

Oracle Fusion Middleware 12c on SUSE Linux Enterprise Server 15 (SP6) for x86-64

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Introduction

This document provides details on installing and configuring Oracle Fusion Middleware 12c Components on SUSE Linux Enterprise Server 15 SP6. Details are provided for Intel x86-64 versions of both Oracle FMW 12c and SUSE Linux Enterprise Server 15 SP6. Similar steps apply to other platforms (x86, ia64, System z, etc.).

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 15 SP6 GM (x86-64)
(<https://www.suse.com/download/sles/>)

Oracle

- Database 12cR2 (12.2.0.1.0) - (x86_64)
- Database 19c (19.3.0.0.0) (x86_64)
(<https://www.oracle.com/downloads/#category-database>)
- Patch 35943157: DATABASE RELEASE UPDATE 19.22.0.0.0
(<https://support.oracle.com>)
- Java SE Development Kit 8 (jdk-8u221-linux-x64.tar.gz)
- Java SE Development Kit 8 (jdk-8u401-linux-x64.tar.gz)
(<https://www.oracle.com/downloads/#category-java>)
- WebLogic Server 12cR2 (12.2.1.4) (fmw_12.2.1.4.0_wls_Disk1_1of1.zip)
(<https://www.oracle.com/downloads/#category-middleware>)
- WebLogic Server 12cR2 (12.2.1.4.0) - (Fusion Middleware Infrastructure Installer)
(<https://www.oracle.com/downloads/#category-middleware>)
- Forms and Reports 12c (12.2.1.19.0) (x86_64) - (V1033708-01.zip)
(<https://www.oracle.com/downloads/#category-middleware>)
- Patch 35299885: Forms/Reports 12.2.1.19 fails prerequisite test on SUSE Enterprise Linux 15 (p35299885_1221190_Generic.zip)
(<https://support.oracle.com>)
- WebTier 12cR2 Oracle HTTP Server (12.2.1.4.0) - (x86_64)
(<https://www.oracle.com/downloads/#category-middleware>)

- WebCenter Portal 12c (12.2.1.4.0) - (V983398-01.zip)
(<https://www.oracle.com/downloads/#category-middleware>)
- SOA Suite 12c (12.2.1.4.0) - (V983385-01_1of2.zip)
(<https://www.oracle.com/downloads/#category-middleware>)
- Oracle Identity and Access Management 12cPS4 (12.2.1.4.0) – (Generic Quick Installer)
(<https://www.oracle.com/downloads/#category-middleware>)

Testing Machine Information

Dell Laptop Precision 5530

CPU: 6 * Intel(R) Core(TM) i7-8850H CPU @ 2.60GHz

RAM: 32 GB

NIC: 2

Local HDD: 1TB + 512GB

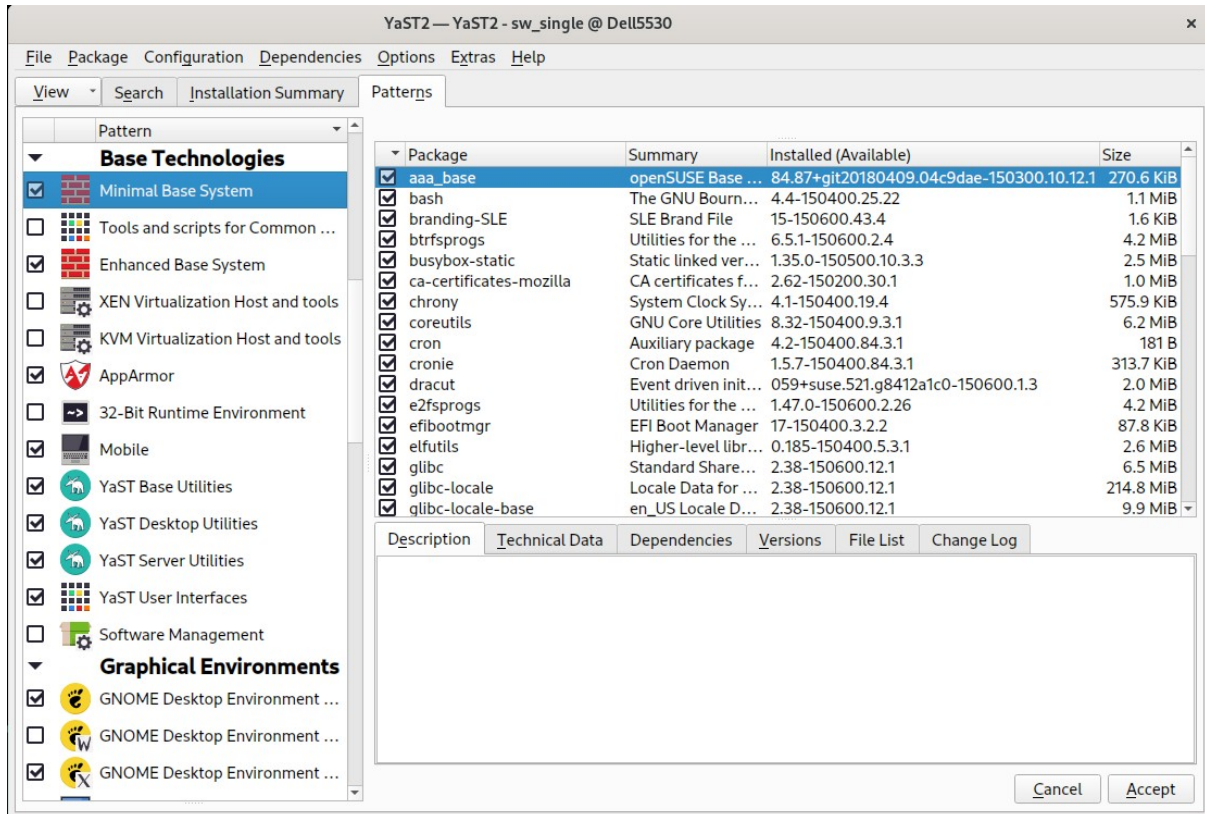
OS: SUSE Linux Enterprise Server 15 SP6 GM (x86-64) - Kernel version: 6.4.0-150600.21-default

Prerequisites

1. Installing SUSE Linux Enterprise Server 15 SP6

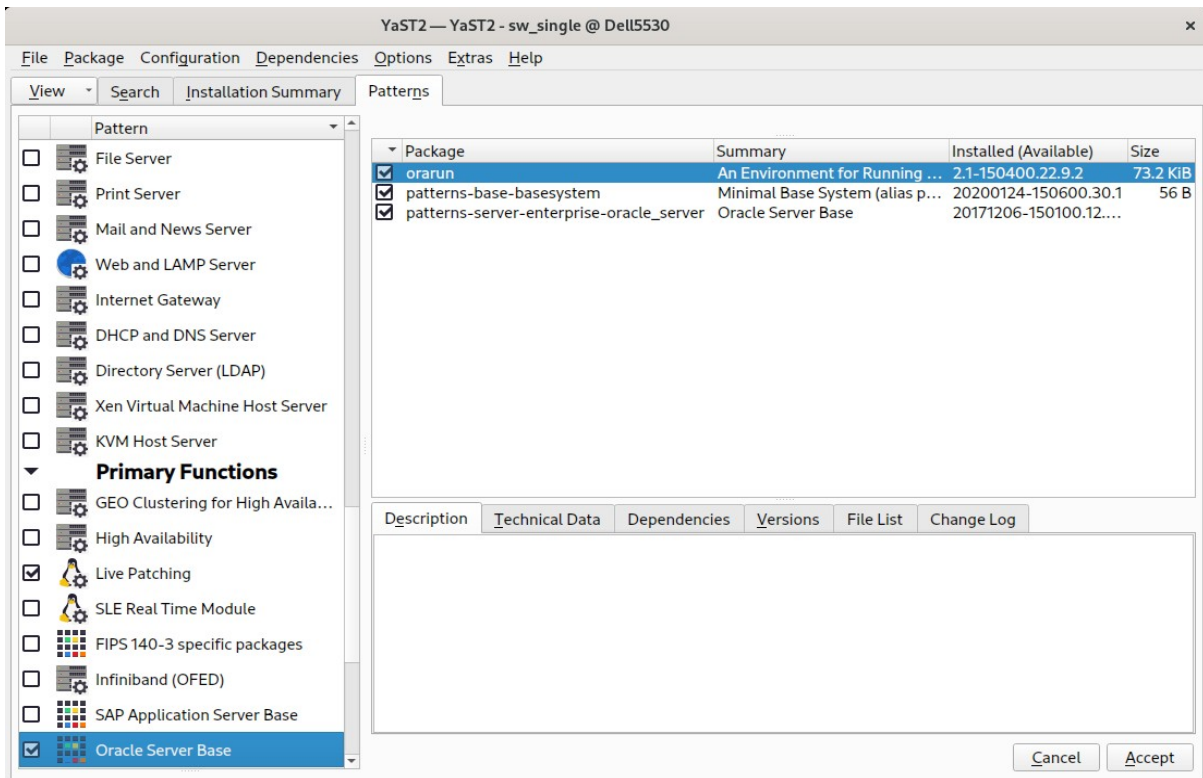
1-1. Install SUSE Linux Enterprise Server 15 SP6 on your testing machine. To do so, follow the instructions in the official SUSE Linux Enterprise Server documentation at: <https://www.suse.com/documentation/>.

Figure 1-1 Software Installed as shown below

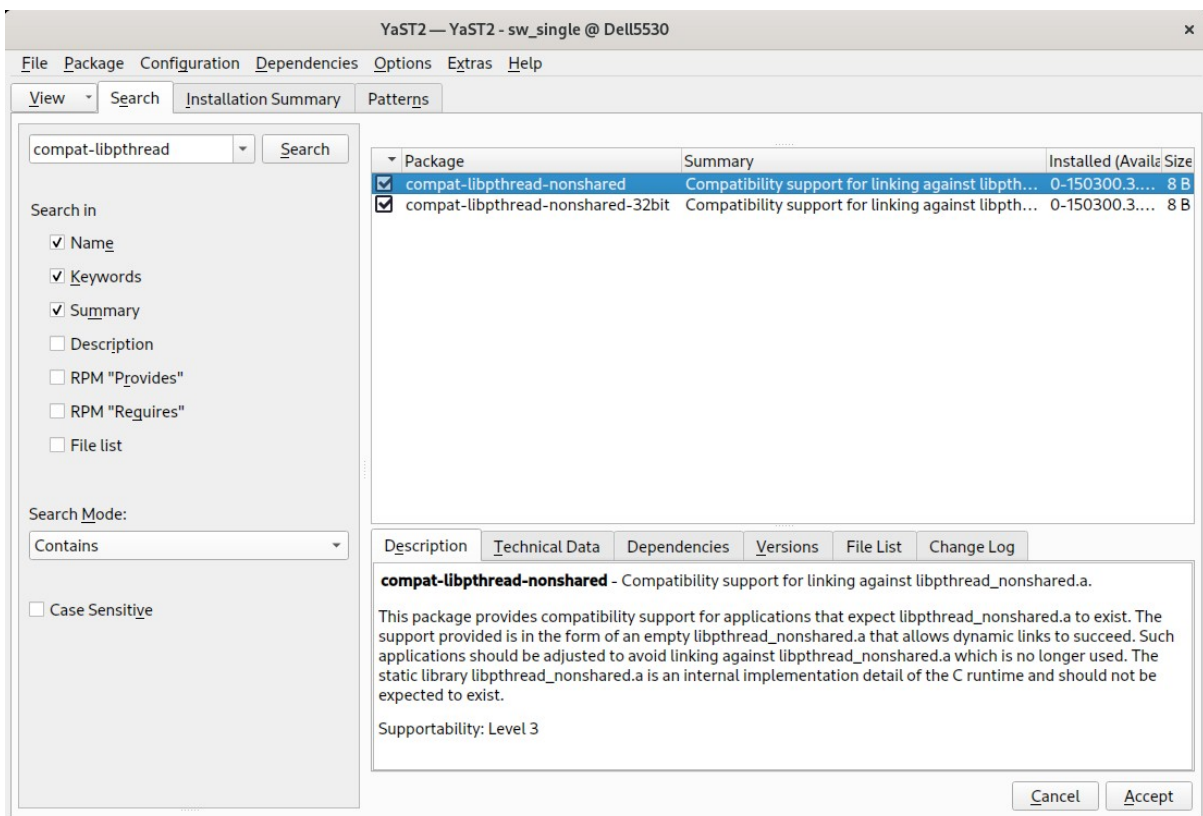


In Yast, select the patterns you need. Make sure you select the patterns and packages required to run Oracle products.

Figure 1-2 Software Installed as shown below



(Note: Please make sure that 'compat-libpthread-nonshared' is installed.



)

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

Figure 1-3 OS release information and kernel version

```
oracle@Dell5530:~> more /etc/os-release
NAME="SLES"
VERSION="15-SP6"
VERSION_ID="15.6"
PRETTY_NAME="SUSE Linux Enterprise Server 15 SP6"
ID="sles"
ID_LIKE="suse"
ANSI_COLOR="0;32"
CPE_NAME="cpe:/o:suse:sles:15:sp6"
DOCUMENTATION_URL="https://documentation.suse.com/"
oracle@Dell5530:~> uname -a
Linux Dell5530 6.4.0-150600.21-default #1 SMP PREEMPT_DYNAMIC Thu May 16 11:09:22 UTC 2024 (36c1e09/1p) x86_64 x86_64 x86_64 GNU/Linux
oracle@Dell5530:~> rpm -qa | grep glibc
glibc-locale-base-2.38-150600.12.1.x86_64
glibc-32bit-2.38-150600.12.1.x86_64
glibc-devel-2.38-150600.12.1.x86_64
glibc-locale-2.38-150600.12.1.x86_64
glibc-devel-32bit-2.38-150600.12.1.x86_64
glibc-2.38-150600.12.1.x86_64
glibc-lang-2.38-150600.12.1.noarch
linux-glibc-devel-6.4-150600.2.17.x86_64
glibc-extra-2.38-150600.12.1.x86_64
oracle@Dell5530:~> █
```

1-2. SPecial Startup Requirements.

1). To set the SHMMAX kernel parameter.

Change the value of SHMMAX to 16531791872 by including the following line in /etc/sysctl.conf:

```
kernel.shmmax = 16531791872
```

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 lines:

```
* soft nfile 4096
* hard nfile 65536
* soft nproc 2047
* hard nproc 16384
```

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.

3). Remove /etc/profile.d/oracle.sh and /etc/profile.d/alljava.sh as root.

```
#mv /etc/profile.d/oracle.sh /etc/profile.d/oracle.sh.bak
#mv /etc/profile.d/alljava.sh /etc/profile.d/alljava.sh.bak
```

2. Installing Oracle Database 12cR2

2-1. Log in to the target system (SUSE Linux Enterprise Server 15 SP6 64-bit OS) as a non-admin user. Download Oracle Database 12cR2 (12.2.0.1.0) x86_64 from <https://www.oracle.com/downloads/#category-database>.

2-2. Oracle Database 12cR2 (12.2.0.1.0) is officially certified for SUSE Linux Enterprise Server 15 (x86_64). For detailed instructions please use Official Oracle Install guides: <http://docs.oracle.com/en/database/database.html>.

Figure 2-1 Make sure the Database up and running

```
oracle@Dell5530:~> export ORACLE_HOME=/home/oracle/app/product/12.2.0/dbhome_1/
oracle@Dell5530:~> export ORACLE_SID=suse
oracle@Dell5530:~> /home/oracle/app/product/12.2.0/dbhome_1/bin/sqlplus /nolog

SQL*Plus: Release 12.2.0.1.0 Production on Thu Aug 29 16:01:19 2024

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 9898557440 bytes
Fixed Size 12169752 bytes
Variable Size 2013269480 bytes
Database Buffers 7851737088 bytes
Redo Buffers 21381120 bytes
Database mounted.
Database opened.
SQL> show sga

Total System Global Area 9898557440 bytes
Fixed Size 12169752 bytes
Variable Size 1644170728 bytes
Database Buffers 8220835840 bytes
Redo Buffers 21381120 bytes
SQL> select name,open_mode from v$database;

NAME          OPEN_MODE
-----
SUSE          READ WRITE

SQL> exec DBMS_XDB_CONFIG.SETHTTPPORT(5501);

PL/SQL procedure successfully completed.

SQL> exit
Disconnected from Oracle Database 12c Enterprise Edition Release 12.2.0.1.0 - 64bit Production
oracle@Dell5530:~> █
```

Figure 2-2 Start the Database listener

```

oracle@Dell5530:~$ /home/oracle/app/product/12.2.0/dbhome_1/bin/lsnrctl start
LSNRCTL for Linux: Version 12.2.0.1.0 - Production on 27-SEP-2024 14:10:14
Copyright (c) 1991, 2016, Oracle. All rights reserved.

Starting /home/oracle/app/product/12.2.0/dbhome_1/bin/tnslsnr: please wait...

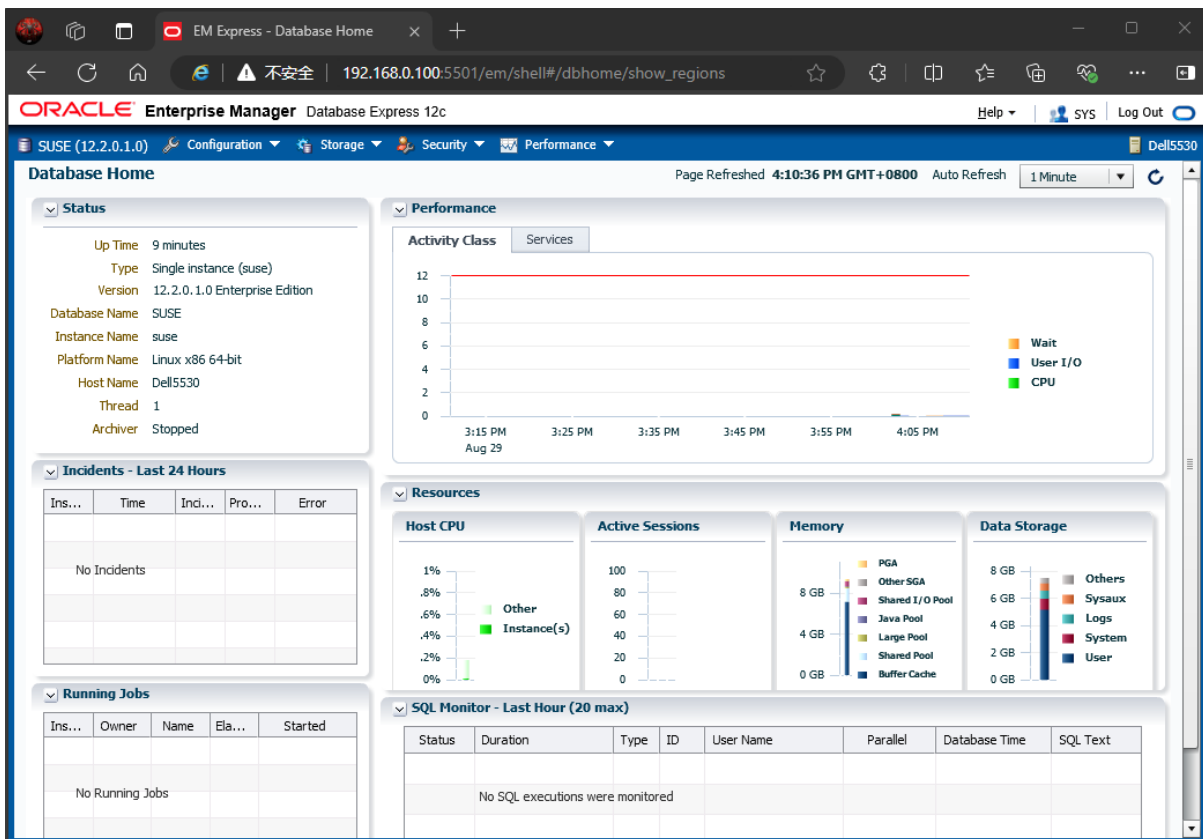
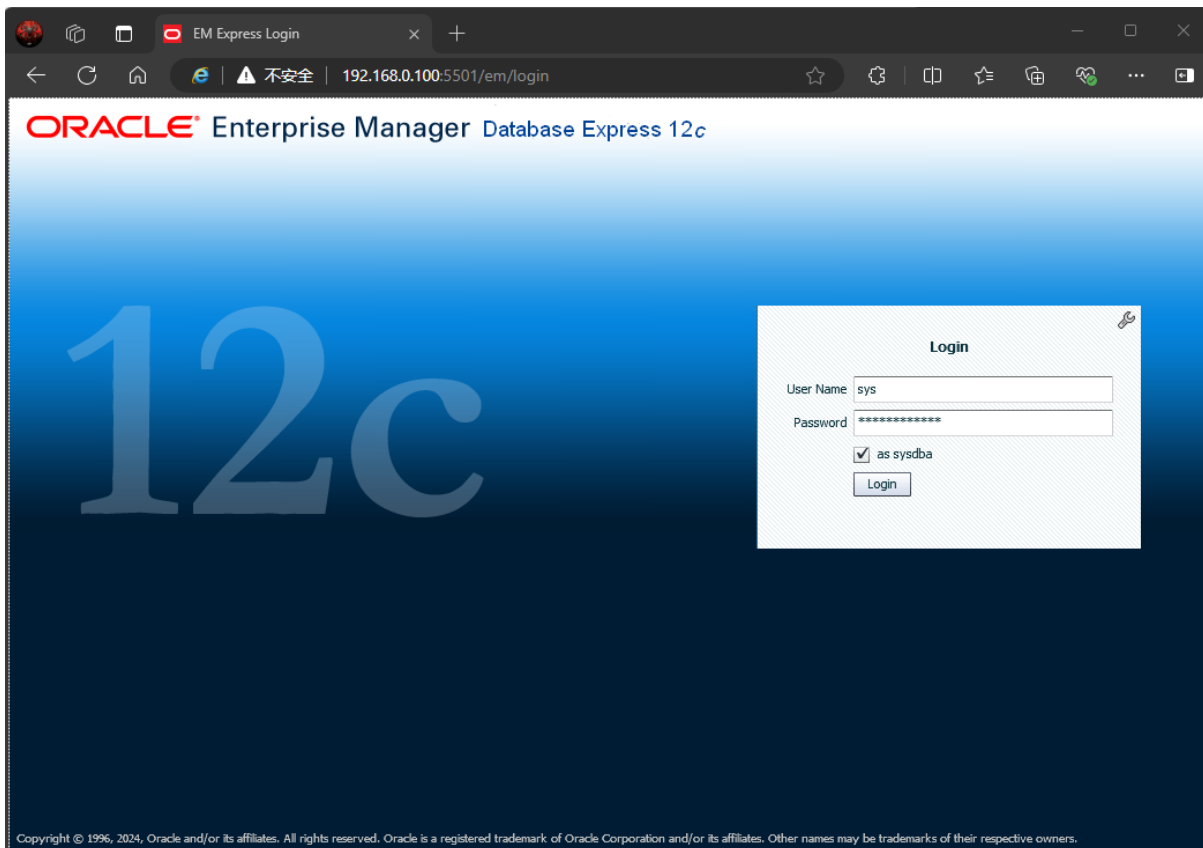
TNSLSNR for Linux: Version 12.2.0.1.0 - Production
Log messages written to /home/oracle/app/diag/tnslsnr/Dell5530/listener/alert/log.xml
Listening on: (DESCRIPTION=(ADDRESS=(PROTOCOL=tcp)(HOST=Dell5530)(PORT=1521)))

Connecting to (ADDRESS=(PROTOCOL=tcp)(HOST=)(PORT=1521))
STATUS of the LISTENER
-----
Alias                     LISTENER
Version                   TNSLSNR for Linux: Version 12.2.0.1.0 - Production
Start Date                27-SEP-2024 14:10:14
Uptime                    0 days 0 hr. 0 min. 0 sec
Trace Level               off
Security                  ON: Local OS Authentication
SNMP                      OFF
Listener Log File         /home/oracle/app/diag/tnslsnr/Dell5530/listener/alert/log.xml
Listening Endpoints Summary...
  (DESCRIPTION=(ADDRESS=(PROTOCOL=tcp)(HOST=Dell5530)(PORT=1521)))
The listener supports no services
The command completed successfully
oracle@Dell5530:~$ /home/oracle/app/product/12.2.0/dbhome_1/bin/lsnrctl status
LSNRCTL for Linux: Version 12.2.0.1.0 - Production on 27-SEP-2024 14:13:03
Copyright (c) 1991, 2016, Oracle. All rights reserved.

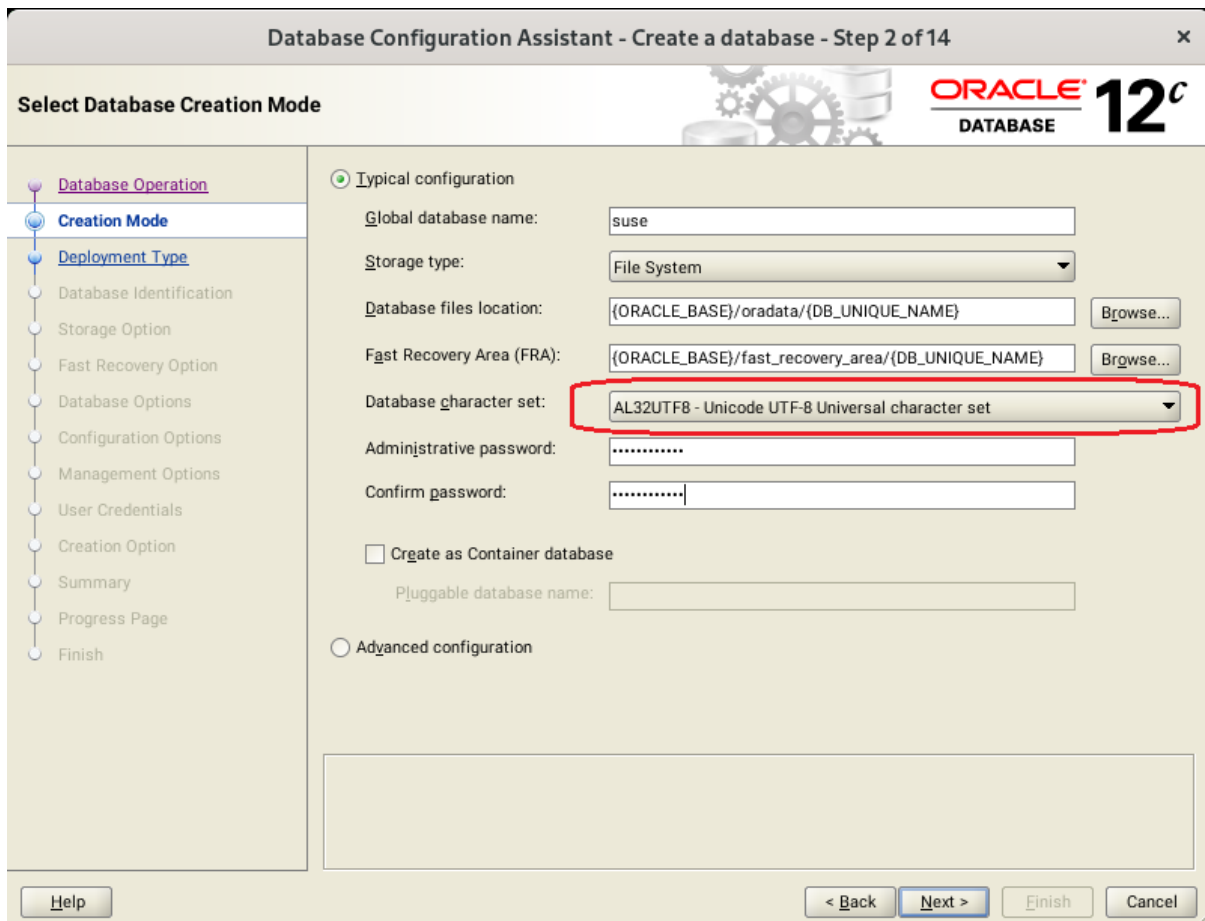
Connecting to (ADDRESS=(PROTOCOL=tcp)(HOST=)(PORT=1521))
STATUS of the LISTENER
-----
Alias                     LISTENER
Version                   TNSLSNR for Linux: Version 12.2.0.1.0 - Production
Start Date                27-SEP-2024 14:10:14
Uptime                    0 days 0 hr. 2 min. 48 sec
Trace Level               off
Security                  ON: Local OS Authentication
SNMP                      OFF
Listener Log File         /home/oracle/app/diag/tnslsnr/Dell5530/listener/alert/log.xml
Listening Endpoints Summary...
  (DESCRIPTION=(ADDRESS=(PROTOCOL=tcp)(HOST=Dell5530)(PORT=1521)))
  (DESCRIPTION=(ADDRESS=(PROTOCOL=tcps)(HOST=Dell5530)(PORT=5500)(Security=(my_wallet_directory=/home/oracle/app/product/12.2.0/dbhome_1/admin/
se/xdw_wallet))(Presentation=HTTP)(Session=RAW))
  (DESCRIPTION=(ADDRESS=(PROTOCOL=tcp)(HOST=Dell5530)(PORT=5501))(Presentation=HTTP)(Session=RAW))
Services Summary...
Service "suse" has 1 instance(s).
  Instance "suse", status READY, has 1 handler(s) for this service...
Service "suseXDB" has 1 instance(s).
  Instance "suse", status READY, has 1 handler(s) for this service...
The command completed successfully
oracle@Dell5530:~$ █

```

Figure 2-3 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.



)

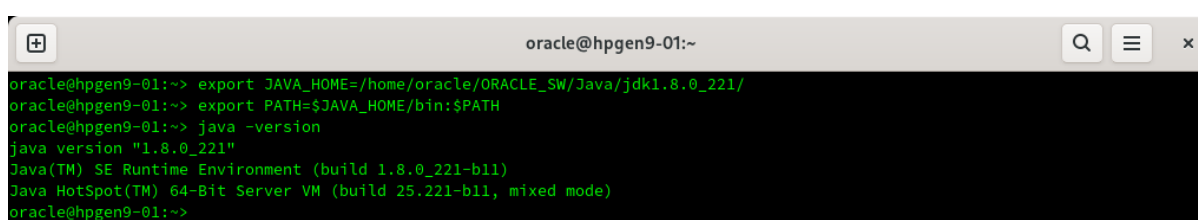
3. Installing Java

3-1. Log in to the target system (SUSE Linux Enterprise Server 15 SP6 64-bit OS) as a non-admin user. Download Java SE Development Kit 8 (jdk-8u221-linux-x64.tar.gz) from <https://www.oracle.com/downloads/#category-java>.

(Note: The classes in com.oracle.weblogic.management.tools.migration.jar are built with JDK8 and must be run with JDK8. For 12cR2(12.2.1.4.0), the certified JDK was jdk1.8.0_191 and later.)

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

Figure 2-1 Java information

A terminal window titled 'oracle@hpgen9-01:~' showing the following commands and output:

```
oracle@hpgen9-01:~> export JAVA_HOME=/home/oracle/ORACLE_SW/Java/jdk1.8.0_221/
oracle@hpgen9-01:~> export PATH=$JAVA_HOME/bin:$PATH
oracle@hpgen9-01:~> java -version
java version "1.8.0_221"
Java(TM) SE Runtime Environment (build 1.8.0_221-b11)
Java HotSpot(TM) 64-Bit Server VM (build 25.221-b11, mixed mode)
oracle@hpgen9-01:~>
```

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:

- Oracle JDK 1.8.0_221 or later is installed.

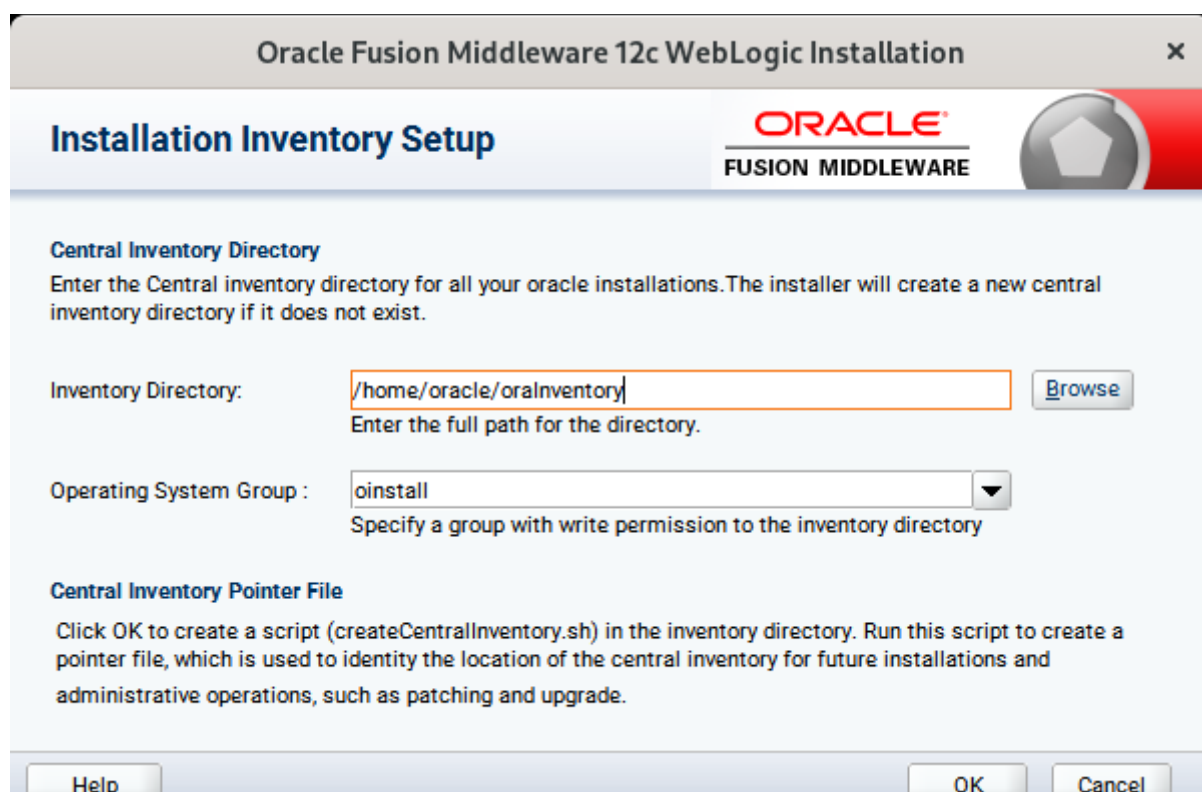
1-2. Log in to the target system (SUSE Linux Enterprise Server 15 SP6 64-bit OS) as a non-admin user. Download the Oracle WebLogic Server 12cR2 (12.2.1.4.0) from <https://www.oracle.com/downloads/#category-middleware>.

(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_12.2.1.4.0_wls_Disk1_1of1.zip) file and launch the installation program by running `'java -jar fmw_12.2.1.4.0_wls.jar'`

For the actual installation, follow the steps below:

1). Installation Inventory Setup.



The screenshot shows a window titled "Oracle Fusion Middleware 12c WebLogic Installation" with a close button (X) in the top right corner. The main heading is "Installation Inventory Setup" in blue. To the right of the heading is the Oracle logo and the text "FUSION MIDDLEWARE" above a circular icon. Below the heading, there are two sections:

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

Inventory Directory:
Enter the full path for the directory.

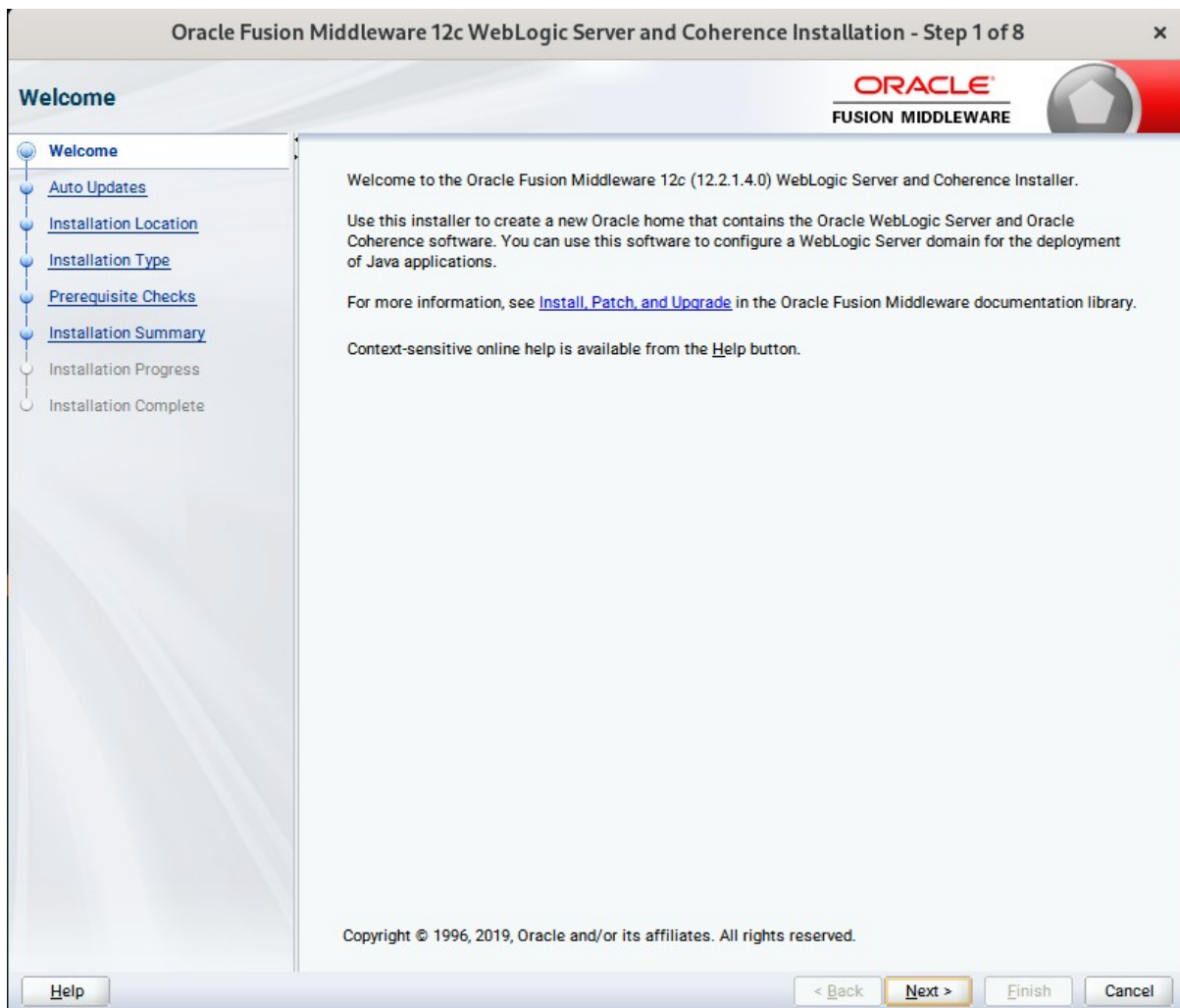
Operating System Group :
Specify a group with write permission to the inventory directory

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

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

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.

2). Welcome.



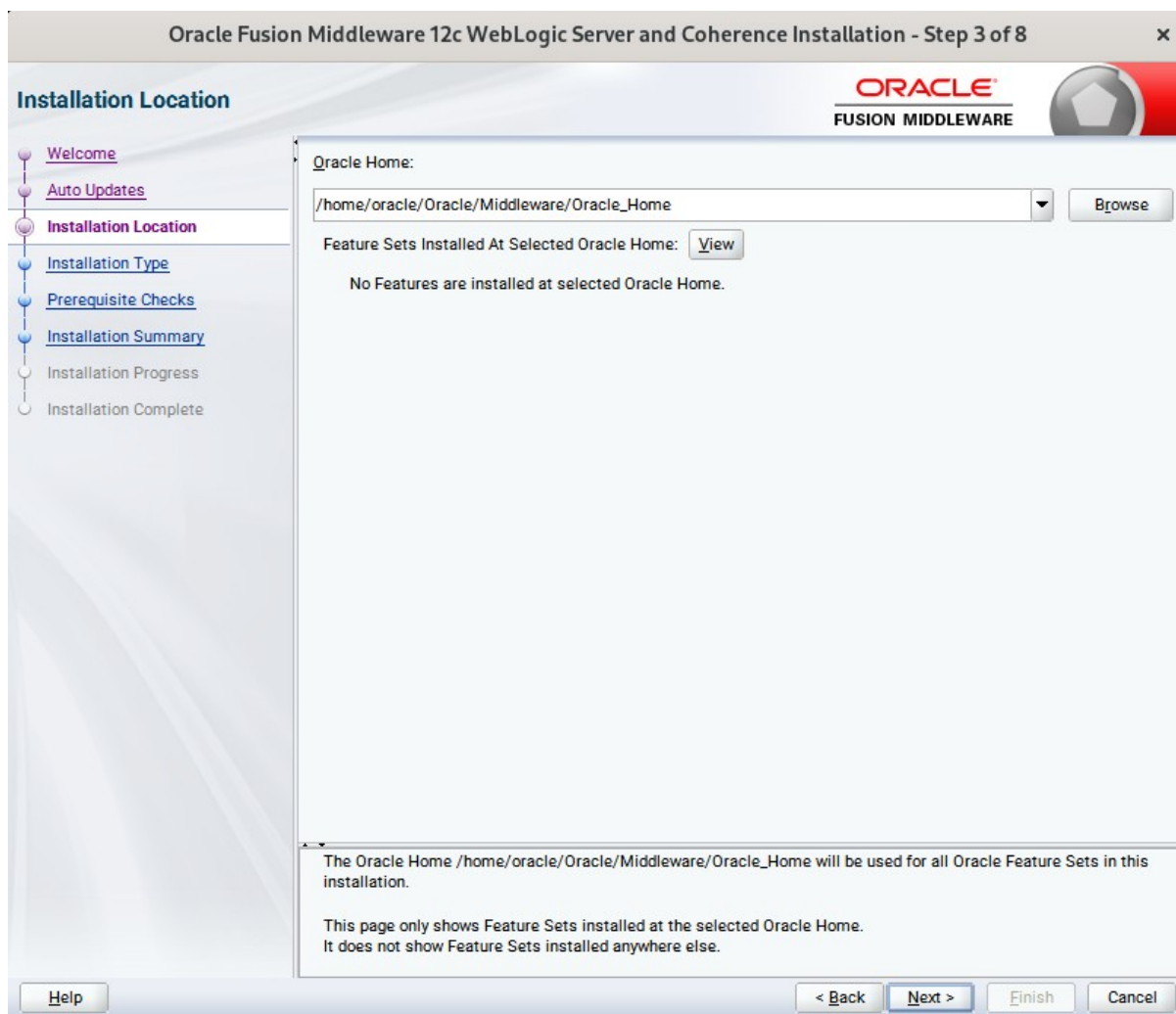
Review the information on this screen carefully to be sure you have performed all the necessary prerequisites, then click **Next** to continue.

3). Auto Updates.

The screenshot shows the 'Auto Updates' configuration window. The title bar reads 'Oracle Fusion Middleware 12c WebLogic Server and Coherence Installation - Step 2 of 8'. The window has a sidebar on the left with a progress indicator showing steps: Welcome, Auto Updates (current), Installation Location, Installation Type, Prerequisite Checks, Installation Summary, Installation Progress, and Installation Complete. The main area contains three radio button options: 'Skip Auto Updates' (selected), 'Select patches from directory', and 'Search My Oracle Support for Updates'. The 'Select patches from directory' option includes a 'Location:' text box and a 'Browse' button. The 'Search My Oracle Support for Updates' option includes 'Username:' and 'Password:' text boxes, a 'Proxy Settings' button, and a 'Test Connection' button. Below these is a 'Search' button and a large empty text area. At the bottom of the window are buttons for '< Back', 'Next >', 'Finish', and 'Cancel'. A 'Help' button is located in the bottom-left corner.

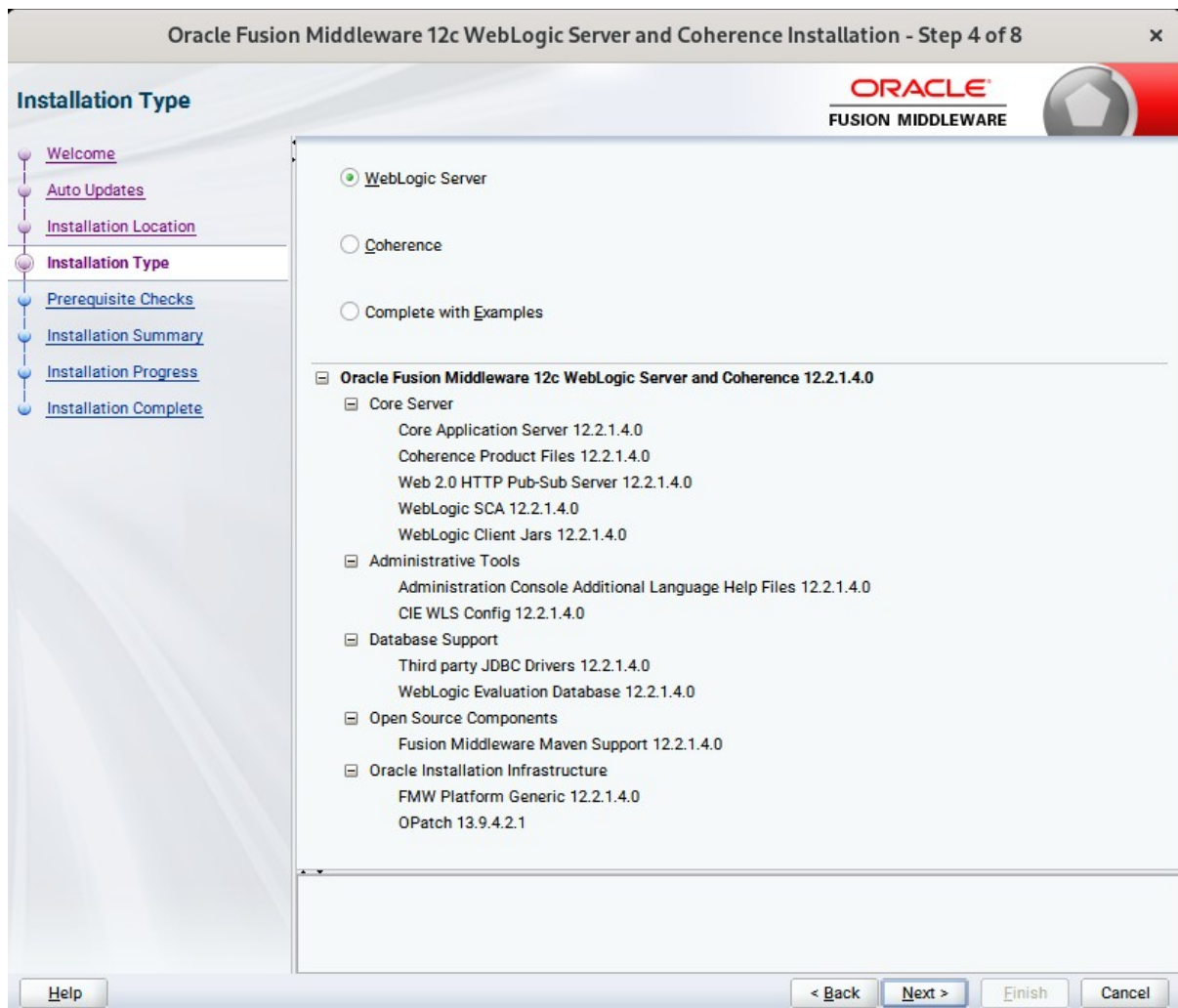
Select option "**Skip Auto Updates**" to skip this screen, then click **Next** to continue.

4). Installation Location.



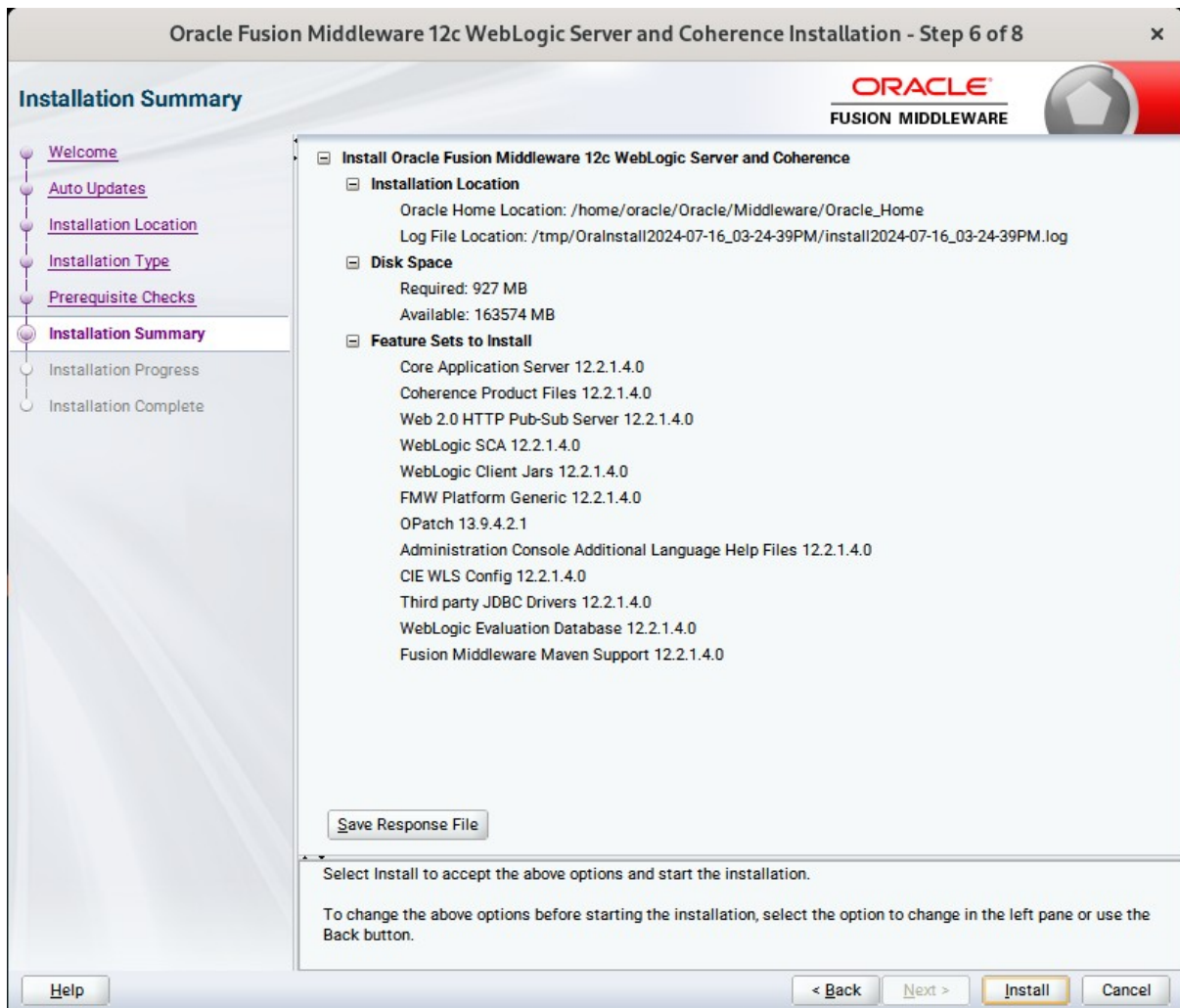
Type the full path of the directory in the Oracle Home field, then click **Next** to continue.

5). Installation Type.



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

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.

Oracle Fusion Middleware 12c WebLogic Server and Coherence Installation - Step 7 of 8

Installation Progress

ORACLE
FUSION MIDDLEWARE

100%

✓	Prepare
✓	Copy
✓	Generating Libraries
✓	Performing String Substitutions
✓	Linking
✓	Setup
✓	Saving the inventory
✓	Post install scripts

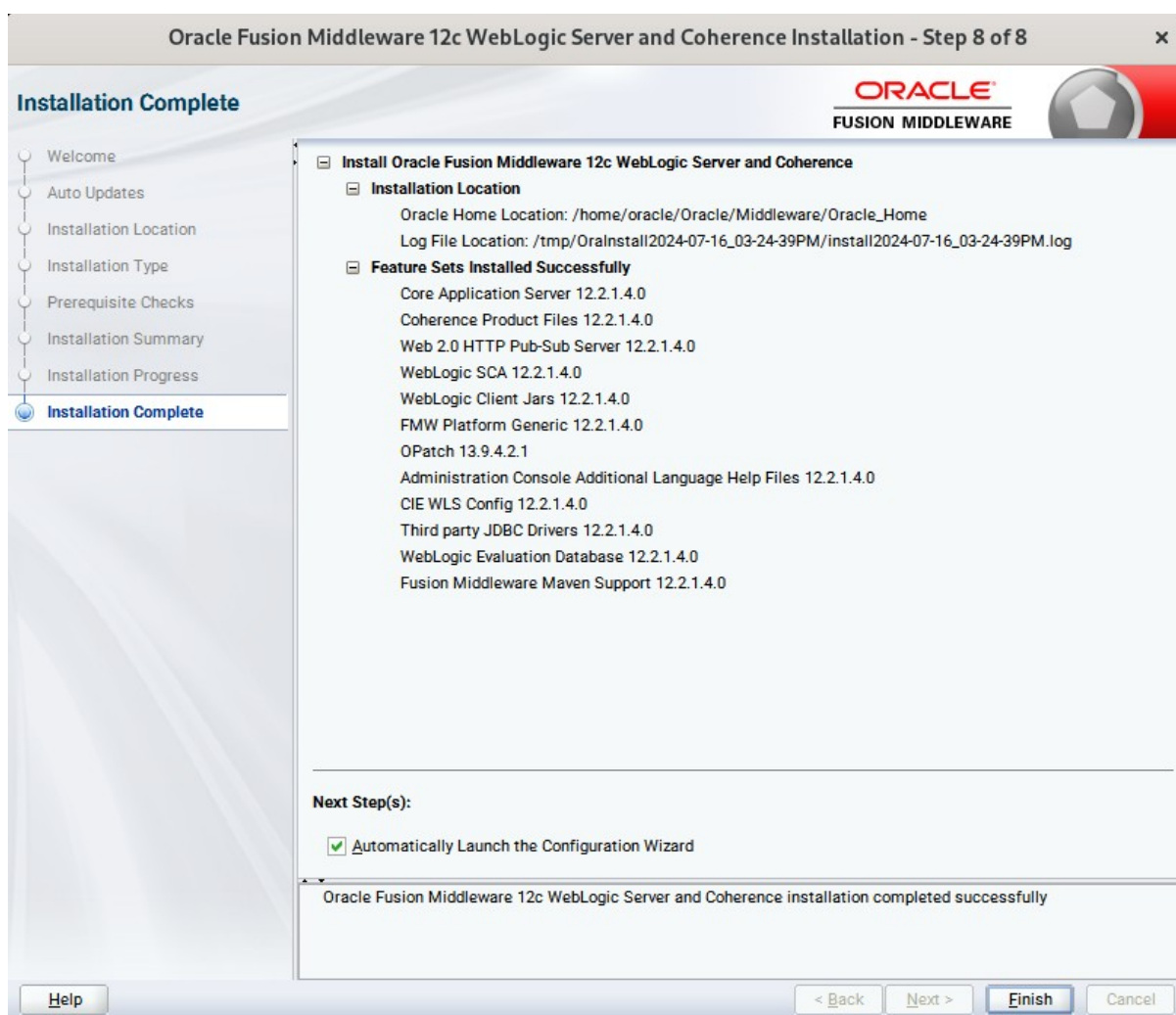
View Messages View Successful Tasks View Log

Hardware and Software
Engineered to Work Together

Help < Back Next > Finish Cancel

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**.

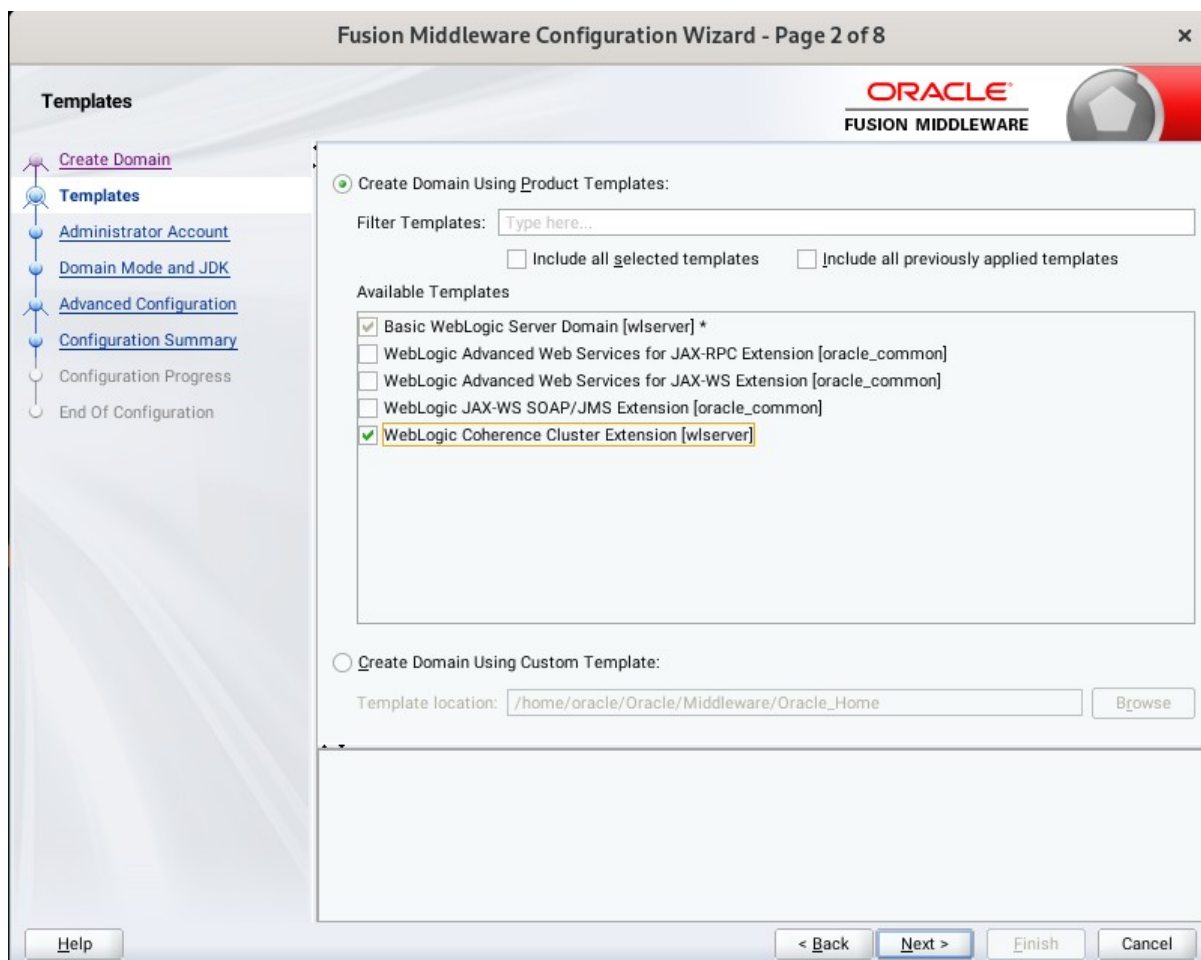
To set up your configuration, follow the steps below:

1). Configuration Type.



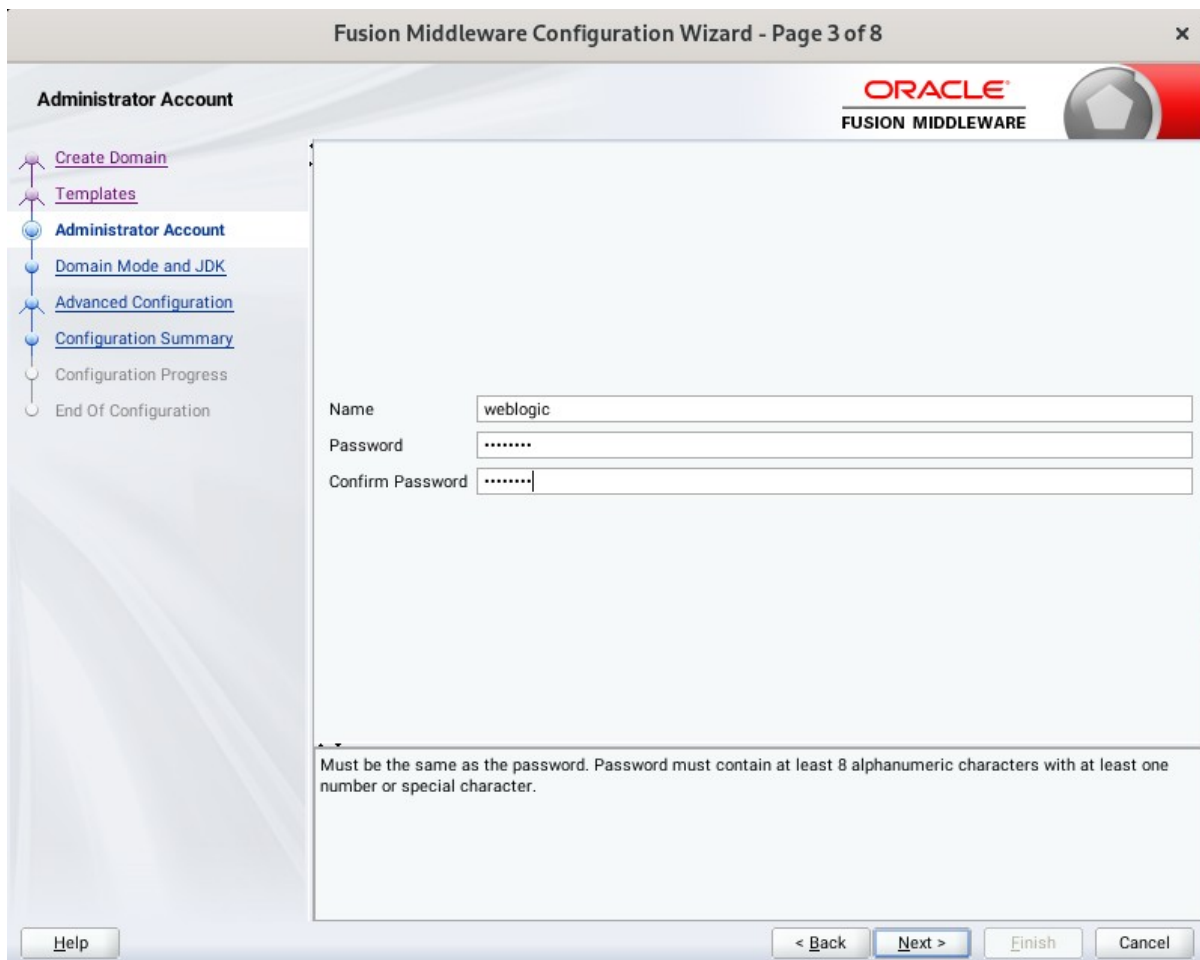
Select option "**Create a New Domain**" and Specify the Domain home directory in the "**Domain Location**" field, then click **Next** to continue.

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.

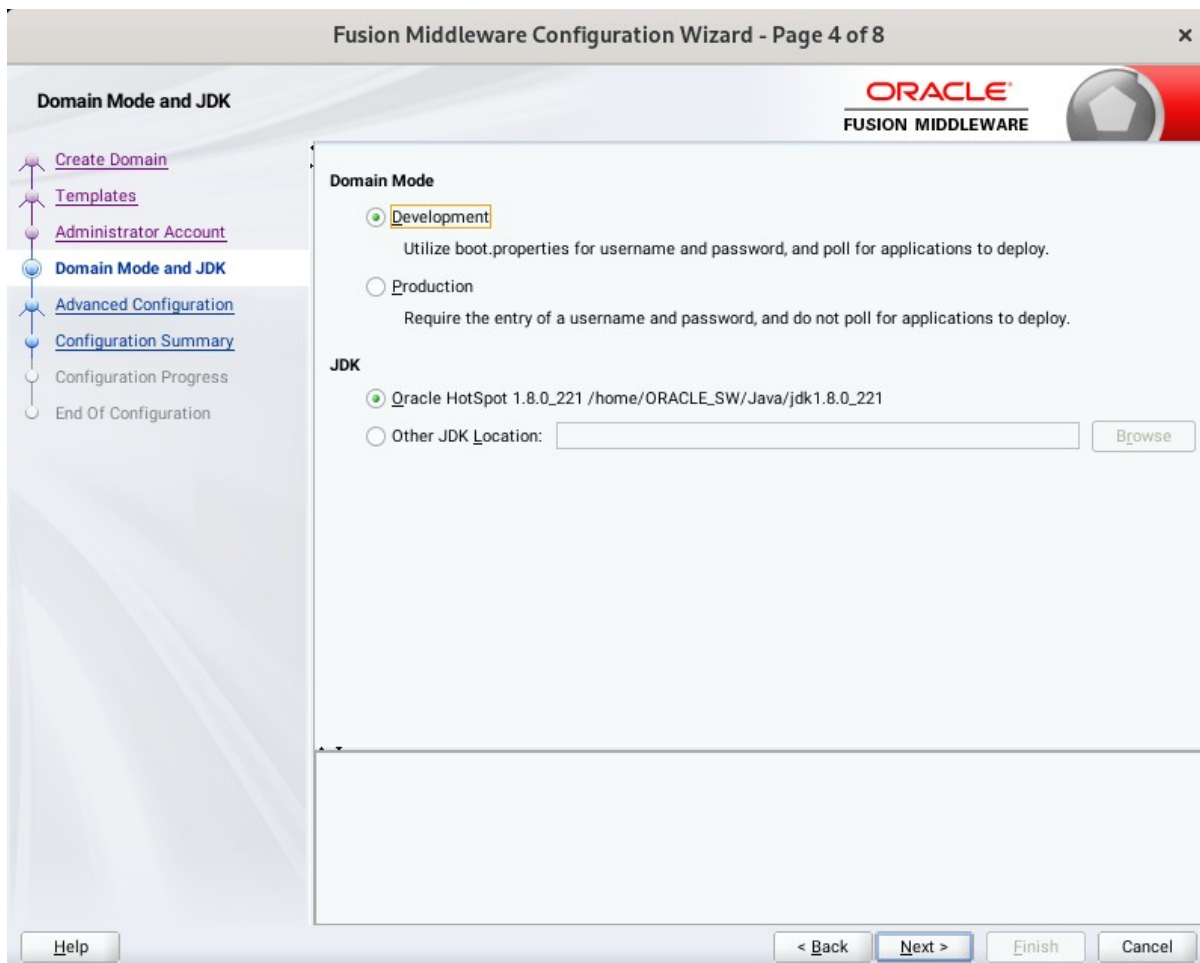
3). Administrator Account.



The screenshot shows the 'Administrator Account' configuration step in the Fusion Middleware Configuration Wizard. The window title is 'Fusion Middleware Configuration Wizard - Page 3 of 8'. The Oracle Fusion Middleware logo is visible in the top right corner. On the left, a navigation pane lists the steps: Create Domain, Templates, Administrator Account (selected), Domain Mode and JDK, 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. A note at the bottom of the main area states: '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 buttons for '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.

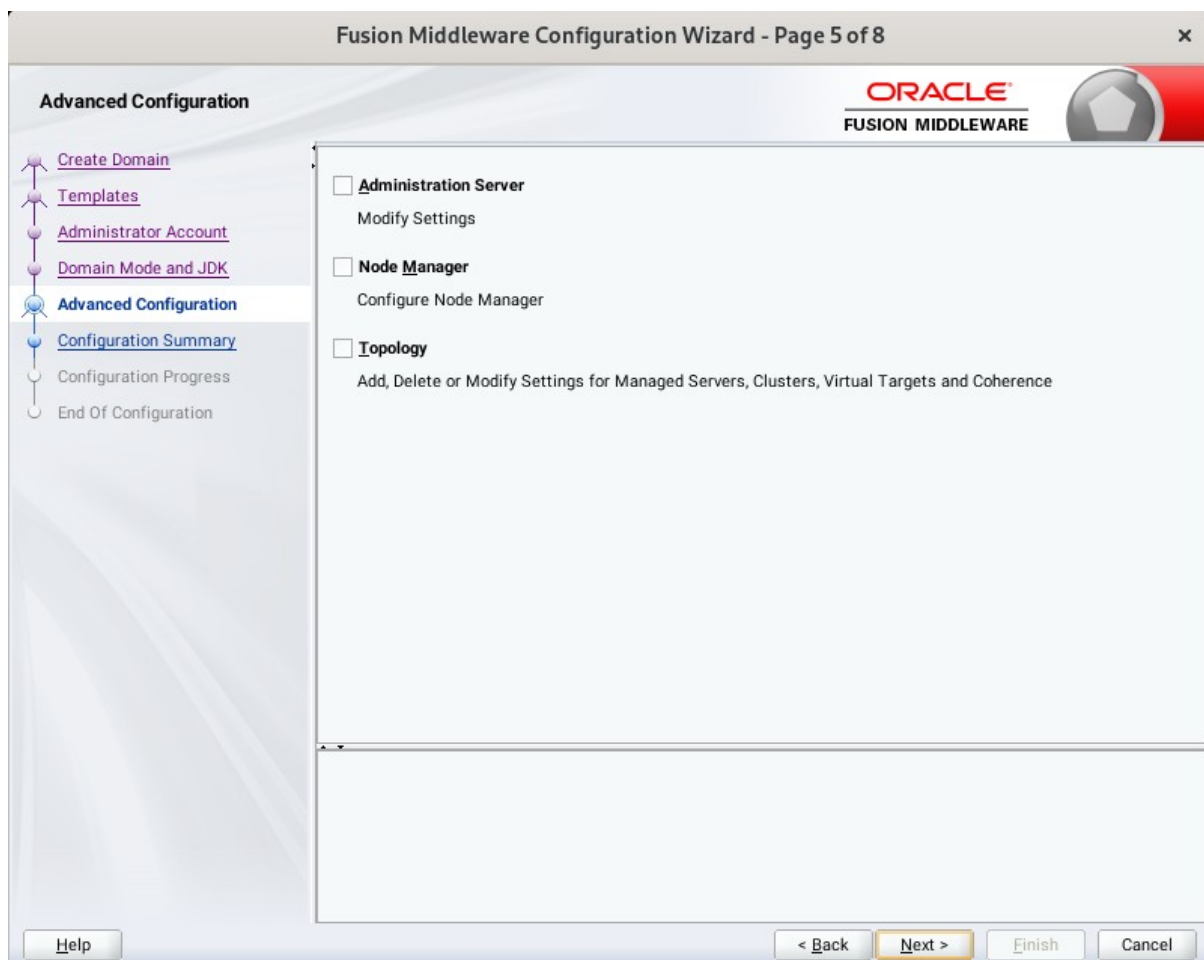
4). Domain Mode and JDK.



The screenshot shows the "Fusion Middleware Configuration Wizard - Page 4 of 8" window. The title bar includes the Oracle logo and "FUSION MIDDLEWARE". The main content area is titled "Domain Mode and JDK". On the left, a navigation pane lists the following steps: "Create Domain", "Templates", "Administrator Account", "Domain Mode and JDK" (highlighted), "Advanced Configuration", "Configuration Summary", "Configuration Progress", and "End Of Configuration". The "Domain Mode" section has two radio buttons: "Development" (selected) and "Production". Below "Development" is the text "Utilize boot.properties for username and password, and poll for applications to deploy." Below "Production" is the text "Require the entry of a username and password, and do not poll for applications to deploy." The "JDK" section has two radio buttons: "Oracle HotSpot 1.8.0_221 /home/ORACLE_SW/Java/jdk1.8.0_221" (selected) and "Other JDK Location:" followed by a text input field and a "Browse" button. At the bottom of the window, there are buttons for "Help", "< Back", "Next >", "Finish", and "Cancel".

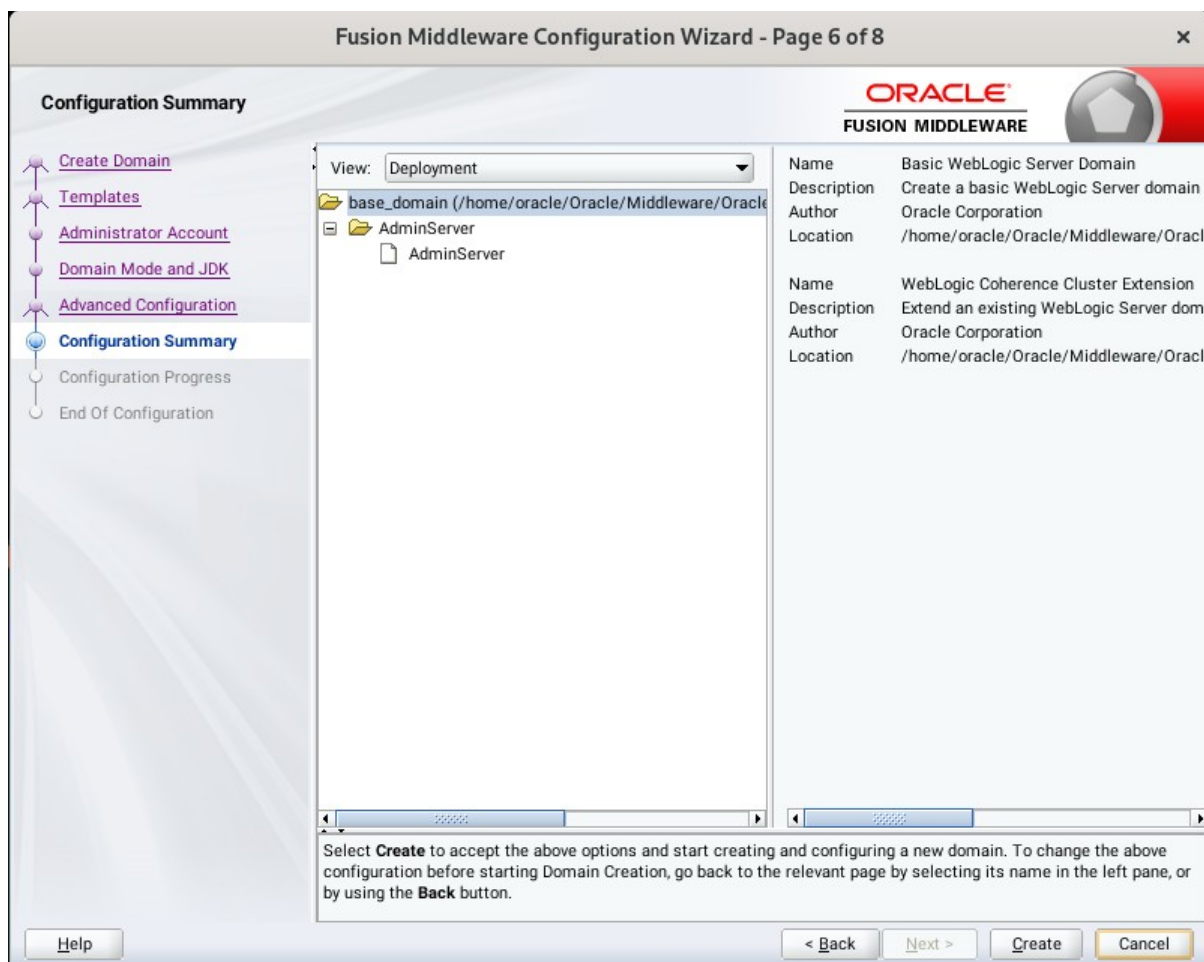
Select "**Development**" in the Domain Mode field, select the "**Oracle HotSPot**" in the JDK field. Then click **Next** to continue.

5). Advanced Configuration.



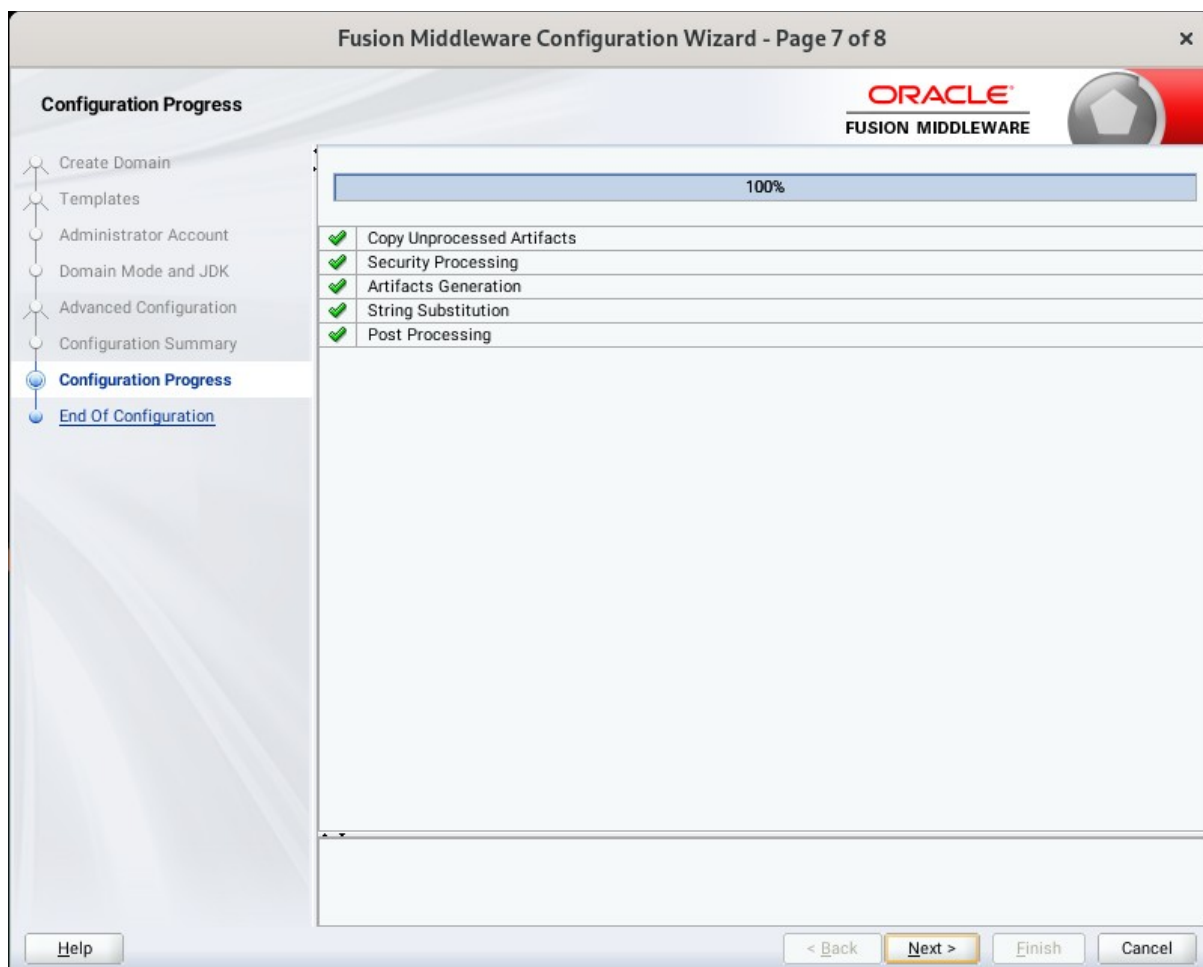
According to your requirements, select the desired options on the Advanced Configuration screen. Then click **Next** to continue.

6). Configuration Summary.



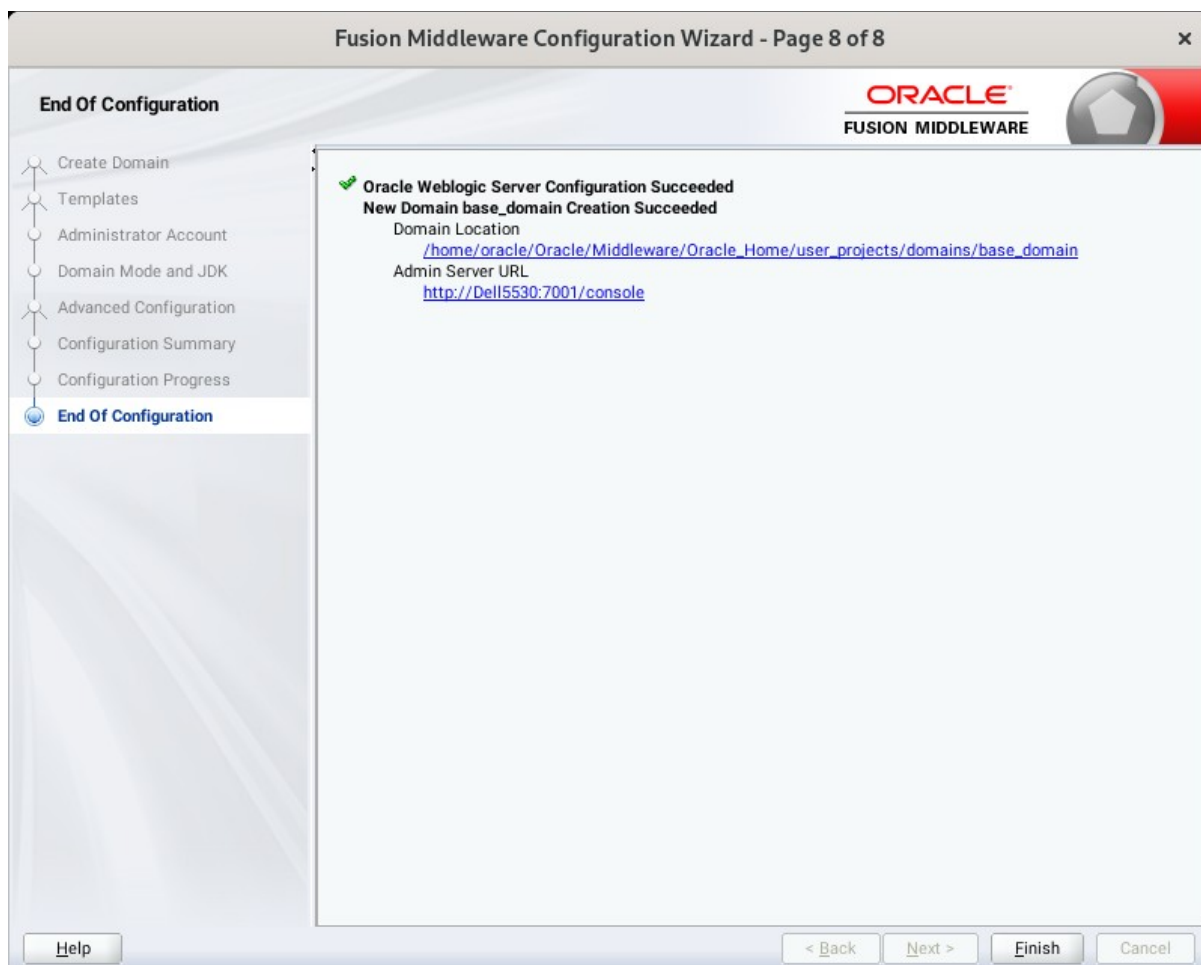
Review this screen to verify the information is correct, then click **Create** to continue.

7). Configuration Progress.



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

8). End Of Configuration.

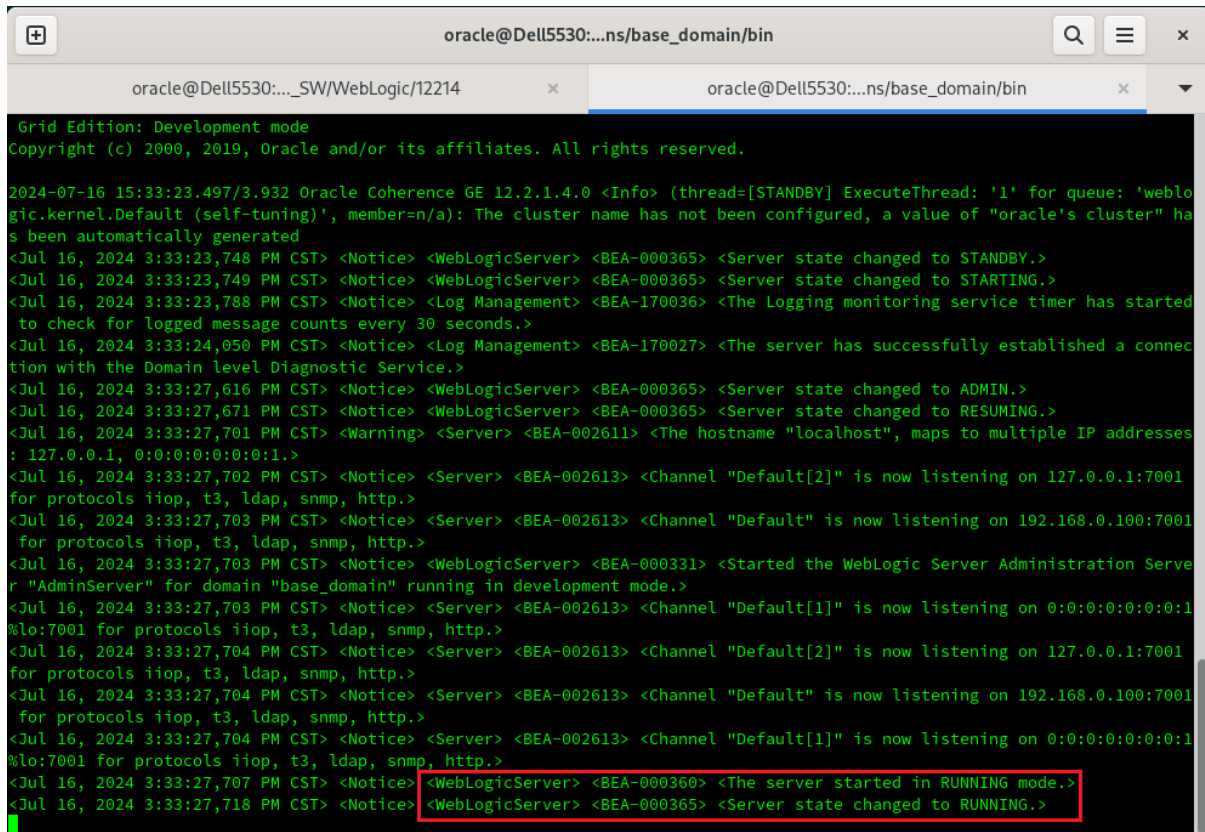


Once you see: "Oracle Weblogic Server Configuration Succeeded", record the "**Domain Location**" and "**Admin Server URL**", then click **Finish** to dismiss the Configuration Wizard.

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@Dell5530:...ns/base_domain/bin
Grid Edition: Development mode
Copyright (c) 2000, 2019, Oracle and/or its affiliates. All rights reserved.

2024-07-16 15:33:23.497/3.932 Oracle Coherence GE 12.2.1.4.0 <Info> (thread=[STANDBY] ExecuteThread: '1' for queue: 'weblogic.kernel.Default (self-tuning)', member=n/a): The cluster name has not been configured, a value of "oracle's cluster" has been automatically generated
<Jul 16, 2024 3:33:23,748 PM CST> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to STANDBY.>
<Jul 16, 2024 3:33:23,749 PM CST> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to STARTING.>
<Jul 16, 2024 3:33:23,788 PM CST> <Notice> <Log Management> <BEA-170036> <The Logging monitoring service timer has started to check for logged message counts every 30 seconds.>
<Jul 16, 2024 3:33:24,050 PM CST> <Notice> <Log Management> <BEA-170027> <The server has successfully established a connection with the Domain level Diagnostic Service.>
<Jul 16, 2024 3:33:27,616 PM CST> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to ADMIN.>
<Jul 16, 2024 3:33:27,671 PM CST> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to RESUMING.>
<Jul 16, 2024 3:33:27,701 PM CST> <Warning> <Server> <BEA-002611> <The hostname "localhost", maps to multiple IP addresses: 127.0.0.1, 0:0:0:0:0:0:0:1.>
<Jul 16, 2024 3:33:27,702 PM CST> <Notice> <Server> <BEA-002613> <Channel "Default[2]" is now listening on 127.0.0.1:7001 for protocols iiop, t3, ldap, snmp, http.>
<Jul 16, 2024 3:33:27,703 PM CST> <Notice> <Server> <BEA-002613> <Channel "Default" is now listening on 192.168.0.100:7001 for protocols iiop, t3, ldap, snmp, http.>
<Jul 16, 2024 3:33:27,703 PM CST> <Notice> <WebLogicServer> <BEA-000331> <Started the WebLogic Server Administration Server "AdminServer" for domain "base_domain" running in development mode.>
<Jul 16, 2024 3:33:27,703 PM CST> <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.>
<Jul 16, 2024 3:33:27,704 PM CST> <Notice> <Server> <BEA-002613> <Channel "Default[2]" is now listening on 127.0.0.1:7001 for protocols iiop, t3, ldap, snmp, http.>
<Jul 16, 2024 3:33:27,704 PM CST> <Notice> <Server> <BEA-002613> <Channel "Default" is now listening on 192.168.0.100:7001 for protocols iiop, t3, ldap, snmp, http.>
<Jul 16, 2024 3:33:27,704 PM CST> <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.>
<Jul 16, 2024 3:33:27,707 PM CST> <Notice> <WebLogicServer> <BEA-000360> <The server started in RUNNING mode.>
<Jul 16, 2024 3:33:27,718 PM CST> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to RUNNING.>

```

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

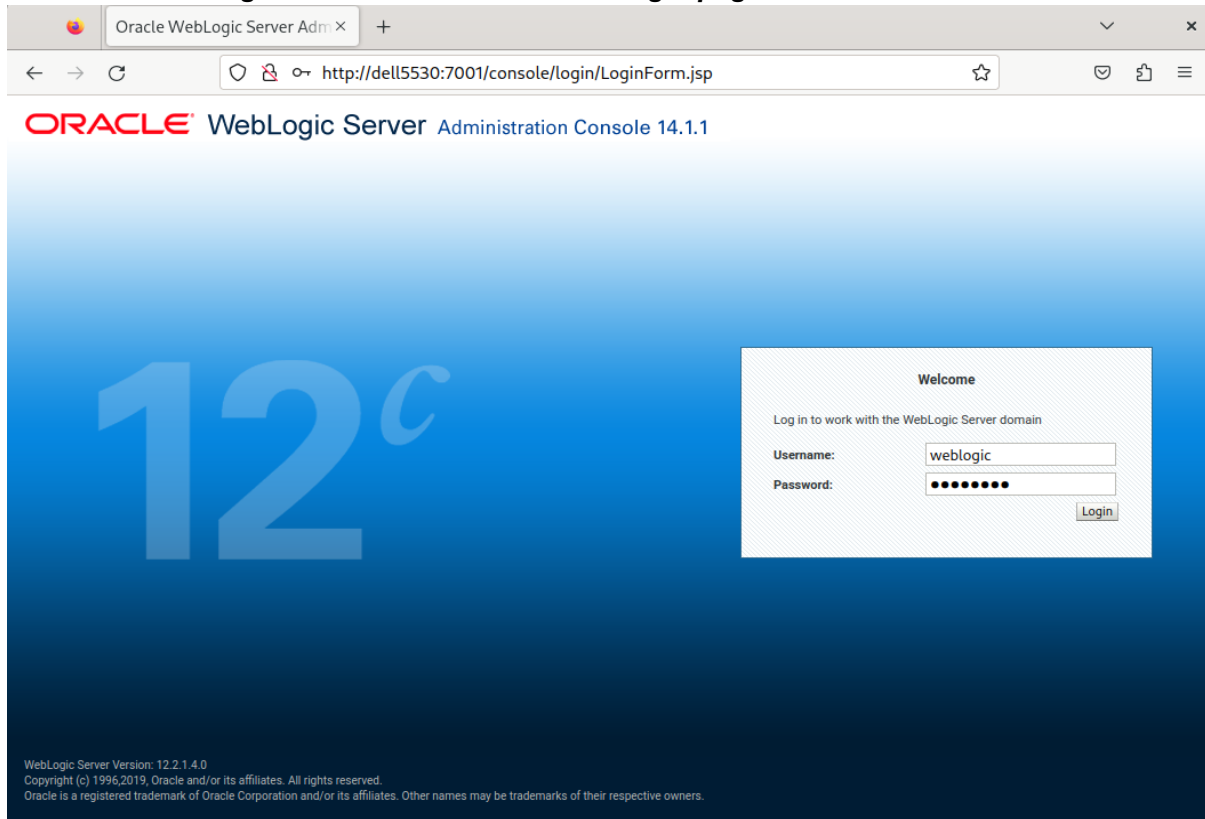
```

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

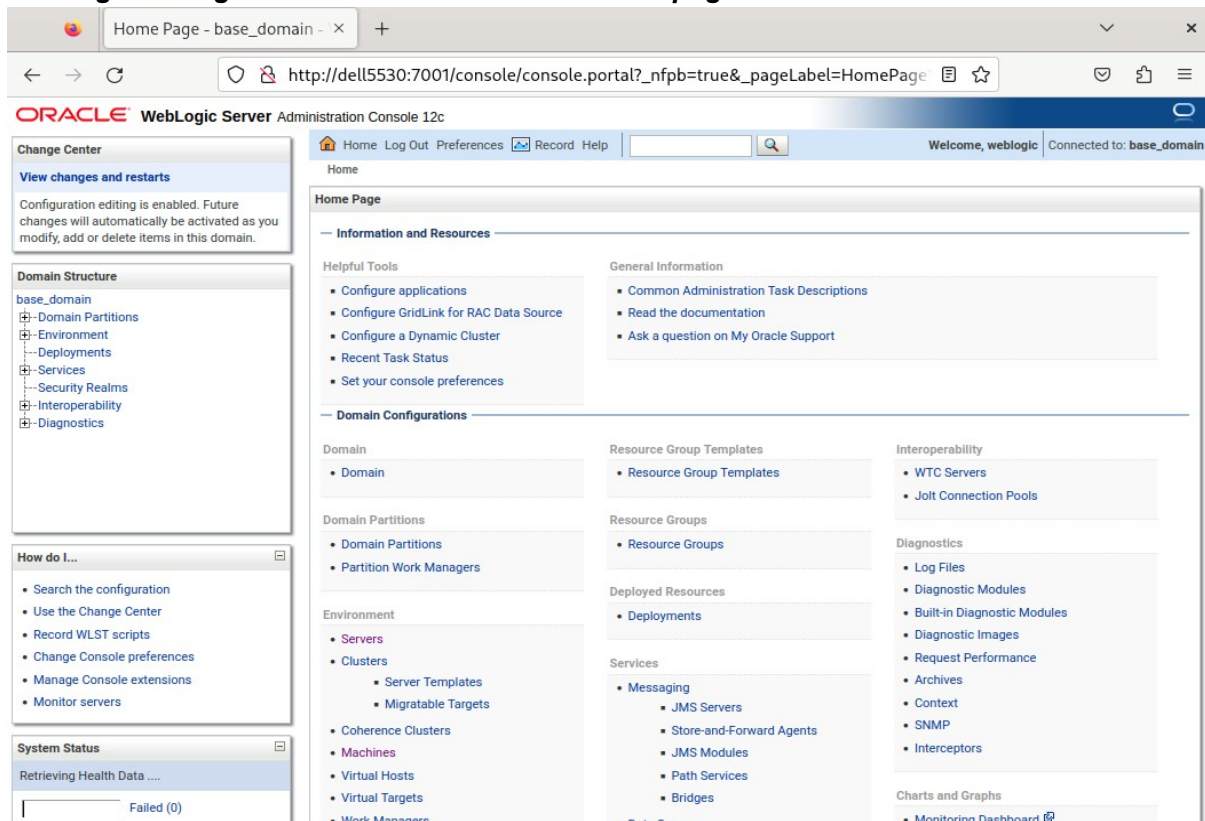
```

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

Access to WebLogic Server Admin Console - Login page



Viewing WebLogic Server Admin Console - Home page



Viewing WebLogic Server Admin Console - Summary of Servers

The screenshot shows the Oracle WebLogic Server Administration Console interface. The browser address bar indicates the URL: `http://dell5530:7001/console/console.portal?_nfpb=true&_pageLabel=CoreServer`. The page title is "Summary of Servers - base_d".

The main content area is titled "Summary of Servers" and includes a "Configuration" tab. It contains the following text:

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.

Below this text is a table of servers. The table has the following columns: Name, Type, Cluster, Machine, State, Health, and Listen Port. The table contains one entry: "AdminServer(admin)" with a Type of "Configured", State of "RUNNING", Health of "OK", and Listen Port of "7001".

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

The left sidebar contains several sections: "Change Center" (View changes and restarts), "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), and "System Status" (Health of Running Servers as of 3:35 PM, Failed (0)).

End of Oracle WebLogic Server Software.

Oracle Form and Reports

1. Installing Oracle WebLogic Server software

1-1. Prerequisites:

Installation of Oracle Forms and Reports requires:

- 1). Oracle Database 19c (19.22.0.0.0) installed.

```
oracle@Dell5530:~> export ORACLE_BASE=/home/oracle/db_base_19c/
oracle@Dell5530:~> export ORACLE_HOME=/home/oracle/db_19c/
oracle@Dell5530:~> export ORACLE_SID=orcl
oracle@Dell5530:~> /home/oracle/db_19c/bin/sqlplus /nolog

SQL*Plus: Release 19.0.0.0.0 - Production on Tue Jul 23 13:35:11 2024
Version 19.22.0.0.0

Copyright (c) 1982, 2023, Oracle. All rights reserved.

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

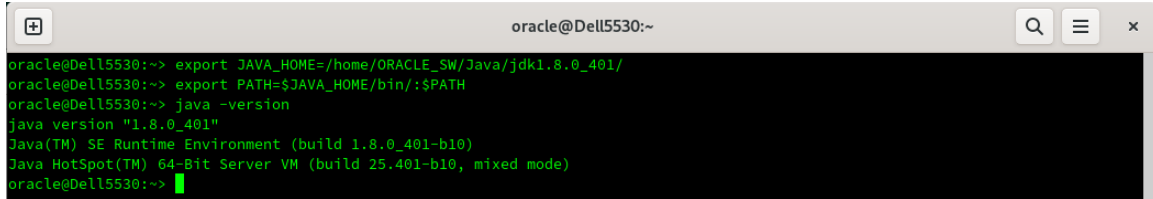
Total System Global Area 7381973776 bytes
Fixed Size 8956688 bytes
Variable Size 1241513984 bytes
Database Buffers 6123683840 bytes
Redo Buffers 7819264 bytes
Database mounted.
Database opened.
SQL> show sga

Total System Global Area 7381973776 bytes
Fixed Size 8956688 bytes
Variable Size 1241513984 bytes
Database Buffers 6123683840 bytes
Redo Buffers 7819264 bytes
SQL> select name,open_mode from v$database;

NAME          OPEN_MODE
-----
ORCL          READ WRITE

SQL> exit
Disconnected from Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production
Version 19.22.0.0.0
oracle@Dell5530:~> █
```

2). Oracle JDK 1.8.0_401 or later installed.



```
oracle@Dell5530:~$ export JAVA_HOME=/home/ORACLE_SW/Java/jdk1.8.0_401/
oracle@Dell5530:~$ export PATH=$JAVA_HOME/bin/:$PATH
oracle@Dell5530:~$ java -version
java version "1.8.0_401"
Java(TM) SE Runtime Environment (build 1.8.0_401-b10)
Java HotSpot(TM) 64-Bit Server VM (build 25.401-b10, mixed mode)
oracle@Dell5530:~$
```

3). Oracle WebLogic Server 12cR2 (12.2.1.4.0) (Fusion Middleware Infrastructure Installer)

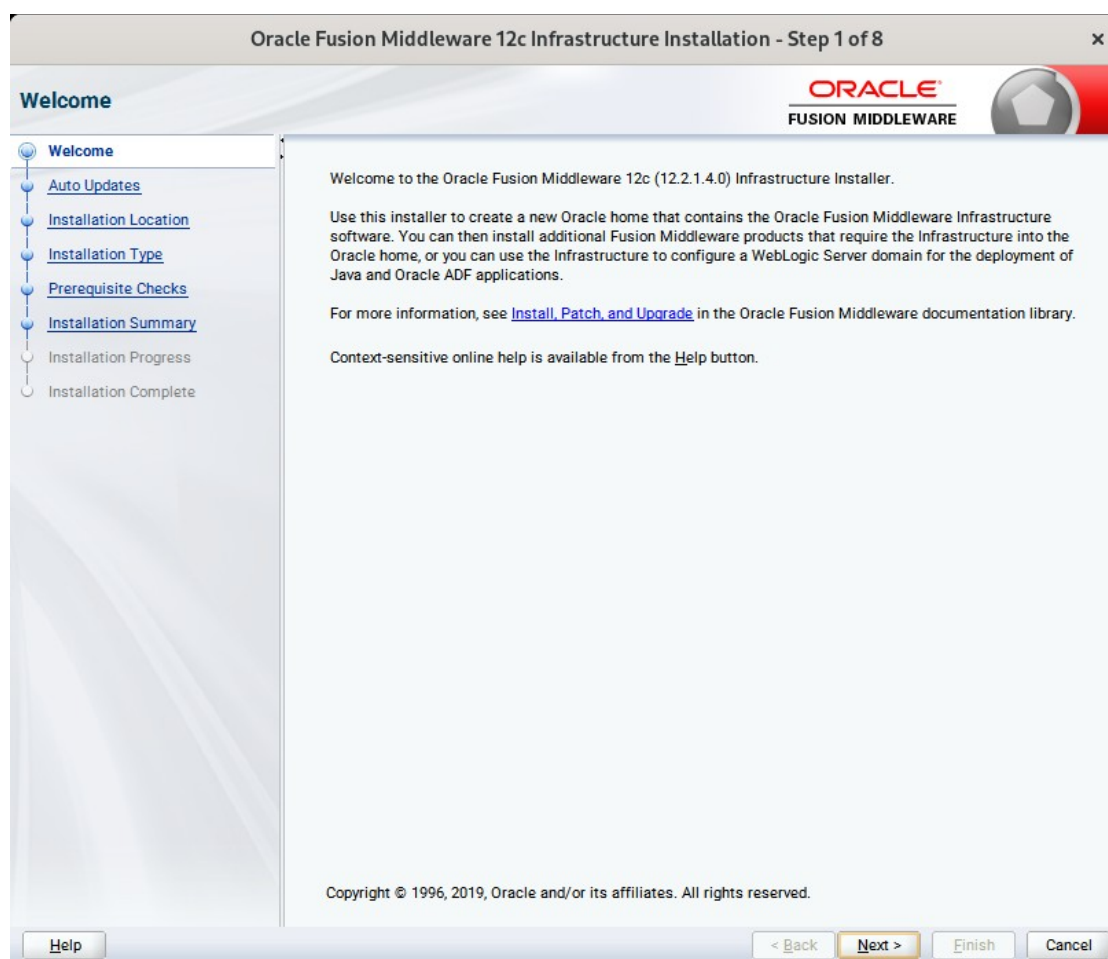
Screenshots: A brief installation setps for Fusion Middleware Infrastructure Installer is as follows:

3-1). Installation Inventory Setup.



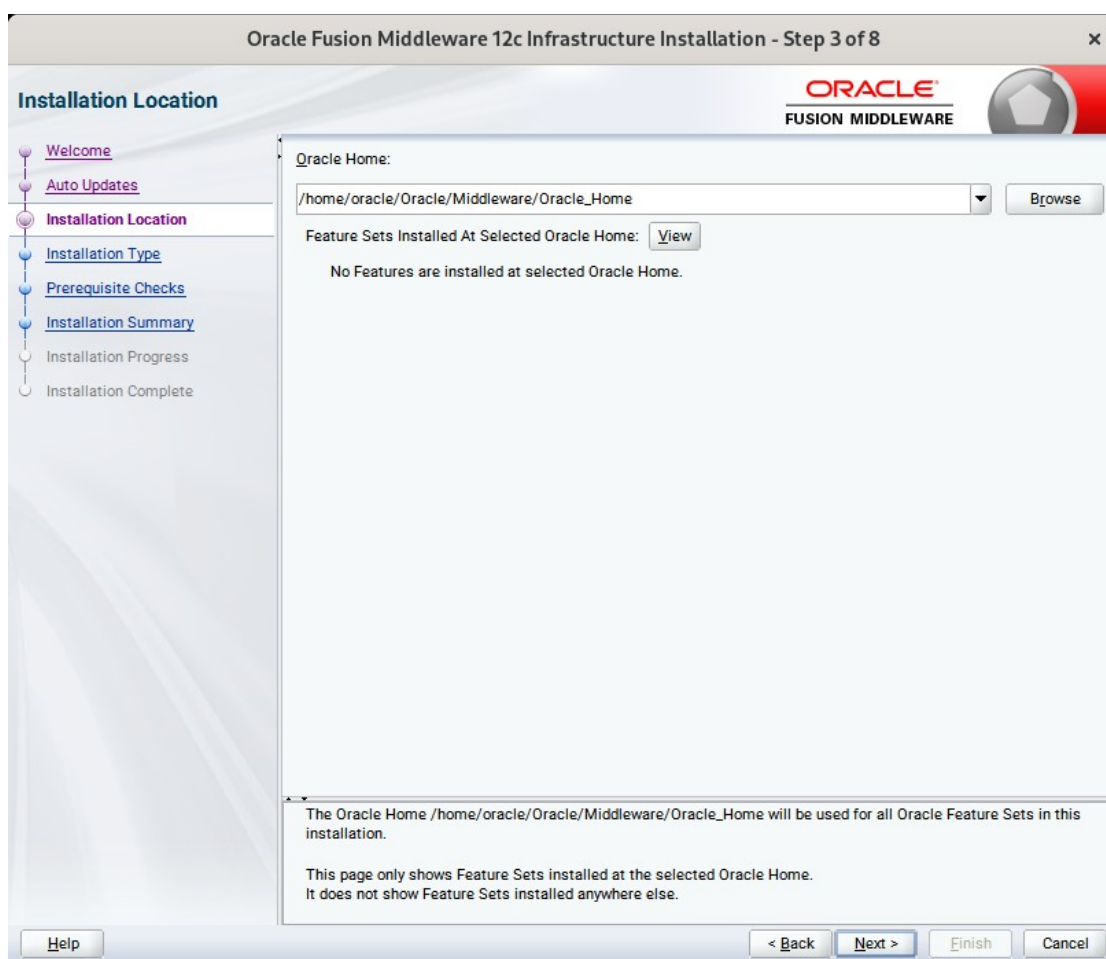
SPecify the Oracle inventory directory and group permissions for that directory. The group must have write permissions to the Oracle inventory directory, then click **OK** to continue.

3-2). Welcome.



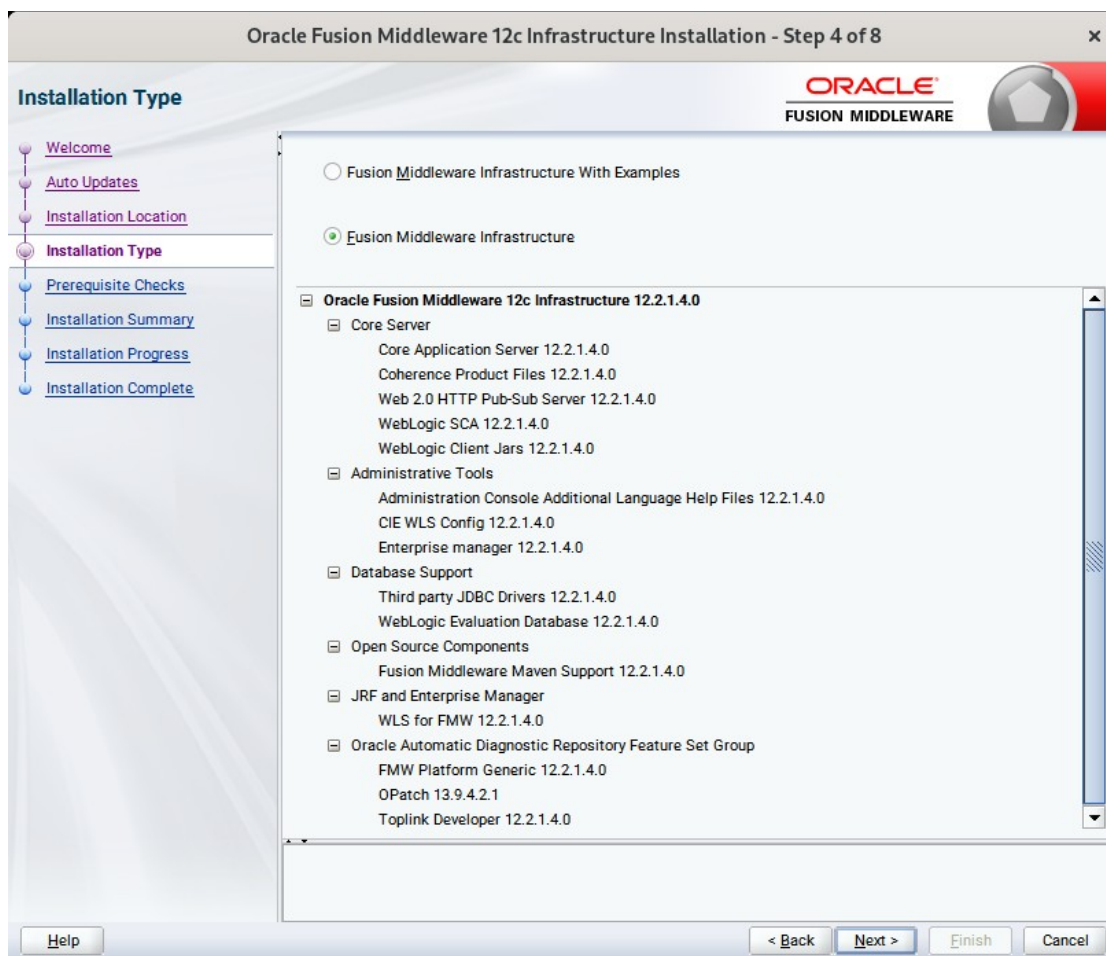
Review the information on this screen carefully to be sure you have performed all the necessary prerequisites, then click **Next** to continue.

3-3). Installation Location.



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

3-4). Installation Type.



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

3-5). Installation Complete.



1-2. Log in to the target system (SUSE Linux Enterprise Server 15 SP6 64-bit OS) as a non-admin user. Download the Oracle Forms and Reports 12c (12.2.1.19.0) from <https://www.oracle.com/downloads/#category-middleware>.

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

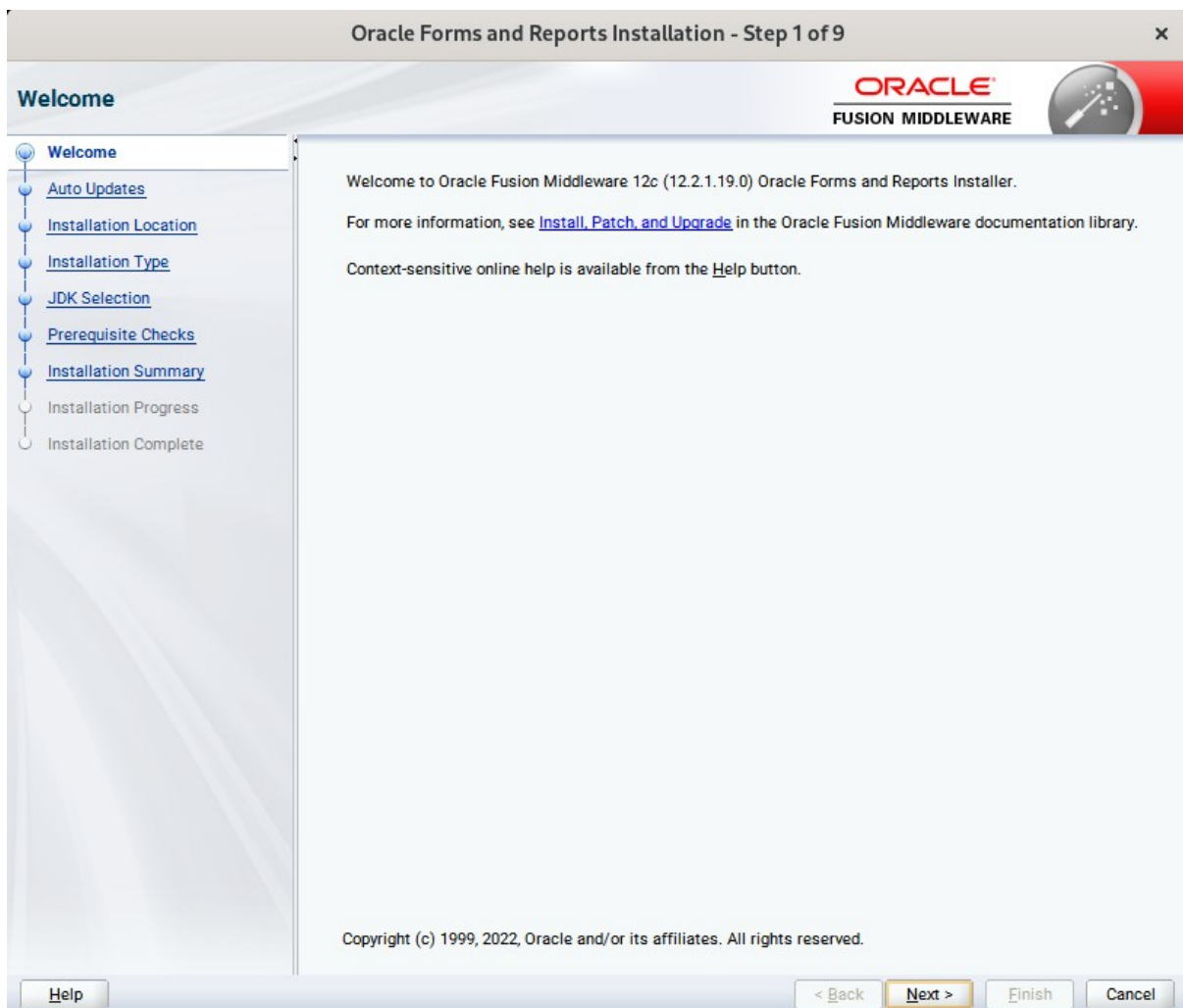
1-3. Go to the directory where you downloaded the installation program. Extract the contents of these .zip files('V1033708-01.zip' and 'p35299885_1221190_Generic.zip') and launch the installation program by running

'fmw_12.2.1.19.0_fr_linux64.bin -prereqConfigLoc <PATCH_TOP>/prereq'.

(**Note:** To resolve Forms/Reports 12.2.1.19 failing the prerequisite test on SLES 15, apply patch 35299885 with Forms/Reports 12.2.1.19 installer by using the parameter '-prereqConfigLoc'.)

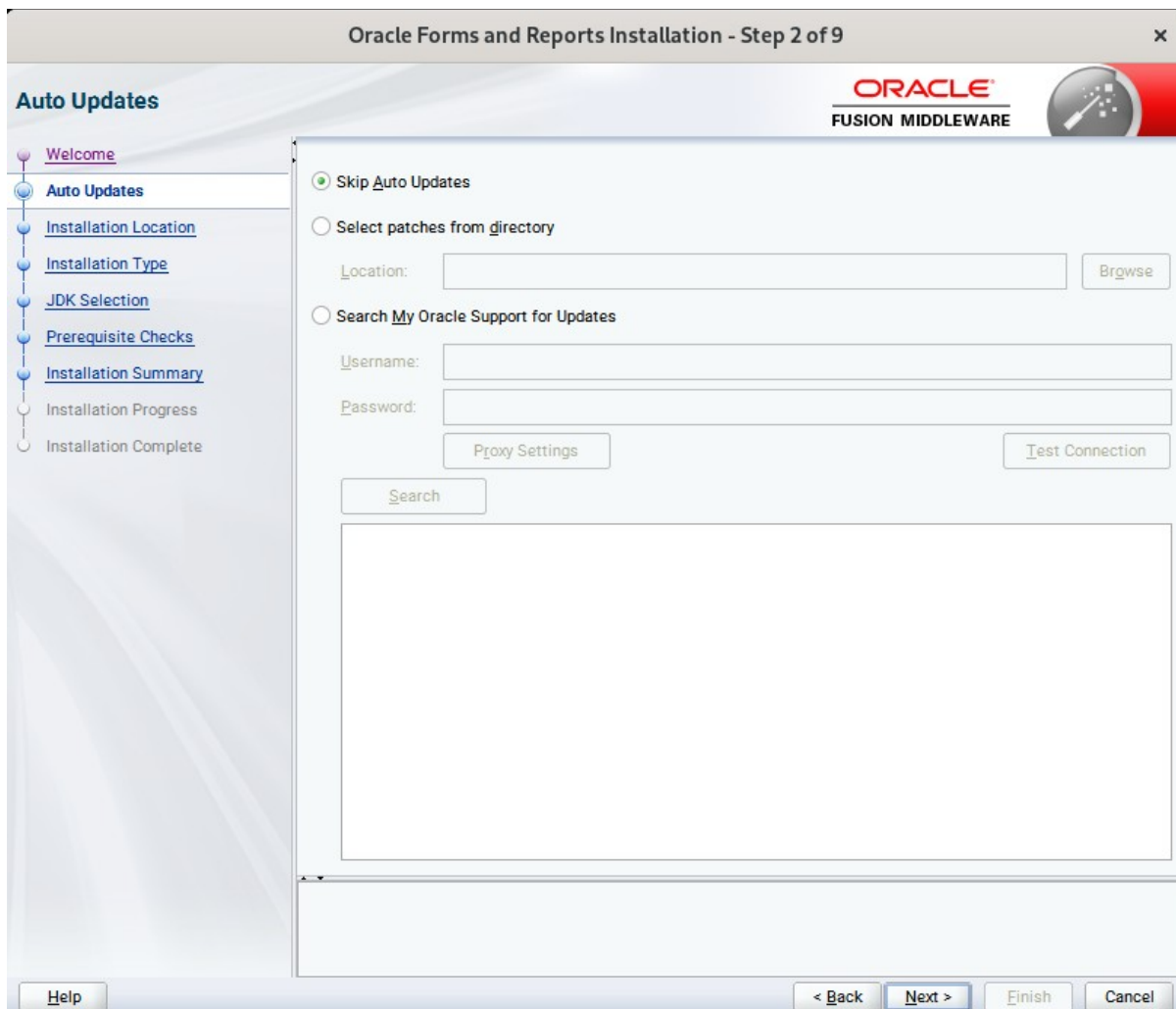
For the actual installation, follow the steps below:

1). Welcome page.



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

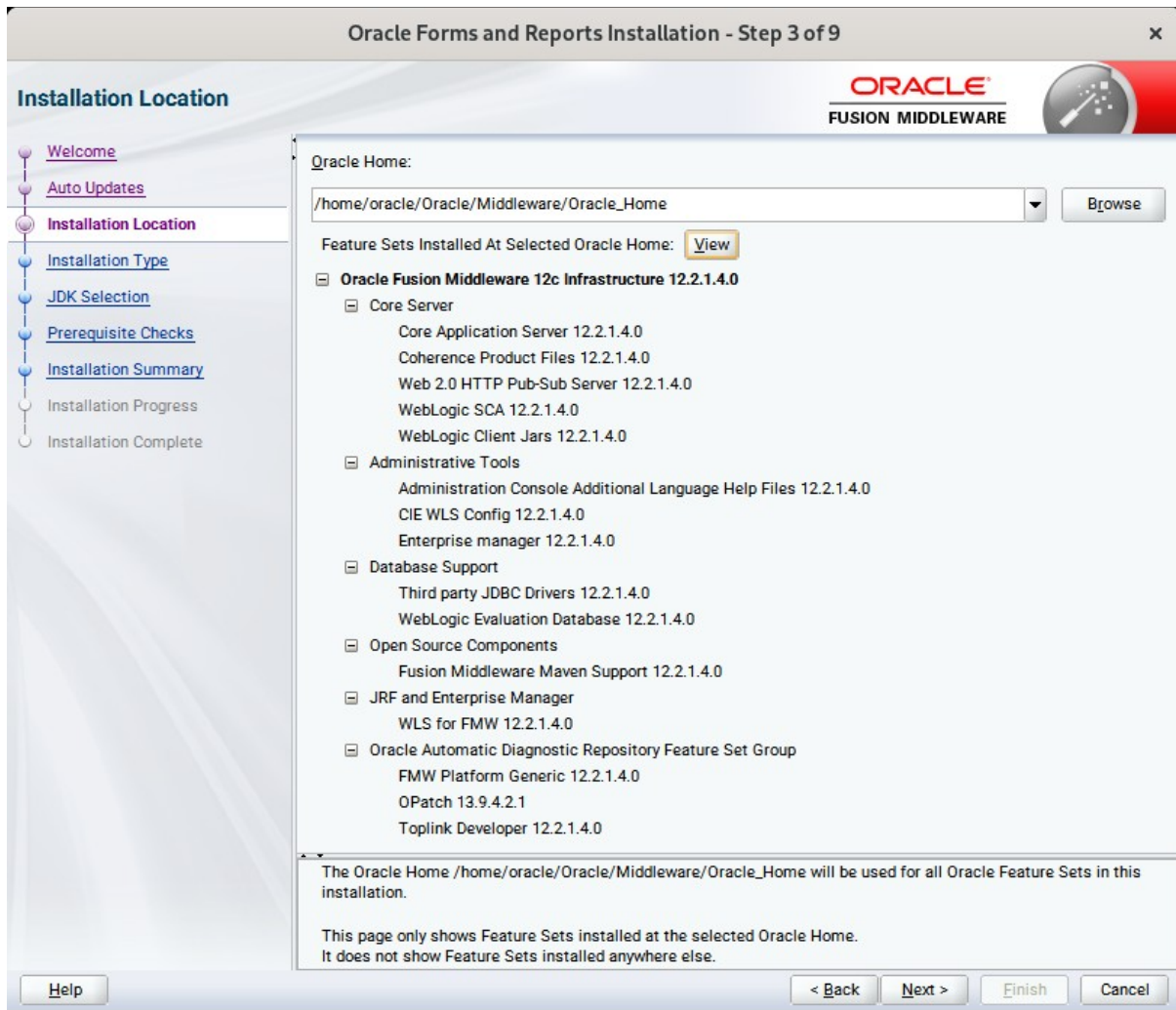
2). The **Auto Updates** page appears.



The screenshot shows the 'Auto Updates' page in the Oracle Forms and Reports Installation wizard. The window title is 'Oracle Forms and Reports Installation - Step 2 of 9'. The Oracle Fusion Middleware logo is visible in the top right corner. On the left, a navigation pane lists the installation steps: Welcome, Auto Updates (selected), Installation Location, Installation Type, JDK Selection, Prerequisite Checks, Installation Summary, Installation Progress, and Installation Complete. The main area contains three radio button options: 'Skip Auto Updates' (selected), 'Select patches from directory', and 'Search My Oracle Support for Updates'. The 'Select patches from directory' option includes a 'Location' text box and a 'Browse' button. The 'Search My Oracle Support for Updates' option includes 'Username' and 'Password' text boxes, 'Proxy Settings' and 'Test Connection' buttons, and a 'Search' button. A large empty text area is located below the search button. At the bottom of the window, there are buttons for 'Help', '< Back', 'Next >', 'Finish', and 'Cancel'.

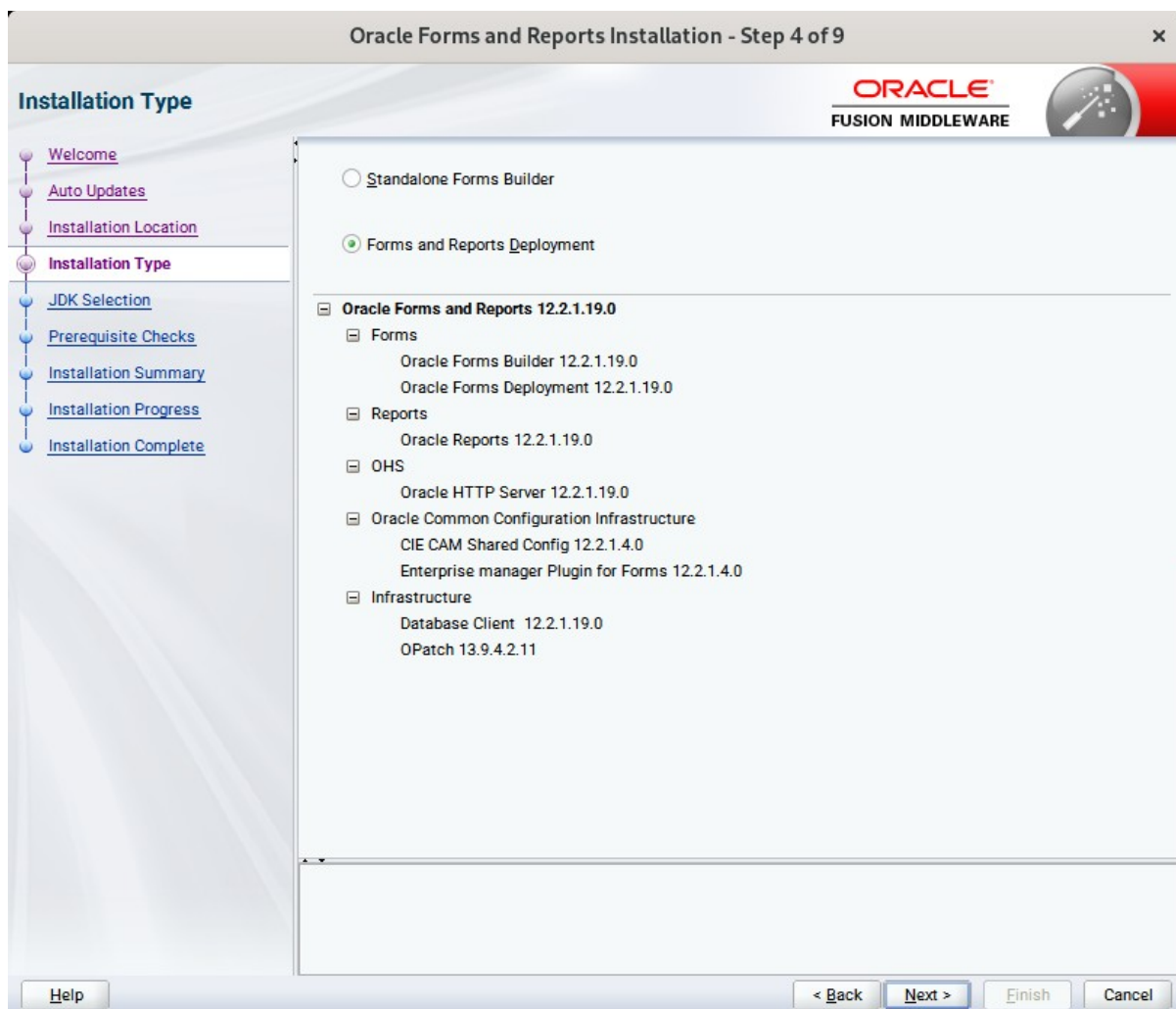
This page enables you to choose to automatically receive software updates for your components from Oracle Corporation. make your choices, then click **Next** to continue.

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



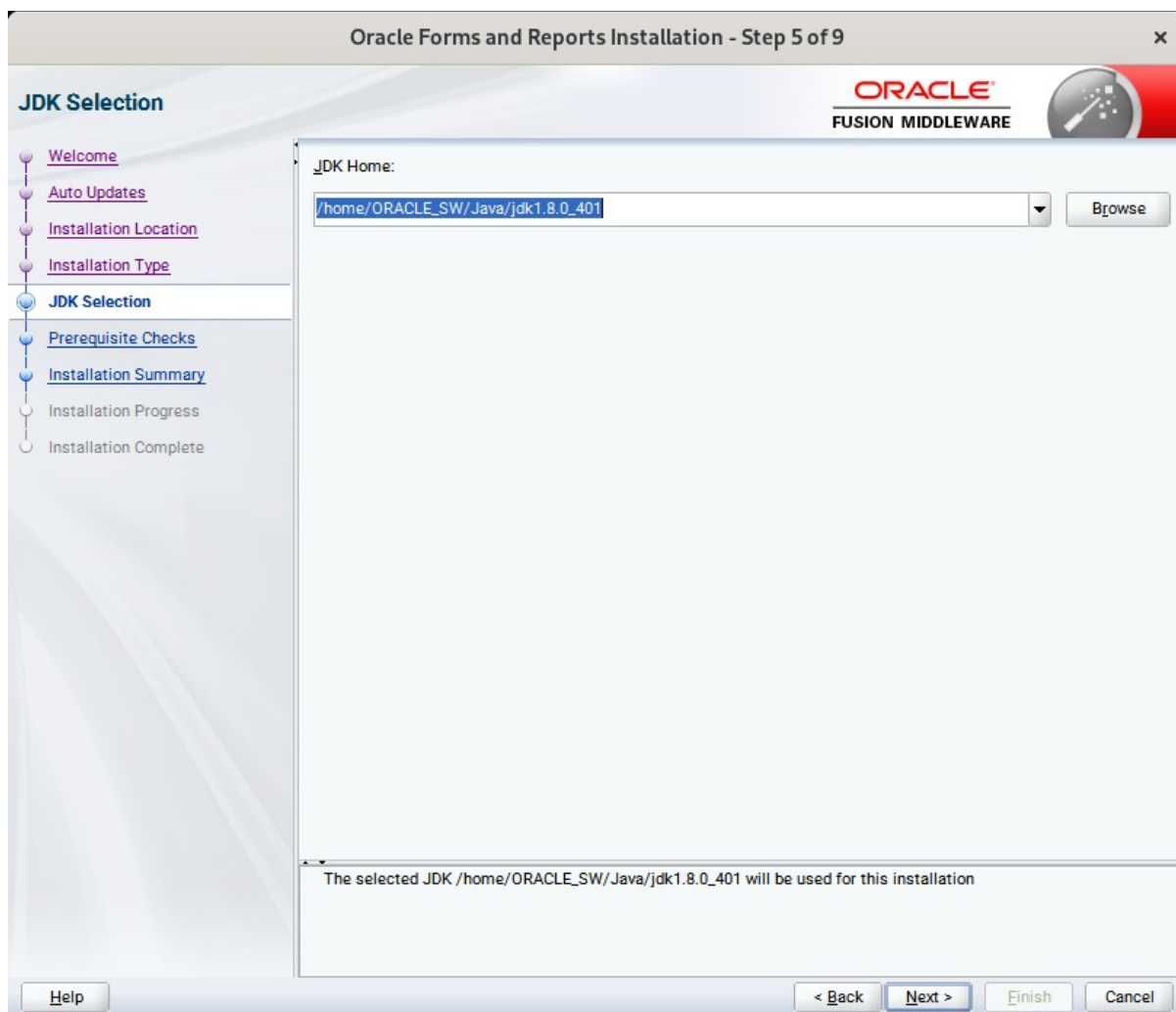
SPecify the Oracle home location into which you want to install the product(s). Click **Next** to continue.

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



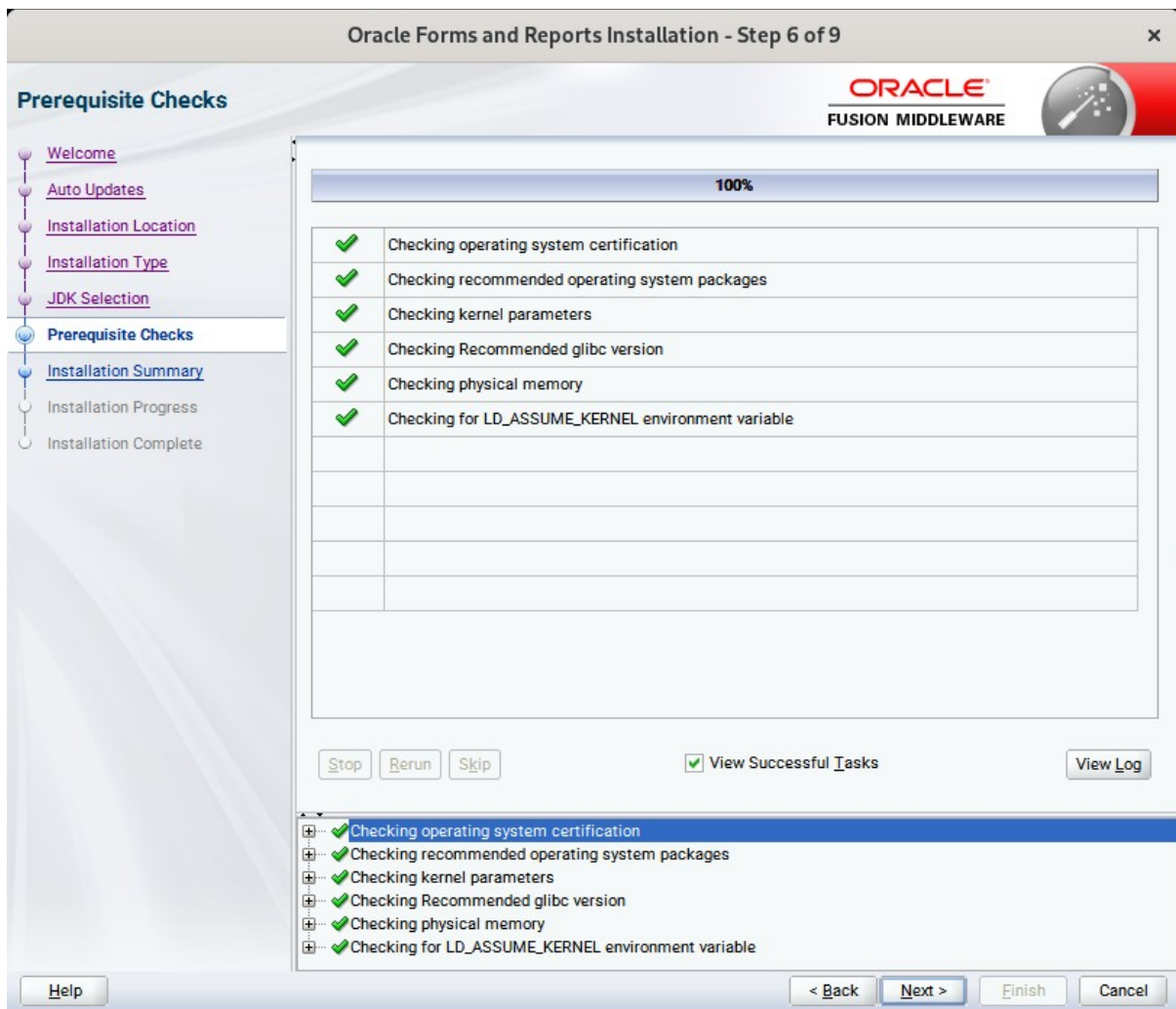
You can select **Standalone Forms Builder** if you want only that functionality, or choose **Forms and Reports Deployment** to install all of the products. Click **Next** to continue.

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.

(Note:

1). Oracle Forms and Reports 12c (12.2.1.19.0) - Minimum Requirements for the SLES OS.

SUSE Linux Enterprise Server 15 (SP4+)

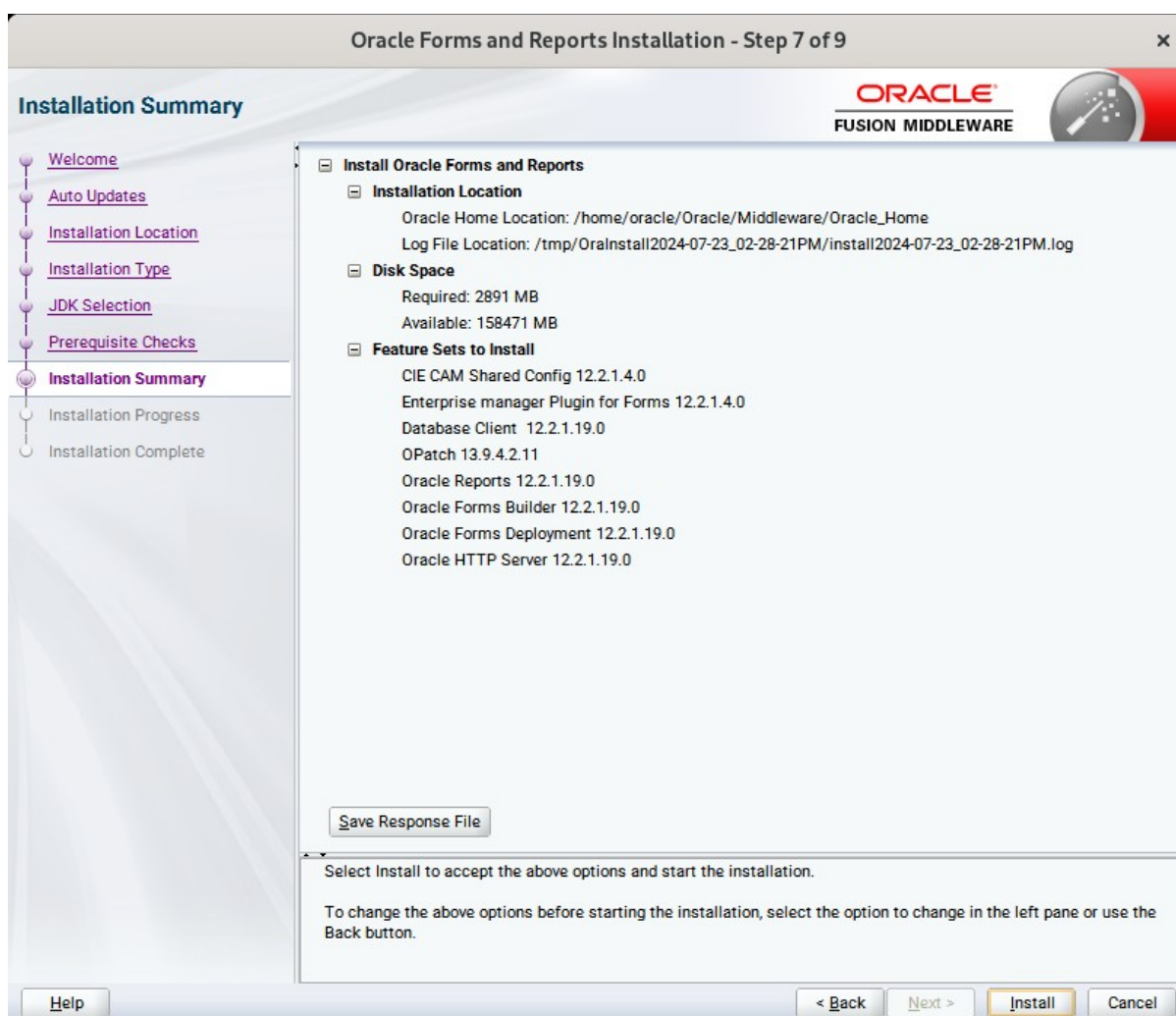
2). Required Packages - Please ensure following packages(or later versions) are installed.

```
bc-1.07.1-11.37.x86_64
binutils-2.37-150100.7.29.1.x86_64
compat-libpthread-nonshared-0-150300.3.6.1.x86_64
gcc7-7.5.0+r278197-4.30.1.x86_64
gcc7-3.9.1.x86_64
gcc7-c++-7.5.0+r278197-4.30.1.x86_64
glibc-2.31-150300.20.7.x86_64
glibc-devel-2.31-150300.20.7.x86_64
insserv-compat-0.1-4.6.1.noarch
libaio1-0.3.109-1.25.x86_64
libaio-devel-0.3.109-1.25.x86_64
libcap-ng-utils-0.7.9-4.37.x86_64
```



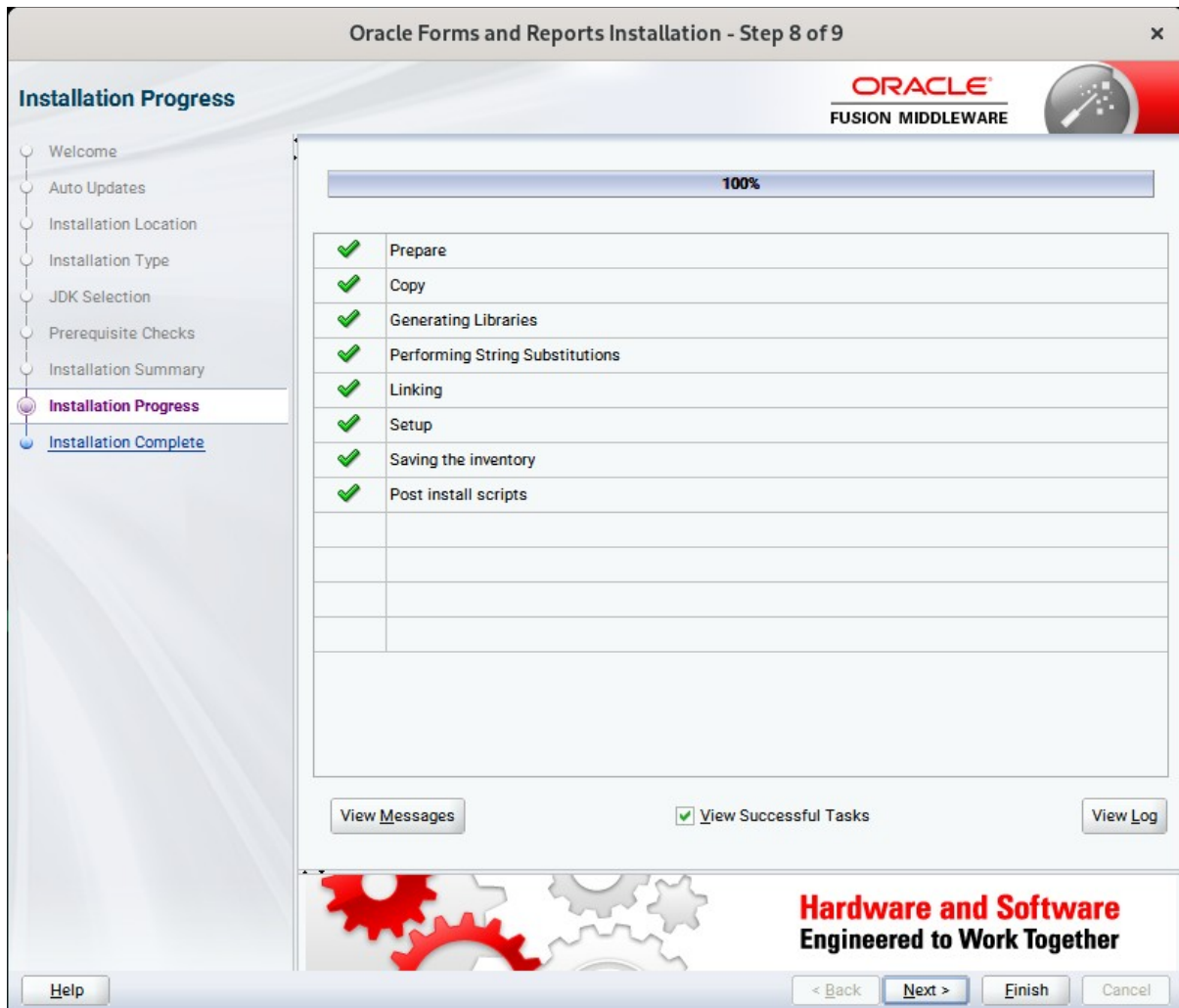
```
libcap-progs-2.63-150400.1.7.x86_64
libgcc_s1-12.2.1+git416-150000.1.7.1.x86_64
libnsl2-1.2.0-2.44.x86_64
libstdc++6-12.2.1+git416-150000.1.7.1.x86_64
libstdc++-devel-7-3.9.1.x86_64
libX11-6-1.6.5-3.21.1.x86_64
libXtst6-1.2.3-1.24.x86_64
libXtst-devel-1.2.3-1.24.x86_64
make-4.2.1-7.3.2.x86_64
mksh-56c-1.10.x86_64
motif-2.3.4-3.3.1.x86_64
motif-devel-2.3.4-3.3.1.x86_64
rdma-core-38.1-150400.4.6.x86_64
smartmontools-7.2-150300.8.5.1.x86_64
sysstat-12.0.2-3.33.1.x86_64
openssl-1_1-1.1.1l-150400.5.14.x86_64
xorg-x11-7.6_1-1.22.noarch
)
```

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



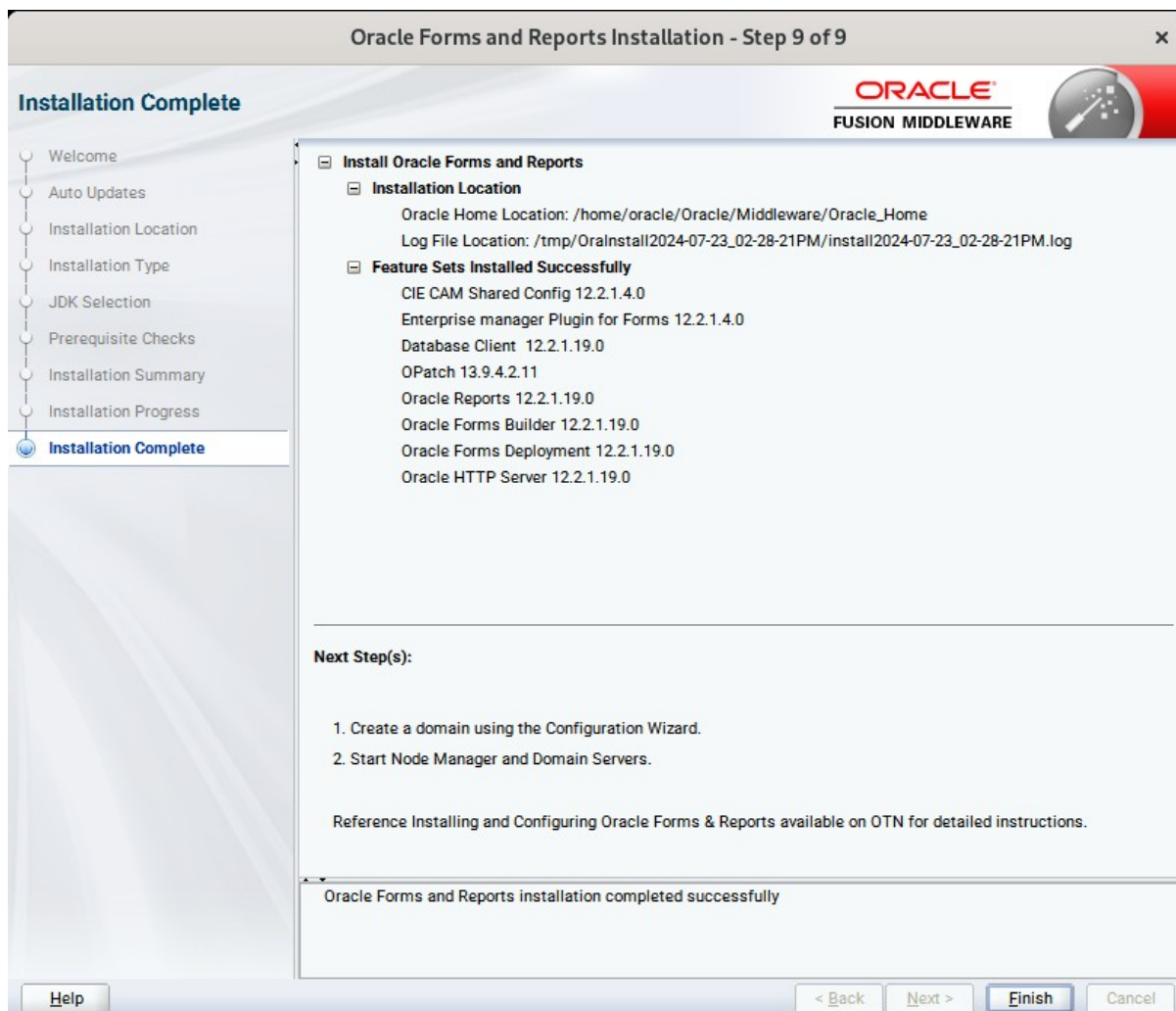
This page shows you what components and features are about to be installed. If you need to make changes, click **Back**, otherwise, click **Install** to start the installation.

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.

Component	Schema Owner
<input type="checkbox"/> Oracle AS Repository Components	
<input checked="" type="checkbox"/> AS Common Schemas	
<input checked="" type="checkbox"/> Common Infrastructure Services *	DEV_STB
<input checked="" type="checkbox"/> Oracle Platform Security Services	DEV_OPSS
<input type="checkbox"/> User Messaging Service	UMS
<input checked="" type="checkbox"/> Audit Services	DEV_IAU
<input checked="" type="checkbox"/> Audit Services Append	DEV_IAU_APPEND
<input checked="" type="checkbox"/> Audit Services Viewer	DEV_IAU_VIEWER
<input type="checkbox"/> Metadata Services	MDS
<input checked="" type="checkbox"/> Weblogic Services *	DEV_WLS

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***.

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

Ensure the schema creation is successful.

Repository Creation Utility - Step 8 of 8

Repository Creation Utility ORACLE FUSION MIDDLEWARE

Navigation: Welcome, Create Repository, Database Connection Details, Select Components, Schema Passwords, Map Tablespaces, Summary, **Completion Summary**

Database details:

Host Name: Dell5530
Port: 1521
Service Name: ORCL
Connected As: sys
Operation: System and Data Load concurrently
Execution Time: 1 minute 12 seconds

RCU Logfile: /tmp/RCU2024-07-23_14-37_1919018299/logs/rcu.log
Component Log Directory: /tmp/RCU2024-07-23_14-37_1919018299/logs
View Log: rcu.log

Prefix for (prefixable) Schema DEV
Owners

Component	Status	Time	Logfile(Click to view)
Common Infrastructure Services	Success	00:09.291(sec)	stb.log
Oracle Platform Security Services	Success	00:13.119(sec)	opss.log
Audit Services	Success	00:11.260(sec)	iau.log
Audit Services Append	Success	00:09.176(sec)	iau_append.log
Audit Services Viewer	Success	00:09.141(sec)	iau_viewer.log
Weblogic Services	Success	00:11.259(sec)	wls.log

Buttons: Help, < Back, Next >, Create, Close

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.

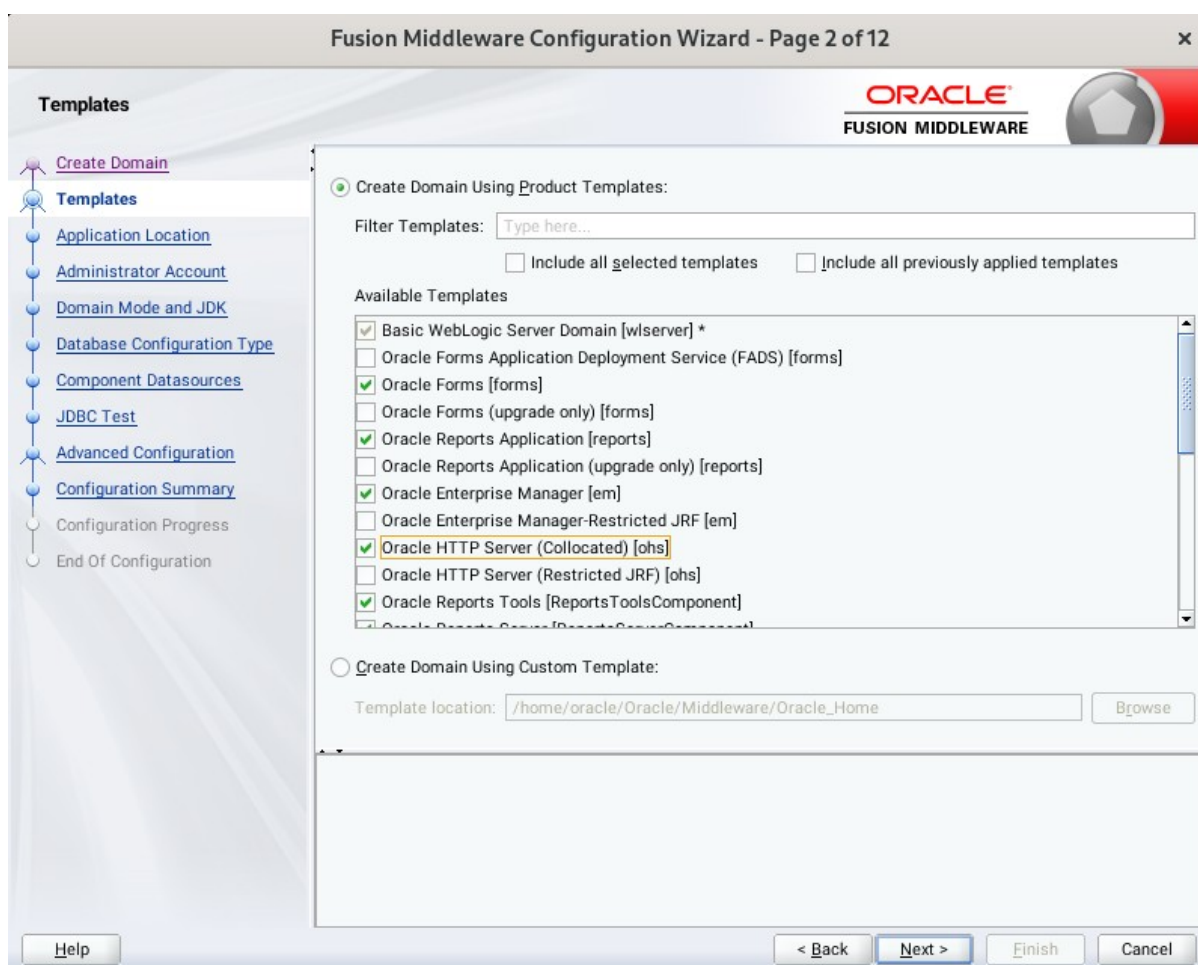
Follow these steps:

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



Click **Next** to continue.

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

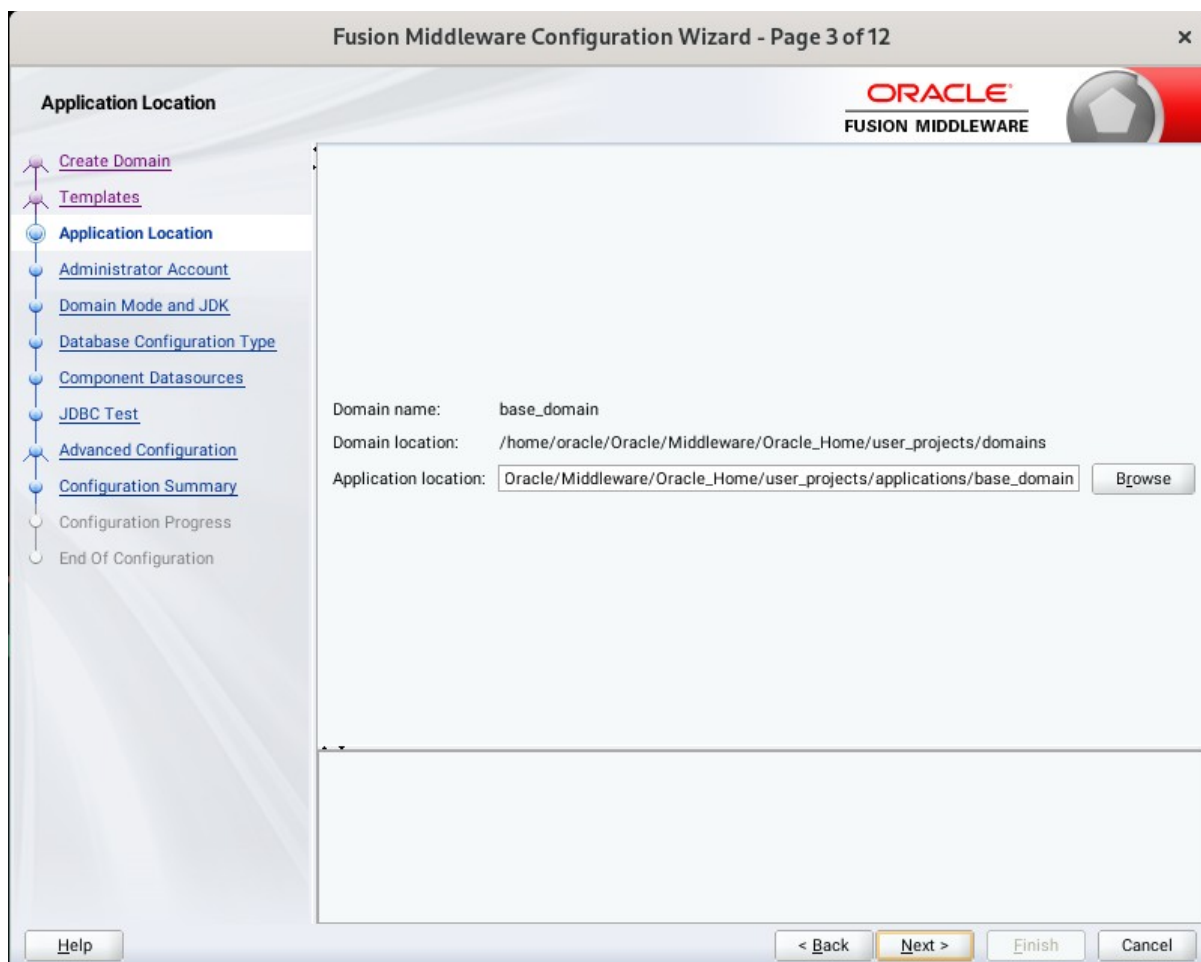


Keep the default selection (**Create Domain using Product Templates**). Selecting

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

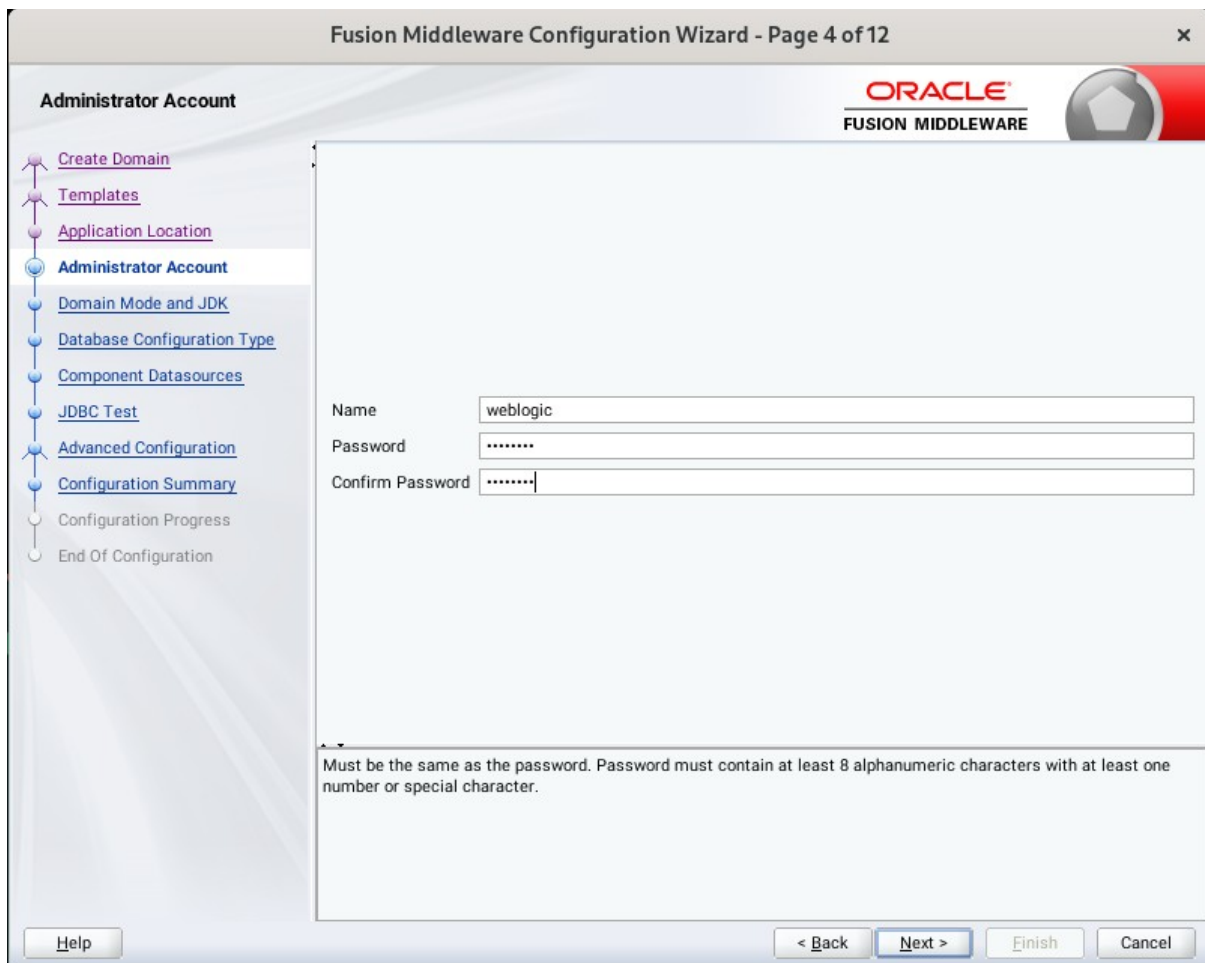
Any dependent templates will be automatically selected. Click **Next** to continue.

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



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

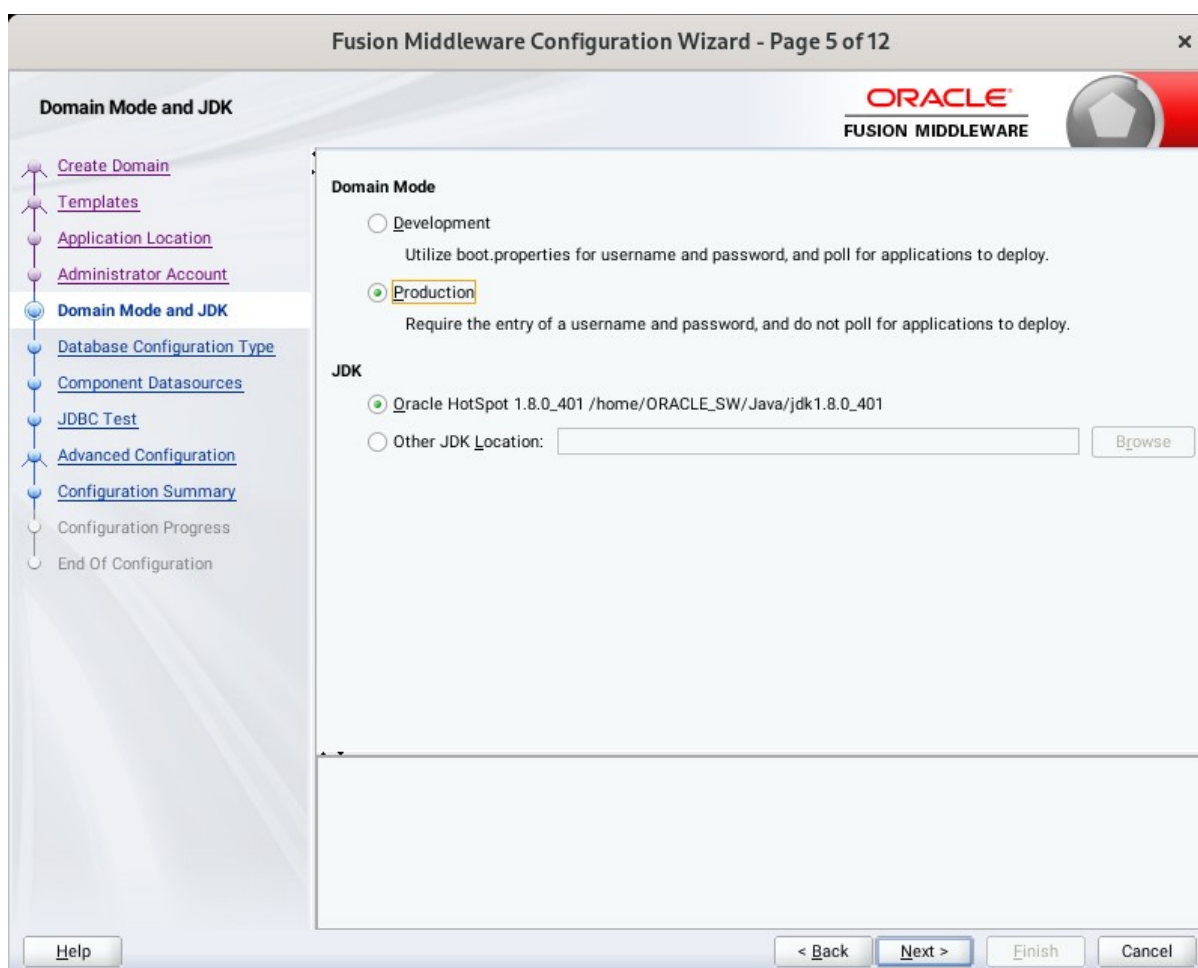
4). The **Administrator Account** screen appears.



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. On the left, a 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 area contains three input fields: 'Name' with the value 'weblogic', 'Password' with masked characters '.....', and 'Confirm Password' with masked characters '.....'. Below the 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'.

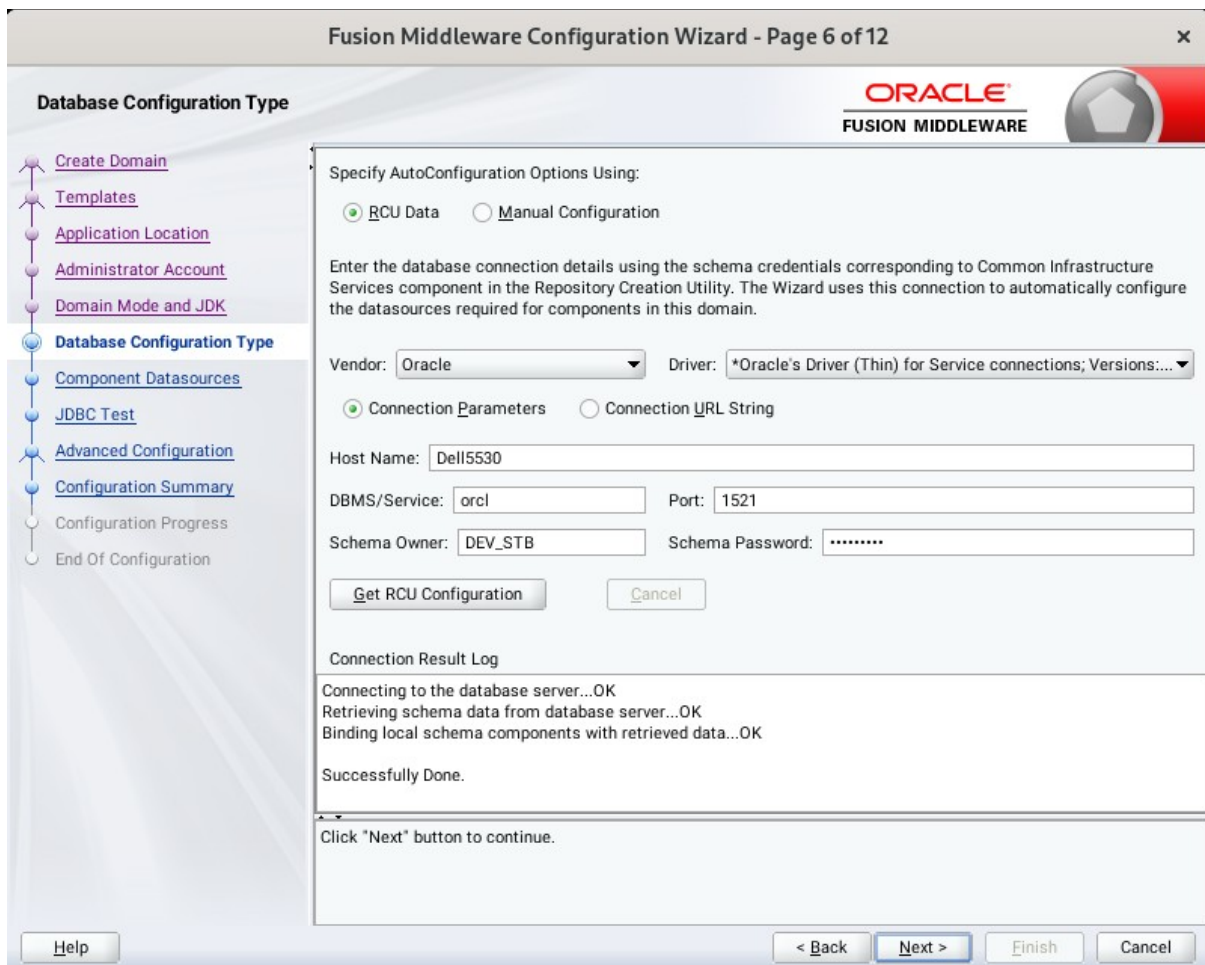
Enter the WebLogic Domain administration username and password. This information will be needed to access WebLogic Server Control and Fusion Middleware Control. Click **Next** to continue.

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



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.

JDBC Component Schema

ORACLE
FUSION MIDDLEWARE

Vendor: Driver:

Connection Parameters Connection URL String

Host Name:

DBMS/Service: Port:

Schema Owner: Schema Password:

Oracle RAC configuration for component schemas:

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

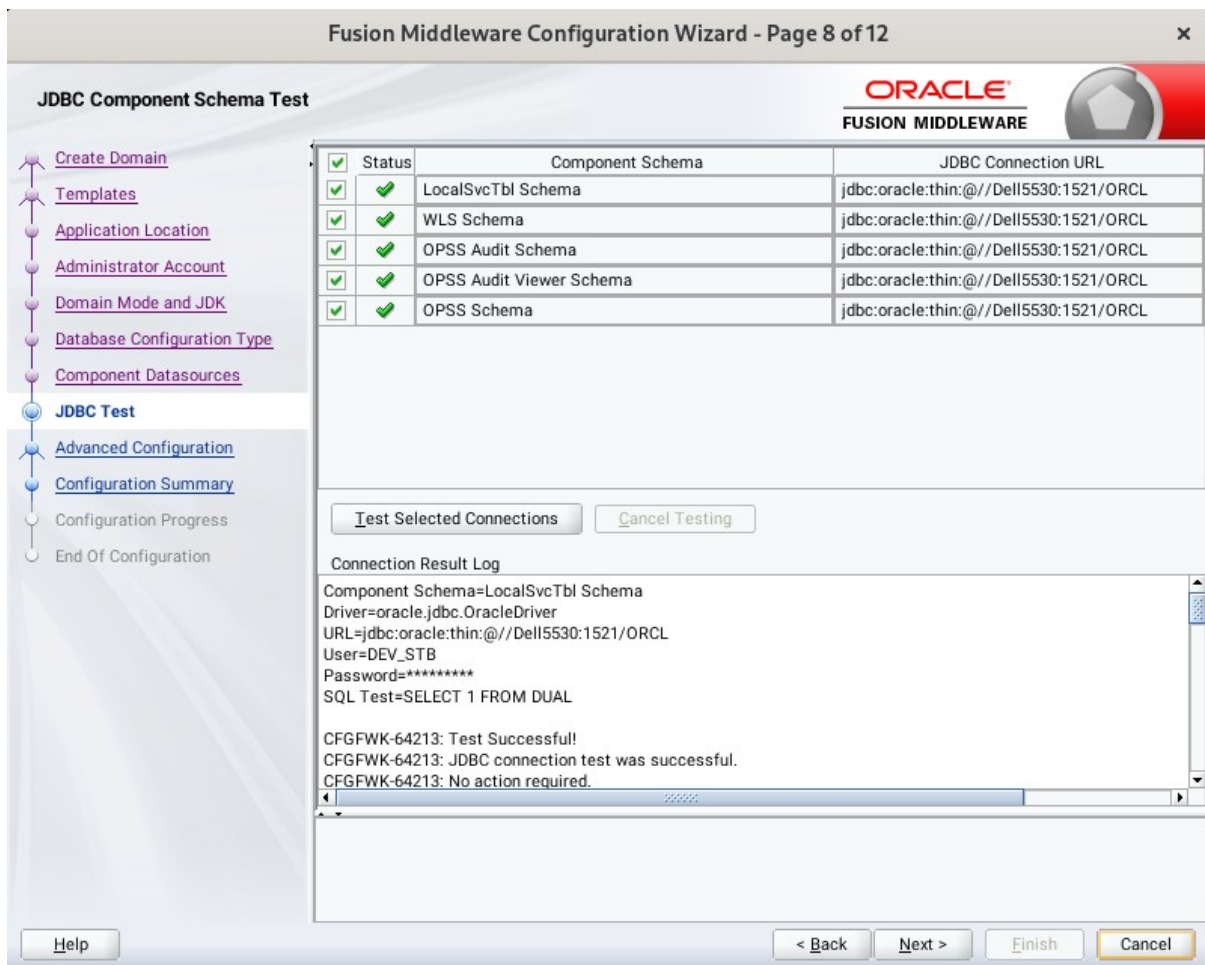
Edits to the data above will affect all checked rows in the table below.

<input type="checkbox"/>	Component Schema	DBMS/Service	Host Name	Port	Schema Owner	Schema Password
<input type="checkbox"/>	LocalSvcTbl Schema	ORCL	Dell5530	1521	DEV_STB	.....
<input type="checkbox"/>	WLS Schema	ORCL	Dell5530	1521	DEV_WLS_RUN	.....
<input type="checkbox"/>	OPSS Audit Schema	ORCL	Dell5530	1521	DEV_IAU_APPEI	.....
<input type="checkbox"/>	OPSS Audit Viewer Sche	ORCL	Dell5530	1521	DEV_IAU_VIEWI	.....
<input type="checkbox"/>	OPSS Schema	ORCL	Dell5530	1521	DEV_OPSS	.....

Help < Back Next > Finish Cancel

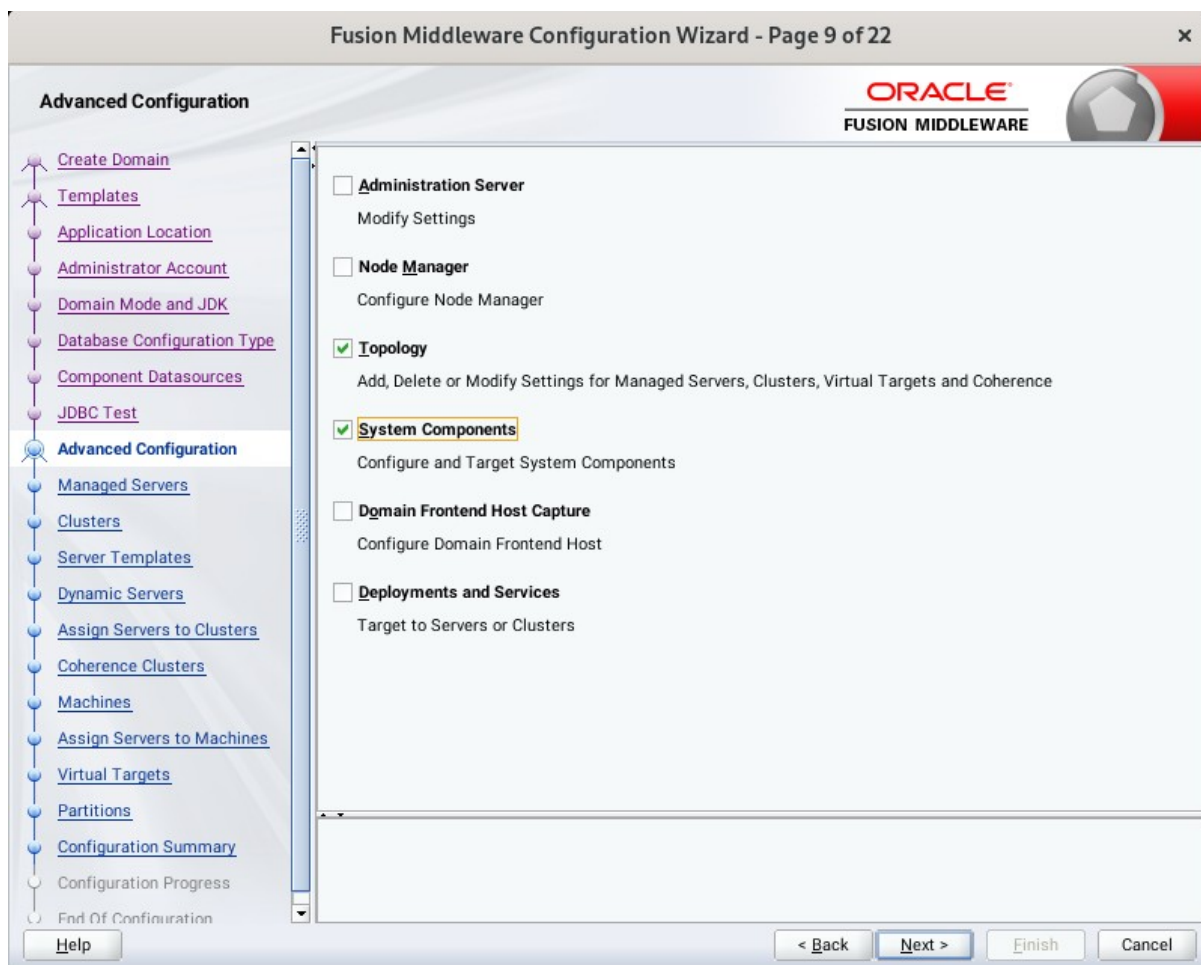
Our instructions assume each Repository schema uses the same password. If not, enter the correct schema passwords. Click **Next** to continue.

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.



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

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

Fusion Middleware Configuration Wizard - Page 10 of 22

Managed Servers

ORACLE
FUSION MIDDLEWARE

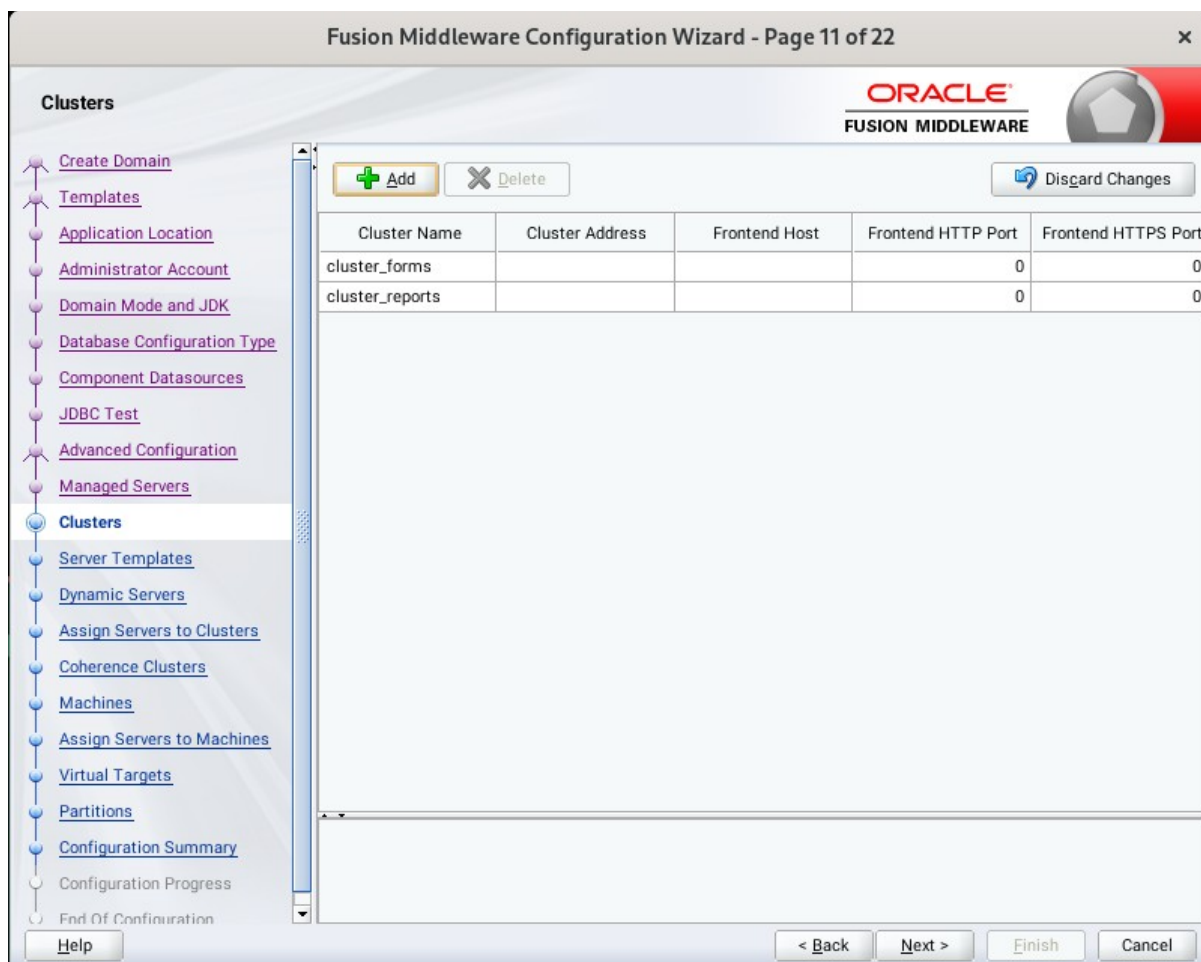
+ Add Clone Delete Discard Changes

Server Name	Listen Address	Listen Port	Enable SSL	SSL Listen Port	Server Groups
WLS_FORMS	All Local Addresses	9001	<input type="checkbox"/>	Disabled	FORMS-MA...
WLS_REPORTS	All Local Addresses	9002	<input type="checkbox"/>	Disabled	REPORTS-A...

Help < Back Next > Finish Cancel

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.



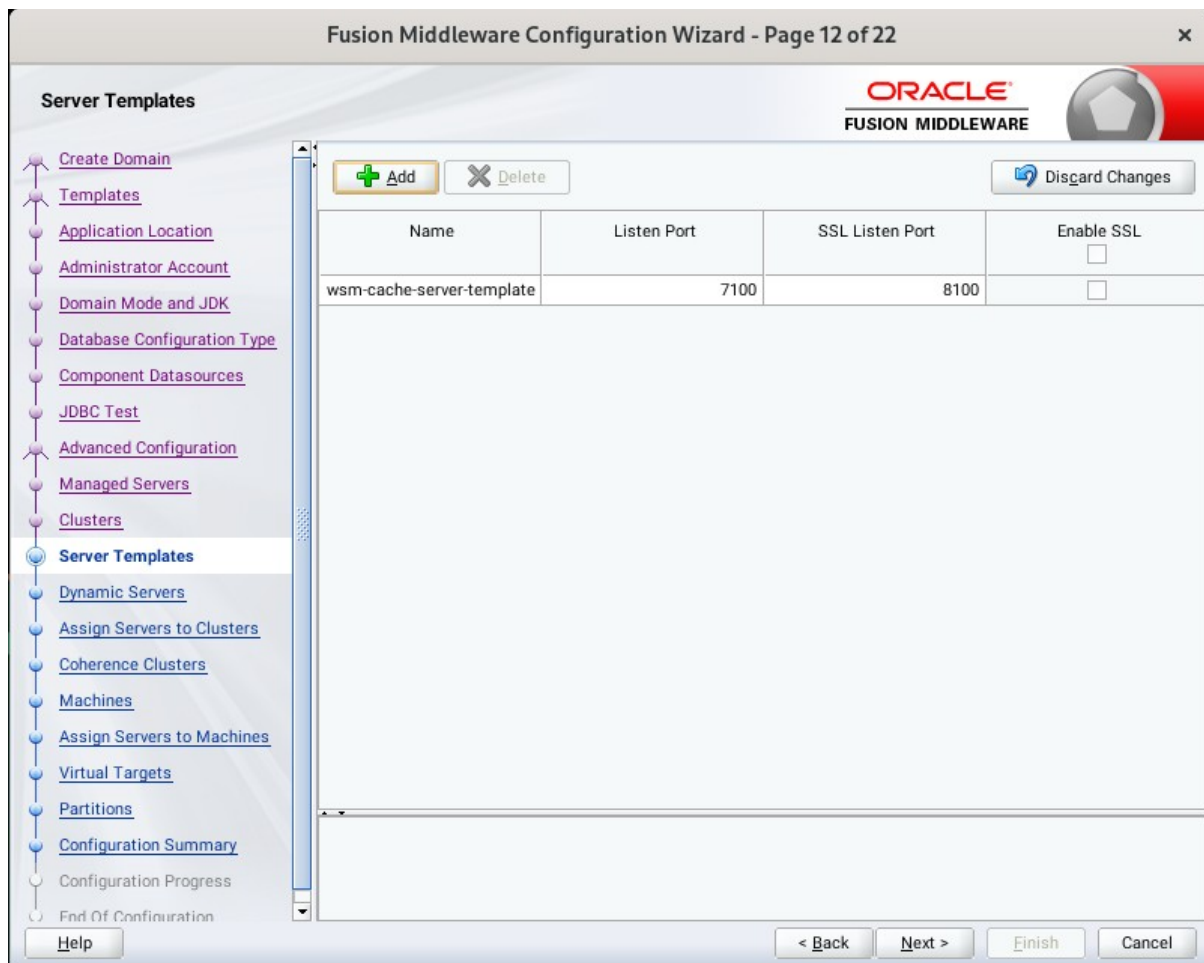
The screenshot displays the 'Clusters' configuration screen in the Fusion Middleware Configuration Wizard. The window title is 'Fusion Middleware Configuration Wizard - Page 11 of 22'. The Oracle logo and 'FUSION MIDDLEWARE' text are visible in the top right corner. A navigation pane on the left lists various configuration steps, with 'Clusters' selected. The main area contains a table with the following data:

Cluster Name	Cluster Address	Frontend Host	Frontend HTTP Port	Frontend HTTPS Port
cluster_forms			0	0
cluster_reports			0	0

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

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.

Fusion Middleware Configuration Wizard - Page 13 of 22

Dynamic Servers

ORACLE
FUSION MIDDLEWARE

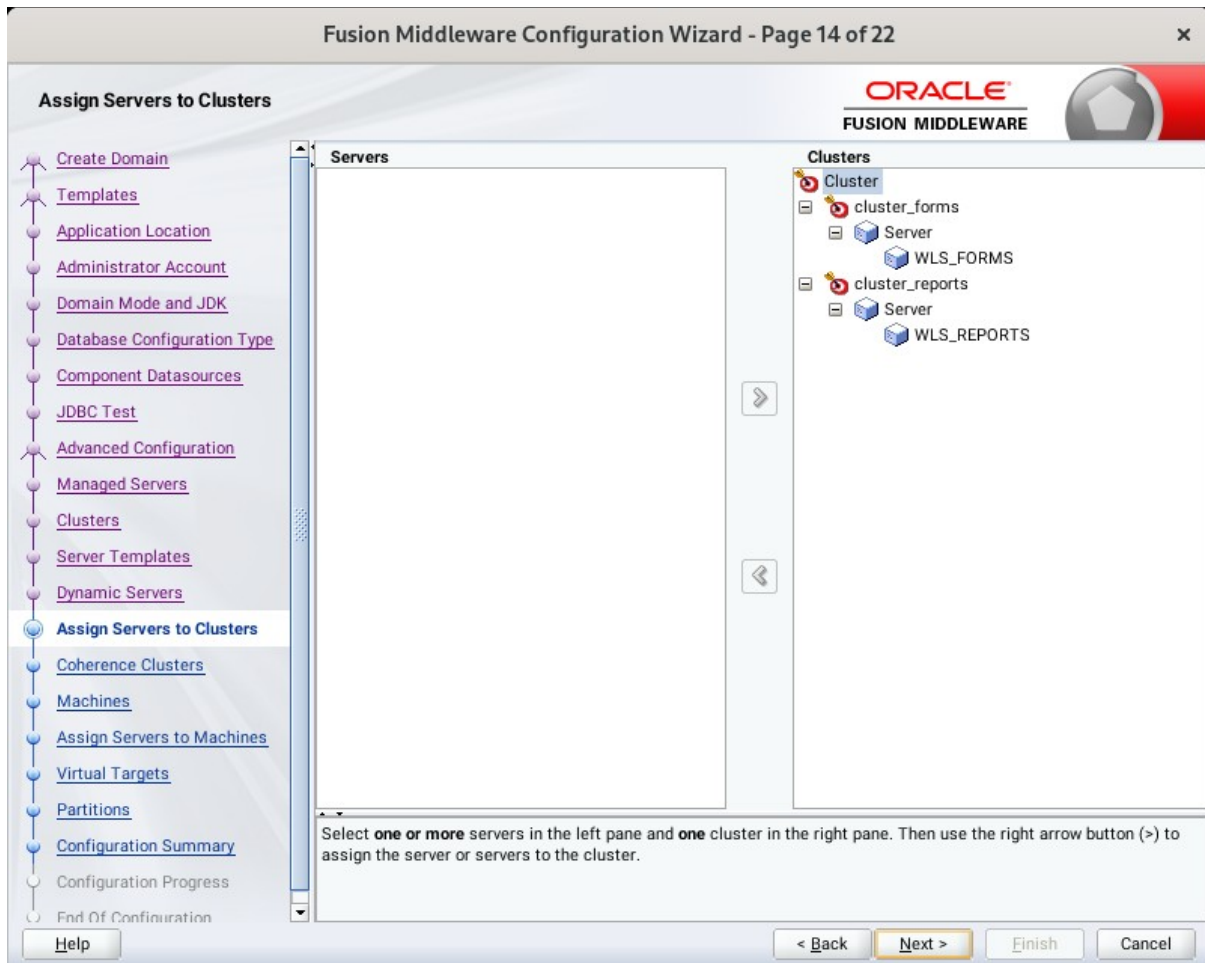
Disgard Changes

Cluster Name	Server Name Prefix	Server Template	Dynamic Cluster Size	Machine Name Match Expression	Calculated Machine Names	Calculated Listen Ports	Dynamic Server Groups
cluster_forms	Disabled	Unspecifi...	Disabled	Disabled	<input type="checkbox"/>	<input type="checkbox"/>	Unspecifi...
cluster_reports	Disabled	Unspecifi...	Disabled	Disabled	<input type="checkbox"/>	<input type="checkbox"/>	Unspecifi...

Help < Back Next > Finish Cancel

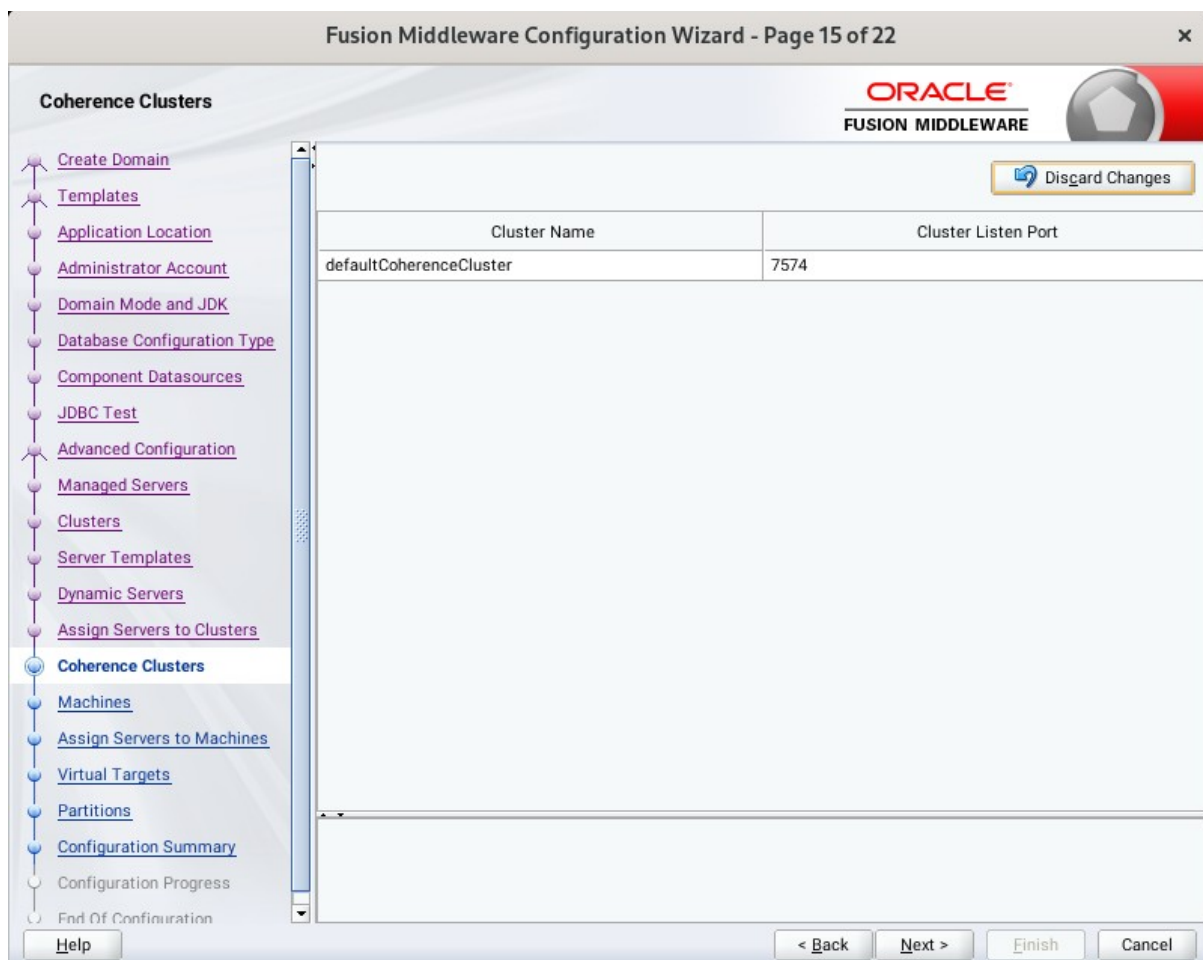
The default values will be appropriate for most cases. Click **Next** to continue.

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



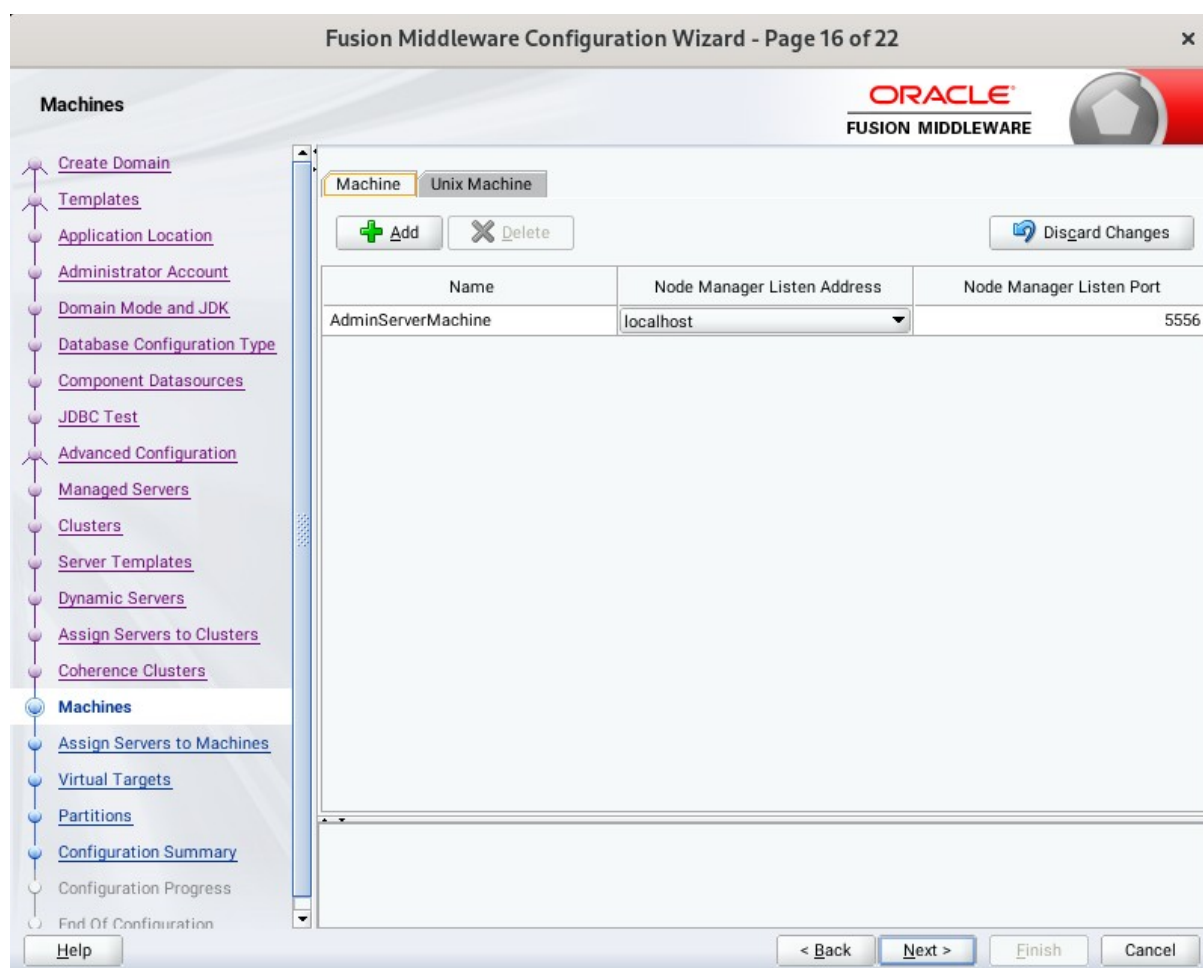
The default values will be appropriate for most cases. However, if new managed servers were added in the previous step, they should be added to the cluster here. Click **Next** to continue.

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



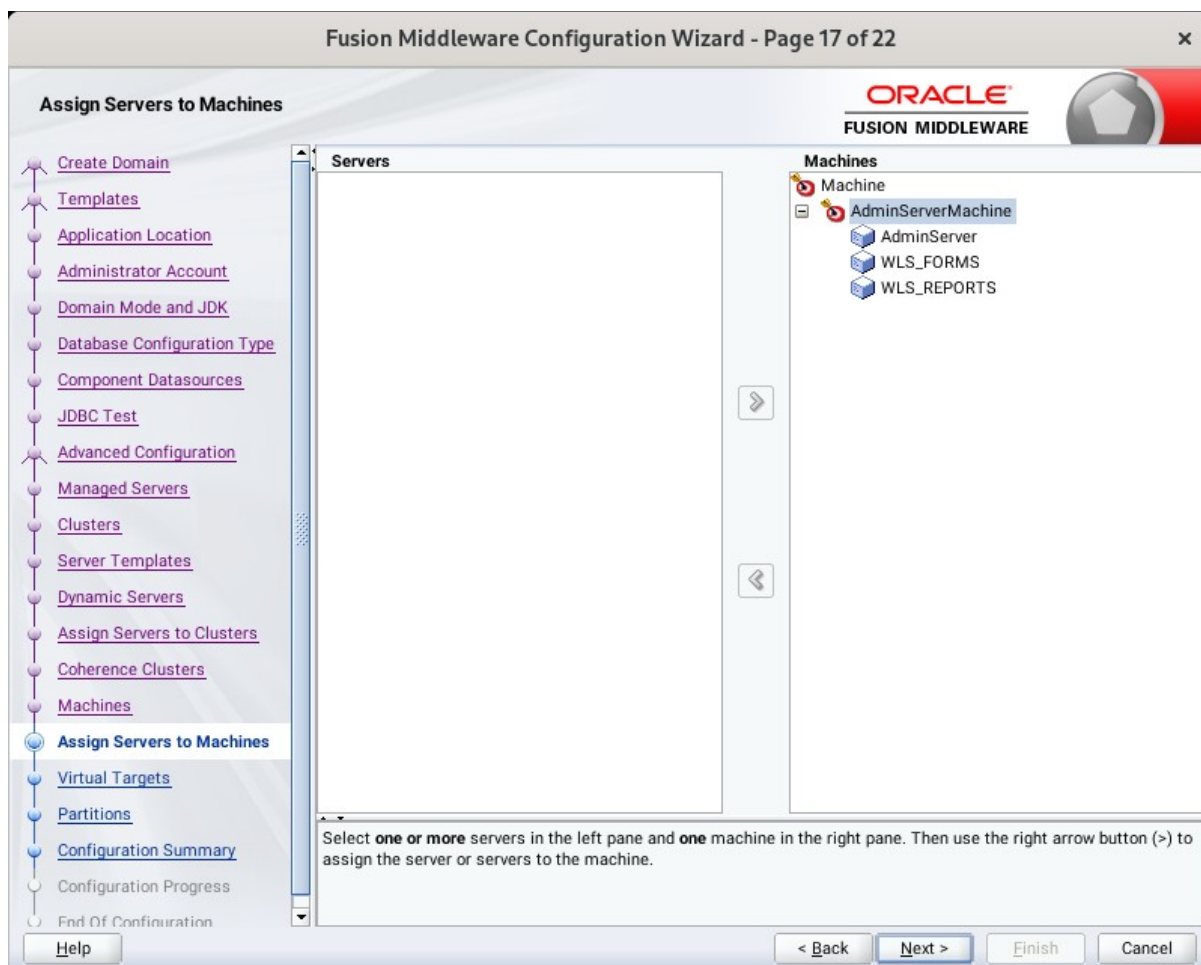
The default values will be appropriate for most cases. Click **Next** to continue.

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



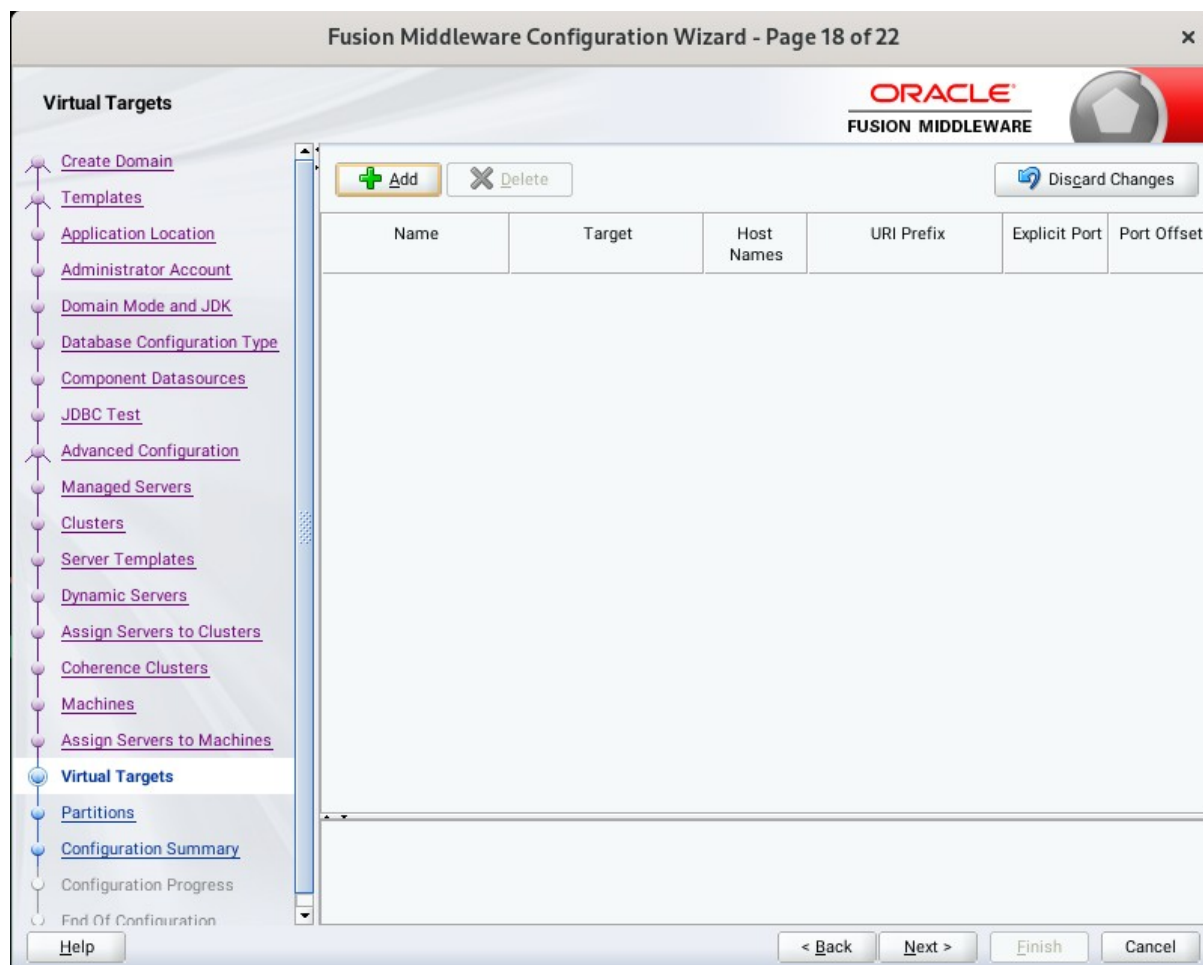
You can use this screen to override the machine name or add additional Machine names for extend domain. Click **Next** to continue.

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



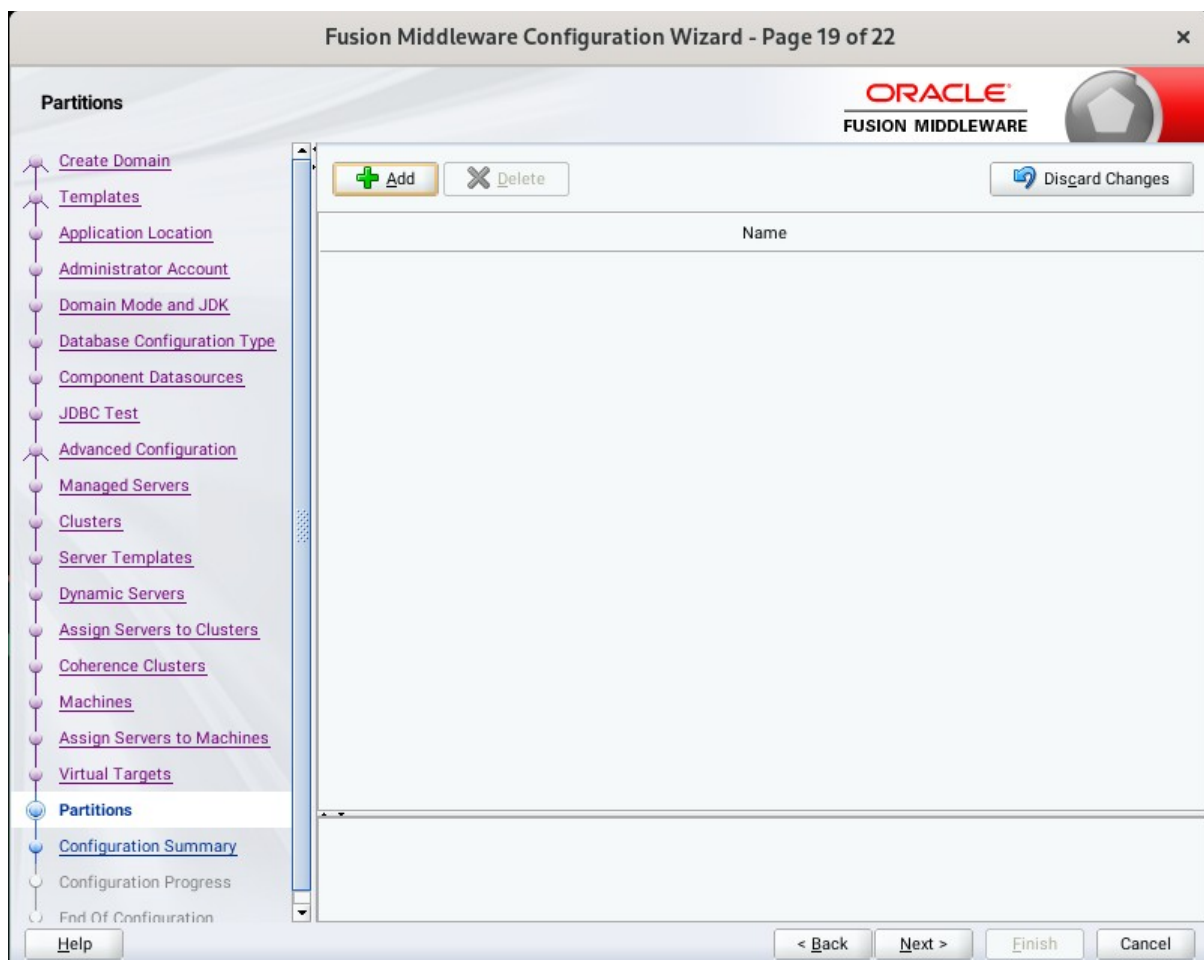
Move the AdminServer to the AdminServerMachine by clicking the '>' button. Click **Next** to continue.

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



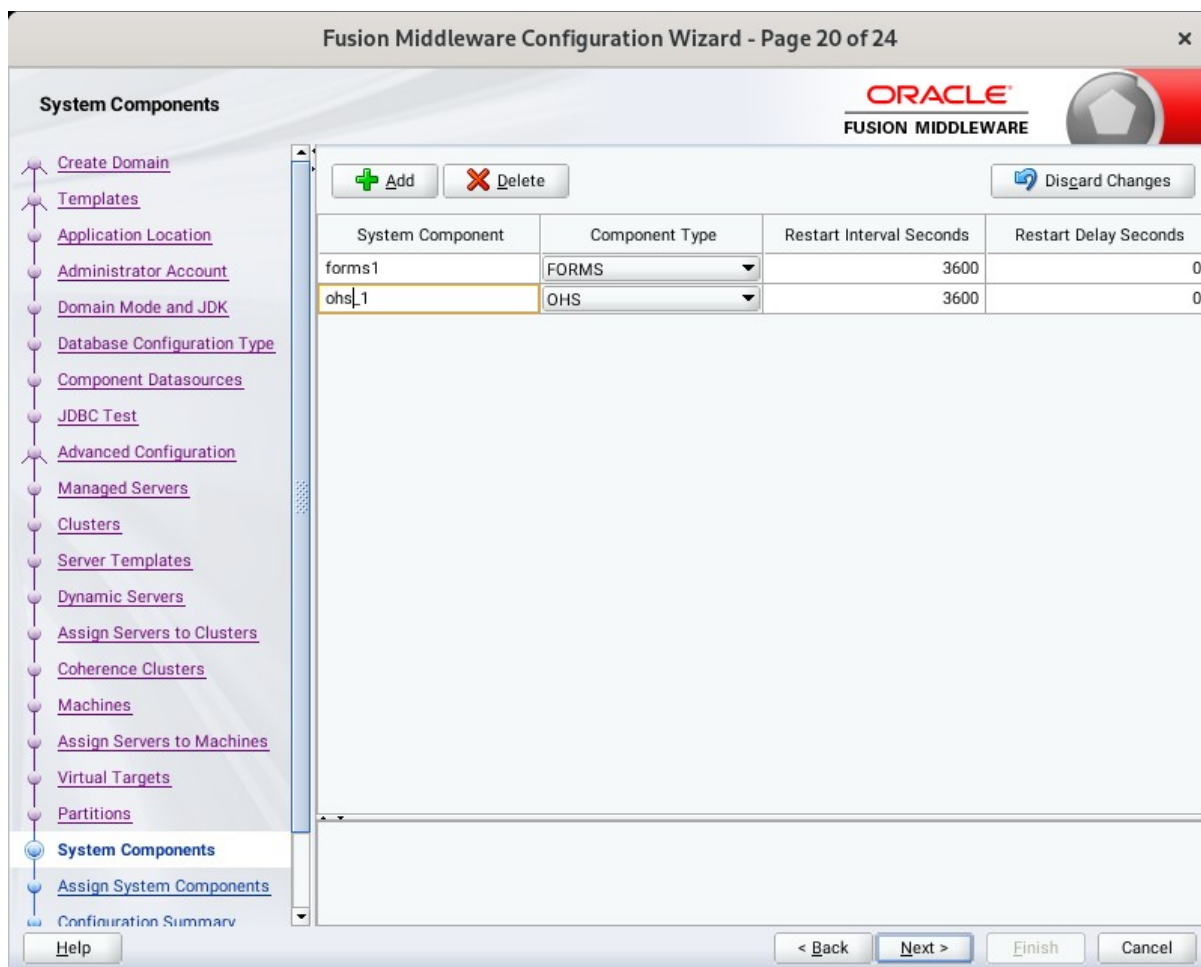
Used with WebLogic Server Partitions. Refer to the WebLogic Server documentation for details. Click **Next** to continue.

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.



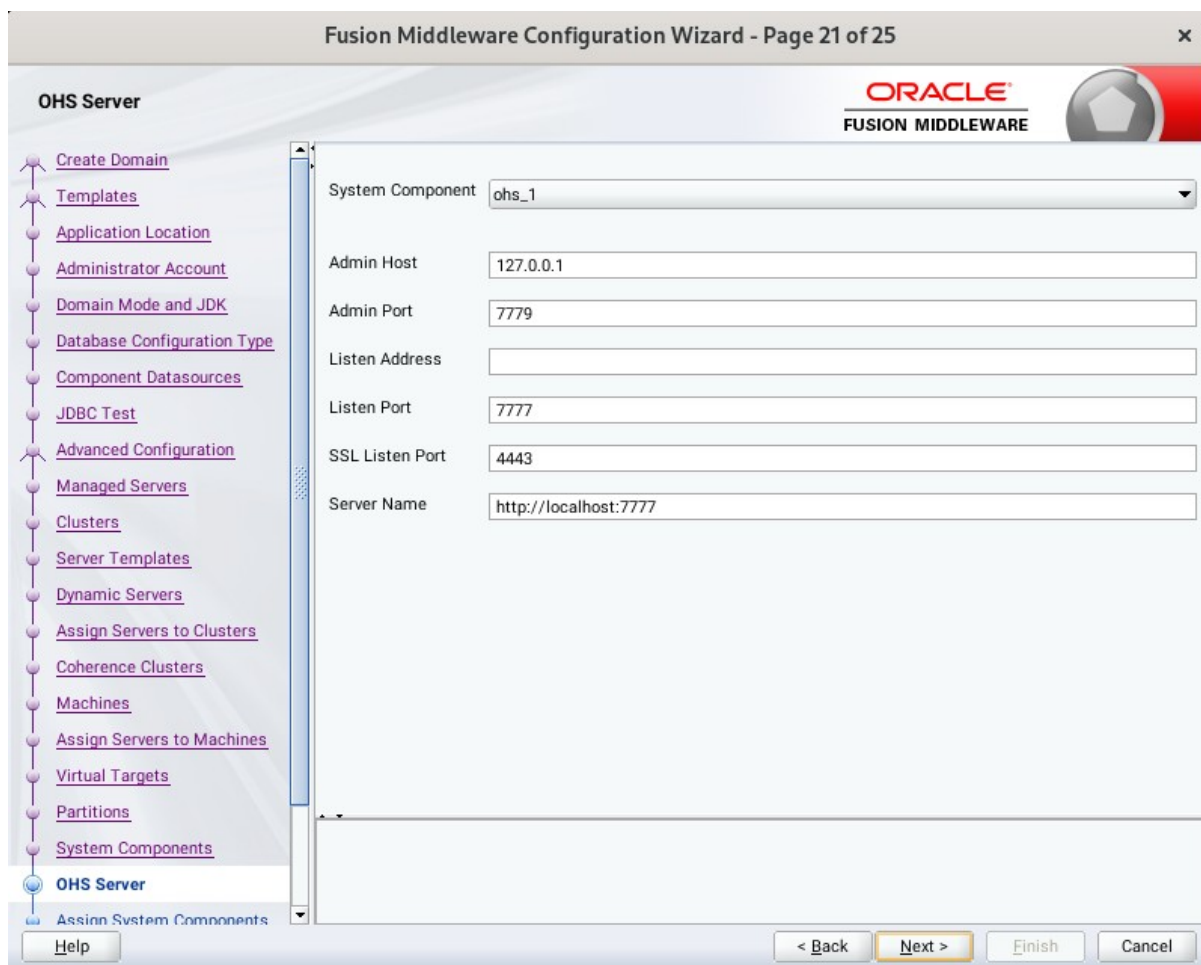
The screenshot shows the 'System Components' screen in the Fusion Middleware Configuration Wizard. The window title is 'Fusion Middleware Configuration Wizard - Page 20 of 24'. The Oracle logo and 'FUSION MIDDLEWARE' text are visible in the top right. A sidebar on the left contains a list of configuration steps, with 'System Components' selected. The main area features a table with the following data:

System Component	Component Type	Restart Interval Seconds	Restart Delay Seconds
forms1	FORMS	3600	0
ohs_1	OHS	3600	0

Buttons for '+ Add', 'X Delete', and 'Disgard Changes' are located above the table. At the bottom, there are navigation buttons: '< Back', 'Next >', 'Finish', and 'Cancel', along with a 'Help' button.

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.



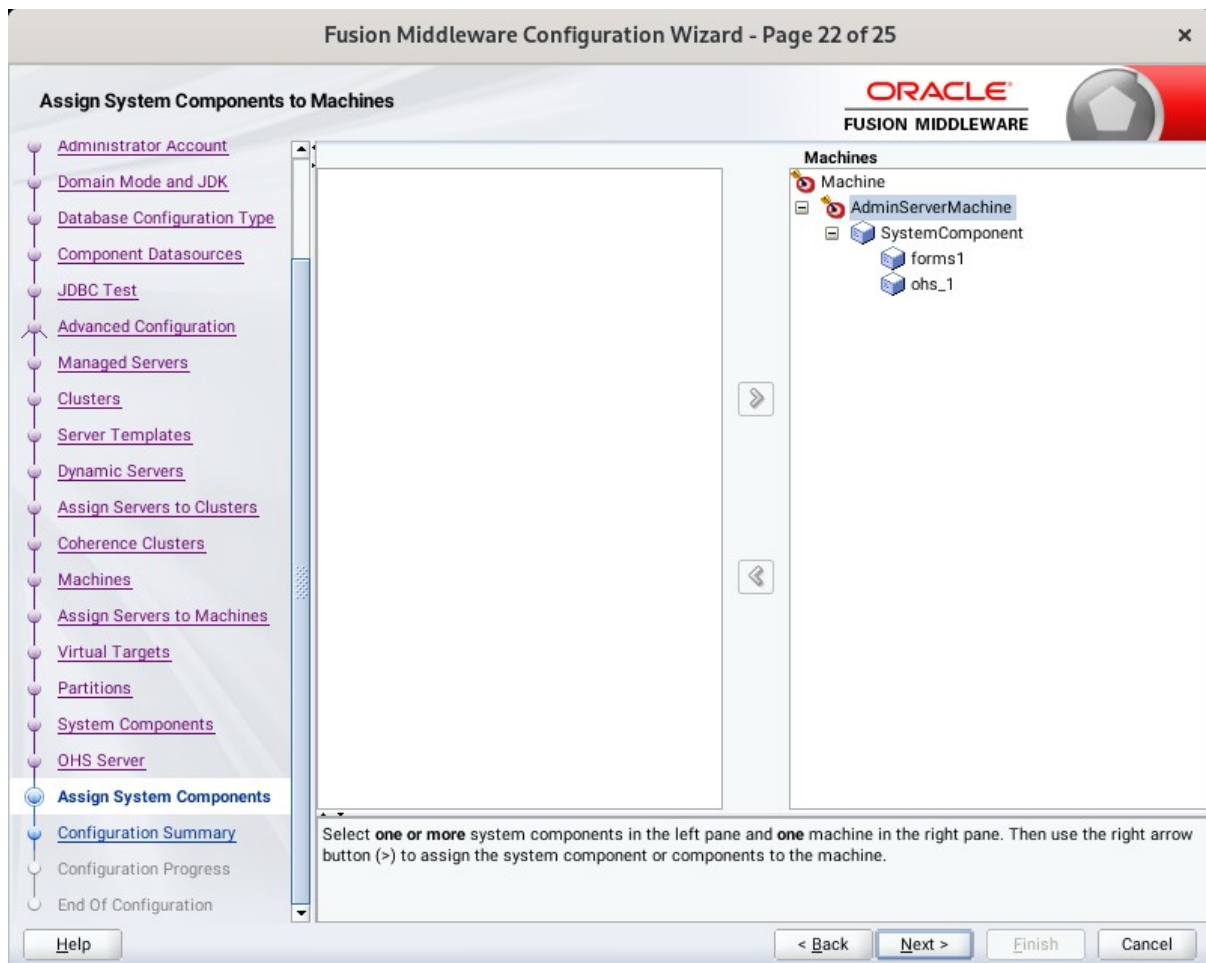
The screenshot displays the "Fusion Middleware Configuration Wizard - Page 21 of 25" window. The title bar includes the Oracle logo and "FUSION MIDDLEWARE". The main content area is titled "OHS Server" and features a navigation pane on the left with a tree view of configuration steps. The "OHS Server" step is currently selected and highlighted in blue. The main configuration area contains several input fields:

- System Component: ohs_1 (dropdown menu)
- Admin Host: 127.0.0.1 (text input)
- Admin Port: 7779 (text input)
- Listen Address: (empty text input)
- Listen Port: 7777 (text input)
- SSL Listen Port: 4443 (text input)
- Server Name: http://localhost:7777 (text input)

At the bottom of the window, there are four buttons: "Help", "< Back", "Next >" (highlighted in yellow), "Finish", and "Cancel".

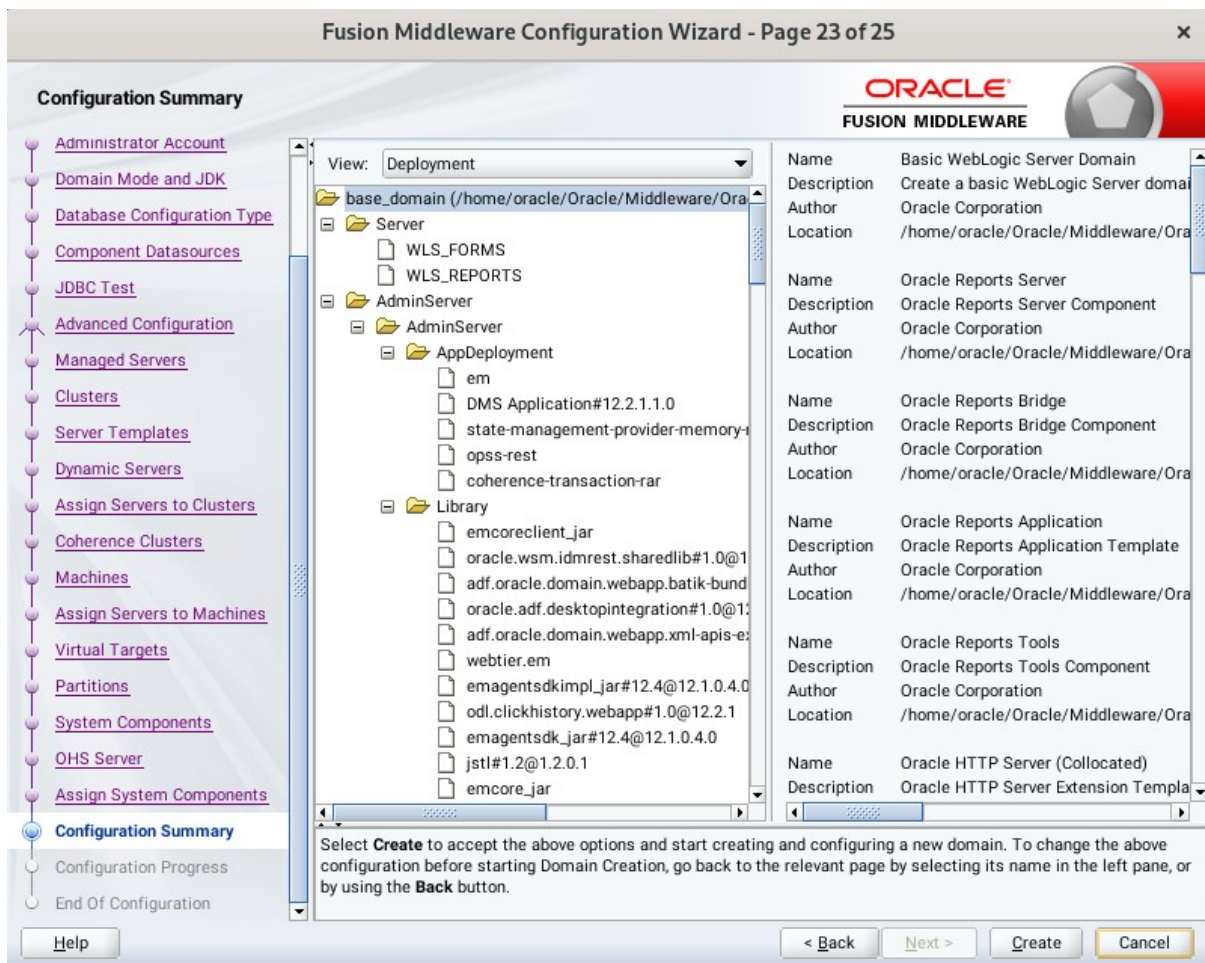
The default values will be appropriate for most cases. Click **Next** to continue.

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



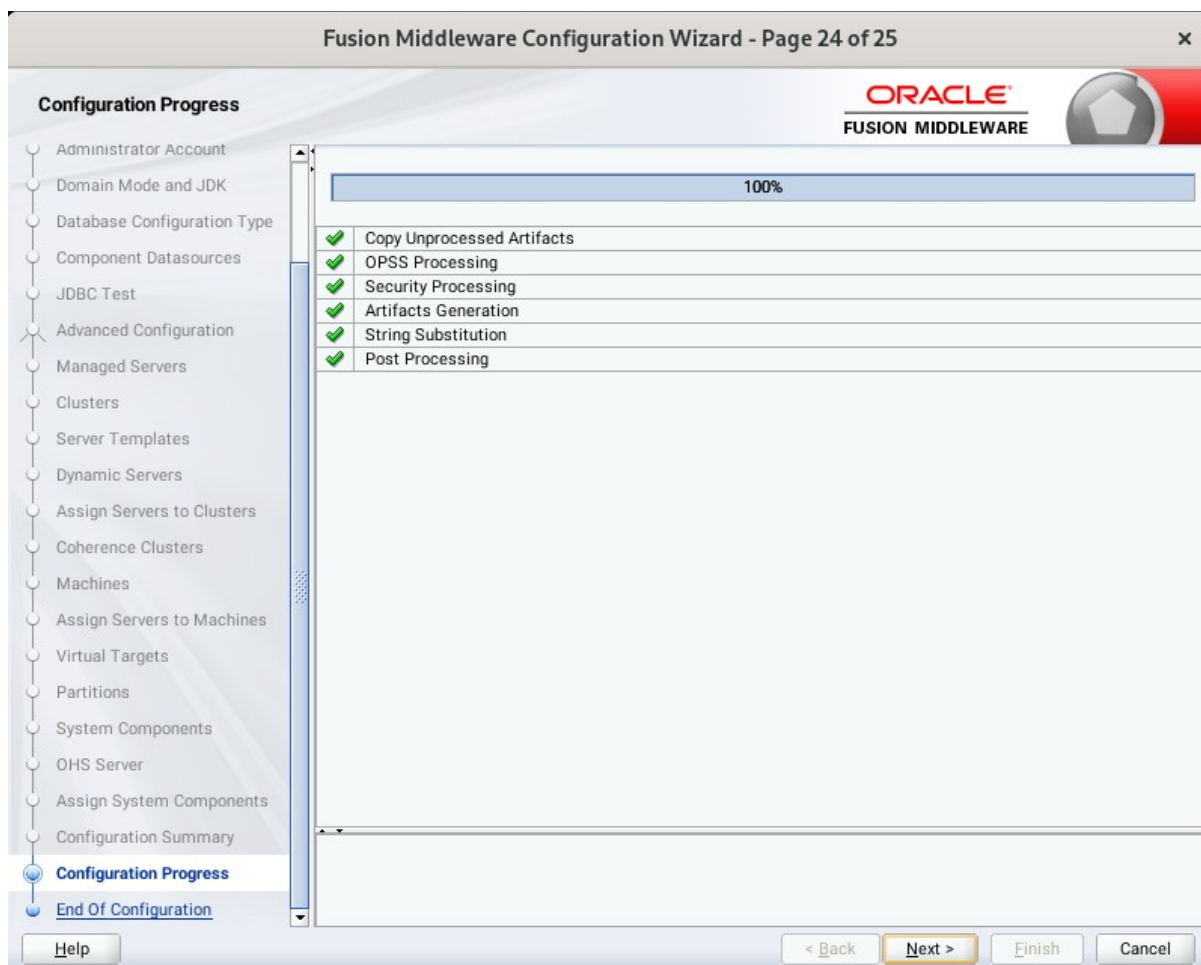
The default values will be appropriate for most cases. Click **Next** to continue.

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



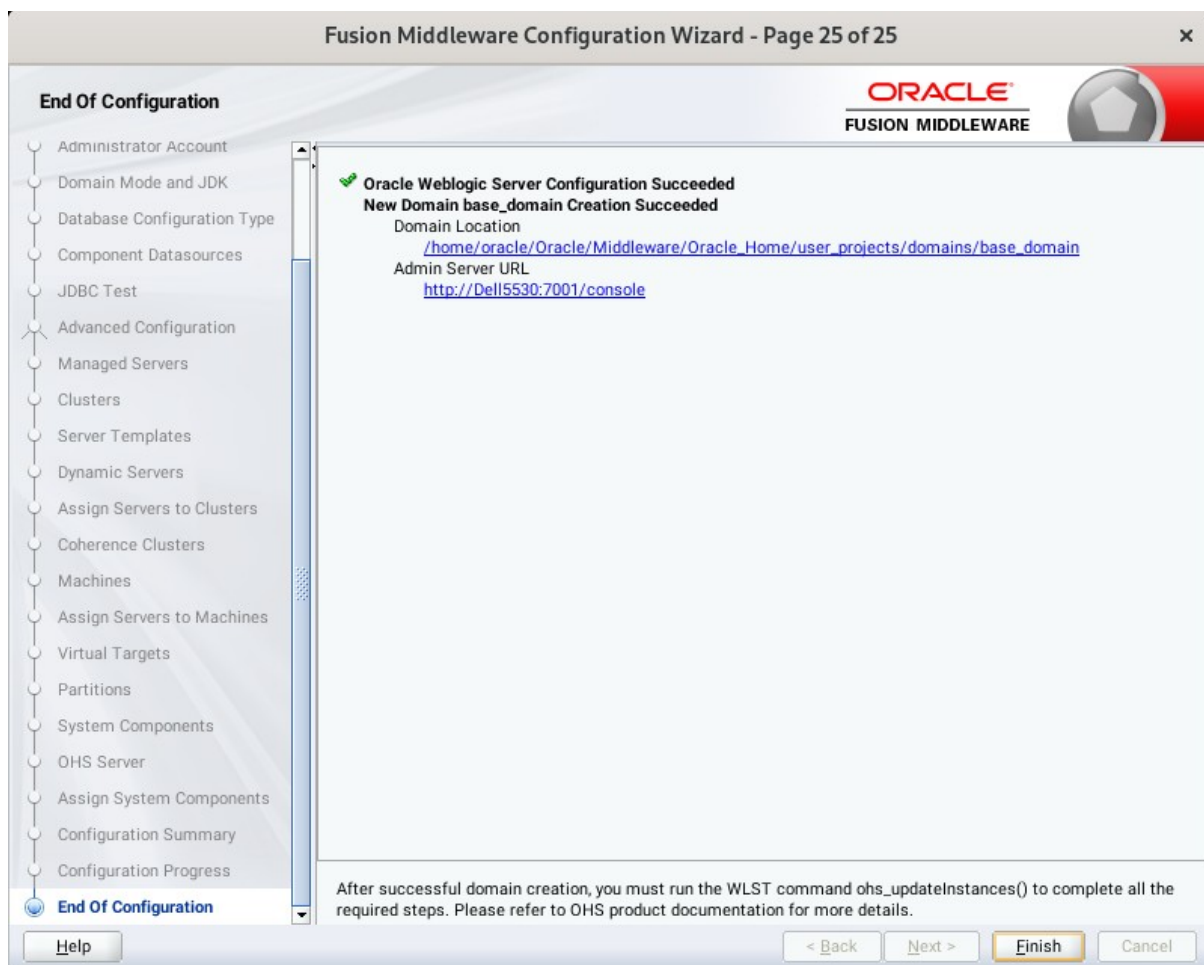
Select **Create** to accept the above options and start creating and configuring a new domain.

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.

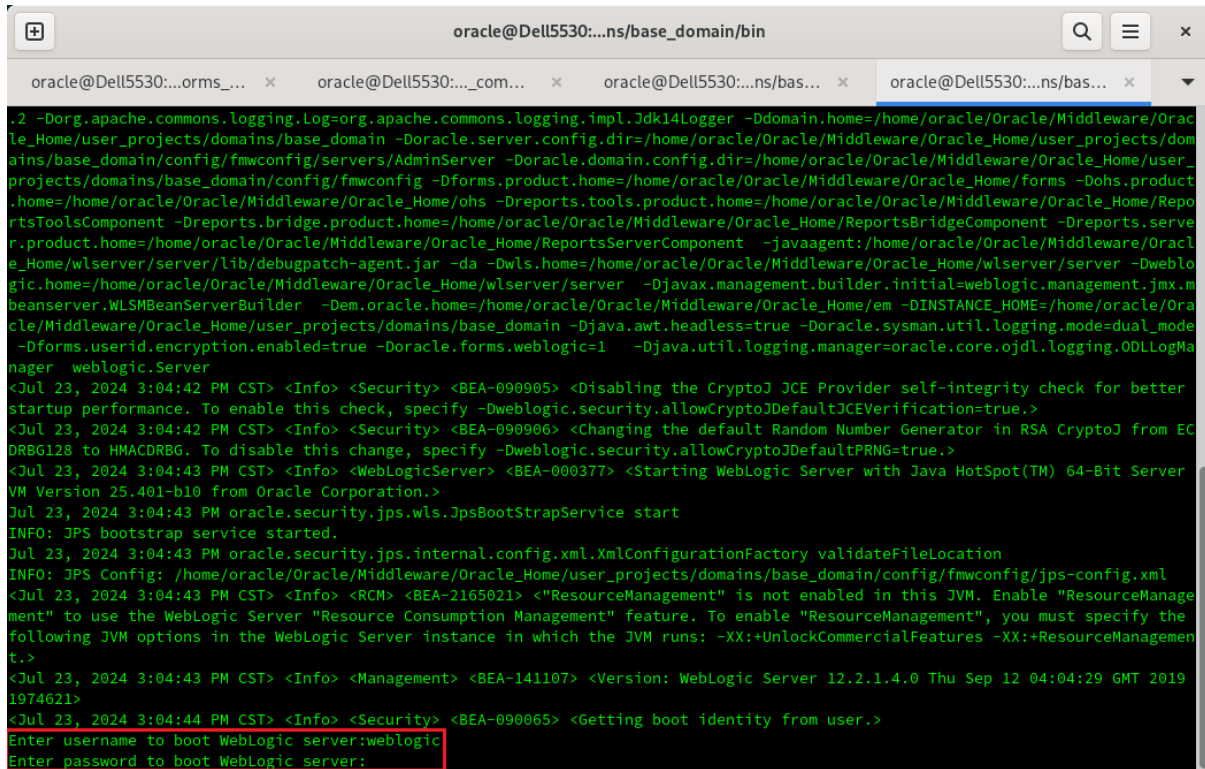
Starting the Node Manager, go to the DOMAIN_HOME/bin directory and run './startNodeManager.sh > nm.out &'

```

oracle@Dell5530:...ns/base_domain/bin
oracle@Dell5530:...orms_Reports/12219 x oracle@Dell5530:..._common/common... x oracle@Dell5530:...ns/base_domain/bin x
oracle@Dell5530:/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/bin> nohup ./startNodeManager.sh > nm.out &
[1] 32754
nohup: ignoring input and redirecting stderr to stdout
oracle@Dell5530:/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/nodemanager
CLASSPATH=/home/ORACLE_SW/Java/jdk1.8.0_401/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_SW/Java/jdk1.8.0_401/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/..../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/ReportsBridgeComponent -Dreports.server.product.home=/home/oracle/Oracle/Middleware/Oracle_Home/ReportsServerComponent -Dforms.product.home=/home/oracle/Oracle/Middleware/Oracle_Home/forms -Dohs.product.home=/home/oracle/Oracle/Middleware/Oracle_Home/ohs -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_SW/Java/jdk1.8.0_401/weblogic.NodeManager -v
<Jul 23, 2024 3:03:33 PM CST> <INFO> <Loading domains file: /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.domains>
<Jul 23, 2024 3:03:33 PM CST> <INFO> <Upgrade> <Setting NodeManager properties version to 12.2.1.4.0>
<Jul 23, 2024 3:03:33 PM CST> <INFO> <Upgrade> <Saving upgraded NodeManager properties to '/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.properties'>
<Jul 23, 2024 3:03:33 PM CST> <INFO> <Loading domains file: /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.domains>
<Jul 23, 2024 3:03:34 PM CST> <INFO> <Loading identity key store: FileName=kss://system/demoidentity, Type=kss, PassPhraseUsed=true>
Jul 23, 2024 3:03:34 PM oracle.security.jps.internal.config.xml.XmlConfigurationFactory validateFileLocation
INFO: JPS Config: /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/config/fmwconfig/jps-config-jse.xml

```


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



```
oracle@Dell5530:...ns/base_domain/bin
oracle@Dell5530:...orms... x oracle@Dell5530:...com... x oracle@Dell5530:...ns/bas... x oracle@Dell5530:...ns/bas... x
./startWebLogic.sh
...
<Jul 23, 2024 3:04:42 PM CST> <Info> <Security> <BEA-090905> <Disabling the CryptoJ JCE Provider self-integrity check for better startup performance. To enable this check, specify -Dweblogic.security.allowCryptoJDefaultJCEVerification=true.>
<Jul 23, 2024 3:04:42 PM CST> <Info> <Security> <BEA-090906> <Changing the default Random Number Generator in RSA CryptoJ from EC DRBG128 to HMACDRBG. To disable this change, specify -Dweblogic.security.allowCryptoJDefaultPRNG=true.>
<Jul 23, 2024 3:04:43 PM CST> <Info> <WebLogicServer> <BEA-000377> <Starting WebLogic Server with Java HotSpot(TM) 64-Bit Server VM Version 25.401-b10 from Oracle Corporation.>
Jul 23, 2024 3:04:43 PM oracle.security.jps.wls.JpsBootstrapService start
INFO: JPS bootstrap service started.
Jul 23, 2024 3:04:43 PM oracle.security.jps.internal.config.xml.XmlConfigurationFactory validateFileLocation
INFO: JPS Config: /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/config/fmwconfig/jps-config.xml
<Jul 23, 2024 3:04:43 PM CST> <Info> <RCM> <BEA-2165021> <"ResourceManagement" is not enabled in this JVM. Enable "ResourceManagement" to use the WebLogic Server "Resource Consumption Management" feature. To enable "ResourceManagement", you must specify the following JVM options in the WebLogic Server instance in which the JVM runs: -XX:+UnlockCommercialFeatures -XX:+ResourceManagement.>
<Jul 23, 2024 3:04:43 PM CST> <Info> <Management> <BEA-141107> <Version: WebLogic Server 12.2.1.4.0 Thu Sep 12 04:04:29 GMT 2019 1974621>
<Jul 23, 2024 3:04:44 PM CST> <Info> <Security> <BEA-090065> <Getting boot identity from user.>
Enter username to boot WebLogic server:weblogic
Enter password to boot WebLogic server:
```

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

Server state changed to RUNNING.

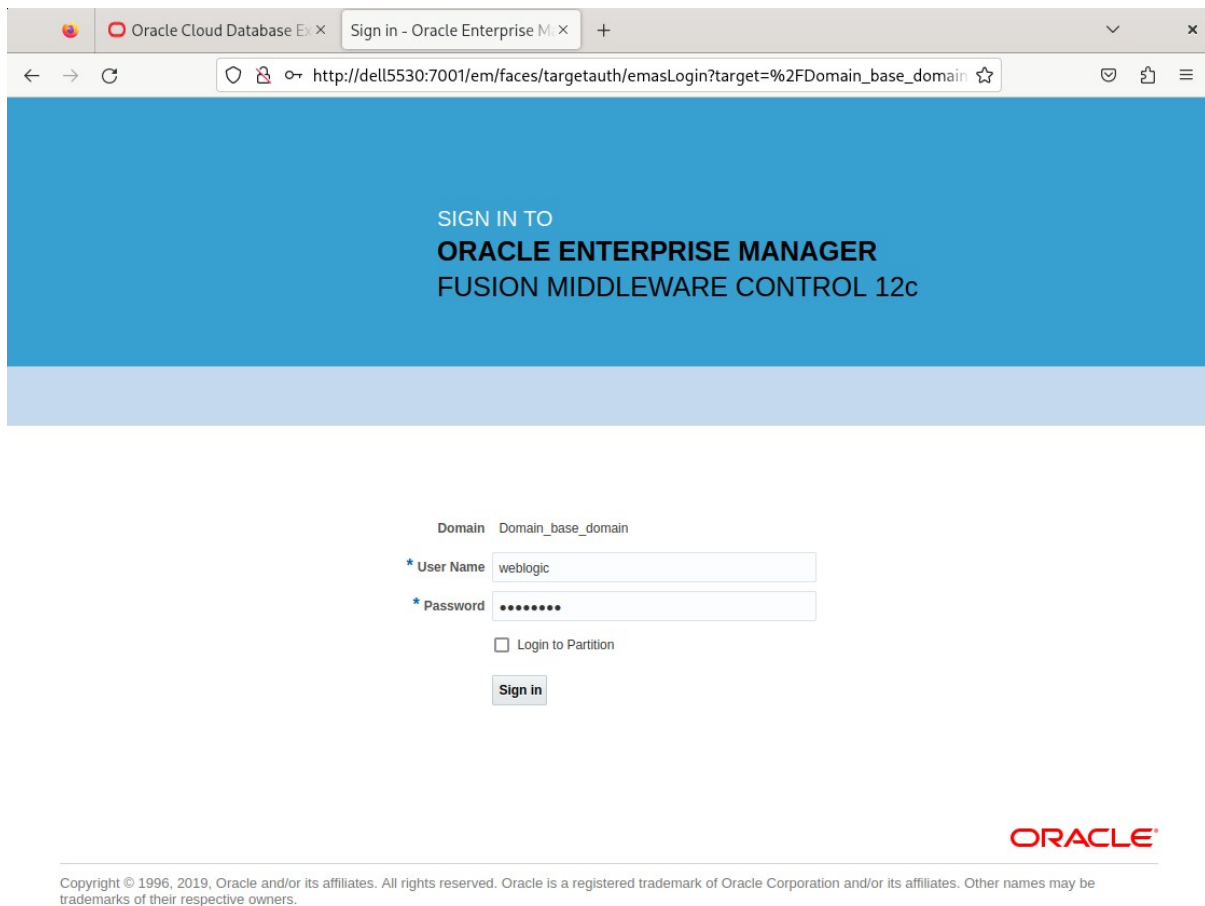
4-3. Verifying the Installed Products and Product Versions. Check the products and product version numbers by running the **opatch lsinventory -detail** command from the **ORACLE_HOME/OPatch** directory.

Confirmed that OPatch succeeded.

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

1). Access to Enterprise Manager Console.

Login Page:



Domain Domain_base_domain

* User Name

* Password

Login to Partition

ORACLE

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Home Page:

The screenshot shows the Oracle Enterprise Manager interface for a WebLogic Domain. The page title is "base_domain (Oracle WebLo...". The URL is "http://dell5530:7001/em/faces/as-weblogic-webLogicDomainHome?type=weblogic_domain". The page displays various monitoring widgets:

- Servers:** 2 Down, 1 Up.
- Clusters:** 2 Down.
- Deployments:** 2 Down, 1 Up.
- Domain Partitions:** 0.

The main content area shows the "Administration Server" details:

- Name: AdminServer
- Host: Dell5530
- Listen Port: 7001

Below this is a table of servers:

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

At the bottom right, it indicates "Servers 3 of 3".

Starting WLS_FORMS

The screenshot shows the Oracle Enterprise Manager interface for starting the WLS_FORMS server. The page title is "WLS_FORMS (Oracle WebLo...". The URL is "http://dell5530:7001/em/faces/as-weblogic-webLogicServerHome?type=weblogic_j2eeserve". The page displays various monitoring widgets:

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

The main content area shows the "General" information for the WLS_FORMS server:

- Up Since: Jul 23, 2024 3:28:37 PM
- Version: 12.2.1.4.0
- State: Running
- Health: OK ✓
- Server Type: Configured
- Cluster: cluster_forms
- CPU Usage (%): 1.85
- Heap Usage (MB): 325.34
- Java Vendor: Oracle Corporation
- Java Version: 1.8.0_401

Below this is a "Response and Load" graph showing Request Processing Time (ms) and Requests (per minute) over time. The graph shows a sharp spike in request processing time at 03:15 PM, followed by a return to baseline.

Other sections include "Servlets and JSPs" (Active Sessions: 0, Request Processing Time: 0, Requests: 0.00) and "Work Manager" (Beans in Use: 0, Bean Accesses: 0.00, Bean Access Successes: 0.00, Bean Transaction Commits: 0.00).

(Note: After installing Oracle Forms, "formsapp [Version=12.2.1]" goes into a FAILED state.

The screenshot shows the Oracle Enterprise Manager interface for WLS_FORMS. The main content area displays a table of deployments:

Name	Status	State	Health	Type	Domain Partition
formsapp(12.2.1)	Failed	Failed		Enterprise Application	

Below the table, there are sections for 'Application Deployments' and 'Modules'. The 'Application Deployments' section shows 'on cluster_forms' and 'on WLS_FORMS' with red downward arrows. The 'Modules' section shows 'formsweb (Web Application)'.

On the left sidebar, the 'Monitoring' section shows 'Request Processing Time (ms)' as 0 and 'Requests (per minute)' as 0.00. The 'Deployments' section shows a red circle and '1 Down'. The 'Most Requested' section shows 'Requests Processed' as 0.

To resolve this issue, please manually add "LD_LIBRARY_PATH" to "setStartupEnv.sh" before starting WLS_FORMS.

```
LD_LIBRARY_PATH="/home/oracle/Oracle/Middleware/Oracle_Home/lib${CLASSPATHSEP}$
{LD_LIBRARY_PATH}"
export LD_LIBRARY_PATH
```

```
oracle@Dell5530:~/ns/base_domain/bin
268     POST_CLASSPATH="${POST_CLASSPATH}${CLASSPATHSEP}${COMMON_COMPONENTS_HOME}/modules/internal/features/jrf_wlsFmw_oracle
e.jrf.wls.classpath.jar"
269     export POST_CLASSPATH
270     else
271     POST_CLASSPATH="${COMMON_COMPONENTS_HOME}/modules/internal/features/jrf_wlsFmw_oracle.jrf.wls.classpath.jar"
272     export POST_CLASSPATH
273     fi
274     # 32 bit JVM memory settings
275     SERVER_MEM_ARGS_32="-Xms256m -Xmx1024m"
276     export SERVER_MEM_ARGS_32
277     SERVER_MEM_ARGS_32HotSpot="-Xms256m -Xmx1024m"
278     export SERVER_MEM_ARGS_32HotSpot
279     SERVER_MEM_ARGS_32JRockit="-Xms256m -Xmx1024m"
280     export SERVER_MEM_ARGS_32JRockit
281     # 64 bit JVM memory settings
282     SERVER_MEM_ARGS_64="-Xms256m -Xmx1024m"
283     export SERVER_MEM_ARGS_64
284     SERVER_MEM_ARGS_64HotSpot="-Xms256m -Xmx1024m"
285     export SERVER_MEM_ARGS_64HotSpot
286     SERVER_MEM_ARGS_64JRockit="-Xms256m -Xmx1024m"
287     export SERVER_MEM_ARGS_64JRockit
288 fi
289
290 # Environmental Variables for STARTUP_GROUP FORMS-MAN-SVR
291
292 if [ "${STARTUP_GROUP}" = "FORMS-MAN-SVR" ] ; then
293     COMMON_COMPONENTS_HOME="/home/oracle/Oracle/Middleware/Oracle_Home/oracle_common"
294     export COMMON_COMPONENTS_HOME
295     ORACLE_DOMAIN_CONFIG_DIR="${DOMAIN_HOME}/config/fmwconfig"
296     export ORACLE_DOMAIN_CONFIG_DIR
297     EXTRA_JAVA_PROPERTIES="-Dem.oracle.home=/home/oracle/Oracle/Middleware/Oracle_Home/em"
298     export EXTRA_JAVA_PROPERTIES
299     PATH="/home/oracle/Oracle/Middleware/Oracle_Home/ReportsToolsComponent/./oui/lib/win64${CLASSPATHSEP}${PATH}"
300     export PATH
301     LD_LIBRARY_PATH="/home/oracle/Oracle/Middleware/Oracle_Home/lib${CLASSPATHSEP}${LD_LIBRARY_PATH}"
302     export LD_LIBRARY_PATH
303 fi
304
305 # Startup parameters for STARTUP_GROUP FORMS-MAN-SVR
```

Starting WLS_REPORTS

Monitoring

- Request Processing Time (ms): 0
- Requests (per minute): 0.00

Deployments

- 1 Up

Most Requested

- Requests Processed: 0

General

- Up Since: Jul 23, 2024 3:30:43 PM
- Version: 12.2.1.4.0
- State: Running
- Health: OK ✓
- Server Type: Configured
- Cluster: cluster_reports
- CPU Usage (%): 0.41
- Heap Usage (MB): 350.69
- Java Vendor: Oracle Corporation
- Java Version: 1.8.0_401

Response and Load

Graph showing Request Processing Time (ms) and Requests (per minute) from 03:17 PM to 03:29 PM on July 23, 2024.

Servlets and JSPs

- Active Sessions: 0
- Request Processing Time (ms): 0
- Requests (per minute): 0.00

EJBs

- Beans in Use: 0
- Bean Accesses (per minute): 0.00
- Bean Access Successes (%): 0.00
- Bean Transaction Commits (per minute): 0.00

Work Manager

URL: http://dell5530:7001/em/faces/as-weblogic-webLogicServerHome?type=weblogic_j2eeserver&target=/Domain_base_domain/base_domain/WLS_REPORTS#

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

base_domain

Servers

- 3 Up

Clusters

- 2 Up

Deployments

- 3 Up

Domain Partitions

- 0 Domain Partitions

Administration Server

- Name: AdminServer
- Host: Dell5530
- 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

Oracle Cloud Database E... ohs_1 (Oracle HTTP Server) - x Error 404--Not Found x +

http://dell5530:7001/em/faces/as_ohs_ohsHome?type=oracle_apache&target=%2FDomain_...

ORACLE Enterprise Manager Fusion Middleware Control 12c WebLogic Domain weblogic

ohs_1

Oracle HTTP Server Start Up Shut Down Restart...

Jul 23, 2024 3:33:50 PM CST

Monitoring
0.00 CPU Usage (%)
0.00 Memory Usage (%)

Virtual Hosts
0 Virtual Hosts

Modules
0 Modules

General

Component Name ohs_1
Version 12.2.1.4.0
State Running
Host Dell5530
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 Unavailable
Busy Processes Unavailable
Error Rate (%) -1.00
Connection Duration (seconds) Unavailable
Request Processing Time (seconds) Unavailable
Request Throughput (per second) -1.00
Response Data Throughput (KB/second) -1.00

Response and Load

03:19 PM 03:22 03:25 03:28 03:31
July 23 2024

Request Processing Time (milli seconds)
/Domain_base_domain/base_domain/ohs_1: Request Thro...

CPU and Memory Usage

03:19 PM 03:22 03:25 03:28 03:31
July 23 2024

CPU Usage (%) Memory Usage (MB)

http://dell5530:7001/em/faces/as_ohs_ohsHome?type=oracle_apache&target=/Domain_base_domain/base_domain/ohs_1#

Verified ohs1 URLs can be accessed.

Oracle Cloud Database E... ohs_1 (Oracle HTTP Server) - x Error 404--Not Found x Oracle HTTP Server 12c x +

http://dell5530:7777/

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 JS HTML Audit Control Identity Management
Auditing Authentication Authorization
OHS Load Balancing Fusion Middleware Applications

FMW Lifecycle Tools
Manage, monitor, diagnose
Enterprise Manager

Features

ORACLE Oracle HTTP Server 12c

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

Features

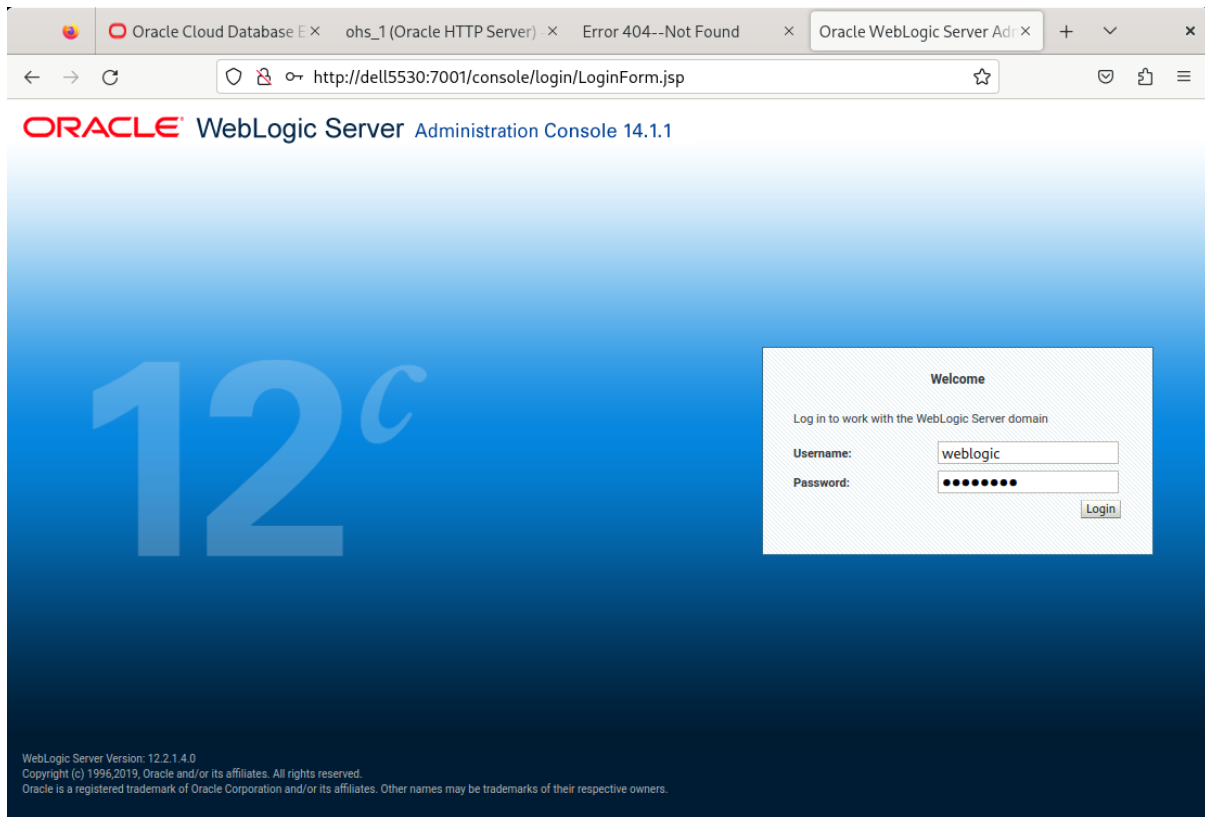
ORACLE Oracle HTTP Server 12c

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

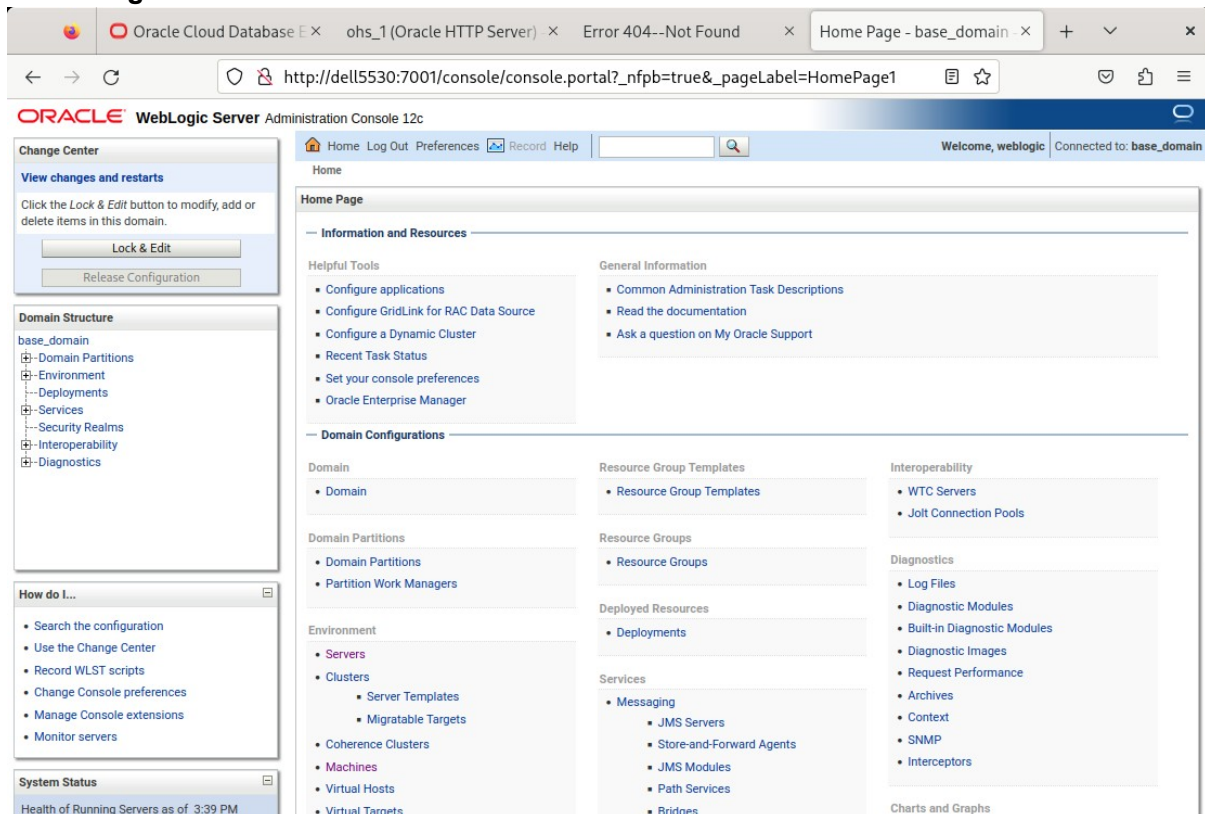
Features

2). Access to Administration Server Console

Login Page as shown below:



Home Page:



Viewing the summary of servers:

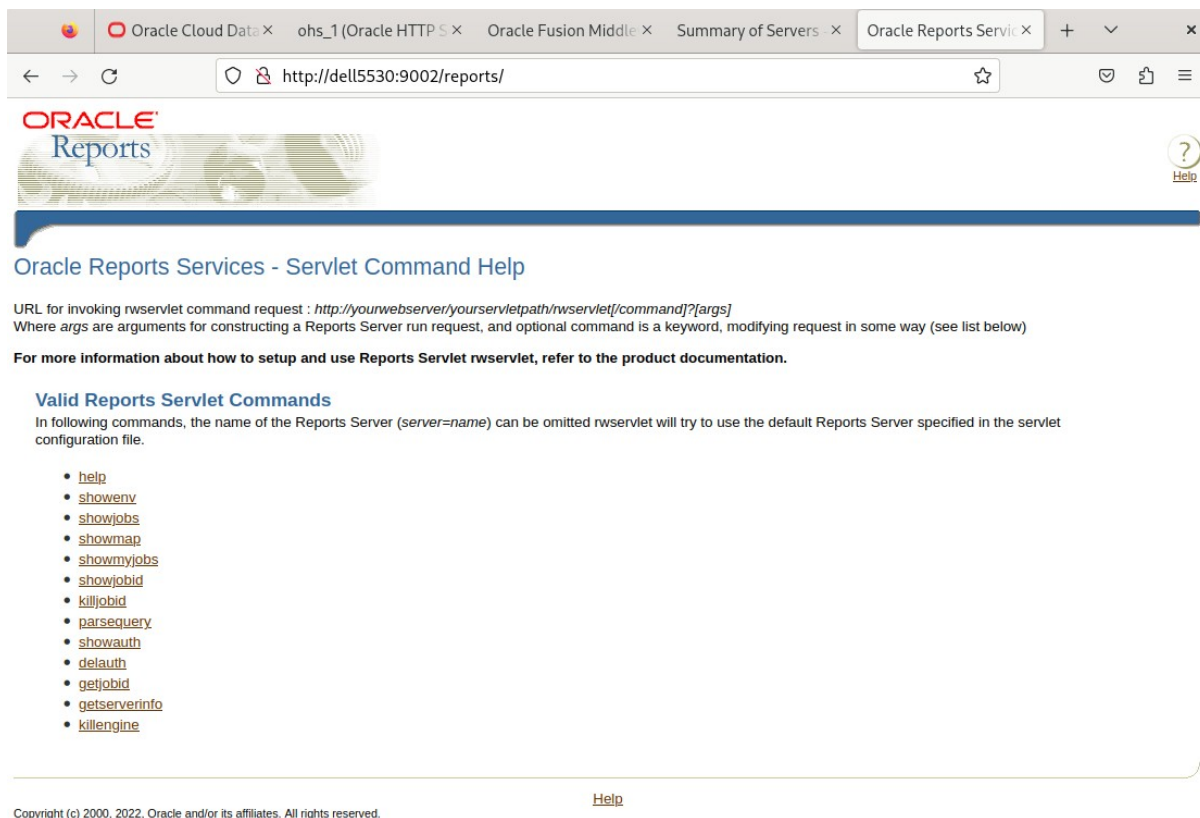
The screenshot shows the Oracle WebLogic Server Administration Console. The main content area is titled "Summary of Servers" and contains a table of servers. The table has columns for Name, Type, Cluster, Machine, State, Health, and Listen Port. Three servers are listed: AdminServer(admin), WLS_FORMS, and WLS_REPORTS. All are in a "Configured" state and "RUNNING" on AdminServerMachine. The WLS_FORMS server is on port 9001 and WLS_REPORTS is on port 9002. The interface includes a left-hand navigation pane with sections like "Change Center", "Domain Structure", "How do I...", and "System Status".

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.

The screenshot shows the Oracle Fusion Middleware Forms Services page. The main heading is "Oracle Fusion Middleware Forms Services". Below the heading, a message states: "The Forms Listener Servlet is up and running." The browser's address bar shows the URL "http://dell5530:9001/forms/".

4). Access to Oracle Reports Services.



The screenshot shows a web browser window with the address bar containing `http://dell5530:9002/reports/`. The page title is "Oracle Reports Services - Servlet Command Help". The Oracle Reports logo is visible at the top left. A "Help" icon is in the top right. The main content area contains the following text:

URL for invoking rwservlet command request : `http://yourwebserver/yourervletpath/rwservlet/[command]?[args]`
Where *args* are arguments for constructing a Reports Server run request, and optional command is a keyword, modifying request in some way (see list below)

For more information about how to setup and use Reports Servlet rwservlet, refer to the product documentation.

Valid Reports Servlet Commands

In following commands, the name of the Reports Server (*server=name*) can be omitted rwservlet will try to use the default Reports Server specified in the servlet configuration file.

- [help](#)
- [showenv](#)
- [showjobs](#)
- [showmap](#)
- [showmyjobs](#)
- [showjobid](#)
- [killjobid](#)
- [parsequery](#)
- [showauth](#)
- [delauth](#)
- [getjobid](#)
- [getserverinfo](#)
- [killengine](#)

At the bottom of the page, there is a "Help" link and a copyright notice: "Copyright (c) 2000, 2022, Oracle and/or its affiliates. All rights reserved."

End of Oracle Forms and Reports.

Oracle WebTier OHS

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_221 and later installed.
- 3). Oracle WebLogic Server 12cR2 (12.2.1.4.0) (Fusion Middleware Infrastructure Installer)

1-2. Login to the target system (SLES 15 SP6 64-bit OS) as a non-admin user. Download the Oracle WebTier 12cR2 OHS (12.2.1.4.0) from <https://www.oracle.com/downloads/#category-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_12.2.1.4.0_ohs_linux64_Disk1_1of1.zip) file and launch the installation program by running 'fmw_12.2.1.4.0_ohs_linux64.bin'

For the actual installation, follow the steps below:

1). Installation Inventory Setup.

Oracle Fusion Middleware 12c HTTP Server (OHS) Installation

Installation Inventory Setup

ORACLE
FUSION MIDDLEWARE

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

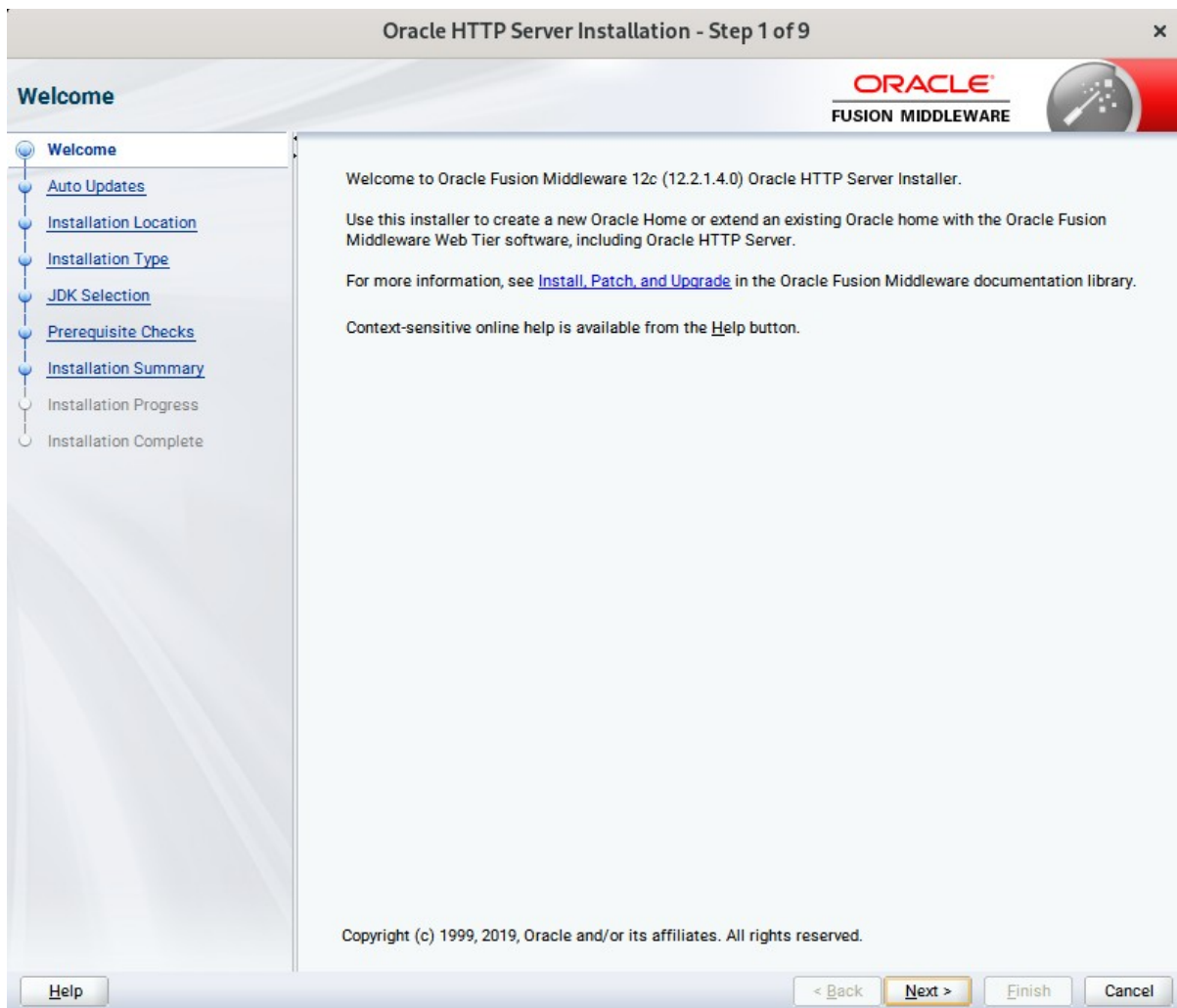
Inventory Directory:
Enter the full path for the directory.

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

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

Specify the Oracle inventory directory and group permissions for that directory. The group must have write permissions to the Oracle inventory directory, then click **OK** to continue.

2). Welcome page.



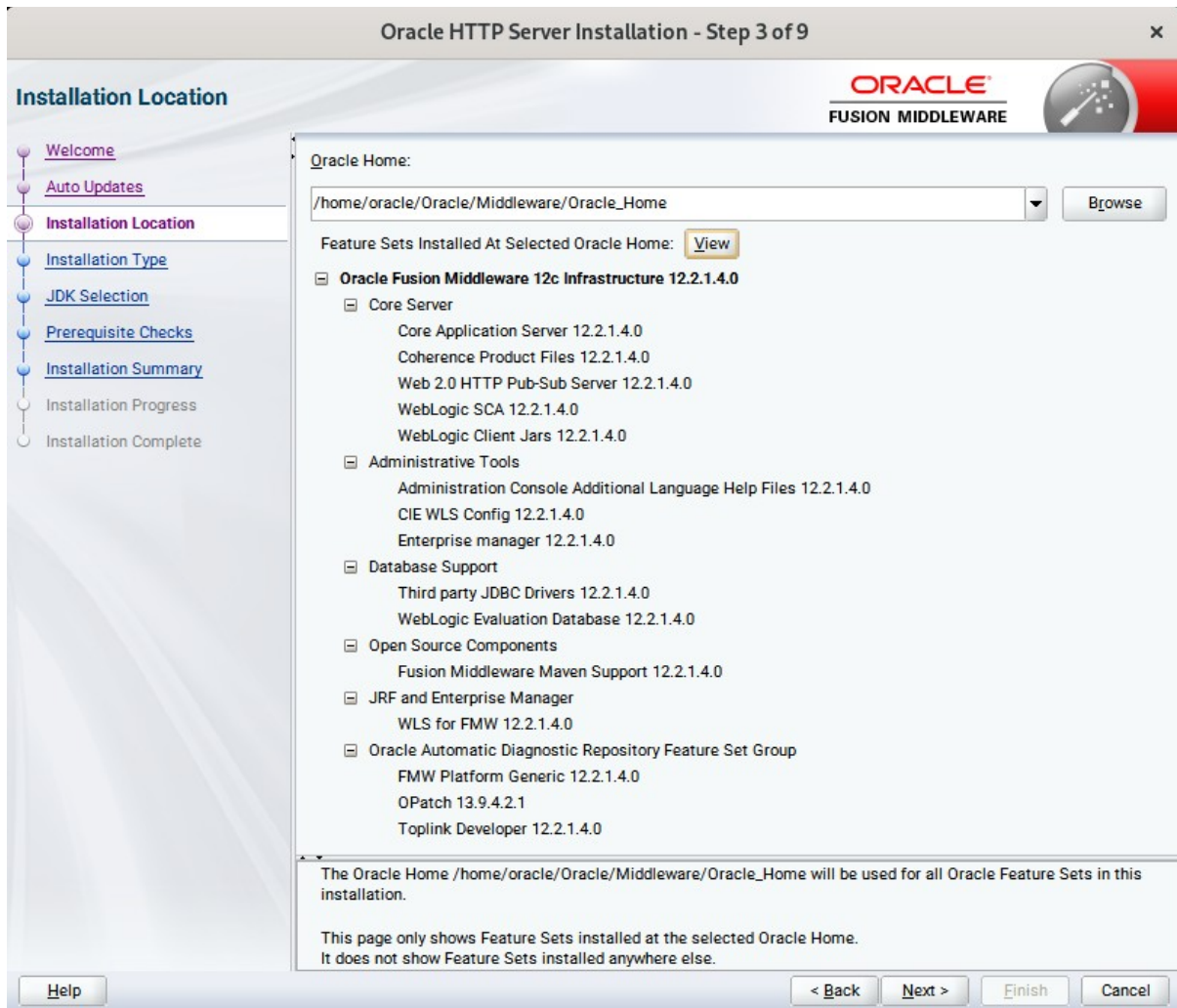
This page welcomes you to the installation. Click **Next** to continue.

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

The screenshot shows the 'Auto Updates' configuration window for Oracle HTTP Server. The window title is 'Oracle HTTP Server Installation - Step 2 of 9'. The Oracle Fusion Middleware logo is in the top right. A left-hand navigation pane lists the installation steps: Welcome, Auto Updates (selected), Installation Location, Installation Type, JDK Selection, Prerequisite Checks, Installation Summary, Installation Progress, and Installation Complete. The main area contains three radio button options: 'Skip Auto Updates' (selected), 'Select patches from directory', and 'Search My Oracle Support for Updates'. The 'Select patches from directory' option includes a 'Location:' text box and a 'Browse' button. The 'Search My Oracle Support for Updates' option includes 'Username:' and 'Password:' text boxes, a 'Proxy Settings' button, and a 'Test Connection' button. Below these is a 'Search' button and a large empty text area. At the bottom of the window are buttons for '< Back', 'Next >', 'Finish', and 'Cancel', along with a 'Help' button in the bottom left corner.

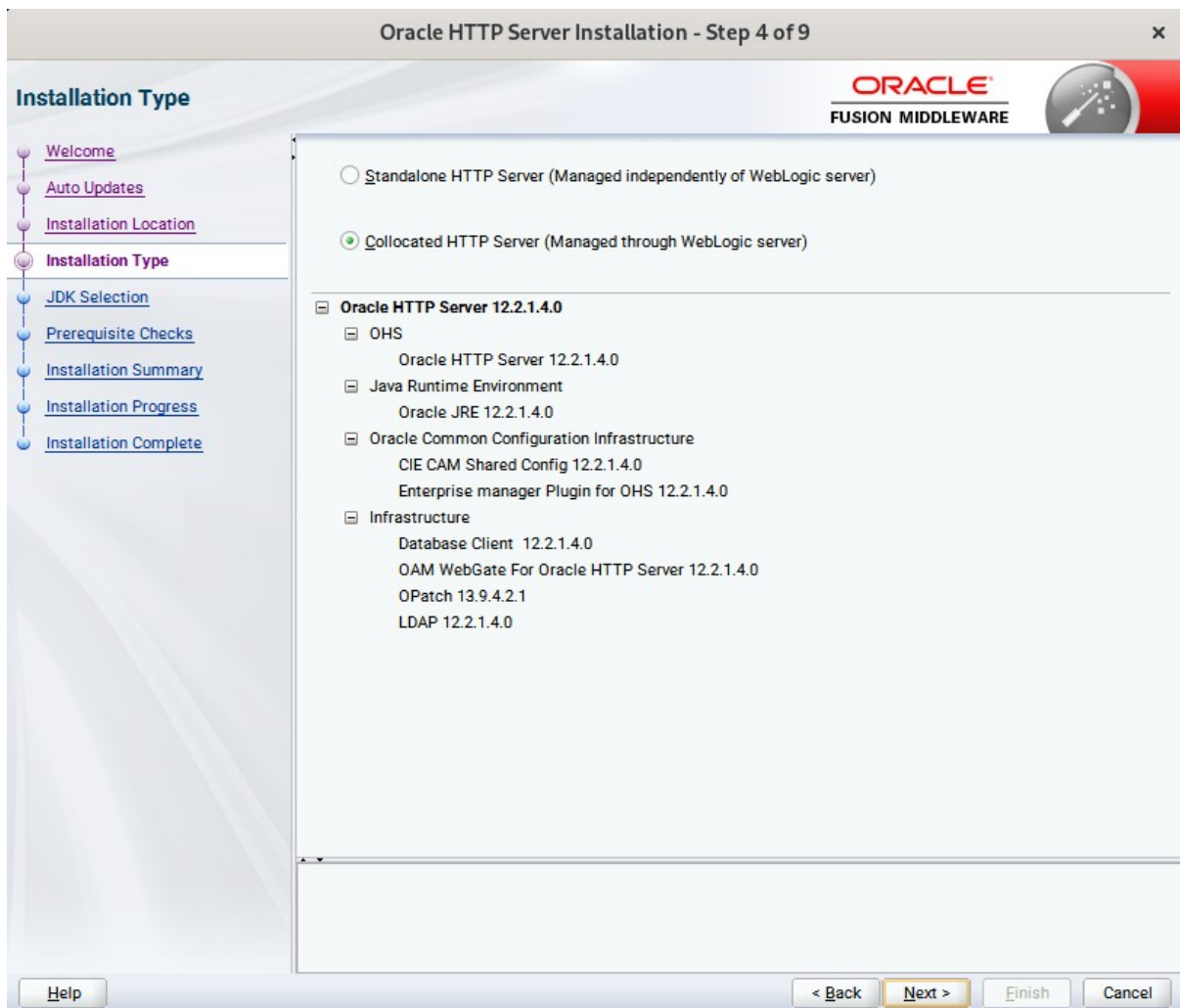
This page enables you to choose to automatically receive software updates for your components from Oracle Corporation. make your choices, then click **Next** to continue.

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



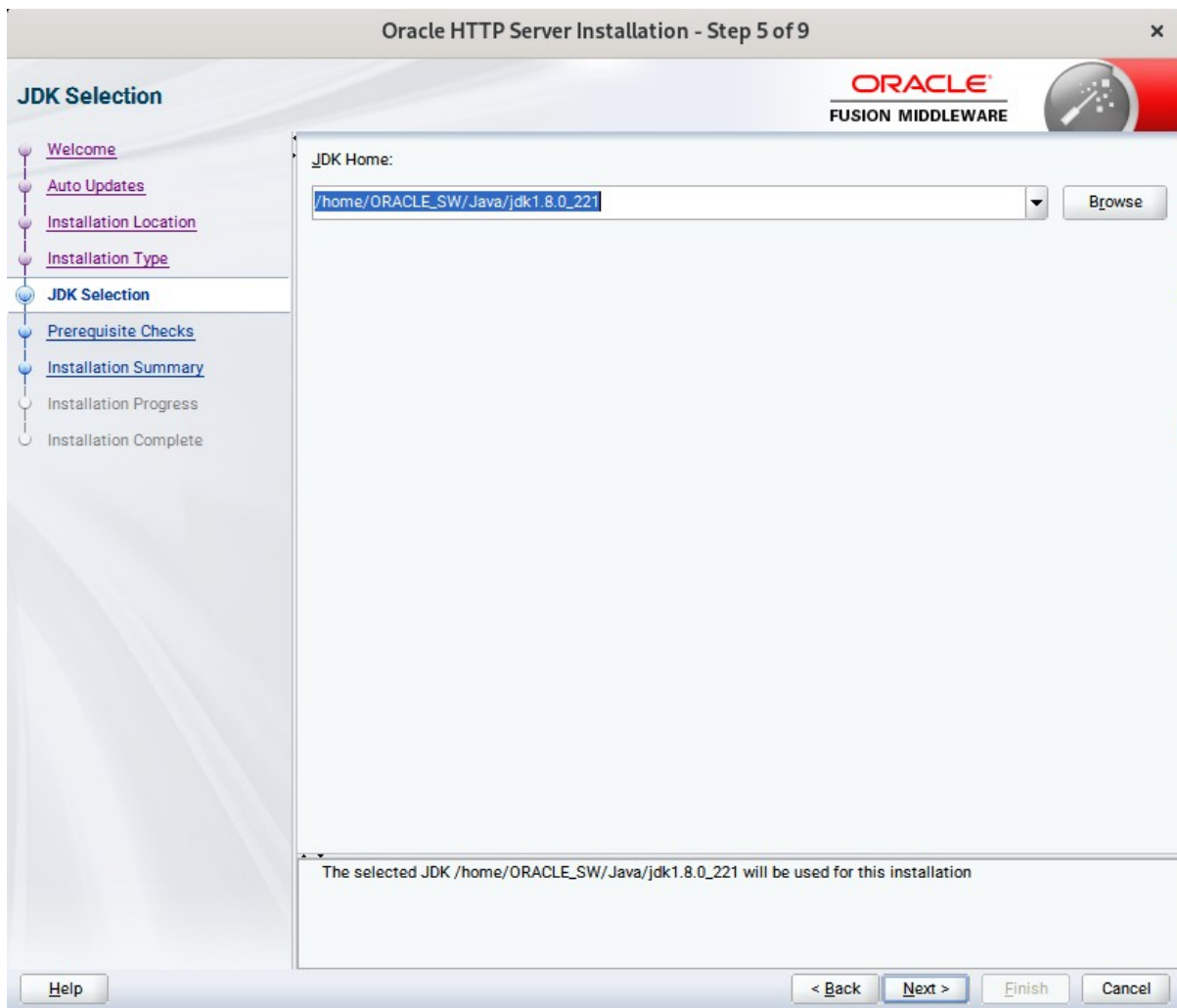
SPecify the Oracle home location into which you want to install the product(s). Click **Next** to continue.

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



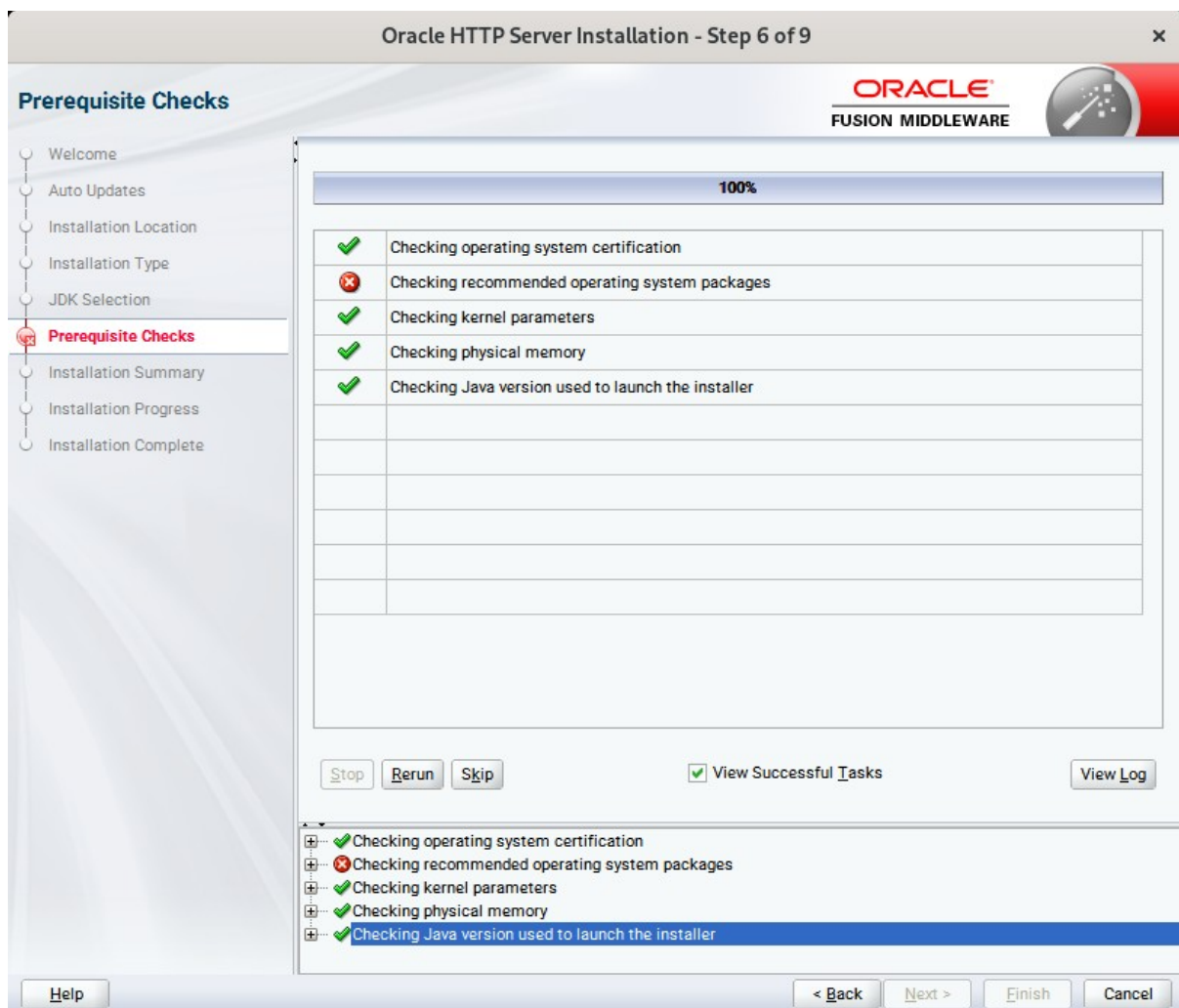
Selected **Collocated HTTP Server (Managed through WebLogic server)** to configure Oracle HTTP Server in a WebLogic Server Domain. (Alternative, select **Standalone HTTP Server (Managed independently of WebLogic server)** in the Installation Type screen to configure Oracle HTTP Server in a Standalone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

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



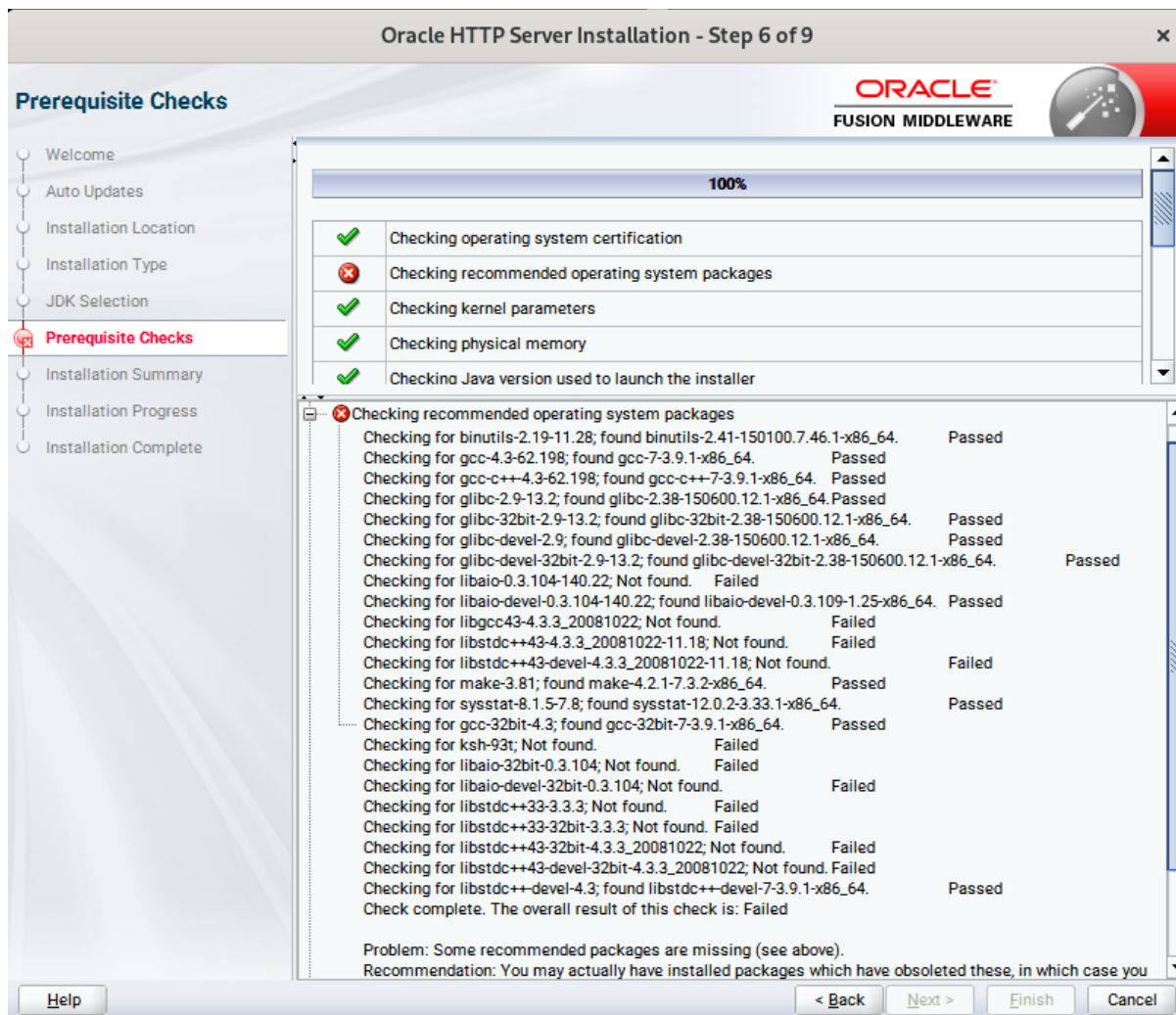
The selected JDK will be used for this installation. Click **Next** to continue.

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



Prerequisite Checks results will be shown as above.

(Note: "Checking recommended operating system packages" failed with following info:



Some of the listed OS packages are deprecated or have different versions since SLES15 SP1.

eg:

libaio-0.3 (new name is libaio1-xxx)
libgcc43-4.3.3 (new name is libgcc_s1-xxx)
libstdc++43-4.3.3 (new name is libstdc++6-xxx)
libstdc++33-3.3.3 (deprecated since SLES15 SP1)
openmotif-2.3.1 (deprecated since SLES15 SP1)

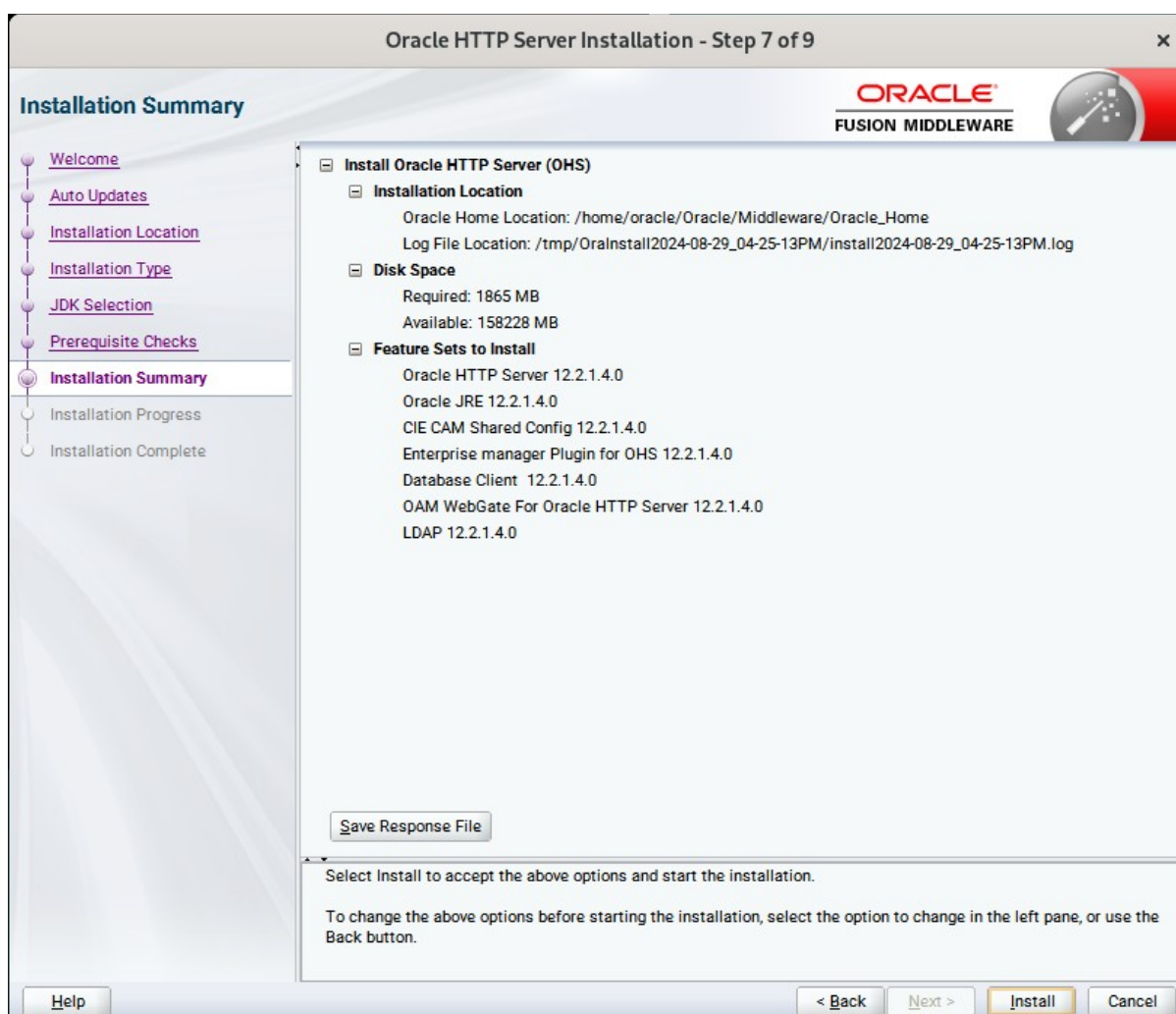
So, please ensure following updated packages(or later versions) are installed, then click 'Skip' in the 'Prerequisite Checks' page and continue installation.

```
binutils-2.31-6.3.1.x86_64
gcc-7-1.563.x86_64
glibc-2.26-13.8.1.x86_64
glibc-32bit-2.26-13.8.1.x86_64
glibc-devel-2.26-13.8.1.x86_64
libaio-devel-0.3.109-1.25.x86_64
libaio1-0.3.109-1.25.x86_64
libcap1-1.97-1.15.x86_64
libstdc++6-devel-gcc7-7.4.0+r266845-4.3.4.x86_64
```

libstdc++6-8.2.1+r264010-1.3.7.x86_64
libgcc_s1-8.2.1+r264010-1.3.7.x86_64
libgcc_s1-32bit-8.2.1+r264010-1.3.7.x86_64
make-4.2.1-7.3.2.x86_64
mksh-56c-1.10.x86_64
sysstat-12.0.2-3.3.1.x86_64
xorg-x11-fonts-core-7.6-3.9.noarch
xorg-x11-server-extra-1.19.6-8.6.1.x86_64
xorg-x11-Xvnc-1.8.0-13.8.5.x86_64
xorg-x11-server-1.19.6-8.6.1.x86_64
xorg-x11-libs-7.6.1-1.16.noarch
xorg-x11-essentials-7.6_1-1.22.noarch
xorg-x11-fonts-7.6-3.9.noarch
xorg-x11-7.6_1-1.22.noarch
xorg-x11-driver-video-7.6_1-2.30.x86_64

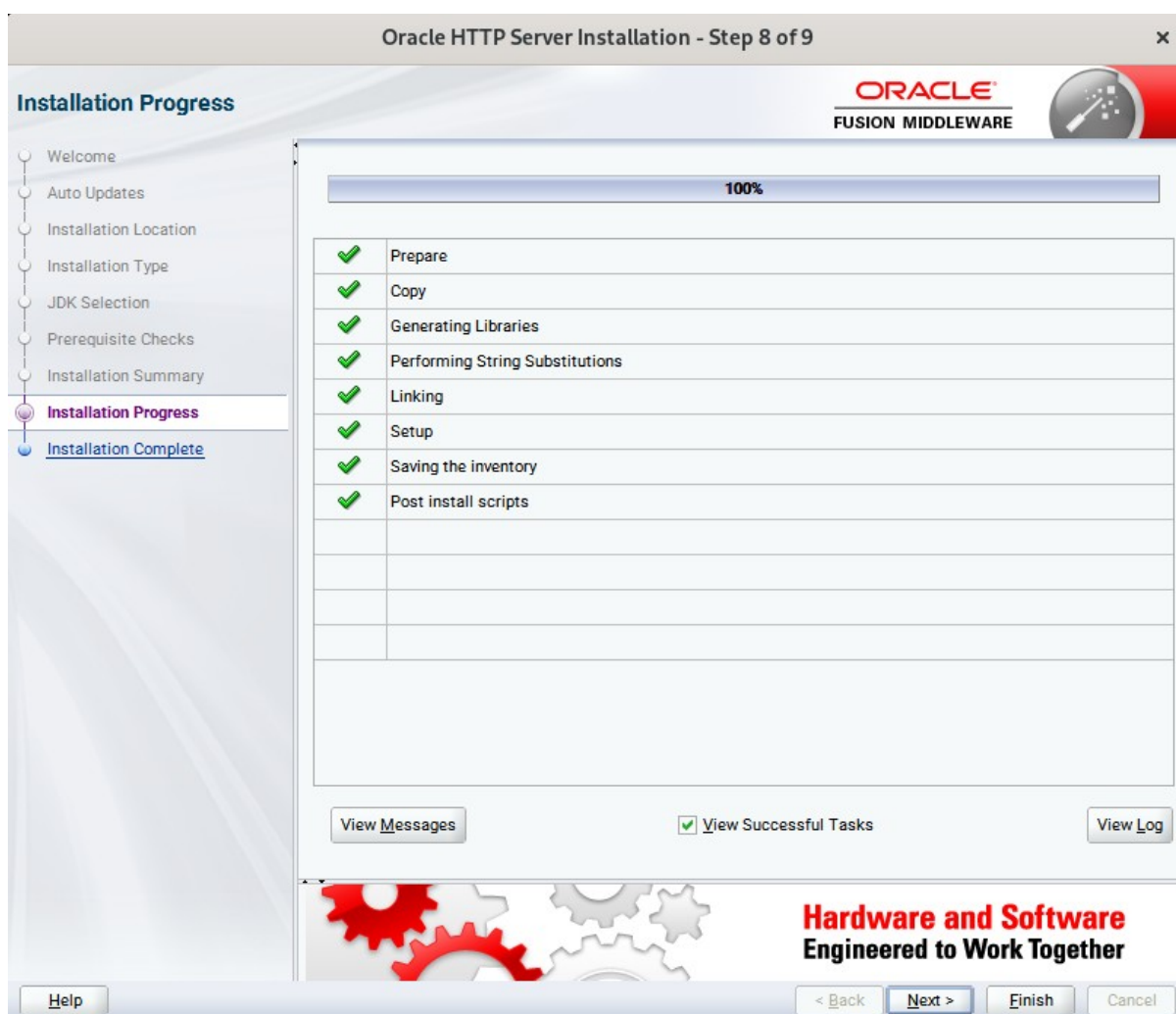
)

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



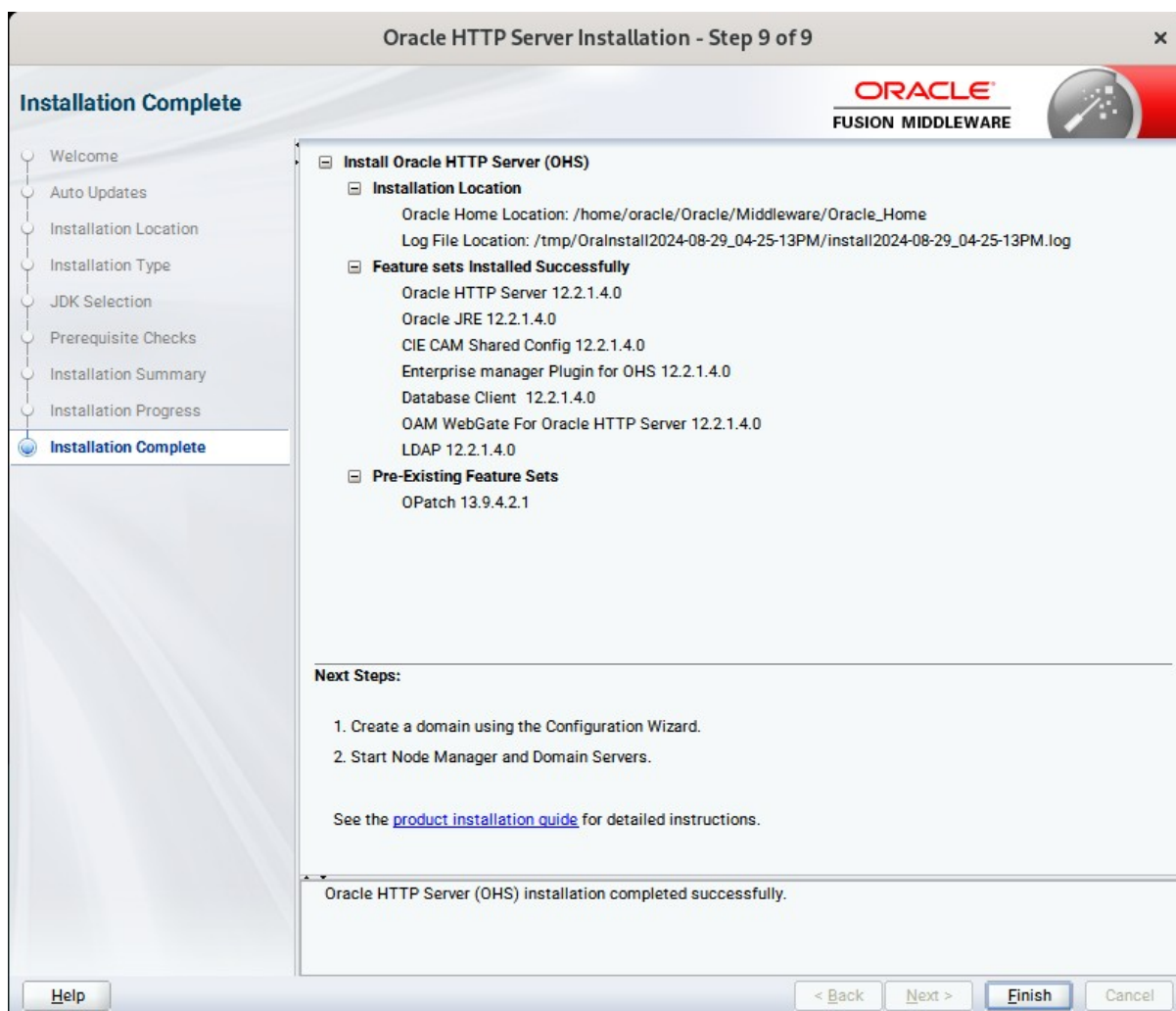
This page shows you what components and features are about to be installed. If you need to make changes, click **Back**, otherwise, click **Install** to start the installation.

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.

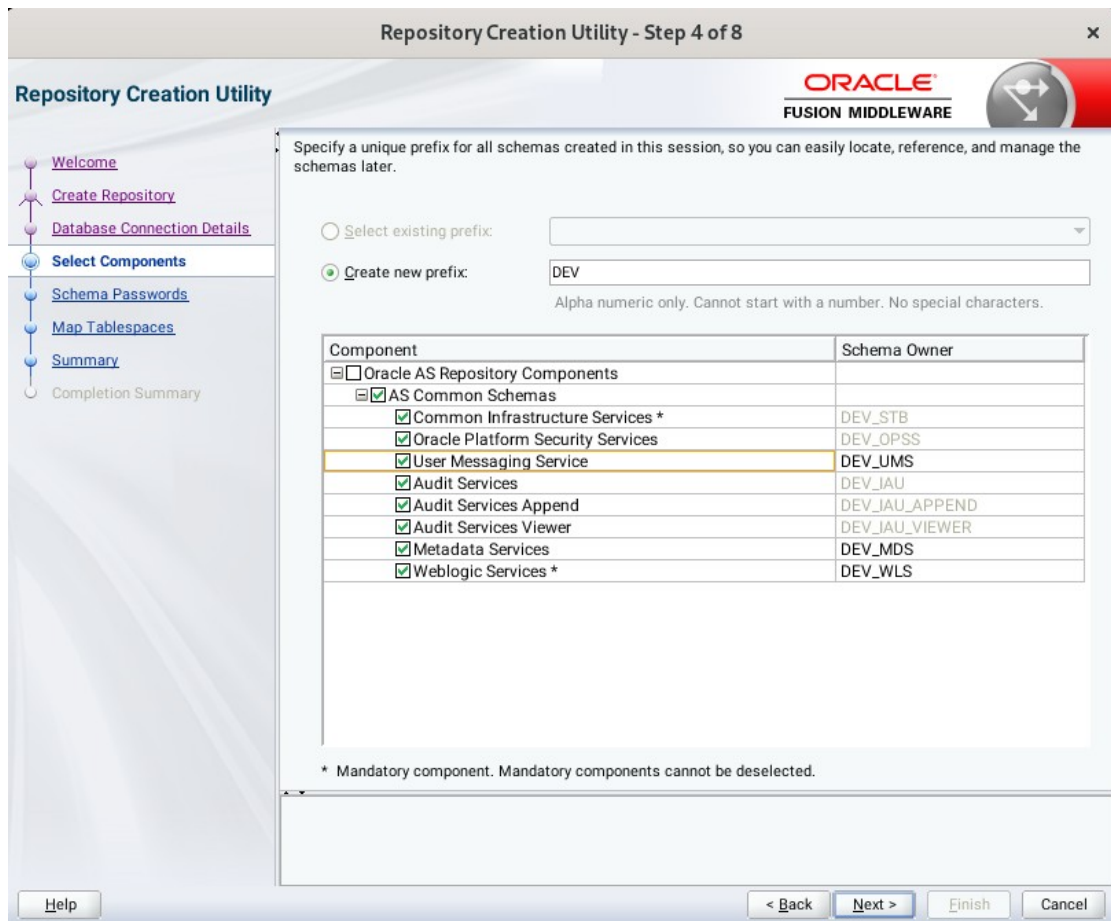


Click **Finish** to dismiss the installer.

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 DEV). Select the components as shown above.

Ensure the schema creation is successful.

Repository Creation Utility - Step 8 of 8

Repository Creation Utility ORACLE FUSION MIDDLEWARE

Database details:

Host Name: Dell5530
Port: 1521
Service Name: SUSE
Connected As: sys
Operation: System and Data Load concurrently
Execution Time: 1 minute 39 seconds

RCU Logfile: /tmp/RCU2024-08-29_16-38_1355891206/logs/rcu.log
Component Log Directory: /tmp/RCU2024-08-29_16-38_1355891206/logs
View Log: rcu.log

Prefix for (prefixable) Schema DEV
Owners

Component	Status	Time	Logfile(Click to view)
Common Infrastructure Services	Success	00:09.450(sec)	stb.log
Oracle Platform Security Services	Success	00:15.185(sec)	opss.log
User Messaging Service	Success	00:11.960(sec)	ucsums.log
Audit Services	Success	00:12.118(sec)	iau.log
Audit Services Append	Success	00:09.167(sec)	iau_append.log
Audit Services Viewer	Success	00:09.169(sec)	iau_viewer.log
Metadata Services	Success	00:11.959(sec)	mds.log
Weblogic Services	Success	00:12.798(sec)	wls.log

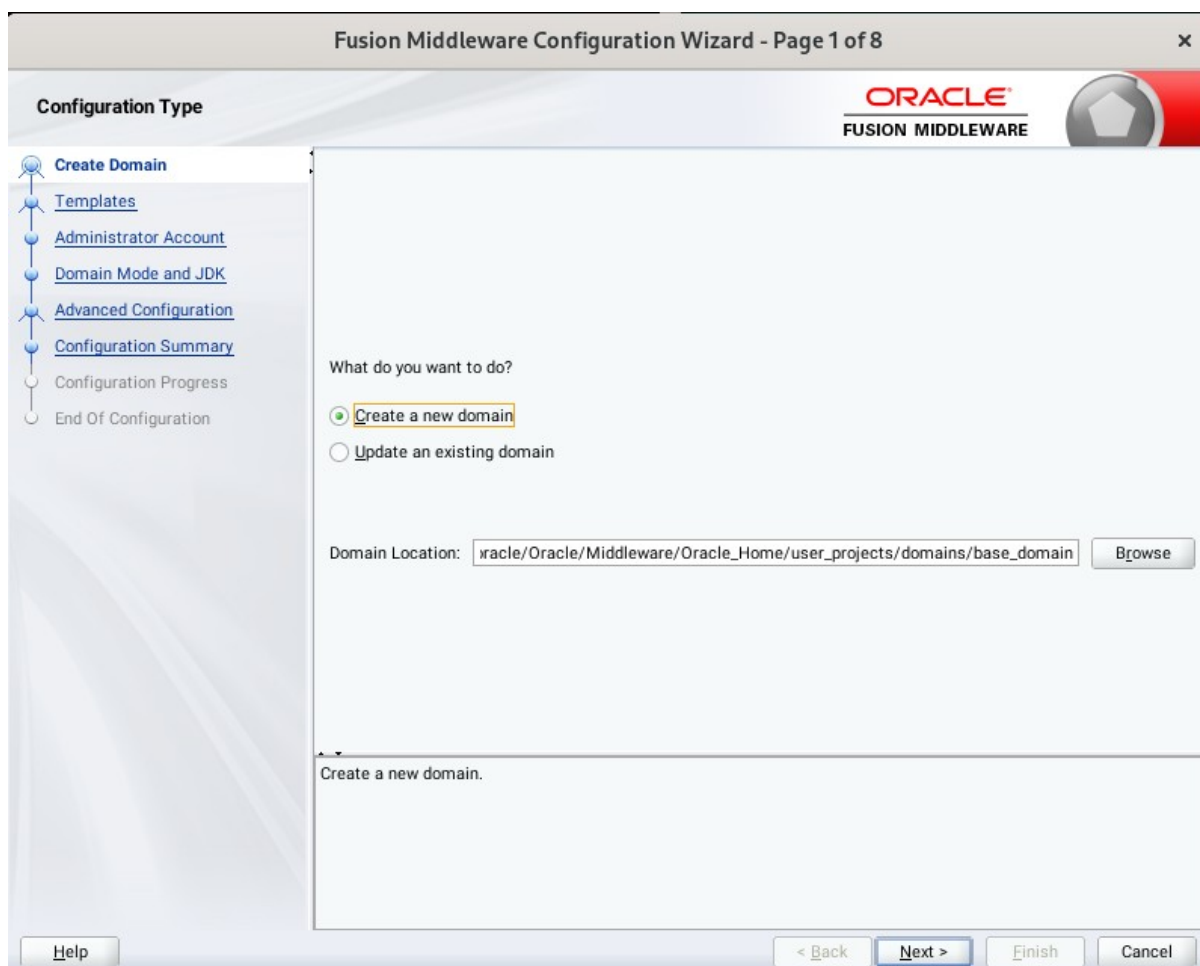
Help < Back Next > Create Close

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.

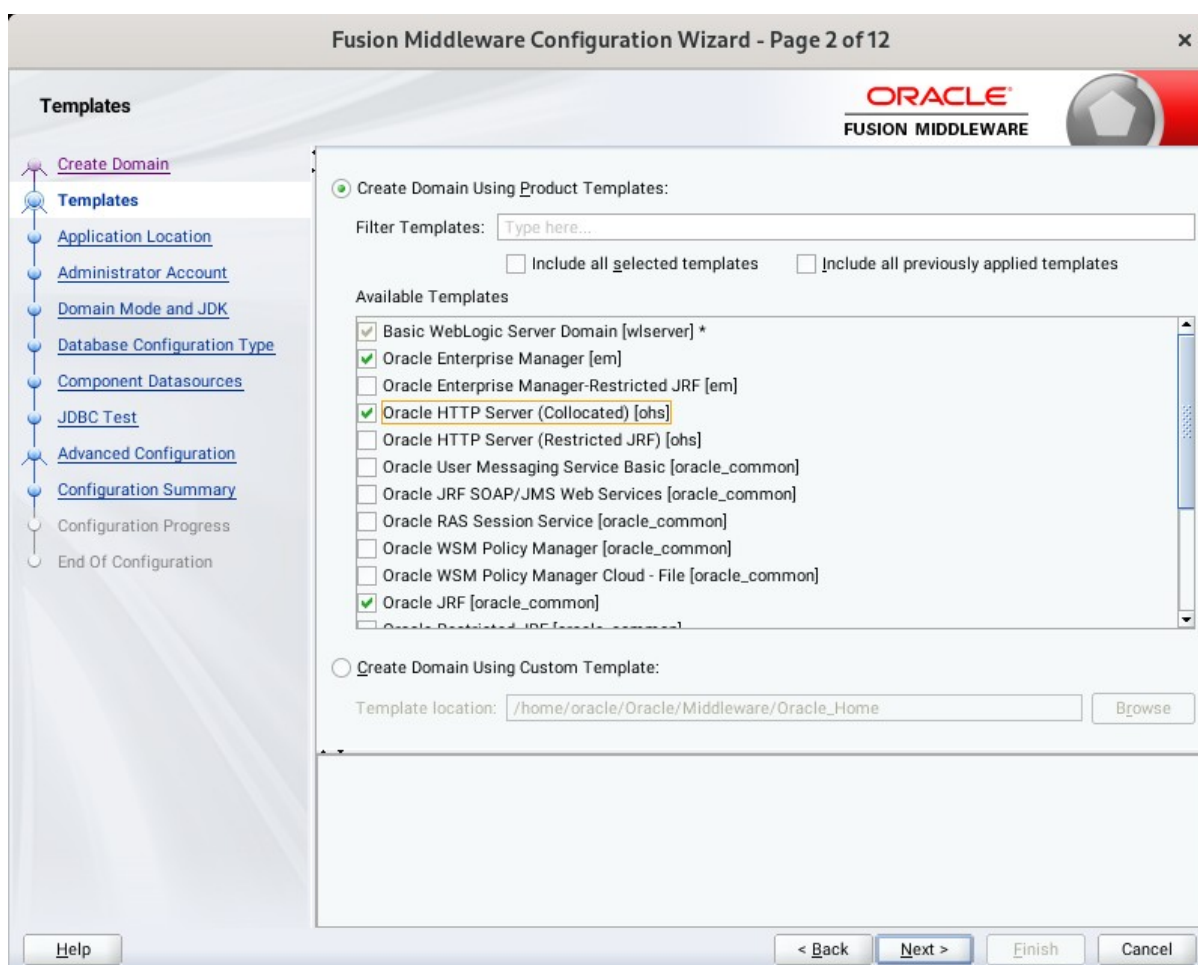
Follow these steps:

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



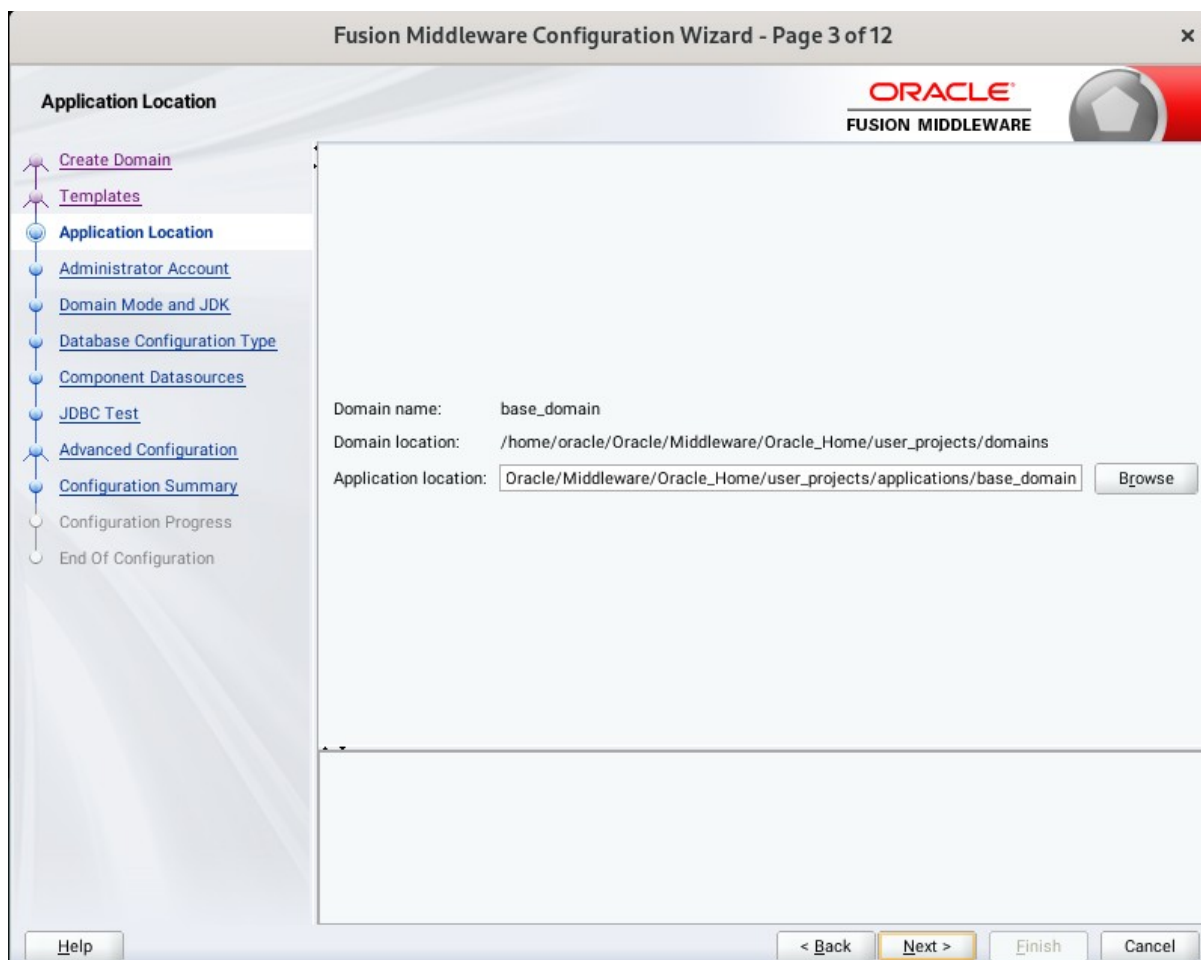
Click **Next** to continue.

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



Keep the default selection (**Create Domain using Product Templates**), and select **Oracle HTTP Server (Collocated) [ohs]** component. This automatically selects **Oracle Enterprise Manager [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.

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

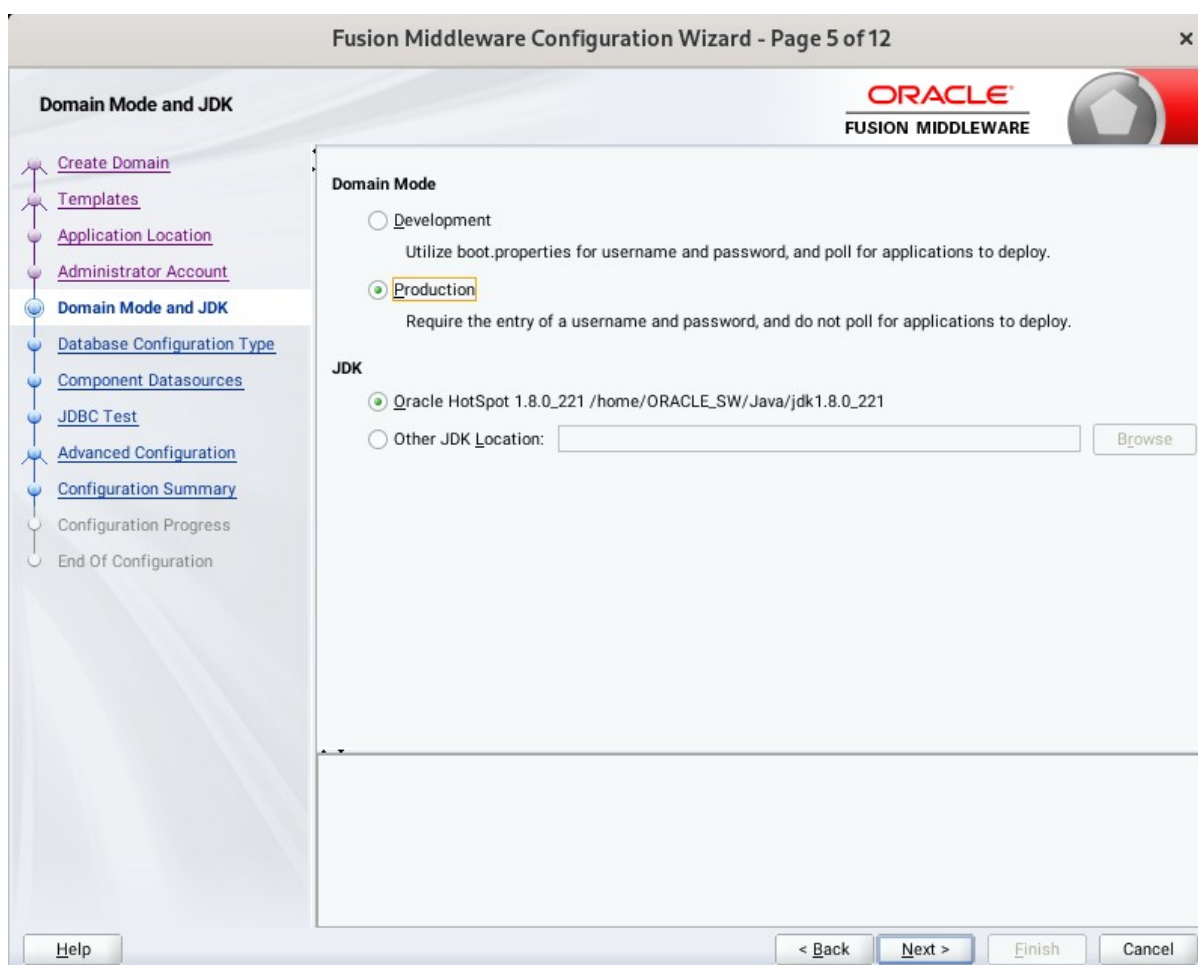
Confirm Password

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.

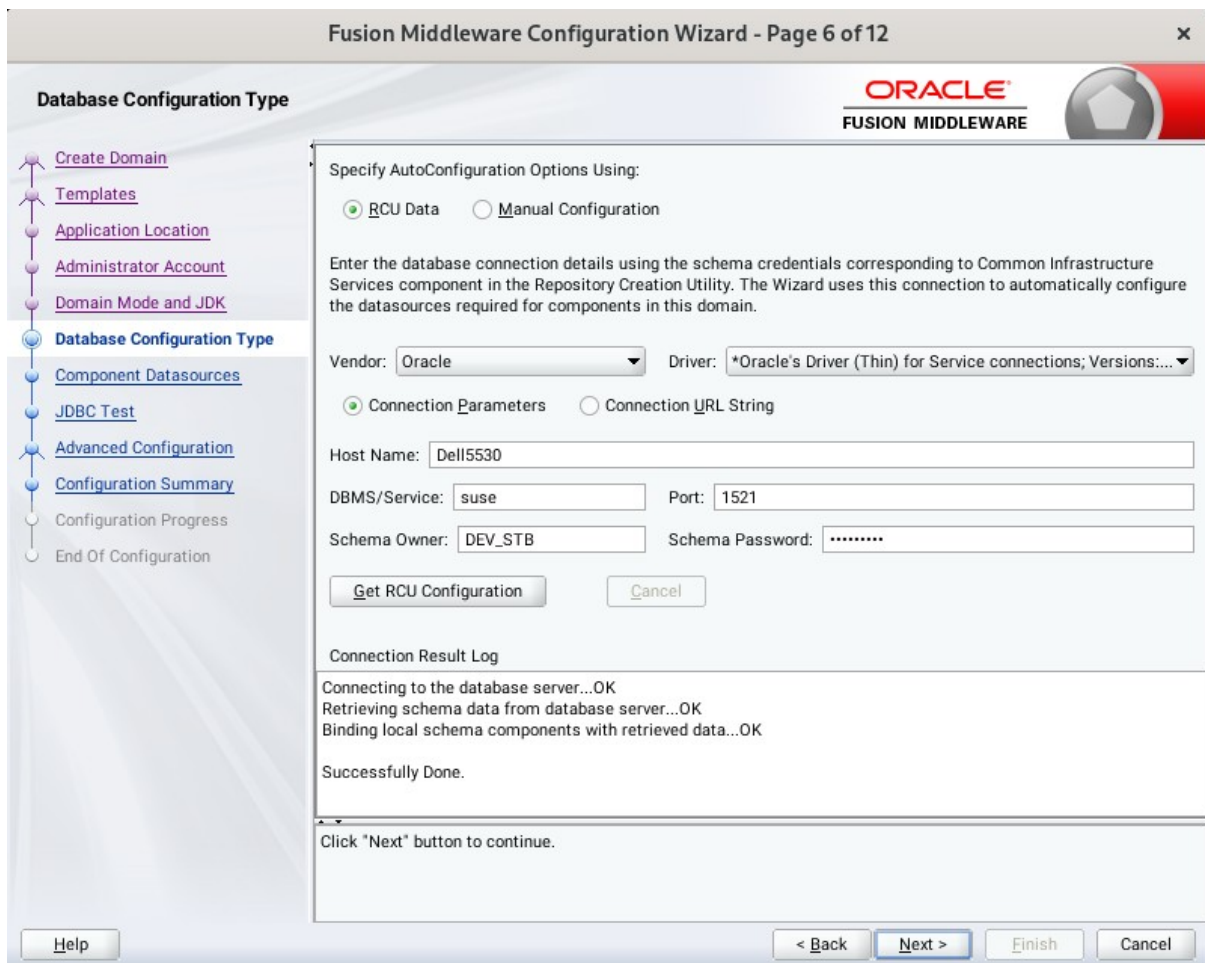
5). The **Domain Mode and JDK** screen appears.



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.



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

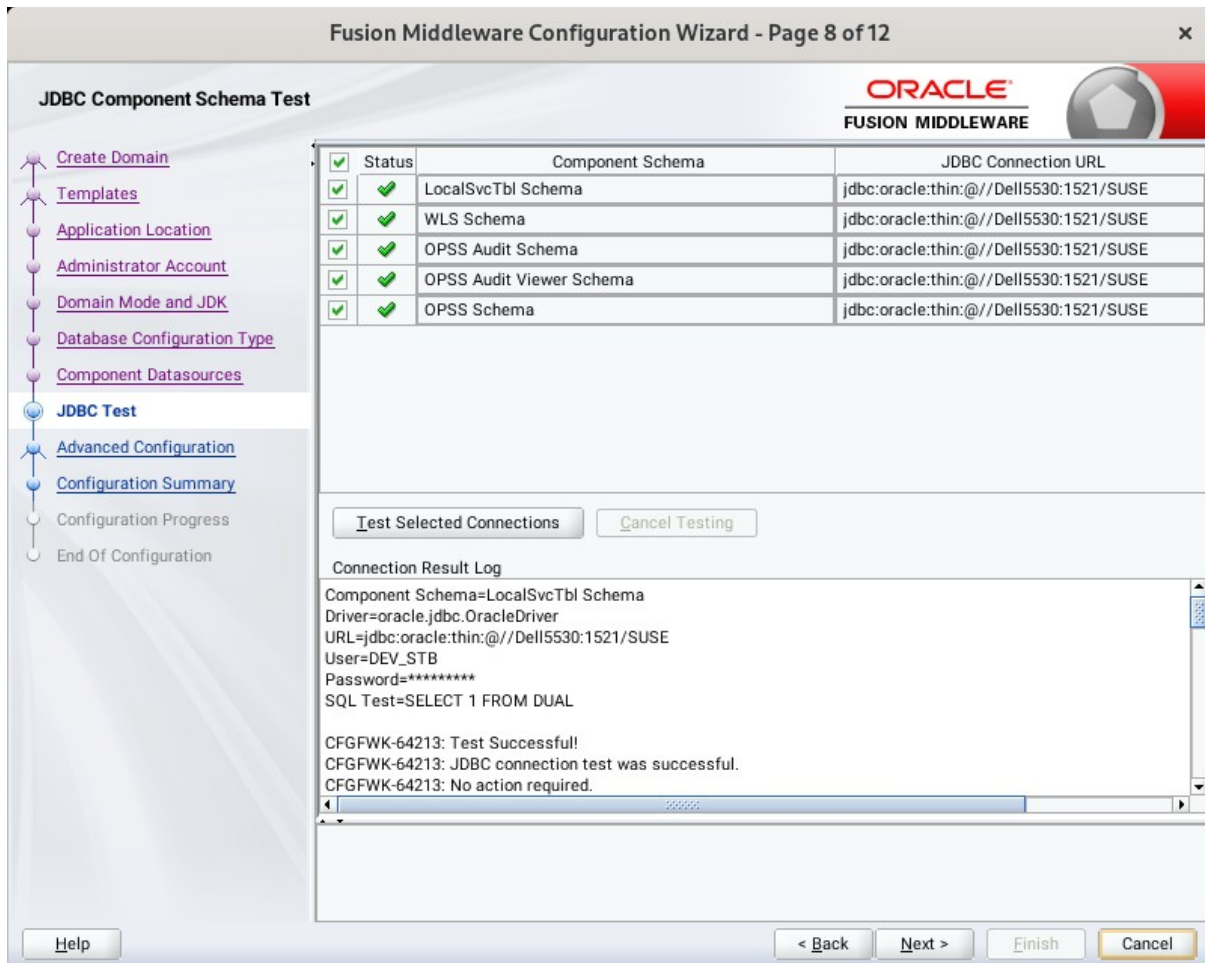
Edits to the data above will affect all checked rows in the table below.

<input type="checkbox"/>	Component Schema	DBMS/Service	Host Name	Port	Schema Owner	Schema Password
<input type="checkbox"/>	LocalSvcTbl Schema	SUSE	Dell5530	1521	DEV_STB	.....
<input type="checkbox"/>	WLS Schema	SUSE	Dell5530	1521	DEV_WLS_RUN	.....
<input type="checkbox"/>	OPSS Audit Schema	SUSE	Dell5530	1521	DEV_IAU_APPEI	.....
<input type="checkbox"/>	OPSS Audit Viewer Sche	SUSE	Dell5530	1521	DEV_IAU_VIEWI	.....
<input type="checkbox"/>	OPSS Schema	SUSE	Dell5530	1521	DEV_OPSS	.....

Help

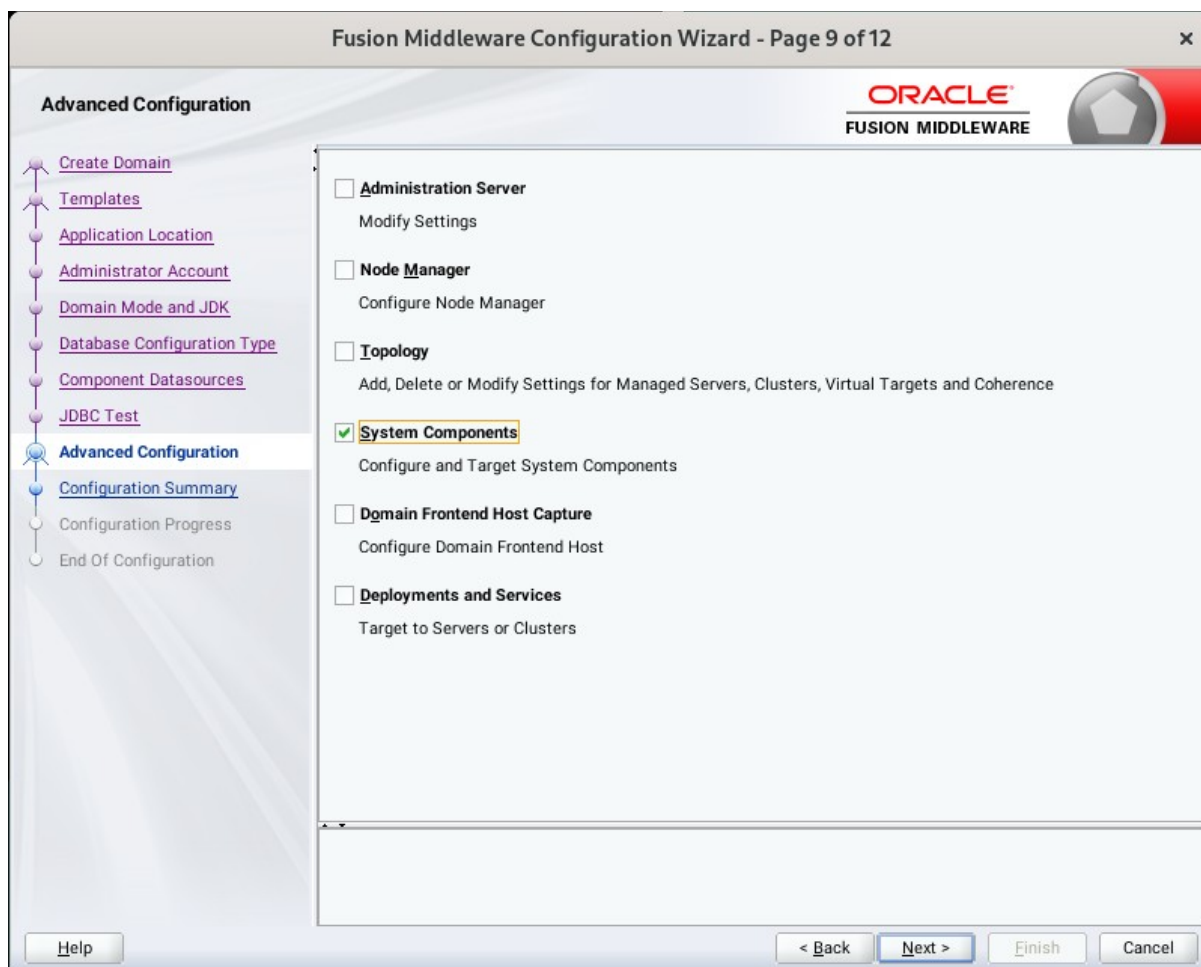
Our instructions assume each Repository schema uses the same password. If not, enter the correct schema passwords. Click **Next** to continue.

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



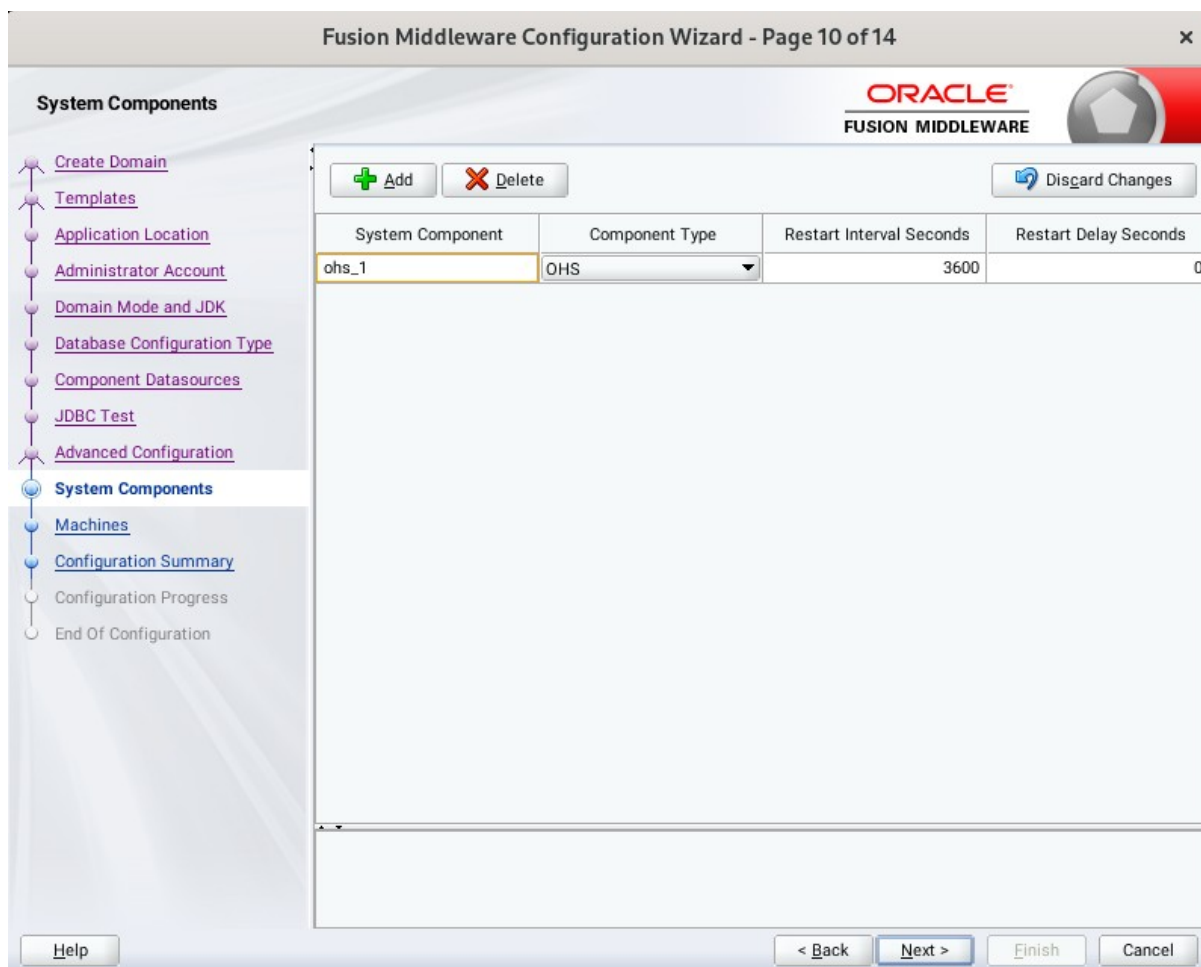
The tests are run and the results given. Ensure all test results are successful. Click **Next** to continue.

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



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

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



Fusion Middleware Configuration Wizard - Page 10 of 14

System Components

ORACLE
FUSION MIDDLEWARE

+ Add X Delete Disgard Changes

System Component	Component Type	Restart Interval Seconds	Restart Delay Seconds
ohs_1	OHS	3600	0

Help < Back Next > Finish Cancel

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.

The screenshot shows the 'OHS Server' configuration screen in the Fusion Middleware Configuration Wizard. The window title is 'Fusion Middleware Configuration Wizard - Page 11 of 15'. The Oracle logo and 'FUSION MIDDLEWARE' text are visible in the top right corner. On the left, a navigation pane lists various configuration steps, with 'OHS Server' selected. The main area contains several input fields:

System Component	ohs_1
Admin Host	127.0.0.1
Admin Port	7779
Listen Address	
Listen Port	7777
SSL Listen Port	4443
Server Name	http://localhost:7777

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

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.

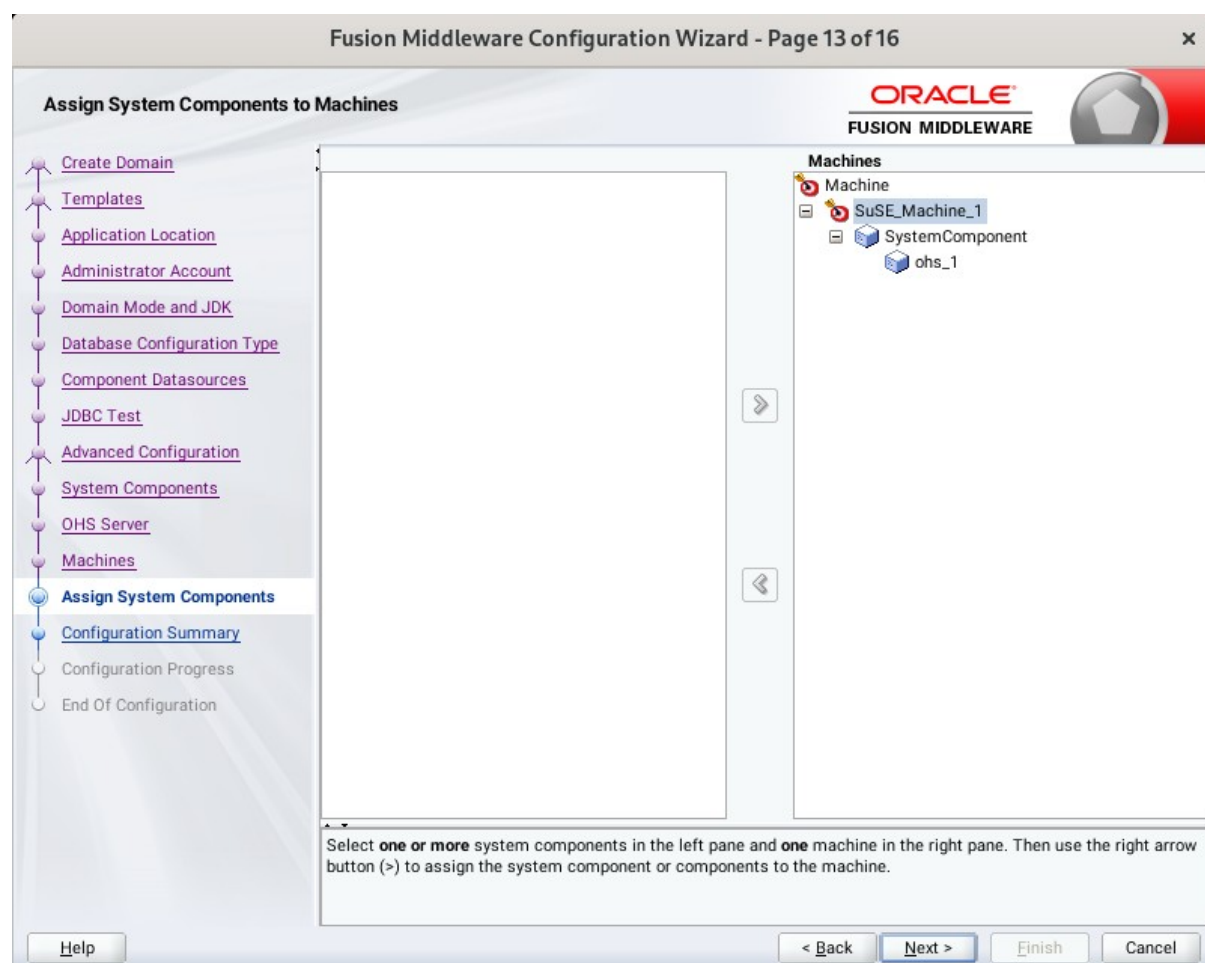
The screenshot shows the 'Machines' screen in the Fusion Middleware Configuration Wizard. The window title is 'Fusion Middleware Configuration Wizard - Page 12 of 16'. The Oracle Fusion Middleware logo is visible in the top right corner. On the left, a navigation pane lists various steps, with 'Machines' currently selected. The main area shows a table for configuring machines. The table has three columns: 'Name', 'Node Manager Listen Address', and 'Node Manager Listen Port'. There is one row with the following data:

Name	Node Manager Listen Address	Node Manager Listen Port
SuSE_Machine_1	192.168.0.100	5556

Below the table, there are buttons for '+ Add', 'X Delete', and 'Disgard Changes'. At the bottom of the window, there are navigation buttons: '< Back', 'Next >', 'Finish', and 'Cancel'. A 'Help' button is located in the bottom left corner.

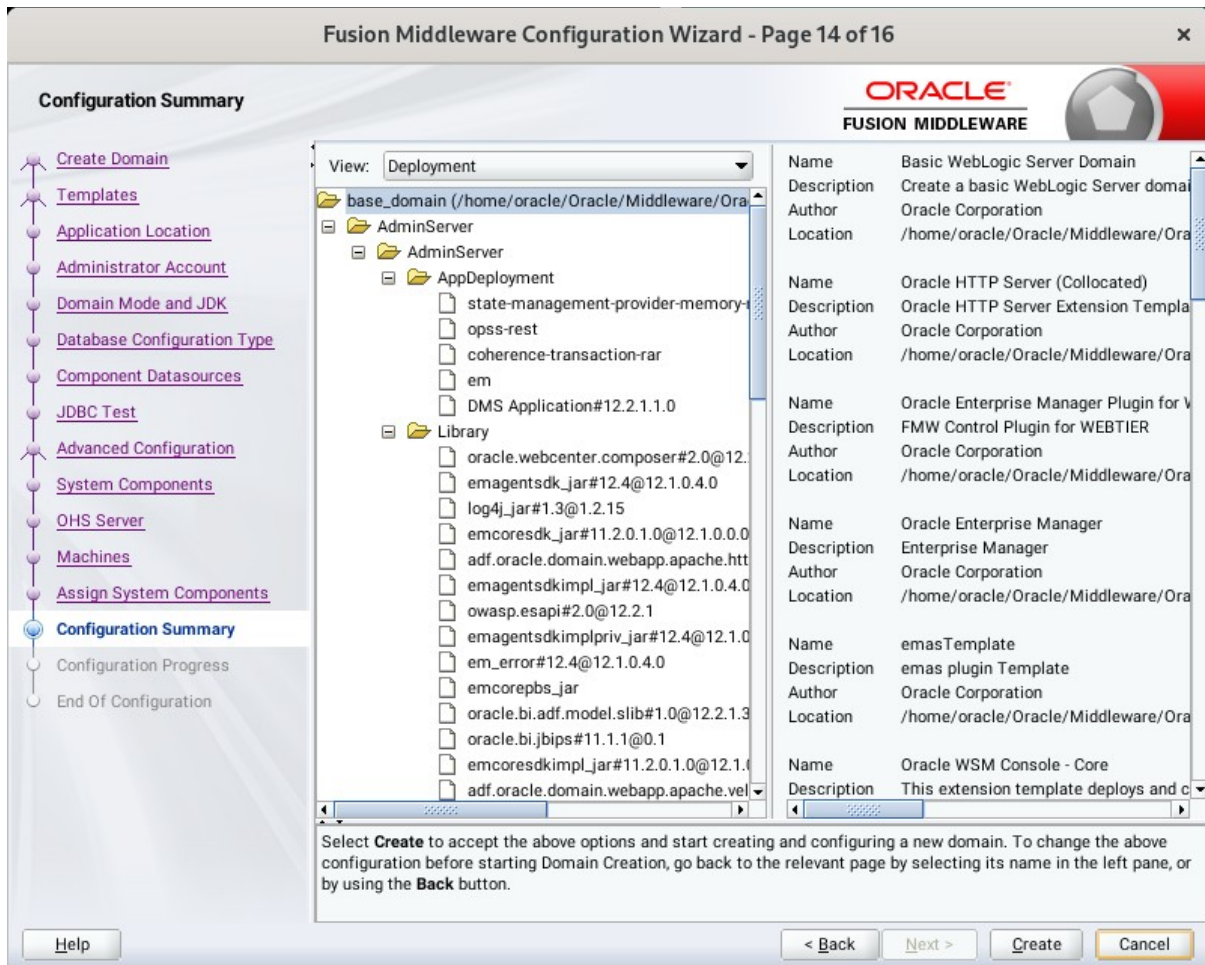
You can use this screen to override the machine name or add additional Machine names for extend domain. Click **Next** to continue.

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



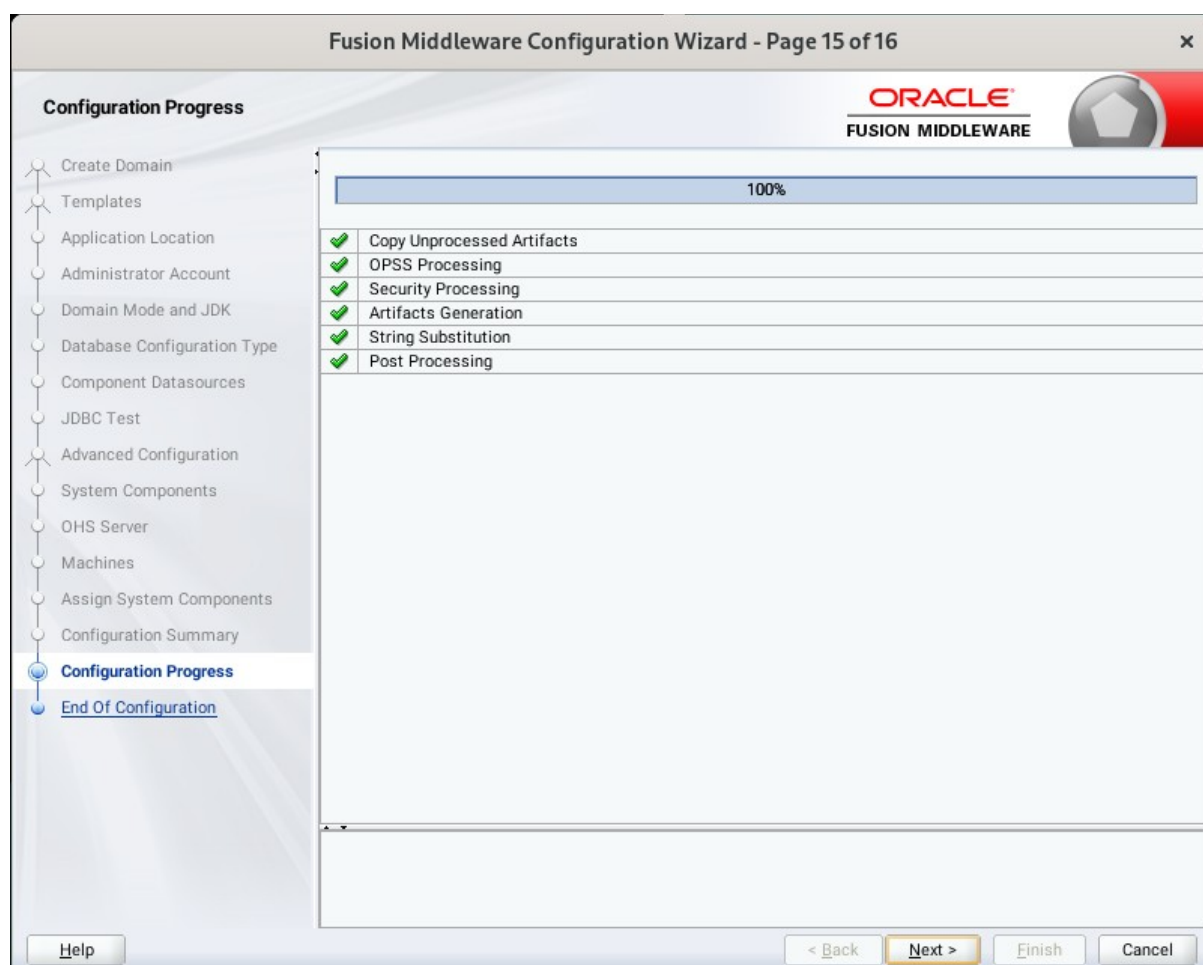
Select the 'ohs_1' in the System Component list box and click the right arrow. Click **Next** to continue.

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



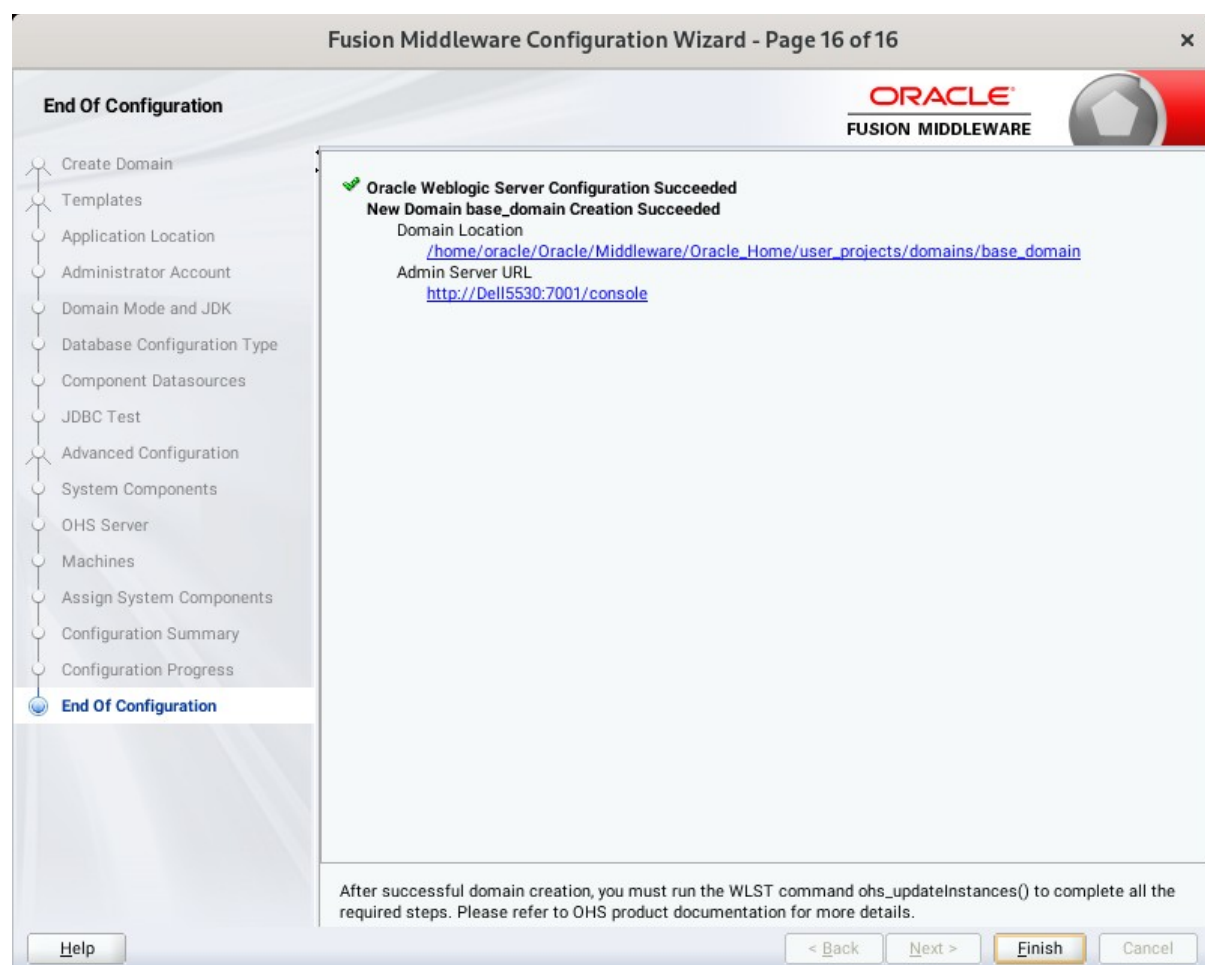
Select **Create** to accept the above options and start creating and configuring a new domain.

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.



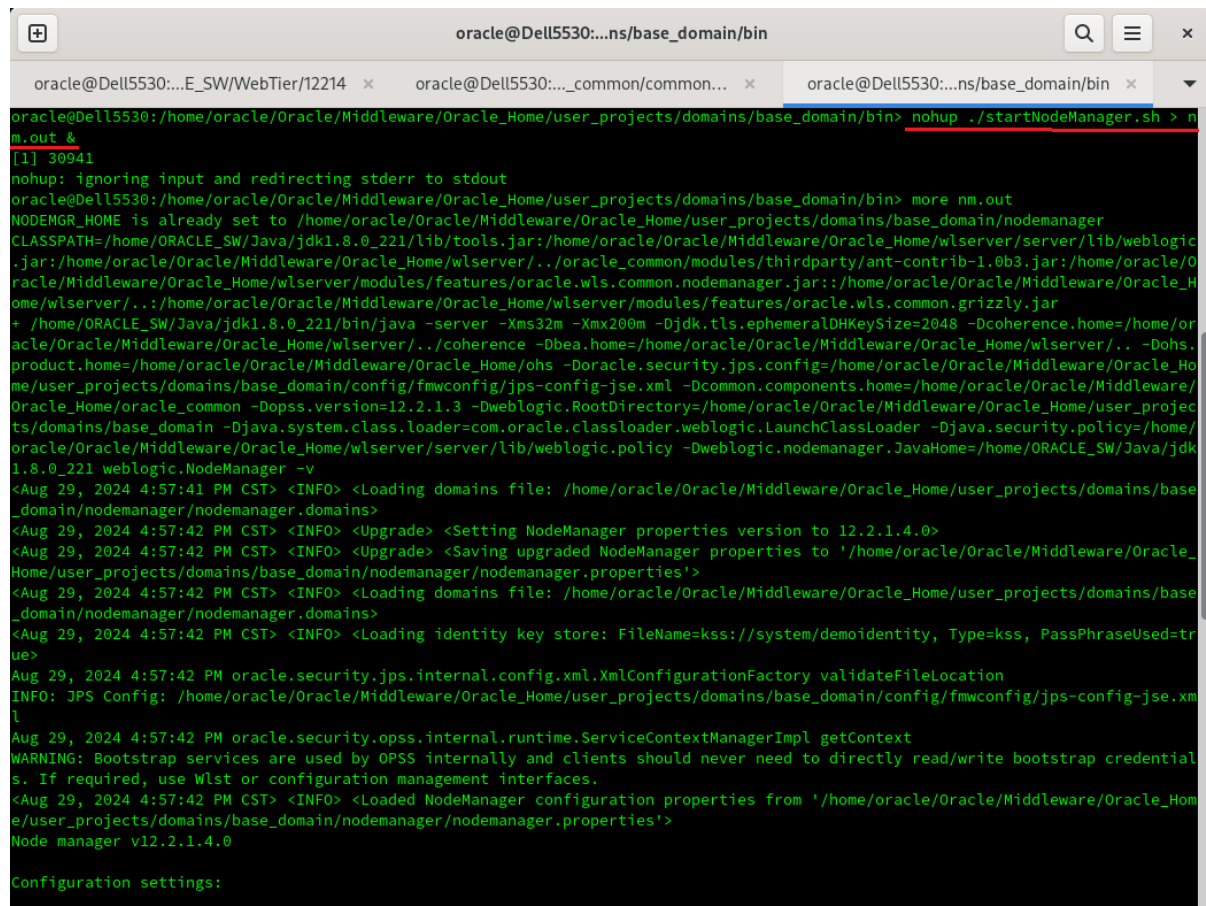
Once you see: "Oracle Weblogic Server Configuration Succeeded", record the '**Domain Location**' and '**Admin Server URL**', then click **Finish** to dismiss the Configuration Wizard.

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@Dell5530:...ns/base_domain/bin
oracle@Dell5530:...E_SW/WebTier/12214 x oracle@Dell5530:..._common/common... x oracle@Dell5530:...ns/base_domain/bin x
oracle@Dell5530:/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/bin> nohup ./startNodeManager.sh > nm.out &
[1] 30941
nohup: ignoring input and redirecting stderr to stdout
oracle@Dell5530:/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/nodemanager
CLASSPATH=/home/ORACLE_SW/Java/jdk1.8.0_221/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_SW/Java/jdk1.8.0_221/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.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_SW/Java/jdk1.8.0_221/weblogic.NodeManager -v
<Aug 29, 2024 4:57:41 PM CST> <INFO> <Loading domains file: /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.domains>
<Aug 29, 2024 4:57:42 PM CST> <INFO> <Upgrade> <Setting NodeManager properties version to 12.2.1.4.0>
<Aug 29, 2024 4:57:42 PM CST> <INFO> <Upgrade> <Saving upgraded NodeManager properties to '/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.properties'>
<Aug 29, 2024 4:57:42 PM CST> <INFO> <Loading domains file: /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.domains>
<Aug 29, 2024 4:57:42 PM CST> <INFO> <Loading identity key store: FileName=kss://system/demoidentity, Type=kss, PassPhraseUsed=true>
Aug 29, 2024 4:57:42 PM oracle.security.jps.internal.config.xml.XmlConfigurationFactory validateFileLocation
INFO: JPS Config: /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/config/fmwconfig/jps-config-jse.xml
Aug 29, 2024 4:57:42 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.
<Aug 29, 2024 4:57:42 PM CST> <INFO> <Loaded NodeManager configuration properties from '/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.properties'>
Node manager v12.2.1.4.0

Configuration settings:

```

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

```

oracle@Dell5530:...ns/base_domain/bin
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/discover
rtargets, /em/cabo.*, /em/console/help.*, /em/console/logon.*, /em/console/status.jsp, /em/dynamicImage.*, /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.*, /e
m/flashbridge.*, /em/formsapp/lib/formsRecorder.jar, /em/images.*, /em/install/getAgentImage, /em/helppages/help.*, /em/jsLibs/.
*, /em/jsLibs0bf.*, /em/login.jsp, /em/mapproxy.*, /em/mobile/core/uifwk/skins.*, /em/ocamm/lib.*, /em/onetime.*, /em/ovs/disco
vertargets, /em/public.*, /em/public_lib_download.*, /em/redirect.*, /em/relocatetarget.*, /em/sdkImpl/core/uifwkmobile/skins/*
, /em/servlet/GaugeServlet.*, /em/servlet/GraphServlet.*, /em/swlib/getfile, /em/VncViewer.jar, /em/websvcs.*, /em/jobrecv.*]
<Aug 29, 2024 5:00:01,451 PM CST> <Warning> <oracle.adfinternal.view.faces.partition.FeatureUtils> <ADF_FACES-30130> <Ignoring fe
ature-dependency on feature "AdfUIChoose". No such feature exists.>
<Aug 29, 2024 5:00:02,156 PM CST> <Notice> <Log Management> <BEA-170027> <The server has successfully established a connection wi
th the Domain level Diagnostic Service.>
<Aug 29, 2024 5:00:02,585 PM CST> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to ADMIN.>
<Aug 29, 2024 5:00:02,649 PM CST> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to RESUMING.>
<Aug 29, 2024 5:00:02,649 PM CST> <Notice> <JMX> <BEA-149535> <JMX Resiliency Activity Server=All Servers : Resolving connection
list DomainRuntimeServiceMBean>
<Aug 29, 2024 5:00:02,808 PM CST> <Warning> <Server> <BEA-002611> <The hostname "localhost", maps to multiple IP addresses: 127.0
.0.1, 0:0:0:0:0:0:1.>
<Aug 29, 2024 5:00:02,810 PM CST> <Notice> <Server> <BEA-002613> <Channel "Default[2]" is now listening on 127.0.0.1:7001 for pro
tocols iiop, t3, ldap, snmp, http.>
<Aug 29, 2024 5:00:02,810 PM CST> <Notice> <Server> <BEA-002613> <Channel "Default" is now listening on 192.168.0.100:7001 for pr
otocols iiop, t3, ldap, snmp, http.>
<Aug 29, 2024 5:00:02,810 PM CST> <Notice> <Server> <BEA-002613> <Channel "Default[1]" is now listening on 0:0:0:0:0:0:1%lo:700
1 for protocols iiop, t3, ldap, snmp, http.>
<Aug 29, 2024 5:00:02,810 PM CST> <Notice> <WebLogicServer> <BEA-000329> <Started the WebLogic Server Administration Server "Admi
nServer" for domain "base_domain" running in production mode.>
<Aug 29, 2024 5:00:02,810 PM CST> <Notice> <Server> <BEA-002613> <Channel "Default[2]" is now listening on 127.0.0.1:7001 for pro
tocols iiop, t3, ldap, snmp, http.>
<Aug 29, 2024 5:00:02,810 PM CST> <Notice> <Server> <BEA-002613> <Channel "Default" is now listening on 192.168.0.100:7001 for pr
otocols iiop, t3, ldap, snmp, http.>
<Aug 29, 2024 5:00:02,811 PM CST> <Notice> <Server> <BEA-002613> <Channel "Default[1]" is now listening on 0:0:0:0:0:0:1%lo:700
1 for protocols iiop, t3, ldap, snmp, http.>
<Aug 29, 2024 5:00:02,905 PM CST> <Notice> <WebLogicServer> <BEA-000360> <The server started in RUNNING mode.>
<Aug 29, 2024 5:00:02,914 PM CST> <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@Dell5530:/home/oracle/Oracle/Middleware/Oracle_Home/oracle_common/common/bin> ./wlst.sh
Initializing WebLogic Scripting Tool (WLST) ...

Welcome to WebLogic Server Administration Scripting Shell

Type help() for help on available commands

wls:/offline> connect('weblogic','welcome1','Dell5530:7001')
Connecting to t3://Dell5530:7001 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.

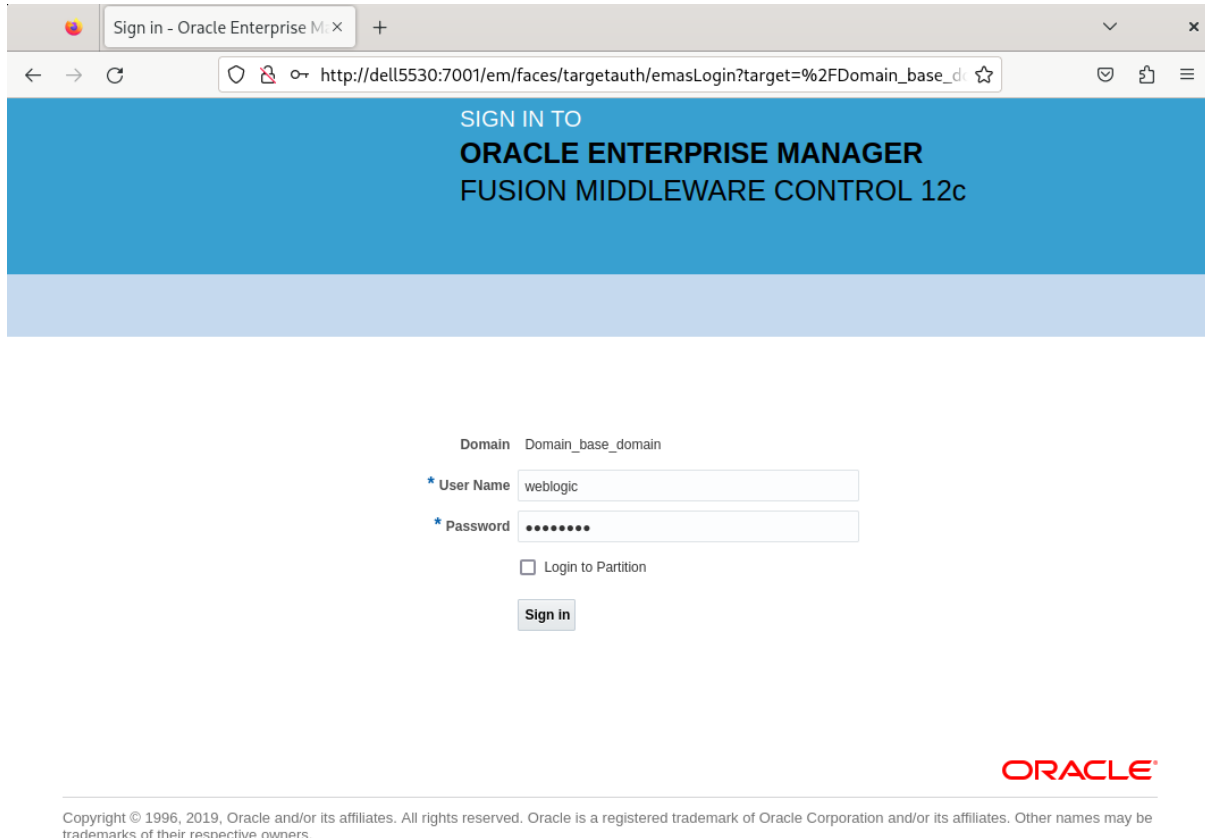
wls:/base_domain/serverConfig/> ohs_updateInstances()
Location changed to edit custom tree. This is a writable tree with No root.
For more help, use help('editCustom')

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:

Starting Oracle HTTP Server (ohs_1)

ohs_1 is up.

Monitoring

CPU Usage (%) 0.00

Memory Usage (%) 0.00

Virtual Hosts 0

Modules 0

General

Component Name ohs_1

Version 12.2.1.4.0

State Running

Host 192.168.0.100

Ports 7777 4443 127.0.0.1:7779

Machine Name SuSE_Machine_1

Auto Restart

Oracle Home /home/oracle/Oracle/Middleware/Oracle_Home

Key Statistics

Idle Processes Unavailable

Busy Processes Unavailable

Error Rate (%) -1.00

Connection Duration (seconds) Unavailable

Request Processing Time (seconds) Unavailable

Request Throughput (per second) -1.00

Response and Load

CPU and Memory Usage

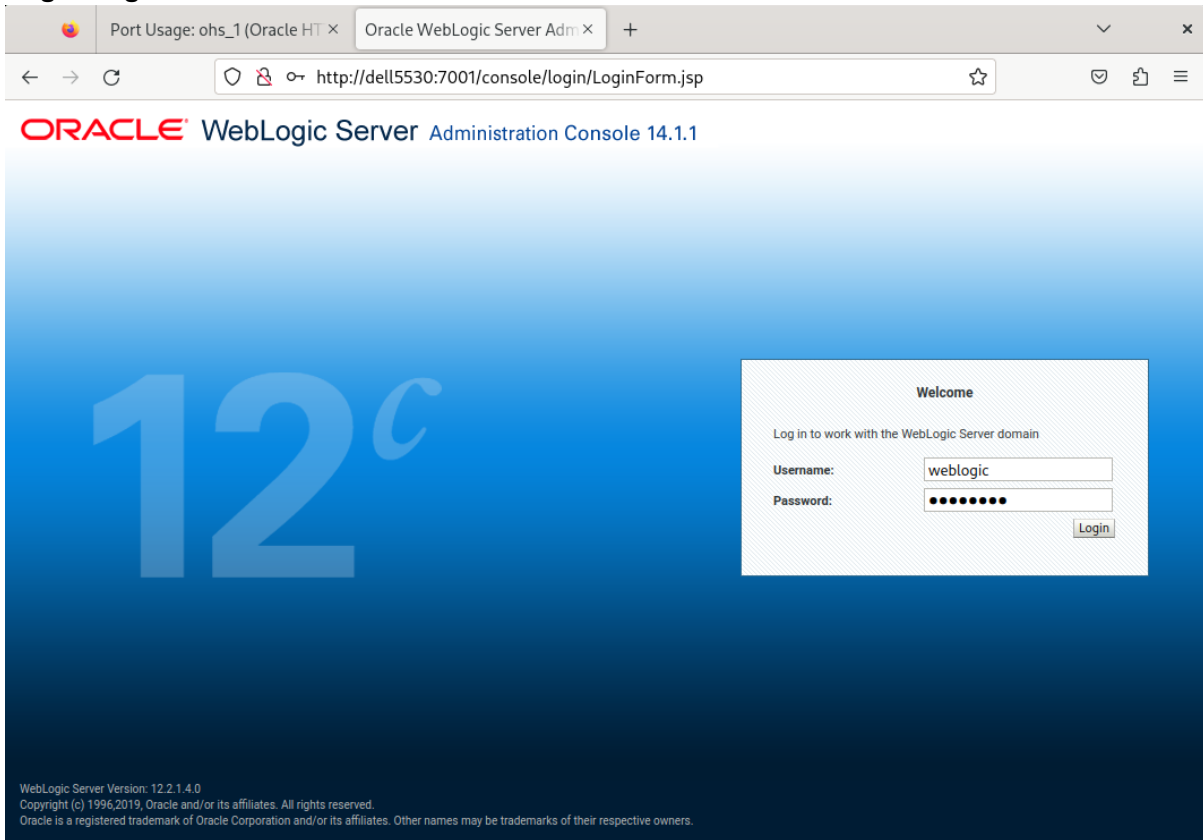
OHS Ports Configuration as shown below.

Port Usage

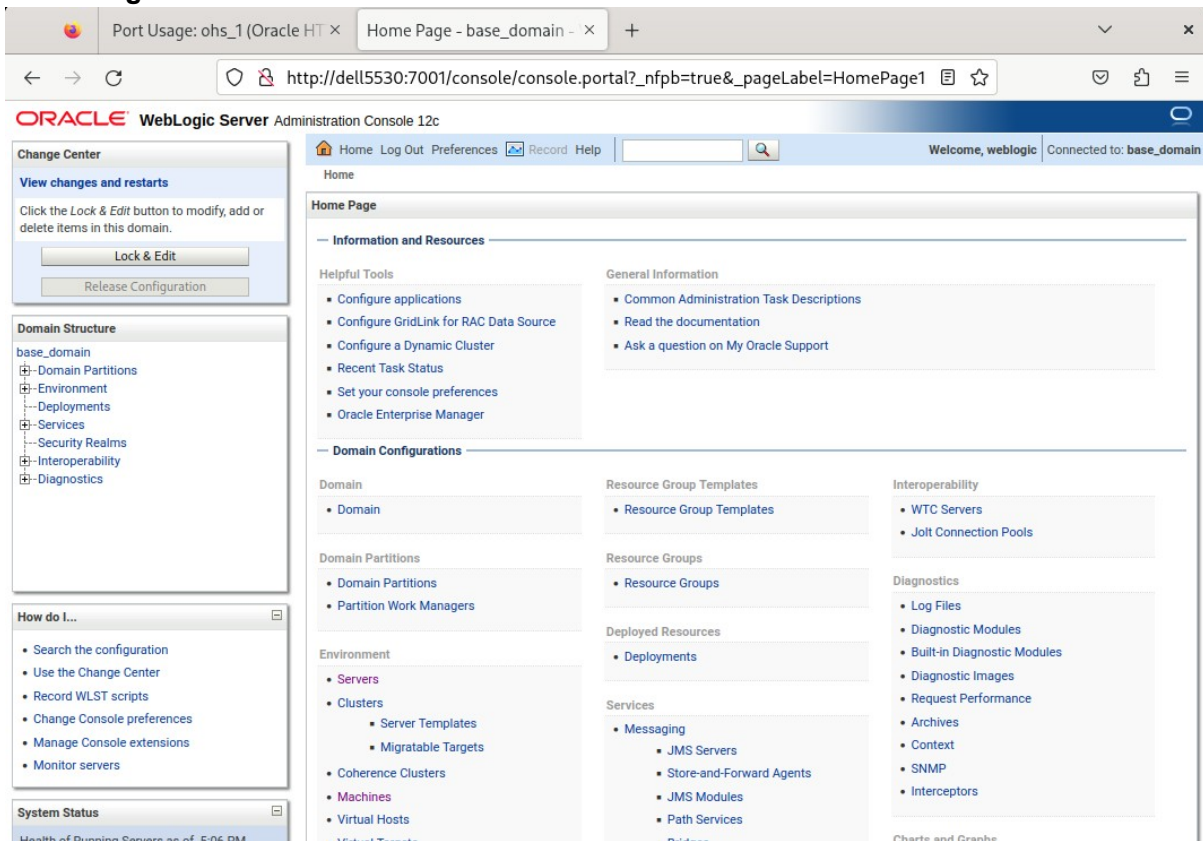
Port in Use	IP Address	Component	Protocol
7779	127.0.0.1	ohs_1	HTTPS
4443	ALL	ohs_1	HTTPS
7777	ALL	ohs_1	HTTP

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. The main content area is titled "Summary of Servers". It includes a "Configuration" tab and a "Control" tab. Below the tabs, there is a description: "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." There is a "Customize this table" link and a "Servers (Filtered - More Columns Exist)" section with a "Lock & Edit" button. A table lists the servers:

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

On the left side, there are several panels: "Change Center" with "Lock & Edit" and "Release Configuration" buttons; "Domain Structure" showing a tree view of the domain; "How do I..." with a list of actions; and "System Status" showing the health of running servers.

Viewing the summary of Machines:

The screenshot shows the Oracle WebLogic Server Administration Console. The main content area is titled "Summary of Machines". It includes a "Configuration" tab and a "Control" tab. Below the tabs, there is a description: "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." There is a "Customize this table" link and a "Machines" section with a "Lock & Edit" button. A table lists the machines:

Name	Type
SuSE_Machine_1	Machine

On the left side, there are several panels: "Change Center" with "Lock & Edit" and "Release Configuration" buttons; "Domain Structure" showing a tree view of the domain; "How do I..." with a list of actions; and "System Status" showing the health of running servers.

3). Access to Oracle HTTP Server listening address

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

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 architecture of Oracle HTTP Server 12c, showing components like Local Content, OHS, Load Balancing, Auditing, Authentication, Authorization, Identity Management, and Fusion Middleware Applications. It also highlights management tools like FMW Lifecycle Tools and Enterprise Manager.

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

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 architecture of Oracle HTTP Server 12c, showing components like Local Content, OHS, Load Balancing, Auditing, Authentication, Authorization, Identity Management, and Fusion Middleware Applications. It also highlights management tools like FMW Lifecycle Tools and Enterprise Manager.

Admin Host SSL URL: <https://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.

The diagram illustrates the Oracle HTTP Server 12c architecture. It shows a central platform with components like Local Content (HTML, JS), OHS (Oracle HTTP Server), Auditing, Authentication Authorization, and Fusion Middleware Applications. Supporting components include Process Management and HA, Certificate management, Automation, Test to Production, FMW Lifecycle Tools, and Enterprise Manager (Manage, monitor, diagnose).

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

```
oracle@Dell5530:/home/oracle/Oracle/Middleware/Oracle_Home/oracle_common/common/bin> ./wlst.sh
Initializing WebLogic Scripting Tool (WLST) ...

Welcome to WebLogic Server Administration Scripting Shell

Type help() for help on available commands

wls:/offline> connect('weblogic','welcome1','Dell5530:7001')
Connecting to t3://Dell5530:7001 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/> █
```

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_221 and later installed.
- 3). Oracle WebLogic Server 12cR2 (12.2.1.4.0) (Fusion Middleware Infrastructure Installer)

1-2. Log in to the target system (SLES 15 SP6 64-bit OS) as a non-admin user. Download the Oracle WebCenter Portal 12c (12.2.1.4.0) from <https://www.oracle.com/downloads/#category-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 (V983398-01.zip) file and launch the installation program by running **'java -jar fmw_12.2.1.4.0_wcportal.jar'**

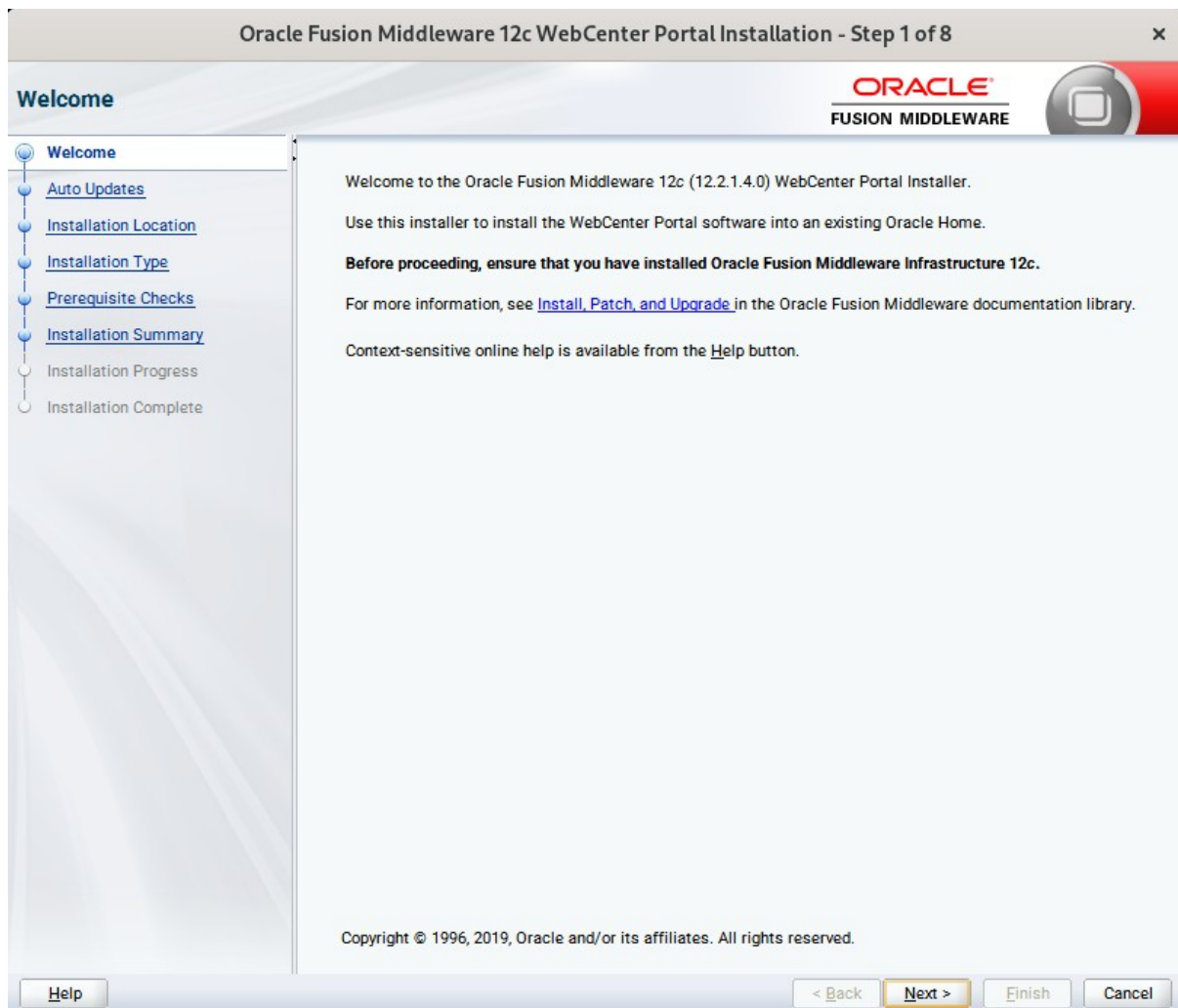
For the actual installation, follow the steps below:

1). Installation Inventory Setup

The screenshot shows the 'Installation Inventory Setup' window for Oracle Fusion Middleware 12c WebCenter Portal. The window title is 'Oracle Fusion Middleware 12c WebCenter Portal Installation'. The main heading is 'Installation Inventory Setup'. Below the heading, there is an Oracle logo and the text 'FUSION MIDDLEWARE'. The main content area is titled 'Central Inventory Directory' and contains the following text: 'Enter the Central inventory directory for all your oracle installations. The installer will create a new central inventory directory if it does not exist.' Below this text, there is a text input field for 'Inventory Directory:' containing the path '/home/oracle/orainventory', a 'Browse' button, and the instruction 'Enter the full path for the directory.' Below that, there is a dropdown menu for 'Operating System Group:' with 'oinstall' selected, and the instruction 'Specify a group with write permission to the inventory directory'. At the bottom of the main content area, there is a section titled 'Central Inventory Pointer File' with the text: '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 window, there are three buttons: 'Help', 'OK', and 'Cancel'.

Specify the Oracle inventory directory and group permissions for that directory. The group must have write permissions to the Oracle inventory directory, then click **OK** to continue.

2). Welcome page.



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

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

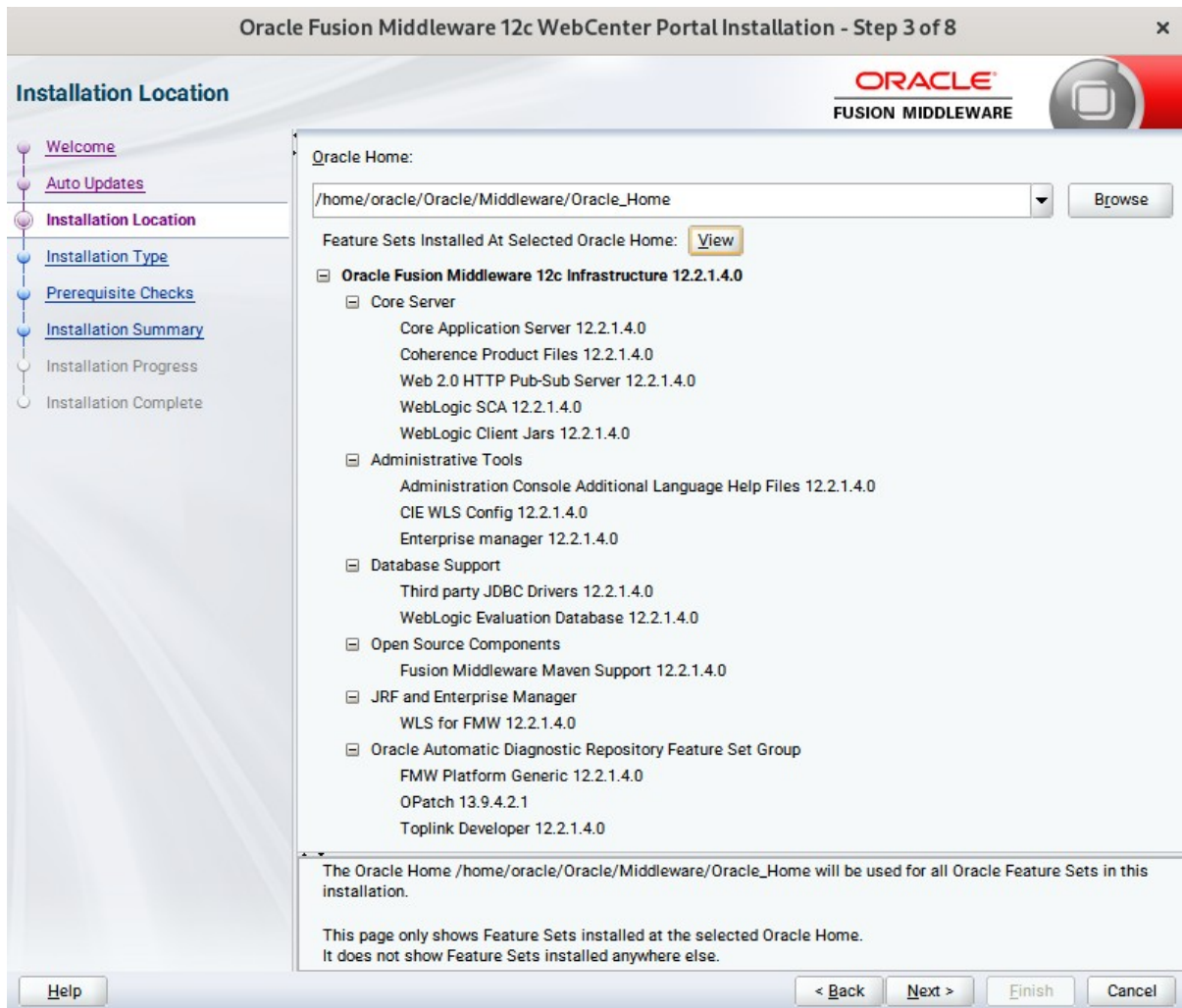
The screenshot shows the 'Auto Updates' configuration page for Oracle Fusion Middleware 12c WebCenter Portal. The window title is 'Oracle Fusion Middleware 12c WebCenter Portal Installation - Step 2 of 8'. The page features a navigation pane on the left with the following items: Welcome, Auto Updates (selected), Installation Location, Installation Type, Prerequisite Checks, Installation Summary, Installation Progress, and Installation Complete. The main content area has the Oracle Fusion Middleware logo in the top right. The configuration options are:

- Skip Auto Updates
- Select patches from directory
 - Location:
- Search My Oracle Support for Updates
 - Username:
 - Password:
 -
 -
 -

At the bottom of the page, there are navigation buttons: Help, < Back, Next >, Finish, and Cancel.

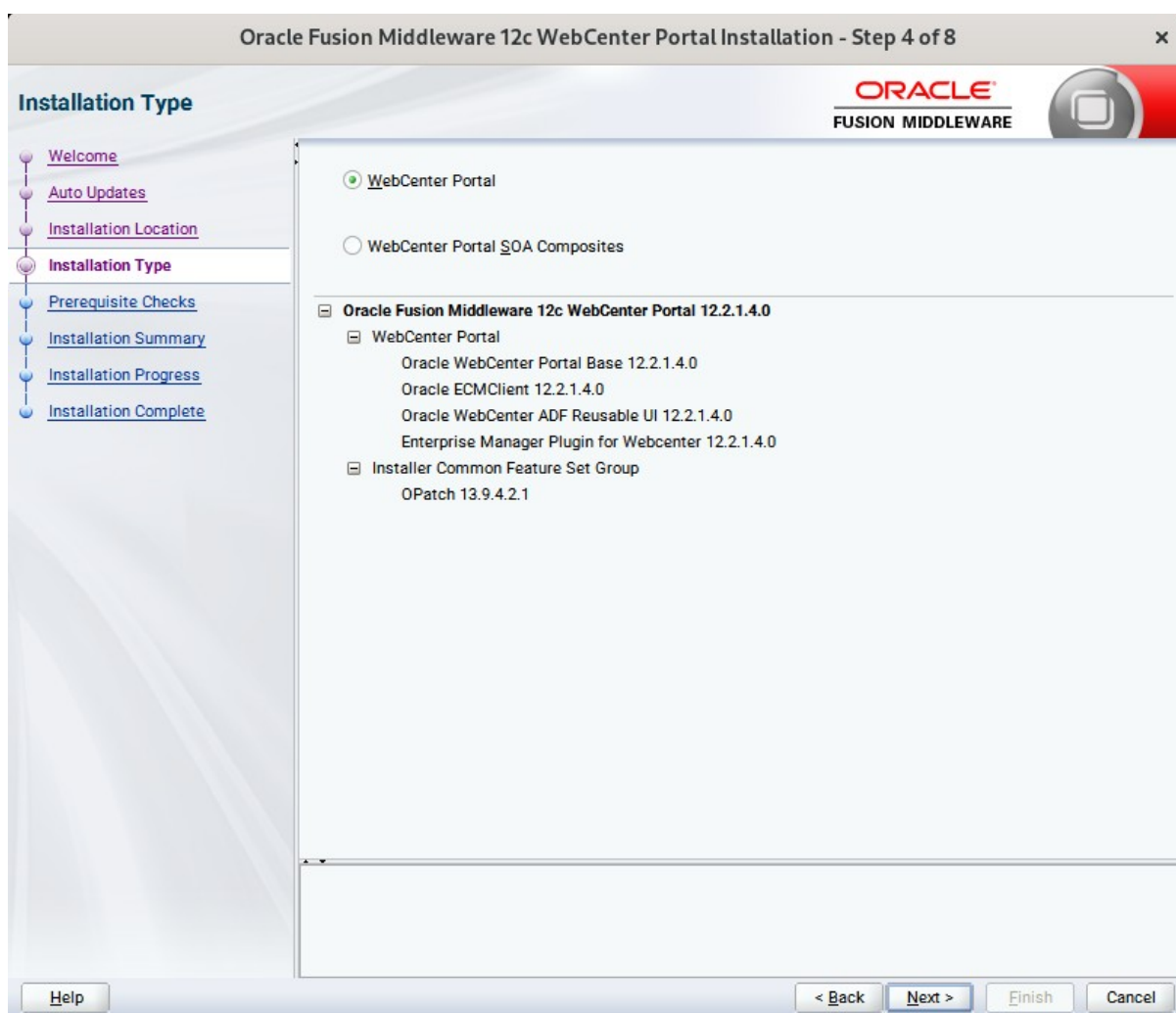
This page enables you to choose to automatically receive software updates for your components from Oracle Corporation. make your choices, then click **Next** to continue.

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



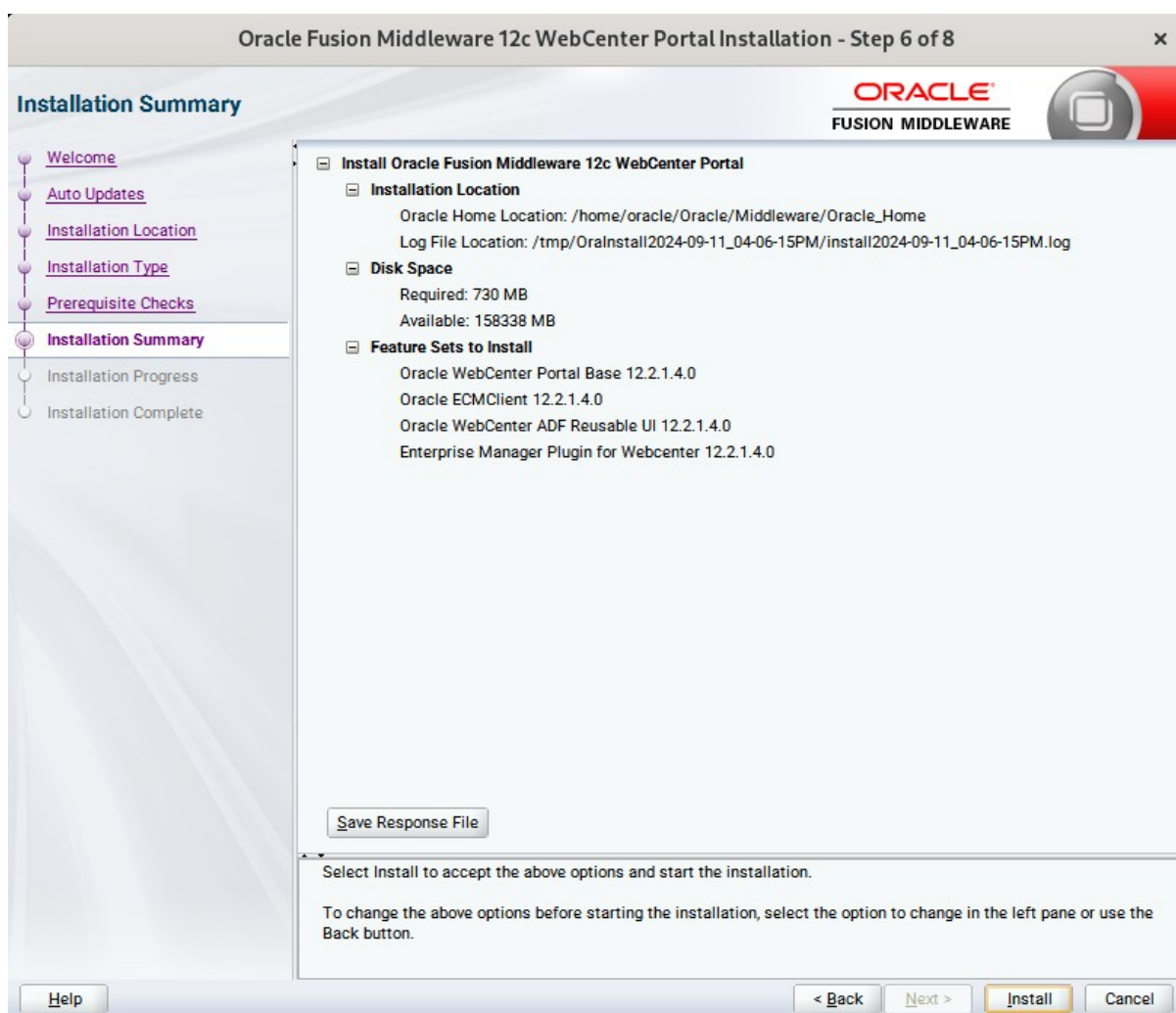
SPecify the Oracle home location into which you want to install the product(s). Click **Next** to continue.

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



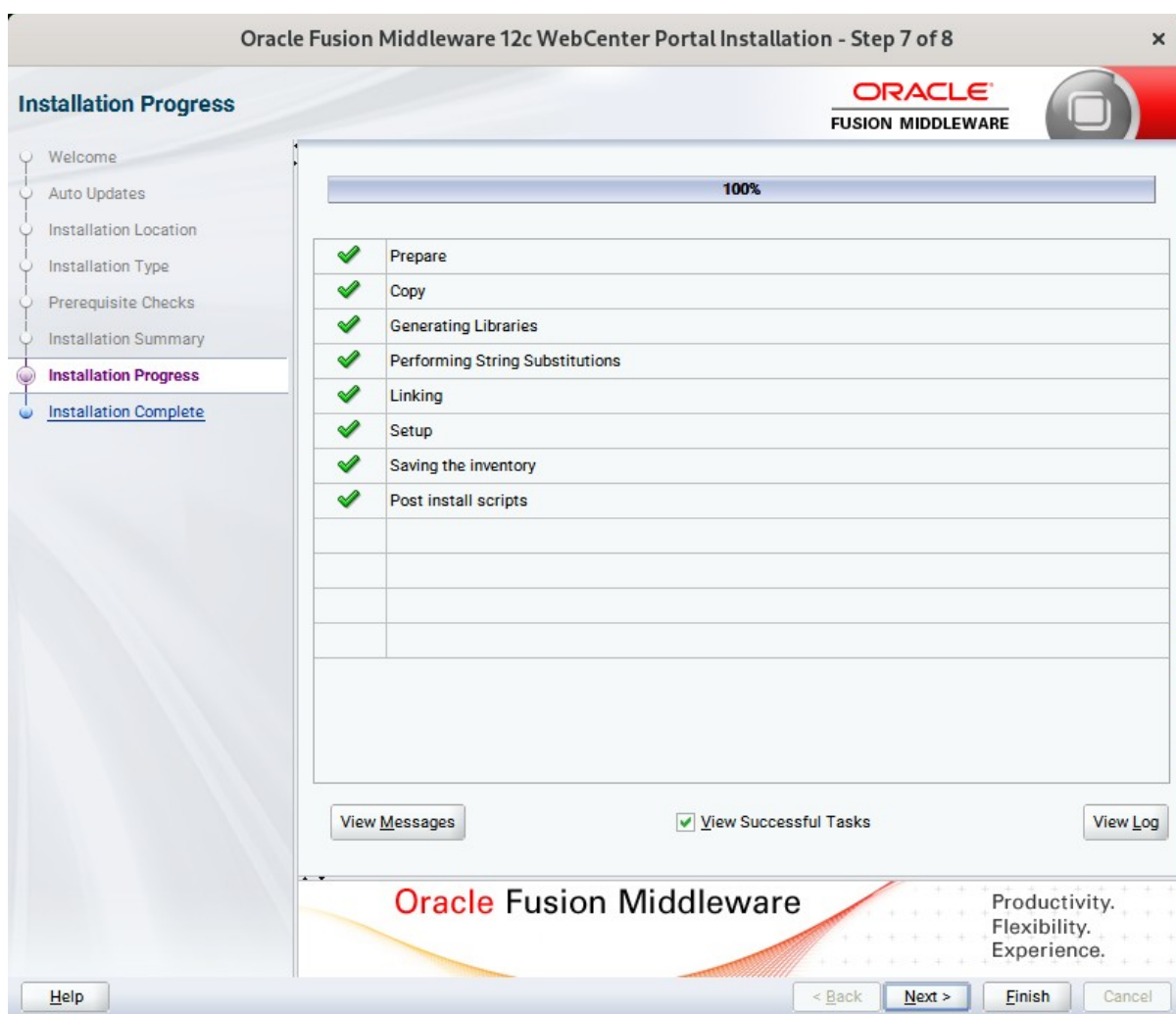
Use this screen to select the installation type and then products or feature sets you want to install. Selected the **WebCenter Portal** install type to install the WebCenter product. Click **Next** to continue.

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



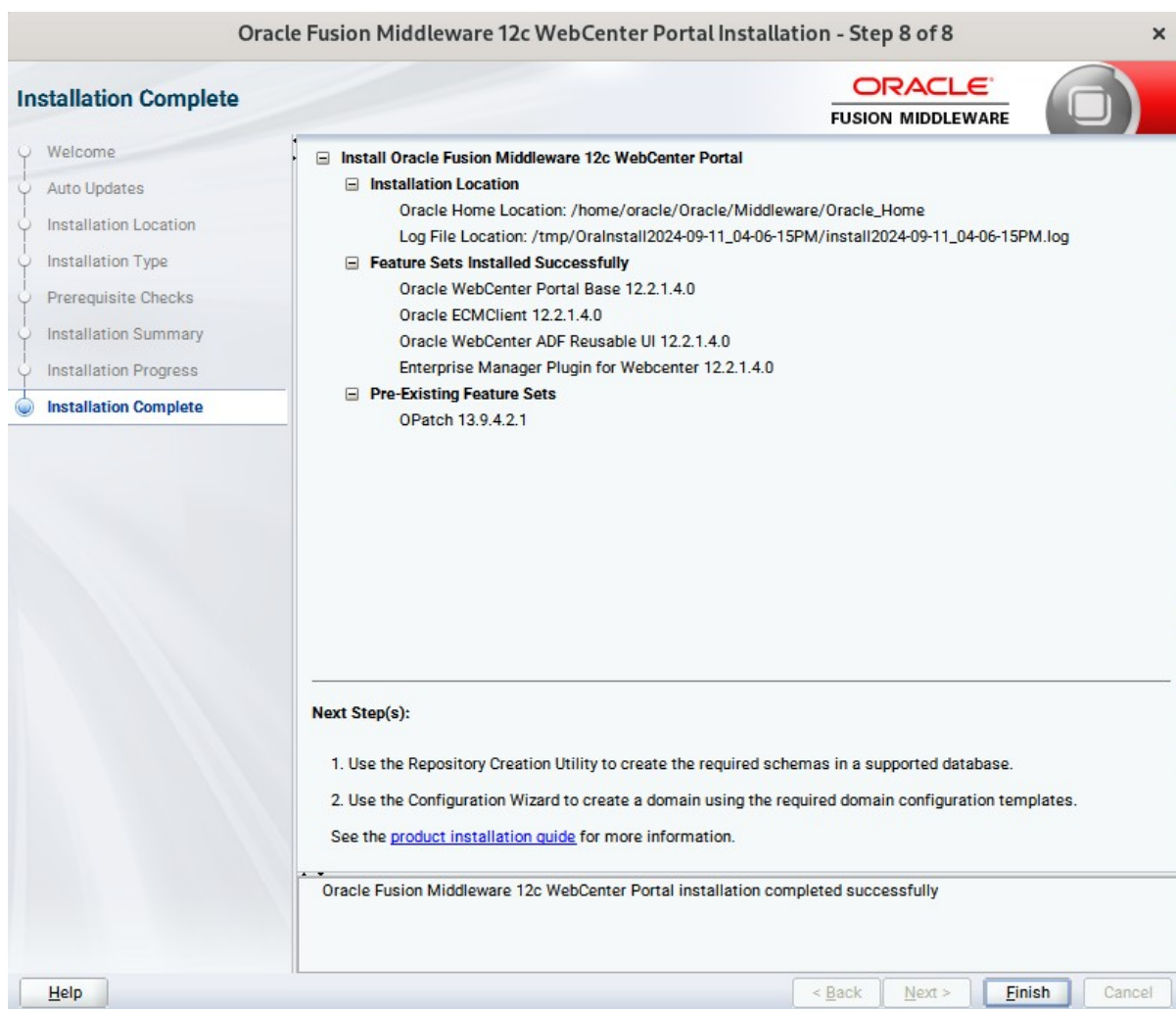
This page shows you what components and features are about to be installed. If you need to make changes, click **Back**, otherwise, click **Install** to start the installation.

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.

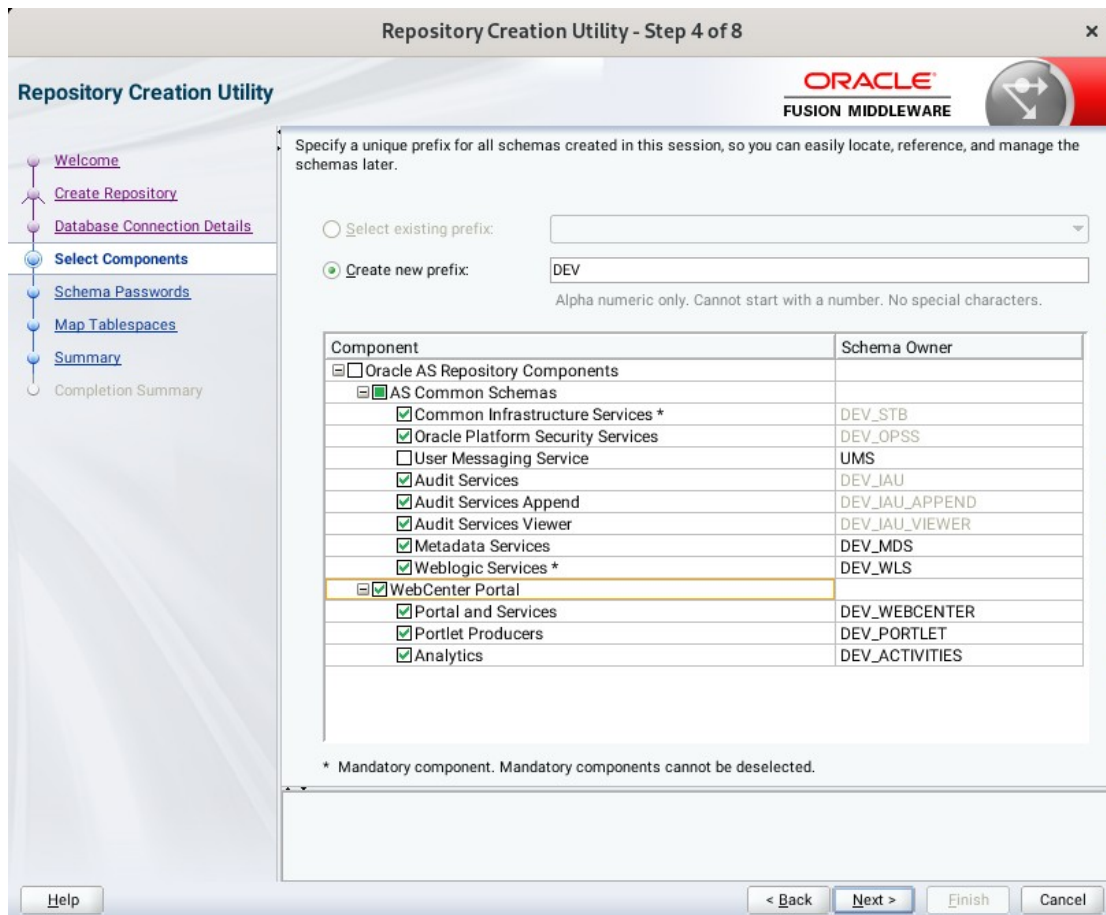


Click **Finish** to dismiss the installer.

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 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 DEV). Select the components as shown above.

Ensure schema creation is successful.

Repository Creation Utility - Step 9 of 9

Repository Creation Utility ORACLE FUSION MIDDLEWARE

Database details:

Host Name: Dell5530
Port: 1521
Service Name: SUSE
Connected As: sys
Operation: System and Data Load concurrently
Execution Time: 2 minutes 10 seconds

RCU Logfile: /tmp/RCU2024-09-11_16-16_465244313/logs/rcu.log
Component Log Directory: /tmp/RCU2024-09-11_16-16_465244313/logs
View Log: rcu.log

Prefix for (prefixable) Schema DEV
Owners

Component	Status	Time	Logfile(Click to view)
Common Infrastructure Services	Success	00:09.353(sec)	stb.log
Oracle Platform Security Services	Success	00:14.913(sec)	opss.log
Audit Services	Success	00:12.100(sec)	iau.log
Audit Services Append	Success	00:09.173(sec)	iau_append.log
Audit Services Viewer	Success	00:09.171(sec)	iau_viewer.log
Metadata Services	Success	00:11.929(sec)	mds.log
Weblogic Services	Success	00:12.805(sec)	wls.log
Portal and Services	Success	00:20.316(sec)	webcenter.log
Portlet Producers	Success	00:10.330(sec)	portlet.log
Analytics	Success	00:10.945(sec)	activities.log

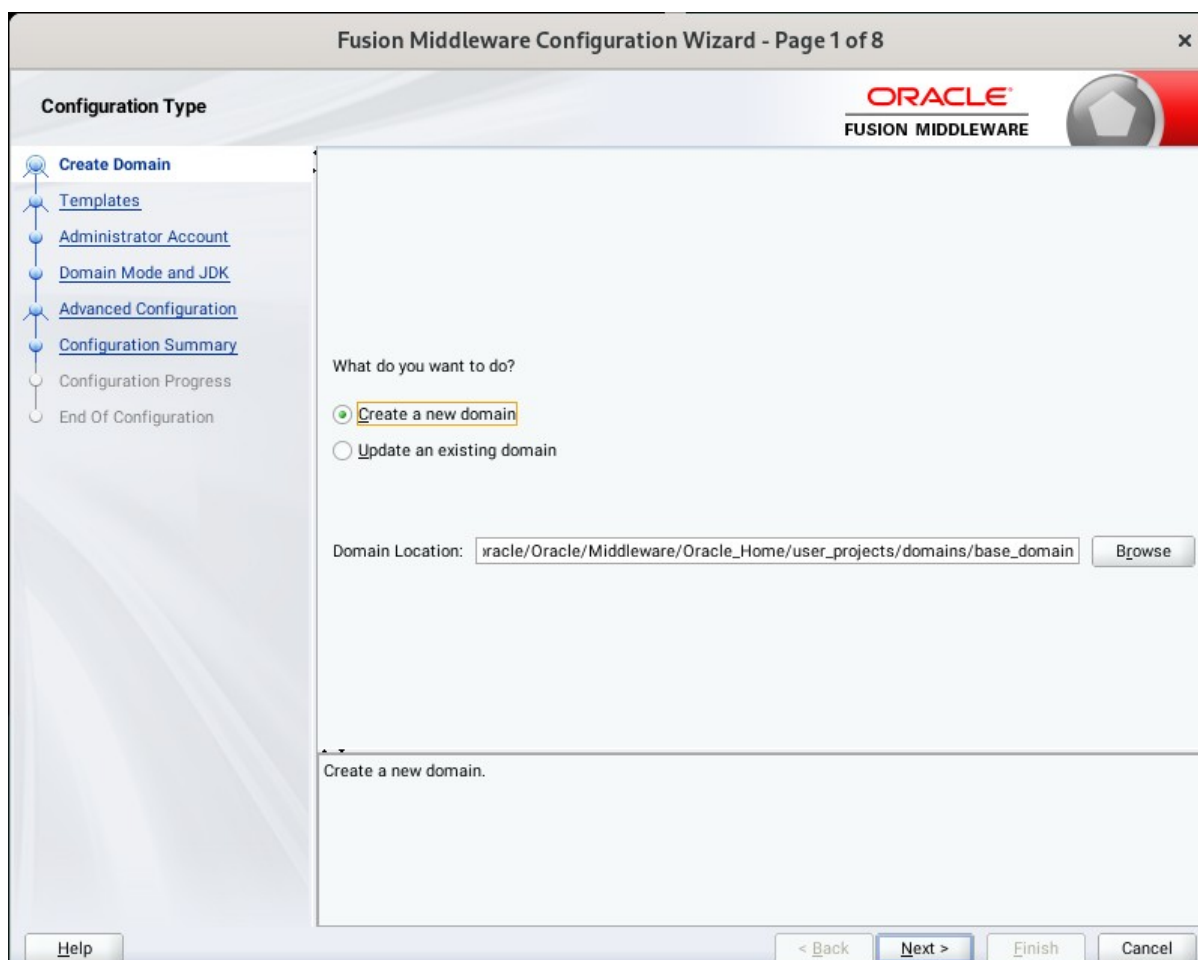
Help < Back Next > Create Close

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.

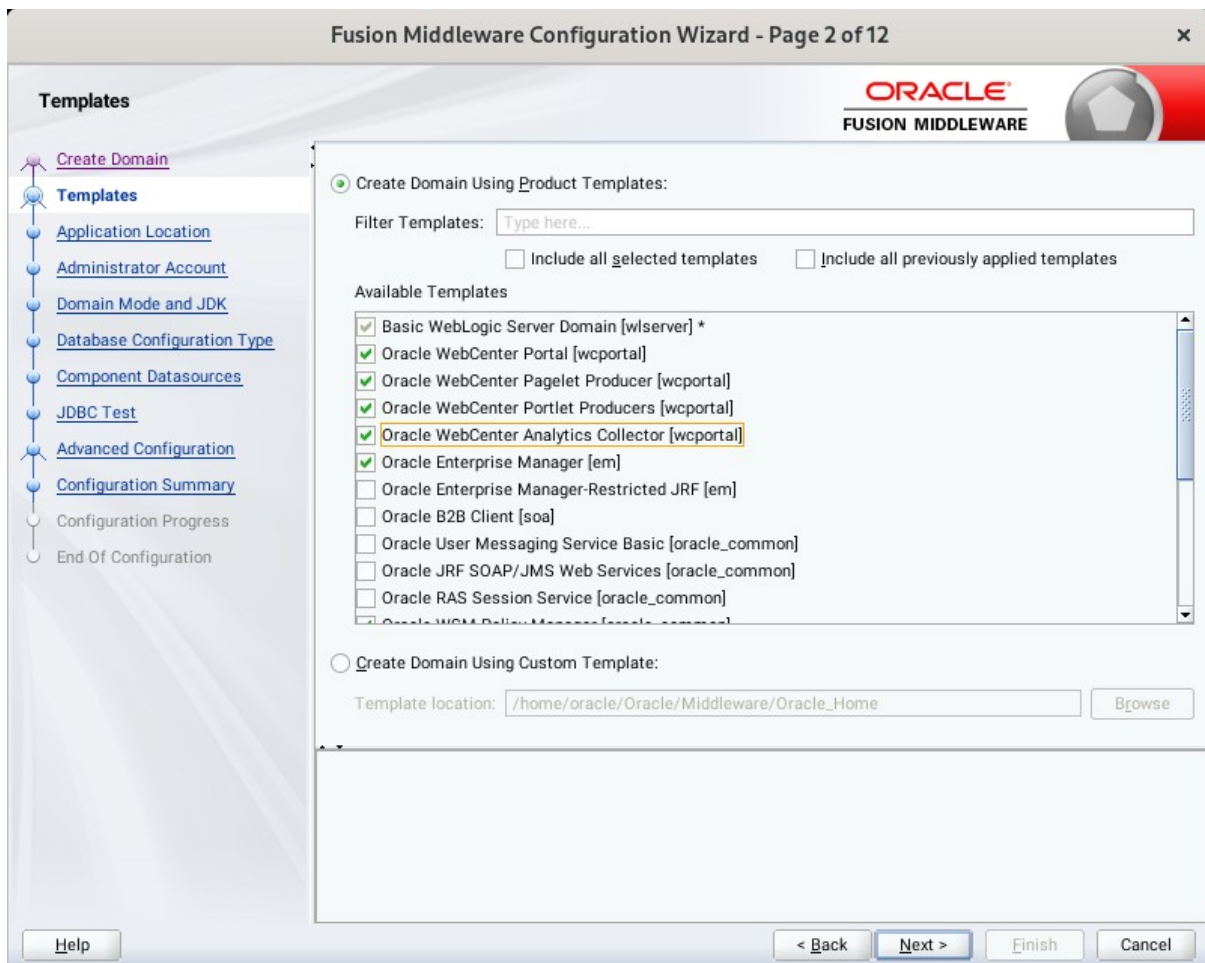
Follow these steps:

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:

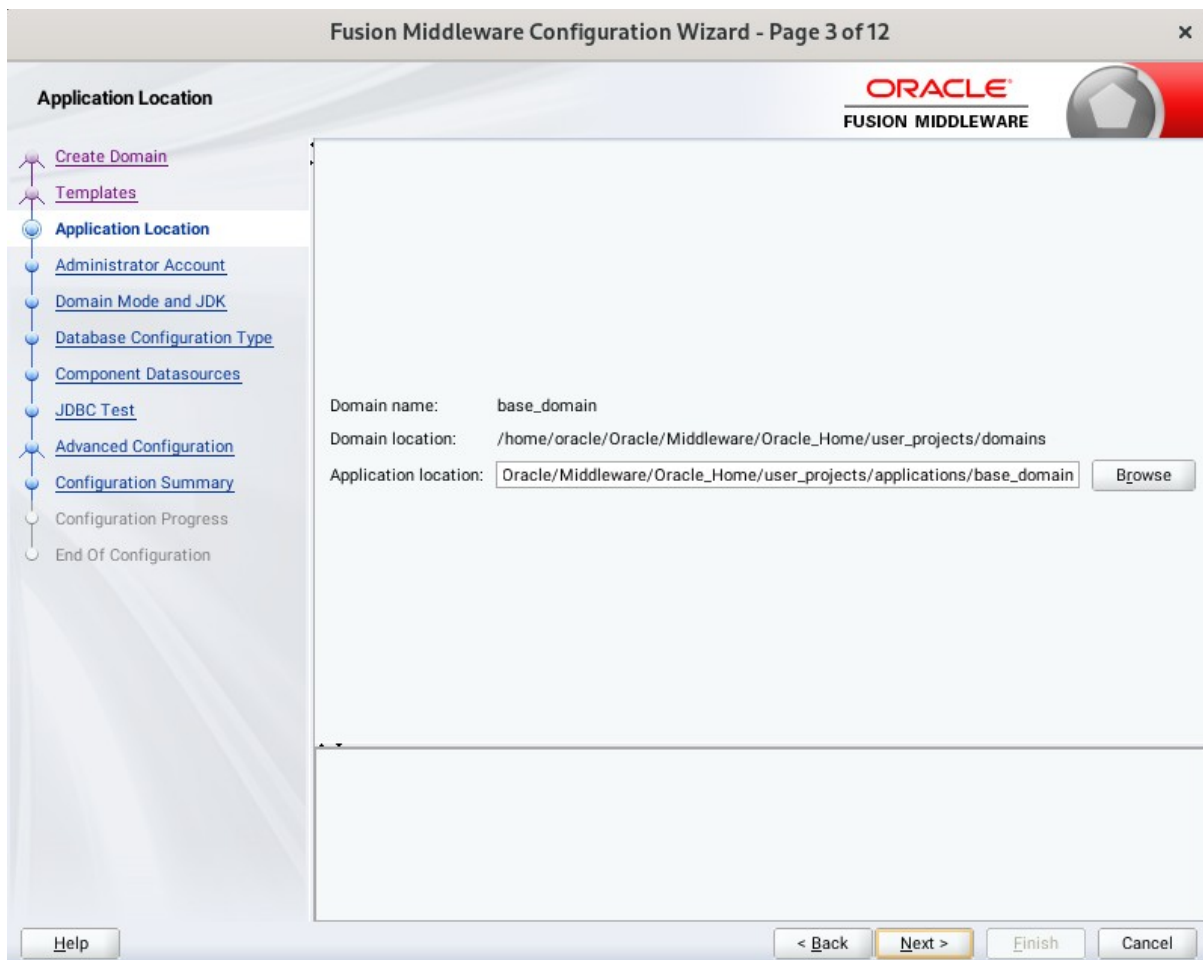
- Oracle WebCenter Portal [wcportal]

Selecting this template automatically selects the following as dependencies:

- Oracle Enterprise Manager
- Oracle WSM Policy Manager
- Oracle JRF
- WebLogic Coherence Cluster Extension
- Oracle WebCenter Pagelet Producer [wcportal]
- Oracle WebCenter Portlet Producers [wcportal]
- Oracle WebCenter Analytics Collector [wcportal]

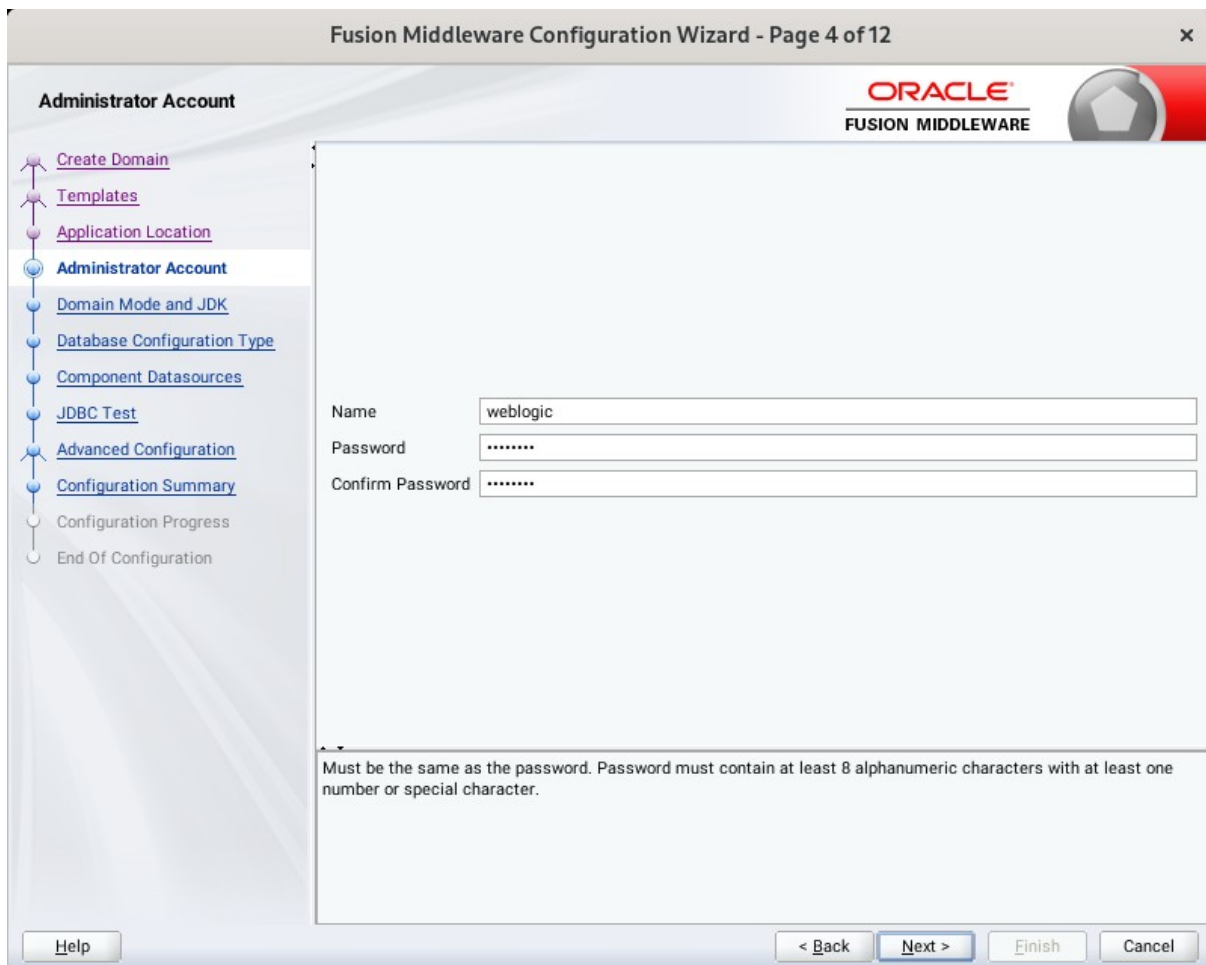
You can also select any of the Oracle WebCenter Portal products listed in the following table. You do not need to select all of these templates, and you can always run the configuration wizard again to add products to your domain later. Click **Next** to continue.

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



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

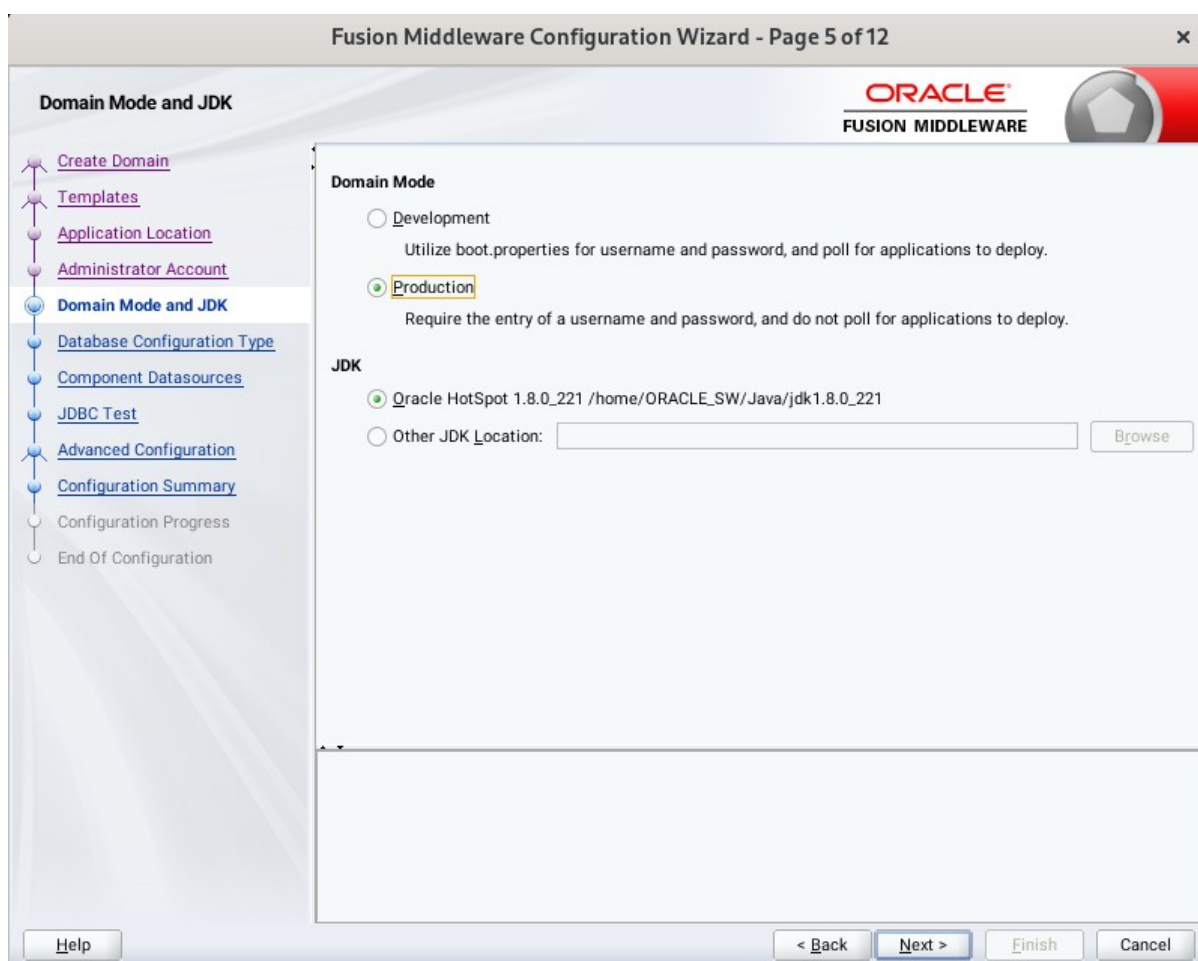
4). The **Administrator Account** screen appears.



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. A navigation pane on the left 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 area contains three input fields: 'Name' with the value 'weblogic', 'Password' with masked characters '.....', and 'Confirm Password' with masked characters '.....'. Below the 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.

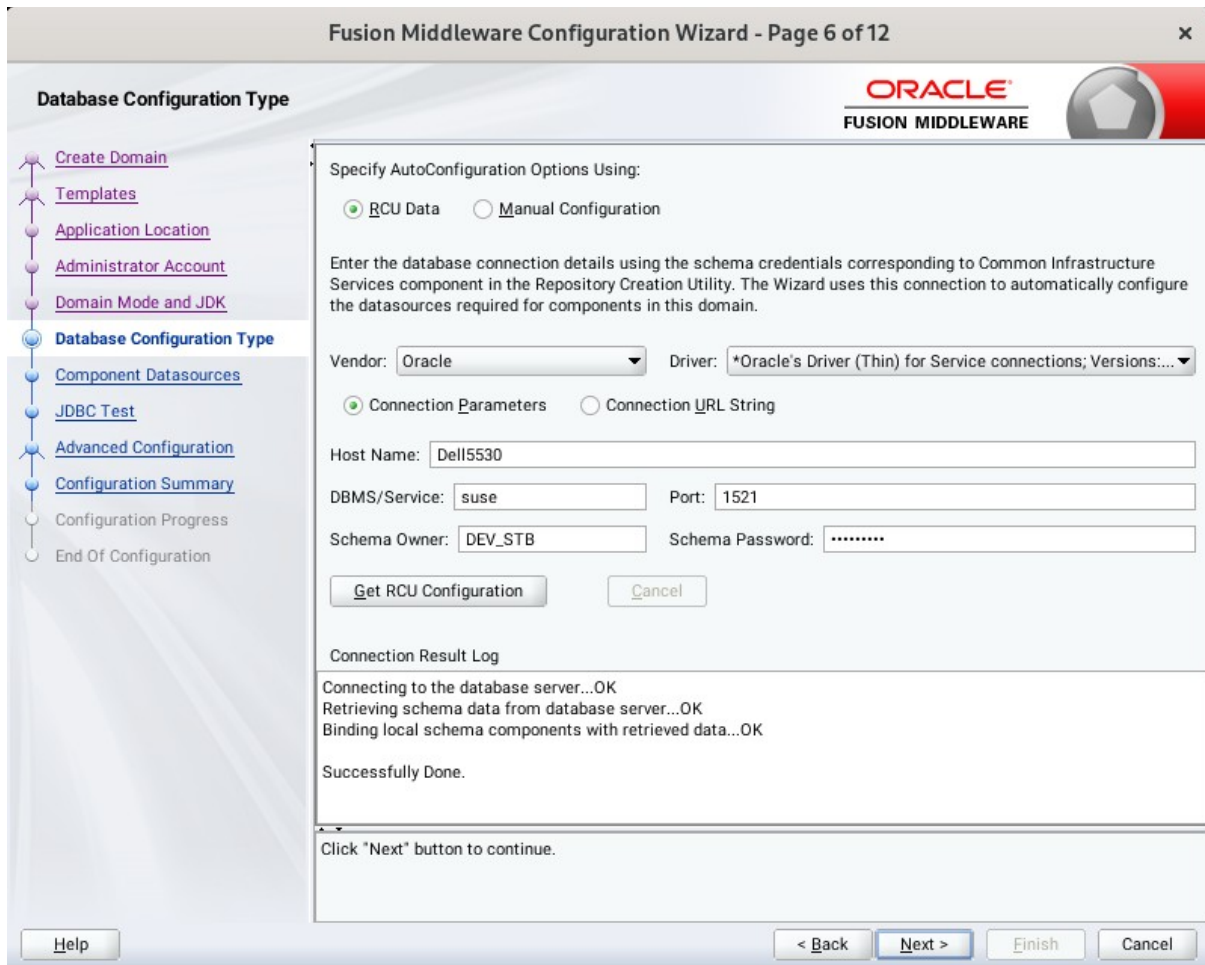
5). The **Domain Mode and JDK** screen appears.



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.

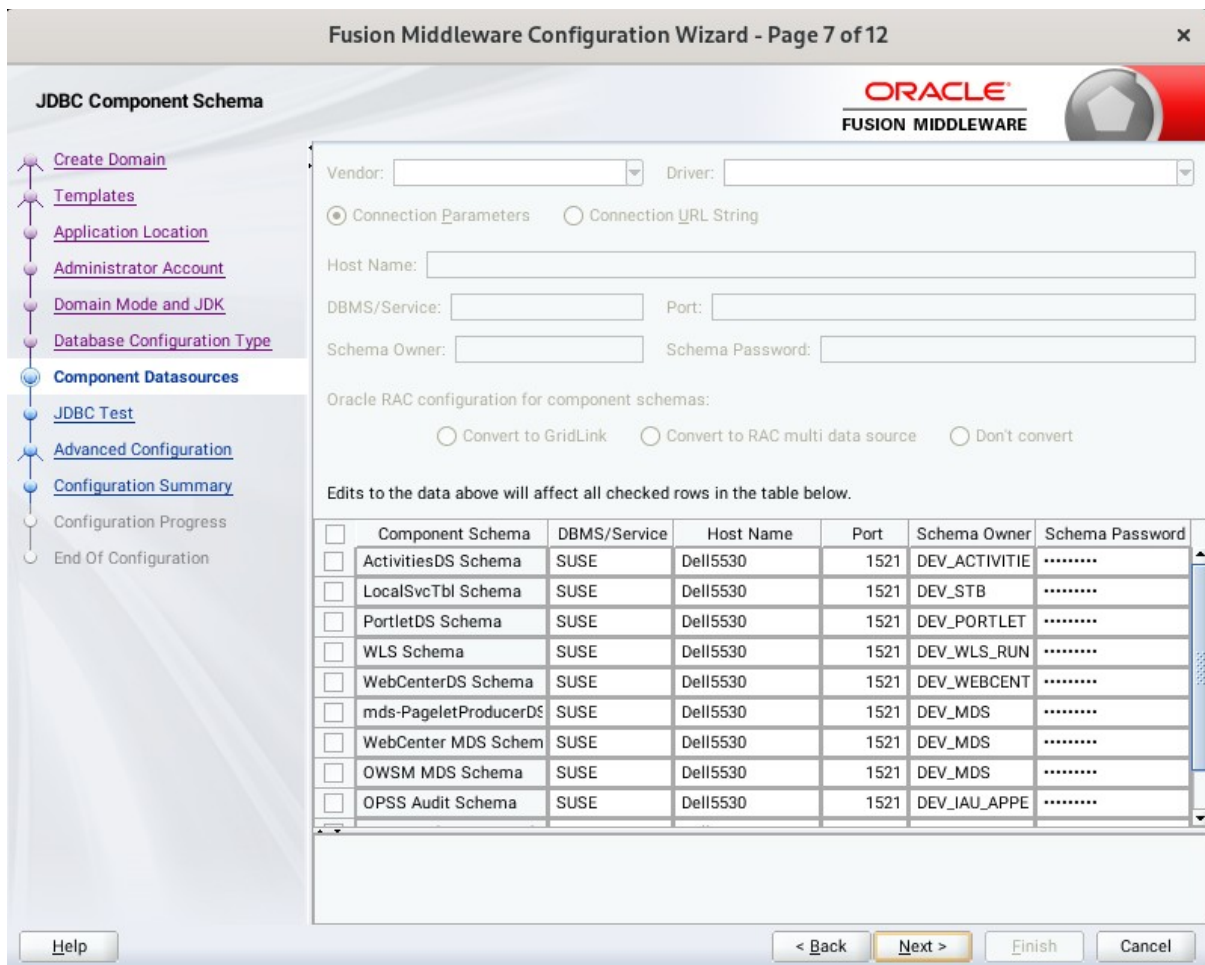
(Note: The installation can only be secured with Identity Management if you are configuring your components in deployment mode.)

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



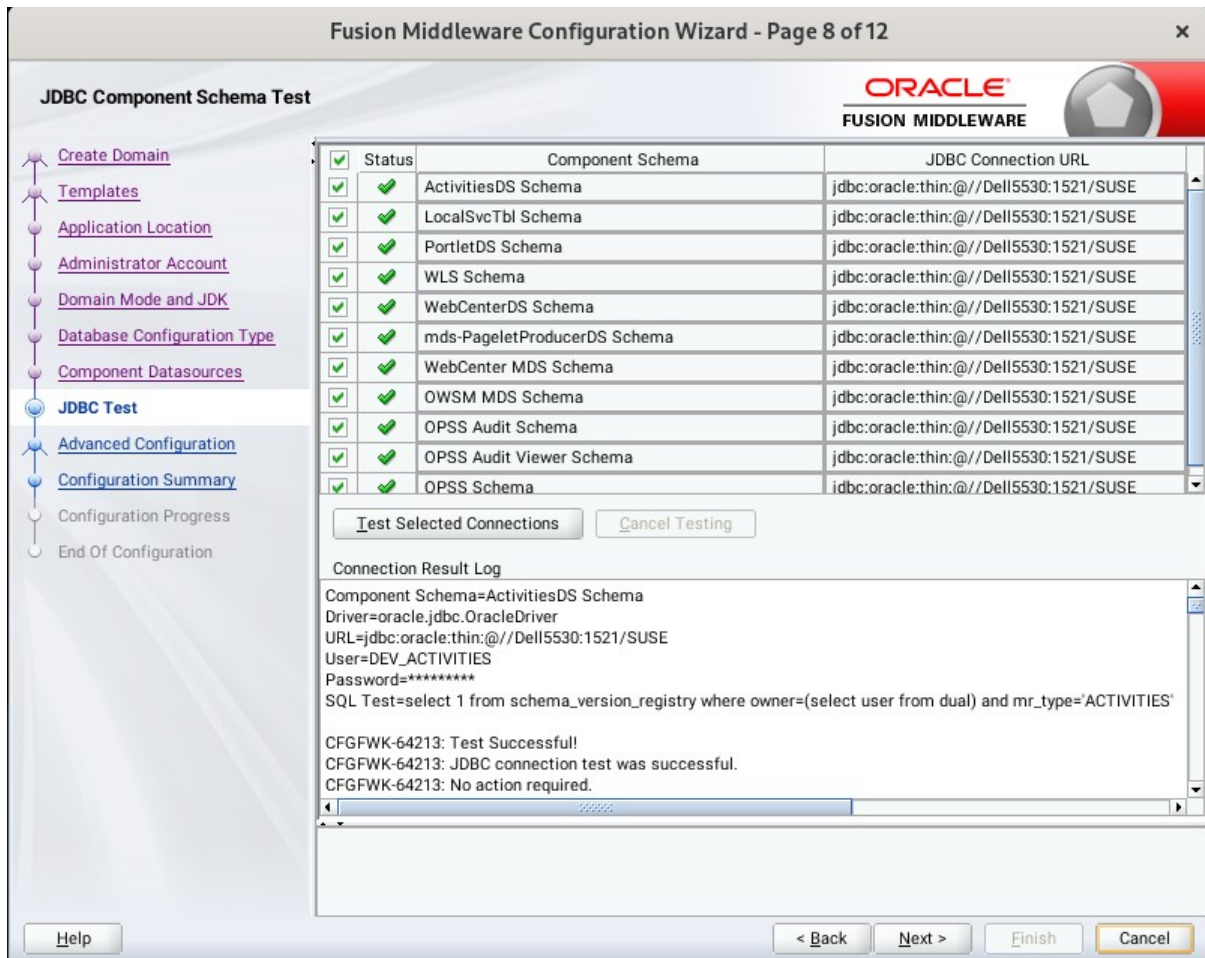
Enter the RCU DB connection information, then click **Get RCU Configuration**. You should receive a success message. Click **Next** to continue.

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



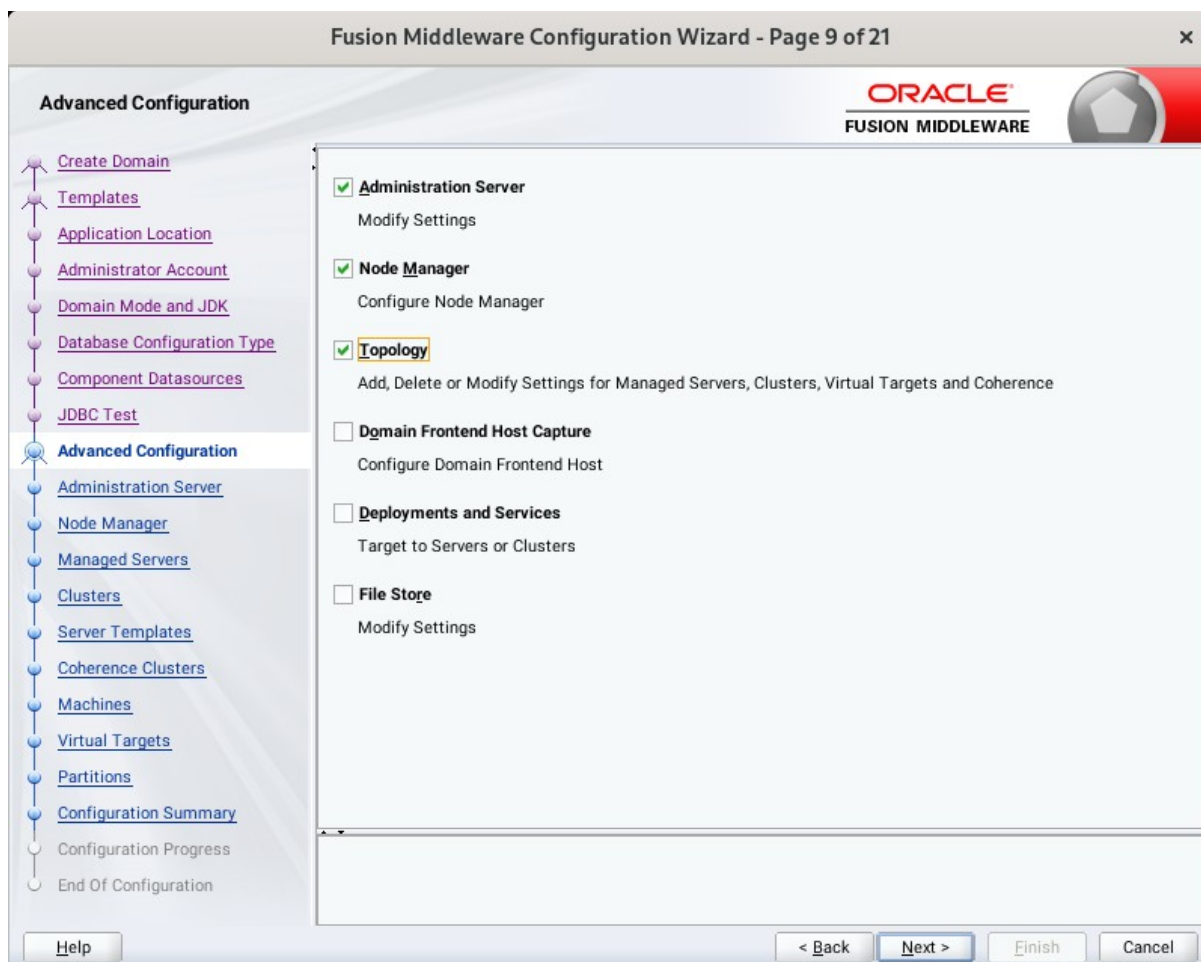
Our instructions assume each Repository schema uses the same password. If not, enter the correct schema passwords. Click **Next** to continue.

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.

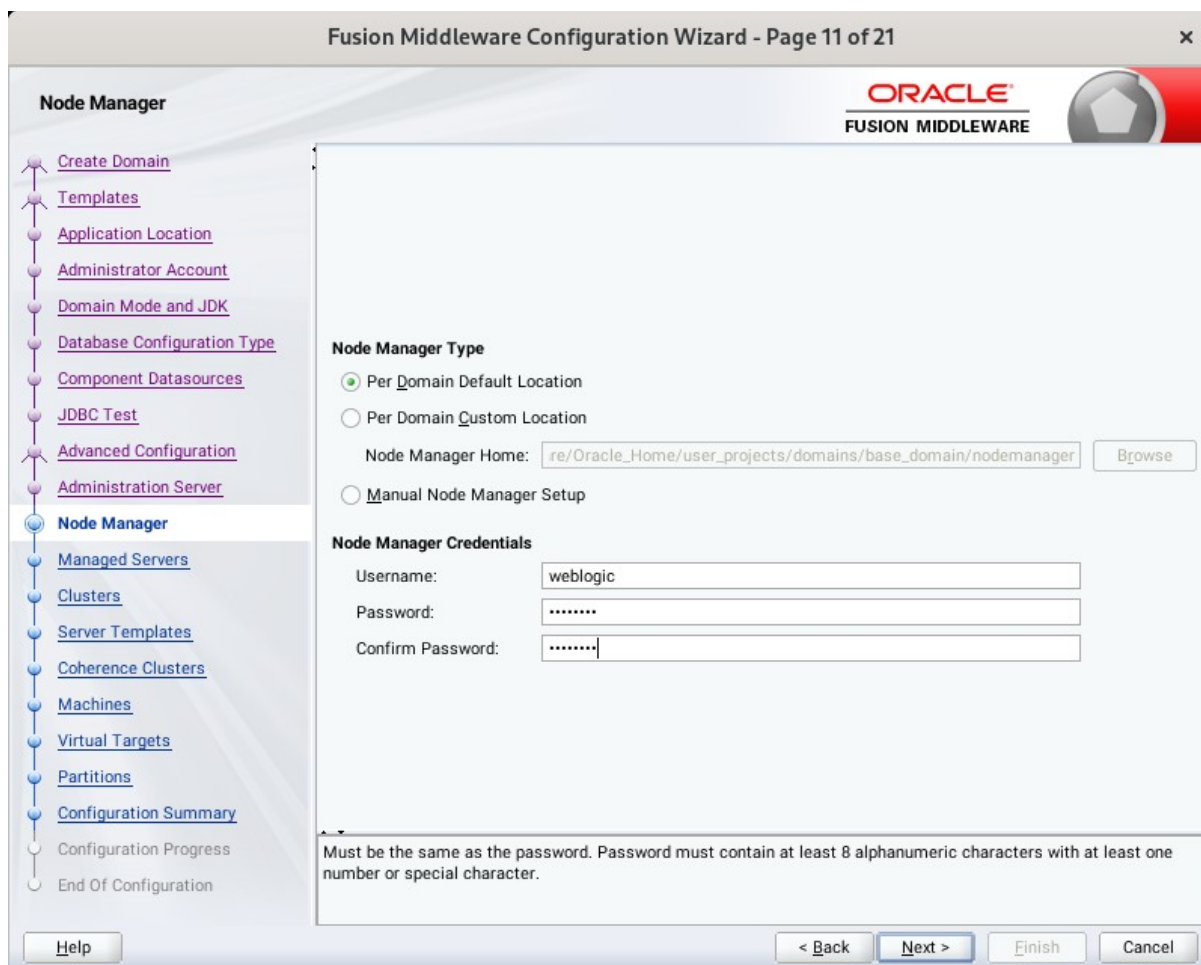
The screenshot shows the 'Administration Server' configuration screen in the Oracle Fusion Middleware Configuration Wizard. The window title is 'Fusion Middleware Configuration Wizard - Page 10 of 21'. The Oracle logo and 'FUSION MIDDLEWARE' text are visible in the top right corner. On the left, a navigation pane lists various configuration steps, with 'Administration Server' selected and highlighted. The main area contains the following fields:

- Server Name: AdminServer
- Listen Address: All Local Addresses (dropdown menu)
- Listen Port: 7001
- Enable SSL:
- SSL Listen Port: (empty text box)
- Server Groups: Unspecified (dropdown menu)

At the bottom of the main area, there is a warning message: 'The name must not be null or empty and may not contain any : , * ? % / _cloned.' Below the main area are four buttons: '< Back', 'Next >', 'Finish', and 'Cancel'. A 'Help' button is located at the bottom left of the window.

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.



The screenshot shows the "Fusion Middleware Configuration Wizard - Page 11 of 21" window. The left sidebar contains a navigation tree with the following items: Create Domain, Templates, Application Location, Administrator Account, Domain Mode and JDK, Database Configuration Type, Component Datasources, JDBC Test, Advanced Configuration, Administration Server, **Node Manager** (selected), Managed Servers, Clusters, Server Templates, Coherence Clusters, Machines, Virtual Targets, Partitions, Configuration Summary, Configuration Progress, and End Of Configuration. The main content area is titled "Node Manager" and features the Oracle Fusion Middleware logo. It contains two sections: "Node Manager Type" and "Node Manager Credentials".

Node Manager Type

- Per Domain Default Location
- Per Domain Custom Location

Node Manager Home:

- Manual Node Manager Setup

Node Manager Credentials

Username:

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.

Buttons at the bottom:

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	192.168.0.100	8889	<input type="checkbox"/>	Disabled	WebCenter ...
WC_Portal	192.168.0.100	8888	<input type="checkbox"/>	Disabled	WebCenter ...

Buttons for '+ Add', 'Clone', 'Delete', and 'Disgard 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 *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.

The screenshot shows the 'Clusters' screen in the Fusion Middleware Configuration Wizard. The title bar indicates 'Page 13 of 23'. The Oracle Fusion Middleware logo is visible in the top right. The left navigation pane shows the 'Clusters' step selected. The main area contains a table with the following data:

Cluster Name	Cluster Address	Frontend Host	Frontend HTTP Port	Frontend HTTPS Port
wpc_cluster_1			0	0
wpc_cluster_2			0	0

Buttons for '+ Add', 'X Delete', and 'Discard Changes' are located above the table. At the bottom, there are buttons for '< Back', 'Next >', 'Finish', and '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.

Fusion Middleware Configuration Wizard - Page 14 of 23

ORACLE
FUSION MIDDLEWARE

Server Templates

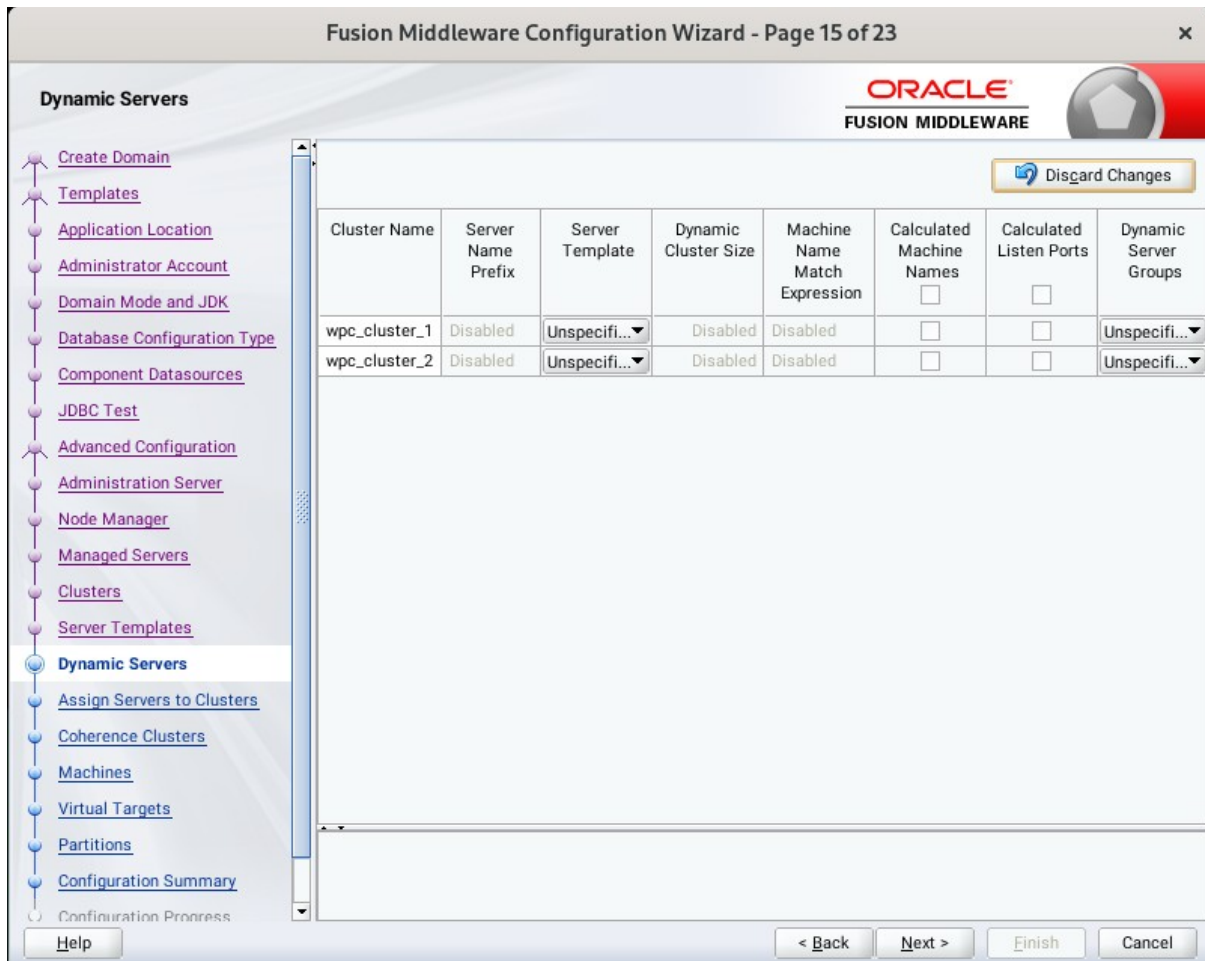
+ Add X Delete Discard Changes

Name	Listen Port	SSL Listen Port	Enable SSL
portal-server-template	7100	8100	<input type="checkbox"/>
portlet-server-template	7100	8100	<input type="checkbox"/>
wsm-cache-server-template	7100	8100	<input type="checkbox"/>
wsmpm-server-template	7100	8100	<input type="checkbox"/>

< Back Next > Finish Cancel

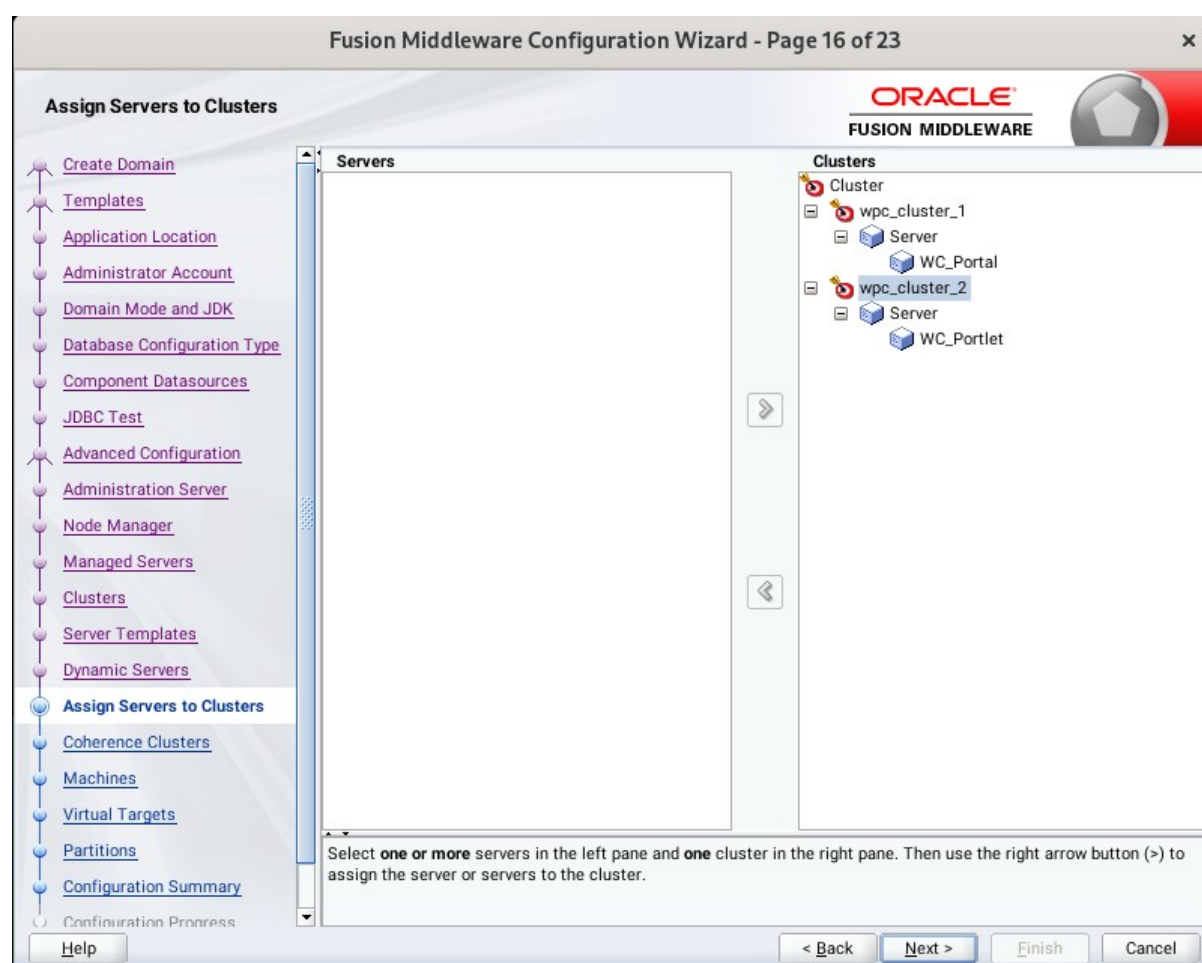
If you are creating dynamic clusters for a high availability setup, use the Server Templates screen to define one or more server templates for domain. To continue configuring the domain, click **Next**.

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



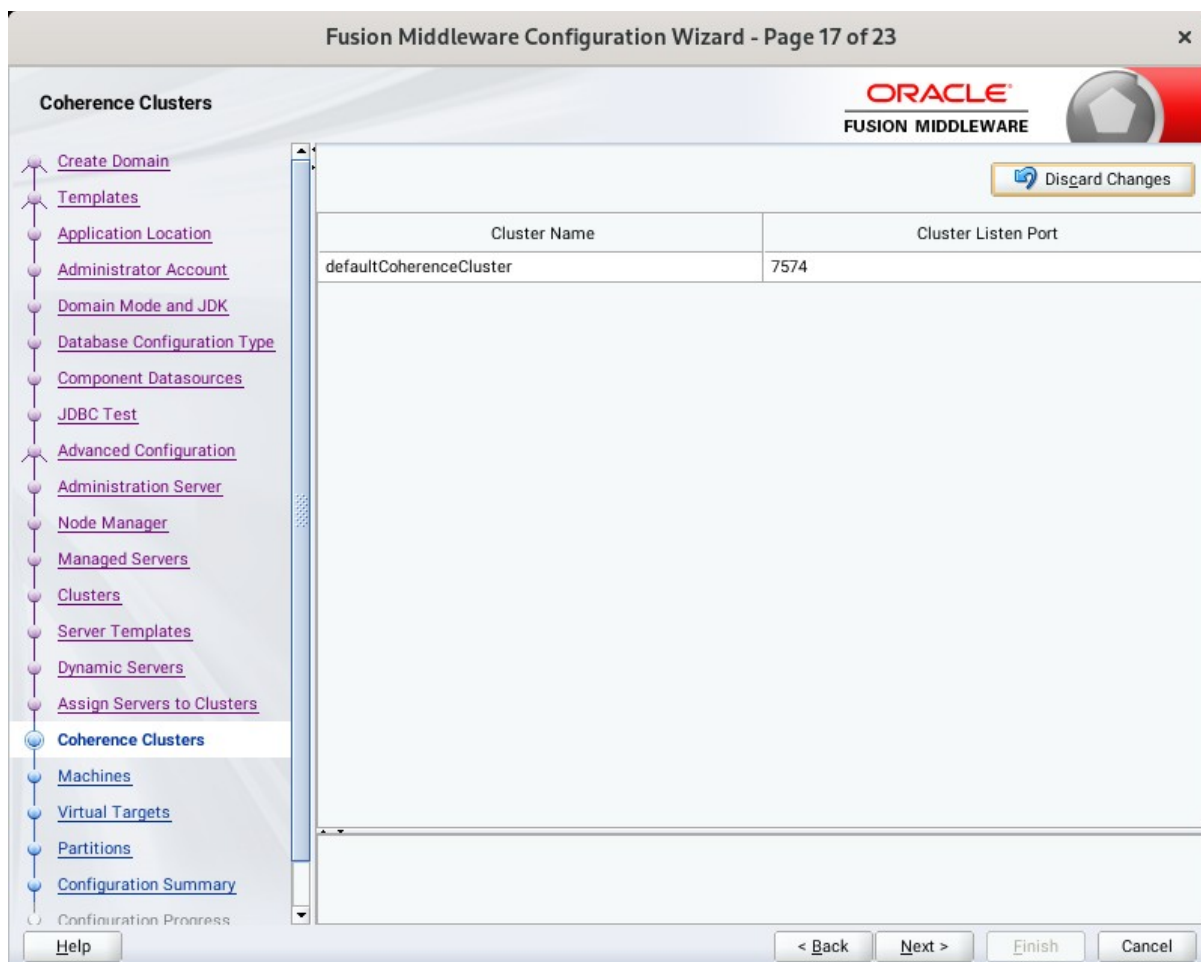
If you are creating dynamic clusters for a high availability setup, use the Dynamic Servers screen to configure the dynamic servers. If you are not configuring a dynamic cluster, click **Next** to continue configuring the domain.

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



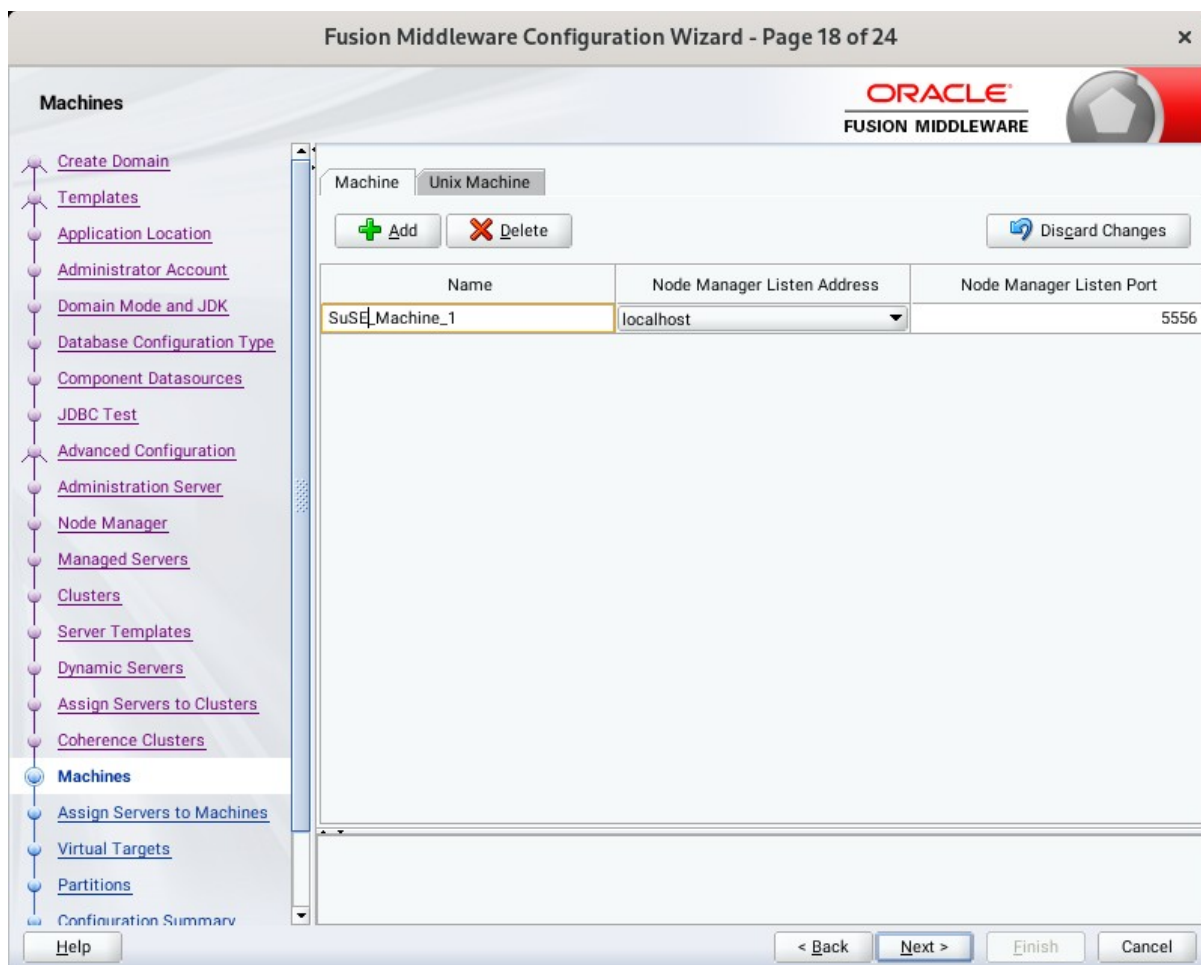
In the Clusters pane, select the cluster to which you want to assign the servers; in this case, **wcp_cluster_1**. In the Servers pane, assign **WC_Portal** to **wcp_cluster_1**, then repeat to assign **WC_Portlet** to **wcp_cluster_2**. Click **Next** to continue.

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



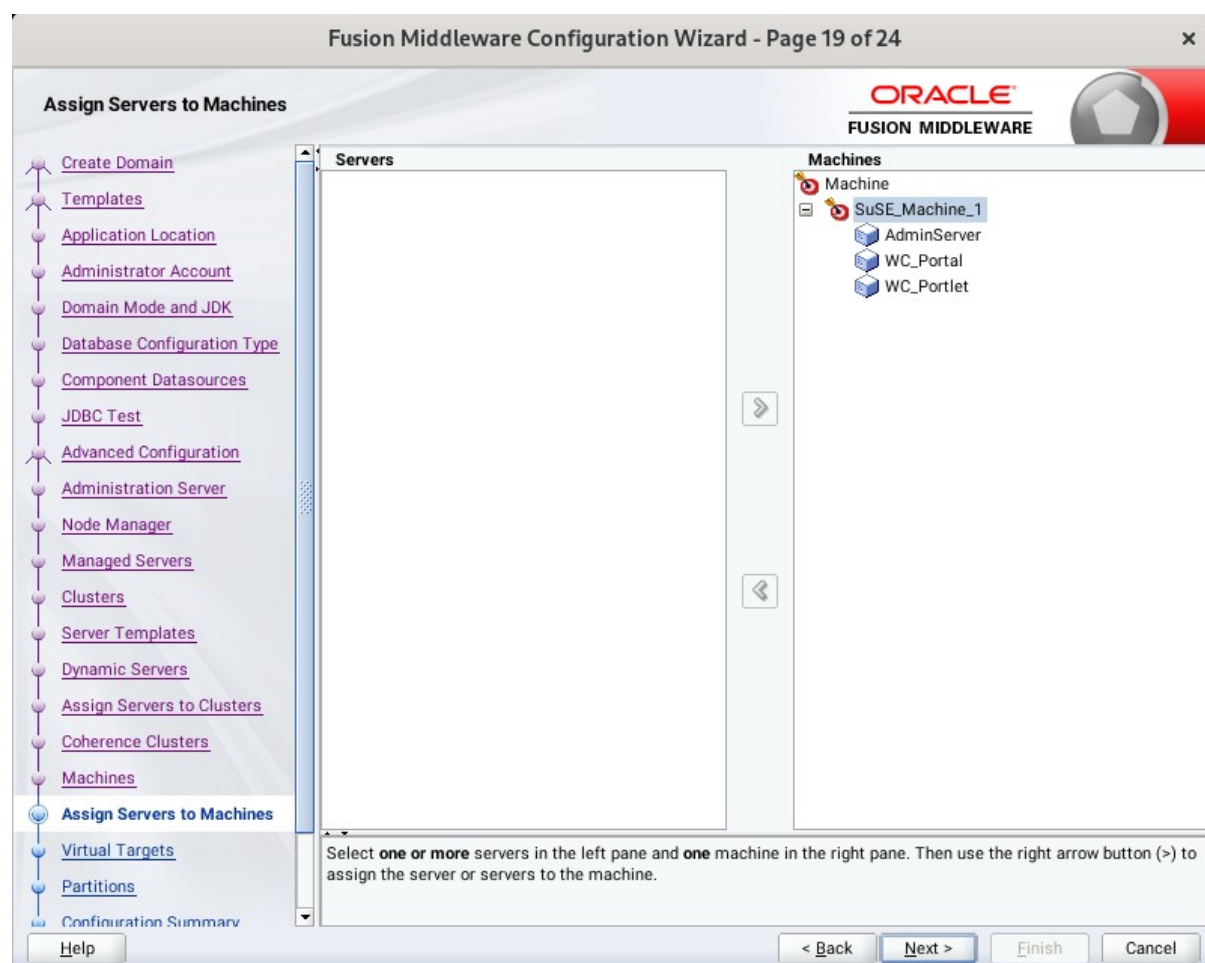
Leave the default port number as the Coherence cluster listen port. Click **Next** to continue.

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



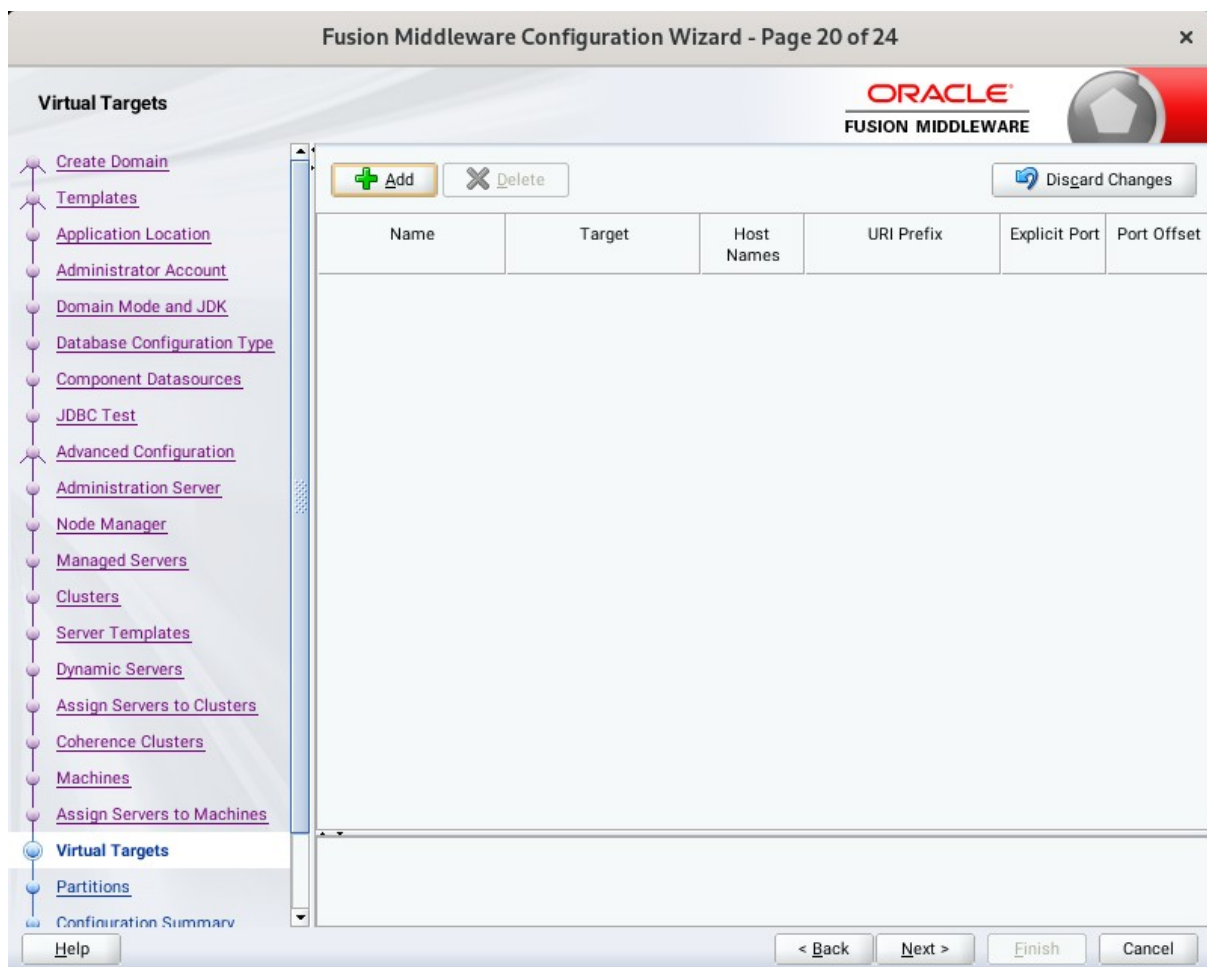
To create a new Oracle WebCenter Portal machine so that Node Manager can start and stop servers. Click **Next** to continue.

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



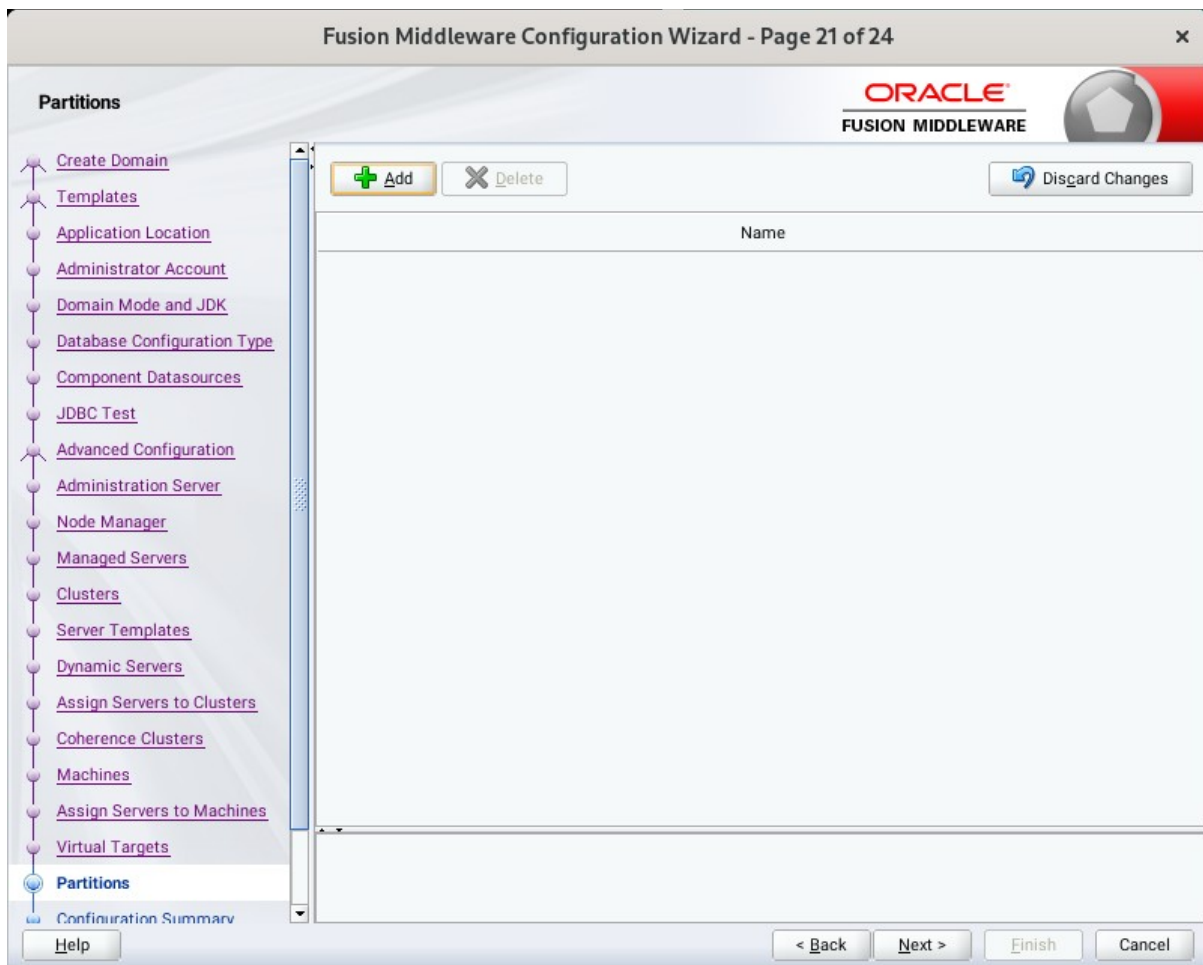
Use the **Assign Servers to Machines** screen to assign the Managed Servers to the new machine you just created. Click **Next** to continue.

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



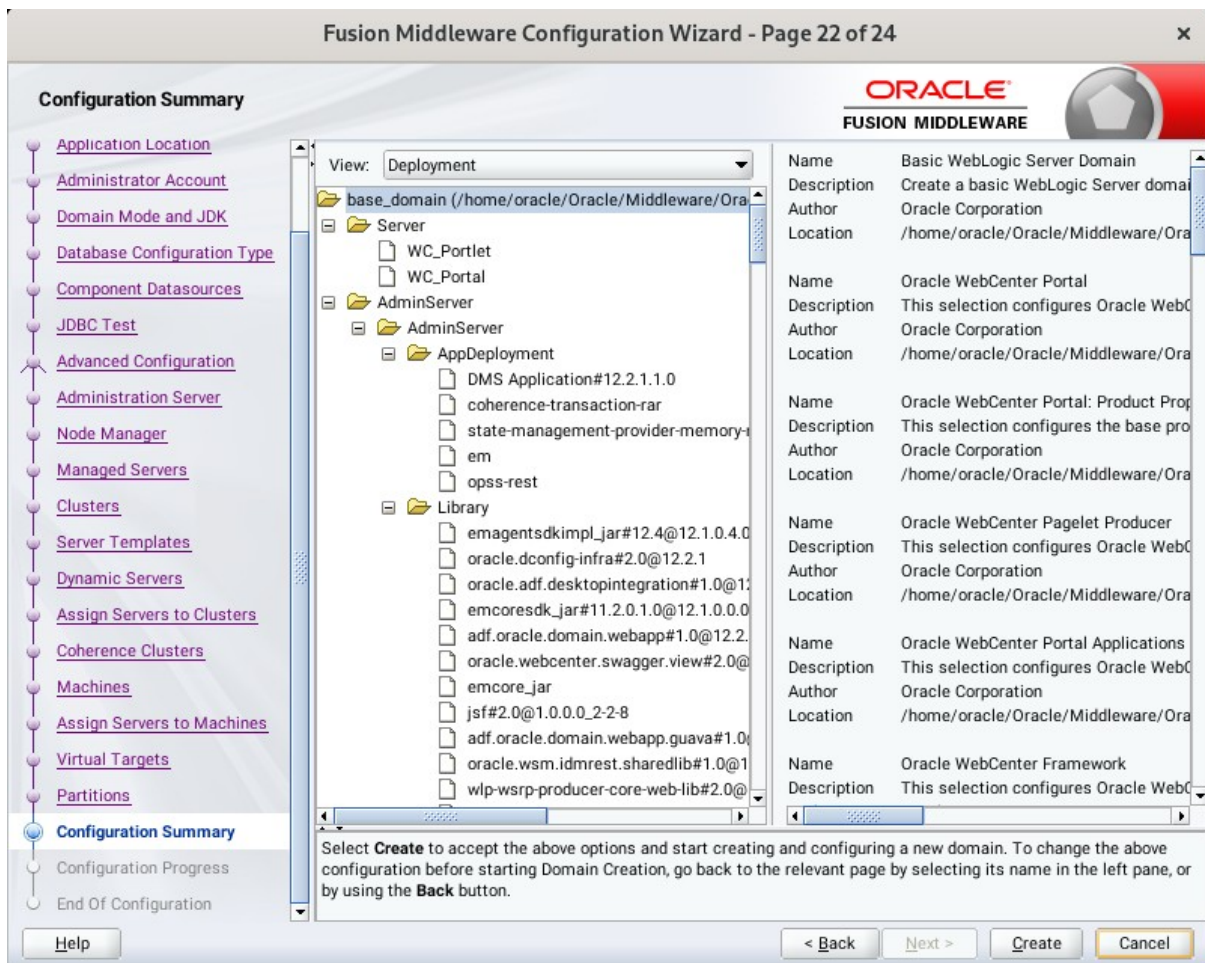
If you have a WebLogic Server Multitenant (MT) environment, you use the Virtual Targets screen to add or delete virtual targets. For this installation (not a WebLogic Server MT environment), you do not enter any values; just select **Next**.

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



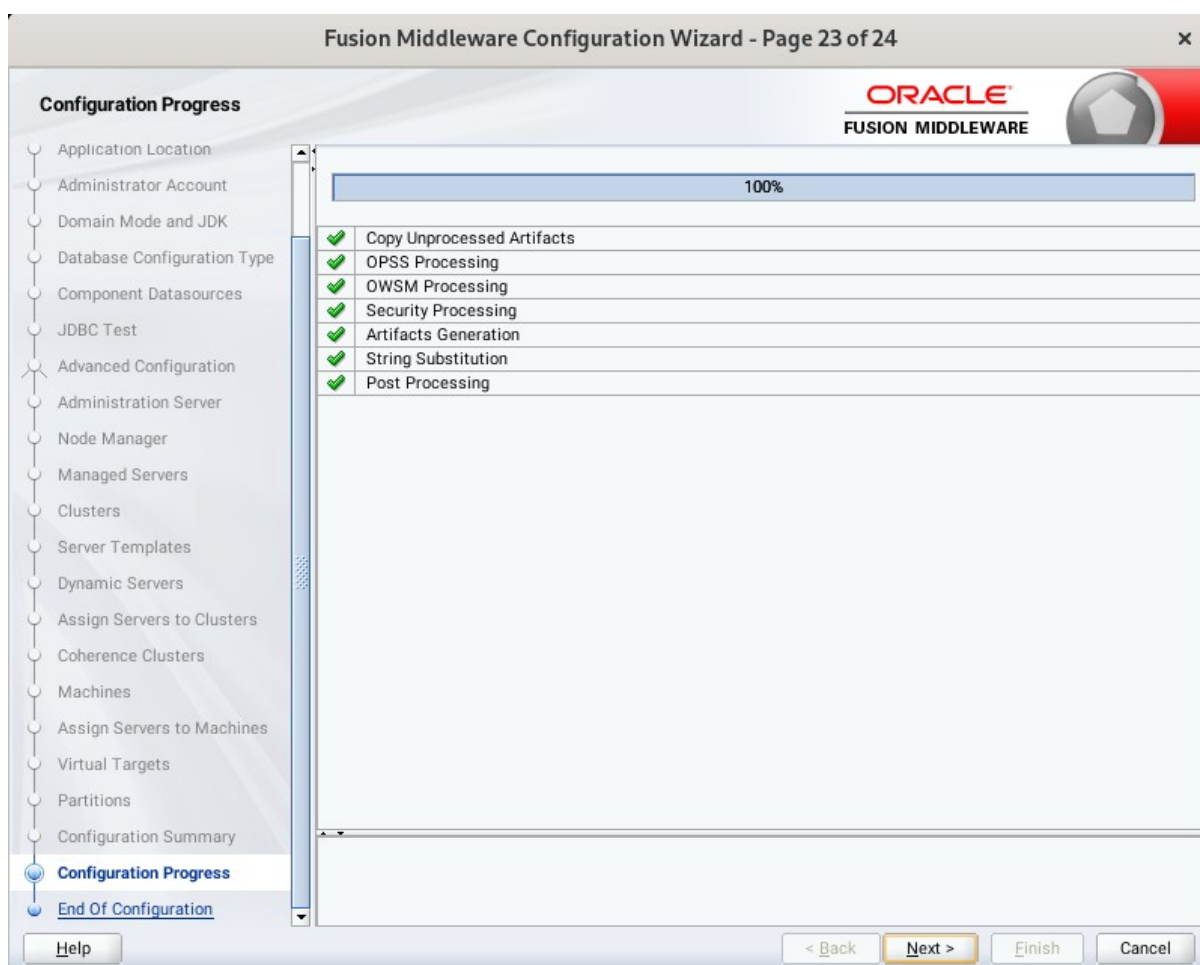
The Partitions screen is used to configure partitions for virtual targets in WebLogic Server Multitenant (MT) environments. Select **Next** without selecting any options.

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



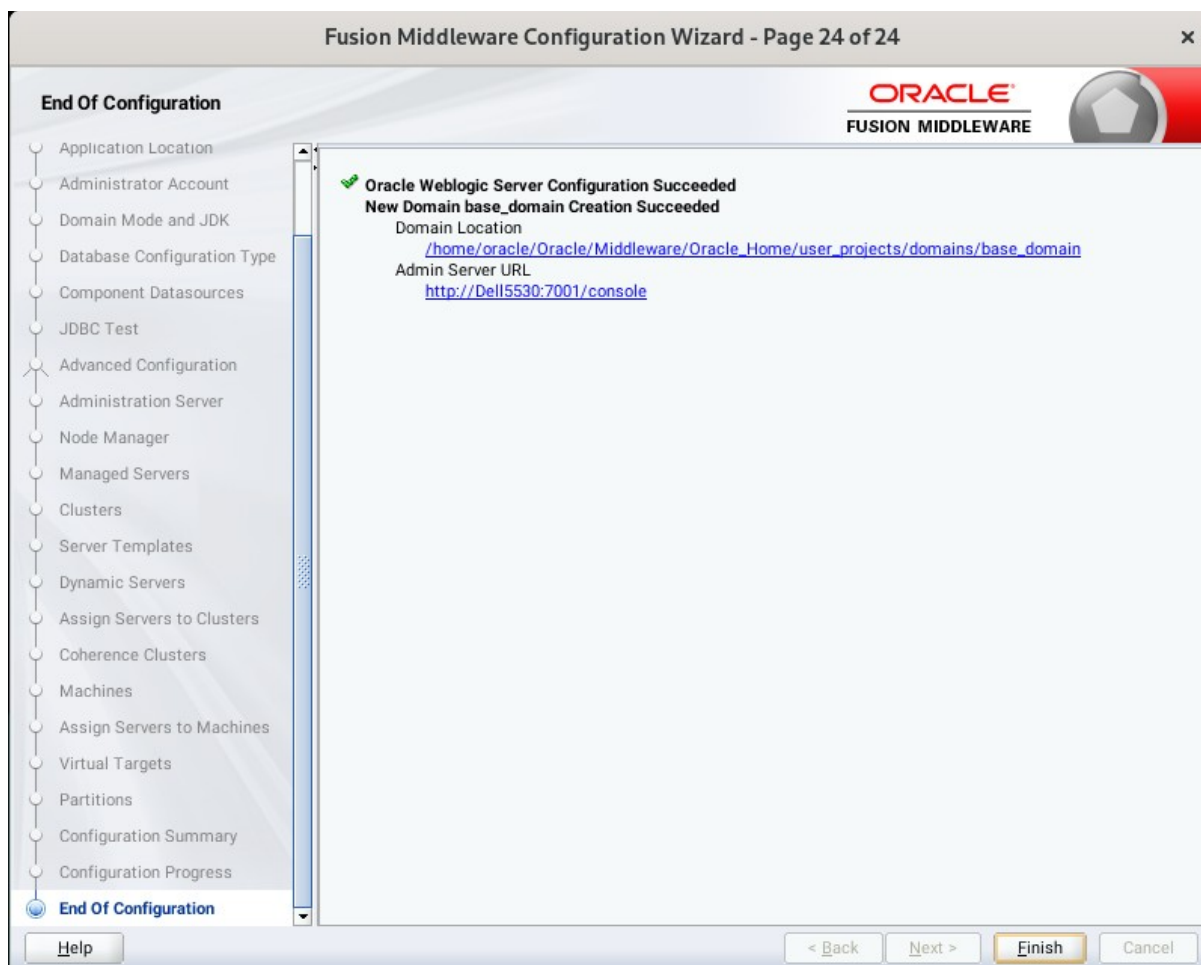
Select **Create** to accept the above options and start creating and configuring a new domain.

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.



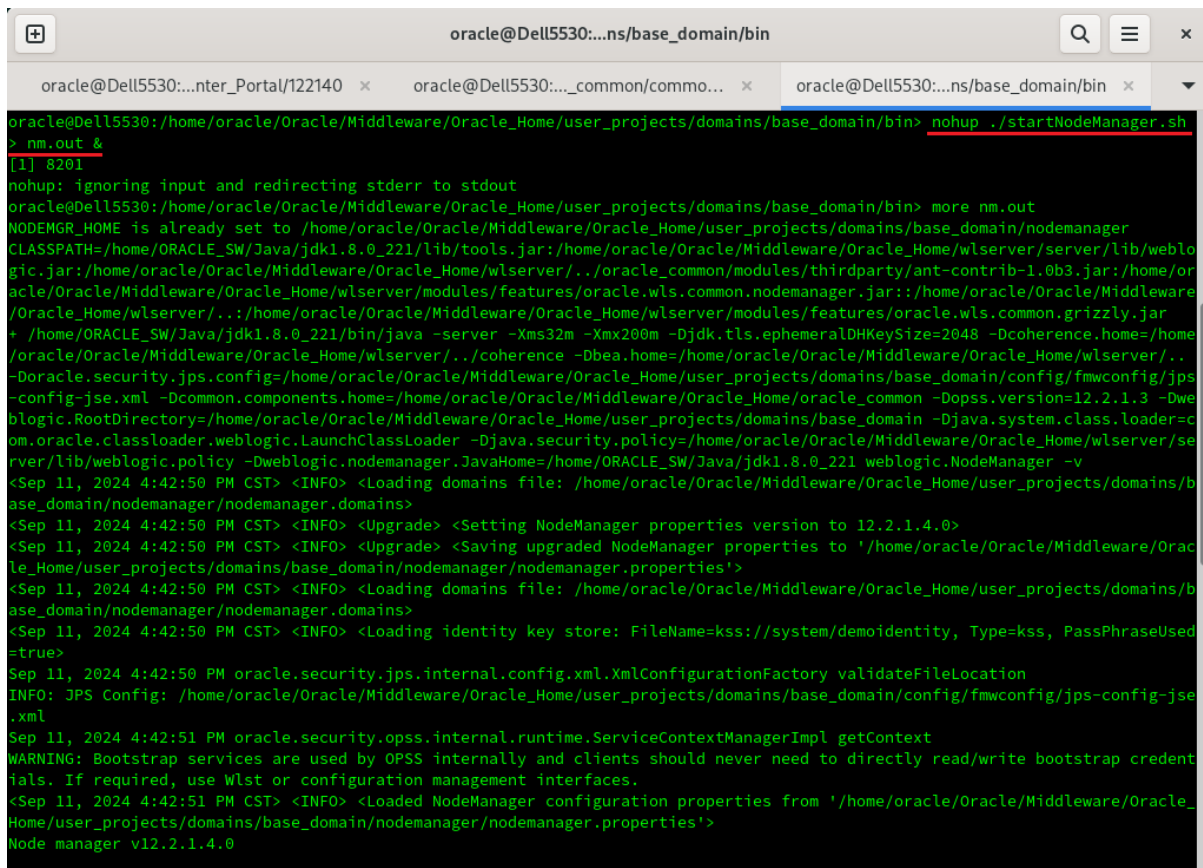
Once you see: "Oracle Weblogic Server Configuration Succeeded", record the '**Domain Location**' and '**Admin Server URL**', then click **Finish** to dismiss the Configuration Wizard.

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@Dell5530:...ns/base_domain/bin
oracle@Dell5530:...nter_Portal/122140 x oracle@Dell5530:..._common/commo... x oracle@Dell5530:...ns/base_domain/bin x
oracle@Dell5530:/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/bin> nohup ./startNodeManager.sh > nm.out &
[1] 8201
nohup: ignoring input and redirecting stderr to stdout
oracle@Dell5530:/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/nodemanager
CLASSPATH=/home/ORACLE_SW/Java/jdk1.8.0_221/lib/tools.jar:/home/oracle/Oracle/Middleware/Oracle_Home/wlserver/ser/lib/weblo
gic.jar:/home/oracle/Oracle/Middleware/Oracle_Home/wlserver/./oracle_common/modules/thirdparty/ant-contrib-1.0b3.jar:/home/or
acle/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_SW/Java/jdk1.8.0_221/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 -Dwe
blogic.RootDirectory=/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_Home/wlserver/se
rver/lib/weblogic.policy -Dweblogic.nodemanager.JavaHome=/home/ORACLE_SW/Java/jdk1.8.0_221 weblogic.NodeManager -v
<Sep 11, 2024 4:42:50 PM CST> <INFO> <Loading domains file: /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/b
ase_domain/nodemanager/nodemanager.domains>
<Sep 11, 2024 4:42:50 PM CST> <INFO> <Upgrade> <Setting NodeManager properties version to 12.2.1.4.0>
<Sep 11, 2024 4:42:50 PM CST> <INFO> <Upgrade> <Saving upgraded NodeManager properties to '/home/oracle/Oracle/Middleware/Orac
le_Home/user_projects/domains/base_domain/nodemanager/nodemanager.properties'>
<Sep 11, 2024 4:42:50 PM CST> <INFO> <Loading domains file: /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/b
ase_domain/nodemanager/nodemanager.domains>
<Sep 11, 2024 4:42:50 PM CST> <INFO> <Loading identity key store: FileName=kss://system/demoidentity, Type=kss, PassPhraseUsed
=true>
Sep 11, 2024 4:42:50 PM oracle.security.jps.internal.config.xml.XmlConfigurationFactory validateFileLocation
INFO: JPS Config: /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/config/fmwconfig/jps-config-jse
.xml
Sep 11, 2024 4:42:51 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 credent
ials. If required, use Wlst or configuration management interfaces.
<Sep 11, 2024 4:42:51 PM CST> <INFO> <Loaded NodeManager configuration properties from '/home/oracle/Oracle/Middleware/Orac
le_Home/user_projects/domains/base_domain/nodemanager/nodemanager.properties'>
Node manager v12.2.1.4.0

```


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

```

oracle@Dell5530:...ns/base_domain/bin
oracle@Dell5530:...nter... x oracle@Dell5530:..._com... x oracle@Dell5530:...ns/ba... x oracle@Dell5530:...ns/ba... x
2024-09-11 16:45:29.820/89.865 Oracle Coherence GE 12.2.1.4.0 <Info> (thread=[ACTIVE] ExecuteThread: '0' for queue: 'weblogic.
.kernel.Default (self-tuning)', member=n/a): Created cache factory com.tangosol.net.ExtensibleConfigurableCacheFactory
<Sep 11, 2024 4:45:32,917 PM CST> <Warning> <oracle.adfinternal.view.faces.partition.FeatureUtils> <ADF_FACES-30130> <Ignoring
.Feature-dependency on Feature "AdfUIChoose". No such feature exists.>
2024-09-11 16:45:33.670/93.716 Oracle Coherence GE 12.2.1.4.0 <Info> (thread=[STANDBY] ExecuteThread: '3' for queue: 'weblogic
.kernel.Default (self-tuning)', member=n/a): Loaded cache configuration from "jar:file:/home/oracle/Oracle/Middleware/Oracle_H
ome/oracle_common/modules/oracle.wsm.common/wsm-agent-core.jar!/oracle-wsm-coherence-cache-config.xml"
<Sep 11, 2024 4:45:33,674 PM CST> <Notice> <Log Management> <BEA-170027> <The server has successfully established a connection
 with the Domain level Diagnostic Service.>
2024-09-11 16:45:33.693/93.738 Oracle Coherence GE 12.2.1.4.0 <Info> (thread=[STANDBY] ExecuteThread: '3' for queue: 'weblogic
.kernel.Default (self-tuning)', member=n/a): Created cache factory com.tangosol.net.ExtensibleConfigurableCacheFactory
<Sep 11, 2024 4:45:34,158 PM CST> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to ADMIN.>
<Sep 11, 2024 4:45:34,207 PM CST> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to RESUMING.>
<Sep 11, 2024 4:45:34,207 PM CST> <Notice> <JMX> <BEA-149535> <JMX Resiliency Activity Server=All Servers : Resolving connecti
on list DomainRuntimeServiceMBean>
<Sep 11, 2024 4:45:34,405 PM CST> <Warning> <Server> <BEA-002611> <The hostname "localhost", maps to multiple IP addresses: 12
7.0.0.1, 0:0:0:0:0:0:1.>
<Sep 11, 2024 4:45:34,406 PM CST> <Notice> <Server> <BEA-002613> <Channel "Default[2]" is now listening on 127.0.0.1:7001 for
protocols iiop, t3, ldap, snmp, http.>
<Sep 11, 2024 4:45:34,406 PM CST> <Notice> <Server> <BEA-002613> <Channel "Default" is now listening on 192.168.0.100:7001 for
protocols iiop, t3, ldap, snmp, http.>
<Sep 11, 2024 4:45:34,406 PM CST> <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.>
<Sep 11, 2024 4:45:34,407 PM CST> <Notice> <WebLogicServer> <BEA-000329> <Started the WebLogic Server Administration Server "A
dminServer" for domain "base_domain" running in production mode.>
<Sep 11, 2024 4:45:34,407 PM CST> <Notice> <Server> <BEA-002613> <Channel "Default[2]" is now listening on 127.0.0.1:7001 for
protocols iiop, t3, ldap, snmp, http.>
<Sep 11, 2024 4:45:34,407 PM CST> <Notice> <Server> <BEA-002613> <Channel "Default" is now listening on 192.168.0.100:7001 for
protocols iiop, t3, ldap, snmp, http.>
<Sep 11, 2024 4:45:34,407 PM CST> <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.>
<Sep 11, 2024 4:45:34,409 PM CST> <Notice> <WebLogicServer> <BEA-000360> <The server started in RUNNING mode.>
<Sep 11, 2024 4:45:34,417 PM CST> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to RUNNING.>
2024-09-11 16:45:34.944/94.989 Oracle Coherence GE 12.2.1.4.0 <Info> (thread=[ACTIVE] ExecuteThread: '33' for queue: 'weblogic
.kernel.Default (self-tuning)', member=n/a): Configured versioned, multi-cluster Management over ReST

```

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

The server started in RUNNING mode.

4-3. Checking Oracle WebCenter Product URLs.

1). Access to Enterprise Manager Console.

Login Page:

Domain: Domain_base_domain

* User Name: weblogic

* Password: [Masked]

Login to Partition

Sign In

ORACLE

Copyright © 1996, 2019, Oracle and/or its affiliates. All rights reserved. Oracle is a registered trademark of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

Home Page:

base_domain (Oracle WebLo...)

http://dell5530:7001/em/faces/as-weblogic-webLogicDomainHome?type=weblogic_dom

ORACLE Enterprise Manager Fusion Middleware Control 12c

WebLogic Domain | weblogic

base_domain

WebLogic Domain

Sep 11, 2024 4:48:27 PM CST

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

2 Down
1 Up

Administration Server

Name: AdminServer
Host: Dell5530
Listen Port: 7001

Servers

Name	Status	Cluster	Machine	State	Health
AdminServer(admin)	↑		SuSE_Machine_1	Running	OK
WC_Portal	↓	wpc_cluster_1	SuSE_Machine_1	Shutdown	Unknown
WC_Portlet	↓	wpc_cluster_2	SuSE_Machine_1	Shutdown	Unknown

Columns Hidden 34

Servers 3 of 3

Starting the Oracle WebCenter Portal Managed Servers:

The screenshot displays the Oracle Enterprise Manager Fusion Middleware Control 12c interface. The browser address bar shows the URL: `http://dell5530:7001/em/faces/as-weblogic-webLogicDomainHome?type=weblogic_dom`. The page title is "base_domain (Oracle WebLo...".

The interface shows the "base_domain" WebLogic Domain. A notification states: "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." The date and time are "Sep 11, 2024 4:48:27 PM CST".

Summary statistics on the left:

- Servers:** 2 Down, 1 Up
- Clusters:** 2 Down
- Deployments:** 7 Down, 1 Up

The "Administration Server" section shows:

- Name: AdminServer
- Host: Dell5530
- Listen Port: 7001

The "Servers" table lists the managed servers:

Name	Status	Cluster	Machine	State	Health
AdminServer(admin)	↑		SuSE_Machine_1	Running	OK
WC_Portal	↓	wpc_cluster_1	SuSE_Machine_1	Shutdown	Unknown
WC_Portlet	↓	wpc_cluster_2	SuSE_Machine_1	Shutdown	Unknown

At the bottom of the table, it indicates "Rows Selected 2" and "Columns Hidden 34". The total number of servers is "Servers 3 of 3".

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 (Name: AdminServer, Host: Dell5530, Listen Port: 7001) and a table of managed servers. A 'Control' dropdown menu is open over the table, with 'Start' selected. The table has columns for Name, Machine, State, and Health.

Name	Machine	State	Health
AdminServer(admin)	SuSE_Machine_1	Running	OK
WC_Portal	SuSE_Machine_1	Shutdown	Unknown
WC_Portlet	SuSE_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 'Administration Server' details remain the same. The table of managed servers now shows all servers in a 'Running' state with 'OK' health. The table has columns for Name, Status, Cluster, Machine, State, and Health.

Name	Status	Cluster	Machine	State	Health
AdminServer(admin)	↑		SuSE_Machine_1	Running	OK
WC_Portal	↑	wpc_cluster_1	SuSE_Machine_1	Running	OK
WC_Portlet	↑	wpc_cluster_2	SuSE_Machine_1	Running	OK

Checking WebCenter Servers state through Oracle WLST tool.

```
oracle@Dell5530:/home/oracle/Oracle/Middleware/Oracle_Home/oracle_common/common/bin> ./wlst.sh
Initializing WebLogic Scripting Tool (WLST) ...

Welcome to WebLogic Server Administration Scripting Shell

Type help() for help on available commands

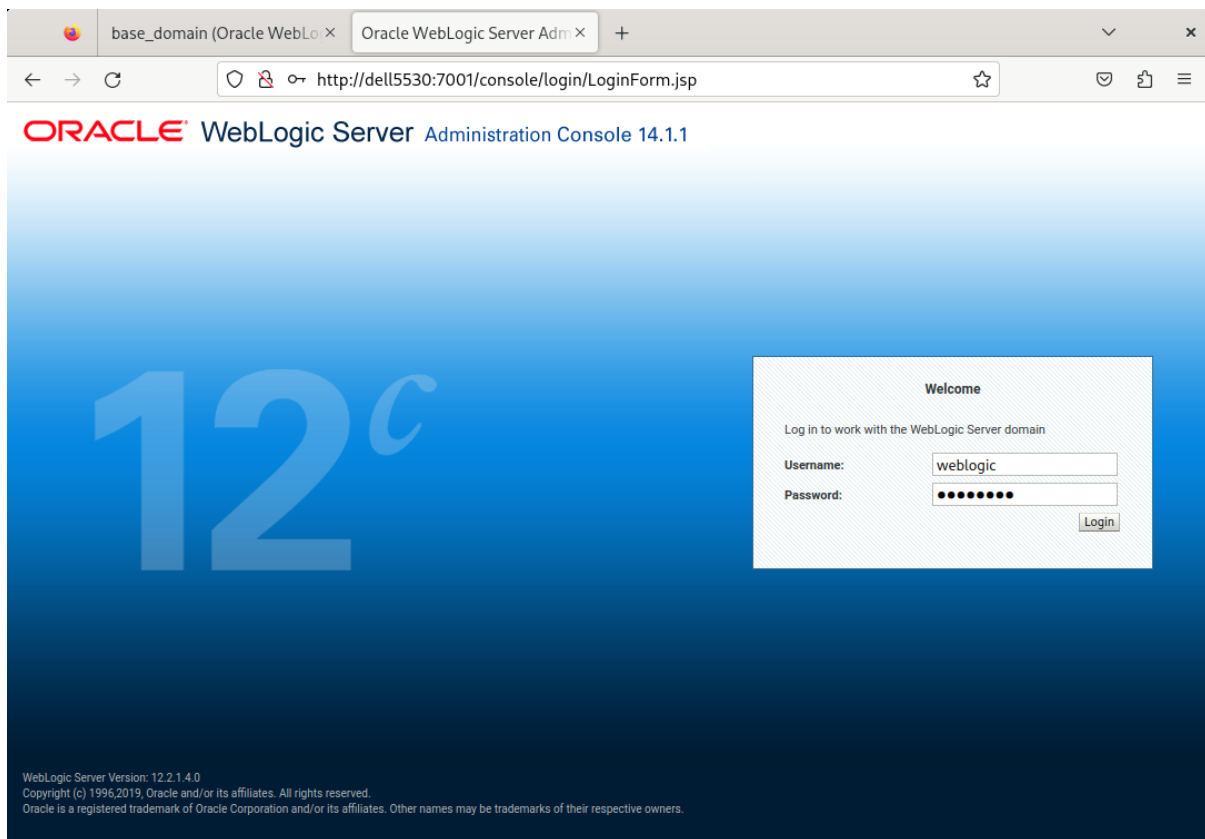
wls:/offline> connect('weblogic','welcome1','Dell5530:7001')
Connecting to t3://Dell5530:7001 with userid weblogic ...
Successfully connected to Admin Server "AdminServer" that belongs to domain "base_domain".

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
wls:/base_domain/serverConfig/> |
```

2). Access to Administration Server Console

Login Page as shown below:



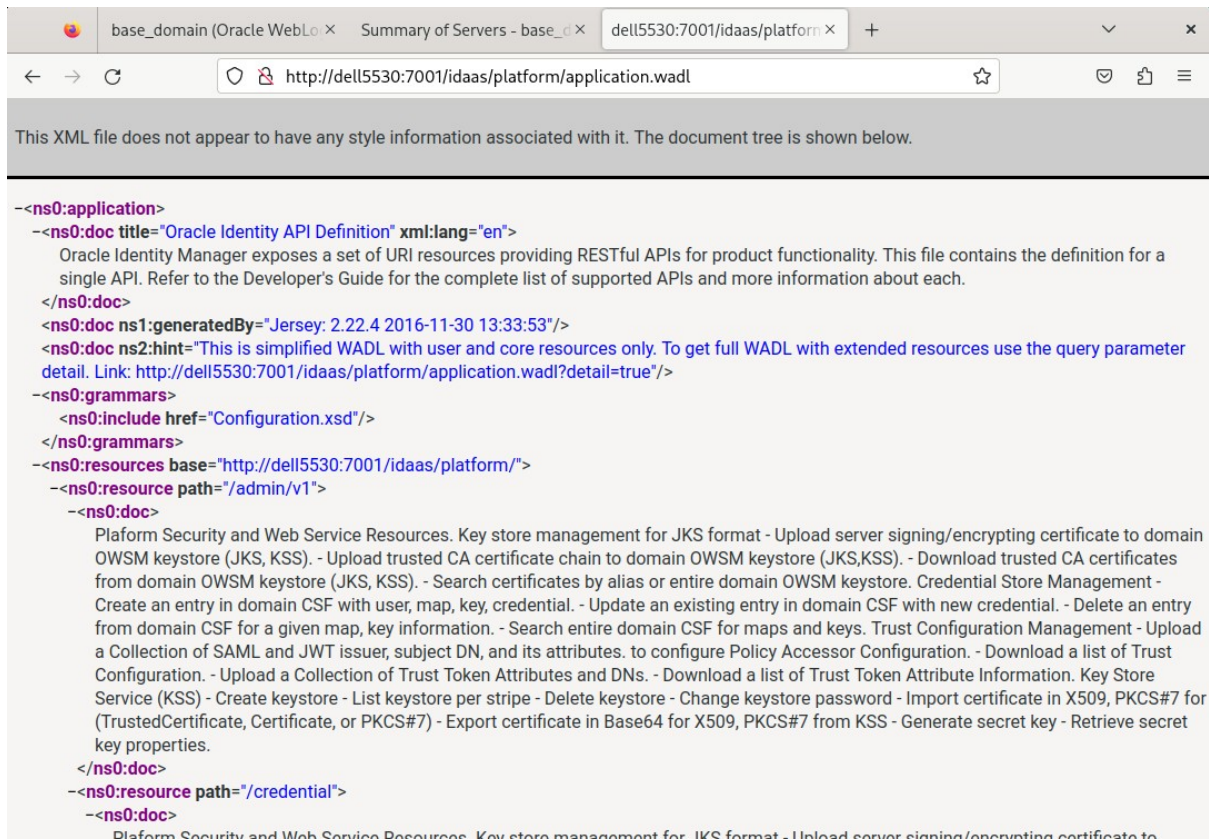
Home Page:

Viewing the summary of servers:

Name	Type	Cluster	Machine	State	Health	Listen Port
AdminServer(admin)	Configured		SuSE_Machine_1	RUNNING	OK	7001
WC_Portlet	Configured	wpc_cluster_1	SuSE_Machine_1	RUNNING	OK	8888
WC_Portlet	Configured	wpc_cluster_2	SuSE_Machine_1	RUNNING	OK	8889

3). Test Oracle WebCenter Portal Web Service

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

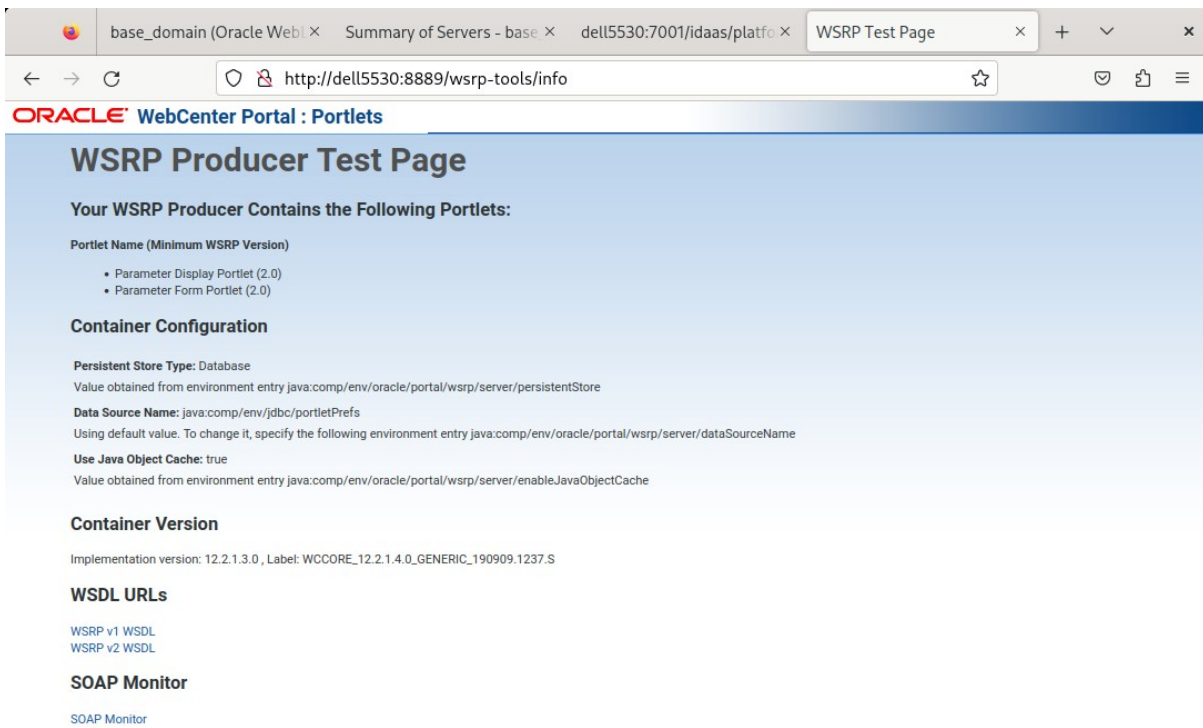
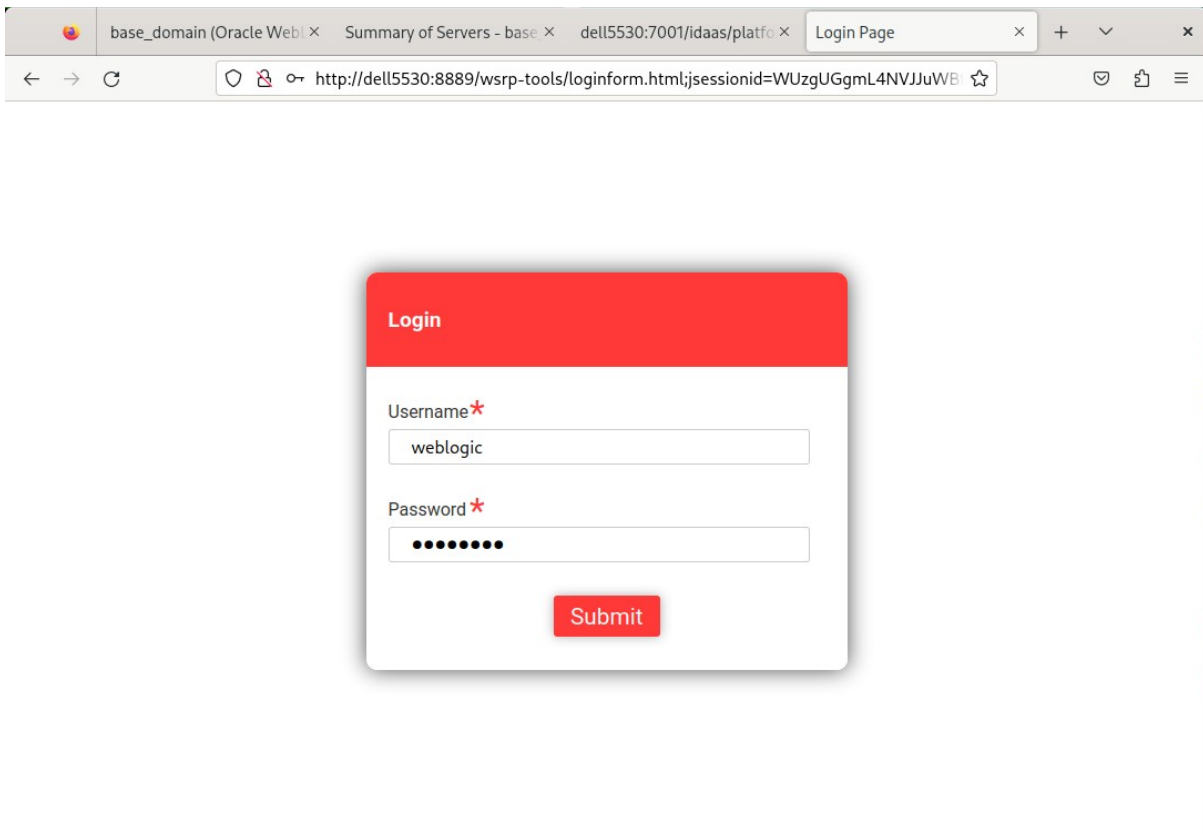


This XML file does not appear to have any style information associated with it. The document tree is shown below.

```

- <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://dell5530:7001/idaas/platform/application.wadl?detail=true"/>
- <ns0:grammars>
  <ns0:include href="Configuration.xsd"/>
  </ns0:grammars>
- <ns0:resources base="http://dell5530:7001/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
  
```


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



base_domain (Oracle) x Summary of Servers x dell5530:7001/idaas x WSRP Test Page x dell5530:8889/wsrp x + v x

← → ↻ http://dell5530:8889/wsrp-tools/portlets/wsrp1?WSDL ☆

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

```

- <definitions targetNamespace="urn:oasis:names:tc:wsrp:v1:wsdl">
  <import namespace="urn:oasis:names:tc:wsrp:v1:bind" location="http://dell5530:8889/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://dell5530:8889/wsrp-tools/portlets/WSRPBaseService"/>
    </port>
    - <port name="WSRPServiceDescriptionService" binding="bind:WSRP_v1_ServiceDescription_Binding_SOAP">
      <soap:address location="http://dell5530:8889/wsrp-tools/portlets/WSRPServiceDescriptionService"/>
    </port>
    - <port name="WSRPRegistrationService" binding="bind:WSRP_v1_Registration_Binding_SOAP">
      <soap:address location="http://dell5530:8889/wsrp-tools/portlets/WSRPRegistrationService"/>
    </port>
    - <port name="WSRPPortletManagementService" binding="bind:WSRP_v1_PortletManagement_Binding_SOAP">
      <soap:address location="http://dell5530:8889/wsrp-tools/portlets/WSRPPortletManagementService"/>
    </port>
  </service>
</definitions>

```

base_domain (Oracle) x Summary of Servers x dell5530:7001/idaas x WSRP Test Page x dell5530:8889/wsrp x + v x

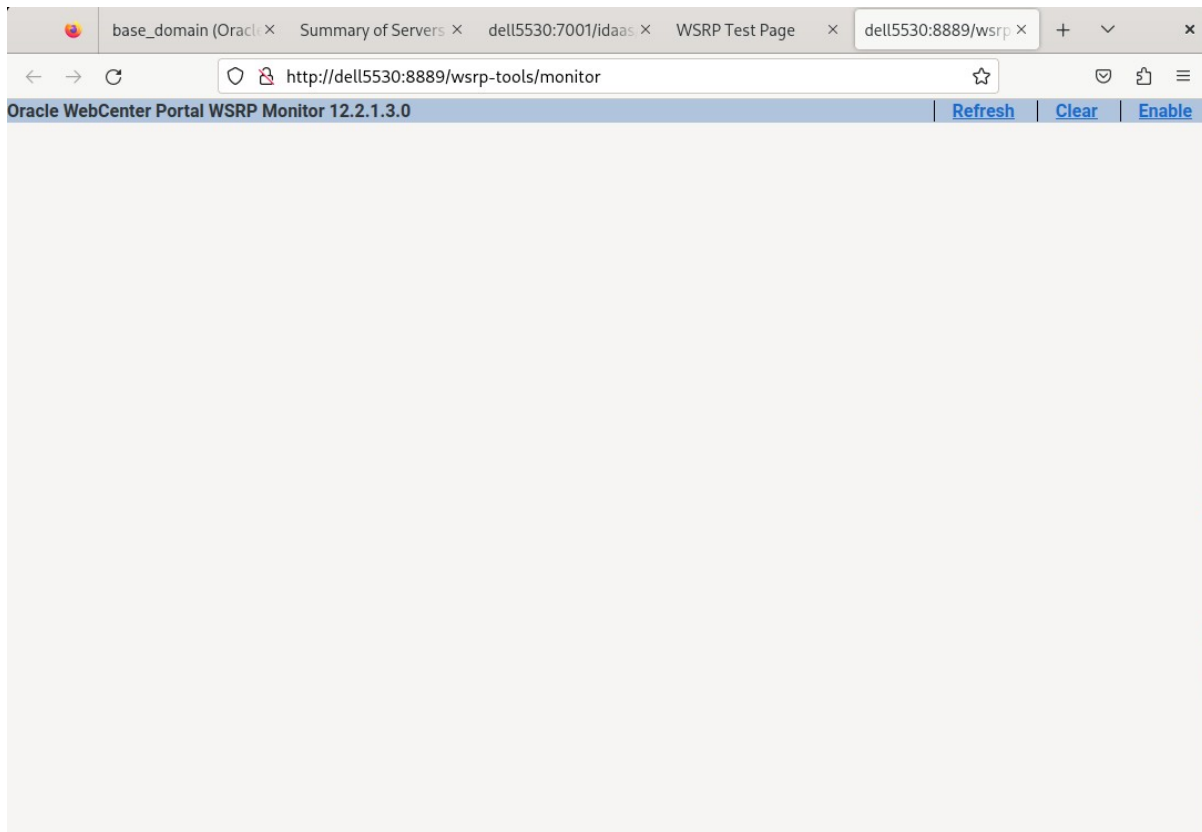
← → ↻ http://dell5530:8889/wsrp-tools/portlets/wsrp2?WSDL ☆

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

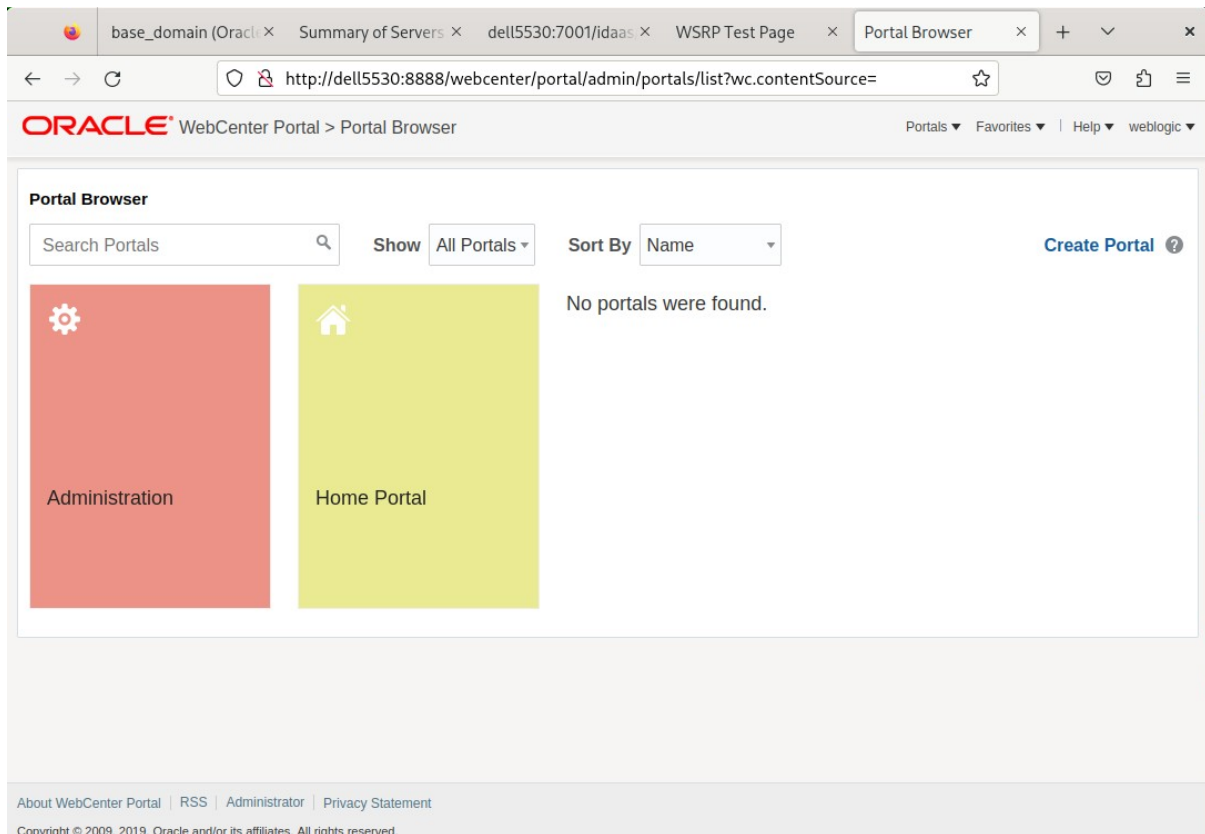
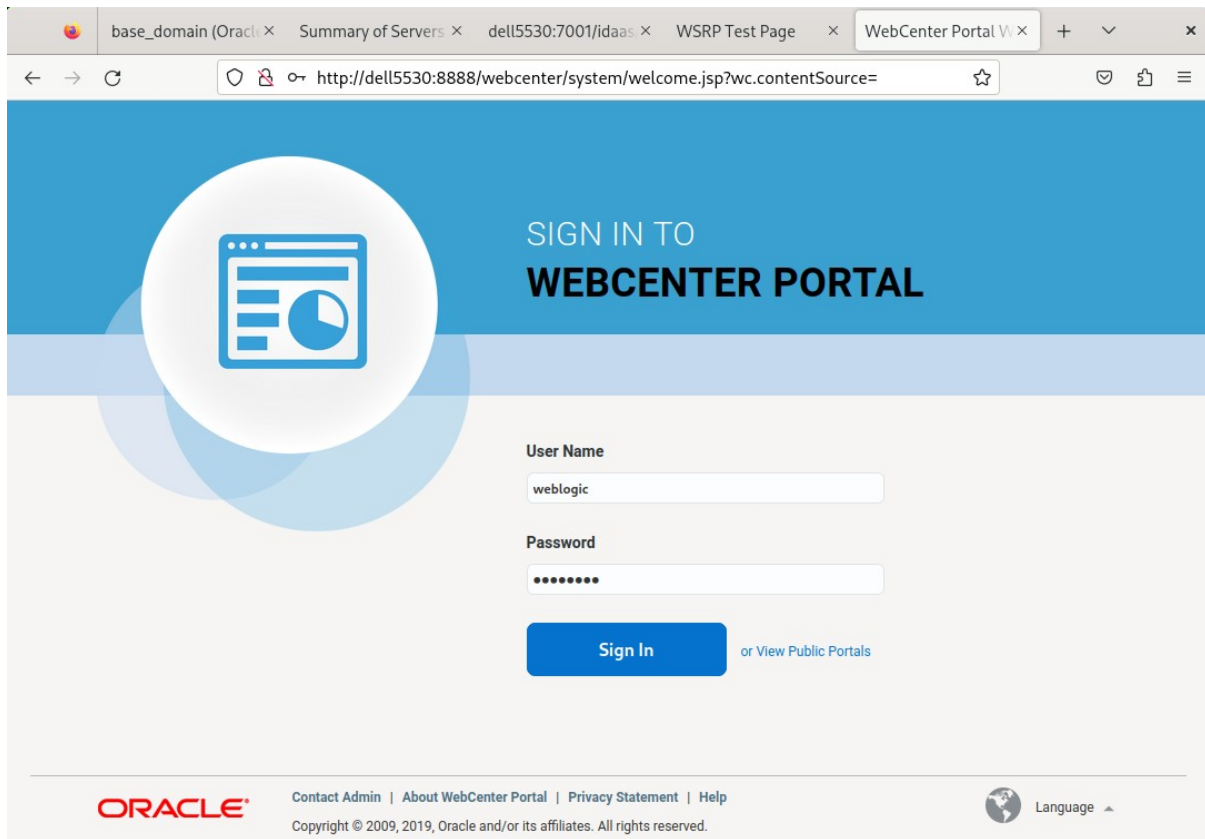
```

- <definitions targetNamespace="urn:oasis:names:tc:wsrp:v2:wsdl">
  <import namespace="urn:oasis:names:tc:wsrp:v2:bind" location="http://dell5530:8889/wsrp-tools/portlets/wsrp2?WSDL=wsrp_v2_bindings.wsdl"/>
  - <service name="WSRP_v2_Service">
    - <port name="WSRP_v2_ServiceDescription_Service" binding="bind:WSRP_v2_ServiceDescription_Binding_SOAP">
      <soap:address location="http://dell5530:8889/wsrp-tools/portlets/WSRP_v2_ServiceDescription_Service"/>
    </port>
    - <port name="WSRP_v2_Markup_Service" binding="bind:WSRP_v2_Markup_Binding_SOAP">
      <soap:address location="http://dell5530:8889/wsrp-tools/portlets/WSRP_v2_Markup_Service"/>
    </port>
    - <port name="WSRP_v2_Registration_Service" binding="bind:WSRP_v2_Registration_Binding_SOAP">
      <soap:address location="http://dell5530:8889/wsrp-tools/portlets/WSRP_v2_Registration_Service"/>
    </port>
    - <port name="WSRP_v2_PortletManagement_Service" binding="bind:WSRP_v2_PortletManagement_Binding_SOAP">
      <soap:address location="http://dell5530:8889/wsrp-tools/portlets/WSRP_v2_PortletManagement_Service"/>
    </port>
  </service>
</definitions>

```



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



base_domain (Oracle) | Summary of Servers | dell5530:7001/idaas | WSRP Test Page | Create Portal

http://dell5530:8888/webcenter/portal/admin/portals/newportal

ORACLE WebCenter Portal > Administration

Portals | Favorites | Help | weblogic

Create Portal

Template Gallery Create Portal ?

Portal Template: Portal

Preview Pages

Title: Oracle WebCenter on SLES 15 SP6

Description: Oracle WebCenter on SLES 15 SP6

Keywords: portal, SLES, Oracle

URL: OracleWebCenteronSLES15SP6
http://dell5530:8888/webcenter/portal/OracleWebCenteronSLES15SP6

Public Private Hidden

base_domain (Oracle) | Summary of Servers | dell5530:7001/idaas | WSRP Test Page | Home

http://dell5530:8888/webcenter/portal/oracle/webcenter/page/scopedMD/sdf6cee12_3a

Oracle WebCenter on SLES ... > Home

Edit Page View Portal ? Help

Oracle WebCenter on SLES 15 SP6

Portals | Favorites | Administration | Help | weblogic

Home

About WebCenter Portal | RSS | Administrator | Privacy Statement

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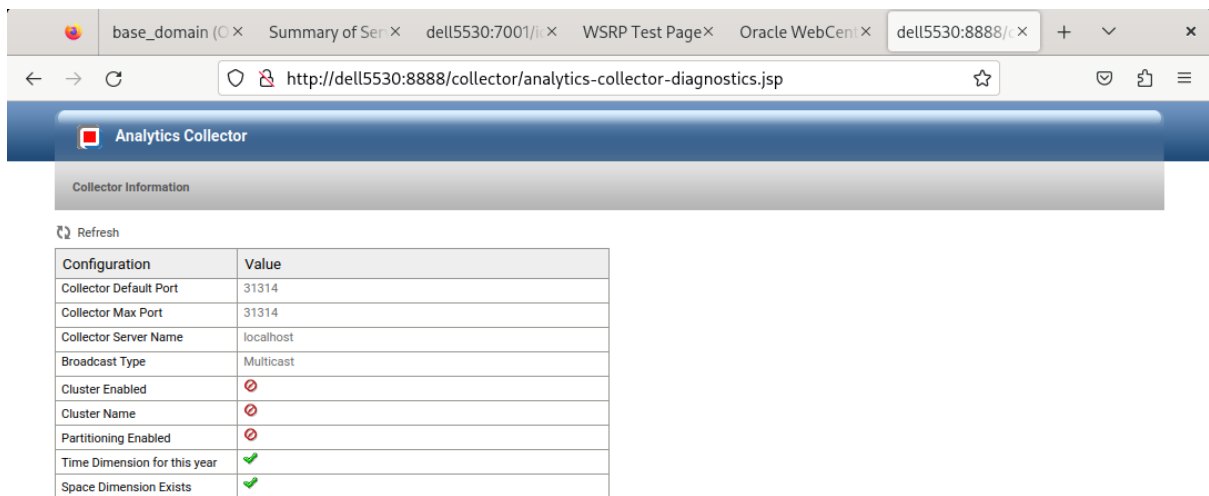
The screenshot shows a web browser window with the Oracle WebCenter on SLES administration interface. The browser tabs include 'base_domain (Oracle...', 'Summary of Servers', 'dell5530:7001/idaas', 'WSRP Test Page', and 'Oracle WebCenter o...'. The address bar shows the URL 'http://dell5530:8888/webcenter/portal/admin/portals/admin/OracleWebCenteronSLES15'. The page title is 'Oracle WebCenter on SLES ... > General'. On the left is a vertical navigation menu with icons for Home, Documents, Users, Settings, and other functions. The main content area is divided into two sections: 'Portal Information' and 'Portal Details'. The 'Portal Information' section contains fields for Title, Acronym, Description, Portal Color, and Keywords, along with a 'Save' button. The 'Portal Details' section displays metadata such as Name, Portal URL, Internal ID, Members, Last Activity, and Created date.

Portal Information

- Title: Oracle WebCenter on SLES 15 SP6
- Acronym: OWO
- Description: Oracle WebCenter on SLES 15 SP6
- Portal Color: Choose Color
- Keywords: Enter Keywords
portal X SLES,Oracle X
- Save

Portal Details

- Name: OracleWebCenteronSLES15SP6 [Rename](#)
- Portal URL: <http://dell5530:8888/webcenter/portal/OracleWebCenteronSLES15SP6>
- Internal ID: sdf6cee12_3a73_4063_8ed7_969d689ff094
- Members: 1
- Last Activity: 25 seconds ago
- Created: 28 seconds ago by weblogic

d. 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:

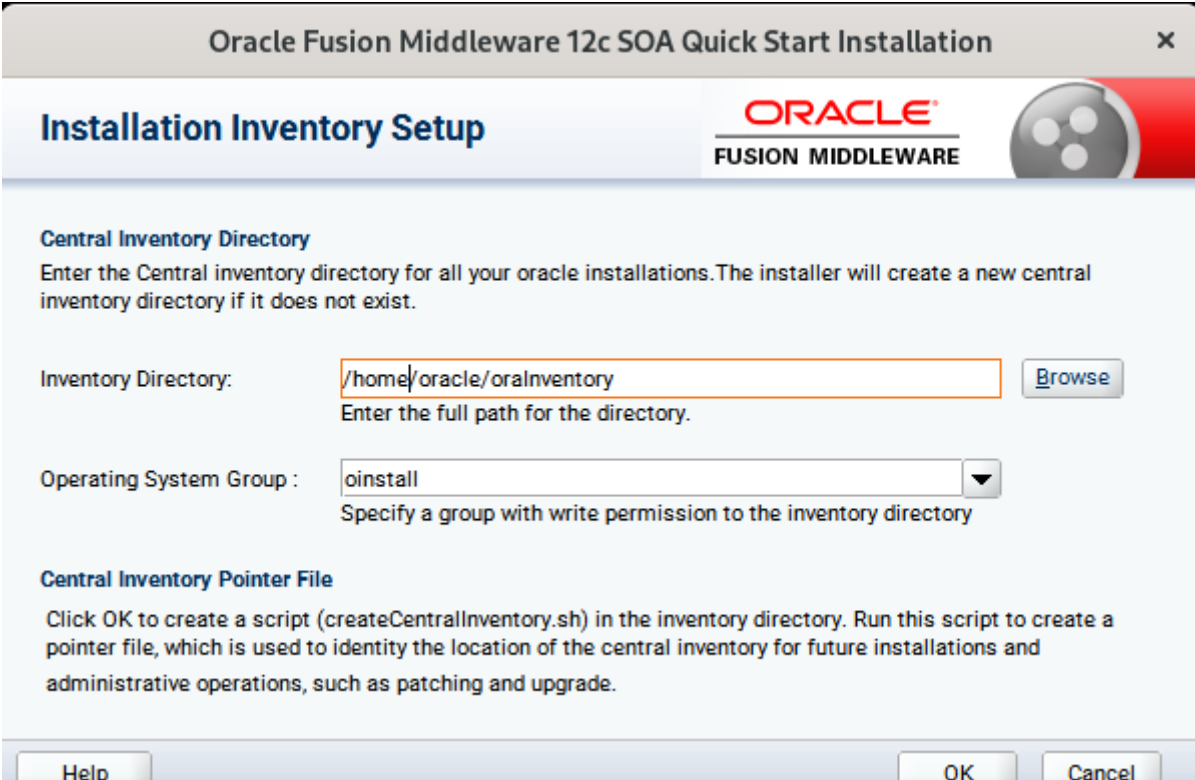
- 1). Oracle Database 12cR2 (12.2.0.1.0) installed.
- 2). Oracle JDK 1.8.0_221 and later installed.

1-2. Log in to the target system (SLES 15 SP6 64-bit OS) as a non-admin user. Download the Oracle SOA Suite 12c (12.2.1.4.0) Quick Start installer zip file from <https://www.oracle.com/downloads/#category-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 ('V983385-01_1of2.zip') files and launch the installation program by running '**java -jar fmw_12.2.1.4.0_soa_quickstart.jar**'

For the actual installation, follow the steps below:

1). Installation Inventory Setup.



The screenshot shows a window titled "Oracle Fusion Middleware 12c SOA Quick Start Installation". The main heading is "Installation Inventory Setup". Below the heading, there is an Oracle logo and the text "FUSION MIDDLEWARE".

The "Central Inventory Directory" section contains the following text: "Enter the Central inventory directory for all your oracle installations. The installer will create a new central inventory directory if it does not exist." Below this text, there is a label "Inventory Directory:" followed by a text input field containing "/home/oracle/orainventory" and a "Browse" button. Below the input field, it says "Enter the full path for the directory.".

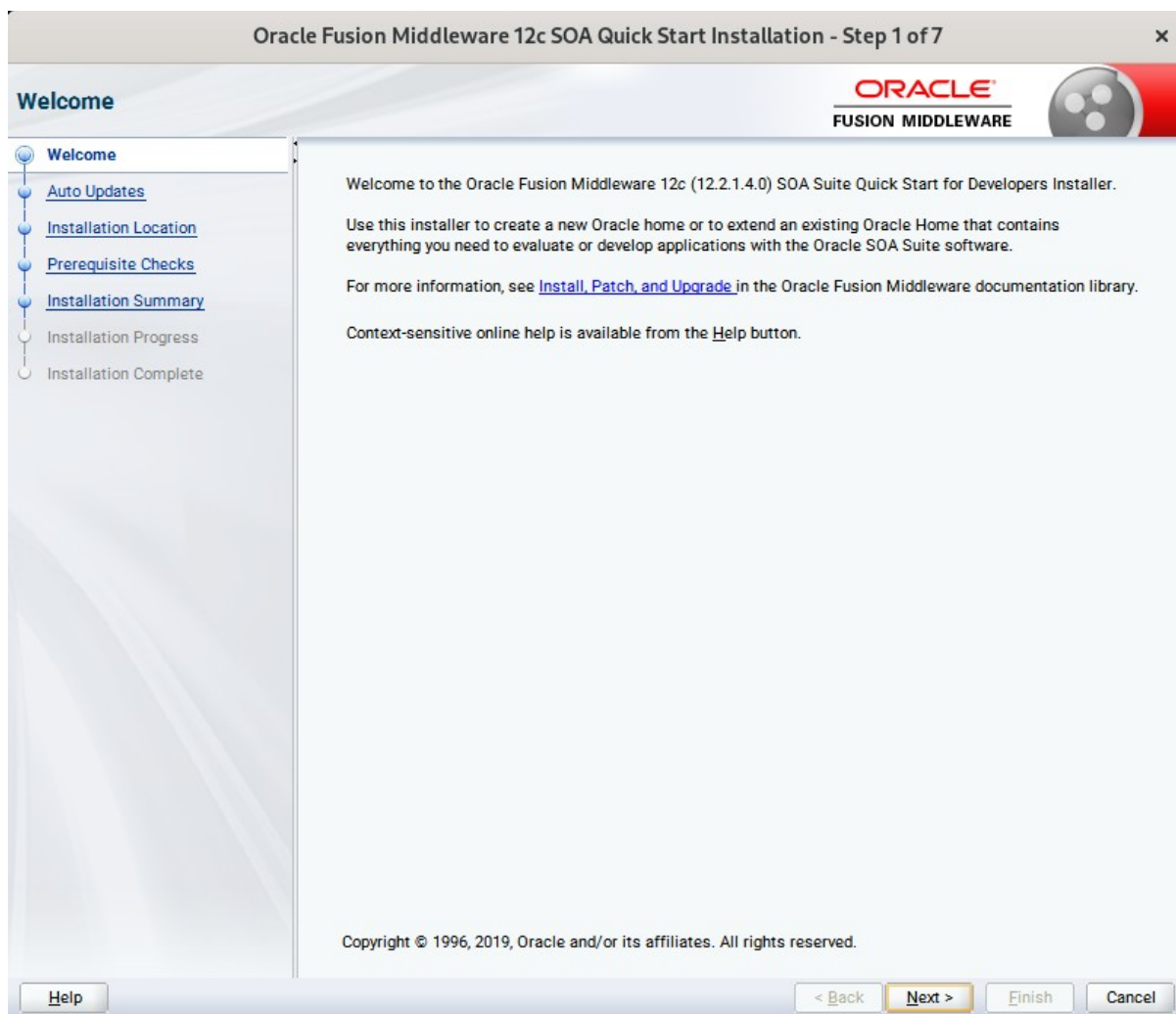
The "Operating System Group" section contains a label "Operating System Group:" followed by a dropdown menu showing "oinstall" and a downward arrow. Below the dropdown, it says "Specify a group with write permission to the inventory directory".

The "Central Inventory Pointer File" section contains the following text: "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 window, there are three buttons: "Help", "OK", and "Cancel".

SPecify the Oracle inventory directory and group permissions for that directory. The group must have write permissions to the Oracle inventory directory, then click **OK** to continue.

2). Welcome page.



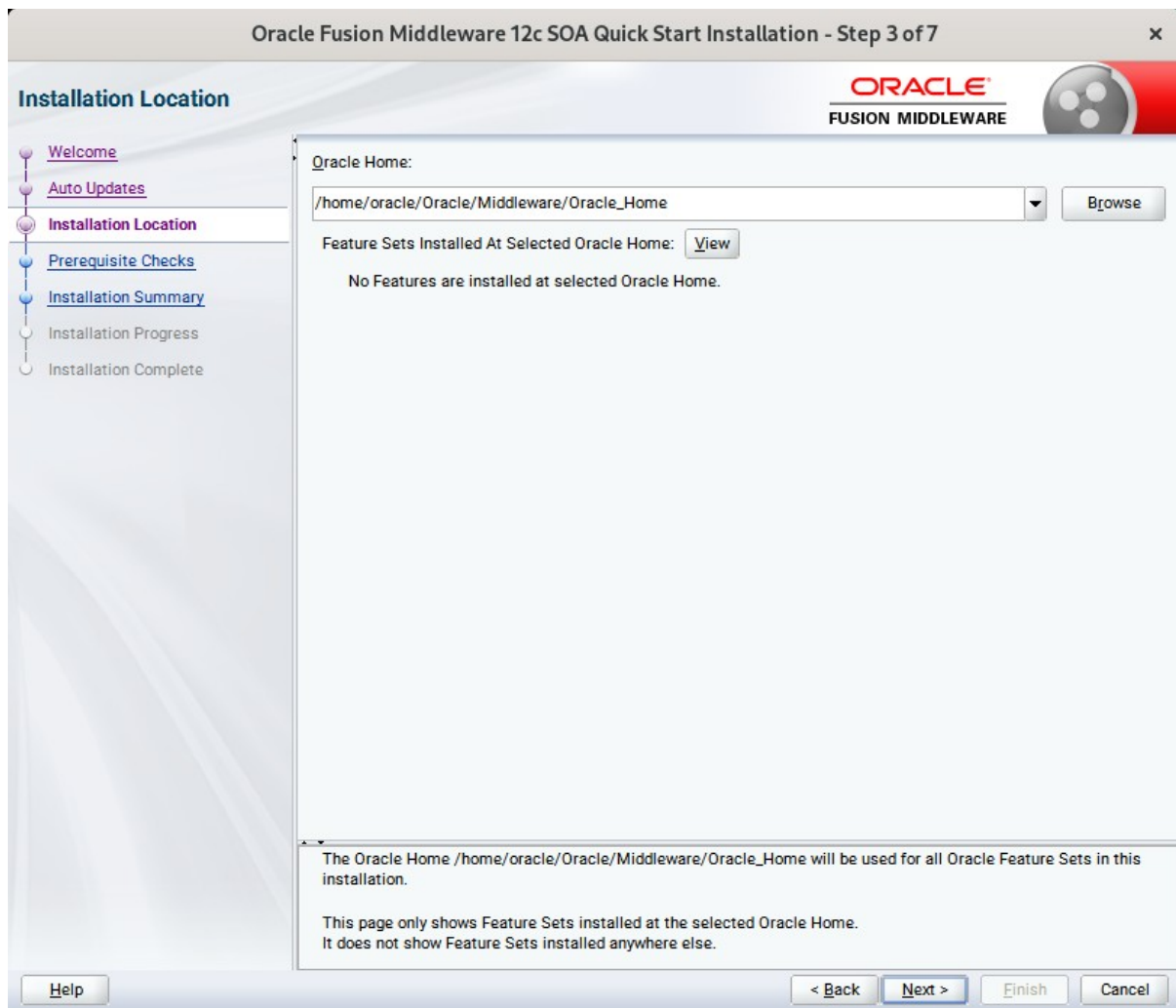
This page welcomes you to the installation. Click **Next** to continue.

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

The screenshot shows the 'Auto Updates' configuration window for Oracle Fusion Middleware 12c SOA Quick Start Installation, Step 2 of 7. The window title is 'Oracle Fusion Middleware 12c SOA Quick Start Installation - Step 2 of 7'. The Oracle logo and 'FUSION MIDDLEWARE' text are visible in the top right corner. A navigation pane on the left lists the installation steps: Welcome, Auto Updates (selected), Installation Location, Prerequisite Checks, Installation Summary, Installation Progress, and Installation Complete. The main content area has three radio button options: 'Skip Auto Updates' (selected), 'Select patches from directory', and 'Search My Oracle Support for Updates'. The 'Select patches from directory' option includes a 'Location:' text box and a 'Browse' button. The 'Search My Oracle Support for Updates' option includes 'Username:' and 'Password:' text boxes, a 'Proxy Settings' button, and a 'Test Connection' button. Below these is a 'Search' button and a large empty text area. At the bottom of the window are buttons for '< Back', 'Next >', 'Finish', and 'Cancel'. A 'Help' button is located in the bottom left corner.

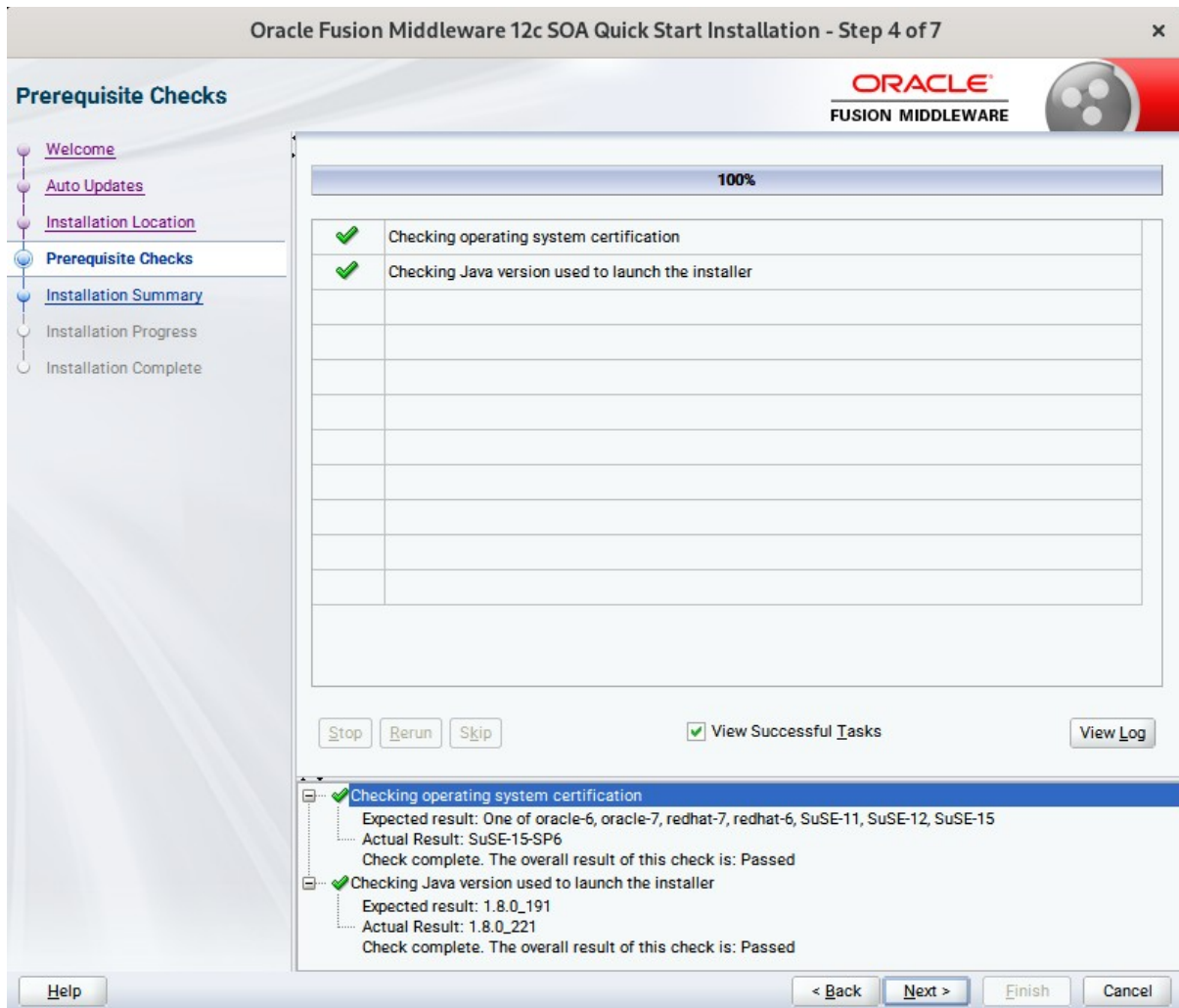
This page enables you to choose to automatically receive software updates for your components from Oracle Corporation. make your choices, then click **Next** to continue.

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



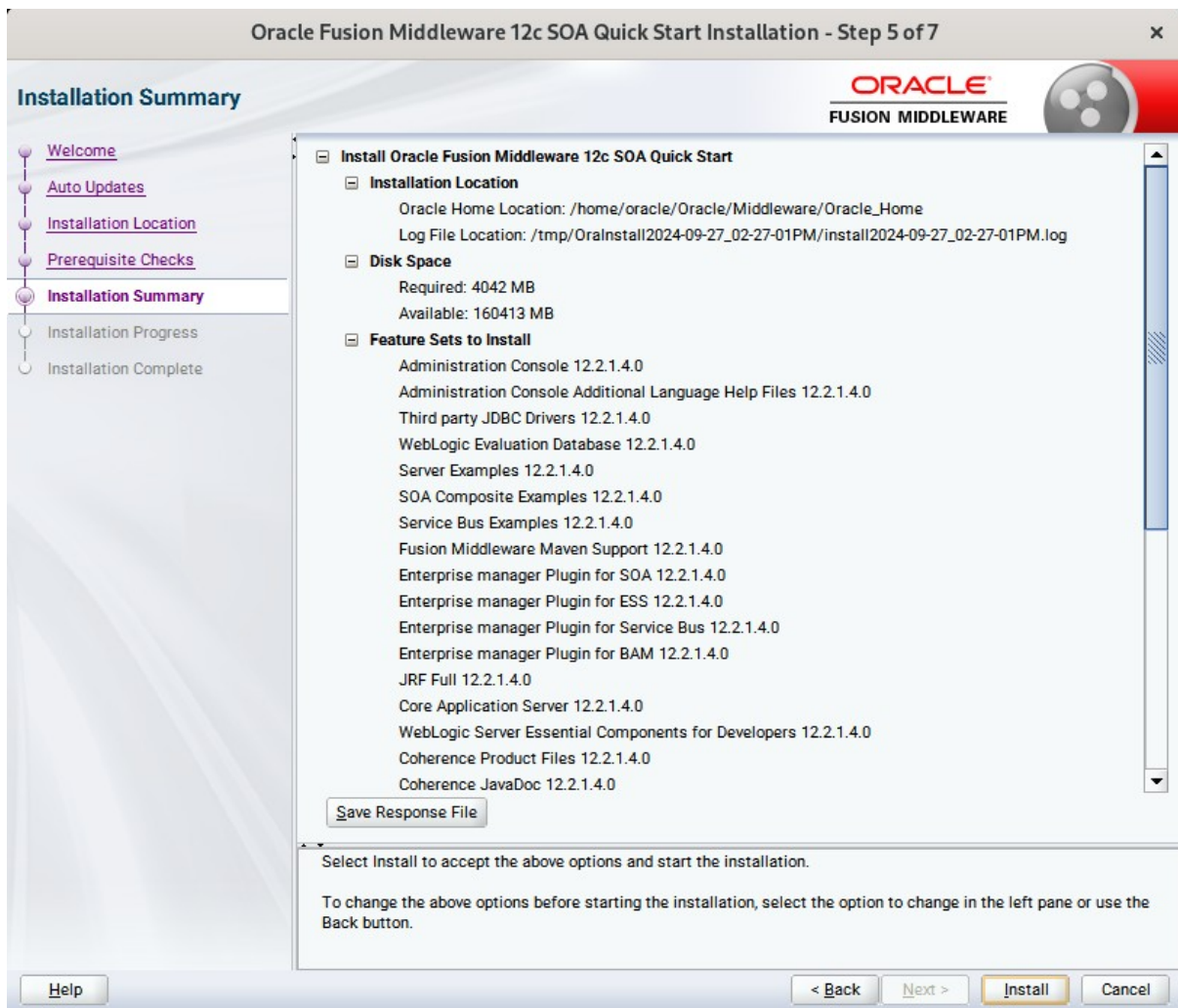
SPecify the Oracle home location into which you want to install the product(s). Click **Next** to continue.

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



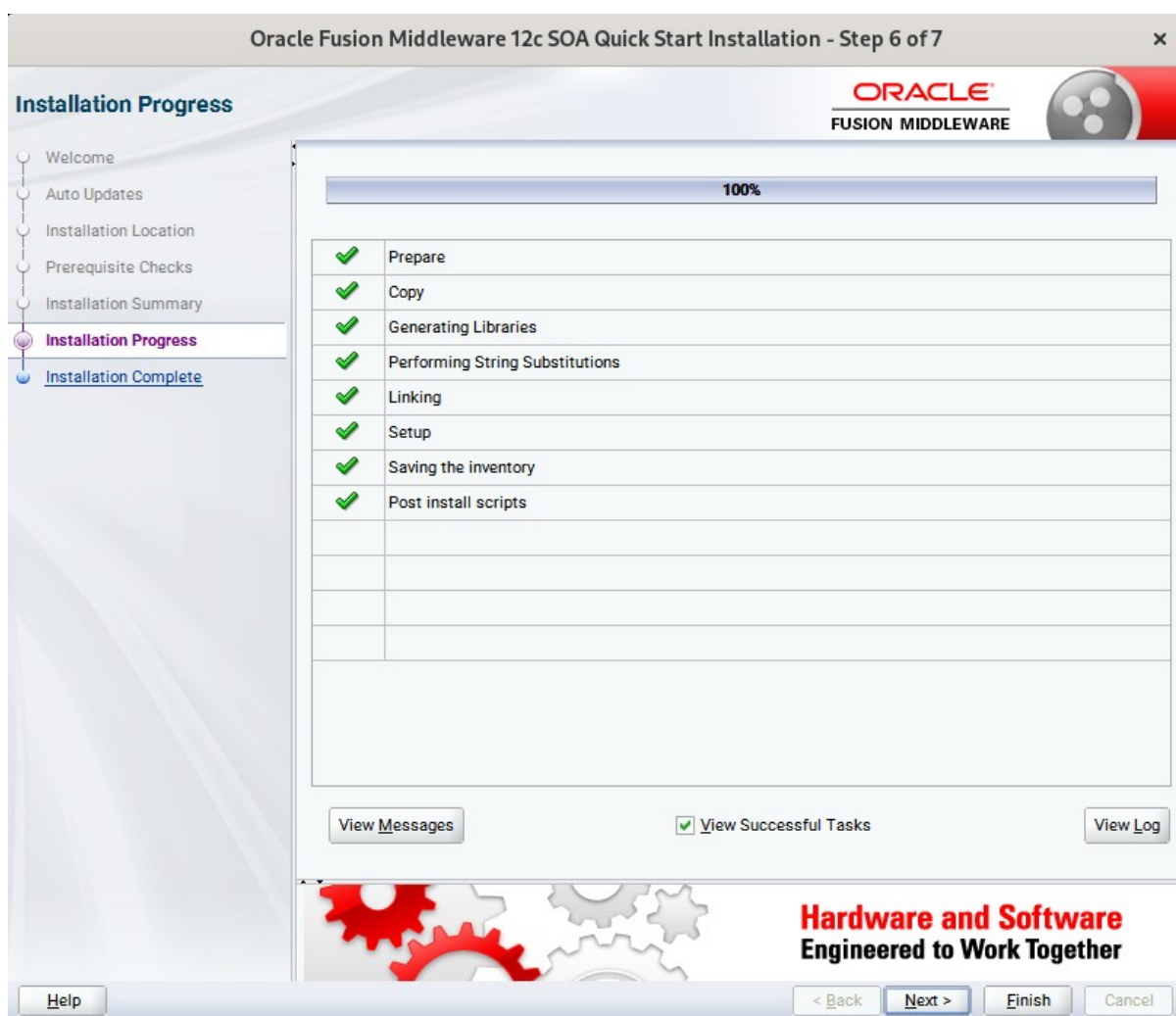
This page shows you the progress of the system checking the prerequisites on your system prior to installation. If you are lacking any prerequisites, a message will appear telling you so. You do not need to take any actions on this page, though you can view the log from here. Click **Next** to continue.

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



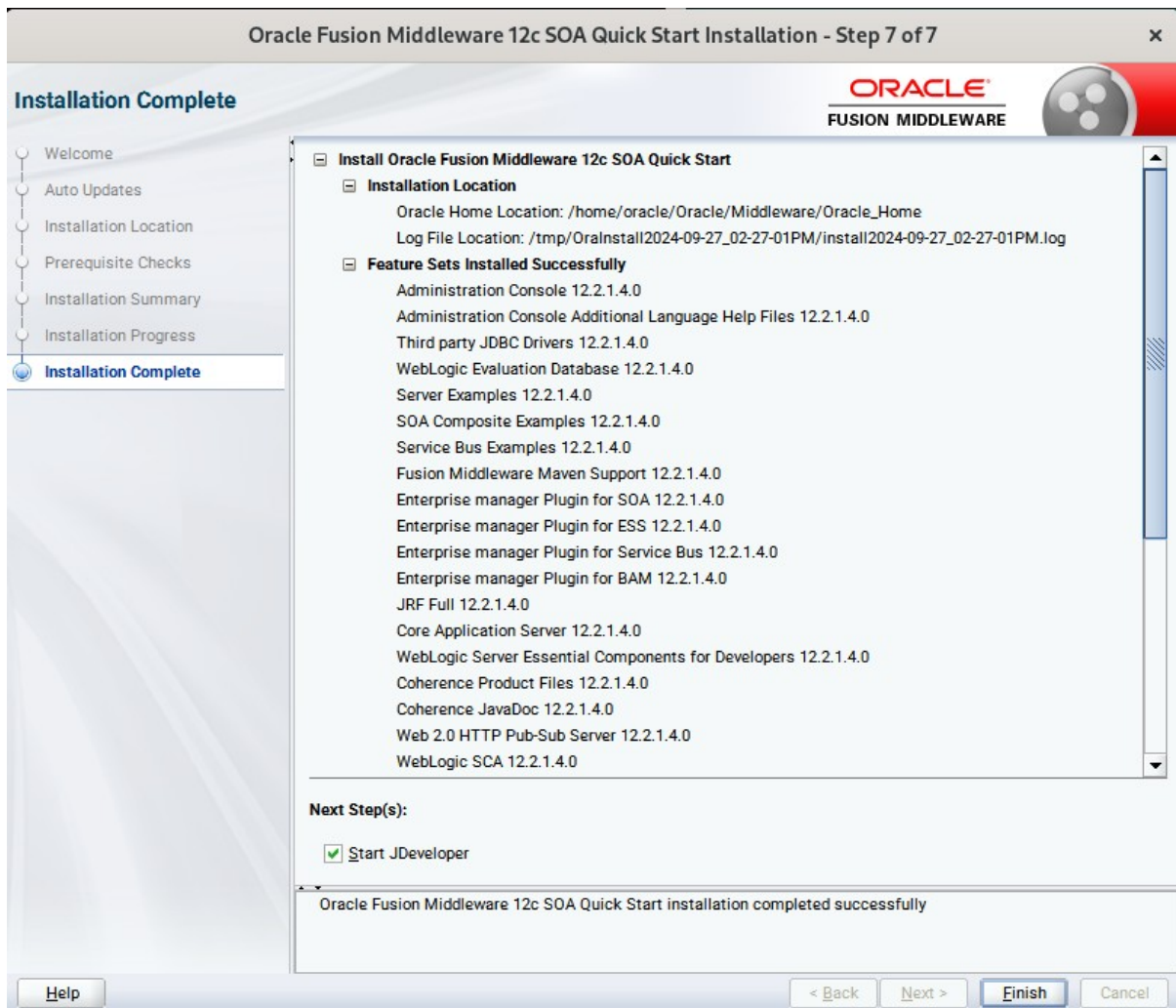
This page shows you what components and features are about to be installed. If you need to make changes, click **Back**, otherwise, click **Install** to start the installation.

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.

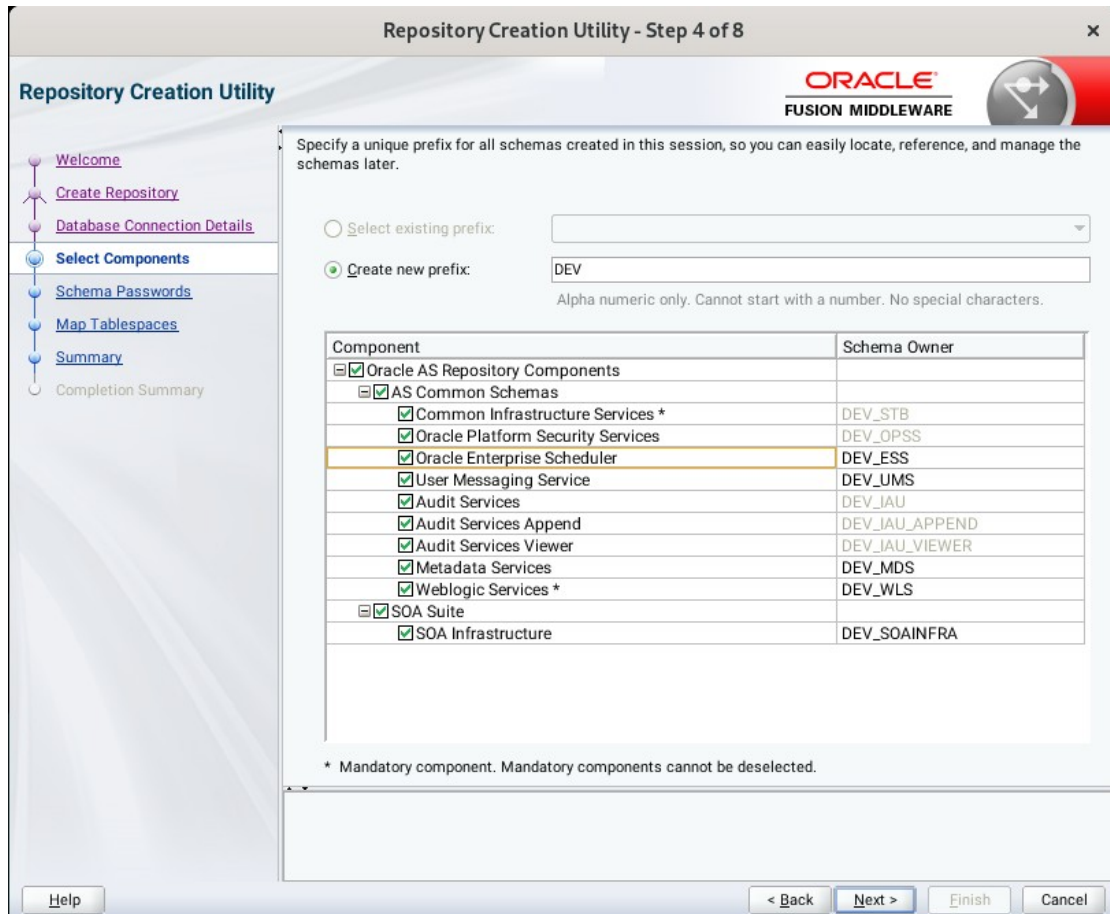


At the bottom of this screen, there is a checkbox to launch Oracle JDeveloper upon closing the installation wizard. This guide recommends that you uncheck this box. Click **Finish** to dismiss the installer.

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 DEV). Select the components as shown above.

Ensure schema creation is successful.

Repository Creation Utility - Step 9 of 9

Repository Creation Utility ORACLE FUSION MIDDLEWARE

Database details:

Host Name: Dell5530
Port: 1521
Service Name: SUSE
Connected As: sys
Operation: System and Data Load concurrently
Execution Time: 2 minutes 28 seconds

RCU Logfile: /tmp/RCU2024-09-27_15-27_116475431/logs/rcu.log
Component Log Directory: /tmp/RCU2024-09-27_15-27_116475431/logs
View Log: rcu.log

Prefix for (prefixable) Schema DEV
Owners

Component	Status	Time	Logfile(Click to view)
Common Infrastructure Services	Success	00:09.355(sec)	stb.log
Oracle Platform Security Services	Success	00:15.250(sec)	opss.log
Oracle Enterprise Scheduler	Success	00:12.230(sec)	ess.log
SOA Infrastructure	Success	00:35.495(sec)	soainfra.log
User Messaging Service	Success	00:11.984(sec)	ucsums.log
Audit Services	Success	00:12.128(sec)	iau.log
Audit Services Append	Success	00:09.187(sec)	iau_append.log
Audit Services Viewer	Success	00:09.204(sec)	iau_viewer.log
Metadata Services	Success	00:12.047(sec)	mds.log
Weblogic Services	Success	00:12.898(sec)	wls.log

Help < Back Next > Create Close

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

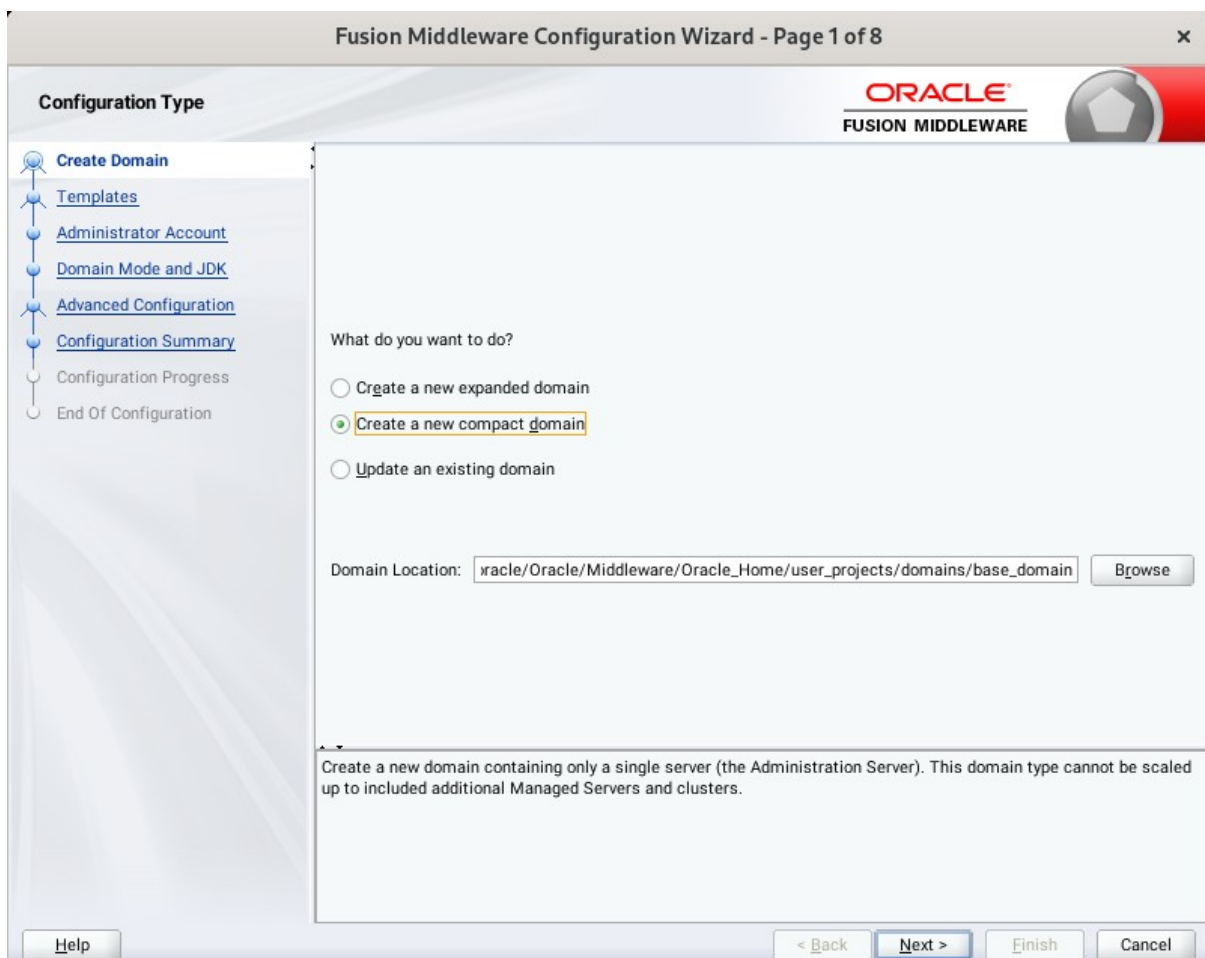
3-1. Go to **ORACLE_HOME/oracle_common/common/bin**. Set the environment variable **CONFIG_JVM_ARGS** to **-Dcom.oracle.cie.config.showProfile=true**. This will activate the compact domain option in the configuration wizard. Then launch the configuration wizard.

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
```

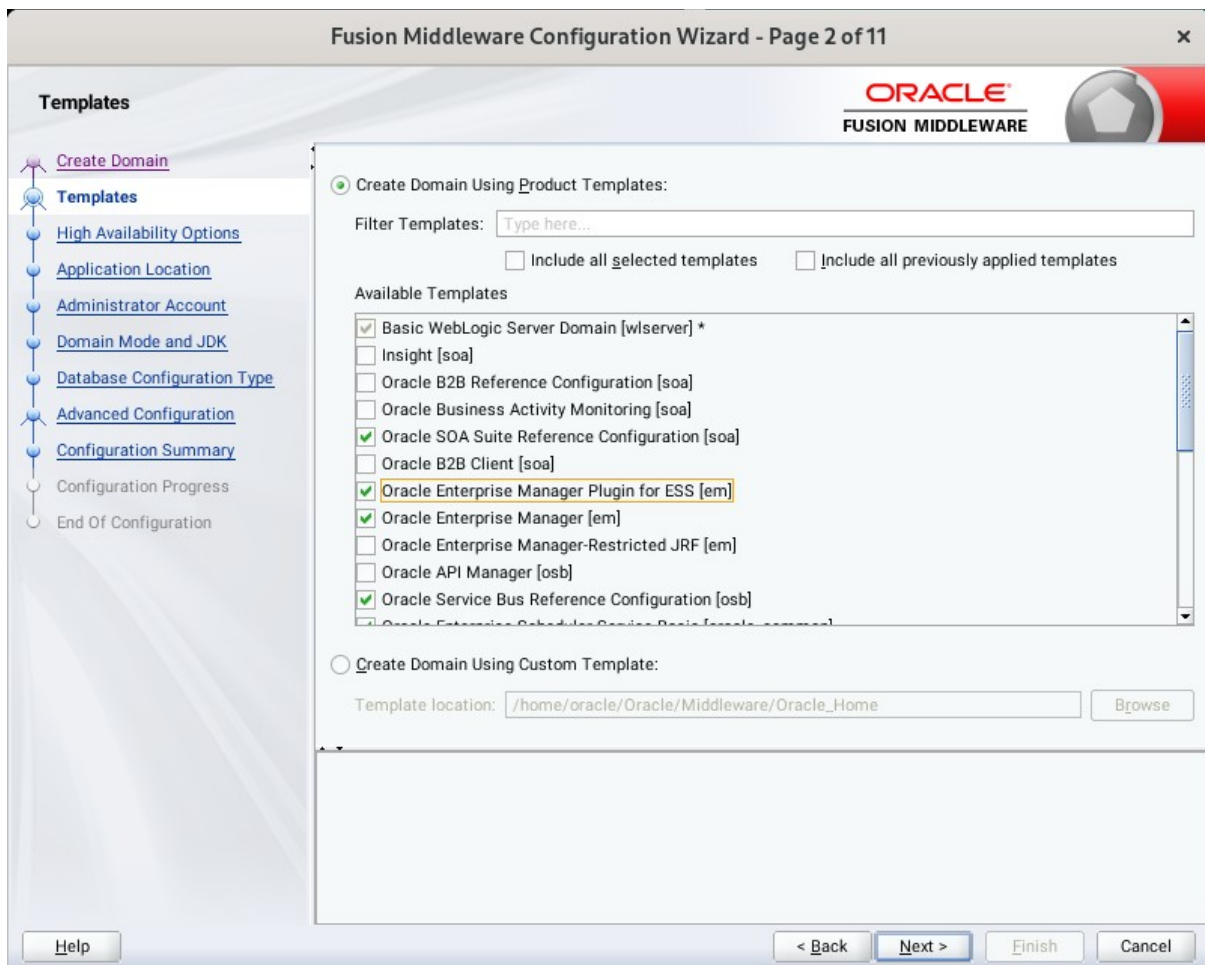
Follow these steps:

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.

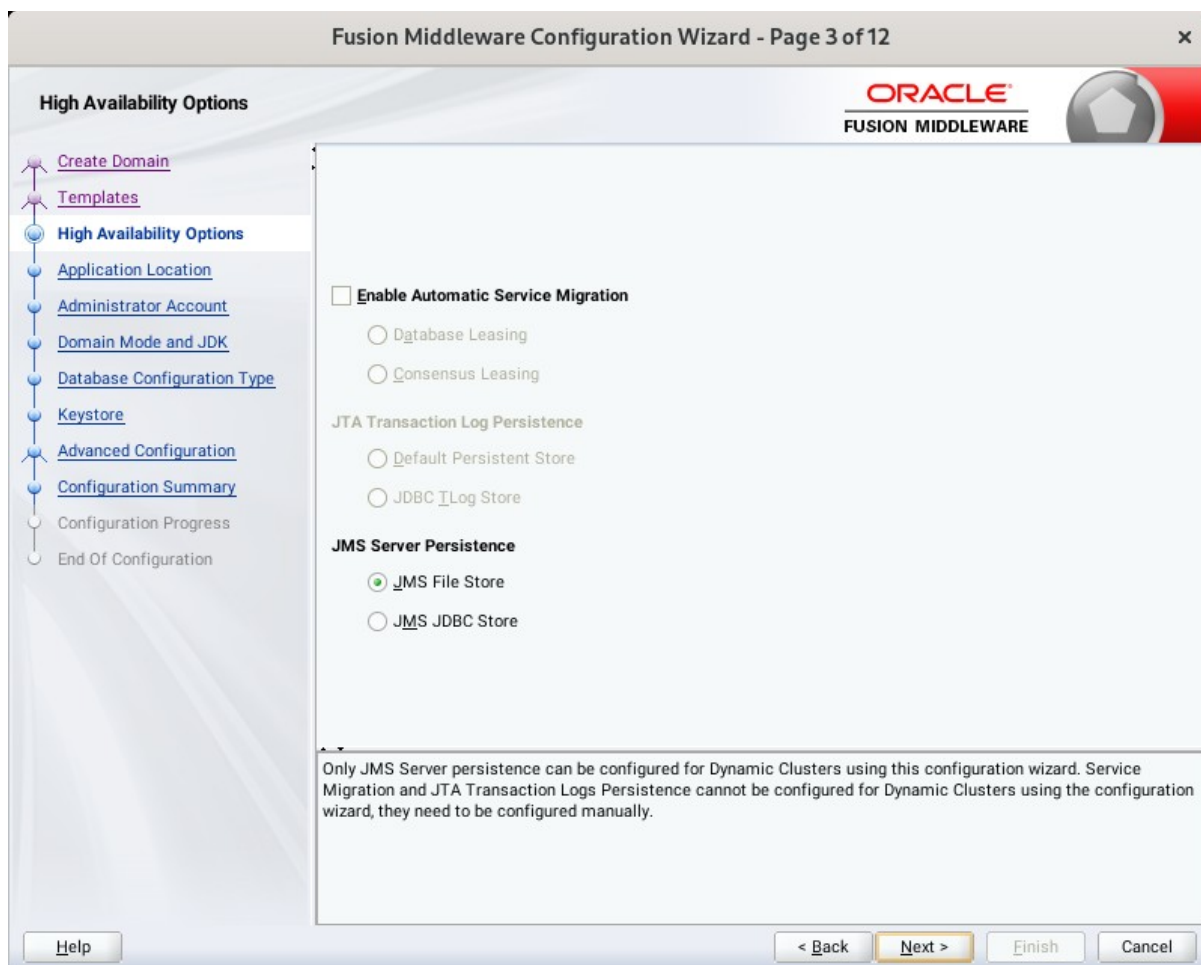


Use the **Templates** screen to select the templates you require. On the **Templates** screen, make sure **Create Domain Using Product Templates** is selected, then select the following template:

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

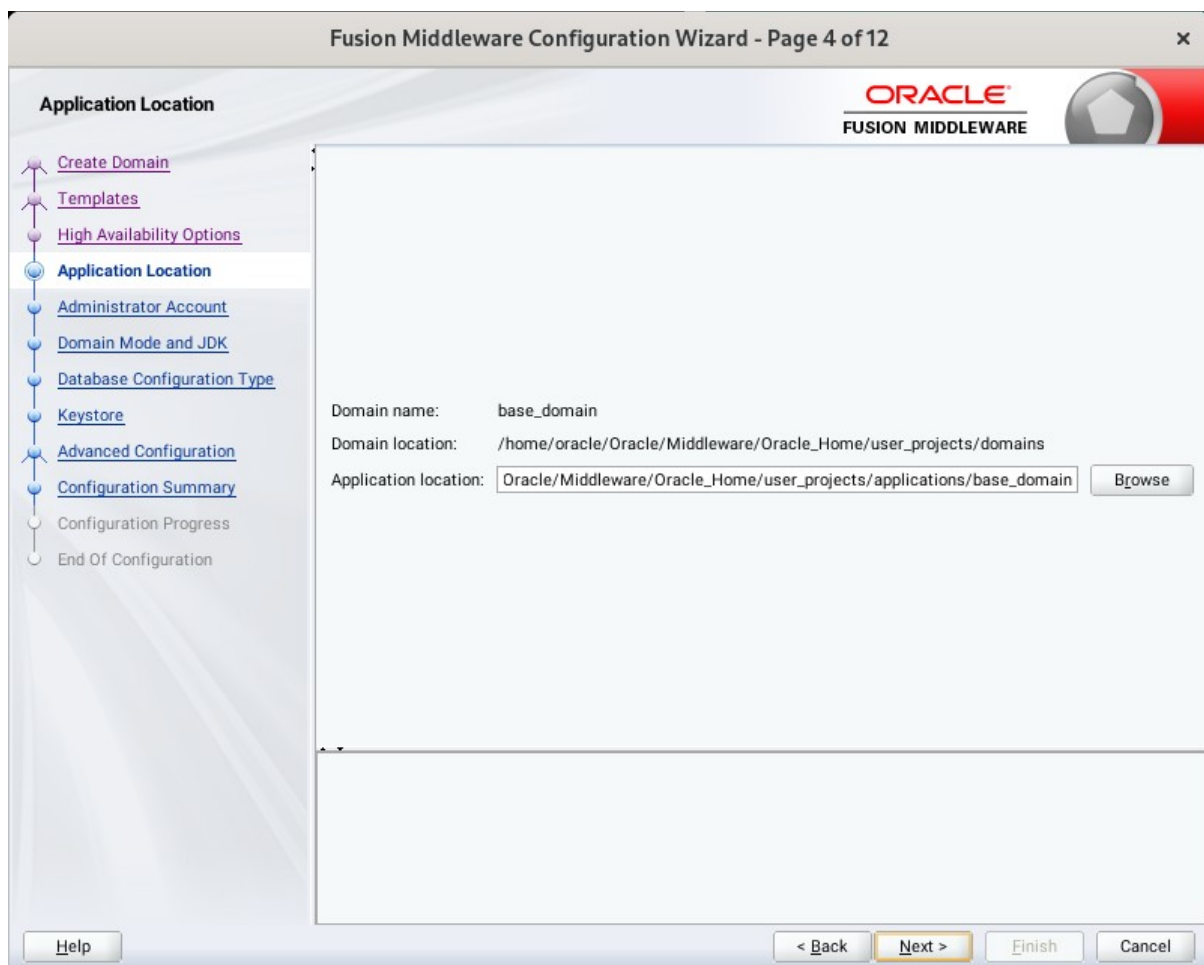
Click **Next** to continue.

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



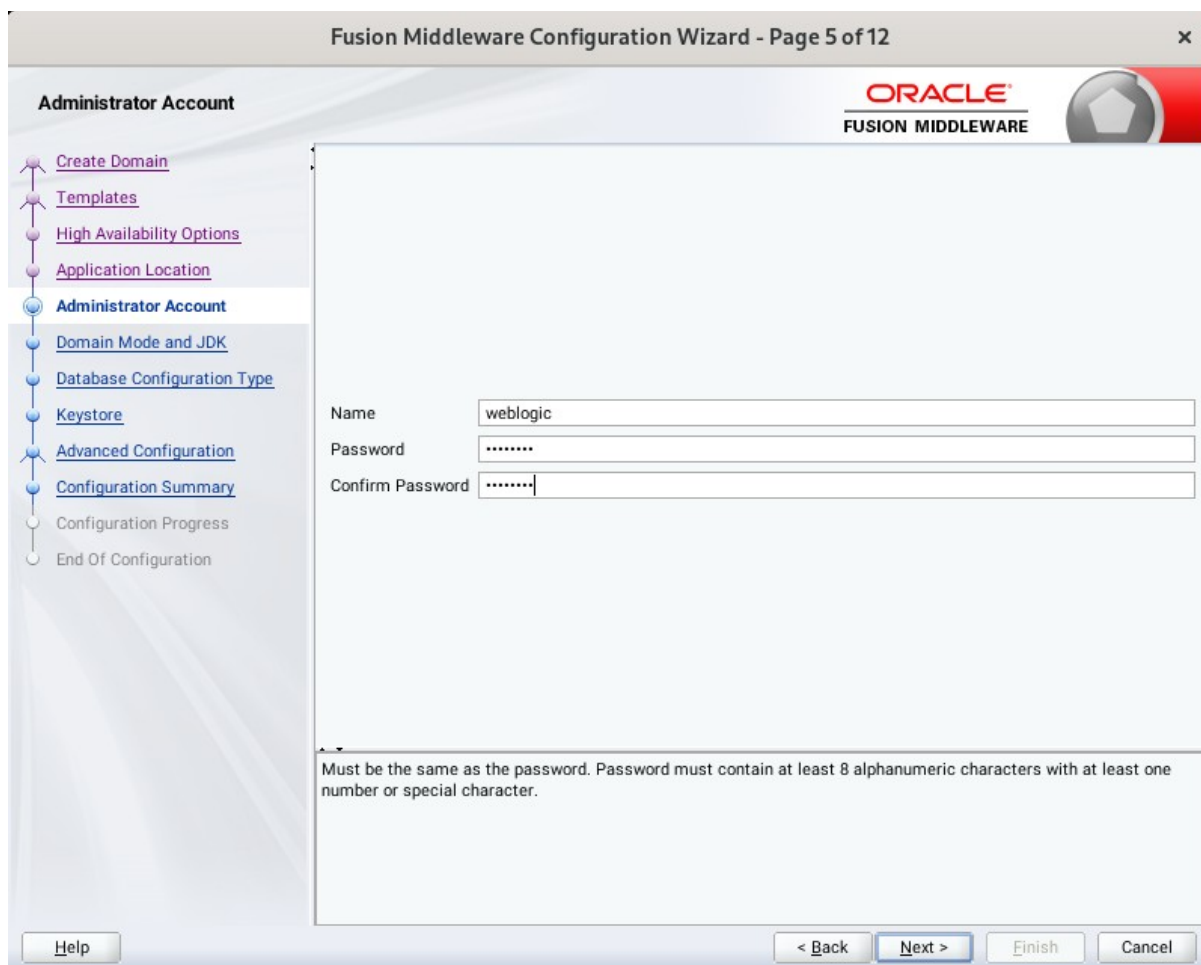
Keep the default value for Application location. Click **Next** to continue.

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



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

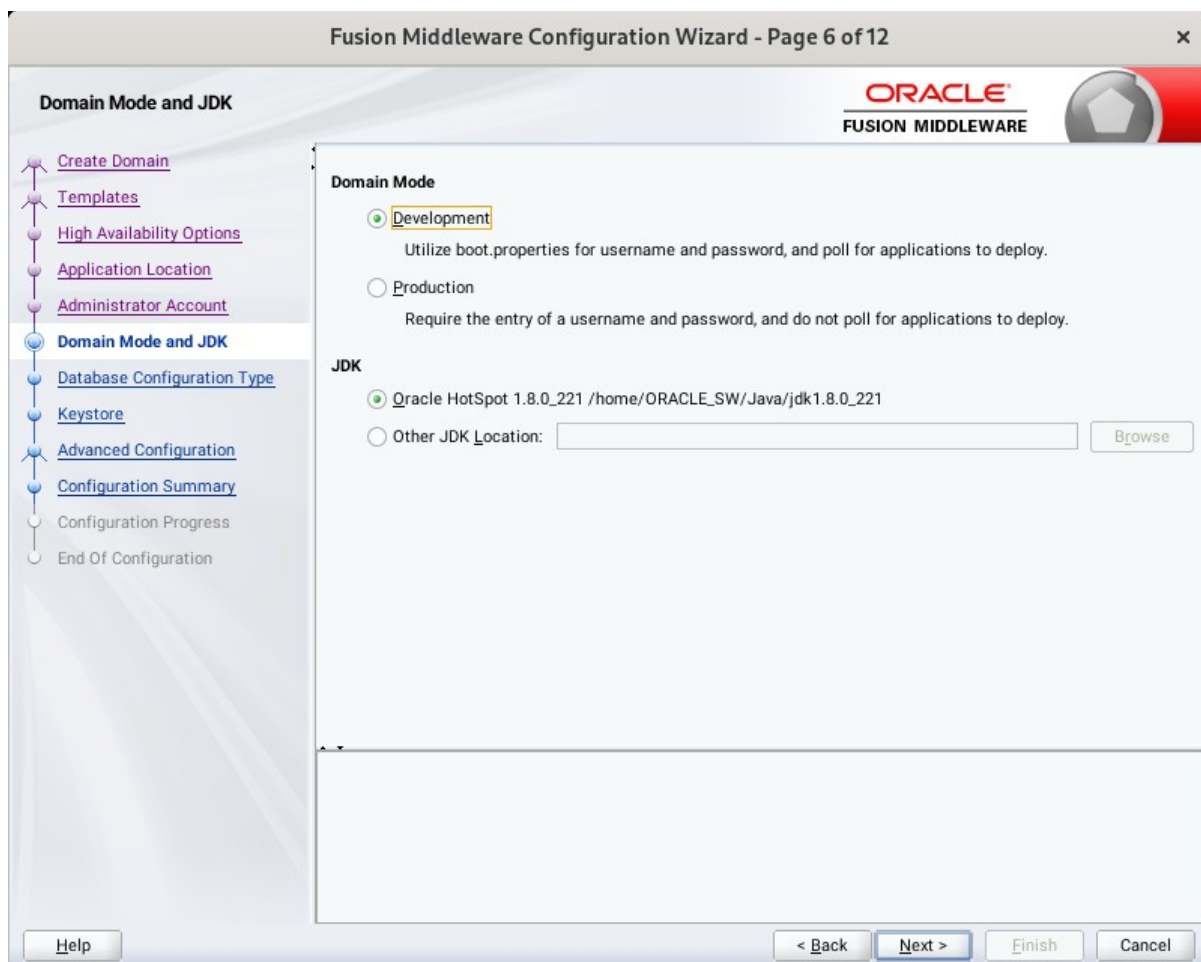
5). The **Administrator Account** screen appears.



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. A navigation pane on the left 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 the 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

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: Driver:

Connection Parameters Connection URL String

Host Name:

DBMS/Service: Port:

Schema Owner: Schema Password:

Connection Result Log

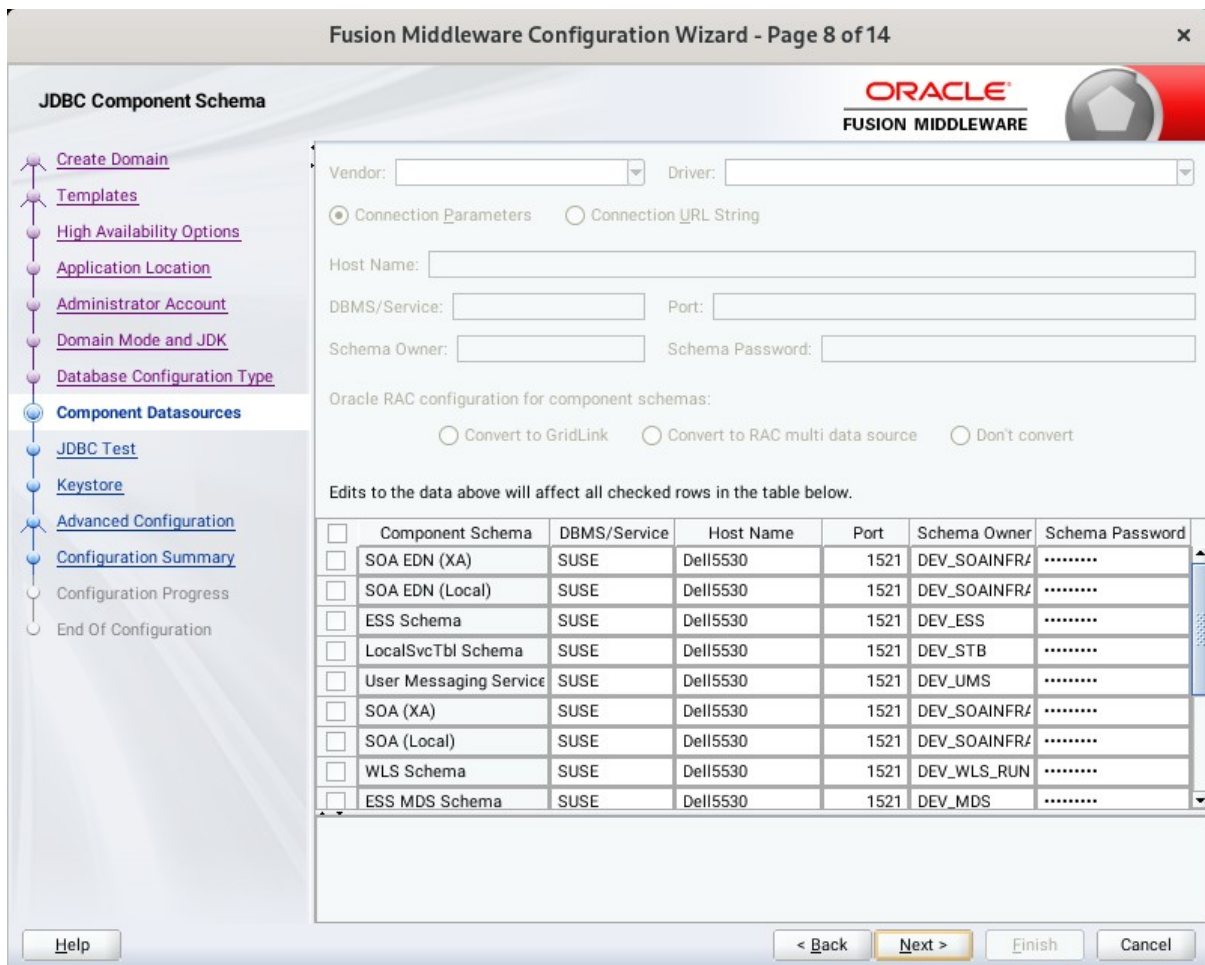
Connecting to the database server...OK
Retrieving schema data from database server...OK
Binding local schema components with retrieved data...OK

Successfully Done.

Click "Next" button to continue.

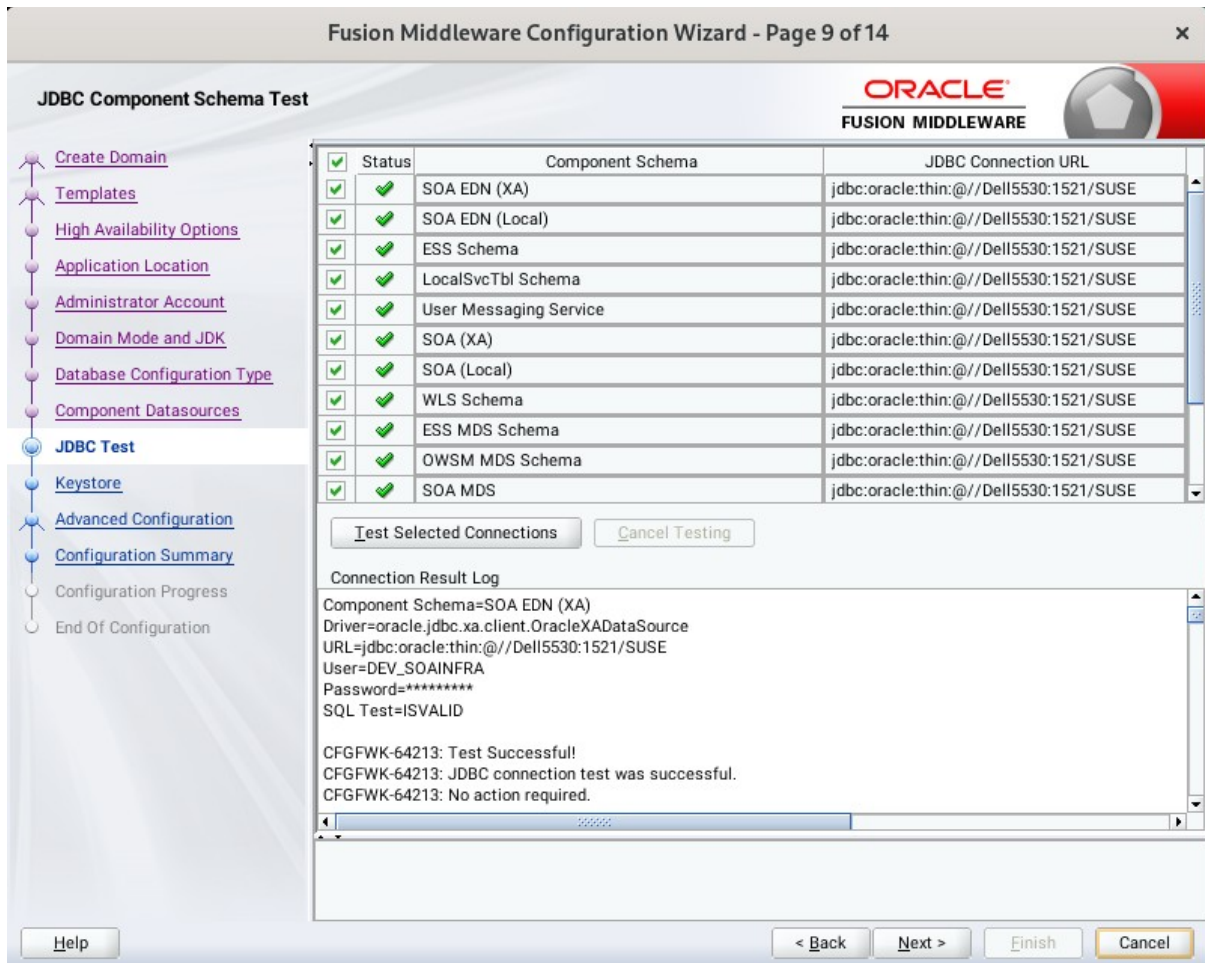
Select **RCU Data** to activate the fields. The **RCU Data** option instructs the Configuration Wizard to connect to the database and Service Table (STB) schema to automatically retrieve schema information for the schemas needed to configure the domain. Enter the RCU DB connection information, then click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

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



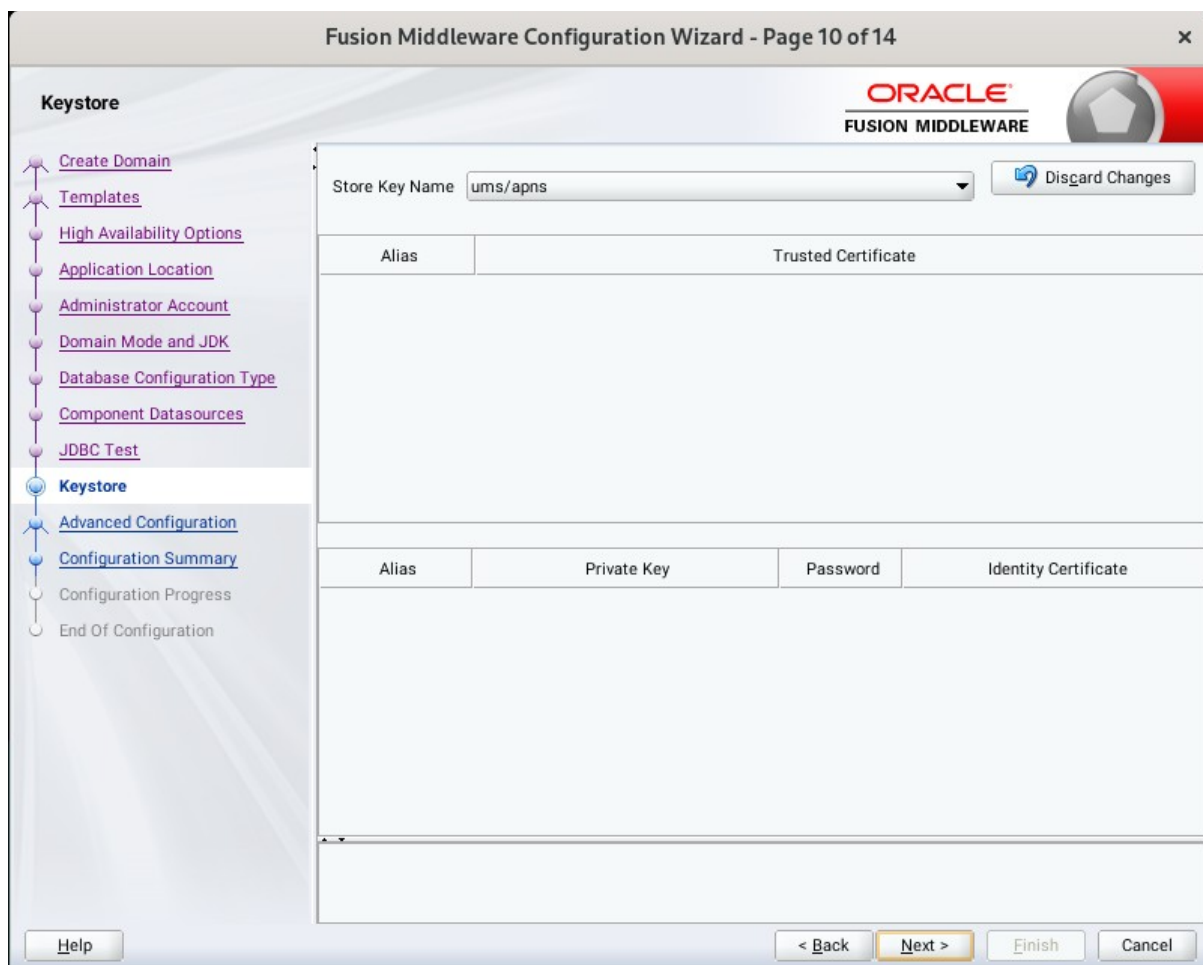
Our instructions assume each Repository schema uses the same password. If not, enter the correct schema passwords. Click **Next** to continue.

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



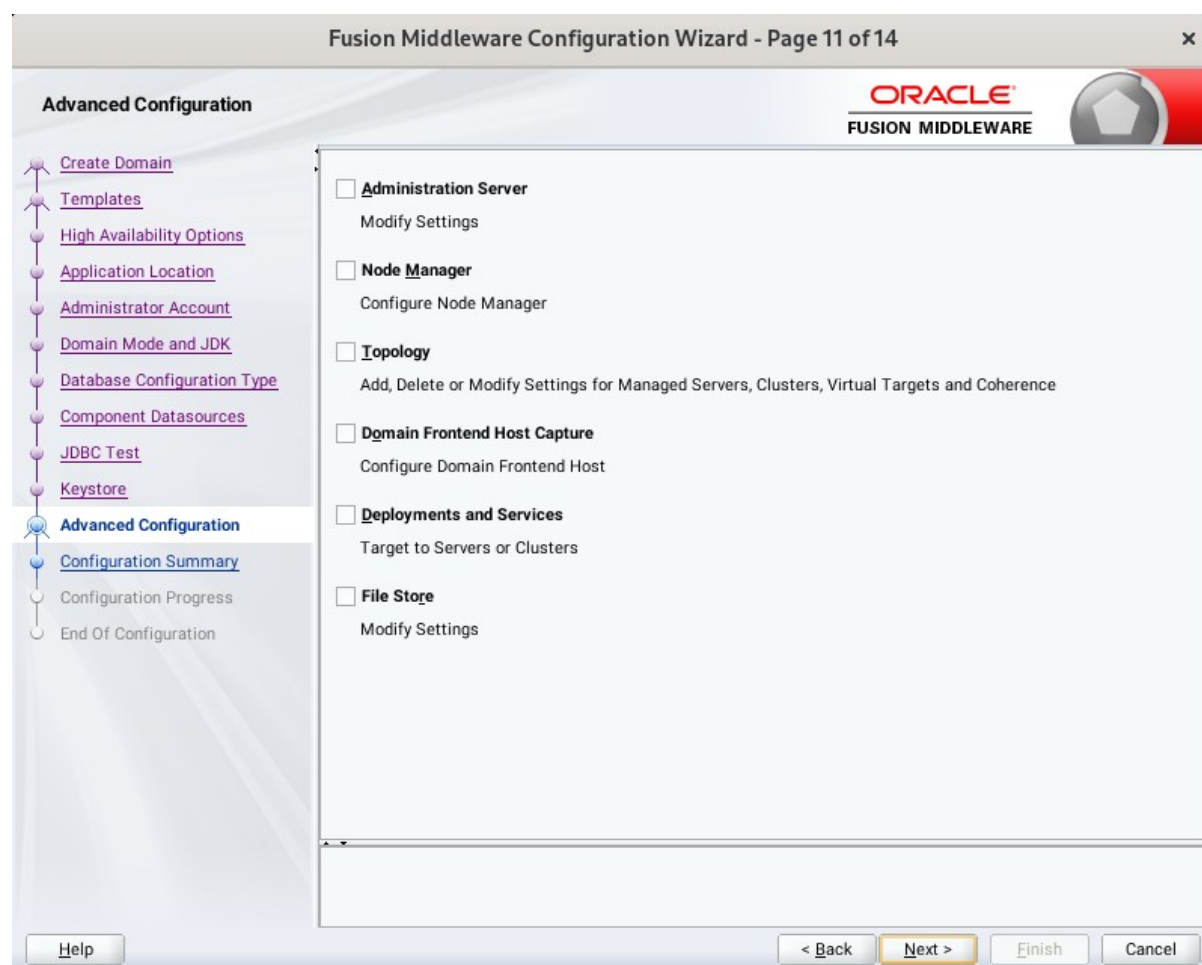
The tests are run and the results given. Ensure all test results are successful. Click **Next** to continue.

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



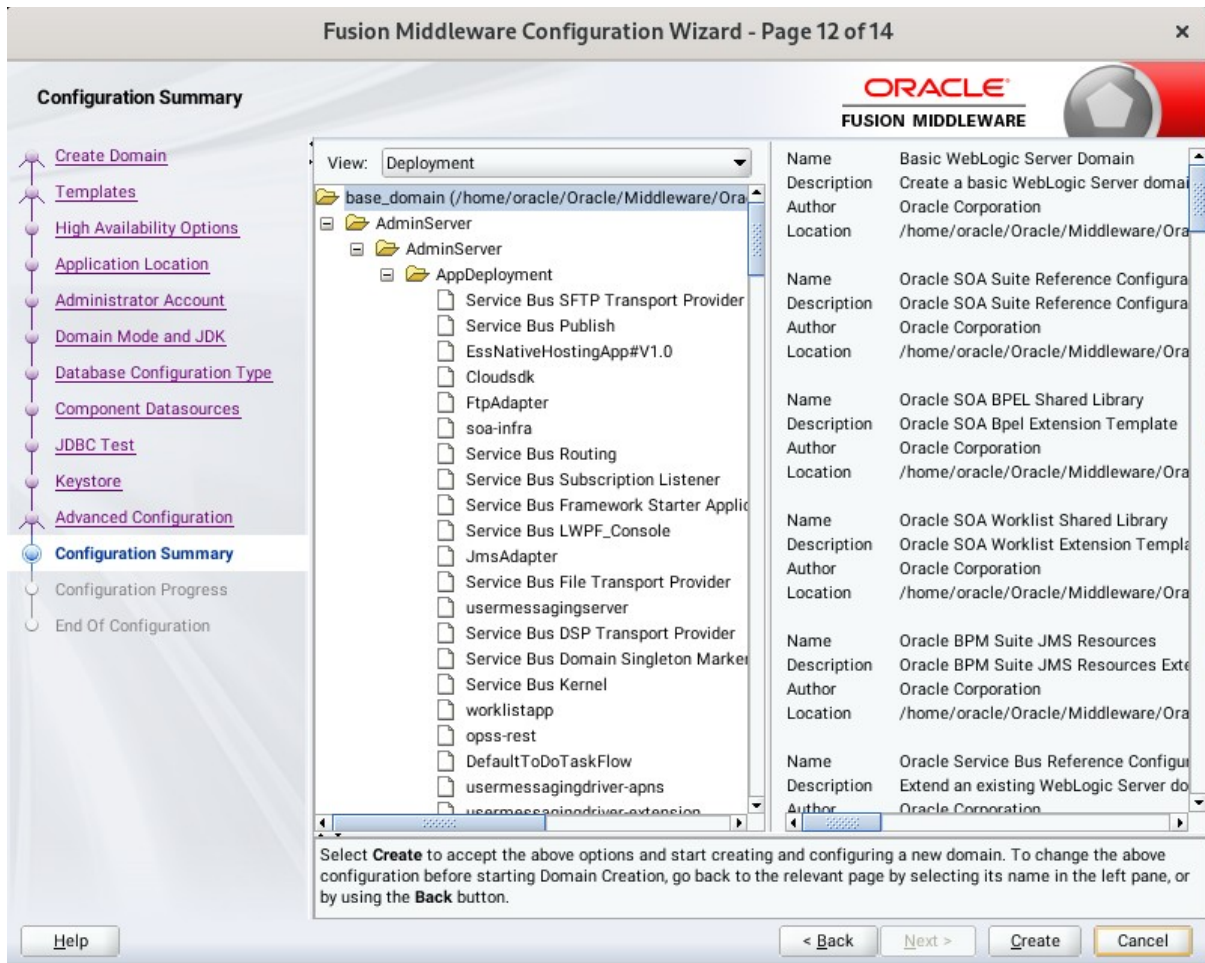
Accept the defaults and click **Next** to continue.

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



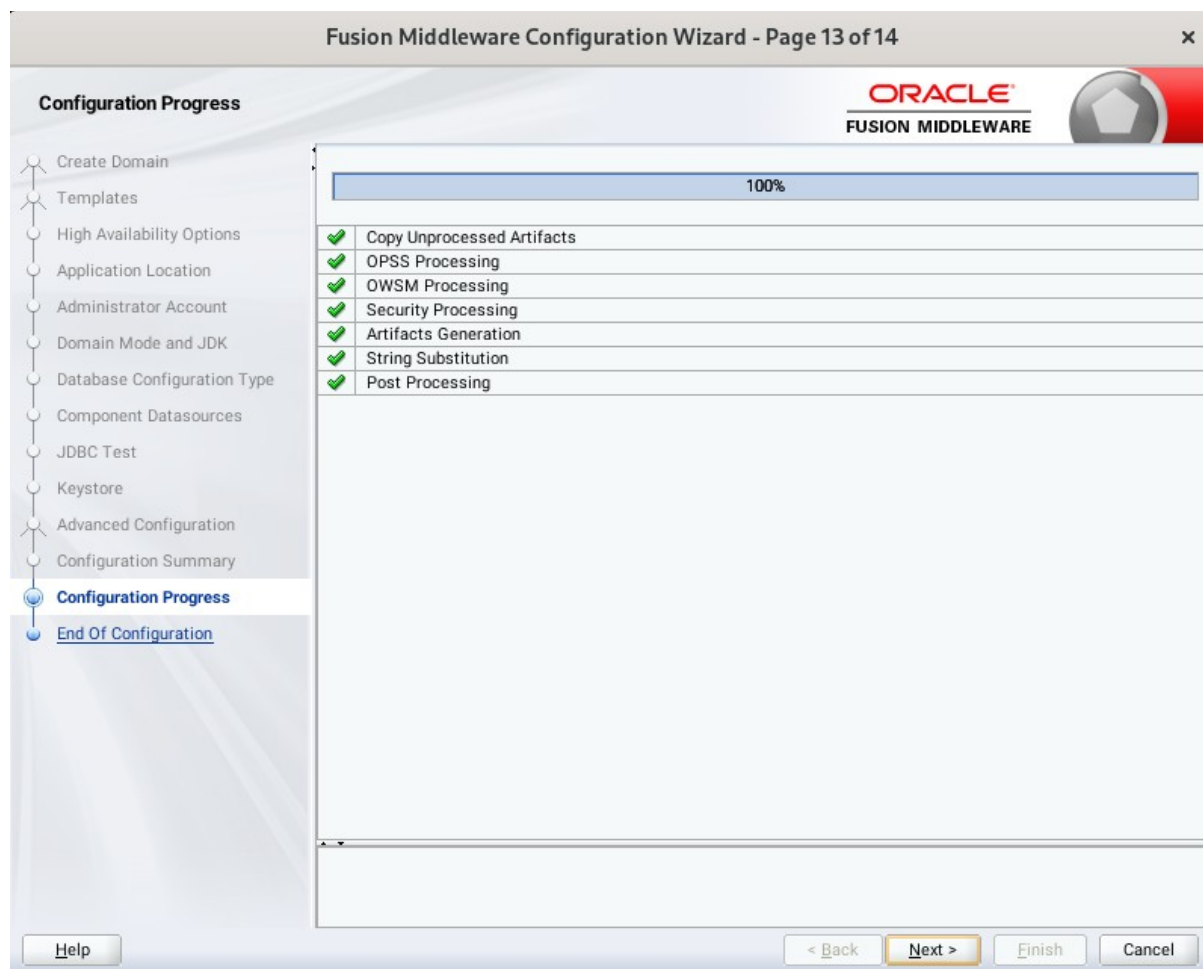
On the Advanced Configuration screen, you do not need any advanced configuration for a compact domain. You can skip through the Advanced Configuration screen without selecting anything. Click **Next** to continue.

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



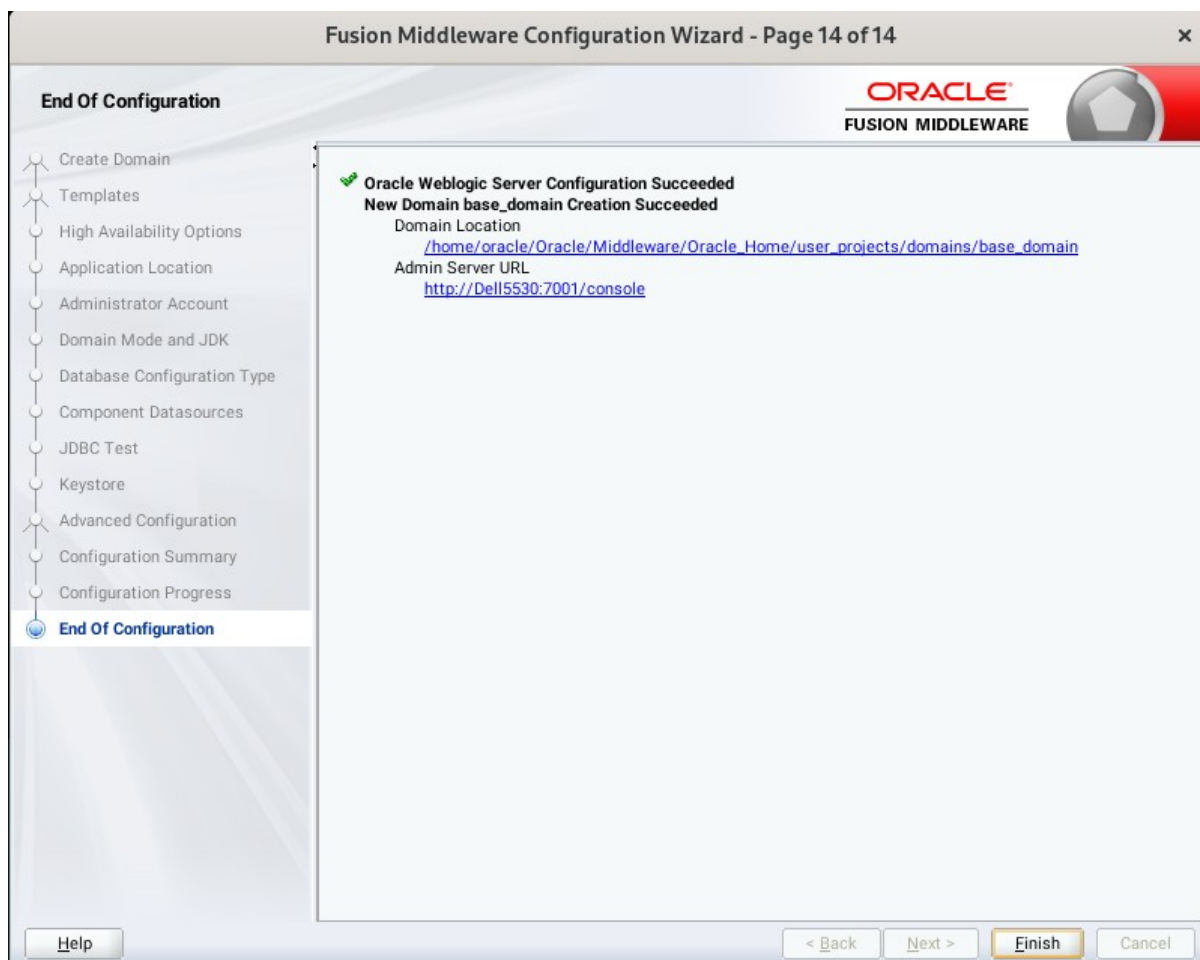
Select **Create** to accept the above options and start creating and configuring a new domain.

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@Dell5530:...ns/base_domain/bin
oracle@Dell5530:...W/SOA_suite/122140 x oracle@Dell5530:...common/common... x oracle@Dell5530:...ns/base_domain/bin x
<Sep 27, 2024 3:53:00,517 PM CST> <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 redundant.>
<Sep 27, 2024 3:53:00,720 PM CST> <Warning> <Server> <BEA-002611> <The hostname "localhost", maps to multiple IP addresses: 127.0.
0.1, 0:0:0:0:0:0:1.>
<Sep 27, 2024 3:53:00,721 PM CST> <Notice> <Server> <BEA-002613> <Channel "Default[2]" is now listening on 127.0.0.1:7001 for prot
ocols iiop, t3, ldap, snmp, http.>
<Sep 27, 2024 3:53:00,721 PM CST> <Notice> <WebLogicServer> <BEA-000331> <Started the WebLogic Server Administration Server "Admin
Server" for domain "base_domain" running in development mode.>
<Sep 27, 2024 3:53:00,722 PM CST> <Notice> <Server> <BEA-002613> <Channel "Default" is now listening on 192.168.0.100:7001 for pro
tocols iiop, t3, ldap, snmp, http.>
<Sep 27, 2024 3:53:00,722 PM CST> <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.>
<Sep 27, 2024 3:53:00,722 PM CST> <Notice> <Server> <BEA-002613> <Channel "Default[2]" is now listening on 127.0.0.1:7001 for prot
ocols iiop, t3, ldap, snmp, http.>
<Sep 27, 2024 3:53:00,722 PM CST> <Notice> <Server> <BEA-002613> <Channel "Default" is now listening on 192.168.0.100:7001 for pro
tocols iiop, t3, ldap, snmp, http.>
<Sep 27, 2024 3:53:00,722 PM CST> <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.>
<Sep 27, 2024 3:53:01,234 PM CST> <Warning> <EJB> <BEA-010241> <The Message-Driven Bean ESSAppEndpoint(Application: ESSAPP, EJBCom
ponent: ess-ejb.jar) has connected to Resource Adapter ess/ra. Property weblogic.mds.suspendConnectionOnStart is ignored, because
it is not supported by JCA-Based Message-Driven Bean.>
<Sep 27, 2024 3:53:01,350 PM CST> <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 redundant.>
<Sep 27, 2024 3:53:01,375 PM CST> <Warning> <EJB> <BEA-010241> <The Message-Driven Bean ESSAppEndpoint(Application: EssNativeHosti
ngApp, EJBComponent: native-ess-ejb.jar) has connected to Resource Adapter ess/ra. Property weblogic.mds.suspendConnectionOnStart
is ignored, because it is not supported by JCA-Based Message-Driven Bean.>
<Sep 27, 2024 3:53:01,380 PM CST> <Notice> <WebLogicServer> <BEA-000360> <The server started in RUNNING mode.>
====> ResourceBundleListFromConfig topDirs : []
==> found 0 SOA composites to deploy in group 0 . Using 5 threads for composite load. composite count from dcManager : 0 Composit
eLazyLoading enabled. CompositeLazyDeployment disabled.
deploying 0 composites took 0 ms
----->deploying 0 composites took 9 ms
<Sep 27, 2024 3:53:01,404 PM CST> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to RUNNING.>
Not fusion apps env
SOA Platform is running and accepting requests. Start up took 21259 ms, partition=DOMAIN

```

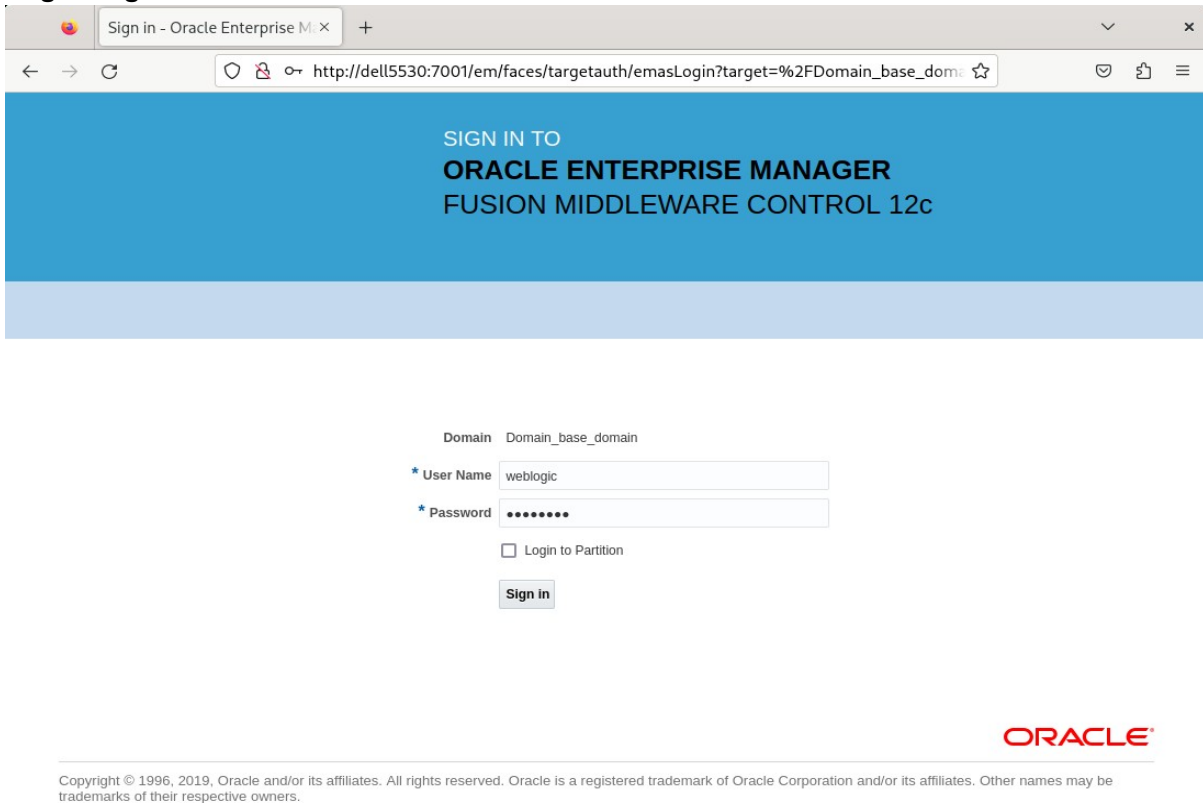
You know that the administrator server is running when you see the following output:

Server state changed to RUNNING.

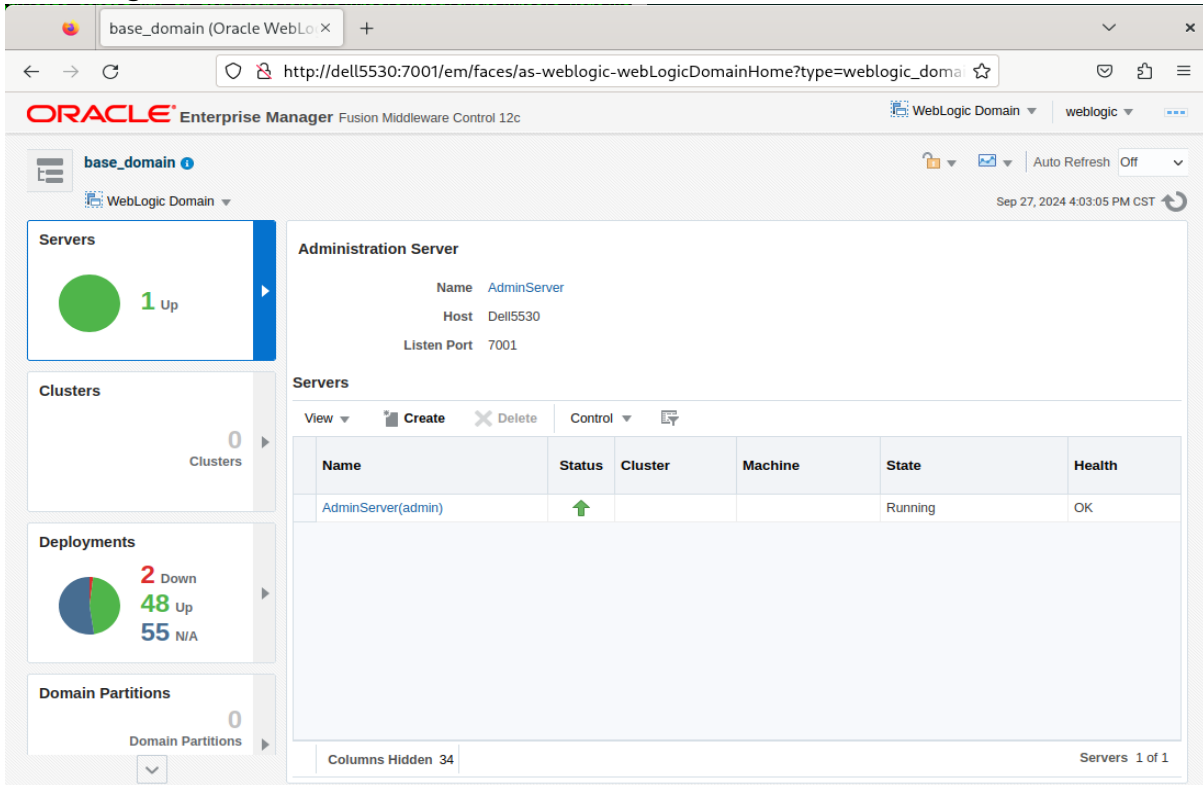
4-3. Checking Oracle SOA Suite 12c Product URLs.

1). Access to Enterprise Manager Console.

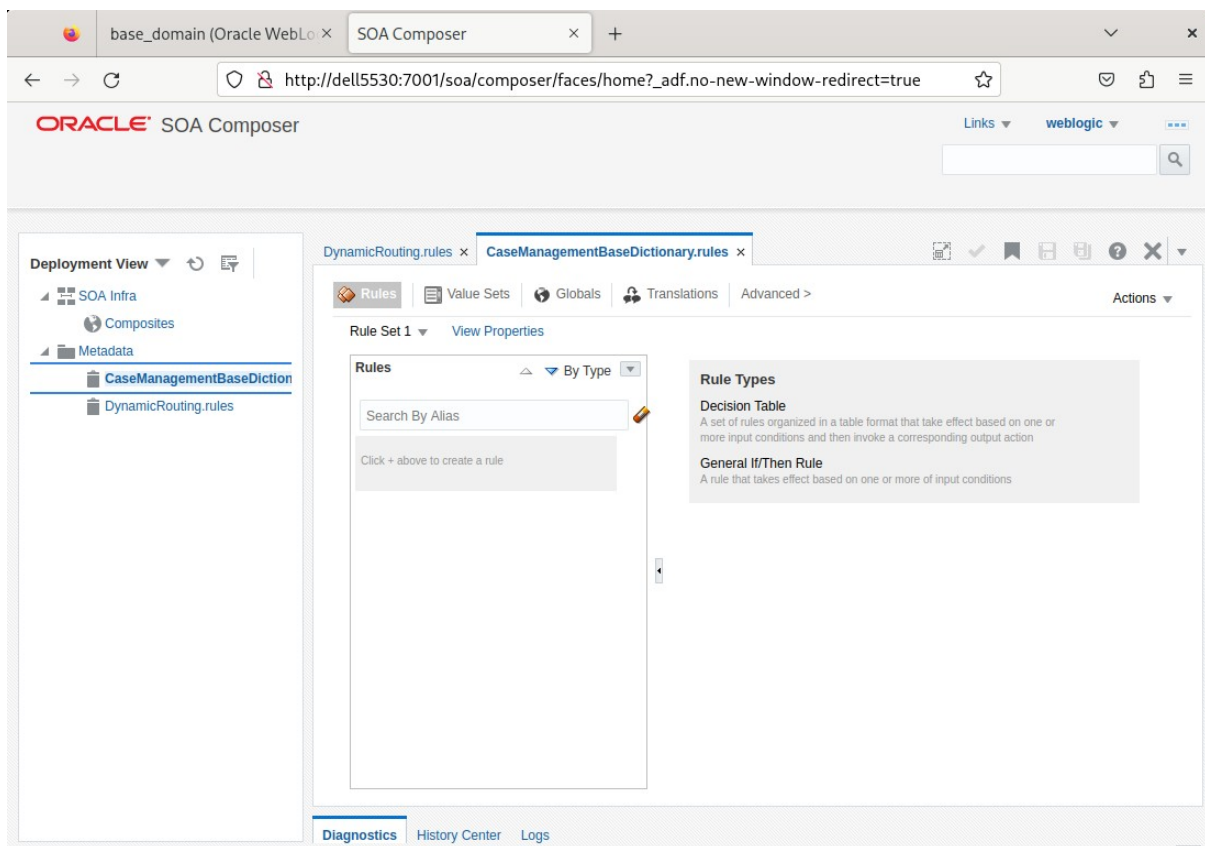
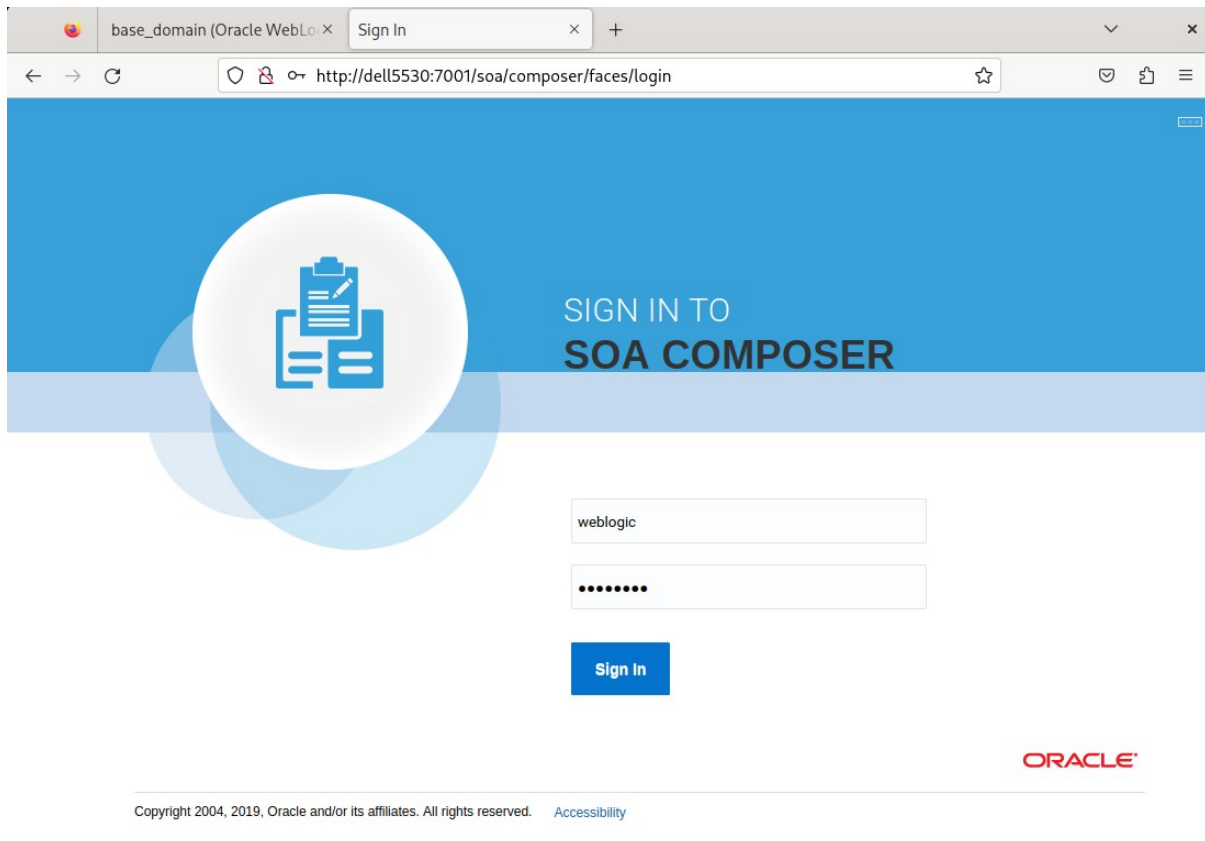
Login Page:



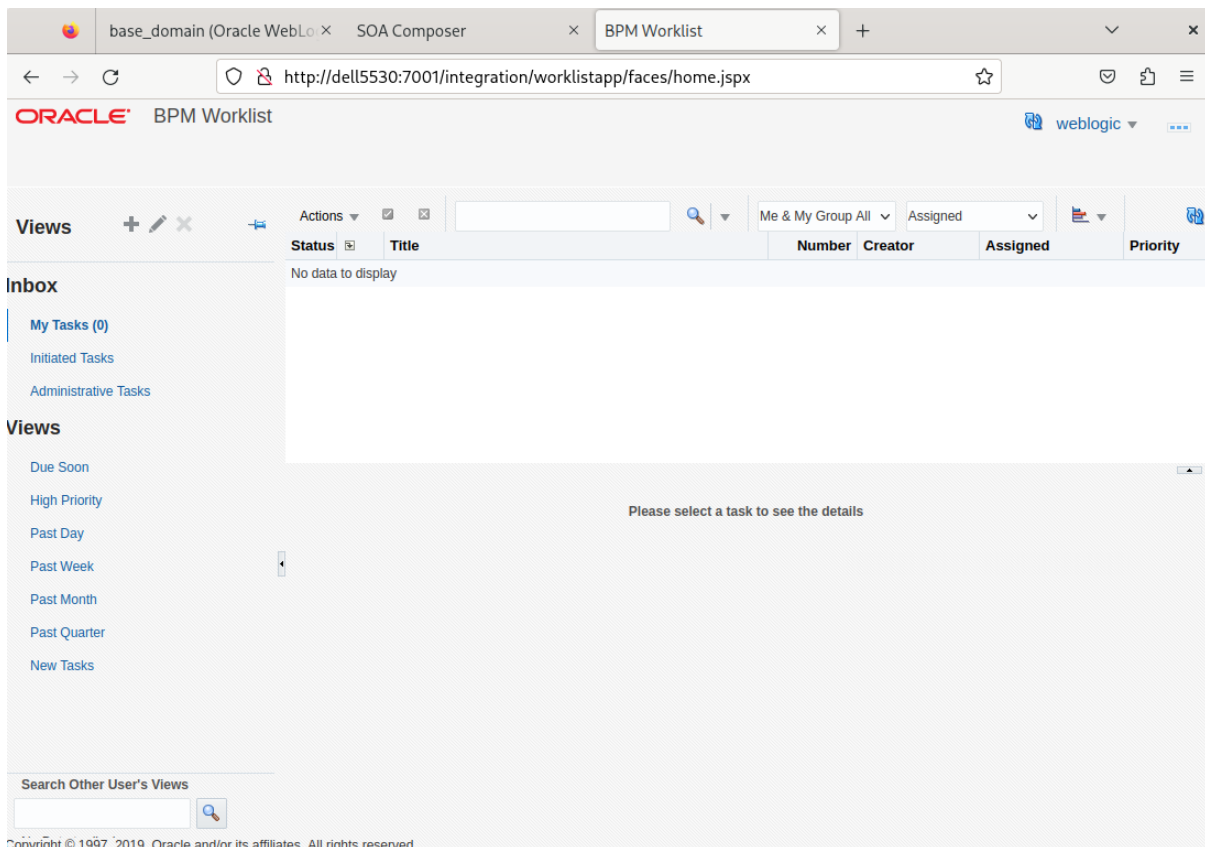
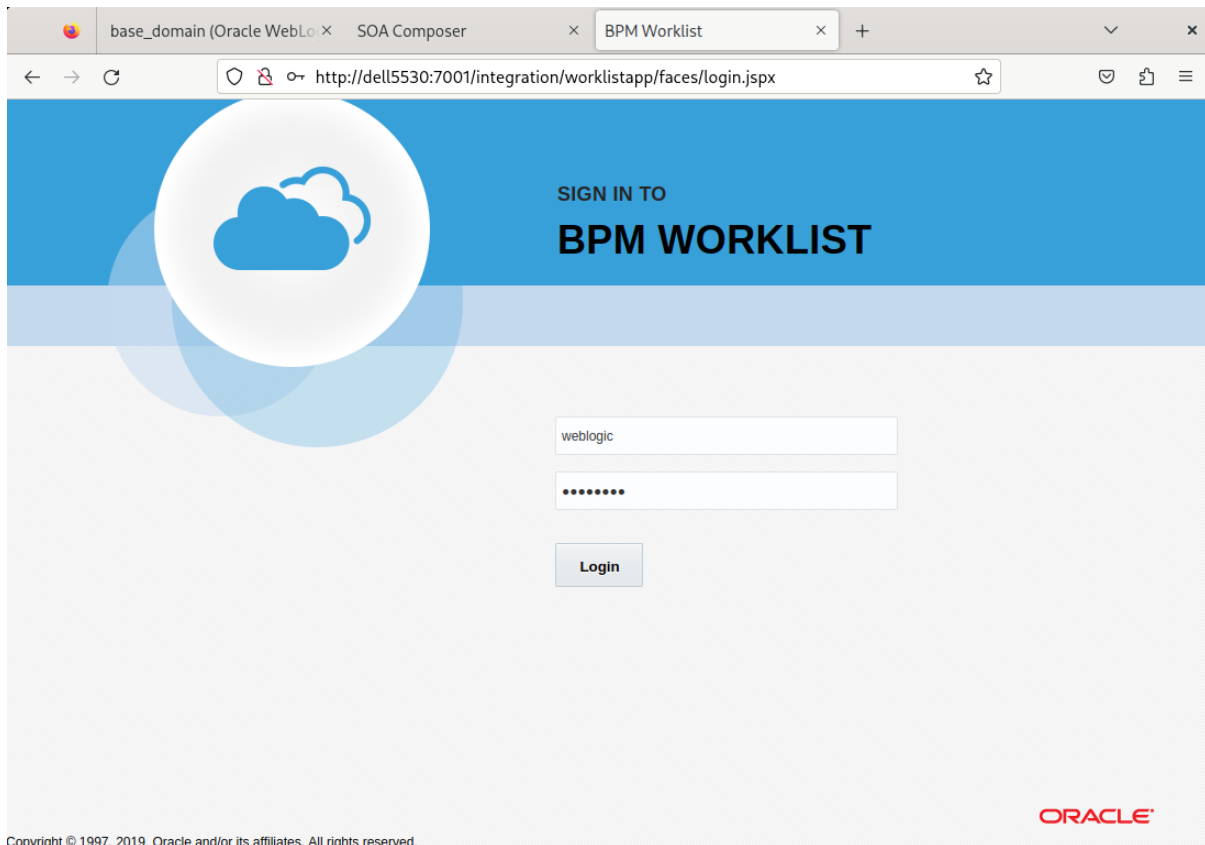
Home Page:



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

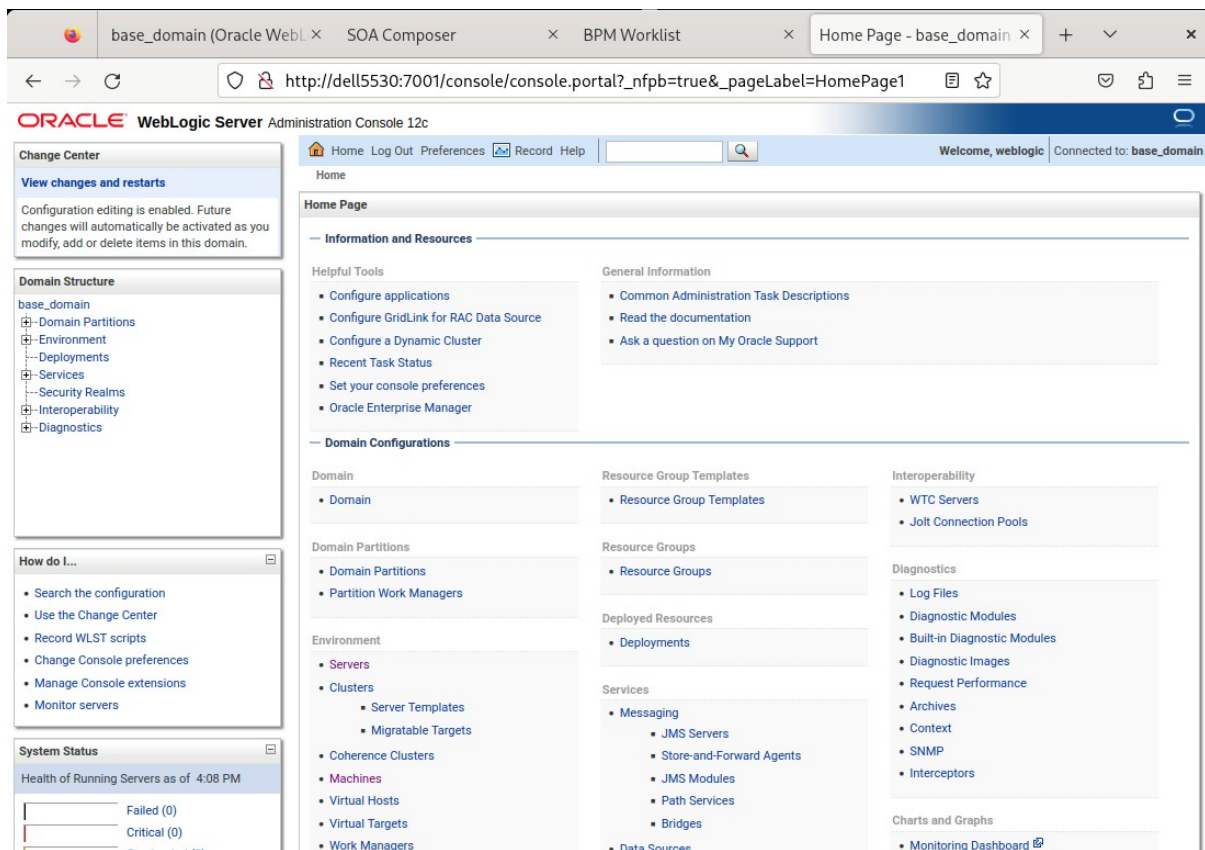
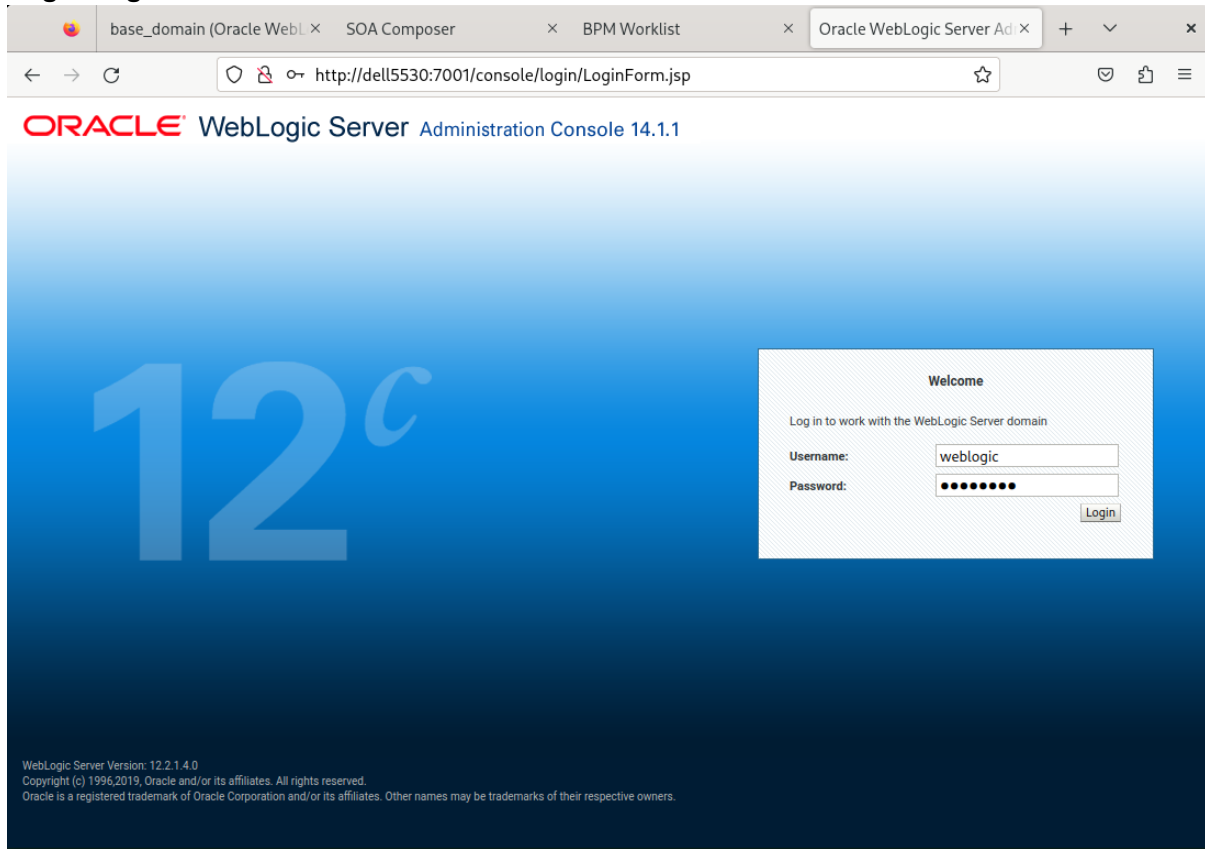


Access to BPM worklistapp - URL:<http://host:7001/integration/worklistapp>



2). Access to Administration Server Console

Login Page as shown below:



Viewing the summary of servers:

The screenshot shows the Oracle WebLogic Server Administration Console interface. The browser tabs include 'base_domain (Oracle WebL...', 'SOA Composer', 'BPM Worklist', and 'Summary of Servers - base_...'. The address bar shows the URL: 'http://dell5530:7001/console/console.portal?_nfpb=true&_pageLabel=CoreServerServ...'. The page title is 'ORACLE WebLogic Server Administration Console 12c'. The main content area is titled 'Summary of Servers' and has two tabs: 'Configuration' and 'Control'. Below the tabs, there is a description: '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.' Below this is a table of servers. The table has columns for Name, Type, Cluster, Machine, State, Health, and Listen Port. One server is listed: 'AdminServer(admin)' with Type 'Configured', State 'RUNNING', Health 'OK', and Listen Port '7001'. The left sidebar contains several panels: 'Change Center' with a 'View changes and restarts' link; 'Domain Structure' showing a tree view of the domain hierarchy; 'How do I...' with a list of actions like 'Create Managed Servers', 'Clone servers', etc.; and 'System Status' showing the health of running servers as of 4:08 PM.

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 4:08 PM
Failed (0)
Critical (0)

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)

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

3). Connecting JDeveloper to the Compact Domain.

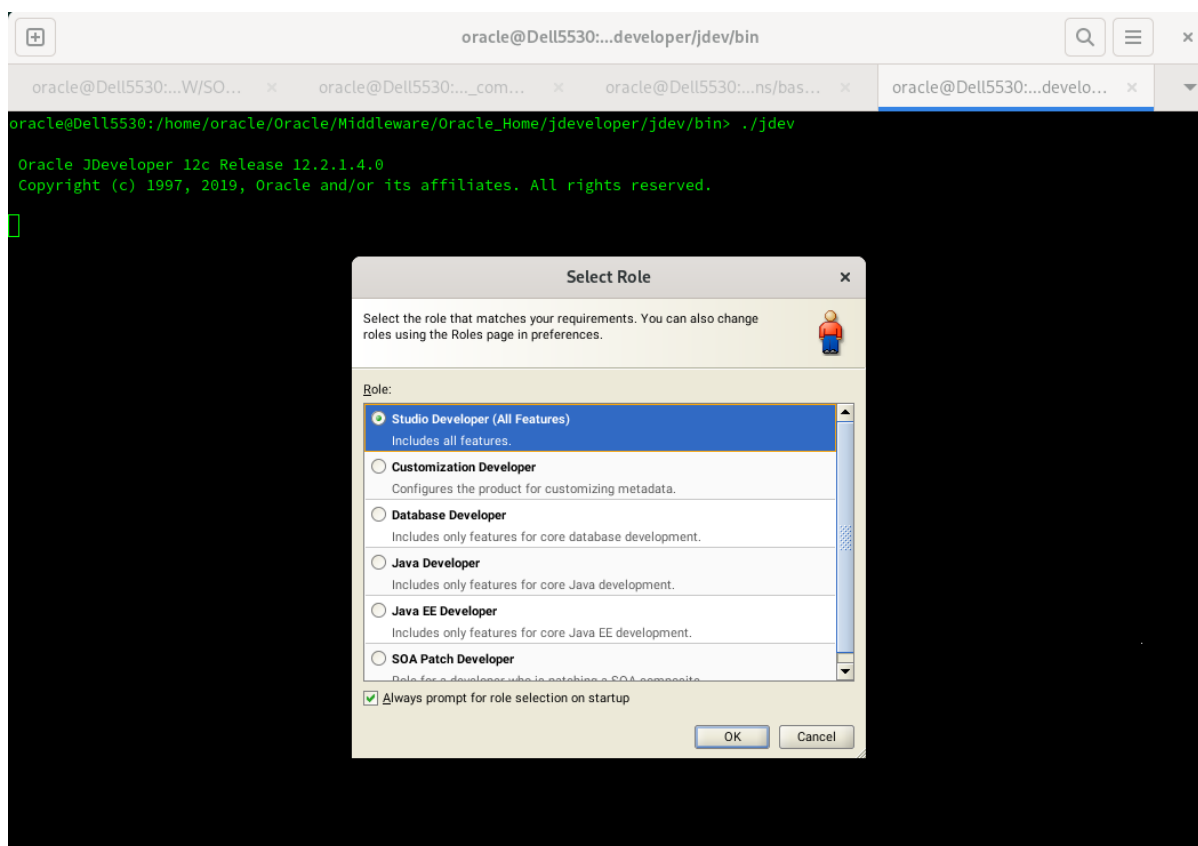
Launch Oracle JDeveloper with the appropriate command.

Ex:

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

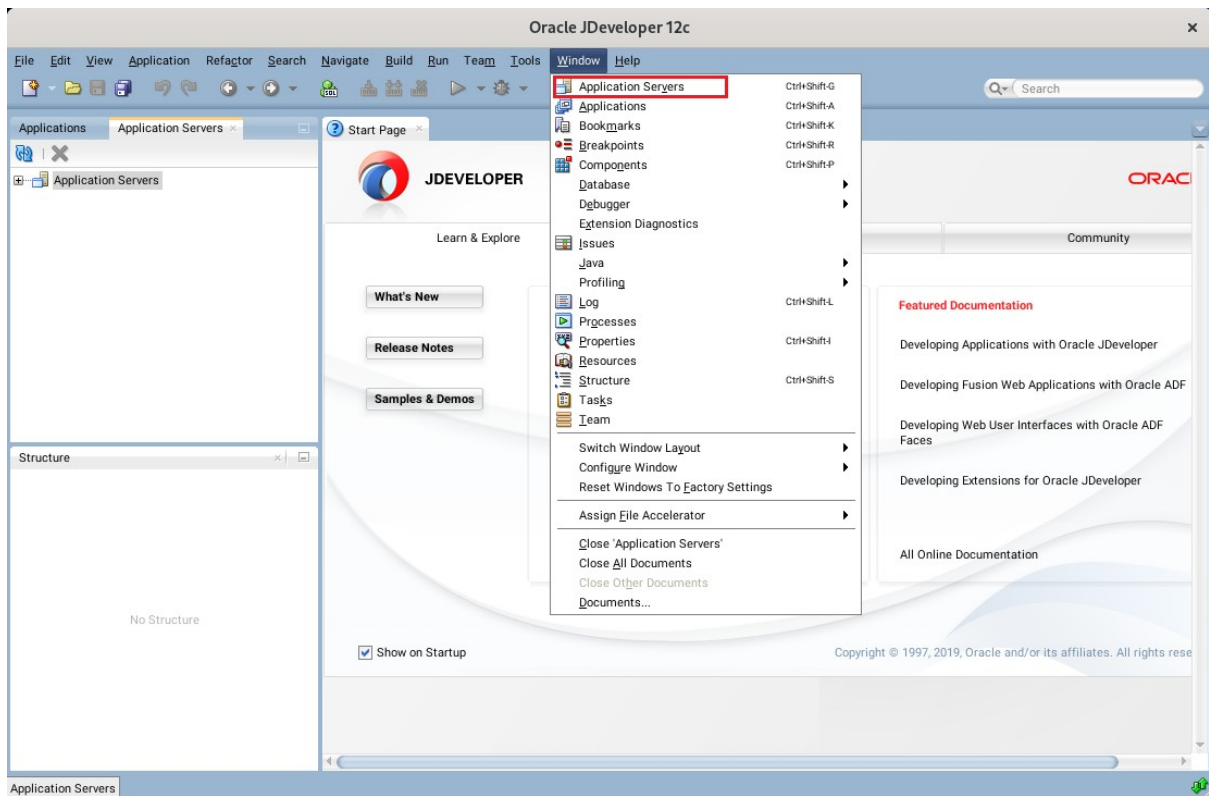
Follow these steps:

a1). Select Role.

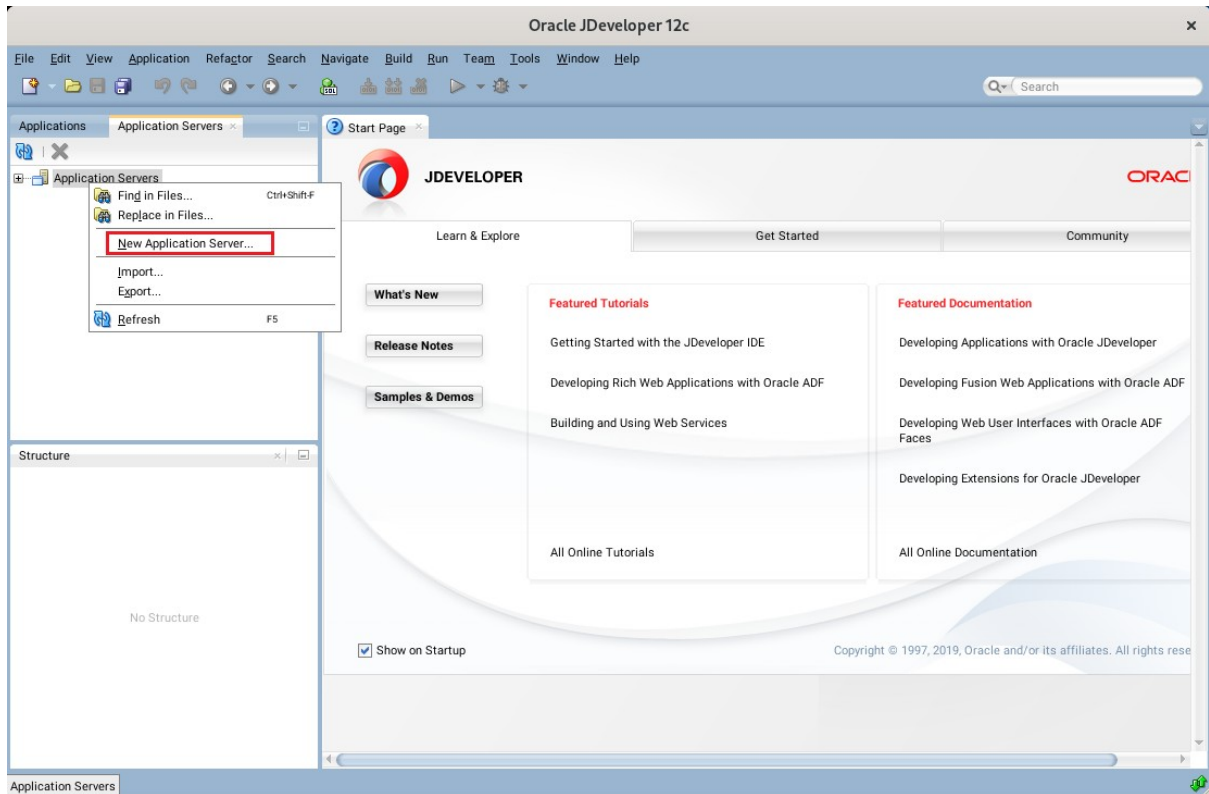


Select the role that matches your requirements. Click **OK** to continue.

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.

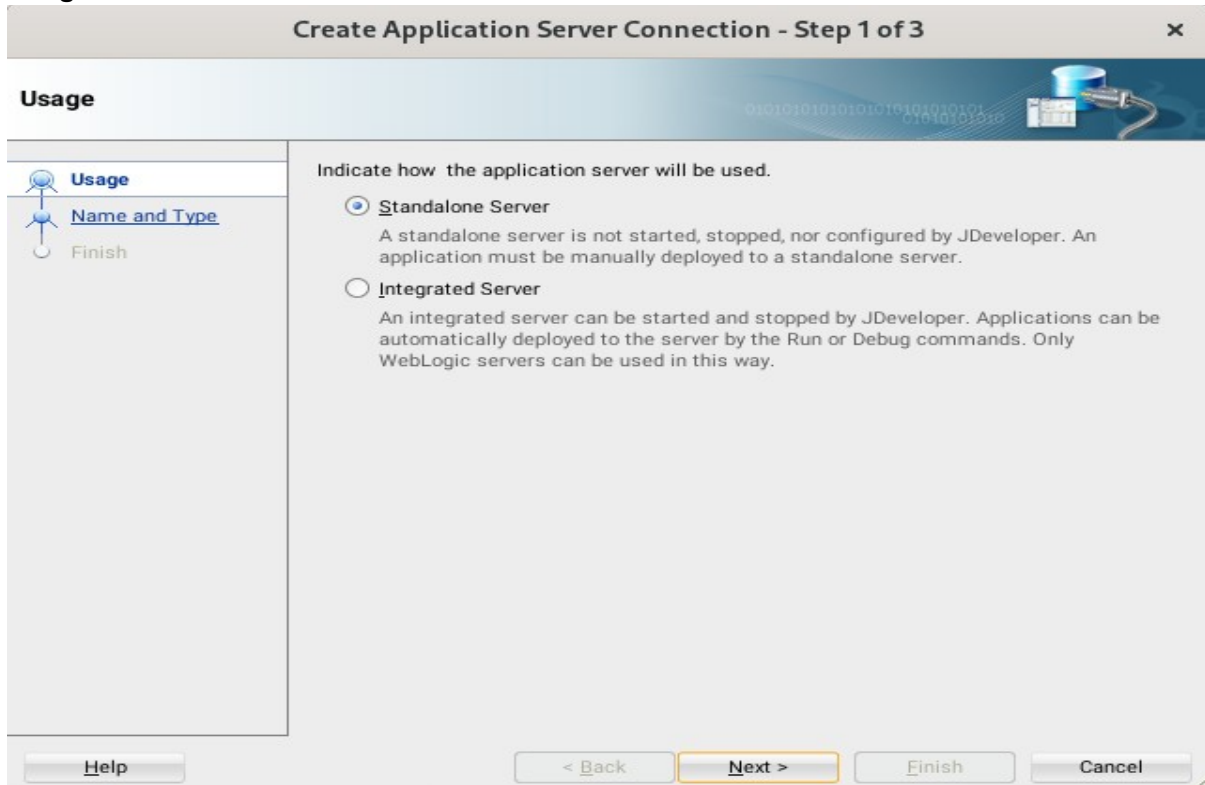


a3). Right-click on **Application Servers** in the Application Server Navigator. Select **New Application Server** from the drop-down menu to launch the **Create Application Server Connection** wizard.

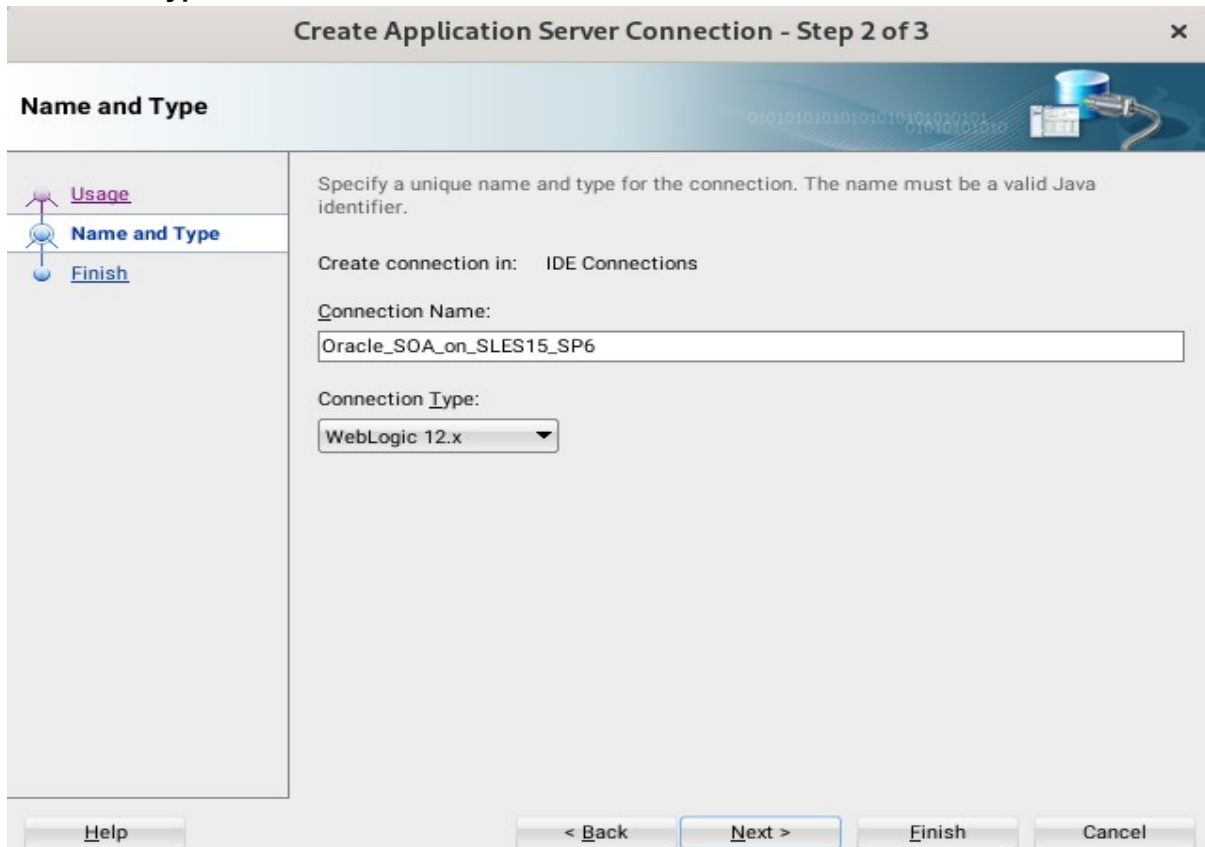


a4). Creating Application Server Connection steps as shown below.

Usage screen.



Name and Type screen.



Authentication screen.

Create Application Server Connection - Step 3 of 6

Authentication

Specify a username and password to authenticate the connection.

Username:

Password:

Help < Back Next > Finish Cancel

Configuration screen.

Create Application Server Connection - Step 4 of 6

Configuration

WebLogic Server connections use a host name and port to establish a connection. The Domain of the target will be verified

WebLogic Hostname (Administration Server):

Port: SSL Port:

Always use SSL

WebLogic Domain:

Help < Back Next > Finish Cancel

Test screen.

Create Application Server Connection - Step 5 of 6

Test

Click Test Connection to determine if the information specified successfully establishes a connection with the application server.

Status:

Testing HTTP Authentication	...	success
Testing JSR-160 Runtime	...	success
Testing JNDI	...	success
Testing JSR-160 DomainRuntime	...	success
Testing JSR-160 Edit	...	success
Testing HTTP	...	success
Testing JSR-88	...	success
Testing JSR-88-LOCAL	...	success
Testing Server MBeans Model	...	success
Testing App Controller	...	success
Testing JSR-88-DEP-MGR	...	success
Testing JSR-88-DEP-MGR-LOCAL	...	success

12 of 12 tests successful.

Finish screen.

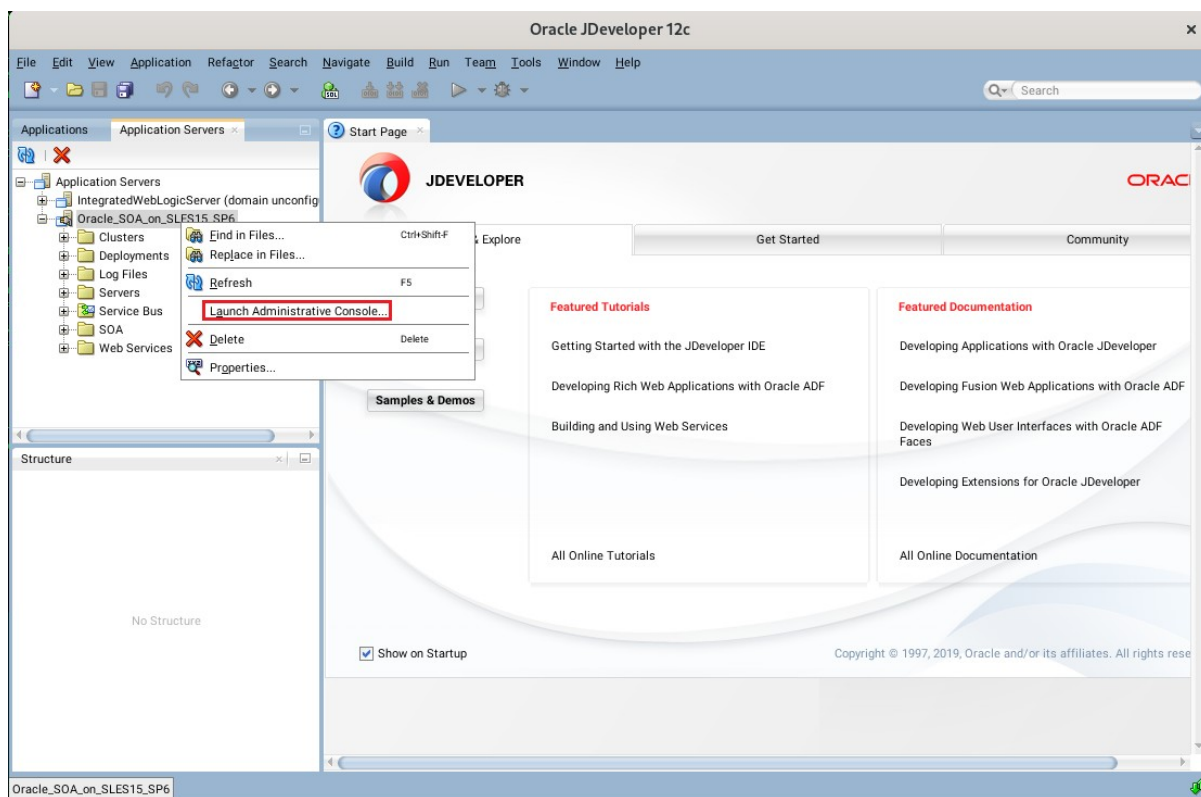
Create Application Server Connection - Step 6 of 6

Finish

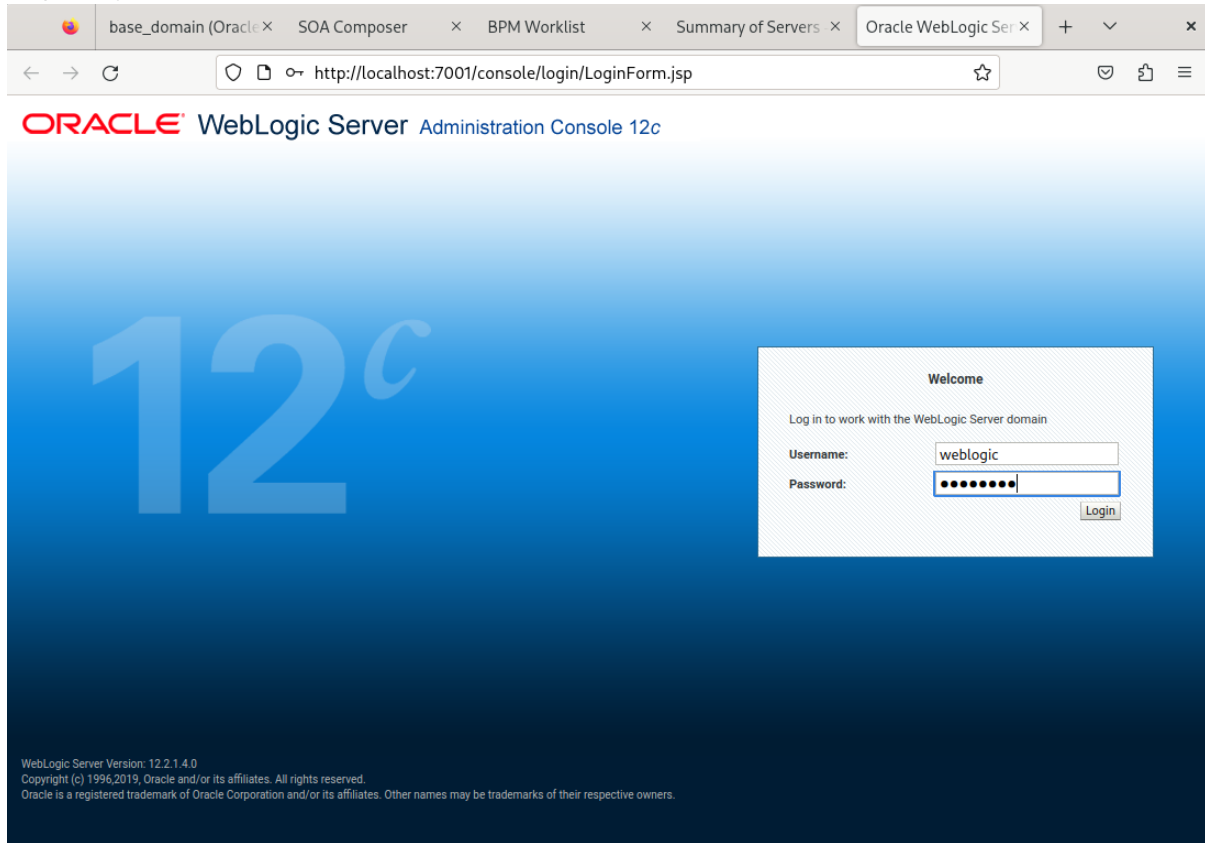
You have completed creating the connection.

To open your connection, expand the connection node in the Application Server Navigator.

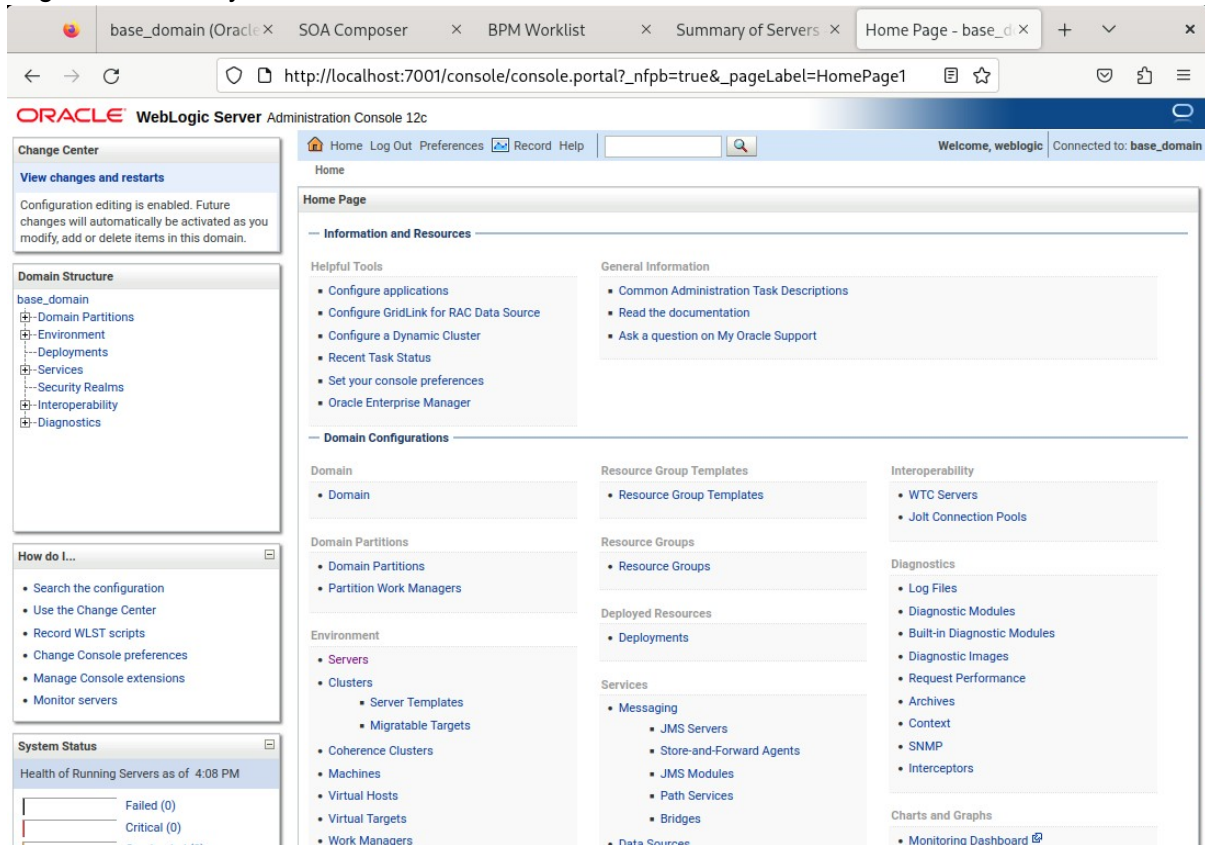
a5). Verifying Your Connection. Expand the connection node beside **Application Servers** in the Application Server Navigator. You should see your domain listed by the **Connection Name** you SPecified on the **Name and Type** screen. Right-click on your domain's name and choose **Launch Administrative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



Log into your administrative console.



Log in successfully.



End of Oracle SOA Suite.

Oracle Access Manager

1. Installing Oracle Identity and Access Management 12cPS4 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> show parameter open_cursors;
NAME                                TYPE        VALUE
-----
open_cursors                        integer     300
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 9932111872 bytes
Fixed Size                12169800 bytes
Variable Size             2046823864 bytes
Database Buffers         7851737088 bytes
Redo Buffers              21381120 bytes
Database mounted.
Database opened.
SQL> show parameter open_cursors;
NAME                                TYPE        VALUE
-----
open_cursors                        integer     1600
SQL> █
```

- 2). Oracle jdk1.8.0_221 and later installed.

1-2. Log in to the target system (SLES 15 SP6 64-bit OS) as a non-admin user. Download the Oracle Identity and Access Management 12cPS4 (12.2.1.4.0) generic installer .zip file from <https://www.oracle.com/downloads/#category-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_12.2.1.4.0_idmqs_Disk1_1of2.zip" and "fmw_12.2.1.4.0_idmqs_Disk1_2of2.zip") files and launch the installation program by running 'fmw_12.2.1.4.0_idmquickstart.jar'

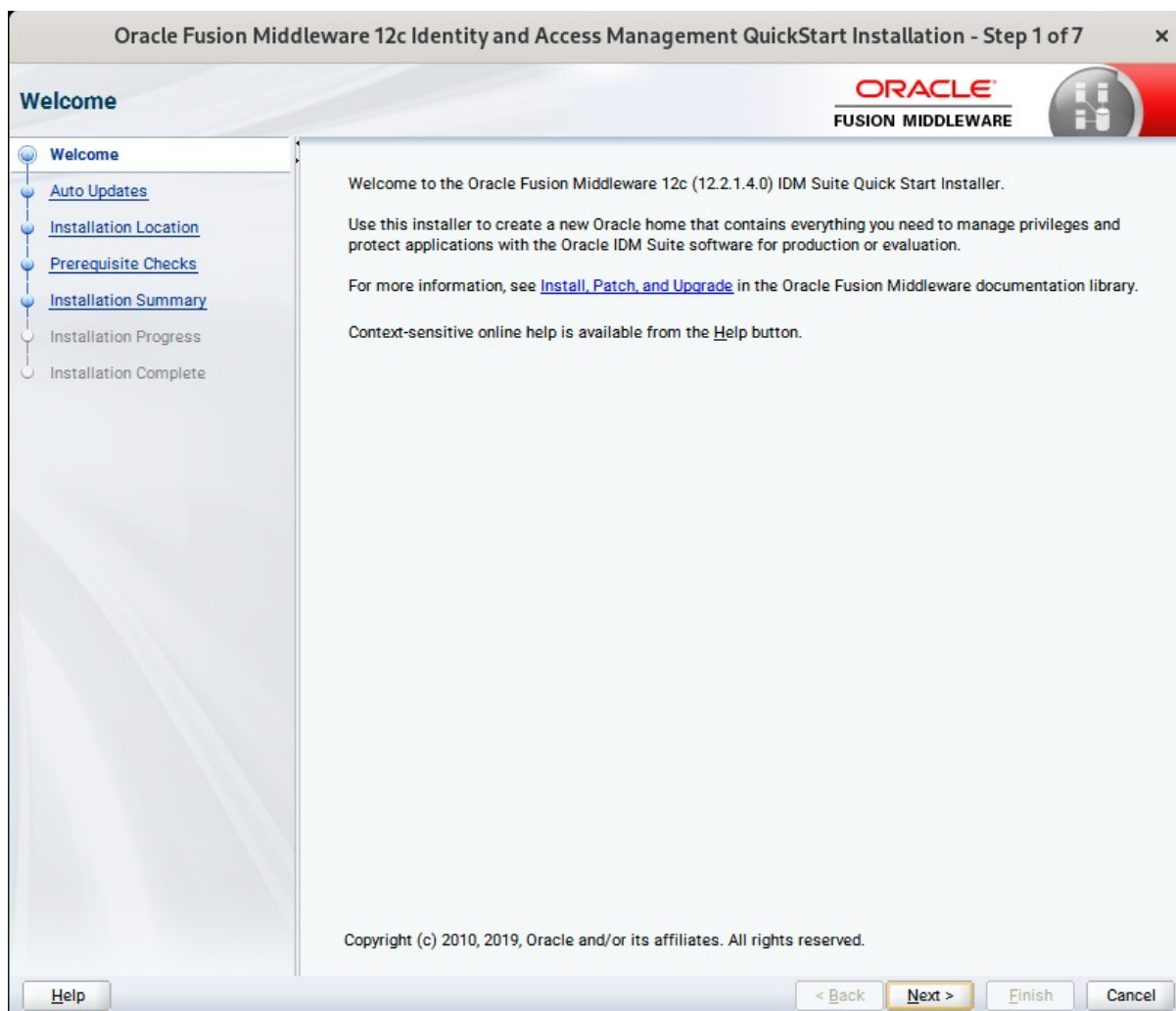
For the actual installation, follow the steps below:

1). Installation Inventory Setup.



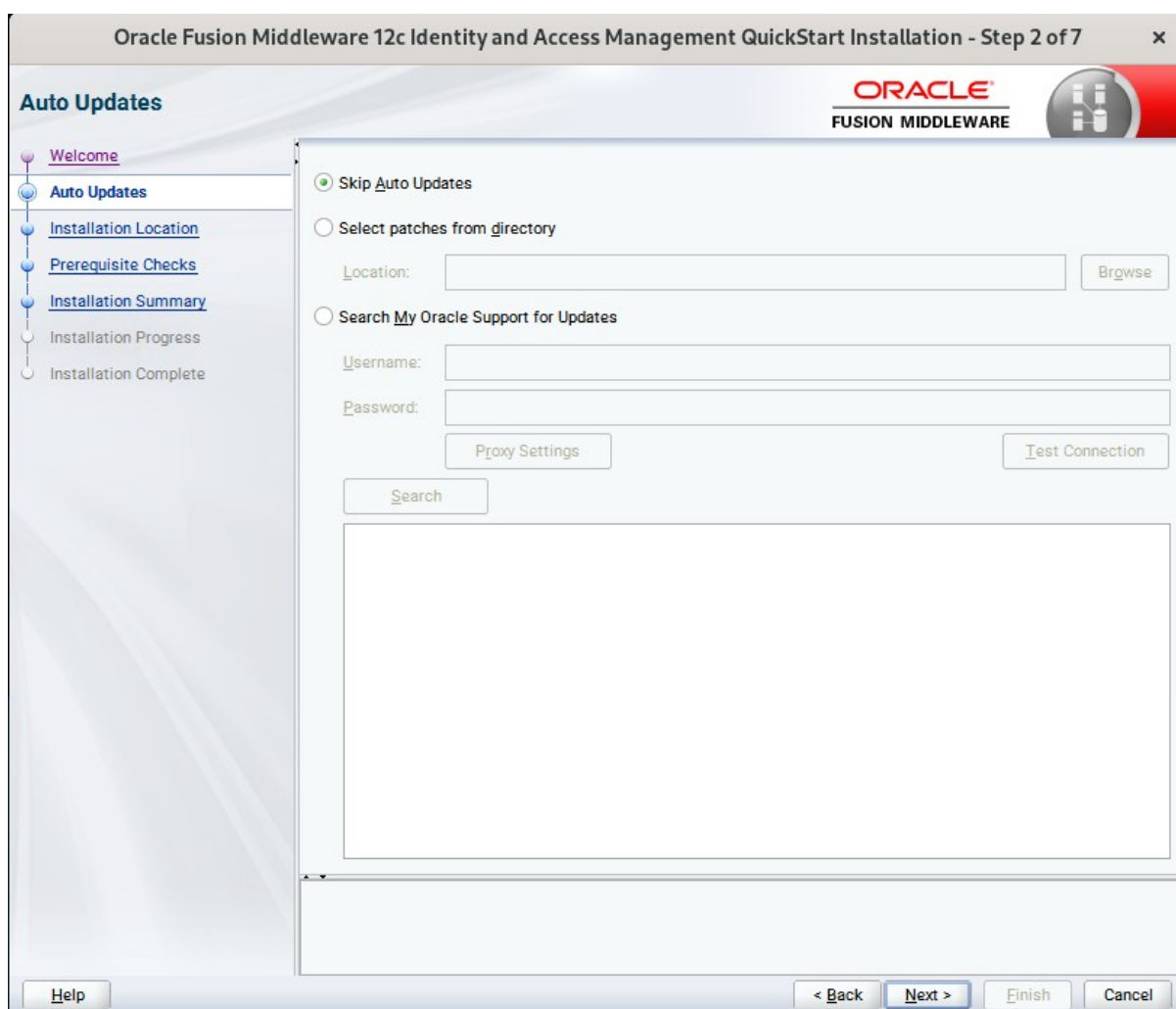
If this is your first Oracle installation on a host that is running SLES, please use this screen to specify the location of the Oracle central inventory directory and Operating System Group Name, then click **OK** to continue.

2). **Welcome** page appears.



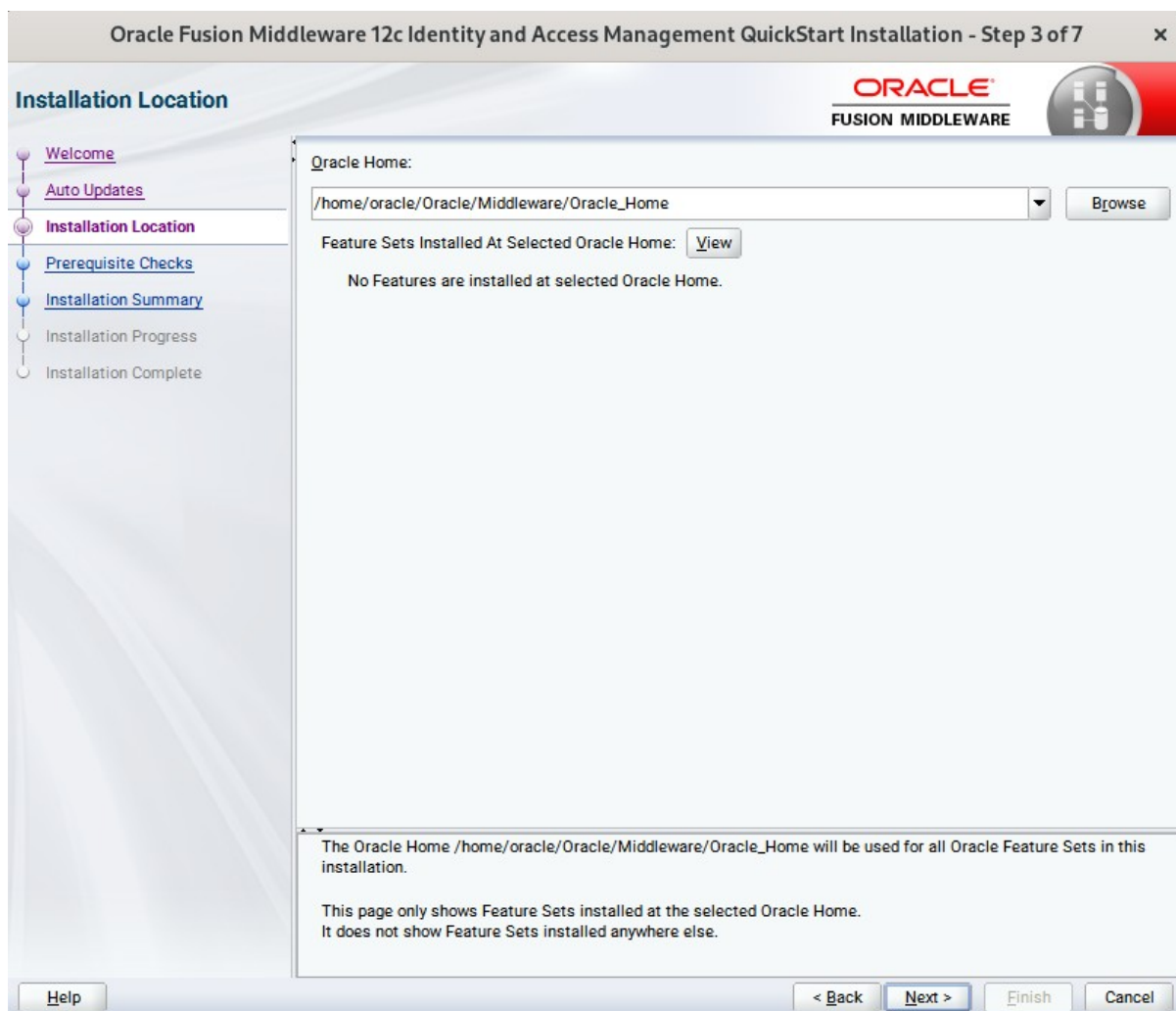
This page welcomes you to the installation. Click **Next** to continue.

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



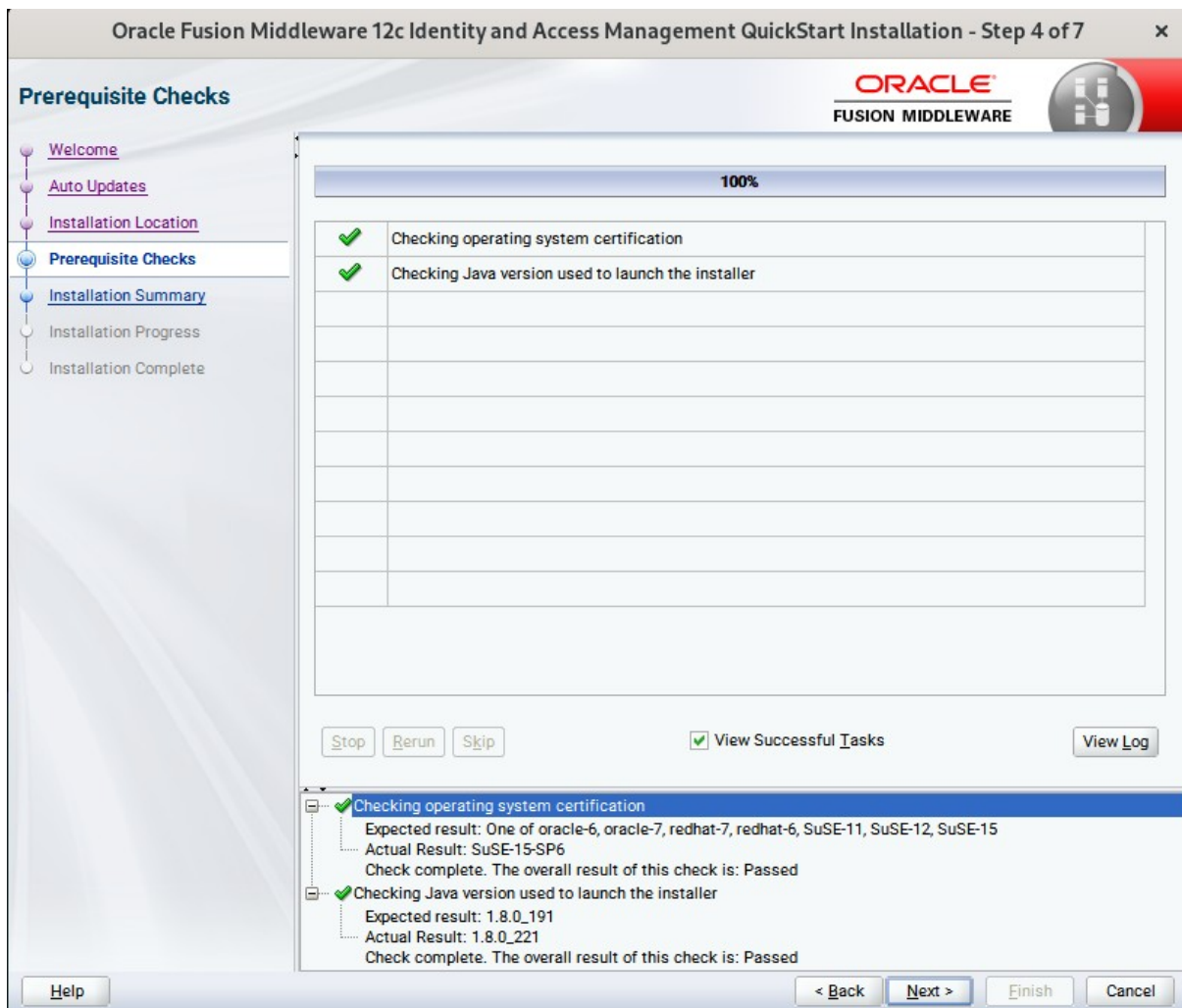
This screen helps to quickly and easily search for the latest software updates, including important security updates, via your My Oracle Support account. Make your choices, then click **Next** to continue.

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



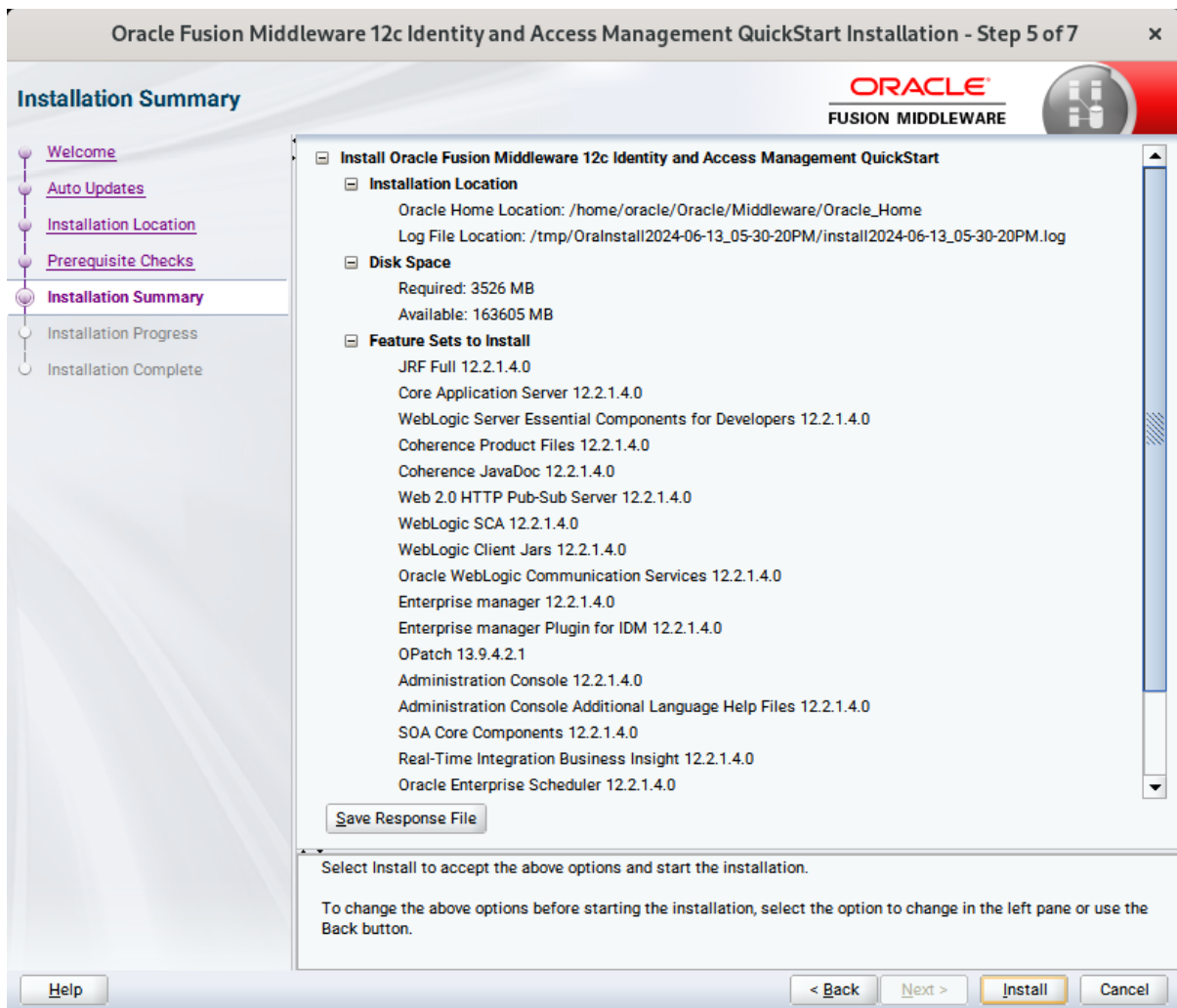
SPecify the Oracle home location into which you want to install the product(s). Click **Next** to continue.

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



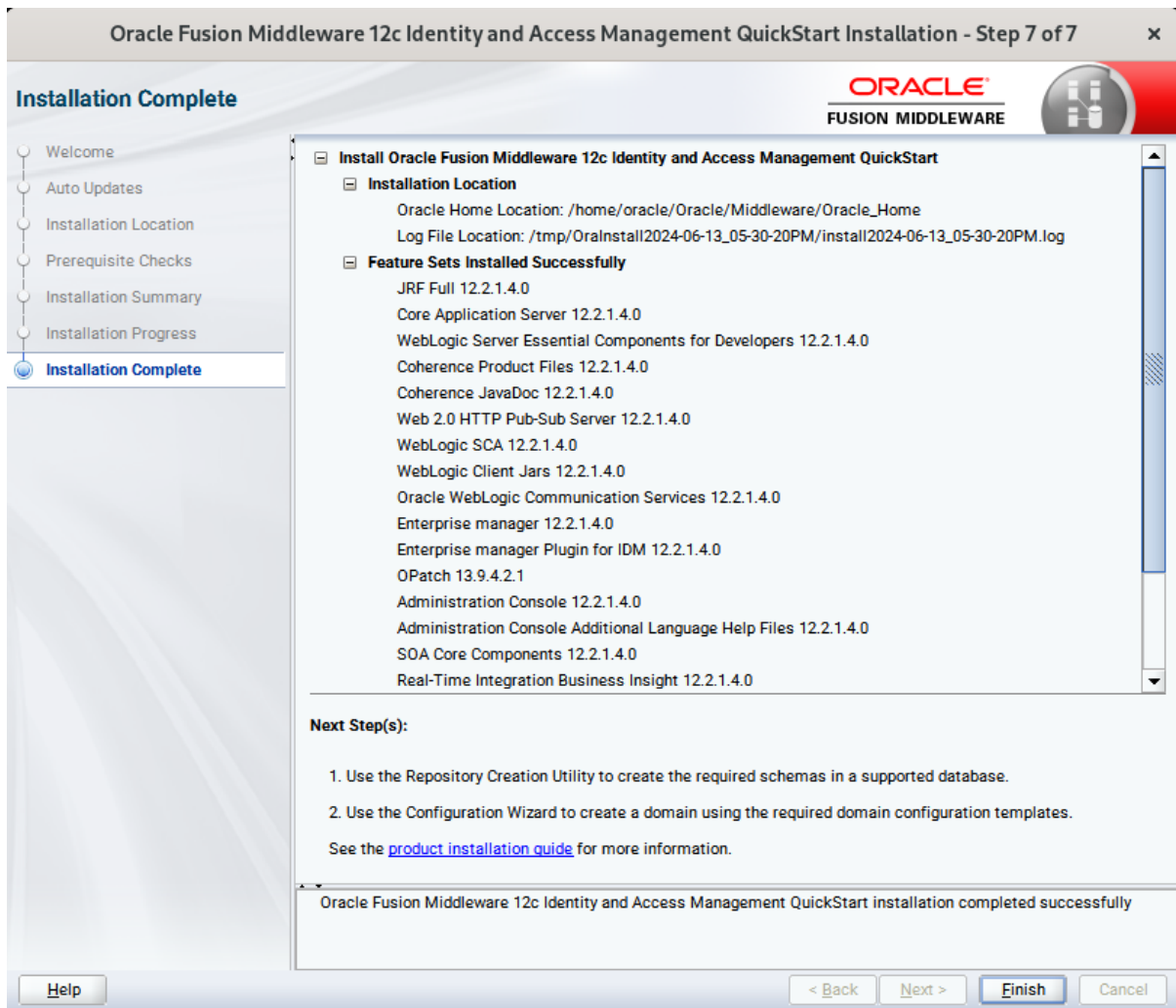
This page shows you the progress of the system checking the prerequisites on your system prior to installation. If you are lacking any prerequisites, a message will appear telling you so. You do not need to take any actions on this page, though you can view the log from here. Click **Next** to continue.

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.

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



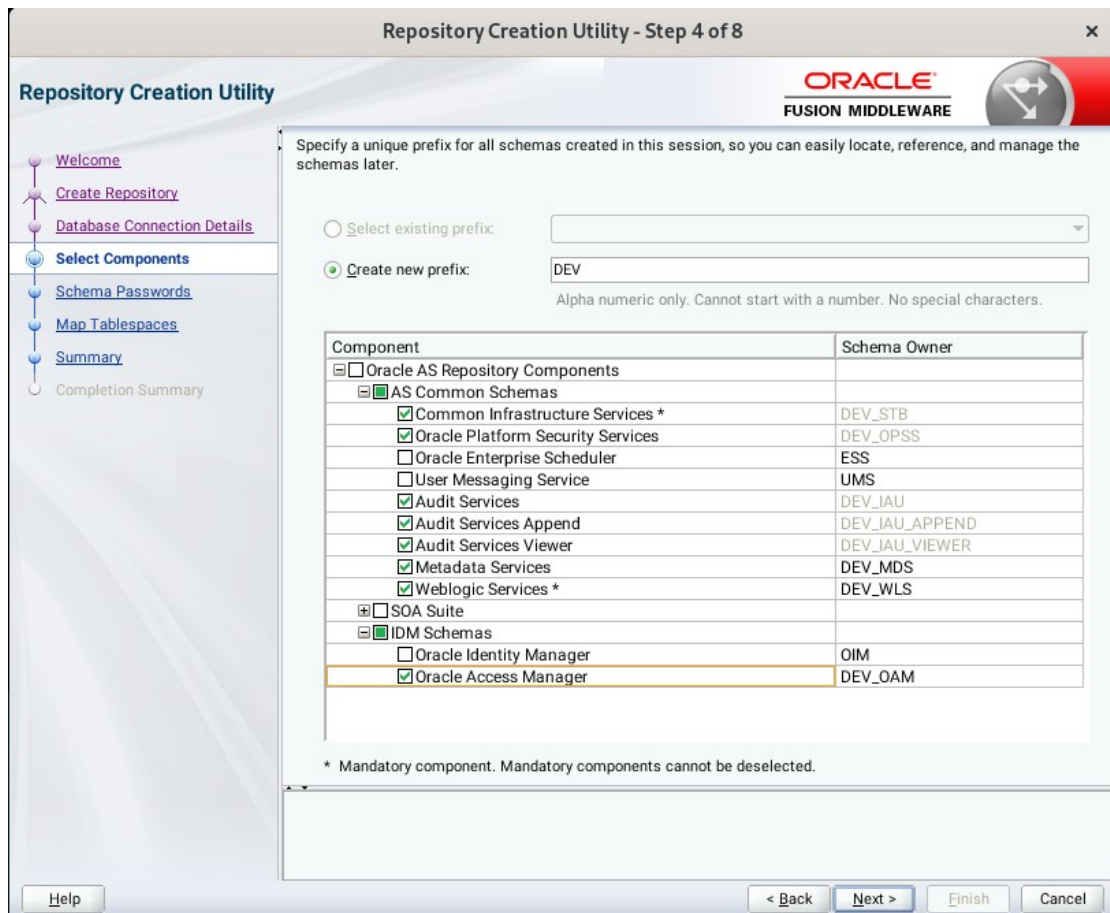
This screen displays the Installation Location and the Feature Sets that are installed. Review this information and click **Finish** to close the installer.

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 DEV). Select the **Oracle Access Manager** schema, this action automatically selects the schemas as dependencies.

Ensure the schema creation is successful.

Repository Creation Utility - Step 8 of 8

Repository Creation Utility ORACLE FUSION MIDDLEWARE

Database details:

Host Name: Dell5530
Port: 1521
Service Name: SUSE
Connected As: sys
Operation: System and Data Load concurrently
Execution Time: 1 minute 43 seconds

RCU Logfile: /tmp/RCU2024-06-13_17-43_1074110094/logs/rcu.log
Component Log Directory: /tmp/RCU2024-06-13_17-43_1074110094/logs
View Log: rcu.log

Prefix for (prefixable) Schema DEV
Owners

Component	Status	Time	Logfile(Click to view)
Common Infrastructure Services	Success	00:09.472(sec)	stb.log
Oracle Platform Security Services	Success	00:15.398(sec)	opss.log
Oracle Access Manager	Success	00:15.642(sec)	oam.log
Audit Services	Success	00:11.918(sec)	iau.log
Audit Services Append	Success	00:09.215(sec)	iau_append.log
Audit Services Viewer	Success	00:09.203(sec)	iau_viewer.log
Metadata Services	Success	00:11.996(sec)	mds.log
Weblogic Services	Success	00:12.922(sec)	wls.log

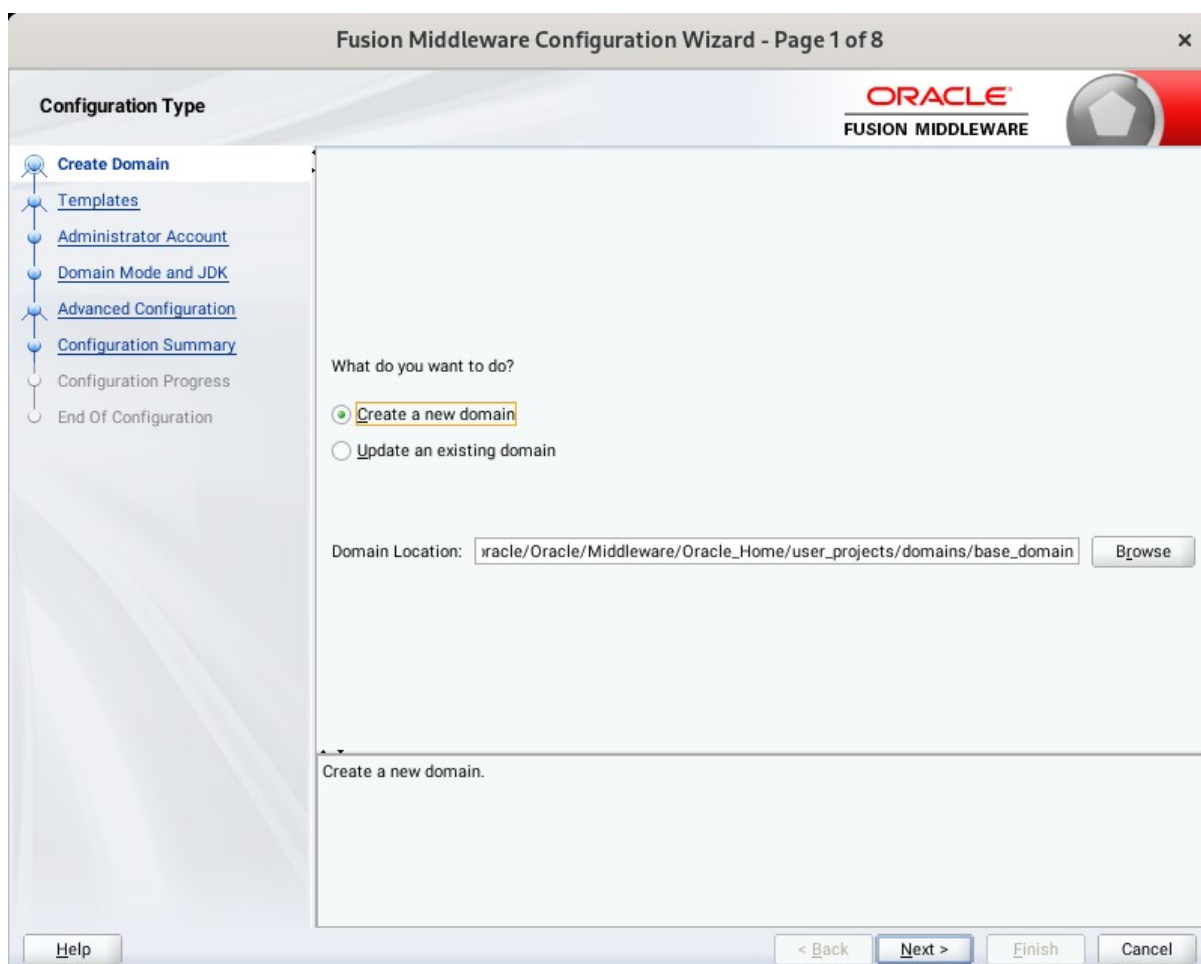
Help < Back Next > Create Close

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.

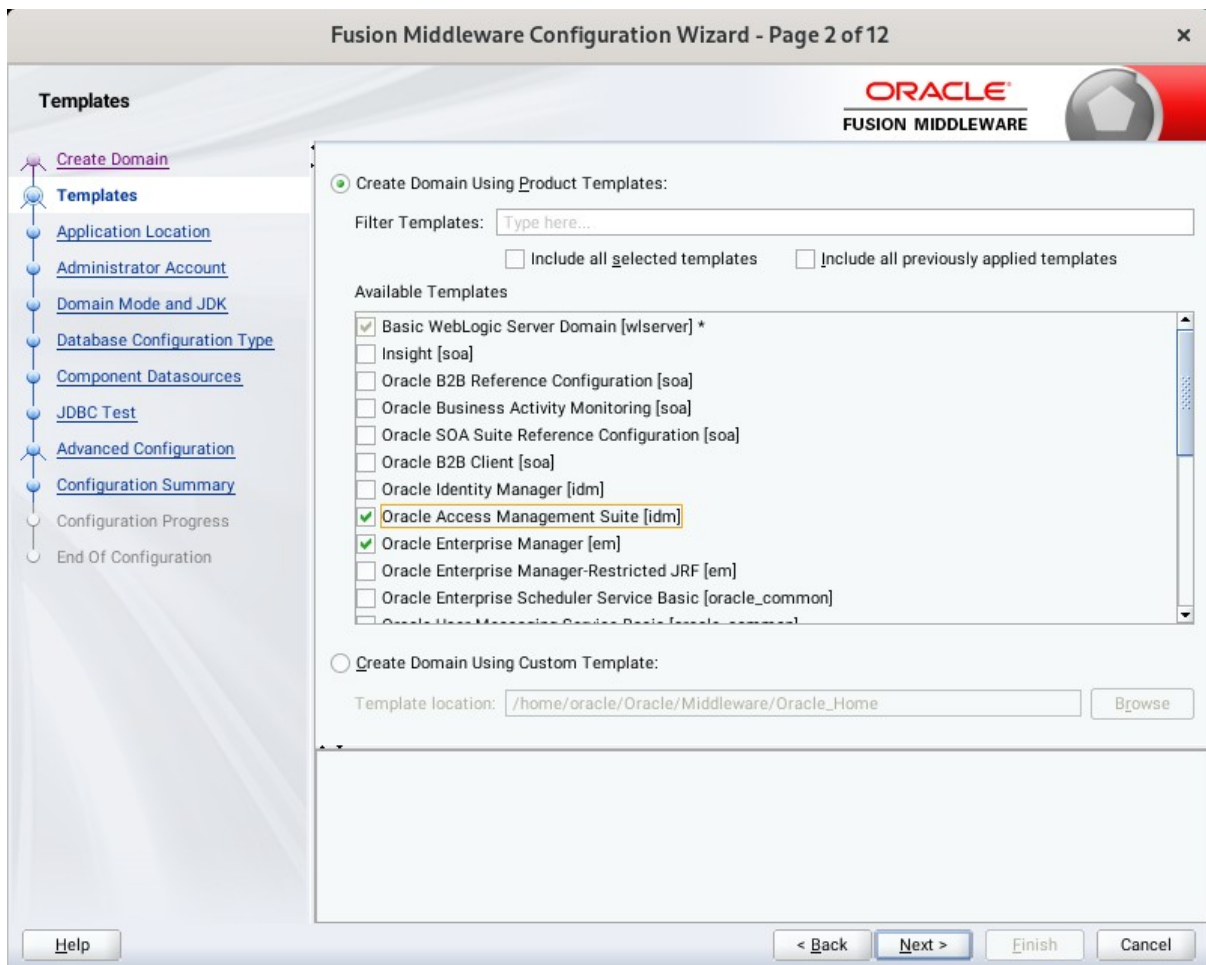
Follow these steps:

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



Click **Next** to continue.

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



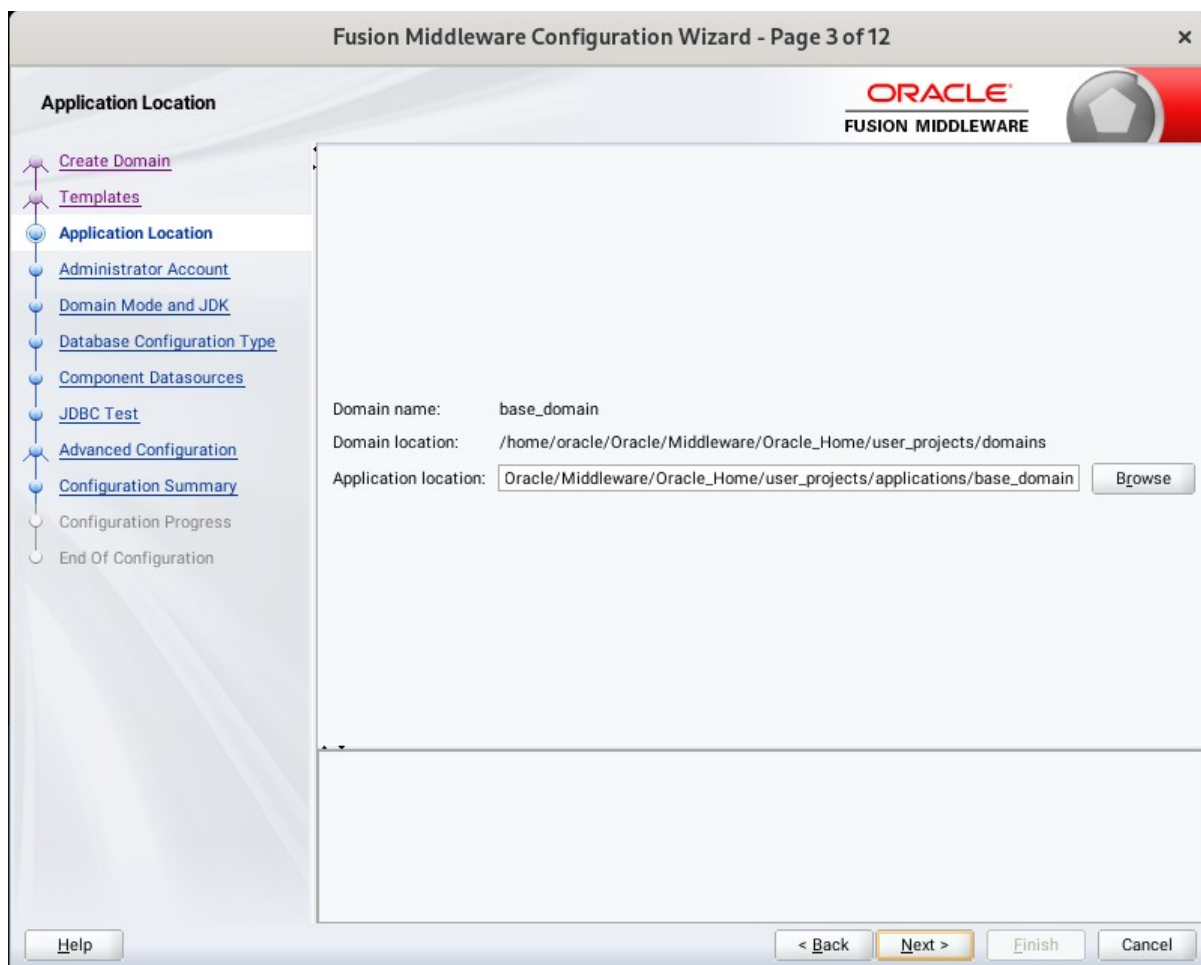
On the Templates screen, make sure **Create Domain Using Product Templates** is selected, then select the template **Oracle Access Management Suite [idm]**.

Selecting these templates automatically selects the following as dependencies:

- Oracle Enterprise Manager [em]
- Oracle JRF [oracle_common]
- WebLogic Coherence Cluster Extension [wlsrserver]

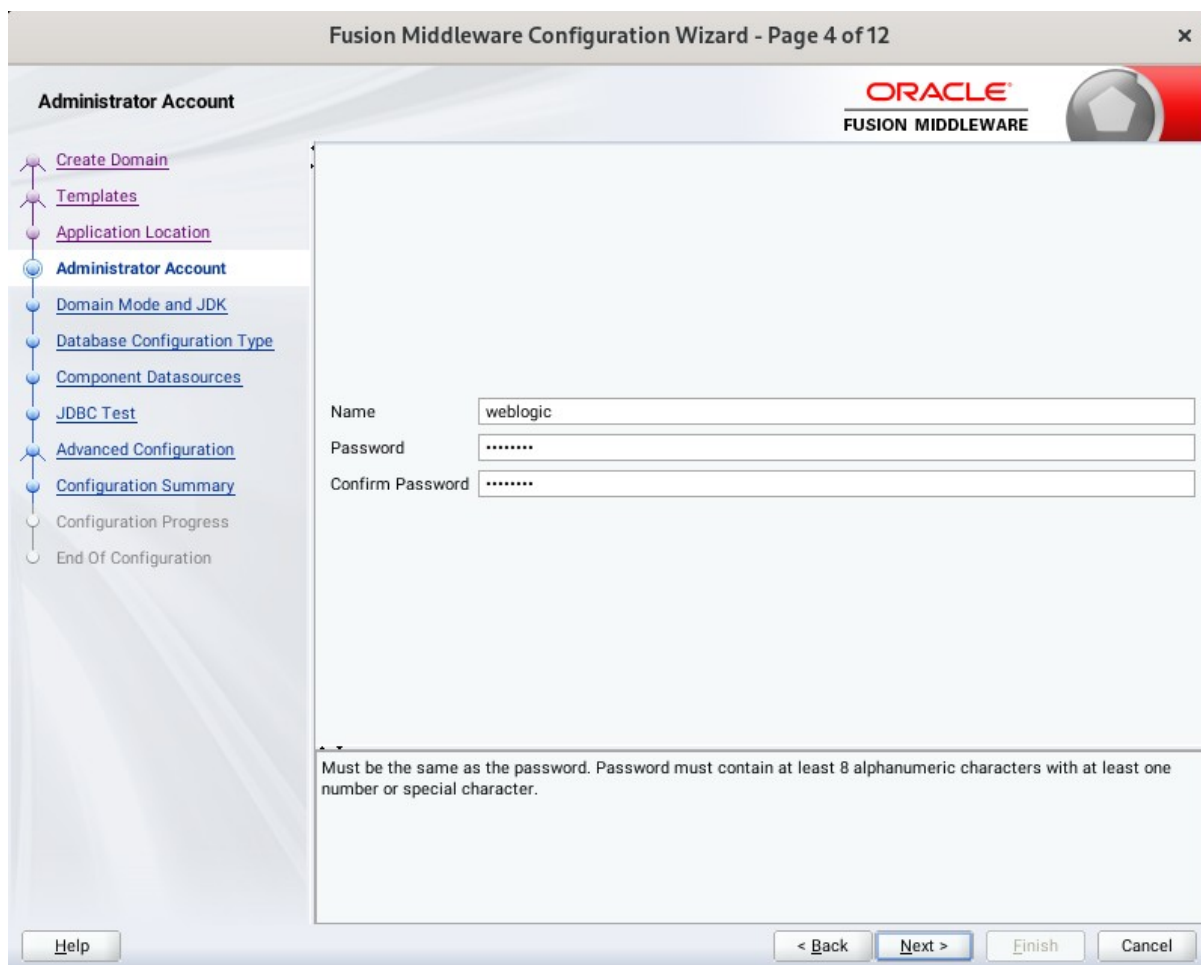
You can also select any of the Oracle products listed in the following table. You do not need to select all of these templates, and you can always run the configuration wizard again to add products to your domain later. Click **Next** to continue.

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



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

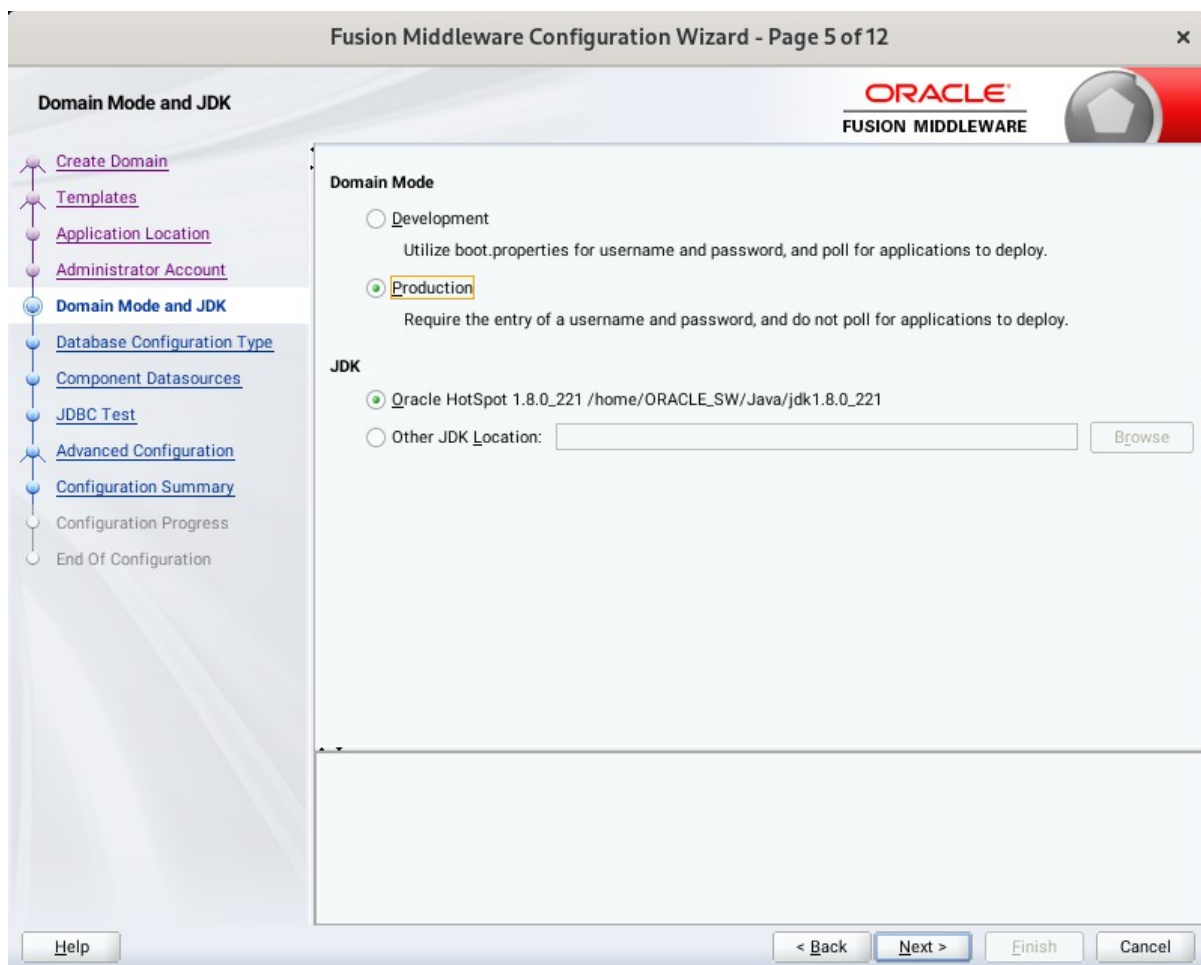
4). The **Administrator Account** screen appears.



The screenshot shows the "Administrator Account" screen in the Fusion Middleware Configuration Wizard. The window title is "Fusion Middleware Configuration Wizard - Page 4 of 12". The Oracle Fusion Middleware logo is 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 the 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.



The screenshot shows the "Fusion Middleware Configuration Wizard - Page 5 of 12" window. The title bar includes the Oracle logo and "FUSION MIDDLEWARE". The main content area is titled "Domain Mode and JDK". On the left, a navigation pane lists steps: "Create Domain", "Templates", "Application Location", "Administrator Account", "Domain Mode and JDK" (highlighted), "Database Configuration Type", "Component Datasources", "JDBC Test", "Advanced Configuration", "Configuration Summary", "Configuration Progress", and "End Of Configuration". The main area has two sections: "Domain Mode" with radio buttons for "Development" (description: "Utilize boot.properties for username and password, and poll for applications to deploy.") and "Production" (description: "Require the entry of a username and password, and do not poll for applications to deploy."); and "JDK" with radio buttons for "Oracle HotSpot 1.8.0_221 /home/ORACLE_SW/Java/jdk1.8.0_221" and "Other JDK Location:" (with a text input field and a "Browse" button). At the bottom, there are "Help", "< Back", "Next >", "Finish", and "Cancel" buttons.

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

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: Dell5530

DBMS/Service: suse Port: 1521

Schema Owner: DEV_STB Schema Password:

Get RCU Configuration Cancel

Connection Result Log

Connecting to the database server...OK
Retrieving schema data from database server...OK
Binding local schema components with retrieved data...OK

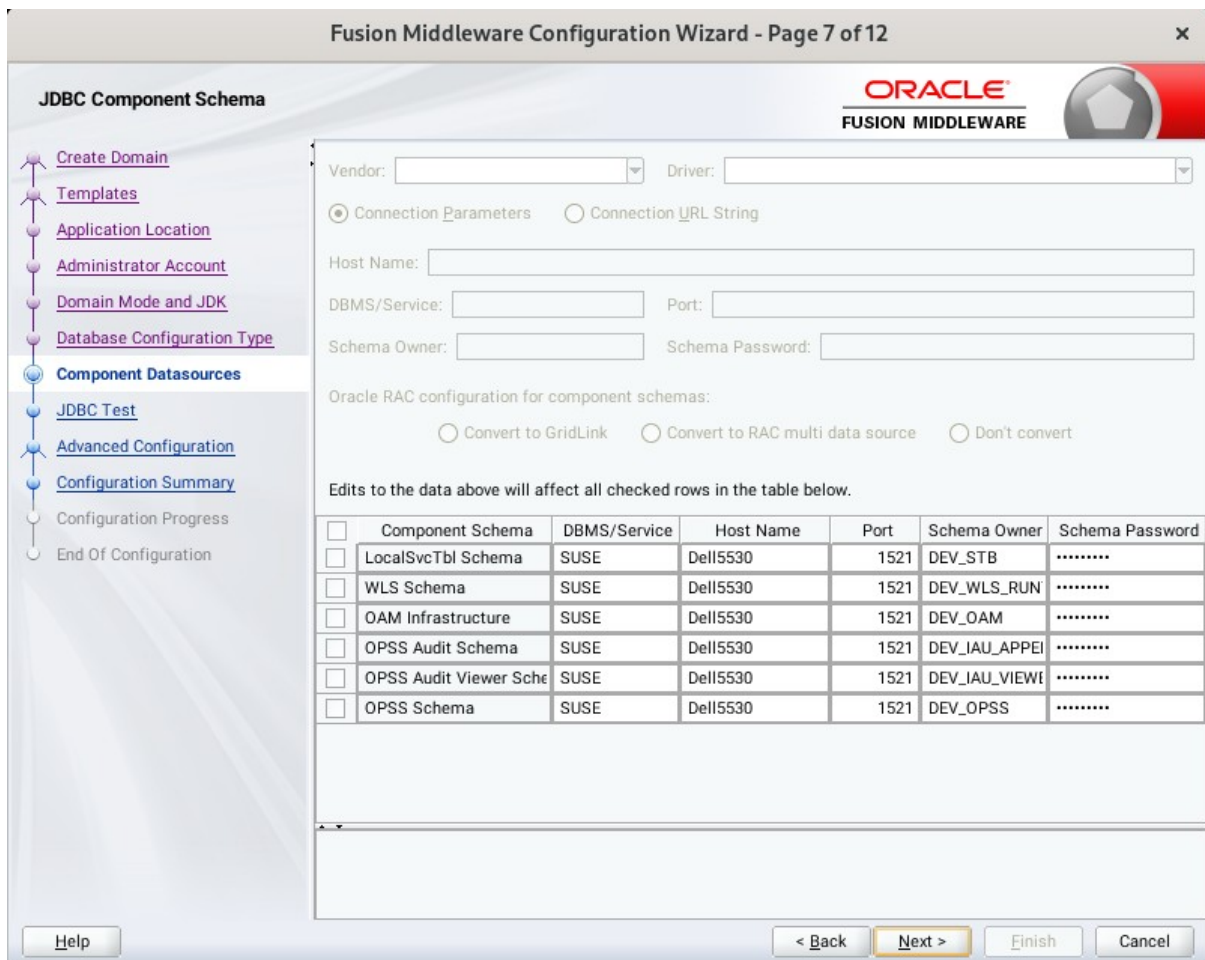
Successfully Done.

Click *Next* button to continue.

Help < Back Next > Finish Cancel

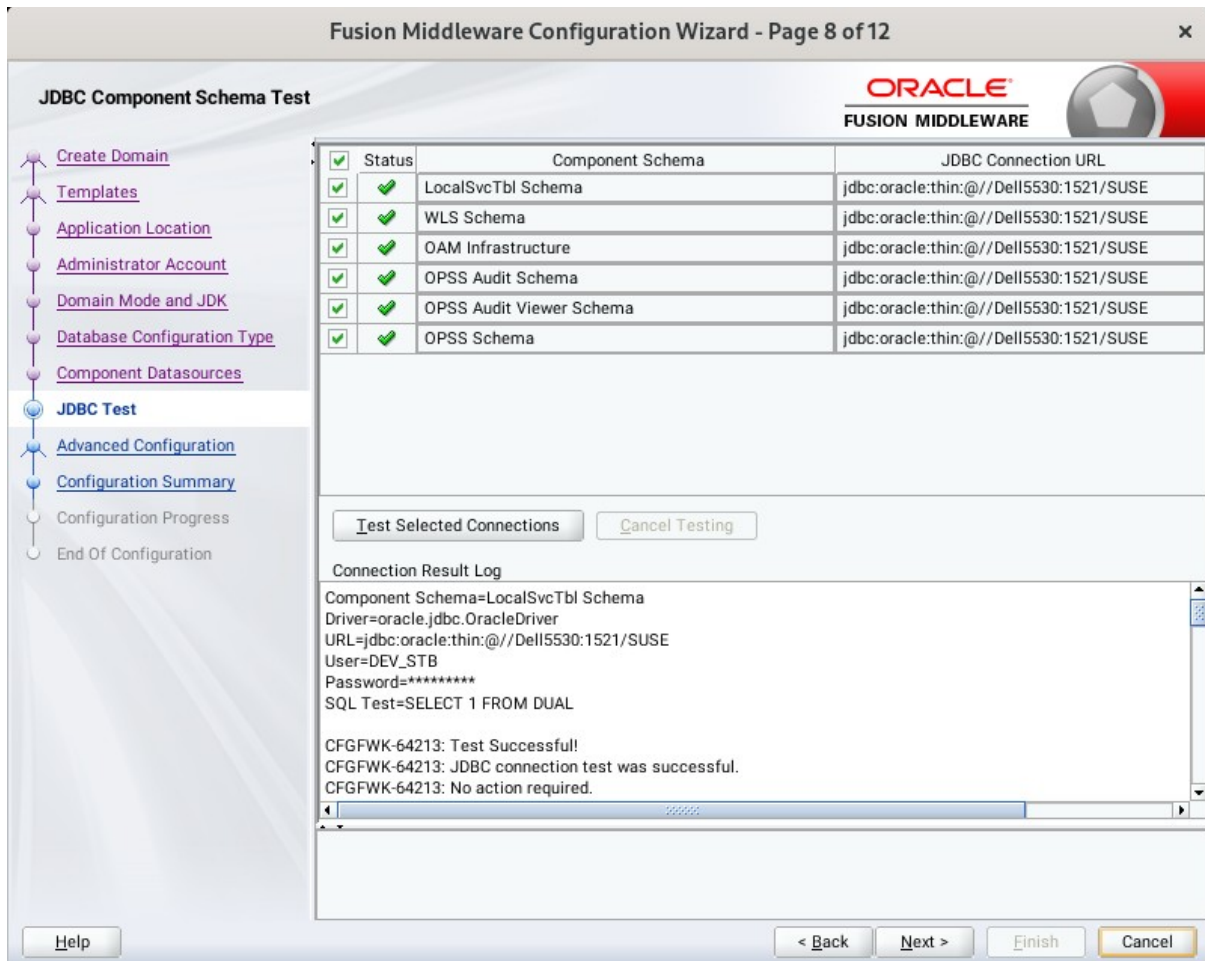
Select **RCU Data** to activate the fields. The **RCU Data** option instructs the Configuration Wizard to connect to the database and Service Table (STB) schema to automatically retrieve schema information for the schemas needed to configure the domain. Enter the RCU DB connection information, then click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

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



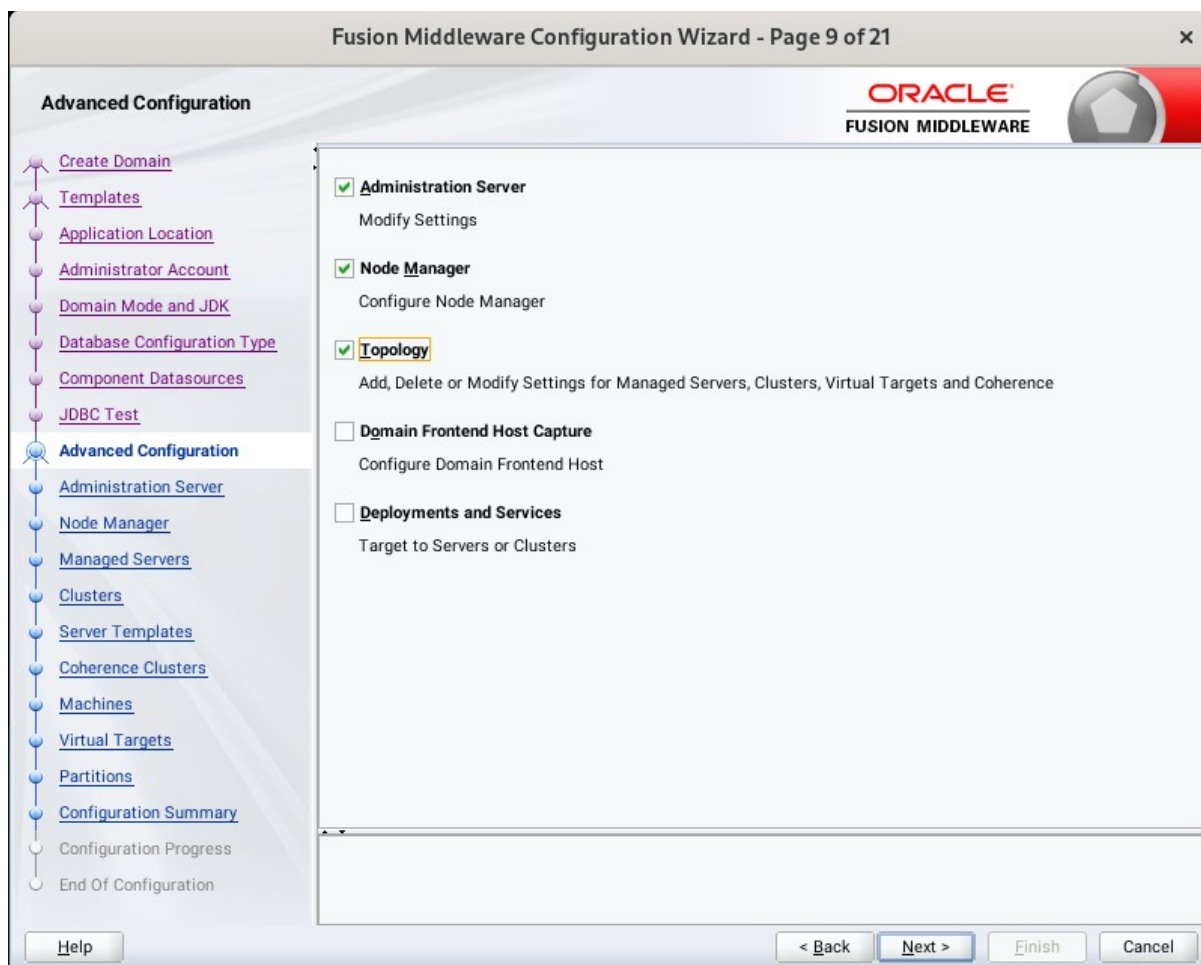
Our instructions assume each Repository schema uses the same password. If not, enter the correct schema passwords. Click **Next** to continue.

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.

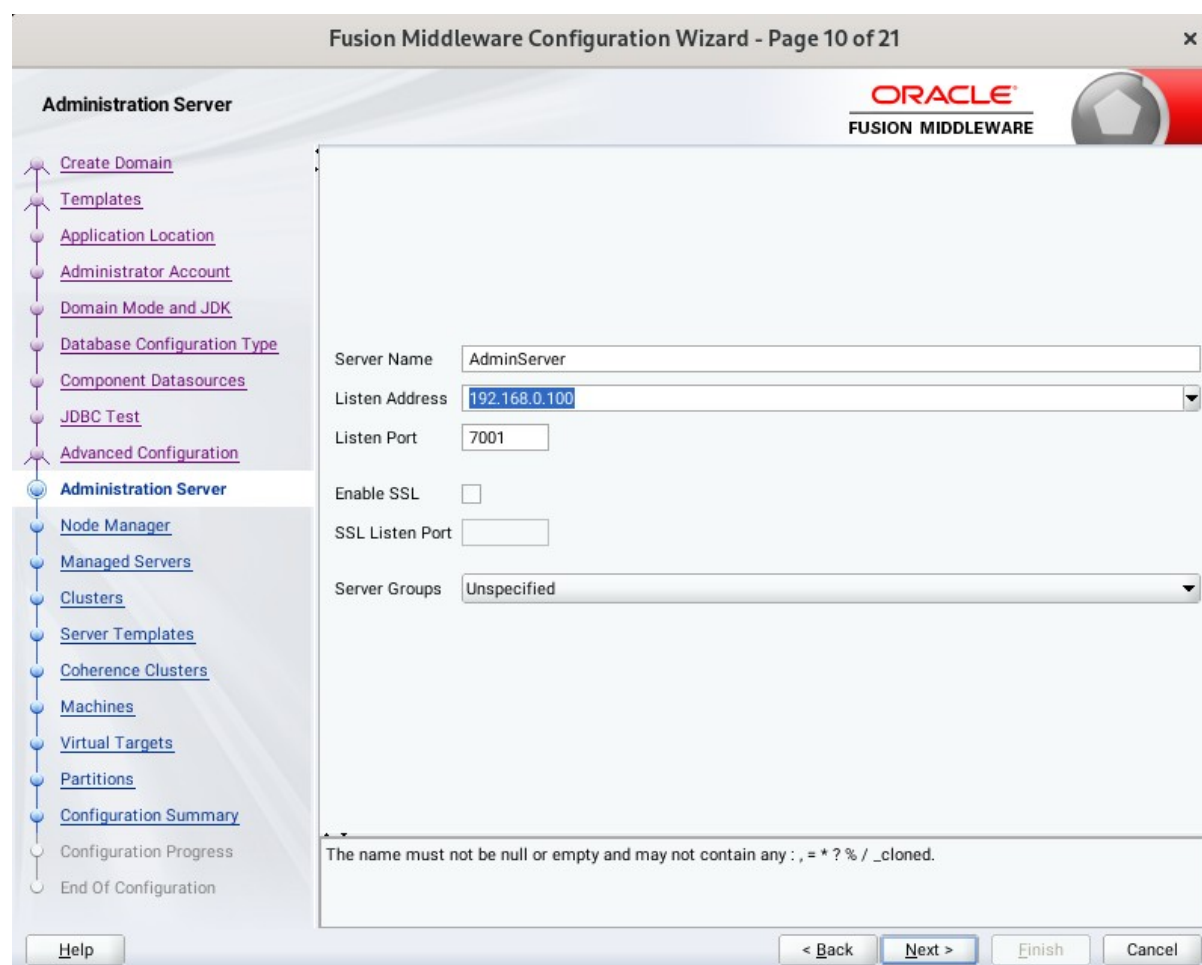


On the Advanced Configuration screen, select:

- Administration Server
- Node Manager
- Topology

Then, click **Next** to continue.

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



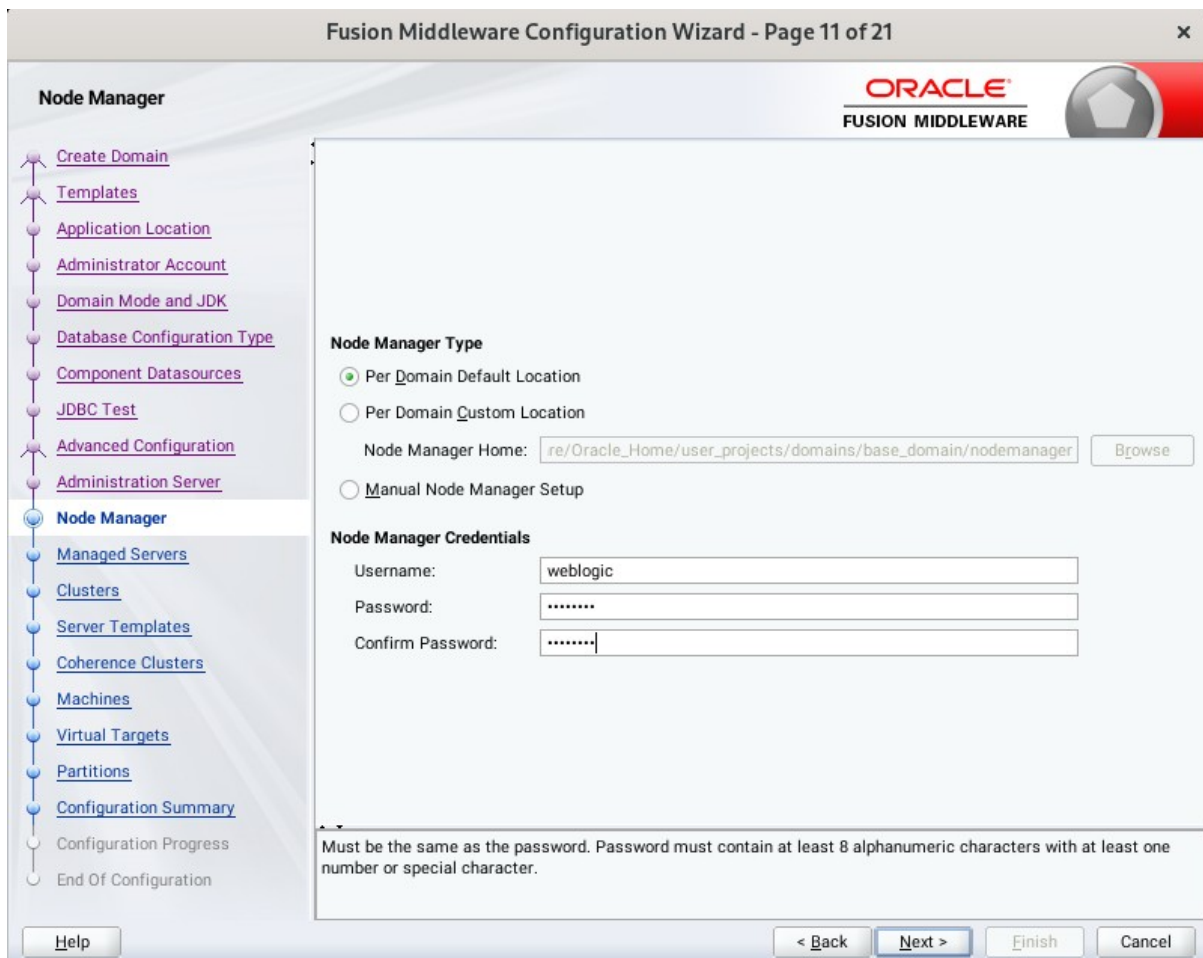
The screenshot displays the 'Administration Server' configuration screen within the Oracle Fusion Middleware Configuration Wizard. The window title is 'Fusion Middleware Configuration Wizard - Page 10 of 21'. The Oracle logo and 'FUSION MIDDLEWARE' text are visible in the top right corner. A navigation pane on the left lists various configuration steps, with 'Administration Server' currently selected. The main configuration area contains the following fields:

- Server Name: AdminServer
- Listen Address: 192.168.0.100 (selected from a dropdown menu)
- Listen Port: 7001
- Enable SSL:
- SSL Listen Port: (empty text box)
- Server Groups: Unspecified (selected from a dropdown menu)

At the bottom of the configuration area, a warning message states: 'The name must not be null or empty and may not contain any : , * ? % / _cloned.' Navigation buttons at the bottom include '< Back', 'Next >', 'Finish', and 'Cancel'.

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.



The screenshot shows the "Node Manager" configuration screen in the Fusion Middleware Configuration Wizard. The window title is "Fusion Middleware Configuration Wizard - Page 11 of 21". The Oracle logo and "FUSION MIDDLEWARE" text are visible in the top right corner. On the left, a navigation pane lists various configuration steps, with "Node Manager" selected and highlighted in blue. The main content area is divided into two sections: "Node Manager Type" and "Node Manager Credentials".

Node Manager Type

- Per Domain Default Location
- Per Domain Custom Location

Node Manager Home:

- Manual Node Manager Setup

Node Manager Credentials

Username:

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.

At the bottom of the window, there are four buttons: "Help", "< Back", "Next >", "Finish", and "Cancel".

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.

Managed Servers

ORACLE
FUSION MIDDLEWARE

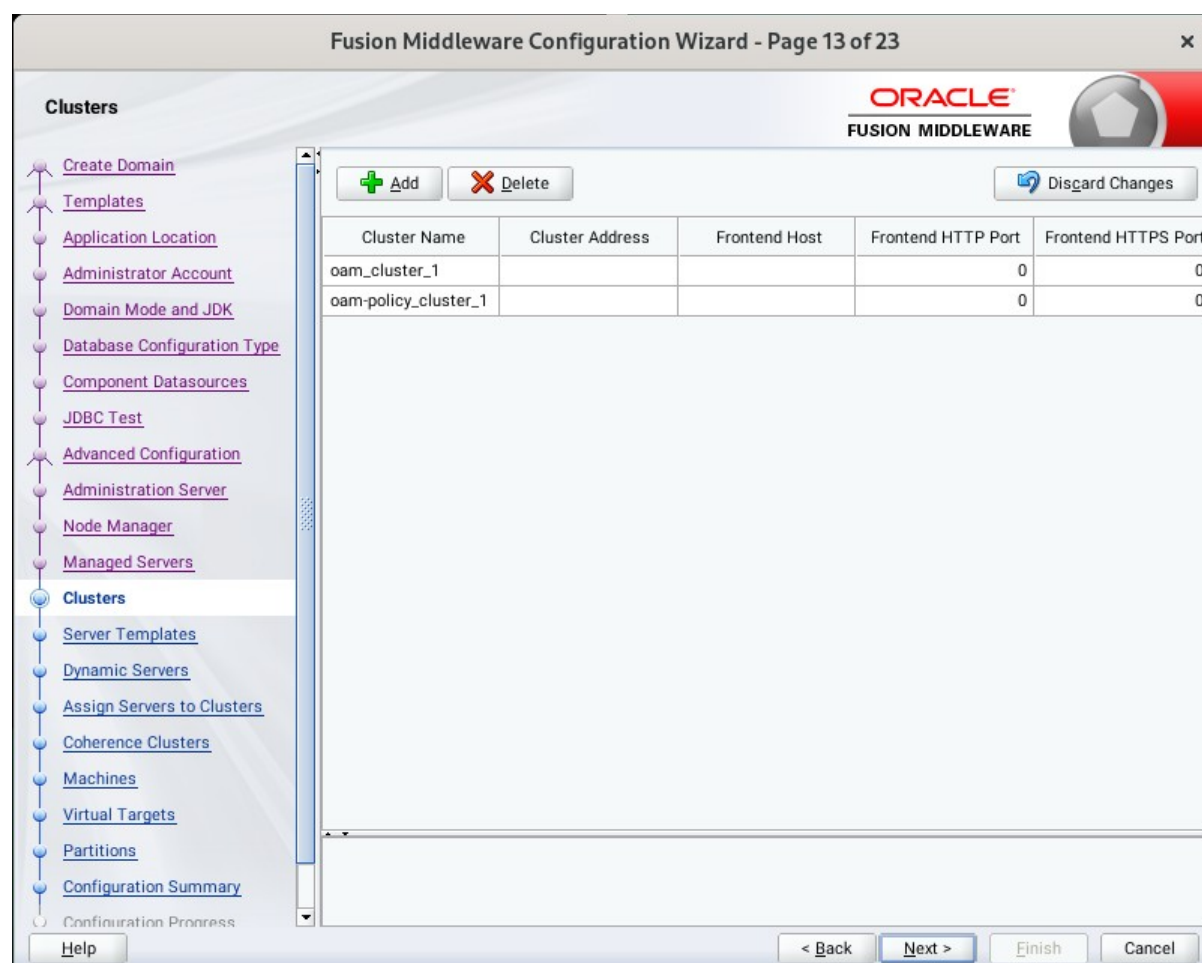
+ Add Clone X Delete Disgard Changes

Server Name	Listen Address	Listen Port	Enable SSL	SSL Listen Port	Server Groups
oam_server1	192.168.0.100	14100	<input type="checkbox"/>	Disabled	OAM-MGD...
oam_policy_mgr1	192.168.0.100	14150	<input type="checkbox"/>	Disabled	OAM-POLIC...

Help < Back Next > Finish Cancel

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.



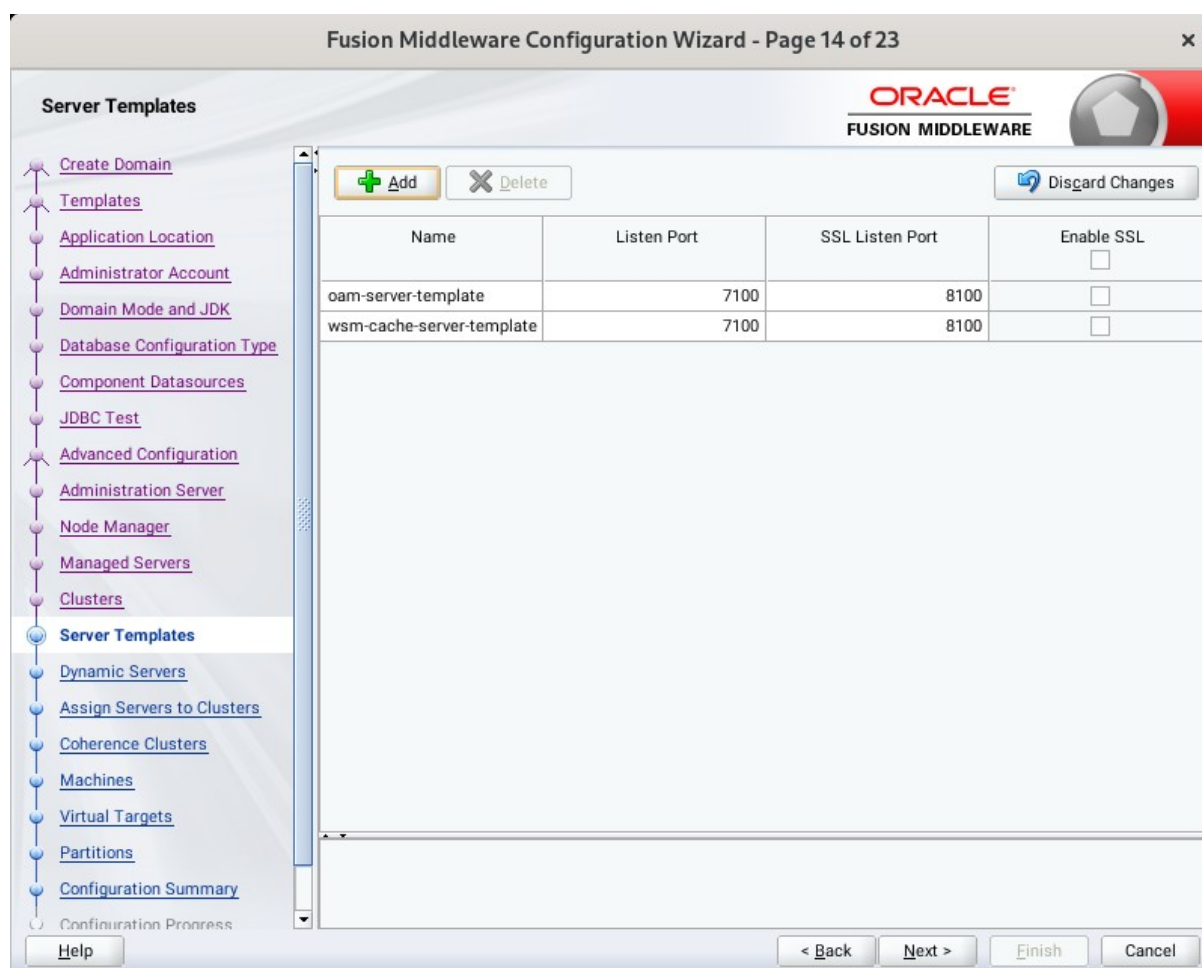
On the Clusters screen:

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.

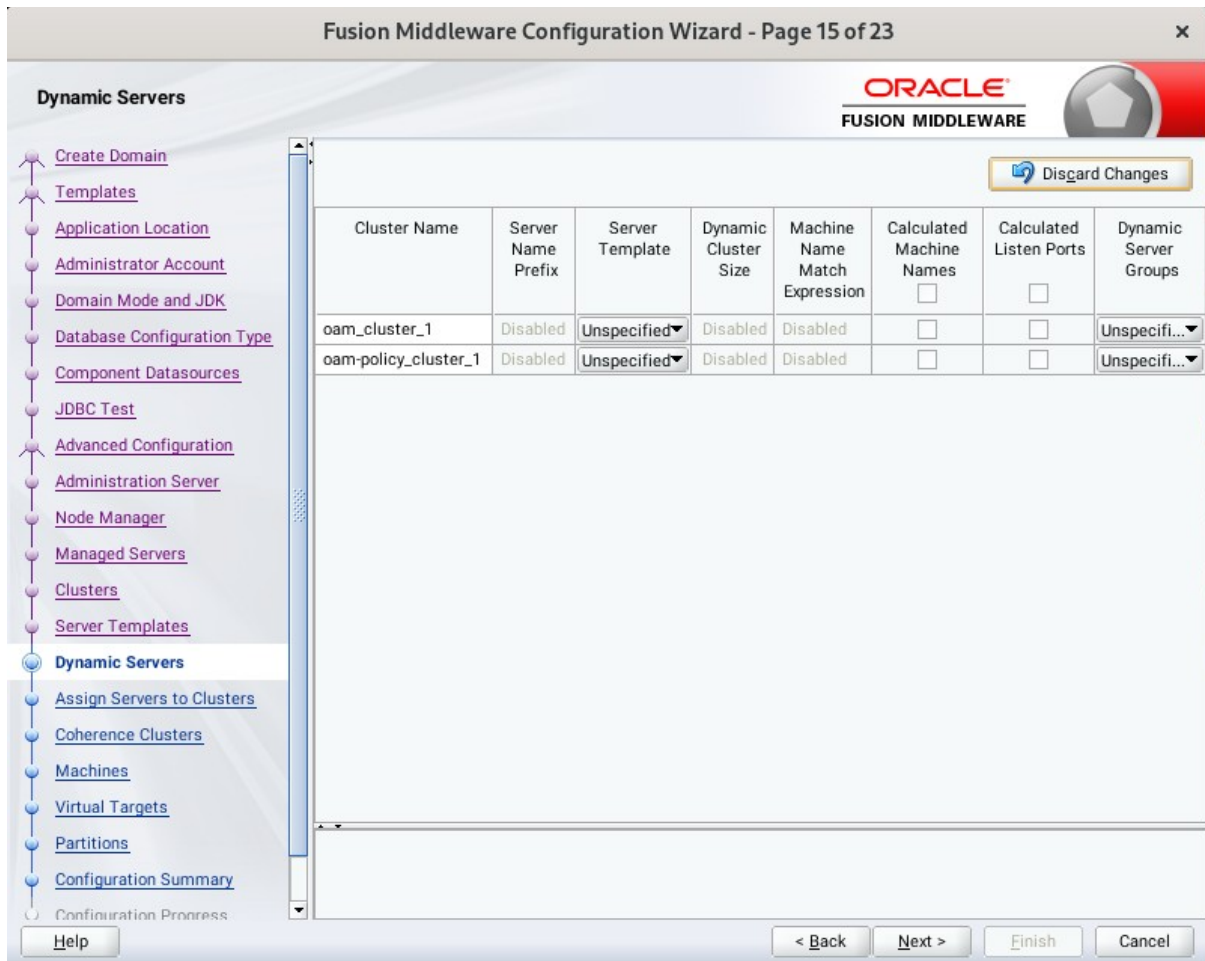
(Note: Configuring a non-clustered setup on a single node, skip this screen.)

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



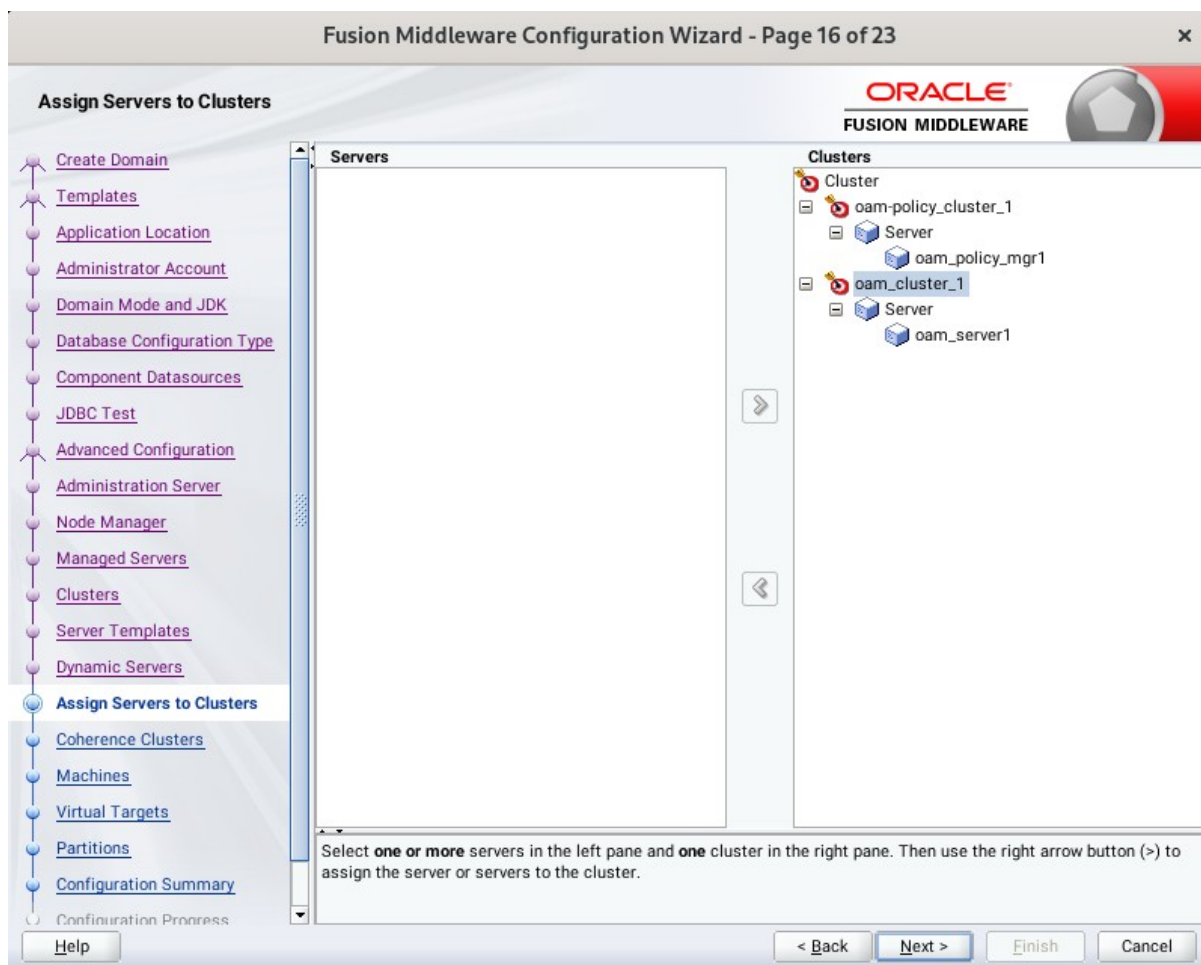
If you are creating dynamic clusters for a high availability setup, use the Server Templates screen to define one or more server templates for domain. To continue configuring the domain, click **Next**.

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



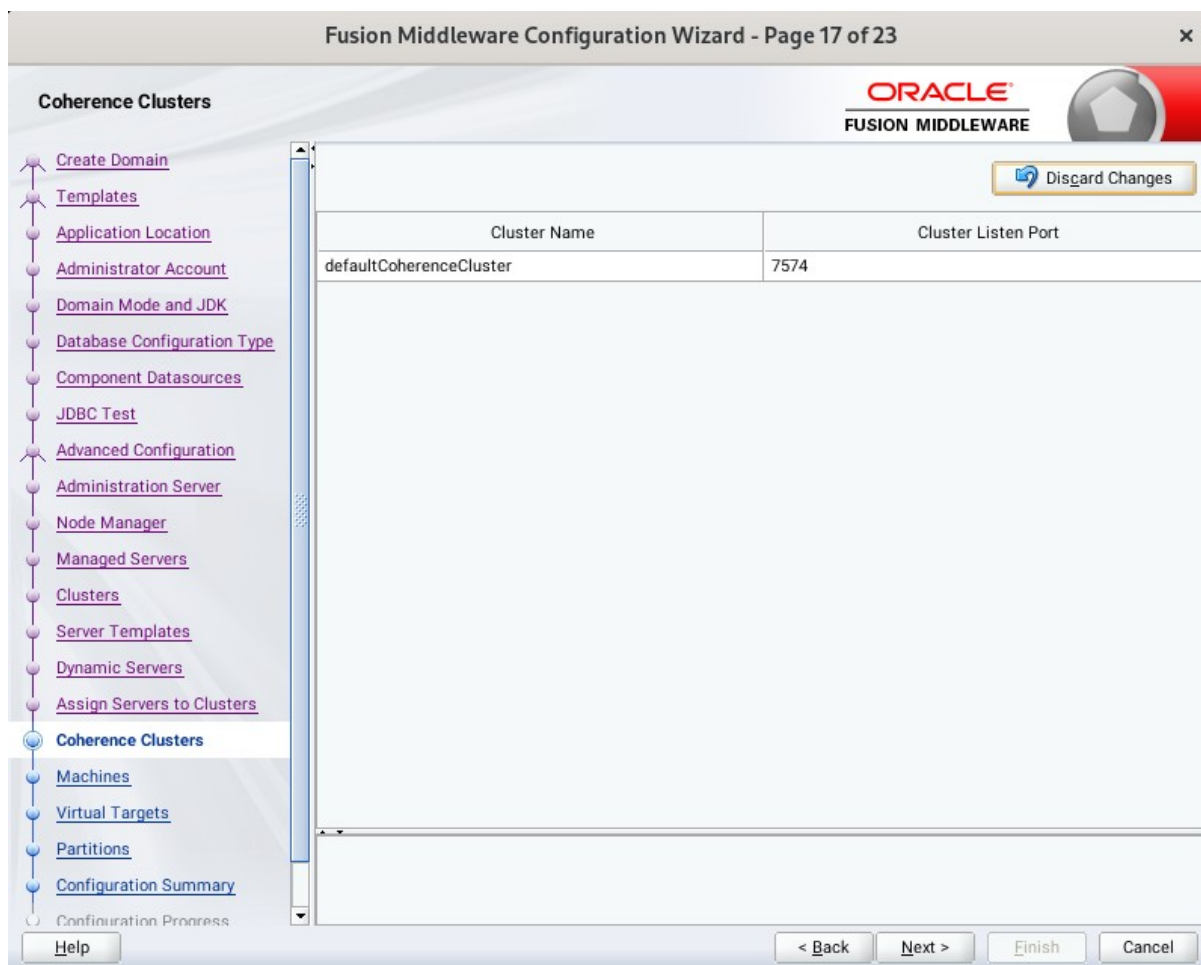
If you are creating dynamic clusters for a high availability setup, use the Dynamic Servers screen to configure the dynamic servers. If you are not configuring a dynamic cluster, click **Next** to continue configuring the domain.

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



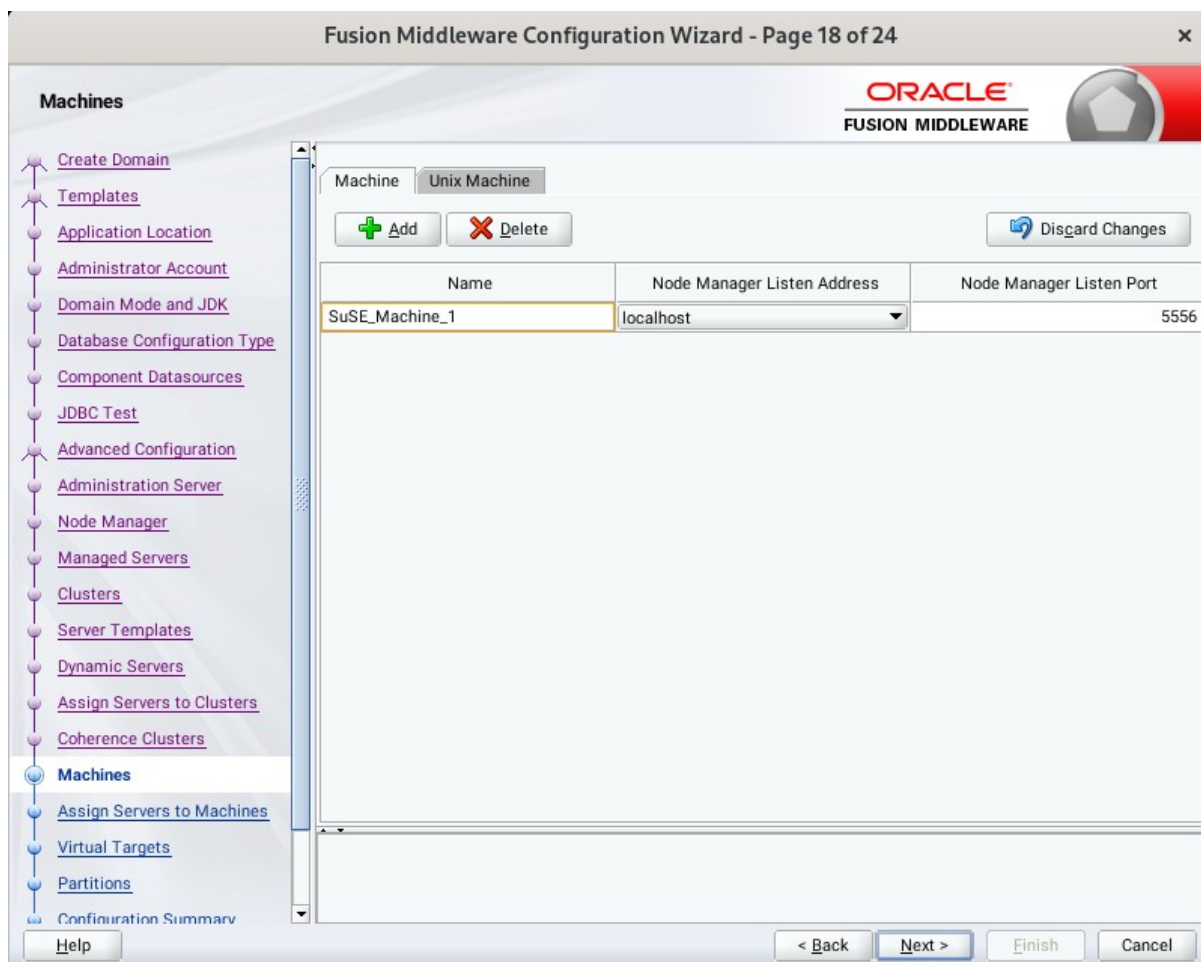
Use the **Assign Servers to Clusters** screen to assign Managed Servers to a new configured cluster. Click **Next** to continue.

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



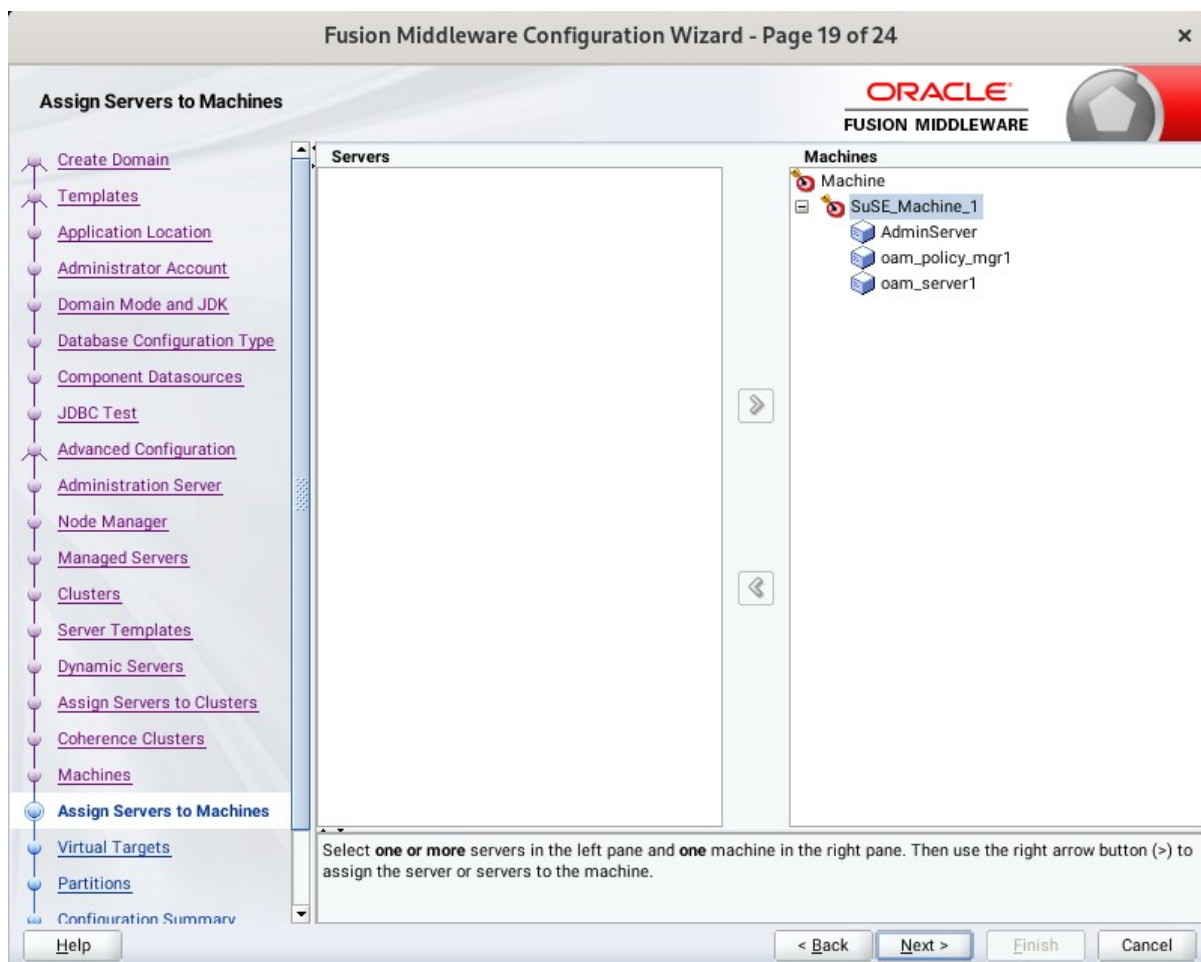
Leave the default port number as the Coherence cluster listen port. After configuration, the Coherence cluster is automatically added to the domain. Click **Next** to continue.

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



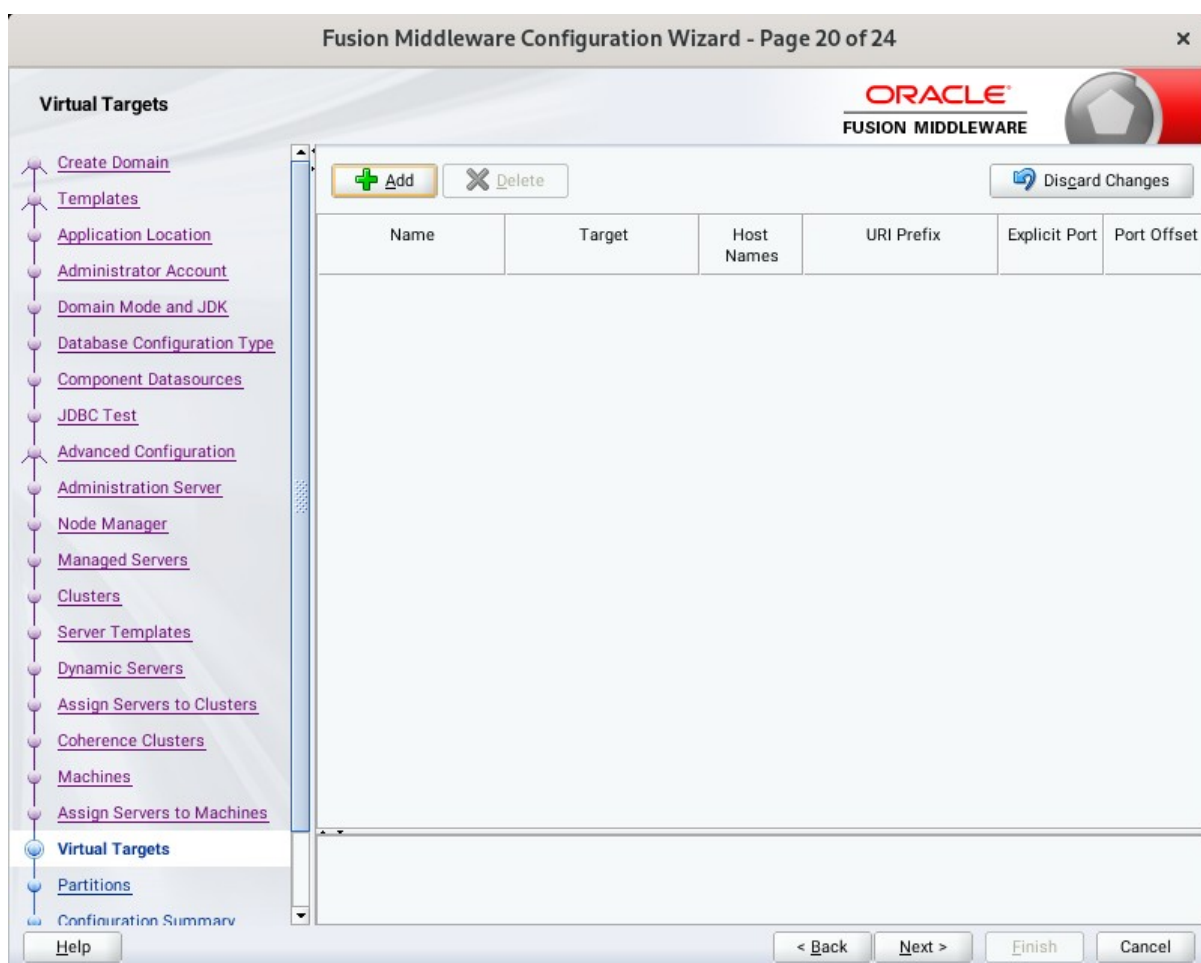
To create a new machine so that Node Manager can start and stop servers. Click **Next** to continue.

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



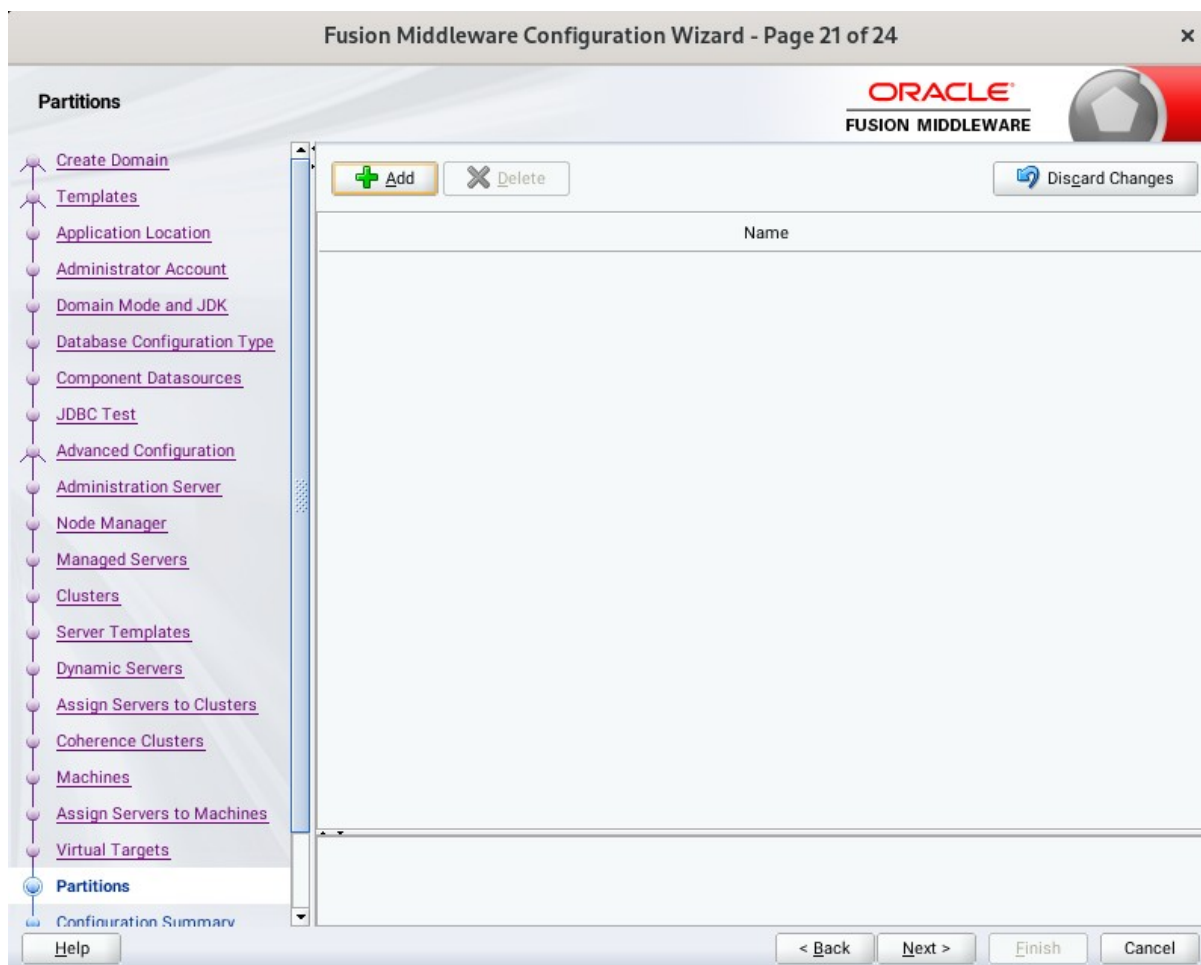
Use the **Assign Servers to Machines** screen to assign the Managed Servers to the new machine you just created. Click **Next** to continue.

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



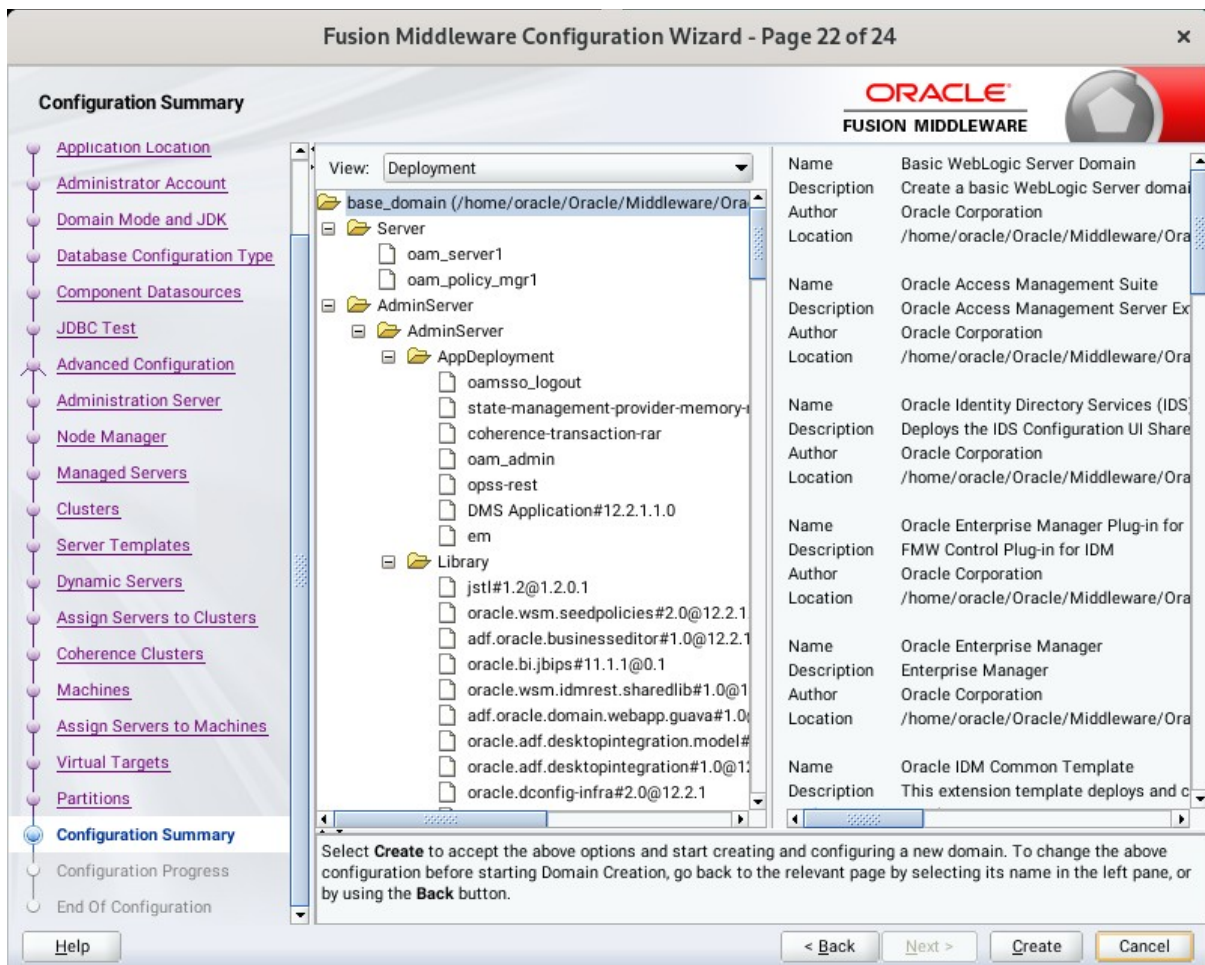
If you have a WebLogic Server Multitenant (MT) environment, you use the Virtual Targets screen to add or delete virtual targets. For this installation (not a WebLogic Server MT environment), you do not enter any values; just select **Next** to continue.

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



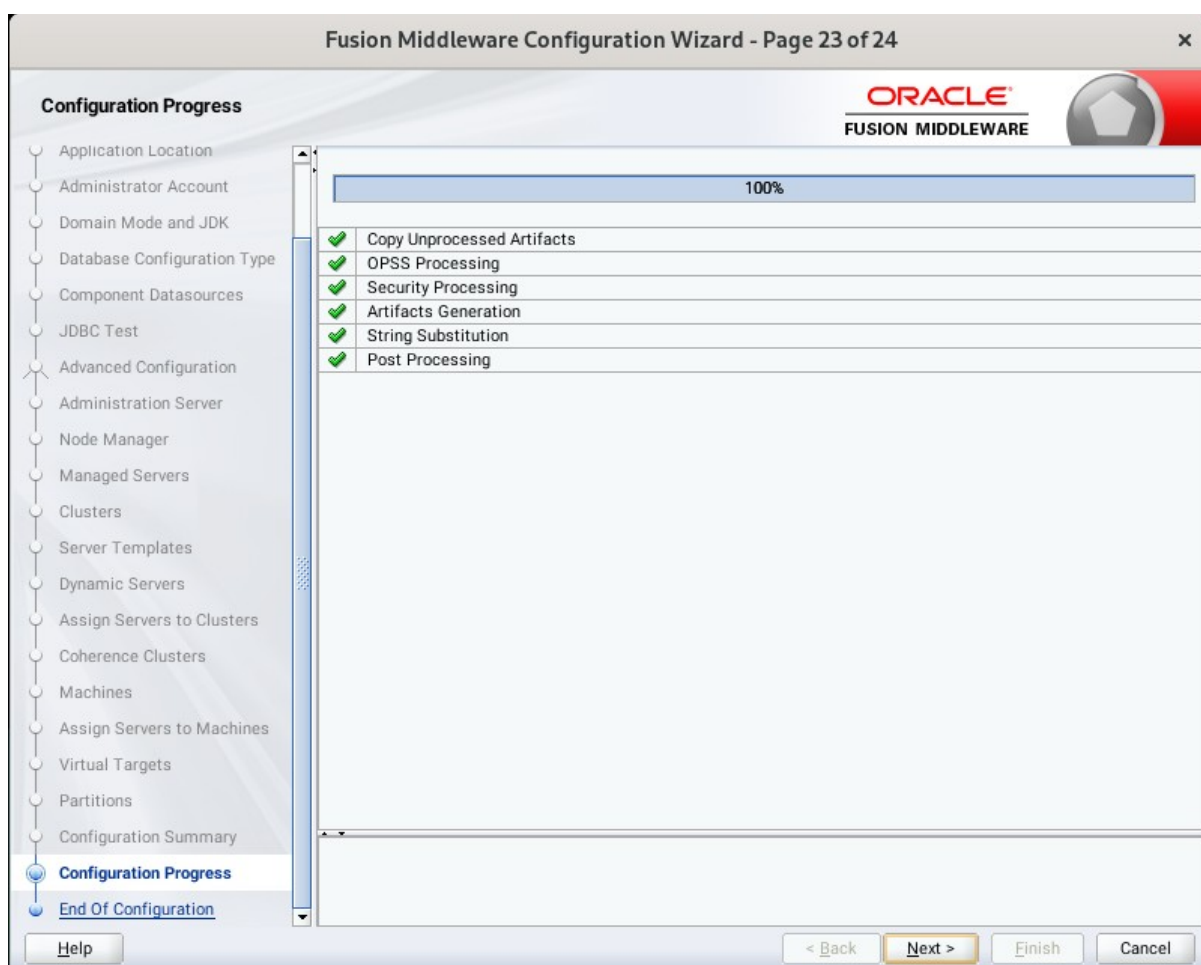
The Partitions screen is used to configure partitions for virtual targets in WebLogic Server Multitenant (MT) environments. Select **Next** without selecting any options.

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



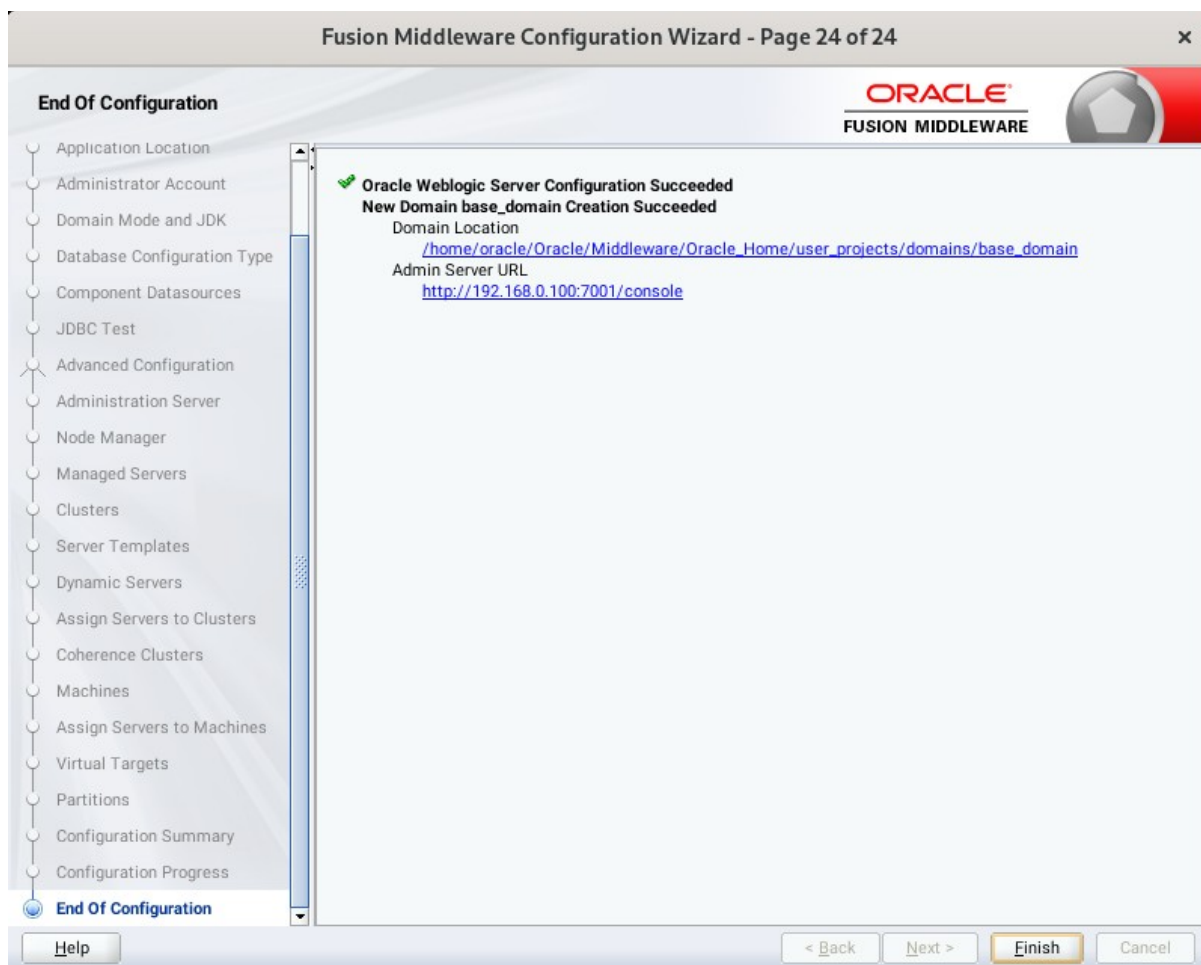
Select **Create** to accept the above options and start creating and configuring a new domain.

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@Dell5530:~/ORACLE_SW/IDM/... x oracle@Dell5530:~/common/comm... x oracle@Dell5530:~/ns/base_domain/... x
oracle@Dell5530:~/ns/base_domain/bin> nohup ./startNodeManager.sh > nm.out &
[1] 4812
nohup: ignoring input and redirecting stderr to stdout
oracle@Dell5530:~/ns/base_domain/bin> more nm.out
NODEMGR_HOME is already set to /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager
CLASSPATH=/home/ORACLE_SW/Java/jdk1.8.0_221/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_SW/Java/jdk1.8.0_221/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_SW/Java/jdk1.8.0_221 weblogic.NodeManager -v
<Jun 13, 2024 6:29:47 PM CST> <INFO> <Loading domains file: /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.domains>
<Jun 13, 2024 6:29:47 PM CST> <INFO> <Upgrade> <Setting NodeManager properties version to 12.2.1.4.0>
<Jun 13, 2024 6:29:47 PM CST> <INFO> <Upgrade> <Saving upgraded NodeManager properties to '/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.properties'>
<Jun 13, 2024 6:29:47 PM CST> <INFO> <Loading domains file: /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.domains>
<Jun 13, 2024 6:29:47 PM CST> <INFO> <Loading identity key store: FileName=kss://system/demoidentity, Type=kss, PassPhraseUsed=true>
Jun 13, 2024 6:29:47 PM oracle.security.jps.internal.config.xml.XmlConfigurationFactory validateFileLocation
INFO: JPS Config: /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/config/fmwconfig/jps-config-jse.xml
Jun 13, 2024 6:29:48 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.
<Jun 13, 2024 6:29:48 PM CST> <INFO> <Loaded NodeManager configuration properties from '/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.properties'>
Node manager v12.2.1.4.0

```

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

```

oracle@Dell5530:...ns/base_domain/bin
oracle@Dell5530:...RAC... x oracle@Dell5530:..._co... x oracle@Dell5530:...ns/b... x oracle@Dell5530:...ns/b... x
acle.am.security.TreeRefresh with oracle.security.fed.admin.sts.ui.model.TreeRefresh.>
<Jun 13, 2024 6:33:21,221 PM CST> <Warning> <oracle.adfinternal.view.faces.partition.FeatureUtils> <ADF_FACES-30130> <Ignori
ng feature-dependency on feature "AdfUIChoose". No such feature exists.>
<Jun 13, 2024 6:33:24,016 PM CST> <Warning> <org.glassfish.jersey.internal.Errors> <BEA-000000> <The following warnings have
been detected: WARNING: A HTTP GET method, public java.lang.Object oracle.security.am.common.rest.agent.registration.AgentR
egistrationService.getService(java.lang.String,java.lang.String), should not consume any entity.
>
<Jun 13, 2024 6:33:24,123 PM CST> <Error> <oracle.oam.foundation.access> <BEA-000000> <Failed to init Context path:/idaas/am
/esso>
<Jun 13, 2024 6:33:24,602 PM CST> <Warning> <org.glassfish.jersey.internal.Errors> <BEA-000000> <The following warnings have
been detected: WARNING: A HTTP GET method, public java.lang.Object oracle.security.am.common.rest.agent.registration.AgentR
egistrationService.getService(java.lang.String,java.lang.String), should not consume any entity.
>
<Jun 13, 2024 6:33:26,968 PM CST> <Warning> <oracle.adfinternal.view.faces.partition.FeatureUtils> <ADF_FACES-30130> <Ignori
ng feature-dependency on feature "AdfUIChoose". No such feature exists.>
<Jun 13, 2024 6:33:27,203 PM CST> <Notice> <Log Management> <BEA-170027> <The server has successfully established a connecti
on with the Domain level Diagnostic Service.>
2024-06-13 18:33:27.211/129.135 Oracle Coherence GE 12.2.1.4.0 <Info> (thread=[STANDBY] ExecuteThread: '1' for queue: 'webl
ogic.kernel.Default (self-tuning)', member=n/a): Loaded cache configuration from "jar:file:/home/oracle/Oracle/Middleware/Ora
cle_Home/oracle_common/modules/oracle.wsm.common/wsm-agent-core.jar!/oracle-wsm-coherence-cache-config.xml"
2024-06-13 18:33:27.228/129.151 Oracle Coherence GE 12.2.1.4.0 <Info> (thread=[STANDBY] ExecuteThread: '1' for queue: 'webl
ogic.kernel.Default (self-tuning)', member=n/a): Created cache factory com.tangosol.net.ExtensibleConfigurableCacheFactory
<Jun 13, 2024 6:33:28,581 PM CST> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to ADMIN.>
<Jun 13, 2024 6:33:28,635 PM CST> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to RESUMING.>
<Jun 13, 2024 6:33:28,635 PM CST> <Notice> <JMX> <BEA-149535> <JMX Resiliency Activity Server=All Servers : Resolving connect
ion list DomainRuntimeServiceMBean>
<Jun 13, 2024 6:33:28,806 PM CST> <Notice> <WebLogicServer> <BEA-000329> <Started the WebLogic Server Administration Server
"AdminServer" for domain "base_domain" running in production mode.>
<Jun 13, 2024 6:33:28,807 PM CST> <Notice> <Server> <BEA-002613> <Channel "Default" is now listening on 192.168.0.100:7001 f
or protocols iiop, t3, ldap, snmp, http.>
<Jun 13, 2024 6:33:28,807 PM CST> <Notice> <Server> <BEA-002613> <Channel "Default" is now listening on 192.168.0.100:7001 f
or protocols iiop, t3, ldap, snmp, http.>
<Jun 13, 2024 6:33:28,817 PM CST> <Notice> <WebLogicServer> <BEA-000360> <The server started in RUNNING mode.>
<Jun 13, 2024 6:33:28,826 PM CST> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to RUNNING.>
2024-06-13 18:33:29.323/131.247 Oracle Coherence GE 12.2.1.4.0 <Info> (thread=[STANDBY] ExecuteThread: '42' for queue: 'webl
ogic.kernel.Default (self-tuning)', member=n/a): Configured versioned, multi-cluster Management over ReST

```

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

```

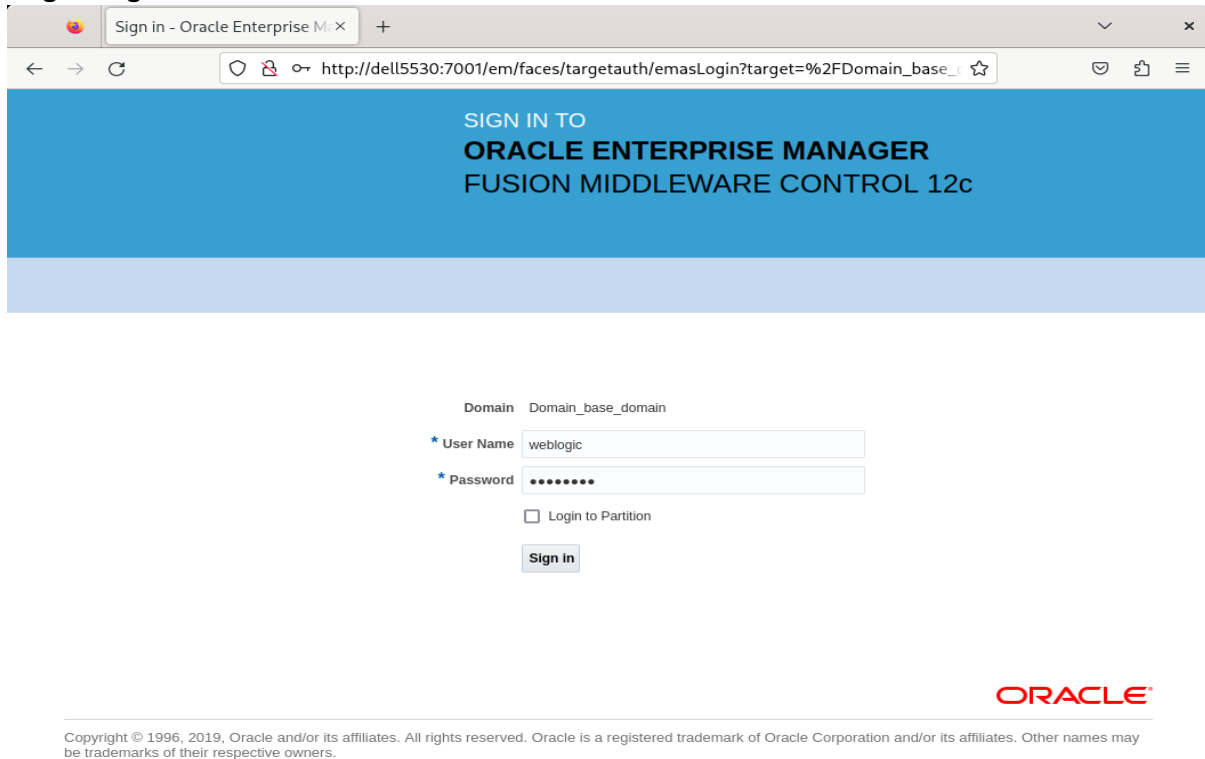
-----
Server state changed to RUNNING.
-----

```

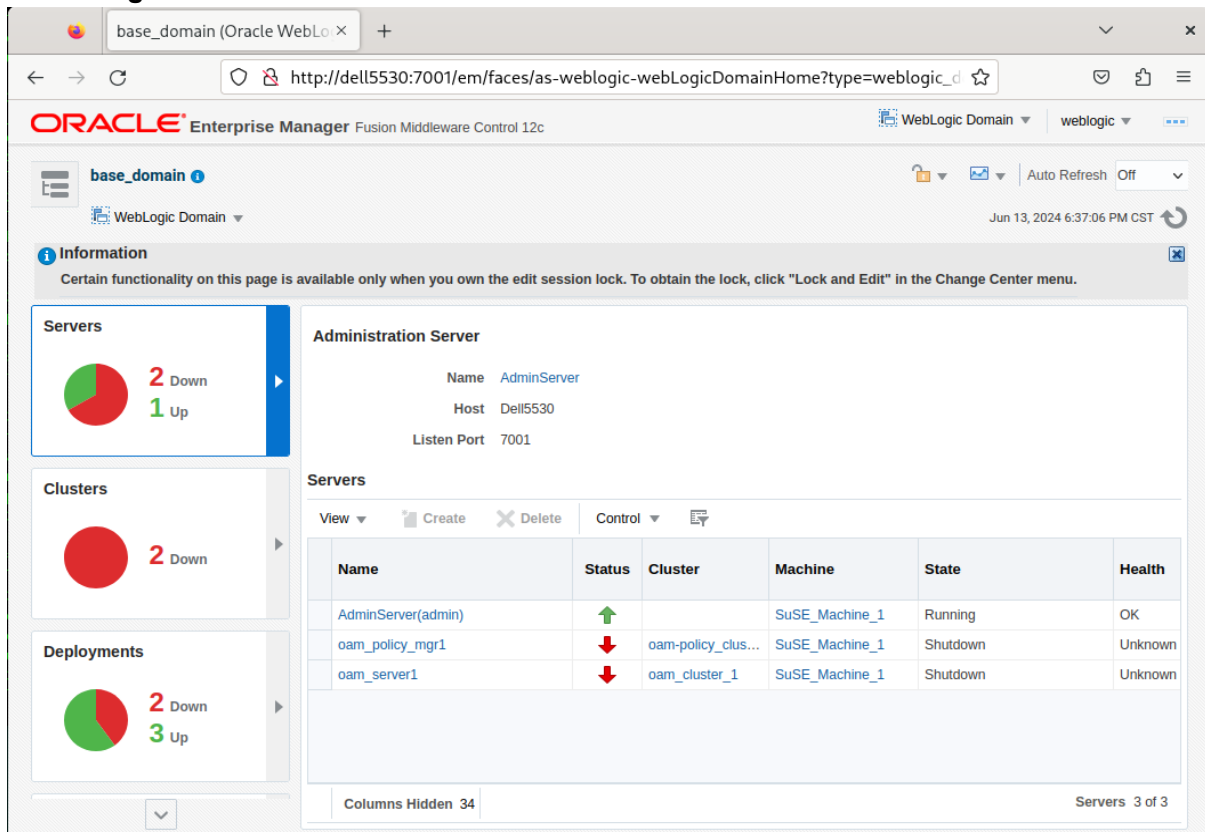
3-3. Checking Oracle Identity and Access Management 12c Product URLs.

1). Access to Enterprise Manager Console.

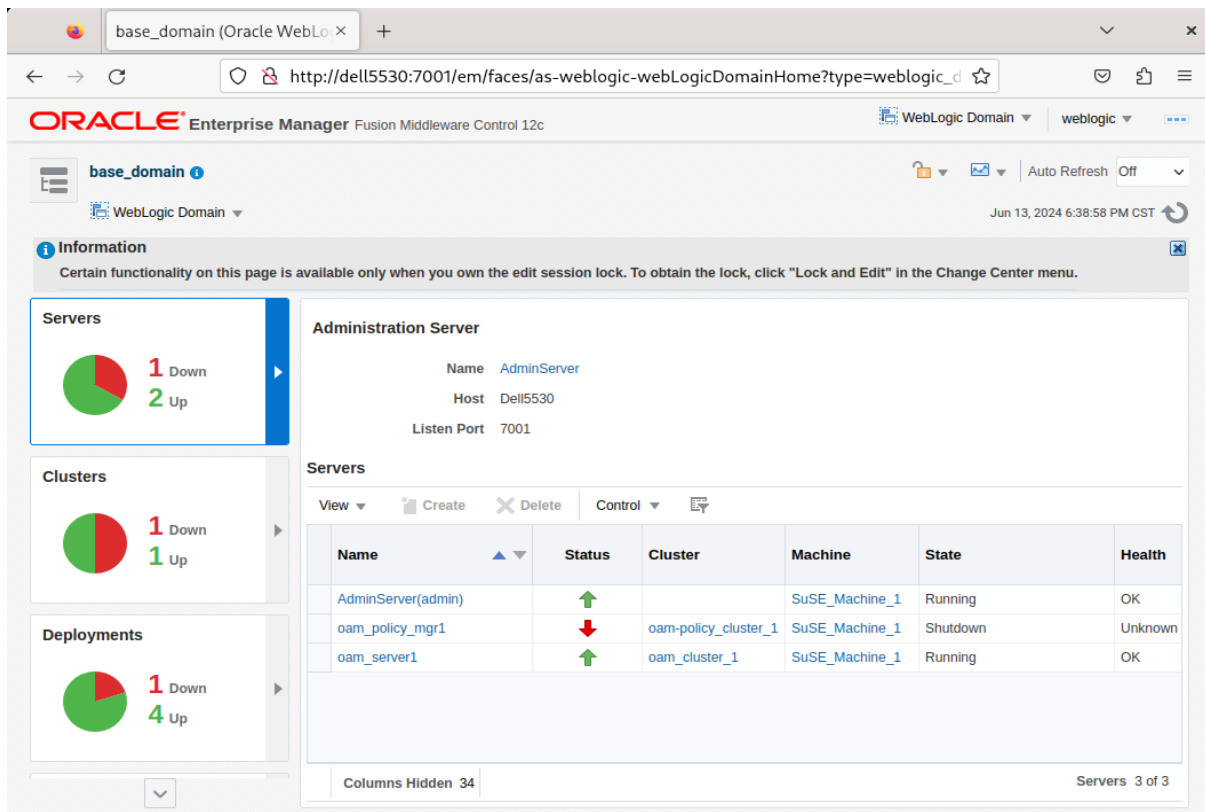
Login Page:



Home Page:



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



ORACLE Enterprise Manager Fusion Middleware Control 12c

base_domain (Oracle WebLo x) +

http://dell5530:7001/em/faces/as-weblogic-webLogicDomainHome?type=weblogic_d

WebLogic Domain | weblogic

base_domain

WebLogic Domain

Jun 13, 2024 6:38:58 PM CST

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

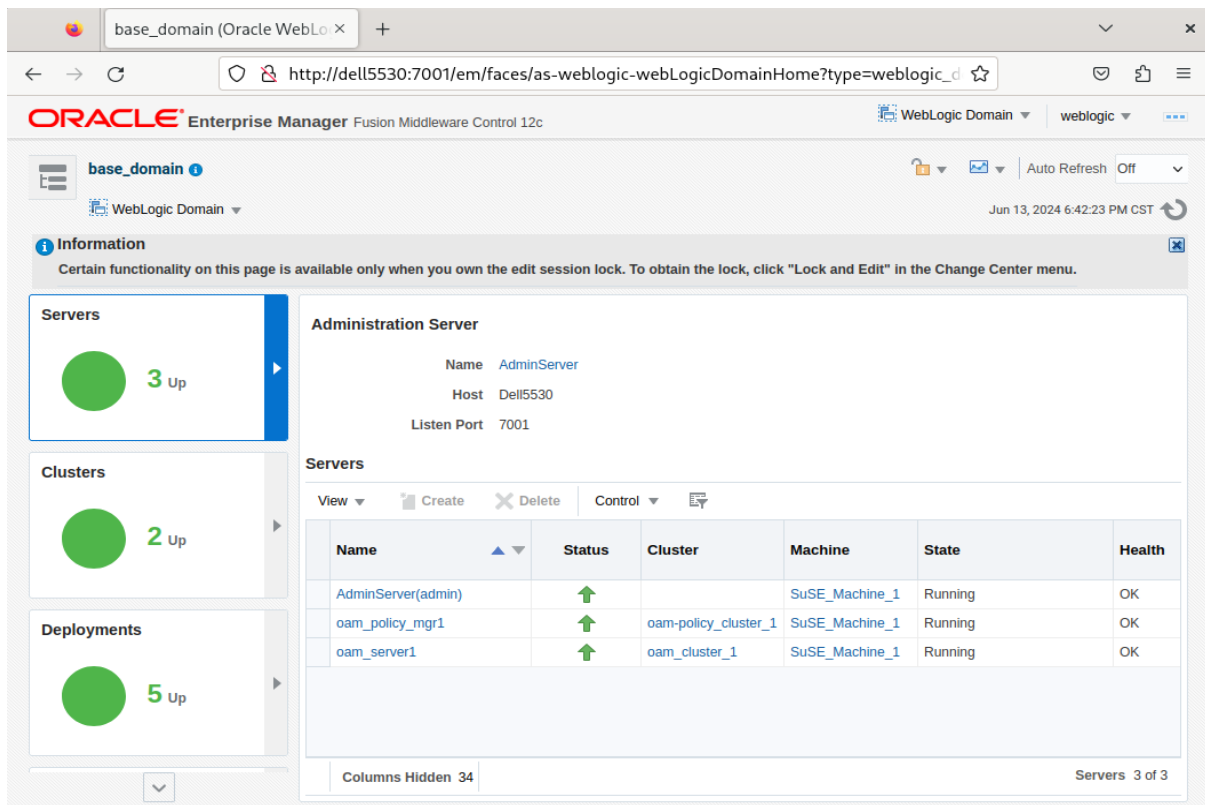
Administration Server

Name AdminServer
Host Dell5530
Listen Port 7001

Servers

Name	Status	Cluster	Machine	State	Health
AdminServer(admin)	↑		SuSE_Machine_1	Running	OK
oam_policy_mgr1	↓	oam-policy_cluster_1	SuSE_Machine_1	Shutdown	Unknown
oam_server1	↑	oam_cluster_1	SuSE_Machine_1	Running	OK

Columns Hidden 34 Servers 3 of 3



ORACLE Enterprise Manager Fusion Middleware Control 12c

base_domain (Oracle WebLo x) +

http://dell5530:7001/em/faces/as-weblogic-webLogicDomainHome?type=weblogic_d

WebLogic Domain | weblogic

base_domain

WebLogic Domain

Jun 13, 2024 6:42:23 PM CST

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

Administration Server

Name AdminServer
Host Dell5530
Listen Port 7001

Servers

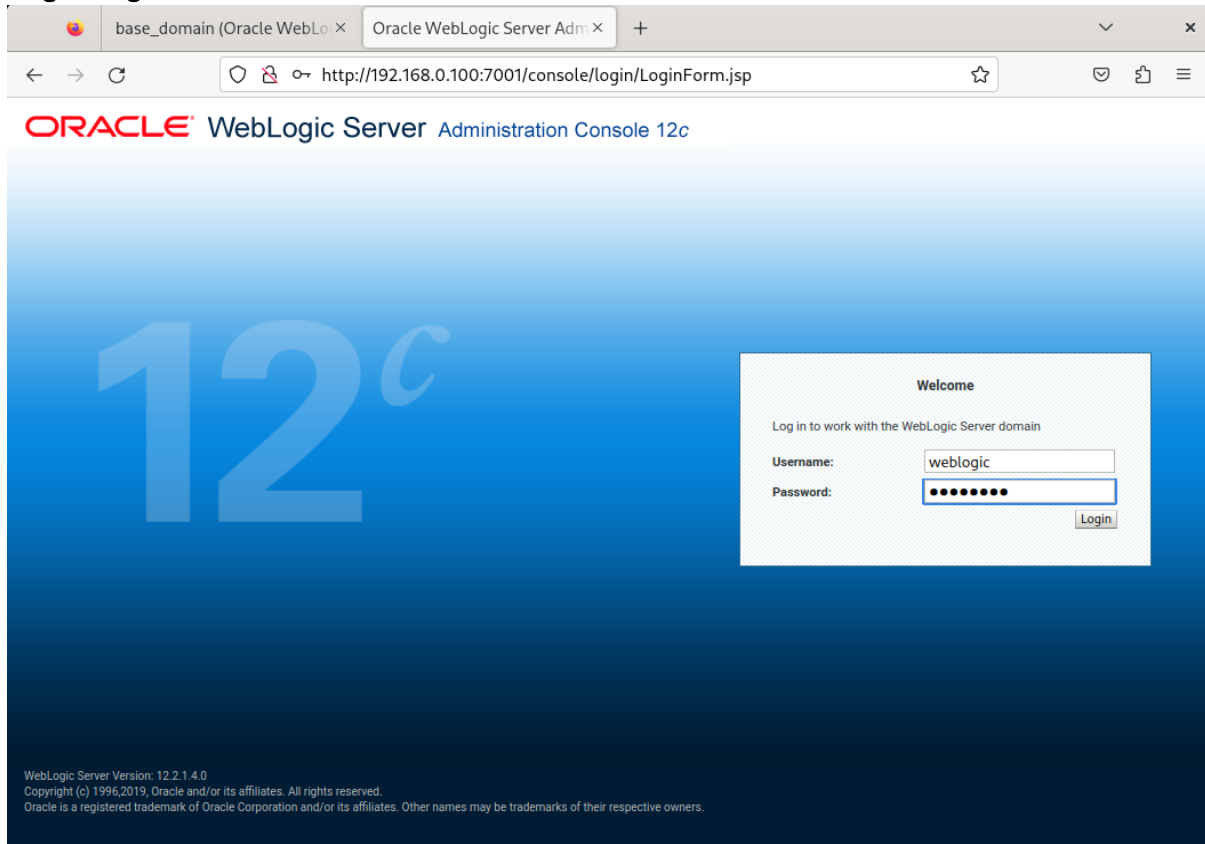
Name	Status	Cluster	Machine	State	Health
AdminServer(admin)	↑		SuSE_Machine_1	Running	OK
oam_policy_mgr1	↑	oam-policy_cluster_1	SuSE_Machine_1	Running	OK
oam_server1	↑	oam_cluster_1	SuSE_Machine_1	Running	OK

Columns Hidden 34 Servers 3 of 3

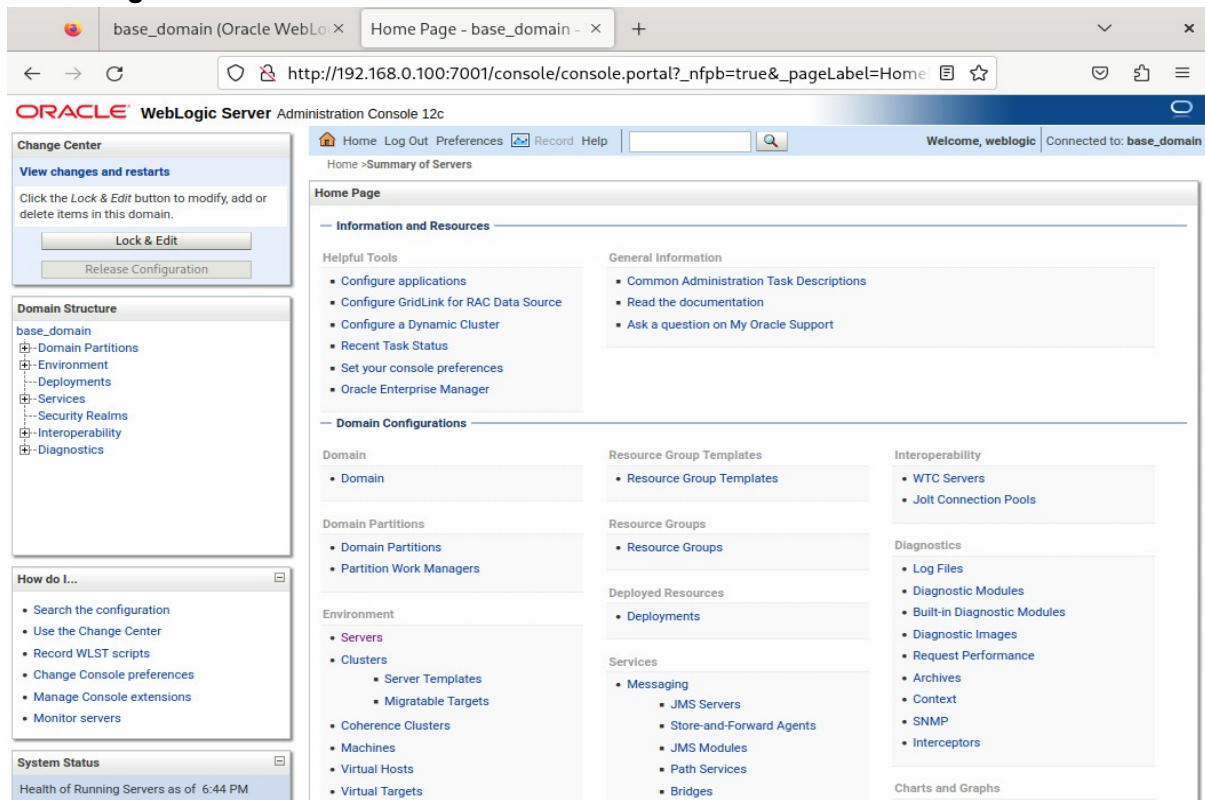
After they start up successfully, each managed server is listed as Running.

2). Access to Administration Server Console

Login Page:



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.

Servers (Filtered - More Columns Exist)

Name	Type	Cluster	Machine	State	Health	Listen Port
AdminServer(admin)	Configured		SuSE_Machine_1	RUNNING	OK	7001
oam_policy_mgr1	Configured	oam-policy_cluster_1	SuSE_Machine_1	RUNNING	OK	14150
oam_server1	Configured	oam_cluster_1	SuSE_Machine_1	RUNNING	OK	14100

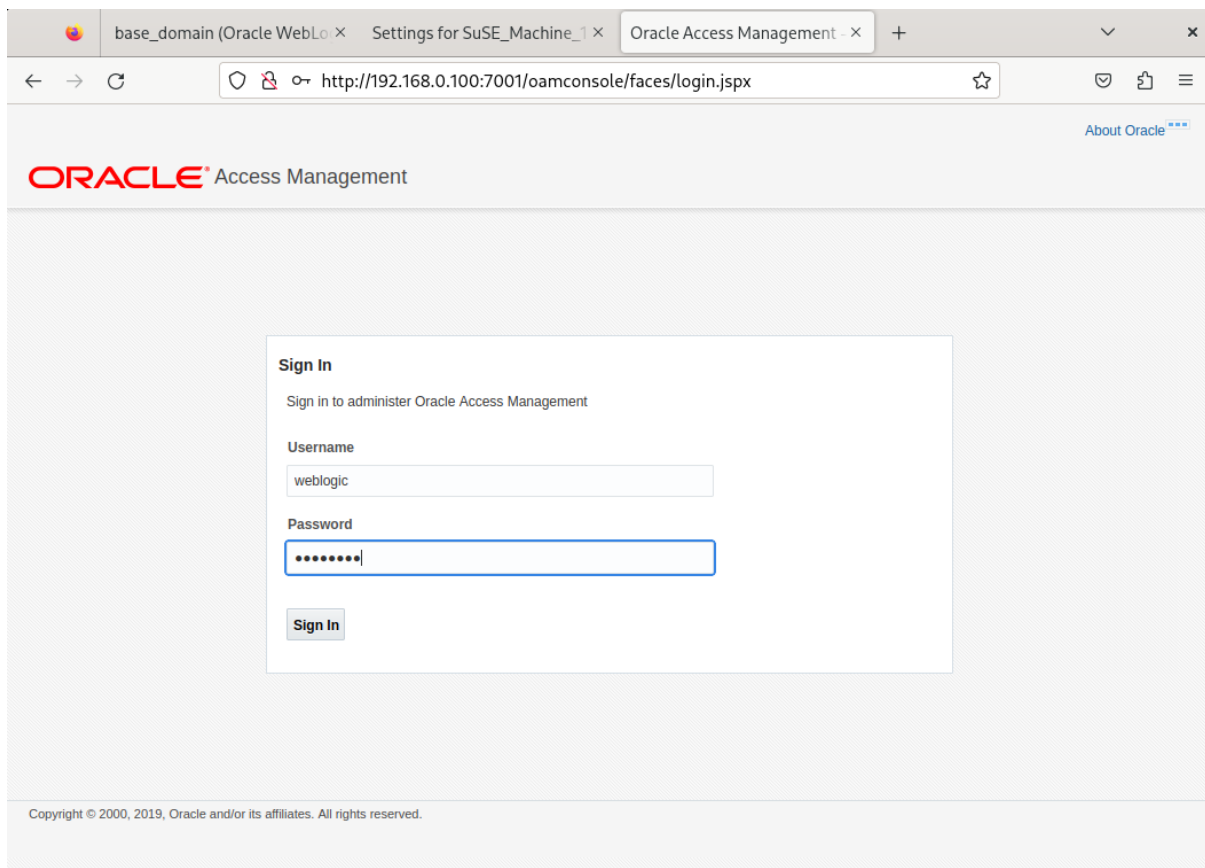
Verify that the Admin Server can connect to the node manager running on your machine. **Environments -> Machines -> <your machine> -> Monitoring.** The status should show: **Reachable**

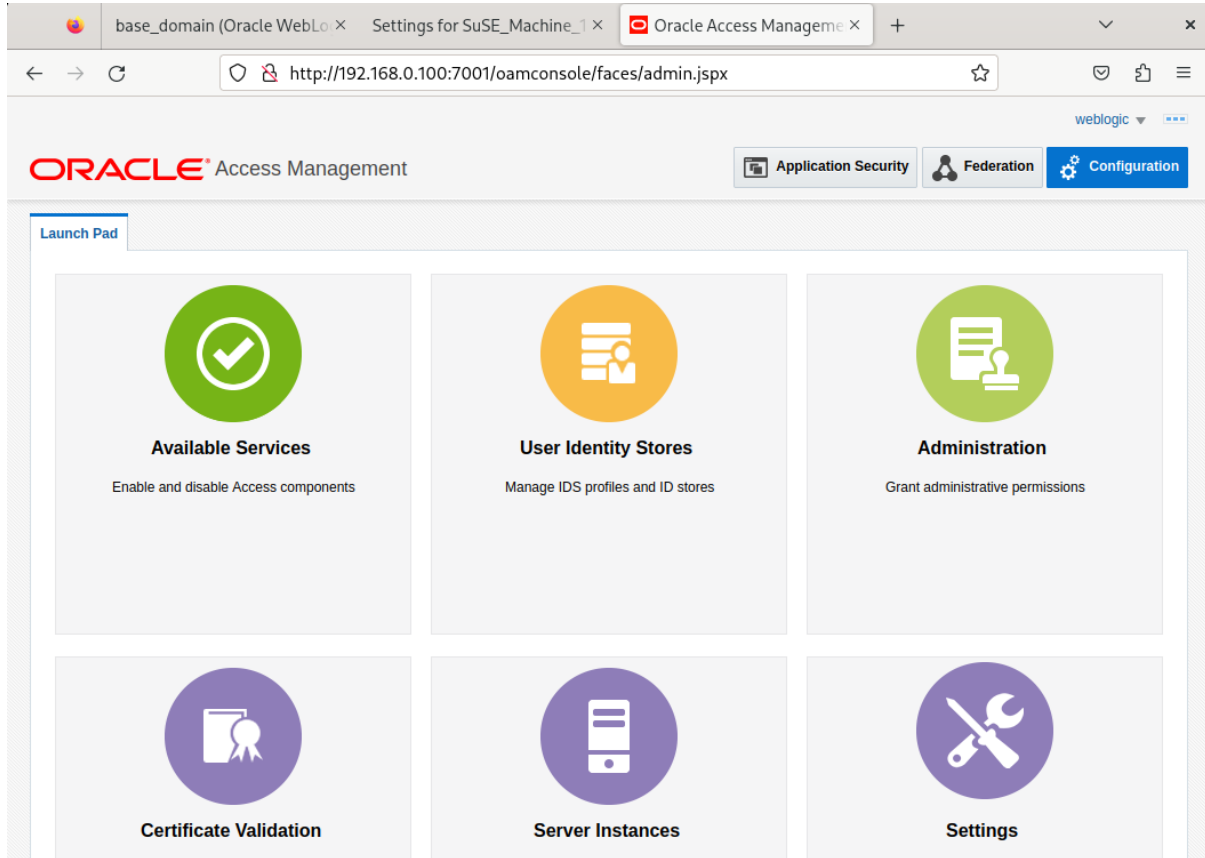
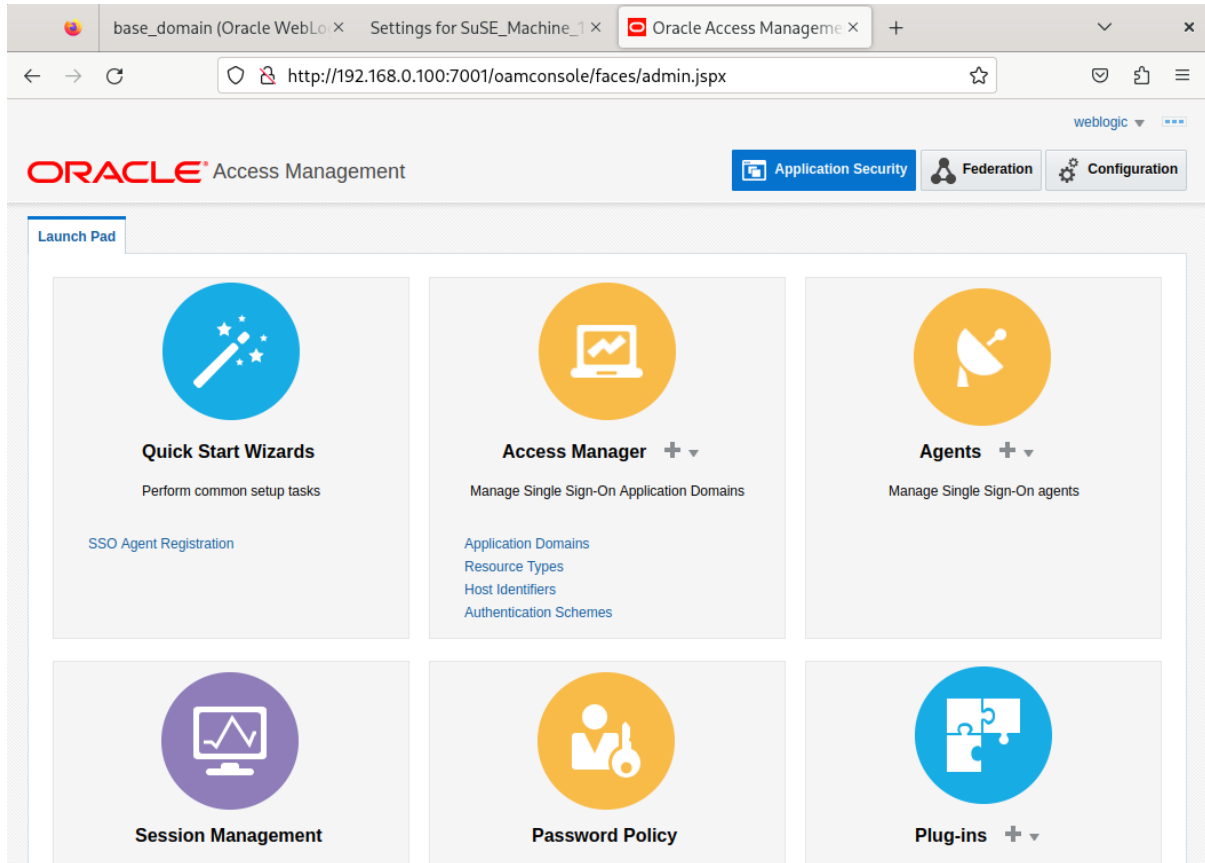
Settings for SuSE_Machine_1

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

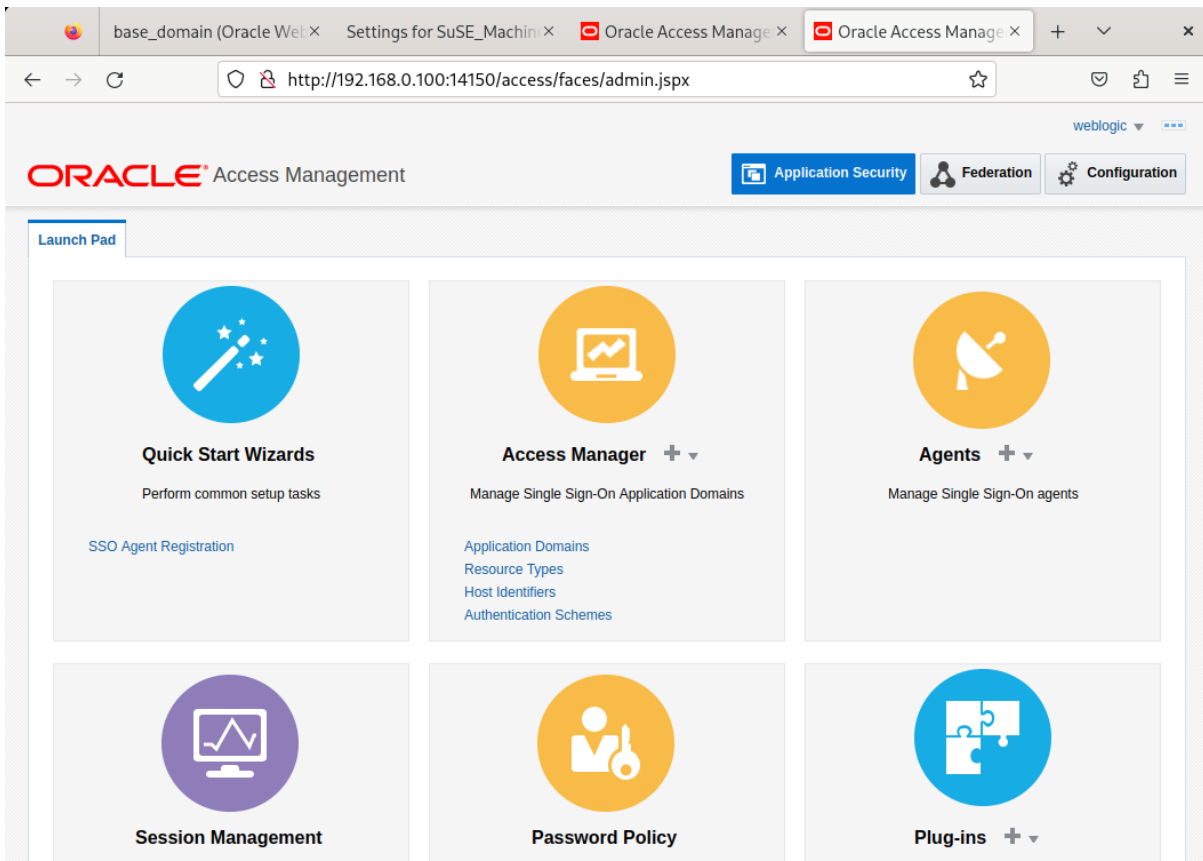
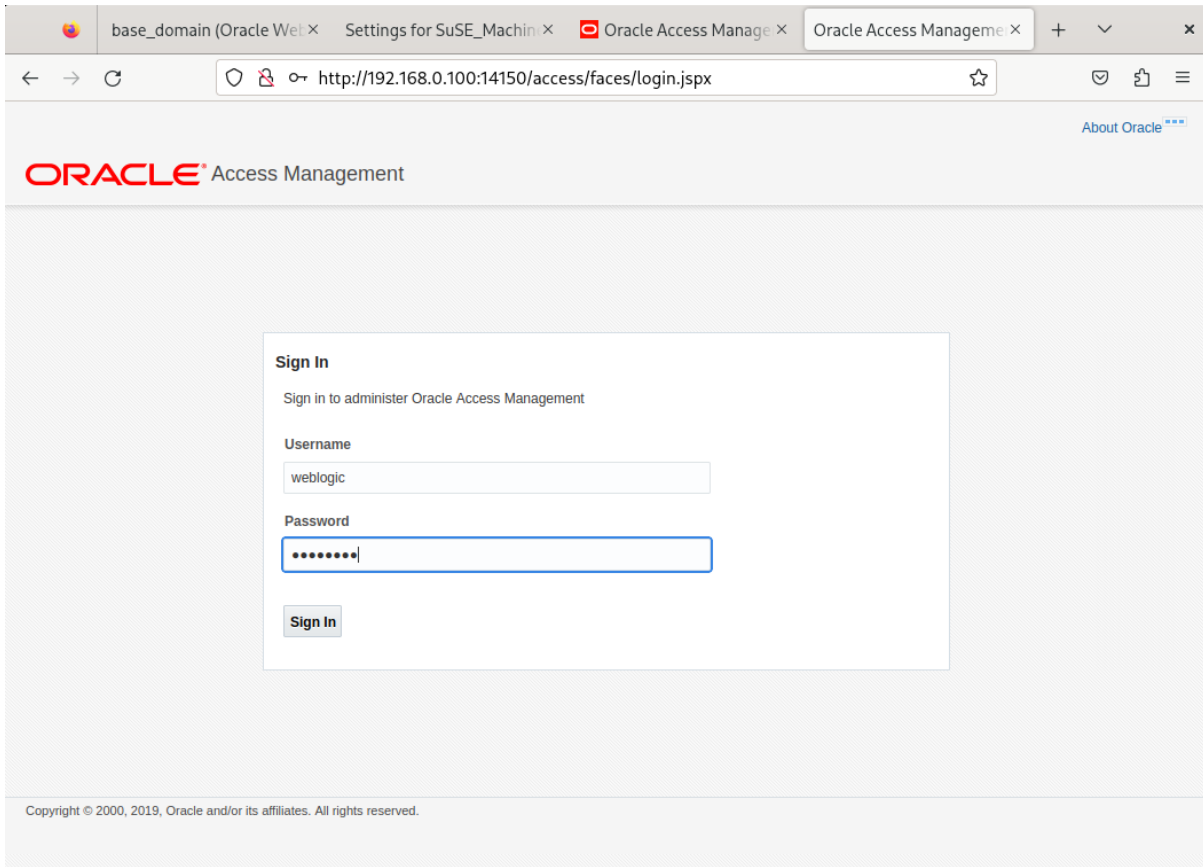
Status:	Reachable	Current status of this Node Manager. More Info...
Version:	12.2.1.4.0	Version string returned from the Node Manager. More Info...

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





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



The screenshot shows the Oracle Access Management web interface. The browser tabs include 'base_domain (Oracle Web...', 'Settings for SuSE_Machin...', and two instances of 'Oracle Access Manage...'. The address bar shows 'http://192.168.0.100:14150/access/faces/admin.jspx'. The page header features the Oracle logo and 'Access Management' text, with navigation buttons for 'Application Security', 'Federation', and 'Configuration'. The main content area is titled 'Create Application Domain' and includes a 'Summary' tab. A form is displayed with the following fields: 'Name' (Oracle Access Management on SLES15 SP6), 'Description' (empty), 'Session Idle Timeout (minutes)' (0), and 'Enable Policy Ordering' (checkbox). A tooltip above the 'Name' field reads 'Enter a unique Name without any punctuation.' and an 'Apply' button is visible.

The screenshot shows the Oracle Access Management web interface after successful creation. The browser tabs are the same as in the previous screenshot. The address bar remains 'http://192.168.0.100:14150/access/faces/admin.jspx'. The page header is consistent. The main content area is titled 'Oracle Access Management on SLES15 SP6' and includes a 'Summary' tab. A green confirmation message is displayed: 'Confirmation: Application Domain, Oracle Access Management on SLES15 SP6, created successfully'. Below the message, the form fields are identical to the previous screenshot: 'Name' (Oracle Access Management on SLES15 SP6), 'Description' (empty), 'Session Idle Timeout (minutes)' (0), and 'Enable Policy Ordering' (checkbox). An 'Apply' button is present.

End of Oracle Access Manager.

Oracle Identity Manager

1. Installing Oracle Identity and Access Management 12cPS4 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> █
```

```

SQL> @/home/oracle/app/product/12.2.0/dbhome_1/rdbms/admin/xaview.sql

View dropped.

View dropped.

View created.

Synonym created.

View created.

Synonym created.

SQL> █

```

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> show parameter open_cursors;

NAME                                TYPE        VALUE
-----                                -
open_cursors                        integer     300
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 9932111872 bytes
Fixed Size                12169800 bytes
Variable Size             2046823864 bytes
Database Buffers         7851737088 bytes
Redo Buffers              21381120 bytes
Database mounted.
Database opened.
SQL> show parameter open_cursors;

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

```

-)
- 2). Oracle JDK 1.8.0_221 or later installed.

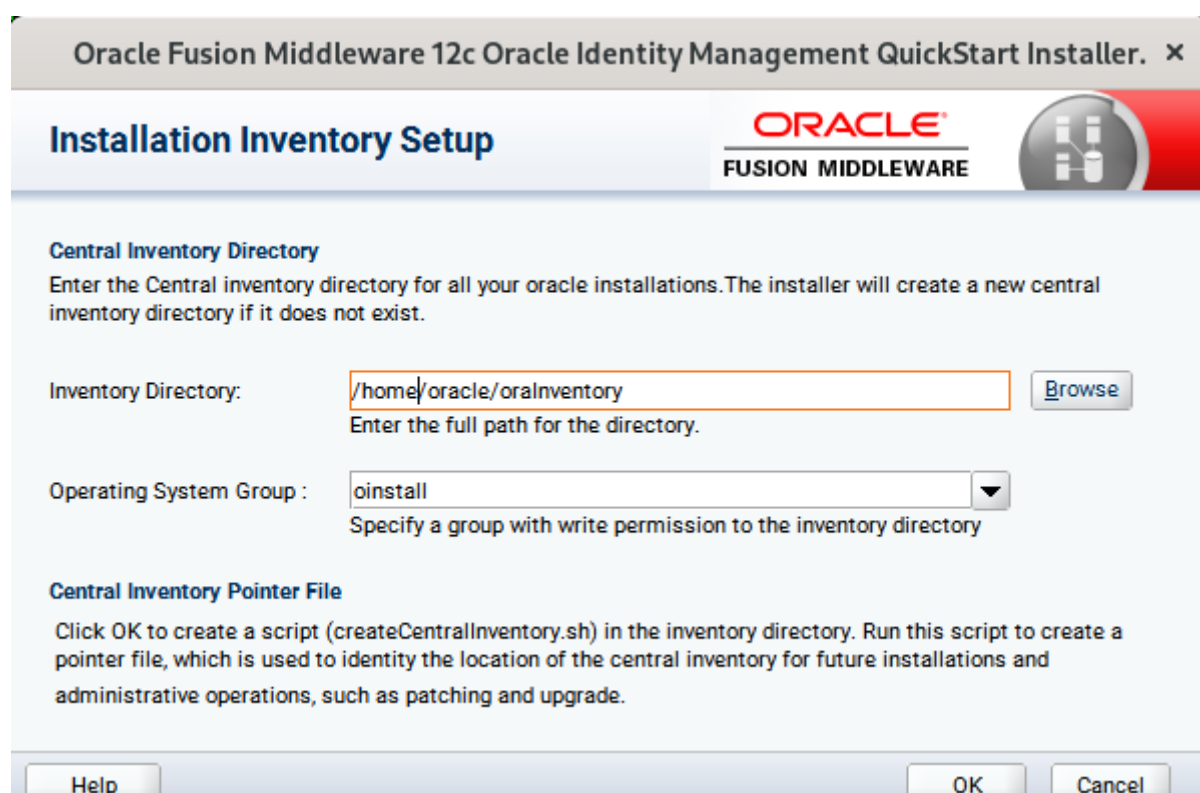
1-2. Log in to the target system (SLES 15 SP6 64-bit OS) as a non-admin user. Download the Oracle Identity and Access Management 12cPS4 (12.2.1.4.0) generic installer .zip file from <http://www.oracle.com/technetwork/indexes/downloads/index.html#middleware>.

(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_12.2.1.4.0_idmqs_Disk1_1of2.zip" and "fmw_12.2.1.4.0_idmqs_Disk1_2of2.zip") files and launch the installation program by running `'java -jar fmw_12.2.1.4.0_idmquickstart.jar'`

For the actual installation, follow the steps below:

1). Installation Inventory Setup.



Oracle Fusion Middleware 12c Oracle Identity Management QuickStart Installer. x

Installation Inventory Setup

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

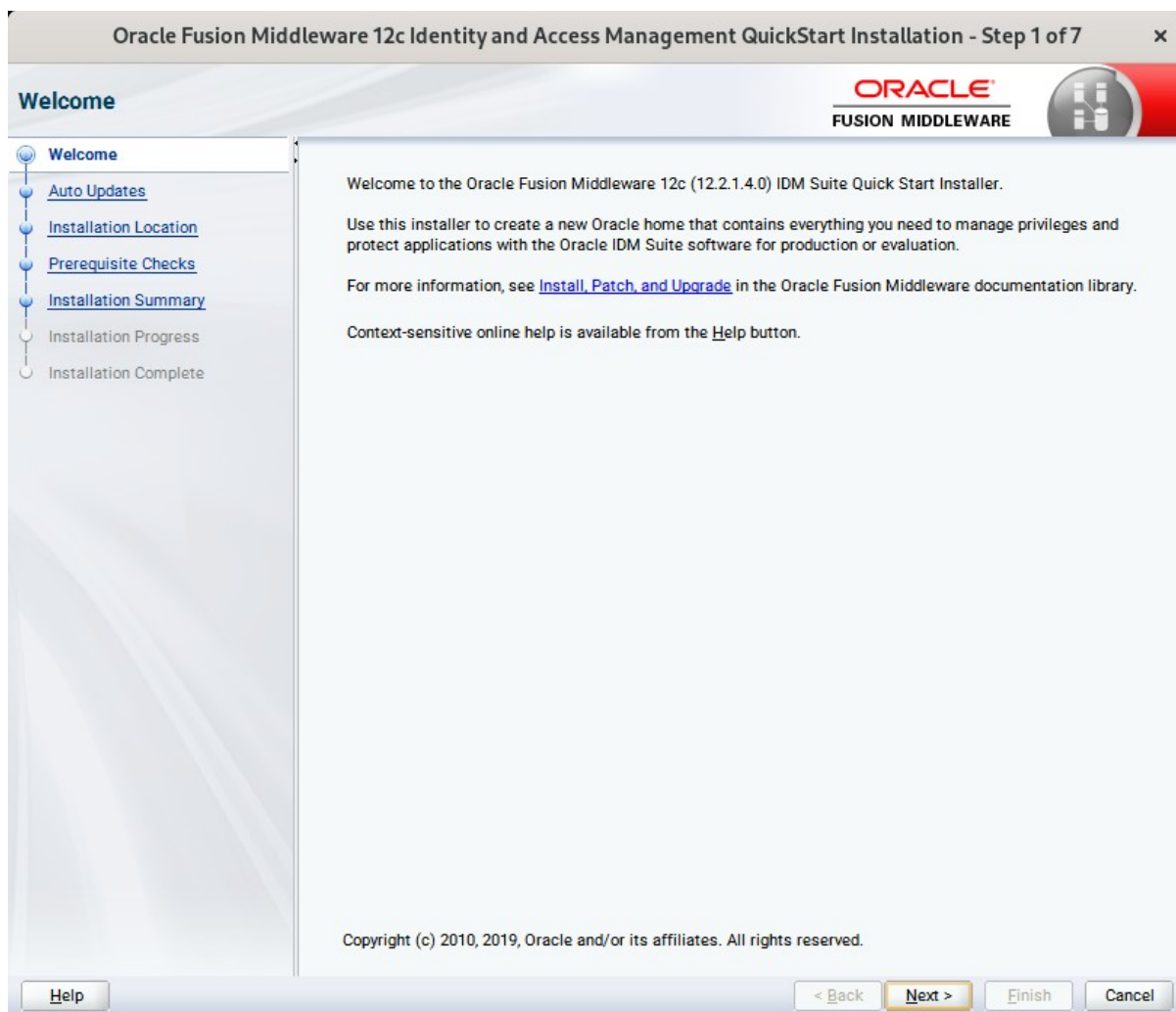
Inventory Directory:
Enter the full path for the directory.

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

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

Specify the Oracle inventory directory and group permissions for that directory. The group must have write permissions to the Oracle inventory directory, then click **OK** to continue.

2). **Welcome** page appears.



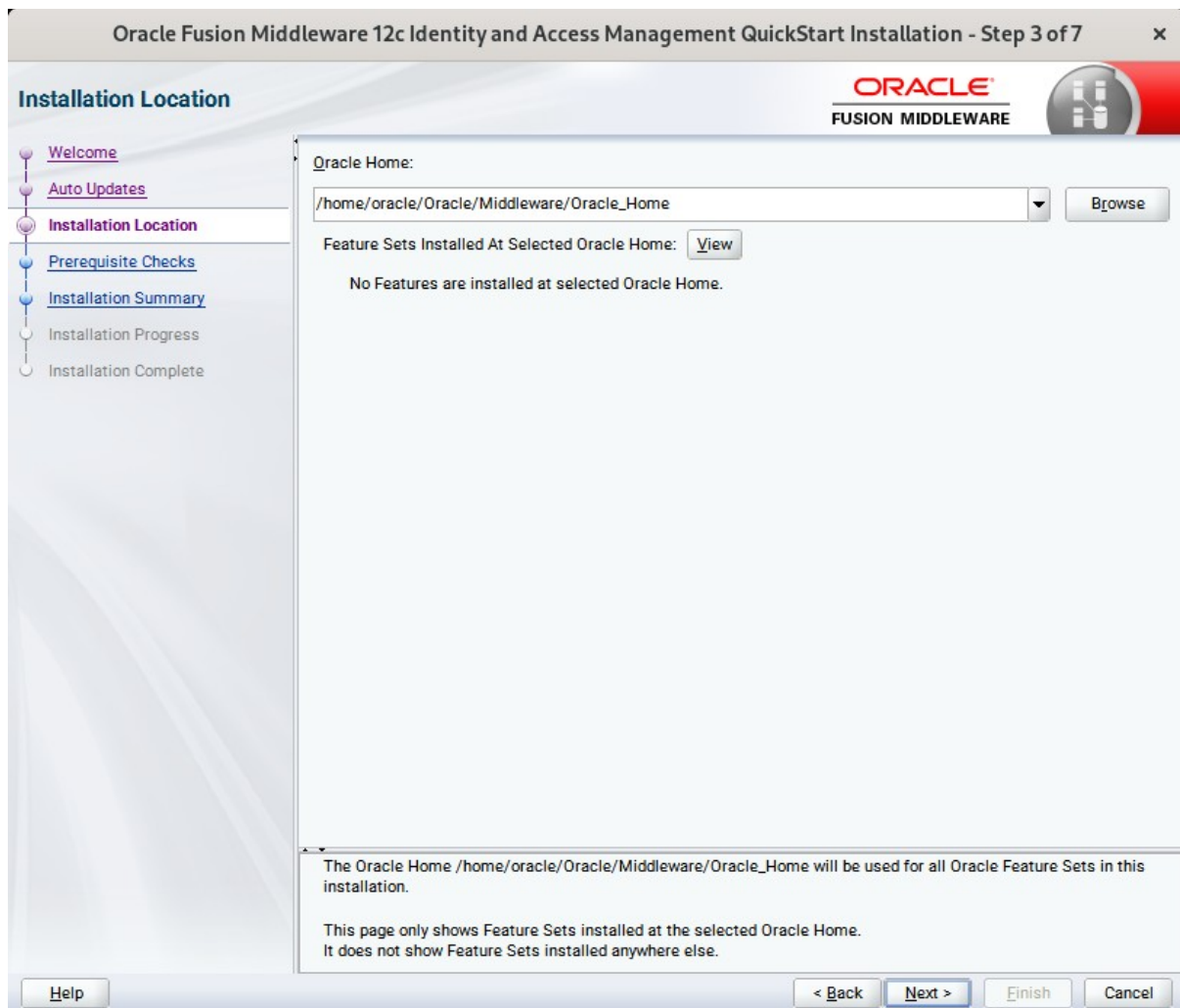
This page welcomes you to the installation. Click **Next** to continue.

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

The screenshot shows the 'Auto Updates' page in the Oracle Fusion Middleware 12c Identity and Access Management QuickStart Installation. The page title is 'Oracle Fusion Middleware 12c Identity and Access Management QuickStart Installation - Step 2 of 7'. The Oracle logo and 'FUSION MIDDLEWARE' text are visible in the top right corner. A navigation pane on the left lists the following steps: Welcome, Auto Updates (selected), Installation Location, Prerequisite Checks, Installation Summary, Installation Progress, and Installation Complete. The main content area has three radio button options: 'Skip Auto Updates' (selected), 'Select patches from directory', and 'Search My Oracle Support for Updates'. The 'Select patches from directory' option includes a 'Location:' text box and a 'Browse' button. The 'Search My Oracle Support for Updates' option includes 'Username:' and 'Password:' text boxes, a 'Proxy Settings' button, and a 'Test Connection' button. Below these is a 'Search' button and a large empty text area. At the bottom of the window, there are buttons for 'Help', '< Back', 'Next >', 'Finish', and 'Cancel'.

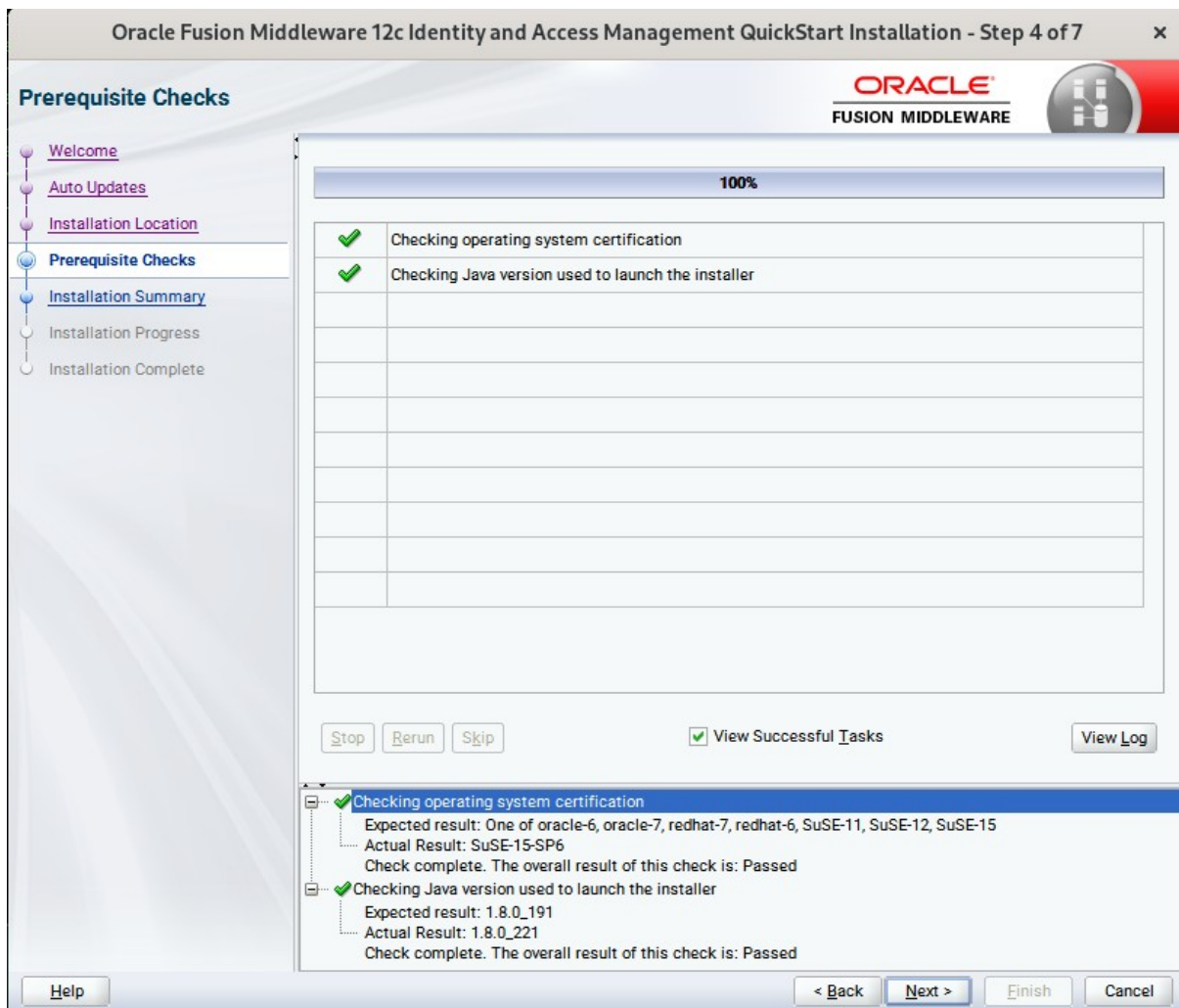
This screen helps to quickly and easily search for the latest software updates, including important security updates, via your My Oracle Support account. Make your choices, then click **Next** to continue.

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



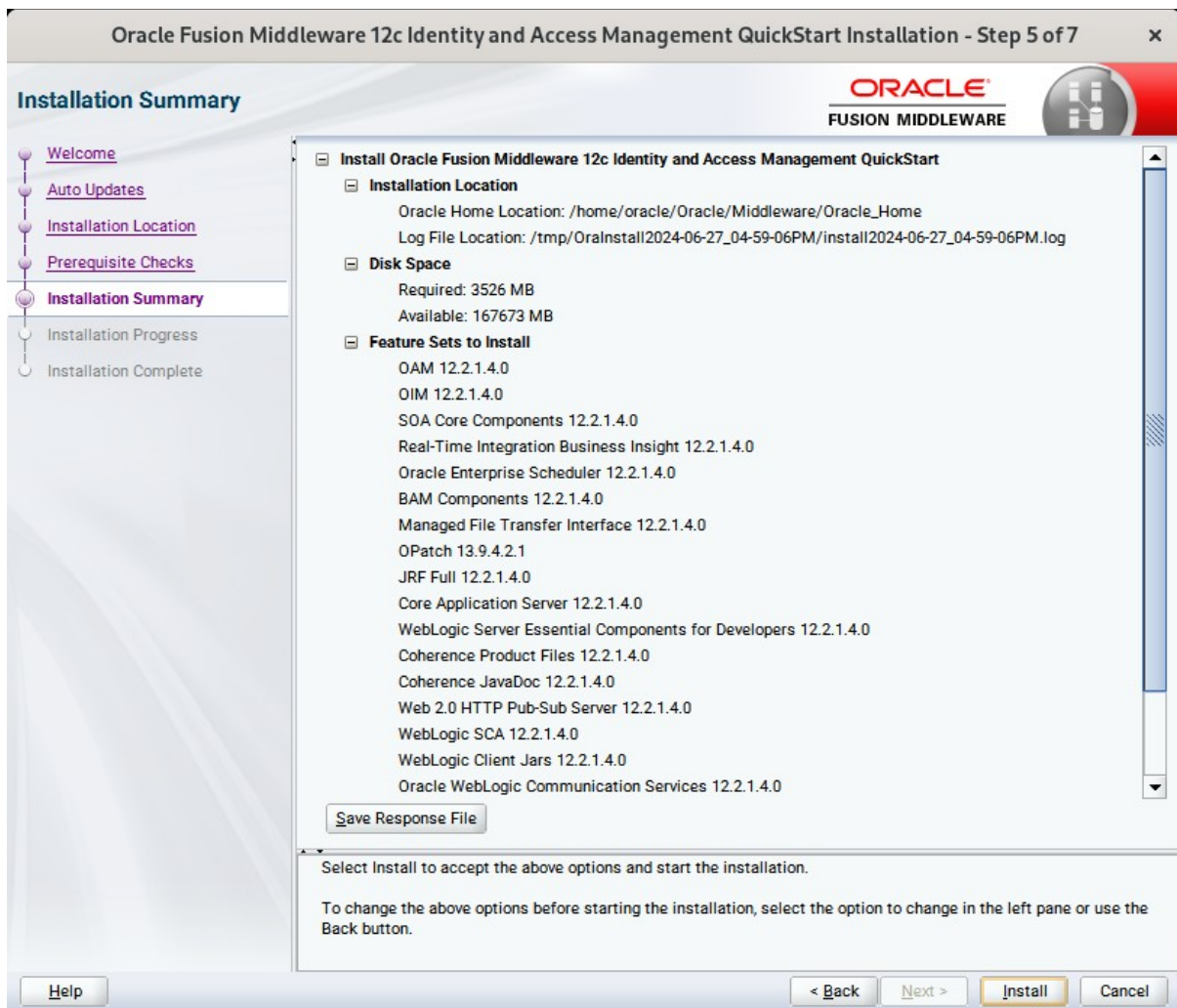
SPecify the Oracle home location into which you want to install the product(s). Click **Next** to continue.

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



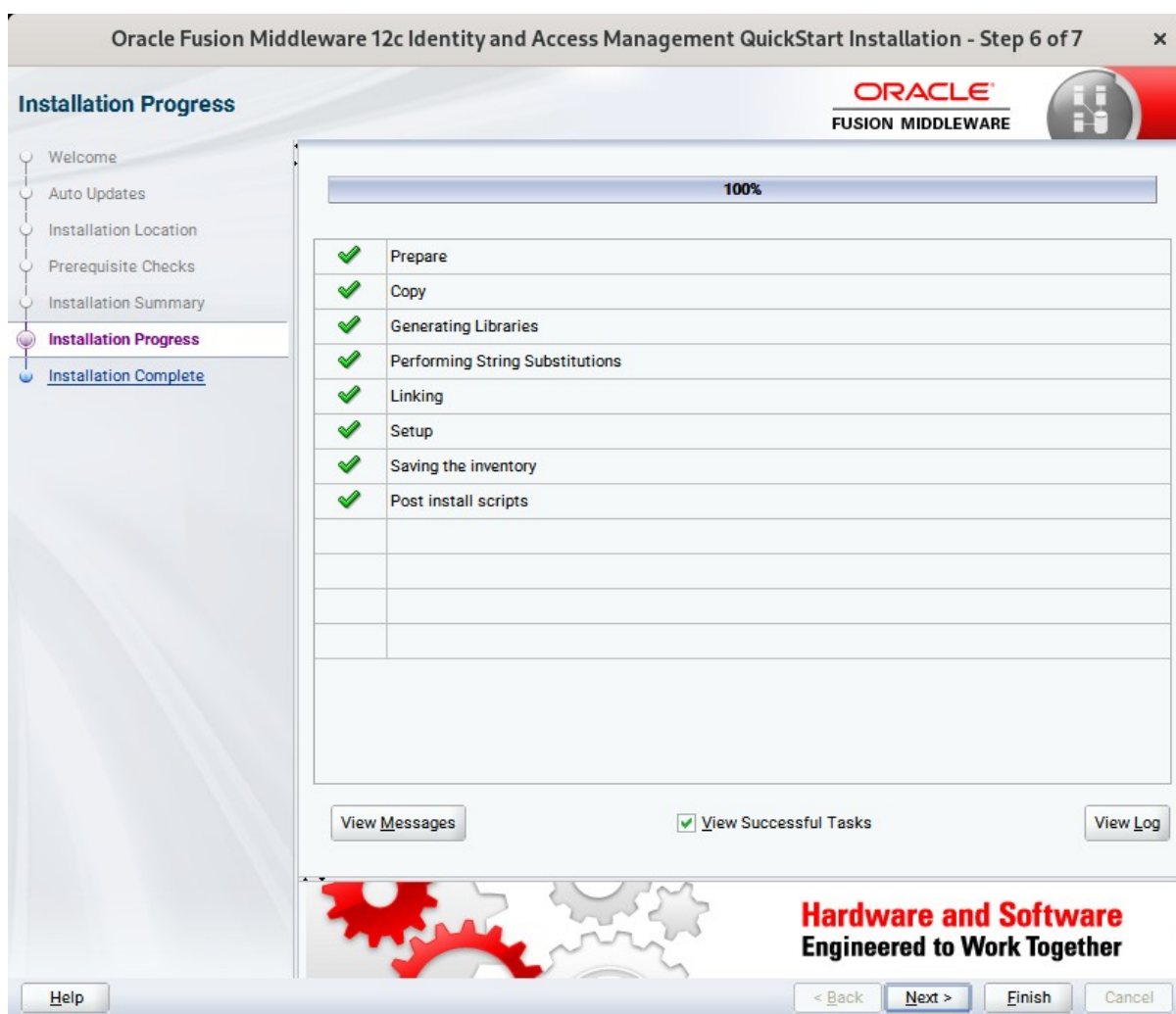
This pages shows you the progress of the system checking the prerequisites on your system prior to installation. If you are lacking any prerequisites, a message will appear telling you so. You do not need to take any actions on this page, though you can view the log from here. Click **Next** to continue.

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



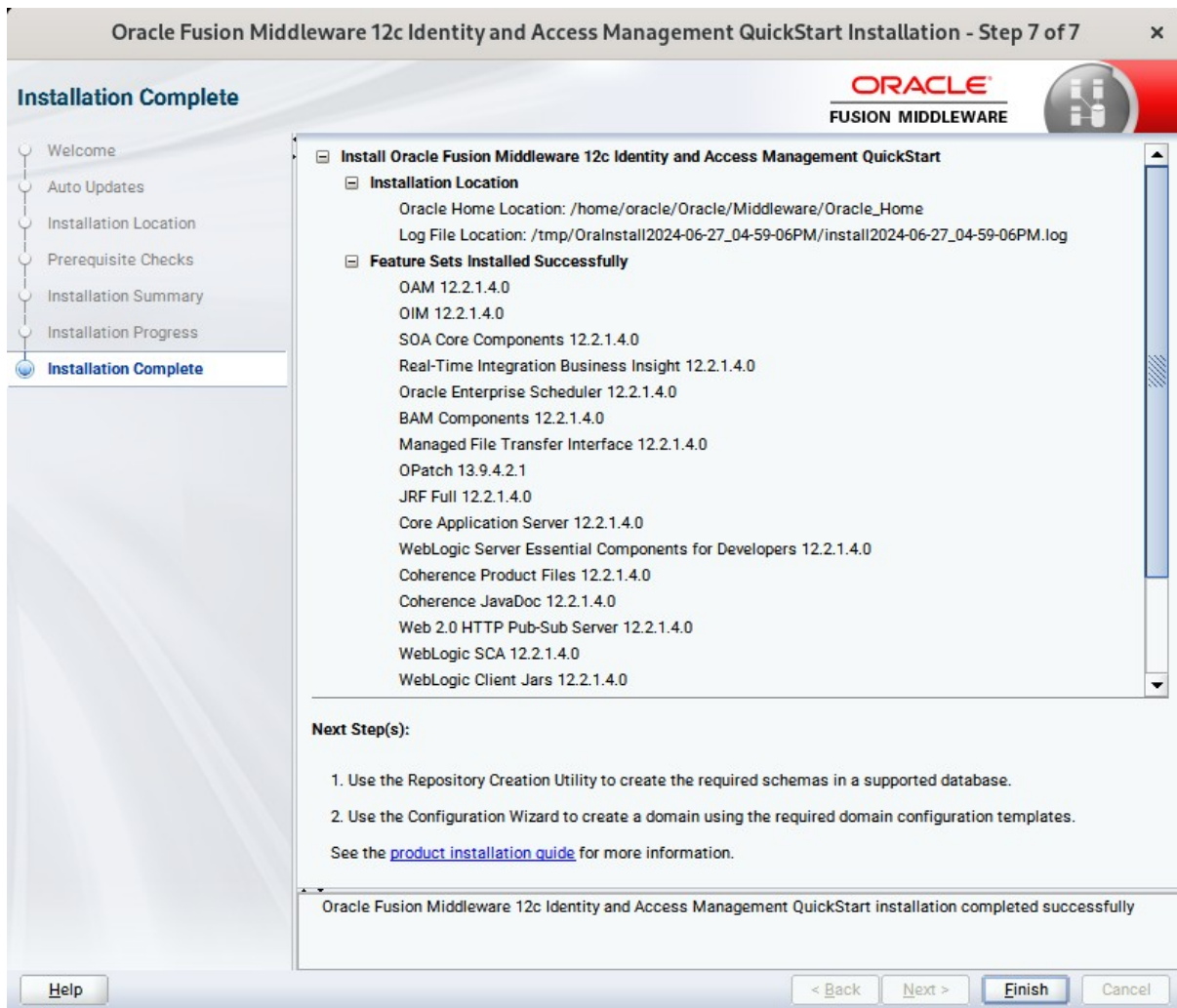
This page shows you what components and features are about to be installed. If you need to make changes, click **Back**, otherwise, click **Install** to start the installation.

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.



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

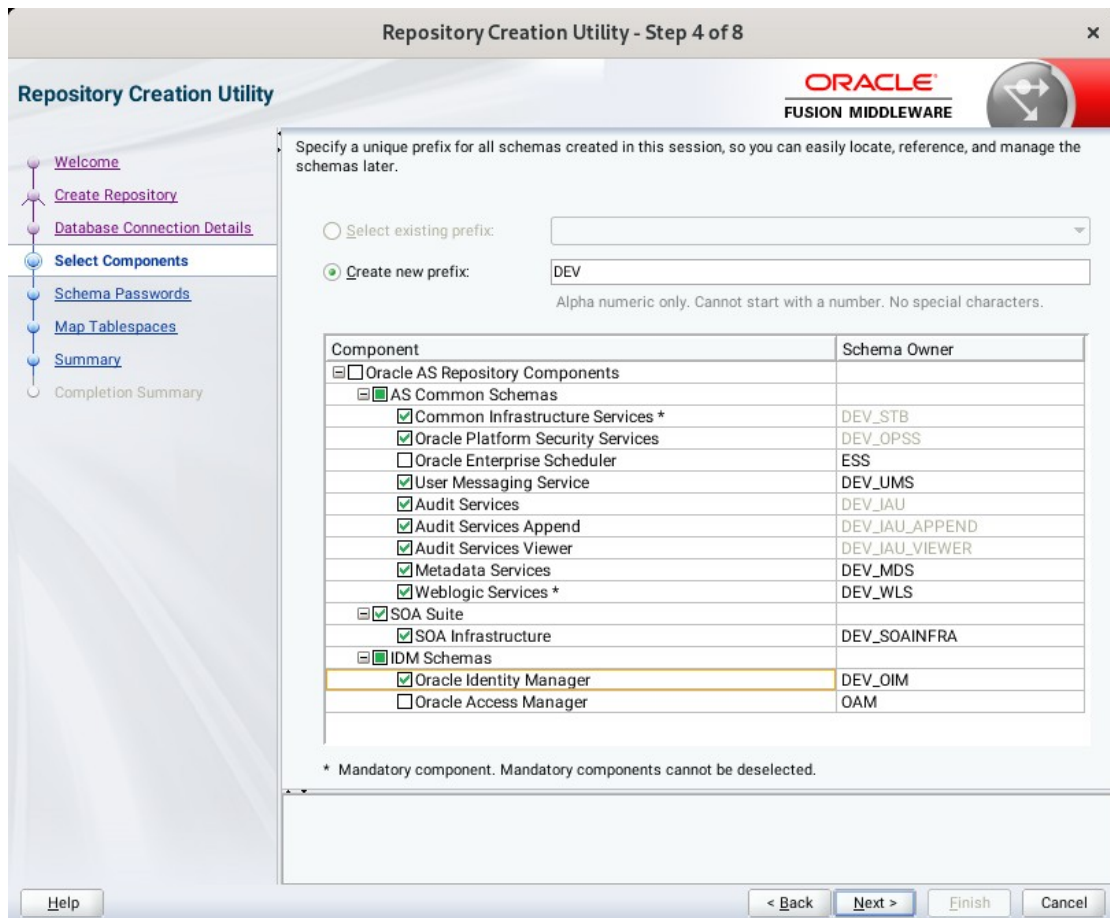
2. Configuring the Oracle Identity Manager Domain

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.

Ensure the schema creation is successful.

The screenshot displays the Oracle Repository Creation Utility (RCU) interface at Step 9 of 9. The window title is "Repository Creation Utility - Step 9 of 9". The Oracle Fusion Middleware logo is visible in the top right corner. A navigation pane on the left shows the following steps: Welcome, Create Repository, Database Connection Details, Select Components, Schema Passwords, Custom Variables, Map Tablespaces, Summary, and Completion Summary (which is currently selected).

Database details:

- Host Name: Dell5530
- Port: 1521
- Service Name: SUSE
- Connected As: sys
- Operation: System and Data Load concurrently
- Execution Time: 3 minutes 18 seconds
- RCU Logfile: /tmp/RCU2024-06-27_17-11_1294795412/logs/rcu.log
- Component Log Directory: /tmp/RCU2024-06-27_17-11_1294795412/logs
- View Log: rcu.log

Prefix for (prefixable) Schema DEV
Owners

Component	Status	Time	Logfile(Click to view)
Common Infrastructure Services	Success	00:09.327(sec)	stb.log
Oracle Platform Security Services	Success	00:15.457(sec)	opss.log
SOA Infrastructure	Success	00:35.653(sec)	soainfra.log
Oracle Identity Manager	Success	00:50.685(sec)	oim.log
User Messaging Service	Success	00:11.967(sec)	ucsums.log
Audit Services	Success	00:12.090(sec)	iau.log
Audit Services Append	Success	00:09.162(sec)	iau_append.log
Audit Services Viewer	Success	00:09.189(sec)	iau_viewer.log
Metadata Services	Success	00:12.043(sec)	mds.log
Weblogic Services	Success	00:14.050(sec)	wls.log

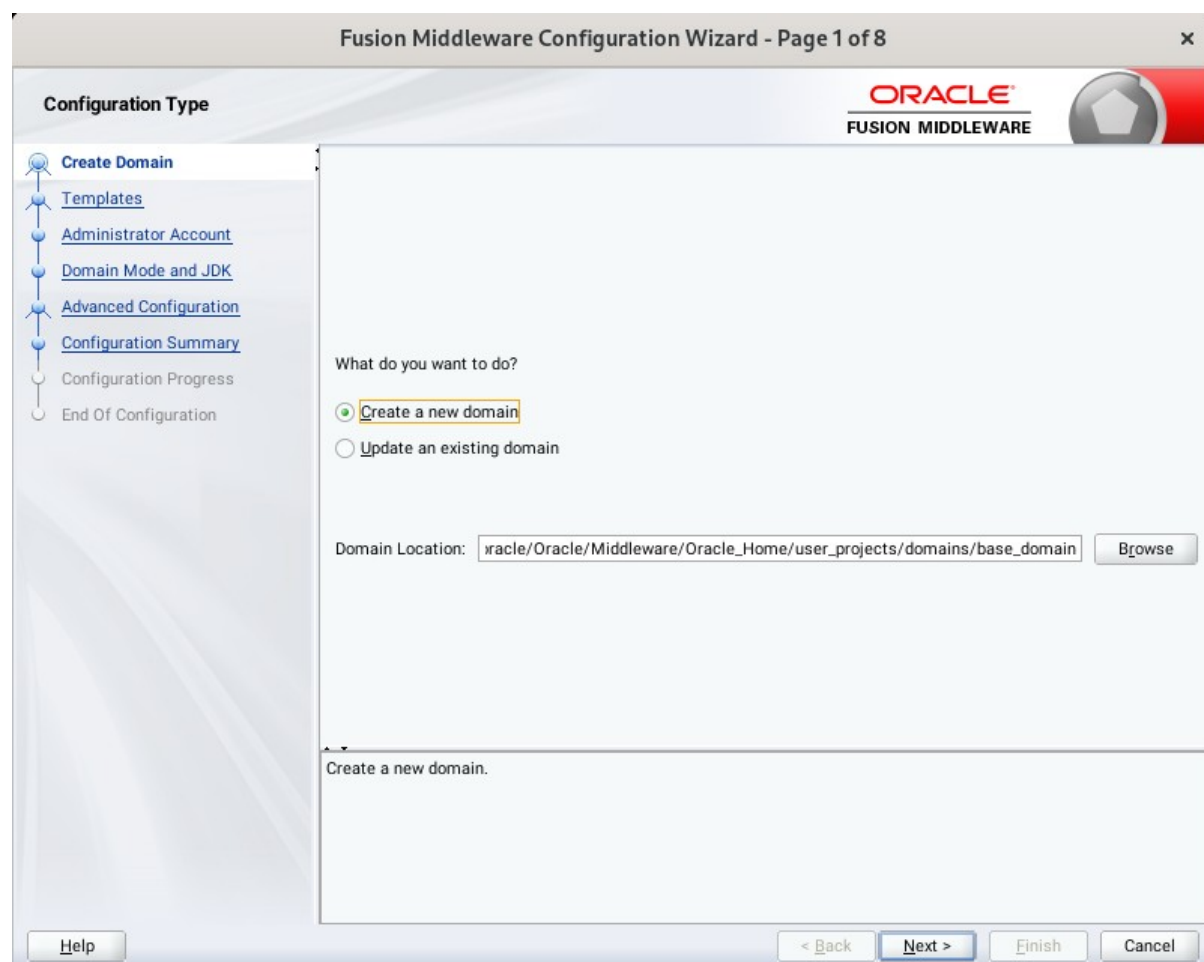
Buttons at the bottom: Help, < Back, Next >, Create, Close.

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.

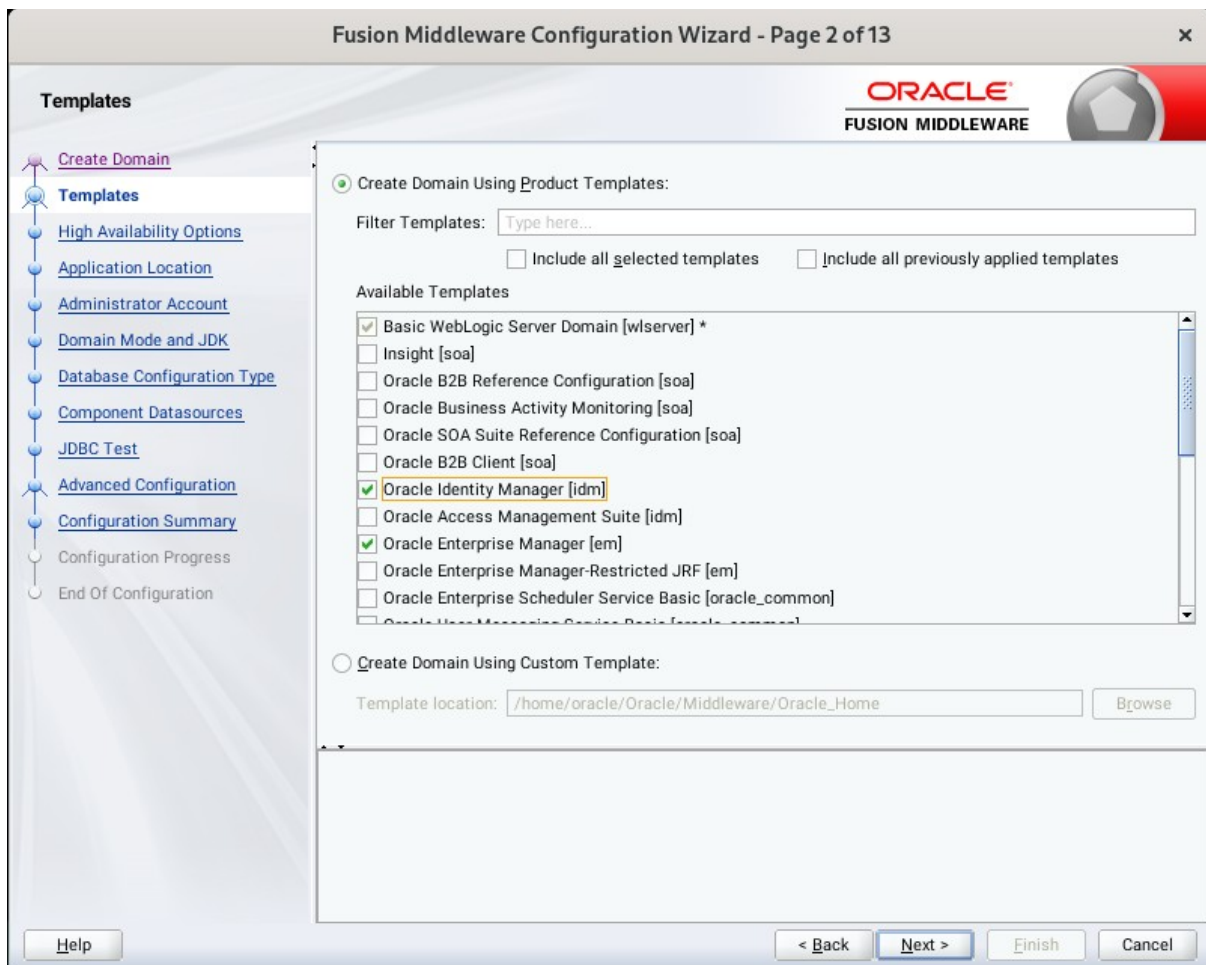
Follow these steps:

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



Click **Next** to continue.

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



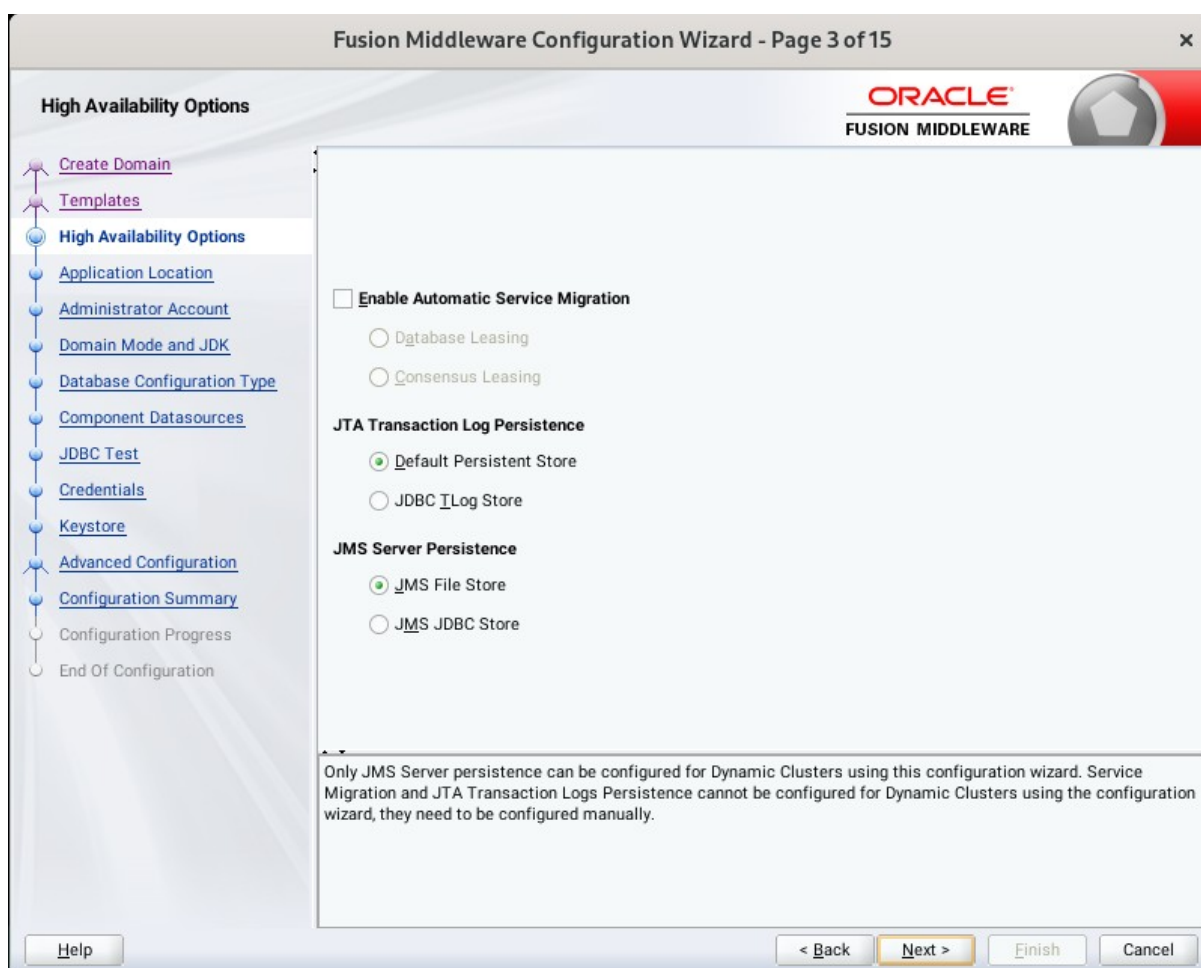
On the Templates screen, make sure **Create Domain Using Product Templates** is selected, then select the template **Oracle Identity Manager [idm]**.

Selecting this template automatically selects the following as dependencies:

- Oracle Enterprise Manager [em]
- Oracle JRF [oracle_common]
- Oracle WSM Policy Manager [oracle_common]
- WebLogic Coherence Cluster Extension [wlsrver]

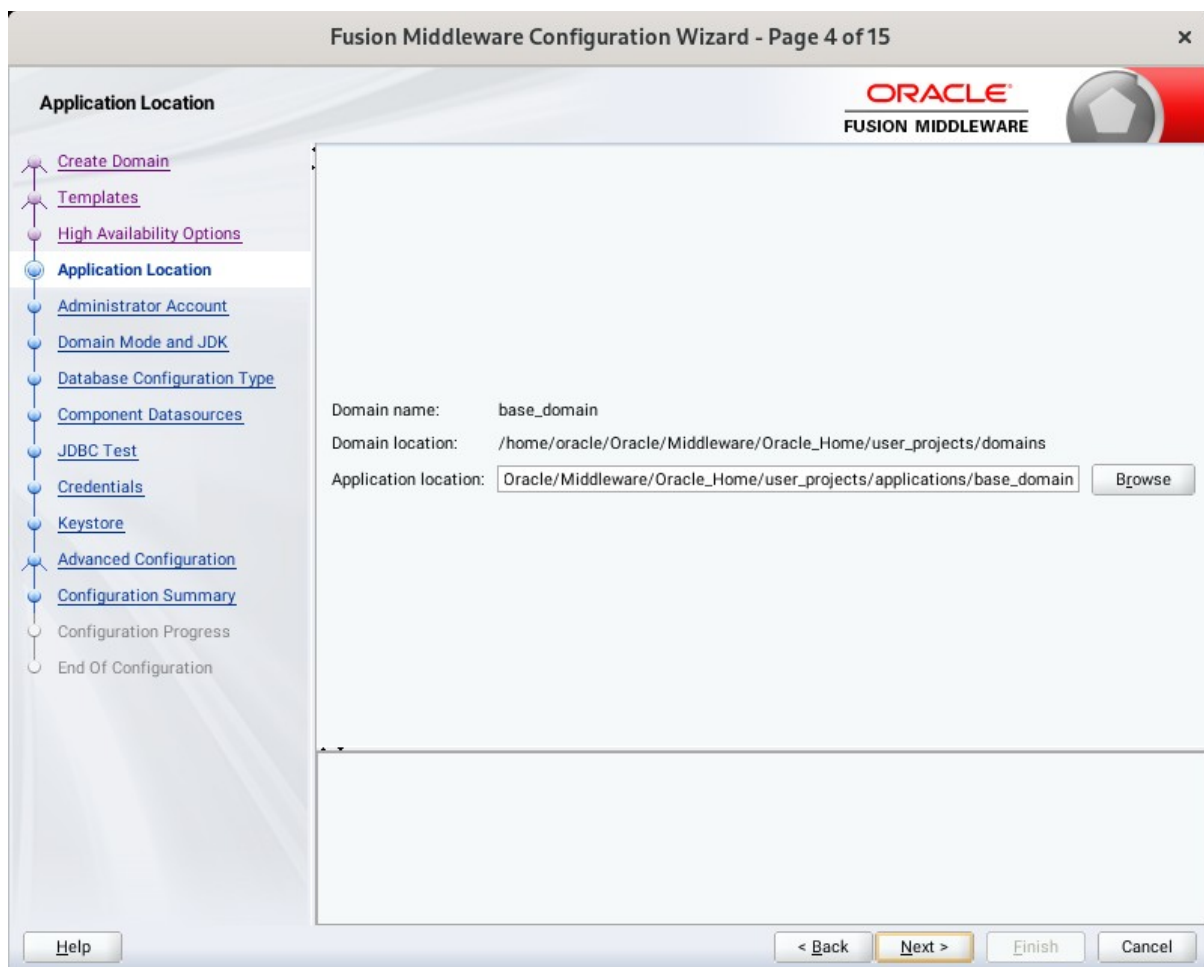
You can also select any of the Oracle products listed in the following table. You do not need to select all of these templates, and you can always run the configuration wizard again to add products to your domain later. Click **Next** to continue.

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



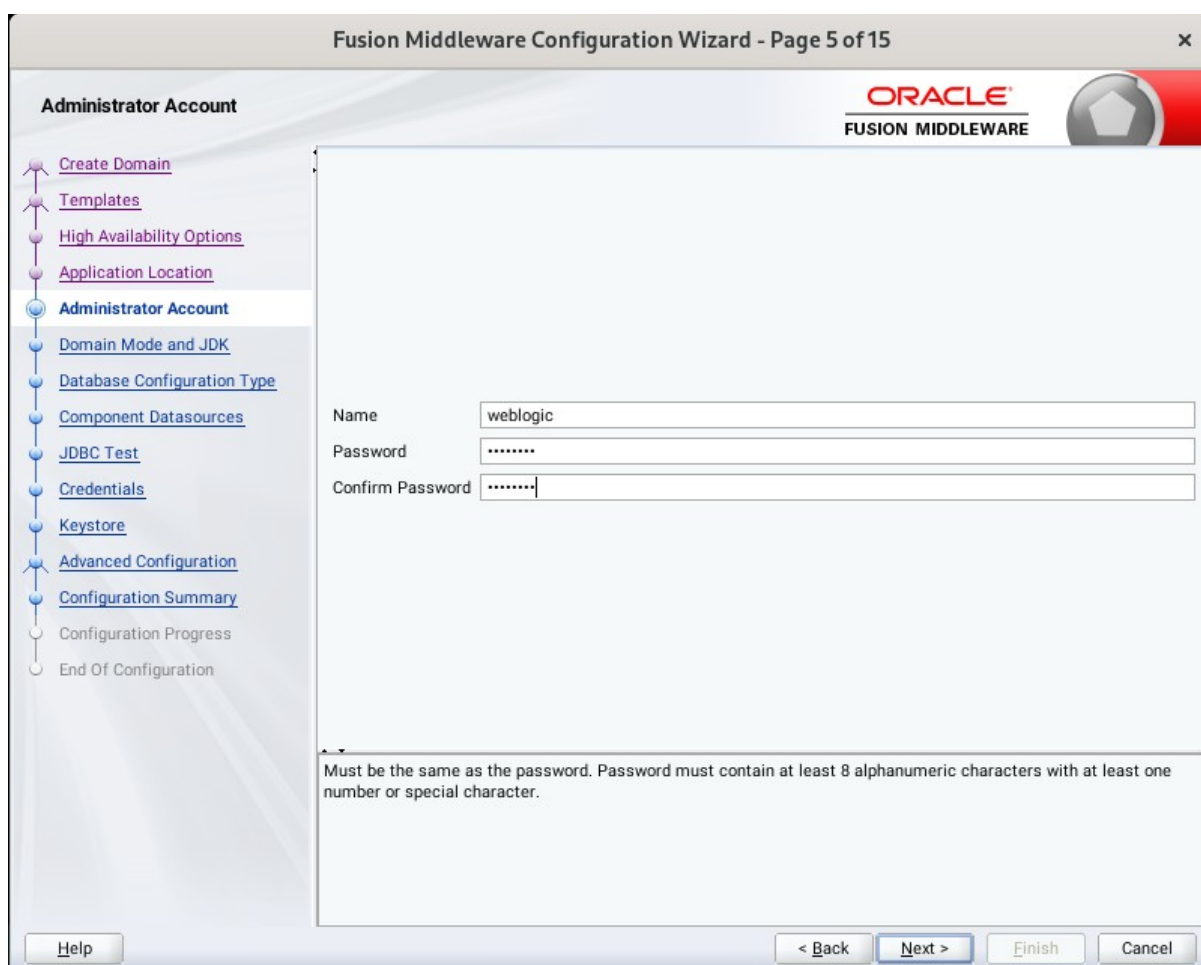
Keep the default value for Application location. Click **Next** to continue.

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



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

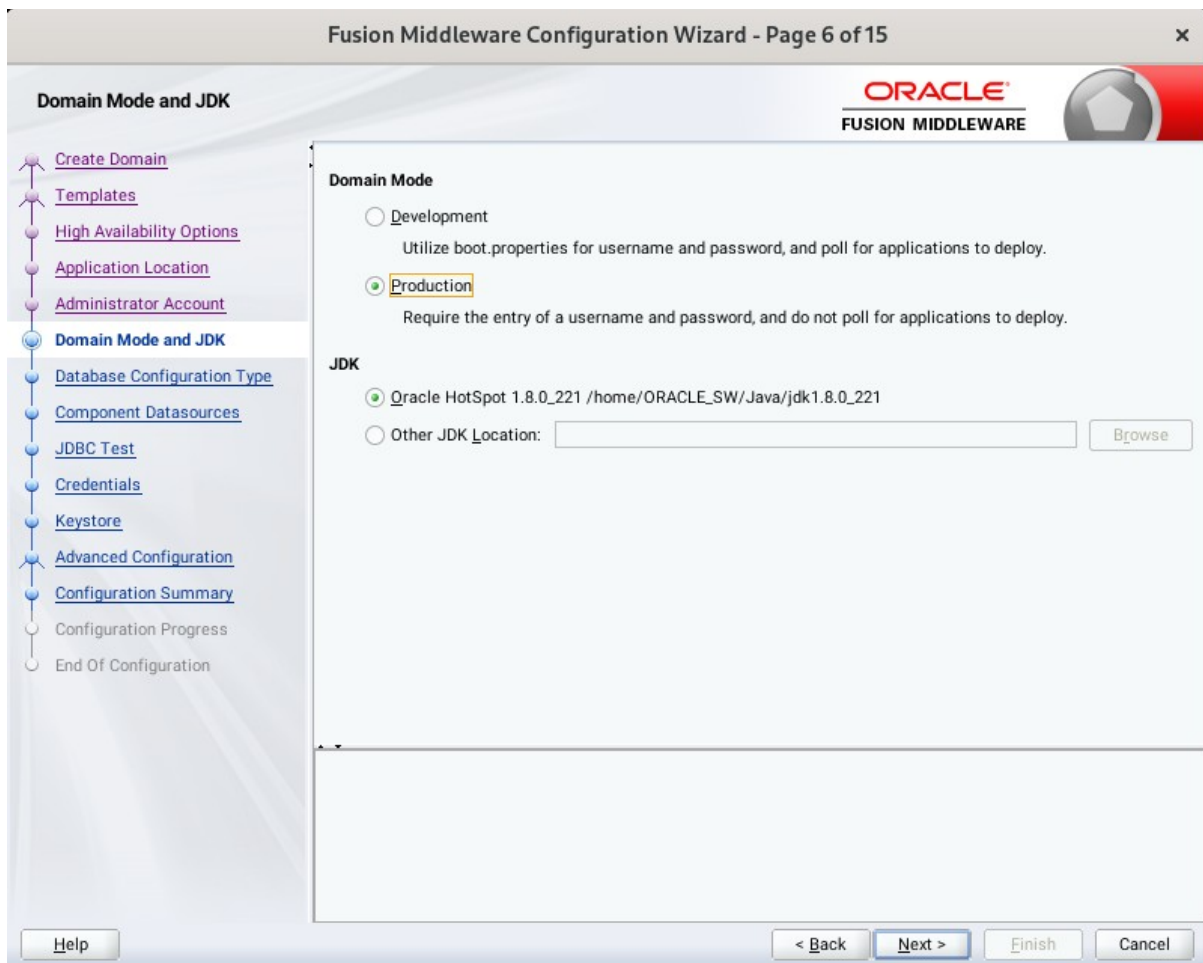
5). The **Administrator Account** screen appears.



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 15". The Oracle logo and "FUSION MIDDLEWARE" text are visible in the top right corner. A navigation pane on the left lists the following steps: Create Domain, Templates, High Availability Options, Application Location, Administrator Account (selected), Domain Mode and JDK, Database Configuration Type, Component Datasources, JDBC Test, Credentials, 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 the 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.

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



The screenshot shows the "Fusion Middleware Configuration Wizard - Page 6 of 15" window. The title bar includes the Oracle logo and "FUSION MIDDLEWARE". The main content area is titled "Domain Mode and JDK". On the left, a navigation pane lists steps: Create Domain, Templates, High Availability Options, Application Location, Administrator Account, **Domain Mode and JDK** (highlighted), Database Configuration Type, Component Datasources, JDBC Test, Credentials, Keystore, Advanced Configuration, Configuration Summary, Configuration Progress, and End Of Configuration. The main area contains two sections: "Domain Mode" with radio buttons for "Development" (description: Utilize boot.properties for username and password, and poll for applications to deploy.) and "Production" (description: Require the entry of a username and password, and do not poll for applications to deploy.). The "JDK" section has radio buttons for "Oracle HotSpot 1.8.0_221 /home/ORACLE_SW/Java/jdk1.8.0_221" and "Other JDK Location:" followed by a text input field and a "Browse" button. At the bottom, there are buttons for "Help", "< Back", "Next >", "Finish", and "Cancel".

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: Dell5530

DBMS/Service: suse Port: 1521

Schema Owner: DEV_STB Schema Password:

Get RCU Configuration Cancel

Connection Result Log

Connecting to the database server...OK
Retrieving schema data from database server...OK
Binding local schema components with retrieved data...OK

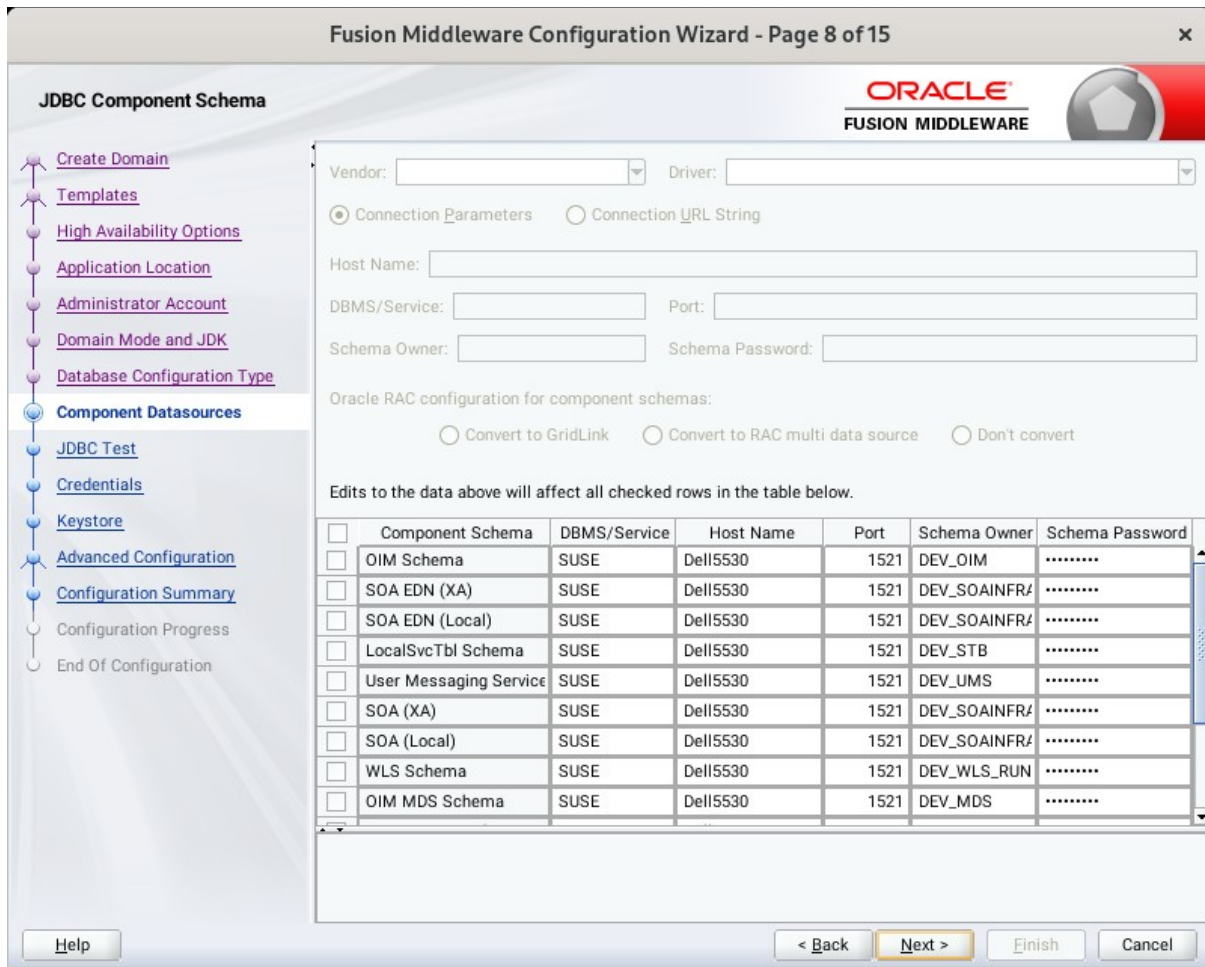
Successfully Done.

Click "Next" button to continue.

Help < Back Next > Finish Cancel

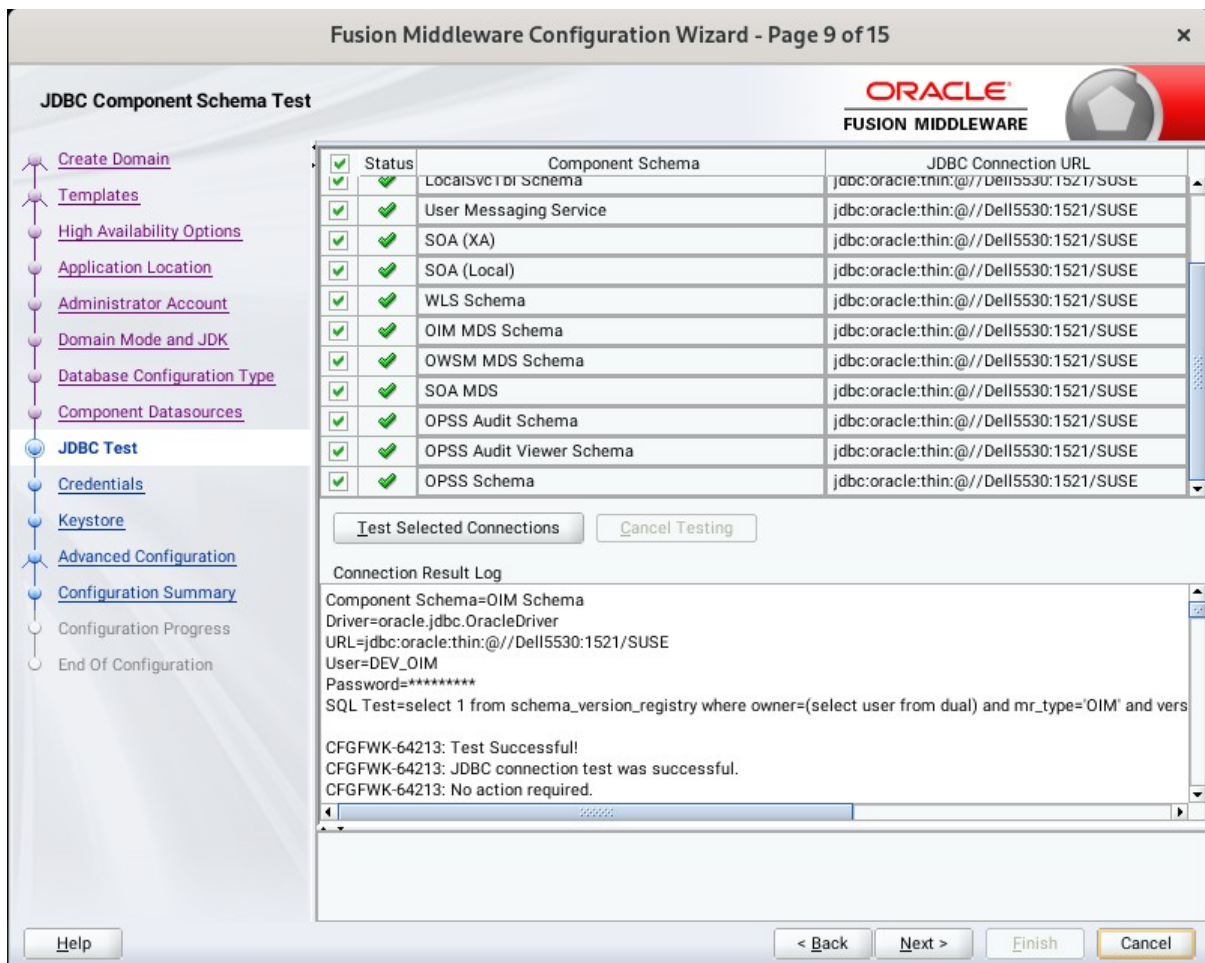
Select **RCU Data** to activate the fields. The **RCU Data** option instructs the Configuration Wizard to connect to the database and Service Table (STB) schema to automatically retrieve schema information for the schemas needed to configure the domain. Enter the RCU DB connection information, then click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

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



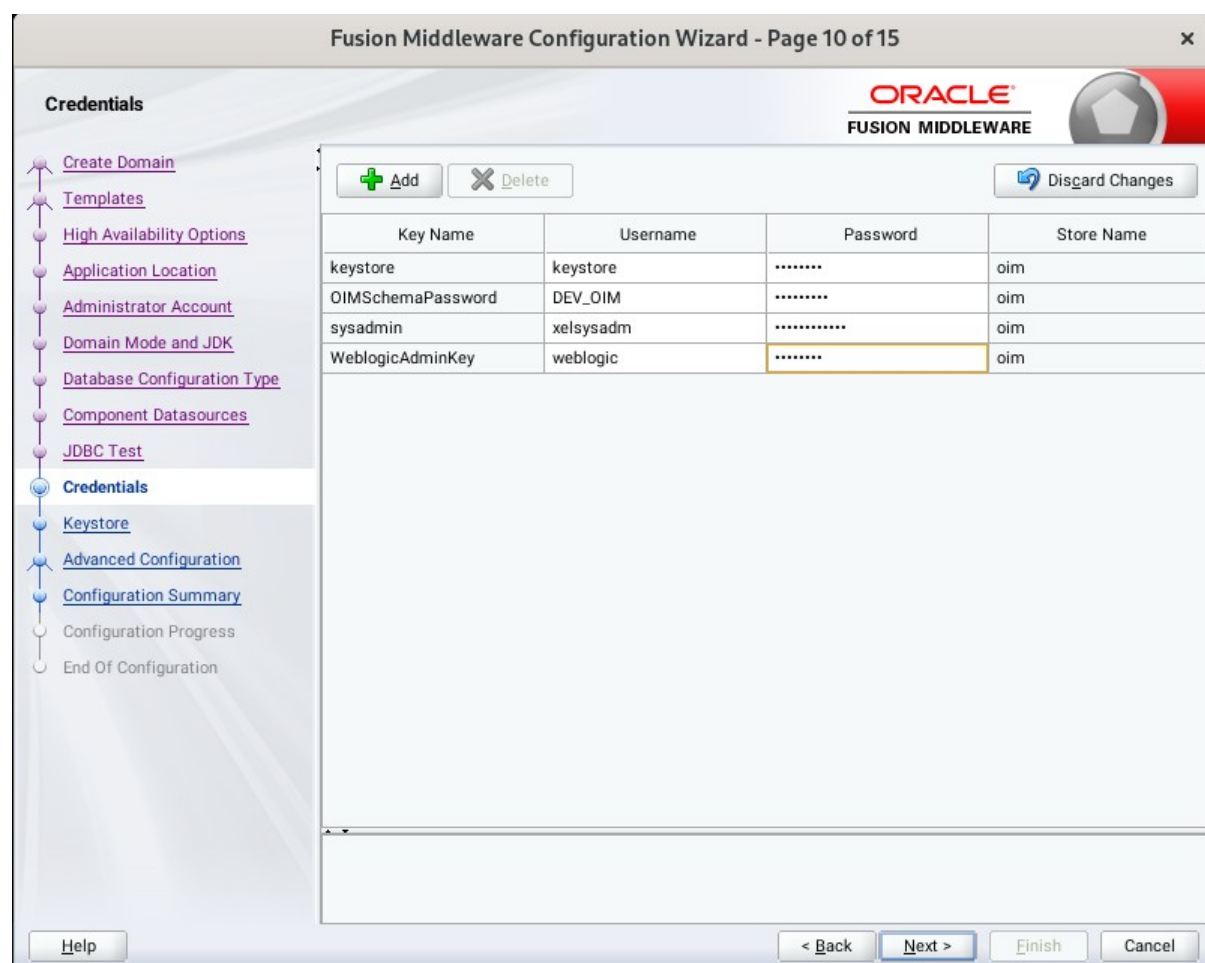
Our instructions assume each Repository schema uses the same password. If not, enter the correct schema passwords. Click **Next** to continue.

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.



Fusion Middleware Configuration Wizard - Page 10 of 15

Credentials

ORACLE
FUSION MIDDLEWARE

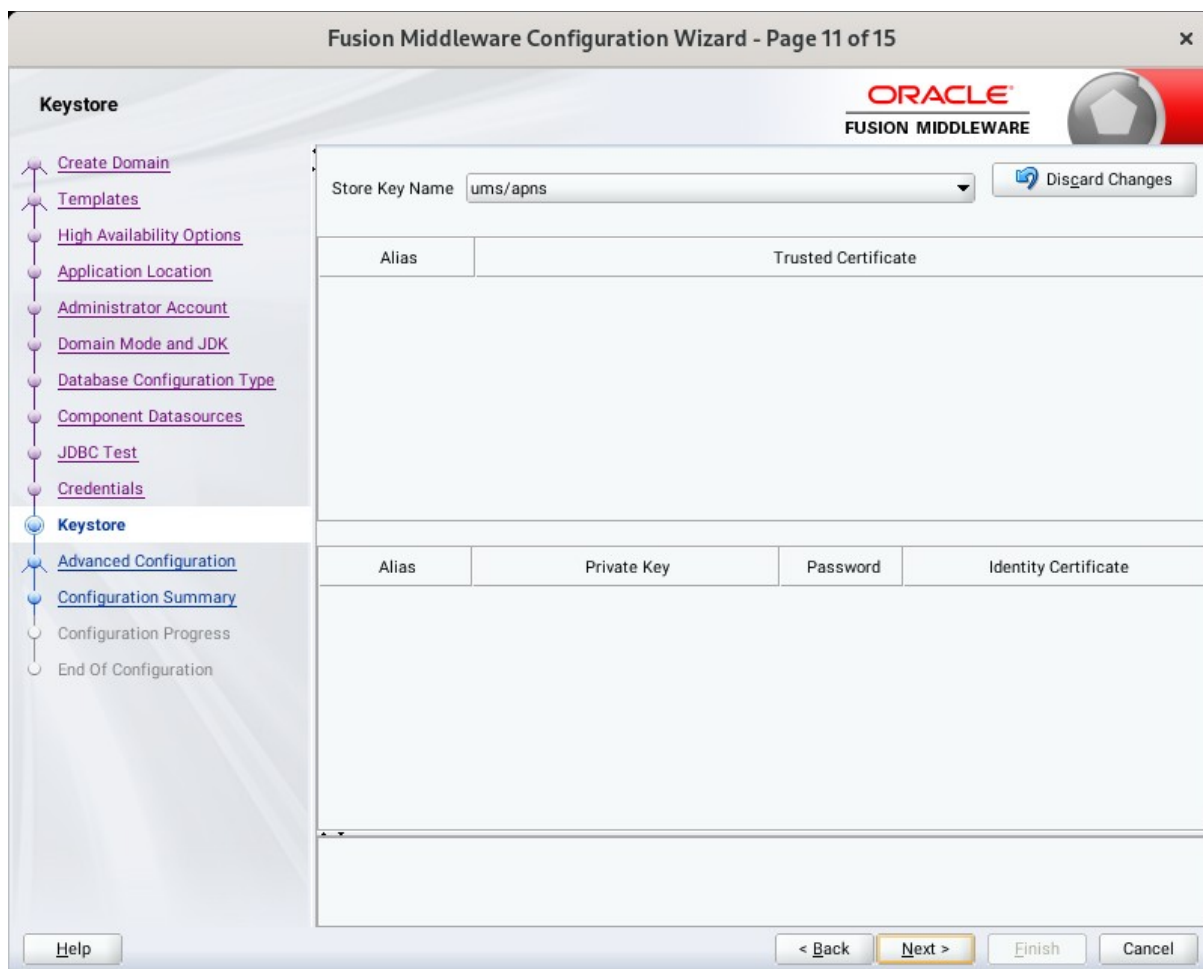
+ Add X Delete Discard Changes

Key Name	Username	Password	Store Name
keystore	keystore	.....	oim
OIMSchemaPassword	DEV_OIM	.....	oim
sysadmin	xelsysadm	.....	oim
WeblogicAdminKey	weblogic	.....	oim

Help < Back Next > Finish Cancel

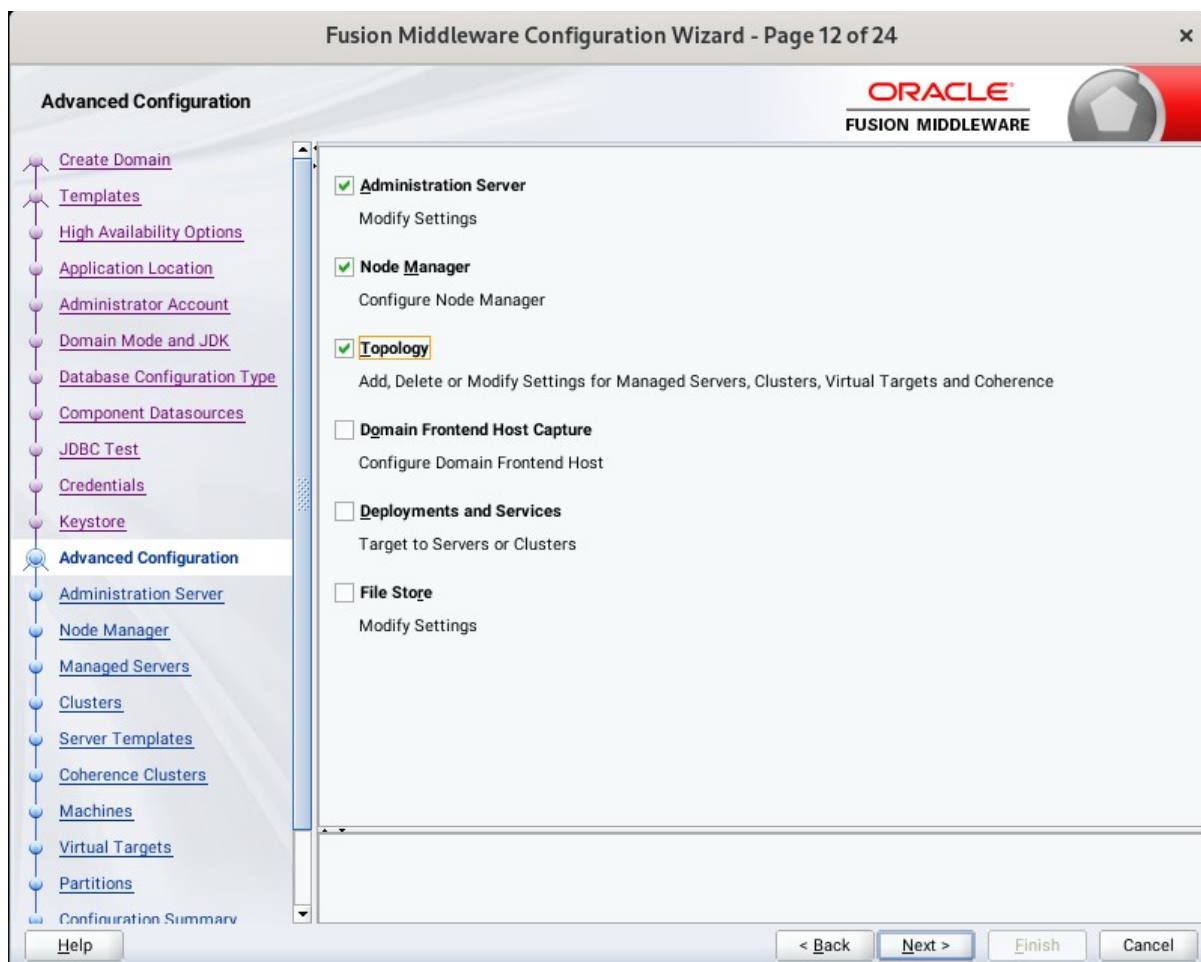
Use the Credentials screen to set credentials for each key in the domain. Ensure that you specify 'keystore' as the username for the key **Keystore**, and 'xelsysadm' as the username for the key **sysadmin**.

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.

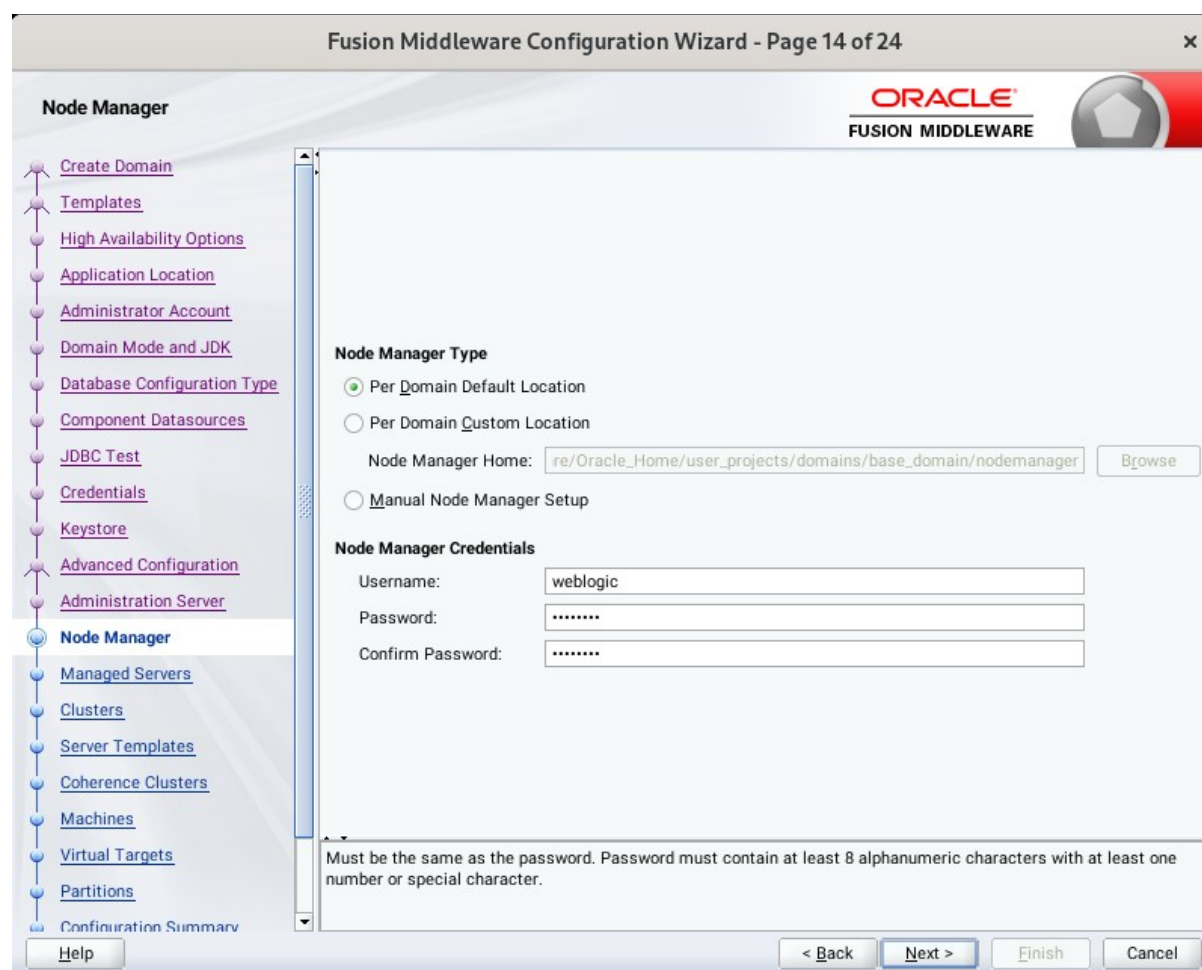
The screenshot shows the 'Administration Server' configuration screen in the Fusion Middleware Configuration Wizard. The window title is 'Fusion Middleware Configuration Wizard - Page 13 of 24'. The Oracle logo and 'FUSION MIDDLEWARE' text are visible in the top right corner. On the left, a navigation pane lists various configuration steps, with 'Administration Server' selected and highlighted in blue. The main area contains the following fields and controls:

- Server Name:** A text input field containing 'AdminServer'.
- Listen Address:** A dropdown menu showing '192.168.0.100'.
- Listen Port:** A text input field containing '7001'.
- Enable SSL:** A checkbox that is currently unchecked.
- SSL Listen Port:** An empty text input field.
- Server Groups:** A dropdown menu showing 'Unspecified'.

At the bottom of the main area, there is a validation message: 'The name must not be null or empty and may not contain any : , * ? % / _cloned.' Below this message are four buttons: '< Back', 'Next >', 'Finish', and 'Cancel'. A 'Help' button is located at the bottom left of the window.

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.



The screenshot shows the "Node Manager" configuration screen in the Fusion Middleware Configuration Wizard. The window title is "Fusion Middleware Configuration Wizard - Page 14 of 24". The Oracle Fusion Middleware logo is visible in the top right corner. On the left, a navigation pane lists various configuration steps, with "Node Manager" selected and highlighted in blue. The main content area is divided into two sections: "Node Manager Type" and "Node Manager Credentials".

Node Manager Type

- Per Domain Default Location
- Per Domain Custom Location

Node Manager Home:

Manual Node Manager Setup

Node Manager Credentials

Username:

Password:

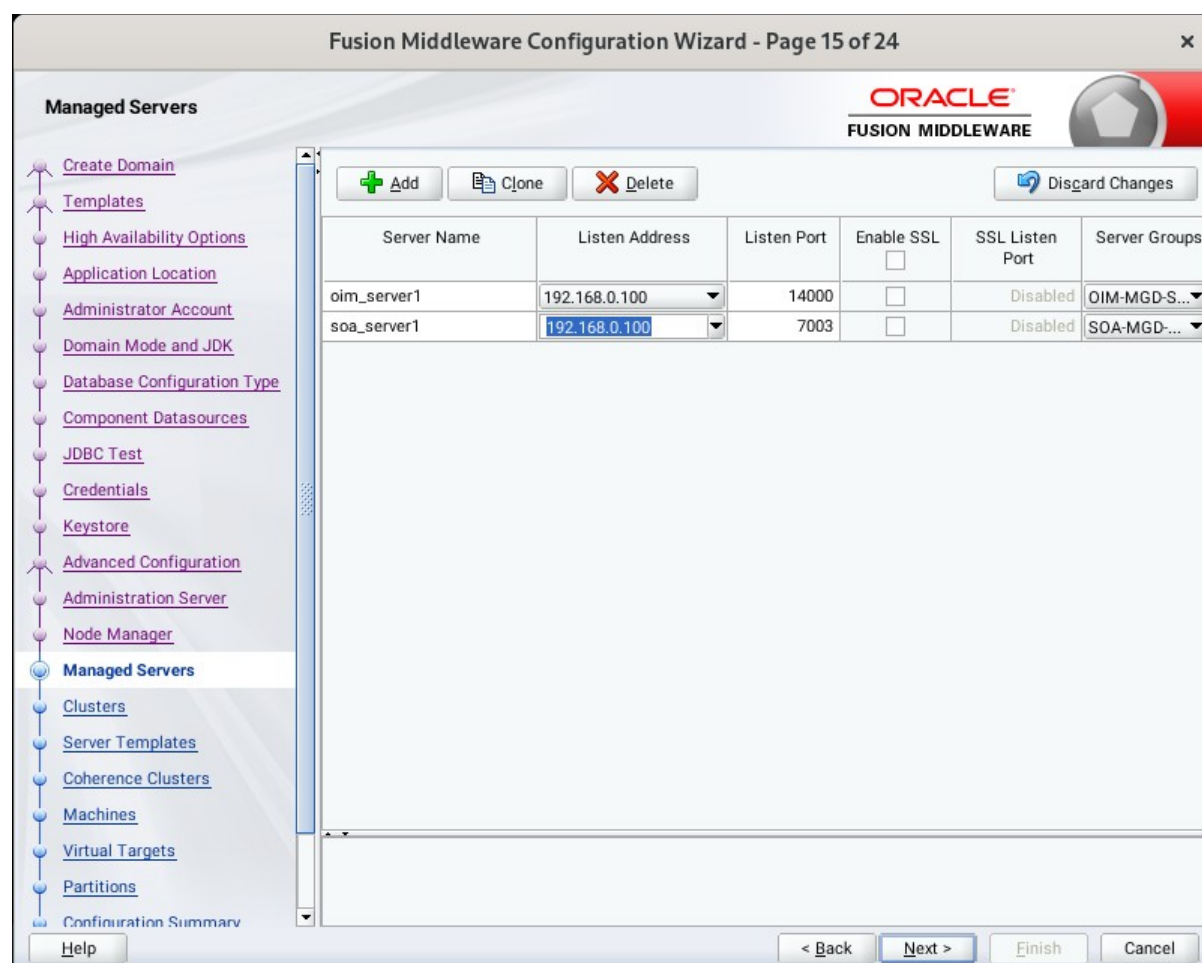
Confirm Password:

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

At the bottom of the window, there are four buttons: "< Back", "Next >", "Finish", and "Cancel".

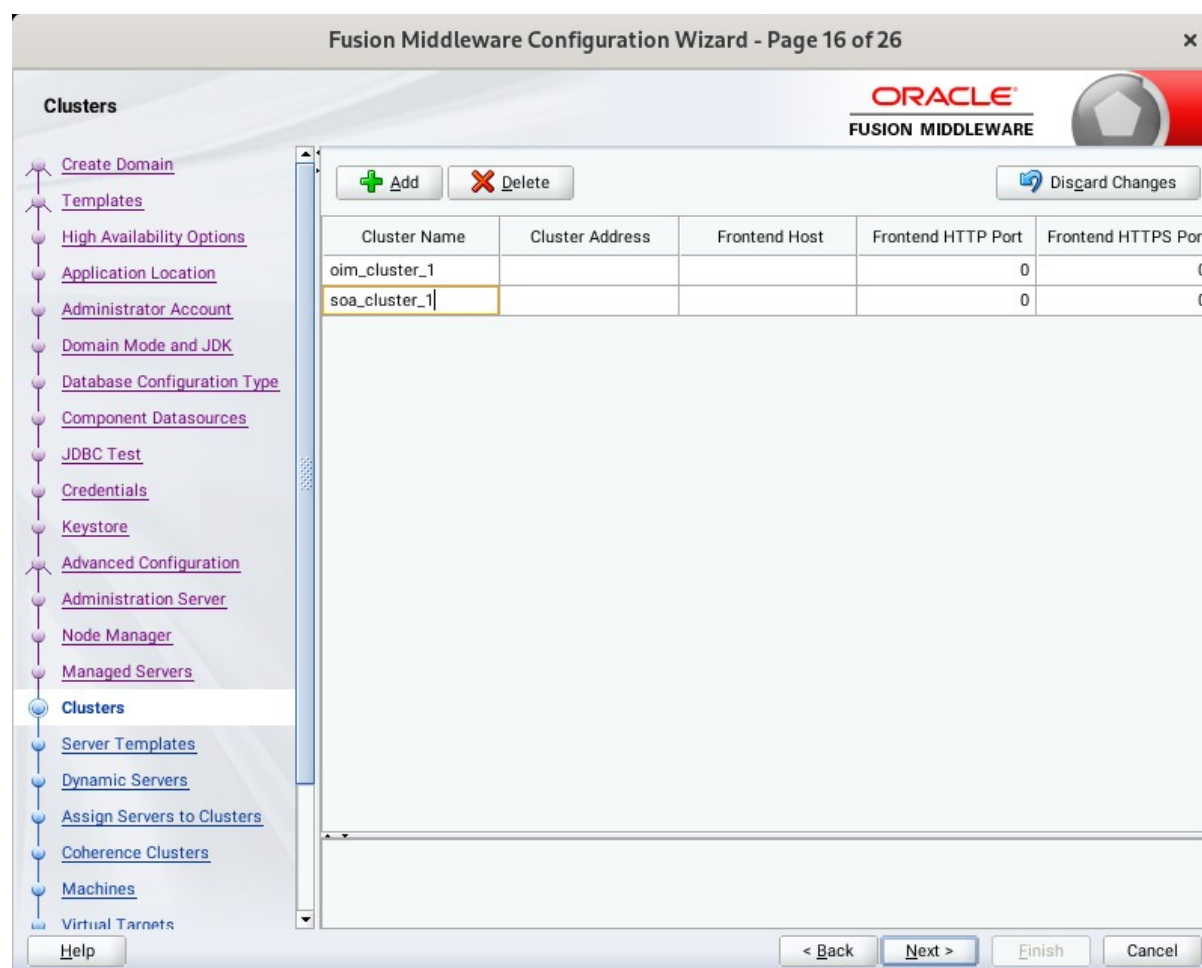
Select **Per Domain Default Location** as the Node Manager type, then Specify Node Manager credentials. Click **Next** to continue.

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.



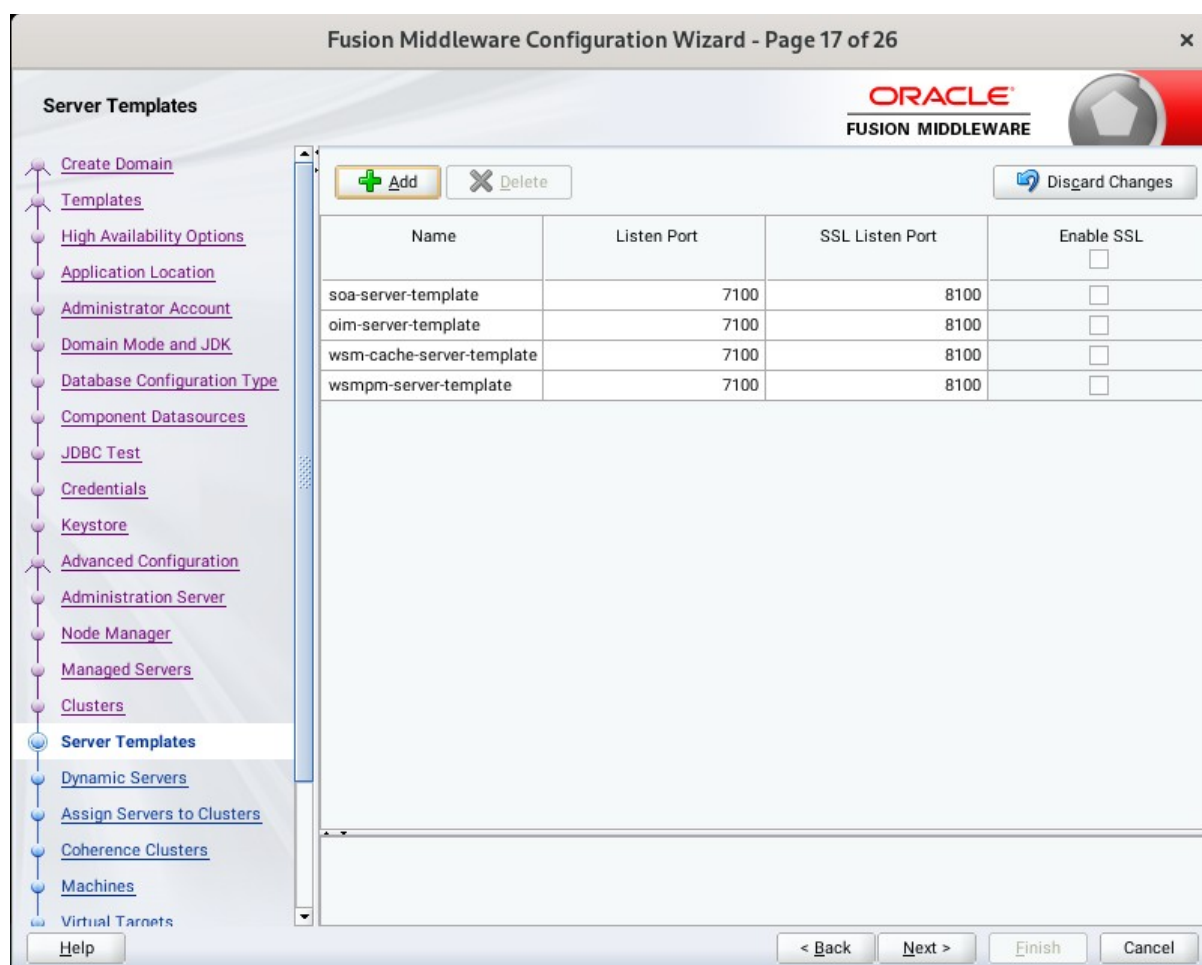
On the Clusters screen:

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: 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.

Fusion Middleware Configuration Wizard - Page 18 of 26

Dynamic Servers

ORACLE
FUSION MIDDLEWARE

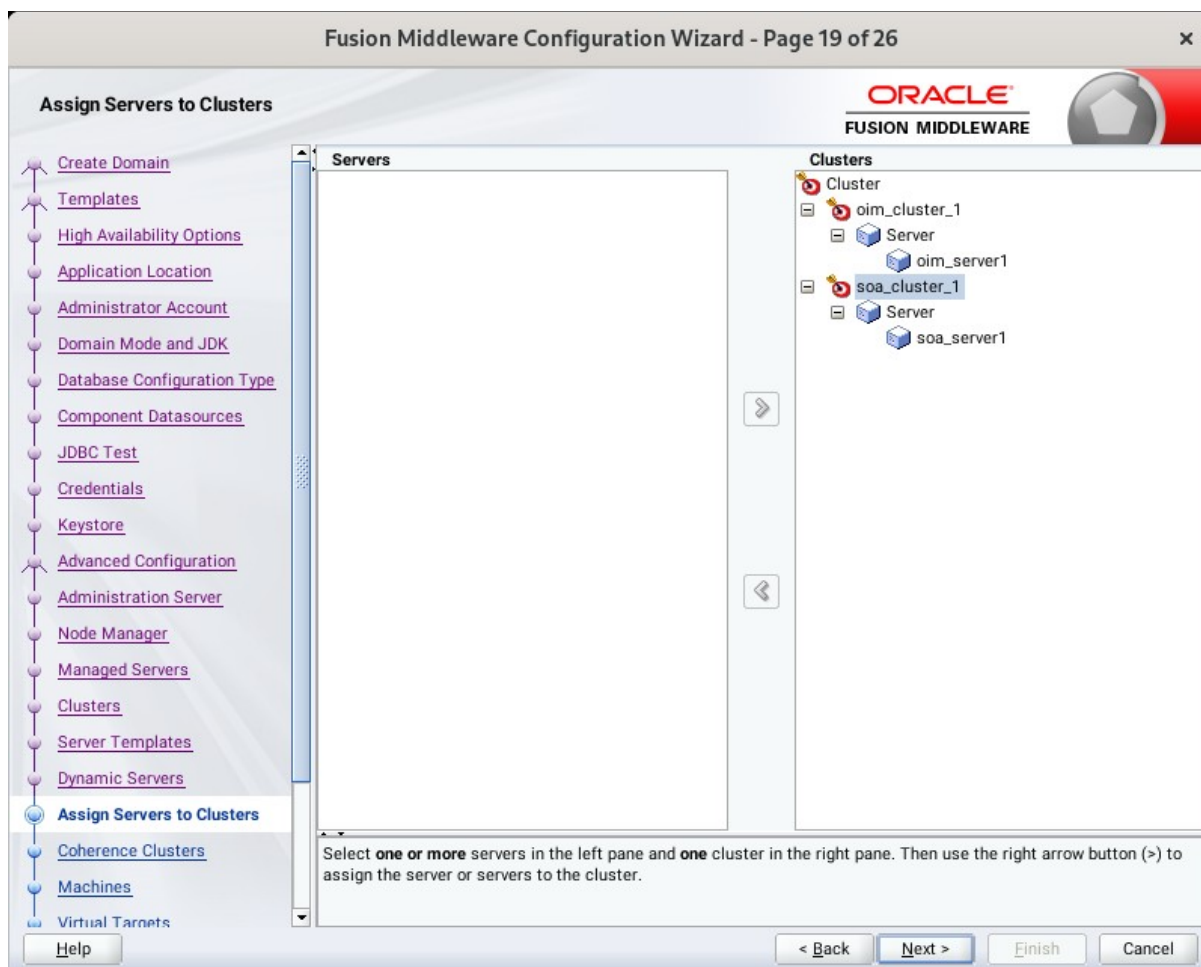
Disgard Changes

Cluster Name	Server Name Prefix	Server Template	Dynamic Cluster Size	Machine Name Match Expression	Calculated Machine Names	Calculated Listen Ports	Dynamic Server Groups
oim_cluster_1	Disabled	Unspecifi...	Disabled	Disabled	<input type="checkbox"/>	<input type="checkbox"/>	Unspecifi...
soa_cluster_1	Disabled	Unspecifi...	Disabled	Disabled	<input type="checkbox"/>	<input type="checkbox"/>	Unspecifi...

Help < Back Next > Finish Cancel

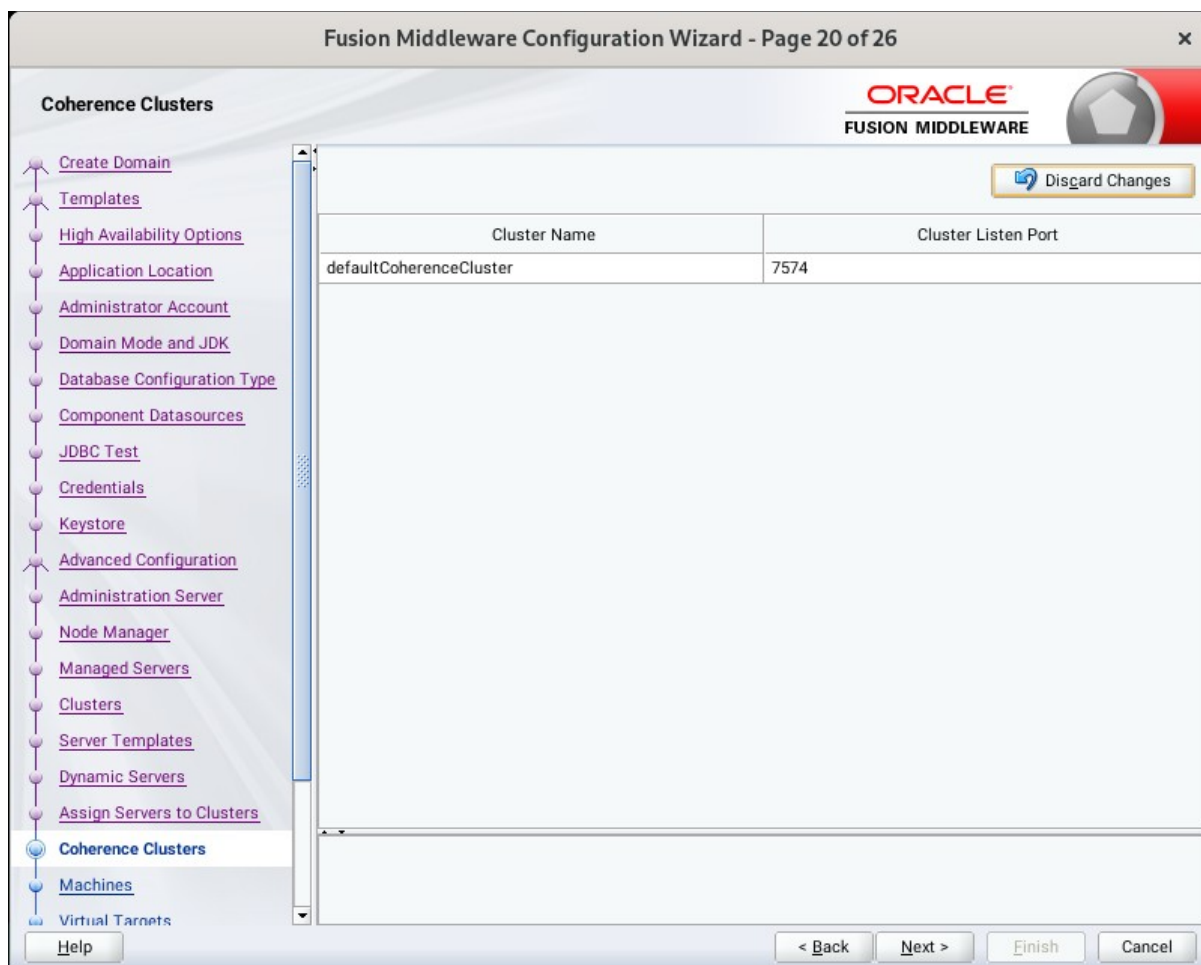
If you are creating dynamic clusters for a high availability setup, use the Dynamic Servers screen to configure the dynamic servers. If you are not configuring a dynamic cluster, click **Next** to continue configuring the domain.

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



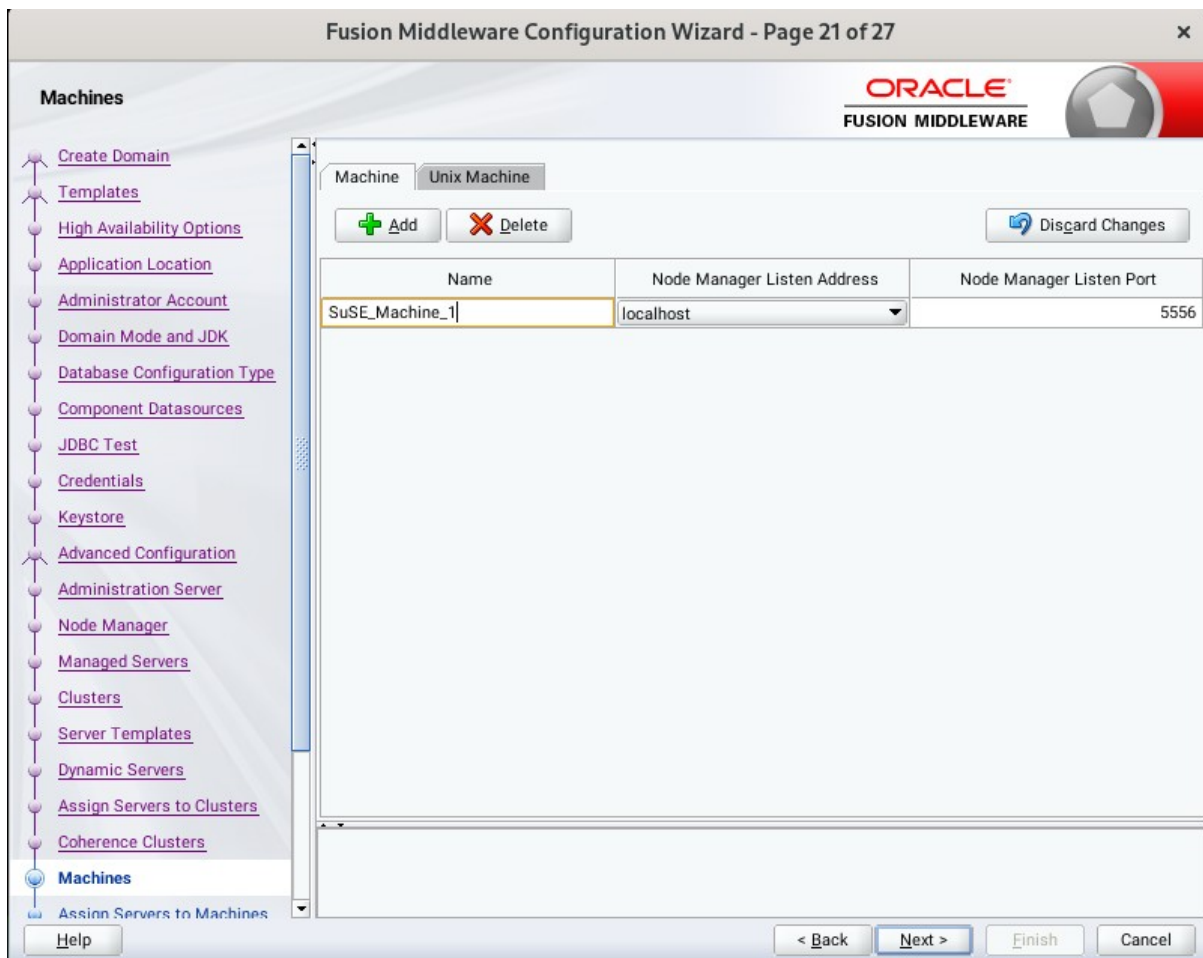
Use the **Assign Servers to Clusters** screen to assign Managed Servers to a new configured cluster. Click **Next** to continue.

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



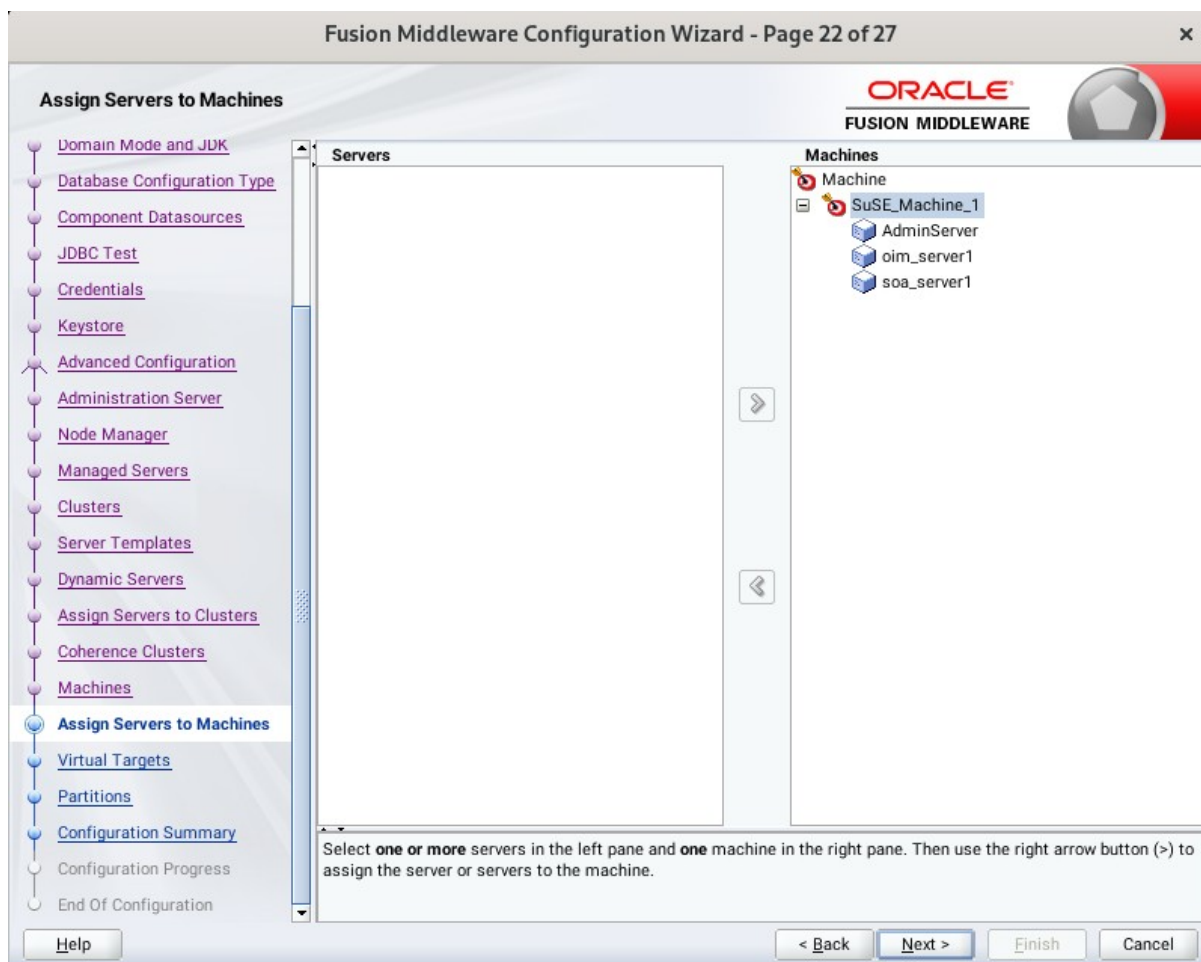
Leave the default port number as the Coherence cluster listen port. After configuration, the Coherence cluster is automatically added to the domain. Click **Next** to continue.

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



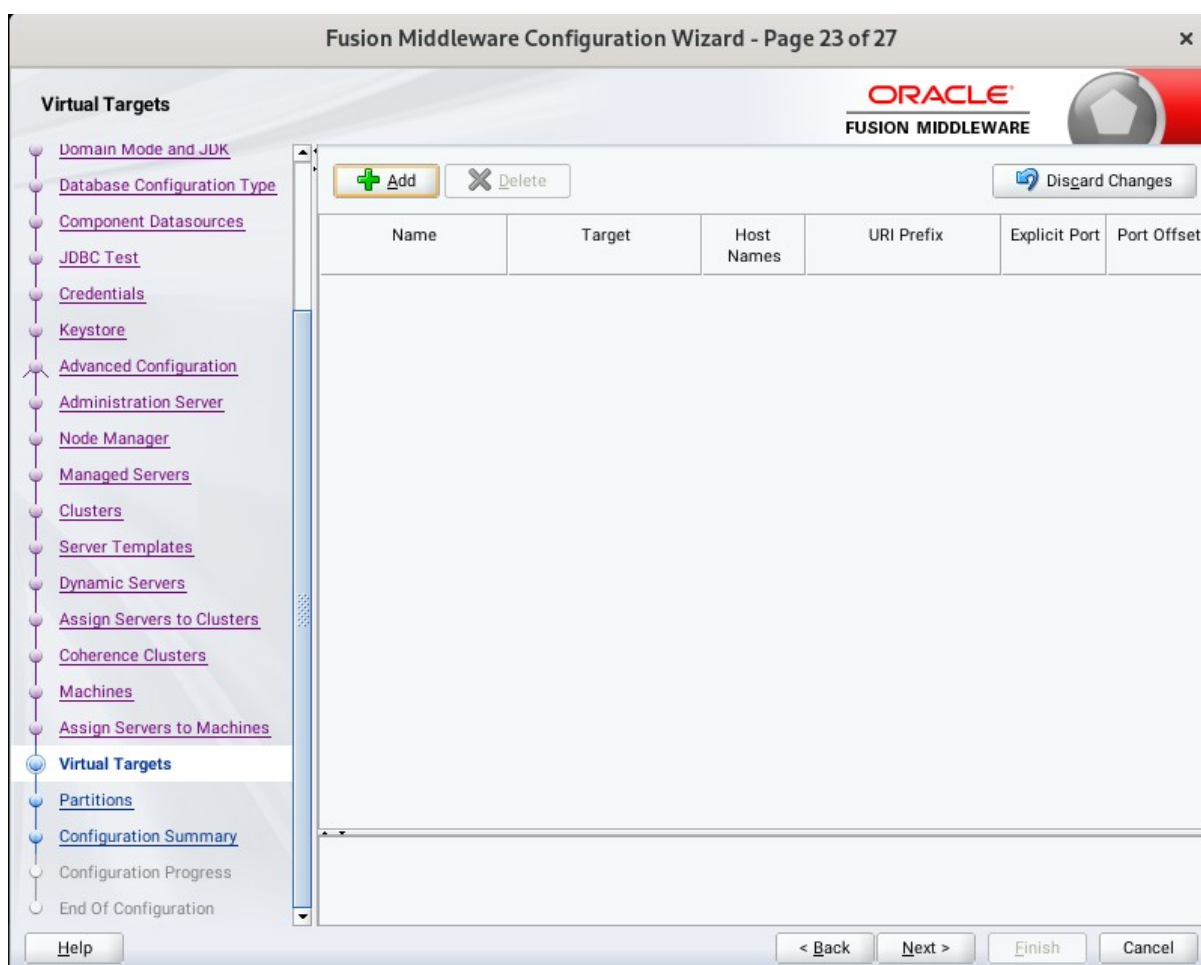
To create a new machine so that Node Manager can start and stop servers. Click **Next** to continue.

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



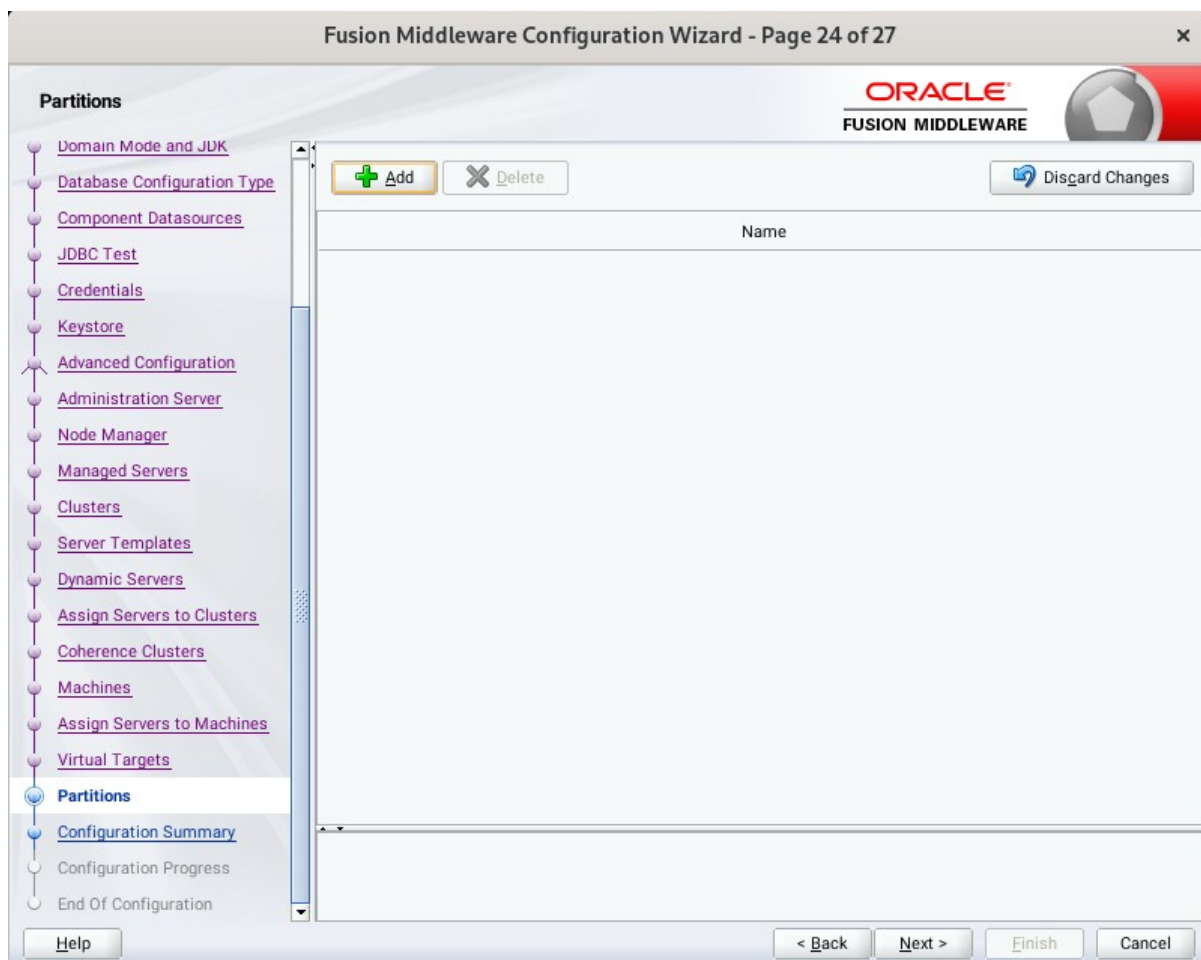
Use the **Assign Servers to Machines** screen to assign the Managed Servers to the new machine you just created. Click **Next** to continue.

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



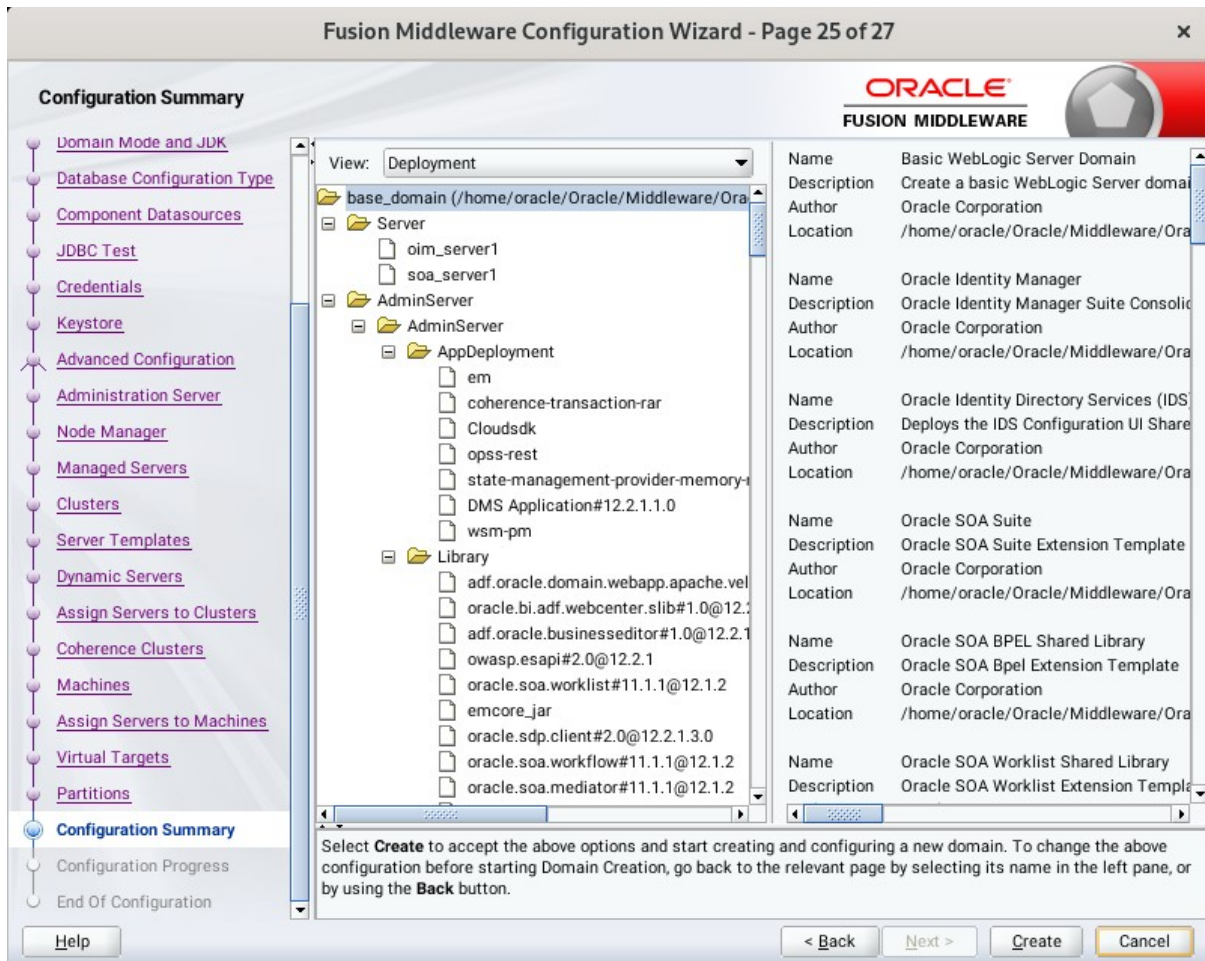
If you have a WebLogic Server Multitenant (MT) environment, you use the Virtual Targets screen to add or delete virtual targets. For this installation (not a WebLogic Server MT environment), you do not enter any values; just select **Next**.

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



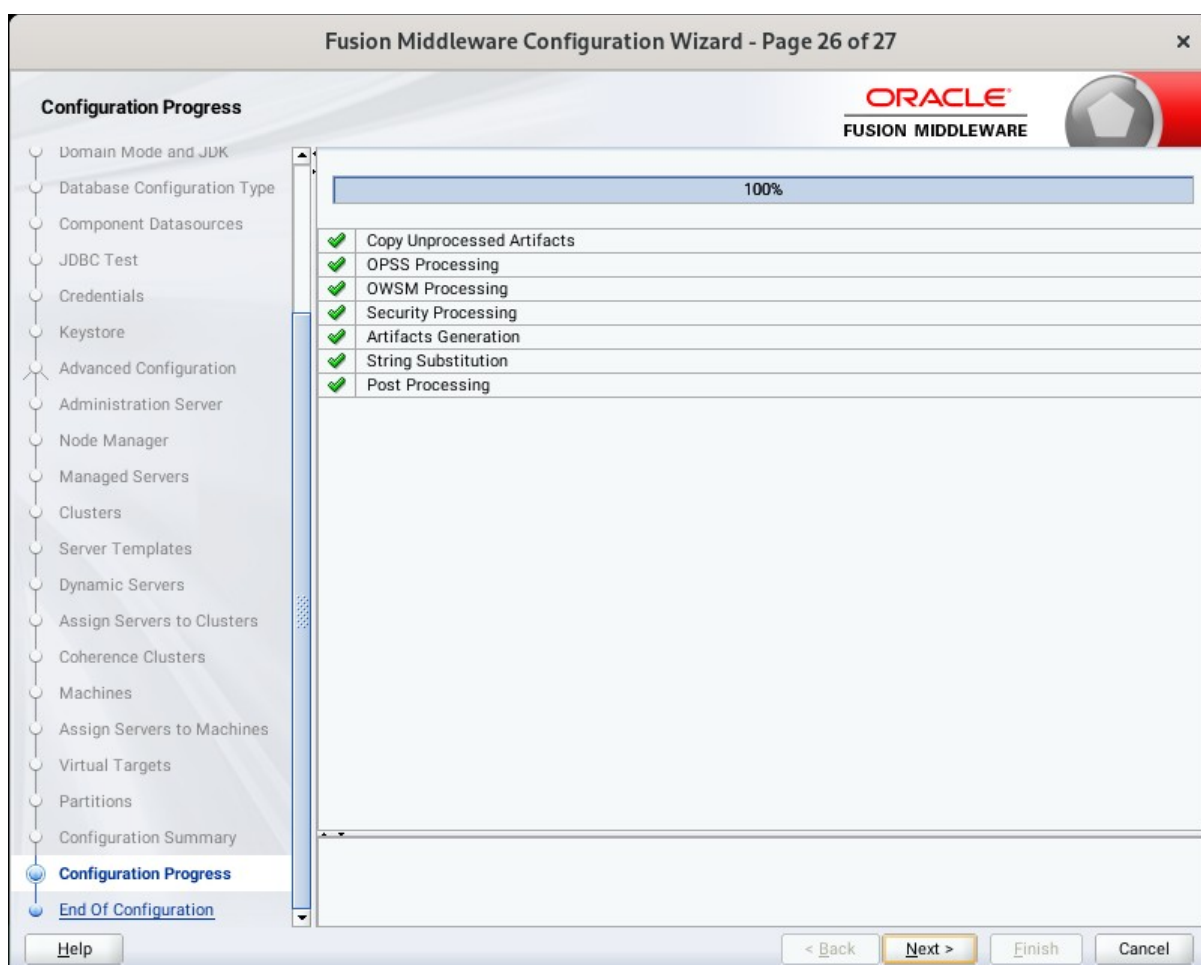
The Partitions screen is used to configure partitions for virtual targets in WebLogic Server Multitenant (MT) environments. Select **Next** without selecting any options.

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



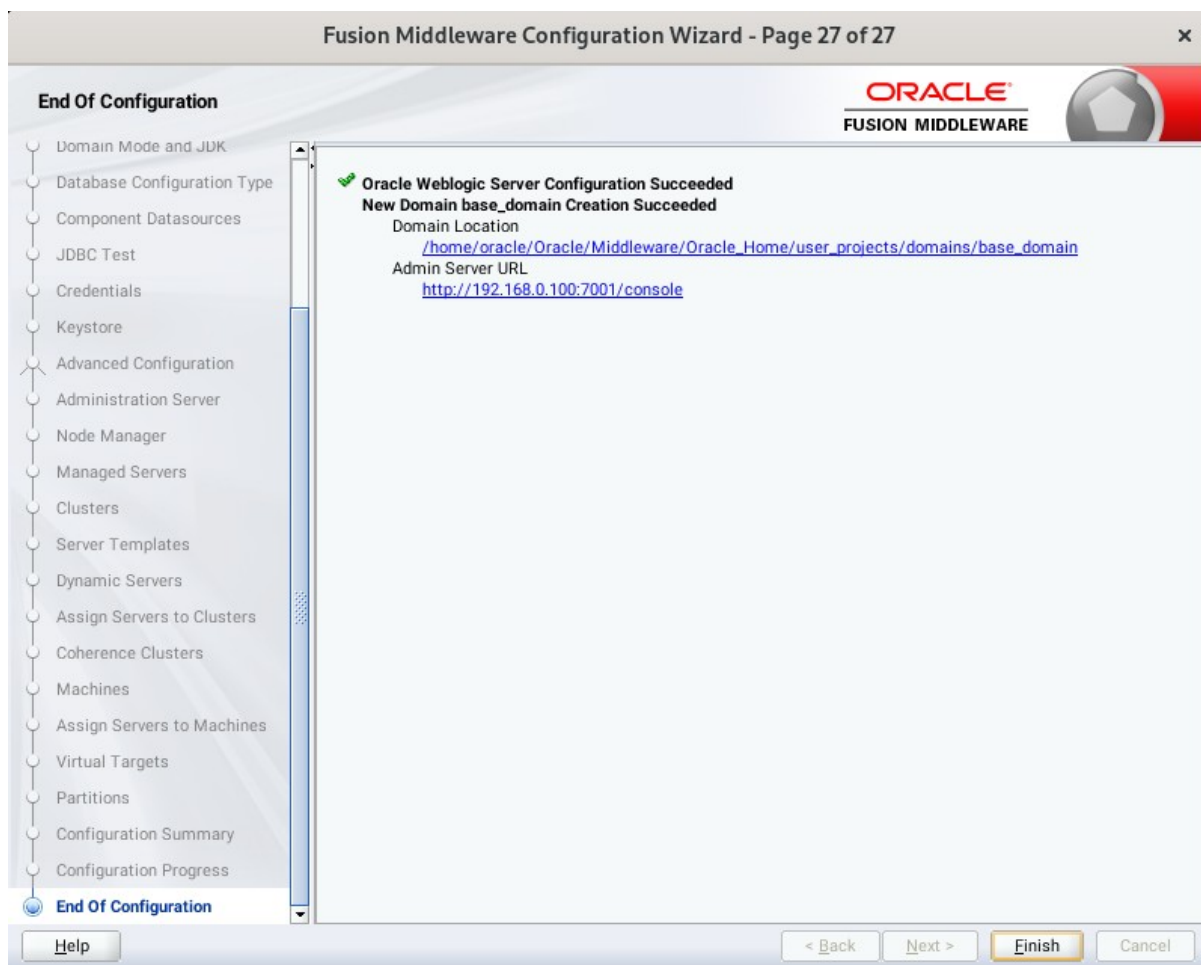
Select **Create** to accept the above options and start creating and configuring a new domain.

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@Dell5530:...ome/idm/server/bin
oracle@Dell5530:...RACLE_SW/IDM/12214
oracle@Dell5530:...ome/idm/server/bin
oracle@Dell5530:~> export DOMAIN_HOME=/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/
oracle@Dell5530:~> export JAVA_HOME=/home/ORACLE_SW/Java/jdk1.8.0_221/
oracle@Dell5530:~> /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/bin/setDomainEnv.sh
*****
** Setting up SOA specific environment...
*****
EXTRA_JAVA_PROPERTIES= -da:org.apache.xmlbeans...
.
LD_LIBRARY_PATH=:/home/oracle/Oracle/Middleware/Oracle_Home/wlserver/server/native/linux/x86_64:/home/oracle/Oracle/Middleware/Oracle_Hom
e/wlserver/server/native/linux/x86_64/oci920_8
.
.
*****
** End SOA specific environment setup
*****
oracle@Dell5530:~> cd /home/oracle/Oracle/Middleware/Oracle_Home/idm/server/bin/
oracle@Dell5530:/home/oracle/Oracle/Middleware/Oracle_Home/idm/server/bin> chmod +x ./offlineConfigManager.sh
oracle@Dell5530:/home/oracle/Oracle/Middleware/Oracle_Home/idm/server/bin> ./offlineConfigManager.sh
```

```

oracle@Dell5530:...me/idm/server/bin
oracle@Dell5530:...RACLE_SW/IDM/12214
oracle@Dell5530:...me/idm/server/bin

oracle@Dell5530:~> export DOMAIN_HOME=/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/
oracle@Dell5530:~> export JAVA_HOME=/home/ORACLE_SW/Java/jdk1.8.0_221/
oracle@Dell5530:~> /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/bin/setDomainEnv.sh
*****
** Setting up SOA specific environment...
*****
EXTRA_JAVA_PROPERTIES= -da:org.apache.xmlbeans...
.
LD_LIBRARY_PATH=:/home/oracle/Oracle/Middleware/Oracle_Home/wlserver/server/native/linux/x86_64:/home/oracle/Oracle/Middleware/Oracle_Home/wlserver/server/native/linux/x86_64/oci920_8
.
*****
** End SOA specific environment setup
*****
oracle@Dell5530:~> cd /home/oracle/Oracle/Middleware/Oracle_Home/idm/server/bin/
oracle@Dell5530:/home/oracle/Oracle/Middleware/Oracle_Home/idm/server/bin> chmod +x ./offlineConfigManager.sh
oracle@Dell5530:/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: -r not specified; 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/wls
erver/server/lib/mbeanTypes/ 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_domainat path --> /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/

```

```

oracle@Dell5530:...me/idm/server/bin
oracle@Dell5530:...RACLE_SW/IDM/12214
oracle@Dell5530:...me/idm/server/bin

updated.>
Jun 27, 2024 5:49:29 PM oracle.iam.OIMPostConfigManager.config.util.JPSConfigXMLUpdate updateJPSConfigXMLForWLS
INFO:
[OIM_CONFIG]The file /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain//config/fmwconfig/jps-config-jse.xml is
updated.
<Jun 27, 2024 5:49:29,320 PM CST> <Info> <oracle.iam.OIMPostConfigManager> <BEA-000000> <Exiting updateJPSConfigXMLForWLS() method of JPSC
onfigXMLUpdate class>
Jun 27, 2024 5:49:29 PM oracle.iam.OIMPostConfigManager.config.util.JPSConfigXMLUpdate updateJPSConfigXMLForWLS
INFO: Exiting updateJPSConfigXMLForWLS() method of JPSConfigXMLUpdate class
<Jun 27, 2024 5:49:29,321 PM CST> <Info> <oracle.iam.OIMPostConfigManager> <BEA-000000> <
Updated jps-config-jse.xml Details.>
Jun 27, 2024 5:49:29 PM oracle.iam.OIMPostConfigManager.config.OIMConfigManager updateJPSConfig
INFO:
Updated jps-config-jse.xml Details.
<Jun 27, 2024 5:49:29,321 PM CST> <Info> <oracle.iam.OIMPostConfigManager> <BEA-000000> <Exiting updateJPSConfig() method of OIMConfigManag
er class>
Jun 27, 2024 5:49:29 PM oracle.iam.OIMPostConfigManager.config.OIMConfigManager updateJPSConfig
INFO: Exiting updateJPSConfig() method of OIMConfigManager class
<Jun 27, 2024 5:49:29,322 PM CST> <Info> <oracle.iam.OIMPostConfigManager> <BEA-000000> <
[OIM_CONFIG] Copying the mbean Files>
Jun 27, 2024 5:49:29 PM oracle.iam.OIMPostConfigManager.config.OIMConfigManager copyMbeanFiles
INFO:
[OIM_CONFIG] Copying the mbean Files
<Jun 27, 2024 5:49:29,322 PM CST> <Info> <oracle.iam.OIMPostConfigManager> <BEA-000000> <Entering copyMbeanFiles() method of OIMConfigManag
er class>
Jun 27, 2024 5:49:29 PM oracle.iam.OIMPostConfigManager.config.OIMConfigManager copyMbeanFiles
INFO: Entering copyMbeanFiles() method of OIMConfigManager class
<Jun 27, 2024 5:49:29,323 PM CST> <Info> <oracle.iam.OIMPostConfigManager> <BEA-000000> <
Copying mbean files are successful>
Jun 27, 2024 5:49:29 PM oracle.iam.OIMPostConfigManager.config.OIMConfigManager copyMbeanFiles
INFO:
Copying mbean files are successful
<Jun 27, 2024 5:49:29,323 PM CST> <Info> <oracle.iam.OIMPostConfigManager> <BEA-000000> <Exiting copyMbeanFiles() method of OIMConfigManag
er class>
Jun 27, 2024 5:49:29 PM oracle.iam.OIMPostConfigManager.config.OIMConfigManager copyMbeanFiles
INFO: Exiting copyMbeanFiles() method of OIMConfigManager class
oracle@Dell5530:/home/oracle/Oracle/Middleware/Oracle_Home/idm/server/bin>

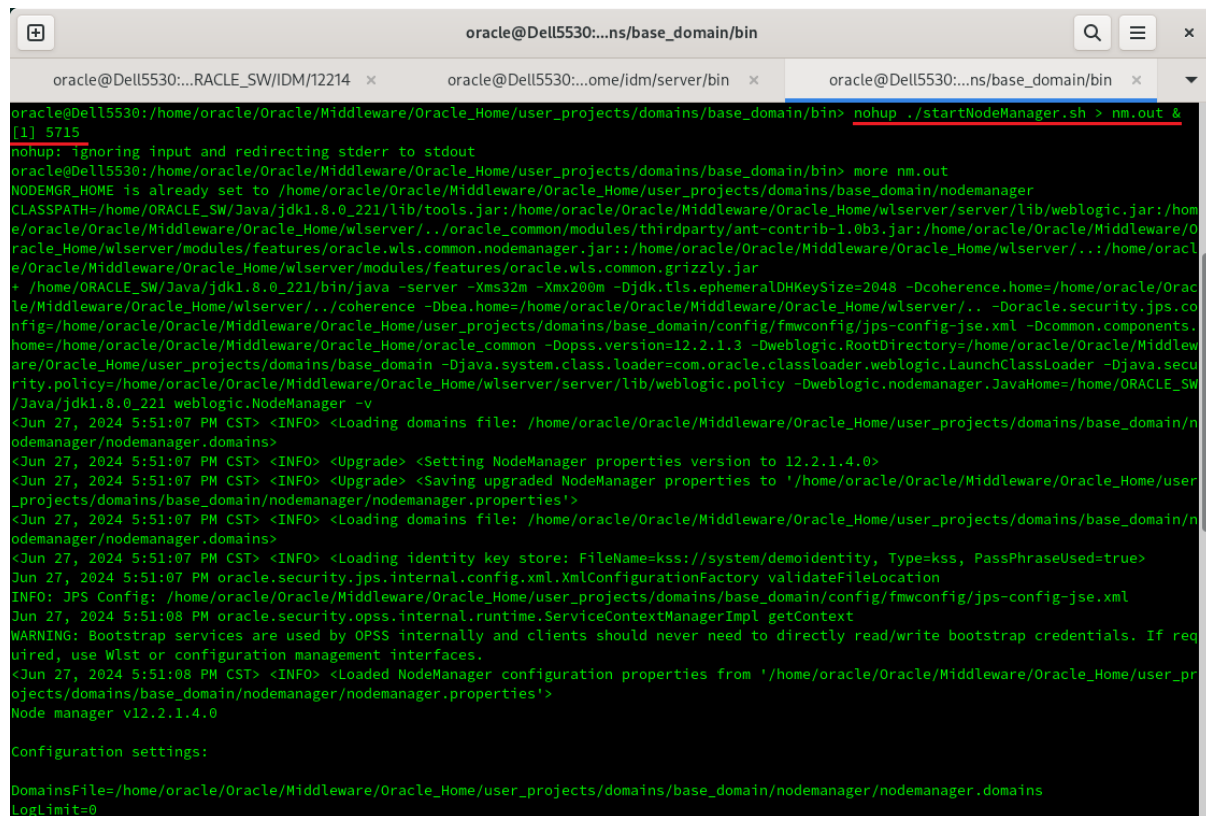
```

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@Dell5530:~/base_domain/bin
oracle@Dell5530:~/base_domain/bin
oracle@Dell5530:~/base_domain/bin
nohup ./startNodeManager.sh > nm.out &
[1] 5715
nohup: ignoring input and redirecting stderr to stdout
oracle@Dell5530:~/base_domain/bin> more nm.out
NODEMGR_HOME is already set to /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager
CLASSPATH=/home/ORACLE_SW/Java/jdk1.8.0_221/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_SW/Java/jdk1.8.0_221/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_SW/Java/jdk1.8.0_221/weblogic.NodeManager -v
<Jun 27, 2024 5:51:07 PM CST> <INFO> <Loading domains file: /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.domains>
<Jun 27, 2024 5:51:07 PM CST> <INFO> <Upgrade> <Setting NodeManager properties version to 12.2.1.4.0>
<Jun 27, 2024 5:51:07 PM CST> <INFO> <Upgrade> <Saving upgraded NodeManager properties to '/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.properties'>
<Jun 27, 2024 5:51:07 PM CST> <INFO> <Loading domains file: /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.domains>
<Jun 27, 2024 5:51:07 PM CST> <INFO> <Loading identity key store: FileName=kss://system/demoidentity, Type=kss, PassPhraseUsed=true>
Jun 27, 2024 5:51:07 PM oracle.security.jps.internal.config.xml.XmlConfigurationFactory validateFileLocation
INFO: JPS Config: /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/config/fmwconfig/jps-config-jse.xml
Jun 27, 2024 5:51:08 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.
<Jun 27, 2024 5:51:08 PM CST> <INFO> <Loaded NodeManager configuration properties from '/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.properties'>
Node manager v12.2.1.4.0

Configuration settings:

DomainsFile=/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.domains
LogLimit=0

```

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

```

oracle@Dell5530:...ns/base_domain/bin
prodDir.toString : == /home/oracle/Oracle/Middleware/Oracle_Home/OPatch
ORACLE_HOME : == [/home/oracle/Oracle/Middleware/Oracle_Home/osb]
prodDir.toString : == /home/oracle/Oracle/Middleware/Oracle_Home/osb
PAF Integration init BEGIN
PAF Integration init END
ProvCommonIntegration.init, registering the Page Handlers and Page Segment Handlers
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/console/status.jsp, /em/dynamicImage.*, /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/formsa
pp/lib/formsRecorder.jar, /em/images/.*, /em/install/getAgentImage, /em/helppages/help.*, /em/jsLibs/.*, /em/jsLibsObf/.*, /em/login.jsp,
/em/mapproxy.*, /em/mobile/core/uifwk/skins/.*, /em/ocamm/lib.*, /em/onetime.*, /em/ovs/discovertargets, /em/public/.*, /em/public_lib_dow
nload/.*, /em/redirect.*, /em/relocatetarget.*, /em/sdkImpl/core/uifwk/mobile/skins/.*, /em/servlet/GaugeServlet.*, /em/servlet/GraphServlet
.*, /em/swlib/getfile, /em/VncViewer.jar, /em/websvcs.*, /em/jobrecv.*]
<Jun 27, 2024 5:53:51,913 PM CST> <Warning> <oracle.adfinternal.view.faces.partition.FeatureUtils> <ADF_FACES-30130> <Ignoring feature-dep
endency on feature "AdfUIChoose". No such feature exists.>
<Jun 27, 2024 5:53:52,652 PM CST> <Notice> <Log Management> <BEA-170027> <The server has successfully established a connection with the Do
main Level Diagnostic Service.>
<Jun 27, 2024 5:53:53,199 PM CST> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to ADMIN.>
<Jun 27, 2024 5:53:53,249 PM CST> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to RESUMING.>
<Jun 27, 2024 5:53:53,249 PM CST> <Notice> <JMX> <BEA-149535> <JMX Resiliency Activity Server=All Servers : Resolving connection list Doma
inRuntimeServiceMBean>
<Jun 27, 2024 5:53:53,445 PM CST> <Notice> <WebLogicServer> <BEA-000329> <Started the WebLogic Server Administration Server "AdminServer"
for domain "base_domain" running in production mode.>
<Jun 27, 2024 5:53:53,445 PM CST> <Notice> <Server> <BEA-002613> <Channel "Default" is now listening on 192.168.0.100:7001 for protocols i
iop, t3, ldap, snmp, http.>
<Jun 27, 2024 5:53:53,445 PM CST> <Notice> <Server> <BEA-002613> <Channel "Default" is now listening on 192.168.0.100:7001 for protocols i
iop, t3, ldap, snmp, http.>
<Jun 27, 2024 5:53:53,624 PM CST> <Notice> <WebLogicServer> <BEA-000360> <The server started in RUNNING mode.>
<Jun 27, 2024 5:53:53,631 PM CST> <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 Enterprise Manager Console.

Login Page:

Domain Domain_base_domain

* User Name

* Password

Login to Partition

ORACLE

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Home Page:

ORACLE Enterprise Manager Fusion Middleware Control 12c

base_domain

WebLogic Domain

weblogic

Auto Refresh Off

Jun 27, 2024 5:55:57 PM CST

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

2 Down
1 Up

Administration Server

Name AdminServer
Host Dell5530
Listen Port 7001

Servers

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	Shutdown	Unknown

Columns Hidden 34 Servers 3 of 3

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

The screenshot shows the Oracle Enterprise Manager interface for a WebLogic Domain. On the left, summary cards indicate: Servers (1 Down, 2 Up), Clusters (1 Down, 1 Up), and Deployments (10 Down, 8 Up). The 'Administration Server' section shows Name: AdminServer, Host: Dell5530, Listen Port: 7001. The 'Servers' table below is as follows:

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

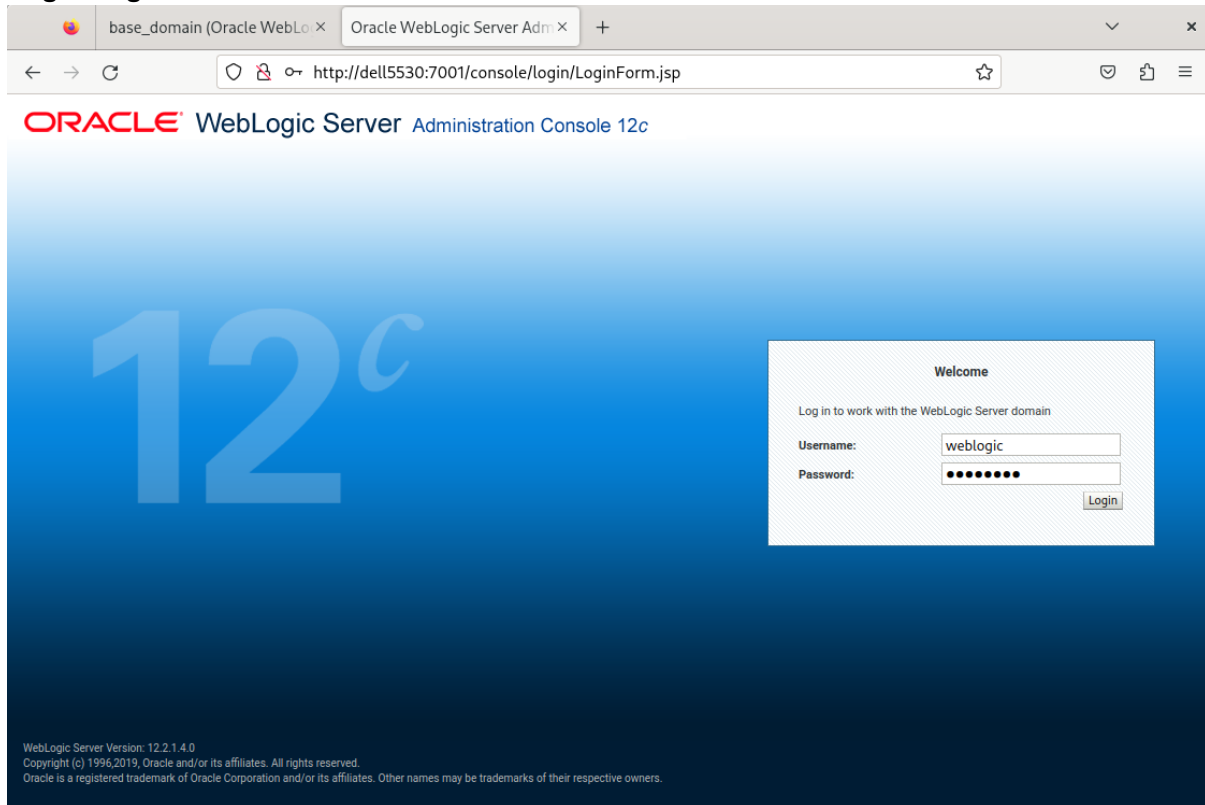
The screenshot shows the Oracle Enterprise Manager interface after the oim server has been started. The summary cards now indicate: Servers (3 Up), Clusters (2 Up), and Deployments (7 Down, 11 Up). The 'Administration Server' section remains the same. The 'Servers' table is updated as follows:

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

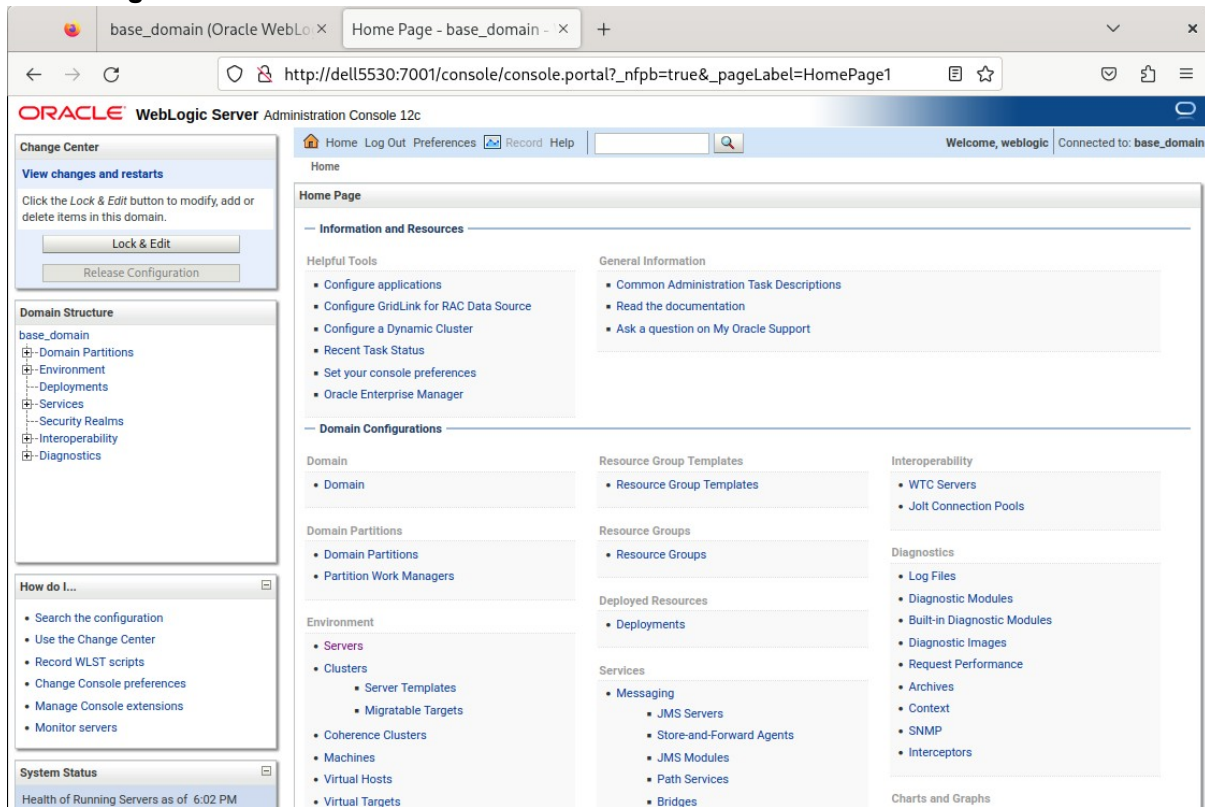
After they start up successfully, each managed server is listed as Running.

2). Access to Administration Server Console

Login Page:



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.

Servers (Filtered - More Columns Exist)

Name	Type	Cluster	Machine	State	Health	Listen Port
AdminServer(admin)	Configured		SuSE_Machine_1	RUNNING	OK	7001
oim_server1	Configured	oim_cluster_1	SuSE_Machine_1	RUNNING	OK	14000
soa_server1	Configured	soa_cluster_1	SuSE_Machine_1	RUNNING	OK	7003

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**

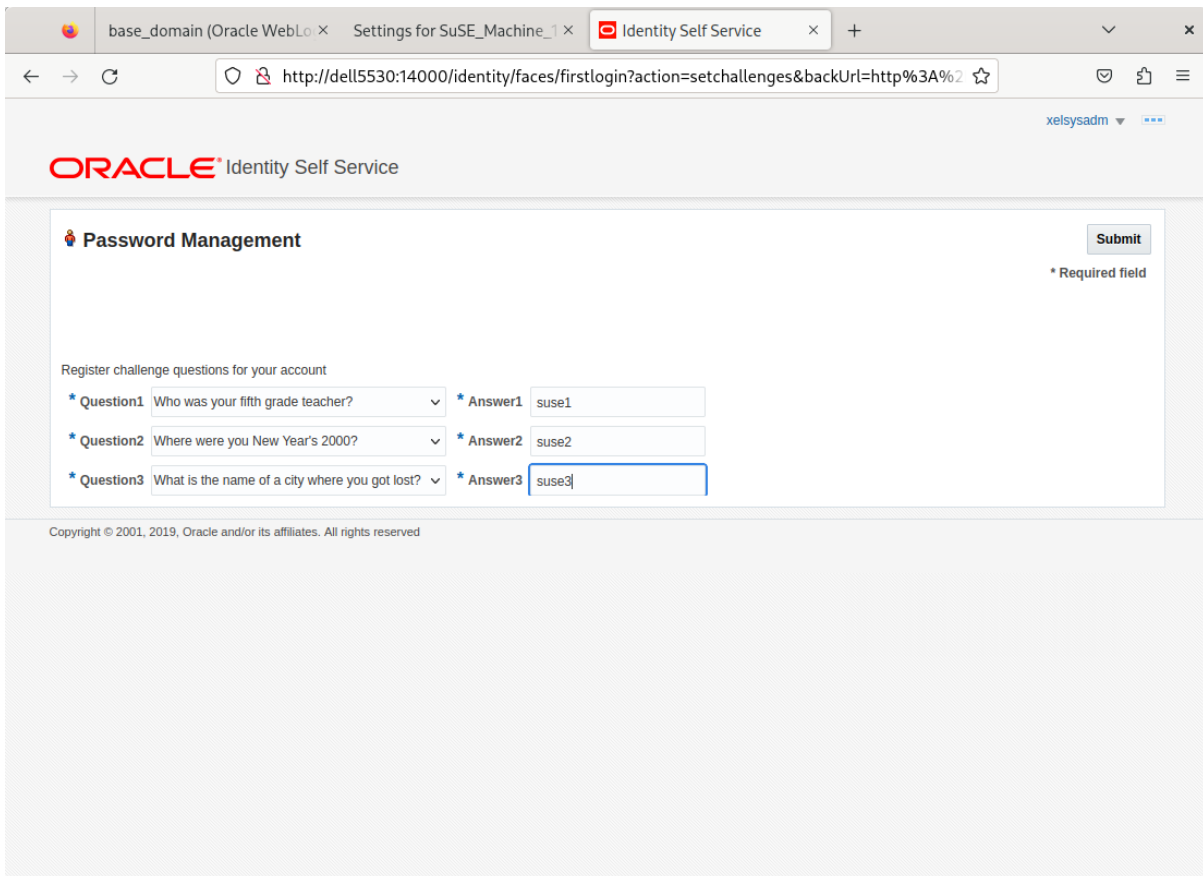
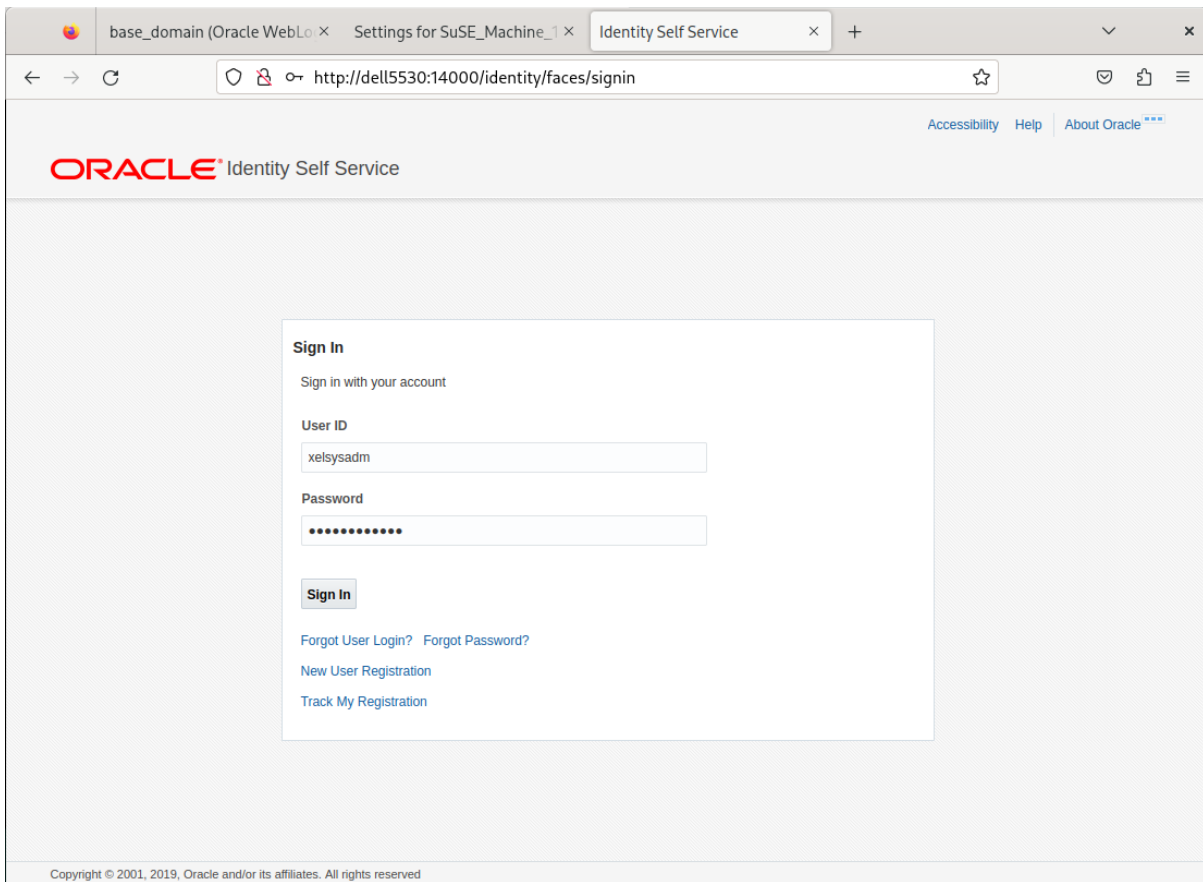
Settings for SuSE_Machine_1

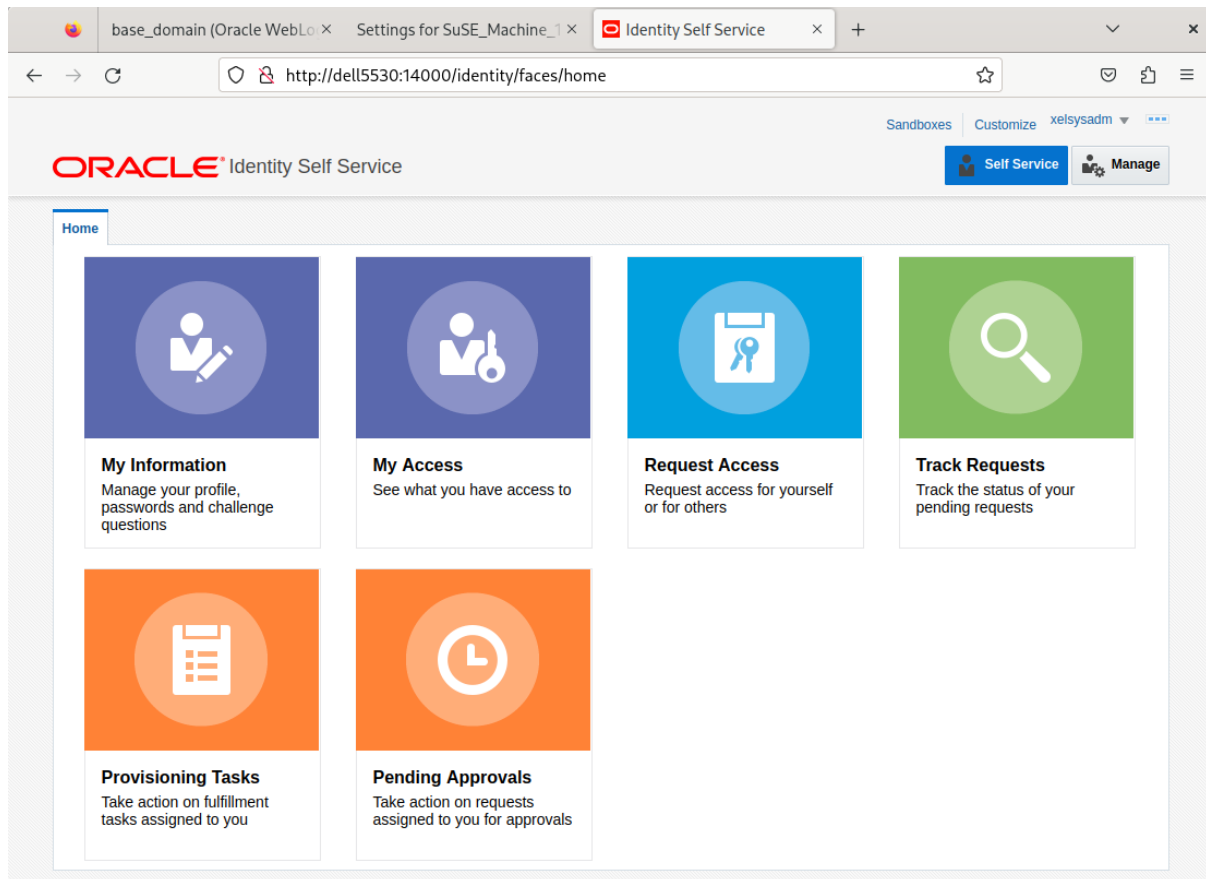
Node Manager Status

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

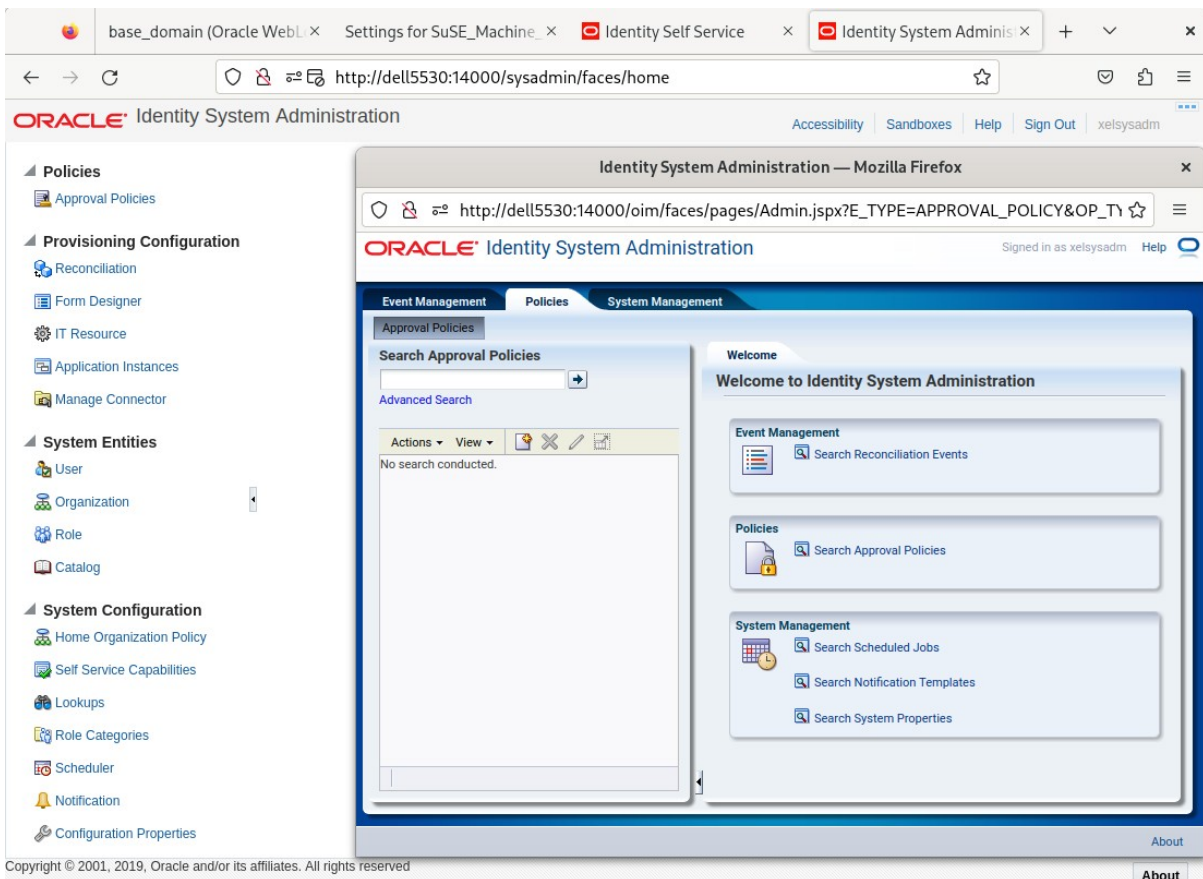
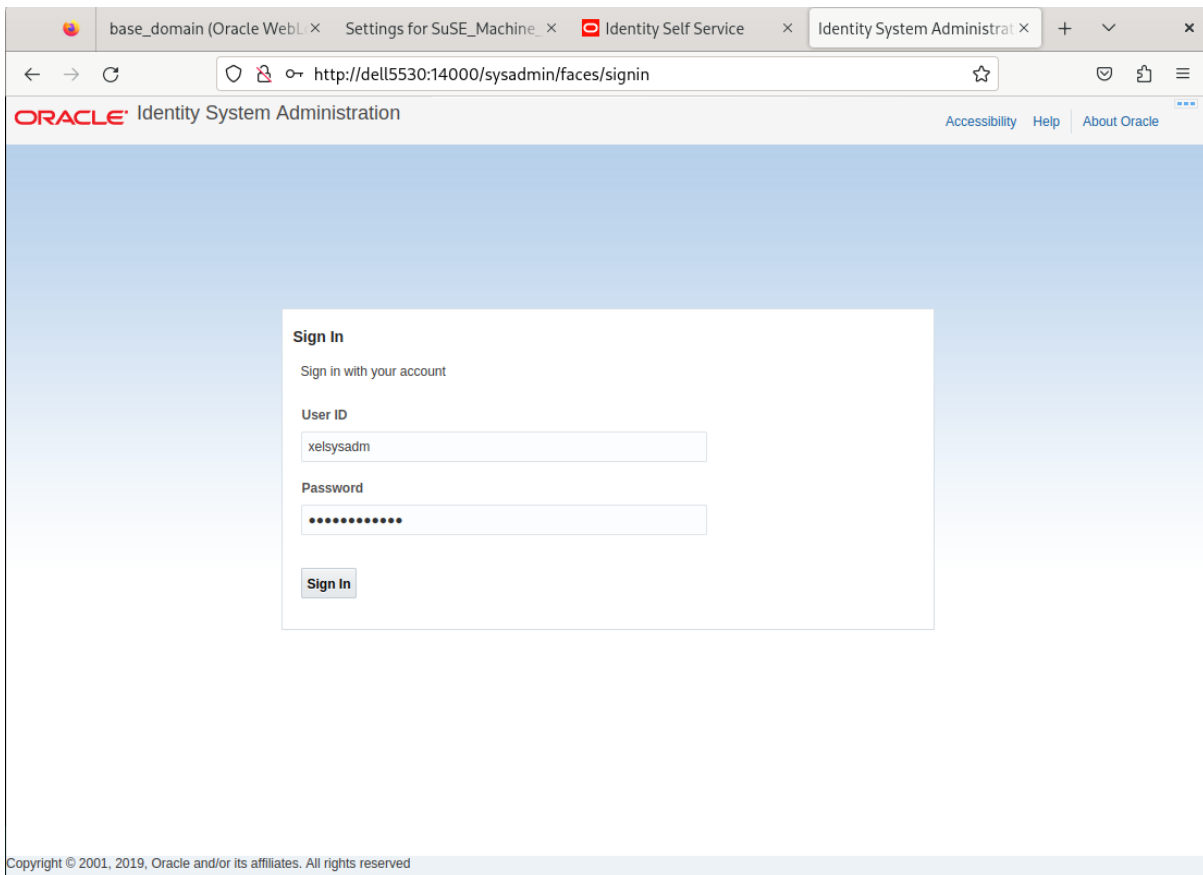
Status:	Reachable	Current status of this Node Manager. More Info...
Version:	12.2.1.4.0	Version string returned from the Node Manager. More Info...

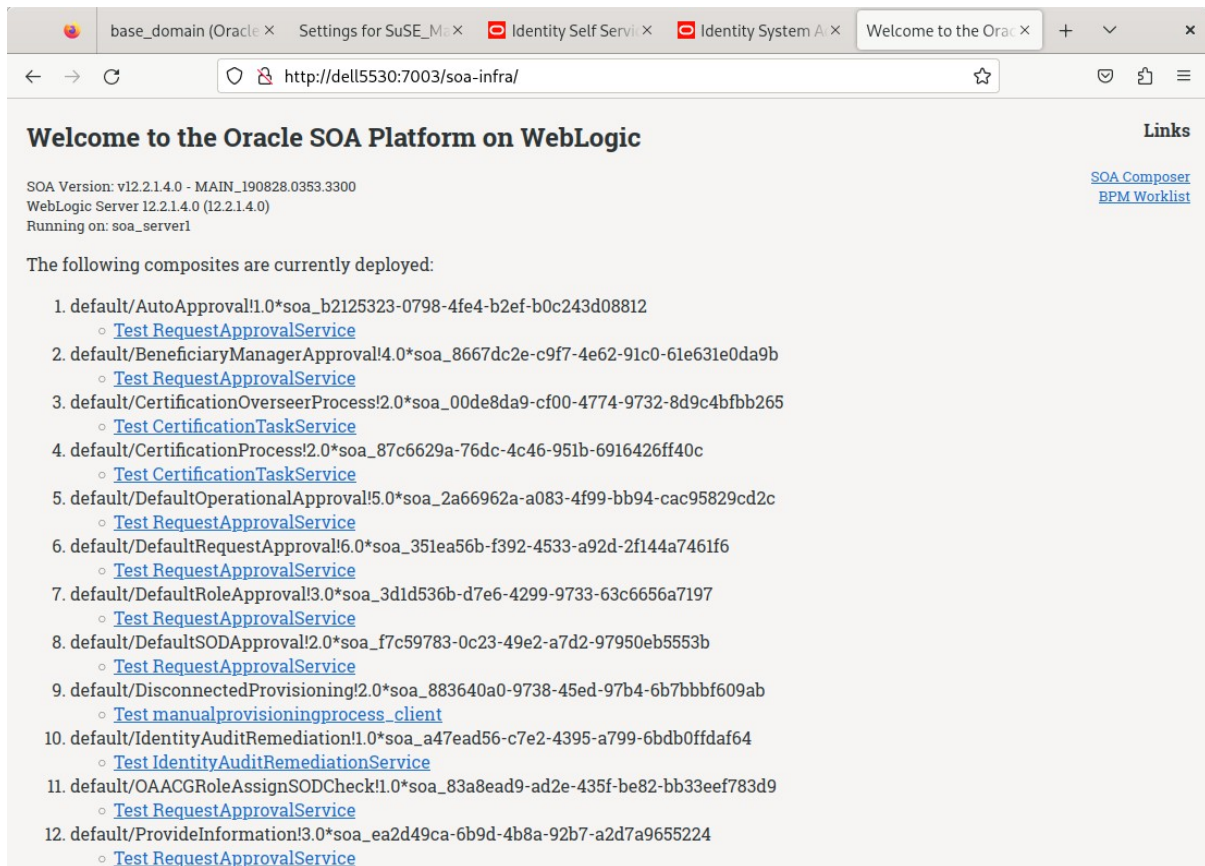
3). Access to OIM Identity Self Service – URL: <http://host:port/identity>





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>


base_domain (Oracle × Settings for SuSE_M... Identity Self Servi... Identity System A... Welcome to the Orac × + ▾ ×

← → ↻ <http://dell5530:7003/soa-infra/> ☆ 📄 ☰

Welcome to the Oracle SOA Platform on WebLogic

SOA Version: v12.2.1.4.0 - MAIN_190828.0353.3300
WebLogic Server 12.2.1.4.0 (12.2.1.4.0)
Running on: soa_server1

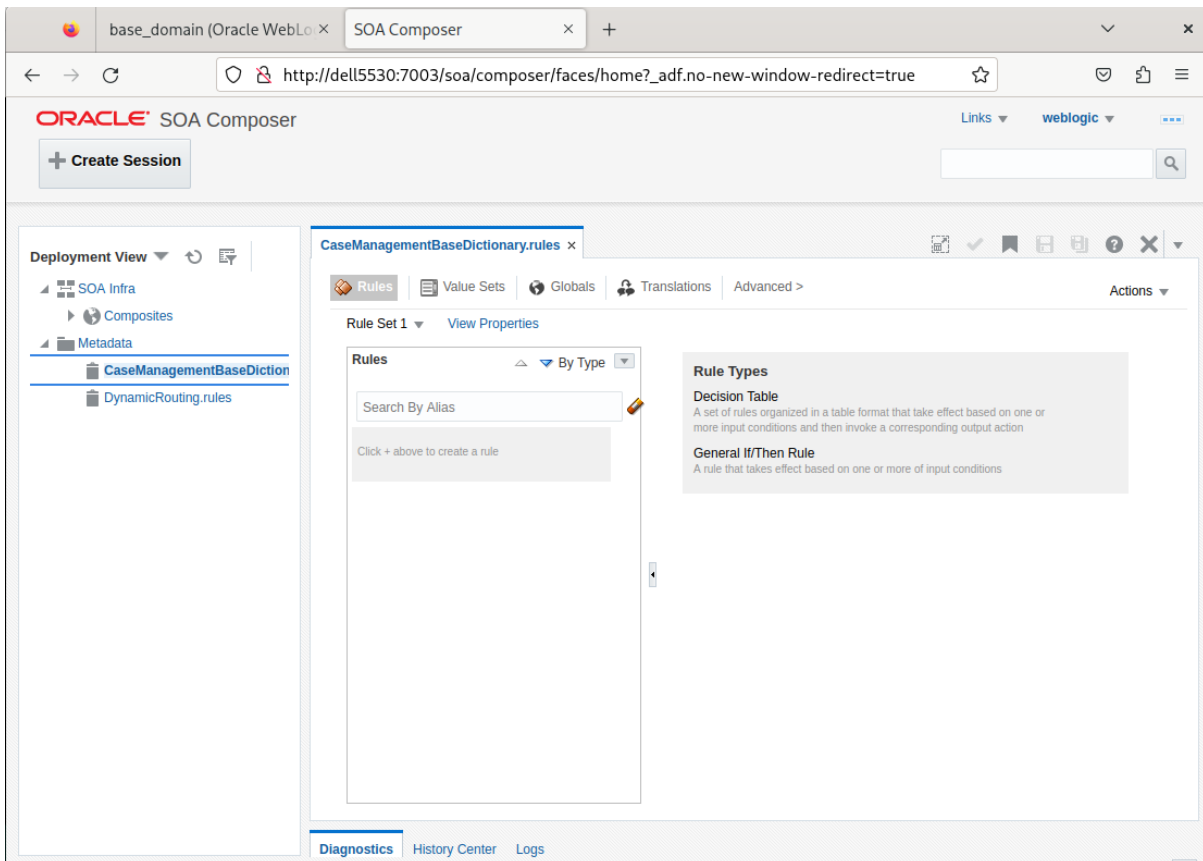
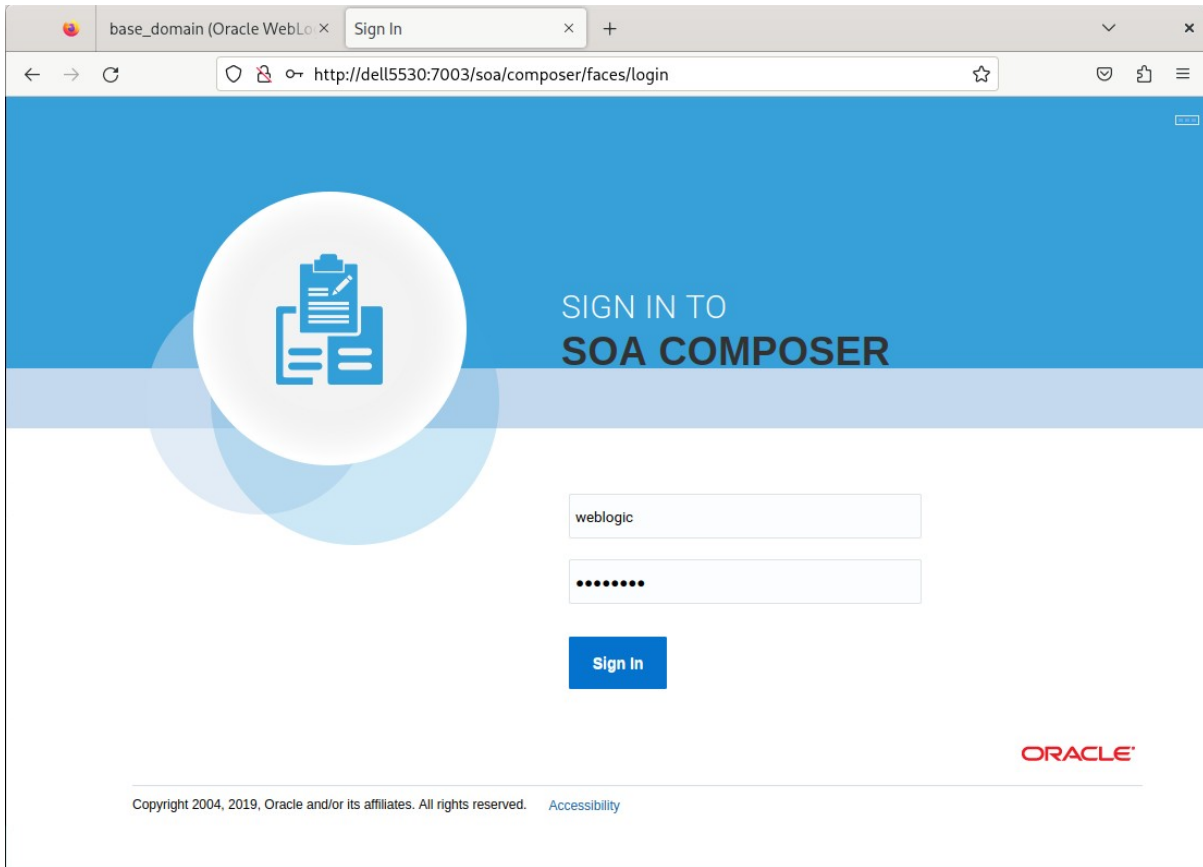
The following composites are currently deployed:

- default/AutoApproval!1.0*soa_b2125323-0798-4fe4-b2ef-b0c243d08812
 - [Test RequestApprovalService](#)
- default/BeneficiaryManagerApproval!4.0*soa_8667dc2e-c9f7-4e62-91c0-61e631e0da9b
 - [Test RequestApprovalService](#)
- default/CertificationOverseerProcess!2.0*soa_00de8da9-cf00-4774-9732-8d9c4bfb265
 - [Test CertificationTaskService](#)
- default/CertificationProcess!2.0*soa_87c6629a-76dc-4c46-951b-6916426ff40c
 - [Test CertificationTaskService](#)
- default/DefaultOperationalApproval!5.0*soa_2a66962a-a083-4f99-bb94-cac95829cd2c
 - [Test RequestApprovalService](#)
- default/DefaultRequestApproval!6.0*soa_351ea56b-f392-4533-a92d-2f144a7461f6
 - [Test RequestApprovalService](#)
- default/DefaultRoleApproval!3.0*soa_3d1d536b-d7e6-4299-9733-63c6656a7197
 - [Test RequestApprovalService](#)
- default/DefaultSODApproval!2.0*soa_f7c59783-0c23-49e2-a7d2-97950eb5553b
 - [Test RequestApprovalService](#)
- default/DisconnectedProvisioning!2.0*soa_883640a0-9738-45ed-97b4-6b7bbb609ab
 - [Test manualprovisioningprocess_client](#)
- default/IdentityAuditRemediation!1.0*soa_a47ead56-c7e2-4395-a799-6bdb0ffdaf64
 - [Test IdentityAuditRemediationService](#)
- default/OAACGRoleAssignSODCheck!1.0*soa_83a8ead9-ad2e-435f-be82-bb33eef783d9
 - [Test RequestApprovalService](#)
- default/ProvideInformation!3.0*soa_ea2d49ca-6b9d-4b8a-92b7-a2d7a9655224
 - [Test RequestApprovalService](#)

Links

[SOA Composer](#)
[BPM Worklist](#)

6). Access to Oracle SOA composer - URL:<http://host:port/soa/composer>



Appendix

This document shows how to create a standard topology for Oracle Fusion Middleware components 12c on SLES 15 SP6. You can extend this topology to make it highly available and secure so it is suitable for a production system.

*Thanks for selecting **SUSE Linux Enterprise Server** as your Linux platform of choice!*