

Oracle Banking Digital Experience

**Installer Pre-Requisite Setup Guide
Release 18.2.0.0.0**

Part No. E97823-01

June 2018

ORACLE®

Installer Pre-Requisite Setup Guide

June 2018

Oracle Financial Services Software Limited

Oracle Park

Off Western Express Highway

Goregaon (East)

Mumbai, Maharashtra 400 063

India

Worldwide Inquiries:

Phone: +91 22 6718 3000

Fax: +91 22 6718 3001

www.oracle.com/financialservices/

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1. Preface

1.1 Intended Audience

This document is intended for the following audience:

- Customers
- Partners

1.2 Documentation Accessibility

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

1.3 Access to Oracle Support

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

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

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

1.4 Structure

This manual is organized into the following categories:

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

The subsequent chapters describes following details:

- Introduction
- Configuration / Installation of pre-requisite software's

1.5 Related Information Sources

For more information on Oracle Banking Digital Experience Release 18.2.0.0.0, refer to the following documents:

- Oracle Banking Digital Experience Licensing Guide

2. Introduction

This guide helps you to do the pre-requisite setup required before the execution of OBDX 18.2.0.0.0 Installer.

More details about each task are explained in detail in following sections.

2.1 Software List

Software Name	Version	Mandatory Software
Operating System	ORACLE LINUX 7.x	Y
Oracle Database	12.2.0.1.0	Y
Oracle Java Development Kit	1.8.0_172	Y
Oracle Weblogic Infrastructure	12.2.1.3.0	Y
Oracle HTTP Server	12.2.1.3.0	Y
Oracle Identity and Access Management Suite (IAM)	12.2.1.3.0	N*
LDAP (OUD)	12.2.1.3.0	N*
Oracle Business Intelligence Publisher	12.2.1.3.0	N**
IBCS	18.1.1	N***
Python	2.7.5	Y
Python Package: cx_Oracle	5.2.1	Y
Python Package: urwid	1.3.1	Y

Software Name	Version	Mandatory Software
Oracle Client	12.2.0.1	Y
<p>* Required if OBDX Native Authentication is not used and OAM is managing Authentication</p> <p>** Required if Integration with Oracle Business Intelligence Publisher is needed.</p> <p>*** Required if OBDX Chat bot Banking Features are used.</p>		

2.2 Pre-requisite software installation for OBDX Installer

Below steps assume Python 2.7.5 and Oracle Instant client is installed and available on server. You can verify the Python and Oracle client version by executing the command as shown below:

```
[devops@ /]$ python -V
Python 2.7.5
[devops@ /]$
```

```
[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: Below steps require root login on server where OBDX software pre-requisite are performed (i.e. Server which host Oracle Weblogic)

cx_Oracle

Step 1: Download cx_Oracle from Python packages website.

Note: Kindly ensure correct rpm package is downloaded as per Python (2.7.5) and Oracle database (12c) version.

For e.g.: cx_Oracle-5.2.1-12c-py27-1.x86_64.rpm for Python 2.7.5 and Oracle 12c

Step 2: Login as root onto the server and install the cx_Oracle rpm package (downloaded in earlier section).

For e.g.: We can use below command for installation

```
# rpm -ivh cx_Oracle-5.2.1-12c-py27-1.x86_64.rpm
```

```
[root@ setup]# rpm -ivh cx_Oracle-5.2.1-12c-py27-1.x86_64.rpm
Preparing... ##### [100%]
Updating / installing...
 1:cx Oracle-5.2.1-1 ##### [100%]
```

Urwid

Step 1: Download Urwid from Urwid (or urwid.org) website.

Note: Support version for Urwid is 1.3.1 (urwid-1.3.1.tar.gz)

Step 2: Extract the tar file as shown below

```
[root@      setup]# tar -zxvf urwid-1.3.1.tar.gz
urwid-1.3.1/urwid/tests/test_container.py
urwid-1.3.1/urwid/tests/test_util.py
urwid-1.3.1/urwid/tests/test_vterm.py
urwid-1.3.1/urwid/tests/test_graphics.py
urwid-1.3.1/urwid/tests/test_listbox.py
urwid-1.3.1/urwid/tests/test_widget.py
urwid-1.3.1/urwid/tests/__init__.py
urwid-1.3.1/urwid/tests/test_doctests.py
```

Step 3: Browse into the extracted directory and run below command

python setup.py build_py

```
[root@      urwid-1.3.1]# python setup.py build_py
running build_py
creating build
creating build/lib.linux-x86_64-2.7
creating build/lib.linux-x86_64-2.7/urwid
copying urwid/lcd_display.py -> build/lib.linux-x86_64-2.7/urwid
copying urwid/canvas.py -> build/lib.linux-x86_64-2.7/urwid
copying urwid/escape.py -> build/lib.linux-x86_64-2.7/urwid
copying urwid/signals.py -> build/lib.linux-x86_64-2.7/urwid
copying urwid/main_loop.py -> build/lib.linux-x86_64-2.7/urwid
copying urwid/command_map.py -> build/lib.linux-x86_64-2.7/urwid
copying urwid/old_str_util.py -> build/lib.linux-x86_64-2.7/urwid
```

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

Step 4: Execute below command to perform Urwid installation

python setup.py install

```
[root@      urwid-1.3.1]# python setup.py install
running install
running bdist_egg
running egg_info
writing urwid.egg-info/PKG-INFO
writing top-level names to urwid.egg-info/top_level.txt
writing dependency links to urwid.egg-info/dependency_links.txt
reading manifest file 'urwid.egg-info/SOURCES.txt'
reading manifest template 'MANIFEST.in'
warning: no files found matching 'CHANGELOG'
writing manifest file 'urwid.egg-info/SOURCES.txt'
installing library code to build/bdist.linux-x86_64/egg
running install_lib
running build_py
running build_ext
```

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

[Home](#)

3. Installing and Configuring Weblogic Infrastructure 12c

This chapter describes the steps for installing the Weblogic Infrastructure version 12.2.1.3.0:

- Section 3.1, "Installing Stand-alone Weblogic"

3.1 Installing Stand-alone Weblogic Infrastructure

Oracle WebLogic Server is a scalable, enterprise-ready Java Platform, Enterprise Edition (Java EE) application server. The WebLogic Server infrastructure supports the deployment of many types of distributed applications.

This chapter describes the installation tasks which contains the following sections:

- Section 3.1.1, "Pre-requisite - Installing Java 1.8"
- Section 3.1.2, "Installing Weblogic Infrastructure"
- Section 3.1.3, "Verifying the Installation"

3.1.1 Pre-requisite - Installing Java 1.8

- Obtain the Java tarball pack from the Oracle Java Downloads. Download [jdk-8u172-linux-x64.tar.gz](#) file to a directory.
- Change the directory in which you want to install,

```
cd <Directory_Path>
```

- Unpack the tarball and install Java using the following command:

```
tar zxvf <Path>/jdk-8u172-linux-x64.tar.gz
```

Note: You must enter the absolute path of the folder where the TAR file is located.

- Now, set the path and environment variable for Java as:

```
export JAVA_HOME=<Java_Install_Path>/jdk1.8.0_172
```

```
export PATH=$JAVA_HOME/bin:$PATH
```

3.1.2 Installing Weblogic

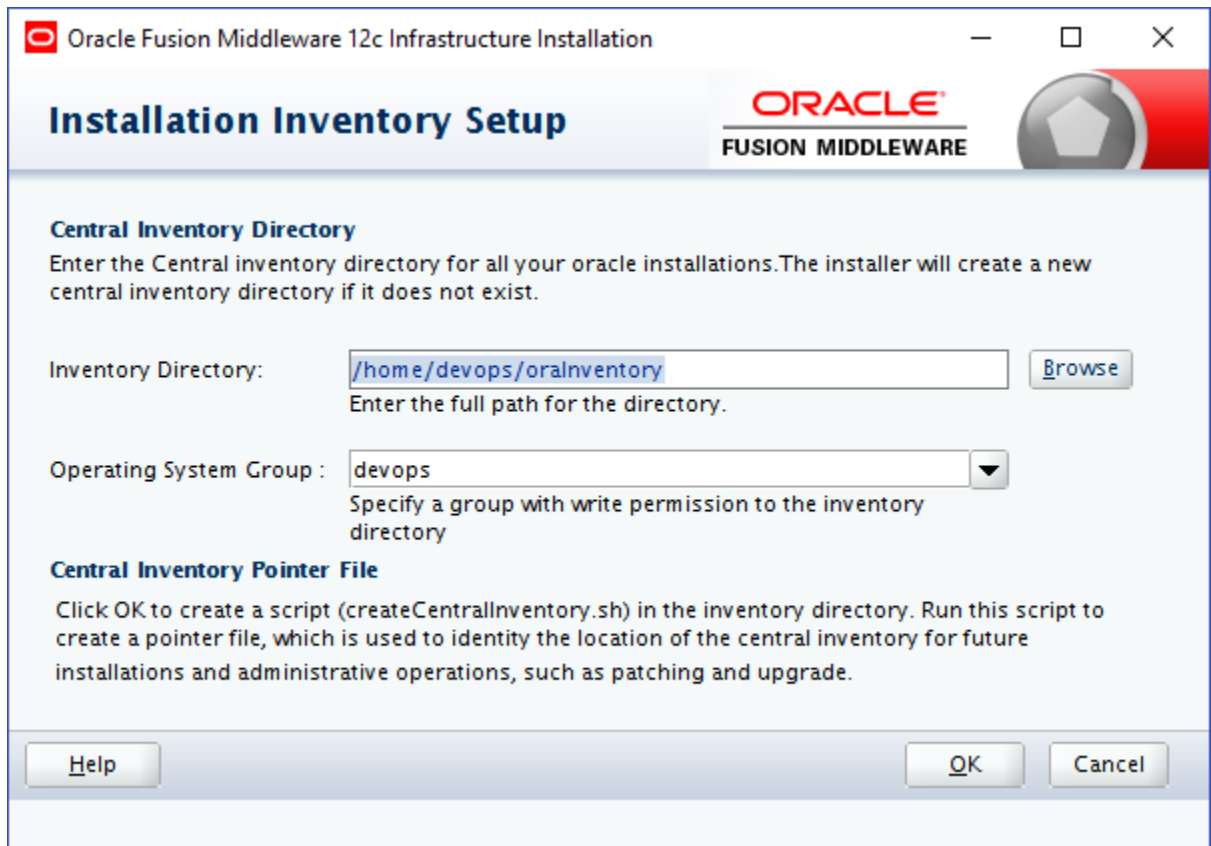
- Obtain Weblogic Infrastructure 12.2.1.3.0 zip from the Oracle Fusion Middleware Downloads. Extract the downloaded zip to get **fmw_12.2.1.3.0_infrastructure.jar** file to a directory.
- Now to start the installer, go to the directory where you have extracted the jar file.
- Start the installer from the same directory using the below command:

```
java -jar <Path>/fmw_12.2.1.3.0_infrastructure.jar
```

Note: You must enter the absolute path of the folder where the JAR file is located.

If you are installing on a UNIX system, and if this is the first time any Oracle product is being installed on your system with the Oracle Universal Installer, you will be asked to provide the location of an inventory directory. This is where the installer sets up subdirectories and maintains inventory data for each Oracle product that is installed on this system.

Installation Inventory Setup Screen



The screenshot shows the 'Installation Inventory Setup' window from the Oracle Fusion Middleware 12c Infrastructure Installation. The window has a title bar with the Oracle logo and the text 'Oracle Fusion Middleware 12c Infrastructure Installation'. Below the title bar, the 'Installation Inventory Setup' title is displayed in large blue font, followed by the Oracle Fusion Middleware logo. The main content area is divided into two sections. The first section, 'Central Inventory Directory', contains instructions to enter the central inventory directory and a text box with the path '/home/devops/orainventory'. Below the text box is a 'Browse' button. The second section, 'Operating System Group', contains a dropdown menu with 'devops' selected and a note to specify a group with write permission. The third section, 'Central Inventory Pointer File', contains instructions to click OK to create a script. At the bottom of the window are three buttons: 'Help', 'OK', and 'Cancel'.

Central Inventory Directory
Enter the Central inventory directory for all your oracle installations. The installer will create a new central inventory directory if it does not exist.

Inventory Directory:
Enter the full path for the directory.

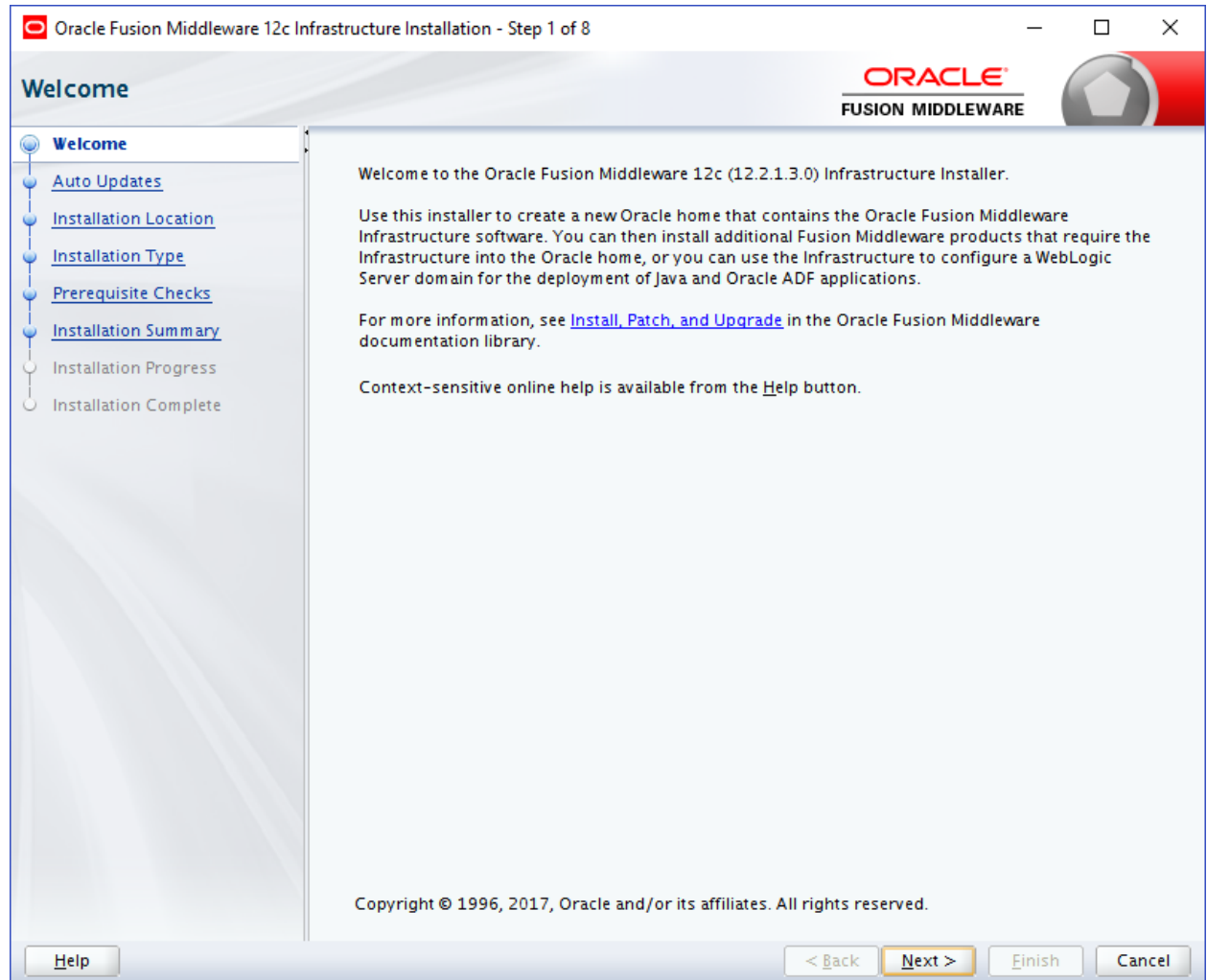
Operating System Group :
Specify a group with write permission to the inventory directory

Central Inventory Pointer File
Click OK to create a script (createCentralInventory.sh) in the inventory directory. Run this script to create a pointer file, which is used to identify the location of the central inventory for future installations and administrative operations, such as patching and upgrade.

Specify the Oracle inventory directory and group permissions for that directory. The group must have write permissions to the Oracle inventory directory.

Click OK to continue.

Welcome Screen



The Welcome screen is displayed each time you start the installer.

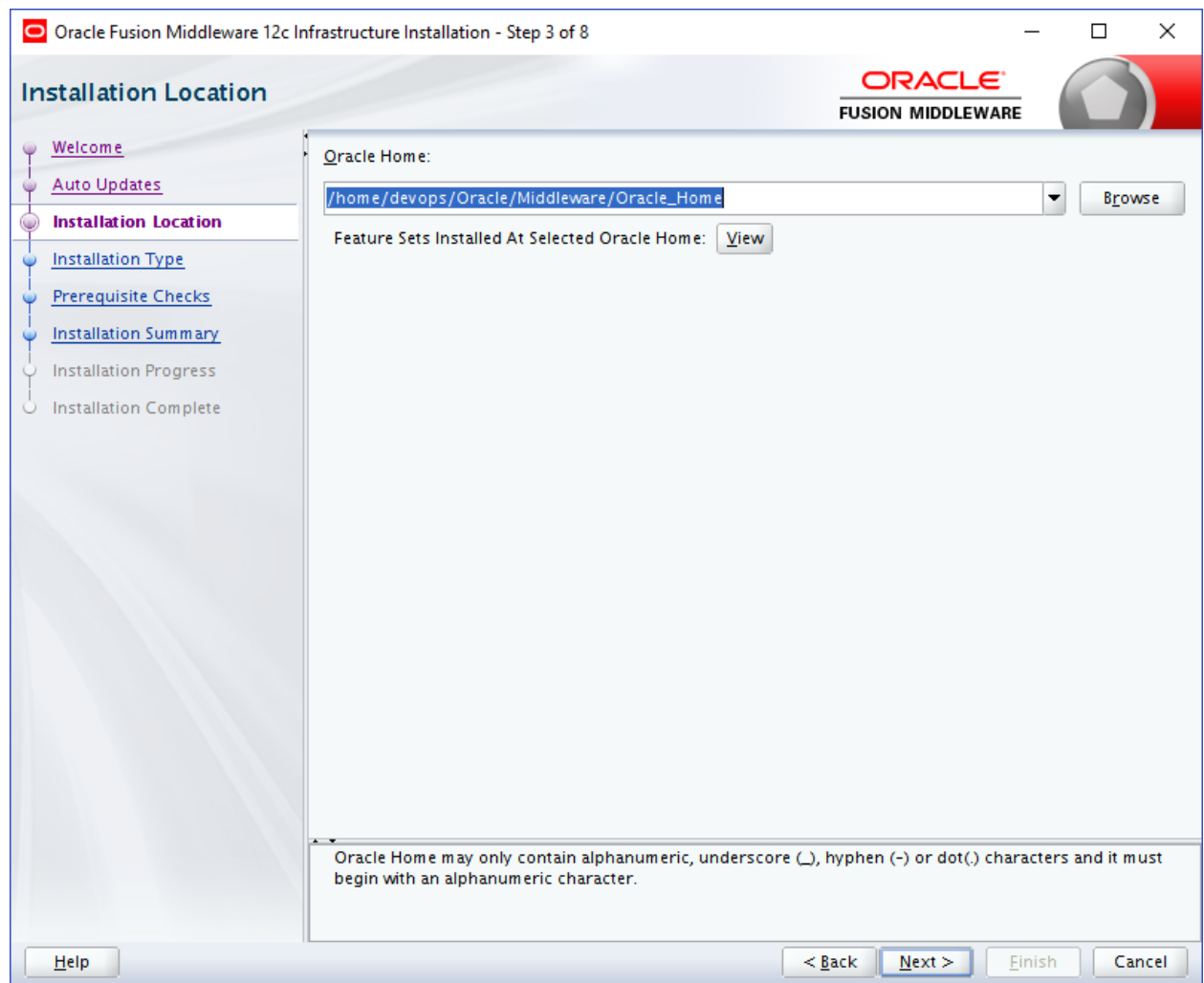
Click Next to continue.

Auto Updates Screen

The screenshot shows the 'Auto Updates' screen in the Oracle Fusion Middleware 12c Infrastructure Installation wizard. The window title is 'Oracle Fusion Middleware 12c Infrastructure Installation - Step 2 of 8'. The Oracle logo and 'FUSION MIDDLEWARE' text are in the top right corner. A sidebar on the left contains a list of steps: 'Welcome', 'Auto Updates' (highlighted), 'Installation Location', 'Installation Type', 'Prerequisite Checks', 'Installation Summary', 'Installation Progress', and 'Installation Complete'. The main area has two radio button options: 'Skip Auto Updates' (selected) and 'Select patches from directory'. Below the second option is a 'Location:' text box with a 'Browse' button. Another radio button option is 'Search My Oracle Support for Updates'. Below this are 'Username:' and 'Password:' text boxes, a 'Proxy Settings' button, and a 'Test Connection' button. A 'Search' button is also present. A large empty text box is below the search button. At the bottom, there are buttons for '< Back', 'Next >', 'Finish', and 'Cancel'. A 'Help' button is in the bottom left corner.

Select "Skip Auto Updates" option and click Next to continue. (Kindly follow recommended practices regarding updates depending on the setup requirements or usage.)

Specify Installation Location Screen



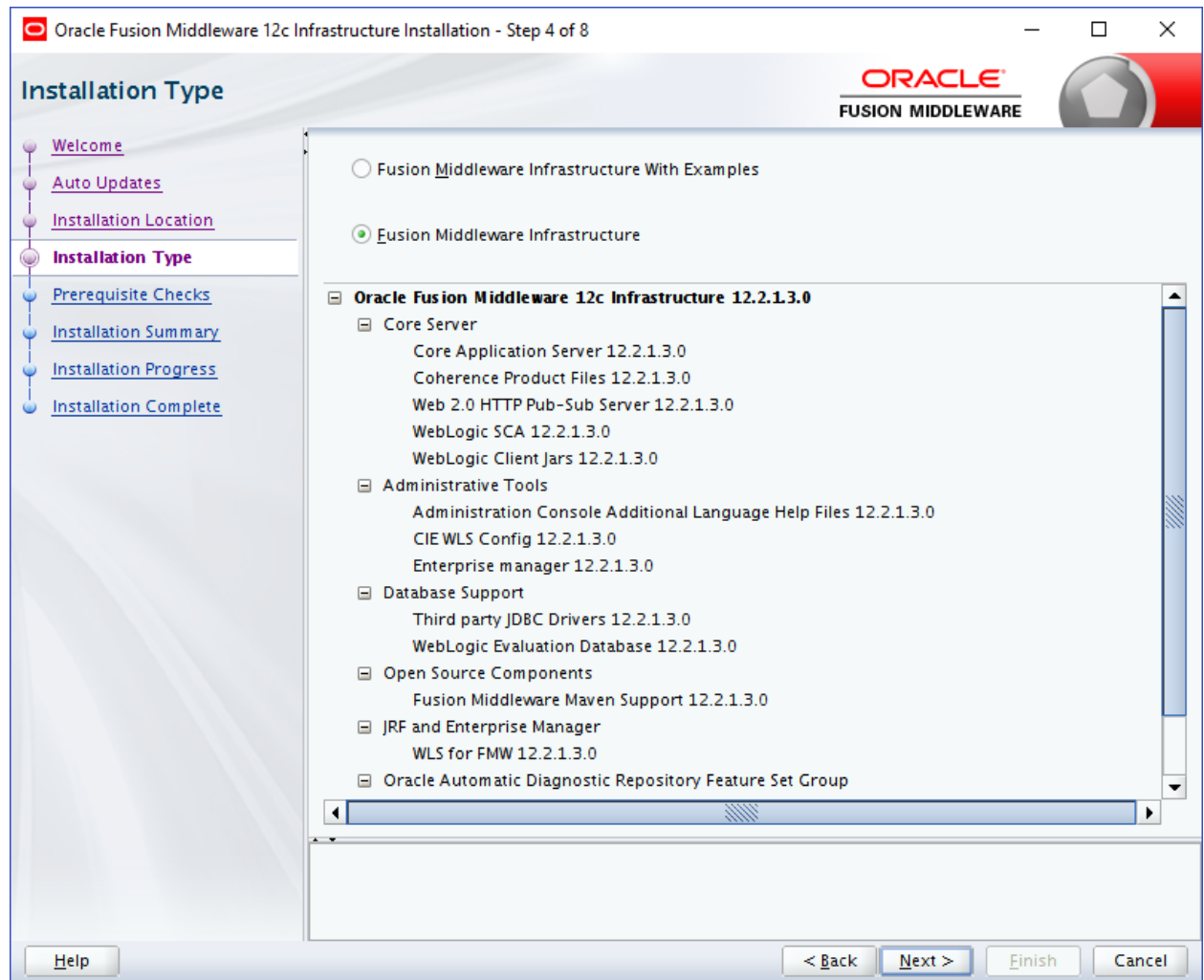
Specify the following installation locations:

- Oracle Middleware Home

This is the absolute path to the directory where the WebLogic Server will be installed.

Click Next to continue.

Specify Installation Type Screen

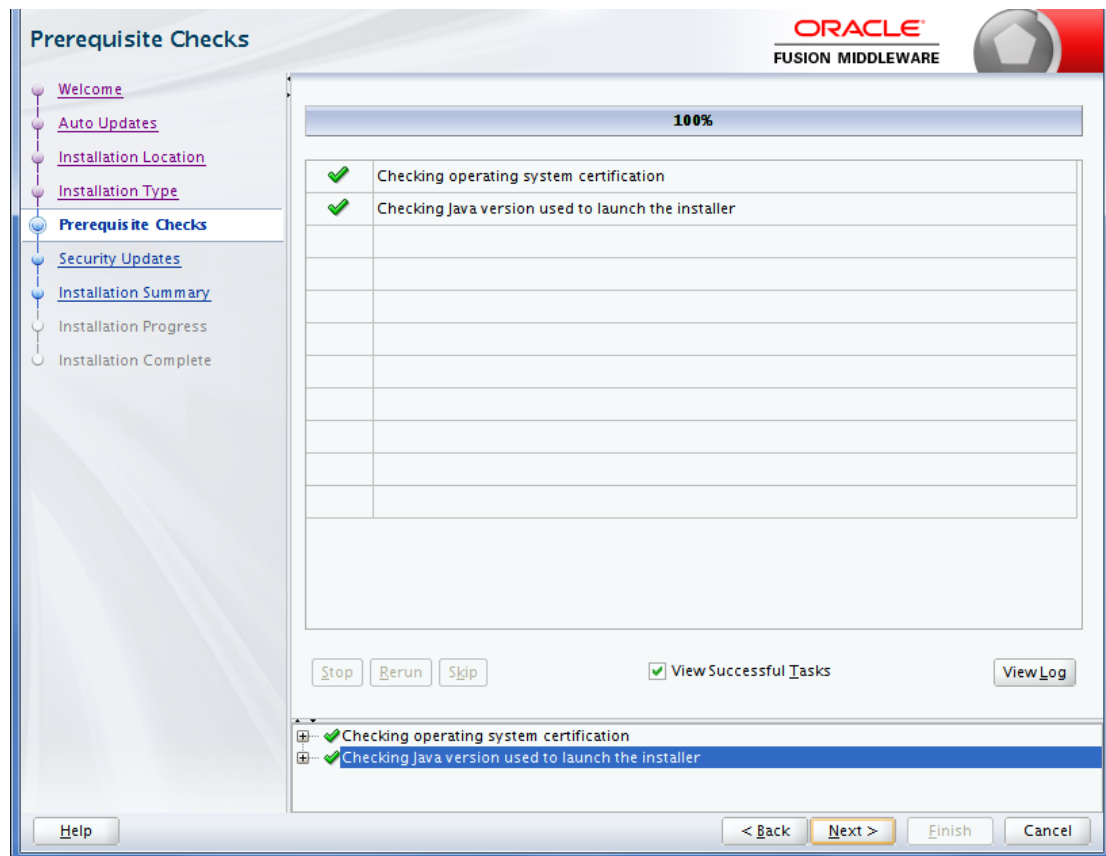


Following are the installation types:

- Fusion Middleware Infrastructure with Examples
- Fusion Middleware Infrastructure

Select Fusion Middleware Infrastructure and Click Next to continue.

Prerequisite Checks Screen

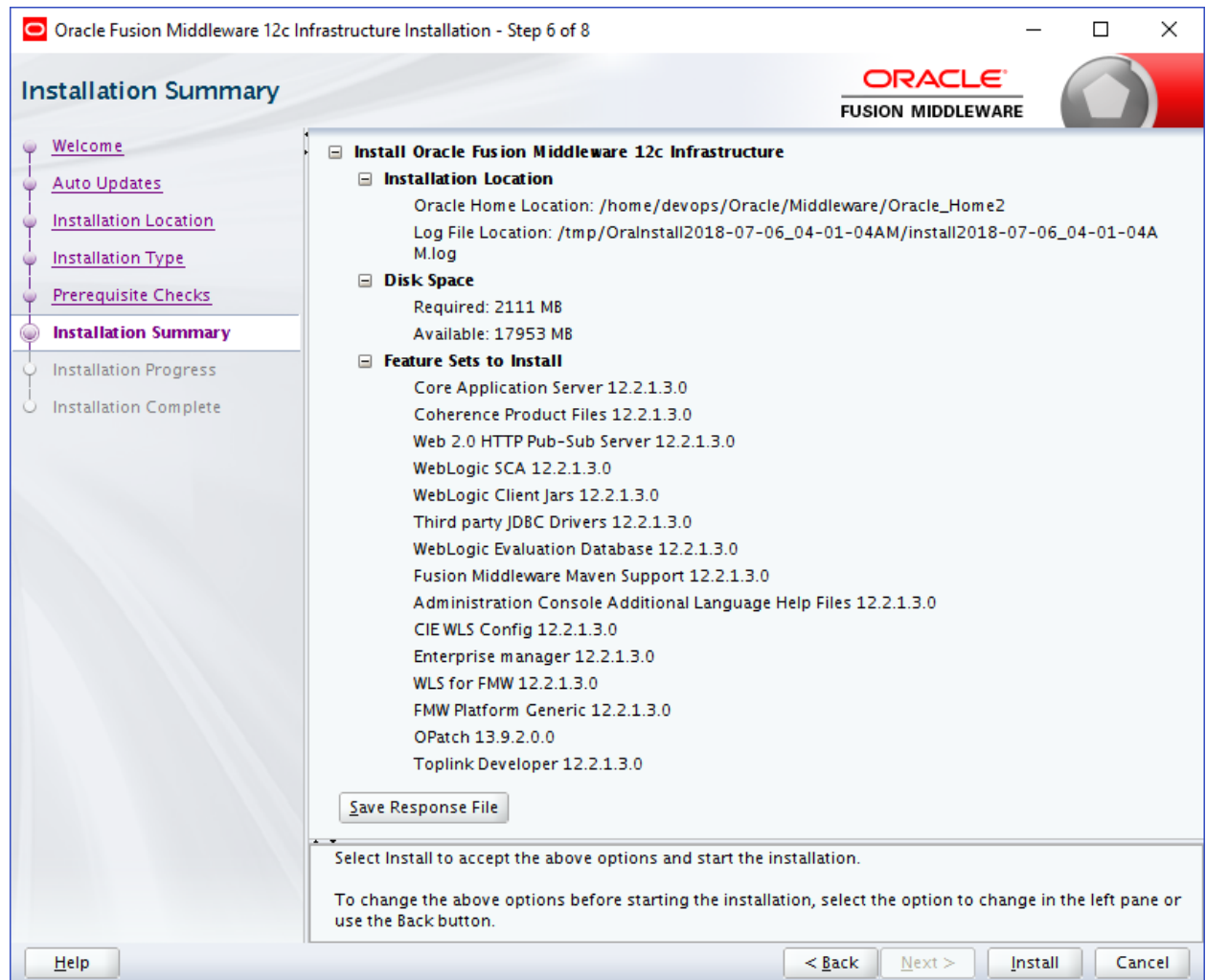


This screen shows whether the system requirements are met in order to install the software.

If there is a problem, a short error message appears in the bottom portion of the screen. Fix the error, and click Retry to try again.

Click Next to continue.

Installation Summary Screen



Review the information on this screen. The operations summarized on this page will be performed when you click Install.

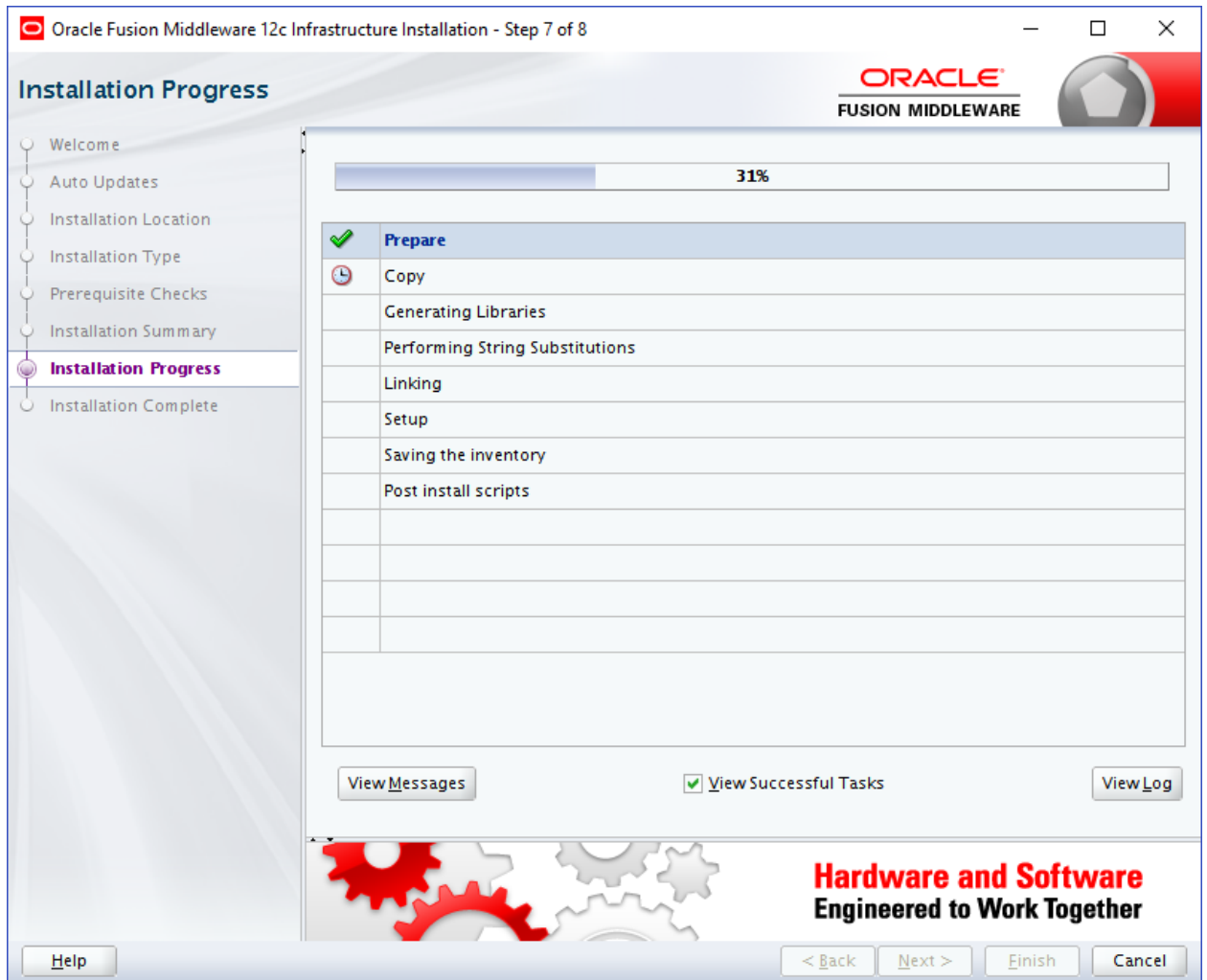
If you want to make any changes to the configuration before starting the installation, use the navigation pane, and select the topic you want to edit.

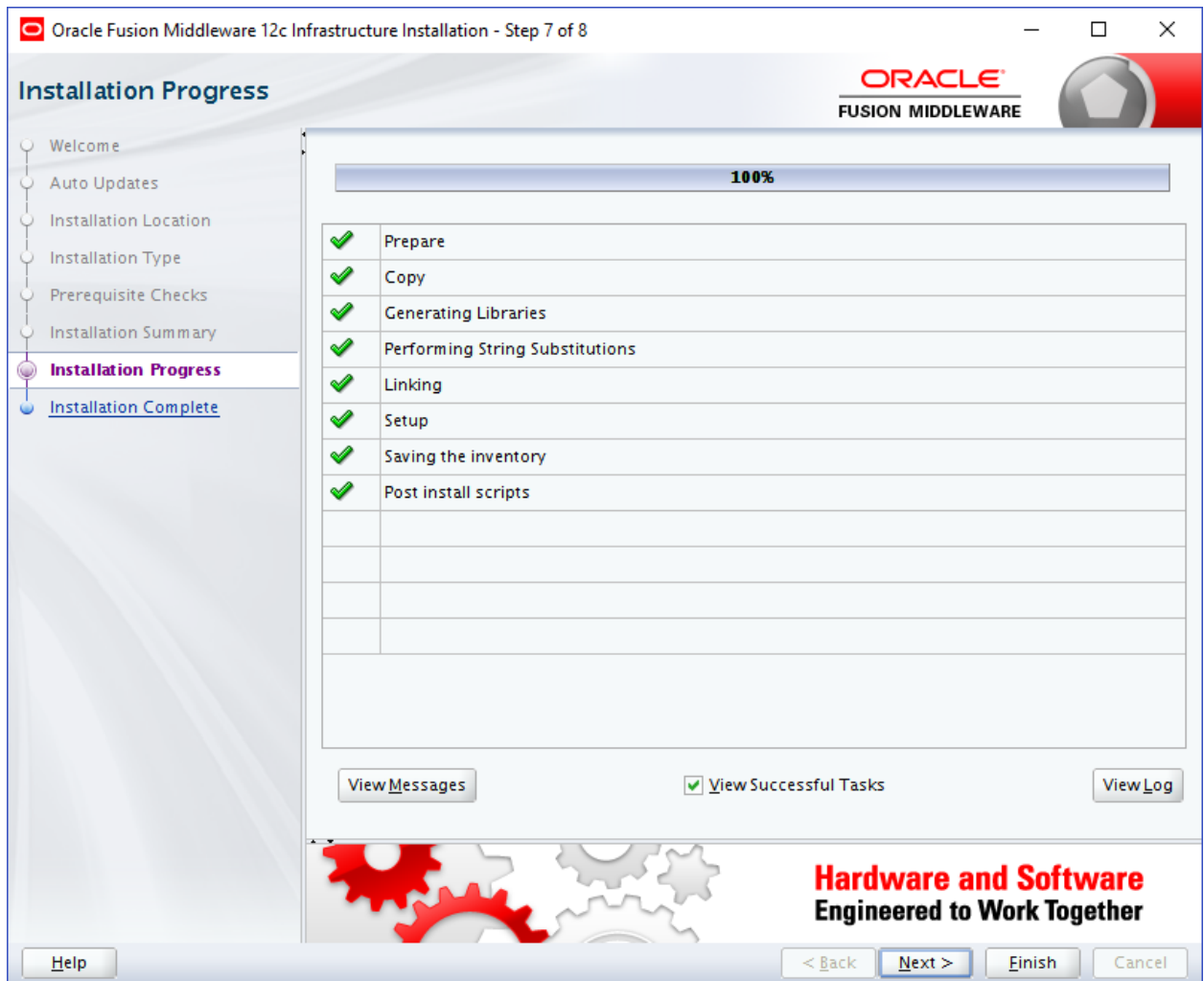
If you want to save this configuration to a text file (called a response file), click Save. You will be prompted for the location of name of the file you want to create (for example, silent_install.rsp). This file can be used later if you choose to perform the same installation from the command line.

Click Install.

Then screen shows the progress of the installation.

Installation Progress Screen

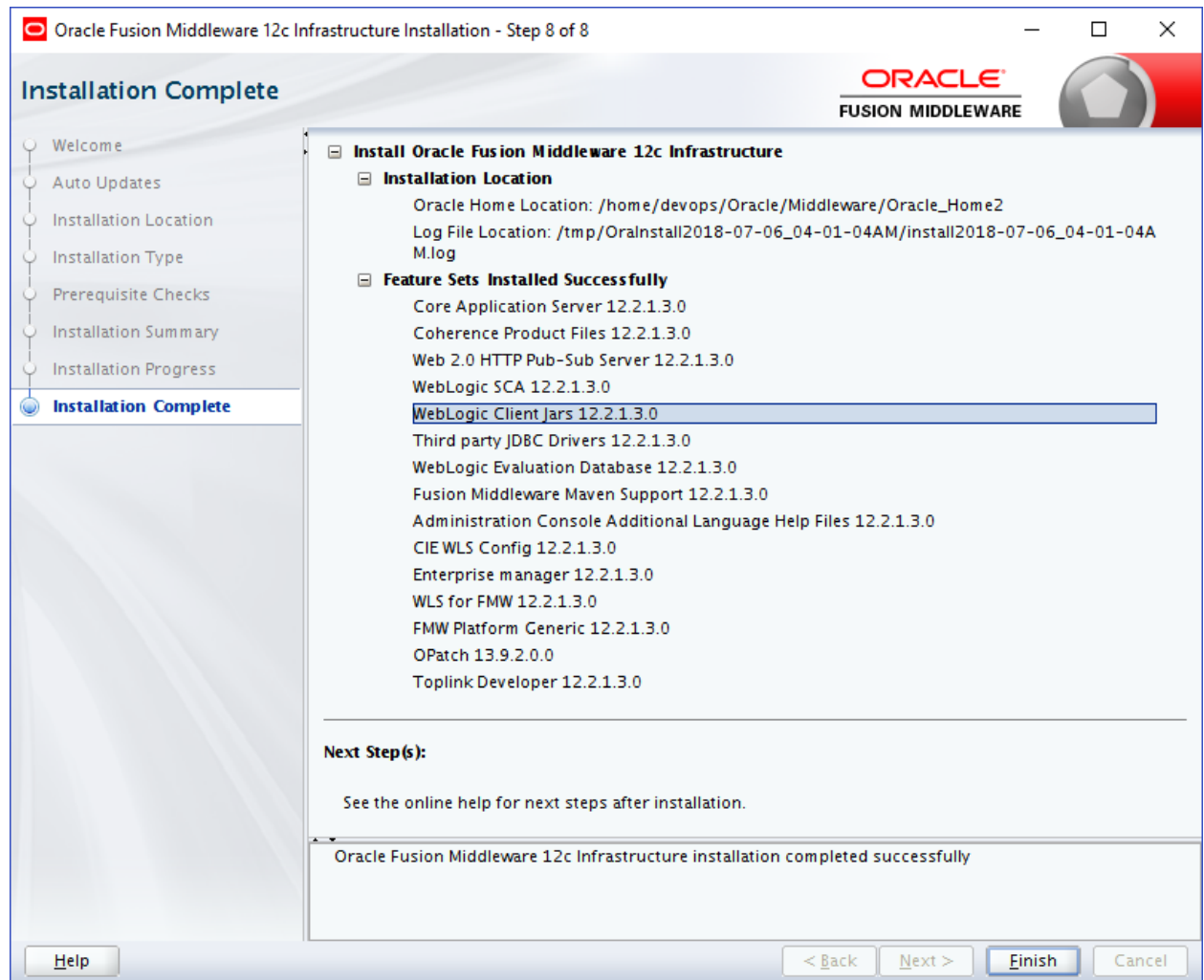




This screen shows the progress of the installation. Click Next.

If you want to quit before the installation is completed, click Cancel.

Installation Complete Screen



This screen summarizes the installation that was just completed.

At the end of the summary information, there is a section called Installation Location which states the Oracle Home Location & the Log File Location along with the list of features installed.

Click Finish

3.1.3 Verifying the Installation

You can perform the following tasks to verify that your installation was successful:

- Verifying the Installation Logs: Check for the presence of installation log files in logs directory. The location of the file is shown at the end of installation in the Installation Complete Screen.
- Verifying the Installation Directory: Check if Oracle Home directory is exists or not.

[Home](#)

4. Oracle HTTP Server Installation

Oracle Webtier is the Web server component for Oracle Fusion Middleware. The Oracle Web Tier installation gives you the option of installing Oracle HTTP Server and Oracle Web Cache. OPMN is installed, by default, and you do not have the option of deselecting this product.

Together, these products are responsible for managing incoming HTTP requests, caching web messages, and sending XML and HTML back to the client. Also, it provides a listener for Oracle WebLogic Server and the framework for hosting static pages, dynamic pages, and applications over the Web. Oracle Web Tier contains the following components:

- **Oracle HTTP Server:** Oracle HTTP Server 11g includes modules developed specifically by Oracle. The features of single sign-on, clustered deployment, and high availability enhance the operation of the Oracle HTTP Server.
- **Oracle Web Cache:** Oracle Web Cache is a content-aware server accelerator, or reverse proxy, for the Web tier that improves the performance, scalability, and availability of Web sites that run on Oracle HTTP Server. Oracle Web Cache is the primary caching mechanism provided with Oracle Fusion Middleware. Caching improves the performance, scalability, and availability of websites that run on Oracle WebLogic Server by storing frequently accessed URLs in memory.
- **Oracle Process Manager and Notification Server (OPMN):** OPMN provides a command-line interface for you to monitor and manage Oracle Fusion Middleware components and sub-components. The OPMN server should be started as soon as possible, after turning on the computer. OPMN must be running whenever OPMN-managed components are turned on or off.

There are different Methods to install Webtier. An Oracle Web Tier solution can be built in one of the following ways:

- **In stand-alone mode:** Oracle Web Tier is configured without a domain, and administered from the command line. See Section 1.3.1 for an overview of the installation procedure.
- **Using Oracle Enterprise Manager Fusion Middleware Control:** In order to use the Oracle Enterprise Manager Fusion Middleware Control, WebLogic Server domain needs to be configured using both the Enterprise Manager and the Java Required Files (JRF) domain templates.

Here, we install Oracle Web Tier in stand-alone mode and following are the sections lists the steps for it:

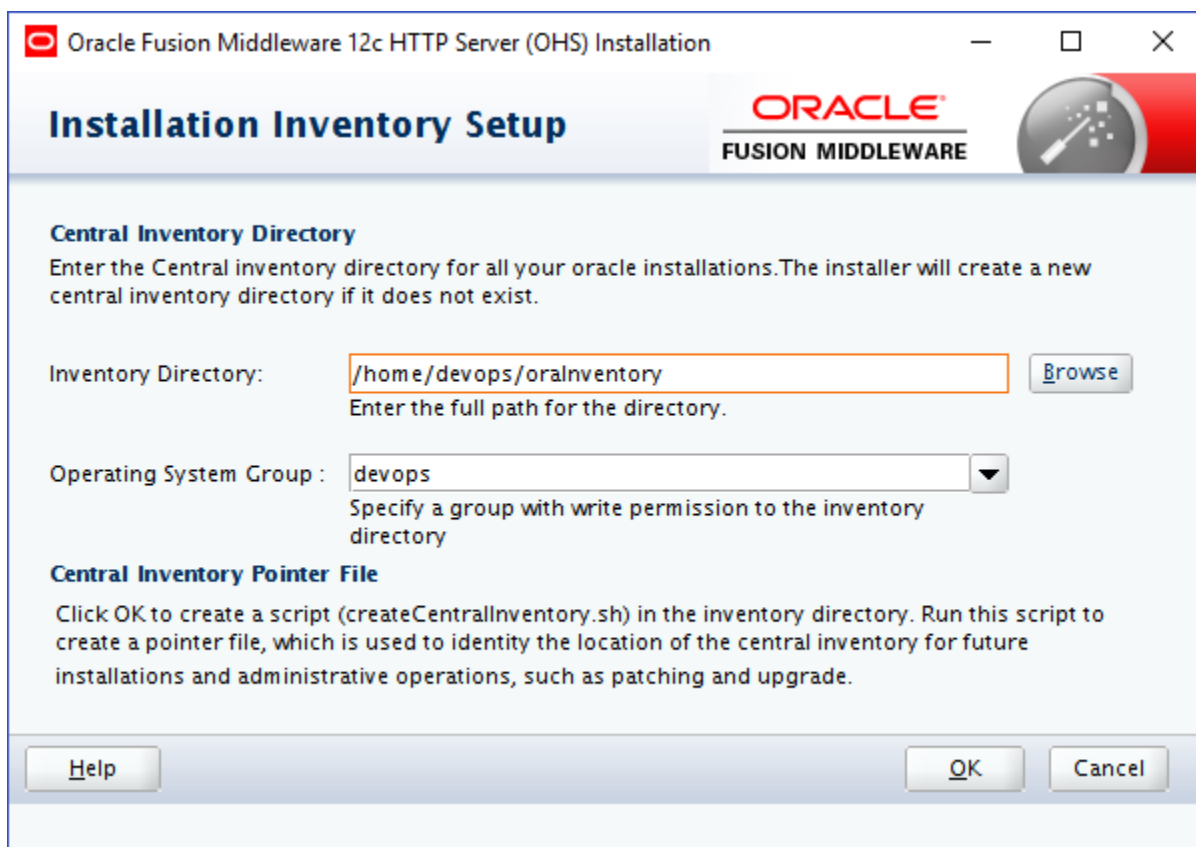
- Section 4.1, "Installing and Configuring Oracle HTTP Server (Webtier)"
- Section 4.2, "Verifying the Installation"

4.1 Installing and Configuring Oracle HTTP Server (OHS)

Obtain Oracle Web Tier from the Oracle Fusion Middleware Downloads. Download webtier.zip file to a directory, and unpack the downloaded archive that contains the installer.

To start the installer, go to the directory where you unpacked the archive file Now, start the installer using the below command:

`./fmw_12.2.1.3.0_ohs_linux64.bin`Now, follow the instructions as shown below to install Webtier,
Specify Inventory Directory Screen



Oracle Fusion Middleware 12c HTTP Server (OHS) Installation

Installation Inventory Setup

Central Inventory Directory
Enter the Central inventory directory for all your oracle installations. The installer will create a new central inventory directory if it does not exist.

Inventory Directory:
Enter the full path for the directory.

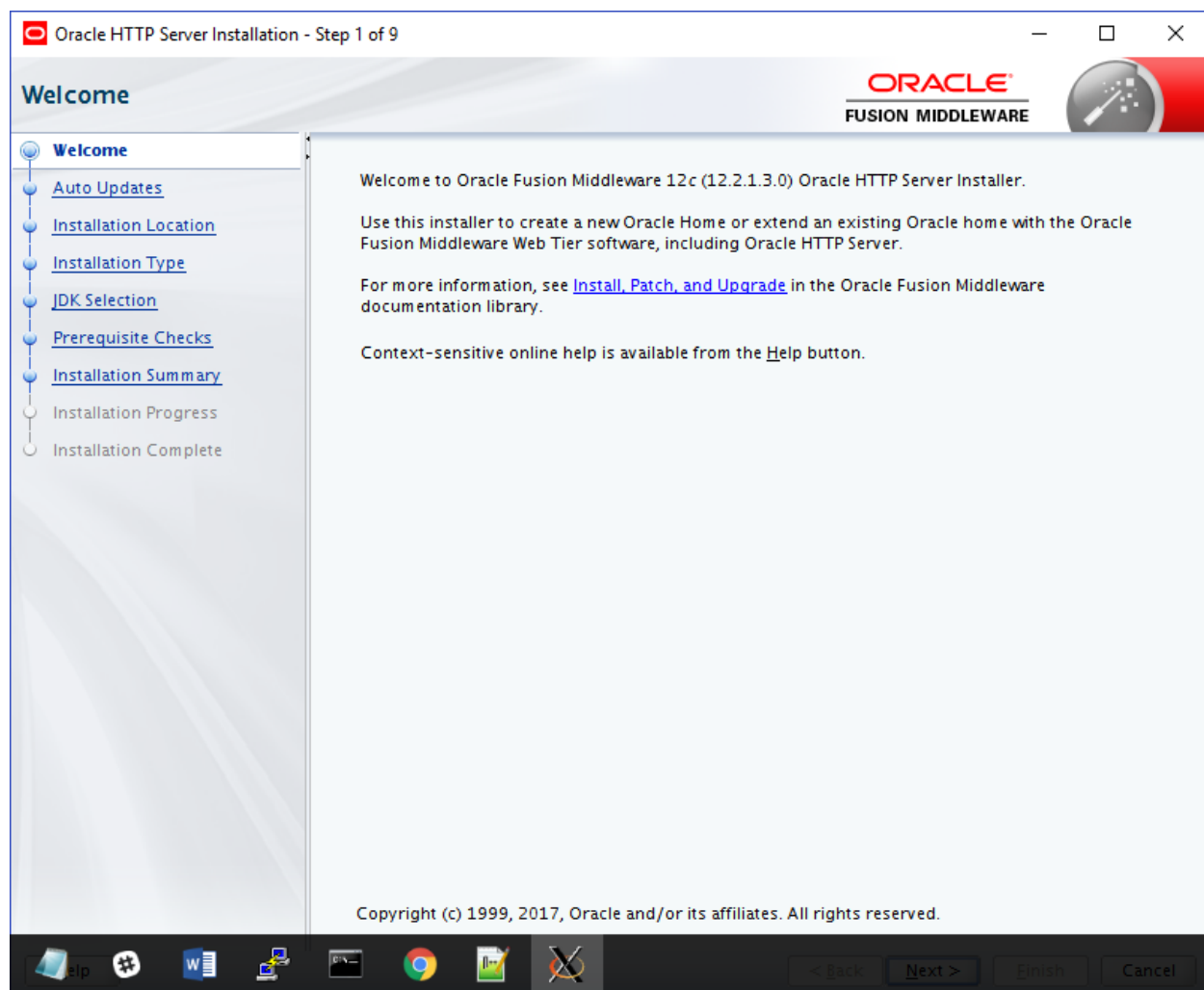
Operating System Group :
Specify a group with write permission to the inventory directory

Central Inventory Pointer File
Click OK to create a script (createCentralInventory.sh) in the inventory directory. Run this script to create a pointer file, which is used to identify the location of the central inventory for future installations and administrative operations, such as patching and upgrade.

This screen appears for UNIX systems only; if this is your first Oracle installation on this host, you must specify the location of the inventory directory. This inventory directory is used by the installer to keep track of all Oracle products installed on the computer. The default inventory location is `USER_HOME/orainventory`.

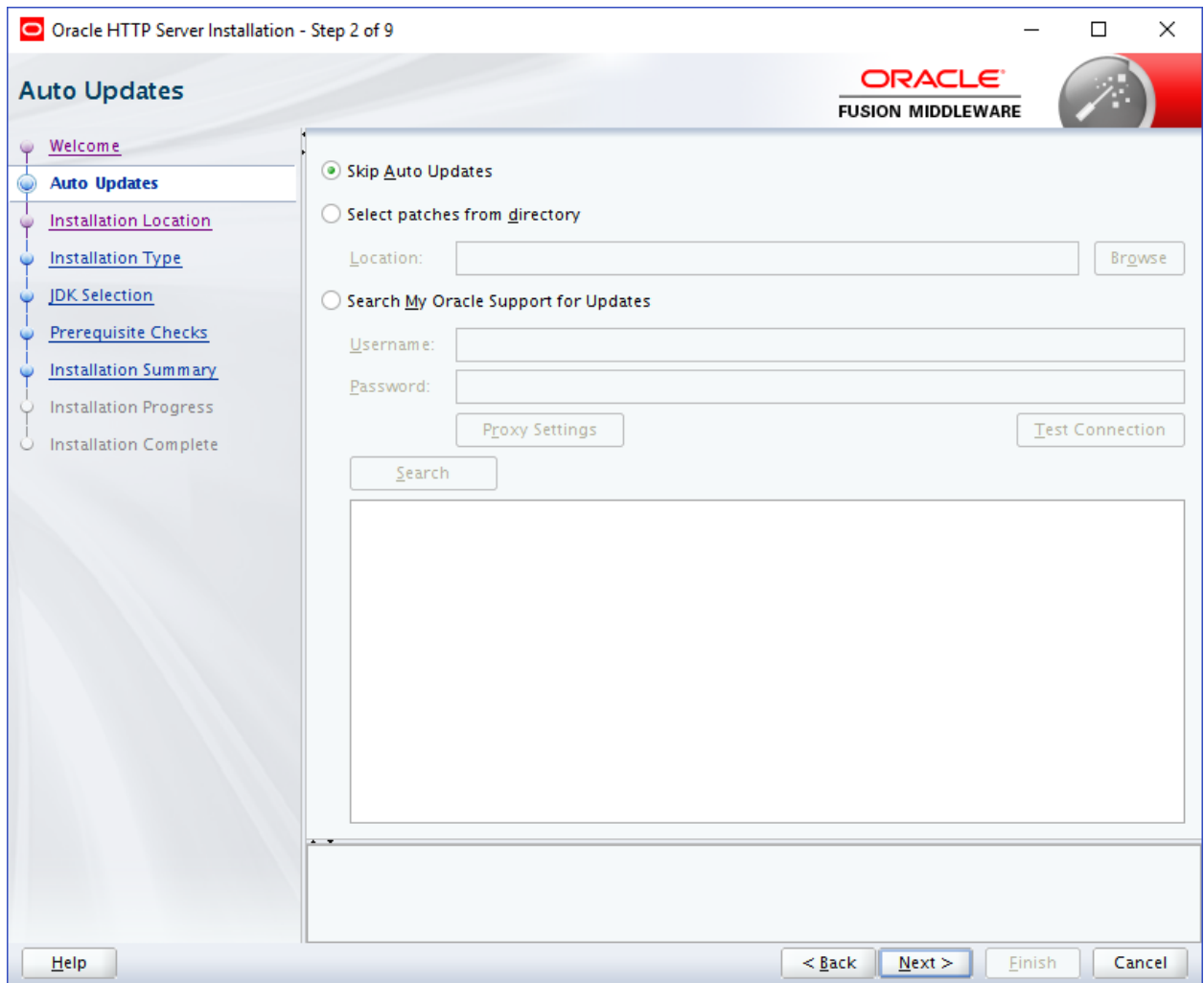
In the Operating System Group name field, select the group whose members you want to grant access to the inventory directory; all members of this group will be able to install products on this system. Click Ok to continue.

Welcome Screen



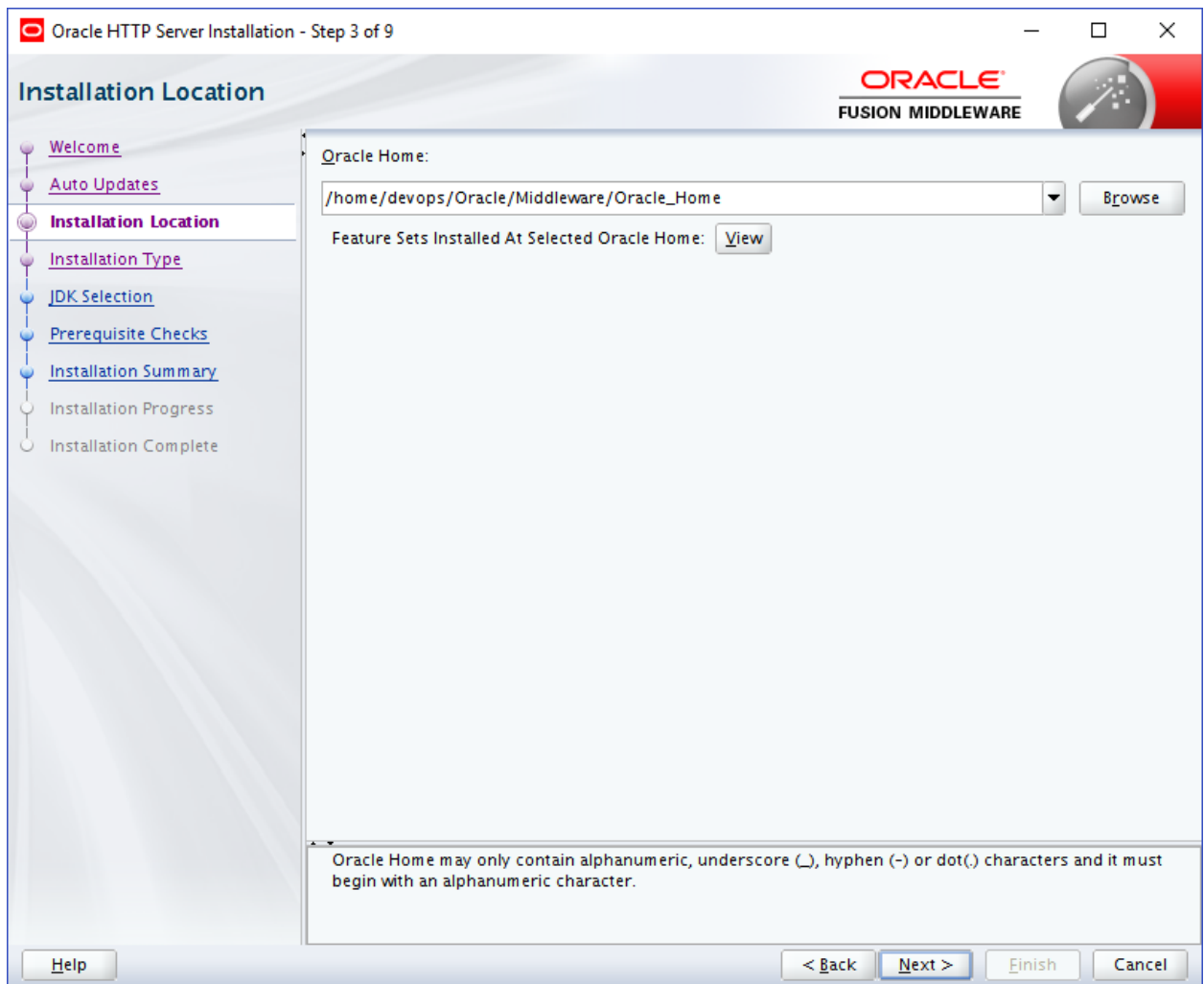
The Welcome screen is displayed each time you start the installer.
Click Next to continue.

Install Software Updates Screen



Select “Skip Software Updates” and Click Next to continue. (Kindly follow recommended practices regarding updates depending on the setup requirements or usage.)

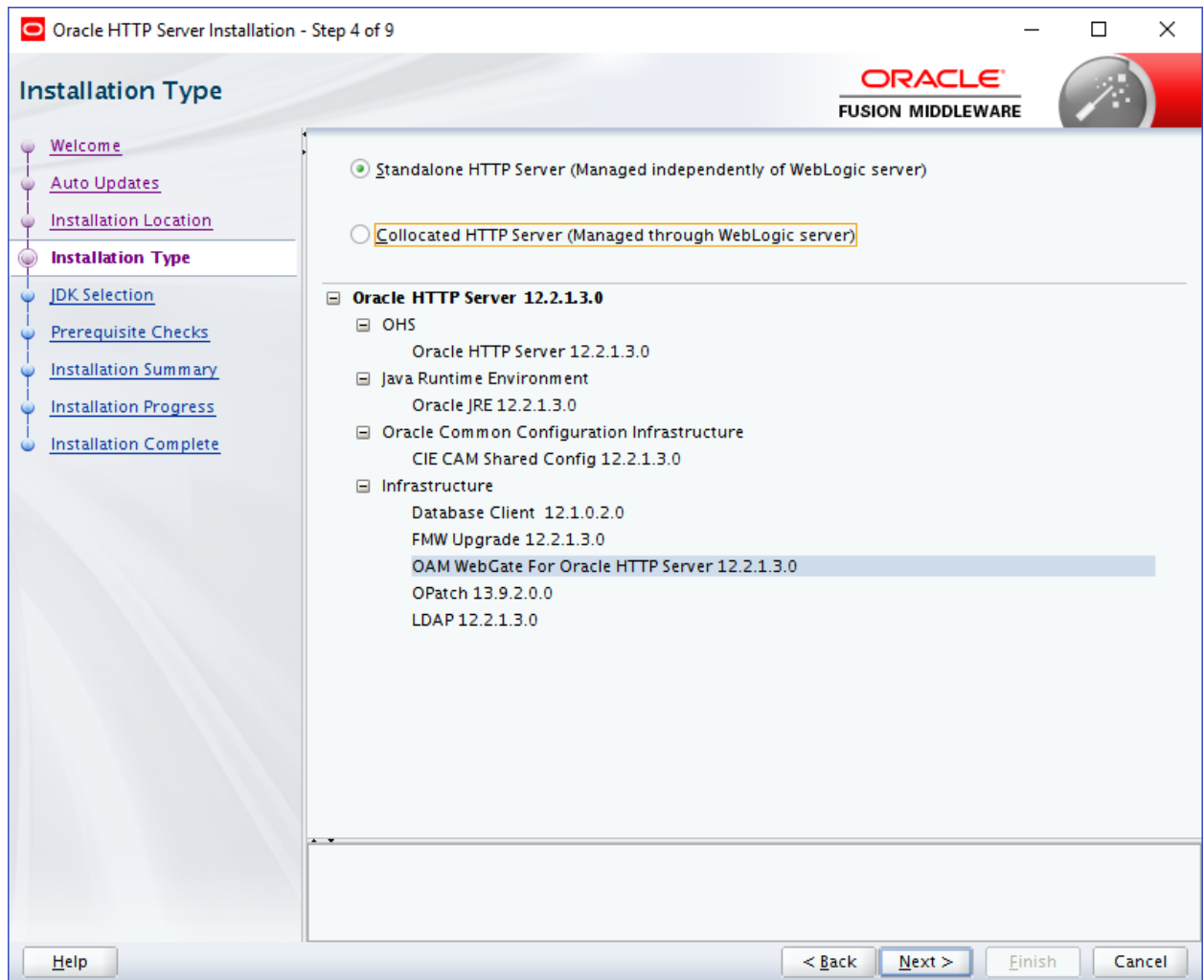
Select Installation Location



Specify the following installation locations:

- Oracle Middleware Home: The absolute path to the directory where Oracle HTTP Server will be installed.

Select Installation Type Screen

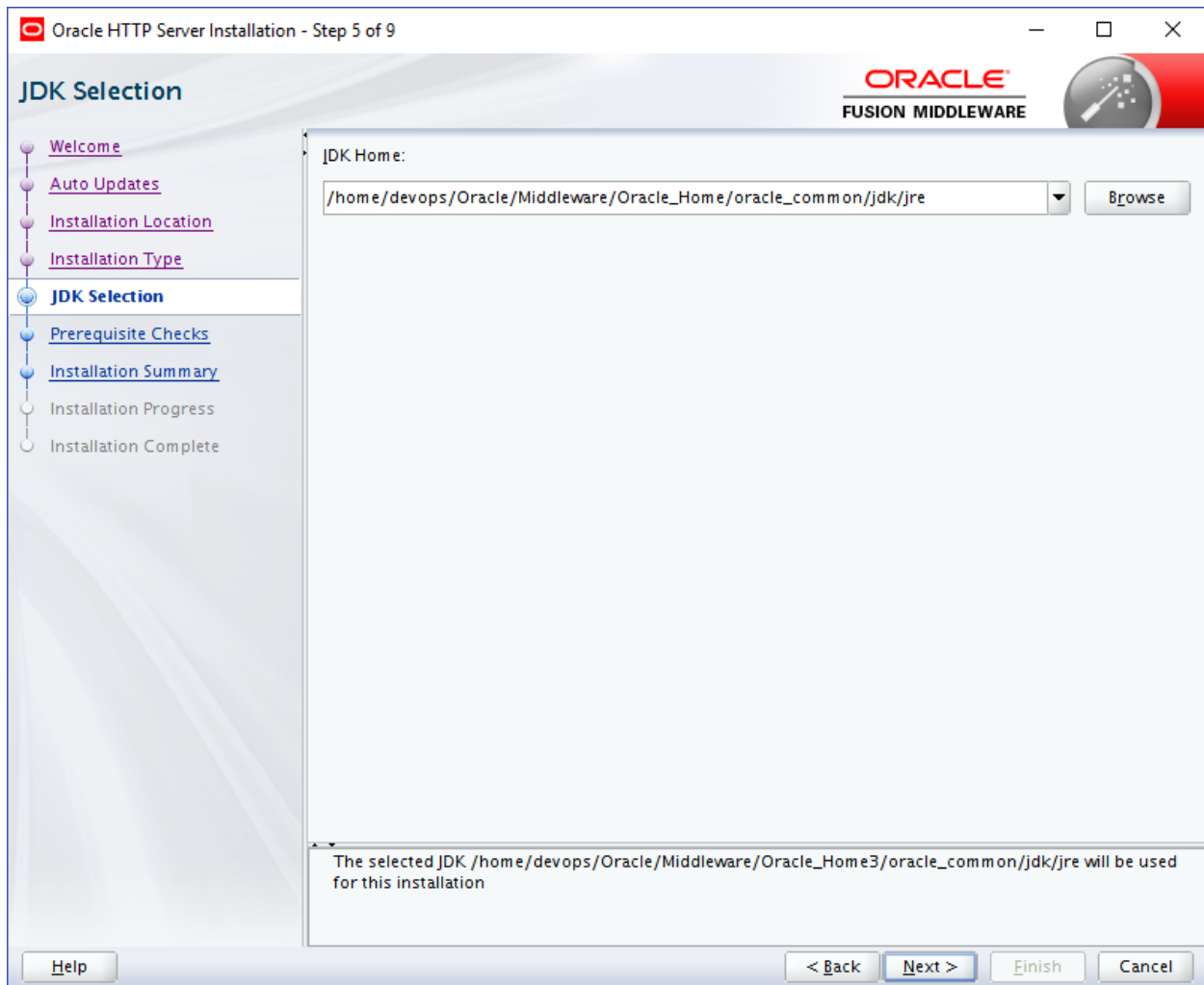


The following are the Installation Types available.

- Standalone HTTP Server (Managed Independently of Weblogic Server) Collocated HTTP Server (Managed through Weblogic server)

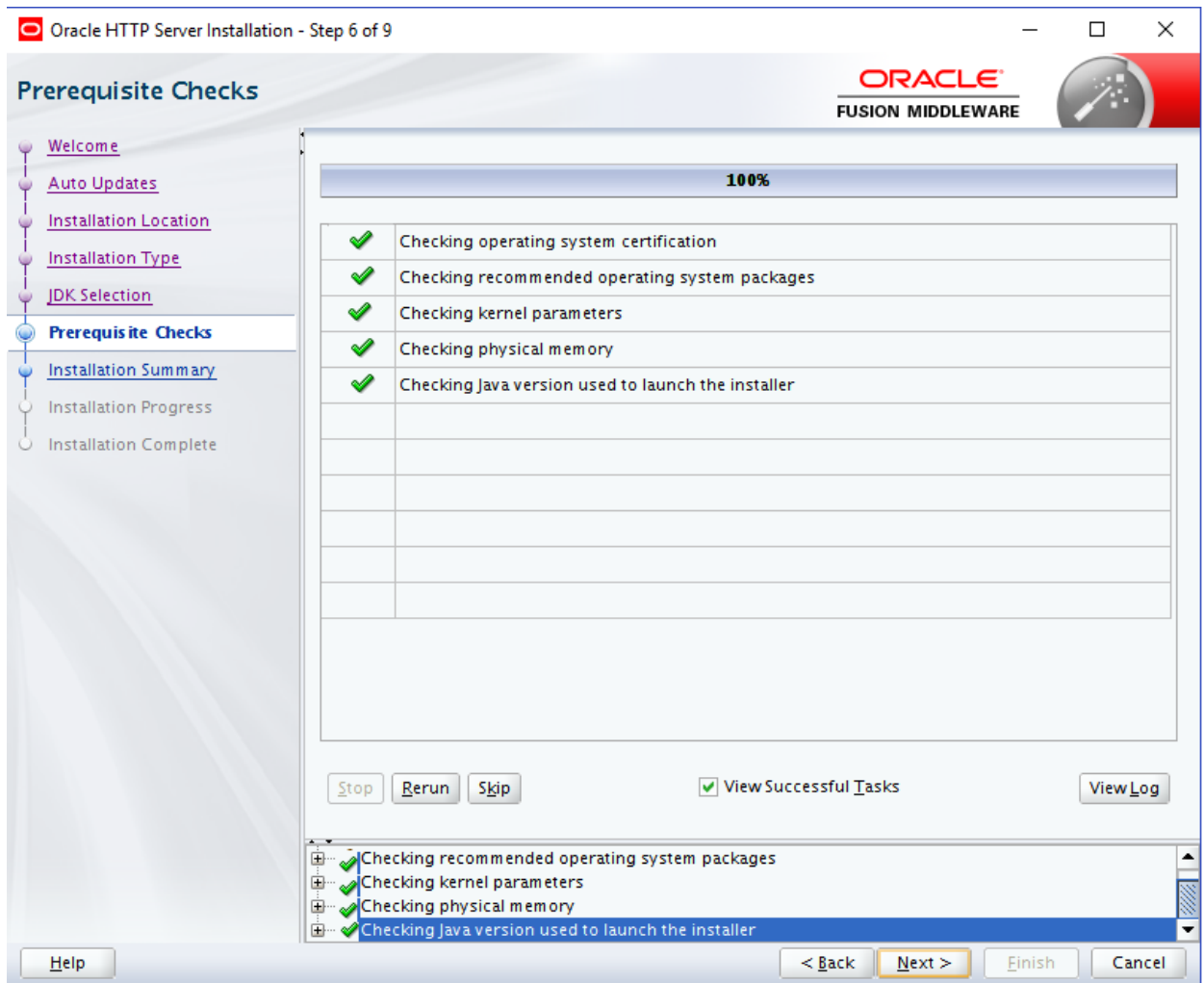
Choose installation type as per requirement. Select Standalone HTTP Server (Managed Independently of Weblogic Server). Click Next to continue.

Select JDK home



Click Next to continue

Prerequisite Checks Screen

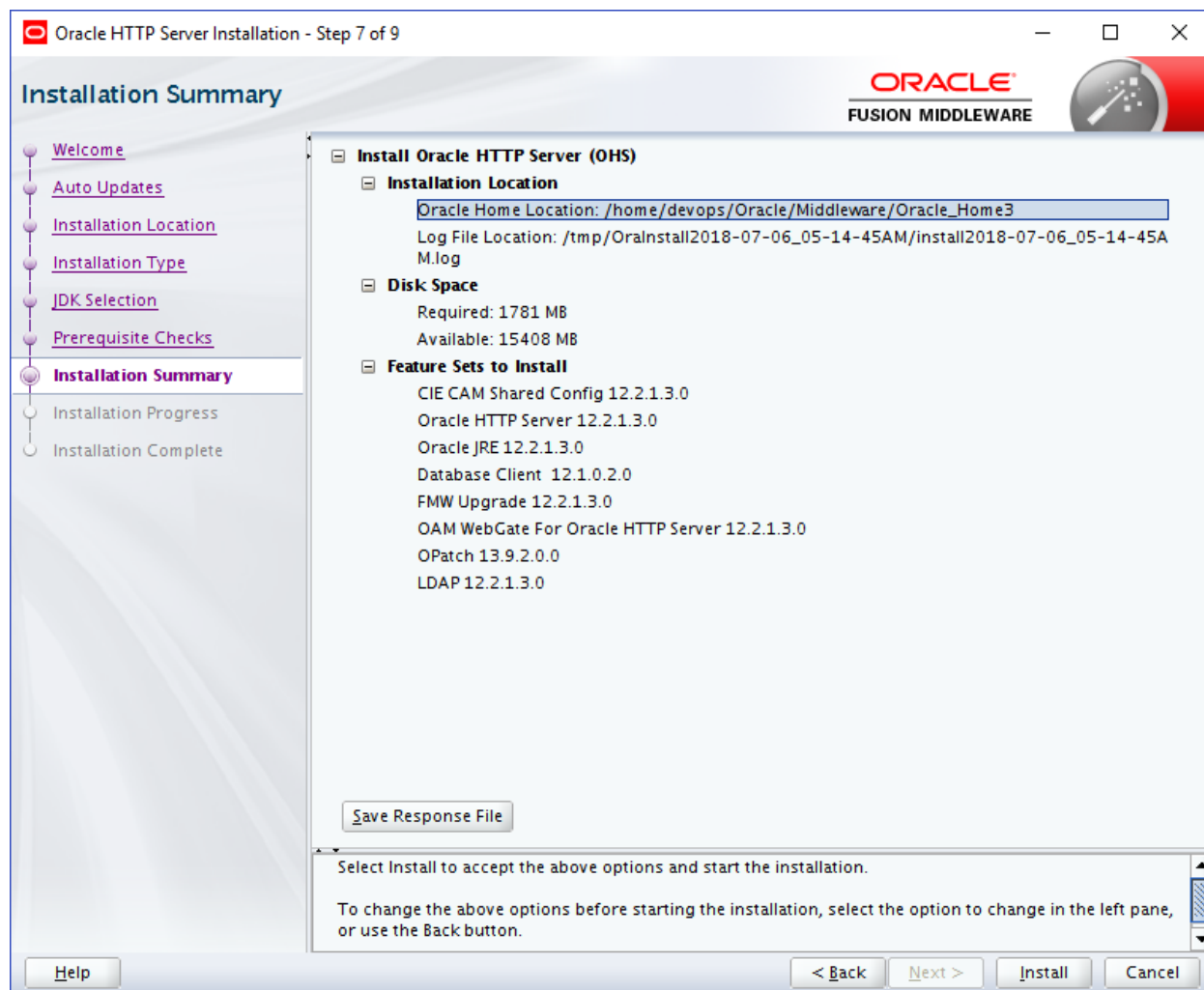


This screen shows whether the system requirements are met in order to install the software.

If there is a problem, a short error message appears in the bottom portion of the screen. Fix the error, and click Retry to try again.

Click Next to continue.

Installation Summary



Review the information on this screen. The operations summarized on this page will be performed when you click Install.

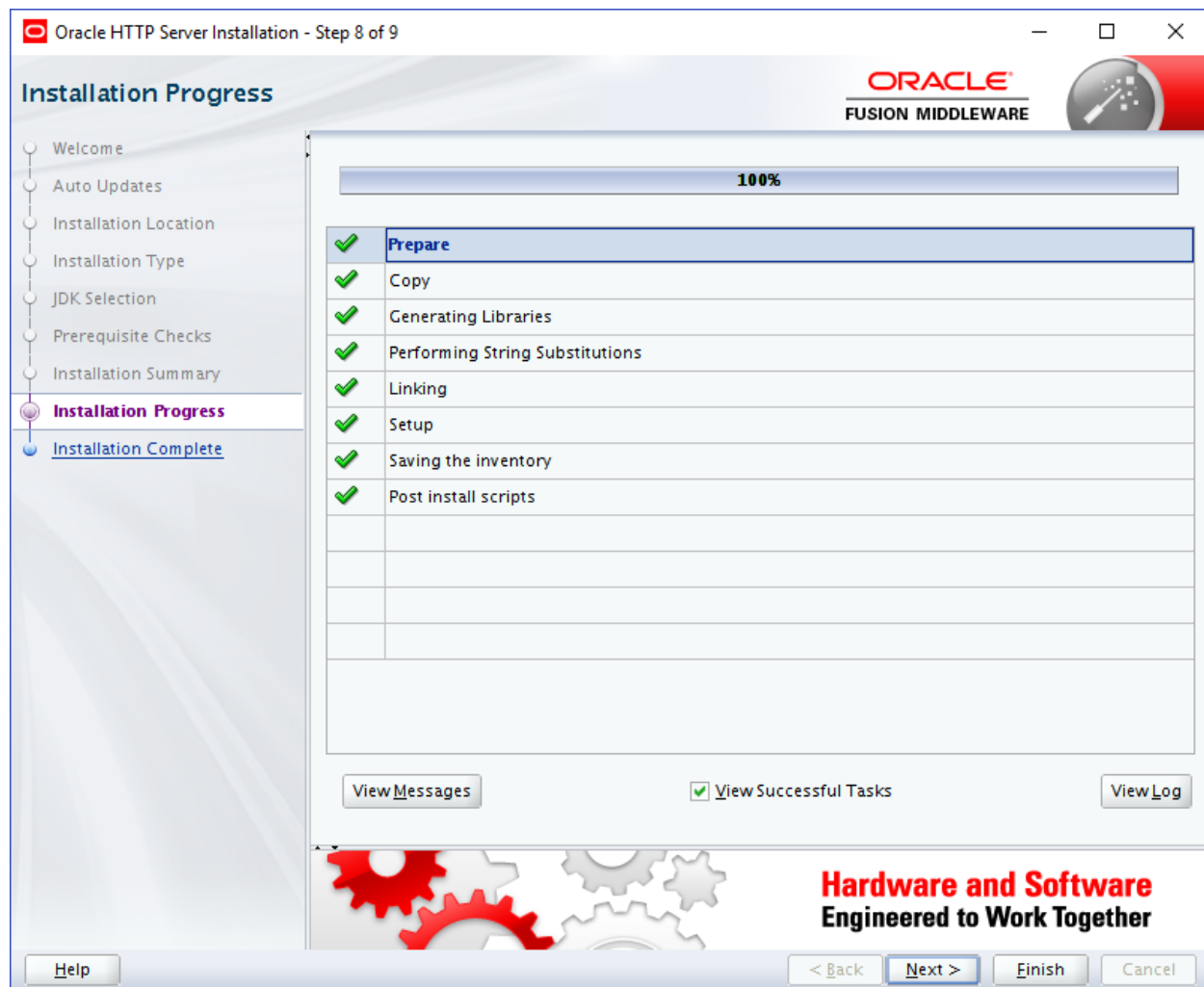
If you want to make any changes to the configuration before starting the installation, use the navigation pane, and select the topic you want to edit.

If you want to save this configuration to a text file (called a response file), click Save. You will be prompted for the location of name of the file you want to create (for example, silent_install.rsp). This file can be used later if you choose to perform the same installation from the command line.

Click Install.

.

Installation Progress Screen

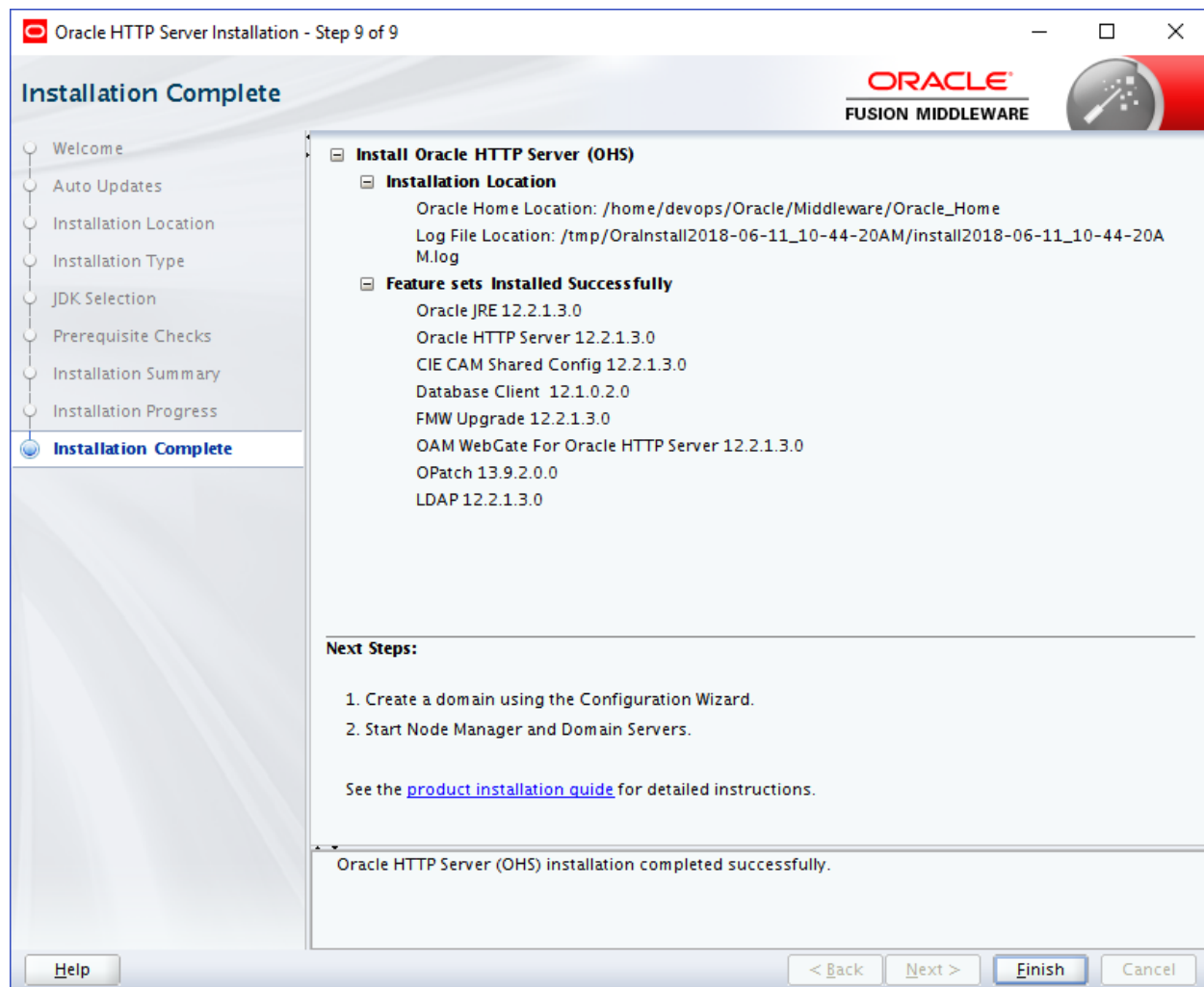


This screen shows the progress of the installation.

If you want to quit before the installation is completed, click Cancel.

Click Next.

Installation Complete Screen



This screen summarizes the installation that was just completed.

Click Finish to dismiss the screen.

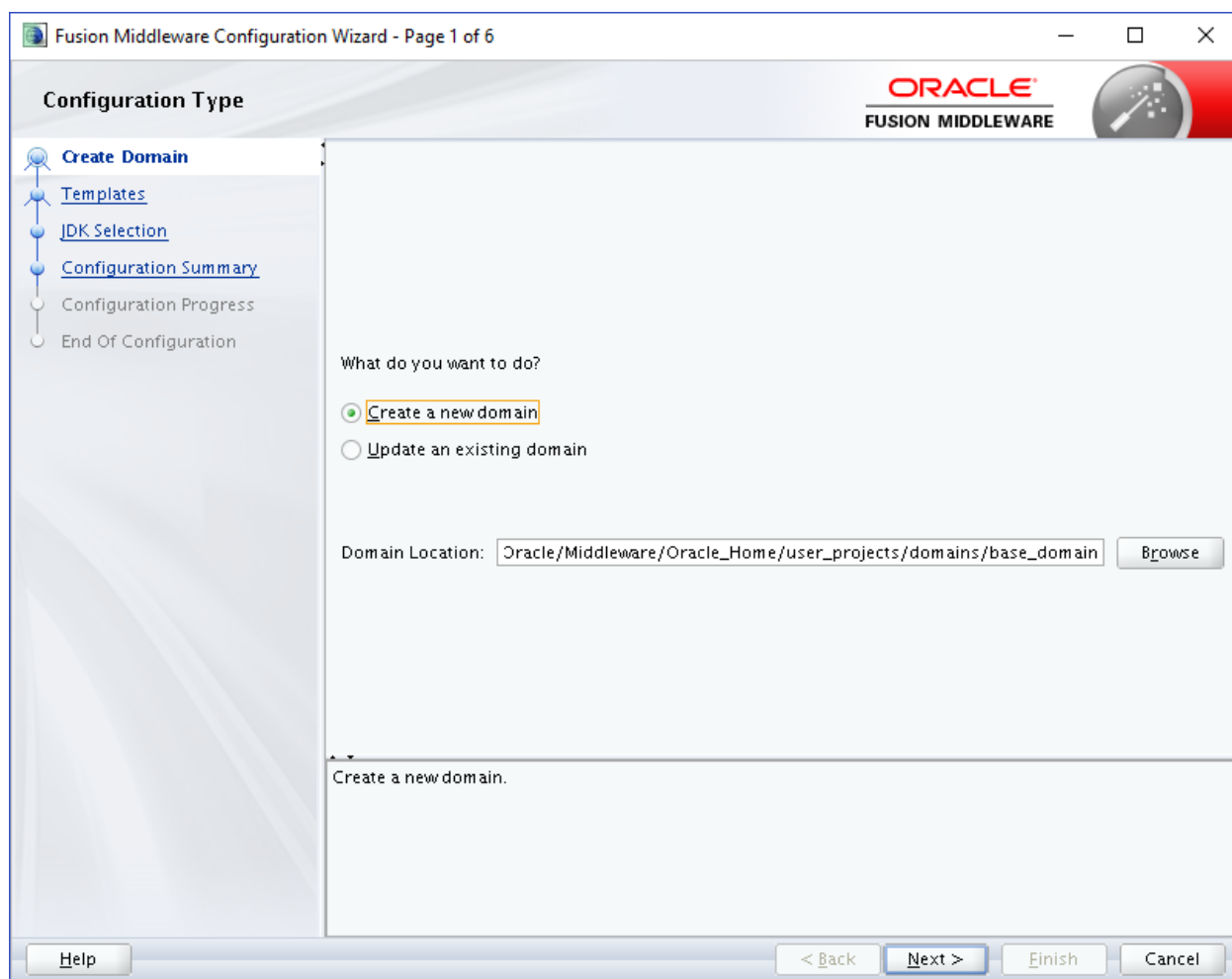
Configure the HTTP server

Follow below steps to configure domain for HTTP server

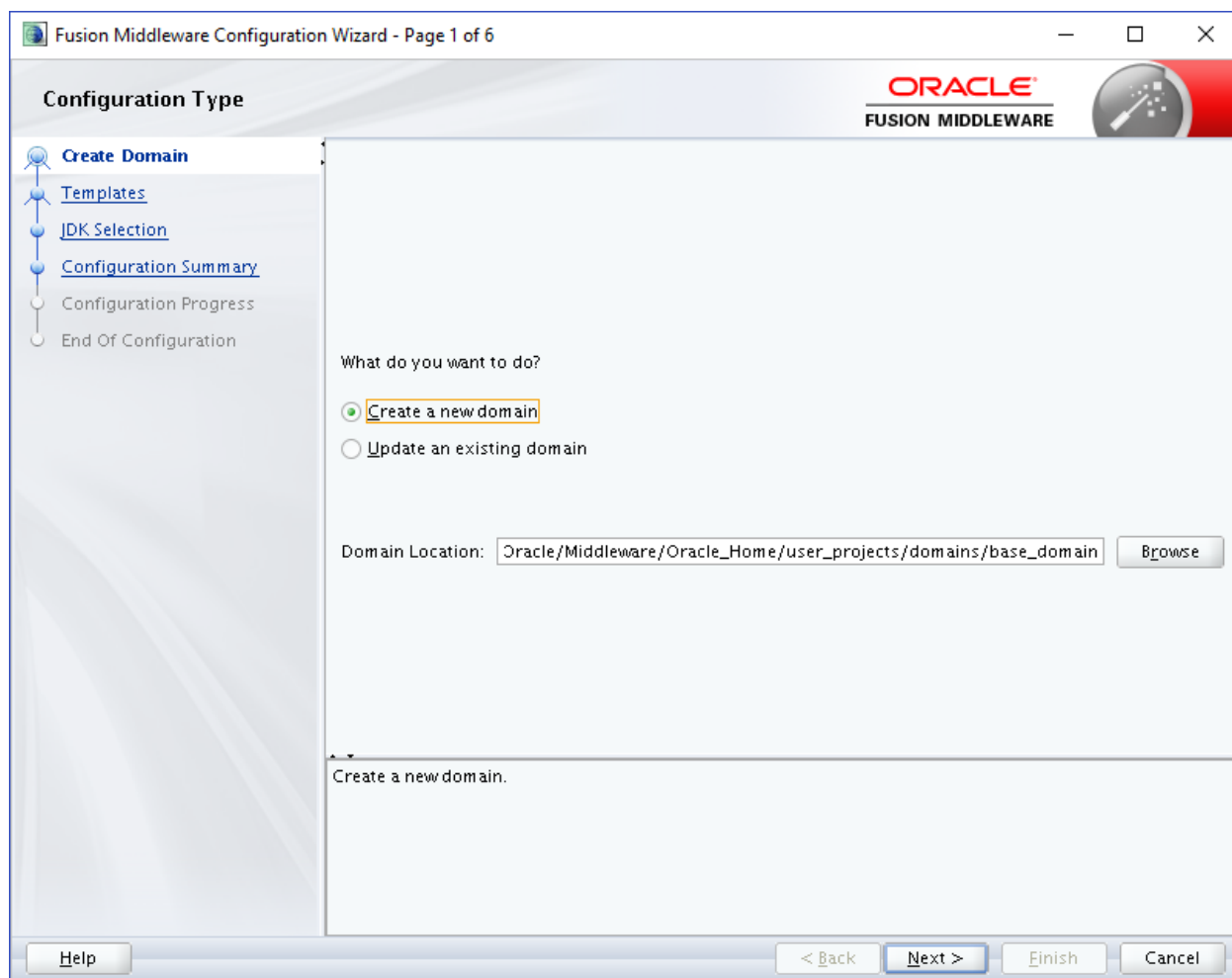
- Browse <Middleware_Home>/oracle_common/common/bin directory
- Execute below command

```
./config.sh
```

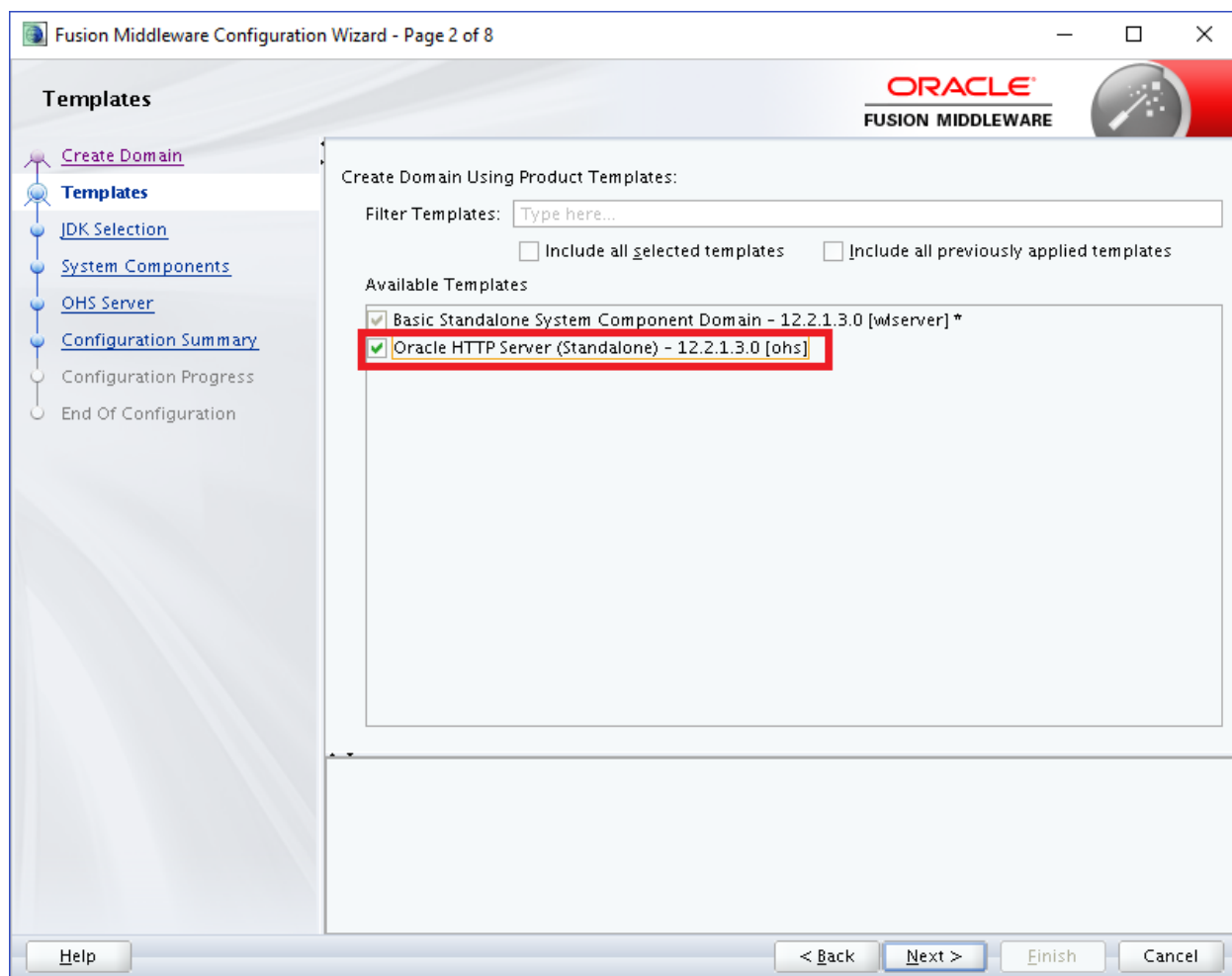
Below screen will be displayed



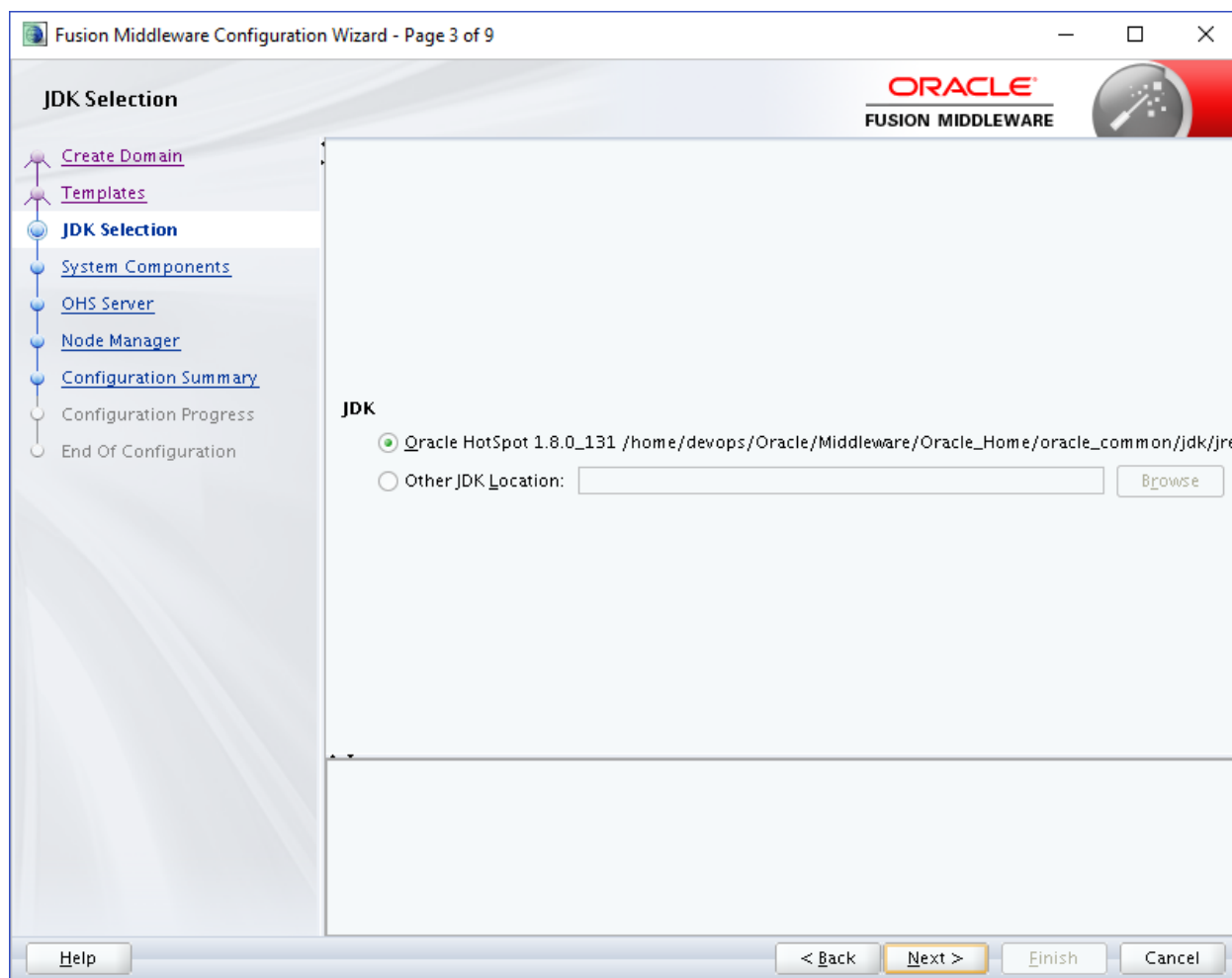
- Select “Create a new domain” option and select Domain location. Click Next



- Select Oracle HTTP Server option and click Next



➤ Click Next



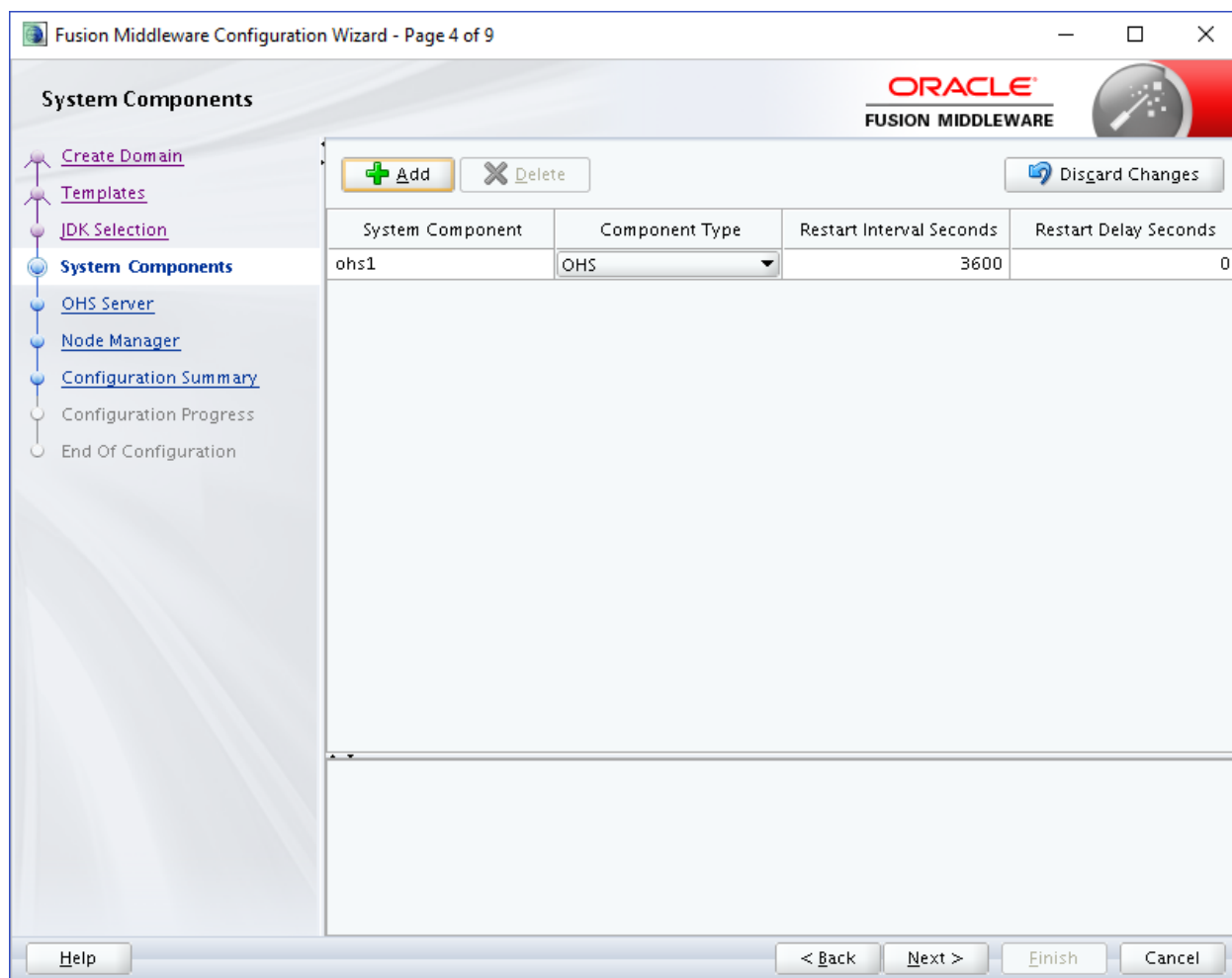
➤ Enter below details and click Next

System Component: Set the Instance name

Component Type: Should be OHS

Restart Interval Seconds: Set as per requirement. Defaults to 3600

Restart Delay Seconds: Set as per requirement. Defaults to 0



- Configure Admin Host; Port; Listen Address and click Next

The screenshot shows the 'Fusion Middleware Configuration Wizard - Page 5 of 9' window. The title bar includes the Oracle logo and 'FUSION MIDDLEWARE'. The left sidebar contains a navigation tree with the following items: 'Create Domain', 'Templates', 'JDK Selection', 'System Components', 'OHS Server' (selected), 'Node Manager', 'Configuration Summary', 'Configuration Progress', and 'End Of Configuration'. The main area is titled 'OHS Server' and contains the following configuration fields:

Field	Value
System Component	ohs1
Admin Host	obdxohs.in.oracle.com
Admin Port	9999
Listen Address	obdxohs.in.oracle.com
Listen Port	7777
SSL Listen Port	4443
Server Name	http://obdxohs.in.oracle.com:7777

At the bottom of the window, there are four buttons: 'Help', '< Back', 'Next >', and 'Finish'. The 'Next >' button is highlighted.

- Select appropriate Node Manager Type; and enter Node Manager Credentials. Click Next.

Fusion Middleware Configuration Wizard - Page 6 of 9

Node Manager

ORACLE
FUSION MIDDLEWARE

Create Domain
Templates
JDK Selection
System Components
OHS Server
Node Manager
Configuration Summary
Configuration Progress
End Of Configuration

Node Manager Type

☒ Per Domain Default Location
☐ Per Domain Custom Location

Node Manager Home:

Node Manager Credentials

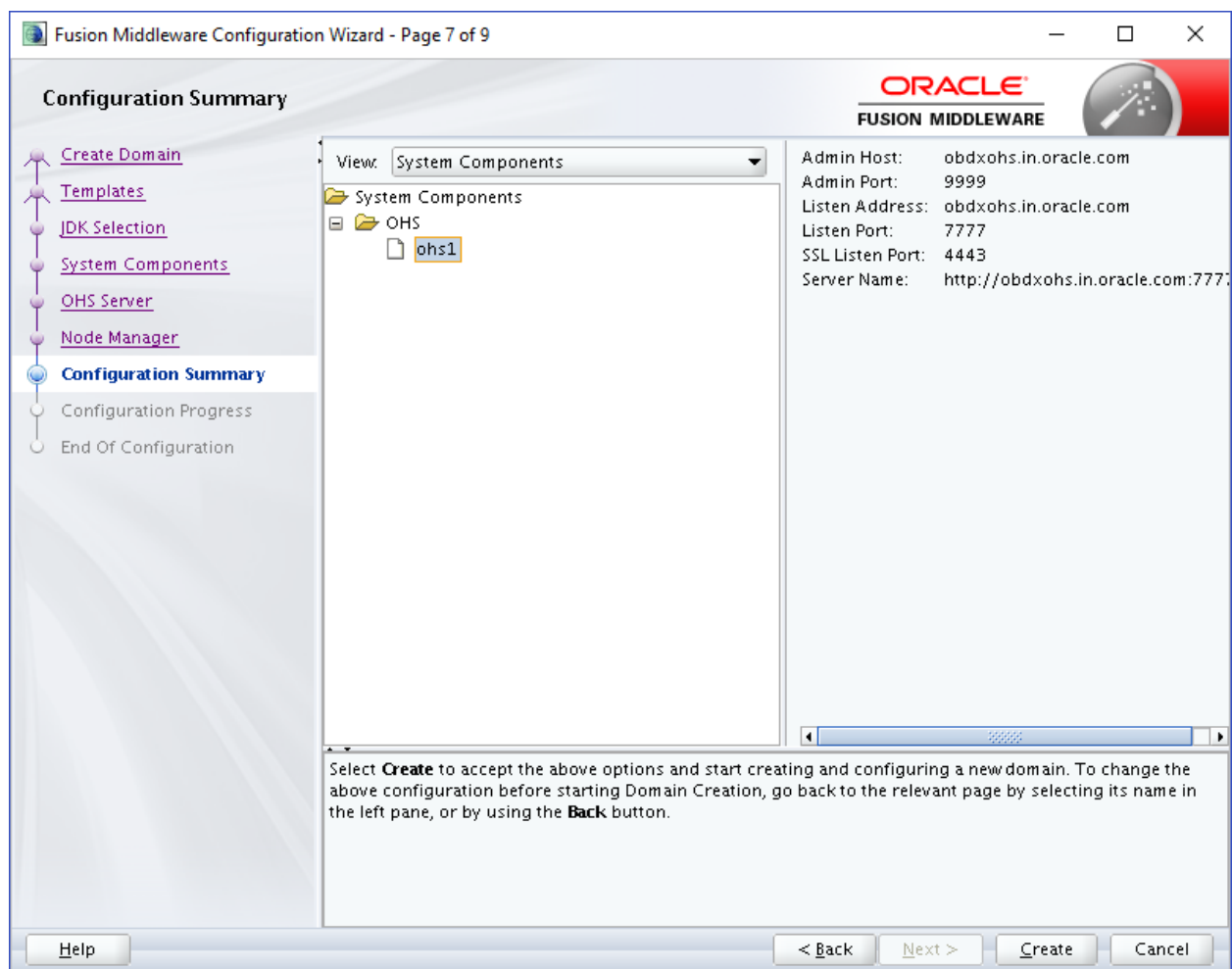
Username:

Password:

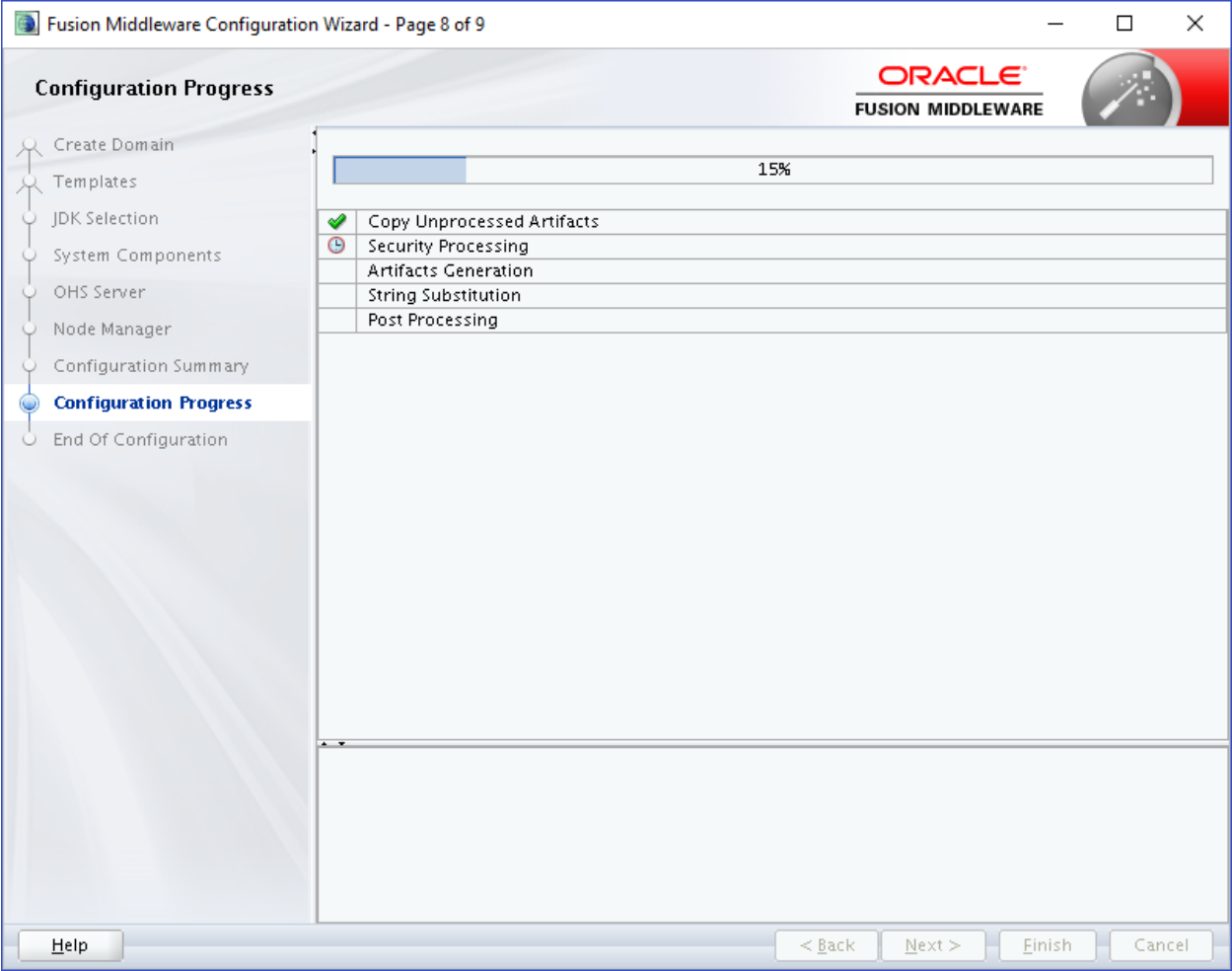
Confirm Password:

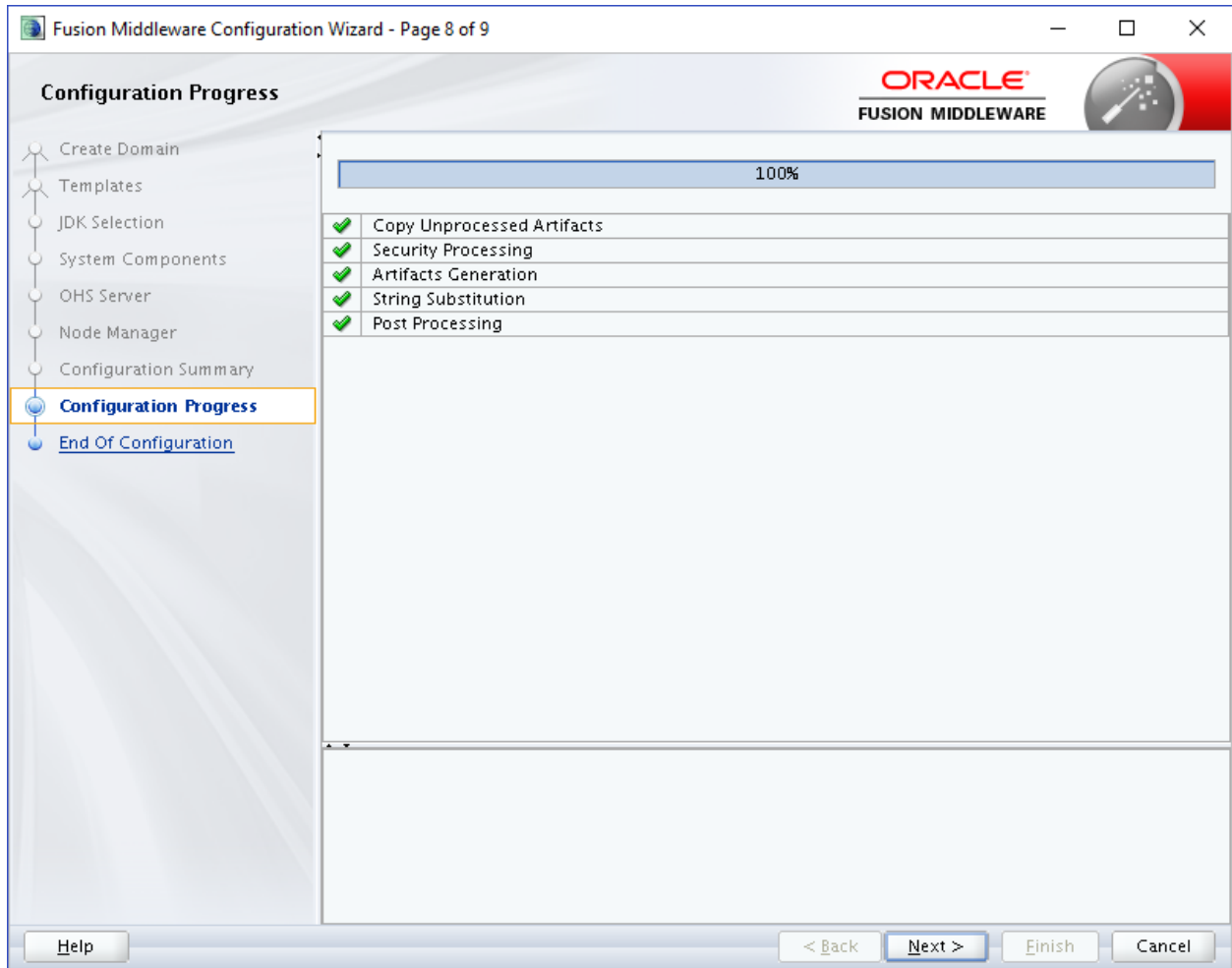
Help < Back Next > Finish Cancel

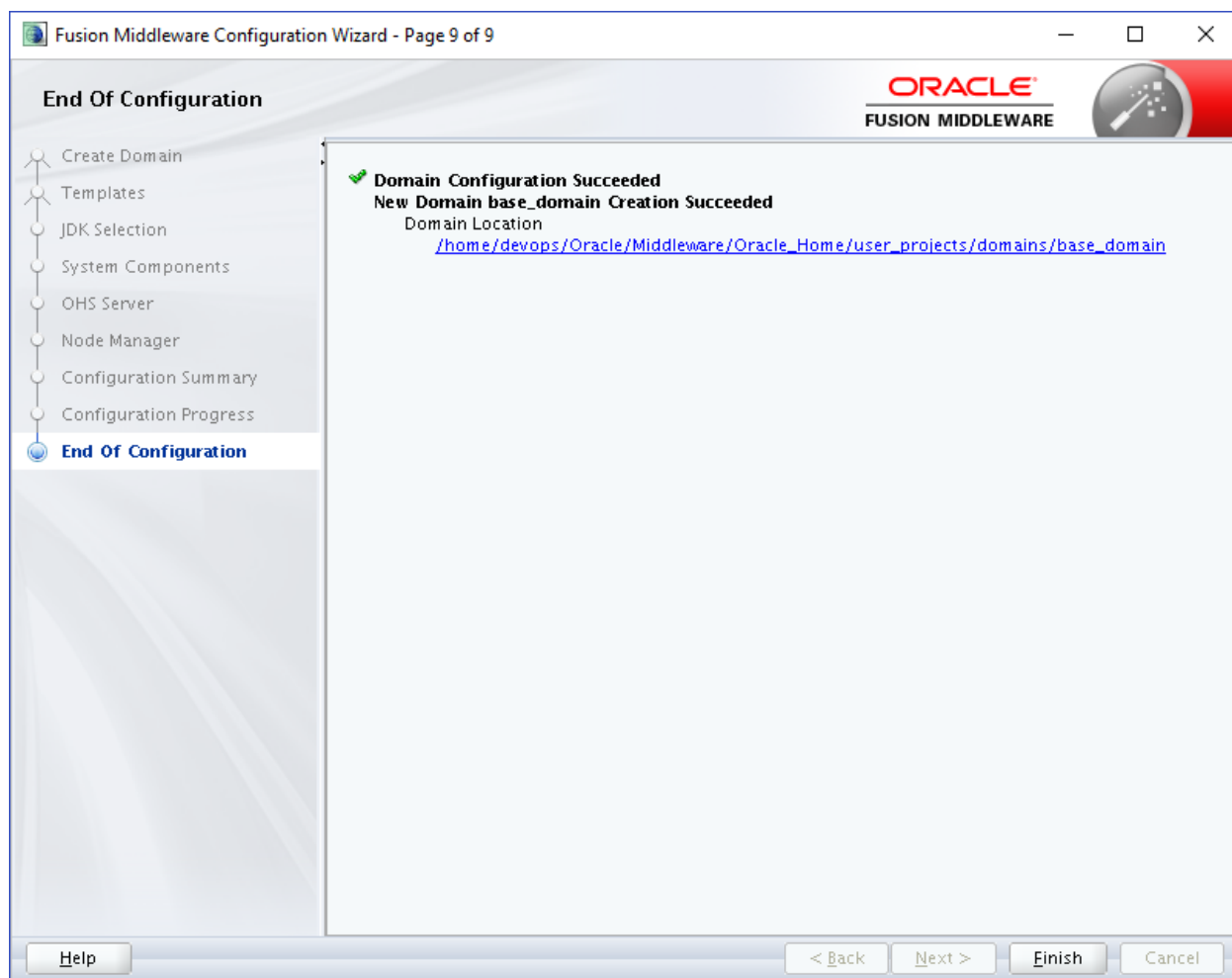
➤ Review summary and click Create



➤ Below installation progress can be seen







4.2 Verifying the Installation

You can perform following tasks to verify that your installation was successful:

- **Verifying the Installation Logs:** Verify the installation logs using the Log file location available in installation complete screen (or <User home dir>/oraInventory/logs).

Verifying the OPMN Status: Run the below commands from the <Domain_directory>/bin directory on UNIX, in your instance home location. For example:

- Start NodeManager

```
cd
/home/devops/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/
bin
```

```
./startNodeManager.sh
```

- Start component

```
./startComponent.sh ohs1
```

Use the listen port number to point your browser to the HTTP server to test installation. Use the format:

http://<HTTPSERVERHOSTNAME>:<HTTPSERVERLISTENPORT>

ORACLE Oracle HTTP Server 12c

Oracle HTTP Server 12c is based on the proven, open source Apache HTTP Server technology and provides the framework for hosting static, dynamic web pages and for front-ending Oracle Fusion Middleware Applications.

Features

- Content Serving / Reverse Proxy**
 - Cloud Deployment / Virtual Server Support
 - Thousands of sites / application domains served from a single web server instance. Each virtual server can have its own configuration files, IP addresses, port, document root, preferences, log files, and more.
- Protection From Common Threats**
 - Built-in ModSecurity module provides the ability to configure rules to inspect and protect applications from common attacks including SQL/Command injection, Cross Site Scripting vulnerabilities and other vulnerabilities.
- FastCGI Support**
 - Efficient way to serve dynamic content web pages within OHS by using scripting languages such as PHP or Python, without incurring a significant performance penalty.
- Integrated Reverse Proxy**
 - With its secure, scalable, modular, and easy-to-use architecture, Oracle HTTP Server 12c can be used as a reverse proxy for other web servers, such as Apache HTTP Server or IIS.

Administration / Monitoring

- Server Administration**
 - Leverages WebLogic 12c administration interfaces to provide a simple, consistent and distributed administration model for administering Oracle HTTP Server, Oracle WebLogic Server and the rest of the Fusion Middleware Stack.
- Monitoring**
 - Integration with Oracle Enterprise Manager allows customers to monitor HTTP traffic by using the Oracle Enterprise Management console.
- Robust Migration Tool**
 - Integrated migration tools make it easy to migrate existing Oracle HTTP Server 11g deployments to Oracle HTTP Server 12c.

[Home](#)

5. Oracle HTTP Server Webgate Installation and Configuration

A WebGate is a web-server plug-in for Oracle Access Manager (OAM) that intercepts HTTP requests and forwards them to the Access Server for authentication and authorization.

Installing a WebGate for Oracle Access Manager involves the following steps:

- Section 5.1, "Configuring Oracle Webgate"
- Section 5.2, "Post-Installation Steps for Oracle HTTP Server WebGate"
- Section 5.3, "Verifying the Installation and Configuration of Oracle HTTP Server WebGate"
- Section 5.4, "Registering the New Oracle HTTP Server 11g WebGate"

Configuring Oracle Webgate You must complete the following steps after installing Oracle HTTP Server for Oracle Access Manager:

- Go to the Oracle_Home/webgate/ohs/tools/deployWebGate directory by running the following command:

```
cd
/home/devops/Oracle/Middleware/Oracle_Home/webgate/ohs/tools/deployWebGate
```

- Run the following command to copy the required bits of agent from the Oracle_Home directory to the OHS_Master_Config_Directory location:

```
./deployWebGateInstance.sh -w OHS_Master_Config_Directory -
oh Oracle_Home For .e.g:
```

```
./deployWebGateInstance.sh -w
/home/devops/Oracle/Middleware/Oracle_Home/user_projects/domains/bas
e_domain/config/fmwconfig/components/OHS/ohs1 -oh
/home/devops/Oracle/Middleware/Oracle_Home
```

```
[devops@ deployWebGate]$ ./deployWebGateInstance.sh -w /home/devops/Oracle/Middleware/Oracle_Home/user_projects/domains/bas
fmwconfig/components/OHS/ohs1 -oh /home/devops/Oracle/Middleware/Oracle_Home
Copying files from WebGate Oracle Home to WebGate Instance dir
```

In this command:

Oracle_Home is the directory in which you have installed Oracle HTTP Server WebGate.
Example: /home/devops/Oracle/Middleware/Oracle_Home

OHS_Master_Config_Directory is the location of the directory where the main Oracle HTTP Server configuration files are kept. Example:

/home/devops/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/config/fmwconfig/components/OHS/ohs1 Run the following command to ensure that the LD_LIBRARY_PATH variable contains Oracle_Home_for_Oracle_HTTP_Server/lib:

export LD_LIBRARY_PATH=\$LD_LIBRARY_PATH:Oracle_Home/lib From your present working directory, move to directory:

```
cd Oracle_Home/webgate/ohs/tools/setup/InstallTools
```

```
cd  
/home/devops/Oracle/Middleware/Oracle_Home/webgate/ohs/tools/setup/InstallTools/ On the command line, run the following command to copy  
the apache_webgate.template file from the Oracle_Home directory to the  
main Oracle HTTP Server configuration directory (re-named  
to webgate.conf) and update the httpd.conf file to add one line to include  
the name of webgate.conf: ./EditHttpConf -w OHS_Master_Config_Directory [-oh Oracle_Home] [-o output_file]
```

For e.g.:

```
./EditHttpConf -w  
/home/devops/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/config/fmwconfig/components/OHS/ohs1 -oh  
/home/devops/Oracle/Middleware/Oracle_Home
```

```
[devops@ InstallTools]$ ./EditHttpConf -w /home/devops/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/config/fmwconfig/com  
ponents/OHS/ohs1 -oh /home/devops/Oracle/Middleware/Oracle_Home  
The web server configuration file was successfully updated  
/home/devops/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/config/fmwconfig/components/OHS/ohs1/httpd.conf has been backed up as  
/home/devops/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/config/fmwconfig/components/OHS/ohs1/httpd.conf.ORIG
```

In this command:

Oracle_Home is the directory in which you have installed Oracle HTTP Server WebGate for Oracle Access Manager. Example: **/home/devops/Oracle/Middleware/Oracle_Home**

OHS_Master_Config_Directory is the location of the directory where the main Oracle HTTP Server configuration files are kept. Example: **/home/devops/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/config/fmwconfig/components/OHS/ohs1**

output_file is the name of the WebGate configuration file generated by the tool. A default **webgate.conf** file is generated if you do not specify this option. Example: **webgate.conf**

Note: The **-oh Oracle_Home** and **-o output_file** parameters are optional.

5.1 Verifying the configuration of Oracle HTTP Server 12c WebGate

After installing Oracle HTTP Server 12c WebGate for Oracle Access Manager and completing the configuration steps, you can examine the **installDATE-TIME_STAMP.out** log file to verify the installation. The default location of the log are as follows: The default location of the log is : **Oracle_Home/oraInst.loc**

5.2 Registering the New Oracle HTTP Server 12c WebGate

Before you can use the new Oracle HTTP Server 12c WebGate agent for Oracle Access Manager, you must register the new WebGate agent with Oracle Access Manager by using the Oracle Access Manager Administration Console.

Refer to the Section 8.1 “Creating WebGate Agent on OAM Console” under Oracle Access Management Configuration chapter.

[Home](#)

6. Oracle Identity and Access Management Installation and Configuration

Oracle Identity and Access Management (IAM) components enable enterprises to manage the end-to-end lifecycle of user identities across all enterprise resources - both within and beyond the firewall. With IAM, you can deploy applications faster, apply the most granular protection to enterprise resources, automatically eliminate latent access privileges, and much more. Following components are included in IAM:

- Oracle Identity Manager
- Oracle Access Management
- Oracle Adaptive Access Manager
- Oracle Entitlements Server
- Oracle Privileged Account Manager
- Oracle Access Management Mobile and Social
- Oracle Mobile Security Suite

This chapter provides information for installing IAM and includes the following topics:

- Section 6.1, "Pre-requisite - Installing Java 1.8"
- Section 6.2, "Pre-requisite - Installing Weblogic 12.2.1.3"
- Section 6.3, "Installing Oracle Identity and Access Management (IAM)"

6.1 Pre-requisite - Installing Java 1.8

Obtain the Java tarball pack from the Oracle Java Downloads. Download ***jdk-8u131-linux-x64.tar.gz*** file to a directory.

- Change the directory in which you want to install,

```
cd <Directory_Path>
```

- Unpack the tarball and install Java using the following command:

```
tar zxvf <Path>/jdk-8u131-linux-x64.tar.gz
```

Note : You must enter the absolute path of the folder where the TAR file is located.

- Now, set the path and environment variable for Java as:

```
export JAVA_HOME=<Java_Install_Path>/jdk1.8.0_131
```

```
export PATH=$JAVA_HOME/bin:$PATH
```

6.2 Pre-requisite - Installing Weblogic 12.2.1.3

Oracle WebLogic Server is a scalable, enterprise-ready Java Platform, Enterprise Edition (Java EE) application server. The WebLogic Server infrastructure supports the deployment of many types of distributed applications.

This chapter describes the installation tasks which contains the following sections:

- Section 6.2.1, "Installing Weblogic"
- Section 6.2.2, "Verifying the Installation"

6.2.1 Installing Weblogic

Obtain Weblogic 12.2.1.3 JAR from the Oracle Fusion Middleware Downloads. Download **fmw_12.2.1.3.0_infrastructure.jar** file to a directory.

- Now to start the installer, go to the directory where you downloaded the file.
- Start the installer from the same directory using the below command:

```
java -jar <Path>/fmw_12.2.1.3.0_infrastructure.jar
```

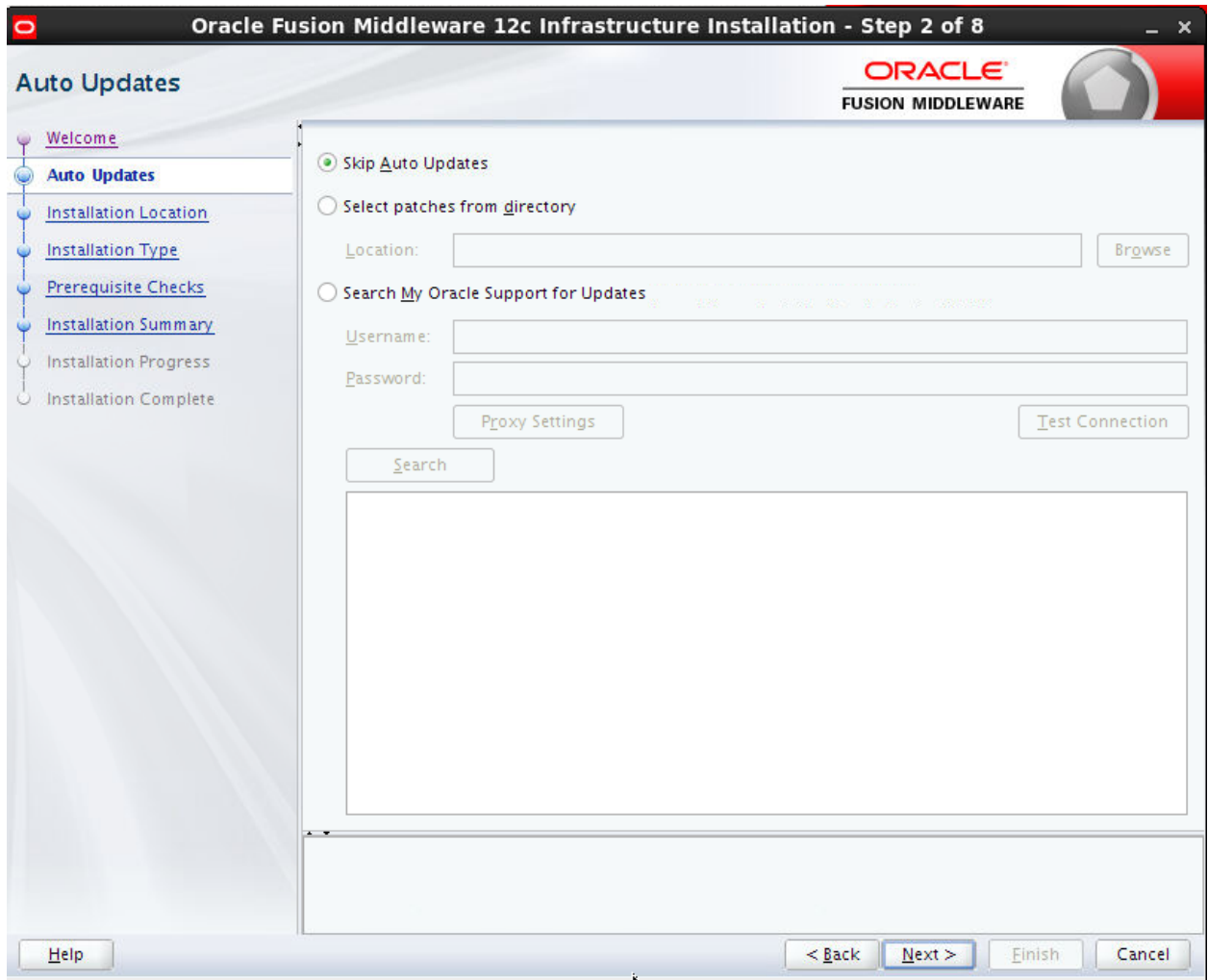
Note : You must enter the absolute path of the folder where the JAR file is located.

Follow the instructions as shown below for installation:

Welcome Screen



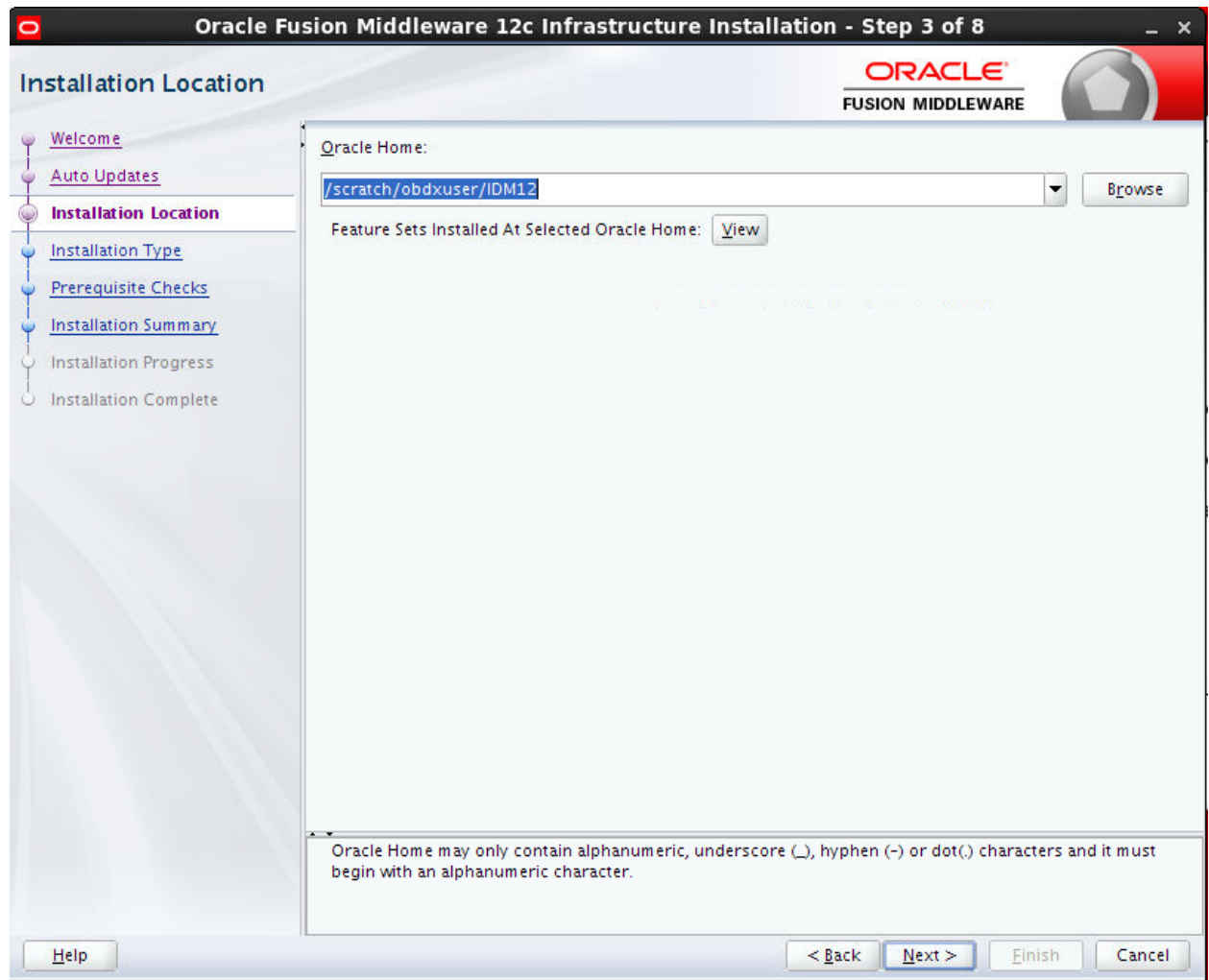
The Welcome screen is displayed each time you start the installer.



Click “Skip Auto Updates” (Kindly follow recommended practices regarding updates depending on the setup requirements or usage.)

Click Next to continue.

Specify Middleware Home Screen

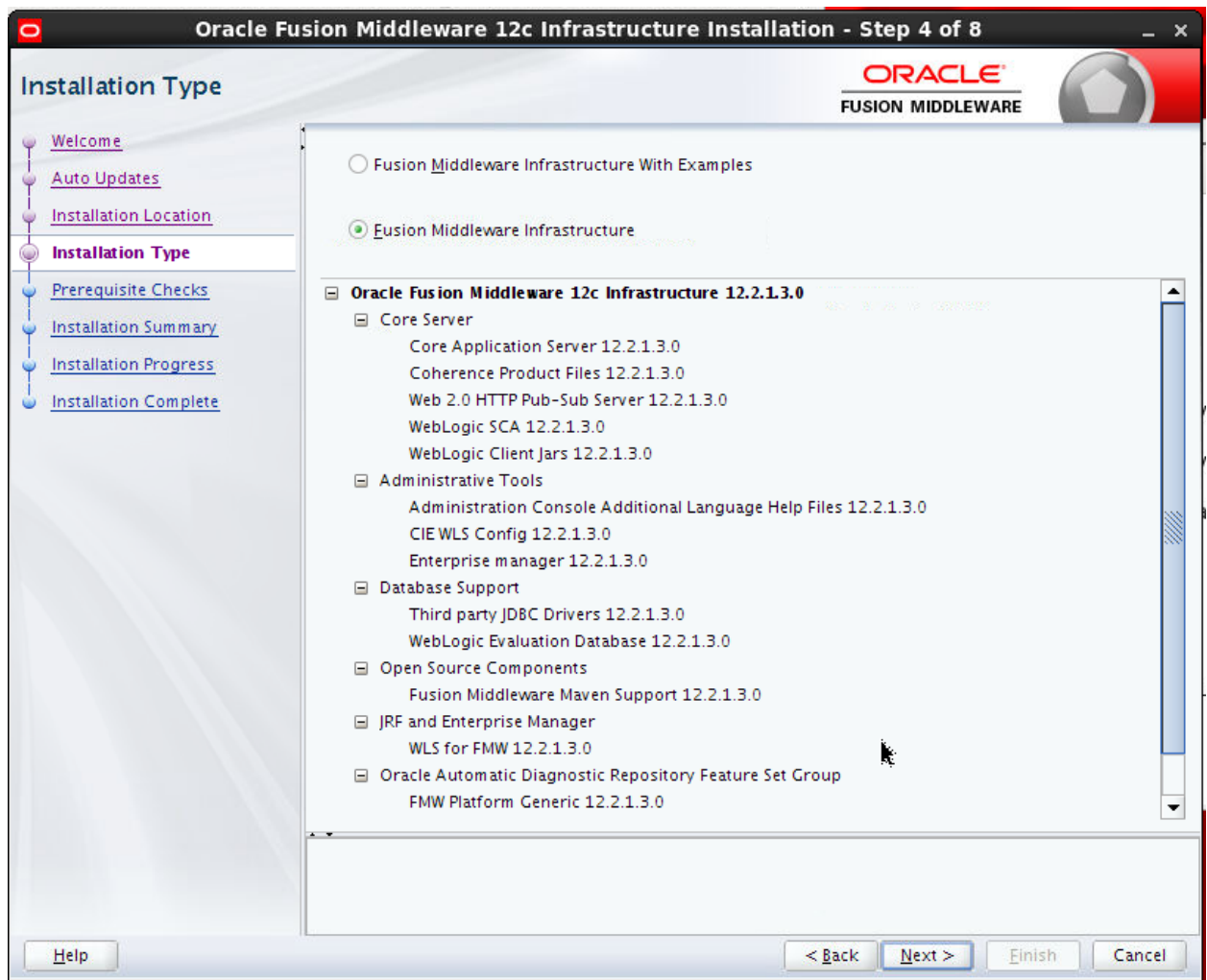


Specify the following installation locations:

- Oracle Middleware Home

The absolute path to the directory where WebLogic Server will be installed.

Click Next to continue.



Click next to continue

Select Yes and Click on Next.



Click Install to finish Weblogic Server installation

Installation Progress Screen

Click Done to dismiss the screen.

6.2.2 Verifying the Installation

You can perform the following tasks to verify that your installation was successful:

- **Verifying the Installation Directory**

Check if Oracle Home directory exists or not.

6.3 Installing Oracle Identity and Access Management

This chapter describes the installation tasks which contains the following sections:

- Section 6.3.1, "Installing and Configuring Oracle Identity and Access Management"
- Section 6.3.2, "Verifying the Installation"

6.3.1 Installing and Configuring Oracle Identity and Access Management

Obtain IAM installer version 12.2.1.3.0 from the Oracle Fusion Middleware Downloads. Download the zip file's (respective installation files) to a directory, and unpack the downloaded archive that contains the installer.

- Now to start the installer, Start the installer. `./java -jar fmw_12.2.1.3.0_oud.jar`

-
- If you are installing on a UNIX system, and if this is the first time any Oracle product is being installed on your system with the Oracle Universal Installer, you will be asked to provide the location of an inventory directory. This is where the installer sets up subdirectories and maintains inventory data for each Oracle product that is installed on this system.
 - Follow the instructions in the below table to configure the inventory directory information. For more help, click on the screen name in the table below, or click the Help button in the GUI.

Table: Inventory Directory and Group Screens

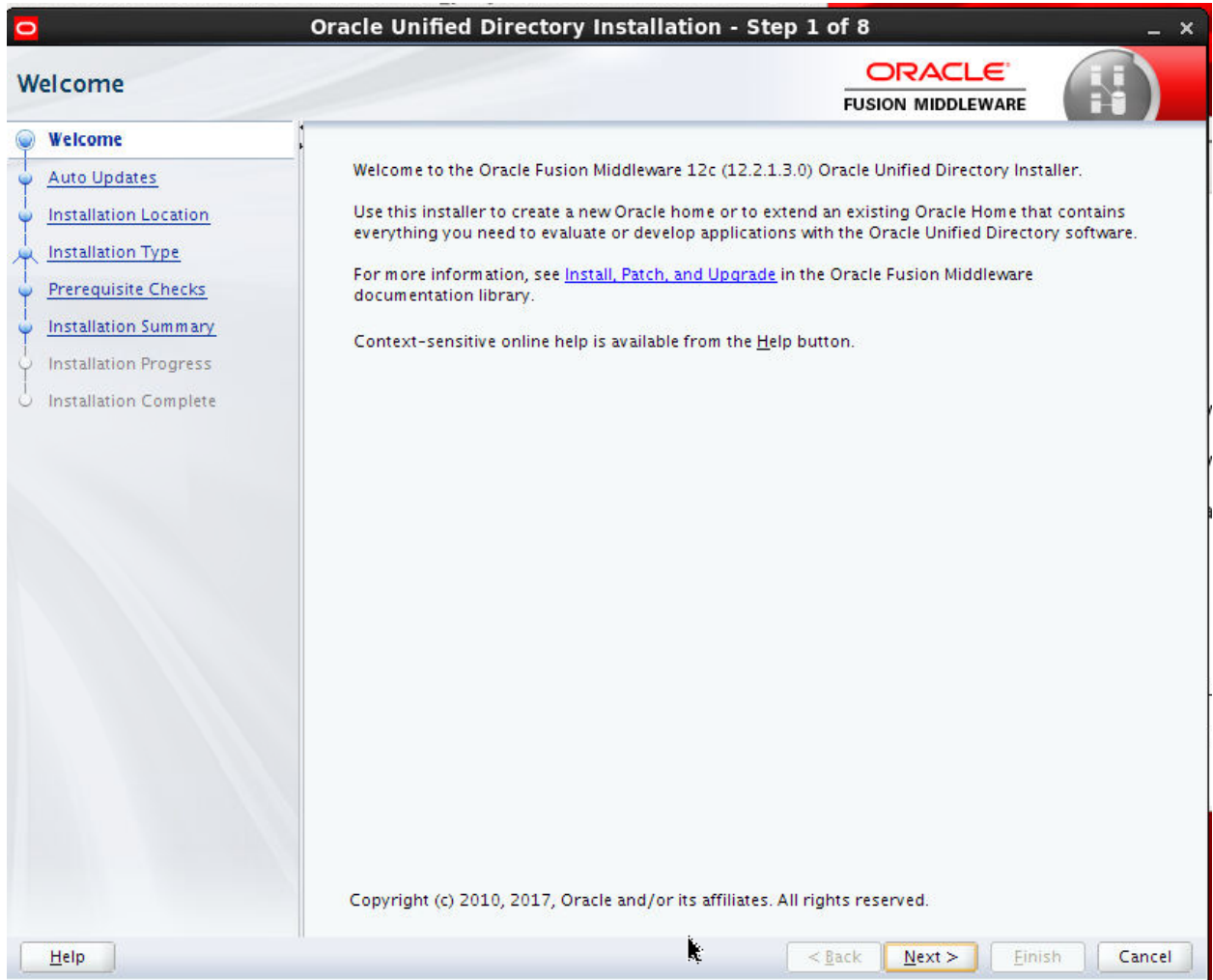
Screen	Description and Action Required
Specify Inventory Directory Screen (UNIX Only)	Specify the Oracle inventory directory and group permissions for that directory. The group must have write permissions to the Oracle inventory directory. Click OK to continue.
Inventory Location Confirmation Screen (UNIX Only)	Run the createCentralInventory.sh script as root. Click OK to continue.

Now, perform the steps as shown below to install and configure OUD after you start the OUD installer.

Welcome Screen



The Welcome screen is displayed each time you start the installer.



Click Next to continue.

Install Software Updates Screen

Oracle Unified Directory Installation - Step 2 of 8

Auto Updates

ORACLE
FUSION MIDDLEWARE

☒ Skip Auto Updates
☐ Select patches from directory
☐ Search My Oracle Support for Updates

Location:

Username:

Password:

If you want to search for and download software updates from My Oracle Support, then do the following:

Select Search My Oracle Support for Updates.

Enter User name and Password.

Click Test Connection.

If you want to search your local directory for updates, then do the following:

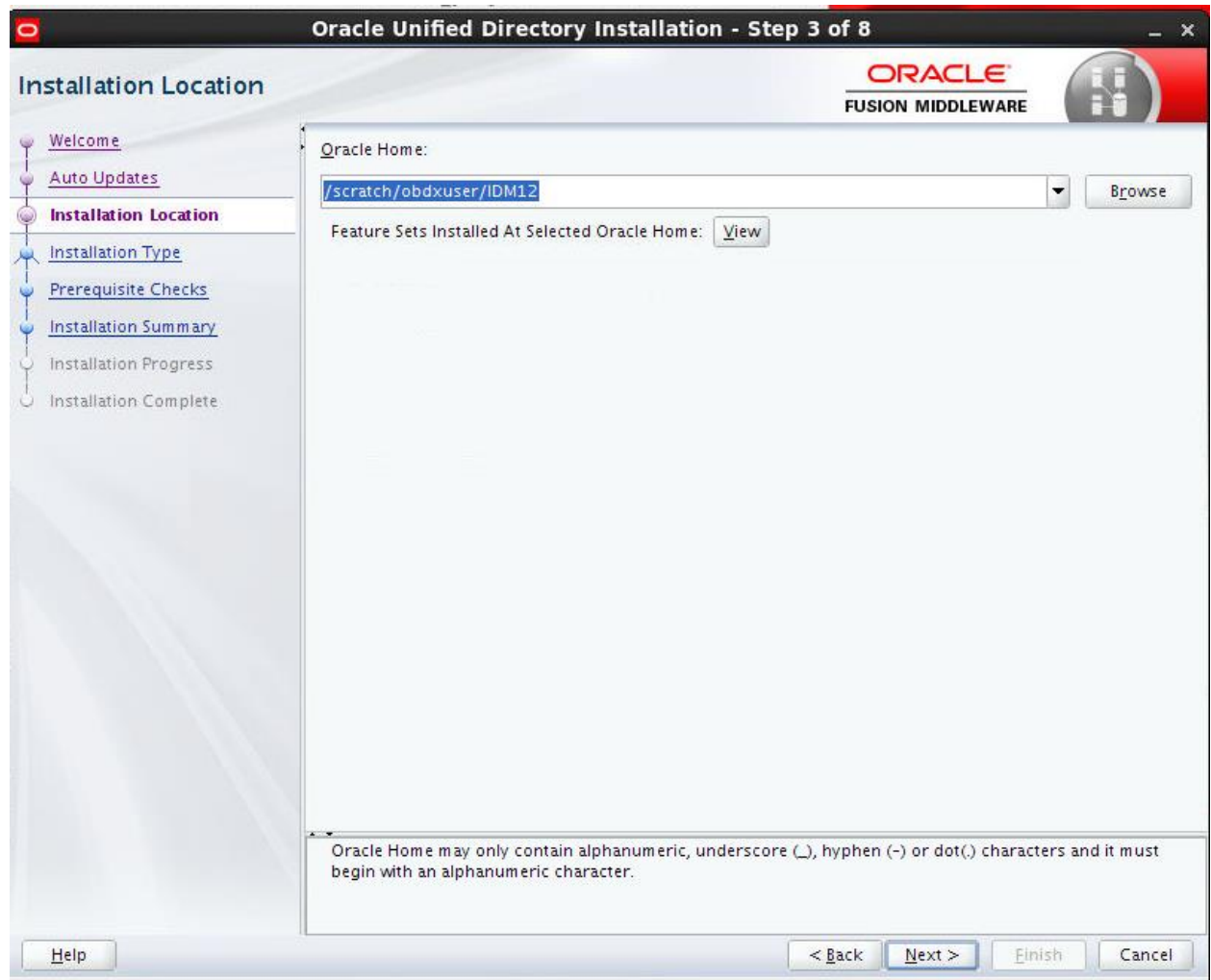
Select Search Local Directory for Updates.

Click Search For Updates.

If you want to skip software updates, then select Skip Software Updates. (Kindly follow recommended practices regarding updates depending on the setup requirements or usage.)

Click Next to continue.

Specify Installation Location Screen



Specify the following installation locations:

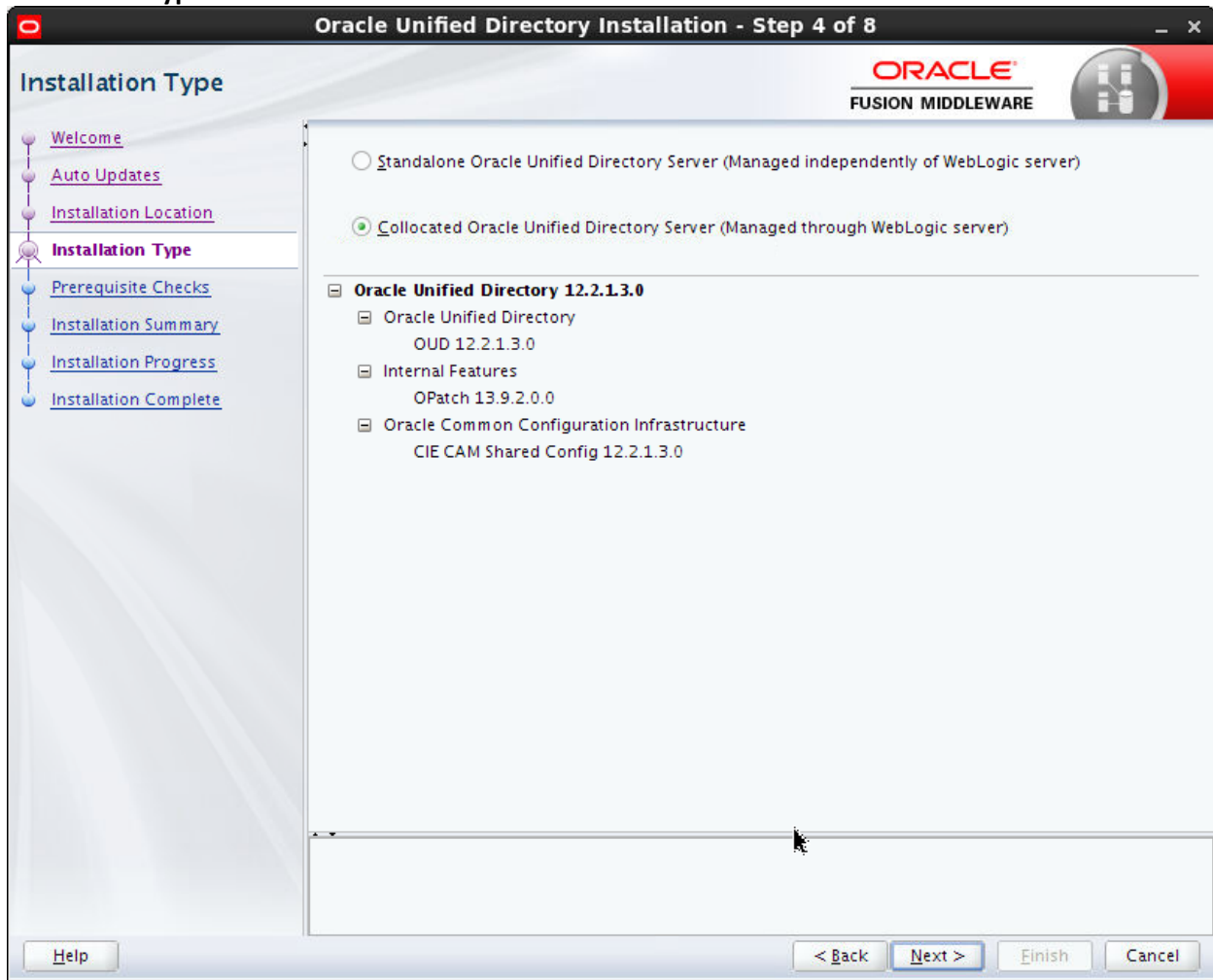
- Oracle Home
 - The absolute path to the directory where WebLogic Server was installed.

Oracle Home directory is where your products will be installed. All software binaries will reside in this directory, and no runtime process can write to this directory.

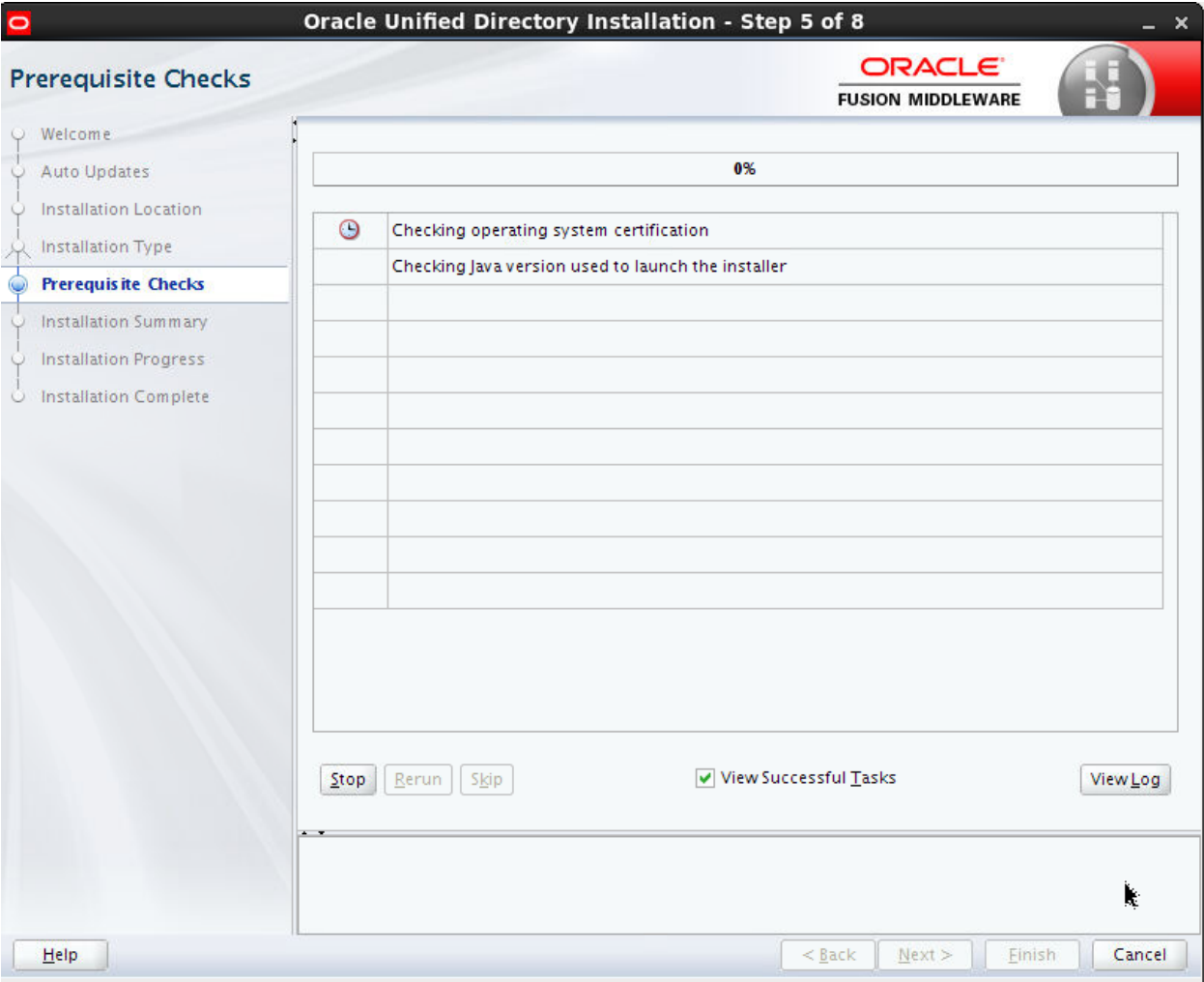
Note: This installation directory will be referred to as `IDM_ORACLE_HOME` throughout the remainder of this document. If you are performing an installation on a Windows operating system, be sure that your directory paths are valid, and do not contain double backslashes (`\\`).

Click Next to continue.

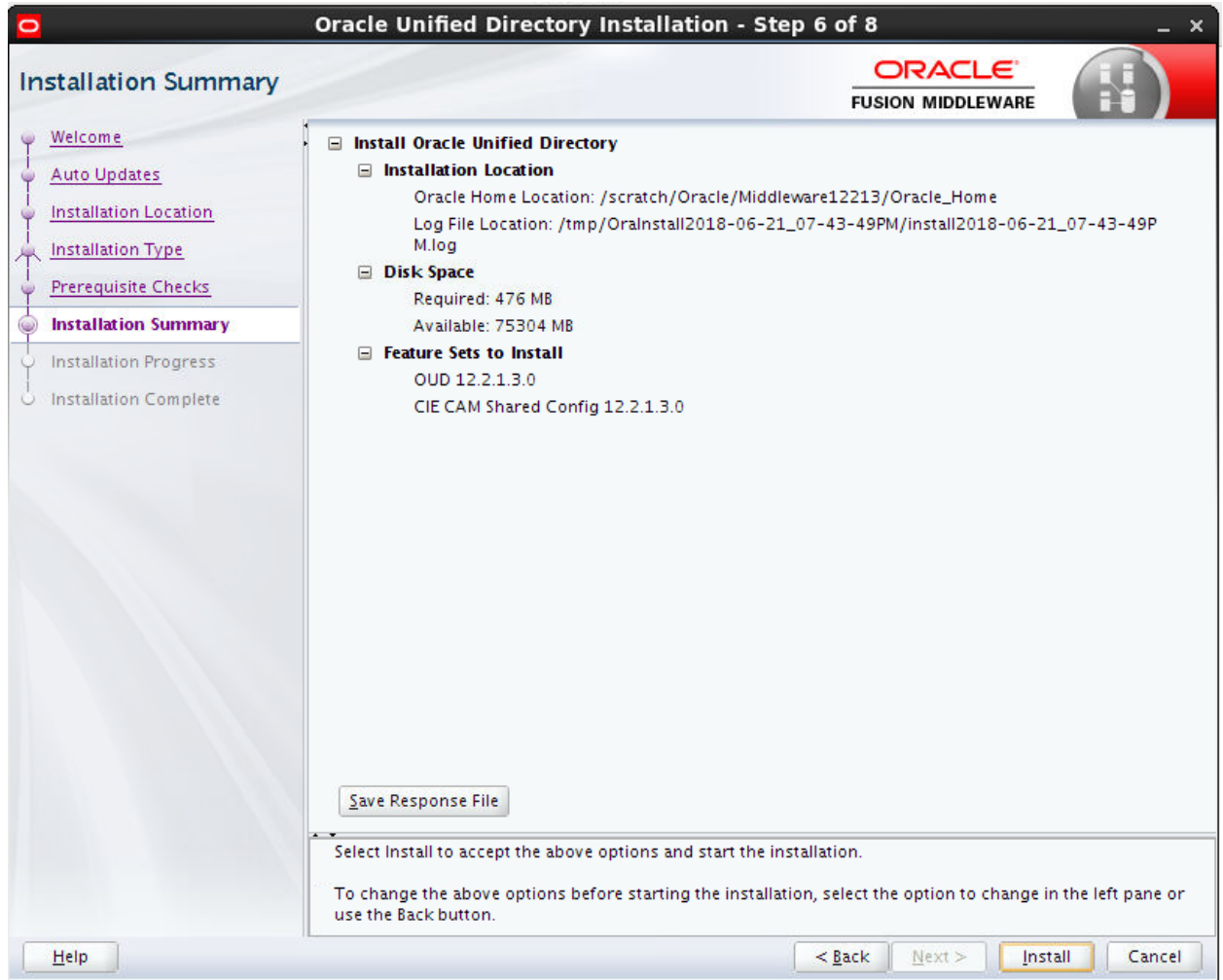
Installation Type Screen



Select Collocated Oracle Unified Directory Server > Next



Installation Summary Screen



Review the information on this screen. The operations summarized on this page will be performed when you click Install.

If you want to make any changes to the configuration before starting the installation, use the navigation pane, and select the topic you want to edit.

Click Install.

Then screen shows the progress of the installation and exit after installation is completed.

Installation Progress Screen

Installation Complete Screen

6.3.2 Verifying the Installation

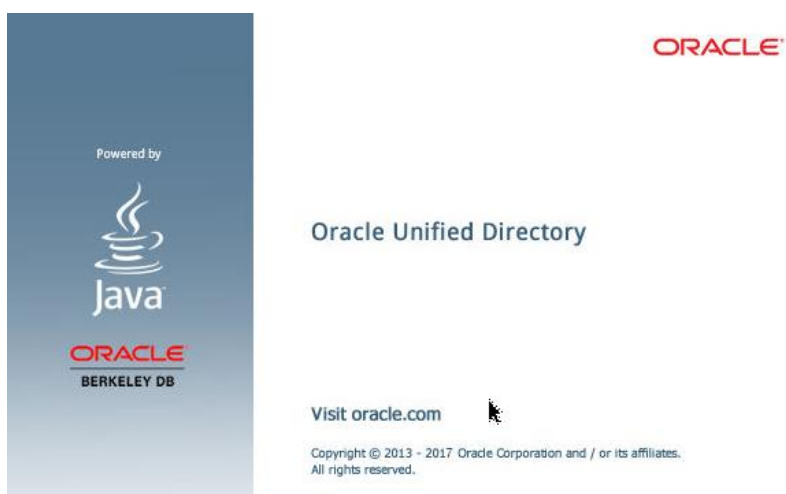
You can perform any combination of the following tasks to verify that your installation was successful:

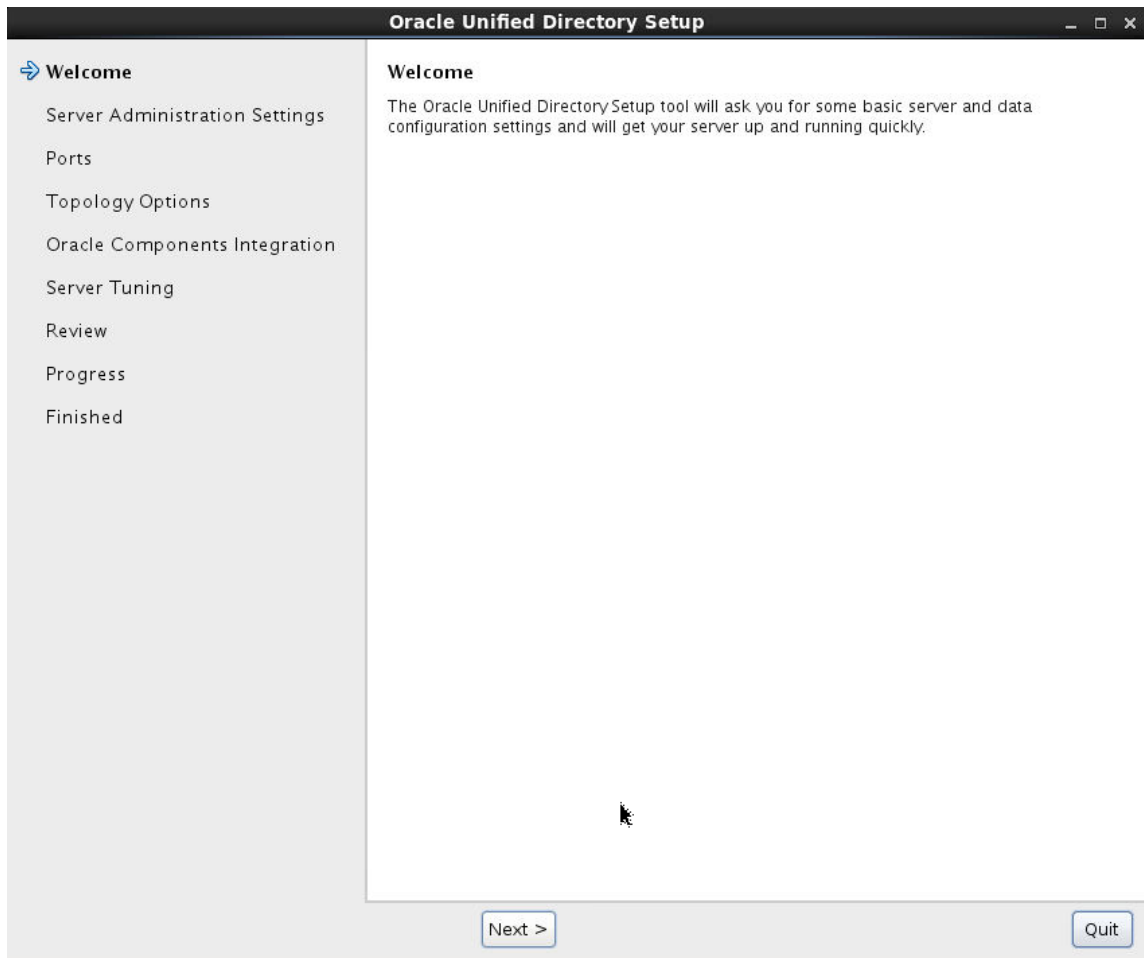
- **Verifying the Installation Logs:** Check for the presence of installation log files in logs directory inside your Oracle Inventory directory.

Verifying the IDM Home Directory: Check for the presence of IDM Home directory. Configuring OUD

From <ORACLE_HOME>/oud start below command

`./oud-setup`





Click Next

Oracle Unified Directory Setup

Welcome

⇒ **Server Administration Settings**

Ports

Topology Options

Oracle Components Integration

Server Tuning

Review

Progress

Finished

Server Administration Settings

Enter the path where the instance will be created, the administration ports (both LDAP and HTTP protocols can be used to manage the OUD server) and the credentials of the initial user.

Instance Path: /scratch/obdxuser/IDM12/asinst_2/OU **Browse...**

Host Name: mum00aon.in.oracle.com

Administration Port(s): Enable Administration only with LDAP ▼

LDAP Port: 6444
Could not use 4444. Port in use or user not authorized.

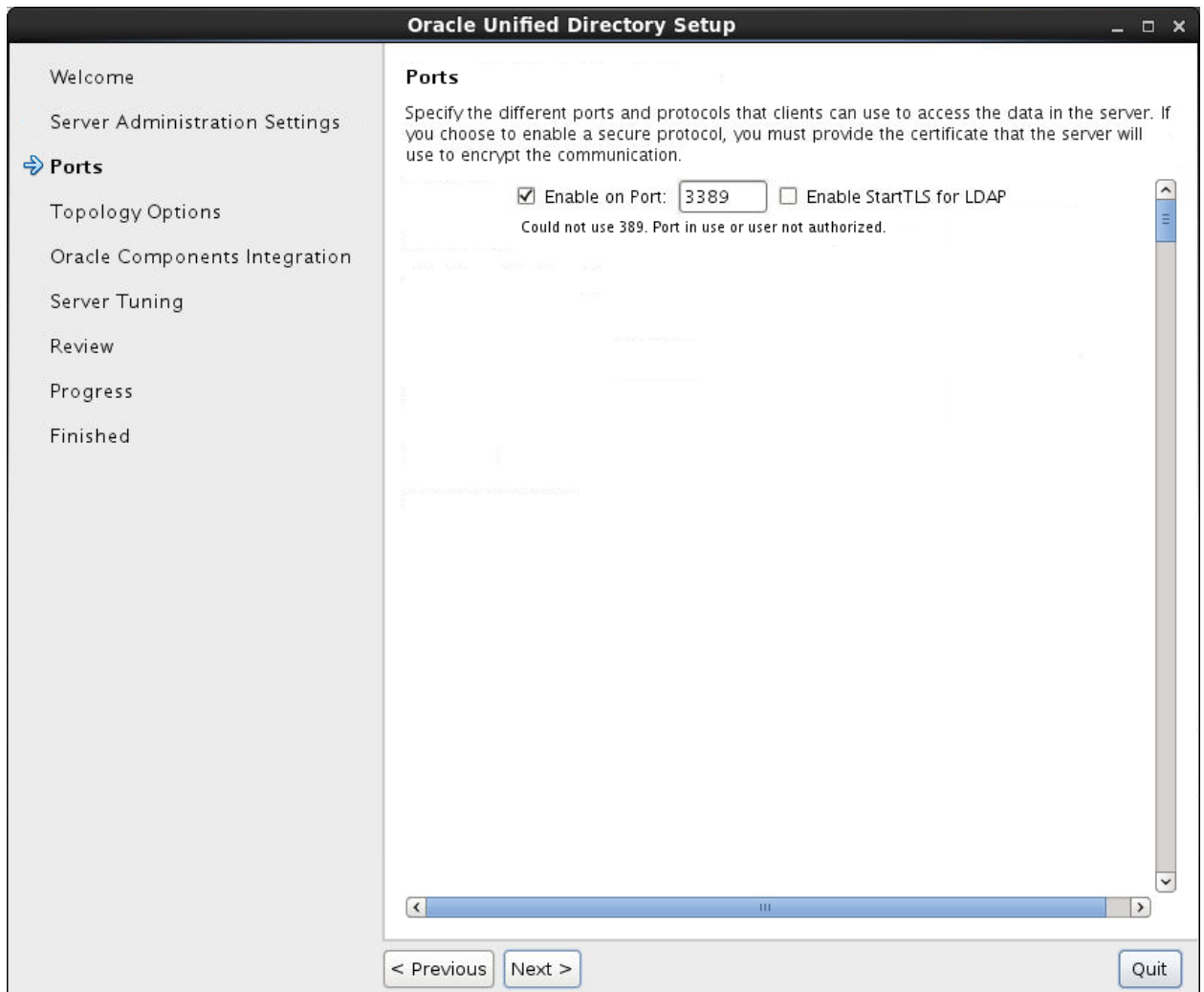
Root User DN: cn=orcladmin

Password: *****

Password (confirm): *****

< Previous Next > Quit

Enter the details and OUD password > Next



Enter the LDAP Port > Next

Oracle Unified Directory Setup

Welcome

Server Administration Settings

Ports

Topology Options

Oracle Components Integration

Server Tuning

Review

Progress

Finished

Topology Options

Choose the Data Replication Options. You can change these settings later using the 'dsreplication' command-line.

☒ This will be a stand alone server

☐ This server will be part of a replication topology

Replication Port: 8989 ☐ Configure as Secure

☐ There is already a server in the topology

Host Name:

Administration Connector Port: 4444

Admin User: cn=Directory Manager

Admin Password:

< Previous Next > Quit

Select standalone server > Next

The screenshot shows the 'Oracle Unified Directory Setup' window. On the left is a navigation pane with the following items: Welcome, Server Administration Settings, Ports, Topology Options, **Directory Data** (highlighted with a blue arrow), Oracle Components Integration, Server Tuning, Review, Progress, and Finished. The main area is titled 'Directory Data' and contains the following text: 'Choose options for the LDAP data to be hosted by the server.' Below this is a text field for 'Directory Base DN' containing 'dc=in,dc=oracle,dc=com'. A note below the field says 'Leave empty if you do not want to create a base DN.' Under the heading 'Directory Data:', there are four radio button options: 'Only Create Base Entry (dc=in,dc=oracle,dc=com)' (which is selected), 'Leave Database Empty', 'Import Data from LDIF File', and 'Import Automatically-Generated Sample Data'. Below the 'Import Data from LDIF File' option is a 'Path:' label followed by a text field and a 'Browse...' button. Below the 'Import Automatically-Generated Sample Data' option is a 'Number of User Entries:' label followed by a text field containing '2000'. At the bottom of the window are three buttons: '< Previous', 'Next >', and 'Quit'.

Oracle Unified Directory Setup

Welcome

Server Administration Settings

Ports

Topology Options

➔ **Directory Data**

Oracle Components Integration

Server Tuning

Review

Progress

Finished

Directory Data

Choose options for the LDAP data to be hosted by the server.

Directory Base DN:

Leave empty if you do not want to create a base DN.

Directory Data:

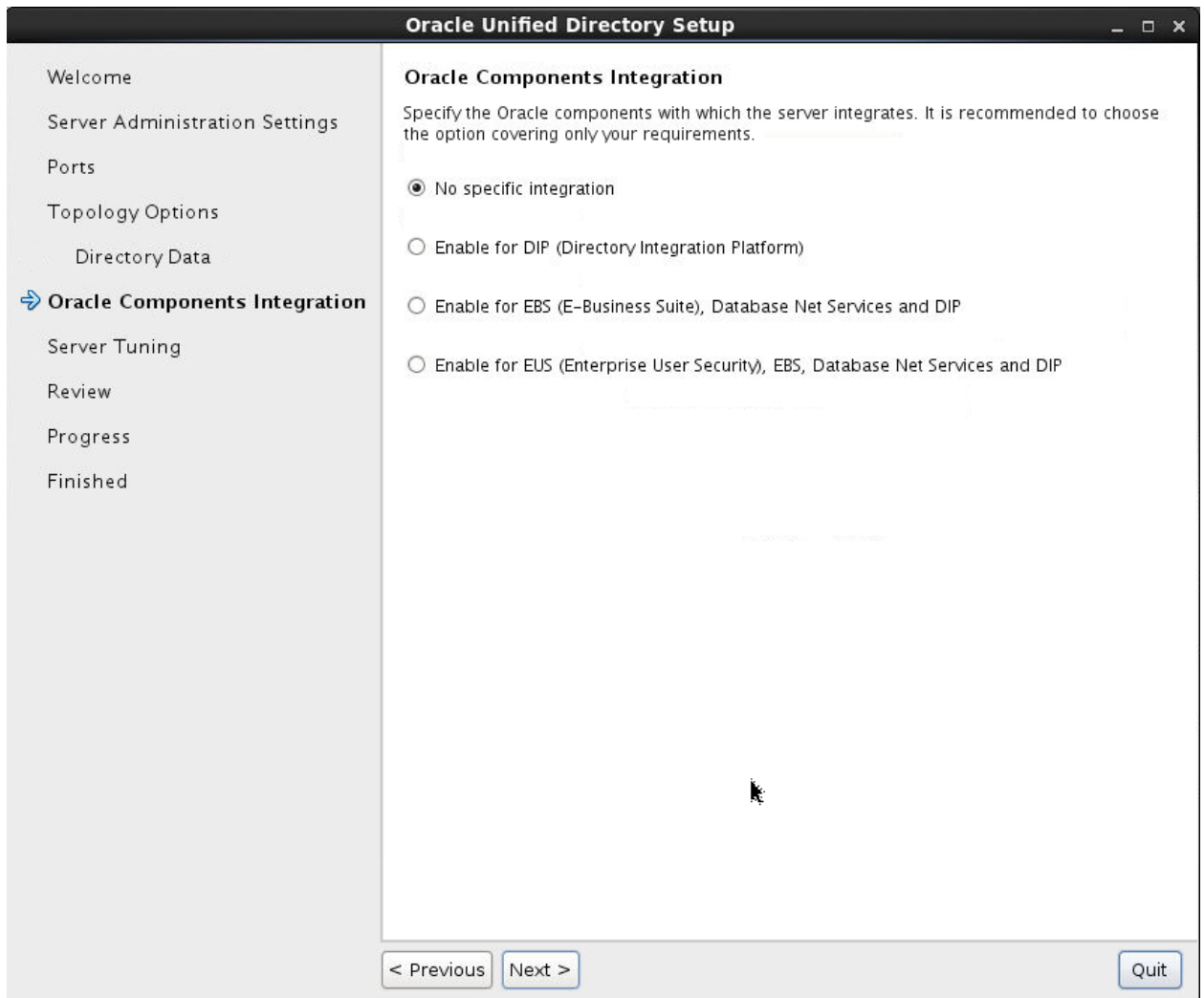
- ☒ Only Create Base Entry (dc=in,dc=oracle,dc=com)
- ☐ Leave Database Empty
- ☐ Import Data from LDIF File
- ☐ Import Automatically-Generated Sample Data

Path:

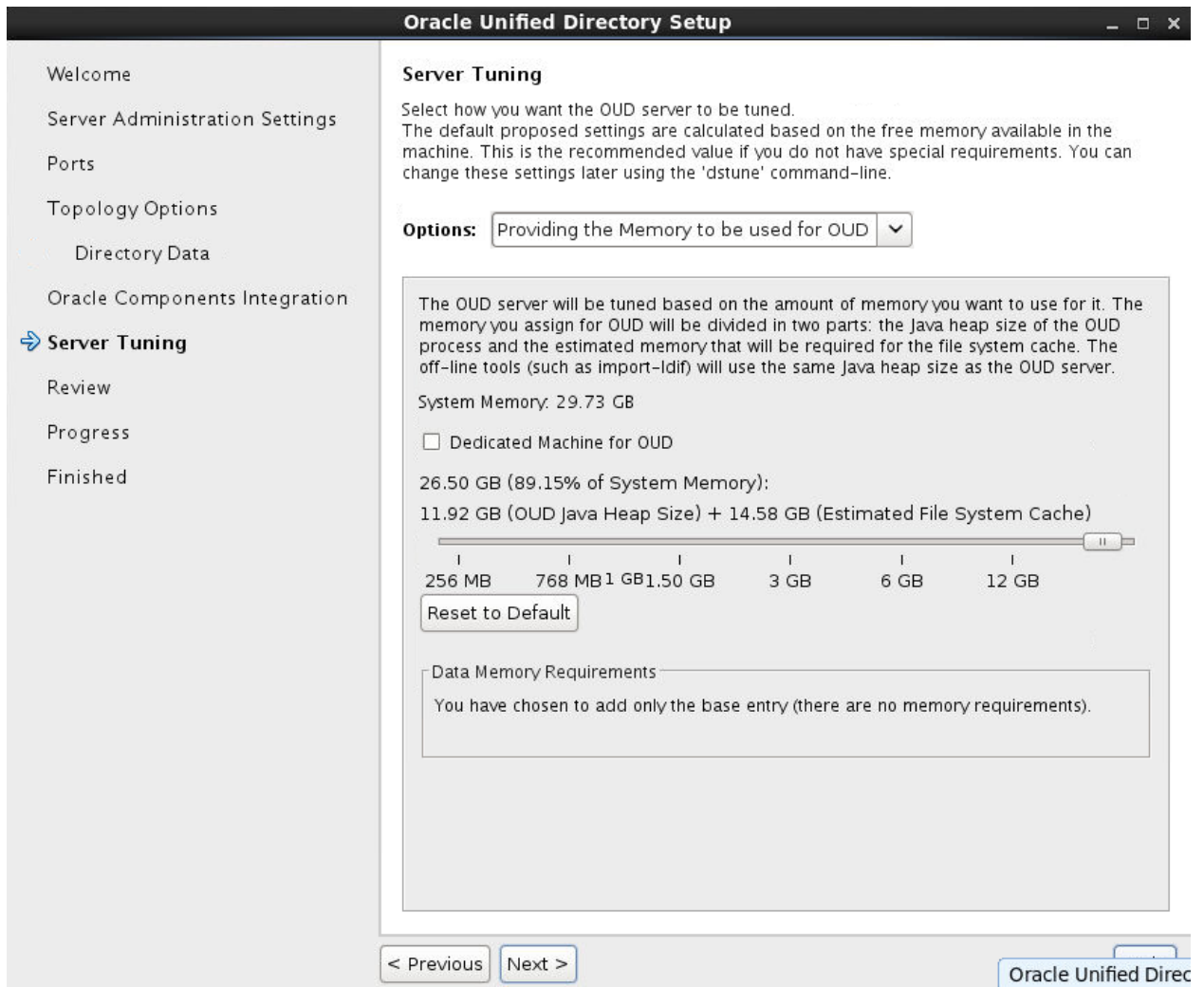
Number of User Entries:

< Previous Next > Quit

Add base DN > Next



Next >



Add sizing parameters > Next

Oracle Unified Directory Setup

Welcome

Server Administration Settings

Ports

Topology Options

Directory Data

Oracle Components Integration

Server Tuning

Review

Progress

Finished

Review

Review your settings and click Finish if they are correct. Show Summary

Host Name: mum00aon.in.oracle.com

LDAP Administration Port: 6444

Root User DN: cn=orcladmin

LDAP Port: 3389

Directory Data: Create New Base DN dc=in,dc=oracle,dc=com
Base DN Data: Only Create Base Entry (dc=in,dc=oracle,dc=com)

Integration with Oracle components: No Integration

Runtime Options: 26.50 GB (89.15% of System Memory): 11.92 GB (OUD Java Heap Size) + 14.58 GB (Estimated File System Cache)

☒ Start Server when Configuration has Completed

< Previous Finish Quit

Click Finish to complete the configuration

[Home](#)

7. Oracle Access Management Installation and Configuration

Oracle Access Management includes components like Oracle Access Manager, Oracle Access Management Security Token Service, Oracle Access Management Identity Federation, Oracle Access Management Mobile and Social.

Following topics in this chapter provides detailed information on installing and configuring Oracle Access Management after installing Oracle Identity and Access Management:

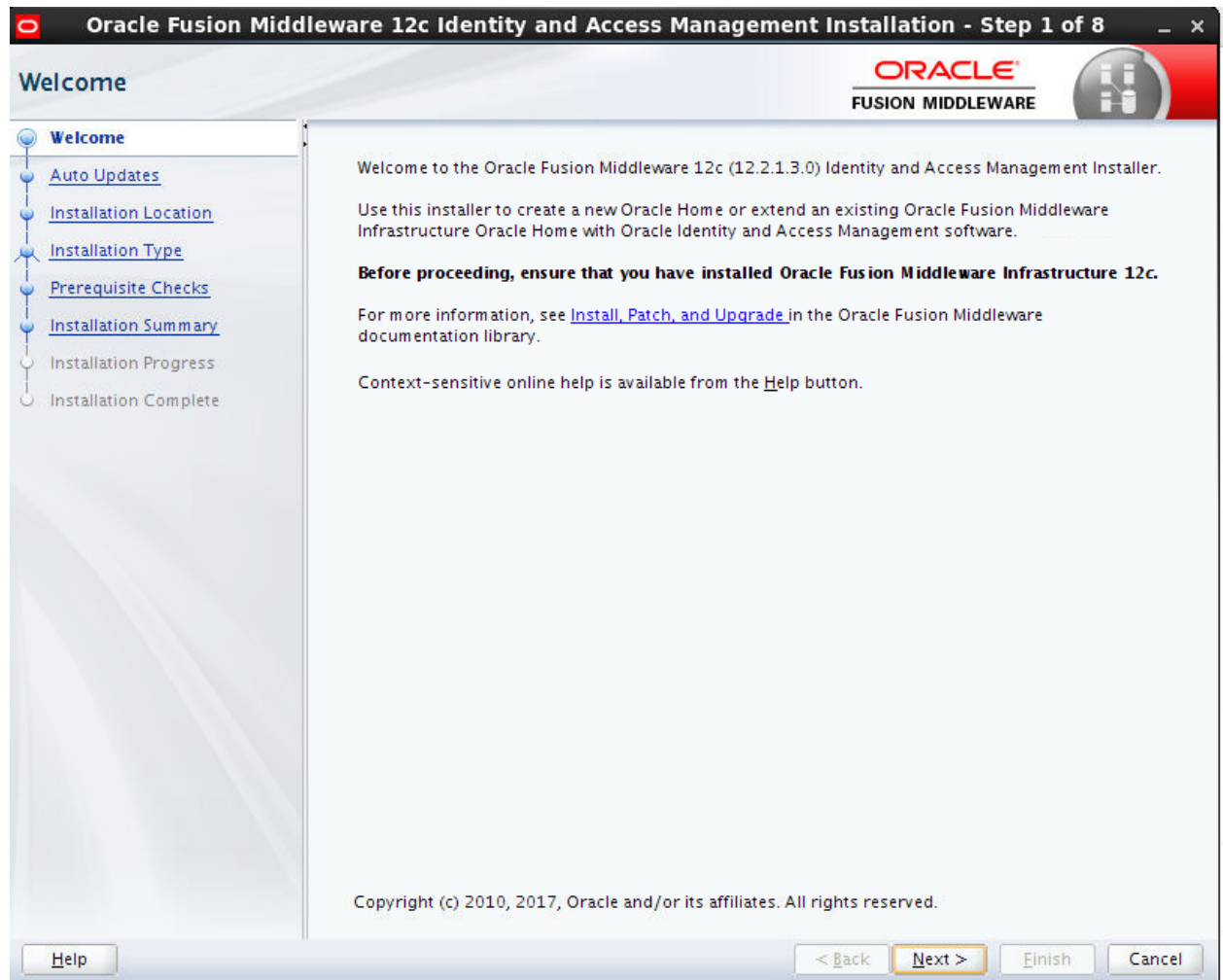
- Section 7.1, "Creating Weblogic Domain for Oracle Access Manager"
- Section 7.2, "Post-Installation Tasks"
- Section 7.3, "Verifying the Installation"

7.1 Installing Oracle Access Manager

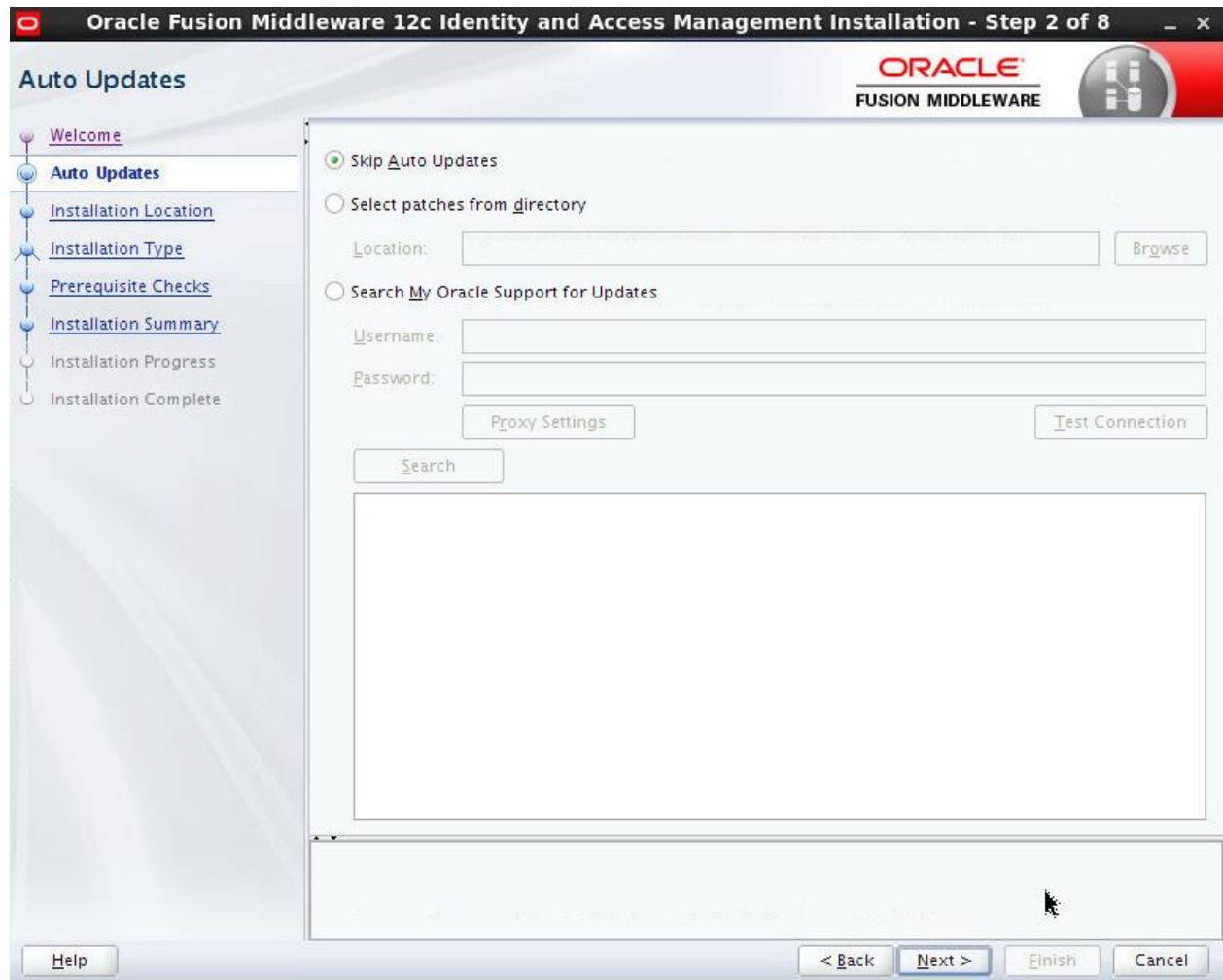
- Before you start configuring Oracle Access Management, note that the **IDM HOME** is the path provided during IDM installation and is used to refer to the Oracle home directory.
- Run below command to start installation

```
java -jar fmw_12.2.1.3.0_idm.jar
```

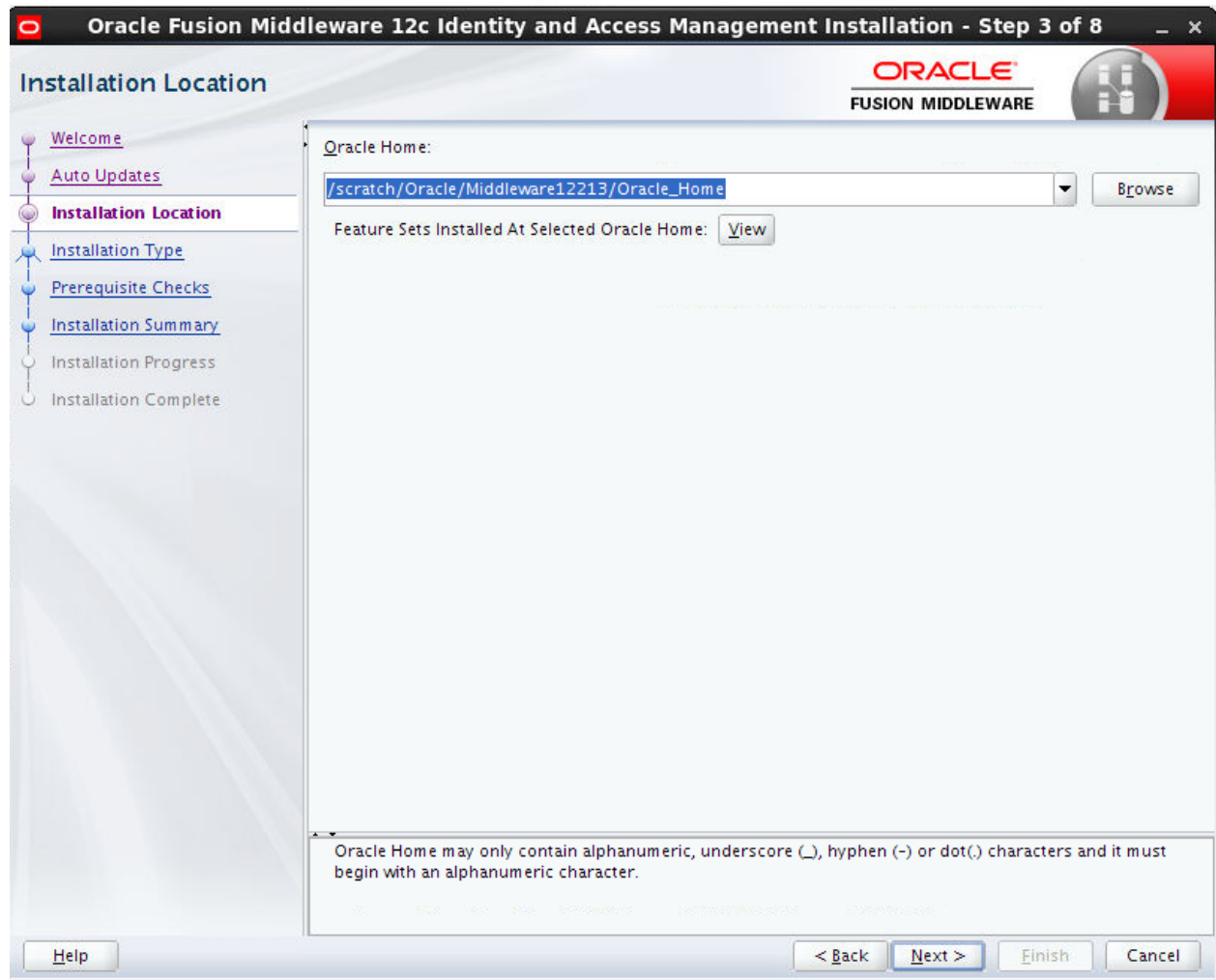




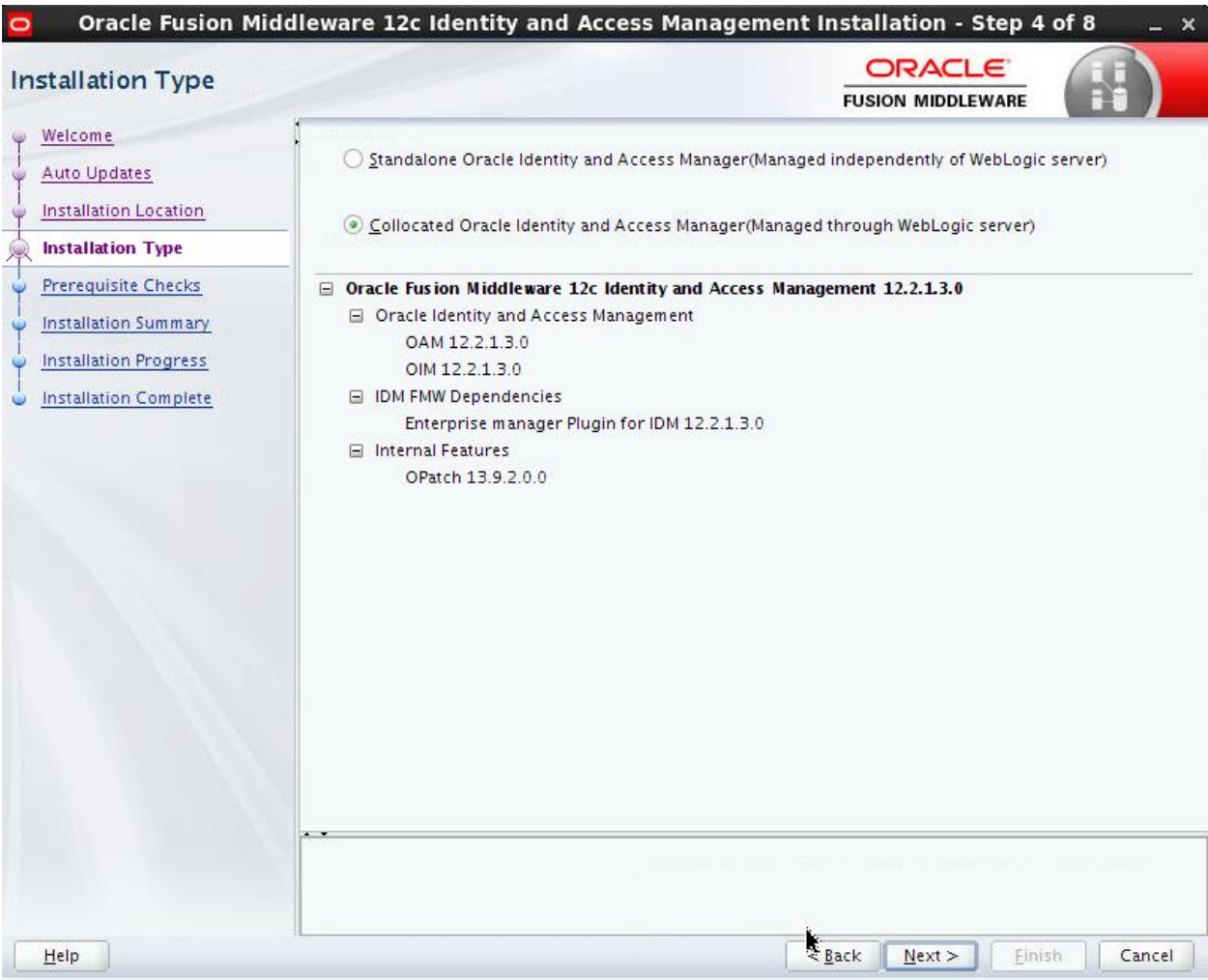
Next >



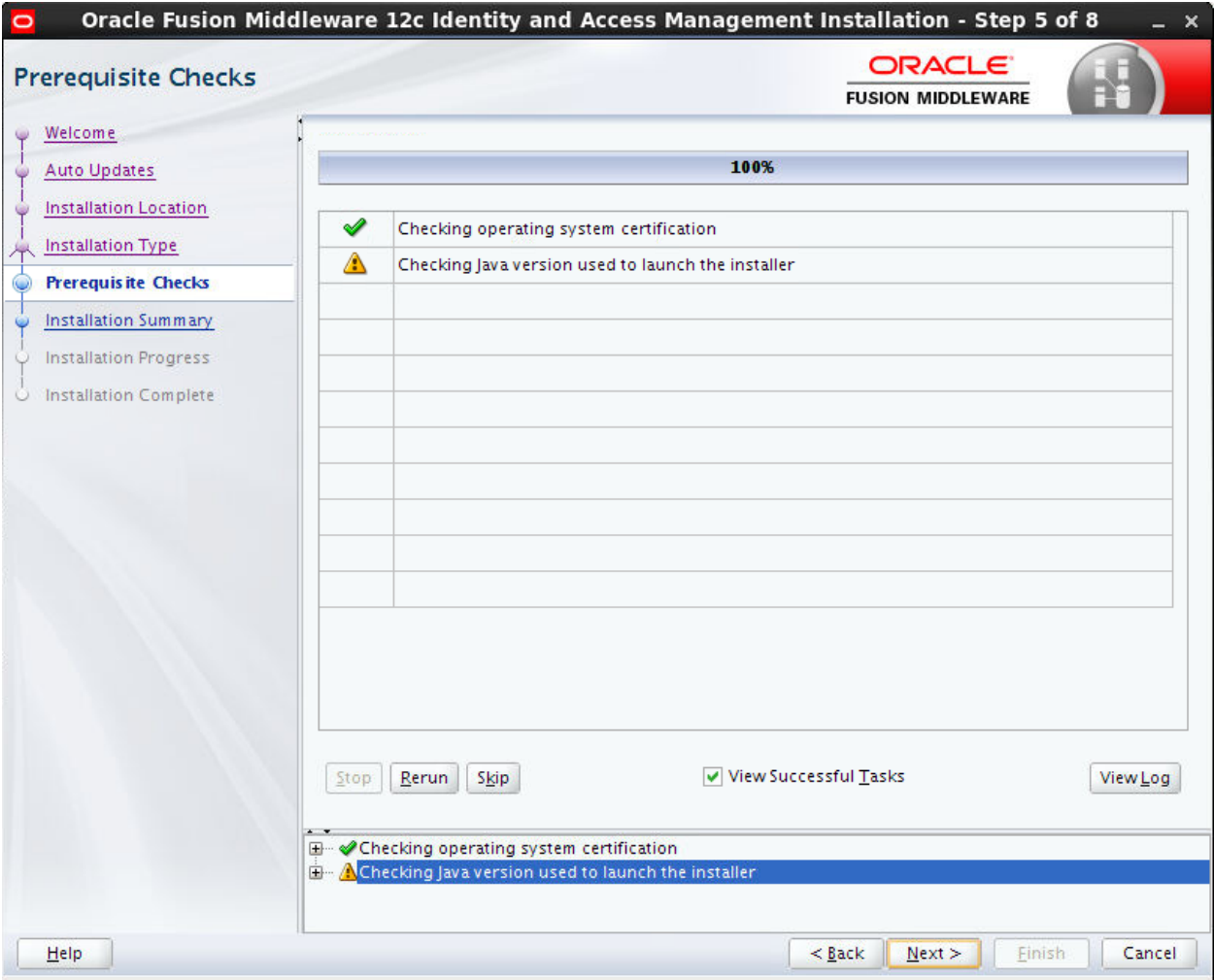
Next >



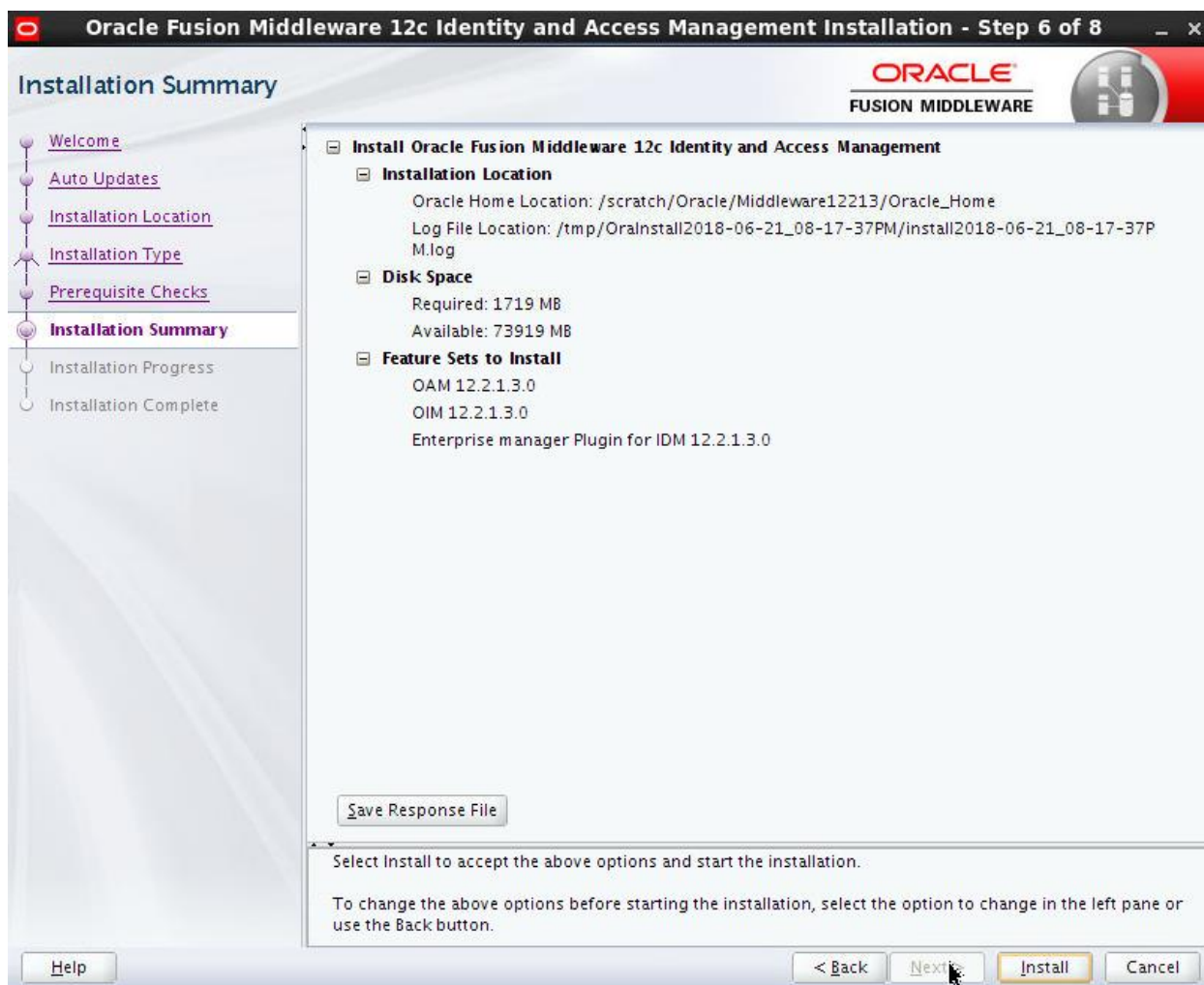
Select the same Weblogic as in Sec 6.2.1



Next >



Next >



Click Install to complete the installation

Running the repository creation utility (RCU)

Run below command

<ORACLE_HOME>/oracle_common/bin

./rcu



Next >



Next >

Repository Creation Utility - Step 3 of 8

ORACLE
FUSION MIDDLEWARE

Repository Creation Utility

- Welcome
- Create Repository
- Database Connection Details**
- Select Components
- Schema Passwords
- Map Tablespaces
- Summary
- Completion Summary

Database Type: Oracle Database

Connection String Format: ☒ Connection Parameters ☐ Connection String

Connect String

Host Name: mum00apd.in.oracle.com

Port: 1522

Service Name: ubsc1ip

Username: sys

Password:

Role: SYSDBA

Help < Back Next > Finish Cancel

Provide connection parameter (Oracle 12c DB) > Next

Repository Creation Utility - Checking Prerequisites

Checking Global Prerequisites

Initializing repository configuration metadata	00:05.857(sec)
Obtain properties of the specified database	0
Check requirement for specified database	0

Stop

Repository Creation Utility - Step 4 of 8

Repository Creation Utility

Specify a unique prefix for all schemas created in this session, so you can easily locate, reference, and manage the schemas later.

☐ Select existing prefix:

☒ Create new prefix:

Alpha numeric only. Cannot start with a number. No special characters.

Component	Schema Owner
<input type="checkbox"/> Oracle AS Repository Components	
<input checked="" type="checkbox"/> AS Common Schemas	
<input checked="" type="checkbox"/> Common Infrastructure Services *	DEV15_STB
<input checked="" type="checkbox"/> Oracle Platform Security Services	DEV15_OPSS
<input type="checkbox"/> User Messaging Service	UMS
<input checked="" type="checkbox"/> Audit Services	DEV15_IAU
<input checked="" type="checkbox"/> Audit Services Append	DEV15_IAU_APPEND
<input checked="" type="checkbox"/> Audit Services Viewer	DEV15_IAU_VIEWER
<input checked="" type="checkbox"/> Metadata Services	DEV15_MDS
<input checked="" type="checkbox"/> Weblogic Services *	DEV15_WLS
<input checked="" type="checkbox"/> IDM Schemas	
<input type="checkbox"/> Oracle Identity Manager	OIM
<input checked="" type="checkbox"/> Oracle Access Manager	DEV15_OAM

* Mandatory component. Mandatory components cannot be deselected.

Help < Back Next > Finish Cancel

Provide prefix > Next

Repository Creation Utility - Checking Prerequisites

Checking Component Prerequisites

✓ Common Infrastructure Services	00:00.110(ms)
✓ Oracle Platform Security Services	00:00.110(ms)
✓ Oracle Access Manager	00:03.323(sec)
✓ Audit Services	00:00.101(ms)
✓ Audit Services Append	00:00.101(ms)
✓ Audit Services Viewer	00:00.104(ms)
✓ Metadata Services	00:00.112(ms)
✓ Weblogic Services	00:00.109(ms)

Operation completed. Click OK to continue to next page.

OK

Repository Creation Utility - Step 5 of 8

ORACLE
FUSION MIDDLEWARE

Repository Creation Utility

- Welcome
- Create Repository
- Database Connection Details
- Select Components
- Schema Passwords**
- Map Tablespaces
- Summary
- Completion Summary

Define passwords for main and auxiliary schema users.

☒ Use same passwords for all schemas

Password:

Alpha numeric only. Cannot start with a number.
No special characters except: \$, #, _.

Confirm Password:

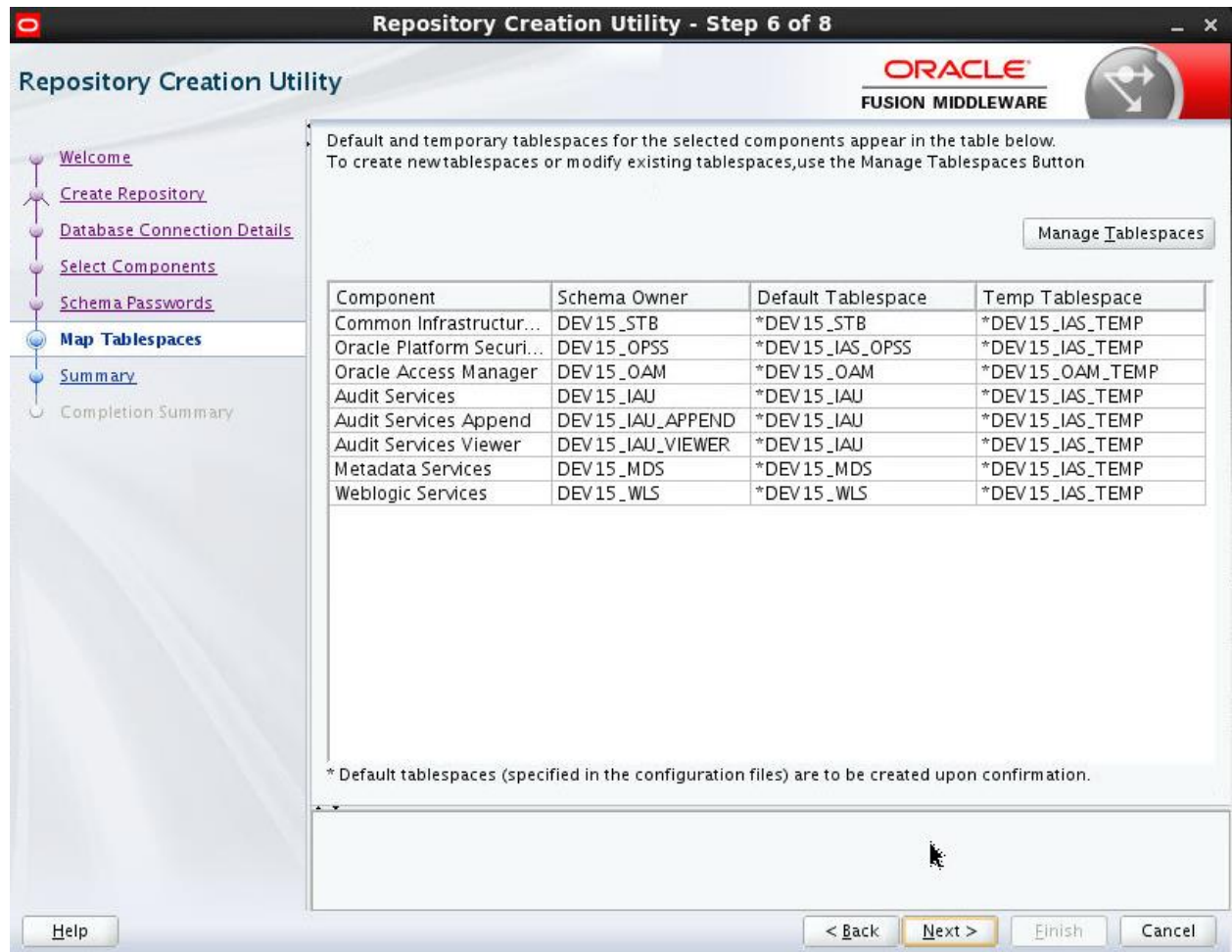
☐ Use main schema passwords for auxiliary schemas

☐ Specify different passwords for all schemas

Help

< Back Next > Finish Cancel

Provide passwords > Next



Click Next > Finish to complete installation of schemas

Configuring Weblogic Domain to use OUDSM and OAM

- Execute the below command, to launch the Weblogic Configuration Wizard:

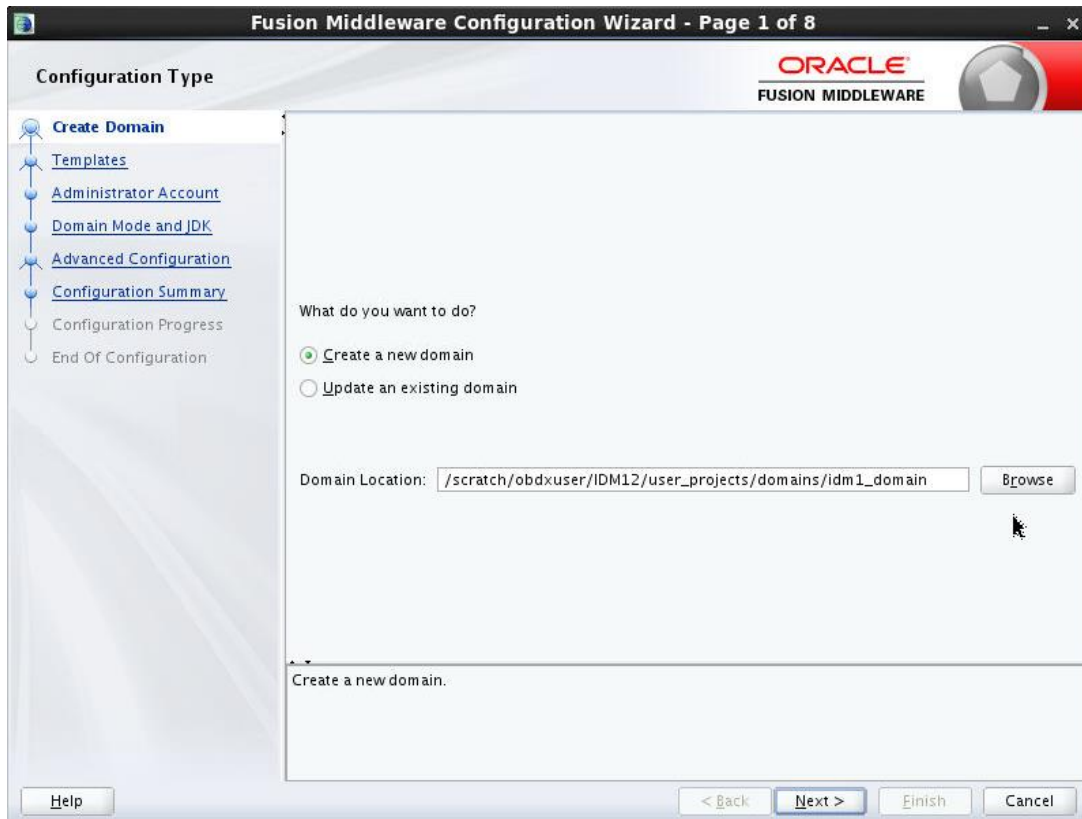
<Oracle_Home>/oracle_common/common/bin/config.sh

Note: Oracle_Home is the Middleware Home, which is the absolute path where Weblogic Server is installed.

- Follow the instructions as shown below for installation:

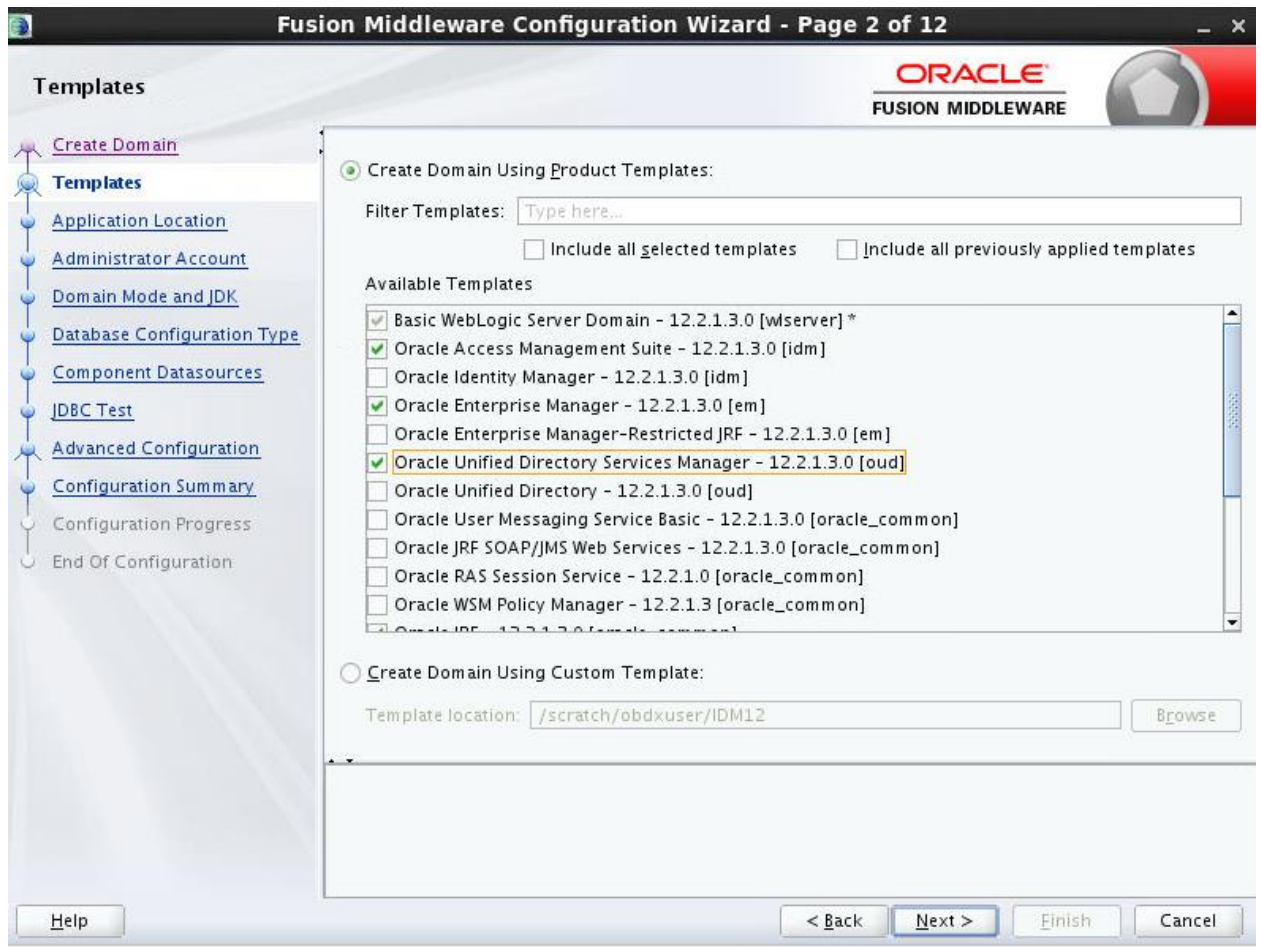
Welcome Screen

The Welcome screen is displayed > Next



Click Next to continue.

Select Domain Source Screen



Select options as shown above (Do not uncheck auto selected options) > Next

Fusion Middleware Configuration Wizard - Page 4 of 12

Administrator Account

ORACLE
FUSION MIDDLEWARE

[Create Domain](#)
[Templates](#)
[Application Location](#)
Administrator Account
[Domain Mode and JDK](#)
[Database Configuration Type](#)
[Component Datasources](#)
[JDBC Test](#)
[Advanced Configuration](#)
[Configuration Summary](#)
Configuration Progress
End Of Configuration

Name:

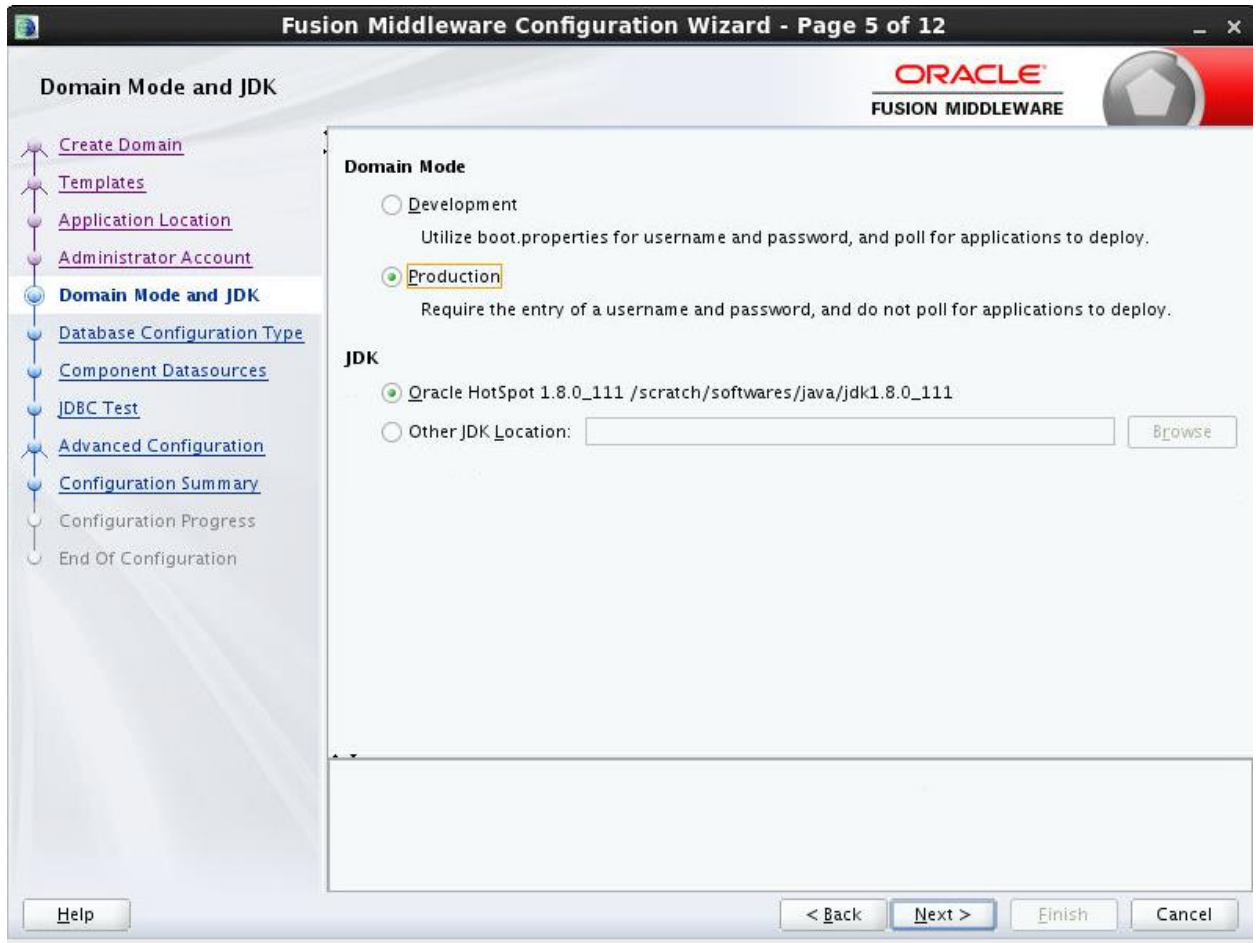
Password:

Confirm Password:

Must be the same as the password. Password must contain at least 8 alphanumeric characters with at least one number or special character.

Help < Back Next > Finish Cancel

Enter domain password > Next



Fusion Middleware Configuration Wizard - Page 6 of 12

Database Configuration Type

ORACLE
FUSION MIDDLEWARE

Specify AutoConfiguration Options Using:

☒ RCU Data ☐ Manual Configuration

Enter the database connection details using the schema credentials corresponding to Common Infrastructure Services component in the Repository Creation Utility. The Wizard uses this connection to automatically configure the datasources required for components in this domain.

Vendor: Driver:

☒ Connection Parameters ☐ Connection URL String

Host Name:

DBMS/Service: Port:

Schema Owner: Schema Password:

Connection Result Log

Successfully Done.

Click "Next" button to continue.

Provide Database details as created by RCU previously (Use same schema prefix) > Get RCU Configuration > Next

Fusion Middleware Configuration Wizard - Page 7 of 12

JDBC Component Schema

ORACLE
FUSION MIDDLEWARE

Vendor: Driver:

☒ Connection Parameters ☐ Connection URL String

Host Name:

DBMS/Service: Port:

Schema Owner: Schema Password:

Oracle RAC configuration for component schemas:

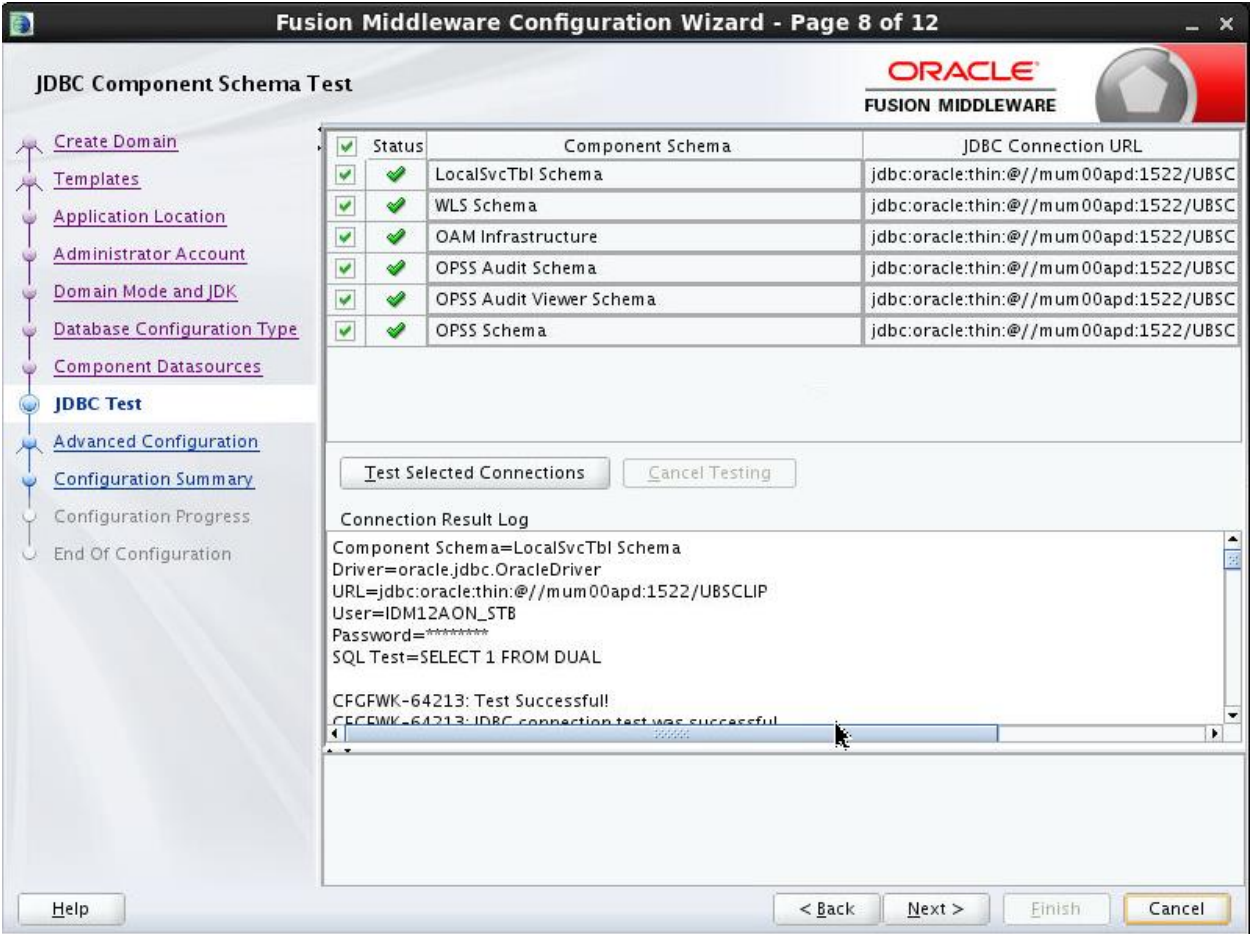
☐ Convert to GridLink ☐ Convert to RAC multi data source ☐ Don't convert

Edits to the data above will affect all checked rows in the table below.

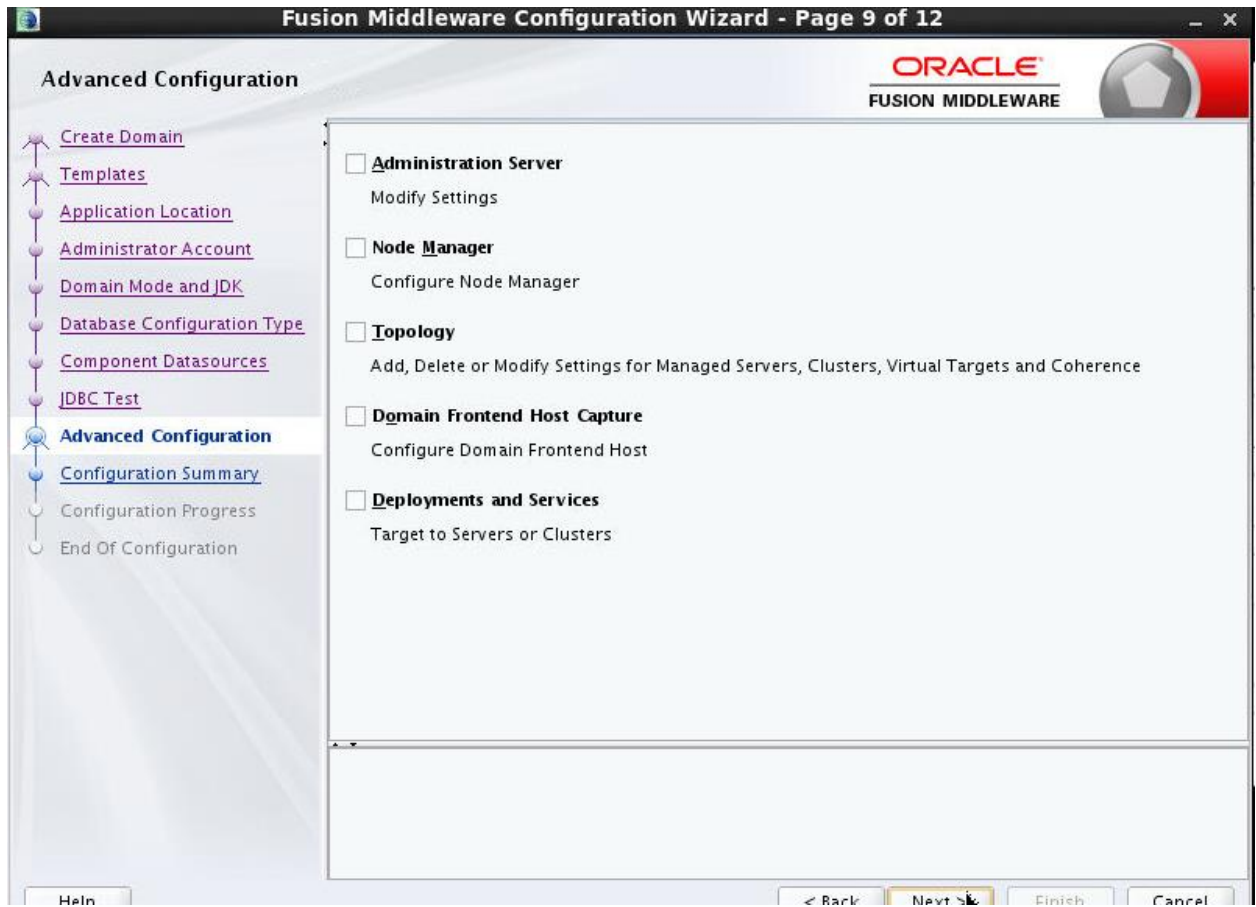
<input type="checkbox"/>	Component Schema	DBMS/Service	Host Name	Port	Schema Owner	Schema Password
<input type="checkbox"/>	LocalSvcTbl Schema	UBSCLIP	mum00apd	1522	IDM12AON_ST	••••••••
<input type="checkbox"/>	WLS Schema	UBSCLIP	mum00apd	1522	IDM12AON_WI	••••••••
<input type="checkbox"/>	OAM Infrastructure	UBSCLIP	mum00apd	1522	IDM12AON_OI	••••••••
<input type="checkbox"/>	OPSS Audit Schema	UBSCLIP	mum00apd	1522	IDM12AON_IA	••••••~•
<input type="checkbox"/>	OPSS Audit Viewer Sch	UBSCLIP	mum00apd	1522	IDM12AON_IA	••••~•••
<input type="checkbox"/>	OPSS Schema	UBSCLIP	mum00apd	1522	IDM12AON_OI	••••••~•

Help < Back Next > Finish Cancel

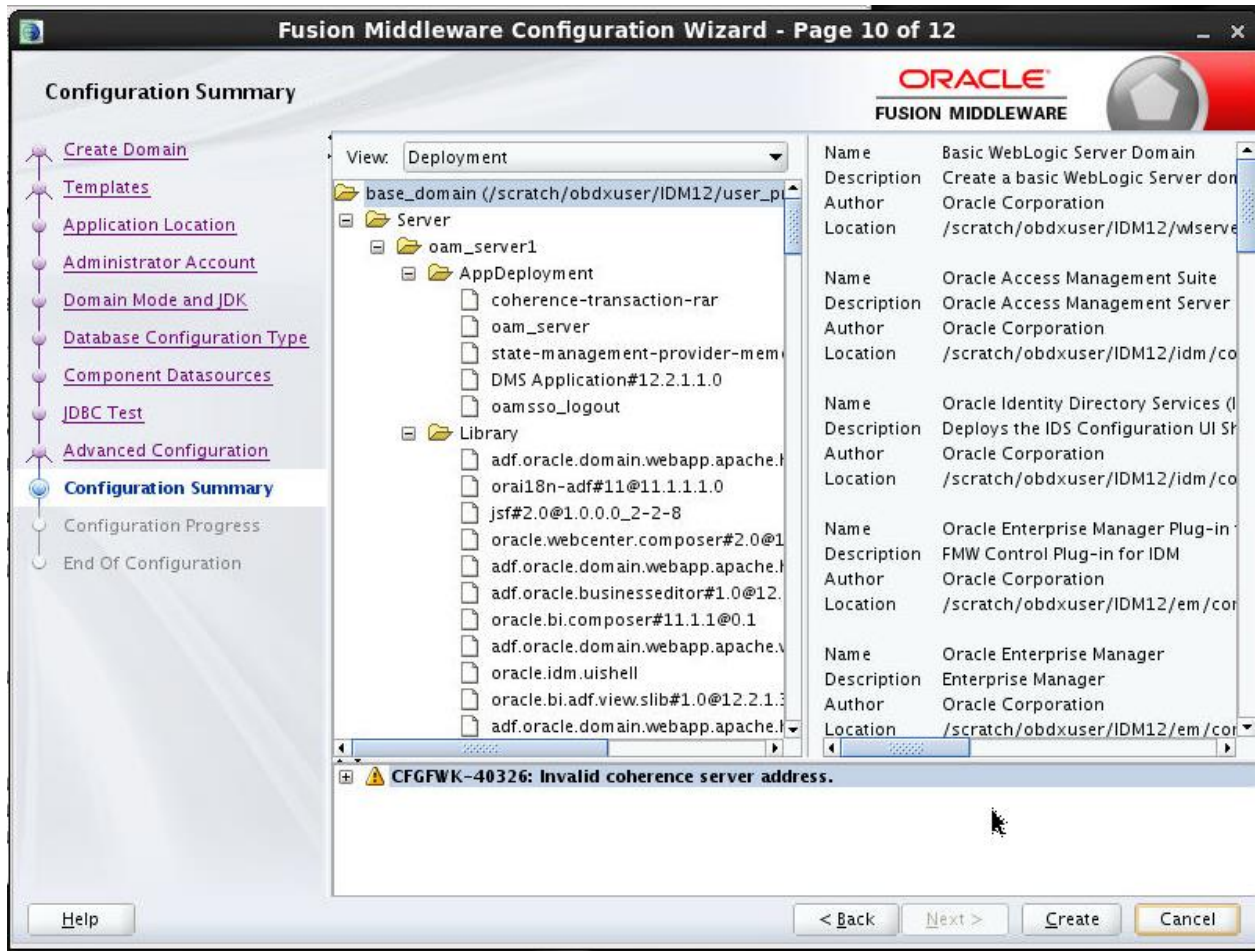
>Next



>Next



>Change any ports if required by selecting required options > Next



Click Create and then Finish to complete the configuration

Starting servers –

OOD

<ORACLE_HOME>/asinst_1/OOD/bin → ./start-ds

OAM

<Oracle_Home>/user_projects/domains/<OAM_domain>/bin/startWeblogic.sh

<Oracle_Home>/user_projects/domains/<OAM_domain>/bin/startManagedWeblogic.sh
oam_server1

Configuration Summary Screen

7.2 Post-Installation Tasks

After installing and configuring Oracle Access Management, the user can perform the following steps:

- Configure your own 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 using the following URL:

http://<hostname>:<oam_admin_port>/console

- Now, go to Security Realms > myrealm > Providers
- Click on ‘**DefaultAuthenticator**’ provider and change the Control Flag to SUFFICIENT and Save the changes.
- Now, click on New and enter the below details and click Save.
 Name : OUDAuthenticator
 Type : IPlanetAuthenticator
 Control Flag : SUFFICIENT
- Click on the new OUDAuthenticator Provider and under Provider Specific tab and 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.
UserBase DN	This is the OUD user search base cn=Users, dc=in,dc=oracle,dc=com
GroupBase DN	This is the OUD group search base cn=Groups, dc=in,dc=oracle,dc=com

- Click on Save to update the changes.
- Click on Save and reorder the providers so that LDAP Provider gets highest priority followed by DefaultAuthenticator.
- Click Save to apply the changes and shutdown the Admin Server for restart.
- Now, again restart the Admin Server using the command,

<Oracle_Home>/user_projects/domains/<OAM_domain>/bin/startWeblogic.sh

- Also, restart the OAM Managed Server (by default it is 'oam_server1') as mentioned below:

<Oracle_Home>/user_projects/domains/<OAM_domain>/bin/startManagedWeblogic.sh oam_server1

7.3 Verifying the Installation

- You can perform any combination of the following tasks to verify that your installation was successful:
 - Ensure that the Administration Server and Managed Servers are up and running.
 - Verifying the installation for Oracle Access Management

- Log in to the Administration Console for Oracle Access Management using the following URL:

http://<hostname>:<oam_admin_port>/oamconsole

- You will be redirected to:

http://<hostname>:<oamserver_port>/oam/server

When you access this Administration Console running on the Administration Server, you are prompted to enter a user name and password. Note that you must have Administrator's role and privileges.

- Verifying the installation for Weblogic Server Administration Console

If the installation and configuration of Oracle Access Management are successful, this console shows the Administration Server in running mode.

Verifying the installation for OUD console

<http://<host>:<admin port>/oudsm>

[Home](#)

8. Configuring OBDX Application and Mobile Banking using OAM and Weblogic

Following topics in this chapter provides detailed information on configuring OBDX Application and Mobile Banking:

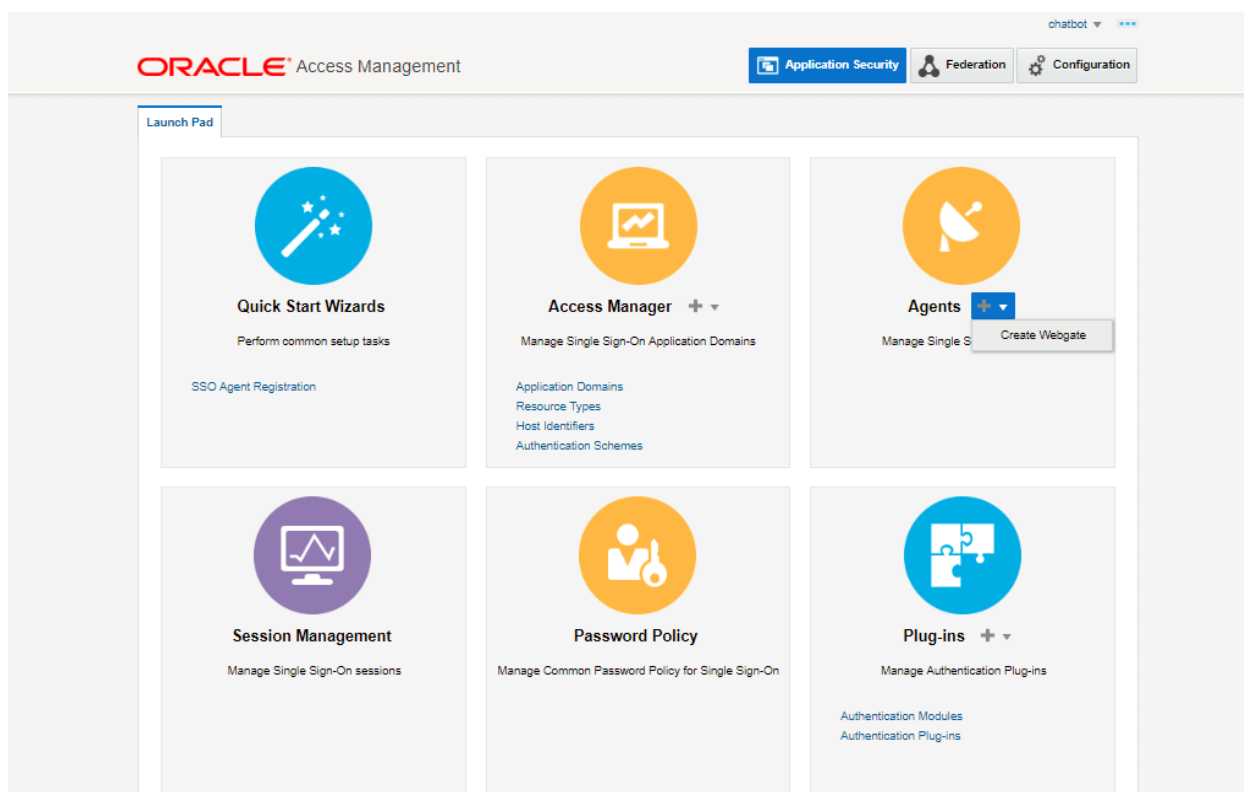
- Section 8.1, "Creating WebGate Agent on OAM Console"
- Section 8.2, "Creating Custom Login Scheme"
- Section 8.3, "Manage Application Domain and Resources"
-

8.1 REST API configurations for Mobile Banking (2-Legged OAuth Flows) Creating WebGate Agent on OAM Console

Before you can use the new Oracle HTTP Server 12c WebGate agent for Oracle Access Manager, you must register the new WebGate agent with Oracle Access Manager by using the Oracle Access Manager Administration Console. Following are the steps to register a WebGate Agent:

Login to OAM Console.

E. g. ***http://<hostname>:<oam_admin_port>/oamconsole***



In the **Agents** block, **Create Webgate**.

ORACLE Access Management

chatbot [x]

Application Security Federation Configuration

Launch Pad Create Webgate x

Access Manager >

Create Webgate

Use the following screen to register an OAM Agent. Before you register, ensure that at least one OAM Server is running in the same mode as the Agent to be registered.

* Name:

Description:

Base URL:

Access Client Password:

Host Identifier:

User Defined Parameters:

* Security: ☒ Open ☐ Simple ☐ Cert

Virtual host: ☐

Auto Create Policies: ☒

IP Validation: ☐

Resource Lists

Protected Resource List

Relative URI

Public Resource List

Relative URI

No data to display

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- Enter the hostname in Name field
- Click on Apply

This creates the Webgate Agent for OAM. Download files for webgate by clicking the “Download” button. Extract below files from zip.

cwallet.sso

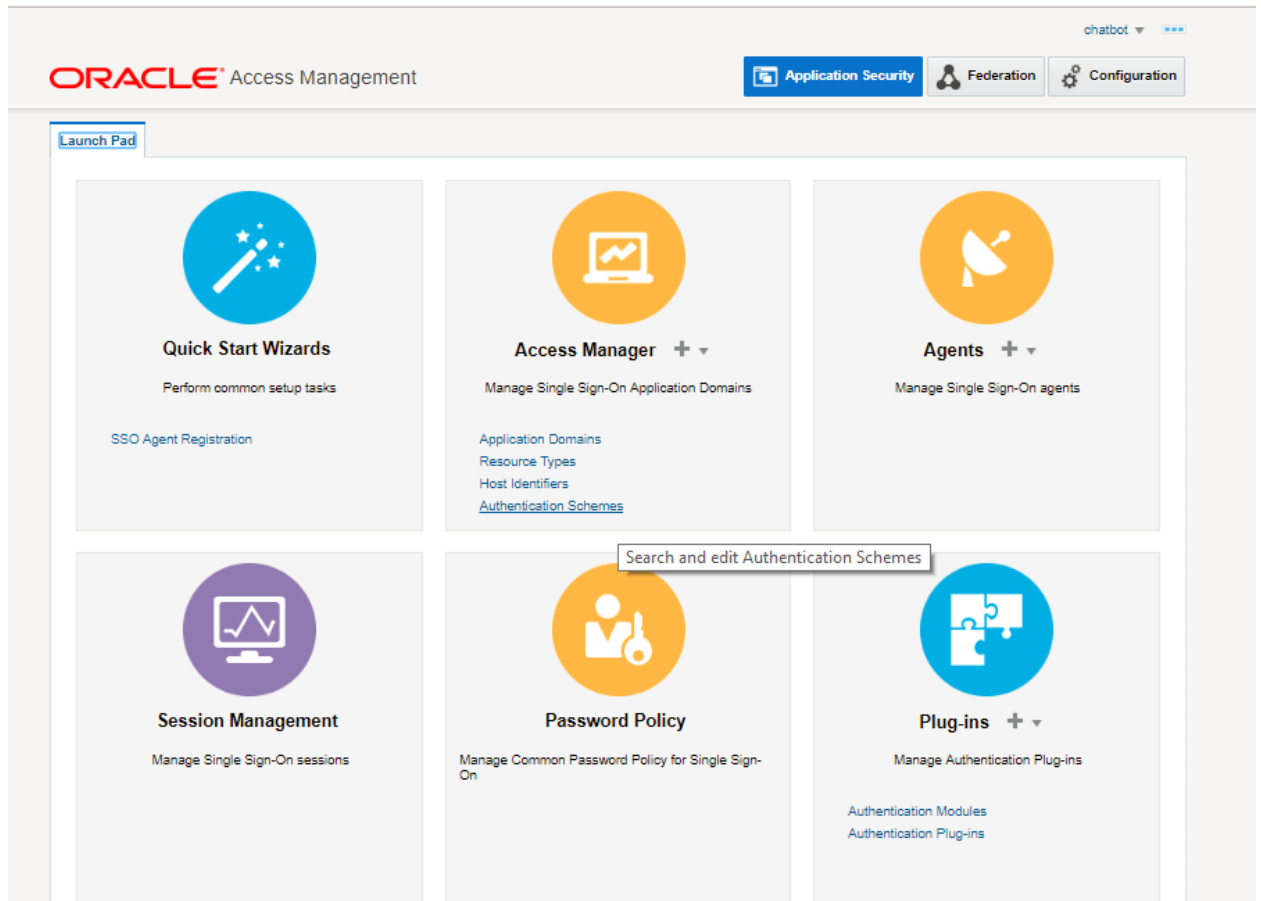
ObAccessClient.xml

The user should copy the files from the above mentioned location to the **<WebTier_Instance_Home>/config/OHS/ohs1/webgate/config** directory and restart OHS server instance

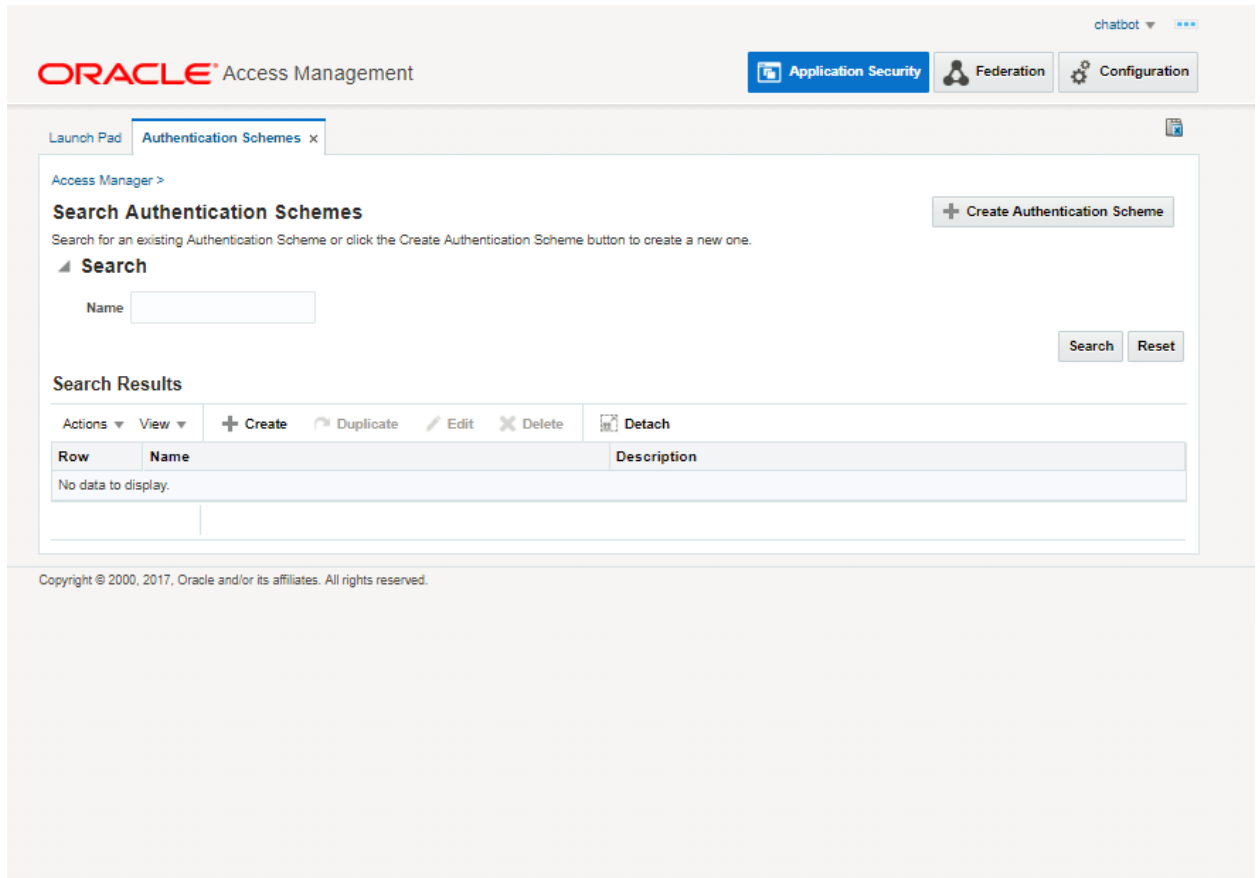
Note: The hostname here will be the fully qualified hostname of the server where Webgate is installed.

8.2 Creating Custom Login Scheme

To add a Custom Login Page, go to Launch Pad on oamconsole.



Click on Authentication Schemes from the Access Manager block.



Click on Create Authentication Scheme

The screenshot shows the Oracle Access Management (OAM) console interface. At the top, there's a navigation bar with 'ORACLE Access Management' and tabs for 'Application Security', 'Federation', and 'Configuration'. Below this, a breadcrumb trail shows 'Launch Pad' > 'Authentication Schemes' > 'CLIPSchemeOUD12'. The main content area is titled 'OBDXLoginScheme Authentication Scheme' and includes buttons for 'Set As Default', 'Duplicate', and 'Apply'. A descriptive text states: 'An Authentication Scheme defines the challenge mechanism required to authenticate a user. Each Authentication Scheme must also include a defined Authentication Module.' The configuration form contains the following fields:

- * Name:** OBDXLoginScheme
- Description:** OBDXLoginScheme
- * Authentication Level:** 2 (with up/down arrows)
- Default:** ☐
- * Challenge Method:** FORM (dropdown)
- Challenge Redirect URL:** /oam/server/
- * Authentication Module:** LDAP (dropdown)
- * Challenge URL:** http://10.180.88.136:7779/?module=login
- * Context Type:** external (dropdown)
- Challenge Parameters:** (empty text area)

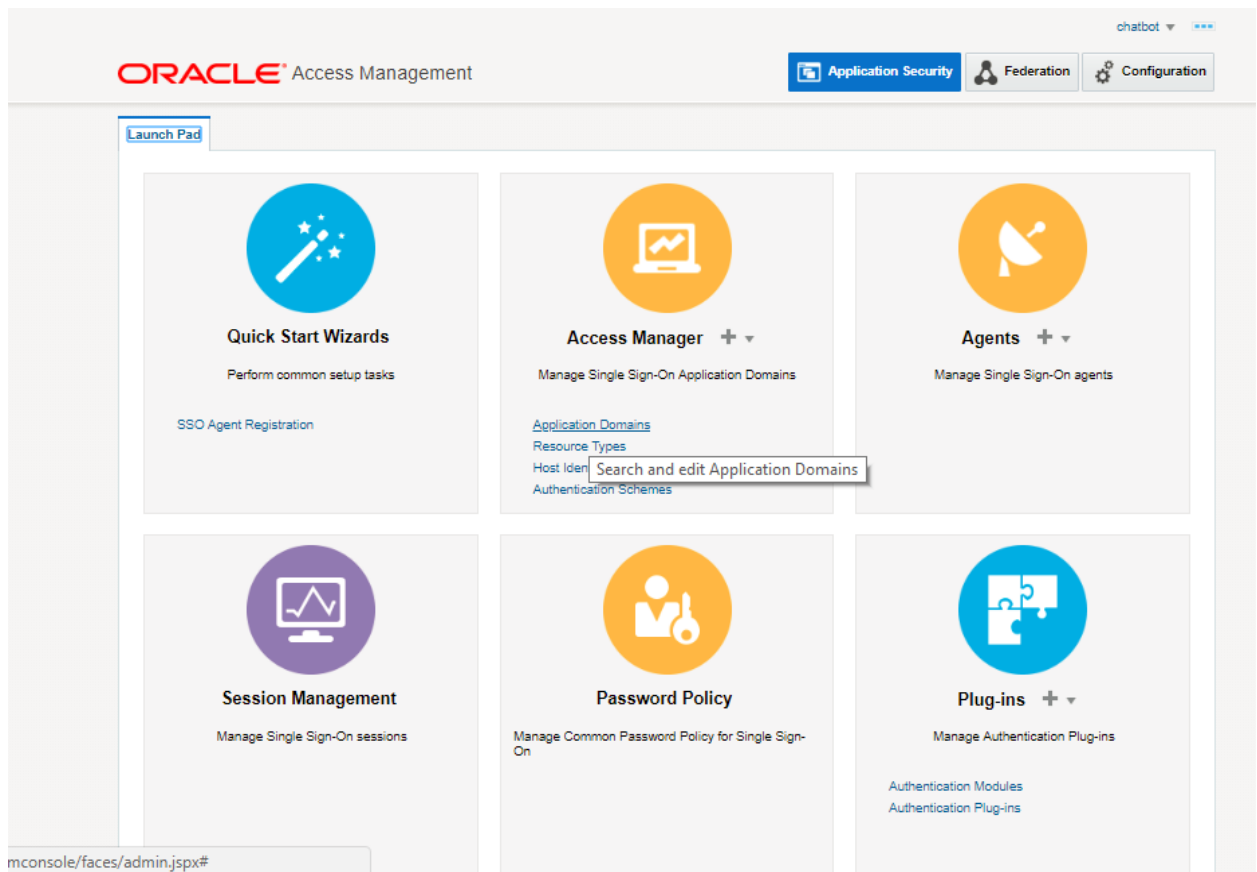
At the bottom of the console, a copyright notice reads: 'Copyright © 2000, 2017, Oracle and/or its affiliates. All rights reserved.'

Specify the following details:

- Provide a name for the Scheme. E.g. OBDXLoginScheme
- Select the authentication level as 2.
- Choose the Challenge Method as FORM
- Enter the Challenge Re-direct URL. E.g. /oam/server
- Select the Authentication Module as LDAP
- Enter the Challenge URL which is the actual URL of the login page.
- Select the Context Type as External

Click on Apply to save the Scheme.

8.3 Manage Application Domain and Resources



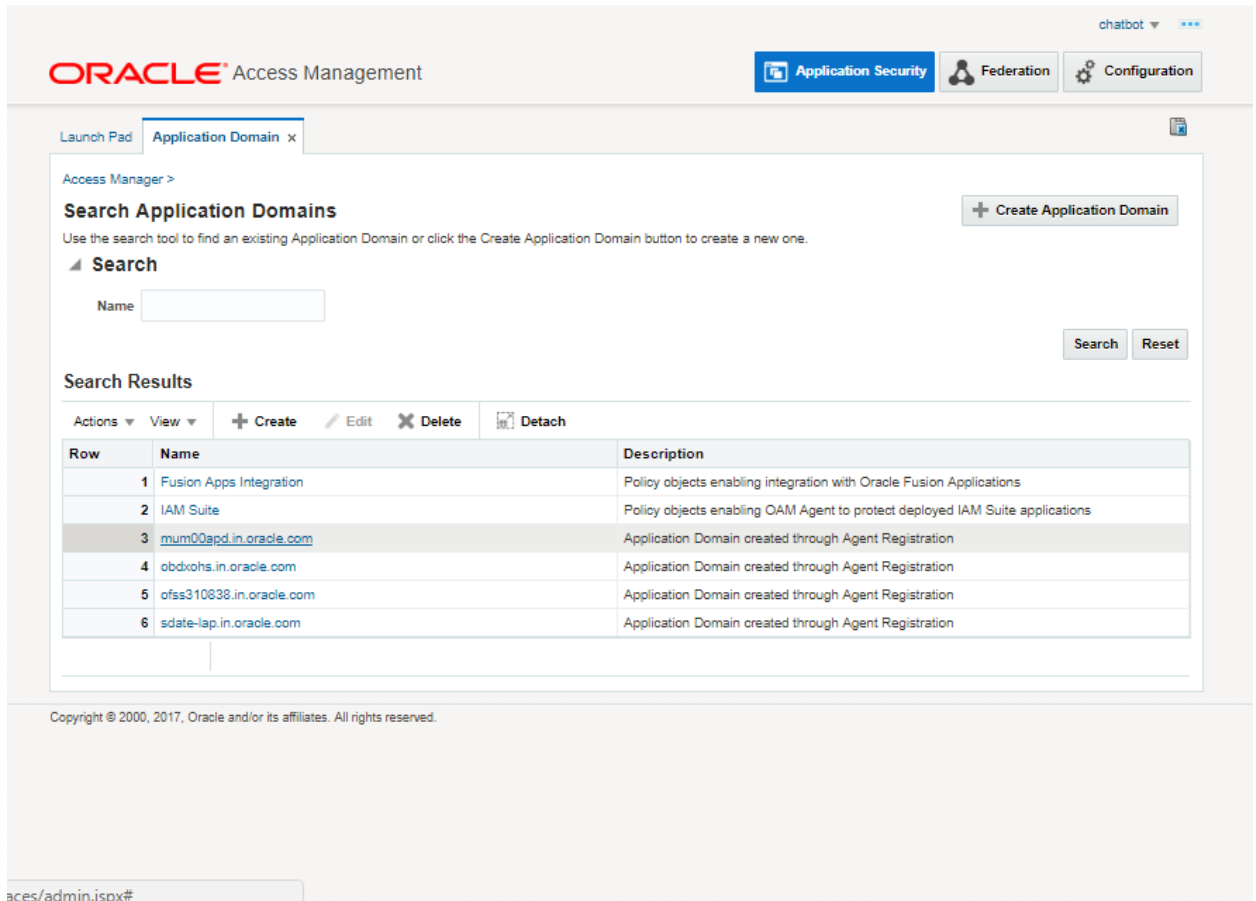
Go to **Launch Pad** and search for an application domain.

Click on **Applications Domain** in the Access Manager tab.

The screenshot displays the Oracle Access Management (OAM) console interface. At the top, the Oracle logo is followed by 'Access Management'. Navigation tabs include 'Application Security', 'Federation', and 'Configuration'. Below these, a 'Launch Pad' section shows 'Application Domain' as the active tab. The main content area is titled 'Search Application Domains' and includes a '+ Create Application Domain' button. A search section with a 'Search' button and a 'Name' input field is present. Below the search section, a 'Search Results' table is shown with columns for 'Row', 'Name', and 'Description'. The table currently displays 'No data to display.' and includes action buttons like '+ Create', 'Edit', 'Delete', and 'Detach'. The footer contains the copyright notice: 'Copyright © 2000, 2017, Oracle and/or its affiliates. All rights reserved.'

es/admin.jspx#

Click on **Search**



Oracle Access Management

chatbot

Application Security Federation Configuration

Launch Pad Application Domain x

Access Manager >

Search Application Domains

Use the search tool to find an existing Application Domain or click the Create Application Domain button to create a new one.

Search

Name

Search Reset

Search Results

Actions View Create Edit Delete Detach

Row	Name	Description
1	Fusion Apps Integration	Policy objects enabling integration with Oracle Fusion Applications
2	IAM Suite	Policy objects enabling OAM Agent to protect deployed IAM Suite applications
3	mum00apd.in.oracle.com	Application Domain created through Agent Registration
4	obdxohs.in.oracle.com	Application Domain created through Agent Registration
5	ofss310838.in.oracle.com	Application Domain created through Agent Registration
6	sdate-lap.in.oracle.com	Application Domain created through Agent Registration

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aces/admin.isox#

Click on the Domain Name you want to configure.

ORACLE Access Management

chatbot

Application Security Federation Configuration

Launch Pad Application Domain x mum00apd.in.oracle.com x

Access Manager >

mum00apd.in.oracle.com Application Domain

Application Domain provides a logical container for resources or sets of resources, and the associated policies that dictate who can access specific protected resources.

Summary Resources Authentication Policies Authorization Policies Token Issuance Policies Administration

Apply

* Name

Description

* Session Idle Timeout (minutes) ^ v

Allow OAuth Token ☐

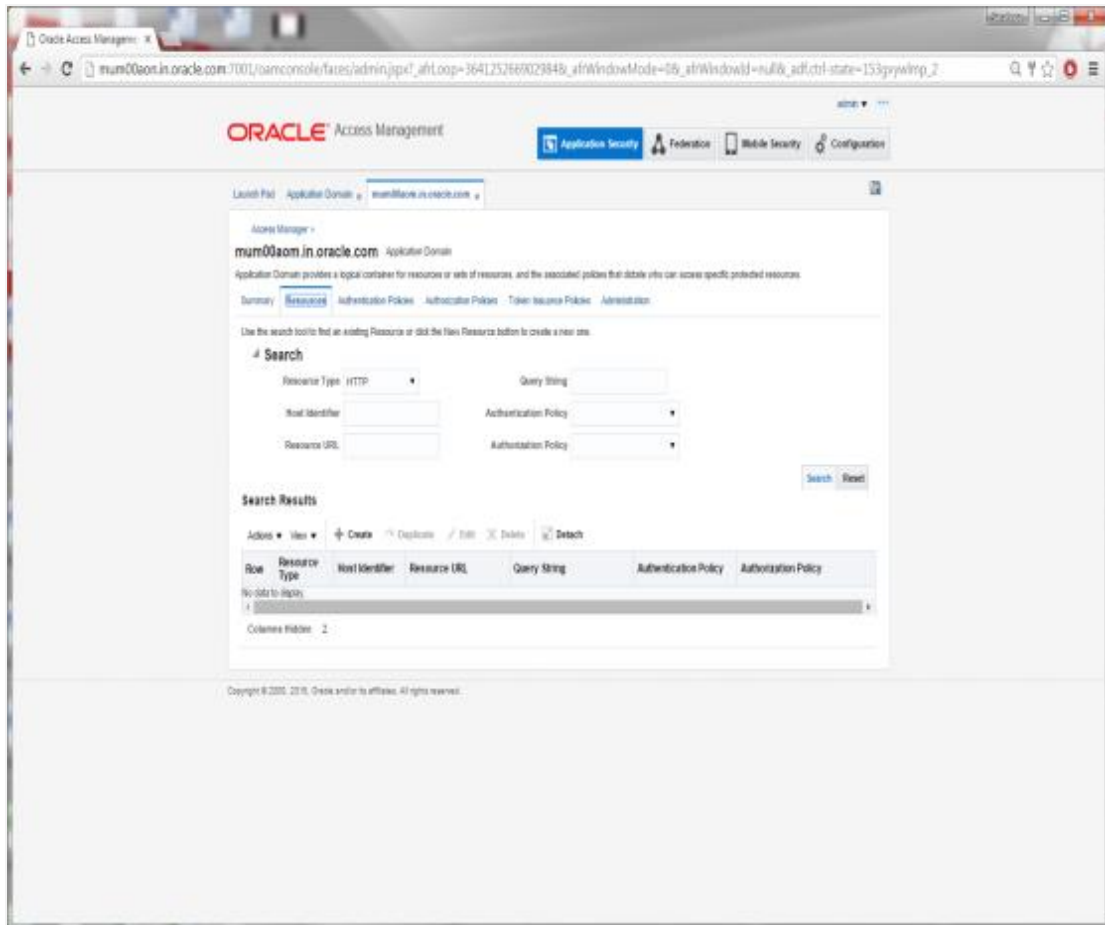
Allow Session Impersonation ☐

Enable Policy Ordering ☐

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es/admin.jspx#

Click on the Resources Tab



Click on Search

Search Results

Actions: View, Create, Duplicate, Edit, Delete, Detach

Row	Resource Type	Host Identifier	Resource URL	Query String	Authentication Policy	Authorization Policy
1	HTTP	mum00aom.in...	/**		Protected Resource Policy	Protected Resource Policy

Columns Hidden: 2

Search Results will show an entry for Resource URL as **/**** which is Protected.

Select the Resource entry and Click the Edit option.

Oracle Access Manager: X

mum00aom.in.oracle.com/*:All Resource

Use the following screen to define a Resource and the URL prefix that identifies the resource (document or entity) stored on a server. Individual resource URLs need not be unique across domains, but the combination of a resource URL, Query String, and a host identifier must be unique across domains.

Type: HTTP

Description:

* Host Identifier: mum00aom.in.c

URI

* Resource URL: /*

Query: Name Value list String

Name	Value
No Data to Display	

Operations

* Operations Available: All, CONNECT, OPTIONS, POST

Protection

* Protection Level: Unprotected

Authentication Policy: Public Resource Policy

Authorization Policy: Public Resource Policy

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Modify the values of Protection Level, Authentication & Authorization Policy as shown.
Click on Apply to save the changes.

Click on the Create Icon

[Access Manager >](#)

Create Resource Resource

Use the following screen to define a Resource and the URL prefix that identifies the resource (document or entity) stored on a server. Individual resource URLs need not be unique across domains, but the combination of a resource URL, Query String, and a host identifier must be unique across domains.

* Type

Description

* Host Identifier

Uri

* Resource URL

Operations

Operations Available ☒ All

Protection

* Protection Level

Authentication Policy

Authorization Policy

Specify the following values for each of the fields respectively:

- **Type:** The HTTP type is the default; it covers resources that are accessed using either the HTTP or HTTPS protocol. Policies that govern a particular resource apply to all operations.
Select Type **HTTP**
- **Description:** An optional unique description for this resource.
- **Host Identifier:** A list of host identifiers is available, which contains all identifiers that were defined as a shared component. You must search and choose a host identifier to assign this resource.
- **Resource URL:** The URL value must be expressed as a single relative URL string that represents a path component of a full URL. For example, */pages/**
- **Operations:** Select the required Operation from the table.
- **Protection Level:** Select the Protection Level from the dropdown as per the table.
- **Authentication Policy:** Select the required value from the dropdown.
- **Authorization Policy:** Select the required value from the dropdown.

Click on Apply to add the resource.

Perform the above steps to add the URLs listed in the table below:

Resource URLs	Operations	Protection Level	Authentication Authorization Policy
/**	ALL	Unprotected	Public Resource Policy
/pages/*	ALL	Protected	Protected Resource Policy
/oam/pages/consent.jsp	ALL	Protected	Protected Resource Policy
/digx/v1/locations/branches/*	GET	Excluded	-
/digx/v1/locations/atms/*	GET	Excluded	-
/digx/v1/locations*	GET	Excluded	-
/digx/v1/mobileClient/verify	ALL	Excluded	-
/.../*.js	ALL	Excluded	-
/oauth2/rest/approval	ALL	Protected	Protected Resource Policy
/oauth2/rest/**	ALL	Excluded	-
/oam/**	ALL	Excluded	-

Mapping Login Scheme to Application Domain

Navigate to Authentication Policy Tab > Protected Resource Policy > Select the scheme > Apply

ORACLE® Access Management

Application Security Federation Configuration

PSchemeOUD12 x OBDXLoginScheme x Application Domain x obdxohs.in.oracle.com x obdxohs.in.oracle.com : P... x

Access Manager >

Protected Resource Policy Authentication Policy

Duplicate Apply

Authentication Policy defines the type of verification that must be performed to provide a sufficient level of trust for Access Manager to grant access to the user making the request. A single policy can be defined to protect one or more resources in the Application Domain.

* Name Protected Resource Policy Success URL

Description Policy set during domain creation. Add resources to protect them. Select the challenge mechanism required to authenticate the user.

* Authentication Scheme

Resources

Resource Type

HTTP

HTTP

HTTP

HTTP

Query String

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Select the entry UserIdentityStore1, under OAM ID Stores and Click the Edit option.

[Home](#)

Section 8.4, “REST API configurations for Mobile Banking (2-Legged OAuth Flows)”

OBDX Mobile application user OAuth for API Based login. Clients are defined in OAM and the same are mapped to access points in OBDX.

To define OAuth Clients in OAM, invoke below REST APIs as OAM does not provide a screen to define the OAuth client. OAM Admin console credentials are required to invoke these APIs.

Domain Creation –

<http://mum00aon.in.oracle.com:8001/oam/services/rest/ssa/api/v1/oauthpolicyadmin/oauthidentitydomain>

Headers –

Authorization: Basic <Base64 of uid:pwd>

Content-Type: application/json

1. Mobile App

```
{
  "name": " OBDXMobileAppDomain ",
  "tokenSettings": [{
    "tokenType": "ACCESS_TOKEN",
    "tokenExpiry": 300,
    "lifeCycleEnabled": true,
    "refreshTokenEnabled": true,
    "refreshTokenExpiry": 864000,
    "refreshTokenLifeCycleEnabled": true
  }]
}
```

2. Siri

```
{
  "name": " OBDXSiriDomain ",
  "tokenSettings": [{
    "tokenType": "ACCESS_TOKEN",
    "tokenExpiry": 300,
    "lifeCycleEnabled": true,
    "refreshTokenEnabled": true,
    "refreshTokenExpiry": 864000,
    "refreshTokenLifeCycleEnabled": true
  ]
}
```

3. Wearable

```
{
  "name": " OBDXWearDomain",
  "tokenSettings": [{
    "tokenType": "ACCESS_TOKEN",
    "tokenExpiry": 300,
    "lifeCycleEnabled": true,
    "refreshTokenEnabled": true,
    "refreshTokenExpiry": 864000,
    "refreshTokenLifeCycleEnabled": true
  ]
}
```

```
    }}
}
```

4. Snapshot

```
{
  "name": "OBDXSnapshotDomain",
  "tokenSettings": [{
    "tokenType": "ACCESS_TOKEN",
    "tokenExpiry": 300,
    "lifeCycleEnabled": true,
    "refreshTokenEnabled": true,
    "refreshTokenExpiry": 2592000,
    "refreshTokenLifeCycleEnabled": true
  }]
}
```

Resource Server:

<http://mum00aon.in.oracle.com:8001/oam/services/rest/ssa/api/v1/oauthpolicyadmin/application>

Headers –

Authorization: Basic <Base64 of uid:pwd>

Content-Type: application/json

1. Mobile App

```
{
  "name": "OBDXMobileAppResServer",
  "description": "Resource Server for Mobile",
  "scopes": [{
    "scopeName": "OBDXLoginScope",
    "description": "OBDXLoginScope"
  },
  {
    "scopeName": "ValidateDeviceScope",
    "description": "ValidateDeviceScope"
  }
],
  "tokenAttributes": [],
  "idDomain": "OBDXMobileAppDomain",
  "audienceClaim": {}
}
```

2. Siri

```
{
  "name": "OBDXSiriResServer",
  "description": "Resource Servcer for Siri",
  "scopes": [{
    "scopeName": "ValidateDeviceScope",
    "description": "ValidateDeviceScope"
  }
],
}
```



```

"tokenAttributes": [],

"idDomain": "OBDXSiriDomain",

"audienceClaim": {}

}

```

3. Wearables

```

{
  "name": "OBDXWearResServer",
  "description": "Resource Servcer for Wearables",
  "scopes": [{
    "scopeName": "ValidateDeviceScope",
    "description": "ValidateDeviceScope"
  }],
  "tokenAttributes": [],
  "idDomain": "OBDXWearDomain",
  "audienceClaim": {}
}

```

4. Snapshot

```

{
  "name": "OBDXSnapshotResServer",
  "description": "Resource Servcer for Snapshot",
  "scopes": [{
    "scopeName": "ValidateDeviceScope",
    "description": "ValidateDeviceScope"
  }],
  "tokenAttributes": [],
  "idDomain": "OBDXSnapshotDomain",
  "audienceClaim": {}
}

```

```
}
```

Clients:

`http://mum00aon.in.oracle.com:8001/ /oam/services/rest/ssa/api/v1/oauthpolicyadmin/client`

Headers –

Authorization: Basic <Base64 of uid:pwd>

Content-Type: application/json

1. Mobile App

```
{
  "attributes": [],
  "secret": "welcome1",
  "id": "2d79e939e0424mobapp8e5fab436fb5581",
  "scopes": ["OBDXMobileAppResServer.ValidateDeviceScope",
    "OBDXMobileAppResServer.OBDXLoginScope"],
  "clientType": "CONFIDENTIAL_CLIENT",
  "idDomain": "OBDXMobileAppDomain",
  "description": "OBDXMobileAppDomain",
  "name": "OBDXMobileAppClient",
  "grantTypes": ["PASSWORD", "REFRESH_TOKEN"],
  "defaultScope": "OBDXMobileAppResServer.ValidateDeviceScope",
```

```

    "redirectURIs": [{
        "url": "http://localhost:8080/Sample.jsp",
        "isHttps": false
    }]
}

```

2. Siri

```

{
    "attributes": [],
    "secret": "welcome1",
    "id": "2d79e939e0424sirichat8e5ab43fb5591",
    "scopes": ["OBDSiriResServer.ValidateDeviceScope"],
    "clientType": "CONFIDENTIAL_CLIENT",
    "idDomain": "OBDSiriDomain",
    "description": "OBDSiriDomain",
    "name": "OBDSiriClient",
    "grantTypes": ["PASSWORD", "REFRESH_TOKEN"],
    "defaultScope": "OBDSiriResServer.ValidateDeviceScope",
    "redirectURIs": [{
        "url": "http://localhost:8080/Sample.jsp",
        "isHttps": false
    }]
}

```

3. Wearables

```

{
    "attributes": [],
    "secret": "welcome1",
    "id": "2d79e939e0424wearable8e5ab43fb5591",
    "scopes": ["OBDXWearResServer.ValidateDeviceScope"],
    "clientType": "CONFIDENTIAL_CLIENT",
    "idDomain": "OBDXWearDomain",
    "description": "OBDXWearDomain",
}

```

```

"name": "OBDXWearClient",
"grantTypes": ["PASSWORD", "REFRESH_TOKEN"],
"defaultScope": "OBDXWearResServer.ValidateDeviceScope",
"redirectURIs": [{
    "url": "http://localhost:8080/Sample.jsp",
    "isHttps": false
}]
}

```

4. Snapshot

```

{
  "attributes": [],
  "secret": "welcome1",
  "id": "2d79e939e0424snapshot8e5ab43fb5591",
  "scopes": ["OBDXSnapshotResServer.ValidateDeviceScope"],
  "clientType": "CONFIDENTIAL_CLIENT",
  "idDomain": "OBDXSnapshotDomain",
  "description": "OBDXSnapshotDomain",
  "name": "OBDXSnapshotClient",
  "grantTypes": ["PASSWORD", "REFRESH_TOKEN"],
  "defaultScope": "OBDXSnapshotResServer.ValidateDeviceScope",
  "redirectURIs": [{
    "url": "http://localhost:8080/Sample.jsp",
    "isHttps": false
  }]
}

```

8.4 Creating the Attributes, Object Class, Users, Groups and Adding Optional Attributes on LDAP Server

1. To create Groups

- Copy the "groups.ldif" file from <OBDX BASE Installer zip>installables/oud directory to a location on the server where OUD is installed and switch to the following directory:

```
cd <Oracle_Home>/Oracle_OUD1/bin
```

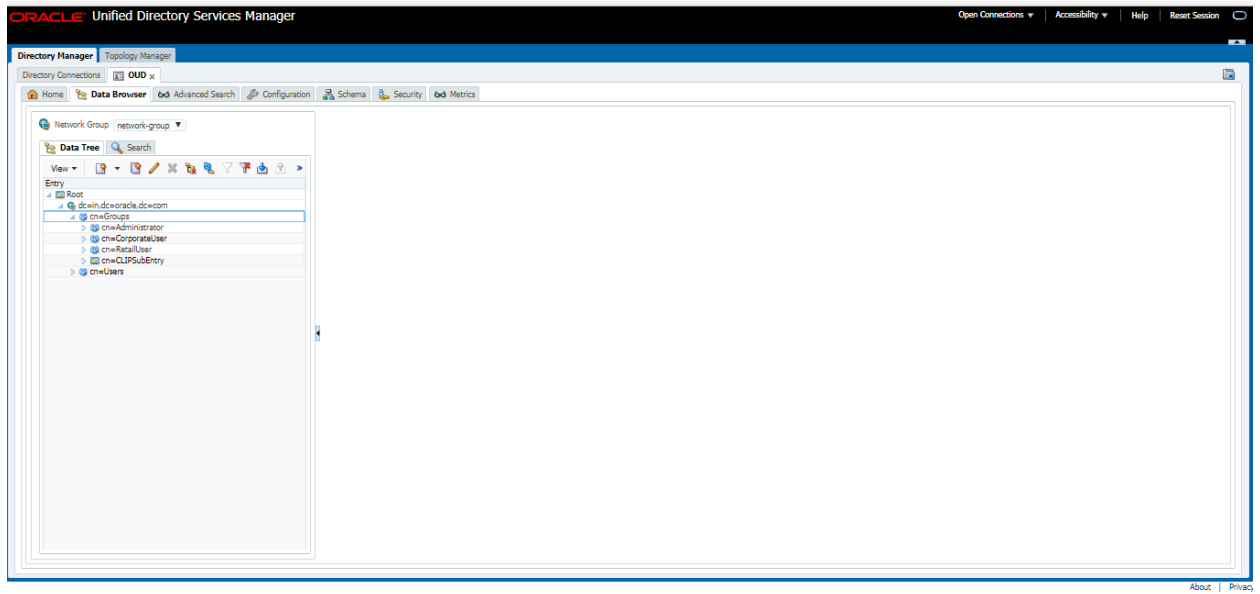
- Now, execute the below command:

```
./ldapmodify -h localhost -p <ldap_port> -D "ldap_user" -w  
<ldap_password> -a -f <file_location>/usergroup.ldif
```

OR (using SSL)

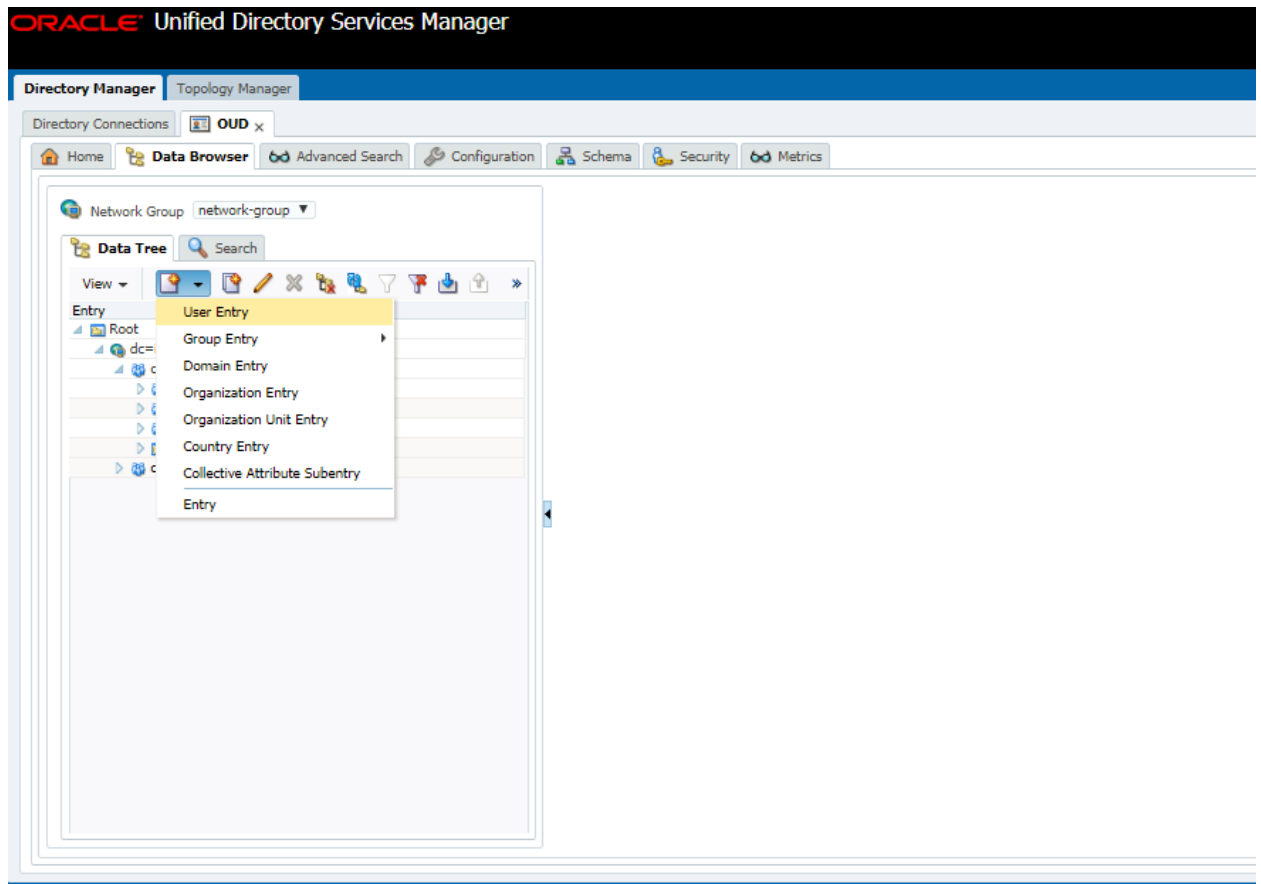
```
./ldapmodify -h localhost -p <ldap_port> -D "ldap_user" -w  
<ldap_password> -a -f <file_location>/usergroup.ldif --useSSL
```

- Login to OUDSM Console. E.g. ***http://<hostname>:<port>/oudsm*** and under the **Data Browser** tab check if the groups are created.

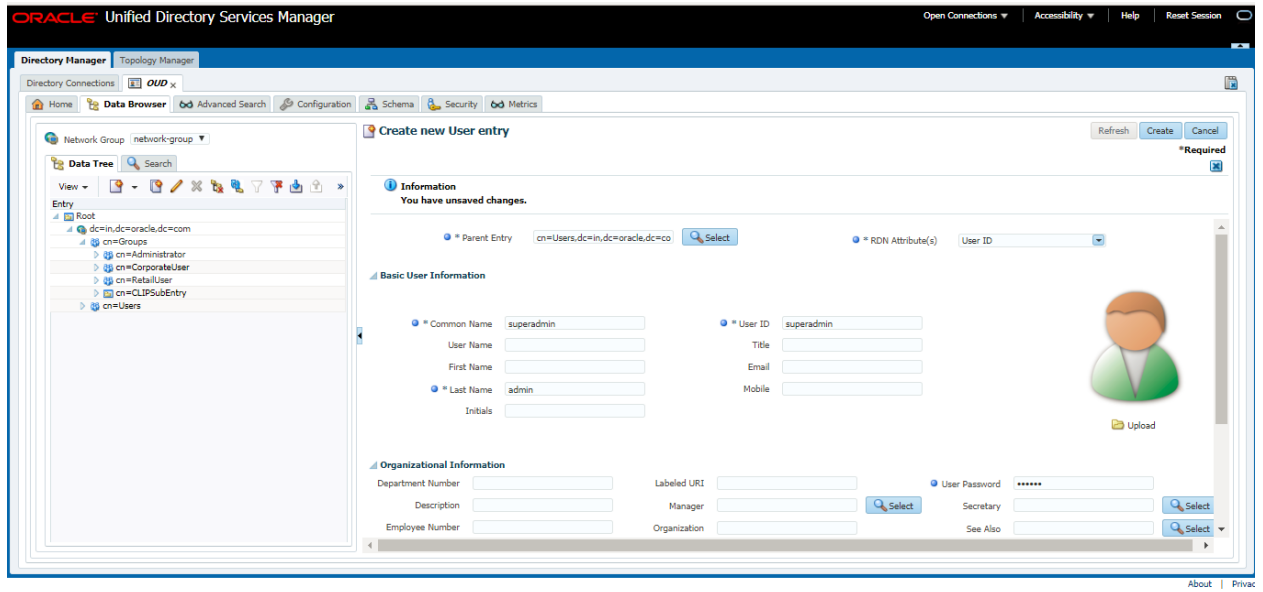


2. To create User and mapping it to the Group

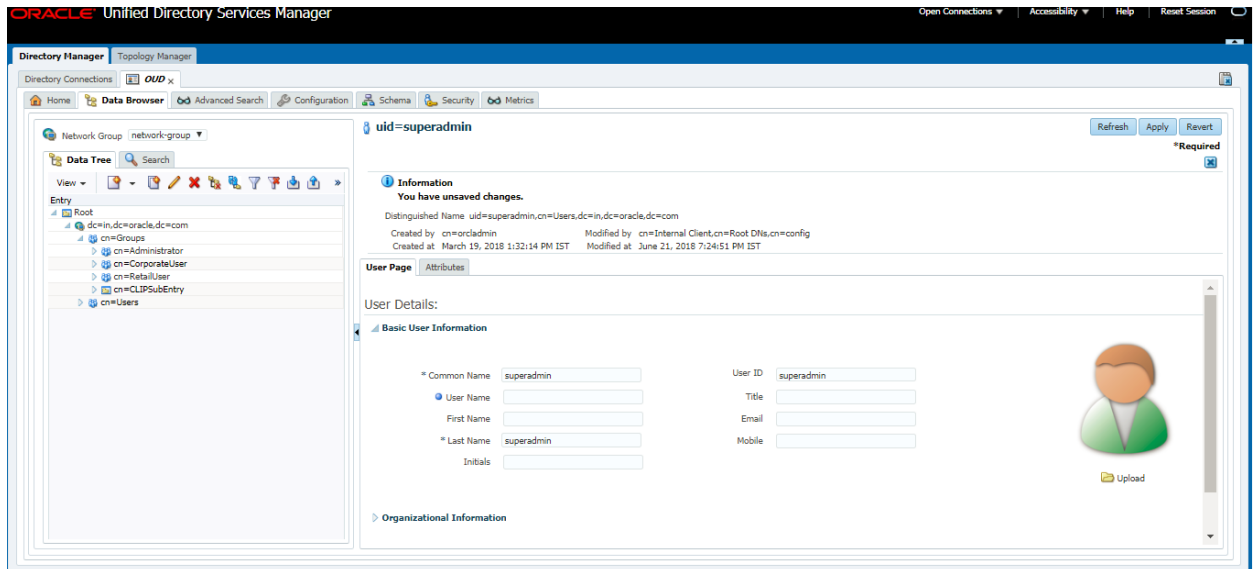
- Login to ODSM Console using required credentials. Post login you should see below screen.
E.g. ***http://<hostname>:<port>/oudsm***.
- Under the Data Browser tab, click on the Add icon



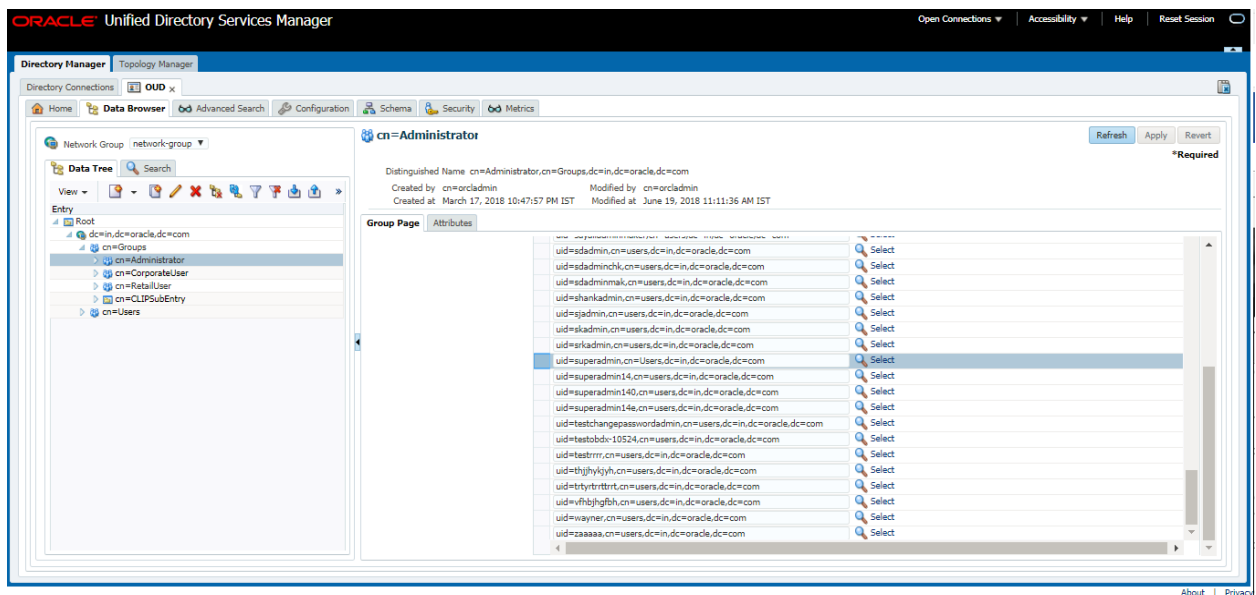
- Select **User Entry** from the list.



- Now, uncheck **Common Name** from the **RDN Attributes** dropdown list.
- And, Check the **User ID** Attribute checkbox.
- Add the values in the mandatory fields **Common Name**, **Last Name**, **User ID** and **User Password**.
- Click on **Create** and the user entry will be created.



- Now, expand the Groups tab.
- Select **Administrator** Group.
- Expand **Member Information** and click on **Add** button.
- Enter the entry of the user created in the previous steps.



- Click on Apply to save the changes.

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9. Oracle Business Intelligence Publisher Installation

To install Oracle Business Intelligence Installation click [here](#).

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