Oracle Fusion Middleware 11gR1 on SuSE Linux Enterprise Server 11 SP3

(Installation guide)

Wu Chen

Table of Contents

Introduction

Novell has partnered with Oracle to develop this document which describes the process by which an administrator may install Oracle FMW 11gR1 components on SLES 11 SP3.

Enterprise Linux Server solutions from Novell deliver the benefits of proprietary operating systems with greater freedom and lower costs. Novell offers the most interoperable Linux server solutions on the market, powered by SUSE Linux Enterprise and backed by our unparalleled expertise and support.

Oracle Fusion Middleware 11*g* is an application infrastructure foundation. It enables enterprises to create and run agile and intelligent business applications and maximize IT efficiency by exploiting modern hardware and software architectures. Oracle Fusion Middleware includes WebLogic, WebCenter, SOA Suite, Oracle Identity Management among many other tools.

Oracle Identity Management enables customers to meet compliance efficiently, secure their critical applications and sensitive data, and lower operational costs. IdM solutions can manage the end-to-end lifecycle of user identities across all enterprise resources both within and beyond the firewall.

Oracle WebCenter Services 11*g* provides a comprehensive set of standards-based components that enrich existing portals and Web sites with the industry's most complete and open set of Enterprise 2.0 capabilities. These Enterprise 2.0 services include social computing services, personal productivity services, online awareness and communications, content integration, and Web analytics. Oracle WebCenter Services 11*g* works with all Oracle portal offerings and enables organizations to enrich their current portals and Web sites to empower their end users with Enterprises 2.0 services that work with their existing information systems.

Oracle Portal 11*g* offers a complete portal framework for building, deploying, and managing portals that are tightly integrated with Oracle WebLogic Server. Oracle Portal 11*g* provides a rich, declarative environment for creating a portal Web interface and accessing dynamic data with an extensible framework for J2EE-based enterprise application access.

This document is not a replacement of official Oracle Installation manual but provided to help you to get Oracle FWM 11gR1 components on SuSE Linux Enterprise Server 11 SP3 with minimal efforts. If you encounter any problem or have general question, please post your query to suse-oracle@listx.novell.com. The installation process is divided into the following sections:

Prerequisites

Hardware

The system must meet the following minimum hardware requirements:

Requirement	Minimum
RAM	1024 MB
Swap space	Approx. twice the size of RAM
Disk space in /tmp	1024 MB
Disk space for software files	4 GB
Disk space for database files	1.7 GB

Software

Novell
• SUSE Linux Enterprise Server 11 Service Pack 3
(https://www.suse.com/products/server/)

Oracle
• Oracle Database 11g Release 2 (11.2.0.1) Enterprise Edition
(http://www.oracle.com/technology/software/products/database/index.html)

• Oracle Java
(http://www.oracle.com/technetwork/java/javase/downloads/index.html)

SUSE Linux Enterprise Server 11 SP3 Installation

SUSE Linux Enterprise Server 11 SP3 Install, please refer to:
(https://www.suse.com/documentation/sles11/).

Oracle Database 11gR2 Installation

Oracle Database 11gR2 Install, please refer to:
(http://ftp.novell.com/partners/oracle/docs/11gR2_sles11_sp1_install.pdf)

Java Installation

1. Login to a SLES 11 64-bit OS as a **non-admin user**. Download the latest Oracle Java from the URL
http://www.oracle.com/technetwork/java/javase/downloads/index.html

2. On the **64-bit SLES 11 SP3 OS** run the .bin file for JDK installation.

3. Once the installation is done, set the java Home and Path variables using the command as shown below, confirm the version number, and the location where the java is installed.

RCU (Repository Creation Utility) Creation

1. After the successful installation of Oracle 11gR2 separately on a 64-bit OS, download the latest RCU for 32-bit OS on a 32-bit SLES 11 server.

2. Oracle Repository Creation Utility(RCU) can be downloaded from the URL: (http://www.oracle.com/technetwork/middleware/downloads/fusion-downloads-1714164.html)

3. Extract the downloaded RCU installer and go to the bin folder and run the rcu file as **./rcu**

Install Flow:

1) Welcome Screen will be displayed as below, Click **Next**.

2) Create Repository -- Select Create to Create an RCU, and click **Next**.

3) Database Connection Details and Prerequisite Check – Type the database connection details, click **Next**.   Checking Prerequisites window will be displayed, once everything is success click **OK**.

4) Select Components -- Create a **new Prefix** and select the required components like **Identity Management** (Oracle Internet Directory and Oracle Identity Federation), WebCenter Suite, etc.

Click **Next**, if an error message will be displayed as shown below:

Open a separate terminal session, login to DB server as **root user** and execute the SQL command: **"alter system set processes=500 scope=spfile;" and "alter system set open_cursors=500 scope=spfile;" bounce the Database**, and click **Ignore.**

For example:

Altering the system processess:

```
SQL> connect /as sysdba
Connected.
SQL> alter system set processes=500 scope=spfile;

System altered.

SQL>
```

The database can be bounced as shown below:

```
SQL> shutdown immediate
Database closed.
Database dismounted.
ORACLE instance shut down.
SQL> starup
SP2-0042: unknown command "starup" - rest of line ignored.
SQL> startup
ORACLE instance started.

Total System Global Area 1202556928 bytes
Fixed Size                   2212816 bytes
Variable Size              402656304 bytes
Database Buffers           788529152 bytes
Redo Buffers                 9158656 bytes
Database mounted.
Database opened.
SQL>
```

The prerequisites will be verified again. Click **Ok.**

5) Schema Passwords -- Give the Password and click **Next** button.

6) Map Tablespaces -- An alert message will be displayed as "Any Tablespaces that do not already exist in the selected schemas will be created." Click **Ok**.

Validating and Creating Tablespaces will auto run. After operation completed, click **OK** to continue to next page.

7) Summary -- A summary will be displayed with respective Host Name, Port no., Service Name, Connected As, and Operation. Review the summary details and click **Create**.

Monitor the progress of RCU creation.

8) Completion Summary -- A "Completion Summary" will be displayed of the RCU. Click **Close**.

WebLogic Installation

1. Login as the non-admin user and downlaod Oracle WebLogic 12.1.2.0.0 generic installer from:
(http://www.oracle.com/technetwork/middleware/downloads/fusion-downloads-1714164.html)

2. Execute the WebLogic generic installer using the command **java -jar <WebLogic jar installer>**.

Install Flow:

1). Oracle Fusion Middleware 12c Installation Inventory Setup. Click **Ok** to continue.

2). Welcome Screen will be displayed, click **Next** to continue.

3). Installation Lacation Screen will be displayed. Give the path of the Middleware Home Directory (path will be displayed by default) as shown below. Click **Next** to continue.

4). Choose the Installation Type. Click **Next** to continue.

5). Prerequisite Checks Screen will be displayed. Checking all the requirements are passed. Click **Next** to continue.

(Note:Oracle Fusion Middleware WebLogic 12c(12.1.2.0.0) requires Java SE 7.)

6). Specify Security Updates. Register your email ID for security updates (optional). Click **Next** to continue.

7). Installation summary will be listed as shown below, click **Install** to accept the displayed options and start the installation.

8). Installation Progress will be displayed as shown below. All of the tasks will be successful completed. Click **Next** to continue.

9). The **"Installation Complete"** message will be displayed. Click **Done** and close the installation. (Enabling "Automatically Launch the Quickstart Configuration Wizard" is optional).

Identity Management(IDM) Installation

1. Prerequisites

Installation of IDM requires:
1). Oracle Database 11gR2 installed on a SLES 11 SP3 64-bit OS
2). RCU (with IDM schema) created from a SLES 11 SP3 32-bit OS

Screenshot: RCU with IDM schema

3). JDK and WebLogic installed on a SLES11 SP3 64-bit OS where IDM will be installed.

2. Login to the SLES 11 SP3 64-bit OS as a non-admin user (same user with which Oracle, Java, and WebLogic were installed)

3. Download Oracle Identity Management(IDM) from:
http://www.oracle.com/technetwork/middleware/downloads/fusion-downloads-1714164.html

4. Unzip the zip file and goto Disk1. Then run the installer with the command:

./runInstaller - ignoreSysPrereqs

Install Flow:

1). Specify Inventory Directory

2). A Welcome screen will be displayed. Click **Next** to continue.

3). Install Software Updates. Selected "Skip Software Updates" then click **Next** to continue.

4). Select Installation Type as below, Click **Next** to continue.

(Notes:

a). Install and configure - Choose the Install and Configure option to install Oracle Identity Management components and simultaneously configure some of their fundamental elements, such as passwords, user names, and so on. Oracle Identity Management components start running and are immediately ready for use after deploying them using the Install and Configure option.

If you choose the Install and Configure option, you will see additional Installer screens that will not appear using the Install Software - Do Not Configure option. These additional screens prompt you for information the Installer uses to configure Oracle Identity Management components.

b). Install Software - Choose the Install Software - Do Not Configure option to install Oracle Identity Management components without configuring them during installation. If you choose the Install Software - Do Not Configure option, the Installer installs the component software and then closes. Oracle Identity Management components will not start running after deploying them using the Install Software - Do Not Configure option, as additional configuration is needed

After you install components using the Install Software - Do Not Configure option, you can configure them at a later time using the Oracle Identity Management 11g Release 1 Configuration Wizard, which is included with the release media. To start the Oracle Identity Management 11g Release 1 Configuration Wizard, execute the ORACLE_HOME/bin/config.sh script (config.bat on Windows)

)

5). Specify Installation Location as shown below.

6). Specify Security Updates, provide the email address to specify the security updates.(Optional). Click **Next** to continue.

(Notes:

a) If you want to be notified about security issues through email, enter your email address in the Email field.

b) If you want to be notified about security issues through My Oracle Support (formerly MetaLink), select the My Oracle Support option and enter your My Oracle Support Password.

c) If you do not want to be notified about security issues, leave all fields empty.

)

7). Installation Summary will be displayed. Click **"Save"** and save the response file which might be used for future reference, click **OK** and click **Install** to continue.

8). Installation Progress. This screen shows you the progress of the installation. (**Note:** If you want to quit before the installation is completed, click **Cancel**.)

After the progress completed. Click **Next** and a pop-up message will be displayed as belows. Open a separate terminal mode and login as **root** user and run the shell file oracleRoot.sh specified in the below location then click **OK** to continue.

9). Installation Complete. This screen summarizes the installation that was just completed. If you want to save this summary information to a text file for future reference, click **Save**. Then click **OK** on **Configuration File Message** popup and then click **Finish** to dismiss the screen.

5. Oracle IDM Configuration. After the IDM installation is complete, use **config.sh** from **bin** directory in **ORACLE HOME** to configure working instances of these installed components.

Configuration Steps:

1). Welcome Screen will be displayed as shown below.

2). Select Domain. Creating the Domain, type the username, password, and Domain name. Click **Next** to continue.

(**Notes:**
1. In order to use an existing domain, the domain must be up and running
2. Only OID and OVD can be configured with No domain option
3. Don't give the username and domain name as keywords, i.e. Oracle, WebLogic, etc.,
)

3). Specify Installation Location as shown below.

- Select the Middleware Home Location (WLS Installed Location) from the available WLS location.
- Specify a directory name for Oracle Home. It creates a directory with the specified name inside the Middleware Home.
- Specify the Oracle Instance Location.
- Specify a unique name for Oracle Instance

Click **Next** to continue.

4). Specify Security Updates, provide the email address to specify the security updates.(Optional). Click **Next** to continue.

5). Configure Components, either select all the components or individual components for installation. Click **Next** to continue.

6). Configure Ports as shown below, select **"Auto Port Configuration"**. Click **Next** to continue.

(Notes:

a. **Auto Port Configuration:** When you use the Auto Port Configuration option during installation, the Installer follows specific steps to assign ports. The following information describes the default ports and port assignment logic the Installer uses to assign ports for various Oracle Identity Management components when you use the Auto Port Configuration option during installation.

- **Oracle Virtual Directory:**
  Non-SSL port: 6501
  SSL port: 7501
  Admin port: 8899
  HTTP port: 8080
  First, the Installer attempts to assign the default port. If the default port is unavailable, the Installer tries ports within a range of 50 from the default port. For example, when the Installer assigns the non-SSL port for Oracle Virtual Directory, it first attempts to assign 6501. If 6501 is unavailable, it tries ports from 6501 to 6551. The Installer uses this approach to assign all Oracle Virtual Directory ports.

- **Oracle Internet Directory:**
  Non-SSL port: 3060
  SSL port: 3131
  First, the Installer attempts to assign default ports. If the non-SSL port is unavailable, the Installer tries ports from 3061 to 3070, then from 13060 to 13070. Similarly, the Installer first attempts to assign 3131 as the SSL port, then ports from 3132 to 3141, and then from 13131 to 13141.

- **Oracle Identity Federation: 7499**

First, the Installer attempts to assign the default port. If the default port is unavailable, the Installer tries ports in increments of one, that is: 7500, then 7501, then 7502, and so on. The Installer tries ports up until 9000 to find an available port.

- **Oracle Directory Services Manager: 7005**
  First, the Installer attempts to assign the default port. If the default port is unavailable, the Installer tries ports in increments of one, that is: 7006, then 7007, then 7007, and so on. The Installer tries ports up until 9000 to find an available port.

- Oracle WebLogic Administration Server: 7001

b. Select **Specify Ports using Configuration** File if you want the Installer to configure ports using the staticports.ini file. You can click View/Edit File to update the settings in the staticports.ini file.)

7). For Specify Oracle Virtual Directory information, enter the details of LDAP v3 Name Space (by default dc=us,dc=oracle,dc=com is populated), enter OVD administrator user name (by default cn=orcladmin is populated), and type the password. Click **Next** to continue.

8). Specify Schema Database(where OID schema must be loaded in prior using RCU), use the existing schema connection string details in the format <hostname>:<port>:<service_name>, type the password, and click **Next** to continue.

(Notes:

Select Use Existing Schema:

- Enter the database connection information in the Connect String field. The connection string must be in the form of hostname:port:servicename. For Oracle Real Application Clusters (RAC), the connection string must be in the form of hostname1:port1:instance1^hostname2:port2:instance2@servicename.
- Enter the password for the existing ODS schema in the Password field.
- Click Next.

Select Create Schema:

- Enter the database connection information in the Connect String field. The connection string must be in the form of hostname:port:servicename. For Oracle Real Application Clusters (RAC), the connection string must be in the form of hostname1:port1:instance1^hostname2:port2:instance2@servicename.
- Enter the name of the database user in the User Name field. The user you identify must have DBA privileges.
- Enter the password for the database user in the Password field.
- Click Next. The Enter OID Passwords screen appears.
- Create a password for the new ODS schema by entering it in the ODS Schema Password field. Enter it again in the Confirm ODS Schema Password field.

- Create a password for the new ODSSM schema by entering it in the ODSSM Schema Password field. Enter it again in the Confirm ODSSM Schema Password field.

- Click **Next**. The Create Oracle Internet Directory screen appears

)

9). Create Oracle Internet Directory, realm text box will be populated by default, type the Administrator Password, and confirm the same. Click **Next** to continue.

10). Specify Oracle Identity Federation Details as shown below, click **Next** to continue.

11). Select OIF Advanced Flow Attributes(Accept the default values). Click **Next** to continue.

12). Installation Summary will be displayed. Click **"Save"** and save the response file which might be used for future reference, click **OK** and click **Configure** to continue.

13). Configuration Progress will automatically completed. Please make sure all of the progress done and success. Click **Next** to continue.

14). Installation complete message will be displayed, click the button **"Save"** to save the installation summary, which will be used to identify the port numbers for future reference, and click **OK**.

15). Now click **Finish** to dismiss the screen.

(Note:

You can view the installation summary file to get more details info, a complete installation summary file is similar like follows:

The installation details as below:

Type: Configure Only
    Middleware Home Location : /opt/oracle/Oracle/Middleware
    Oracle Instance Location : /opt/oracle/Oracle/Middleware/asinst_1
    Oracle Instance : asinst_1
    Domain Option : Create Domain
    Domain Name : IDMDomain1
    Domain Home : /opt/oracle/Oracle/Middleware/user_projects/domains/IDMDomain1
    Domain Host Name : V1720-SLES11SP3.site
    Domain Port : 7001
    Weblogic Console : http://V1720-SLES11SP3.site:7001/console
    Weblogic User Name : weblogic1
    Automatic Port Detection : true
    Enterprise Manager :
        http://V1720-SLES11SP3.site:7001/em
    Enterprise Manager Agent
        http://V1720-SLES11SP3.site:5162/emd/main
    Oracle Internet Directory
        SSL Port : 3131
        Non SSL Port : 3060
        Database : DB-ISV3.site:1521:orcl
    Oracle Virtual Directory
        Admin SSL Port : 8899
        SSL Port : 7501
        Non SSL Port : 6501
    Oracle Directory Services Manager :
        http://V1720-SLES11SP3.site:7005/odsm/faces/odsm.jspx
    Directory Integration Platform
        wls_ods1 : 7005
    Oracle HTTP Server
        Administrator Port : 9999
        HTTPS Port : 4443
        HTTP Port : 7777
    Oracle Identity Federation
        http://V1720-SLES11SP3.site:7777/fed/user/testspsso
        wls_oif1 : 7499

)

6. IDM Post Install Sanity Checks

1). Check the opmnctl status as shown below, Status should prompt as "Alive".

2) Access to IDM console URL: http://<host>:<admin_port>/console. Console page should get opened successfully as below.

3). Access to Enterprise Manager URL: http://<host>:<admin_port>/em. The EM page should displayed as below.

4). Access to Enterprise Manager Agent URL: http://<host>:<admin_port>/emd/main. (The default server port is 5162.) The EMAgent page should displayed as below.

5). Open the Oracle Directory Services Manager(ODSM) page by typing the url:
http://<host>:<admin_port>/odsm/faces/odsm.jspx (The default server port is 7005), the ODSM Web
Page should get opened as shown below.

a. ODSM connect OID Testing   Create a new connection, click **Connect**.

OID Home Page as shown below.

Click on "**Data Browser**" to navigate the LDAP directory using the browse tree.
Traverse down to non-root entry "cn=Users" and add a new user as cn=<new_user>.
Created 'PUBLIC1' as shown below.

From the command line use **ldapsearch** to confirm that <new_user> is present.

Next, Delete cn=<new_user> using ODSM and using the command line **ldapsearch** to confirm that <new_user> is not present.

b. ODSM connect OVD Testing

Create a new connection, click **Connect**.

Certificate Trust Validation will be displayed. Click '**This Session Only**' to continue.

Next, OVD Home Page will be displayed. Click **Adapter** to create a new Adapter for testing.

A new Adapter Wizard will be displayed. Choose Adapter type as "Local Store" and fill in "Adapter Name" and click **Next** to move to "Settings".

Fill in Namespace as "o=example" and verify that adapter is successfully created. Click **Next**.

Here, a summary will be displayed as below and click **Finish**.

General of the new Adapter as shown below.

Next, back to the OVD Home Page and Refresh Adapter area. The new Adapter will be displayed.

6). Oracle Internet Directory(OID) and Oracle Virtual Directory(OVD) Sample Connect Testing.

a. OID Sample Connect Testing

1. Download SampleConnectBy.zip from
http://www.oracle.com/technology/sample_code/products/id_mgmt/javaapi/SampleConnectBy.zip ,
which tests Oracle Internet Directory and unzip it into <SAMPLE_HOME>

2. Create and load test specific entries using ldapadd and <SAMPLE_HOME>/data/sample.ldif.

3. Follow instructions from Readme(Download URL:
http://www.oracle.com/technology/sample_code/products/id_mgmt/javaapi/Readme_connectby.doc) to
deploy and run the SampleConnectBySearch application.

4. The test deployment should run without errors. The output should match "OID Test Result" given in
following pictures.

5. Delete test specific entries using **ldapdelete** and <SAMPLE_HOME>/data/sample_del.ldif.

b. OVD Sample Connect Testing

1. Connect to OVD through ODSM and create Local Store Adapter with the
Namespace as "o=example". In addition, edit the adaptor and check the box "Auto RDN".

2. Download SampleConnectBy.zip from
http://www.oracle.com/technology/sample_code/products/id_mgmt/javaapi/SampleConnectBy.zip ,
which tests Oracle Virtual Directory and unzip it into <SAMPLE_HOME>

3. Create and load test specific entries using ldapadd and <SAMPLE_HOME>/data/sample.ldif.

4. Follow instructions from Readme(Download URL:
http://www.oracle.com/technology/sample_code/products/id_mgmt/javaapi/Readme_connectby.doc to
deploy and run the SampleConnectBySearch application.

5. The test deployment should run without errors. The output should match "OVD Test Result" given in
following pictures.

6. Delete test specific entries using "ldapdelete" and <SAMPLE_HOME>/data/sample_del.ldif.

Portals, Forms, Reports and Discoverer Installation

1. Prerequisites

Installation of Portal, Forms, Reports, and Discoverer requires:

1). Oracle Database 11gR2 installed separate on a SLES 11 SP3 64-bit OS
2). RCU (with Portals, Forms, Reports and Discoverer schema) created from a SLES 11 SP3 32-bit OS

Screenshot: RCU with Portals, Forms, Reports and Discoverer schema

3). Oracle Internet Directory 10g **10.1.4.0.1** upgraded to **10.1.4.3** installed separately on a SLES **10** SP2 machine, follow the installation instructions in the url: (http://download.oracle.com/docs/cd/B28196_01/install.1014/b28194/title_linux.htm) for OID installation.

4). Login to the SLES 11 SP3 64-bit OS, install Java, WebLogic, and as an admin user install the following **openmotif** packages .

openmotif-libs-32bit-2.3.1-3.13.x86_64.rpm
openmotif-libs-2.3.1-3.13.x86_64.rpm
openmotif-2.3.1-3.13.x86_64.rpm
openmotif22-libs-32bit-2.2.4-139.1.x86_64.rpm
openmotif22-libs-2.2.4-139.1.x86_64.rpm
openmotif21-libs-32bit-2.1.30MLI4-0.1.1.x86_64.rpm
openmotif21-libs-2.1.30MLI4-0.1.1.x86_64.rpm

These packages can be installed from **SLED 11 SP3 ISO DVD**. Or download from the URL: (ftp://ftp.novell.com/partners/oracle/sles-11/openmotif_FUSION_SLES11.tgz)
Once the above packages were installed **reboot** the machine.

2. Now login as a non-admin user download the Portal, Forms, Reports, and Discoverer installer from the URL: (http://www.oracle.com/technetwork/middleware/downloads/fusion-downloads-1714164.html)

3. Unzip the zip file and go to Disk1/, run the installer with the parameters -ignoreSysPrereqs.

Install Flow:

1). Specify Inventory directory will be prompted

(Note:

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

The default inventory location is USER_HOME/oraInventory.

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

Click **OK** to continue.

)

2). Inventory Location Confirmation Dialog will be displayed.

You are asked to run the inventory_directory/createCentralInventory.sh script as root.
If you do not have root access on this machine but wish to continue with the installation, select Continue installation with local inventory.

Click **OK** to continue.

3) A Welcome message will be displayed, click **Next**.

(Note:

Before continuing, make sure that you have created the necessary schemas for the "Portal, Forms, Reports, and Discoverer", OID 10.1.4.0.1 has been installed and upgraded to existing OID installation to 10.1.4.3, and also you have installed and configured WebLogic Server. Besides, enable Oracle DB server , OID server and Portal... Discoverer server know each other by Hostname.

)

4) Selecting the Installation Type as shown below.

Select the type of installation you want to perform.

- Install and Configure

  Select this option to have the installer create an Oracle Home directory where the software will be installed, and an Oracle Instance directory where a working instance of the software will be created.

  After the installation is complete, you can modify the configured instance using Enterprise Manager or WebLogic Server Administration Console.

- Install Software - Do Not Configure

  Select this option to have the installer create an Oracle Home directory where the software will be installed. After the installation, you must run the Configuration Tool separately to configure a working instance.

5). Specify the Installation Locations as shown below, click **Next** to continue.

6). Specify Security Updates, provide the details and click **Next** to continue.

(**Note:**

Enter your E-mail address if you want to receive the latest product information and security updates. If you have a My Oracle account and wish to receive updates via this mechanism, select I wish to receive security updates via My Oracle Support, then enter your account password.

If you do not wish to register for Oracle Configuration Manager, leave all the fields on this screen blank. You will be prompted to confirm your selection with the following screen:

Click **Yes** to confirm that you do not want to register for security updates.
)

7). Installation Summary will be displayed.

Review the information on this screen, and click **Install** to begin the installation. The operations summarized on this page will be performed when you click Install.
If you want to make any changes to the configuration before starting the installation, use the navigation pane and select the topic you want to edit.
If you want to save this configuration to a text file, click **Save**. This file can be used later if you choose to perform the same installation from the command line.

8). By clicking **Install**, an Installation Progress Screen will be displayed.

After the installation is complete, click **Next** to continue.

Then, a message will be displayed as oracleRoot.sh file needs to be executed with **root** user.

9). Installation Complete. You can click **Save** to save your configuration information to a file. Then, Click **Finish** to dismiss the screen.

4. The Oracle Portal,Forms,Reports and Discoverer(11.1.1.2.0) installation is completed. Then upgrade to (11.1.1.6.0). Extract the "p13517084_111160_Linux-x86-64.zip" file to a separate directory and go to Disk1/, run the installer(**./runInstaller**) with the parameters **-ignoreSysPrereqs**.

Install Flow:

1). A Welcome message will be displayed, click **Next** to continue.

2). Specify the Installation Locations as shown below, click **Next** to continue.

(**Note:** Oracle Portal,Forms,Reports and Discoverer(11.1.1.2.0) must already be installed. Here specify Oracle Middleware Home and Oracle Home Directory same as 11.1.1.2.0.)

3). Specify Security Updates, provide the details and click **Next** to continue.

(**Note:**

Enter your E-mail address if you want to receive the latest product information and security updates. If you have a My Oracle account and wish to receive updates via this mechanism, select I wish to receive security updates via My Oracle Support, then enter your account password.

If you do not wish to register for Oracle Configuration Manager, leave all the fields on this screen blank. You will be prompted to confirm your selection with the following screen:

Click **Yes** to confirm that you do not want to register for security updates.
)

4). Installation Summary will be displayed.

Review the information on this screen, and click **Install** to begin the installation. The operations summarized on this page will be performed when you click Install.
If you want to make any changes to the configuration before starting the installation, use the navigation pane and select the topic you want to edit.
If you want to save this configuration to a text file, click **Save**. This file can be used later if you choose to perform the same installation from the command line.

5). By clicking **Install**, an Installation Progress Screen will be displayed.

After the installation is complete, click **Next** to continue.

Then, a message will be displayed as oracleRoot.sh file needs to be executed with **root** user.

6). Installation Complete. You can click **Save** to save your configuration information to a file. Then, Click **Finish** to dismiss the screen.

5. Oracle Portal, Forms, Reports, and Discoverer(11.1.1.6.0) installation is complete. Use **config.sh** with the parameters **-ignoreSysPrereqs** from bin directory in ORACLE_HOME to configure working instances of these installed components.

1). A Welcome message will be displayed, click **Next** to continue.

2). Selecting the domain type as shown below, input the user name, password, Domain Name, and click **Next** to continue.

(**Notes:**

Use the above screen to create a **new WebLogic domain**, extend an existing domain, or expand a cluster.

Specify the following to **create a new WebLogic domain:**

- User Name

Specify the user name. The default user name is weblogic.

- User Password

Specify the user password. Valid passwords are 5 to 30 characters long, must begin with an alphabetic character, use only alphanumeric, underscore (_), dollar ($) or pound (#) characters and include at least one number.

- Confirm Password

Enter the same user password again.

- Domain Name

Specify the name of the domain you want to create. Domain names may only contain alphanumeric characters, or the underscore (_) or hyphen (-) characters.

If an **existing domain** is detected, you will have the option of extending the existing domain to add the products and services you are installing. To extend an existing domain, select Extend Domain and specify the following:

• Host Name

Specify the name of the machine where the domain is located.

• Port

Specify the port number on the host where the domain can be accessed.

• User Name

Specify the user name. The default user name is weblogic.

• User Password

Specify the user password. Valid passwords are 5 to 30 characters long, must begin with an alphabetic character, use only alphanumeric, underscore (_), dollar ($) or pound (#) characters and include at least one number.

You can also choose **Expand Cluster** to add managed servers for high availability and replication. Provide the following credentials:

• Host Name

Specify the name of the machine where the cluster is located.

• Port

Specify the port number on the host where the cluster can be accessed.

• User Name

Specify the user name. The default user name is weblogic.

• User Password

Specify the user password. Valid passwords are 5 to 30 characters long, must begin with an alphabetic character, use only alphanumeric, underscore (_), dollar ($) or pound (#) characters and include at least one number.

)

3). Specify Security Updates, provide the details and click **Next** to continue.

(**Note:**

Enter your E-mail address if you want to receive the latest product information and security updates. If you have a My Oracle account and wish to receive updates via this mechanism, select I wish to receive security updates via My Oracle Support, then enter your account password.

If you do not wish to register for Oracle Configuration Manager, leave all the fields on this screen blank. You will be prompted to confirm your selection with the following screen:

Click **Yes** to confirm that you do not want to register for security updates.
)

4). Specify the Installation Locations as shown below, click **Next** to continue.

(**Notes:**
The contents of this screen differ depending on how you access this screen. There are three possibilities:

First possibility: Install and Configure on the Select Installation Type Screen
If you selected the Install and Configure option on the Select Installation Type Screen, specify the following installation locations:

- **Oracle Middleware Home Location**

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

- **Oracle Home Directory**

  The directory name for your Oracle Home:

  - You can specify a directory that already exists; this must be an empty directory inside the Oracle Middleware Home (for example, you have created an empty directory inside the Middleware Home in advance of this installation and should specify this directory here).

  - You can specify a pre-existing Oracle Home directory (for example, you are reinstalling the software into an existing Oracle Home that was created from a previous installation that was incomplete).

  - You can specify the name of a new directory that will be created for you inside the Middleware Home.

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

  Note: This installation directory will be referred to as ORACLE_HOME throughout the remainder

of this document.

- **WebLogic Server Location**

  The directory name for your WebLogic Server Home. This directory will automatically be created inside the Middleware Home. The default name for this directory is wlserver_10.3.

- **Oracle Instance Location**

  The absolute path to the directory where your Oracle Instance will reside. This is where application configuration files reside and where the application process runs from. Runtime components write only to this location.

- **Oracle Instance Name**

- Specify the unique name of your Oracle Instance. The Oracle Instance name may only contain alphanumeric and underscore (_) characters, it must begin with an alphabetic (a-z or A-Z) character, and must be 4 to 30 characters in length.

Second possibility: Install Only - Do Not Configure Option
If you selected the Install Software - Do Not Configure option on the Select Installation Type Screen, you specify the following installation locations:

- **Oracle Middleware Home**

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

- **Oracle Home Directory**

  The directory name for your Oracle home:

  - You can specify a pre-existing Oracle Home directory (for example, you are reinstalling the software into an existing Oracle Home that was created from a previous installation that was incomplete).

  - You can specify the name of a new directory that will be created for you inside the Middleware Home.

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

Third possibility: Configuration Tool Option

If you are running the Configuration Tool from the ORACLE_HOME/bin (on UNIX operating systems) or ORACLE_HOME\bin (on Windows operating systems) directory, specify the following installation locations:

- **WebLogic Server Location**

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

- **Oracle Instance Location**

  The absolute path to the directory where your Oracle Instance will reside. This is where application configuration files reside and where the application process runs from. Runtime components write only to this location.

- **Oracle Instance Name**

  Specify the unique name of your Oracle Instance. The Oracle Instance name may only containalphanumeric and underscore (_) characters, it must begin with an alphabetic (a-z or A

-Z) character, and must be 4 to 30 characters in length.
)

5). Configuring the components as shown below. Click **Next** to continue.

This screen shows the products and components that are available for configuration. What appears on this screen depends on what you selected on the **Select Domain Screen**:

- If you selected Create Domain on the **Select Domain Screen**, all components in the Oracle Portal, Forms, Reports, and Discoverer suite of products will appear on this screen.

- If you selected Extend Domain on the **Select Domain Screen**, only those components that do not already exist in the domain will be available on this screen, in order for you to add functionality and services to your existing domain.

- If you selected Expand Cluster on the **Select Domain Screen**, only those components that already exist in the domain will be available on this screen, in order for you to perform your replication for high availability.

Select the component(s) you want to configure. Notice in the bottom pane that there is prerequisite information depending on which component(s) you select. Be sure you read this information carefully before you continue.

Select Clustered if you want to be able to extend your domain or expand the cluster at some later point in time for the selected components. If this is a stand-alone installation on a single machine, then you can de-select this option.

6). Configuration of Port as shown below. Click **Next** to continue.

Select **Auto Port Configuration** if you want the installer to automatically assign the default ports to the components.

Select **Specify Ports Using Configuration File** if you have already created a port configuration file that specifies the port numbers that you want to use for each component. Enter the full part and filename of this file in the **Filename** field, or click **Browse** to locate an existing file on your system.

A default file called **staticports.ini** is provided in the Disk1/stage/Response directory on the CD-ROM. You can use this file as a template to create your own custom ports file.

7). Specify Proxy Details as shown below. Click **Next** to continue.

(**Notes:**

This screen is only visible if Oracle Reports was selected on the Configure Components Screen.

If your computer is located behind a firewall you may need to route outgoing HTTP connections through a proxy server. If you have a direct connection to the Internet or if you do not wish to configure a proxy server at this time select "**Do Not Use Proxy Settings**" and click **Next**.

If you are configuring a proxy server, you must provide the following information:

- HTTP Proxy Host

  Enter the host name of your proxy server.

- HTTP Proxy Port

  Enter the port number of your proxy server.

- Bypass proxy for address

  Enter addresses for which the proxy server should be bypassed. Use commas (,) to separate multiple entries. Domains may be listed using asterisk (*). For example:
  .us.oracle.com,.in.oracle.com

)

8). Specify the Portal Schema as shown below. Click **Next** to continue.

Discoverer, whichever was selected on the Configure Components Screen.
In the Connect String field, specify the connection credentials to your database in the following format:
hostname:port:servicename

If you are configuring Oracle Portal, supply the Portal schema name and password that was used to create the **PORTAL schema** using Repository Creation Utility (RCU):

> • Portal Schema
> Specify the name of your Oracle Portal schema. Use the format prefix_PORTAL.

> • Portal Schema Password
> Specify the password for your Oracle Portal schema.

If you are configuring Oracle Discoverer, supply the Discoverer schema name and password that was used to create the **DISCOVERER schema** using Repository Creation Utility (RCU):

> • Discoverer Schema
> Specify the name of your Oracle Discoverer schema. Use the format prefix_DISCOVERER.

> • Discoverer Schema Password
> Specify the password for your Oracle Discoverer schema.

9). Specify the Portlet Schema as shown below. Click **Next** to continue.

This screen is only visible if Oracle Portal was selected on the Configure Components Screen, and your database contains 11g Release 1 (11.1.1) schemas. If your database contains schema from 10g Release 2 (10.1.2) or earlier, you will not see this screen.

Supply the Portlet schema name and password that was used to create the PORTLET schema using Repository Creation Utility (RCU):

- Portlet Schema

  Specify the name of your Oracle Portlet schema. Use the format prefix_PORTLET.

- Portlet Schema Password

Specify the password for your Oracle Portlet schema

10). Specify Application OID as shown below. Click **Next** to continue.

If you selected Oracle Portal on the Configure Components Screen, you must provide credentials to connect to an Internet Directory server that is up and running. Specify the following credentials:

- **Hostname**
  Enter the host name of your LDAP server.

- **Port**
  Enter the port number of your LDAP server. If you do not know the port number, you can run the netstat -an command from the command line to see the port numbers currently being used.

- **User Name**
  Enter an existing LDAP user name with superuser privileges. The default user name is cn=orcladmin.

- **Password**
  Enter the LDAP user password.

If you did not select **Oracle Portal** on the Configure Components Screen, and you want to configure your component to use an existing Internet Directory server, select **Use Application Level Identity Store** and enter the credentials to connect to the server.

Select **Configure the LDAP Server in secure mode** to configure the LDAP server in secure mode. Make sure to specify the secure port number in the Port field if you select this option.

11). Installation Summary will be displayed.

Review the information on this screen, and click **Configure** to begin the configuration. The operations summarized on this page will be performed when you click Install.

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

If you want to save this configuration to a text file, click **Save**. This file can be used later if you choose to perform the same installation from the command line.

Click **Configure** to continue.

12). By clicking **Configure**, configuration Process will be displayed as shown below. The configuration process screen shows you the progress of the component configuration.

(**Notes:**

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

If you want to ignore the error and warning messages and continue with the installation, click **Continue**. Click **Abort** to stop prerequisite checking for all components.

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

Make sure all of the Configuration Progress are successful. Click **Next** to continue.

13). Installation Complete. Installation complete summarizes the installation that was just completed. The end of the summary information on this screen contains the various URLs to access the Administration Console as well as your installed products. You should write these URLs down so you can access your products later.

Or, you can click **Save** to save your configuration information to a file. This information includes port numbers, installation directories, disk space usage, URLs, and component names which you may need at a later time.

Click **Ok** to save the information. Then, Click **Finish** to dismiss the screen.

The Oracle Portal,Forms,Reports and Discoverer installation and configuration are completed, a installation configuration file as following:

Type: Oracle Portal, Forms, Reports and Discoverer Installation
    Configuration Options
        Middleware Home Location: /opt/oracle/Oracle/Middleware
        Oracle Home Location: /opt/oracle/Oracle/Middleware/as_1
        Oracle Instance Location: /opt/oracle/Oracle/Middleware/asinst_1
        Oracle Instance: asinst_1
        Domain Option: Create Domain
        Domain Name: ClassicDomain1
        Domain Home: /opt/oracle/Oracle/Middleware/user_projects/domains/ClassicDomain1
        Domain Host Name: V1720-SLES11SP3.site
        Domain Port No: 7001
        User Name: weblogic1
        Automatic Port Detection: true
        Administrator Console: http://V1720-SLES11SP3.site:7001/console
        EM Console: http://V1720-SLES11SP3.site:7001/em
        EMAgent URL: http://V1720-SLES11SP3.site:5155/emd/main
        Portal URL: http://V1720-SLES11SP3.site:8090/portal/pls/portal
        Forms URL: http://V1720-SLES11SP3.site:8090/forms/frmservlet
        Reports URL: http://V1720-SLES11SP3.site:8090/reports/rwservlet
        Discoverer Viewer URL: http://V1720-SLES11SP3.site:8090/discoverer/viewer
        Discoverer Plus URL: http://V1720-SLES11SP3.site:8090/discoverer/plus

6. Portal, Forms, Reports, and Discoverer Post-install Sanity tests

1). Check that all the instance processes are up

a. Go to <INSTANCE_HOME>/bin and run the command "./opmnctl status –l" to see the status of the processes.

b. Access the Weblogic Admin server URL http://<hostname>:<domain_port>/console and check that the domain managed server are all up

c. Access the Enterprise Manager (if this was selected and installed) and check that the instance is completely UP

2). Access the EM Agent http://Hostname:5155/emd/main

3). Tests for Portal
Portal can be accessed from the following URL,
(http://hostname :< webcache_port>/portal/pls/portal) a page similar to the one below will appear, login
with your SSO login details that was supplied during installation.

To verify that the product is working fine, you may perform the following tests after
logging into the Portal page.

Action: Create PageGroup/Page
Result: Page group and page should get created without any errors

Action: Add regions/tabs to page
Result: Region and tab should appear on the page

Action: Add file/text/image items to page
Result: The added items should appear on the page

Action: Change the cache levels and add regions to see invalidations happening
Result: No failures during the operation

Action: Register one jpdk/wsrp/tools producer and consume portlets on page
Result: Registration should go thru fine

4). Tests for Forms

Access the Forms URL:(http://hostname:<webcache_port>/forms/frmservlet) a page similar to the one below will be displayed.

(Note: Before proceeding with the sanity tests for Forms, set ORACLE_HOME and ORACLE_INSTANCE environment variable as provided during installation.)

Now, click **Ok** the test will be closed.

5). Tests for Reports

a. Check Reports standalone Server:
Type ./opmnctl status -l from the bin folder of ORACLE_INSTANCE. Then Start-restart server.

b. Reports can be accessed from the URL, you will get a page similar to the one below
(http://hostname:<webcache_port>/reports/rwservlet)

c. Servlet URL (URL's should show appropriate outputs)
Checking http://<Hostname>:<port>/reports/rwservlet/showenv

Append "showenv?server=<server name>" to the URL. The test page will be displayed as below:

To get Reports standalone Server name: Run ./opmnctl status -l from the bin folder of ORACLE_INSTANCE.

Checking http://<Hostname>:<port>/reports/rwservlet/showjobs

Append "showjobs?server=<server name>" to the URL. The test page will be displayed as below:

Checking http://<Hostname>:<port>/reports/rwservlet/getserverinfo

Also append "getserverinfo?server=<server name>" to the URL. The test page will be displayed as below:

d. Queue (Jobs should be displayed in the window)

Screenshot: Queue command

6). Tests for Discoverer

Discoverer Plus URL: http://Hostname:8090/discoverer/plus
Discoverer Viewer URL: http://Hostname:8090/discoverer/viewer

Prerequisites:

1. Export the following environment variables in your system where Portal...Discoverer installed.

    export ORACLE_HOME=/opt/oracle/Oracle/Middleware/as_1
    export ORACLE_INSTANCE=/opt/oracle/Oracle/Middleware/asinst_1
    export TNS_ADMIN=$ORACLE_INSTANCE/config
    export NLS_LANG="AMERICAN_AMERICA.UTF8"
    export JAVA_HOME=$ORACLE_HOME/jdk
    export PATH=$ORACLE_HOME/jdk/bin:$ORACLE_HOME/bin:$PATH
    export LD_LIBRARY_PATH=$ORACLE_HOME/lib:$ORACLE_HOME/discoverer/lib

2. Make sure that you were able to tnsping (from ORACLE_HOME/bin directory) with the alias name mentioned in the tnsnames.ora file (tnsnames.ora file in the location ORACLE_INSTANCE/config). Then run the following command to create test user :

#java -jar $ORACLE_HOME/discoverer/lib/eulbuilder.jar -create_eul -connect system/ORACLEcom111@portal -user EULTEST3 -password EULTEST3 -temporary_tablespace TEMP -default_tablespace USERS -log test.log

a. Tests for Discoverer Plus

Access to Discoverer Plus URL: http://Hostname:8090/discoverer/plus and click '**Create Connection**' button to create connection:

Type the connection details and click **Apply**. (**Note:** For "Account Details", give the above username & password (mentioned in Prerequisites step 2))

(Note: For "Account Details", give the above username & password (mentioned in Prerequisites step 2))
Screenshot: Creation Account Details

Click connection button "**Discoverer Test with SLES 11 SP3**" to start connecting.

(**Note:** You will be prompted to re-enter the connection password if the browser does not save the password. In that case, type the password again, click **Go**.)

Successful connected will be displayed the following page. Click **Finish** to continue.

Creating workbook to test.

Save the Workbook as **'Workbook 1 - Test01'**.

b. Tests for Discoverer Viewer

Access to Discoverer Viewer URL: http://hostname:8090/discoverer/viewer, the page as shown below. Click connection string **"Discoverer Test on SLES 11 SP3"** to continue.

Next, click '**sheet 1**' to view the sheet which was created by Plus connection just now:

c. Disco Portlet Provider link should be accessible

Access the URL http://hostname:<webcache port>/discoverer/portletprovider, should get a message as below:

WebCenter Installation

1. Prerequisites

Installation of WebCerter requires:

   1). Oracle Database 11gR2 installed on a SLES 11 SP3 64-bit OS
   2). RCU (with WebCenter schema) created from a SLES 11 SP3 32-bit OS

Screenshot: RCU with WebCenter schema

   3). JDK and WebLogic installed on a SLES11 SP3 64-bit OS where WebCerter will be installed.

2. Download Oracle WebCenter Suite from URL:
(http://www.oracle.com/technetwork/middleware/downloads/fusion-downloads-1714164.html)

3. Unzip the WebCenter .zip file and go to /WebCenter_Shiphome/Disk1. Launch the WebCenter installer with flags "-ignoreSysPrereqs" and "-jreLoc /JAVA_HOME/jre" .

Install Flow:

1) Specify Inventory Directory

This will be ask for the first installation of **Oracle** product on **Unix** system. For every further installation of Oracle Product a subdirectory will be created under Inventory directory by oracle product installation wizard.

This inventory directory is used by the installer to keep track of all Oracle products installed on the computer.

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

A message will be prompted to execute the script **"createCentralInventory.sh"** located in /opt/oracle/oraInventory.

Open a seperate terminal with <mark>root</mark> privileges and execute the above script.

The execution of the script "**createCentralInventory**" does following changes:

1. Setting the inventory to /opt/oracle/oraInventory

2. Setting the groupname to oinstall

3. Creating the Oracle inventory pointer file

4. Changing permission of /opt/oracle/oraInventory to 770

5. Changing groupname of /opt/oracle/oraInventory to oinstall

2). Welcome Screen. A Welcome Screen will be displayed, click **Next**.

3). Install Software Updates. Selected "Skip Software Updates" then click **Next** to continue.

4). Specify Installstion Location as shown below, click **Next** to continue.

In the Oracle Middleware Home field, specify the absolute path to your existing Oracle Middleware Home directory. If you do not know the full path to your Middleware Home, you can click Browse to select an existing directory in your system.

In the Oracle Home Directory field, specify the directory inside the Oracle Middleware Home where you want to install your products.

5). Application Server. WLS installation should be detected.

6). Installation Summary will be displayed as below. If you want to save this configuration to a text file, click **Save**. This file can be used for **Silent Installation**(optional). Review the information on this screen, and click **Install** to begin the installation.

7). Installation Progress. This screen shows you the progress of the installation. (**Note:** If you want to quit before the installation is completed, click **Cancel**.)

8). Installation Complete. This screen summarizes the installation that was just completed. If you want to save this summary information to a text file for future reference, click **Save**. Then click **OK** on **Configuration File Message** popup and then click **Finish** to dismiss the screen.

4. Oracle WebCenter Configuration

1). Launch Configuration wizard using "config.sh" located in **Oracle_Middleware_Home/Oracle_WC1/common/bin**

A Welcome Screen will be displayed, here select the following details. Click **Next** to continue.

Select **Create a new WebLogic domain** to create a new WebLogic domain in your projects(user_projects) directory.

Select **Extend an existing WebLogic domain** if you want to add applications and services, or to override existing database access (JDBC) and messaging (JMS) settings.

2). Select Domain Source as shown below. Click **Next** to continue.

Here select **Generate a domain configured automatically to support the following products** and check the products that you need to be supported.

Select **Base this domain on an existing template** to create your domain based on an existing domain template. Click Browse to navigate your directories to find an existing template.

3). Domain Name and Location as shown below.

Specify the following information for the domain that you are creating:

- Domain name

  The name of the domain you want to create. The default name is base_domain.

- Domain Location

  The absolute path to the directory where this domain should be created. The default location is MW_HOME/user_projects/domains

- Application Location

  The absolute path to the directory where applications created in this domain should reside. The default location is MW_HOME/user_projects/applications

Click **Next** to continue.

4). Configure Administrator Username and Password

Type the following details.

- User name

  Specify the administrator name. The default name is weblogic.

- User password

  Specify the password for the administrator. The password must be at least eight characters long and contain at least one number.

- Confirm user password

  Re-enter the administrator password.

- Description

  Enter a description for the user. This field is optional.

Click **Next** to continue.

5). Configure Server Start Mode and JDK

In the WebLogic Domain Startup Mode section, select one of the following startup modes:

- Development Mode

  Sun JDK is recommended for this mode.

- Production Mode

  WebLogic JRockit JDK is recommended for this mode.

In the JDK Selection section, select a Sun JDK from the list of Available JDKs, or select Other JDK and click Browse to find another JDK on your system.

Click **Next** to continue.

6). Configure JDBC Components Schema

Provide the database server Vendor, Host, Service Name, Port and Schema credentials that were created by RCU utility. The domain configuration wizard will create the JDBC datasource files to the $DOMAIN_HOME/config/jdbc according to the information provided here.

Select all the checkboxes to configure all the common elements for all the component schemas together or one at a time.)

7) Test Component Schema

Verify that the connections to your data sources are successful. Click **Next** to continue.

8). Select Optional Configuration as shown below. Click **Next** to continue.

9). Configuration Summary as shown below.

Verify the information on this screen. In the Summary View field, select a category from the drop-down list to view information about that category:

- Deployment

  Shows the deployments that will be configured in each cluster and server.

- Application

  Shows the applications that will be configured in each cluster and server.

- Service

  Shows the services that will be configured in each cluster and server.

- Cluster

  Shows the clusters that will be configured in this domain and the servers that will be configured in each cluster.

- Machine

  Shows the machines that will be configured in this domain and the servers that will be configured in each machine.

10). Creating Domain

Domain creation progress is shown in this screen. When it is finished, click Done to dismiss the window.

5. WebCenter Post Install Sanity Tests

1). Check for all the install logs available at oraInventory locations pointed by oraInst.loc inside your oracle home.

2). Start the administration server for WebCenter domain from $DOMAIN_HOME/bin location by executing the startWebLogic.sh script. Check the console for a string Server started in RUNNING mode.

The AdminServer logs locate /opt/oracle/Oracle/
Middleware/user_projects/domains/your_domain/servers/AdminServer/logs/

3). Once the administration server is started, then start the WebCenter, Portlet, Utilities and Collaboration server from $DOMAIN_HOME/bin location by executing the following commands:

WebCenter : startManagedWebLogic.sh WC_Spaces
Portlet : startManagedWebLogic.sh WC_Portlet
Utilities: startManagedWebLogic.sh WC_Utilities
Collaboration: startManagedWebLogic.sh WC_Collaboration

(**Note:** Just for previous WebCenter version – Like 11.1.1.2.0:
Once you get the error<BEA-090783> during start the above servers, please add a username(WLS_USER=) and password(WLS_PW=) in the start script(startManagedWebLogic.sh) and restart your WLS-VE server.)

Screenshot: Given the Username and Password in startManagedWebLogic.sh

)

Start WebCenter Server: ./startManagedWebLogic.sh WC_Spaces
Enter the Username and Password to continue.

Verify the console that WLS_Spaces is in RUNNING MODE

The WebCenter Spaces server logs locate
$DOMAIN_HOME/servers/WLS_Spaces/logs/WLS_Spaces.log

Start Portlet Server: ./startManagedWebLogic.sh WC_Portlet

Enter the Username and Password to continue.

Verify the console that WLS_Portlet is in RUNNING MODE

Check the Portlet server logs locate: $DOMAIN_HOME/servers/WLS_Portlet/logs/WLS_Portlet.log

Start WC_Utilities Server: ./startManagedWebLogic.sh WC_Utilities

Enter the Username and Password to continue.

Verify the console that WC_Utilities is in RUNNING MODE

Check the Utilities server logs, locate $DOMAIN_HOME/servers/WLS_Services/logs/WC_Utilities

Start WC_Collaboration: ./startManagedWebLogic.sh WC_Collaboration

Enter the Username and Password to continue.

Verify the console that WC_Collaboration is in RUNNING MODE

Check the Discussions server logs locate
$DOMAIN_HOME/servers/WLS_Services/logs/WLS_Collaboration.log

4). Once you have started the servers and verified from the logs that there is no errors check the following URLs, if they get open without any errors.

a. Admin Server Console

WebCenter server administration server should be available in (http://host:admin_server_port/console). The default admin server port is **7001**. Login using the user credentials you have provided during the installation.

Login page

Home Page

On successful authentication you are taken to Admin console home page.
Make sure that in the **"System Status"** the servers are running without any warning message.

b. Oracle Enterprise Manager

EM console page should be available in (http://host:admin_server_port/em). The default admin server port is **7001**. Login using the admin server credentials

Login Page

Home Page

c. WebCenter Spaces Checked for WebCenter Domain Server WLS_Spaces. URL : http://hostname:port/webcenter/spaces (The default server port is 8888.)

EM view

WebCenter Portal

Access to WebCenter Spaces Login Page http://hostname:8888/webcenter/spaces (Login to spaces page using the admin server username and password)

WebCenter Portal: Spaces viewing.

d. Checked for WebCenter WLS_Portlet. (The default server port is 8889.)

EM View

PortalTools URL : http://Hostname:port/portalTools

wsrp-tools URL : http://Hostname:port/wsrp-tools

(richtextportlet URL: http://Hostname:port/richtextportlet)

e. Web Service WC_Utilities

EM viewing

EM viewing: activitygraph-engines

Access to Activity Graph Schedule URL:http://hostname:8891/activitygraph-engines

Activity Graph Schedule and Status

EM viewing: analytics-collector

Access to Analytics Collector URL:http://hostname:8891/collector

7). Checked for WebCenter Domain Service WC_Collaboration.

EM viewing.

EM viewing: owc_discussions

Access to Community Forums Login URL: http://hostname:8890/owc_discussions

Use Admin user to login

Welcome Page will be displayed as shown below.

WebTier Installation

1. Prerequisites

Installation of WebTier requires:

> 1). Oracle Database 11gR2 installed on a SLES 11 SP3 64-bit OS
> 2). JDK and WebLogic installed on a SLES11 SP3 64-bit OS where WebTier will be installed.
> 3). SOA Installed on a SLES11 SP3 64-bit OS where WebTier will be installed.

> **SOA installation**

> 1. Now login as a non-admin user download the Oracle SOA Suite from URL:
> (http://www.oracle.com/technetwork/middleware/downloads/fusion-downloads-1714164.html)

> 2. Unzip the SOA.zip file and go to Disk1/. Installed using installer option "-ignoreSysPrereqs" into the default location.
> Oracle Middleware Home set to: /opt/oracle/Oracle/Middleware
> Oracle home Directory set to: /opt/oracle/Oracle/Middleware/Oracle_SOA1/

> **Install Flow:**

> 1) Specify Inventory directory will be prompted, specify the Inventory Directory location and Operating System Group name and click **Ok**.

2) Inventory Location Confirmation Dialog will be displayed. Executing the script by root then click **Ok**.

3) Welcome screen will be displayed, click **Next**.

4) Specify Installation Location and click **Next**.

5) Installation Summary will be displayed. Save the 'Response file' and click **Install**.

6) Installation Progress as shown below.

7) Installation Completed. Save the Details(optional) and click **Finish** to dismiss the window.

SOA Configuration

1. To create a test domain by run:
/opt/oracle/Oracle/Middleware/Oracle_SOA1/common/bin/config.sh

1) Welcome screen will be displayed as below. Select '**Create a new WebLogic domain**' , click
Next.

2) Select Domain Source as shown below. Click **Next**.

3) Specify Domain Name and Location as shown below. Click **Next** to continue.

4) Configure Administrator User Name and Password as shown below. Click **Next** to continue.

5) Configure Server Start Mode and JDK as shown below. Click **Next** to continue.

6) Select Optional Configuration as shown below. Click **Next** to continue.

7) Configuration Summary as shown below, vliew the summary and click **Create**.

8) Creating Domain Progress will be displayed, when the progress completed click **Done** to dismiss the window.

2. Download the Oracle WebTier Utilities from URL:
(http://www.oracle.com/technology/software/products/middleware/htdocs/fmw_11_download.html)

3. Unzip WebTier.zip file. From /WebTier_Shiphome/Disk1 launch the WebTier installer with flag "-ignoreSysPrereqs".

Installed components: Oracle Http Server (OHS) and Webcache.

Install Flow:

1). Welcome Screen will be displayed, click **Next** to continue.

2). Install Software Updates. Select **"Skip Software Updates"** if you do not want the installer to check for updates that might be applicable to the current product installation. Click **Next** to continue.

3). Select 'Install and configure' as Installation Type, click **Next** to continue.

4). Specify Installation Location as shown below. Click **Next** to continue.

5). Specify Security Updates(Optional) will be displayed as shown below, click **Next** to continue.

(Note:

Enter your E-mail address if you want to receive the latest product information and security updates. If you have a My Oracle account and wish to receive updates via this mechanism, select I wish to receive security updates via My Oracle Support, then enter your account password.

Click **Yes** to confirm that you do not want to register for security updates.
)

6). Configure Components screen will be displayed as below. Select all and click **Next** to continue.

7). Specify WebLogic Domain will be displayed as below, input the details and click **Next** to continue.

(**Notes:**
1) Use the domain which created by SOA config.sh, the domain should be up and running.
2) Startup the domain by running **startWebLogic.sh** from
/Oracle_Middleware_Home/user_projects/domains/your_domain

Screenshot: Starting Domain

)

8). Specify Component Details as shown below, click **Next** to continue.

9). Type Web Cache Administrator Password, click **Next** to continue.

(**Note:** The password will be used to access Oracle Web Cache administration and Statistics URLs.)

10). Configure Ports will be displayed as below, select **"Auto Port Configuration"** and click **Next** to continue.

11). Installation Summary screen will be displayed as below, save the summary(optional) and click **Install** to continue.

12). Installation Progress will be started as shown below.

13). Configuration Progress will auto run after the Installation Progress completed. Make sure all of the components are successful. Click **Next** to continue.

14). Installation Complete screen will be displayed as below, save installation summary click **OK** and click **Finish** to dismiss the screen.

Web Tier Installation and Configuration Summary as below:

Type: Install and Configure
 Location: /opt/oracle/Oracle/Middleware/Oracle_WT1
  Oracle Instance Name: instance1
  Oracle Instance Home: /opt/oracle/Oracle/Middleware/Oracle_WT1/instances/instance1
  Associate With Domain Case
 Disk Space
  Oracle Home
   Oracle Home Size: 1398.909 MB
   Available: 26988 MB
  Oracle Instance Home
   Instance Home Size: 25.213 MB
   Available: 25088 MB
 Domain Details
  Hostname: V1720-SLES11SP3.site
  Port: 7001
  User: weblogic1
 System Components
  Oracle Process Manager Notification (OPMN)
  Oracle HTTP Server (OHS)
  Oracle Web Cache
 Accessible URLs
  Oracle HTTP Server URL : http://V1720-SLES11SP3.site:7777
  Oracle HTTP Server SSL URL : https://V1720-SLES11SP3.site:4443
  Oracle Web Cache URL : http://V1720-SLES11SP3.site:7785
  Oracle Web Cache SSL URL : https://V1720-SLES11SP3.site:7789
  Oracle Web Cache Administration URL : http://V1720-SLES11SP3.site:7786
  Oracle Web Cache Statistics URL : http://V1720-SLES11SP3.site:7787

4. WebTier Post Install Sanity Tests

1). Check for all the install logs available at oraInventory locations pointed by oraInst.loc inside your oracle home.

2). Checked for the ias components status. Go to $ORACLE_INSTANCE_HOME/bin, run './opmnctl status -l' (Stopped all services and re-started them with opmnctl. Checked status and all services were able to be stopped and re-started fine.)

3). Checked all listed URLs for correctly operating services:

Oracle HTTP Server URL : http://<hostname>:7777
Oracle HTTP Server SSL URL : https://<hostname>:4443
Oracle Web Cache URL : http://<hostname>:7785
Oracle Web Cache SSL URL : https://<hostname>:7789
Oracle Web Cache Administration URL : http://<hostname>:7786
Oracle Web Cache Statistics URL : http://<hostname>:7787

a. Access to Oracle HTTP Server URL : http://<hostname>:7777

b. Access to Oracle HTTP Server SSL URL : https://<hostname>:4443

c. Access to Oracle Web Cache URL : http://<hostname>:7785

d. Access to Oracle Web Cache SSL URL : https://<hostname>:7789

e. Access to Oracle Web Cache Administration URL : http://<hostname>:7786

f. Access to Oracle Web Cache Statistics URL : http://<hostname>:7787

4). Oracle Enterprise Manager 11g Fusion MiddleWare Control Tests

a. Access to the EM URL: http://Hostname.site:7001/em and check of status
Login page (Using the username and password which created during the installation)

Home Page

b. OHS Tests

OHS Home Page displayed as shown below.

Shutdown of OHS
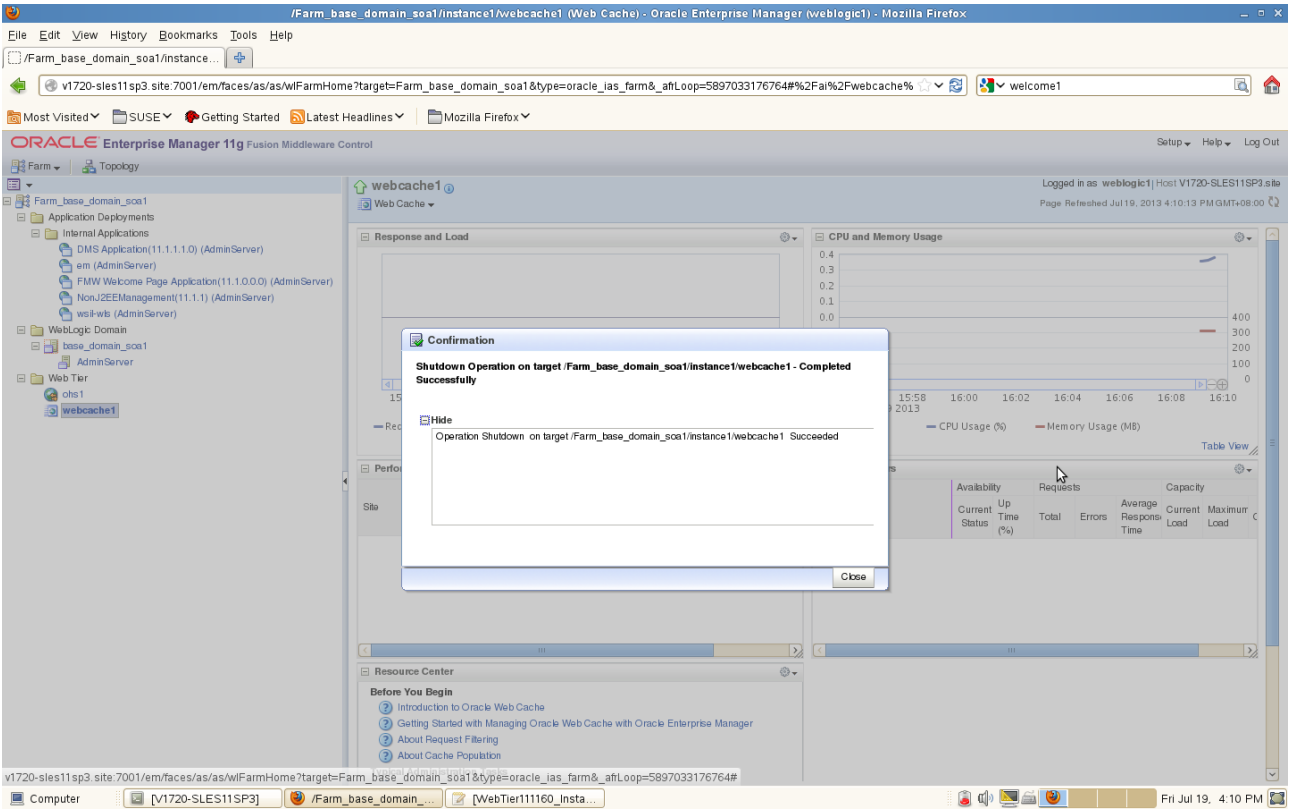
The OHS is down.

Startup of OHS

The OHS is up.

c. WebCache Tests

WebCache Home Page displayed as shown below.

Shutdown of WebCache

The WebCache is down

Startup of WebCache

The WebCache is up

A

Troubleshooting

- Session A.1, "General questions"

A.1 General questions

A.1.1 How many servers are required for Oracle Fusion Middleware components exercise?

A generic setup as below:
a. A separate SLES11 SP3 64bit OS -- Installed Oracle 11gR2 database server.
b. A separate SLES11 SP3 32bit OS -- Used to run the Oracle RCU(Repository Creation Utility).
c. A separate SLES11 SP3 64bit OS -- Installed WebLogic(Note: The WebLogic is a generic required for any other OFM components) and other OFM components. (According to your needs these services also can be installed on different machines.)

History:

Date	Changes
October 24, 2013	Initial Document Created.

End