

***Oracle Fusion Middleware 12c on SUSE  
Linux Enterprise Server 12 (SP3) for  
x86-64***



## Table of Contents

Introduction.....	3
System Requirements and Specifications.....	4
Hardware Requirements.....	4
Software Requirements.....	4
Testing machine information.....	5
Prerequisites.....	6
Installing SUSE Linux Enterprise Server 12.....	6
Installing Oracle Database 12cR2.....	9
Installing Java.....	12
Oracle Fusion MiddleWare 12c Installation and Configuration.....	13
Oracle WebLogic Server.....	13
Oracle Forms and Reports.....	34
Oracle WebTier.....	82
Oracle WebCenter Portal.....	119
Oracle SOA Suite.....	168
Oracle Access Manager.....	204
Oracle Identity Manager.....	246
Additional Comments .....	298

## Introduction

This document provides details on installing and configuring Oracle Fusion Middleware 12c Components on SUSE Linux Enterprise Server 12 (SP3). Details are provided for Intel x86-64 versions of both Oracle FMW12c and SUSE Linux Enterprise Server 12. Similar steps apply to other platforms (x86, ia64, System z, etc.). If you encounter issues or have general questions, please post your query to [suse-oracle@listx.novell.com](mailto:suse-oracle@listx.novell.com).

Official Oracle product documentation is available at: <http://docs.oracle.com/en/>

## System Requirements and Specifications

### Hardware Requirements

Requirement	Minimum
CPU	1-GHz CPU
Physical Memory	4 GB
Swap space	Approx. twice the size of RAM
Disk space in /tmp	4 GB
Disk space for software files	4 GB

### Software Requirements

#### SUSE

- SUSE Linux Enterprise Server 12 SP3 - (x86-64)  
(<http://download.suse.de/install>)

#### Oracle

- Database 12cR2 (12.2.0.1.0) - (x86\_64)  
(<http://www.oracle.com/technetwork/indexes/downloads/index.html#database>)
- Java SE Development Kit 8 (jdk-8u144-linux-x64.tar.gz)  
(<http://www.oracle.com/technetwork/indexes/downloads/index.html#java>)
- WebLogic Server 12cR2 (12.2.1.3.0) (fmw\_12.2.1.3.0\_wls\_Disk1\_1of1.zip)  
(<http://www.oracle.com/technetwork/middleware/fusion-middleware/downloads/index.html>)
- WebLogic Server 12cR2 (12.2.1.3.0) - (Fusion Middleware Infrastructure Installer)  
(<http://www.oracle.com/technetwork/indexes/downloads/index.html#middleware>)
- Forms and Reports 12c (12.2.1.3.0) - (x86\_64)  
(<http://www.oracle.com/technetwork/indexes/downloads/index.html#middleware>)
- WebTier 12cR2 Oracle HTTP Server (12.2.1.3.0) - (x86\_64)  
(<http://www.oracle.com/technetwork/indexes/downloads/index.html#middleware>)
- WebCenter Portal 12c (12.2.1.3.0) - (fmw\_12.2.1.3.0\_wcportal\_Disk1\_1of1.zip)  
(<http://www.oracle.com/technetwork/indexes/downloads/index.html#middleware>)
- SOA Suite 12c (12.2.1.3.0) - (fmw\_12.2.1.3.0\_soasq\_Disk1\_1of2.zip)  
(<http://www.oracle.com/technetwork/indexes/downloads/index.html#middleware>)
- Oracle Identity and Access Management 12cPS3 (12.2.1.3.0) – (Generic Quick Installer)  
(<http://www.oracle.com/technetwork/indexes/downloads/index.html#middleware>)

## **Testing machine information**

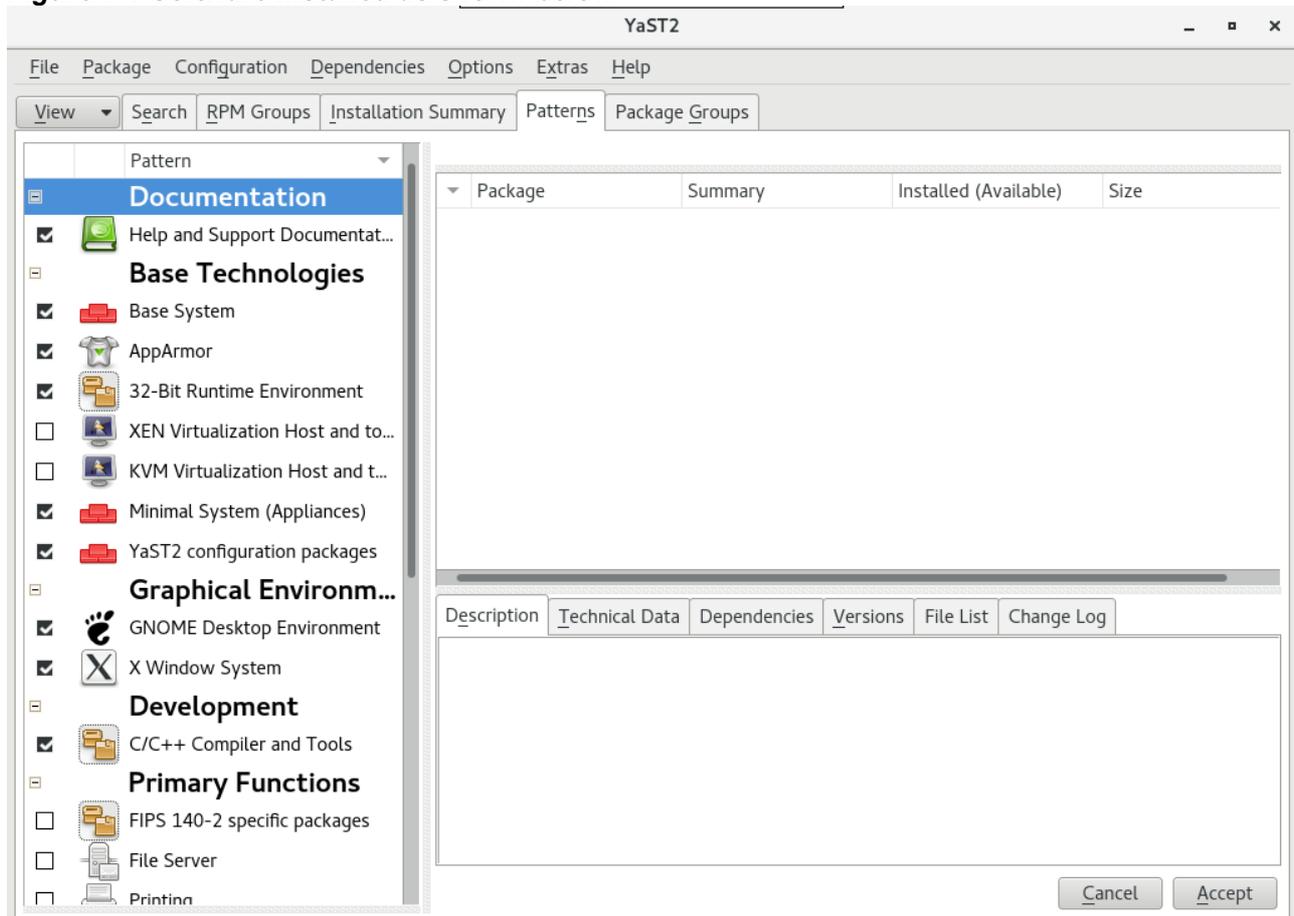
- HP DL388 Gen9 Server
- CPU: 2 \* Intel(R) Xeon(R) CPU E5-2630 v3 @ 2.40GHz
- RAM: 64 GB
- NIC: 8
- Local HDD: 2 TB
- Operating System: SUSE Linux Enterprise Server 12 SP3 (x86\_64)
- Kernel version: 4.4.73-5-default

# Prerequisites

## 1. Installing SUSE Linux Enterprise Server 12

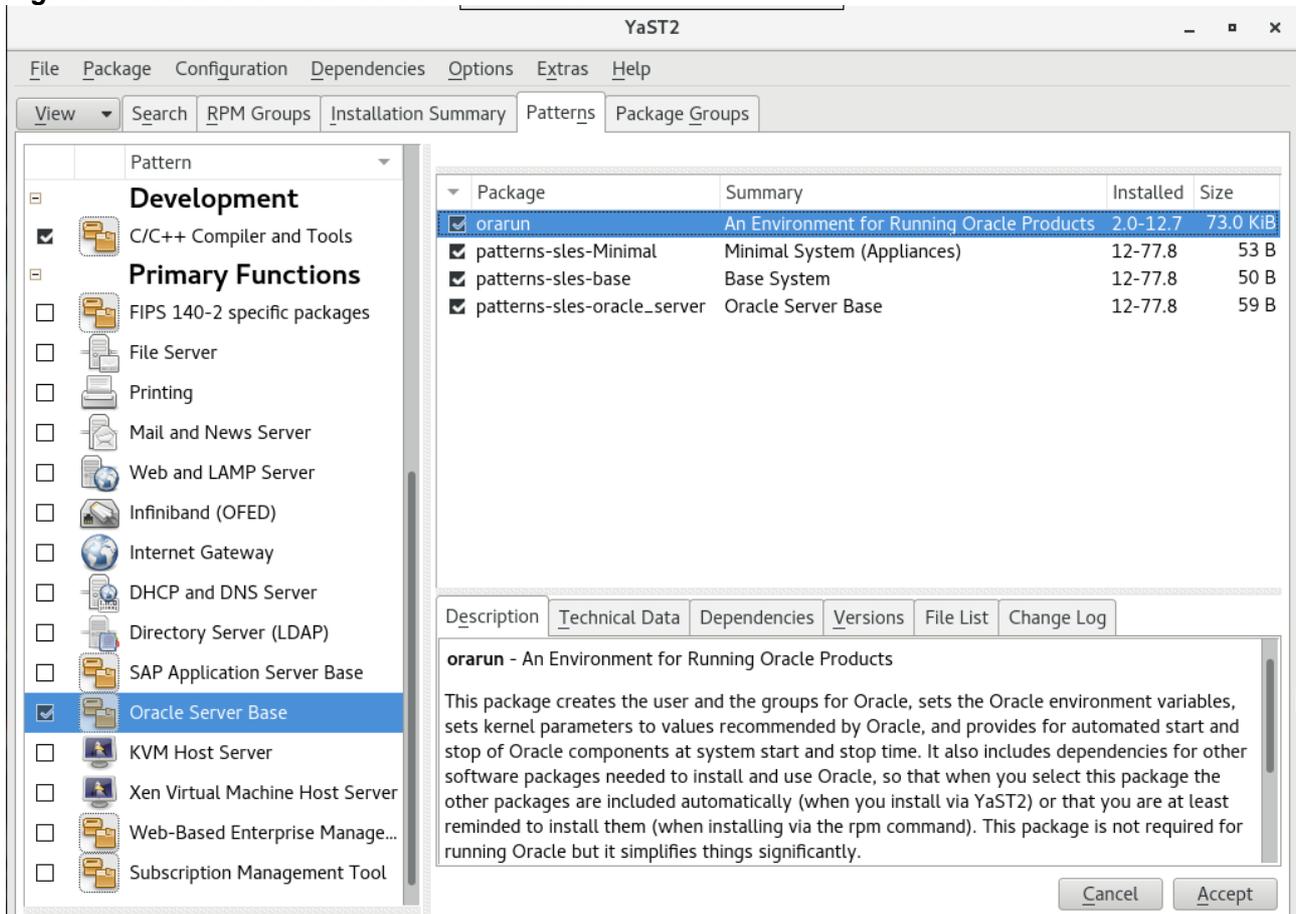
1-1. Install SUSE Linux Enterprise Server 12 on your testing machine. To do so, follow the instructions in the official SUSE Linux Enterprise Server documentation at <https://www.suse.com/documentation/sles-12/>.

**Figure 1-1 Software Installed as shown below**



In YaST, select the patterns you need. Make sure you select the patterns and packages required to run Oracle products.

**Figure 1-2 Software Installed as shown below**



After the installation of SUSE Linux Enterprise Server, the following information about the operating system and the kernel version is displayed.

**Figure 1-3 Operating System information and kernel version**

```
oracle@hpgen9-02:~> more /etc/os-release
NAME="SLES"
VERSION="12-SP3"
VERSION_ID="12.3"
PRETTY_NAME="SUSE Linux Enterprise Server 12 SP3"
ID="sles"
ANSI_COLOR="0;32"
CPE_NAME="cpe:/o:suse:sles:12:sp3"
oracle@hpgen9-02:~> uname -a
Linux hpgen9-02 4.4.73-5-default #1 SMP Tue Jul 4 15:33:39 UTC 2017 (b7ce4e4) x86_64 x86_64 x86_64 GNU/Linux
oracle@hpgen9-02:~> █
```

1-2. Special Startup Requirements.

1). Increase the value for kernel parameter.

Change the value of shmmax to 4294967295 by including the following line in '/etc/sysctl.conf'

```
kernel.shmmax = 4294967295
```

Change the value of shmall to 9272480 by including the following line in '/etc/sysctl.conf'

```
kernel.shmall = 9272480
```

Activate the new SHMMAX setting by running the command:

```
/sbin/sysctl -p
```

2). Checking the Open File Limit and Maximum Stack Size.

```
ulimit -a
```

To change the open file limits, login as root and edit the /etc/security/limits.conf file. Look for the following line:

```
oracle soft nofile 1024
```

Change the values from 1024 to 4096;

To change the maximum stack size, login as root and edit the /etc/security/limits.conf file. Add the following line:

```
oracle soft stack 10240
```

then reboot the machine.

## 2. Installing Oracle Database 12cR2

2-1. Log in to the target system (SUSE Linux Enterprise Server 12 SP3 64-bit OS) as a non-admin user. Download Oracle Database 12cR2 (12.2.0.1.0) x86\_64 from <http://www.oracle.com/technetwork/indexes/downloads/index.html#database>.

2-2. Oracle Database 12cR2 (12.2.0.1.0) is officially certified for SUSE Linux Enterprise Server 12. For detailed instructions please use Official Oracle Install guides: <http://docs.oracle.com/en/database/database/database.html>.

**Figure 2-1 Make sure the Database up and running**

```
oracle@hpgen9-02:~> export ORACLE_HOME=/home/oracle/app/product/12.2.0/dbhome_1
oracle@hpgen9-02:~> export ORACLE_SID=suse
oracle@hpgen9-02:~> /home/oracle/app/product/12.2.0/dbhome_1/bin/sqlplus /nolog

SQL*Plus: Release 12.2.0.1.0 Production on Wed Jan 24 16:08:25 2018

Copyright (c) 1982, 2016, Oracle. All rights reserved.

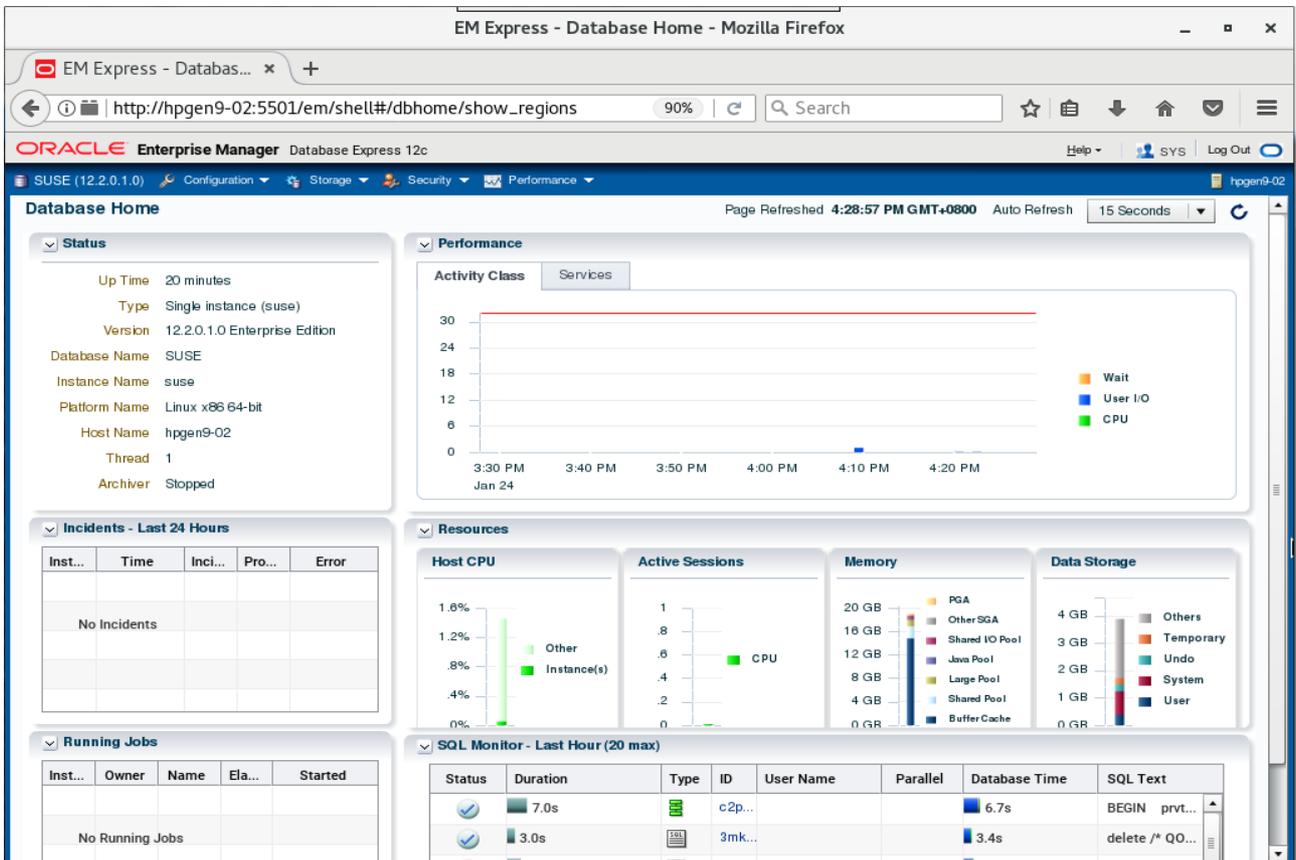
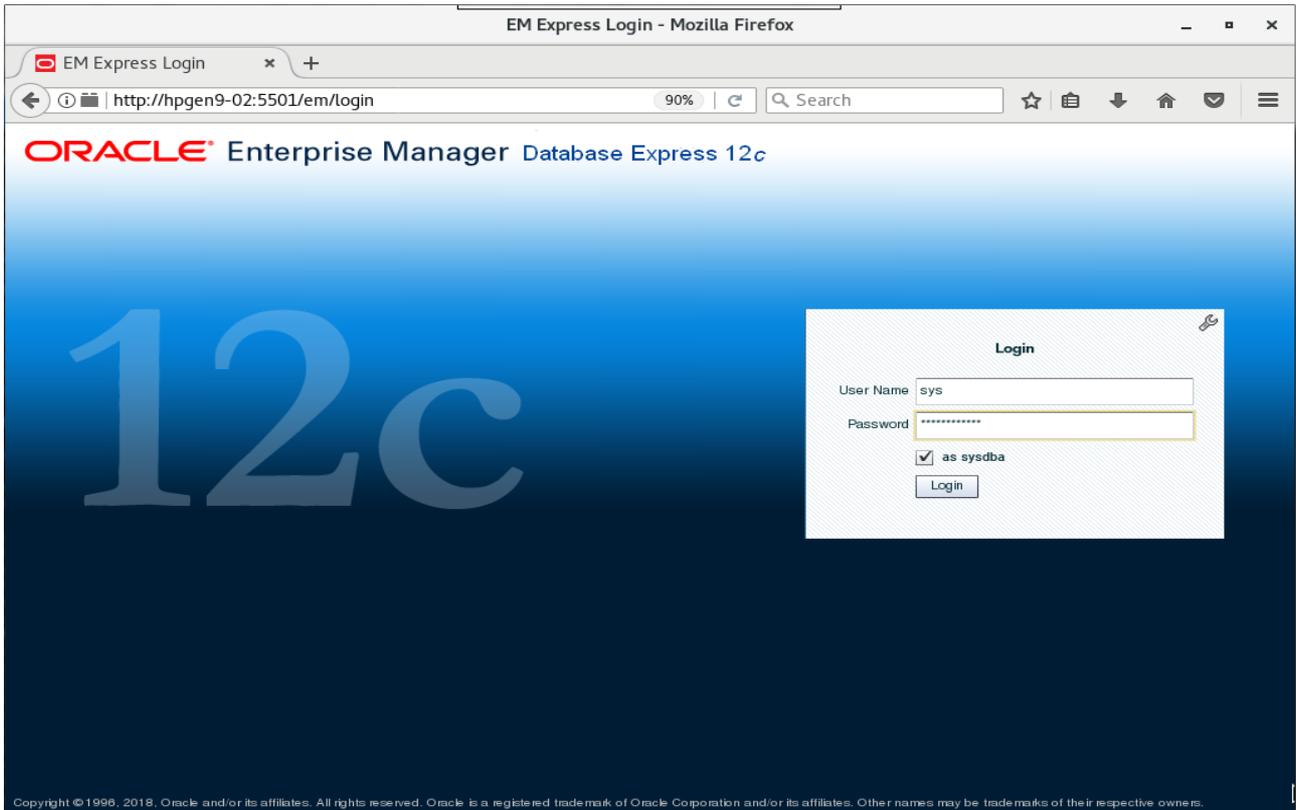
SQL> conn /as sysdba
Connected to an idle instance.
SQL> startup
ORACLE instance started.

Total System Global Area 2.0200E+10 bytes
Fixed Size 19247928 bytes
Variable Size 4362079432 bytes
Database Buffers 1.5771E+10 bytes
Redo Buffers 47857664 bytes
Database mounted.
Database opened.
SQL> select name,open_mode from v$databases;

NAME          OPEN_MODE
-----
SUSE          READ WRITE

SQL> █
```

Figure 2-2 Access to Oracle Database 12cR2 Enterprise Manager



(**Note:** Oracle strongly recommends using the AL32UTF8 character set for database that support Oracle Fusion Middleware. So, please configures the database character set is AL32UTF8.

The screenshot shows the 'Database Configuration Assistant - Create a database - Step 2 of 14' window. The 'Select Database Creation Mode' section is active. The 'Typical configuration' radio button is selected. The 'Database character set' dropdown menu is highlighted with a red circle and shows 'AL32UTF8 - Unicode UTF-8 Universal character set'. Other fields include 'Global database name' (suse), 'Storage type' (File System), 'Database files location', 'Fast Recovery Area (FRA)', 'Administrative password', and 'Confirm password'. There are also checkboxes for 'Create as Container database' and 'Advanced configuration'. Navigation buttons at the bottom include '< Back', 'Next >', 'Finish', and 'Cancel'.

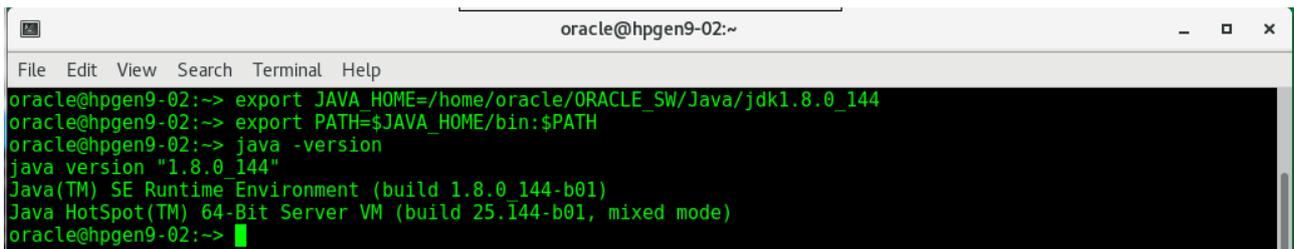
)

### 3. Installing Java

3-1. For Oracle FMW components 12c (12.2.1.3.0), the certified JDK is 1.8.0\_131 and later. Log in to the target system (SUSE Linux Enterprise Server 12 SP3 64-bit operating system) as a non-administration user. Download the Java SE Development Kit 8 (jdk-8u144-linux-x64.tar.gz) from <http://www.oracle.com/technetwork/indexes/downloads/index.html#java>

3-2. Set environment variables JAVA\_HOME and PATH to ensure the proper JDK version is installed and ready for use.

**Figure 3-1 Java information**

A terminal window titled 'oracle@hpgen9-02:~' with a menu bar (File, Edit, View, Search, Terminal, Help). The terminal shows the following commands and output:

```
oracle@hpgen9-02:~> export JAVA_HOME=/home/oracle/ORACLE_SW/Java/jdk1.8.0_144
oracle@hpgen9-02:~> export PATH=$JAVA_HOME/bin:$PATH
oracle@hpgen9-02:~> java -version
java version "1.8.0_144"
Java(TM) SE Runtime Environment (build 1.8.0_144-b01)
Java HotSpot(TM) 64-Bit Server VM (build 25.144-b01, mixed mode)
oracle@hpgen9-02:~>
```

# Oracle Fusion MiddleWare 12c Installation and Configuration

\*\*\*\*\*

## **Oracle WebLogic Server software**

\*\*\*\*\*

### **1. Installing Oracle WebLogic Server software**

1-1. Prerequisites:

Installation of Oracle WebLogic Server requires:

- 1). Oracle JDK 1.8.0\_131 and later is installed.

1-2. Log in to the target system (SUSE Linux Enterprise Server 12 64-bit OS) as a non-admin user. Download the Oracle WebLogic Server 12cR2 (12.2.1.3.0) from

<http://www.oracle.com/technetwork/middleware/fusion-middleware/downloads/index.html>.

(**Note:** Please ensure the installation user has the proper permissions to install and configure the software.)

1-3. Go to the directory where you downloaded the installation program. Extract the contents of the .zip archive(fmw\_12.2.1.3.0\_wls\_Disk1\_1of1.zip) and launch the installation program by running '**java -jar fmw.xxxx.jar**'

**For the actual installation, follow the steps below:**

1). Installation Inventory Setup.

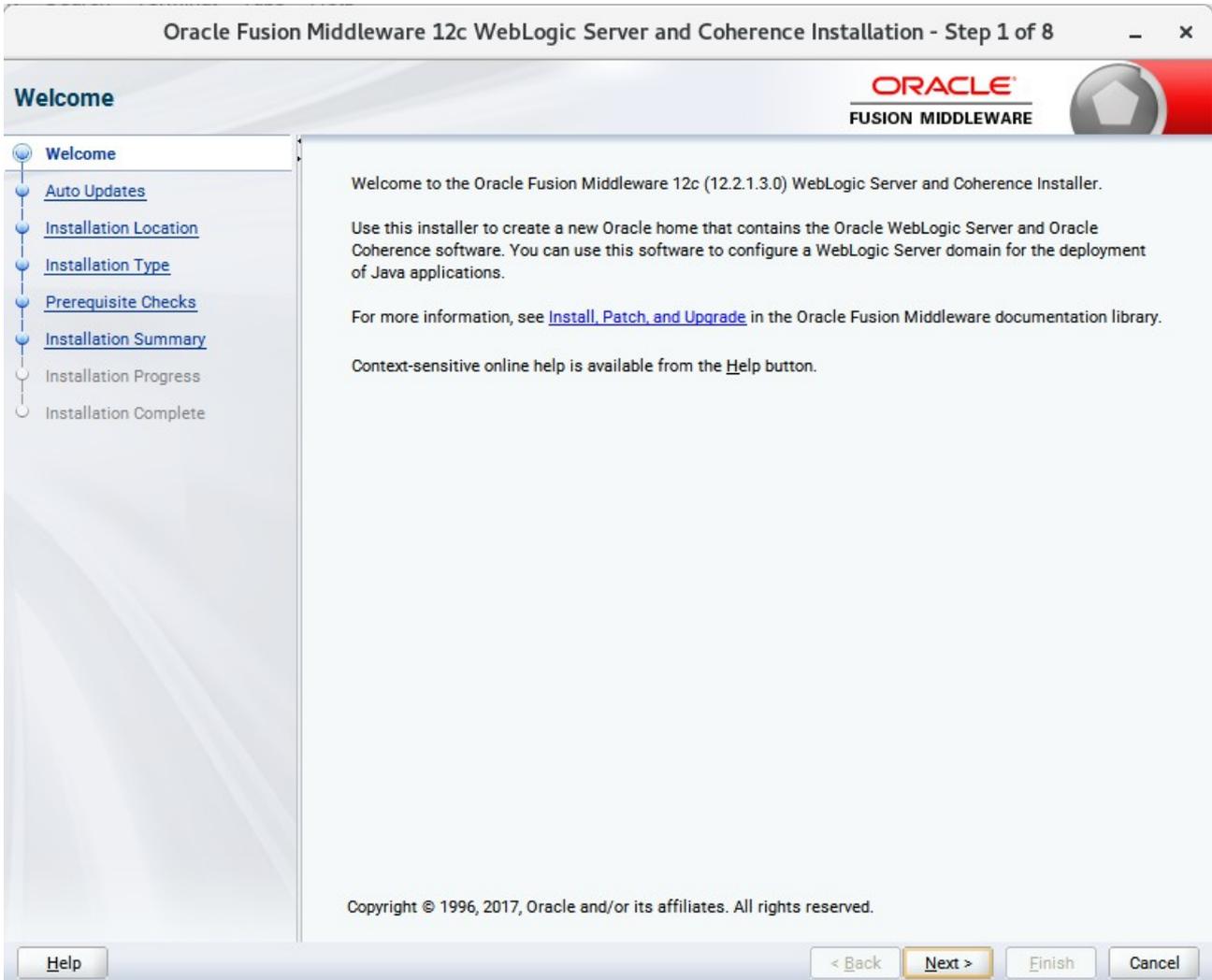
If this is your first Oracle installation on a host that is running SLES, please use this screen to specify the location of the Oracle central inventory directory and Operating System Group Name, then click **OK** to continue.

The screenshot shows a dialog box titled "Oracle Fusion Middleware 12c Installation Inventory Setup". The main heading is "Installation Inventory Setup" with the Oracle Fusion Middleware logo to the right. The dialog is divided into sections:

- Central Inventory Directory:** A text box for "Inventory Directory" with a "Browse" button. Below it, the instruction reads: "Enter the full path for the directory."
- Operating System Group:** A dropdown menu currently showing "oinstall". Below it, the instruction reads: "Specify a group with write permission to the inventory directory"
- Central Inventory Pointer File:** A section with the instruction: "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."

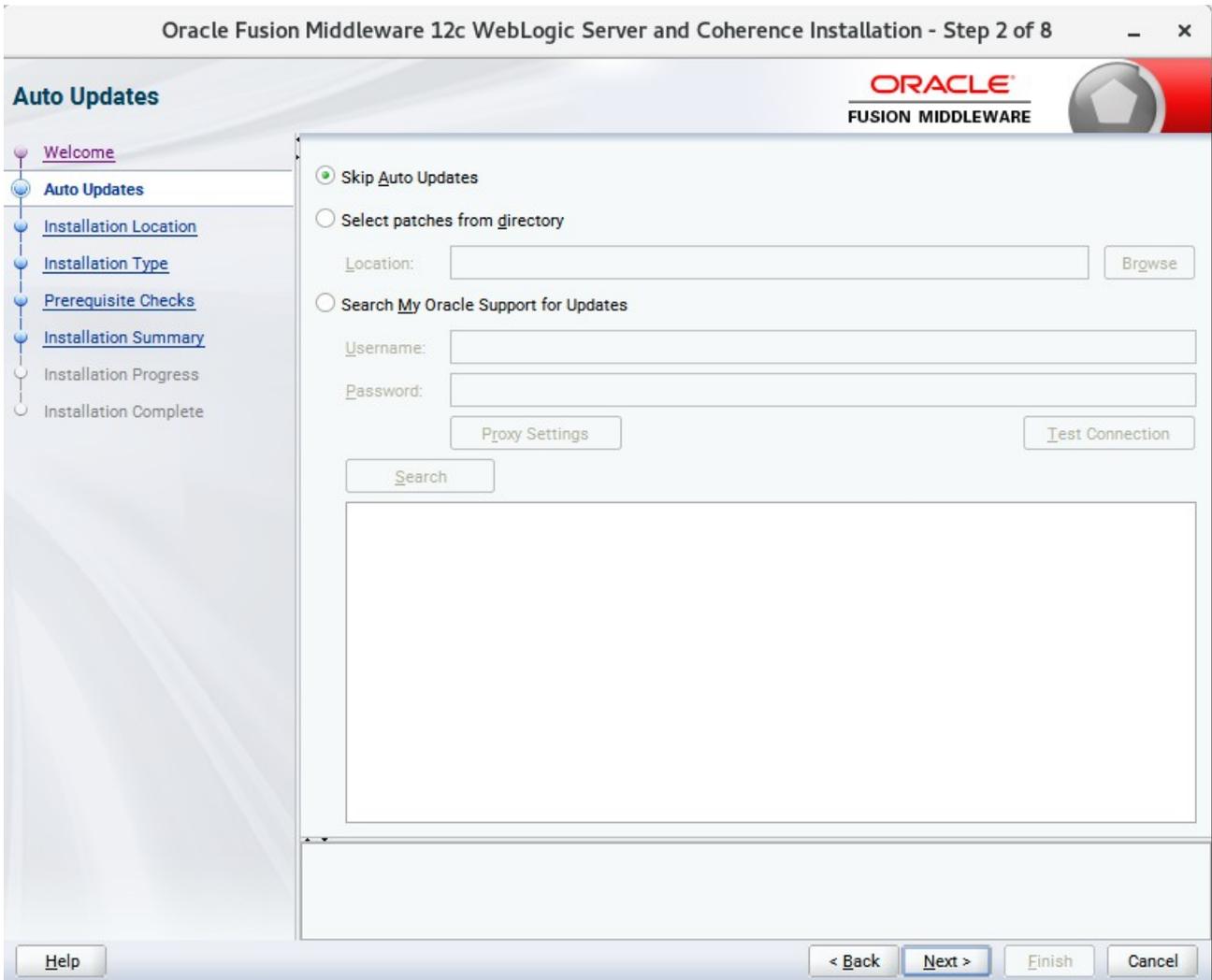
At the bottom of the dialog, there are three buttons: "Help", "OK", and "Cancel".

2). Welcome.



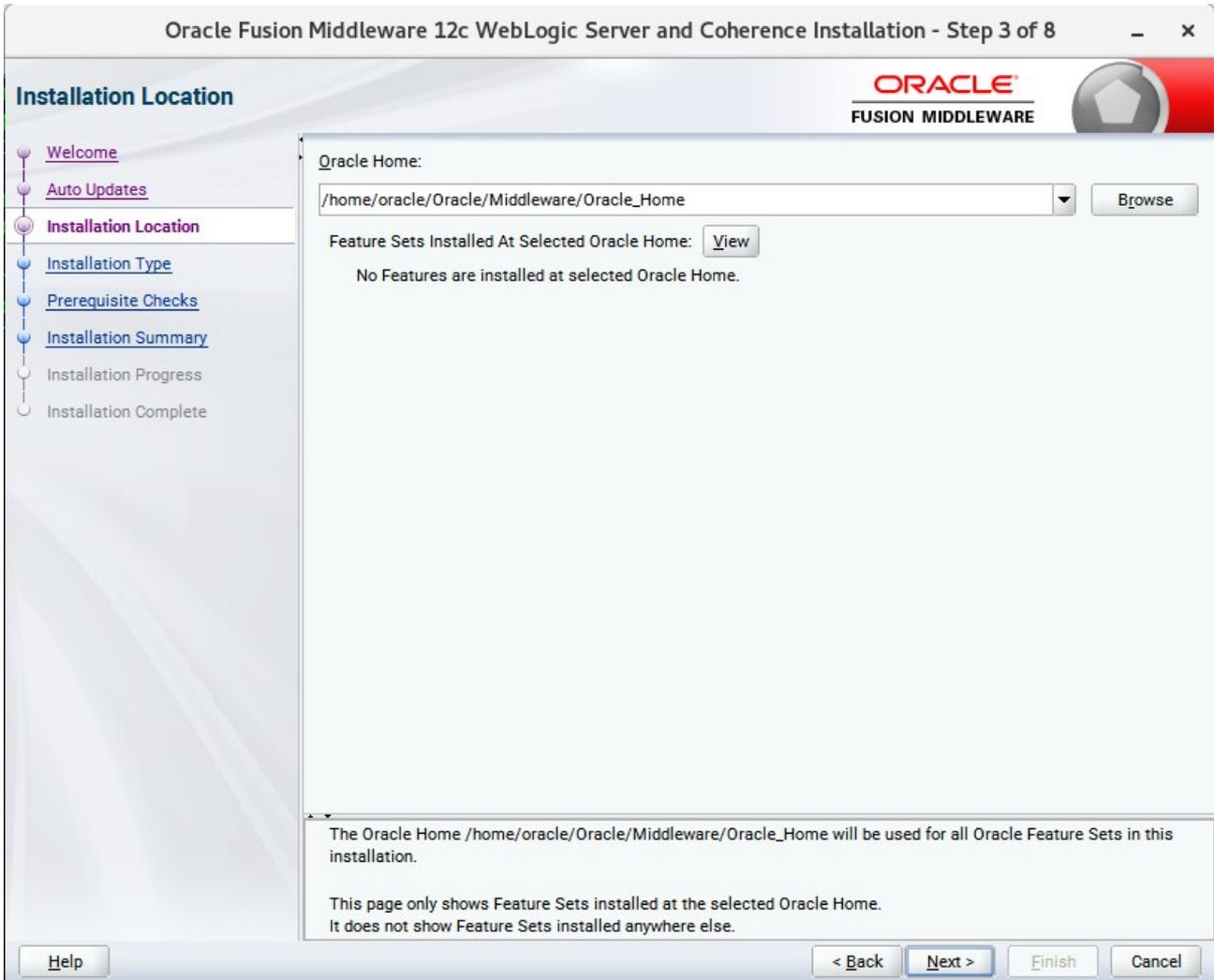
Review the information on this screen carefully to be sure you have performed all the necessary prerequisites, then click **Next** to continue.

3). Auto Updates.



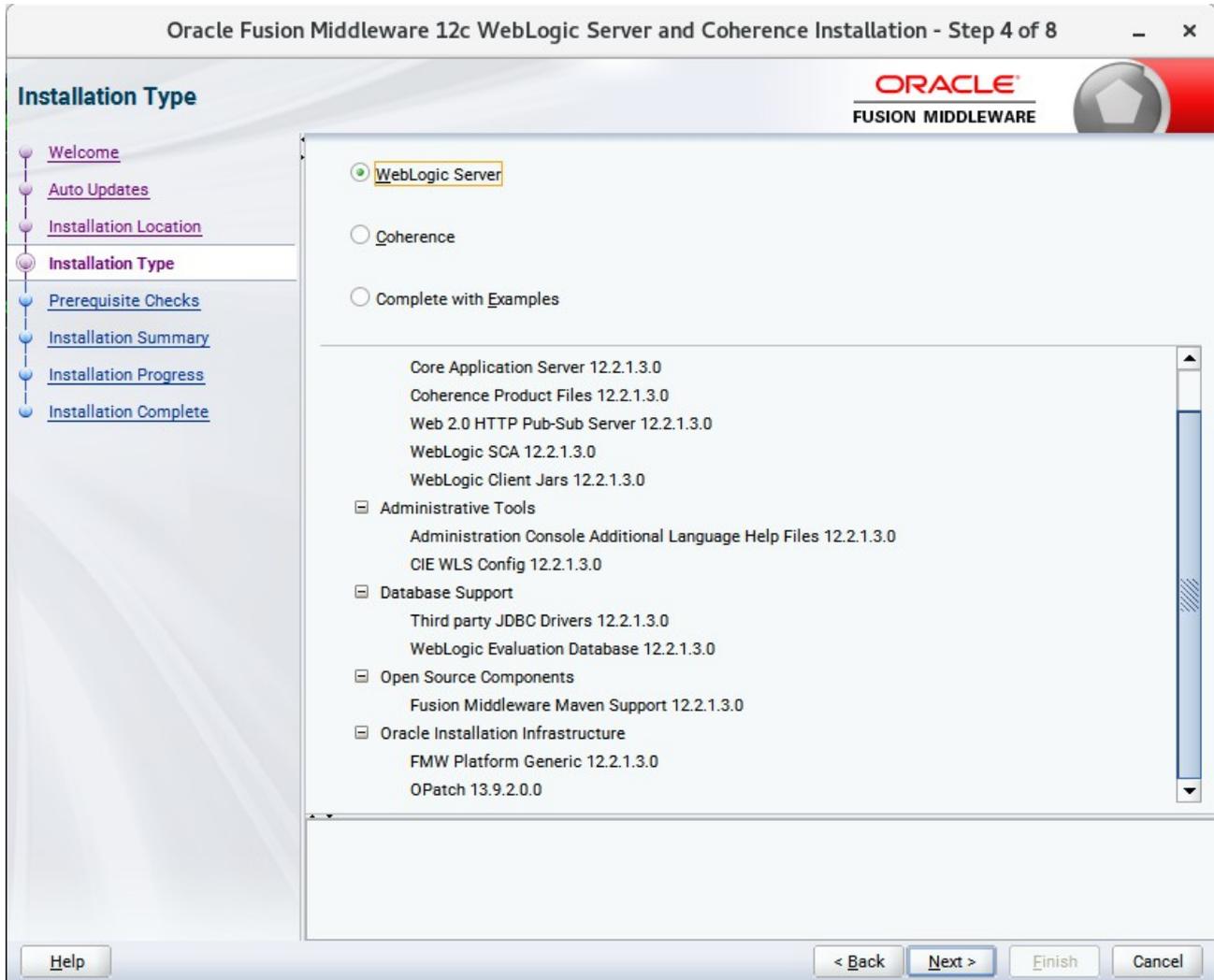
Select option "Skip Auto Updates" to skip this screen, then click **Next** to continue.

4). Installation Location.



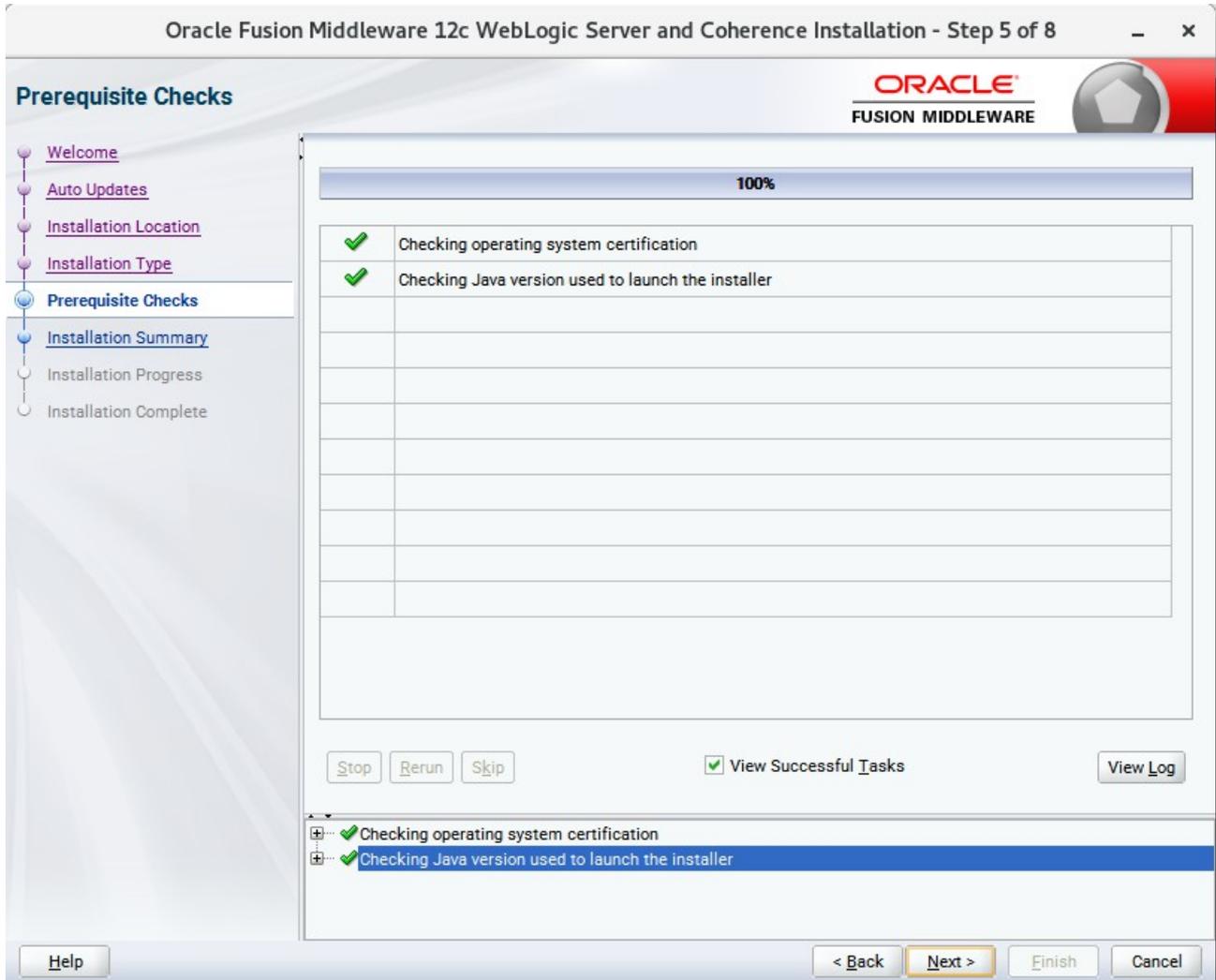
Type the full path of the directory in the Oracle Home field, then click **Next** to continue.

5). Installation Type.



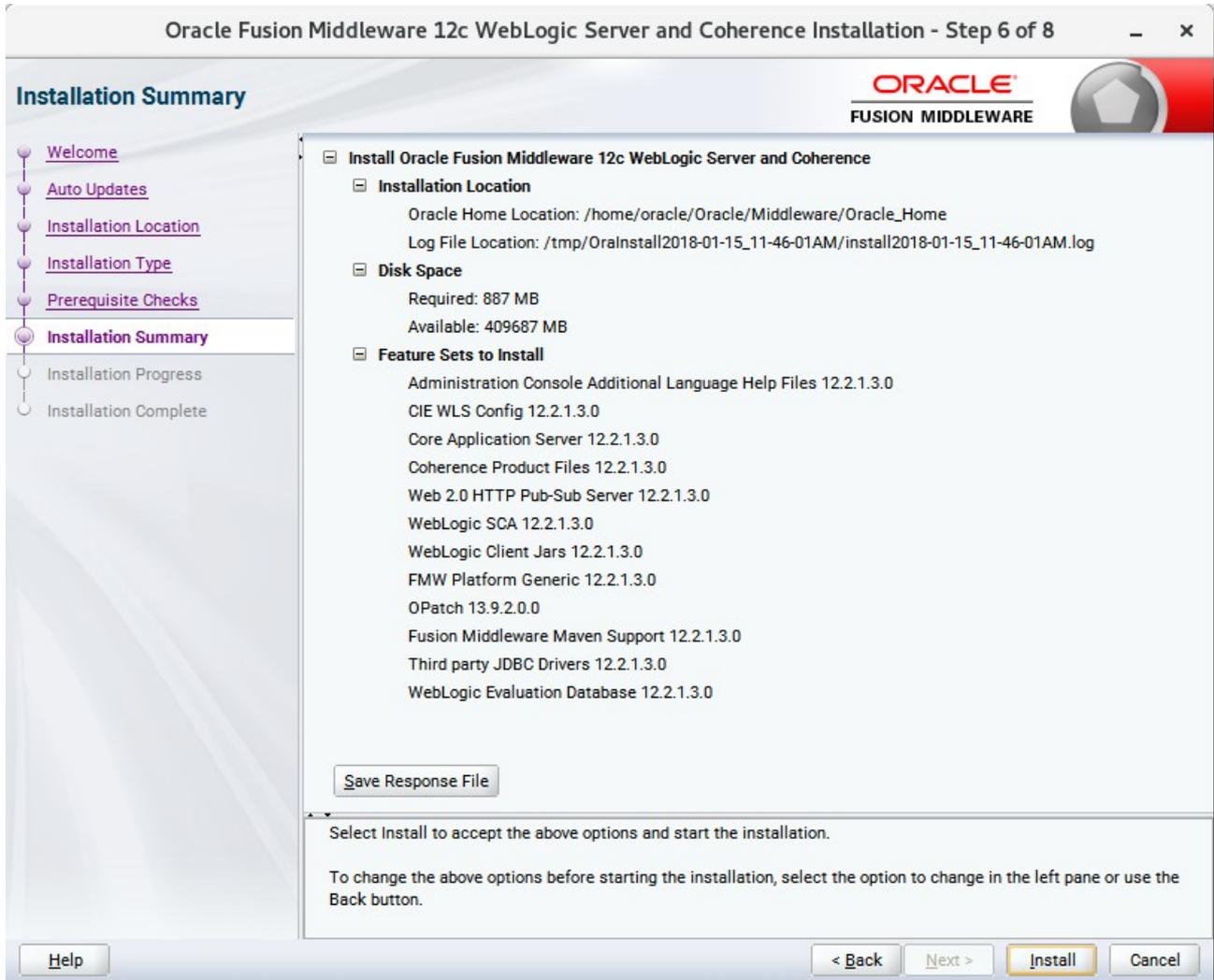
Use this screen to determine the type of installation you want to perform, then click **Next** to continue.

6). Prerequisite Checks.



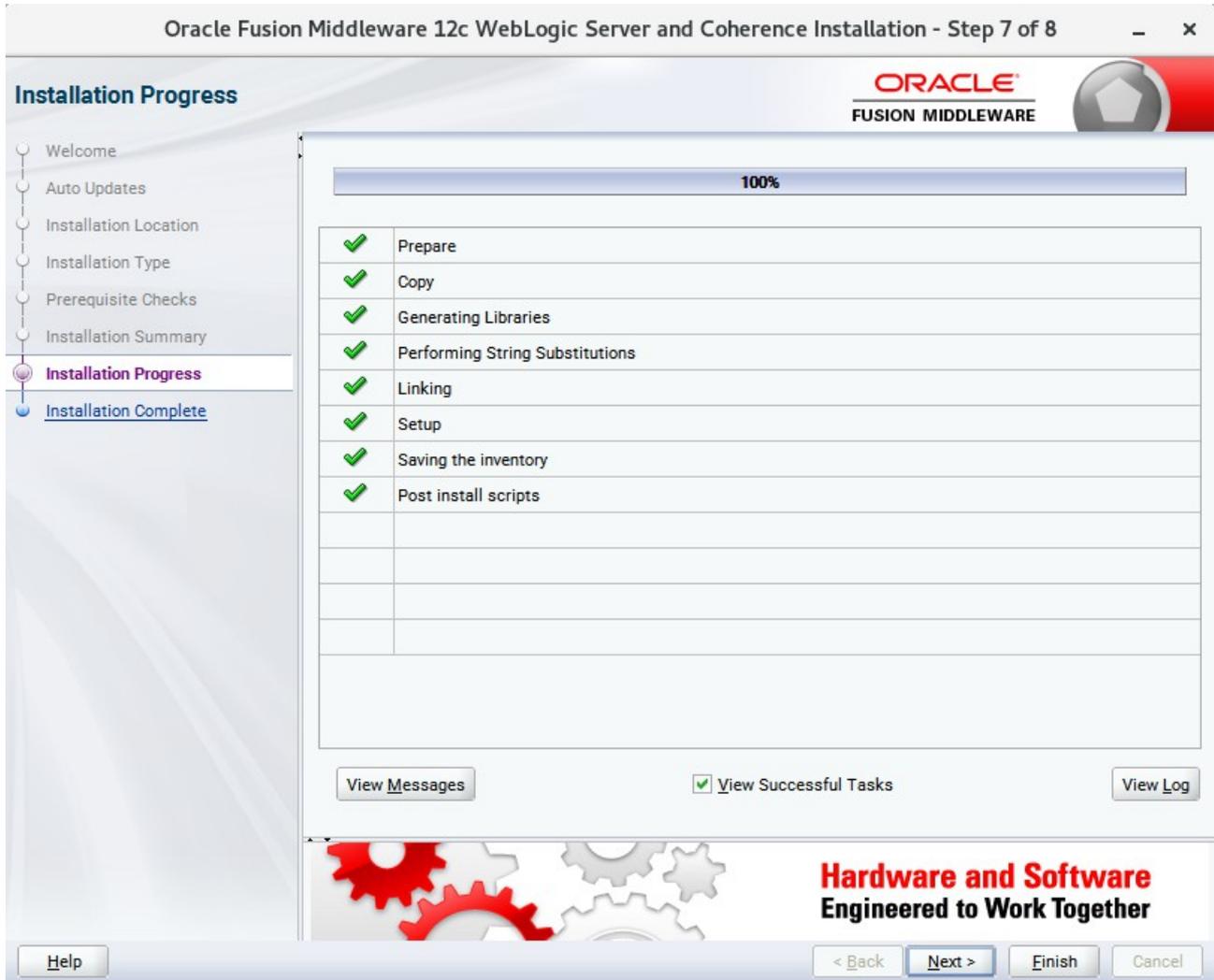
Prerequisite Checks results will be shown as above, click **Next** to continue.

7). Installation Summary.



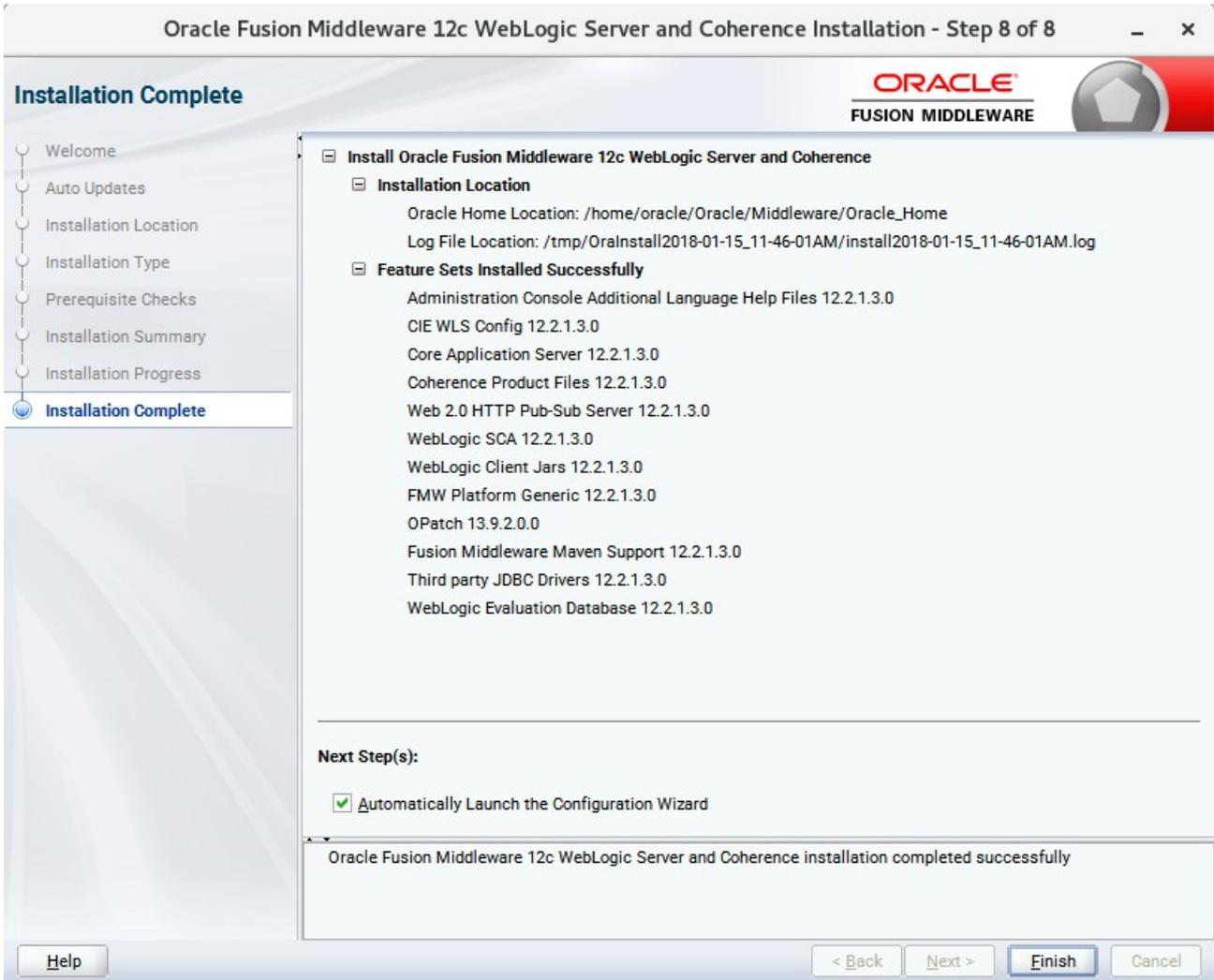
This screen contains a list of the feature sets you selected for installation, along with the approximate amount of disk space to be used by the feature sets once installation is complete. Check the information, then click **Install** to continue.

8). Installation Progress.



This screen shows the progress of the installation. When the progress bar reaches 100%, the installation is complete. Click **Finish** to continue.

9). Installation Complete.



This screen appears at the conclusion of the installation. Select option "**Automatically Launch the Configuration Wizard**", then click **Finish** to dismiss the installer.

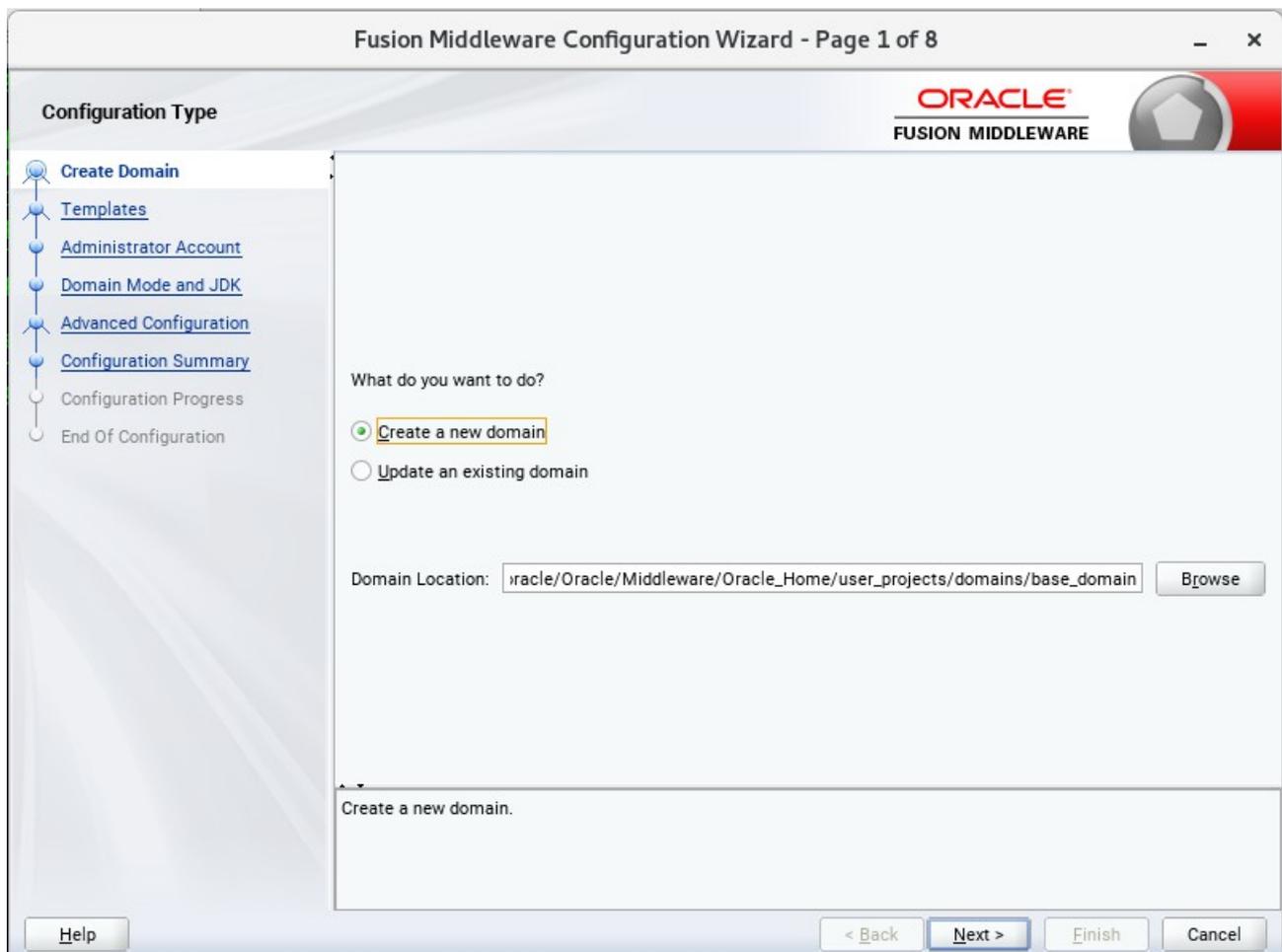
## 2. Creating and Configuring the WebLogic Domain

2-1. To start the domain configuration, you can choose from two options:

1. From the last-shown screen Installation Complete, you can automatically launch the WebLogic Configuration Wizard through the option **Automatically Launch the Configuration Wizard**.
2. You can also navigate to the directory **ORACLE\_HOME/oracle\_common/common/bin** and start the WebLogic Server Configuration Wizard by running the command **./config.sh**.

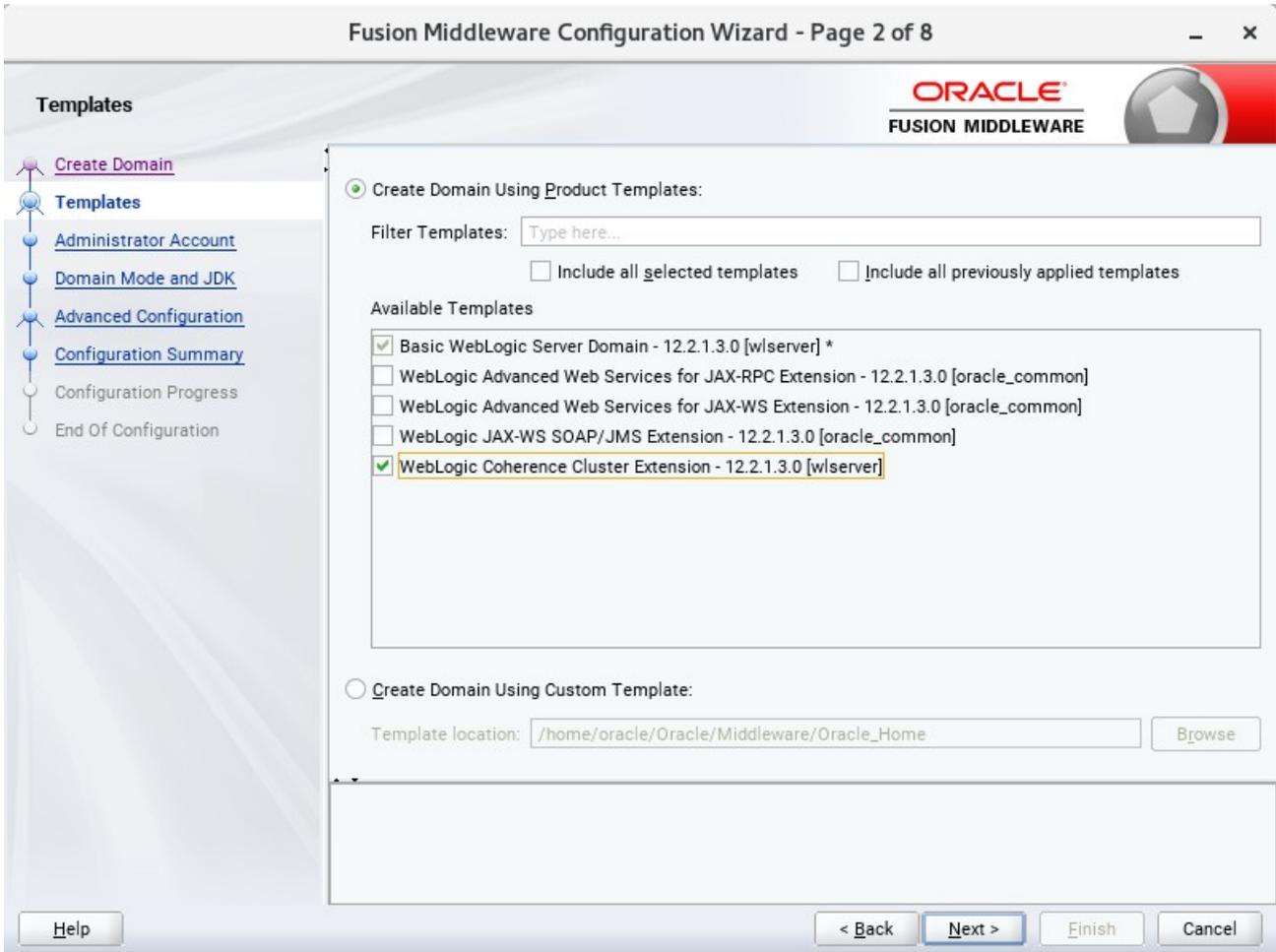
To set up your configuration, follow the steps below:

1). Configuration Type.



Select option **"Create a New Domain"** and specify the Domain home directory in the **"Domain Location"** field, then click **Next** to continue.

2). Templates.



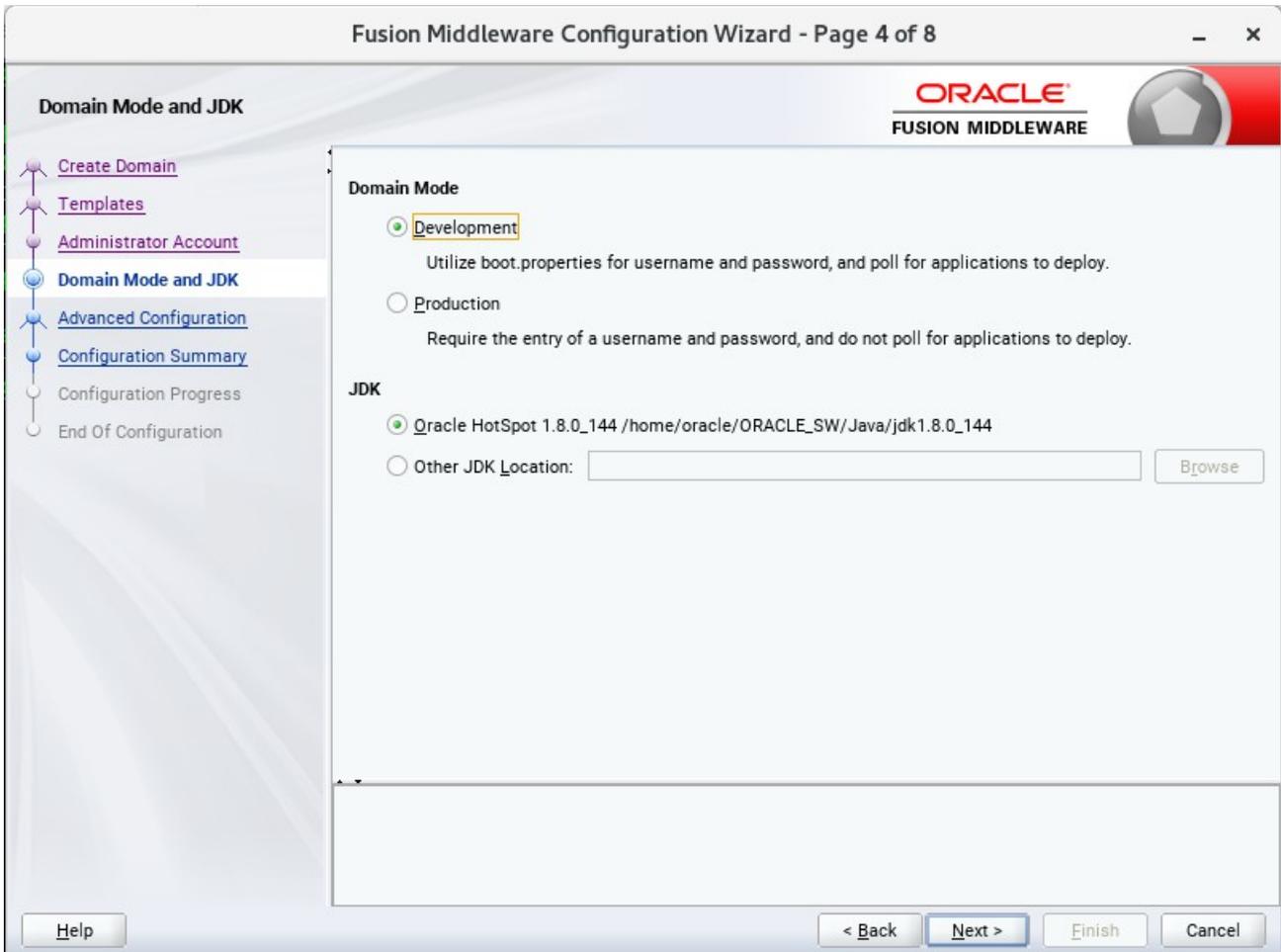
On the Templates screen select "**Basic WebLogic Server Domain (selected by default)**" and "**WebLogic Coherence Cluster Extension**" for configuration, then click **Next** to continue.

3). Administrator Account.

The screenshot shows the 'Fusion Middleware Configuration Wizard - Page 3 of 8' 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', 'Administrator Account' (highlighted), 'Domain Mode and JDK', 'Advanced Configuration', 'Configuration Summary', 'Configuration Progress', and 'End Of Configuration'. The main content area is titled 'Administrator Account' and contains three input fields: 'Name' with the value 'weblogic', 'Password' with masked characters '.....', and 'Confirm Password' with masked characters '.....'. Below the input fields is a text box containing the instruction: 'Must be the same as the password. Password must contain at least 8 alphanumeric characters with at least one number or special character.' At the bottom of the window, there are four buttons: 'Help', '< Back', 'Next >', 'Finish', and 'Cancel'.

Specify the user name and password for the default WebLogic Administrator account for the domain, then click **Next** to continue.

4). Domain Mode and JDK.



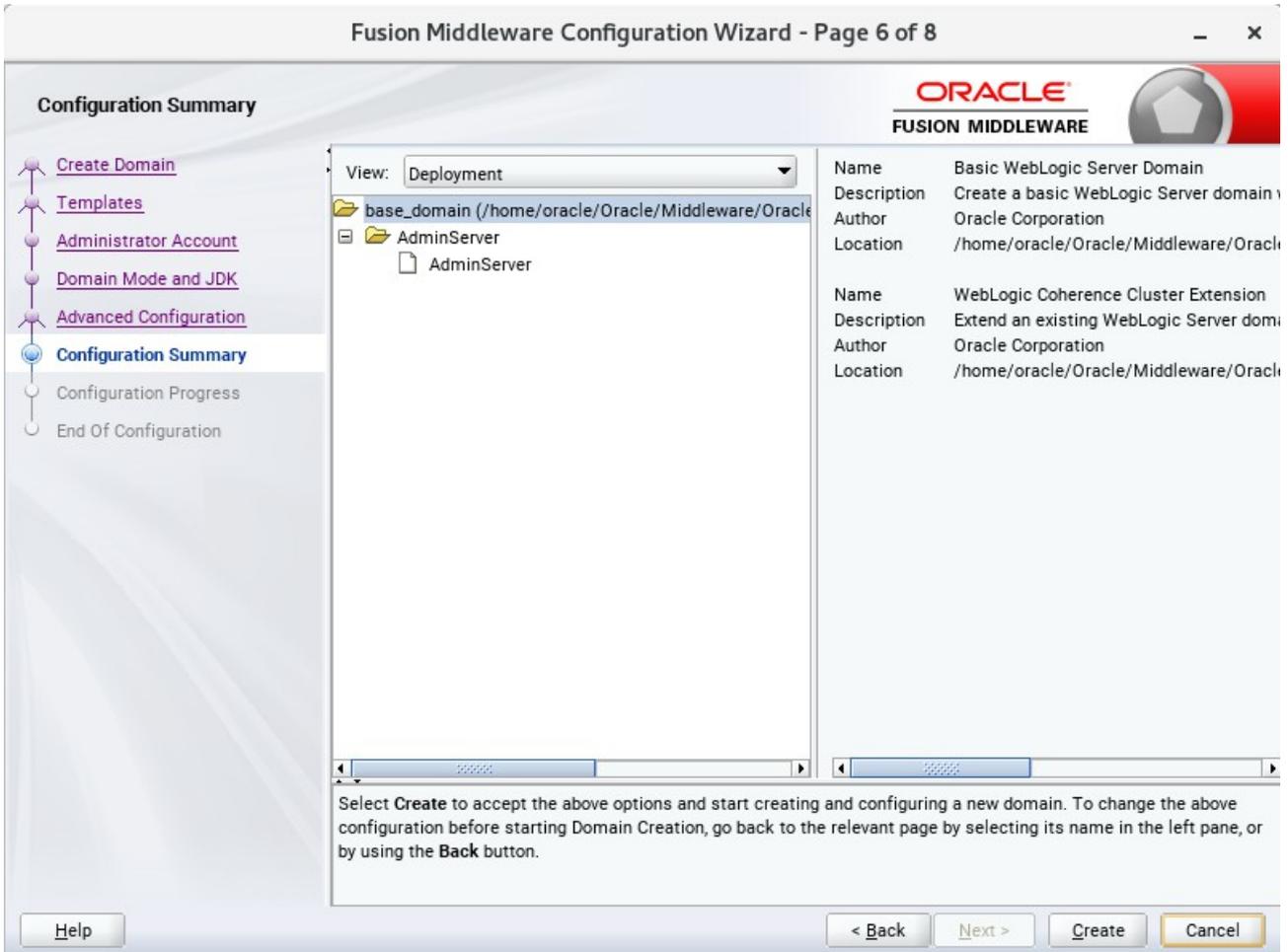
Select "**Development**" in the Domain Mode field, select the "**Oracle HotSpot**" in the JDK field. Then click **Next** to continue.

5). Advanced Configuration.



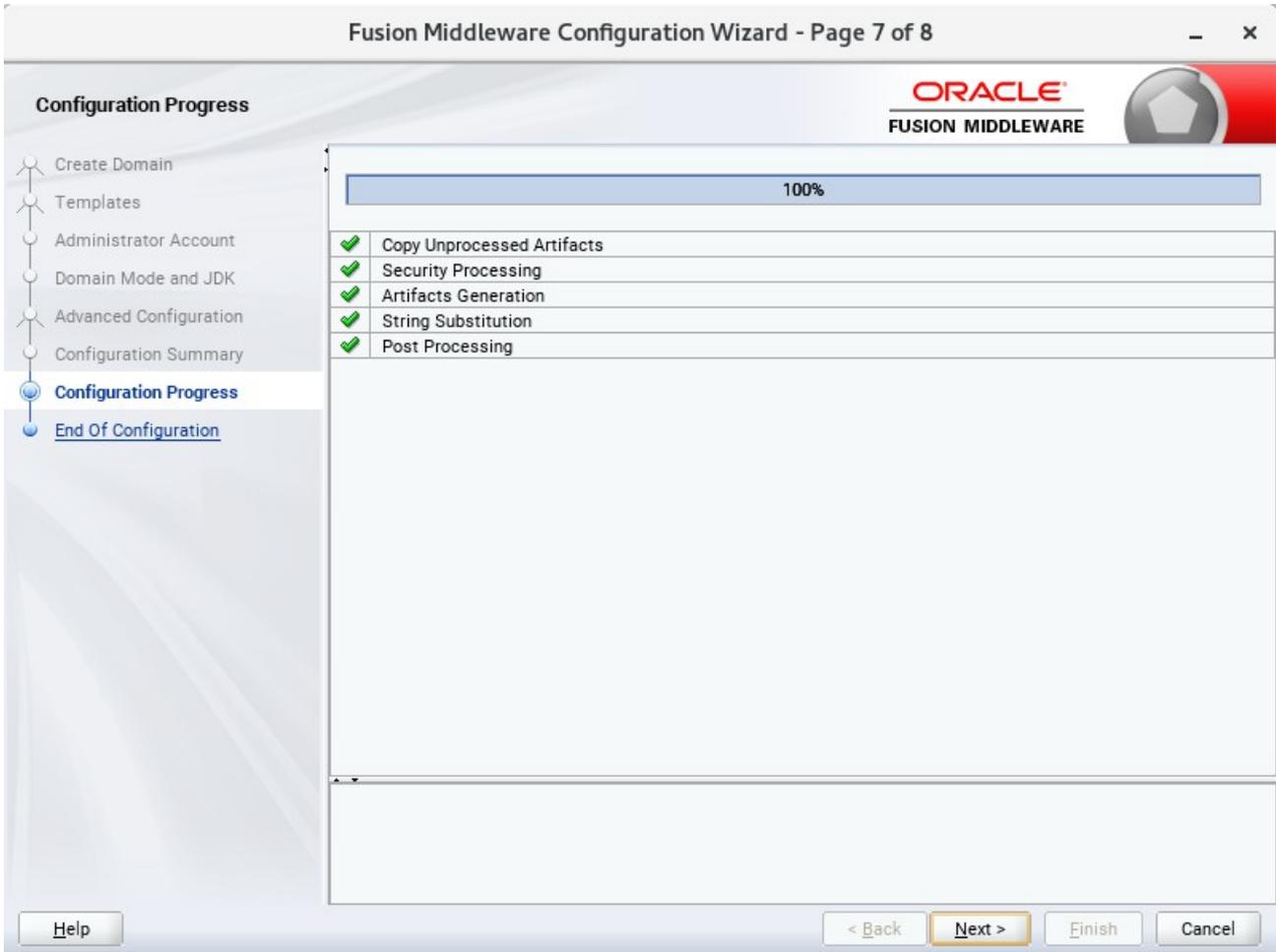
According to your requirements, select the desired options on the Advanced Configuration screen. Then click **Next** to continue.

6). Configuration Summary.



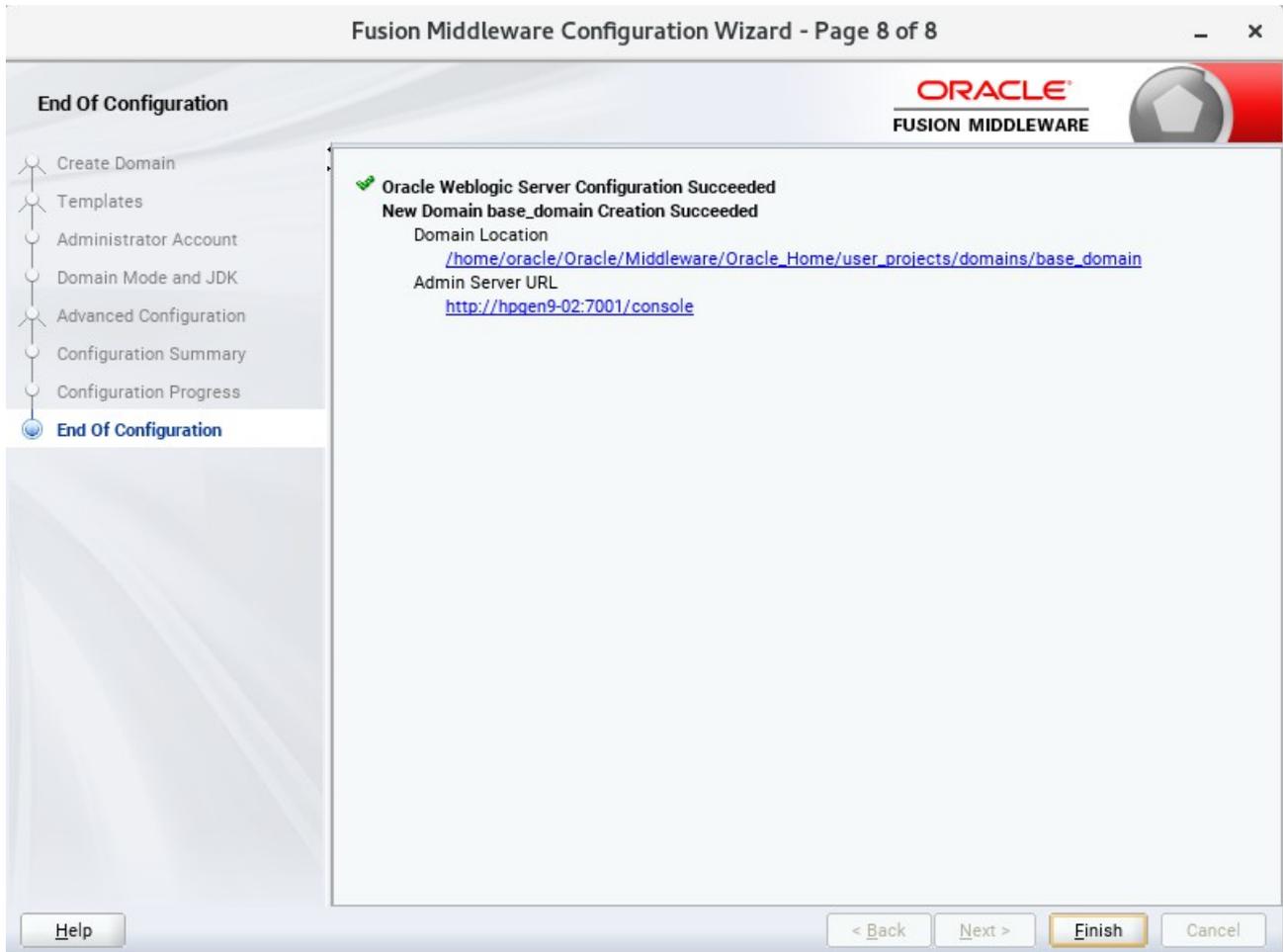
Review this screen to verify the information is correct, then click **Create** to continue.

7). Configuration Progress.



The Configuration Progress screen as shown above, once you see: "Domain Created successfully", click **Next** to continue.

8). End Of Configuration.

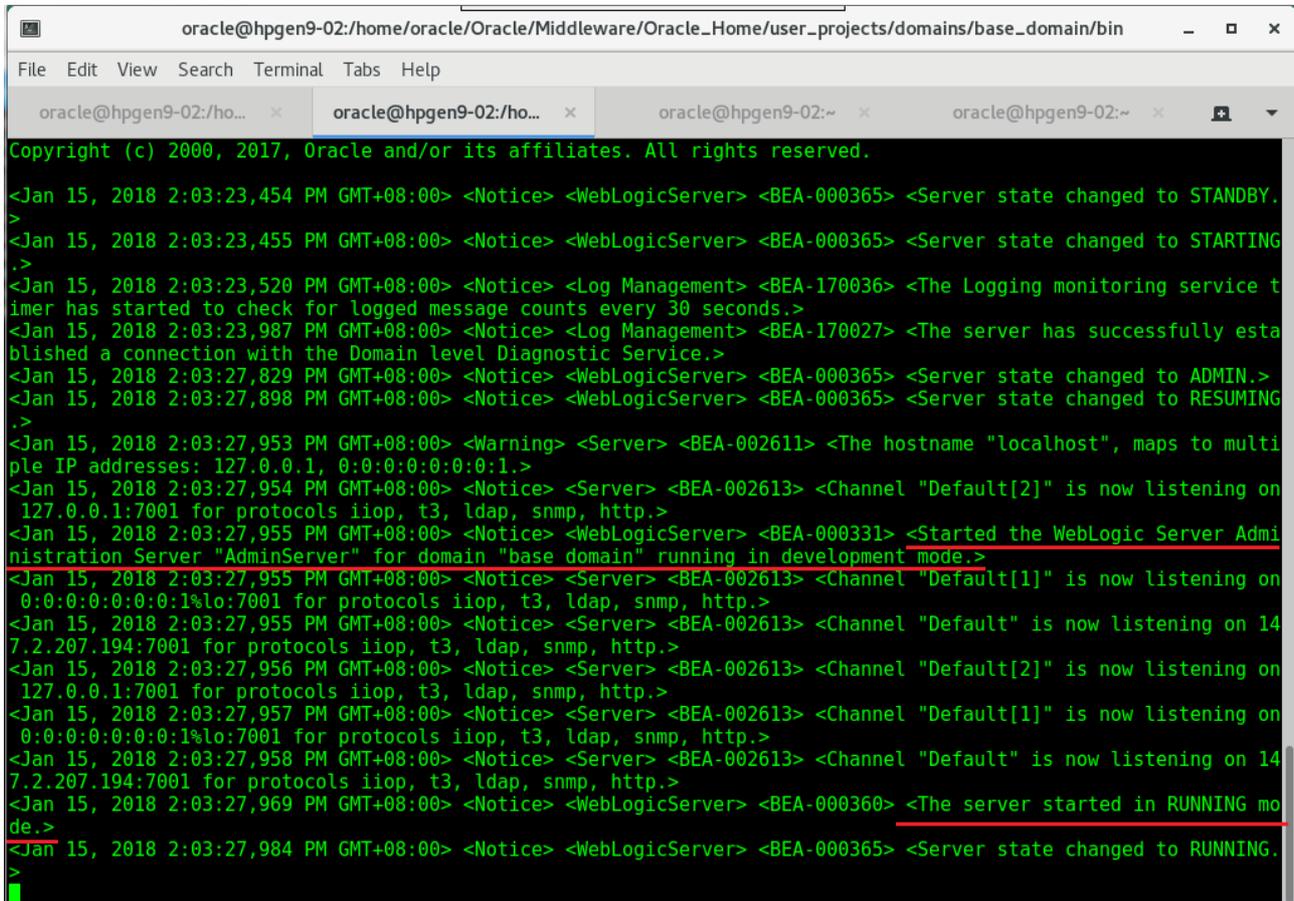


Once you see: "Oracle Weblogic Server Configuration Succeeded", record the "**Domain Location**" and "**Admin Server URL**", then click **Finish** to dismiss the Configuration Wizard.

### 3. Starting the Administration Server and verifying the Configuration

3-1. To start the Administration Server through a terminal, go to the DOMAIN\_HOME/bin directory and run the command `./startWebLogic.sh`.

#### Starting the Administration Server through a terminal



```

oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/bin
File Edit View Search Terminal Tabs Help
oracle@hpgen9-02:/ho... x oracle@hpgen9-02:/ho... x oracle@hpgen9-02:~ x oracle@hpgen9-02:~ x
Copyright (c) 2000, 2017, Oracle and/or its affiliates. All rights reserved.
<Jan 15, 2018 2:03:23,454 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to STANDBY.
>
<Jan 15, 2018 2:03:23,455 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to STARTING
>
<Jan 15, 2018 2:03:23,520 PM GMT+08:00> <Notice> <Log Management> <BEA-170036> <The Logging monitoring service t
imer has started to check for logged message counts every 30 seconds.>
<Jan 15, 2018 2:03:23,987 PM GMT+08:00> <Notice> <Log Management> <BEA-170027> <The server has successfully esta
blished a connection with the Domain level Diagnostic Service.>
<Jan 15, 2018 2:03:27,829 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to ADMIN.>
<Jan 15, 2018 2:03:27,898 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to RESUMING
>
<Jan 15, 2018 2:03:27,953 PM GMT+08:00> <Warning> <Server> <BEA-002611> <The hostname "localhost", maps to multi
ple IP addresses: 127.0.0.1, 0:0:0:0:0:0:1.>
<Jan 15, 2018 2:03:27,954 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[2]" is now listening on
127.0.0.1:7001 for protocols iiop, t3, ldap, snmp, http.>
<Jan 15, 2018 2:03:27,955 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000331> <Started the WebLogic Server Admi
nistration Server "AdminServer" for domain "base domain" running in development mode.>
<Jan 15, 2018 2:03:27,955 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[1]" is now listening on
0:0:0:0:0:0:1%lo:7001 for protocols iiop, t3, ldap, snmp, http.>
<Jan 15, 2018 2:03:27,955 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default" is now listening on 14
7.2.207.194:7001 for protocols iiop, t3, ldap, snmp, http.>
<Jan 15, 2018 2:03:27,956 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[2]" is now listening on
127.0.0.1:7001 for protocols iiop, t3, ldap, snmp, http.>
<Jan 15, 2018 2:03:27,957 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[1]" is now listening on
0:0:0:0:0:0:1%lo:7001 for protocols iiop, t3, ldap, snmp, http.>
<Jan 15, 2018 2:03:27,958 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default" is now listening on 14
7.2.207.194:7001 for protocols iiop, t3, ldap, snmp, http.>
<Jan 15, 2018 2:03:27,969 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000360> <The server started in RUNNING mo
de.>
<Jan 15, 2018 2:03:27,984 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to RUNNING.
>

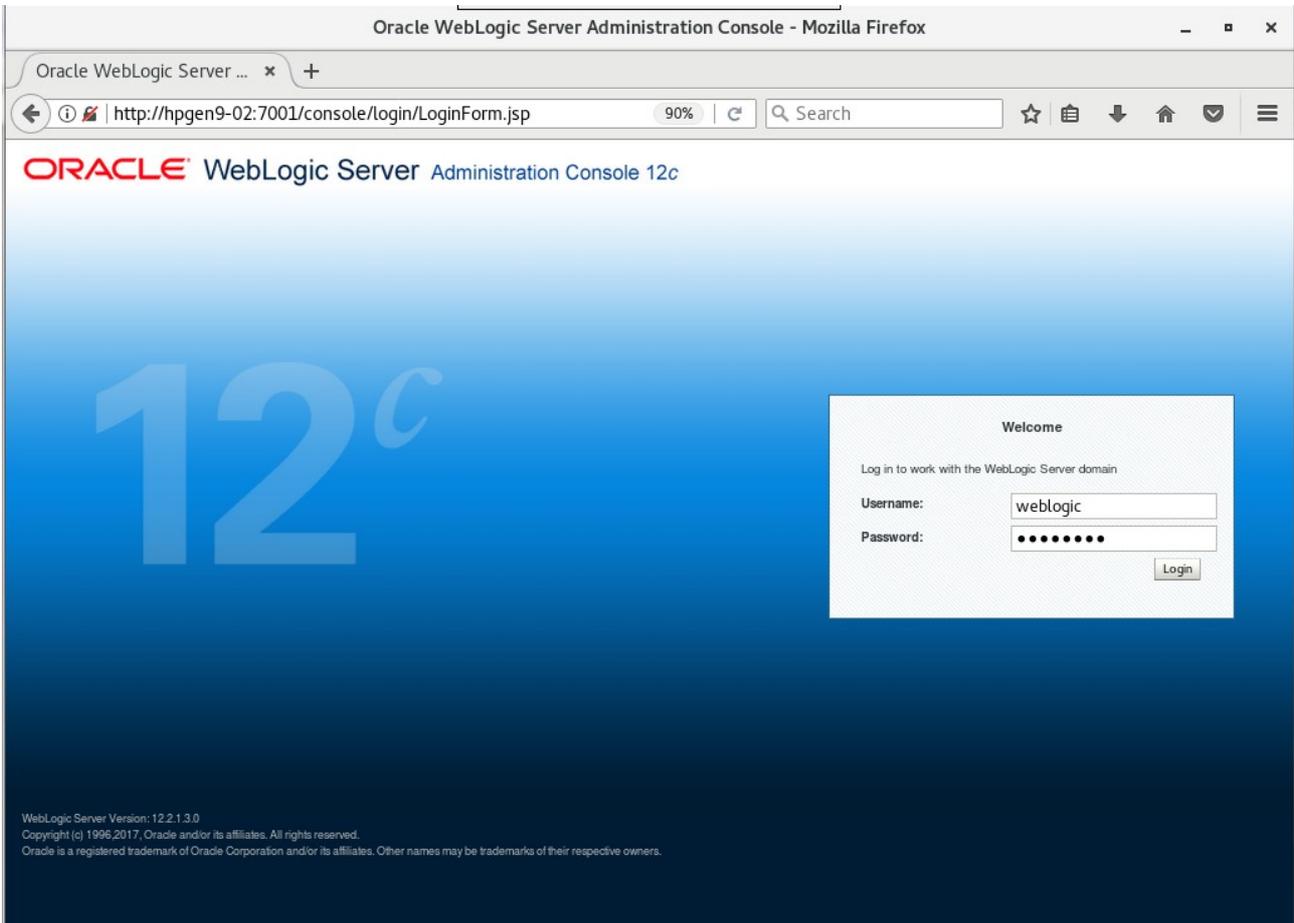
```

You know that the administrator server is running when you see the following output:

```
-----
Server state changed to RUNNING.
-----
```

3-2. Access to Oracle WebLogic Server Administration Console.

**Access to WebLogic Server Admin Console - Login page**



**Viewing WebLogic Server Admin Console - Home page**

Summary of Servers - base\_domain - WLS Console - Mozilla Firefox

Summary of Servers - ba... x +

http://hpgen9-02:7001/console/console.portal?\_nfpb=true&\_p 90% Search

**ORACLE WebLogic Server Administration Console 12c**

Home Log Out Preferences Record Help Welcome, weblogic Connected to: base\_domain

Home > Summary of Servers

**Summary of Servers**

Configuration Control

A server is an instance of WebLogic Server that runs in its own Java Virtual Machine (JVM) and has its own configuration. This page summarizes each server that has been configured in the current WebLogic Server domain.

Customize this table

Servers (Filtered - More Columns Exist)

New Clone Delete Showing 1 to 1 of 1 Previous | Next

<input type="checkbox"/>	Name ↕	Type	Cluster	Machine	State	Health	Listen Port
<input type="checkbox"/>	AdminServer(admin)	Configured			RUNNING	OK	7001

New Clone Delete Showing 1 to 1 of 1 Previous | Next

**Change Center**  
View changes and restarts  
Configuration editing is enabled. Future changes will automatically be activated as you modify, add or delete items in this domain.

**Domain Structure**  
base\_domain  
- Domain Partitions  
- Environment  
- Deployments  
- Services  
- Security Realms  
- Interoperability  
- Diagnostics

**How do I...**

- Create Managed Servers
- Clone servers
- Delete Managed Servers
- Delete the Administration Server
- Start and stop servers
- View objects in the JNDI tree

**System Status**  
Health of Running Servers as of 2:13 PM

- Failed (0)
- Critical (0)
- Overloaded (0)
- Warning (0)

**End of Oracle WebLogic Server Software.**

\*\*\*\*\*  
**Oracle Forms and Reports**  
\*\*\*\*\*

## 1. Installing Oracle Forms and Reports

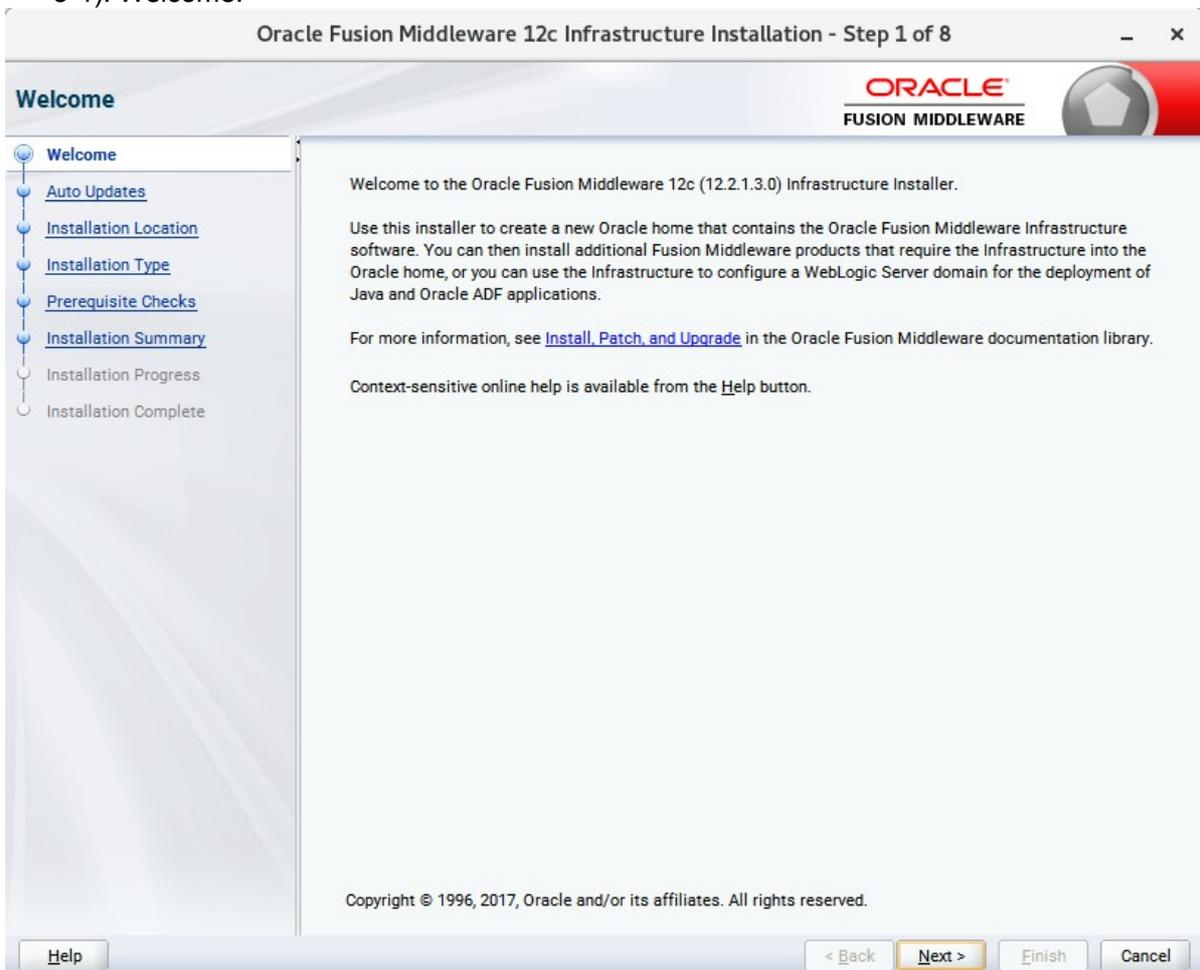
### 1-1. Prerequisites:

Installation of Oracle Forms and Reports requires:

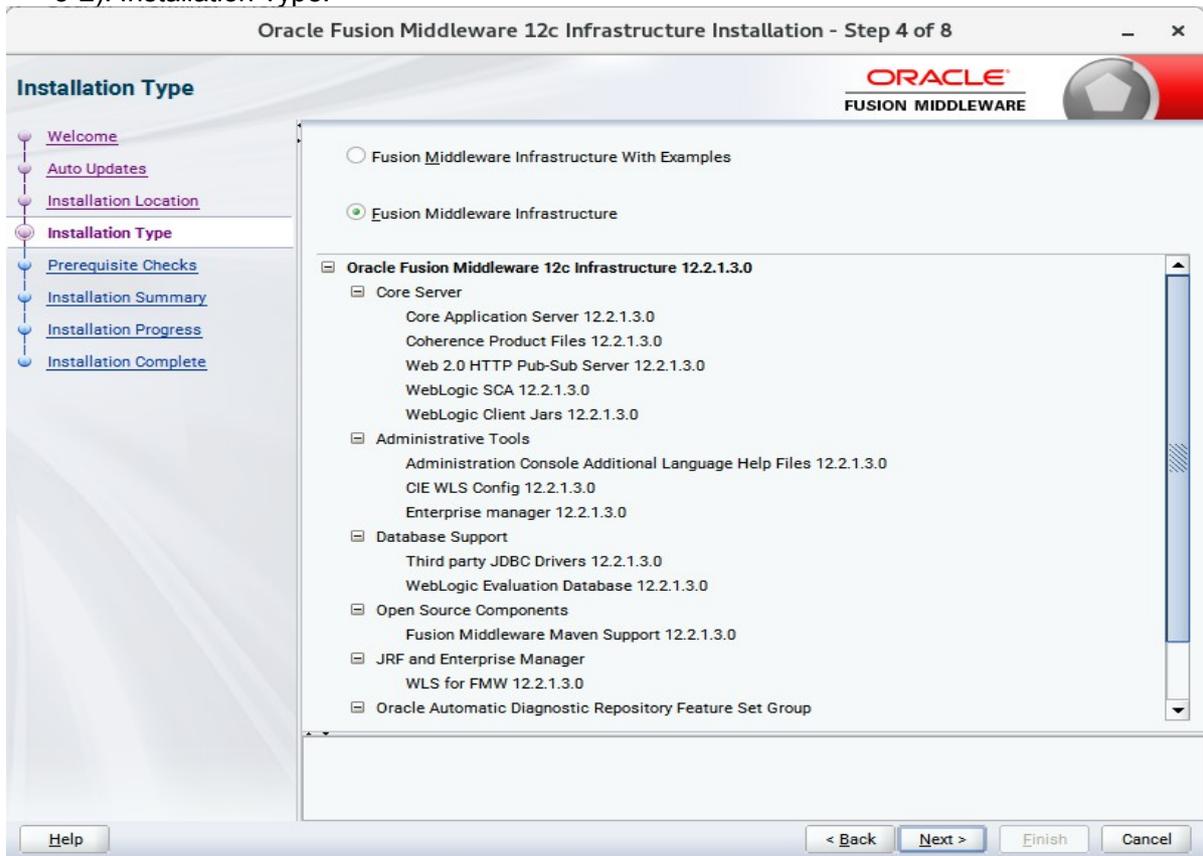
- 1). Oracle Database 12cR2 (12.2.0.1.0) installed.
- 2). Oracle JDK 1.8.0\_131 and later installed.
- 3). Oracle WebLogic Server 12cR2 (12.2.1.3.0) (Fusion Middleware Infrastructure Installer)

**Screenshots: A brief installation setps for Fusion Middleware Infrastructure Installer is as follows:**

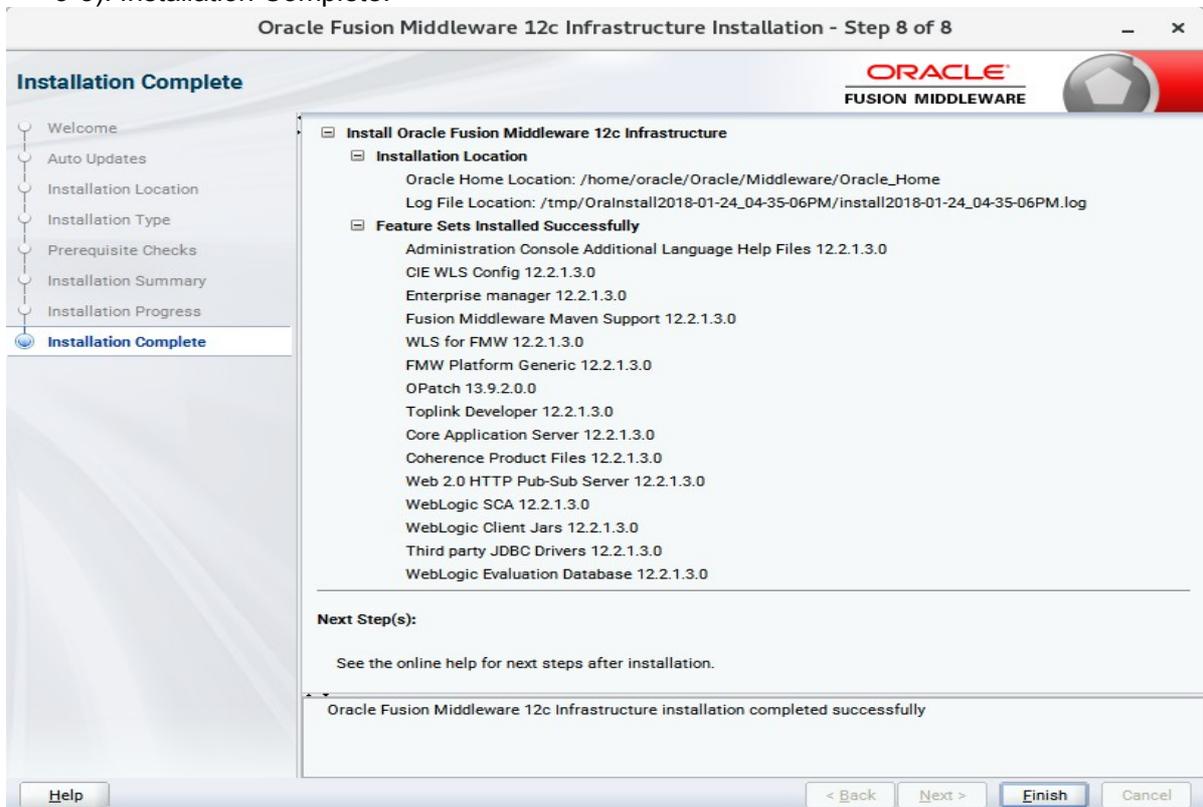
#### 3-1). Welcome.



3-2). Installation Type.



3-3). Installation Complete.

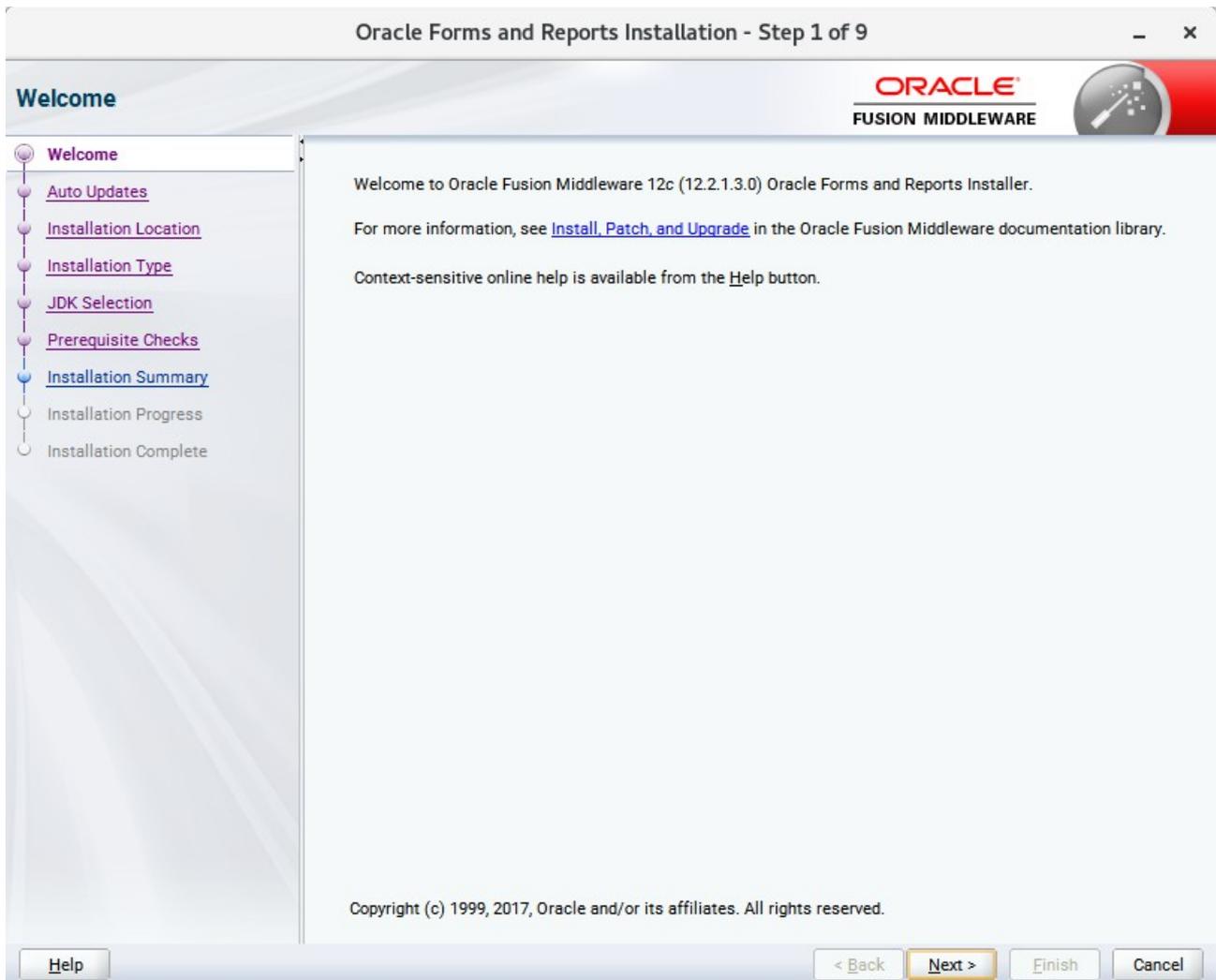


1-2. Log in to the target system (SUSE Linux Enterprise Server 12 64-bit OS) as a non-admin user. Download the Oracle Forms and Reports 12c (12.2.1.3.0) from <http://www.oracle.com/technetwork/indexes/downloads/index.html#middleware>. (**Note:** Please ensure the installation user has the proper permissions to install and configure the software.)

1-3. Go to the directory where you downloaded the installation program. Extract the contents of these .zip (fmw\_12.2.1.3.0\_fr\_linux64\_Disk1\_1of1.zip and fmw\_12.2.1.3.0\_fr\_linux64\_Disk1\_2of2.zip) files and launch the installation program by running 'fmw\_12.2.1.3.0\_fr\_linux64.bin'.

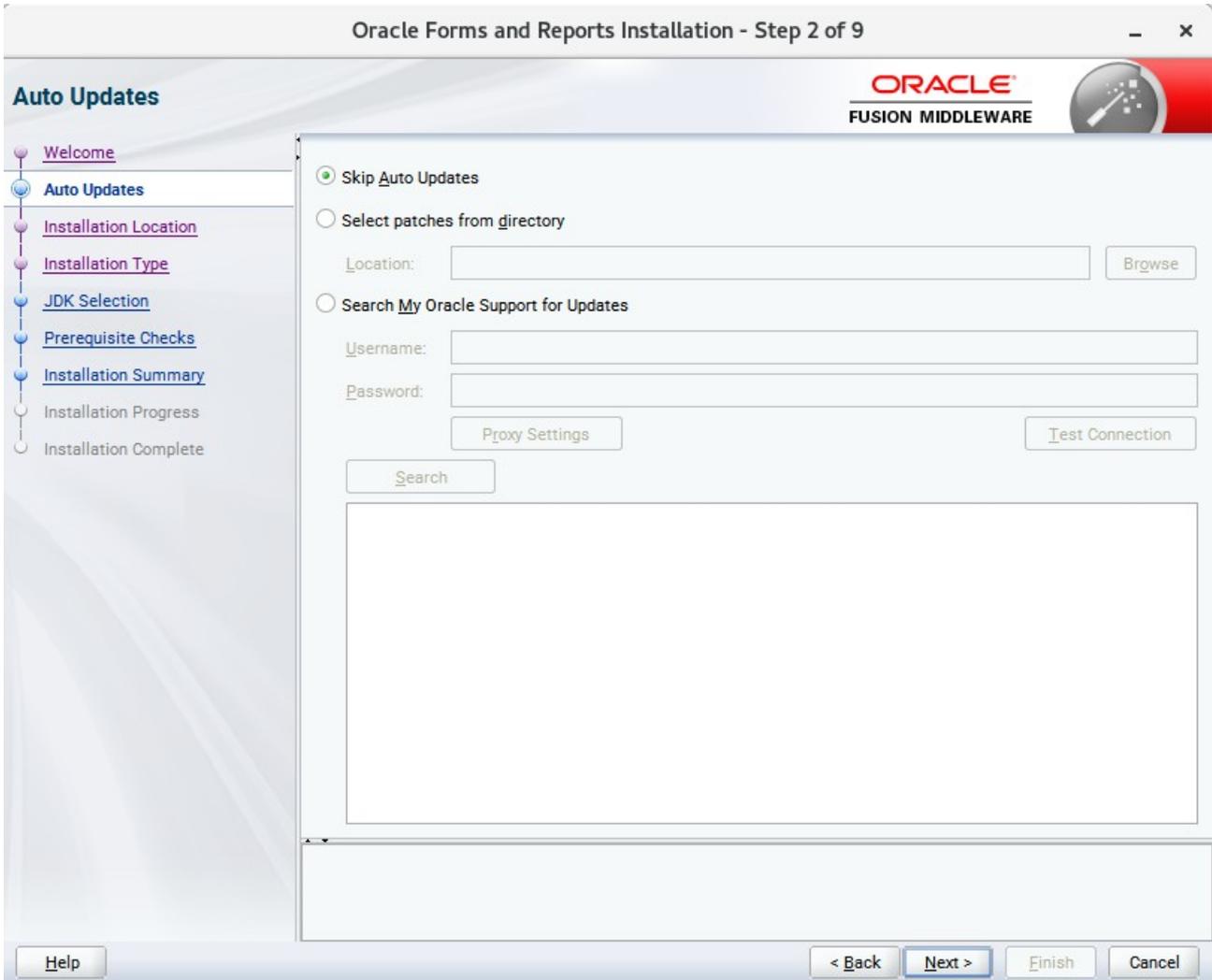
**For the actual installation, follow the steps below:**

1). Welcome page.



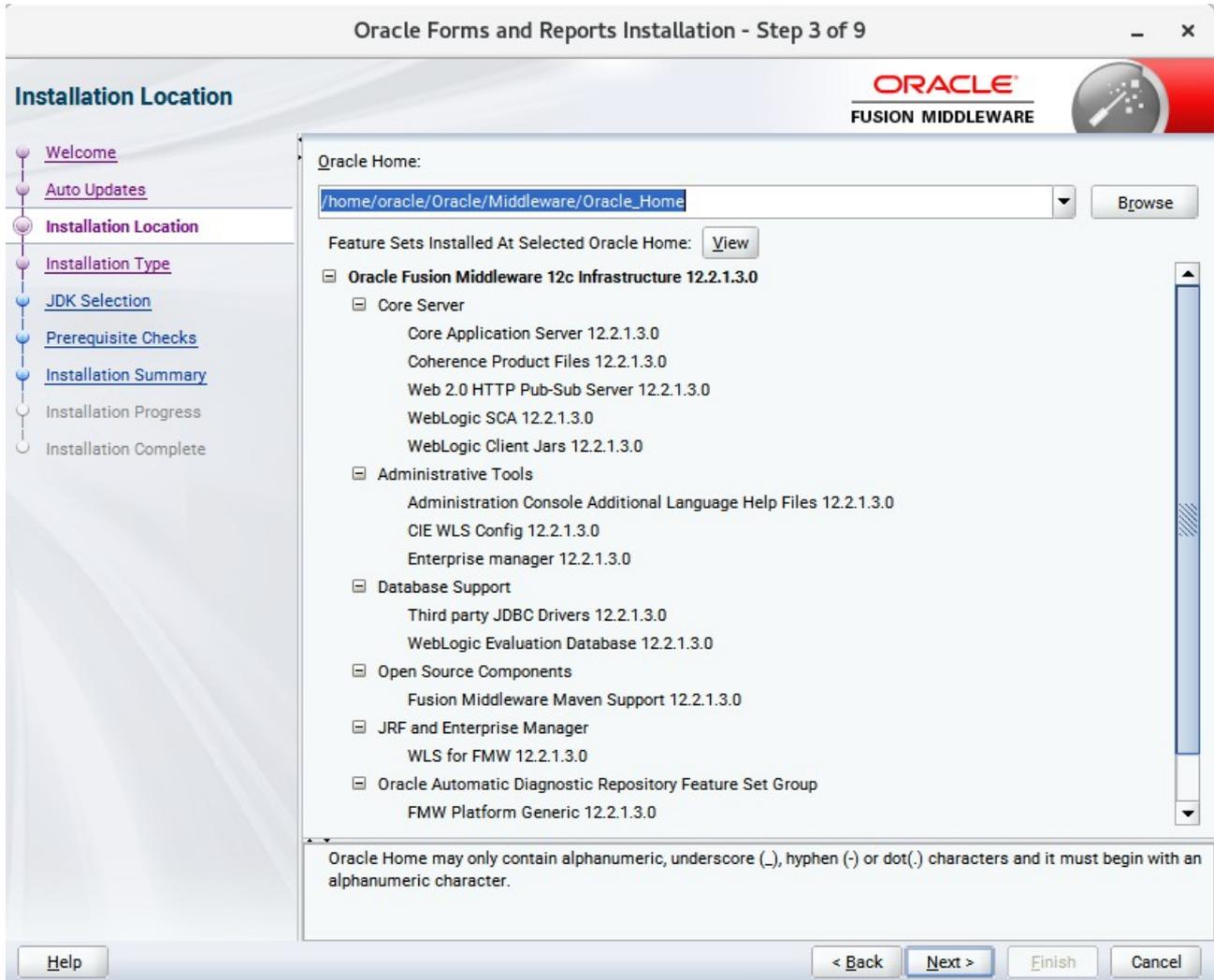
This page welcomes you to the installation. Click **Next** to continue.

2). The **Auto Updates** page appears.



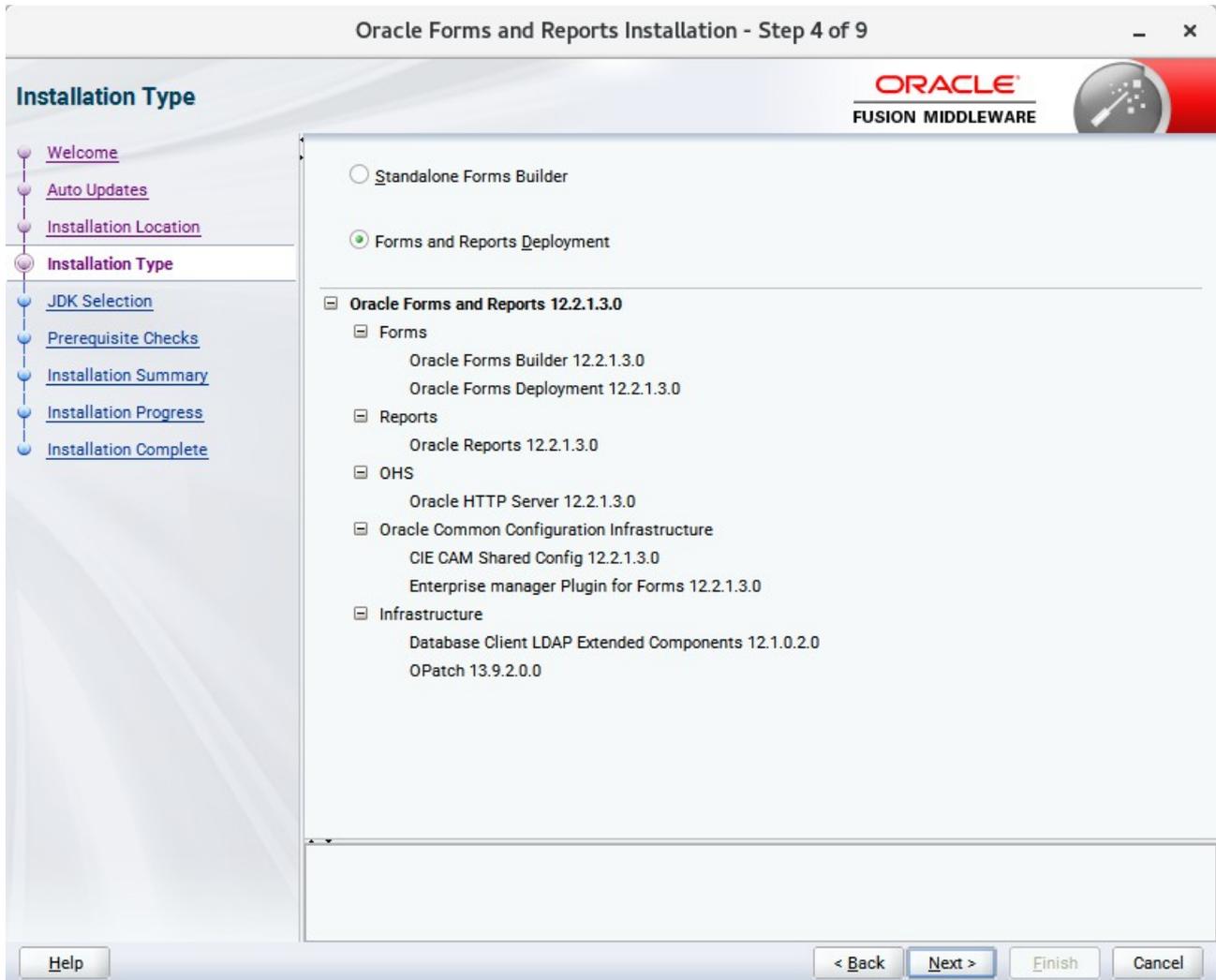
This page enables you to choose to automatically receive software updates for your components from Oracle Corporation. make your choices, then click **Next** to continue.

3). The **Installation Location** page appears.



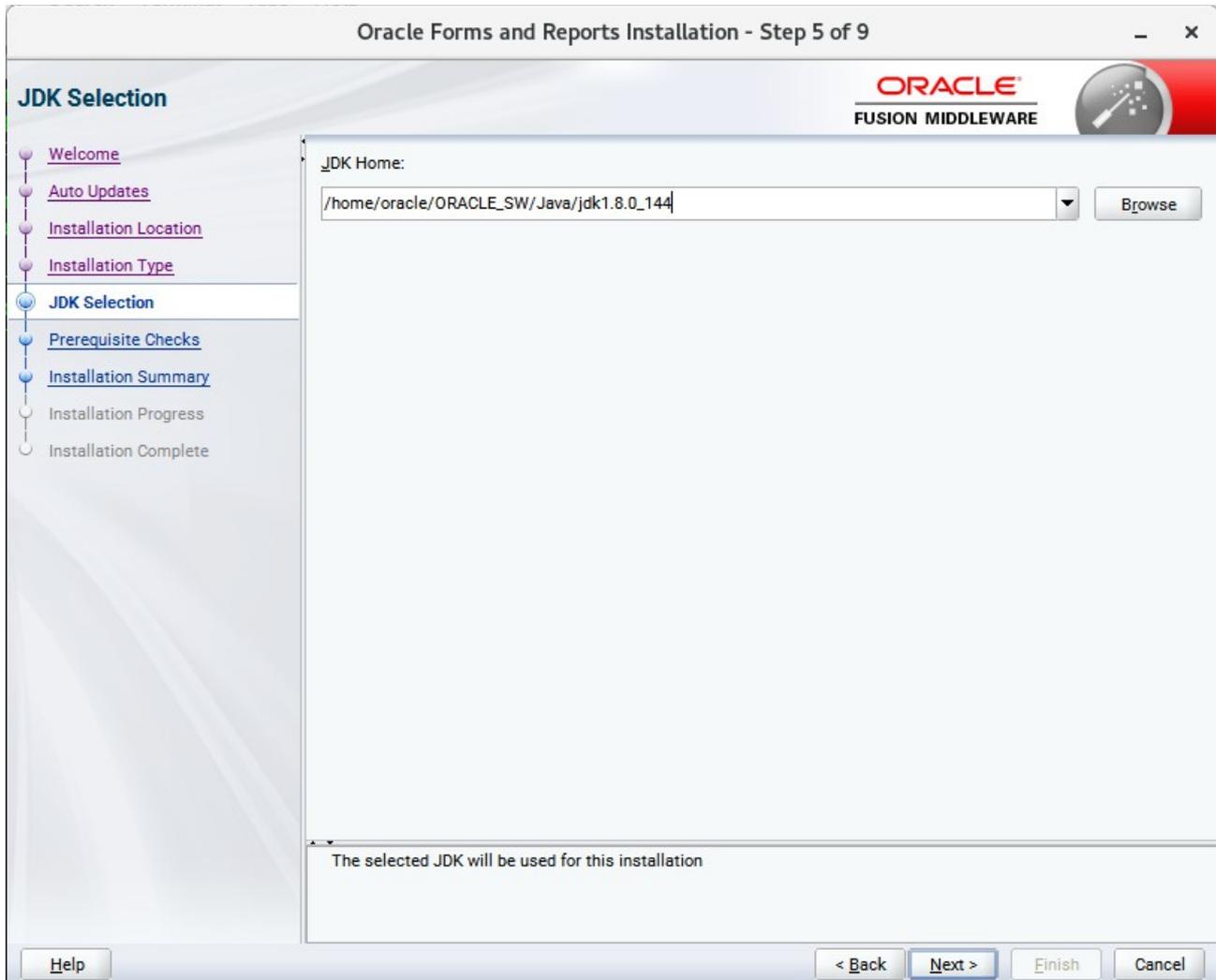
Specify the Oracle home location into which you want to install the product(s). Click **Next** to continue.

4). The **Installation Type** page appears.



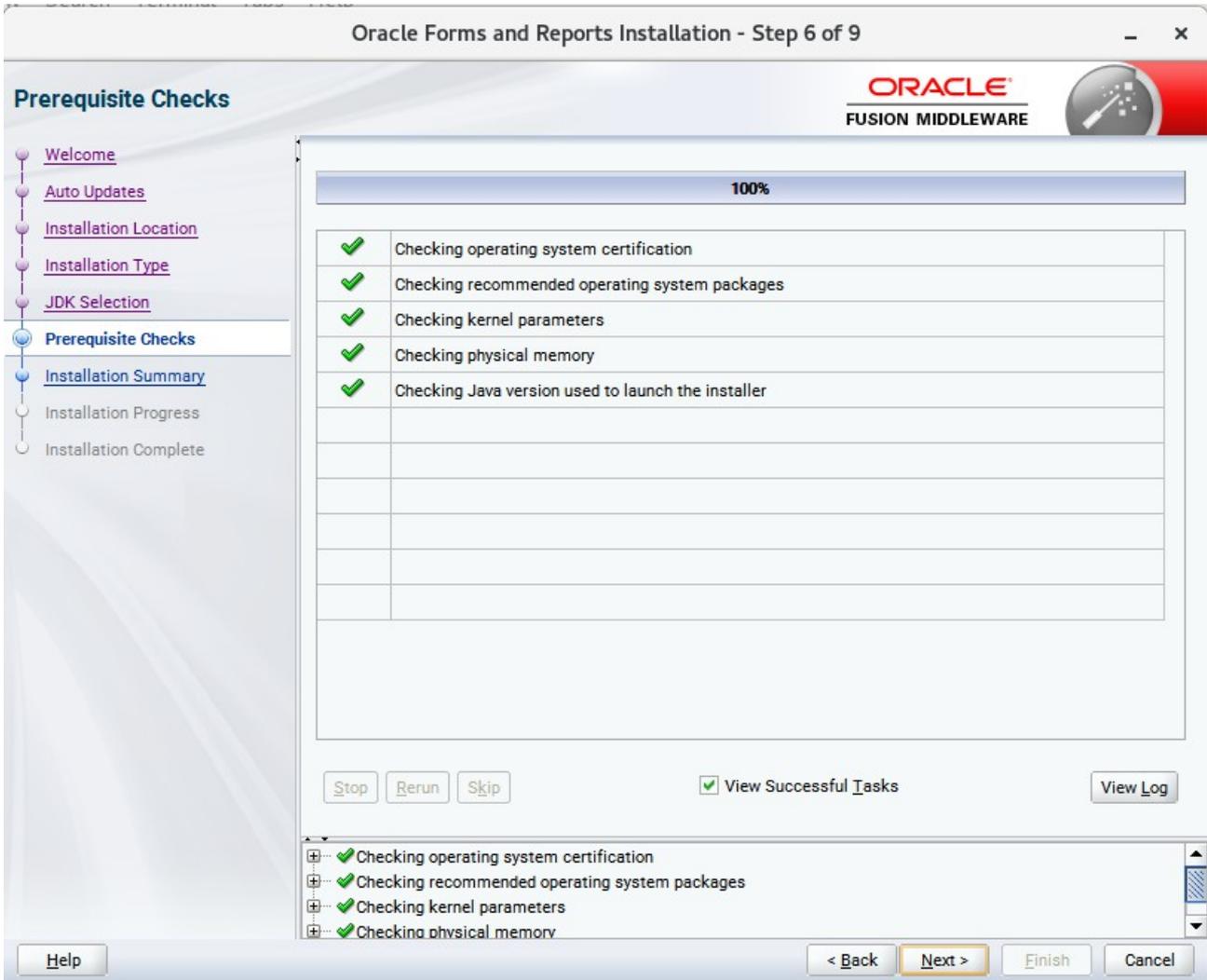
You can select **Standalone Forms Builder** if you want only that functionality, or choose **Forms and Reports Deployment** to install all of the products. Click **Next** to continue.

5). The **JDK Selection** page appears.



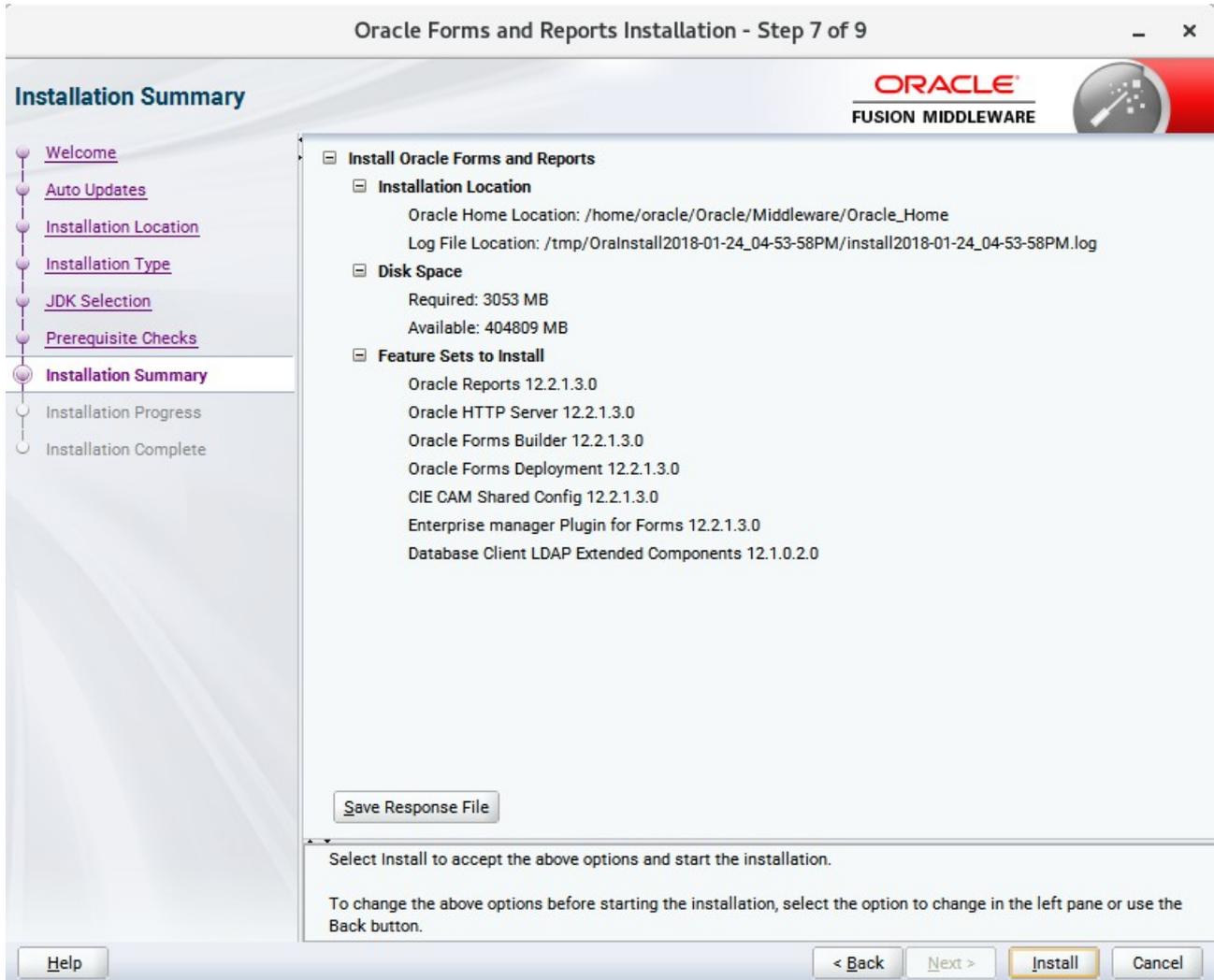
The selected JDK will be used for this installation. Click **Next** to continue.

6). The **Prerequisite Checks** page appears.



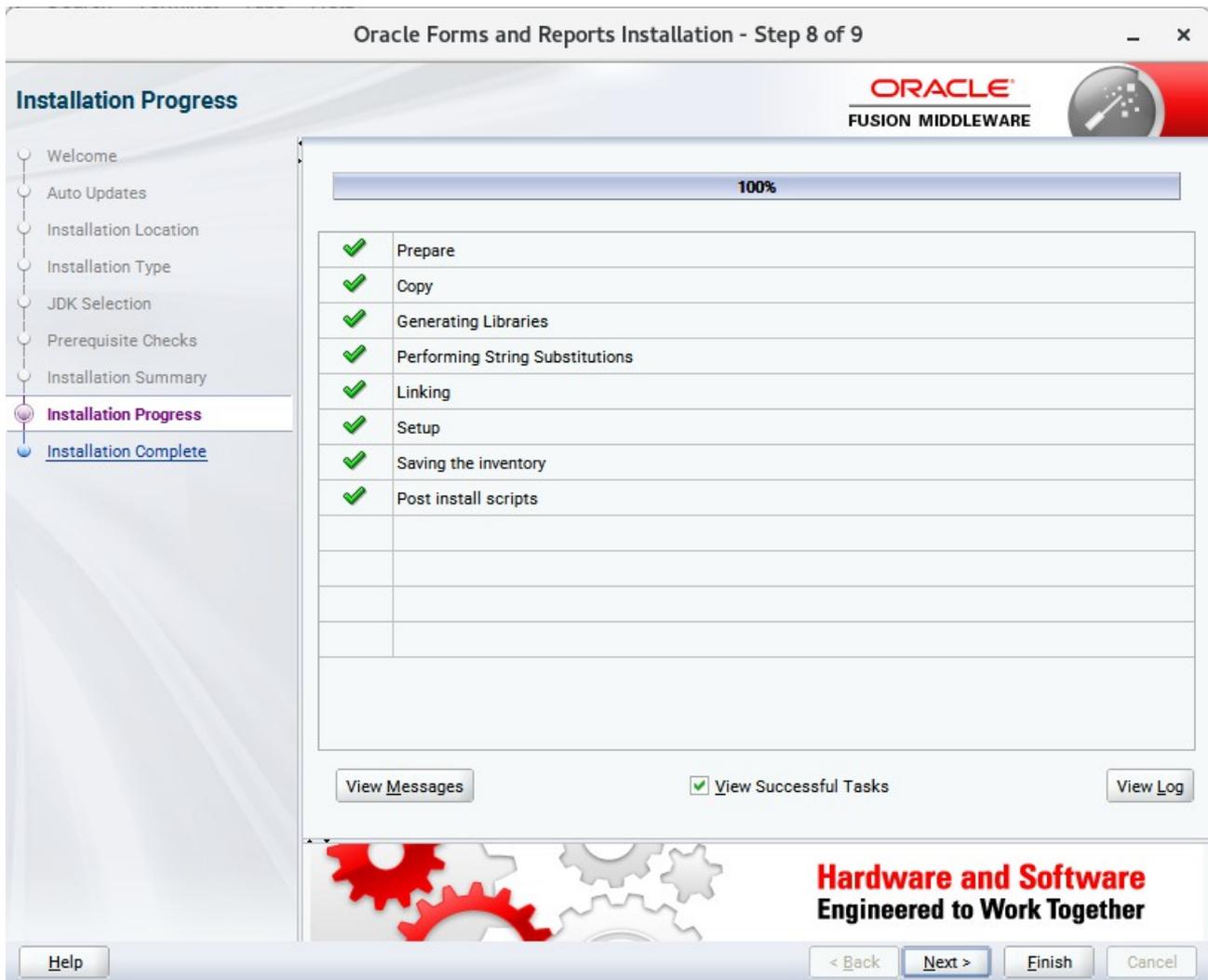
Prerequisite Checks results will be shown as above, click **Next** to continue.

7). The **Installation Summary** page appears.



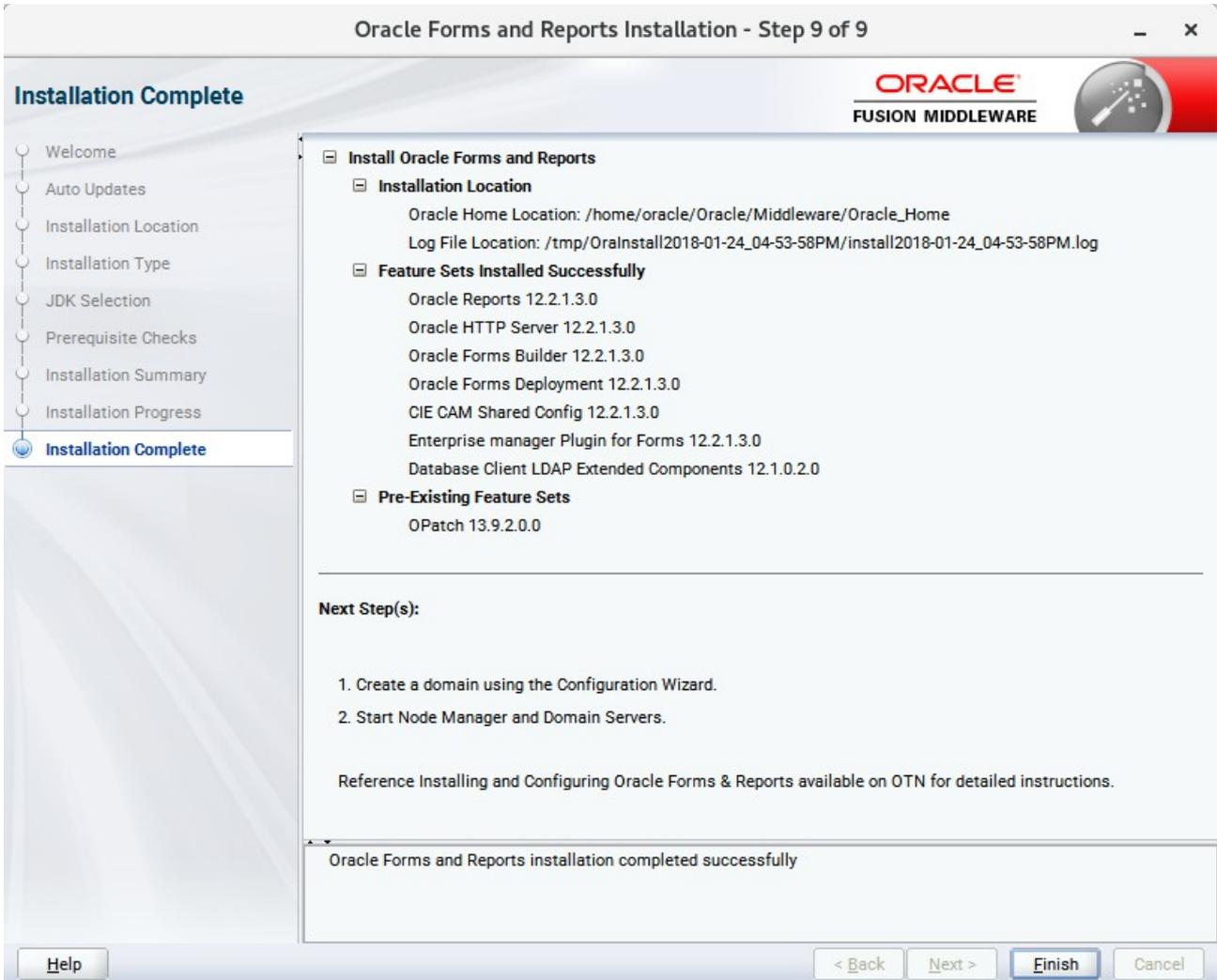
This page shows you what components and features are about to be installed. If you need to make changes, click **Back**, otherwise, click **Install** to start the installation.

8). The **Installation Progress** page appears.



This page shows you the progress of the installation, and will warn you if there are any problems. You can view messages and logs from this page, but typically no action is required here. When progress is complete, click **Next** (go to a Summary page). Alternatively, you can click **Finish**.

9). If you clicked **Next**, the **Installation Complete** page appears, showing you the components that have been installed.

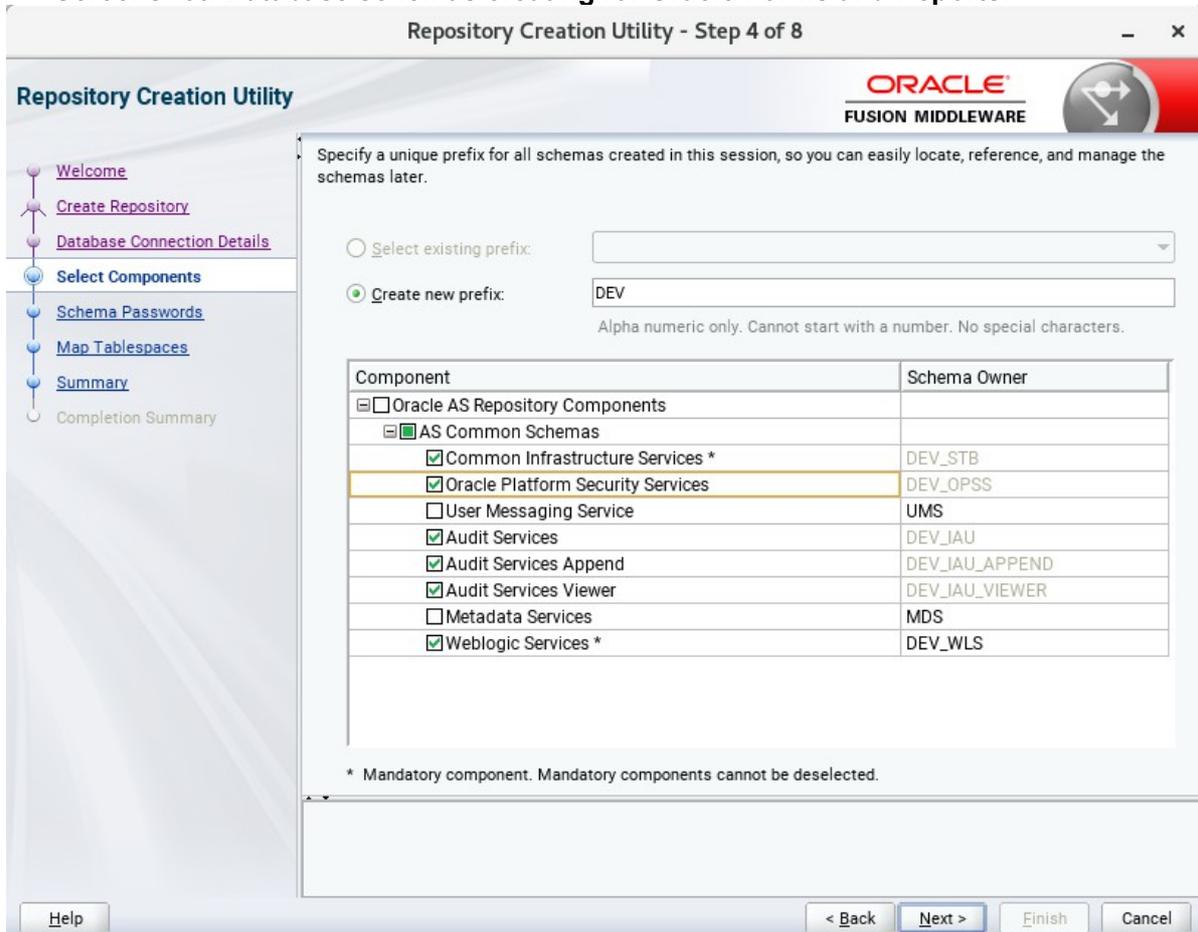


Click **Finish** to dismiss the installer.

## 2. Creating Oracle Database Schema through Repository Creation Utility(RCU)

2-1. Repository Creation Utility (RCU) is available with the Oracle WebLogic Server 12cR2 Fusion Middleware Infrastructure distribution. Run `$FMW_HOME/oracle_common/bin/rcu` and create required database schemas for Oracle Forms and Reports.

**Screenshot: Database schemas creating for Oracle Forms and Reports.**



Select the **Create new prefix** radio button and provide a schema prefix (such as DEV). Select the following components: **Common Infrastructure Services\***, **Oracle Platform Security Services**, **Audit Services**, **Audit Services Append**, **Audit Services Viewer** and **Weblogic Services\***. Ensure the schema creation is successful.

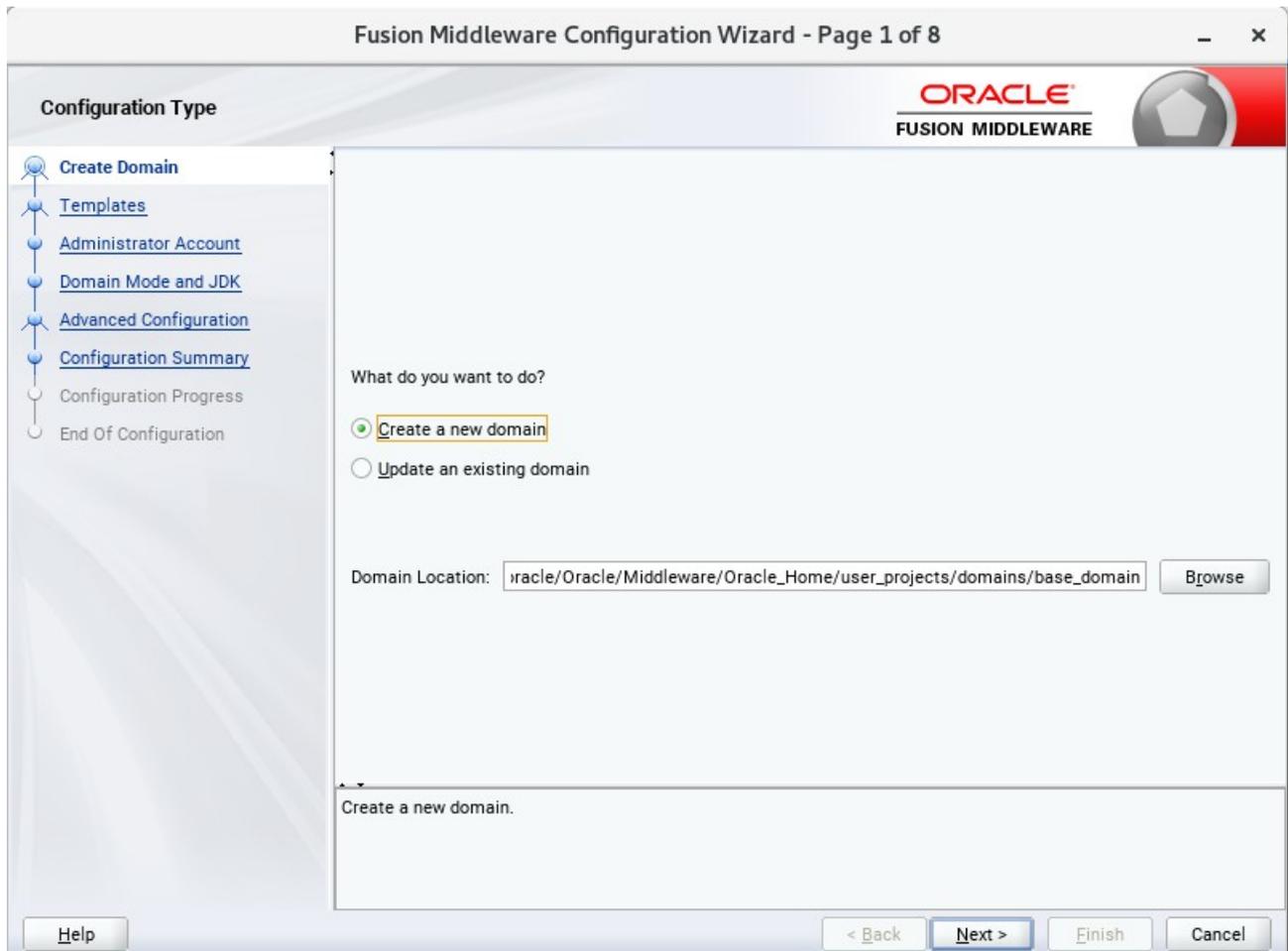
(**Note:** If Forms Application Deployment Services (FADS) is also planned to be configured, include **User Messaging Services (UMS)**.)

### 3. Configuring Oracle Forms and Reports using the Config Wizard

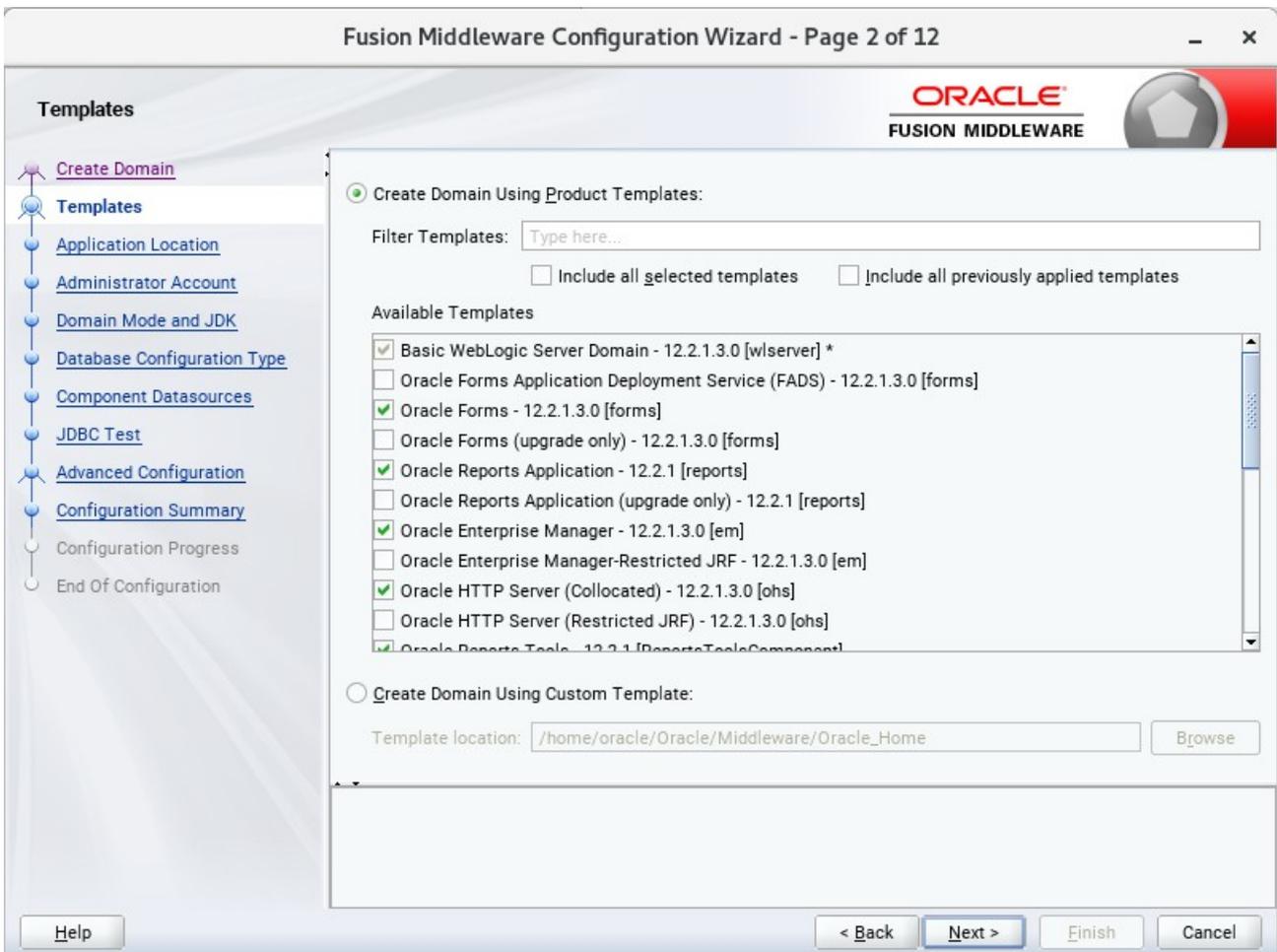
3-1. In order to complete the configuration. Run the config wizard using `config.sh` located in the `ORACLE_HOME/oracle_common/common/bin` directory.

Follow these steps:

- 1). Choose **Create a new domain**, and enter the desired domain home path.



2). The **Templates** screen appears.

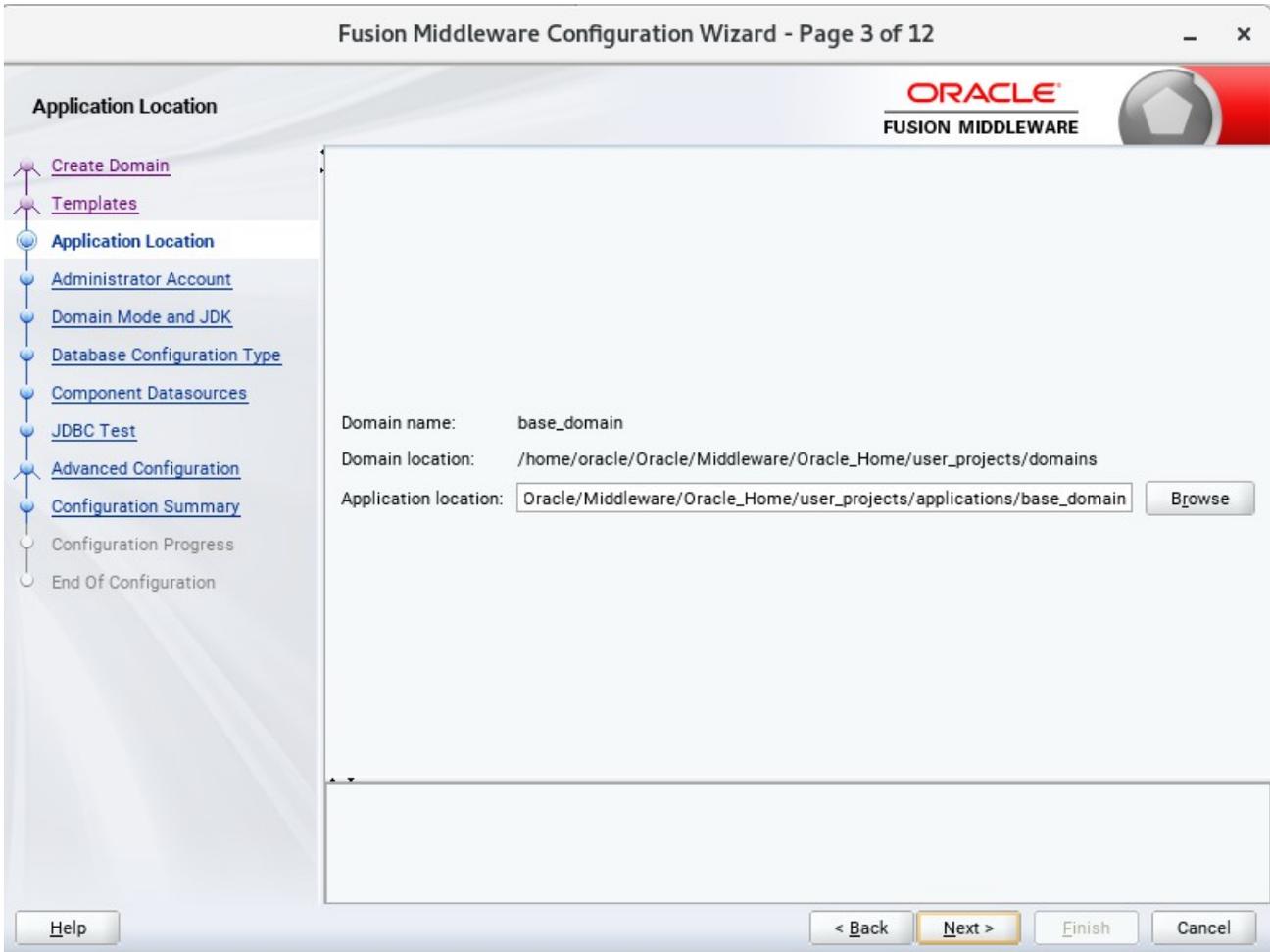


Keep the default selection (**Create Domain using Product Templates**). Select

- Oracle Forms – 12.2.1.3.0 [forms],**
- Oracle Reports Server – 12.2.1 [ReportsServerComponent],**
- Oracle Reports Tools – 12.2.1 [ReportsServerComponent],**
- Oracle Reports Bridge – 12.2.1 [ReportsServerComponent],**
- Oracle Reports Application – 12.2.1 [reports]**
- and **Oracle HTTP Server(Collocated) – 12.2.1.3.0 [ohs]**.

Any dependent templates will be automatically selected. Click **Next** to continue.

3). The **Application Location** screen appears.



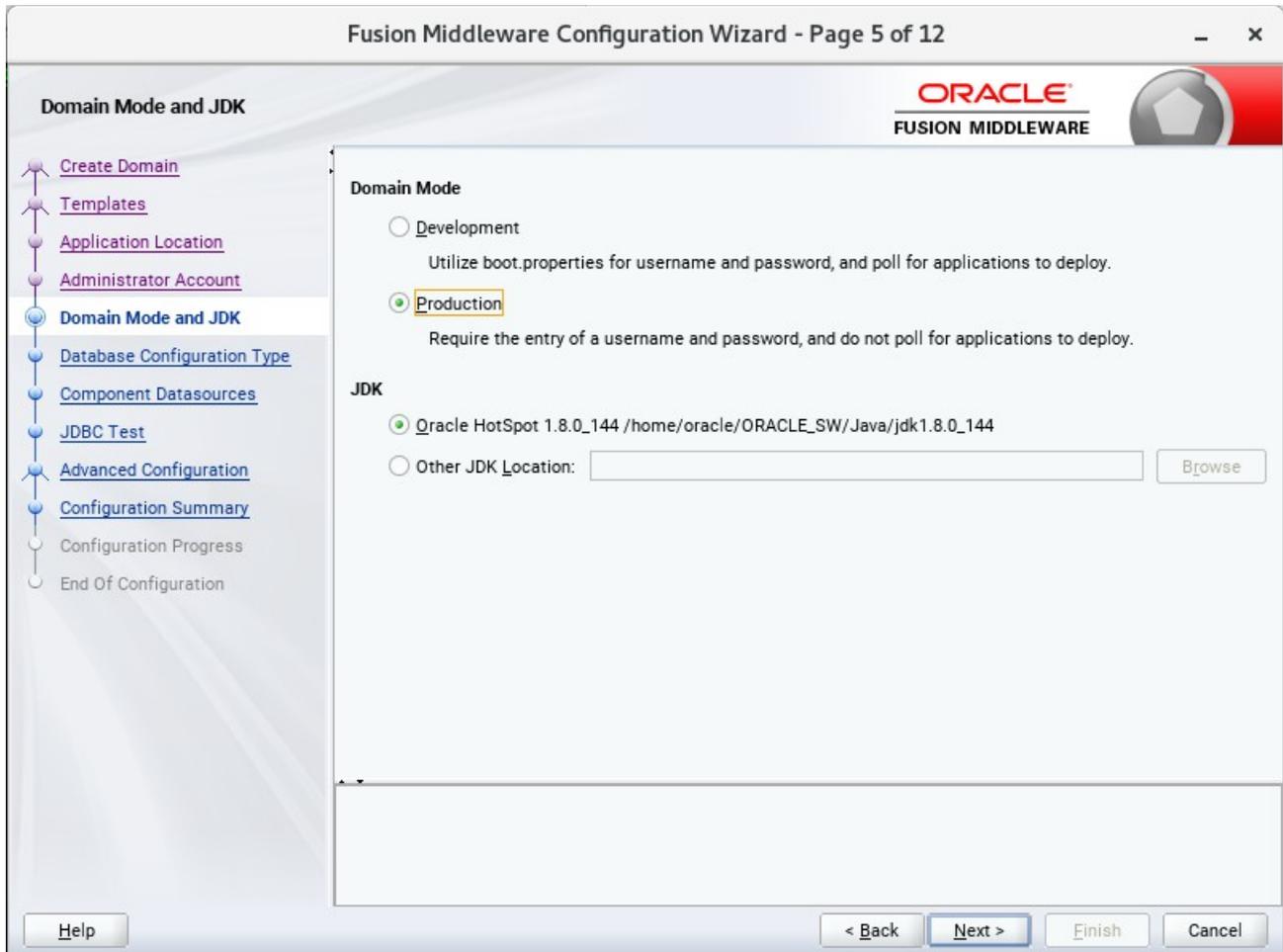
Keep the default value for Application location. Click **Next** to continue.

4). The **Administrator Account** screen appears.

The screenshot shows the 'Administrator Account' configuration screen in the Fusion Middleware Configuration Wizard. The window title is 'Fusion Middleware Configuration Wizard - Page 4 of 12'. The Oracle logo and 'FUSION MIDDLEWARE' text are visible in the top right corner. The left navigation pane lists the following steps: Create Domain, Templates, Application Location, Administrator Account (selected), Domain Mode and JDK, Database Configuration Type, Component Datasources, JDBC Test, Advanced Configuration, Configuration Summary, Configuration Progress, and End Of Configuration. The main content area contains three input fields: 'Name' with the value 'weblogic', 'Password' with masked characters '.....', and 'Confirm Password' with masked characters '.....'. Below the input fields, a note states: 'Must be the same as the password. Password must contain at least 8 alphanumeric characters with at least one number or special character.' The bottom of the screen features a 'Help' button on the left and '< Back', 'Next >', 'Finish', and 'Cancel' buttons on the right.

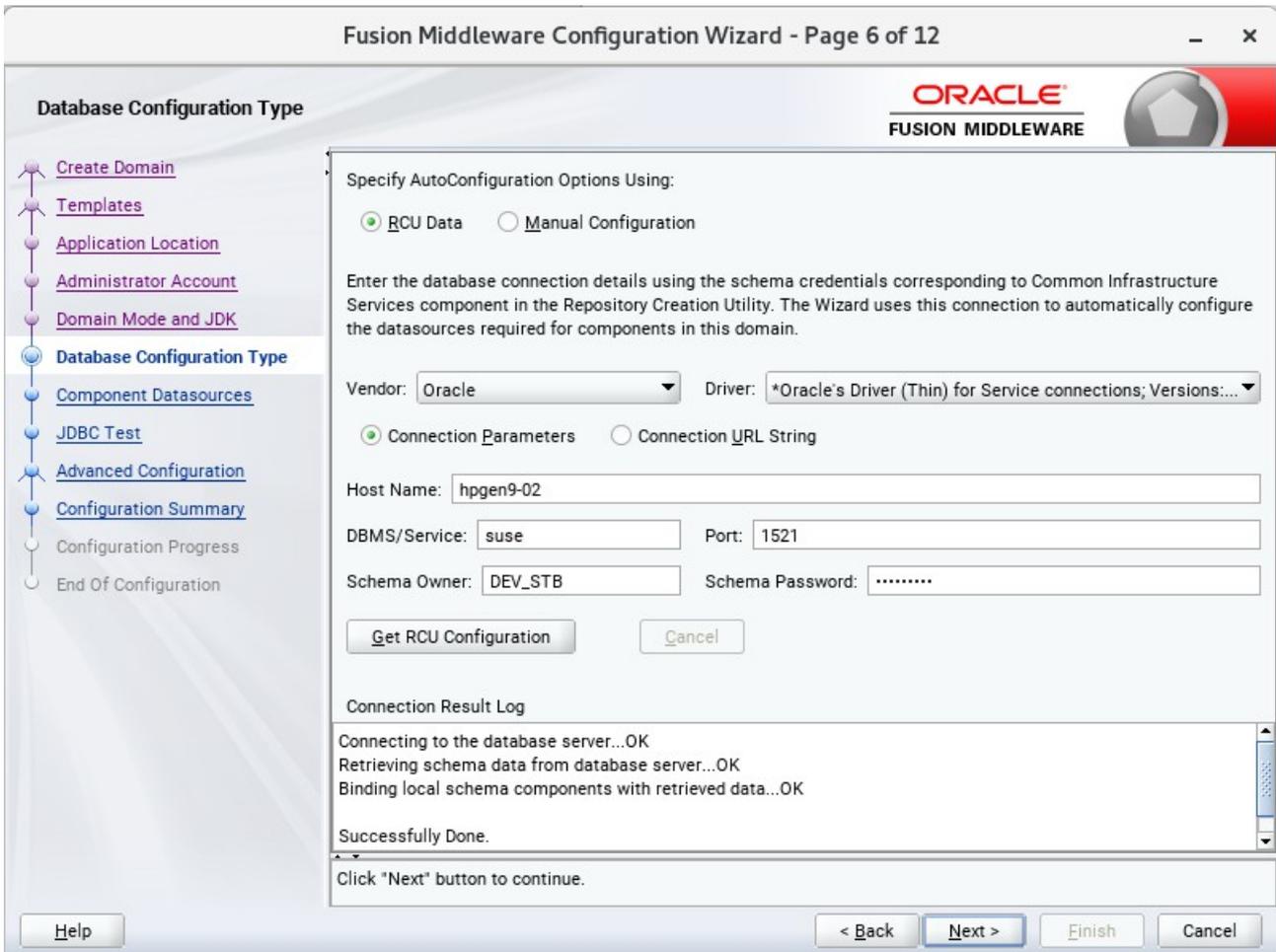
Enter the WebLogic Domain administration username and password. This information will be needed to access WebLogic Server Control and Fusion Middleware Control. Click **Next** to continue.

5). The **Domain Mode and JDK** screen appears.



The Domain Mode and JDK screen appears. Select the Domain Mode (either **Development** or **Production**). To ensure the highest degree of security, selecting **Production** is recommended. Leave the default JDK selection as it appears, unless using another version of the JDK desired.

6). The **Database Configuration Type** screen appears.



Enter the RCU DB connection information, then click **Get RCU Configuration**. You should receive a success message. Click **Next** to continue.

7). The **JDBC Component Schema** screen appears.

**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 Pas...
<input type="checkbox"/>	LocalSvcTbl Schema	SUSE	hpgen9-02	1521	DEV_STB	.....
<input type="checkbox"/>	WLS Schema	SUSE	hpgen9-02	1521	DEV_WLS_RUNTIME	.....
<input type="checkbox"/>	OPSS Audit Schema	SUSE	hpgen9-02	1521	DEV_IAU_APPEND	.....
<input type="checkbox"/>	OPSS Audit Viewer Sche	SUSE	hpgen9-02	1521	DEV_IAU_VIEWER	.....
<input type="checkbox"/>	OPSS Schema	SUSE	hpgen9-02	1521	DEV_OPSS	.....

Help

Our instructions assume each Repository schema uses the same password. If not, enter the correct schema passwords. Click **Next** to continue.

8). The **JDBC Component Schema Test** screen appears.

**Fusion Middleware Configuration Wizard - Page 8 of 12**

**JDBC Component Schema Test**

ORACLE  
FUSION MIDDLEWARE

Status	Component Schema	JDBC Connection URL
✓	LocalSvcTbl Schema	jdbc:oracle:thin:@//hpgen9-02:1521/SUSE
✓	WLS Schema	jdbc:oracle:thin:@//hpgen9-02:1521/SUSE
✓	OPSS Audit Schema	jdbc:oracle:thin:@//hpgen9-02:1521/SUSE
✓	OPSS Audit Viewer Schema	jdbc:oracle:thin:@//hpgen9-02:1521/SUSE
✓	OPSS Schema	jdbc:oracle:thin:@//hpgen9-02:1521/SUSE

Test Selected Connections Cancel Testing

Connection Result Log

```

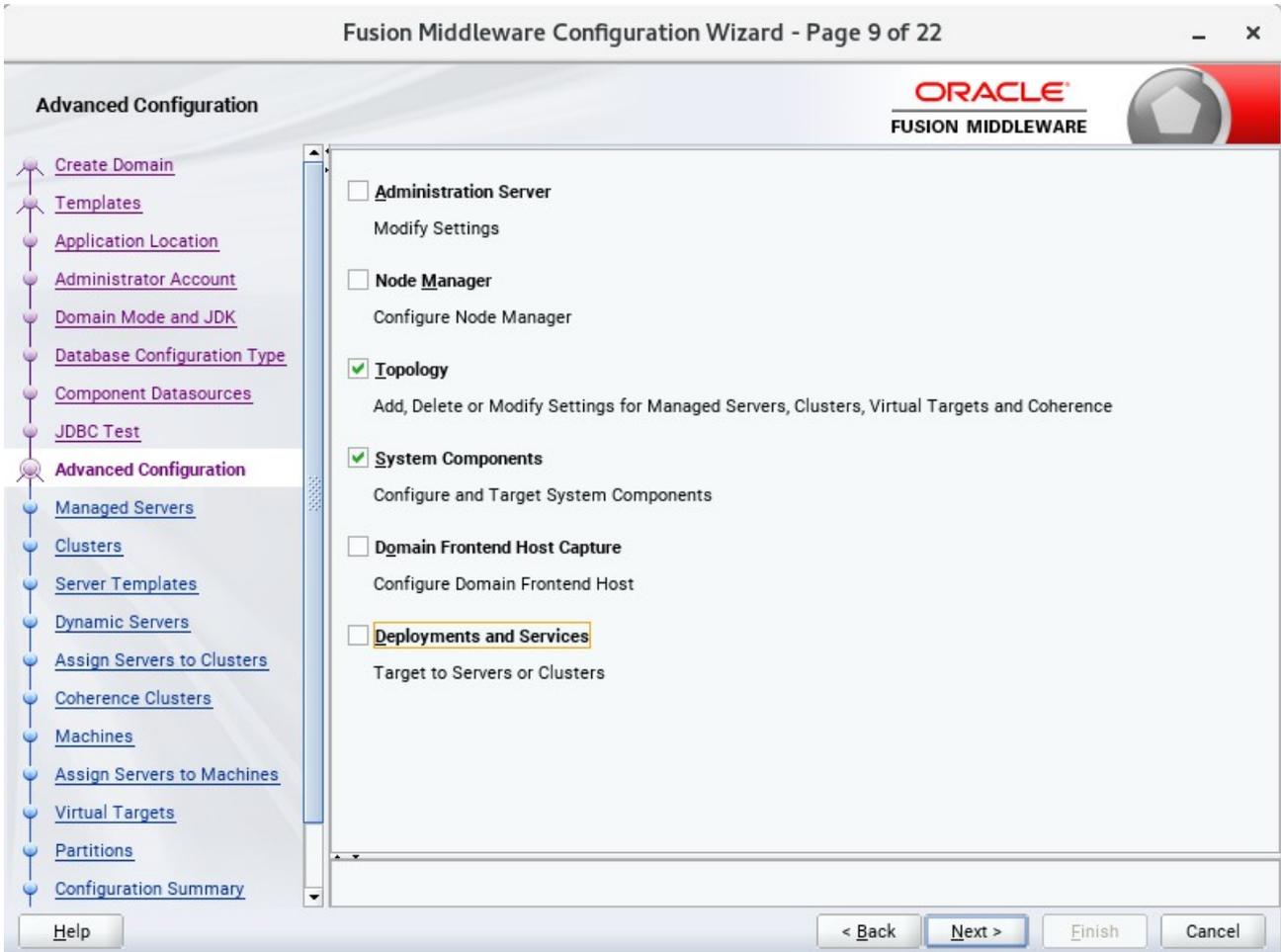
Component Schema=LocalSvcTbl Schema
Driver=oracle.jdbc.OracleDriver
URL=jdbc:oracle:thin:@//hpgen9-02:1521/SUSE
User=DEV_STB
Password=*****
SQL Test=SELECT 1 FROM DUAL

CFGFWK-64213: Test Successful!
CFGFWK-64213: JDBC connection test was successful.
    
```

Help < Back Next > Finish Cancel

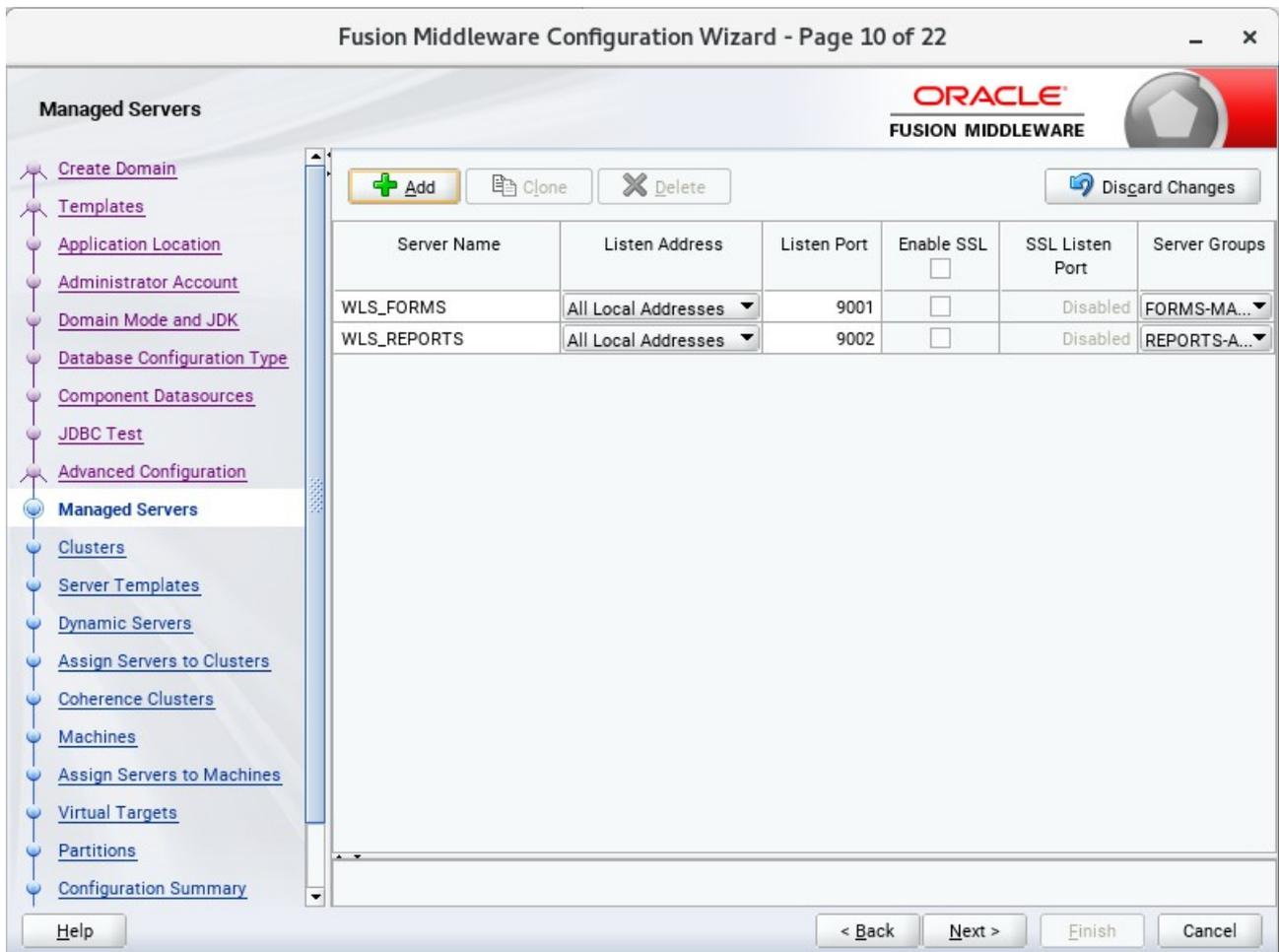
The tests are run and the results given. Ensure all test results are successful. Click **Next** to continue.

9). The **Advanced Configuration** screen appears.



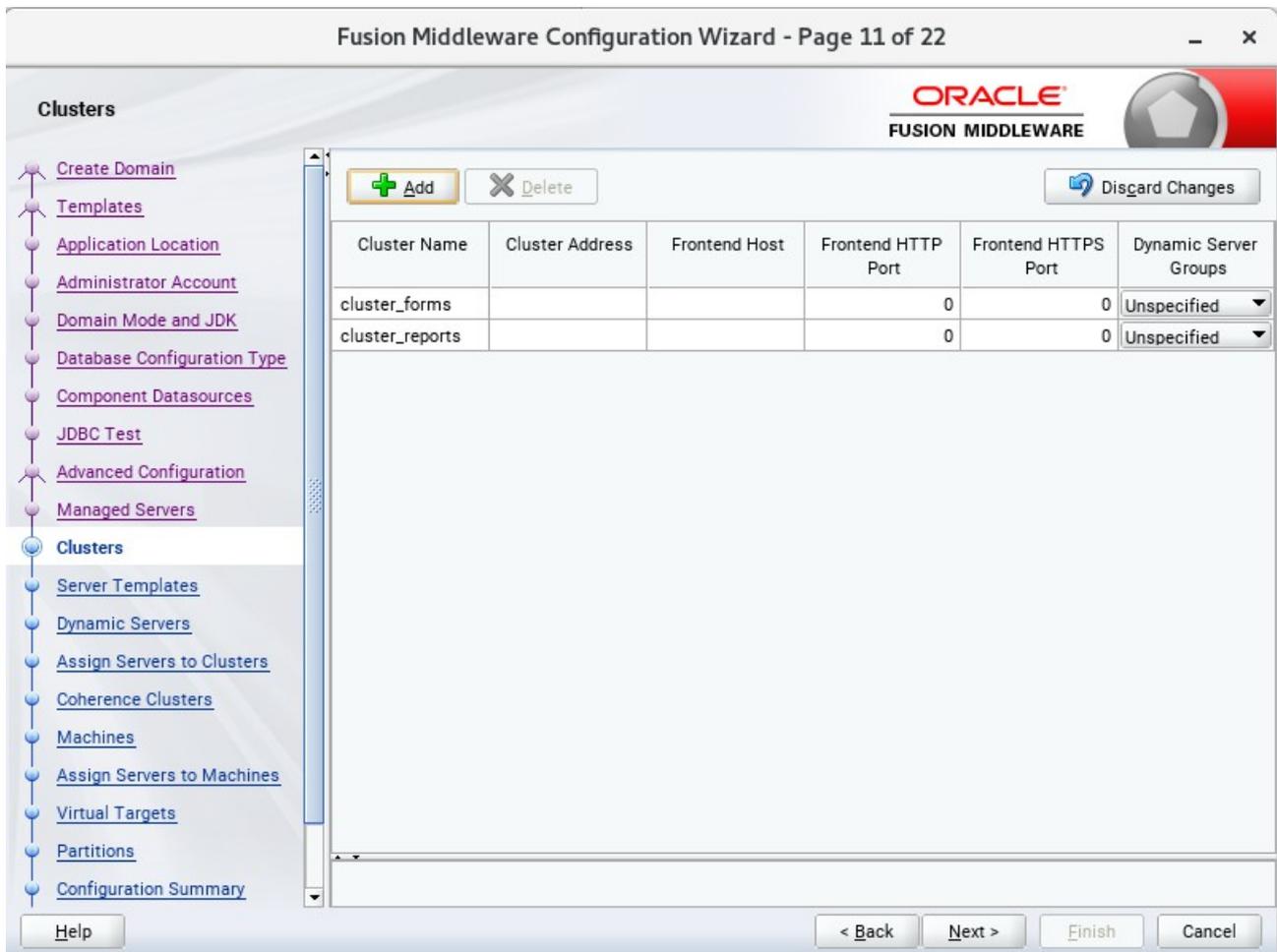
Select **Topology** and **System Components**. Click **Next** to continue.

10). The **Managed Servers** screen appears.



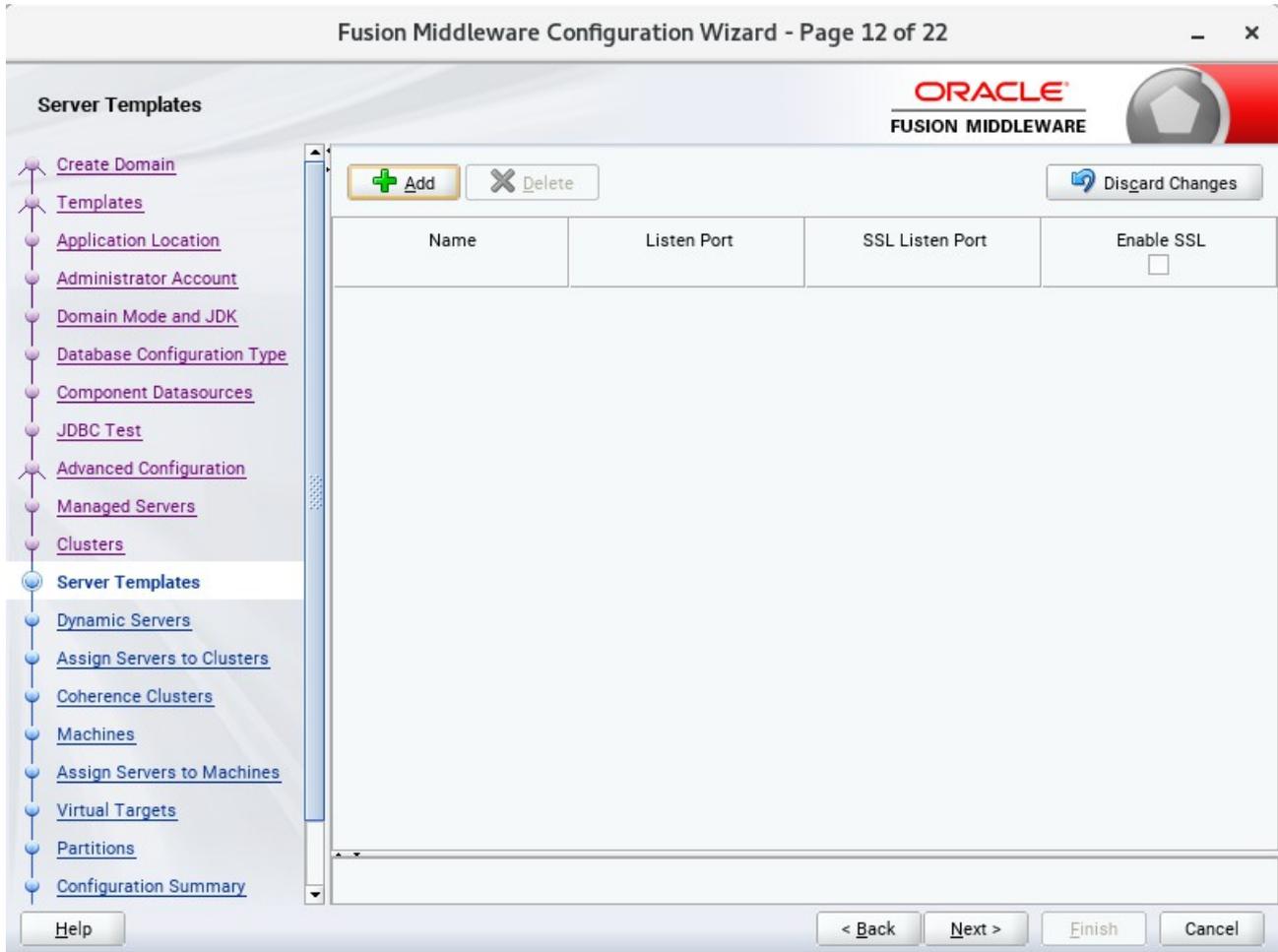
Verify that the Server Groups is set to FORMS-MAN-SVR (for Forms) and REPORTS-APP-SERVERS (for Reports). The Listen address is All Local Addresses. Click **Next** to continue.

11). The **Clusters** screen appears.



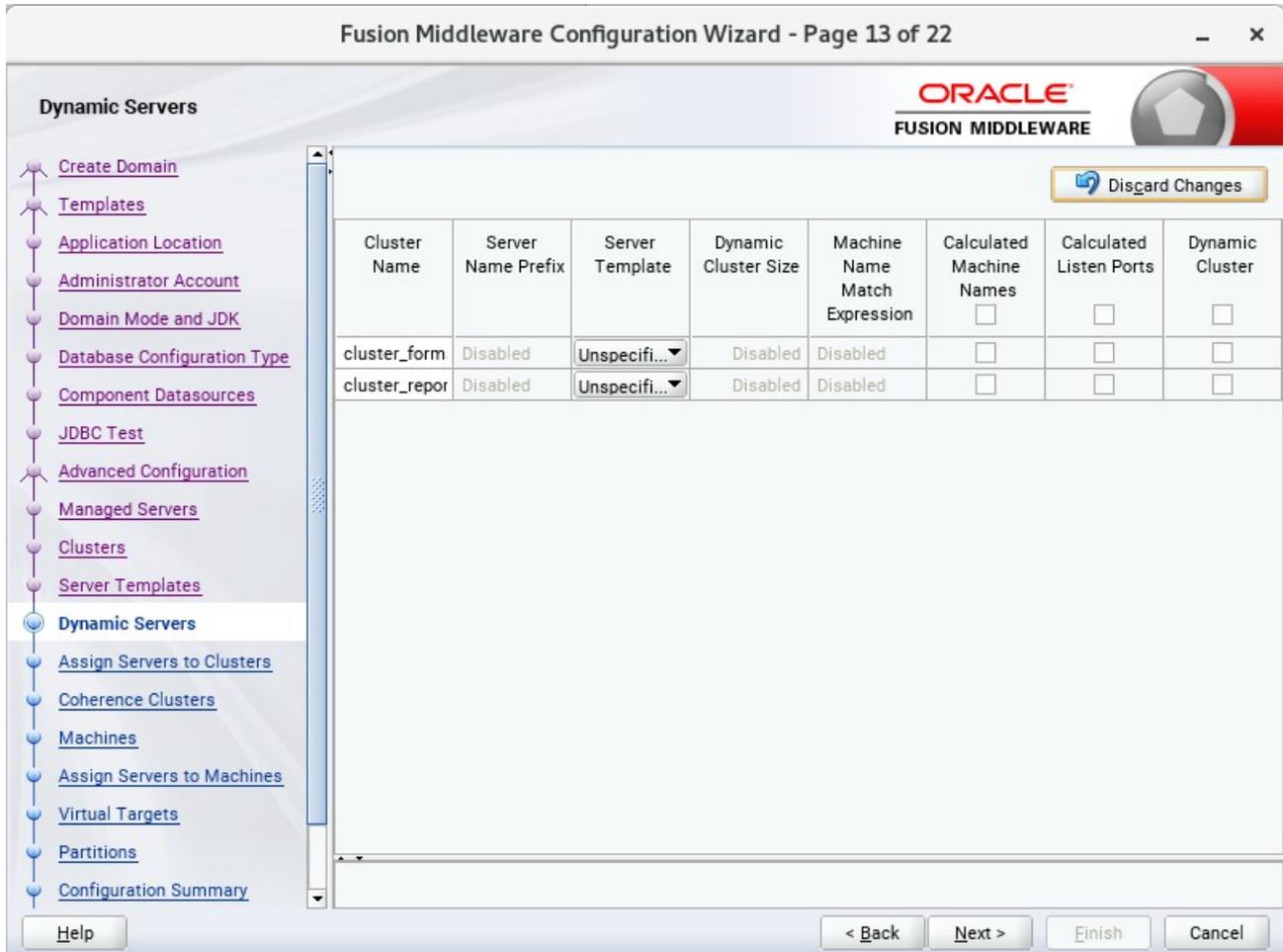
Default entries will be acceptable in most cases, unless adding new clusters is desirable. Click **Next** to continue.

12). Then **Server Templates** screen appears.



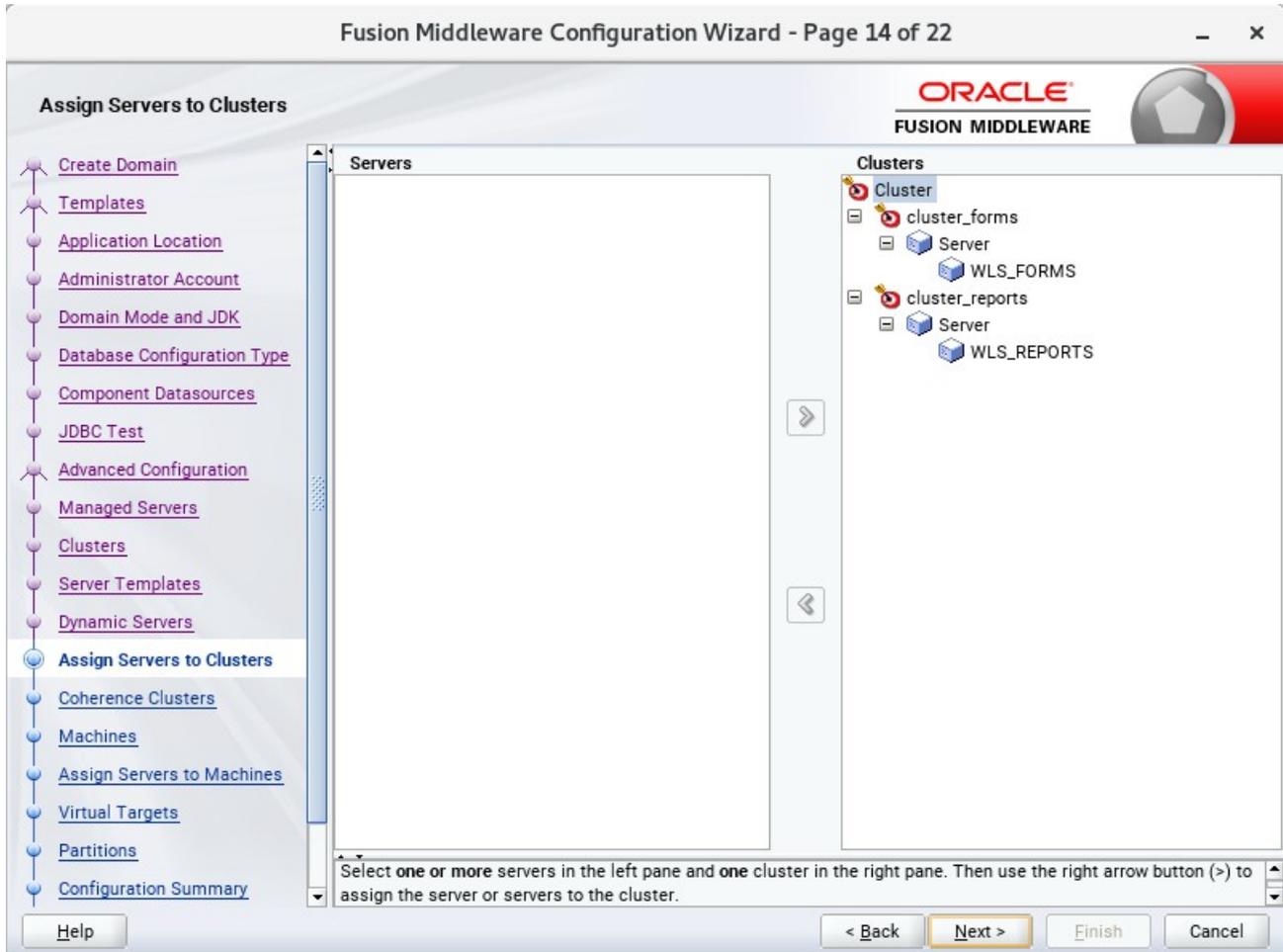
The default values will be appropriate for most cases. Click **Next** to continue.

13). The **Dynamic Servers** screen appears.



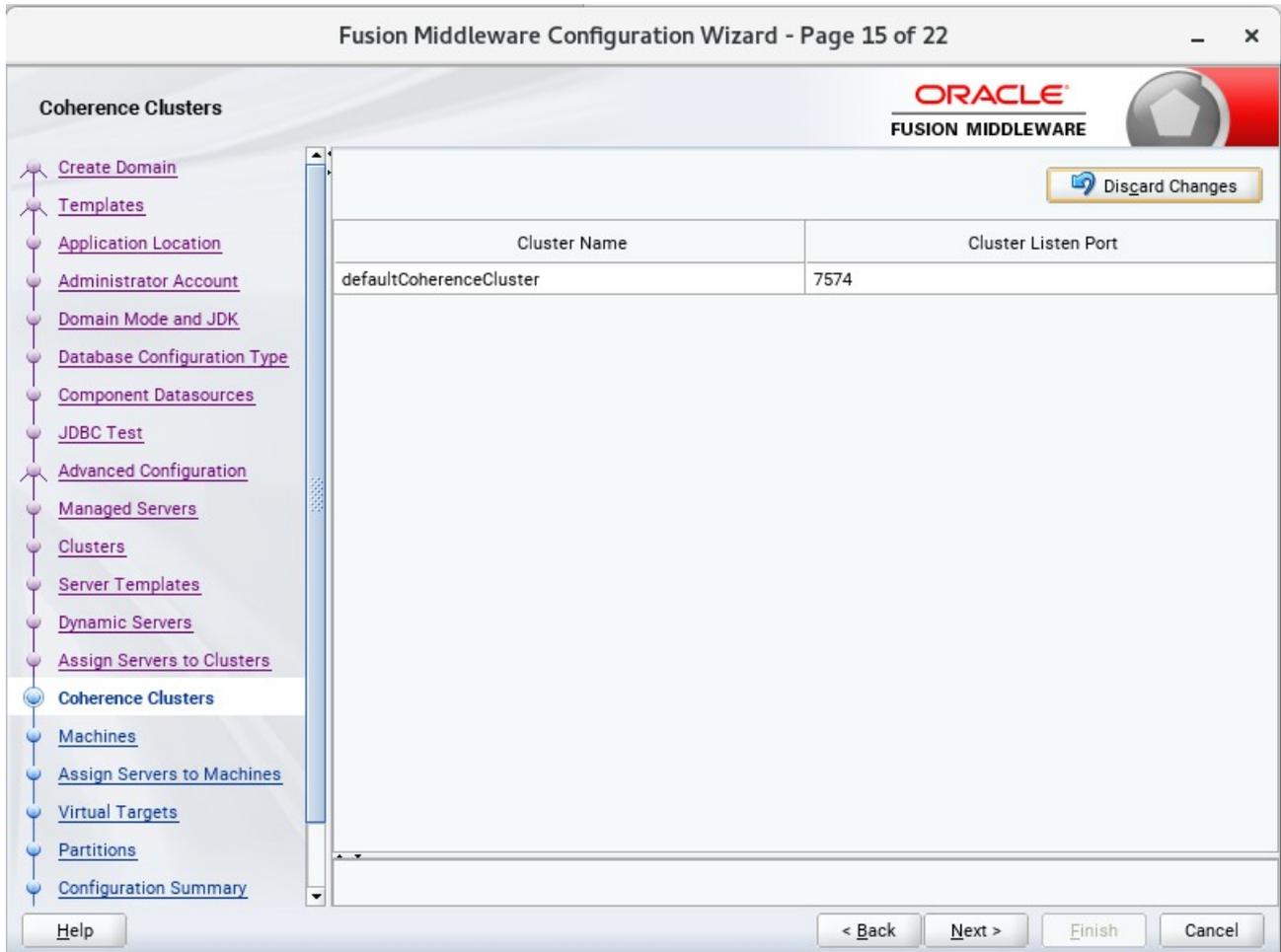
The default values will be appropriate for most cases. Click **Next** to continue.

14). The **Assign Servers to Clusters** screen appears.



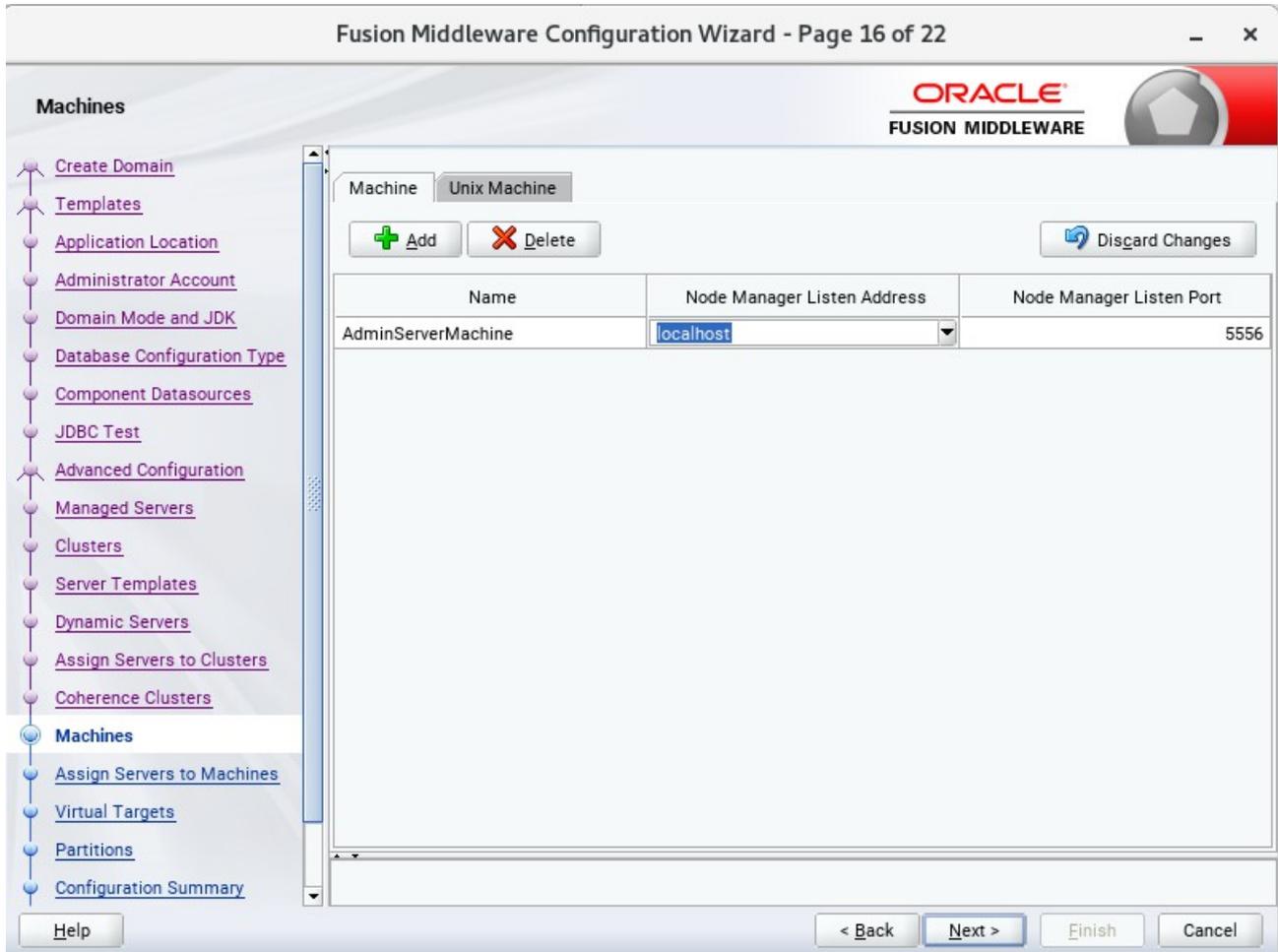
The default values will be appropriate for most cases. However, if new managed servers were added in the previous step, they should be added to the cluster here. Click **Next** to continue.

15). The **Coherence Clusters** screen appears.



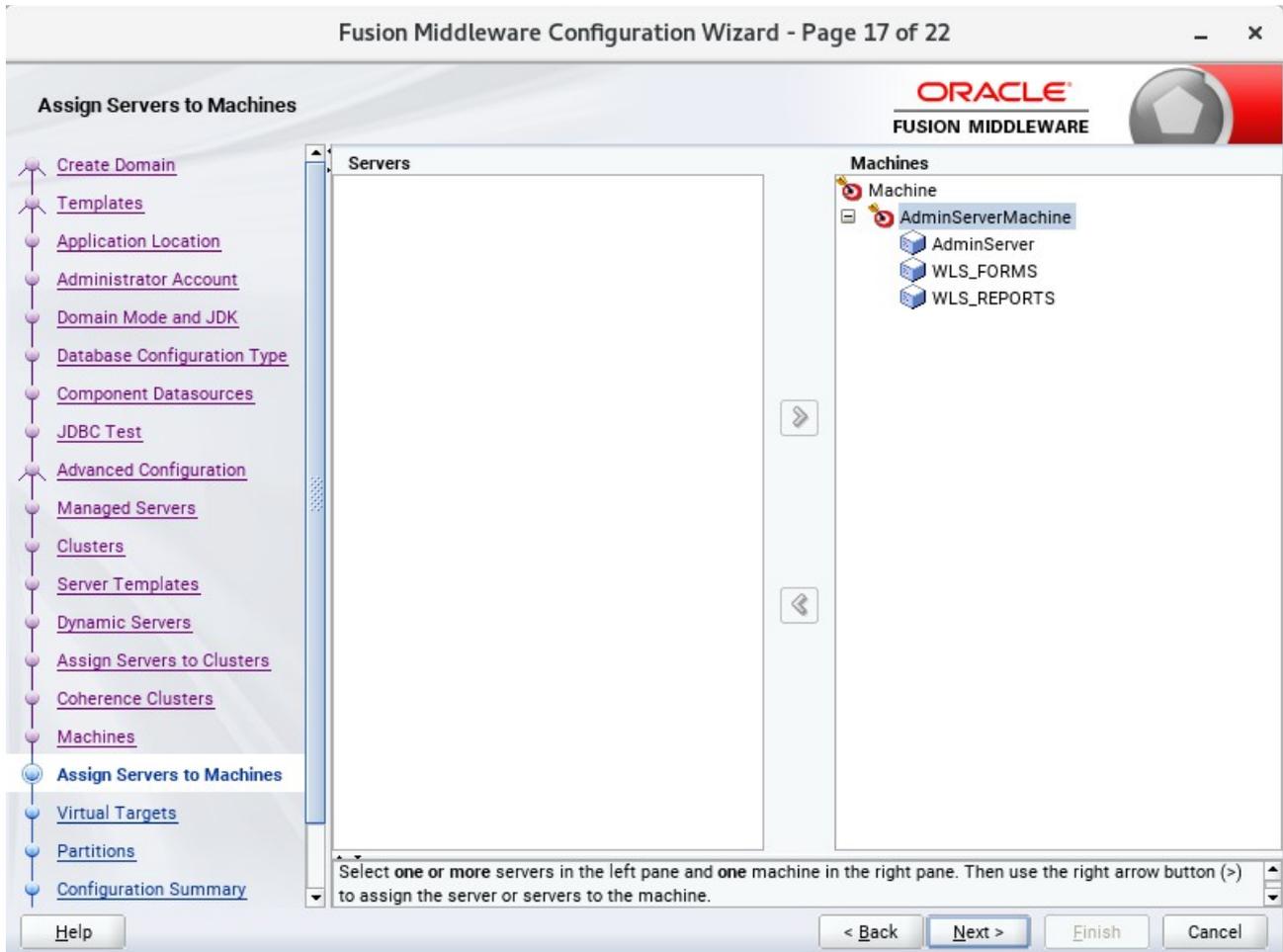
The default values will be appropriate for most cases. Click **Next** to continue.

16). The **Machines** screen appears.



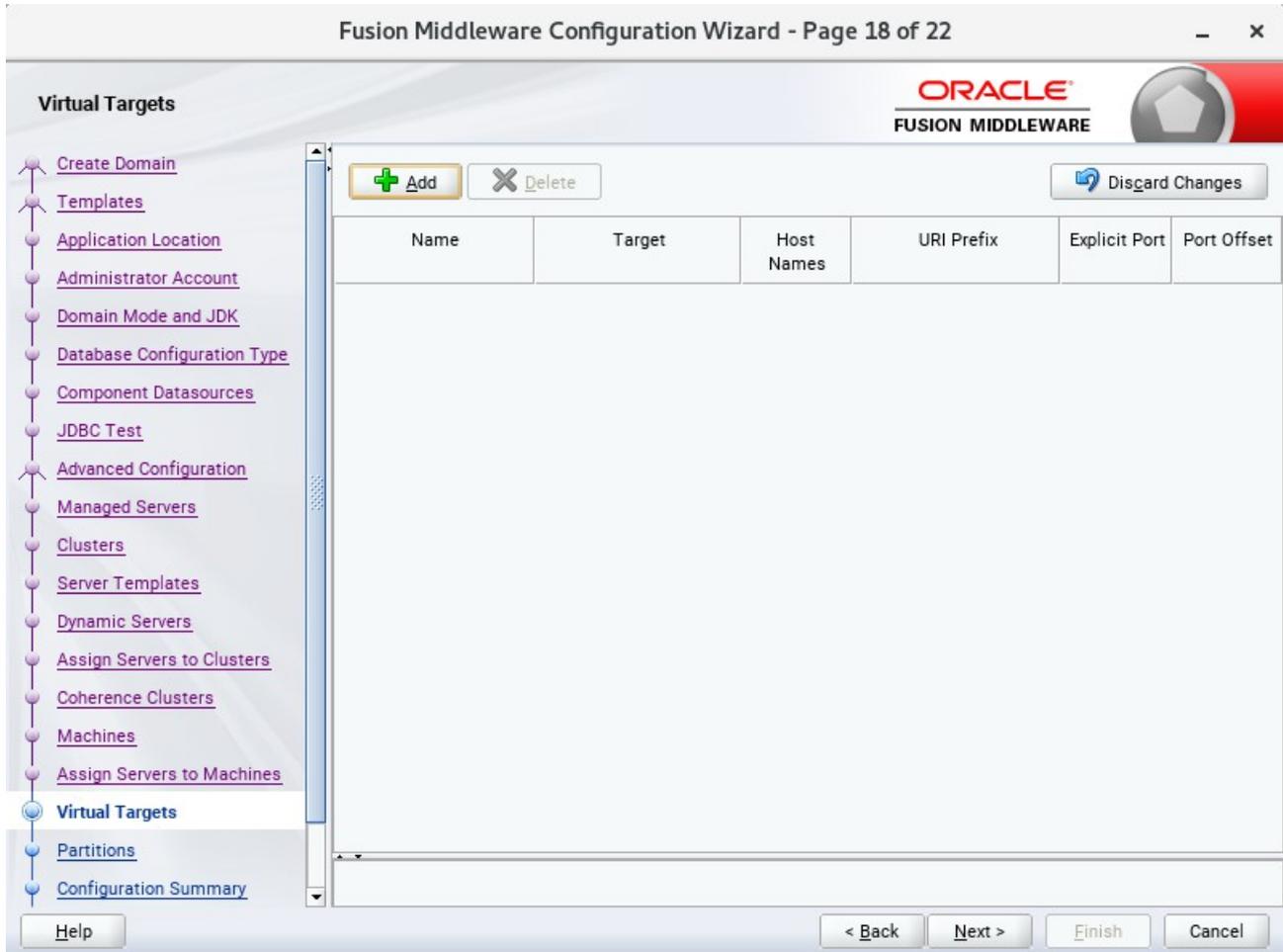
You can use this screen to override the machine name or add additional Machine names for extended domain. Click **Next** to continue.

17). The **Assign Servers to Machines** screen appears.



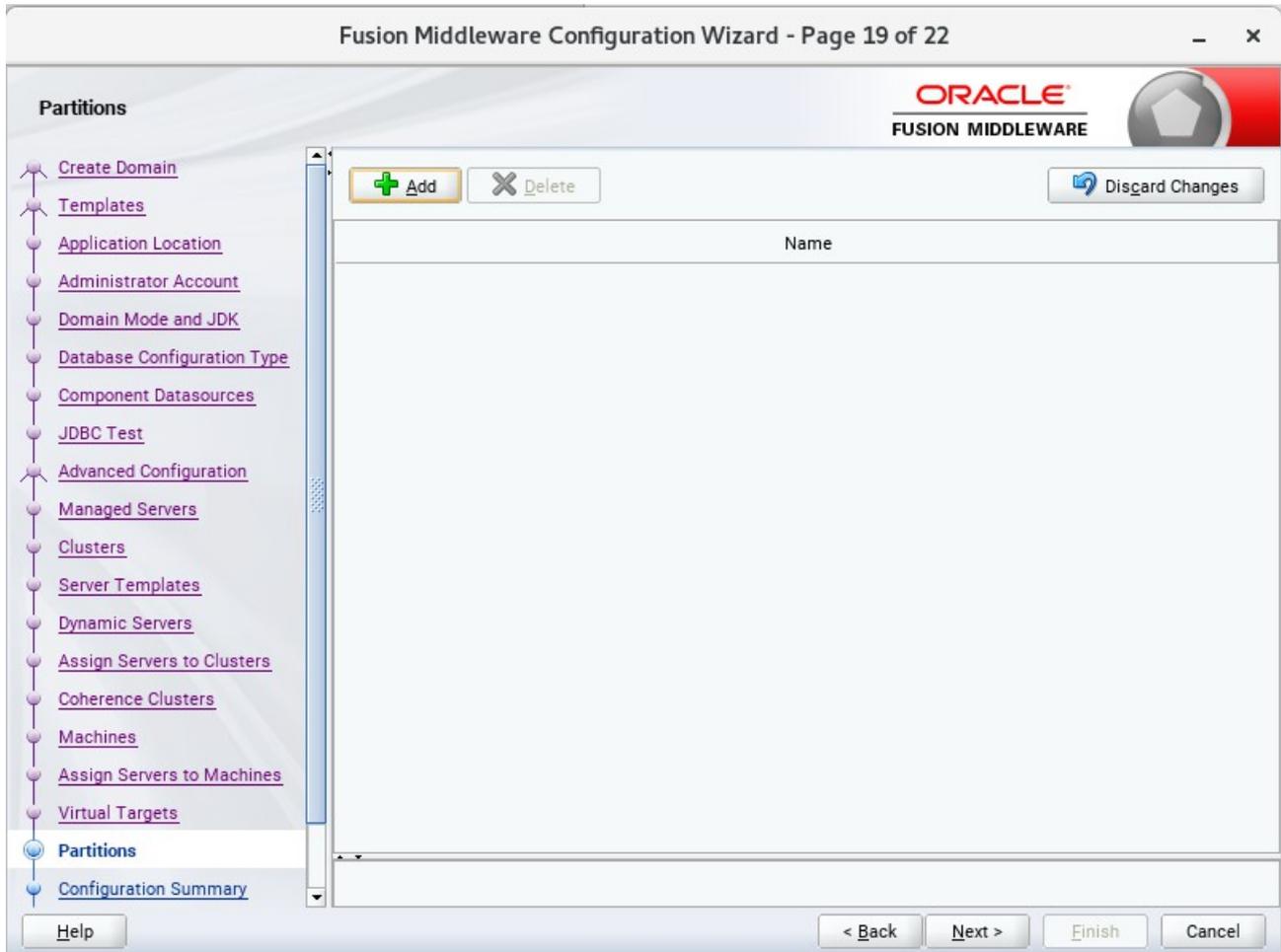
Move the AdminServer to the AdminServerMachine by clicking the '>' button. Click **Next** to continue.

18). The **Virtual Targets** screen appears.



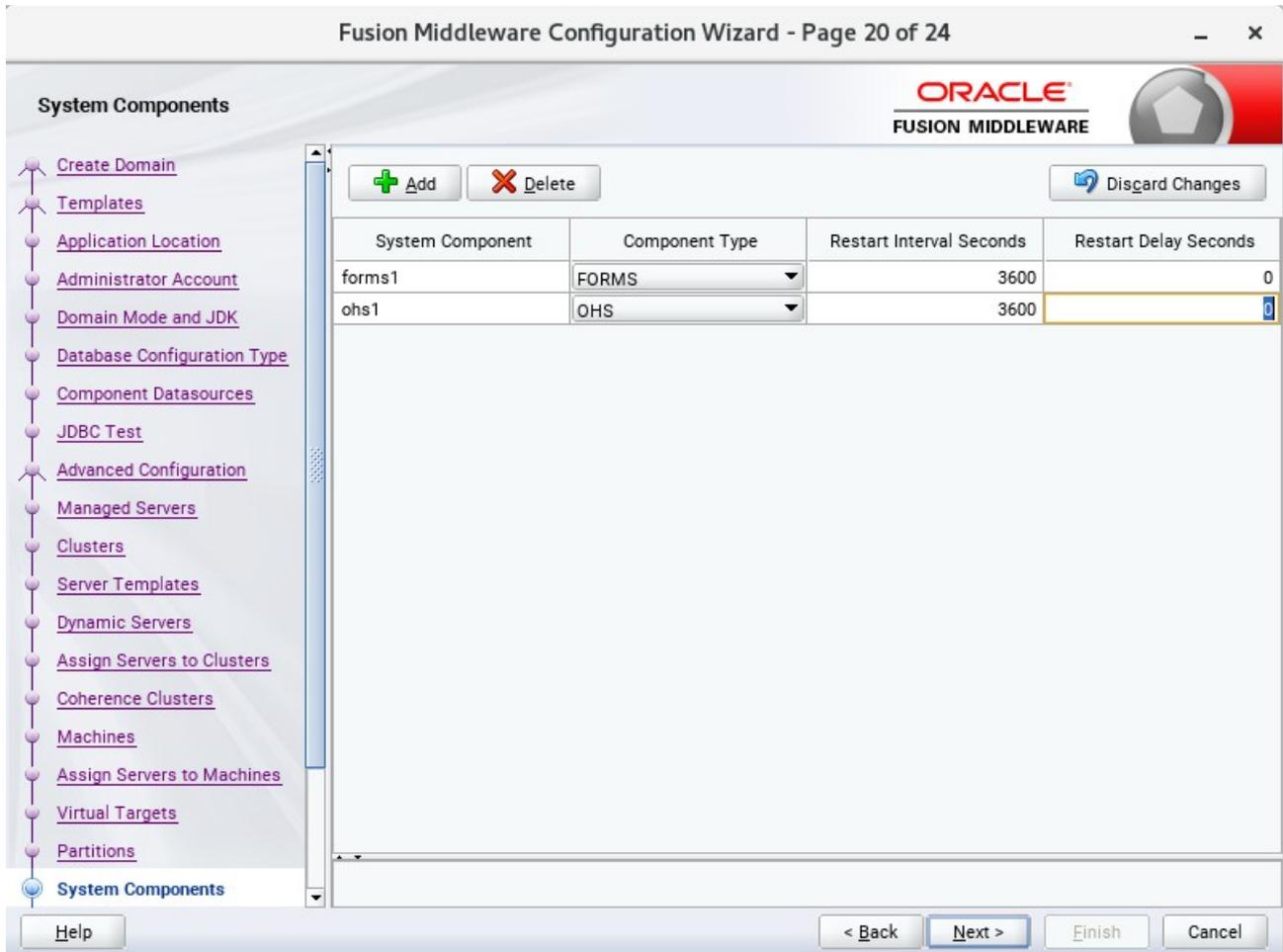
Used with WebLogic Server Partitions. Refer to the WebLogic Server documentation for details. Click **Next** to continue.

19). The **Partitions** screen appears.



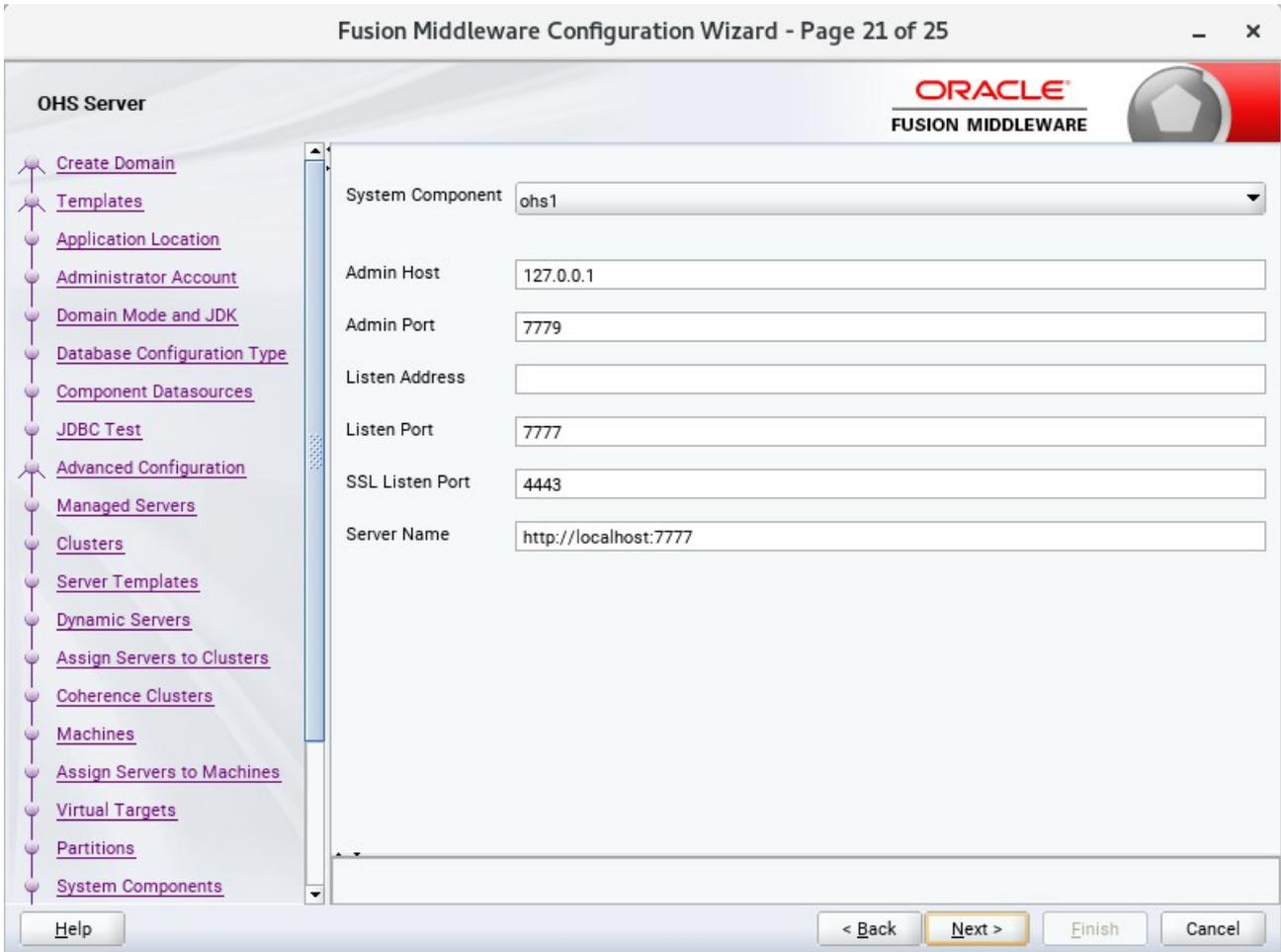
The Partitions screen appears. Use this screen to add Weblogic Partitions if desired. Refer to the WebLogic Server documentation for details on how to use Partitions. Click **Next** to continue.

20). The **System Components** screen appears.



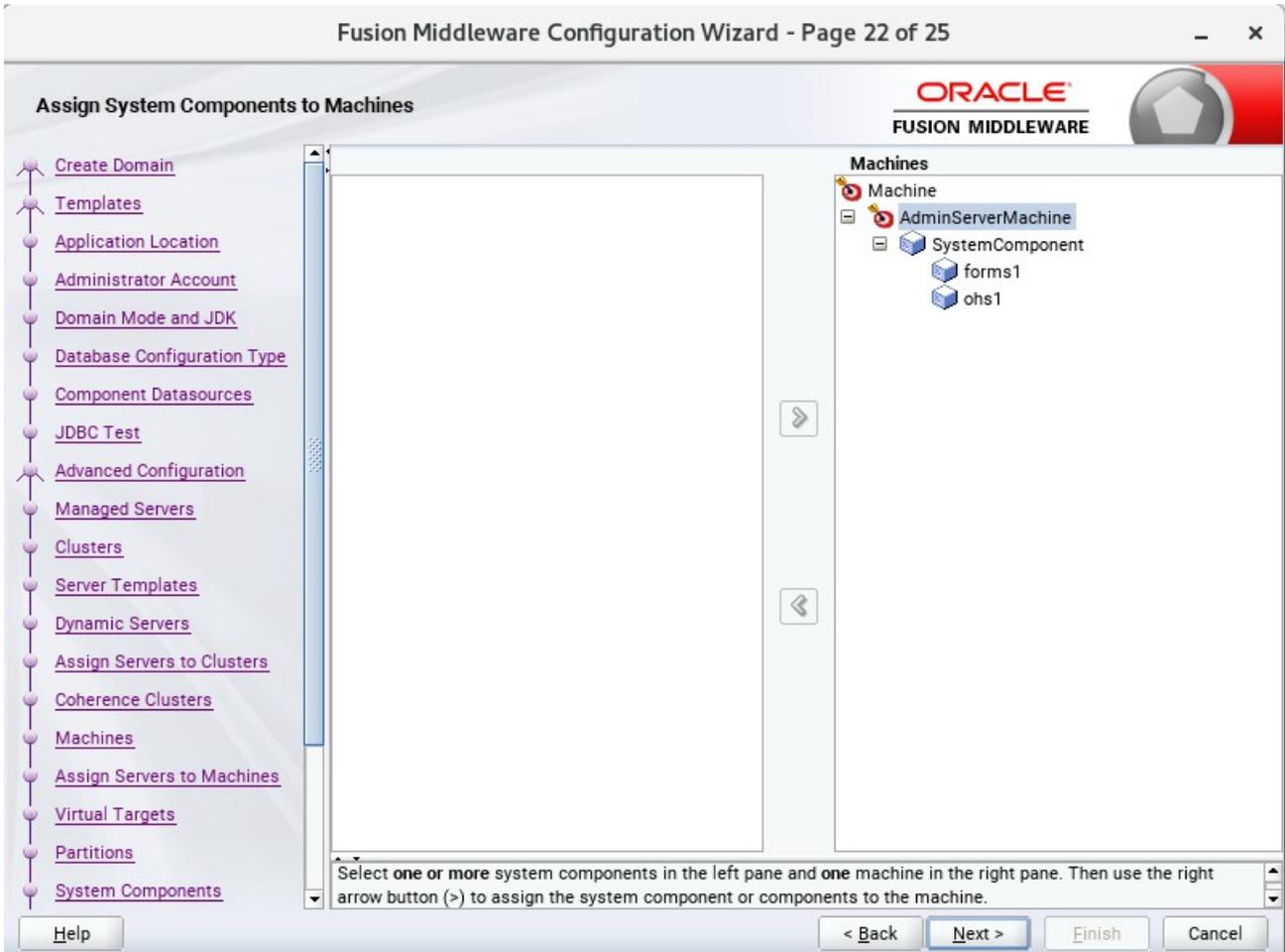
The default values will be appropriate for most cases. You can add additional System Component instances on this screen (for extend domain scenario). If adding OHS, it would appear here. Click **Next** to continue.

21). The **OHS Server** screen appears.



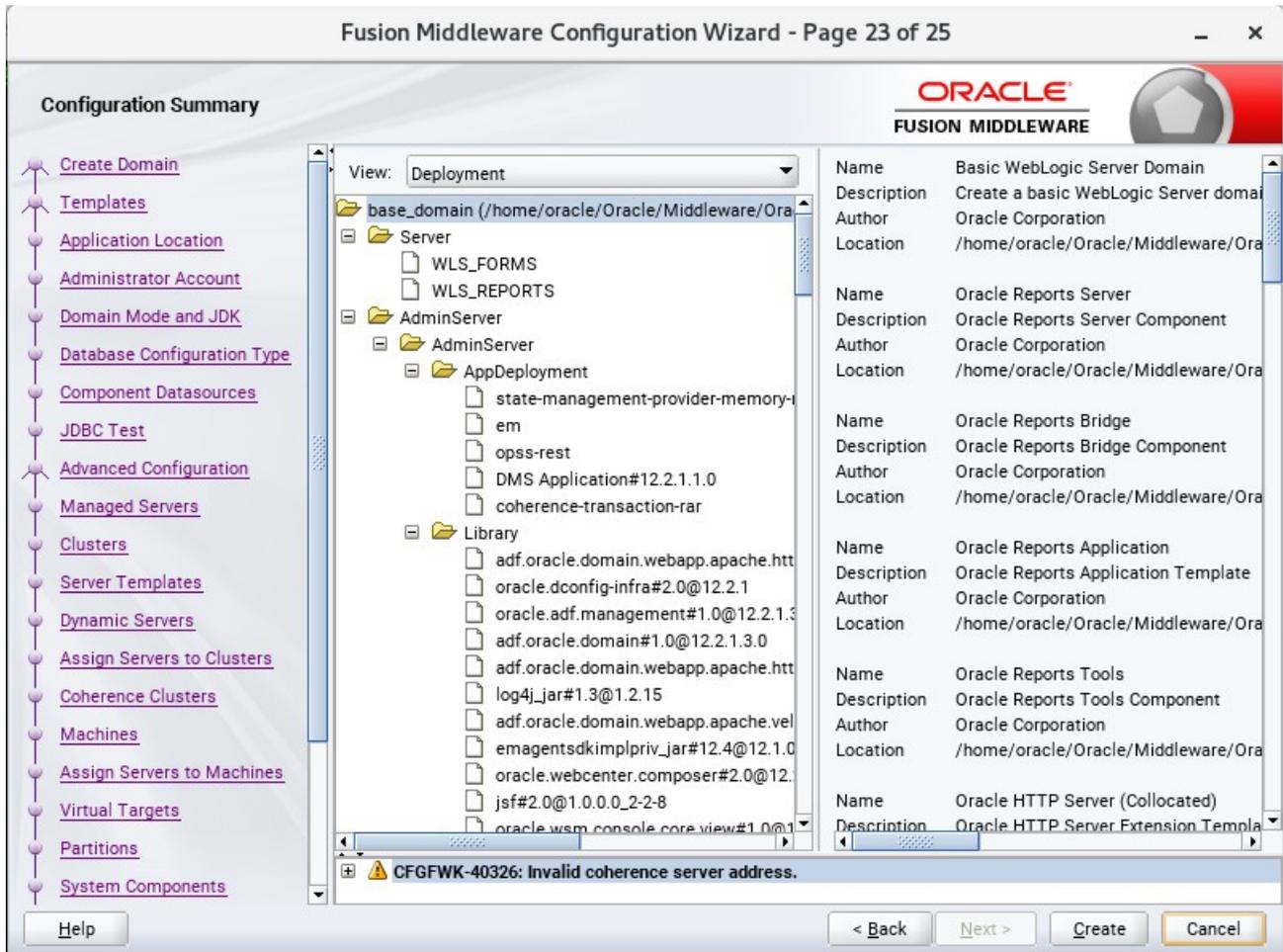
The default values will be appropriate for most cases. Click **Next** to continue.

22). The **Assign System Components** screen appears.



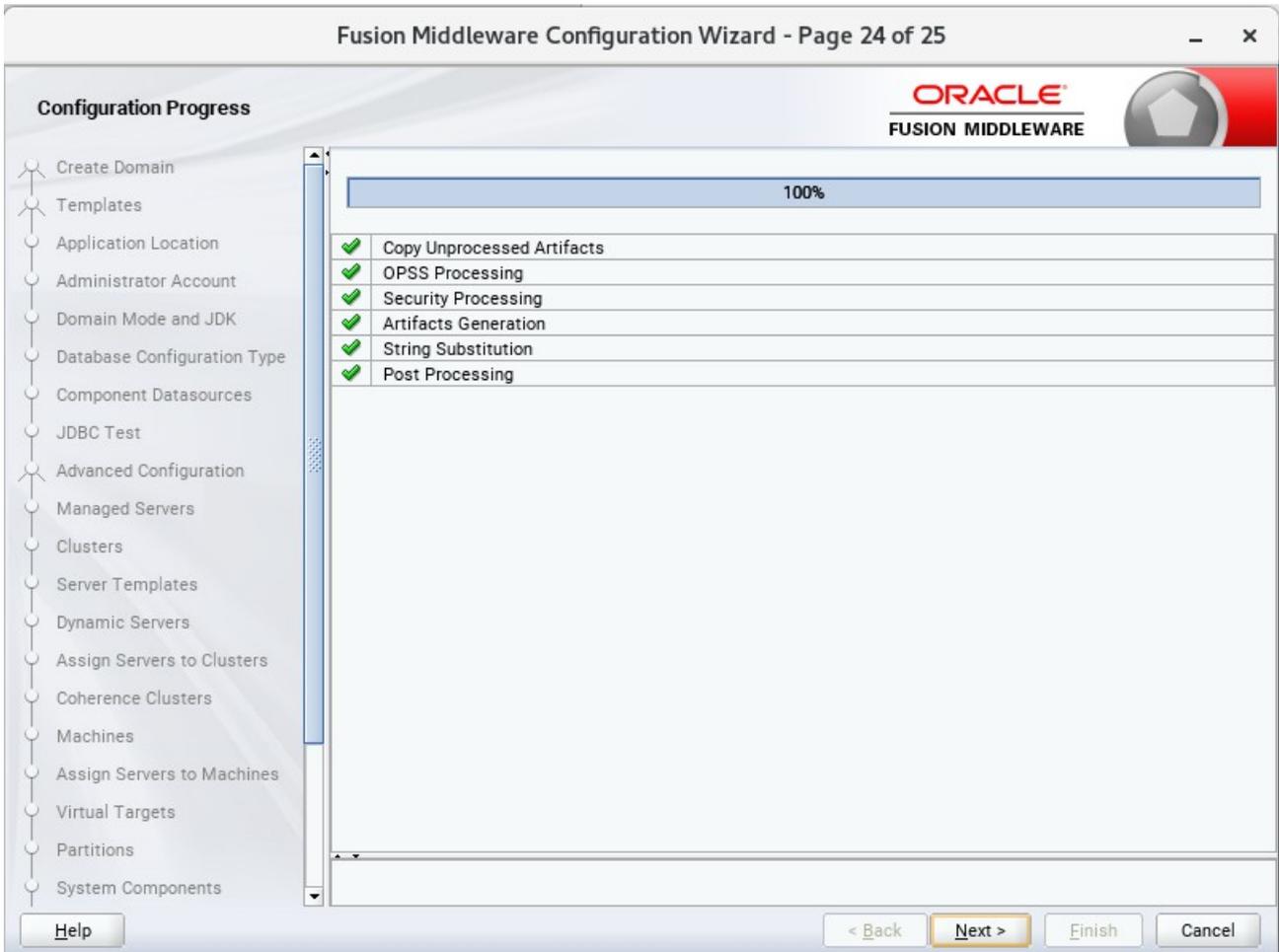
The default values will be appropriate for most cases. Click **Next** to continue.

23). The **Configuration Summary** screen appears.



Select **Create** to accept the above options and start creating and configuring a new domain.

24). The **Configuration Progress** screen appears.



Wait for this part of the configuration to complete. Depending on the location and performance of the Repository database, this process may take a few minutes. Click **Next** to continue.

25). The **End of Configuration** screen appears.



Once you see: "Oracle Weblogic Server Configuration Succeeded", record the '**Domain Location**' and '**Admin Server URL**', then click **Finish** to dismiss the Configuration Wizard.

## 4. Verifying Oracle Forms and Reports Installation and Configuration

4-1. Check for the presence of installation log files in logs directory inside your Oracle Inventory directory. Also, check the domain server logs, which are located in the servers directory inside the domain home directory.

4-2. Starting the Node Manager and the AdminServer.

**Starting the Node Manager, go to the DOMAIN\_HOME/bin directory and run `./startNodeManager.sh > nm.out&`**

```

oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/bin
File Edit View Search Terminal Tabs Help
oracle@hpgen9-02:/home/oracle/O... x oracle@hpgen9-02:/home/oracle/O... x oracle@hpgen9-02:/home/oracle/O... x
oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/bin> ./startNodeManager.sh > nm.out&
[1] 32577
oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/bin> + /home/oracle/
ORACLE_SW/Java/jdk1.8.0_144/bin/java -server -Xms32m -Xmx200m -Djdk.tls.ephemeralDHKeySize=2048 -Dcoherence.ho
me=/home/oracle/Oracle/Middleware/Oracle_Home/wlserver/./coherence -Dbea.home=/home/oracle/Oracle/Middleware/Ora
cle_Home/wlserver/... -Dohs.product.home=/home/oracle/Oracle/Middleware/Oracle_Home/ohs -Dreports.tools.product.
home=/home/oracle/Oracle/Middleware/Oracle_Home/ReportsToolsComponent -Dreports.product.home=/home/oracle/Oracle
/Middleware/Oracle_Home/reports -Dreports.bridge.product.home=/home/oracle/Oracle/Middleware/Oracle_Home/Reports
BridgeComponent -Dreports.server.product.home=/home/oracle/Oracle/Middleware/Oracle_Home/ReportsServerComponent
-Dforms.product.home=/home/oracle/Oracle/Middleware/Oracle_Home/forms -Doracle.security.jps.config=/home/oracle/O
racle/Middleware/Oracle_Home/user_projects/domains/base_domain/config/fmwconfig/jps-config-jse.xml -Dcommon.com
ponents.home=/home/oracle/Oracle/Middleware/Oracle_Home/oracle_common -Dopss.version=12.2.1.3 -Dweblogic.RootDir
ectory=/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain -Djava.system.class.loader=c
om.oracle.classloader.weblogic.LaunchClassLoader -Djava.security.policy=/home/oracle/Oracle/Middleware/Oracle_Ho
me/wlserver/server/lib/weblogic.policy -Dweblogic.nodemanager.JavaHome=/home/oracle/ORACLE_SW/Java/jdk1.8.0_144
weblogic.NodeManager -v
<Jan 29, 2018 4:12:15 PM GMT+08:00> <INFO> <Loading domains file: /home/oracle/Oracle/Middleware/Oracle_Home/use
r_projects/domains/base_domain/nodemanager/nodemanager.domains>
<Jan 29, 2018 4:12:16 PM GMT+08:00> <INFO> <Upgrade> <Setting NodeManager properties version to 12.2.1.3.0>
<Jan 29, 2018 4:12:16 PM GMT+08:00> <INFO> <Upgrade> <Saving upgraded NodeManager properties to '/home/oracle/Ora
cle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.properties'>
<Jan 29, 2018 4:12:16 PM GMT+08:00> <INFO> <Loading domains file: /home/oracle/Oracle/Middleware/Oracle_Home/use
r_projects/domains/base_domain/nodemanager/nodemanager.domains>
<Jan 29, 2018 4:12:16 PM GMT+08:00> <INFO> <Loading identity key store: FileName=kss://system/demoidentity, Type
=kss, PassPhraseUsed=true>
Jan 29, 2018 4:12:17 PM oracle.security.opss.internal.runtime.ServiceContextManagerImpl getContext
WARNING: Bootstrap services are used by OPSS internally and clients should never need to directly read/write boo
tstrap credentials. If required, use Wlst or configuration management interfaces.
<Jan 29, 2018 4:12:17 PM GMT+08:00> <INFO> <Loaded NodeManager configuration properties from '/home/oracle/Oracl
e/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.properties'>
Node manager v12.2.1.3.0

Configuration settings:

```

Starting the Admin Server, go to the `DOMAIN_HOME/bin` directory and run `./startWebLogic.sh`

```

oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/bin
File Edit View Search Terminal Tabs Help
oracle@hpgen9-02:/ho... x oracle@hpgen9-02:/ho... x oracle@hpgen9-02:/ho... x oracle@hpgen9-02:/ho... x
<Jan 29, 2018 4:18:43,658 PM GMT+08:00> <Notice> <Log Management> <BEA-170027> <The server has successfully esta
blished a connection with the Domain level Diagnostic Service.>
2018-01-29 16:18:43.674/132.491 Oracle Coherence GE 12.2.1.3.0 <Info> (thread=[STANDBY] ExecuteThread: '3' for q
ueue: 'weblogic.kernel.Default (self-tuning)', member=n/a): Loaded cache configuration from "jar:file:/home/orac
le/Oracle/Middleware/Oracle_Home/oracle_common/modules/oracle.wsm.common/wsm-agent-core.jar!/oracle-wsm-coherenc
e-cache-config.xml"
2018-01-29 16:18:43.699/132.516 Oracle Coherence GE 12.2.1.3.0 <Info> (thread=[STANDBY] ExecuteThread: '3' for q
ueue: 'weblogic.kernel.Default (self-tuning)', member=n/a): Created cache factory com.tangosol.net.ExtensibleCon
figurablesCacheFactory
<Jan 29, 2018 4:18:44,241 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to ADMIN.>
<Jan 29, 2018 4:18:44,312 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to RESUMING
.>
<Jan 29, 2018 4:18:44,313 PM GMT+08:00> <Notice> <JMX> <BEA-149535> <JMX Resiliency Activity Server=All Servers
: Resolving connection list DomainRuntimeServiceMBean>
<Jan 29, 2018 4:18:44,418 PM GMT+08:00> <Warning> <Server> <BEA-002611> <The hostname "localhost", maps to multi
ple IP addresses: 127.0.0.1, 0:0:0:0:0:0:0:1.>
<Jan 29, 2018 4:18:44,422 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000329> <Started the WebLogic Server Admi
nistration Server "AdminServer" for domain "base_domain" running in production mode.>
<Jan 29, 2018 4:18:44,423 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[2]" is now listening on
127.0.0.1:7001 for protocols iiop, t3, ldap, snmp, http.>
<Jan 29, 2018 4:18:44,423 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[1]" is now listening on
0:0:0:0:0:0:0:1%lo:7001 for protocols iiop, t3, ldap, snmp, http.>
<Jan 29, 2018 4:18:44,424 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default" is now listening on 14
7.2.207.194:7001 for protocols iiop, t3, ldap, snmp, http.>
<Jan 29, 2018 4:18:44,424 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[2]" is now listening on
127.0.0.1:7001 for protocols iiop, t3, ldap, snmp, http.>
<Jan 29, 2018 4:18:44,424 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[1]" is now listening on
0:0:0:0:0:0:0:1%lo:7001 for protocols iiop, t3, ldap, snmp, http.>
<Jan 29, 2018 4:18:44,425 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default" is now listening on 14
7.2.207.194:7001 for protocols iiop, t3, ldap, snmp, http.>
<Jan 29, 2018 4:18:44,426 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000360> <The server started in RUNNING mo
de.>
<Jan 29, 2018 4:18:44,435 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to RUNNING.
>
>

```

You know that the administrator server is running when you see the following output:

```

-----
Server state changed to RUNNING.
-----

```

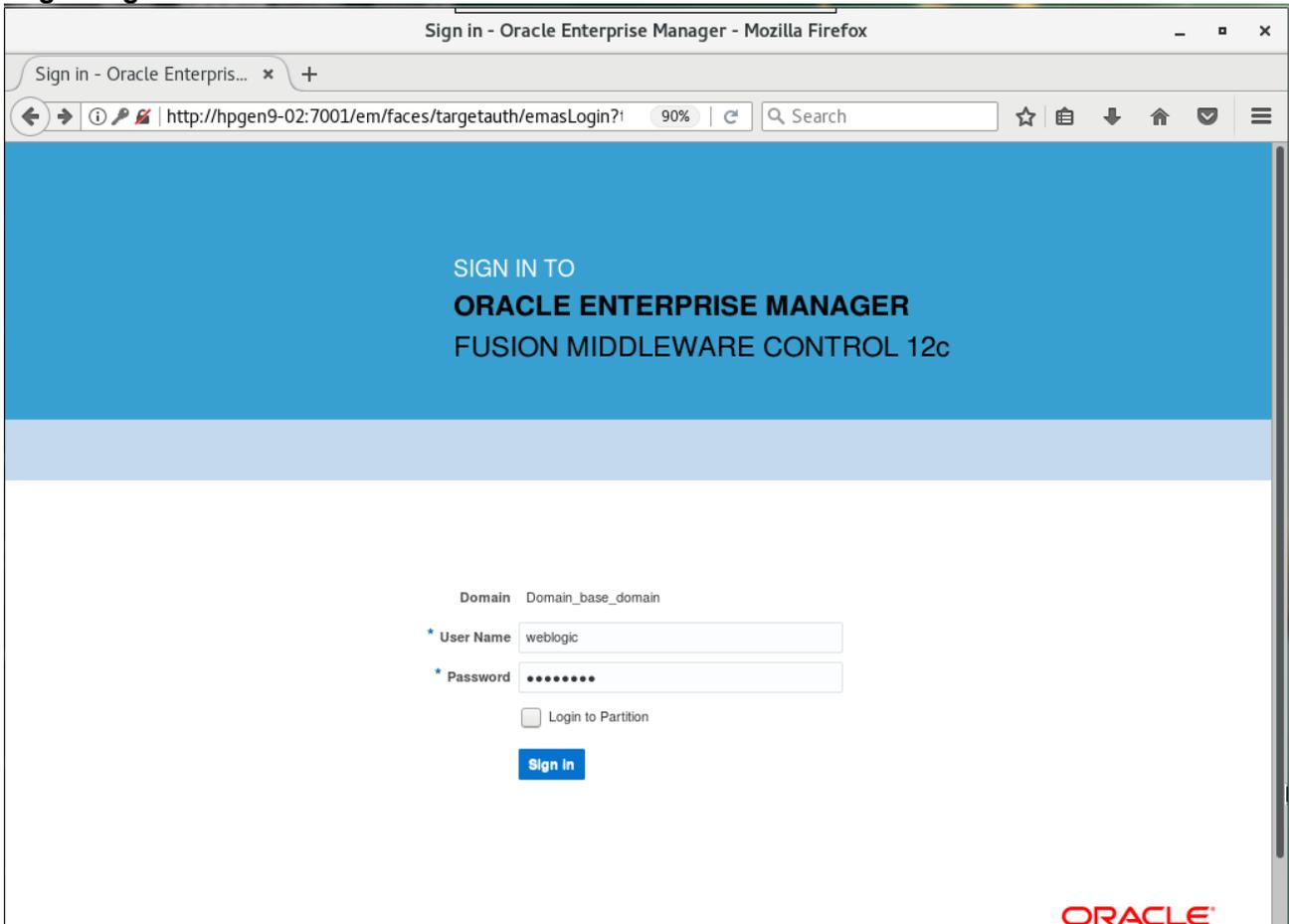
4-3. Verifying the Installed Products and Product Versions. Check the products and product version numbers by running the **opatch lsinventory -detail** command from the **ORACLE\_HOME/OPatch** directory.

Confirmed that OPatch succeeded.

4-4. Checking Oracle Forms and Reports Product URLs.

1). Access to Enterprise Manager Console.

**Login Page:**



Home Page:

The screenshot shows the Oracle Enterprise Manager interface for the 'base\_domain (Oracle WebLogic Domain)'. The browser address bar shows the URL: http://hpgen9-02:7001/em/faces/as-weblogic-webLogicDomainHc. The page title is 'base\_domain (Oracle WebLogic Domain) - Oracle Enterprise Manager - Mozilla Firefox'. The interface includes a navigation menu on the left with 'base\_domain' selected. The main content area is titled 'Administration Server' and shows details for the 'AdminServer' on host 'hpgen9-02' listening on port 7001. Below this is a table of servers:

Name	Status	Cluster	Machine	State	Health
AdminServer(admin)	Up		AdminServerMachine	Running	OK
WLS_FORMS	Down	cluster_forms	AdminServerMachine	Shutdown	Unknown
WLS_REPORTS	Down	cluster_reports	AdminServerMachine	Shutdown	Unknown

Summary statistics on the left: Servers (2 Down, 1 Up), Clusters (2 Down), Deployments (2 Down, 1 Up), and Domain Partitions.

Starting WLS\_FORMS

The screenshot shows the Oracle Enterprise Manager monitoring page for the 'WLS\_FORMS (Oracle WebLogic Server)'. The browser address bar shows the URL: http://hpgen9-02:7001/em/faces/as-weblogic-webLogicServer. The page title is 'WLS\_FORMS (Oracle WebLogic Server) - Oracle Enterprise Manager - Mozilla Firefox'. The interface includes a navigation menu on the left with 'WLS\_FORMS' selected. The main content area is titled 'Monitoring' and shows various metrics:

- Monitoring:** Request Processing Time (ms) is 0.00, and Requests (per minute) is 0.
- Deployments:** 1 Up.
- Most Requested:** 0 Requests Processed.

The 'General' section provides server details:

- Up Since: Jan 29, 2018 4:50:59 PM
- Version: 12.2.1.3.0
- State: Running
- Health: OK
- Server Type: Configured
- Cluster: cluster\_forms
- CPU Usage (%): 0.26
- Heap Usage (MB): 447.66
- Java Vendor: Oracle Corporation
- Java Version: 1.8.0\_144

The 'Response and Load' section features a line graph showing Request Processing Time (ms) and Requests (per minute) from 04:38 PM to 04:50 PM on January 29, 2018. The Y-axis ranges from 0.0 to 1.0. The 'EJBs' section shows Beans in Use: 0 and Bean Accesses (per minute): 0.00. The 'Servlets and JSPs' section shows Active Sessions: 0.

### Starting WLS\_REPORTS

WLS\_REPORTS (Oracle WebLogic Server) - Oracle Enterprise Manager - Mozilla Firefox

WLS\_REPORTS (Oracle ... x +

http://hpgen9-02:7001/em/faces/as-weblogic-webLogicServerHor

ORACLE Enterprise Manager Fusion Middleware Control 12c

WebLogic Domain weblogic

WLS\_REPORTS

WebLogic Server Start Up Shut Down

Jan 29, 2018 4:58:05 PM GMT+08:00

Information

Certain functionality on this page is available only when you own the edit session lock. To obtain the lock, click "Lock and Edit" in the Change Center menu.

**Monitoring**

Request Processing Time (ms) 0

Requests (per minute) 0.00

**Deployments**

1 Up

**Most Requested**

0 Requests Processed

**General**

Up Since Jan 29, 2018 4:57:06 PM

Version 12.2.1.3.0

State Running

Health OK

Server Type Configured

Cluster cluster\_reports

CPU Usage (%) 0.15

Heap Usage (MB) 394.18

Java Vendor Oracle Corporation

Java Version 1.8.0\_144

**Response and Load**

Graph showing Request Processing Time (ms) and Requests (per minute) from 04:43 PM to 04:55 PM on January 29, 2018.

**EJBs**

Beans in Use 0

Bean Accesses (per minute) 0.00

**Servlets and JSPs**

Active Sessions 0

http://hpgen9-02:7001/em/faces/as-weblogic-webLogicServerHome?type=...gic\_j2eeserver&target=/Domain\_base\_domain/base\_domain/WLS\_REPORTS#

### Viewing Home page - All three servers are up and running.

base\_domain (Oracle WebLogic Domain) - Oracle Enterprise Manager - Mozilla Firefox

base\_domain (Oracle We... x +

http://hpgen9-02:7001/em/faces/as-weblogic-webLogicDomainHc

ORACLE Enterprise Manager Fusion Middleware Control 12c

WebLogic Domain weblogic

base\_domain

WebLogic Domain

Jan 29, 2018 4:58:33 PM GMT+08:00

Information

Certain functionality on this page is available only when you own the edit session lock. To obtain the lock, click "Lock and Edit" in the Change Center menu.

**Servers**

3 Up

**Clusters**

2 Up

**Deployments**

3 Up

**Domain Partitions**

**Administration Server**

Name AdminServer

Host hpgen9-02

Listen Port 7001

**Servers**

Name	Status	Cluster	Machine	State	Health
AdminServer(admin)	↑		AdminServerMachine	Running	OK
WLS_FORMS	↑	cluster_forms	AdminServerMachine	Running	OK
WLS_REPORTS	↑	cluster_reports	AdminServerMachine	Running	OK

Columns Hidden 34

Servers 3 of 3

Starting ohs1

The screenshot displays the Oracle Enterprise Manager interface for the 'ohs1' component. The browser window title is 'ohs1 (Oracle HTTP Server) - Oracle Enterprise Manager - Mozilla Firefox'. The address bar shows the URL 'http://hpgen9-02:7001/em/faces/as\_ohs\_ohsHome?type=c'. The page header includes 'ORACLE Enterprise Manager Fusion Middleware Control 12c' and 'WebLogic Domain weblogic'. The main content area is divided into several sections:

- Monitoring:** Shows CPU Usage (%) at 0.00 and Memory Usage (%) at 3.40.
- Virtual Hosts:** Shows 2 Virtual Hosts.
- Modules:** Shows 52 Modules.
- General:**
  - Component Name: ohs1
  - Version: 12.2.1.3.0
  - State: Running
  - Host: hpgen9-02
  - Ports: 7777 4443 127.0.0.1:7779
  - Machine Name: AdminServerMachine
  - Auto Restart:
  - Oracle Home: /home/oracle/Oracle/Middleware/Oracle\_Home
- Key Statistics:**
  - Idle Processes: 3
  - Busy Processes: 0
  - Error Rate (%): 0.00
  - Connection Duration (seconds): 0
  - Request Processing Time (seconds): 0
- Response and Load:** A line graph showing Request Processing Time (milli seconds) and /Domain\_base\_domain/base\_domain/ohs1:Request Through... from 05:52 PM to 06:04 PM on January 29, 2018.
- CPU and Memory Usage:** A line graph showing CPU Usage (%) and Memory Usage (MB) from 05:52 PM to 06:04 PM on January 29, 2018.

Verified ohs1 URLs can be accessed.

The screenshot shows the Oracle HTTP Server 12c website. The browser window title is 'Oracle HTTP Server 12c - Mozilla Firefox'. The address bar shows the URL 'http://hpgen9-02:7777/'. The page header includes 'ORACLE Oracle HTTP Server 12c'. The main content area features a diagram illustrating the architecture and capabilities of Oracle HTTP Server 12c:

- Oracle HTTP Server 12c:** 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.
- Local Content:** Supports HTML and JS content.
- Process Management and HA:** Includes Certificate management, Automation, and Test to Production.
- Security and Access:** Includes Audit Control, Auditing, Authentication, and Authorization.
- Identity Management:** Provides secure access to applications.
- Load Balancing:** Distributes traffic across multiple servers.
- Fusion Middleware Applications:** Hosts various applications.
- FMW Lifecycle Tools:** Used for managing the lifecycle of Fusion Middleware.
- Enterprise Manager:** Used to Manage, monitor, and diagnose the system.

Oracle HTTP Server 12c - Mozilla Firefox

ohs1 (Oracle HTTP Se... x Summary of Servers -... x Oracle HTTP Server 12c x Oracle HTTP Server 12c x Oracle HTTP Server 12c x +

https://hpgen9-02:4443/ 90% Search

---

**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.

The diagram illustrates the Oracle HTTP Server 12c architecture. On the left, four categories of capabilities are listed: Process Management and HA, Certificate management, Automation, and Test to Production, each represented by gear icons. Below these is a red box labeled 'FMW Lifecycle Tools'. In the center, a large blue oval represents the server environment. Inside this oval, 'Local Content' (with JS and HTML icons) feeds into 'OHS' (Oracle HTTP Server). 'OHS' is connected to 'Audit Control' and 'Authentication Authorization' (with a lock icon). 'Authentication Authorization' is connected to 'Identity Management' (with a key icon). 'OHS' also feeds into 'Fusion Middleware Applications' (represented by server racks). 'Load Balancing' is shown as a double-headed arrow between 'OHS' and the applications. Below the oval, 'Enterprise Manager' (with a server rack icon) is connected to the system, with the text 'Manage, monitor, diagnose' next to it.

Oracle HTTP Server 12c - Mozilla Firefox

ohs1 (Oracle HTTP... x Summary of Servers -... x Oracle HTTP Server 12c x Oracle HTTP Server 12c x Oracle HTTP Server 12c x +

http://127.0.0.1:7779/ Search

---

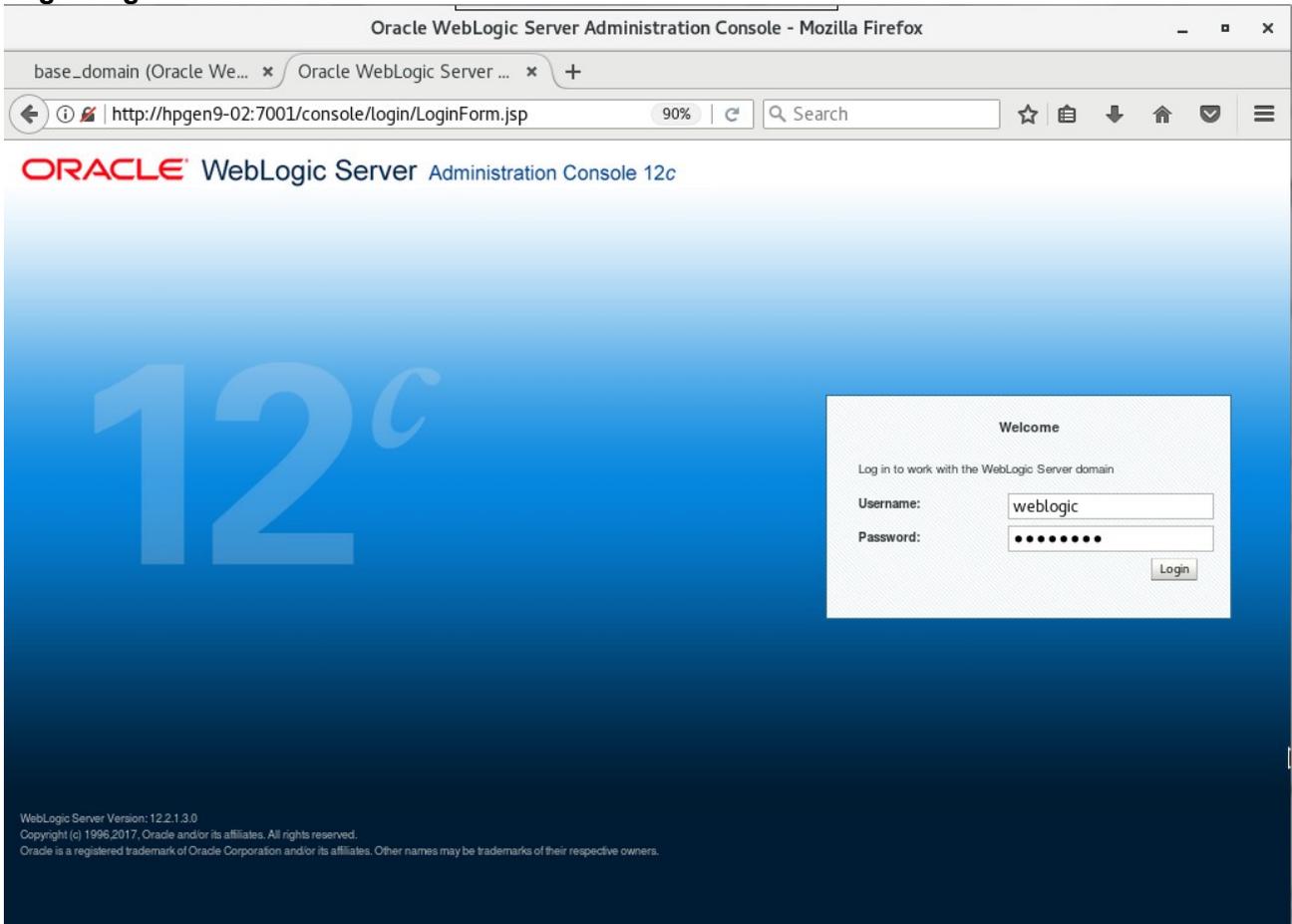
**ORACLE** Oracle HTTP Server 12c

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.

This diagram is identical to the one in the first screenshot, showing the Oracle HTTP Server 12c architecture. It details the flow from local content through OHS to various security and application components, and the management layer provided by Enterprise Manager.

2). Access to Administration Server Console

Login Page as shown below:



Home Page:

Viewing the summary of servers:

A server is an instance of WebLogic Server that runs in its own Java Virtual Machine (JVM) and has its own configuration. This page summarizes each server that has been configured in the current WebLogic Server domain.

[Customize this table](#)

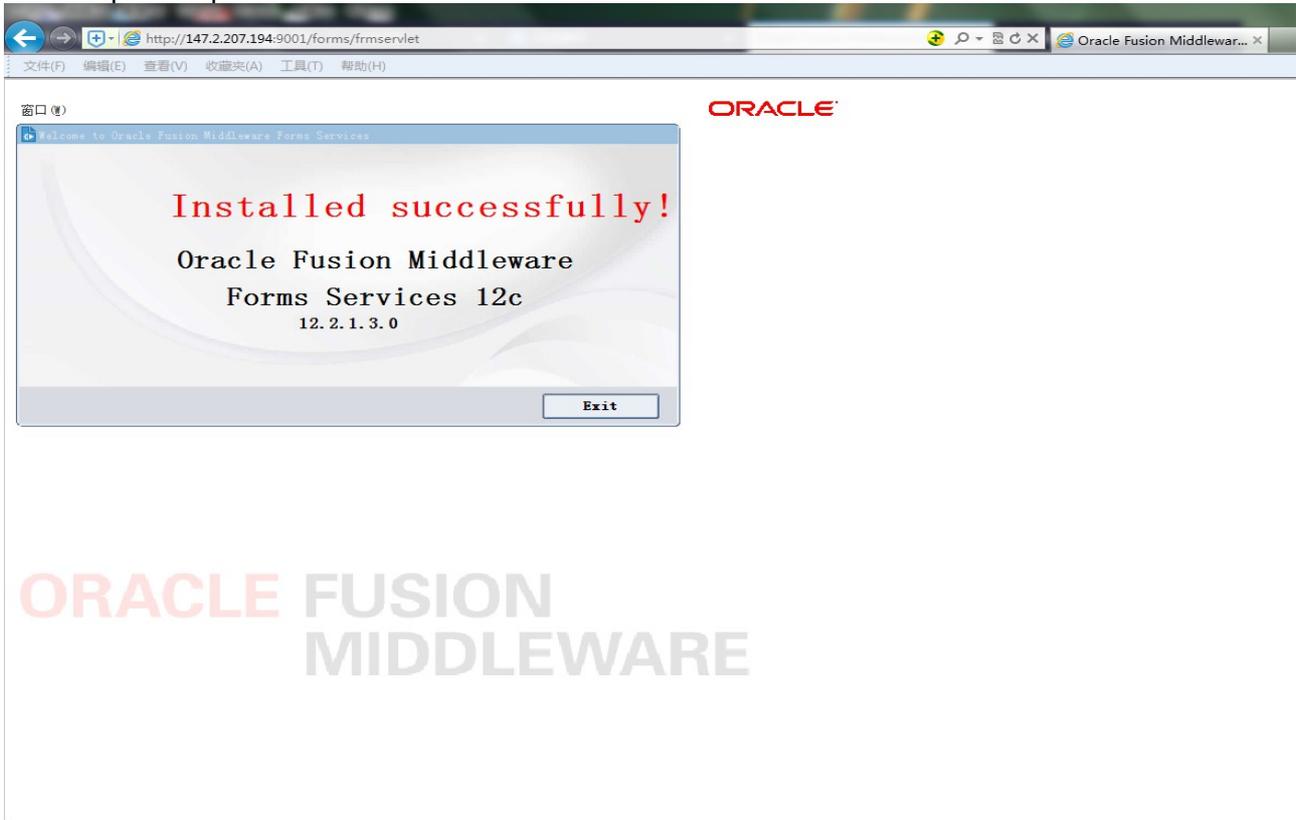
Servers (Filtered - More Columns Exist)

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

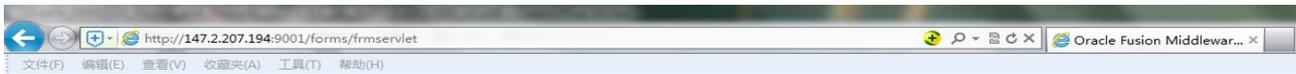
Name	Type	Cluster	Machine	State	Health	Listen Port
AdminServer(admin)	Configured		AdminServerMachine	RUNNING	OK	7001
WLS_FORMS	Configured	cluster_forms	AdminServerMachine	RUNNING	OK	9001
WLS_REPORTS	Configured	cluster_reports	AdminServerMachine	RUNNING	OK	9002

3). Access to Oracle Forms Services.

URL: <http://host:port/forms/frmservlet>



Click **Exit** to close the test window.



4). Access to Oracle Reports Services.

**URL:** <http://host:port/reports/rwservlet>

**End of Oracle Forms and Reports.**

\*\*\*\*\*  
**Oracle WebTier**  
\*\*\*\*\*

## 1. Installing Oracle WebTier 12cR2 OHS

### 1-1. Prerequisites:

Installation of Oracle WebTier Http Server requires:

- 1). Oracle Database 12cR2 (12.2.0.1.0) installed.
- 2). Oracle JDK 1.8.0\_131 and later installed.
- 3). Oracle WebLogic Server 12cR2 (12.2.1.3.0) (Fusion Middleware Infrastructure Installer)

1-2. Log in to the target system (SLES 12 64-bit OS) as a non-admin user. Download the Oracle WebTier 12cR2 OHS (12.2.1.3.0) from <http://www.oracle.com/technetwork/indexes/downloads/index.html#middleware>.  
(**Note:** Please ensure the installation user has the proper permissions to install and configure the software.)

1-3. Go to the directory where you downloaded the installation program. Extract the contents of this .zip (fmw\_12.2.1.3.0\_ohs\_linux64\_Disk1\_1of1.zip) file and launch the installation program by running 'fmw\_12.2.1.3.0\_ohs\_linux64.bin'

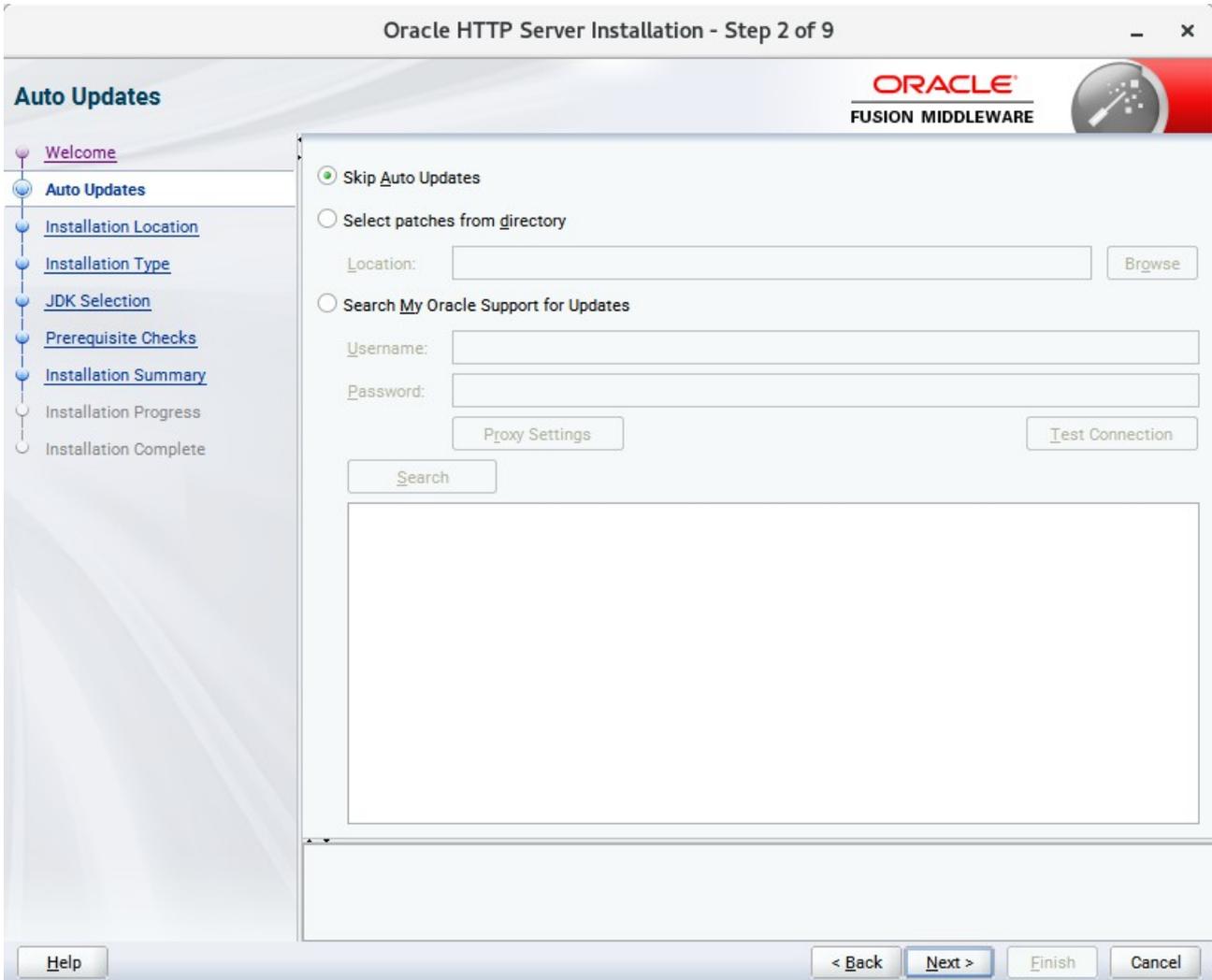
**For the actual installation, follow the steps below:**

### 1). Welcome page.



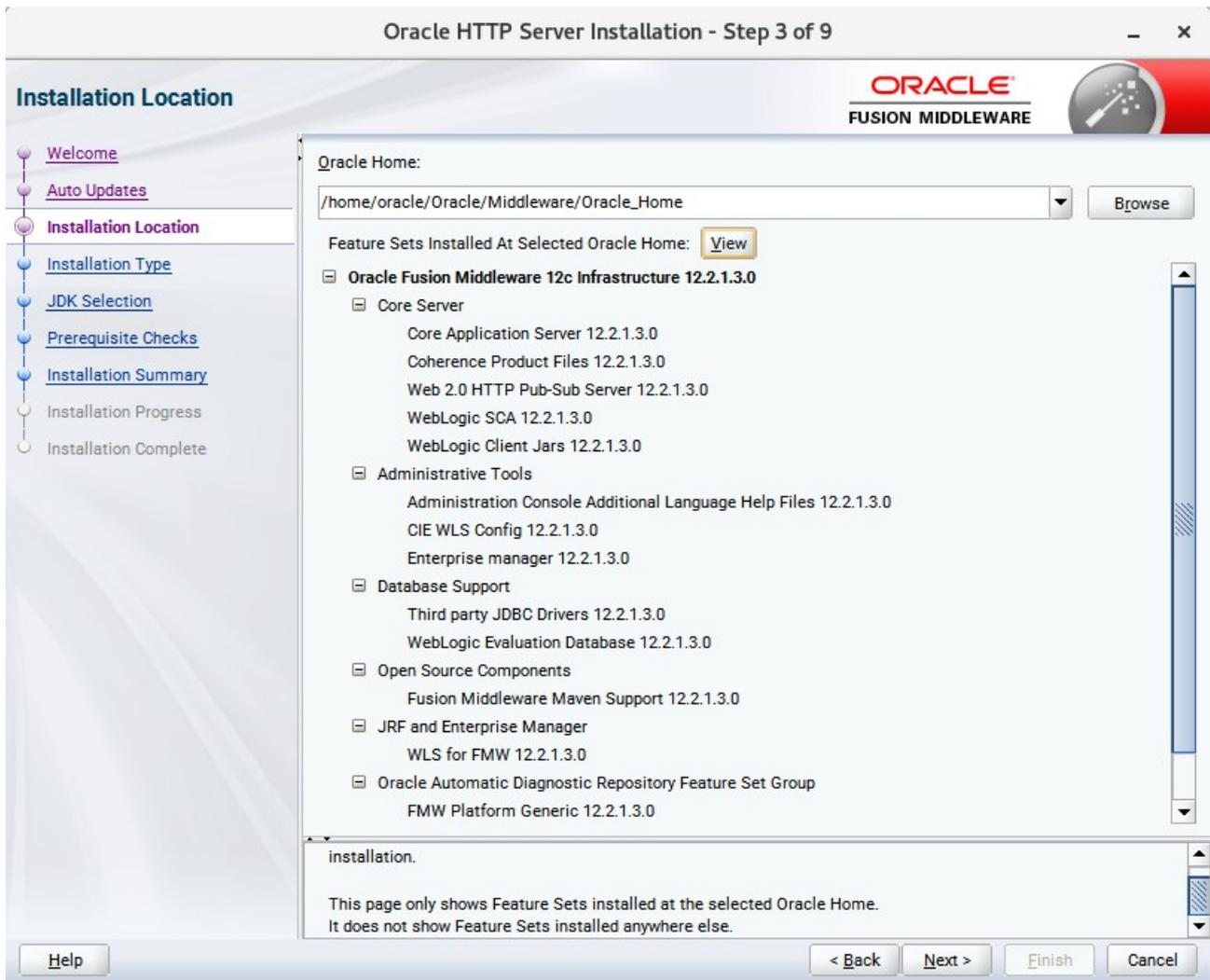
This page welcomes you to the installation. Click **Next** to continue.

2). The **Auto Updates** page appears.



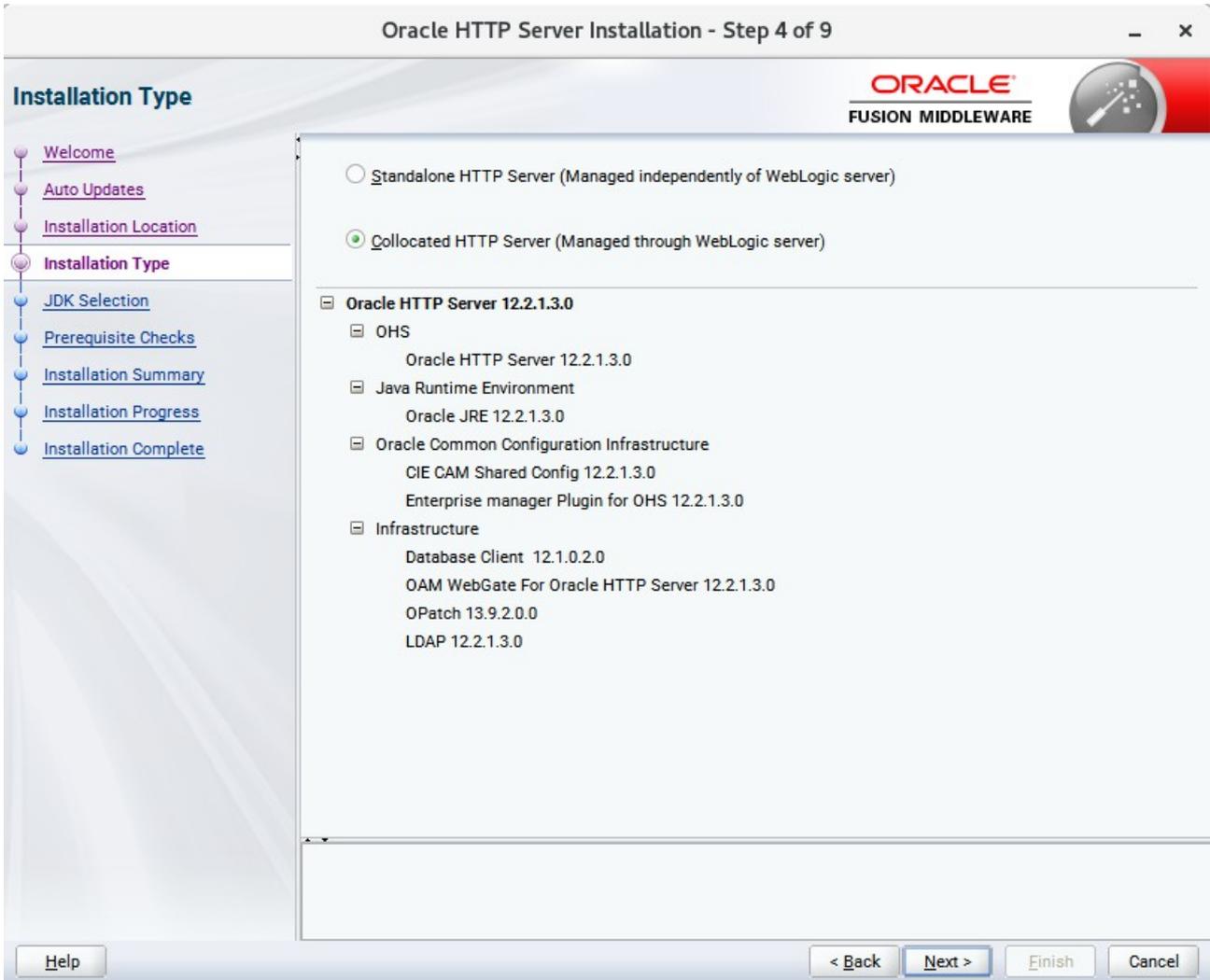
This page enables you to choose to automatically receive software updates for your components from Oracle Corporation. make your choices, then click **Next** to continue.

3). The **Installation Location** page appears.



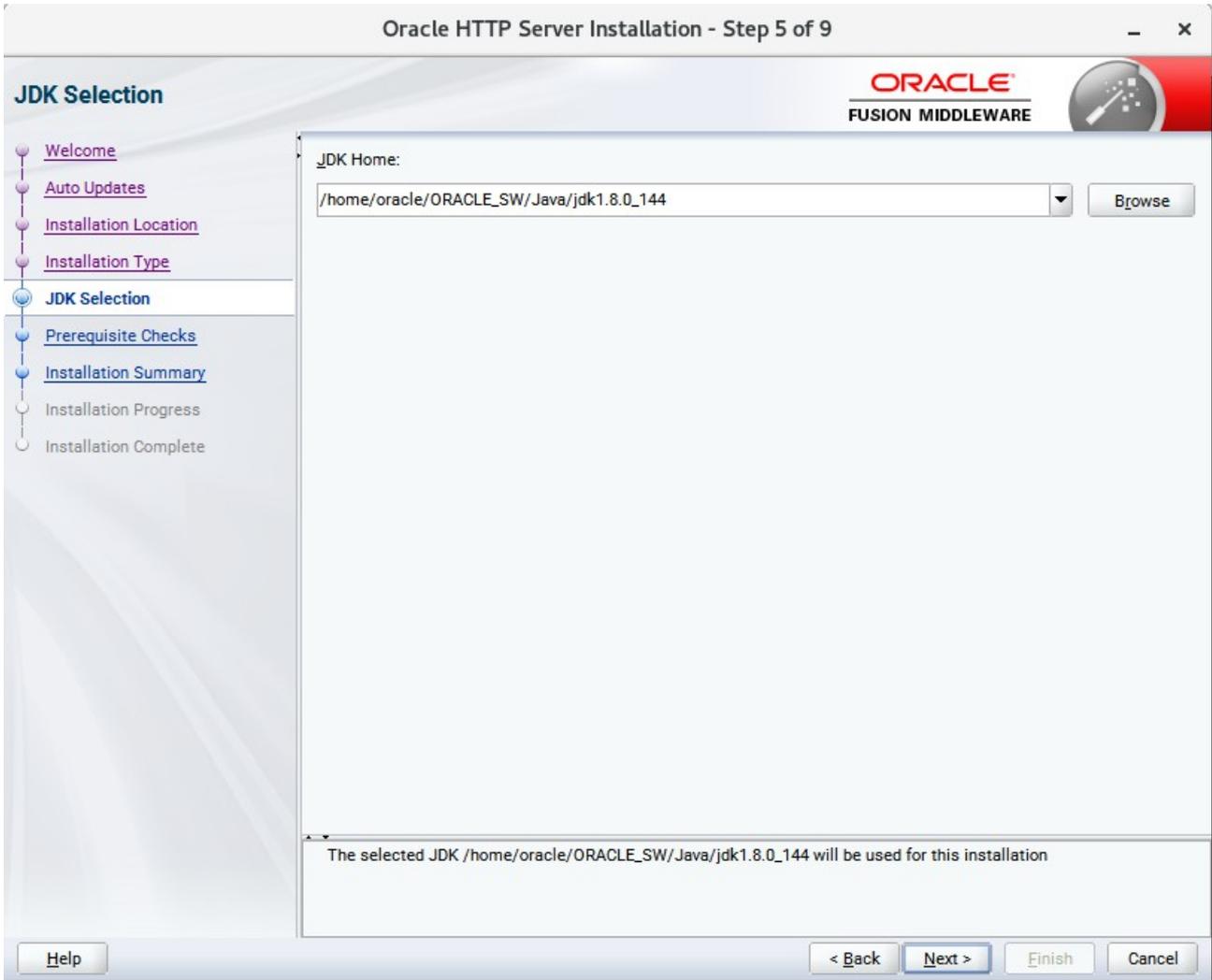
Specify the Oracle home location into which you want to install the product(s). Click **Next** to continue.

4). The **Installation Type** page appears.



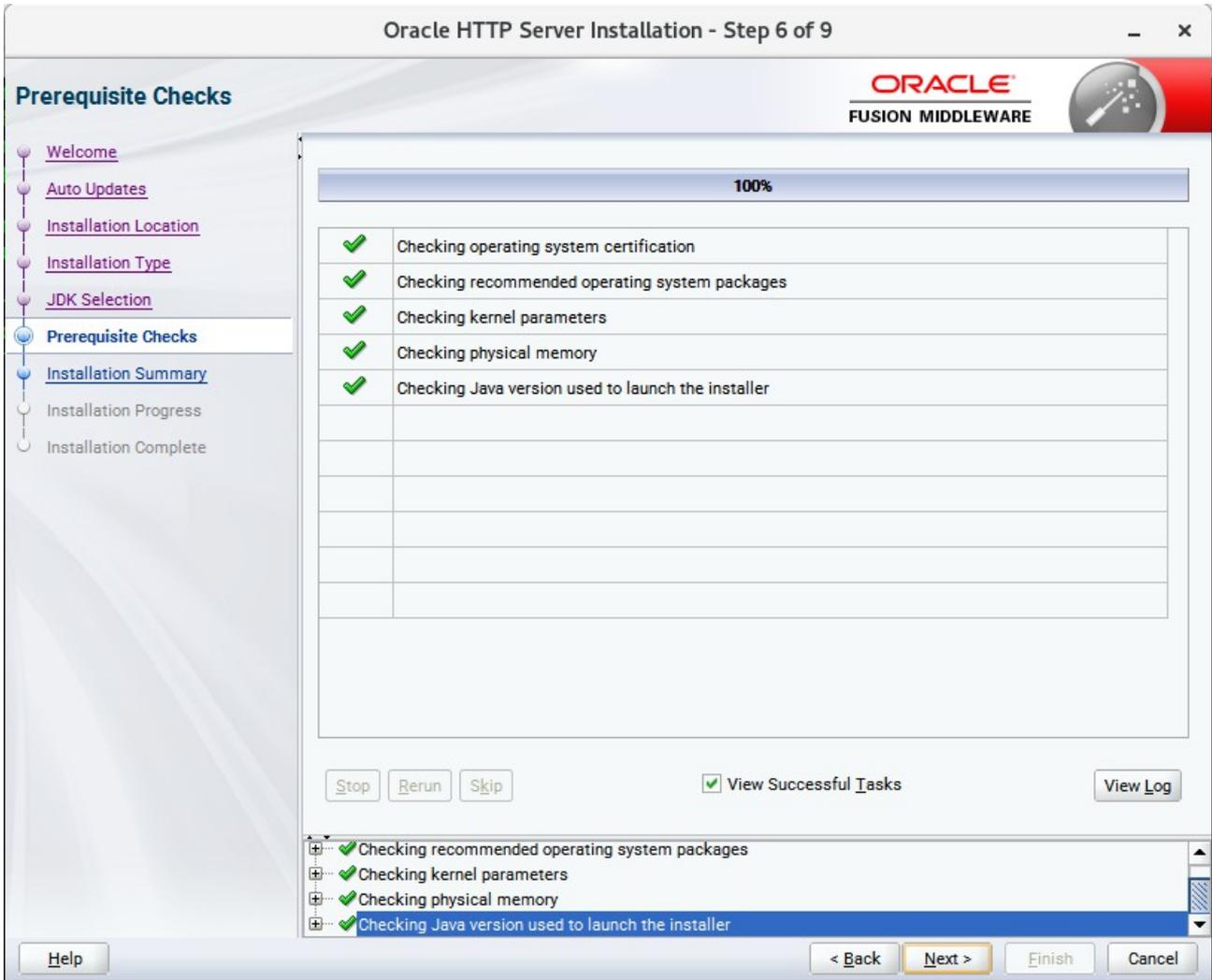
Selected **Collocated HTTP Server (Managed through WebLogic server)** to configure Oracle HTTP Server in a WebLogic Server Domain.(Alternative, select **Standalone HTTP Server (Managed independently of WebLogic server)** in the Installation Type screen to configure Oracle HTTP Server in a Standalone Domain.) Click **Next** to continue.

5). The **JDK Selection** page appears.



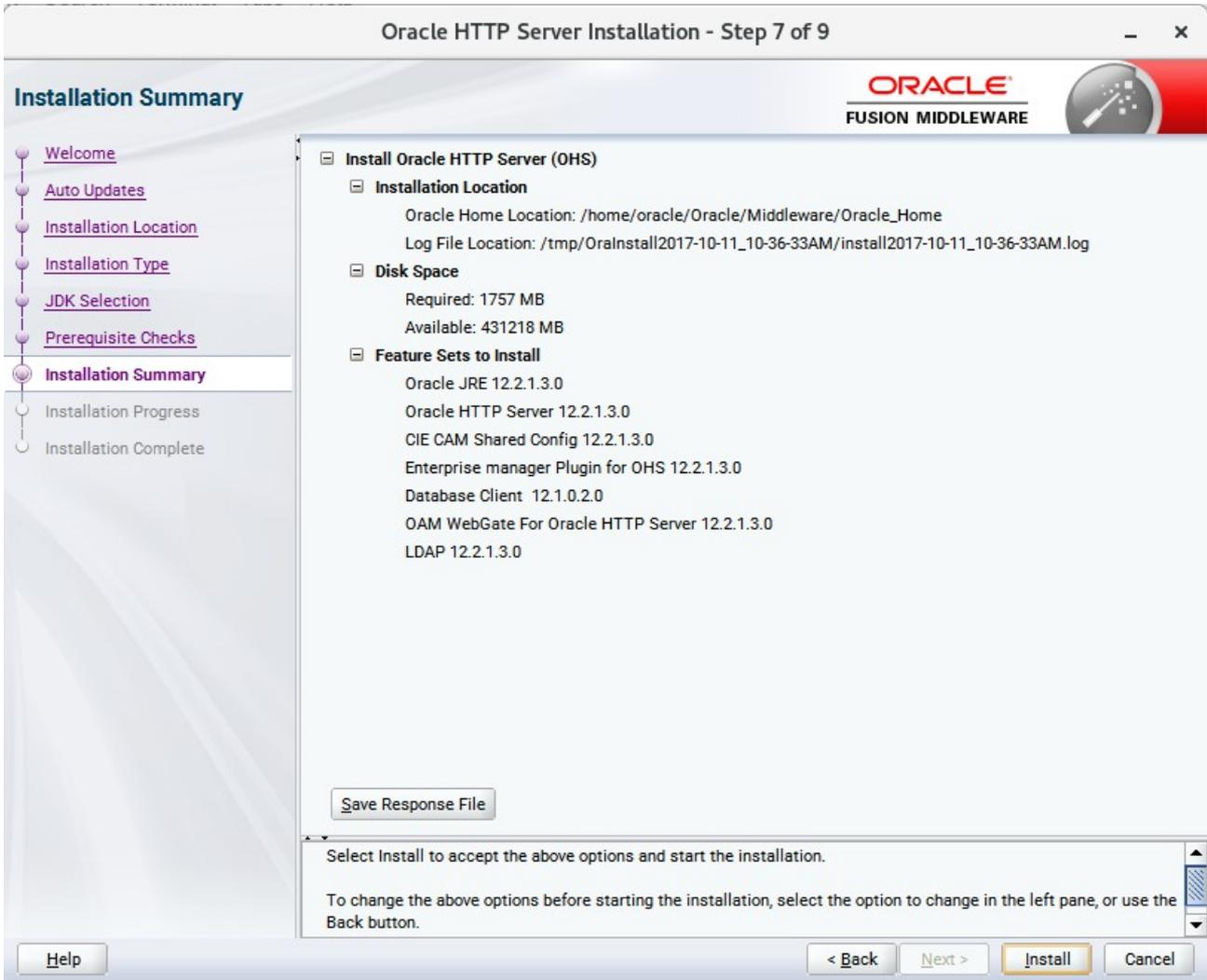
The selected JDK will be used for this installation. Click **Next** to continue.

6). The **Prerequisites Checks** page appears.



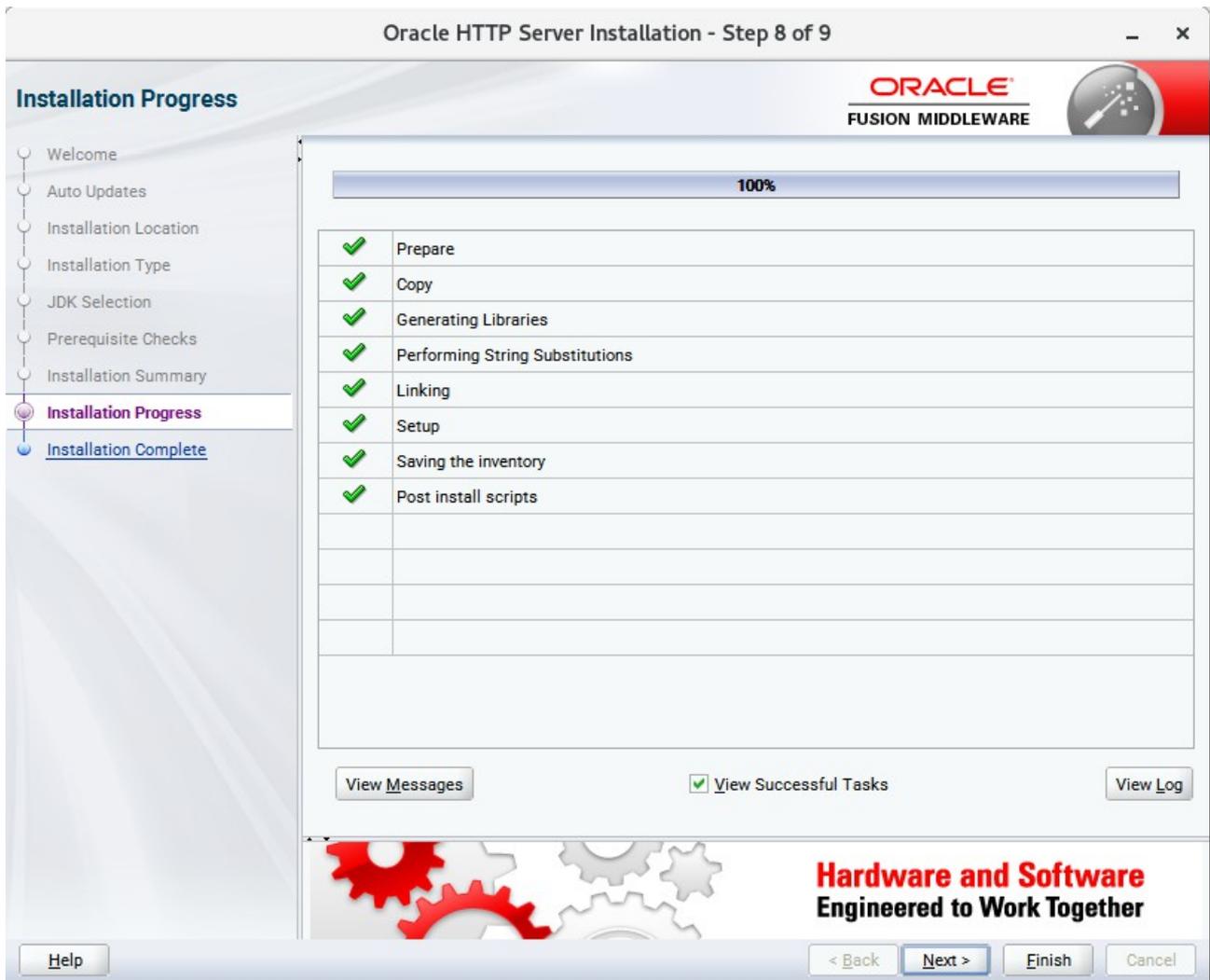
This page shows you the progress of the system checking the prerequisites on your system prior to installation. If you are lacking any prerequisites, a message will appear telling you so. You do not need to take any actions on this page, though you can view the log from here. Click **Next** to continue.

7). The **Installation Summary** page appears.



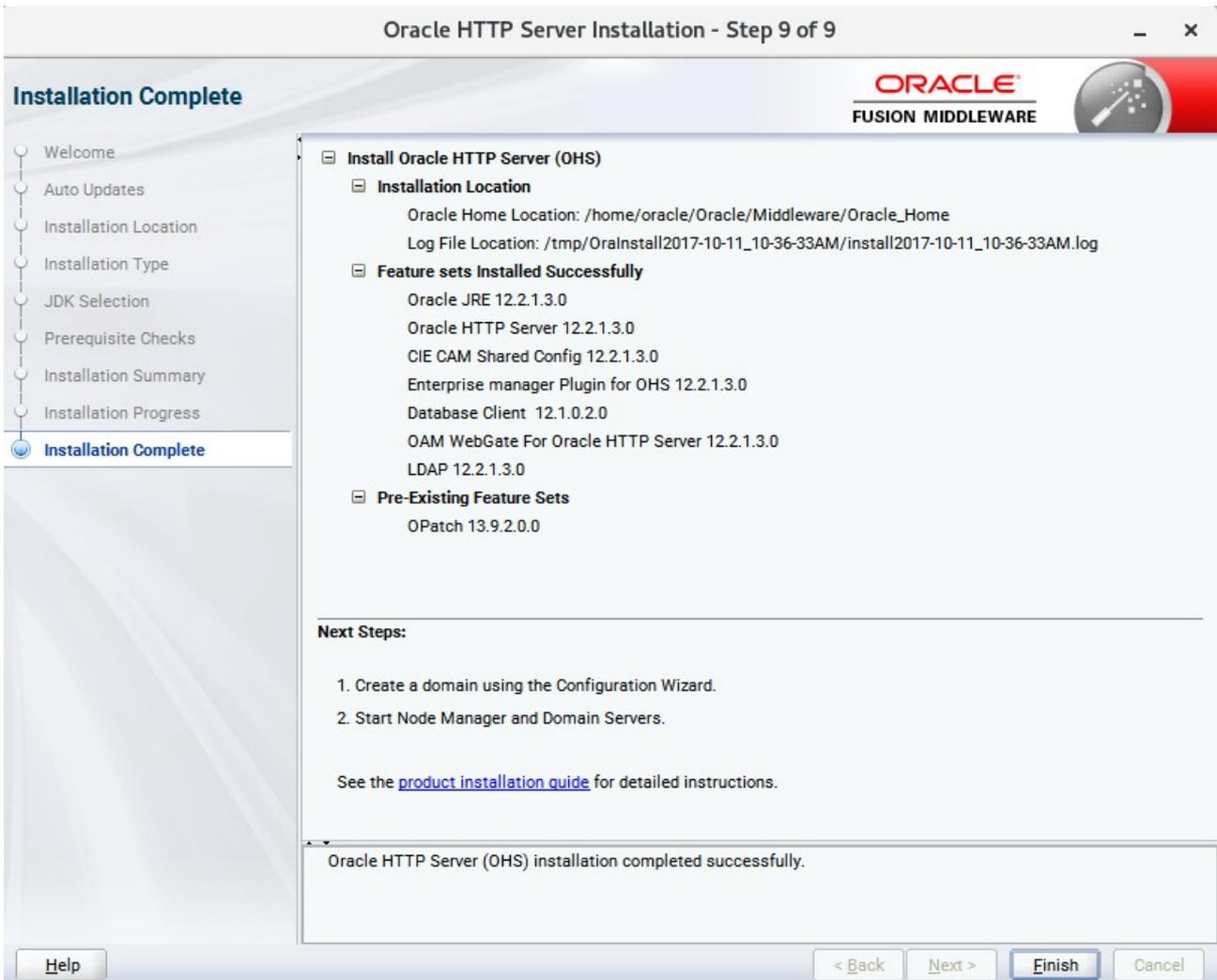
This page shows you what components and features are about to be installed. If you need to make changes, click **Back**, otherwise, click **Install** to start the installation.

8). The **Installation Progress** page appears.



This page shows you the progress of the installation, and will warn you if there are any problems. You can view messages and logs from this page, but typically no action is required here. When progress is complete, click **Next** (go to a Summary page). Alternatively, you can click **Finish**.

9). If you clicked **Next**, the **Installation Complete** page appears, showing you the components that have been installed.

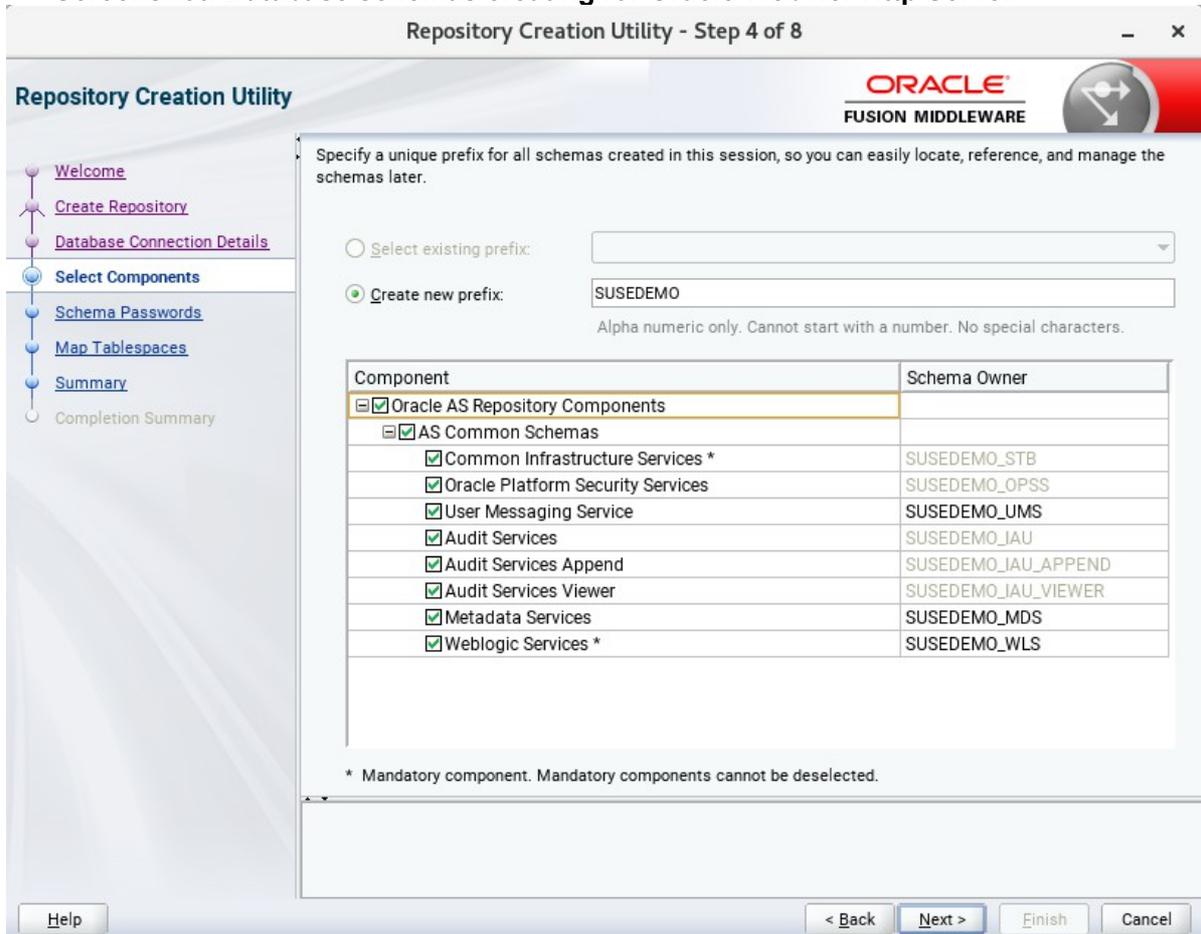


Click **Finish** to dismiss the installer.

## 2. Creating Oracle Database Schema through Repository Creation Utility(RCU)

2-1. Repository Creation Utility (RCU) is available with the Oracle WebLogic Server 12cR2 Fusion Middleware Infrastructure distribution. Run `$FMW_HOME/oracle_common/bin/rcu` and create required database schemas for Oracle WebTier Http Server.

**Screenshot: Database schemas creating for Oracle WebTier Http Server.**



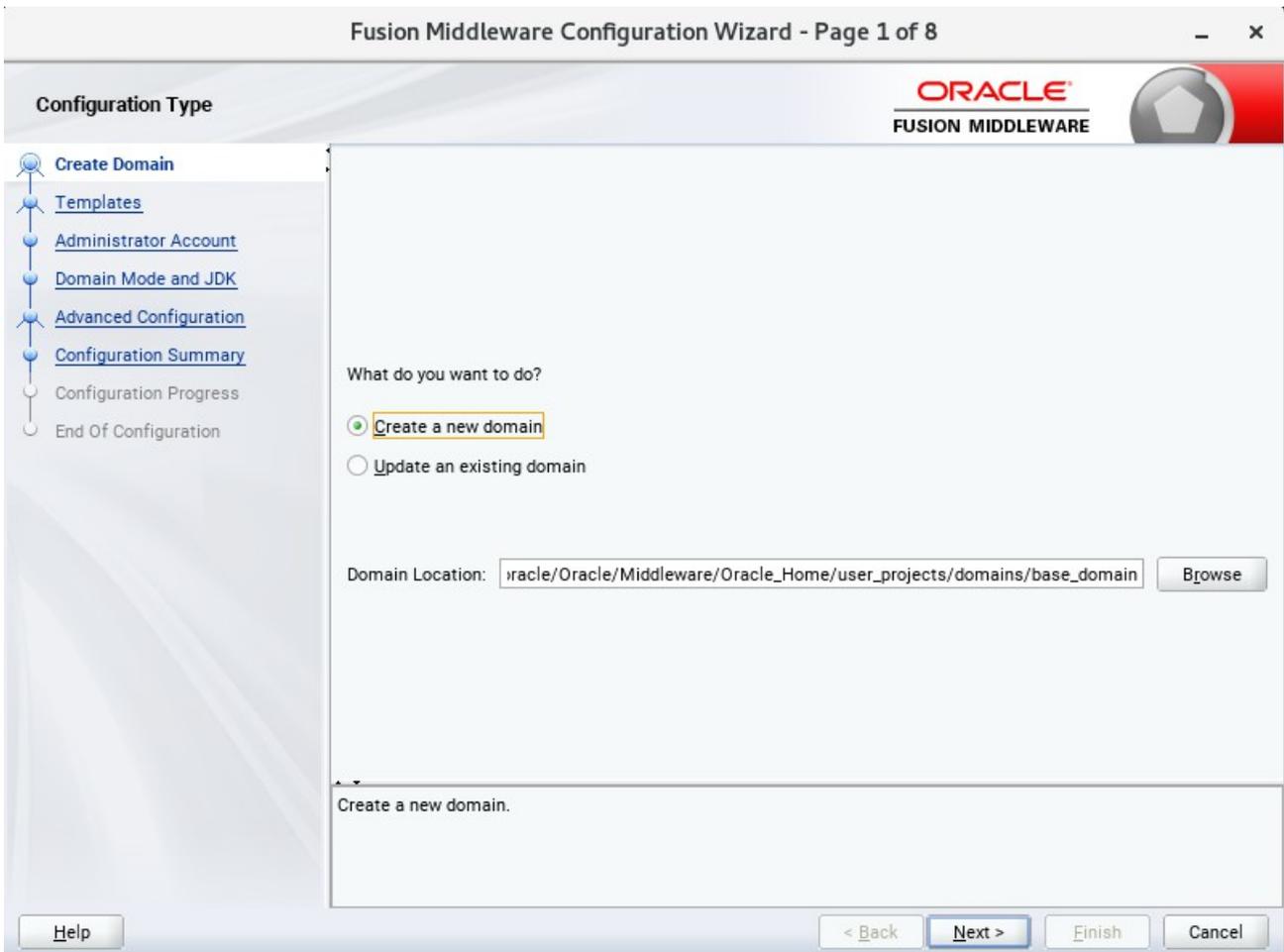
Select the **Create new prefix** radio button and provide a schema prefix (such as SUSEDEMO). Select the components as shown above, and ensure the schema creation is successful.

### 3. Configuring Oracle WebTier 12cR2 OHS using the Config Wizard

3-1. In order to complete the configuration. Run the config wizard using **config.sh** located in the **ORACLE\_HOME/oracle\_common/common/bin** directory.

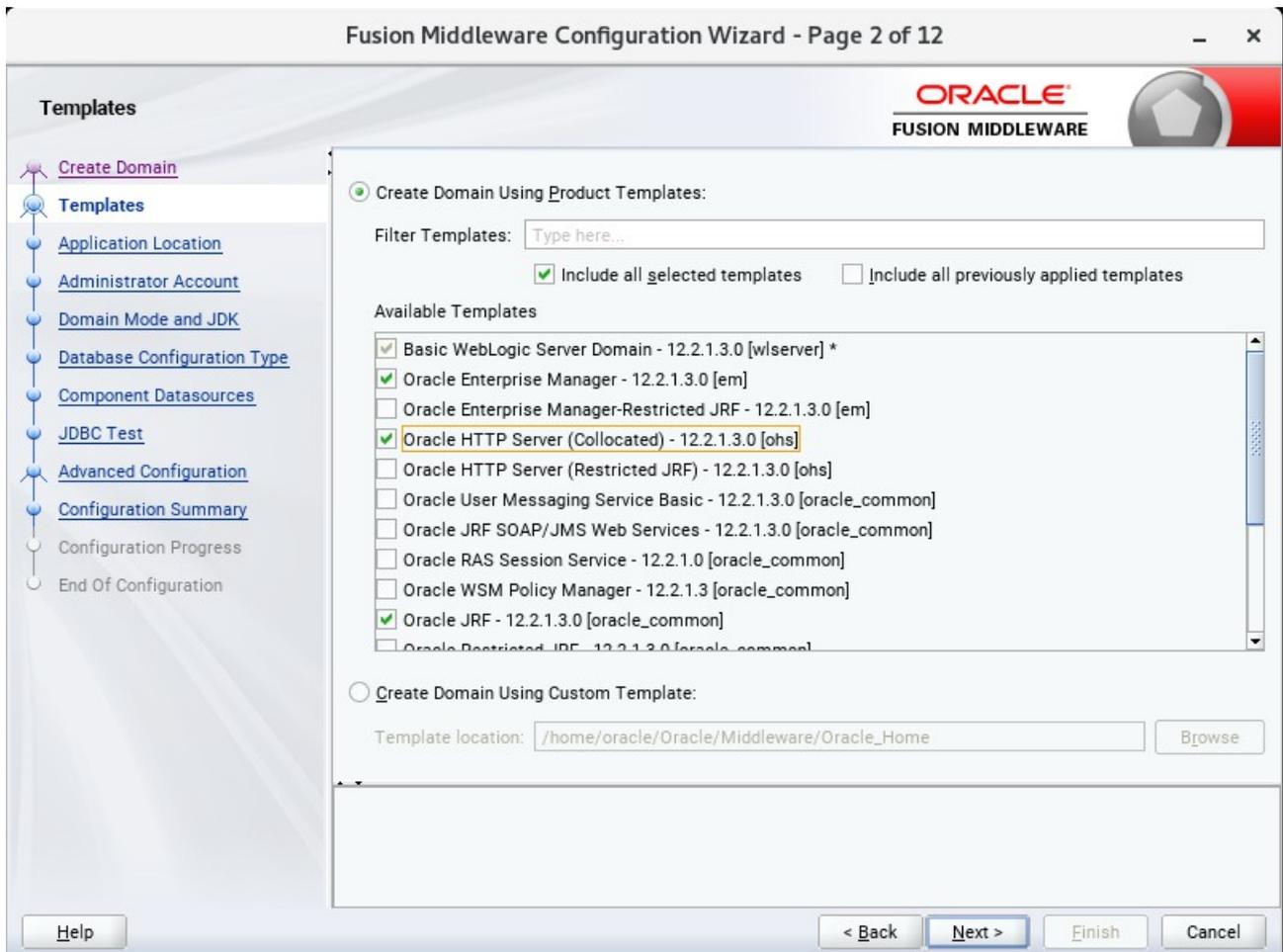
**Follow these steps:**

- 1). Choose **Create a new domain**, and enter the desired domain home path.



Click **Next** to continue.

2). The **Templates** screen appears.



Keep the default selection (**Create Domain using Product Templates**), and select **Oracle HTTP Server (Collocated) – 12.2.1.3.0 [ohs]** component. This automatically selects **Oracle Enterprise Manager – 12.2.1.3.0 [em]** and so on. Click **Next** to continue.

3). The **Application Location** screen appears.



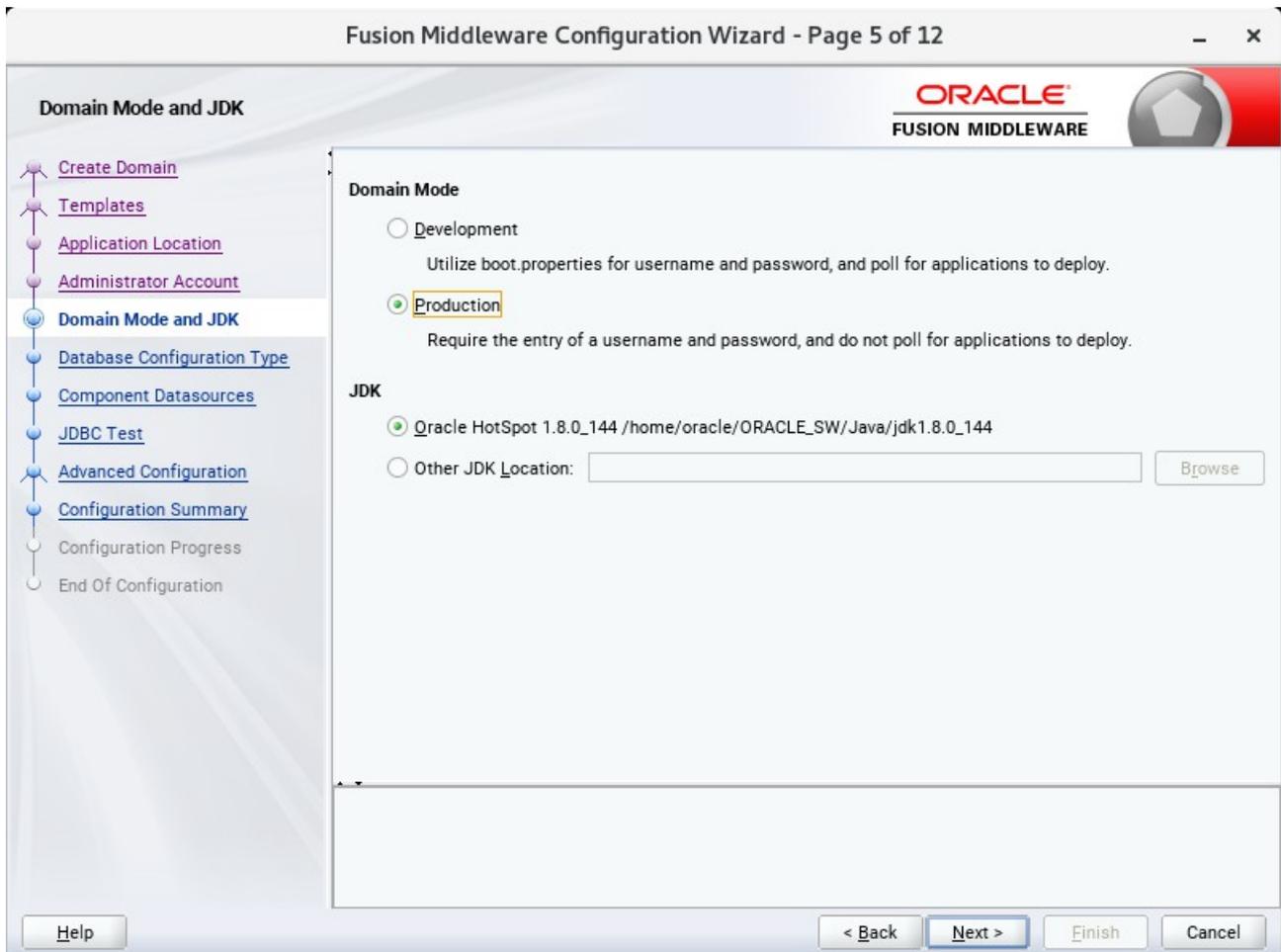
Keep the default value for Application location. Click **Next** to continue.

4). The **Administrator Account** screen appears.

The screenshot shows the 'Administrator Account' configuration screen in the Fusion Middleware Configuration Wizard. The window title is 'Fusion Middleware Configuration Wizard - Page 4 of 12'. The Oracle logo and 'FUSION MIDDLEWARE' text are visible in the top right corner. On the left, a navigation pane lists the following steps: Create Domain, Templates, Application Location, Administrator Account (highlighted), Domain Mode and JDK, Database Configuration Type, Component Datasources, JDBC Test, Advanced Configuration, Configuration Summary, Configuration Progress, and End Of Configuration. The main area contains three input fields: 'Name' with the value 'weblogic', 'Password' with masked characters '.....', and 'Confirm Password' with masked characters '.....'. Below these fields is a validation message: 'Must be the same as the password. Password must contain at least 8 alphanumeric characters with at least one number or special character.' At the bottom, there are buttons for 'Help', '< Back', 'Next >', 'Finish', and 'Cancel'.

Enter the WebLogic Domain administration username and password. This information will be needed to access WebLogic Server Control and Fusion Middleware Control. Click **Next** to continue.

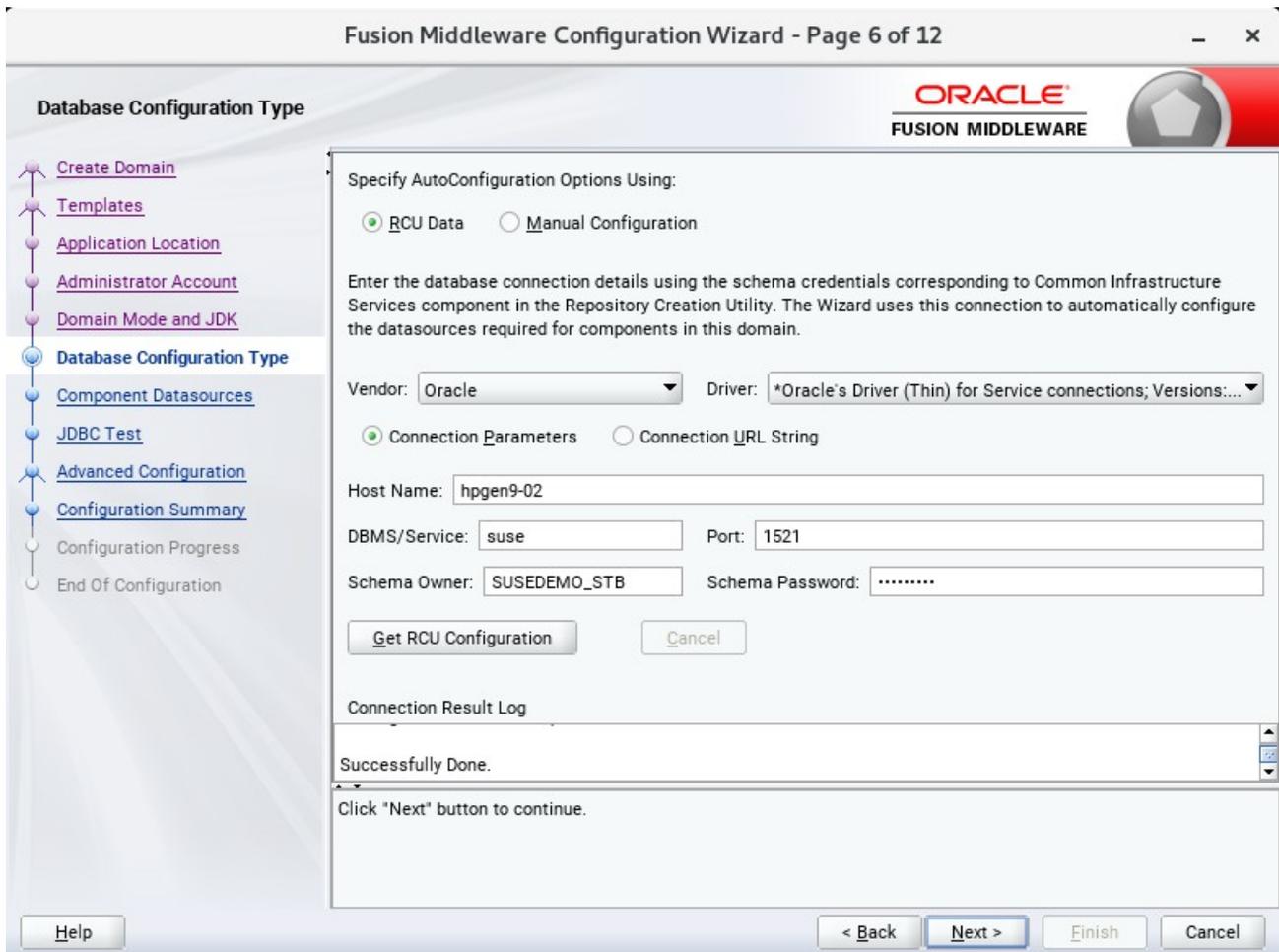
5). The **Domain Mode and JDK** screen appears.



Select the Domain Mode (either **Development** or **Production**). For our purposes, select **Production**. Leave the default JDK selection as it appears, unless using another version of the JDK desired.

(**Note:** Your installation can only be secured with Identity Management if you are configuring your components in deployment mode.)

6). The **Database Configuration Type** screen appears.



Enter the RCU DB connection information, then click **Get RCU Configuration**. You should receive a success message. Click **Next** to continue.

7). The **JDBC Component Schema** screen appears.

**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

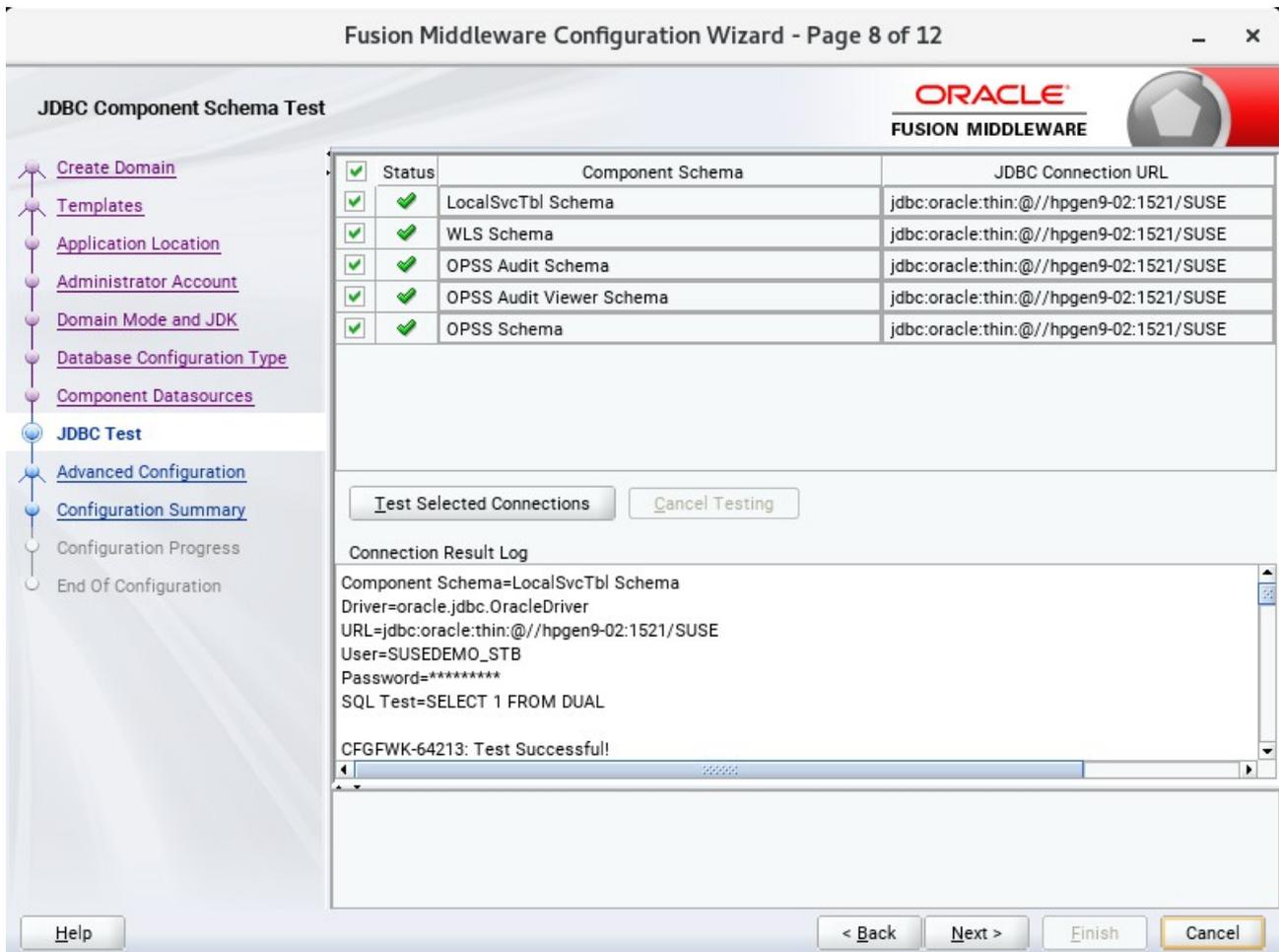
Edits to the data above will affect all checked rows in the table below.

<input type="checkbox"/>	Component Schema	DBMS/S...	Host Name	Port	Schema Owner	Schema Password
<input type="checkbox"/>	LocalSvcTbl Schema	SUSE	hpgen9-02	1521	SUSEDEMO_STB	.....
<input type="checkbox"/>	WLS Schema	SUSE	hpgen9-02	1521	SUSEDEMO_WLS_RUNTIME	.....
<input type="checkbox"/>	OPSS Audit Schema	SUSE	hpgen9-02	1521	SUSEDEMO_IAU_APPEND	.....
<input type="checkbox"/>	OPSS Audit Viewer Sche	SUSE	hpgen9-02	1521	SUSEDEMO_IAU_VIEWER	.....
<input type="checkbox"/>	OPSS Schema	SUSE	hpgen9-02	1521	SUSEDEMO_OPSS	.....

Help < Back Next > Finish Cancel

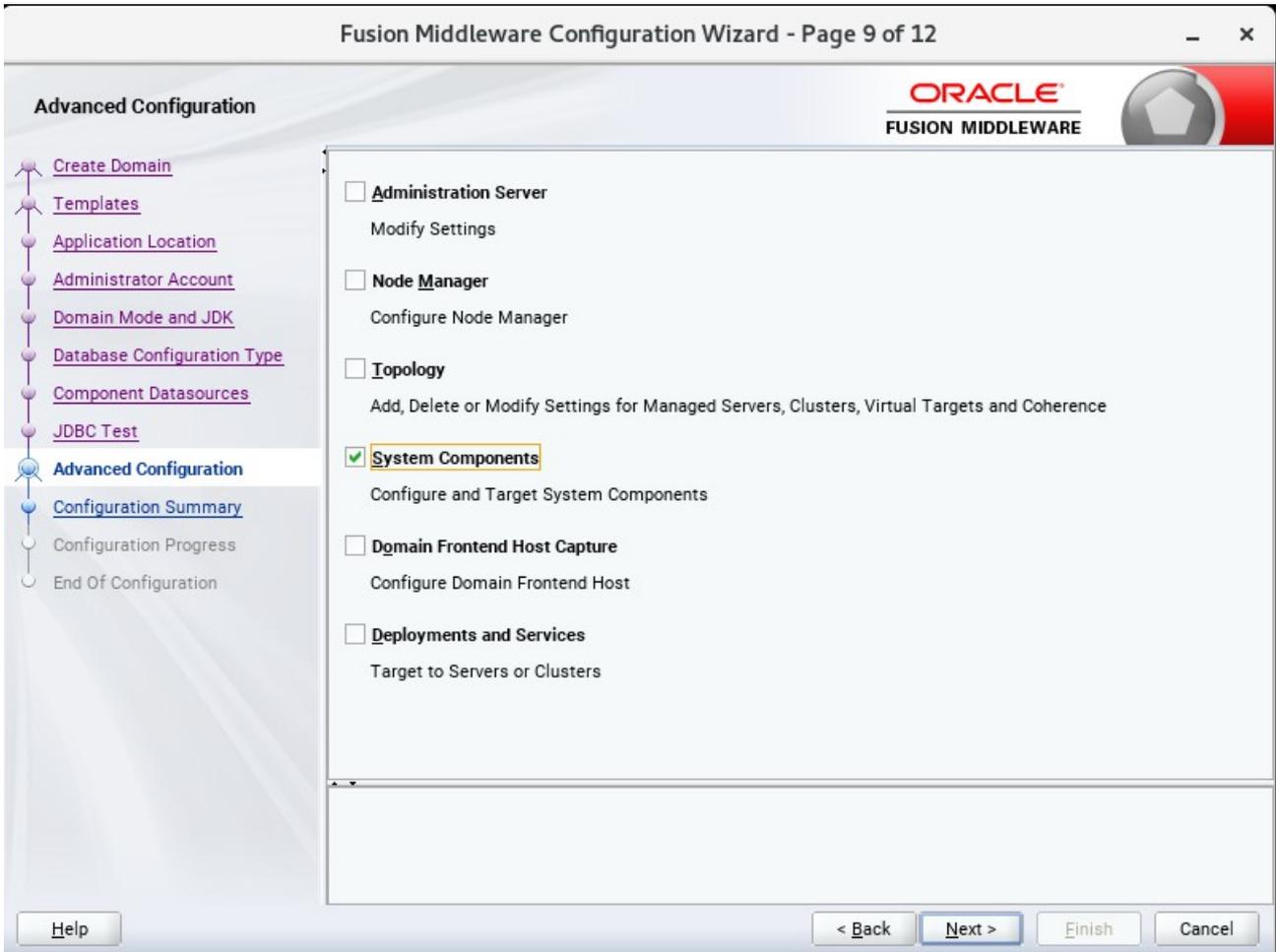
Our instructions assume each Repository schema uses the same password. If not, enter the correct schema passwords. Click **Next** to continue.

8). The **JDBC Component Schema Test** screen appears.



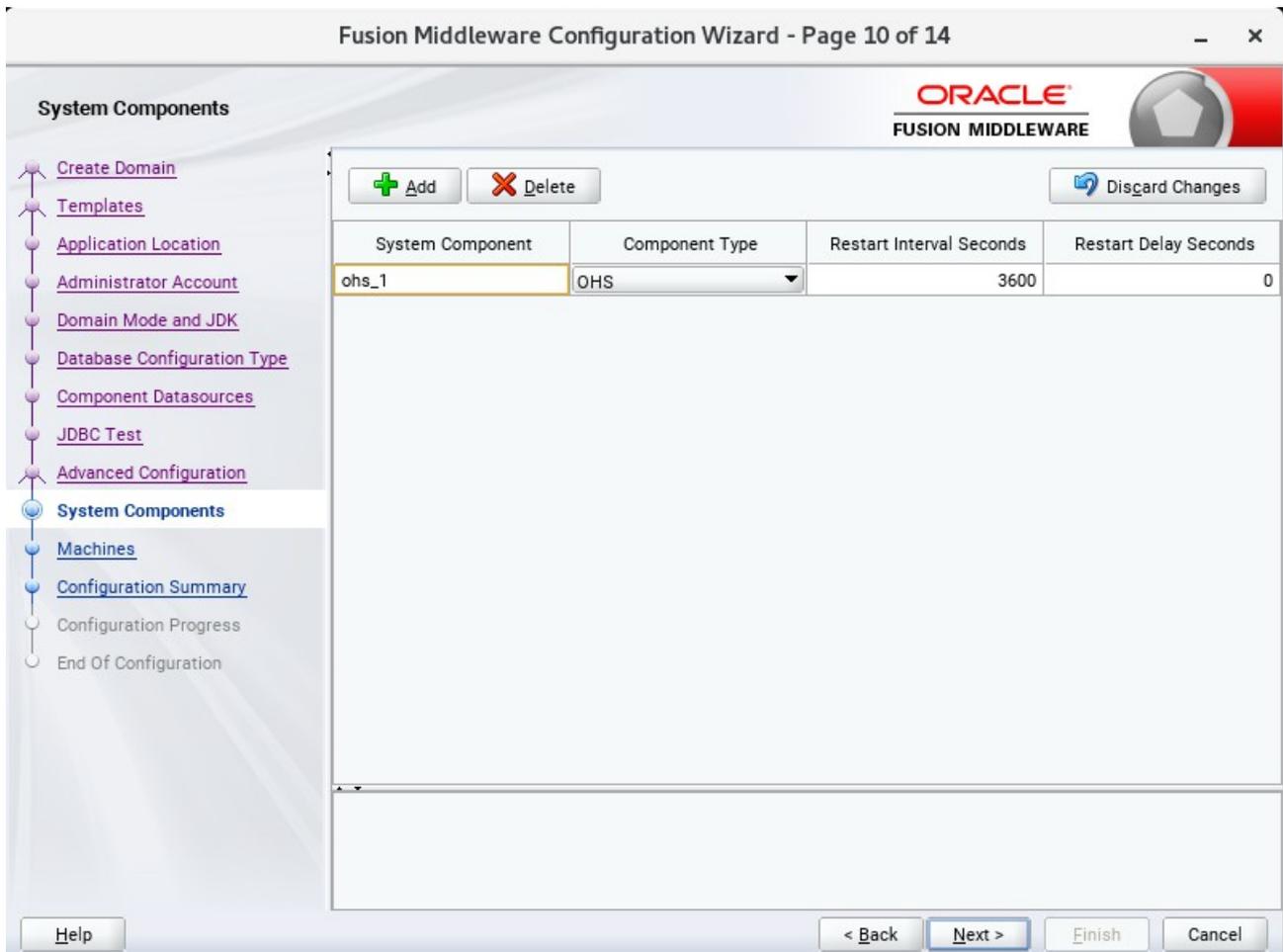
The tests are run and the results given. Ensure all test results are successful. Click **Next** to continue.

9). The **Advanced Configuration** screen appears.



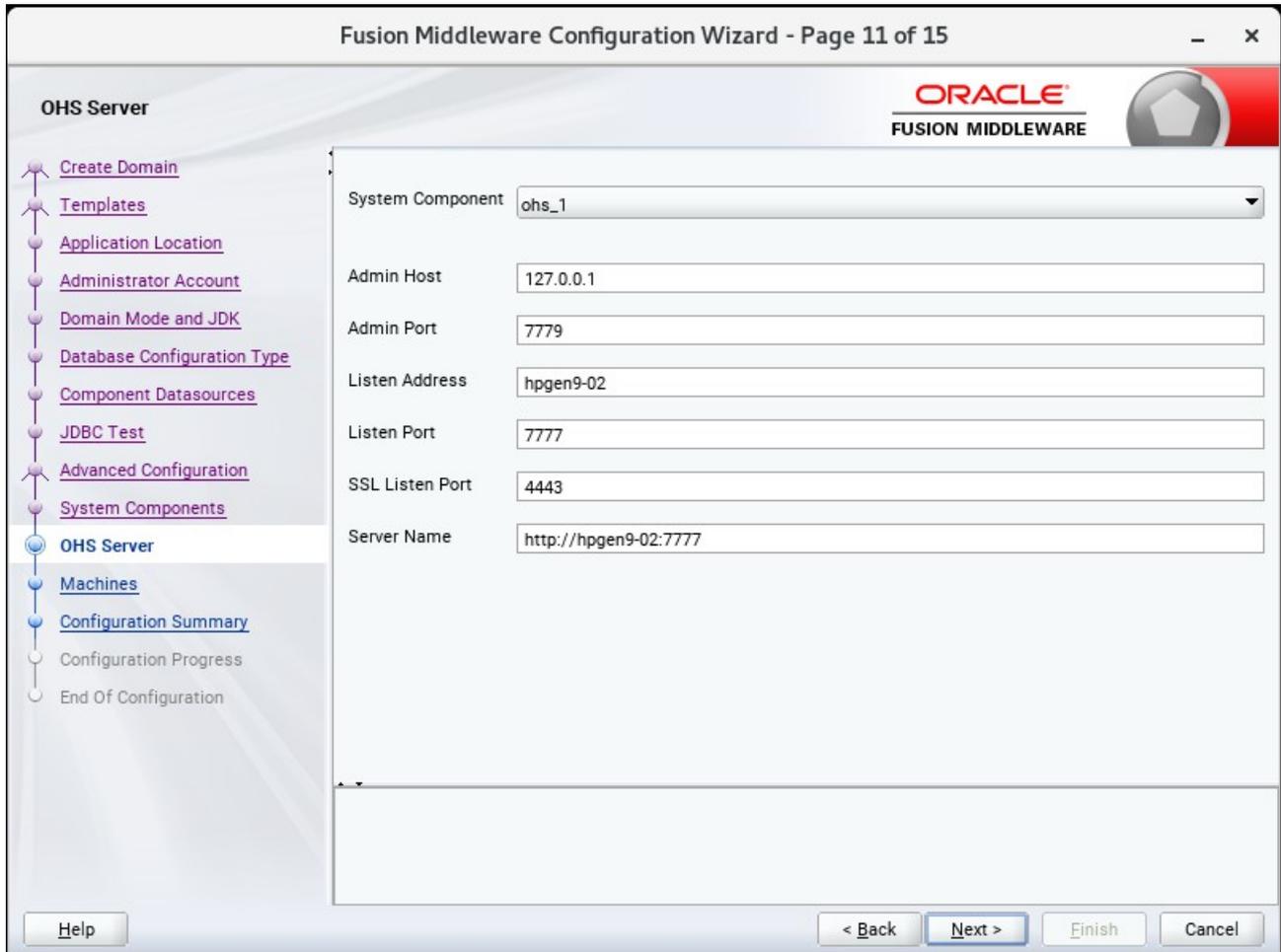
Choose the services on your requirements, then click **Next** to continue.

10). The **System Components** screen appears.



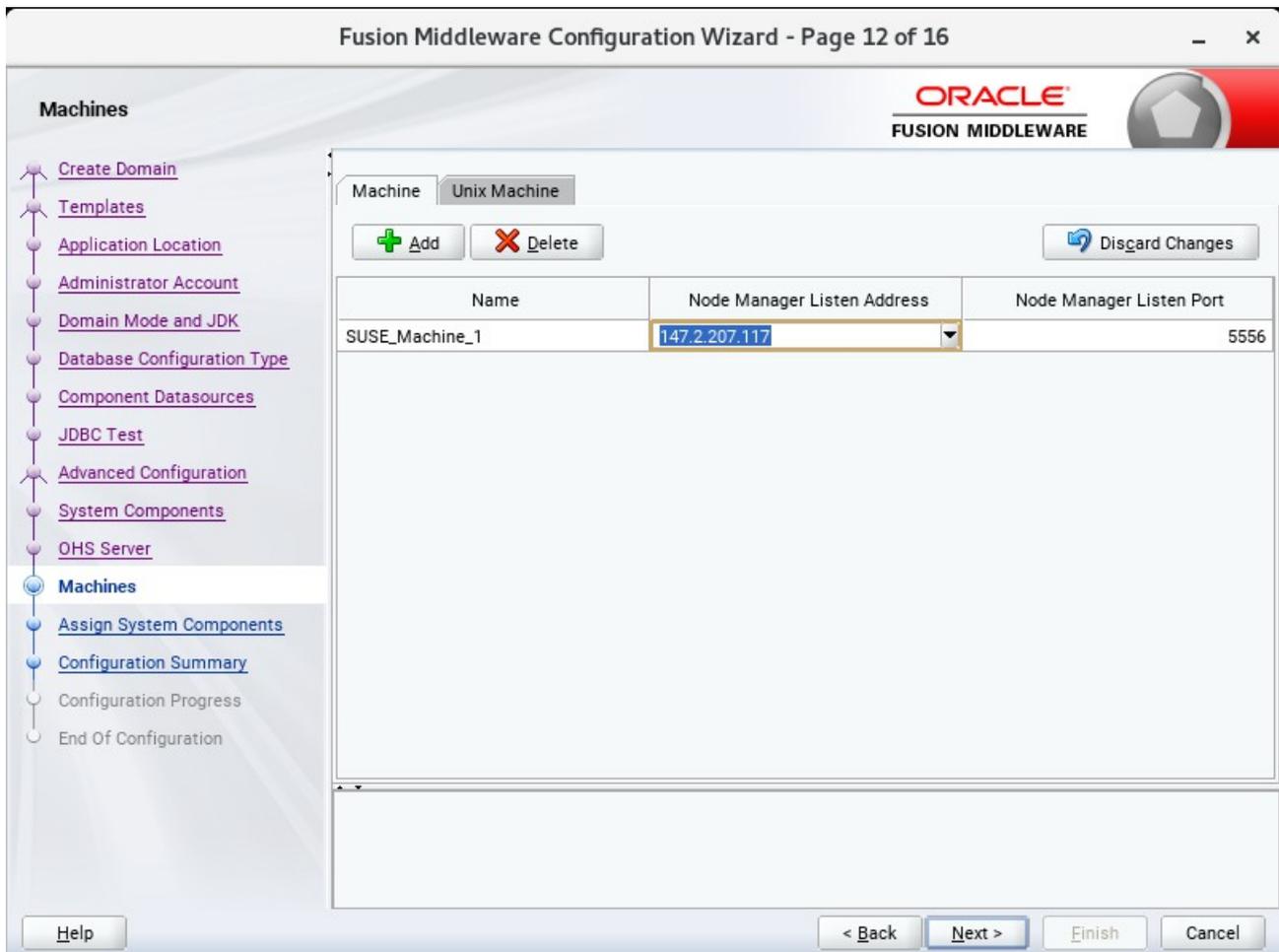
Click **Add** to create a new Oracle HTTP Server instance. Specify 'ohs\_1' in the **System Component** field, and specify 'OHS' in the **Component Type** field. Click **Next** to continue.

11). The **OHS Server** screen appears.



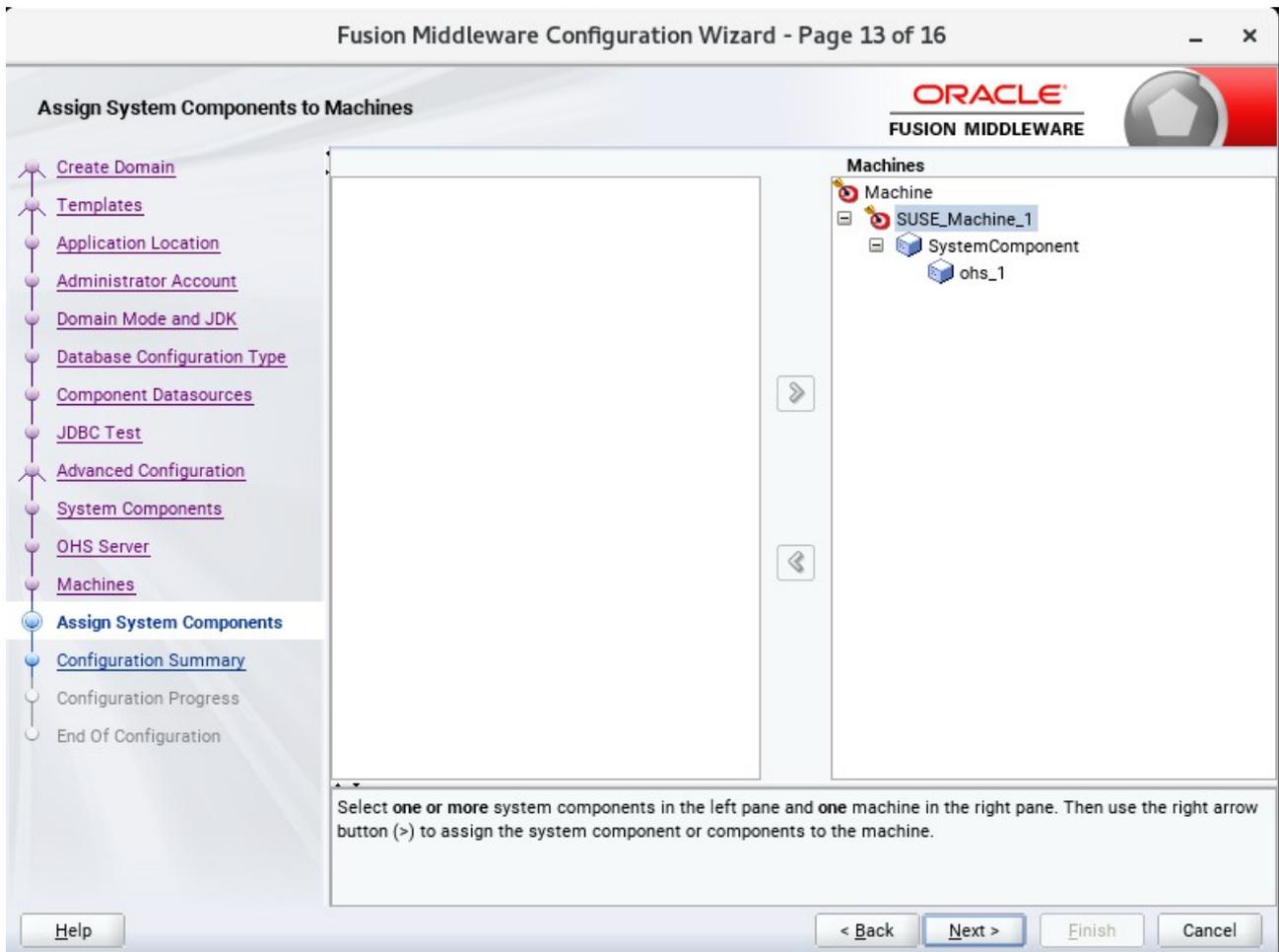
Use the **OHS Server** screen to configure the Oracle HTTP Server servers in your domain. In the System Component field specify the IP address of the host on which the Oracle HTTP Server instance will reside. Do not use "localhost". Click **Next** to continue.

12). The **Machines** screen appears.



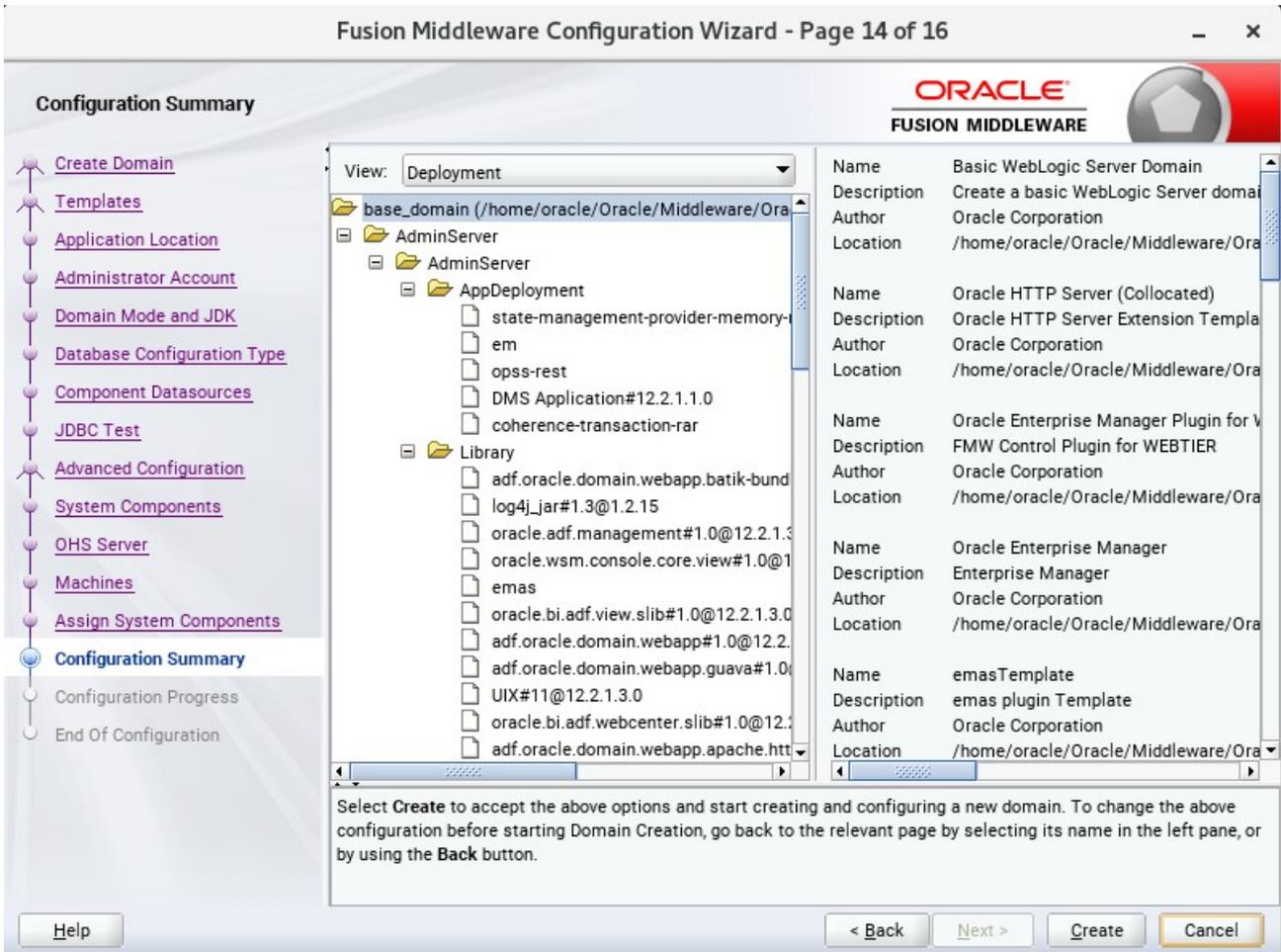
You can use this screen to override the machine name or add additional Machine names for extended domain. Click **Next** to continue.

13). The **Assign System Components** screen appears.



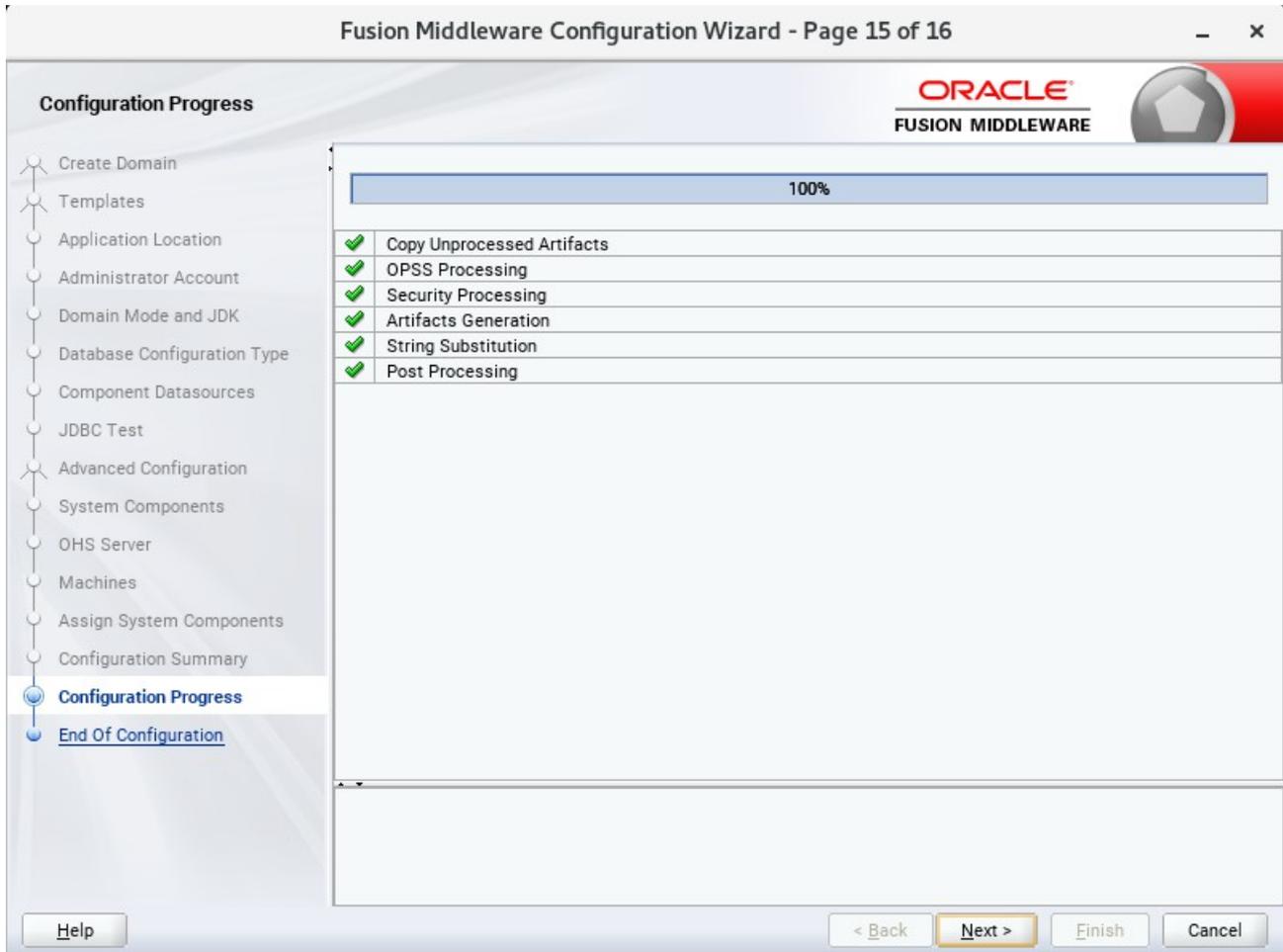
Select the '**ohs\_1**' in the System Component list box and click the right arrow. Click **Next** to continue.

14). The **Configuration Summary** screen appears.



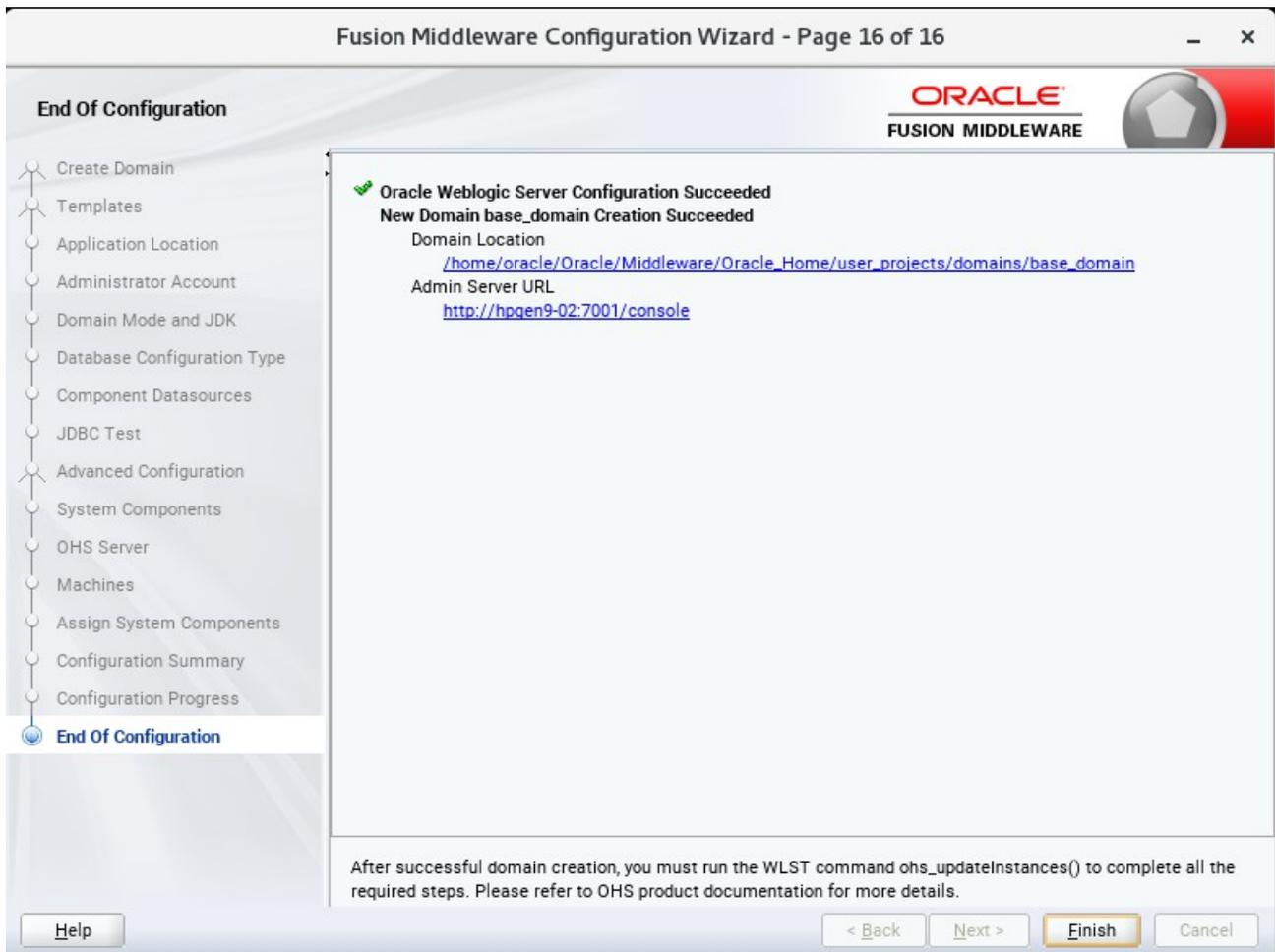
Select **Create** to accept the above options and start creating and configuring a new domain.

15). The **Configuration Progress** screen appears.



Wait for this part of the configuration to complete. Depending on the location and performance of the Repository database, this process may take a few minutes. Click **Next** to continue.

16). The **End of Configuration** screen appears.



Once you see: "Oracle Weblogic Server Configuration Succeeded", record the '**Domain Location**' and '**Admin Server URL**', then click **Finish** to dismiss the Configuration Wizard.

## 4. Verifying Oracle WebTier 12cR2 OHS Installation and Configuration

4-1. Check for the presence of installation log files in logs directory inside your Oracle Inventory directory. Also, check the domain server logs, which are located in the servers directory inside the domain home directory.

4-2. Starting the Node Manager and the Admin Server.

**Starting the Node Manager, go to the DOMAIN\_HOME/bin directory and run 'nohup ./startNodeManager.sh > nm.out&'**

```

oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/bin
File Edit View Search Terminal Tabs Help
oracle@hpgen9-02:/opt/oracle/Do... x oracle@hpgen9-02:/home/oracle/O... x oracle@hpgen9-02:/home/oracle/O... x
oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/bin> nohup ./startNodeManager.sh > nm.out&
[1] 22508
oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/bin> nohup: ignoring input and redirecting stderr to stdout

oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/bin> more nm.out
NODEMGR HOME is already set to /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/node
manager
CLASSPATH=/home/oracle/ORACLE_SW/Java/jdk1.8.0_144/lib/tools.jar:/home/oracle/Oracle/Middleware/Oracle_Home/wlse
rver/server/lib/weblogic.jar:/home/oracle/Oracle/Middleware/Oracle_Home/wlserver/./oracle_common/modules/thirdp
arty/ant-contrib-1.0b3.jar:/home/oracle/Oracle/Middleware/Oracle_Home/wlserver/modules/features/oracle.wls.common
.nodemanager.jar:/home/oracle/Oracle/Middleware/Oracle_Home/wlserver/./home/oracle/Oracle/Middleware/Oracle_
Home/wlserver/modules/features/oracle.wls.common.grizzly.jar
+ /home/oracle/ORACLE_SW/Java/jdk1.8.0_144/bin/java -server -Xms32m -Xmx200m -Djdk.tls.ephemeralDHKeySize=2048 -
Dcoherence.home=/home/oracle/Oracle/Middleware/Oracle_Home/wlserver/./coherence -Dbea.home=/home/oracle/Oracle/
Middleware/Oracle_Home/wlserver/./ -Dohs.product.home=/home/oracle/Oracle/Middleware/Oracle_Home/ohs -Doracle.se
curity.jps.config=/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/config/fmwconfig/
jps-config-jse.xml -Dcommon.components.home=/home/oracle/Oracle/Middleware/Oracle_Home/oracle_common -Dopss.vers
ion=12.2.1.3 -Dweblogic.RootDirectory=/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base doma
in -Djava.system.class.loader=com.oracle.classloader.weblogic.LaunchClassLoader -Djava.security.policy=/home/ora
cle/Oracle/Middleware/Oracle_Home/wlserver/server/lib/weblogic.policy -Dweblogic.nodemanager.JavaHome=/home/orac
le/ORACLE_SW/Java/jdk1.8.0_144/weblogic.NodeManager -v
<Oct 11, 2017 11:32:33 AM GMT+08:00> <INFO> <Loading domains file: /home/oracle/Oracle/Middleware/Oracle_Home/us
er_projects/domains/base_domain/nodemanager/nodemanager.domains>
<Oct 11, 2017 11:32:33 AM GMT+08:00> <INFO> <Upgrade> <Setting NodeManager properties version to 12.2.1.3.0>
<Oct 11, 2017 11:32:33 AM GMT+08:00> <INFO> <Upgrade> <Saving upgraded NodeManager properties to '/home/oracle/O
racle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.properties'>
<Oct 11, 2017 11:32:33 AM GMT+08:00> <INFO> <Loading domains file: /home/oracle/Oracle/Middleware/Oracle_Home/us
er_projects/domains/base_domain/nodemanager/nodemanager.domains>
<Oct 11, 2017 11:32:33 AM GMT+08:00> <INFO> <Loading identity key store: FileName=kss://system/demoidentity, Typ
e=kss, PassPhraseUsed=true>
Oct 11, 2017 11:32:34 AM oracle.security.opss.internal.runtime.ServiceContextManagerImpl getContext
WARNING: Bootstrap services are used by OPSS internally and clients should never need to directly read/write boo
tstrap credentials. If required, use Wlst or configuration management interfaces.

```

Starting the Admin Server, go to the `DOMAIN_HOME/bin` directory and run `./startWebLogic.sh`.

```

oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/bin
File Edit View Search Terminal Tabs Help
oracle@hpgen9-02:/opt... x oracle@hpgen9-02:/ho... x oracle@hpgen9-02:/ho... x oracle@hpgen9-02:/ho... x
/.*, /em/faces/logon/.*, /em/faces/helppages/.*, /em/flashbridge.*, /em/formsapp/lib/formsRecorder.jar, /em/imag
es/.*, /em/install/getAgentImage, /em/helppages/help.*, /em/jsLibs/.*, /em/jsLibs0bf/.*, /em/login.jsp, /em/mapp
roxy.*, /em/mobile/core/uifwk/skins/.*, /em/ocamm/lib.*, /em/onetime.*, /em/ovs/discovertargets, /em/public/.*,
/em/public lib download/.*, /em/redirect.*, /em/relocatetarget.*, /em/sdkImpl/core/uifwkmobile/skins/.*, /em/serv
let/GaugeServlet.*, /em/servlet/GraphServlet.*, /em/swlib/getfile, /em/VncViewer.jar, /em/websvcs.*, /em/jobrecv
.*]
<Oct 11, 2017 11:35:49,180 AM GMT+08:00> <Notice> <Log Management> <BEA-170027> <The server has successfully est
ablished a connection with the Domain Level Diagnostic Service.>
<Oct 11, 2017 11:35:49,804 AM GMT+08:00> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to ADMIN.>
<Oct 11, 2017 11:35:49,874 AM GMT+08:00> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to RESUMING
G.>
<Oct 11, 2017 11:35:49,874 AM GMT+08:00> <Notice> <JMX> <BEA-149535> <JMX Resiliency Activity Server=All Servers
: Resolving connection list DomainRuntimeServiceMBean>
<Oct 11, 2017 11:35:49,995 AM GMT+08:00> <Warning> <Server> <BEA-002611> <The hostname "localhost", maps to mult
iple IP addresses: 127.0.0.1, 0:0:0:0:0:0:1:>
<Oct 11, 2017 11:35:49,996 AM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default" is now listening on 1
47.2.207.117:7001 for protocols iiop, t3, ldap, snmp, http.>
<Oct 11, 2017 11:35:49,997 AM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[2]" is now listening o
n 127.0.0.1:7001 for protocols iiop, t3, ldap, snmp, http.>
<Oct 11, 2017 11:35:49,997 AM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[1]" is now listening o
n 0:0:0:0:0:0:1%lo:7001 for protocols iiop, t3, ldap, snmp, http.>
<Oct 11, 2017 11:35:49,997 AM GMT+08:00> <Notice> <WebLogicServer> <BEA-000329> <Started the WebLogic Server Adm
inistration Server "AdminServer" for domain "base domain" running in production mode.>
<Oct 11, 2017 11:35:49,997 AM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default" is now listening on 1
47.2.207.117:7001 for protocols iiop, t3, ldap, snmp, http.>
<Oct 11, 2017 11:35:49,997 AM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[2]" is now listening o
n 127.0.0.1:7001 for protocols iiop, t3, ldap, snmp, http.>
<Oct 11, 2017 11:35:49,997 AM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[1]" is now listening o
n 0:0:0:0:0:0:1%lo:7001 for protocols iiop, t3, ldap, snmp, http.>
<Oct 11, 2017 11:35:50,055 AM GMT+08:00> <Notice> <WebLogicServer> <BEA-000360> <The server started in RUNNING m
ode.>
<Oct 11, 2017 11:35:50,066 AM GMT+08:00> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to RUNNING
.>

```

You know that the administrator server is running when you see the following output:

---

*Server state changed to RUNNING.*

---

4-3. Run the WLST command `ohs_updateInstances()` to complete all the required steps.

```

oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/ohs/common/bin
File Edit View Search Terminal Tabs Help
oracle@hpgen9-... x oracle@hpgen9-... x oracle@hpgen9-... x oracle@hpgen9-... x oracle@hpgen9-... x
oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/ohs/common/bin> ./wlst.sh
WARNING: This is a deprecated script. Please invoke the wlst.sh script under oracle_common/common/bin.
Initializing WebLogic Scripting Tool (WLST) ...

[INFO] Unable to bind key for unsupported operation: backward-delete-word
[INFO] Unable to bind key for unsupported operation: backward-delete-word
[INFO] Unable to bind key for unsupported operation: down-history
[INFO] Unable to bind key for unsupported operation: up-history
[INFO] Unable to bind key for unsupported operation: up-history
[INFO] Unable to bind key for unsupported operation: down-history
[INFO] Unable to bind key for unsupported operation: up-history
[INFO] Unable to bind key for unsupported operation: down-history
[INFO] Unable to bind key for unsupported operation: up-history
[INFO] Unable to bind key for unsupported operation: down-history
[INFO] Unable to bind key for unsupported operation: up-history
[INFO] Unable to bind key for unsupported operation: down-history
[INFO] Unable to bind key for unsupported operation: up-history
[INFO] Unable to bind key for unsupported operation: down-history
[INFO] Unable to bind key for unsupported operation: up-history
[INFO] Unable to bind key for unsupported operation: down-history
Welcome to WebLogic Server Administration Scripting Shell

Type help() for help on available commands

wls:/offline> connect ('weblogic','welcome1','hpgen9-02:7001')
Connecting to t3://hpgen9-02:7001 with userid weblogic ...
Successfully connected to Admin Server "AdminServer" that belongs to domain "base_domain".

Warning: An insecure protocol was used to connect to the server.
To ensure on-the-wire security, the SSL port or Admin port should be used instead.

wls:/base_domain/serverConfig/> ohs updateInstances()

```

```

oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/ohs/common/bin
File Edit View Search Terminal Tabs Help
oracle@hpgen9-... x oracle@hpgen9-... x oracle@hpgen9-... x oracle@hpgen9-... x oracle@hpgen9-... x
[INFO] Unable to bind key for unsupported operation: down-history
[INFO] Unable to bind key for unsupported operation: up-history
[INFO] Unable to bind key for unsupported operation: down-history
[INFO] Unable to bind key for unsupported operation: up-history
[INFO] Unable to bind key for unsupported operation: down-history
[INFO] Unable to bind key for unsupported operation: up-history
[INFO] Unable to bind key for unsupported operation: down-history
[INFO] Unable to bind key for unsupported operation: up-history
[INFO] Unable to bind key for unsupported operation: down-history
[INFO] Unable to bind key for unsupported operation: up-history
[INFO] Unable to bind key for unsupported operation: down-history
Welcome to WebLogic Server Administration Scripting Shell

Type help() for help on available commands

wls:/offline> connect ('weblogic','welcome1','hpgen9-02:7001')
Connecting to t3://hpgen9-02:7001 with userid weblogic ...
Successfully connected to Admin Server "AdminServer" that belongs to domain "base_domain".

Warning: An insecure protocol was used to connect to the server.
To ensure on-the-wire security, the SSL port or Admin port should be used instead.

wls:/base_domain/serverConfig/> ohs updateInstances()
Location changed to edit custom tree. This is a writable tree with No root.
For more help, use help('editCustom')

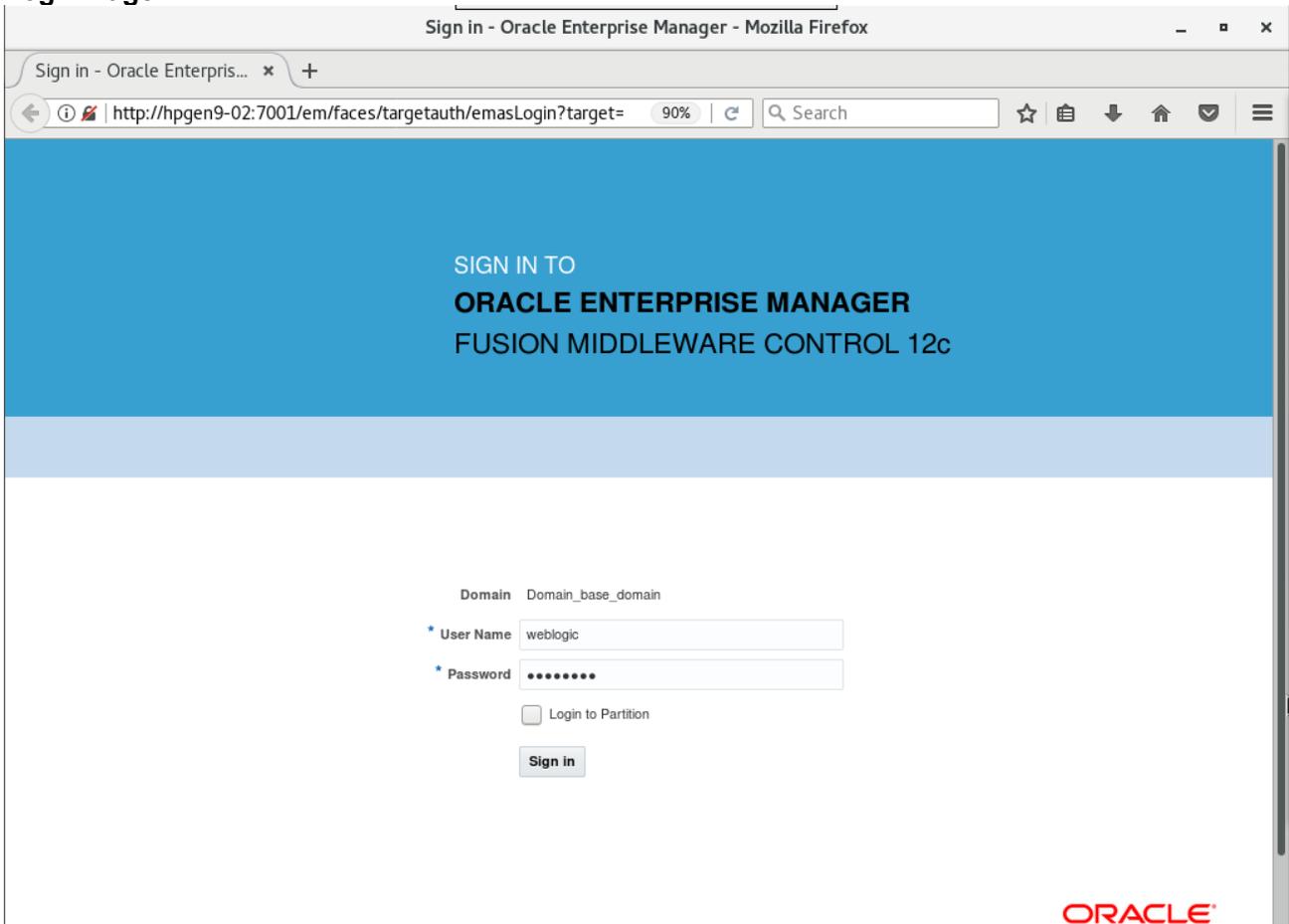
Starting an edit session ...
Started edit session, be sure to save and activate your changes once you are done.
Saving all your changes ...
Saved all your changes successfully.
Activating all your changes, this may take a while ...
The edit lock associated with this edit session is released once the activation is completed.
Activation completed
OHS instances have been updated successfully.
wls:/base_domain/serverConfig/> █

```

#### 4-4. Checking Oracle WebTier Product URLs.

##### 1). Access to Enterprise Manager Console.

#### Login Page:



Home Page:

base\_domain (Oracle WebLogic Domain) - Oracle Enterprise Manager - Mozilla Firefox

base\_domain (Oracle We... x +

http://hpgen9-02:7001/em/faces/as-weblogic-webLogicDomain 90%

ORACLE Enterprise Manager Fusion Middleware Control 12c

WebLogic Domain weblogic

base\_domain

WebLogic Domain

Oct 11, 2017 11:42:30 AM GMT+08:00

**Information**

Certain functionality on this page is available only when you own the edit session lock. To obtain the lock, click "Lock and Edit" in the Change Center menu.

**Servers**

1 Up

**Administration Server**

Name AdminServer

Host hpgen9-02

Listen Port 7001

**Servers**

Name	Status	Cluster	Machine	State	Health
AdminServer(admin)	↑			Running	OK

Columns Hidden 34 Servers 1 of 1

Starting Oracle HTTP Server (ohs\_1)

ohs\_1 (Oracle HTTP Server) - Oracle Enterprise Manager - Mozilla Firefox

ohs\_1 (Oracle HTTP Serv... x +

http://hpgen9-02:7001/em/faces/as\_ohs\_ohsHome?type=orac 90%

ORACLE Enterprise Manager Fusion Middleware Control 12c

WebLogic Domain weblogic

ohs\_1

Oracle HTTP Server

Start Up Shut Down Restart...

Oct 11, 2017 11:43:22 AM GMT+08:00

**Monitoring**

Metrics Unavailable

**Virtual Hosts**

0 Virtual Hosts

**Modules**

0 Modules

**General**

Component Name ohs\_1

Version 12.2.1.3.0

State Shutdown

Host 147.2.207.117

Ports hpgen9-02:7777 hpgen9-02:4443  
127.0.0.1:7779

Machine Name SUSE\_Machine\_1

Auto Restart ✓

Oracle Home /home/oracle/Oracle/Middleware  
/Oracle\_Home

**Response and Load**

11:29 AM 11:32 11:35 11:38 11:41  
October 11 2017

Request Processing Time (milli seconds)  
/Domain\_base\_domain/base\_domain/ohs\_1:Request Throu...

Table View

**Key Statistics**

Idle Processes Unavailable

Busy Processes Unavailable

Error Rate (%) -1.00

Connection Duration (seconds) Unavailable

Request Processing Time Unavailable

**CPU and Memory Usage**

11:29 AM 11:32 11:35 11:38 11:41  
October 11 2017

CPU Usage (%) Memory Usage (MB)

ohs\_1 is up.

The screenshot shows the Oracle Enterprise Manager interface for the component 'ohs\_1'. The status is 'Running'. Key statistics include 3 idle processes, 0 busy processes, and 0.00% error rate. The interface includes several monitoring graphs: 'Response and Load' showing request processing time and request throughput, and 'CPU and Memory Usage' showing CPU usage percentage and memory usage in MB. The general information section lists the component name, version (12.2.1.3.0), host (147.2.207.117), and ports (7777 and 4443).

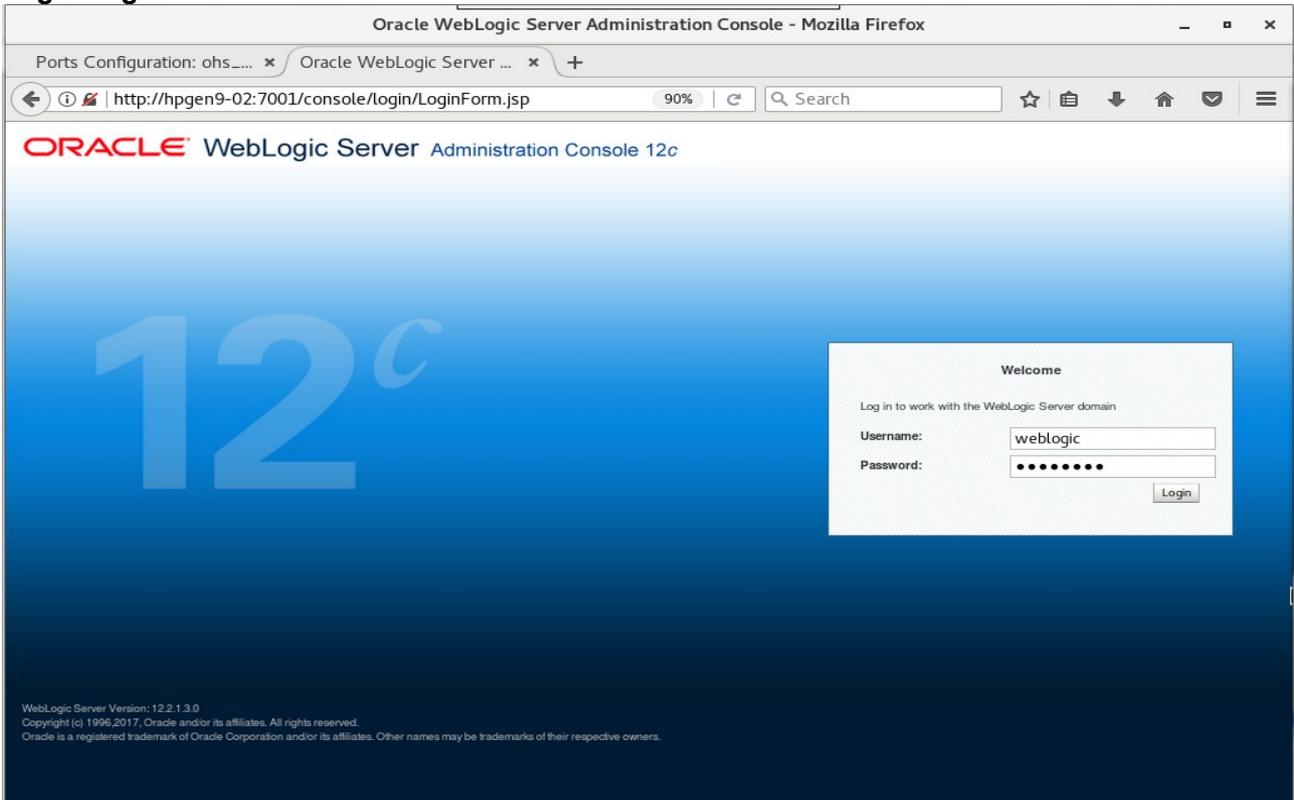
OHS Ports Configuration as shown below.

The screenshot shows the 'Ports Configuration' page for 'ohs\_1'. It contains an information message and a table of configured ports. The table lists three ports: 7777 (Listen) on host hpgen9-02 with IP 147.2.207.117 using HTTP; 4443 (Listen) on host hpgen9-02 with IP 147.2.207.117 using HTTPS; and 7779 (Admin) on localhost with IP 127.0.0.1 using HTTP.

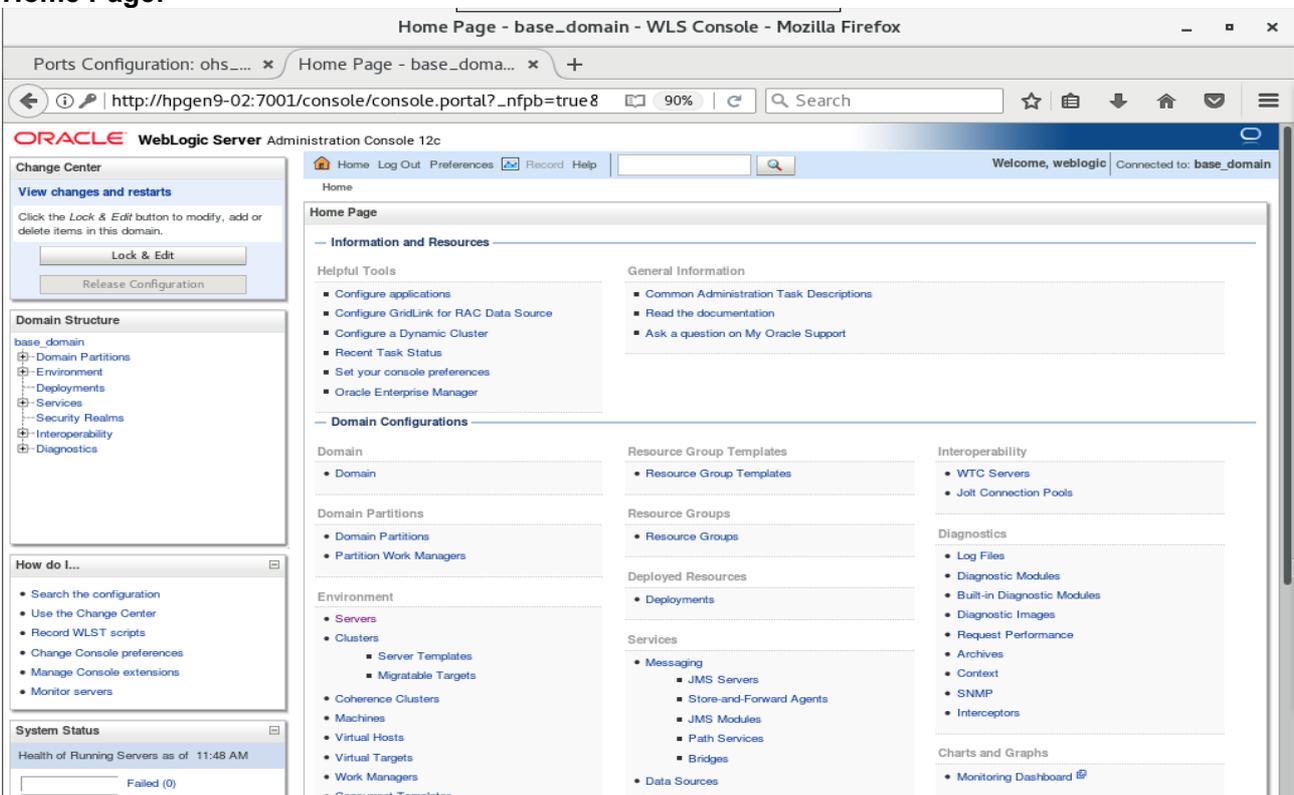
Port	Port Type	Host Name	IP Address	Protocol
7777	Listen	hpgen9-02	147.2.207.117	HTTP
4443	Listen	hpgen9-02	147.2.207.117	HTTPS
7779	Admin	localhost	127.0.0.1	HTTP

2). Access to Administration Server Console

Login Page as shown below:



Home Page:



**Viewing the summary of servers:**

Summary of Servers - base\_domain - WLS Console - Mozilla Firefox

Ports Configuration: ohs... x Summary of Servers - ba... x +

http://hpgen9-02:7001/console/console.portal?\_nfpb=true&\_p

ORACLE WebLogic Server Administration Console 12c

Home Log Out Preferences Record Help Welcome, weblogic Connected to: base\_domain

Home > Summary of Servers

**Summary of Servers**

Configuration Control

A server is an instance of WebLogic Server that runs in its own Java Virtual Machine (JVM) and has its own configuration. This page summarizes each server that has been configured in the current WebLogic Server domain.

Customize this table

Servers (Filtered - More Columns Exist)

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

New Clone Delete Showing 1 to 1 of 1 Previous | Next

<input type="checkbox"/>	Name	Type	Cluster	Machine	State	Health	Listen Port
<input type="checkbox"/>	AdminServer(admin)	Configured			RUNNING	OK	7001

New Clone Delete Showing 1 to 1 of 1 Previous | Next

**Change Center**

View changes and restarts

Click the **Lock & Edit** button to modify, add or delete items in this domain.

Lock & Edit Release Configuration

**Domain Structure**

- base\_domain
  - Domain Partitions
  - Environment
  - Deployments
  - Services
  - Security Realms
  - Interoperability
  - Diagnostics

**How do I...**

- Create Managed Servers
- Clone servers
- Delete Managed Servers
- Delete the Administration Server
- Start and stop servers
- View objects in the JNDI tree

**System Status**

Health of Running Servers as of 11:49 AM

Failed (0)

**Viewing the summary of Machines:**

Summary of Machines - base\_domain - WLS Console - Mozilla Firefox

Ports Configuration: ohs... x Summary of Machines - ... x +

http://hpgen9-02:7001/console/console.portal?\_nfpb=true&\_p

ORACLE WebLogic Server Administration Console 12c

Home Log Out Preferences Record Help Welcome, weblogic Connected to: base\_domain

Home > Summary of Servers > Summary of Machines

**Summary of Machines**

A machine is the logical representation of the computer that hosts one or more WebLogic Server instances (servers). WebLogic Server uses configured machine names to determine the optimum server in a cluster to which certain tasks, such as HTTP session replication, are delegated. The Administration Server uses the machine definition in conjunction with Node Manager to start remote servers. This page displays key information about each machine that has been configured in the current WebLogic Server domain.

Customize this table

Machines

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

New Clone Delete Showing 1 to 1 of 1 Previous Next

<input type="checkbox"/>	Name	Type
<input type="checkbox"/>	SUSE_Machine_1	Machine

New Clone Delete Showing 1 to 1 of 1 Previous Next

**Change Center**

View changes and restarts

Click the **Lock & Edit** button to modify, add or delete items in this domain.

Lock & Edit Release Configuration

**Domain Structure**

- base\_domain
  - Domain Partitions
  - Environment
  - Deployments
  - Services
  - Security Realms
  - Interoperability
  - Diagnostics

**How do I...**

- Create and configure machines
- Assign server instances to machines
- Clone machines
- Delete machines

**System Status**

Health of Running Servers as of 11:50 AM

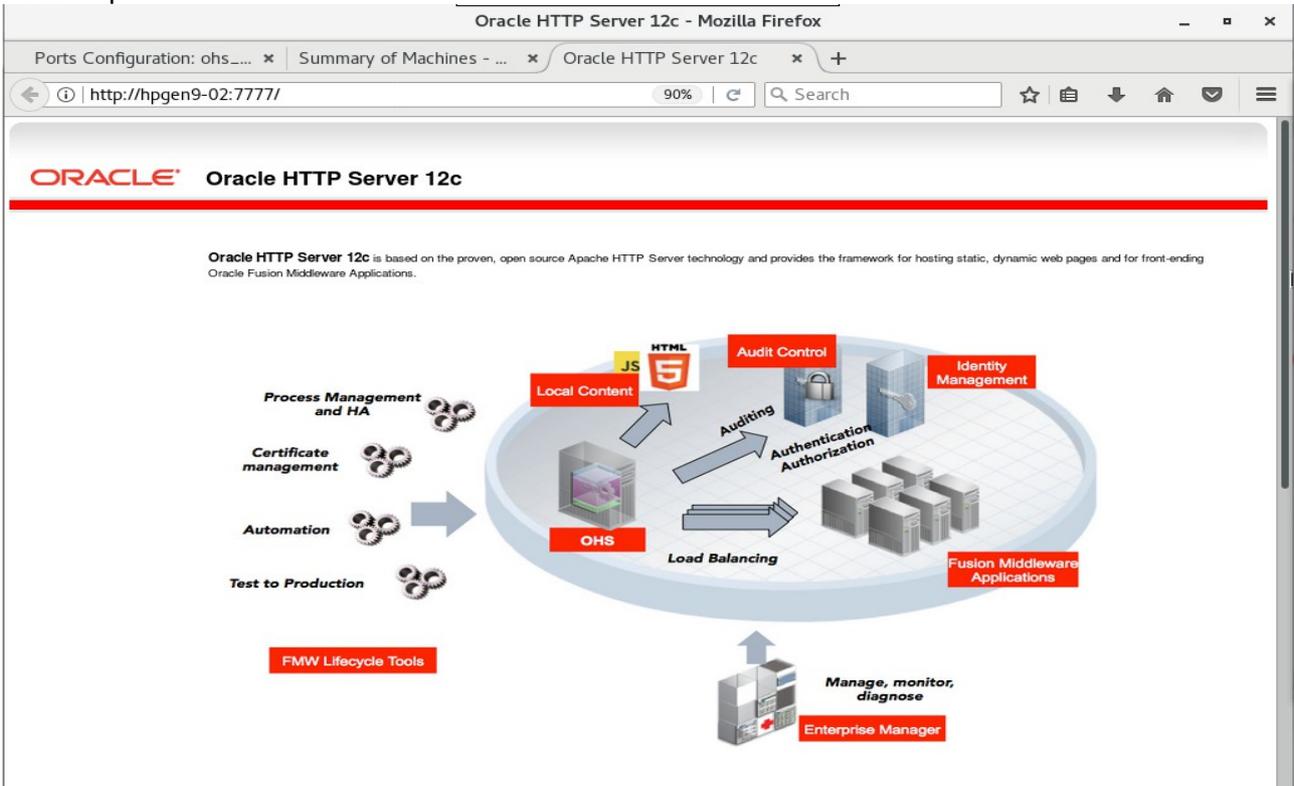
Failed (0)

Critical (0)

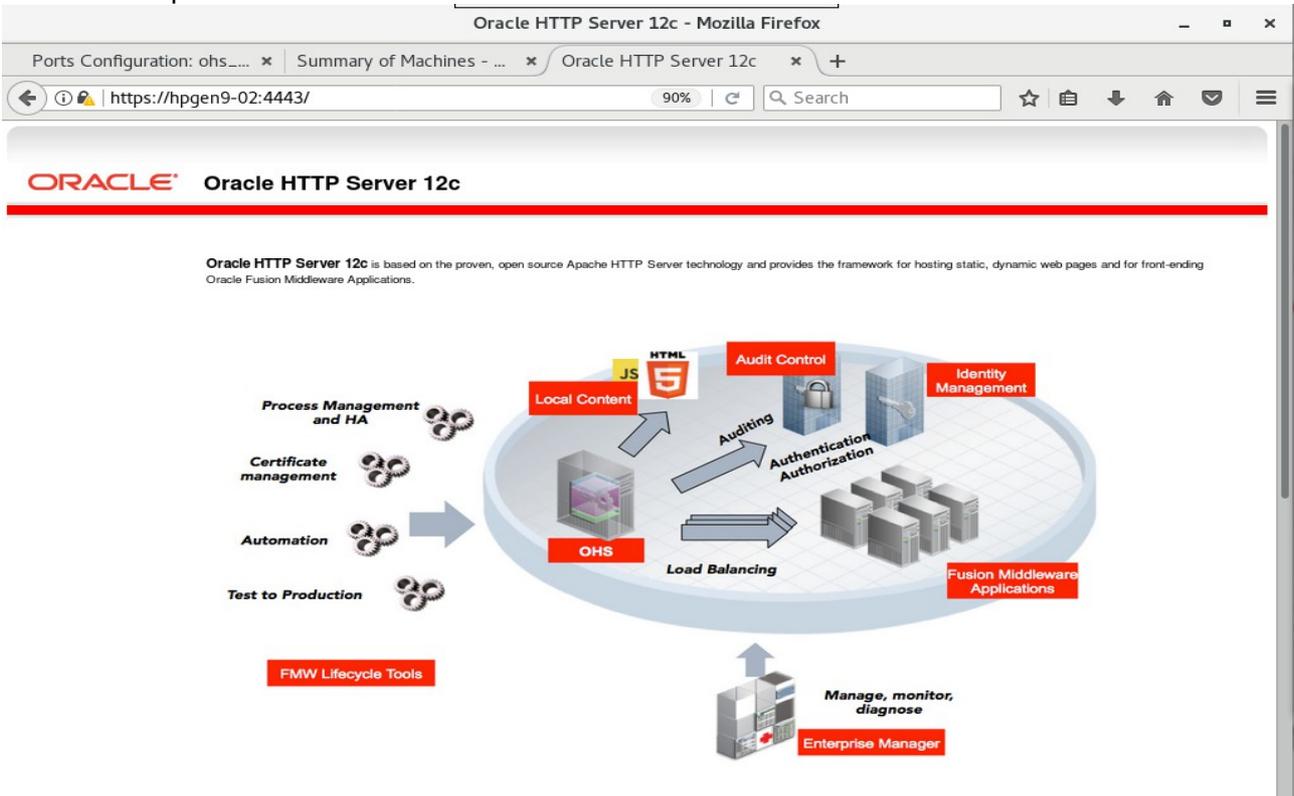
Overloaded (0)

3). Access to Oracle HTTP Server listening address

URL: <http://host:7777/>



SSL URL: <https://host:4443/>



Admin Host URL: <http://host:7779/>

**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.

Process Management and HA  
Certificate management  
Automation  
Test to Production

Local Content  
OHS  
Auditing  
Authentication Authorization  
Load Balancing  
Fusion Middleware Applications  
Audit Control  
Identity Management

FMW Lifecycle Tools  
Manage, monitor, diagnose

## 4-5. Checking OHS state through Oracle WLST tool.

```
Welcome to WebLogic Server Administration Scripting Shell
Type help() for help on available commands

wls:/offline> connect ('weblogic','welcome1','hpgen9-02:7001')
Connecting to t3://hpgen9-02:7001 with userid weblogic ...
Successfully connected to Admin Server "AdminServer" that belongs to domain "base_domain".

Warning: An insecure protocol was used to connect to the server.
To ensure on-the-wire security, the SSL port or Admin port should be used instead.

wls:/base_domain/serverConfig/> ohs_updateInstances()
Location changed to edit custom tree. This is a writable tree with No root.
For more help, use help('editCustom')

Starting an edit session ...
Started edit session, be sure to save and activate your changes once you are done.
Saving all your changes ...
Saved all your changes successfully.
Activating all your changes, this may take a while ...
The edit lock associated with this edit session is released once the activation is completed.
Activation completed
OHS instances have been updated successfully.
wls:/base_domain/serverConfig/> state('ohs_1')
Current state of "ohs_1" : RUNNING
wls:/base_domain/serverConfig/> state('AdminServer')
Current state of "AdminServer" : RUNNING
wls:/base_domain/serverConfig/> █
```

**End of Oracle WebTier Http Server.**

\*\*\*\*\*  
**Oracle WebCenter Portal**  
\*\*\*\*\*

## 1. Installing Oracle WebCenter Portal 12c

### 1-1. Prerequisites:

Installation of Oracle WebCenter Portal requires:

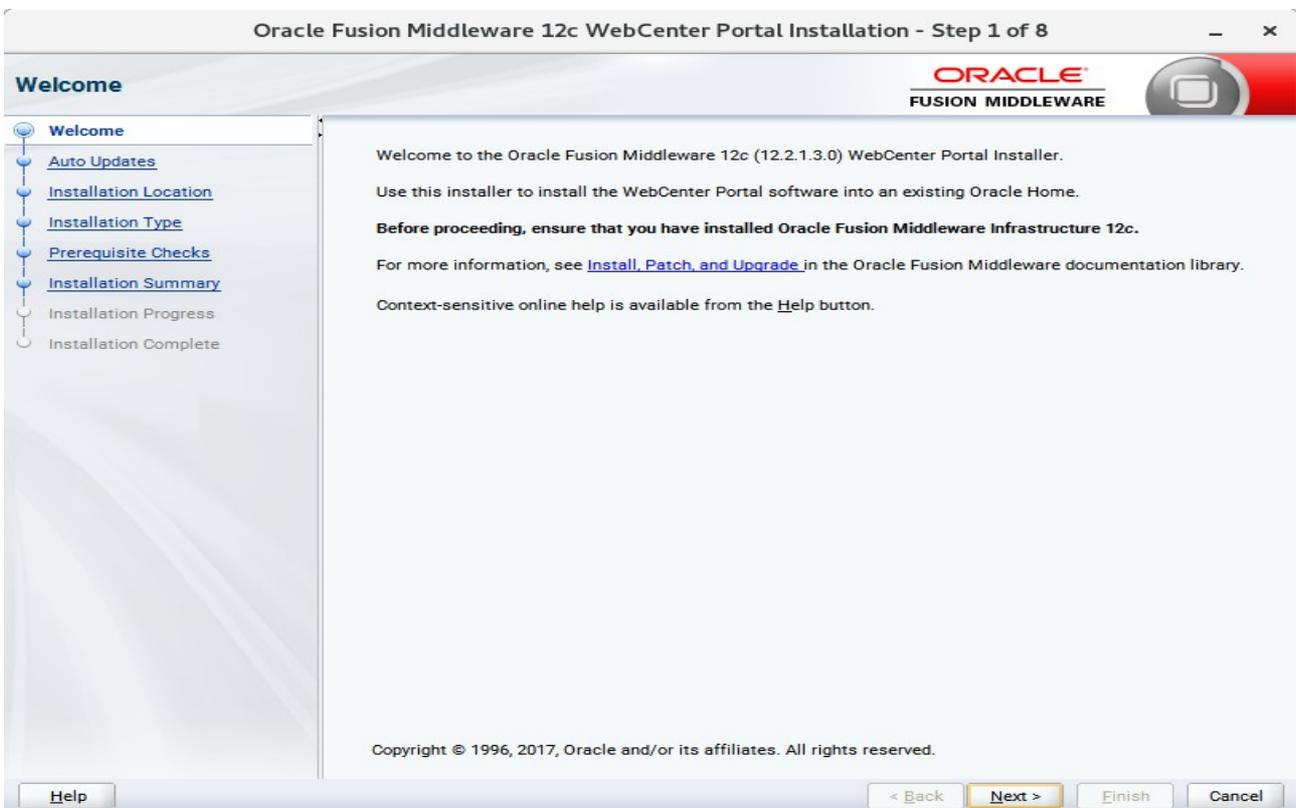
- 1). Oracle Database 12cR2 (12.2.0.1.0) installed.
- 2). Oracle JDK 1.8.0\_131 and later installed.
- 3). Oracle WebLogic Server 12cR2 (12.2.1.3.0) (Fusion Middleware Infrastructure Installer)

1-1. Log in to the target system (SLES 12 64-bit OS) as a non-admin user. Download the Oracle WebCenter Portal 12c (12.2.1.3.0) from <http://www.oracle.com/technetwork/indexes/downloads/index.html#middleware>.  
(**Note:** Please ensure the installation user has the proper permissions to install and configure the software.)

1-2. Go to the directory where you downloaded the installation program. Extract the contents of this .zip (fmw\_12.2.1.3.0\_wcportal\_Disk1\_1of1.zip) file and launch the installation program by running '`java -jar fmw_12.2.1.3.0_wcportal_*.jar`'

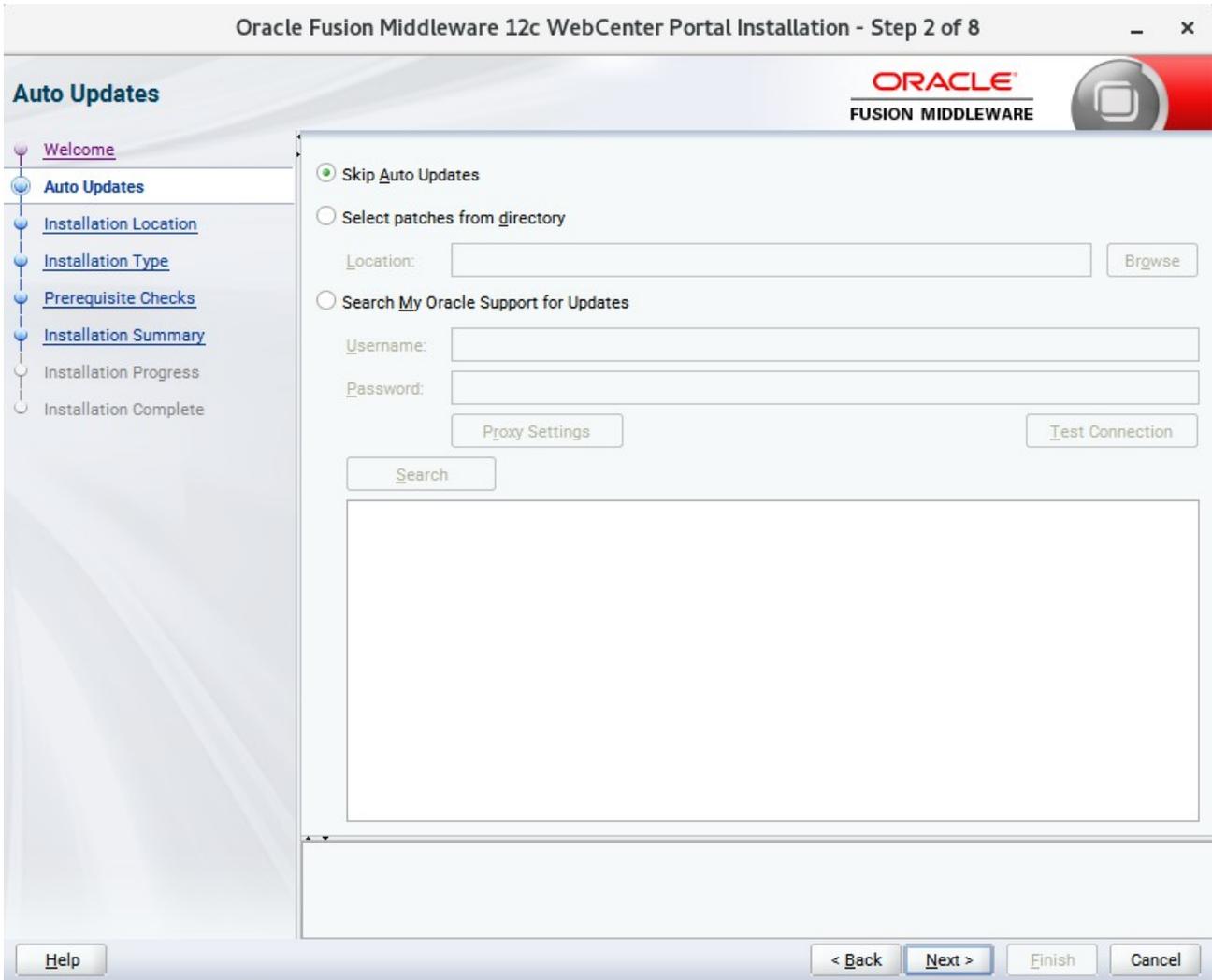
**For the actual installation, follow the steps below:**

- 1). Welcome page.



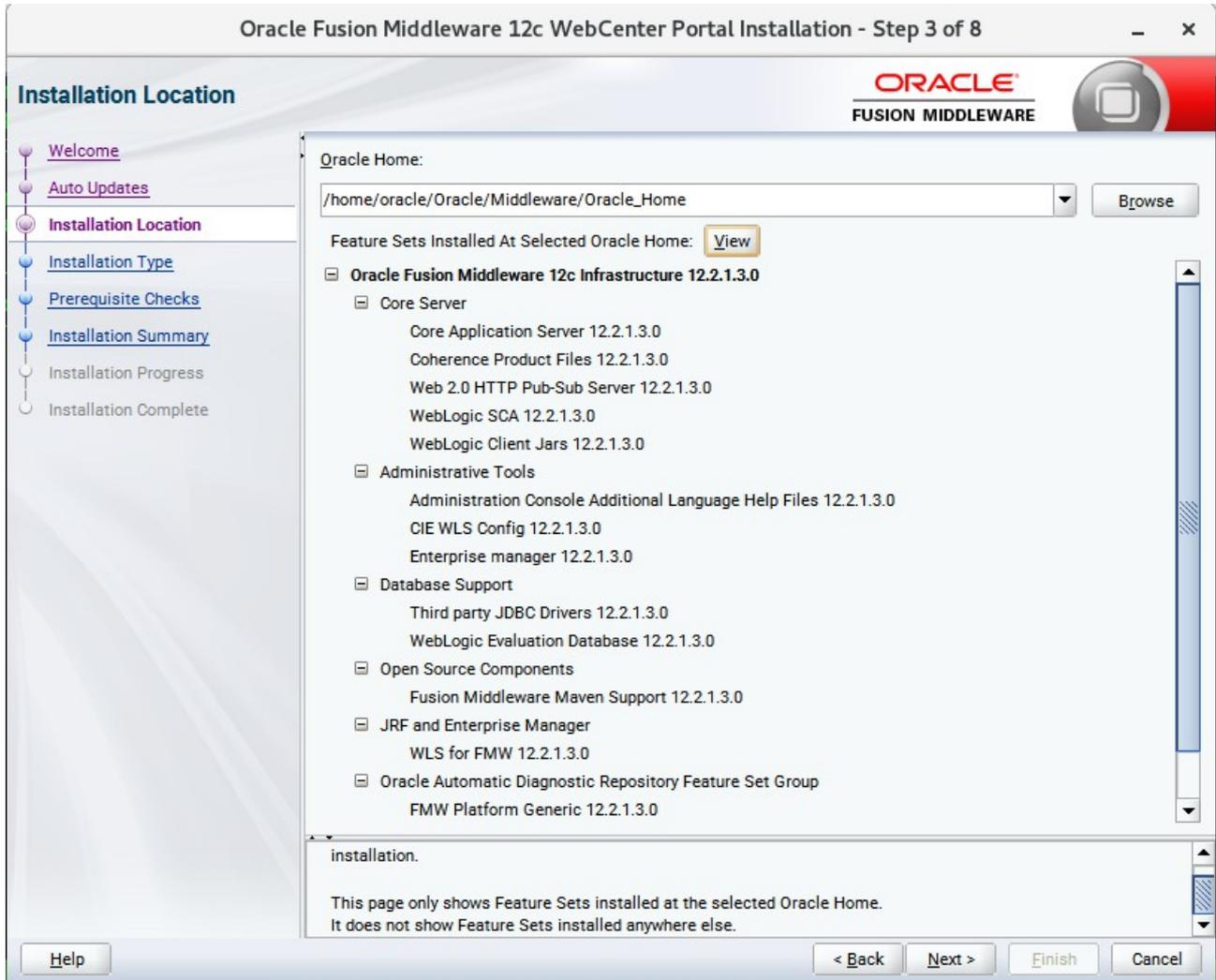
This page welcomes you to the installation. Click **Next** to continue.

2). The **Auto Updates** page appears.



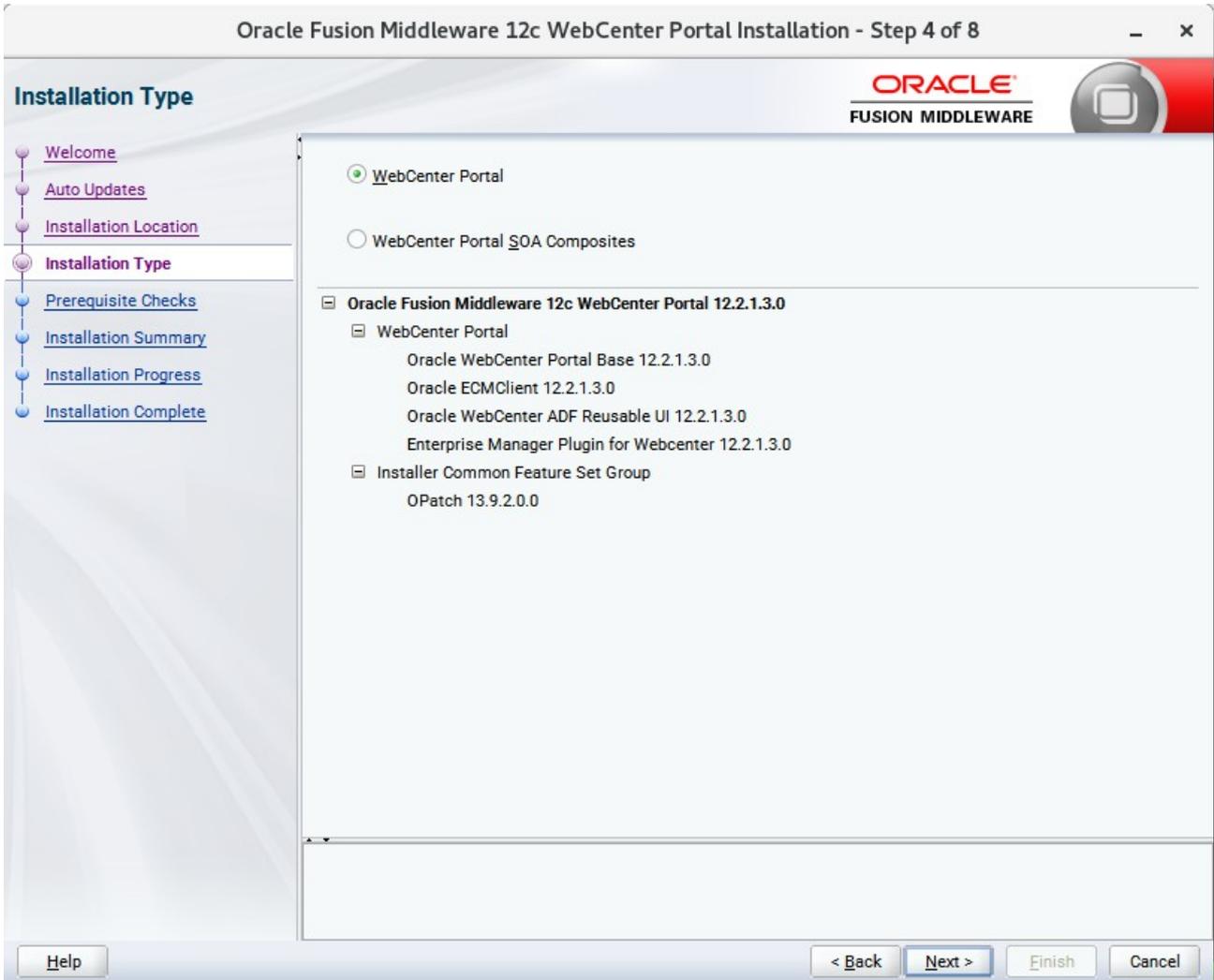
This page enables you to choose to automatically receive software updates for your components from Oracle Corporation. make your choices, then click **Next** to continue.

3). The **Installation Location** page appears.



Specify the Oracle home location into which you want to install the product(s). Click **Next** to continue.

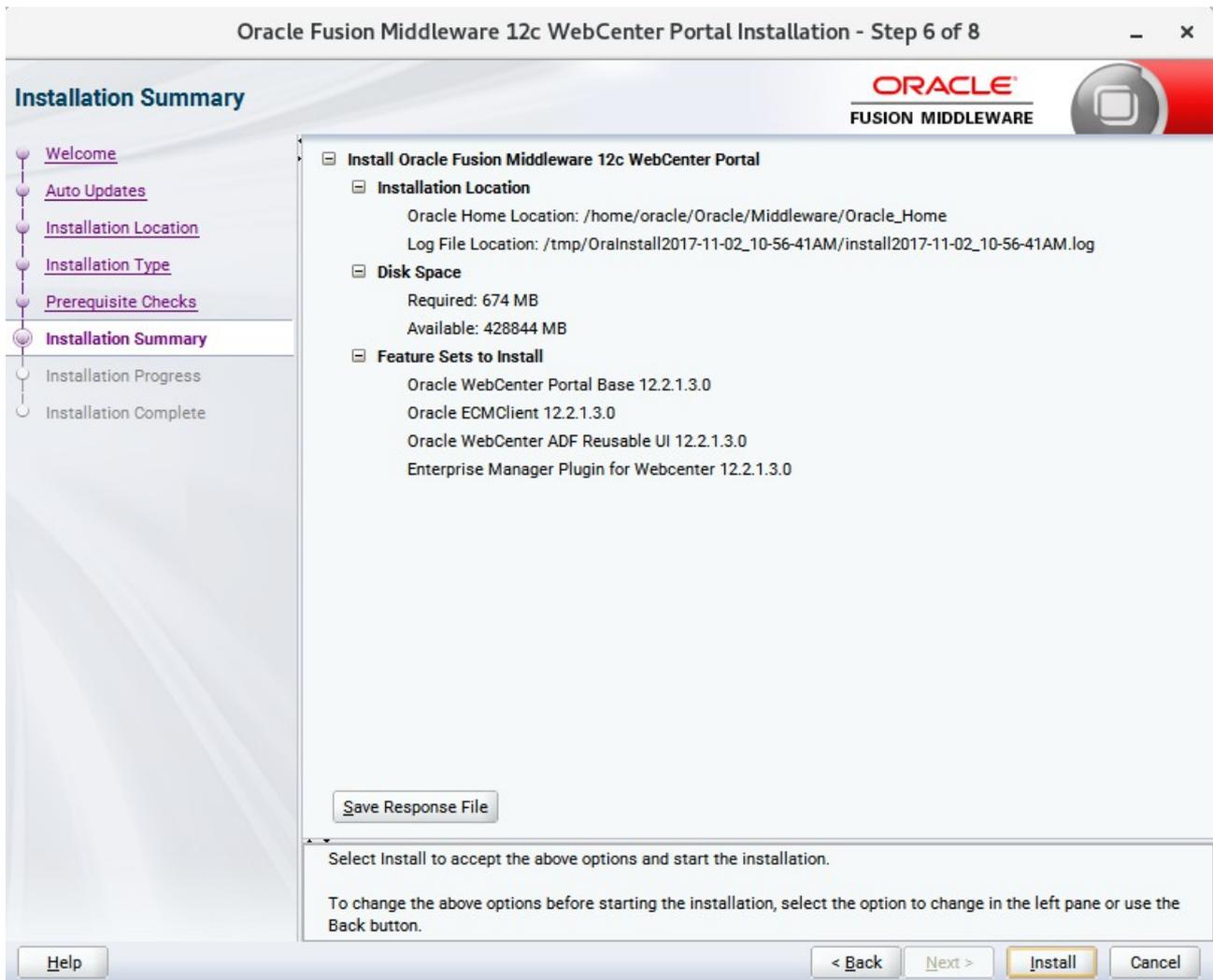
4). The **Installation Type** page appears.



Use this screen to select the installation type and then products or feature sets you want to install. Selected the **WebCenter Portal** install type to install the WebCenter product. Click **Next** to continue.

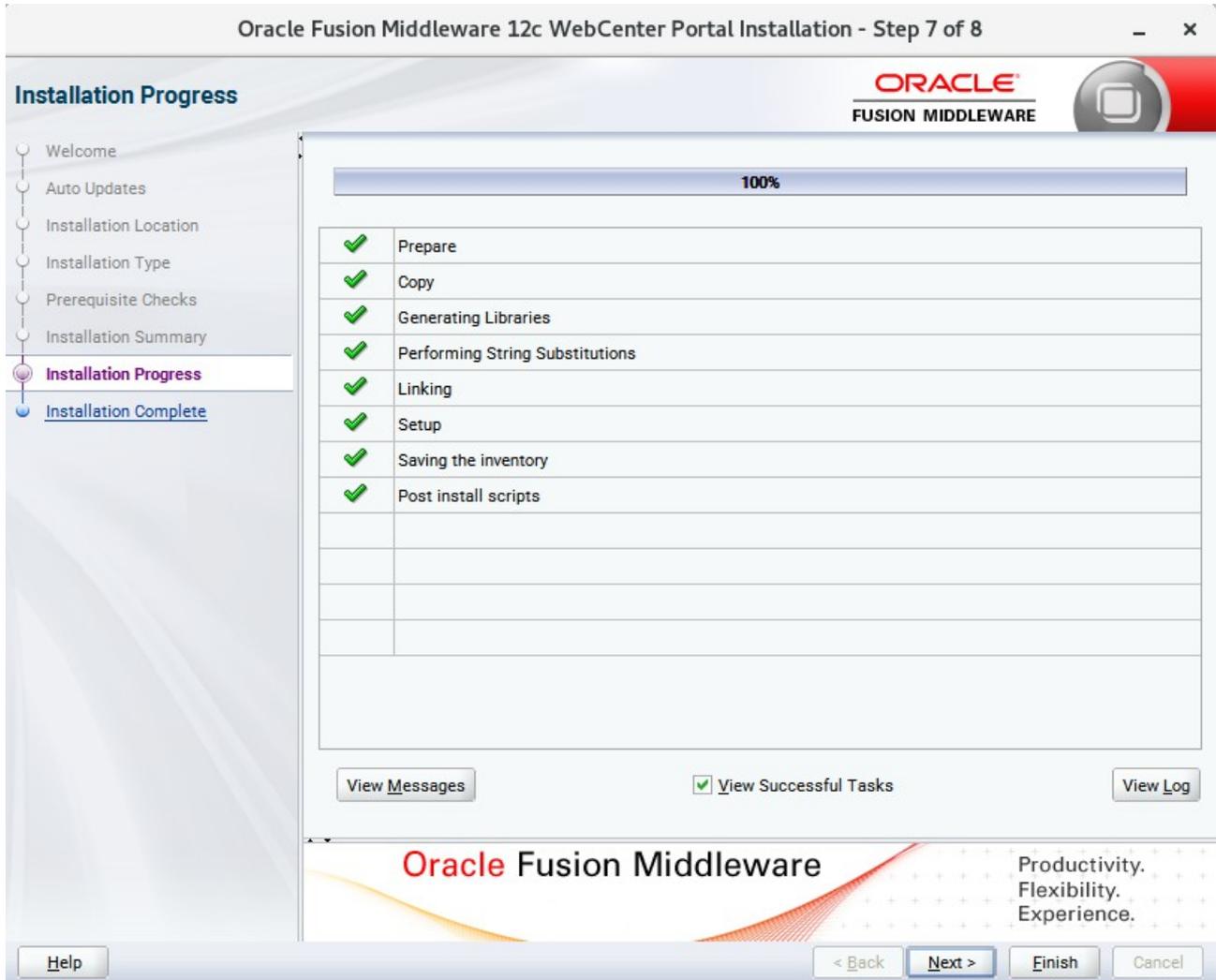


6). The **Installation Summary** page appears.



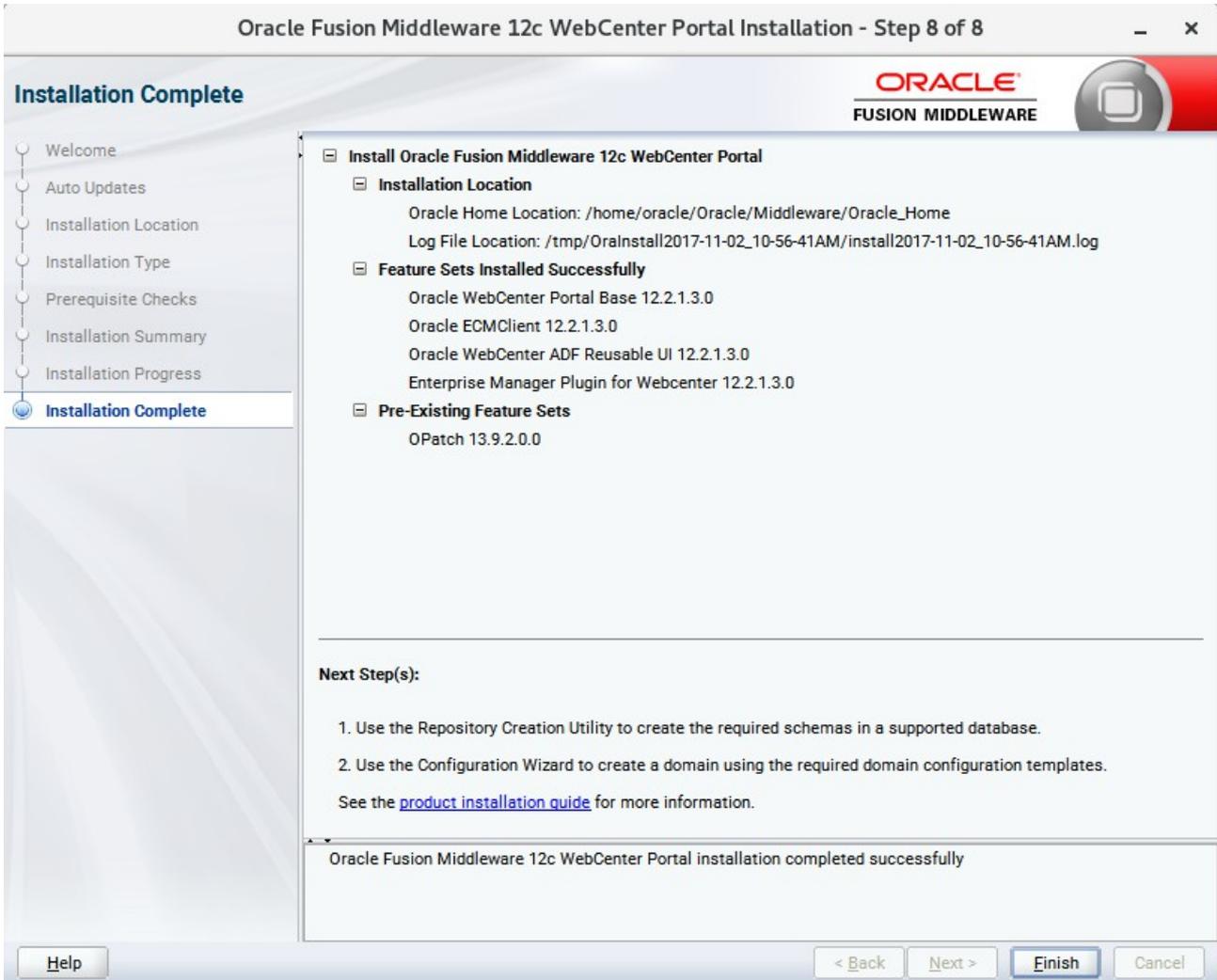
This page shows you what components and features are about to be installed. If you need to make changes, click **Back**, otherwise, click **Install** to start the installation.

7). The **Installation Progress** page appears.



This page shows you the progress of the installation, and will warn you if there are any problems. You can view messages and logs from this page, but typically no action is required here. When progress is complete, click **Next** (go to a Summary page). Alternatively, you can click **Finish**.

8). If you clicked **Next**, the **Installation Complete** page appears, showing you the components that have been installed.

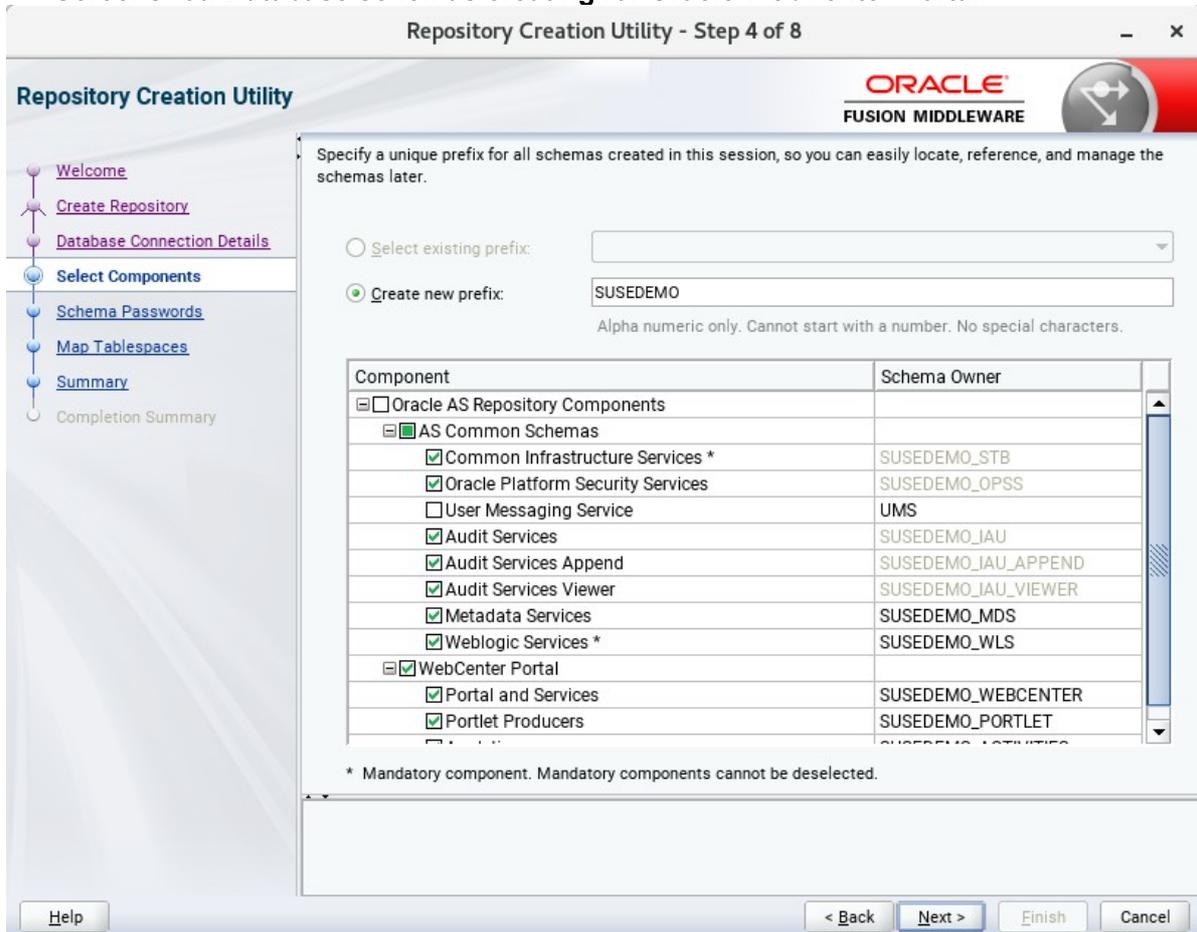


Click **Finish** to dismiss the installer.

## 2. Creating Oracle Database Schema through Repository Creation Utility(RCU)

2-1. Repository Creation Utility (RCU) is available with the Oracle WebLogic Server 12cR2 Fusion Middleware Infrastructure distribution. Run `$FMW_HOME/oracle_common/bin/rcu` and create required database schemas for Oracle Oracle WebCenter Portal.

**Screenshot: Database schemas creating for Oracle WebCenter Portal.**



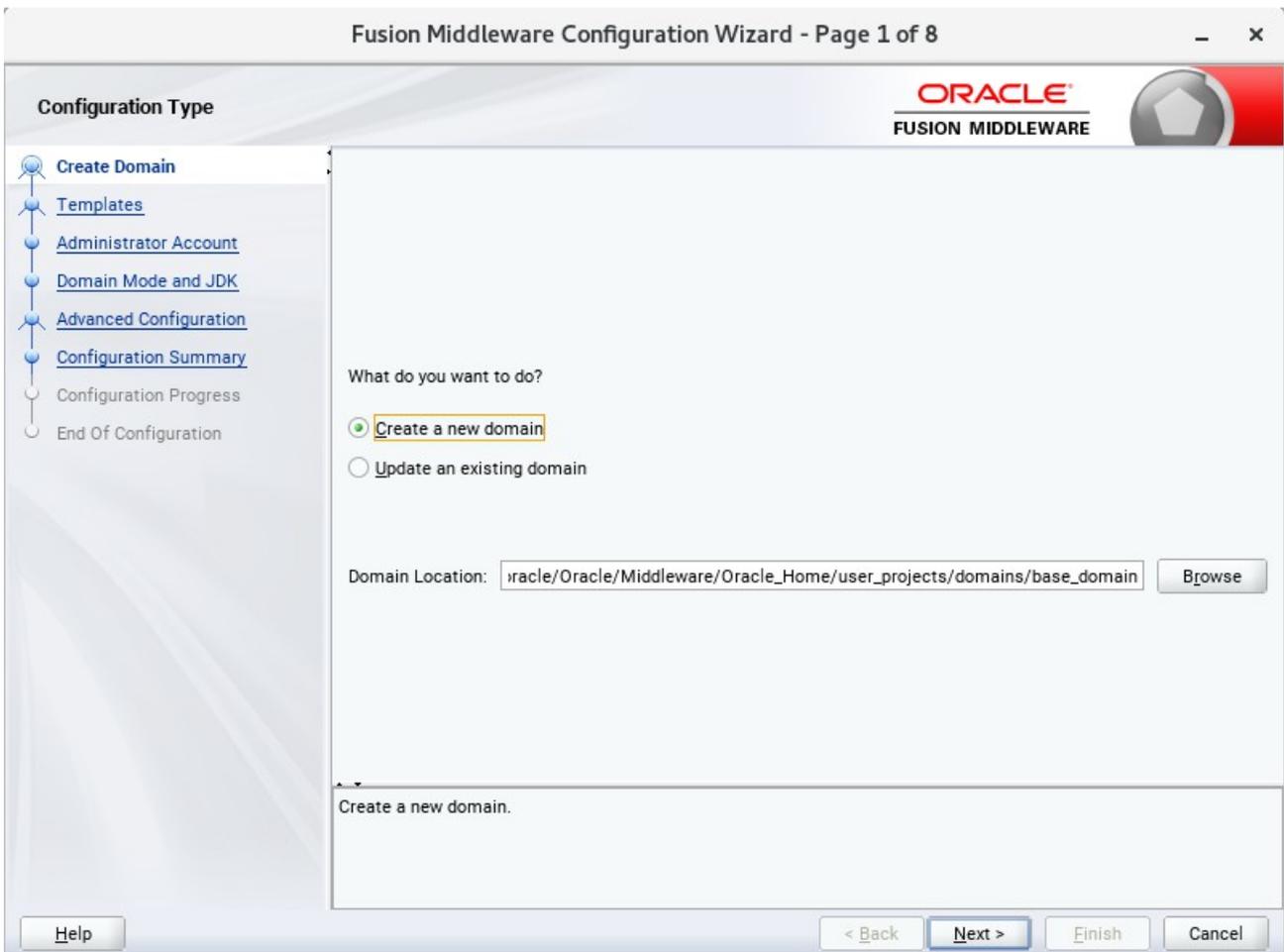
Select the **Create new prefix** radio button and provide a schema prefix (such as SUSEDEMO). Select the components as shown above, and ensure schema creation is successful.

### 3. Configuring Oracle WebCenter Portal 12c using the Config Wizard

3-1. In order to complete the configuration. Run the config wizard using **config.sh** located in the **ORACLE\_HOME/oracle\_common/common/bin** directory.

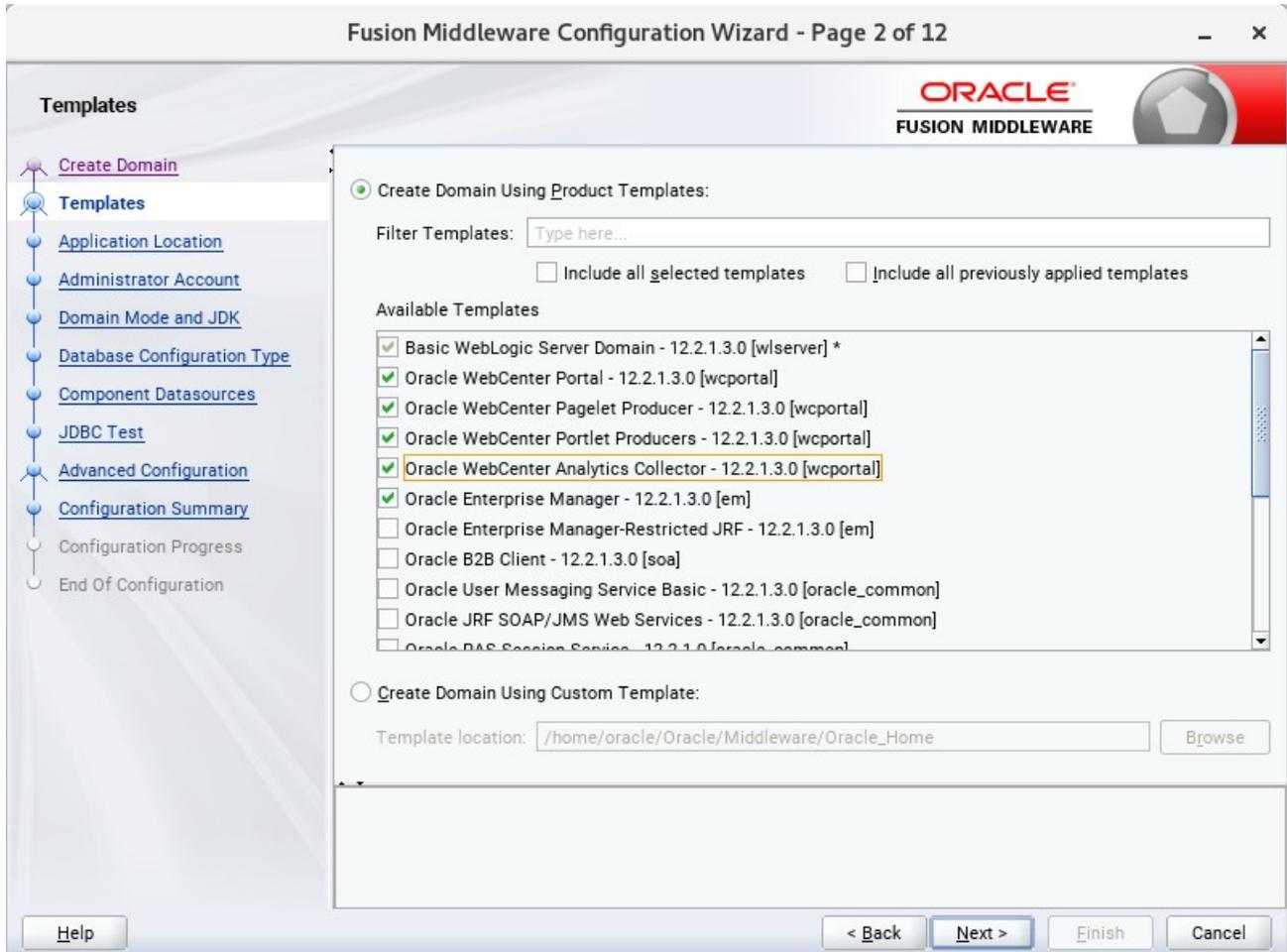
#### Follow these steps:

1). On the Configuration Type screen, select **Create a new domain**, and enter the desired domain home path.



Click **Next** to continue.

2). The **Templates** screen appears.



Use the **Templates** screen to select the templates you require. On the **Templates** screen, make sure **Create Domain Using Product Templates** is selected, then select the following template:

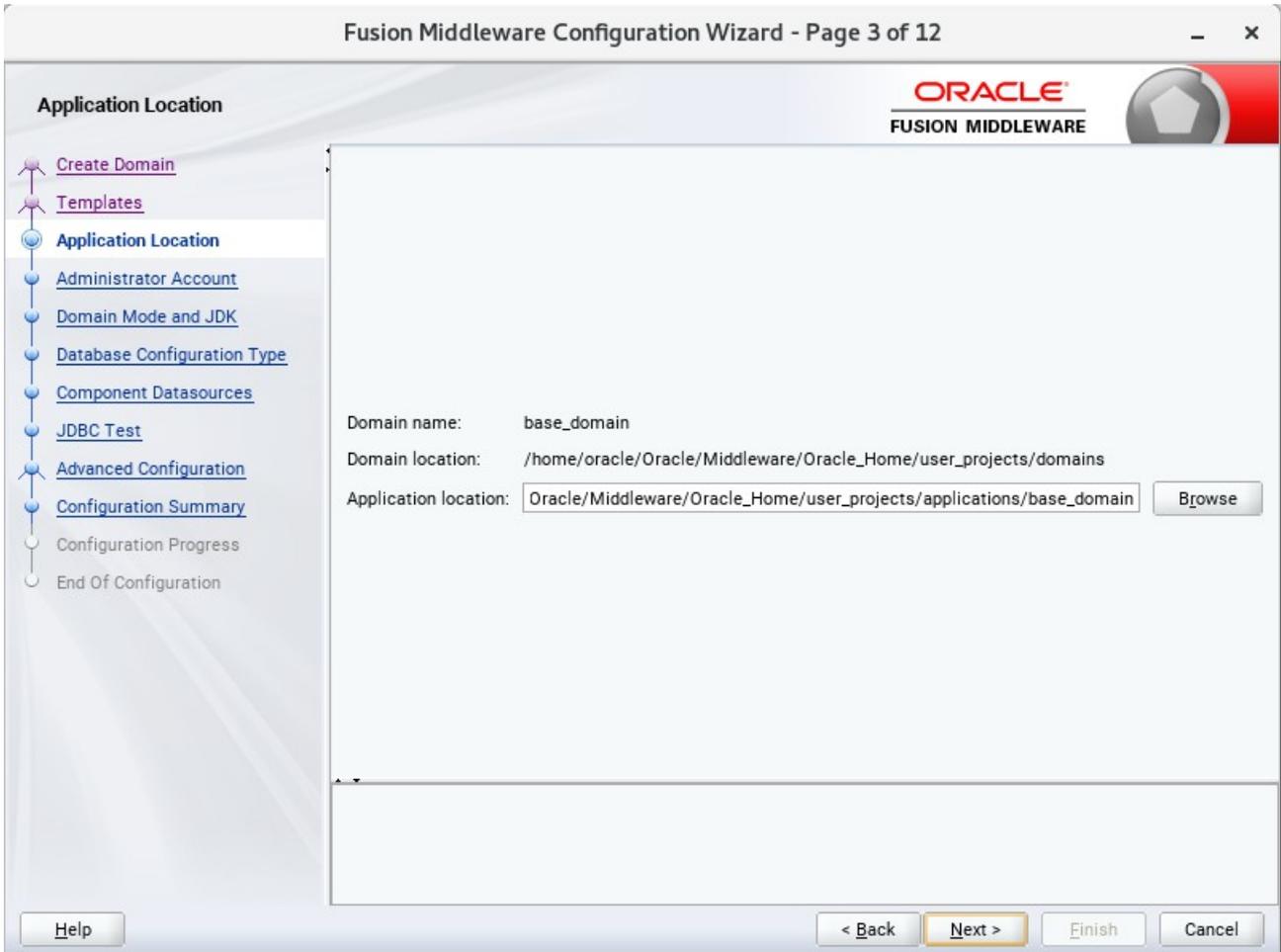
- Oracle WebCenter Portal - 12.2.1.3.0 [wcportal]

Selecting this template automatically selects the following as dependencies:

- Oracle Enterprise Manager
- Oracle WSM Policy Manager
- Oracle JRF
- WebLogic Coherence Cluster Extension

You can also select any of the Oracle WebCenter Portal products listed in the following table. You do not need to select all of these templates, and you can always run the configuration wizard again to add products to your domain later. Click **Next** to continue.

3). The **Application Location** screen appears.



Keep the default value for Application location. Click **Next** to continue.

4). The **Administrator Account** screen appears.

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:

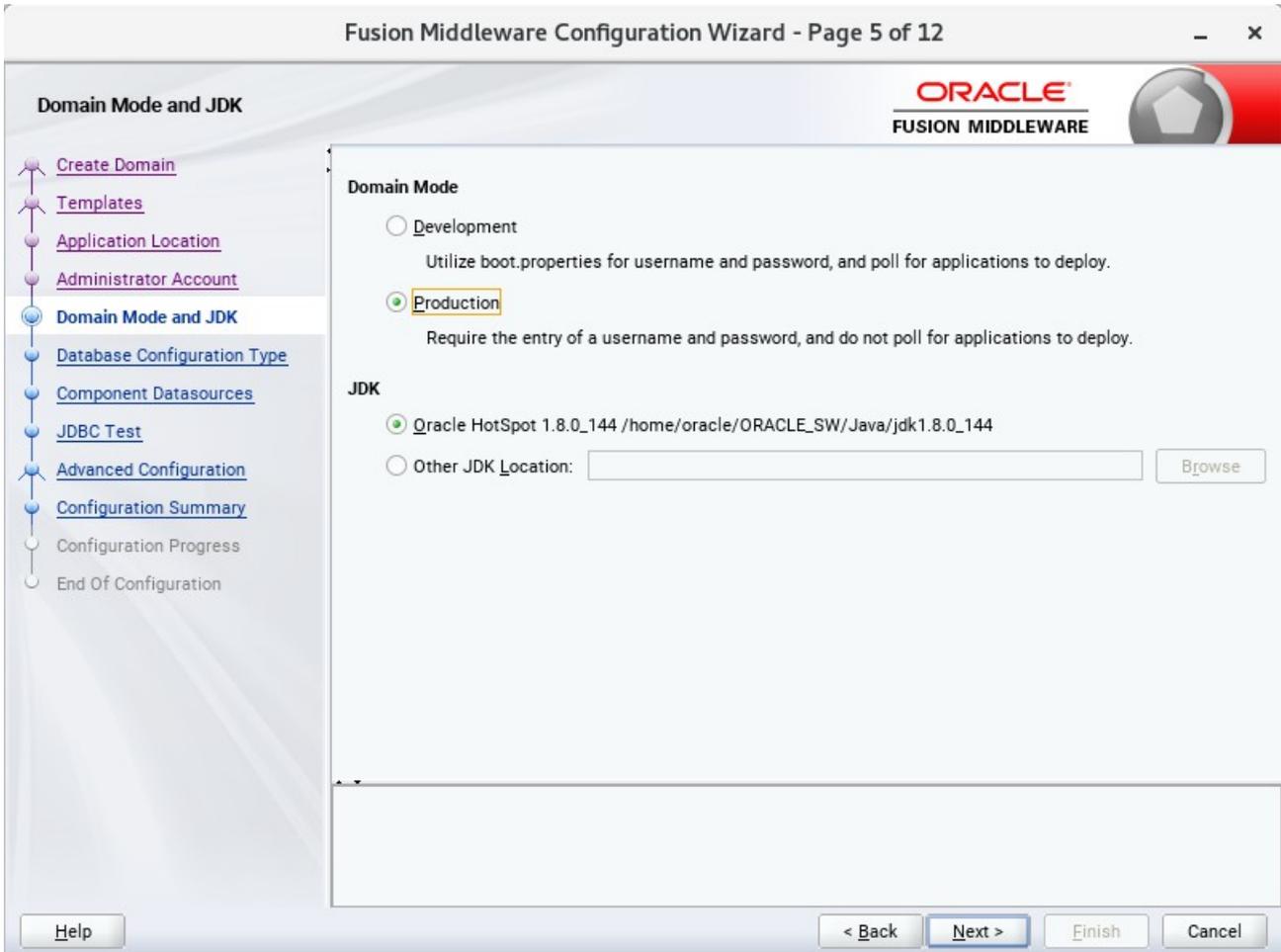
Confirm Password:

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 the WebLogic Domain administration username and password. This information will be needed to access WebLogic Server Control and Fusion Middleware Control. Click **Next** to continue.

5). The **Domain Mode and JDK** screen appears.



Select the Domain Mode (either **Development** or **Production**). For our purposes, select **Production**. Leave the default JDK selection as it appears, unless using another version of the JDK desired.

(**Note:** The installation can only be secured with Identity Management if you are configuring your components in deployment mode.)

6). The **Database Configuration Type** screen appears.

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: Oracle    Driver: \*Oracle's Driver (Thin) for Service connections; Versions:...

Connection Parameters     Connection URL String

Host Name: hpgen9-02

DBMS/Service: suse    Port: 1521

Schema Owner: SUSEDEMO\_STB    Schema Password: .....

Get RCU Configuration    Cancel

Connection Result Log

Successfully Done.

Click "Next" button to continue.

Help    < Back    Next >    Finish    Cancel

Enter the RCU DB connection information, then click **Get RCU Configuration**. You should receive a success message. Click **Next** to continue.

7). The **JDBC Component Schema** screen appears.

**JDBC Component Schema**

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

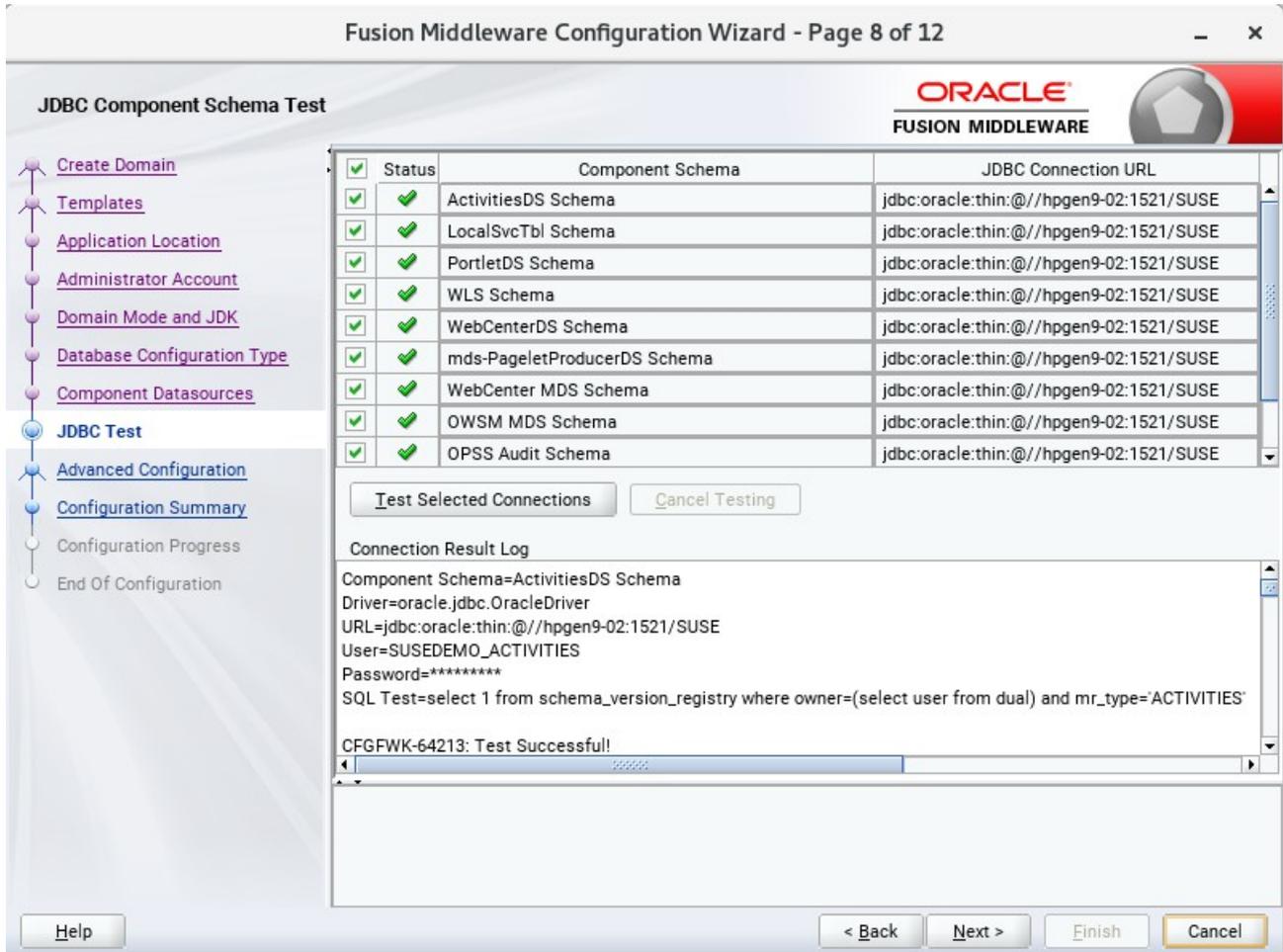
Edits to the data above will affect all checked rows in the table below.

<input type="checkbox"/>	Component Schema	DBMS/...	Host Name	Port	Schema Owner	Schema Pass...
<input type="checkbox"/>	ActivitiesDS Schema	SUSE	hpgen9-02	1521	SUSEDEMO_ACTIVITIES	.....
<input type="checkbox"/>	LocalSvcTbl Schema	SUSE	hpgen9-02	1521	SUSEDEMO_STB	.....
<input type="checkbox"/>	PortletDS Schema	SUSE	hpgen9-02	1521	SUSEDEMO_PORTLET	.....
<input type="checkbox"/>	WLS Schema	SUSE	hpgen9-02	1521	SUSEDEMO_WLS_RUNTIME	.....
<input type="checkbox"/>	WebCenterDS Schema	SUSE	hpgen9-02	1521	SUSEDEMO_WEBCENTER	.....
<input type="checkbox"/>	mds-PageletProducerDS	SUSE	hpgen9-02	1521	SUSEDEMO_MDS	.....

Help < Back **Next >** Finish Cancel

Our instructions assume each Repository schema uses the same password. If not, enter the correct schema passwords. Click **Next** to continue.

8). The **JDBC Component Schema Test** screen appears.



The tests are run and the results given. Ensure all test results are successful. Click **Next** to continue.

9). The **Advanced Configuration** screen appears.

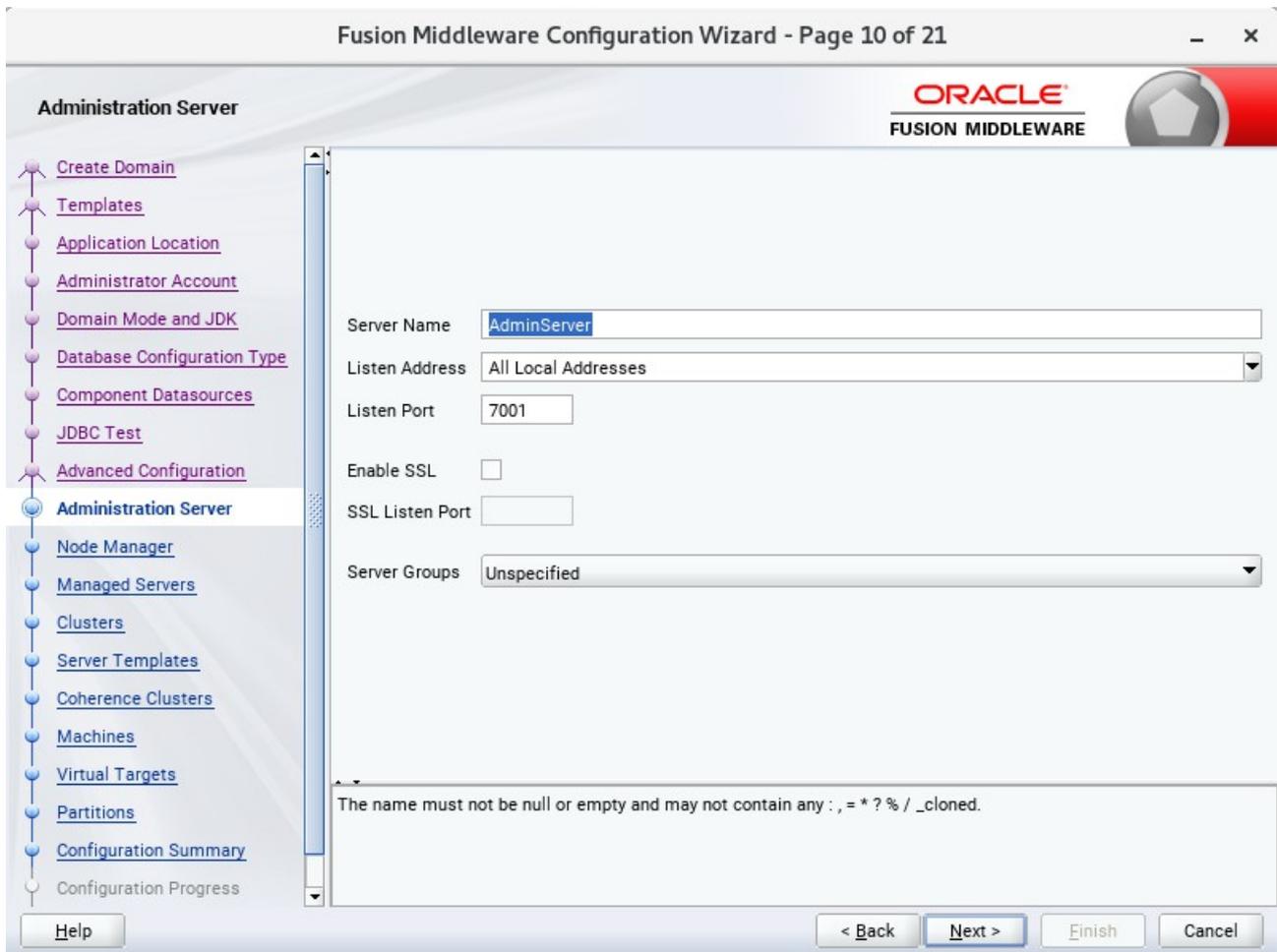


On the Advanced Configuration screen, select:

- Administration Server
- Node Manager
- Topology

Then, click **Next** to continue.

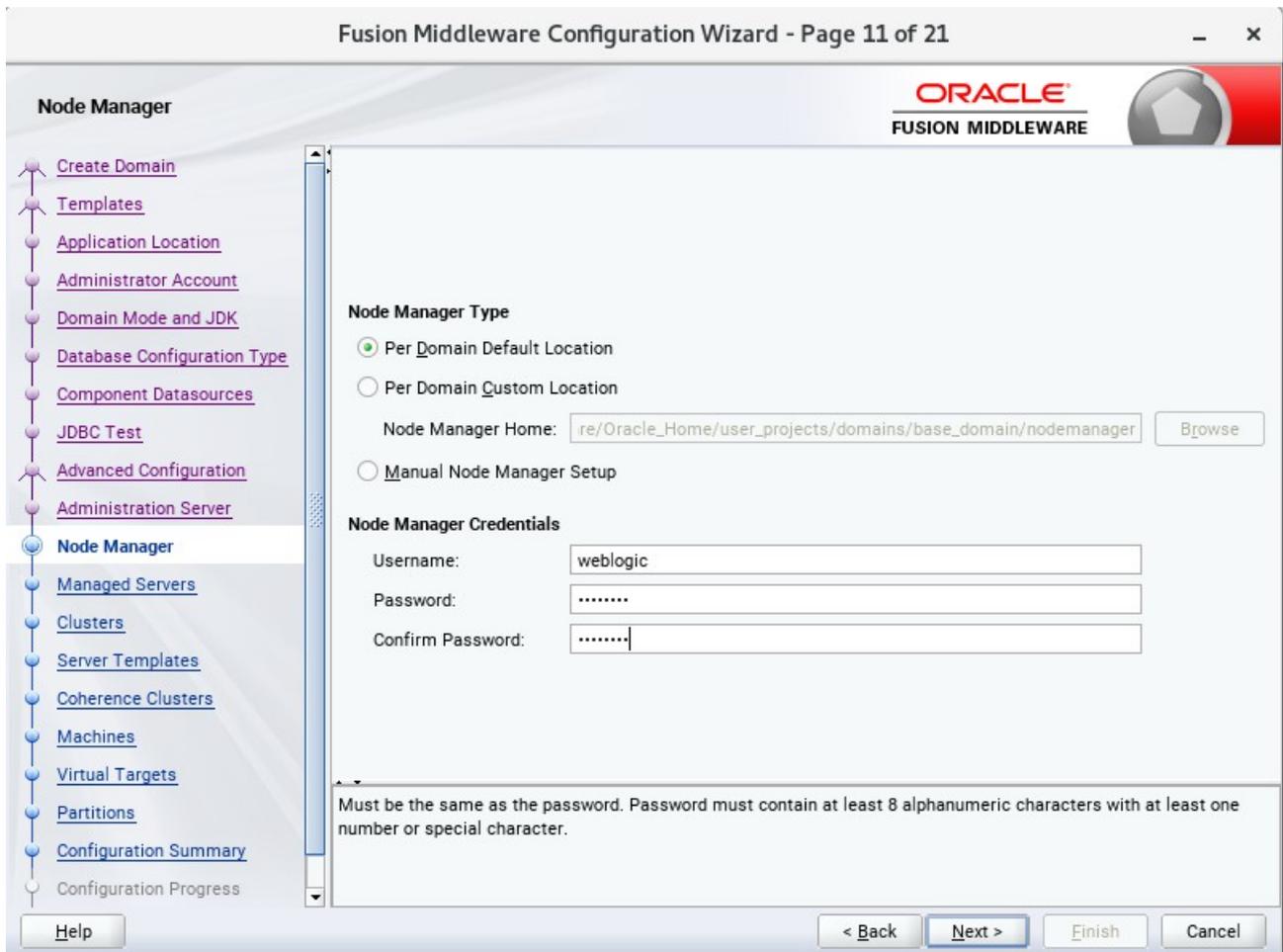
10). The **Administration Server** screen appears.



Use the **Administration Server** screen to select the IP address of the host. Select the drop-down list next to **Listen Address** and select the IP address of the host where the Administration Server will reside, or use the system name or DNS name that maps to a single IP address.

Click **Next** to continue.

11). Configuring **Node Manager** screen appears.



Select **Per Domain Default Location** as the Node Manager type, then specify Node Manager credentials. Click **Next** to continue.

12). The **Managed Servers** screen appears.

The screenshot shows the 'Managed Servers' configuration screen in the Fusion Middleware Configuration Wizard. The window title is 'Fusion Middleware Configuration Wizard - Page 12 of 21'. The Oracle logo and 'FUSION MIDDLEWARE' text are visible in the top right. A navigation pane on the left lists various configuration steps, with 'Managed Servers' selected. The main area contains a table with the following data:

Server Name	Listen Address	Listen Port	Enable SSL	SSL Listen Port	Server Groups
WC_Portlet	147.2.207.117	8889	<input type="checkbox"/>	Disabled	WebCenter ...
WC_Portal	147.2.207.117	8888	<input type="checkbox"/>	Disabled	WebCenter ...

Buttons at the top include '+ Add', 'Clone', 'Delete', and 'Disgard Changes'. At the bottom, there are '< Back', 'Next >', 'Finish', and 'Cancel' buttons. A 'Help' button is located at the bottom left.

On the **Managed Servers** screen, new Managed Servers named *WC\_Portlet*, and *WC\_Portal* are automatically created. In the **Listen Address** drop-down list, select the IP address of the host on which the Managed Server will reside or use the system name or DNS name that maps to a single IP address. The default **Server Groups** have already been selected for each server. Click **Next** to continue.

13). The **Clusters** screen appears.

Fusion Middleware Configuration Wizard - Page 13 of 23

**Clusters**

ORACLE  
FUSION MIDDLEWARE

+ Add    X Delete    Discard Changes

Cluster Name	Cluster Address	Frontend Host	Frontend HTTP Port	Frontend HTTPS Port	Dynamic Server Groups
wcp_cluster_1			0	0	Unspecified
wcp_cluster_2			0	0	Unspecified

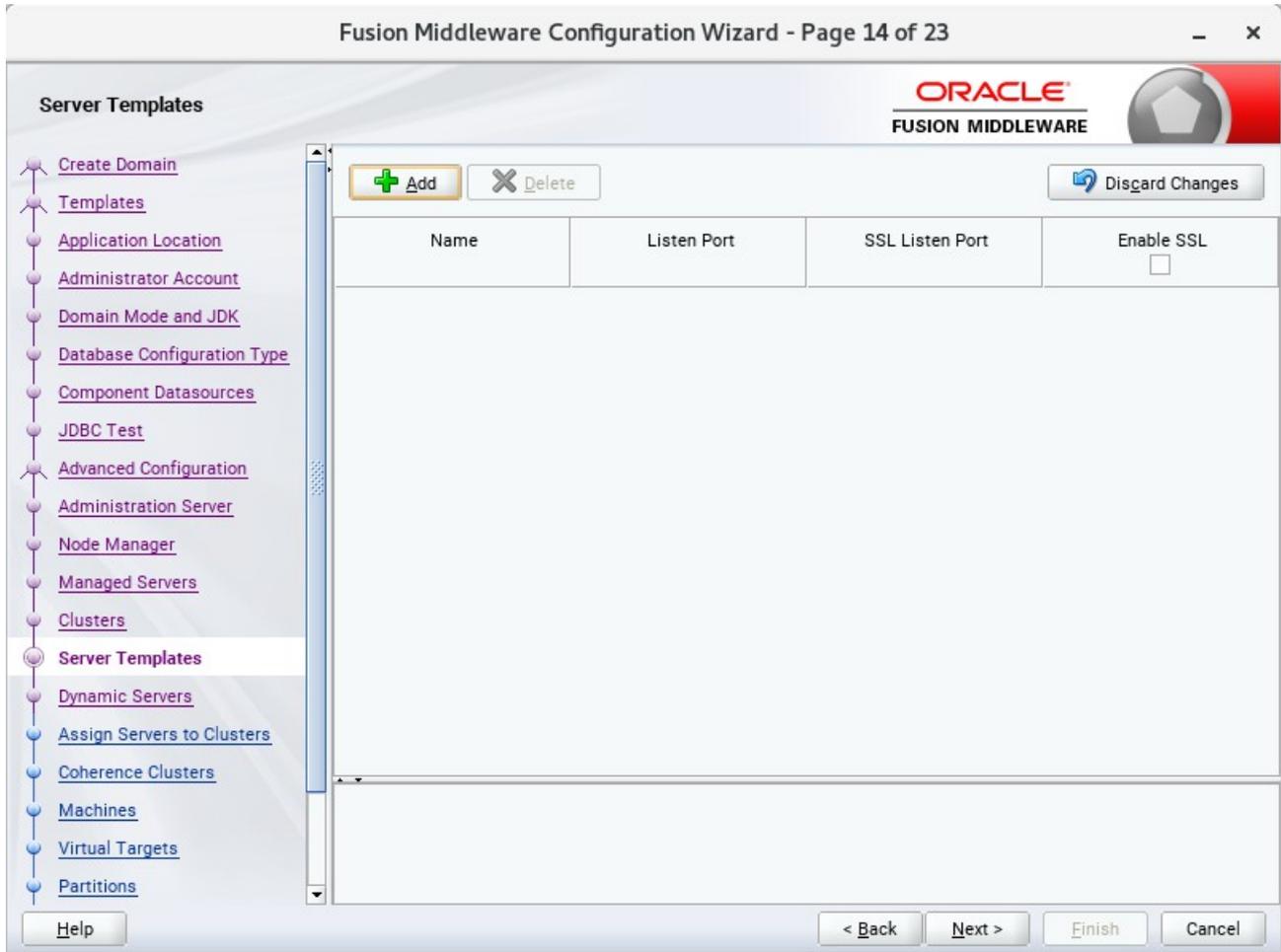
Help    < Back    Next >    Finish    Cancel

On the Clusters screen:

1. Click **Add**.
2. Specify **wcp\_cluster\_1** in the Cluster Name field.
3. Leave the Cluster Address field blank.
4. Repeat these steps to create one more clusters: **wcp\_cluster\_2**.

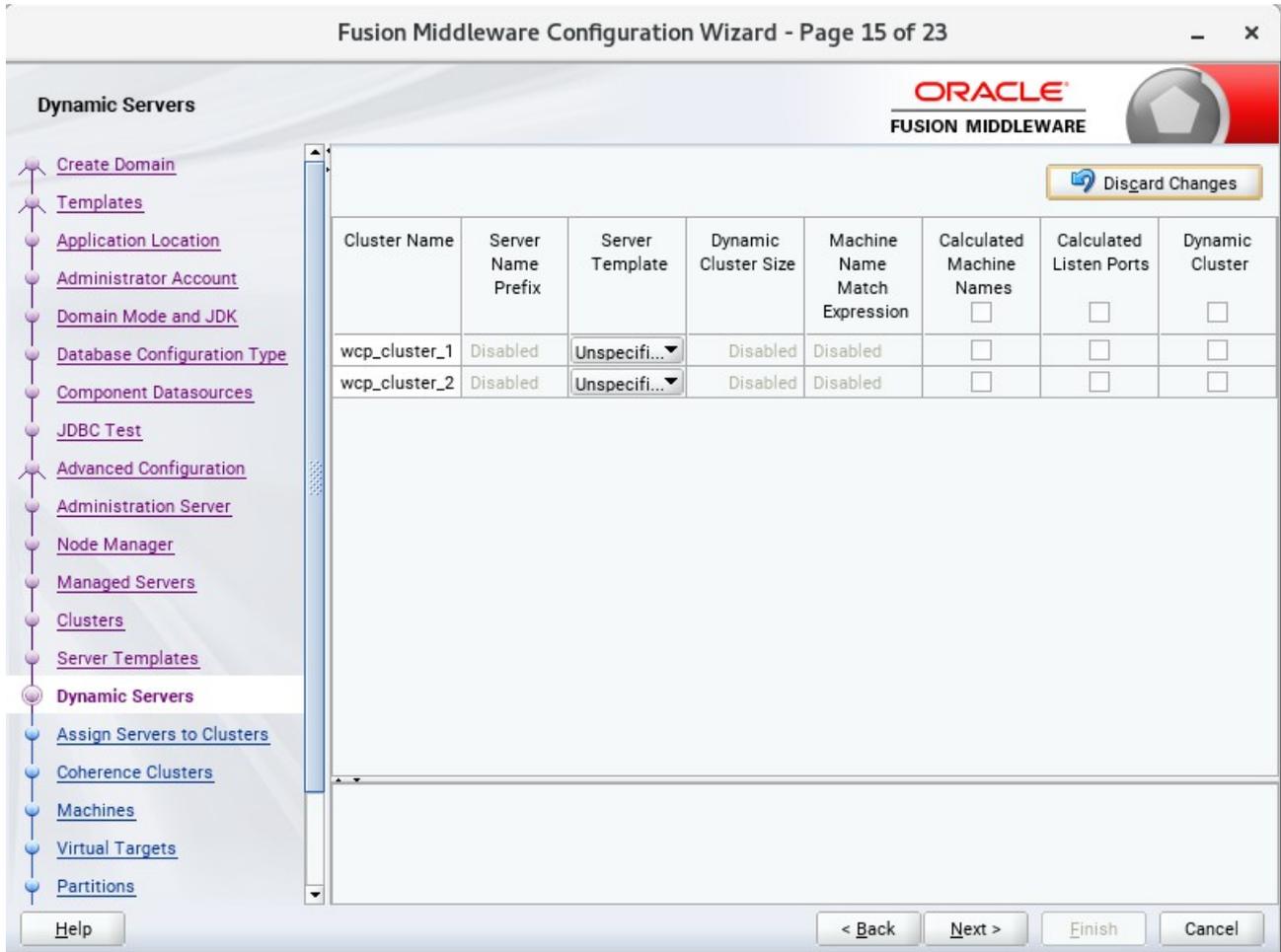
Click **Next** to continue.

14). The **Server templates** screen appears.



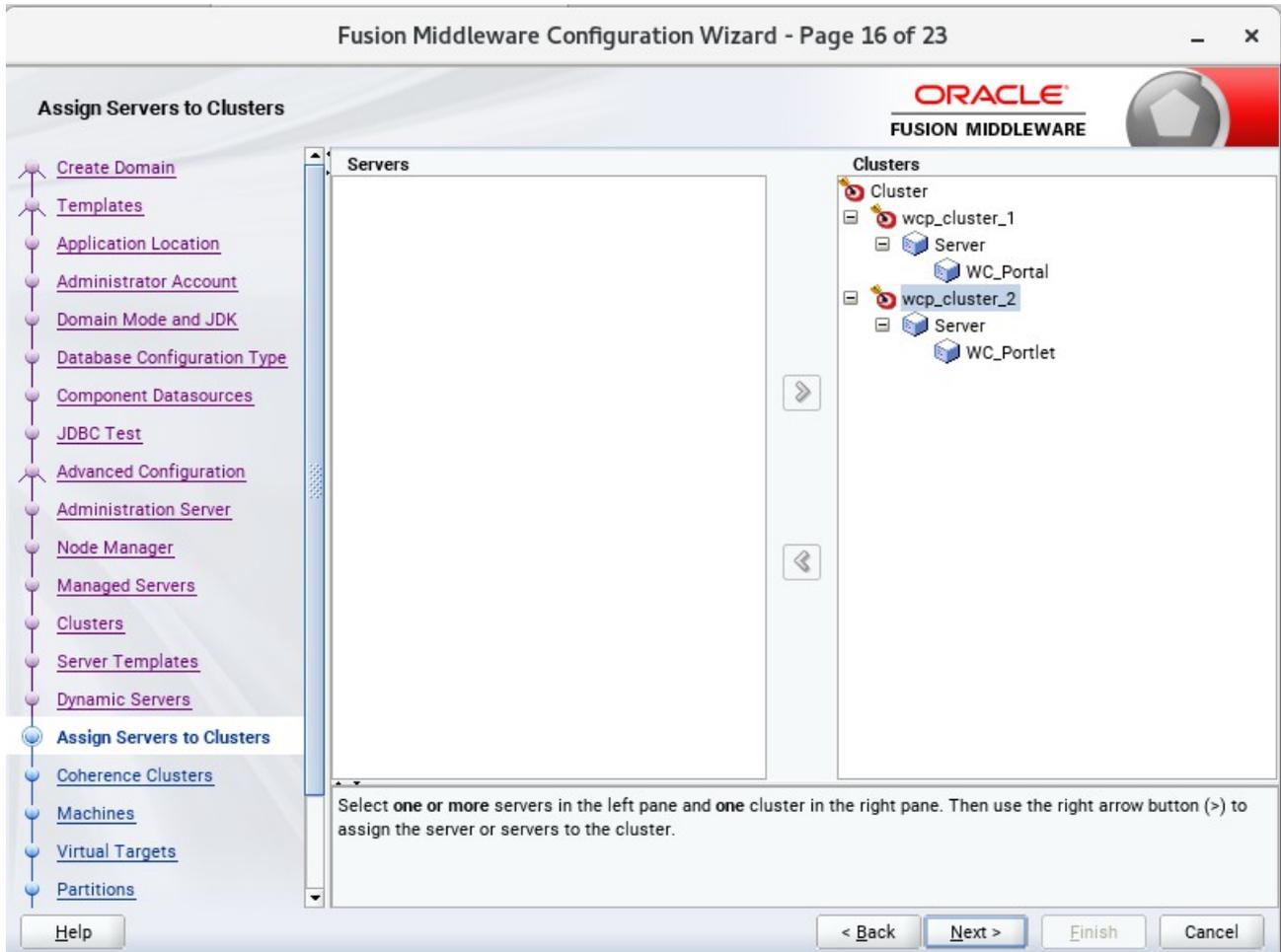
If you are creating dynamic clusters for a high availability setup, use the Server Templates screen to define one or more server templates for domain. To continue configuring the domain, click **Next**.

15). The **Dynamic Servers** screen appears.



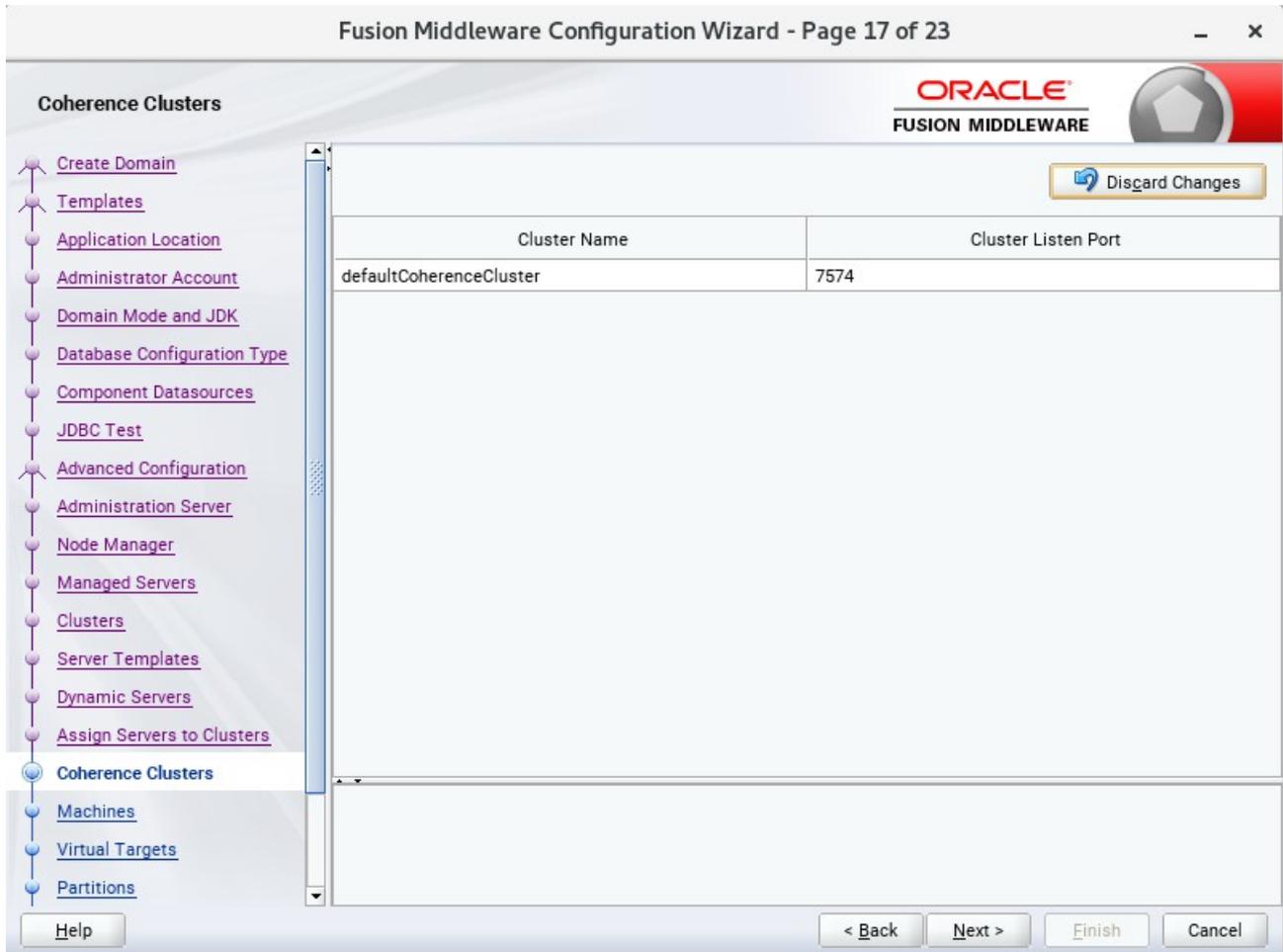
If you are creating dynamic clusters for a high availability setup, use the Dynamic Servers screen to configure the dynamic servers. If you are not configuring a dynamic cluster, click **Next** to continue configuring the domain.

16). The **Assign Servers to Clusters** screen appears.



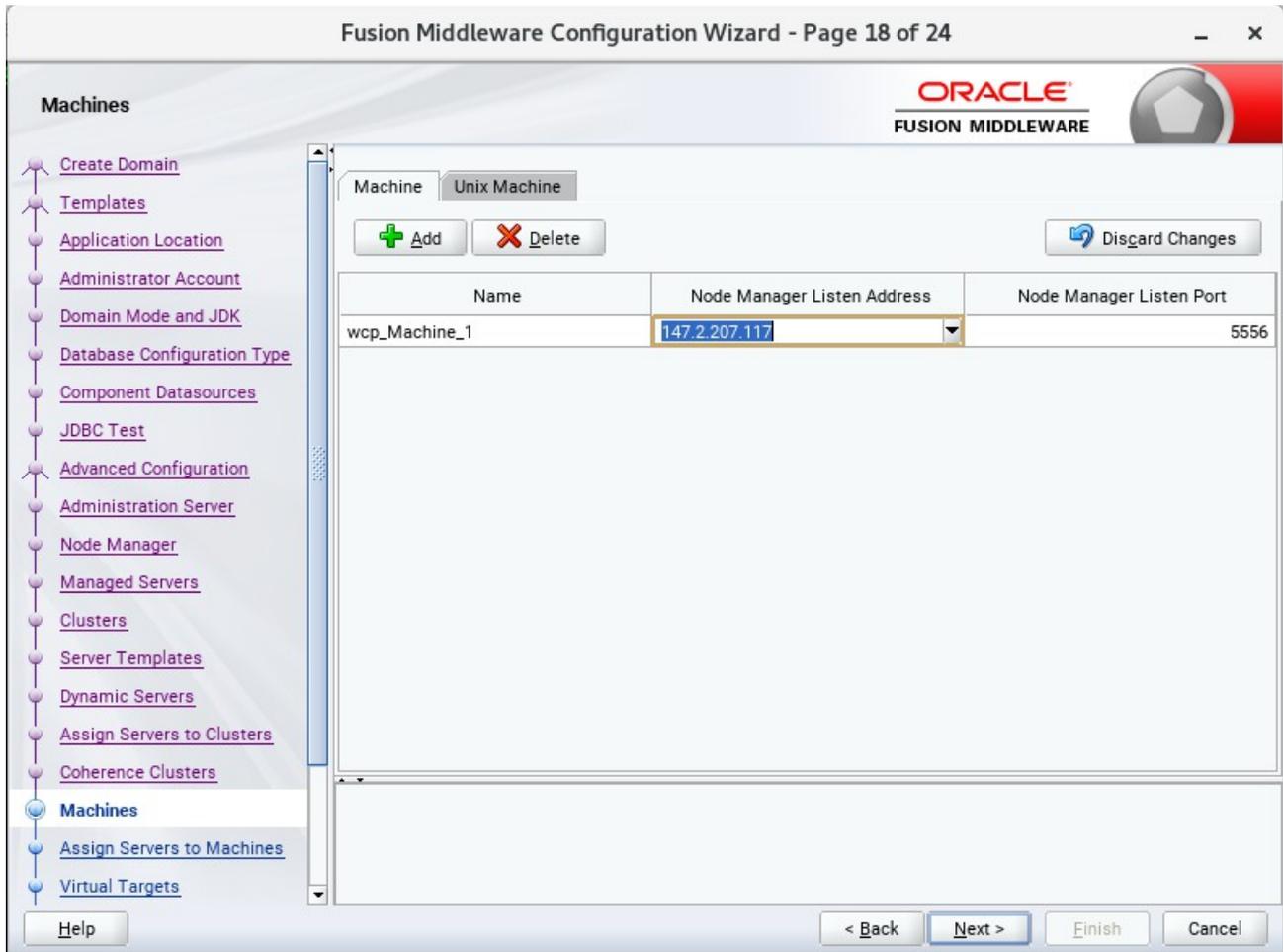
In the Clusters pane, select the cluster to which you want to assign the servers; in this case, **wcp\_cluster\_1**. In the Servers pane, assign **WC\_Portal** to **wcp\_cluster\_1**, then repeat to assign **WC\_Portlet** to **wcp\_cluster\_2**. Click **Next** to continue.

17). The **Coherence Clusters** screen appears.



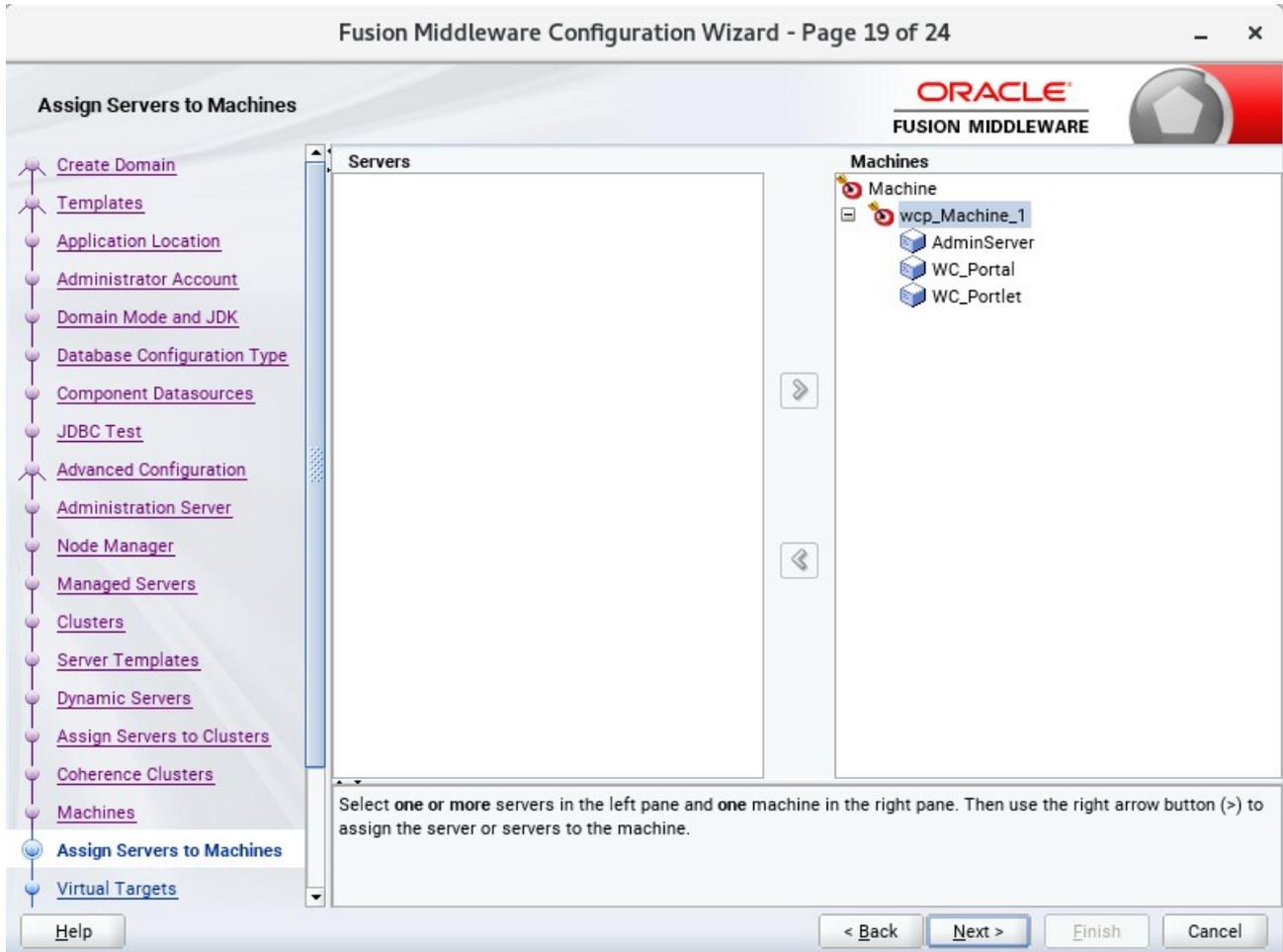
Leave the default port number as the Coherence cluster listen port. Click **Next** to continue.

18). The **Machines** screen appears.



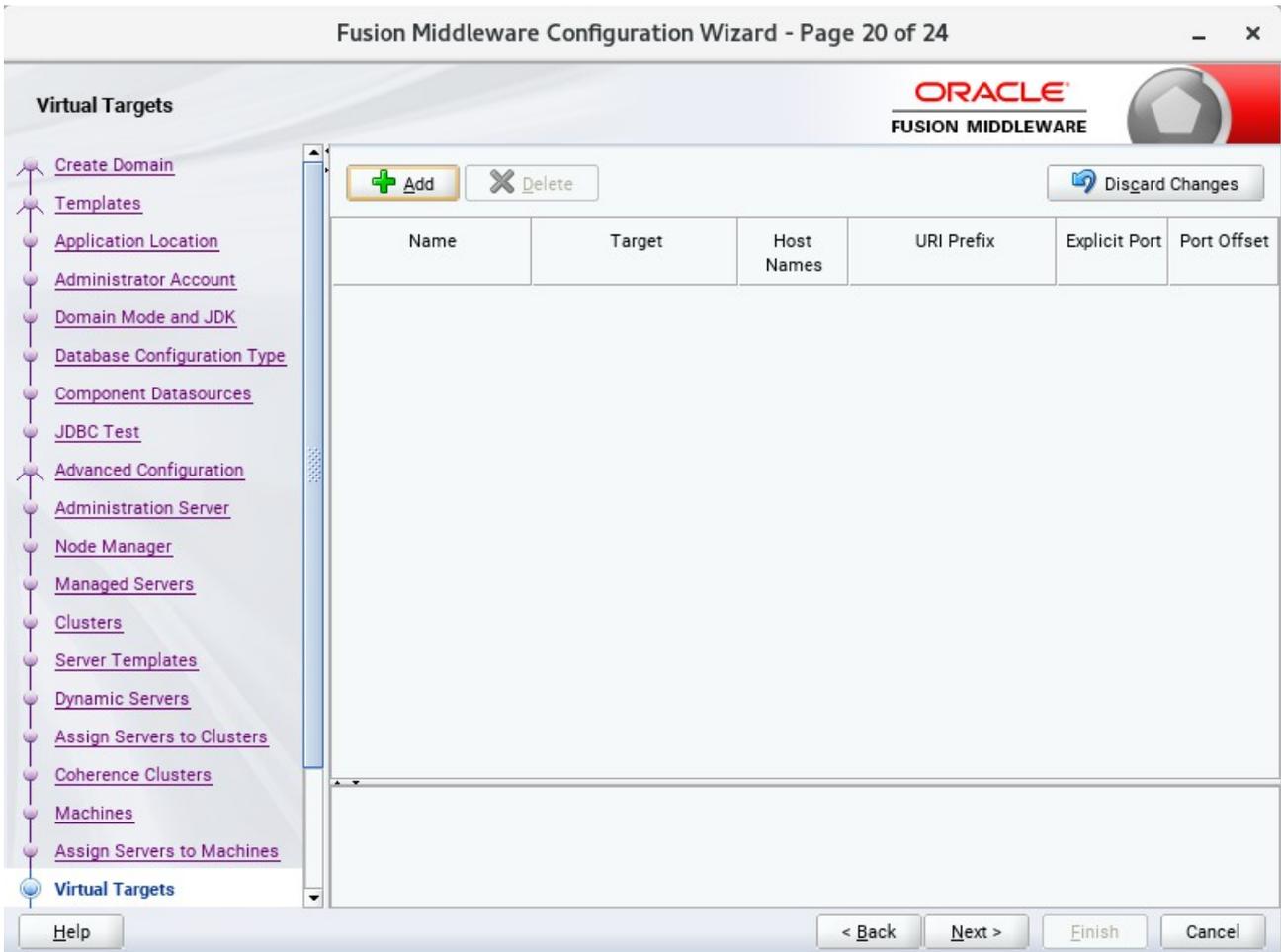
To create a new Oracle WebCenter Portal machine so that Node Manager can start and stop servers. Click **Next** to continue.

19). The **Assign Servers to Machines** screen appears.



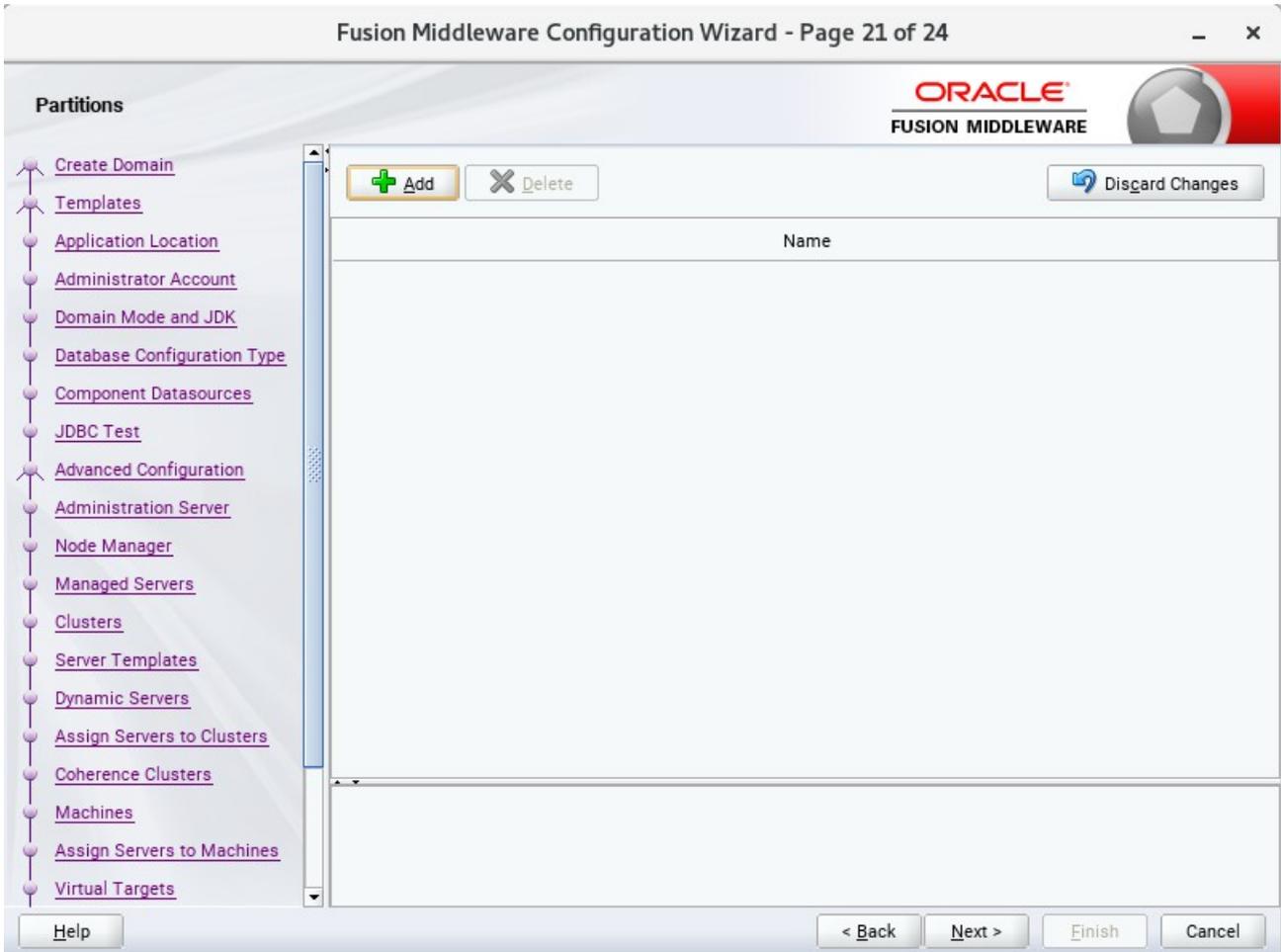
Use the **Assign Servers to Machines** screen to assign the Managed Servers to the new machine you just created. Click **Next** to continue.

20). The **Virtual Targets** screen appears.



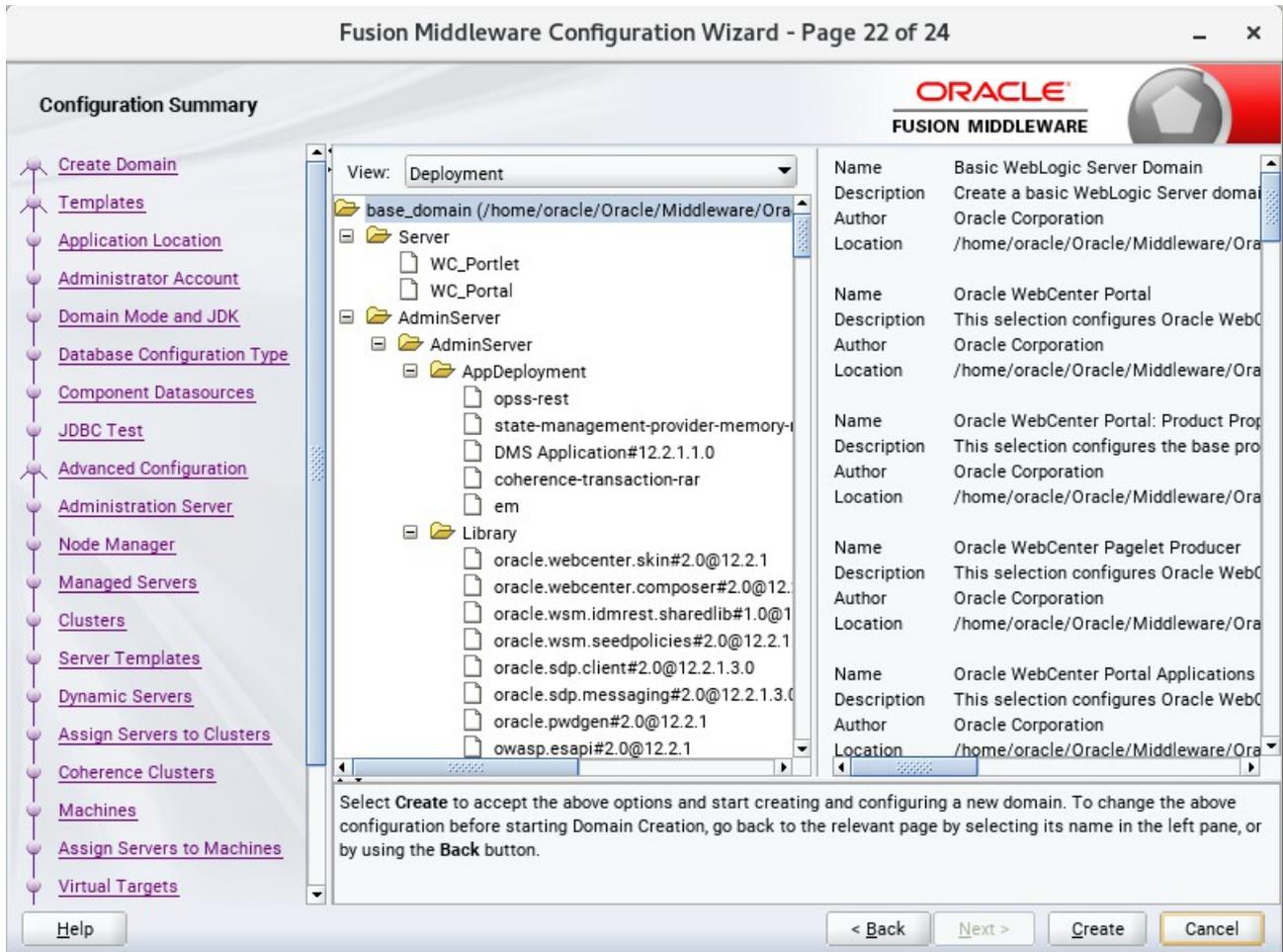
If you have a WebLogic Server Multitenant (MT) environment, you use the Virtual Targets screen to add or delete virtual targets. For this installation (not a WebLogic Server MT environment), you do not enter any values; just select **Next**.

21). The **Partitions** screen appears.



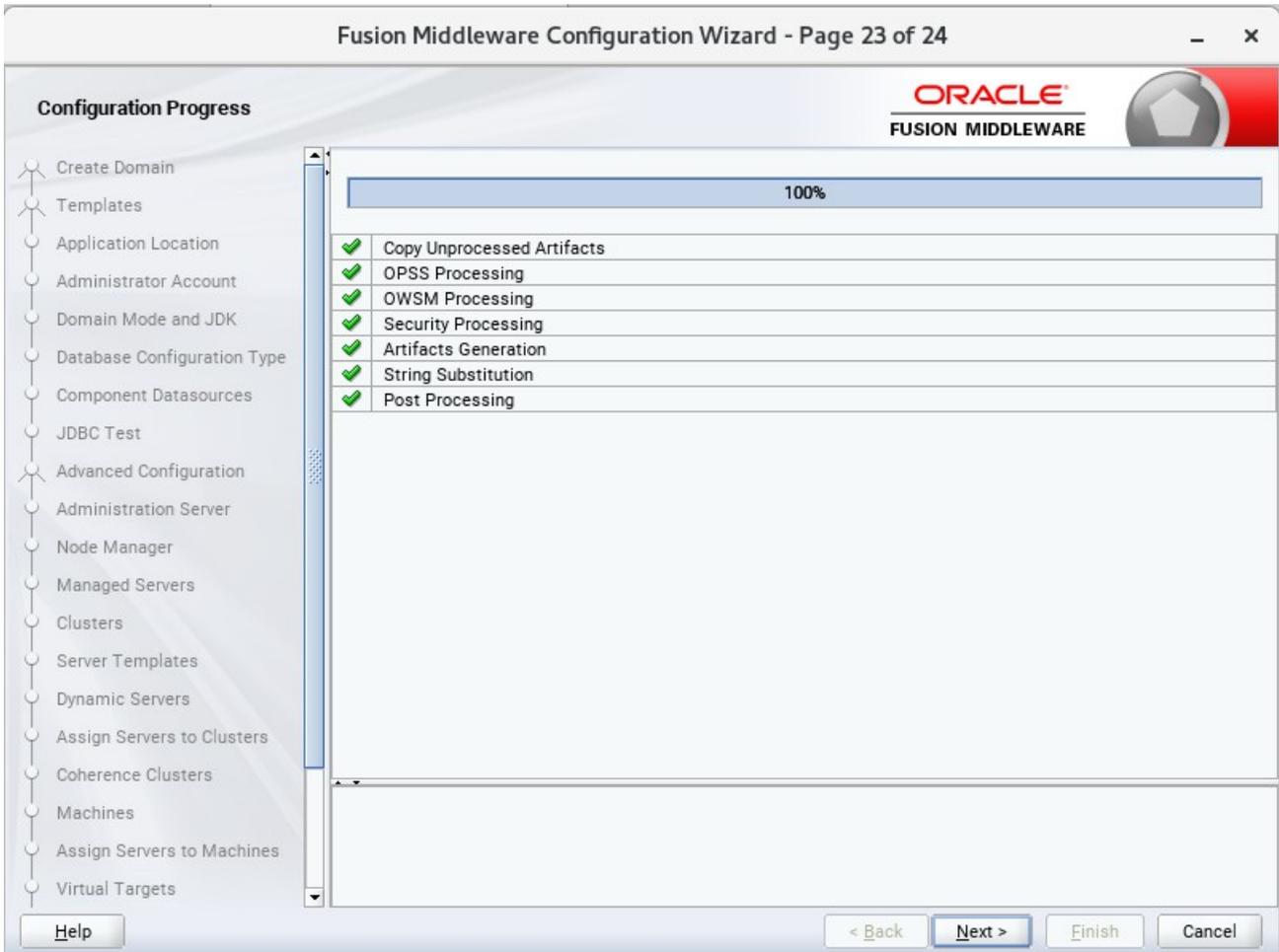
The Partitions screen is used to configure partitions for virtual targets in WebLogic Server Multitenant (MT) environments. Select **Next** without selecting any options.

22). The **Configuration Summary** screen appears.



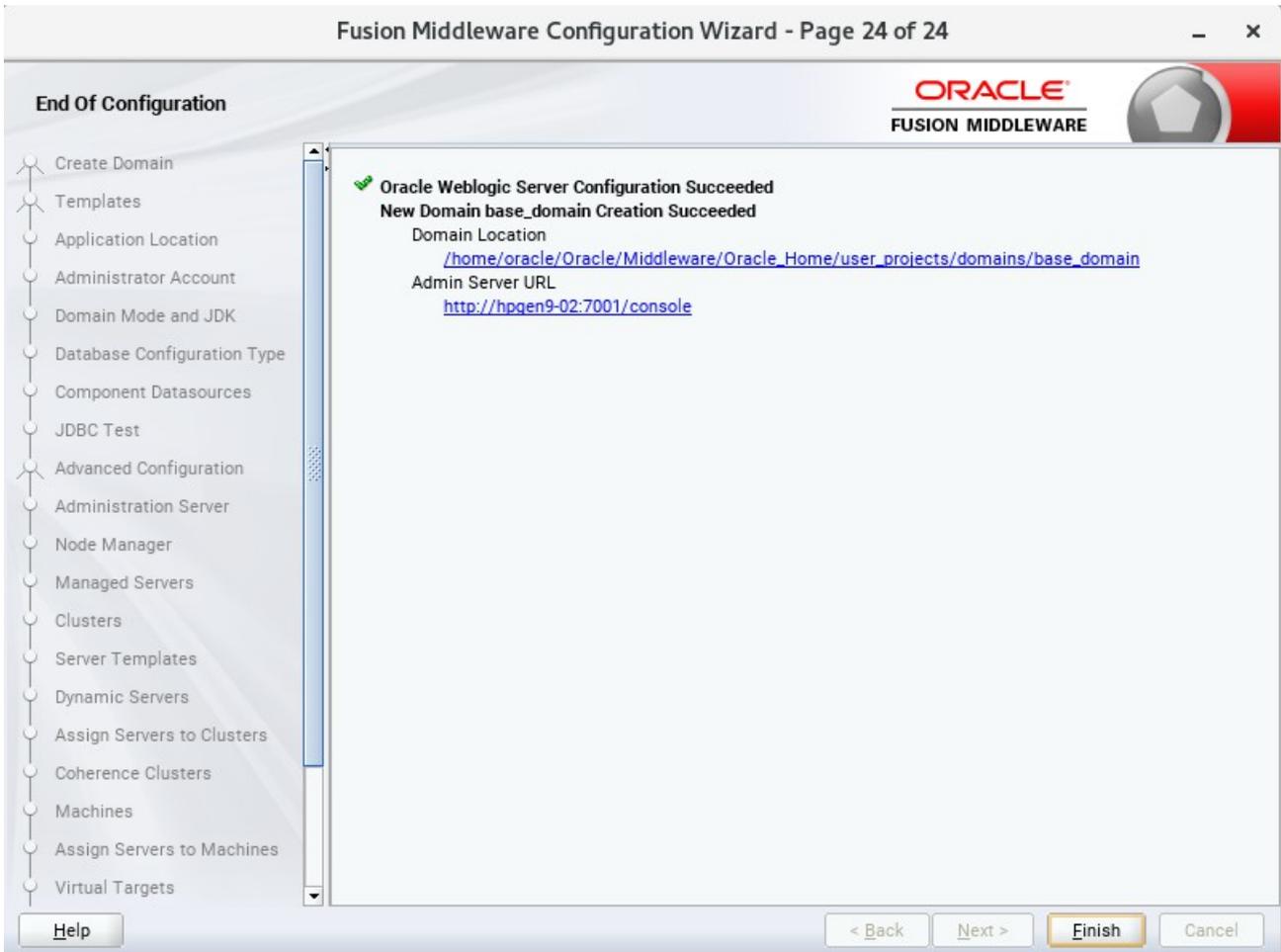
Select **Create** to accept the above options and start creating and configuring a new domain.

23). The **Configuration Progress** screen appears.



Wait for this part of the configuration to complete. Depending on the location and performance of the Repository database, this process may take a few minutes. After the domain successful created, click **Next** to continue.

24). The **End of Configuration** screen appears.



Once you see: "Oracle Weblogic Server Configuration Succeeded", record the '**Domain Location**' and '**Admin Server URL**', then click **Finish** to dismiss the Configuration Wizard.

## 4. Verifying Oracle WebCenter Portal 12c Installation and Configuration

4-1. Check for the presence of installation log files in logs directory inside your Oracle Inventory directory. Also, check the domain server logs, which are located in the servers directory inside the domain home directory.

4-2. Starting the Node Manager and the Admin Server.

**Starting the Node Manager, go to the `DOMAIN_HOME/bin` directory and run `'nohup ./startNodeManager.sh > nm.out&'`**

```

oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/bin
File Edit View Search Terminal Tabs Help
oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/bin> nohup ./startNodeManager.sh > nm.out&
[1] 19/08
oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/bin> nohup: ignoring input and redirecting stderr to stdout

oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/bin> more nm.out
NODEMGR_HOME is already set to /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/node
manager
CLASSPATH=/home/oracle/ORACLE_SW/Java/jdk1.8.0_144/lib/tools.jar:/home/oracle/Oracle/Middleware/Oracle_Home/wlserver/server/lib/weblogic.jar:/home/oracle/Oracle/Middleware/Oracle_Home/wlserver/./oracle_common/modules/thirdparty/ant-contrib-1.0b3.jar:/home/oracle/Oracle/Middleware/Oracle_Home/wlserver/modules/features/oracle.wls.common.nodemanager.jar:/home/oracle/Oracle/Middleware/Oracle_Home/wlserver/./home/oracle/Oracle/Middleware/Oracle_Home/wlserver/modules/features/oracle.wls.common.grizzly.jar
+ /home/oracle/ORACLE_SW/Java/jdk1.8.0_144/bin/java -server -Xms32m -Xmx200m -Djdk.tls.ephemeralDHKeySize=2048 -Dcoherence.home=/home/oracle/Oracle/Middleware/Oracle_Home/wlserver/./coherence -Dbea.home=/home/oracle/Oracle/Middleware/Oracle_Home/wlserver/./ -Doracle.security.jps.config=/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/config/fmwconfig/jps-config-jse.xml -Dcommon.components.home=/home/oracle/Oracle/Middleware/Oracle_Home/oracle_common -Dopss.version=12.2.1.3 -Dweblogic.RootDirectory=/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain -Djava.system.class.loader=com.oracle.classloader.weblogic.LaunchClassLoader -Djava.security.policy=/home/oracle/Oracle/Middleware/Oracle_Home/wlserver/server/lib/weblogic.policy -Dweblogic.nodemanager.JavaHome=/home/oracle/ORACLE_SW/Java/jdk1.8.0_144 weblogic.NodeManager -v
<Nov 2, 2017 11:53:35 AM GMT+08:00> <INFO> <Loading domains file: /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.domains>
<Nov 2, 2017 11:53:35 AM GMT+08:00> <INFO> <Upgrade> <Setting NodeManager properties version to 12.2.1.3.0>
<Nov 2, 2017 11:53:35 AM GMT+08:00> <INFO> <Upgrade> <Saving upgraded NodeManager properties to '/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.properties'>
<Nov 2, 2017 11:53:35 AM GMT+08:00> <INFO> <Loading domains file: /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.domains>
<Nov 2, 2017 11:53:35 AM GMT+08:00> <INFO> <Loading identity key store: FileName=kss://system/demoidentity, Type=kss, PassPhraseUsed=true>
Nov 02, 2017 11:53:37 AM oracle.security.opss.internal.runtime.ServiceContextManagerImpl getContext
WARNING: Bootstrap services are used by OPSS internally and clients should never need to directly read/write boo

```

Starting the Admin Server, go to the `DOMAIN_HOME/bin` directory and run `./startWebLogic.sh`.

```

oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/bin
File Edit View Search Terminal Tabs Help
oracle@hpgen9-02:/ho... x oracle@hpgen9-02:/ho... x oracle@hpgen9-02:/ho... x oracle@hpgen9-02:/ho... x
2017-11-02 11:57:18.795/95.966 Oracle Coherence GE 12.2.1.3.0 <Info> (thread=[STANDBY] ExecuteThread: '1' for queue: 'weblogic.kernel.Default (self-tuning)', member=n/a): Loaded cache configuration from "jar:file:/home/oracle/Oracle/Middleware/Oracle_Home/oracle_common/modules/oracle.wsm.common/wsm-agent-core.jar!/oracle-wsm-coherence-cache-config.xml"
2017-11-02 11:57:18.819/95.990 Oracle Coherence GE 12.2.1.3.0 <Info> (thread=[STANDBY] ExecuteThread: '1' for queue: 'weblogic.kernel.Default (self-tuning)', member=n/a): Created cache factory com.tangosol.net.ExtensibleConfigurableCacheFactory
<Nov 2, 2017 11:57:19,351 AM GMT+08:00> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to ADMIN.>
<Nov 2, 2017 11:57:19,416 AM GMT+08:00> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to RESUMING>
<Nov 2, 2017 11:57:19,416 AM GMT+08:00> <Notice> <JMX> <BEA-149535> <JMX Resiliency Activity Server=All Servers: Resolving connection list DomainRuntimeServiceMBean>
<Nov 2, 2017 11:57:19,527 AM GMT+08:00> <Warning> <Server> <BEA-002611> <The hostname "localhost", maps to multiple IP addresses: 127.0.0.1, 0:0:0:0:0:0:1.>
<Nov 2, 2017 11:57:19,528 AM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default" is now listening on 147.2.207.117:7001 for protocols iiop, t3, ldap, snmp, http.>
<Nov 2, 2017 11:57:19,528 AM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[2]" is now listening on 127.0.0.1:7001 for protocols iiop, t3, ldap, snmp, http.>
<Nov 2, 2017 11:57:19,528 AM GMT+08:00> <Notice> <WebLogicServer> <BEA-000329> <Started the WebLogic Server Administration Server "AdminServer" for domain "base_domain" running in production mode.>
<Nov 2, 2017 11:57:19,528 AM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[1]" is now listening on 0:0:0:0:0:0:1%lo:7001 for protocols iiop, t3, ldap, snmp, http.>
<Nov 2, 2017 11:57:19,529 AM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default" is now listening on 147.2.207.117:7001 for protocols iiop, t3, ldap, snmp, http.>
<Nov 2, 2017 11:57:19,529 AM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[2]" is now listening on 127.0.0.1:7001 for protocols iiop, t3, ldap, snmp, http.>
<Nov 2, 2017 11:57:19,529 AM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[1]" is now listening on 0:0:0:0:0:0:1%lo:7001 for protocols iiop, t3, ldap, snmp, http.>
<Nov 2, 2017 11:57:19,667 AM GMT+08:00> <Notice> <WebLogicServer> <BEA-000360> <The server started in RUNNING mode.>
<Nov 2, 2017 11:57:19,676 AM GMT+08:00> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to RUNNING.>

```

You know that the administrator server is running when you see the following output:

---

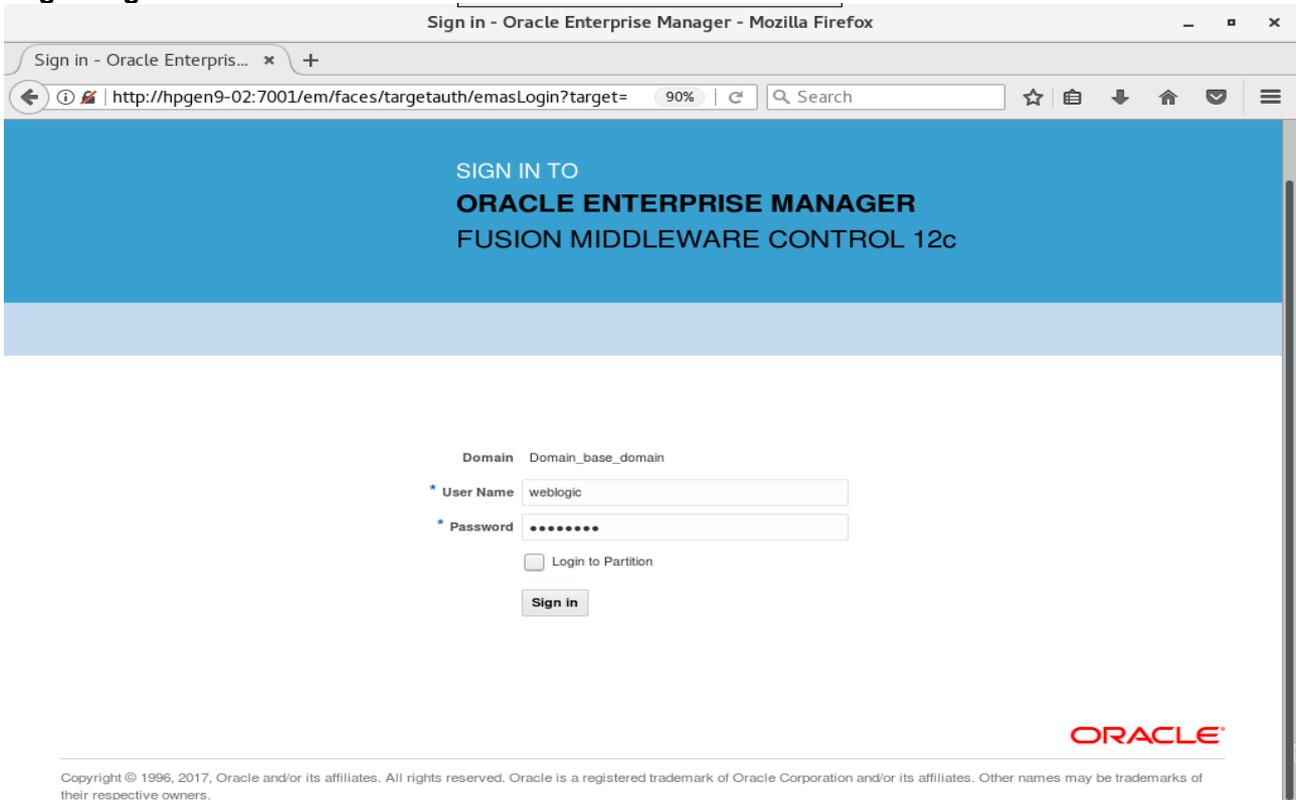
*Server state changed to RUNNING.*

---

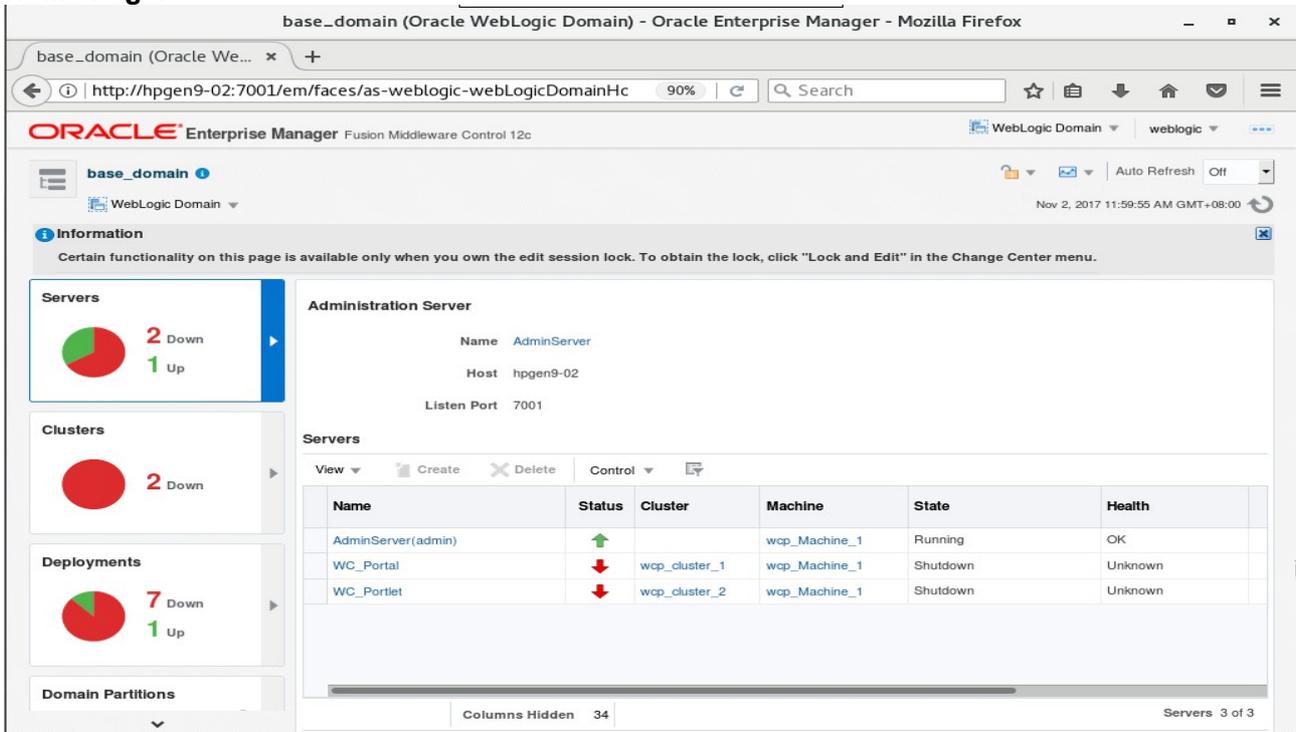
4-3. Checking Oracle WebCenter Product URLs.

1). Access to Enterprise Manager Console.

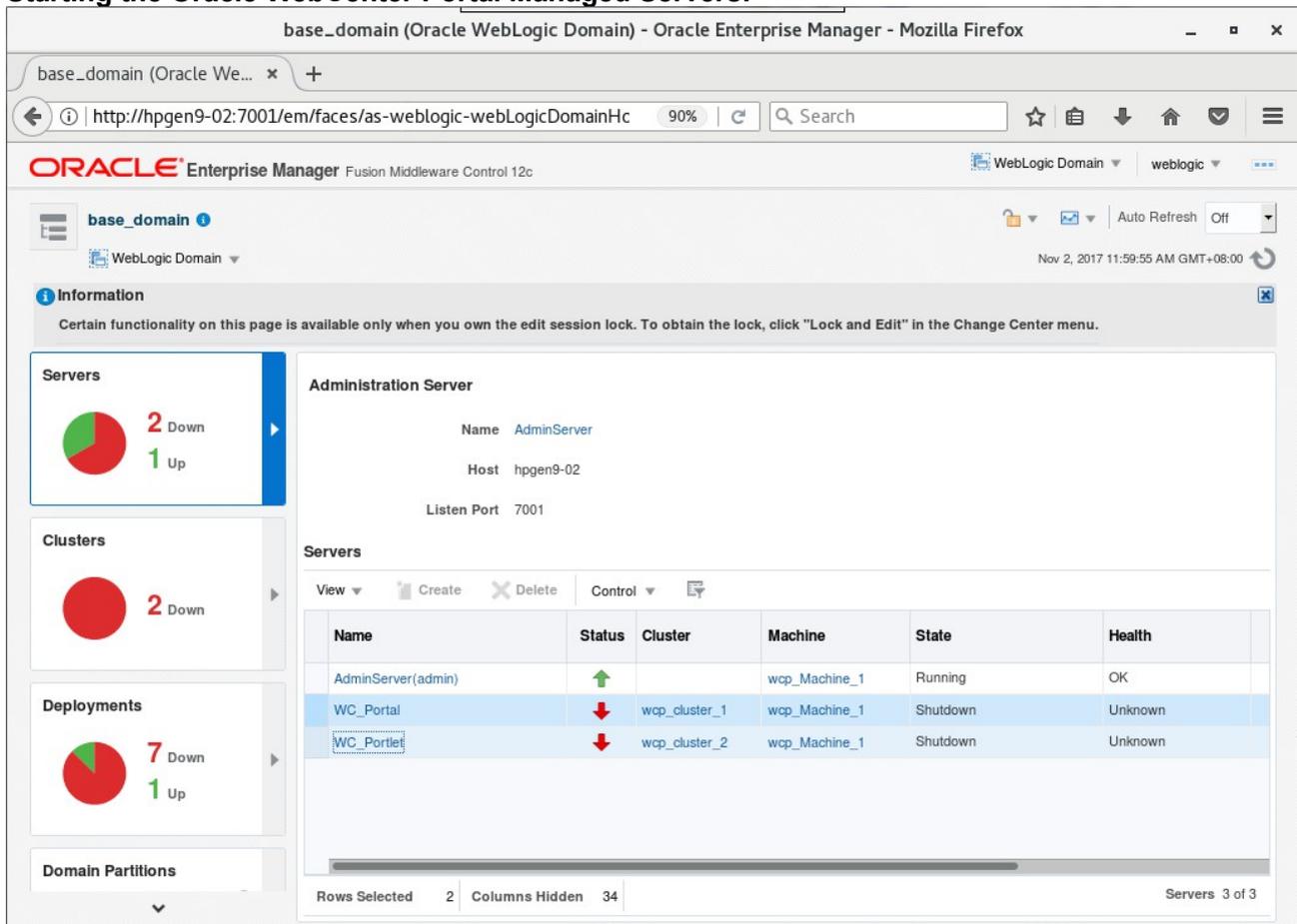
**Login Page:**



**Home Page:**



**Starting the Oracle WebCenter Portal Managed Servers:**



Select **WC\_Portal**, and **WC\_Portlet**.

- Left-click to select a managed server.
- Hold down the SHIFT key to select more than one managed server.

Select **Control** from the ribbon menu above the list of managed servers. Then select **Start** from the drop-down menu.

The screenshot shows the Oracle Enterprise Manager interface for a WebLogic Domain. On the left, there are summary cards for Servers (2 Down, 1 Up), Clusters (2 Down), and Deployments (7 Down, 1 Up). The main area displays the 'Administration Server' details and a table of managed servers. A 'Control' menu is open over the table, showing options: Start, Resume, Suspend, Shutdown, and Restart SSL. The table data is as follows:

Name	Machine	State	Health
AdminServer(admin)	wcp_Machine_1	Running	OK
WC_Portal	wcp_Machine_1	Shutdown	Unknown
WC_Portlet	wcp_Machine_1	Shutdown	Unknown

After they start up successfully, each managed server is listed as Running.

The screenshot shows the Oracle Enterprise Manager interface after the servers have started. The summary cards now show 3 Up Servers, 2 Up Clusters, and 7 Up Deployments. The table of managed servers has been updated to show all servers in a 'Running' state with 'OK' health. The table data is as follows:

Name	Status	Cluster	Machine	State	Health
AdminServer(admin)	↑		wcp_Machine_1	Running	OK
WC_Portal	↑	wcp_cluster_1	wcp_Machine_1	Running	OK
WC_Portlet	↑	wcp_cluster_2	wcp_Machine_1	Running	OK

Checking WebCenter Servers state through Oracle WLST tool.

```
Welcome to WebLogic Server Administration Scripting Shell

Type help() for help on available commands

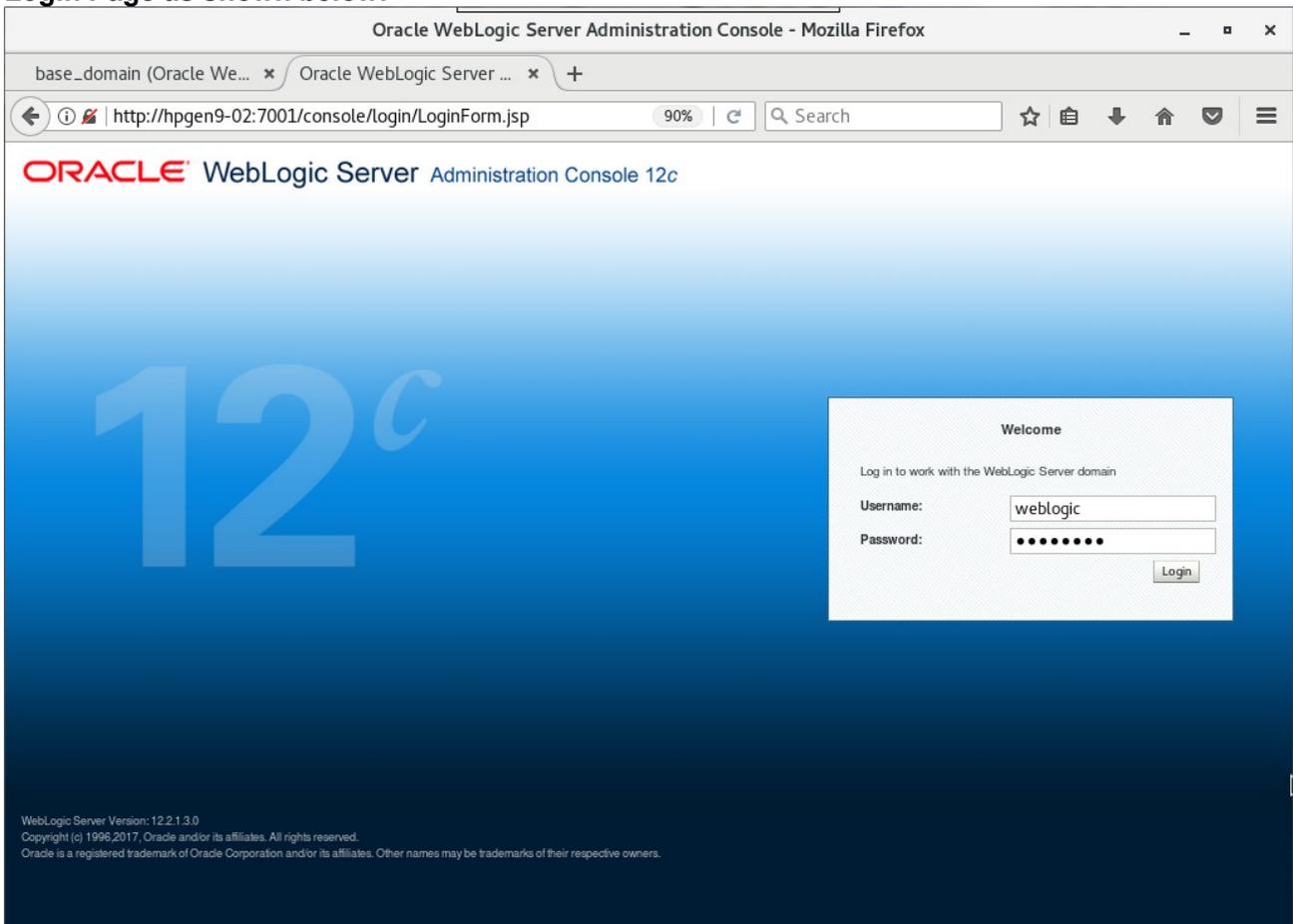
wls:/offline> connect ('weblogic','welcome1','hpgen9-02:7001')
Connecting to t3://hpgen9-02:7001 with userid weblogic ...
Successfully connected to Admin Server "AdminServer" that belongs to domain "base_domain".

Warning: An insecure protocol was used to connect to the server.
To ensure on-the-wire security, the SSL port or Admin port should be used instead.

wls:/base_domain/serverConfig/> state('AdminServer')
Current state of "AdminServer" : RUNNING
wls:/base_domain/serverConfig/> state('WC_Portal')
Current state of "WC_Portal" : RUNNING
wls:/base_domain/serverConfig/> state('WC_Portlet')
Current state of "WC_Portlet" : RUNNING
```

2). Access to Administration Server Console

Login Page as shown below:



Home Page:

Viewing the summary of servers:

Summary of Servers

A server is an instance of WebLogic Server that runs in its own Java Virtual Machine (JVM) and has its own configuration. This page summarizes each server that has been configured in the current WebLogic Server domain.

**Customize this table**

Servers (Filtered - More Columns Exist)

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

Name	Type	Cluster	Machine	State	Health	Listen Port
AdminServer(admin)	Configured		wcp_Machine_1	RUNNING	OK	7001
WC_Portal	Configured	wcp_cluster_1	wcp_Machine_1	RUNNING	OK	8888
WC_Portlet	Configured	wcp_cluster_2	wcp_Machine_1	RUNNING	OK	8889

## 3). Test Oracle WebCenter Portal Web Service

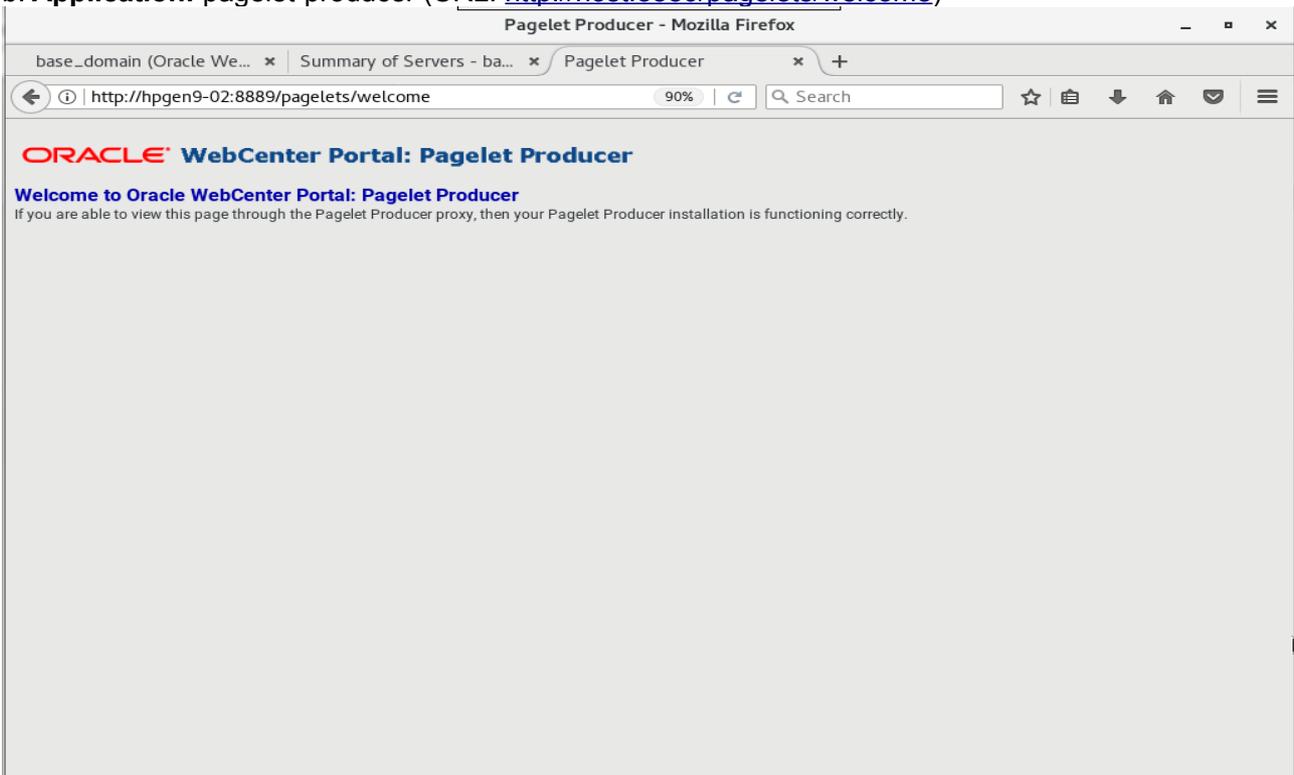
a. **Application:** opss-rest (URL:<http://host:7001/idaas/platform/application.wadl>)

This XML file does not appear to have any style information associated with it. The document tree is shown below.

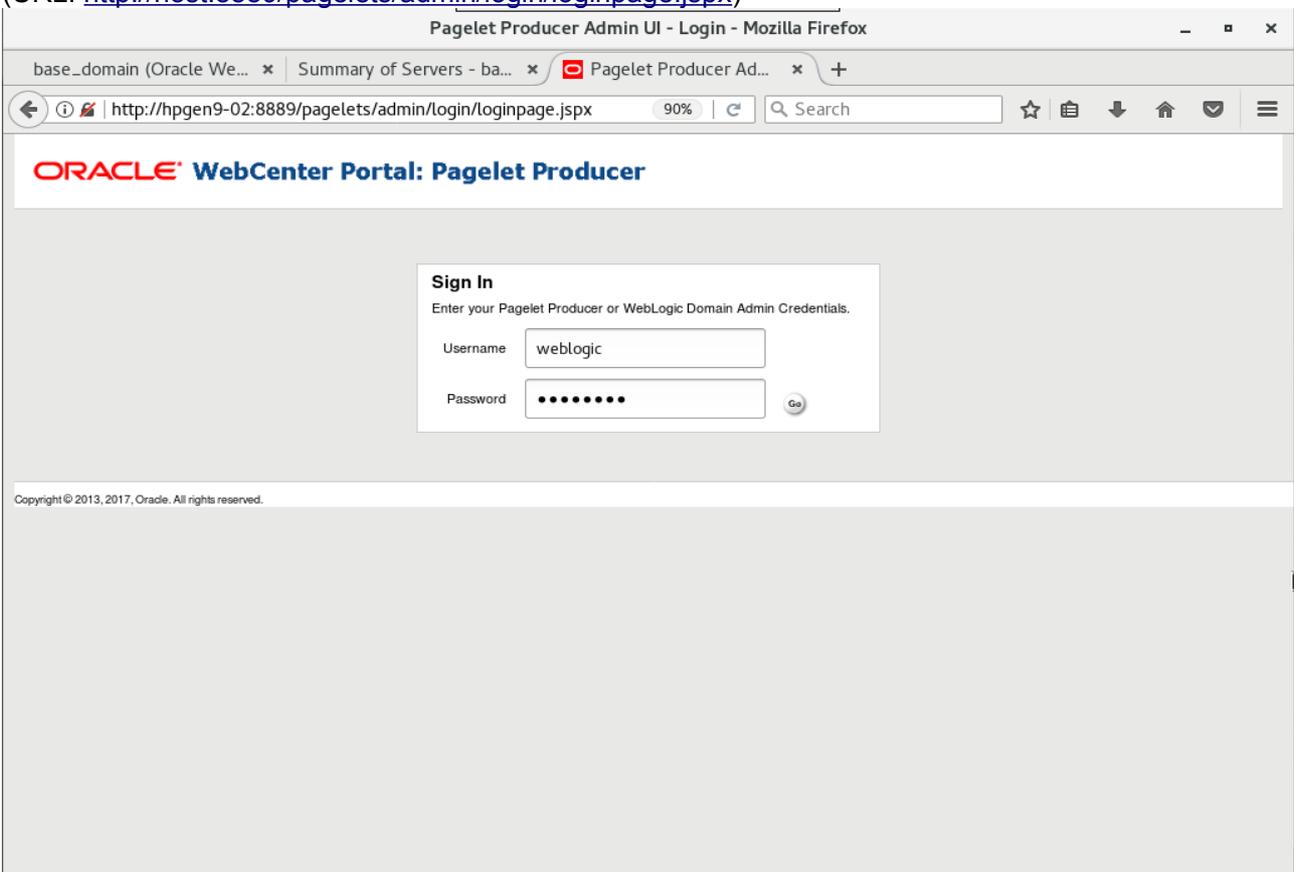
```

- <ns0:application>
- <ns0:doc title="Oracle Identity API Definition" xml:lang="en">
  Oracle Identity Manager exposes a set of URI resources providing RESTful APIs for product functionality. This file contains the definition for a single API.
  Refer to the Developer's Guide for the complete list of supported APIs and more information about each.
</ns0:doc>
<ns0:doc ns1:generatedBy="Jersey: 2.22.4 2016-11-30 13:33:53"/>
<ns0:doc ns2:hint="This is simplified WADL with user and core resources only. To get full WADL with extended resources use the query parameter detail. Link:
http://hpgen9-02:7001/idaas/platform/application.wadl?detail=true/>
- <ns0:grammars>
  <ns0:include href="Configuration.xsd"/>
</ns0:grammars>
- <ns0:resources base="http://hpgen9-02:7001/idaas/platform/">
- <ns0:resource path="/admin/v1">
  - <ns0:doc>
    Platform Security and Web Service Resources. Key store management for JKS format - Upload server signing/encrypting certificate to domain OWSM
    keystore (JKS, KSS). - Upload trusted CA certificate chain to domain OWSM keystore (JKS,KSS). - Download trusted CA certificates from domain OWSM
    keystore (JKS, KSS). - Search certificates by alias or entire domain OWSM keystore. Credential Store Management - Create an entry in domain CSF with
    user, map, key, credential. - Update an existing entry in domain CSF with new credential. - Delete an entry from domain CSF for a given map, key
    information. - Search entire domain CSF for maps and keys. Trust Configuration Management - Upload a Collection of SAML and JWT issuer, subject DN,
    and its attributes. to configure Policy Accessor Configuration. - Download a list of Trust Configuration. - Upload a Collection of Trust Token Attributes
    and DNs. - Download a list of Trust Token Attribute Information. Key Store Service (KSS) - Create keystore - List keystore per stripe - Delete keystore -
    Change keystore password - Import certificate in X509, PKCS#7 for (TrustedCertificate, Certificate, or PKCS#7) - Export certificate in Base64 for X509,
    PKCS#7 from KSS - Generate secret key - Retrieve secret key properties.
  </ns0:doc>
- <ns0:resource path="/credential">
  - <ns0:doc>
    Platform Security and Web Service Resources. Key store management for JKS format - Upload server signing/encrypting certificate to domain OWSM
    keystore (JKS, KSS). - Upload trusted CA certificate chain to domain OWSM keystore (JKS,KSS). - Download trusted CA certificates from domain
    OWSM keystore (JKS, KSS). - Search certificates by alias or entire domain OWSM keystore. Credential Store Management - Create an entry in domain
  
```

b. **Application:** pagelet-producer (URL: <http://host:8889/pagelets/welcome>)



(URL: <http://host:8889/pagelets/admin/login/loginpage.jspx>)



The screenshot shows the Oracle WebCenter Portal: Pagelet Producer administration interface. The browser window title is "Oracle WebCenter Portal: Pagelet Producer - Mozilla Firefox". The address bar shows the URL "http://hpgen9-02:8889/pagelets/admin/". The page header includes the Oracle logo and "WebCenter Portal: Pagelet Producer" with a "Logout" link. The main content area is divided into a "Navigator" on the left and a "General" configuration panel on the right. The "General" panel is for the "welcome\_resource" and includes fields for Name, Description, Source URL, Source Timeout, Destination URL, DHTML Rewriting (checked), and Asynchronous Rewriting (unchecked). The "Navigator" shows a tree view with "welcome\_resource" expanded to show "General", "Policy", "Autologin", "Headers", "Pagelets", "Injectors", "Parsers", and "Files". Other resources like "login\_resource" and "pagelet\_api" are also visible. A copyright notice "Copyright © 2013, 2017, Oracle. All rights reserved." is at the bottom left.

c. Application: wsrp-tools (URL: <http://host:8889/wsrp-tools>)

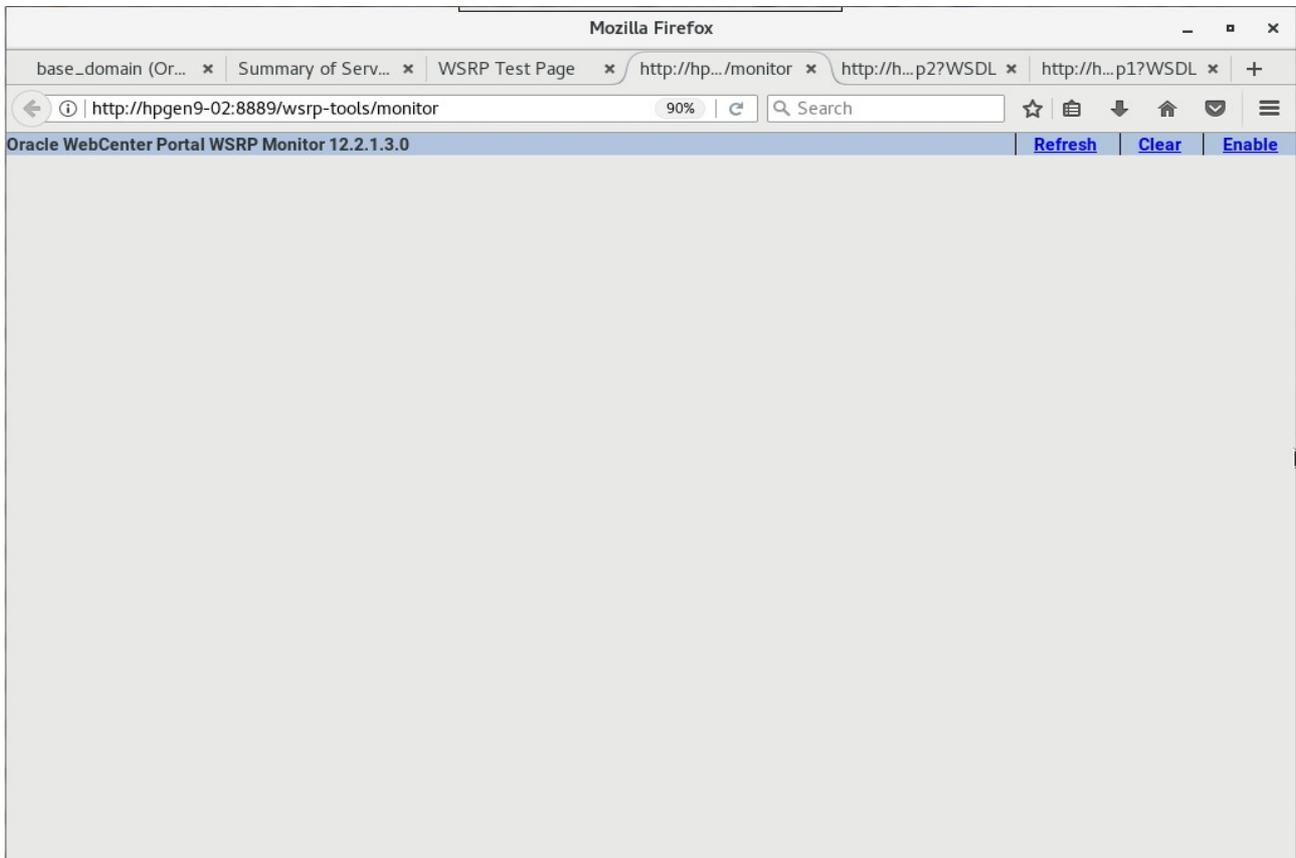
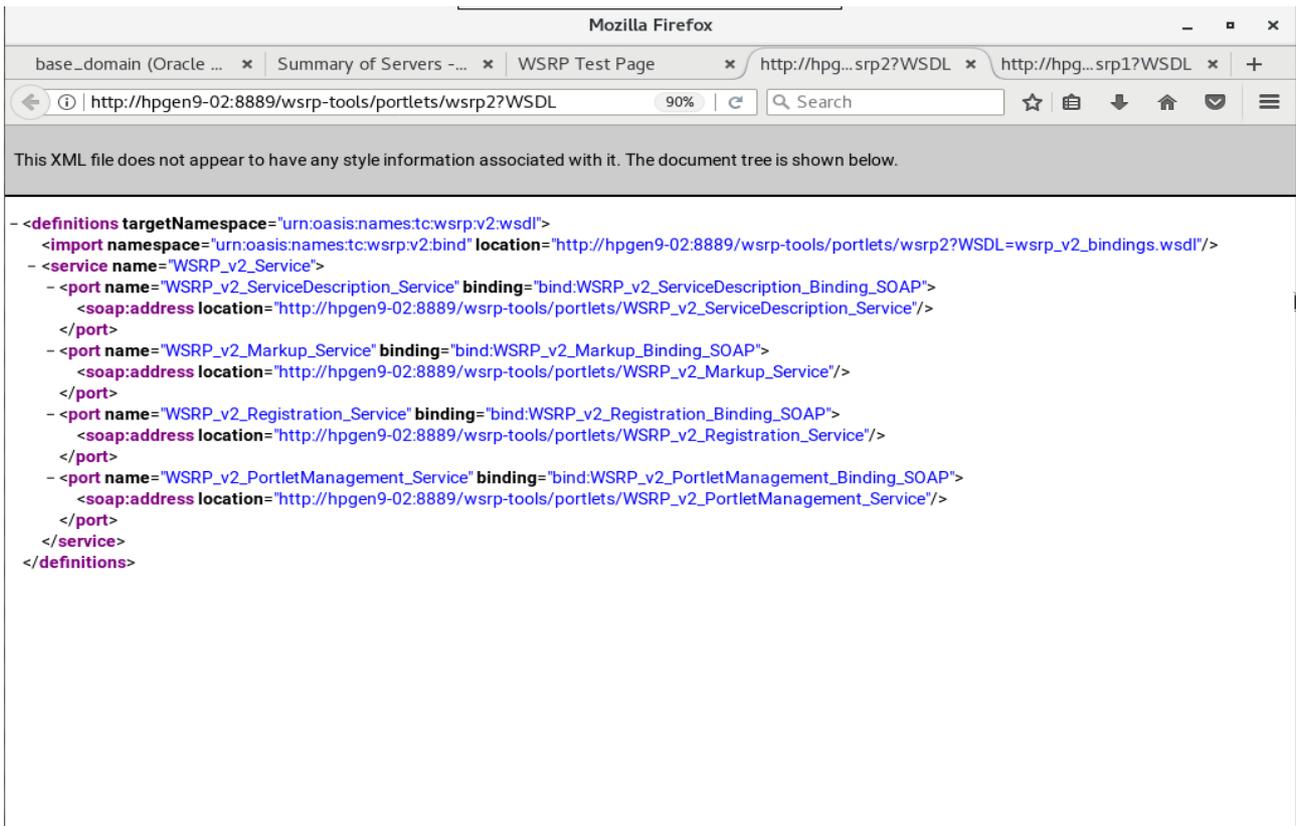
The screenshot shows a Mozilla Firefox browser window with the title 'WSRP Test Page - Mozilla Firefox'. The address bar displays 'http://hpgen9-02:8889/wsrp-tools/'. The page content is titled 'ORACLE WebCenter Portal : Portlets' and 'WSRP Producer Test Page'. It lists the following portlets: Parameter Display Portlet (2.0) and Parameter Form Portlet (2.0). Under 'Container Configuration', it specifies: Persistent Store Type: Database; Data Source Name: java:comp/env/jdbc/portletPrefs; Use Java Object Cache: true. Under 'Container Version', it shows: Implementation version: 12.2.1.3.0, Label: WCCORE\_12.2.1.3.0\_GENERIC\_170820.1233.S. Under 'WSDL URLs', it lists: WSRP v1 WSDL and WSRP v2 WSDL. Under 'SOAP Monitor', it lists: SOAP Monitor.

The screenshot shows a Mozilla Firefox browser window with the title 'Mozilla Firefox'. The address bar displays 'http://hpgen9-02:8889/wsrp-tools/portlets/wsrp1?WSDL'. The page content displays the XML content of the WSDL file, which is a service definition for WSRP v1. The XML is as follows:

```

- <definitions targetNamespace="urn:oasis:names:tc:wsrp:v1:wsdl">
  <import namespace="urn:oasis:names:tc:wsrp:v1:bind" location="http://hpgen9-02:8889/wsrp-tools/portlets/wsrp1?WSDL=wsrp_v1_bindings.wsdl"/>
  - <service name="WSRP_v1_Service">
    - <port name="WSRPBaseService" binding="bind:WSRP_v1_Markup_Binding_SOAP">
      <soap:address location="http://hpgen9-02:8889/wsrp-tools/portlets/WSRPBaseService"/>
    </port>
    - <port name="WSRPServiceDescriptionService" binding="bind:WSRP_v1_ServiceDescription_Binding_SOAP">
      <soap:address location="http://hpgen9-02:8889/wsrp-tools/portlets/WSRPServiceDescriptionService"/>
    </port>
    - <port name="WSRPRegistrationService" binding="bind:WSRP_v1_Registration_Binding_SOAP">
      <soap:address location="http://hpgen9-02:8889/wsrp-tools/portlets/WSRPRegistrationService"/>
    </port>
    - <port name="WSRPPortletManagementService" binding="bind:WSRP_v1_PortletManagement_Binding_SOAP">
      <soap:address location="http://hpgen9-02:8889/wsrp-tools/portlets/WSRPPortletManagementService"/>
    </port>
  </service>
</definitions>

```



d. **Application:** WebCenter Portal (URL:<http://host:8888/webcenter/portal>)

WebCenter Portal Welcome Page - Mozilla Firefox

Oracle Enterprise Manager x WebCenter Portal Welco... x +

http://hpgen9-02:8888/webcenter/system/welcome.jsp?wc.coi 90% Search

## SIGN IN TO WEBCENTER PORTAL

User Name  
weblogic

Password  
.....

**Sign In** or View Public Portals

**ORACLE** Contact Admin | About WebCenter Portal | Privacy Statement | Help  
Copyright © 2009, 2017, Oracle and/or its affiliates. All rights reserved. Language

Portal Browser - Mozilla Firefox

Oracle Enterprise Manager x Portal Browser x +

http://hpgen9-02:8888/webcenter/portal/admin/portals/list?wc. 90% Search

**ORACLE** WebCenter Portal > Portal Browser Portals Favorites Help weblogic

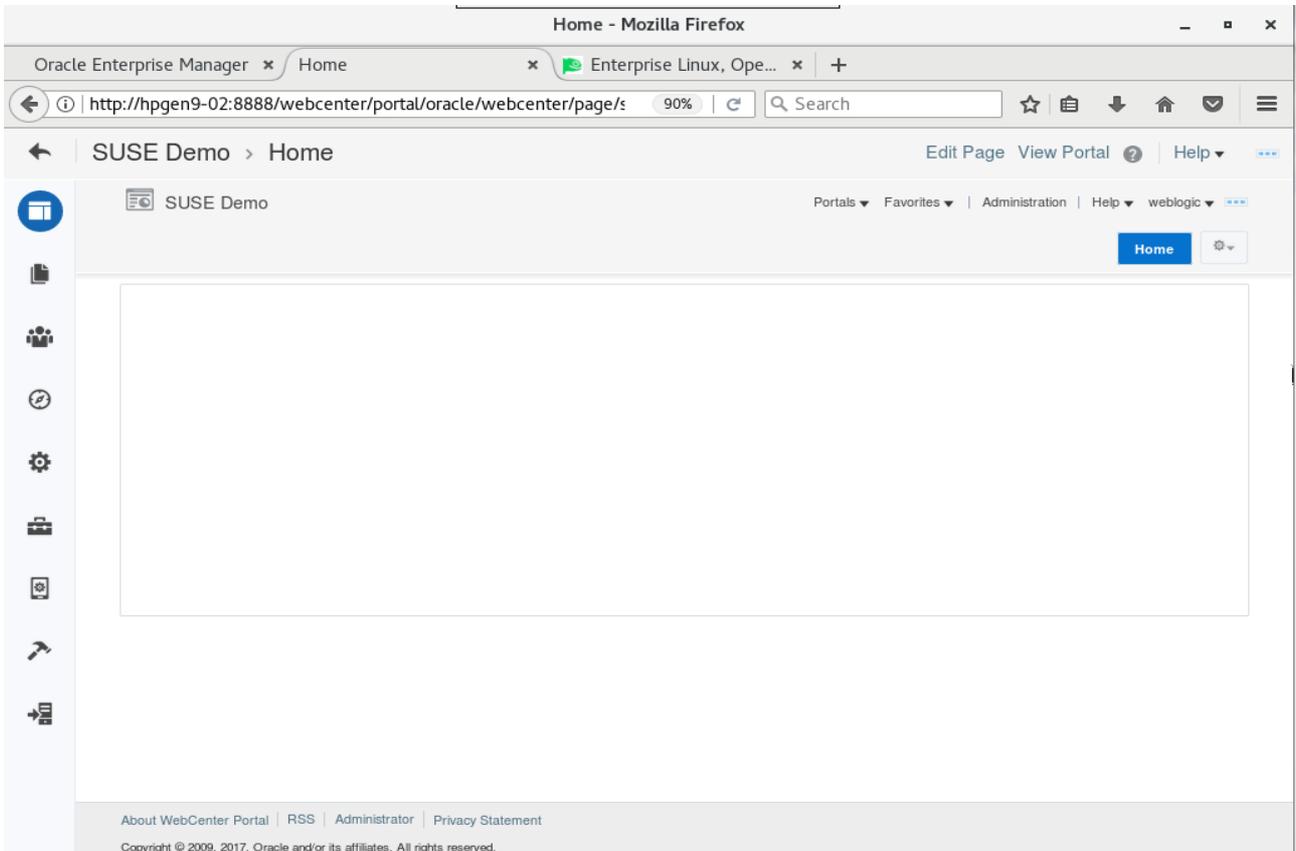
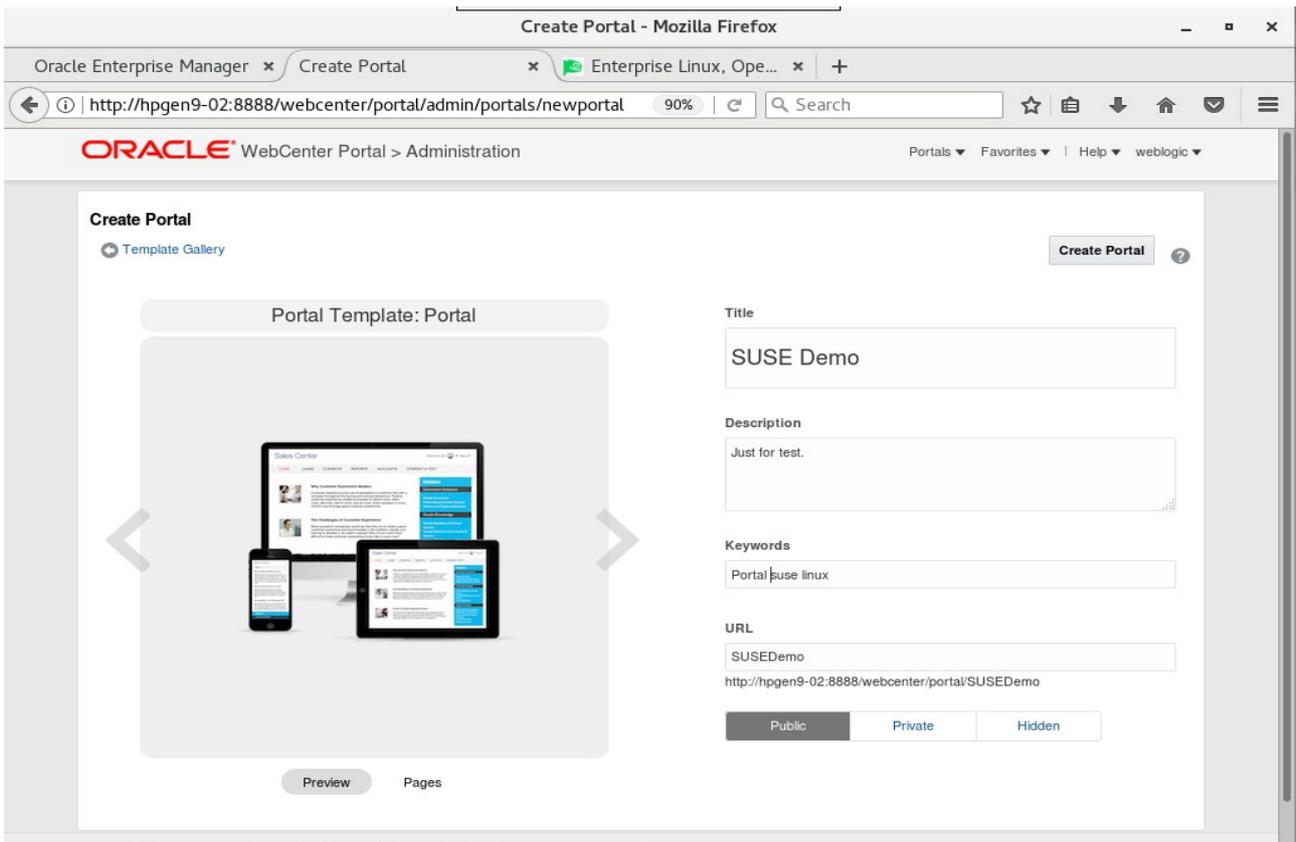
### Portal Browser

Search Portals Show All Portals Sort By Name Create Portal

Administration Home Portal

No portals were found.

About WebCenter Portal RSS Administrator Privacy Statement  
Copyright © 2009, 2017, Oracle and/or its affiliates. All rights reserved.



The screenshot shows the Oracle Enterprise Manager interface in a Mozilla Firefox browser. The browser tabs include 'Oracle Enterprise Manager', 'SUSE Demo - General', and 'Enterprise Linux, Ope...'. The address bar shows the URL: `http://hpgen9-02:8888/webcenter/portal/admin/portals/admin/SU!`. The page title is 'SUSE Demo > General'. On the right side of the page header, there are links for 'View Portal' and 'Help'. A vertical navigation menu is on the left side of the page.

The main content area is divided into two sections:

- Portal Information:** This section contains several input fields and controls:
  - Title:** SUSE Demo
  - Acronym:** SD
  - Description:** Just for test.
  - Portal Color:** A yellow color swatch is shown next to a 'Choose Color' button.
  - Keywords:** A text input field contains 'Enter Keywords'. Below it, three keyword tags are displayed: 'Portal', 'suse', and 'linux', each with a close button (X).
  - A 'Save' button is located at the bottom of this section.
- Portal Details:** This section displays read-only information:
  - Name:** SUSEDemo [Rename](#)
  - Portal URL:** <http://hpgen9-02:8888/webcenter/portal/SUSEDemo>
  - Internal ID:** s41aa3123\_7791\_4ce2\_bc4c\_6c0a0968333e
  - Members:** 1
  - Last Activity:** 2 minutes ago
  - Created:** 2 minutes ago by weblogic

e. **Application:** analytics-collector (URL:<http://host:8888/collector>)

Collector Information

Refresh

Configuration	Value
Collector Default Port	31314
Collector Max Port	31314
Collector Server Name	localhost
Broadcast Type	Multicast
Cluster Enabled	✘
Cluster Name	✘
Partitioning Enabled	✘
Time Dimension for this year	✔
Space Dimension Exists	✔

**End of Oracle WebCenter Portal.**

\*\*\*\*\*  
**Oracle SOA Suite**  
\*\*\*\*\*

## 1. Installing Oracle SOA Suite 12c

### 1-1. Prerequisites:

Installation of Oracle SOA Suite requires:

- 1). Oracle Database 12cR2 (12.2.0.1.0) installed.
- 2). Oracle JDK 1.8.0\_131 and later installed.

1-2. Log in to the target system (SLES 12 64-bit OS) as a non-admin user. Download the Oracle SOA Suite 12c (12.2.1.3.0) Quick Start installer zip file from <http://www.oracle.com/technetwork/indexes/downloads/index.html#middleware>.  
(**Note:** Please ensure the installation user has the proper permissions to install and configure the software.)

1-3. Go to the directory where you downloaded the installation program. Extract the contents of these .zip ("fmw\_12.2.1.3.0\_soaqs\_Disk1\_1of2.zip") files and launch the installation program by running '`java -jar fmw_12.2.1.3.0_soa_quickstart.jar`'

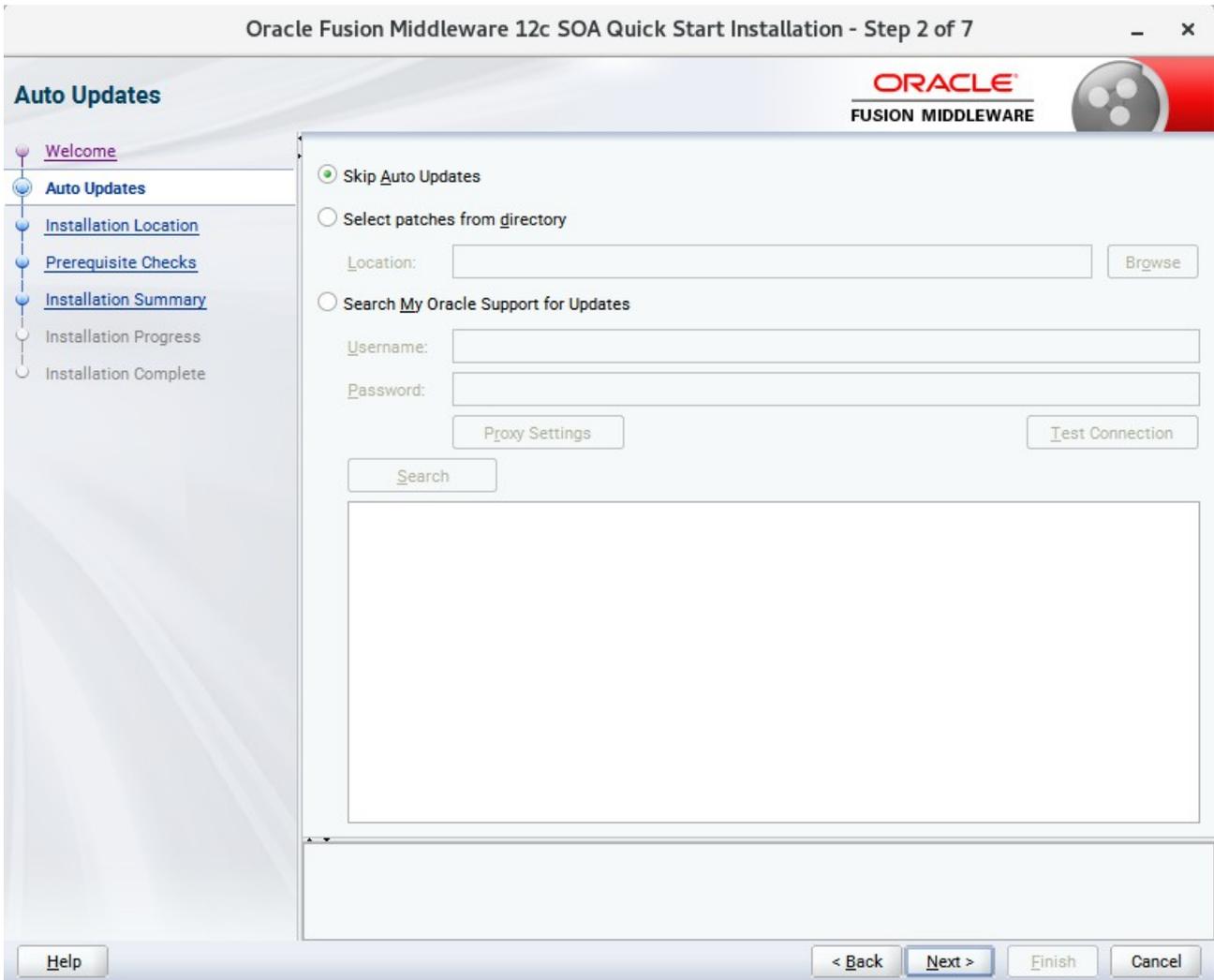
**For the actual installation, follow the steps below:**

- 1). Welcome page.



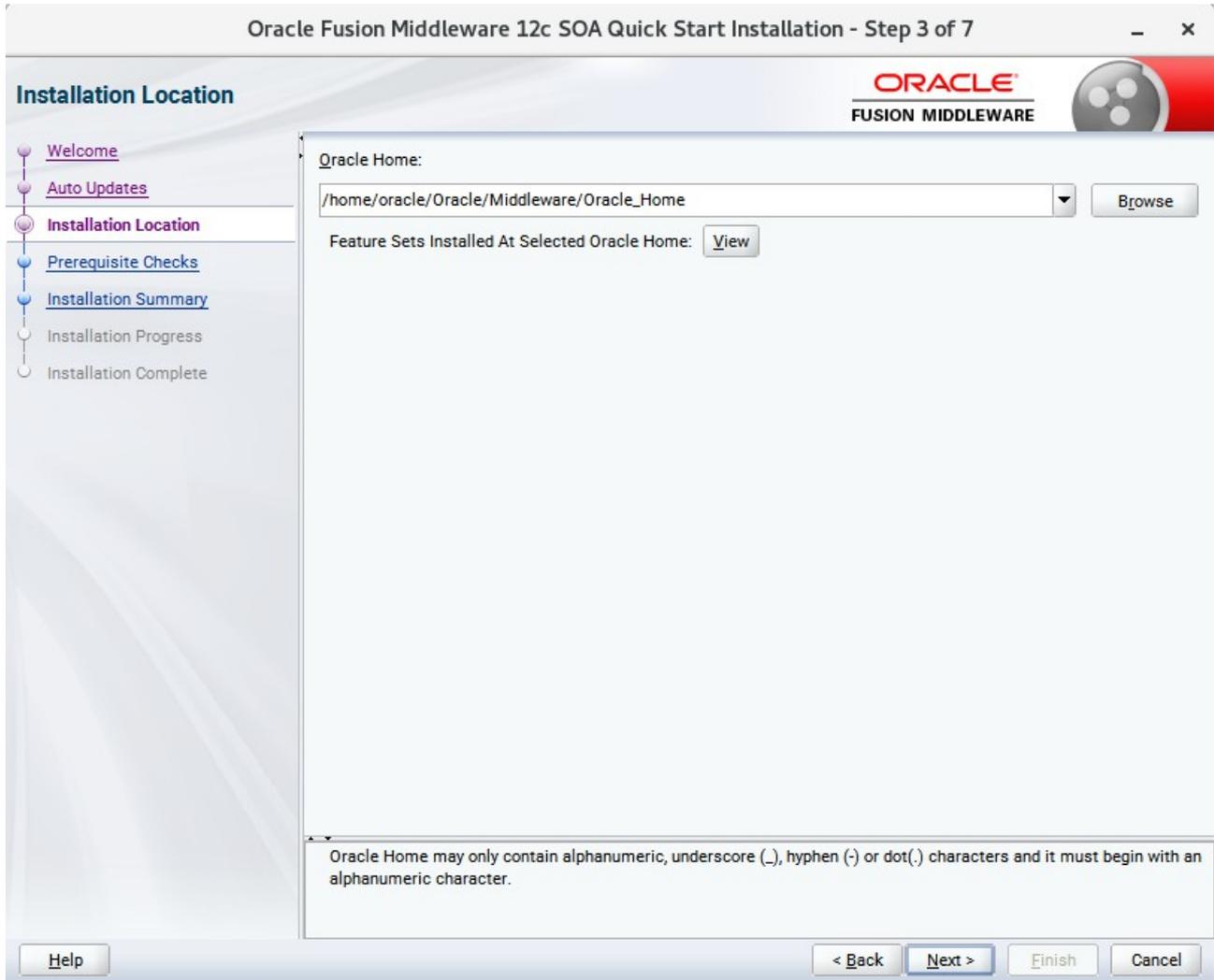
This page welcomes you to the installation. Click **Next** to continue.

2). The **Auto Updates** page appears.



This page enables you to choose to automatically receive software updates for your components from Oracle Corporation. make your choices, then click **Next** to continue.

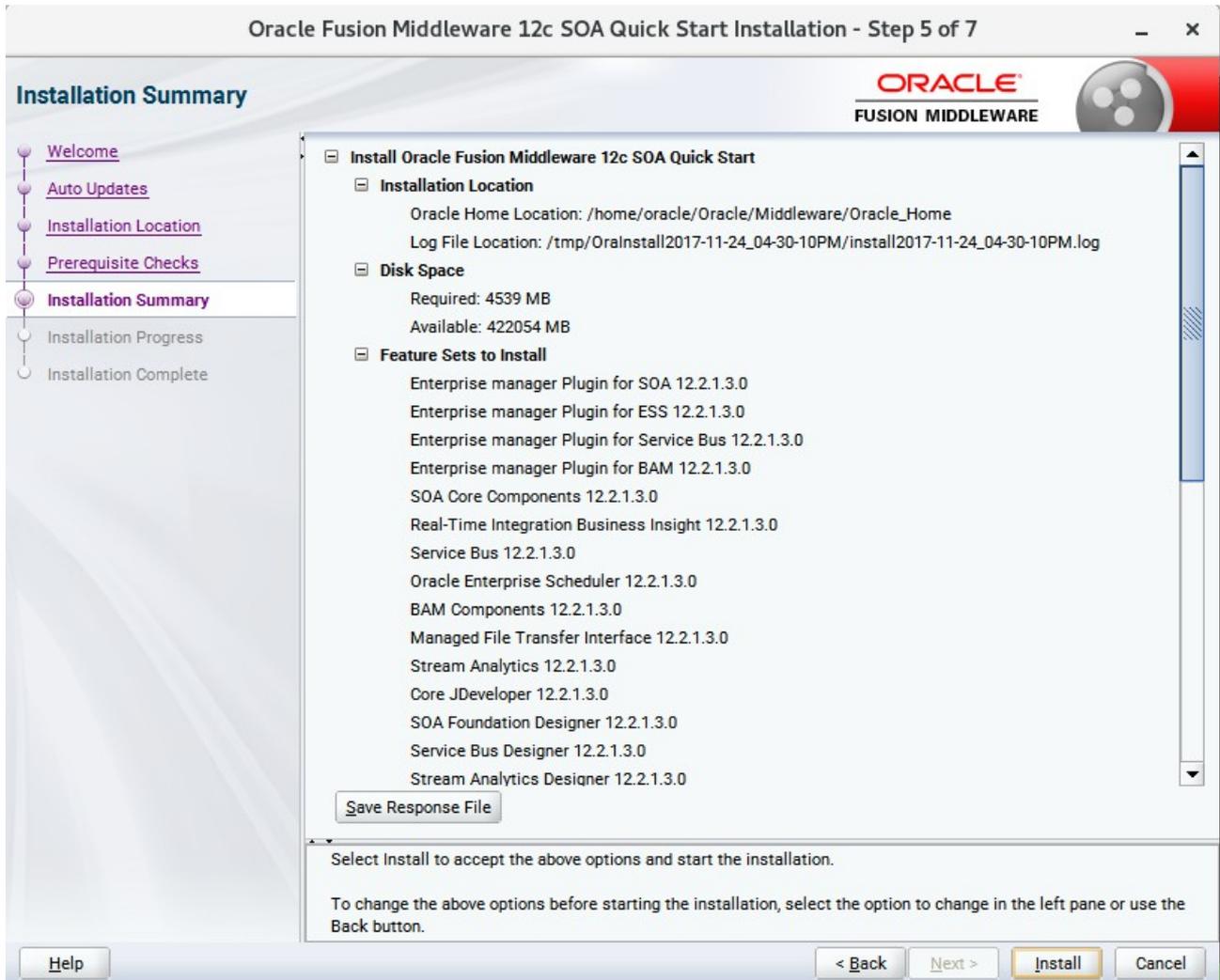
3). The **Installation Location** page appears.



Specify the Oracle home location into which you want to install the product(s). Click **Next** to continue.

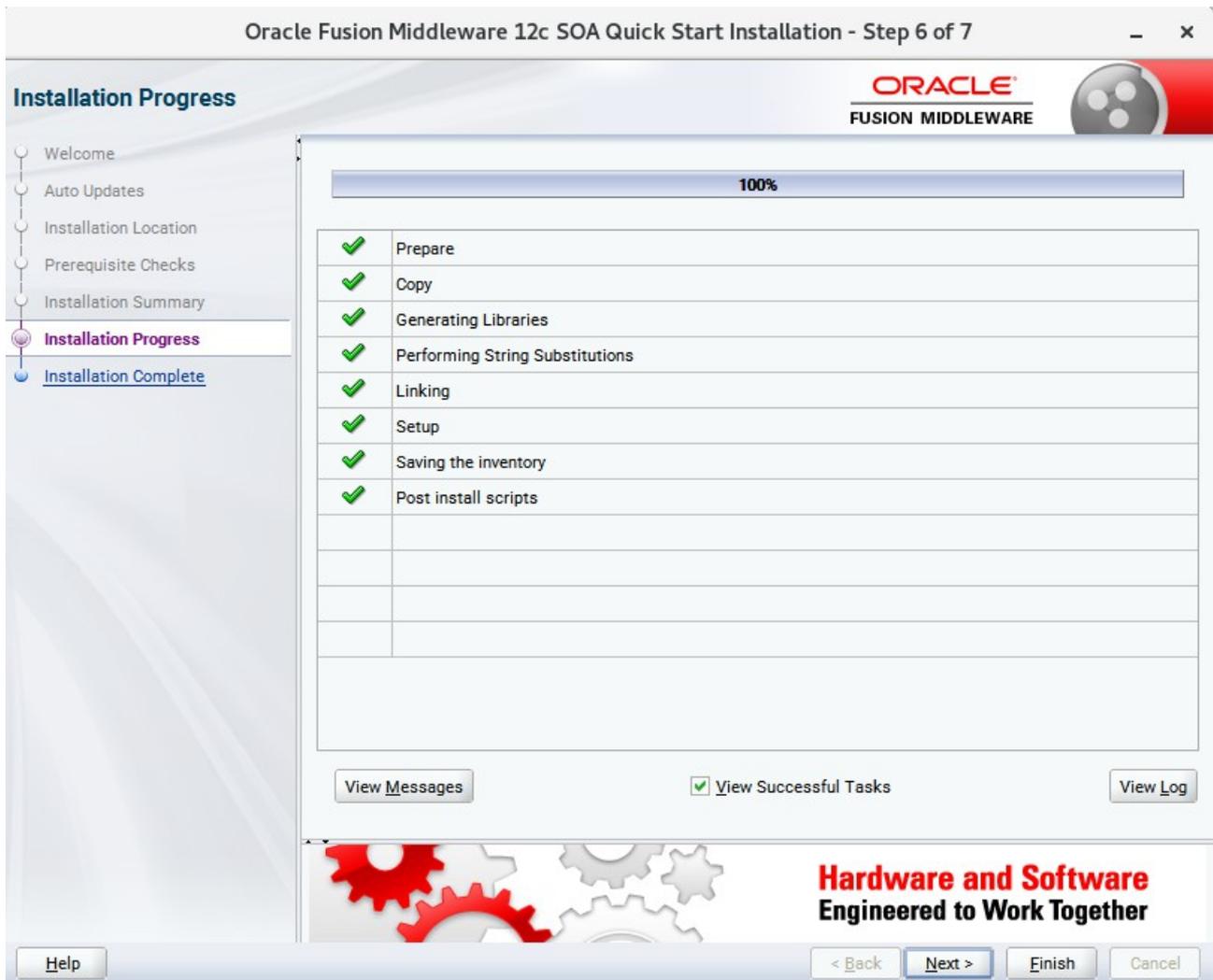


5). The **Installation Summary** page appears.



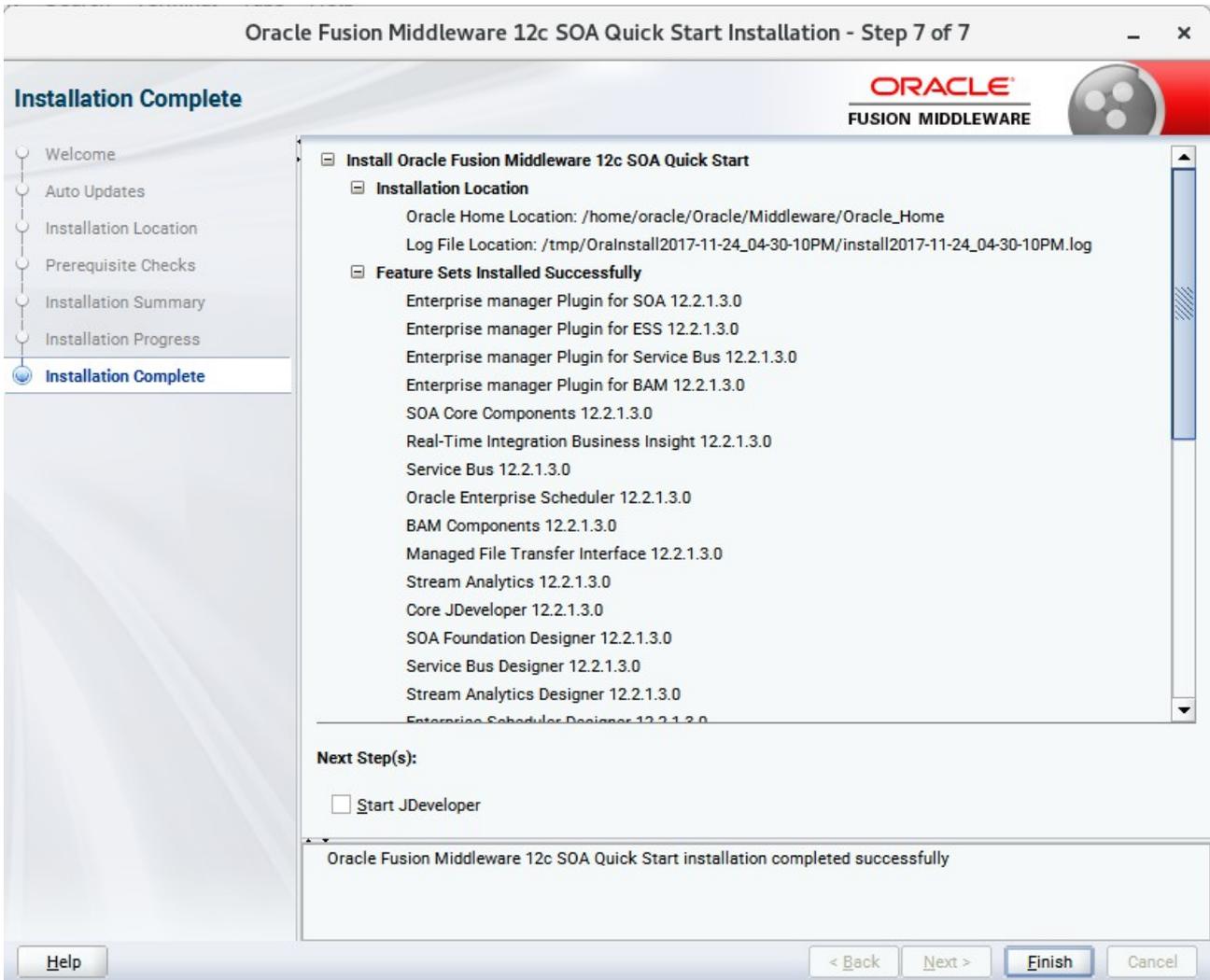
This page shows you what components and features are about to be installed. If you need to make changes, click **Back**, otherwise, click **Install** to start the installation.

6). The **Installation Progress** page appears.



This page shows you the progress of the installation, and will warn you if there are any problems. You can view messages and logs from this page, but typically no action is required here. When progress is complete, click **Next** (go to a Summary page). Alternatively, you can click **Finish**.

7). If you clicked **Next**, the **Installation Complete** page appears, showing you the components that have been installed.



At the bottom of this screen, there is a checkbox to launch Oracle JDeveloper upon closing the installation wizard. This guide recommends that you uncheck this box. Click **Finish** to dismiss the installer.

## 2. Creating Oracle Database Schema through Repository Creation Utility(RCU)

2-1. Invoke the RCU packaged with your Quick Start installation to create schemas in your database. Do not download or use any other version of RCU to configure a database with Quick Start. Run **\$FMW\_HOME/oracle\_common/bin/rcu** and create required database schemas for Oracle SOA Suite.

**Screenshot: Database schemas creating for Oracle SOA Suite.**



Select the **Create new prefix** radio button and provide a schema prefix (such as SUSEDEMO). Select the components as shown above, and ensure schema creation is successful.

### 3. Configuring a Compact Domain for Oracle SOA Suite using the Config Wizard

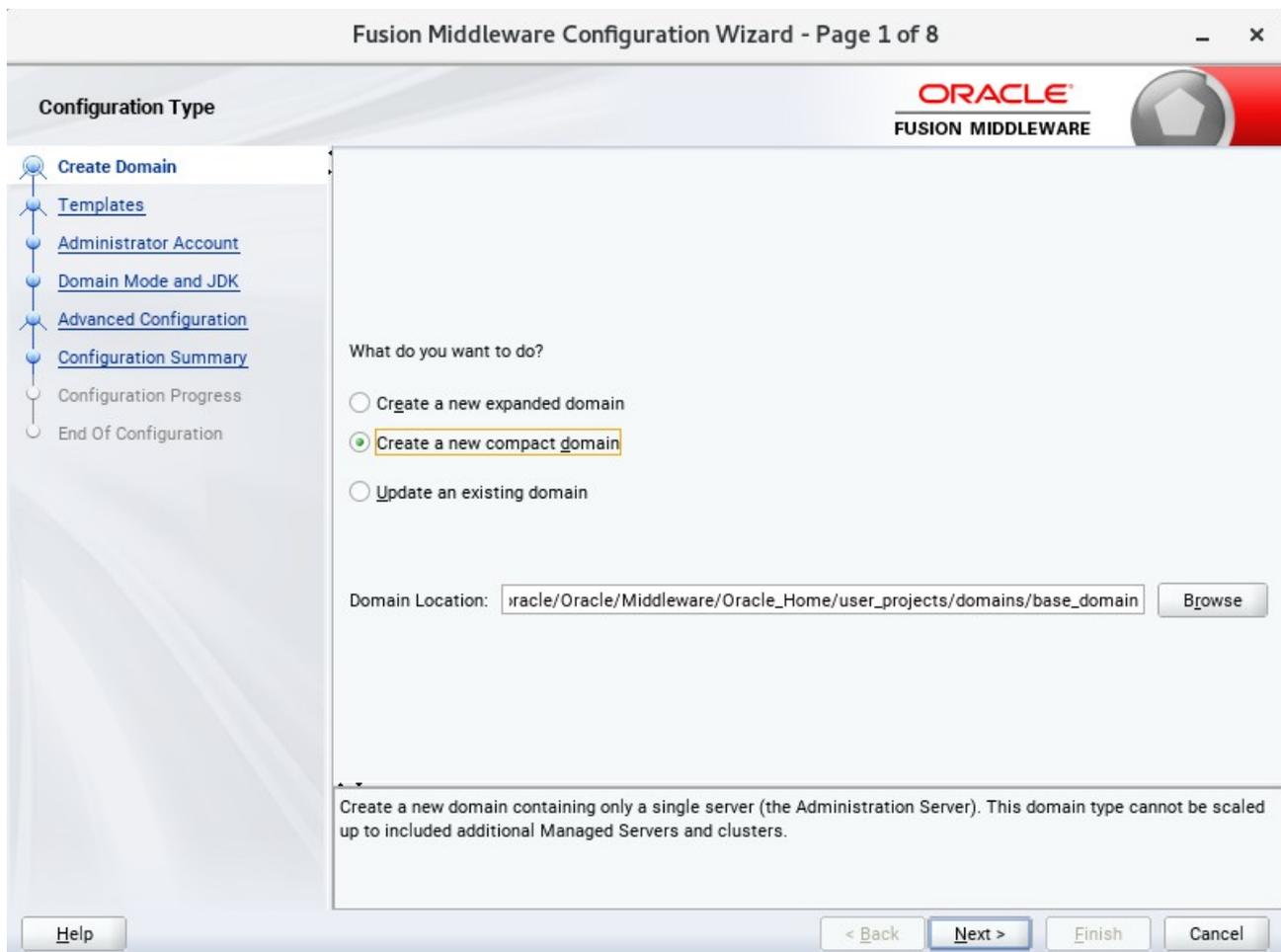
3-1. Go to **ORACLE\_HOME/oracle\_common/common/bin**. Set the environment variable **CONFIG\_JVM\_ARGS** to **-Dcom.oracle.cie.config.showProfile=true**. This will activate the compact domain option in the configuration wizard. Then launch the configuration wizard.

Example commands for this task are as follows:

```
cd ORACLE_HOME/oracle_common/common/bin
CONFIG_JVM_ARGS=-Dcom.oracle.cie.config.showProfile=true
export CONFIG_JVM_ARGS
./config.sh
```

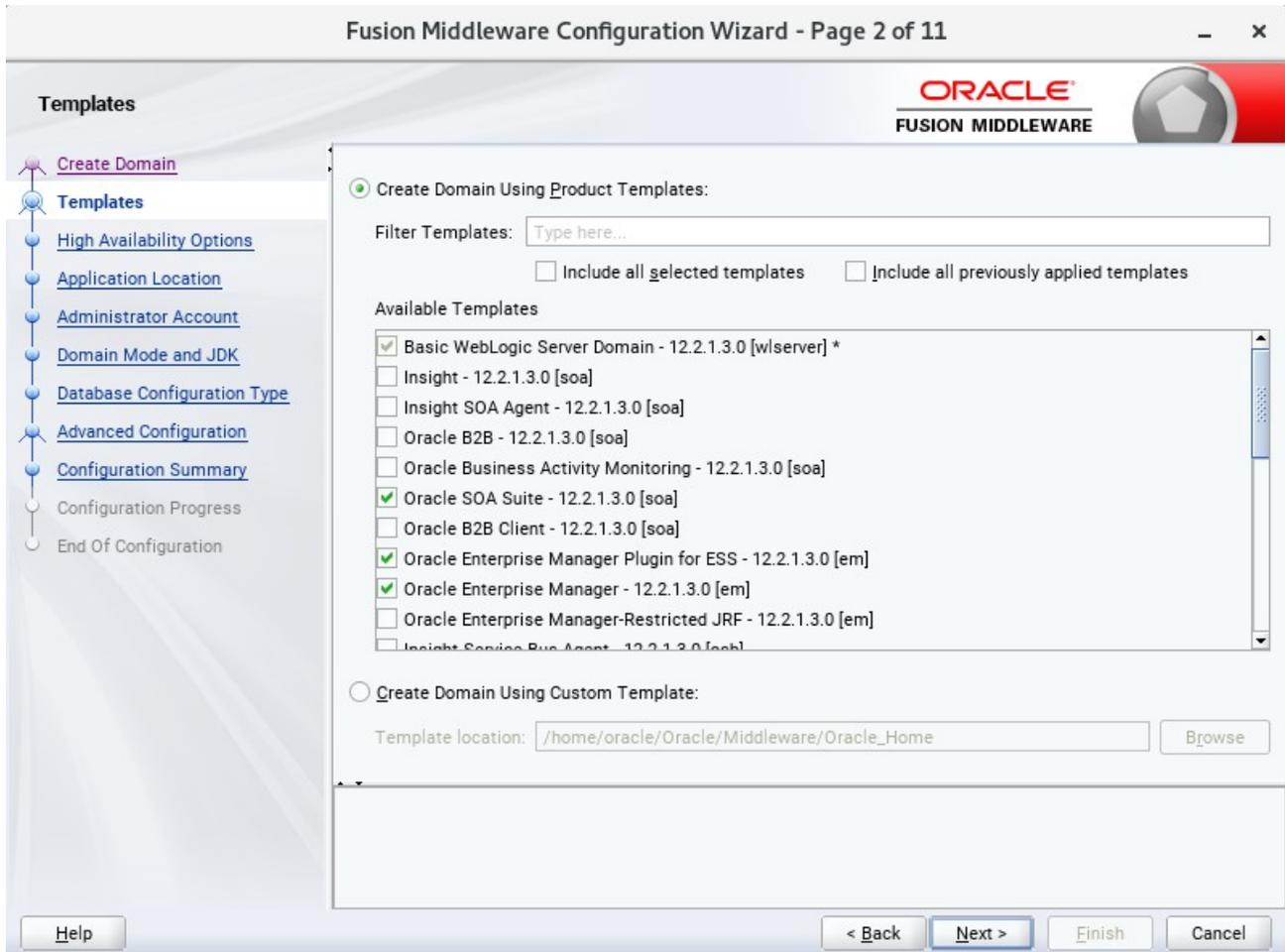
#### Follow these steps:

1). On the Configuration Type screen, select **Create a new domain**, and enter the desired domain home path.



Click **Next** to continue.

2). The **Templates** screen appears.



Use the **Templates** screen to select the templates you require. On the **Templates** screen, make sure **Create Domain Using Product Templates** is selected, then select the following template:

- Oracle SOA Suite – 12.2.1.3.0[soa]  
Selecting this template automatically selects the following as dependencies:
  - Oracle Enterprise Manager – 12.2.1.3.0 [em]
  - Oracle WSM Policy Manager – 12.2.1.3 [oracle\_common]
  - Oracle JRF – 12.2.1.3.0 [oracle\_common]
  - WebLogic Coherence Cluster Extension – 12.2.1.3.0 [wlserver]
- Oracle Service Bus – 12.2.1.3.0 [osb]  
Selecting this template automatically selects the following as a dependency:
  - ODSI XQuery 2004 Components – 12.1.3.0 [oracle\_common]
- WebLogic Advanced Web Services for JAX-RPC Extension -- 12.2.1.3.0 [oracle\_common]
- Oracle Enterprise Scheduler Service Basic – 12.2.1.3.0 [oracle\_common]
- Oracle Enterprise Manager Plugin for ESS – 12.2.1.3.0 [em]

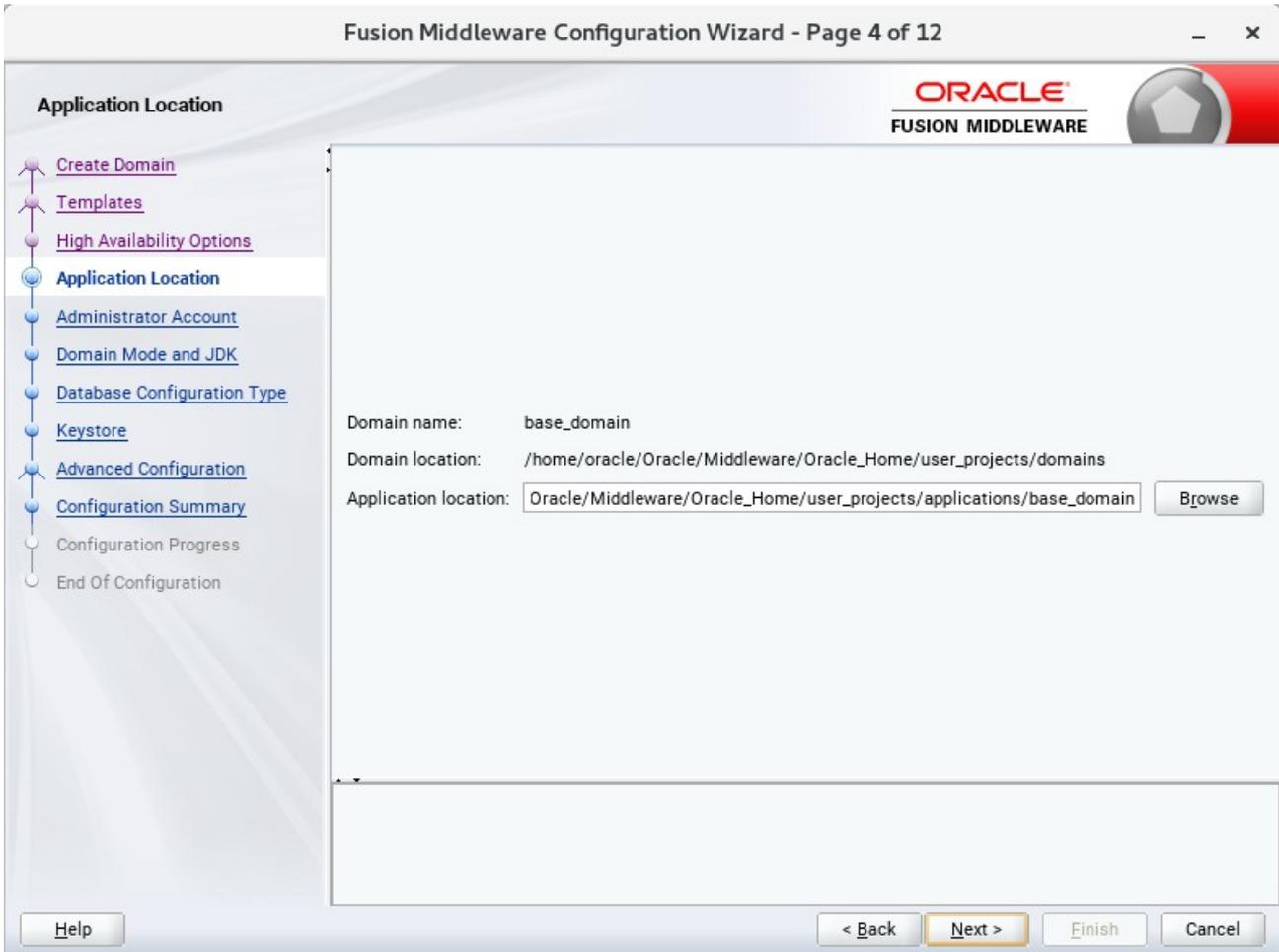
Click **Next** to continue.

3). The **High Availability Options** screen appears.



Keep the default value for Application location. Click **Next** to continue.

4). The **Application Location** screen appears.



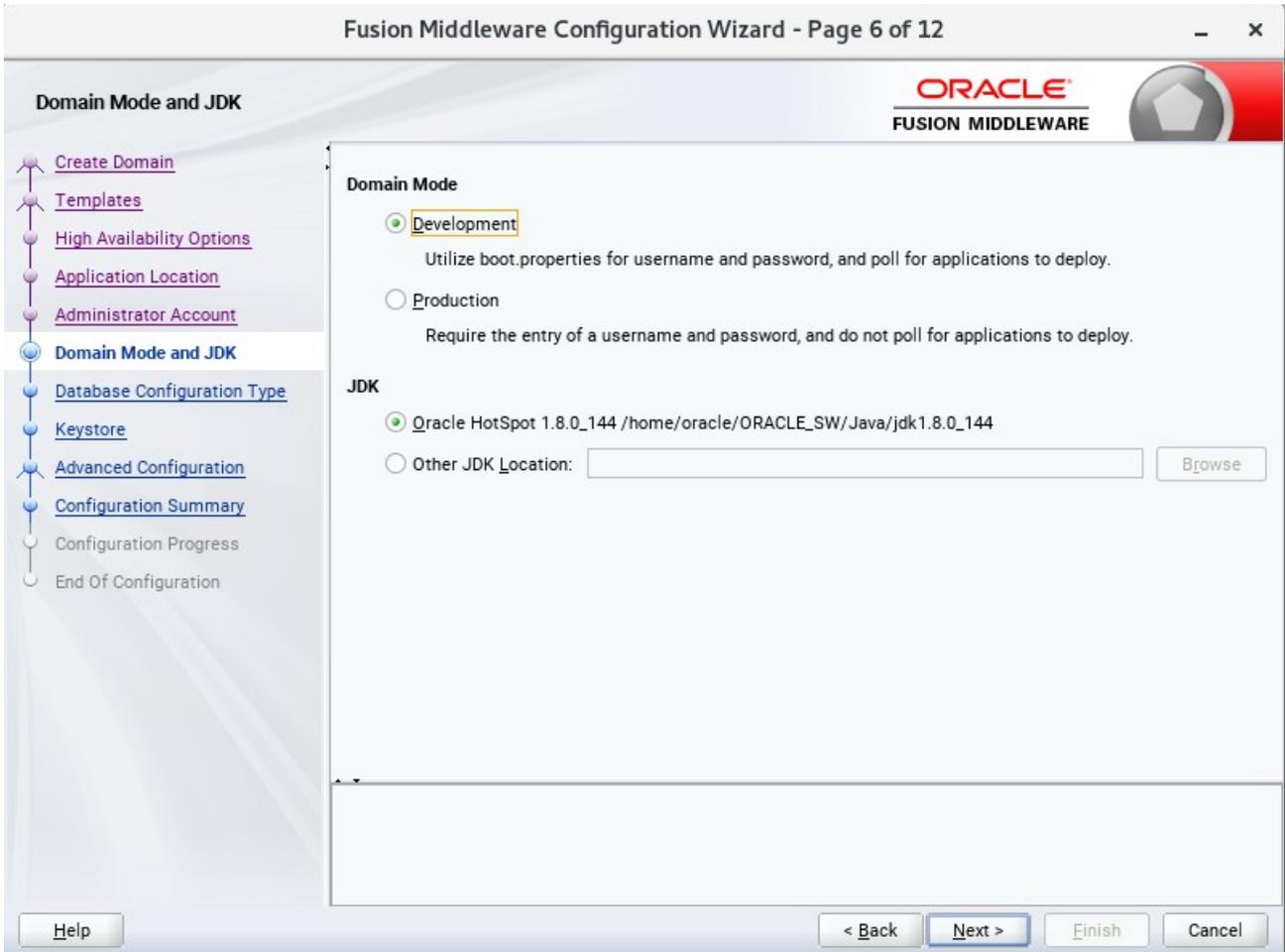
Keep the default value for Application location. Click **Next** to continue.

5). The **Administrator Account** screen appears.

The screenshot shows the 'Administrator Account' configuration screen in the Fusion Middleware Configuration Wizard. The window title is 'Fusion Middleware Configuration Wizard - Page 5 of 12'. The Oracle logo and 'FUSION MIDDLEWARE' text are visible in the top right corner. On the left, a navigation pane lists the following steps: Create Domain, Templates, High Availability Options, Application Location, Administrator Account (selected), Domain Mode and JDK, Database Configuration Type, Keystore, Advanced Configuration, Configuration Summary, Configuration Progress, and End Of Configuration. The main area contains three input fields: 'Name' with the value 'weblogic', 'Password' with masked characters '.....', and 'Confirm Password' with masked characters '.....'. Below these fields is a note: 'Must be the same as the password. Password must contain at least 8 alphanumeric characters with at least one number or special character.' At the bottom, there are buttons for 'Help', '< Back', 'Next >', 'Finish', and 'Cancel'.

Enter the WebLogic Domain administration username and password. This information will be needed to access WebLogic Server Control and Fusion Middleware Control. Click **Next** to continue.

6). The **Domain Mode and JDK** screen appears.



Select the Domain Mode (either **Development** or **Production**) as shown above. Click **Next** to continue.

7). The **Database Configuration Type** screen appears.

Fusion Middleware Configuration Wizard - Page 7 of 14

**Database Configuration Type**

ORACLE  
FUSION MIDDLEWARE

Specify AutoConfiguration Options Using:

RCU Data    Embedded Database (JavaDB)    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: Oracle   Driver: \*Oracle's Driver (Thin) for Service connections; Versions:...

Connection Parameters    Connection URL String

Host Name: hpgen9-02

DBMS/Service: suse   Port: 1521

Schema Owner: SUSEDEMO\_STB   Schema Password: .....

Connection Result Log

Successfully Done.

Click "Next" button to continue.

Select **RCU Data** to activate the fields. The **RCU Data** option instructs the Configuration Wizard to connect to the database and Service Table (STB) schema to automatically retrieve schema information for the schemas needed to configure the domain. Enter the RCU DB connection information, then click **Get RCU Configuration**. You should receive a success message. Click **Next** to continue.

8). The **JDBC Component Schema** screen appears.

**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

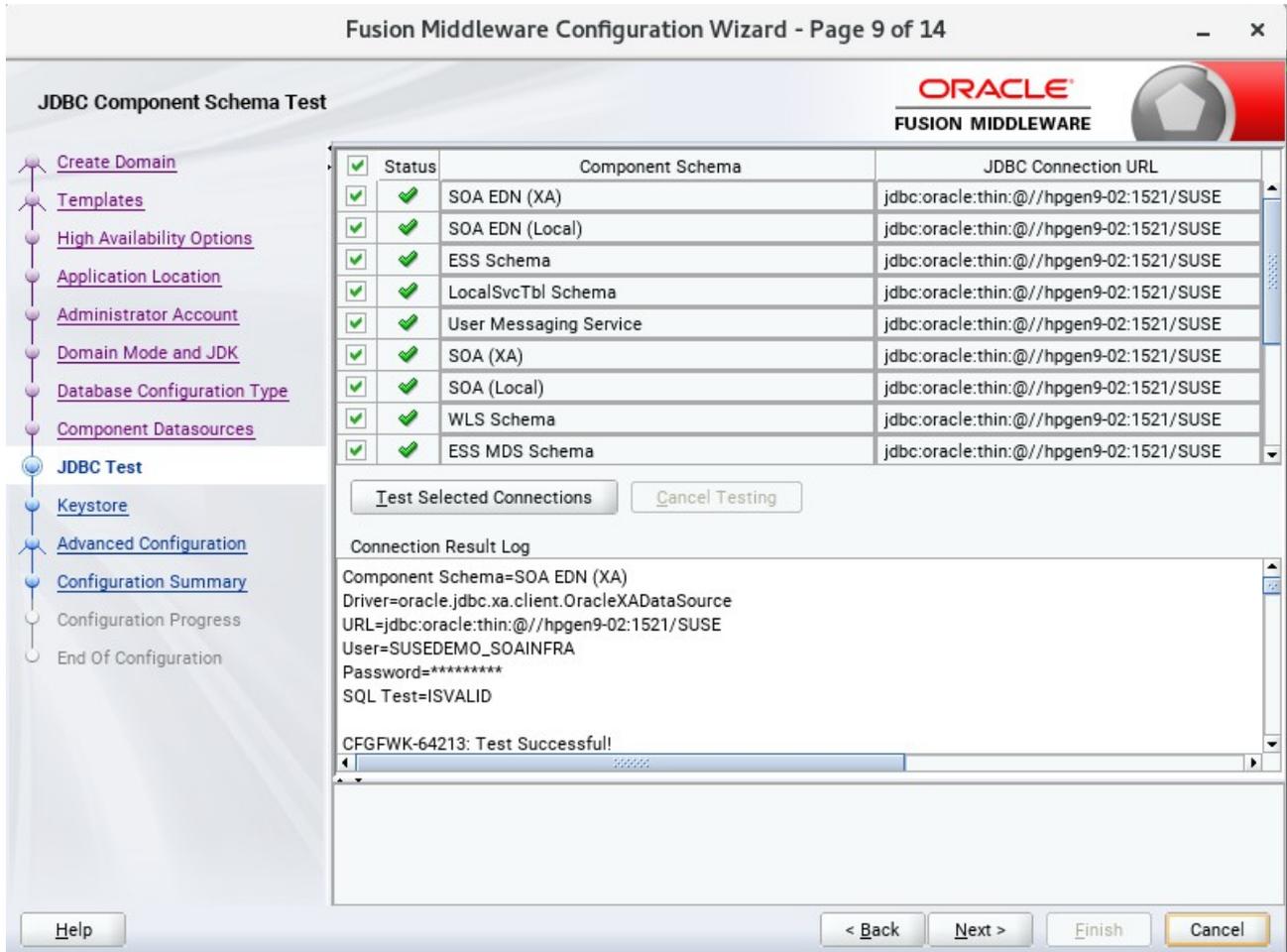
Edits to the data above will affect all checked rows in the table below.

<input type="checkbox"/>	Component Schema	DBMS/S...	Host Name	Port	Schema Owner	Schema Password
<input type="checkbox"/>	SOA EDN (XA)	SUSE	hpgen9-02	1521	SUSEDEMO_SOAINFRA	.....
<input type="checkbox"/>	SOA EDN (Local)	SUSE	hpgen9-02	1521	SUSEDEMO_SOAINFRA	.....
<input type="checkbox"/>	ESS Schema	SUSE	hpgen9-02	1521	SUSEDEMO_ESS	.....
<input type="checkbox"/>	LocalSvcTbl Schema	SUSE	hpgen9-02	1521	SUSEDEMO_STB	.....
<input type="checkbox"/>	User Messaging Service	SUSE	hpgen9-02	1521	SUSEDEMO_UMS	.....
<input type="checkbox"/>	SOA (XA)	SUSE	hpgen9-02	1521	SUSEDEMO_SOAINFRA	.....

Help < Back **Next >** Finish Cancel

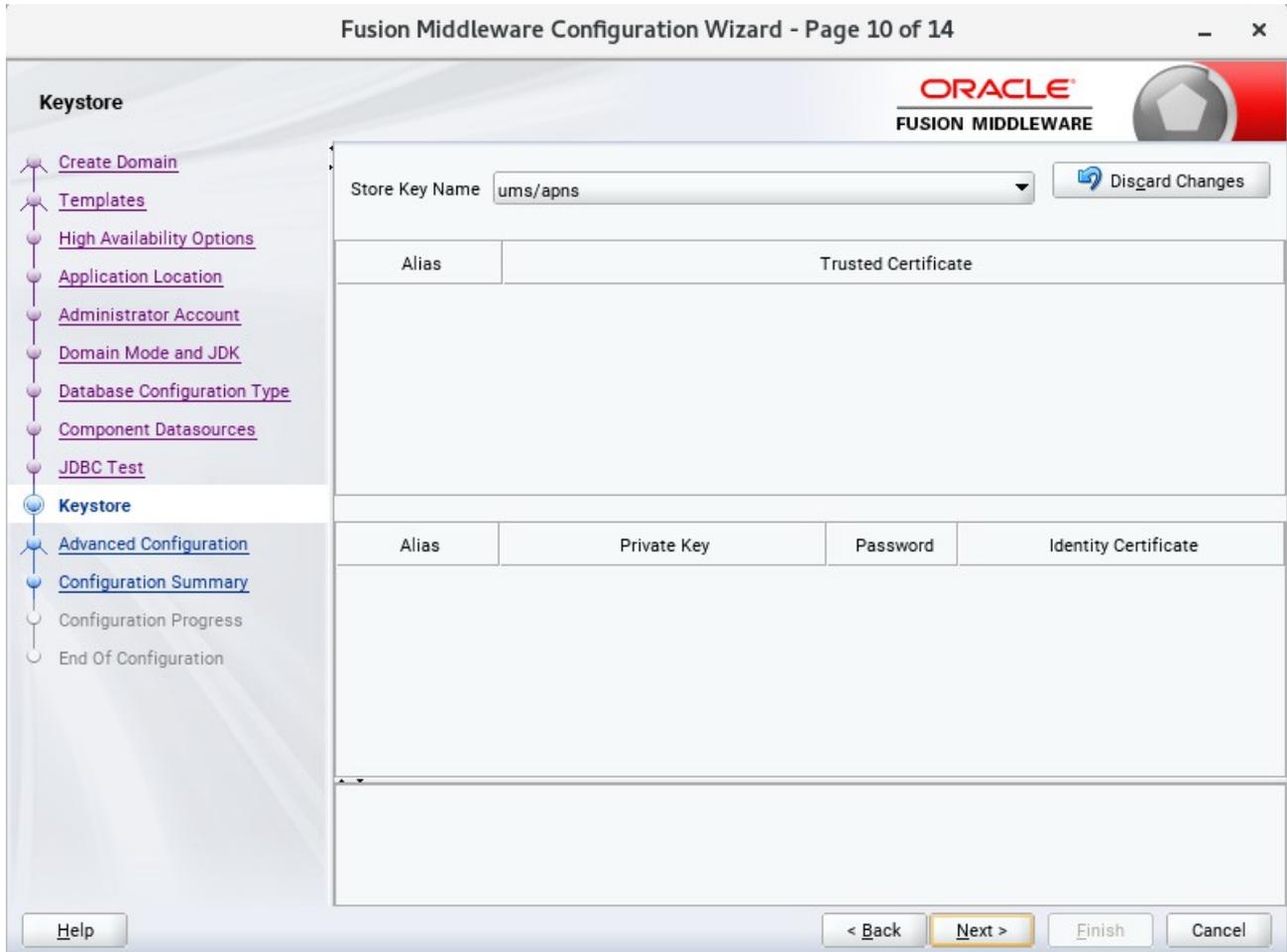
Our instructions assume each Repository schema uses the same password. If not, enter the correct schema passwords. Click **Next** to continue.

9). The **JDBC Component Schema Test** screen appears.



The tests are run and the results given. Ensure all test results are successful. Click **Next** to continue.

10). The **Keystore** screen appears.



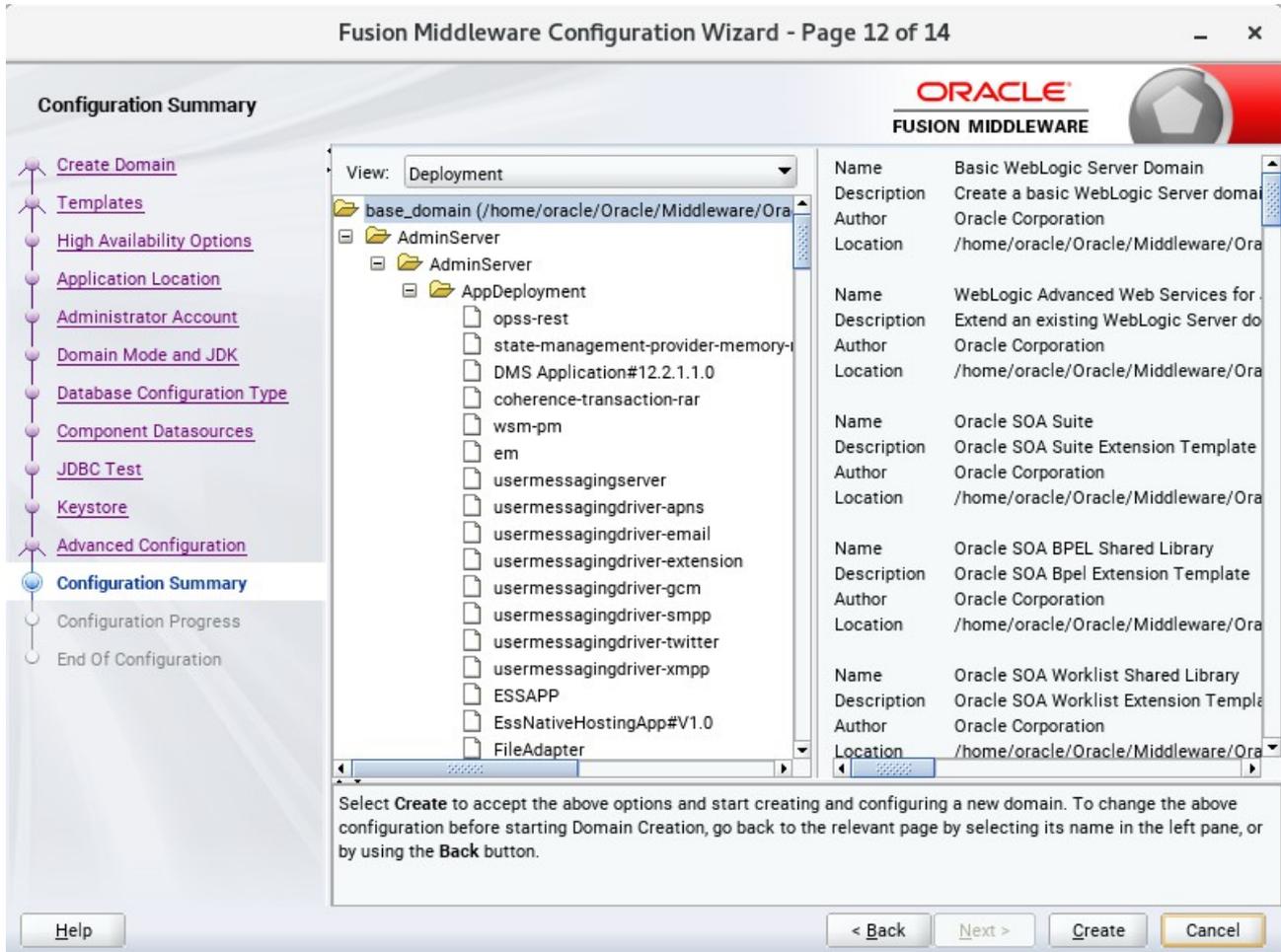
Accept the defaults and click **Next** to continue.

11). The **Advanced Configuration** screen appears.



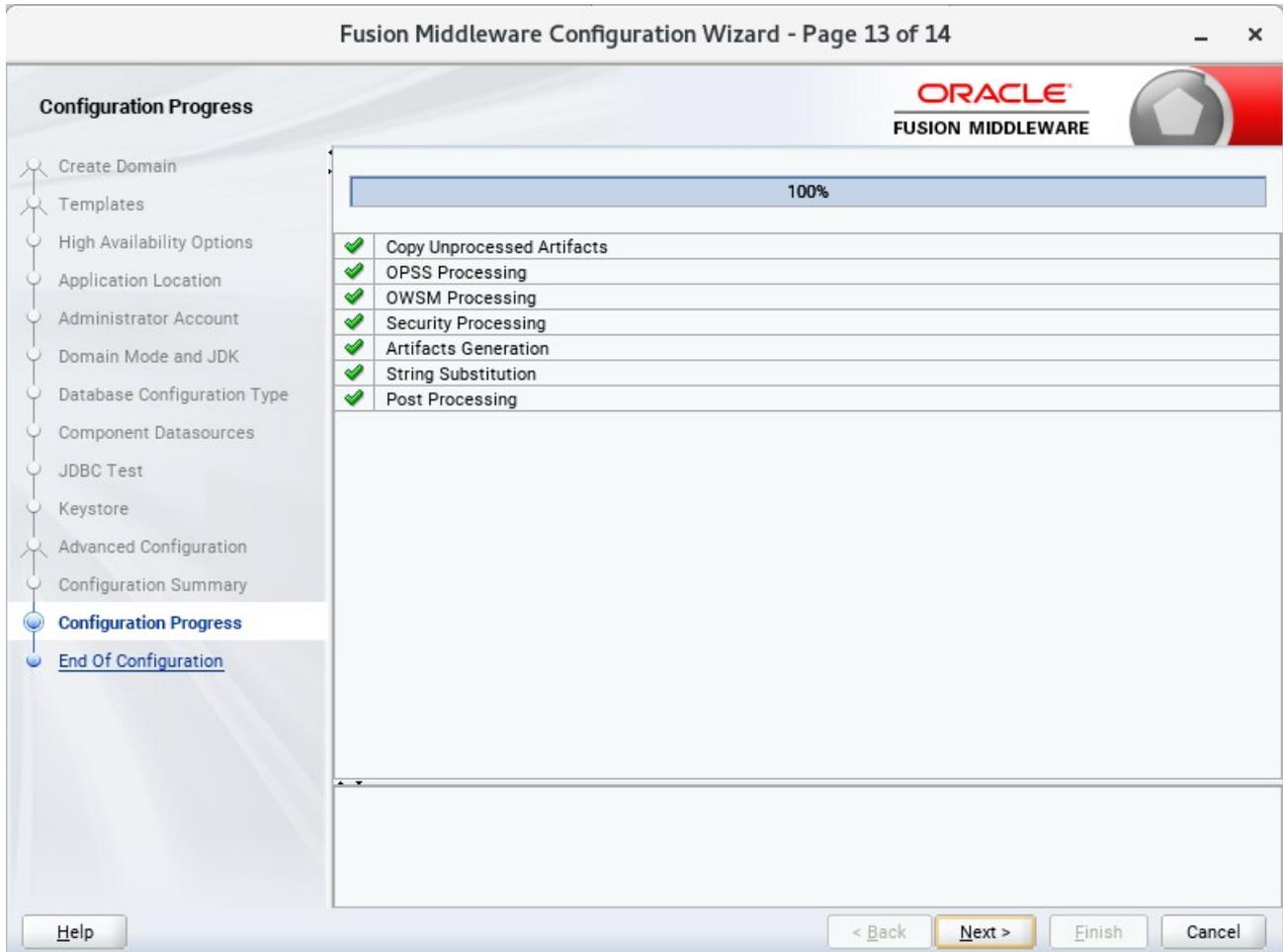
On the Advanced Configuration screen, you do not need any advanced configuration for a compact domain. You can skip through the Advanced Configuration screen without selecting anything. Click **Next** to continue.

12). The **Configuration Summary** screen appears.



Select **Create** to accept the above options and start creating and configuring a new domain.

13). The **Configuration Progress** screen appears.



Wait for this part of the configuration to complete. Depending on the location and performance of the Repository database, this process may take a few minutes. After the domain successful created, click **Next** to continue.

14). The **End of Configuration** screen appears.



Once you see: "Oracle Weblogic Server Configuration Succeeded", record the '**Domain Location**' and '**Admin Server URL**', then click **Finish** to dismiss the Configuration Wizard.

## 4. Verifying Oracle SOA Suite 12c Installation and Configuration

4-1. Check for the presence of installation log files in logs directory inside your Oracle Inventory directory. Also, check the domain server logs, which are located in the servers directory inside the domain home directory.

4-2. Navigate to your compact domain's home and start the administrator server.

**Starting the Admin Server, go to the `DOMAIN_HOME/bin` directory and run `./startWebLogic.sh`.**

```

oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/bin
File Edit View Search Terminal Tabs Help
oracle@hpgen9-02:/ho... x oracle@hpgen9-02:/ho... x oracle@hpgen9-02:/ho... x oracle@hpgen9-02:/ho... x
spendConnectionOnStart is ignored, because it is not supported by JCA-Based Message-Driven Bean.>
<Nov 24, 2017 6:05:01,992 PM GMT+08:00> <Warning> <EJB> <BEA-010241> <The Message-Driven Bean MessageReceiverBean
n(Application: usermessagingserver, EJBComponent: engine-ejb.jar) has connected to Resource Adapter jca/EngineJm
sMessageReceiver. Property weblogic.mdb.suspendConnectionOnStart is ignored, because it is not supported by JCA
-Based Message-Driven Bean.>
<Nov 24, 2017 6:05:02,180 PM GMT+08:00> <Warning> <oracle.mds> <BEA-000000> <MDS-01364: Namespace mapping for "/
oracle/apps/ess/custom" is overlapping with namespace mapping for "/oracle/apps/ess"; the first mapping is redund
ant.>
<Nov 24, 2017 6:05:02,221 PM GMT+08:00> <Warning> <EJB> <BEA-010241> <The Message-Driven Bean ESSAppEndpoint(App
lication: EssNativeHostingApp, EJBComponent: native-ess-ejb.jar) has connected to Resource Adapter ess/ra. Propert
y weblogic.mdb.suspendConnectionOnStart is ignored, because it is not supported by JCA-Based Message-Driven B
ean.>
<Nov 24, 2017 6:05:02,228 PM GMT+08:00> <Warning> <EJB> <BEA-010241> <The Message-Driven Bean MessageForwarderBe
an(Application: usermessagingserver, EJBComponent: engine-ejb.jar) has connected to Resource Adapter jca/EngineJ
msMessageReceiver. Property weblogic.mdb.suspendConnectionOnStart is ignored, because it is not supported by JCA
-Based Message-Driven Bean.>
<Nov 24, 2017 6:05:02,232 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000360> <The server started in RUNNING mo
de.>
Found 0 composites to be loaded
----->deploying 0 composites took 6 ms
<Nov 24, 2017 6:05:02,261 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to RUNNING.
>
Not fusion apps env
<Nov 24, 2017 6:05:02,707 PM GMT+08:00> <Warning> <oracle.soa.scheduler> <BEA-000000> <No row exists in table so
aqtz_JOB_DETAILS for lock named: VerificationSessionPurgeJob-QLCKSEP-DEFAULT>
[EL Info]: 2017-11-24 18:05:02.847--ServerSession(679527720)--EclipseLink, version: Eclipse Persistence Services
- 2.6.5.v20170607-b3d05bd
[EL Info]: 2017-11-24 18:05:02.848--ServerSession(679527720)--Server: 12.2.1.3.0
[EL Info]: 2017-11-24 18:05:02.857--ServerSession(679527720)--/file:/home/oracle/Oracle/Middleware/Oracle_Home/s
oa/soa/modules/oracle.soa.fabric_11.1.1/tracking-fabric.jar_soa_local_resiliency_persistence_unit login success
ful
SOA Platform is running and accepting requests. Start up took 21979 ms, partition=DOMAIN

```

You know that the administrator server is running when you see the following output:

```

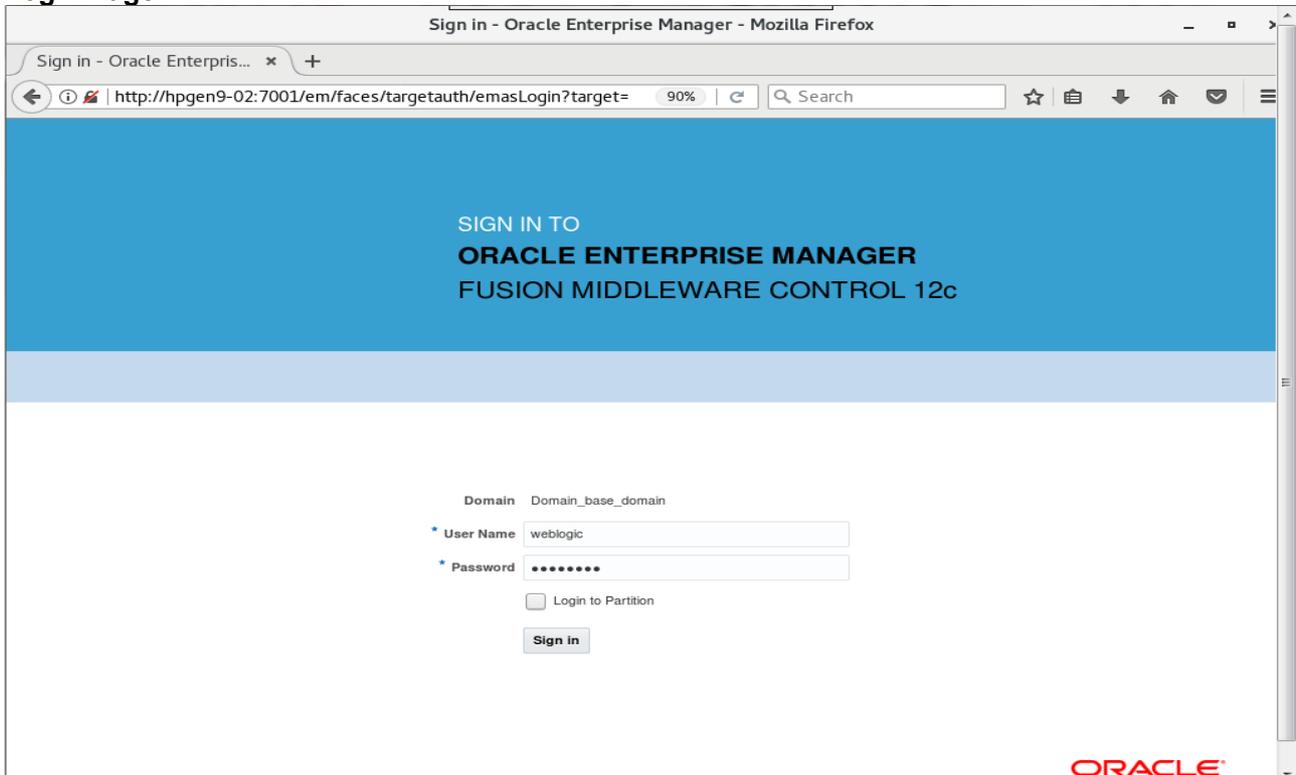
-----
Server state changed to RUNNING.
-----

```

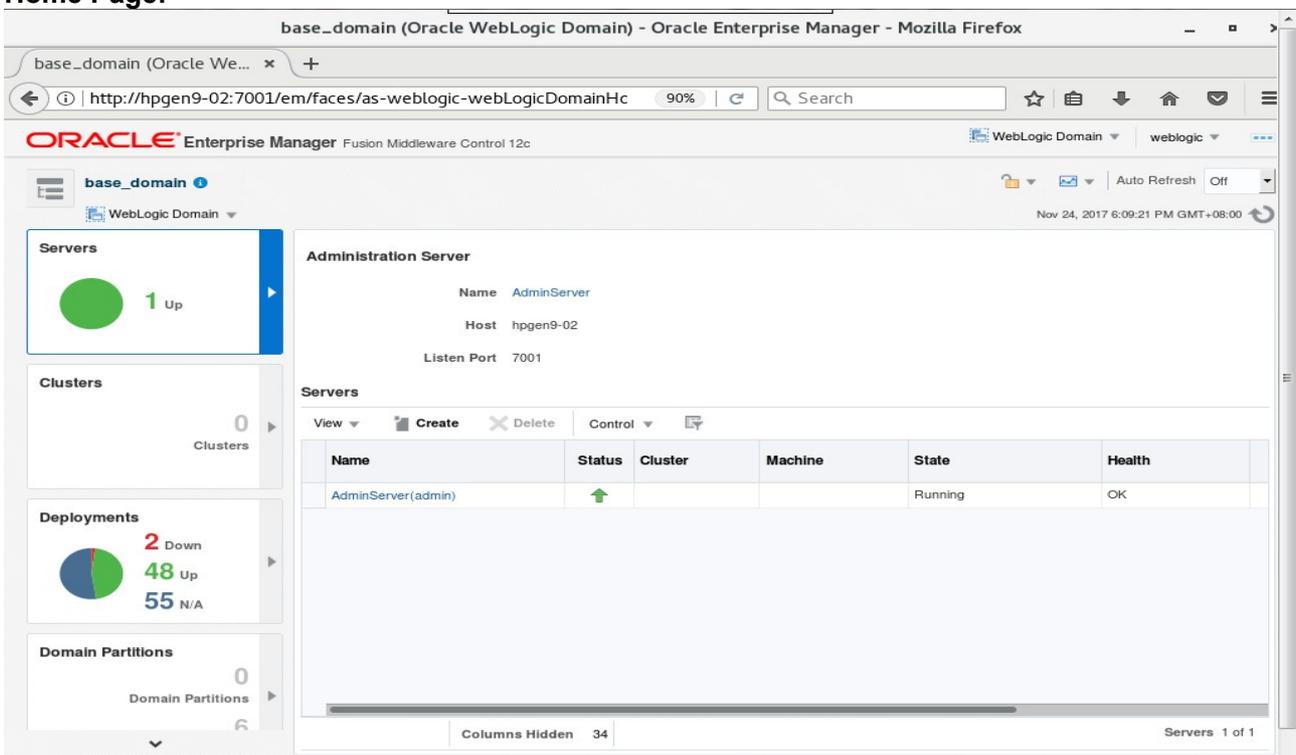
4-3. Checking Oracle SOA Suite 12c Product URLs.

1). Access to Enterprise Manager Console.

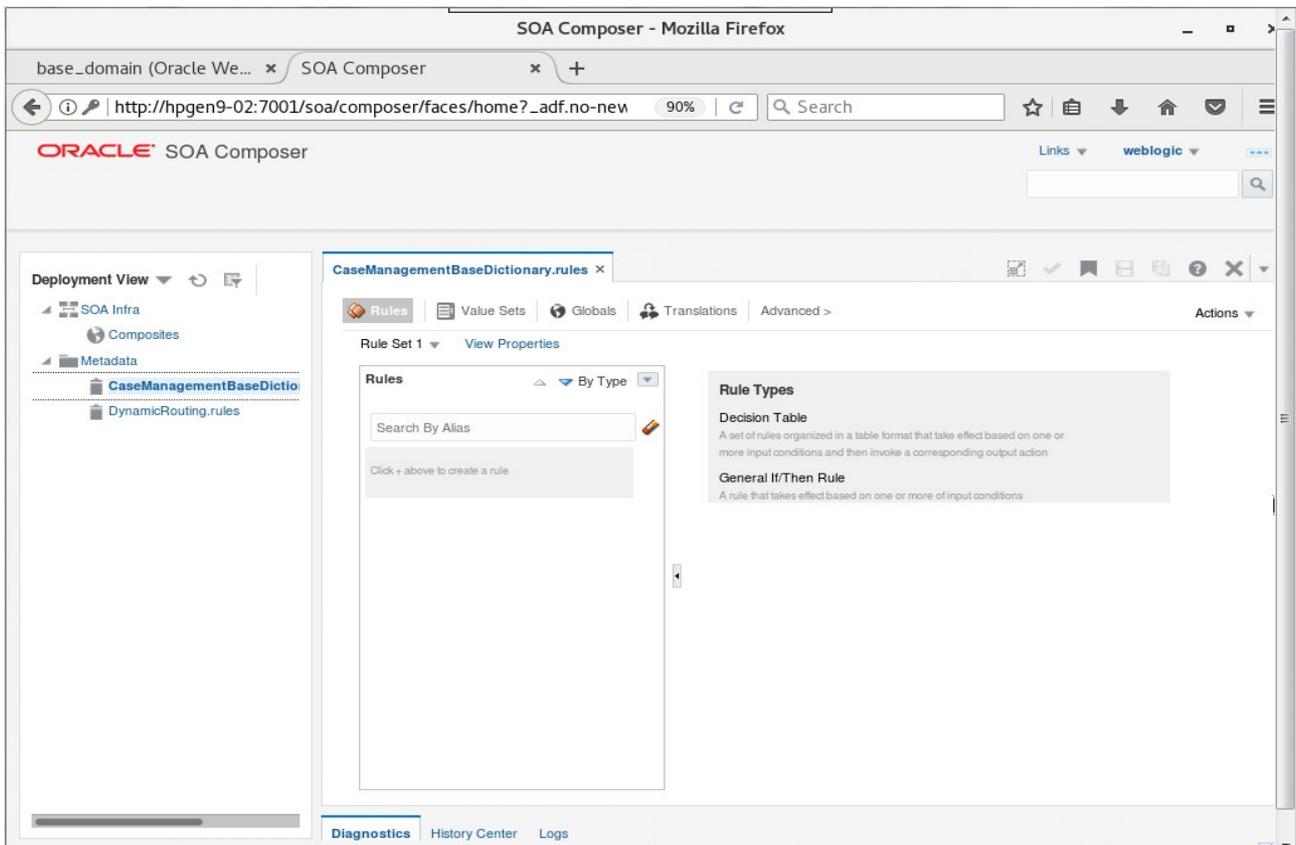
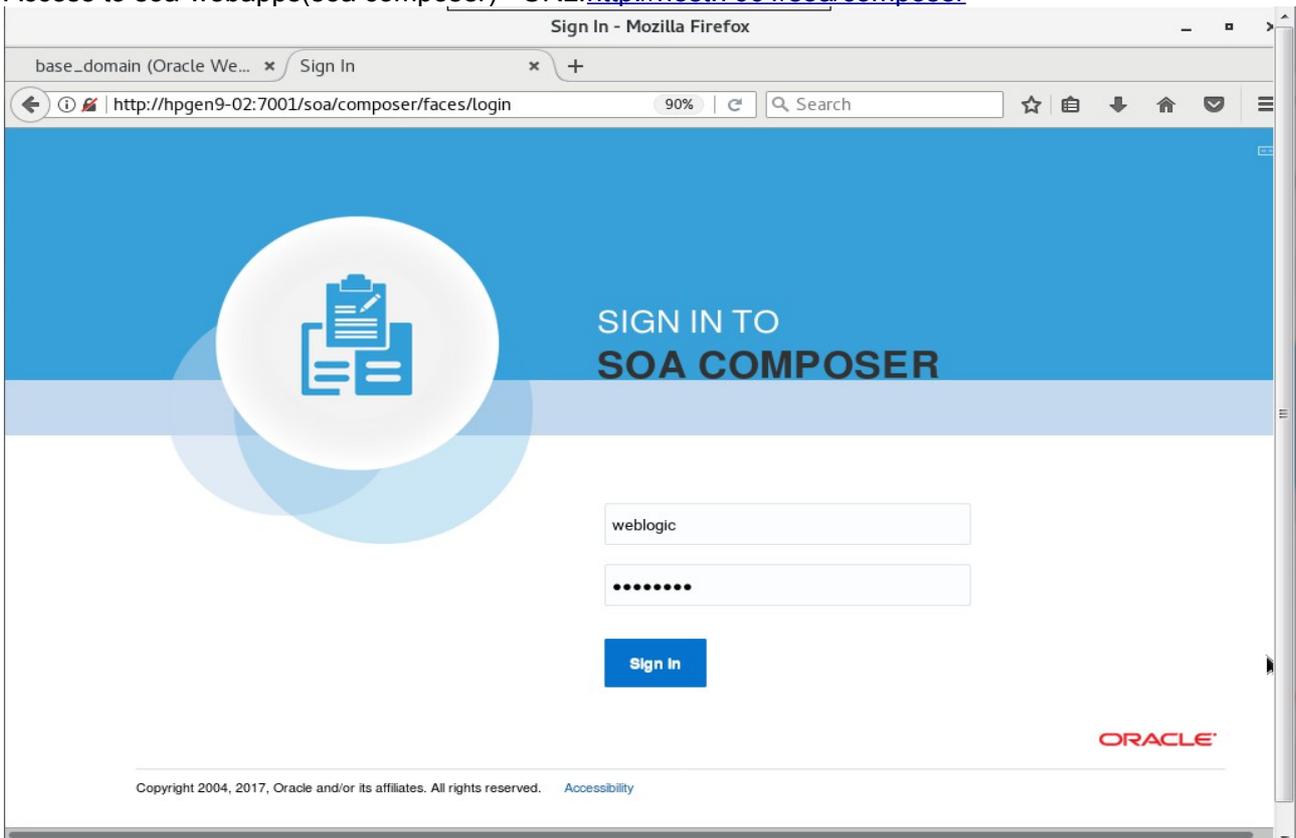
**Login Page:**



**Home Page:**



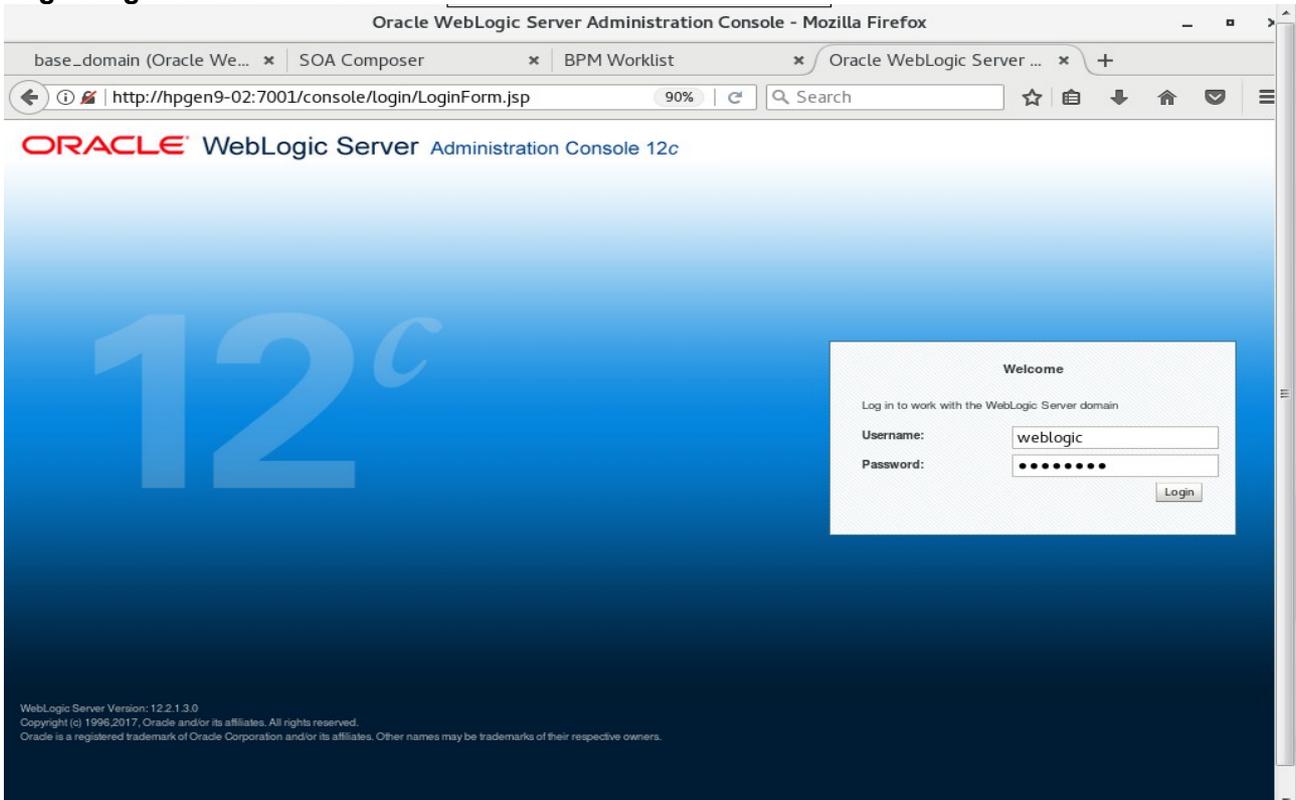
Access to soa-webapps(soa composer) - URL:<http://host:7001/soa/composer>



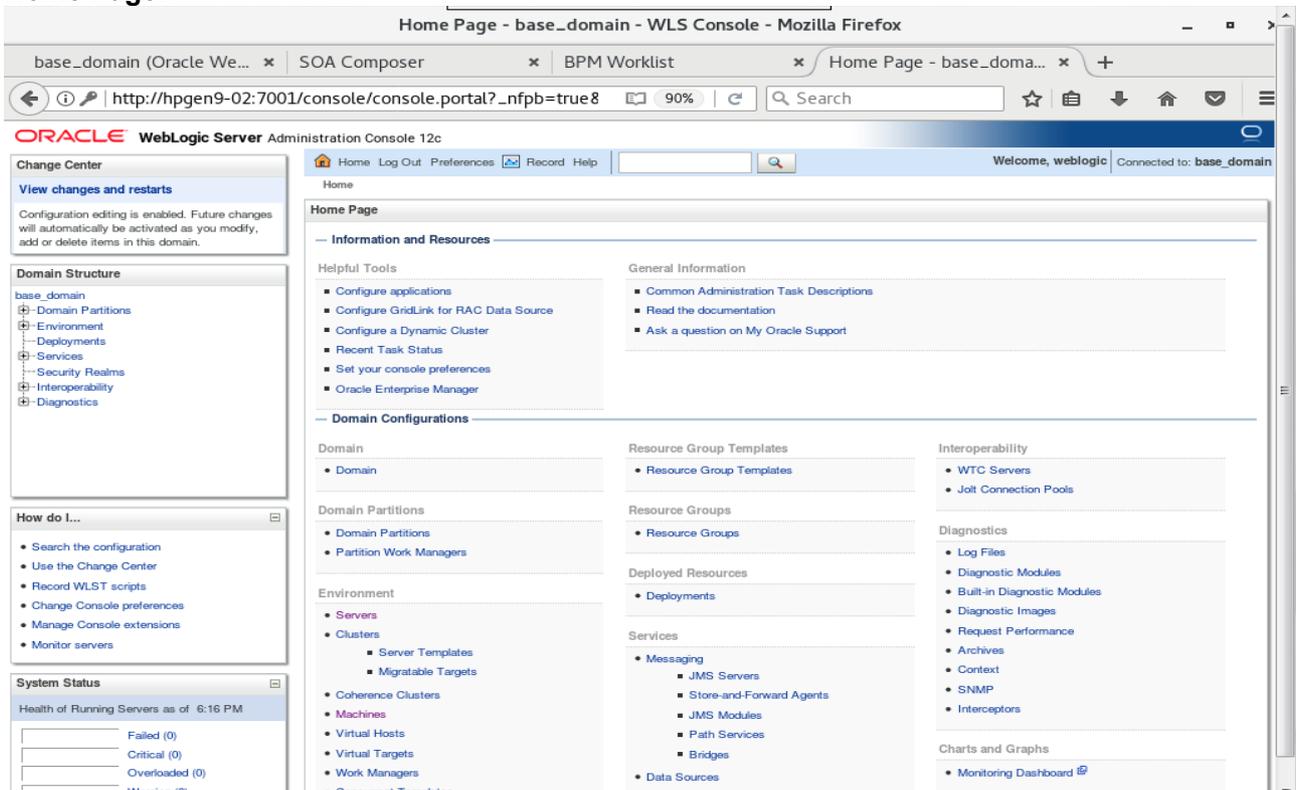


2). Access to Administration Server Console

Login Page as shown below:



Home Page:



**Viewing the summary of servers:**

The screenshot shows the Oracle WebLogic Server Administration Console interface. The browser title is "Summary of Servers - base\_domain - WLS Console - Mozilla Firefox". The URL is "http://hpgen9-02:7001/console/console.portal?\_nfpb=true&\_p". The page content includes:

- Change Center:** View changes and restarts. Configuration editing is enabled.
- Domain Structure:** A tree view showing the hierarchy: base\_domain > Domain Partitions > Environment > Deployments > Services > Security Realms > Interoperability > Diagnostics.
- How do I...:** A list of actions such as "Create Managed Servers", "Clone servers", "Delete Managed Servers", "Delete the Administration Server", "Start and stop servers", and "View objects in the JNDI tree".
- System Status:** Health of Running Servers as of 6:17 PM. Indicators for Failed (0), Critical (0), Overloaded (0), and Warning (0).
- Summary of Servers:** A section with "Configuration" and "Control" tabs. It contains a table of servers.

The "Summary of Servers" table is as follows:

Name	Type	Cluster	Machine	State	Health	Listen Port
AdminServer(admin)	Configured			RUNNING	OK	7001

3). Connecting JDeveloper to the Compact Domain.

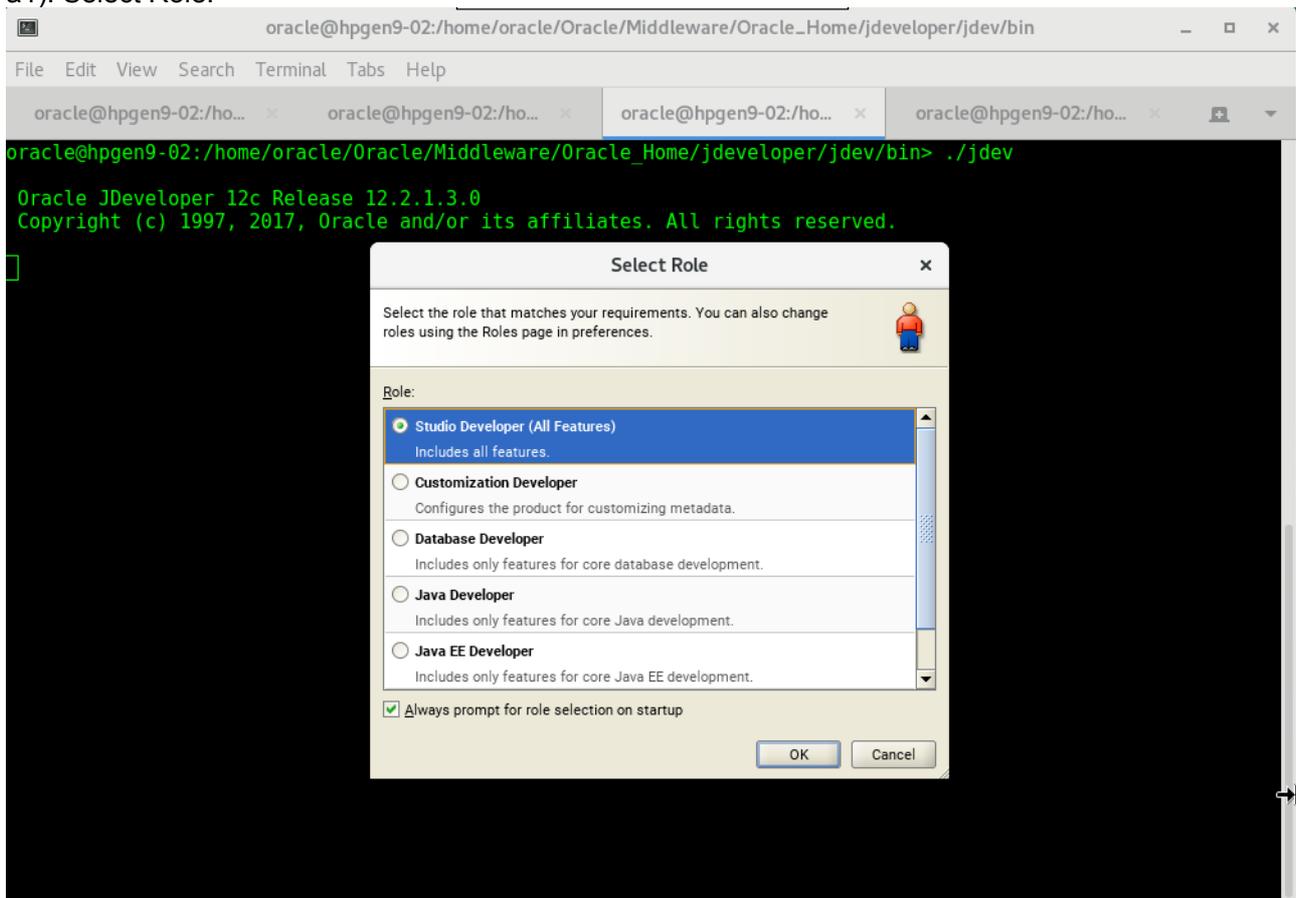
Launch Oracle JDeveloper with the appropriate command.

Ex:

```
-----  
cd $ORACLE_HOME/jdeveloper/jdev/bin  
./jdev  
-----
```

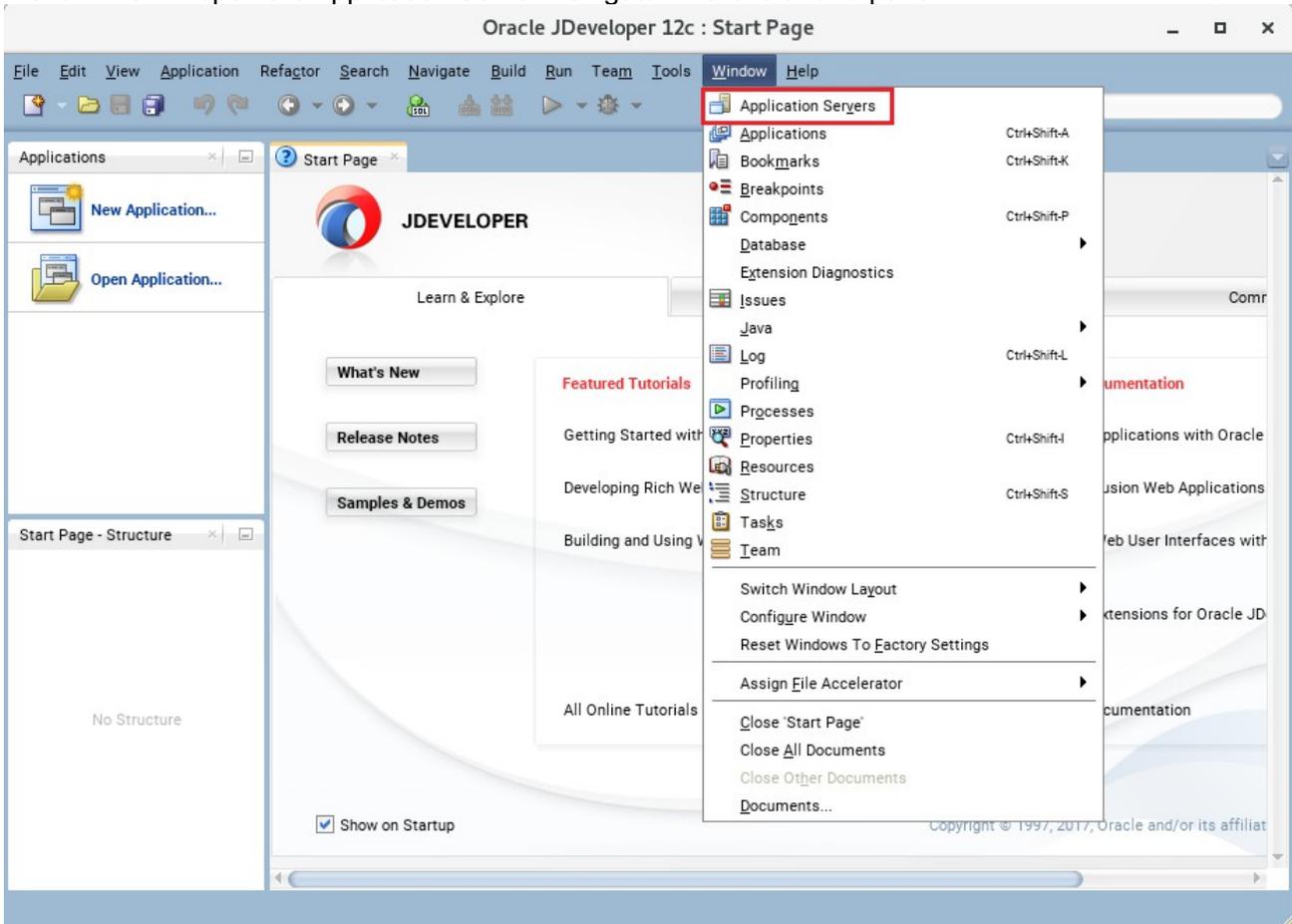
**Follow these steps:**

a1). Select Role.

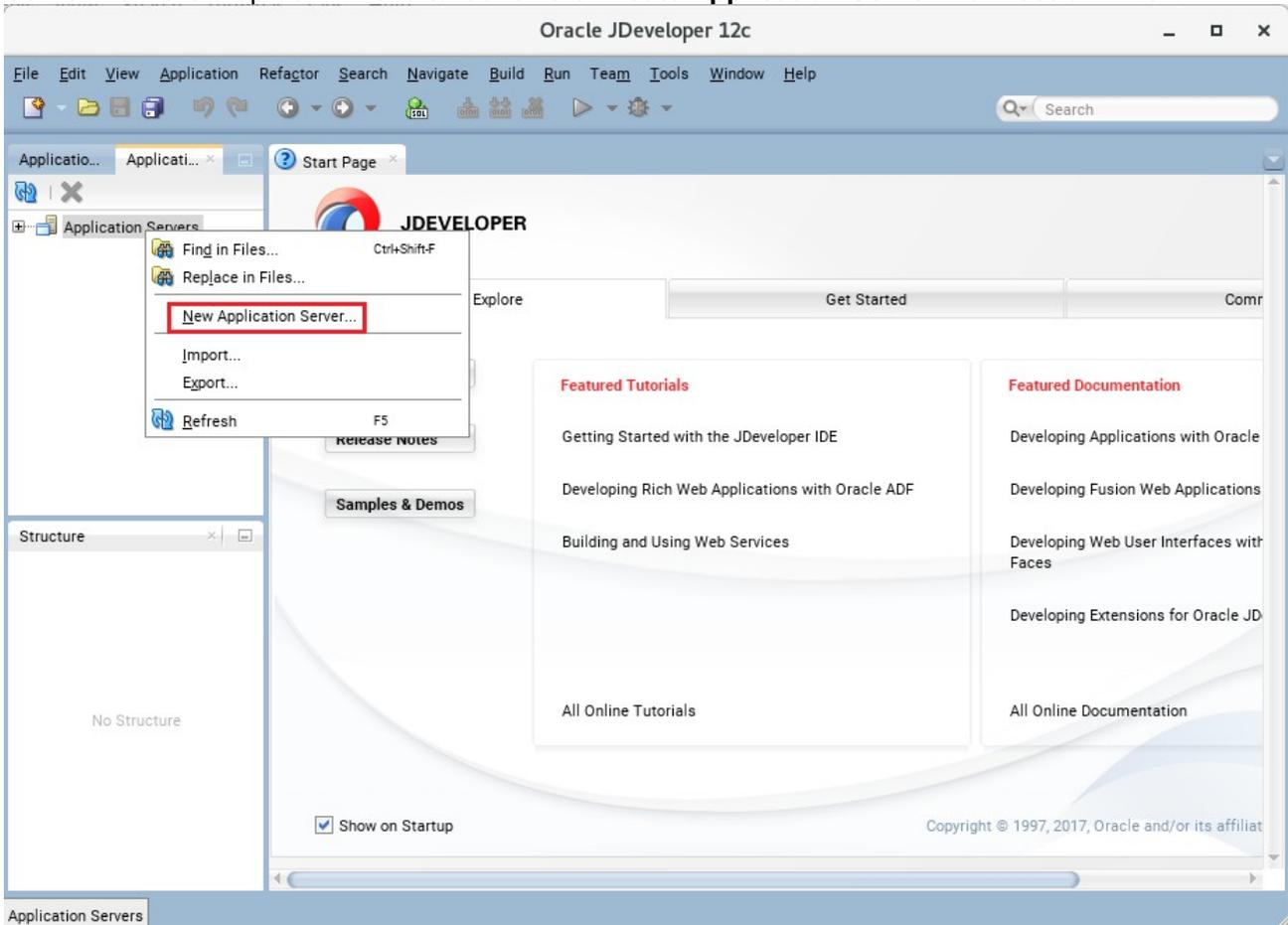


Select the role that matches your requirements. Click **OK** to continue.

a2). Select **Window** from the top menu, and then choose **Application Servers** from the drop-down menu. This will open the Application Server Navigator in the left-hand pane.

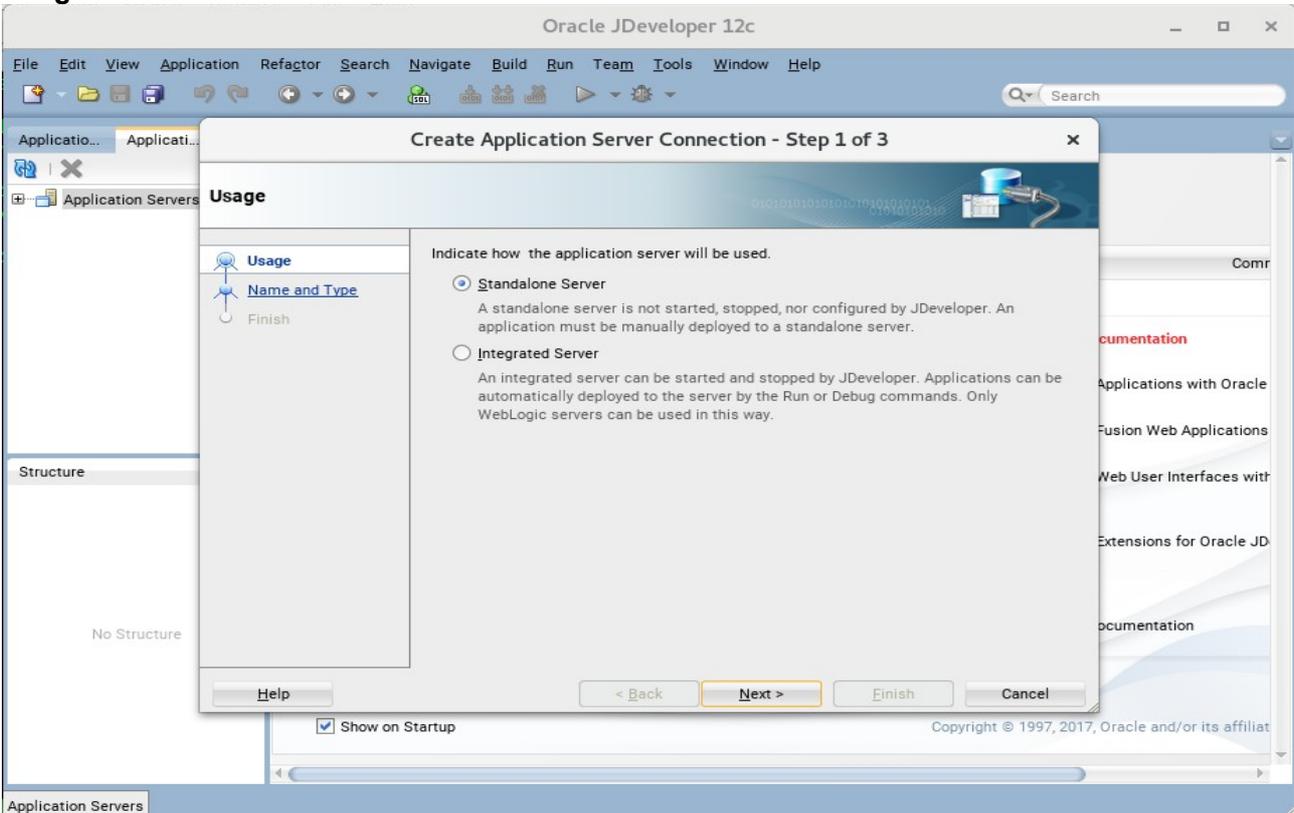


a3). Right-click on **Application Servers** in the Application Server Navigator. Select **New Application Server** from the drop-down menu to launch the **Create Application Server Connection** wizard.

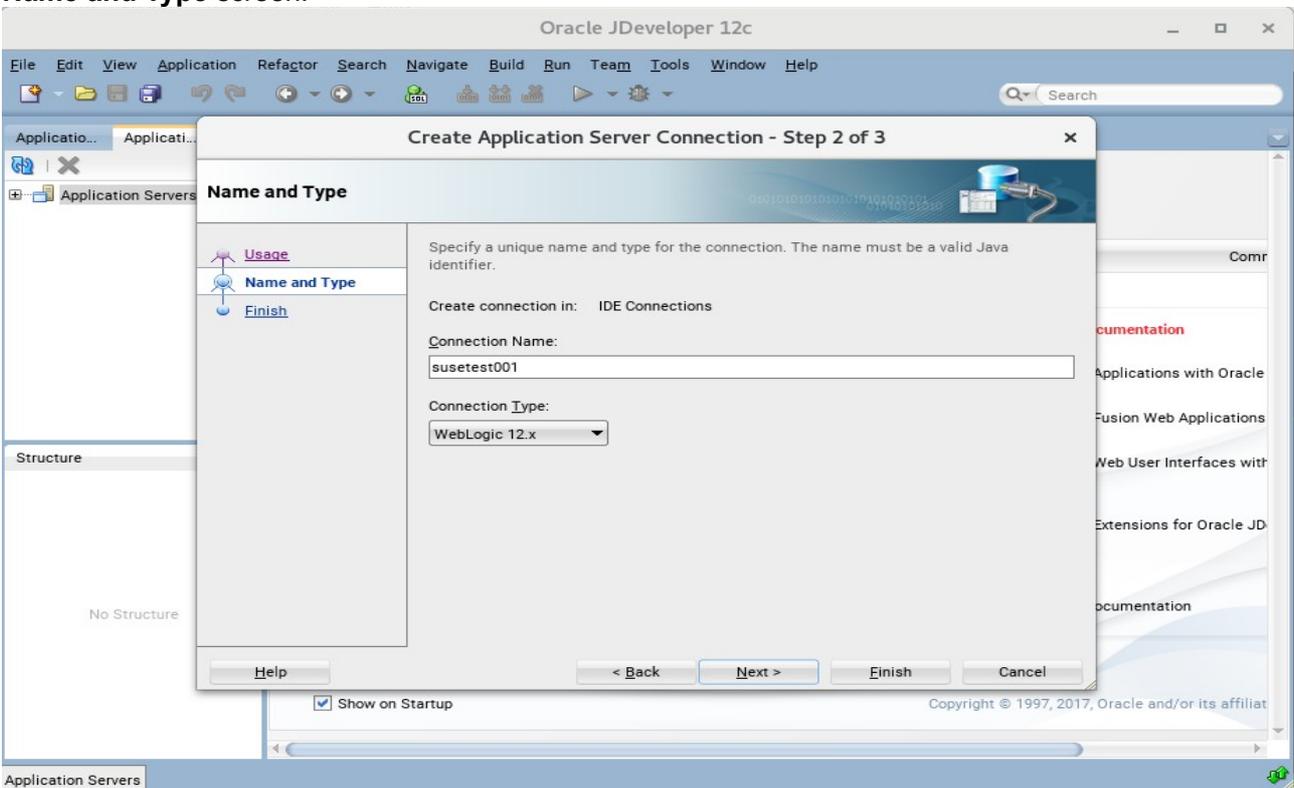


a4). Creating Application Server Connection steps as shown below.

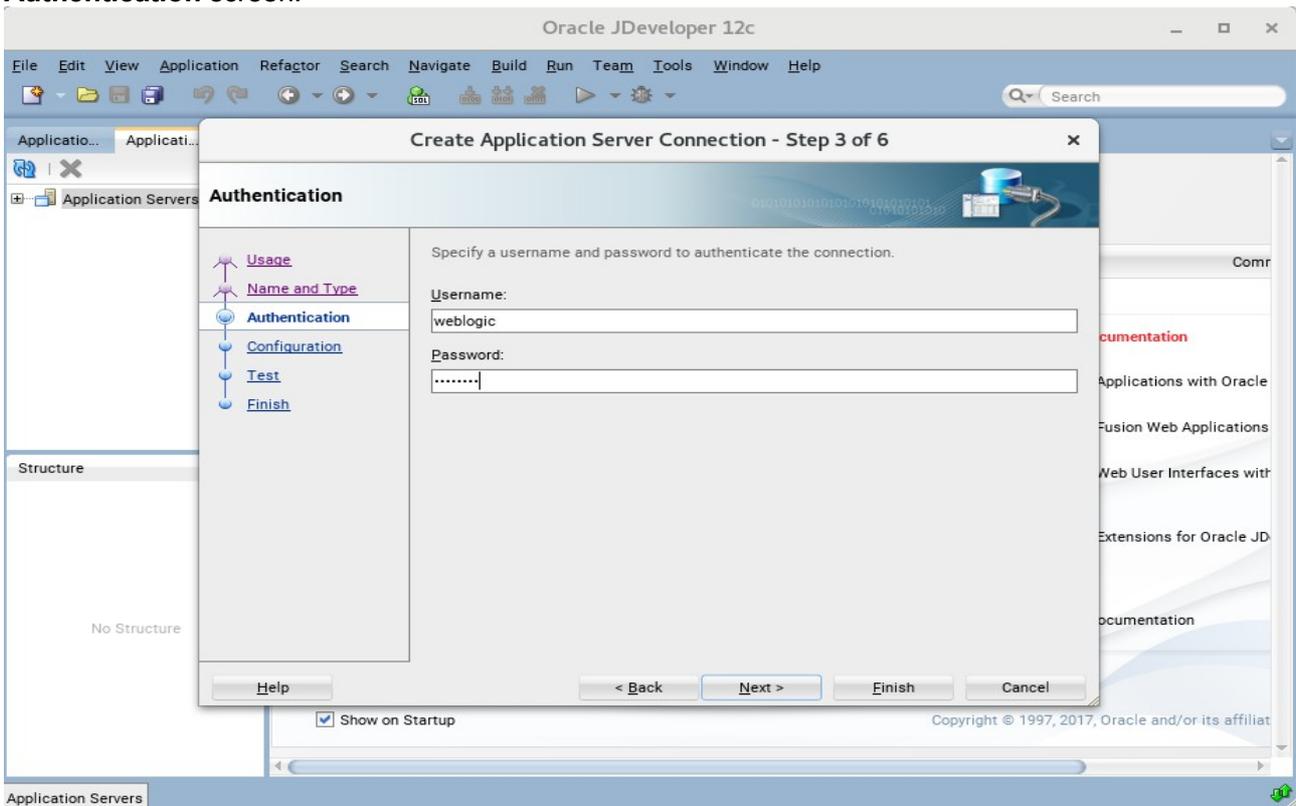
**Usage** screen.



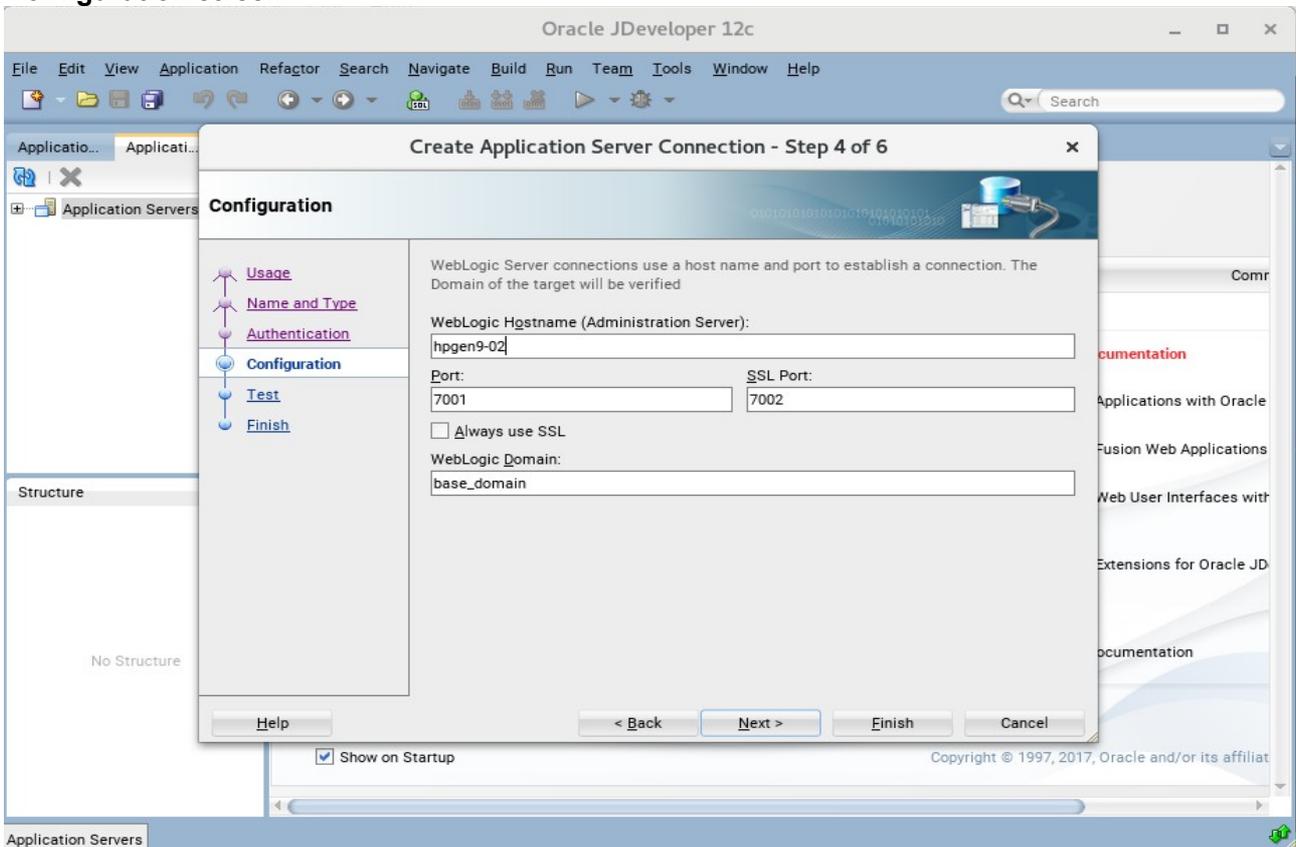
**Name and Type** screen.



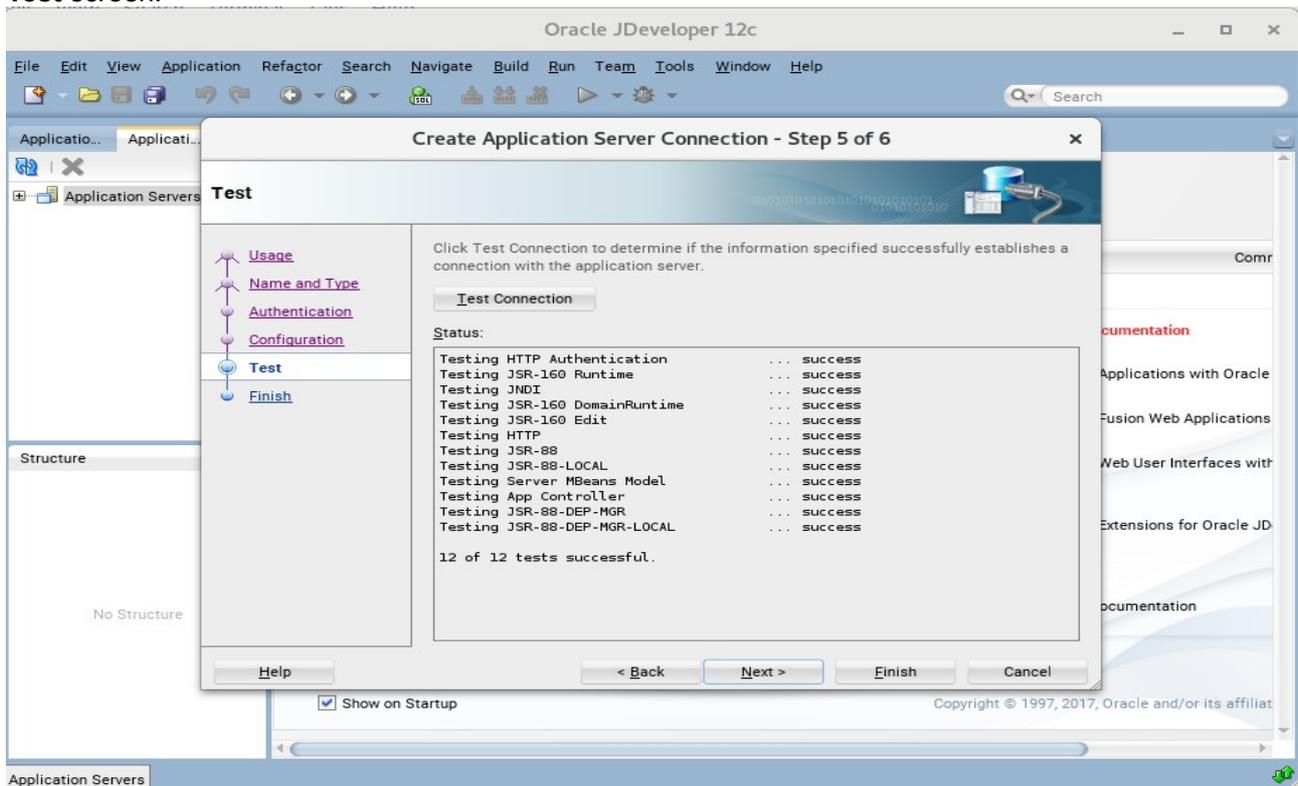
Authentication screen.



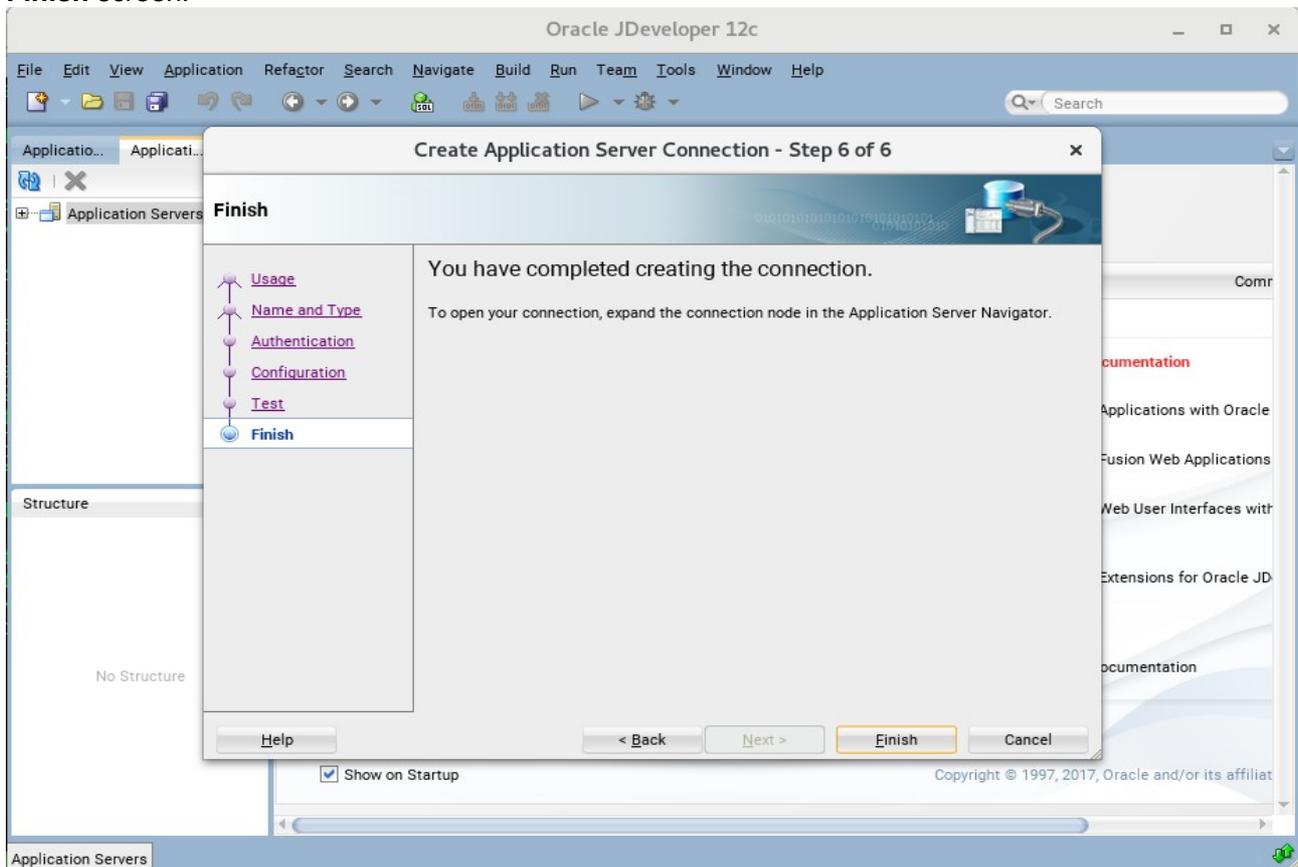
Configuration screen.



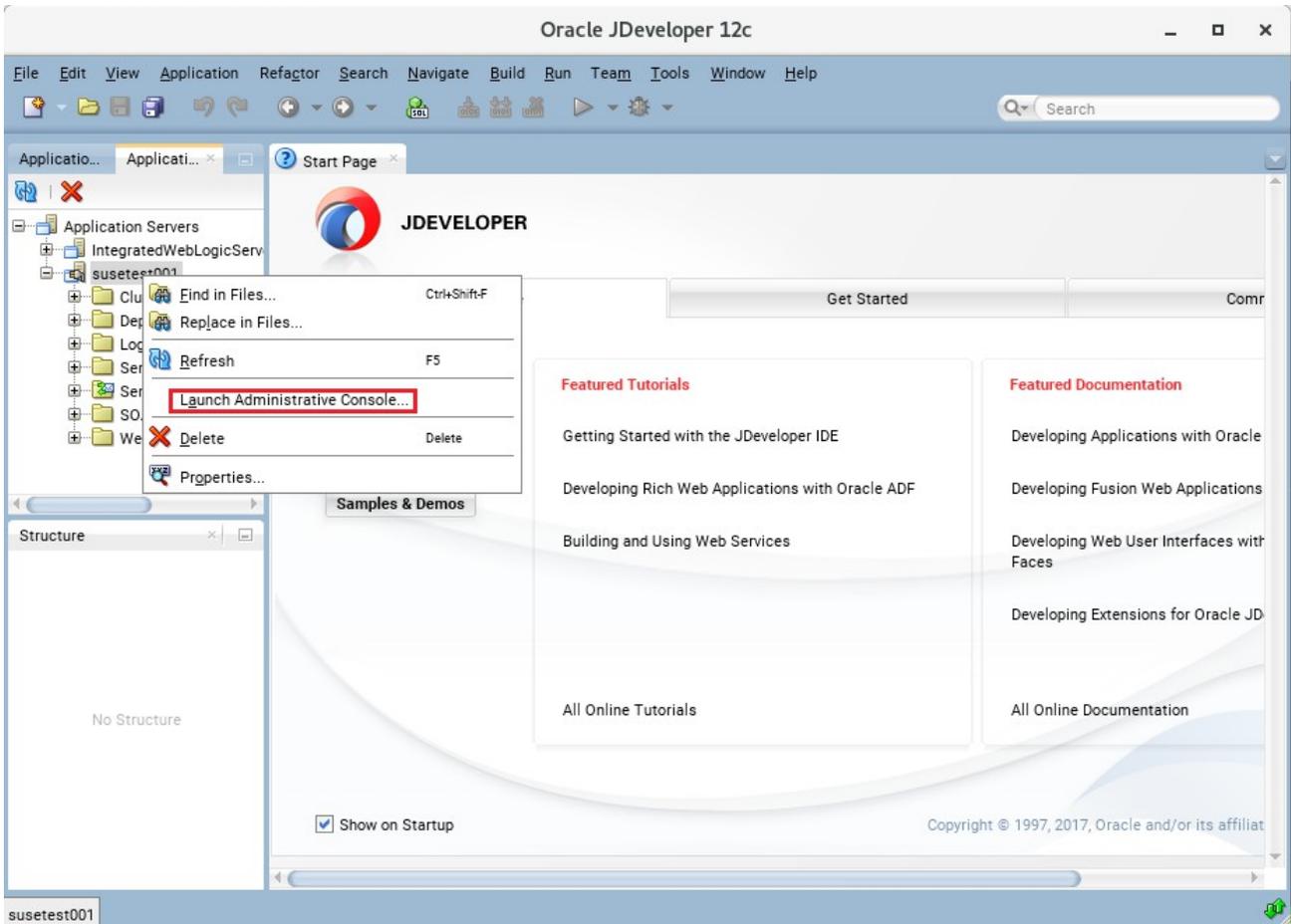
Test screen.



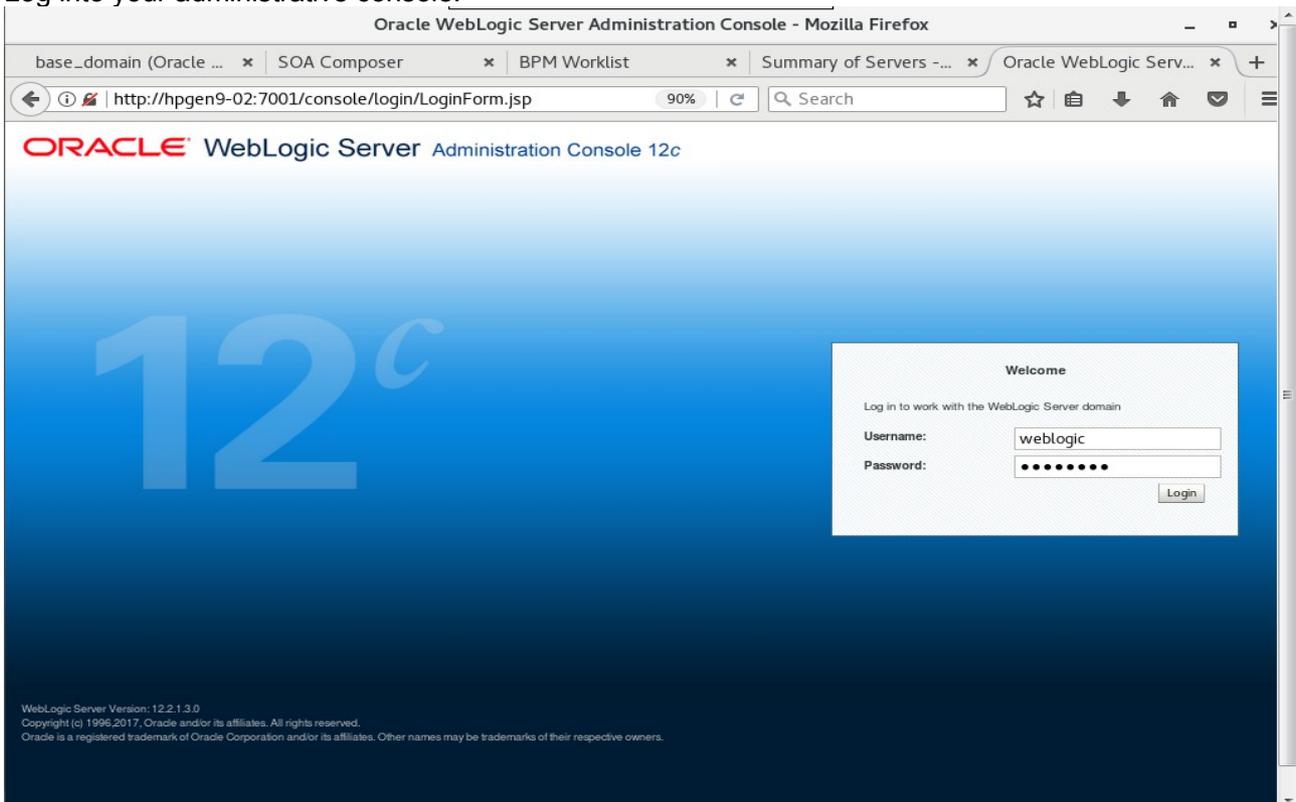
Finish screen.



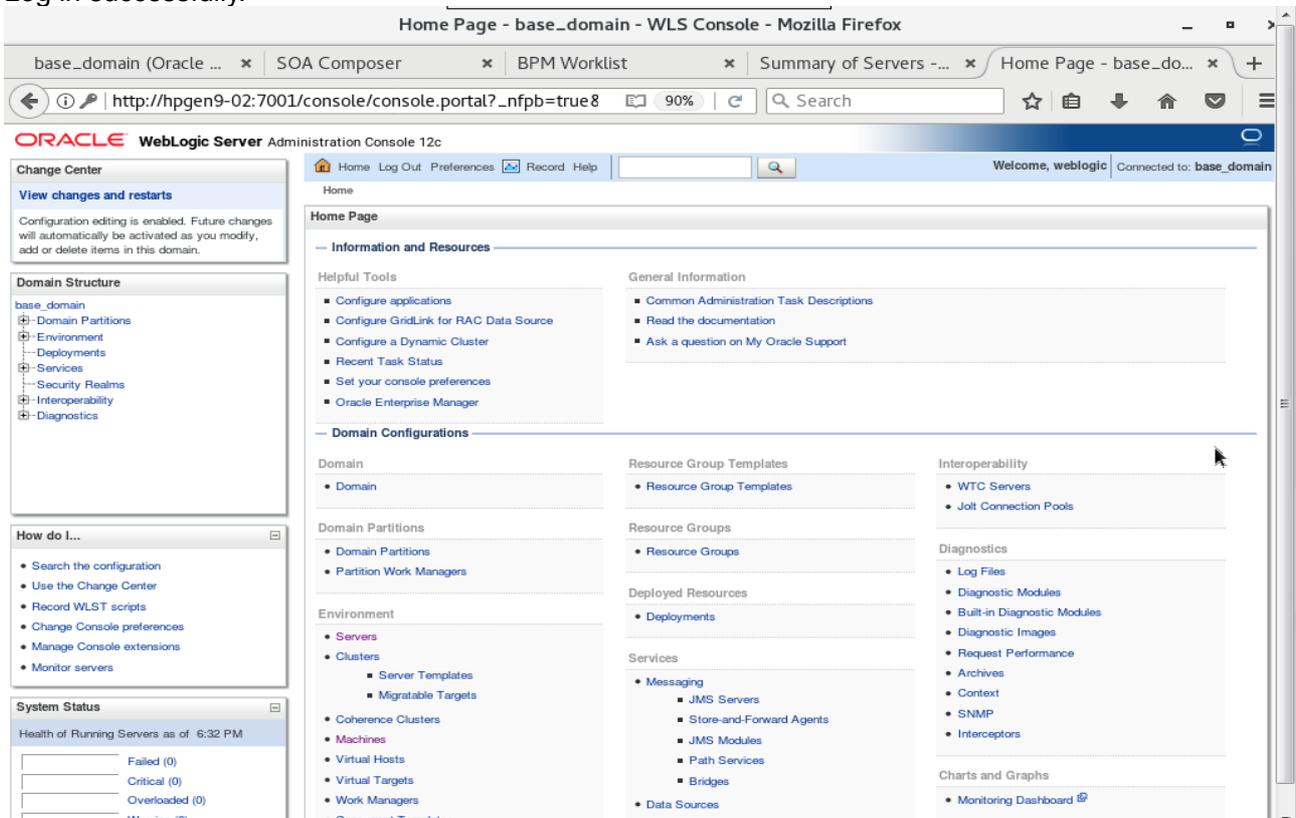
a5). Verifying Your Connection. Expand the connection node beside **Application Servers** in the Application Server Navigator. You should see your domain listed by the **Connection Name** you specified on the **Name and Type** screen. Right-click on your domain's name and choose **Launch Administrative Console**.



Log into your administrative console.



Log in successfully.



**End of Oracle SOA Suite.**

\*\*\*\*\*

## Oracle Access Manager

\*\*\*\*\*

### 1. Installing Oracle Identity and Access Management 12cPS3 software

#### 1-1. Prerequisites:

Installation of Oracle Identity and Access management requires:

- 1). Oracle Database 12cR2 (12.2.0.1.0) installed.

(**Note:** Please make sure that database initialization parameter **OPEN\_CURSORS** greater than or equal to 800; Login to database server as **root user** and execute the SQL command: "alter system set open\_cursors=1600 scope=spfile;" then restart the database)

```
SQL> alter system set open_cursors=1600 scope=spfile;

System altered.

SQL> shutdown immediate;
Database closed.
Database dismounted.
ORACLE instance shut down.
SQL> startup
ORACLE instance started.

Total System Global Area 2.0200E+10 bytes
Fixed Size          19247928 bytes
Variable Size       4362079432 bytes
Database Buffers    1.5771E+10 bytes
Redo Buffers        47857664 bytes
Database mounted.
Database opened.
SQL> show parameter open_cursors;

NAME                                TYPE        VALUE
-----                                -
open_cursors                        integer     1600
SQL> 
```

- 2). Oracle JDK 1.8.0\_131 and later installed.

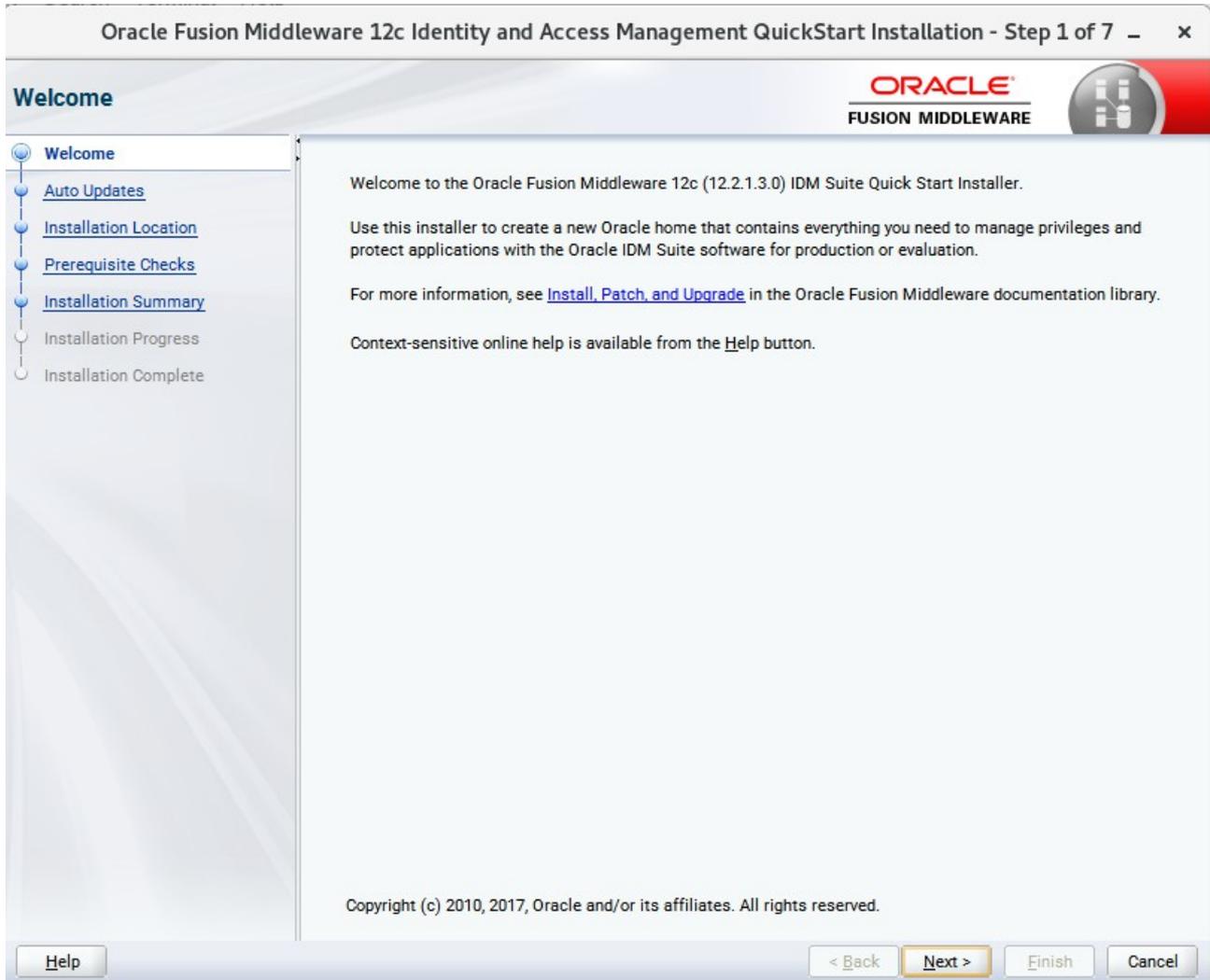
1-2. Log in to the target system (SLES 12 64-bit OS) as a non-admin user. Download the Oracle Identity and Access Management 12cPS3 (12.2.1.3.0) generic installer .zip file from <http://www.oracle.com/technetwork/indexes/downloads/index.html#middleware>.

(**Note:** Please ensure the installation user has the proper permissions to install and configure the software.)

1-3. Go to the directory where you downloaded the installation program. Extract the contents of these .zip ("fmw\_12.2.1.3.0\_idmqs\_Disk1\_1of2.zip" and "fmw\_12.2.1.3.0\_idmqs\_Disk1\_2of2.zip") files and launch the installation program by running '**java -jar fmw..... .jar** '

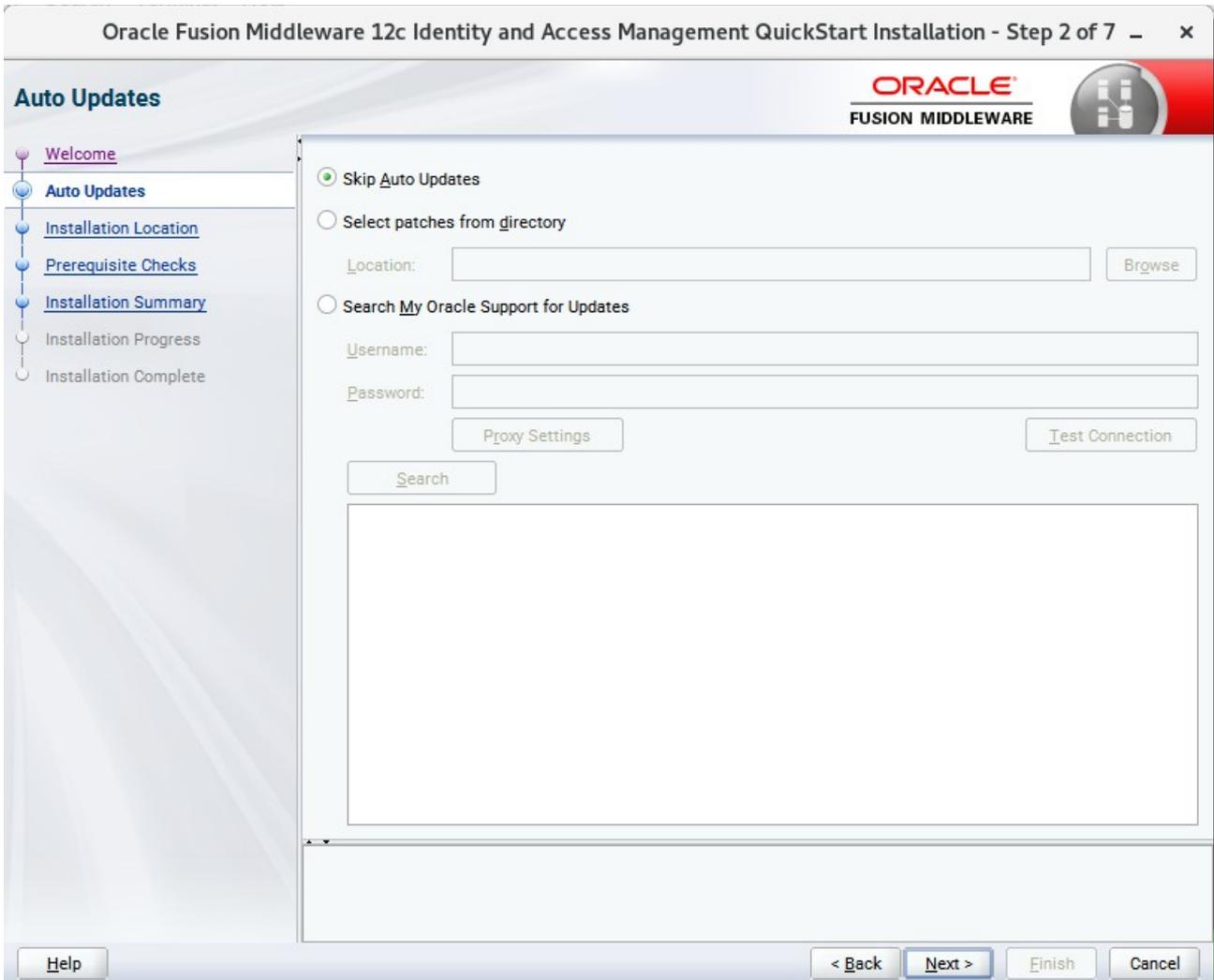
**For the actual installation, follow the steps below:**

1). **Welcome** page appears.



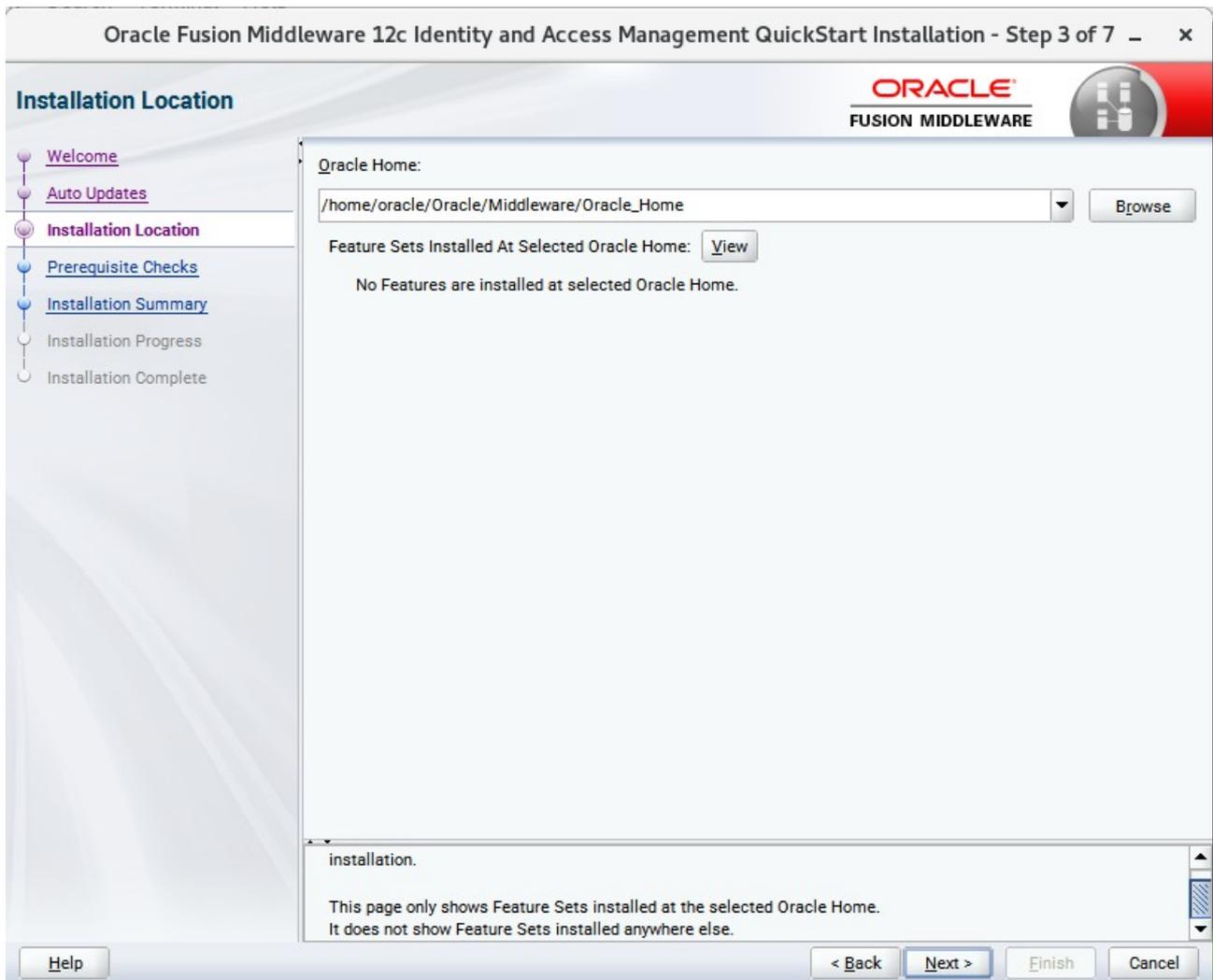
This page welcomes you to the installation. Click **Next** to continue.

2). The **Auto Updates** page appears.



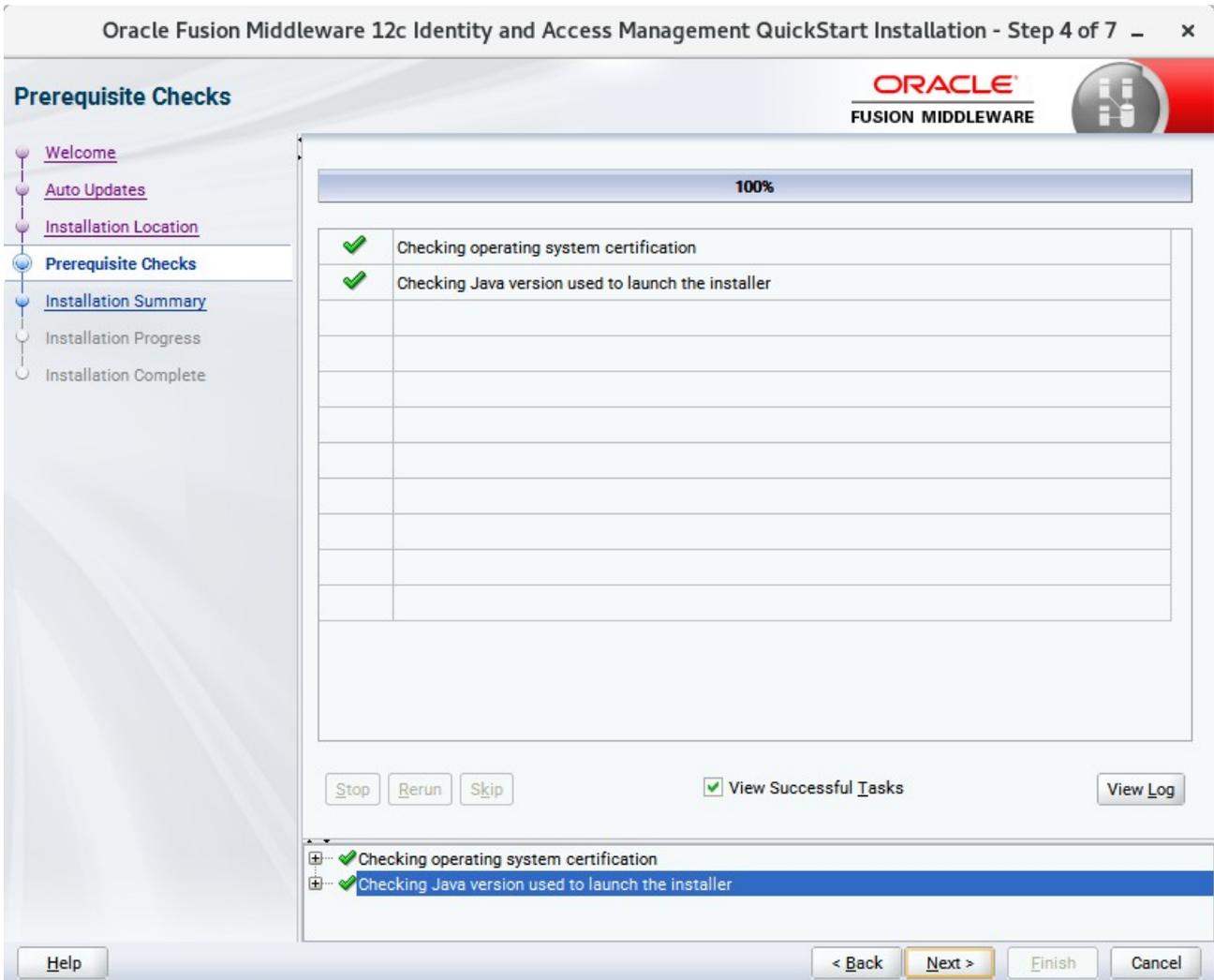
This screen helps to quickly and easily search for the latest software updates, including important security updates, via your My Oracle Support account. Make your choices, then click **Next** to continue.

3). The **Installation Location** page appears.



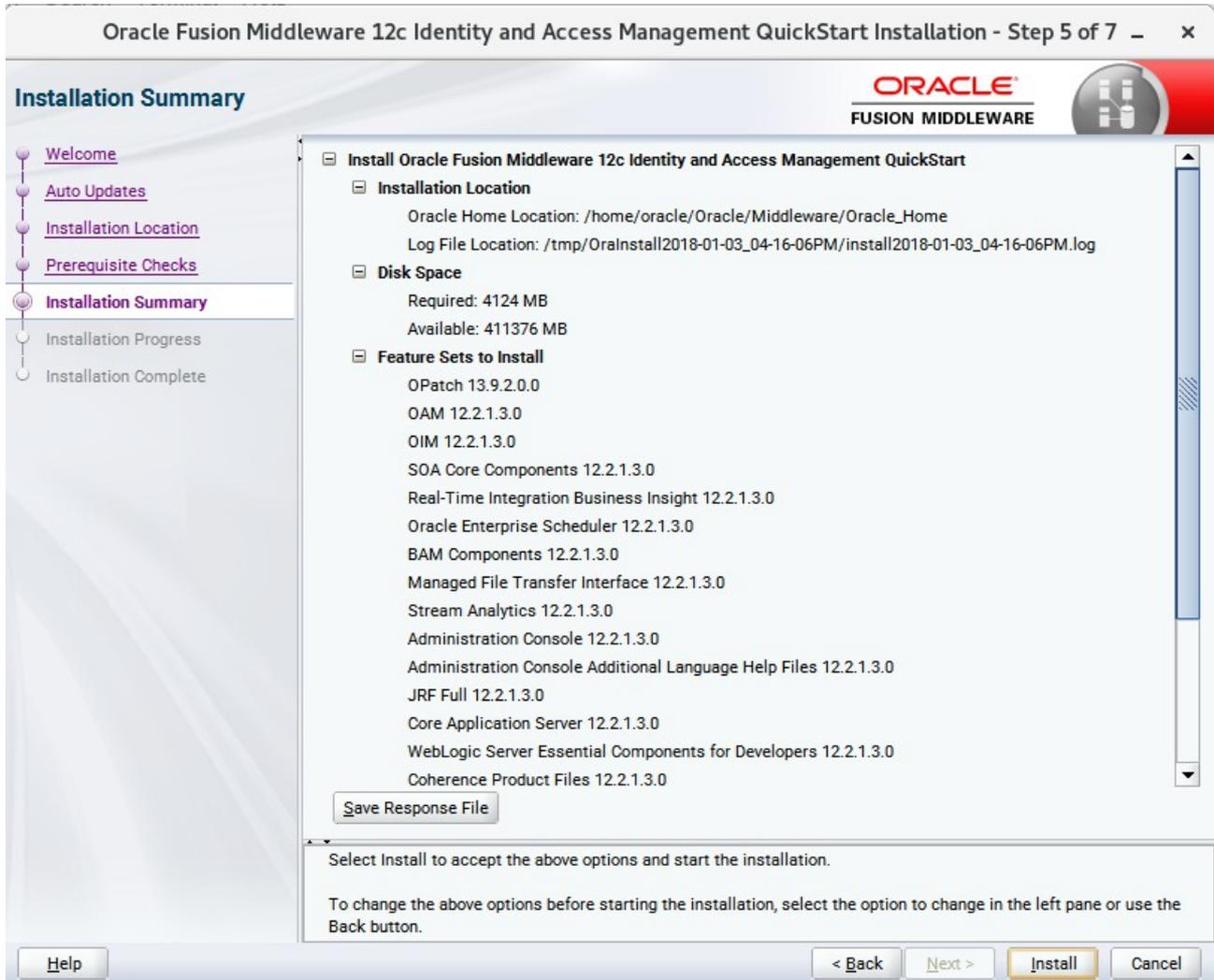
Specify the Oracle home location into which you want to install the product(s). Click **Next** to continue.

4). The **Prerequisites Checks** page appears.



This pages shows you the progress of the system checking the prerequisites on your system prior to installation. If you are lacking any prerequisites, a message will appear telling you so. You do not need to take any actions on this page, though you can view the log from here. Click **Next** to continue.

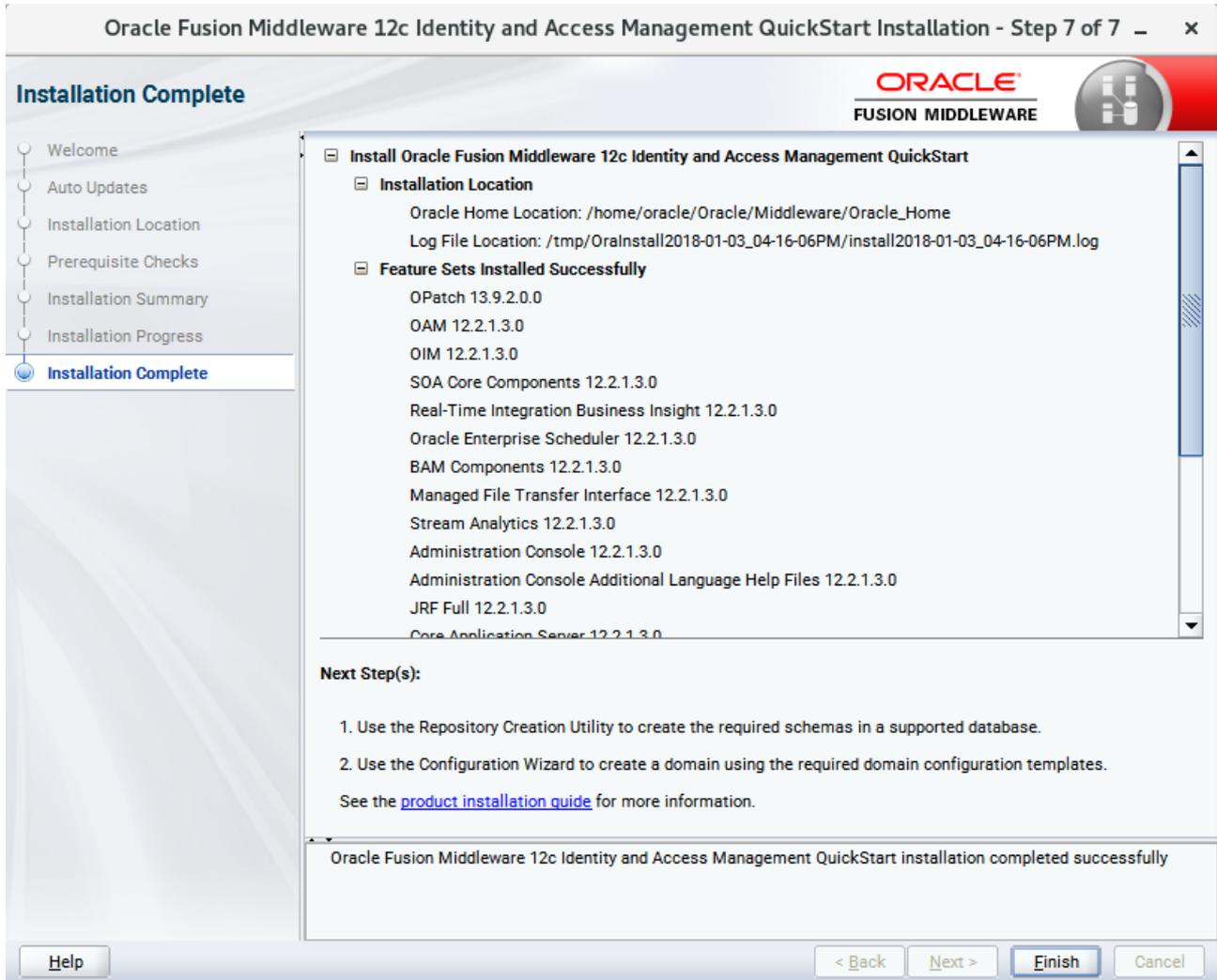
5). The **Installation Summary** page appears.



This page shows you what components and features are about to be installed. If you need to make changes, click **Back**, otherwise, click **Install** to start the installation.



7). If you clicked **Next**, the **Installation Complete** page appears, showing you the components that have been installed.



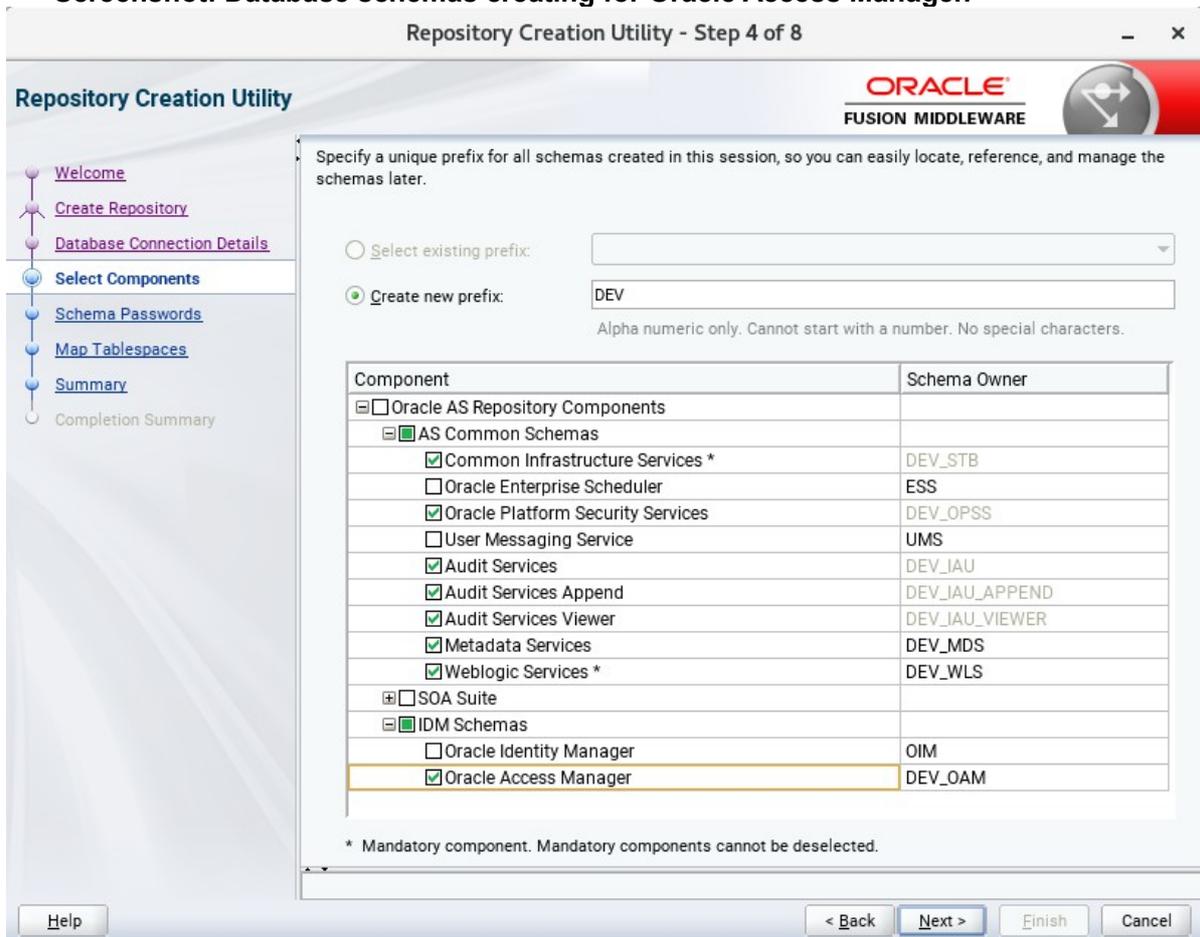
This screen displays the Installation Location and the Feature Sets that are installed. Review this information and click **Finish** to close the installer.

## 2. Configuring the Oracle Access Manager Domain

### 2-1. Creating Database Schema through Repository Creation Utility for OAM.

Repository Creation Utility (RCU) is available with the Oracle Fusion Middleware Infrastructure 12c distribution. Run `$FMW_HOME/oracle_common/bin/rcu` and create required database schemas for Oracle Access Manager.

**Screenshot: Database schemas creating for Oracle Access Manager.**



Select the **Create new prefix** radio button and specify a custom prefix (such as SUSEDEMO). Select the **Oracle Access Manager** schema, this action automatically selects the schemas as dependencies, and ensure the schema creation is successful.

## 2-2. Configuring a Domain for Oracle Access Manager(OAM) using the Config Wizard

In order to complete the configuration. Run the config wizard using **config.sh** located in the **ORACLE\_HOME/oracle\_common/common/bin** directory.

### Follow these steps:

1). On the Configuration Type screen, select **Create a new domain**, and enter the desired domain home path.

Fusion Middleware Configuration Wizard - Page 1 of 8

Configuration Type

ORACLE  
FUSION MIDDLEWARE

- Create Domain
- Templates
- Administrator Account
- Domain Mode and JDK
- Advanced Configuration
- Configuration Summary
- Configuration Progress
- End Of Configuration

What do you want to do?

Create a new domain

Update an existing domain

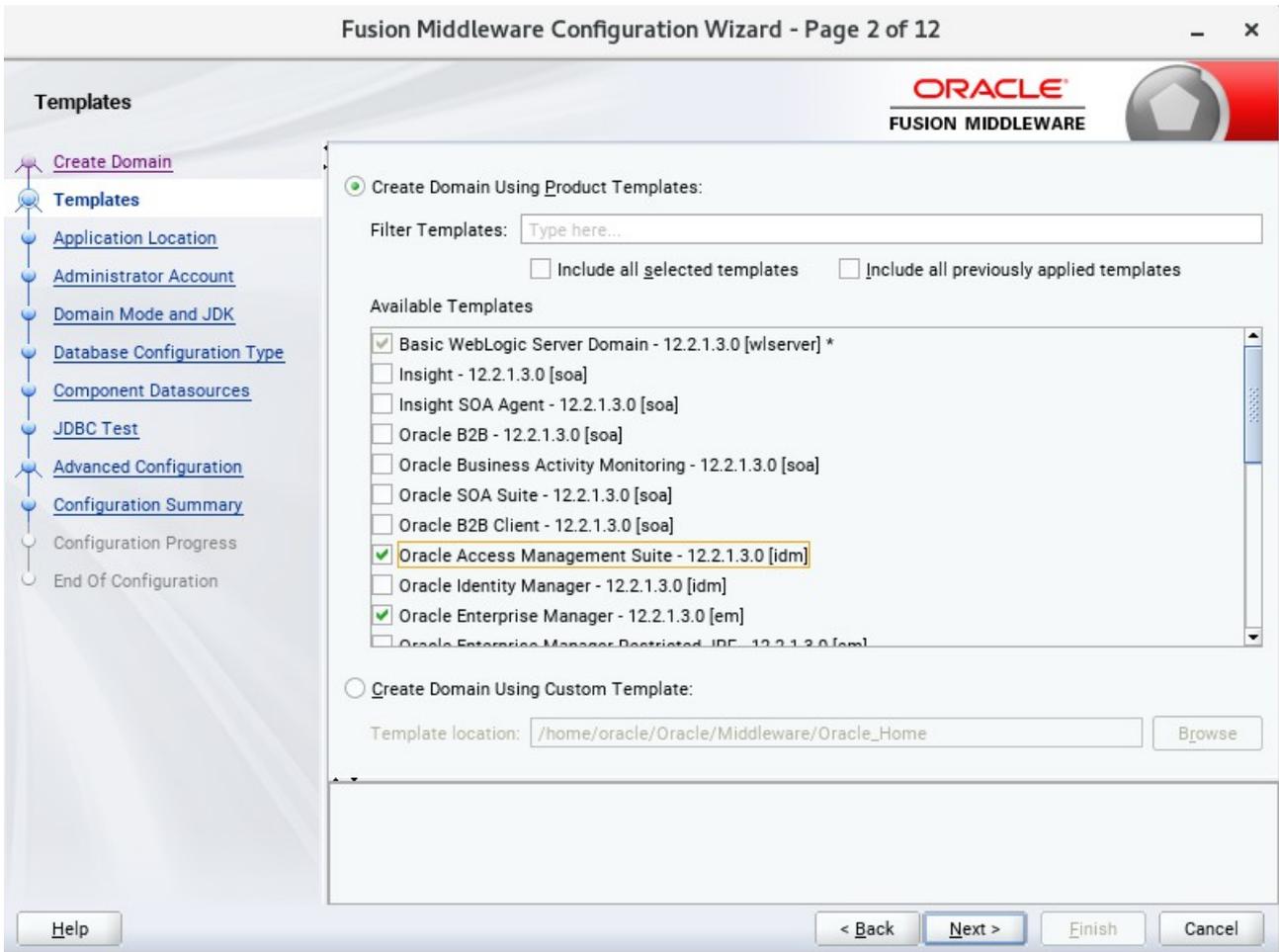
Domain Location:

Create a new domain.

Help < Back Next > Finish Cancel

Click **Next** to continue.

2). The **Templates** screen appears.



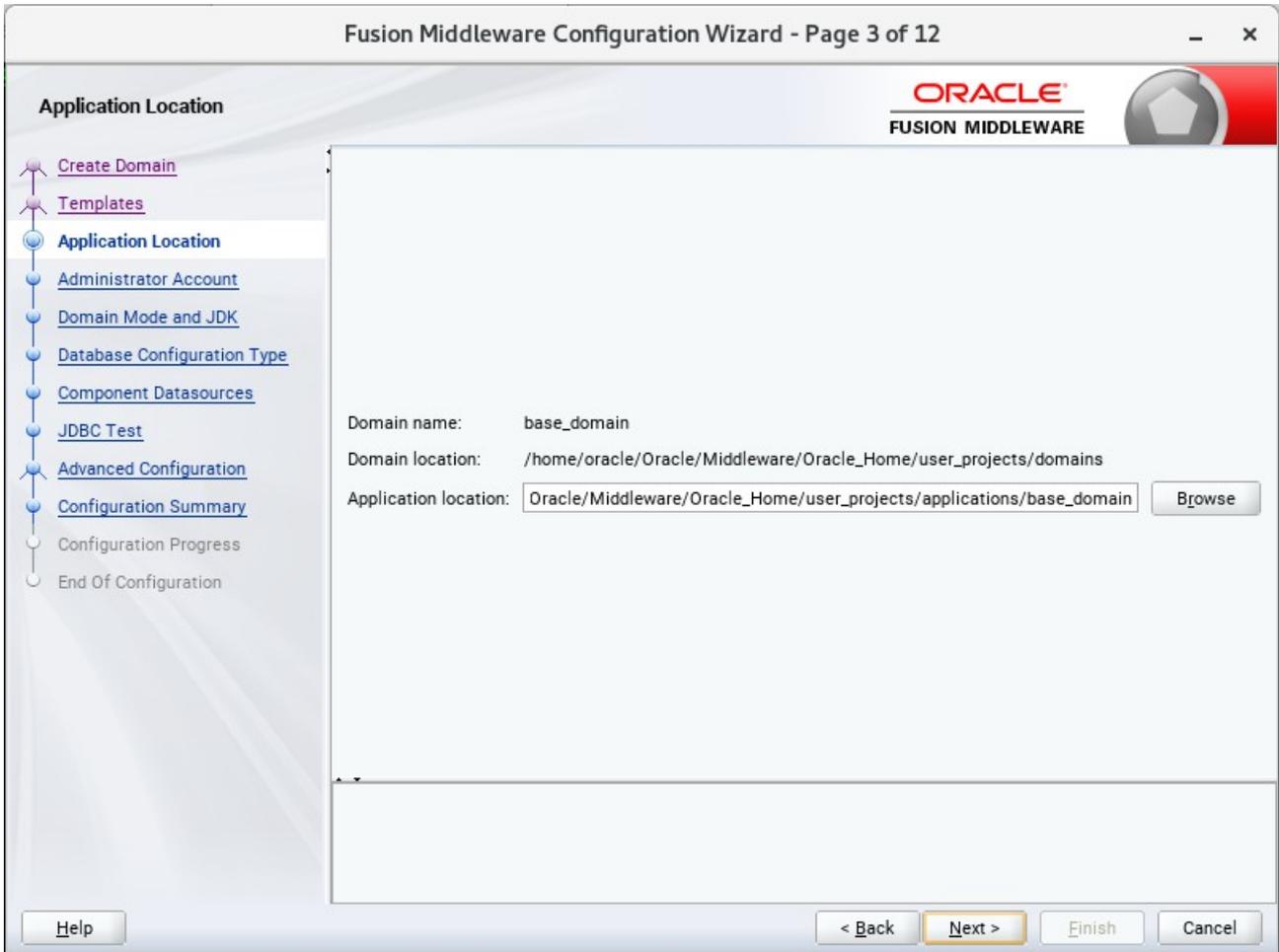
On the Templates screen, make sure **Create Domain Using Product Templates** is selected, then select the template **Oracle Access Management Suite - 12.2.1.3.0 [idm]**.

Selecting these templates automatically selects the following as dependencies:

- Oracle Enterprise Manager - 12.2.1.3.0 [em]
- Oracle JRF - 12.2.1.3.0 [oracle\_common]
- WebLogic Coherence Cluster Extension - 12.2.1.3.0 [wlserver]

You can also select any of the Oracle products listed in the following table. You do not need to select all of these templates, and you can always run the configuration wizard again to add products to your domain later. Click **Next** to continue.

3). The **Application Location** screen appears.



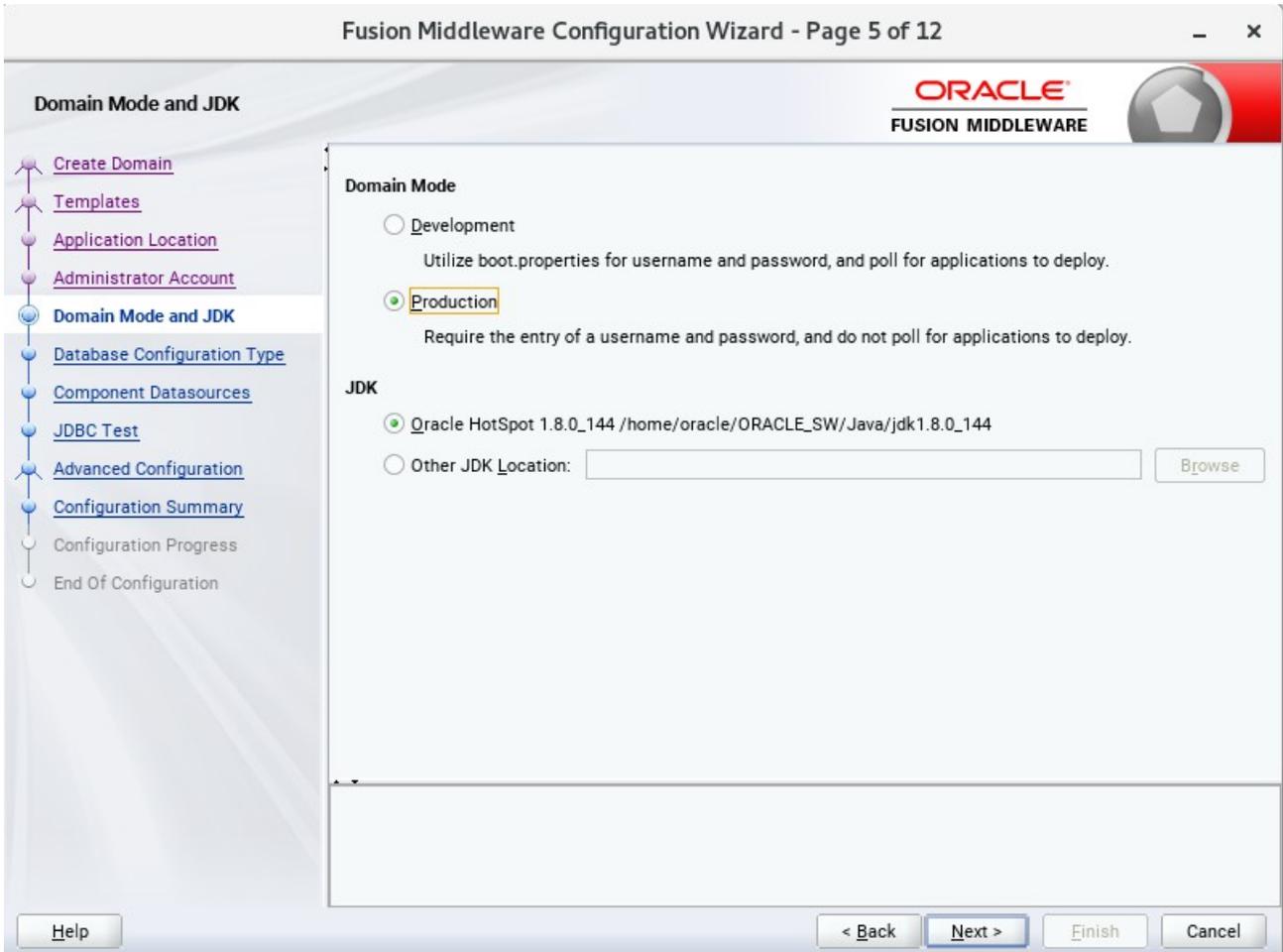
Keep the default value for Application location. Click **Next** to continue.

4). The **Administrator Account** screen appears.

The screenshot shows the 'Administrator Account' configuration screen in the Fusion Middleware Configuration Wizard. The window title is 'Fusion Middleware Configuration Wizard - Page 4 of 12'. The Oracle logo and 'FUSION MIDDLEWARE' text are visible in the top right corner. On the left, a navigation pane lists the following steps: Create Domain, Templates, Application Location, Administrator Account (highlighted), Domain Mode and JDK, Database Configuration Type, Component Datasources, JDBC Test, Advanced Configuration, Configuration Summary, Configuration Progress, and End Of Configuration. The main area contains three input fields: 'Name' with the value 'weblogic', 'Password' with masked characters '.....', and 'Confirm Password' with masked characters '.....'. Below these fields is a validation message: 'Must be the same as the password. Password must contain at least 8 alphanumeric characters with at least one number or special character.' At the bottom, there are four buttons: 'Help', '< Back', 'Next >', 'Finish', and 'Cancel'.

Enter the WebLogic Domain administration username and password. This information will be needed to access WebLogic Server Control and Fusion Middleware Control. Click **Next** to continue.

5). The **Domain Mode and JDK** screen appears.



Select **Production** in the **Domain Mode** field and select the **Oracle HotSpot JDK** in the **JDK** field. Click **Next** to continue.

6). The **Database Configuration Type** screen appears.

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: Oracle    Driver: \*Oracle's Driver (Thin) for Service connections; Versions:...

Connection Parameters     Connection URL String

Host Name: hpgen9-02

DBMS/Service: suse    Port: 1521

Schema Owner: DEV\_STB    Schema Password: .....

Connection Result Log

Successfully Done.

Click "Next" button to continue.

Select **RCU Data** to activate the fields. The **RCU Data** option instructs the Configuration Wizard to connect to the database and Service Table (STB) schema to automatically retrieve schema information for the schemas needed to configure the domain. Enter the RCU DB connection information, then click **Get RCU Configuration**. You should receive a success message. Click **Next** to continue.

7). The **JDBC Component Schema** screen appears.

**JDBC Component Schema**

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

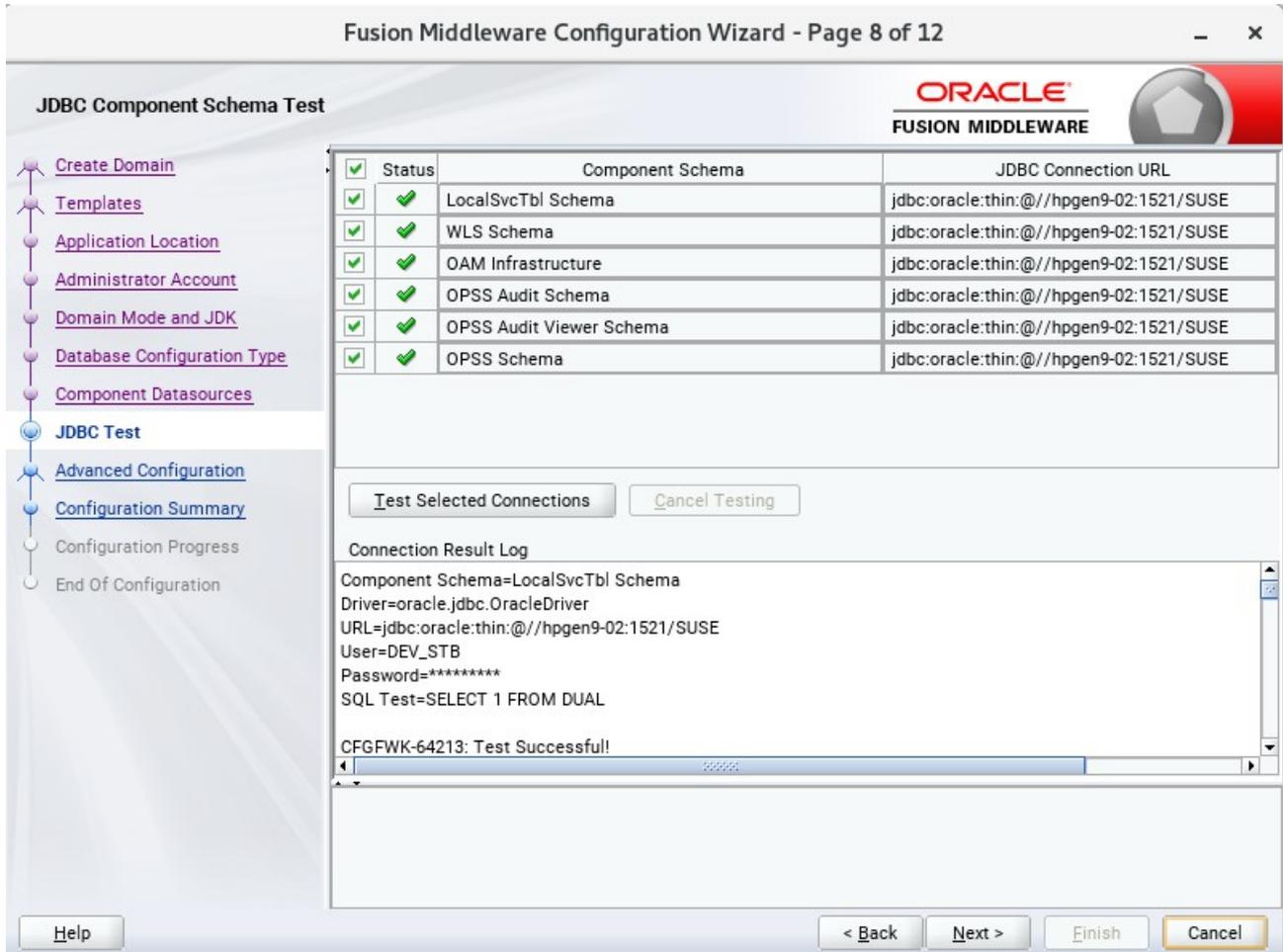
Edits to the data above will affect all checked rows in the table below.

<input type="checkbox"/>	Component Schema	DBMS/Service	Host Name	Port	Schema Owner	Schema Password
<input type="checkbox"/>	LocalSvcTbl Schema	SUSE	hpgen9-02	1521	DEV_STB	.....
<input type="checkbox"/>	WLS Schema	SUSE	hpgen9-02	1521	DEV_WLS_RUN	.....
<input type="checkbox"/>	OAM Infrastructure	SUSE	hpgen9-02	1521	DEV_OAM	.....
<input type="checkbox"/>	OPSS Audit Schema	SUSE	hpgen9-02	1521	DEV_JAU_APPE	.....
<input type="checkbox"/>	OPSS Audit Viewer Sche	SUSE	hpgen9-02	1521	DEV_JAU_VIEWE	.....
<input type="checkbox"/>	OPSS Schema	SUSE	hpgen9-02	1521	DEV_OPSS	.....

Help < Back **Next >** Finish Cancel

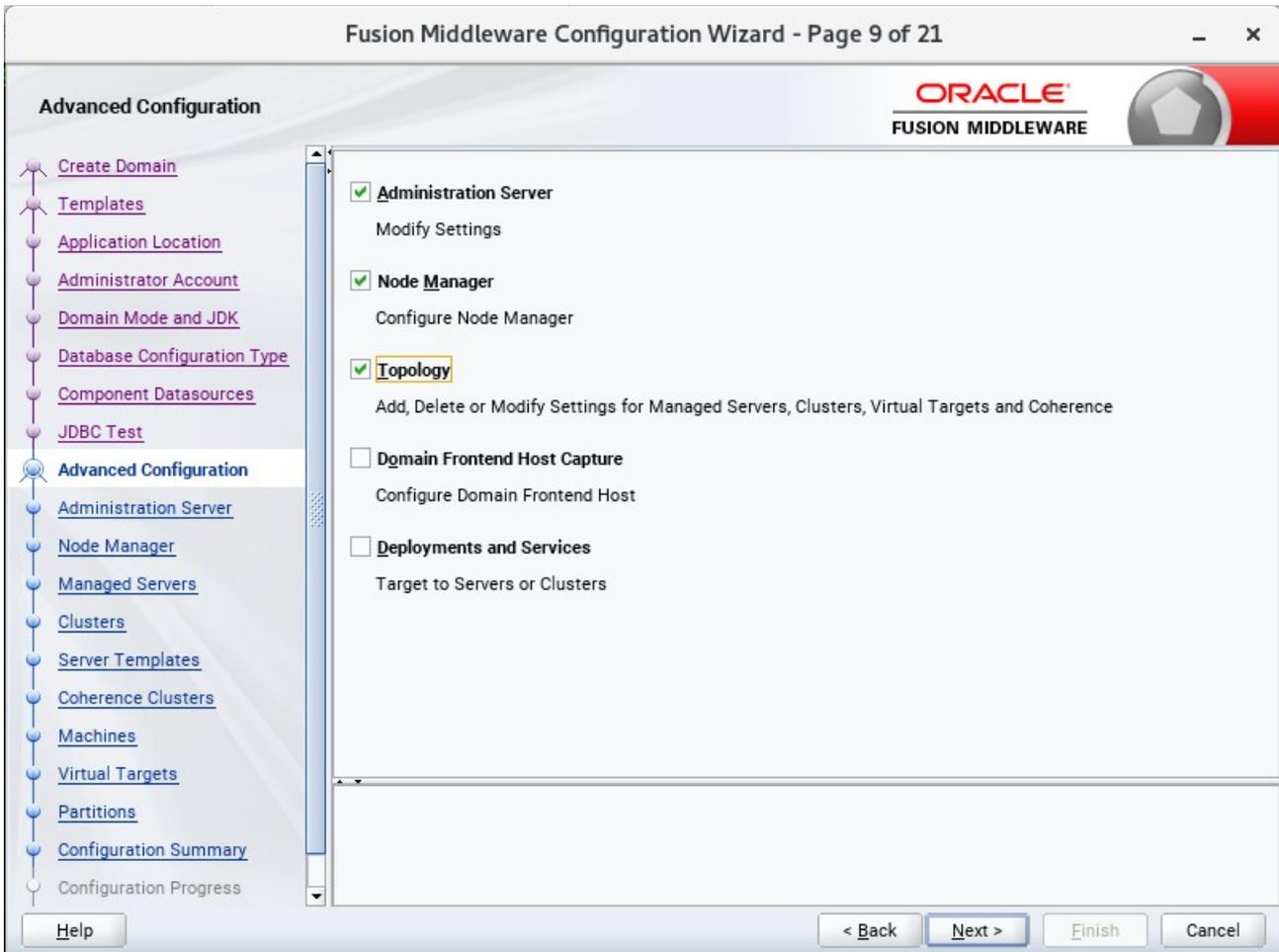
Our instructions assume each Repository schema uses the same password. If not, enter the correct schema passwords. Click **Next** to continue.

8). The **JDBC Component Schema Test** screen appears.



The tests are run and the results given. Ensure all test results are successful. Click **Next** to continue.

9). The **Advanced Configuration** screen appears.

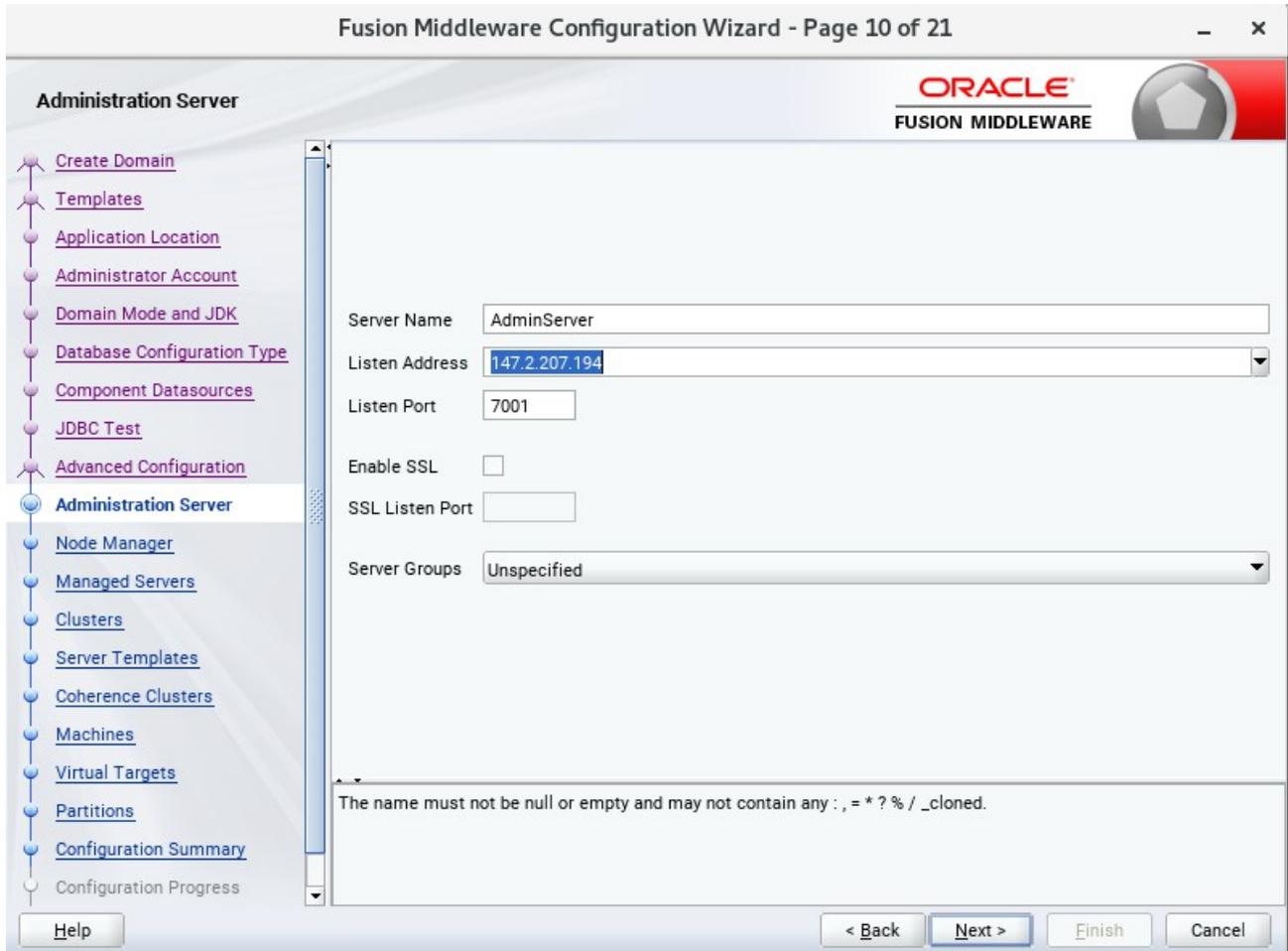


On the Advanced Configuration screen, select:

- Administration Server
- Node Manager
- Topology

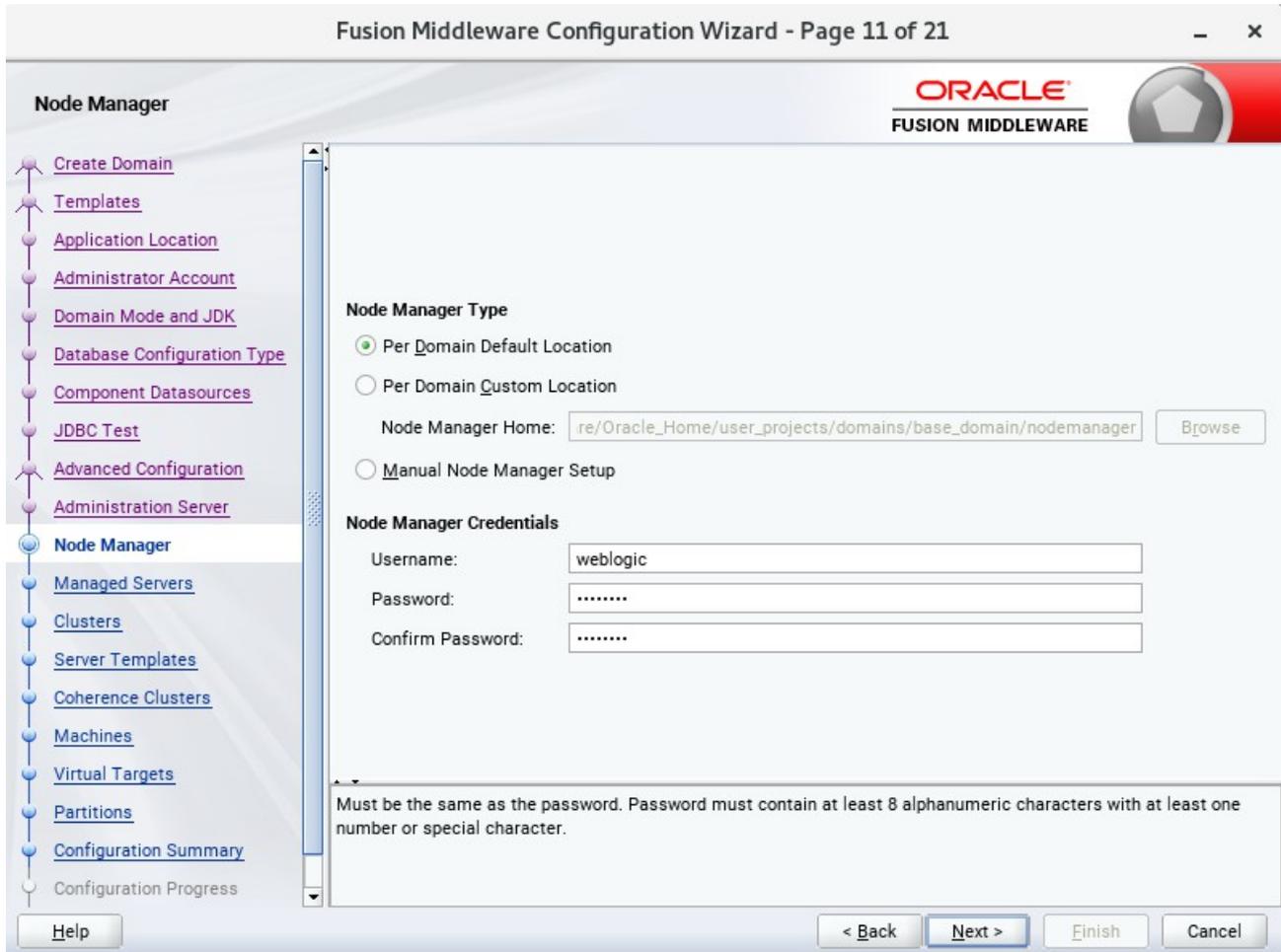
Then, click **Next** to continue.

10). The **Administration Server** screen appears.



Use the **Administration Server** screen to select the IP address of the host. Select the drop-down list next to **Listen Address** and select the IP address of the host where the Administration Server will reside, or use the system name or DNS name that maps to a single IP address. Click **Next** to continue.

11). Configuring **Node Manager** screen appears.



Select **Per Domain Default Location** as the Node Manager type, then specify Node Manager credentials. Click **Next** to continue.

12). The **Managed Servers** screen appears.

The screenshot shows the 'Managed Servers' configuration screen in the Fusion Middleware Configuration Wizard. The window title is 'Fusion Middleware Configuration Wizard - Page 12 of 21'. The Oracle logo and 'FUSION MIDDLEWARE' text are visible in the top right. A navigation pane on the left lists various configuration steps, with 'Managed Servers' selected. The main area contains a table with the following data:

Server Name	Listen Address	Listen Port	Enable SSL	SSL Listen Port	Server Groups
oam_server1	147.2.207.194	14100	<input type="checkbox"/>	Disabled	OAM-MGD-...
oam_policy_mgr1	147.2.207.194	14150	<input type="checkbox"/>	Disabled	OAM-POLIC...

Buttons for '+ Add', 'Clone', 'Delete', and 'Disard Changes' are located above the table. At the bottom, there are navigation buttons: '< Back', 'Next >', 'Finish', and 'Cancel'. A 'Help' button is also present in the bottom left corner.

On the **Managed Servers** screen, new Managed Servers named: *oam\_server1* and *oam\_policy\_mgr1* are automatically created. In the **Listen Address** drop-down list, select the IP address of the host on which the Managed Server will reside or use the system name or DNS name that maps to a single IP address. The default **Server Groups** have already been selected for each server. Click **Next** to continue.

13). The **Clusters** screen appears.

Fusion Middleware Configuration Wizard - Page 13 of 23

**Clusters**

ORACLE  
FUSION MIDDLEWARE

+ Add    X Delete    Discard Changes

Cluster Name	Cluster Address	Frontend Host	Frontend HTTP Port	Frontend HTTPS Port	Dynamic Server Groups
oam_cluster_1			0	0	Unspecified ▼
oam-policy_cluster_1			0	0	Unspecified ▼

Help    < Back    Next >    Finish    Cancel

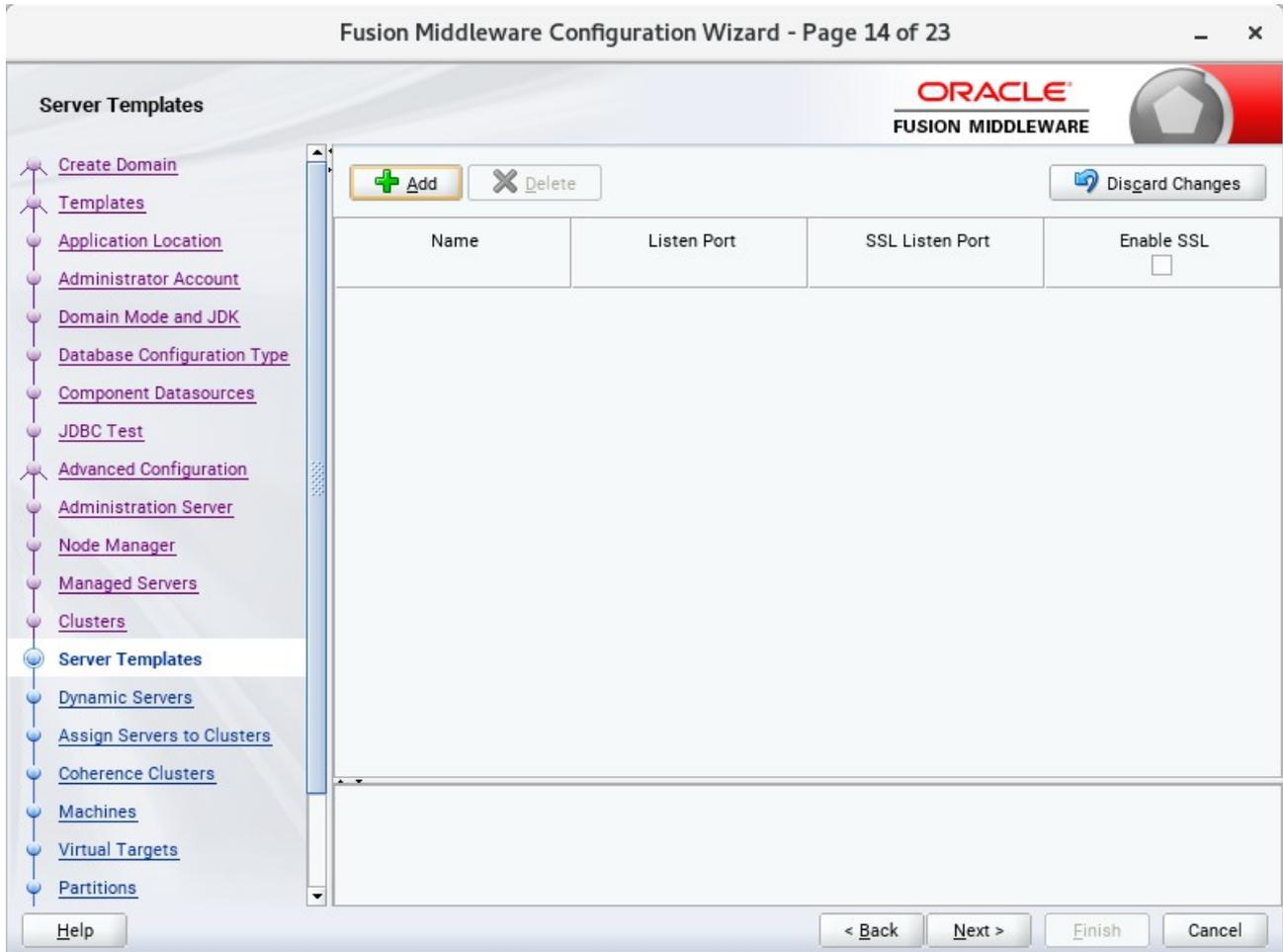
On the Clusters screen:

1. Click **Add**.
2. Specify *oam\_cluster\_1* in the Cluster Name field.
3. Leave the Cluster Address field blank.
4. Repeat these steps to create *oam-policy\_cluster\_1* cluster.

Click **Next** to continue.

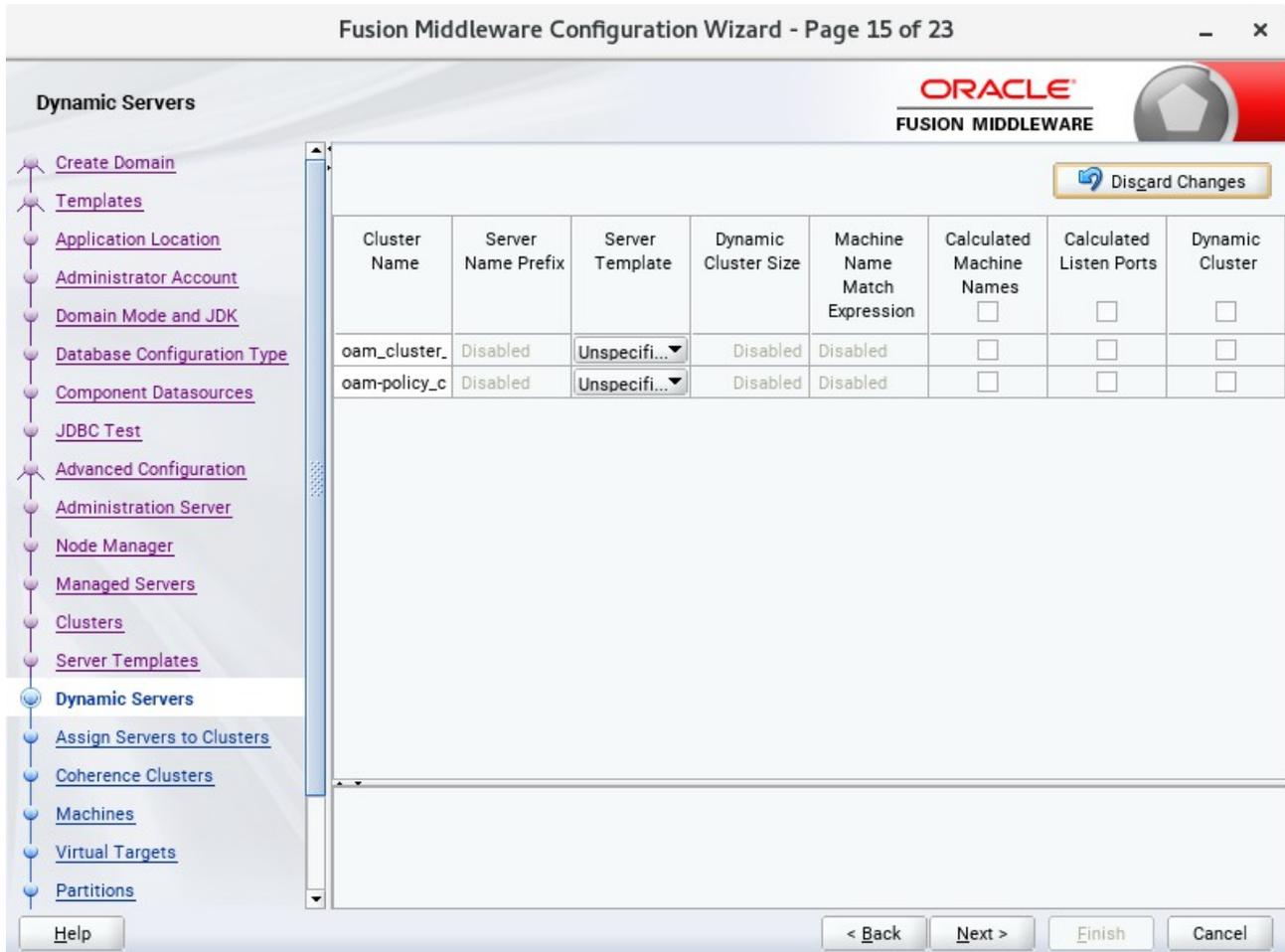
(**Note:** Configuring a non-clustered setup on a single node, skip this screen.)

14). The **Server templates** screen appears.



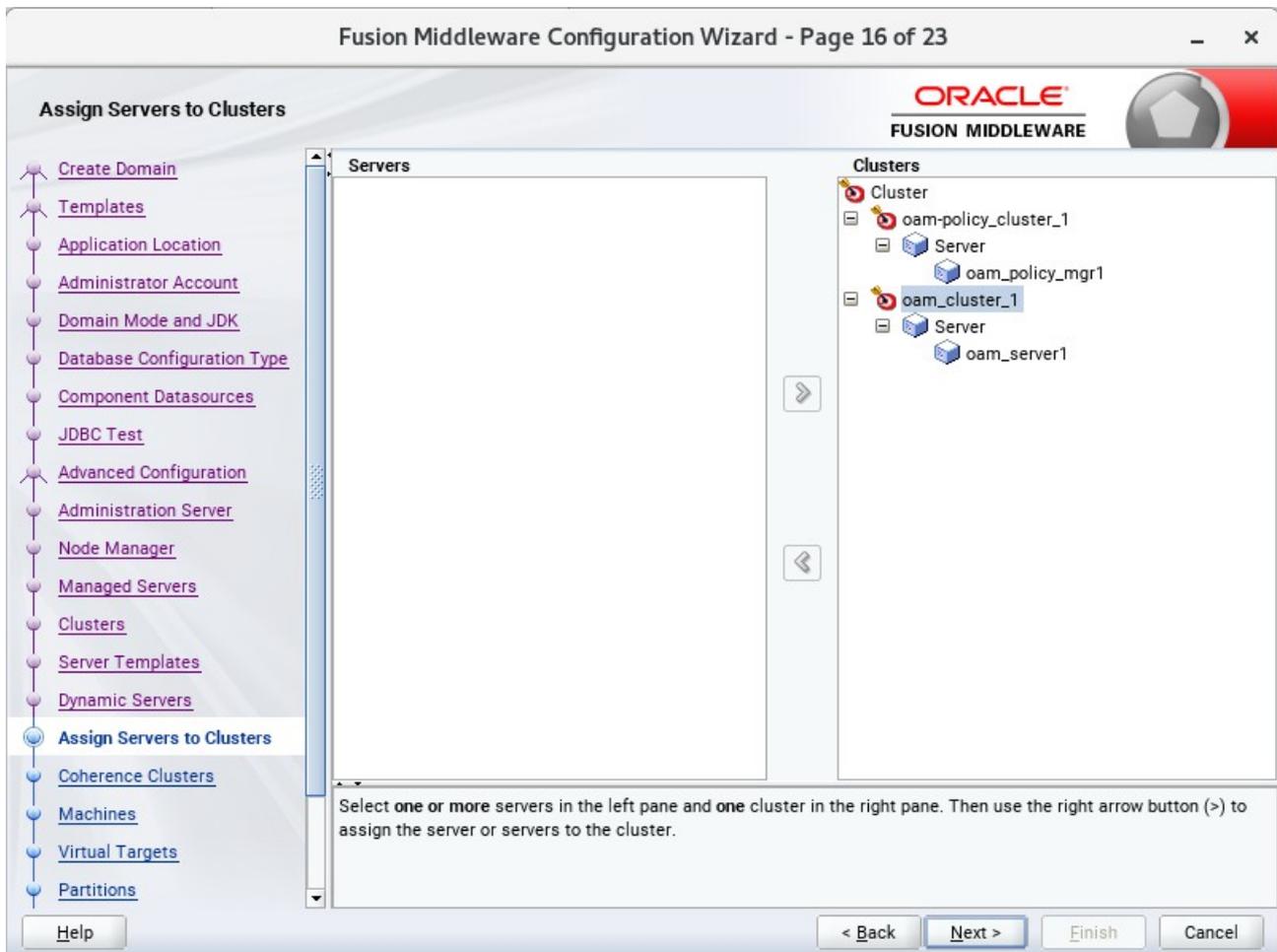
If you are creating dynamic clusters for a high availability setup, use the Server Templates screen to define one or more server templates for domain. To continue configuring the domain, click **Next**.

15). The **Dynamic Servers** screen appears.



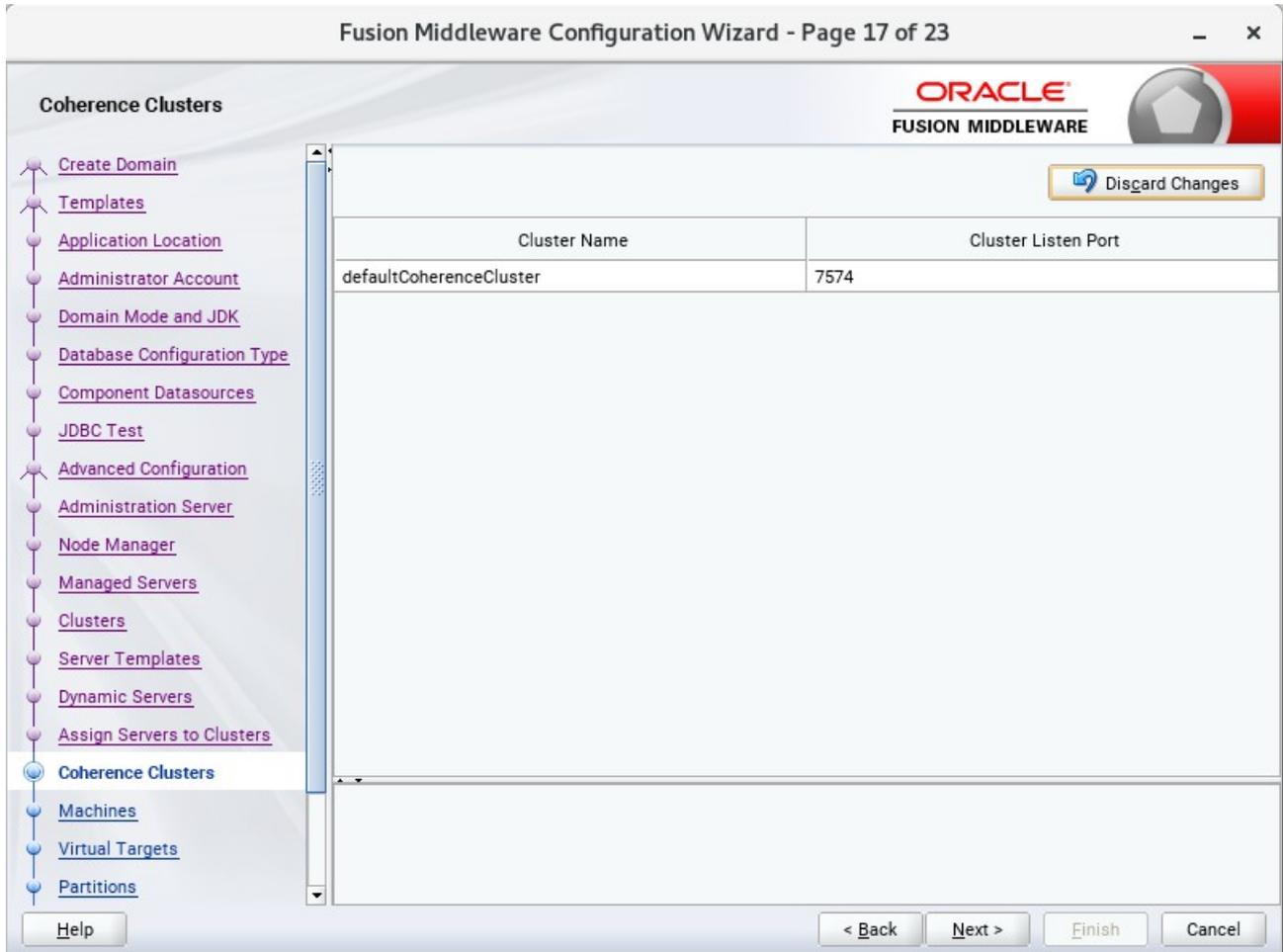
If you are creating dynamic clusters for a high availability setup, use the Dynamic Servers screen to configure the dynamic servers. If you are not configuring a dynamic cluster, click **Next** to continue configuring the domain.

16). The **Assign Servers to Clusters** screen appears.



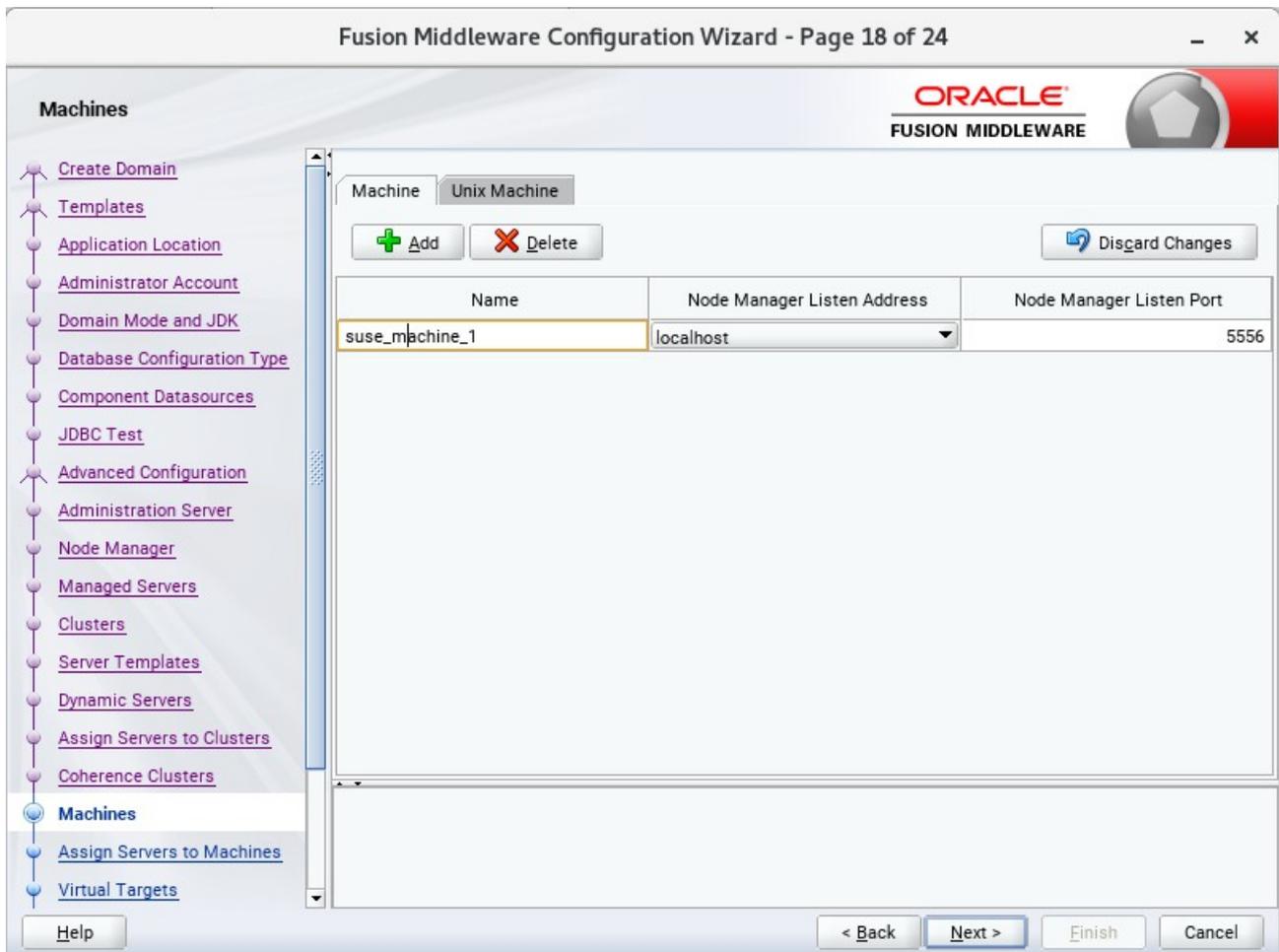
Use the **Assign Servers to Clusters** screen to assign Managed Servers to a new configured cluster. Click **Next** to continue.

17). The **Coherence Clusters** screen appears.



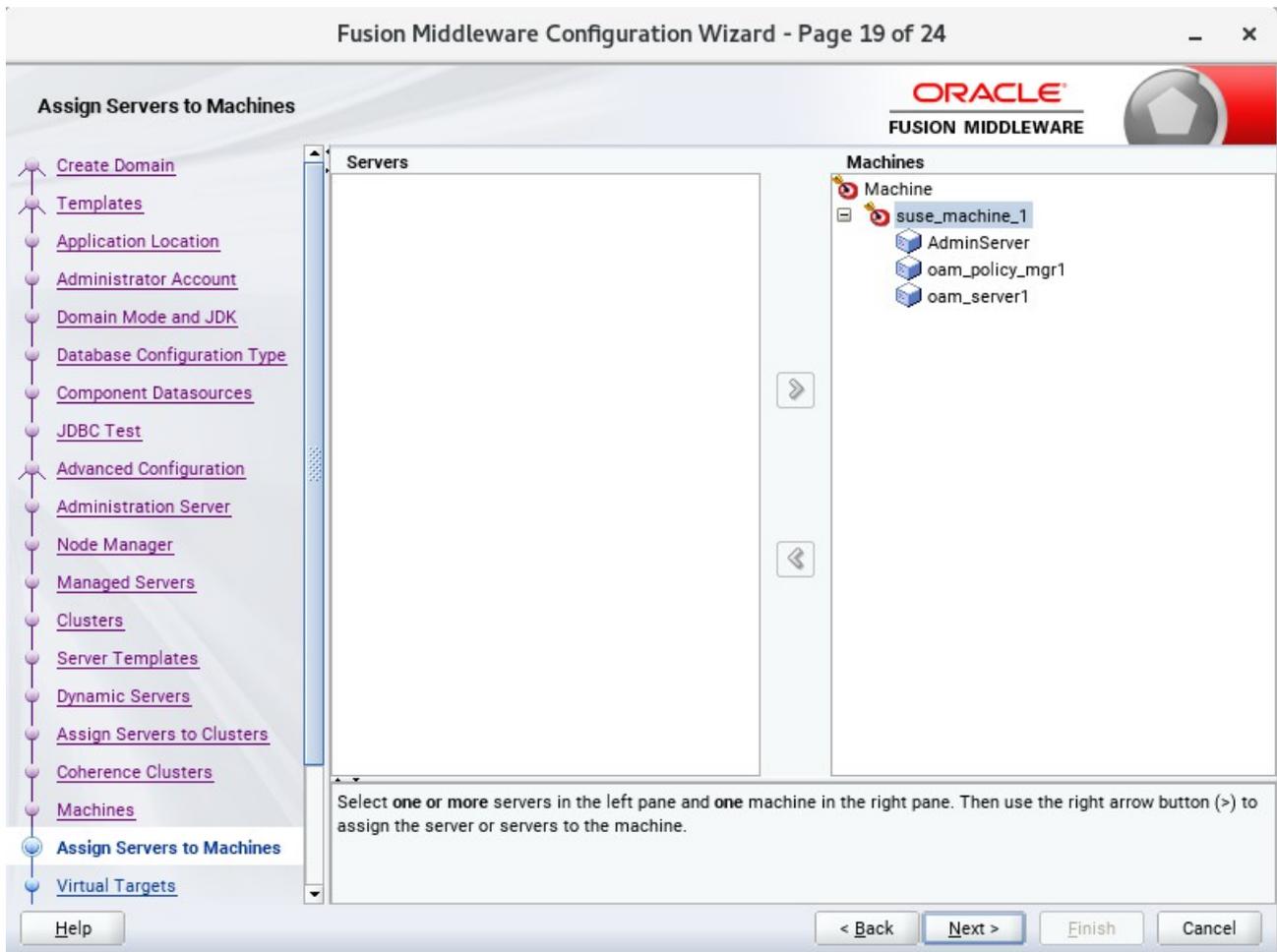
Leave the default port number as the Coherence cluster listen port. After configuration, the Coherence cluster is automatically added to the domain. Click **Next** to continue.

18). The **Machines** screen appears.



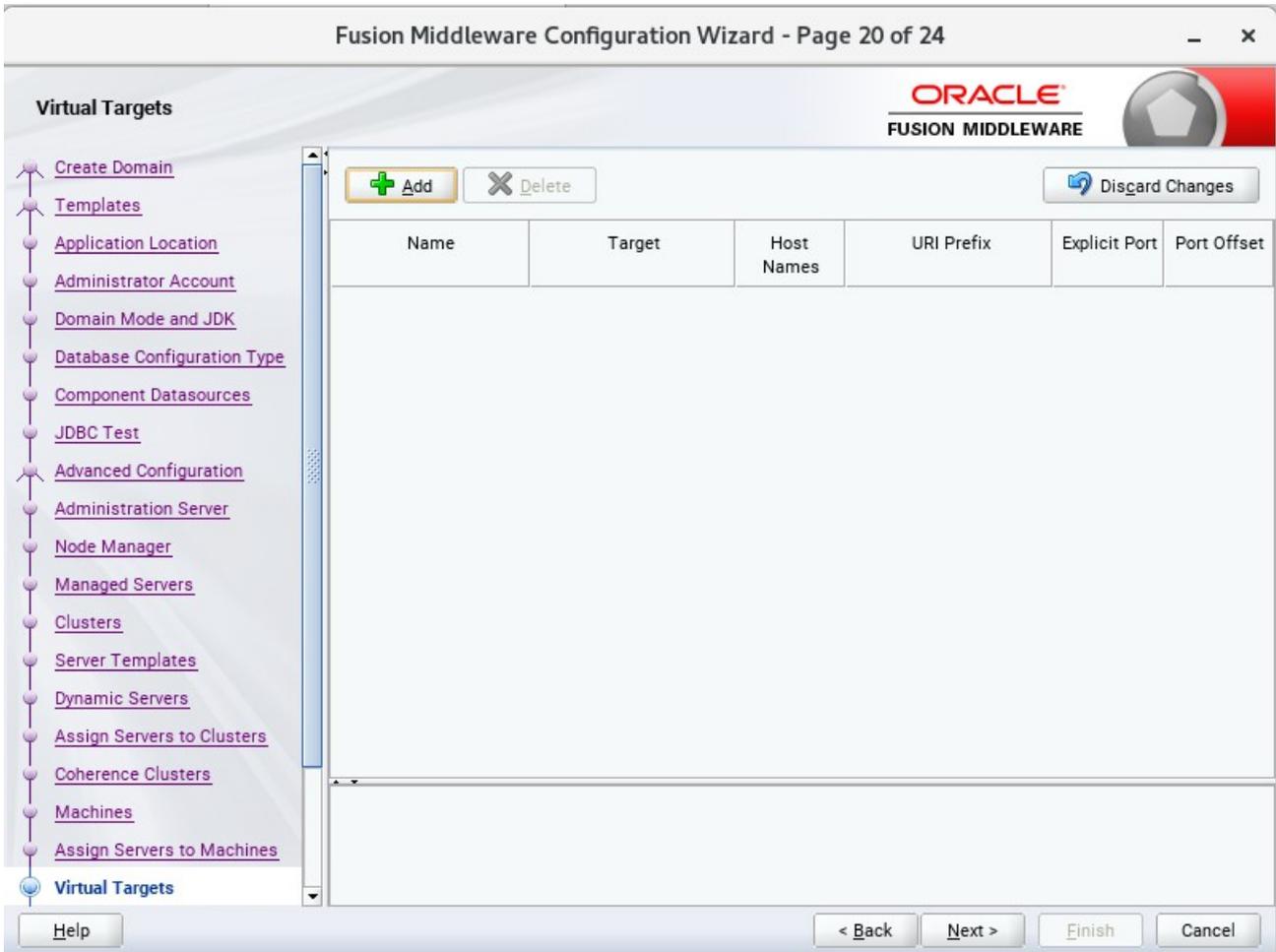
To create a new machine so that Node Manager can start and stop servers. Click **Next** to continue.

19). The **Assign Servers to Machines** screen appears.



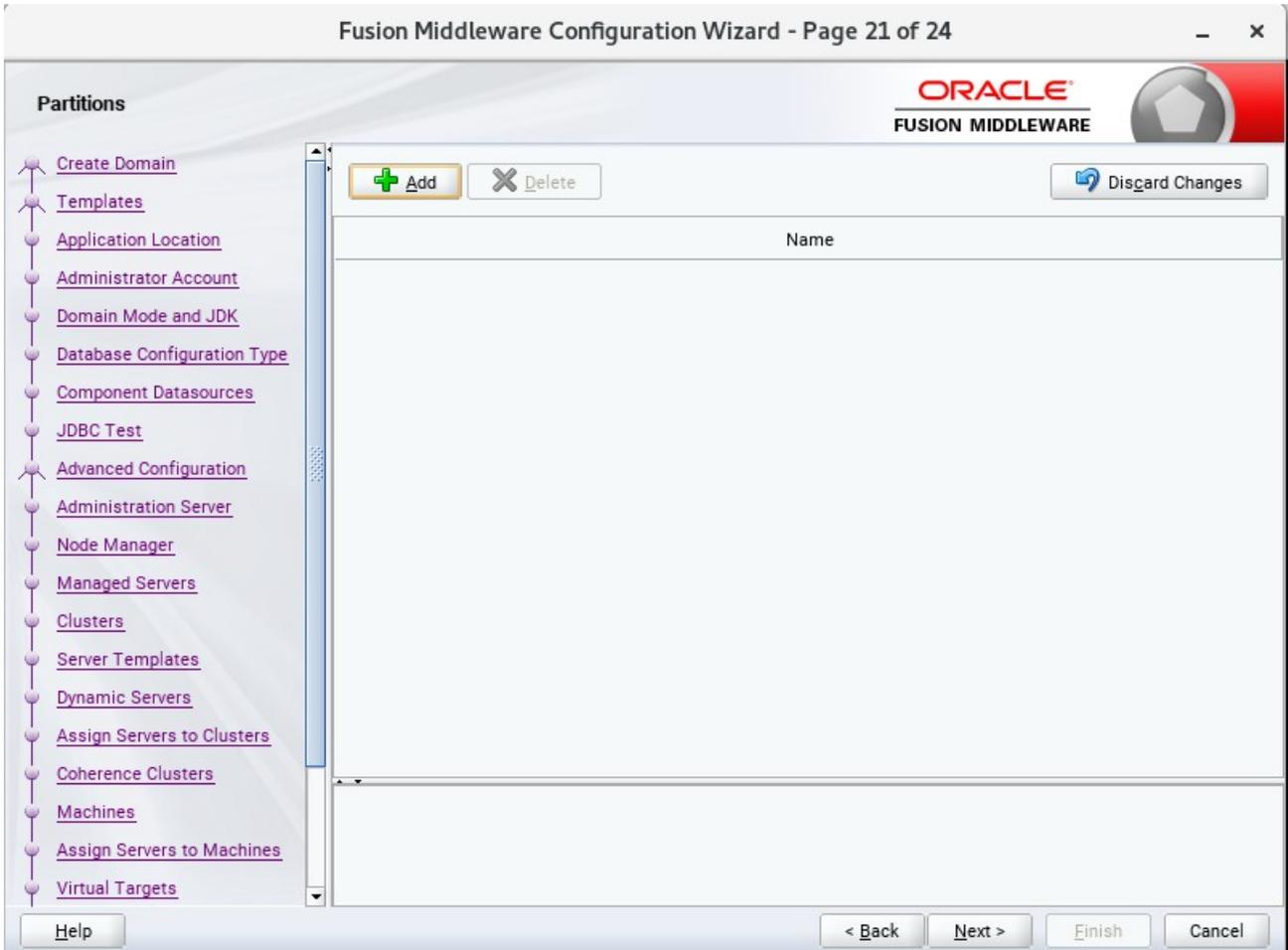
Use the **Assign Servers to Machines** screen to assign the Managed Servers to the new machine you just created. Click **Next** to continue.

20). The **Virtual Targets** screen appears.



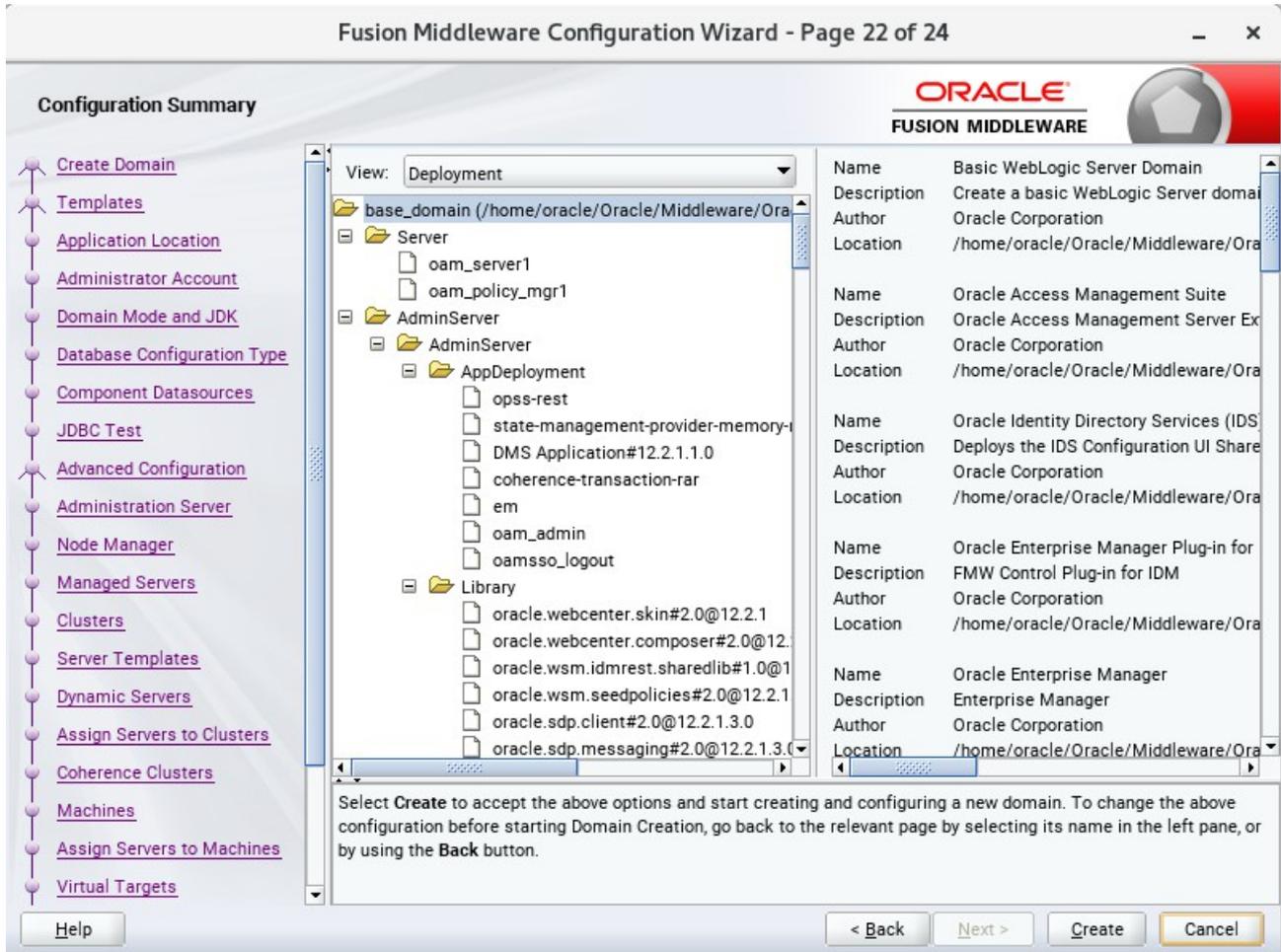
If you have a WebLogic Server Multitenant (MT) environment, you use the Virtual Targets screen to add or delete virtual targets. For this installation (not a WebLogic Server MT environment), you do not enter any values; just select **Next**.

21). The **Partitions** screen appears.



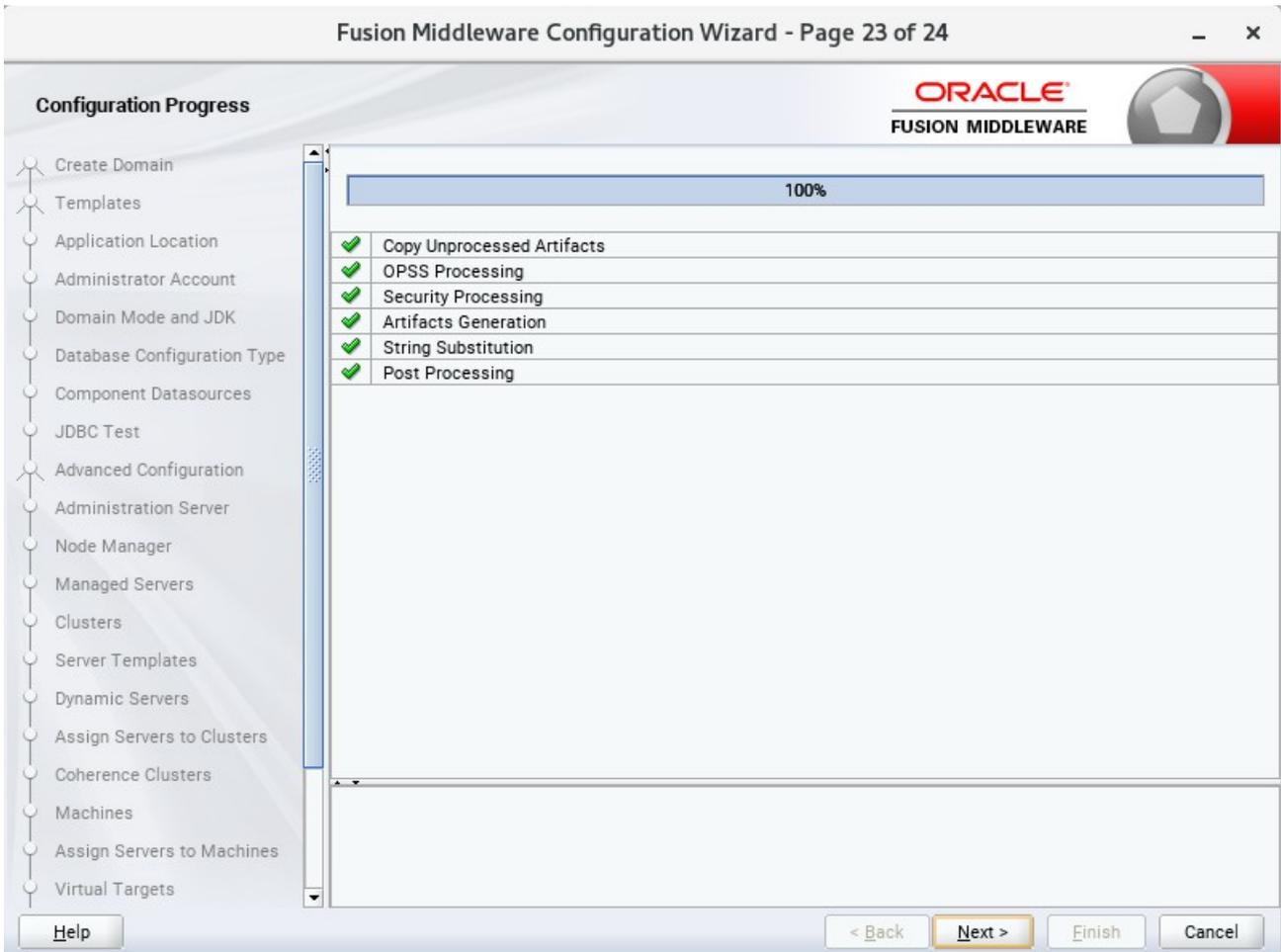
The Partitions screen is used to configure partitions for virtual targets in WebLogic Server Multitenant (MT) environments. Select **Next** without selecting any options.

22). The **Configuration Summary** screen appears.



Select **Create** to accept the above options and start creating and configuring a new domain.

23). The **Configuration Progress** screen appears.



Wait for this part of the configuration to complete. Depending on the location and performance of the Repository database, this process may take a few minutes. After the domain successful created, click **Next** to continue.

24). The **End of Configuration** screen appears.



Once you see: "Oracle Weblogic Server Configuration Succeeded", record the '**Domain Location**' and '**Admin Server URL**', then click **Finish** to dismiss the Configuration Wizard.

### 3. Verifying Oracle Access Manager(OAM) Installation and Configuration

3-1. Check for the presence of installation log files in logs directory inside your Oracle Inventory directory. Also, check the domain server logs, which are located in the servers directory inside the domain home directory.

3-2. Starting the Node Manager and the Admin Server.

**Starting the Node Manager, go to the DOMAIN\_HOME/bin directory and run 'nohup ./startNodeManager.sh > nm.out&'**

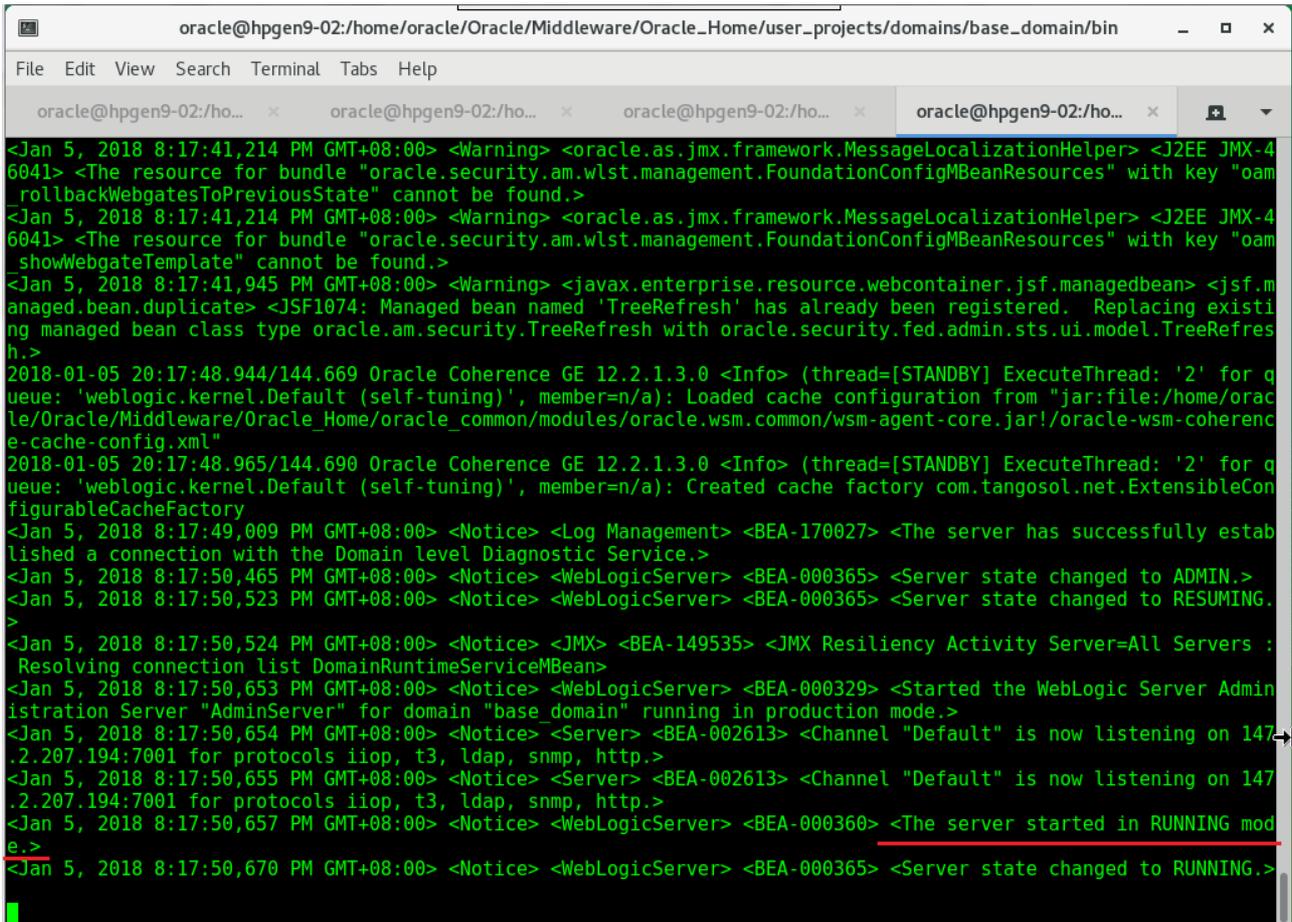
```

oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/bin
File Edit View Search Terminal Tabs Help
oracle@hpgen9-02:/ho... x oracle@hpgen9-02:/ho... x oracle@hpgen9-02:/ho... x oracle@hpgen9-02:/ho... x
oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/bin> nohup ./startNodeManager.sh > nm.out&
[1] 31924
oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/bin> nohup: ignoring input and redirecting stderr to stdout

oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/bin> more nm.out
NODEMGR_HOME is already set to /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/node
manager
CLASSPATH=/home/oracle/ORACLE_SW/Java/jdk1.8.0_144/lib/tools.jar:/home/oracle/Oracle/Middleware/Oracle_Home/wlserver/server/lib/weblogic.jar:/home/oracle/Oracle/Middleware/Oracle_Home/wlserver/..
/oracle_common/modules/thirdparty/ant-contrib-1.0b3.jar:/home/oracle/Oracle/Middleware/Oracle_Home/wlserver/modules/features/oracle.wls.common.nodemanager.jar:/home/oracle/Oracle/Middleware/Oracle_Home/wlserver/..:/home/oracle/Oracle/Middleware/Oracle_Home/wlserver/modules/features/oracle.wls.common.grizzly.jar
+ /home/oracle/ORACLE_SW/Java/jdk1.8.0_144/bin/java -server -Xms32m -Xmx200m -Djdk.tls.ephemeralDHKeySize=2048 -Dcoherence.home=/home/oracle/Oracle/Middleware/Oracle_Home/wlserver/..
/coherence -Dbea.home=/home/oracle/Oracle/Middleware/Oracle_Home/wlserver/.. -Doracle.security.jps.config=/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/config/fmwconfig/jps-config-jse.xml -Dcommon.components.home=/home/oracle/Oracle/Middleware/Oracle_Home/oracle_common -Dopss.version=12.2.1.3 -Dweblogic.RootDirectory=/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain -Djava.system.class.loader=com.oracle.classloader.weblogic.LaunchClassLoader -Djava.security.policy=/home/oracle/Oracle/Middleware/Oracle_Home/wlserver/server/lib/weblogic.policy -Dweblogic.nodemanager.JavaHome=/home/oracle/ORACLE_SW/Java/jdk1.8.0_144/weblogic.NodeManager -v
<Jan 5, 2018 8:12:56 PM GMT+08:00> <INFO> <Loading domains file: /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.domains>
<Jan 5, 2018 8:12:56 PM GMT+08:00> <INFO> <Upgrade> <Setting NodeManager properties version to 12.2.1.3.0>
<Jan 5, 2018 8:12:56 PM GMT+08:00> <INFO> <Upgrade> <Saving upgraded NodeManager properties to '/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.properties'>
<Jan 5, 2018 8:12:56 PM GMT+08:00> <INFO> <Loading domains file: /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.domains>
<Jan 5, 2018 8:12:56 PM GMT+08:00> <INFO> <Loading identity key store: FileName=kss://system/demoidentity, Type=kss, PassPhraseUsed=true>
Jan 05, 2018 8:12:58 PM oracle.security.opss.internal.runtime.ServiceContextManagerImpl getContext
WARNING: Bootstrap services are used by OPSS internally and clients should never need to directly read/write bootstrap credentials. If required, use Wlst or configuration management interfaces.
<Jan 5, 2018 8:12:58 PM GMT+08:00> <INFO> <Loaded NodeManager configuration properties from '/home/oracle/Oracle

```

Starting the Admin Server, go to the `DOMAIN_HOME/bin` directory and run `./startWebLogic.sh`.



```

oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/bin
File Edit View Search Terminal Tabs Help
oracle@hpgen9-02:/ho... x oracle@hpgen9-02:/ho... x oracle@hpgen9-02:/ho... x oracle@hpgen9-02:/ho... x
<Jan 5, 2018 8:17:41,214 PM GMT+08:00> <Warning> <oracle.as.jmx.framework.MessageLocalizationHelper> <J2EE JMX-4
6041> <The resource for bundle "oracle.security.am.wlst.management.FoundationConfigMBeanResources" with key "oam
rollbackWebgatesToPreviousState" cannot be found.>
<Jan 5, 2018 8:17:41,214 PM GMT+08:00> <Warning> <oracle.as.jmx.framework.MessageLocalizationHelper> <J2EE JMX-4
6041> <The resource for bundle "oracle.security.am.wlst.management.FoundationConfigMBeanResources" with key "oam
showWebgateTemplate" cannot be found.>
<Jan 5, 2018 8:17:41,945 PM GMT+08:00> <Warning> <javax.enterprise.resource.webcontainer.jsf.managedbean> <jsf.m
anaged.bean.duplicate> <JSF1074: Managed bean named 'TreeRefresh' has already been registered. Replacing existi
ng managed bean class type oracle.am.security.TreeRefresh with oracle.security.fed.admin.sts.ui.model.TreeRefres
h.>
2018-01-05 20:17:48.944/144.669 Oracle Coherence GE 12.2.1.3.0 <Info> (thread=[STANDBY] ExecuteThread: '2' for q
ueue: 'weblogic.kernel.Default (self-tuning)', member=n/a): Loaded cache configuration from "jar:file:/home/orac
le/Oracle/Middleware/Oracle_Home/oracle_common/modules/oracle.wsm.common/wsm-agent-core.jar!/oracle-wsm-coherenc
e-cache-config.xml"
2018-01-05 20:17:48.965/144.690 Oracle Coherence GE 12.2.1.3.0 <Info> (thread=[STANDBY] ExecuteThread: '2' for q
ueue: 'weblogic.kernel.Default (self-tuning)', member=n/a): Created cache factory com.tangosol.net.ExtensibleCon
figuribleCacheFactory
<Jan 5, 2018 8:17:49,009 PM GMT+08:00> <Notice> <Log Management> <BEA-170027> <The server has successfully estab
lished a connection with the Domain level Diagnostic Service.>
<Jan 5, 2018 8:17:50,465 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to ADMIN.>
<Jan 5, 2018 8:17:50,523 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to RESUMING.
>
<Jan 5, 2018 8:17:50,524 PM GMT+08:00> <Notice> <JMX> <BEA-149535> <JMX Resiliency Activity Server=All Servers :
Resolving connection list DomainRuntimeServiceMBean>
<Jan 5, 2018 8:17:50,653 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000329> <Started the WebLogic Server Admin
istration Server "AdminServer" for domain "base_domain" running in production mode.>
<Jan 5, 2018 8:17:50,654 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default" is now listening on 147
.2.207.194:7001 for protocols iiop, t3, ldap, snmp, http.>
<Jan 5, 2018 8:17:50,655 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default" is now listening on 147
.2.207.194:7001 for protocols iiop, t3, ldap, snmp, http.>
<Jan 5, 2018 8:17:50,657 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000360> <The server started in RUNNING mod
e.>
<Jan 5, 2018 8:17:50,670 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to RUNNING.>

```

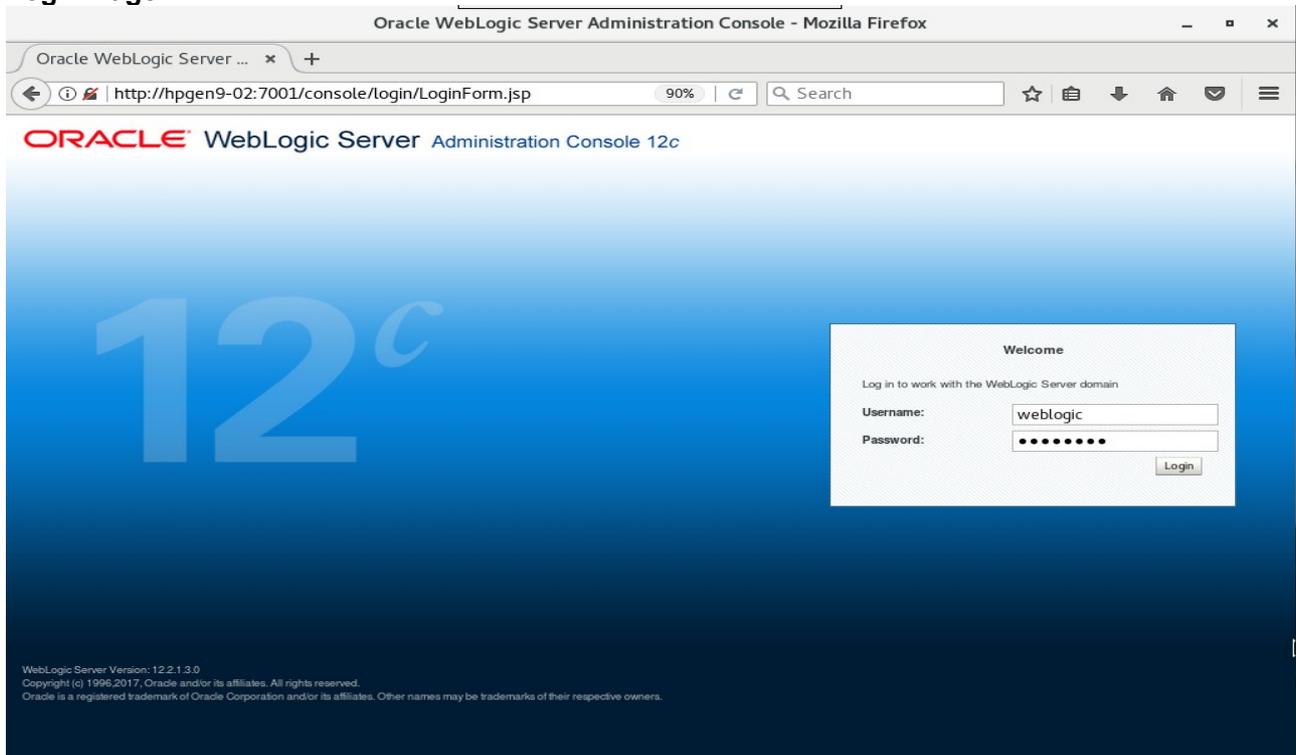
You know that the administrator server is running when you see the following output:

-----  
*Server state changed to RUNNING.*  
 -----

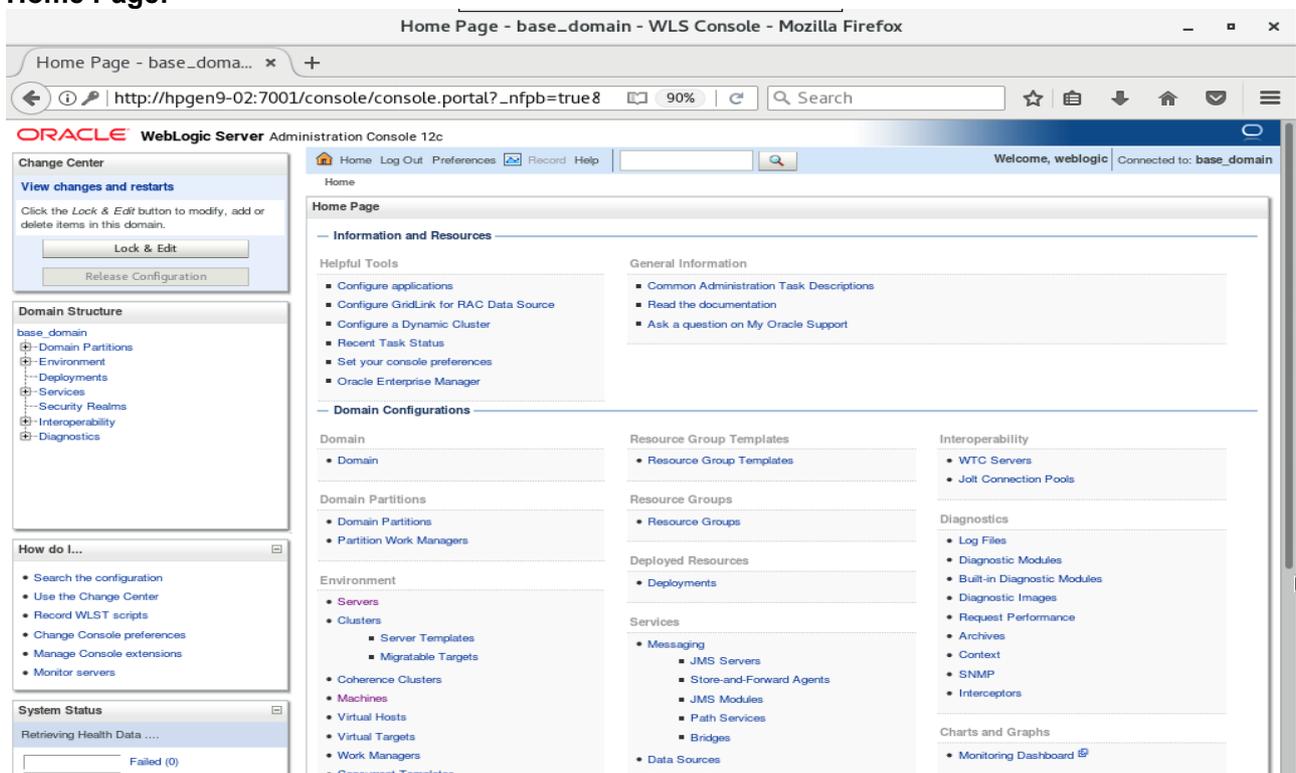
### 3-3. Checking Oracle Identity and Access Management 12c Product URLs.

#### 1). Access to Administration Server Console

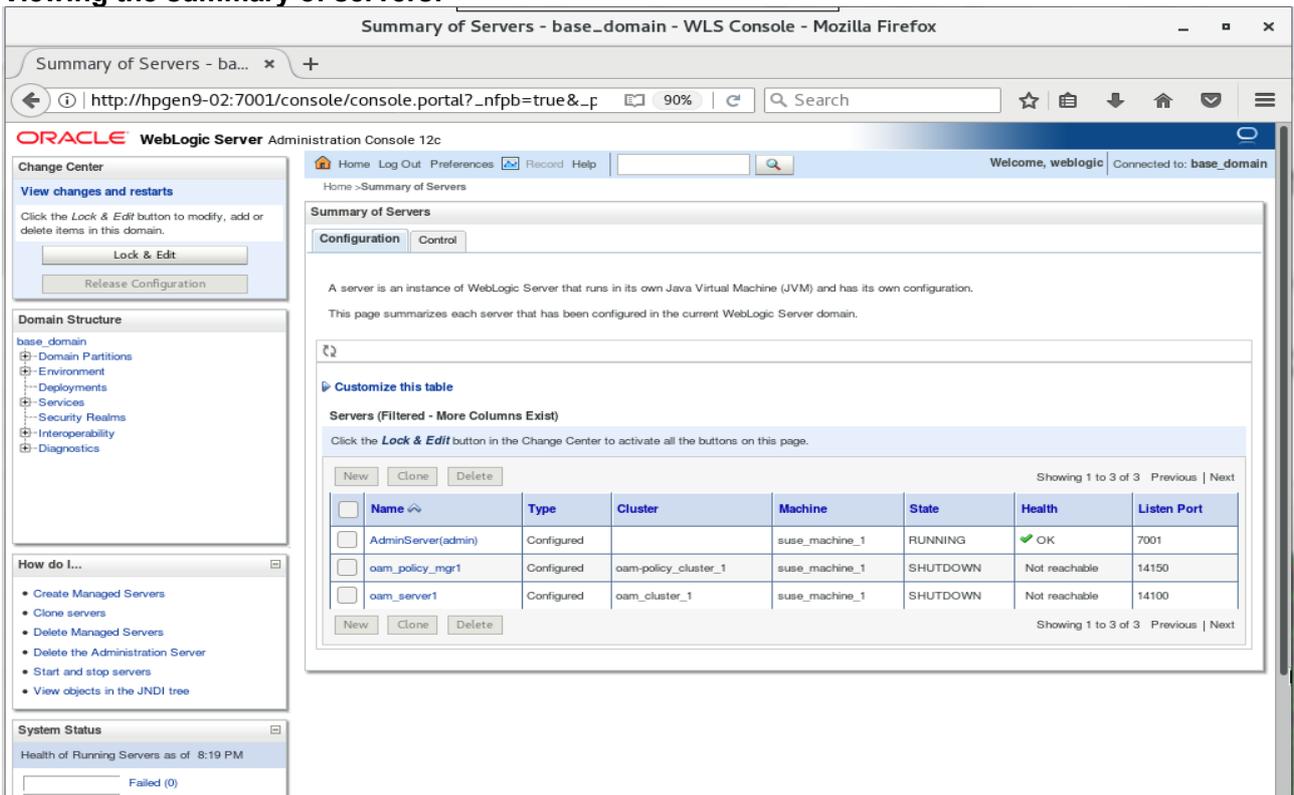
#### Login Page:



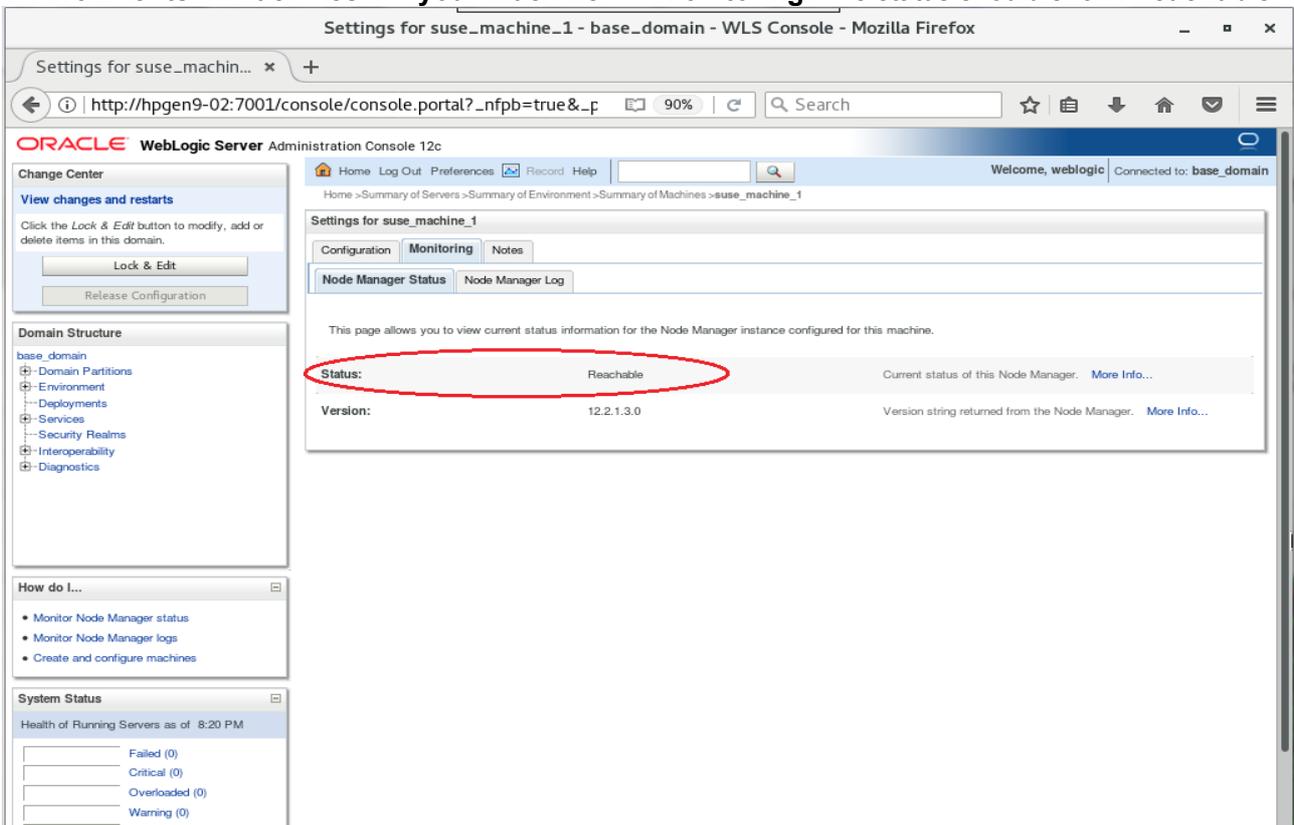
#### Home Page:



**Viewing the summary of servers:**

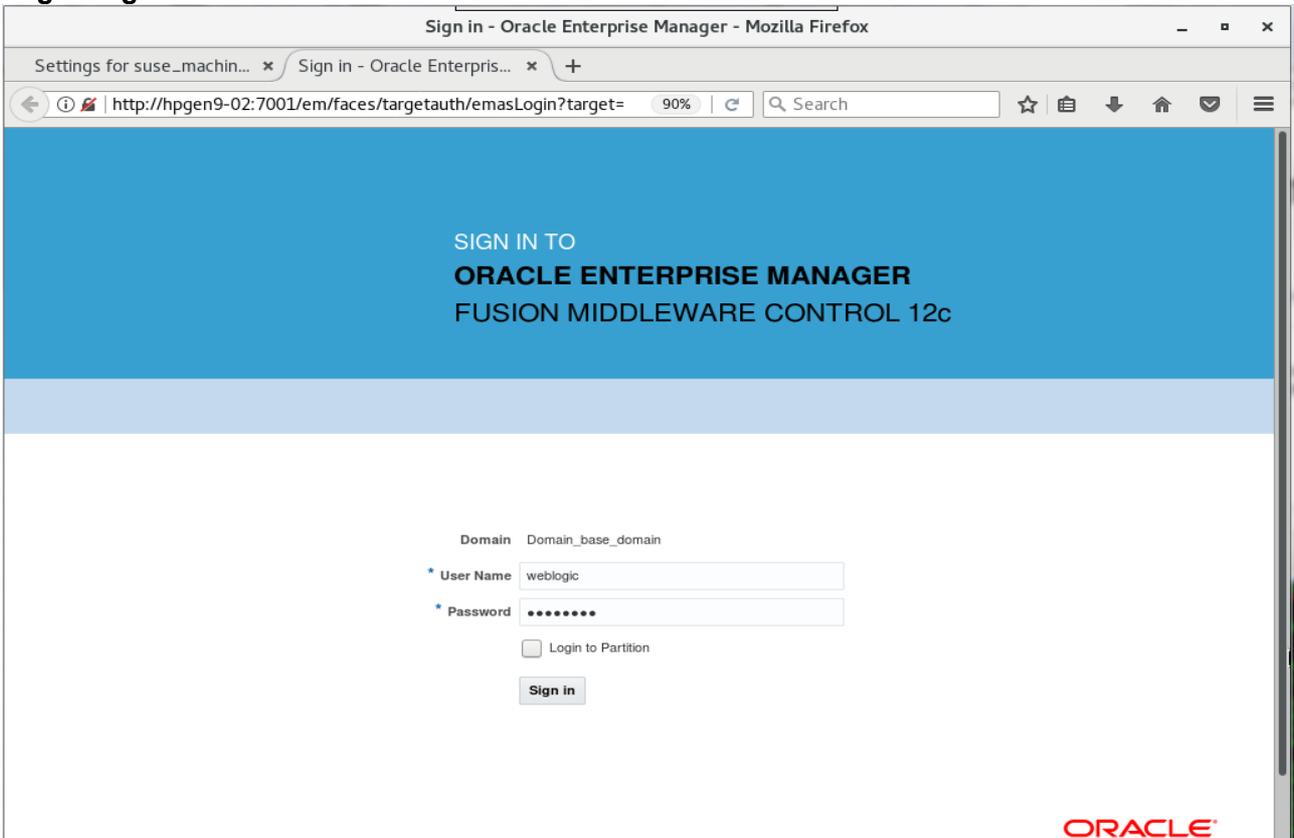


Verify that the Admin Server can connect to the node manager running on your machine.  
**Environments -> Machines -> <your machine> -> Monitoring.** The status should show: **Reachable**

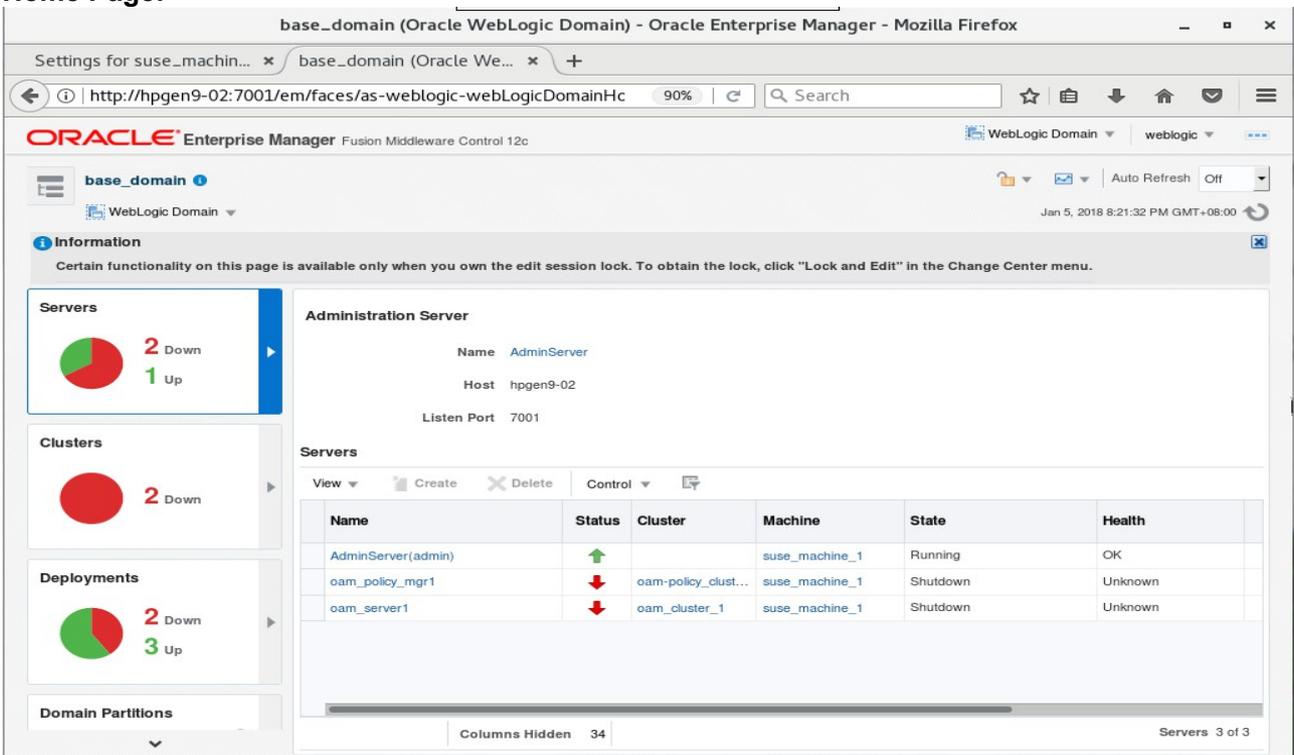


2). Access to Enterprise Manager Console.

**Login Page:**



**Home Page:**



Starting the managed oam server and oam policy server defined in domain, wait until these servers come up into **RUNNING** state:

base\_domain (Oracle WebLogic Domain) - Oracle Enterprise Manager - Mozilla Firefox

Settings for suse\_machin... x base\_domain (Oracle We... x +

http://hpgen9-02:7001/em/faces/as-weblogic-webLogicDomainHc 90%

ORACLE Enterprise Manager Fusion Middleware Control 12c

WebLogic Domain weblogic

base\_domain

WebLogic Domain

Jan 5, 2018 8:24:10 PM GMT+08:00

Information

Certain functionality on this page is available only when you own the edit session lock. To obtain the lock, click "Lock and Edit" in the Change Center menu.

Servers

1 Down  
2 Up

Administration Server

Name AdminServer  
Host hpgen9-02  
Listen Port 7001

Servers

Name	Status	Cluster	Machine	State	Health
AdminServer(admin)	↑		suse_machine_1	Running	OK
oam_policy_mgr1	↓	oam-policy_clust...	suse_machine_1	Shutdown	Unknown
oam_server1	↑	oam_cluster_1	suse_machine_1	Running	OK

Columns Hidden 34 Servers 3 of 3

base\_domain (Oracle WebLogic Domain) - Oracle Enterprise Manager - Mozilla Firefox

Settings for suse\_machin... x base\_domain (Oracle We... x +

http://hpgen9-02:7001/em/faces/as-weblogic-webLogicDomainHc 90%

ORACLE Enterprise Manager Fusion Middleware Control 12c

WebLogic Domain weblogic

base\_domain

WebLogic Domain

Jan 5, 2018 8:26:58 PM GMT+08:00

Information

Certain functionality on this page is available only when you own the edit session lock. To obtain the lock, click "Lock and Edit" in the Change Center menu.

Servers

3 Up

Administration Server

Name AdminServer  
Host hpgen9-02  
Listen Port 7001

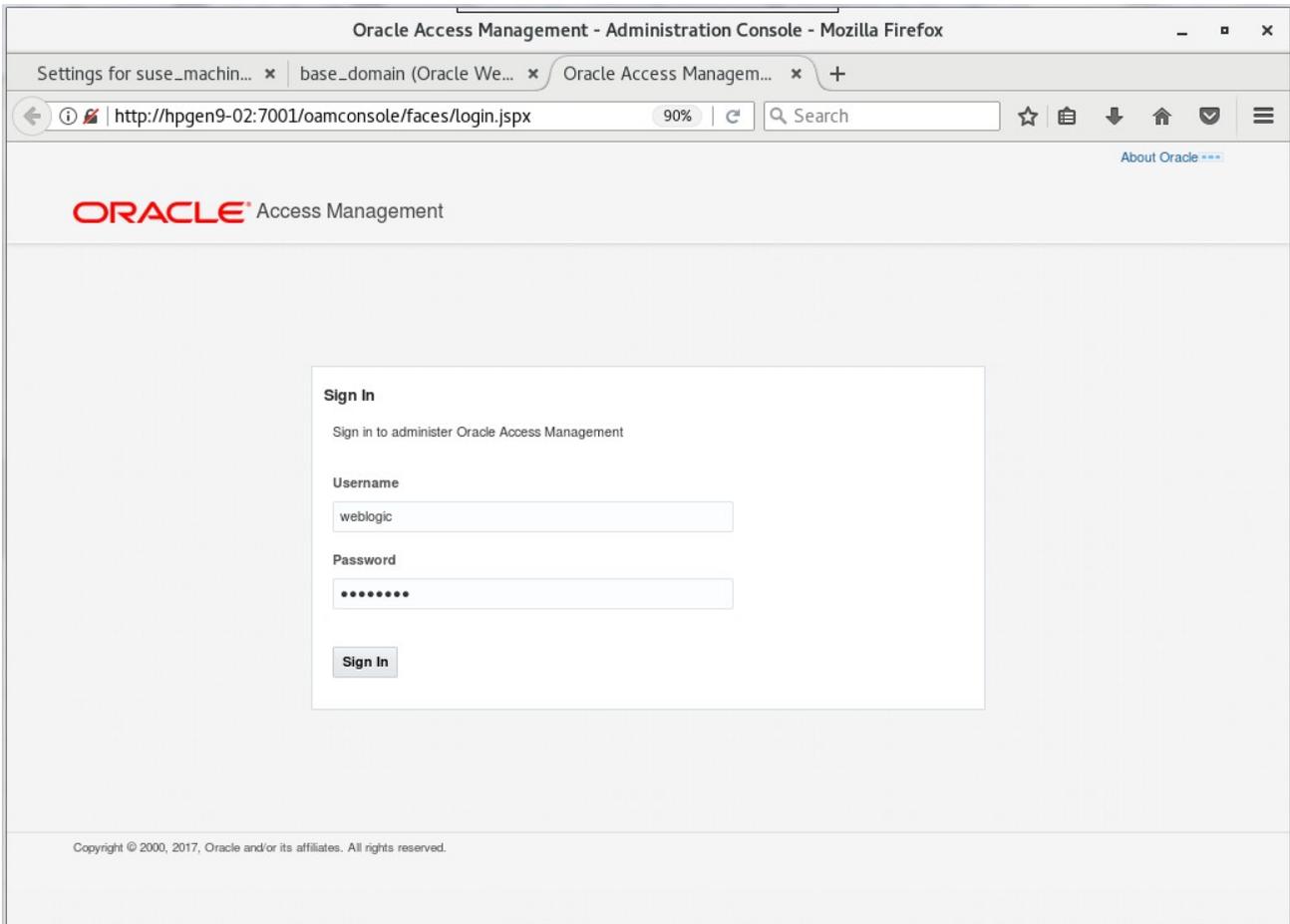
Servers

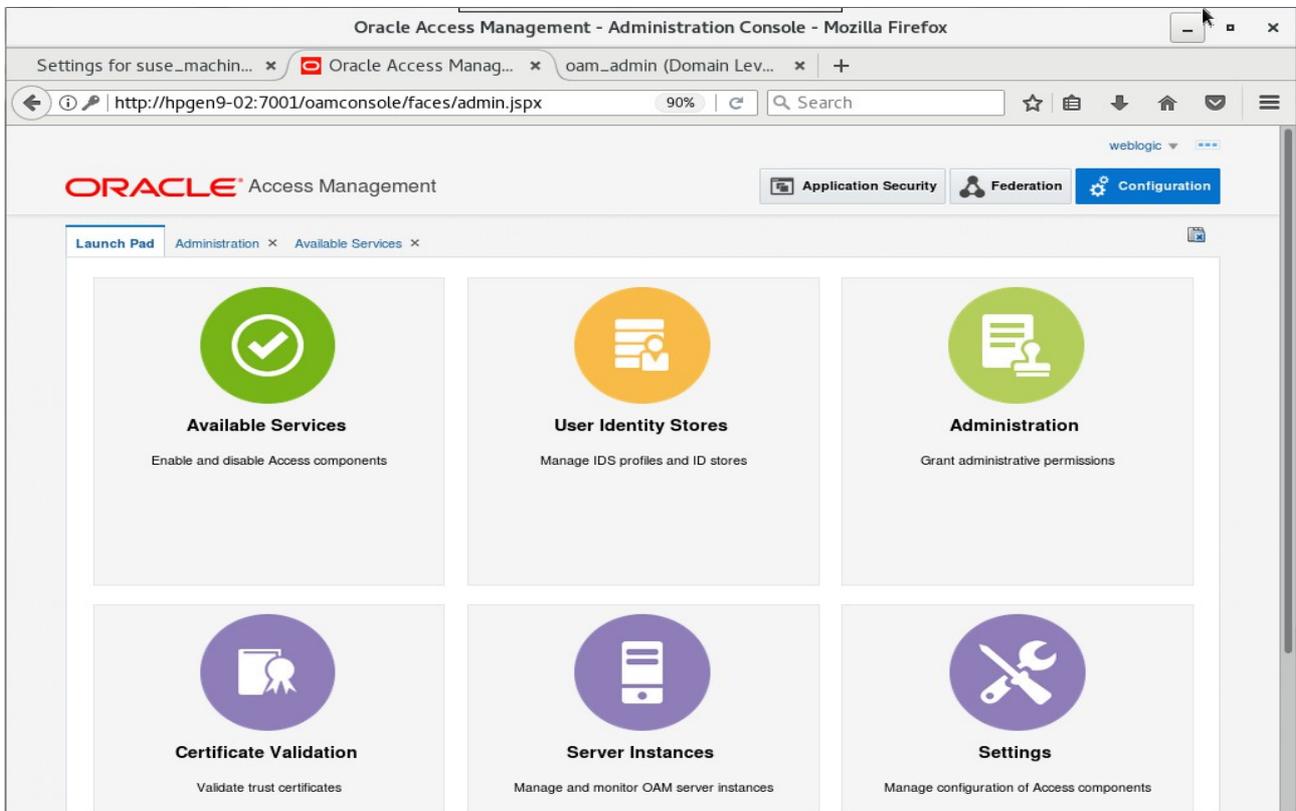
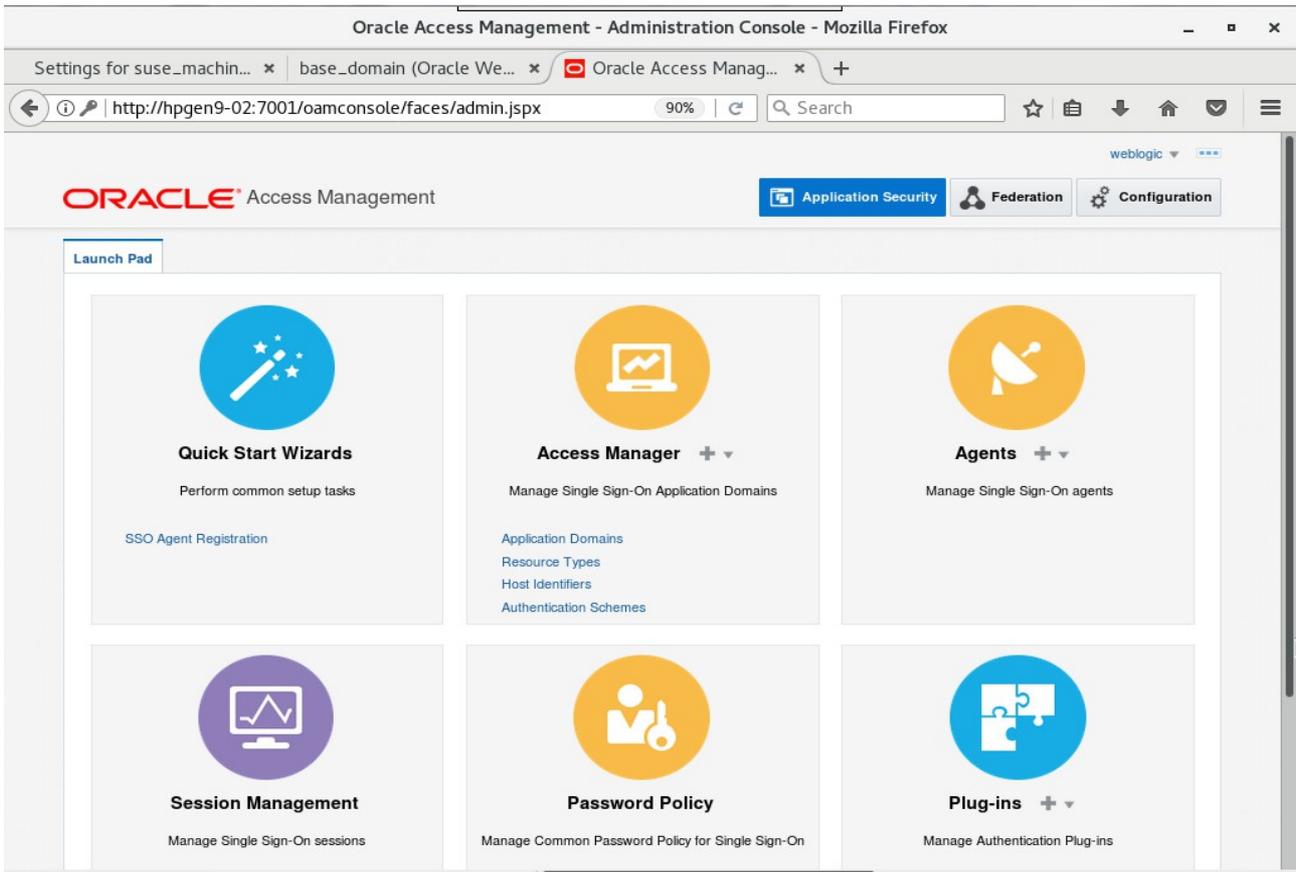
Name	Status	Cluster	Machine	State	Health
AdminServer(admin)	↑		suse_machine_1	Running	OK
oam_policy_mgr1	↑	oam-policy_clust...	suse_machine_1	Running	OK
oam_server1	↑	oam_cluster_1	suse_machine_1	Running	OK

Columns Hidden 34 Servers 3 of 3

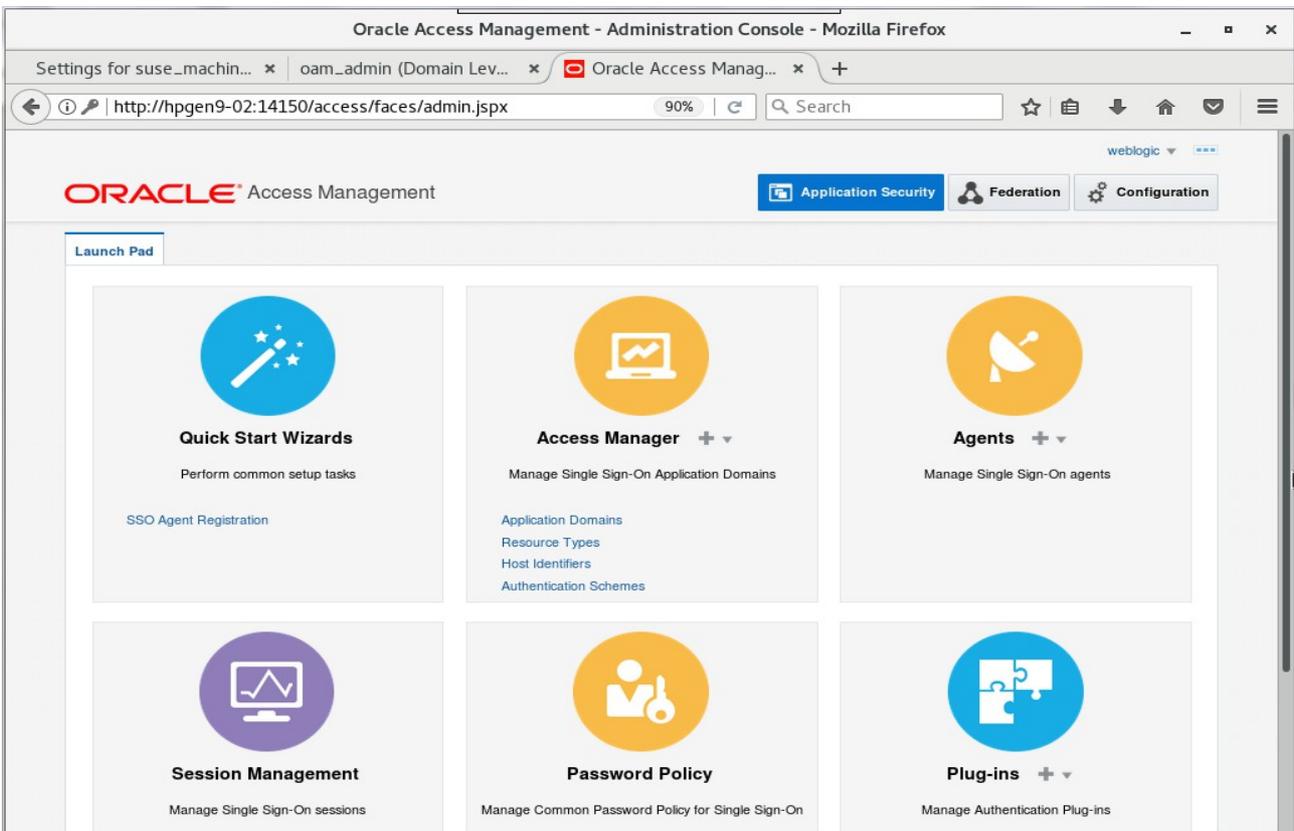
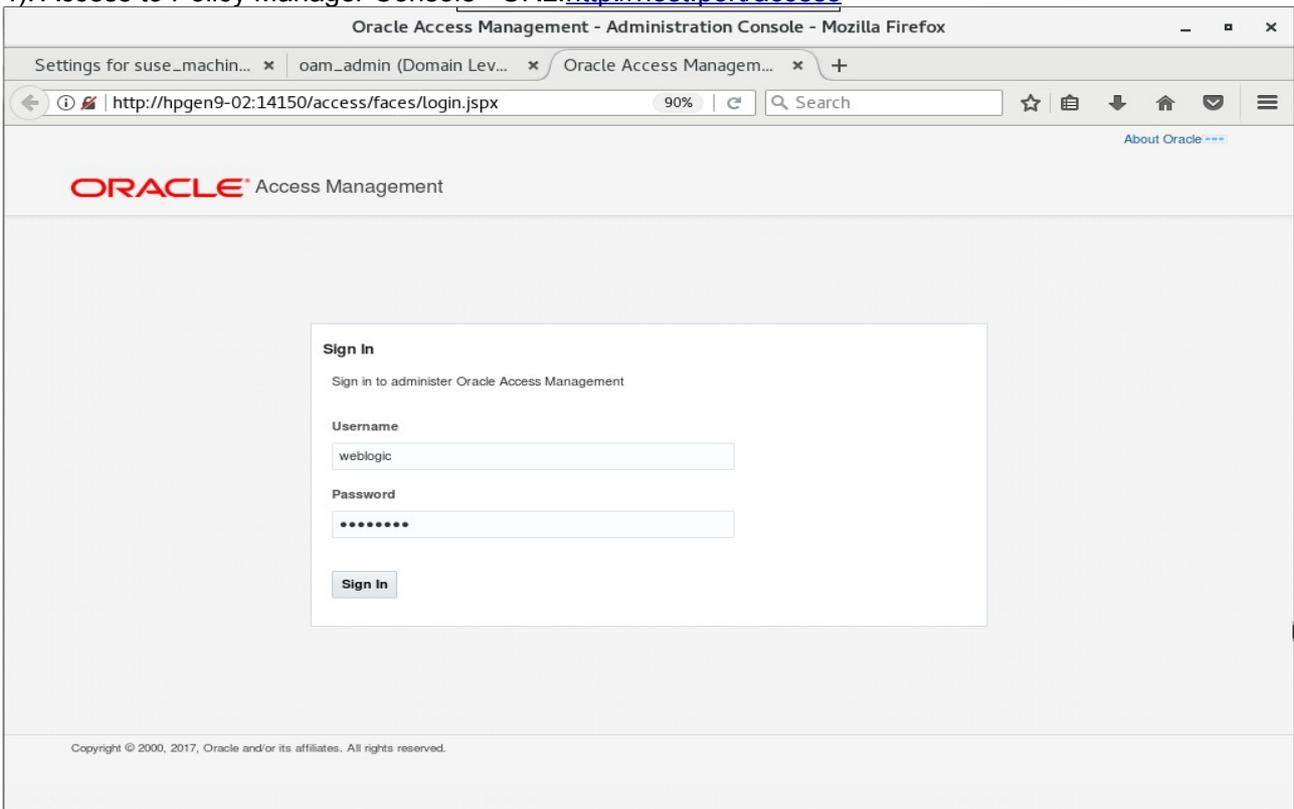
After they start up successfully, each managed server is listed as Running.

3). Access to Oracle Access Management Console - URL:<http://host:port/oamconsole>





4). Access to Policy Manager Console - URL:<http://host:port/access>



**End of Oracle Access Manager.**

\*\*\*\*\*  
**Oracle Identity Manager**  
 \*\*\*\*\*

**1.Installing Oracle Identity and Access Management 12cPS3 software**

1-1. Prerequisites:

Installation of Oracle Identity and Access Management requires:

- 1). Oracle Database 12cR2 (12.2.0.1.0) installed.

(**Note:** With DB version 12, XA transaction recovery views/synonyms are required by the OIM Schema.To install these views/synonyms via the initxa.sql and xaview.sql scripts.

```
SQL> @/home/oracle/app/product/12.2.0/dbhome_1/javavm/install/initxa.sql
PL/SQL procedure successfully completed.

JVMRMACTION
-----
FULL_REMOVAL

PL/SQL procedure successfully completed.

Package created.

Package body created.

Synonym created.

Grant succeeded.
```

```
SQL> @/home/oracle/app/product/12.2.0/dbhome_1/rdbms/admin/xaview.sql
DROP VIEW d$atrans$
*
ERROR at line 1:
ORA-00942: table or view does not exist

DROP VIEW d$pending_xatrans$
*
ERROR at line 1:
ORA-00942: table or view does not exist

View created.

Synonym created.

View created.

Synonym created.

SQL> █
```

Also, please make sure that database initialization parameter **OPEN\_CURSORS** greater than or equal to 800; Login to database server as **root user** and execute the SQL command: **"alter system set open\_cursors=1600 scope=spfile;"** then restart the database

```
SQL> alter system set open_cursors=1600 scope=spfile;

System altered.

SQL> shutdown immediate;
Database closed.
Database dismounted.
ORACLE instance shut down.
SQL> startup
ORACLE instance started.

Total System Global Area 2.0200E+10 bytes
Fixed Size 19247928 bytes
Variable Size 4362079432 bytes
Database Buffers 1.5771E+10 bytes
Redo Buffers 47857664 bytes
Database mounted.
Database opened.
SQL> show parameter open_cursors;

NAME                                TYPE          VALUE
-----
open_cursors                         integer       1600
SQL> 
```

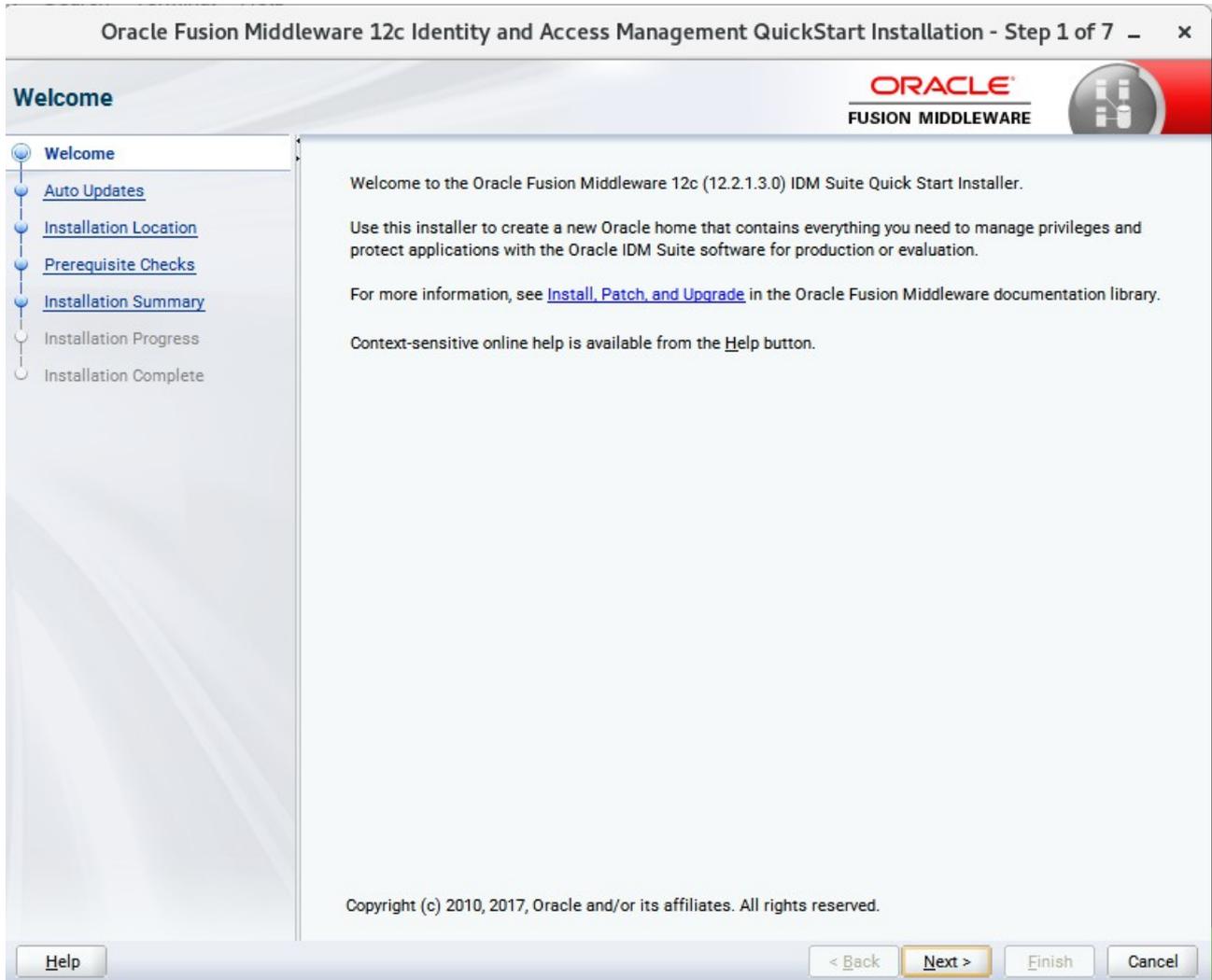
)  
2). Oracle JDK 1.8.0\_131 and later installed.

1-2. Log in to the target system (SLES 12 64-bit OS) as a non-admin user. Download the Oracle Identity and Access Management 12cPS3 (12.2.1.3.0) generic installer .zip file from <http://www.oracle.com/technetwork/indexes/downloads/index.html#middleware>.  
(**Note:** Please ensure the installation user has the proper permissions to install and configure the software.)

1-3. Go to the directory where you downloaded the installation program. Extract the contents of these .zip ("fmw\_12.2.1.3.0\_idmq5\_Disk1\_1of2.zip" and "fmw\_12.2.1.3.0\_idmq5\_Disk1\_2of2.zip") files and launch the installation program by running '**java -jar fmw..... .jar** '

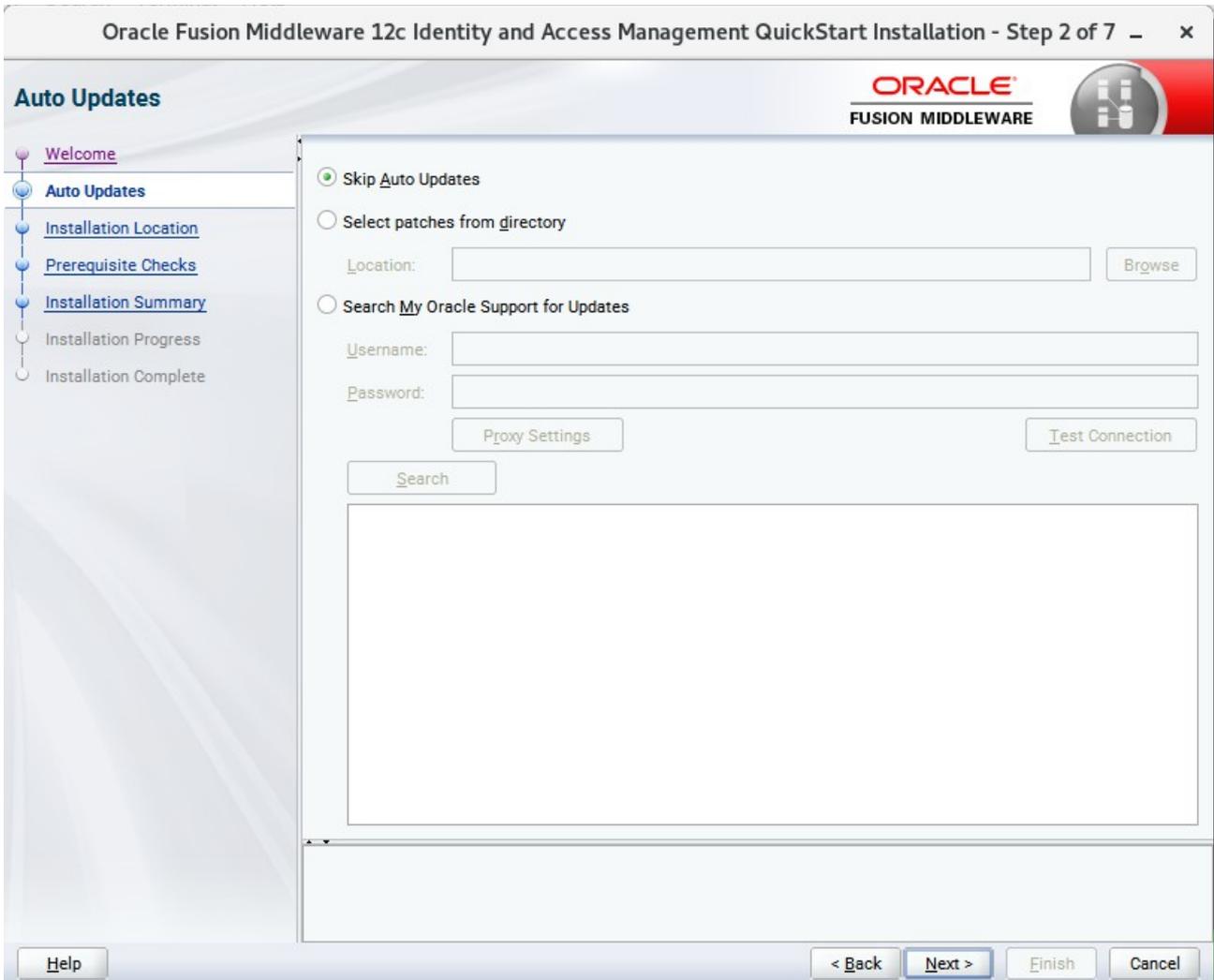
**For the actual installation, follow the steps below:**

1). **Welcome** page appears.



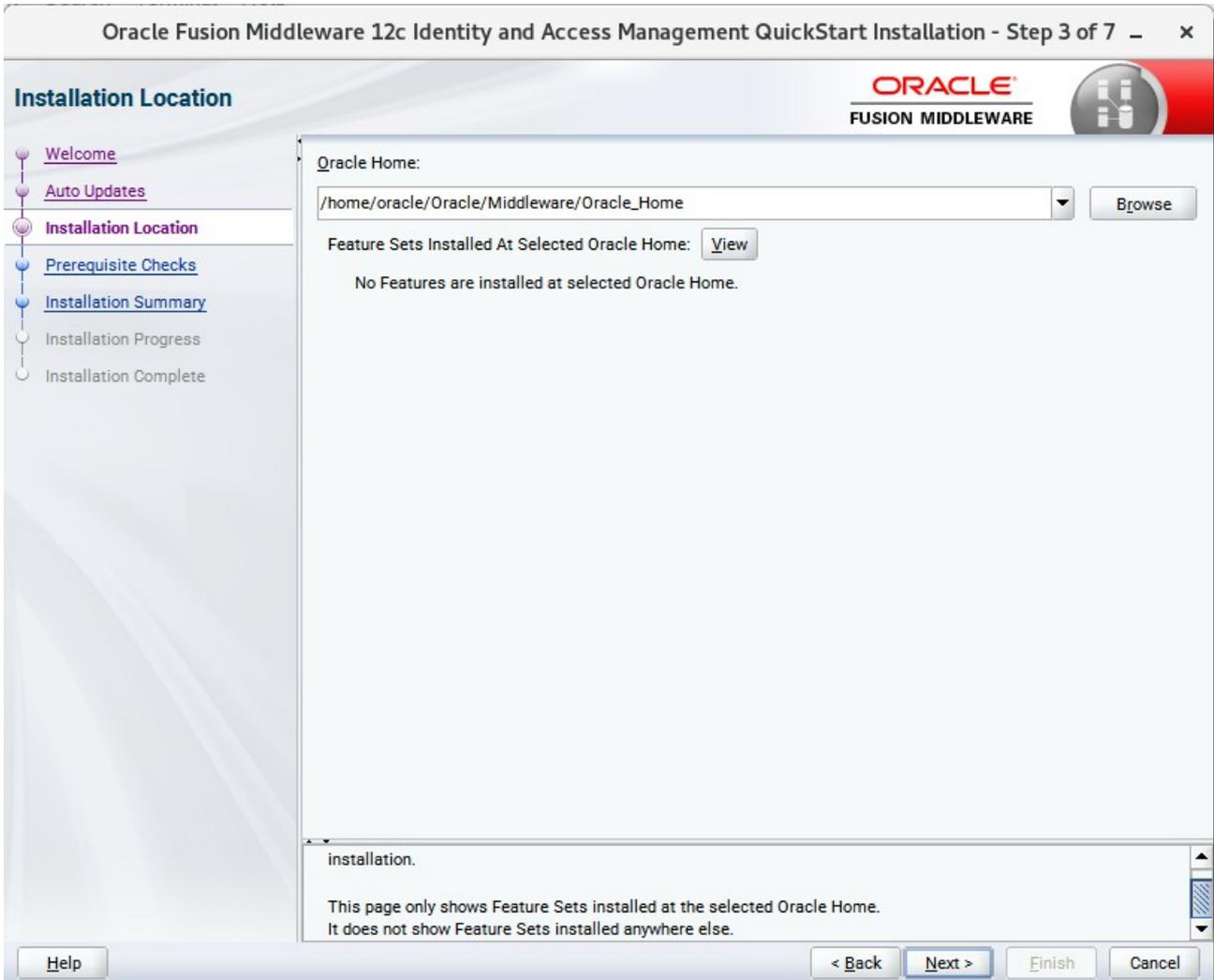
This page welcomes you to the installation. Click **Next** to continue.

2). The **Auto Updates** page appears.



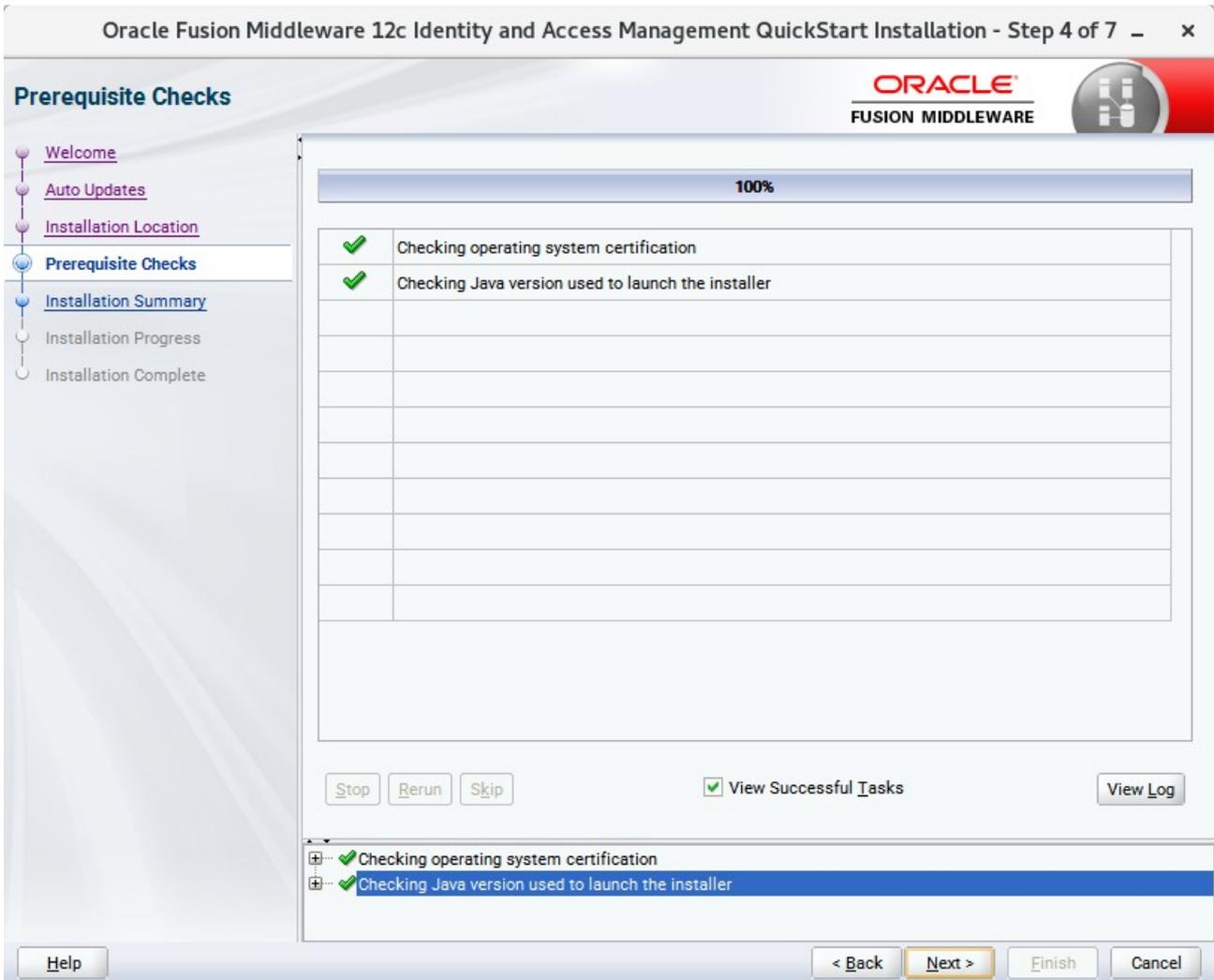
This screen helps to quickly and easily search for the latest software updates, including important security updates, via your My Oracle Support account. Make your choices, then click **Next** to continue.

3). The **Installation Location** page appears.



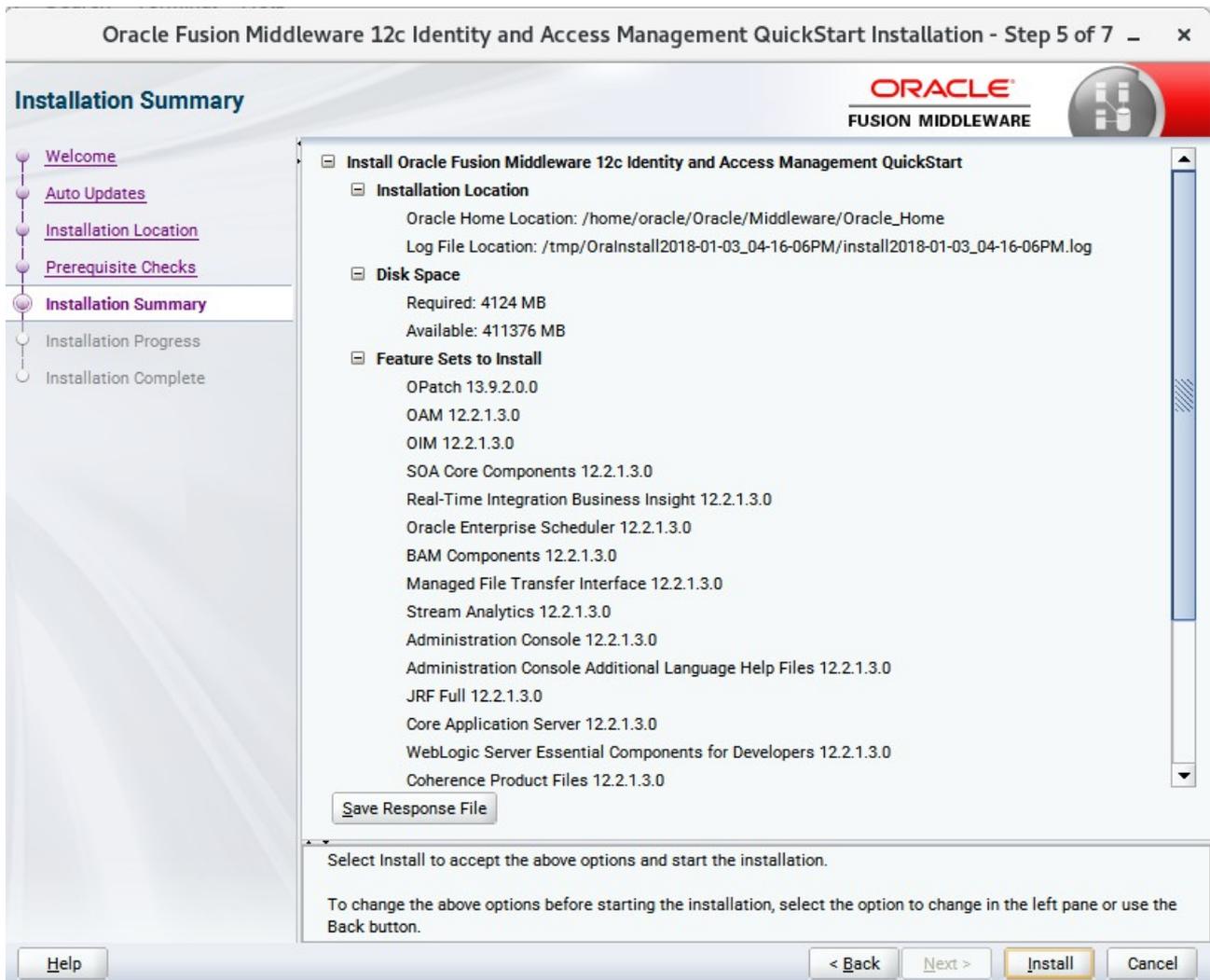
Specify the Oracle home location into which you want to install the product(s). Click **Next** to continue.

4). The **Prerequisites Checks** page appears.



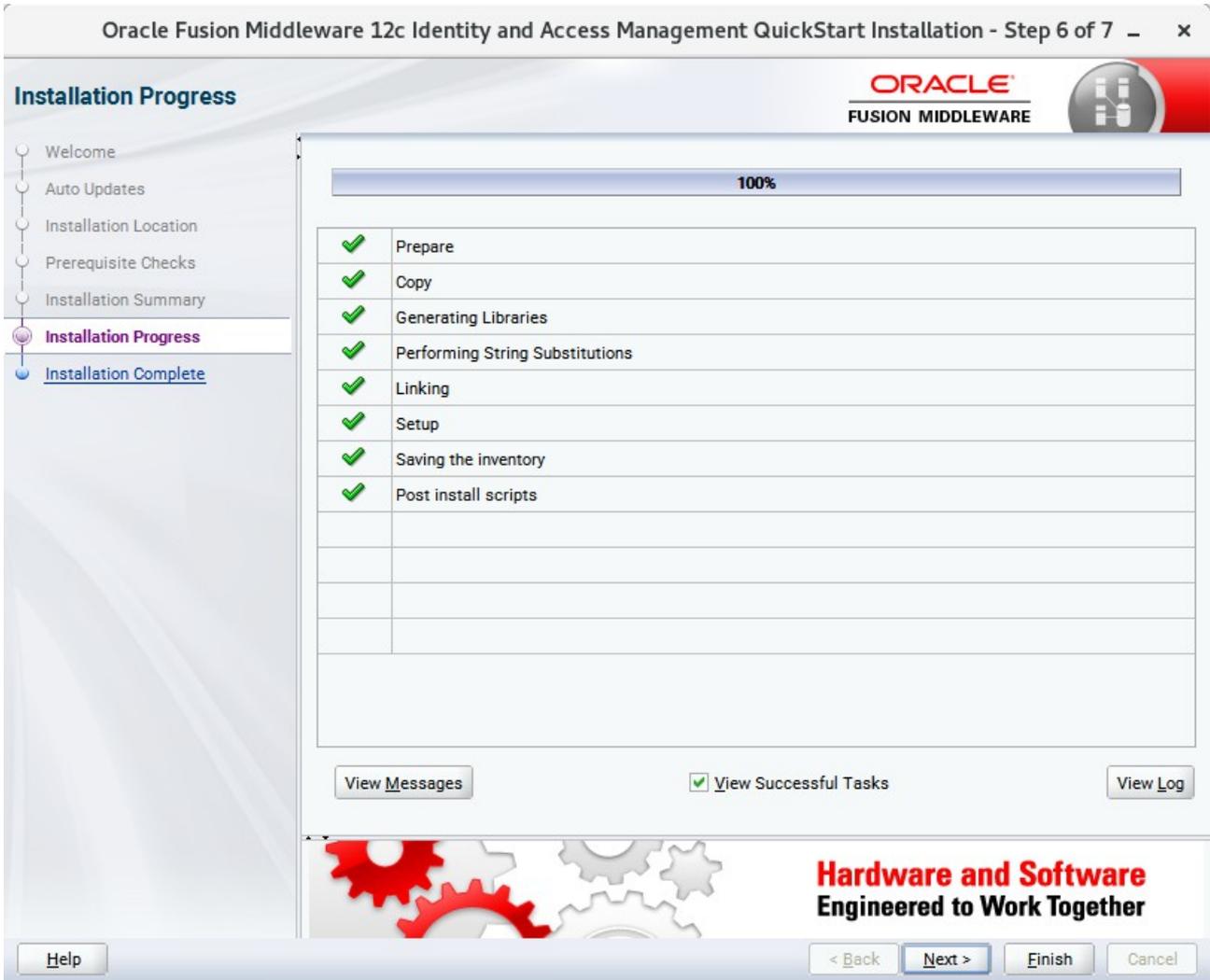
This page shows you the progress of the system checking the prerequisites on your system prior to installation. If you are lacking any prerequisites, a message will appear telling you so. You do not need to take any actions on this page, though you can view the log from here. Click **Next** to continue.

5). The **Installation Summary** page appears.



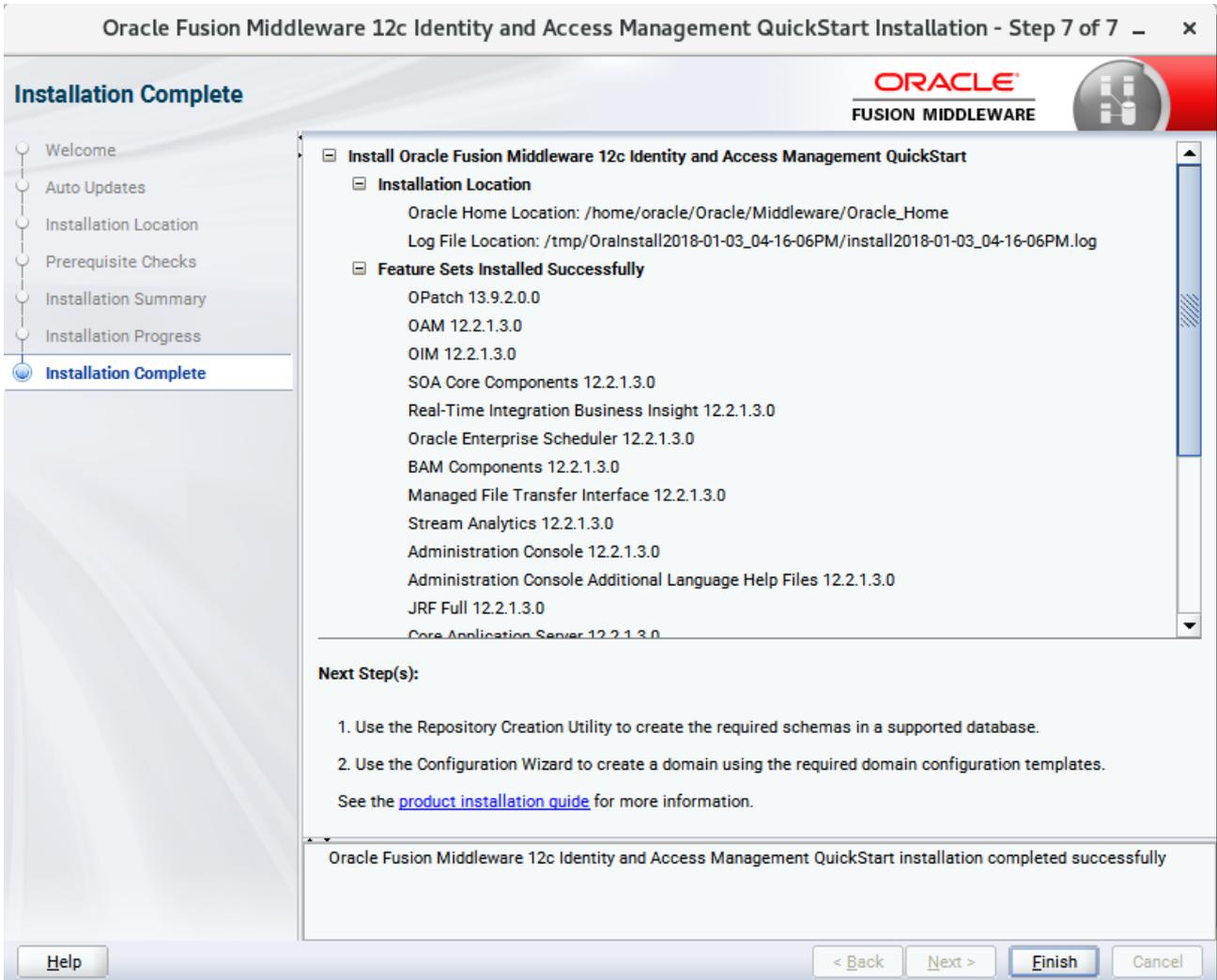
This page shows you what components and features are about to be installed. If you need to make changes, click **Back**, otherwise, click **Install** to start the installation.

6). The **Installation Progress** page appears.



This page shows you the progress of the installation, and will warn you if there are any problems. You can view messages and logs from this page, but typically no action is required here. When progress is complete, click **Next** (go to a Summary page). Alternatively, you can click **Finish**.

7). If you clicked **Next**, the **Installation Complete** page appears, showing you the components that have been installed.



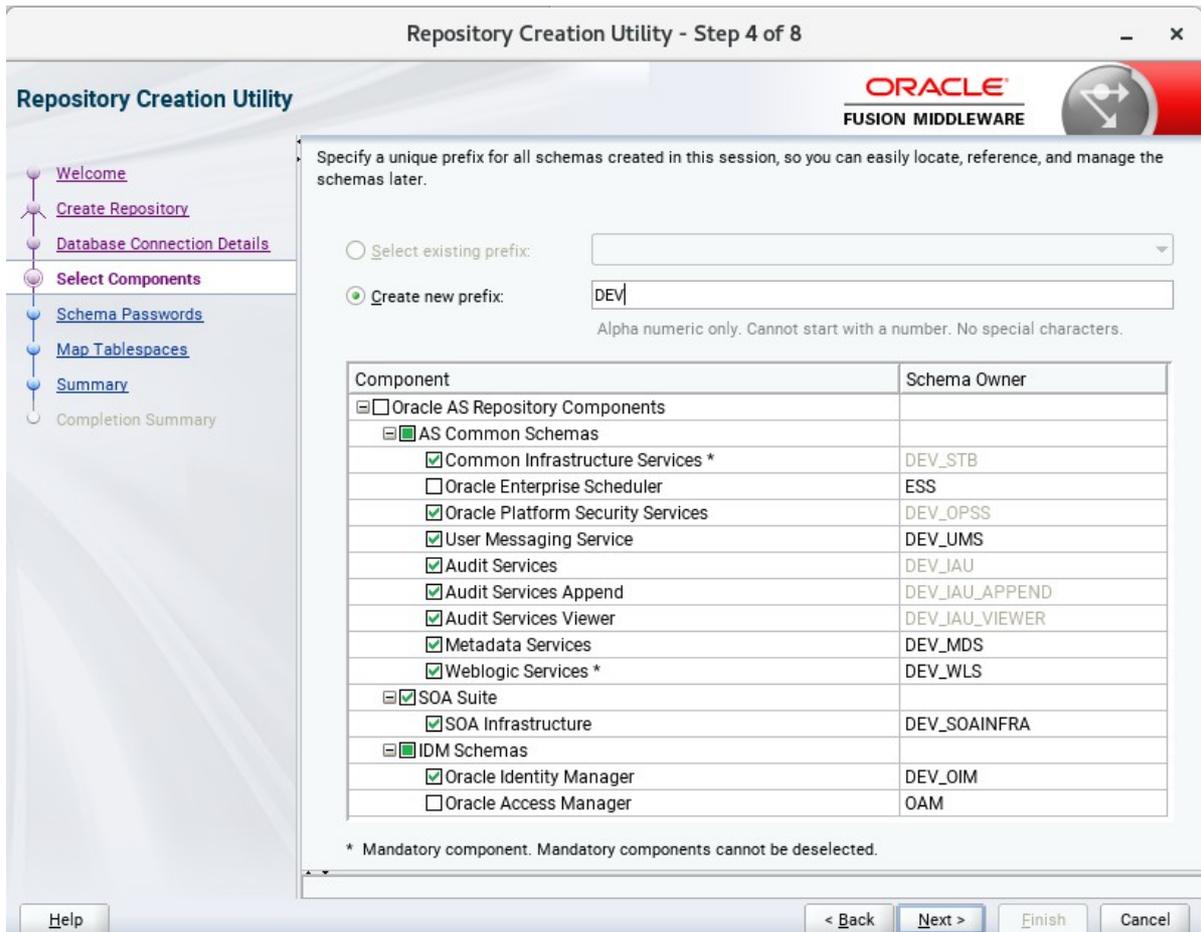
This screen displays the Installation Location and the Feature Sets that are installed. Review this information and click **Finish** to close the installer.

## 2. Configuring the Oracle Identity Manager Domain

### 2-1. Creating Database Schema through Repository Creation Utility for OIM.

Repository Creation Utility (RCU) is available with the Oracle Fusion Middleware Infrastructure 12c distribution. Run `$FMW_HOME/oracle_common/bin/rcu` and create required database schemas for Oracle Identity Manager.

#### Screenshot: Database schemas creating for Oracle Identity Manager.



Select the **Create new prefix** radio button and provide a schema prefix (such as DEV). Select the **Oracle Identity Manager** schema, this action automatically selects the schemas as dependencies, and ensure the schema creation is successful.

## 2-2. Configuring a Domain for Oracle Identity Manager(OIM) using the Config Wizard

In order to complete the configuration. Run the config wizard using **config.sh** located in the **ORACLE\_HOME/oracle\_common/common/bin** directory.

### Follow these steps:

1). On the Configuration Type screen, select **Create a new domain**, and enter the desired domain home path.

Fusion Middleware Configuration Wizard - Page 1 of 8

Configuration Type

ORACLE  
FUSION MIDDLEWARE

Create Domain

Templates

Administrator Account

Domain Mode and JDK

Advanced Configuration

Configuration Summary

Configuration Progress

End Of Configuration

What do you want to do?

Create a new domain

Update an existing domain

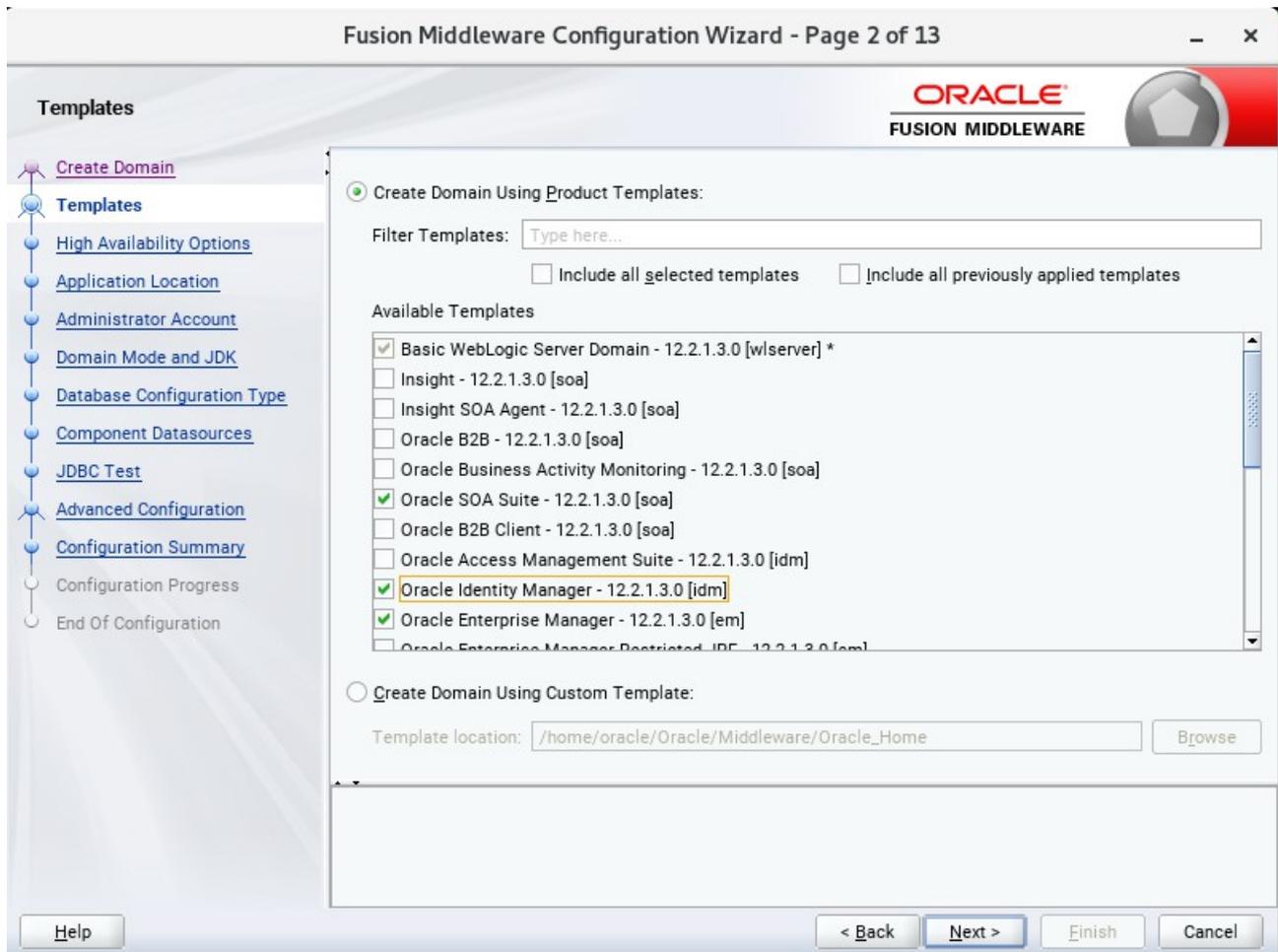
Domain Location: oracle/Oracle/Middleware/Oracle\_Home/user\_projects/domains/base\_domain Browse

Create a new domain.

Help < Back Next > Finish Cancel

Click **Next** to continue.

2). The **Templates** screen appears.



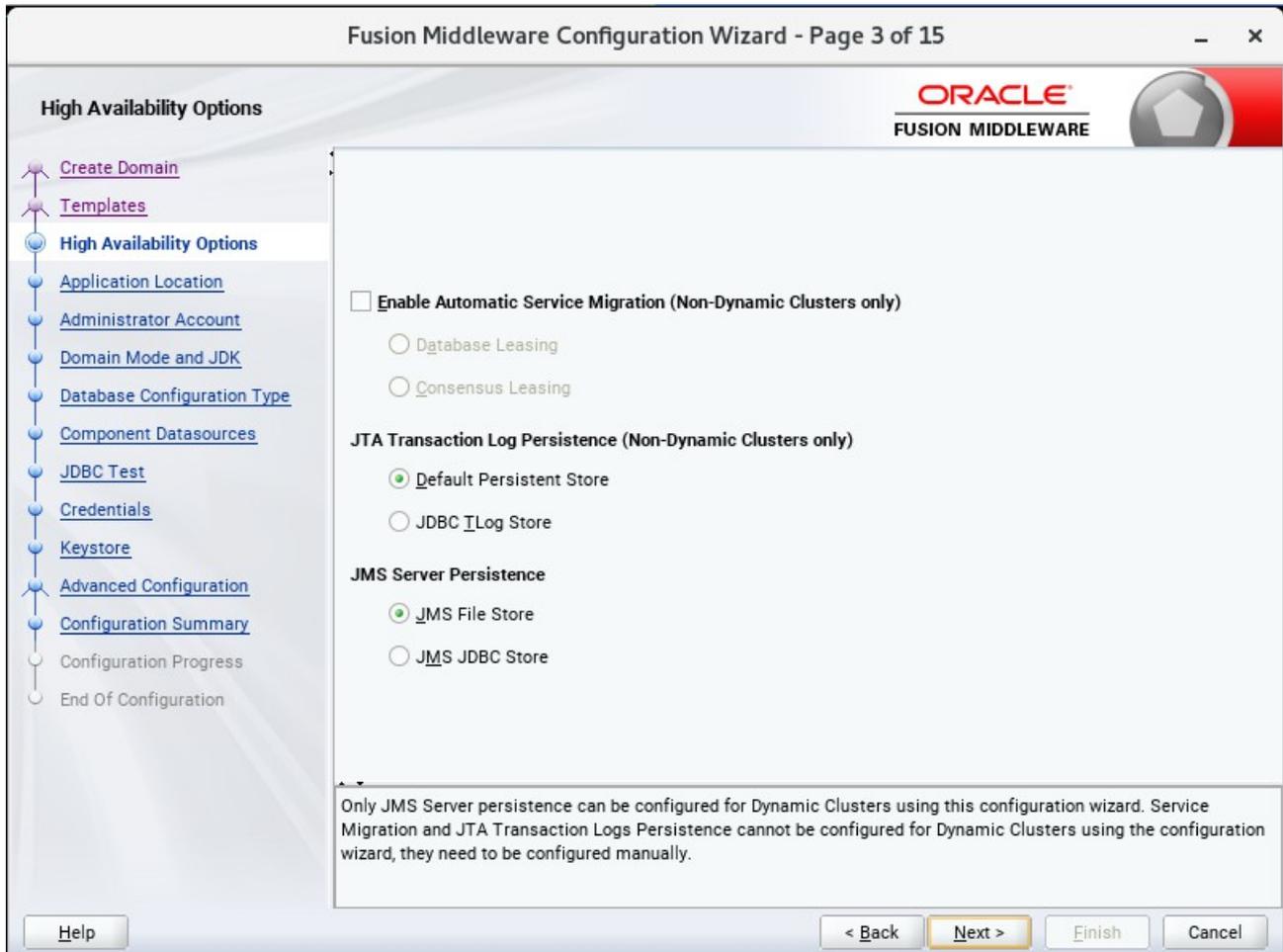
On the Templates screen, make sure **Create Domain Using Product Templates** is selected, then select the template **Oracle Identity Manager - 12.2.1.3.0 [idm]**.

Selecting these templates automatically selects the following as dependencies:

- Oracle SOA Suite - 12.2.1.3.0 [soa]
- Oracle Enterprise Manager - 12.2.1.3.0 [em]
- Oracle JRF - 12.2.1.3.0 [oracle\_common]
- Oracle WSM Policy Manager - 12.2.1.3 [oracle\_common]
- WebLogic Coherence Cluster Extension - 12.2.1.3.0 [wlserver]

You can also select any of the Oracle products listed in the following table. You do not need to select all of these templates, and you can always run the configuration wizard again to add products to your domain later. Click **Next** to continue.

3). The **High Availability Options** screen appears.



Keep the default value for Application location. Click **Next** to continue.

4). The **Application Location** screen appears.



Keep the default value for Application location. Click **Next** to continue.

5). The **Administrator Account** screen appears.

Fusion Middleware Configuration Wizard - Page 5 of 15

**Administrator Account**

ORACLE  
FUSION MIDDLEWARE

Create Domain  
Templates  
High Availability Options  
Application Location  
**Administrator Account**  
Domain Mode and JDK  
Database Configuration Type  
Component Datasources  
JDBC Test  
Credentials  
Keystore  
Advanced Configuration  
Configuration Summary  
Configuration Progress  
End Of Configuration

Name

Password

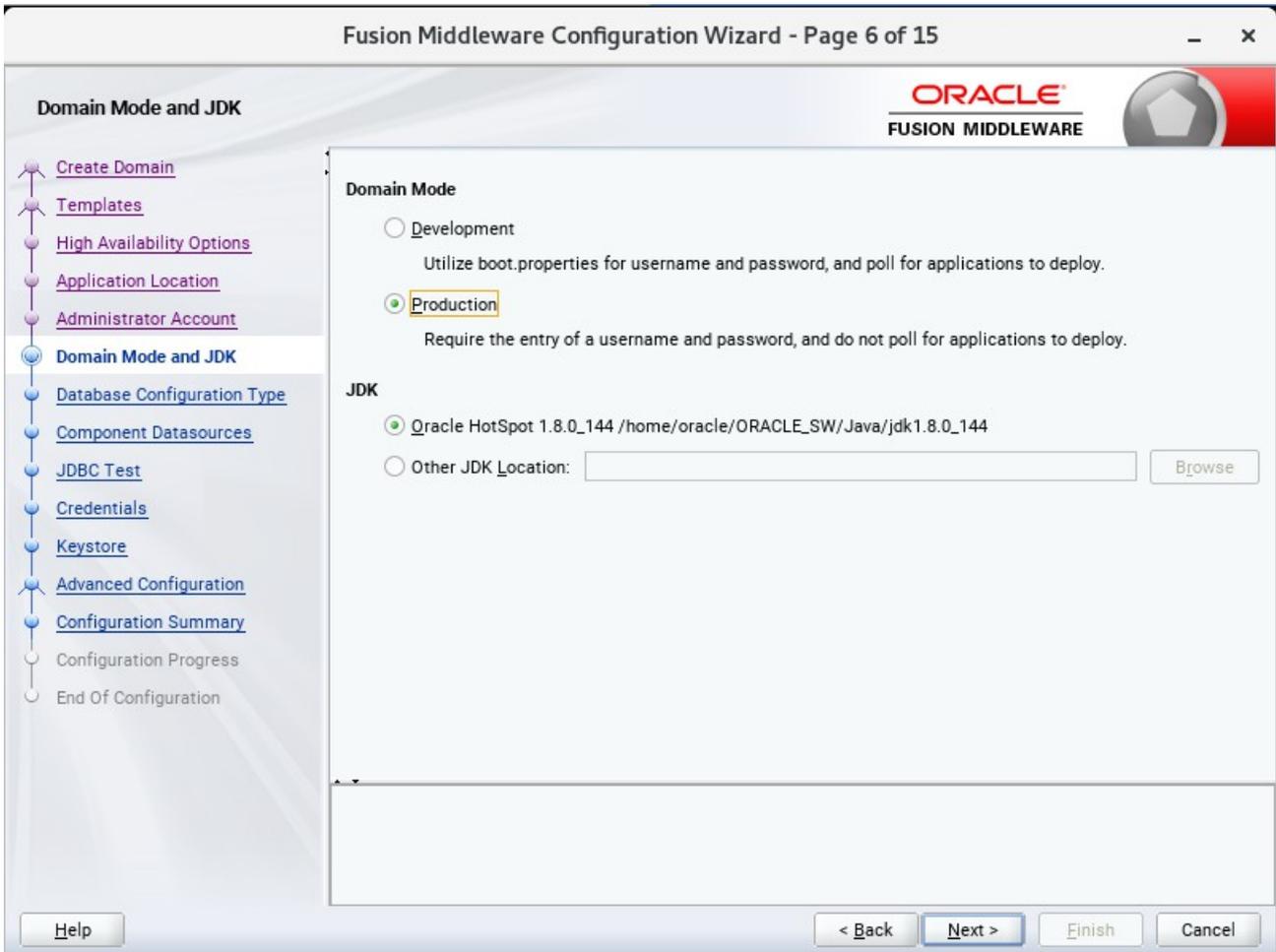
Confirm Password

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 the WebLogic Domain administration username and password. This information will be needed to access WebLogic Server Control and Fusion Middleware Control. Click **Next** to continue.

6). The **Domain Mode and JDK** screen appears.



Select **Production** in the **Domain Mode** field and select the **Oracle HotSpot JDK** in the **JDK** field. Click **Next** to continue.

7). The **Database Configuration Type** screen appears.

Fusion Middleware Configuration Wizard - Page 7 of 15

**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: Oracle    Driver: \*Oracle's Driver (Thin) for Service connections; Versions:...

Connection Parameters     Connection URL String

Host Name: hpgen9-02

DBMS/Service: suse    Port: 1521

Schema Owner: DEV\_STB    Schema Password: .....

Get RCU Configuration    Cancel

Connection Result Log

Successfully Done.

Click "Next" button to continue.

Help    < Back    Next >    Finish    Cancel

Select **RCU Data** to activate the fields. The **RCU Data** option instructs the Configuration Wizard to connect to the database and Service Table (STB) schema to automatically retrieve schema information for the schemas needed to configure the domain. Enter the RCU DB connection information, then click **Get RCU Configuration**. You should receive a success message. Click **Next** to continue.

8). The **JDBC Component Schema** screen appears.

**Fusion Middleware Configuration Wizard - Page 8 of 15**

**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"/>	OIM Schema	SUSE	hpgen9-02	1521	DEV_OIM	.....
<input type="checkbox"/>	SOA EDN (XA)	SUSE	hpgen9-02	1521	DEV_SOAINFR/	.....
<input type="checkbox"/>	SOA EDN (Local)	SUSE	hpgen9-02	1521	DEV_SOAINFR/	.....
<input type="checkbox"/>	LocalSvcTbl Schema	SUSE	hpgen9-02	1521	DEV_STB	.....
<input type="checkbox"/>	User Messaging Service	SUSE	hpgen9-02	1521	DEV_UMS	.....
<input type="checkbox"/>	SOA (XA)	SUSE	hpgen9-02	1521	DEV_SOAINFR/	.....

Help

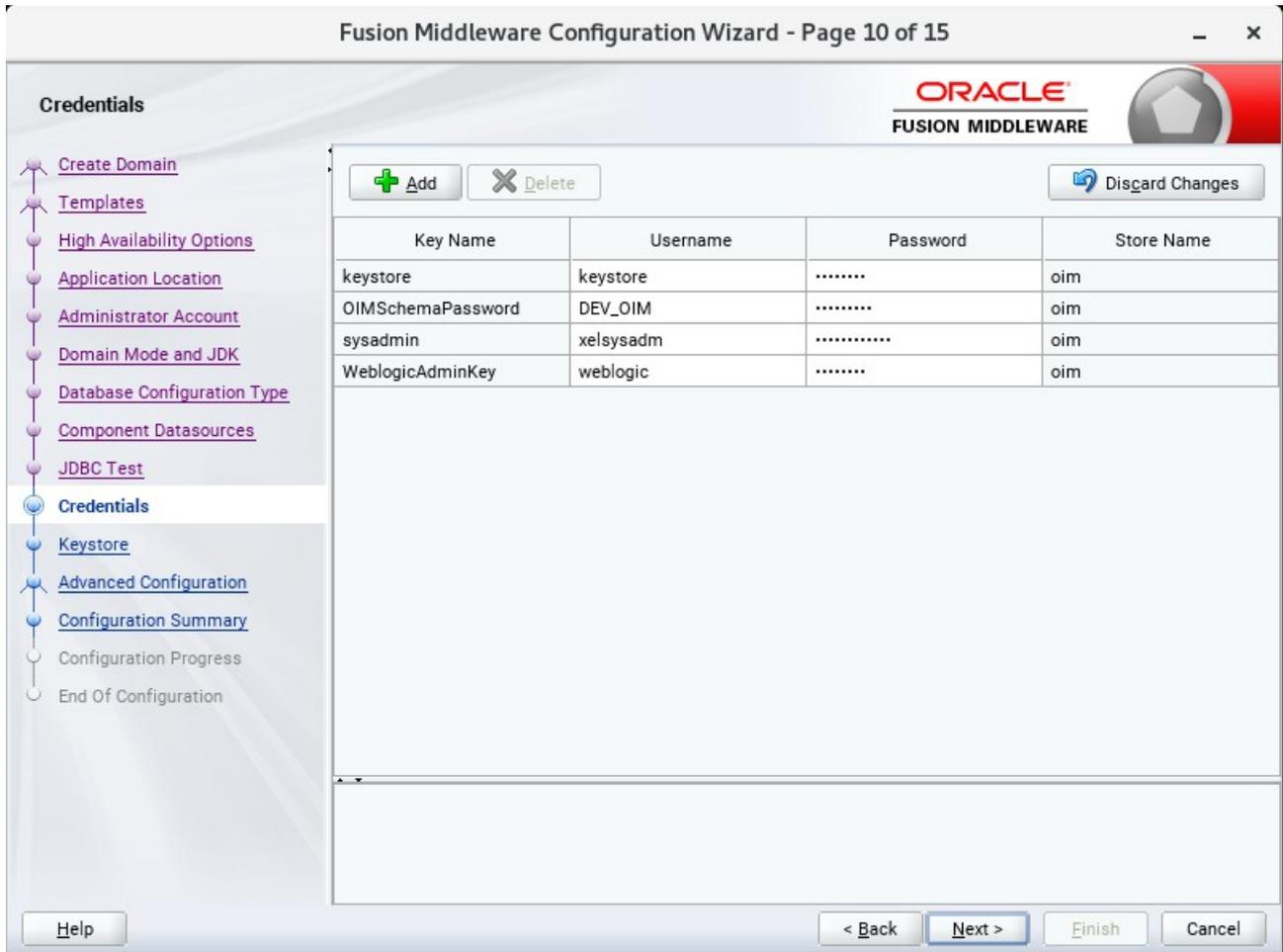
Our instructions assume each Repository schema uses the same password. If not, enter the correct schema passwords. Click **Next** to continue.

9). The **JDBC Component Schema Test** screen appears.



The tests are run and the results given. Ensure all test results are successful. Click **Next** to continue.

10). The **Credentials** screen appears.



Use the Credentials screen to set credentials for each key in the domain. Ensure that you specify 'keystore' as the username for the key **Keystore**, and 'xelsysadm' as the username for the key **sysadmin**.

11). The **Keystore** screen appears.



Accept the defaults and click **Next** to continue.

12). The **Advanced Configuration** screen appears.

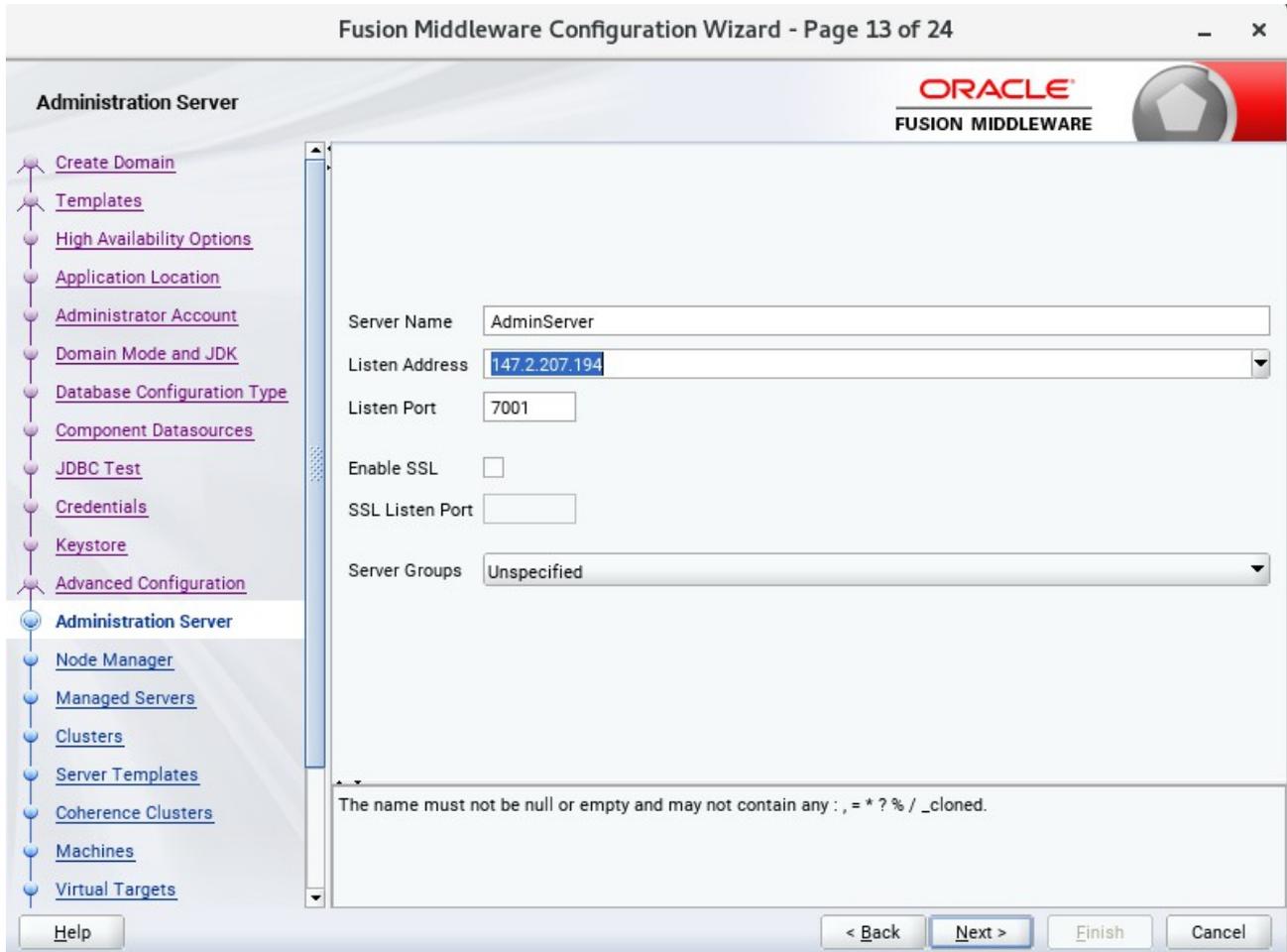


On the Advanced Configuration screen, select:

- Administration Server
- Node Manager
- Topology

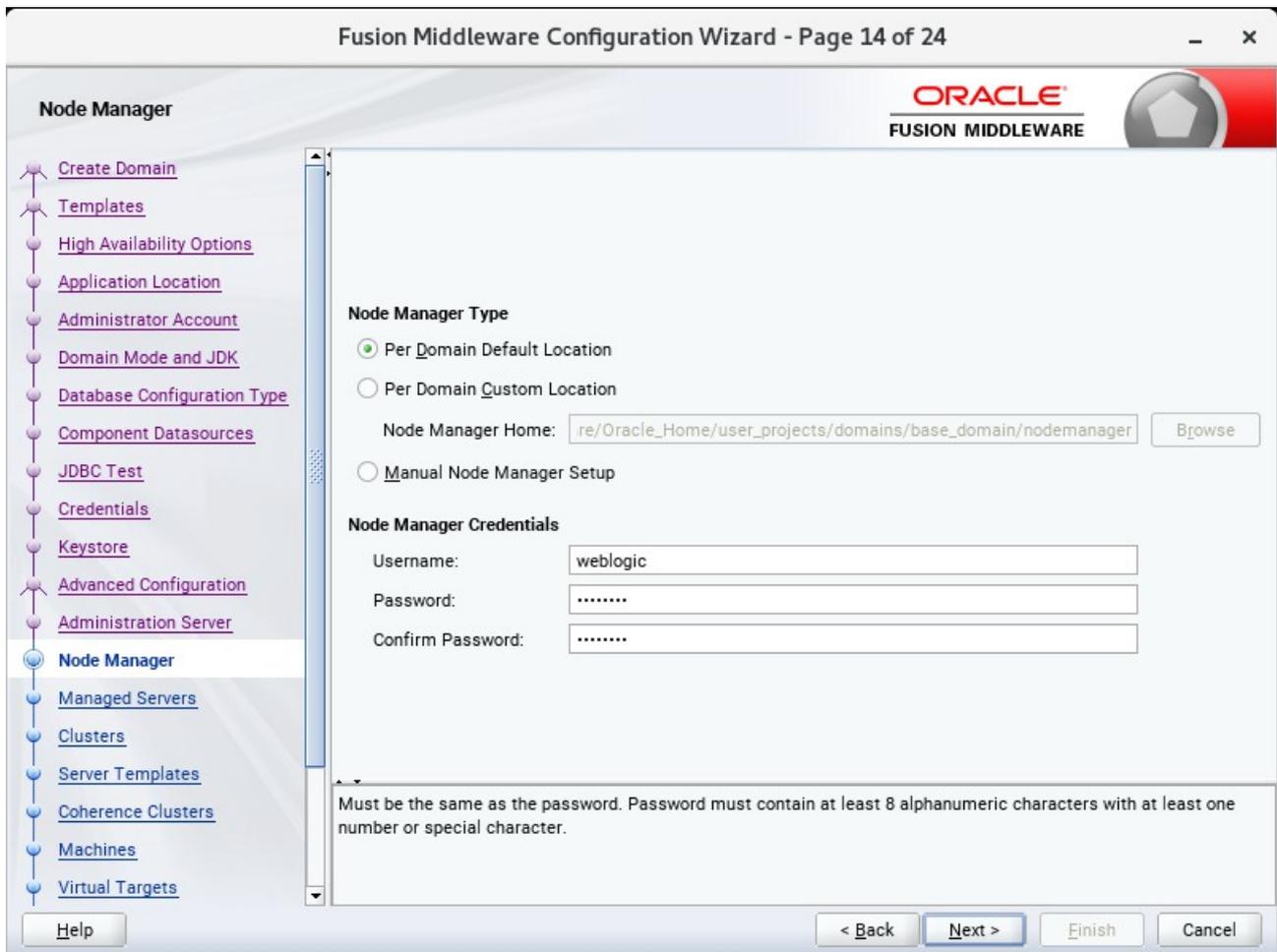
Then, click **Next** to continue.

13). The **Administration Server** screen appears.



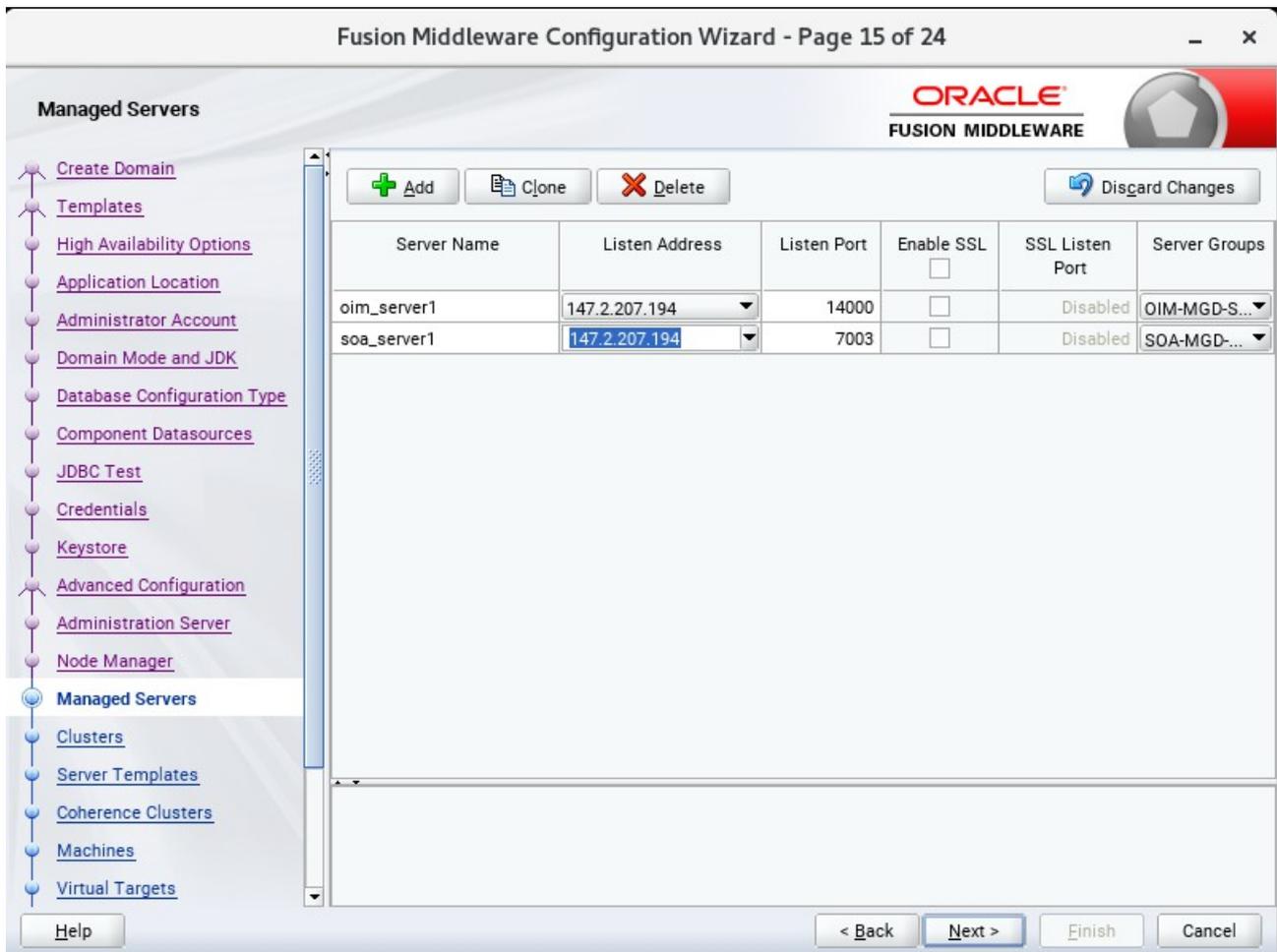
Use the **Administration Server** screen to select the IP address of the host. Select the drop-down list next to **Listen Address** and select the IP address of the host where the Administration Server will reside, or use the system name or DNS name that maps to a single IP address. Click **Next** to continue.

14). Configuring **Node Manager** screen appears.



Select **Per Domain Default Location** as the Node Manager type, then specify Node Manager credentials. Click **Next** to continue.

15). The **Managed Servers** screen appears.



On the **Managed Servers** screen, new Managed Servers named: *oim\_server1* and *soa\_server1* are automatically created. In the **Listen Address** drop-down list, select the IP address of the host on which the Managed Server will reside or use the system name or DNS name that maps to a single IP address. The default **Server Groups** have already been selected for each server. Click **Next** to continue.

16). The **Clusters** screen appears.

Fusion Middleware Configuration Wizard - Page 16 of 26

**Clusters**

ORACLE  
FUSION MIDDLEWARE

+ Add    X Delete    Discard Changes

Cluster Name	Cluster Address	Frontend Host	Frontend HTTP Port	Frontend HTTPS Port	Dynamic Server Groups
oim_cluster_1			0	0	Unspecified
soa_cluster_1			0	0	Unspecified

Help    < Back    Next >    Finish    Cancel

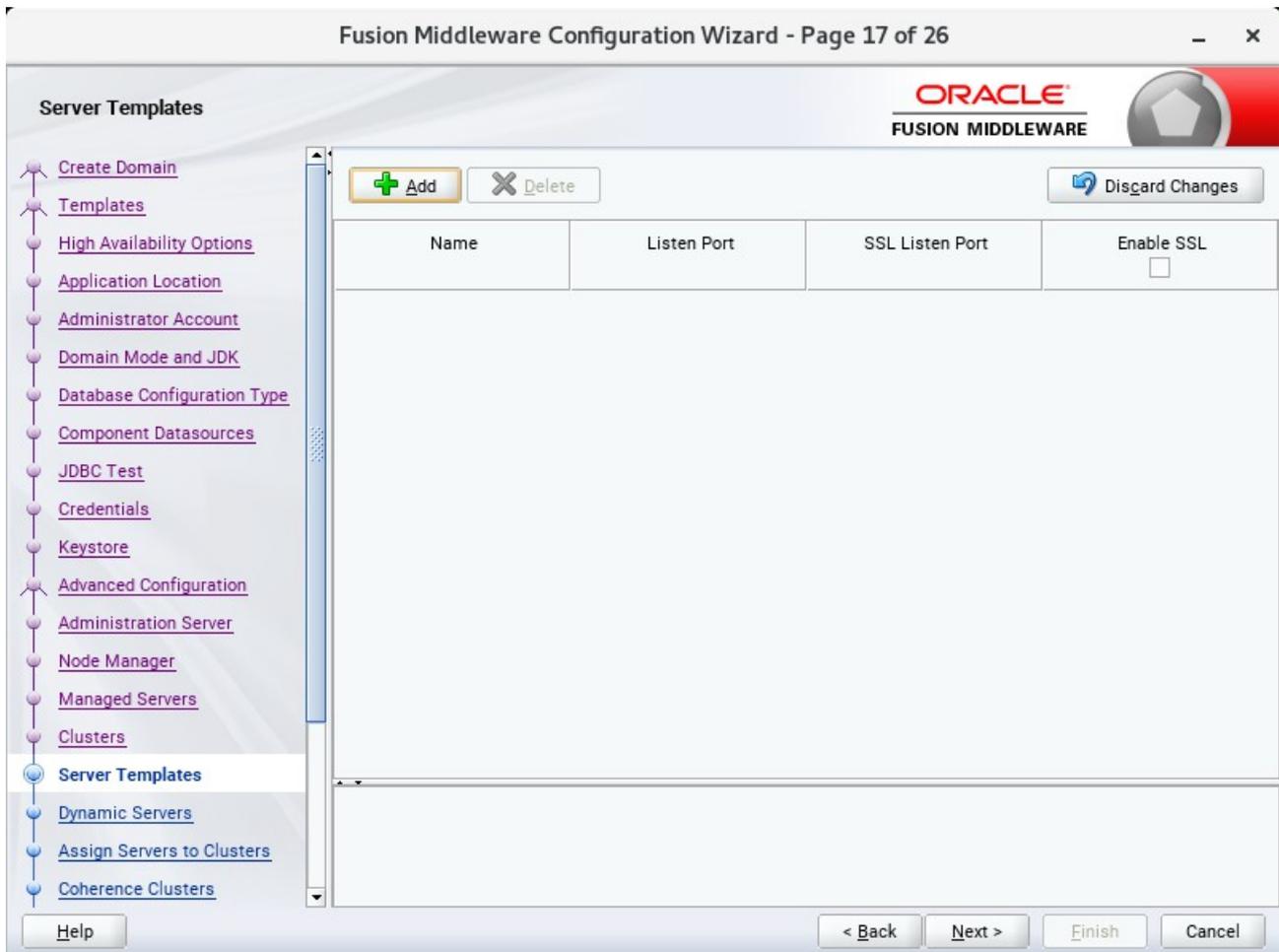
On the Clusters screen:

1. Click **Add**.
2. Specify *oim\_cluster\_1* in the Cluster Name field.
3. Leave the Cluster Address field blank.
4. Repeat these steps to create *soa\_cluster\_1* cluster.

Click **Next** to continue.

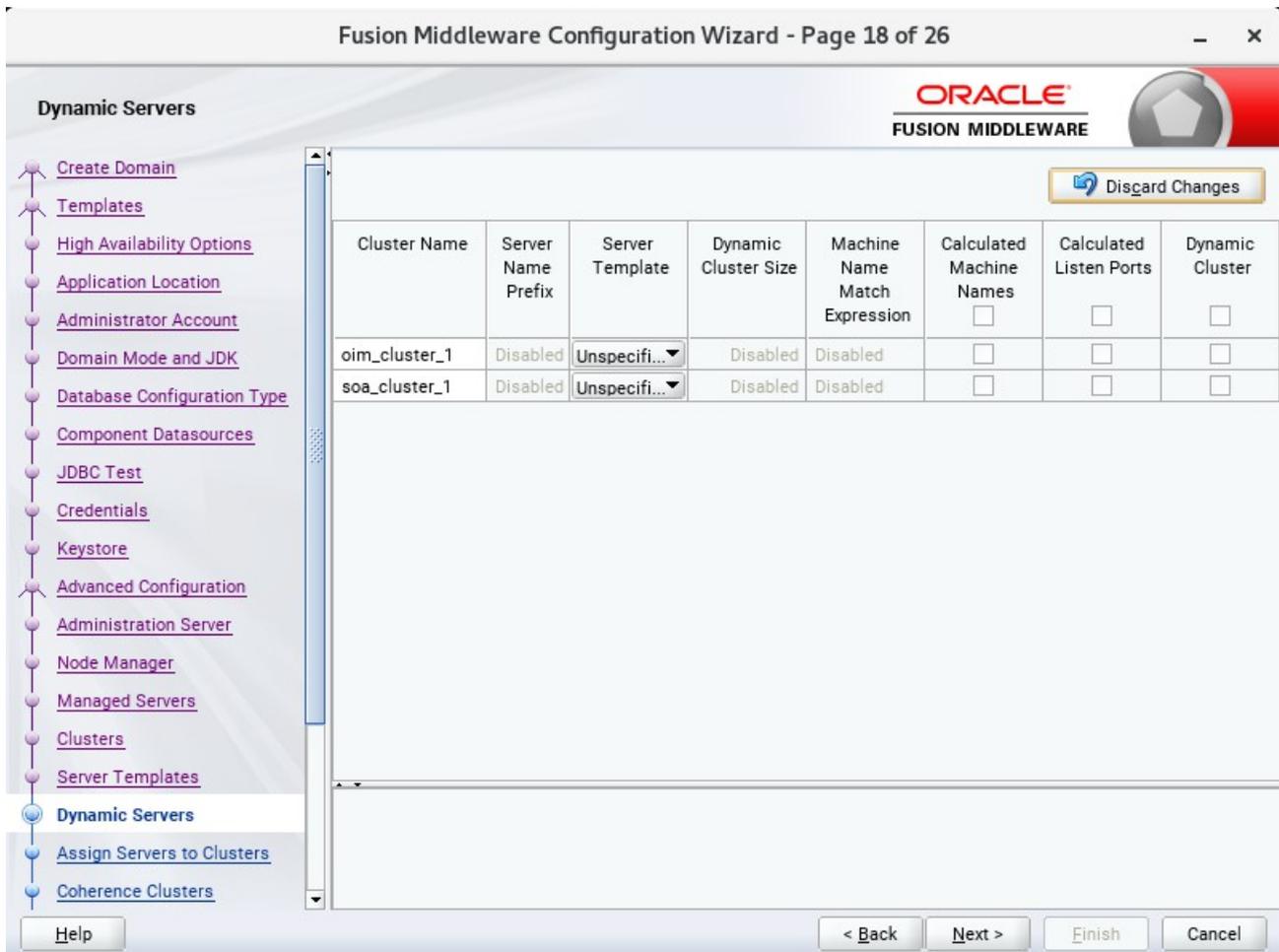
(**Note:** If you are configuring a non-clustered setup on a single node, skip this screen.)

17). The **Server templates** screen appears.



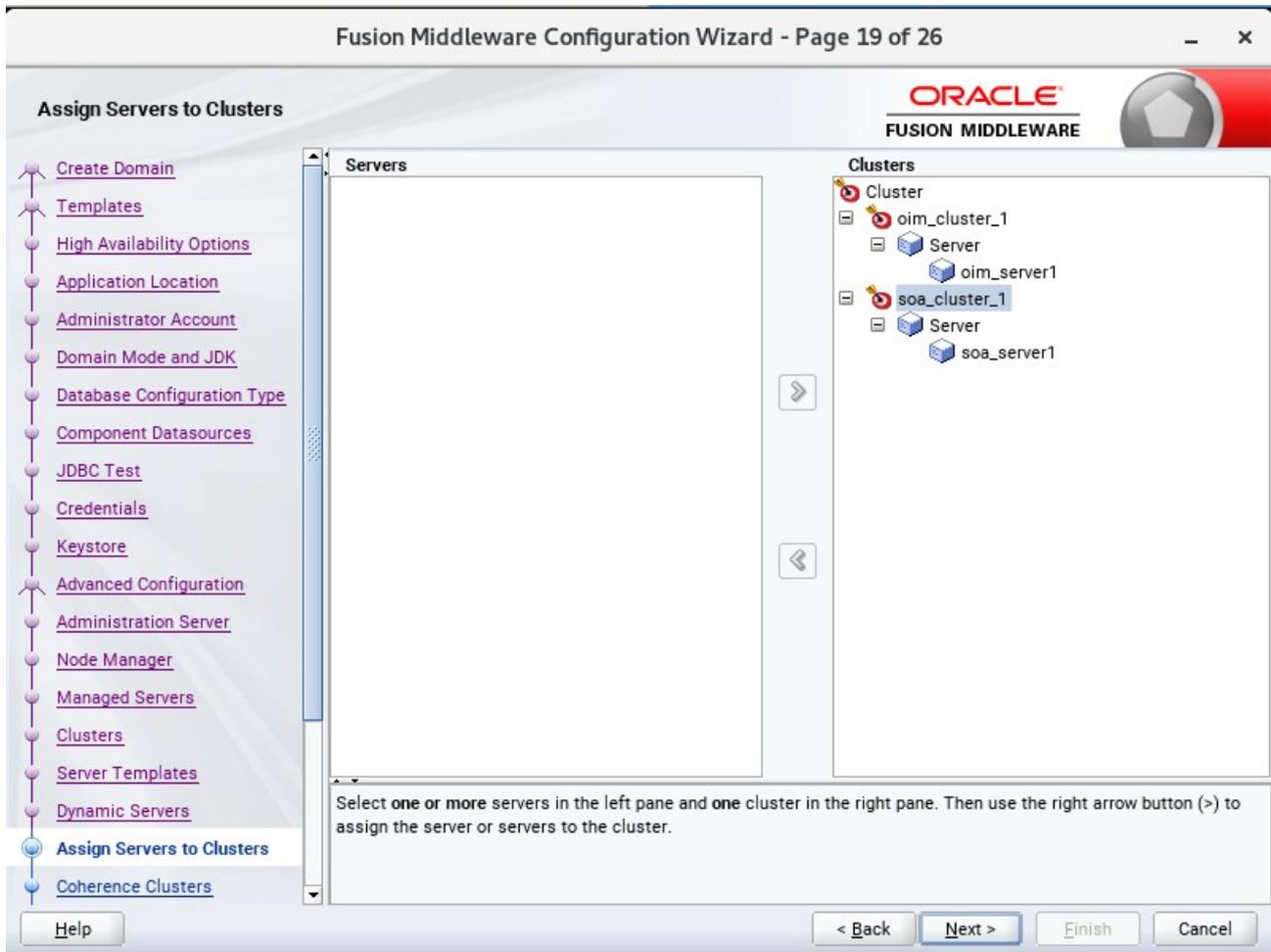
If you are creating dynamic clusters for a high availability setup, use the Server Templates screen to define one or more server templates for domain. To continue configuring the domain, click **Next**.

18). The **Dynamic Servers** screen appears.



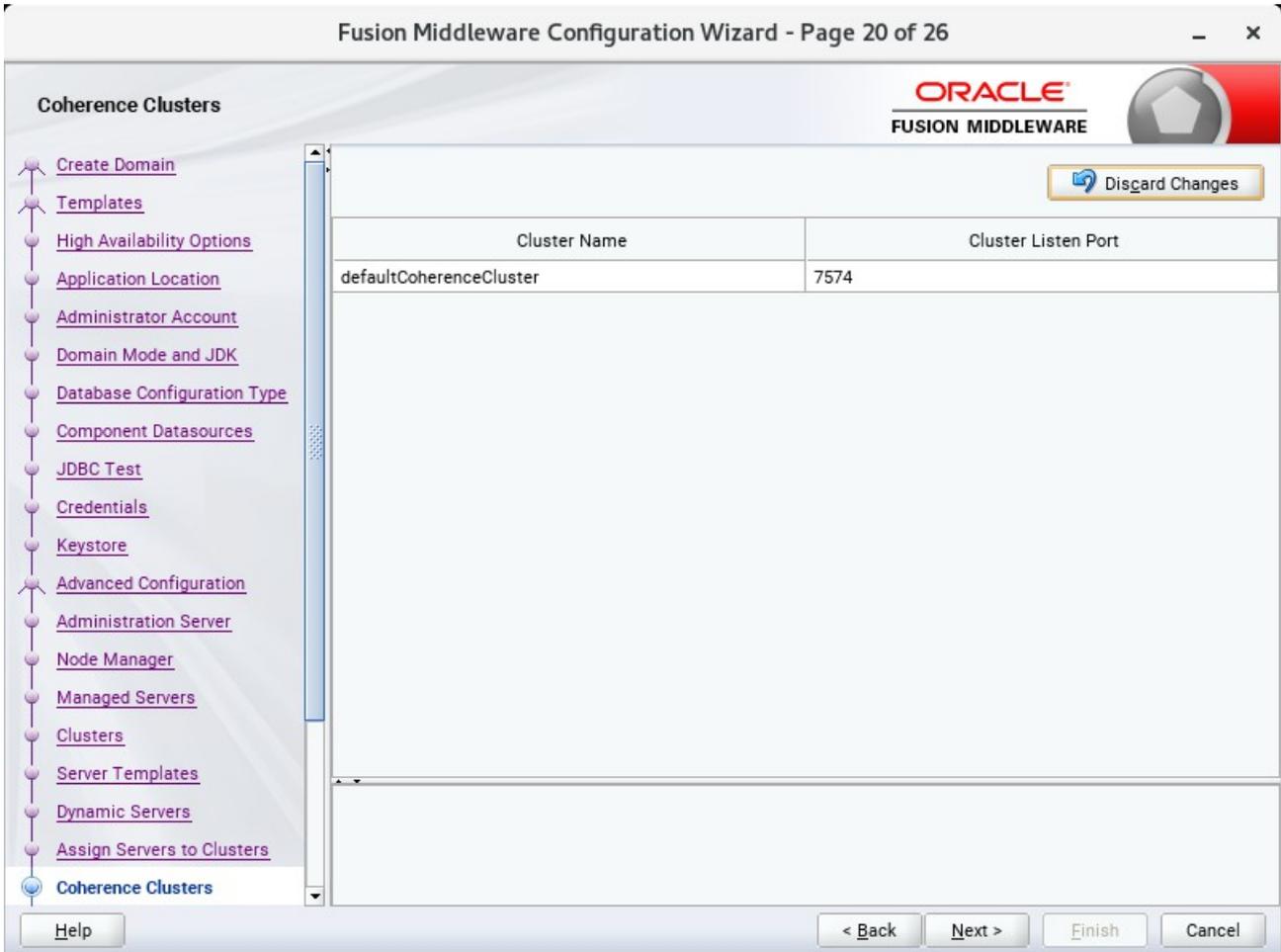
If you are creating dynamic clusters for a high availability setup, use the Dynamic Servers screen to configure the dynamic servers. If you are not configuring a dynamic cluster, click **Next** to continue configuring the domain.

19). The **Assign Servers to Clusters** screen appears.



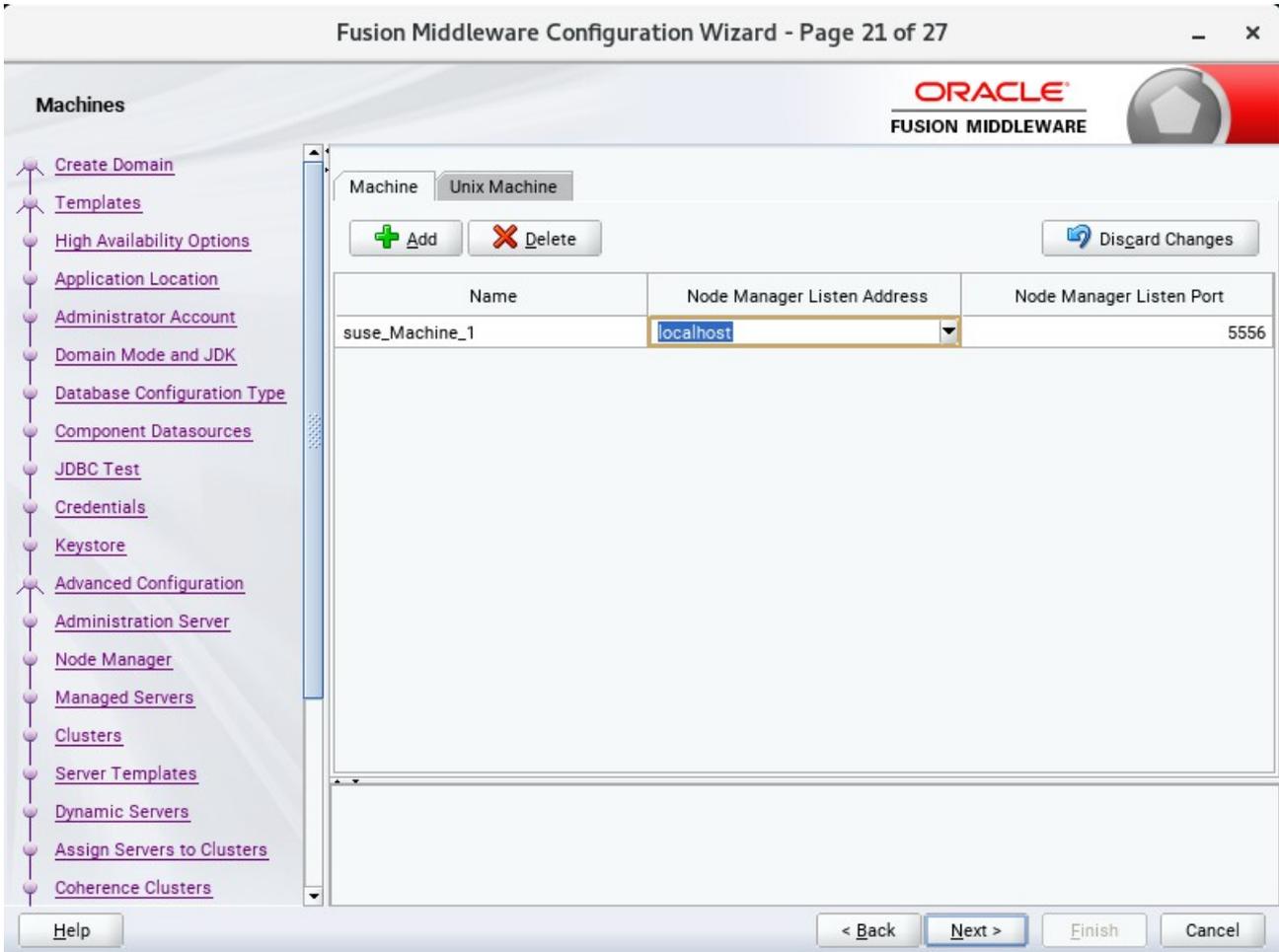
Use the **Assign Servers to Clusters** screen to assign Managed Servers to a new configured cluster. Click **Next** to continue.

20). The **Coherence Clusters** screen appears.



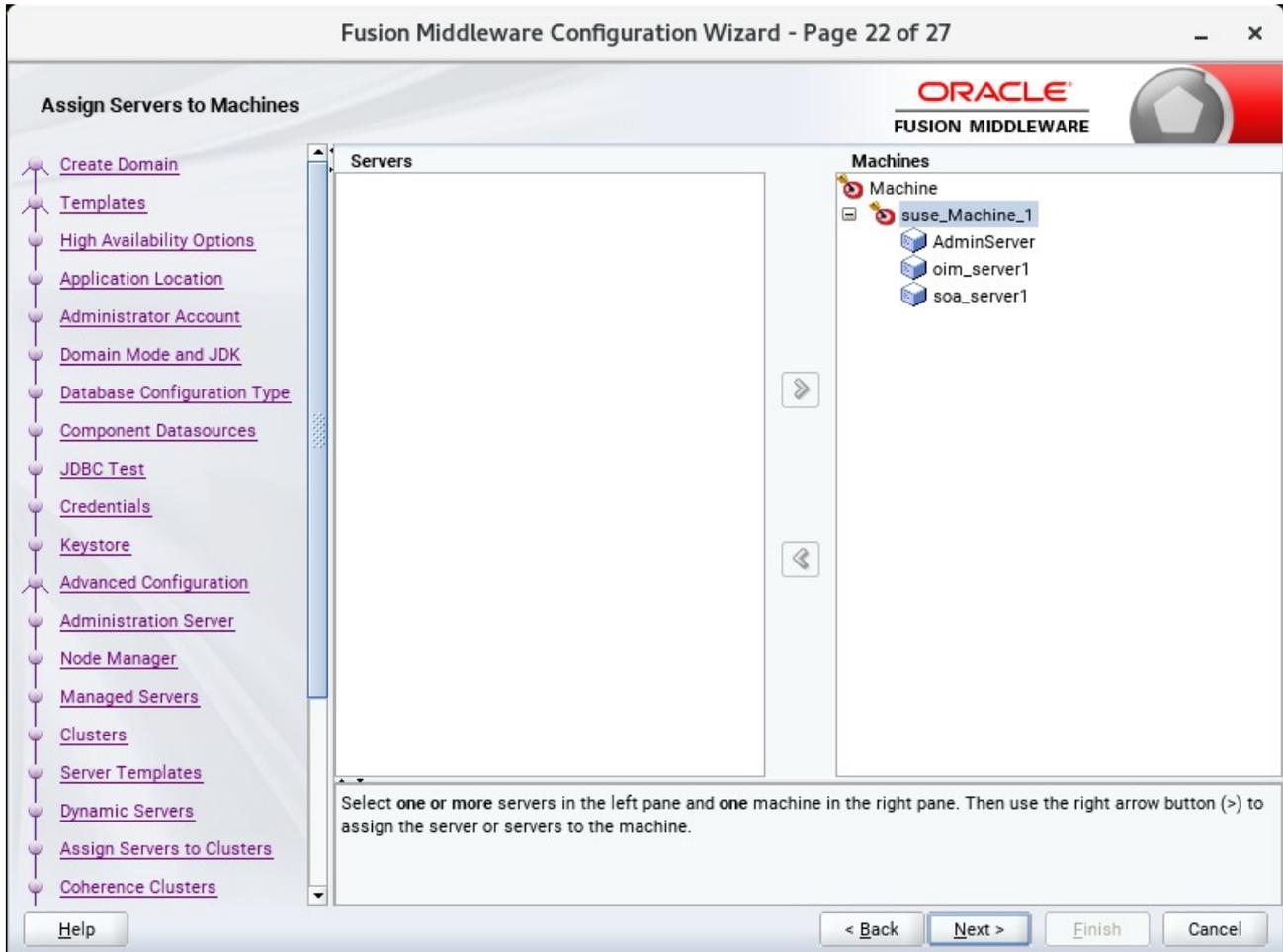
Leave the default port number as the Coherence cluster listen port. After configuration, the Coherence cluster is automatically added to the domain. Click **Next** to continue.

21). The **Machines** screen appears.



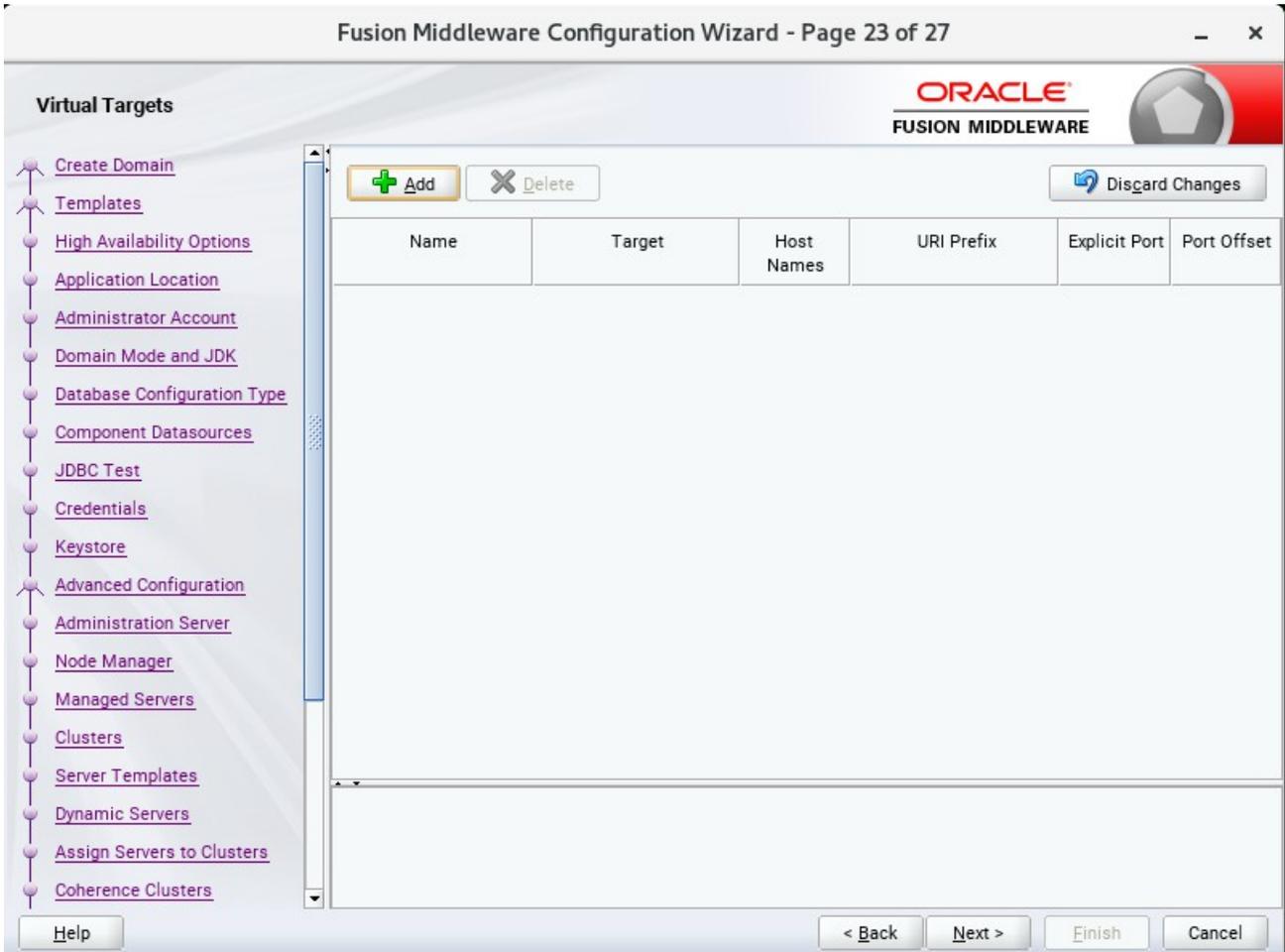
To create a new machine so that Node Manager can start and stop servers. Click **Next** to continue.

22). The **Assign Servers to Machines** screen appears.



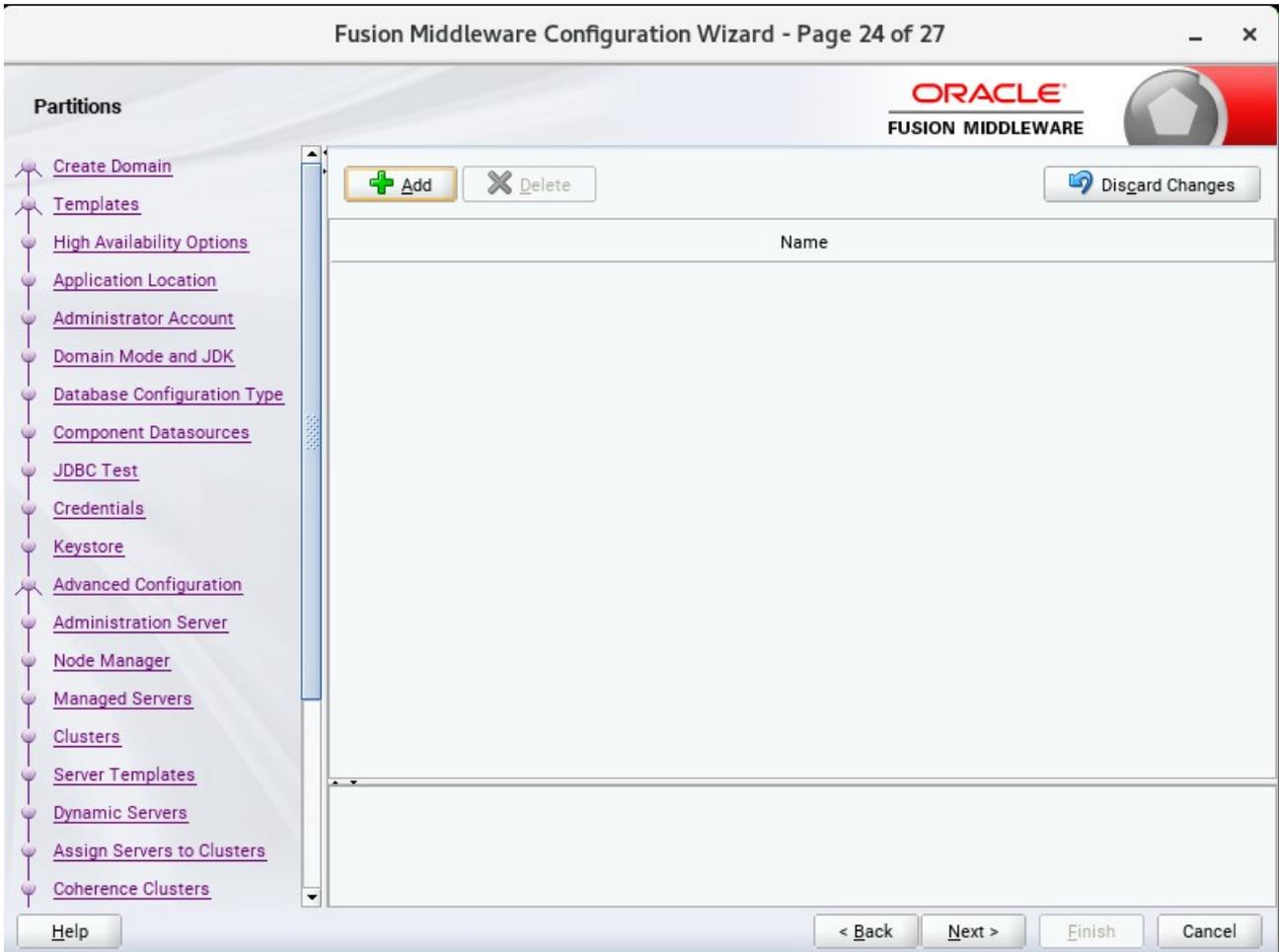
Use the **Assign Servers to Machines** screen to assign the Managed Servers to the new machine you just created. Click **Next** to continue.

23). The **Virtual Targets** screen appears.



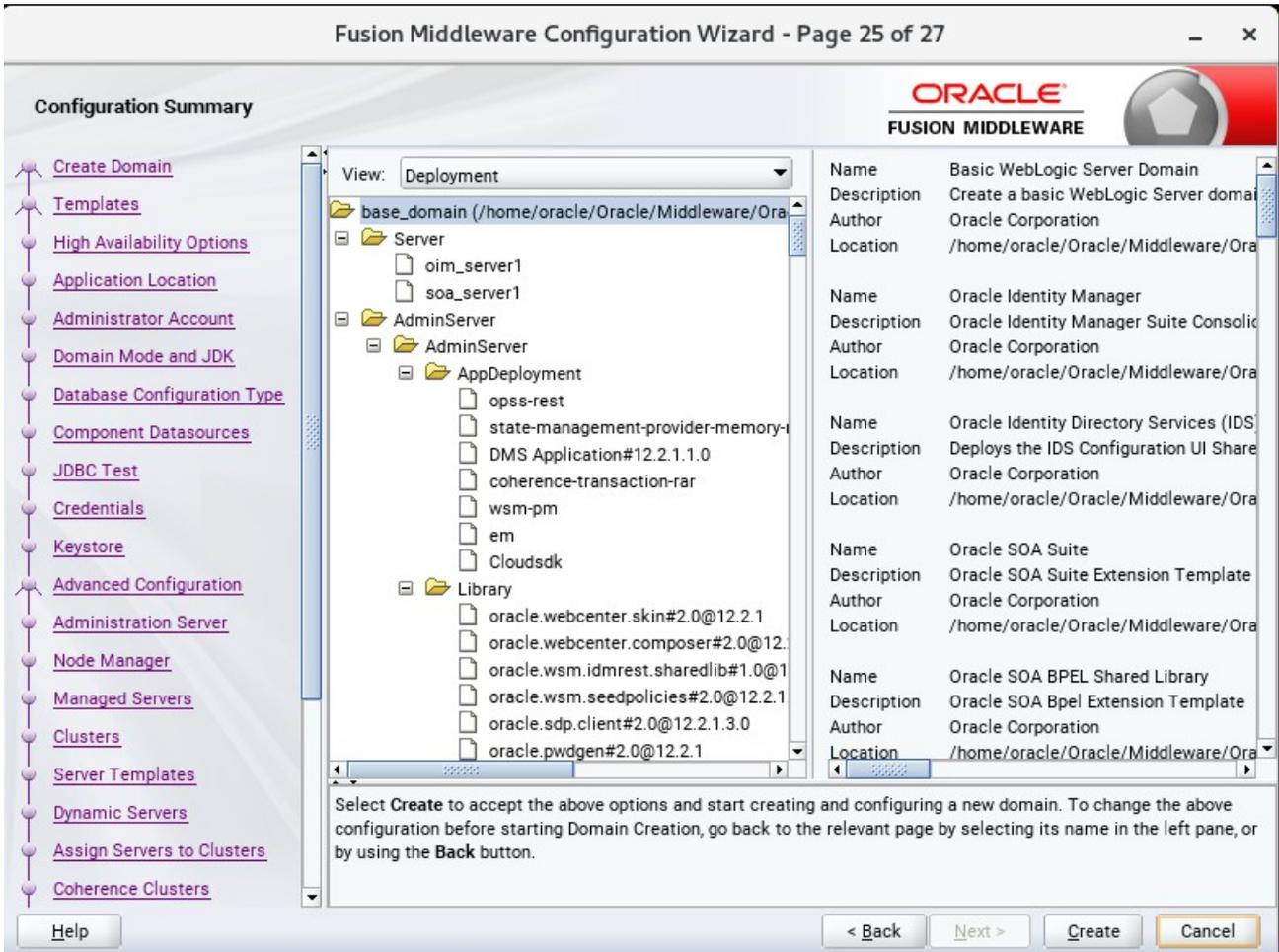
If you have a WebLogic Server Multitenant (MT) environment, you use the Virtual Targets screen to add or delete virtual targets. For this installation (not a WebLogic Server MT environment), you do not enter any values; just select **Next**.

24). The **Partitions** screen appears.



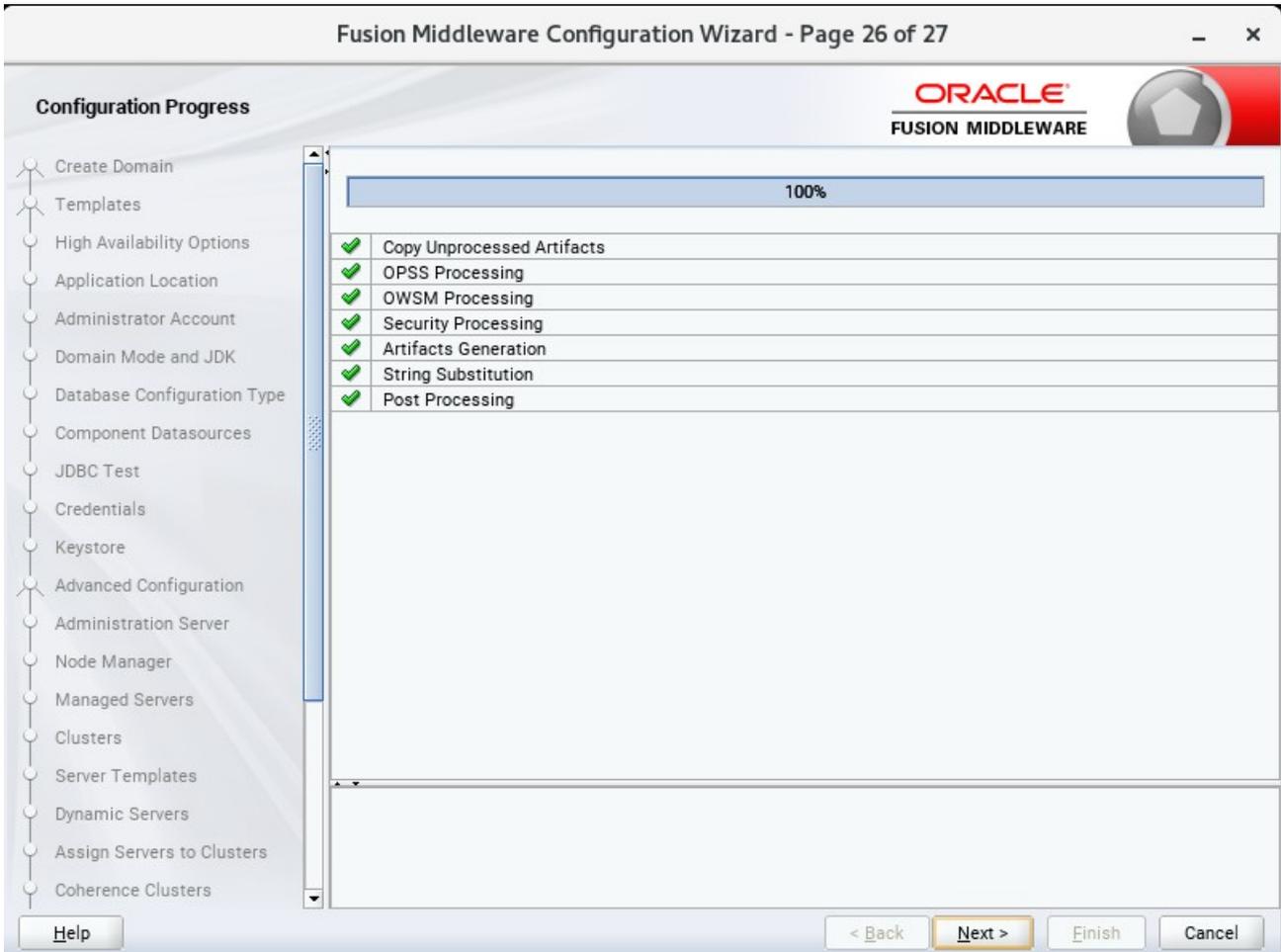
The Partitions screen is used to configure partitions for virtual targets in WebLogic Server Multitenant (MT) environments. Select **Next** without selecting any options.

25). The **Configuration Summary** screen appears.



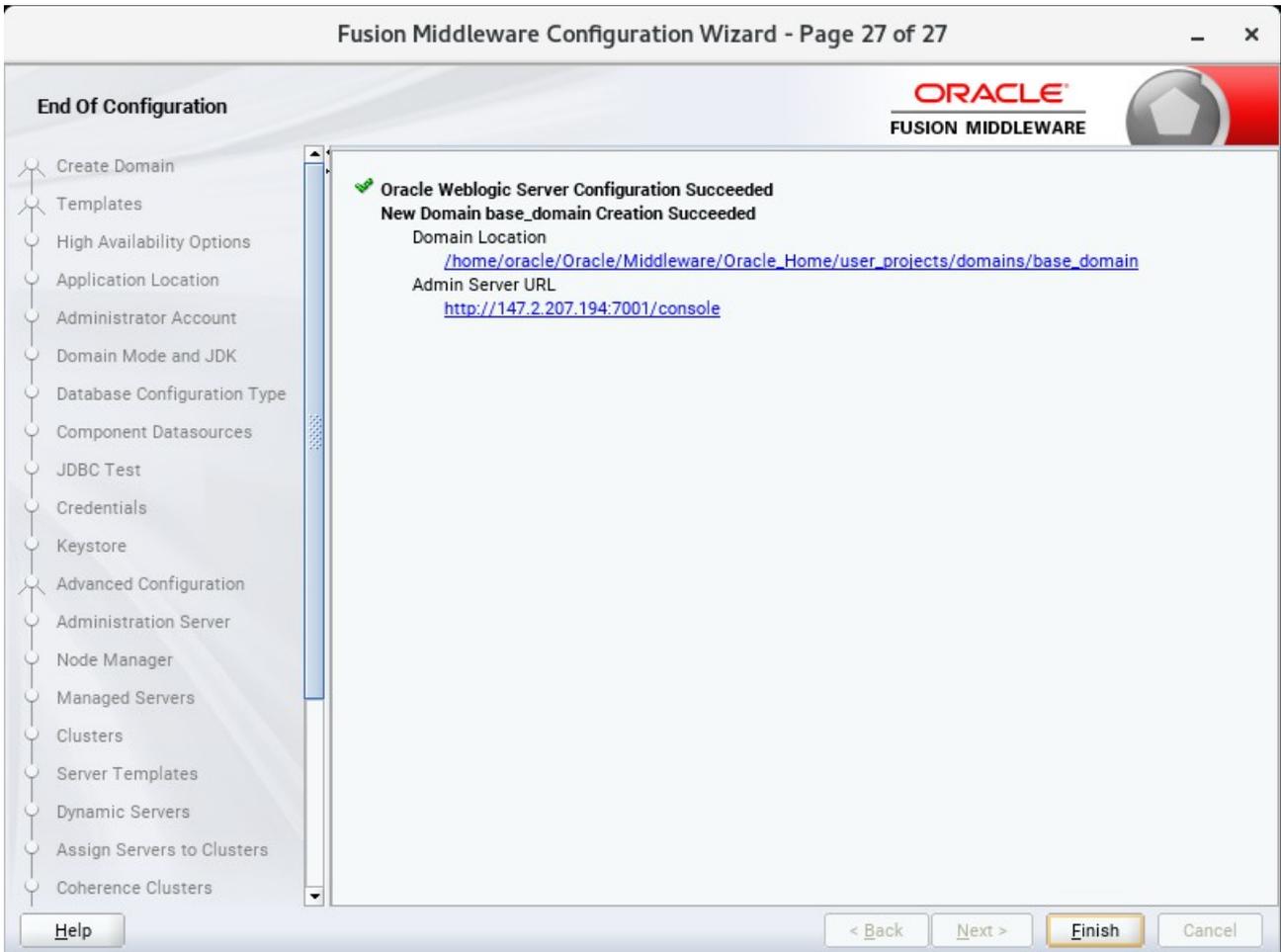
Select **Create** to accept the above options and start creating and configuring a new domain.

26). The **Configuration Progress** screen appears.



Wait for this part of the configuration to complete. Depending on the location and performance of the Repository database, this process may take a few minutes. After the domain successful created, click **Next** to continue.

27). The **End of Configuration** screen appears.



Once you see: "Oracle Weblogic Server Configuration Succeeded", record the '**Domain Location**' and '**Admin Server URL**', then click **Finish** to dismiss the Configuration Wizard.

## 2-3. Performing Post-Configuration Tasks

After you configure the Oracle IDM domain, perform the necessary post-configuration tasks.

### 1). Running the Offline Configuration Command.

To run the `offlineConfigManager` command, do the following:

- Set the following environment variables to the right values.

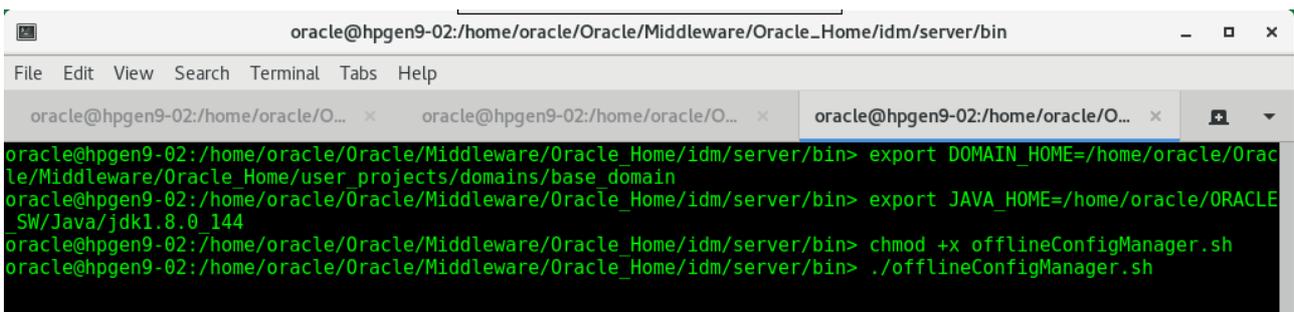
```
DOMAIN_HOME
JAVA_HOME
```

- Run the `setDomainEnv` script from `%DOMAIN_HOME%\bin`, in order to set up all of the required environment variables.

```
./setDomainEnv.sh
```

- Run the following command from the location `OIM_HOME/server/bin/`:

```
./offlineConfigManager.sh
```



```
oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/idm/server/bin
File Edit View Search Terminal Tabs Help
oracle@hpgen9-02:/home/oracle/O... x oracle@hpgen9-02:/home/oracle/O... x oracle@hpgen9-02:/home/oracle/O... x
oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/idm/server/bin> export DOMAIN_HOME=/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base domain
oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/idm/server/bin> export JAVA_HOME=/home/oracle/ORACLE_SW/Java/jdk1.8.0_144
oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/idm/server/bin> chmod +x offlineConfigManager.sh
oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/idm/server/bin> ./offlineConfigManager.sh
```

```

oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/idm/server/bin
File Edit View Search Terminal Tabs Help
oracle@hpgen9-02:/home/oracle/O... x oracle@hpgen9-02:/home/oracle/O... x oracle@hpgen9-02:/home/oracle/O... x
oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/idm/server/bin> export DOMAIN_HOME=/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain
oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/idm/server/bin> export JAVA_HOME=/home/oracle/Oracle_SW/Java/jdk1.8.0_144
oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/idm/server/bin> chmod +x offlineConfigManager.sh
oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/idm/server/bin> ./offlineConfigManager.sh
pwd====> /home/oracle/Oracle/Middleware/Oracle_Home/idm/server/bin
OIM Home====> /home/oracle/Oracle/Middleware/Oracle_Home/idm
MW Home====> /home/oracle/Oracle/Middleware/Oracle_Home
cp: omitting directory '/home/oracle/Oracle/Middleware/Oracle_Home/idm/server/loginmodule/wls/schema'
copied jars from /home/oracle/Oracle/Middleware/Oracle_Home/idm/server/loginmodule/wls/ to /home/oracle/Oracle/Middleware/Oracle_Home/wlserver/server/lib/mbeans/types/ dir
copied /home/oracle/Oracle/Middleware/Oracle_Home/idm/server/loginmodule/wls/schema/* to /home/oracle/Oracle/Middleware/Oracle_Home/oracle_common/lib/schematypes/ dir

Initializing WebLogic Scripting Tool (WLST) ...

Welcome to WebLogic Server Administration Scripting Shell

Type help() for help on available commands

reading Domain --> base_domain at path --> /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain
Session started for modification.
New Token Issuer Trust document named "tokenissuertrustWLSbase_domain" created.
To use the new document in the domain configuration, you must run the setWSMConfiguration command where category = "TokenIssuerTrust", property name = "name" and value = "tokenissuertrustWLSbase_domain".
A new property "name" within category "TokenIssuerTrust" has been added.
The values "[tokenissuertrustWLSbase_domain]" have been added to property "name" within category "TokenIssuerTrust".
Configuration properties associated with the context "/WLS/base_domain" has been created.
Token Issuer Trust document named "tokenissuertrustWLSbase_domain" selected in the session.
New issuer - "www.oracle.com" added to the document.
The issuer and trusted DN values have been updated successfully.

```

```

oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/idm/server/bin
File Edit View Search Terminal Tabs Help
oracle@hpgen9-02:/home/oracle/O... x oracle@hpgen9-02:/home/oracle/O... x oracle@hpgen9-02:/home/oracle/O... x
[OIM_CONFIG]The file /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/config/fmwconfig/jps-config-jse.xml is updated.
<Jan 3, 2018 5:27:30,147 PM GMT+08:00> <Info> <oracle.iam.OIMPostConfigManager> <BEA-000000> <Exiting updateJPSConfigXMLForWLS() method of JPSConfigXMLUpdate class>
Jan 03, 2018 5:27:30 PM oracle.iam.OIMPostConfigManager.config.util.JPSConfigXMLUpdate updateJPSConfigXMLForWLS
INFO: Exiting updateJPSConfigXMLForWLS() method of JPSConfigXMLUpdate class
<Jan 3, 2018 5:27:30,149 PM GMT+08:00> <Info> <oracle.iam.OIMPostConfigManager> <BEA-000000> <Updated jps-config-jse.xml Details.>
Jan 03, 2018 5:27:30 PM oracle.iam.OIMPostConfigManager.config.OIMConfigManager updateJPSConfig
INFO:
Updated jps-config-jse.xml Details.
<Jan 3, 2018 5:27:30,150 PM GMT+08:00> <Info> <oracle.iam.OIMPostConfigManager> <BEA-000000> <Exiting updateJPSConfig() method of OIMConfigManager class>
Jan 03, 2018 5:27:30 PM oracle.iam.OIMPostConfigManager.config.OIMConfigManager updateJPSConfig
INFO: Exiting updateJPSConfig() method of OIMConfigManager class
<Jan 3, 2018 5:27:30,151 PM GMT+08:00> <Info> <oracle.iam.OIMPostConfigManager> <BEA-000000> <[OIM_CONFIG] Copying the mbean Files>
Jan 03, 2018 5:27:30 PM oracle.iam.OIMPostConfigManager.config.OIMConfigManager copyMbeanFiles
INFO:
[OIM_CONFIG] Copying the mbean Files
<Jan 3, 2018 5:27:30,151 PM GMT+08:00> <Info> <oracle.iam.OIMPostConfigManager> <BEA-000000> <Entering copyMbeanFiles() method of OIMConfigManager class>
Jan 03, 2018 5:27:30 PM oracle.iam.OIMPostConfigManager.config.OIMConfigManager copyMbeanFiles
INFO: Entering copyMbeanFiles() method of OIMConfigManager class
<Jan 3, 2018 5:27:30,152 PM GMT+08:00> <Info> <oracle.iam.OIMPostConfigManager> <BEA-000000> <Copying mbean files are successful>
Jan 03, 2018 5:27:30 PM oracle.iam.OIMPostConfigManager.config.OIMConfigManager copyMbeanFiles
INFO:
Copying mbean files are successful
<Jan 3, 2018 5:27:30,152 PM GMT+08:00> <Info> <oracle.iam.OIMPostConfigManager> <BEA-000000> <Exiting copyMbeanFiles() method of OIMConfigManager class>
Jan 03, 2018 5:27:30 PM oracle.iam.OIMPostConfigManager.config.OIMConfigManager copyMbeanFiles
INFO: Exiting copyMbeanFiles() method of OIMConfigManager class
oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/idm/server/bin>

```

### 3. Verifying Oracle Identity Manager(OIM) Installation and Configuration

3-1. Check for the presence of installation log files in logs directory inside your Oracle Inventory directory. Also, check the domain server logs, which are located in the servers directory inside the domain home directory.

3-2. Starting the Node Manager and the Admin Server.

**Starting the Node Manager, go to the DOMAIN\_HOME/bin directory and run 'nohup ./startNodeManager.sh > nm.out&'**

```

oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/bin
File Edit View Search Terminal Tabs Help
oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/bin> nohup ./startNodeManager.sh > nm.out&
[1] 1065
oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/bin> nohup: ignoring input and redirecting stderr to stdout

oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/bin> more nm.out
NODEMGR_HOME is already set to /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/node
manager
CLASSPATH=/home/oracle/ORACLE_SW/Java/jdk1.8.0_144/lib/tools.jar:/home/oracle/Oracle/Middleware/Oracle_Home/wlser
ver/server/lib/weblogic.jar:/home/oracle/Oracle/Middleware/Oracle_Home/wlserver/./oracle_common/modules/thirdp
arty/ant-contrib-1.0b3.jar:/home/oracle/Oracle/Middleware/Oracle_Home/wlserver/modules/features/oracle.wls.commo
n.nodemanager.jar:/home/oracle/Oracle/Middleware/Oracle_Home/wlserver/./home/oracle/Oracle/Middleware/Oracle
_Home/wlserver/modules/features/oracle.wls.common.grizzly.jar
+ /home/oracle/ORACLE_SW/Java/jdk1.8.0_144/bin/java -server -Xms32m -Xmx200m -Djdk.tls.ephemeralDHKeySize=2048 -
Dcoherence.home=/home/oracle/Oracle/Middleware/Oracle_Home/wlserver/./coherence -Dbea.home=/home/oracle/Oracle/
Middleware/Oracle_Home/wlserver/.. -Doracle.security.jps.config=/home/oracle/Oracle/Middleware/Oracle_Home/user
_projects/domains/base_domain/config/fmwconfig/jps-config-jse.xml -Dcommon.components.home=/home/oracle/Oracle/Mi
ddleware/Oracle_Home/oracle_common -Dopss.version=12.2.1.3 -Dweblogic.RootDirectory=/home/oracle/Oracle/Middlewa
re/Oracle_Home/user_projects5/domains/base_domain -Djava.system.class.loader=com.oracle.classloader.weblogic.Laun
chClassLoader -Djava.security.policy=/home/oracle/Oracle/Middleware/Oracle_Home/wlserver/server/lib/weblogic.pol
icy -Dweblogic.nodemanager.JavaHome=/home/oracle/ORACLE_SW/Java/jdk1.8.0_144 weblogic.NodeManager -v
<Jan 3, 2018 5:33:19 PM GMT+08:00> <INFO> <Loading domains file: /home/oracle/Oracle/Middleware/Oracle_Home/user
_projects/domains/base domain/nodemanager/nodemanager.domains>
<Jan 3, 2018 5:33:19 PM GMT+08:00> <INFO> <Upgrade> <Setting NodeManager properties version to 12.2.1.3.0>
<Jan 3, 2018 5:33:19 PM GMT+08:00> <INFO> <Upgrade> <Saving upgraded NodeManager properties to '/home/oracle/Ora
cle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.properties'>
<Jan 3, 2018 5:33:19 PM GMT+08:00> <INFO> <Loading domains file: /home/oracle/Oracle/Middleware/Oracle_Home/user
_projects/domains/base domain/nodemanager/nodemanager.domains>
<Jan 3, 2018 5:33:19 PM GMT+08:00> <INFO> <Loading identity key store: FileName=kss://system/demoidentity, Type=
kss, PassPhraseUsed=true>
Jan 03, 2018 5:33:20 PM oracle.security.opss.internal.runtime.ServiceContextManagerImpl getContext
WARNING: Bootstrap services are used by OPSS internally and clients should never need to directly read/write boo
tstrap credentials. If required, use Wlst or configuration management interfaces.

```

**Starting the Admin Server, go to the DOMAIN\_HOME/bin directory and run ./startWebLogic.sh.**

```

oracle@hpgen9-02:/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/bin
File Edit View Search Terminal Tabs Help
oracle@hpgen9-... x oracle@hpgen9-... x oracle@hpgen9-... x oracle@hpgen9-... x oracle@hpgen9-... x
inside MultiOMSIntegration
FMWProv: Integration Class called and was reloaded for me
PostInstallConfigIntegration:oracle_ias_farm target auth registration is done.
CompositesProvIntegration init...
getAllPluginOracleHomes: ConnectionService is null
getAllPluginOracleHomes: ConnectionService is null
Anonymous url config processing:/WEB-INF/config/anonymous-access-emcore.config
Anonymous-urls:[/em/IEsvgdetect.js.*, /em/LoginStatusServlet.*, /em/adf/.*, /em/adflib/.*, /em/afr/.*, /em/bi/.*
, /em/bmp/discovertargets, /em/cabo/.*, /em/console/help.*, /em/console/logon/.*, /em/consoleStatus.jsp, /em/dyn
amicImage.*, /em/ecm/csa/CSA.jar, /em/ecm/csa/CSA.mb, /em/ecm/csa/csabanner.gif, /em/emcli/custAttrib.*, /em/emr
/.*, /em/faces/logon/.*, /em/faces/helppages/.*, /em/flashbridge.*, /em/formsapp/lib/formsRecorder.jar, /em/imag
es/.*, /em/install/getAgentImage, /em/helppages/help.*, /em/jsLibs/.*, /em/jsLibs0bf/.*, /em/login.jsp, /em/mapp
roxy.*, /em/mobile/core/uifwk/skins/.*, /em/ocamm/lib.*, /em/onetime.*, /em/ovs/discovertargets, /em/public/.*,
/em/public lib download/.*, /em/redirect.*, /em/relocatetarget.*, /em/sdkImpl/core/uifwkmobile/skins/.*, /em/serv
let/GaugeServlet.*, /em/servlet/GraphServlet.*, /em/swlib/getfile, /em/VncViewer.jar, /em/websvcs.*, /em/jobrec
v.*]
<Jan 3, 2018 5:37:16,719 PM GMT+08:00> <Notice> <Log Management> <BEA-170027> <The server has successfully estab
lished a connection with the Domain level Diagnostic Service.>
<Jan 3, 2018 5:37:17,304 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to ADMIN.>
<Jan 3, 2018 5:37:17,394 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to RESUMING.
>
<Jan 3, 2018 5:37:17,394 PM GMT+08:00> <Notice> <JMX> <BEA-149535> <JMX Resiliency Activity Server=All Servers :
Resolving connection list DomainRuntimeServiceMBean>
<Jan 3, 2018 5:37:17,542 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000329> <Started the WebLogic Server Admin
istration Server "AdminServer" for domain "base_domain" running in production mode.>
<Jan 3, 2018 5:37:17,543 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default" is now listening on 147
.2.207.194:7001 for protocols iiop, t3, ldap, snmp, http.>
<Jan 3, 2018 5:37:17,544 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default" is now listening on 147
.2.207.194:7001 for protocols iiop, t3, ldap, snmp, http.>
<Jan 3, 2018 5:37:17,920 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000360> <The server started in RUNNING mod
e.>
<Jan 3, 2018 5:37:17,930 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to RUNNING.>

```

You know that the administrator server is running when you see the following output:

```

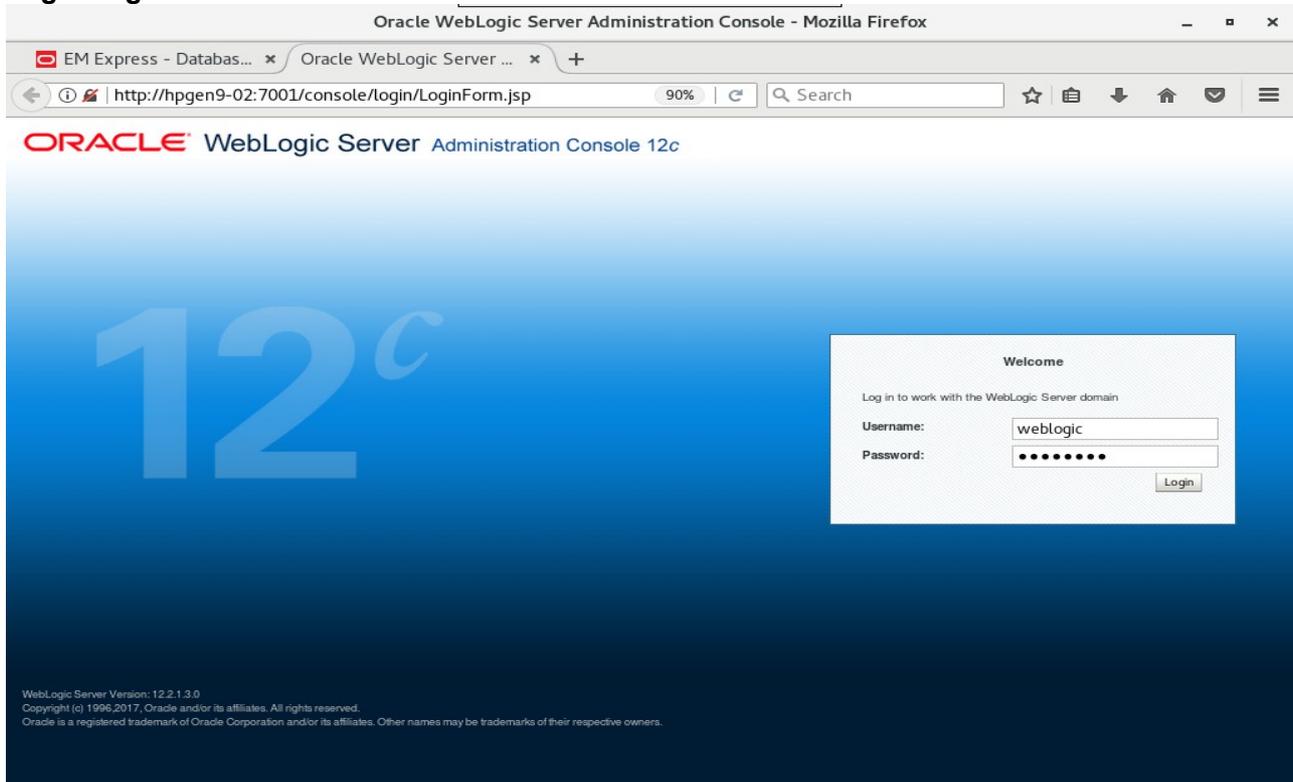
-----
Server state changed to RUNNING.
-----

```

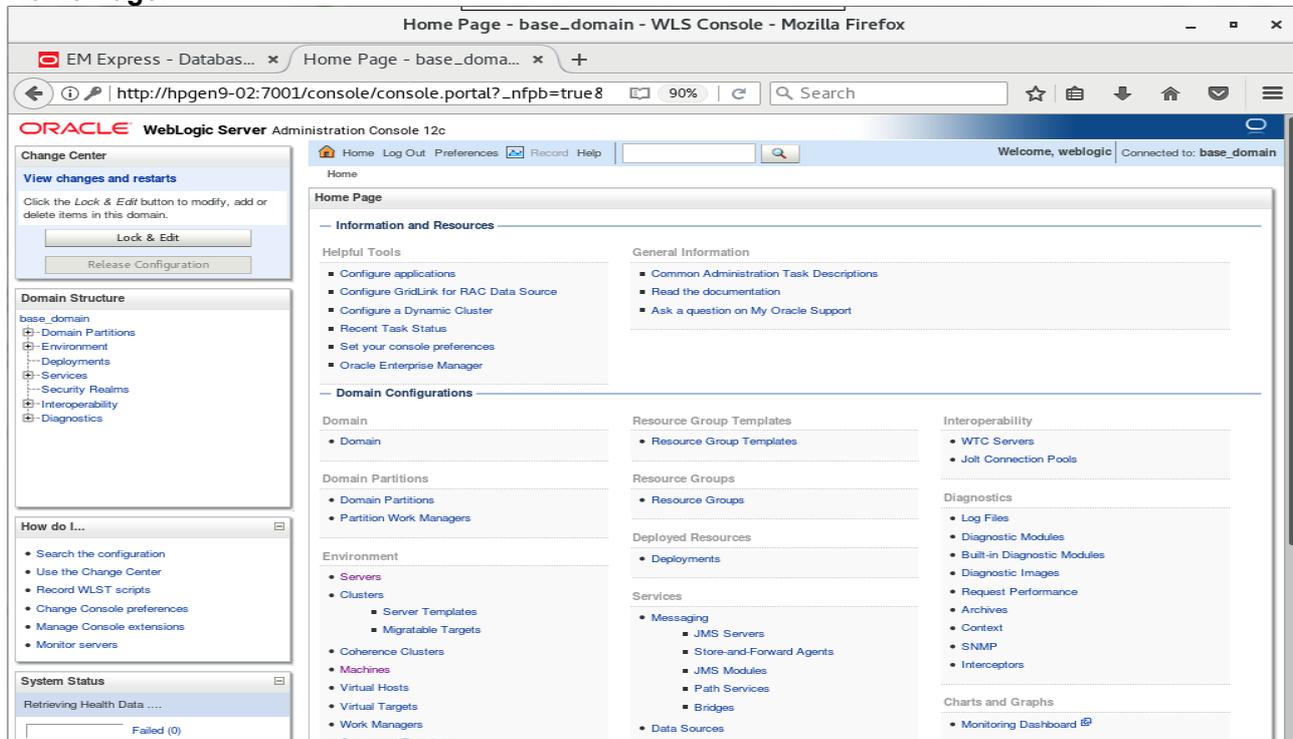
### 3-3. Checking Oracle Identity and Access Management 12c Product URLs.

#### 1). Access to Administration Server Console

#### Login Page:



#### Home Page:



**Viewing the summary of servers:**

Summary of Servers - base\_domain - WLS Console - Mozilla Firefox

EM Express - Databas... x Summary of Servers - ba... x +

http://hpgen9-02:7001/console/console.portal?\_nfpb=true&\_p

ORACLE WebLogic Server Administration Console 12c

Home Log Out Preferences Record Help

Welcome, weblogic Connected to: base\_domain

Home > Summary of Servers

Summary of Servers

Configuration Control

A server is an instance of WebLogic Server that runs in its own Java Virtual Machine (JVM) and has its own configuration. This page summarizes each server that has been configured in the current WebLogic Server domain.

Customize this table

Servers (Filtered - More Columns Exist)

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

Name	Type	Cluster	Machine	State	Health	Listen Port
AdminServer(admin)	Configured		suse_Machine_1	RUNNING	OK	7001
aim_server1	Configured	aim_cluster_1	suse_Machine_1	SHUTDOWN	Not reachable	14000
soa_server1	Configured	soa_cluster_1	suse_Machine_1	SHUTDOWN	Not reachable	7003

Showing 1 to 3 of 3 Previous | Next

Verify that the Admin Server can connect to the node manager running on your machine. **Environments -> Machines -> <your machine> -> Monitoring.** The status should show: **Reachable**

Settings for suse\_Machine\_1 - base\_domain - WLS Console - Mozilla Firefox

EM Express - Databas... x Settings for suse\_Machin... x +

http://hpgen9-02:7001/console/console.portal?\_nfpb=true&\_p

ORACLE WebLogic Server Administration Console 12c

Home Log Out Preferences Record Help

Welcome, weblogic Connected to: base\_domain

Home > Summary of Servers > Summary of Environment > Summary of Machines > suse\_Machine\_1

Settings for suse\_Machine\_1

Configuration Monitoring Notes

Node Manager Status Node Manager Log

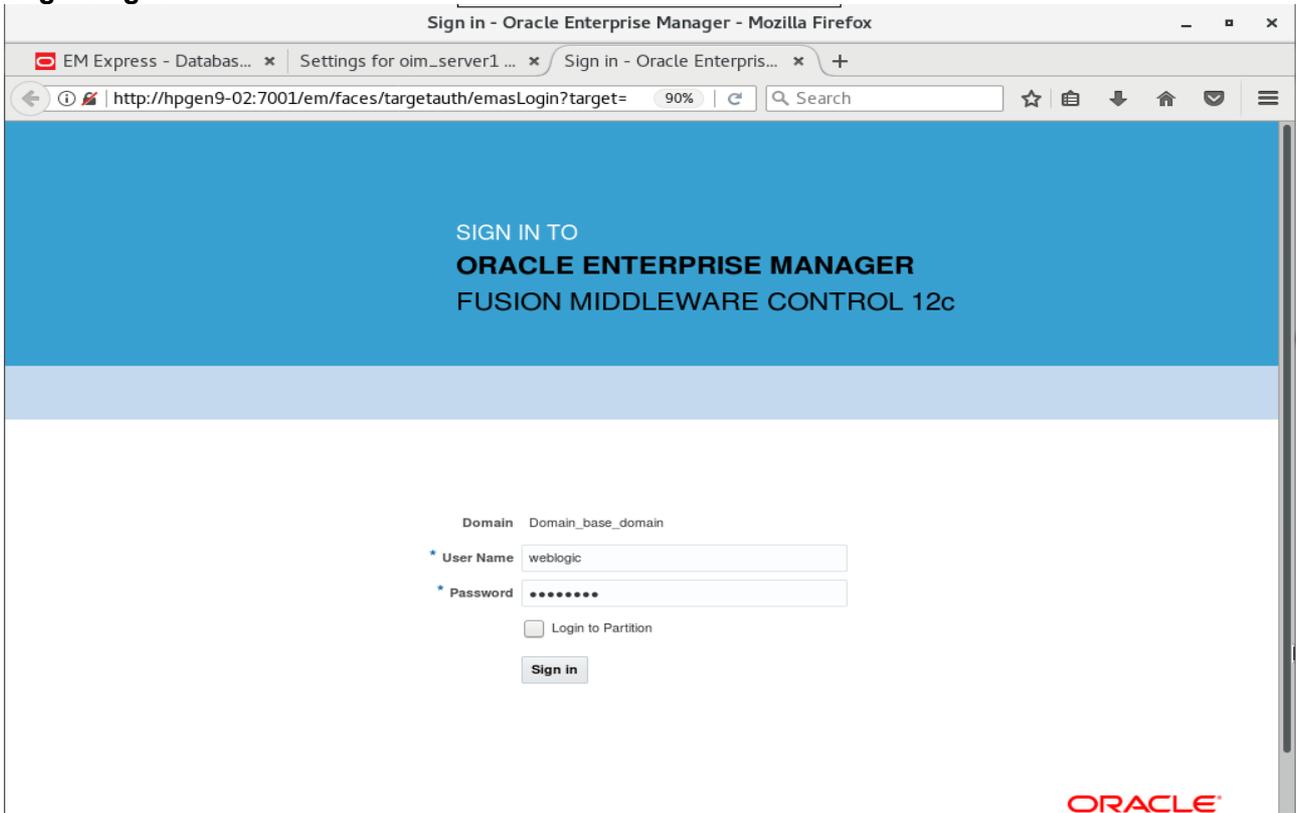
This page allows you to view current status information for the Node Manager instance configured for this machine.

Status: Reachable Current status of this Node Manager. More Info...

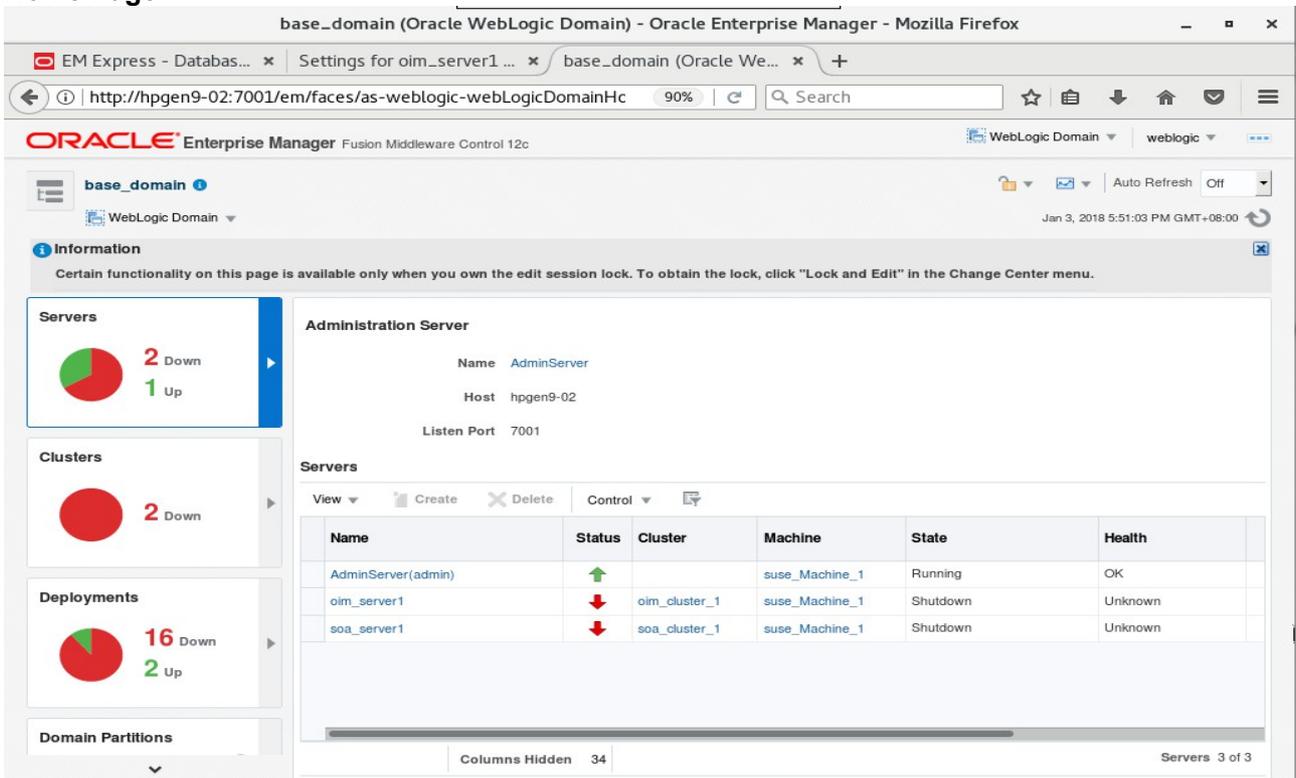
Version: 12.2.1.3.0 Version string returned from the Node Manager. More Info...

2). Access to Enterprise Manager Console.

Login Page:



Home Page:



Starting the managed soa server defined in domain, wait until it comes up into **RUNNING** state and then starting oim server:

base\_domain (Oracle WebLogic Domain) - Oracle Enterprise Manager - Mozilla Firefox

EM Express - Databas... x Settings for oim\_server1 ... x base\_domain (Oracle We... x +

http://hpgen9-02:7001/em/faces/as-weblogic-webLogicDomainHc 90%

ORACLE Enterprise Manager Fusion Middleware Control 12c WebLogic Domain weblogic

base\_domain WebLogic Domain Jan 3, 2018 5:59:50 PM GMT+08:00

Information Certain functionality on this page is available only when you own the edit session lock. To obtain the lock, click "Lock and Edit" in the Change Center menu.

**Servers** 1 Down 2 Up

**Administration Server**  
Name AdminServer  
Host hpgen9-02  
Listen Port 7001

**Servers**  
View Create Delete Control

Name	Status	Cluster	Machine	State	Health
AdminServer(admin)	↑		suse_Machine_1	Running	OK
oim_server1	↓	oim_cluster_1	suse_Machine_1	Shutdown	Unknown
soa_server1	↑	soa_cluster_1	suse_Machine_1	Running	OK

Columns Hidden 34 Servers 3 of 3

base\_domain (Oracle WebLogic Domain) - Oracle Enterprise Manager - Mozilla Firefox

EM Express - Databas... x Settings for oim\_server1 ... x base\_domain (Oracle We... x +

http://hpgen9-02:7001/em/faces/as-weblogic-webLogicDomainHc 90%

ORACLE Enterprise Manager Fusion Middleware Control 12c WebLogic Domain weblogic

base\_domain WebLogic Domain Jan 3, 2018 6:03:17 PM GMT+08:00

Information Certain functionality on this page is available only when you own the edit session lock. To obtain the lock, click "Lock and Edit" in the Change Center menu.

**Servers** 3 Up

**Administration Server**  
Name AdminServer  
Host hpgen9-02  
Listen Port 7001

**Servers**  
View Create Delete Control

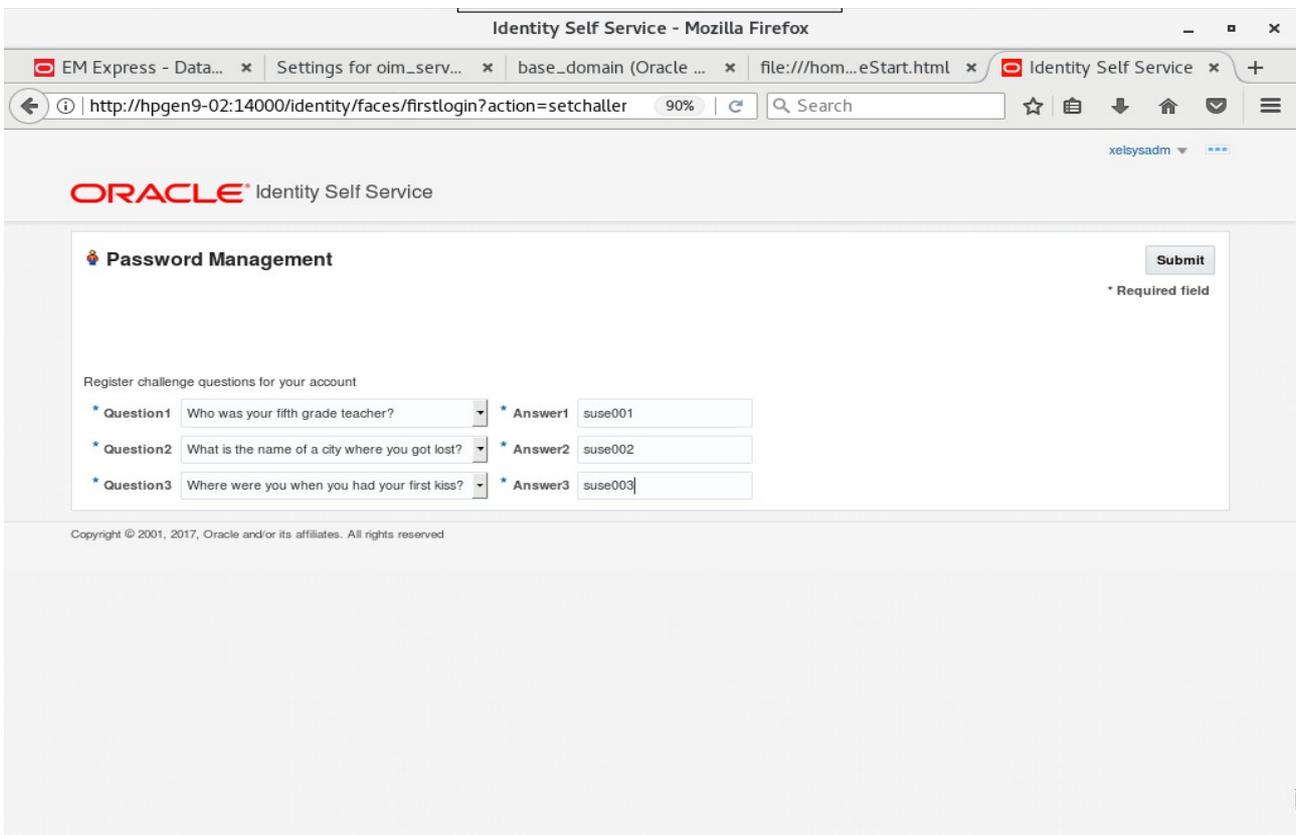
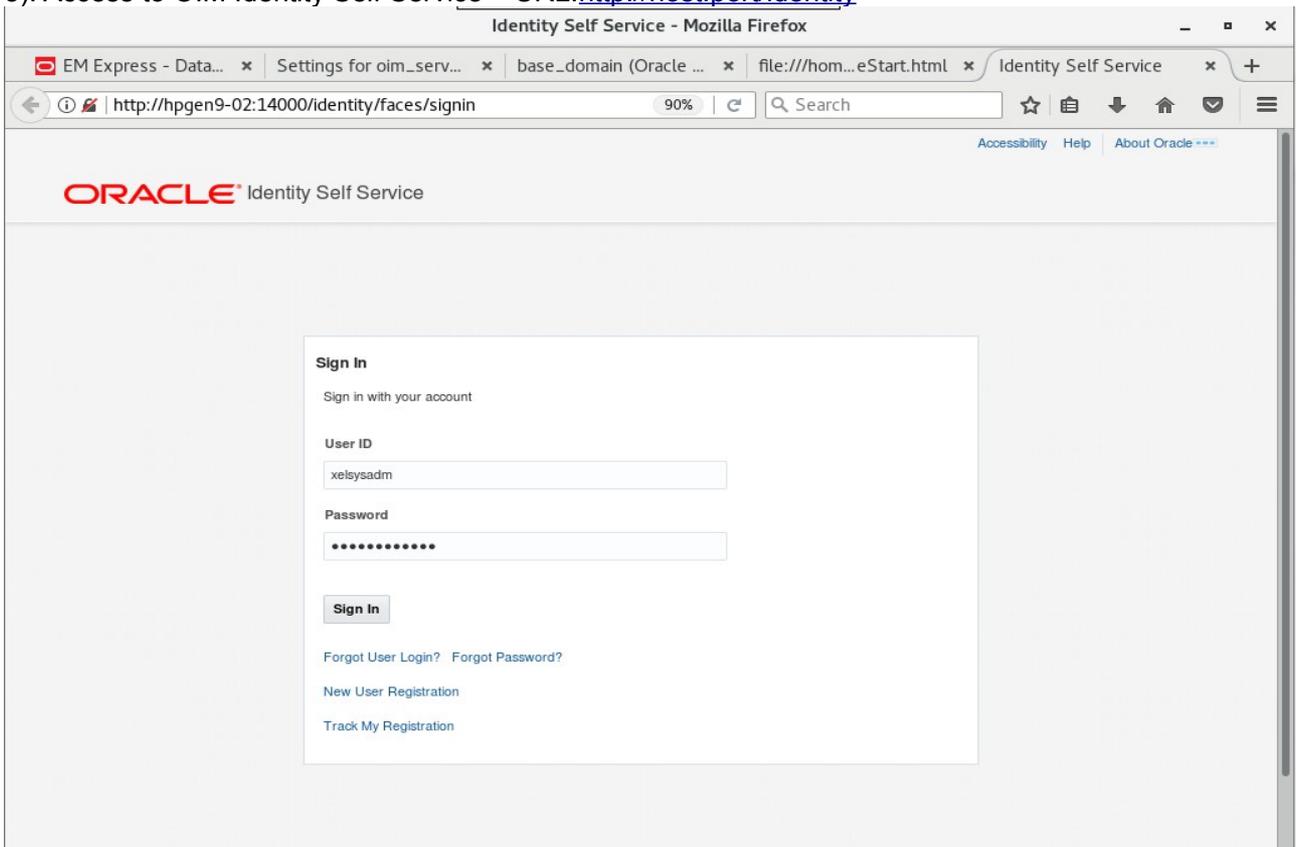
Name	Status	Cluster	Machine	State	Health
AdminServer(admin)	↑		suse_Machine_1	Running	OK
oim_server1	↑	oim_cluster_1	suse_Machine_1	Running	OK
soa_server1	↑	soa_cluster_1	suse_Machine_1	Running	OK

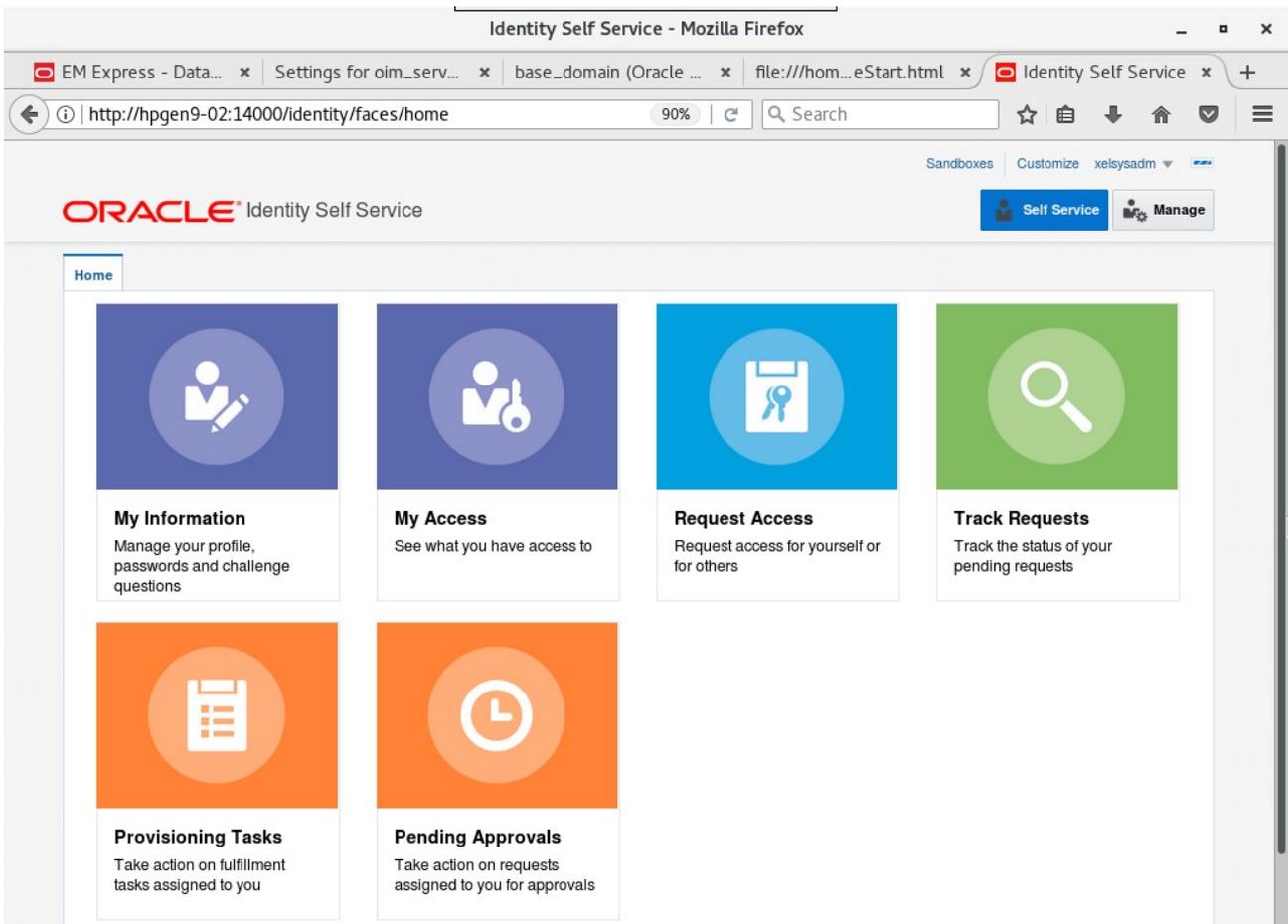
Columns Hidden 34 Servers 3 of 3

http://hpgen9-02:7001/em/faces/as.../Domain\_base\_domain/base\_domain#

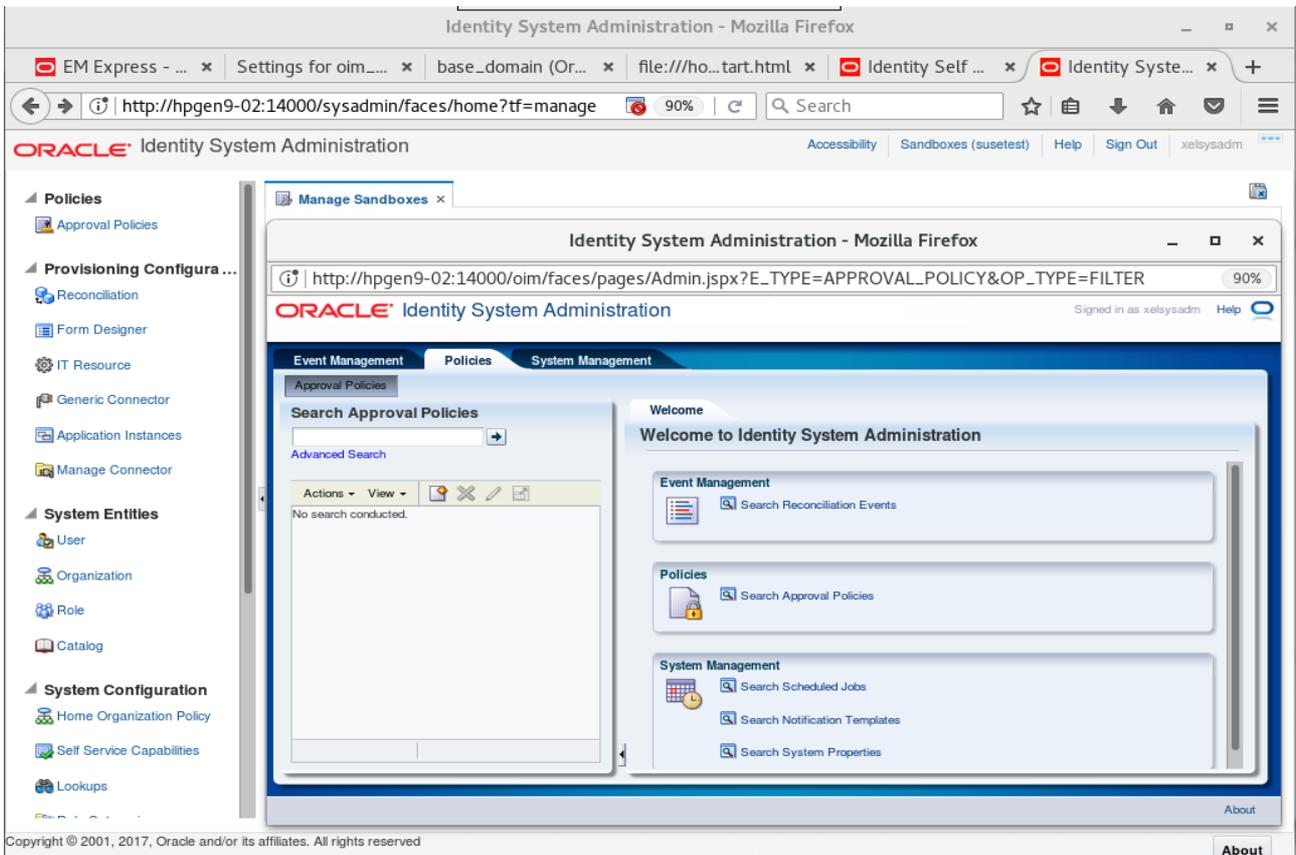
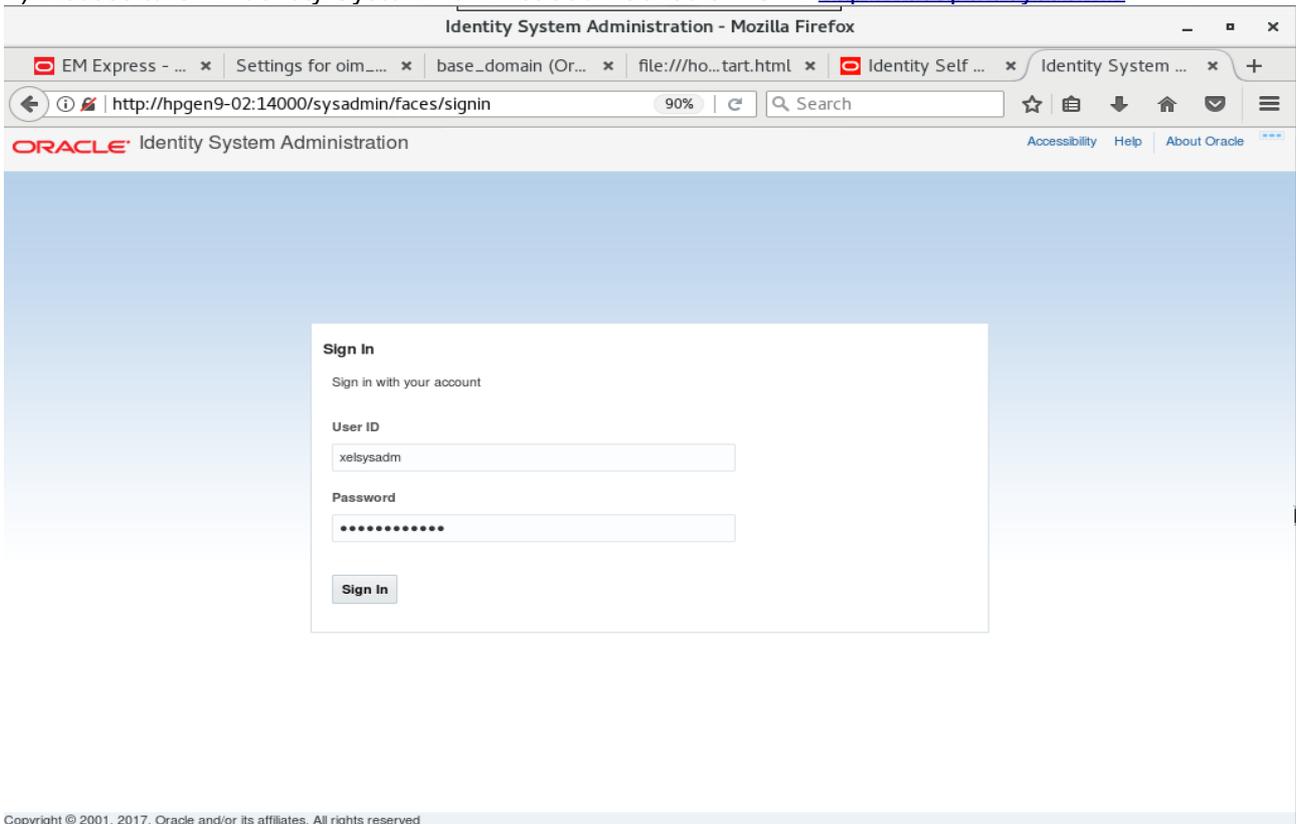
After they start up successfully, each managed server is listed as Running.

3). Access to OIM Identity Self Service – URL:<http://host:port/identity>





4). Access to OIM Identity System Administration Console – URL:<http://host:port/sysadmin>



5). Access to Oracle SOA infrastructure Main Page – URL:<http://host:port/soa-infra>

**Welcome to the Oracle SOA Platform on WebLogic**

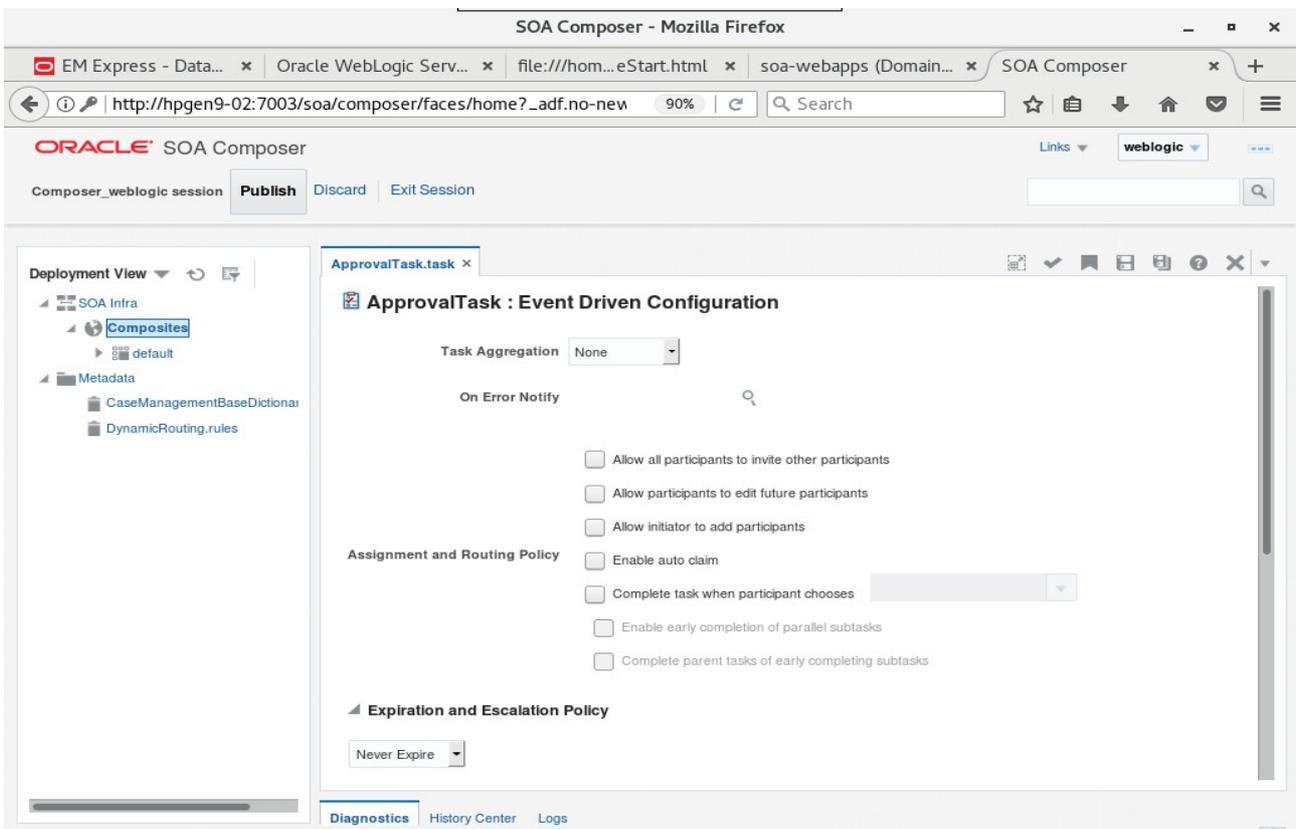
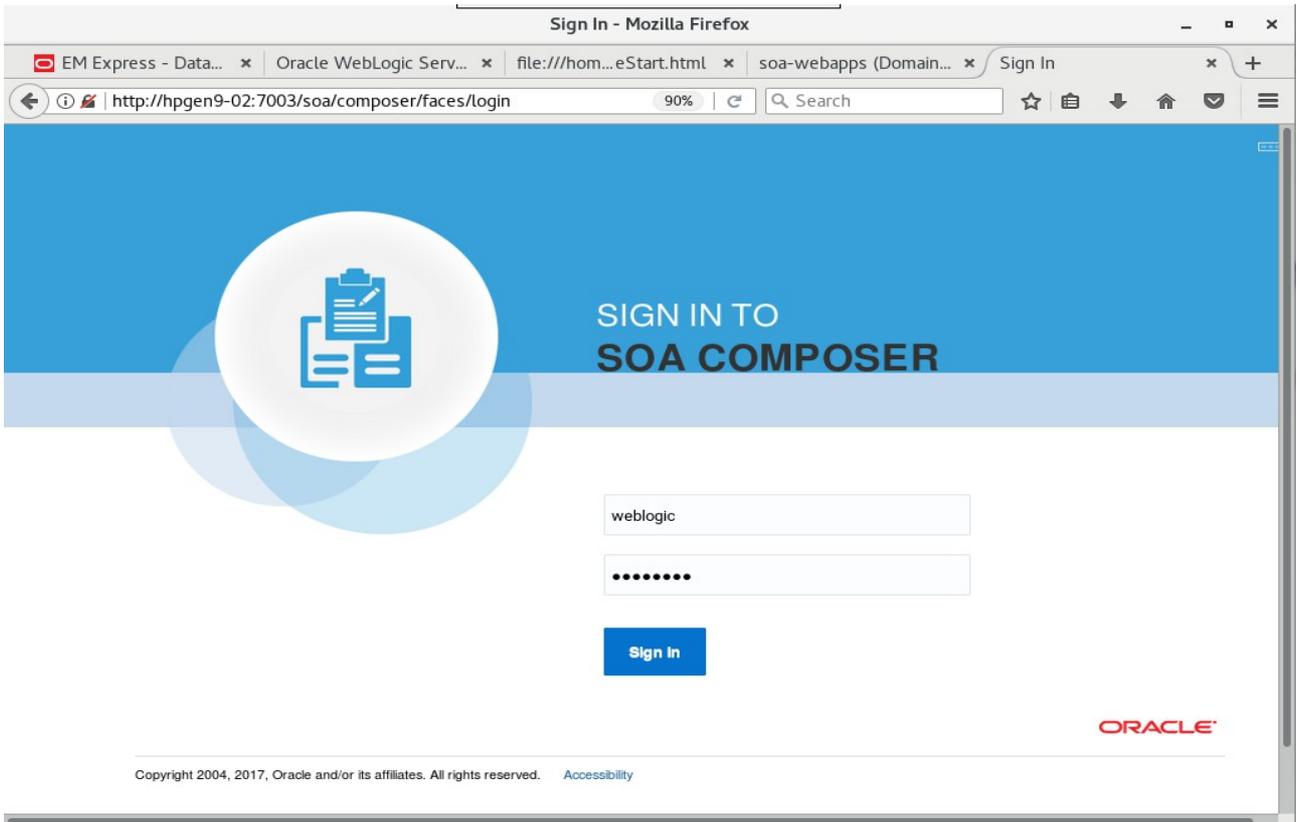
SOA Version: v12.2.1.3.0 - MAIN\_170820.1700.2557  
 WebLogic Server 12.2.1.3.0 (12.2.1.3.0)  
 Running on: soa\_server1

[SOA Composer](#)  
[BPM Worklist](#)

The following composites are currently deployed:

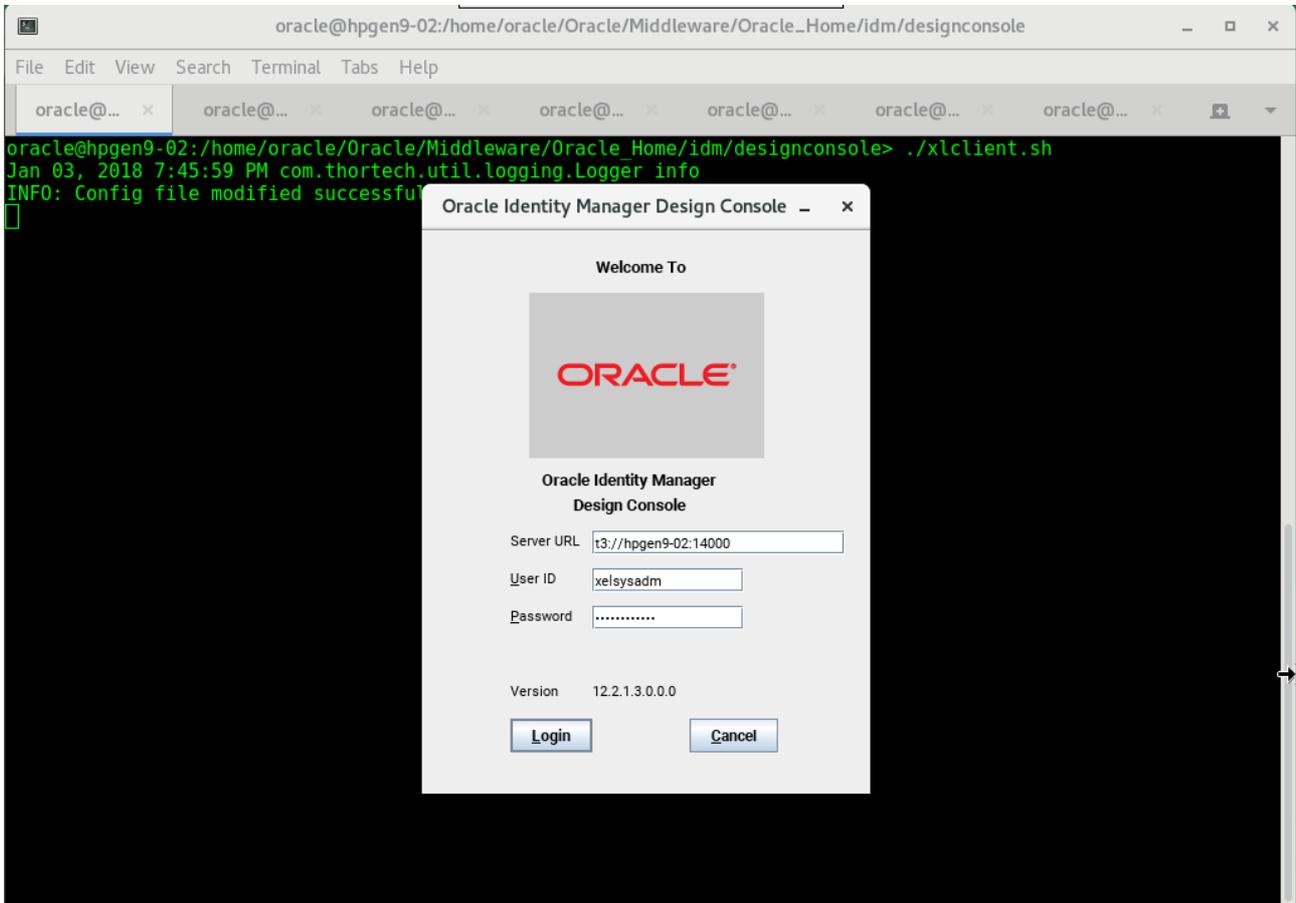
1. default/AutoApproval!1.0\*soa\_e74bee45-d738-4dac-b948-c9c8c252ef06
  - o Web Service: RequestApprovalService
2. default/BeneficiaryManagerApproval!4.0\*soa\_f47b5c18-cdeb-4d2c-8076-c1996860e329
  - o Web Service: RequestApprovalService
3. default/CertificationOverseerProcess!2.0\*soa\_5c499b17-d38f-44c0-8477-6c06084b9b1d
  - o Web Service: CertificationTaskService
4. default/CertificationProcess!2.0\*soa\_1f4f94b9-4c1b-4596-b6de-59f432842409
  - o Web Service: CertificationTaskService
5. default/DefaultOperationalApproval!5.0\*soa\_66f28970-cdeb-4664-8af4-12587484f671
  - o Web Service: RequestApprovalService
6. default/DefaultRequestApproval!5.0\*soa\_0aa7428c-0b44-4c0e-b3bd-4657858b3729
  - o Web Service: RequestApprovalService
7. default/DefaultRequestApproval!6.0\*soa\_5d9c1d3a-ee6-429f-82f0-c5acf029e45e
  - o Web Service: RequestApprovalService
8. default/DefaultRoleApproval!3.0\*soa\_1aa2a180-698a-4bcd-8859-faee689697e1
  - o Web Service: RequestApprovalService
9. default/DefaultSODApproval!2.0\*soa\_d11bee3c-54e9-4204-841b-01134e4cce03
  - o Web Service: RequestApprovalService
10. default/DisconnectedProvisioning!2.0\*soa\_ccac580b-6b4c-49fd-b2a7-28b4fb6f40f7
  - o Web Service: manualprovisioningprocess\_client
11. default/IdentityAuditRemediation!1.0\*soa\_e2b72613-8490-4f76-a836-2db286c7548f
  - o Web Service: IdentityAuditRemediationService
12. default/OAACGRoleAssignSODCheck!1.0\*soa\_87b11d6b-6dc5-4960-8b5c-0650095846b5
  - o Web Service: RequestApprovalService
13. default/ProvideInformation!3.0\*soa\_ab70eb82-b8e1-4fff-88e1-f448852183d1

6). Access to Oracle SOA composer - URL:<http://host:port/soa/composer>

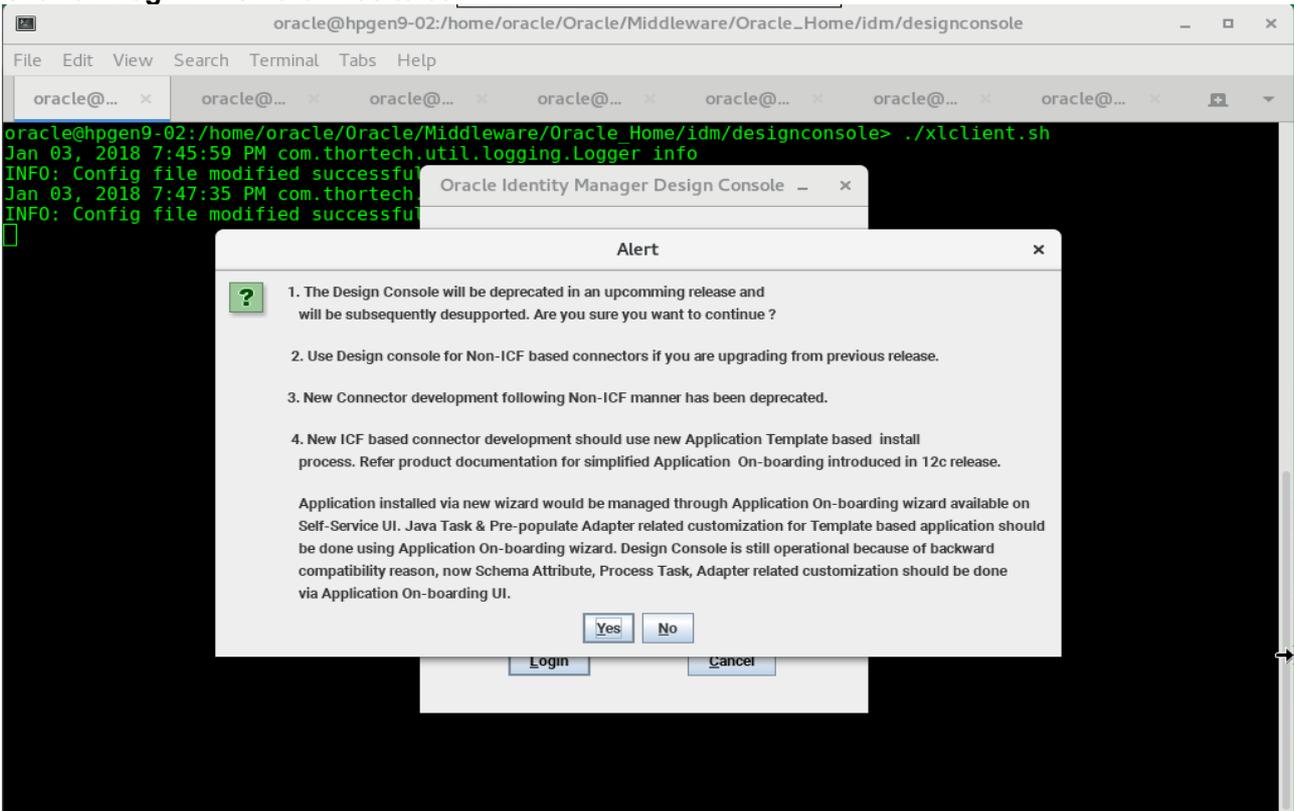


7). Verifying connection for OIM design console. Launch the Design Console (via the xlclient.sh script in \$MW\_HOME/idm/designconsole)

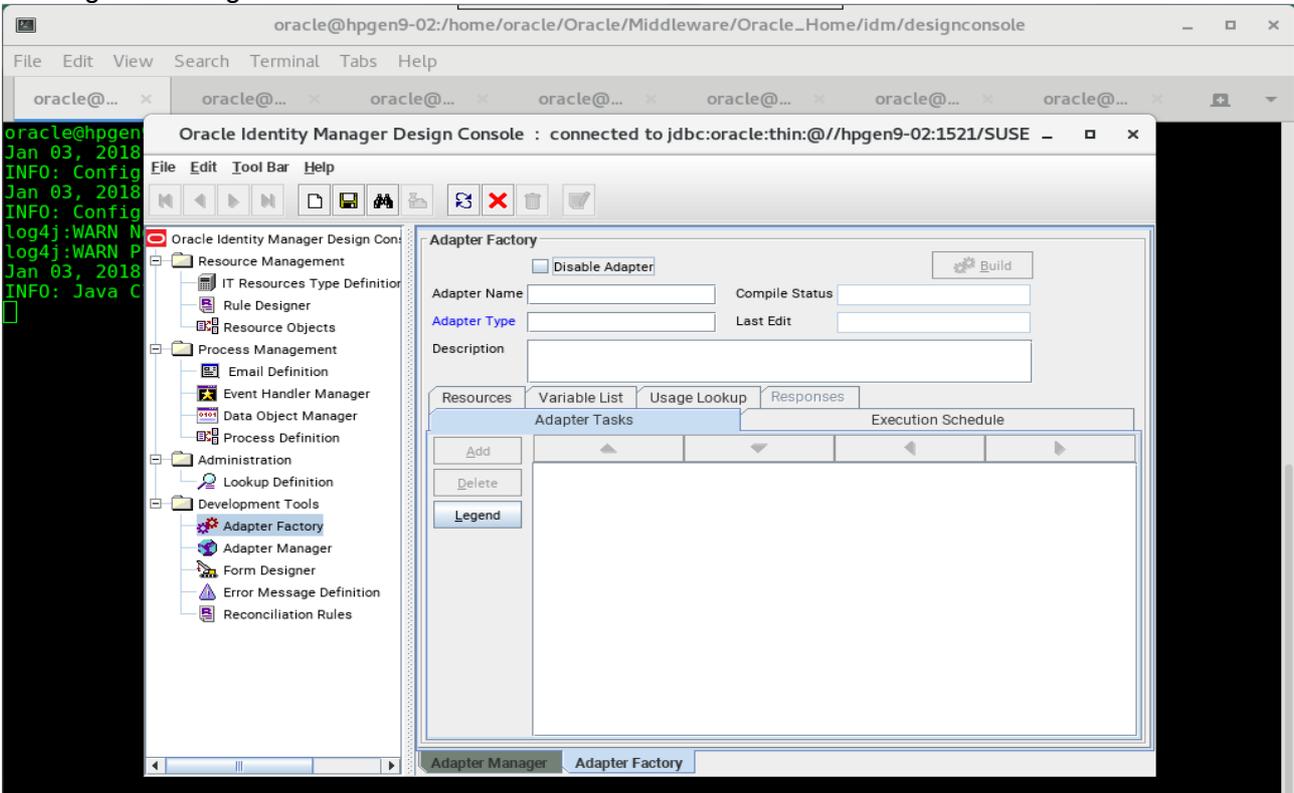
```
export JAVA_HOME=xxx  
chmod +x xlclient.sh  
./xlclient.sh
```



Click on **Login**. Then click **Yes** to confirm.



Viewing OIM Design Console.



**End of Oracle Identity Manager.**

## Additional Comments

This document shows how to install and configure a standard topology for Oracle Fusion Middleware components 12c on SLES 12 SP3. You can extend this topology to make it highly available and secure so it is suitable for a production system.

**Thank you !**  
**SUSE ISV Engineering Team**  
**Mar 15th, 2018**

<https://www.suse.com>