

***Oracle Fusion Middleware 12c on
SUSE Linux Enterprise Server 15 SP2
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 SP2. Details are provided for Intel x86-64 versions of both Oracle FMW 12c and SUSE Linux Enterprise Server 15 SP2. 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 SP2- (x86-64)
(<http://download.suse.de/install>)

Oracle

- Database 12cR2 (12.2.0.1.0) - (x86_64)
(<https://www.oracle.com/downloads/#category-database>)
- Java SE Development Kit 8 (jdk-8u221-linux-x64.tar.gz)
(<https://www.oracle.com/downloads/#category-java>)
- WebLogic Server 12cR2 (12.2.1.4) (fmw_12.2.1.3.0_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 (12.2.1.4.0) - (x86_64)
(<https://www.oracle.com/downloads/#category-middleware>)
- 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

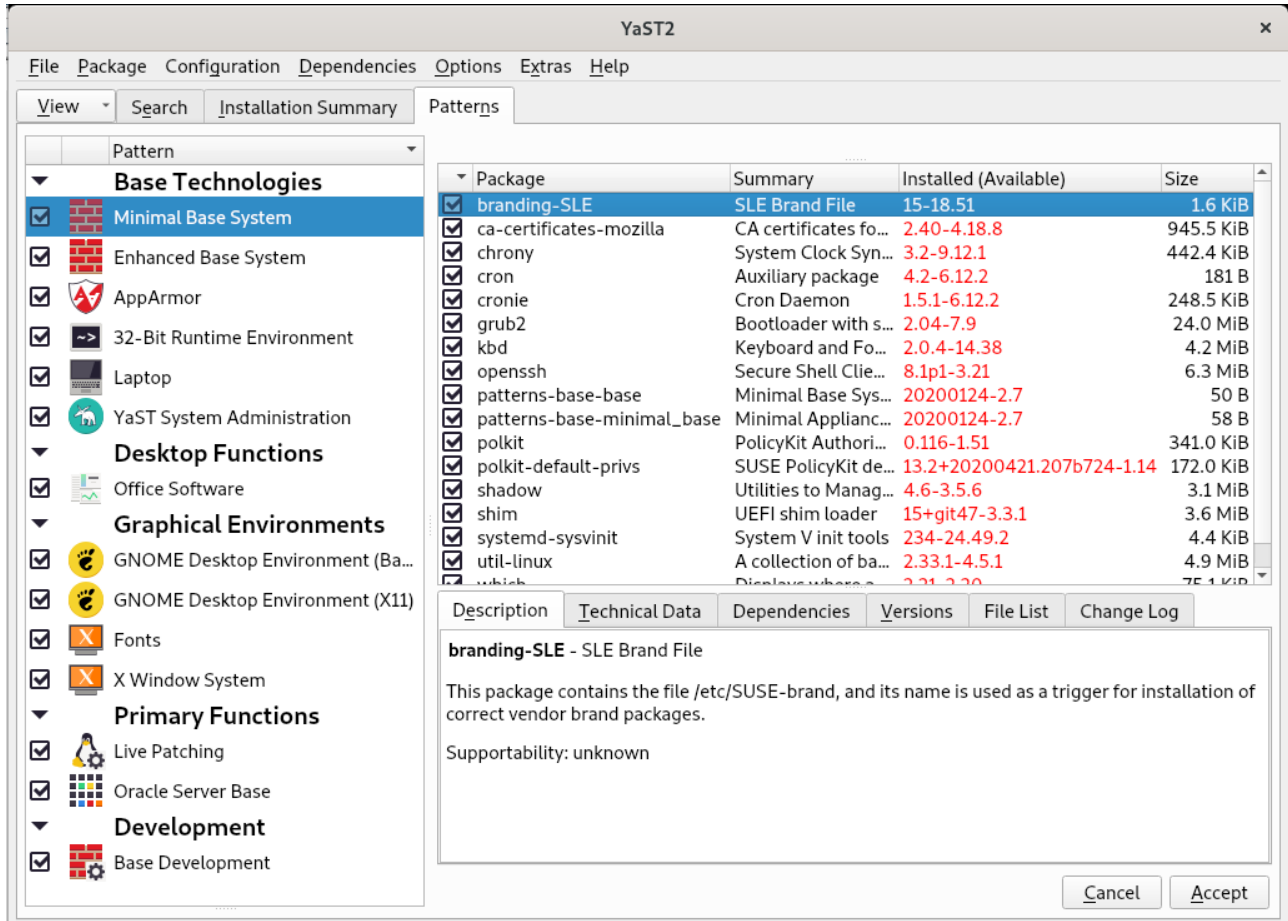
- Dell Laptop Precision 5530
- CPU: 6 * Intel(R) Core(TM) i7-8850H CPU @ 2.60GHz
- RAM: 32 GB
- NIC: 2
- Local HDD: 1TB + 512GB
- Operating System: SUSE Linux Enterprise Server 15 SP2 (x86_64)
- Kernel version: 5.3.18-22-default

Prerequisites

1. Installing SUSE Linux Enterprise Server 15 SP2

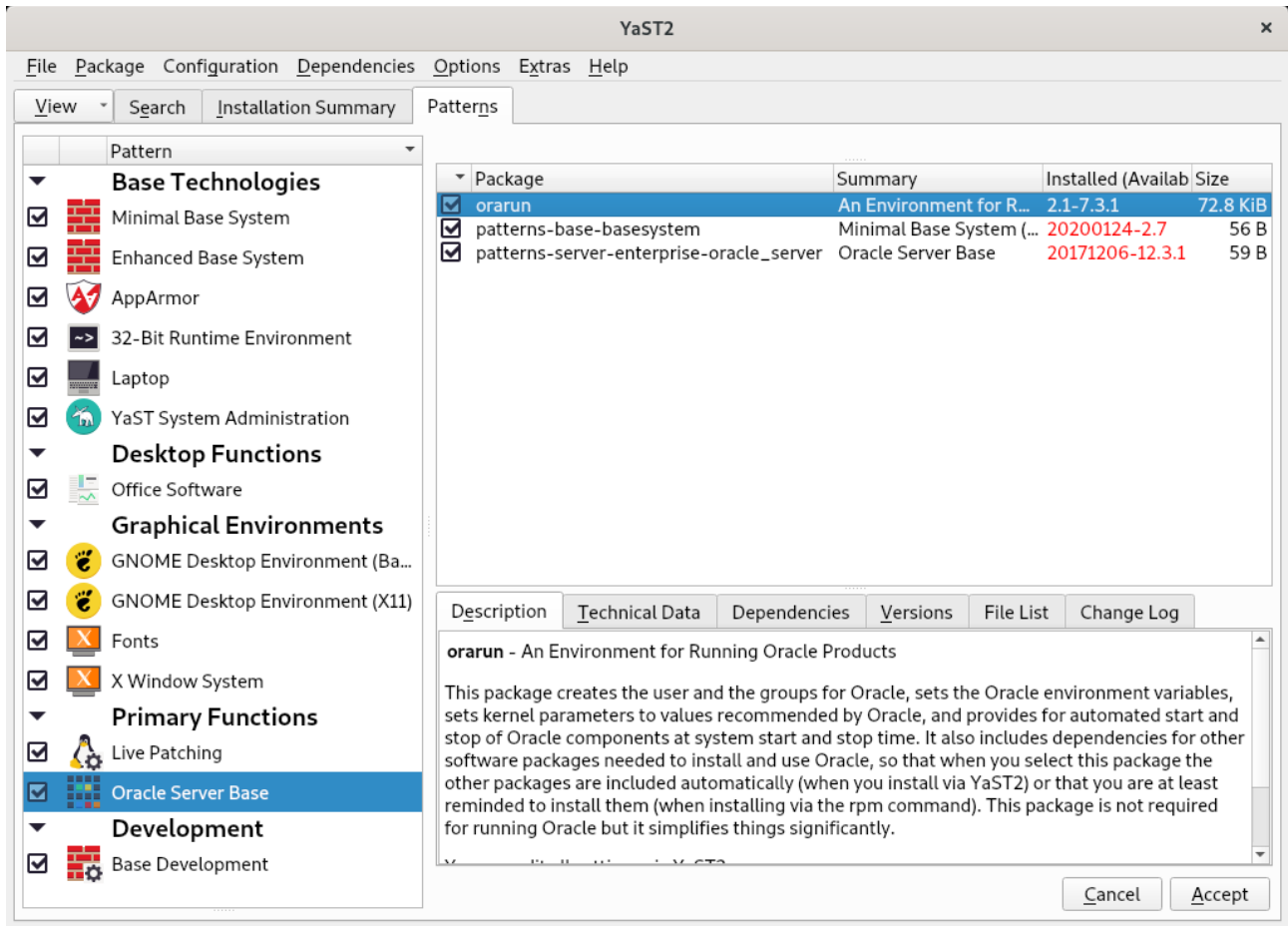
1-1. Install SUSE Linux Enterprise Server 15 SP2 on your testing machine. To do so, follow the instructions in the official SUSE Linux Enterprise Server documentation at <https://www.suse.com/documentation/>.

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



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

Figure 1-3 Operating System information and kernel version

```
oracle@Dell5530:~> more /etc/os-release
NAME="SLES"
VERSION="15-SP2"
VERSION_ID="15.2"
PRETTY_NAME="SUSE Linux Enterprise Server 15 SP2"
ID="sles"
ID_LIKE="suse"
ANSI_COLOR="0;32"
CPE_NAME="cpe:/o:suse:sles:15:sp2"
oracle@Dell5530:~> uname -a
Linux Dell5530 5.3.18-22-default #1 SMP Wed Jun 3 12:16:43 UTC 2020 (720aeba/lp-1a956f1) x86_64 x86_64 x86_64 GNU/Linux
oracle@Dell5530:~> █
```

1-2. Special Startup Requirements.

1). To set the SHMMAX kernel parameter.

Change the value of SHMMAX to 4294967295 by including the following line in `/etc/sysctl.conf`:

```
kernel.shmmax = 4294967295
```

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

```
kernel.shmall = 9272480
```

Activate the new SHMMAX setting by running the command:

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

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

```
ulimit -a
```

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

2. Installing Oracle Database 12cR2

2-1. Log in to the target system (SUSE Linux Enterprise Server 15 SP2 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 (4.12.14-25-default or later) 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 Mon Aug 24 23:45:27 2020

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

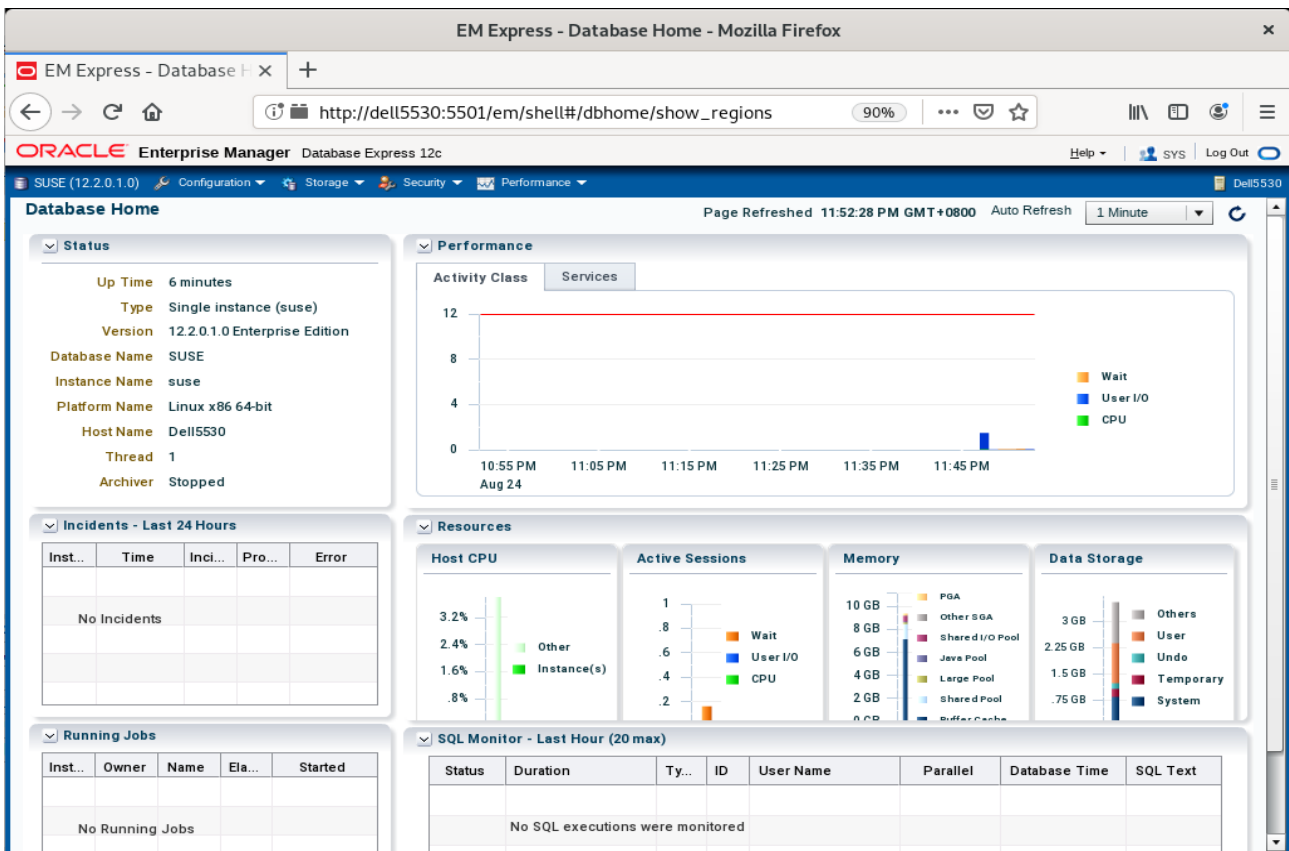
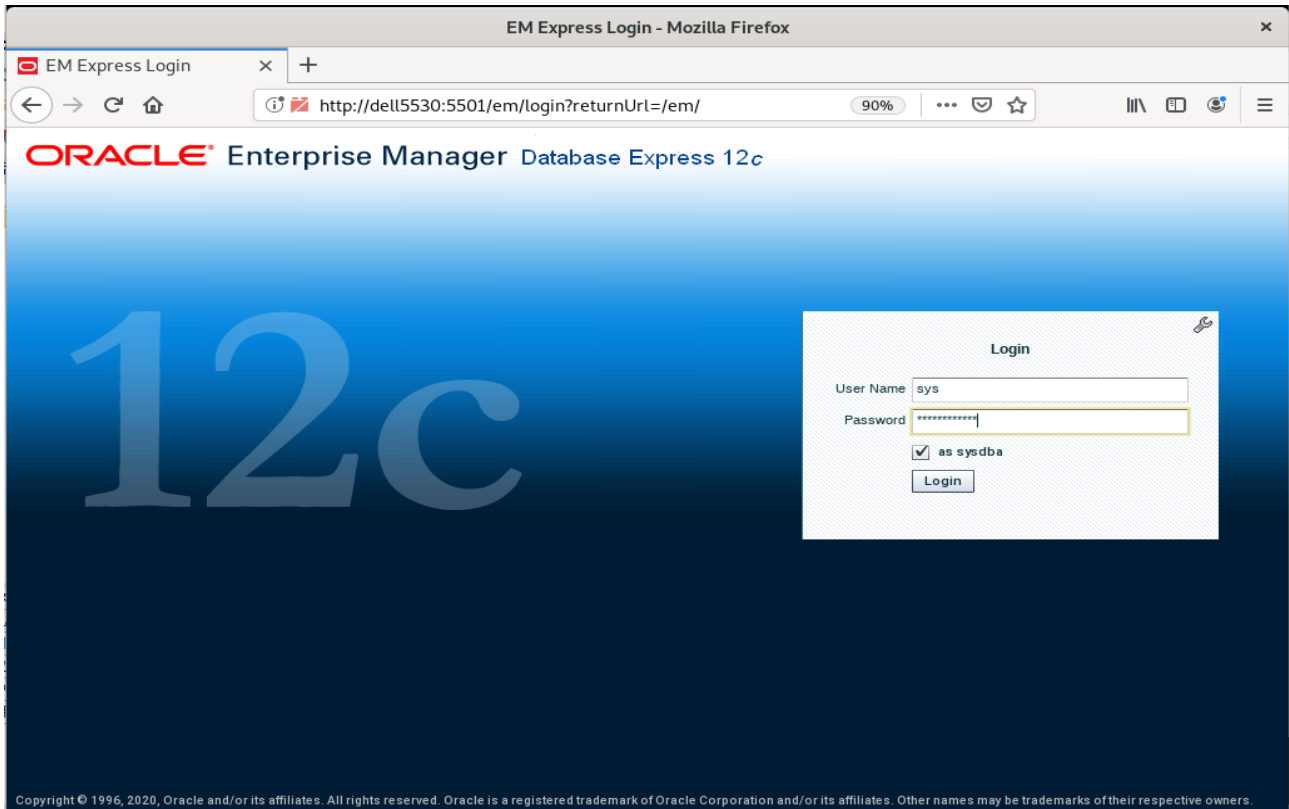
SQL> conn /as sysdba
Connected to an idle instance.
SQL> startup
ORACLE instance started.

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> select name,open_mode from v$database;

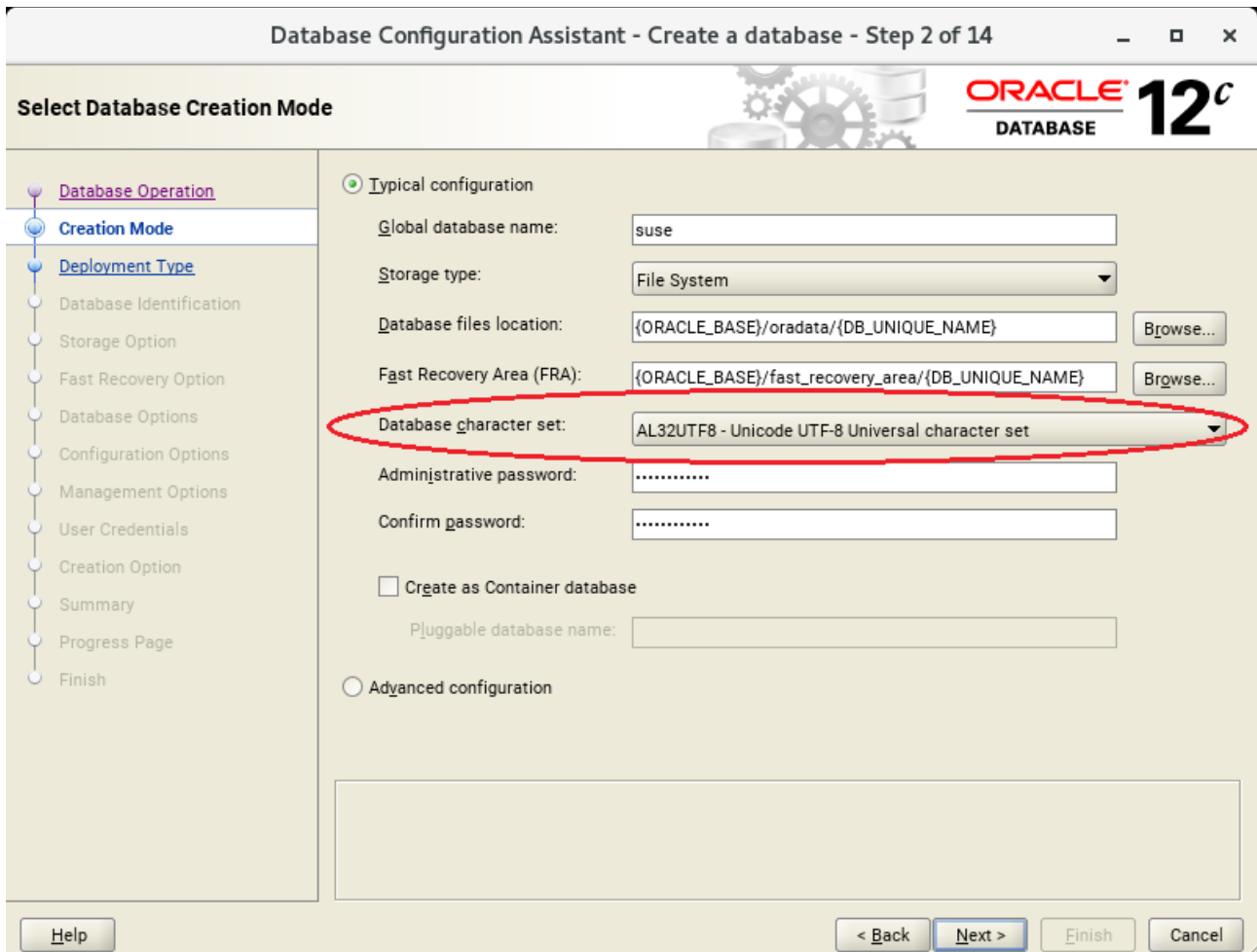
NAME          OPEN_MODE
-----
SUSE          READ WRITE

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

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



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



)

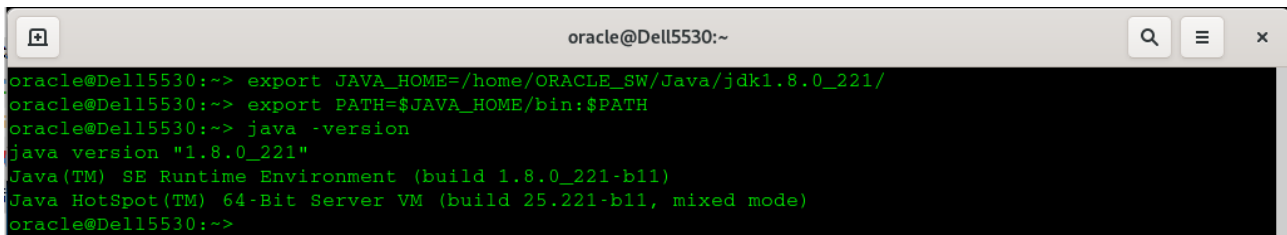
3. Installing Java

3-1. Log in to the target system (SUSE Linux Enterprise Server 15 SP2 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 12c(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 3-1 Java information

A terminal window titled 'oracle@Dell5530:~' showing the following commands and output:

```
oracle@Dell5530:~> export JAVA_HOME=/home/ORACLE_SW/Java/jdk1.8.0_221/
oracle@Dell5530:~> export PATH=$JAVA_HOME/bin:$PATH
oracle@Dell5530:~> 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@Dell5530:~>
```


Oracle Fusion MiddleWare 12c Installation and Configuration

Oracle WebLogic Server software

1. Installing Oracle WebLogic Server software

1-1. Prerequisites:

Installation of Oracle WebLogic Server requires:

- 1). Oracle JDK 1.8.0_221 and later is installed.

1-2. Log in to the target system (SUSE Linux Enterprise Server 15 SP2 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'`

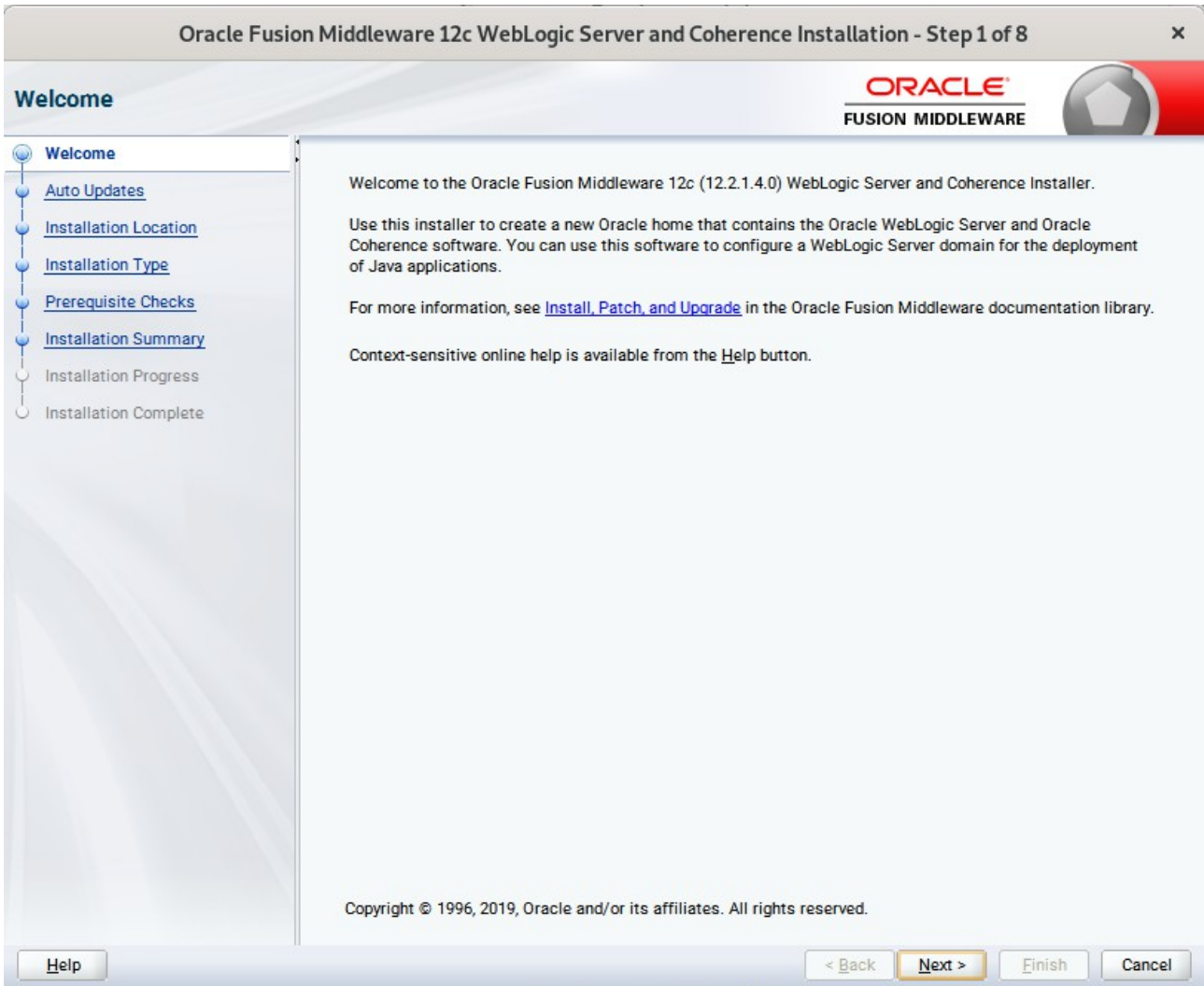
For the actual installation, follow the steps below:

- 1). Installation Inventory Setup.



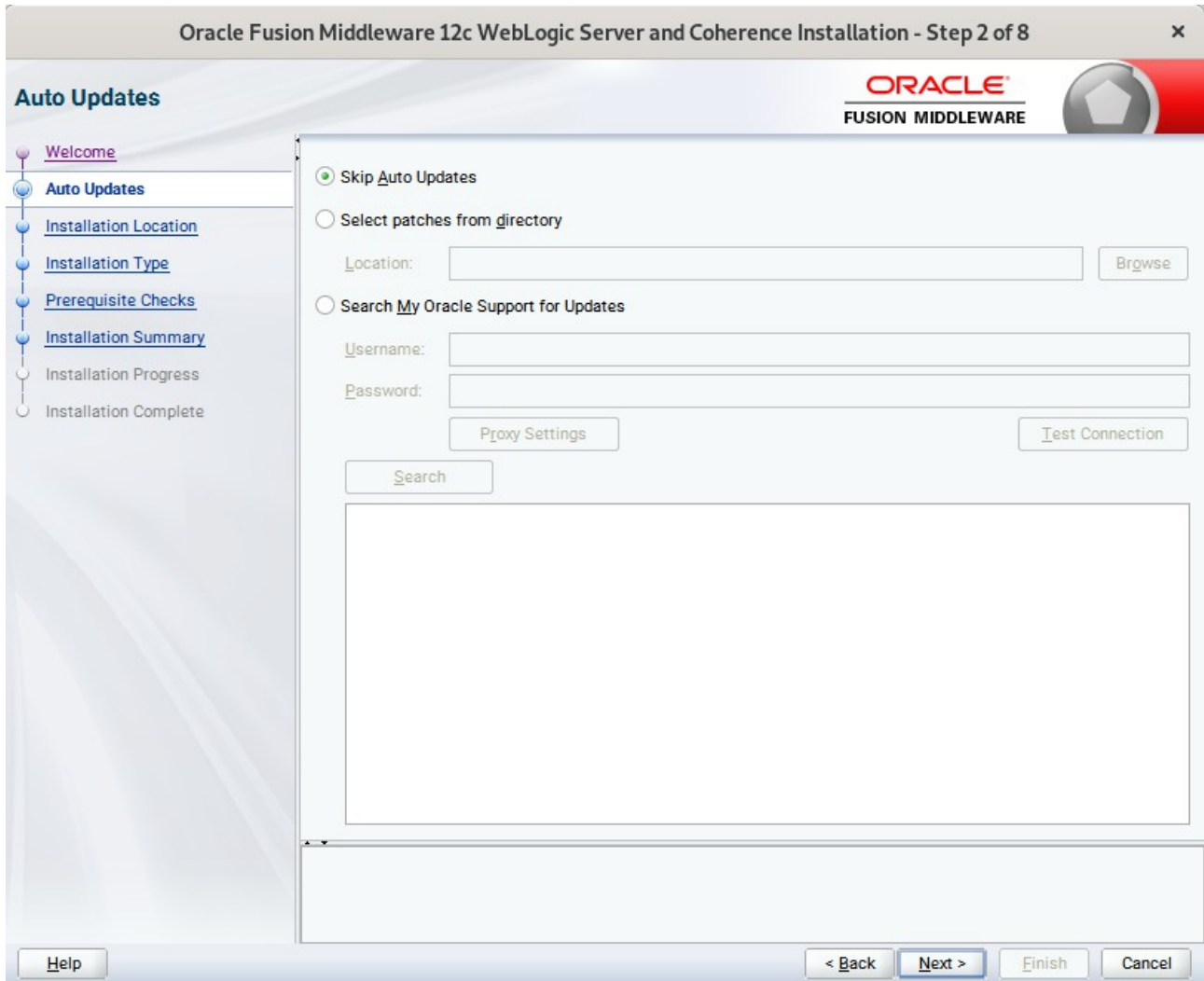
If this is your first Oracle installation on a host that is running SLES, please use this screen to specify the location of the Oracle central inventory directory and Operating System Group Name, then click **OK** to continue.

2). Welcome.



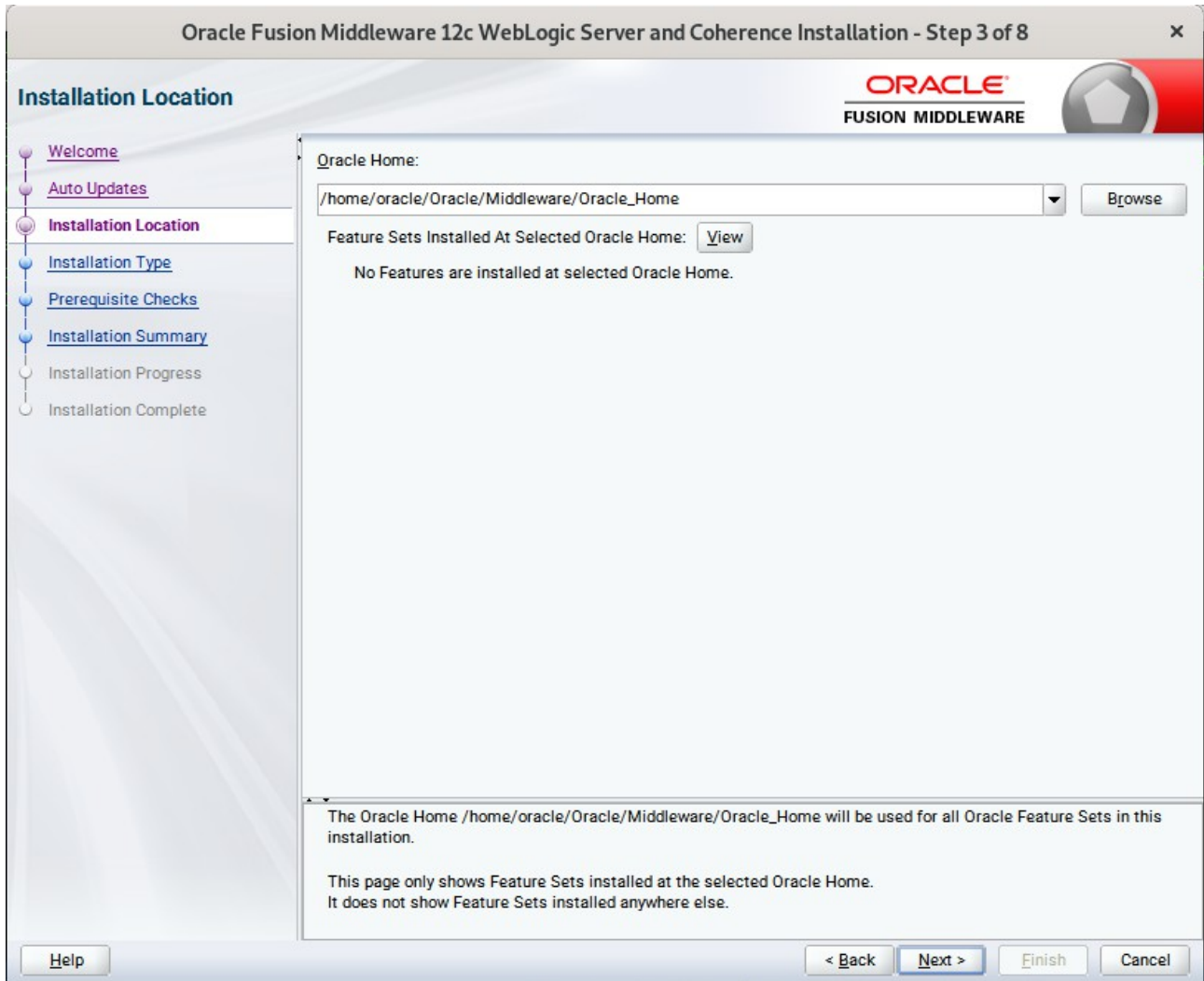
Review the information on this screen carefully to be sure you have performed all the necessary prerequisites, then click **Next** to continue.

3). Auto Updates.



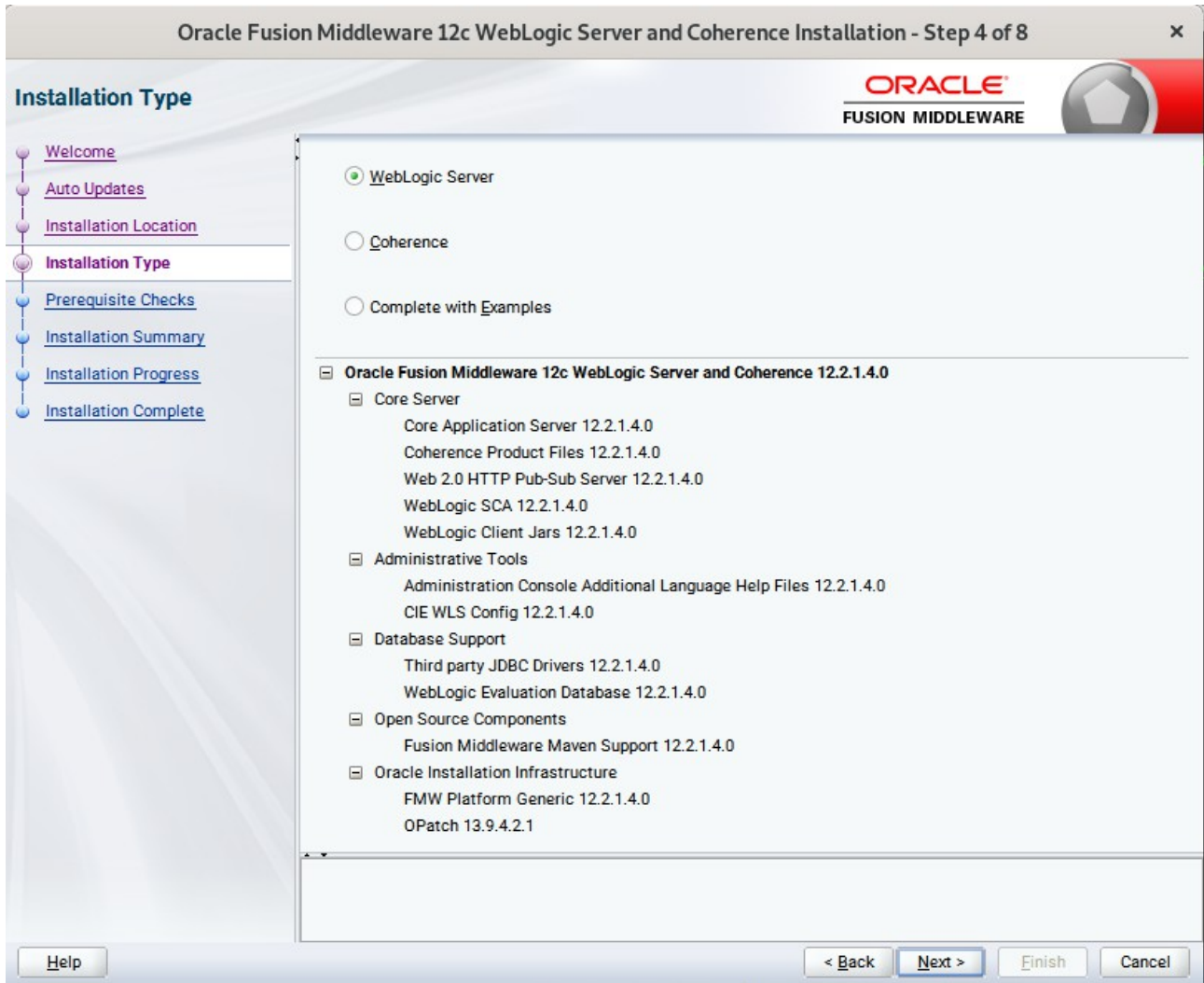
Select option "Skip Auto Updates" to skip this screen, then click **Next** to continue.

4). Installation Location.



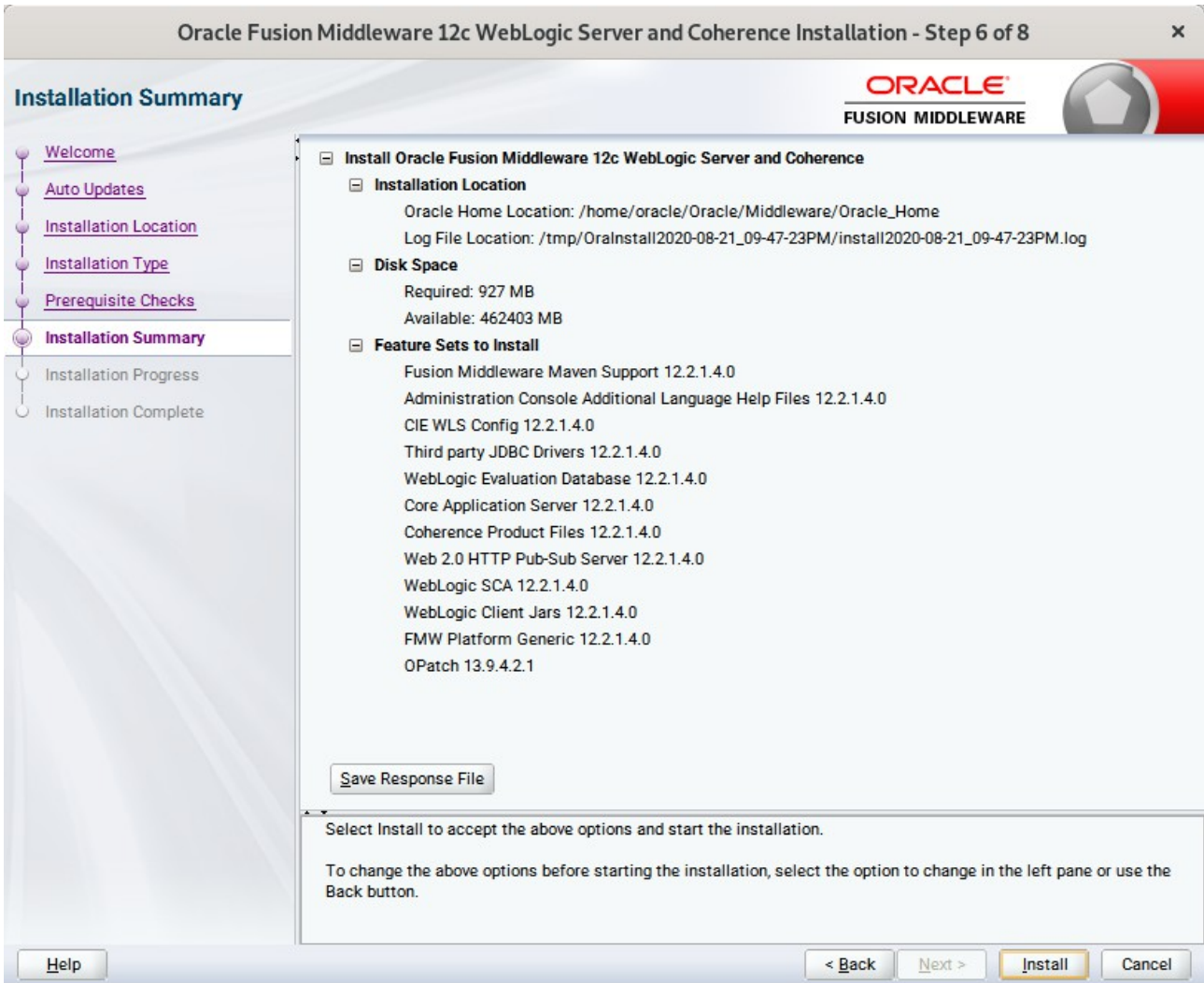
Type the full path of the directory in the Oracle Home field, then click **Next** to continue.

5). Installation Type.



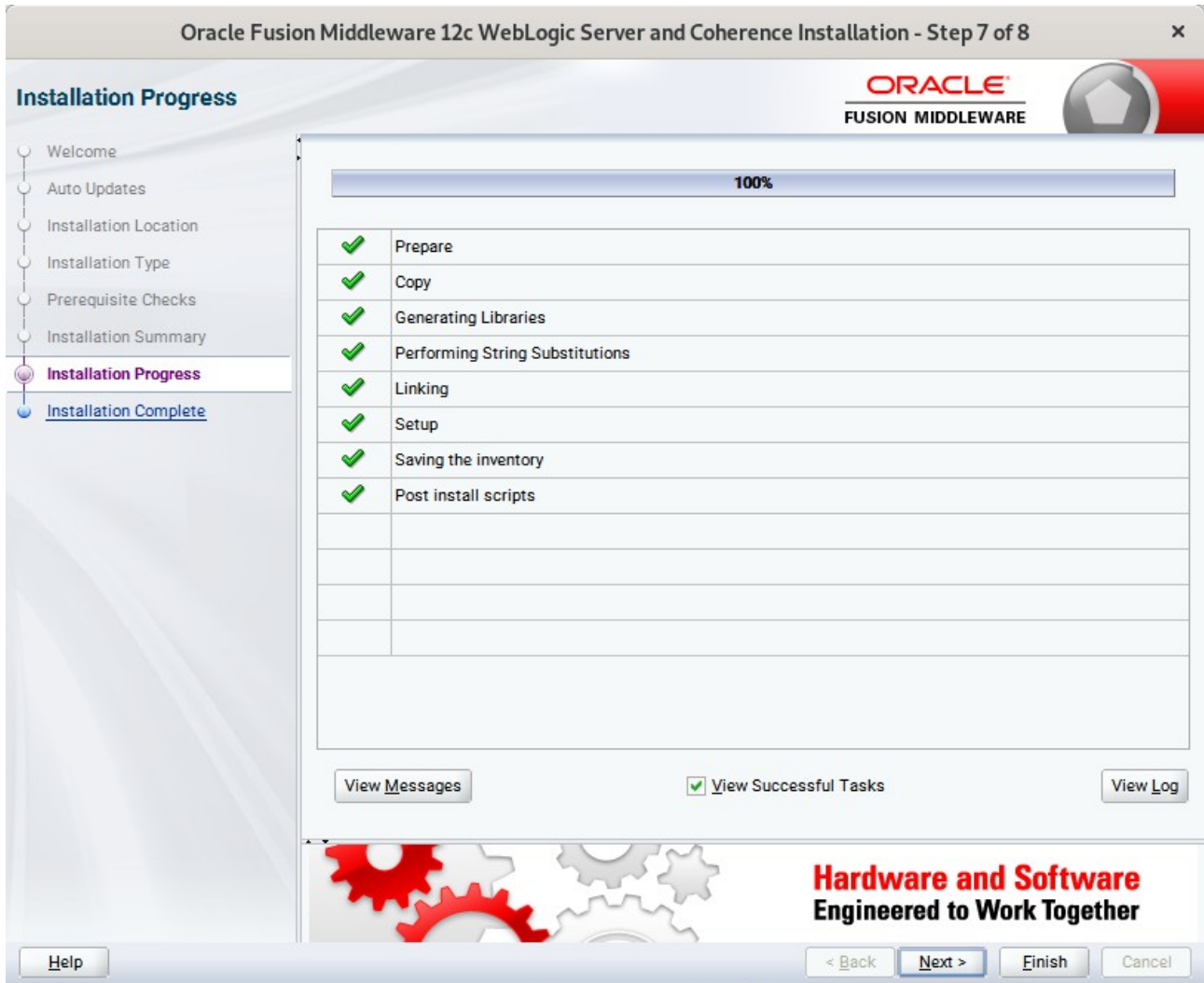
Use this screen to determine the type of installation you want to perform, then click **Next** to continue.

7). Installation Summary.



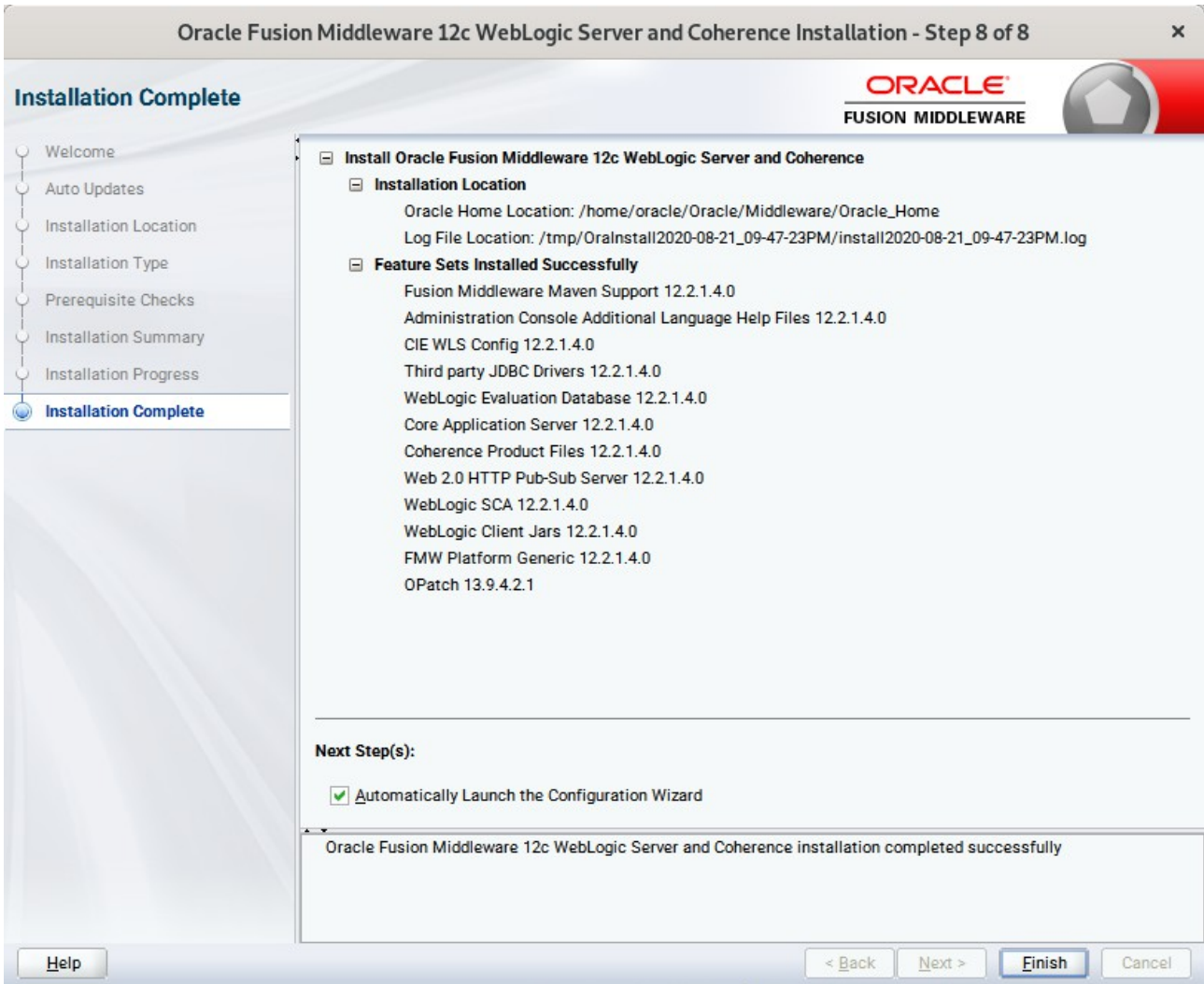
This screen contains a list of the feature sets you selected for installation, along with the approximate amount of disk space to be used by the feature sets once installation is complete. Check the information, then click **Install** to continue.

8). Installation Progress.



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**.

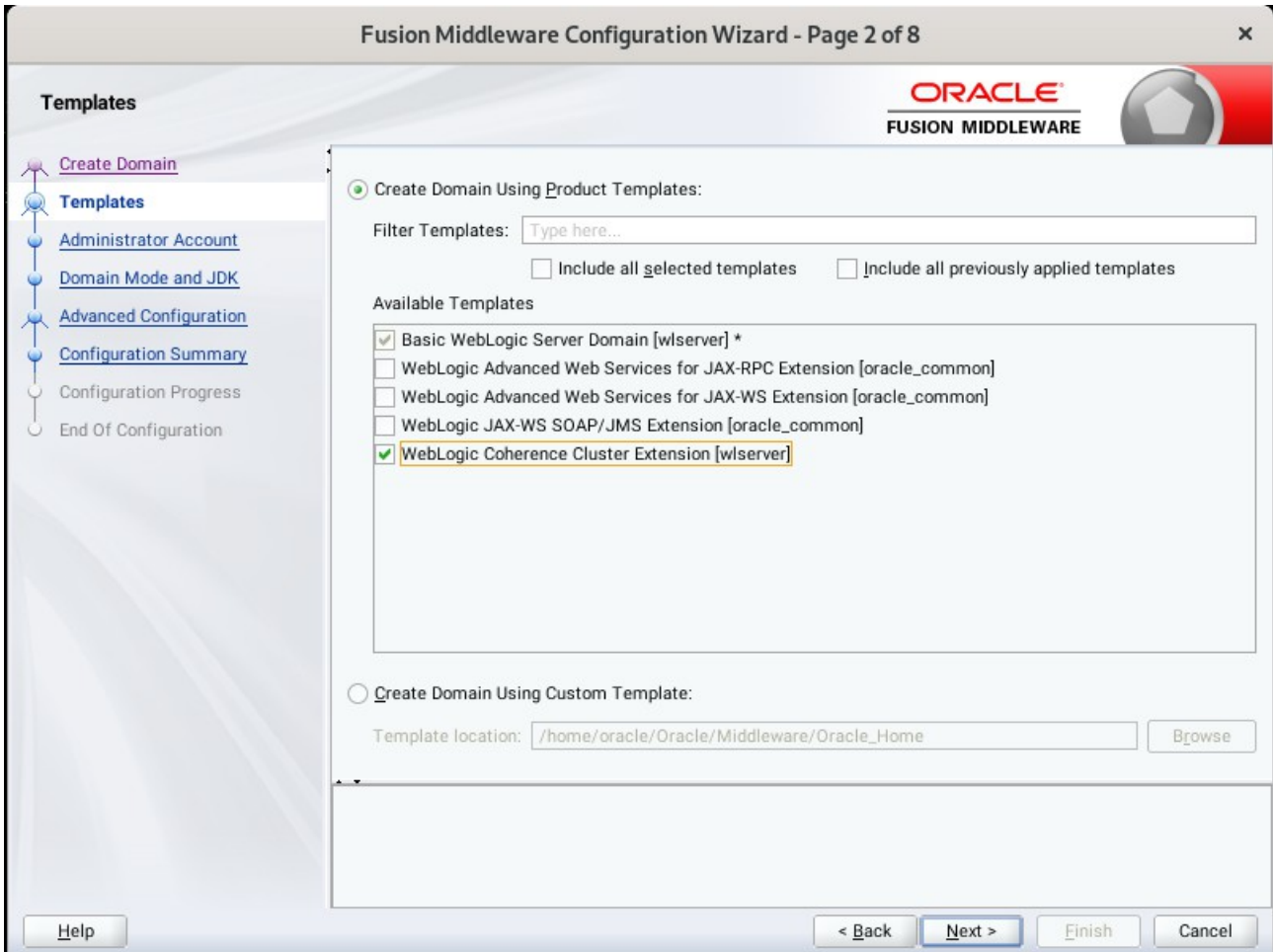
To set up your configuration, follow the steps below:

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.



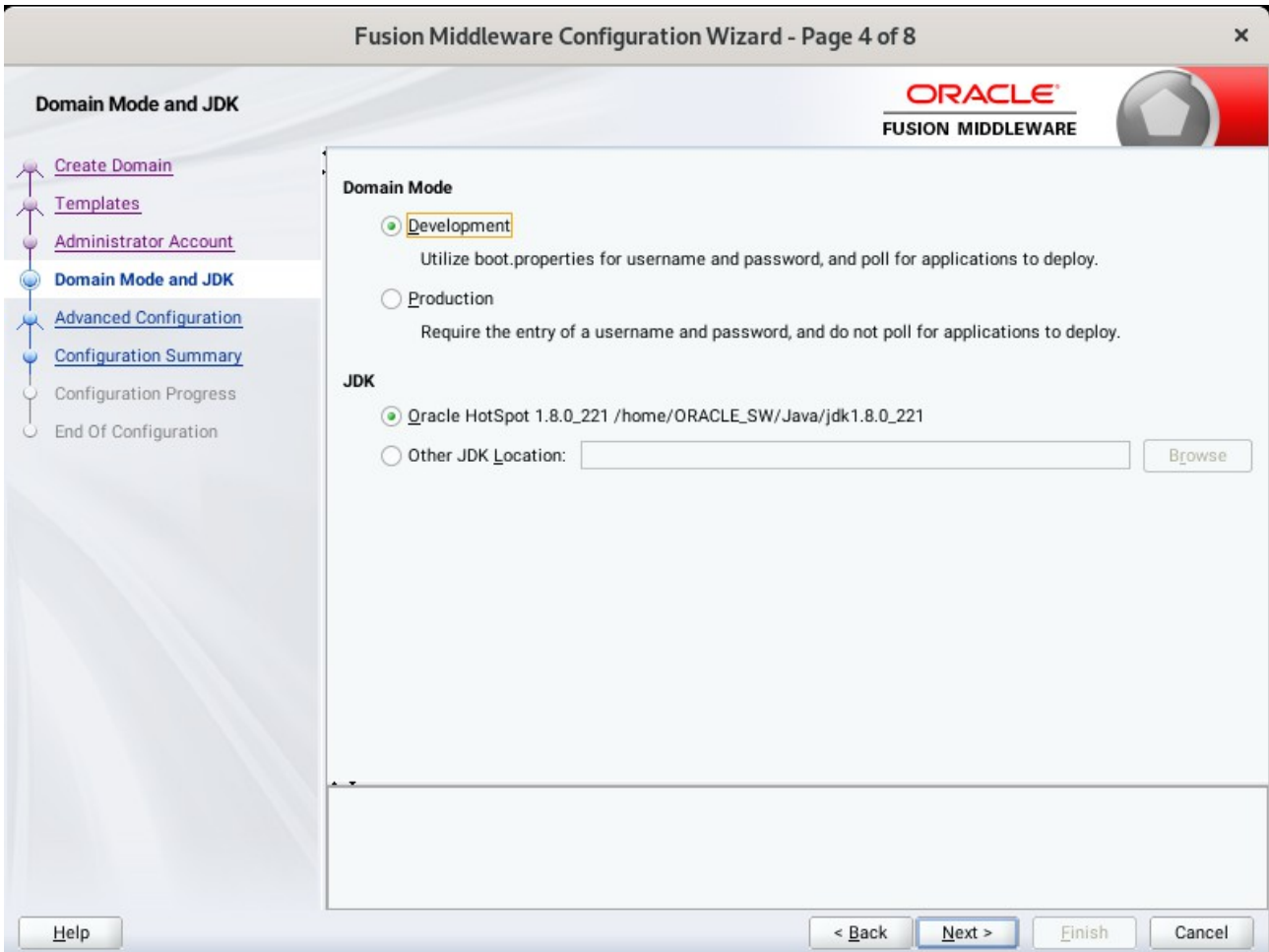
On the Templates screen select "**Basic WebLogic Server Domain (selected by default)**" and "**WebLogic Coherence Cluster Extension**" for configuration, then click **Next** to continue.

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 logo and 'FUSION MIDDLEWARE' text are 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 '*****'. 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'.

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

4). Domain Mode and JDK.



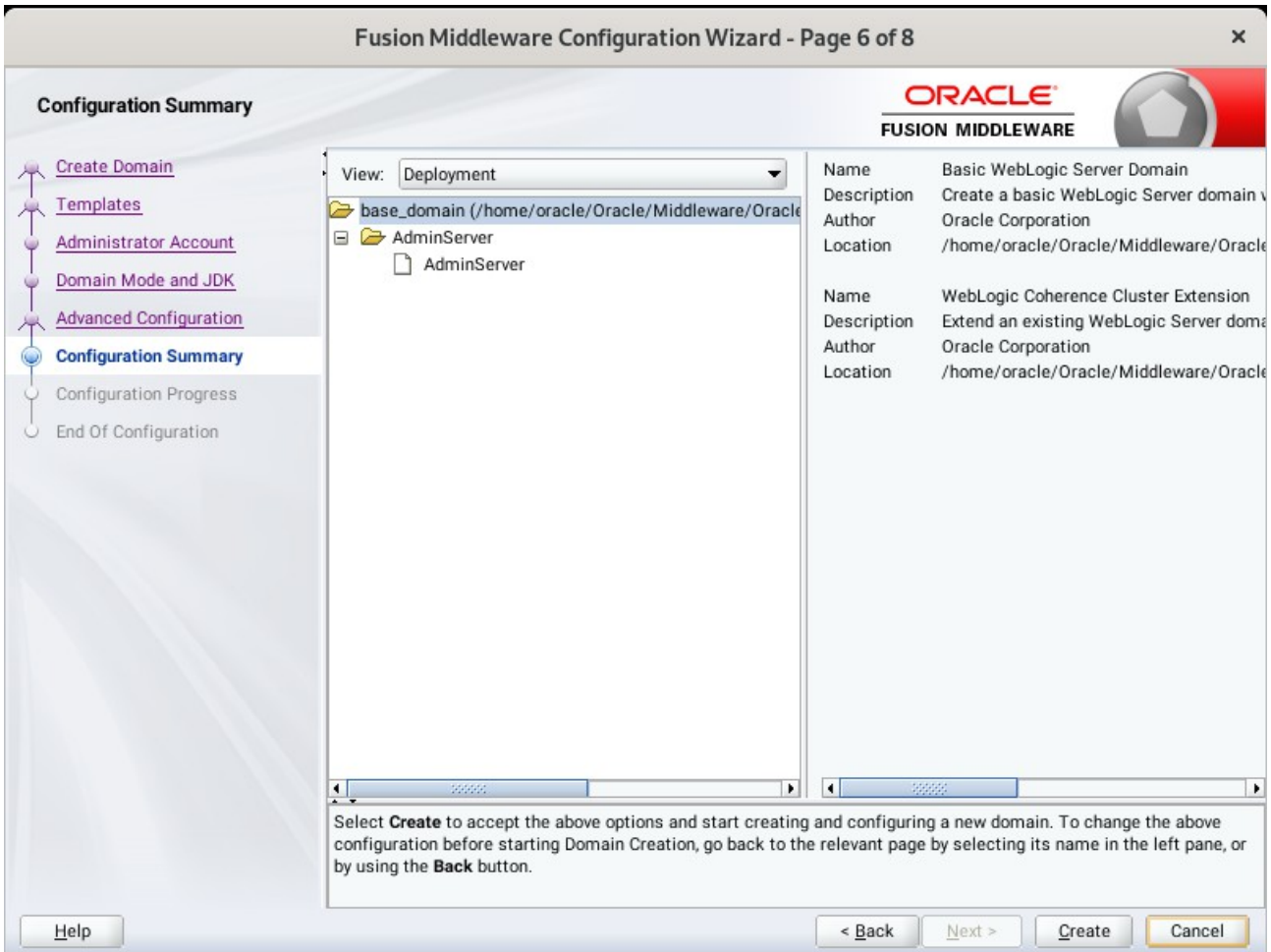
Select "**Development**" in the Domain Mode field, select the "**Oracle HotSpot**" in the JDK field. Then click **Next** to continue.

5). Advanced Configuration.



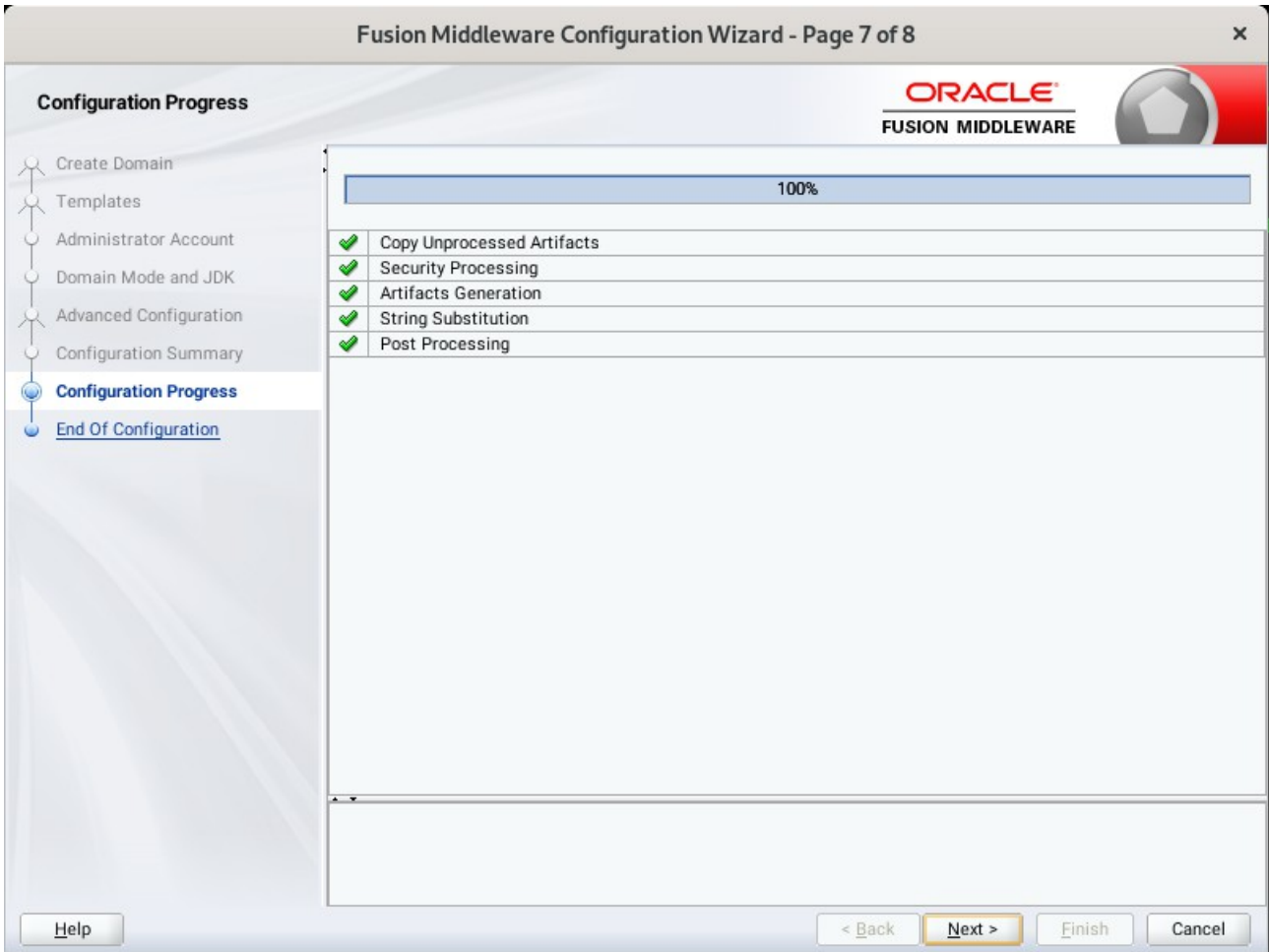
According to your requirements, select the desired options on the Advanced Configuration screen. Then click **Next** to continue.

6). Configuration Summary.



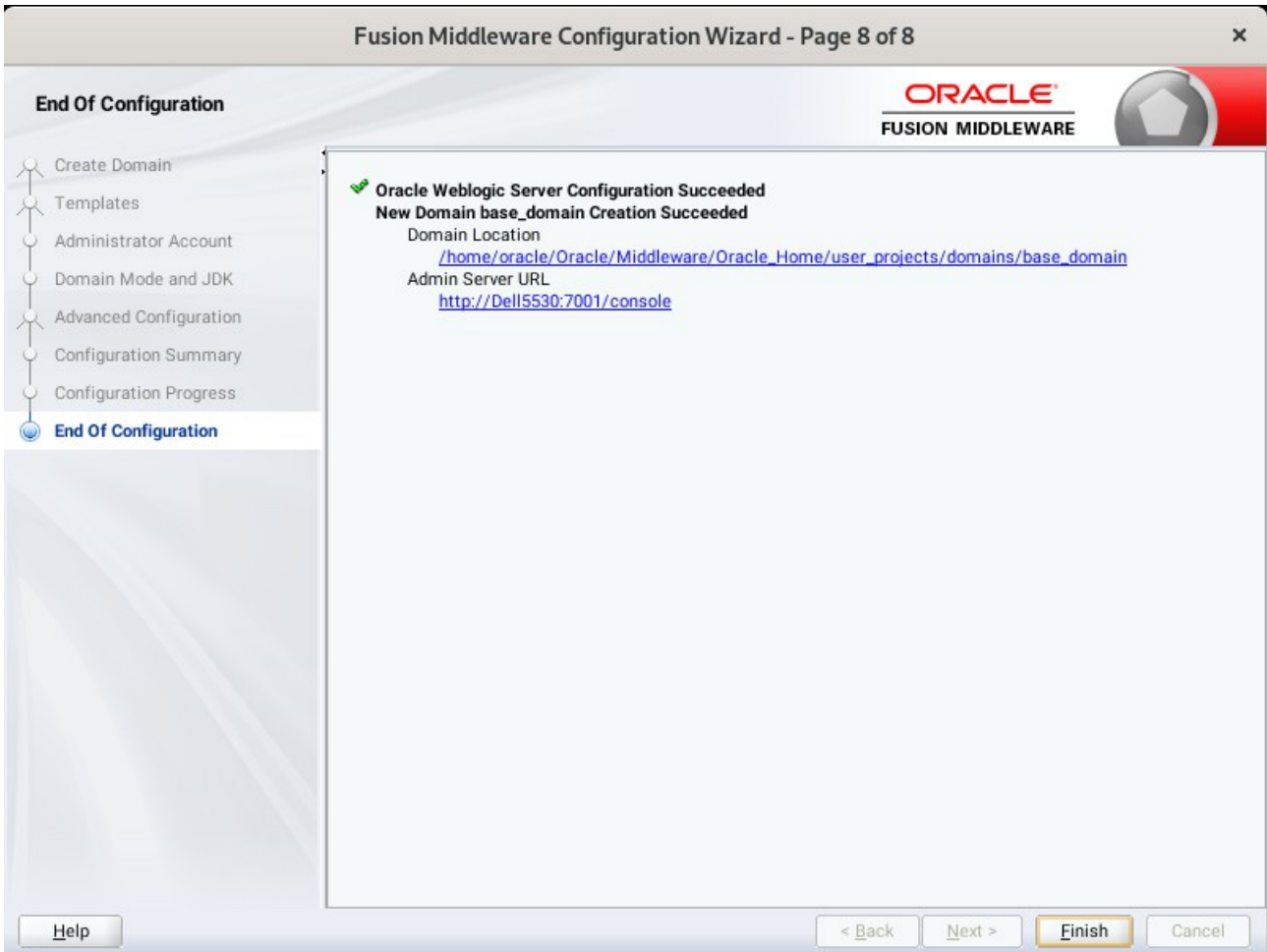
Review this screen to verify the information is correct, then click **Create** to continue.

7). Configuration Progress.



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

8). End Of Configuration.



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

3. Starting the Administration Server and verifying the Configuration

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

Starting the Administration Server through a terminal

```

oracle@Dell5530:...ns/base_domain/bin
oracle@Dell5530:..._SW/WebLogic/12214
oracle@Dell5530:...ns/base_domain/bin
<Aug 21, 2020 10:11:05,047 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[5]" is now
listening on 127.0.0.1:7001 for protocols iiop, t3, ldap, snmp, http.>
<Aug 21, 2020 10:11:10,514 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[1]" is now
listening on 2408:8207:c53:a970:dd2d:f4be:2b19:2b6b%eth0:7001 for protocols iiop, t3, ldap, snmp, htt
p.>
<Aug 21, 2020 10:11:11,010 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[2]" is now
listening on 2408:8207:c53:a970:44d1:2509:edd9:60e8%eth0:7001 for protocols iiop, t3, ldap, snmp, htt
p.>
<Aug 21, 2020 10:11:11,011 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[4]" is now
listening on 0:0:0:0:0:0:1%lo:7001 for protocols iiop, t3, ldap, snmp, http.>
<Aug 21, 2020 10:11:11,012 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000331> <Started the WebLogic
Server Administration Server "AdminServer" for domain "base_domain" running in development mode.>
<Aug 21, 2020 10:11:11,012 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default" is now lis
tening on 192.168.1.7:7001 for protocols iiop, t3, ldap, snmp, http.>
<Aug 21, 2020 10:11:11,013 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[3]" is now
listening on 10.156.115.32:7001 for protocols iiop, t3, ldap, snmp, http.>
<Aug 21, 2020 10:11:11,014 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[5]" is now
listening on 127.0.0.1:7001 for protocols iiop, t3, ldap, snmp, http.>
<Aug 21, 2020 10:11:11,015 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[1]" is now
listening on 2408:8207:c53:a970:dd2d:f4be:2b19:2b6b%eth0:7001 for protocols iiop, t3, ldap, snmp, htt
p.>
<Aug 21, 2020 10:11:11,015 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[2]" is now
listening on 2408:8207:c53:a970:44d1:2509:edd9:60e8%eth0:7001 for protocols iiop, t3, ldap, snmp, htt
p.>
<Aug 21, 2020 10:11:11,015 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[4]" is now
listening on 0:0:0:0:0:0:1%lo:7001 for protocols iiop, t3, ldap, snmp, http.>
<Aug 21, 2020 10:11:11,015 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default" is now lis
tening on 192.168.1.7:7001 for protocols iiop, t3, ldap, snmp, http.>
<Aug 21, 2020 10:11:11,015 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000360> <The server started i
n RUNNING mode.>
<Aug 21, 2020 10:11:11,147 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000365> <Server state changed
to RUNNING.>

```

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

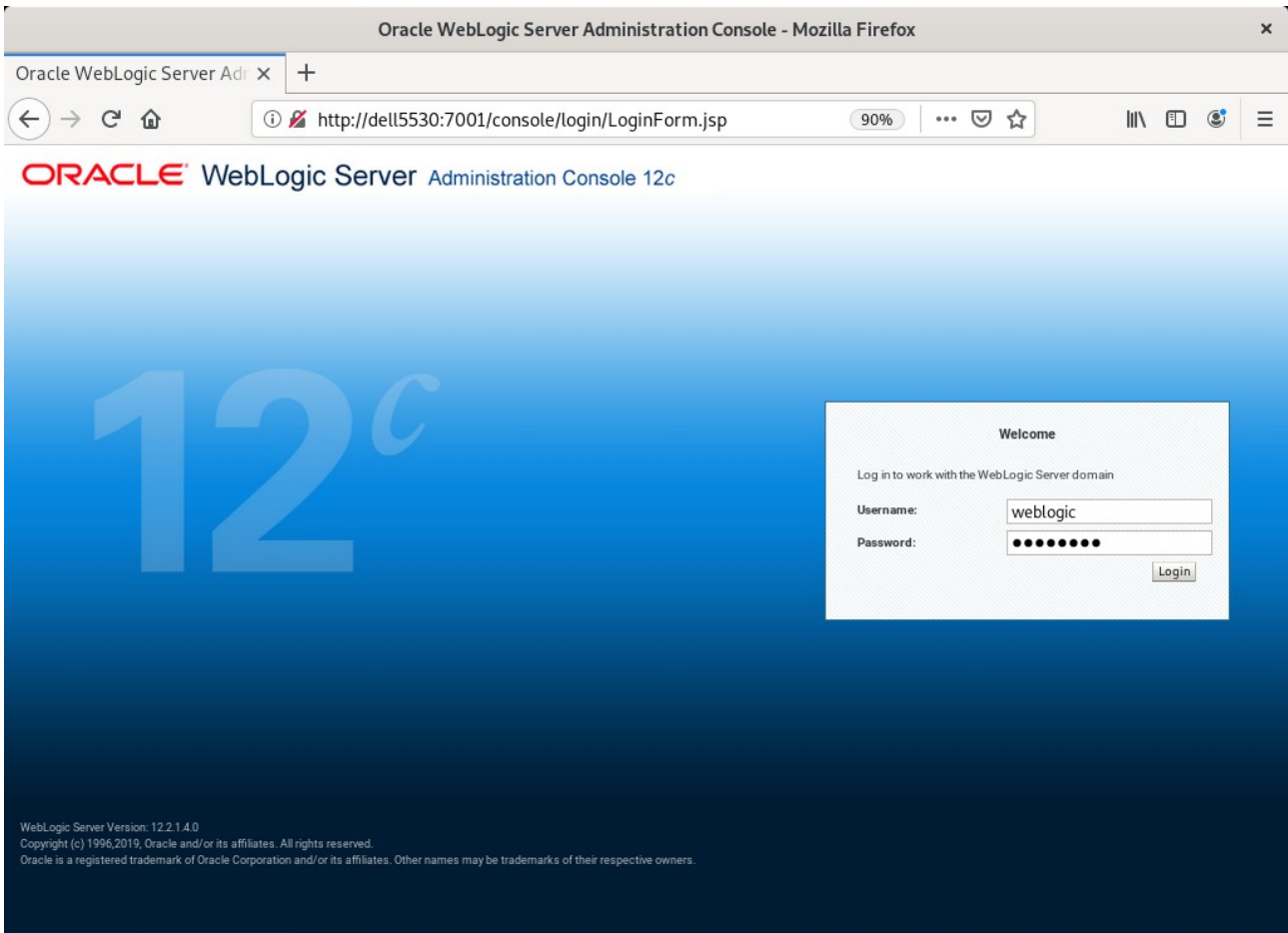
```

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

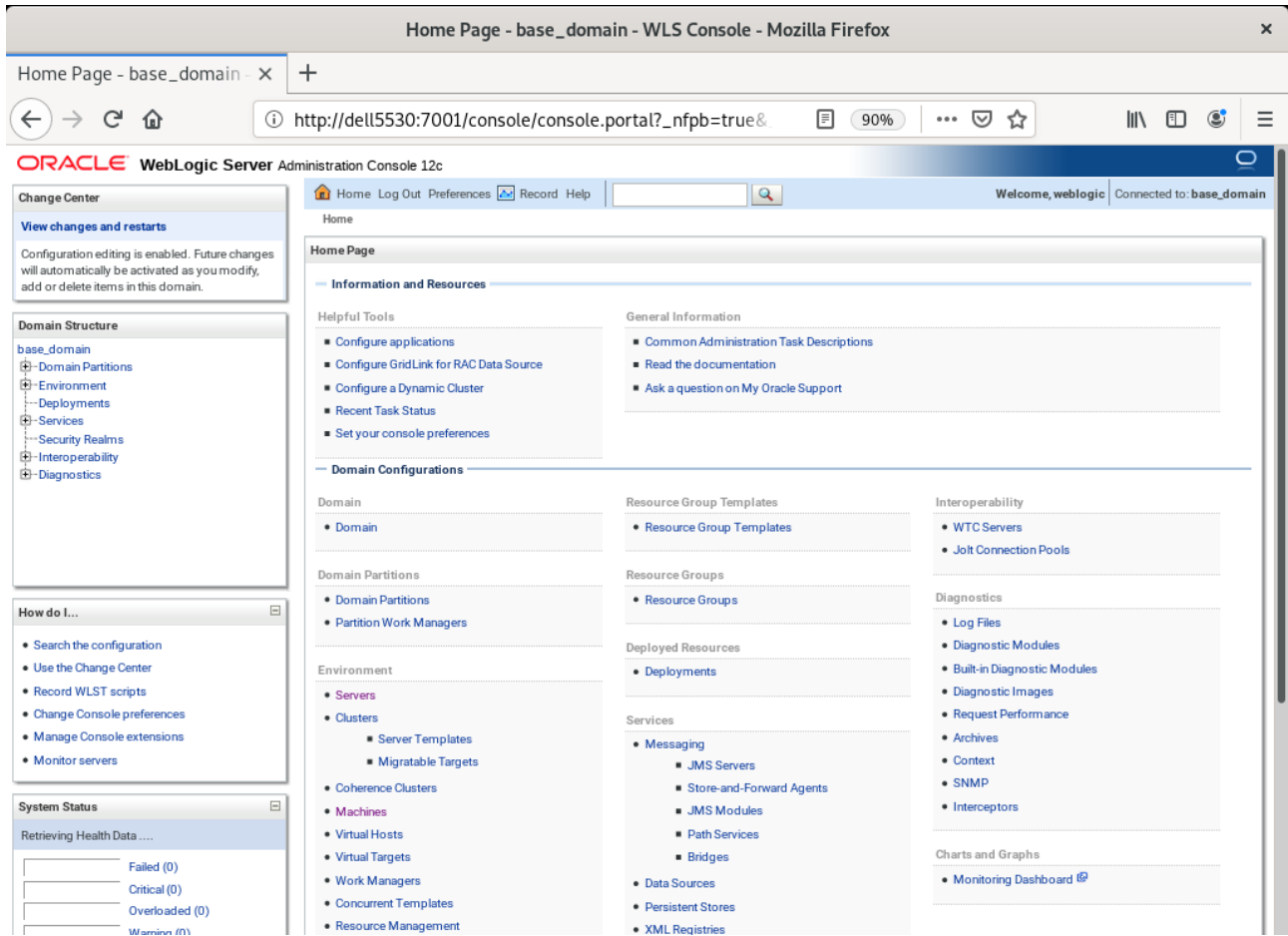
```

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

Access to WebLogic Server Admin Console - Login page



Viewing WebLogic Server Admin Console - Home page



Home Page - base_domain - WLS Console - Mozilla Firefox

Home Page - base_domain - x +

http://dell5530:7001/console/console.portal?_nfpb=true&

ORACLE WebLogic Server Administration Console 12c

Home Log Out Preferences Record Help Welcome, weblogic | Connected to: base_domain

Home Page

Information and Resources

Helpful Tools

- Configure applications
- Configure GridLink for RAC Data Source
- Configure a Dynamic Cluster
- Recent Task Status
- Set your console preferences

General Information

- Common Administration Task Descriptions
- Read the documentation
- Ask a question on My Oracle Support

Domain Configurations

Domain

- Domain

Domain Partitions

- Domain Partitions
- Partition Work Managers

Environment

- Servers
- Clusters
 - Server Templates
 - Migratable Targets
- Coherence Clusters
- Machines
- Virtual Hosts
- Virtual Targets
- Work Managers
- Concurrent Templates
- Resource Management

Resource Group Templates

- Resource Group Templates

Resource Groups

- Resource Groups

Deployed Resources

- Deployments

Services

- Messaging
 - JMS Servers
 - Store-and-Forward Agents
 - JMS Modules
 - Path Services
 - Bridges
- Data Sources
- Persistent Stores
- XML Registries

Interoperability

- WTC Servers
- Jolt Connection Pools

Diagnostics

- Log Files
- Diagnostic Modules
- Built-in Diagnostic Modules
- Diagnostic Images
- Request Performance
- Archives
- Context
- SNMP
- Interceptors

Charts and Graphs

- Monitoring Dashboard

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...

- Search the configuration
- Use the Change Center
- Record WLST scripts
- Change Console preferences
- Manage Console extensions
- Monitor servers

System Status

Retrieving Health Data...

- Failed (0)
- Critical (0)
- Overloaded (0)
- Warnings (0)

End of Oracle WebLogic Server Software.

Oracle Forms and Reports

1. Installing Oracle Forms and Reports

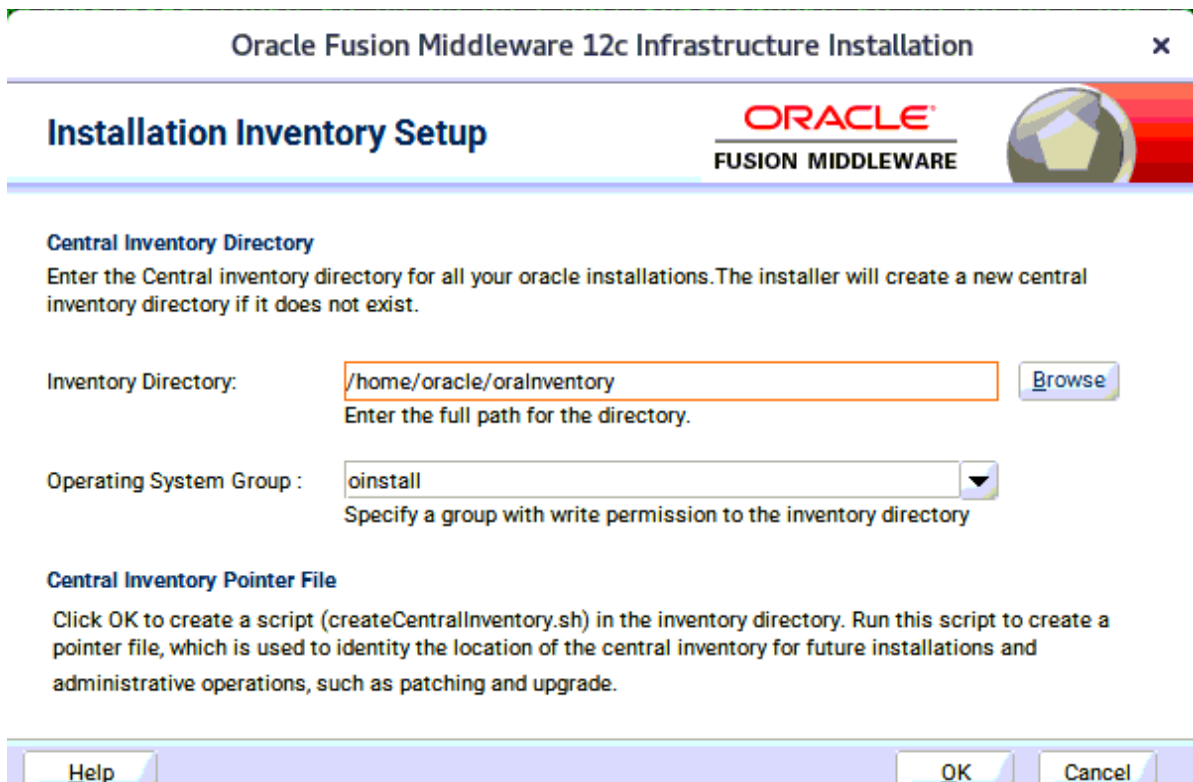
1-1. Prerequisites:

Installation of Oracle Forms and Reports requires:

- 1). Oracle Database 12cR2 (12.2.0.1.0) installed.
- 2). Oracle JDK 1.8.0_221 and later installed.
- 3). Oracle WebLogic Server 12cR2 (12.2.1.4.0) (Fusion Middleware Infrastructure Installer)

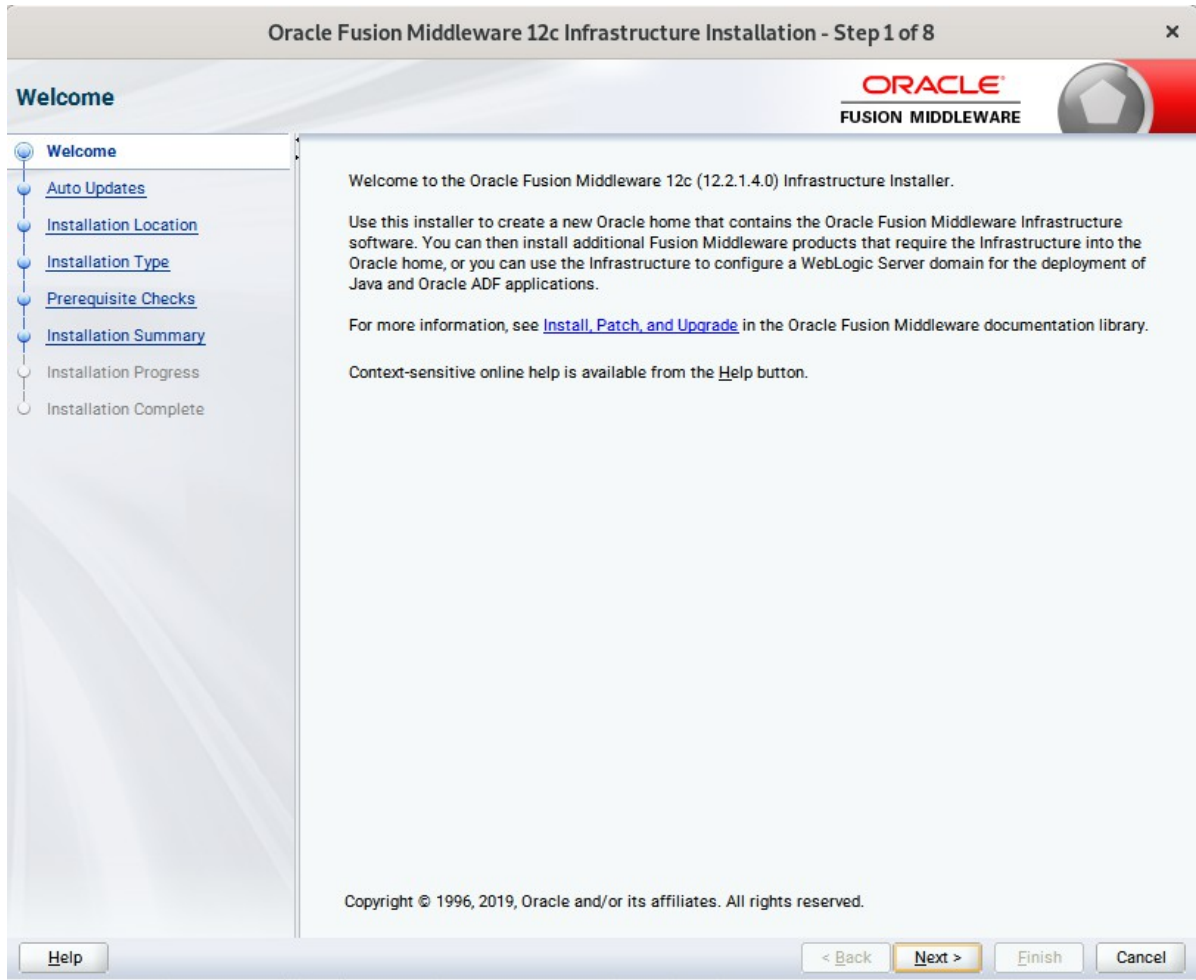
Screenshots: A brief installation setup for Fusion Middleware Infrastructure Installer is as follows:

3-1). Installation Inventory Setup.



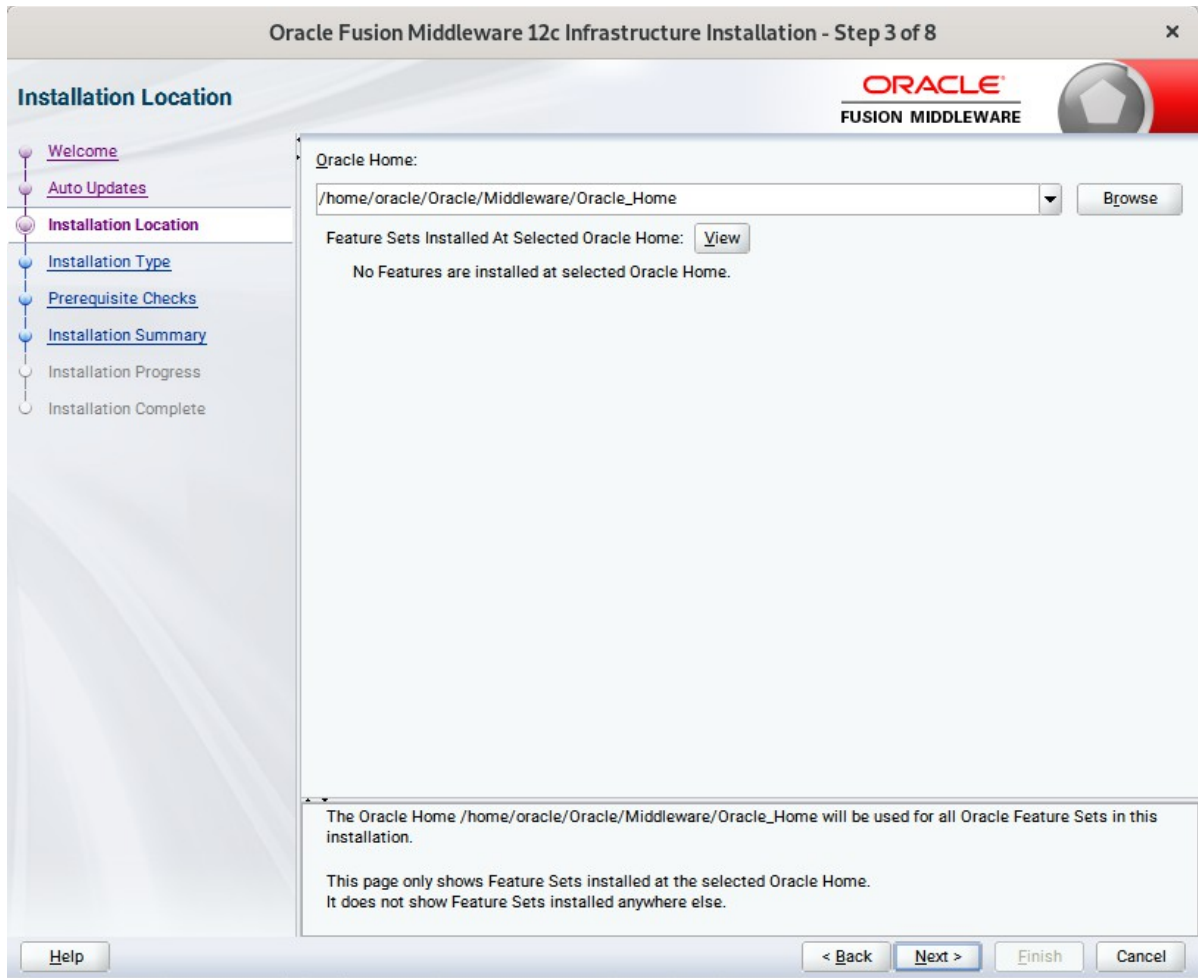
Specify the Oracle inventory directory and group permissions for that directory. The group must have write permissions to the Oracle inventory directory, then click **OK** to continue.

3-2). Welcome.



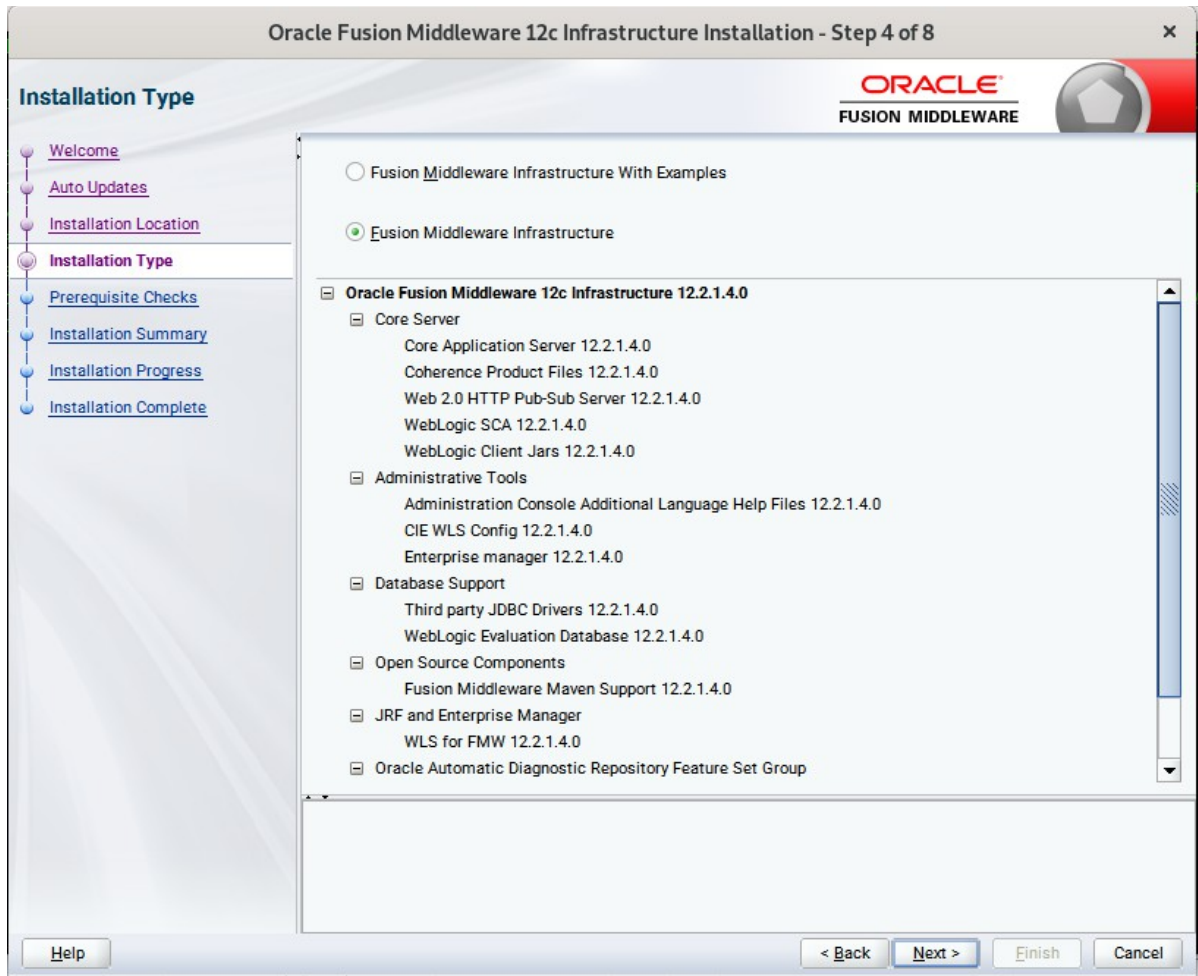
Review the information on this screen carefully to be sure you have performed all the necessary prerequisites, then click **Next** to continue.

3-3). Installation Location.



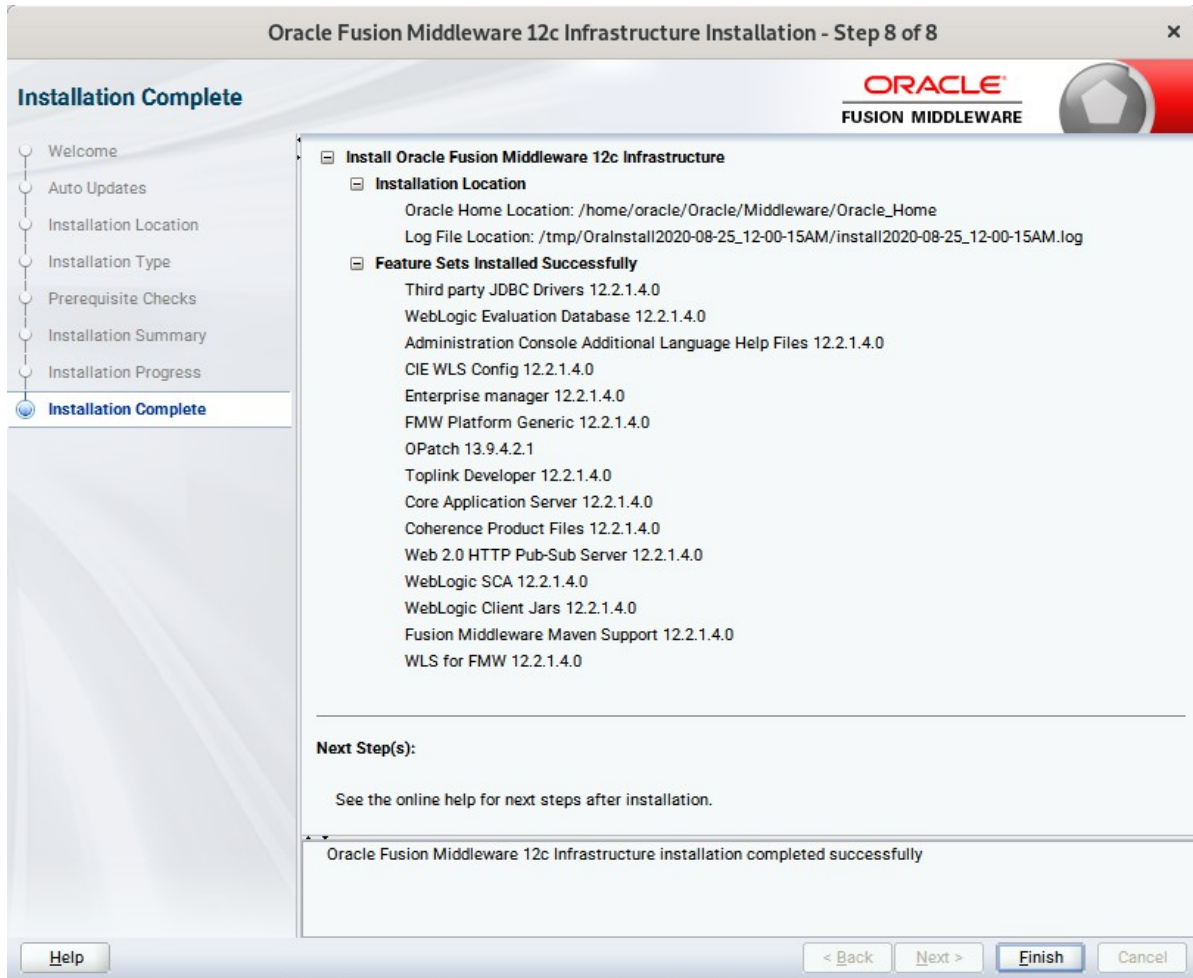
Type the full path of the directory in the Oracle Home field, then click **Next** to continue.

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.



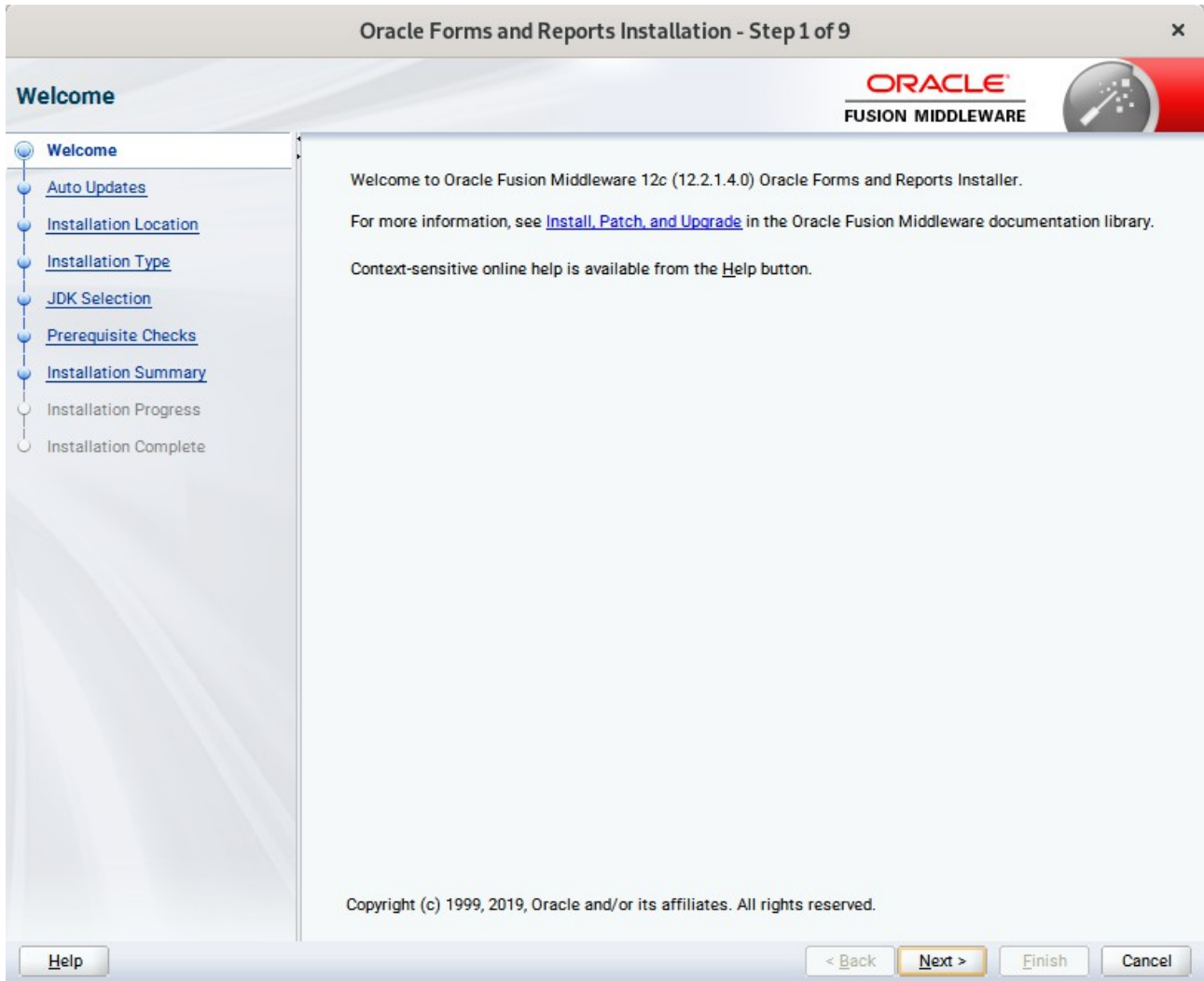
1-2. Log in to the target system (SUSE Linux Enterprise Server 15 SP2 64-bit OS) as a non-admin user. Download the Oracle Forms and Reports 12c (12.2.1.4.0) from <https://www.oracle.com/downloads/#category-middleware>.

(**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 ('V983392-01_1of2.zip' and 'V983392-01_2of2.zip') files and launch the installation program by running 'fmw_12.2.1.4.0_fr_linux64.bin'.

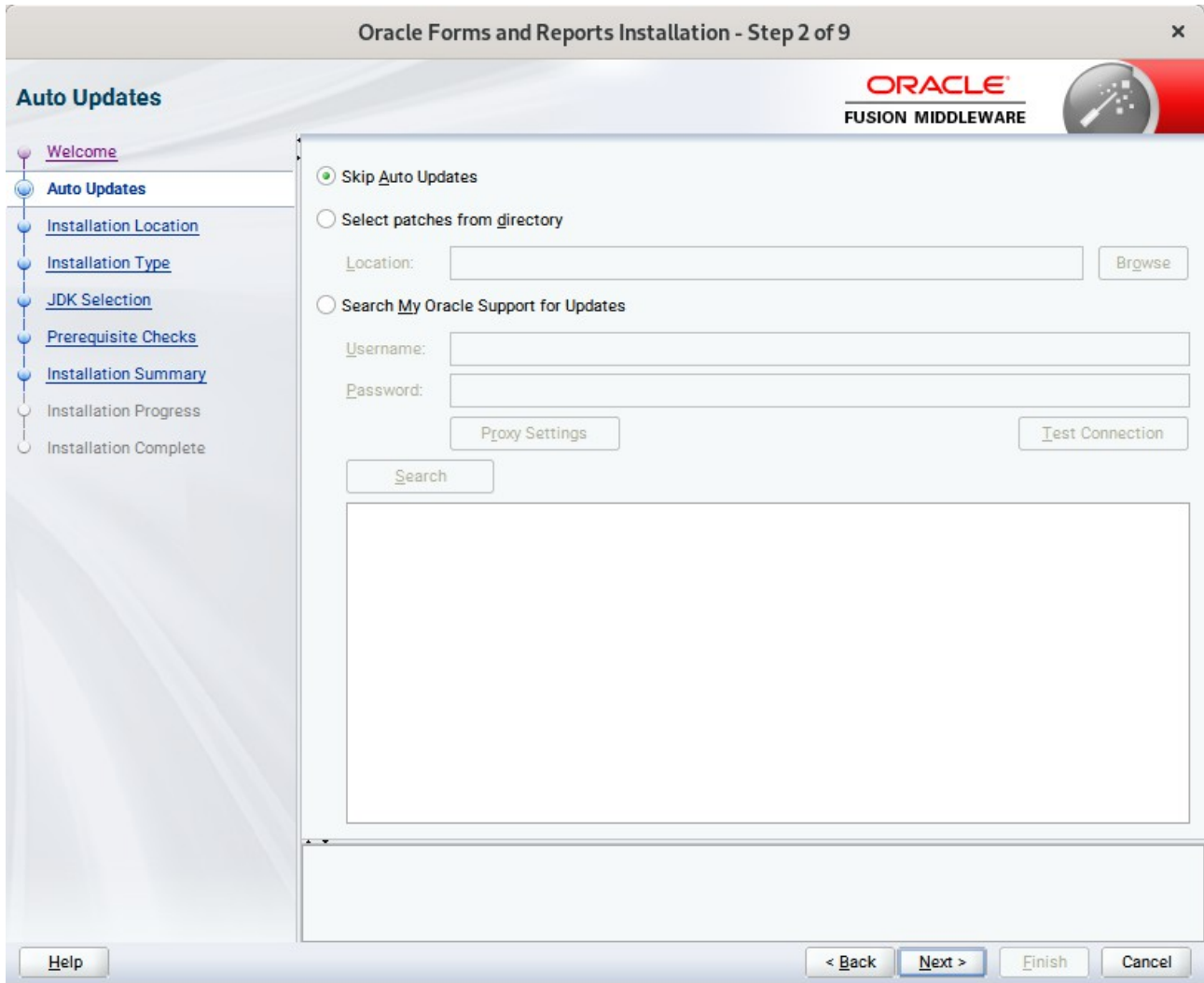
For the actual installation, follow the steps below:

1). Welcome page.



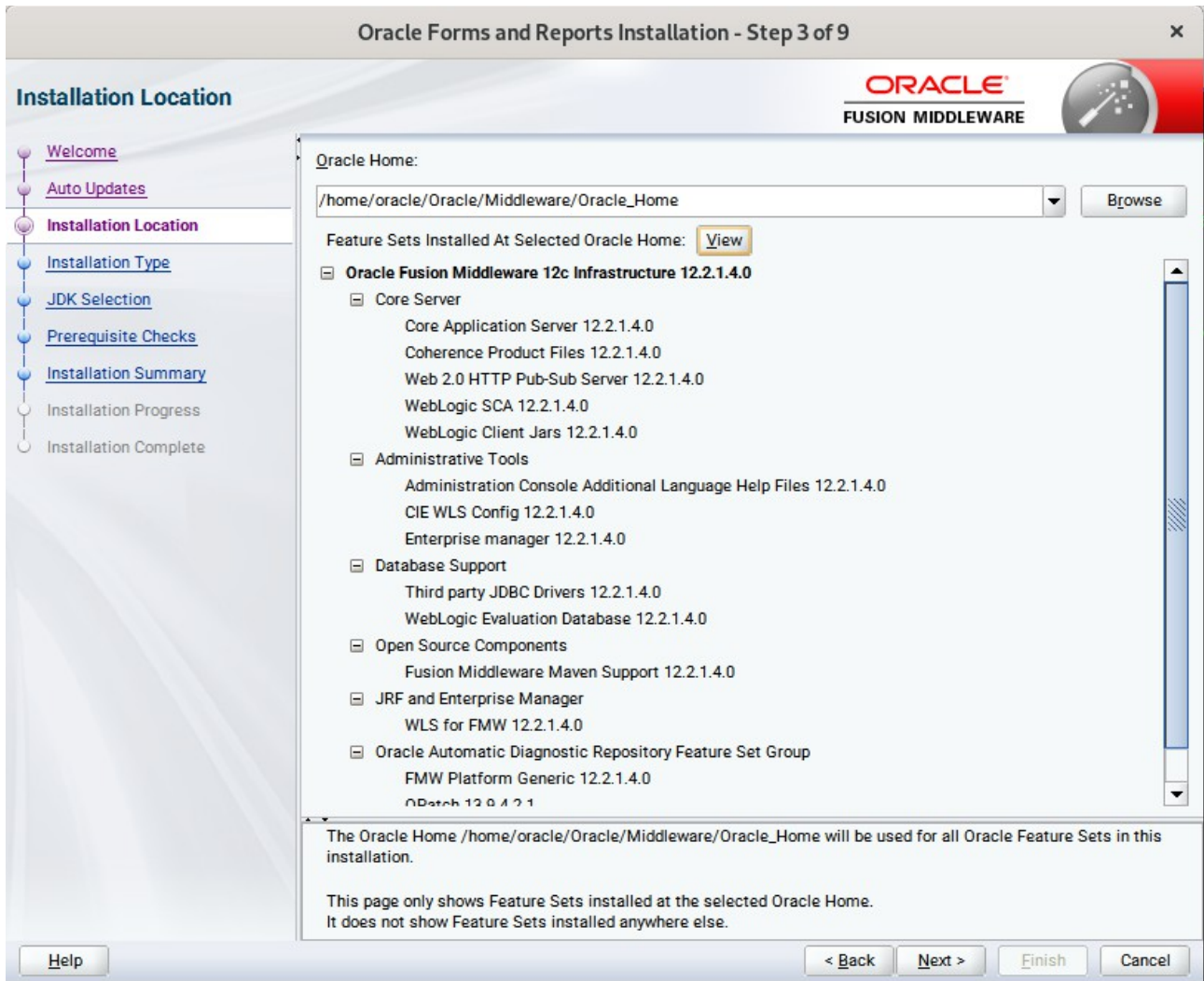
This page welcomes you to the installation. Click **Next** to continue.

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



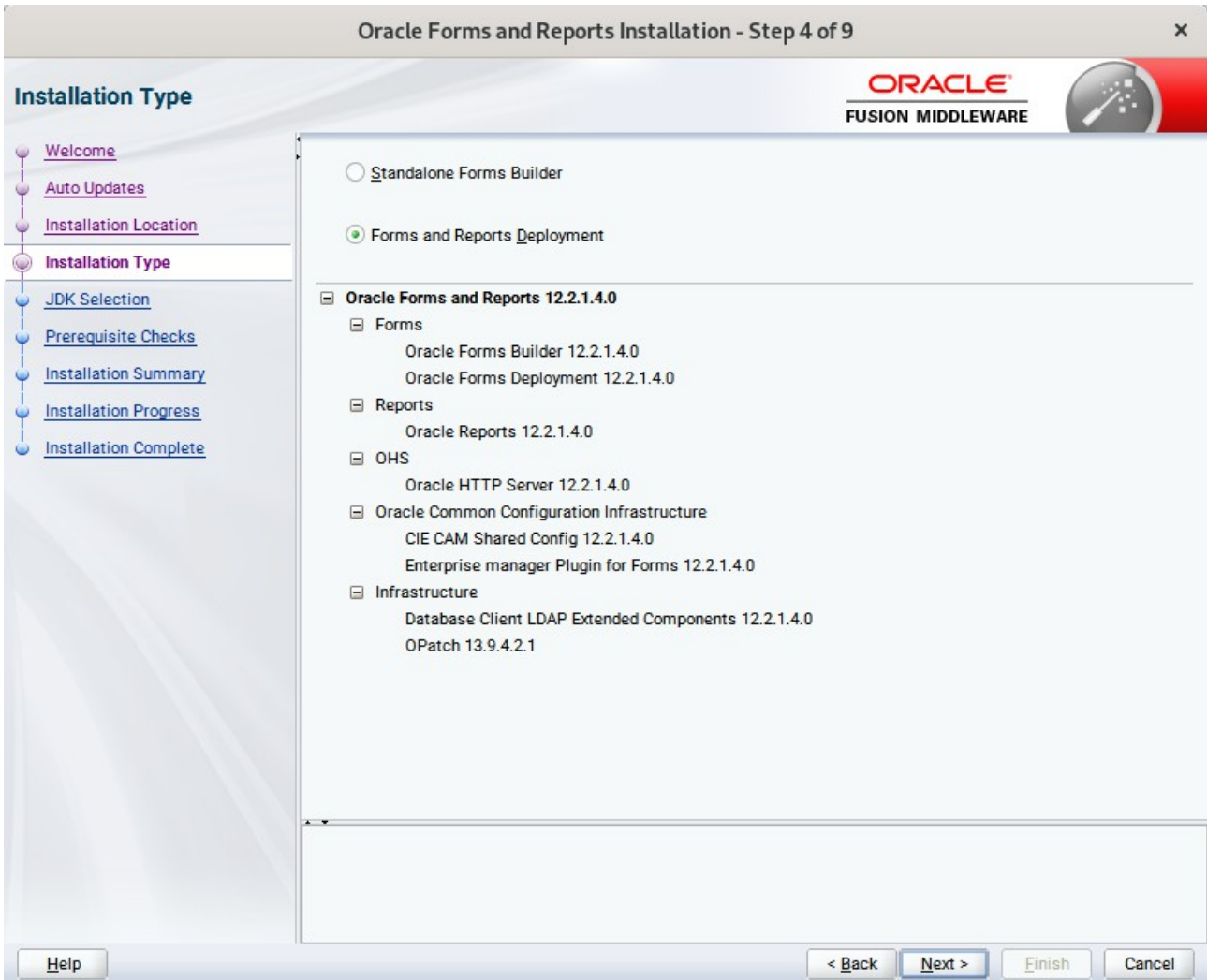
This page enables you to choose to automatically receive software updates for your components from Oracle Corporation. make your choices, then click **Next** to continue.

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



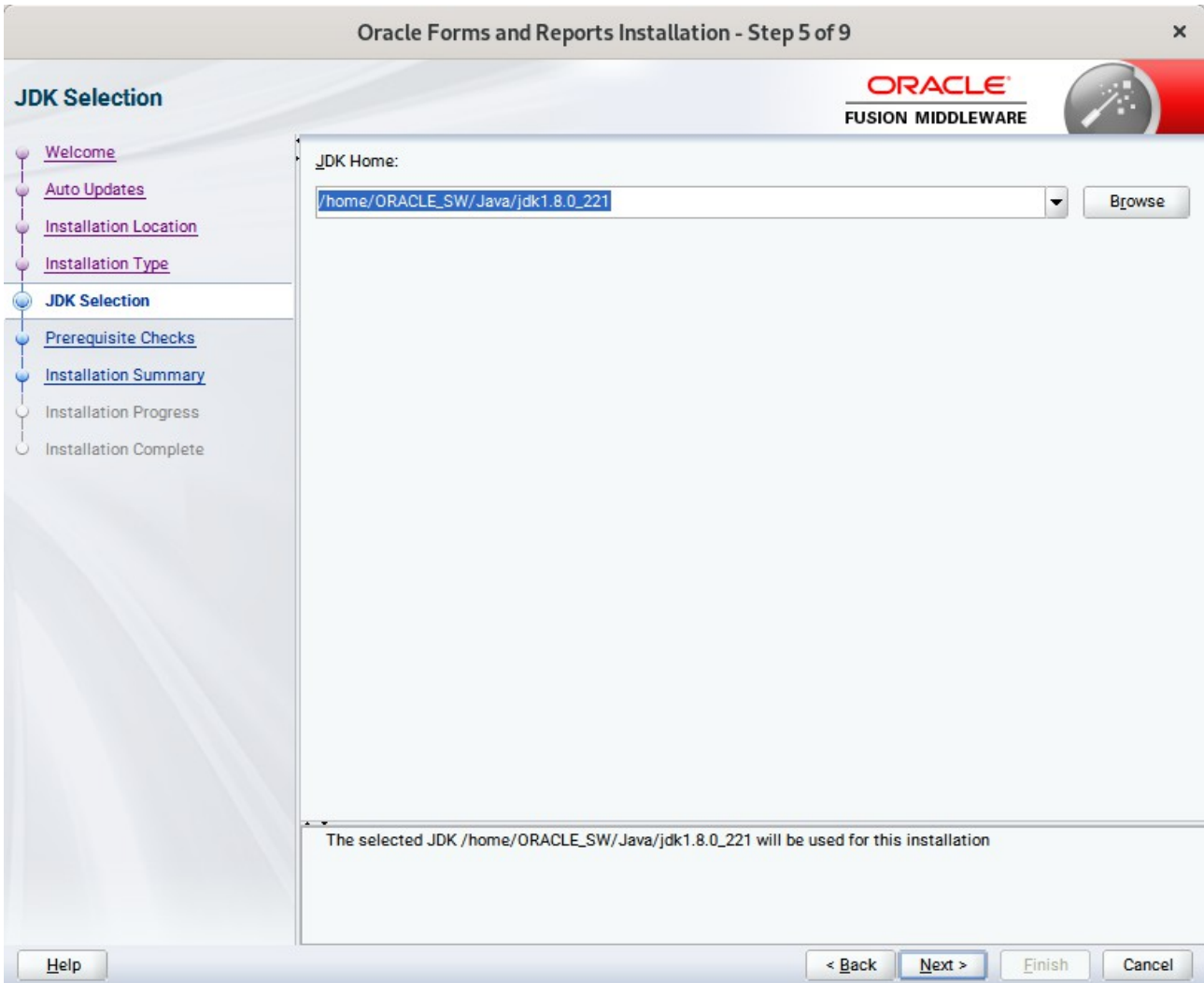
Specify the Oracle home location into which you want to install the product(s). Click **Next** to continue.

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



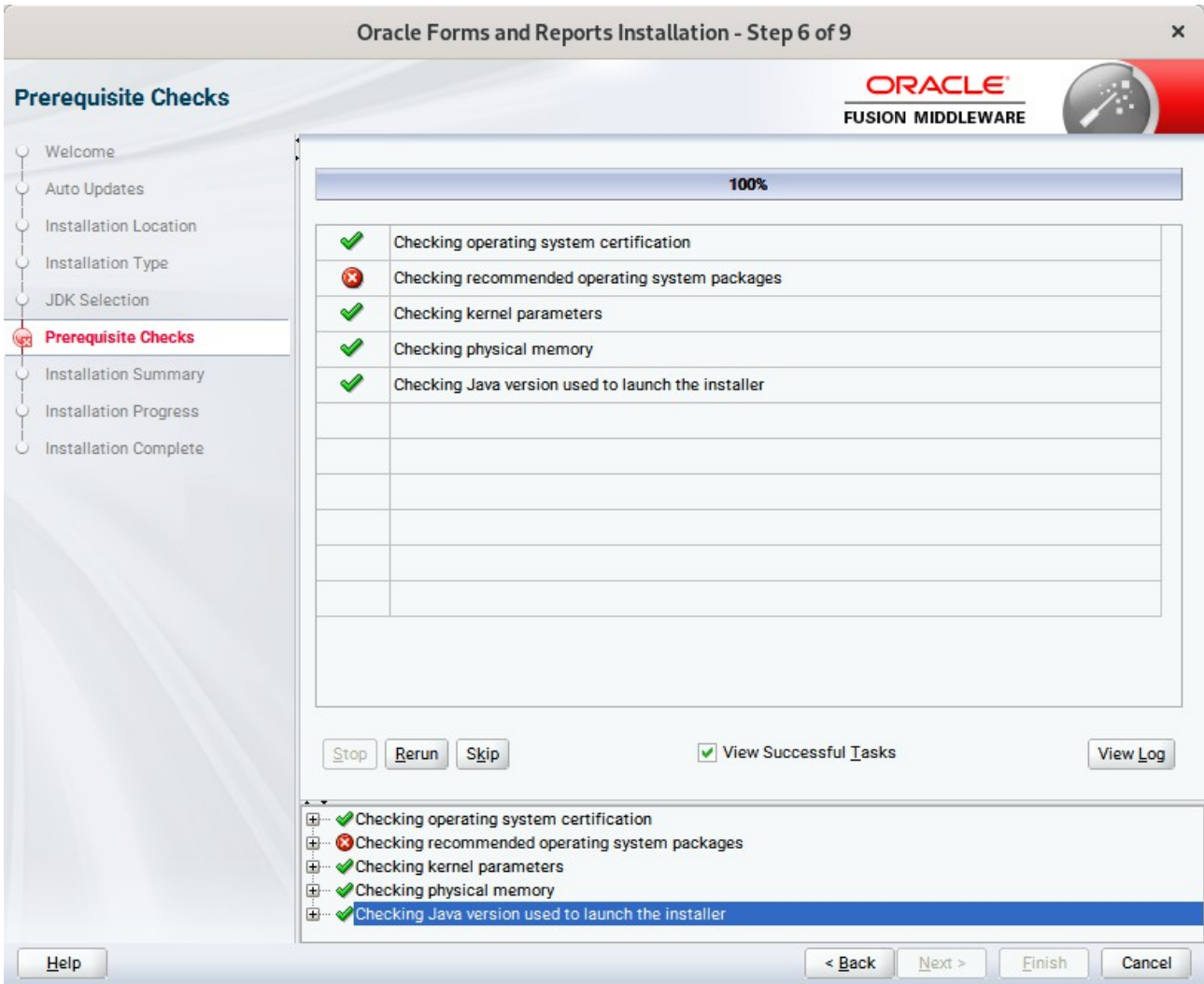
You can select **Standalone Forms Builder** if you want only that functionality, or choose **Forms and Reports Deployment** to install all of the products. Click **Next** to continue.

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



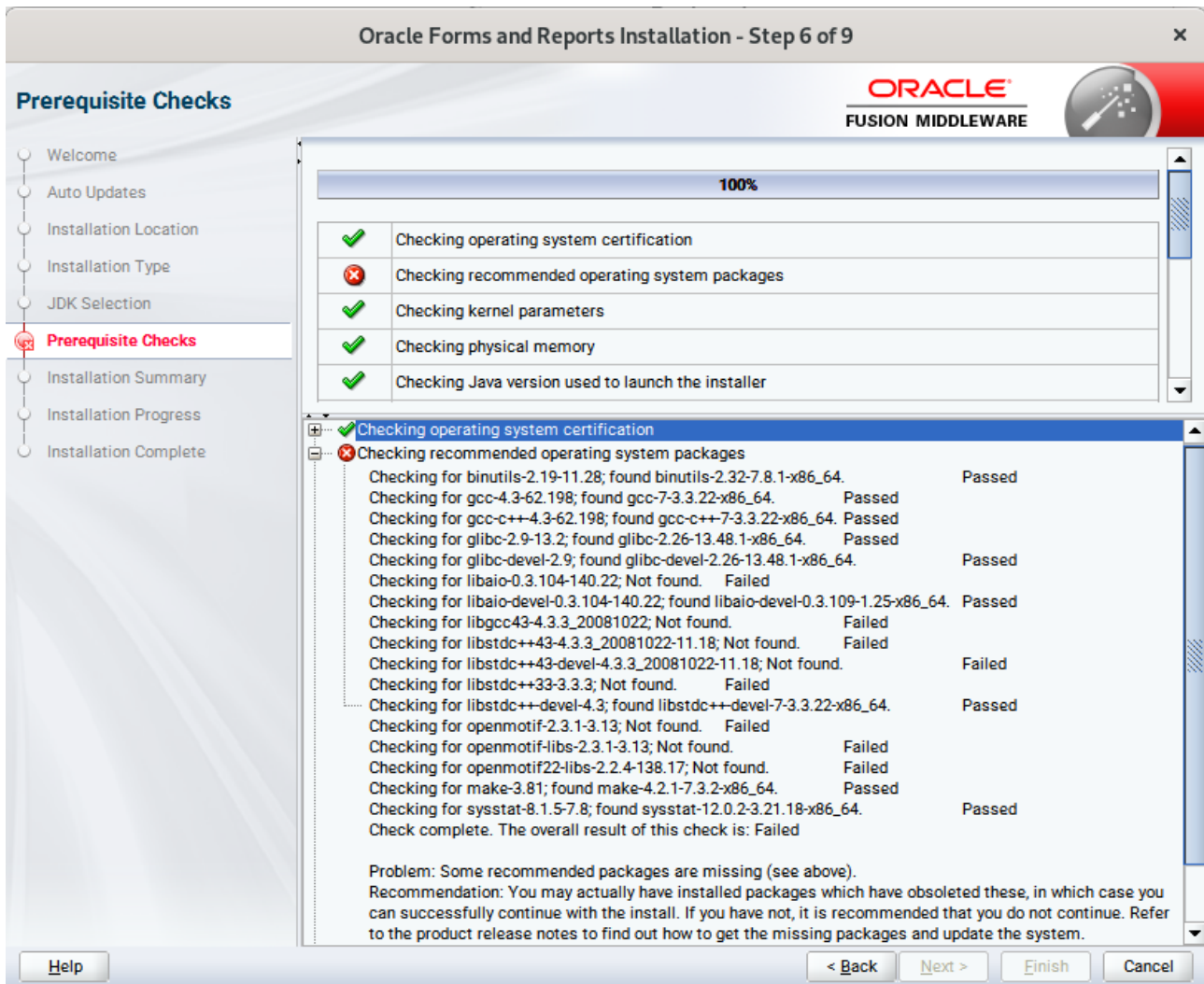
The selected JDK will be used for this installation. Click **Next** to continue.

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



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

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



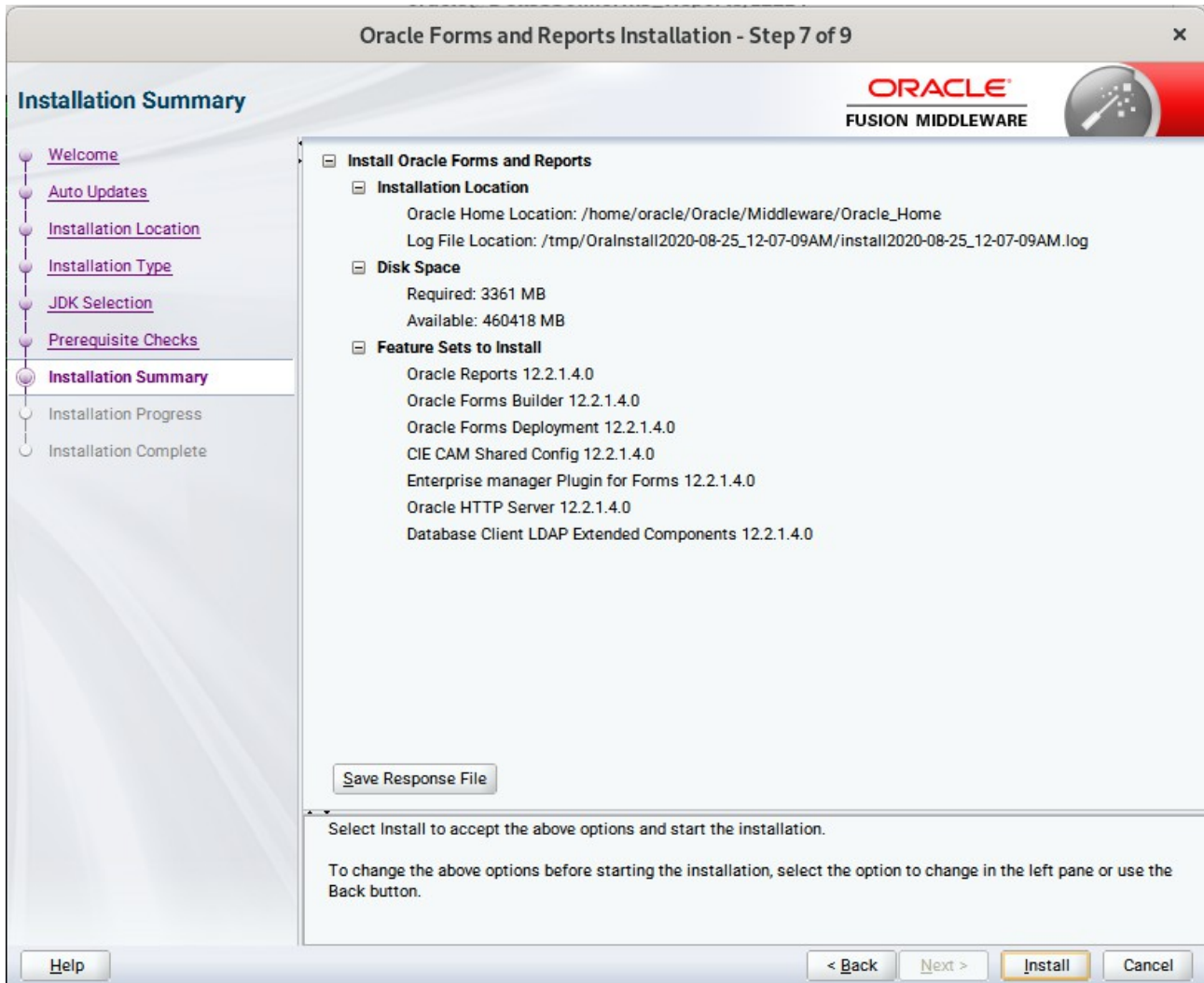
This is due to the different naming of these packages on SLES15 (SP2). Oracle FUSION Middleware 12c (12.2.1.4) is certified on SLES15 (SP1), please make sure that the following packages(or later) are installed:

```
binutils-2.29.1-4.46.x86_64
gcc7-ada-7.3.1+r258812-2.15.x86_64
gcc-c++-7-1.563.x86_64
gcc-c++-32bit-7-1.563.x86_64
gcc-ada-7-1.563.x86_64
gcc-locale-7-1.563.x86_64
gcc-info-7-1.563.x86_64
gcc-7-1.563.x86_64
gcc7-c++-7.3.1+r258812-2.15.x86_64
gcc7-info-7.3.1+r258812-2.15.noarch
gcc7-7.3.1+r258812-2.15.x86_64
gcc7-locale-7.3.1+r258812-2.15.x86_64
gcc7-c++-32bit-7.3.1+r258812-2.15.x86_64
gcc7-32bit-7.3.1+r258812-2.15.x86_64
gcc-32bit-7-1.563.x86_64
glibc-2.26-11.8.x86_64
linux-glibc-devel-4.15-1.47.noarch
```


glibc-devel-2.26-11.8.x86_64
glibc-locale-2.26-11.8.x86_64
glibc-extra-2.26-11.8.x86_64
glibc-32bit-2.26-11.8.x86_64
glibc-devel-32bit-2.26-11.8.x86_64
mksh-56c-1.10.x86_64
libaio1-0.3.109-1.25.x86_64
libaio1-32bit-0.3.109-1.25.x86_64
libaio-devel-32bit-0.3.109-1.25.x86_64
libaio-devel-0.3.109-1.25.x86_64
libcap2-2.25-2.41.x86_64
libcap-ng0-0.7.9-1.42.x86_64
libcap2-32bit-2.25-2.41.x86_64
libstdc++6-7.3.1+r258812-2.15.x86_64
libstdc++6-devel-gcc7-7.3.1+r258812-2.15.x86_64
libstdc++6-32bit-7.3.1+r258812-2.15.x86_64
libstdc++6-devel-gcc7-32bit-7.3.1+r258812-2.15.x86_64
libstdc++6-locale-7.3.1+r258812-2.15.x86_64
libstdc++-devel-7-1.563.x86_64
libgcc_s1-7.3.1+r258812-2.15.x86_64
libgcc_s1-32bit-7.3.1+r258812-2.15.x86_64
make-4.2.1-5.48.x86_64
make-lang-4.2.1-5.48.noarch
makedumpfile-1.6.3-5.6.x86_64
xorg-x11-7.6_1-1.22.noarch
xorg-x11-server-1.19.6-6.19.x86_64
xorg-x11-fonts-7.6-3.9.noarch
xorg-x11-driver-video-7.6_1-2.30.x86_64
xorg-x11-Xvnc-1.8.0-11.23.x86_64
xorg-x11-fonts-core-7.6-3.9.noarch
xorg-x11-server-extra-1.19.6-6.19.x86_64
xorg-x11-essentials-7.6_1-1.22.noarch

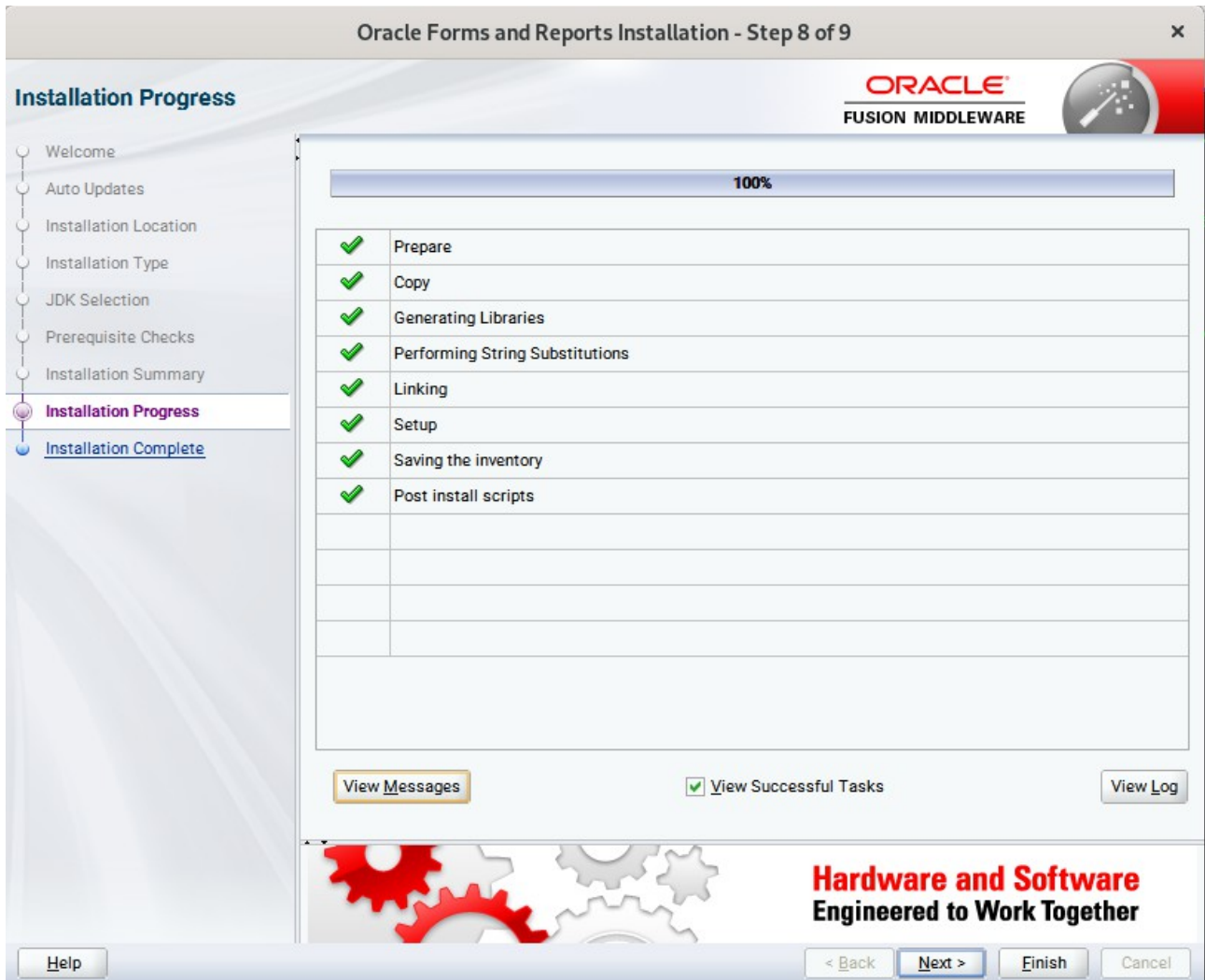
)

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



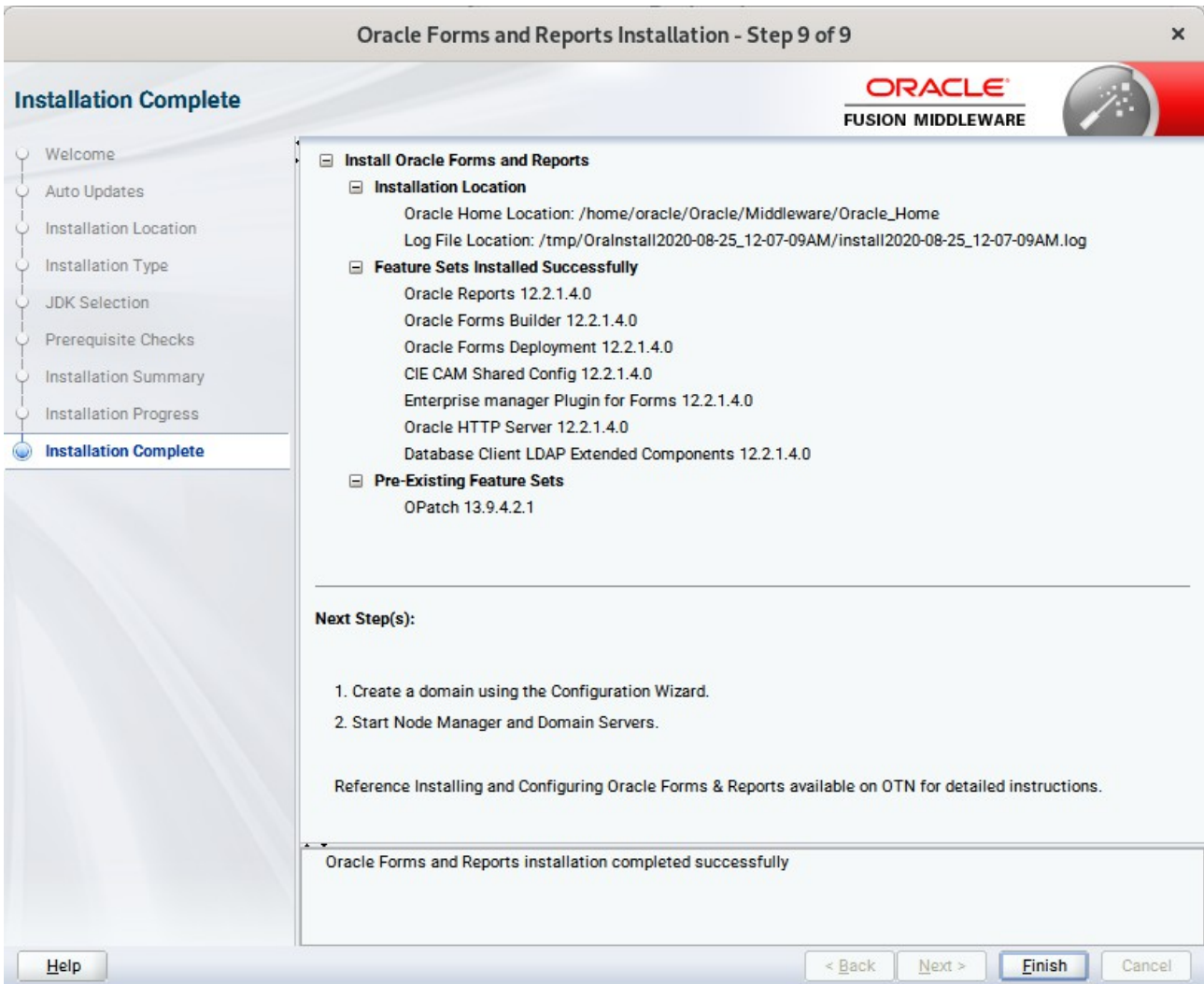
This page shows you what components and features are about to be installed. If you need to make changes, click **Back**, otherwise, click **Install** to start the installation.

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.

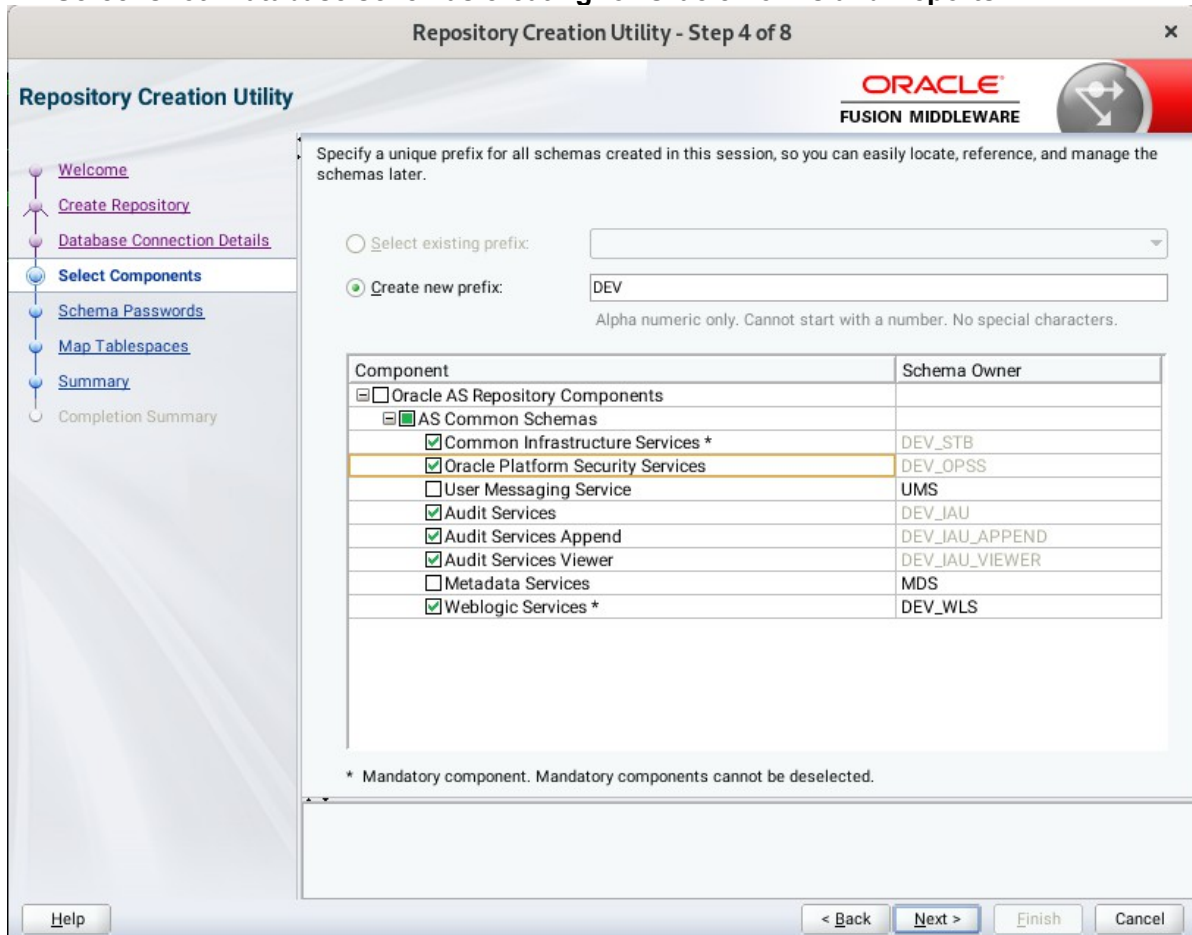


Click **Finish** to dismiss the installer.

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.



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

Database details:

Host Name: Dell5530
 Port: 1521
 Service Name: SUSE
 Connected As: sys
 Operation: System and Data Load concurrently
 Execution Time: 5 minutes 47 seconds

RCU Logfile: /tmp/RCU2020-08-25_00-31_400857590/logs/rcu.log
 Component Log Directory: /tmp/RCU2020-08-25_00-31_400857590/logs
 View Log: rcu.log

Prefix for (prefixable) Schema DEV
 Owners

Component	Status	Time	Logfile(Click to view)
Common Infrastructure Services	Success	00:10.640(sec)	stb.log
Oracle Platform Security Services	Success	02:30.009(min)	opss.log
Audit Services	Success	00:56.165(sec)	iau.log
Audit Services Append	Success	00:09.590(sec)	iau_append.log
Audit Services Viewer	Success	00:09.563(sec)	iau_viewer.log
Weblogic Services	Success	01:21.951(min)	wls.log

Help < Back Next > Create Close

3. Configuring Oracle Forms and Reports using the Config Wizard

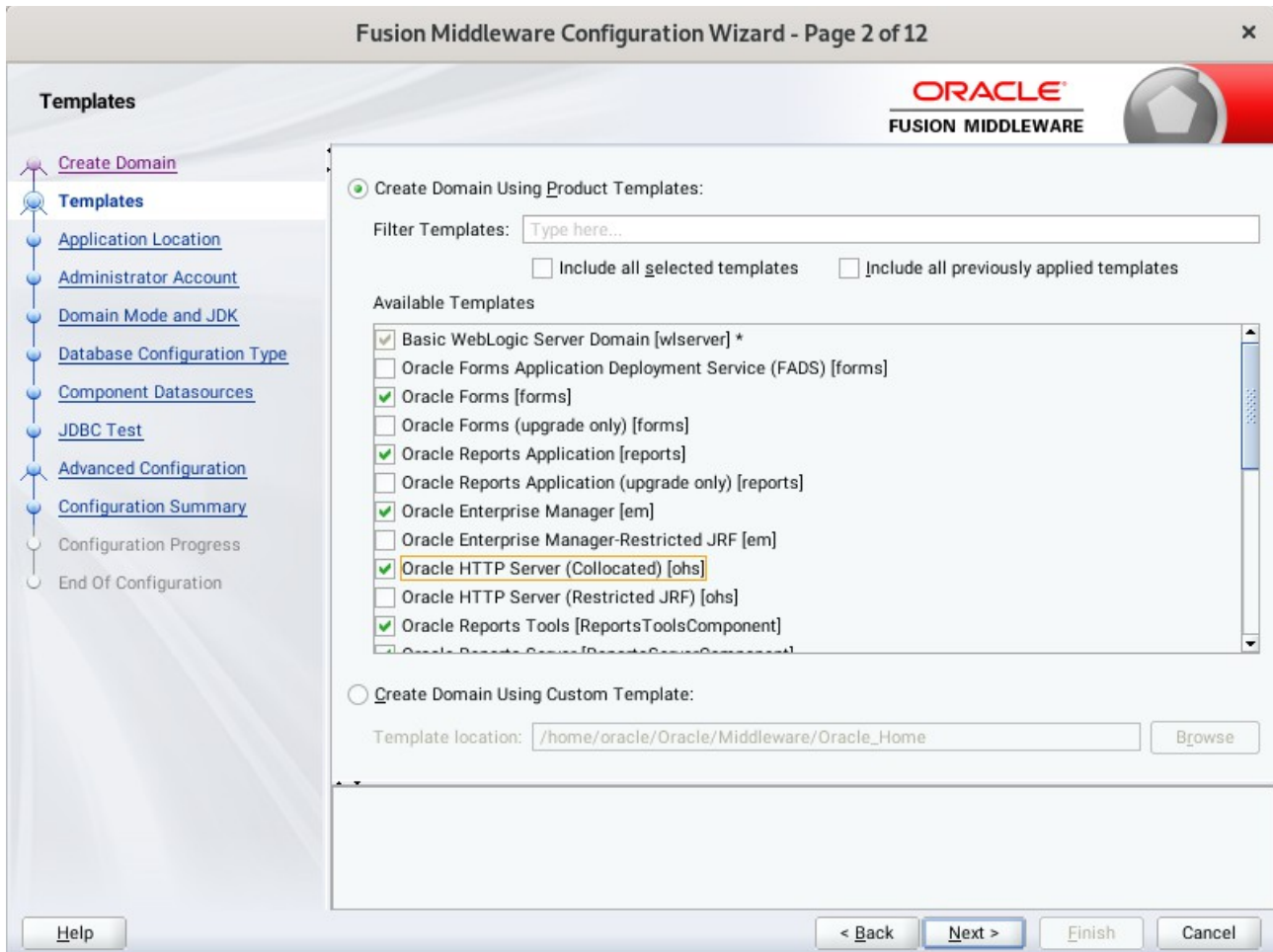
3-1. In order to complete the configuration. Run the config wizard using **config.sh** located in the **ORACLE_HOME/oracle_common/common/bin** directory.

Follow these steps:

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



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.



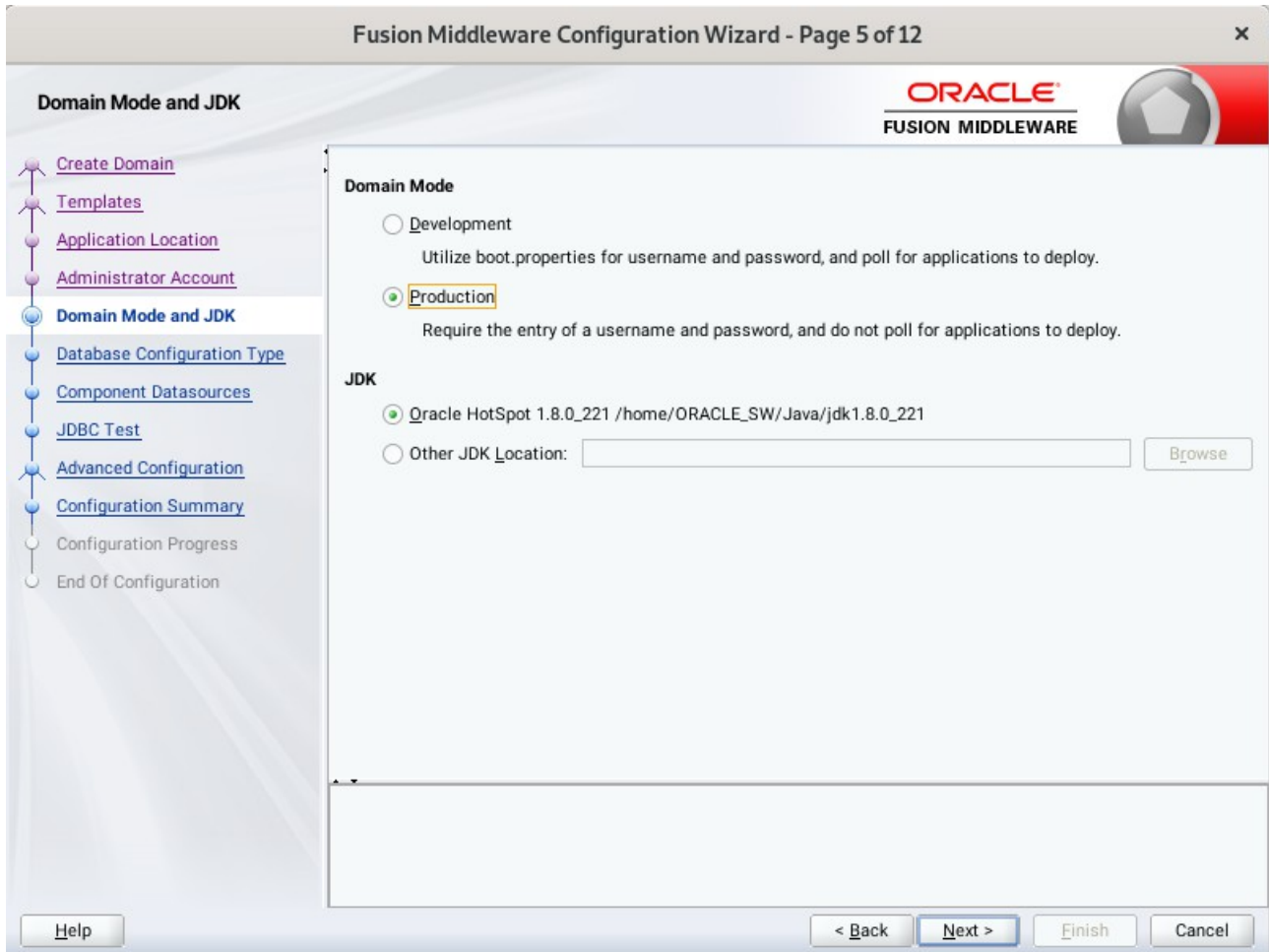
Keep the default value for Application location. Click **Next** to continue.

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. A navigation pane on the left 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 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.

Fusion Middleware Configuration Wizard - Page 6 of 12

Database Configuration Type

ORACLE
FUSION MIDDLEWARE

Specify AutoConfiguration Options Using:

RCU Data Manual Configuration

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

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

Connection Parameters Connection URL String

Host Name: Dell5530

DBMS/Service: suse Port: 1521

Schema Owner: DEV_STB 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.

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

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

Fusion Middleware Configuration Wizard - Page 7 of 12

JDBC Component Schema

ORACLE
FUSION MIDDLEWARE

Vendor: Driver:

Connection Parameters Connection URL String

Host Name:

DBMS/Service: Port:

Schema Owner: Schema Password:

Oracle RAC configuration for component schemas:
 Convert to GridLink Convert to RAC multi data source Don't convert

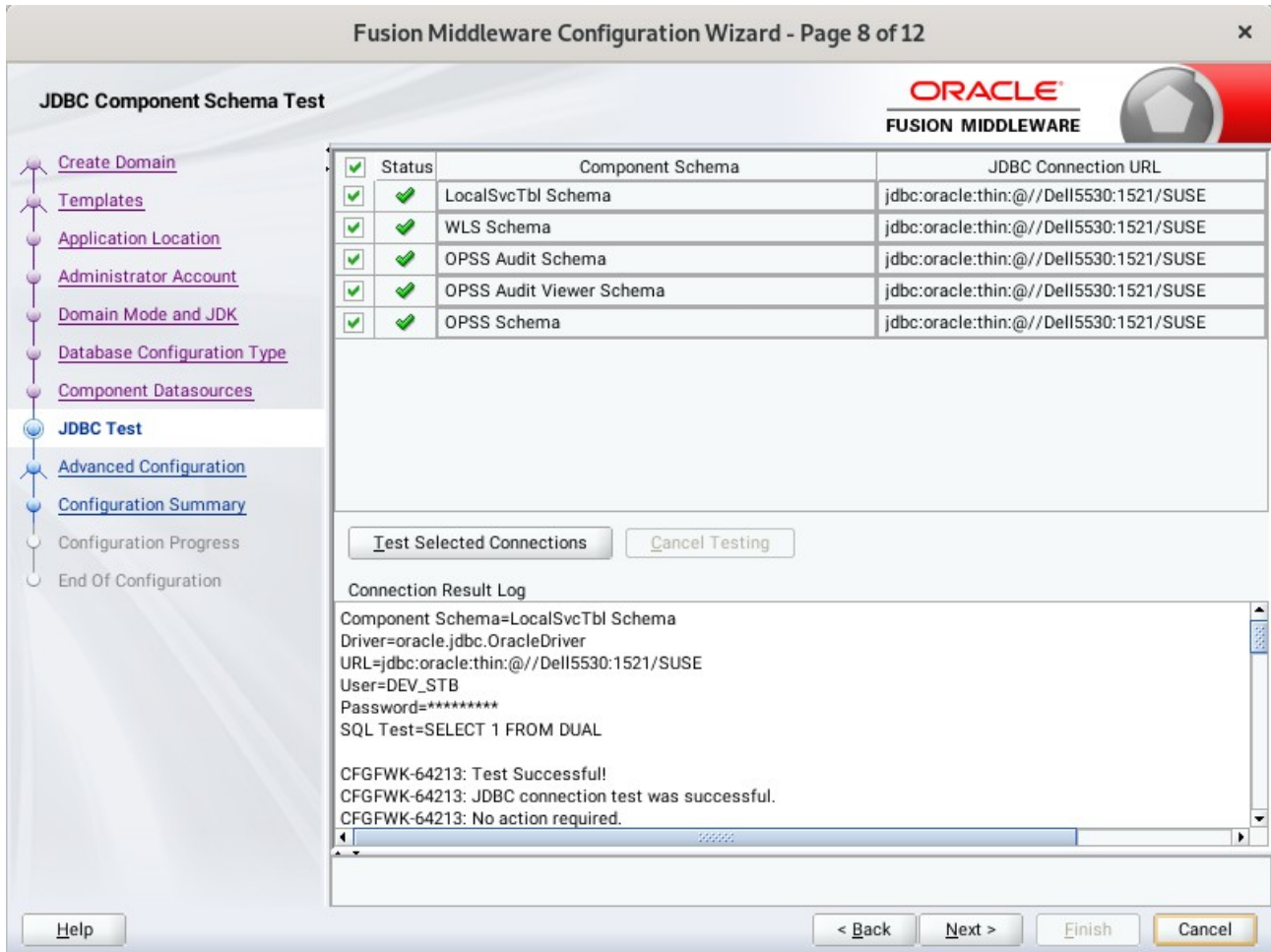
Edits to the data above will affect all checked rows in the table below.

<input type="checkbox"/>	Component Schema	DBMS/Service	Host Name	Port	Schema Owner	Schema 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_JAU_APPEI	.....
<input type="checkbox"/>	OPSS Audit Viewer Sche	SUSE	Dell5530	1521	DEV_JAU_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.



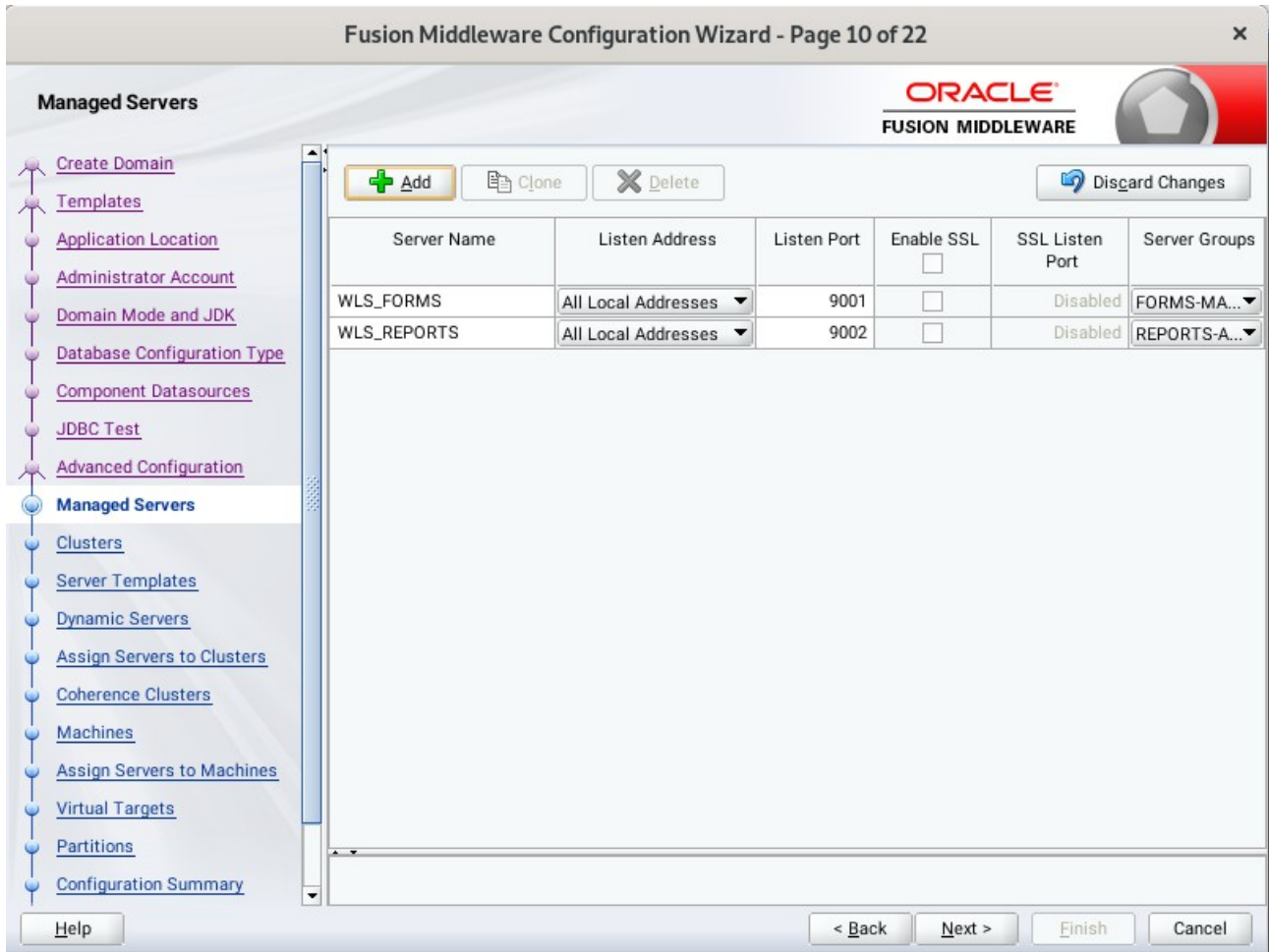
The tests are run and the results given. Ensure all test results are successful. Click **Next** to continue.

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



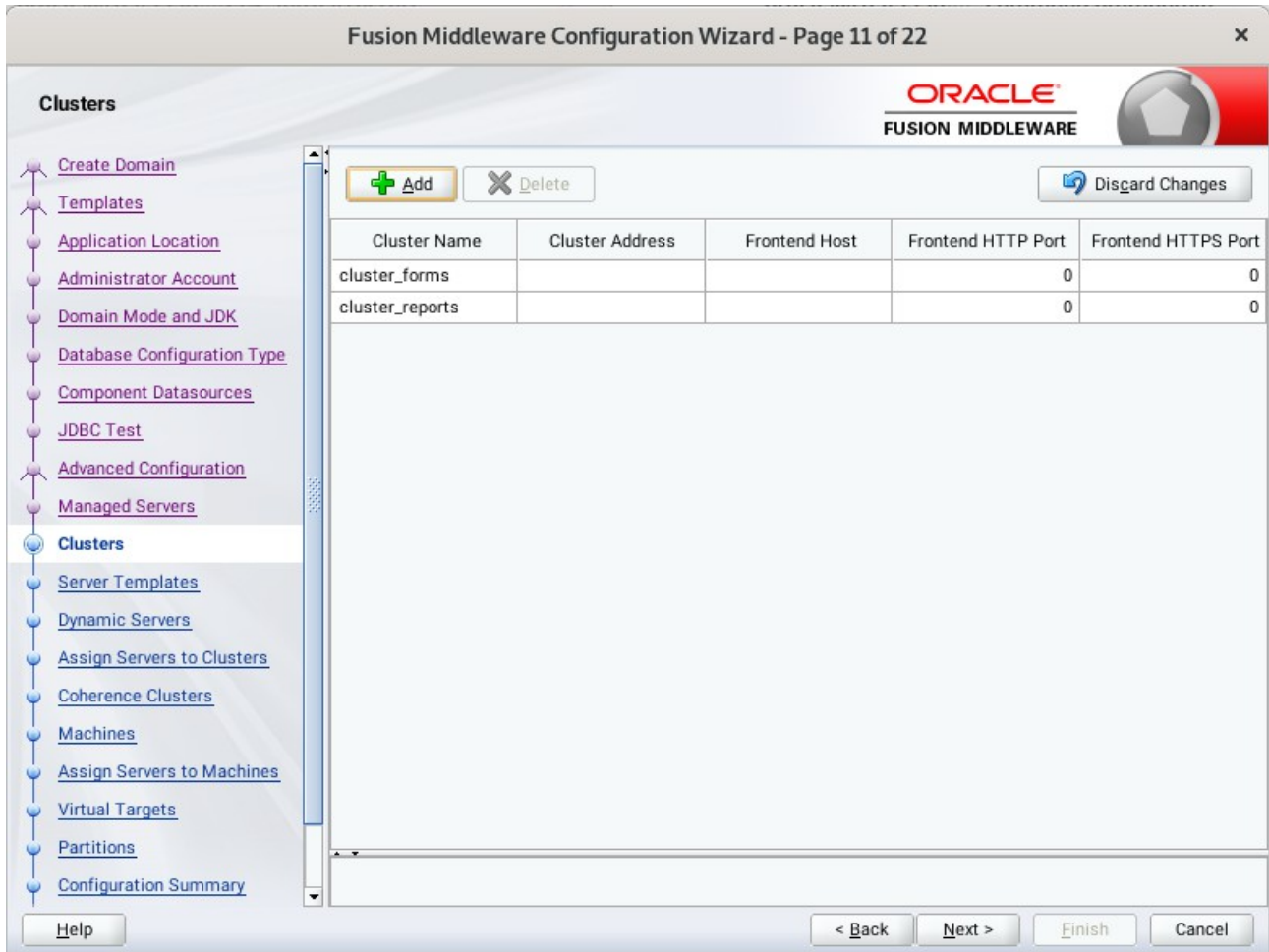
Select **Topology** and **System Components**. Click **Next** to continue.

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



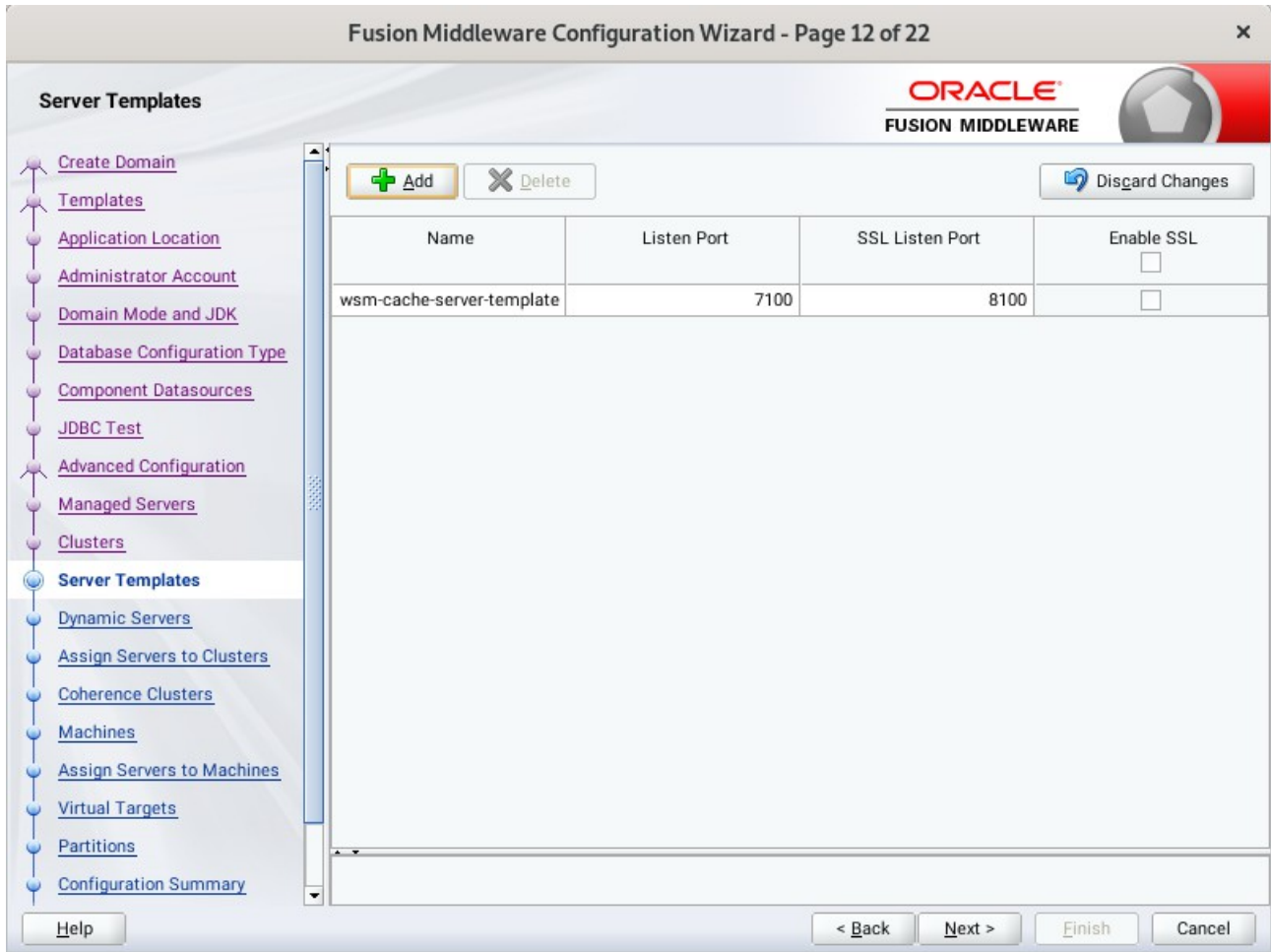
Verify that the Server Groups is set to FORMS-MAN-SVR (for Forms) and REPORTS-APP-SERVERS (for Reports). The Listen address is All Local Addresses. Click **Next** to continue.

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



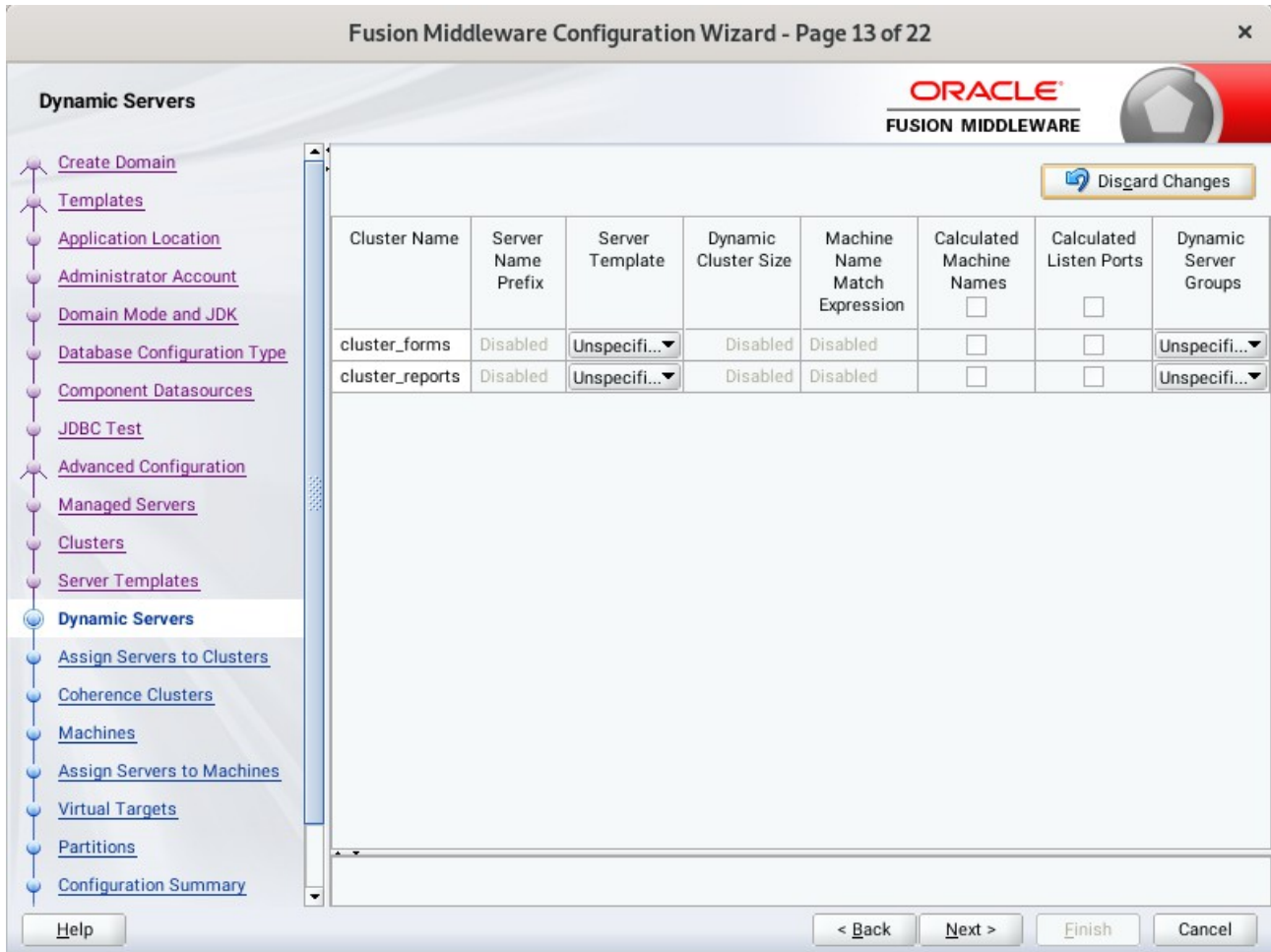
Default entries will be acceptable in most cases, unless adding new clusters is desirable. Click **Next** to continue.

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



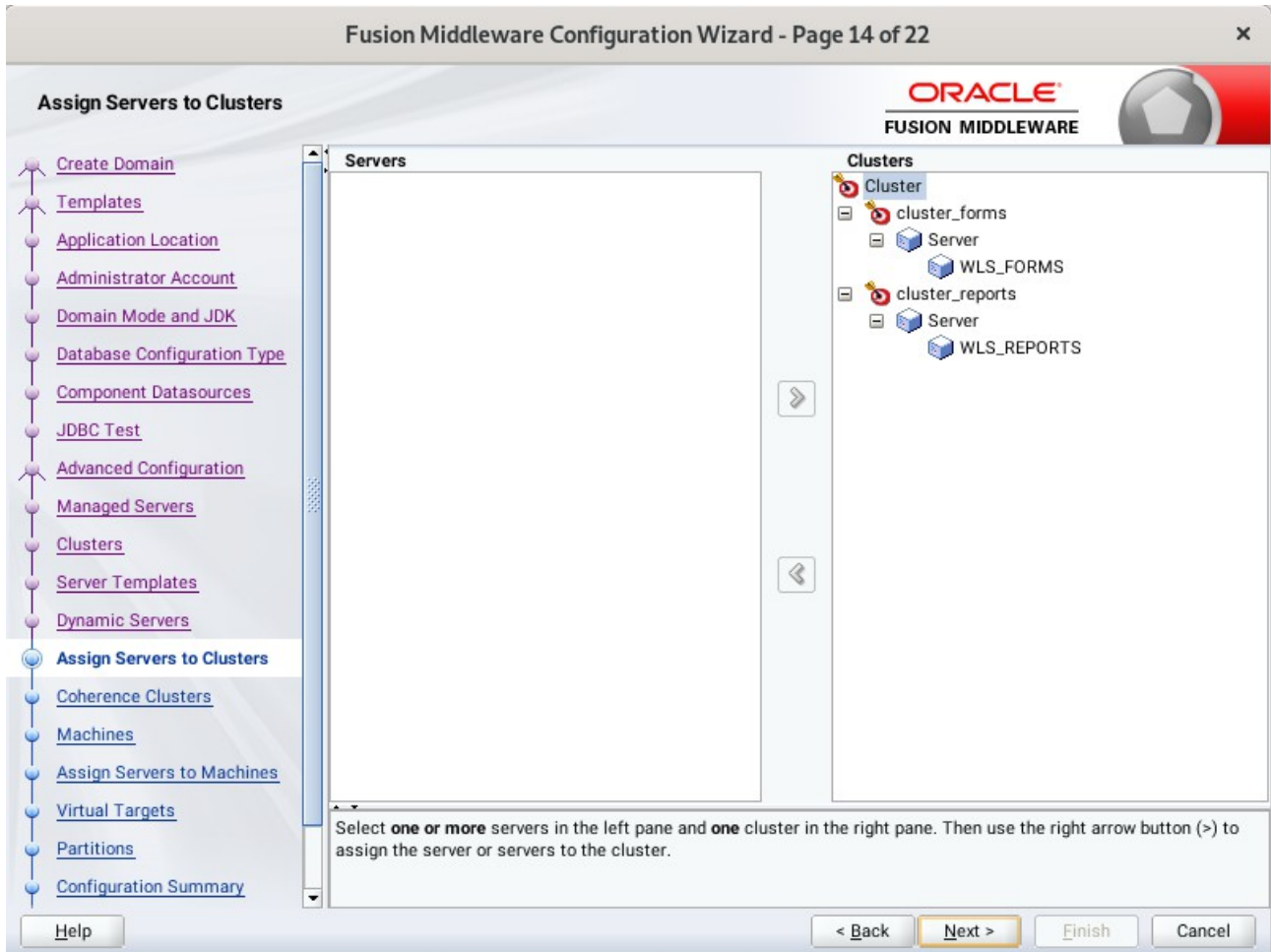
The default values will be appropriate for most cases. Click **Next** to continue.

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



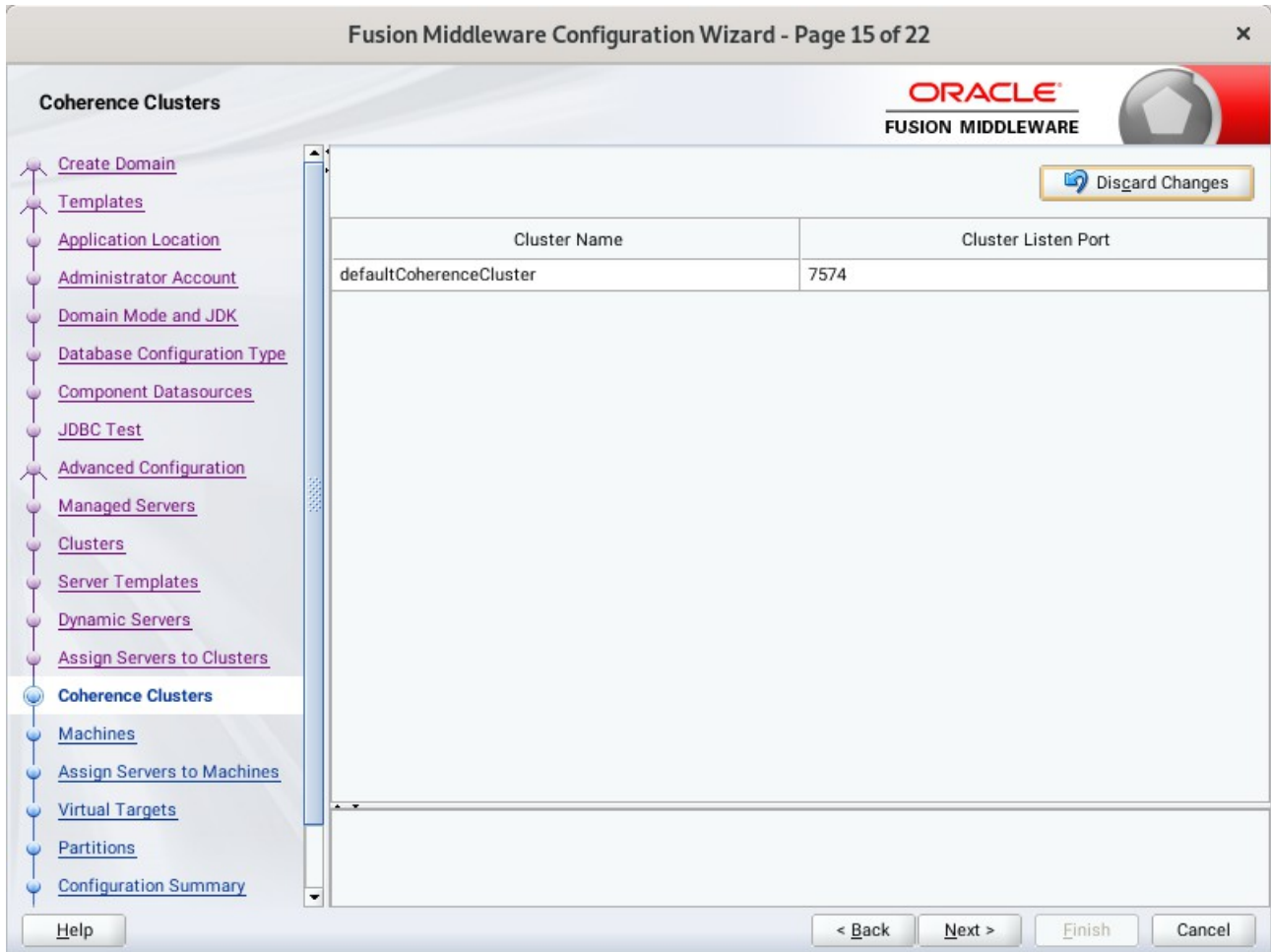
The default values will be appropriate for most cases. Click **Next** to continue.

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



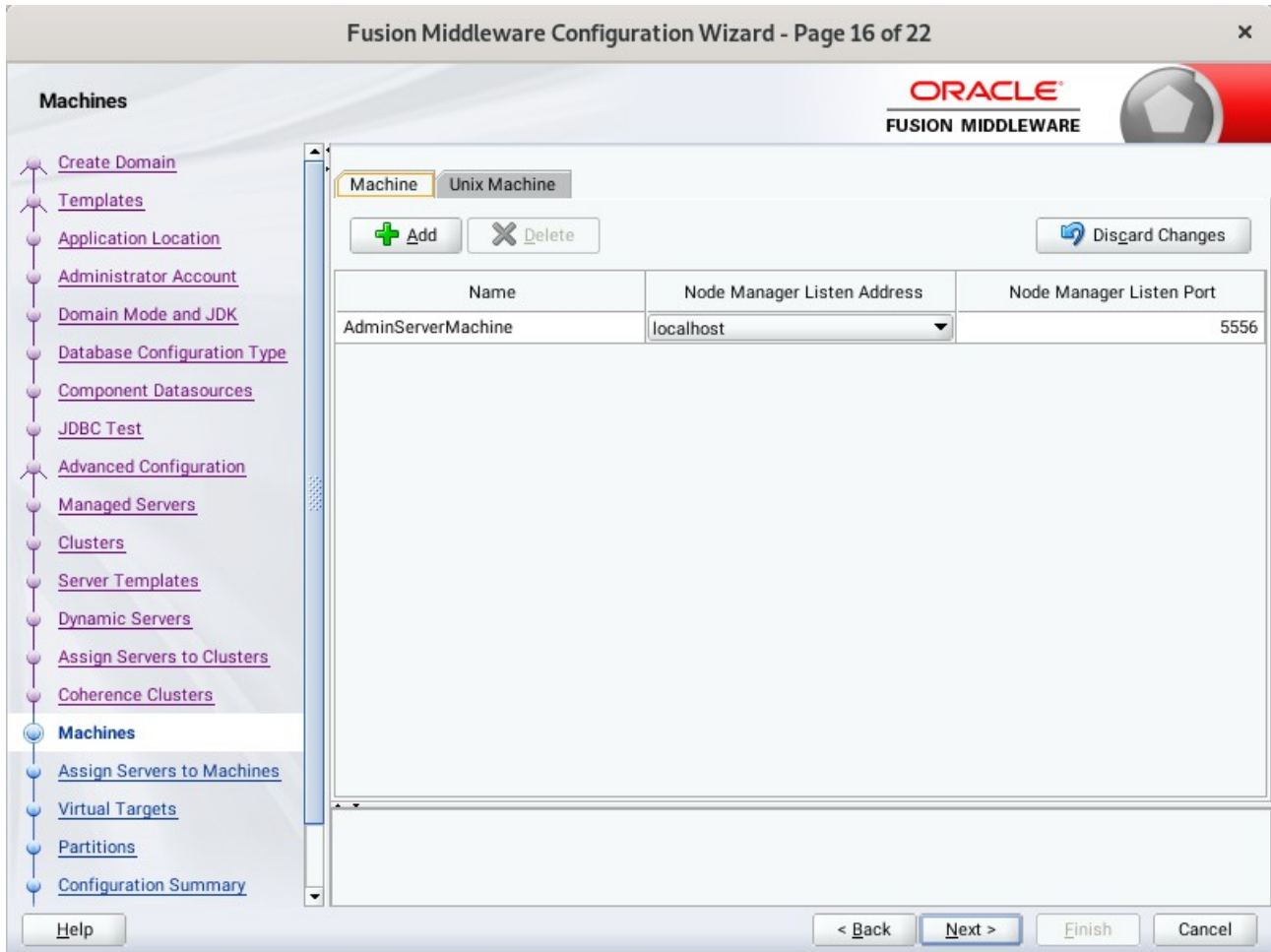
The default values will be appropriate for most cases. However, if new managed servers were added in the previous step, they should be added to the cluster here. Click **Next** to continue.

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



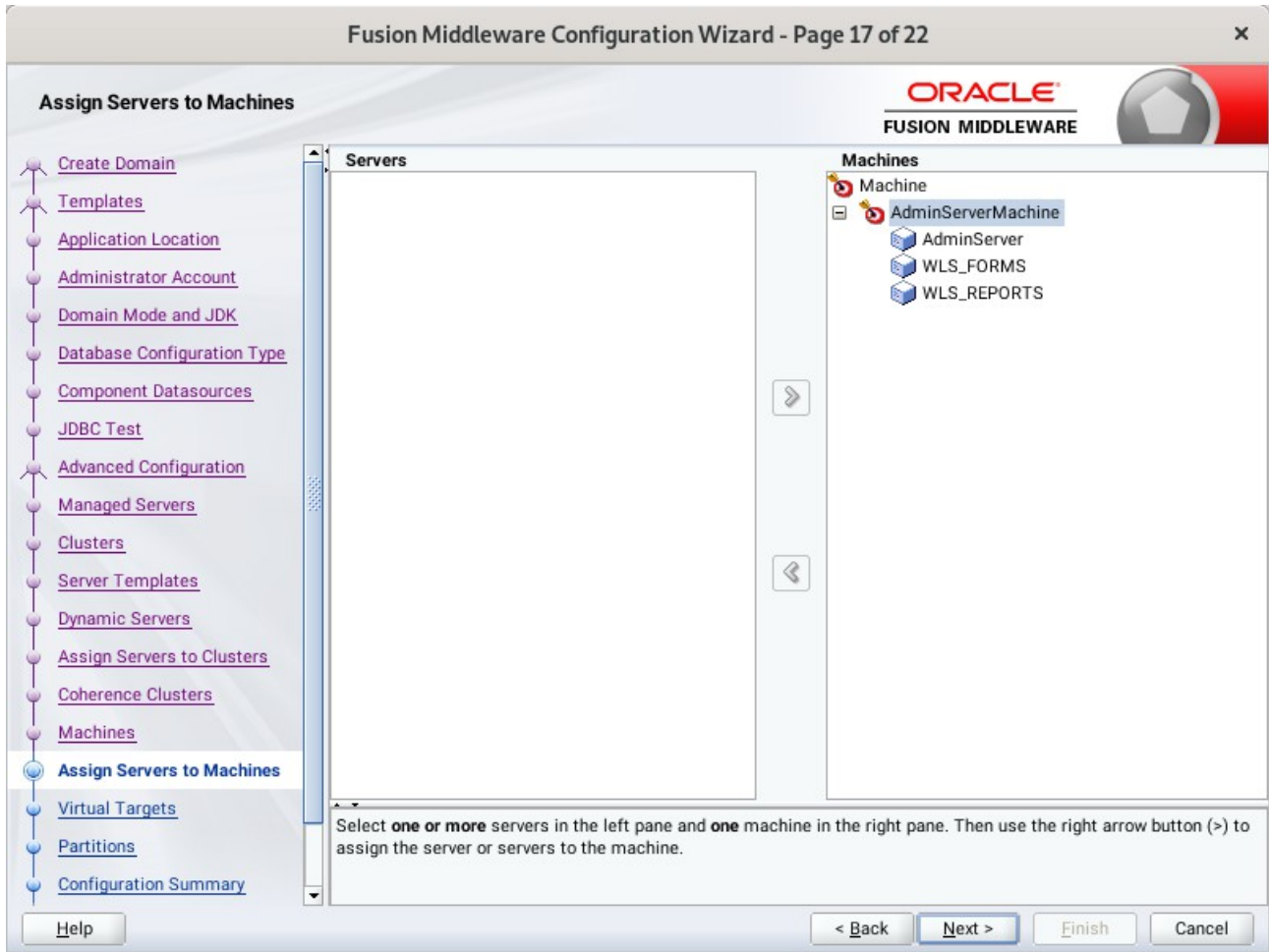
The default values will be appropriate for most cases. Click **Next** to continue.

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



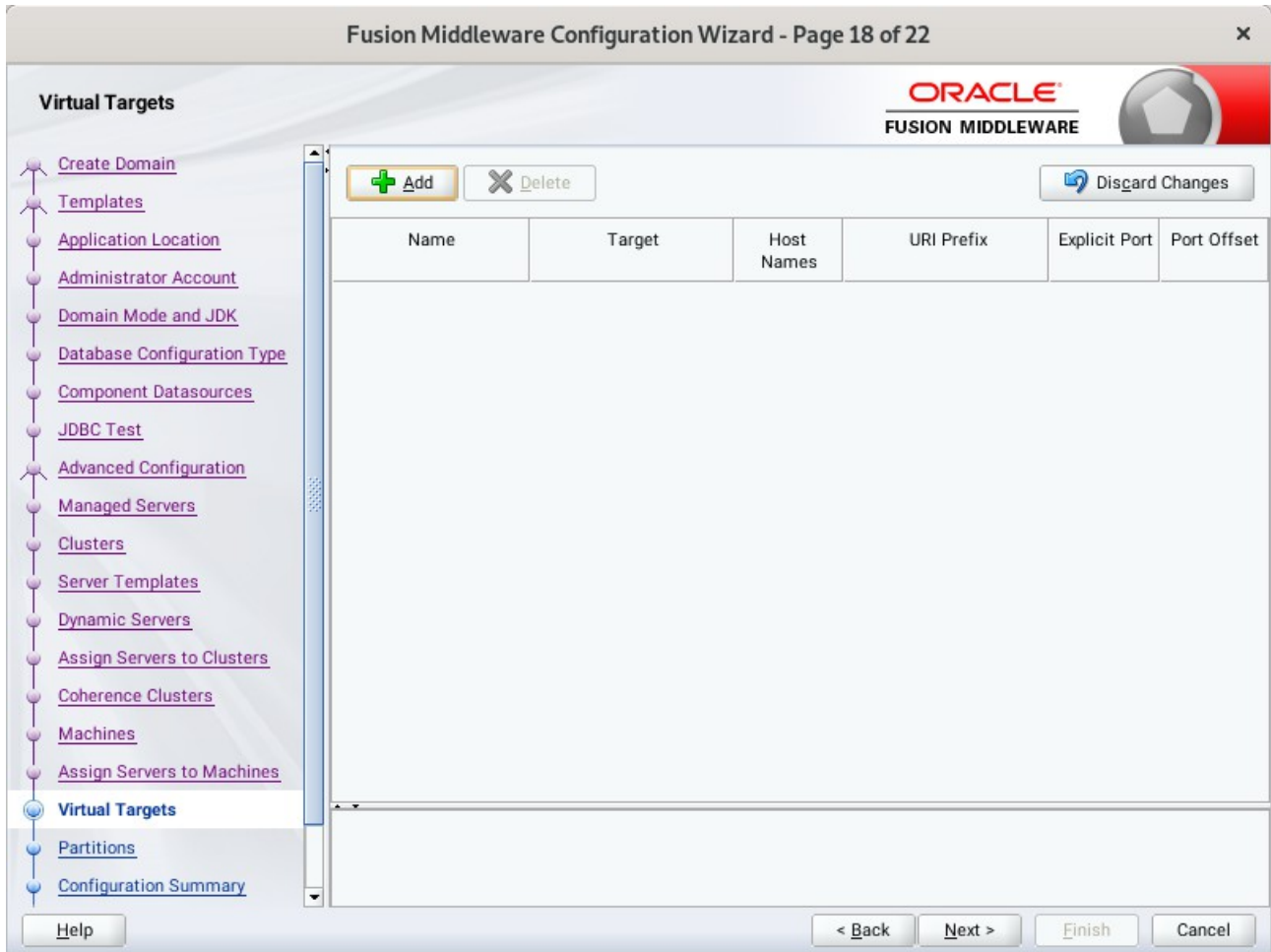
You can use this screen to override the machine name or add addition Machine names for extend domain. Click **Next** to continue.

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



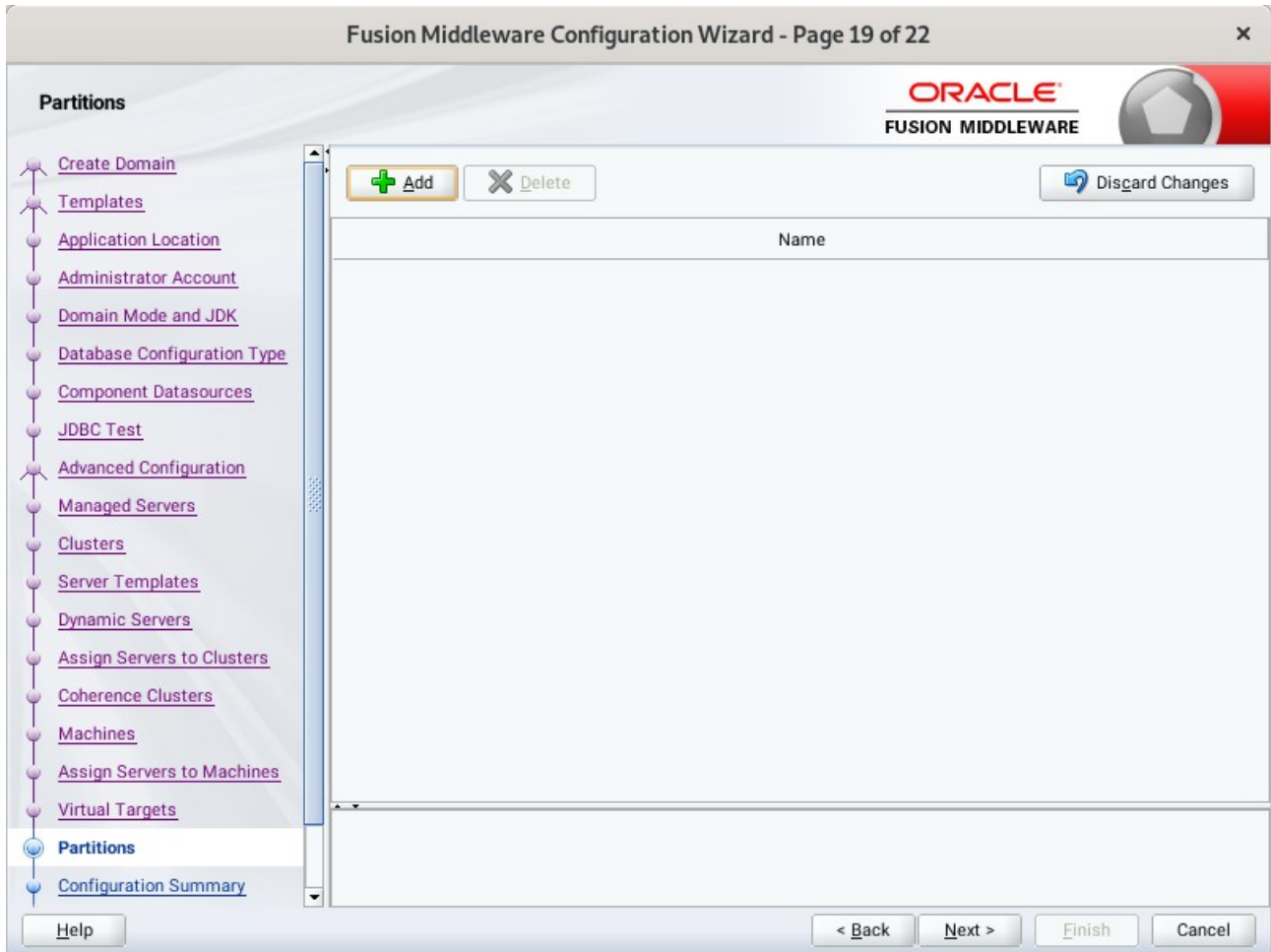
Move the AdminServer to the AdminServerMachine by clicking the '>' button. Click **Next** to continue.

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



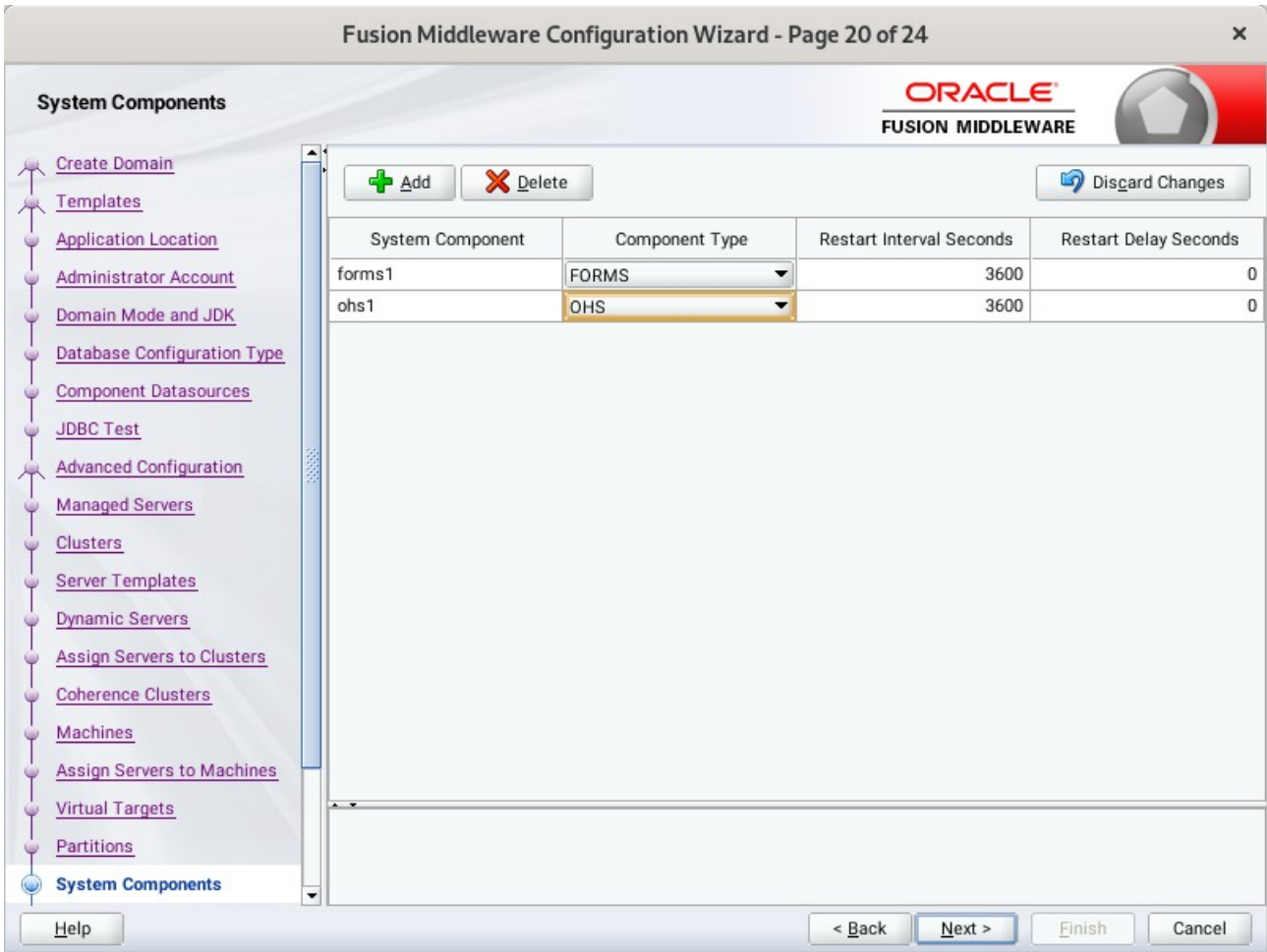
Used with WebLogic Server Partitions. Refer to the WebLogic Server documentation for details. Click **Next** to continue.

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 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.

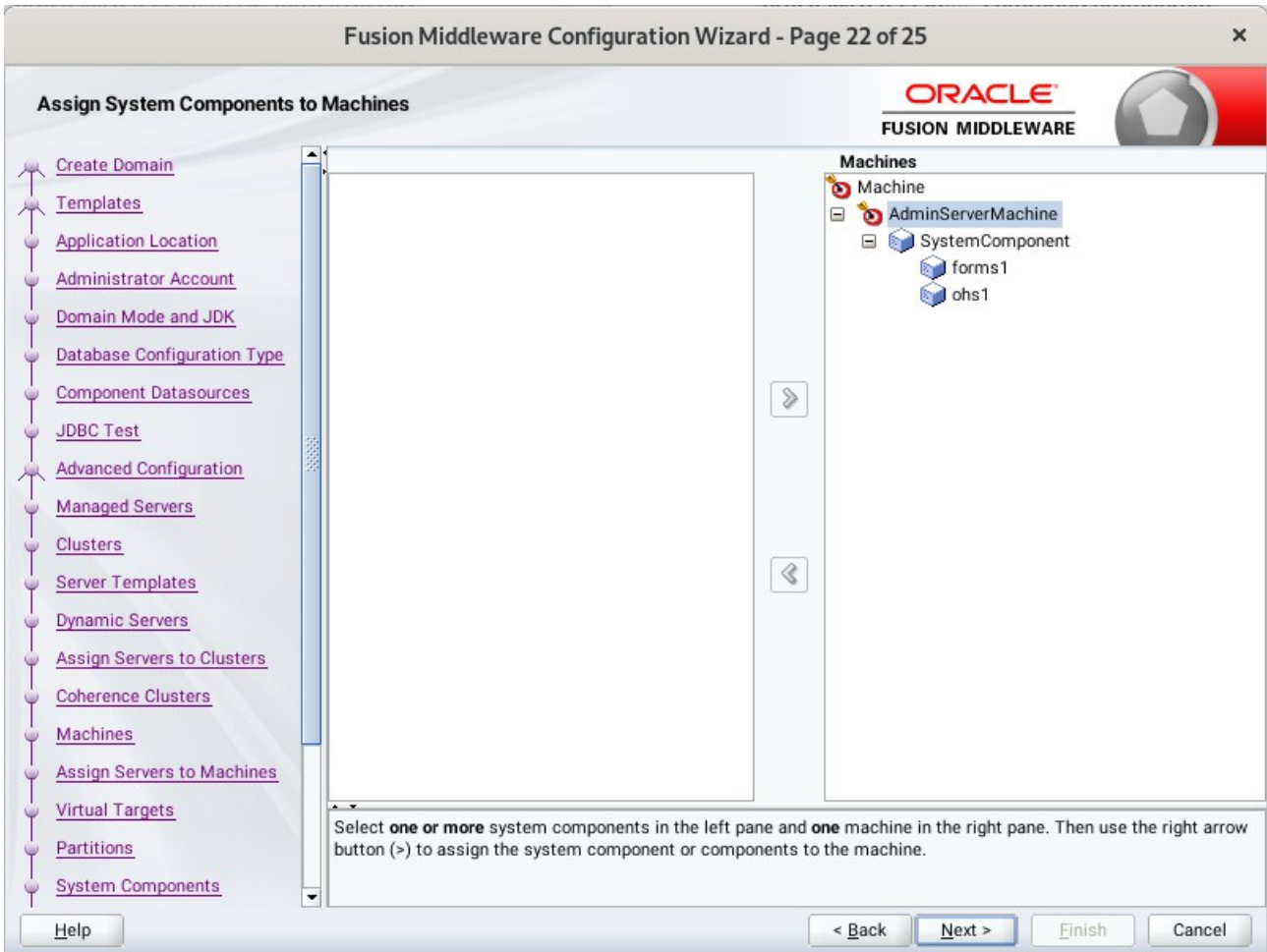
The screenshot shows the 'OHS Server' configuration screen in the Fusion Middleware Configuration Wizard. The window title is 'Fusion Middleware Configuration Wizard - Page 21 of 25'. The Oracle logo and 'FUSION MIDDLEWARE' text are visible in the top right corner. On the left, a vertical navigation pane lists various configuration steps, with 'OHS Server' being the current step. The main area contains several configuration fields:

System Component	ohs1
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 of the window, there are four buttons: 'Help', '< Back', 'Next >', and 'Cancel'. The 'Next >' button is highlighted with a yellow border, indicating it is the recommended action.

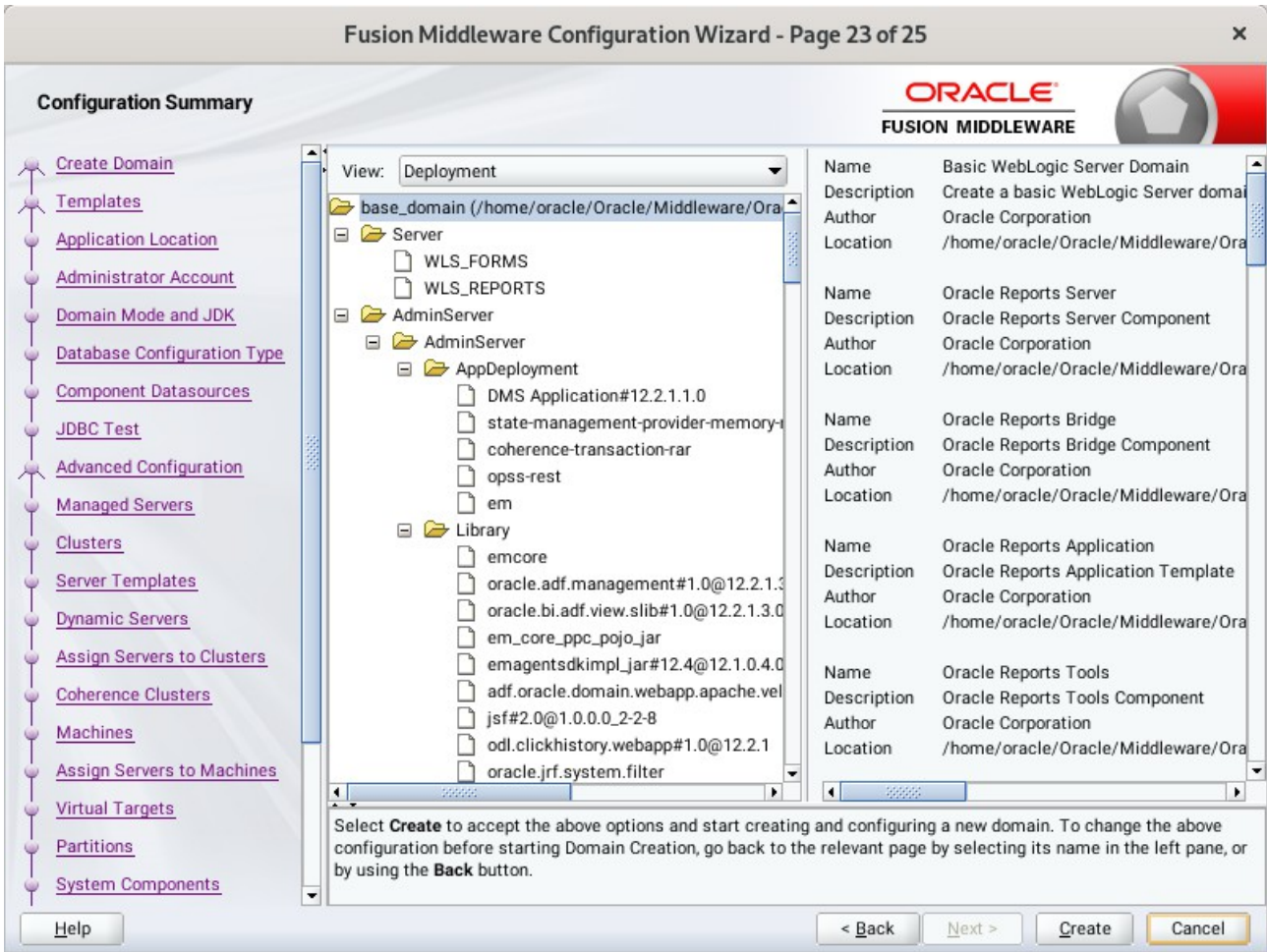
The default values will be appropriate for most cases. Click **Next** to continue.

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



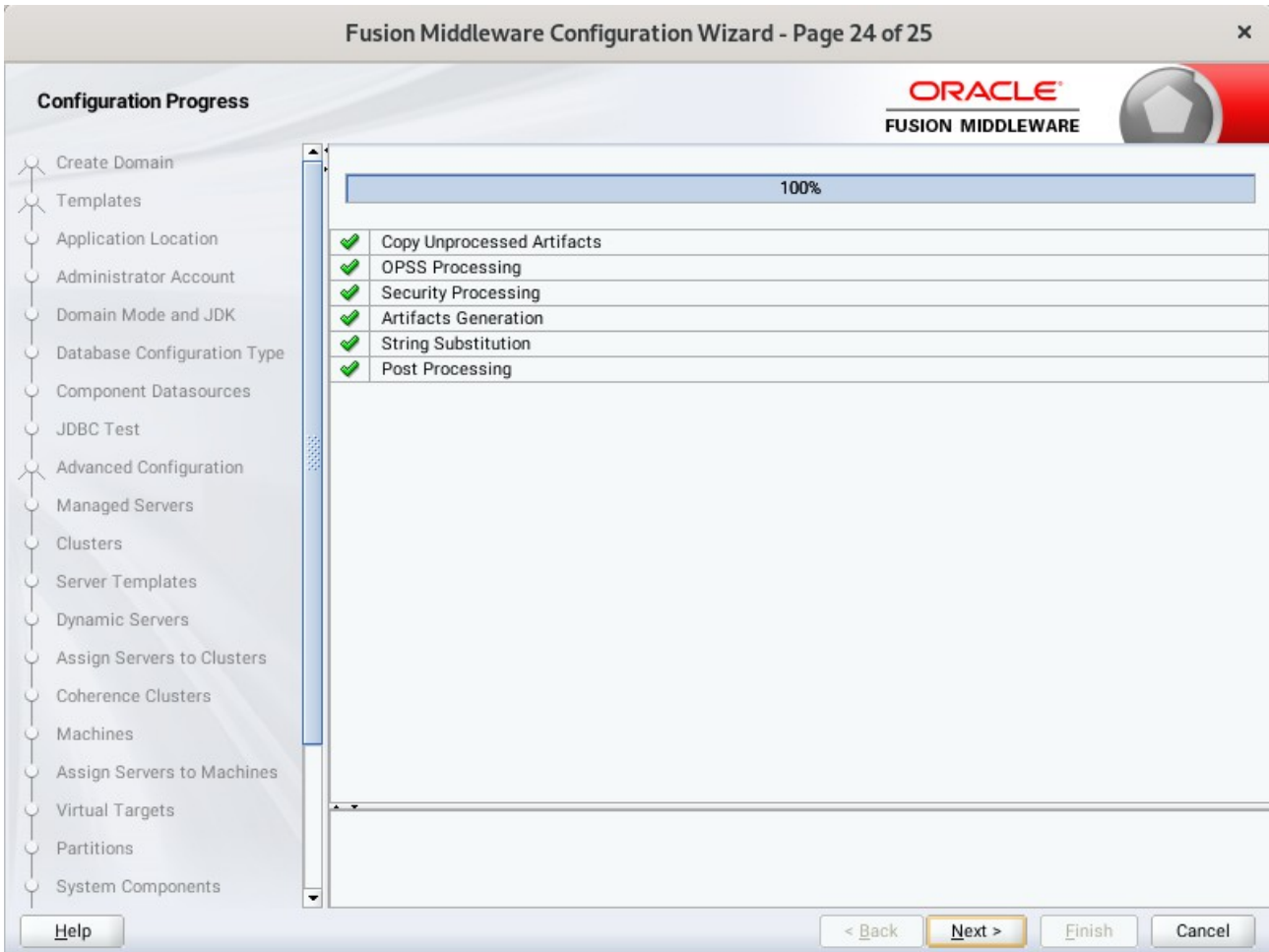
The default values will be appropriate for most cases. Click **Next** to continue.

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



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

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



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

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



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

4. Verifying Oracle Forms and Reports Installation and Configuration

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

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

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

```

oracle@Dell5530:/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/bin> ./startNodeManager.sh > nm.out&
[1] 13342
oracle@Dell5530:/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/bin> + /
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/or
acle/Oracle/Middleware/Oracle_Home/wlserver/./ -Dreports.tools.product.home=/home/oracle/Oracle/Middl
eware/Oracle_Home/ReportsToolsComponent -Dreports.product.home=/home/oracle/Oracle/Middleware/Oracle_
Home/reports -Dreports.bridge.product.home=/home/oracle/Oracle/Middleware/Oracle_Home/ReportsBridgeCo
mponent -Dreports.server.product.home=/home/oracle/Oracle/Middleware/Oracle_Home/ReportsServerCompone
nt -Dforms.product.home=/home/oracle/Oracle/Middleware/Oracle_Home/forms -Dohs.product.home=/home/ora
cle/Oracle/Middleware/Oracle_Home/ohs -Doracle.security.jps.config=/home/oracle/Oracle/Middleware/Ora
cle_Home/user_projects/domains/base_domain/config/fmwconfig/jps-config-jse.xml -Dcommon.components.ho
me=/home/oracle/Oracle/Middleware/Oracle_Home/oracle_common -Dopss.version=12.2.1.3 -Dweblogic.RootDi
rectory=/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain -Djava.system.cl
ass.loader=com.oracle.classloader.weblogic.LaunchClassLoader -Djava.security.policy=/home/oracle/Ora
cle/Middleware/Oracle_Home/wlserver/server/lib/weblogic.policy -Dweblogic.nodemanager.JavaHome=/home/O
RACLE_SW/Java/jdk1.8.0_221 weblogic.NodeManager -v
<Aug 25, 2020 1:42:37 AM GMT+08:00> <INFO> <Loading domains file: /home/oracle/Oracle/Middleware/Ora
cle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.domains>
<Aug 25, 2020 1:42:37 AM GMT+08:00> <INFO> <Upgrade> <Setting NodeManager properties version to 12.2.
1.4.0>
<Aug 25, 2020 1:42:37 AM GMT+08:00> <INFO> <Upgrade> <Saving upgraded NodeManager properties to '/hom
e/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.prop
erties'>
<Aug 25, 2020 1:42:37 AM GMT+08:00> <INFO> <Loading domains file: /home/oracle/Oracle/Middleware/Ora
cle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.domains>
<Aug 25, 2020 1:42:37 AM GMT+08:00> <INFO> <Loading identity key store: FileName=kss://system/demoide
ntity, Type=kss, PassPhraseUsed=true>
Aug 25, 2020 1:42:38 AM oracle.security.jps.internal.config.xml.XmlConfigurationFactory validateFileL
ocation
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:...214_i... x oracle@Dell5530:...lewar... x oracle@Dell5530:...ns/ba... x oracle@Dell5530:...ns/ba... x
<Aug 25, 2020 1:48:33,793 AM GMT+08:00> <Warning> <Server> <BEA-002611> <The hostname "localhost", maps to multiple IP addresses: 127.0.0.1, 0:0:0:0:0:0:1.>
<Aug 25, 2020 1:48:33,794 AM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[2]" is now listening on 2408:8207:c53:a970:4962:610:ab58:4be2%eth0:7001 for protocols iiop, t3, ldap, snmp, http.>
<Aug 25, 2020 1:48:33,795 AM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[4]" is now listening on 127.0.0.1:7001 for protocols iiop, t3, ldap, snmp, http.>
<Aug 25, 2020 1:48:43,805 AM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[1]" is now listening on 2408:8207:c53:a970:44d1:2509:edd9:60e8%eth0:7001 for protocols iiop, t3, ldap, snmp, http.>
<Aug 25, 2020 1:48:43,806 AM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[3]" is now listening on 0:0:0:0:0:0:1%lo:7001 for protocols iiop, t3, ldap, snmp, http.>
<Aug 25, 2020 1:48:43,807 AM GMT+08:00> <Notice> <WebLogicServer> <BEA-000329> <Started the WebLogic Server Administration Server "AdminServer" for domain "base_domain" running in production mode.>
<Aug 25, 2020 1:48:43,807 AM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default" is now listening on 192.168.1.7:7001 for protocols iiop, t3, ldap, snmp, http.>
<Aug 25, 2020 1:48:43,809 AM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[2]" is now listening on 2408:8207:c53:a970:4962:610:ab58:4be2%eth0:7001 for protocols iiop, t3, ldap, snmp, http.>
<Aug 25, 2020 1:48:43,810 AM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[4]" is now listening on 127.0.0.1:7001 for protocols iiop, t3, ldap, snmp, http.>
<Aug 25, 2020 1:48:43,810 AM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[1]" is now listening on 2408:8207:c53:a970:44d1:2509:edd9:60e8%eth0:7001 for protocols iiop, t3, ldap, snmp, http.>
<Aug 25, 2020 1:48:43,811 AM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[3]" is now listening on 0:0:0:0:0:0:1%lo:7001 for protocols iiop, t3, ldap, snmp, http.>
<Aug 25, 2020 1:48:43,811 AM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default" is now listening on 192.168.1.7:7001 for protocols iiop, t3, ldap, snmp, http.>
<Aug 25, 2020 1:48:43,815 AM GMT+08:00> <Notice> <WebLogicServer> <BEA-000360> <The server started in RUNNING mode.>
<Aug 25, 2020 1:48:44,445 AM GMT+08:00> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to RUNNING.>

```

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

Server state changed to RUNNING.

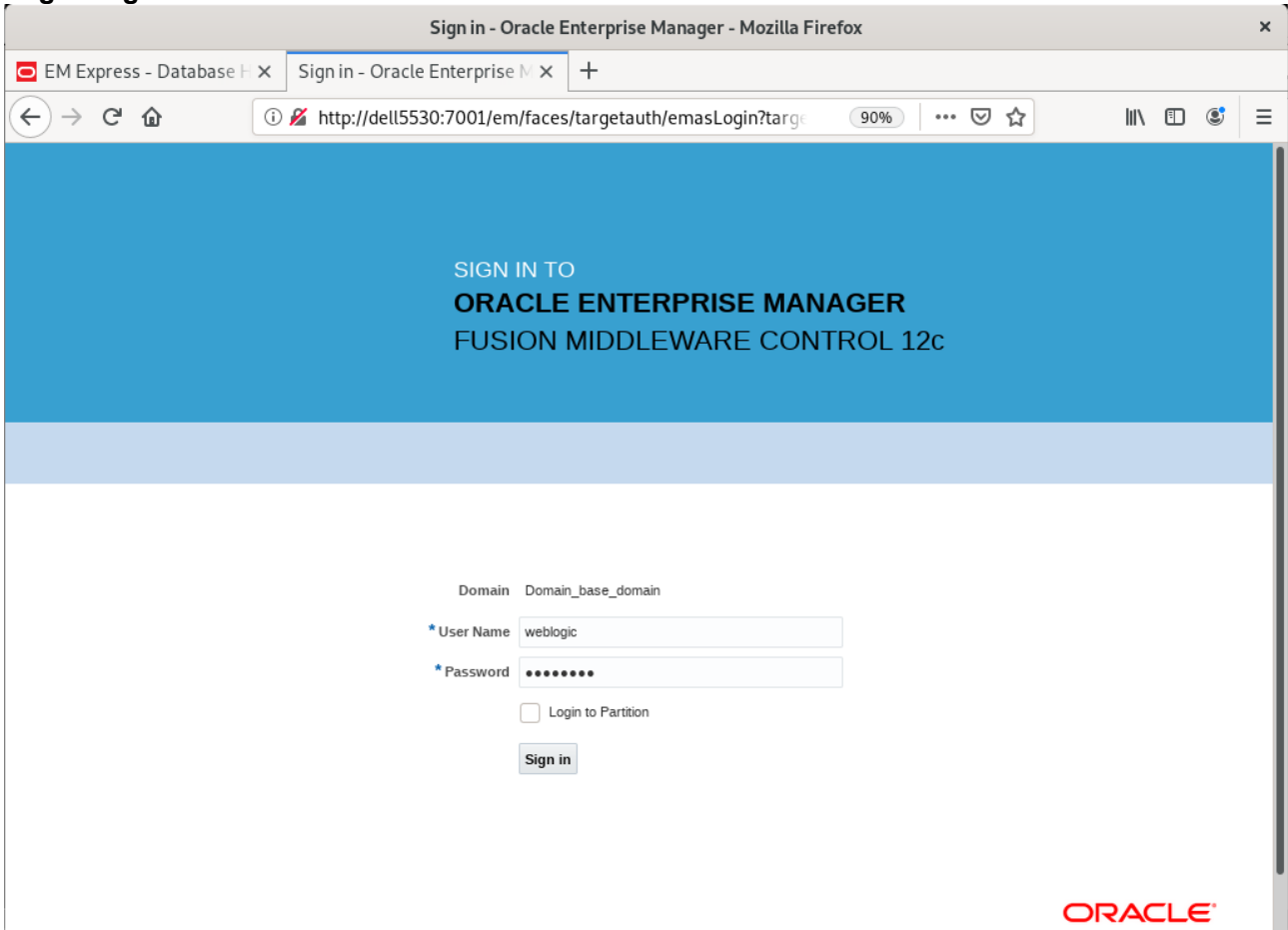
4-3. Verifying the Installed Products and Product Versions. Check the products and product version numbers by running the **opatch lsinventory -detail** command from the **ORACLE_HOME/OPatch** directory.

Confirmed that OPatch succeeded.

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

1). Access to Enterprise Manager Console.

Login Page:



Home Page:

The screenshot shows the Oracle Enterprise Manager interface for the 'base_domain (Oracle WebLogic Domain)'. The browser address bar shows 'http://dell5530:7001/em/faces/as-weblogic-webLogicDomain'. The page title is 'base_domain (Oracle WebLogic Domain) - Oracle Enterprise Manager - Mozilla Firefox'. The interface includes a navigation menu on the left with 'base_domain' selected. The main content area is titled 'Administration Server' and shows details for 'AdminServer' (Host: Dell5530, Listen Port: 7001). Below this is a 'Servers' table with the following data:

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

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

Starting WLS_FORMS

The screenshot shows the Oracle Enterprise Manager interface for the 'WLS_FORMS (Oracle WebLogic Server)'. The browser address bar shows 'http://dell5530:7001/em/faces/as-weblogic-webLogicServerHome?typ...'. The page title is 'WLS_FORMS (Oracle WebLogic Server) - Oracle Enterprise Manager - Mozilla Firefox'. The interface includes a navigation menu on the left with 'WLS_FORMS' selected. The main content area is titled 'General' and shows details for 'WLS_FORMS' (Up Since: Aug 25, 2020 1:57:30 AM, Version: 12.2.1.4.0, State: Running, Health: OK, Server Type: Configured, Cluster: cluster_forms, CPU Usage (%): 0.32, Heap Usage (MB): 548.82, Java Vendor: Oracle Corporation, Java Version: 1.8.0_221). Below this is a 'Response and Load' chart showing 'Request Processing Time (ms)' and 'Requests (per minute)' over time. The chart shows a sharp spike in request processing time at 01:47 AM on August 25, 2020. The 'EJBs' section shows 'Beans in Use: 0' and 'Bean Accesses (per minute): 0.00'. The 'Monitoring' section shows 'Request Processing Time (ms): 0' and 'Requests (per minute): 0.00'. The 'Deployments' section shows '1 Up' and the 'Most Requested' section shows '0 Requests Processed'.

Starting WLS_REPORTS

WLS_REPORTS (Oracle WebLogic Server) - Oracle Enterprise Manager - Mozilla Firefox

EM Express - Database H X WLS_REPORTS (Oracle Wei X +

http://dell5530:7001/em/faces/as-weblogic-webLogicServerH 90%

ORACLE Enterprise Manager Fusion Middleware Control 12c WebLogic Domain weblogic

WLS_REPORTS

WebLogic Server Start Up Shut Down Aug 25, 2020 2:08:15 AM GMT+08:00

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

Monitoring
Request Processing Time (ms) 0
Requests (per minute) 0.00

Deployments
1 Up

Most Requested
Requests Processed 0

General
Up Since Aug 25, 2020 2:06:54 AM
Version 12.2.1.4.0
State Running
Health OK ✓
Server Type Configured
Cluster cluster_reports
CPU Usage (%) 0.27
Heap Usage (MB) 437.49
Java Vendor Oracle Corporation
Java Version 1.8.0_221

Response and Load
Graph showing Request Processing Time (ms) and Requests (per minute) over time (01:54 AM to 02:06 AM August 25 2020).

Servlets and JSPs
Active Sessions 0
Request Processing Time (ms) 0

EJBs
Beans in Use 0
Bean Accesses (per minute) 0.00

http://dell5530:7001/em/faces/as-weblogic-webLogicServerHome?typ...c_j2eeserver&target=/Domain_base_domain/base_domain/WLS_REPORTS#

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

base_domain (Oracle WebLogic Domain) - Oracle Enterprise Manager - Mozilla Firefox

EM Express - Database H X base_domain (Oracle Wei X +

http://dell5530:7001/em/faces/as-weblogic-webLogicDomain 90%

ORACLE Enterprise Manager Fusion Middleware Control 12c WebLogic Domain weblogic

base_domain

WebLogic Domain Aug 25, 2020 2:08:33 AM GMT+08:00

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

Servers
3 Up

Clusters
2 Up

Deployments
3 Up

Domain Partitions

Administration Server
Name AdminServer
Host Dell5530
Listen Port 7001

Servers
View Create Delete Control

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

ohs1 (Oracle HTTP Server) - Oracle Enterprise Manager - Mozilla Firefox

EM Express - Database | ohs1 (Oracle HTTP Server) | +

http://dell5530:7001/em/faces/as_ohs_ohsHome?type=oracle

ORACLE Enterprise Manager Fusion Middleware Control 12c

WebLogic Domain | weblogic

ohs1

Oracle HTTP Server | Start Up | Shut Down | Restart... | Aug 25, 2020 2:09:58 AM GMT+08:00

Monitoring

CPU Usage (%) 0.00

Memory Usage (%) 0.00

Virtual Hosts

Virtual Hosts 0

Modules

Modules 0

General

Component Name ohs1

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

01:55 AM 01:58 02:01 02:04 02:07
August 25 2020

Request Processing Time (milli seconds)

Domain_base_domain/base_domain/ohs1: Request Throughput (KB/second)

Table View

CPU and Memory Usage

01:55 AM 01:58 02:01 02:04 02:07
August 25 2020

CDU Usana (%)

Memory Usage (MB)

http://dell5530:7001/em/faces/as_ohs_ohsHome?type=oracle_apache&target=/Domain_base_domain/base_domain/ohs1#

Verified ohs1 URLs can be accessed.

Oracle HTTP Server 12c - Mozilla Firefox

EM Express - Database | ohs1 (Oracle HTTP Server) | Oracle HTTP Server 12c | +

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

HTML

JS

Audit Control

Identity Management

Auditing

Authentication Authorization

OHS

Load Balancing

Fusion Middleware Applications

FMW Lifecycle Tools

Manage, monitor, diagnose

Enterprise Manager

Oracle HTTP Server 12c - Mozilla Firefox

Oracle HTTP Server 12c x +

https://dell5530:4443/ 90%

ORACLE Oracle HTTP Server 12c

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

The diagram illustrates the Oracle HTTP Server 12c architecture. On the left, four gear icons represent 'Process Management and HA', 'Certificate management', 'Automation', and 'Test to Production', all feeding into the main system. The main system is a large blue oval containing several components: 'Local Content' (with JS and HTML icons), 'OHS' (Oracle HTTP Server), 'Audit Control', 'Auditing', 'Authentication Authorization', and 'Identity Management'. Arrows indicate data flow between these components. Below the oval, 'Load Balancing' is shown with arrows pointing to 'Fusion Middleware Applications' (represented by server racks). At the bottom, 'Enterprise Manager' is shown with the text 'Manage, monitor, diagnose' and an upward arrow. A red box labeled 'FMW Lifecycle Tools' is positioned at the bottom left of the diagram area.

Oracle HTTP Server 12c - Mozilla Firefox

Oracle HTTP Server 12c x Oracle HTTP Server 12c x +

https://127.0.0.1:7779/ ... ☆

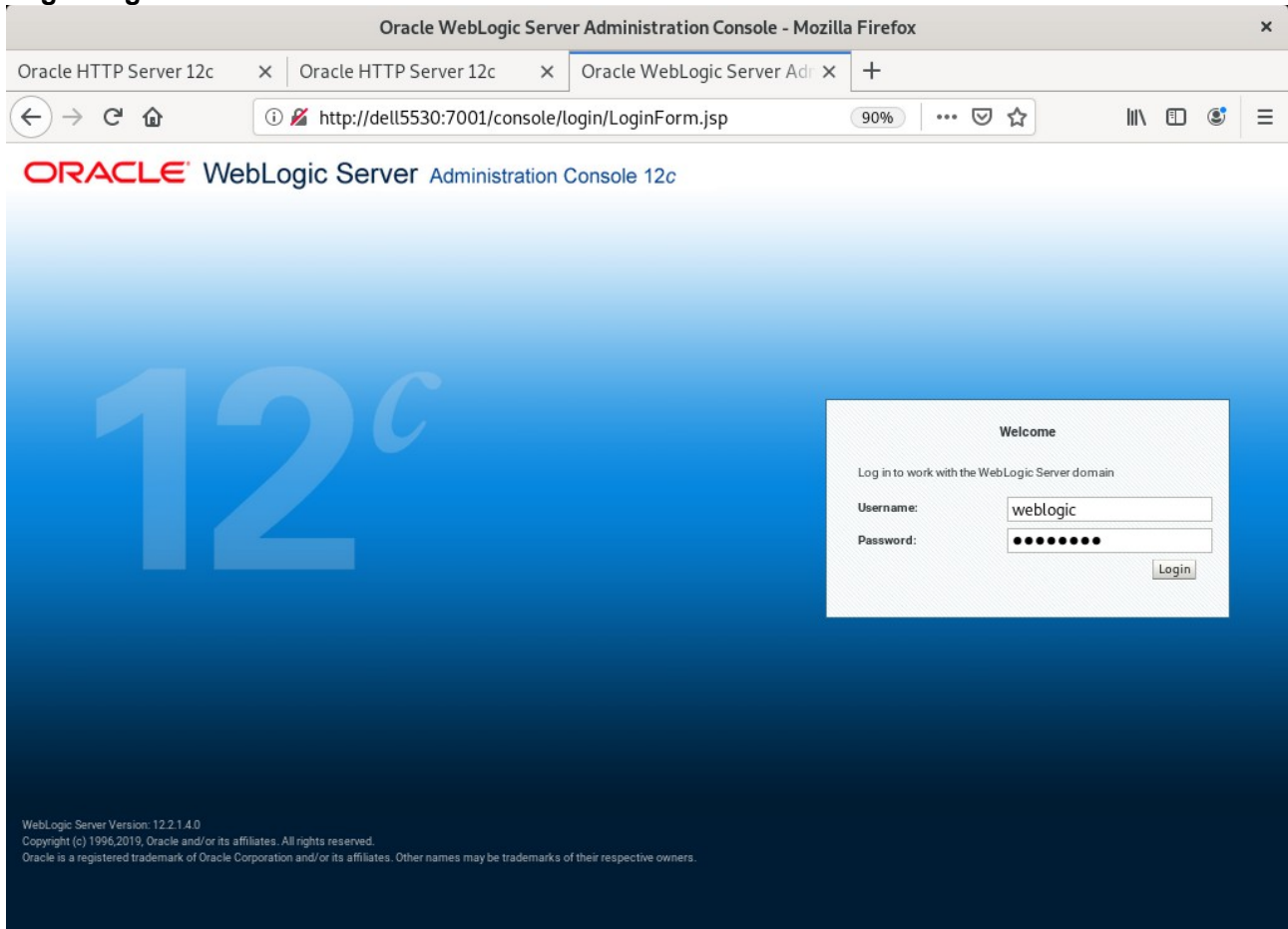
ORACLE Oracle HTTP Server 12c

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.

This diagram is identical to the one in the first screenshot, showing the Oracle HTTP Server 12c architecture. It includes the same components: 'Local Content', 'OHS', 'Audit Control', 'Auditing', 'Authentication Authorization', 'Identity Management', 'Fusion Middleware Applications', 'Load Balancing', 'Enterprise Manager', and 'FMW Lifecycle Tools'. The layout and flow of information are consistent with the first image.

2). Access to Administration Server Console

Login Page as shown below:



Home Page:

Viewing the summary of servers:

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

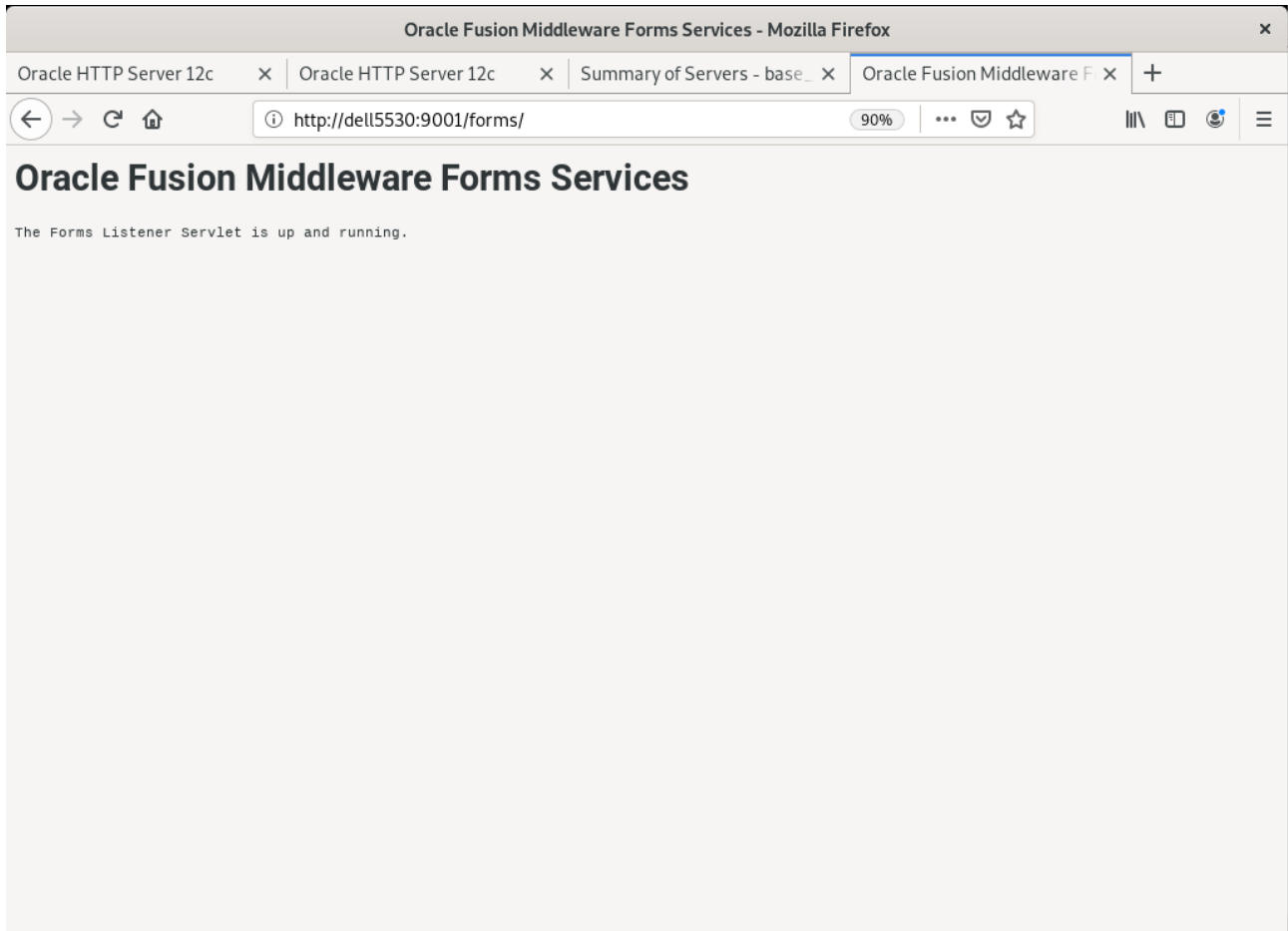
[Customize this table](#)

Servers (Filtered - More Columns Exist)

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

<input type="checkbox"/>	Name	Type	Cluster	Machine	State	Health	Listen Port
<input type="checkbox"/>	AdminServer(admin)	Configured		AdminServerMachine	RUNNING	OK	7001
<input type="checkbox"/>	WLS_FORMS	Configured	cluster_forms	AdminServerMachine	RUNNING	OK	9001
<input type="checkbox"/>	WLS_REPORTS	Configured	cluster_reports	AdminServerMachine	RUNNING	OK	9002

3). Access to Oracle Forms Services.



4). Access to Oracle Reports Services.

Oracle Reports Services - Servlet - Mozilla Firefox

Oracle HTTP Server 12c x Oracle HTTP Server 12c x Summary of Servers - b x Oracle Fusion Middlewa x Oracle Reports Services x +

http://dell5530:9002/reports/ 90%

ORACLE
Reports

Help

Oracle Reports Services - Servlet Command Help

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](#)

Copyright (c) 2000, 2016, Oracle and/or its affiliates. All rights reserved. [Help](#)

End of Oracle Forms and Reports.

Oracle WebTier

1. Installing Oracle WebTier 12cR2 OHS

1-1. Prerequisites:

Installation of Oracle WebTier Http Server requires:

- 1). Oracle Database 12cR2 (12.2.0.1.0) installed.
- 2). Oracle JDK 1.8.0_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 SP2 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'

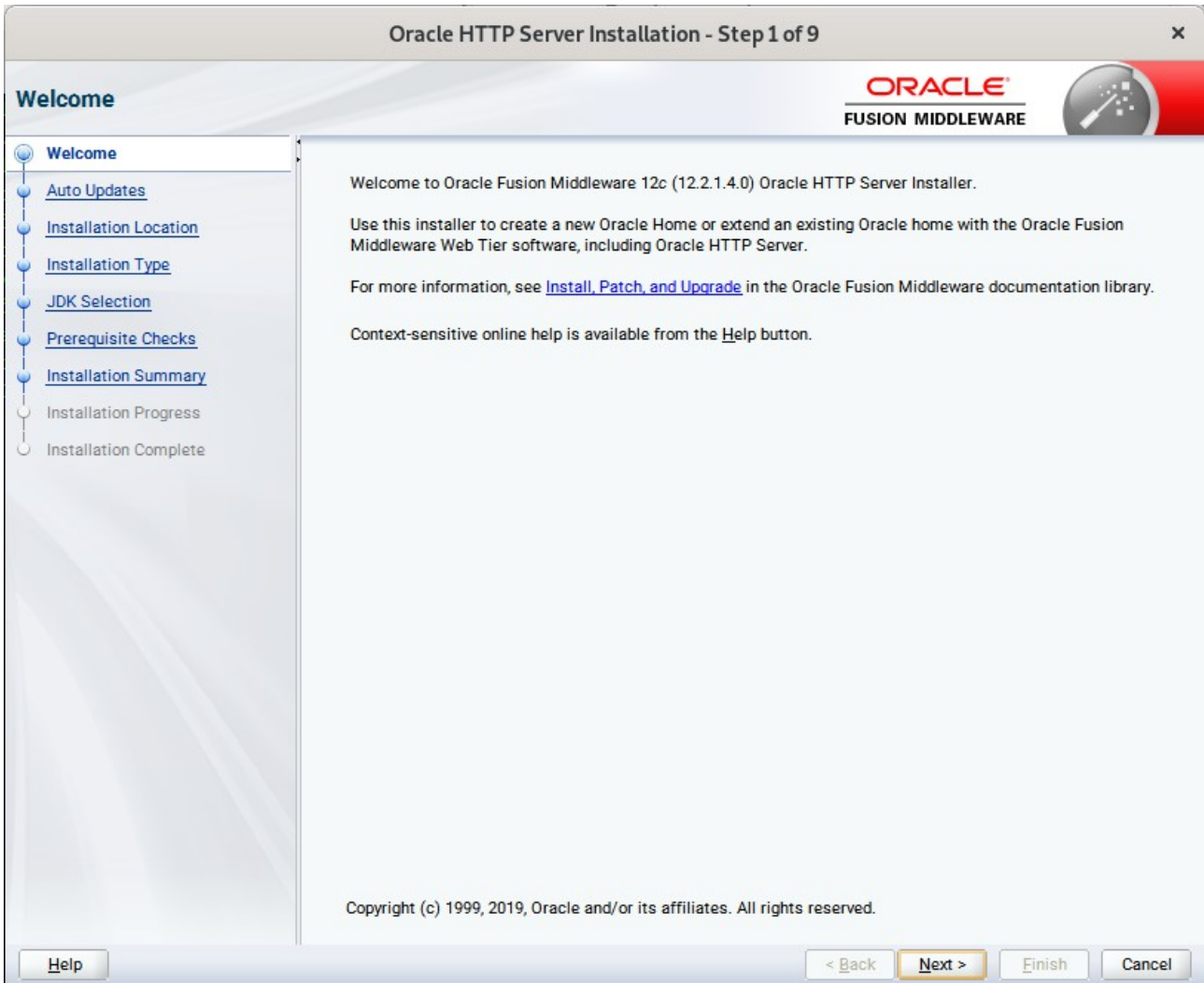
For the actual installation, follow the steps below:

- 1). Installation Inventory Setup.



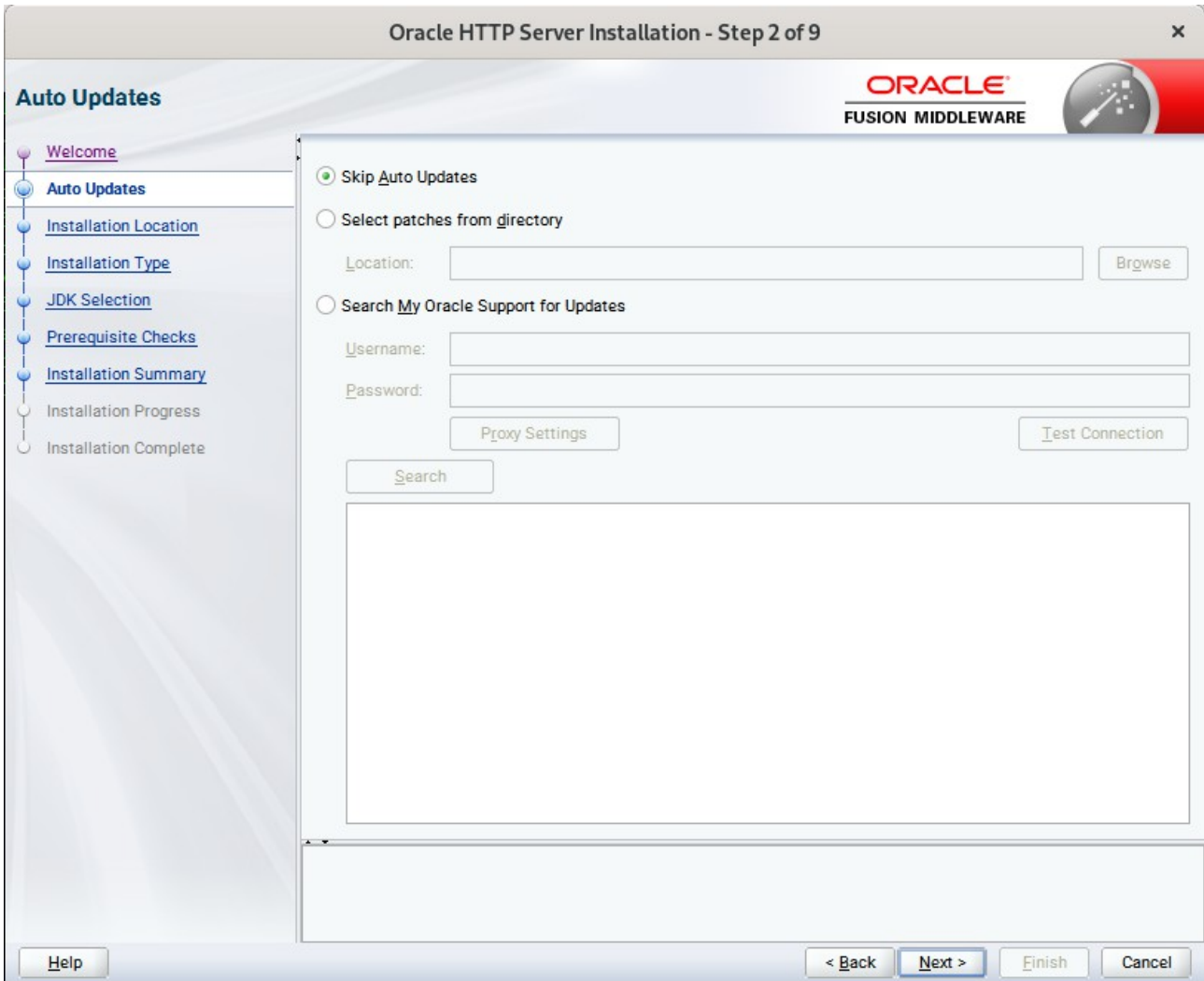
Specify the Oracle inventory directory and group permissions for that directory. The group must have write permissions to the Oracle inventory directory, then click **OK** to continue.

2). Welcome page.



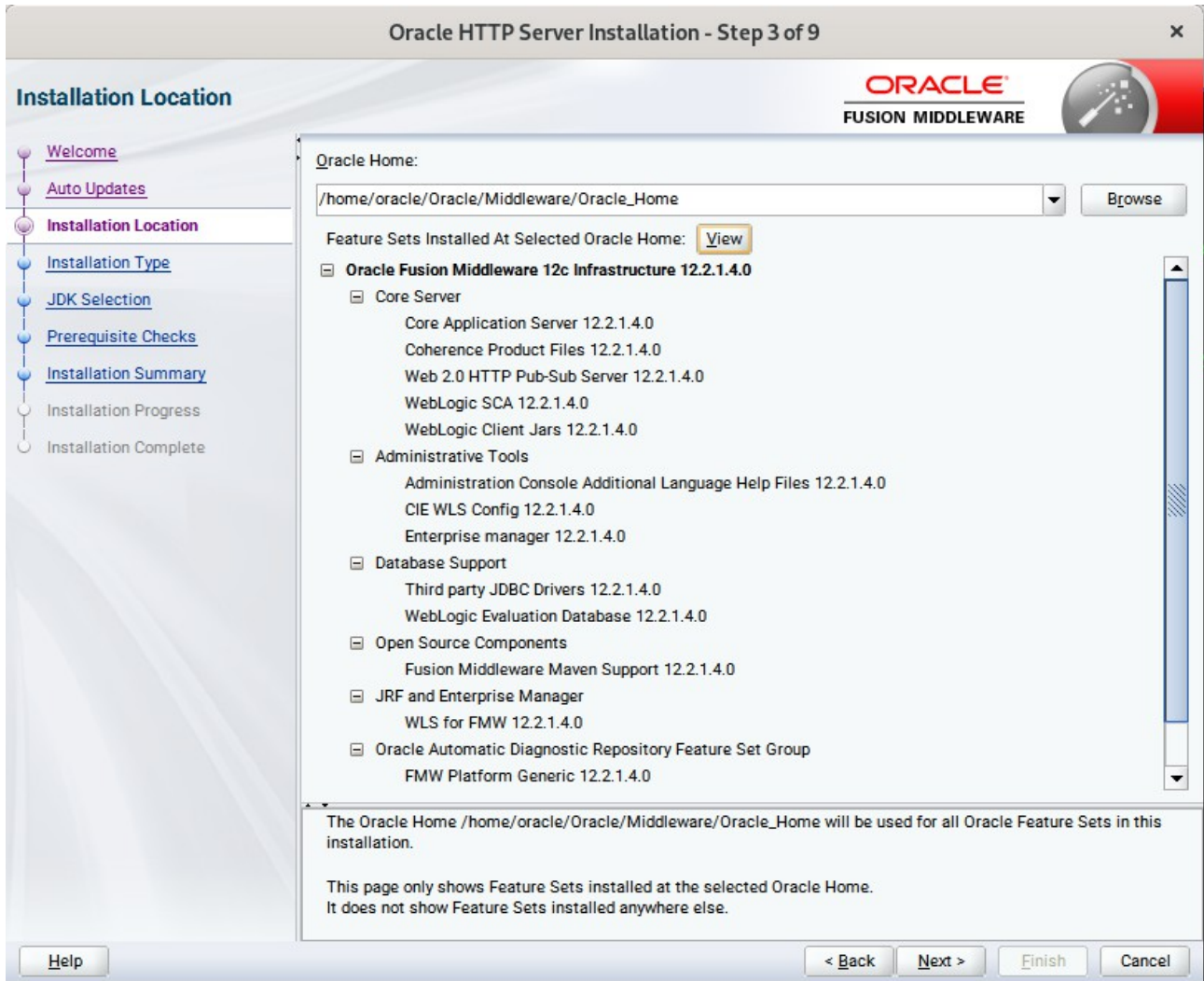
This page welcomes you to the installation. Click **Next** to continue.

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



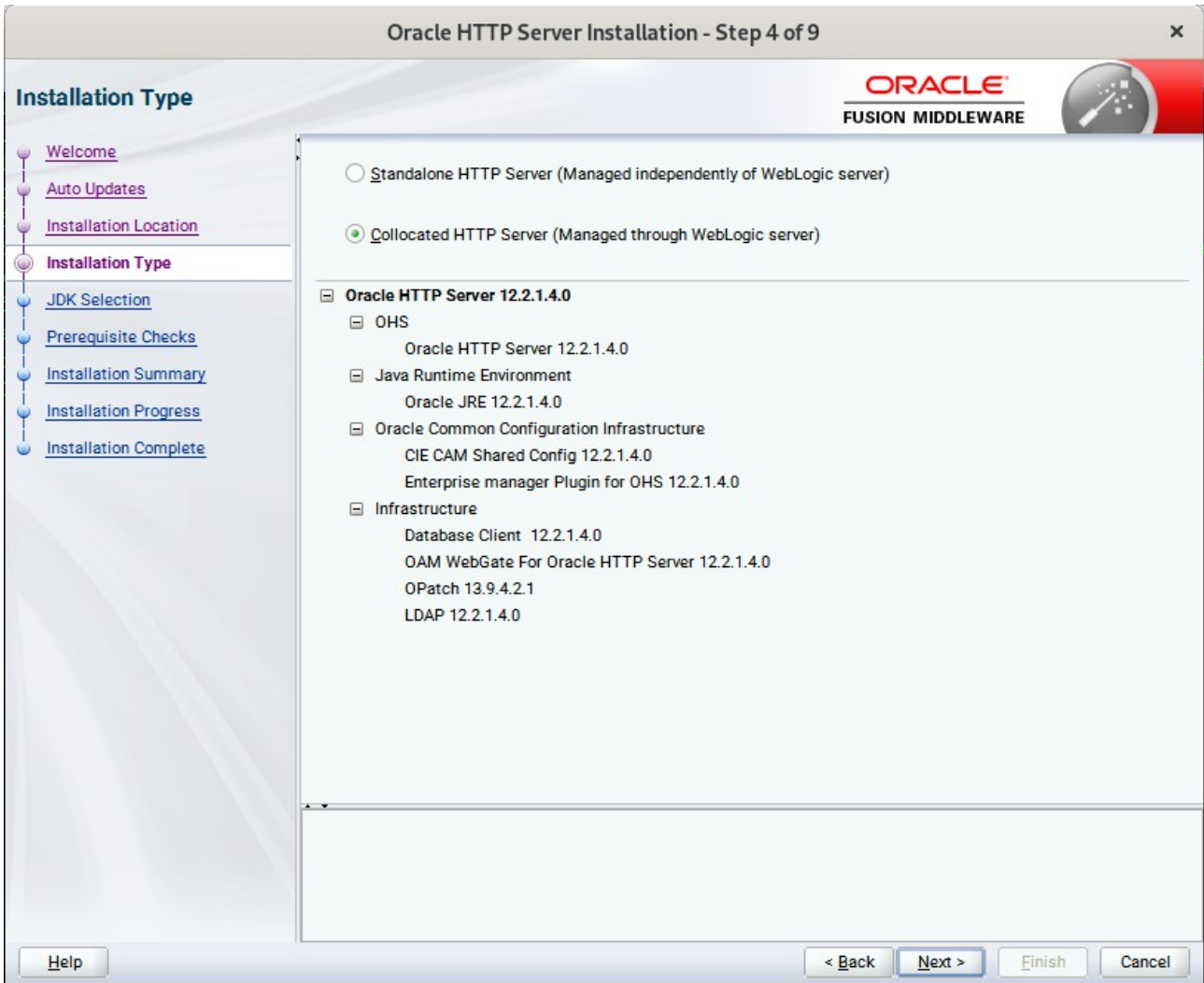
This page enables you to choose to automatically receive software updates for your components from Oracle Corporation. make your choices, then click **Next** to continue.

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



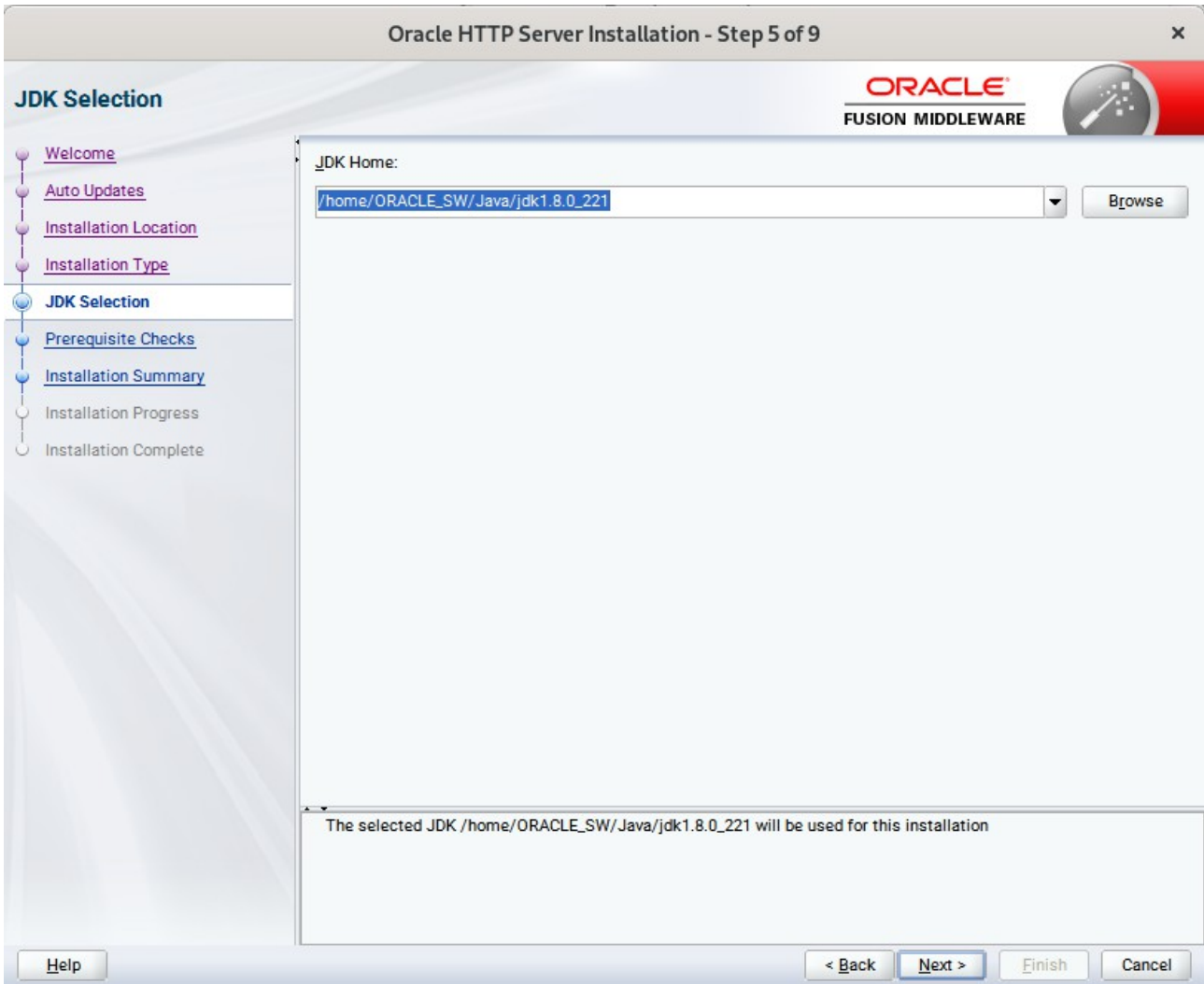
Specify the Oracle home location into which you want to install the product(s). Click **Next** to continue.

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



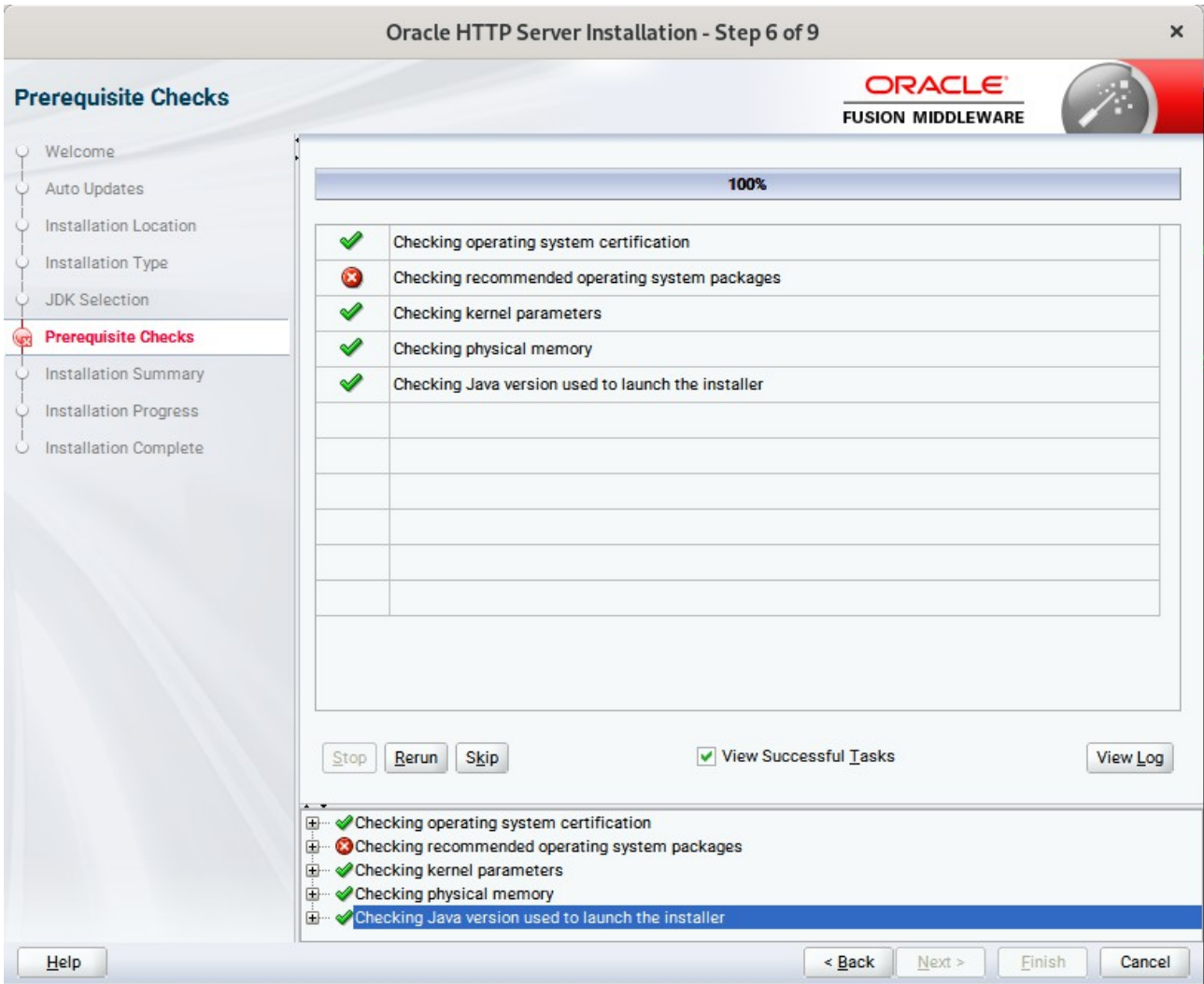
Selected **Collocated HTTP Server (Managed through WebLogic server)** to configure Oracle HTTP Server in a WebLogic Server Domain. (Alternative, select **Standalone HTTP Server (Managed independently of WebLogic server)** in the Installation Type screen to configure Oracle HTTP Server in a Standalone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

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



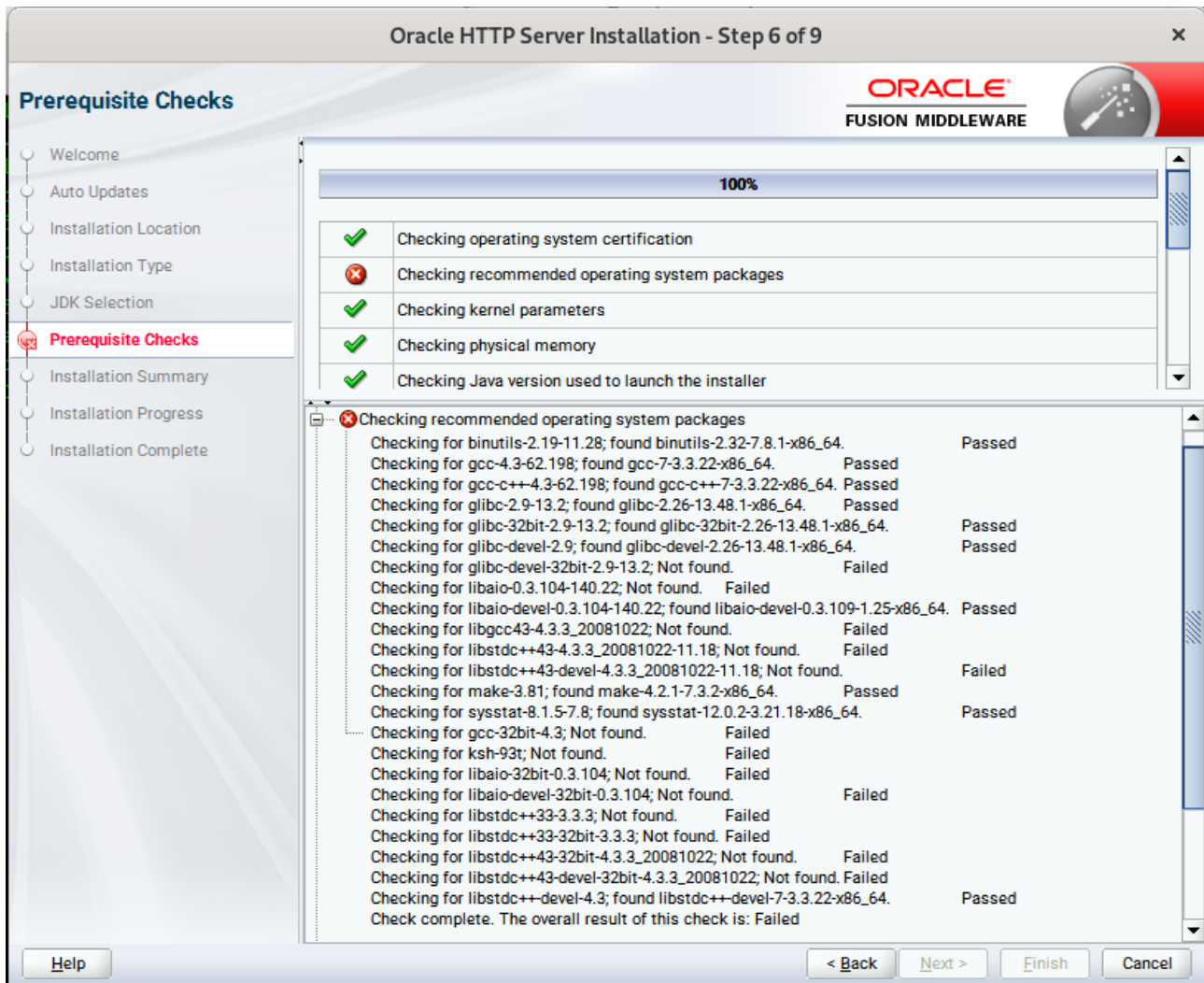
The selected JDK will be used for this installation. Click **Next** to continue.

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



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

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



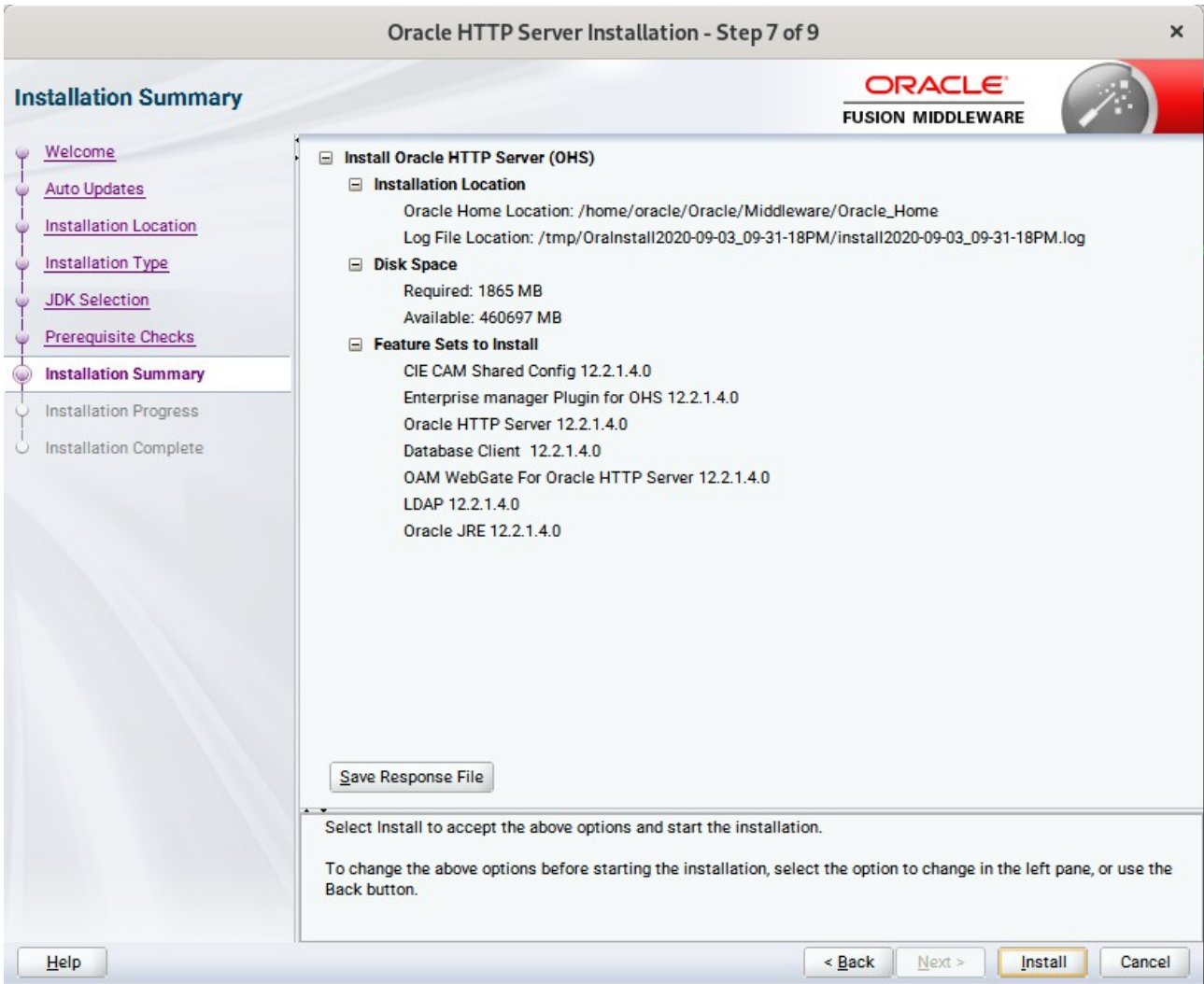
This is due to rpm name change in SLES15 (SP2). Oracle FUSION Middleware 12c (12.2.1.4) is certified on SLES15 (SP1). Manually ensure the following updated packages are installed.

```
binutils-2.29.1-4.46.x86_64
gcc7-ada-7.3.1+r258812-2.15.x86_64
gcc-c++-7-1.563.x86_64
gcc-c++-32bit-7-1.563.x86_64
gcc-ada-7-1.563.x86_64
gcc-locale-7-1.563.x86_64
gcc-info-7-1.563.x86_64
gcc-7-1.563.x86_64
gcc7-c++-7.3.1+r258812-2.15.x86_64
gcc7-info-7.3.1+r258812-2.15.noarch
gcc7-7.3.1+r258812-2.15.x86_64
gcc7-locale-7.3.1+r258812-2.15.x86_64
gcc7-c++-32bit-7.3.1+r258812-2.15.x86_64
gcc7-32bit-7.3.1+r258812-2.15.x86_64
gcc-32bit-7-1.563.x86_64
glibc-2.26-11.8.x86_64
linux-glibc-devel-4.15-1.47.noarch
glibc-devel-2.26-11.8.x86_64
```

glibc-locale-2.26-11.8.x86_64
glibc-extra-2.26-11.8.x86_64
glibc-32bit-2.26-11.8.x86_64
glibc-devel-32bit-2.26-11.8.x86_64
mksh-56c-1.10.x86_64
libaio1-0.3.109-1.25.x86_64
libaio1-32bit-0.3.109-1.25.x86_64
libaio-devel-32bit-0.3.109-1.25.x86_64
libaio-devel-0.3.109-1.25.x86_64
libcap2-2.25-2.41.x86_64
libcap-ng0-0.7.9-1.42.x86_64
libcap2-32bit-2.25-2.41.x86_64
libstdc++6-7.3.1+r258812-2.15.x86_64
libstdc++6-devel-gcc7-7.3.1+r258812-2.15.x86_64
libstdc++6-32bit-7.3.1+r258812-2.15.x86_64
libstdc++6-devel-gcc7-32bit-7.3.1+r258812-2.15.x86_64
libstdc++6-locale-7.3.1+r258812-2.15.x86_64
libstdc++6-devel-7-1.563.x86_64
libgcc_s1-7.3.1+r258812-2.15.x86_64
libgcc_s1-32bit-7.3.1+r258812-2.15.x86_64
make-4.2.1-5.48.x86_64
make-lang-4.2.1-5.48.noarch
makedumpfile-1.6.3-5.6.x86_64
xorg-x11-7.6_1-1.22.noarch
xorg-x11-server-1.19.6-6.19.x86_64
xorg-x11-fonts-7.6-3.9.noarch
xorg-x11-driver-video-7.6_1-2.30.x86_64
xorg-x11-Xvnc-1.8.0-11.23.x86_64
xorg-x11-fonts-core-7.6-3.9.noarch
xorg-x11-server-extra-1.19.6-6.19.x86_64
xorg-x11-essentials-7.6_1-1.22.noarch

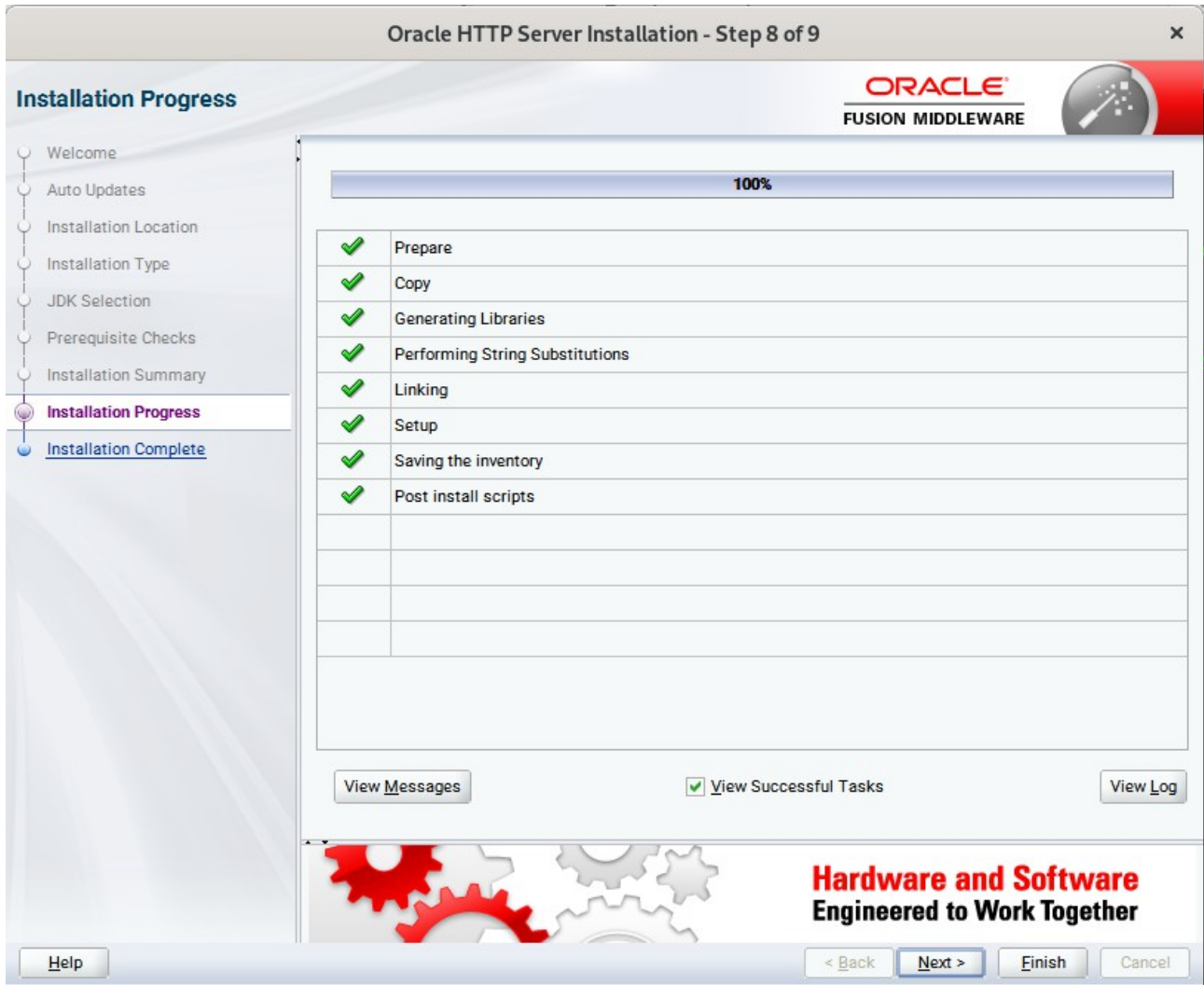
)

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



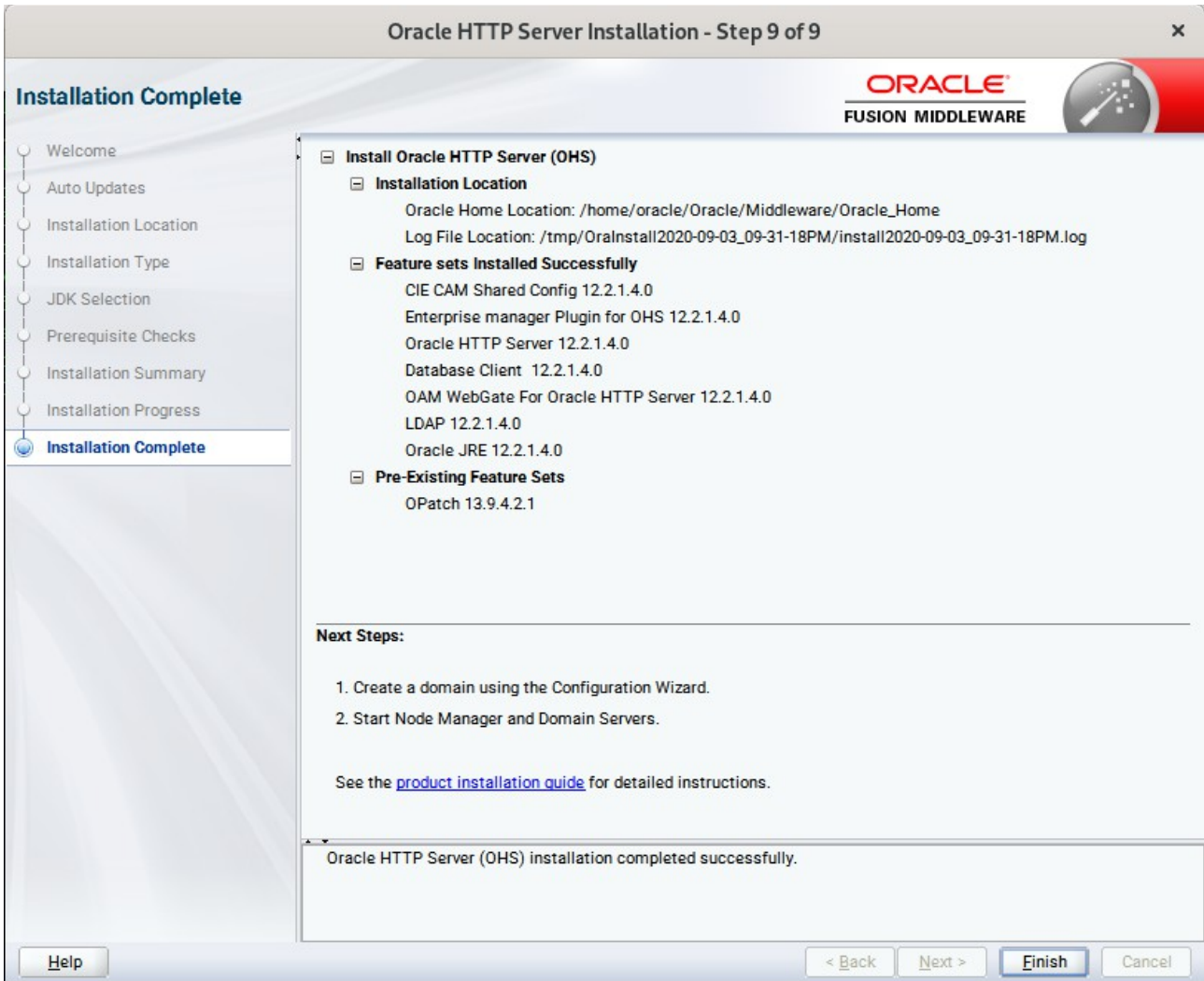
This page shows you what components and features are about to be installed. If you need to make changes, click **Back**, otherwise, click **Install** to start the installation.

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.

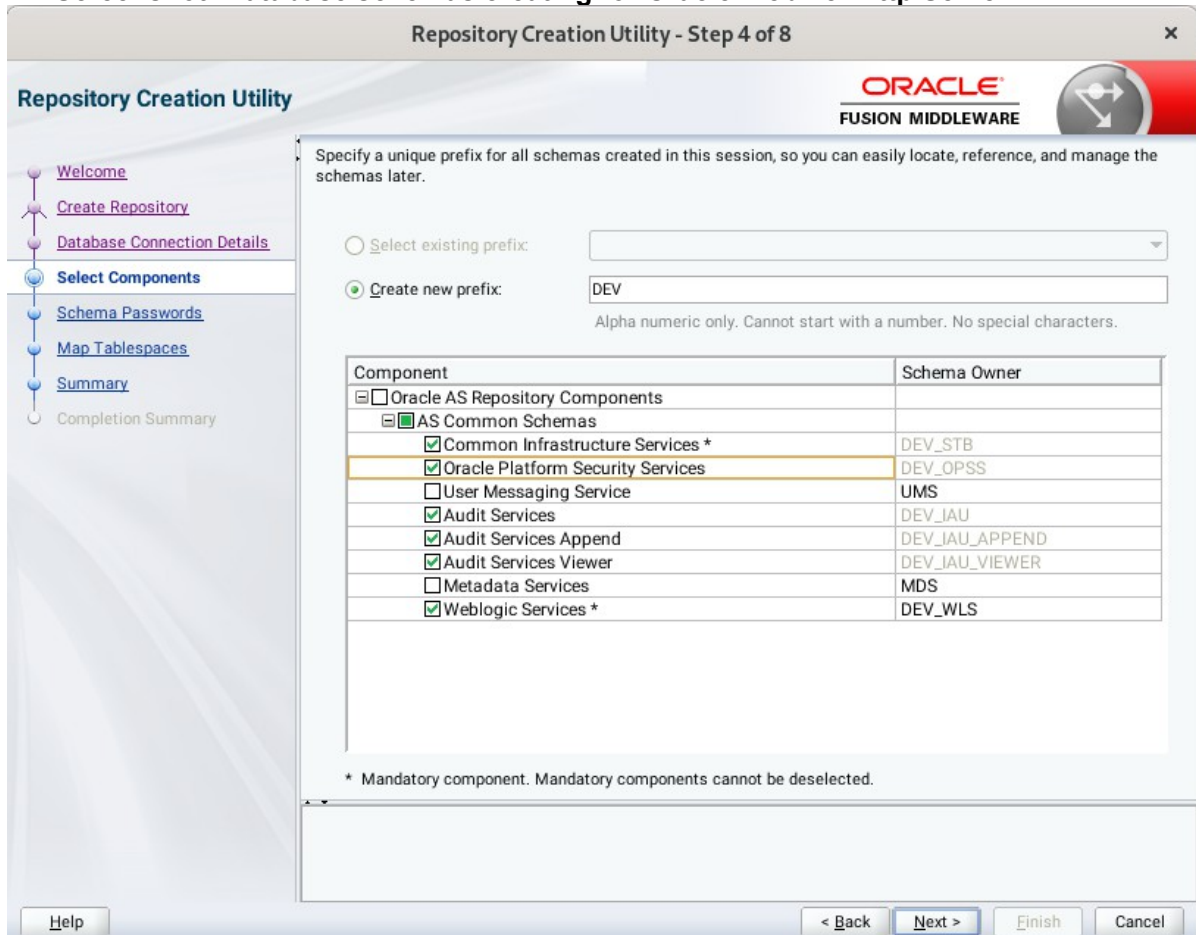


Click **Finish** to dismiss the installer.

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 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, and ensure the schema creation is successful.

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

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

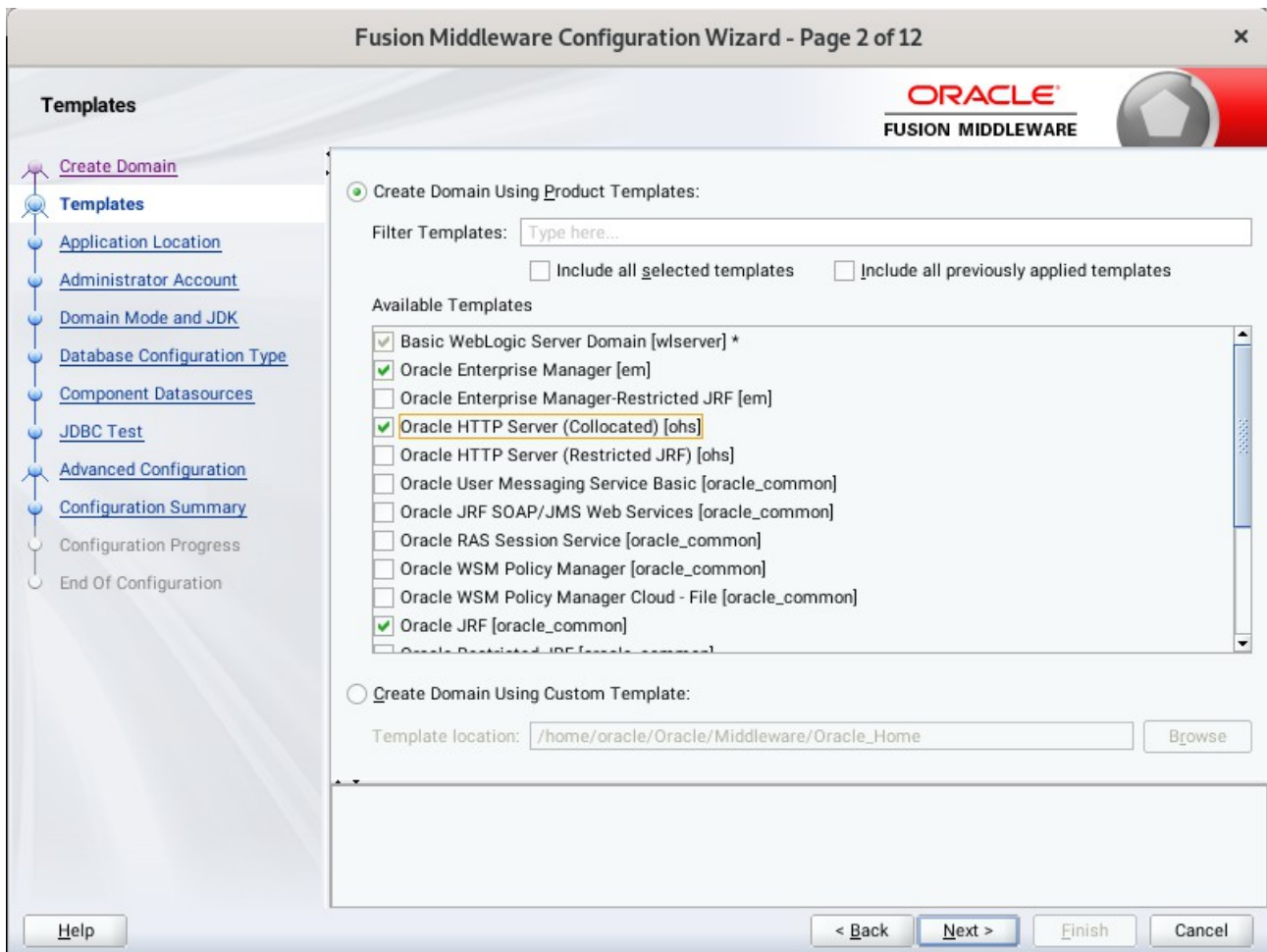
Follow these steps:

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



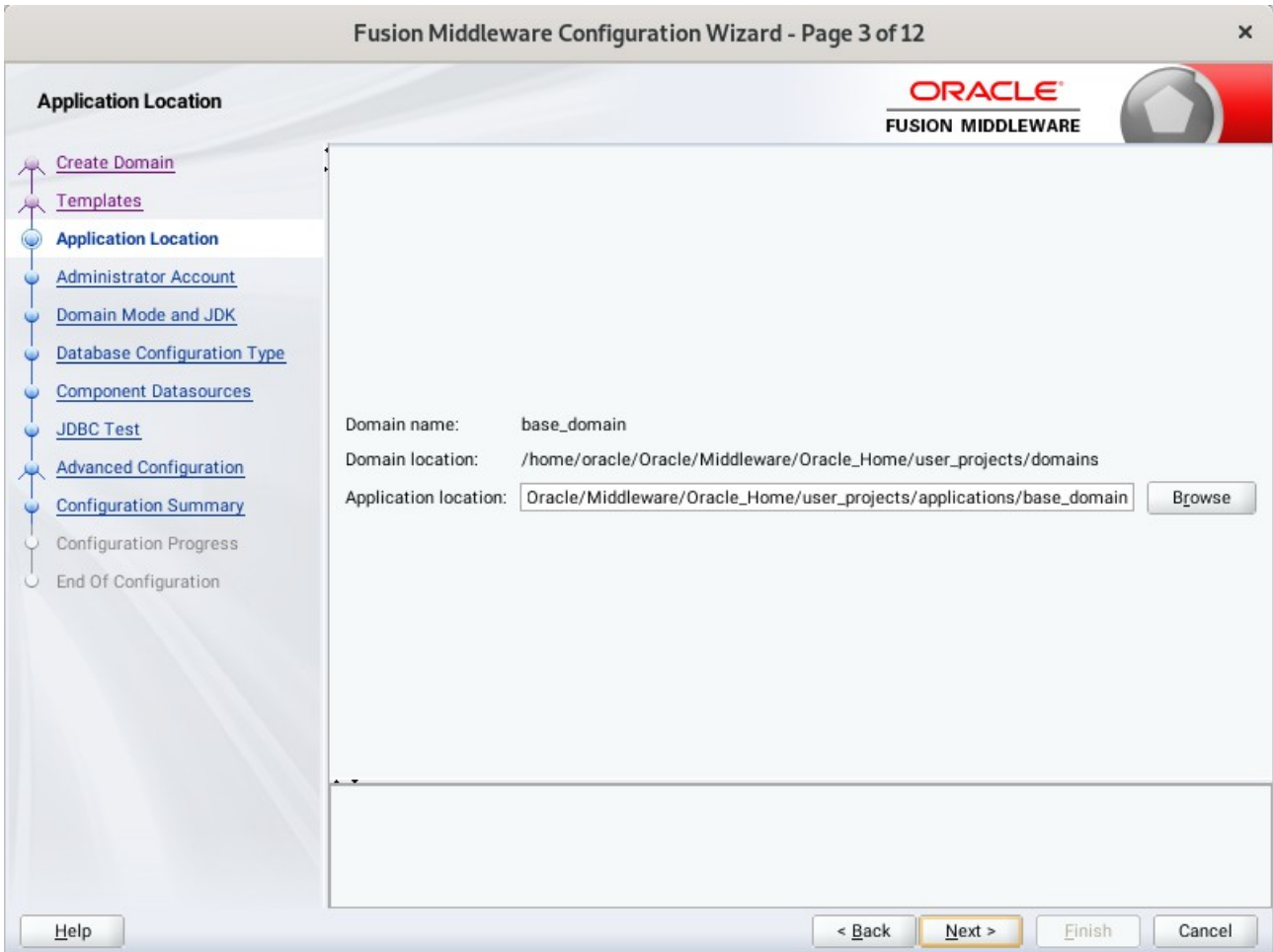
Click **Next** to continue.

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



Keep the default selection (**Create Domain using Product Templates**), and select **Oracle HTTP Server (Collocated) [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.

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 these fields is a note: 'Must be the same as the password. Password must contain at least 8 alphanumeric characters with at least one number or special character.' At the bottom, there are buttons for 'Help', '< Back', 'Next >', 'Finish', and 'Cancel'.

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

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.). The 'Production' option is selected. Below is the 'JDK' section with radio buttons for '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, there are buttons for '< Back', 'Next >', 'Finish', and 'Cancel'. A 'Help' button is located in the bottom left corner.

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

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

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

Fusion Middleware Configuration Wizard - Page 6 of 12

Database Configuration Type

ORACLE
FUSION MIDDLEWARE

Navigation Pane:

- 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

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:

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.

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

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

Fusion Middleware Configuration Wizard - Page 7 of 12

JDBC Component Schema

ORACLE
FUSION MIDDLEWARE

Vendor: Driver:

Connection Parameters Connection URL String

Host Name:

DBMS/Service: Port:

Schema Owner: Schema Password:

Oracle RAC configuration for component schemas:
 Convert to GridLink Convert to RAC multi data source Don't convert

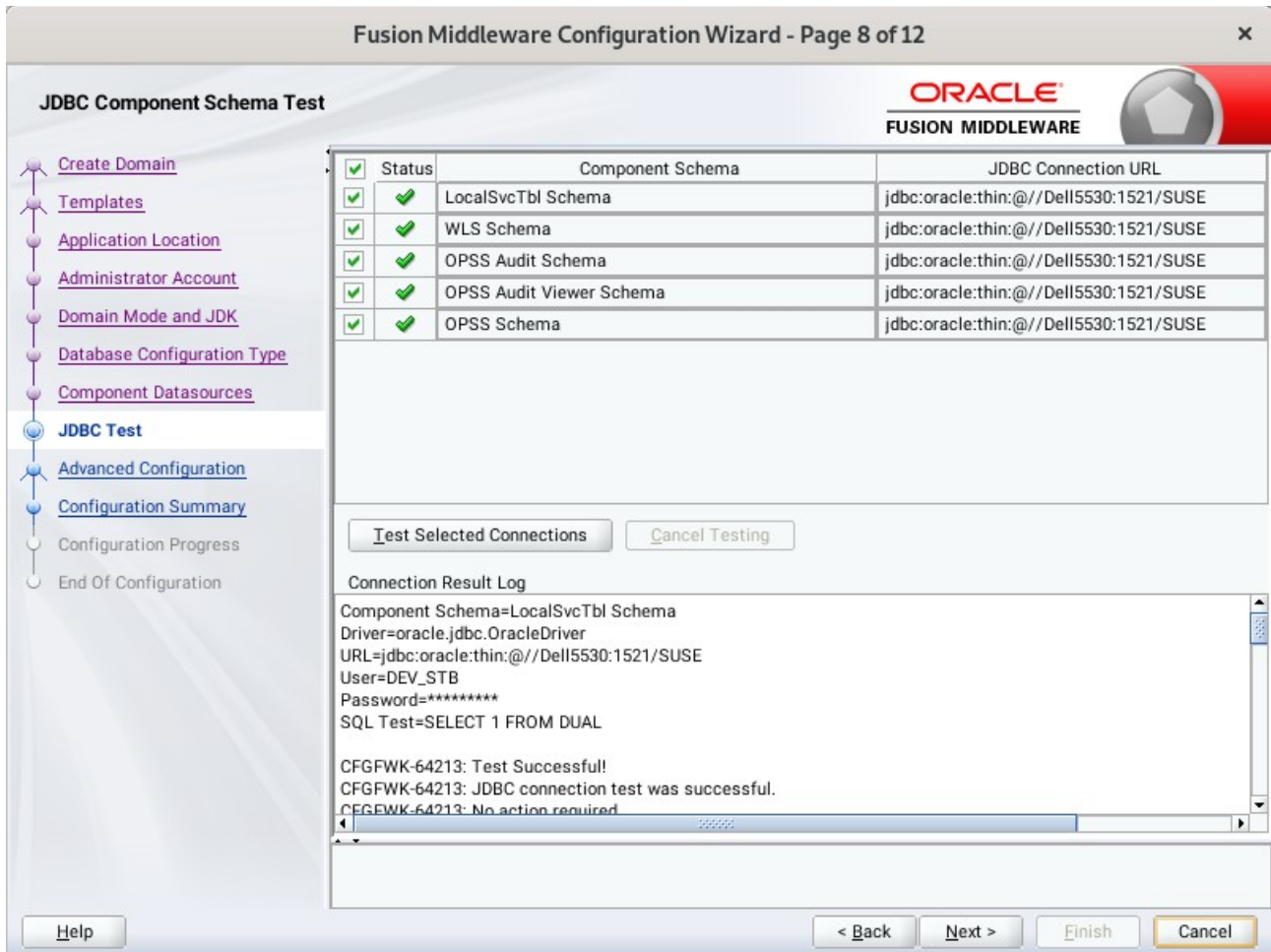
Edits to the data above will affect all checked rows in the table below.

<input type="checkbox"/>	Component Schema	DBMS/Service	Host Name	Port	Schema Owner	Schema 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_JAU_APPEI	.....
<input type="checkbox"/>	OPSS Audit Viewer Sche	SUSE	Dell5530	1521	DEV_JAU_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.



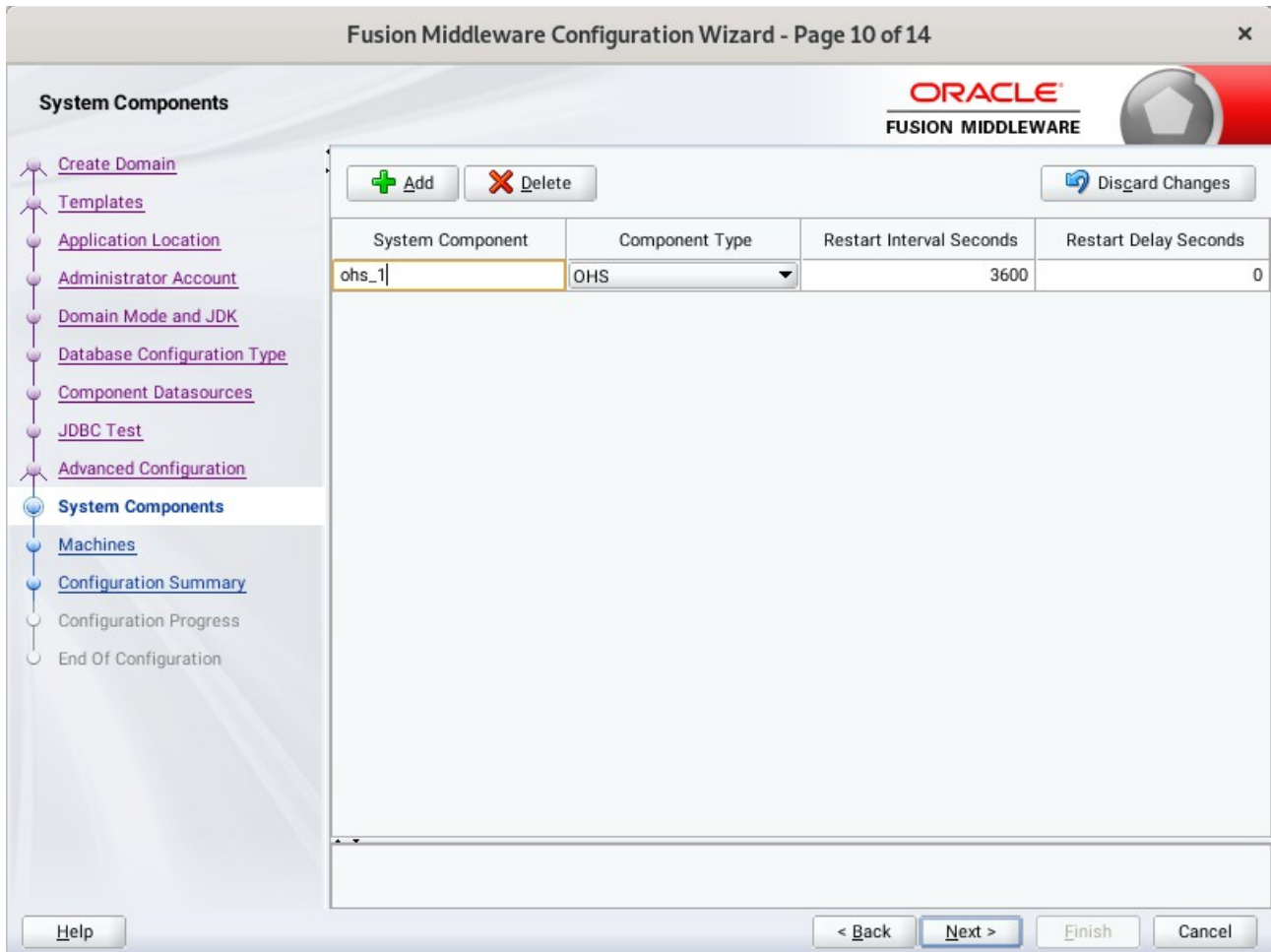
The tests are run and the results given. Ensure all test results are successful. Click **Next** to continue.

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



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

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



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.

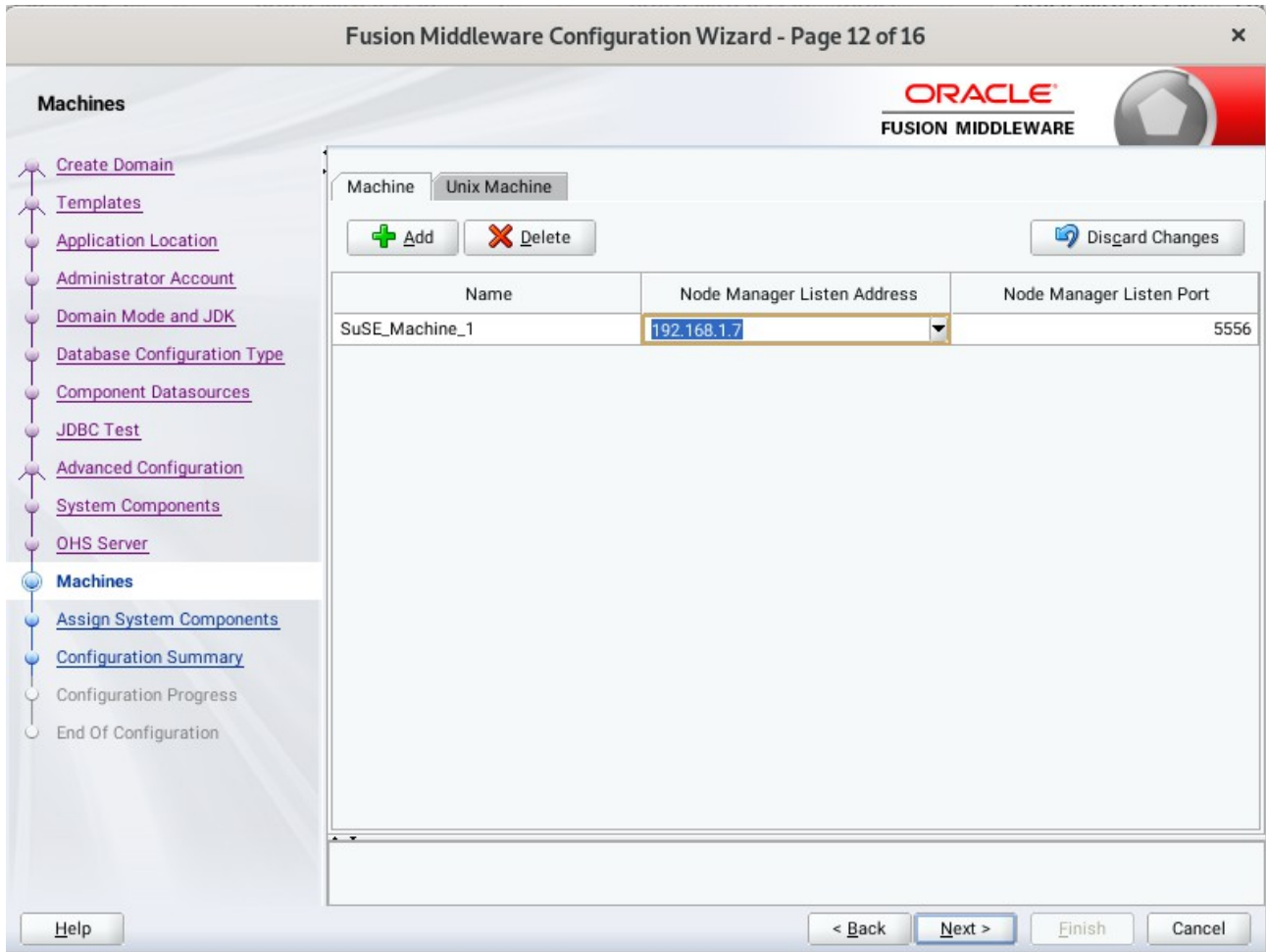
The screenshot shows the 'OHS Server' configuration screen in the Fusion Middleware Configuration Wizard. The window title is 'Fusion Middleware Configuration Wizard - Page 11 of 15'. The Oracle logo and 'FUSION MIDDLEWARE' text are visible in the top right corner. On the left, a navigation pane lists various steps: 'Create Domain', 'Templates', 'Application Location', 'Administrator Account', 'Domain Mode and JDK', 'Database Configuration Type', 'Component Datasources', 'JDBC Test', 'Advanced Configuration', 'System Components', 'OHS Server' (selected), 'Machines', 'Configuration Summary', 'Configuration Progress', and 'End Of Configuration'. The main area contains the following configuration 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 >', and 'Cancel'. The 'Next >' button is highlighted with a yellow border.

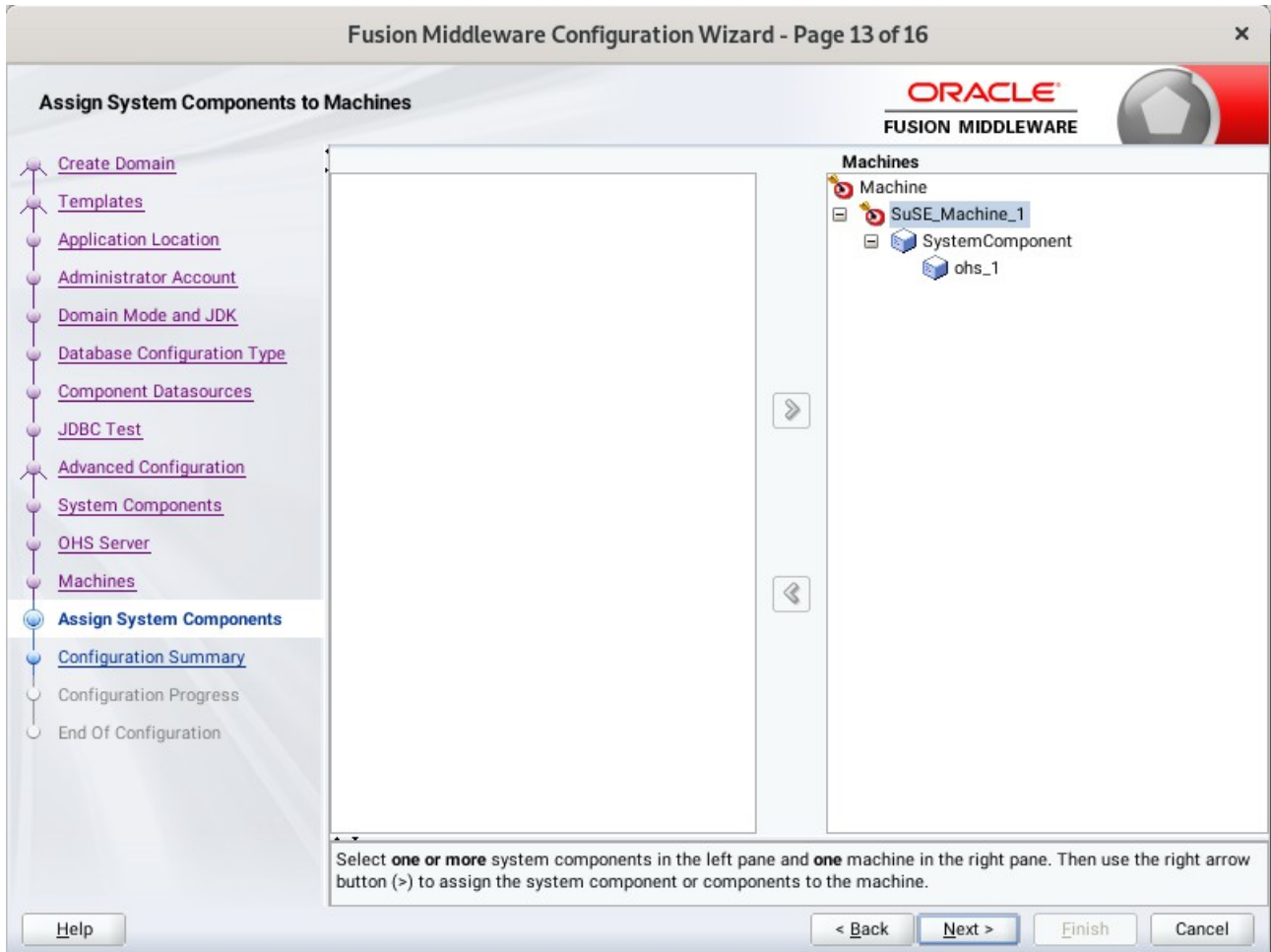
Use the **OHS Server** screen to configure the Oracle HTTP Server servers in your domain. In the System Component field specify the IP address of the host on which the Oracle HTTP Server instance will reside. Do not use "localhost". Click **Next** to continue.

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



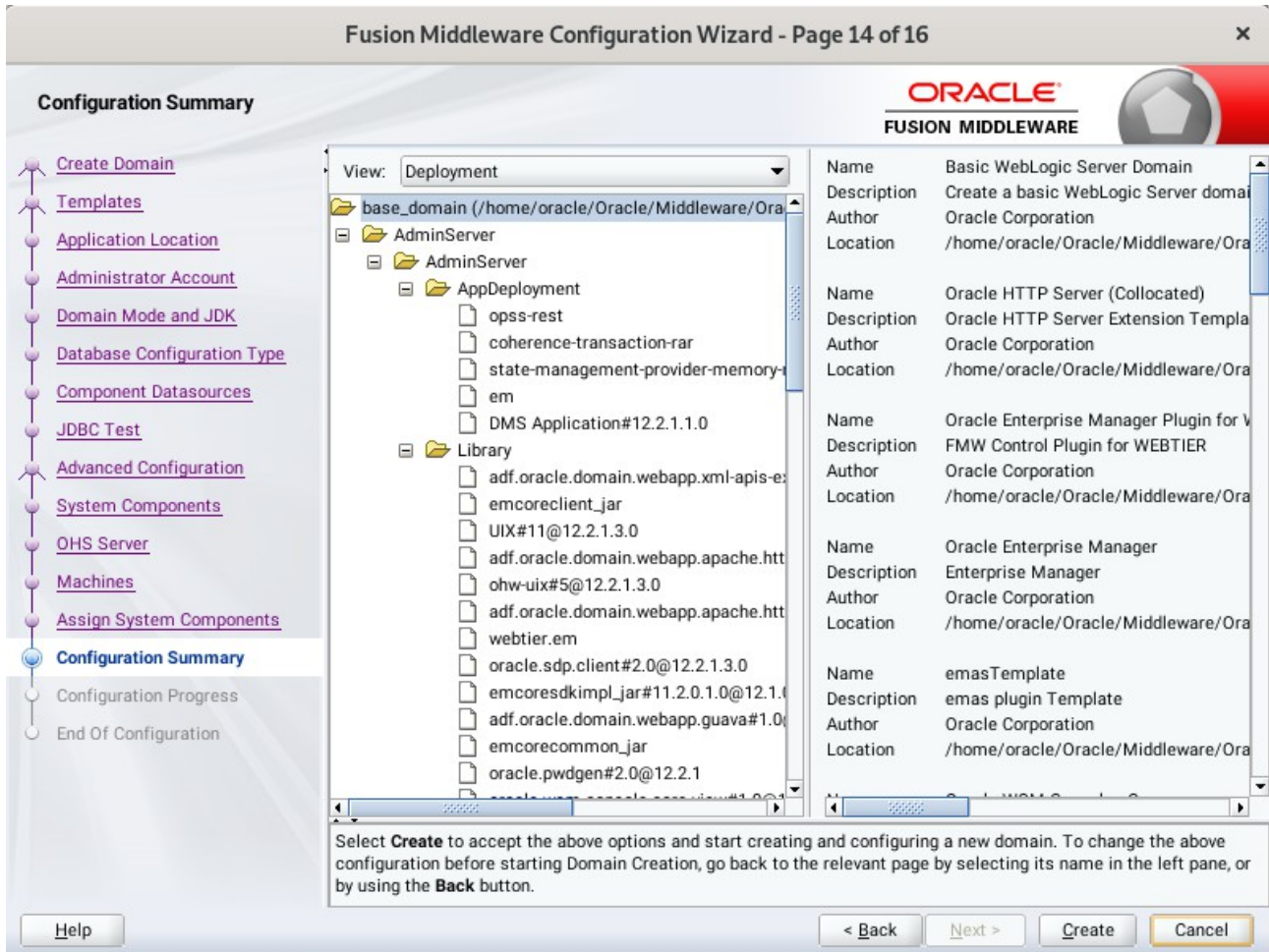
You can use this screen to override the machine name or add additional Machine names for extend domain. Click **Next** to continue.

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



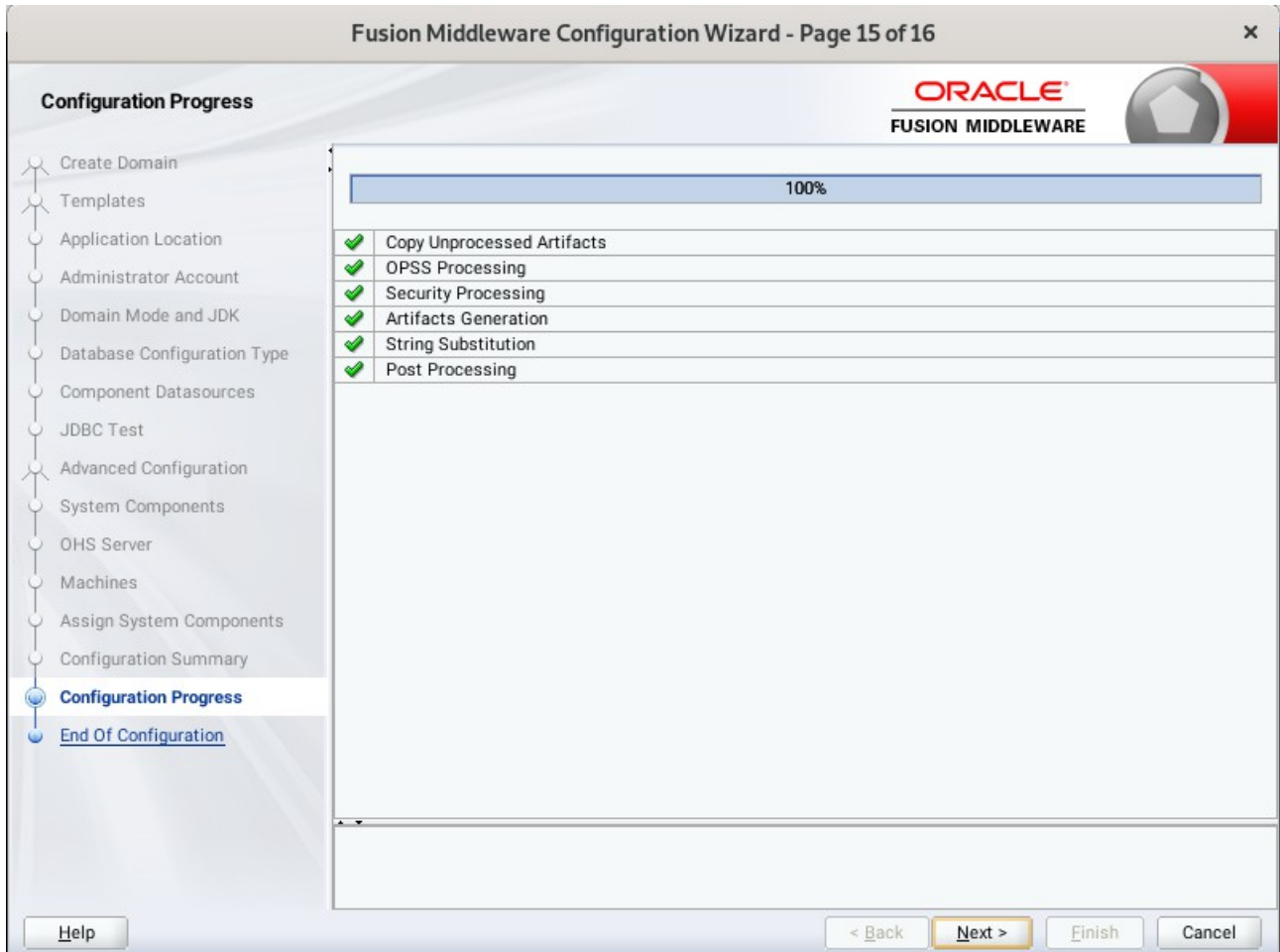
Select the '**ohs_1**' in the System Component list box and click the right arrow. Click **Next** to continue.

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



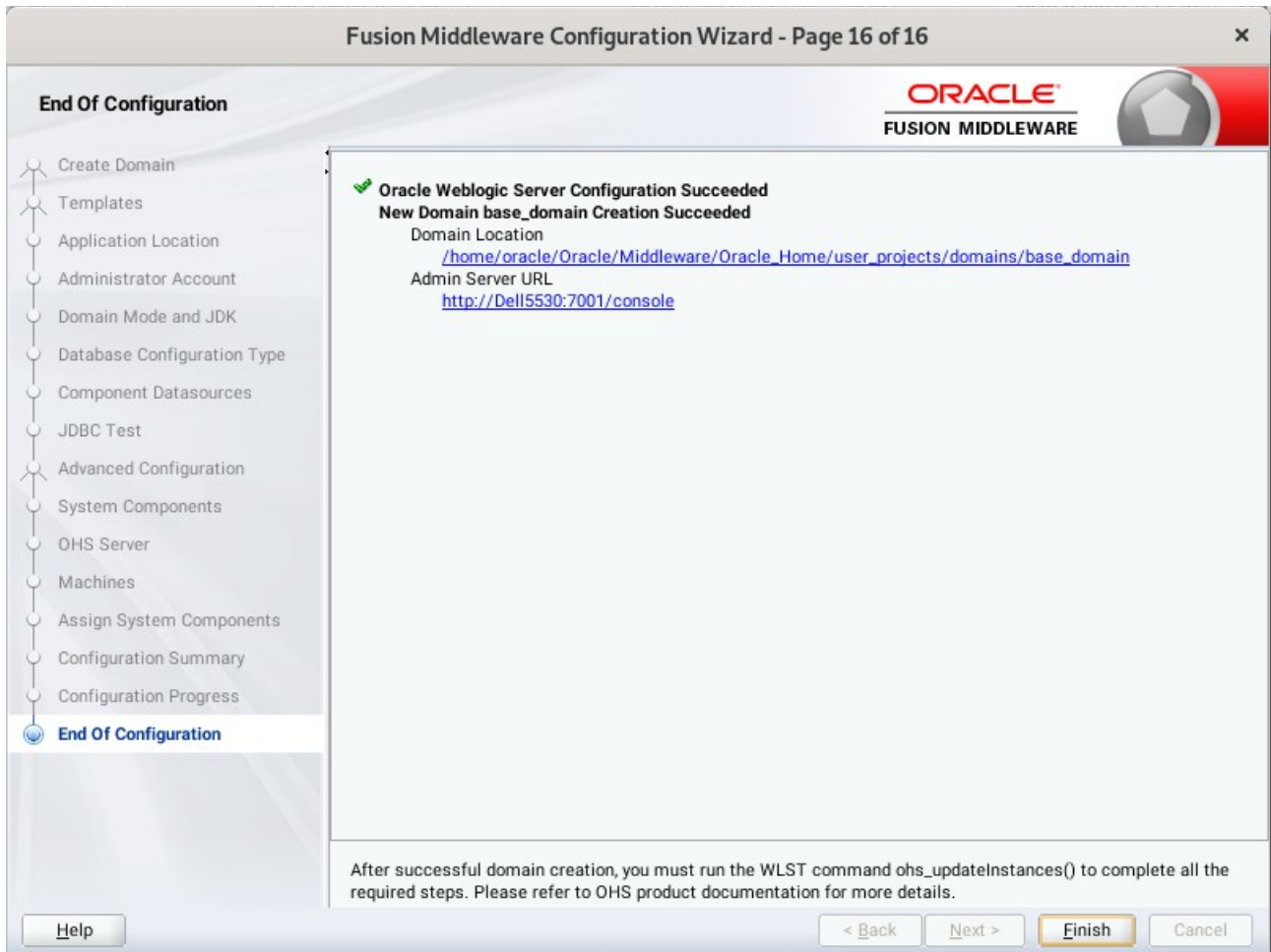
Select **Create** to accept the above options and start creating and configuring a new domain.

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:/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/bin> nohup ./startNodeManager.sh > nm.out&
[1] 7255
oracle@Dell5530:/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/bin> 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
<Sep 3, 2020 11:03:40 PM GMT+08:00> <INFO> <Loading domains file: /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.domains>
<Sep 3, 2020 11:03:40 PM GMT+08:00> <INFO> <Upgrade> <Setting NodeManager properties version to 12.2.1.4.0>
<Sep 3, 2020 11:03:40 PM GMT+08:00> <INFO> <Upgrade> <Saving upgraded NodeManager properties to '/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.properties'>
<Sep 3, 2020 11:03:40 PM GMT+08:00> <INFO> <Loading domains file: /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.domains>

```

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

```

oracle@Dell5530:~/base_domain/bin
oracle@Dell5... x oracle@Dell5... x oracle@Dell5... x oracle@Dell5... x oracle@Dell5... x oracle@Dell5... x
ll Servers : Resolving connection list DomainRuntimeServiceMBean
<Sep 3, 2020 11:09:27,795 PM GMT+08:00> <Warning> <Server> <BEA-002611> <The hostname "localhost", maps
to multiple IP addresses: 127.0.0.1, 0:0:0:0:0:0:1.>
<Sep 3, 2020 11:09:27,796 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[4]" is now l
istening on 127.0.0.1:7001 for protocols iiop, t3, ldap, snmp, http.>
<Sep 3, 2020 11:09:28,064 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[1]" is now l
istening on 2408:8207:c52:80f0:97c0:f1ab:c113:fe8e%eth0:7001 for protocols iiop, t3, ldap, snmp, http
.>
<Sep 3, 2020 11:09:28,065 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[3]" is now l
istening on 0:0:0:0:0:0:1%lo:7001 for protocols iiop, t3, ldap, snmp, http.>
<Sep 3, 2020 11:09:28,065 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default" is now list
ening on 192.168.1.7:7001 for protocols iiop, t3, ldap, snmp, http.>
<Sep 3, 2020 11:09:28,401 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[2]" is now l
istening on 2408:8207:c52:80f0:a137:74a7:233d:dfa0%eth0:7001 for protocols iiop, t3, ldap, snmp, http
.>
<Sep 3, 2020 11:09:28,402 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000329> <Started the WebLogic
Server Administration Server "AdminServer" for domain "base_domain" running in production mode.>
<Sep 3, 2020 11:09:28,402 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[4]" is now l
istening on 127.0.0.1:7001 for protocols iiop, t3, ldap, snmp, http.>
<Sep 3, 2020 11:09:28,402 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[1]" is now l
istening on 2408:8207:c52:80f0:97c0:f1ab:c113:fe8e%eth0:7001 for protocols iiop, t3, ldap, snmp, http
.>
<Sep 3, 2020 11:09:28,406 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[3]" is now l
istening on 0:0:0:0:0:0:1%lo:7001 for protocols iiop, t3, ldap, snmp, http.>
<Sep 3, 2020 11:09:28,406 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default" is now list
ening on 192.168.1.7:7001 for protocols iiop, t3, ldap, snmp, http.>
<Sep 3, 2020 11:09:28,407 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[2]" is now l
istening on 2408:8207:c52:80f0:a137:74a7:233d:dfa0%eth0:7001 for protocols iiop, t3, ldap, snmp, http
.>
<Sep 3, 2020 11:09:28,410 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000360> <The server started in
RUNNING mode.>
<Sep 3, 2020 11:09:28,456 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000365> <Server state changed
to RUNNING.>

```

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

```

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

```

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

```
oracle@Dell5530:/home/oracle/Oracle/Middleware/Oracle_Home/ohs/common/bin> ./wlst.sh
WARNING: This is a deprecated script. Please invoke the wlst.sh script under oracle_common/common/bin.

Initializing WebLogic Scripting Tool (WLST) ...

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.

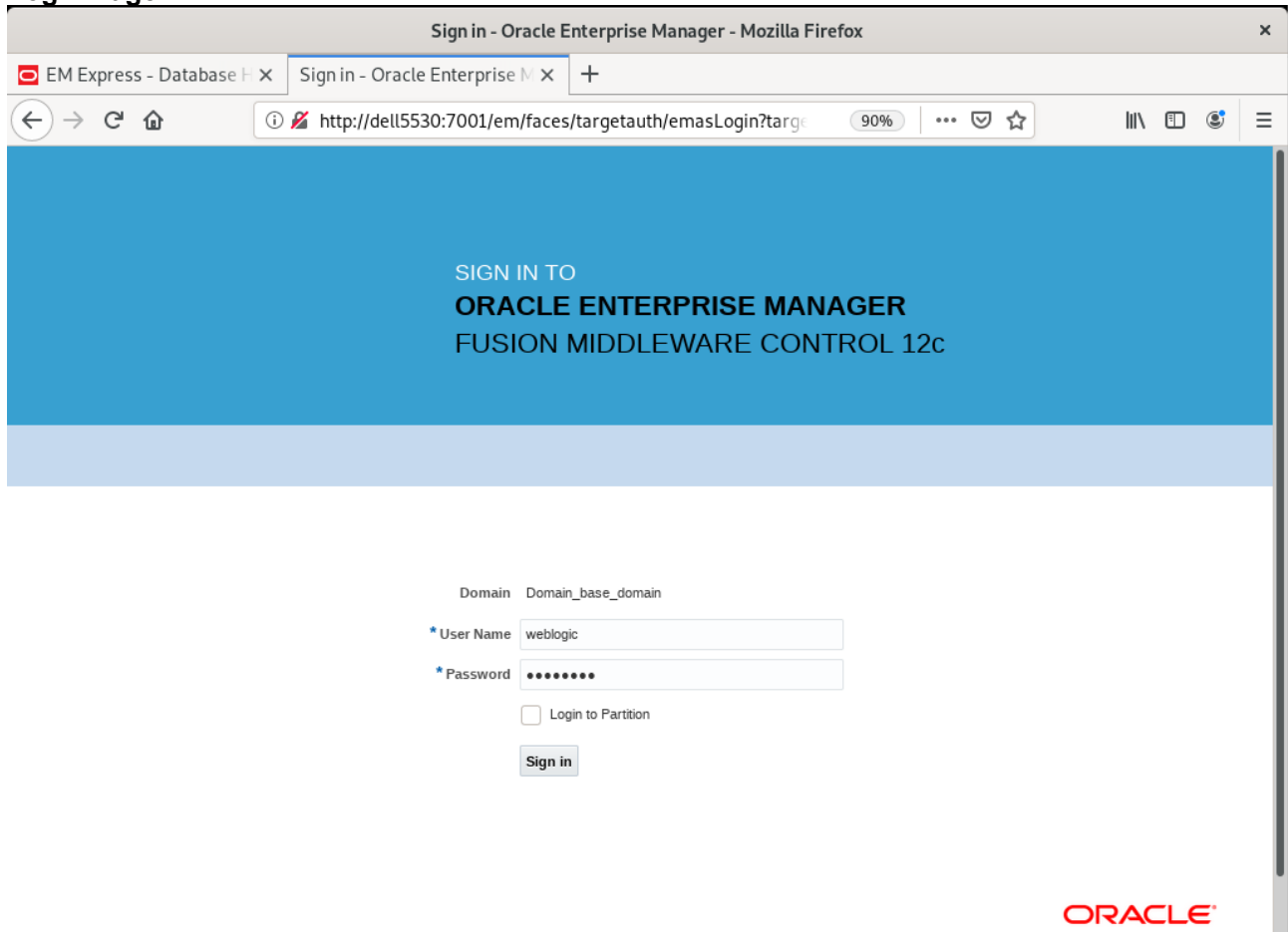
wls:/base_domain/serverConfig/> ohs updateInstances()
Location changed to edit custom tree. This is a writable tree with No root.
For more help, use help('editCustom')

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:

The screenshot shows the Oracle Enterprise Manager interface for the 'base_domain (Oracle WebLogic Domain)'. The browser address bar shows 'http://dell5530:7001/em/faces/as-weblogic-webLogicDomain'. The page title is 'base_domain (Oracle WebLogic Domain) - Oracle Enterprise Manager - Mozilla Firefox'. The interface includes a navigation menu on the left with 'Servers', 'Clusters', 'Deployments', and 'Domain Partitions'. The main content area shows 'Administration Server' details: Name: AdminServer, Host: Dell5530, Listen Port: 7001. Below this is a 'Servers' table with one entry: AdminServer(admin), Status: Up (green arrow), Cluster: (empty), Machine: (empty), State: Running, Health: OK. The table has columns for Name, Status, Cluster, Machine, State, and Health. The bottom right of the table area says 'Columns Hidden 34' and 'Servers 1 of 1'. The top right shows 'WebLogic Domain' and 'weblogic' dropdowns, and a timestamp 'Sep 3, 2020 11:16:51 PM GMT+08:00'.

Starting Oracle HTTP Server (ohs_1)

The screenshot shows the Oracle Enterprise Manager interface for the 'ohs_1 (Oracle HTTP Server)'. The browser address bar shows 'http://dell5530:7001/em/faces/as_ohs_ohsHome?type=oracle'. The page title is 'ohs_1 (Oracle HTTP Server) - Oracle Enterprise Manager - Mozilla Firefox'. The interface includes a navigation menu on the left with 'Monitoring', 'Virtual Hosts', and 'Modules'. The main content area shows 'General' information: Component Name: ohs_1, Version: 12.2.1.4.0, State: Shutdown, Host: 192.168.1.7, Ports: 7777 4443 127.0.0.1:7779, Machine Name: SuSE_Machine_1, Auto Restart: checked, Oracle Home: /home/oracle/Oracle/Middleware/Oracle_Home. Below this is a 'Key Statistics' section with values: 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. To the right are two charts: 'Response and Load' and 'CPU and Memory Usage', both showing a time range from 11:04 PM to 11:16 PM on September 03, 2020. The 'Response and Load' chart shows 'Request Processing Time (milli seconds)' and 'Domain_base_domain/base_domain/ohs_1: Request Throu...'. The 'CPU and Memory Usage' chart shows 'CPU Usage (%)' and 'Memory Usage (MB)'. The top right shows 'WebLogic Domain' and 'weblogic' dropdowns, and a timestamp 'Sep 3, 2020 11:18:51 PM GMT+08:00'.

ohs_1 is up.

The screenshot shows the Oracle Enterprise Manager interface for the ohs_1 component. The status is 'Running'. The page includes several sections:

- Monitoring:** CPU Usage (%) is 0.00 and Memory Usage (%) is 0.00.
- Virtual Hosts:** 0 Virtual Hosts.
- Modules:** 0 Modules.
- General:**
 - Component Name: ohs_1
 - Version: 12.2.1.4.0
 - State: Running
 - Host: 192.168.1.7
 - 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 Data Throughput (KB/second): -1.00
- Response and Load:** A line graph showing Request Processing Time (milli seconds) and Request Throughput (per second) over time.
- CPU and Memory Usage:** A line graph showing CPU Usage (%) and Memory Usage (MB) over time.

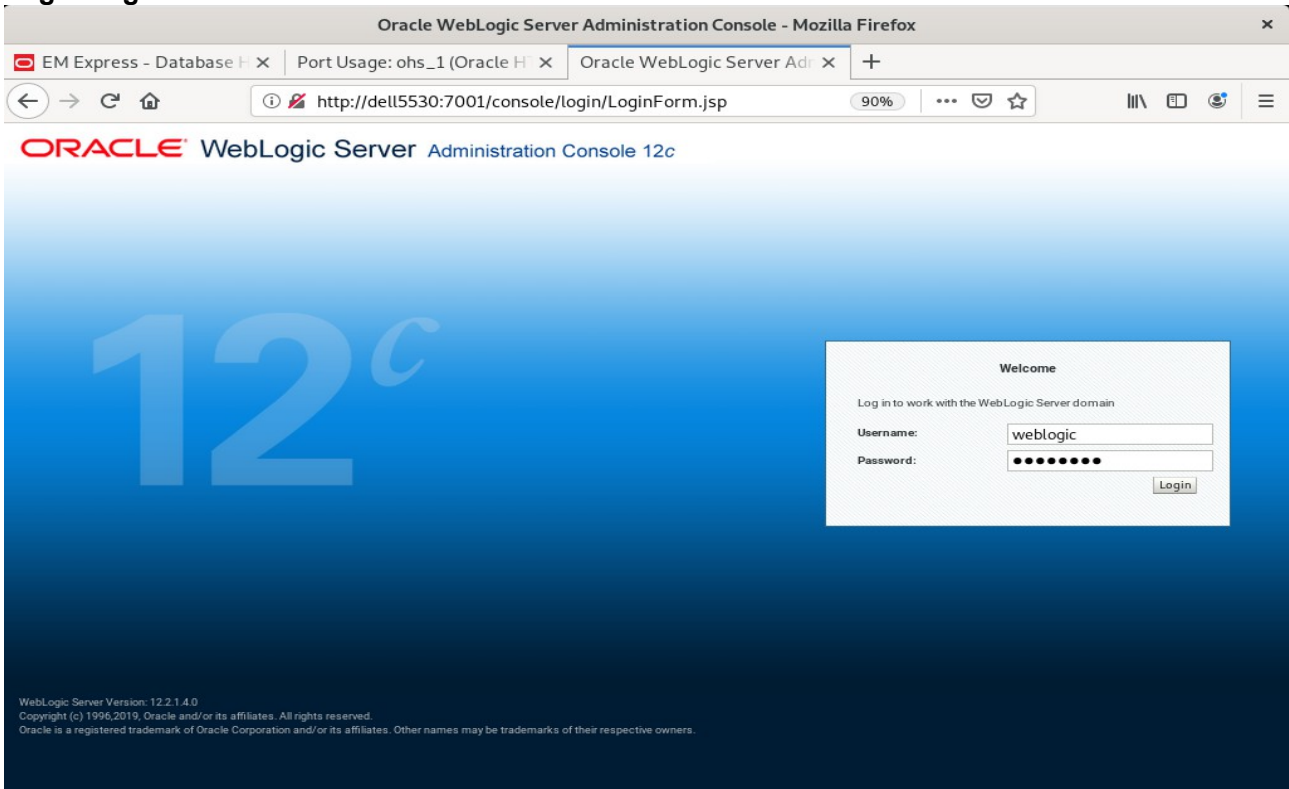
OHS Ports Configuration as shown below.

The screenshot shows the 'Port Usage' configuration page for ohs_1. It displays a table with the following data:

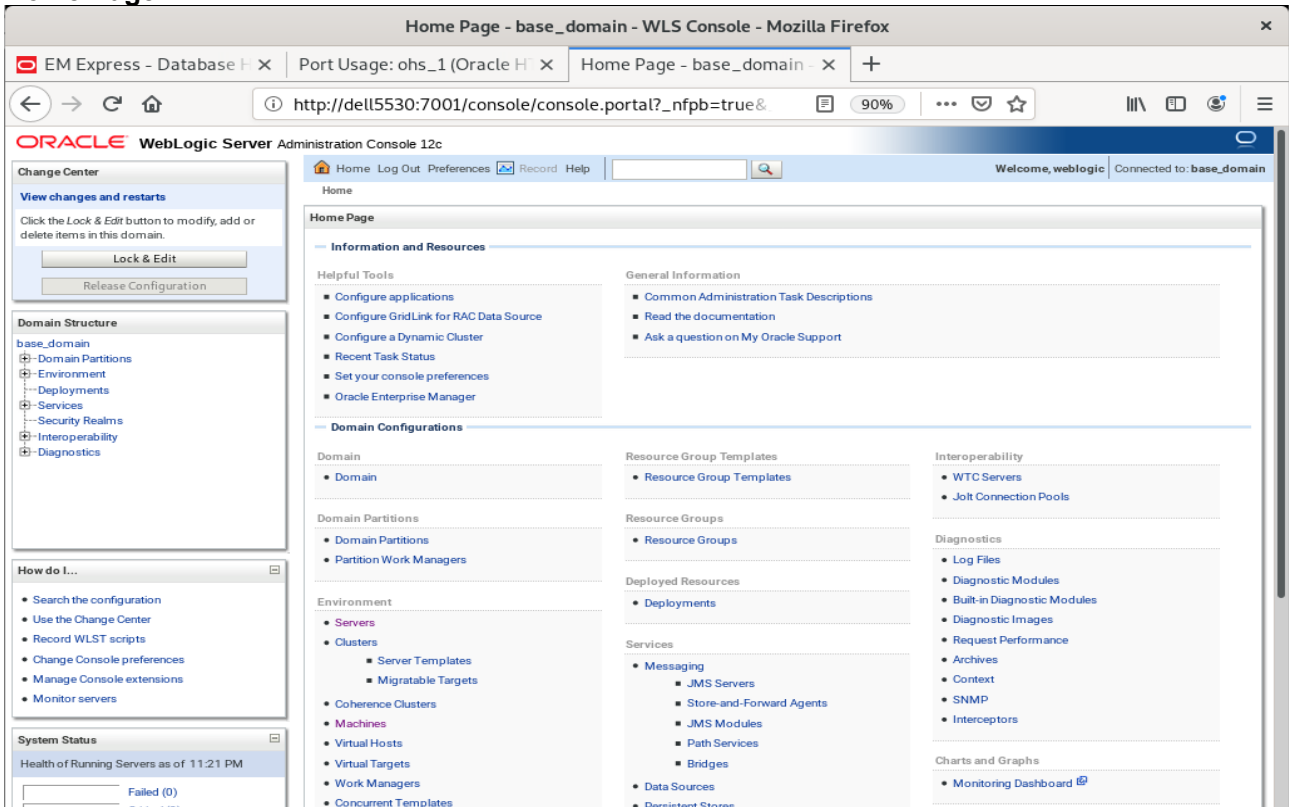
Port in Use	IP Address	Component	Protocol
7779	127.0.0.1	ohs_1	HTTPS
4443	ALL	ohs_1	HTTPS
7777	ALL	ohs_1	HTTP

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 interface. The main content area displays the 'Summary of Servers' page. It includes a 'Change Center' on the left with 'Lock & Edit' and 'Release Configuration' buttons. Below that is the 'Domain Structure' tree. The main area has a 'Summary of Servers' section with a 'Configuration' tab selected. It contains a table of servers:

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

Below the table, there are 'New', 'Clone', and 'Delete' buttons. The system status section at the bottom shows 'Health of Running Servers as of 11:22 PM' with 'Failed (0)' and 'Critical (0)' counts.

Viewing the summary of Machines:

The screenshot shows the Oracle WebLogic Server Administration Console interface. The main content area displays the 'Summary of Machines' page. It includes a 'Change Center' on the left with 'Lock & Edit' and 'Release Configuration' buttons. Below that is the 'Domain Structure' tree. The main area has a 'Summary of Machines' section with a 'Configuration' tab selected. It contains a table of machines:

Name	Type
SUSE_Machine_1	Machine

Below the table, there are 'New', 'Clone', and 'Delete' buttons. The system status section at the bottom shows 'Health of Running Servers as of 11:23 PM' with 'Failed (0)', 'Critical (0)', 'Overloaded (0)', and 'Warnings (0)' counts.

3). Access to Oracle HTTP Server listening address

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

The screenshot shows a Mozilla Firefox browser window with the title "Oracle HTTP Server 12c - Mozilla Firefox". The address bar contains the URL <http://dell5530:7777/>. The page content includes the Oracle logo and the text "Oracle HTTP Server 12c". Below this, a paragraph states: "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." A central diagram illustrates the architecture, showing "OHS" (Oracle HTTP Server) serving "Local Content" (HTML, JS) and "Fusion Middleware Applications". It also highlights features like "Audit Control", "Identity Management", "Authentication Authorization", and "Load Balancing". On the left, "FMW Lifecycle Tools" (Process Management and HA, Certificate management, Automation, Test to Production) are shown. At the bottom, "Enterprise Manager" is used to "Manage, monitor, diagnose" the system.

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

The screenshot shows a Mozilla Firefox browser window with the title "Oracle HTTP Server 12c - Mozilla Firefox". The address bar contains the URL <https://dell5530:4443/>. The page content is identical to the previous screenshot, displaying the Oracle logo, "Oracle HTTP Server 12c", and the descriptive paragraph. The central diagram and surrounding tool icons (FMW Lifecycle Tools, Enterprise Manager) are also present and identical.

Admin Host SSL URL: https://host:7779/

The screenshot shows a Mozilla Firefox browser window titled "Oracle HTTP Server 12c - Mozilla Firefox". The address bar displays "https://127.0.0.1:7779/". The page content includes the Oracle logo and the text "Oracle HTTP Server 12c". Below this, a paragraph states: "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 features a central "OHS" (Oracle HTTP Server) component. To its left, "Local Content" is shown with icons for "JS" and "HTML". Above the OHS, "Audit Control" and "Identity Management" are indicated. Below the OHS, "Auditing" and "Authentication Authorization" are shown. To the right, "Fusion Middleware Applications" are depicted. The OHS is supported by "Load Balancing" and "Process Management and HA" (High Availability). On the left side of the diagram, "Certificate management", "Automation", and "Test to Production" are listed. At the bottom, "FMW Lifecycle Tools" and "Manage, monitor, diagnose" are shown.

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

```
oracle@Dell5530:/home/oracle/Oracle/Middleware/Oracle_Home/ohs/common/bin> ./wlst.sh
WARNING: This is a deprecated script. Please invoke the wlst.sh script under oracle_common/common/bin.

Initializing WebLogic Scripting Tool (WLST) ...

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)

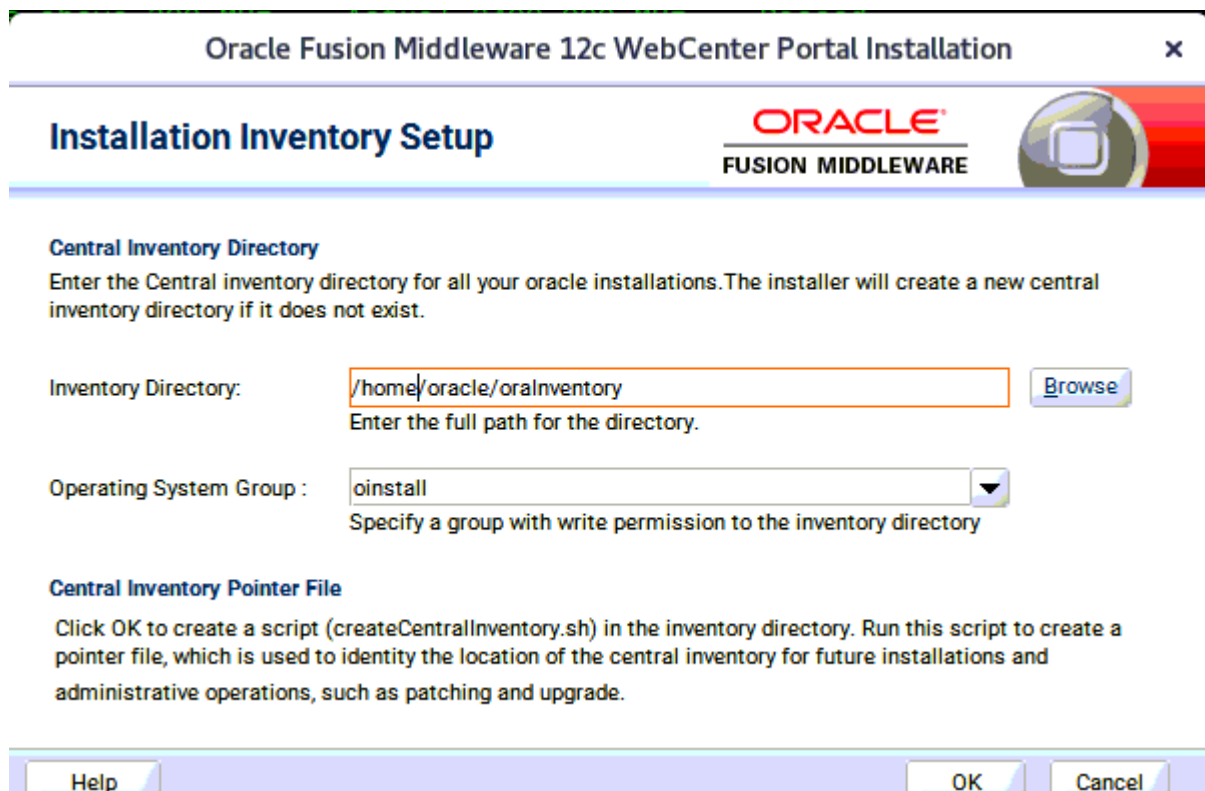
1-2. Log in to the target system (SLES 15 SP2 64-bit OS) as a non-admin user. Download the Oracle WebCenter Portal 12c (12.2.1.4.0) from <https://www.oracle.com/downloads/#category-middleware>.

(**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'`

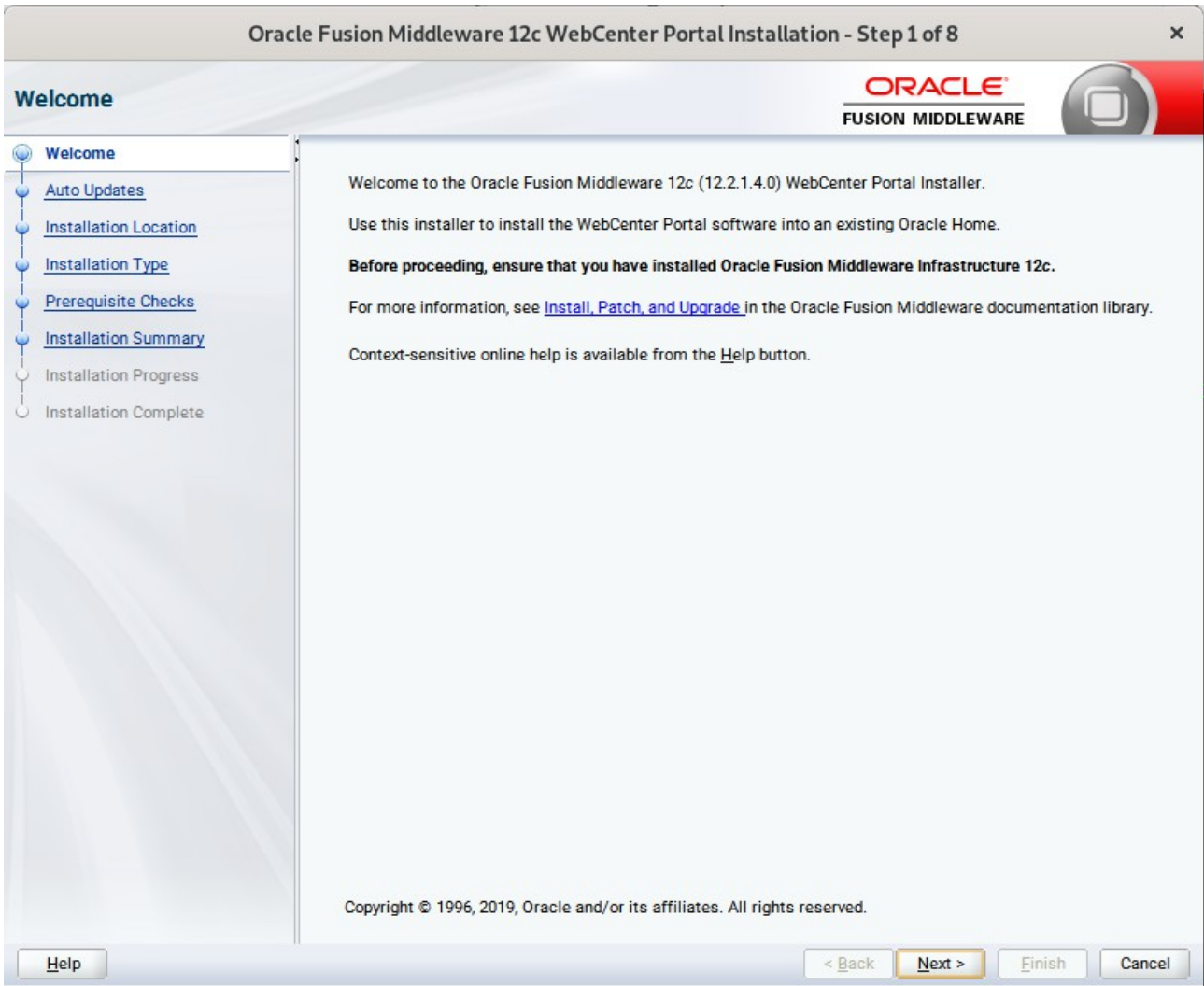
For the actual installation, follow the steps below:

- 1). Installation Inventory Setup.



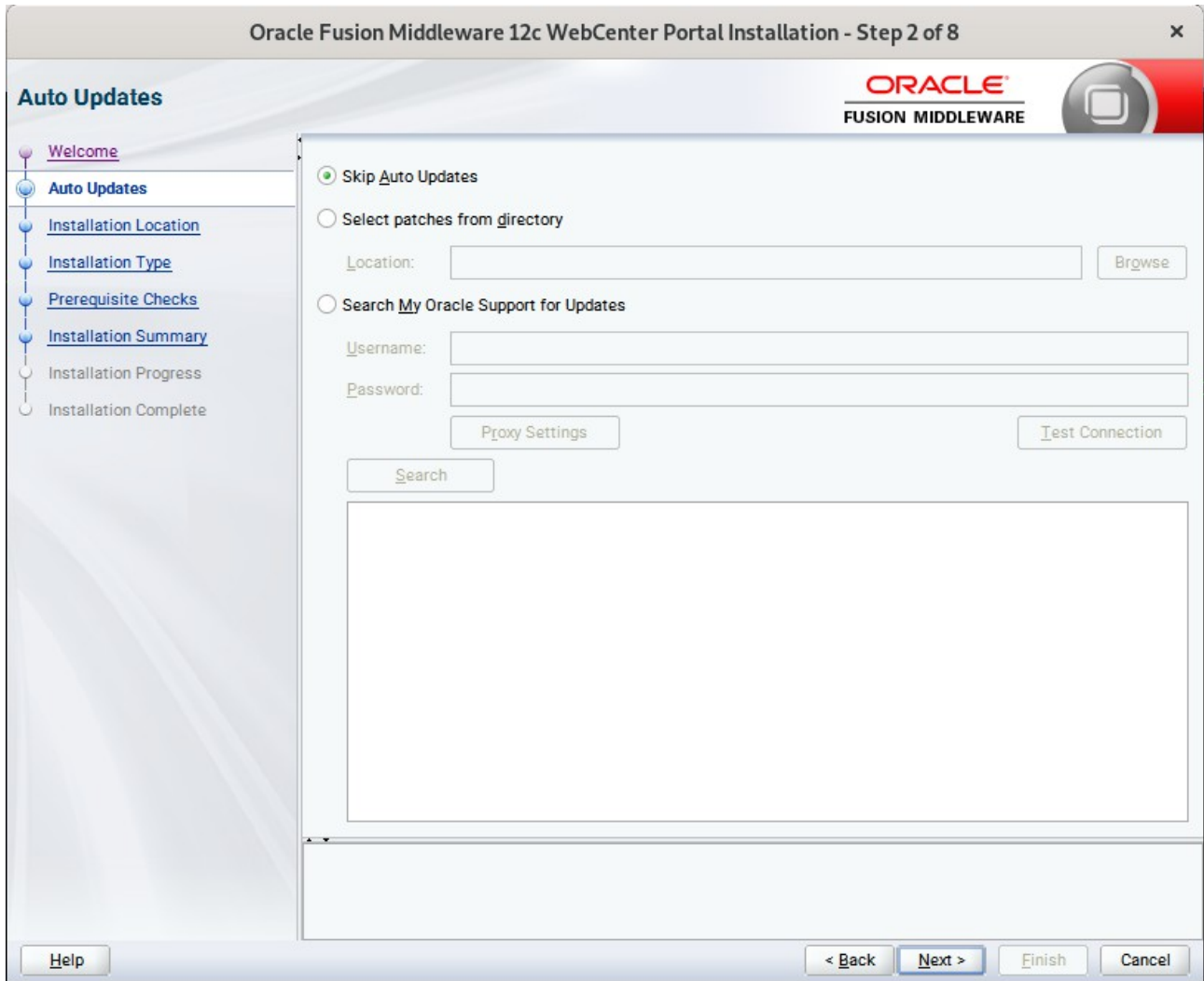
Specify the Oracle inventory directory and group permissions for that directory. The group must have write permissions to the Oracle inventory directory, then click **OK** to continue.

2). Welcome page.



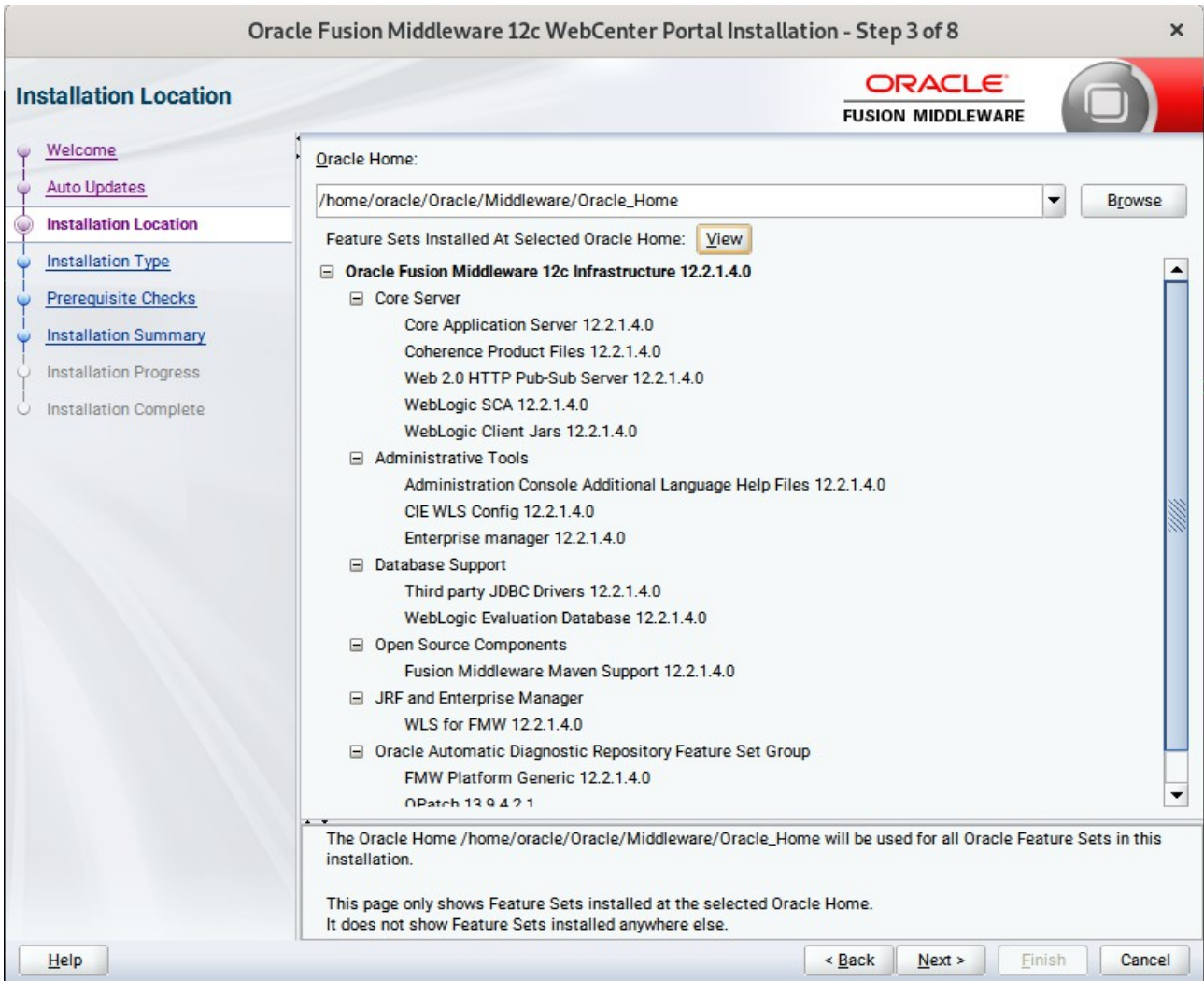
This page welcomes you to the installation. Click **Next** to continue.

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



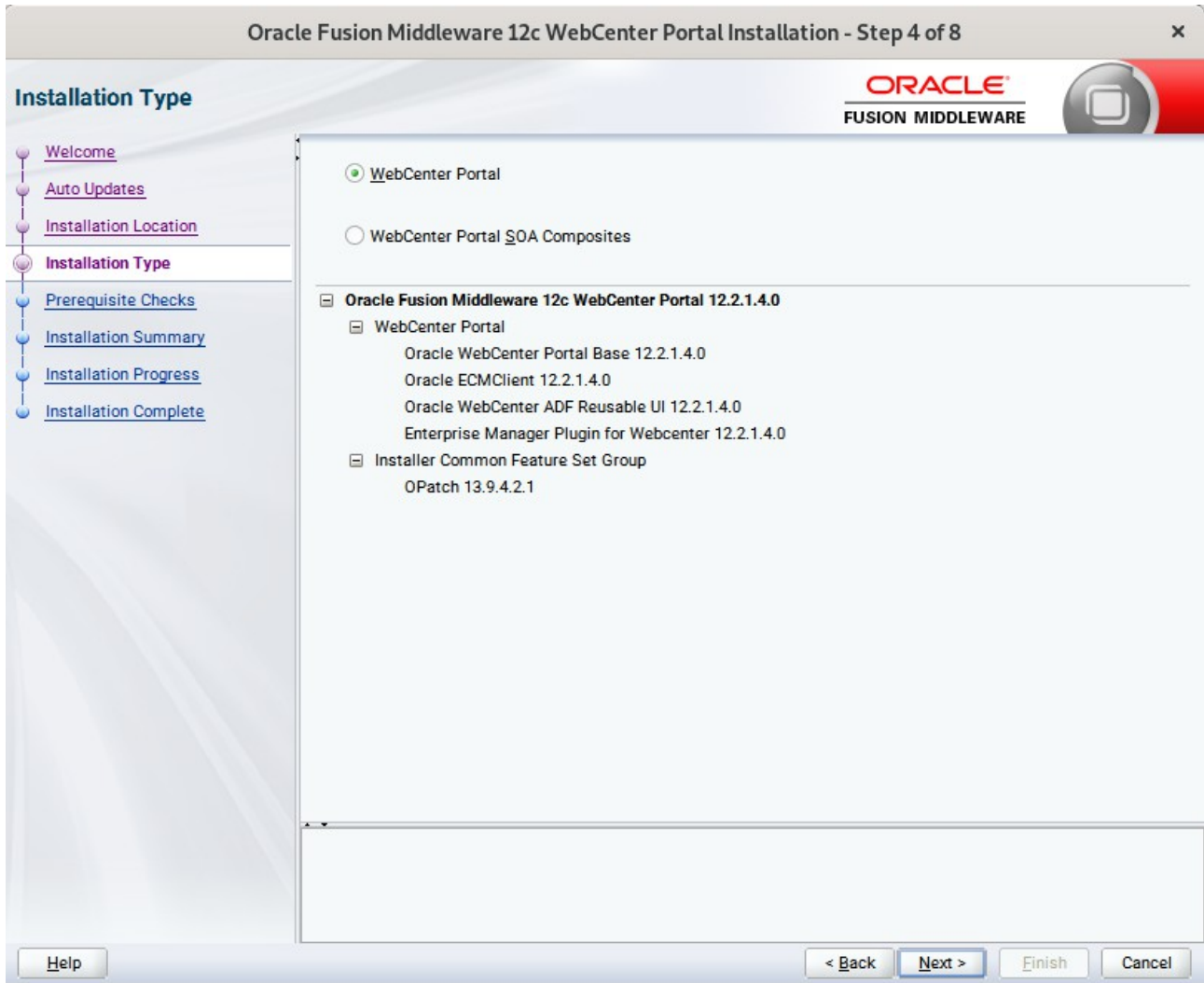
This page enables you to choose to automatically receive software updates for your components from Oracle Corporation. make your choices, then click **Next** to continue.

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



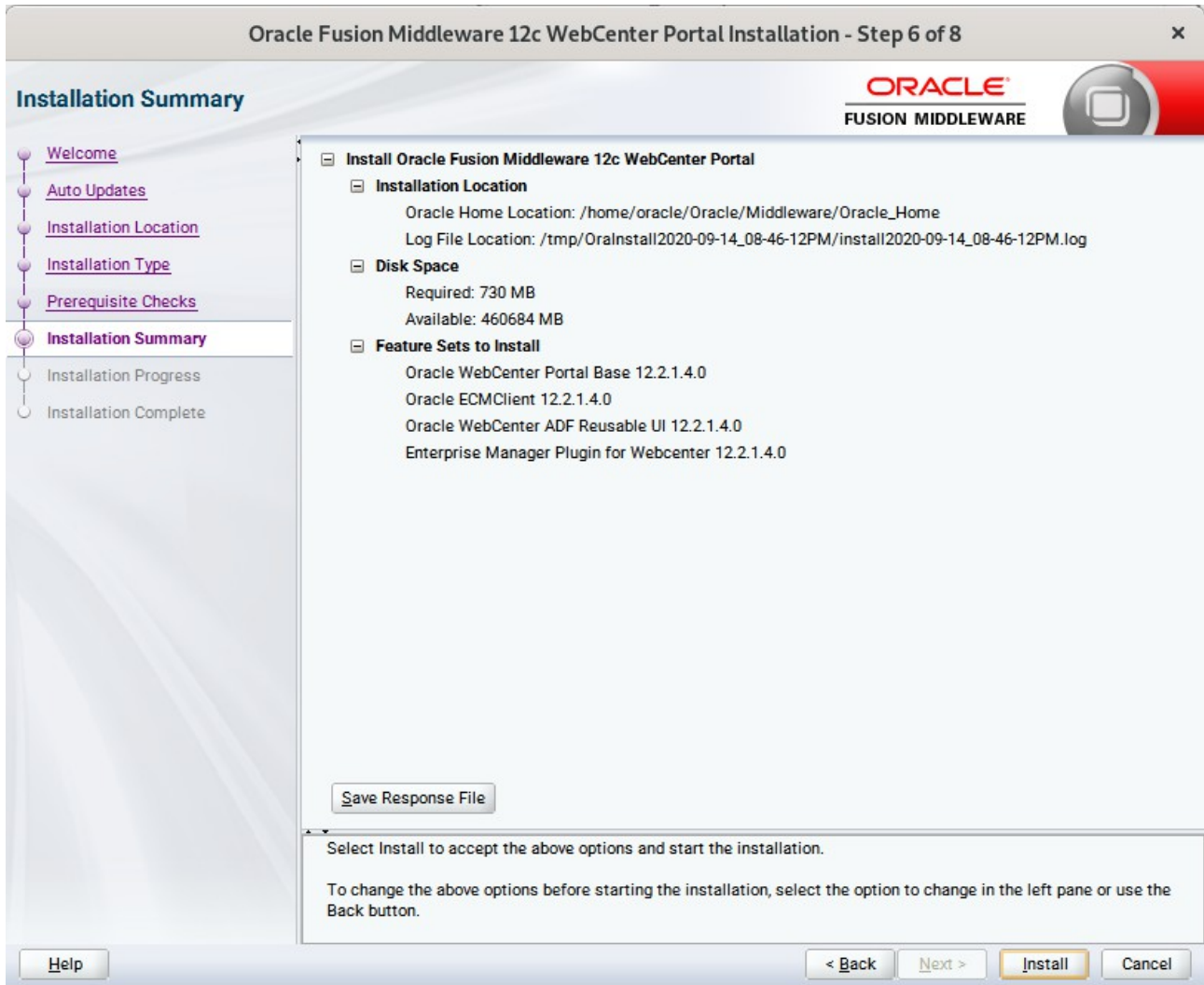
Specify the Oracle home location into which you want to install the product(s). Click **Next** to continue.

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



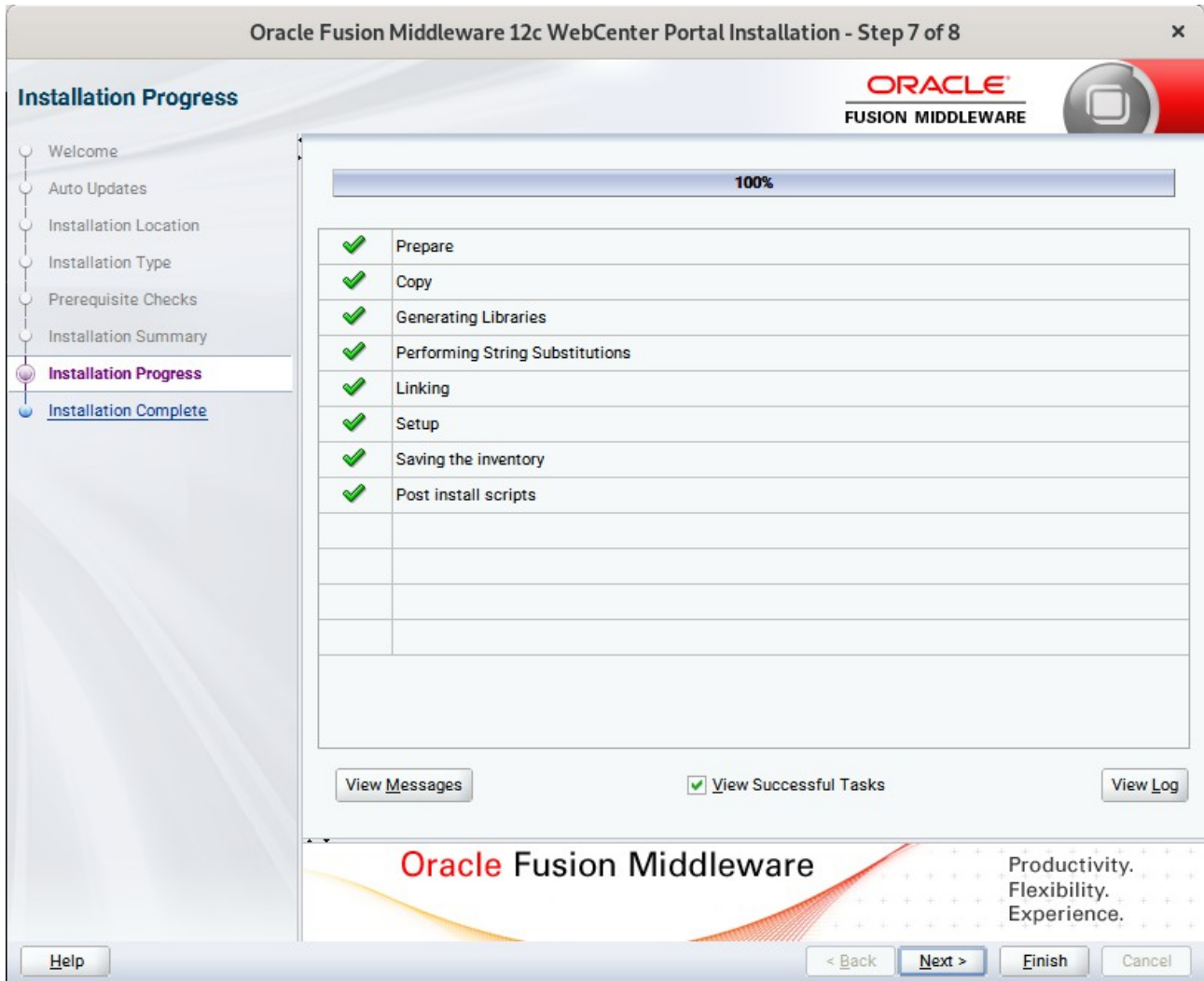
Use this screen to select the installation type and then products or feature sets you want to install. Selected the **WebCenter Portal** install type to install the WebCenter product. Click **Next** to continue.

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



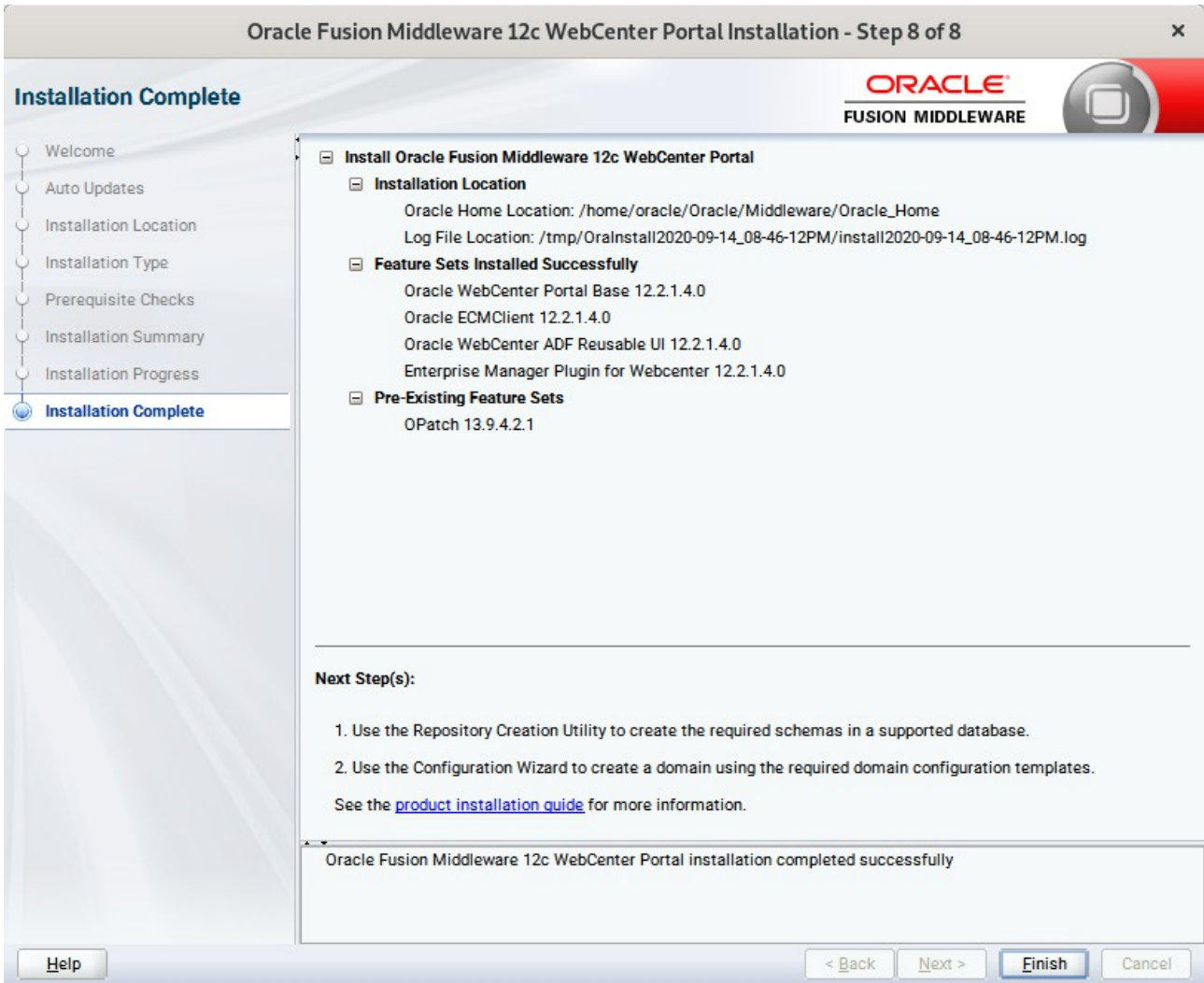
This page shows you what components and features are about to be installed. If you need to make changes, click **Back**, otherwise, click **Install** to start the installation.

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.

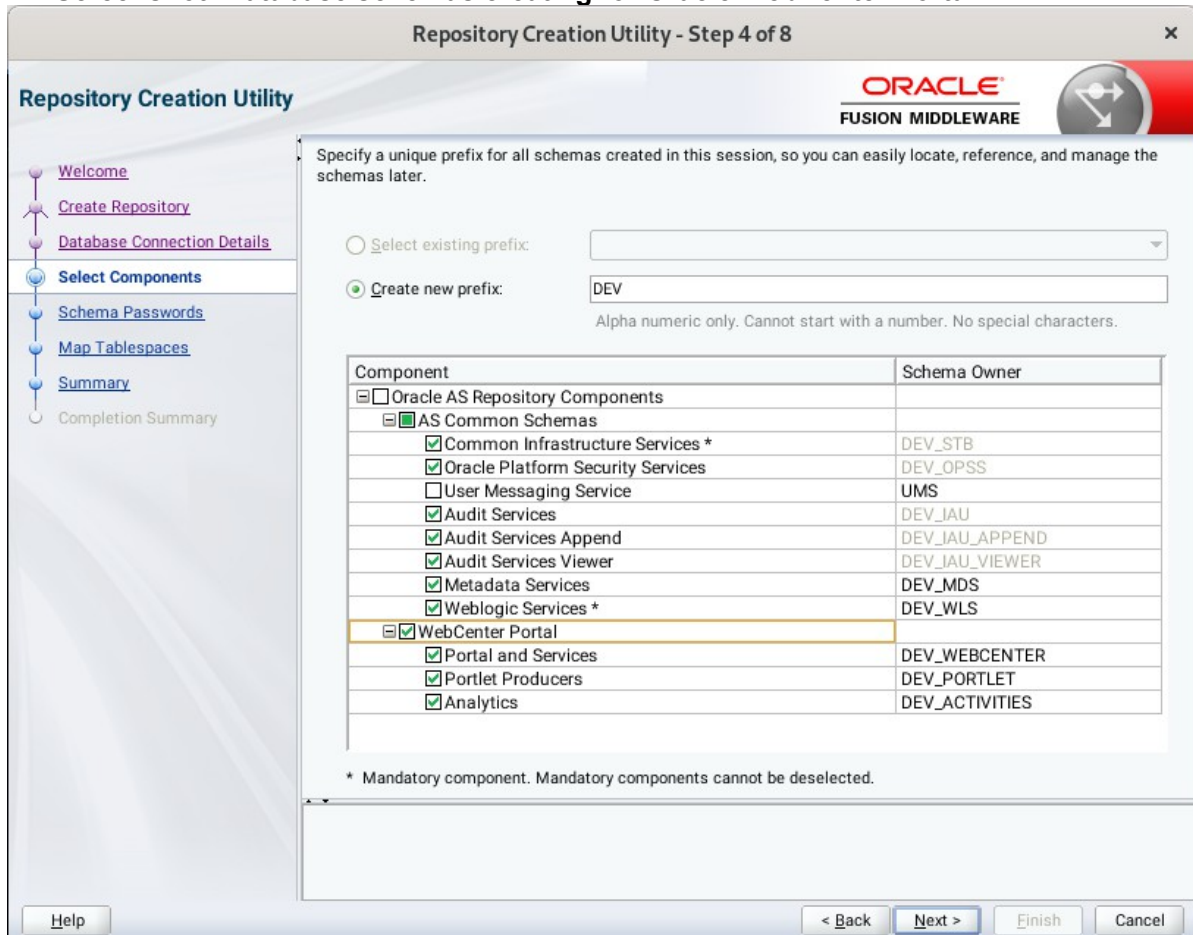


Click **Finish** to dismiss the installer.

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, and ensure schema creation is successful.

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

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

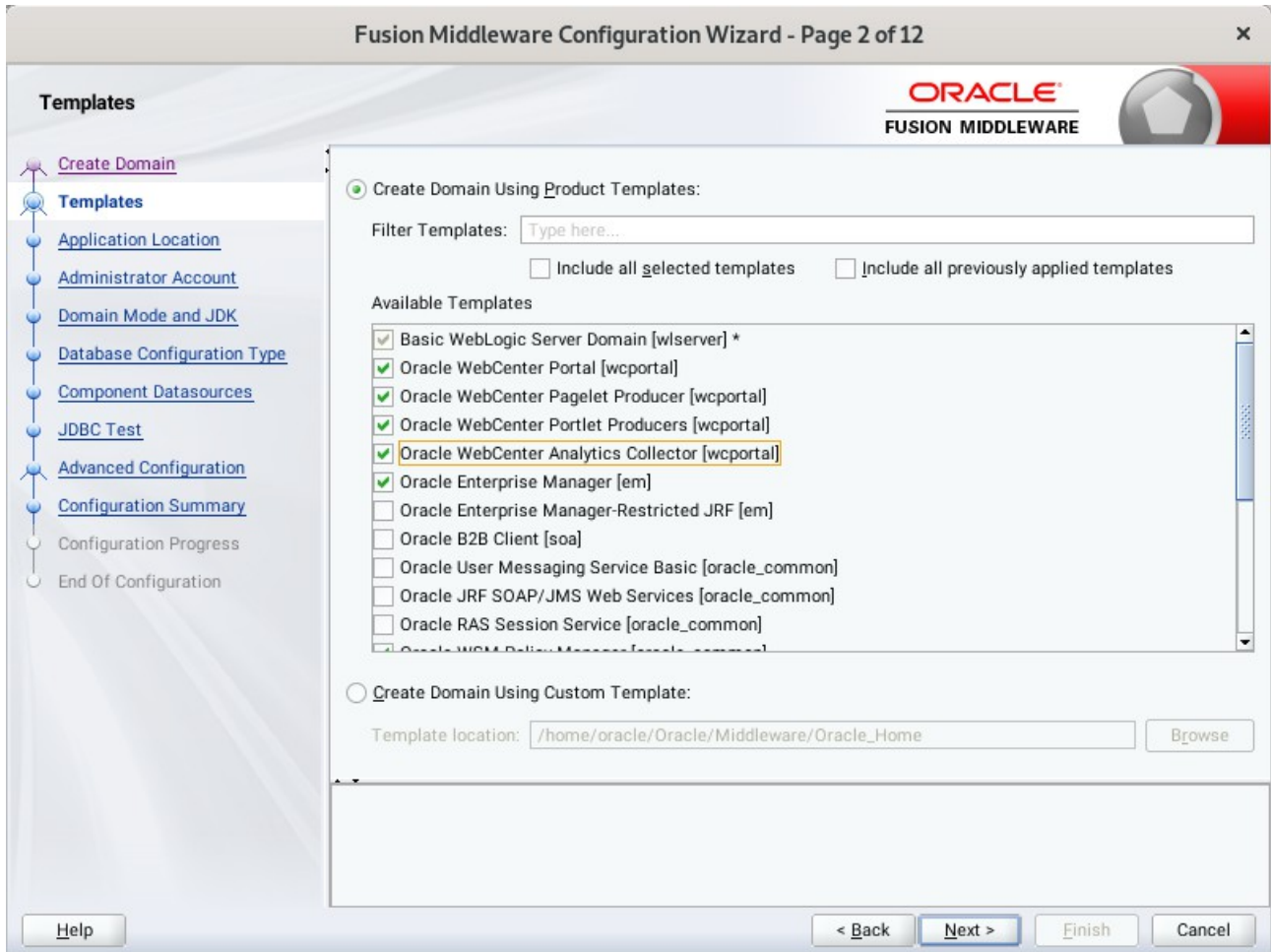
Follow these steps:

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



Click **Next** to continue.

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



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

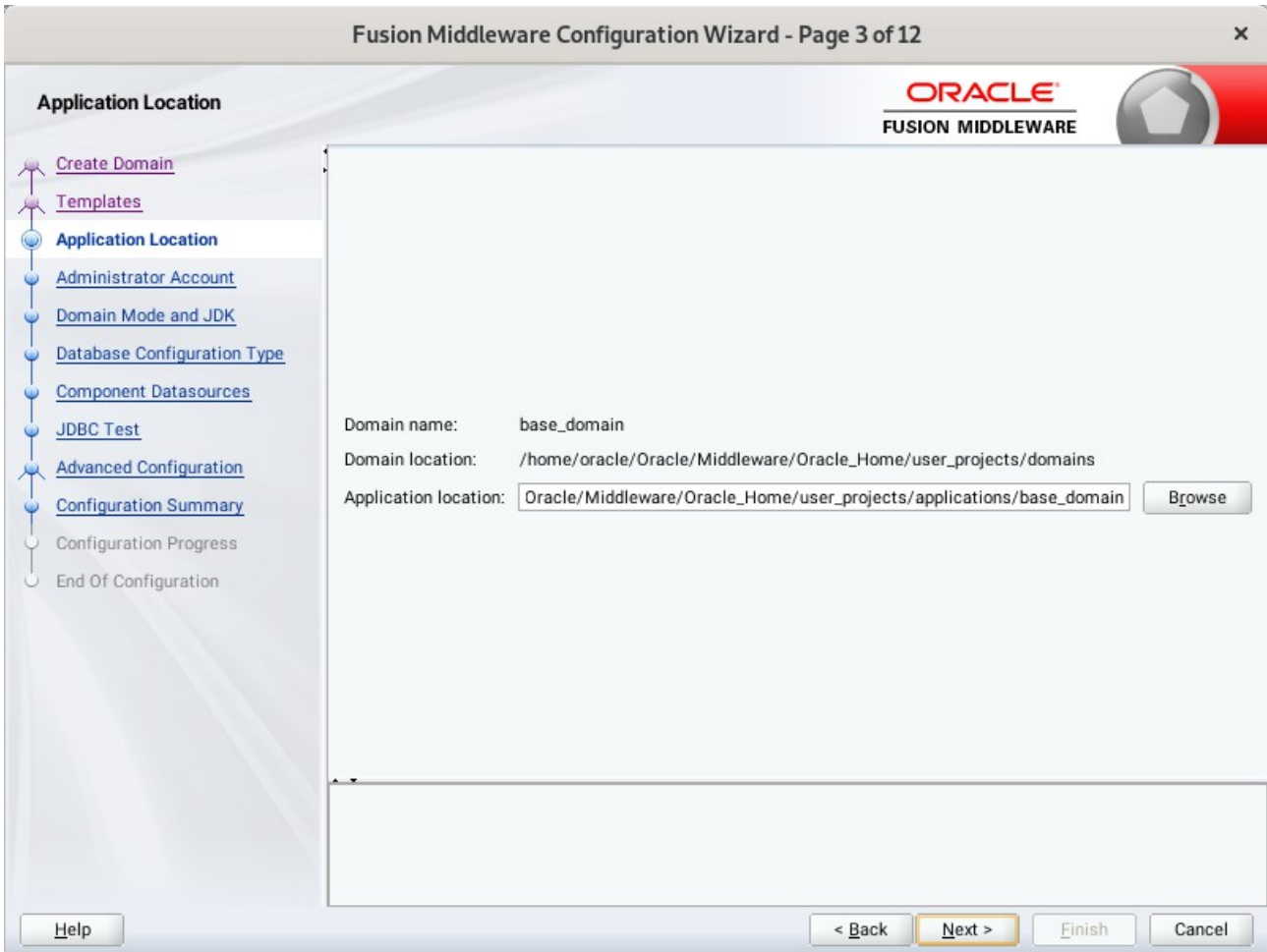
- Oracle WebCenter Portal [wcportal]

Selecting this template automatically selects the following as dependencies:

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

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

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



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

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

Fusion Middleware Configuration Wizard - Page 4 of 12

Administrator Account

ORACLE
FUSION MIDDLEWARE

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

Name: weblogic
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.

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 the following 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 contains two sections: 'Domain Mode' and 'JDK'. Under 'Domain Mode', there are two radio buttons: 'Development' (unselected) and 'Production' (selected). Below 'Production' is a text description: 'Require the entry of a username and password, and do not poll for applications to deploy.' Under 'JDK', there are two radio buttons: 'Oracle HotSpot 1.8.0_221 /home/ORACLE_SW/Java/jdk1.8.0_221' (selected) and 'Other JDK Location: [text input field] [Browse button]'. At the bottom of the window, there are buttons for '< Back', 'Next >', 'Finish', and 'Cancel'. A 'Help' button is located in the bottom left corner.

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

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

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

Fusion Middleware Configuration Wizard - Page 6 of 12

Database Configuration Type

ORACLE
FUSION MIDDLEWARE

Specify AutoConfiguration Options Using:

RCU Data Manual Configuration

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

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

Connection Parameters Connection URL String

Host Name: Dell5530

DBMS/Service: suse Port: 1521

Schema Owner: DEV_STB 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.

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

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

Fusion Middleware Configuration Wizard - Page 7 of 12

JDBC Component Schema

ORACLE
FUSION MIDDLEWARE

Vendor: Driver:

Connection Parameters Connection URL String

Host Name:

DBMS/Service: Port:

Schema Owner: Schema Password:

Oracle RAC configuration for component schemas:

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

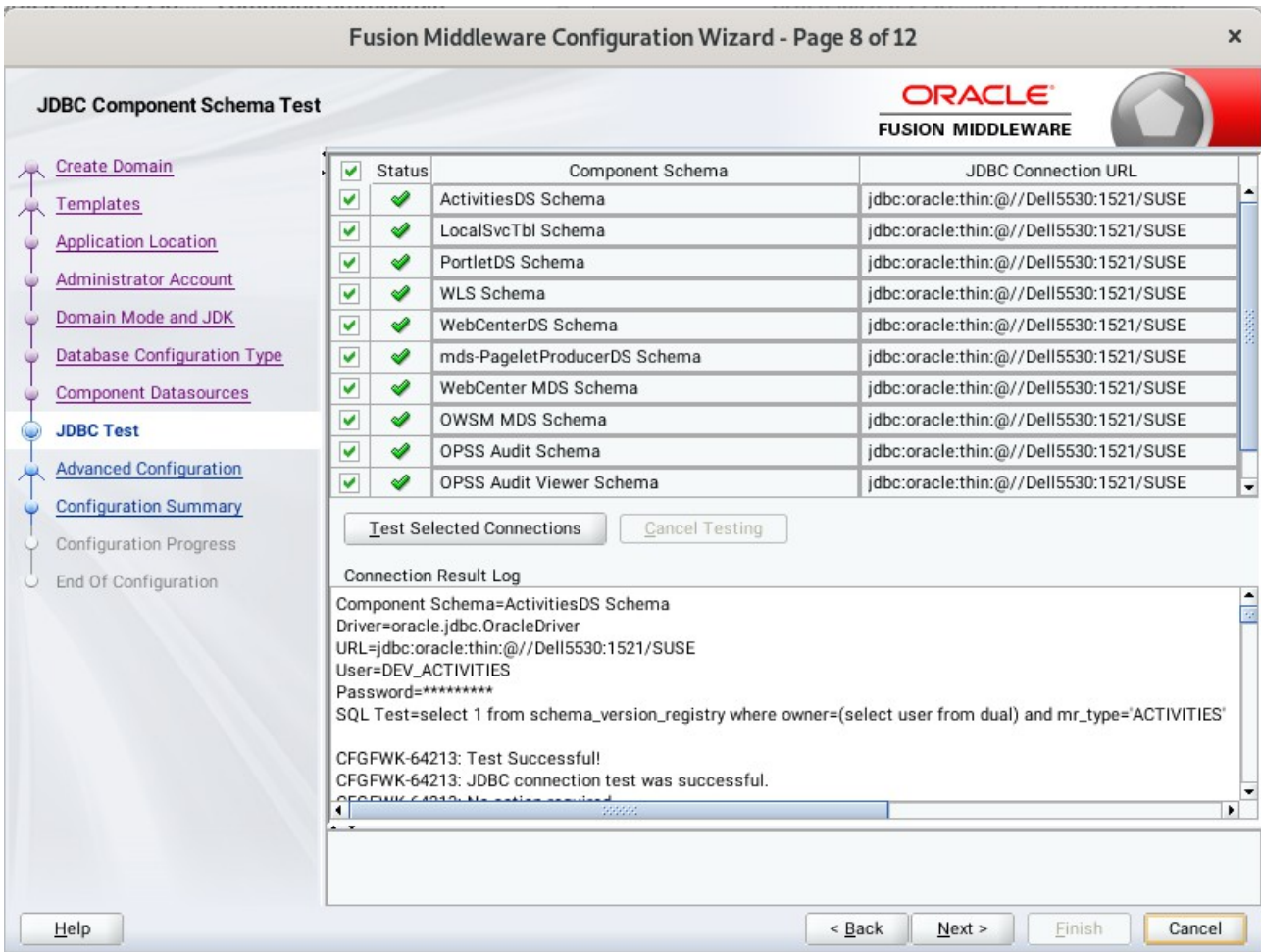
Edits to the data above will affect all checked rows in the table below.

<input type="checkbox"/>	Component Schema	DBMS/Service	Host Name	Port	Schema Owner	Schema Password
<input type="checkbox"/>	ActivitiesDS Schema	SUSE	Dell5530	1521	DEV_ACTIVITIE	.....
<input type="checkbox"/>	LocalSvcTbl Schema	SUSE	Dell5530	1521	DEV_STB	.....
<input type="checkbox"/>	PortletDS Schema	SUSE	Dell5530	1521	DEV_PORTLET	.....
<input type="checkbox"/>	WLS Schema	SUSE	Dell5530	1521	DEV_WLS_RUN	.....
<input type="checkbox"/>	WebCenterDS Schema	SUSE	Dell5530	1521	DEV_WEBCENT	.....
<input type="checkbox"/>	mds-PageletProducerDS	SUSE	Dell5530	1521	DEV_MDS	.....
<input type="checkbox"/>	WebCenter MDS Schem	SUSE	Dell5530	1521	DEV_MDS	.....
<input type="checkbox"/>	OWSM MDS Schema	SUSE	Dell5530	1521	DEV_MDS	.....

Help

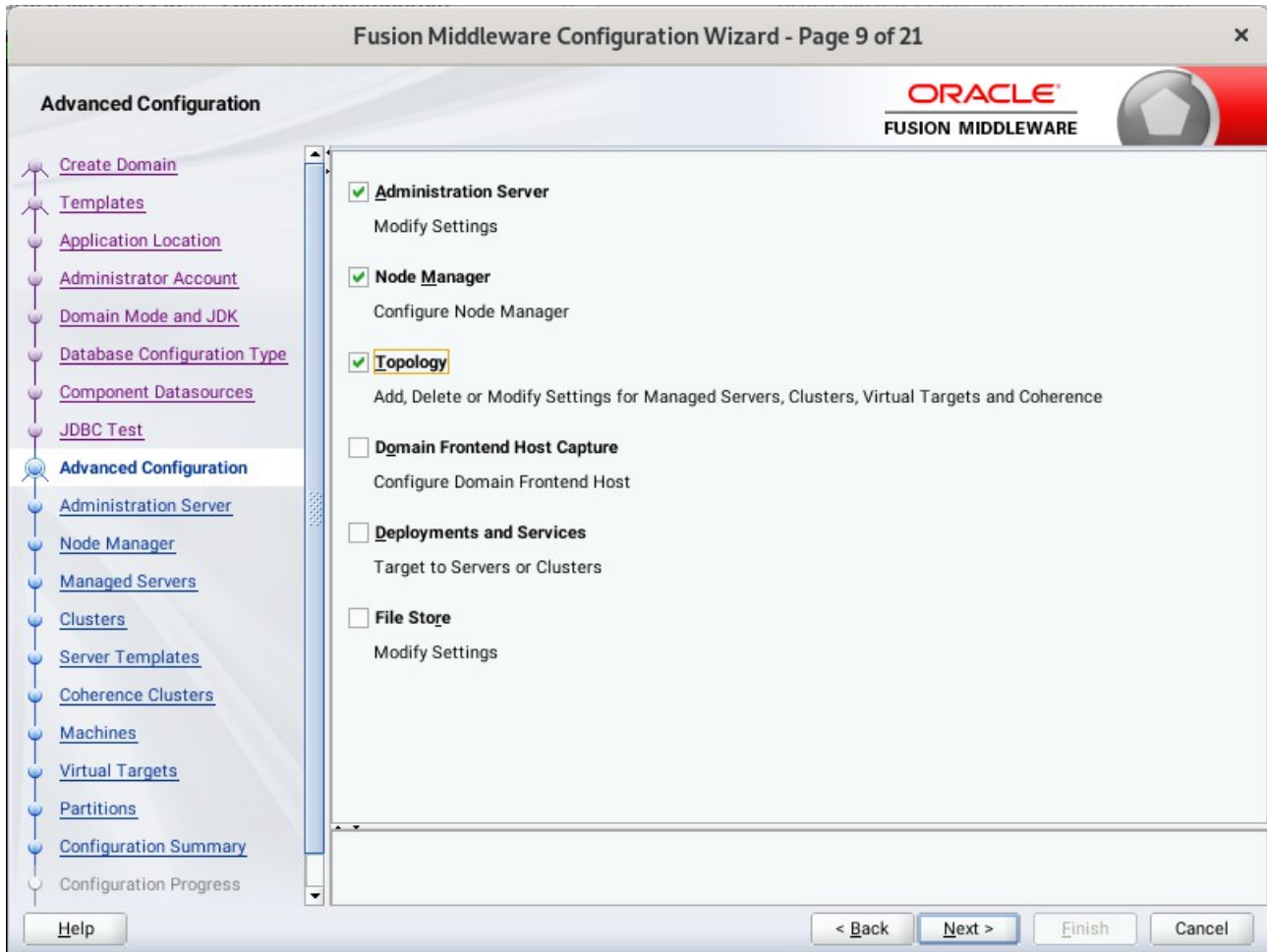
Our instructions assume each Repository schema uses the same password. If not, enter the correct schema passwords. Click **Next** to continue.

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.



On the Advanced Configuration screen, select:

- Administration Server
- Node Manager
- Topology

Then, click **Next** to continue.

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

Fusion Middleware Configuration Wizard - Page 10 of 21

Administration Server

ORACLE
FUSION MIDDLEWARE

[Create Domain](#)
[Templates](#)
[Application Location](#)
[Administrator Account](#)
[Domain Mode and JDK](#)
[Database Configuration Type](#)
[Component Datasources](#)
[JDBC Test](#)
[Advanced Configuration](#)
Administration Server
[Node Manager](#)
[Managed Servers](#)
[Clusters](#)
[Server Templates](#)
[Coherence Clusters](#)
[Machines](#)
[Virtual Targets](#)
[Partitions](#)
[Configuration Summary](#)
 Configuration Progress

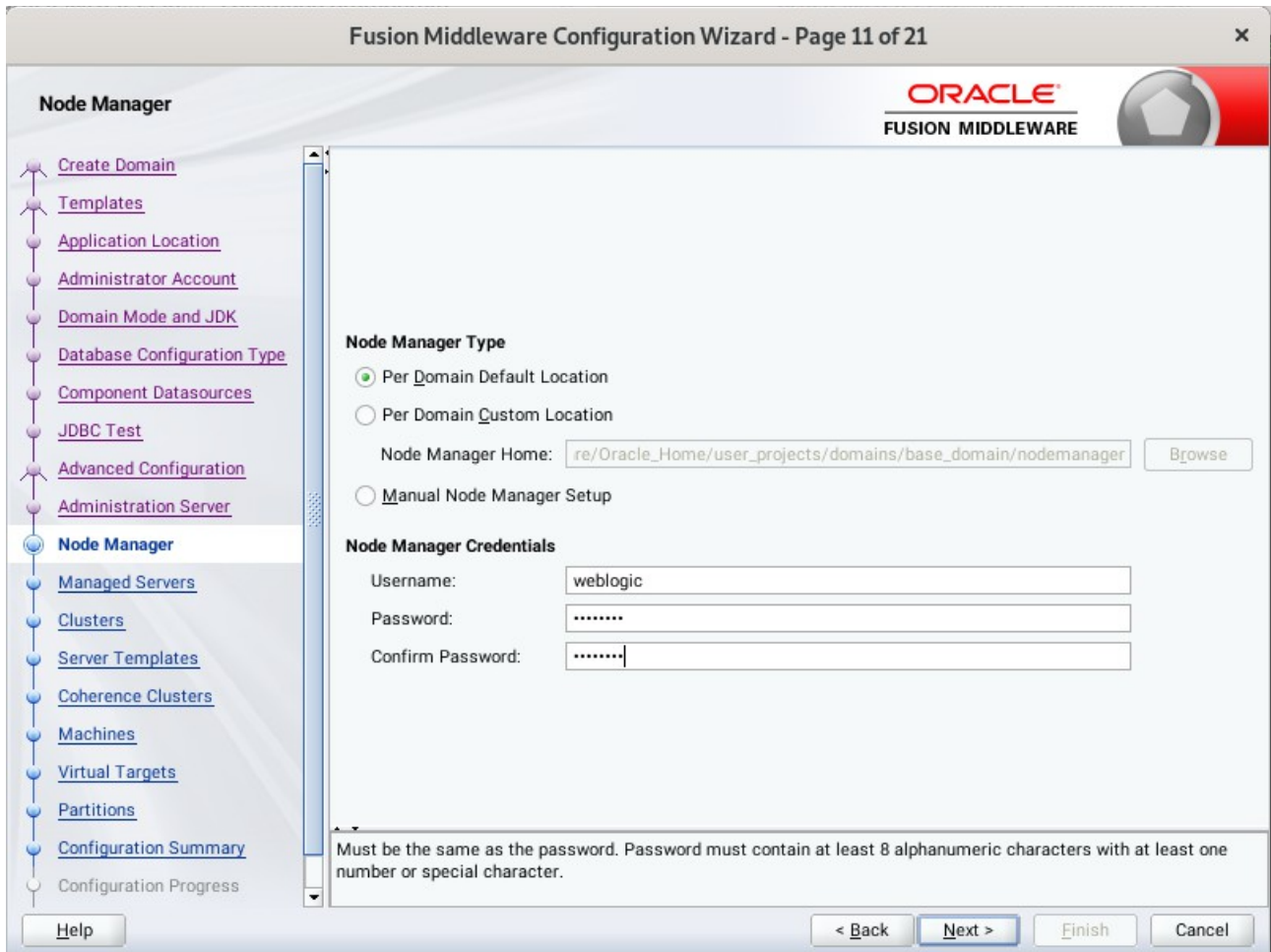
Server Name:
 Listen Address:
 Listen Port:
 Enable SSL:
 SSL Listen Port:
 Server Groups:

The name must not be null or empty and may not contain any : , * ? % / _cloned.

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

Click **Next** to continue.

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



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

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

Managed Servers

ORACLE
FUSION MIDDLEWARE

+ Add Clone X Delete Discard Changes

Server Name	Listen Address	Listen Port	Enable SSL	SSL Listen Port	Server Groups
WC_Portlet	192.168.1.7	8889	<input type="checkbox"/>	Disabled	WebCenter ...
WC_Portal	192.168.1.7	8888	<input type="checkbox"/>	Disabled	WebCenter ...

Help < Back Next > Finish Cancel

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

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

Fusion Middleware Configuration Wizard - Page 13 of 23

Clusters

ORACLE
FUSION MIDDLEWARE

+ Add X Delete Discard Changes

Cluster Name	Cluster Address	Frontend Host	Frontend HTTP Port	Frontend HTTPS Port
wcp_cluster_1			0	0
wcp_cluster_2			0	0

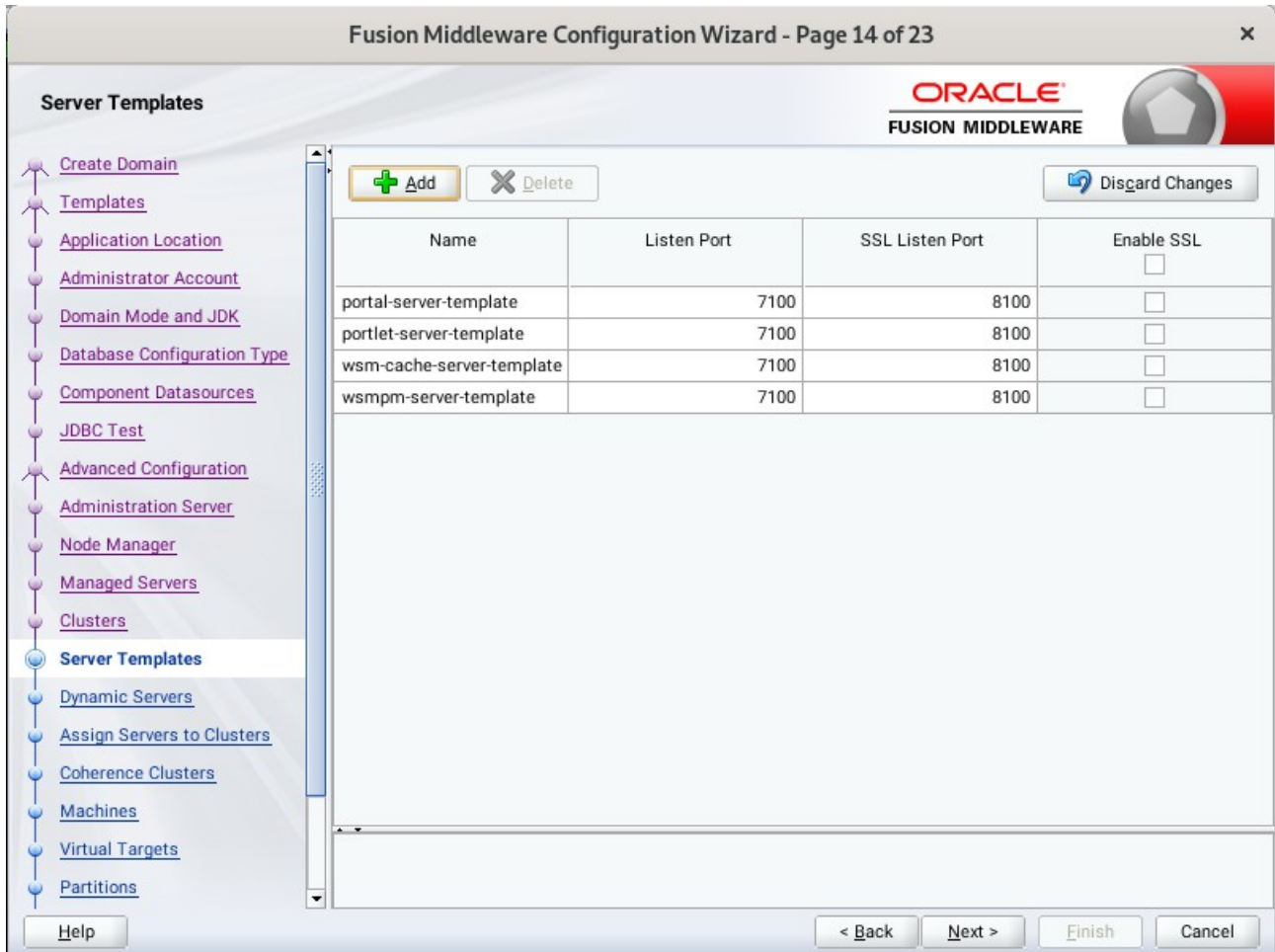
Help < Back Next > Finish Cancel

On the Clusters screen:

1. Click **Add**.
2. Specify **wcp_cluster_1** in the Cluster Name field.
3. Leave the Cluster Address field blank.
4. Repeat these steps to create one more clusters: **wcp_cluster_2**.

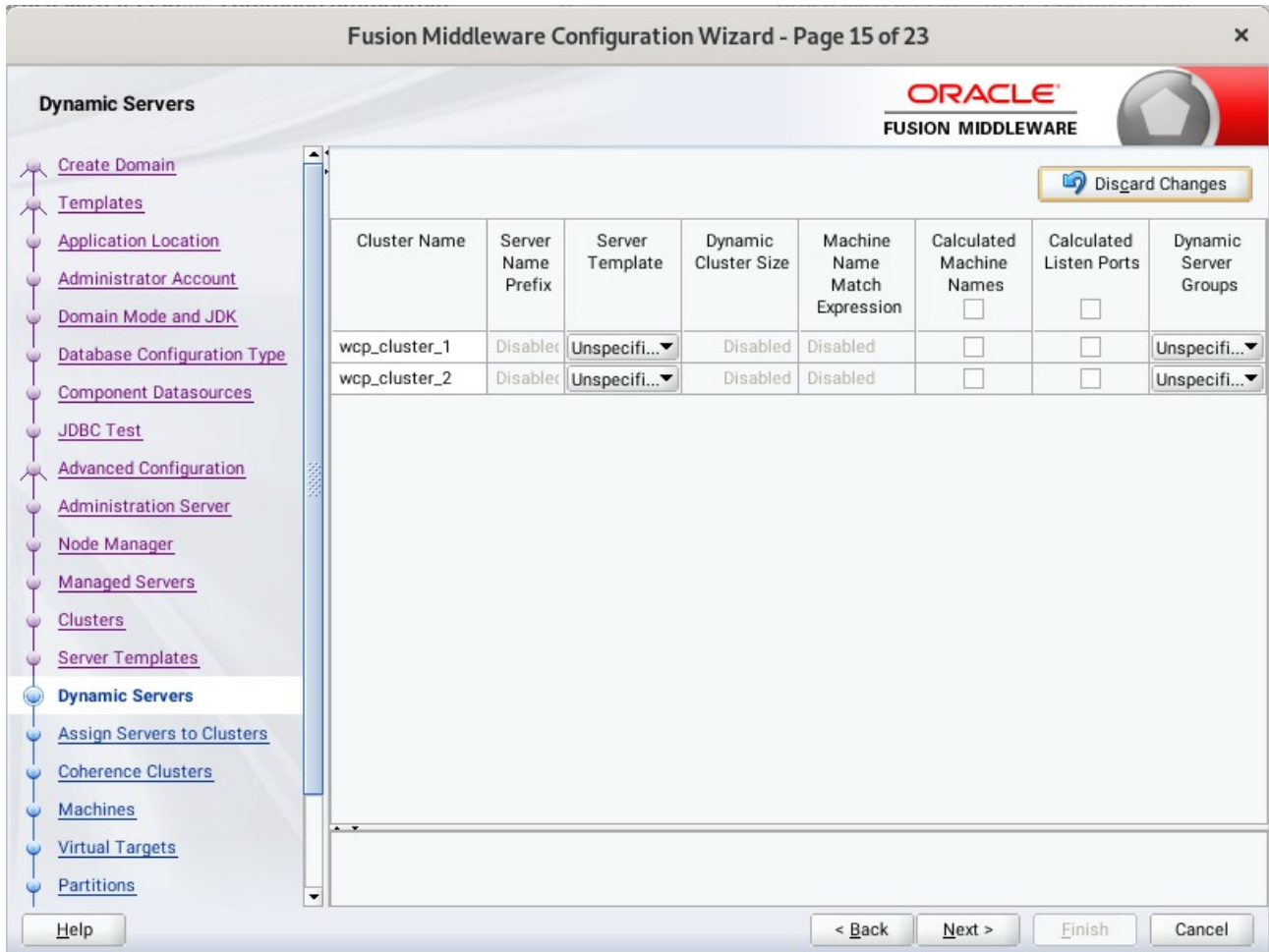
Click **Next** to continue.

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



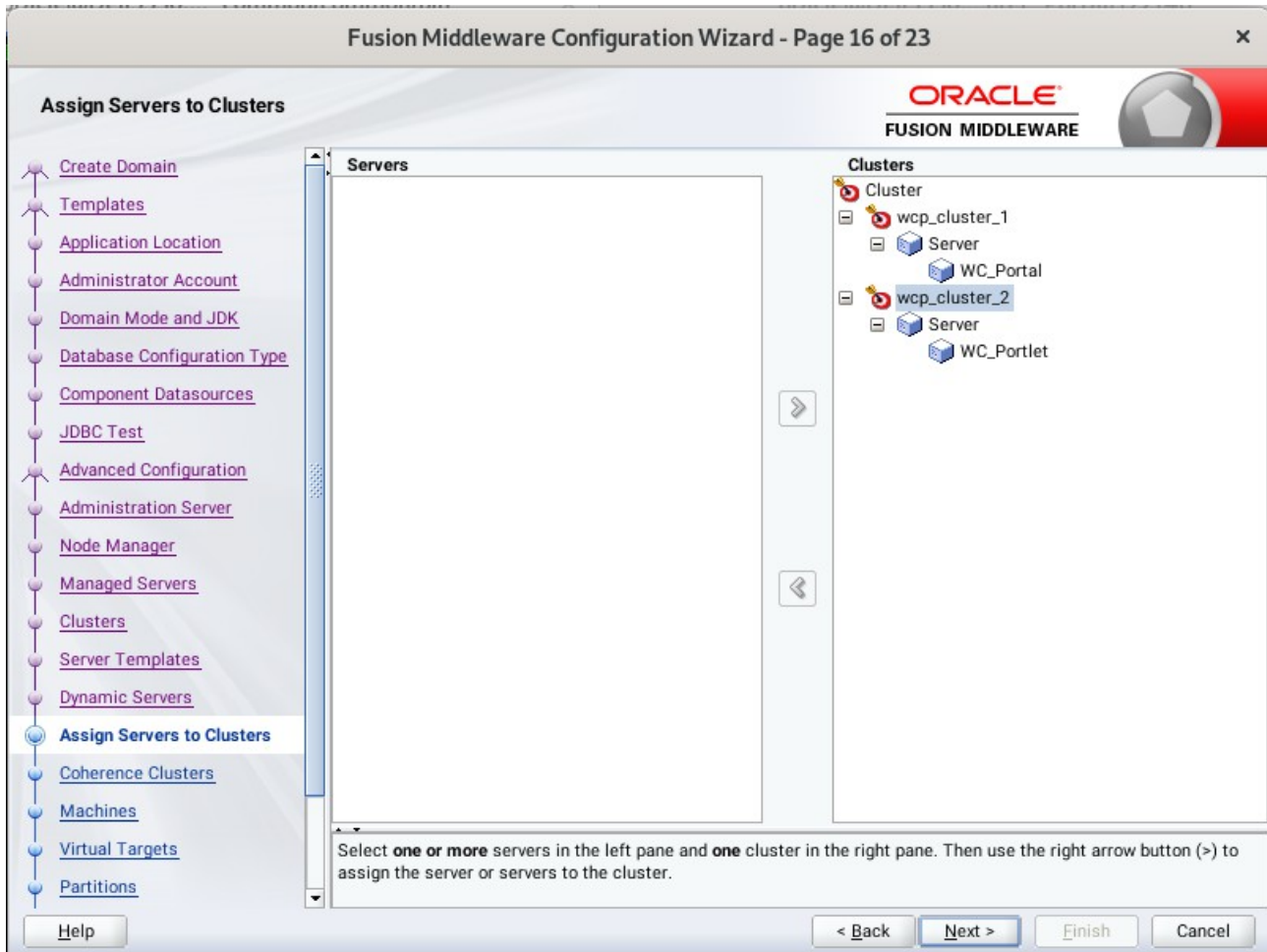
If you are creating dynamic clusters for a high availability setup, use the Server Templates screen to define one or more server templates for domain. To continue configuring the domain, click **Next**.

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



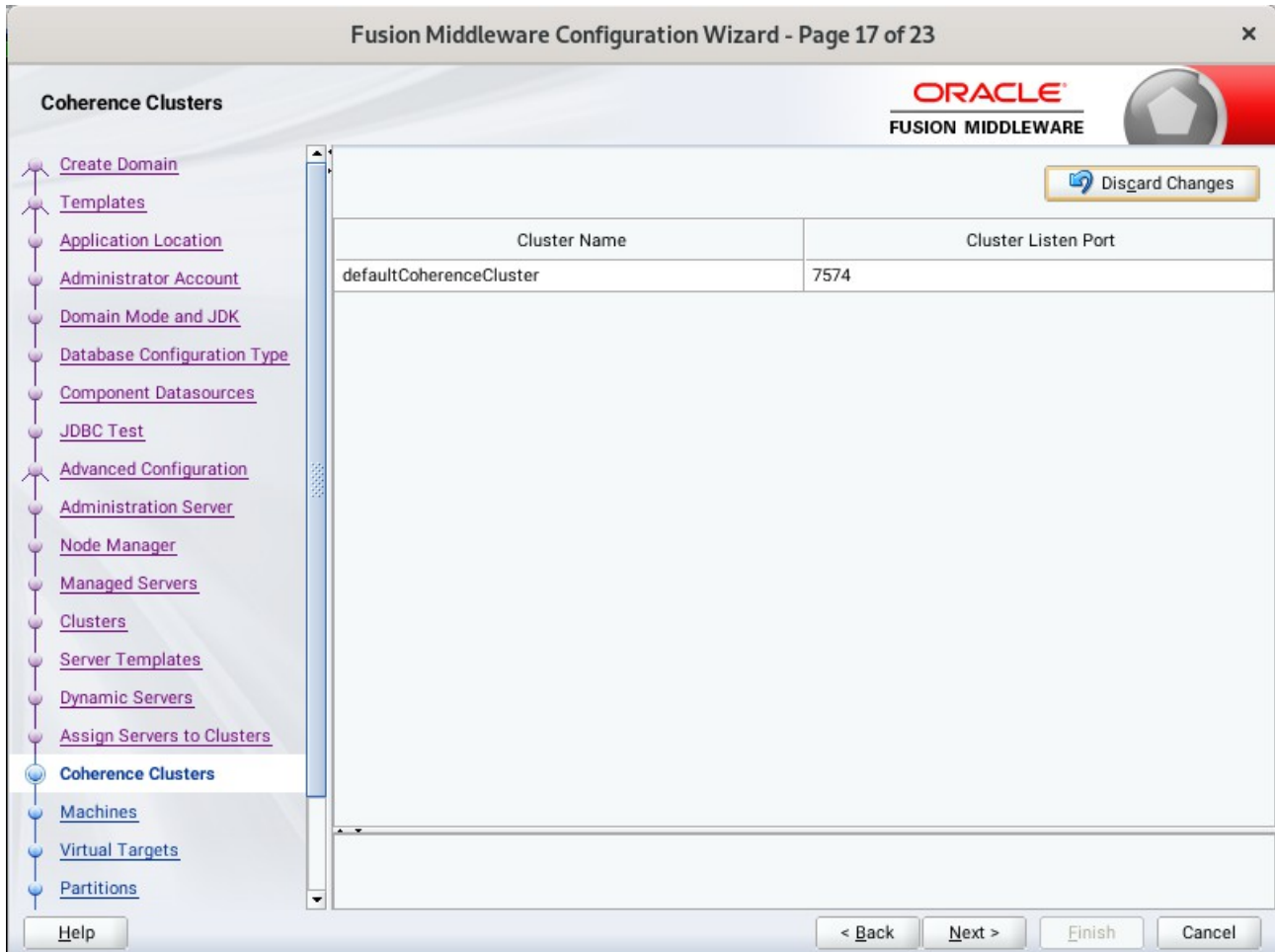
If you are creating dynamic clusters for a high availability setup, use the Dynamic Servers screen to configure the dynamic servers. If you are not configuring a dynamic cluster, click **Next** to continue configuring the domain.

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



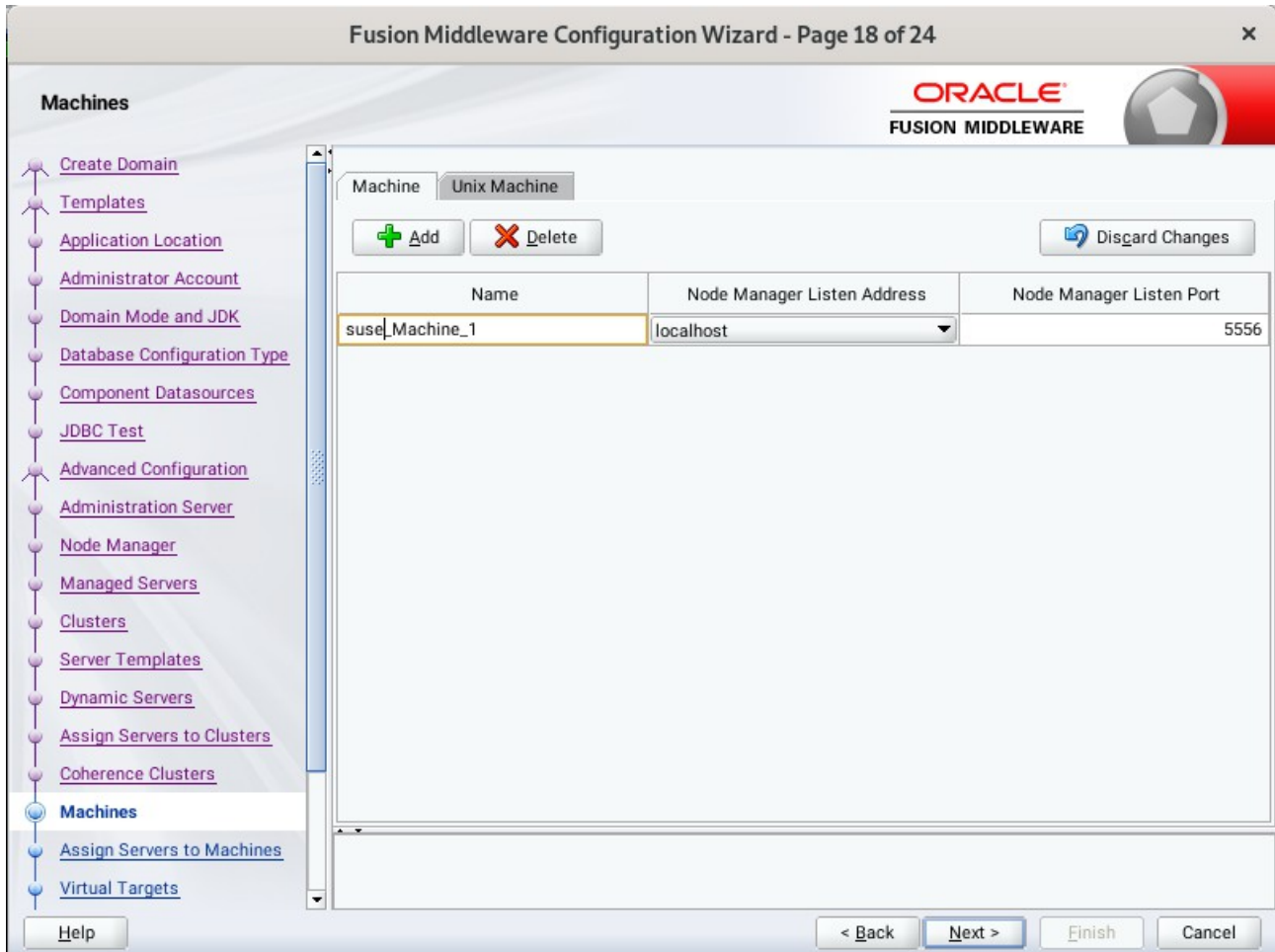
In the Clusters pane, select the cluster to which you want to assign the servers; in this case, **wcp_cluster_1**. In the Servers pane, assign **WC_Portal** to **wcp_cluster_1**, then repeat to assign **WC_Portlet** to **wcp_cluster_2**. Click **Next** to continue.

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



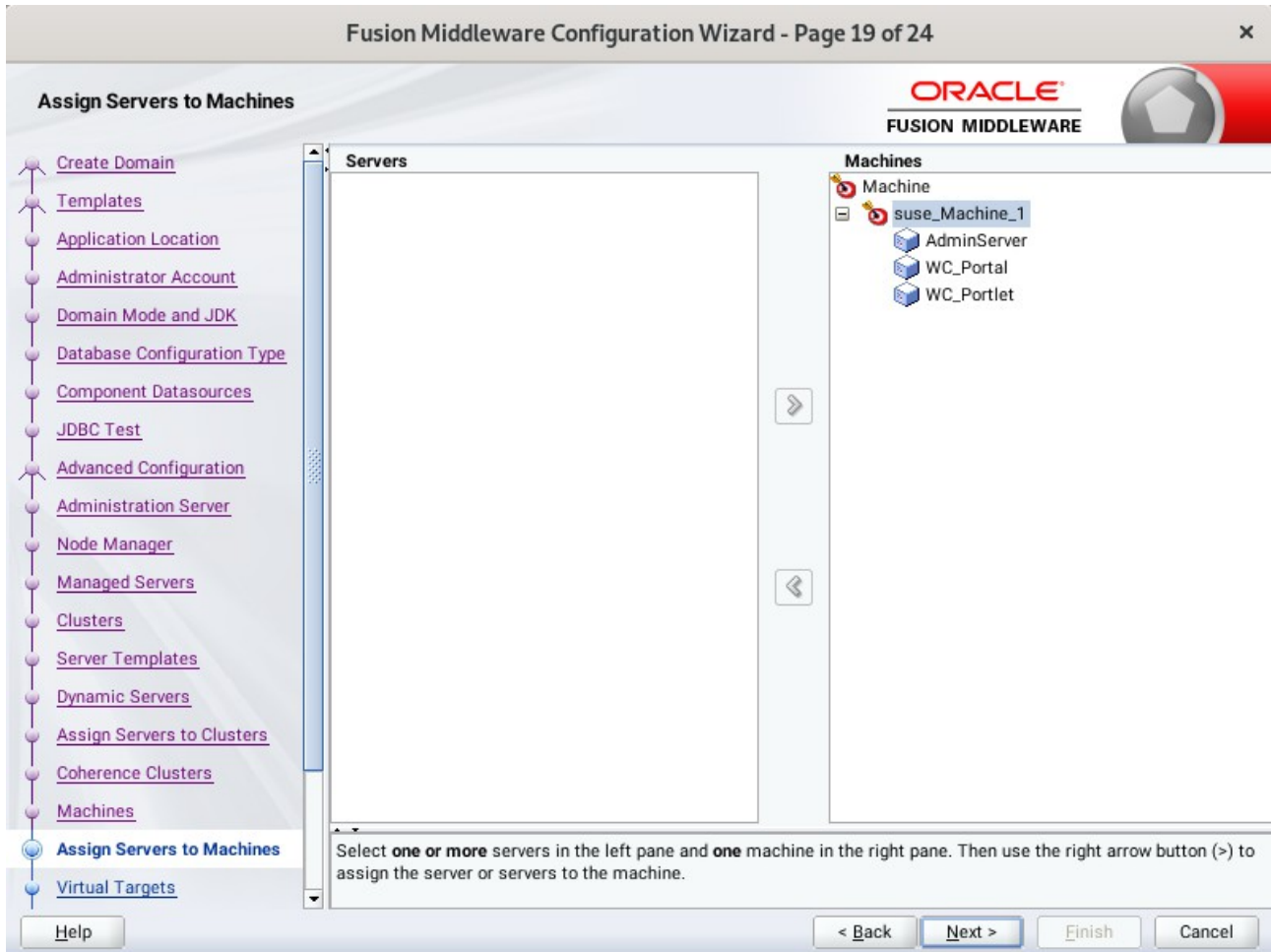
Leave the default port number as the Coherence cluster listen port. Click **Next** to continue.

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



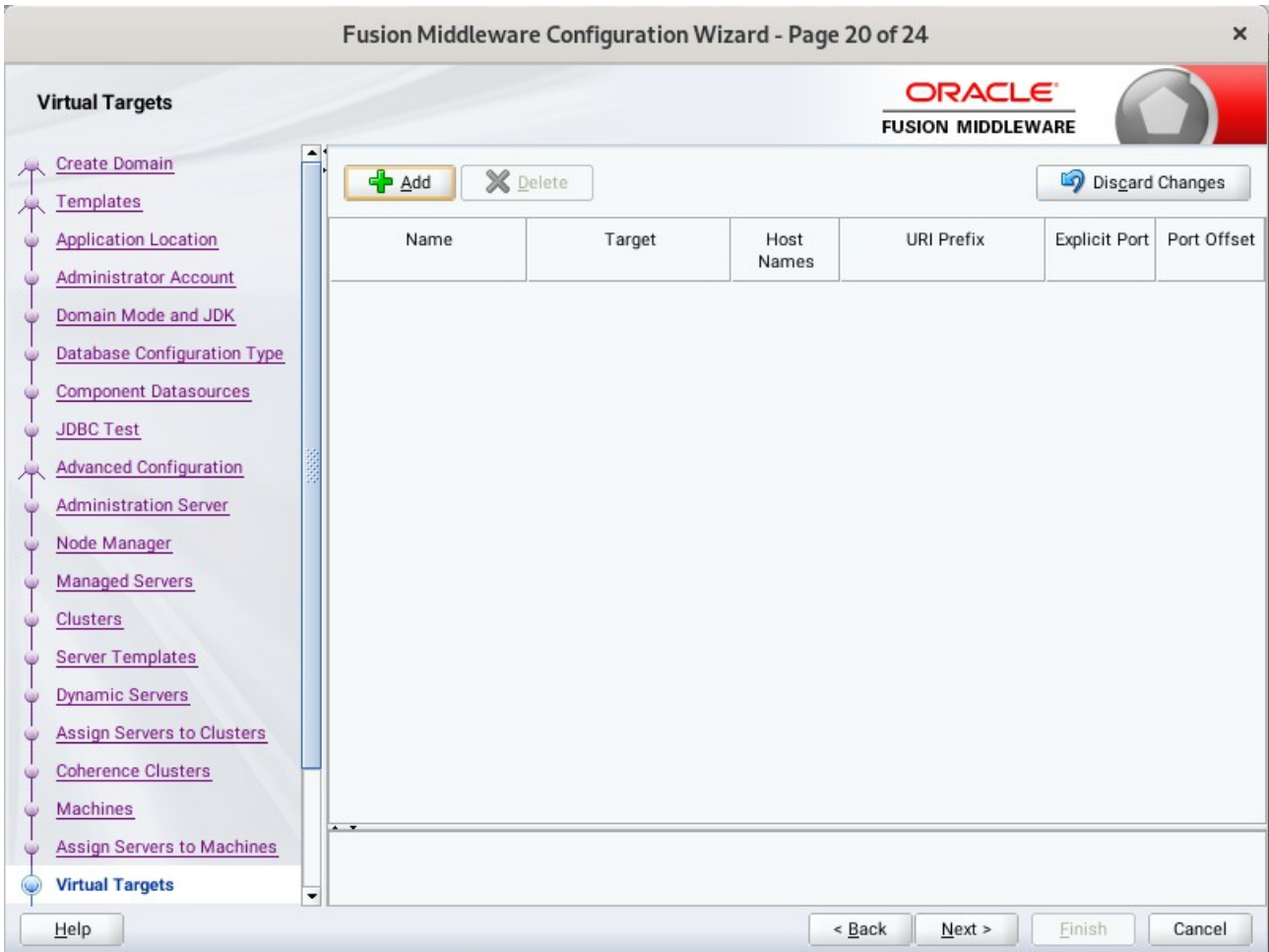
To create a new Oracle WebCenter Portal machine so that Node Manager can start and stop servers. Click **Next** to continue.

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



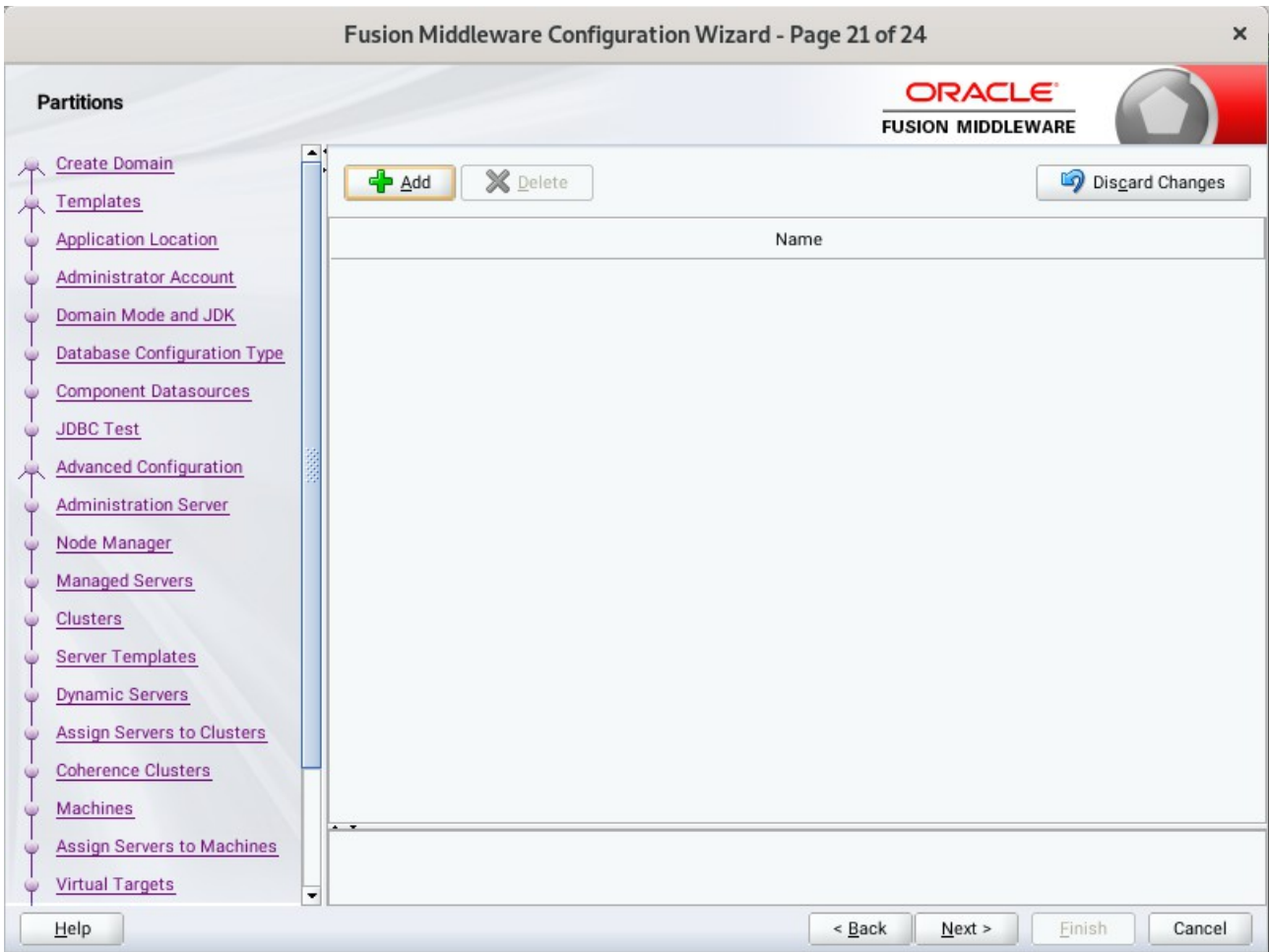
Use the **Assign Servers to Machines** screen to assign the Managed Servers to the new machine you just created. Click **Next** to continue.

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



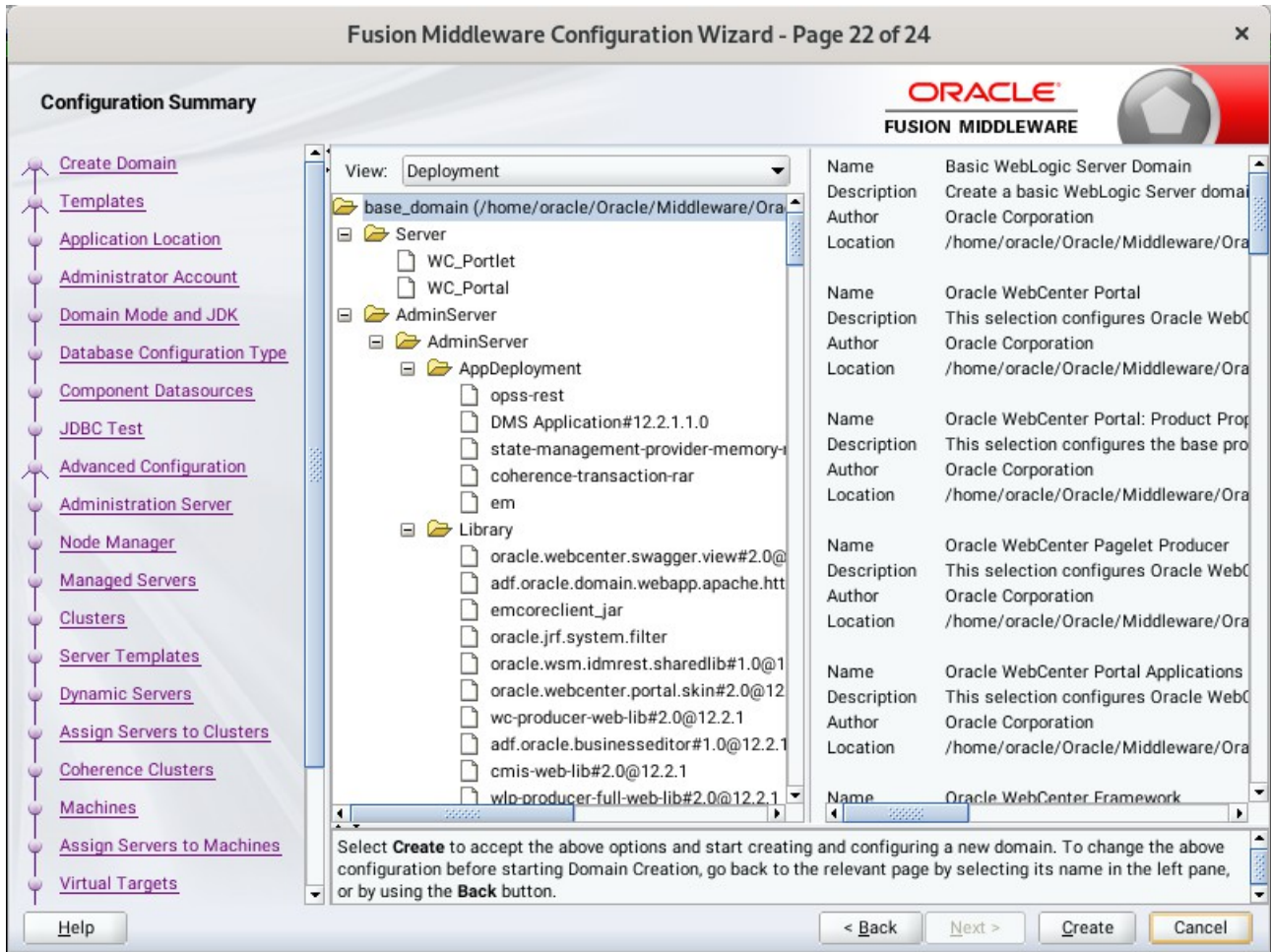
If you have a WebLogic Server Multitenant (MT) environment, you use the Virtual Targets screen to add or delete virtual targets. For this installation (not a WebLogic Server MT environment), you do not enter any values; just select **Next**.

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



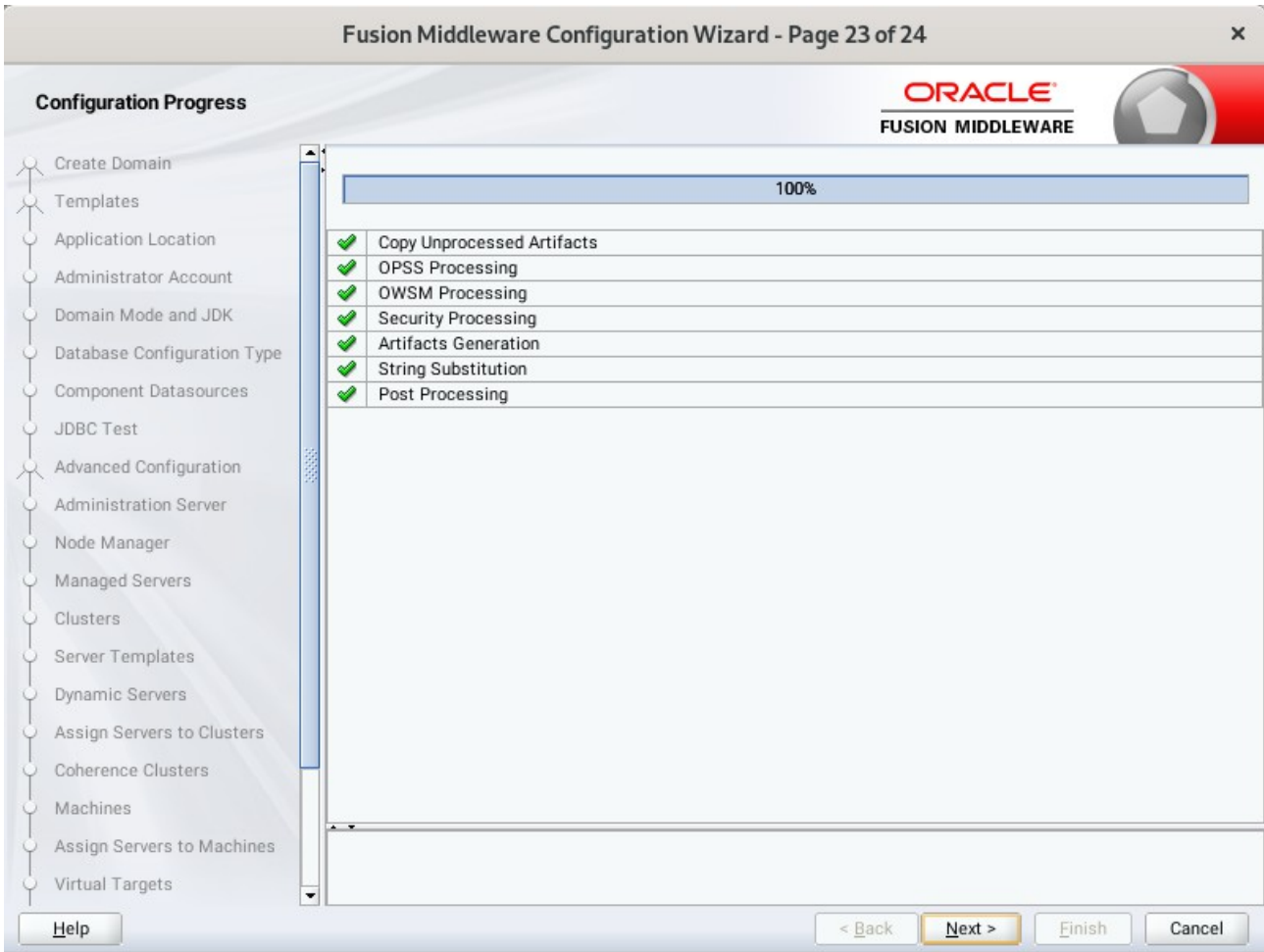
The Partitions screen is used to configure partitions for virtual targets in WebLogic Server Multitenant (MT) environments. Select **Next** without selecting any options.

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



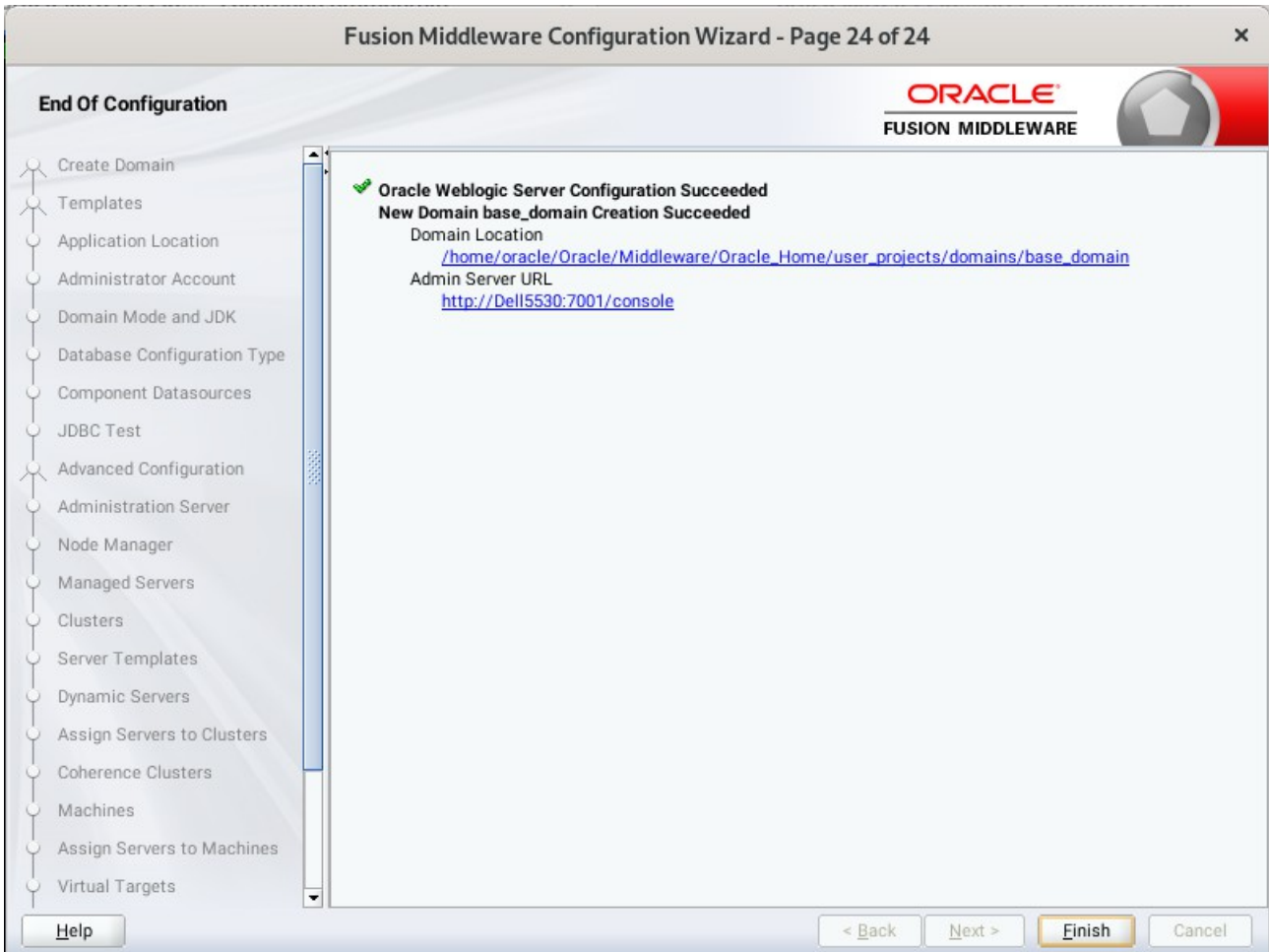
Select **Create** to accept the above options and start creating and configuring a new domain.

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



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

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



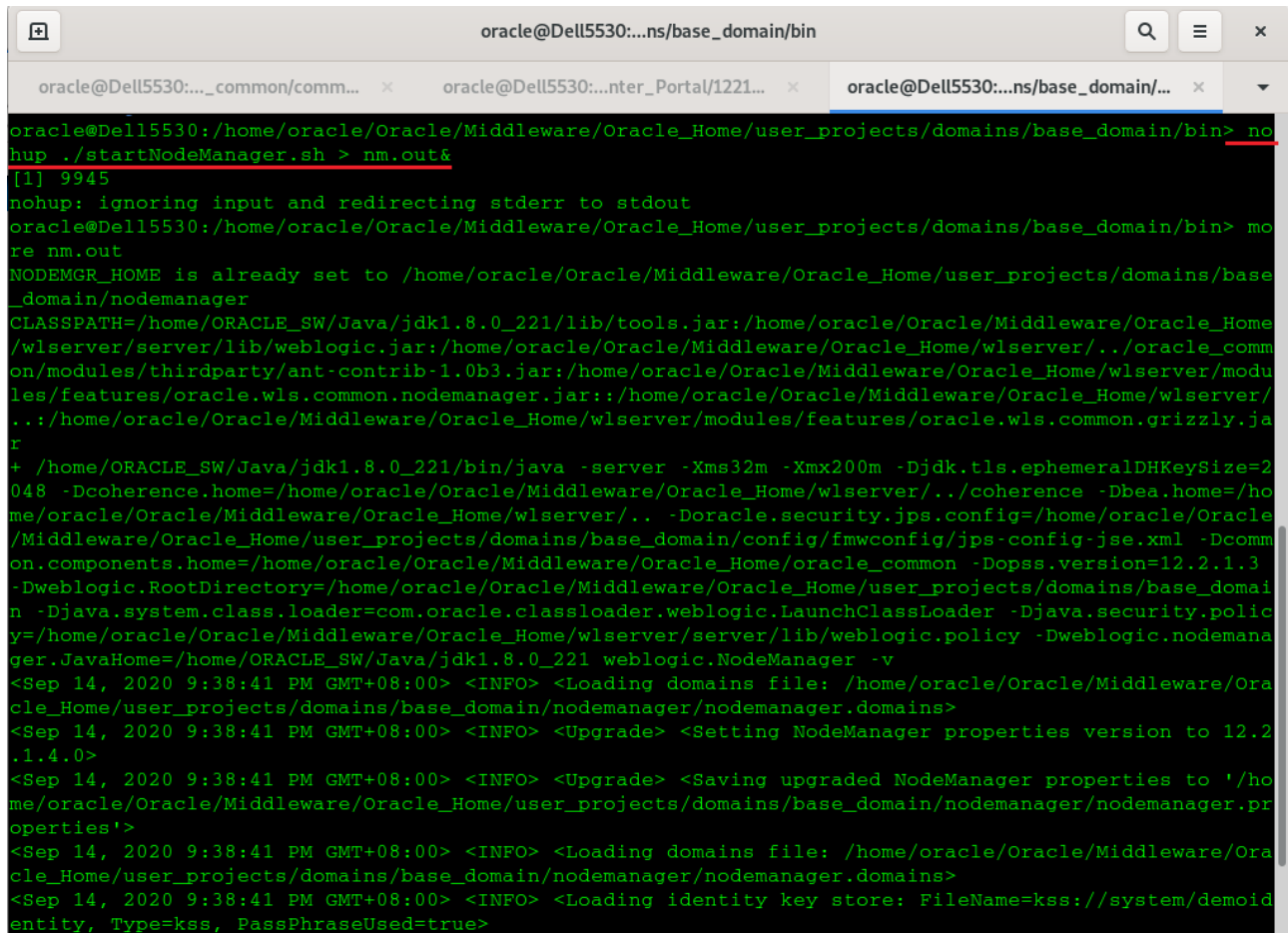
Once you see: "Oracle Weblogic Server Configuration Succeeded", record the '**Domain Location**' and '**Admin Server URL**', then click **Finish** to dismiss the Configuration Wizard.

4. Verifying Oracle WebCenter Portal 12c Installation and Configuration

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

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

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



```

oracle@Dell5530:~/base_domain/bin
oracle@Dell5530:~/base_domain/bin> nohup ./startNodeManager.sh > nm.out&
[1] 9945
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
<Sep 14, 2020 9:38:41 PM GMT+08:00> <INFO> <Loading domains file: /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.domains>
<Sep 14, 2020 9:38:41 PM GMT+08:00> <INFO> <Upgrade> <Setting NodeManager properties version to 12.2.1.4.0>
<Sep 14, 2020 9:38:41 PM GMT+08:00> <INFO> <Upgrade> <Saving upgraded NodeManager properties to '/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.properties'>
<Sep 14, 2020 9:38:41 PM GMT+08:00> <INFO> <Loading domains file: /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.domains>
<Sep 14, 2020 9:38:41 PM GMT+08:00> <INFO> <Loading identity key store: FileName=kss://system/demoidentity, Type=kss, PassPhraseUsed=true>

```

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

```

oracle@Dell5530:...ns/base_domain/bin
cluster Management over ReST
<Sep 14, 2020 9:44:51,833 PM GMT+08:00> <Warning> <Server> <BEA-002611> <The hostname "localhost", maps to multiple IP addresses: 127.0.0.1, 0:0:0:0:0:0:1.>
<Sep 14, 2020 9:44:51,834 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[4]" is now listening on 127.0.0.1:7001 for protocols iiop, t3, ldap, snmp, http.>
<Sep 14, 2020 9:45:02,537 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[2]" is now listening on 2408:8207:c56:fc20:6d43:b954:e700:d296%eth0:7001 for protocols iiop, t3, ldap, snmp, http.>
<Sep 14, 2020 9:45:08,537 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[1]" is now listening on 2408:8207:c56:fc20:9af0:968:8b09:9c1b%eth0:7001 for protocols iiop, t3, ldap, snmp, http.>
<Sep 14, 2020 9:45:08,537 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[3]" is now listening on 0:0:0:0:0:0:1%lo:7001 for protocols iiop, t3, ldap, snmp, http.>
<Sep 14, 2020 9:45:08,537 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default" is now listening on 192.168.1.7:7001 for protocols iiop, t3, ldap, snmp, http.>
<Sep 14, 2020 9:45:08,537 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000329> <Started the WebLogic Server Administration Server "AdminServer" for domain "base_domain" running in production mode.>
<Sep 14, 2020 9:45:08,537 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[4]" is now listening on 127.0.0.1:7001 for protocols iiop, t3, ldap, snmp, http.>
<Sep 14, 2020 9:45:08,538 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[2]" is now listening on 2408:8207:c56:fc20:6d43:b954:e700:d296%eth0:7001 for protocols iiop, t3, ldap, snmp, http.>
<Sep 14, 2020 9:45:08,539 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[1]" is now listening on 2408:8207:c56:fc20:9af0:968:8b09:9c1b%eth0:7001 for protocols iiop, t3, ldap, snmp, http.>
<Sep 14, 2020 9:45:08,539 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[3]" is now listening on 0:0:0:0:0:0:1%lo:7001 for protocols iiop, t3, ldap, snmp, http.>
<Sep 14, 2020 9:45:08,539 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default" is now listening on 192.168.1.7:7001 for protocols iiop, t3, ldap, snmp, http.>
<Sep 14, 2020 9:45:08,540 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000360> <The server started in RUNNING mode.>
<Sep 14, 2020 9:45:08,689 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to RUNNING.>

```

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

```

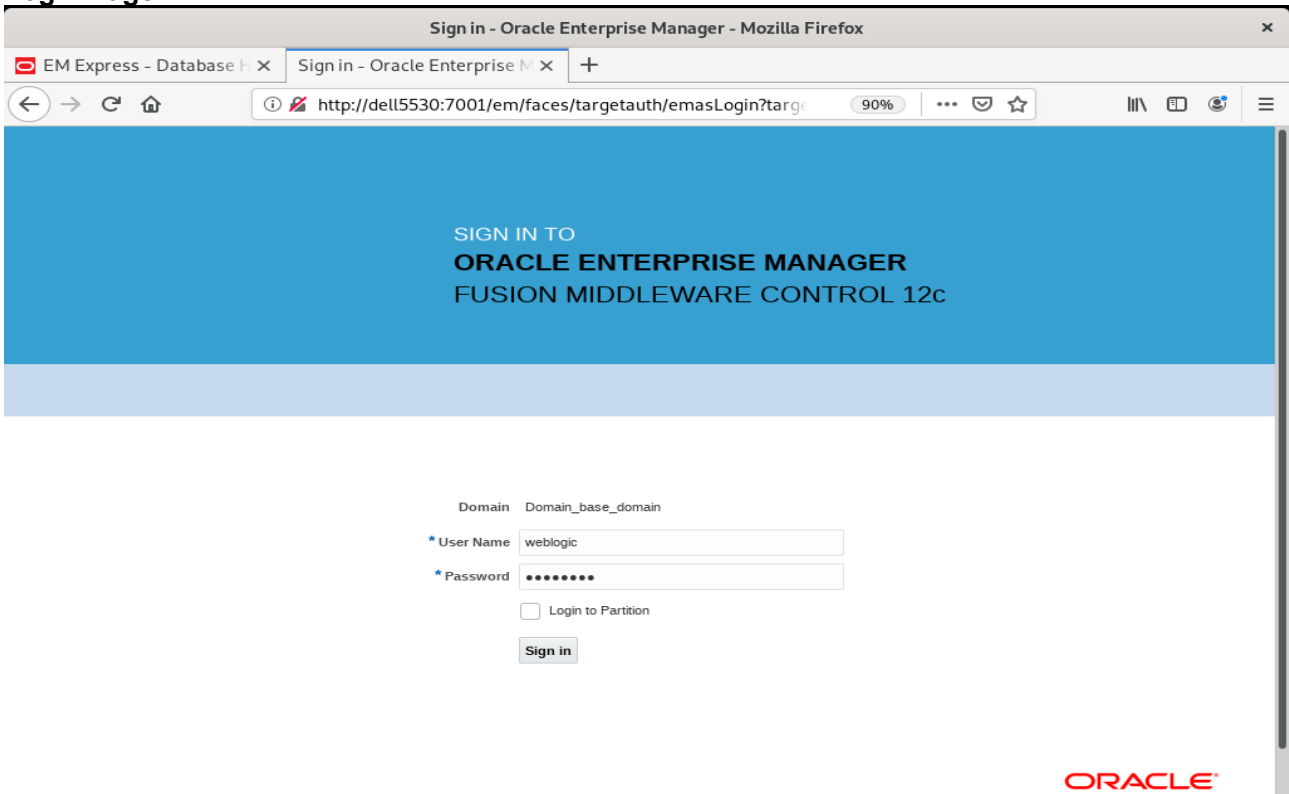
-----
Server state changed to RUNNING.
-----

```

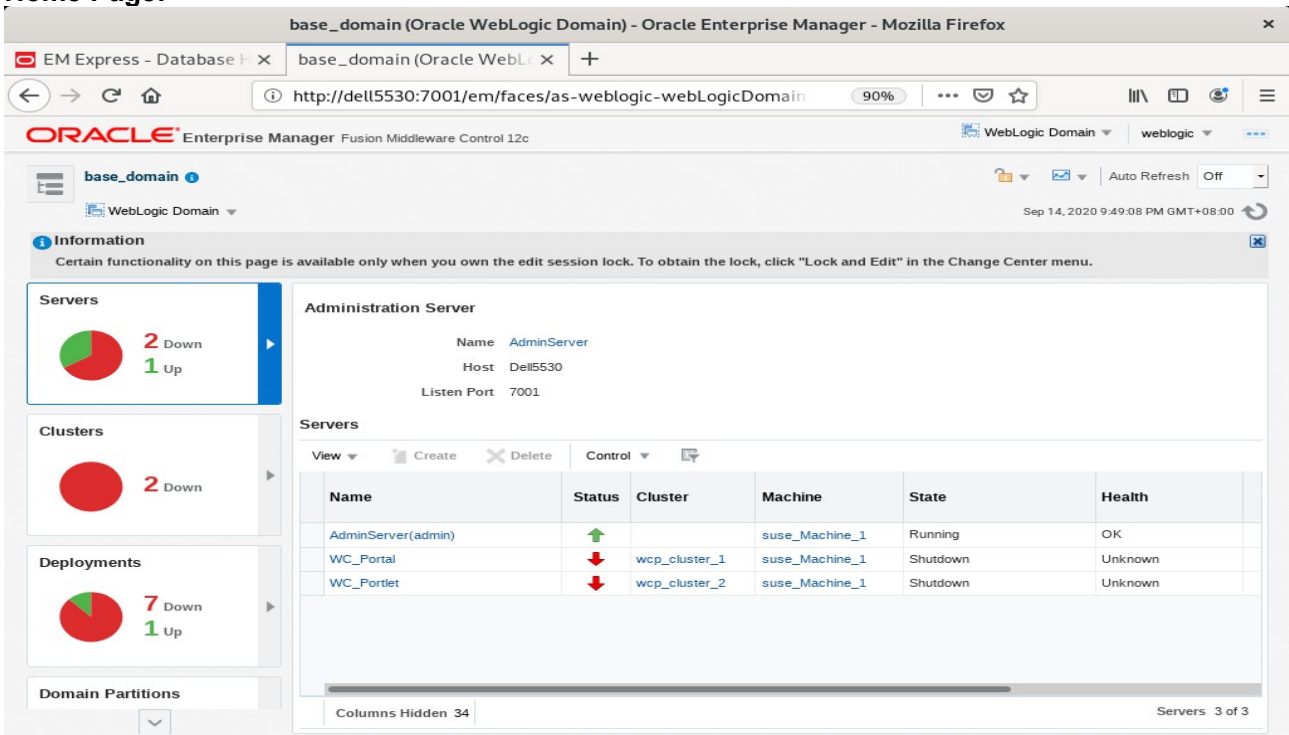
4-3. Checking Oracle WebCenter Product URLs.

1). Access to Enterprise Manager Console.

Login Page:



Home Page:



Starting the Oracle WebCenter Portal Managed Servers:

The screenshot shows the Oracle Enterprise Manager console for a WebLogic Domain named 'base_domain'. The page displays various server status metrics and a table of managed servers.

Servers Summary:

- 2 Down
- 1 Up

Administration Server Details:

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

Servers Table:

Name	Status	Cluster	Machine	State	Health
AdminServer(admin)	↑		suse_Machine_1	Running	OK
WC_Portal	↓	wcp_cluster_1	suse_Machine_1	Shutdown	Unknown
WC_Portlet	↓	wcp_cluster_2	suse_Machine_1	Shutdown	Unknown

Rows Selected 2 | Columns Hidden 34 | 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 and a table of managed servers. A 'Control' menu is open over the table, showing options: Start, Resume, Suspend, Shutdown, and Restart SSL. The table data is as follows:

Name	Machine	State	Health
AdminServer(admin)	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 table of managed servers is updated with the following data:

Name	Status	Cluster	Machine	State	Health
AdminServer(admin)	↑		suse_Machine_1	Running	OK
WC_Portal	↑	wcp_cluster_1	suse_Machine_1	Running	OK
WC_Portlet	↑	wcp_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".

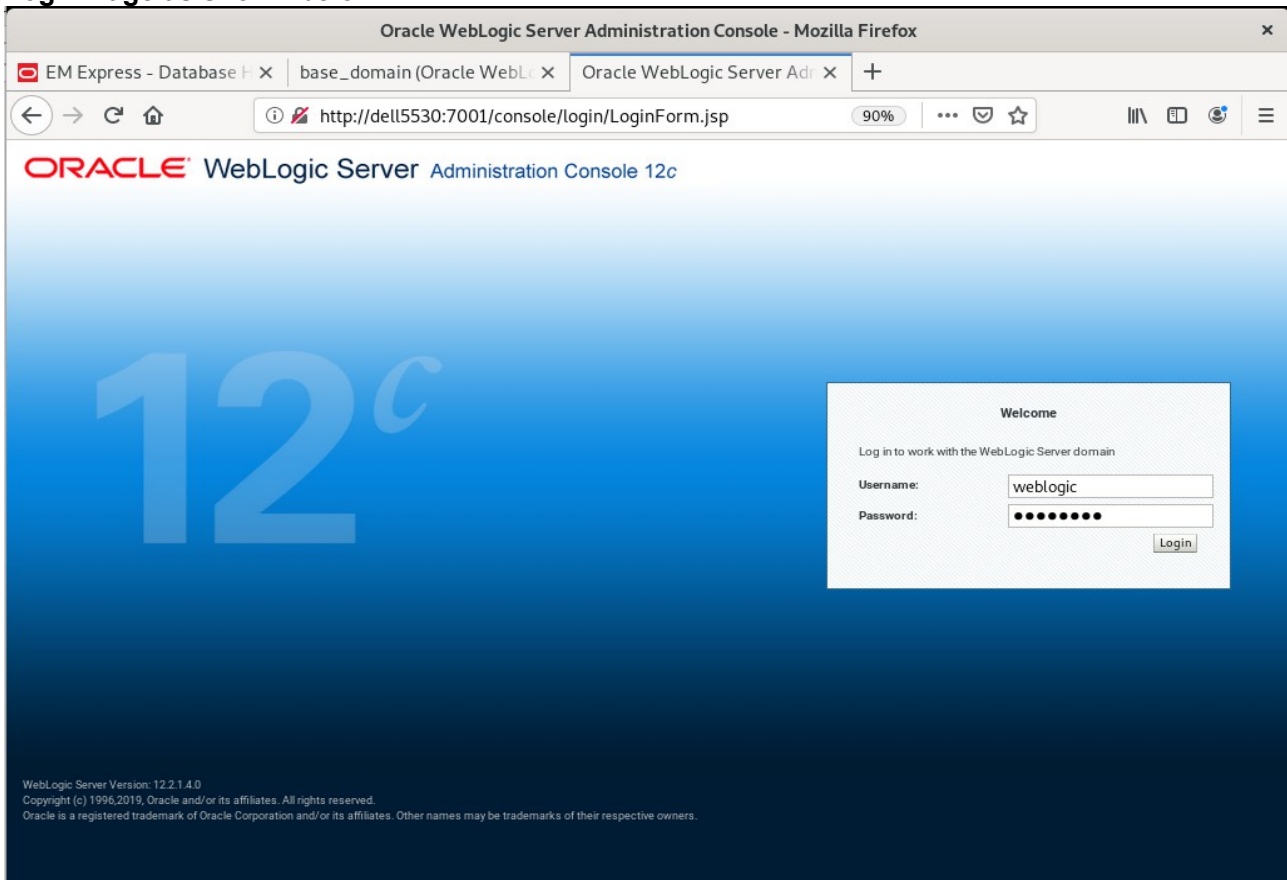
Warning: An insecure protocol was used to connect to the server.
To ensure on-the-wire security, the SSL port or Admin port should be used instead.

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	wcp_cluster_1	suse_Machine_1	RUNNING	OK	8888
WC_Portlet	Configured	wcp_cluster_2	suse_Machine_1	RUNNING	OK	8889

3). Test Oracle WebCenter Portal Web Service

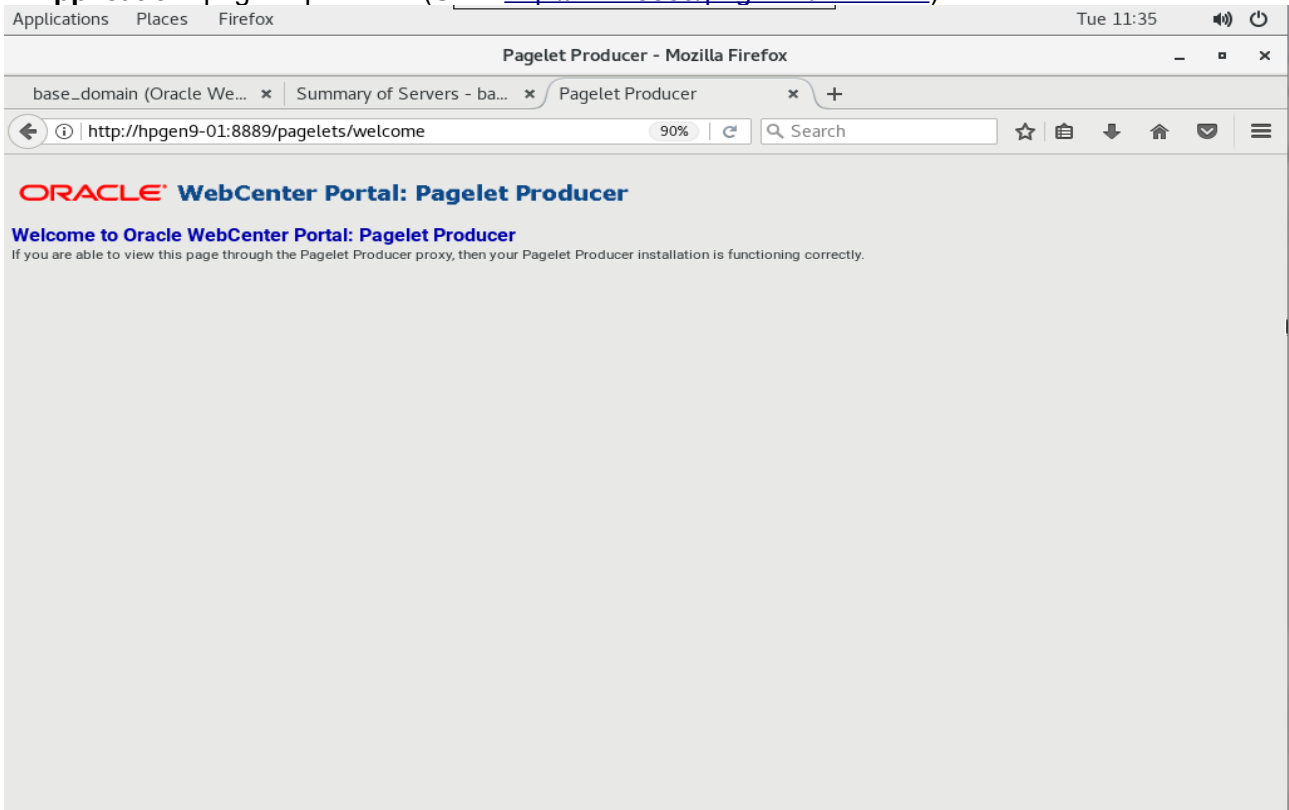
a. **Application:** opss-rest (URL:<http://host:7001/idaas/platform/application.wadl>)

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

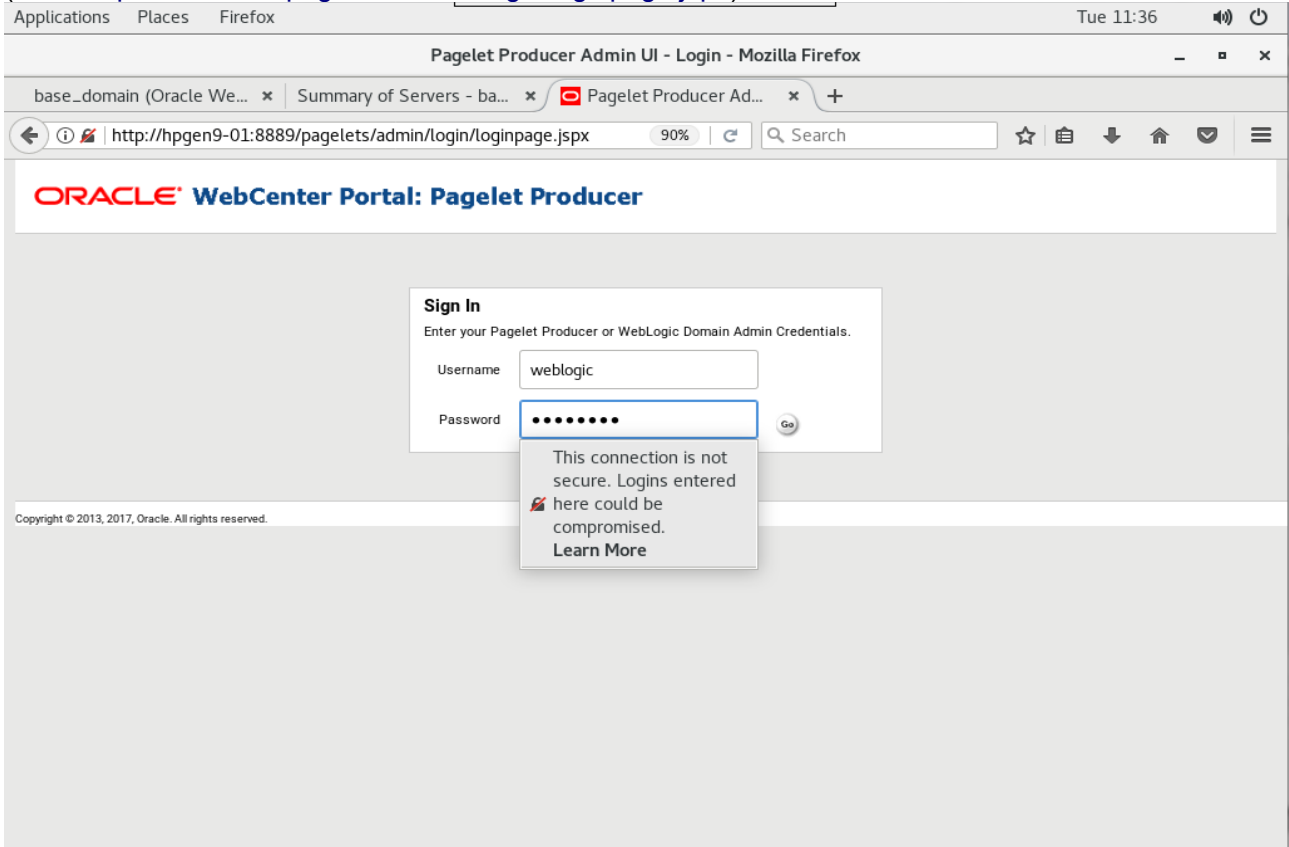
```

- <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 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 -
  
```

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



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



The screenshot shows a Mozilla Firefox browser window with the title "Oracle WebCenter Portal: Pagelet Producer - Mozilla Firefox". The address bar displays the URL "http://hpgen9-01:8889/pagelets/admin/" with a search bar to its right. The page header features the Oracle logo and the text "WebCenter Portal: Pagelet Producer" in blue, with a "Logout" link on the right. Below the header, there are two main sections: "Navigator" and "Summary".

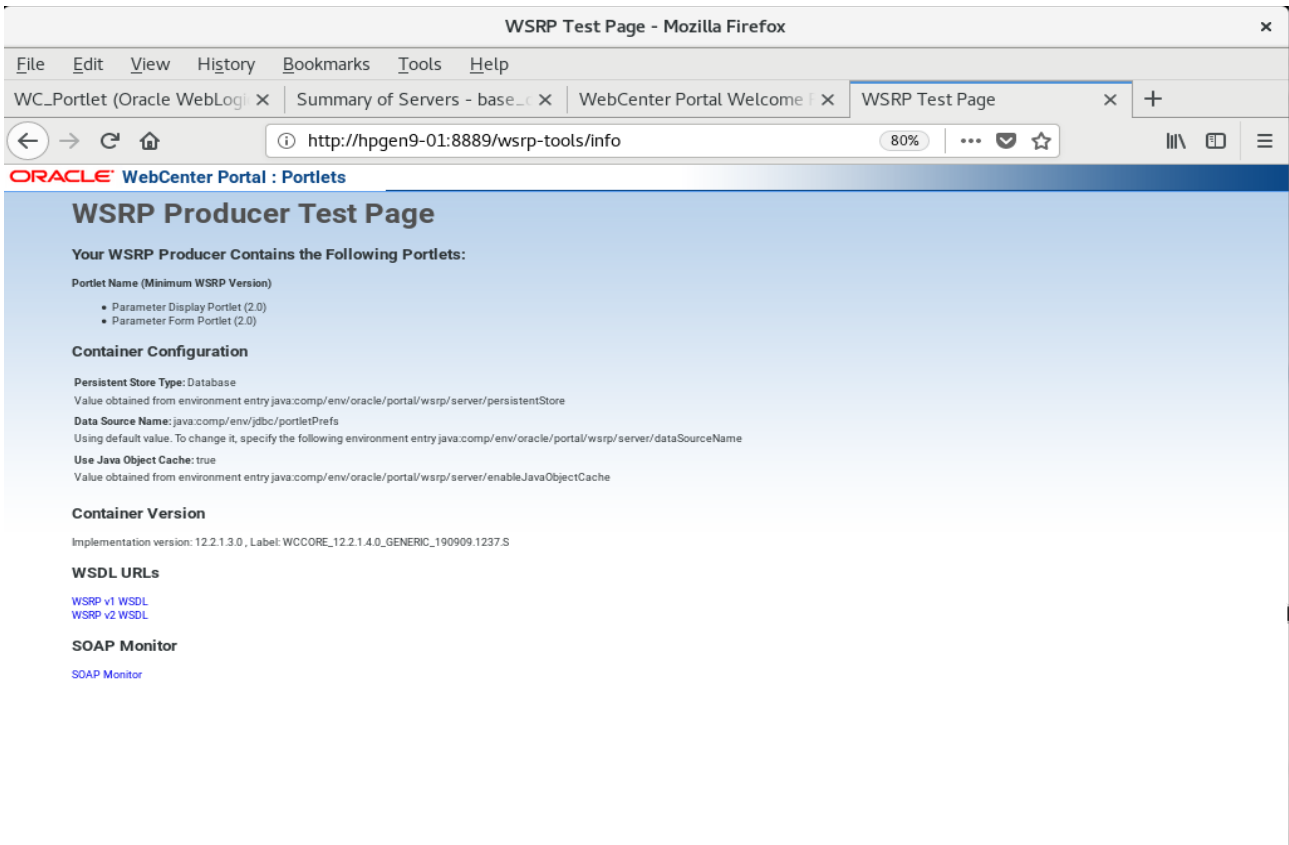
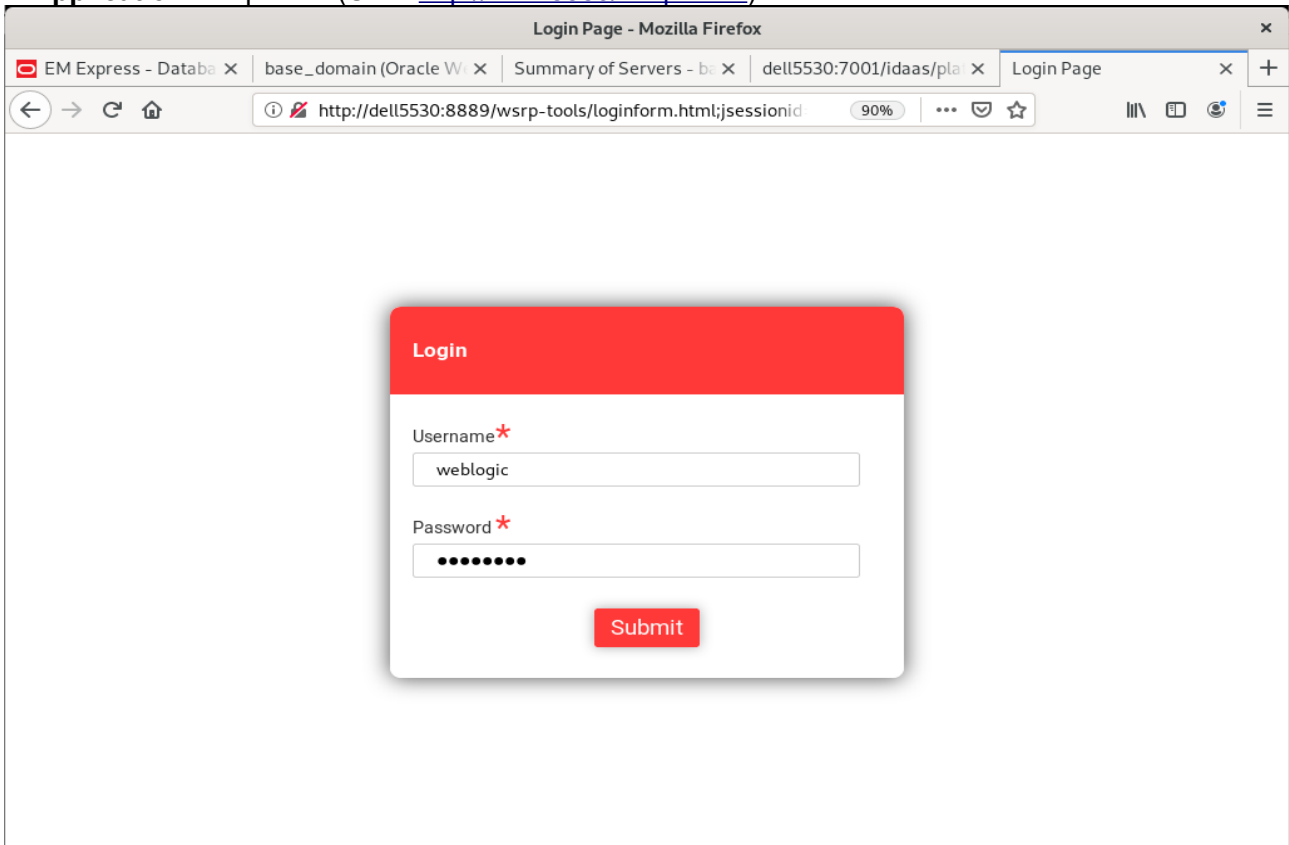
The "Navigator" section on the left includes a "Jump to:" dropdown menu set to "Resources". Below it is a tree view with the following items:

- welcome_resource (expanded)
 - General
 - Policy
 - Autologin
 - Headers
 - Pagelets
 - Injectors
 - Parsers
 - Files
- login_resource
- pagelet_api

The "Summary" section on the right contains the text: "This resource is based on a generic website. Select the General node and give this resource a name and and edit resource details. To save this resource, click the Save button in the Navigator toolbar."

At the bottom left of the page, there is a copyright notice: "Copyright © 2013, 2017, Oracle. All rights reserved."

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



Mozilla Firefox

EM Express - D | base_domain (Orac | Summary of Server | dell5530:7001/idaa | WSRP Test Page | dell5530:8889/wsr

http://dell5530:8889/wsrp-tools/portlets/wsrp1?WSDL 90%

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>

```

Mozilla Firefox

EM Express - D | base_domain (Orac | Summary of Server | dell5530:7001/idaa | WSRP Test Page | dell5530:8889/wsr

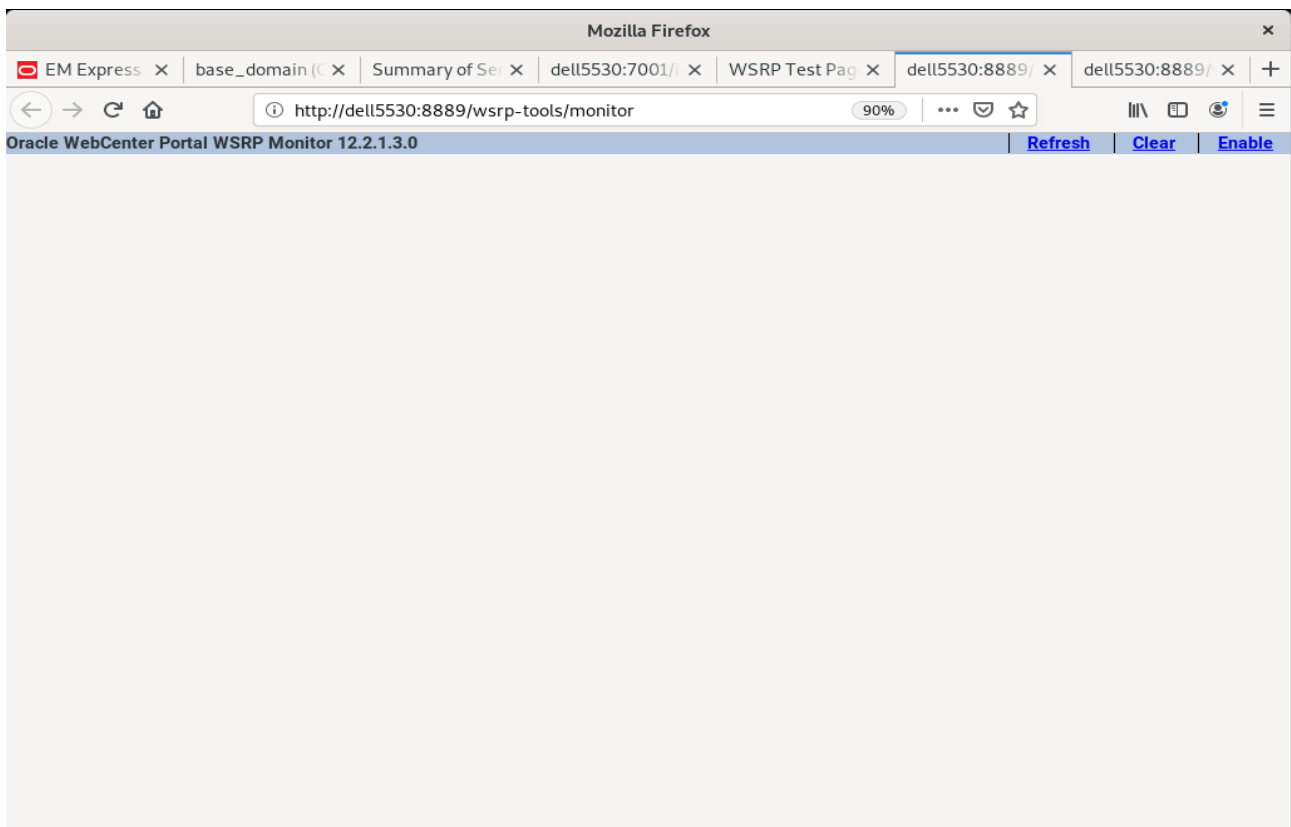
http://dell5530:8889/wsrp-tools/portlets/wsrp2?WSDL 90%

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

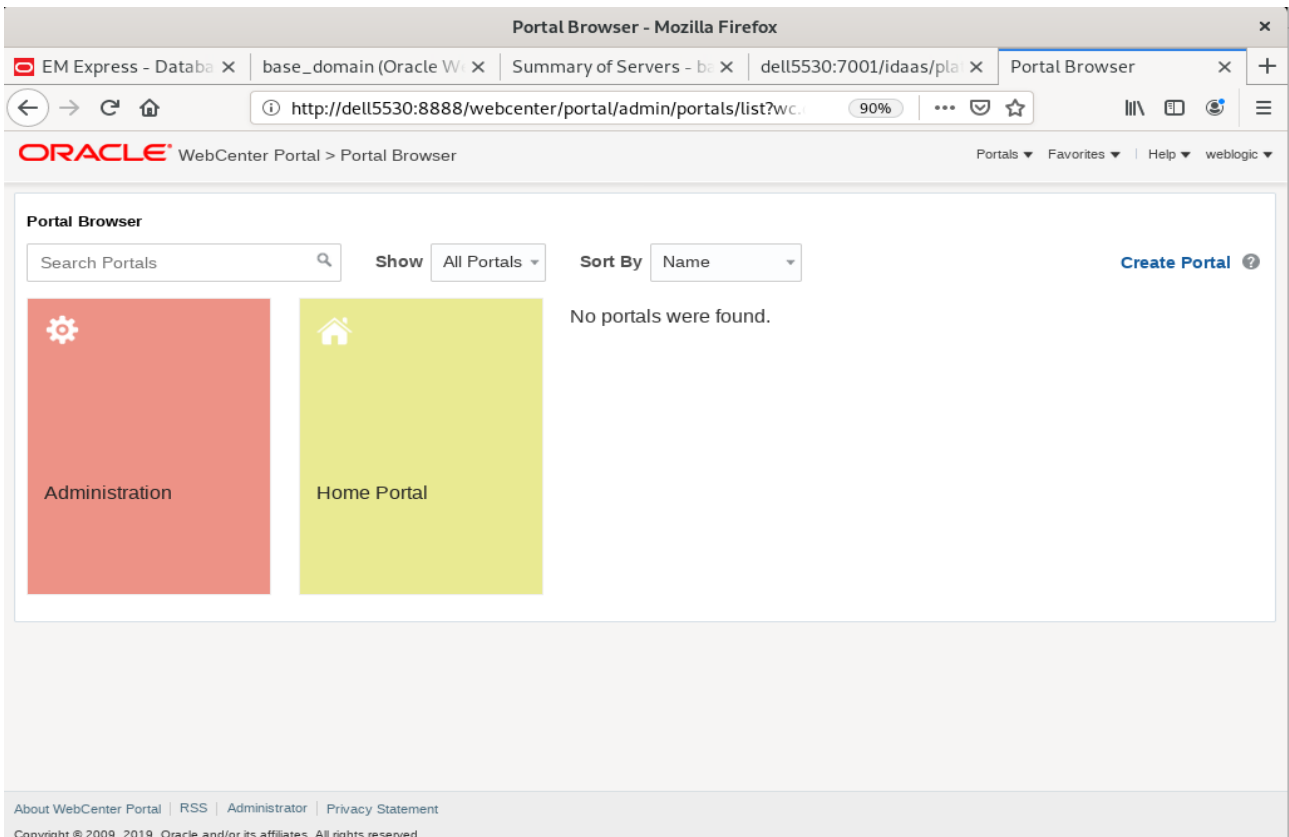
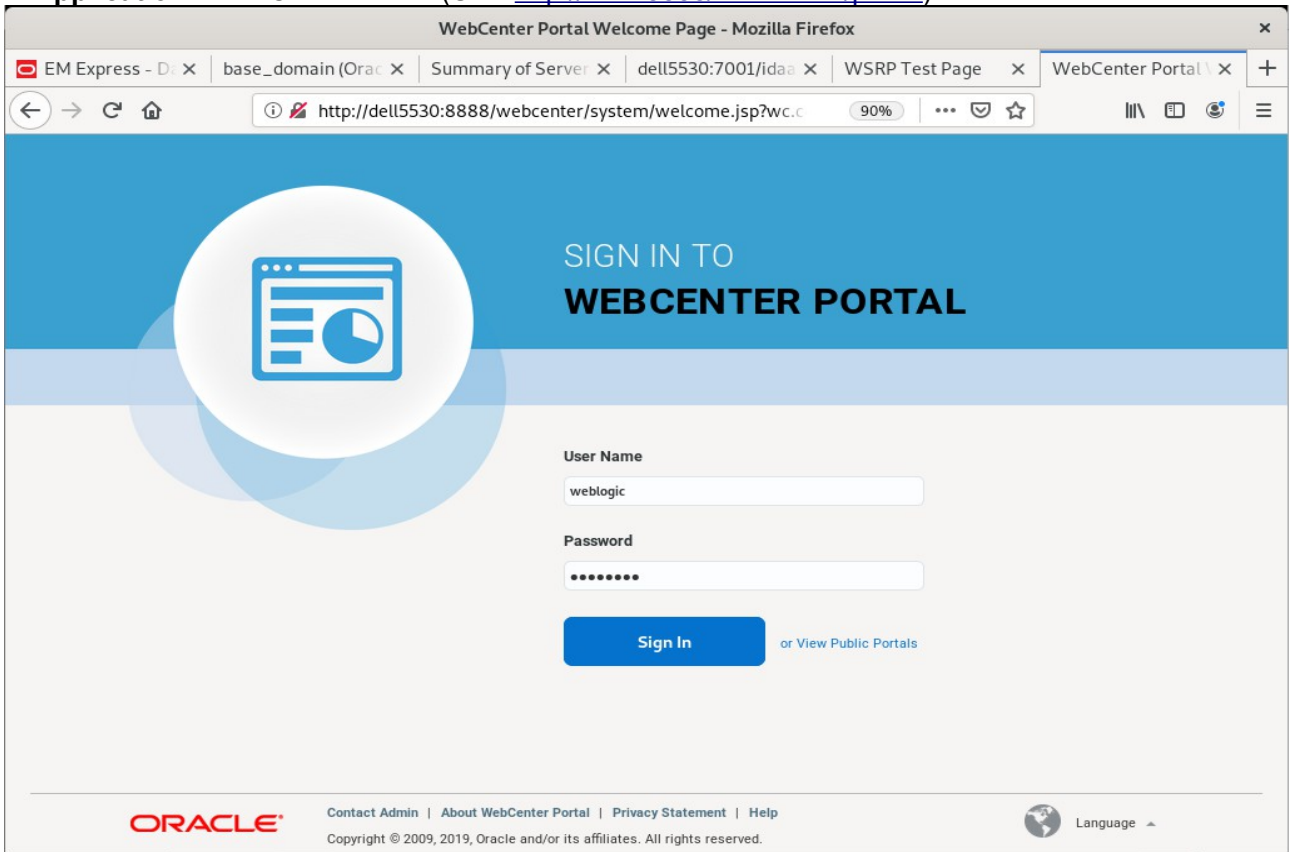
```

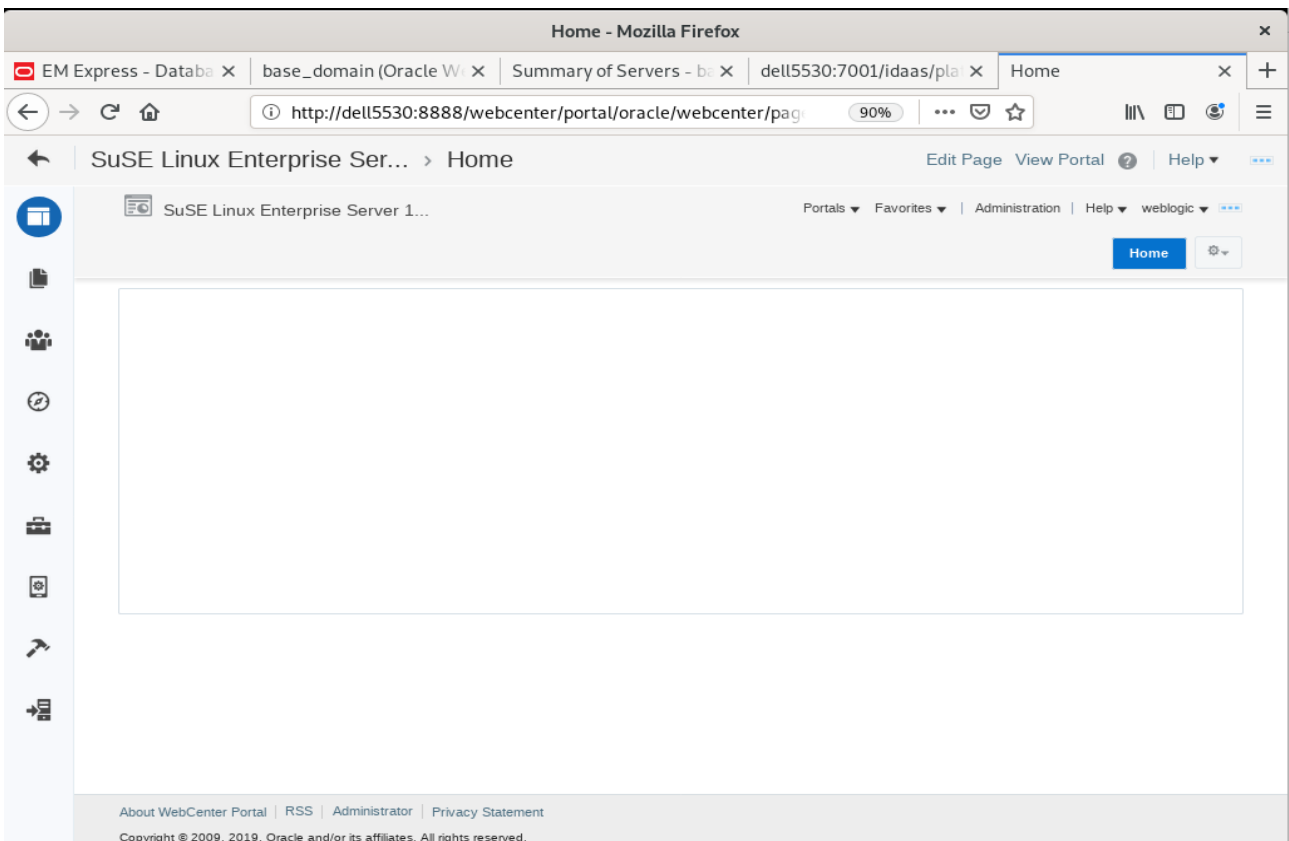
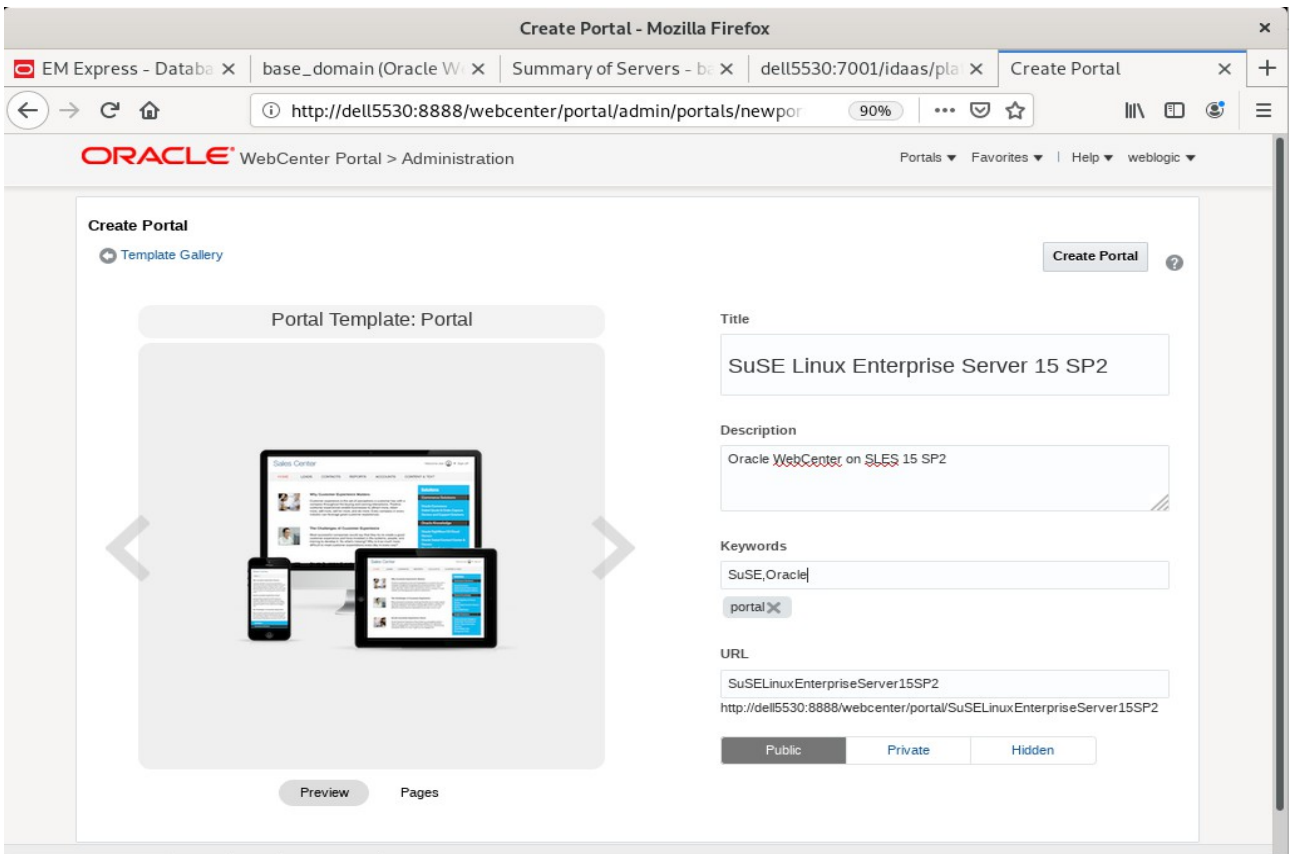
--<definitions targetNamespace="urn:oasis:names:tc:wsrp:v2:wsdl">
  <import namespace="urn:oasis:names:tc:wsrp:v2:bind" location="http://dell5530:8889/wsrp-tools/portlets/wsrp2?WSDL=wsrp_v2_bindings.wsdl"/>
  <service name="WSRP_v2_Service">
    <port name="WSRP_v2_ServiceDescription_Service" binding="bind:WSRP_v2_ServiceDescription_Binding_SOAP">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

```



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





The screenshot shows the Oracle WebCenter Administration console in a Mozilla Firefox browser. The browser's address bar displays the URL: `http://dell5530:8888/webcenter/portal/admin/portals/admin/`. The page title is "SuSE Linux Enterprise Ser... > General".

The main content area is divided into two sections:

- Portal Information:** This section contains several input fields and a "Save" button.
 - Title:** SuSE Linux Enterprise Server 15 SP2
 - Acronym:** SLE
 - Description:** Oracle WebCenter on SLES 15 SP2
 - Portal Color:** An orange color swatch is selected, with a "Choose Color" button next to it.
 - Keywords:** A text input field contains "portal" and "SuSE,Oracle".
 - A "Save" button is located at the bottom of this section.
- Portal Details:** This section displays metadata for the portal.
 - Name:** SuSELinuxEnterpriseServer15SP2 [Rename](#)
 - Portal URL:** <http://dell5530:8888/webcenter/portal/SuSELinuxEnterpriseServer15SP2>
 - Internal ID:** s05dfa259_63d1_464c_bb0d_00181530be34
 - Members:** 1
 - Last Activity:** 1 minute ago
 - Created:** 1 minute ago by weblogic

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

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.

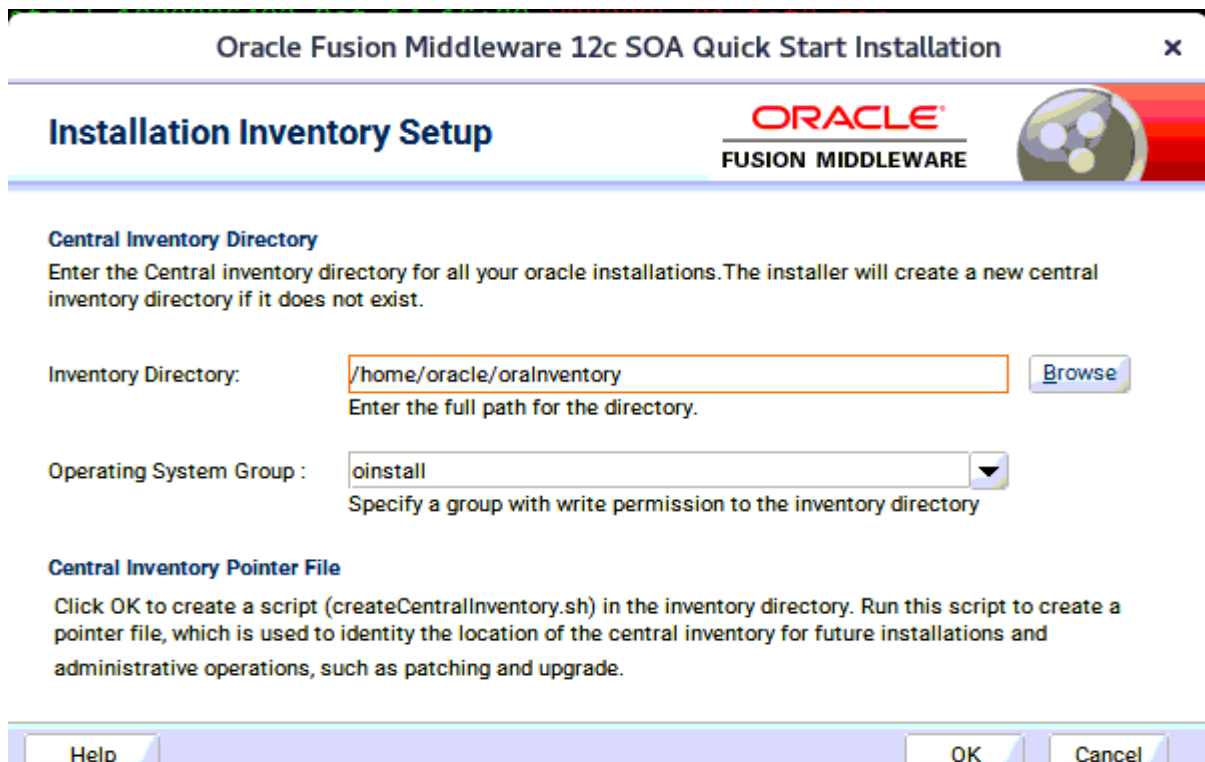
1-2. Log in to the target system (SLES 15 SP2 64-bit OS) as a non-admin user. Download the Oracle SOA Suite 12c (12.2.1.4.0) Quick Start installer zip file from <https://www.oracle.com/downloads/#category-middleware>.

(**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** '

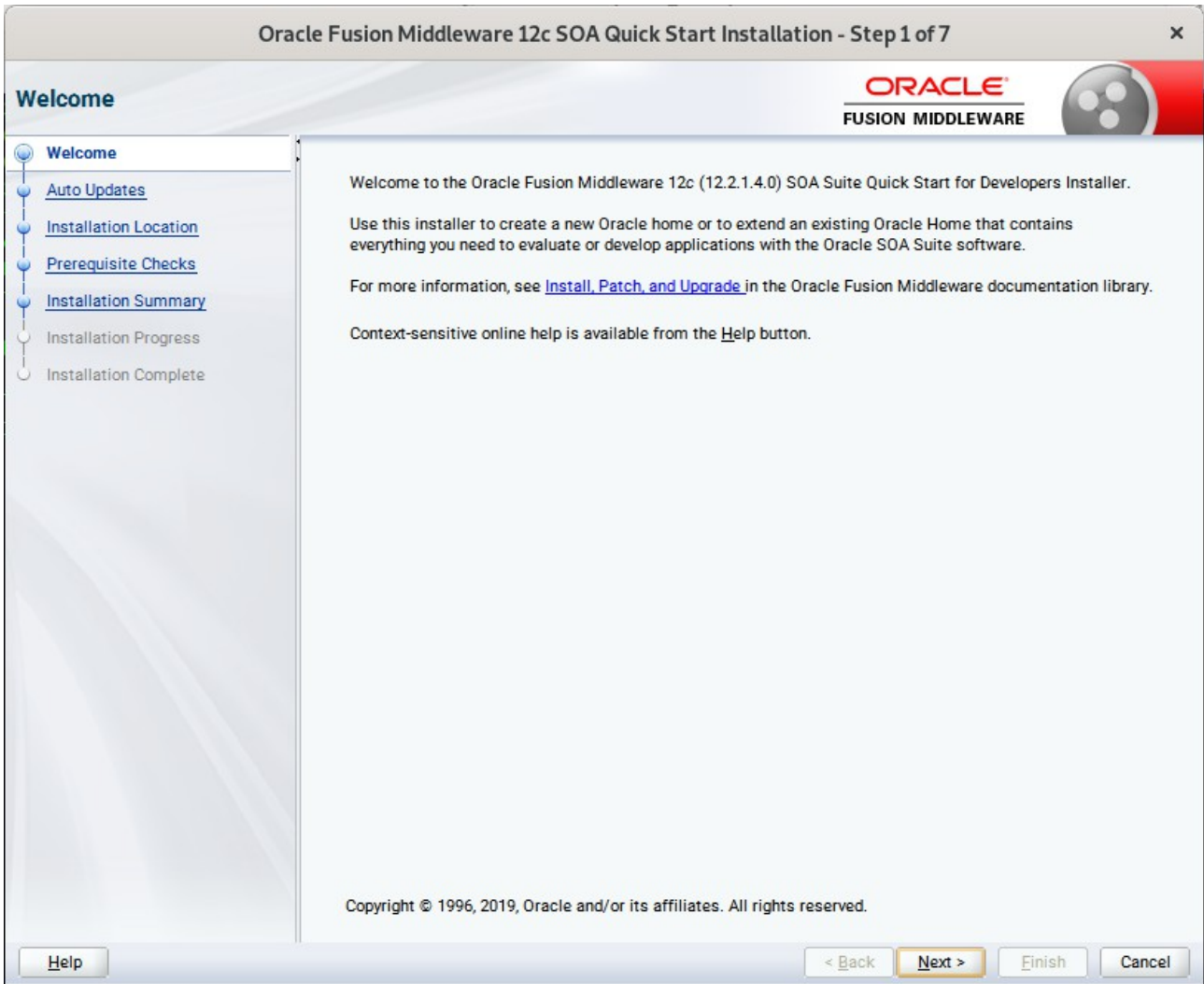
For the actual installation, follow the steps below:

- 1). Installation Inventory Setup.



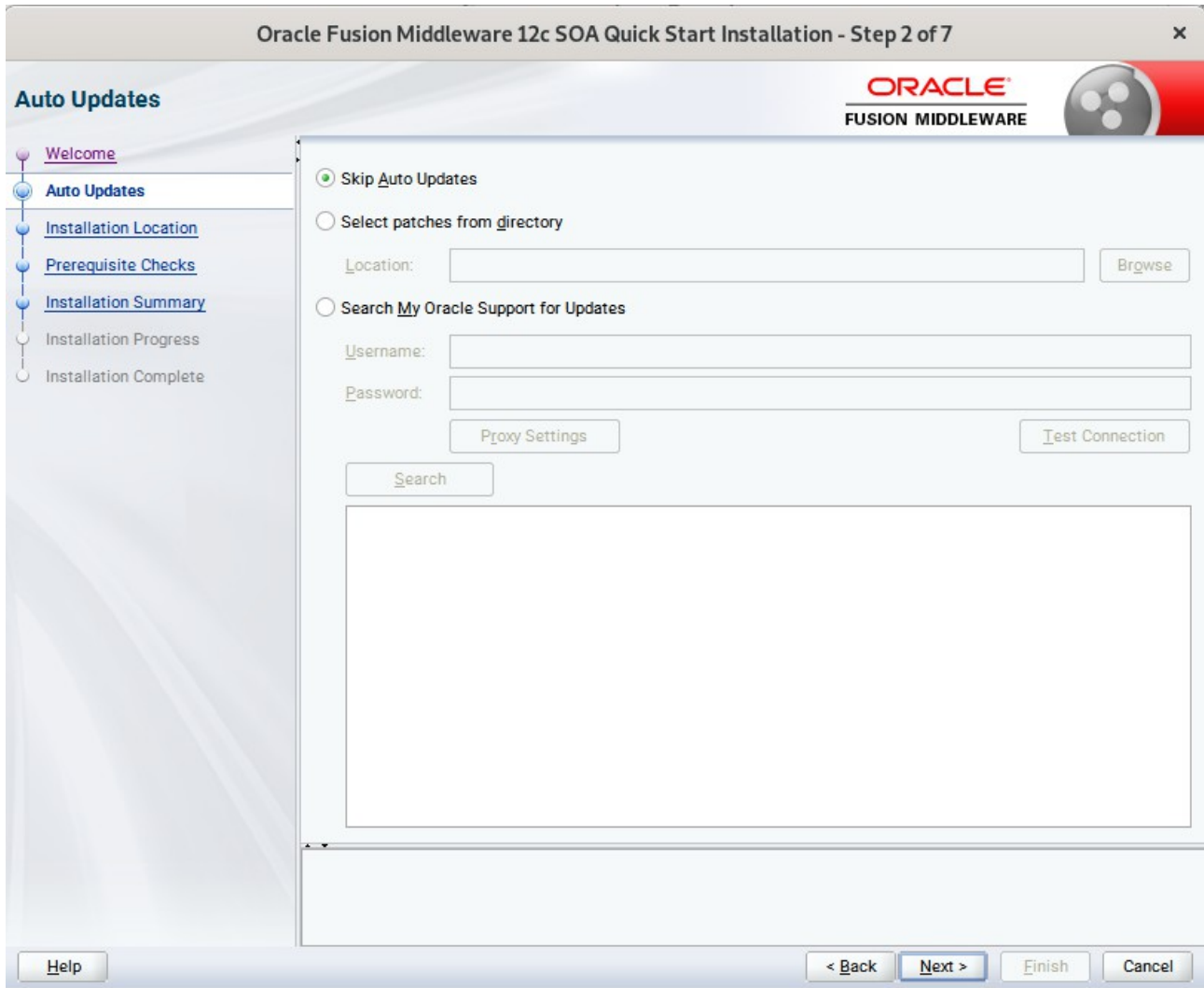
Specify the Oracle inventory directory and group permissions for that directory. The group must have write permissions to the Oracle inventory directory, then click **OK** to continue.

2). Welcome page.



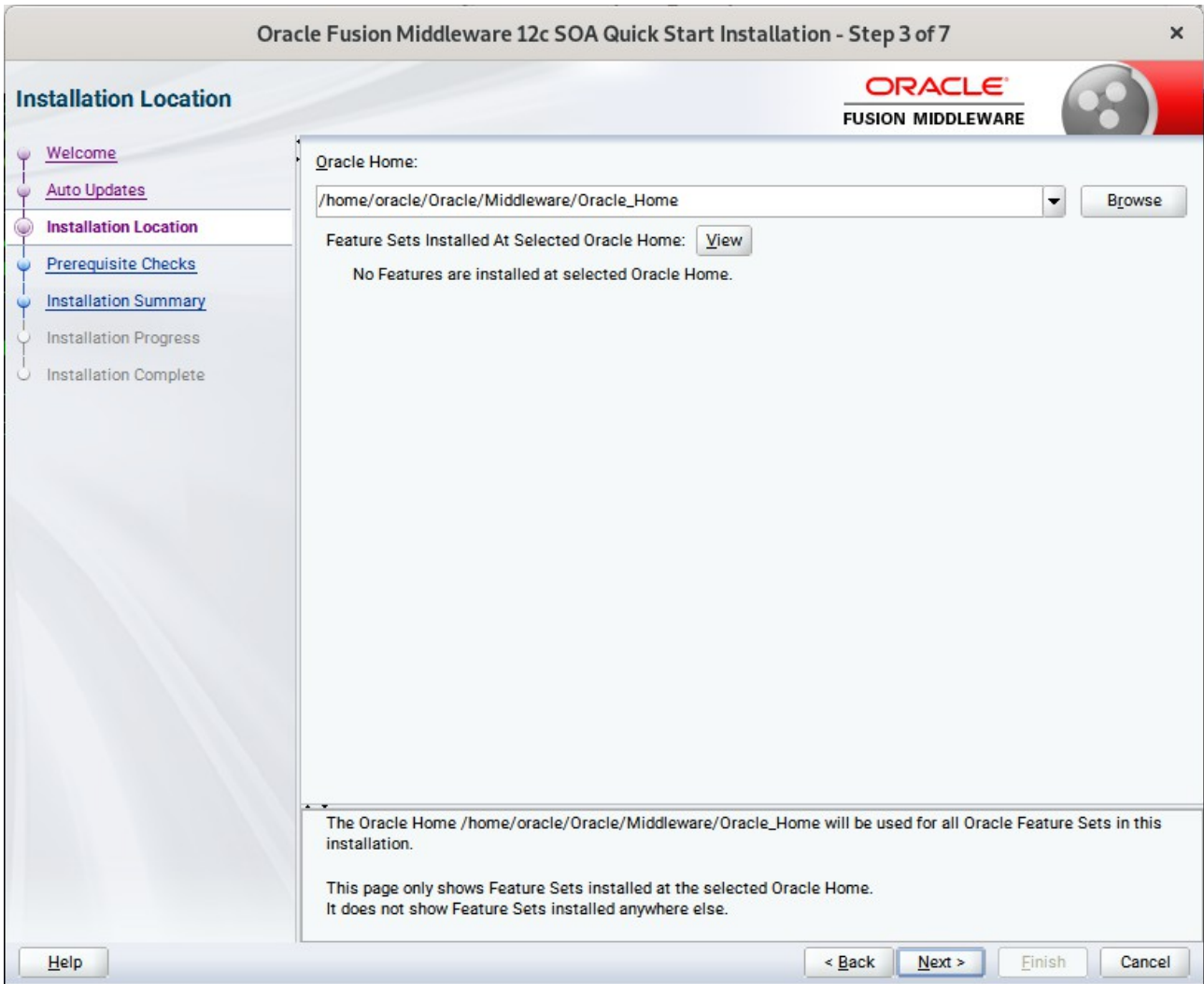
This page welcomes you to the installation. Click **Next** to continue.

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



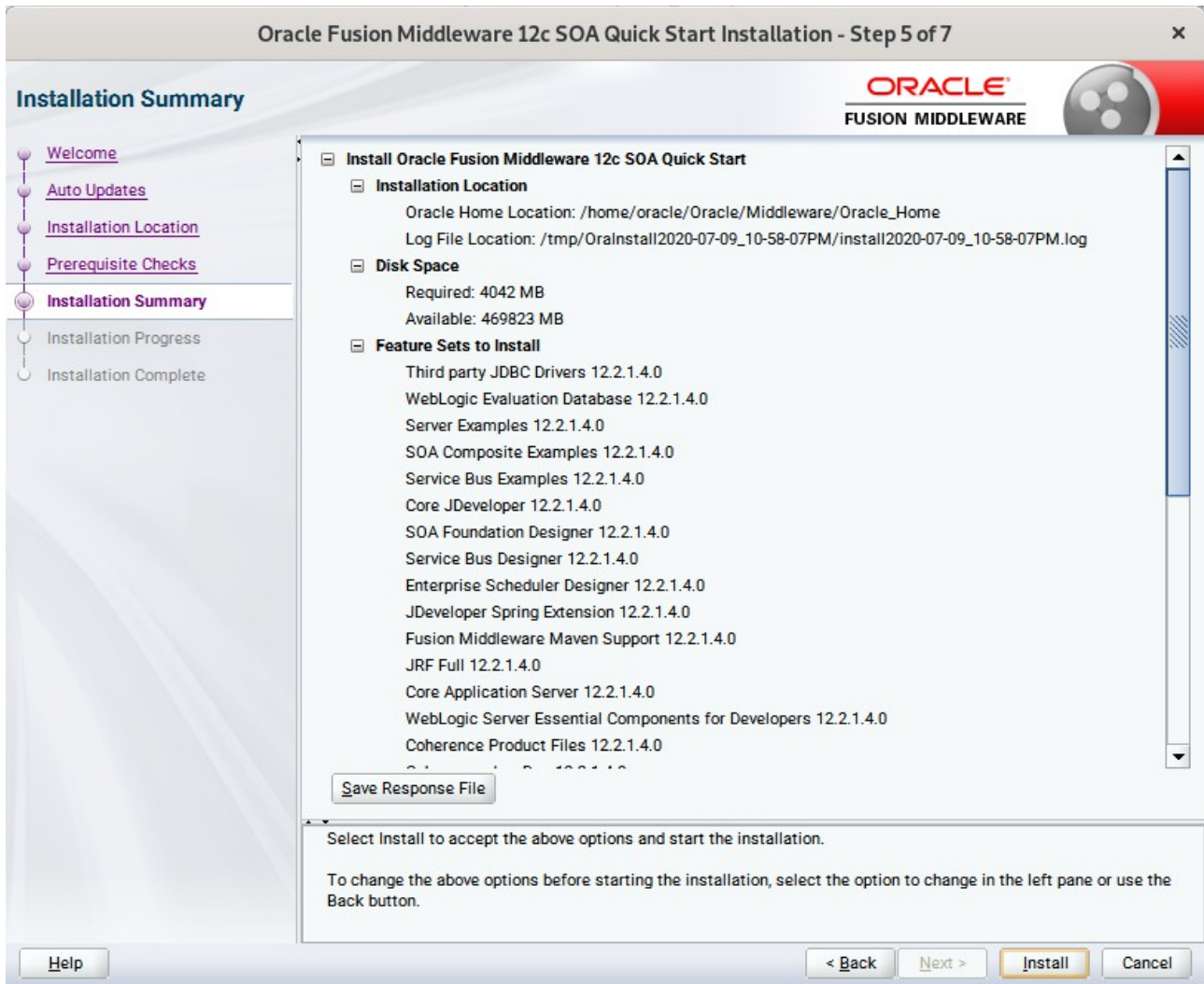
This page enables you to choose to automatically receive software updates for your components from Oracle Corporation. make your choices, then click **Next** to continue.

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



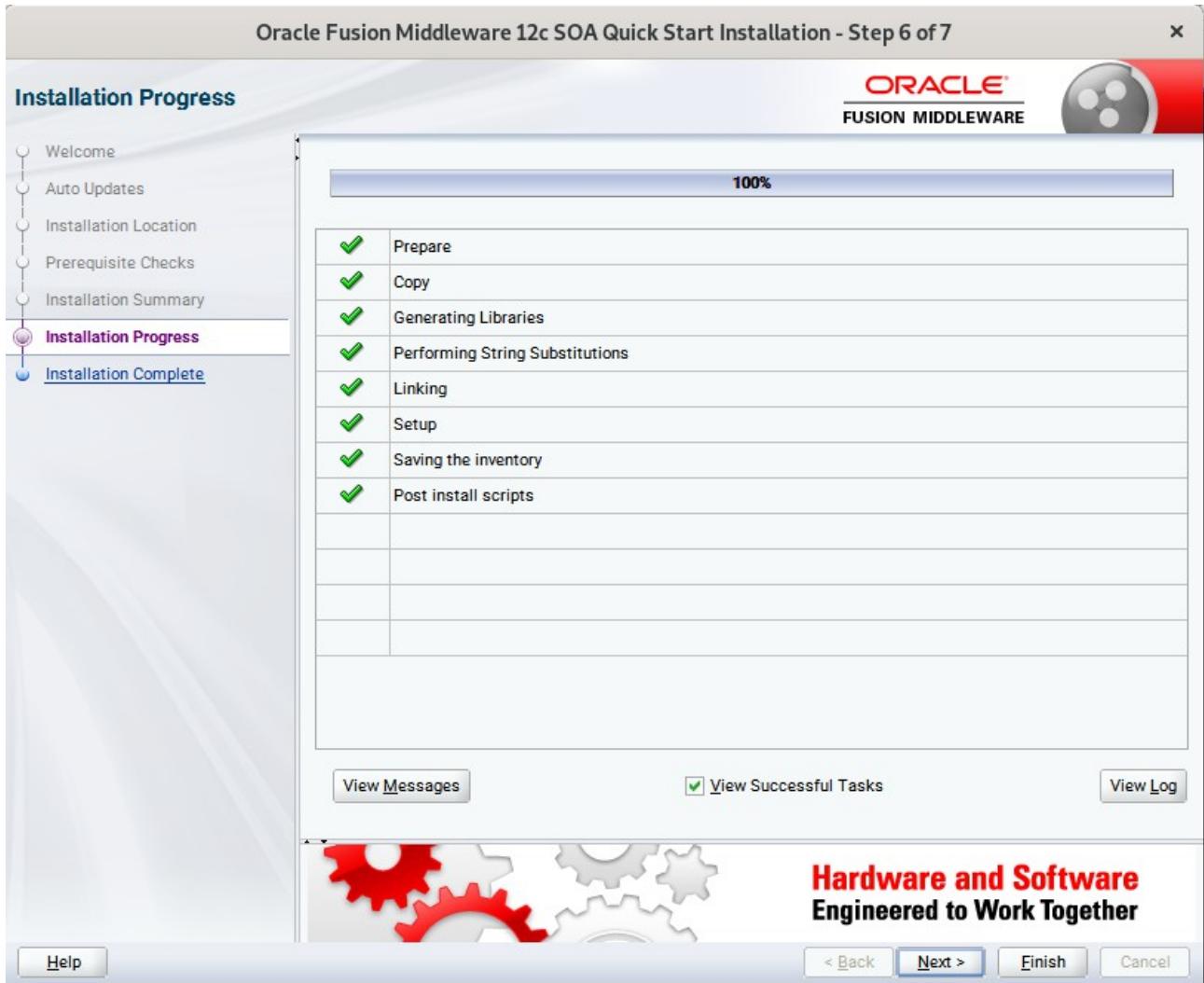
Specify the Oracle home location into which you want to install the product(s). Click **Next** to continue.

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



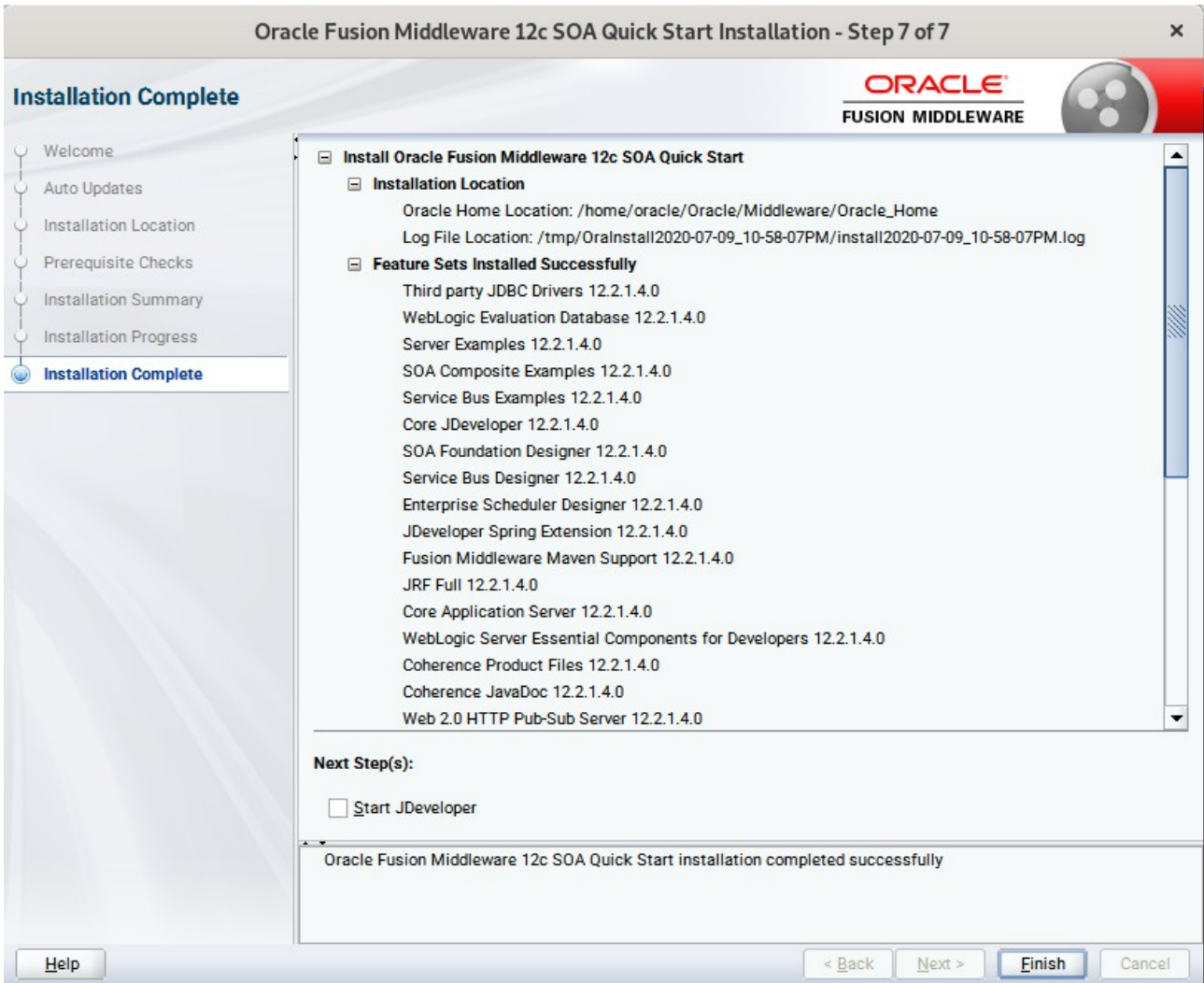
This page shows you what components and features are about to be installed. If you need to make changes, click **Back**, otherwise, click **Install** to start the installation.

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.

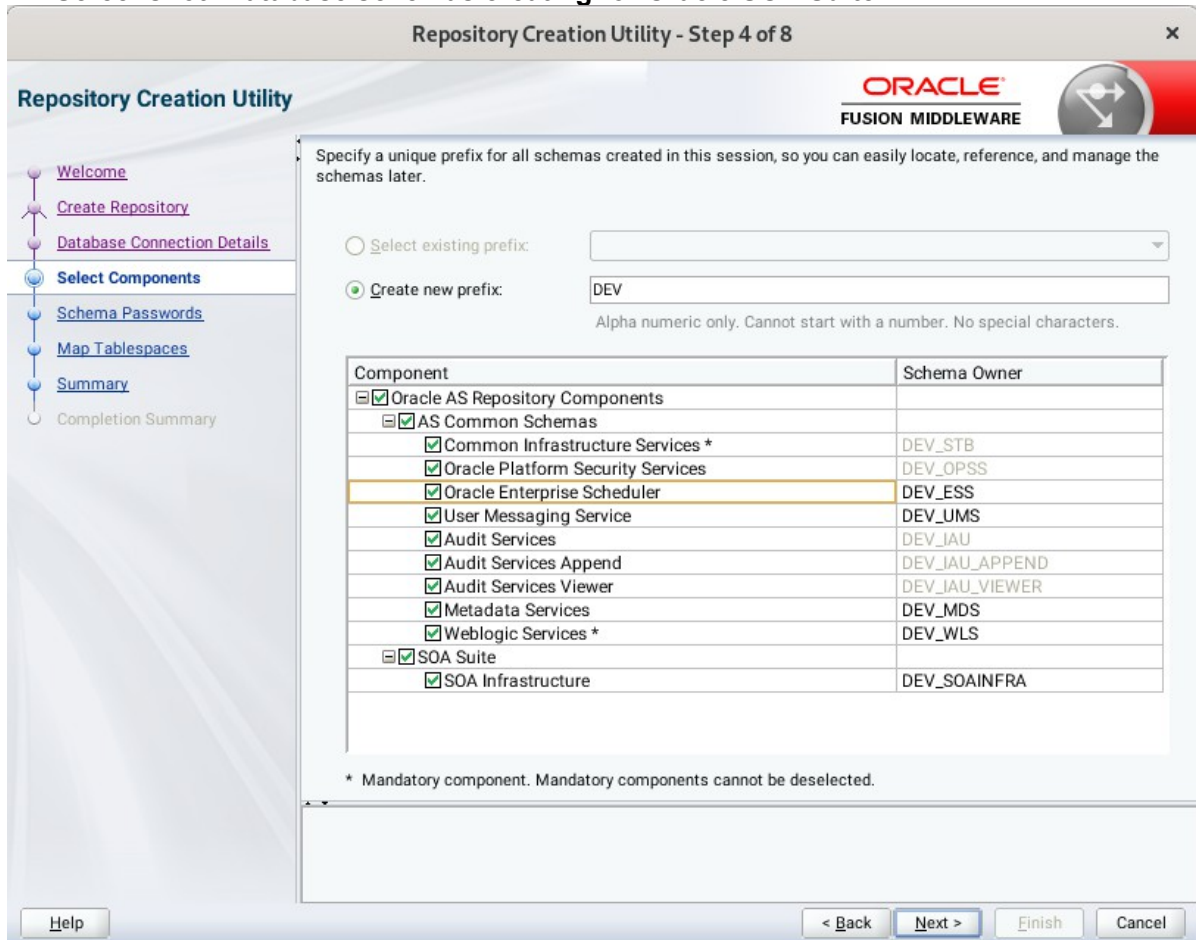


At the bottom of this screen, there is a checkbox to launch Oracle JDeveloper upon closing the installation wizard. This guide recommends that you uncheck this box. Click **Finish** to dismiss the installer.

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, and ensure schema creation is successful.

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

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

Example commands for this task are as follows:

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

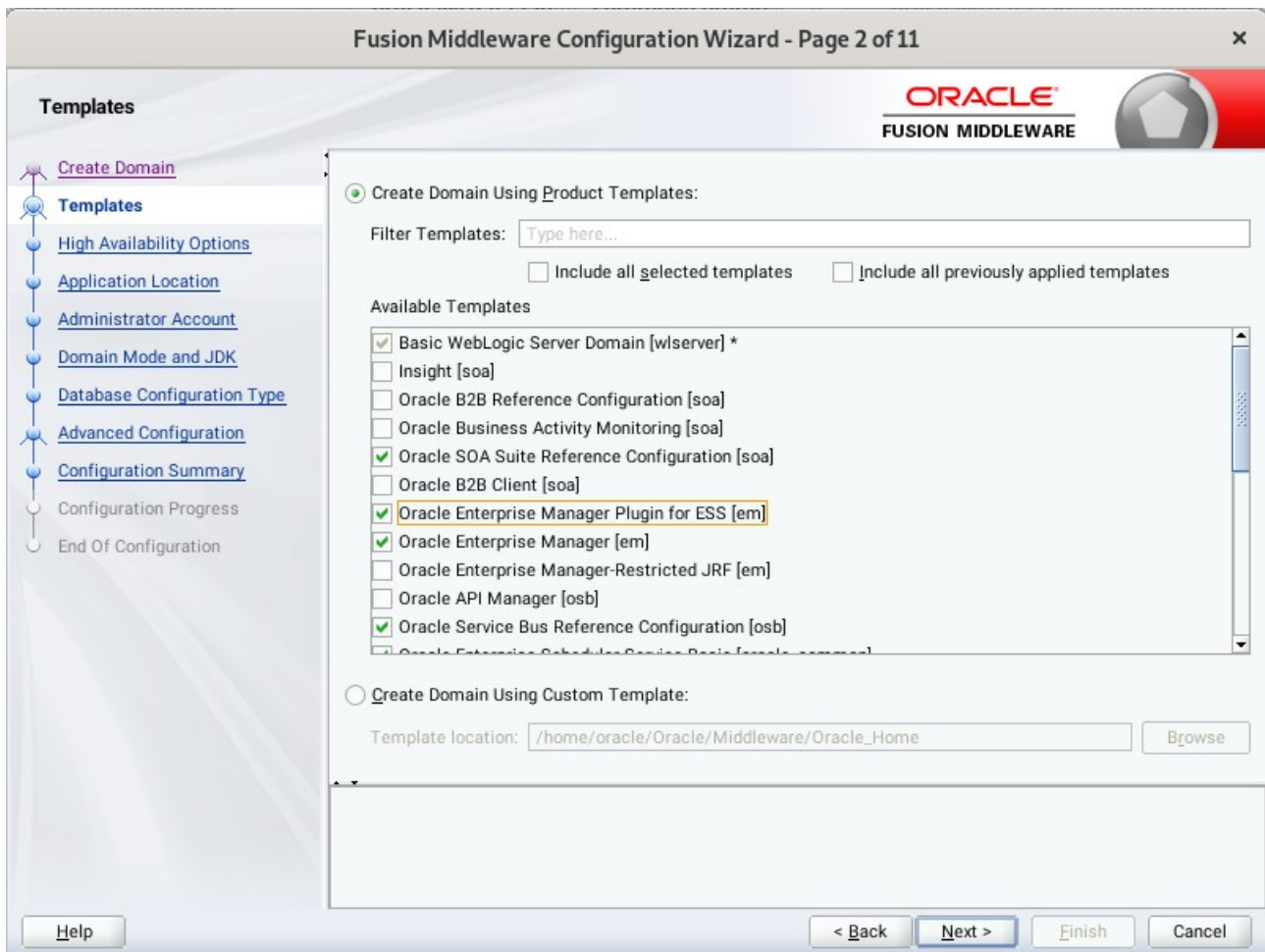
Follow these steps:

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



Click **Next** to continue.

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

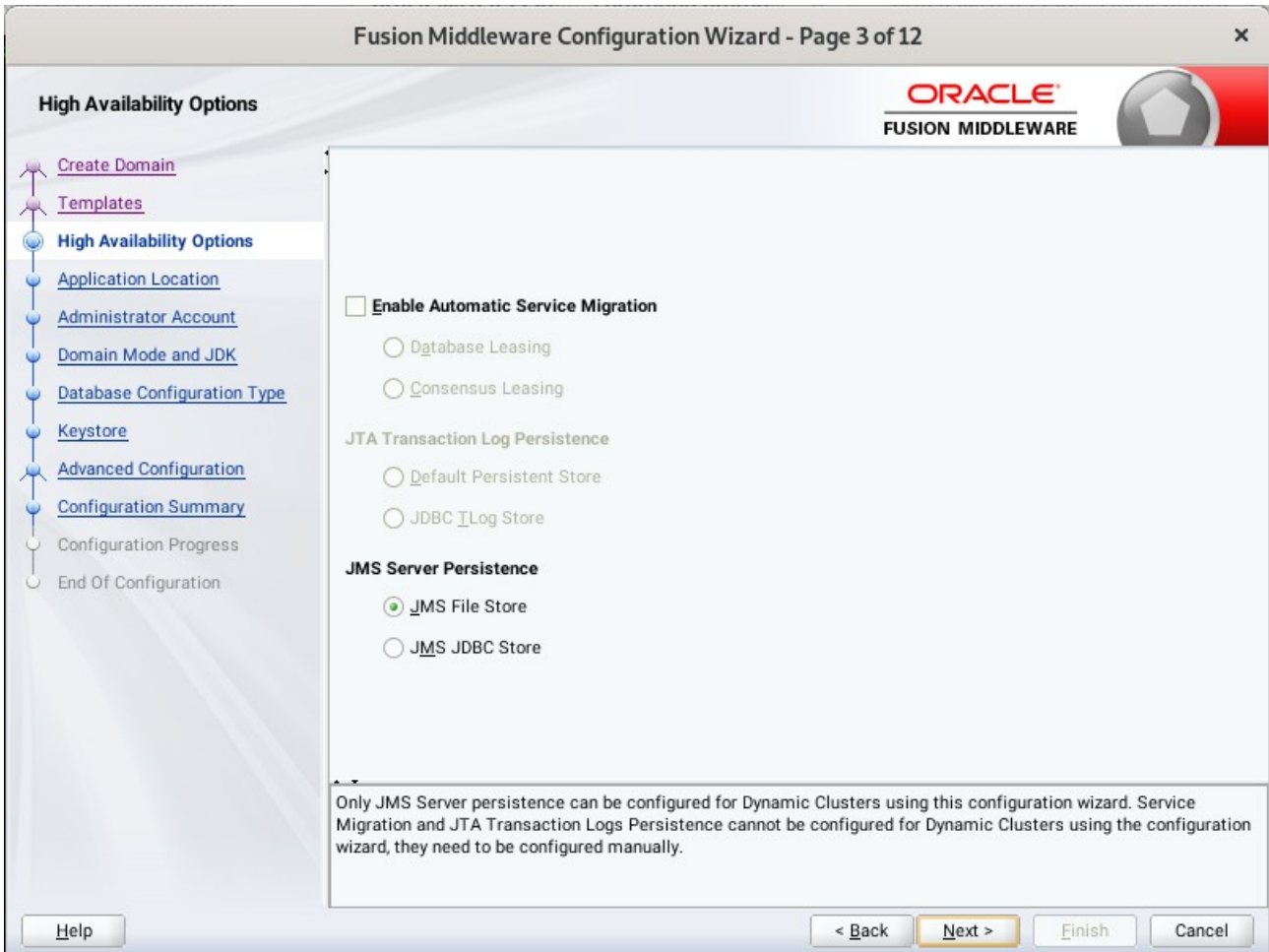


Use the **Templates** screen to select the templates you require. On the **Templates** screen, make sure **Create Domain Using Product Templates** is selected, then select the following template:

- Oracle SOA Suite 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]

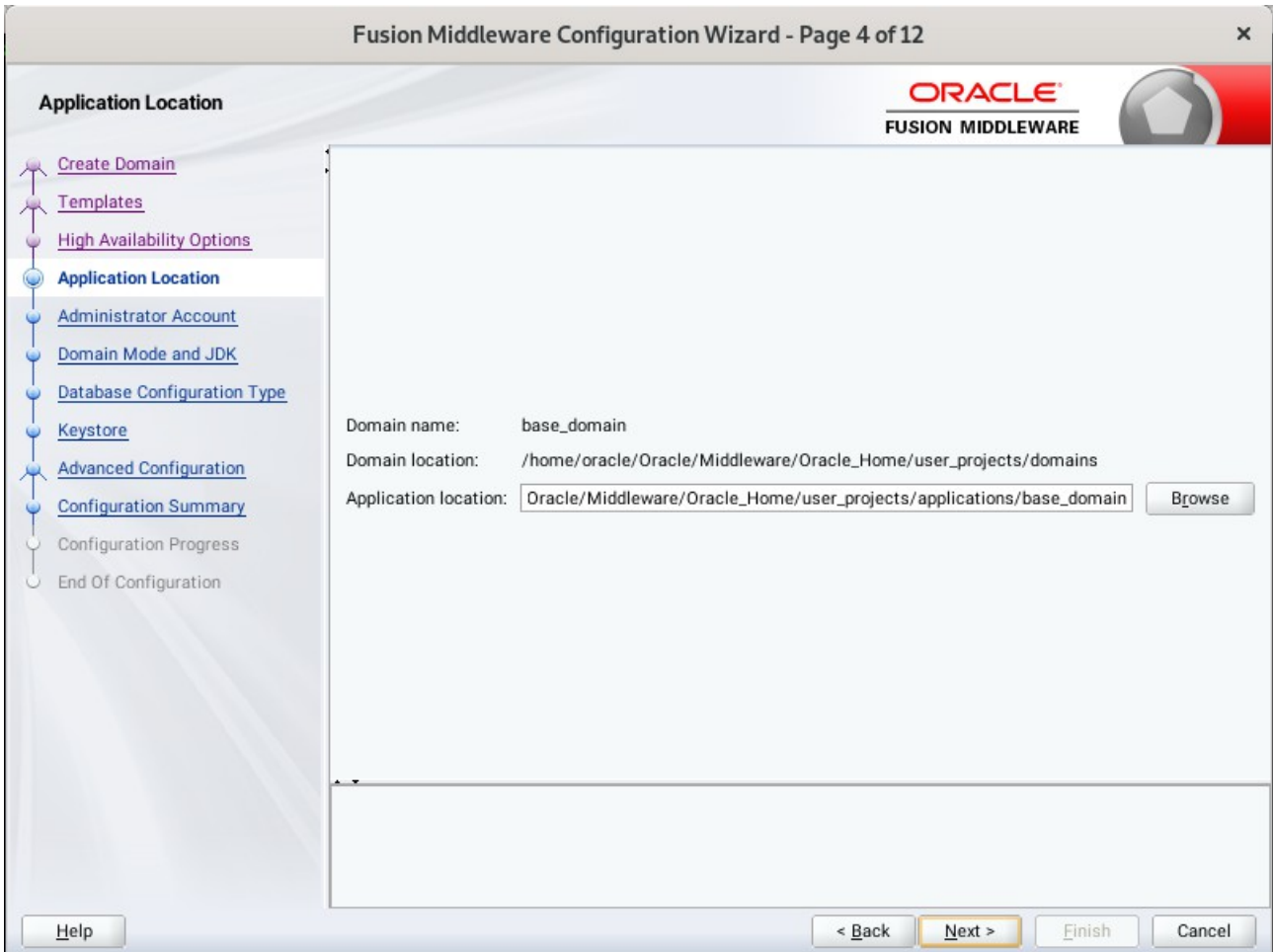
Click **Next** to continue.

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



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

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



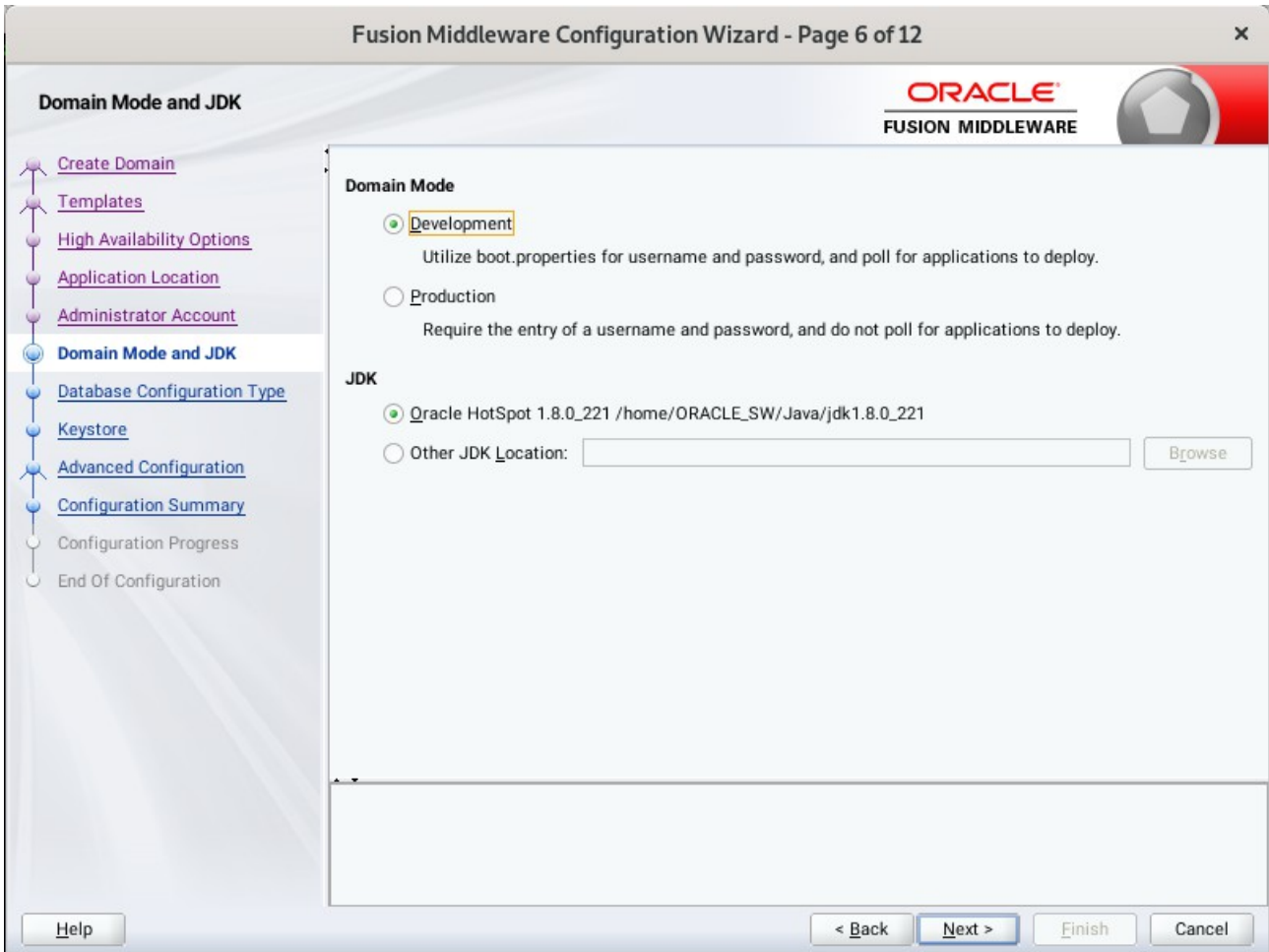
Keep the default value for Application location. Click **Next** to continue.

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 '*****'. A note below the fields 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, 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: 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:

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.

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

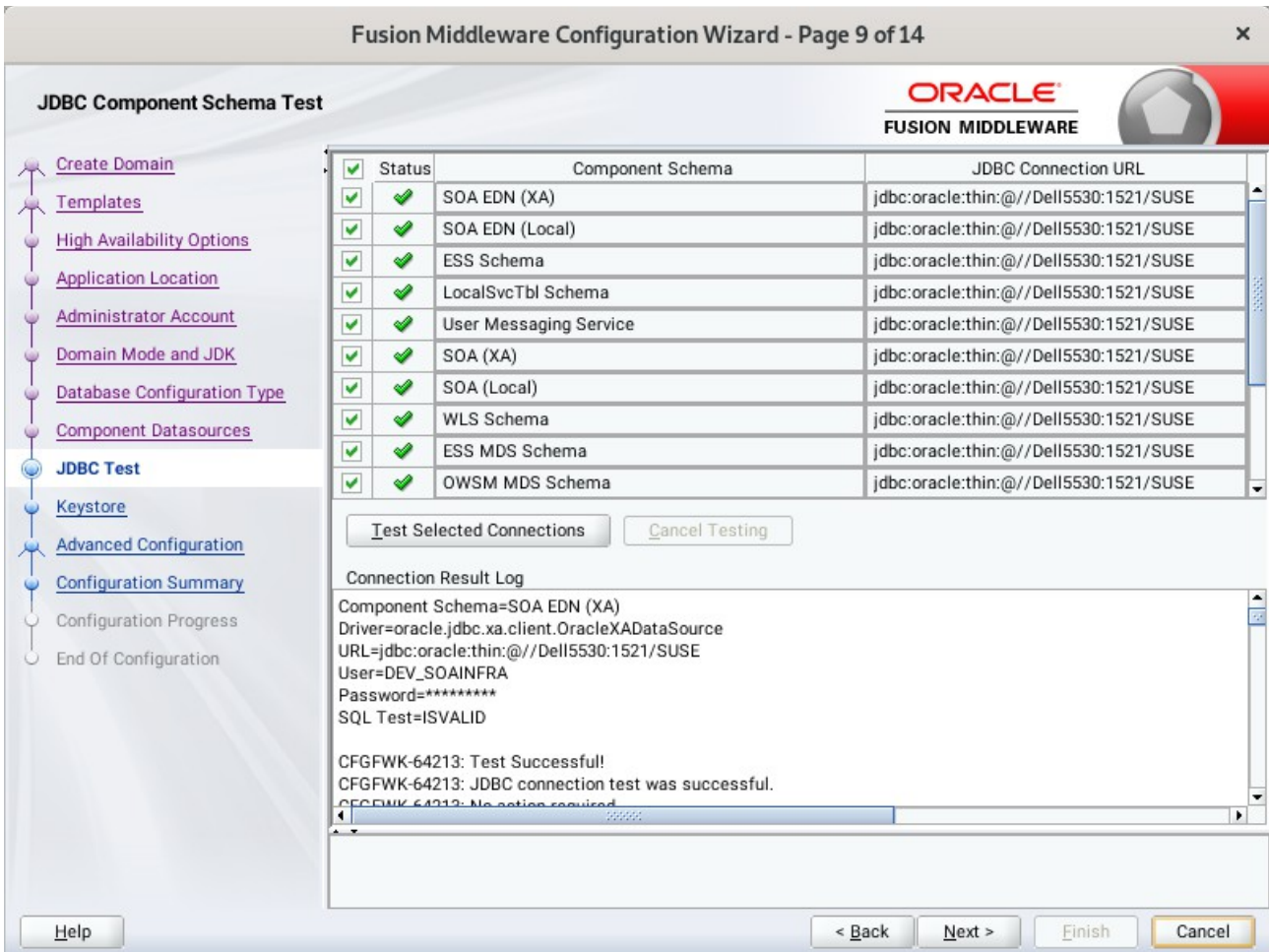
Edits to the data above will affect all checked rows in the table below.

<input type="checkbox"/>	Component Schema	DBMS/Service	Host Name	Port	Schema Owner	Schema Password
<input type="checkbox"/>	SOA EDN (XA)	SUSE	Dell5530	1521	DEV_SOAINFR/	.....
<input type="checkbox"/>	SOA EDN (Local)	SUSE	Dell5530	1521	DEV_SOAINFR/	.....
<input type="checkbox"/>	ESS Schema	SUSE	Dell5530	1521	DEV_ESS	.....
<input type="checkbox"/>	LocalSvcTbl Schema	SUSE	Dell5530	1521	DEV_STB	.....
<input type="checkbox"/>	User Messaging Service	SUSE	Dell5530	1521	DEV_UMS	.....
<input type="checkbox"/>	SOA (XA)	SUSE	Dell5530	1521	DEV_SOAINFR/	.....
<input type="checkbox"/>	SOA (Local)	SUSE	Dell5530	1521	DEV_SOAINFR/	.....
<input type="checkbox"/>	WLS Schema	SUSE	Dell5530	1521	DEV_WLS_RUN	.....

Help

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

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



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

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

Fusion Middleware Configuration Wizard - Page 10 of 14

Keystore

ORACLE
FUSION MIDDLEWARE

Store Key Name: ums/apns [Disgard Changes]

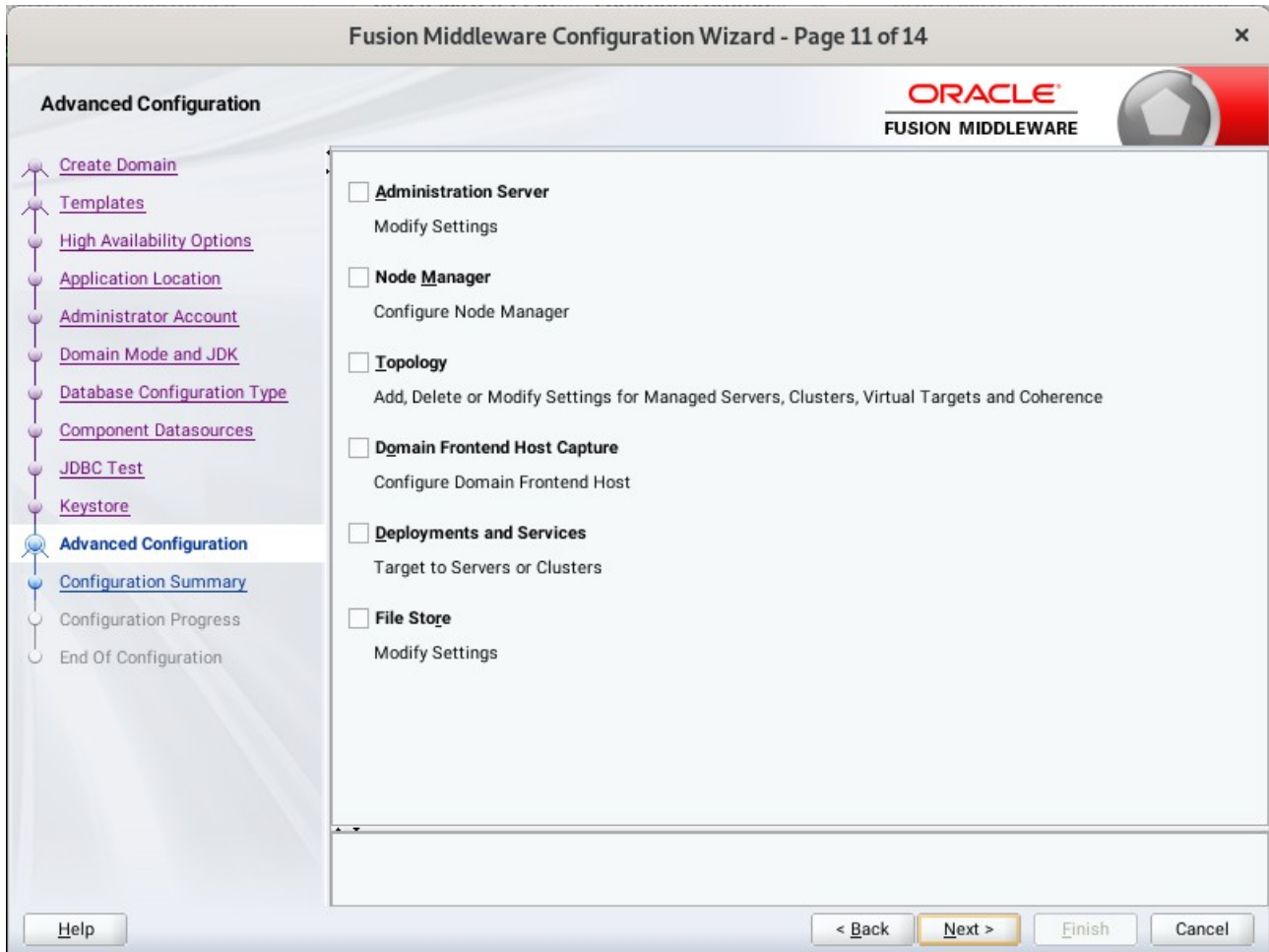
Alias	Trusted Certificate		

Alias	Private Key	Password	Identity Certificate

Help < Back Next > Finish Cancel

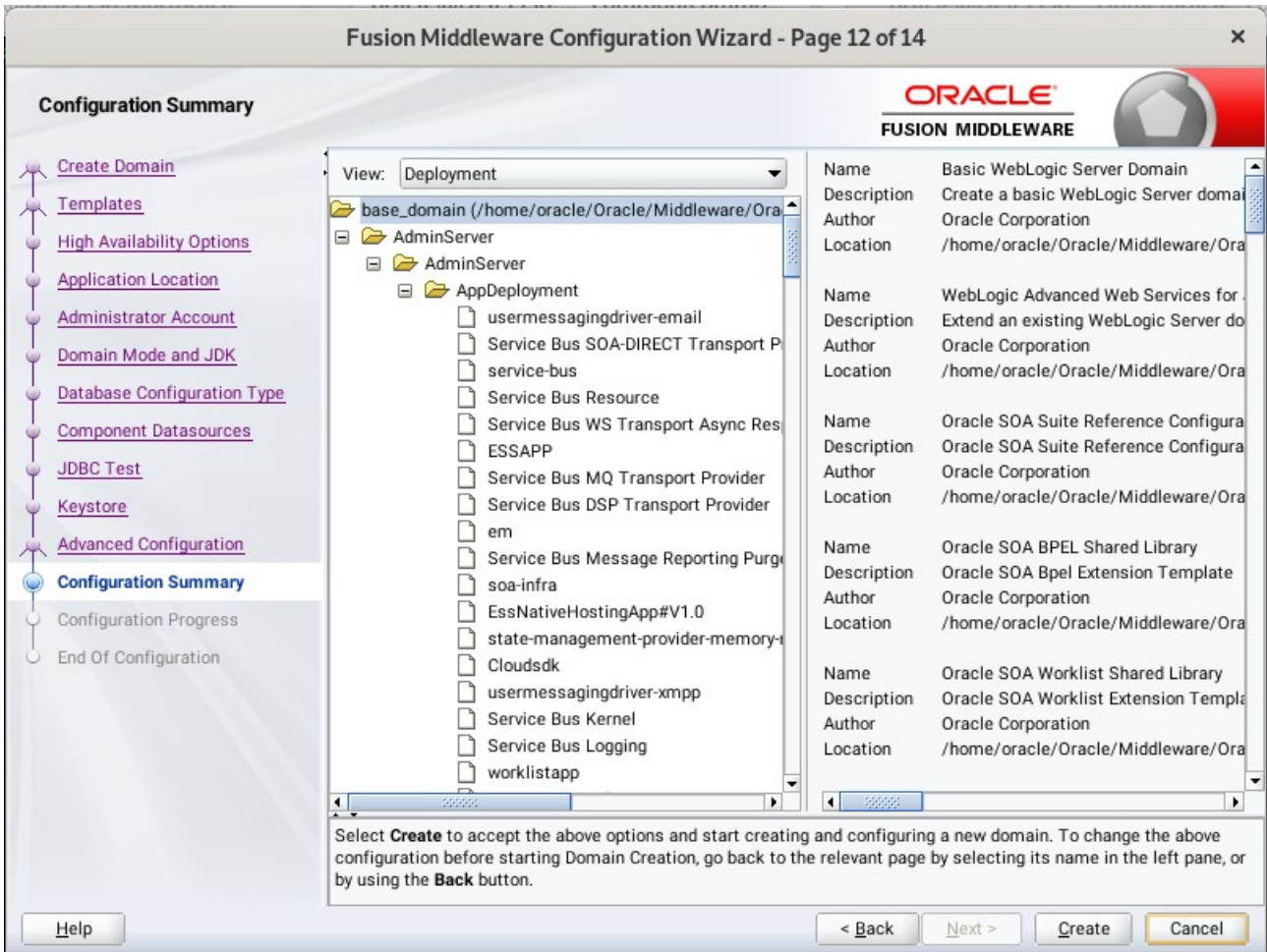
Accept the defaults and click **Next** to continue.

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



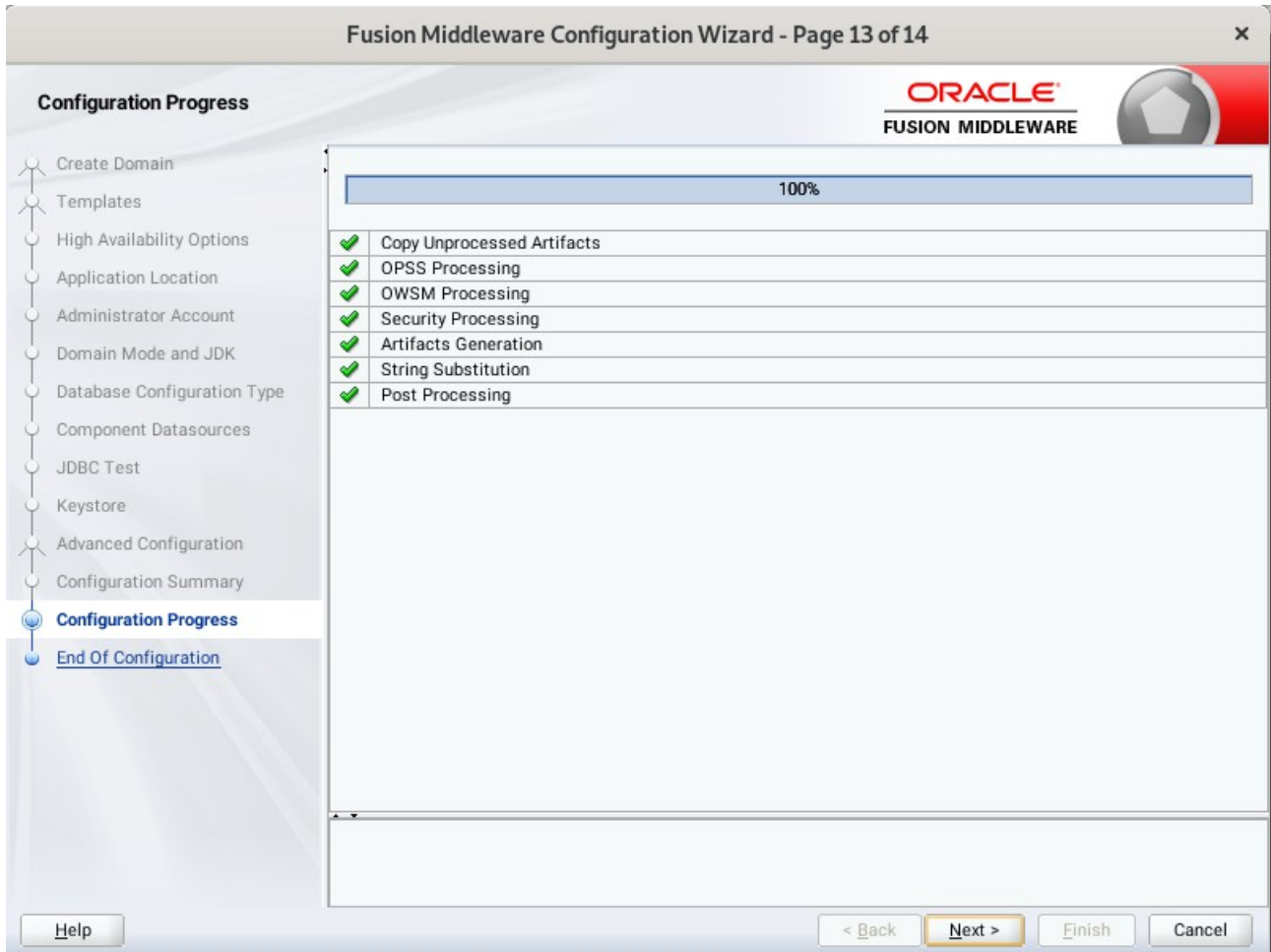
On the Advanced Configuration screen, you do not need any advanced configuration for a compact domain. You can skip through the Advanced Configuration screen without selecting anything. Click **Next** to continue.

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



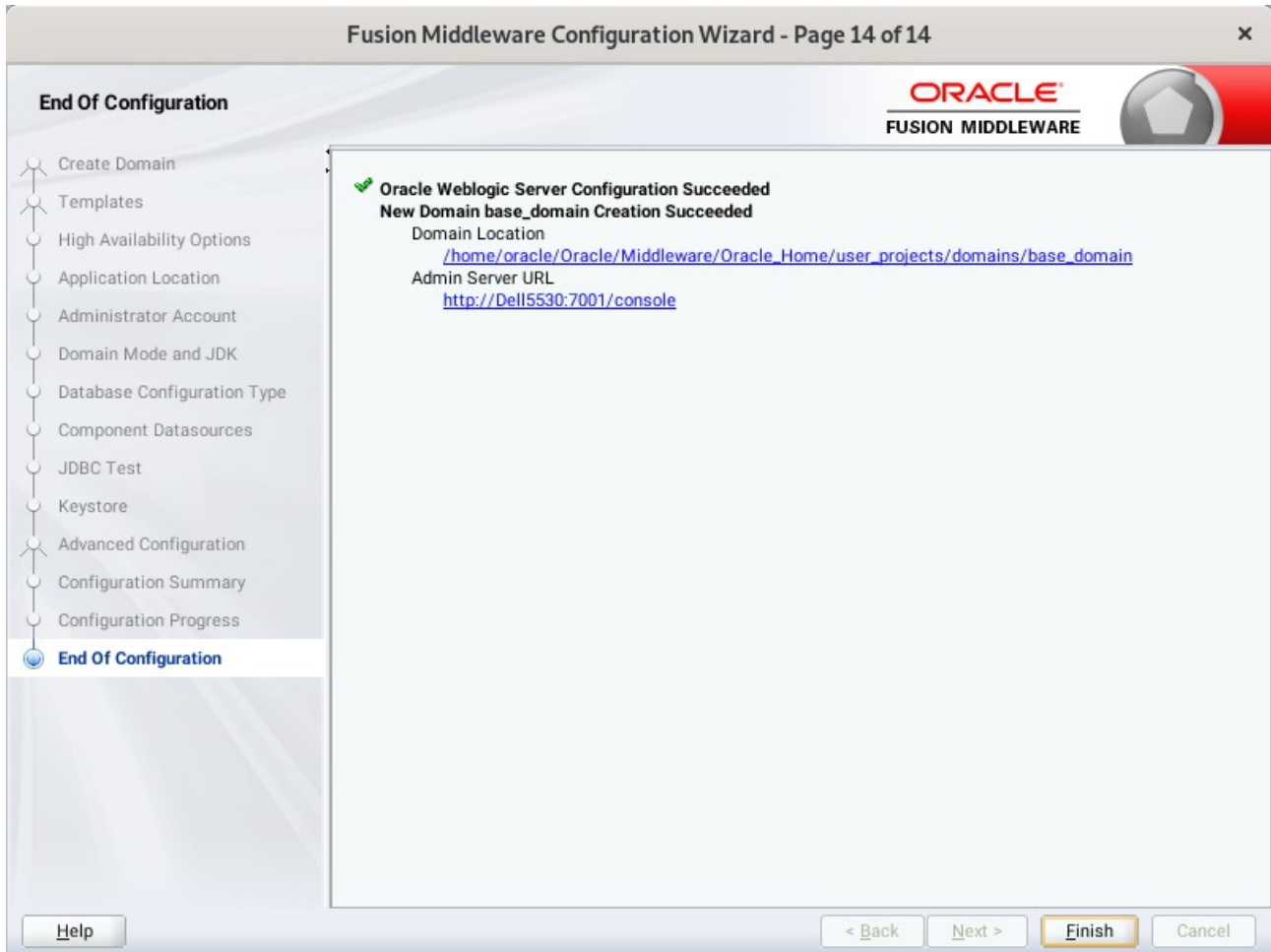
Select **Create** to accept the above options and start creating and configuring a new domain.

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`.

```

weblogic.mdbbs.suspendConnectionOnStart is ignored, because it is not supported by JCA-Based Message-Driven Bean.
<Jul 10, 2020 12:32:00,673 AM GMT+08:00> <Warning> <Server> <BEA-002611> <The hostname "localhost", maps to multiple IP addresses: 127.0.0.1, 0:0:0:0:0:0:1.>
<Jul 10, 2020 12:32:00,673 AM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[4]" is now listening on 127.0.0.1:7001 for protocols iioop, t3, ldap, snmp, http.>
<Jul 10, 2020 12:32:01,075 AM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[2]" is now listening on 2408:8207:c53:43c0:e6b9:7aff:fe86:7164%eth0:7001 for protocols iioop, t3, ldap, snmp, http.>
<Jul 10, 2020 12:32:01,076 AM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[3]" is now listening on 0:0:0:0:0:0:0:1%lo:7001 for protocols iioop, t3, ldap, snmp, http.>
<Jul 10, 2020 12:32:01,076 AM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default" is now listening on 192.168.1.7:7001 for protocols iioop, t3, ldap, snmp, http.>
<Jul 10, 2020 12:32:01,325 AM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[1]" is now listening on 2408:8207:c53:43c0:8ca1:5753:4632:5656%eth0:7001 for protocols iioop, t3, ldap, snmp, http.>
<Jul 10, 2020 12:32:01,326 AM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[4]" is now listening on 127.0.0.1:7001 for protocols iioop, t3, ldap, snmp, http.>
<Jul 10, 2020 12:32:01,326 AM GMT+08:00> <Notice> <WebLogicServer> <BEA-000331> <Started the WebLogic Server Administration Server "AdminServer" for domain "base_domain" running in development mode.>
<Jul 10, 2020 12:32:01,326 AM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[2]" is now listening on 2408:8207:c53:43c0:e6b9:7aff:fe86:7164%eth0:7001 for protocols iioop, t3, ldap, snmp, http.>
<Jul 10, 2020 12:32:01,327 AM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[3]" is now listening on 0:0:0:0:0:0:0:1%lo:7001 for protocols iioop, t3, ldap, snmp, http.>
<Jul 10, 2020 12:32:01,327 AM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default" is now listening on 192.168.1.7:7001 for protocols iioop, t3, ldap, snmp, http.>
<Jul 10, 2020 12:32:01,327 AM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default[1]" is now listening on 2408:8207:c53:43c0:8ca1:5753:4632:5656%eth0:7001 for protocols iioop, t3, ldap, snmp, http.>
<Jul 10, 2020 12:32:01,330 AM GMT+08:00> <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 CompositeLazyLoading enabled. CompositeLazyDeployment disabled.
deploying 0 composites took 0 ms
----->deploying 0 composites took 11 ms
<Jul 10, 2020 12:32:03,095 AM GMT+08:00> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to RUNNING.>
Not fusion apps env
SOA Platform is running and accepting requests. Start up took 85207 ms, partition=DOMAIN

```

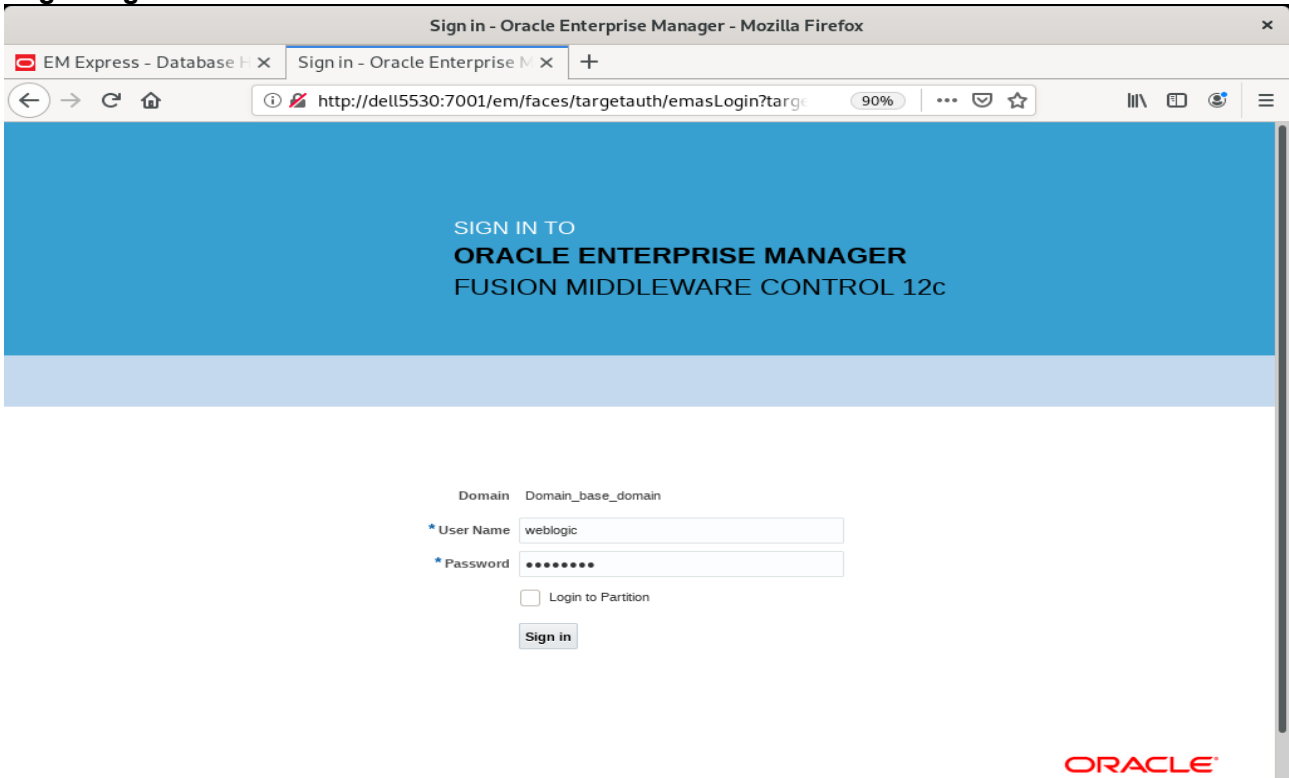
You know that the administrator server is running when you see the following output:

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

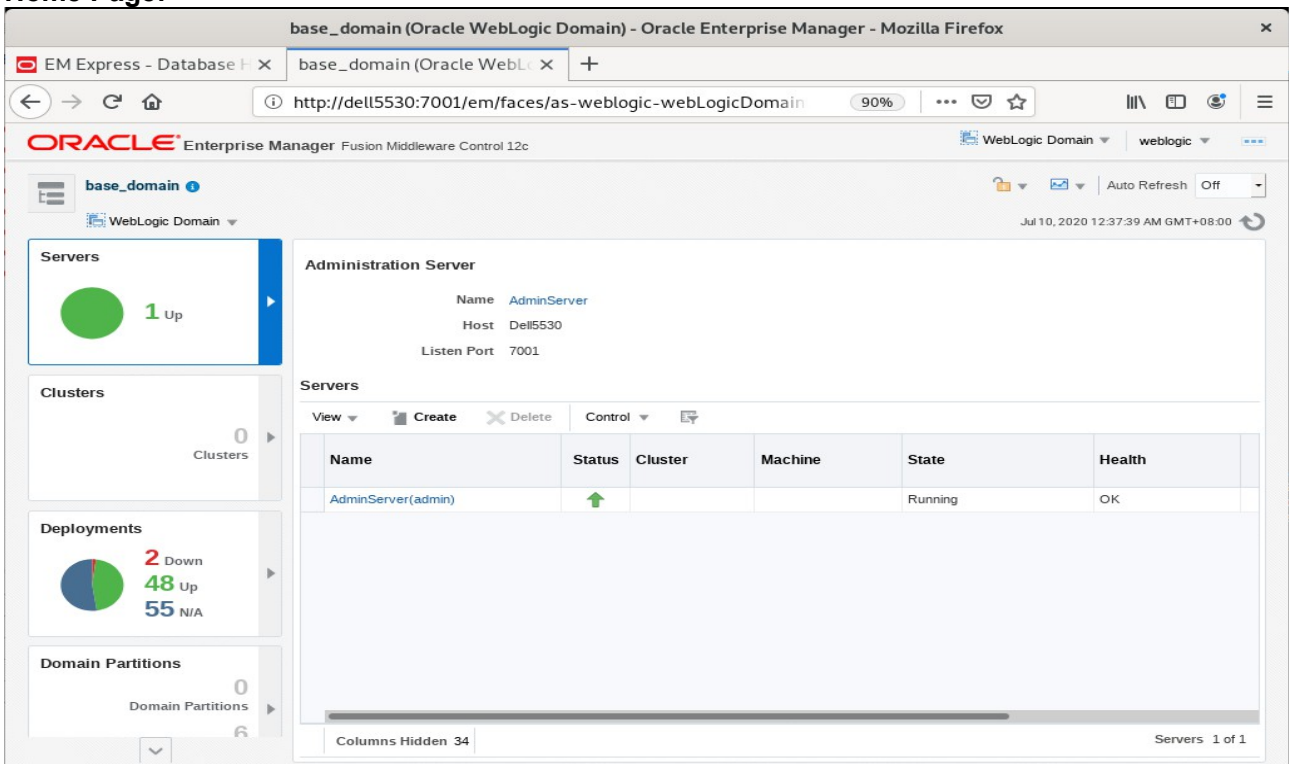
4-3. Checking Oracle SOA Suite 12c Product URLs.

1). Access to Enterprise Manager Console.

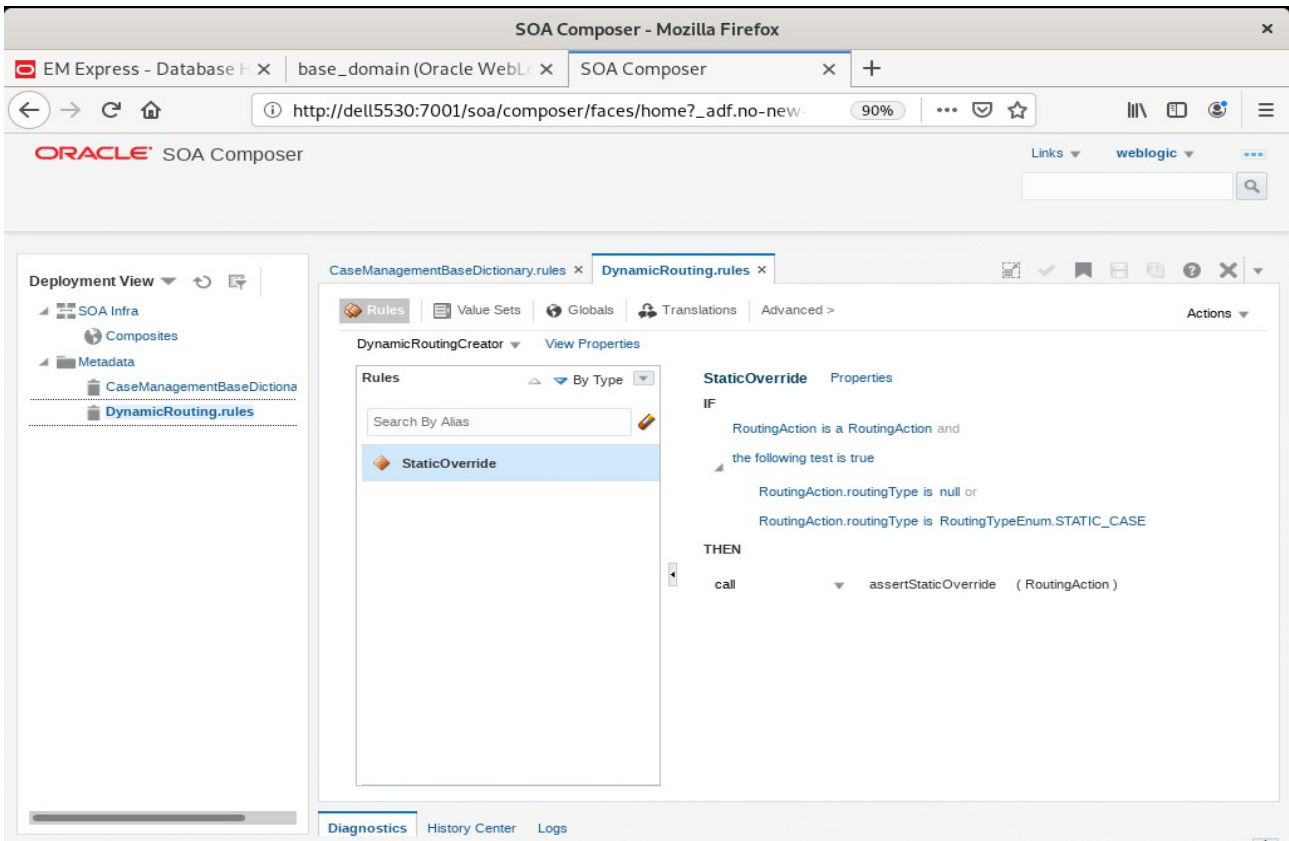
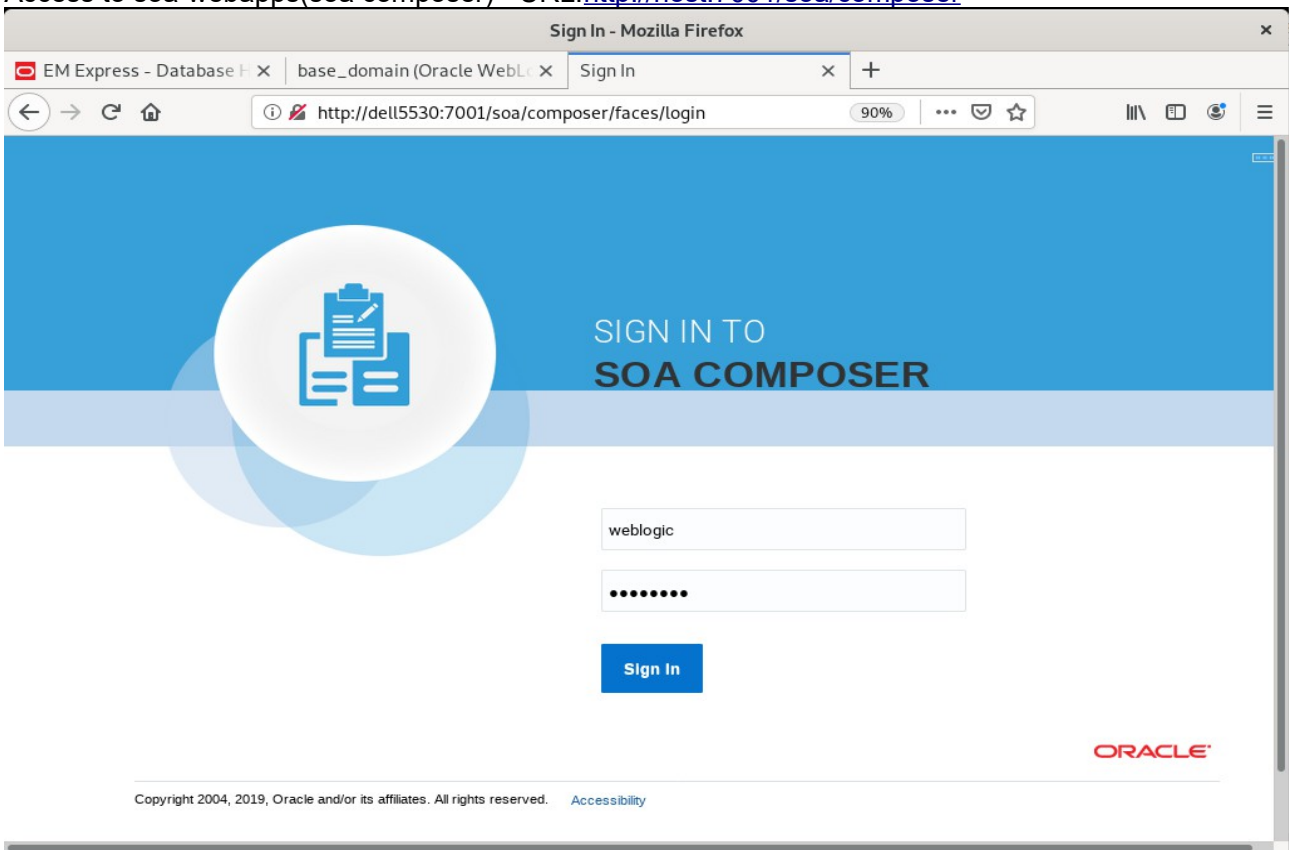
Login Page:



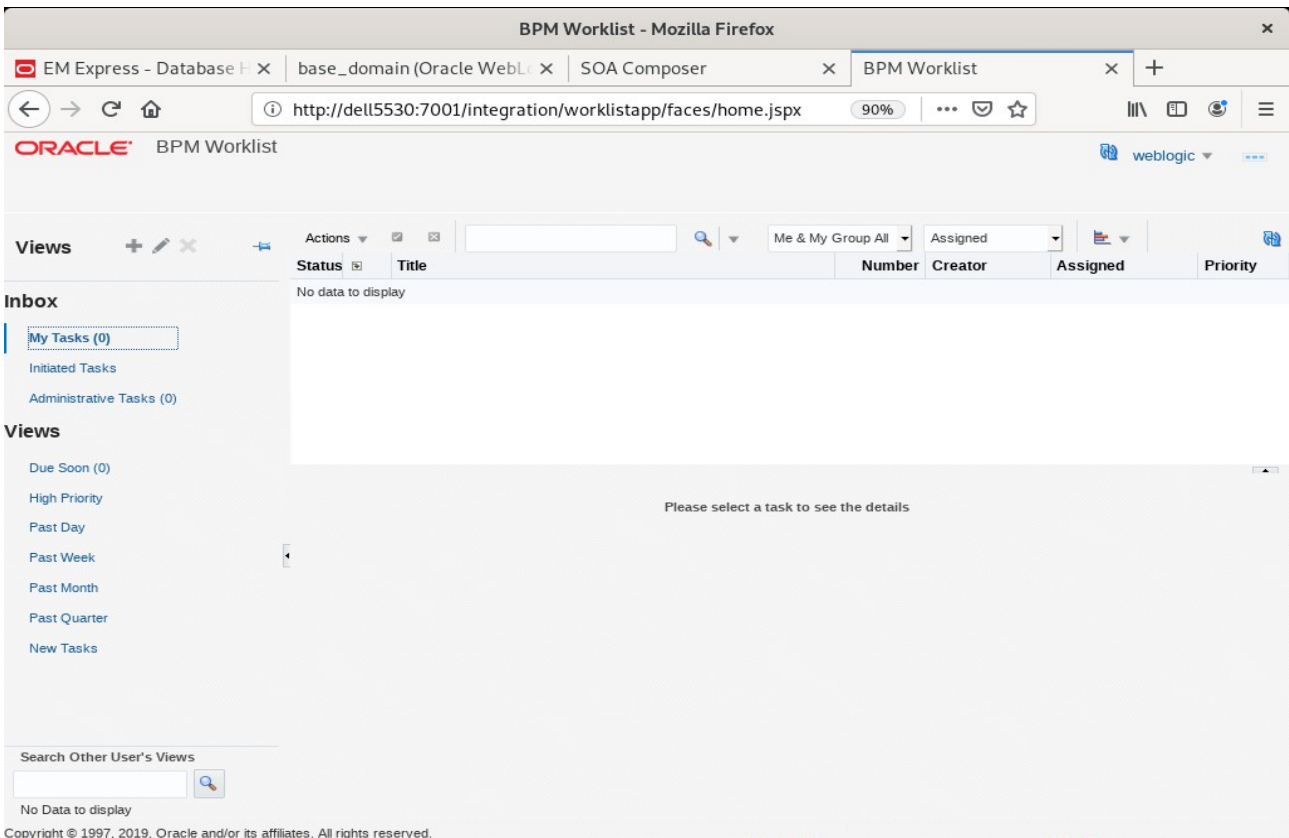
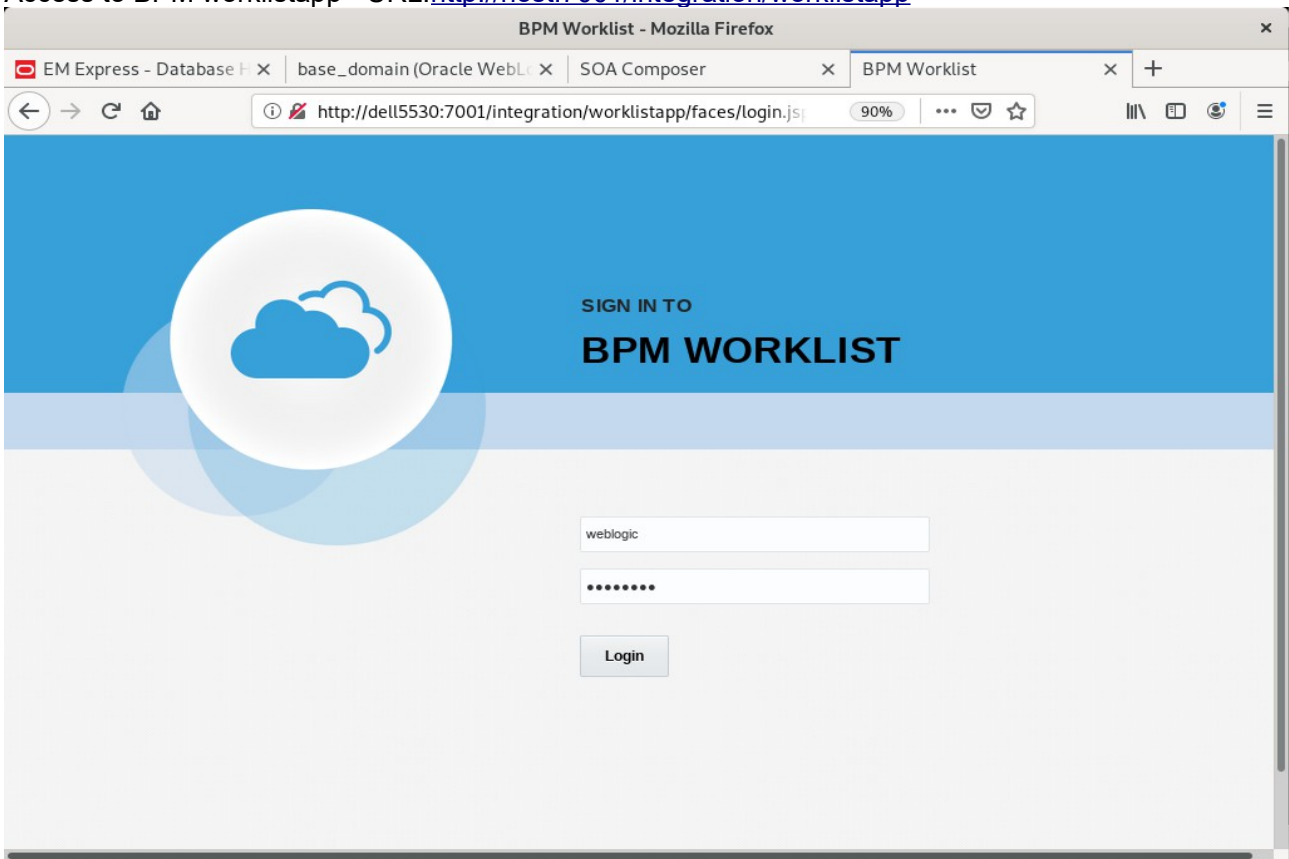
Home Page:



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

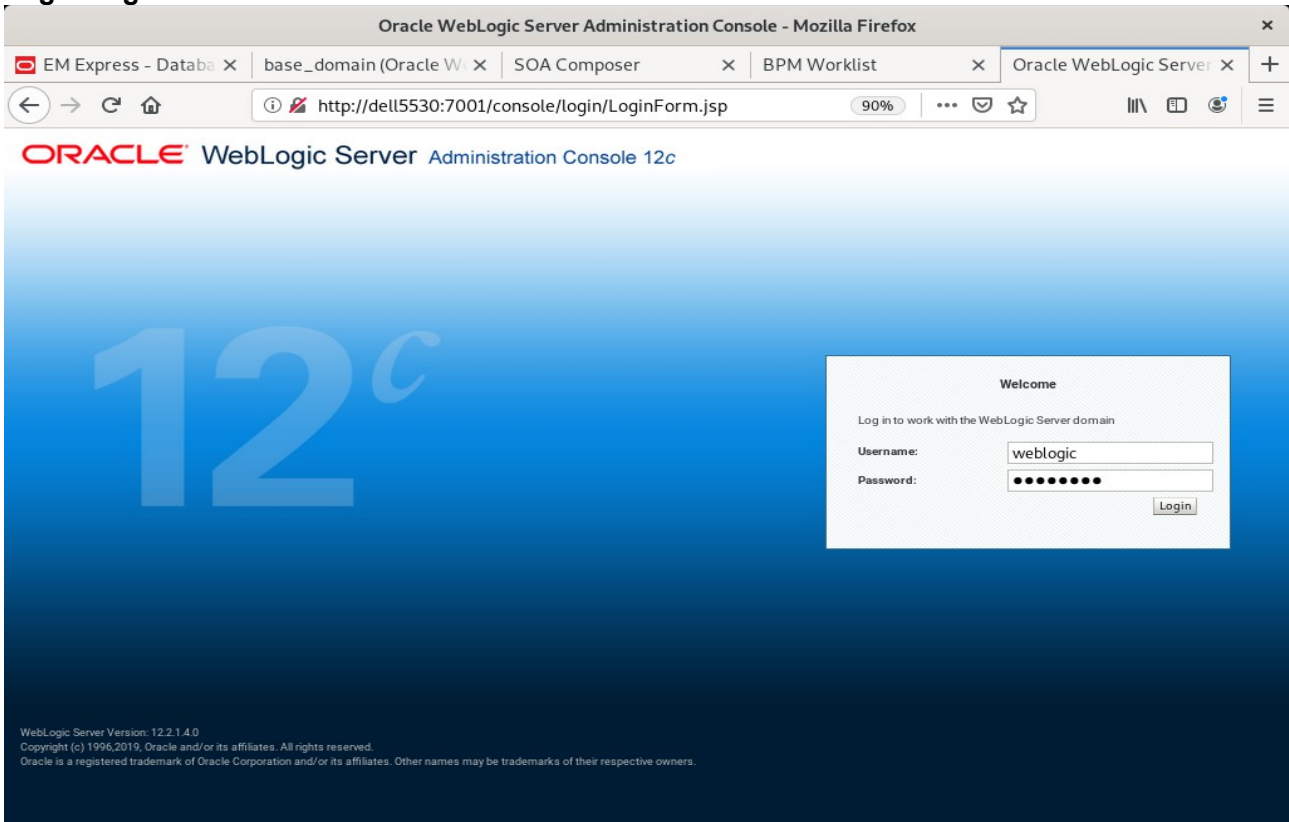


Access to BPM worklistapp - URL:<http://host:7001/integration/worklistapp>

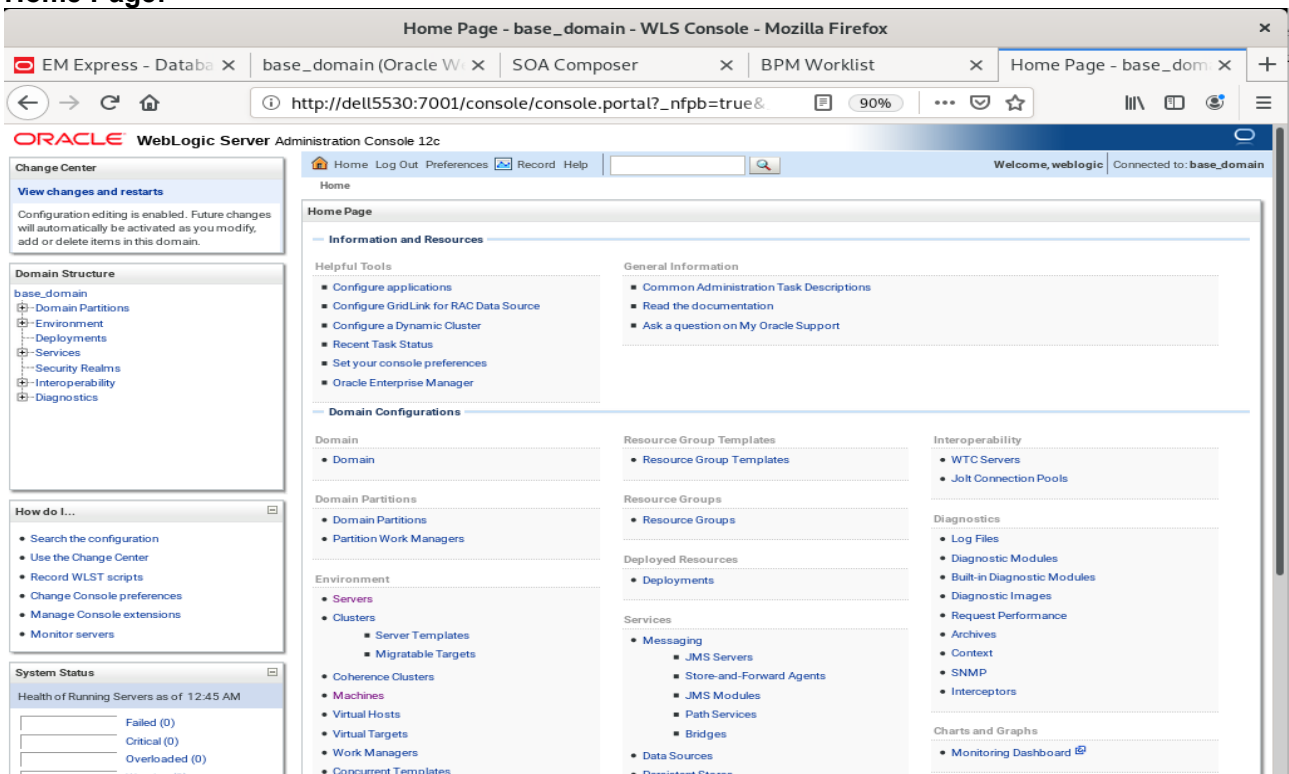


2). Access to Administration Server Console

Login Page as shown below:



Home Page:



Viewing the summary of servers:

The screenshot shows the Oracle WebLogic Server Administration Console interface. The main content area is titled "Summary of Servers" and includes a "Configuration" tab. Below the tab, there 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 navigation menus for Change Center, Domain Structure, How do I..., and System Status.

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

3). Connecting JDeveloper to the Compact Domain.

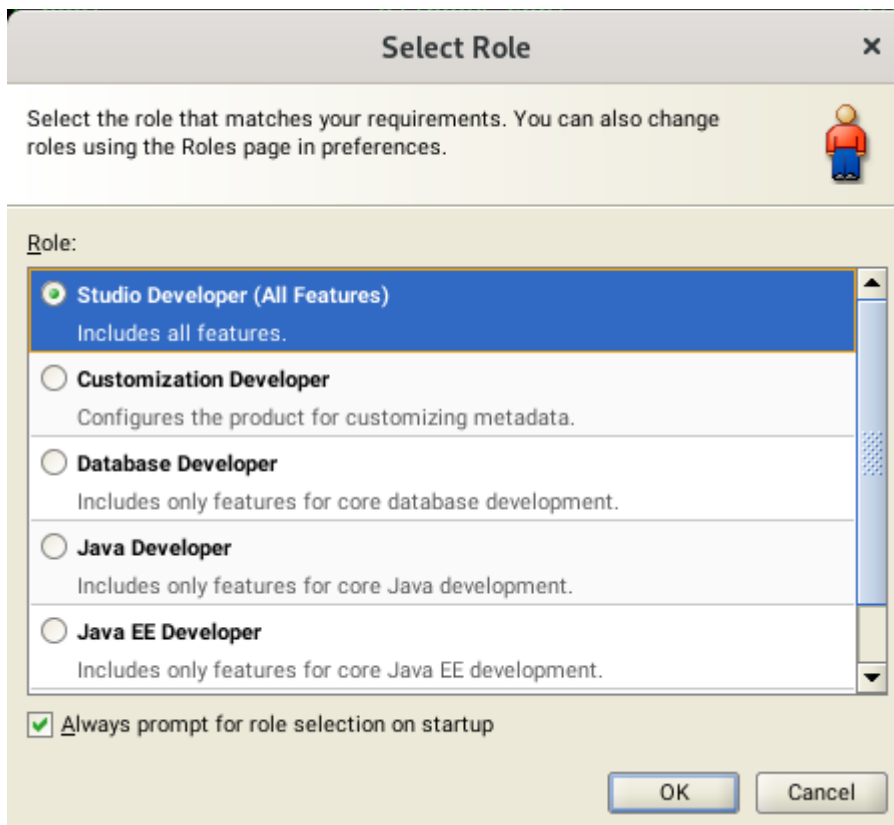
Launch Oracle JDeveloper with the appropriate command.

Ex:

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

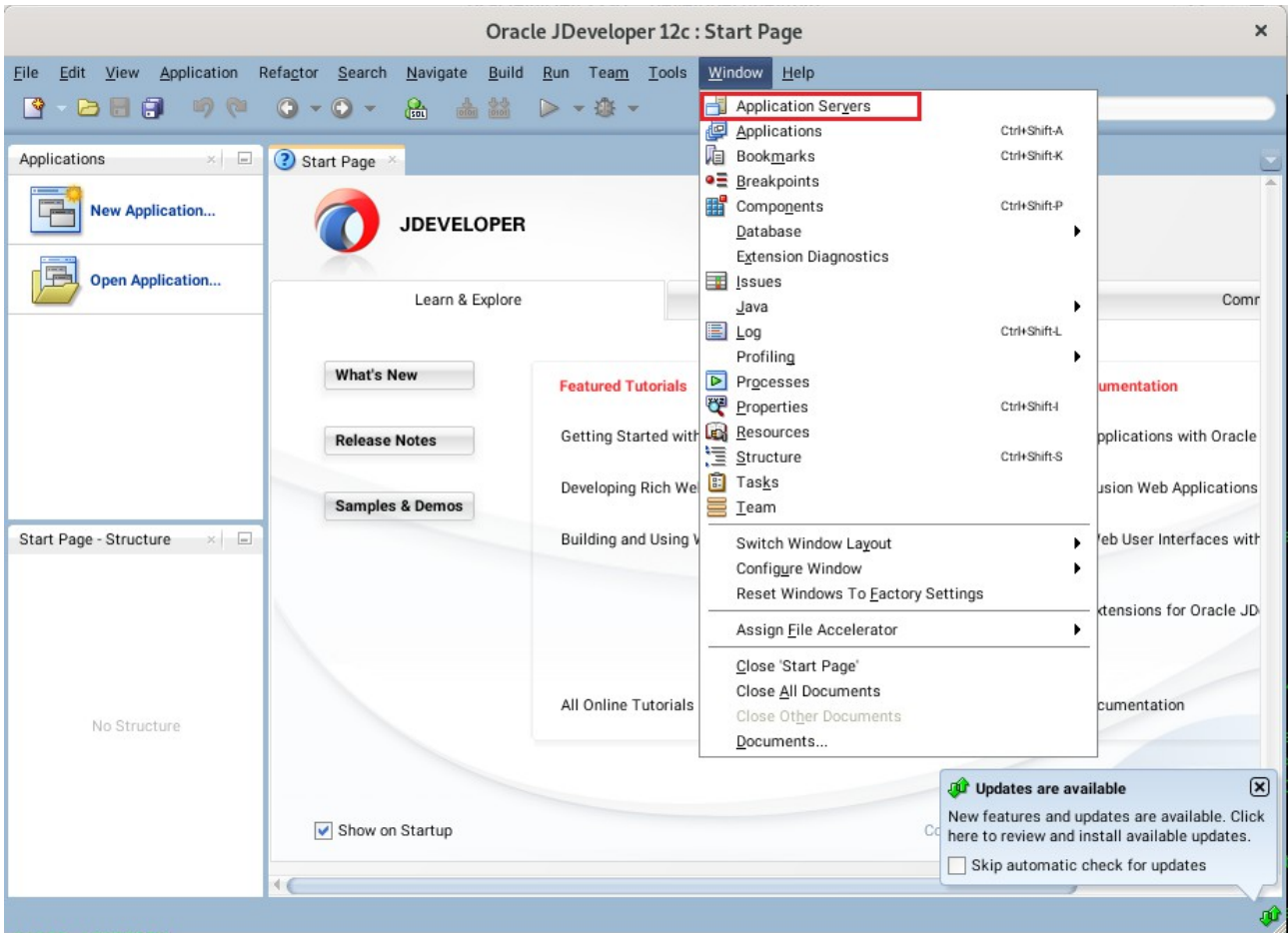
Follow these steps:

a1). Select Role.

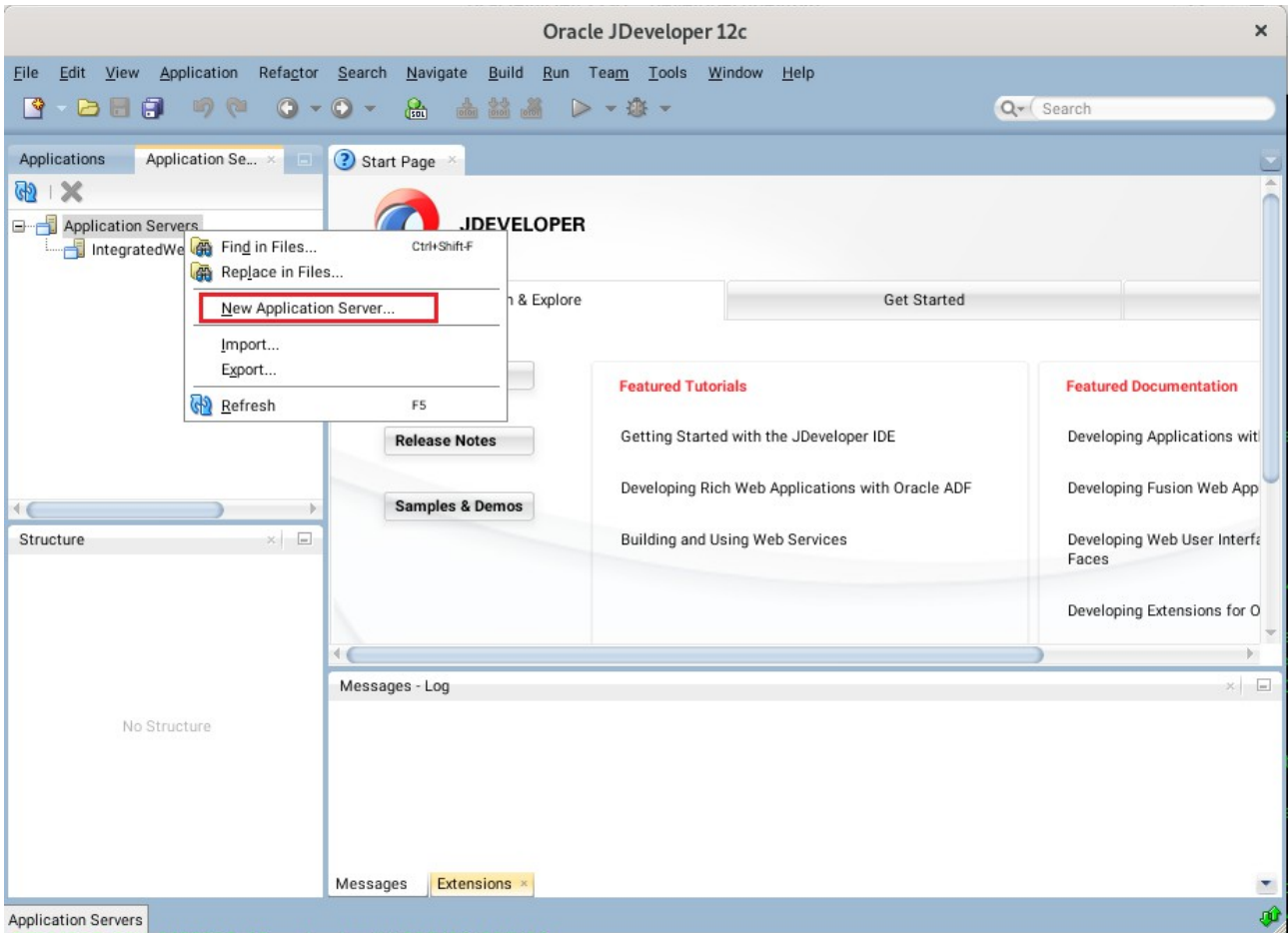


Select the role that matches your requirements. Click **OK** to continue.

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

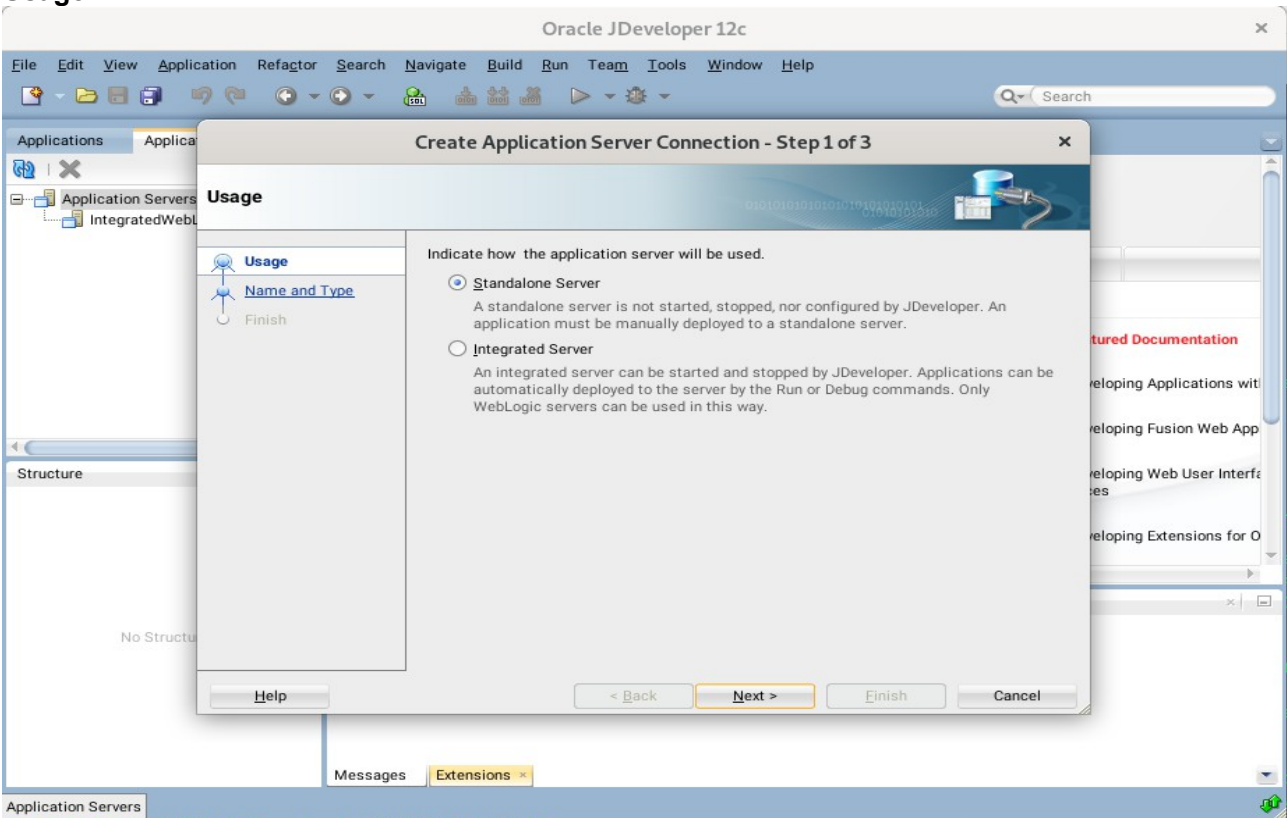


a3). Right-click on **Application Servers** in the Application Server Navigator. Select **New Application Server** from the drop-down menu to launch the **Create Application Server Connection** wizard.

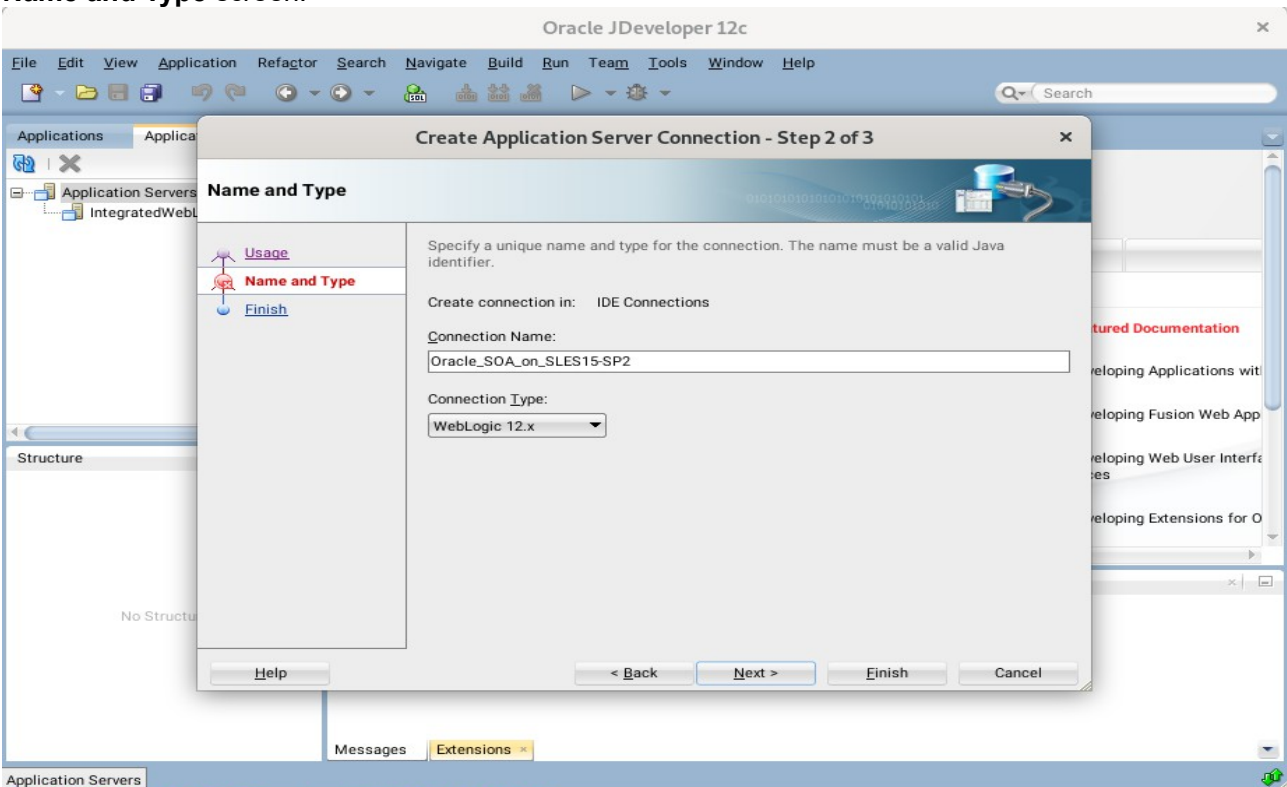


a4). Creating Application Server Connection steps as shown below.

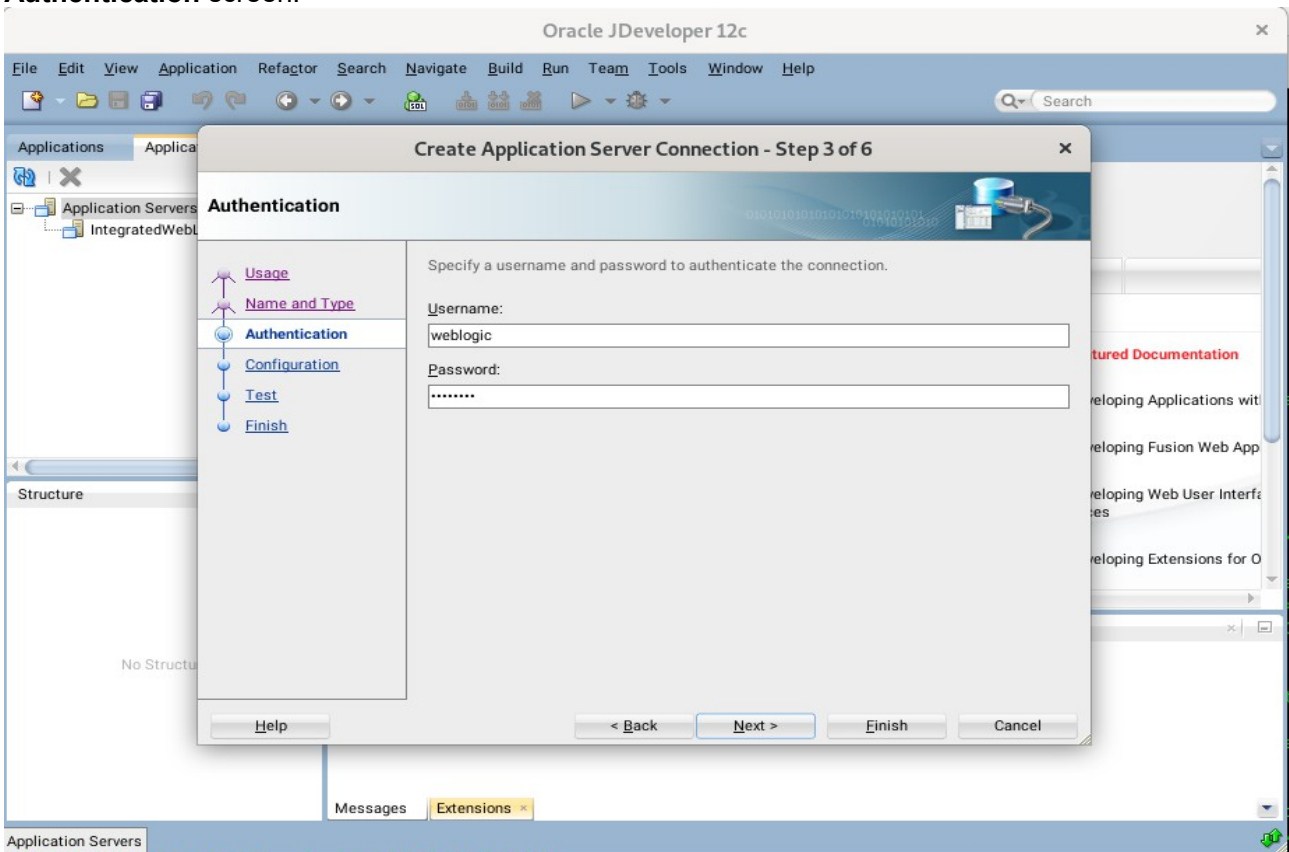
Usage screen.



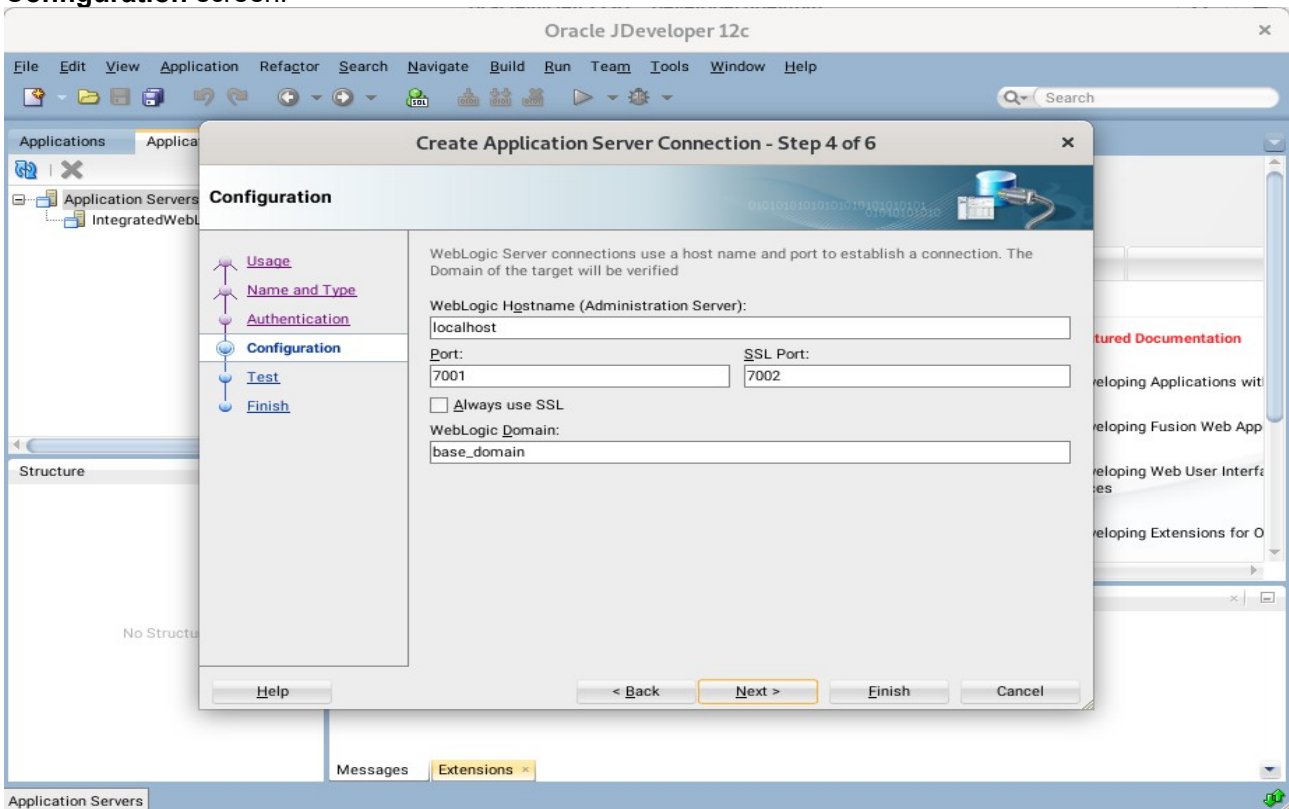
Name and Type screen.



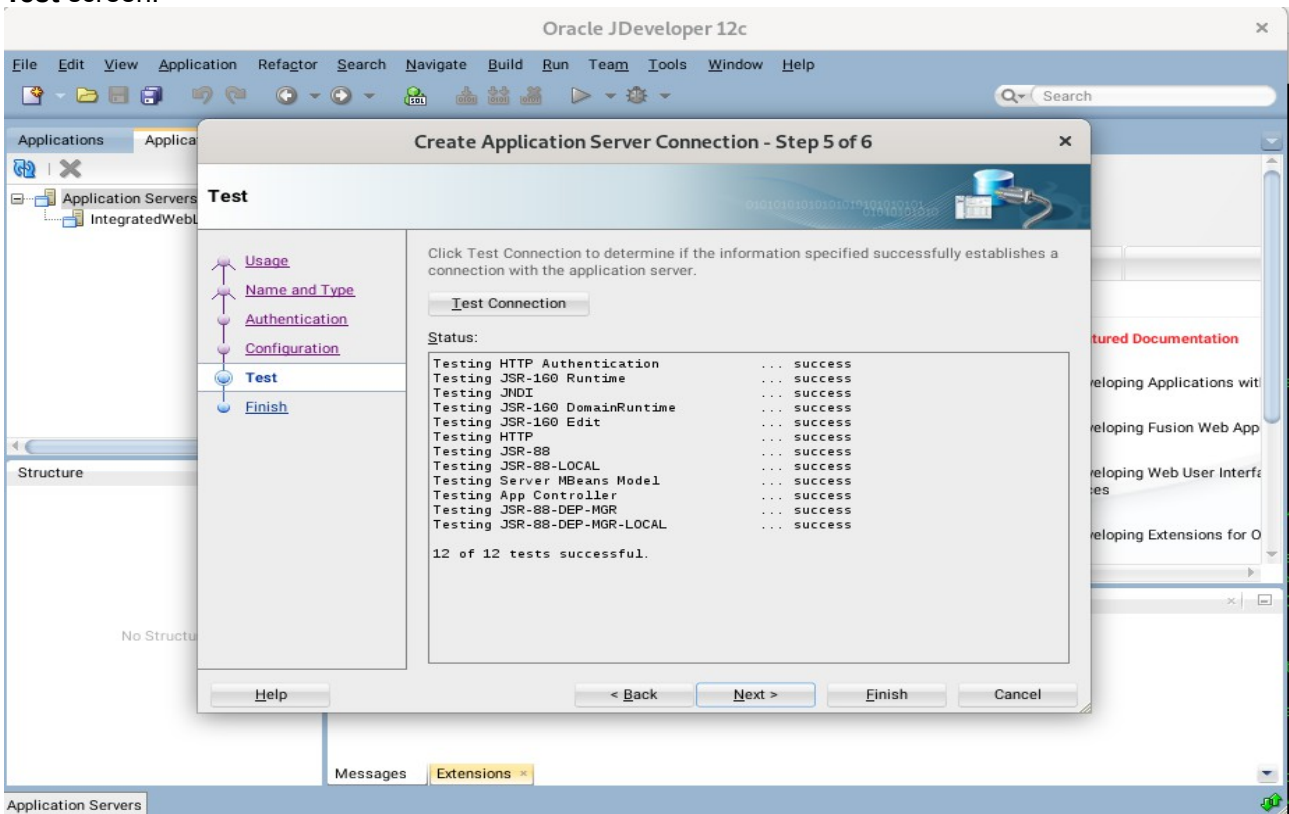
Authentication screen.



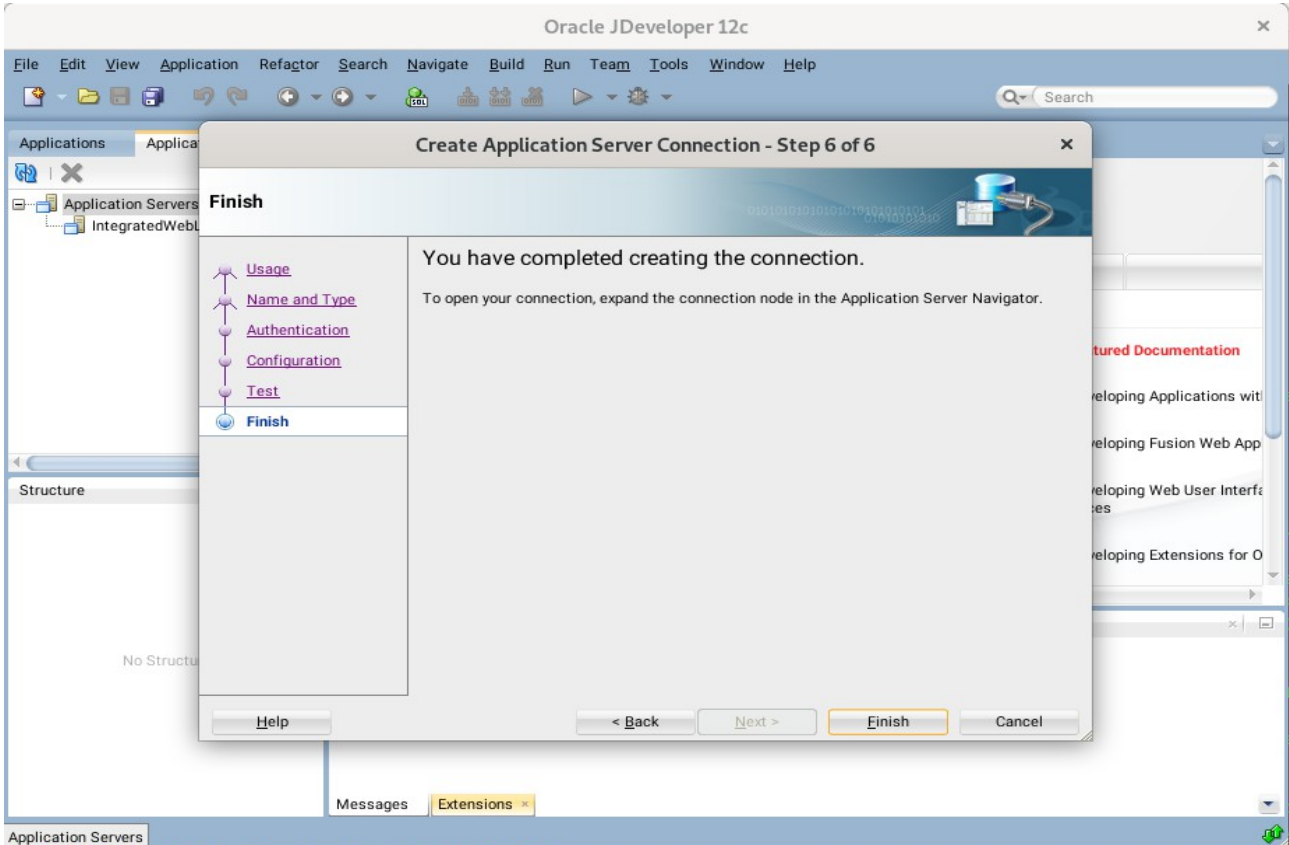
Configuration screen.



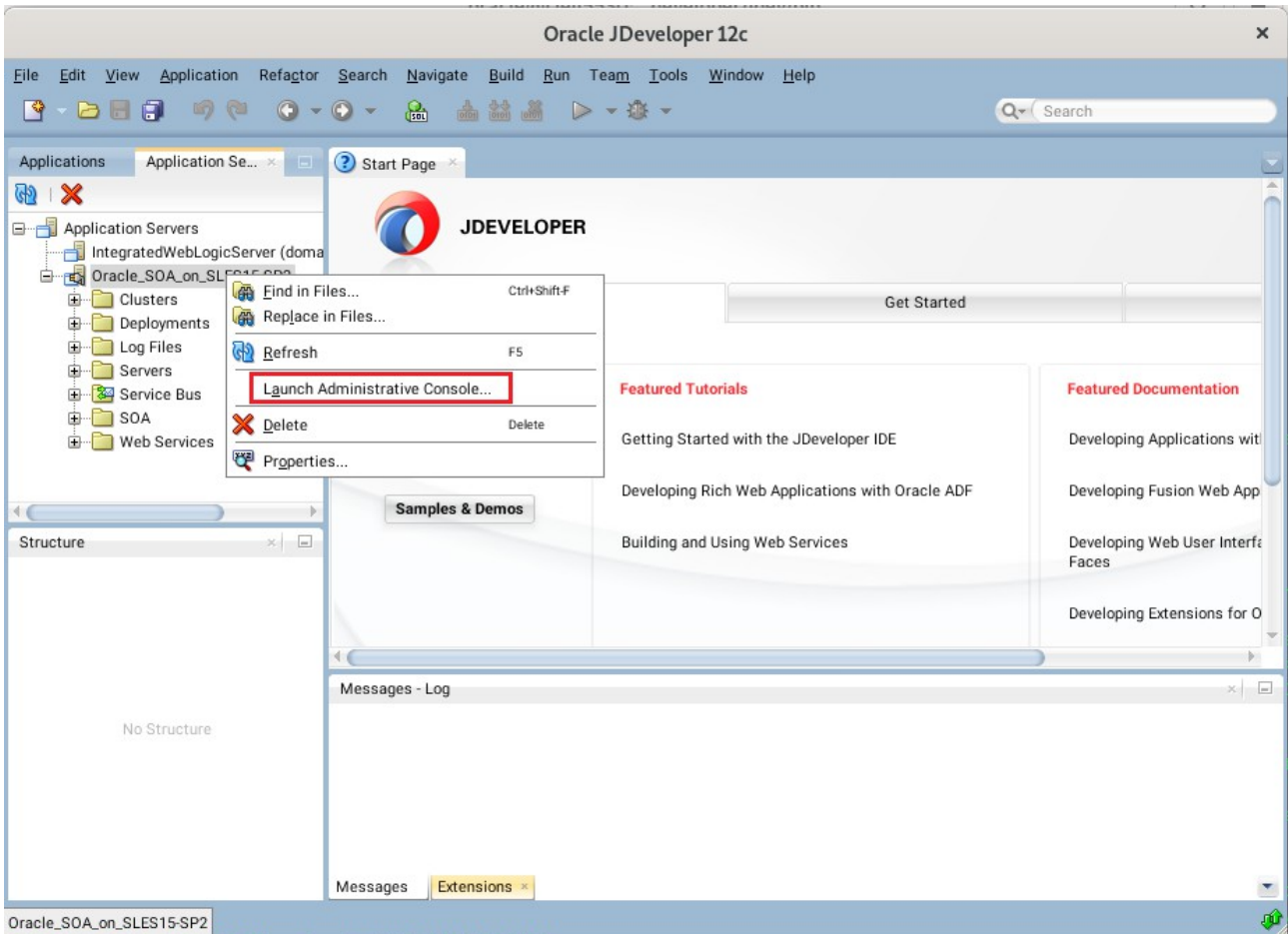
Test screen.



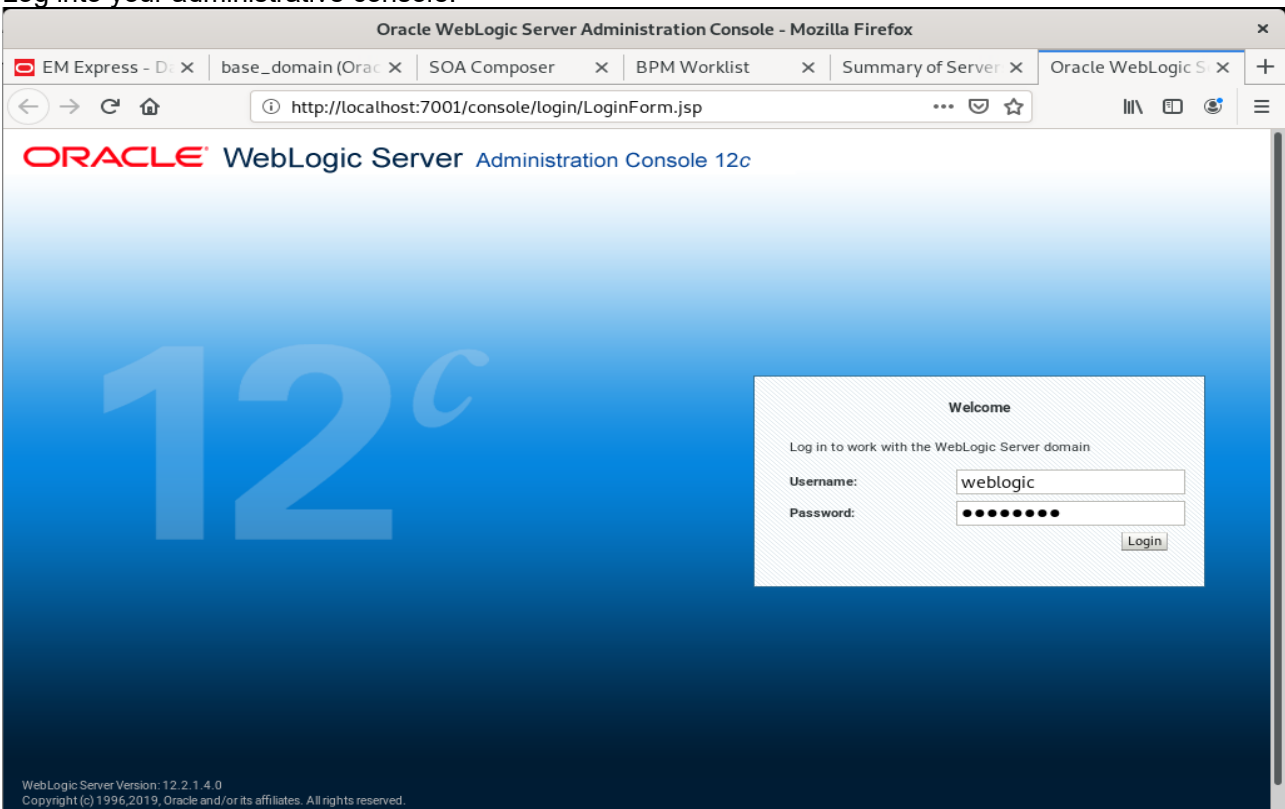
Finish screen.



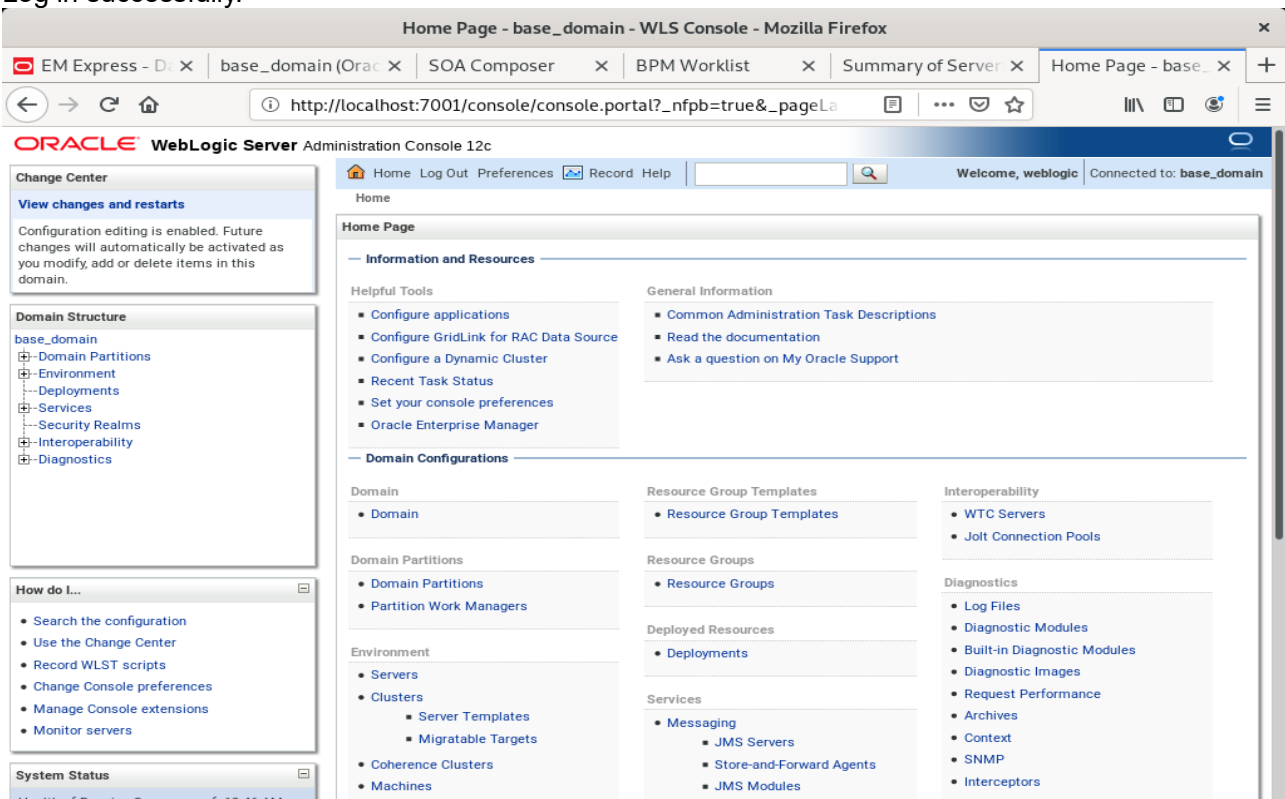
a5). Verifying Your Connection. Expand the connection node beside **Application Servers** in the Application Server Navigator. You should see your domain listed by the **Connection Name** you specified on the **Name and Type** screen. Right-click on your domain's name and choose **Launch Administrative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



Log into your administrative console.



Log in successfully.



End of Oracle SOA Suite.

Oracle Access Manager

1. Installing Oracle Identity and Access Management 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 9898557440 bytes
Fixed Size                 12169752 bytes
Variable Size             2013269480 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.

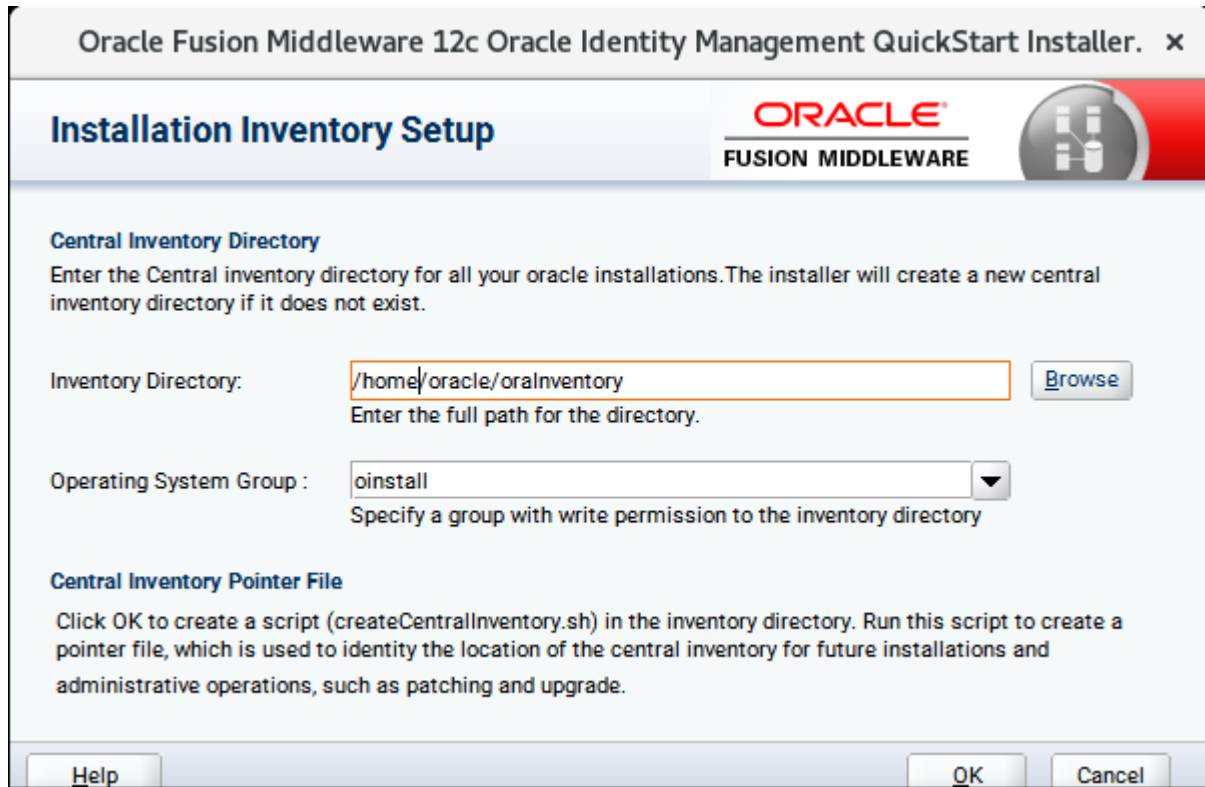
1-2. Log in to the target system (SLES 15 SP2 64-bit OS) as a non-admin user. Download the Oracle Identity and Access Management 12cPS4 (12.2.1.4.0) generic installer .zip file from <https://www.oracle.com/downloads/#category-middleware>.

(**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'

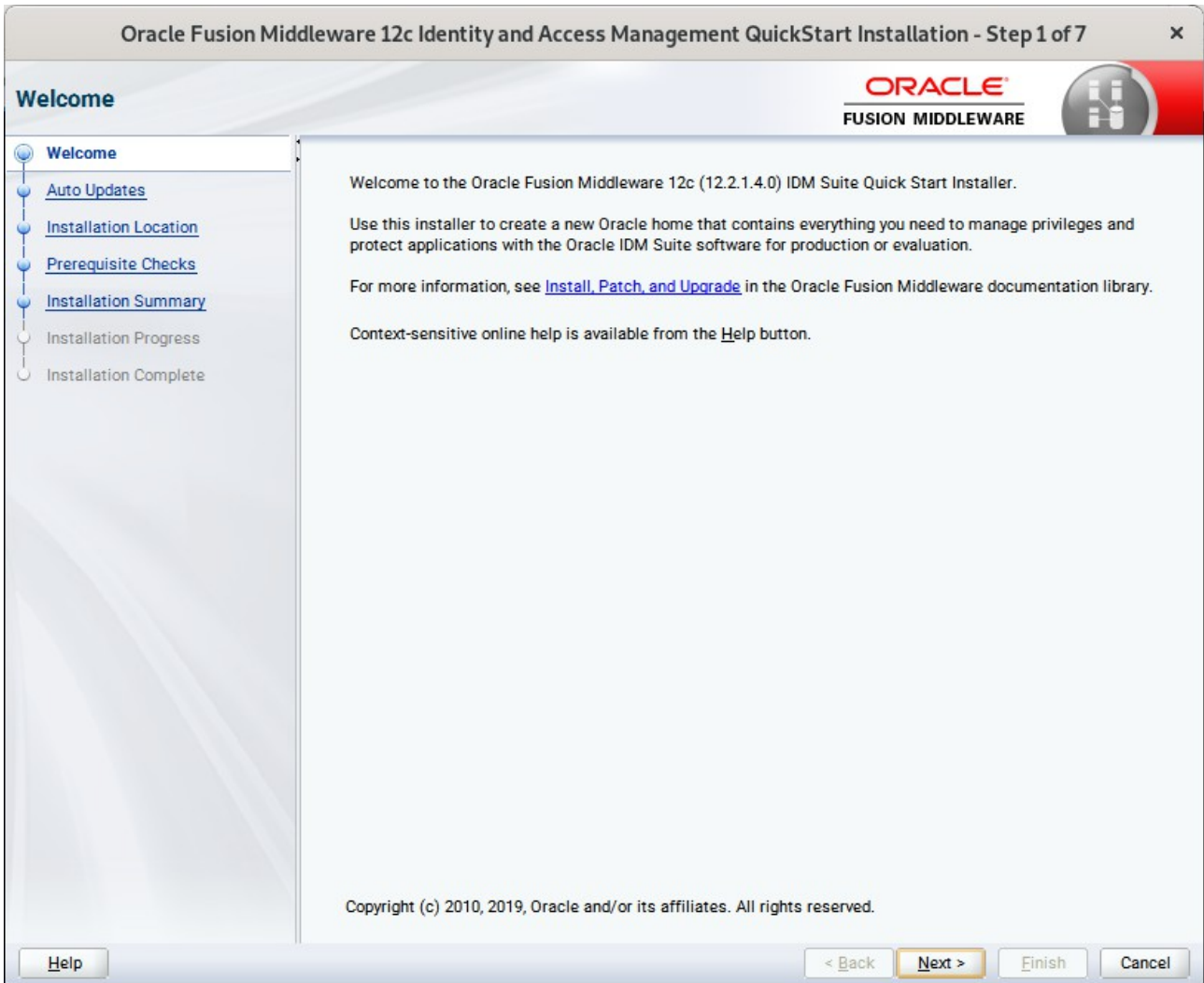
For the actual installation, follow the steps below:

1). Installation Inventory Setup.



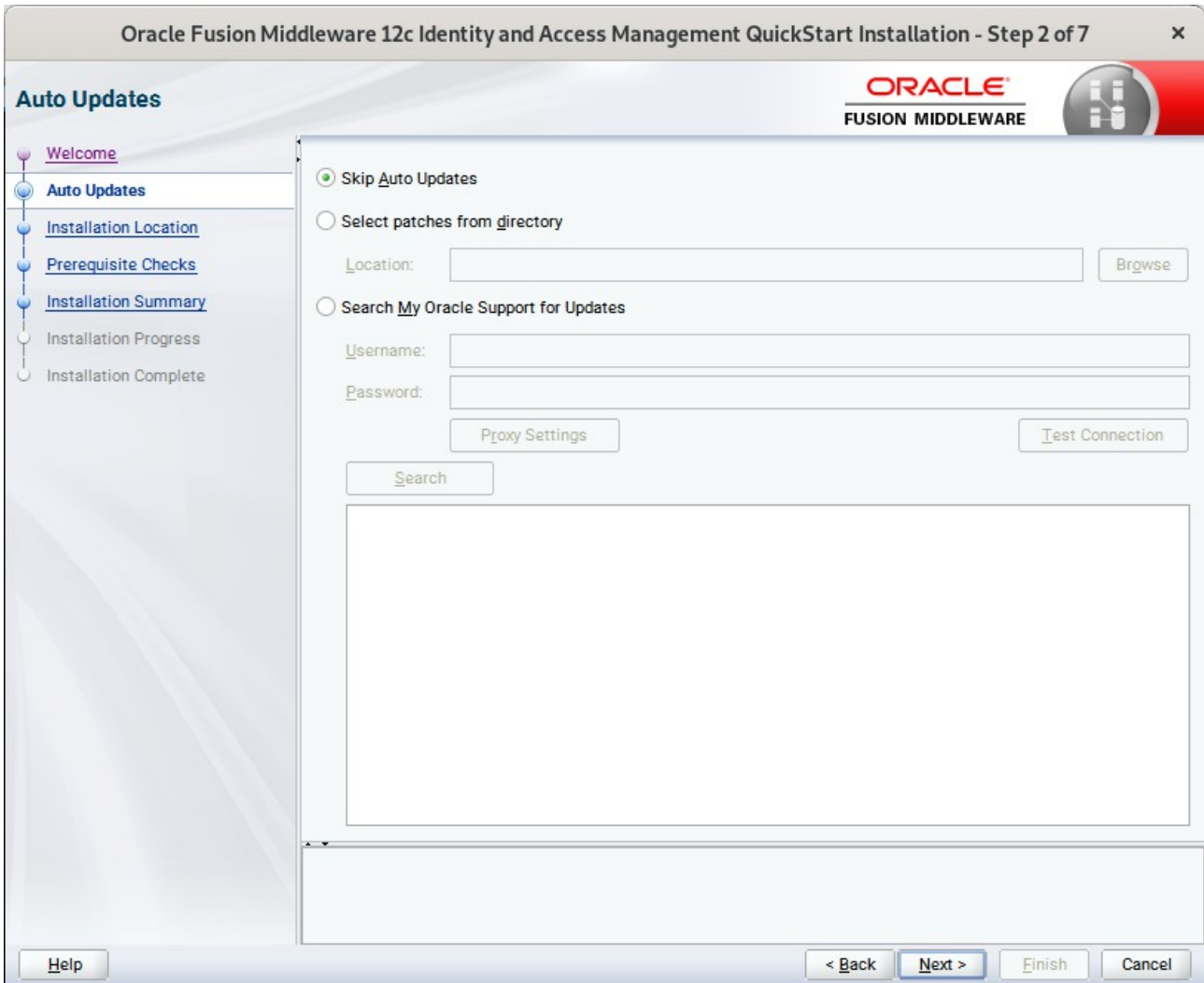
If this is your first Oracle installation on a host that is running SLES, please use this screen to specify the location of the Oracle central inventory directory and Operating System Group Name, then click **OK** to continue.

2). **Welcome** page appears.



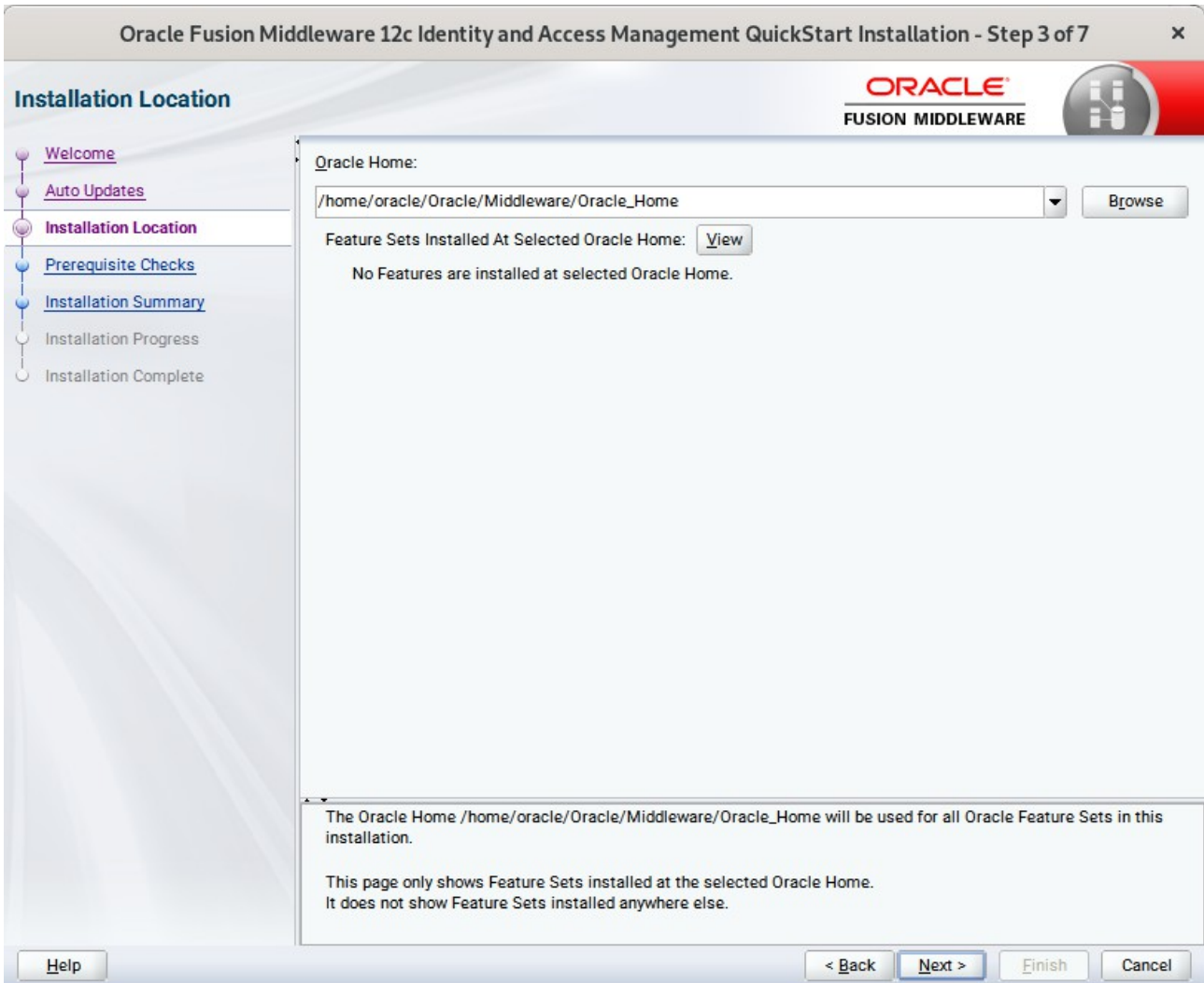
This page welcomes you to the installation. Click **Next** to continue.

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



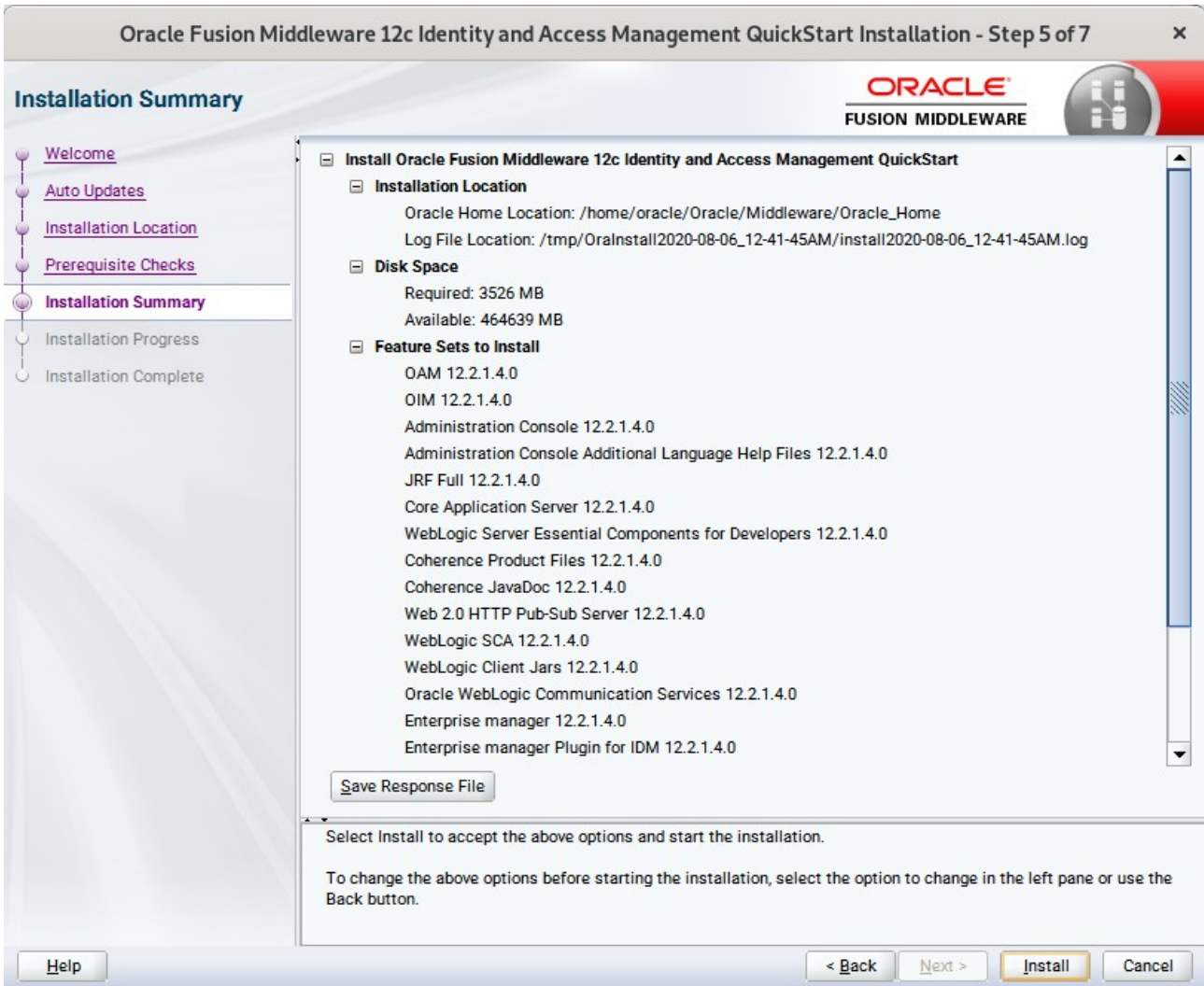
This screen helps to quickly and easily search for the latest software updates, including important security updates, via your My Oracle Support account. Make your choices, then click **Next** to continue.

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



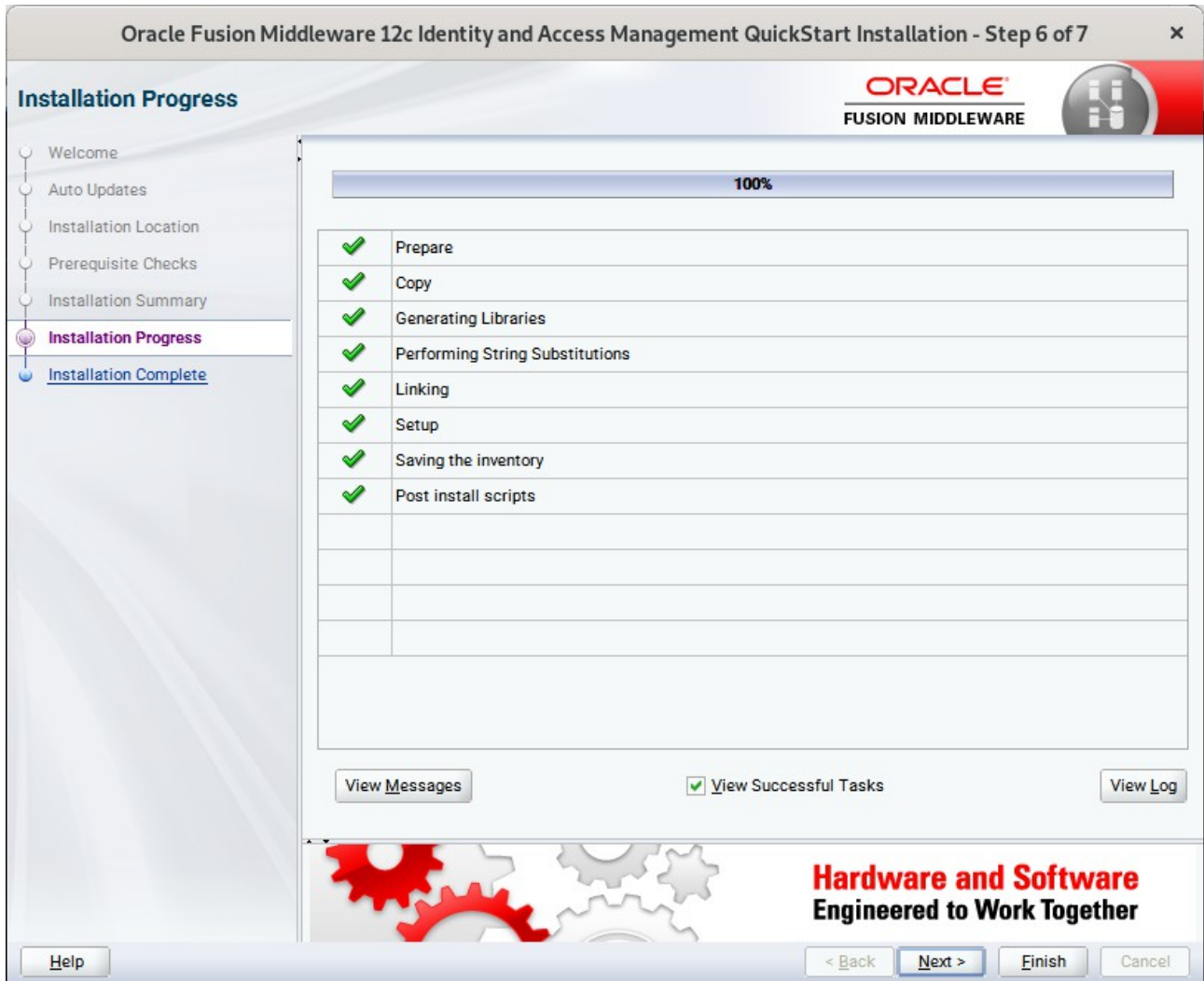
Specify the Oracle home location into which you want to install the product(s). Click **Next** to continue.

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



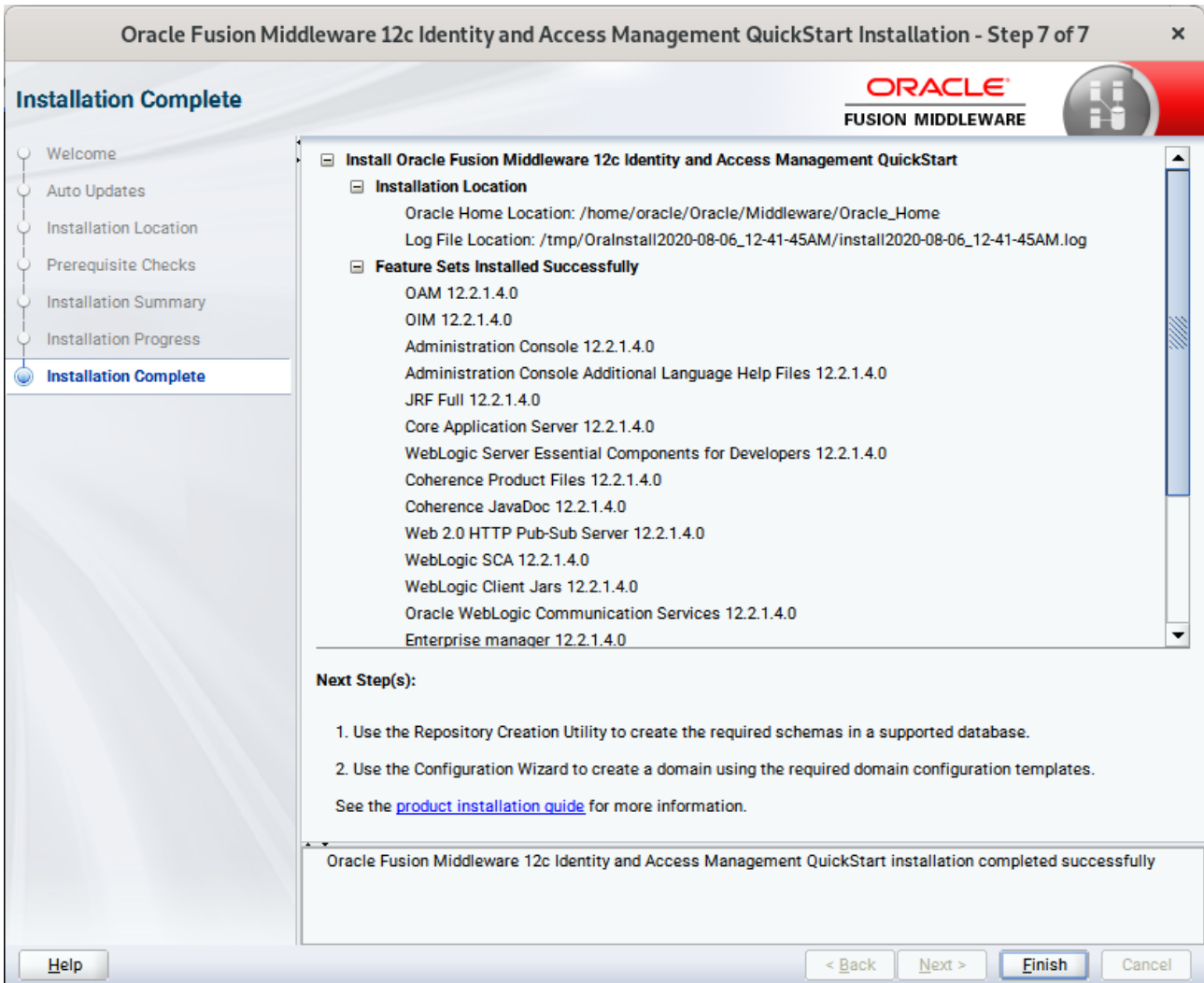
This page shows you what components and features are about to be installed. If you need to make changes, click **Back**, otherwise, click **Install** to start the installation.

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 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.

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

Select existing prefix:

Create new prefix:

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

Component	Schema Owner
<input type="checkbox"/> Oracle AS Repository Components	
<input checked="" type="checkbox"/> AS Common Schemas	
<input checked="" type="checkbox"/> Common Infrastructure Services *	DEV_STB
<input checked="" type="checkbox"/> Oracle Platform Security Services	DEV_OPSS
<input type="checkbox"/> Oracle Enterprise Scheduler	ESS
<input type="checkbox"/> User Messaging Service	UMS
<input checked="" type="checkbox"/> Audit Services	DEV_JAU
<input checked="" type="checkbox"/> Audit Services Append	DEV_JAU_APPEND
<input checked="" type="checkbox"/> Audit Services Viewer	DEV_JAU_VIEWER
<input checked="" type="checkbox"/> Metadata Services	DEV_MDS
<input checked="" type="checkbox"/> Weblogic Services *	DEV_WLS
<input type="checkbox"/> SOA Suite	
<input checked="" type="checkbox"/> IDM Schemas	
<input type="checkbox"/> Oracle Identity Manager	OIM
<input checked="" type="checkbox"/> Oracle Access Manager	DEV_OAM

* Mandatory component. Mandatory components cannot be deselected.

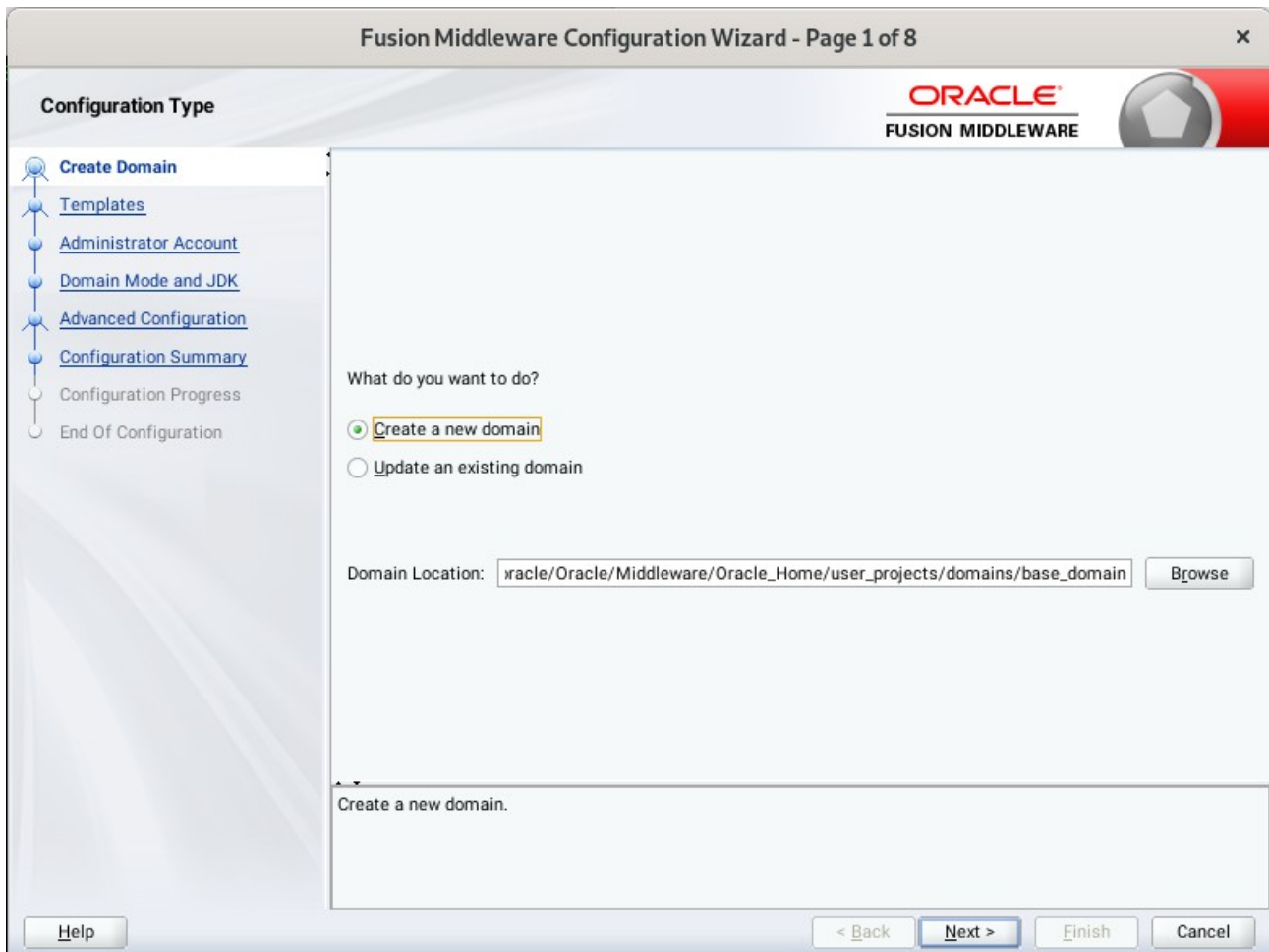
Select the **Create new prefix** radio button and specify a custom prefix (such as DEV). Select the **Oracle Access Manager** schema, this action automatically selects the schemas as dependencies, and ensure the schema creation is successful.

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

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

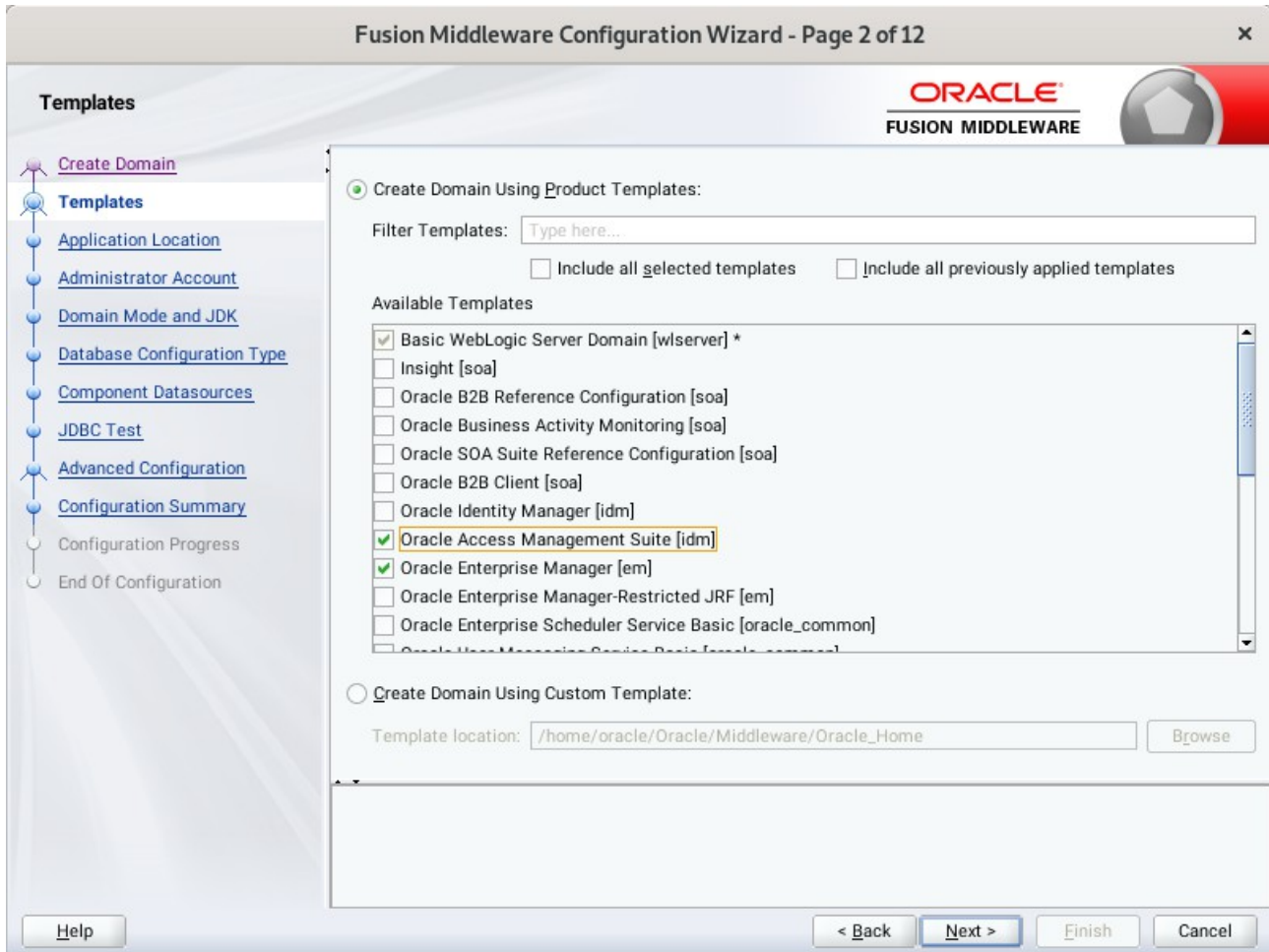
Follow these steps:

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



Click **Next** to continue.

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



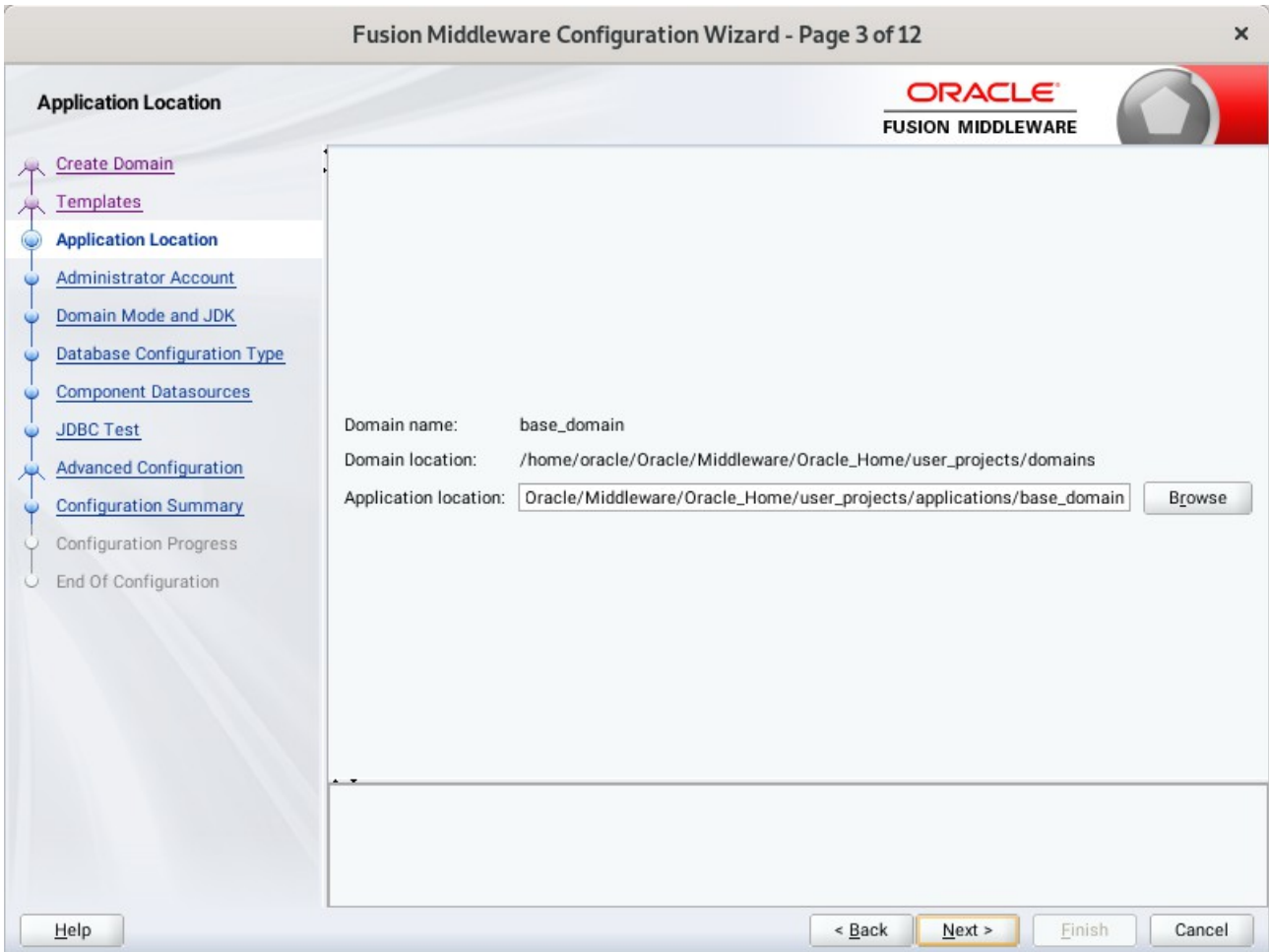
On the Templates screen, make sure **Create Domain Using Product Templates** is selected, then select the template **Oracle Access Management Suite [idm]**.

Selecting these templates automatically selects the following as dependencies:

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

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

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



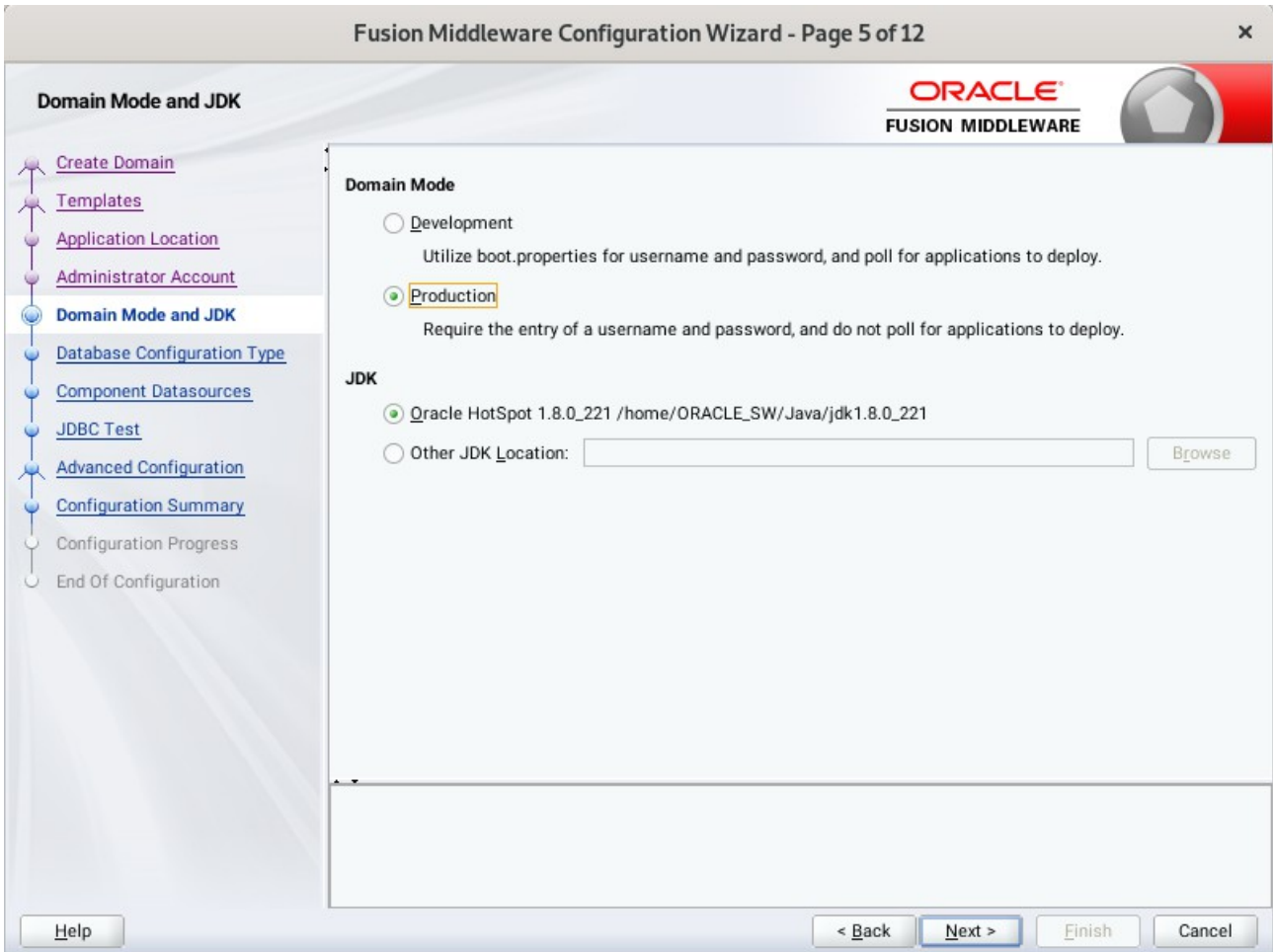
Keep the default value for Application location. Click **Next** to continue.

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

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

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

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



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

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

Fusion Middleware Configuration Wizard - Page 6 of 12

Database Configuration Type

Specify AutoConfiguration Options Using:

RCU Data Manual Configuration

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

Vendor: Driver:

Connection Parameters Connection URL String

Host Name:

DBMS/Service: Port:

Schema Owner: Schema Password:

Connection Result Log

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.

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

Fusion Middleware Configuration Wizard - Page 7 of 12

JDBC Component Schema

ORACLE
FUSION MIDDLEWARE

Vendor: Driver:

Connection Parameters Connection URL String

Host Name:

DBMS/Service: Port:

Schema Owner: Schema Password:

Oracle RAC configuration for component schemas:

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

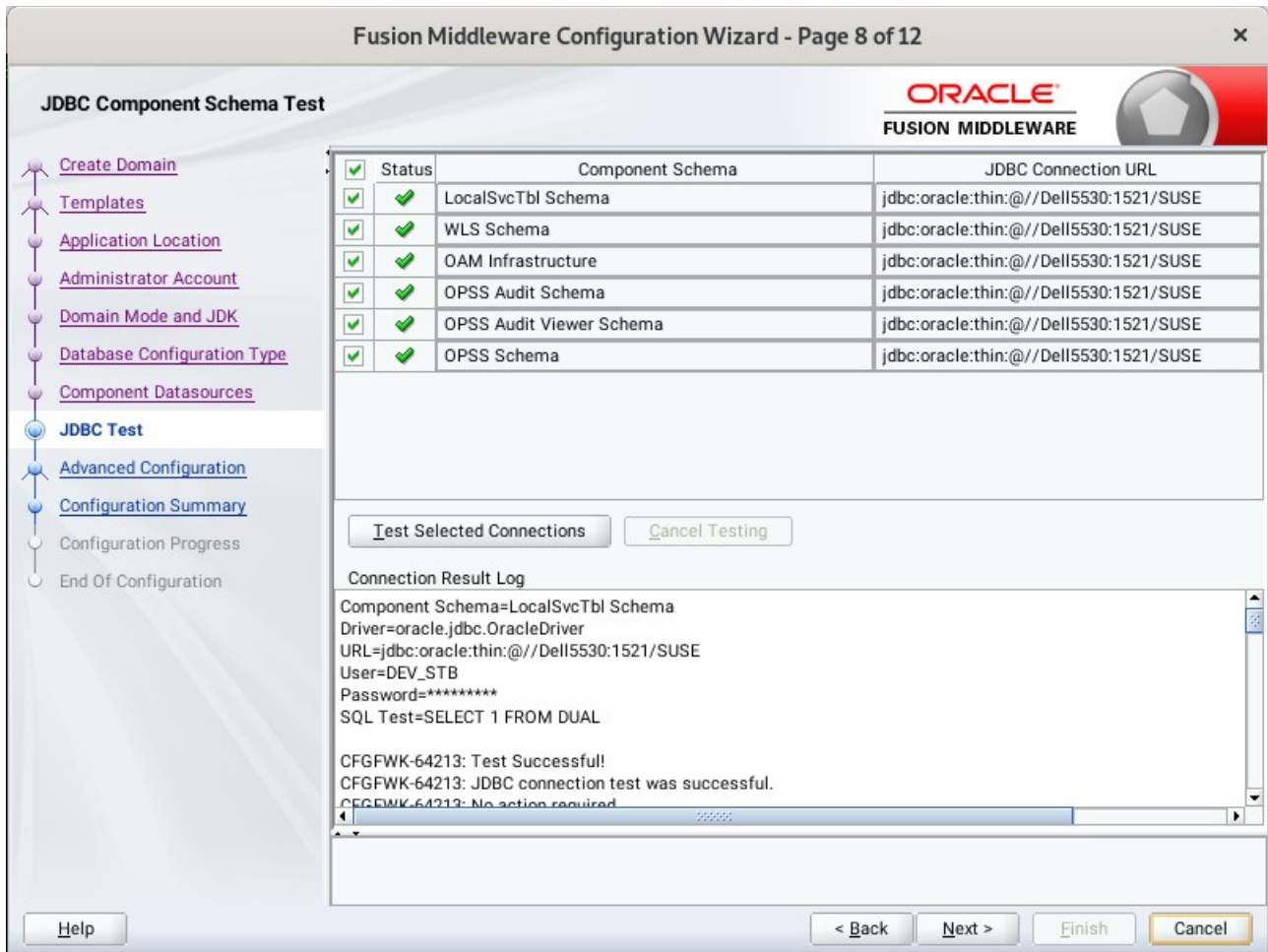
Edits to the data above will affect all checked rows in the table below.

<input type="checkbox"/>	Component Schema	DBMS/Service	Host Name	Port	Schema Owner	Schema 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"/>	OAM Infrastructure	SUSE	Dell5530	1521	DEV_OAM	.....
<input type="checkbox"/>	OPSS Audit Schema	SUSE	Dell5530	1521	DEV_JAU_APPEI	.....
<input type="checkbox"/>	OPSS Audit Viewer Sche	SUSE	Dell5530	1521	DEV_JAU_VIEWI	.....
<input type="checkbox"/>	OPSS Schema	SUSE	Dell5530	1521	DEV_OPSS	.....

Help

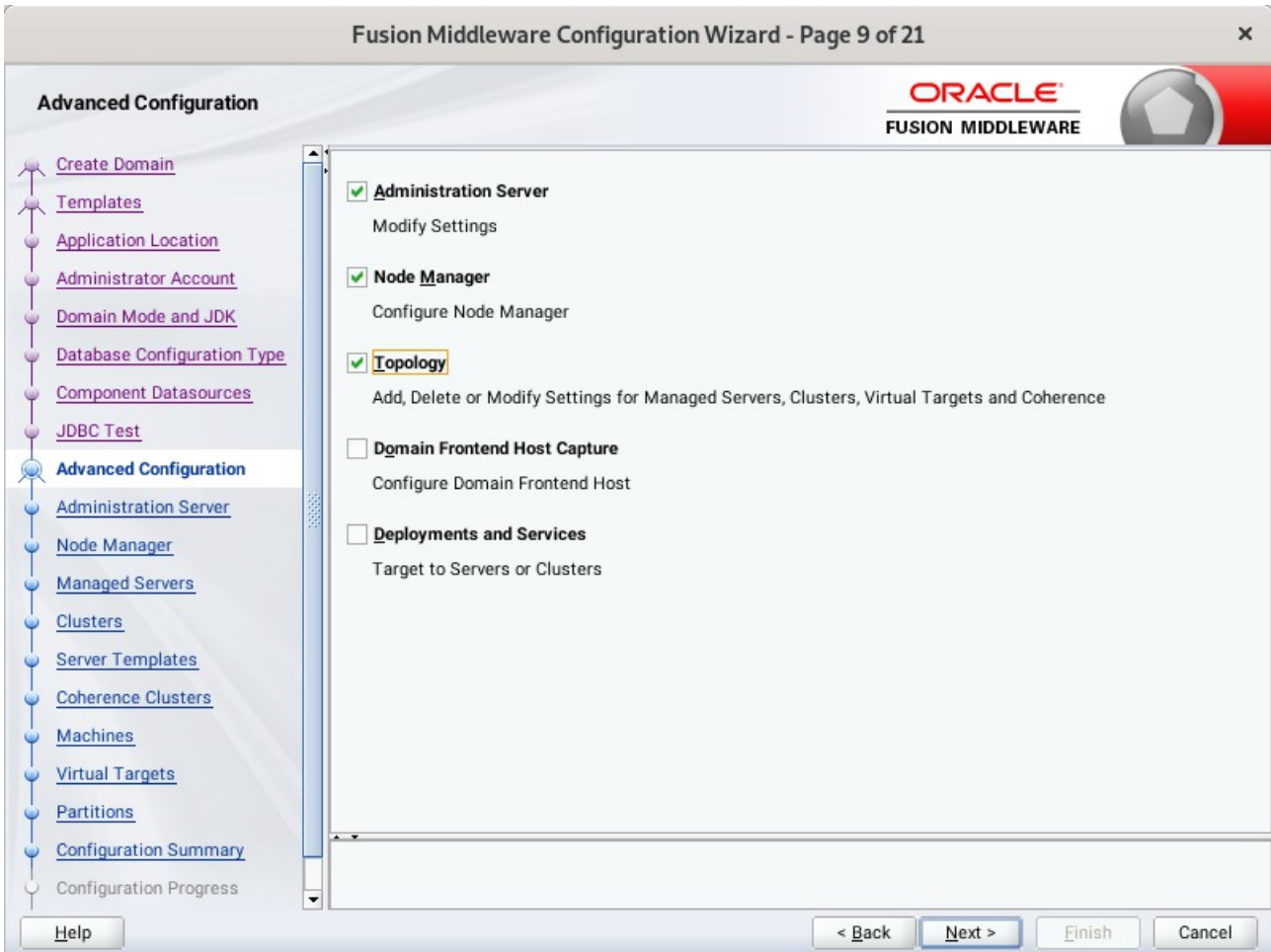
Our instructions assume each Repository schema uses the same password. If not, enter the correct schema passwords. Click **Next** to continue.

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.



On the Advanced Configuration screen, select:

- Administration Server
- Node Manager
- Topology

Then, click **Next** to continue.

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

Fusion Middleware Configuration Wizard - Page 10 of 21

Administration Server

ORACLE
FUSION MIDDLEWARE

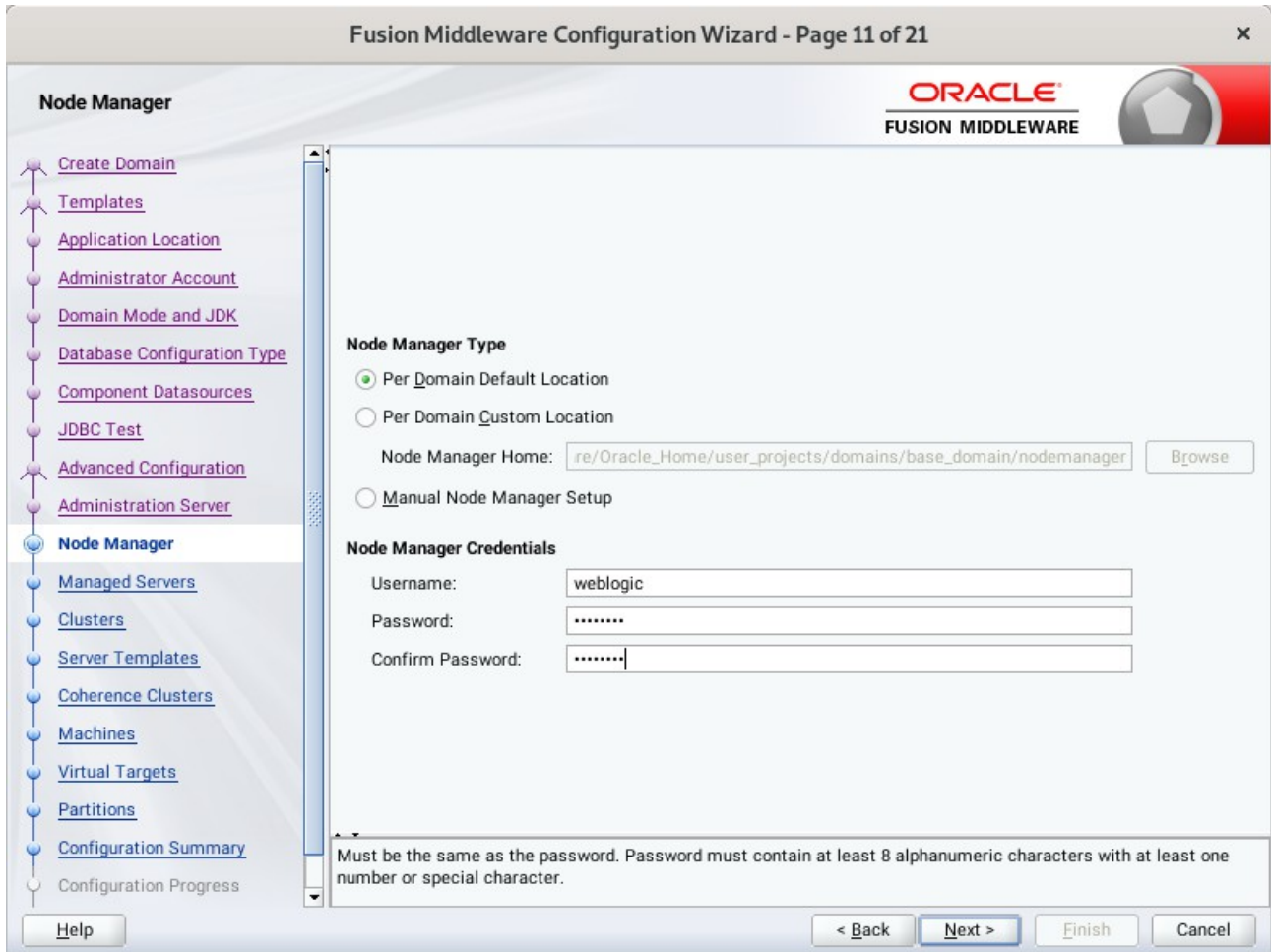
[Create Domain](#)
[Templates](#)
[Application Location](#)
[Administrator Account](#)
[Domain Mode and JDK](#)
[Database Configuration Type](#)
[Component Datasources](#)
[JDBC Test](#)
[Advanced Configuration](#)
Administration Server
[Node Manager](#)
[Managed Servers](#)
[Clusters](#)
[Server Templates](#)
[Coherence Clusters](#)
[Machines](#)
[Virtual Targets](#)
[Partitions](#)
[Configuration Summary](#)
 Configuration Progress

Server Name: AdminServer
 Listen Address: 192.168.1.7
 Listen Port: 7001
 Enable SSL:
 SSL Listen Port:
 Server Groups: Unspecified

The name must not be null or empty and may not contain any ; , = * ? % / _cloned.

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

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



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

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

Fusion Middleware Configuration Wizard - Page 12 of 21

Managed Servers

ORACLE
FUSION MIDDLEWARE

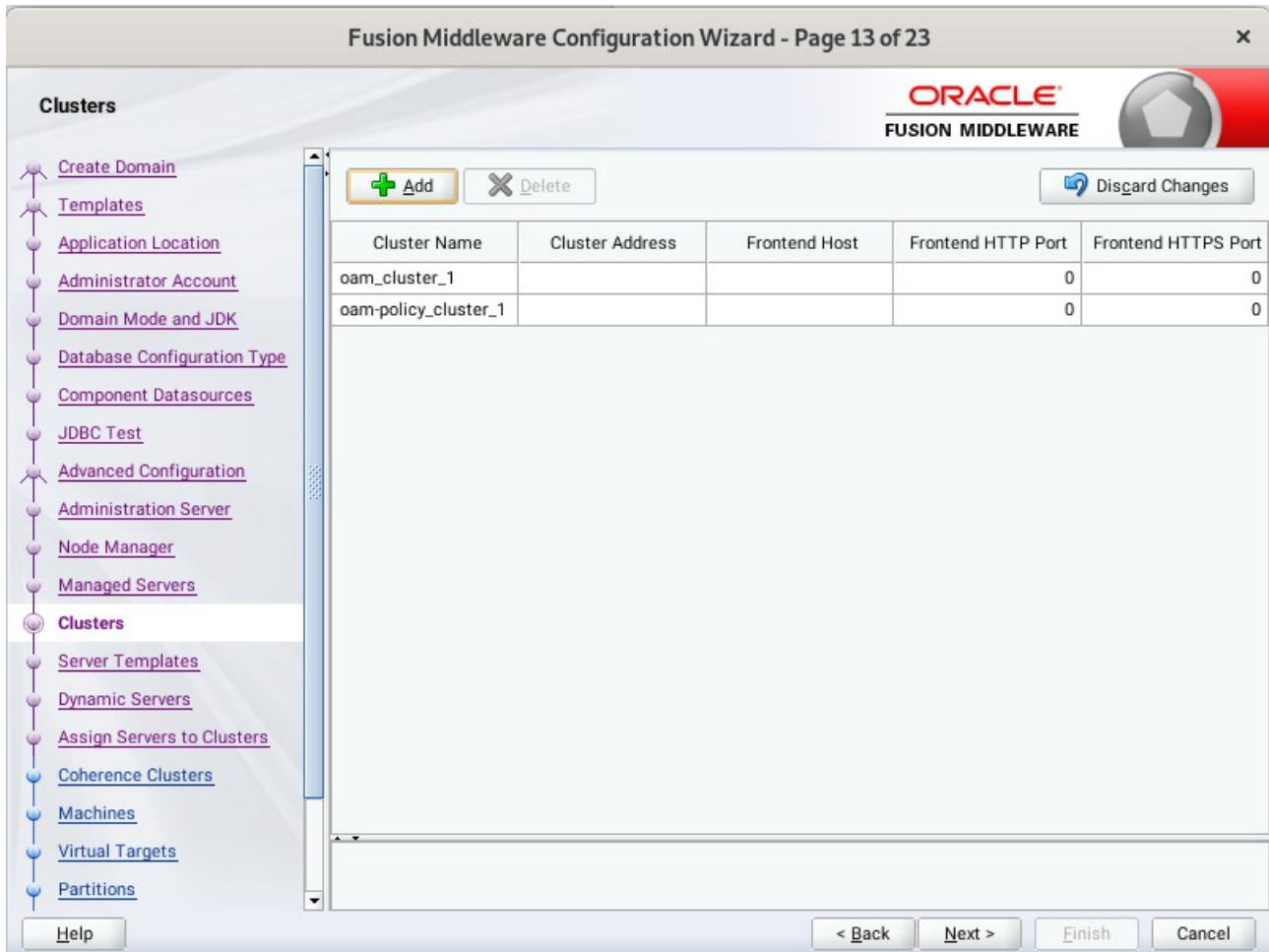
+ Add Clone X Delete Discard Changes

Server Name	Listen Address	Listen Port	Enable SSL	SSL Listen Port	Server Groups
oam_server1	192.168.1.7	14100	<input type="checkbox"/>	Disabled	OAM-MGD...
oam_policy_mgr1	192.168.1.7	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.



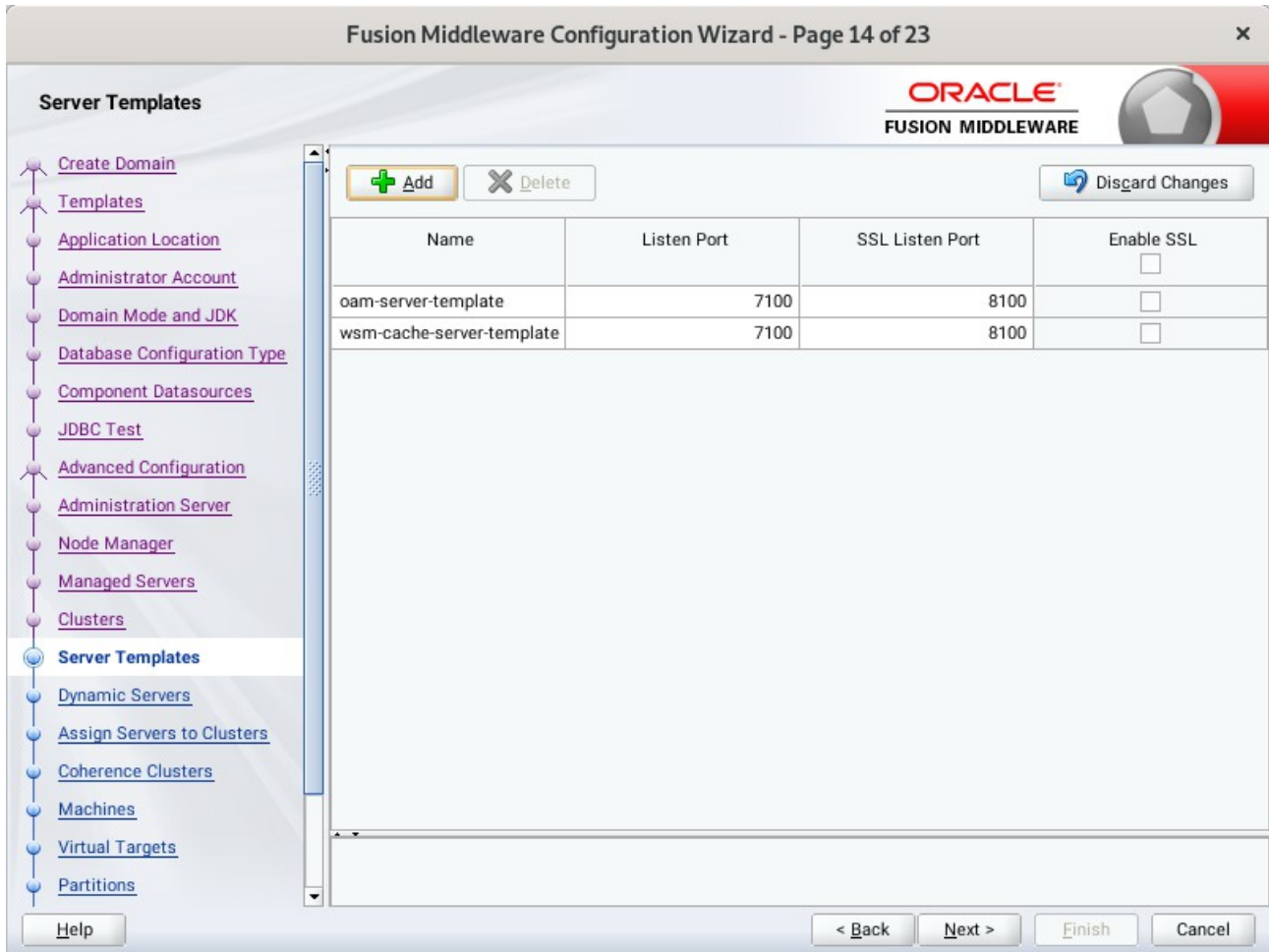
On the Clusters screen:

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.

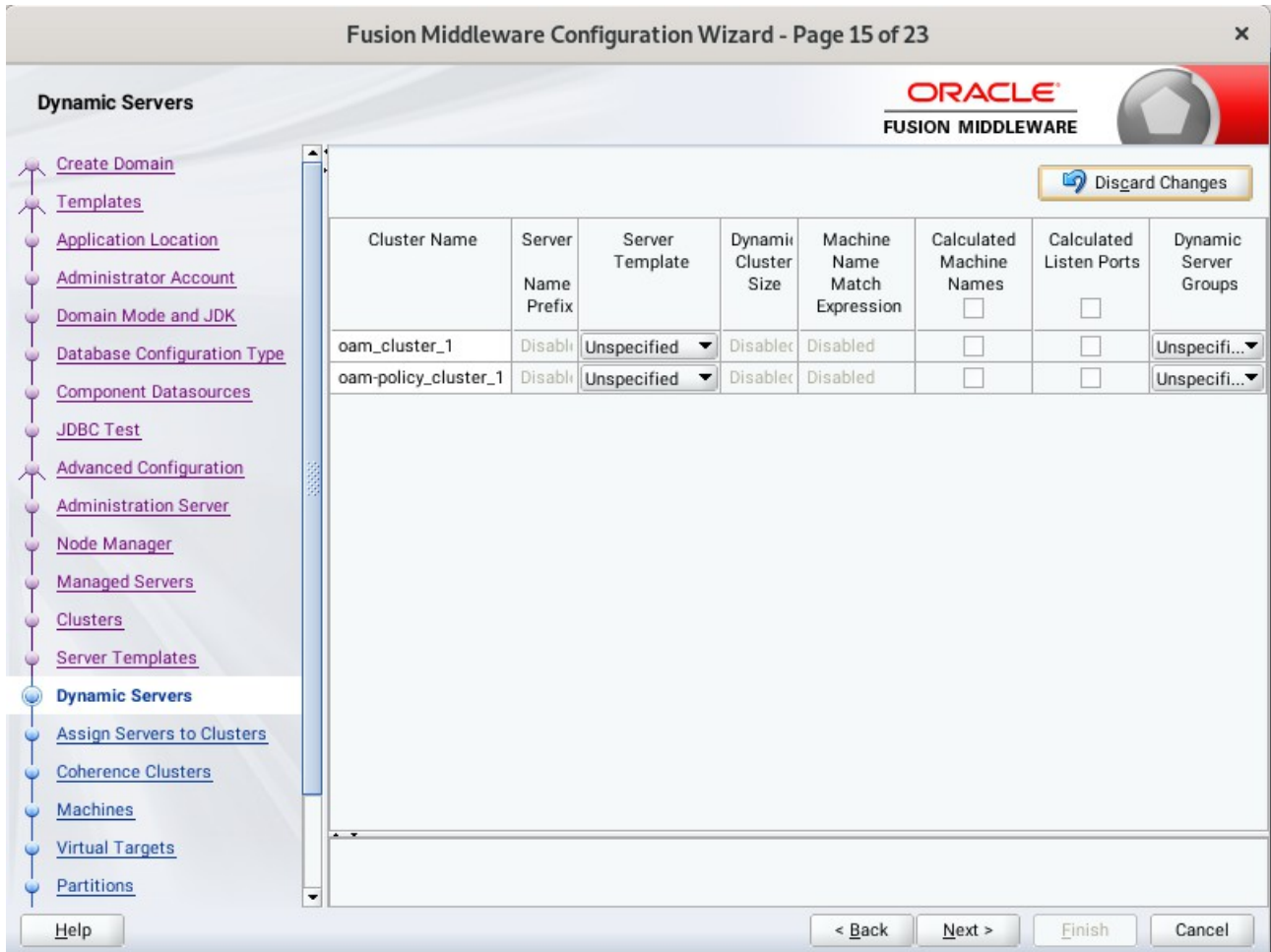
(**Note:** Configuring a non-clustered setup on a single node, skip this screen.)

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



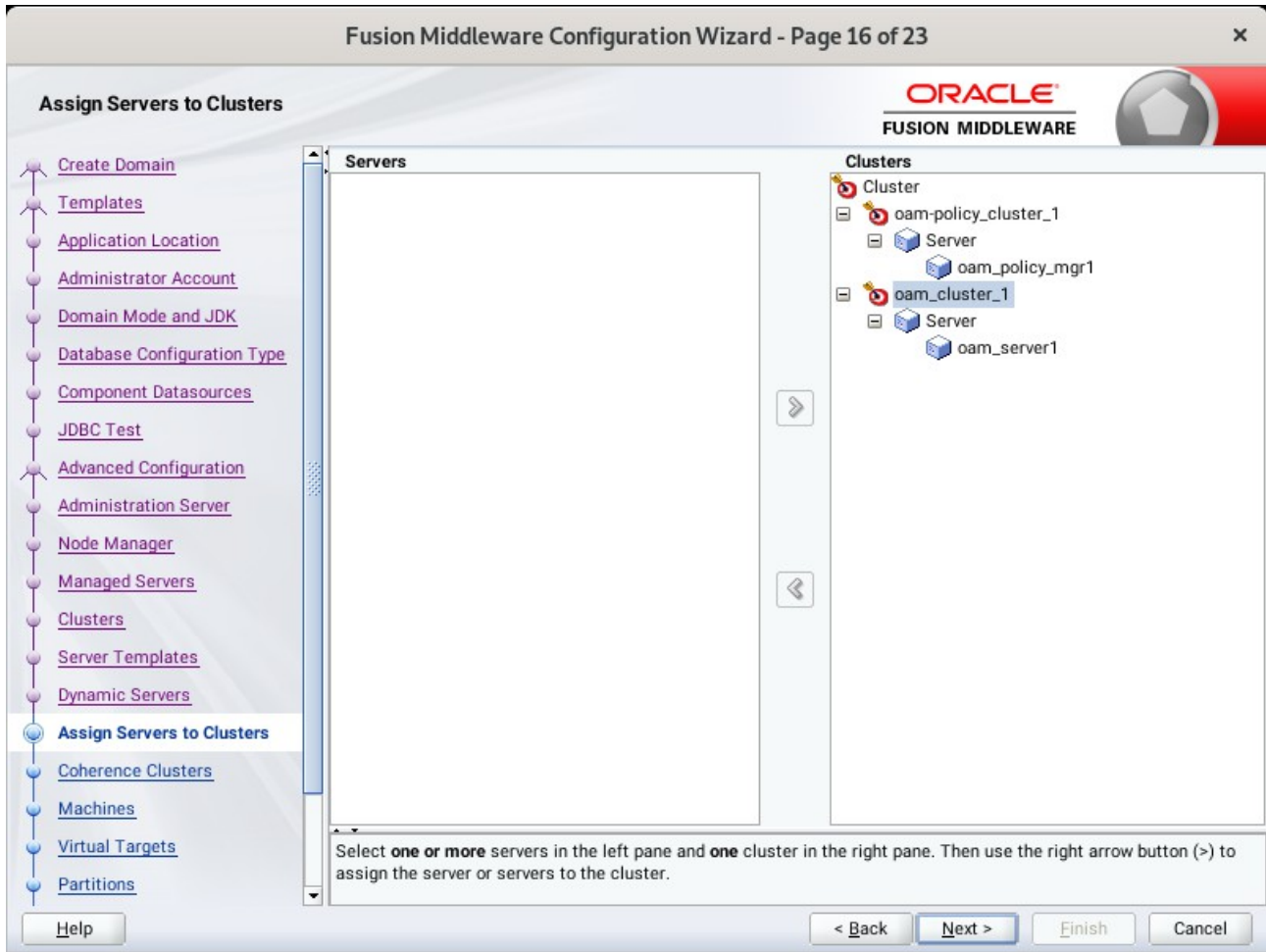
If you are creating dynamic clusters for a high availability setup, use the Server Templates screen to define one or more server templates for domain. To continue configuring the domain, click **Next**.

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



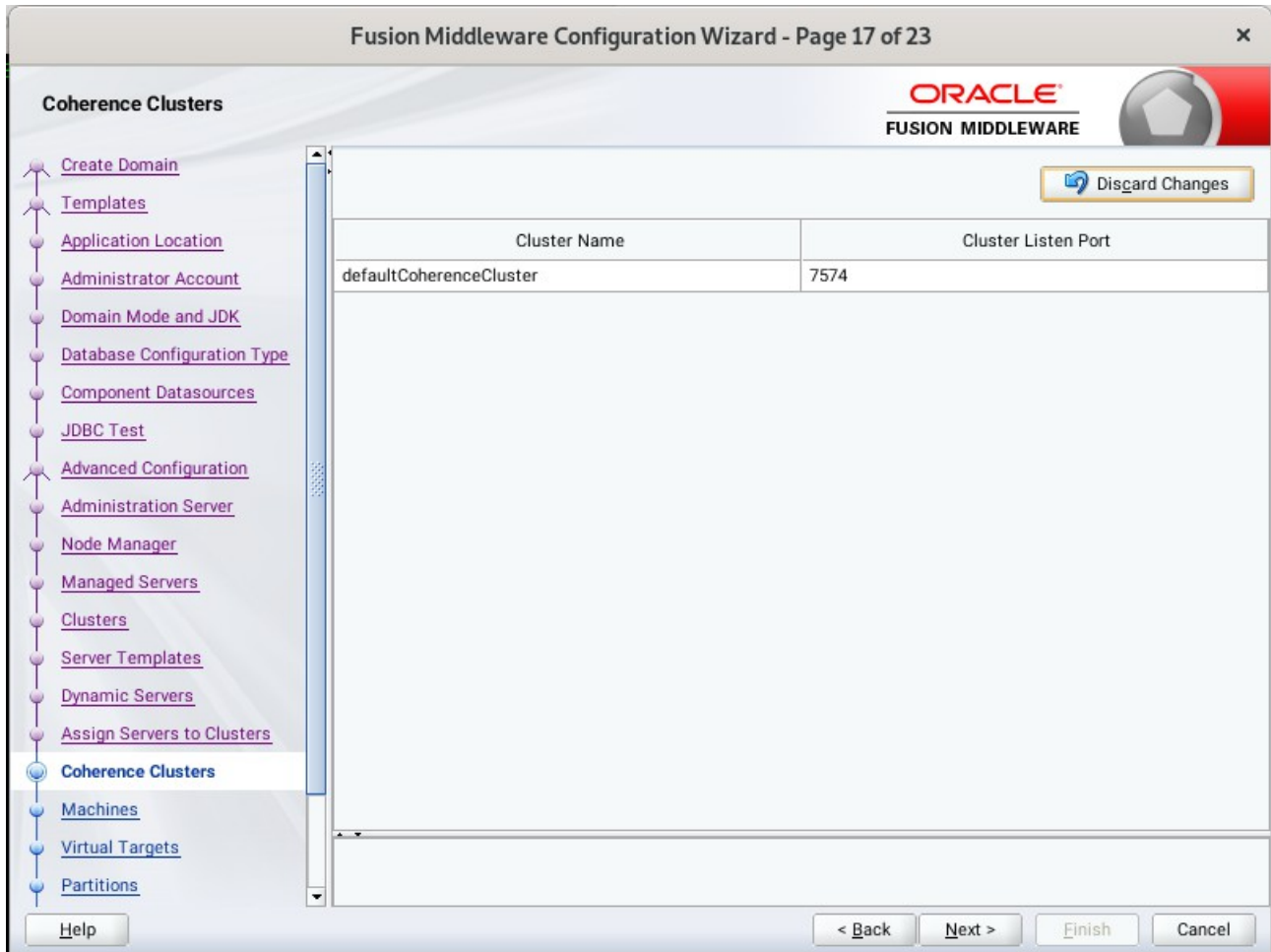
If you are creating dynamic clusters for a high availability setup, use the Dynamic Servers screen to configure the dynamic servers. If you are not configuring a dynamic cluster, click **Next** to continue configuring the domain.

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



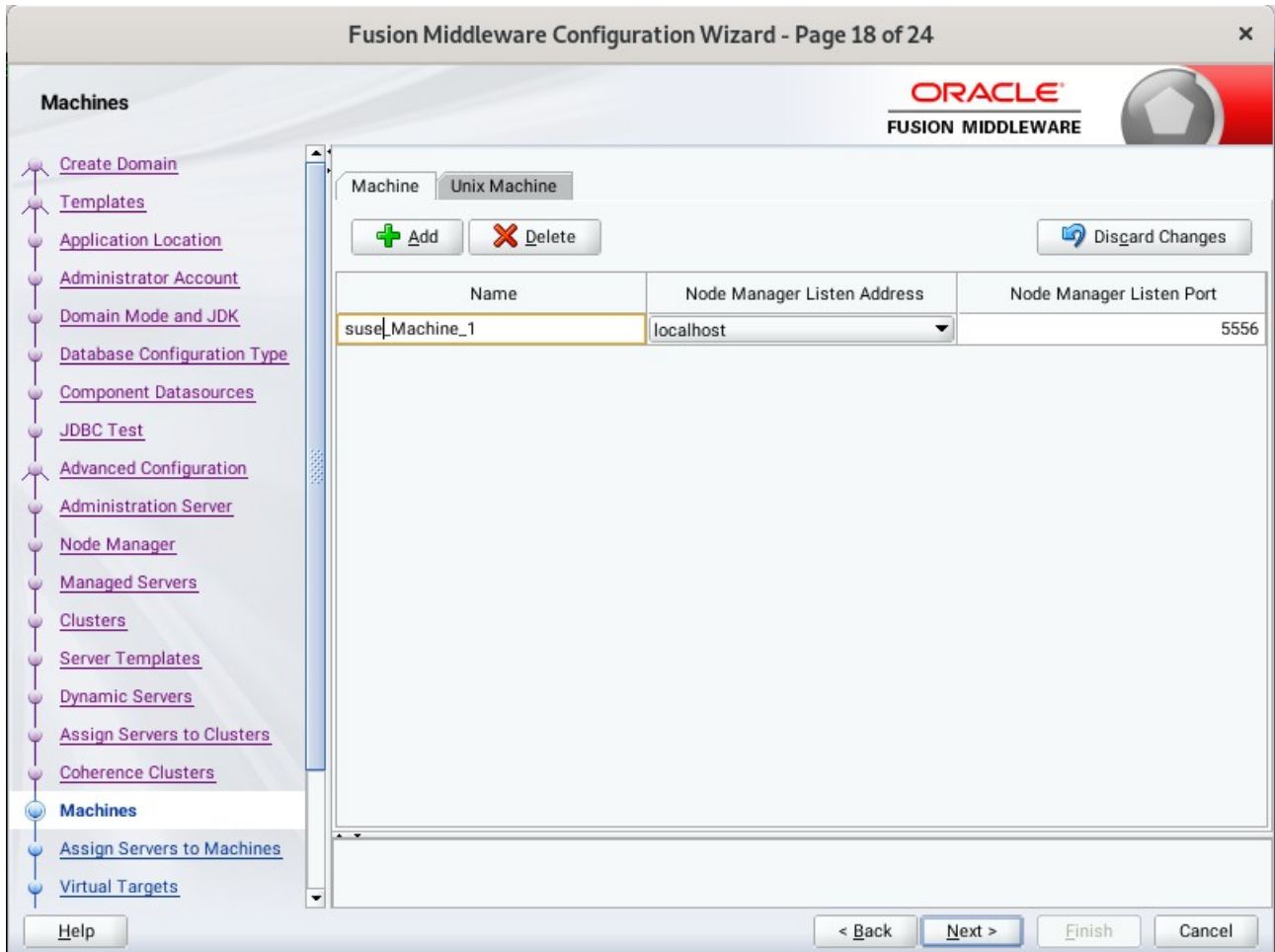
Use the **Assign Servers to Clusters** screen to assign Managed Servers to a new configured cluster. Click **Next** to continue.

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



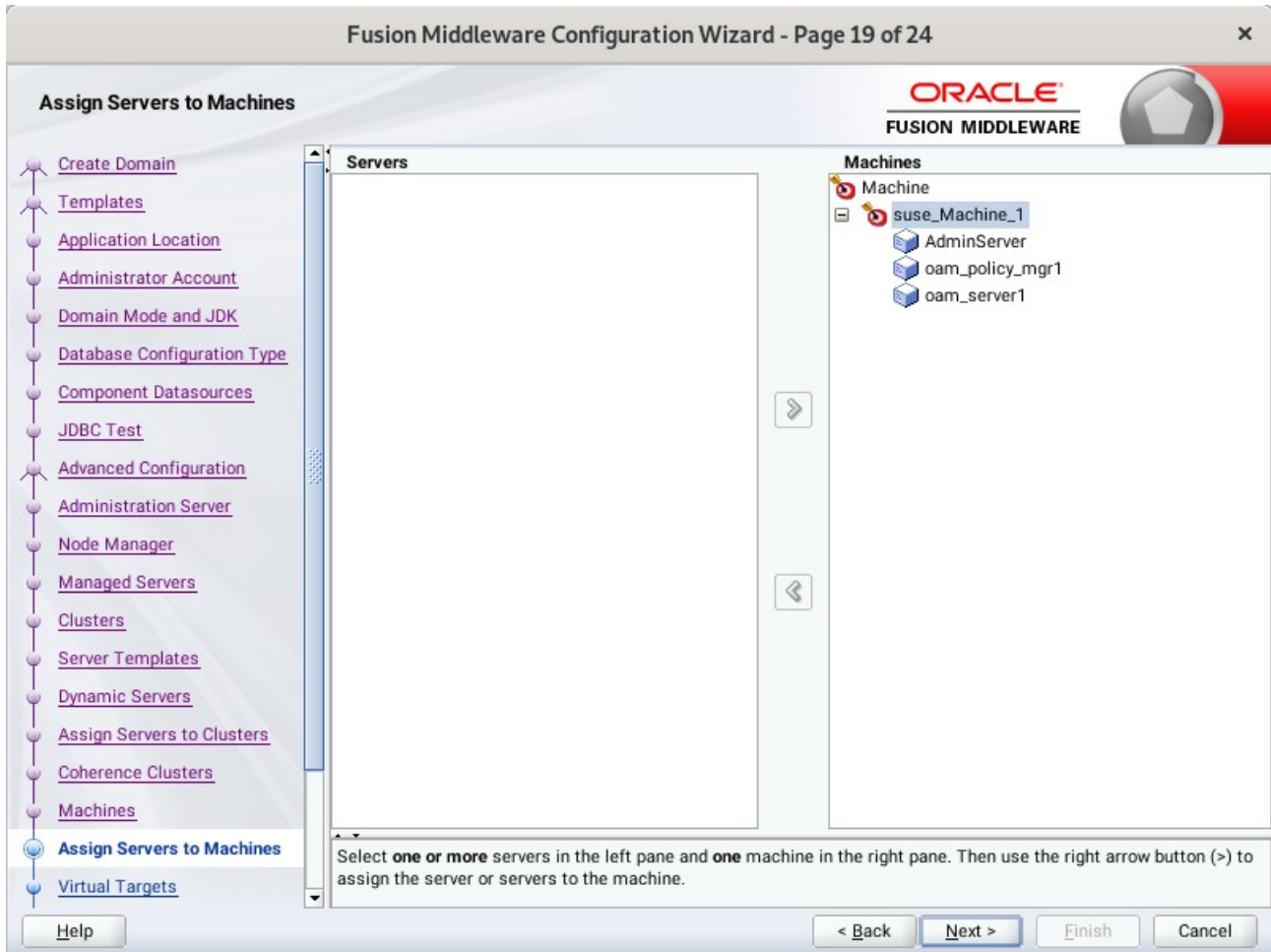
Leave the default port number as the Coherence cluster listen port. After configuration, the Coherence cluster is automatically added to the domain. Click **Next** to continue.

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



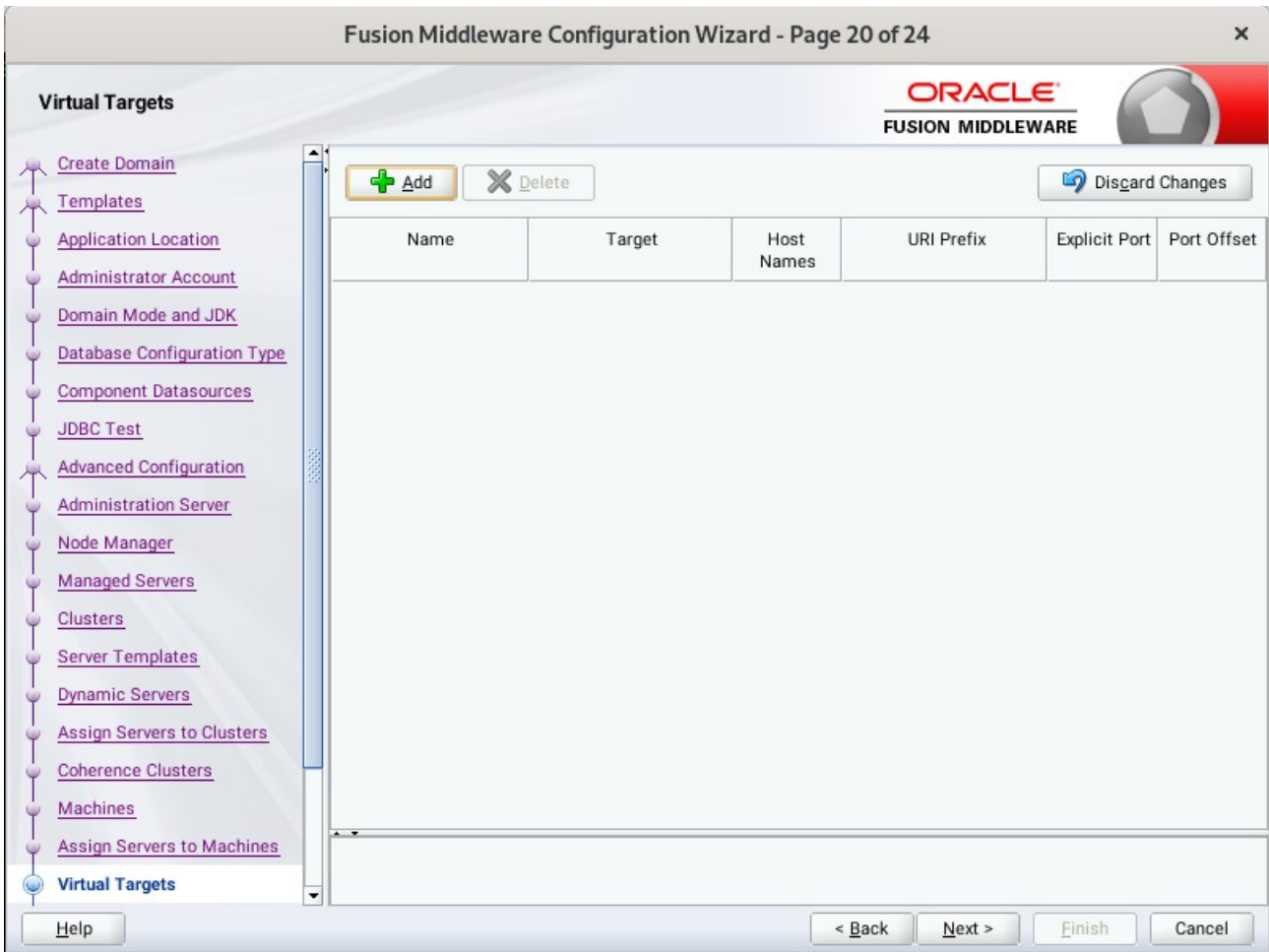
To create a new machine so that Node Manager can start and stop servers. Click **Next** to continue.

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



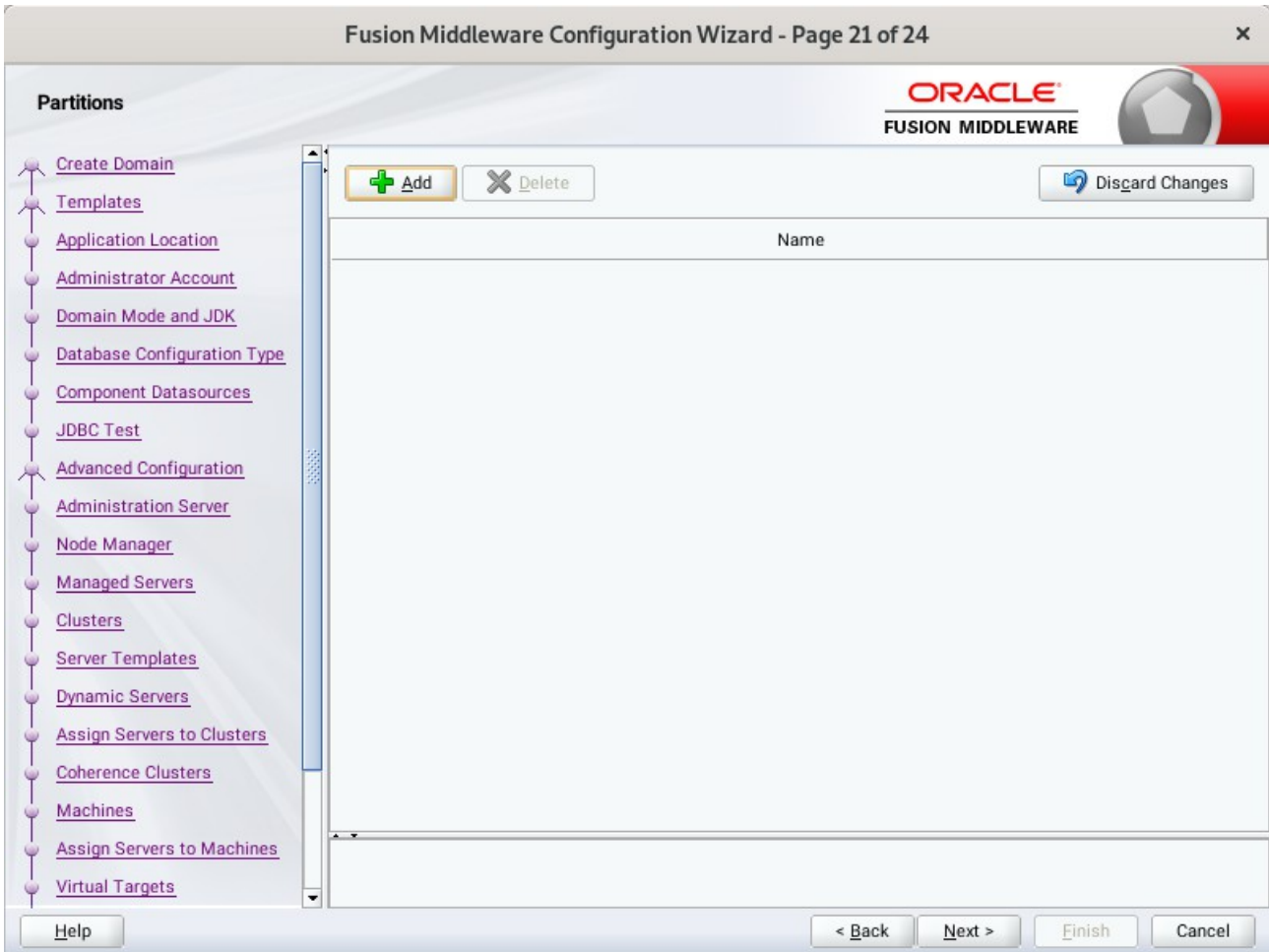
Use the **Assign Servers to Machines** screen to assign the Managed Servers to the new machine you just created. Click **Next** to continue.

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



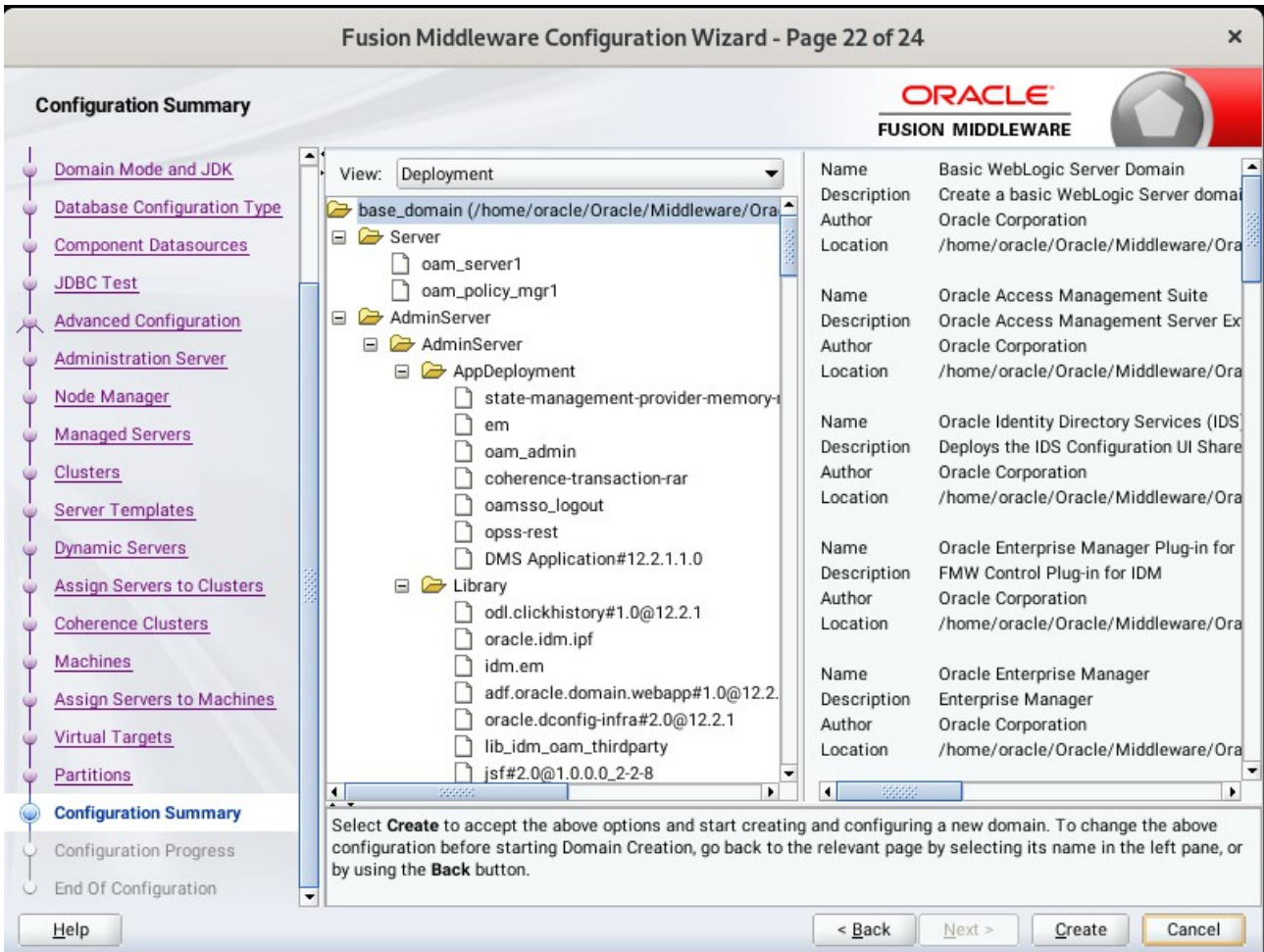
If you have a WebLogic Server Multitenant (MT) environment, you use the Virtual Targets screen to add or delete virtual targets. For this installation (not a WebLogic Server MT environment), you do not enter any values; just select **Next**.

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



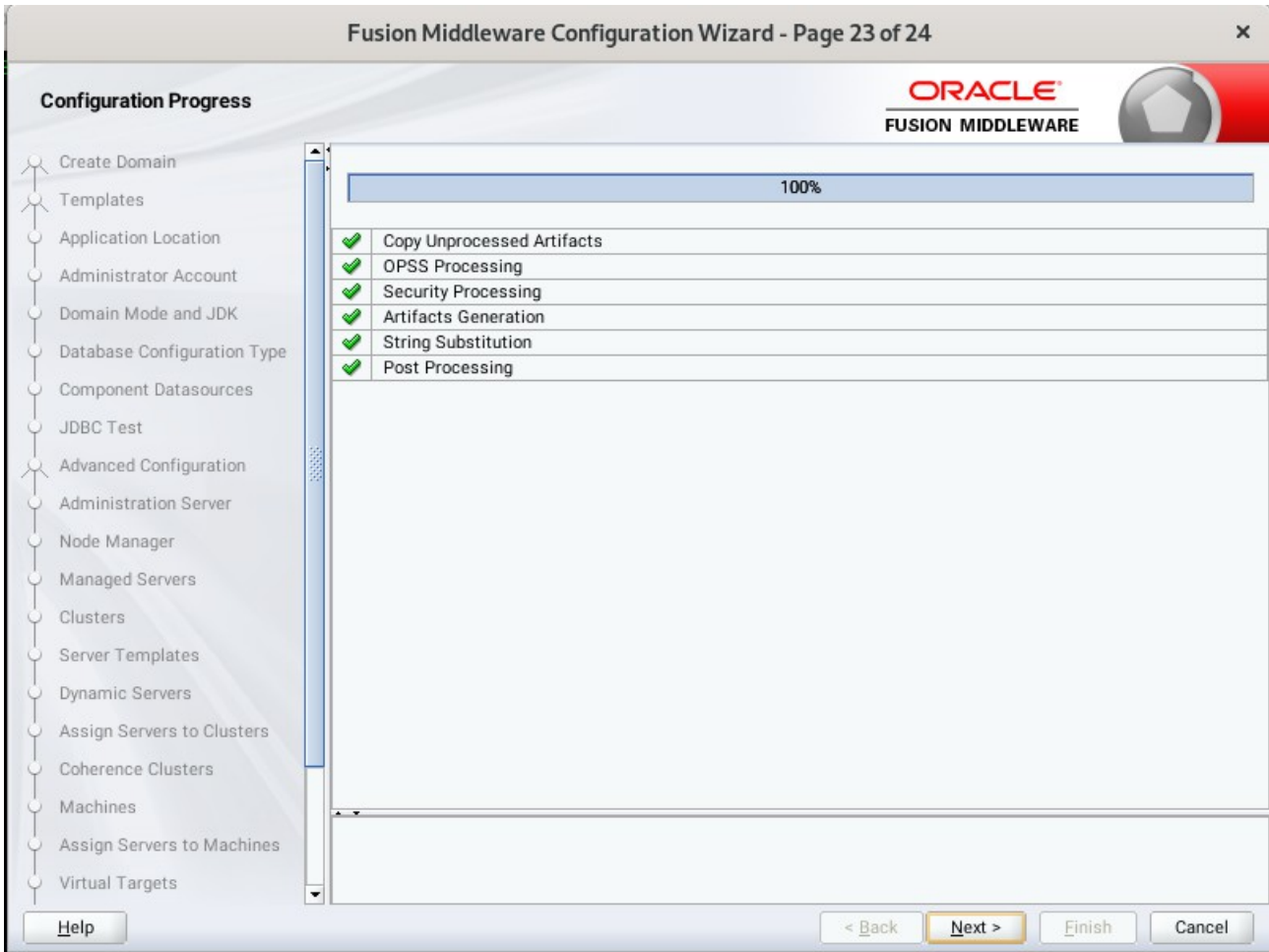
The Partitions screen is used to configure partitions for virtual targets in WebLogic Server Multitenant (MT) environments. Select **Next** without selecting any options.

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



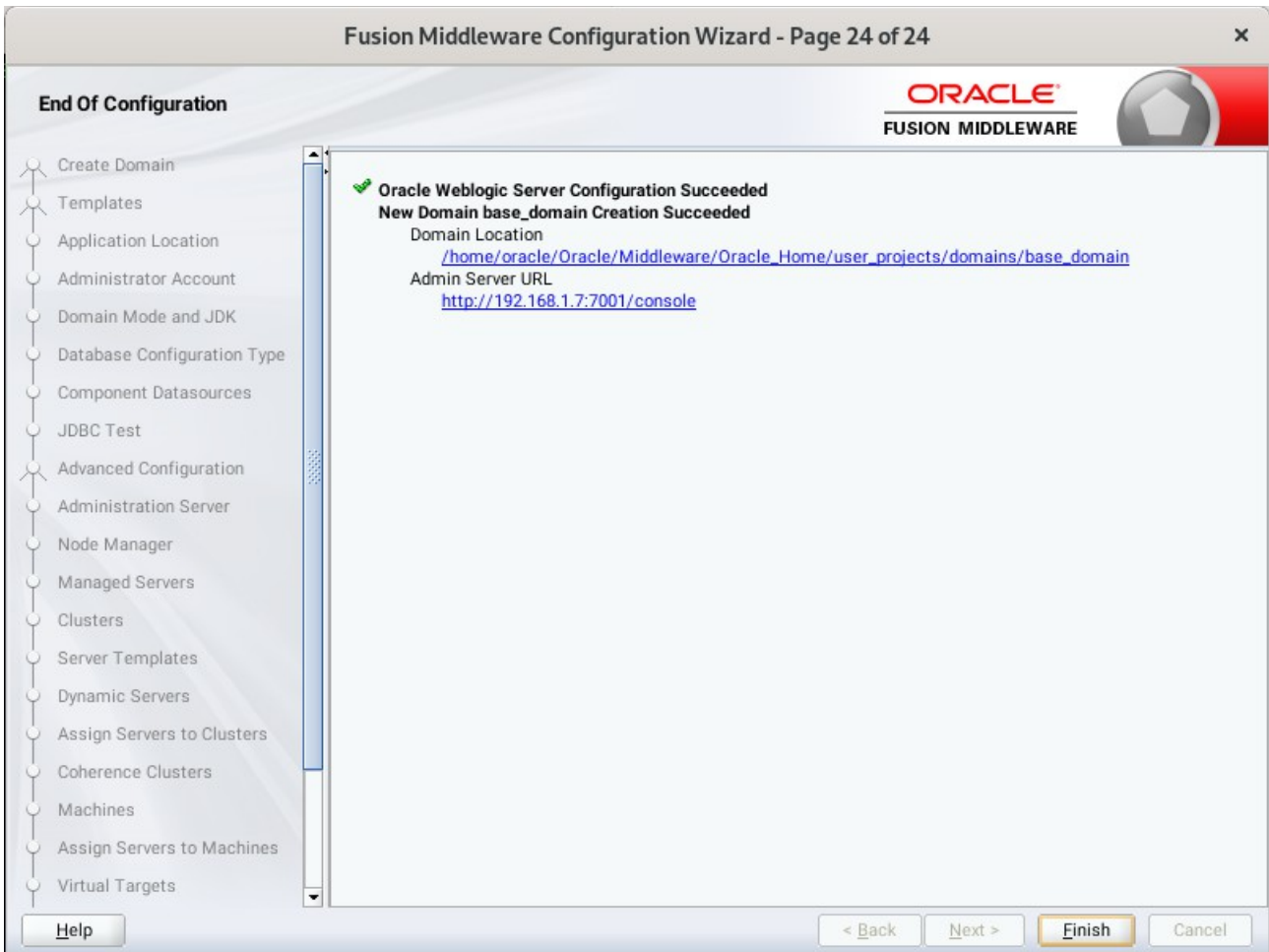
Select **Create** to accept the above options and start creating and configuring a new domain.

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:/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/bin> nohup ./startNodeManager.sh
> nm.out&
[1] 11087
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
<Aug 6, 2020 3:05:26 AM GMT+08:00> <INFO> <Loading domains file: /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/doma
ins/base_domain/nodemanager/nodemanager.domains>
<Aug 6, 2020 3:05:27 AM GMT+08:00> <INFO> <Upgrade> <Setting NodeManager properties version to 12.2.1.4.0>
<Aug 6, 2020 3:05:27 AM GMT+08:00> <INFO> <Upgrade> <Saving upgraded NodeManager properties to '/home/oracle/Oracle/Middleware
/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.properties'>
<Aug 6, 2020 3:05:27 AM GMT+08:00> <INFO> <Loading domains file: /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/doma
ins/base_domain/nodemanager/nodemanager.domains>
<Aug 6, 2020 3:05:27 AM GMT+08:00> <INFO> <Loading identity key store: FileName=kss://system/demoidentity, Type=kss, PassPhras
eUsed=true>
Aug 06, 2020 3:05:28 AM 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 06, 2020 3:05:29 AM oracle.security.opss.internal.runtime.ServiceContextManagerImpl getContext
WARNING: Bootstrap services are used by OPSS internally and clients should never need to directly read/write bootstrap credent
ials. If required, use Wlst or configuration management interfaces.
<Aug 6, 2020 3:05:29 AM GMT+08:00> <INFO> <Loaded NodeManager configuration properties from '/home/oracle/Oracle/Middleware/Or
acle_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`.

```

oring feature-dependency on feature "AdfUIChoose". No such feature exists.>
<Aug 7, 2020 3:46:39,131 AM GMT+08:00> <Warning> <org.glassfish.jersey.internal.Errors> <BEA-000000> <The following warnings h
ave been detected: WARNING: A HTTP GET method, public java.lang.Object oracle.security.am.common.rest.agent.registration.Agent
RegistrationService.getService(java.lang.String,java.lang.String), should not consume any entity.
>
<Aug 7, 2020 3:46:39,241 AM GMT+08:00> <Error> <oracle.oam.foundation.access> <BEA-000000> <Failed to init Context path:/idaas
/am/esso>
<Aug 7, 2020 3:46:39,708 AM GMT+08:00> <Warning> <org.glassfish.jersey.internal.Errors> <BEA-000000> <The following warnings h
ave been detected: WARNING: A HTTP GET method, public java.lang.Object oracle.security.am.common.rest.agent.registration.Agent
RegistrationService.getService(java.lang.String,java.lang.String), should not consume any entity.
>
<Aug 7, 2020 3:46:42,229 AM GMT+08:00> <Warning> <oracle.adfinternal.view.faces.partition.FeatureUtils> <ADF_FACES-30130> <Ign
oring feature-dependency on feature "AdfUIChoose". No such feature exists.>
<Aug 7, 2020 3:46:42,911 AM GMT+08:00> <Notice> <Log Management> <BEA-170027> <The server has successfully established a conne
ction with the Domain Level Diagnostic Service.>
2020-08-07 03:46:42.926/209.723 Oracle Coherence GE 12.2.1.4.0 <Info> (thread=[STANDBY] ExecuteThread: '3' for queue: 'weblogi
c.kernel.Default (self-tuning)', member=n/a): Loaded cache configuration from "jar:file:/home/oracle/Oracle/Middleware/Oracle_
Home/oracle_common/modules/oracle.wsm.common/wsm-agent-core.jar!/oracle-wsm-coherence-cache-config.xml"
2020-08-07 03:46:42.946/209.744 Oracle Coherence GE 12.2.1.4.0 <Info> (thread=[STANDBY] ExecuteThread: '3' for queue: 'weblogi
c.kernel.Default (self-tuning)', member=n/a): Created cache factory com.tangosol.net.ExtensibleConfigurableCacheFactory
<Aug 7, 2020 3:46:44,190 AM GMT+08:00> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to ADMIN.>
<Aug 7, 2020 3:46:44,374 AM GMT+08:00> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to RESUMING.>
<Aug 7, 2020 3:46:44,374 AM GMT+08:00> <Notice> <JMX> <BEA-149535> <JMX Resiliency Activity Server=All Servers : Resolving con
nection list DomainRuntimeServiceMBean>
<Aug 7, 2020 3:46:47,702 AM GMT+08:00> <Notice> <WebLogicServer> <BEA-000329> <Started the WebLogic Server Administration Serv
er "AdminServer" for domain "base_domain" running in production mode.>
<Aug 7, 2020 3:46:47,702 AM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default" is now listening on 192.168.1.7:7001
for protocols iiop, t3, ldap, snmp, http.>
<Aug 7, 2020 3:46:47,702 AM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default" is now listening on 192.168.1.7:7001
for protocols iiop, t3, ldap, snmp, http.>
<Aug 7, 2020 3:46:47,704 AM GMT+08:00> <Notice> <WebLogicServer> <BEA-000360> <The server started in RUNNING mode.>
<Aug 7, 2020 3:46:47,712 AM GMT+08:00> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to RUNNING.>
2020-08-07 03:46:49.012/215.809 Oracle Coherence GE 12.2.1.4.0 <Info> (thread=[ACTIVE] ExecuteThread: '21' for queue: 'weblogi
c.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:

```

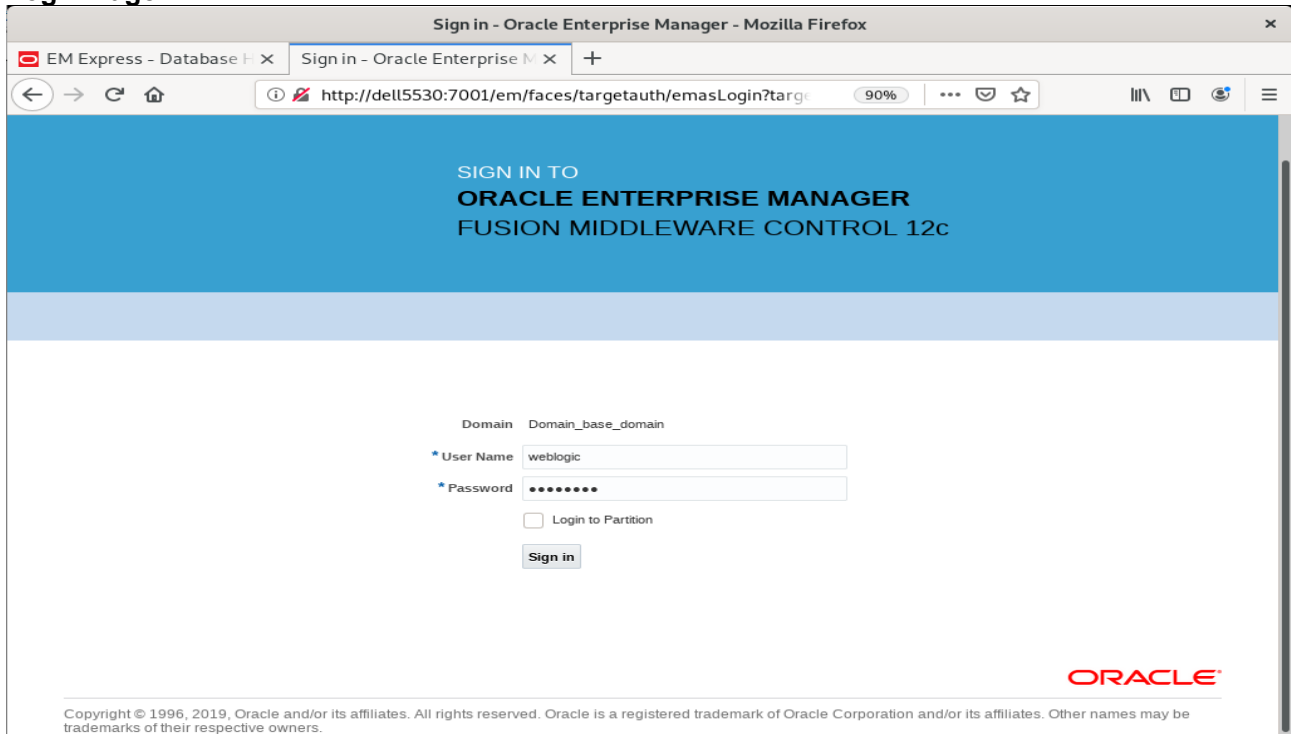
-----
Server state changed to RUNNING.
-----

```

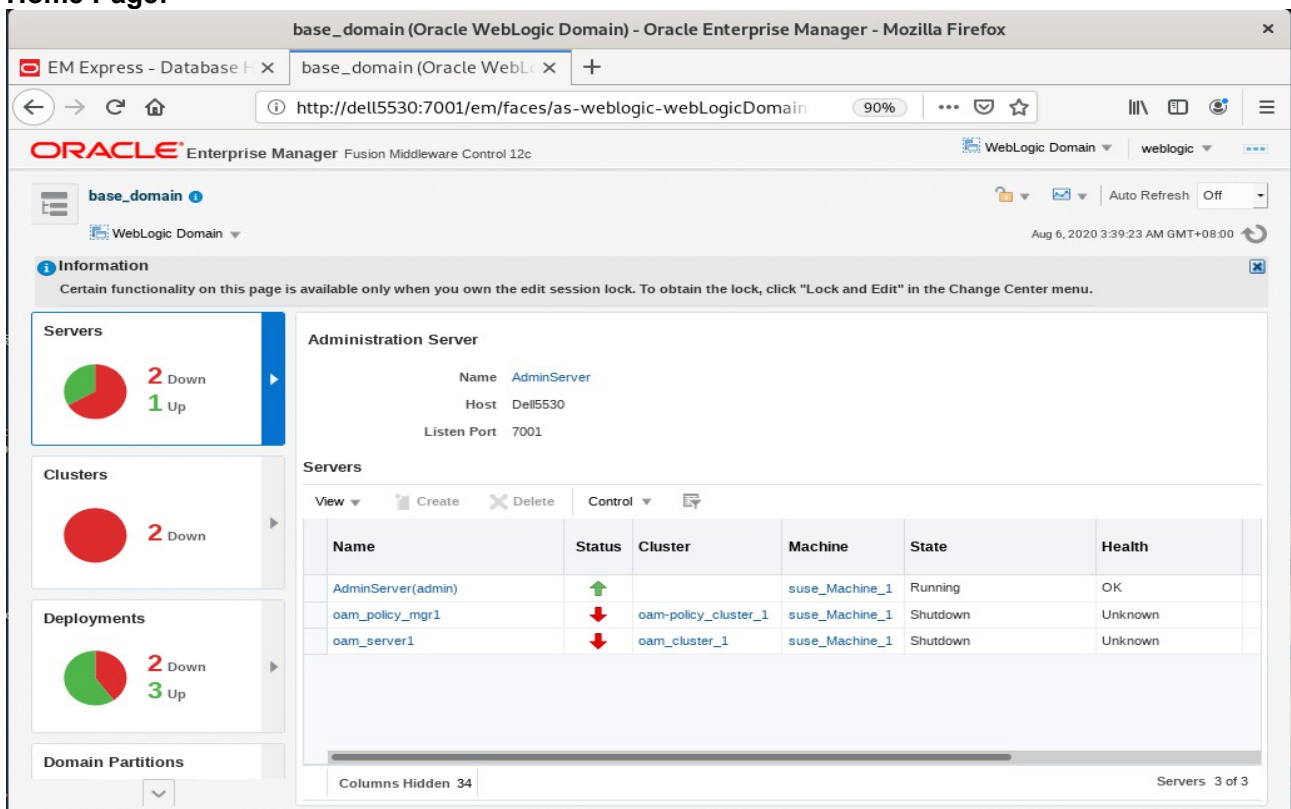
3-3. Checking Oracle Identity and Access Management 12c Product URLs.

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:

base_domain (Oracle WebLogic Domain) - Oracle Enterprise Manager - Mozilla Firefox

EM Express - Database | base_domain (Oracle WebL | +

http://dell5530:7001/em/faces/as-weblogic-webLogicDomain 90%

ORACLE Enterprise Manager Fusion Middleware Control 12c WebLogic Domain weblogic

base_domain WebLogic Domain Aug 6, 2020 3:51:35 AM GMT+08:00

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

Servers 1 Down 2 Up

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

http://dell5530:7001/em/faces/as-weblogic-webLogicDomainHome?type=weblogic_domain&target=/Domain_base_domain/base_domain#

base_domain (Oracle WebLogic Domain) - Oracle Enterprise Manager - Mozilla Firefox

EM Express - Database | base_domain (Oracle WebL | +

http://dell5530:7001/em/faces/as-weblogic-webLogicDomain 90%

ORACLE Enterprise Manager Fusion Middleware Control 12c WebLogic Domain weblogic

base_domain WebLogic Domain Aug 6, 2020 4:05:05 AM GMT+08:00

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

Servers 3 Up

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

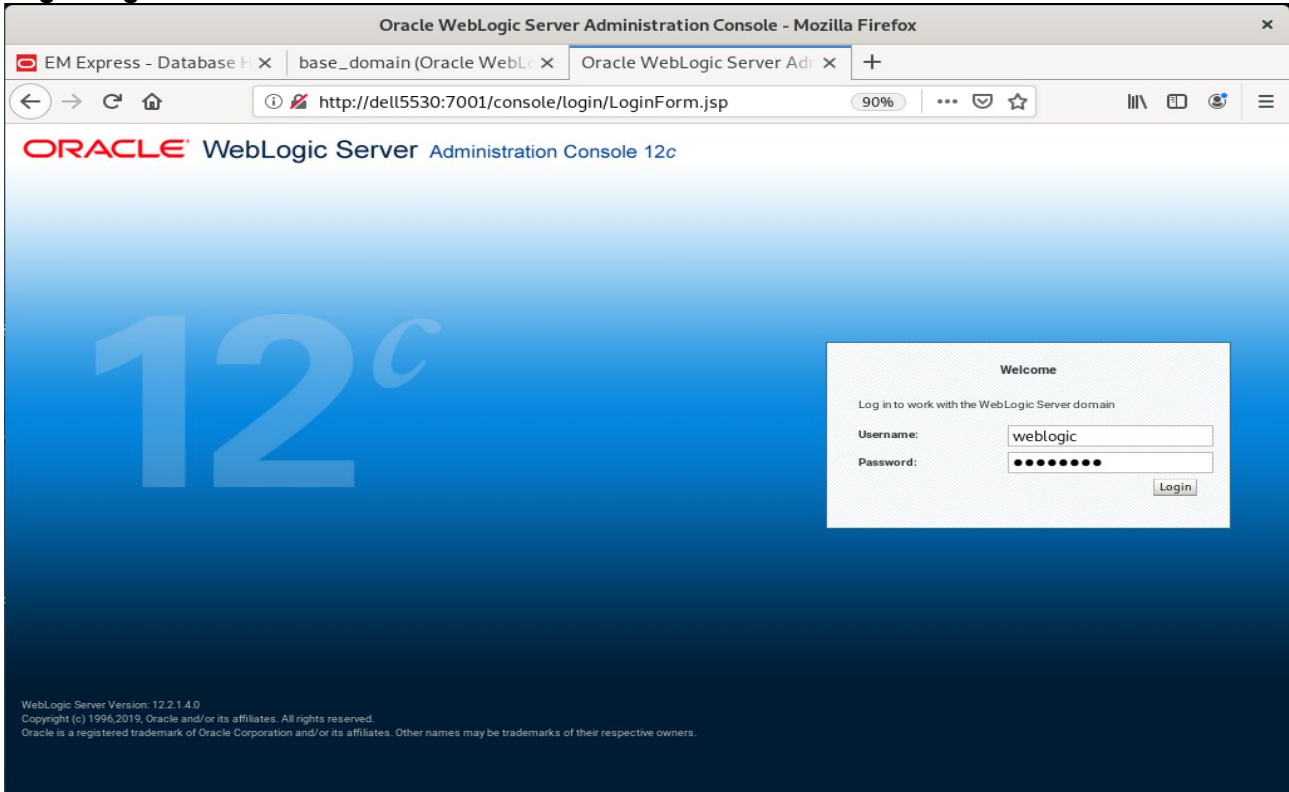
Columns Hidden 34 Servers 3 of 3

http://dell5530:7001/em/faces/as-weblogic-webLogicDomainHome?type=weblogic_domain&target=/Domain_base_domain/base_domain#

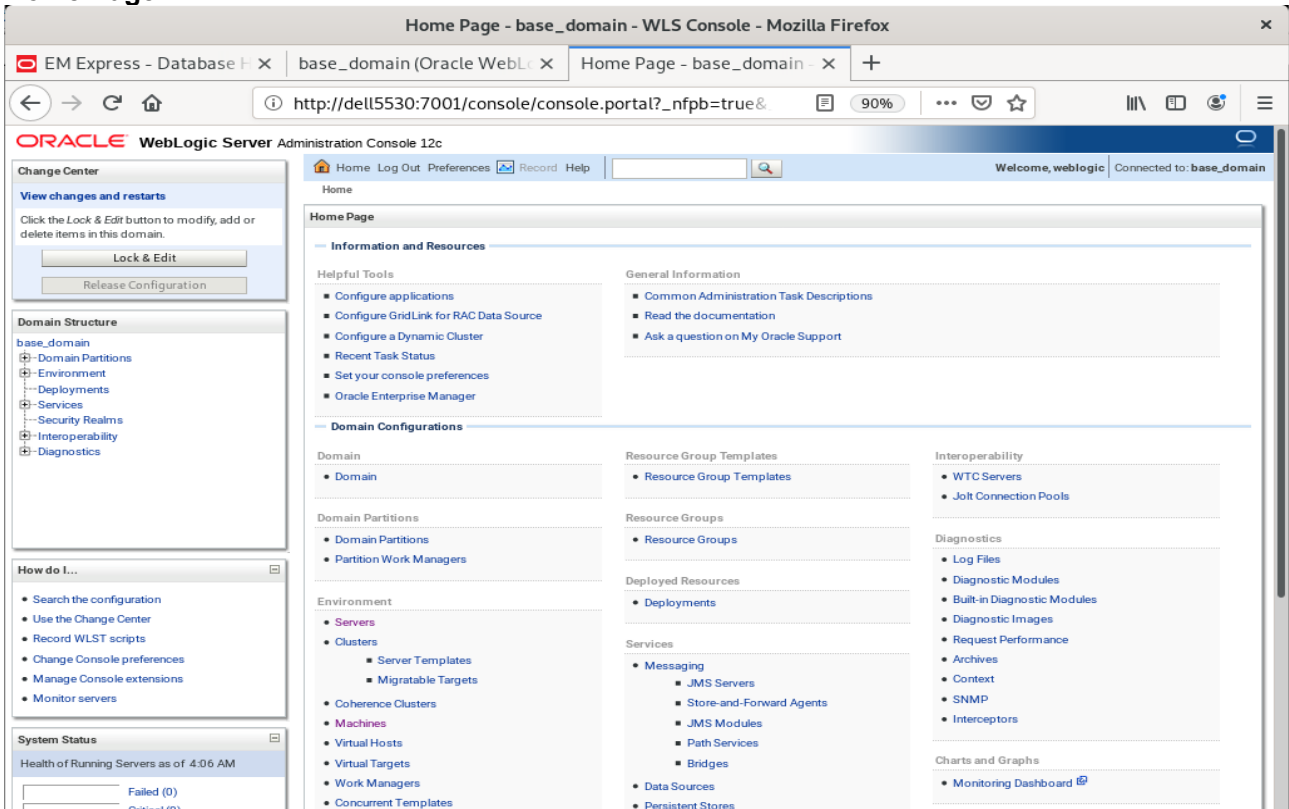
After they start up successfully, each managed server is listed as Running.

2). Access to Administration Server Console

Login Page:



Home Page:



Viewing the summary of servers:

Summary of Servers - base_domain - WLS Console - Mozilla Firefox

EM Express - Database | base_domain (Oracle WebLogic) | Summary of Servers - base_domain

http://dell5530:7001/console/console.portal?_nfpb=true&

ORACLE WebLogic Server Administration Console 12c

Home Log Out Preferences Record Help Welcome, weblogic Connected to: base_domain

Home > Summary of Servers

Summary of Servers

Configuration Control

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

Customize this table

Servers (Filtered - More Columns Exist)

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

Name	Type	Cluster	Machine	State	Health	Listen Port
AdminServer(admin)	Configured		suse_Machine_1	RUNNING	OK	7001
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 - base_domain - WLS Console - Mozilla Firefox

EM Express - Database | base_domain (Oracle WebLogic) | Settings for suse_Machine_1

http://dell5530:7001/console/console.portal?_nfpb=true&

ORACLE WebLogic Server Administration Console 12c

Home Log Out Preferences Record Help Welcome, weblogic Connected to: base_domain

Home > Summary of Servers > Summary of Machines > suse_Machine_1

Settings for suse_Machine_1

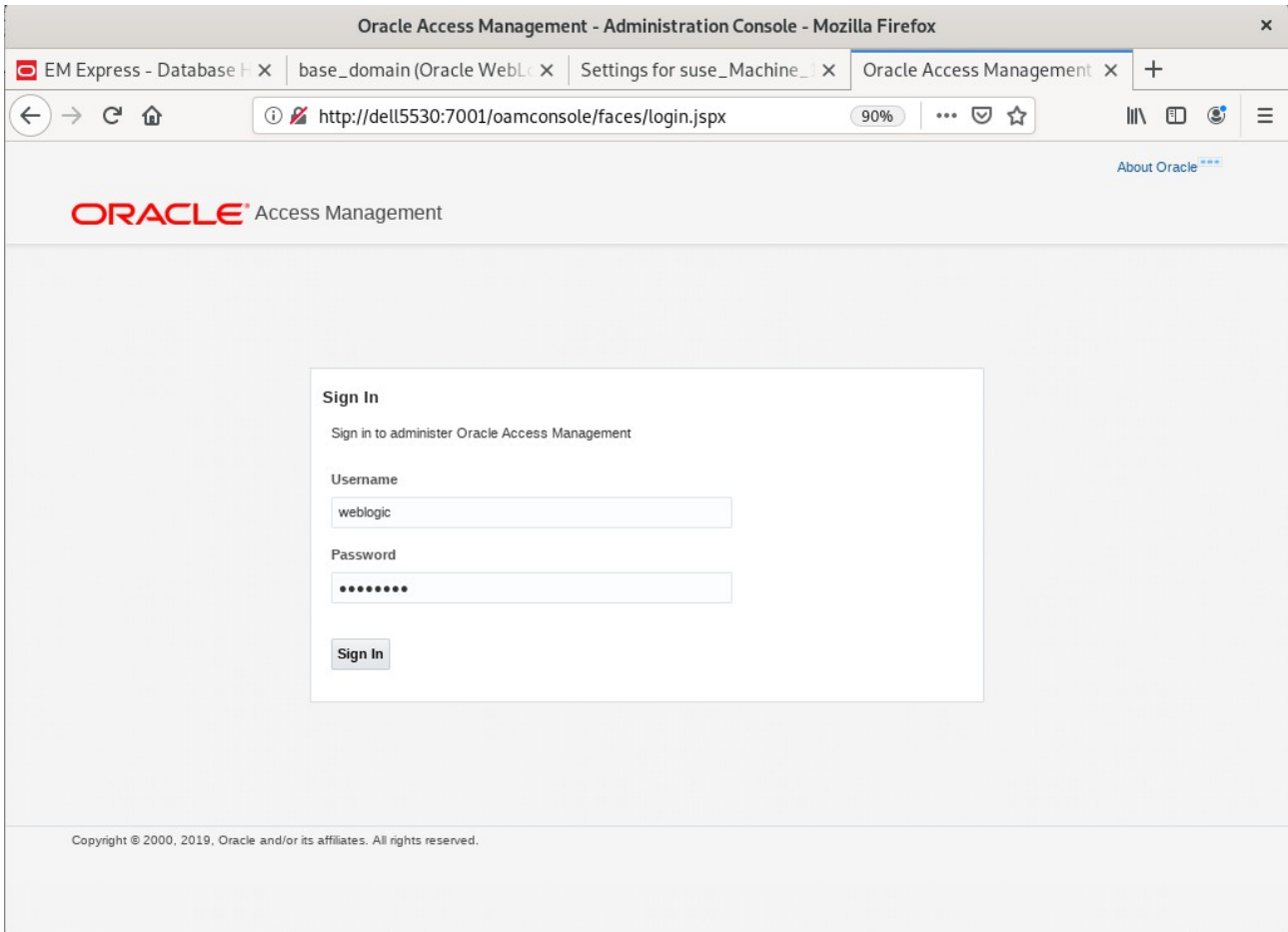
Configuration Monitoring Notes

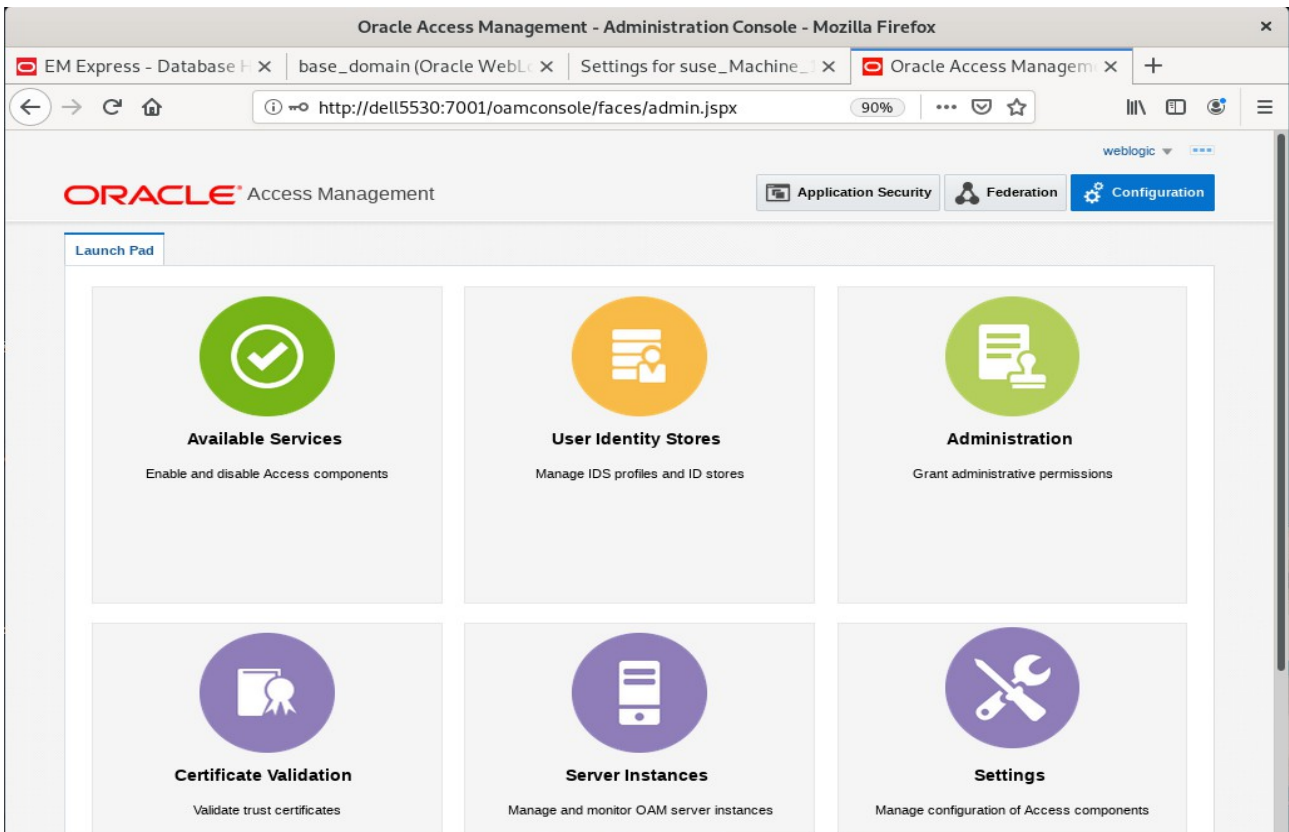
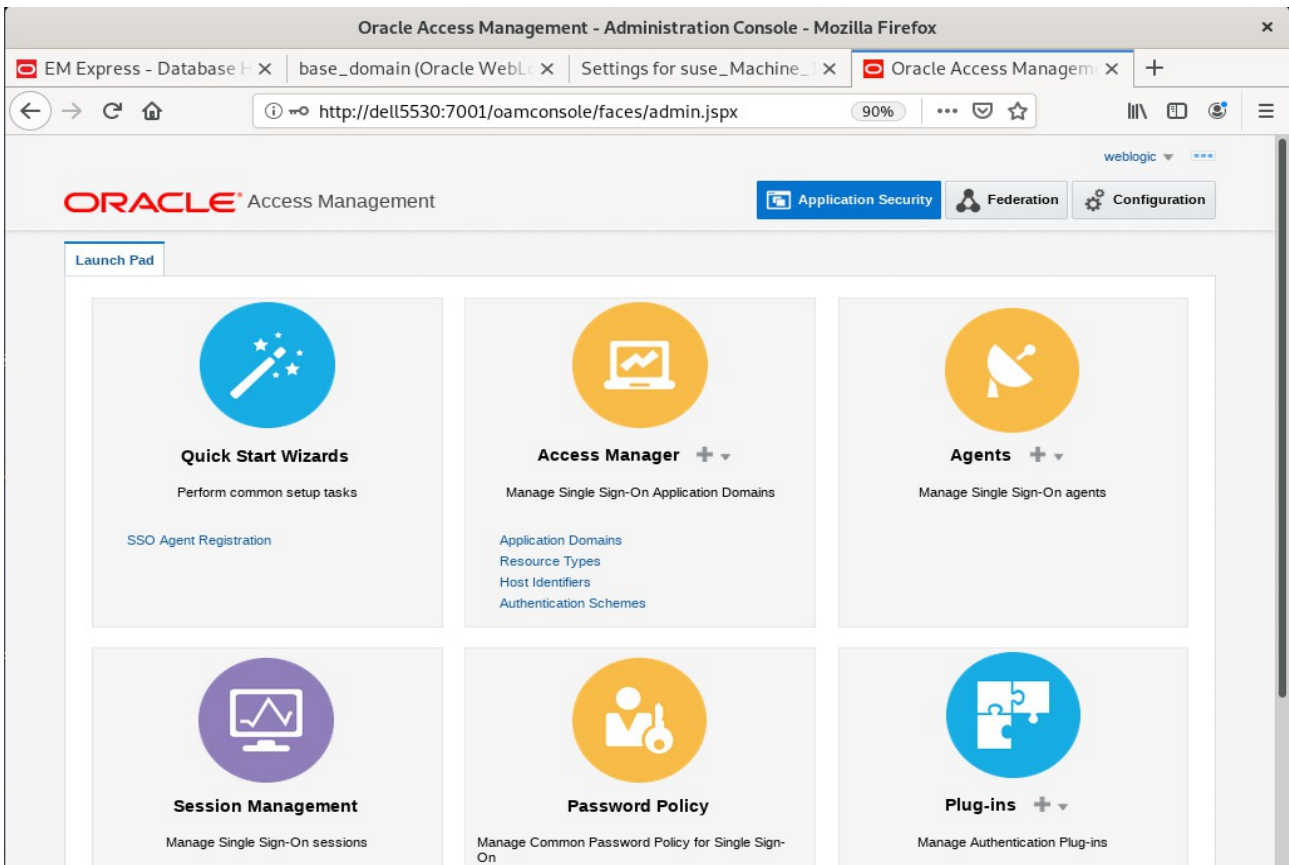
Node Manager Status Node Manager Log

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

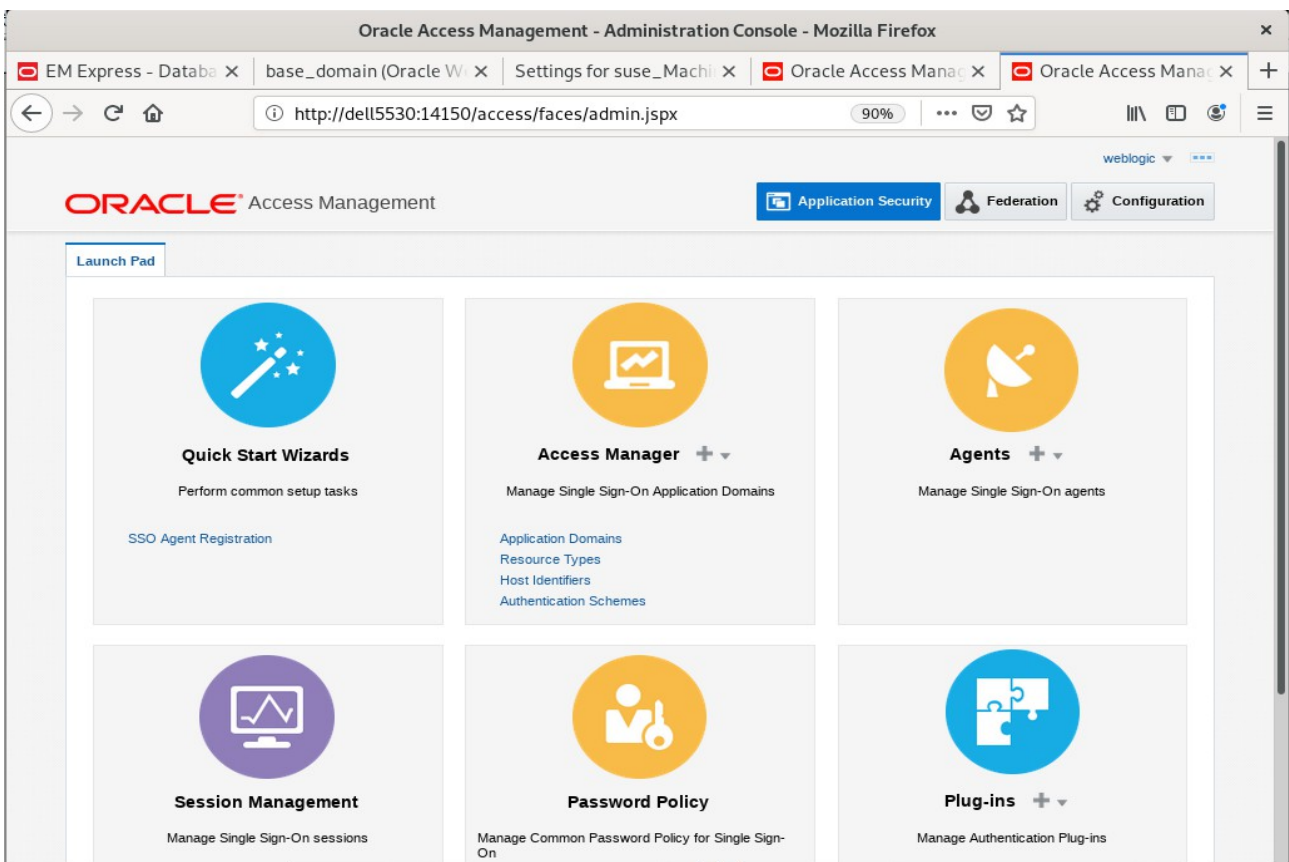
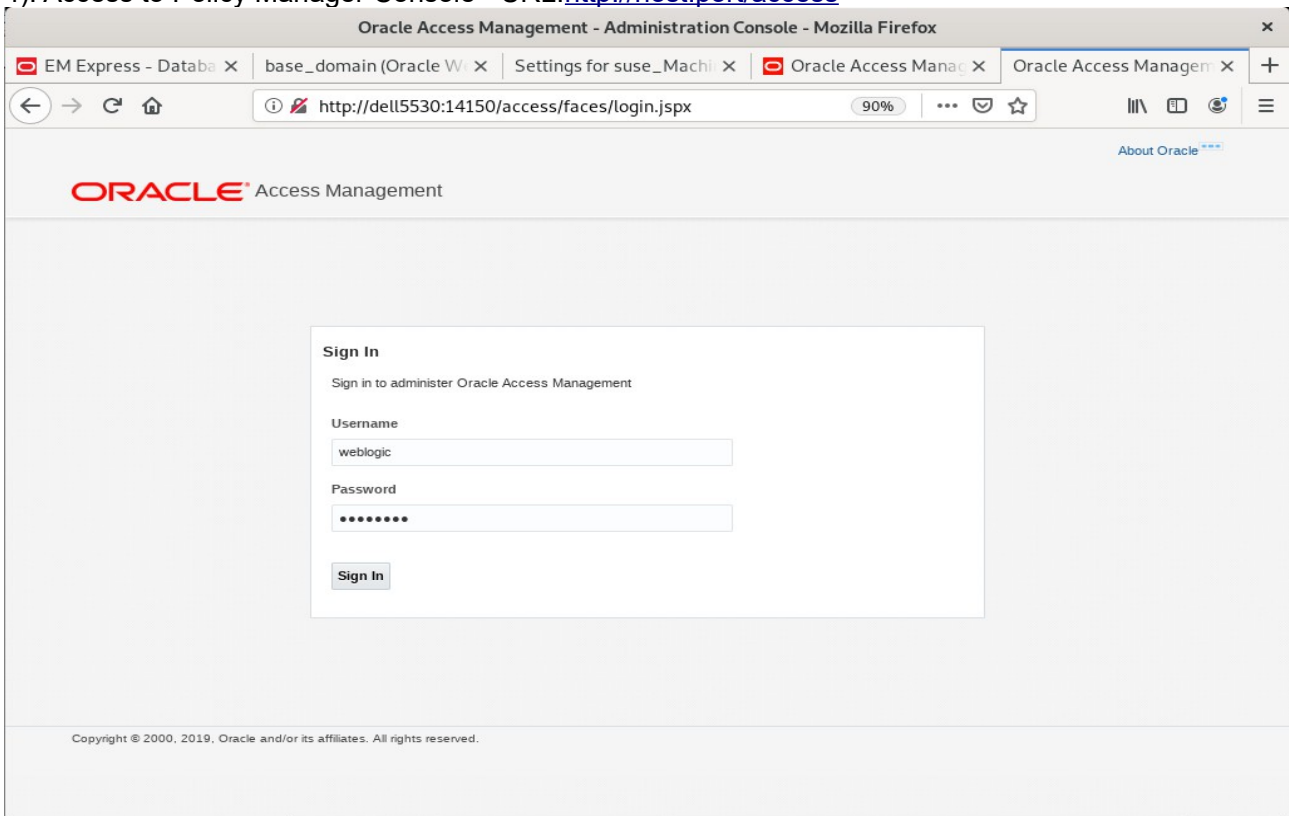
Status:	Reachable	Current status of this Node Manager. More Info...
Version:	12.2.1.4.0	Version string returned from the Node Manager. More Info...

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





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



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.

```

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 Mon Jul 20 21:56:28 2020

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

SQL> conn /as sysdba
Connected.
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
DROP VIEW d$xatrans$
*
ERROR at line 1:
ORA-00942: table or view does not exist

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

View created.

Synonym created.

View created.

Synonym created.

SQL> █

```

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

```

SQL> 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 9898557440 bytes
Fixed Size                12169752 bytes
Variable Size             2013269480 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 and later installed.

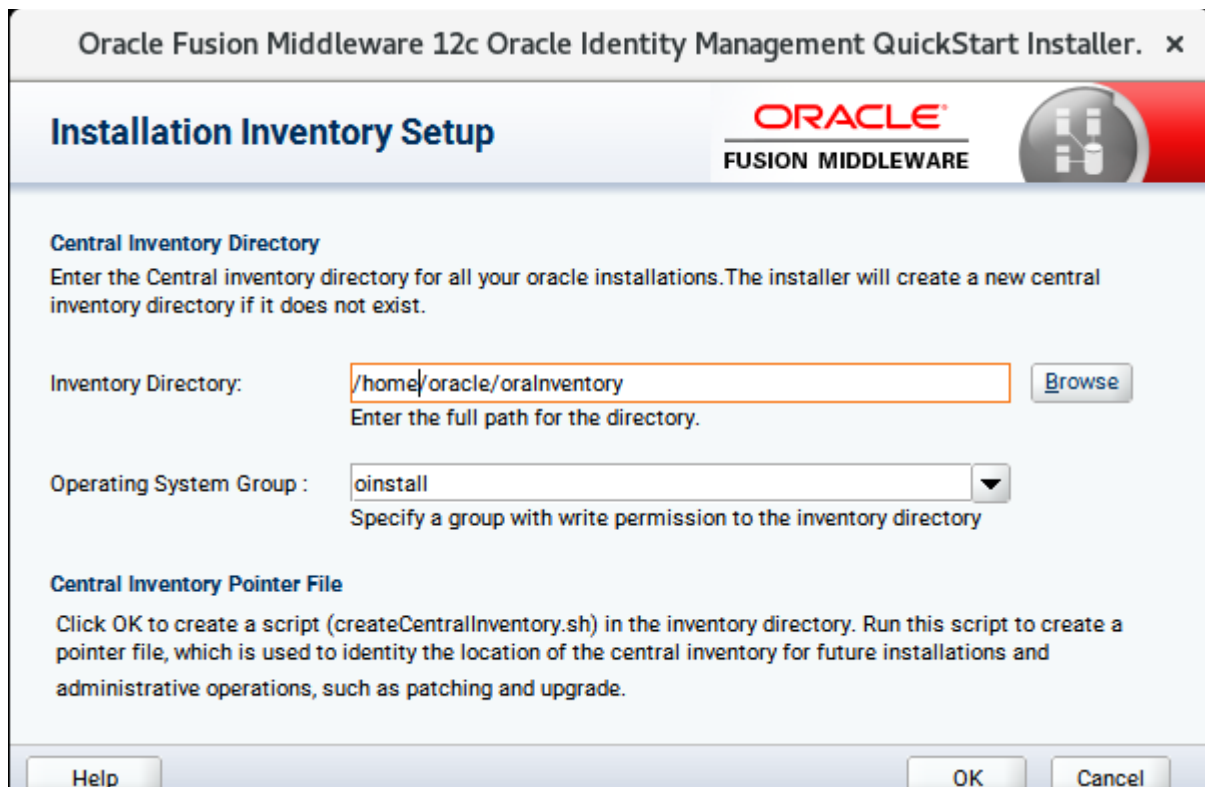
1-2. Log in to the target system (SLES 15 SP2 64-bit OS) as a non-admin user. Download the Oracle Identity and Access Management 12cPS4 (12.2.1.4.0) generic installer .zip file from <http://www.oracle.com/technetwork/indexes/downloads/index.html#middleware>.

(**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`'

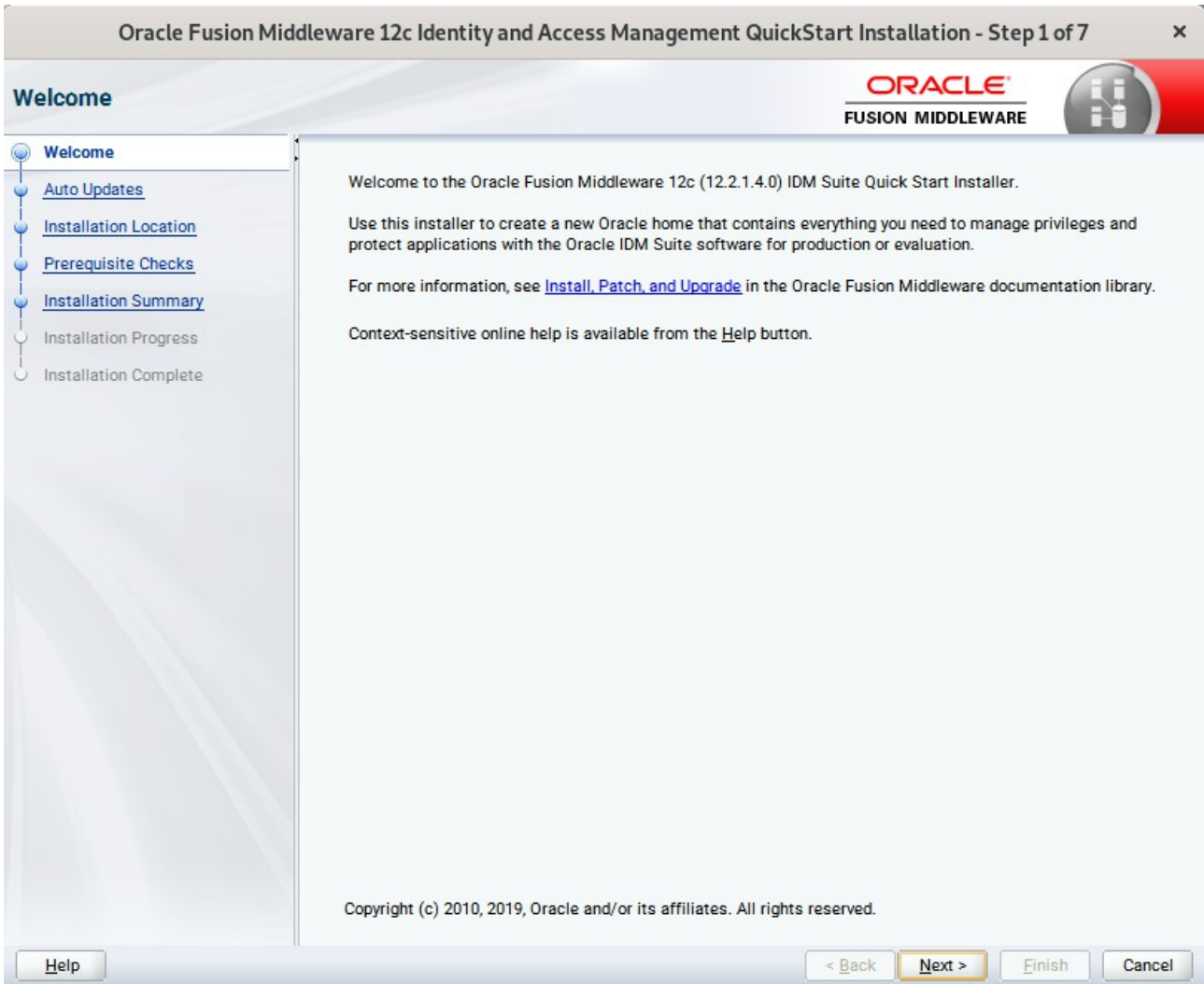
For the actual installation, follow the steps below:

1). Installation Inventory Setup.



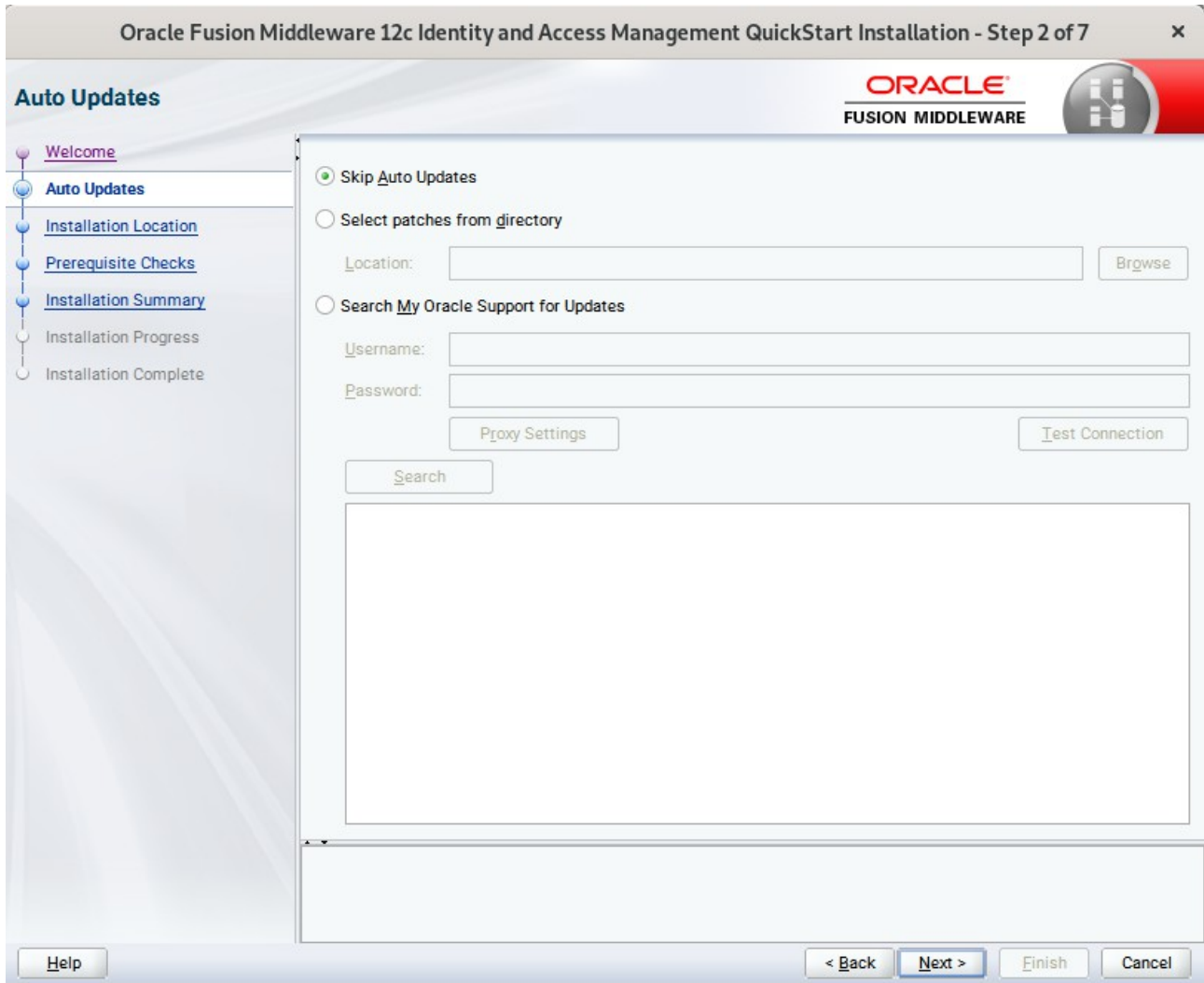
Specify the Oracle inventory directory and group permissions for that directory. The group must have write permissions to the Oracle inventory directory, then click **OK** to continue.

2). **Welcome** page appears.



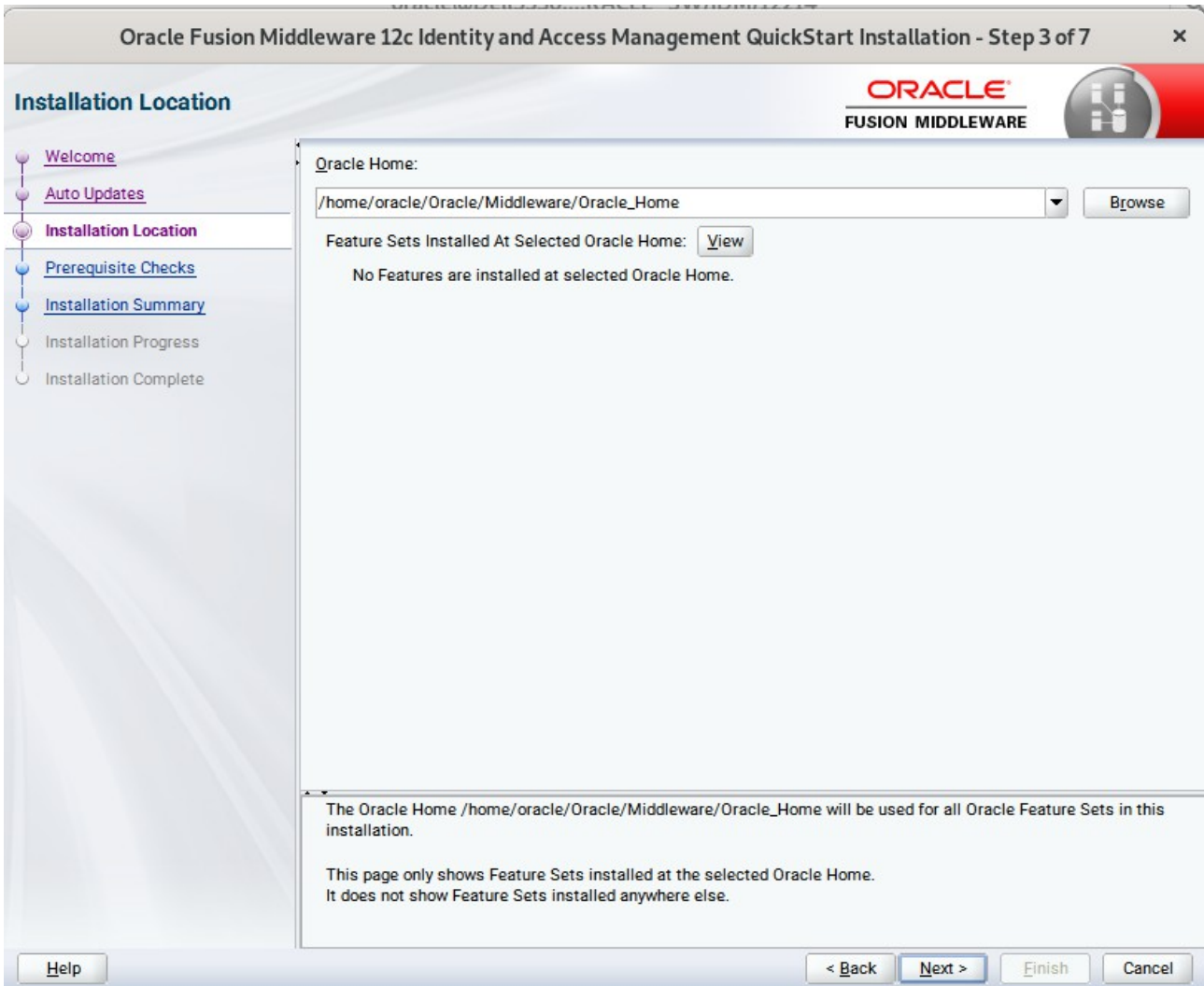
This page welcomes you to the installation. Click **Next** to continue.

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



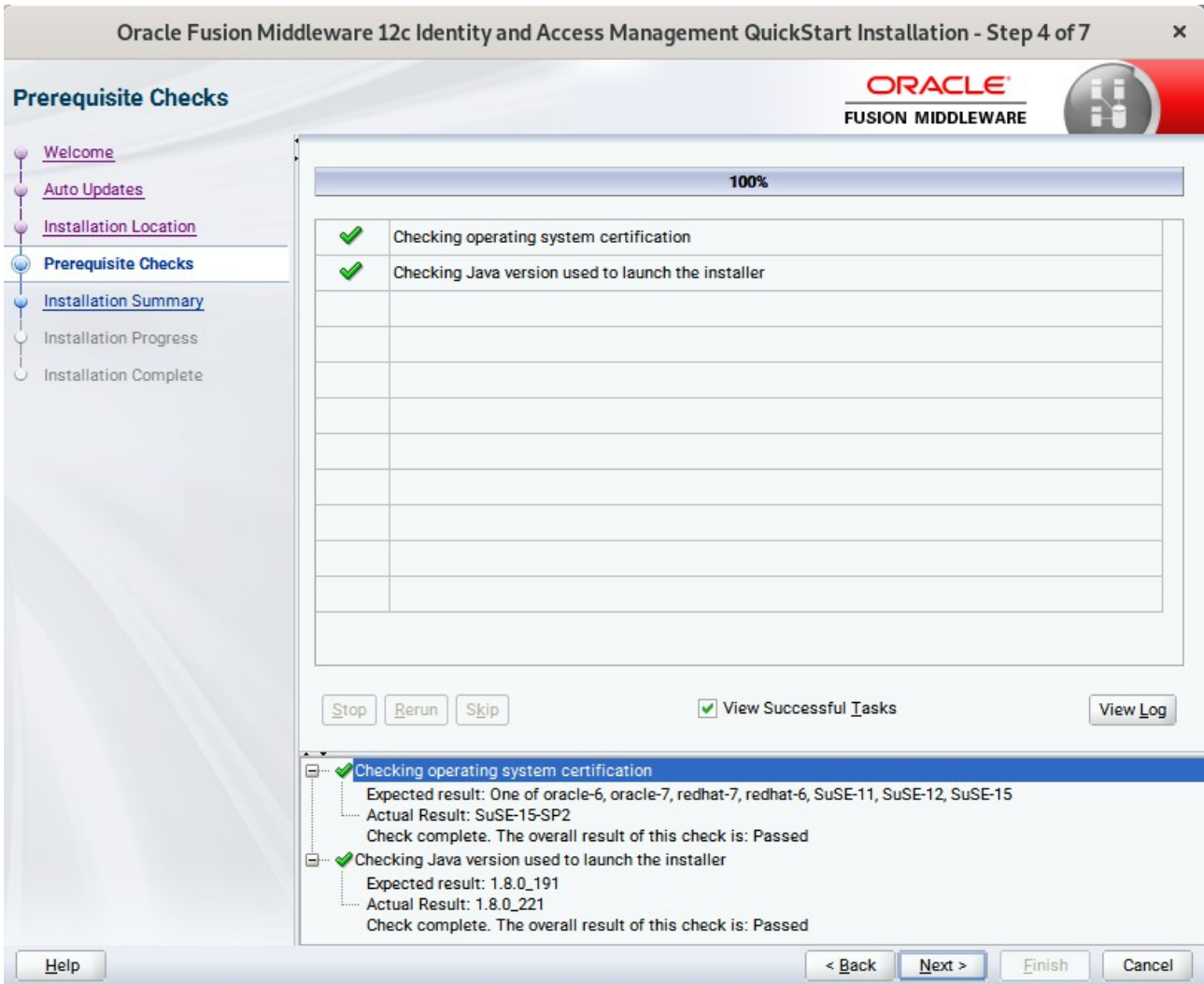
This screen helps to quickly and easily search for the latest software updates, including important security updates, via your My Oracle Support account. Make your choices, then click **Next** to continue.

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



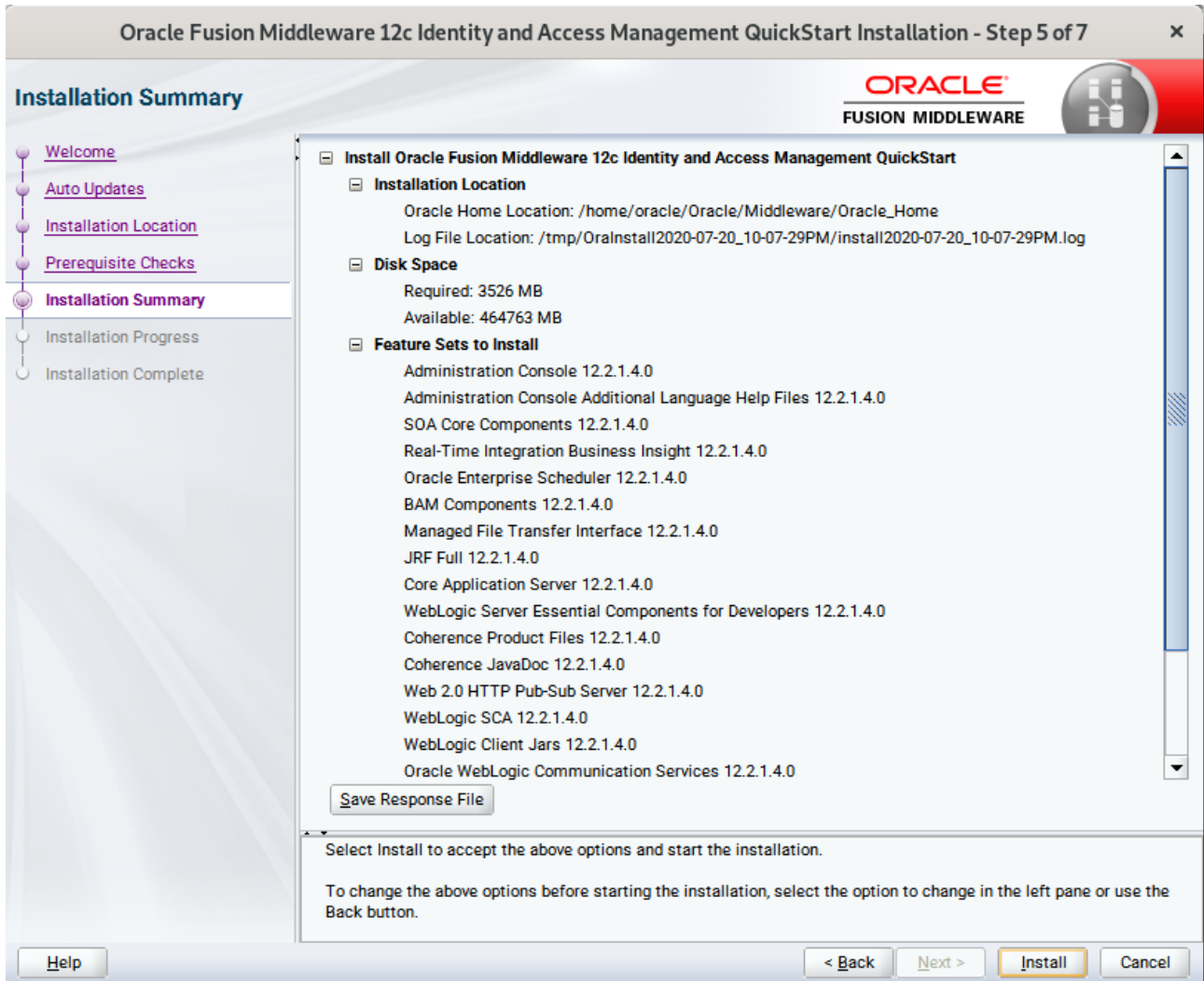
Specify the Oracle home location into which you want to install the product(s). Click **Next** to continue.

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



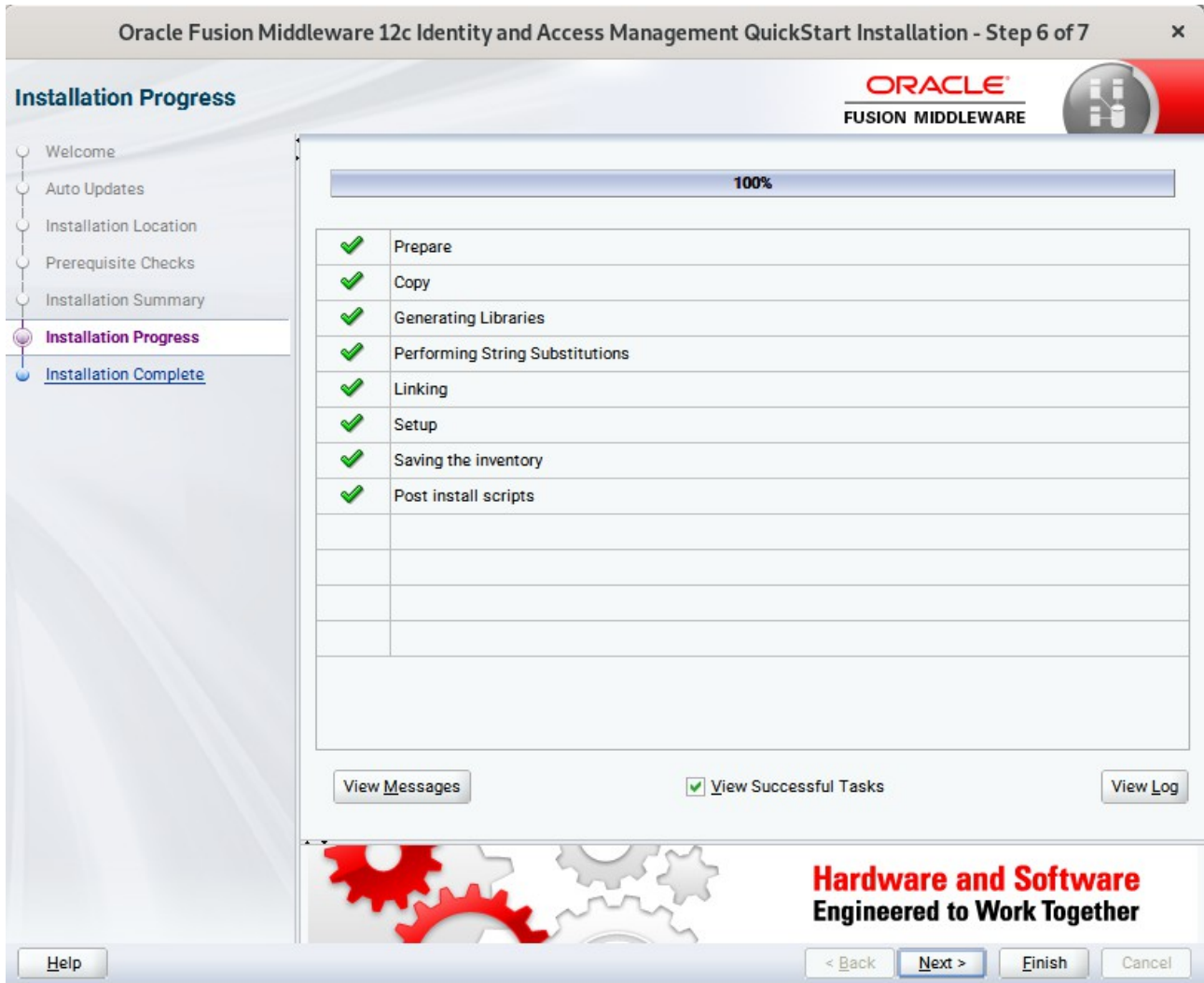
This page shows you the progress of the system checking the prerequisites on your system prior to installation. If you are lacking any prerequisites, a message will appear telling you so. You do not need to take any actions on this page, though you can view the log from here. Click **Next** to continue.

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



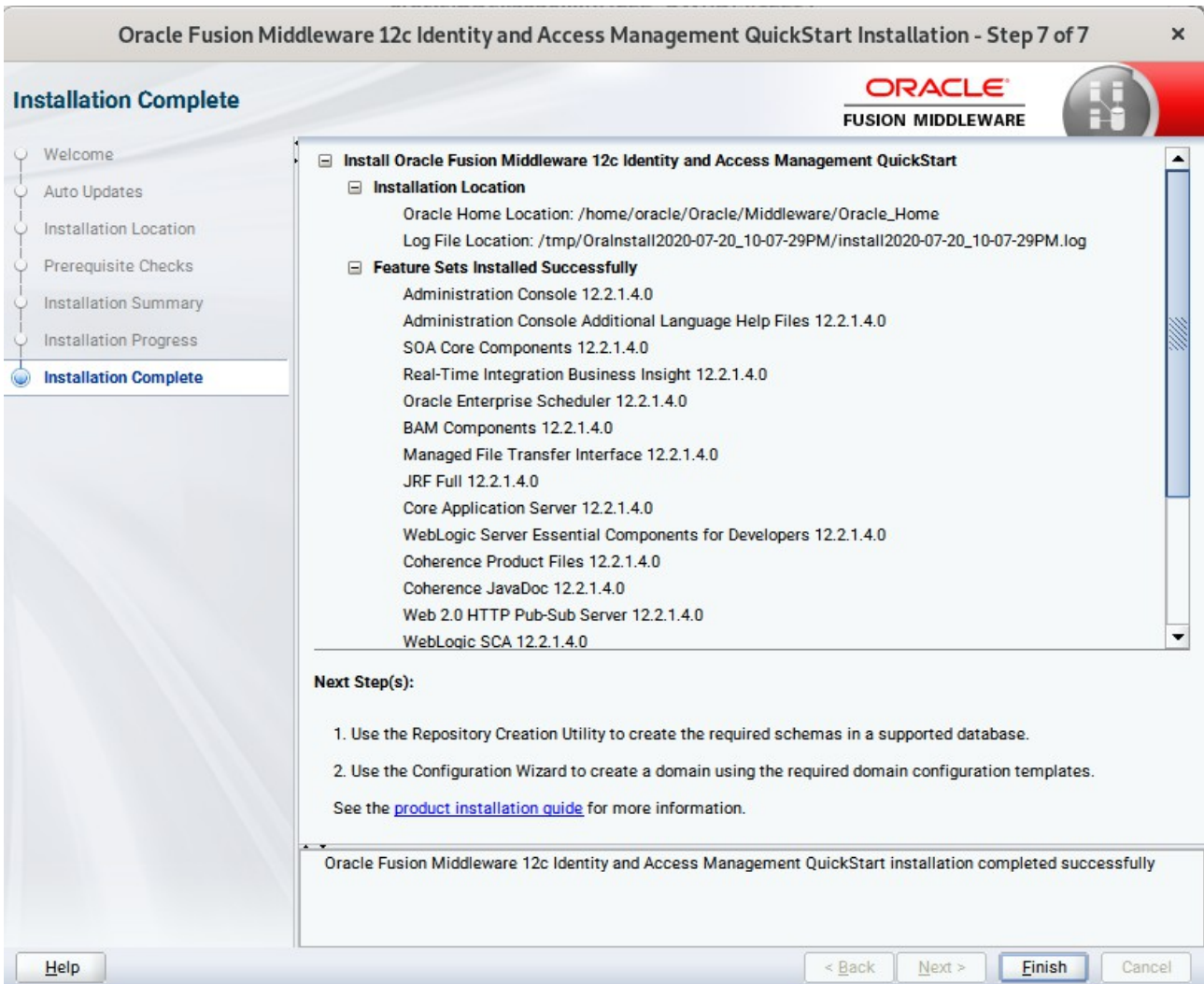
This page shows you what components and features are about to be installed. If you need to make changes, click **Back**, otherwise, click **Install** to start the installation.

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.



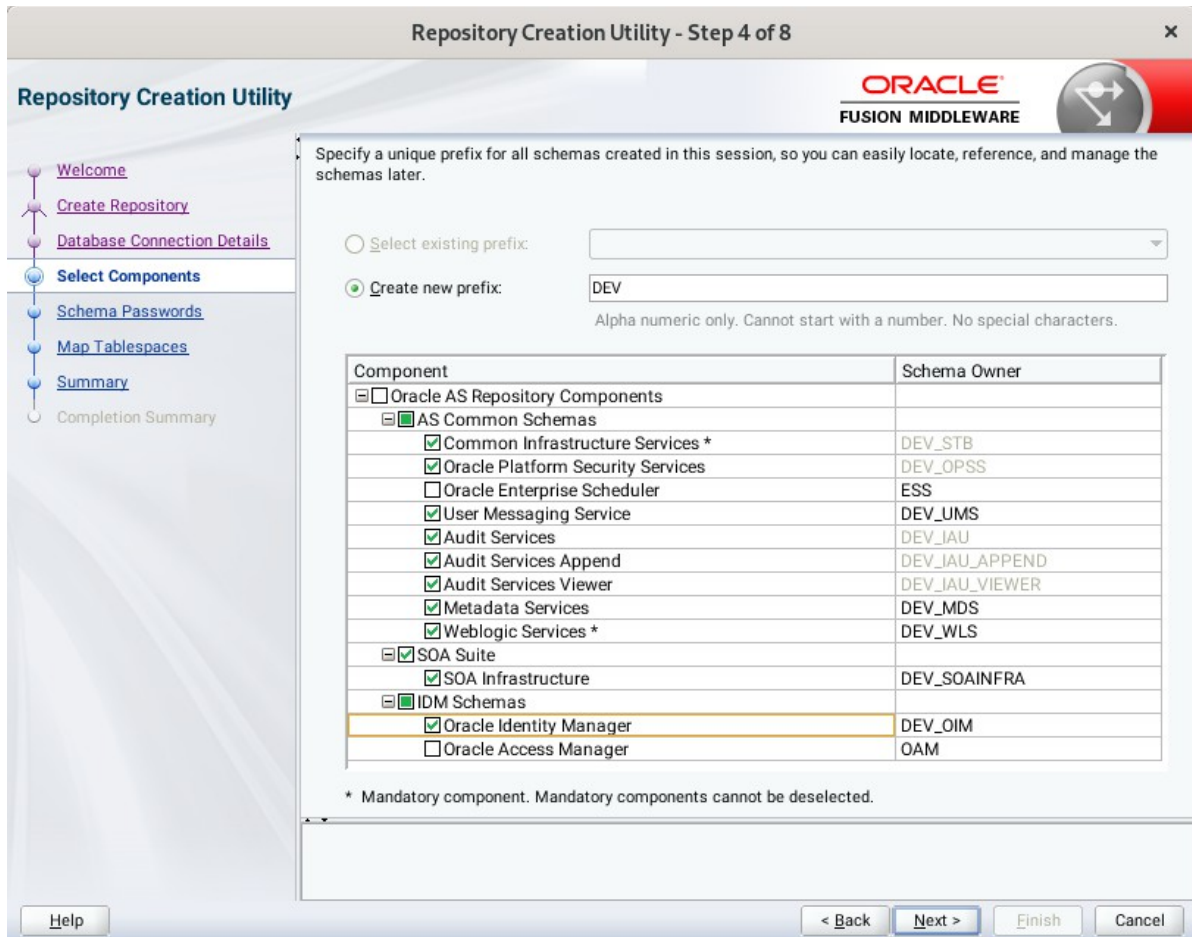
This screen displays the Installation Location and the Feature Sets that are installed. Review this information and click **Finish** to close the installer.

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.



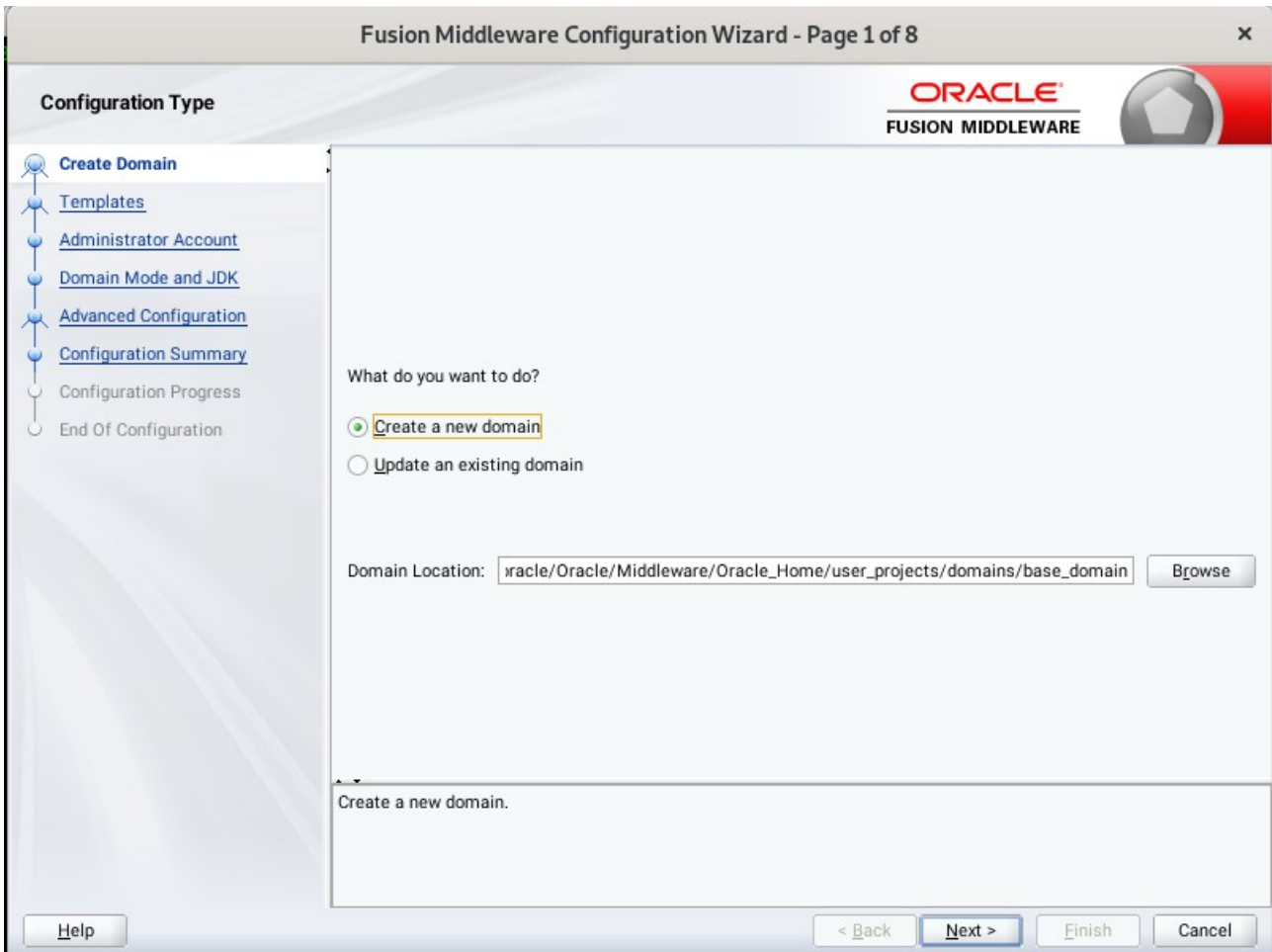
Select the **Create new prefix** radio button and provide a schema prefix (such as DEV). Select the **Oracle Identity Manager** schema, this action automatically selects the schemas as dependencies, and ensure the schema creation is successful.

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

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

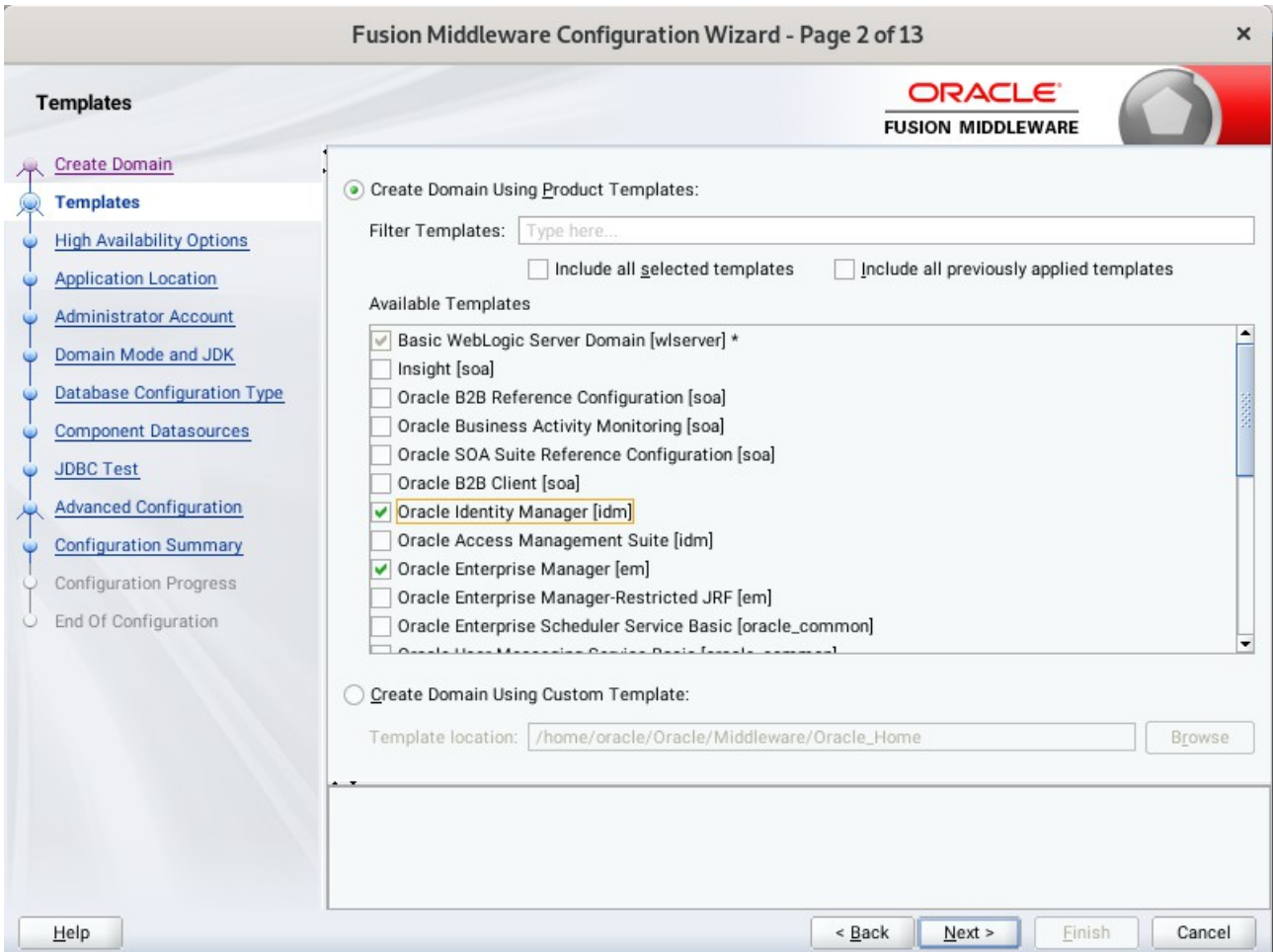
Follow these steps:

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



Click **Next** to continue.

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



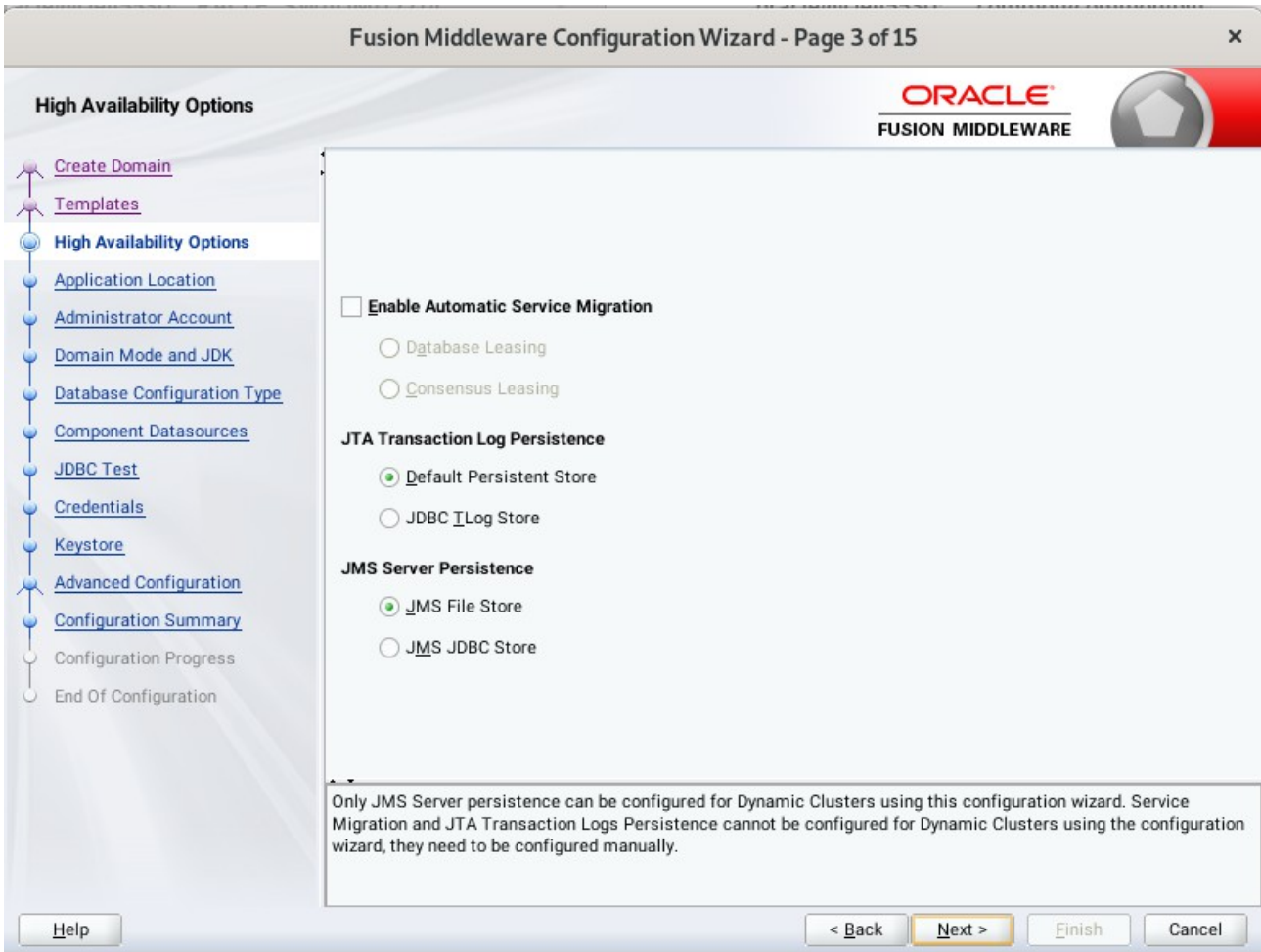
On the Templates screen, make sure **Create Domain Using Product Templates** is selected, then select the template **Oracle Identity Manager [idm]**.

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 [wlserver]

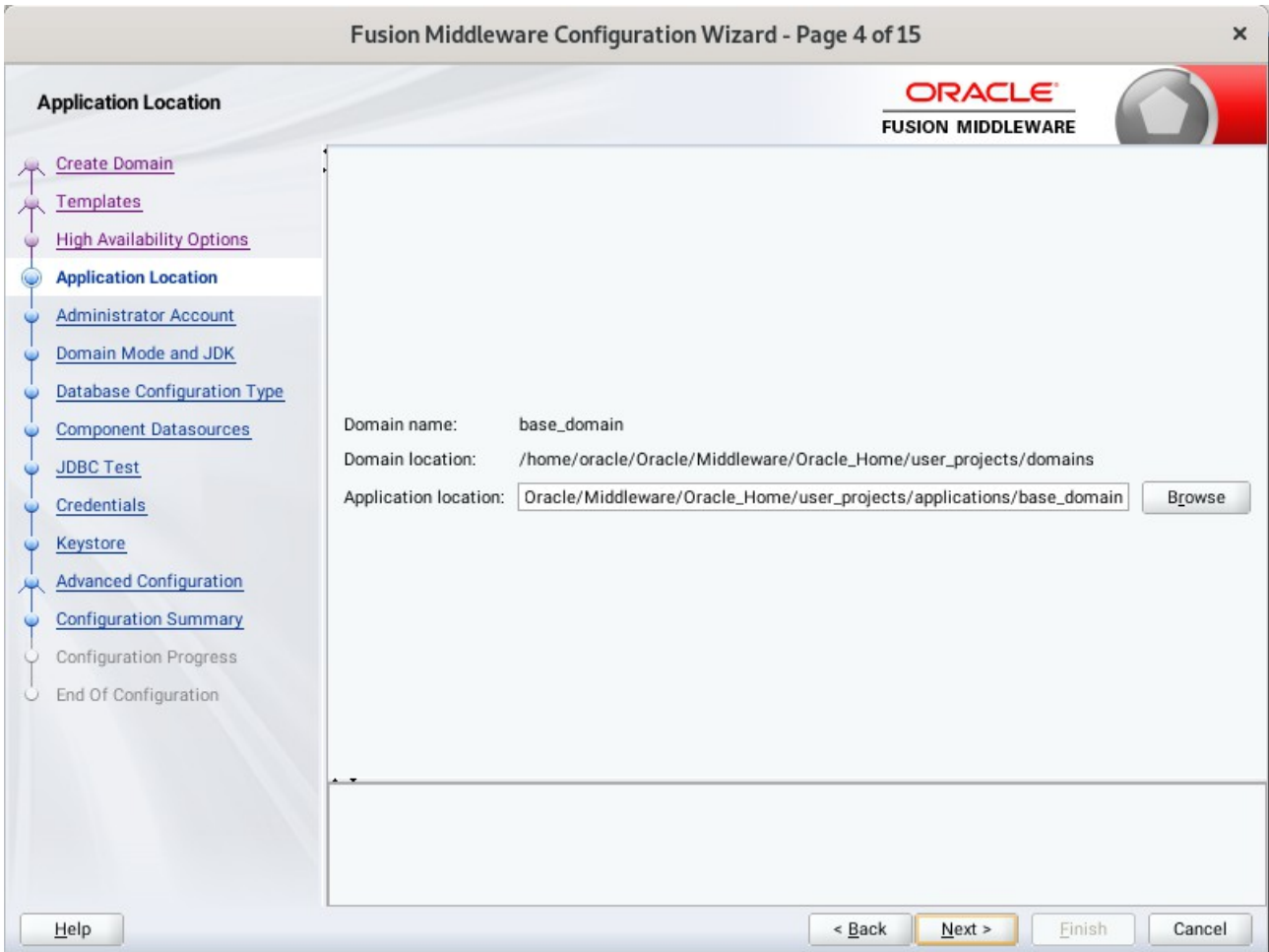
You can also select any of the Oracle products listed in the following table. You do not need to select all of these templates, and you can always run the configuration wizard again to add products to your domain later. Click **Next** to continue.

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



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

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



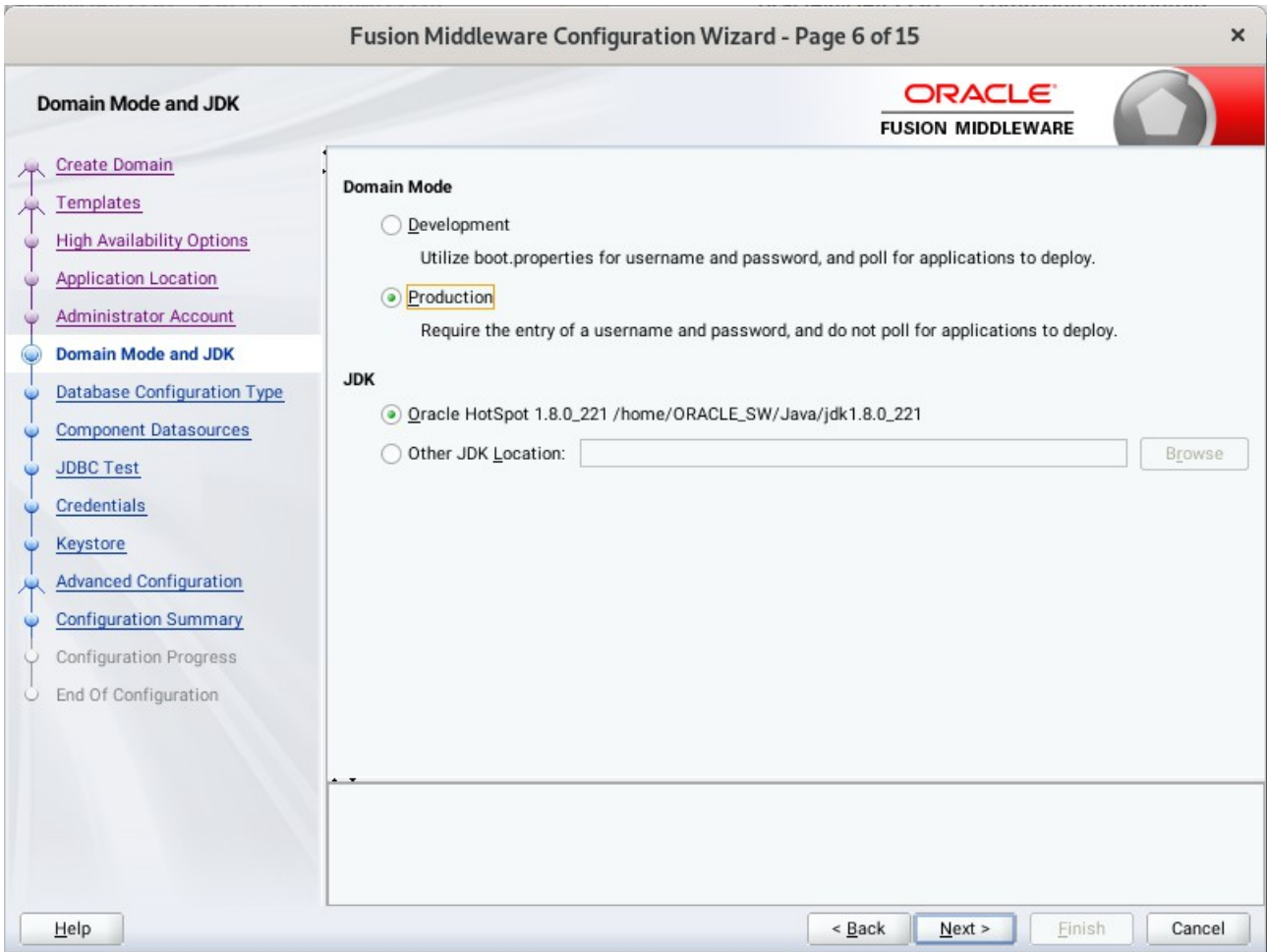
Keep the default value for Application location. Click **Next** to continue.

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

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. On the left, a navigation pane lists various steps: 'Create Domain', 'Templates', 'High Availability Options', 'Application Location', 'Administrator Account' (highlighted), '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 these fields is a note: 'Must be the same as the password. Password must contain at least 8 alphanumeric characters with at least one number or special character.' At the bottom, there are buttons for 'Help', '< Back', 'Next >', 'Finish', and 'Cancel'.

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

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



Select **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

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:

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.

Fusion Middleware Configuration Wizard - Page 8 of 15

JDBC Component Schema

ORACLE
FUSION MIDDLEWARE

Vendor: Driver:

Connection Parameters Connection URL String

Host Name:

DBMS/Service: Port:

Schema Owner: Schema Password:

Oracle RAC configuration for component schemas:

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

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

<input type="checkbox"/>	Component Schema	DBMS/Service	Host Name	Port	Schema Owner	Schema Password
<input type="checkbox"/>	OIM Schema	SUSE	Dell5530	1521	DEV_OIM	.....
<input type="checkbox"/>	SOA EDN (XA)	SUSE	Dell5530	1521	DEV_SOAINFR/	.....
<input type="checkbox"/>	SOA EDN (Local)	SUSE	Dell5530	1521	DEV_SOAINFR/	.....
<input type="checkbox"/>	LocalSvcTbl Schema	SUSE	Dell5530	1521	DEV_STB	.....
<input type="checkbox"/>	User Messaging Service	SUSE	Dell5530	1521	DEV_UMS	.....
<input type="checkbox"/>	SOA (XA)	SUSE	Dell5530	1521	DEV_SOAINFR/	.....
<input type="checkbox"/>	SOA (Local)	SUSE	Dell5530	1521	DEV_SOAINFR/	.....
<input type="checkbox"/>	WLS Schema	SUSE	Dell5530	1521	DEV_WLS_RUN	.....

Help

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

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

Fusion Middleware Configuration Wizard - Page 9 of 15

JDBC Component Schema Test

✓	Status	Component Schema	JDBC Connection URL
✓	✓	OIM Schema	jdbc:oracle:thin:@//Dell5530:1521/SUSE
✓	✓	SOA EDN (XA)	jdbc:oracle:thin:@//Dell5530:1521/SUSE
✓	✓	SOA EDN (Local)	jdbc:oracle:thin:@//Dell5530:1521/SUSE
✓	✓	LocalSvcTbl Schema	jdbc:oracle:thin:@//Dell5530:1521/SUSE
✓	✓	User Messaging Service	jdbc:oracle:thin:@//Dell5530:1521/SUSE
✓	✓	SOA (XA)	jdbc:oracle:thin:@//Dell5530:1521/SUSE
✓	✓	SOA (Local)	jdbc:oracle:thin:@//Dell5530:1521/SUSE
✓	✓	WLS Schema	jdbc:oracle:thin:@//Dell5530:1521/SUSE
✓	✓	OIM MDS Schema	jdbc:oracle:thin:@//Dell5530:1521/SUSE
✓	✓	OWSM MDS Schema	jdbc:oracle:thin:@//Dell5530:1521/SUSE

Test Selected Connections Cancel Testing

Connection Result Log

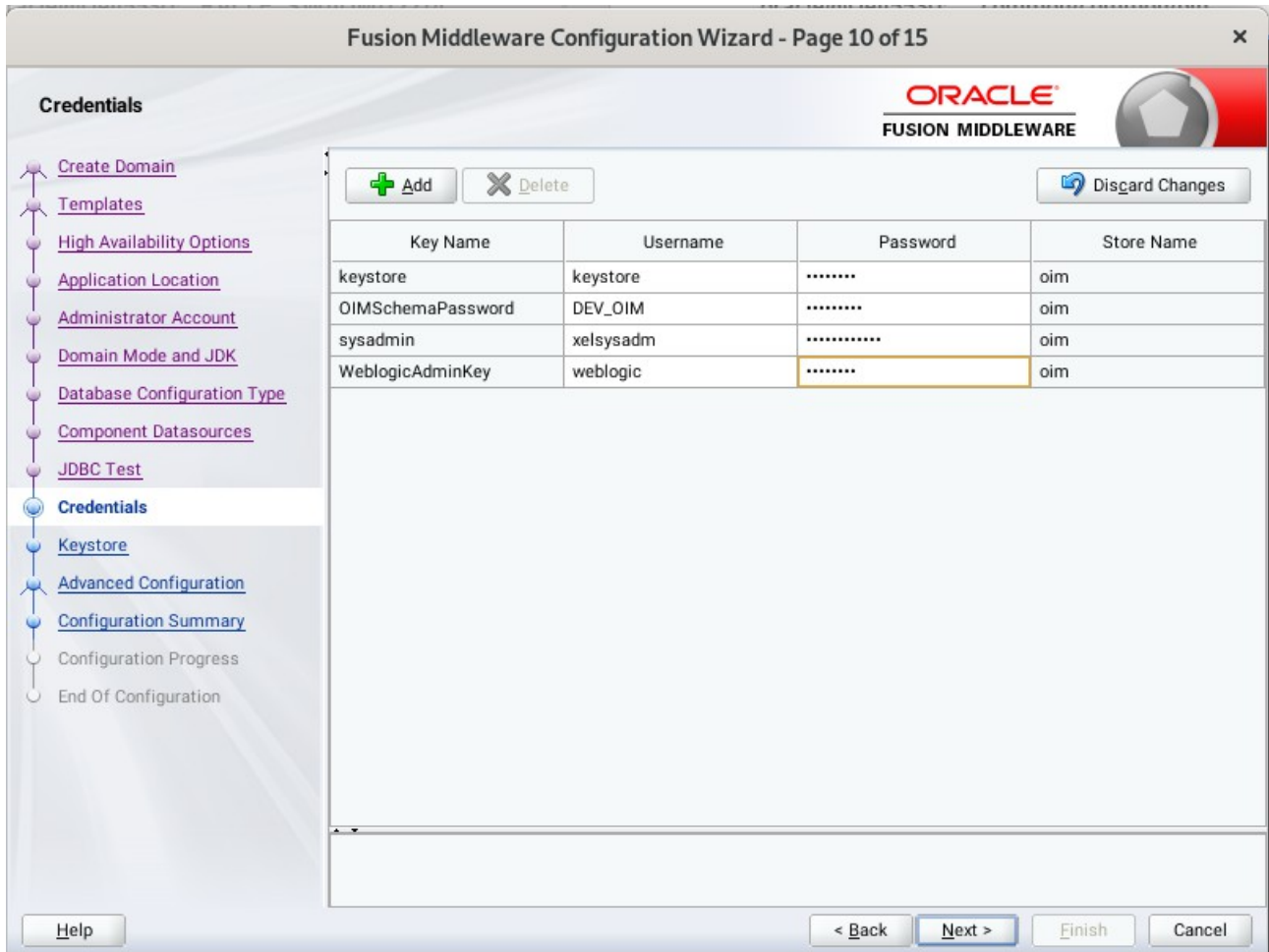
```

Component Schema=OIM Schema
Driver=oracle.jdbc.OracleDriver
URL=jdbc:oracle:thin:@//Dell5530:1521/SUSE
User=DEV_OIM
Password=*****
SQL Test=select 1 from schema_version_registry where owner=(select user from dual) and mr_type='OIM' and vers
CFGFWK-64213: Test Successful!
CFGFWK-64213: JDBC connection test was successful.
CFGFWK-64213: No action required.
    
```

Help < Back Next > Finish Cancel

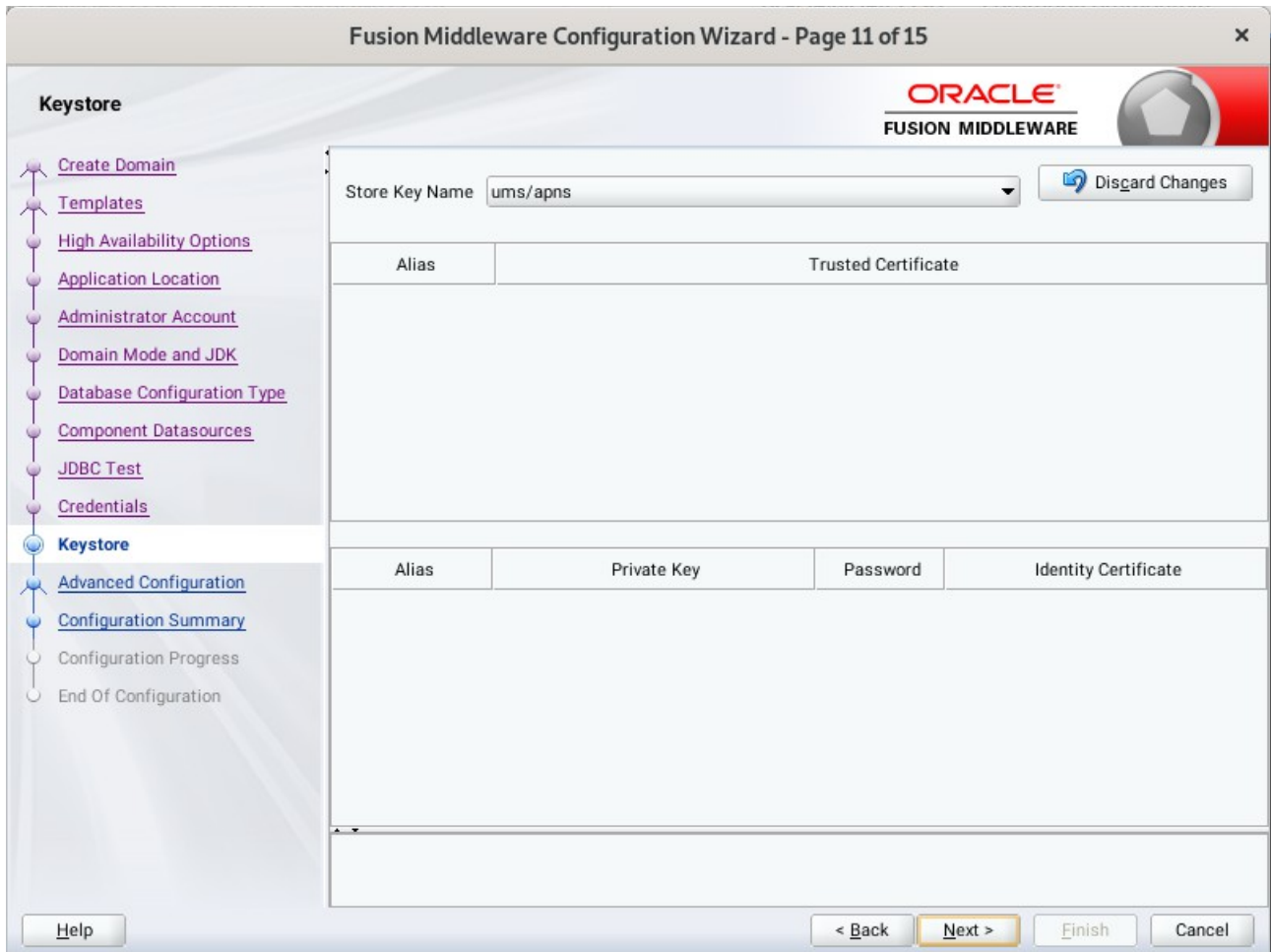
The tests are run and the results given. Ensure all test results are successful. Click **Next** to continue.

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



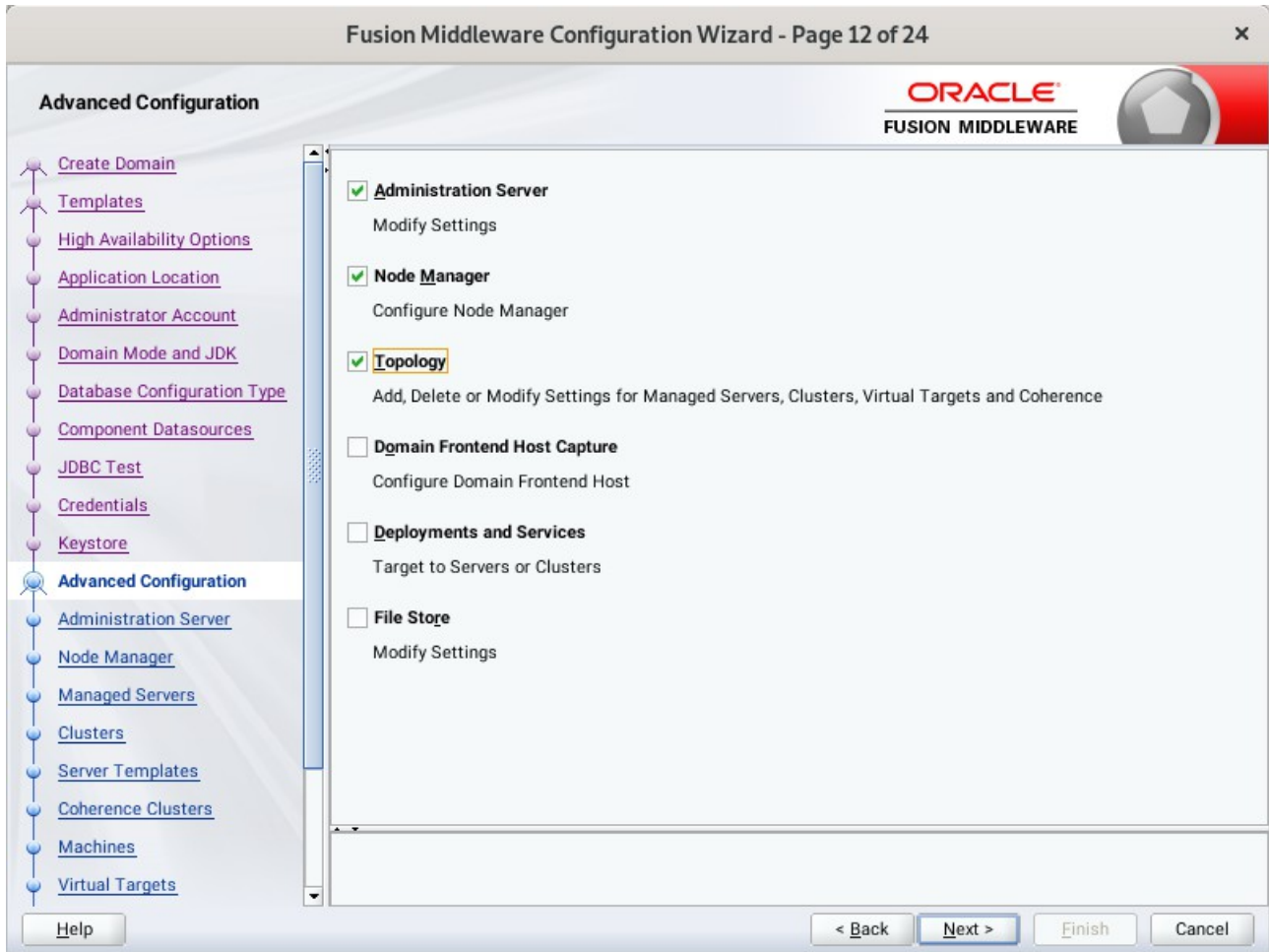
Use the Credentials screen to set credentials for each key in the domain. Ensure that you specify 'keystore' as the username for the key **Keystore**, and 'xelsysadm' as the username for the key **sysadmin**.

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



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

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



On the Advanced Configuration screen, select:

- Administration Server
- Node Manager
- Topology

Then, click **Next** to continue.

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

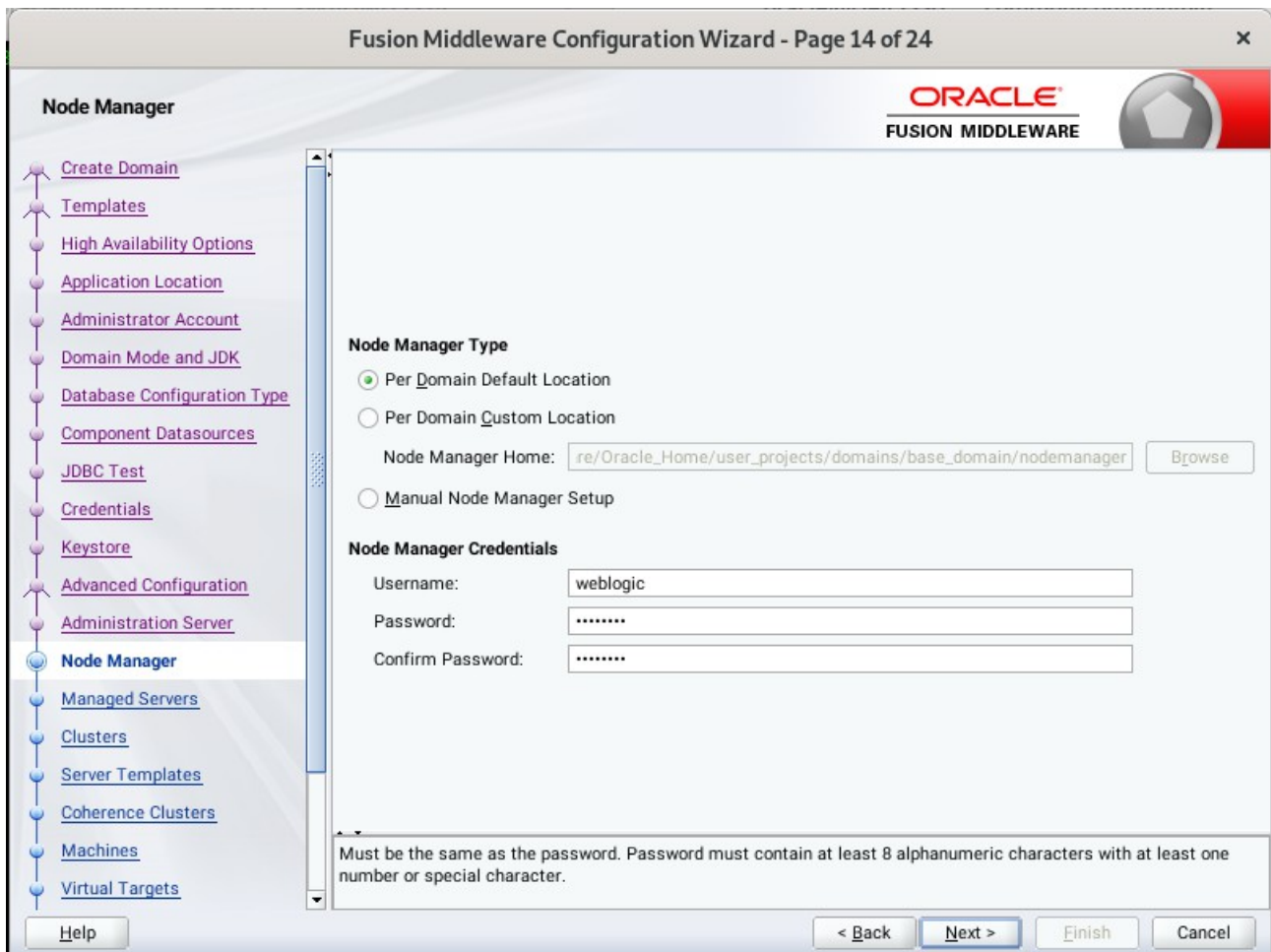
The screenshot shows the 'Administration Server' configuration screen in the Oracle Fusion Middleware Configuration Wizard. The window title is 'Fusion Middleware Configuration Wizard - Page 13 of 24'. The Oracle logo and 'FUSION MIDDLEWARE' text are visible in the top right corner. On the left, a navigation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

- Server Name: AdminServer
- Listen Address: 192.168.1.7 (selected in a dropdown menu)
- Listen Port: 7001
- Enable SSL:
- SSL Listen Port: (empty)
- Server Groups: Unspecified (selected in a dropdown menu)

At the bottom of the main area, a validation message reads: 'The name must not be null or empty and may not contain any : , * ? % / _cloned.' At the bottom of the window, there are four buttons: '< 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.

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



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

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

Fusion Middleware Configuration Wizard - Page 15 of 24

Managed Servers

ORACLE
FUSION MIDDLEWARE

+ Add Clone X Delete Discard Changes

Server Name	Listen Address	Listen Port	Enable SSL	SSL Listen Port	Server Groups
oim_server1	192.168.1.7	14000	<input type="checkbox"/>	Disabled	OIM-MGD-S...
soa_server1	192.168.1.7	7003	<input type="checkbox"/>	Disabled	SOA-MGD-...

Help < Back Next > Finish Cancel

On the **Managed Servers** screen, new Managed Servers named: *oim_server1* and *soa_server1* are automatically created. In the **Listen Address** drop-down list, select the IP address of the host on which the Managed Server will reside or use the system name or DNS name that maps to a single IP address. The default **Server Groups** have already been selected for each server. Click **Next** to continue.

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

Fusion Middleware Configuration Wizard - Page 16 of 26

Clusters

ORACLE
FUSION MIDDLEWARE

+ Add X Delete Disgard Changes

Cluster Name	Cluster Address	Frontend Host	Frontend HTTP Port	Frontend HTTPS Port
oim_cluster_1			0	0
soa_cluster_1			0	0

Help < Back Next > Finish Cancel

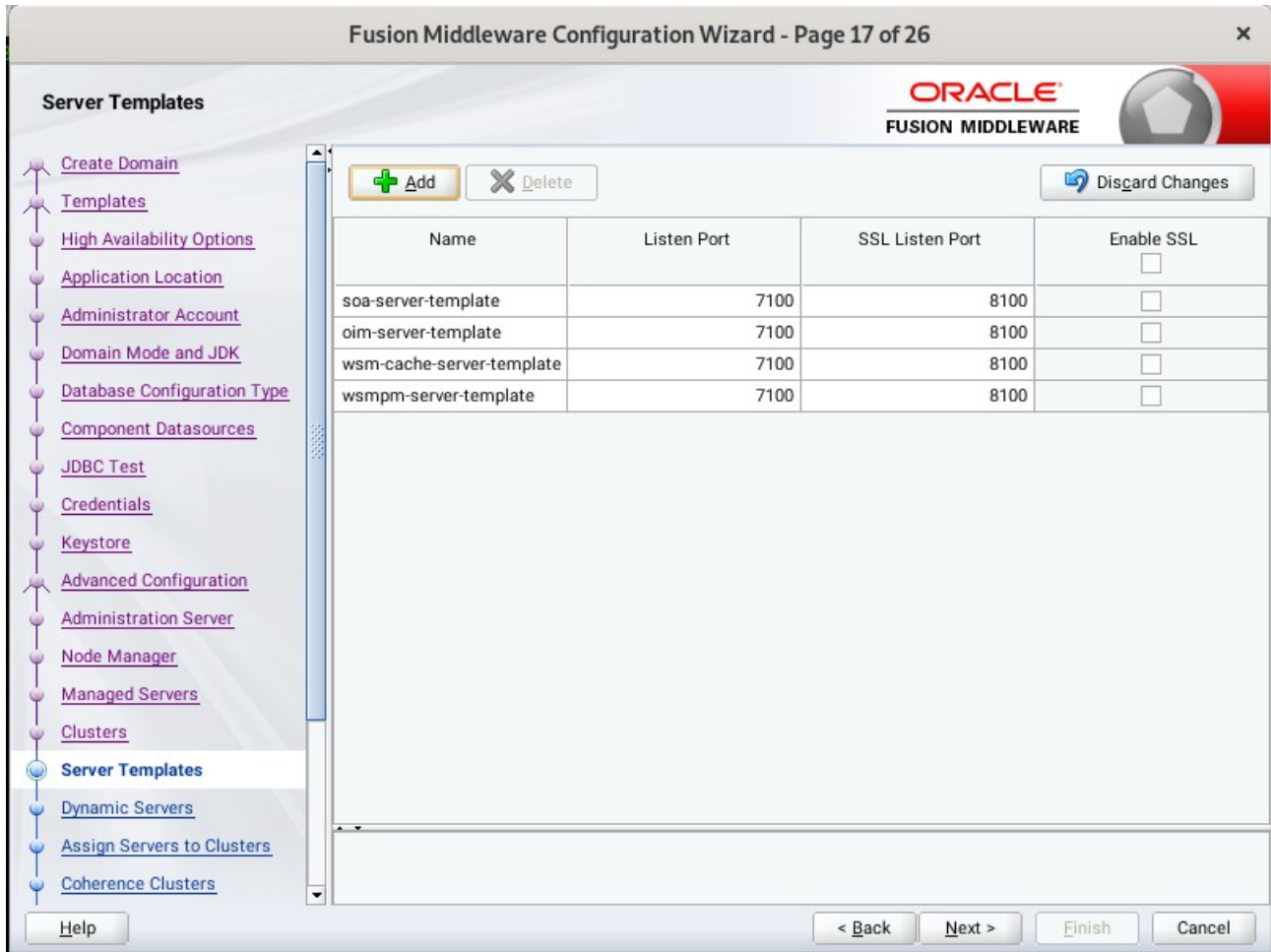
On the Clusters screen:

1. Click **Add**.
2. Specify *oim_cluster_1* in the Cluster Name field.
3. Leave the Cluster Address field blank.
4. Repeat these steps to create *soa_cluster_1* cluster.

Click **Next** to continue.

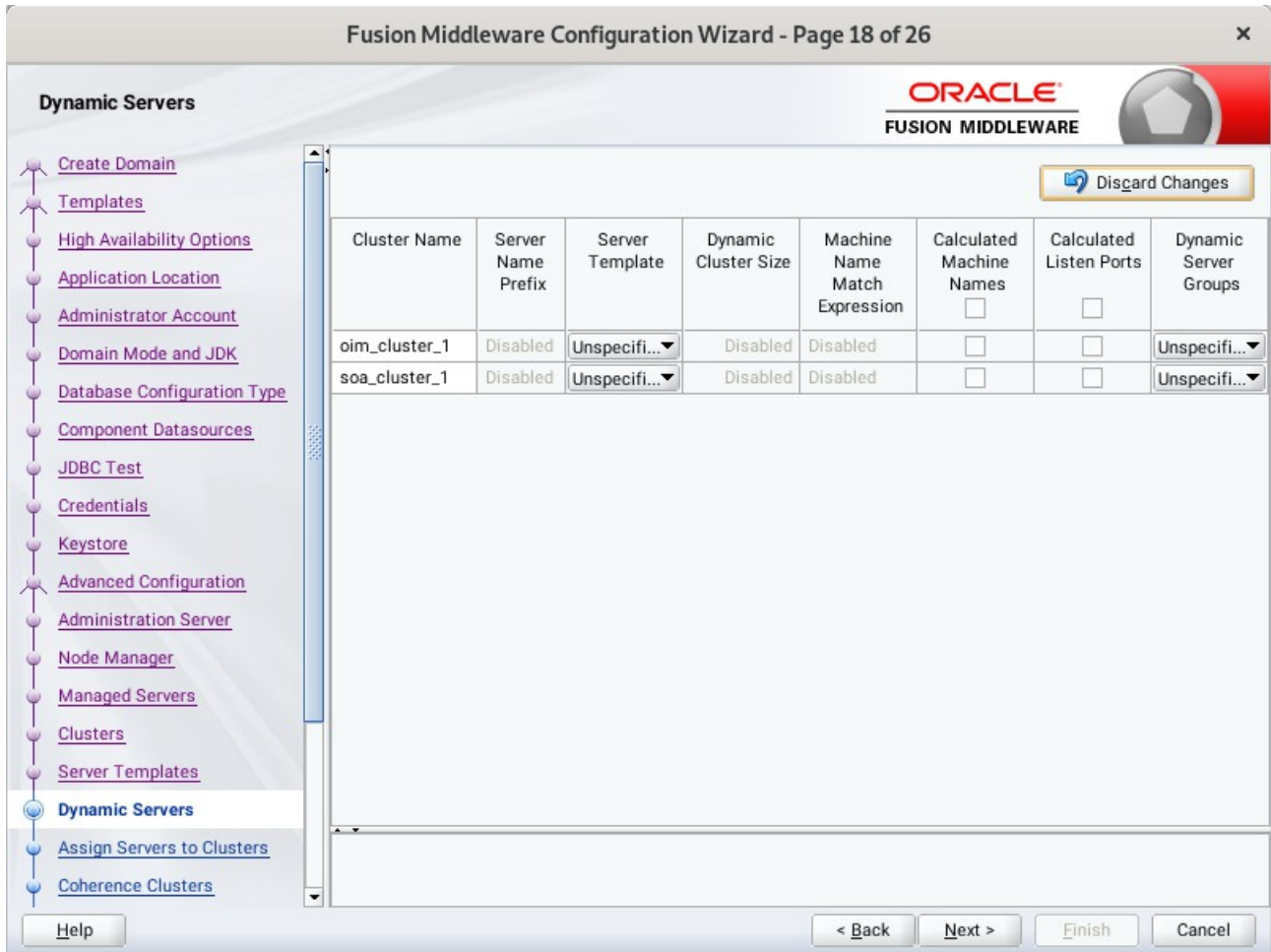
(Note: If you are configuring a non-clustered setup on a single node, skip this screen.)

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



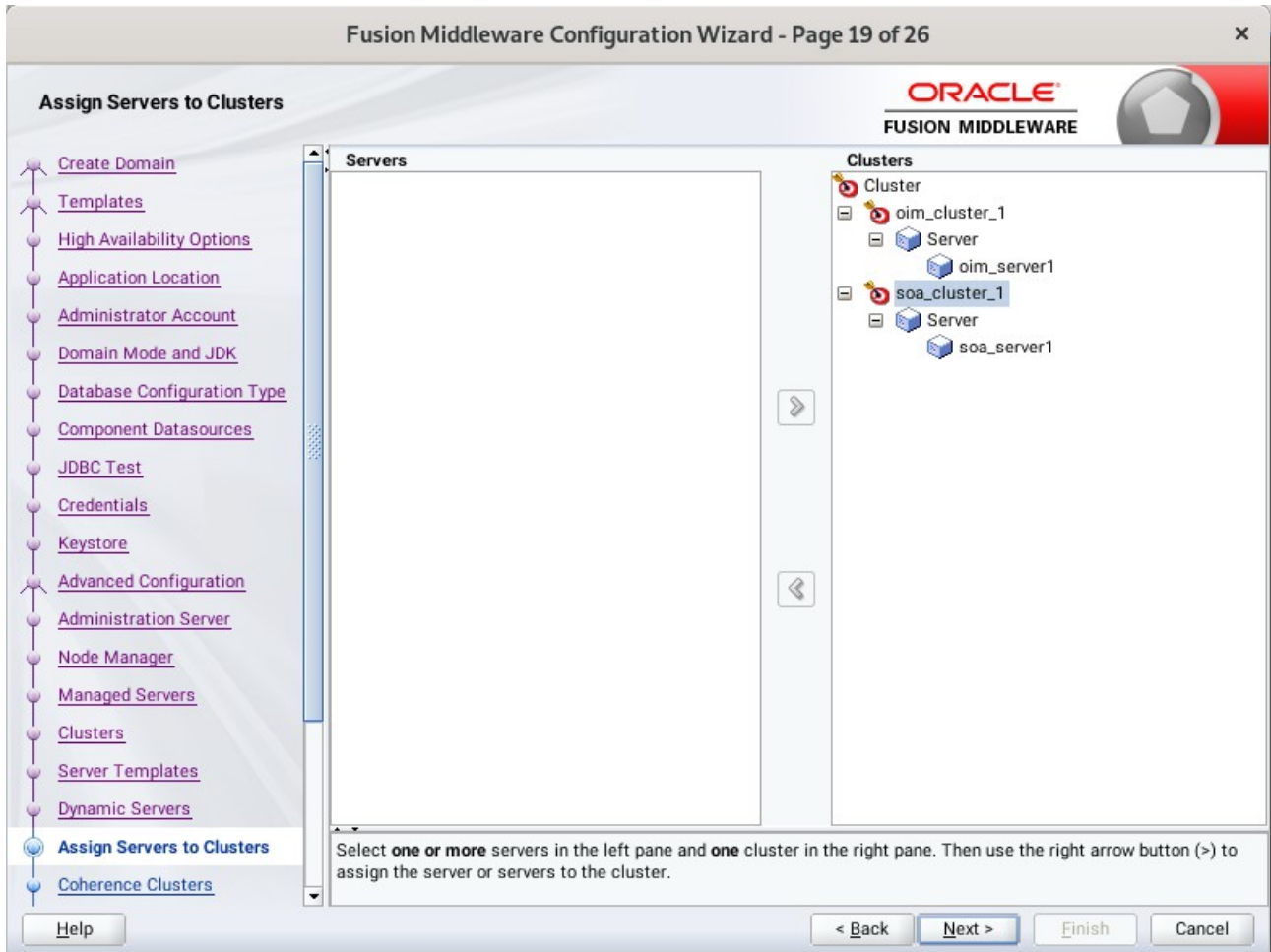
If you are creating dynamic clusters for a high availability setup, use the Server Templates screen to define one or more server templates for domain. To continue configuring the domain, click **Next**.

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



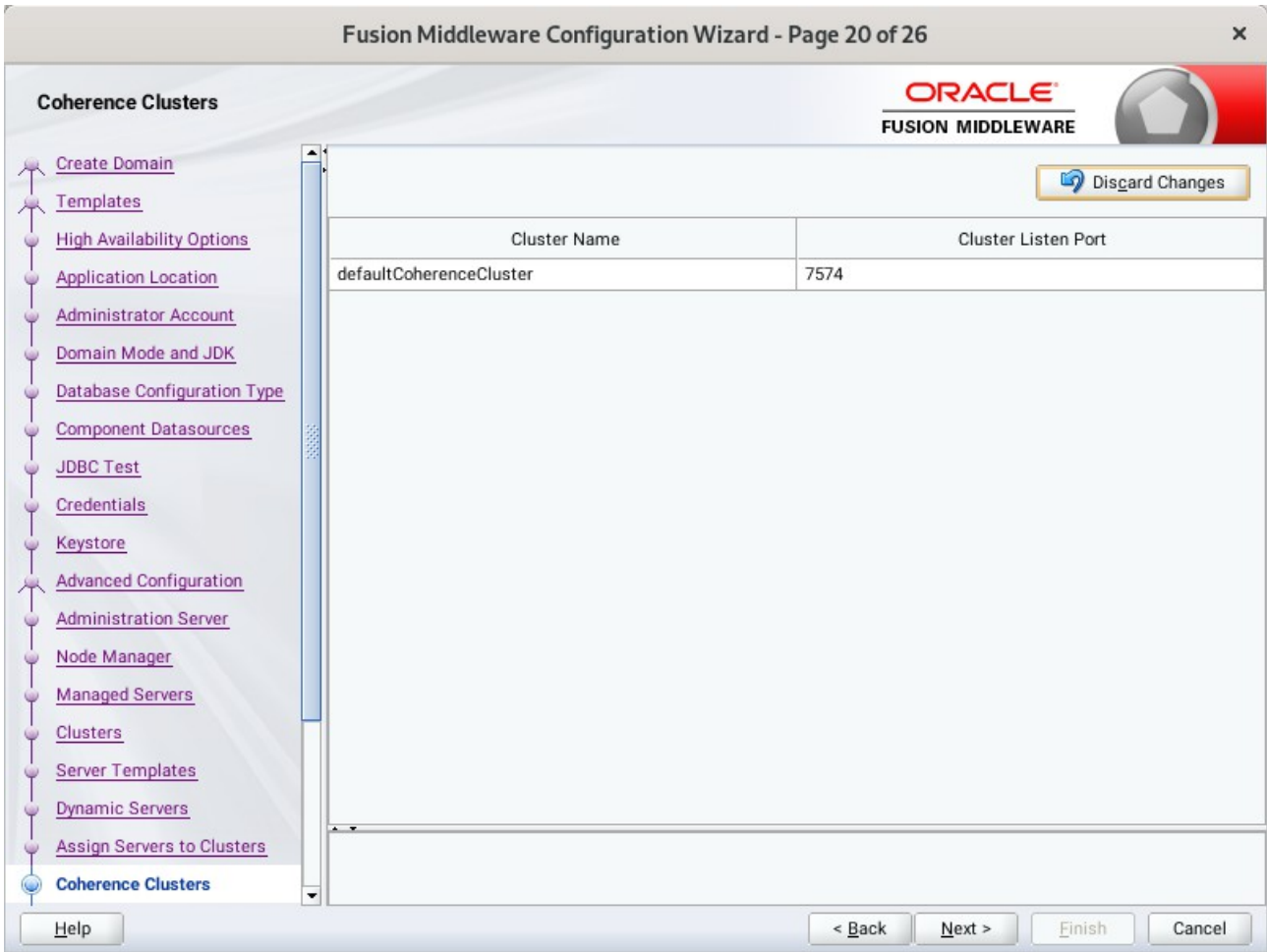
If you are creating dynamic clusters for a high availability setup, use the Dynamic Servers screen to configure the dynamic servers. If you are not configuring a dynamic cluster, click **Next** to continue configuring the domain.

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



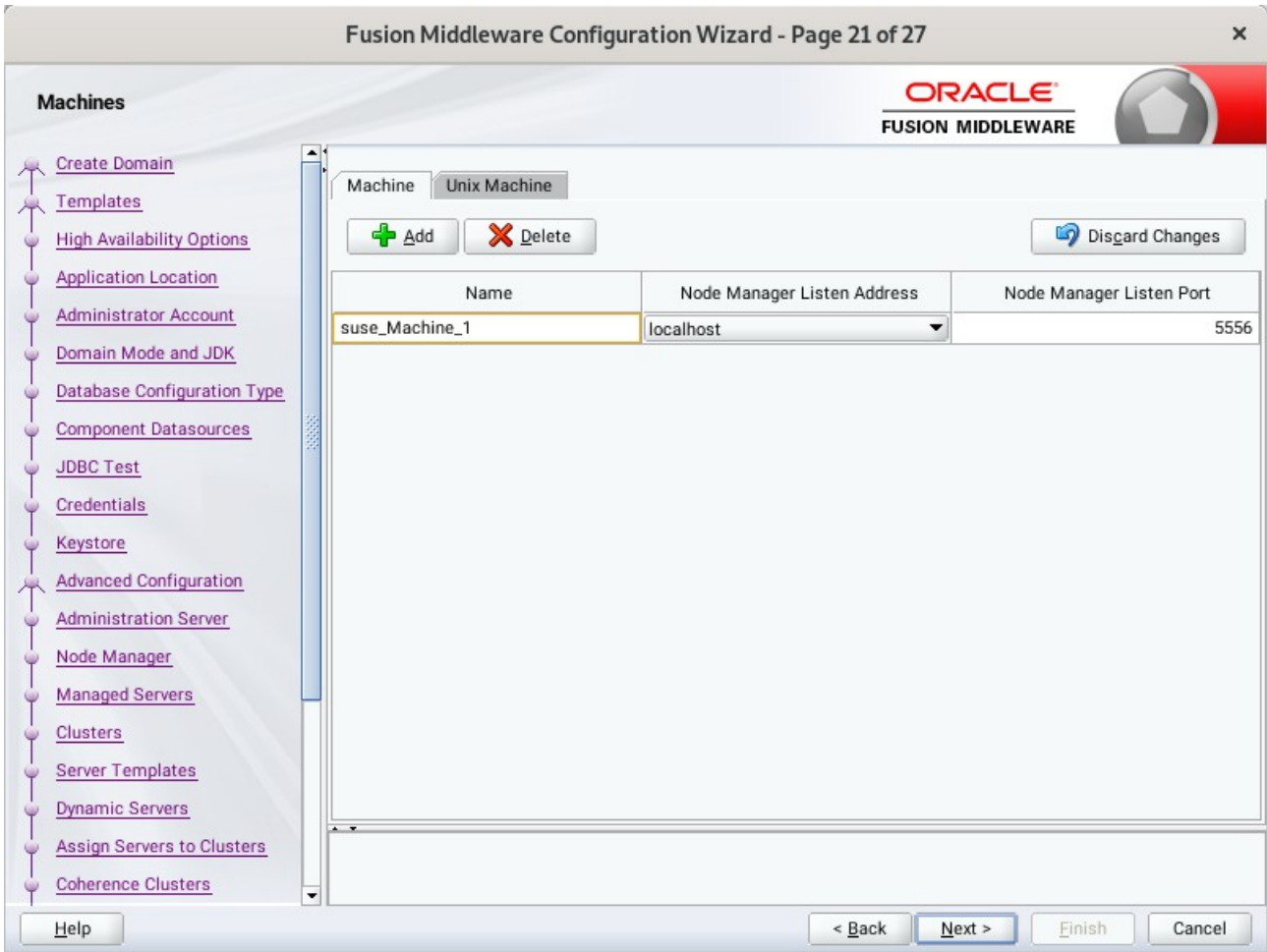
Use the **Assign Servers to Clusters** screen to assign Managed Servers to a new configured cluster. Click **Next** to continue.

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



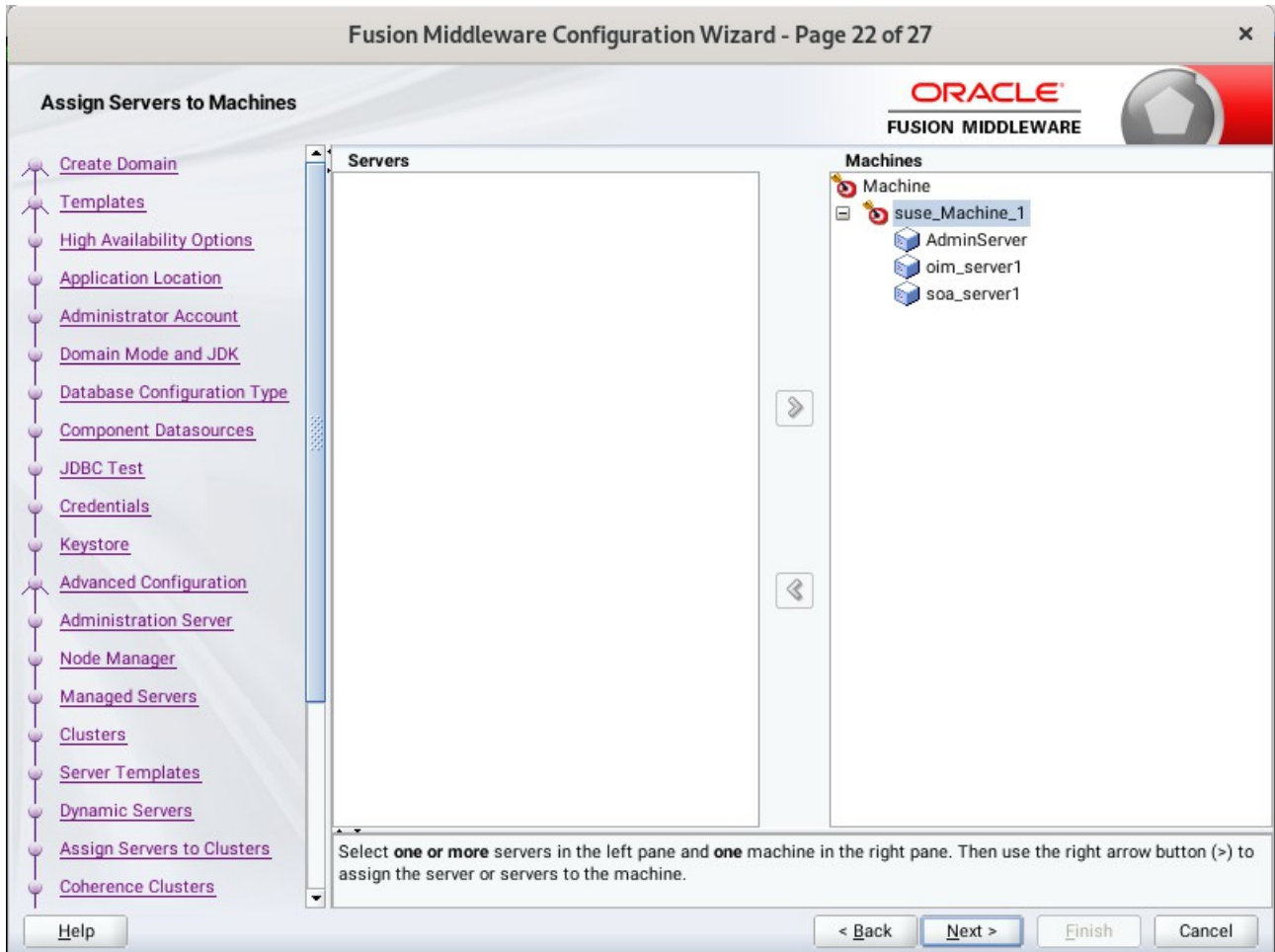
Leave the default port number as the Coherence cluster listen port. After configuration, the Coherence cluster is automatically added to the domain. Click **Next** to continue.

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



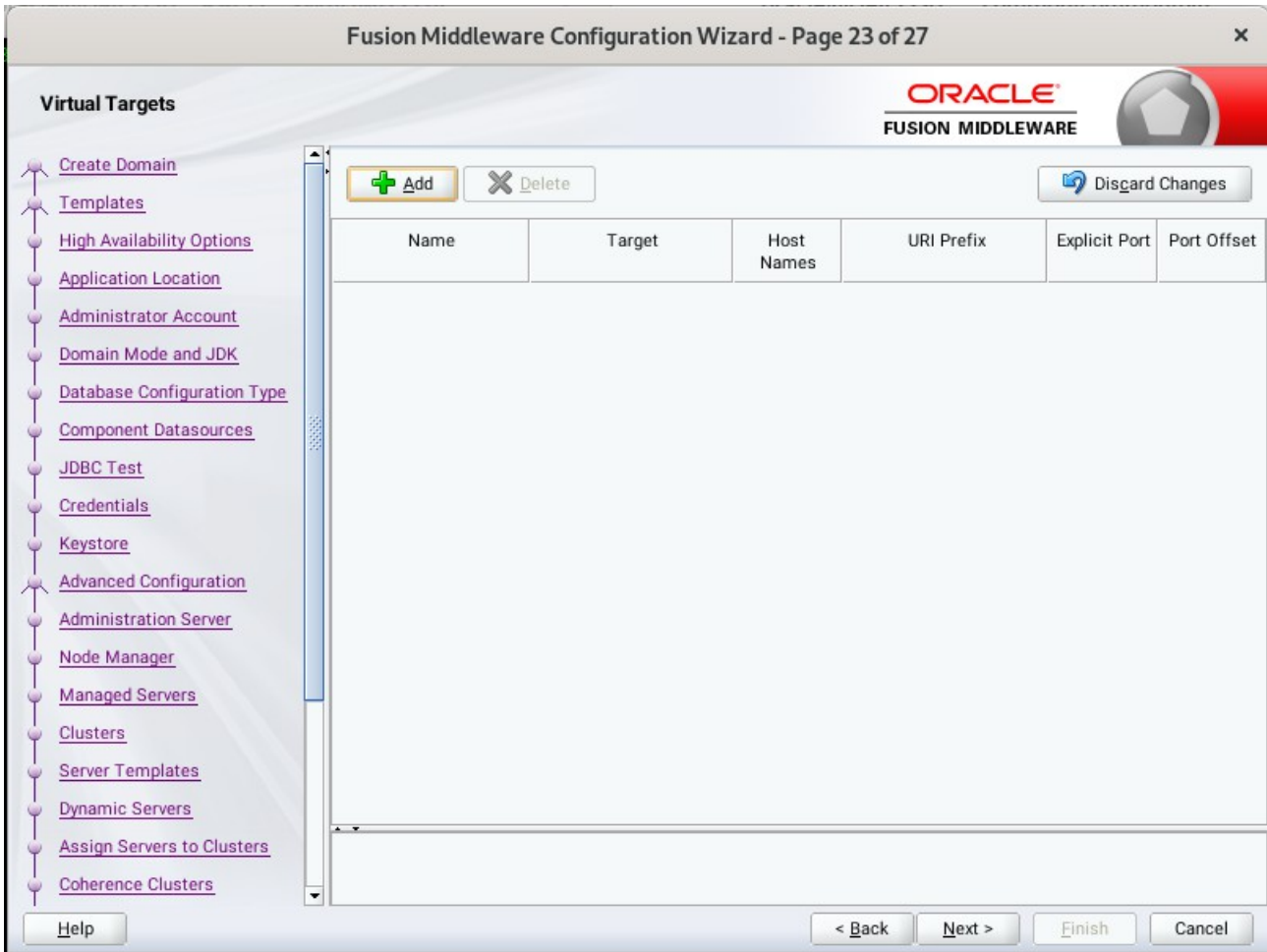
To create a new machine so that Node Manager can start and stop servers. Click **Next** to continue.

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



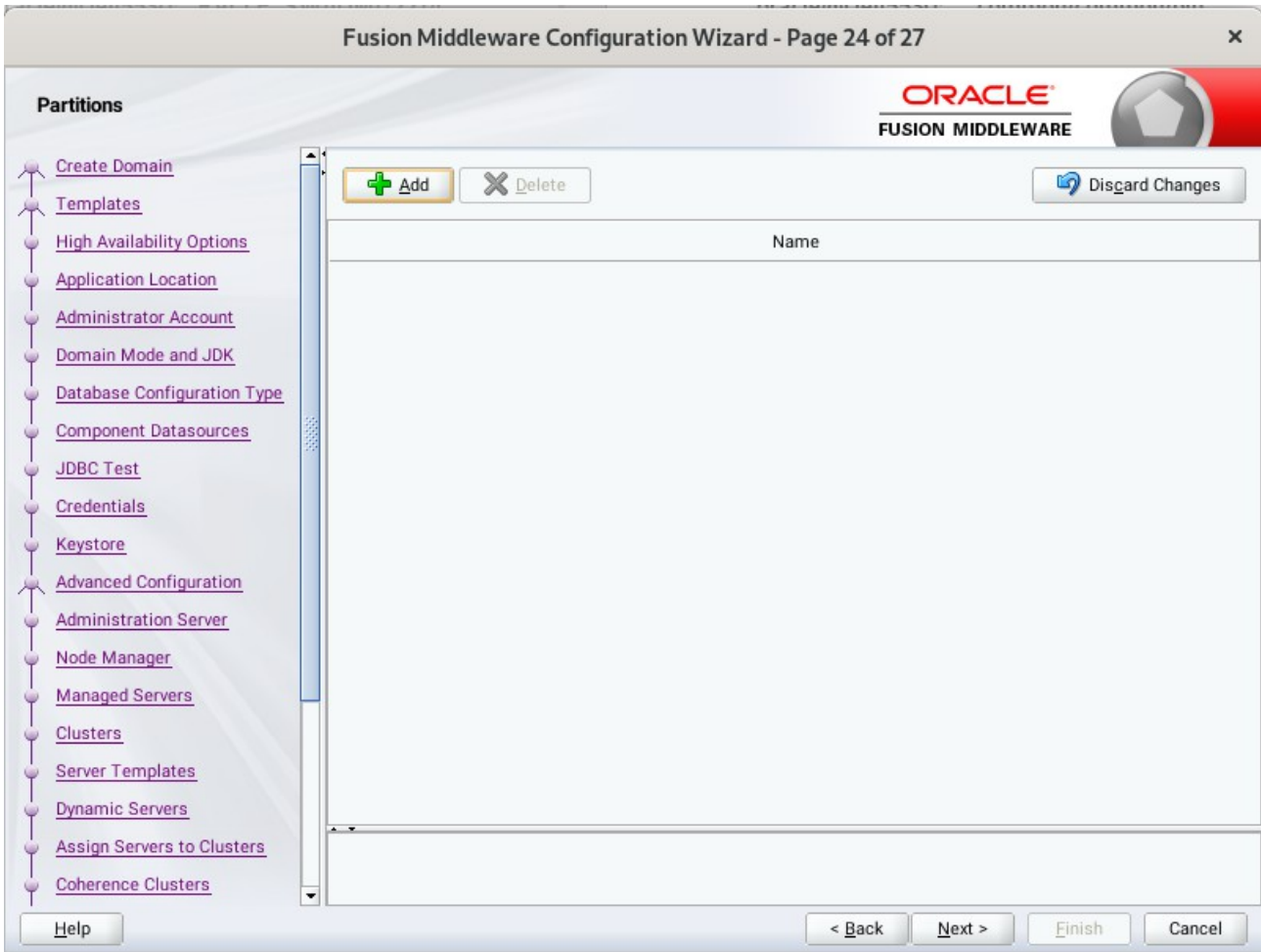
Use the **Assign Servers to Machines** screen to assign the Managed Servers to the new machine you just created. Click **Next** to continue.

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



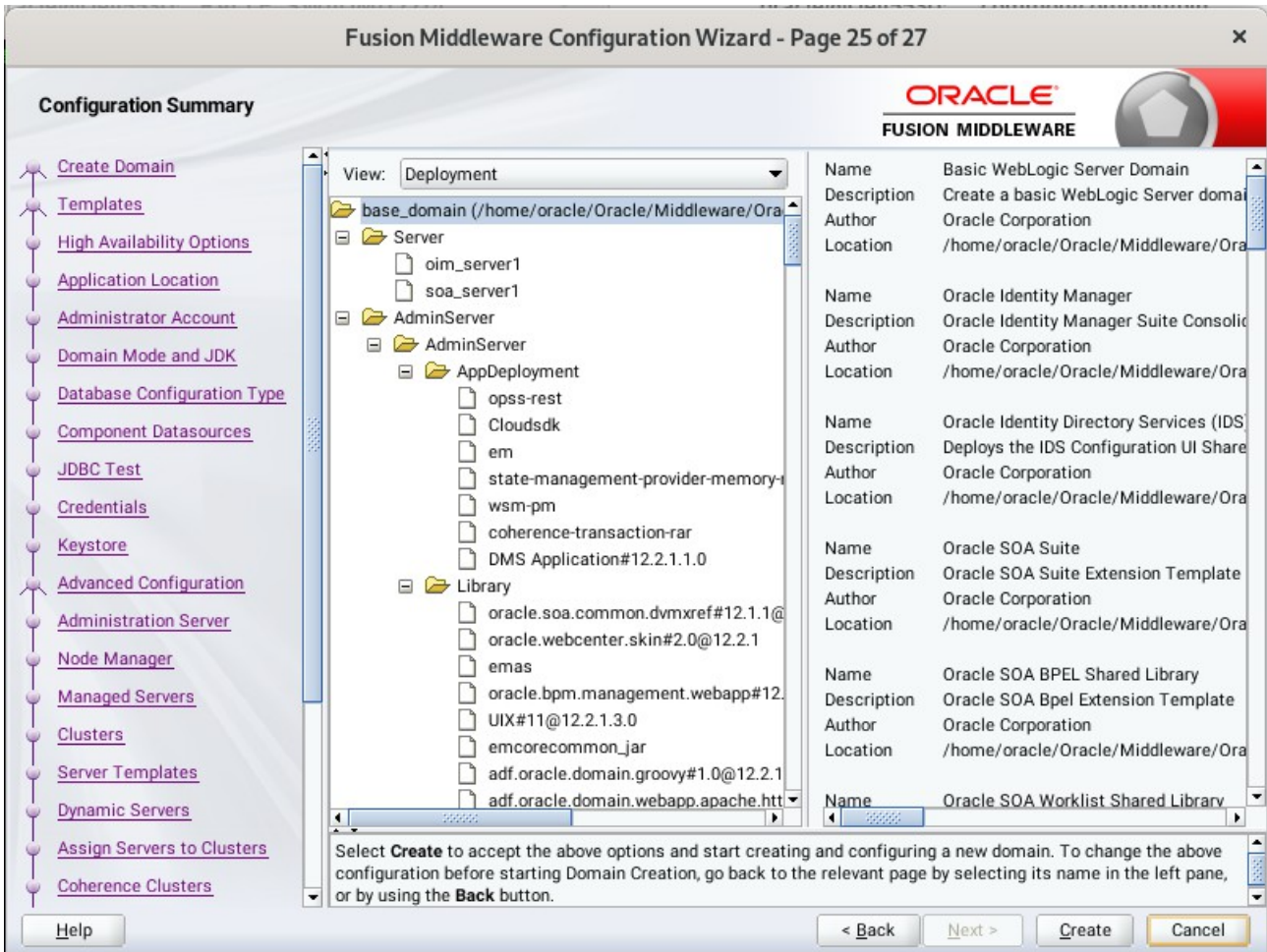
If you have a WebLogic Server Multitenant (MT) environment, you use the Virtual Targets screen to add or delete virtual targets. For this installation (not a WebLogic Server MT environment), you do not enter any values; just select **Next**.

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



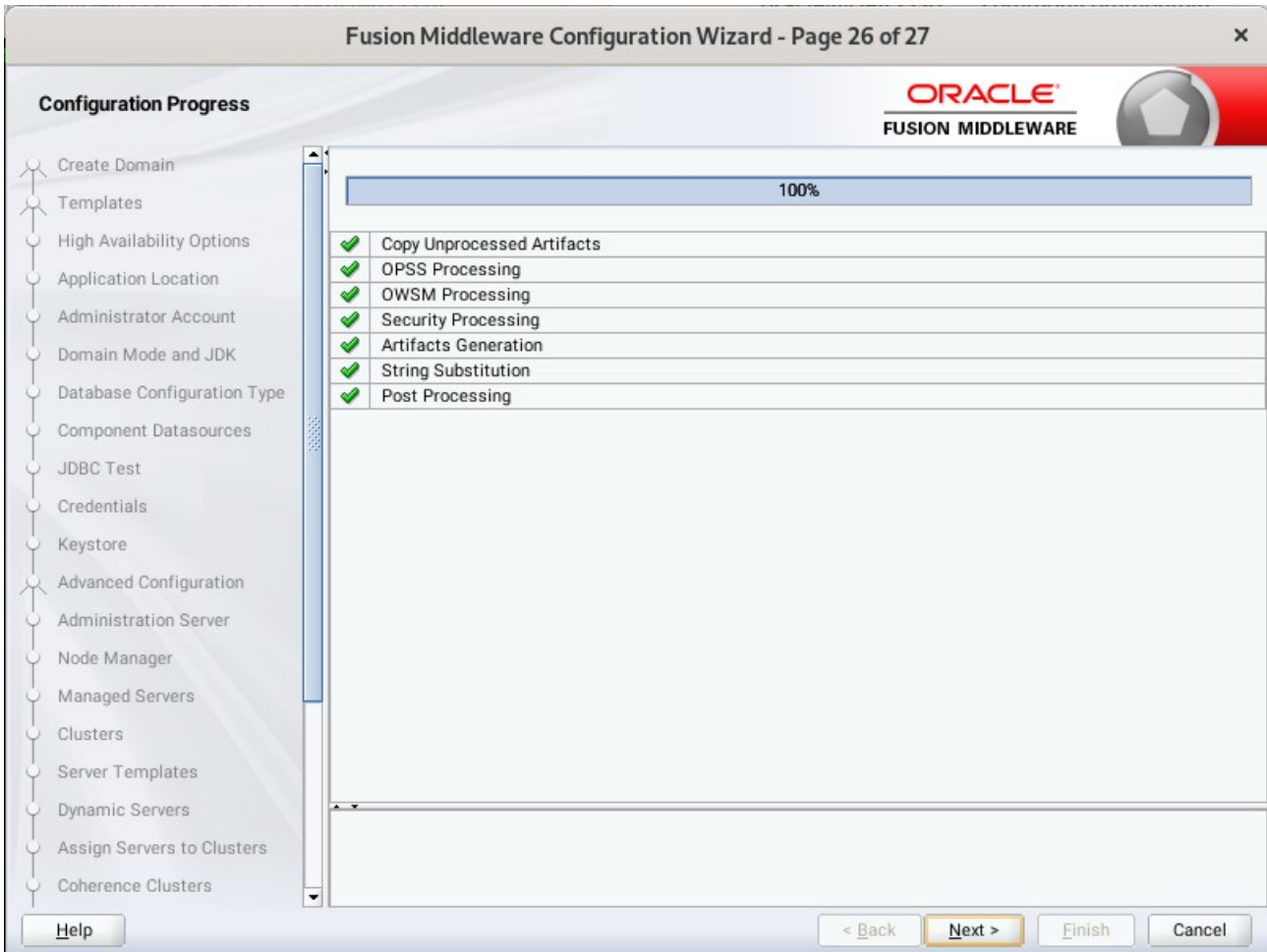
The Partitions screen is used to configure partitions for virtual targets in WebLogic Server Multitenant (MT) environments. Select **Next** without selecting any options.

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



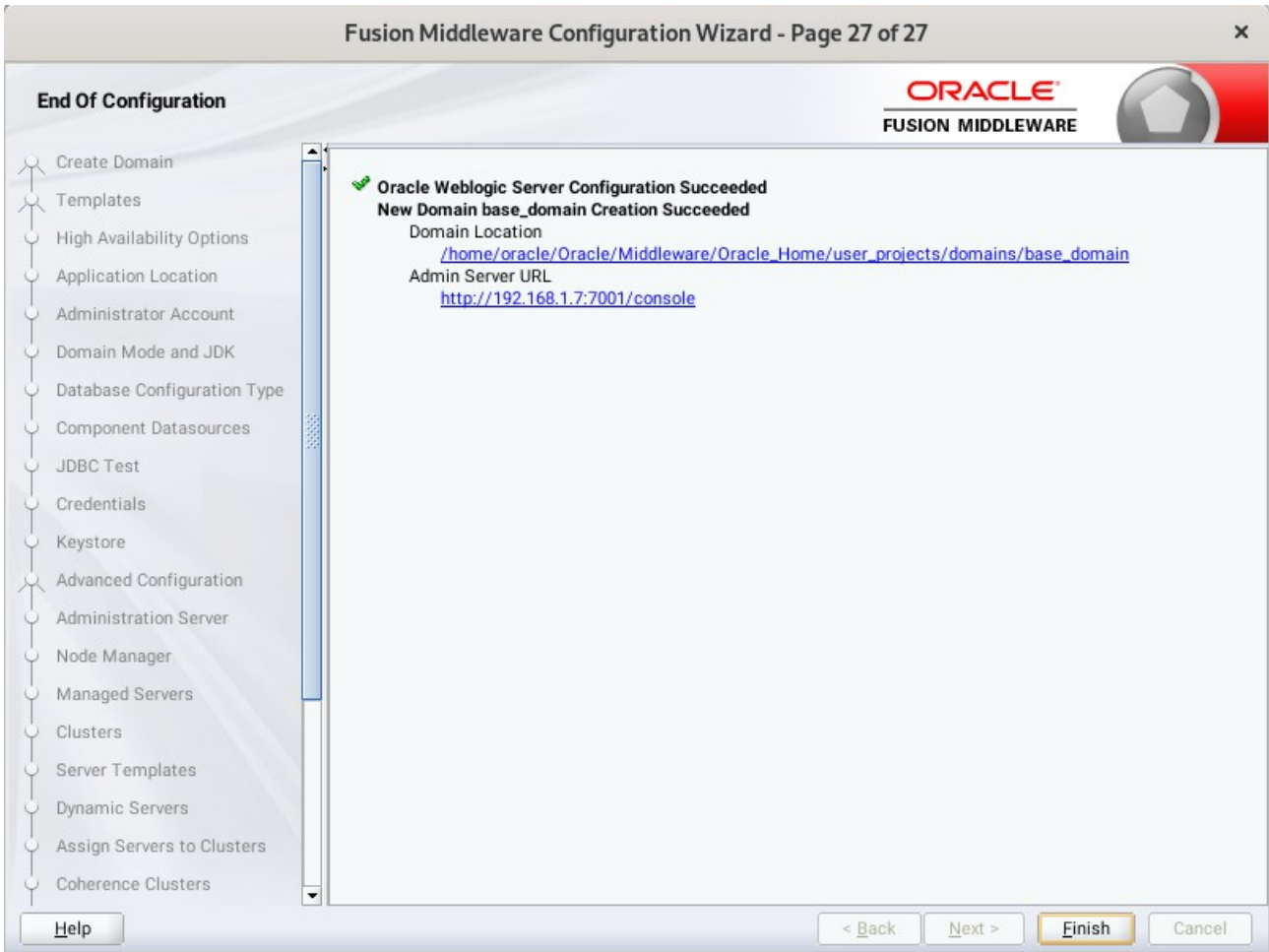
Select **Create** to accept the above options and start creating and configuring a new domain.

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



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

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



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

2-3. Performing Post-Configuration Tasks

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

1). Running the Offline Configuration Command.

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

- Set the following environment variables to the right values.

```
DOMAIN_HOME
JAVA_HOME
```

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

```
./setDomainEnv.sh
```

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

```
./offlineConfigManager.sh
```

```

oracle@Dell5530:~/Oracle/Middleware/Oracle_Home/idm/server/bin> export DOMAIN_HOME=/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/
oracle@Dell5530:~/Oracle/Middleware/Oracle_Home/idm/server/bin> export JAVA_HOME=/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:~/Oracle/Middleware/Oracle_Home/idm/server/bin> chmod +x ./offlineConfigManager.sh
oracle@Dell5530:~/Oracle/Middleware/Oracle_Home/idm/server/bin> ./offlineConfigManager.sh

```



```

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

Successfully configured property "keystore.type".

Successfully configured property "location".

Successfully configured property "keystore.sig.csf.key".

Successfully configured property "keystore.enc.csf.key".

```

```

Jul 20, 2020 11:20:24 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.
<Jul 20, 2020 11:20:24,853 PM GMT+08:00> <Info> <oracle.iam.OIMPostConfigManager> <BEA-000000> <Exiting updateJPSConfigXMLForWLS() method of JPSConfigXMLUpdate class>
Jul 20, 2020 11:20:24 PM oracle.iam.OIMPostConfigManager.config.util.JPSConfigXMLUpdate updateJPSConfigXMLForWLS
INFO: Exiting updateJPSConfigXMLForWLS() method of JPSConfigXMLUpdate class
<Jul 20, 2020 11:20:24,853 PM GMT+08:00> <Info> <oracle.iam.OIMPostConfigManager> <BEA-000000> <Updated jps-config-jse.xml Details.>
Jul 20, 2020 11:20:24 PM oracle.iam.OIMPostConfigManager.config.OIMConfigManager updateJPSConfig
INFO:
Updated jps-config-jse.xml Details.
<Jul 20, 2020 11:20:24,854 PM GMT+08:00> <Info> <oracle.iam.OIMPostConfigManager> <BEA-000000> <Exiting updateJPSConfig() method of OIMConfigManager class>
Jul 20, 2020 11:20:24 PM oracle.iam.OIMPostConfigManager.config.OIMConfigManager updateJPSConfig
INFO: Exiting updateJPSConfig() method of OIMConfigManager class
<Jul 20, 2020 11:20:24,855 PM GMT+08:00> <Info> <oracle.iam.OIMPostConfigManager> <BEA-000000> <[OIM_CONFIG] Copying the mbean Files>
Jul 20, 2020 11:20:24 PM oracle.iam.OIMPostConfigManager.config.OIMConfigManager copyMbeanFiles
INFO:
[OIM_CONFIG] Copying the mbean Files
<Jul 20, 2020 11:20:24,855 PM GMT+08:00> <Info> <oracle.iam.OIMPostConfigManager> <BEA-000000> <Entering copyMbeanFiles() method of OIMConfigManager class>
Jul 20, 2020 11:20:24 PM oracle.iam.OIMPostConfigManager.config.OIMConfigManager copyMbeanFiles
INFO: Entering copyMbeanFiles() method of OIMConfigManager class
<Jul 20, 2020 11:20:24,855 PM GMT+08:00> <Info> <oracle.iam.OIMPostConfigManager> <BEA-000000> <Copying mbean files are successful>
Jul 20, 2020 11:20:24 PM oracle.iam.OIMPostConfigManager.config.OIMConfigManager copyMbeanFiles
INFO:
Copying mbean files are successful
<Jul 20, 2020 11:20:24,856 PM GMT+08:00> <Info> <oracle.iam.OIMPostConfigManager> <BEA-000000> <Exiting copyMbeanFiles() method of OIMConfigManager class>
Jul 20, 2020 11:20:24 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> nohup ./startNodeManager.sh > nm.out&
[1] 10790
oracle@Dell5530:~/base_domain/bin> 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/modules/features/oracle.wls.common.nodemanager.jar:/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
<Jul 20, 2020 11:22:49 PM GMT+08:00> <INFO> <Loading domains file: /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.domains>
<Jul 20, 2020 11:22:49 PM GMT+08:00> <INFO> <Upgrade> <Setting NodeManager properties version to 12.2.1.4.0>
<Jul 20, 2020 11:22:49 PM GMT+08:00> <INFO> <Upgrade> <Saving upgraded NodeManager properties to '/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.properties'>
<Jul 20, 2020 11:22:49 PM GMT+08:00> <INFO> <Loading domains file: /home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.domains>
<Jul 20, 2020 11:22:49 PM GMT+08:00> <INFO> <Loading identity key store: FileName=kss://system/demoidentity, Type=kss, PassPhraseUsed=true>
Jul 20, 2020 11:22:49 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
Jul 20, 2020 11:22:50 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.
<Jul 20, 2020 11:22:50 PM GMT+08:00> <INFO> <Loaded NodeManager configuration properties from '/home/oracle/Oracle/Middleware/Oracle_Home/user_projects/domains/base_domain/nodemanager/nodemanager.properties'>

```

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

```

oracle@Dell5530:...ns/base_domain/bin
oracle@Dell5530:... x oracle@Dell5530:... x oracle@Dell5530:... x oracle@Dell5530:... x oracle@Dell5530:... x
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/disc
overtargets, /em/cabo/.*, /em/console/help.*, /em/console/logon/.*, /em/consoleStatus.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/helppag
es/.*, /em/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/discovertargets, /em/public/.*, /em/public_lib_download/.*, /em/redirect.*, /em/relocatetarget.*, /em/sdkImpl/core/u
ifwkmobile/skins/.*, /em/servlet/GaugeServlet.*, /em/servlet/GraphServlet.*, /em/swlib/getfile, /em/VncViewer.jar, /em/websvcs.
.*, /em/jobrecv.*]
<Jul 20, 2020 11:28:35,926 PM GMT+08:00> <Warning> <oracle.adfinternal.view.faces.partition.FeatureUtils> <ADF_FACES-30130> <I
gnoring feature-dependency on feature "AdfUIChoose". No such feature exists.>
<Jul 20, 2020 11:28:36,985 PM GMT+08:00> <Warning> <oracle.security.opss.internal.runtime.ServiceContextManagerImpl> <BEA-0000
00> <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.>
<Jul 20, 2020 11:28:37,366 PM GMT+08:00> <Warning> <oracle.dms.instrument> <DMS-50763> <Attempt to create pre-existing noun /b
ase_domain/AdminServer/em, of type wls_jaxrsapp_resources, with a conflicting type wls_ear.>
<Jul 20, 2020 11:28:37,642 PM GMT+08:00> <Notice> <Log Management> <BEA-170027> <The server has successfully established a con
nection with the Domain level Diagnostic Service.>
<Jul 20, 2020 11:28:38,234 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to ADMIN.>
<Jul 20, 2020 11:28:38,258 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to RESUMING.>
<Jul 20, 2020 11:28:38,258 PM GMT+08:00> <Notice> <JMX> <BEA-149535> <JMX Resiliency Activity Server=All Servers : Resolving c
onnection list DomainRuntimeServiceMBean>
<Jul 20, 2020 11:28:45,225 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000329> <Started the WebLogic Server Administration Se
rver "AdminServer" for domain "base_domain" running in production mode.>
<Jul 20, 2020 11:28:45,225 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default" is now listening on 192.168.1.7:700
1 for protocols iiop, t3, ldap, snmp, http.>
<Jul 20, 2020 11:28:45,225 PM GMT+08:00> <Notice> <Server> <BEA-002613> <Channel "Default" is now listening on 192.168.1.7:700
1 for protocols iiop, t3, ldap, snmp, http.>
<Jul 20, 2020 11:28:45,226 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000360> <The server started in RUNNING mode.>
<Jul 20, 2020 11:28:45,271 PM GMT+08:00> <Notice> <WebLogicServer> <BEA-000365> <Server state changed to RUNNING.>

```

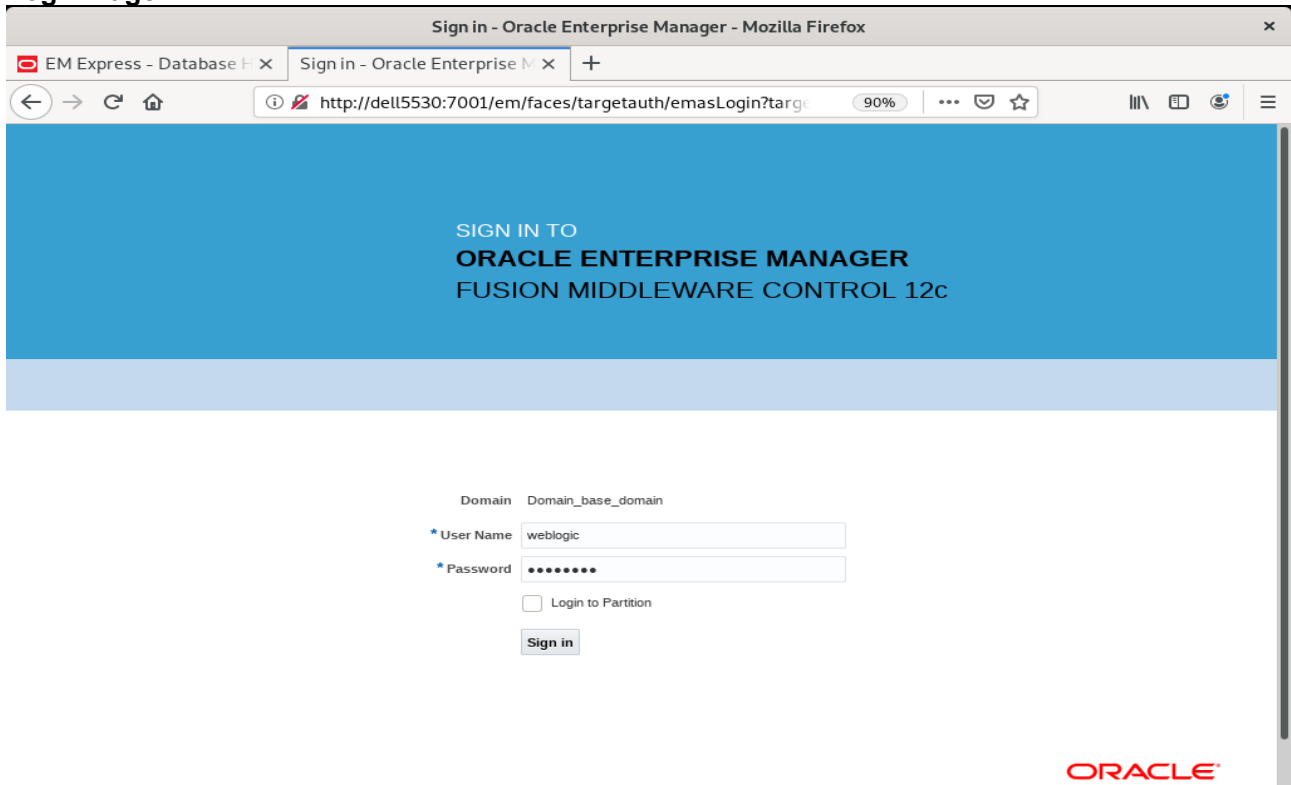
You know that the administrator server is running when you see the following output:

Server state changed to RUNNING.

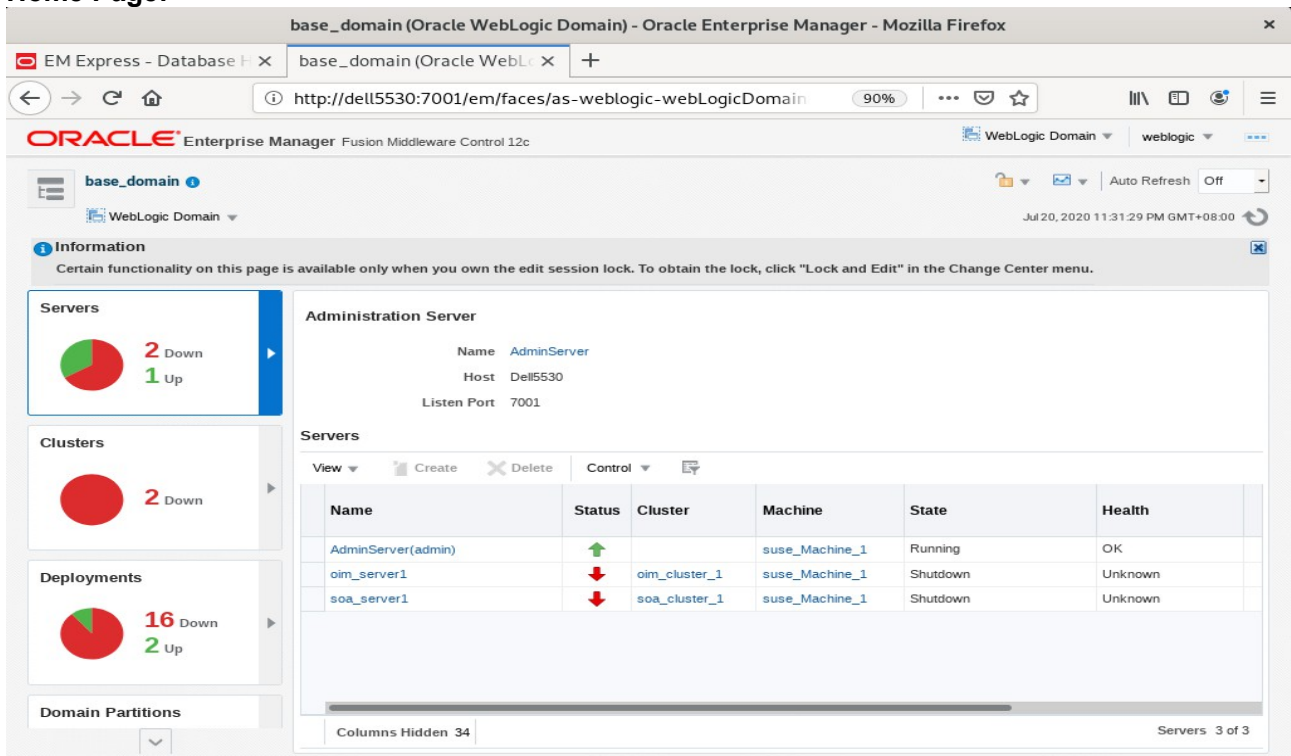
3-3. Checking Oracle Identity and Access Management 12c Product URLs.

1). Access to Enterprise Manager Console.

Login Page:



Home Page:



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

base_domain (Oracle WebLogic Domain) - Oracle Enterprise Manager - Mozilla Firefox

EM Express - Database H X base_domain (Oracle WebL X +

http://dell5530:7001/em/faces/as-weblogic-webLogicDomain 90%

ORACLE Enterprise Manager Fusion Middleware Control 12c WebLogic Domain weblogic

base_domain WebLogic Domain Jul 20, 2020 11:37:10 PM GMT+08:00

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

Servers
1 Down
2 Up

Administration Server
Name AdminServer
Host Dell5530
Listen Port 7001

Servers
View Create Delete Control

Name	Status	Cluster	Machine	State	Health
AdminServer(admin)	↑		suse_Machine_1	Running	OK
oim_server1	↓	oim_cluster_1	suse_Machine_1	Shutdown	Unknown
soa_server1	↑	soa_cluster_1	suse_Machine_1	Running	OK

Columns Hidden 34 Servers 3 of 3

http://dell5530:7001/em/faces/as...Domain_base_domain/base_domain#

base_domain (Oracle WebLogic Domain) - Oracle Enterprise Manager - Mozilla Firefox

EM Express - Database H X base_domain (Oracle WebL X +

http://dell5530:7001/em/faces/as-weblogic-webLogicDomain 90%

ORACLE Enterprise Manager Fusion Middleware Control 12c WebLogic Domain weblogic

base_domain WebLogic Domain Jul 20, 2020 11:52:28 PM GMT+08:00

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

Servers
3 Up

Administration Server
Name AdminServer
Host Dell5530
Listen Port 7001

Servers
View Create Delete Control

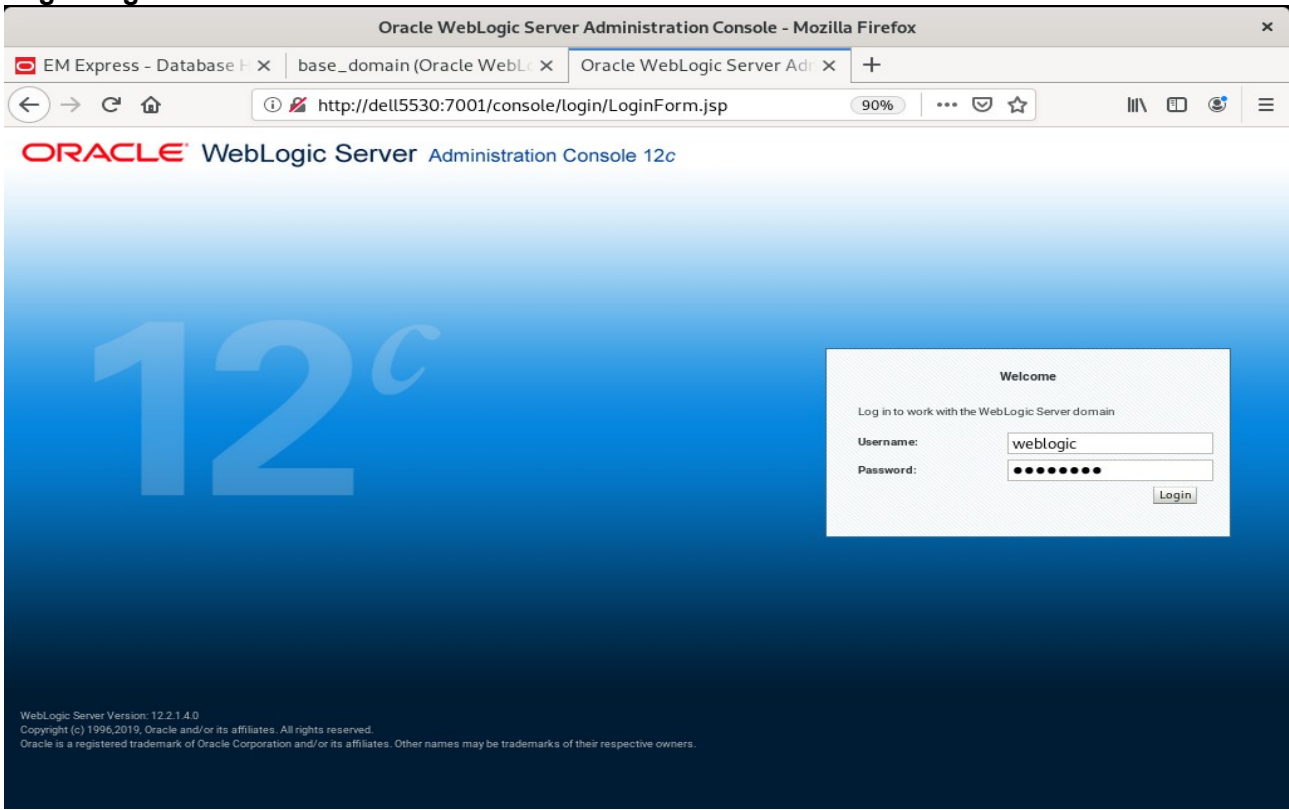
Name	Status	Cluster	Machine	State	Health
AdminServer(admin)	↑		suse_Machine_1	Running	OK
oim_server1	↑	oim_cluster_1	suse_Machine_1	Running	OK
soa_server1	↑	soa_cluster_1	suse_Machine_1	Running	OK

Columns Hidden 34 Servers 3 of 3

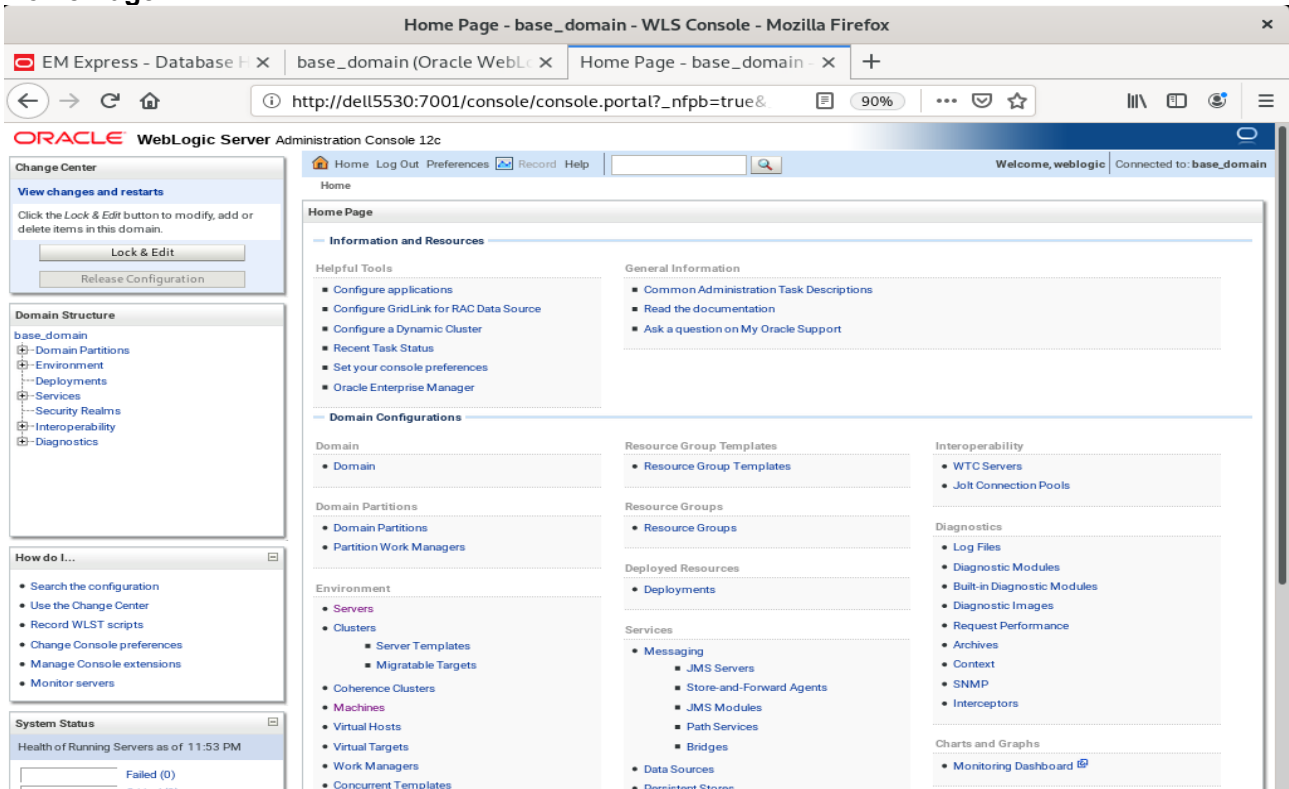
After they start up successfully, each managed server is listed as Running.

2). Access to Administration Server Console

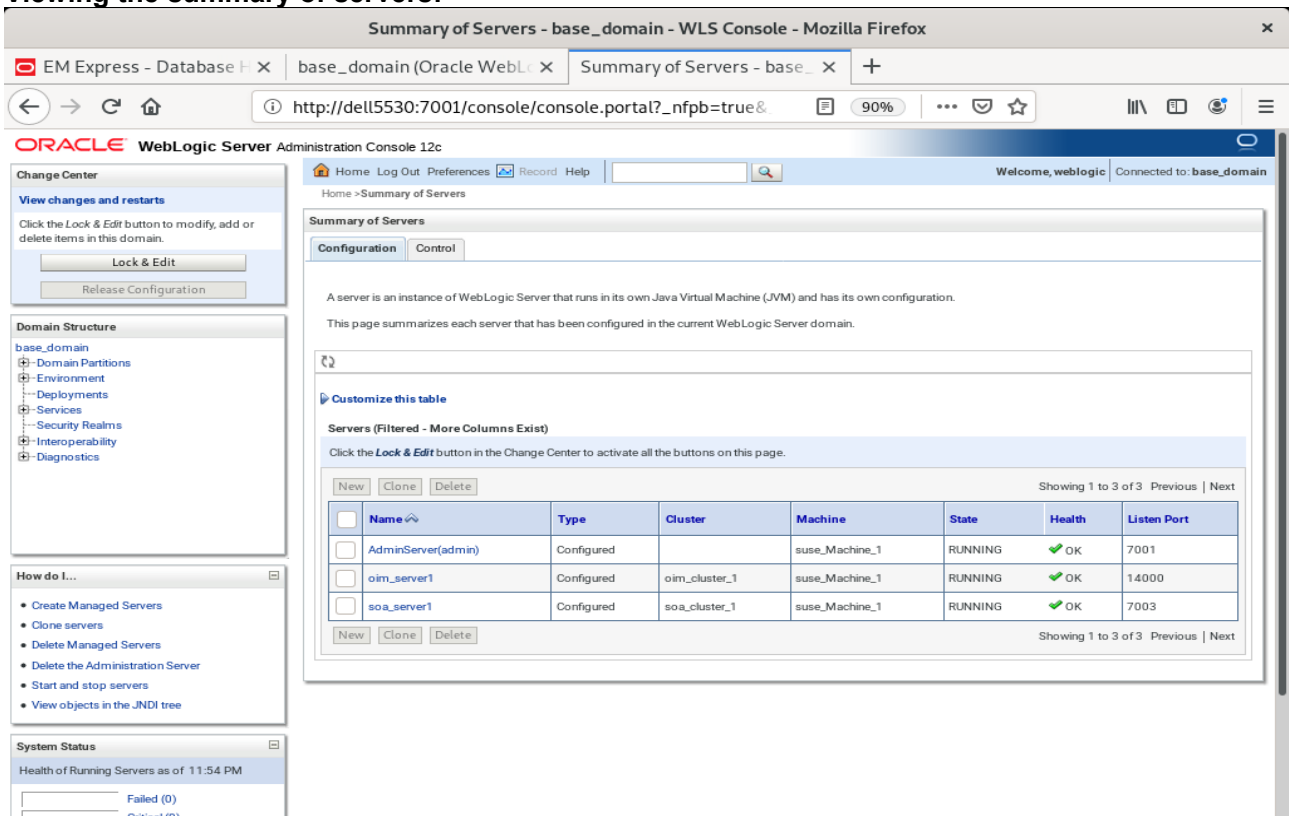
Login Page:



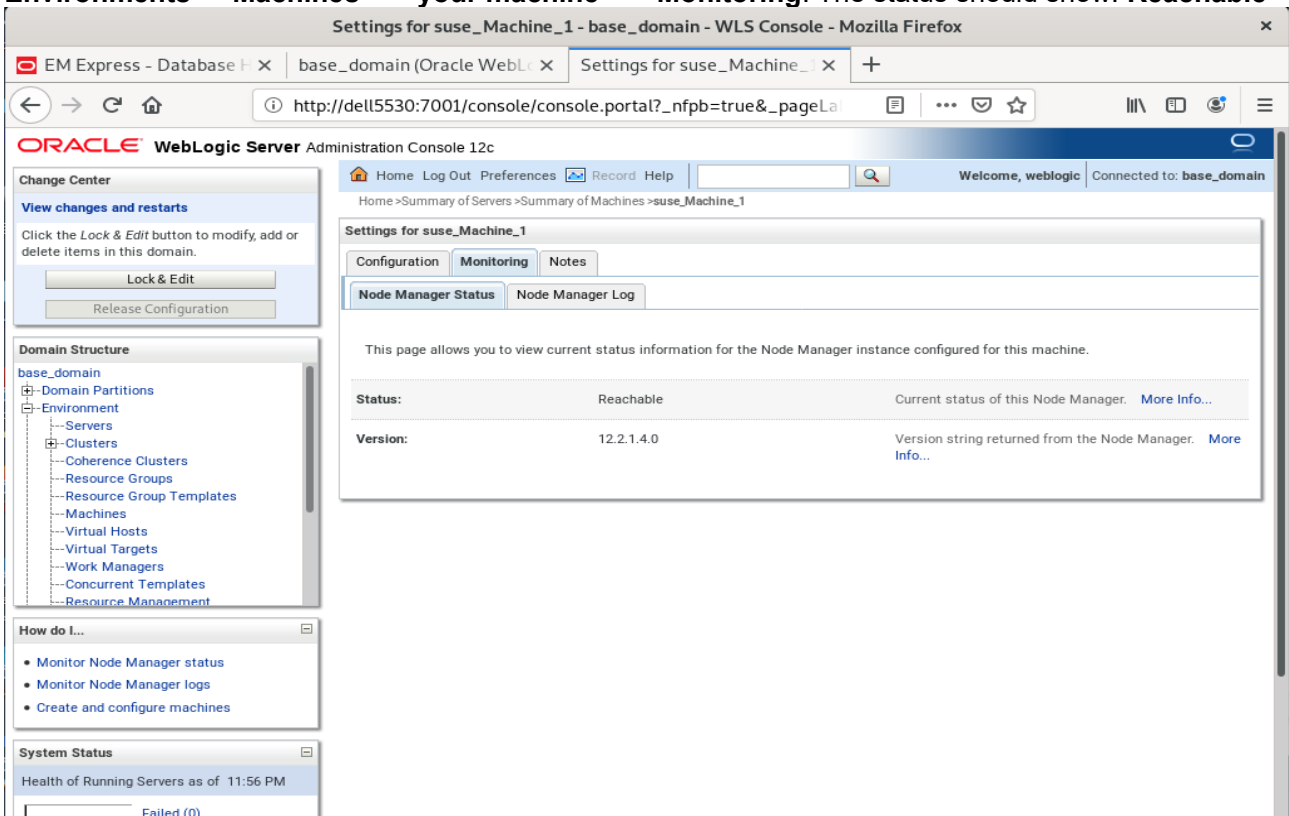
Home Page:



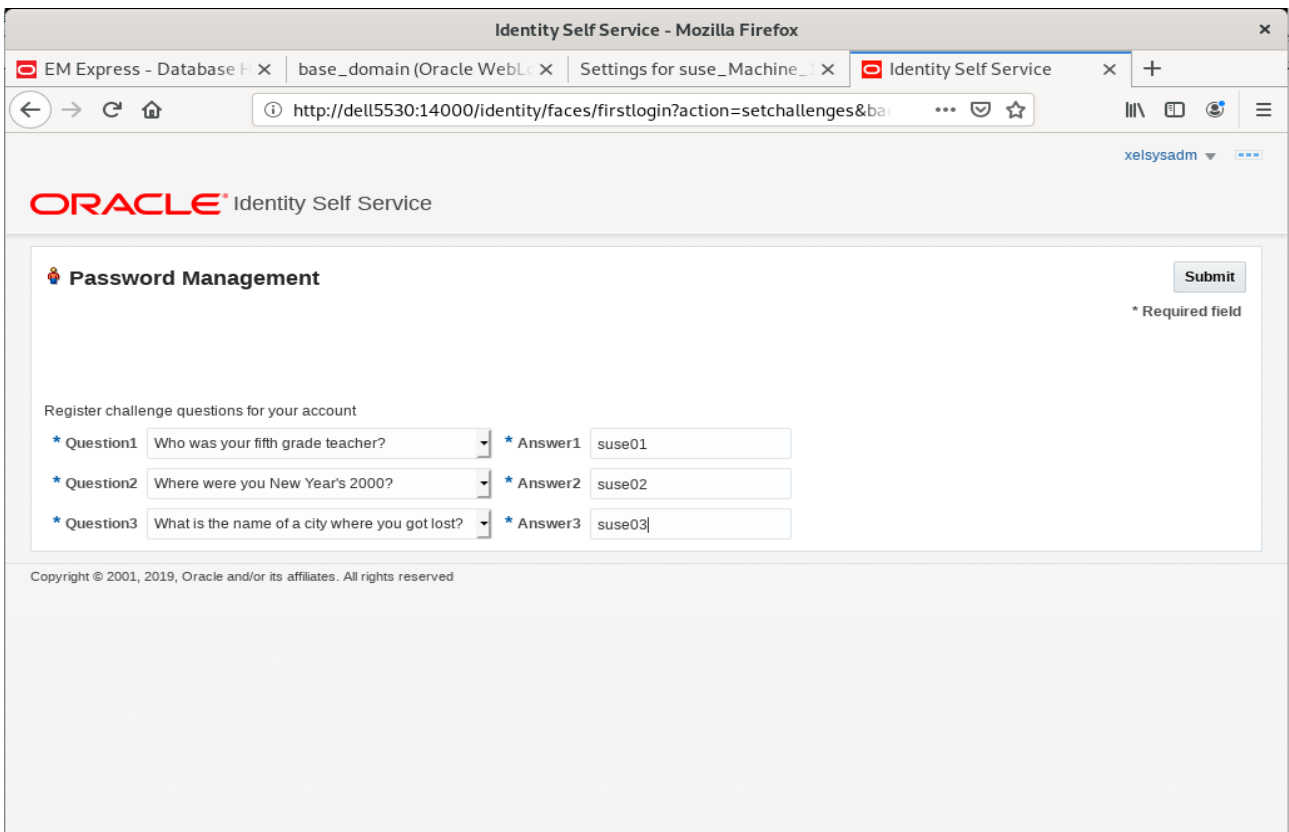
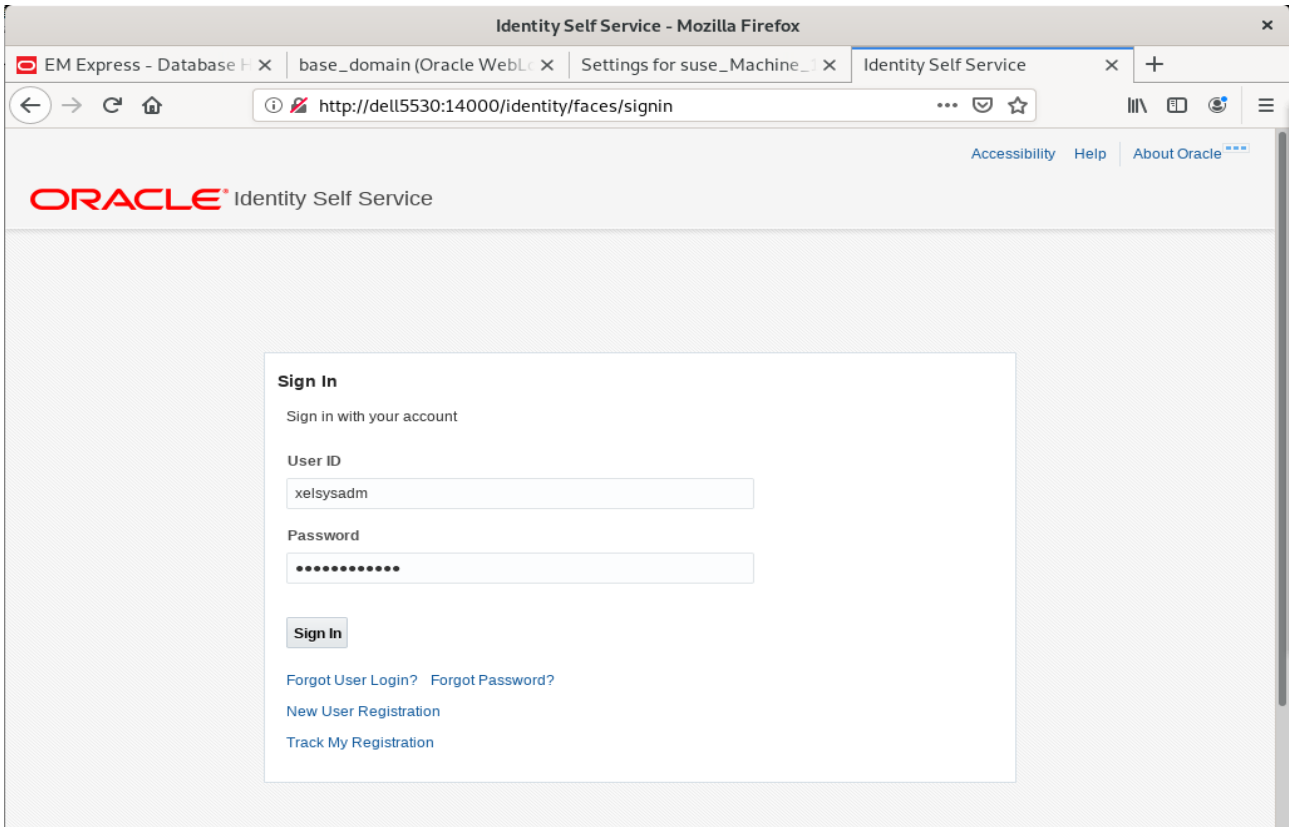
Viewing the summary of servers:

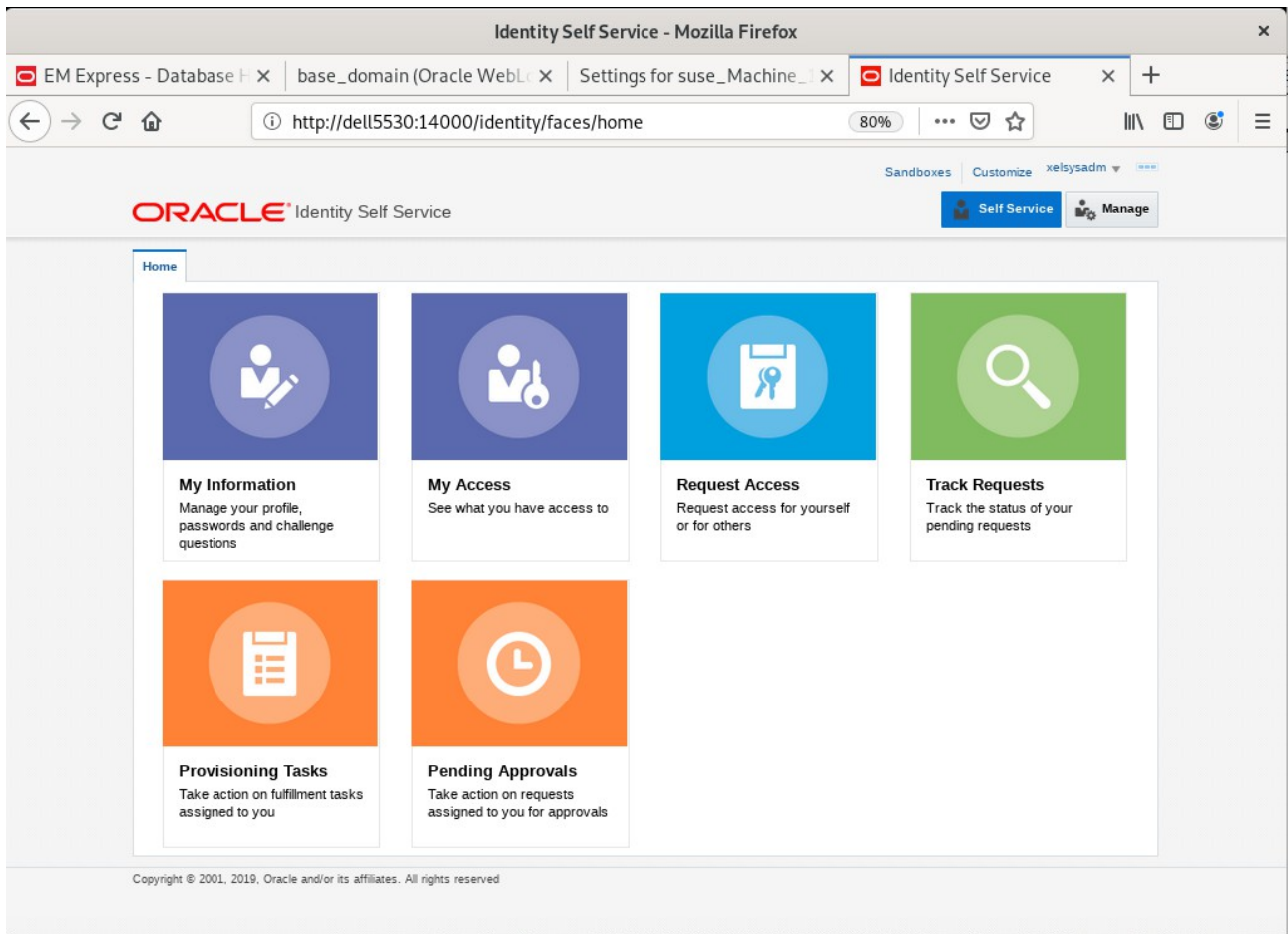


Verify that the Admin Server can connect to the node manager running on your machine. **Environments -> Machines -> <your machine> -> Monitoring**. The status should show: **Reachable**

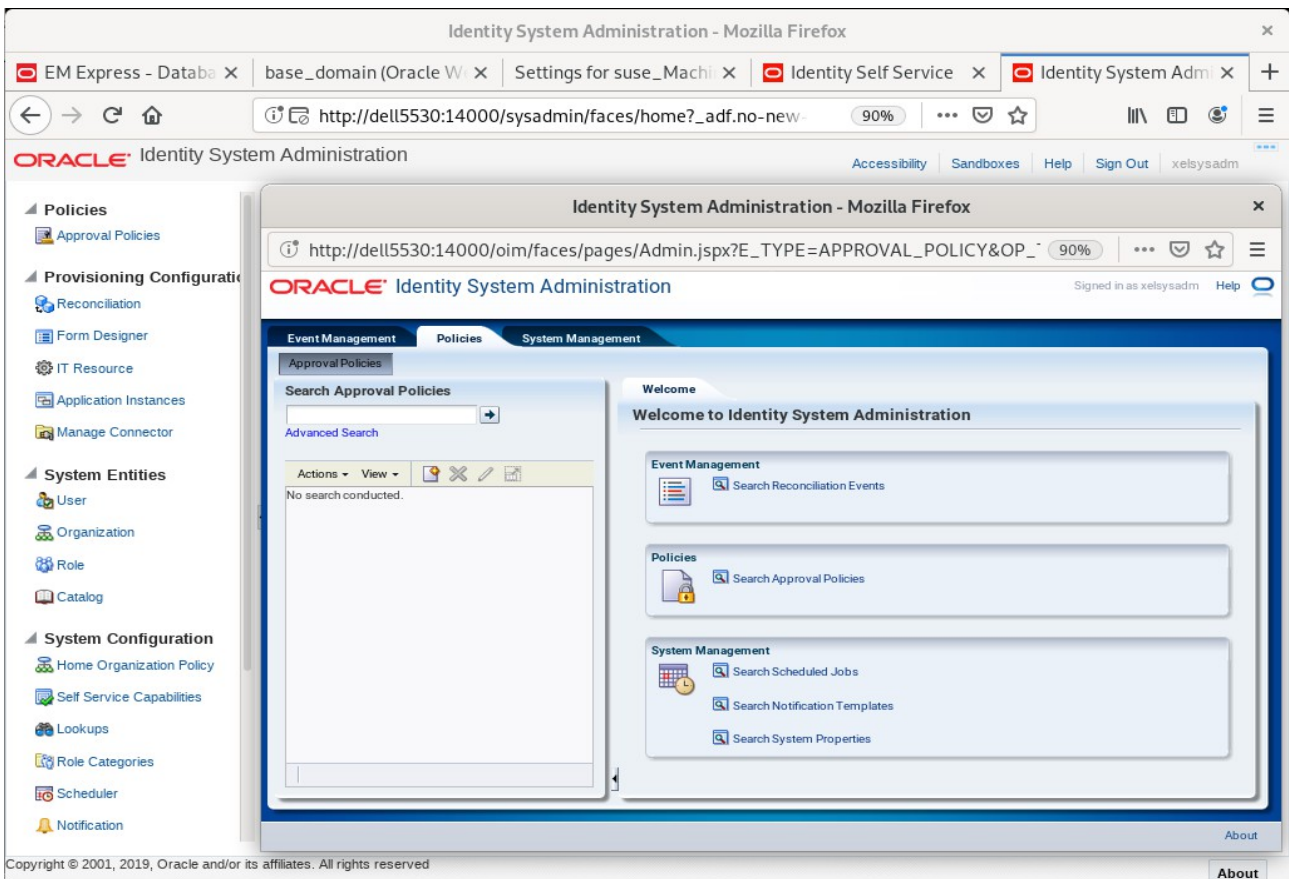
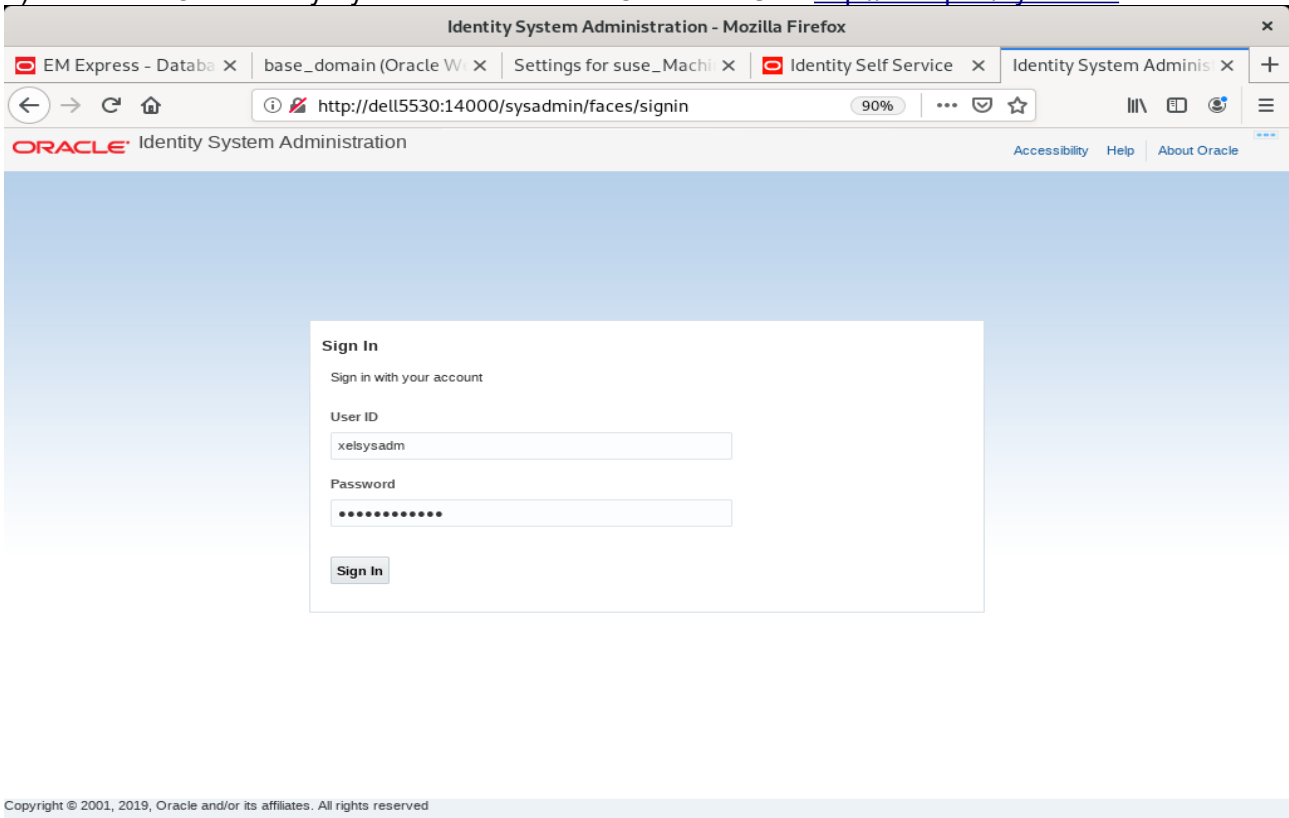


3). Access to OIM Identity Self Service – URL:<http://host:port/identity>





4). Access to OIM Identity System Administration Console – URL:<http://host:port/sysadmin>



5). Access to Oracle SOA infrastructure Main Page – URL:<http://host:port/soa-infra>

Welcome to the Oracle SOA Platform on WebLogic - Mozilla Firefox

File Edit View History Bookmarks Tools Help

Settings for suse_Machir x base_domain (Oracle We x Identity Self Service x Identity System Admi x Welcome to the Oracle S x +

← → ↻ 🏠 ⓘ http://hpgen9-01:7003/soa-infra/ 80% ⋮ 📄 ☆ 🖨 📖 ☰

Welcome to the Oracle SOA Platform on WebLogic

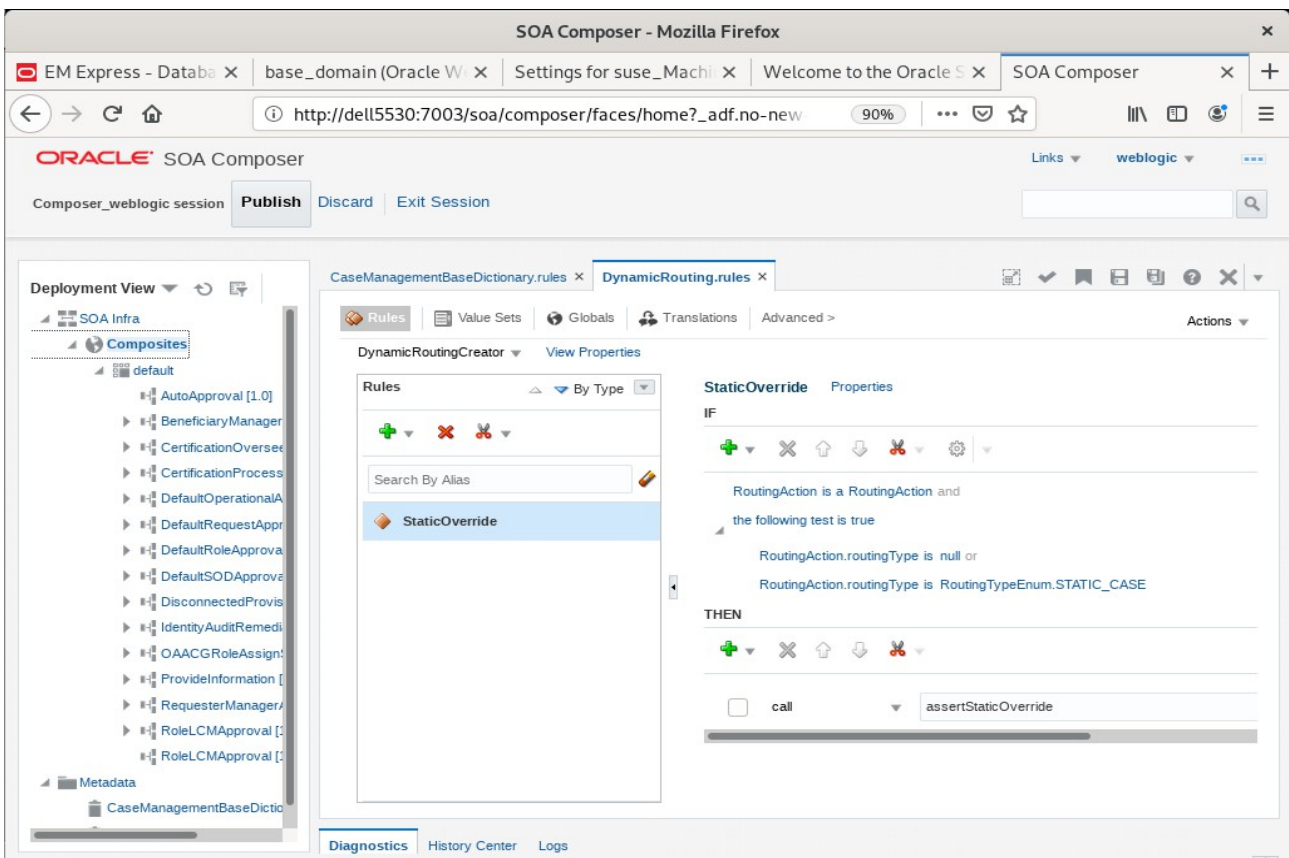
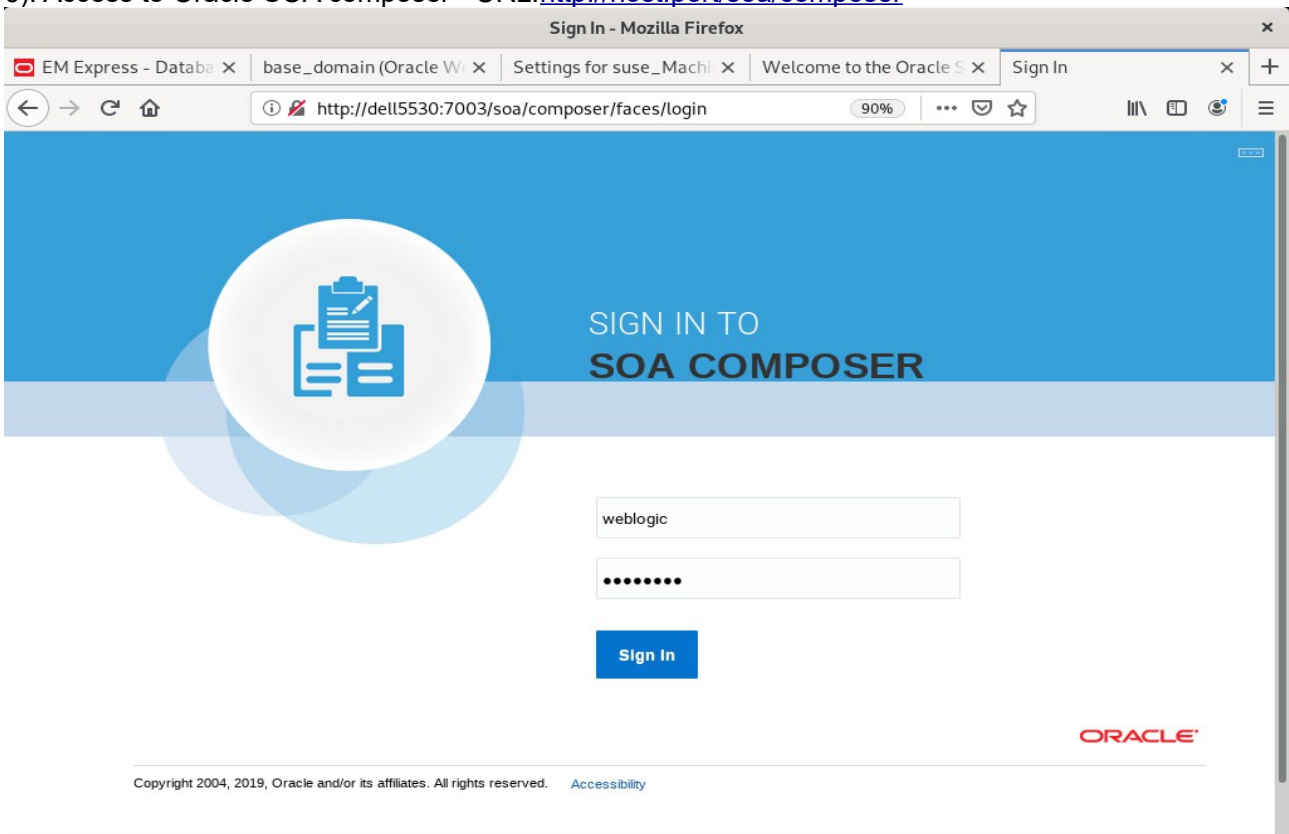
SOA Version: v12.2.1.4.0 - MAIN_190828.0353.3300
 WebLogic Server 12.2.1.4.0 (12.2.1.4.0)
 Running on: soa_server1

The following composites are currently deployed:

1. default/AutoApproval!1.0*soa_837a917e-f33d-4dfd-a675-e1ef5fd93b88
 - [Test RequestApprovalService](#)
2. default/BeneficiaryManagerApproval!4.0*soa_e1612ae0-b783-4a89-ac95-13c2bca3434d
 - [Test RequestApprovalService](#)
3. default/CertificationOverseerProcess!2.0*soa_720e8a46-fb27-46fe-b67b-2bfabe2dd46e
 - [Test CertificationTaskService](#)
4. default/CertificationProcess!2.0*soa_16666342-d04c-4e32-a6d5-173521dd036b
 - [Test CertificationTaskService](#)
5. default/DefaultOperationalApproval!5.0*soa_33e867f7-0975-43b0-818a-8db2340e44b5
 - [Test RequestApprovalService](#)
6. default/DefaultRequestApproval!6.0*soa_82d7205f-c929-4e92-9d2d-7d12ffad000f
 - [Test RequestApprovalService](#)
7. default/DefaultRoleApproval!3.0*soa_488b54ba-5003-4f4f-9164-aa88bfd02708
 - [Test RequestApprovalService](#)
8. default/DefaultSODApproval!2.0*soa_67e10934-0d83-40a1-b179-739bda7cd2eb
 - [Test RequestApprovalService](#)
9. default/DisconnectedProvisioning!2.0*soa_e42de6a7-5944-4fd4-95ad-9bdc6ef9fab4
 - [Test manualprovisioningprocess_client](#)
10. default/IdentityAuditRemediation!1.0*soa_3c5292f2-4fb2-4984-95fb-767305d3ce2f
 - [Test IdentityAuditRemediationService](#)
11. default/OAACGRoleAssignSODCheck!1.0*soa_66417375-3036-4692-845c-19e5eedcd64a
 - [Test RequestApprovalService](#)
12. default/ProvideInformation!3.0*soa_4daca0b0-d84c-4539-a045-bad39a0f7085
 - [Test RequestApprovalService](#)
13. default/RequesterManagerApproval!3.0*soa_964adced-04ba-40ec-82b5-d4c077f97c0b
 - [Test RequestApprovalService](#)

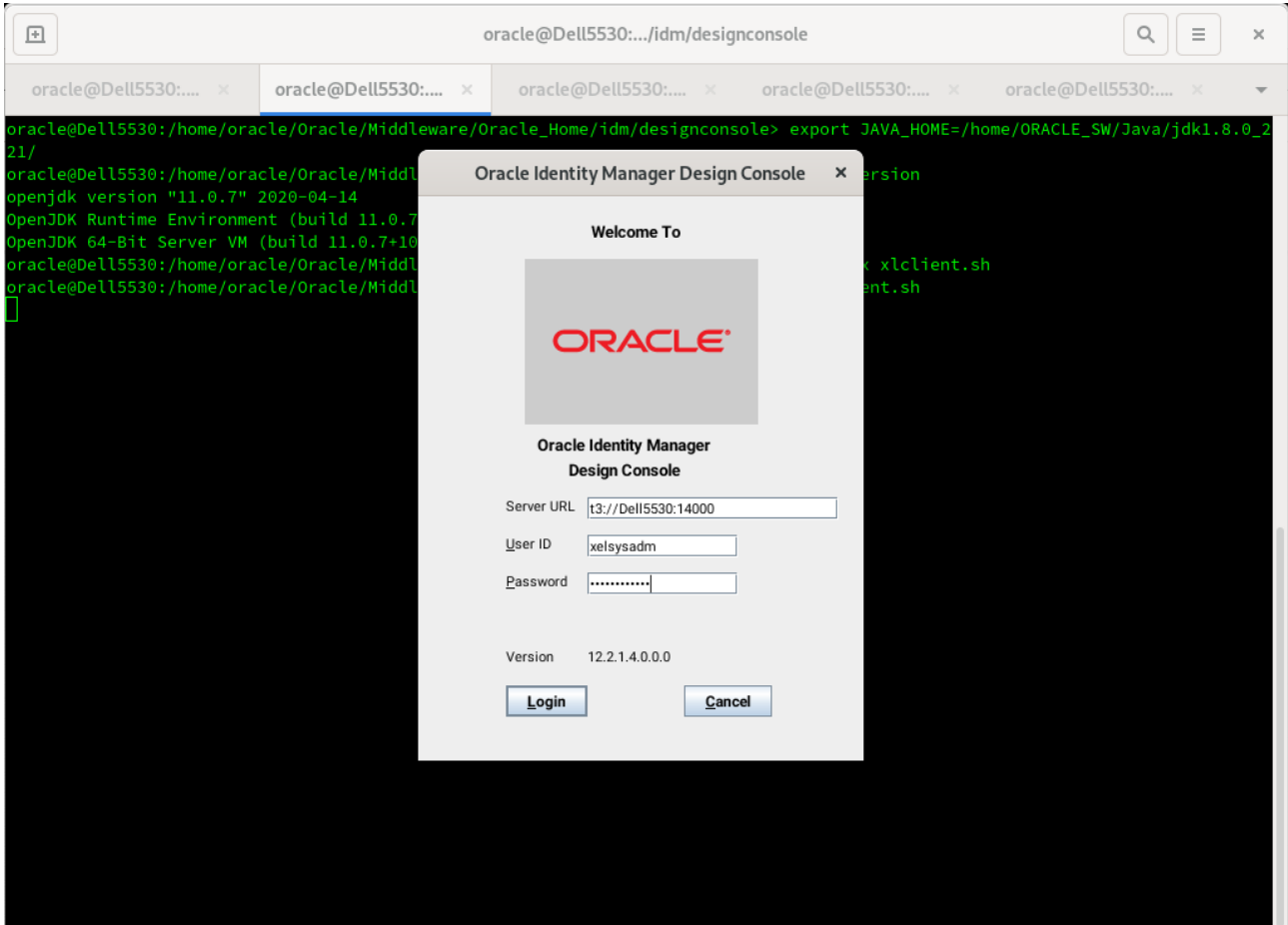
Links
[SOA Composer](#)
[BPM Worklist](#)

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

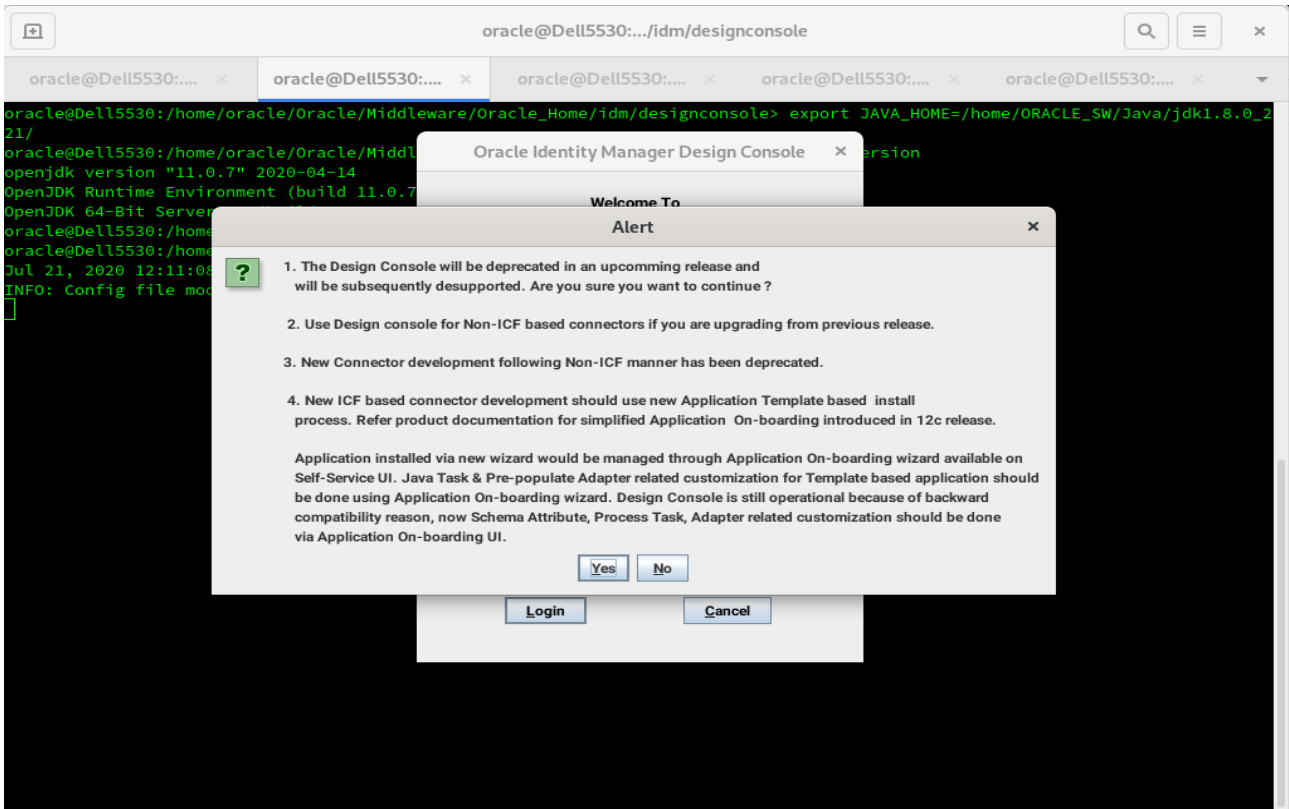


7). Verifying connection for OIM design console. Launch the Design Console (via the xlclient.sh script in \$MW_HOME/idm/designconsole)

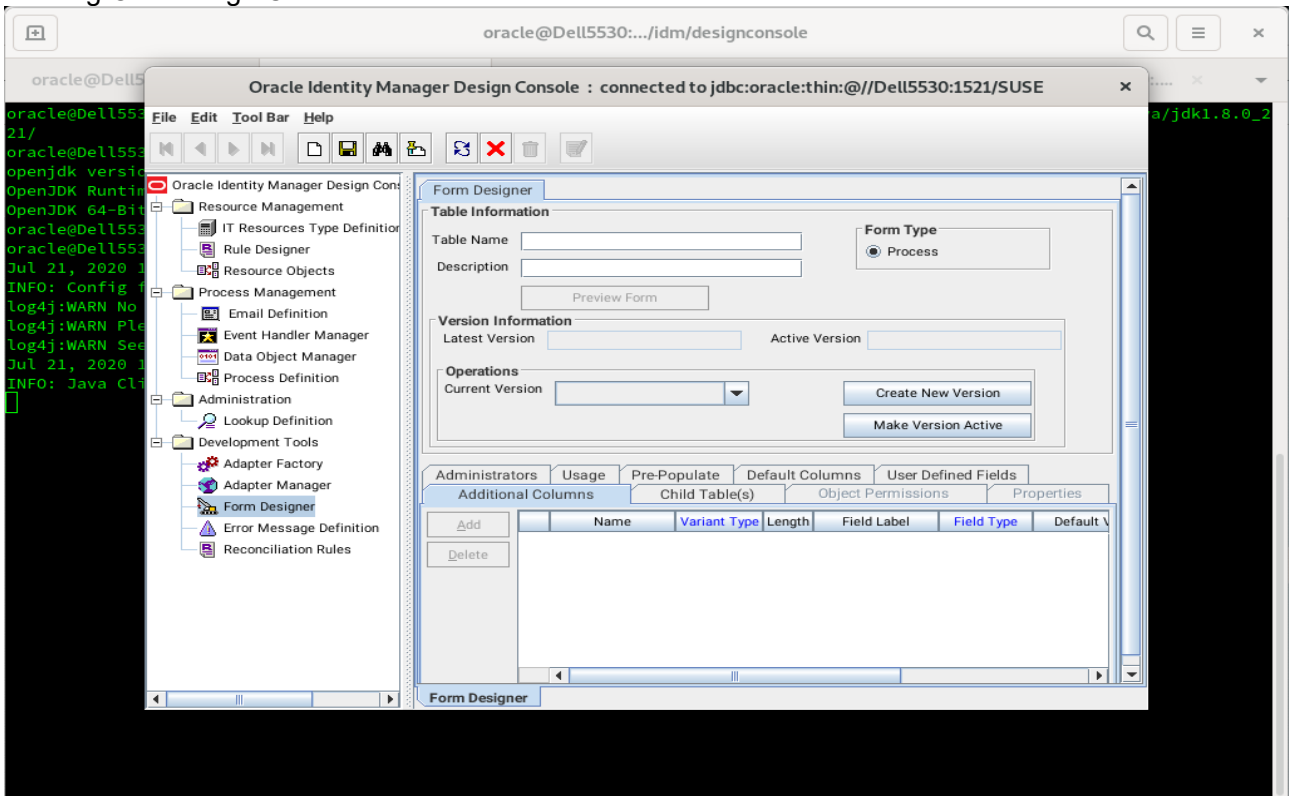
```
export JAVA_HOME=xxx  
chmod +x xlclient.sh  
./xlclient.sh
```



Click on **Login**. Then click **Yes** to confirm.



Viewing OIM Design Console.



End of Oracle Identity Manager.

Additional Comments

This document shows how to install and configure a standard topology for Oracle Fusion Middleware components 12c on SLES 15 SP2. You can extend this topology to make it highly available and secure so it is suitable for a production system.

Thank you !
SUSE ISV Engineering Team
Oct 16th, 2020
<https://www.suse.com>