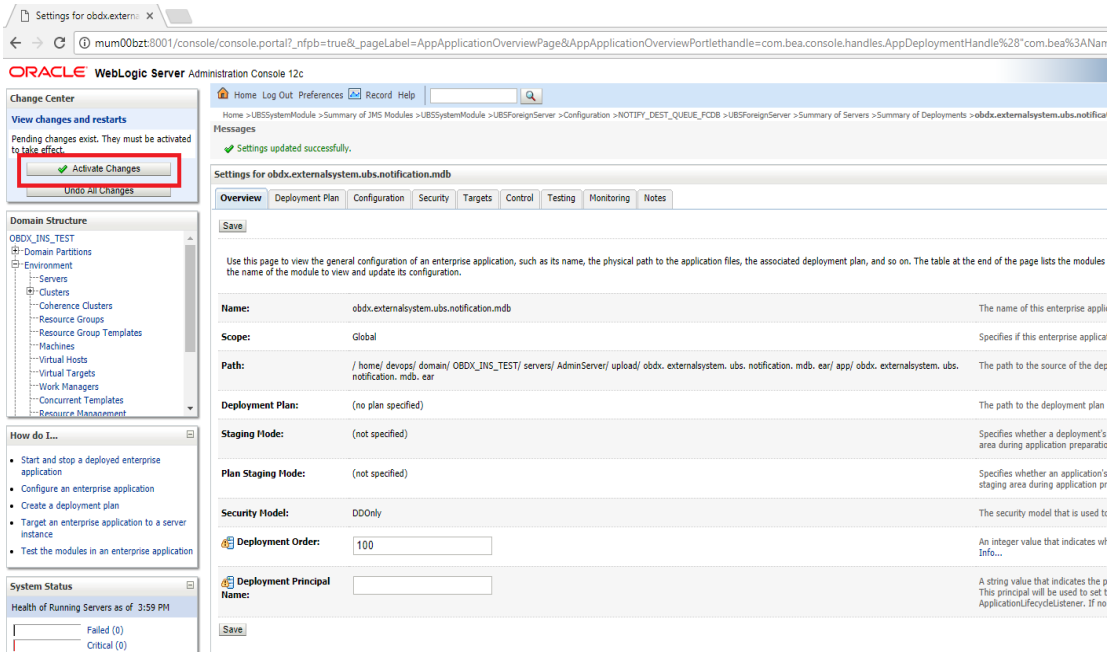
- Click Finish.

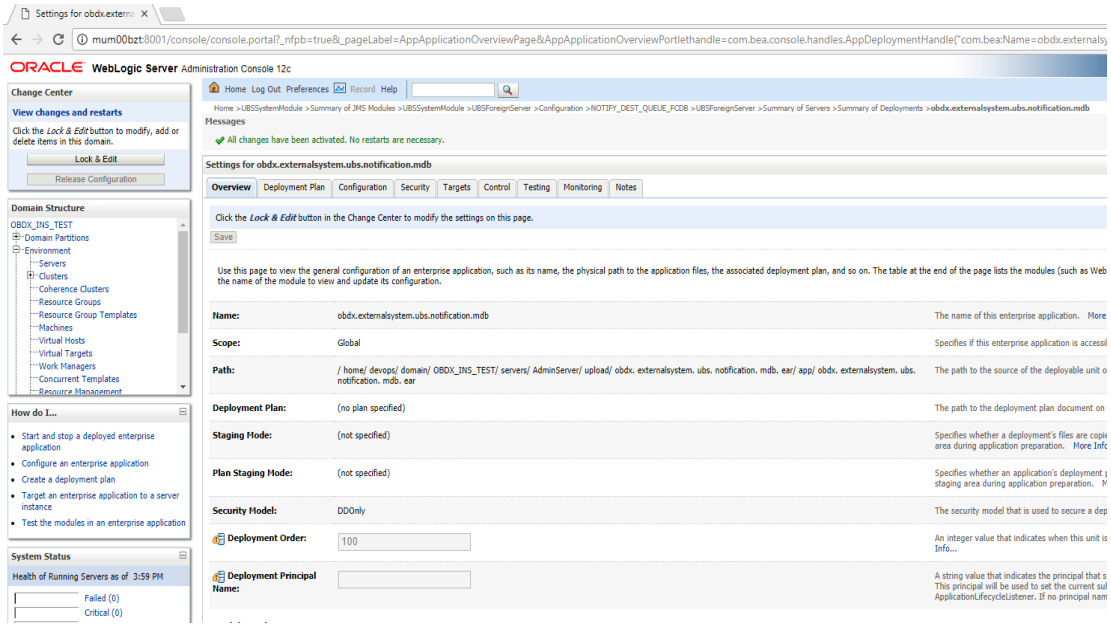


- Click Save.



- Click Activate Changes



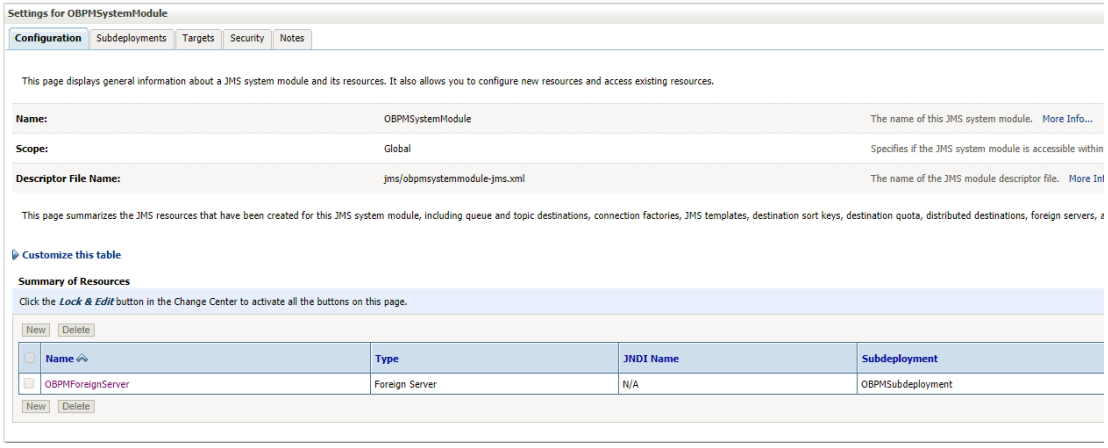


Oracle FLEXCUBE Universal Banking with Oracle Banking Payments (OBAPI with OBPM)

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)



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**

Home

9. OBAPI Product Verification

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

AuditMDBEAR	Active	OK	Enterprise Application	obdx_cluster	Global		100
BatchResourceAdapter	Active	OK	Enterprise Application	obdx_cluster	Global		100
coherence-transaction-rar	Active	OK	Resource Adapter	AdminServer, obdx_cluster	Global		100
com.ofss.digx.app.connector	Active	OK	Enterprise Application	obdx_cluster	Global		100

ExtxfaceSimulatorMDB	Active	OK	Enterprise Application	obdx_cluster	Global		0

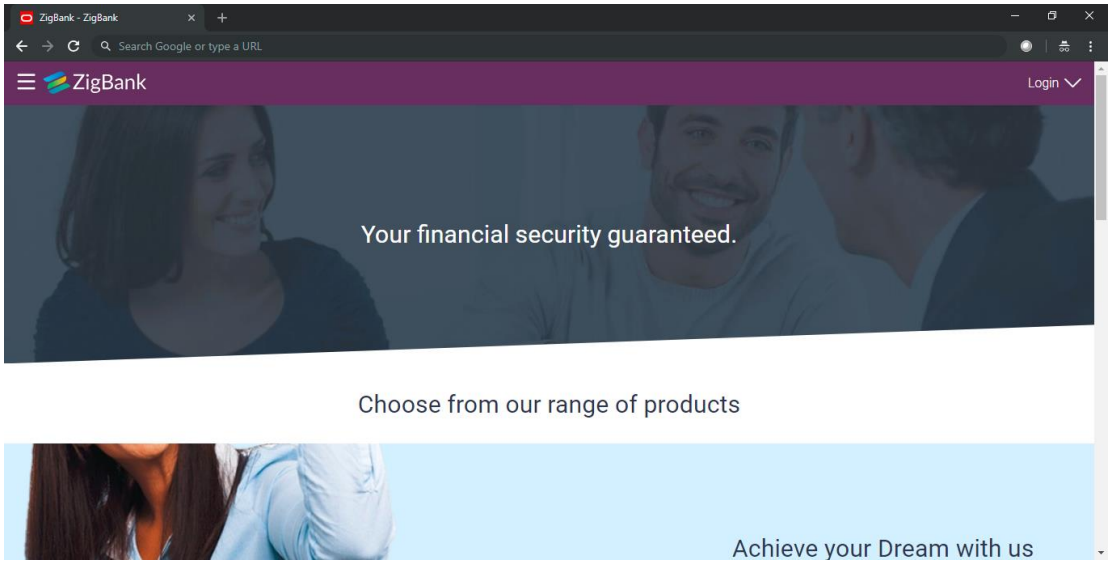
obdx.app.chatbot	Active	OK	Enterprise Application	obdx_cluster	Global		100
obdx.app.core.domain(19.1.0.0.0,715)	Active		Library	AdminServer, obdx_cluster	Global		100
obdx.app.core.patch(19.1.0.0.0,715)	Active		Library	AdminServer, obdx_cluster	Global		100
obdx.app.domain(19.1.0.0.0,715)	Active		Library	AdminServer, obdx_cluster	Global		100
obdx.app.framework(19.1.0.0.0,715)	Active		Library	AdminServer, obdx_cluster	Global		100
obdx.app.mdb.report	Active	OK	Enterprise Application	obdx_cluster	Global		100
obdx.app.oauth	Active	OK	Enterprise Application	obdx_cluster	Global		100
obdx.app.rest.idm	Active	OK	Enterprise Application	obdx_cluster	Global		100
obdx.app.smsbanking	Active	OK	Enterprise Application	obdx_cluster	Global		100
obdx.app.soap	Active	OK	Enterprise Application	obdx_cluster	Global		100
obdx.app.timer	Active	OK	Enterprise Application	obdx_cluster	Global		100
obdx.cz.app.domain(19.1.0.0.0,715)	Active		Library	AdminServer, obdx_cluster	Global		100
obdx.cz.extsystem.domain(19.1.0.0.0,715)	Active		Library	AdminServer, obdx_cluster	Global		100
obdx.cz.thirdparty.app.domain(19.1.0.0.0,715)	Active		Library	AdminServer, obdx_cluster	Global		100
obdx.extsystem.domain(19.1.0.0.0,715)	Active		Library	AdminServer, obdx_cluster	Global		100

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

To verify the installation, launch below URL

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

Check if the page loads successfully.



Day1 Configuration

Universal Banking Solution (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 APIs Mobile Application Builder-Android

Oracle Banking APIs 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>','ofssuser',sysdate,'of
ssuser',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>','ofssuser',sysdate,'o
fssuser',sysdate);
```

Note: Please ensure that <ENTITY_ID> has been replaced with correct Entity ID for the corresponding entity.

10. Configuration for OUD/OAM

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

Weblogic configuration/ deployment

- **REST EAR deployment:**

  Undeploy obapi.app.rest.idm from deployments.

  Deploy obapi.app.rest from Installer zip (<OBAPI INSTALLER DIR> \installables\app\components\obapi\deploy\obapi.app.rest.ear).

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

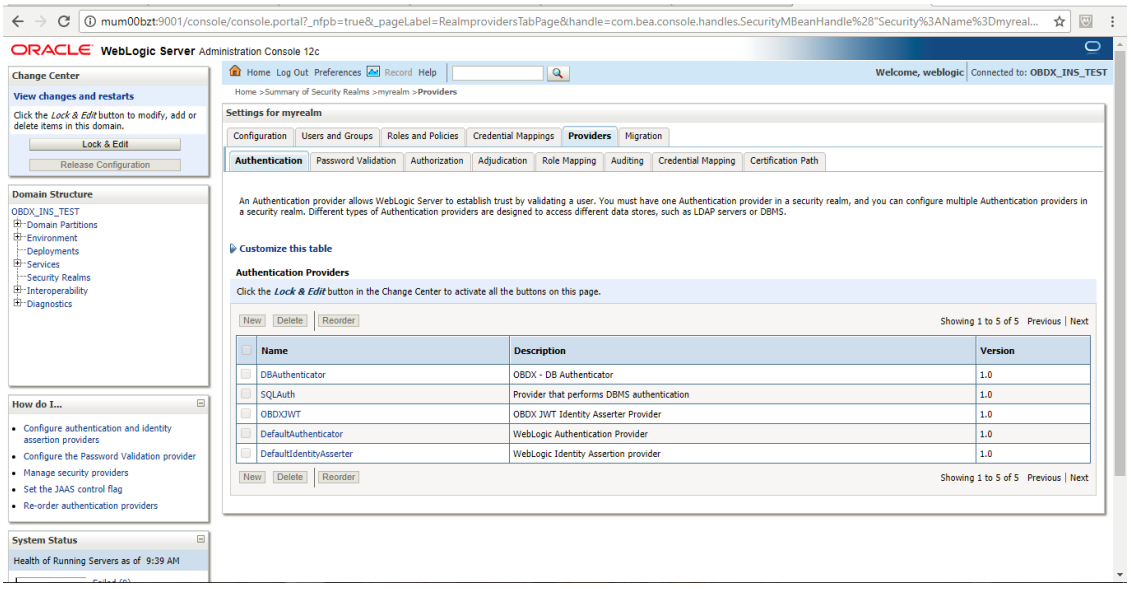
- **Security Realms**

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

- To do this, ensure that the Admin Server is running. Login to the Weblogic Console for OBAPI domain (created by Installer) using the following URL:

  http://<hostname>:<admin_port>/console

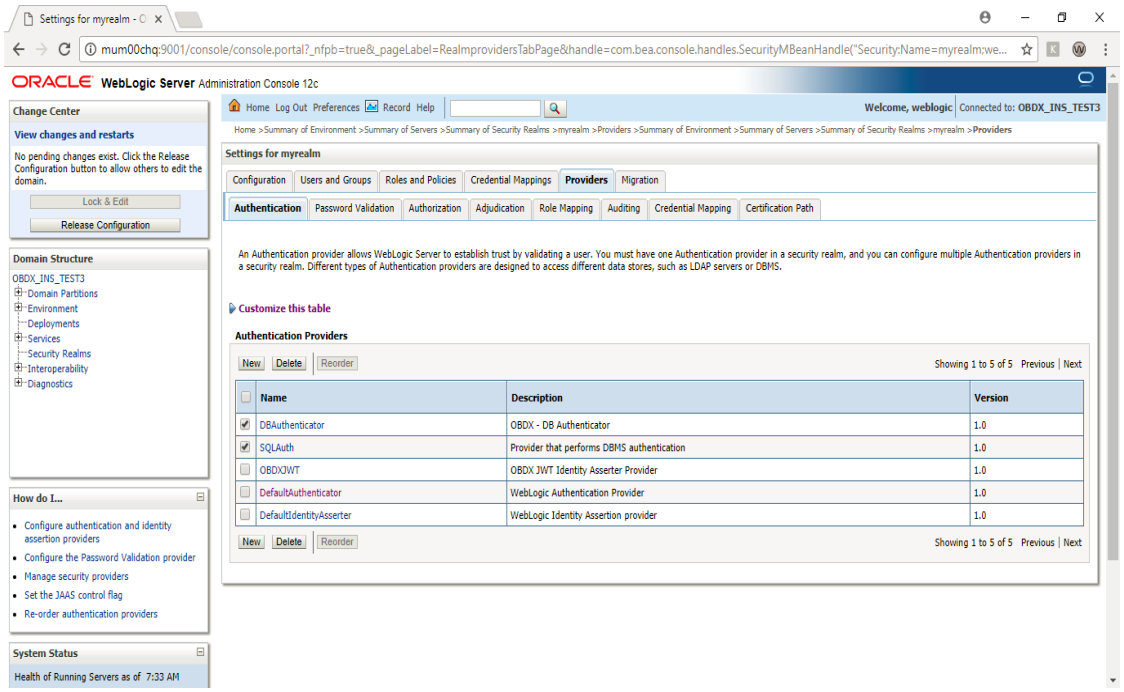
- Now, go to Security Realms > myrealm > Providers

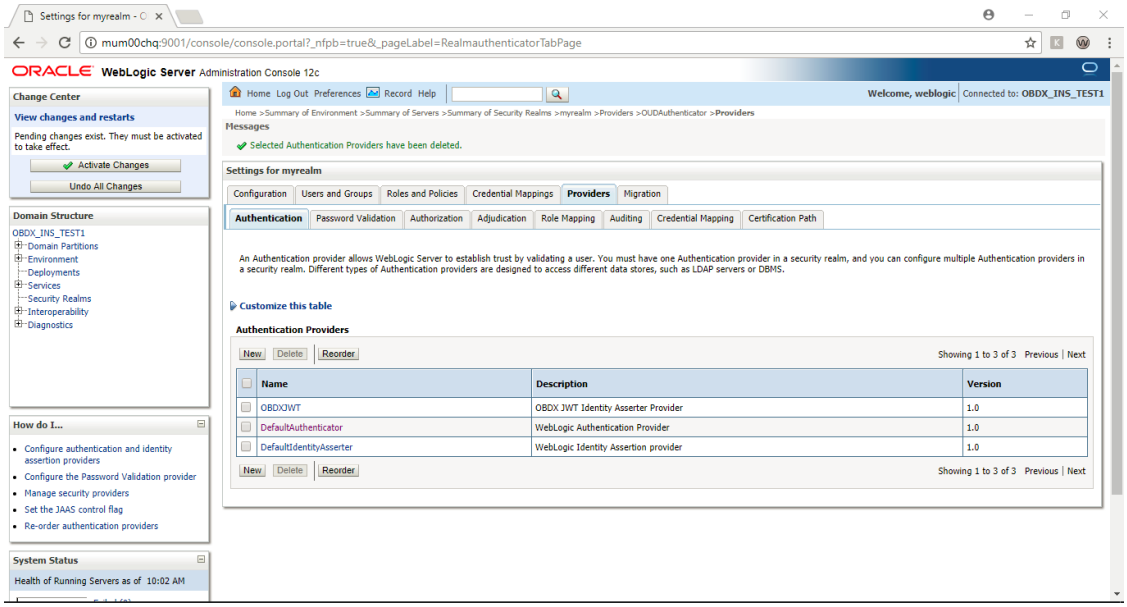


- Now click on **"Lock & Edit"** in order to edit the details.
- Delete the following Authenticators under providers-> **Authentication**:

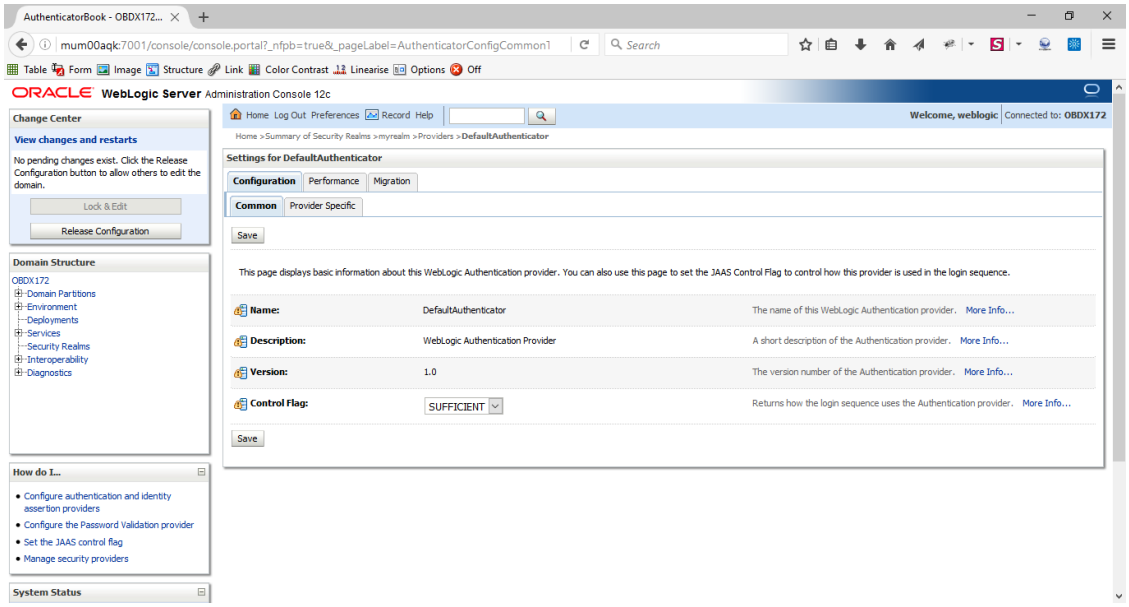
DBAuthenticator

SQLAuth

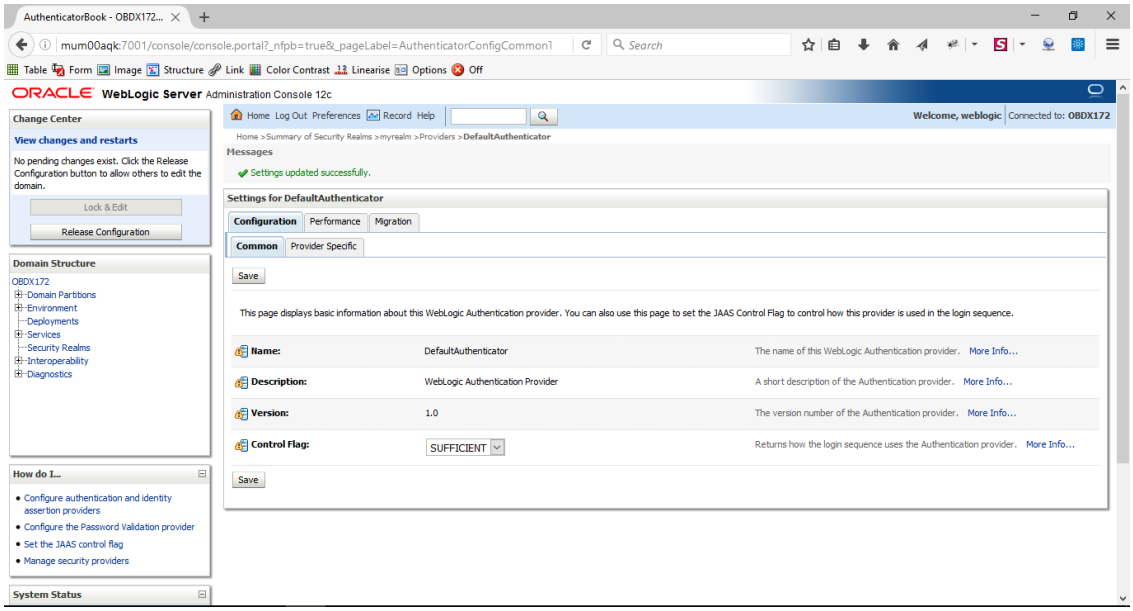




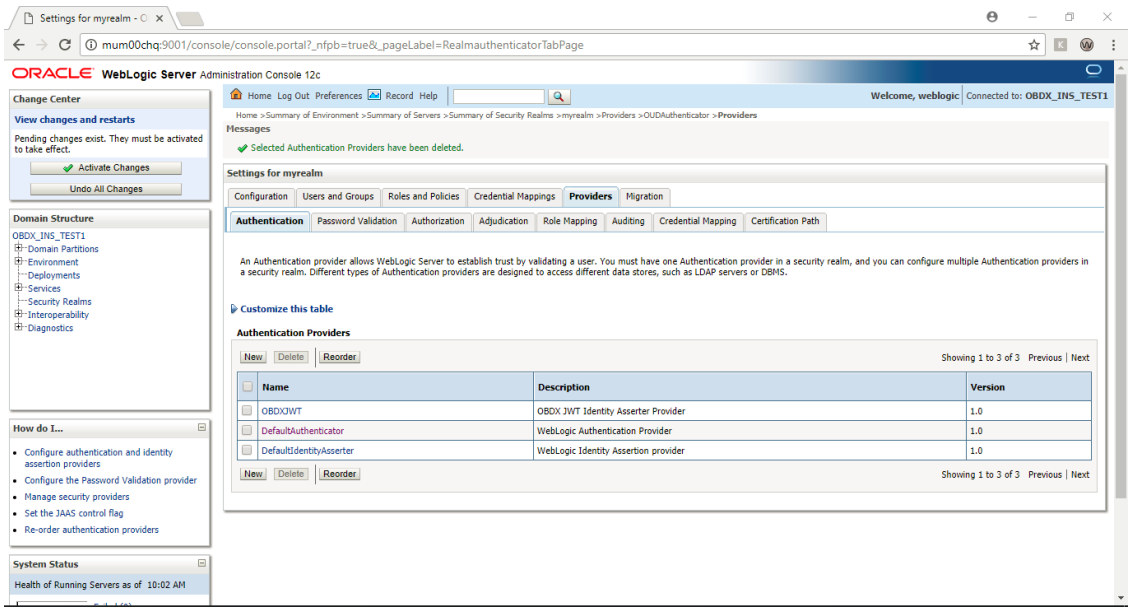
- Click on '**DefaultAuthenticator**" provider and change the Control Flag to SUFFICIENT



- Click on Save button to save the changes



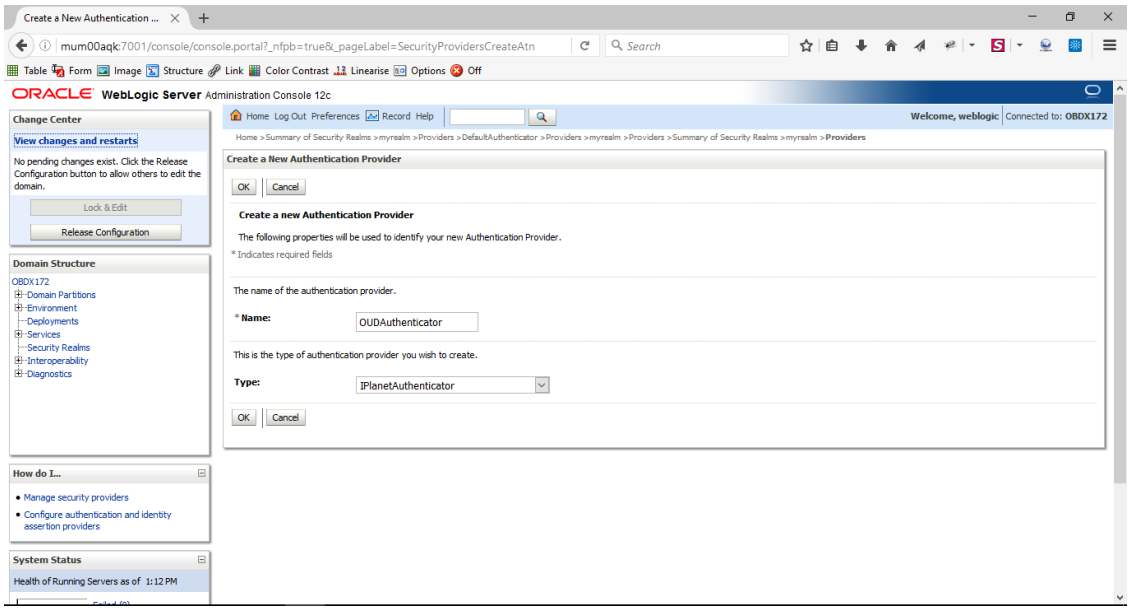
- Navigate Back to Security Realms > myrealm > Providers



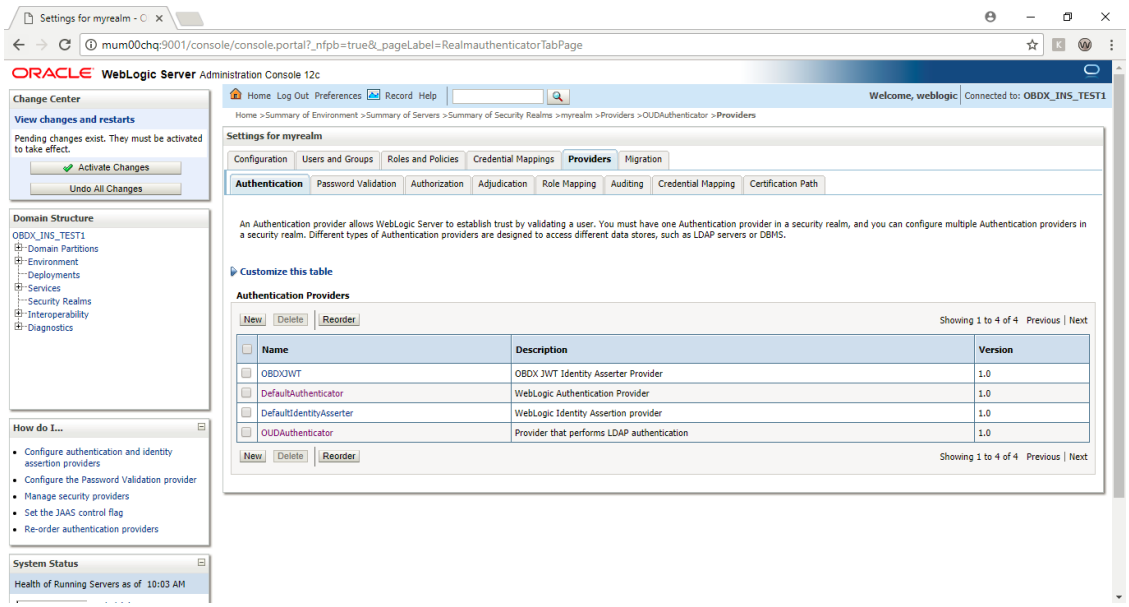
- Now, click on New and enter the below details and click Save.

  Name : OUDAuthenticator

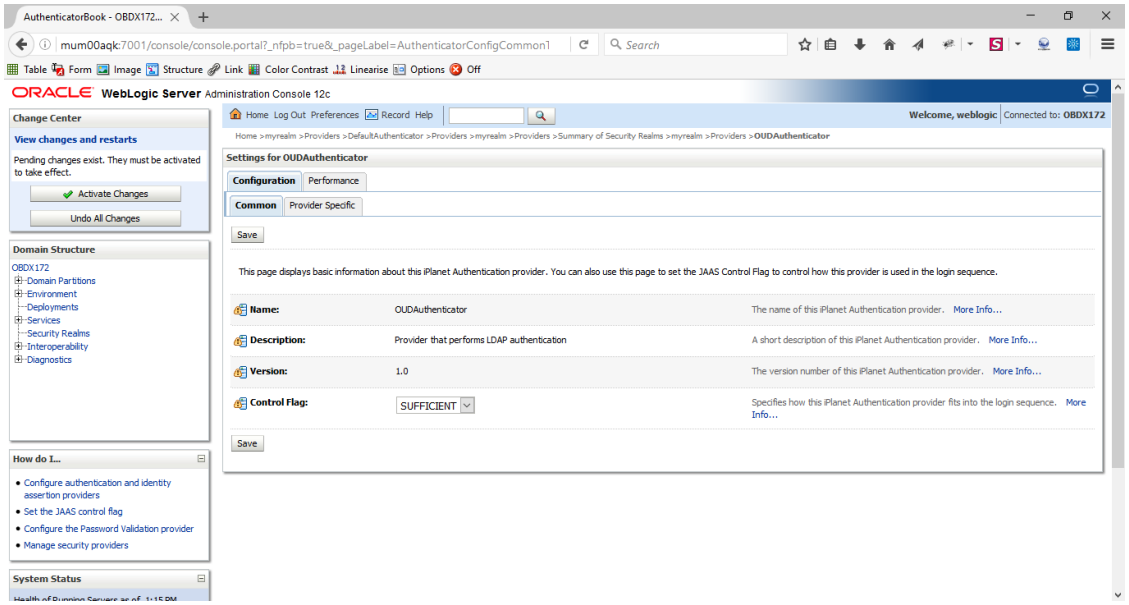
  Type : OracleUnifiedDirectoryAuthenticator



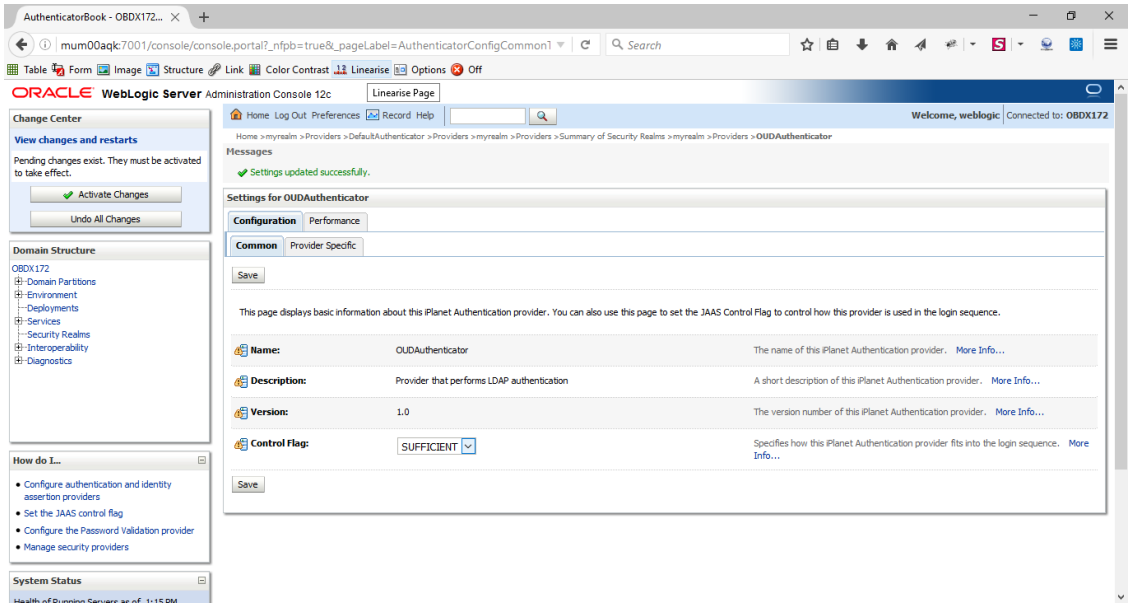
- Click on OK Button.



Now Click on OUDAuthenticator and select Control Flag as **“SUFFICIENT”**

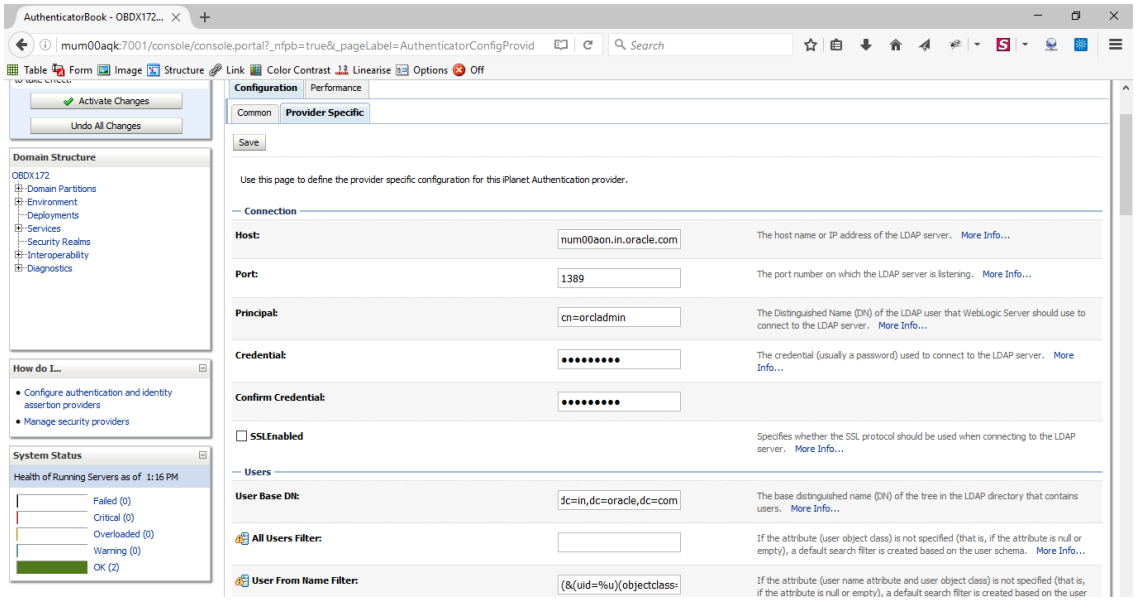


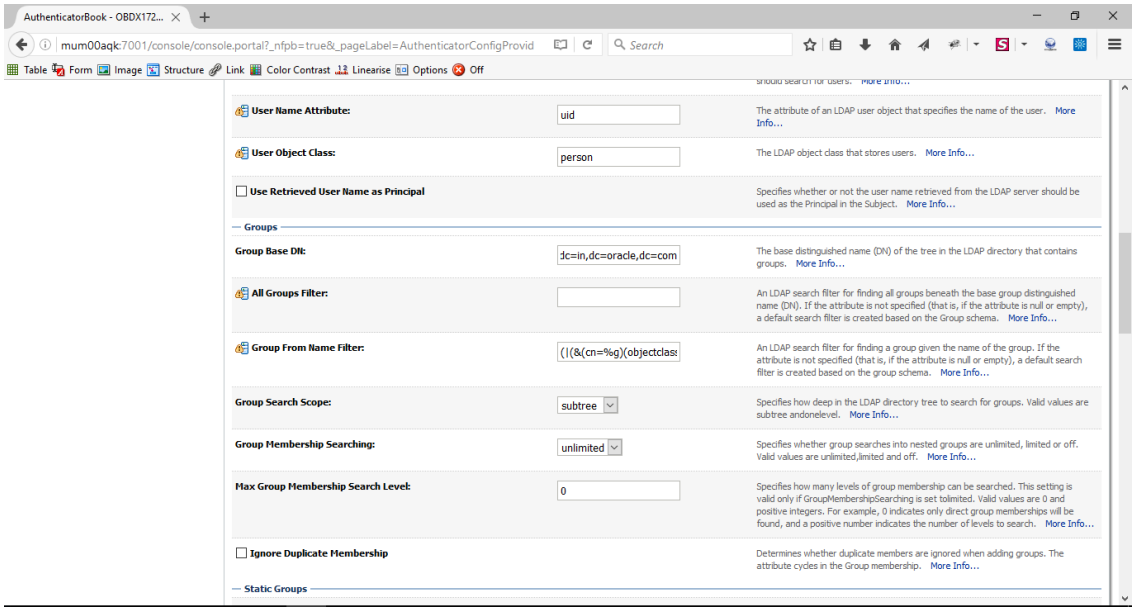
- Click on Save Button.



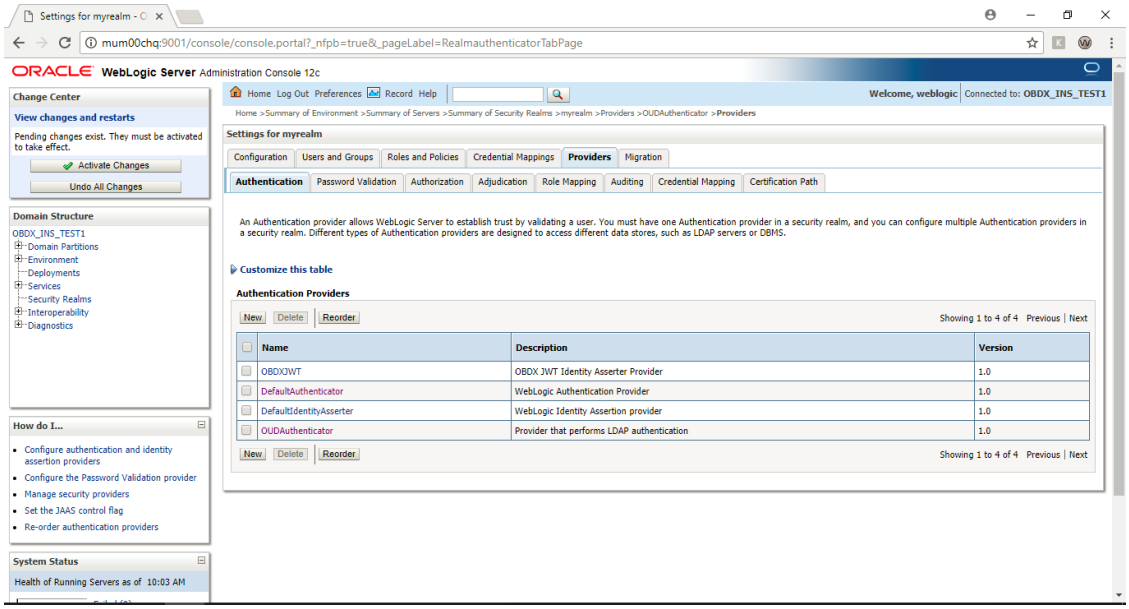
- Now under Provider Specific tab set the details of LDAP where the server should point. Refer to the following table for more information:

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





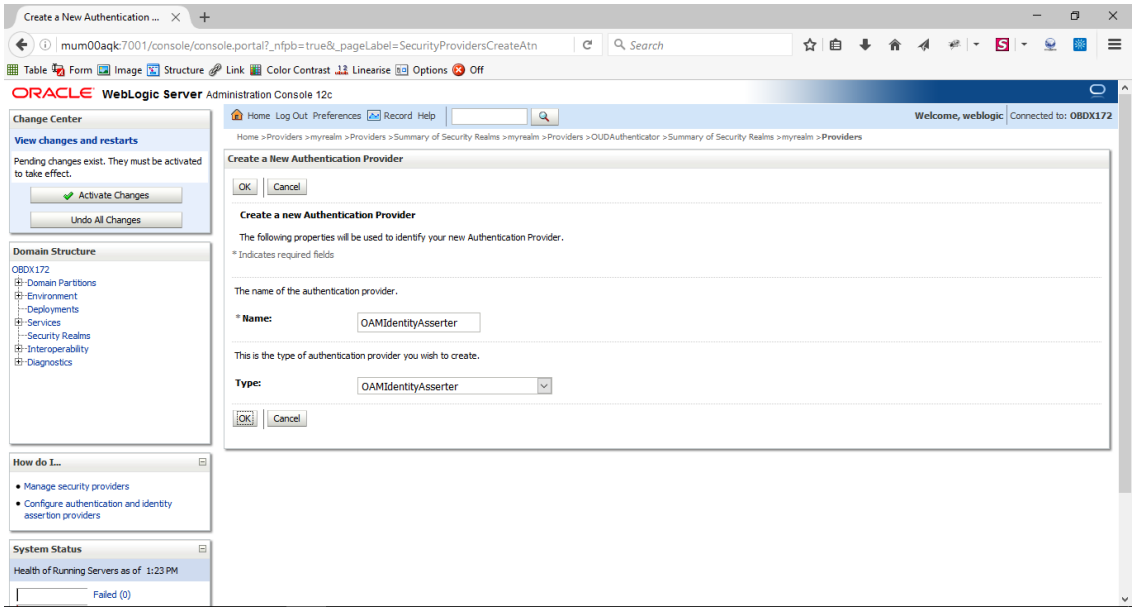
- Click on Save to update the changes.
- Navigate Back to Security Realms > myrealm > Providers



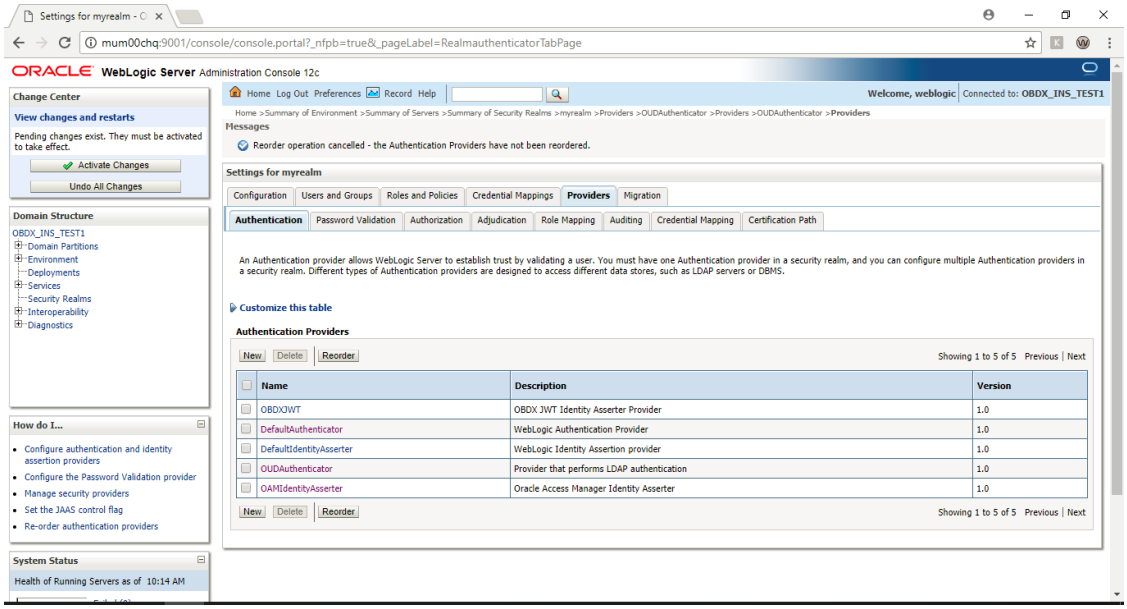
- Now, click on New and enter the below details and click Save.

  Name : OAMIdentityAsserter

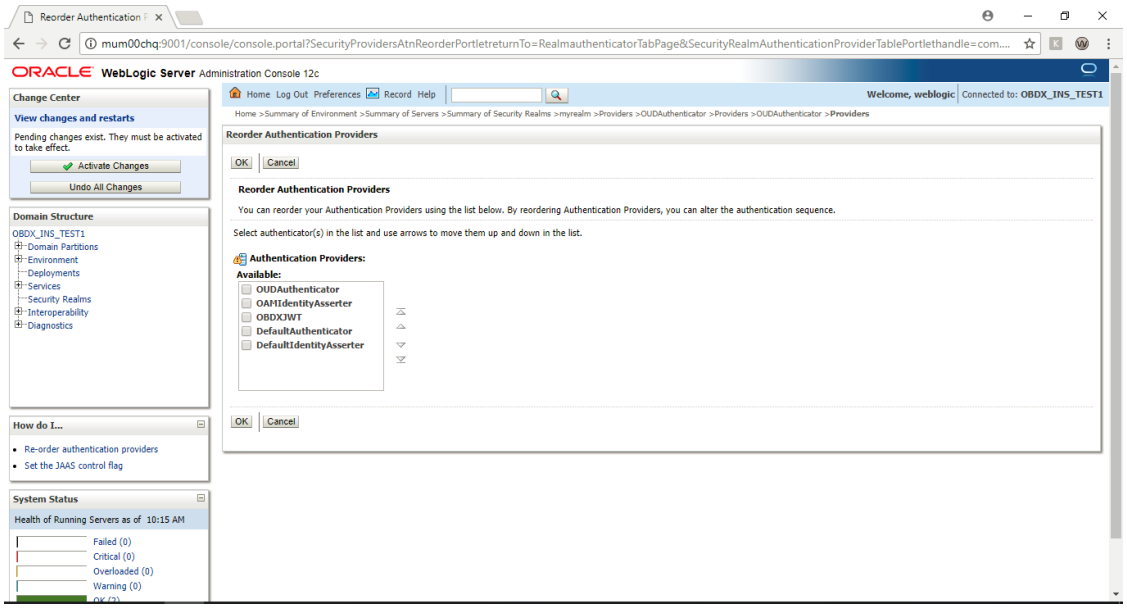
  Type : OAMIdentityAsserter



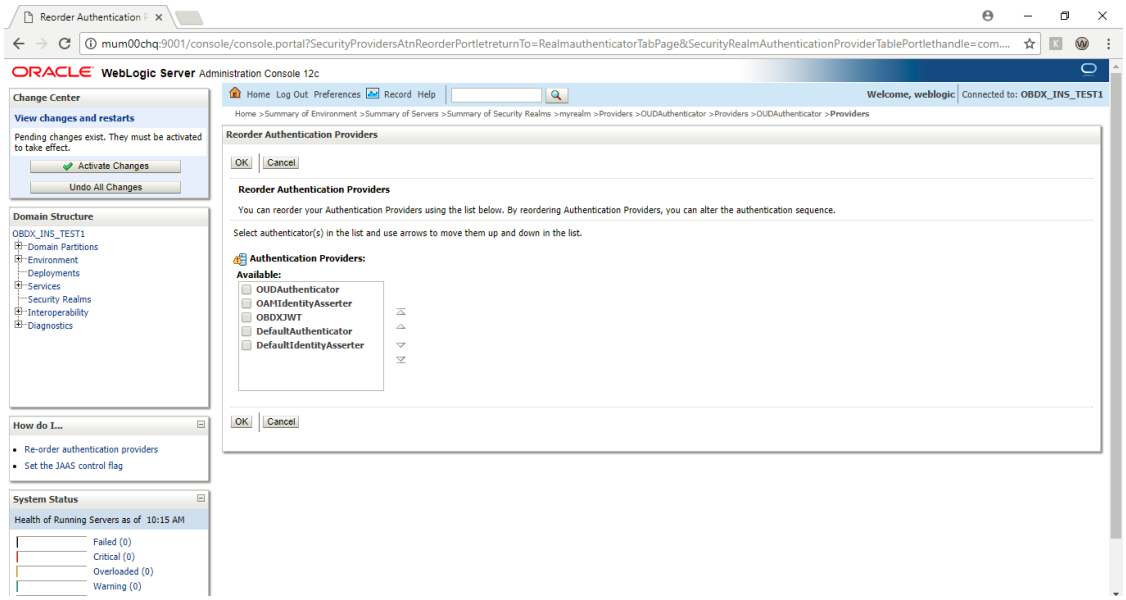
- Click on OK Button.



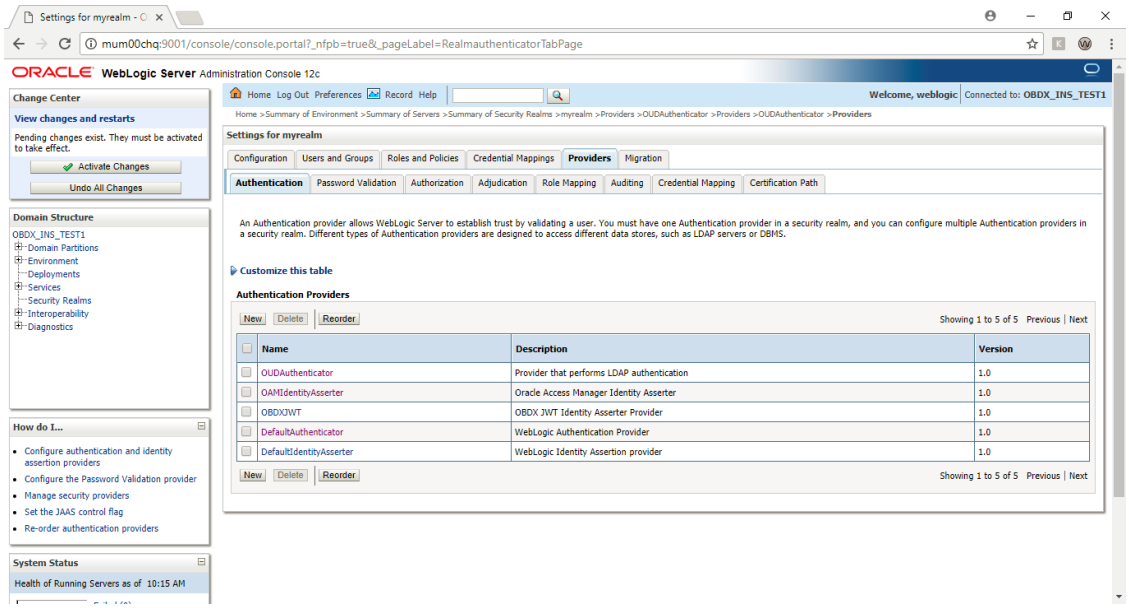
- Click on Reorder Button.



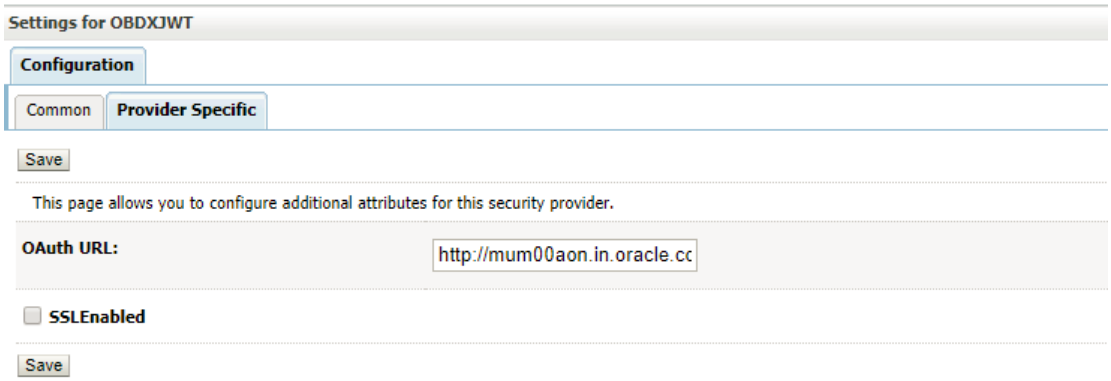
- Reorder the providers so that LDAP Provider (OUDAuthenticator) gets highest priority followed by OAMIdentityAsserter, OBAPIJWT, DefaultAuthenticator, DefaultIdentityAsserter.



- Click on OK Button.

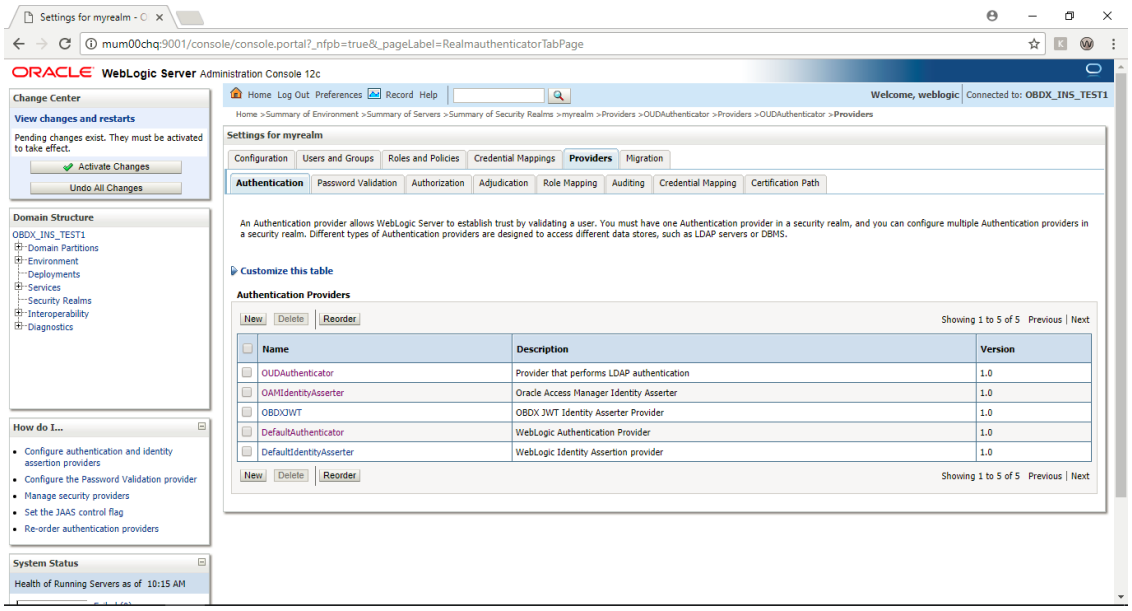


- Set the **OAuth URL for OBAPIJWT**



Sample OAuth URL: http://<hostname>:<port>/oauth2/rest/token/info (hostname and port should be replaced with OAM Server setup).

- Click on Activate Changes to apply the changes.



- Now go to the <DOMAIN_PATH>/<DOMAIN_NAME>/config/fmwconfig/
- Open jps-config.xml

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

  With <serviceInstanceRef ref="idstore.ldap"/>

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

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

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

  <DOMAIN_PATH>/<DOMAIN_NAME>/**bin/startWeblogic.sh**

➢ Run the following script into OBAPI Schema:

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

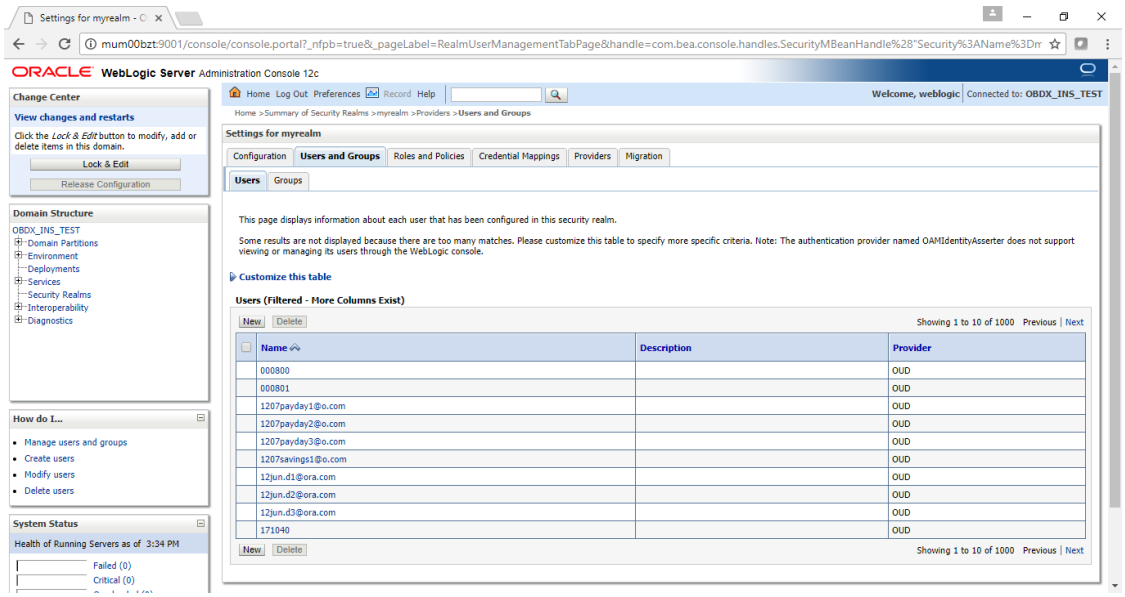
```
commit;
```

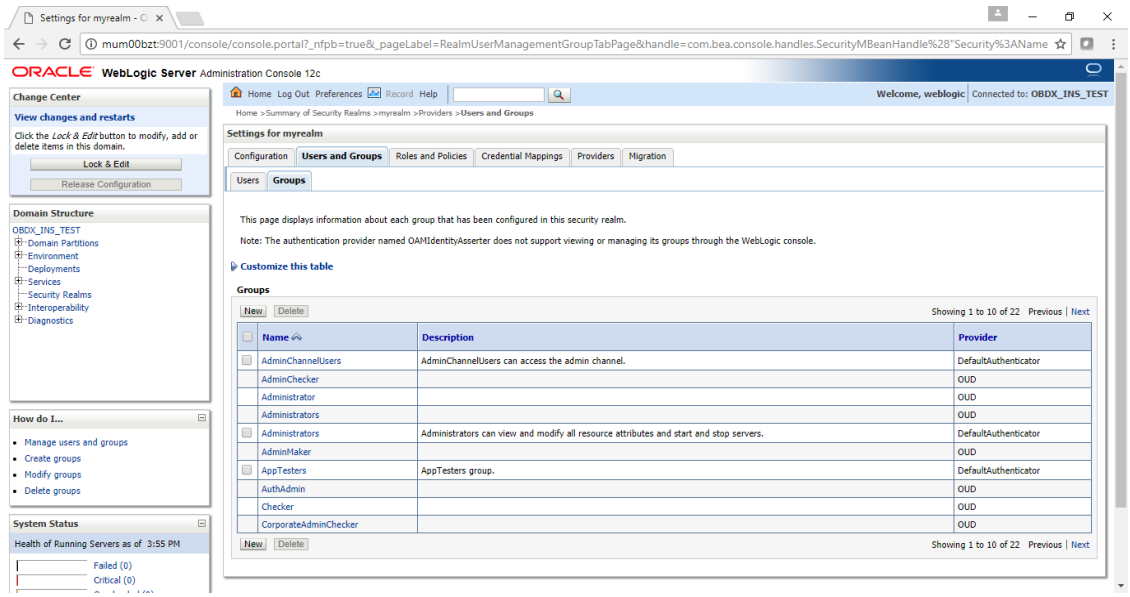
- Restart Managed Server

Verification

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

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





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.

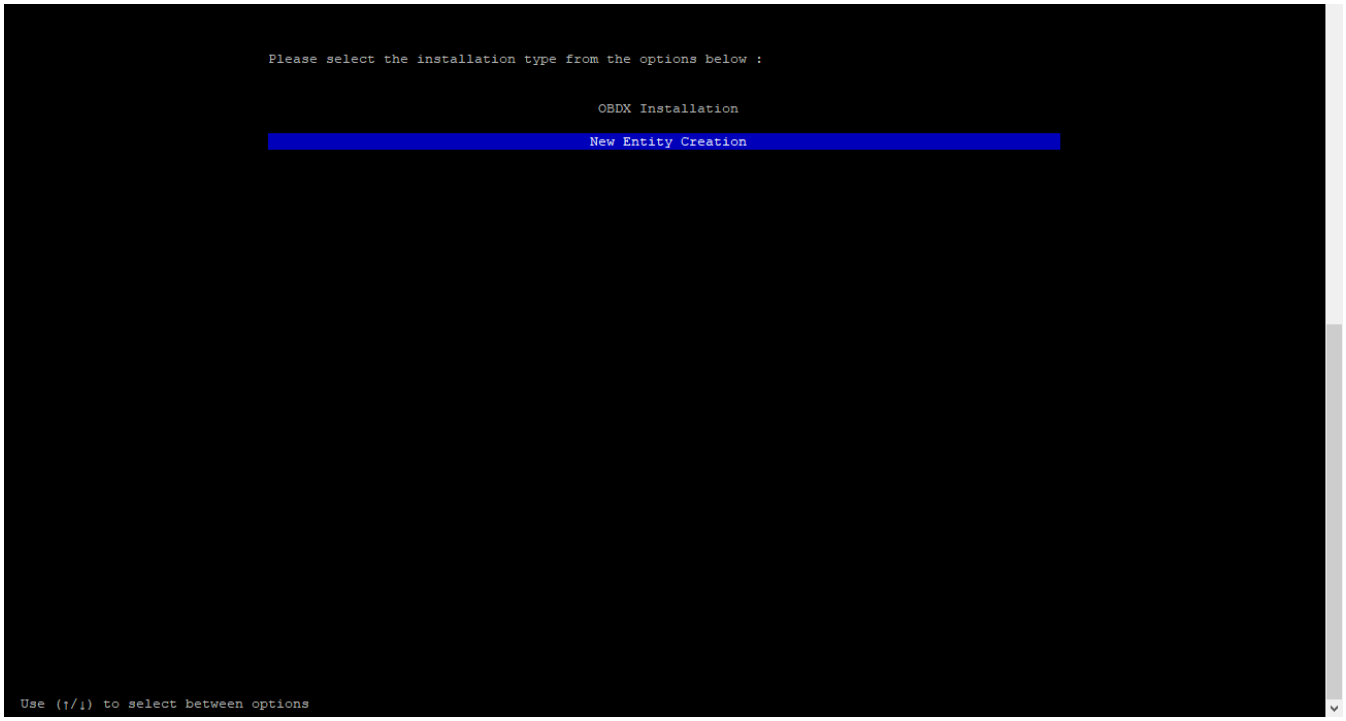
Login with OS user which was used to perform OBAPI software installation (or has ownership on Oracle Weblogic home directory)

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

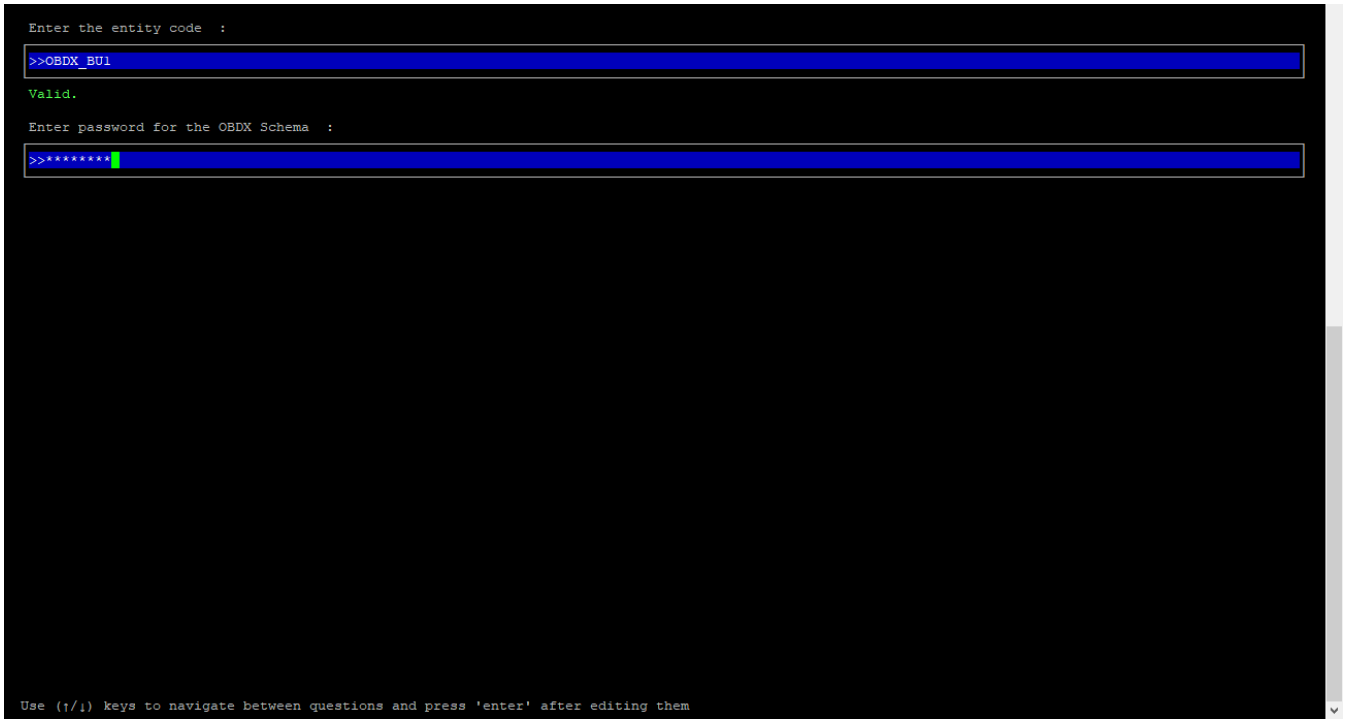
- From your terminal navigate to <OBAPI INSTALLER DIR>
- Enter the following command

python runInstaller.py

Select installation type as ‘New Entity Creation’


Please select the installation type from the options below :
OBDX Installation
New Entity Creation
Use (↑/↓) to select between options

Below screen will appear after selecting add entity



Enter below information:

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

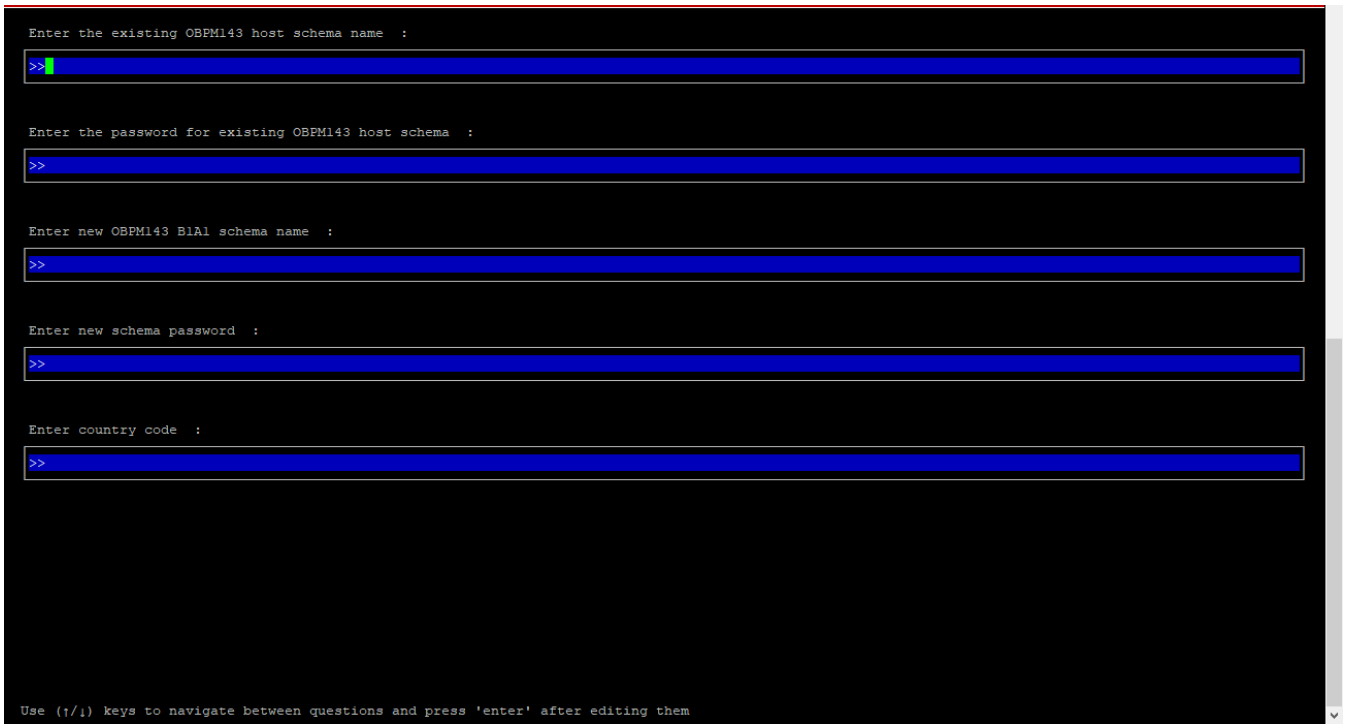
If an entity code belongs to UBS / OBPM host following screen (below screenshot are for OBPM ; for UBS same input are required) will appear:

```
Enter the OBPM143 DB hostname  :
>>

Enter the OBPM143 DB port  :
>>

Enter the OBPM143 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 OBPM143 DB hostname  :
>>mumaa012.in.oracle.com
Valid.
Enter the OBPM143 DB port  :
>>1520
Valid.
Enter the OBPM143 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 database host server
- Port of the database host server
- Host database Service Name
- Oracle directory name in which you want the database datafile (dbf) to be created. Enter only the name NOT the path.
- Username with 'sys' privileges
- SYS privilege user password where UBS schema would be created
- Weblogic console administrator user password

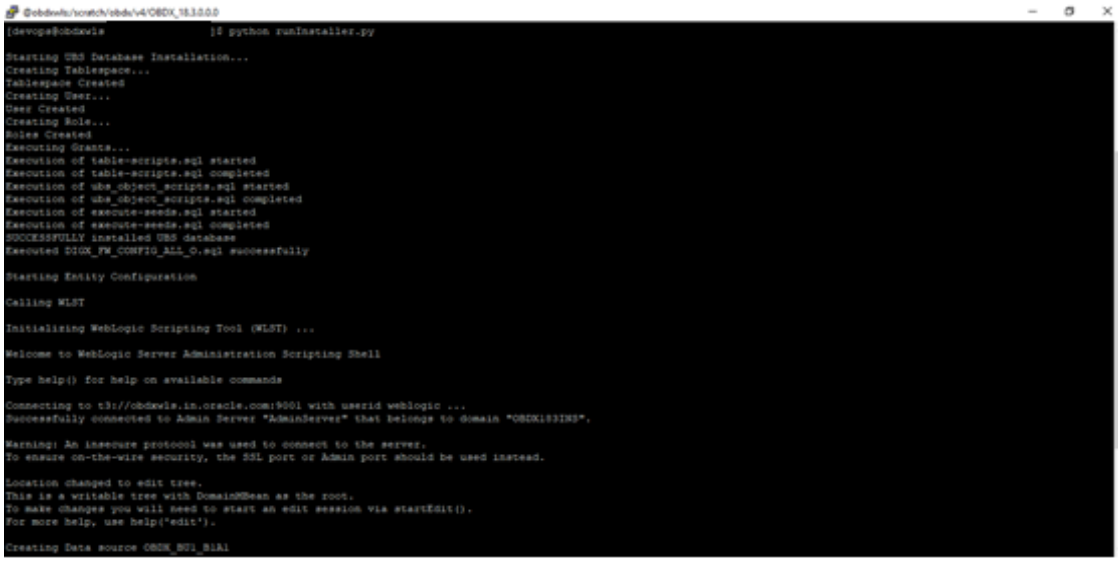


Enter below details:

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

Installation Status in case of UBS / OBPM

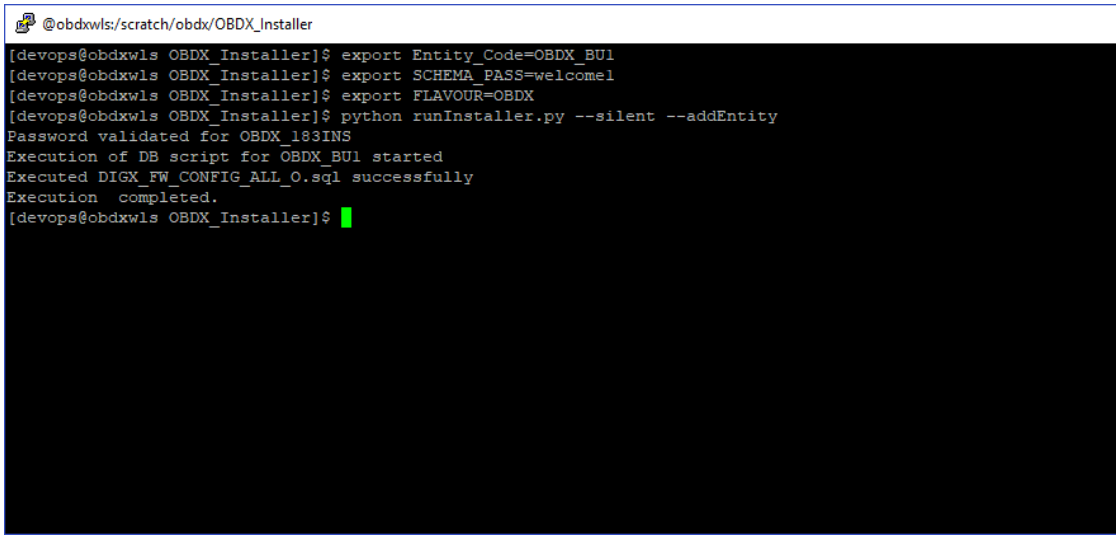
After entering all required details, the status is displayed (as shown below) on the terminal to indicate the progress of the installation.



When the installation completes, the below message is displayed

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:

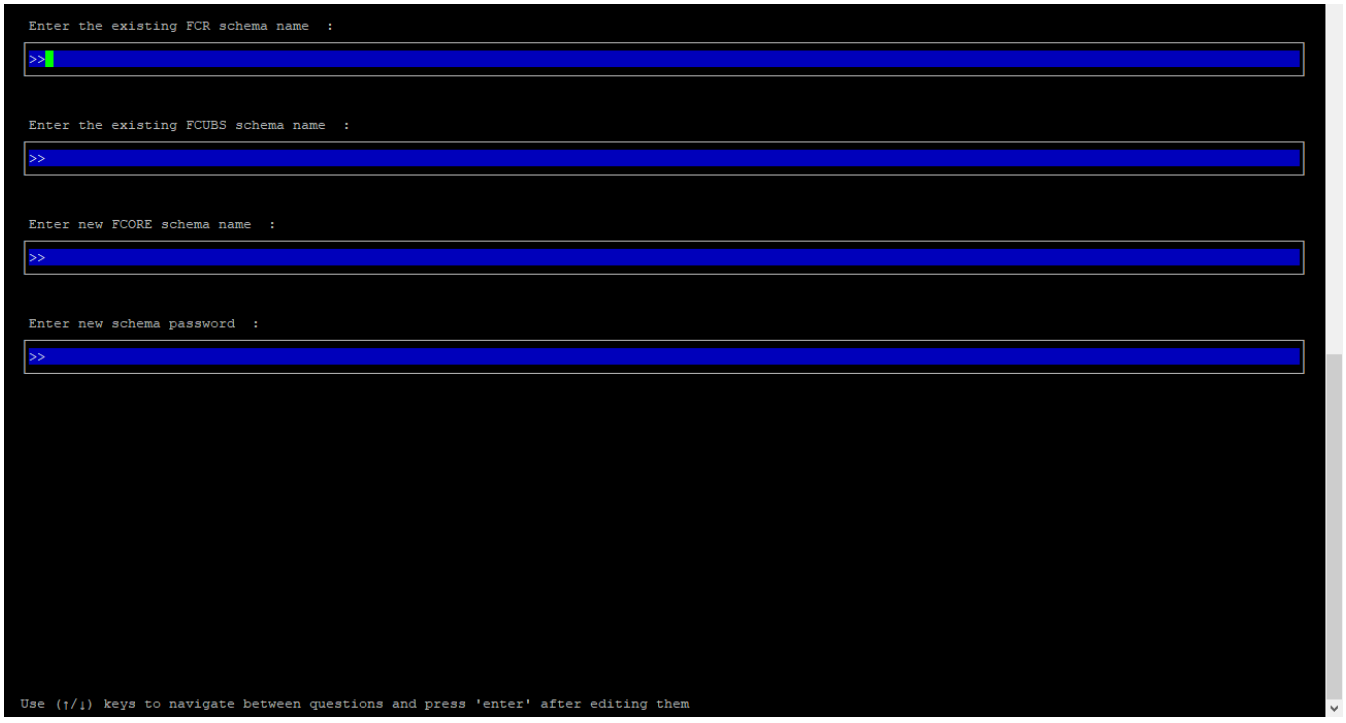


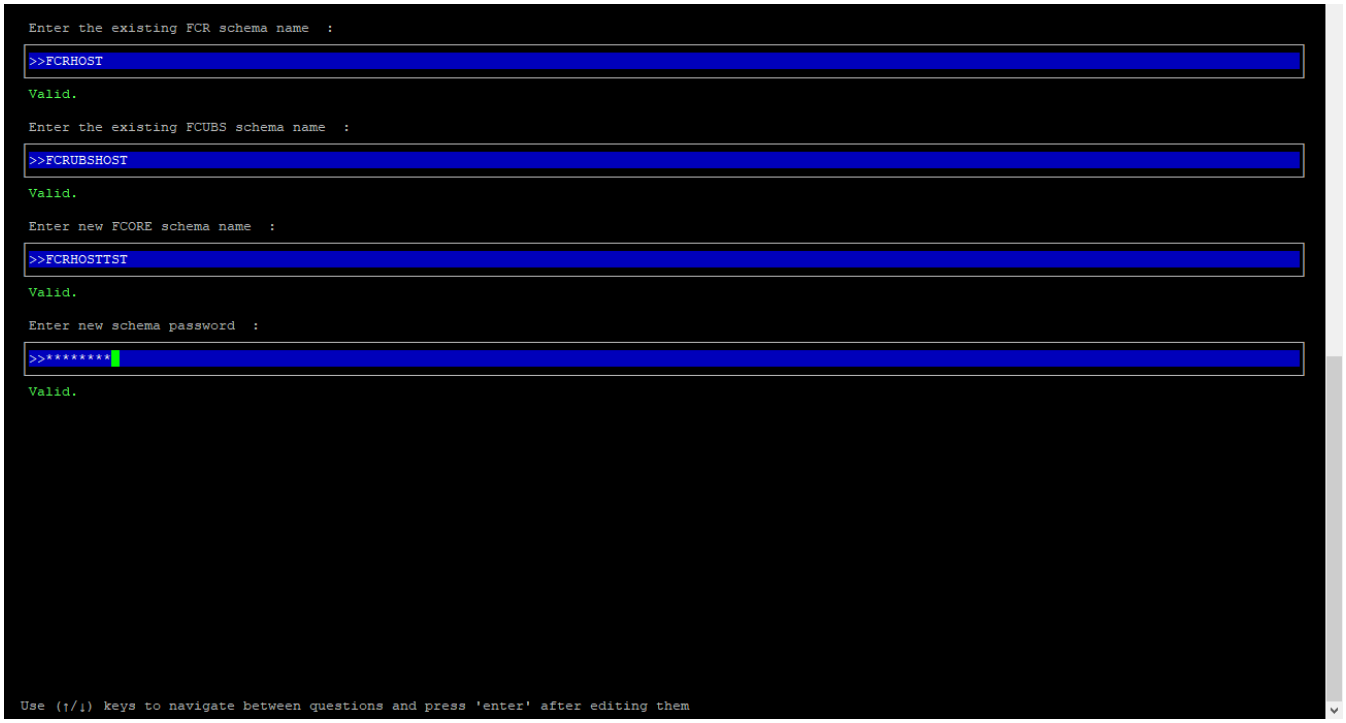
No additional steps/ configuration are required.

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

Enter below details:

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



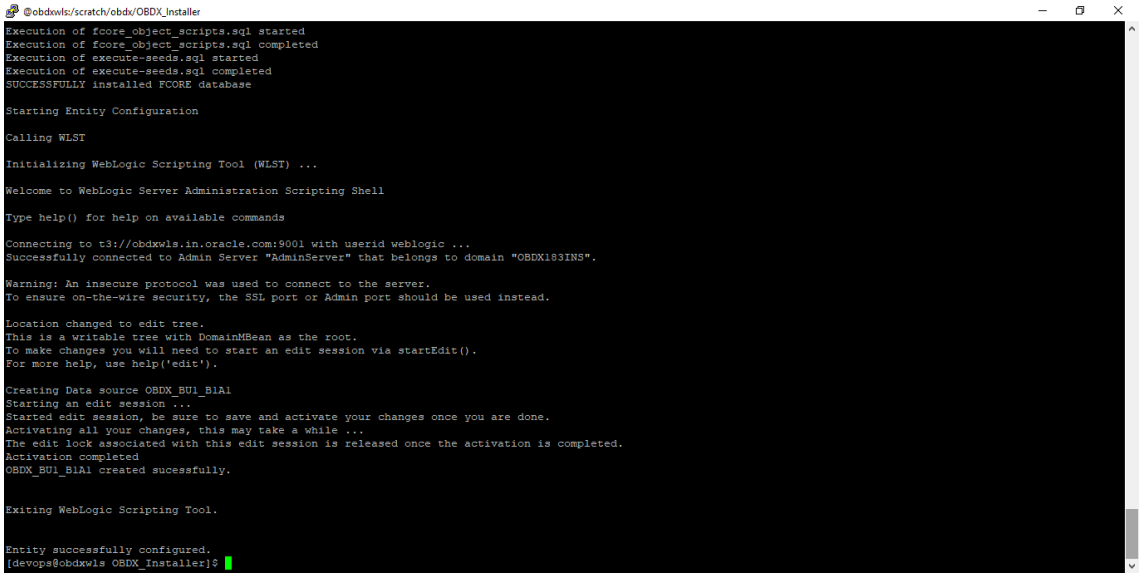


Enter below details:

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

Installation status for FCORE Add entity

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



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=hostanme.in.oracle.com
OBDX_Installer]$ export ENTITY_EHMS_DATABASE_PORT=1520
OBDX_Installer]$ export ENTITY_EHMS_DATABASE_SID=obdxdb.in.oracle.com
OBDX_Installer]$ export ENTITY_EHMS_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
Environment variables to set for flavor: **FCORE** **UBS (14.3.0.0.0 and.14.2.0.0.0 release)** **OBPM (14.3.0.0.0 and.14.2.0.0.0 release)**	**Entity_Code**	Entity code which has been entered from screen	**export Entity_Code=OBDX_BU7**
	SCHEMA_PASS	Password for existing OBAPI schema	**export SCHEMA_PASS=devops#obapi182**
	ENTITY_EHMS_DATABASE_HOSTNAME	Hostname of the EHMS HOST database host server	**export ENTITY_EHMS_DATABASE_HOSTNAME=mumaa012.in.oracle.com**
	ENTITY_EHMS_DATABASE_PORT	Port of the EHMS HOST database host server	**export ENTITY_EHMS_DATABASE_PORT=1521**
	ENTITY_EHMS_DATABASE_SID	EHMS Host database	**export ENTITY_EHMS_DATABASE_SID=obd**

		Service Name	**apidb.in.oracle.com**
	ENTITY_EHMS_DBA_DIRECTORY_NAME	Oracle Directory name in which you want the EHMS (HostInterface) schema datafile (dbf). Enter only the name and NOT the path	**export ENTITY_EHMS_DBA_DIRECTORY_NAME=TBS_DIR**
	ENTITY_EHMS_DATABASE_SYS_USER	Username with 'sys' privileges	**export ENTITY_EHMS_DATABASE_SYS_USER=sys**
	ENTITY_EHMS_DATABASE_SYS_PASS	Password for EHMS sys user	**export ENTITY_EHMS_DATABASE_SYS_PASS=devops@sys**
	ENTITY_EHMS_SCHEMA_NAME	Complete EHMS (HostInterface) schema name you want installer to create as new schema.	**API**
	ENTITY_EHMS_SCHEMA_PASS	Password for new EHMS schema on EHMS HOST database	**export ENTITY_EHMS_SCHEMA_PASS=devops#ehms**
	ENTITY_EHMS_HOST_SCHEMA_NAME	EXISTING EHMS Host schema name	**export ENTITY_EHMS_HOST_SCHEMA_NAME=EHMSHOST**
	ENTITY_EHMS_HOST_SCHEMA_NAME_PASS ****This parameter is only required for UBS & OBPM Host**	Password of existing HOST EHMS schema (Existing)	**export ENTITY_EHMS_HOST_SCHEMA_NAME_PASS=ehmshst**
	WLS_DOMAIN_PASS	Password for Weblogic admin console	**export WLS_DOMAIN_PASS=weblogic182**
	ENTITY_EHMS_CCY	Country Code for	**export ENTITY_EHMS_CCY=GB**

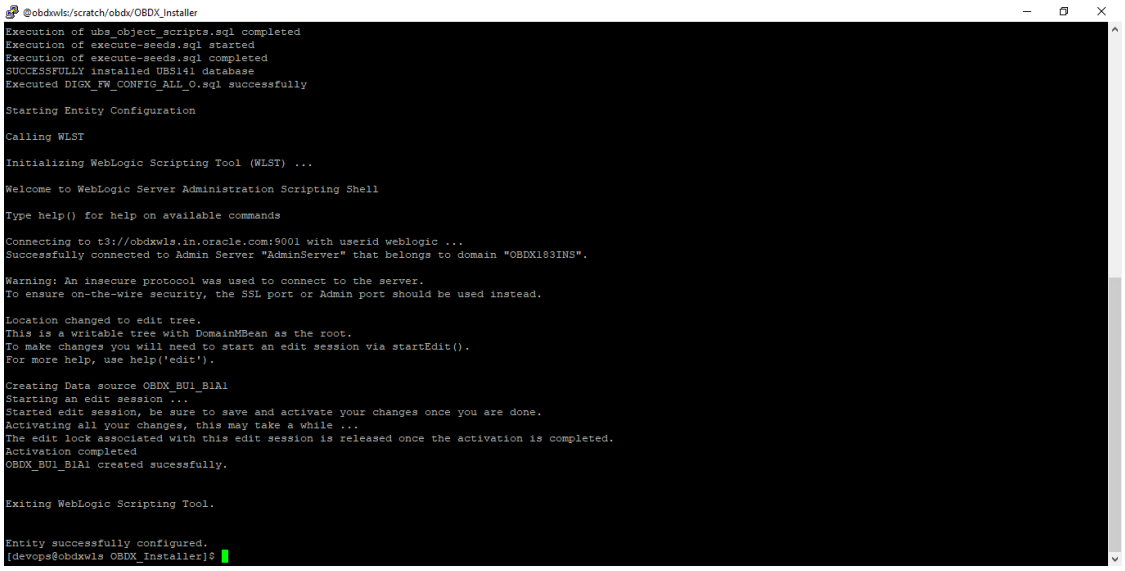
	****This parameter is only required for UBS & OBPM Host**	new or additional entity home branch	
	ENTITY_EHMS_FCORE_FCUBS_SCHEMA_NAME ****This parameter is only required for FCORE**	FCORE-FCUBS HOST schema name	**export ENTITY_EHMS_FCORE_FCUBS_SCHEMA_NAME=FCRUBSHOST**
Environment variables to set for flavor: **OBAPI (Third-party HOST)**	**Entity_Code**	Entity code which has been entered from screen	**export Entity_Code=OBDX_BU1**
	SCHEMA_PASS	Password for existing OBAPI schema	**export SCHEMA_PASS=welcome1**

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

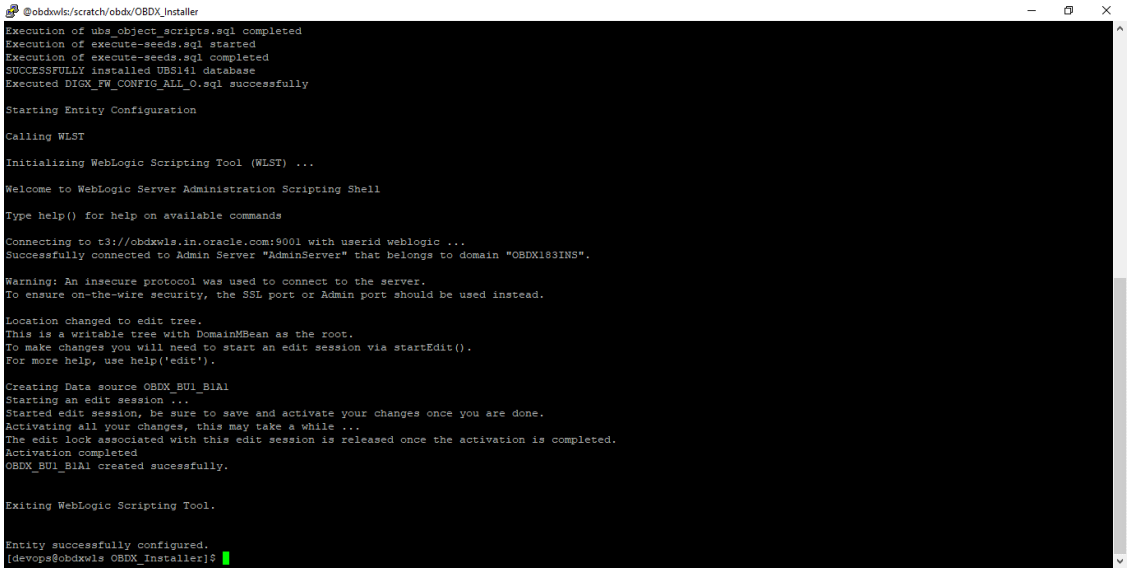
```
[devops@        /]$
[devops@        /]$ export Entity_Code=OBDX_BU7
[devops@        /]$ export SCHEMA_PASS=devops#obdx182
[devops@        /]$ export ENTITY_EHMS_DATABASE_HOSTNAME=mumaa012.in.oracle.com
[devops@        /]$ export ENTITY_EHMS_DATABASE_PORT=1521
[devops@        /]$ export ENTITY_EHMS_DATABASE_SID=obdxdb.in.oracle.com
[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



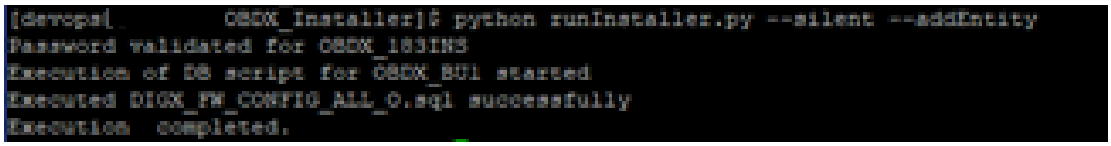
Post successful installation refer to “Section 8: Post Installation steps” for manual steps to be performed for

- 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)



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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_LOGGING.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

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

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:

Try one of the following:

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

cx_oracle module

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

If you get the following error:

Execute the below command:

export LD_LIBRARY_PATH=/usr/lib/oracle/12.2/client64/lib:$LD_LIBRARY_PATH

python

import cx_Orace

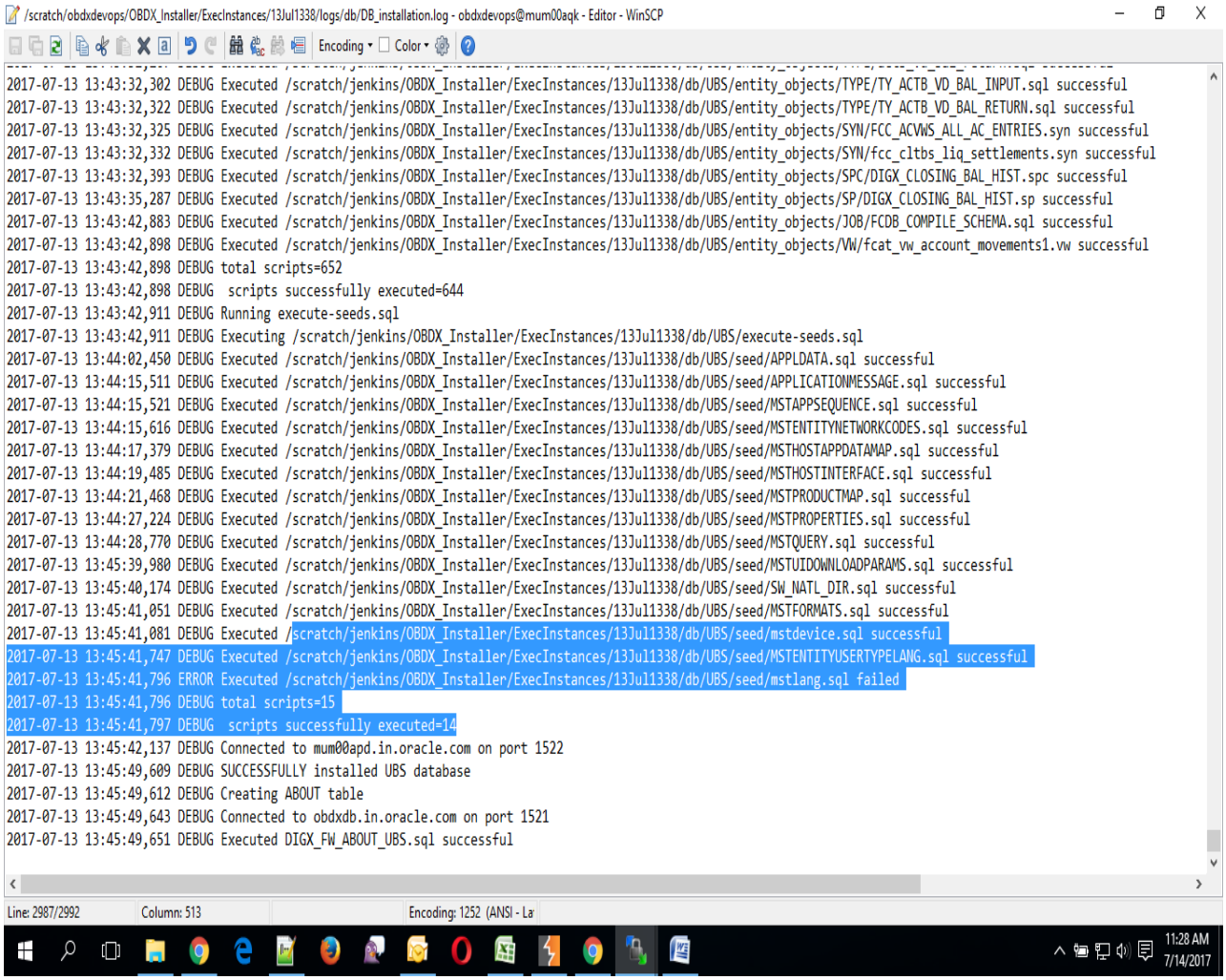
cx_Oracle.__version__

```
[                opt]# export LD_LIBRARY_PATH=/usr/lib/oracle/12.2/client64/lib:$LD_LIBRARY_PATH
[                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
>>> cx_Oracle.__version__
'5.2.1'
>>>
```

Failed Database Scripts

This topic contains troubleshooting information in case of database script failures.

If you get the following error in DB_installation.log:



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
Creating STB Schema ...
Running RCU
STB Schema Creation Successful.
See logfile ./app/obdx_stb_rcu_1600

Calling WLST
creating domain named OBDX_INS_DEV6 .
OBDX_INS_DEV6 created .
```

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 itcontains 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
- 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%u.log
java.util.logging.FileHandler.pattern = <logs_path>/Task.log
java.util.logging.FileHandler.limit = 50000
java.util.logging.FileHandler.count = 1
#java.util.logging.FileHandler.formatter = java.util.logging.XMLFormatter
java.util.logging.FileHandler.formatter = java.util.logging.SimpleFormatter
java.util.logging.SimpleFormatter.format= [%1$tc] %4$s: %2$s - %5$s %6$s%n


# Limit the message that are printed on the console to INFO and above.
java.util.logging.ConsoleHandler.level = OFF
java.util.logging.ConsoleHandler.formatter = java.util.logging.SimpleFormatter


############################################################

# default file output is in user's home directory.
#java.util.logging.FileHandler.pattern = %h/java%u.log
java.util.logging.FileHandler.pattern = /scratch/Task.log
java.util.logging.FileHandler.limit = 50000
java.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:@10.44.169.255:1521/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,<OBAPISchema 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_THP181,Welcome#1,jdbc:oracle:thin:@10.44.169.255:1521/OBAPI"

- 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_THP181,Welcome#1,jdbc:oracle:thin:@10.44.169.255:1521/OBAPI"

- Post successfully execution, restart Managed server.

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