Oracle® Communications Session Delivery Manager

Report Manager Installation Guide
Release 7.4
Formerly Net-Net Central

November 2014

ORACLE

Notices

Contents

About this Guide

The Oracle Communications Report Manager Installation Guide provides instructions for installing the components which Report Manager depends on. Report Manager is part of the Session Delivery Manager (SDM) suite.

Related Session Delivery Manager Documentation

The following table lists related documents for the Session Delivery Manager

Document Name	Document Description
Release Notes	Contains information about the administration and software configuration of the Session Delivery Manager feature support new to this release.
Installation Guide	Contains graphical and next mode installation information.
High Availability Guide	Describes Session Delivery Manager High Availability (HA) and the HA cluster, which is a network of tightly-linked servers. HA provides continuous management of the SDM system.
Web Services SOAP XML Provisioning API Guide	Provides a full description of the individual interface definitions that make up the Application Programming Interface (API).
REST API Guide	The OC SDM REST API consists of resources, representations, URIs and HTTP request types that make up the uniform interface used for client/server data transfers.
Core Functionality Guide	Contains an overview of the Session Delivery Manager graphical user interface (GUI), detailed information about managing devices in Net-Net Central, and Net-Net Central licenses.
Session Element Manager Guide	Contains detailed information pertaining to the Session Element Manager application and describes the dashboard summary view, audit log, fault, and performance views.
Session Route Manager Guide	Contains detailed information about centrally automating the management and distribution of routing data.
Quick Start Guide	Contains a brief description of the GUI, along with information on how to add a device and perform basic configuration tasks.
Administration Guide	Contains information about security administration, which lets you create new users and new user groups, and set group-based authorization.
Application Orchestrator User Guide	Contains detailed information of the use Application Orchestrator to set up and deploy virtual appliances.
Report Manager Installation Guide	Contains instructions for installing Report Manager's dependencies and registering BI Publisher.

Document Name	Document Description
Report Manager User Guide	Contains information about configuring collection groups and creating reports.

Revision History

Date	Description
May 2014	• Initial release
July 2014	• Fixed typos in chapter 3 • Clarified steps in Oracle DB Installer section • Added reference to BI Publisher troubleshooting documentation • Added xdpyinfo section to Troubleshooting chapter • Added step for OS kernel errors • Fixed URL • Fixed data pump directory from /home to /app • Added reference to system requirements in SDM Install Guide and Release Notes
Sept 2014	• Added instructions about importing GPG key.
Oct 2014	• Added instructions on creating oracle user account • Added instructions on installing unzip • Added Create Inventory screen • Added warning about kernel parameters • Included text to add export statements to .bashrc file • Fixed typo in Configuring User Privileges section • Added section on HTTPS • Added shutdown instructions to Troubleshooting section • Clarified the need to reboot all nodes in a cluster
Nov 2014	• Removed instructions to set ORACLE_SID during database installation.

1

Getting Started

This document explains how to install the components necessary for Report Manager, which is part of the Session Delivery Manager (SDM) suite. If installing SDM for the first time, or upgrading from a previous version, follow the instructions in the Oracle Communications Session Delivery Manager Installation Guide. After completing those steps, follow the instructions in this document to install Report Manager's dependencies.

Beginning with SDM 7.4, the Report Manager uses the Oracle BI Publisher to manage and render reports. The previous reporting tool in NNC 7.3 has been obsoleted. Unlike its predecessor, BI Publisher allows users to create their own reports and dashboards as well as schedule and print out these reports in multiple formats.

Note: If you've been using a previous version of Report Manager, pay close attention to the Session Delivery Manager Installation Guide, especially for the additional options about reporting database migration.

For complete instructions about BI Publisher, see the *Oracle Business Intelligence Publisher Install Guide*.

After being installed as part of SDM, Report Manager will only function properly after:

1. Installing an Oracle database
2. Creating a new Oracle database
3. Running the Repository Creation Utility (RCU)
4. Installing BI Publisher
5. Registering BI Publisher

Overview of Report Manager Architecture

Report Manager has four possible configurations:

- local standalone
- local cluster
- remote standalone
- remote cluster

Report Manager may be installed in either a local or remote configuration. In a local configuration, Report Manager and BI Publisher are installed on the same machine. In a remote configuration, Report Manager and BI Publisher are installed on separate machines.

In addition, Report Manager may be installed in either a standalone or cluster configuration. In a standalone configuration, one instance of Report Manager and BI Publisher work together to generate reports. In a cluster configuration, multiple instances of Report Manager and BI Publisher generate reports and provide high availability

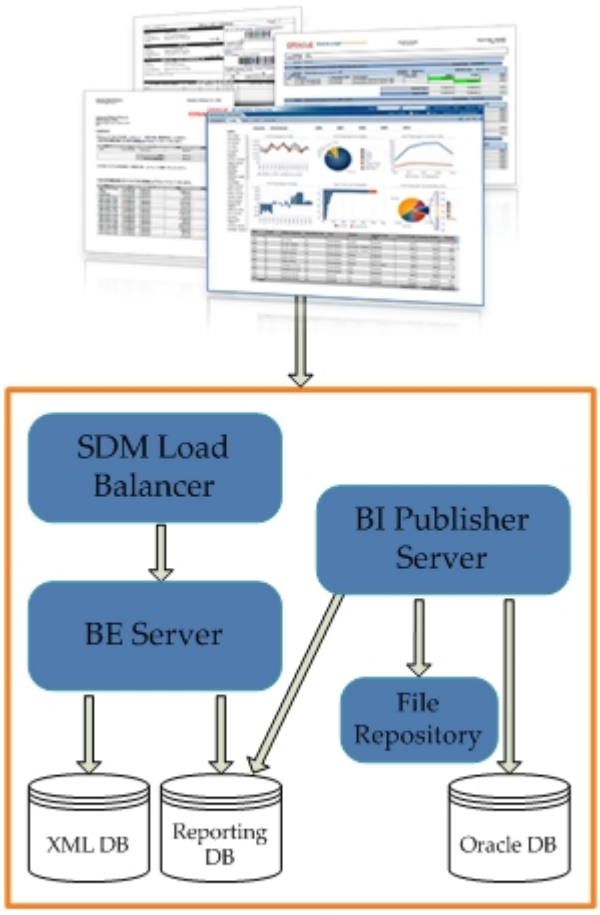
in case one system experiences a sudden failure. As long as BI Publisher can access the Oracle database over the network, both Report Manager and the Oracle database may also be installed on separate machines.

Note: Although BI Publisher works with several other databases, an Oracle database is required if you want to run scheduled reports.

Of the four possible installation types, determine which setup is appropriate for your organization before continuing with this guide.

Local Standalone

In a local standalone architecture, a single instance of BI Publisher is installed on the same machine as the Session Delivery Manager.



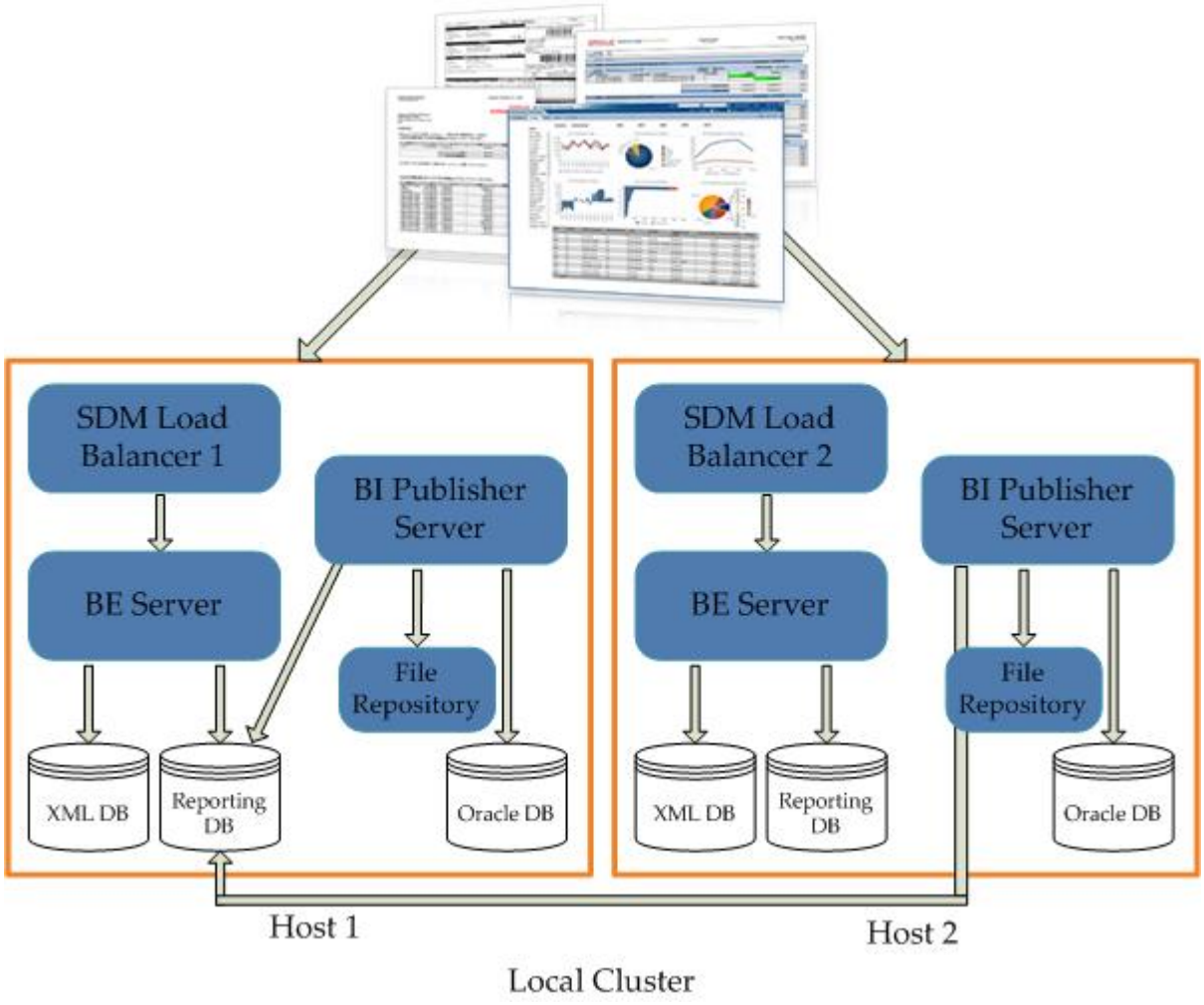
Local Standalone

Local Cluster

In a local cluster architecture, the Session Delivery Manager and BI Publisher are fully installed together on each machine that is part of the SDM cluster.

Note: In a local cluster, the databases sync every night.

Note: All identifying information for host 1, such as username, password, and database prefix, should be identical to the identifying information of host 2.

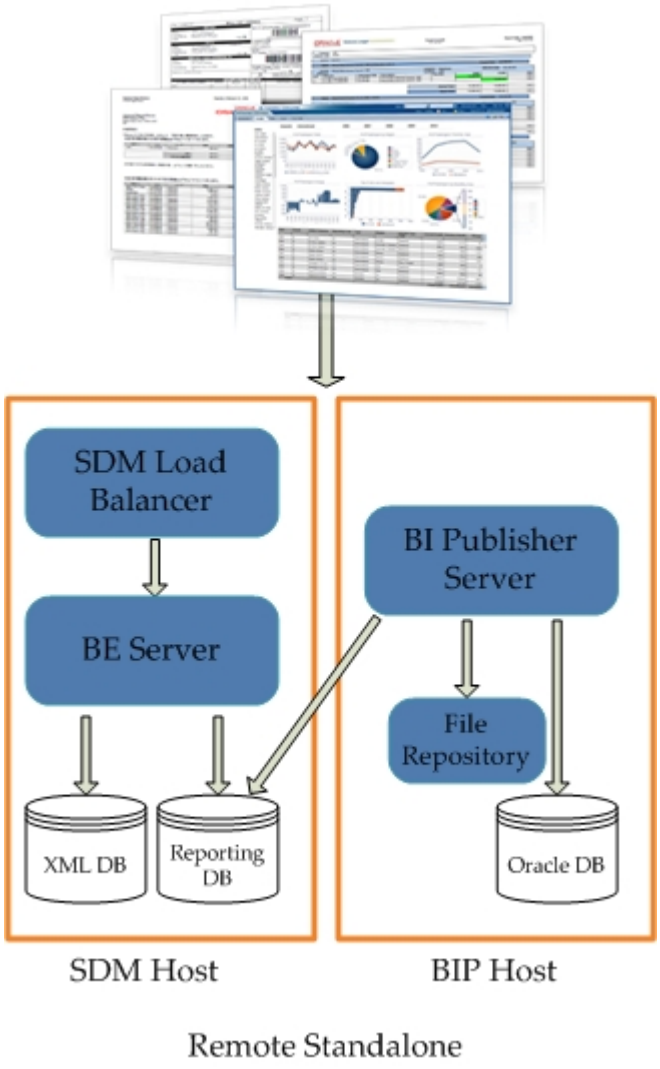


Note: In this guide, the phrase "local cluster" does not mean a cluster of several instances running on a single machine. Instead, it means a cluster of machines on each of which the BI Publisher instance is local to the SDM instance.

Remote Standalone

In a remote standalone architecture, a single instance of BI Publisher is installed on a separate machine from the Session Delivery Manager.

If this describes your system's architecture, first install SDM on its own server and then install BI Publisher on its own server.



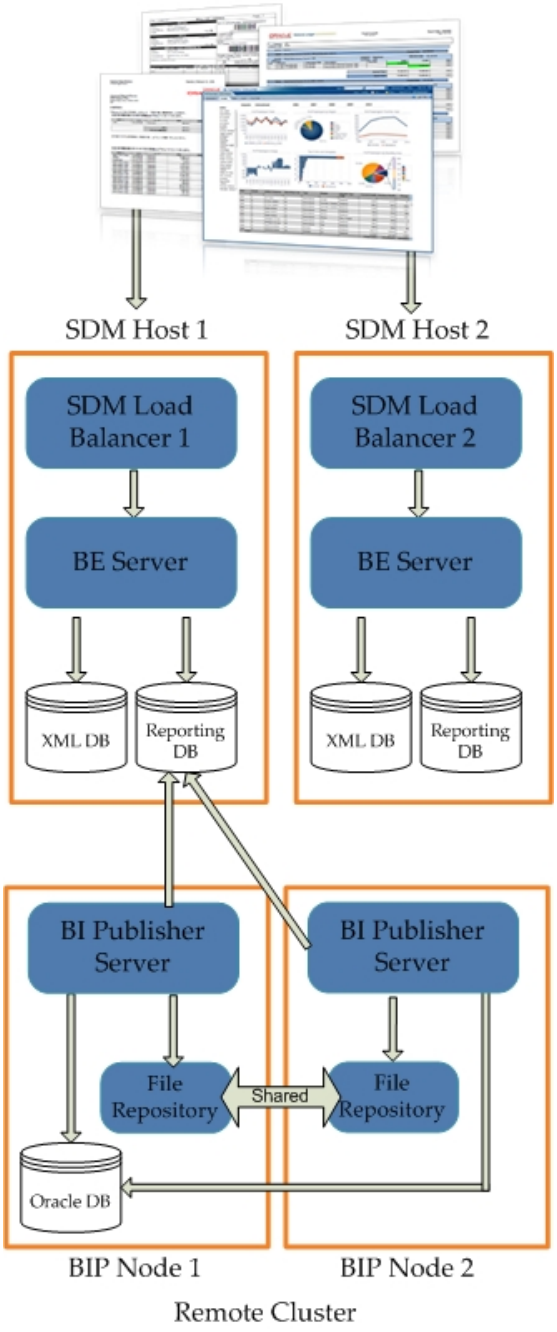
Remote Standalone

Remote Cluster

In a remote cluster architecture, multiple instances of BI Publisher and SDM are installed on separate machines.

SDM host 1 maintains the reporting database, which is synced with the SDM host 2 reporting database every night. In addition to sharing a file repository, both BI Publisher nodes communicate with the reporting database and the Oracle database. When the user signs in to BI Publisher from SDM, the login is attempted on the BIP nodes in a round-robin fashion.

If this describes your system's architecture, first install SDM on host 1 and host 2. Then use this guide to install BI Publisher on all the BIP nodes.



Note: The customer is expected to set up the shared repository in accord with your company's security policies.

2

Prerequisites

In addition to the prerequisites for SDM, your system must meet the following minimum requirements for BI Publisher:

- 64-bit operating system
- 64-bit JVK/JDK
- JDK version 1.6 (update 2) or higher
- 8 GB RAM for 64-bit JVM in large, high volume deployments
- 2 GB RAM for 32-bit JVM in small deployments
- 30 GB shared disk space for cluster deployments
- 20 GB non-shared, temporary disk space for document processing

Setting up the User Account

This guide shows how to install an Oracle database on a copy of Oracle Linux 6.3. This requires a user account named oracle which belongs to a group account named oracle.

To create the user account:

1. Create a new group account called oracle.

   ```
   groupadd oracle
   ```

2. Create a new user account called oracle that belongs to the oracle group account.

   ```
   useradd -m -g oracle -d /home/oracle -s /bin/bash oracle
   ```

3. Set the password for the oracle account.

   ```
   passwd oracle
   ```

Setting up a GUI Interface

The Oracle Installer requires a GUI interface.

To set up a GUI interface, use either SSH with X11 forwarding or VNC.

Connect via SSH

You can use SSH with X11 forwarding to tunnel the GUI-based installer from the server to your client.

To see whether your server is configured for X11 forwarding:

Prerequisites

1. SSH to your server with the -Y flag.

   ```
   ssh -Y oracle@vm
   ```

2. Run the command below to determine whether xauth is installed on your system.

   ```
   yum list xorg-x11-xauth
   ```

   If the output lists xorg-x11-xauth under "Installed Packages," then the package is installed.

   ```
   Installed Packages
   xorg-x11-xauth.x86_64  1:1.0.2-7.1.el6
   ```

   If the output lists xorg-x11-xauth under "Available Packages," then the package is not installed.

   ```
   Available Packages
   xorg-x11-xauth.x86_64  1:1.0.2-7.1.el6
   ```

   If the output lists xorg-x11-xauth under both "Installed Packages" and "Available Packages," then the package is installed but not up to date.

3. Install xorg-x11-xauth, if it is not installed.

   ```
   yum install xorg-x11-xauth
   ```

4. Find the values for the DISPLAY variable with the xauth list command.

   ```
   $ xauth list
   <domain name>/unix:11
   <domain name>/unix:10
   ```

   In the example above, either 11 and 10 are suitable values for the DISPLAY variable.

5. Set and export the DISPLAY variable to localhost:<number>.0.

   For example:

   ```
   export DISPLAY=localhost:10.0
   ```

   To make this permanent, add this line to your ~/.bashrc file.

Connect via VNC

You can use VNC to connect to the server and run the GUI-based installer.

To setup VNC:

1. SSH to your server.
2. As root, install the Desktop package group, which includes X11 and gnome-desktop.

   ```
   yum install @desktop
   ```

3. Install a VNC server.

   ```
   yum install tigervnc-server
   ```

4. After rebooting, start the VNC server.

   ```
   vncserver :1
   ```

Platforms Supported

Oracle has certified the following hardware and software platforms, and client requirements for use with Session Delivery Manager Release 7.4:

Linux

- CPU: 4-core 2.1 GHz processor or better
- 16 GB RAM minimum, 24 GB RAM recommended
- 195 GB hard drive minimum, 300 GB recommended
- Oracle Linux 6.3 64-bit OVM Template

- Oracle Linux 6.3, 6.4, 6.5 64-bit
- Red Hat Linux 6.3, 6.4, 6.5 64-bit
- CentOS 6.3, 6.4, 6.5 64-bit

3

Installing an Oracle Database on an Oracle Linux Server

To install an Oracle database for Report Manager:

1. Install any needed dependencies.
2. Download and run the Oracle database installer.
3. Edit and restart the listener.

Installing Dependencies

Depending on the software already installed on your machine, you may or may not have the required dependencies to install Oracle database. Follow these steps to install the RPM package oracle-rdbms-server-11gR2-preinstall.

Note: For more information, see *Oracle Database 12c and 11g Installations on Oracle Linux 6*.

1. SSH to your server.

   ```
   ssh oracle@vm
   ```

2. Retrieve the file that configures repository locations.

   ```
   cd /etc/yum.repos.d/
   wget http://public-yum.oracle.com/public-yum-ol6.repo
   ```

3. Open `public-yum-ol6.repo` in a text editor. Under the [ol6_latest] section and the [ol6_UEK_latest] section, make sure the enable parameter is set to 1.
4. Install the 11gR2 package.

   ```
   yum install oracle-rdbms-server-11gR2-preinstall
   ```

   Note: If yum fails with a GPG key retrieval error, import Oracle's GPG key.

   ```
   rpm --import http://oss.oracle.com/ol6/RPM-GPG-KEY-oracle
   ```

   To verify the GPG key was successfully imported, type

   ```
   rpm -q gpg-pubkey-ec551f03-4c2d256a
   ```

   If the package name is returned, Oracle's GPG was successfully imported. If the command returns a message saying the package is not installed, re-enter the import command.
5. Run this script to check if your system has all the required packages:

```
rpm -q binutils compat-db compat-libstdc++-33 glibc glibc-devel gcc cpp
glibc-headers gcc-c++ libstdc++ make ksh elfutils-libelf elfutils-libelf-
devel sysstat libaio libaio-devel unixODBC unixODBC-devel --qf '%{name}.%
{arch}\n'|sort
```

This script returns a list of packages, with a notification next to those packages that are not installed.

```
package compat-db is not installed
```

If necessary, install any missing packages with the command yum install <package-name>.

```
yum install compat-db
```

Downloading the Oracle Database Installer

These instructions describe how to download the Oracle database for Report Manager.

To download the Oracle database installer:

1. Navigate your browser to the *Oracle Database Software Downloads* page.
2. Under the "Oracle Database Software Downloads" heading, select Accept License Agreement.
3. Download the Oracle Database 11g Release 2 for your particular system by clicking the File 1 and File 2 links.
4. On the server, as the root user create an /app/oracle directory that the oracle user can access.

   Change the file owner and group with the command chown <user>:<group> <path>.

```
[oracle@vm ~]$ su
Password:
[root@vm oracle]# mkdir /app
[root@vm oracle]# chown oracle:oracle /app
[root@vm oracle]# exit
exit
[oracle@vm ~]$ mkdir /app/oracle
```

5. If you downloaded these files on a separate machine, use scp to transfer them to your server.

```
scp ~/Downloads/linux.x64_11gR2_database_* oracle@vm:
```

6. On your server, run a checksum to ensure the files were not corrupted during transfer.

   The cksum output follows this format: <checksum> <byte count> <filename>.

```
[oracle@vm ~]$ cksum linux.x64_11gR2_database_*
3152418844 1239269270 linux.x64_11gR2_database_1of2.zip
3669256139 1111416131 linux.x64_11gR2_database_2of2.zip
[oracle@vm ~]$
```

7. Unzip the two files.

   Note: If it is not installed, install unzip with the command yum install unzip.

```
unzip linux.x64_11gR2_database_1of2.zip
unzip linux.x64_11gR2_database_2of2.zip
```

Running the Oracle Database Installer

These instructions describe how to install an Oracle database for Report Manager.

To install an Oracle database:

1. Set the following environmental variables:

```
export TMP=/tmp
export TMPDIR=/tmp
export ORACLE_BASE=/app/oracle
unset ORACLE_HOME
```

2. Navigate to the /home/oracle/database directory and run the installer.

```
cd /home/oracle/database/
./runInstaller
```

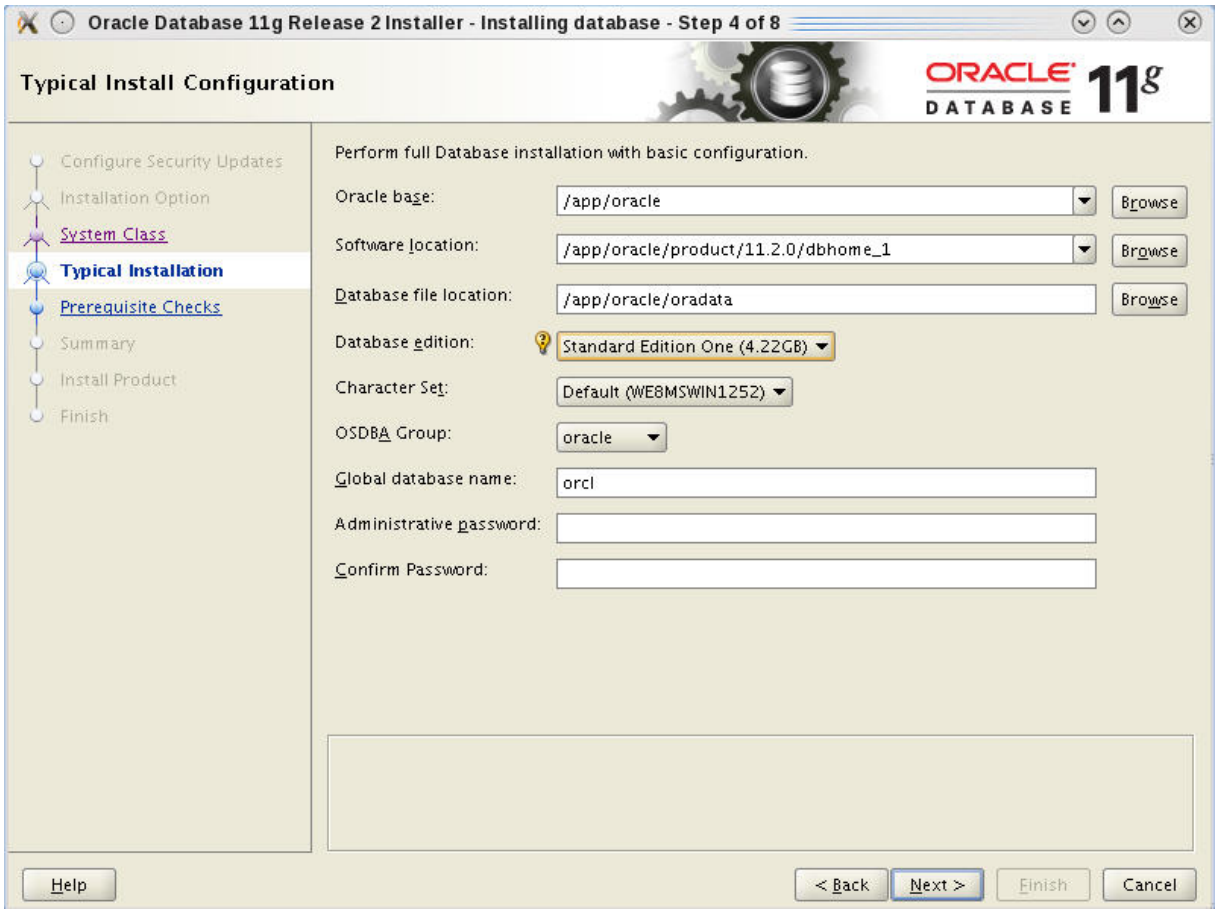
Note: If you experience errors, see the X11 Forwarding section of the Troubleshooting chapter.

3. Leave both the email address field and the My Oracle Support Password field blank. Uncheck the box next to "I wish to receive security updates via My Oracle Support" and click **Next**. Click **Yes** to confirm.
4. Select Create and configure a database. Click **Next**.
5. Choose Desktop Class from the listed options and click **Next**.

Note: For Report Manager and BI Publisher's use of Oracle DB, the Desktop Class option is sufficient.

6. In the Database edition drop-down list, select **Standard Edition One**.

Warning: Selecting Enterprise Edition will result in extra charges from Oracle.



Set the following values:

Parameter	Value
Oracle base	/app/oracle
Software Location	/app/oracle/product/11.2.0/dbhome_1
Database file location	/app/oracle/oradata
Database edition	Standard Edition One (4.22GB)

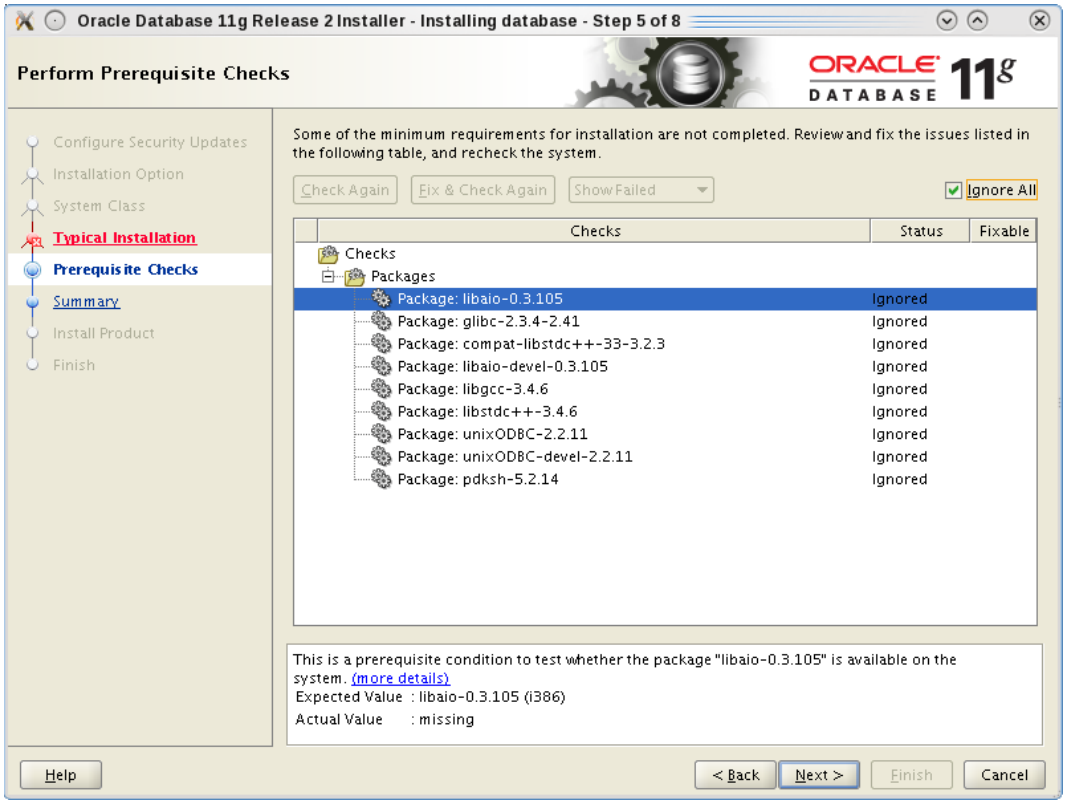
Parameter	Value
Character Set	Default
OSDBA	oracle
Global database name	orcl
Administrative password	<long random string>

7. Create and enter the administrative password twice and click **Next**.
8. If the Create Inventory window appears, accept the default values.

Parameter	Default value
Inventory Directory	/app/oraInventory
oraInventory Group Name	oracle

9. Examine the errors, if any, that appear. If you are installing the Oracle database on a 64-bit system, you may ignore error messages for 32-bit packages. Install any missing packages with yum install <package name> and click **Check Again**. Select the Ignore All check box and click **Next**.

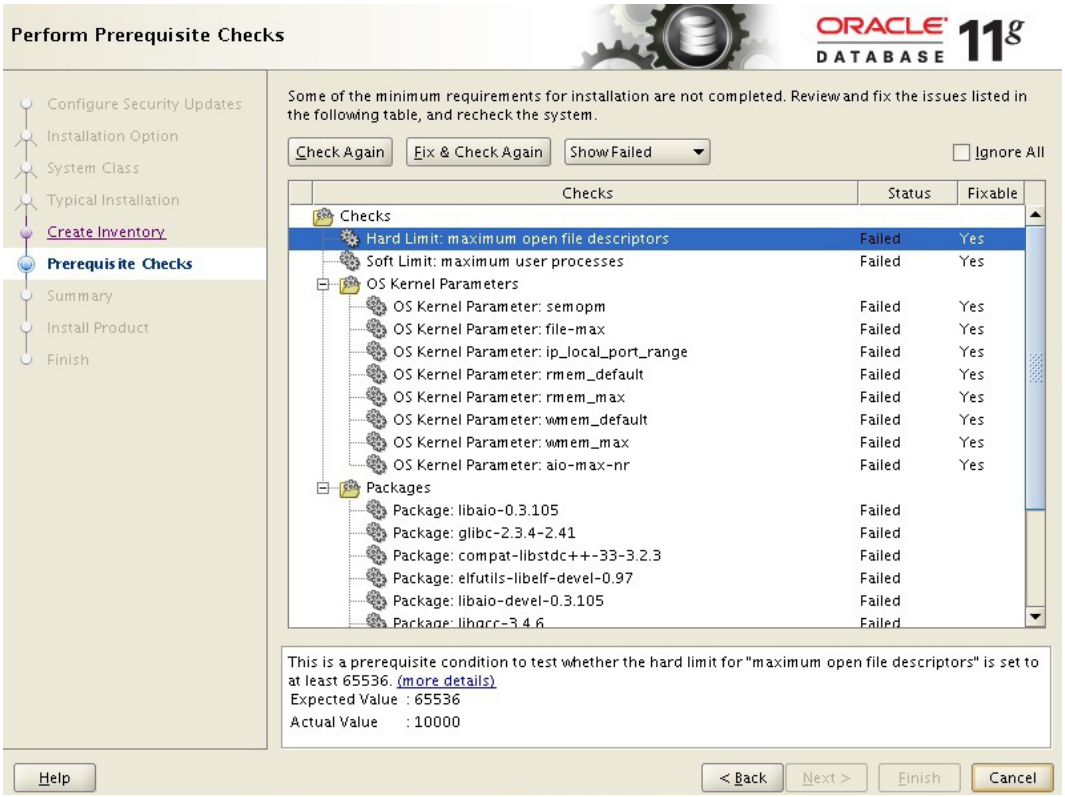
Note: Selecting Ignore All changes the Status value from Failed to Ignored.



If your display shows OS Kernel Parameter errors, follow the directions in the *Kernel Requirements* section of the Oracle Database documentation.

Warning: The table below displays the two parameters which are exceptions.

Parameter	Value
kernel.shmmax	68719476736
kernel.shmall	4294967296

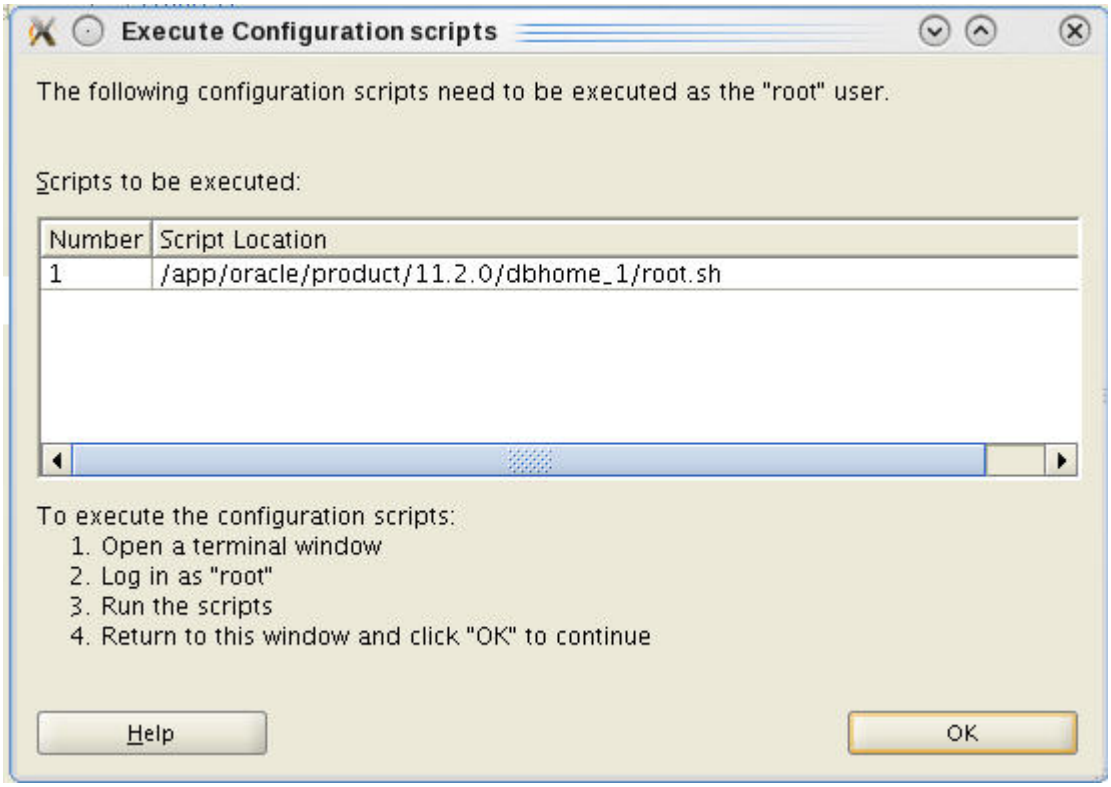


10. Click **Finish**.

A default database will be created. The global database name is orcl and its SID is orcl.

11. When the installation is complete, click **OK** on the DB Configuration Assistant Screen.

12. If the Execute Configuration scripts window opens, run the scripts listed as root before clicking **OK**.

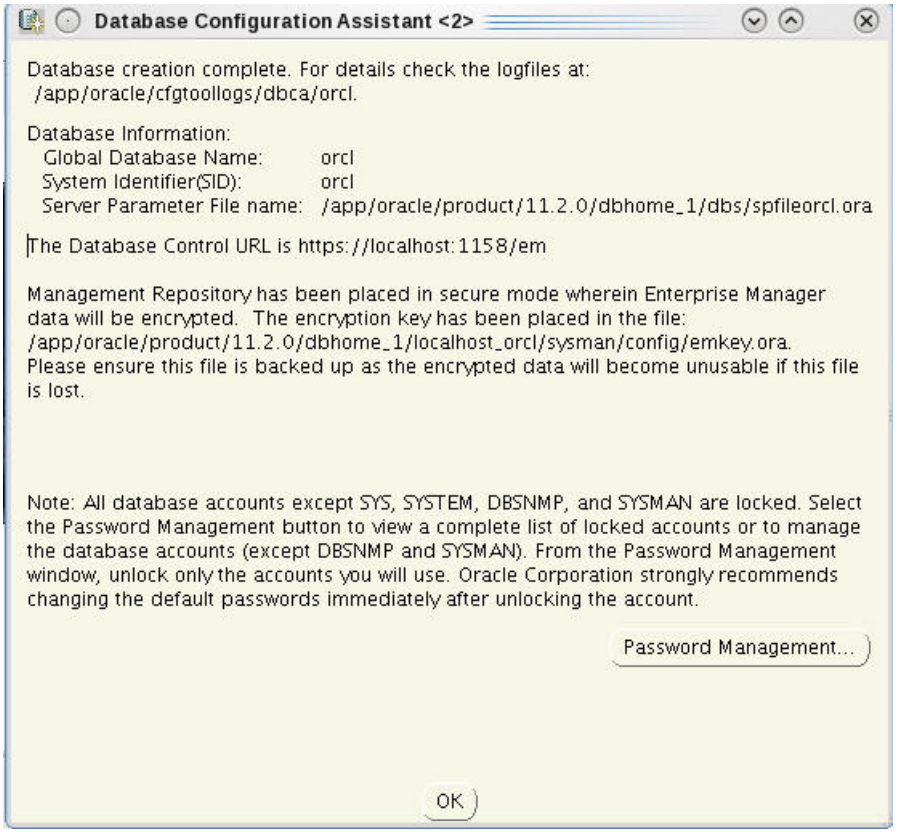


The following block of code shows a user executing as root the script mentioned in the Execute Configuration scripts window.

```
[root@vm oracle]# cd /app/oracle/product/11.2.0/dbhome_1/
[root@vm dbhome_1]# ./root.sh
Running Oracle 11g root.sh script...

The following environment variables are set as:
    ORACLE_OWNER= oracle
    ORACLE_HOME=  /app/oracle/product/11.2.0/dbhome_1

Enter the full pathname of the local bin directory: [/usr/local/bin]:
   Copying dbhome to /usr/local/bin ...
   Copying oraenv to /usr/local/bin ...
   Copying coraenv to /usr/local/bin ...


Creating /etc/oratab file...
Entries will be added to the /etc/oratab file as needed by
Database Configuration Assistant when a database is created
Finished running generic part of root.sh script.
Now product-specific root actions will be performed.
Finished product-specific root actions.
[root@vm oracle]# exit
exit
[oracle@vm ~]$
```

13. When the installation finishes, click **OK** and then **Close**.

    Take note of the URL given. In this example, the URL is https://localhost:1158/em.



Editing the Listener

To ensure the Oracle database is accessible remotely by BI Publisher, edit the listener.ora file.

1. Open the listener.ora file.

```
[oracle@vm ]$ cd /app/oracle/product/11.2.0/dbhome_1/network/admin/
[oracle@vm admin]$ vi listener.ora
```

2. In the line below, change the HOST parameter from localhost to the hostname of your server.

```
(ADDRESS = (PROTOCOL = TCP)(HOST = localhost)(PORT = 1521))
```

4

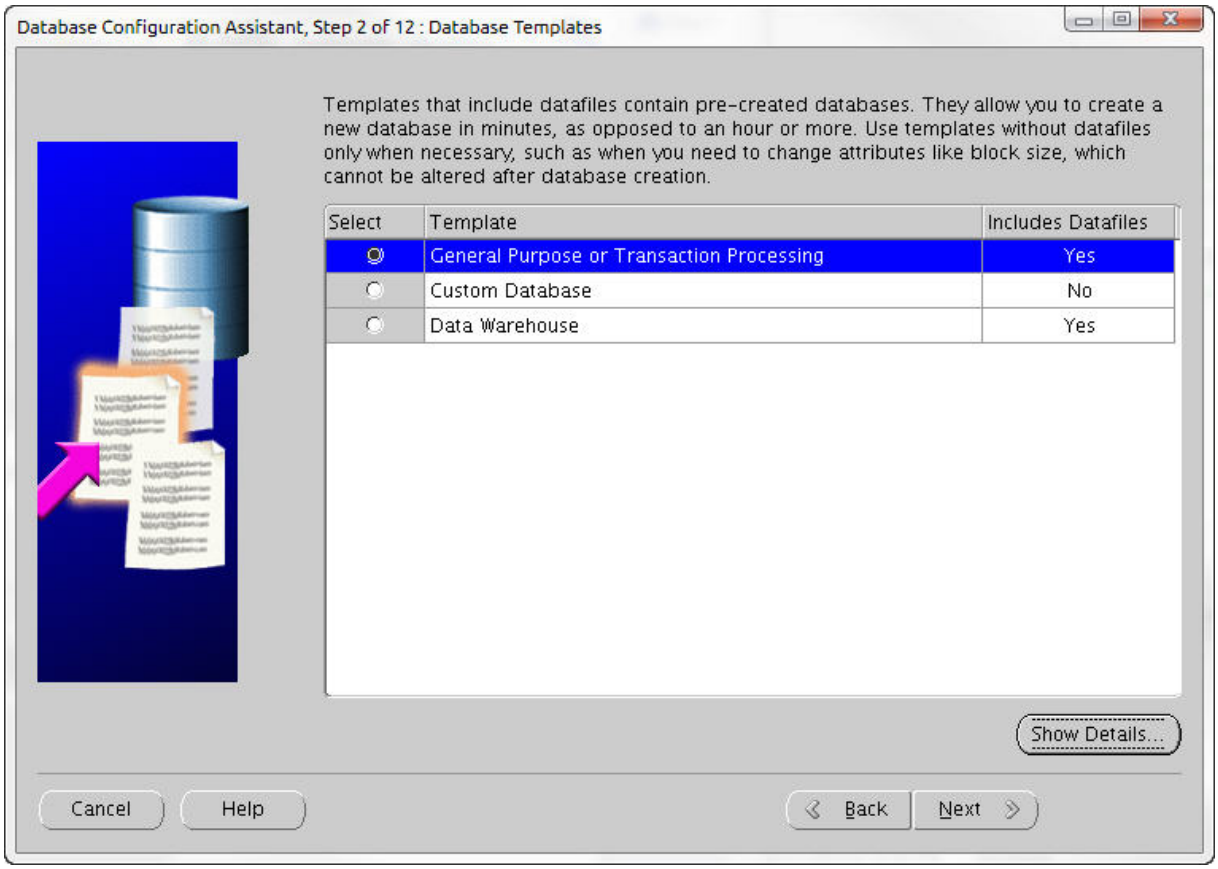
Creating a New Oracle Database

To create a new Oracle database:

Open the Database Creation Assistant located in the $ORACLE_HOME/bin directory.

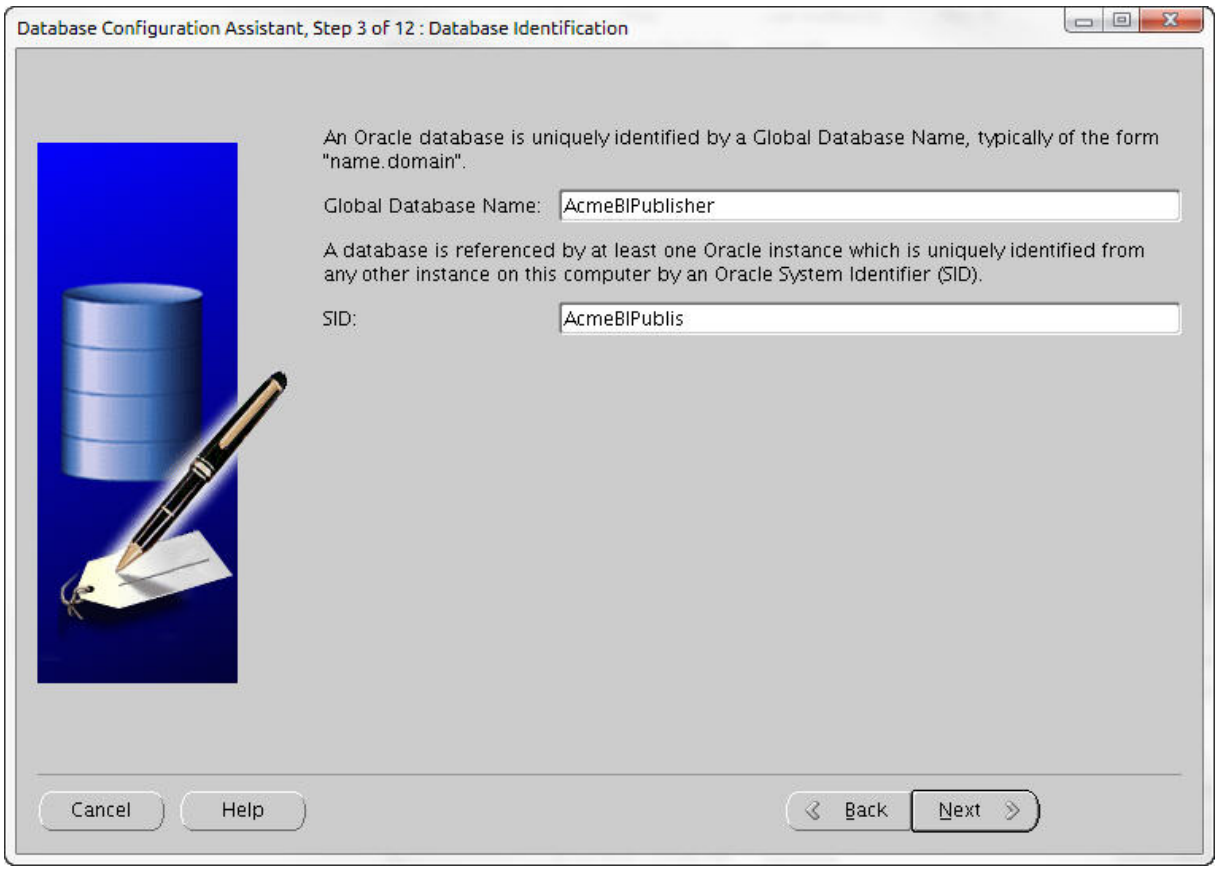
```
[oracle@vm ~]$ cd /app/oracle/product/11.2.0/dbhome_1/bin
[oracle@vm bin]$ ./dbca
```

1. After the Welcome screen, select Create a Database and click **Next**.
2. Select General Purpose or Transaction Processing and click **Next**.

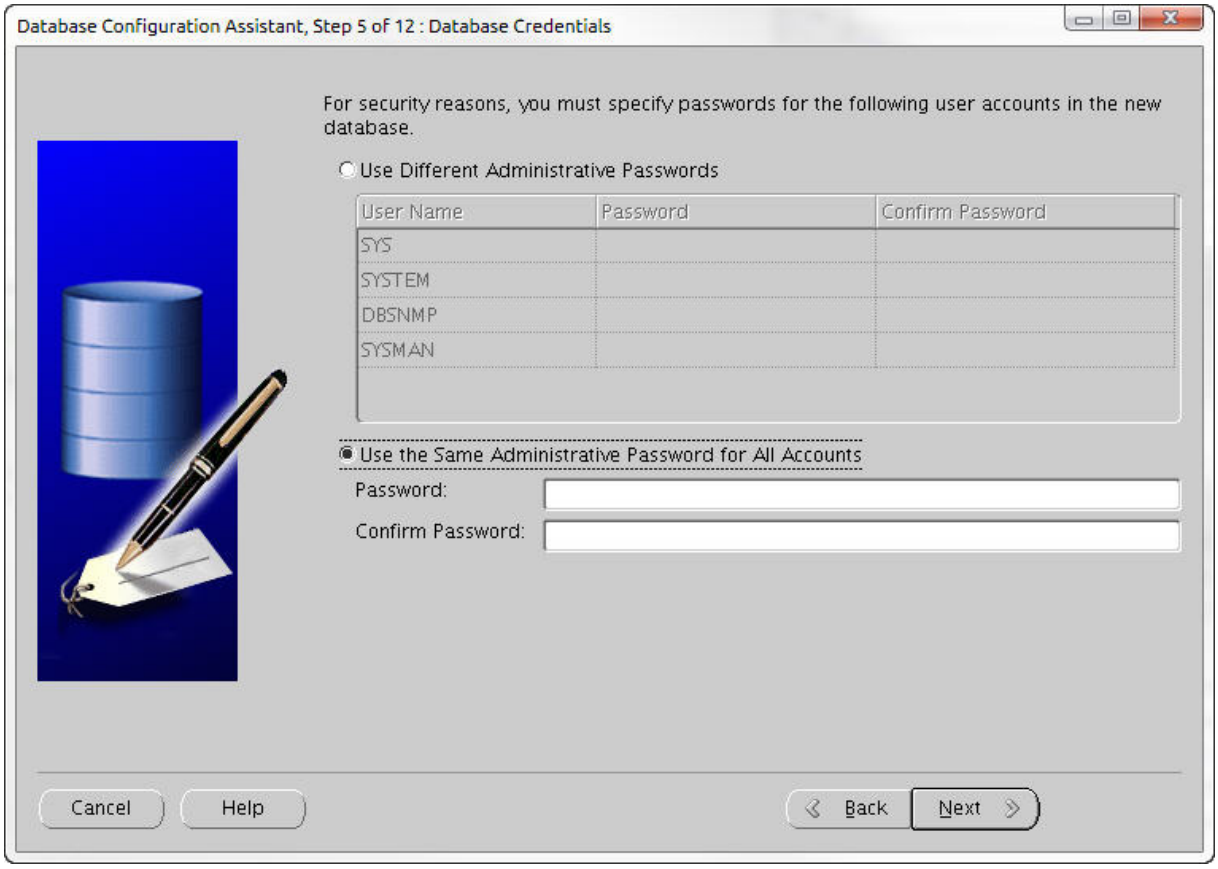


3. Enter "AcmeBIPublisher" in the Global Database Name field and click **Next**.

The SID will be filled in automatically and truncated after 12 characters.

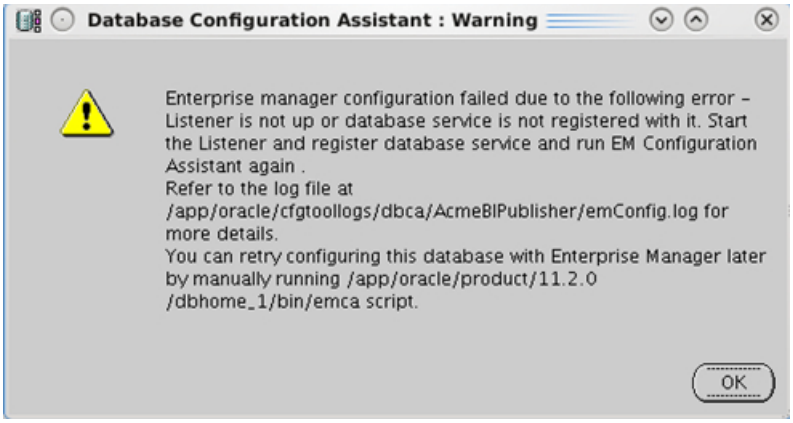


4. Click **Next** to select the defaults for the Management Options screen.
5. Select the database credentials option which suits your needs, enter the password or passwords, and click **Next**.



6. Click **Next** to select the defaults for the Database File Locations screen.
7. Click **Next** to select the defaults for the Recovery Configuration screen.
8. Click **Next** to select the defaults for the Database Content screen.
9. Click **Next** to select the defaults for the Initialization Parameters screen.
10. On the Database Storage screen, click **Next**.
11. On the Creation Options screen, click **Finish**.
12. On the Confirmation screen, click **OK**.

Note: Unless you want to create a separate listener for the newly created AcmeBIPublisher database, this error may be safely ignored.



Setting Variables

After creating an Oracle database, make sure the ORACLE_HOME and ORACLE_SID variables are properly defined.

Set the following environmental variables on your server:

```
export ORACLE_HOME=/app/oracle/product/11.2.0/dbhome_1
export ORACLE_SID=AcmeBIPublis
```

Note: Make sure the ORACLE_HOME path has no trailing slash.

To make these settings permanent, add the two lines to the .bash_profile file in the home directory. If these lines are not added to the .bash_profile file, the user will have to retype them whenever starting or stopping the listener.

Restarting the Listener

The lsnrctl command is in the $ORACLE_HOME/bin directory.

Note: The listener will have to be restarted any time you change the HOST parameter in the listener.ora file.

To restart the listener:

1. Stop the listener.

   ```
   ./lsnrctl stop
   ```

2. Start the listener.

   ```
   ./lsnrctl start
   ```

3. Check the status of the listener.

   ```
   ./lsnrctl status
   ```

Adding an Oracle Database User for Local Backup and Restore

Creating an Oracle database user is required so that the backup and restore functions work properly. The procedure in this section needs to be done only for local installations.

This task assumes an SSH connection to your Oracle database server.

1. Log into the Oracle database.

   ```
   [oracle@vm ~]$ cd /app/oracle/product/11.2.0/dbhome_1/bin/
   [oracle@vm bin]$ ./sqlplus '/as sysdba'
   ```

2. Create a user called nncentral.

   ```
   SQL> CREATE USER nncentral IDENTIFIED BY <password>;
   ```

3. Grant the appropriate privileges.

   ```
   SQL> GRANT CONNECT, DBA, SYSDBA, CREATE SESSION TO nncentral;
   ```

4. Exit the Oracle database prompt.

   ```
   SQL> exit
   ```

5

Running RCU

The Repository Creation Utility (RCU) creates a set of table spaces and schemas which the BI Publisher software needs.

To obtain the latest version of RCU:

1. Navigate to the *Oracle Software Delivery Cloud* and sign in.
2. Read the Terms & Restrictions, check the two check boxes, and click **Continue**.
3. In the Select a Product Pack drop-down list, select **Oracle Business Intelligence**. In the Platform drop-down list, select **Linux x86_64**. Click **Go**.
4. Click on Oracle Business Intelligence Applications 11.1.1.7.0 Media Pack for Linux x86_64.
5. Scroll down and select Oracle Fusion Middleware Repository Creation Utility for Linux x86_64.
6. Copy the files to your server.

```
scp ~/Downloads/V37394-01.zip oracle@vm:~/
```

7. On the server, unzip the files.

```
unzip V37394-01.zip
```

8. Start the installation.

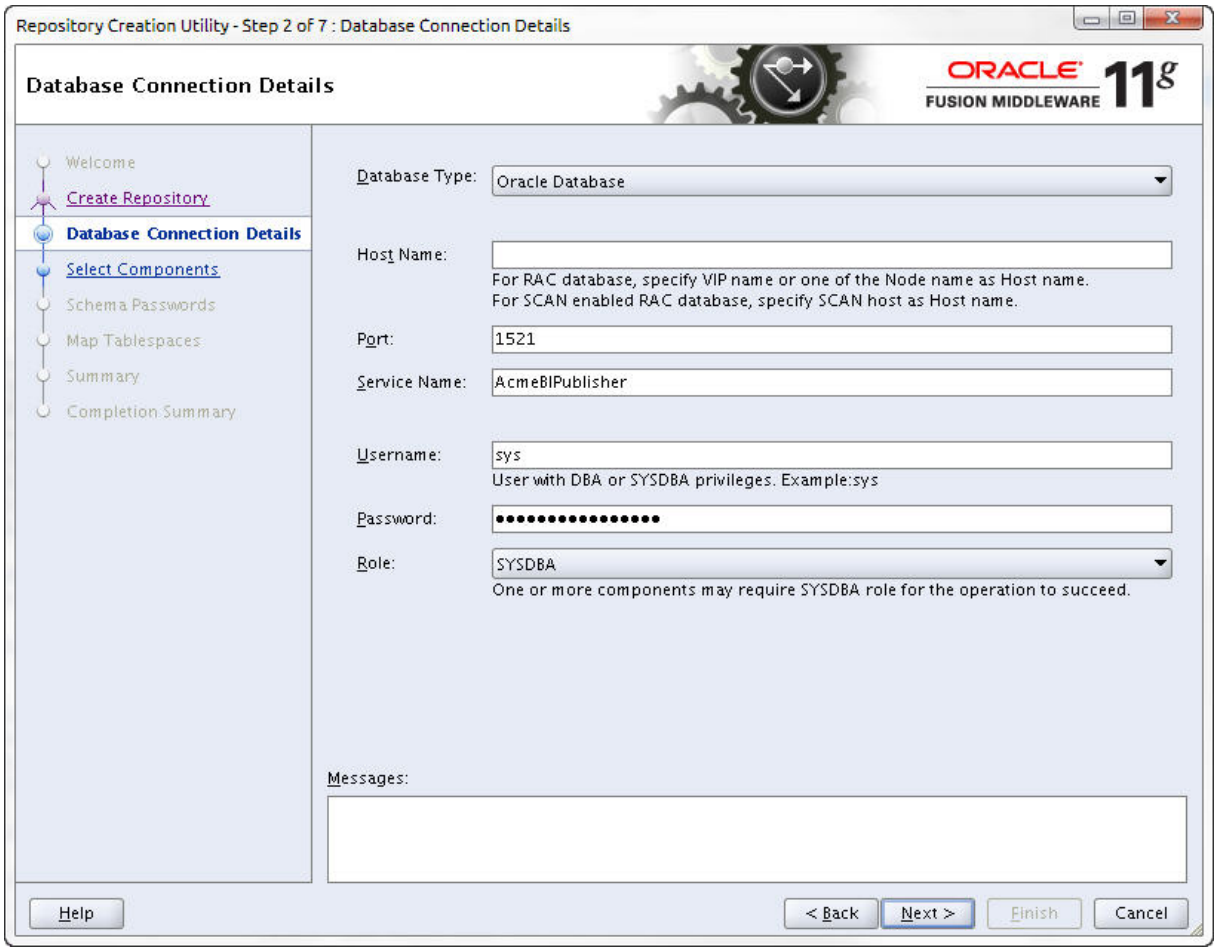
```
[oracle@vm ~]$ cd rcuHome/bin/
[oracle@vm bin]$ ./rcu
```

Note: Make sure to use the -Y flag when using SSH.

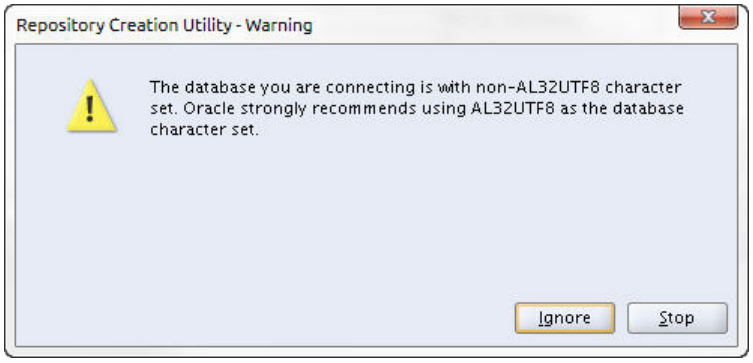
9. On the Welcome screen, click **Next**.
10. Select **Create** and click Next.
11. In the Database Type drop-down list, select Oracle Database. Enter the host name, port , service name, user name, password, and role. Then click **Next**.

Parameter	Value
Host name	The hostname of your server
Port	1521
Service Name	AcmeBIPublisher
Username	sys
Password	Your password

Parameter	Value
Role	SYSDBA



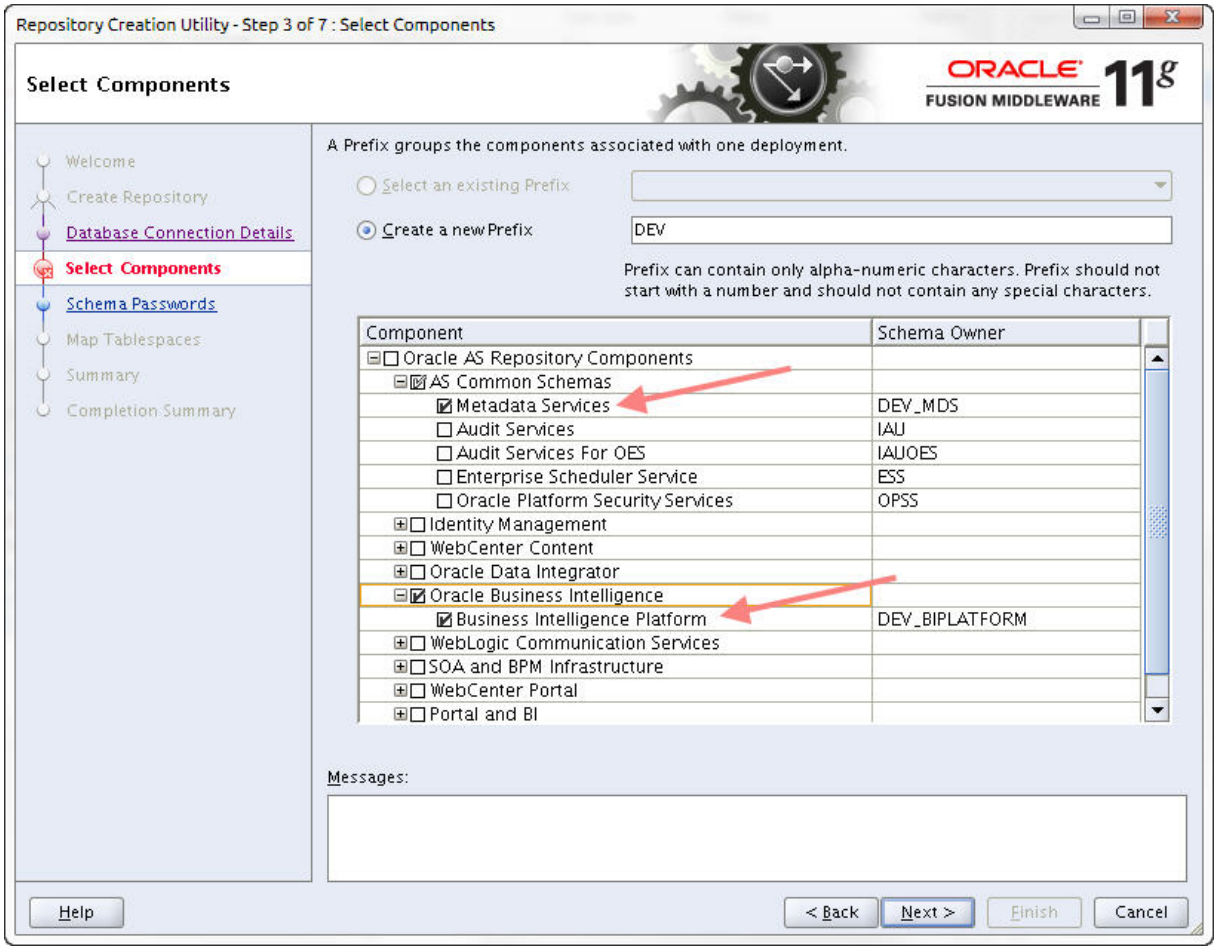
Note: You may safely ignore the following warning about character sets.



12. Click **OK** to close the Checking Prerequisites window.
13. In the Create a new Prefix field, enter a prefix.

Note: The default prefix is DEV.

14. Select two components to install: **Common Schemas** > **Metadata Services** and **Oracle Business Intelligence**. Click **Next**.



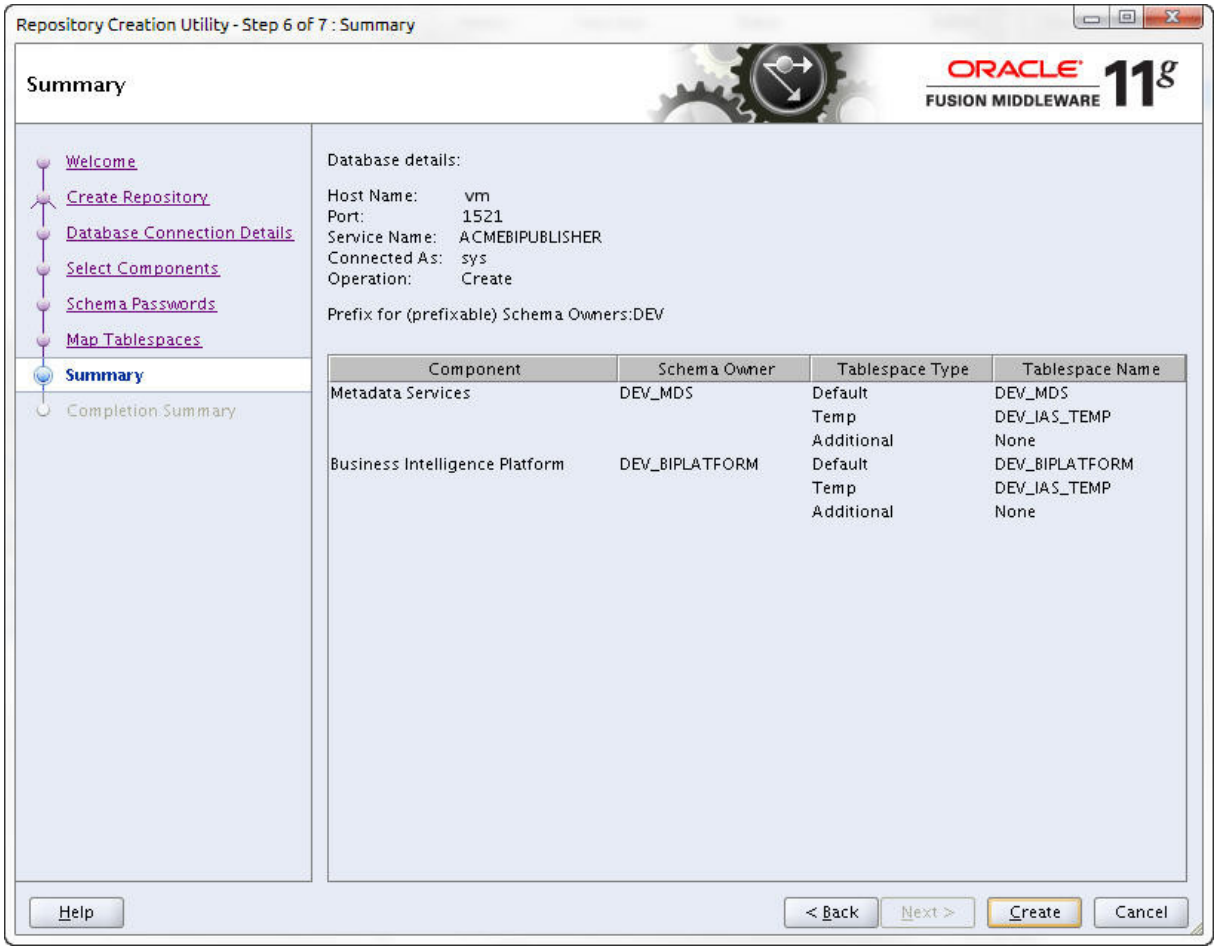
15. Enter the password or passwords and click **Next**.

16. In the Map Tablespaces screen, click **Next**.

17. In the Confirmation window, click **OK**.

18. In the Creating Tablespaces window, click **OK** after the operation has completed.

19. In the Summary screen, click **Create**.



20. After the repository is created, click **Close**.

Troubleshooting the RCU

If the RCU fails to connect to the Oracle database, follow the steps below.

1. Stop the listener.

```
/app/oracle/product/11.2.0/db_home1/bin/lsnrctl stop
```

2. As root, edit the /etc/hosts file and remove your <server name> in the 127.0.0.1 and ::1 line.

```
127.0.0.1   localhost.localdomain  localhost.localdomain  localhost4
localhost4.localdomain4  localhost  centosTemplate  <server_name>
::1         localhost.localdomain  localhost.localdomain  localhost6
localhost6.localdomain6  localhost  centosTemplate  <server_name>
```

3. Restart the listener.

```
/app/oracle/product/11.2.0/db_home1/bin/lsnrctl start
```

4. Double check the status.

```
/app/oracle/product/11.2.0/db_home1/bin/lsnrctl status
```

Look for the server name after the HOST parameter.

```
Listening Endpoints Summary...
   (DESCRIPTION=(ADDRESS=(PROTOCOL=ipc)(KEY=EXTPROC1521)))
   (DESCRIPTION=(ADDRESS=(PROTOCOL=tcp)(HOST=<server_name>)(PORT=1521)))
```

5. Try to connect to the Oracle database again.

6

Installing BI Publisher

To install BI Publisher:

1. Start the BI Publisher installer.
2. Install BI Publisher. If setting up a local or remote standalone, follow the directions in the Creating a Standalone BI Publisher section. If setting up a local or remote cluster, follow the directions in the Creating a BI Publisher Cluster section.
3. Verify your access to BI Publisher.
4. Configure privileges for the nncentral user and oracle user.
5. If you installed a local standalone or local cluster, set up a data pump directory.

Note: If you encounter errors during the installation process, see the *Administrator's Troubleshooting Guide* for BI Publisher.

Starting the BI Publisher Installer

To start the BI Publisher installer:

1. Download the appropriate files for BI Publisher 11.1.1.7.0 from the *Oracle Business Intelligence Downloads* page.

   Note: Report Manager only supports BI Publisher version 11.1.1.7.0.

2. If downloaded on a separate machine, copy the files to the server.

   ```
   scp ~/Downloads/bi_linux_x86_111170_64_disk* oracle@vm:
   ```

3. To ensure the files weren't corrupted in transfer, match the checksum of the file to Oracle's published checksum. Checksums are published immediately to the right of the download link.

   The cksum output follows this format: <checksum> <byte count> <filename>.

   Below is an example of the checksum output.

   ```
   [oracle@vm ~]$ cksum bi_linux_x86_111170_64_disk*
   413369417 1828186782 bi_linux_x86_111170_64_disk1_1of2.zip
   2568284489 1562917161 bi_linux_x86_111170_64_disk1_2of2.zip
   579025974 1855356149 bi_linux_x86_111170_64_disk2_1of2.zip
   107813693 755328883 bi_linux_x86_111170_64_disk2_2of2.zip
   3702413188 1702929424 bi_linux_x86_111170_64_disk3.zip
   [oracle@vm ~]$
   ```

4. Unzip the files.

You may need to unzip the files one at a time. For version 11.1.1.7.0 on Linux, you may run this script:

```
ls bi_linux_x86_111170_* | while read file; do unzip "$file"; done
```

Unzipping these files will create a bishiphome directory.

5. Unset the ORACLE_HOME variable.

```
unset ORACLE_HOME
```

6. Create an Oracle Middleware directory.

```
mkdir /app/OracleMiddleWare
```

7. Run the BI Publisher installer.

```
cd ~/bishiphome/Disk1/
./runInstaller
```

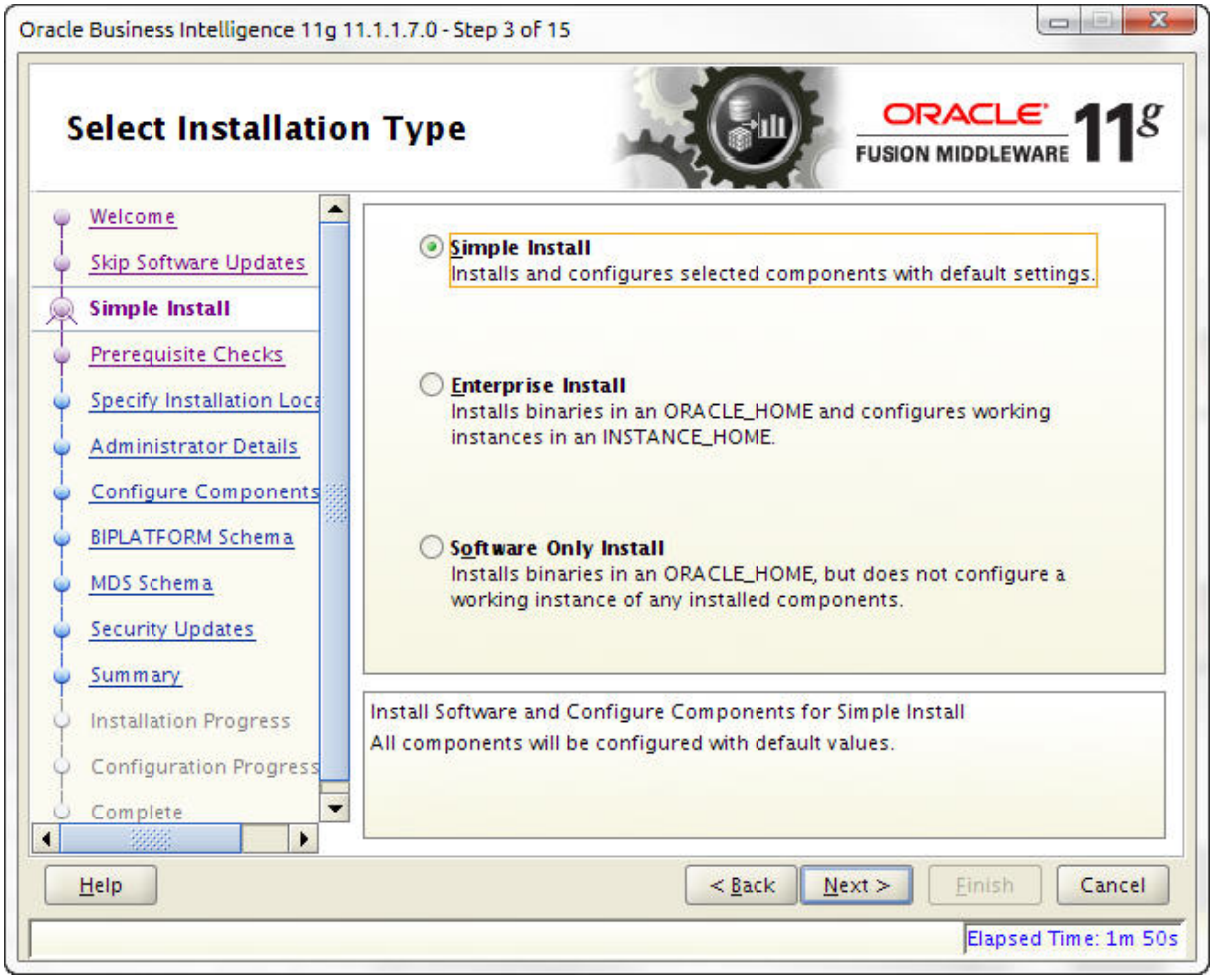
Creating a Standalone BI Publisher

To create a standalone installation of BI Publisher:

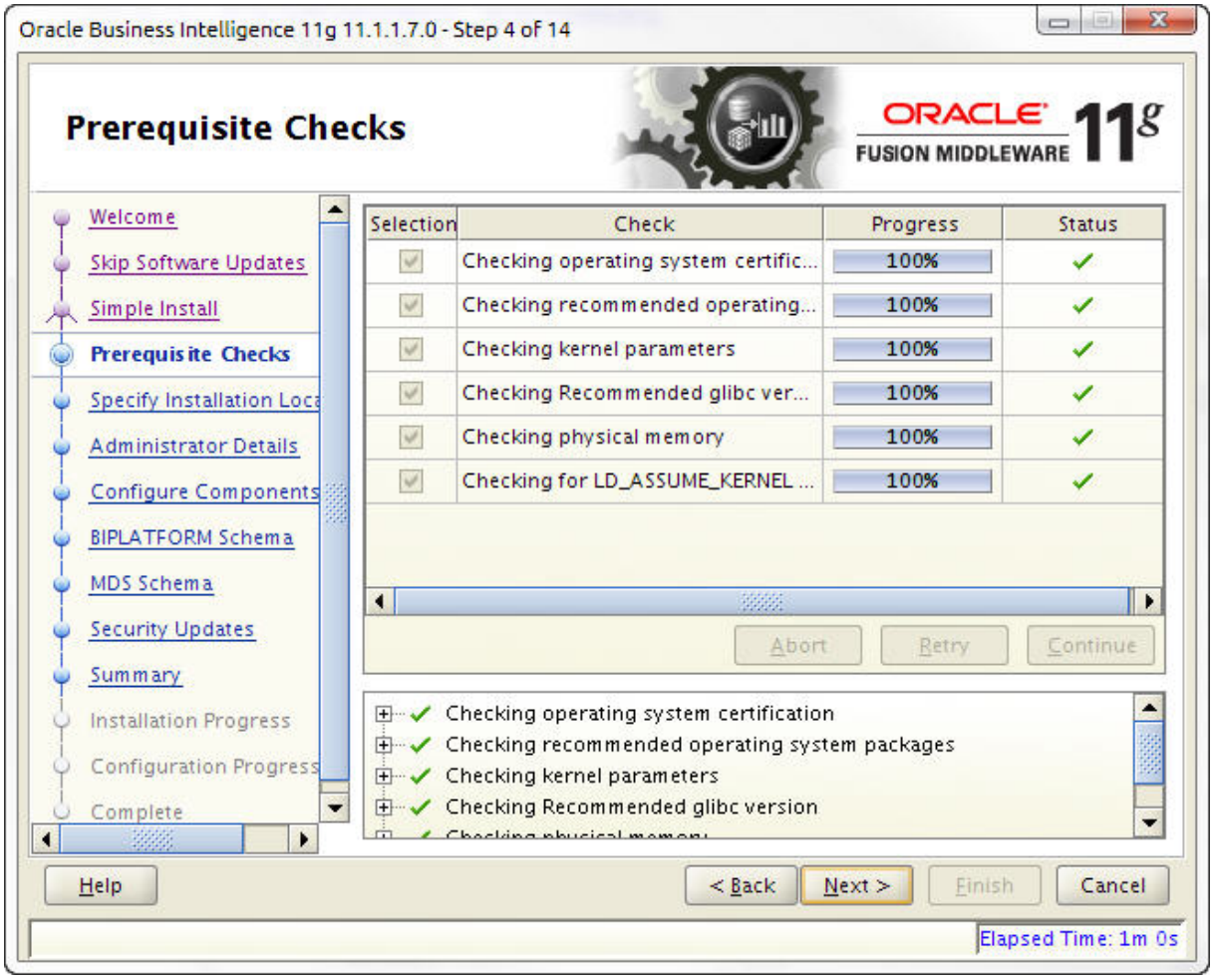
1. If the Specify Inventory Directory window appears, accept the default values.

Parameter	Default value
Inventory Directory	/home/oracle/oraInventory
Operating System Group name	dba

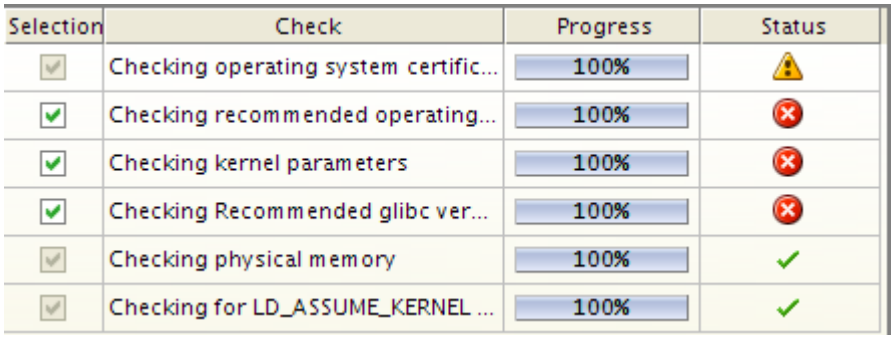
2. Click **Next** on the Welcome screen.
3. On the Install Software Updates screen, select Skip Software Updates and click **Next**.
4. Select Simple Install and click **Next**.



5. If your system has the prerequisites, click **Next**.



Note: If the operating system certification test fails, the test skips the next three checks even though it marks them with an X. This can happen even on systems with the latest glibc version. If necessary, run yum update glibc to update your version of glibc.



6. Browse to the OracleMiddleWare directory you created.

7. Create a password for the WebLogic account and click **Next**.

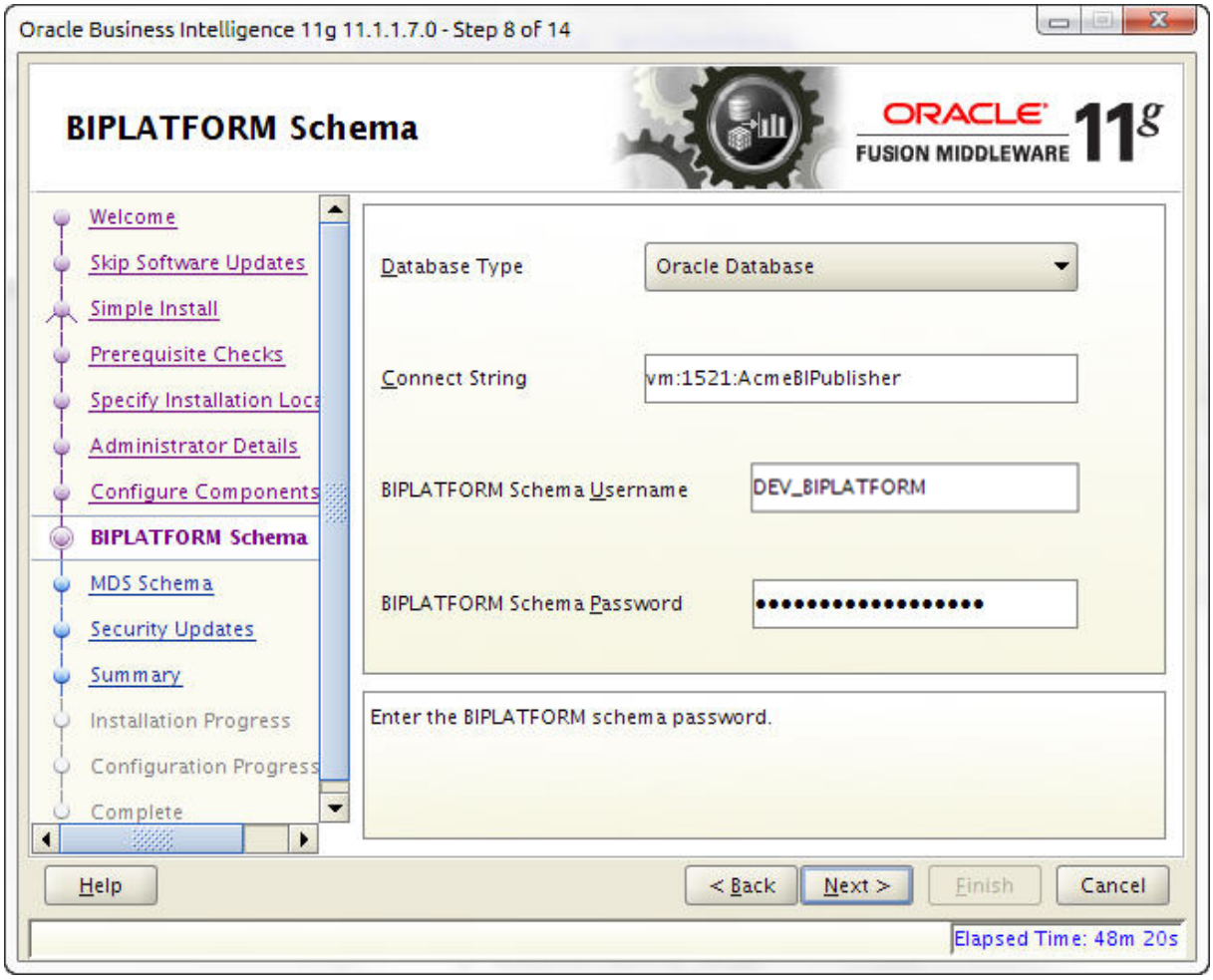
Note: The user name and password you enter in this field will be used, after installation, to sign in to BI Publisher at the URL: <server_name_or_ip>:7001/xmlpserver.

8. Select only Business Intelligence Publisher.

9. Fill in the BIPLATFORM Schema and MDS Schema screens with the following values.

Parameter	Value
Database Type	Oracle Database
Connect String	<server_name>:<port>:<service_name> (e.g. vm:1521:AcmeBIPublisher)
BIPLATFORM Schema Username MDS Schema Username	<prefix>_BIPLATFORM <prefix>_MDS
Schema Password	Enter the password.

Note: The <prefix> value is set when running the Repository Creation Utility (RCU). The default schema prefix will be set to DEV unless this value was changed in the "Create a new Prefix" text field of RCU's Select Components screen. See step 13 (and the subsequent screenshot) in the Running RCU chapter of this guide.



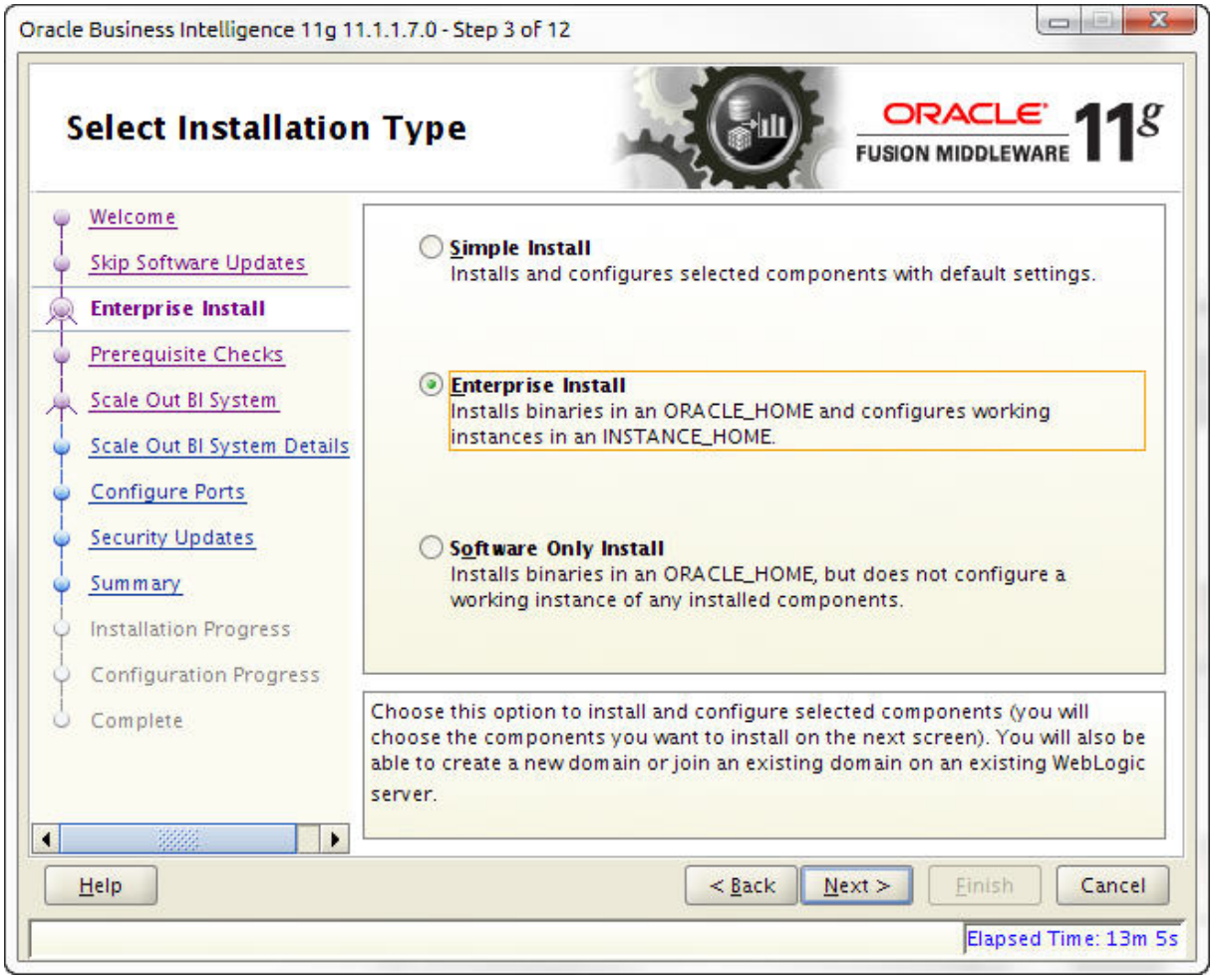
10. In the Specify Security Updates screen, enter your email address and click **Next**.
11. On the Summary screen, click **Install**.
12. After the Configuration Progress screen is complete, click **Next**.
13. Click **Finish**.
14. BI Publisher is now accessible at the URL: <hostname>:7001/xmlpserver.

Creating a BI Publisher Cluster

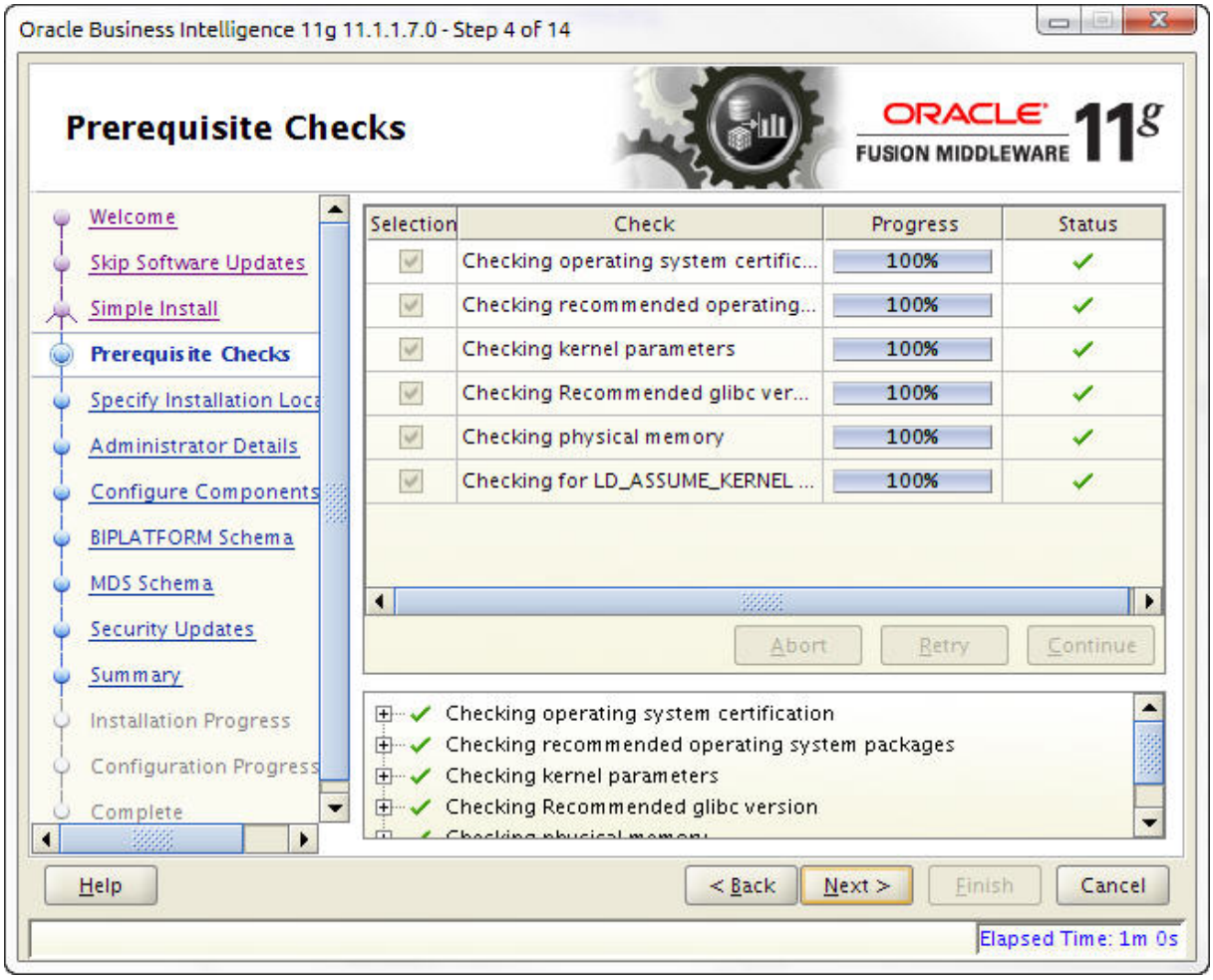
A local cluster consists of two or more identical standalone installations on separate machines. All identifying information, such as user name, password, and database prefix, must be identical between the two servers.

To create a remote cluster in BI Publisher:

1. After running the installer, click **Next** on the Welcome screen.
2. On the Install Software Updates screen, select Skip Software Updates and click **Next**.
3. Select Enterprise Install and click **Next**.



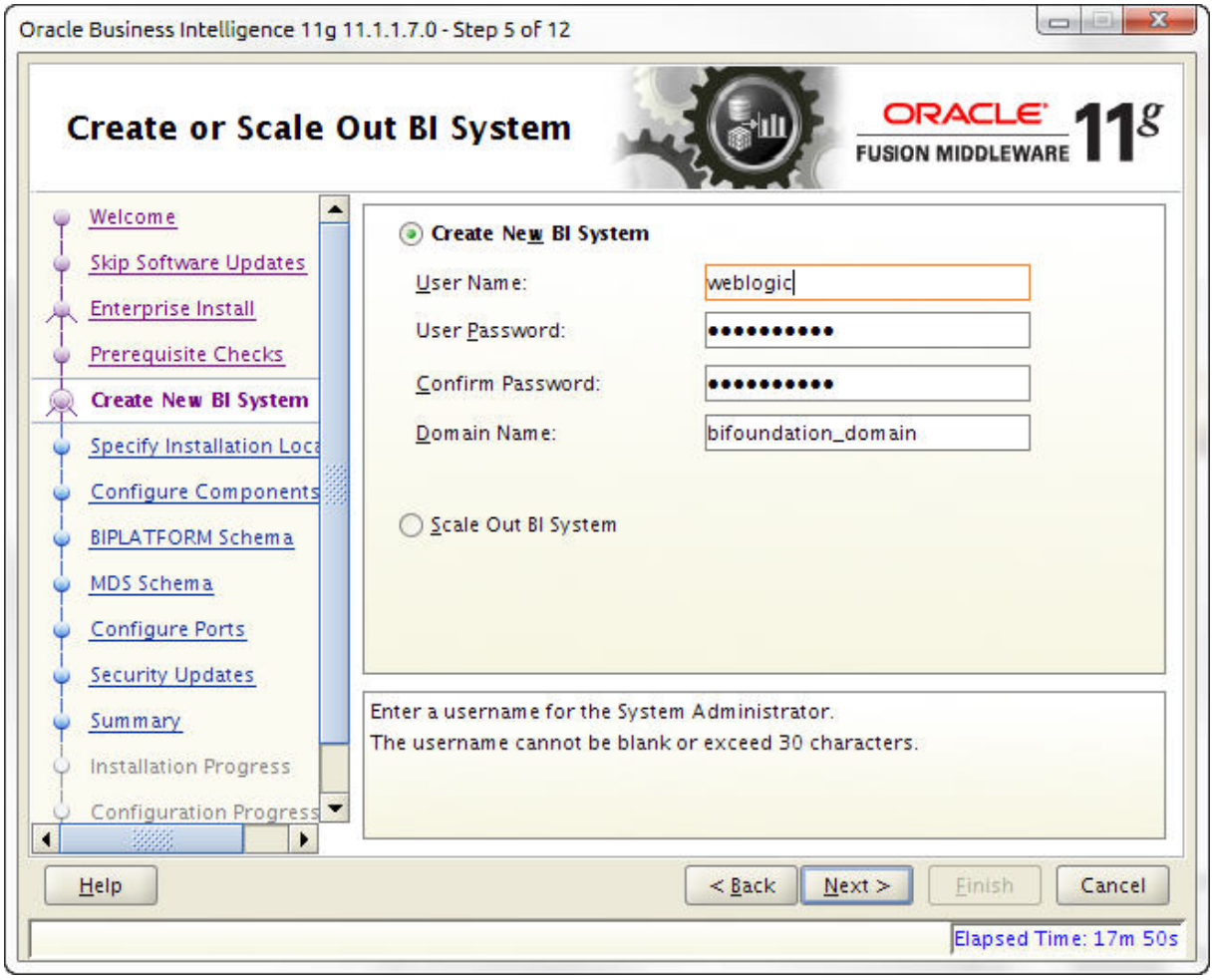
4. If your system has the prerequisites, click **Next**.



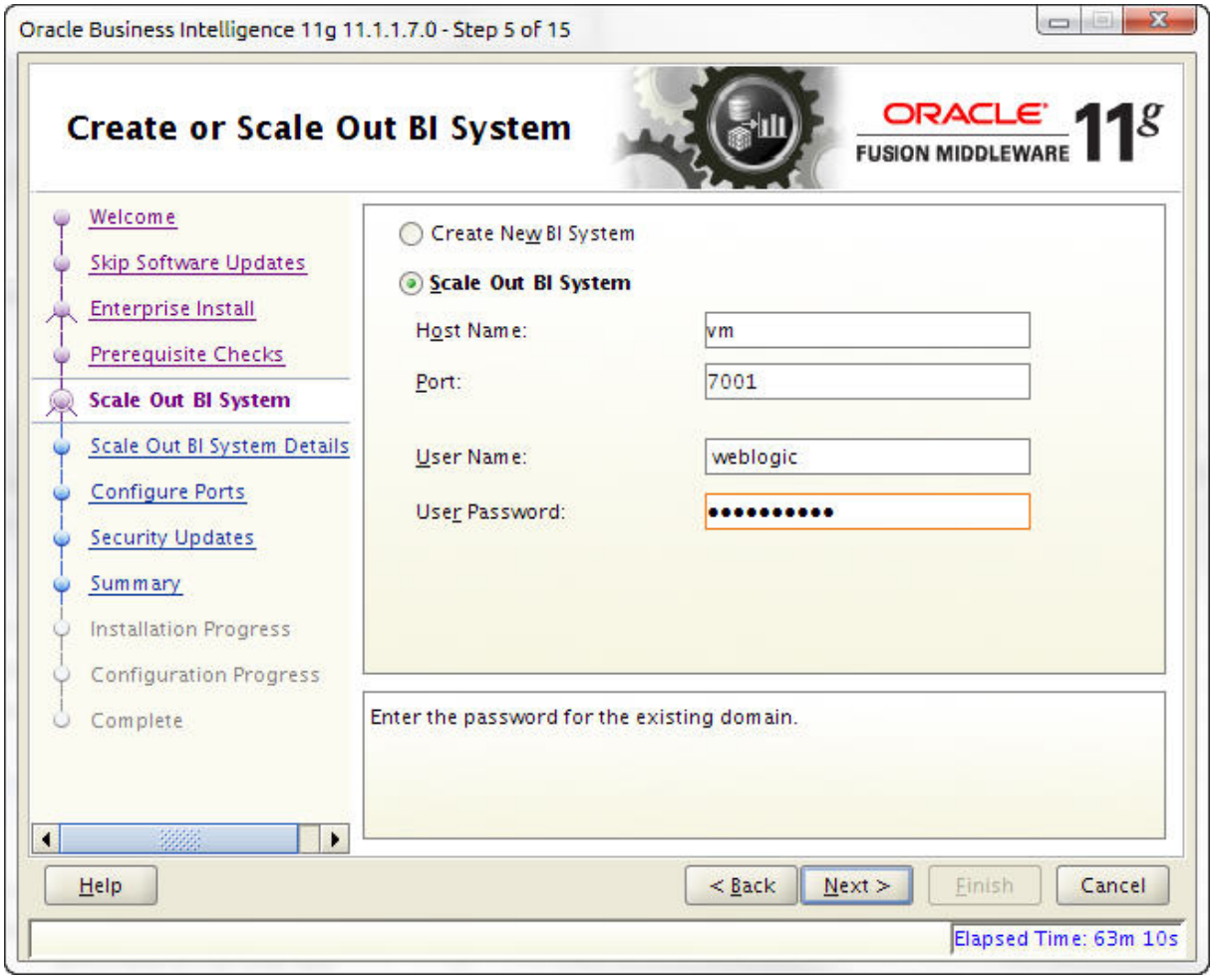
5. If you are creating this system for the first time, select Create New BI System and enter a new user name and password. This creates your administration server. If you have already created this server and are building out a cluster, select Scale Out BI System and enter the host name, port (7001), user name, and password for the administration server. This creates the managed servers.

Note: When building out local clusters, make sure SDM has previously been installed on each machine.

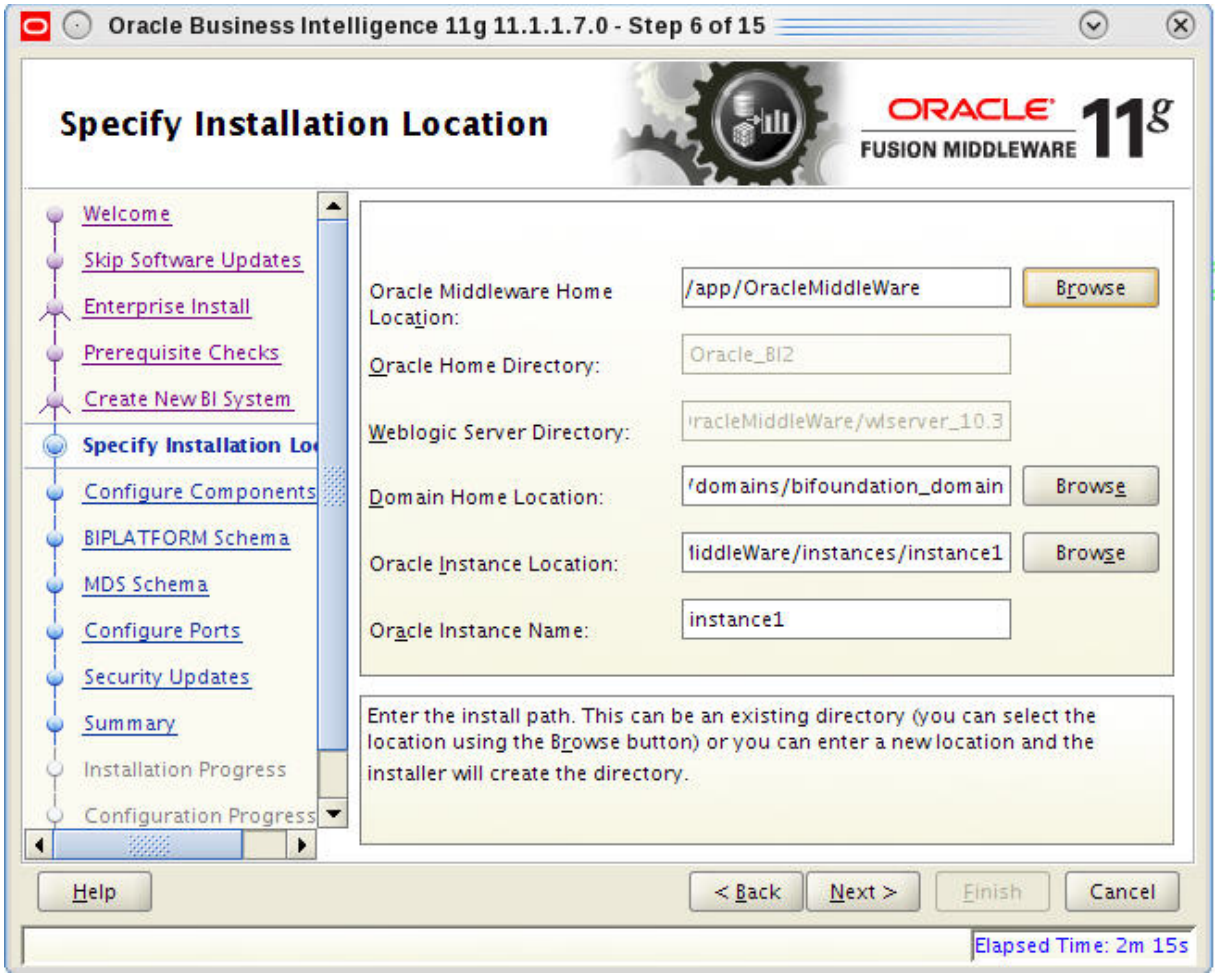
Note: The managed server should mirror the configuration details of the administration server.



Note: The managed servers must point to the administration server.



6. Browse to the OracleMiddleWare directory you created.

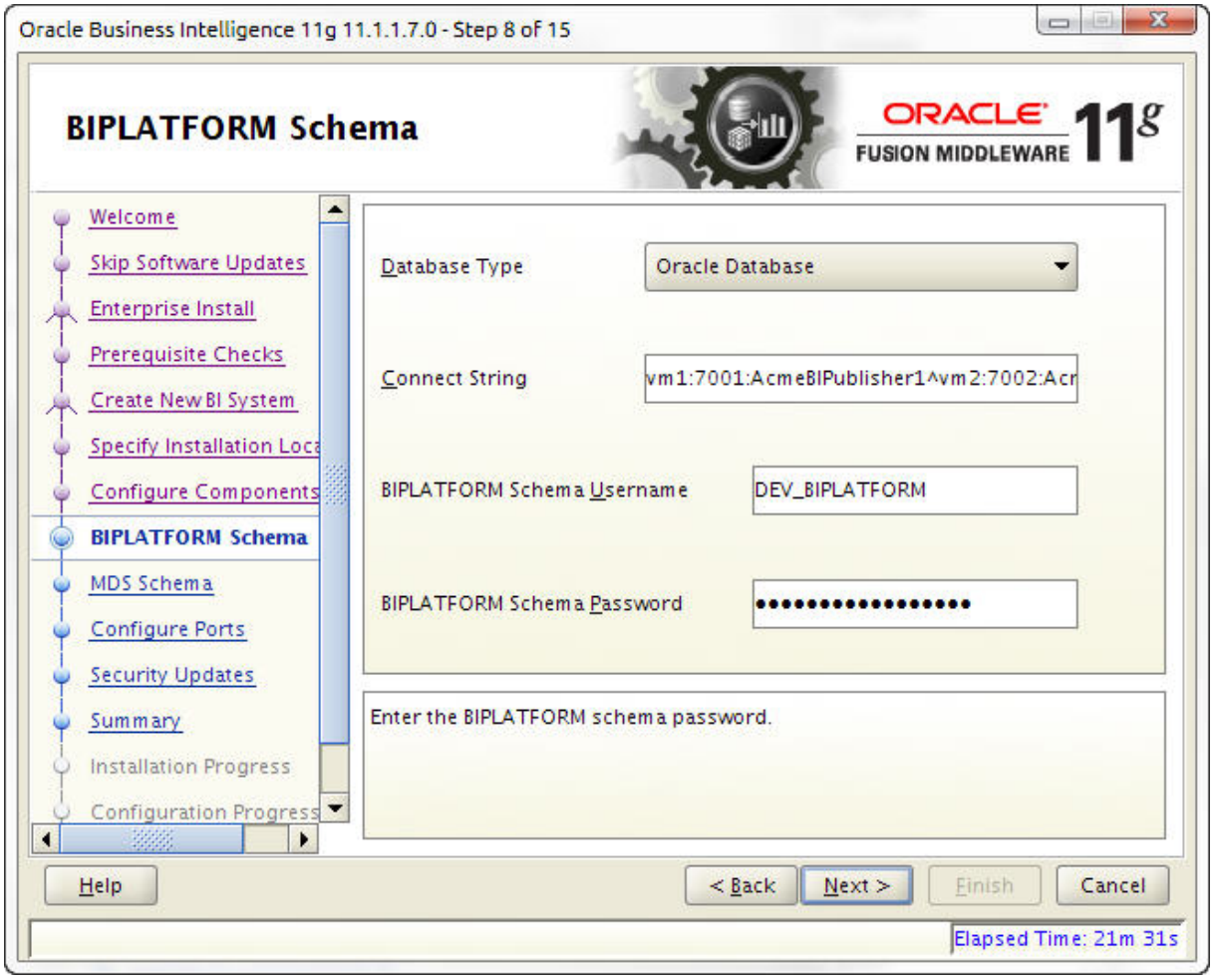


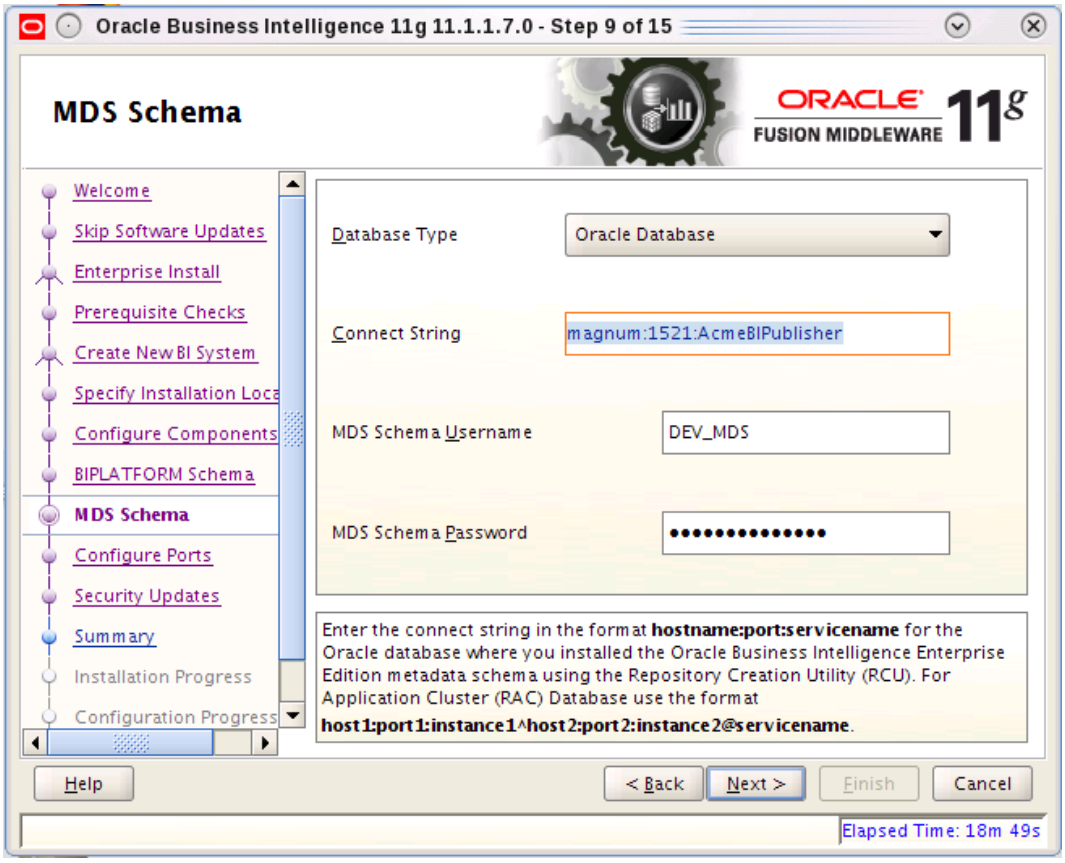
7. Select only Business Intelligence Publisher.

8. Fill in the BIPLATFORM Schema and MDS Schema screens with the following values.

Parameter	Value
Database Type	Oracle Database
Connect String	host1:port1:instance1^host2:port2:instance2@servicename
BIPLATFORM Schema Username MDS Schema Username	<prefix>_BIPLATFORM <prefix>_MDS
Schema Password	Enter the password.

Note: The default schema prefix is DEV.


Oracle Business Intelligence 11g 11.1.1.7.0 - Step 8 of 15
BIPLATFORM Schema
ORACLE
FUSION MIDDLEWARE 11g
Welcome
Skip Software Updates
Enterprise Install
Prerequisite Checks
Create New BI System
Specify Installation Loca
Configure Components
BIPLATFORM Schema
MDS Schema
Configure Ports
Security Updates
Summary
Installation Progress
Configuration Progress
Database Type
Oracle Database
Connect String
vm1:7001:AcmeBIPublisher1^vm2:7002:Acr
BIPLATFORM Schema Username
DEV_BIPLATFORM
BIPLATFORM Schema Password
Enter the BIPLATFORM schema password.
Help
< Back
Next >
Finish
Cancel
Elapsed Time: 21m 31s



9. In the Configure Ports screen, select Auto Port Configuration and click **Next**.
10. In the Specify Security Updates screen, enter your email address and click **Next**.
11. On the Summary screen, click **Install**.
12. After the Configuration Progress screen is complete, click **Next**.
13. Click **Finish**.

See the Troubleshooting section for running scheduled reports when the active server is down.

Accessing BI Publisher

1. To access BI Publisher, navigate to http://<hostname>:7001/xmlpserver.
2. To access the WebLogic admin console, navigate to http://<hostname>:7001/console.

Configuring User Privileges for Local Configurations

For local standalone and local cluster setups only, add the nncentral user to the oracle group, add the oracle user to the nncentral group, and add both the oracle and nncentral users to the dba group.

The following procedure is only necessary when BI Publisher and SDM are installed on the same machine.

1. SSH to your BI Publisher server.
2. As root, open the /etc/group file.
3. Add **`oracle`** to the end of the line that begins with nncentral. Add **`nncentral`** to the end of the line that begins with oracle. Add the **`oracle`** and **`nncentral`** to the end of the line that begins with dba.

   When finished, the three lines will look like this:

```
nncentral:x:<###>:oracle
oracle:x:<###>:nncentral
dba:x:<###>:oracle,nncentral
```

Note: The <###> represents a series of numbers.

4. Save and close the file.
5. Change from the root user to the oracle user.
6. Grant the nncentral user permission to act as a sysdba.

```
cd $ORACLE_HOME/bin
chmod 6751 oracle
```

7. The nncentral user must have read, write, and execute privileges for the BIP home folder and repository location. You may grant the necessary privileges as the oracle user with the following command:

```
chmod -Rf g+rwX /app
```

8. Restart SDM by running the `shutdownnnc` and `startnnc` scripts as the nncentral user.

```
[oracle@vm ~]$ su nncentral
Password:
[nncentral@vm oracle]$ cd ~/AcmePacket/NNCMainB34/bin
[nncentral@vm bin]$ ./shutdownnnc.sh
Shutdown back-end server
Shutting down server.....
[nncentral@vm bin]$ ./startnnc.sh
Starting Back-End server now                23 Starting Apache servers...
Servers and services started successfully. Web client access ready.

[nncentral@vm bin]$ exit
exit
[oracle@vm ~]$
```

Setting a Data Pump Directory for Local Installations

If your system is set up as a local standalone or local cluster, you need to manually specify the data pump directory. The data pump directory is used in the backup and restore process for the Oracle database.

To set the data pump directory:

1. Connect to the Oracle database as the sysdba.

```
cd $ORACLE_HOME/bin
./sqlplus '/ as sysdba'
```

2. Change the directory location of the data pump files to your desired directory.

   Below is an example of the command.

```
CREATE OR REPLACE DIRECTORY "DATA_PUMP_DIR" as '/app/oracle/product/11.2.0/
dbhome_1/rdbms/log/';
```

3. Verify the change took place.

```
SELECT owner, directory_name, directory_path FROM dba_directories WHERE
directory_name='DATA_PUMP_DIR';
```

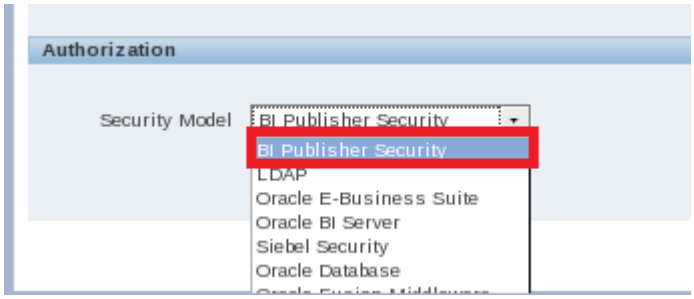
Setting BI Publisher Security

If you set the Single Sign On option to enable, you must change the security configuration of BI Publisher.

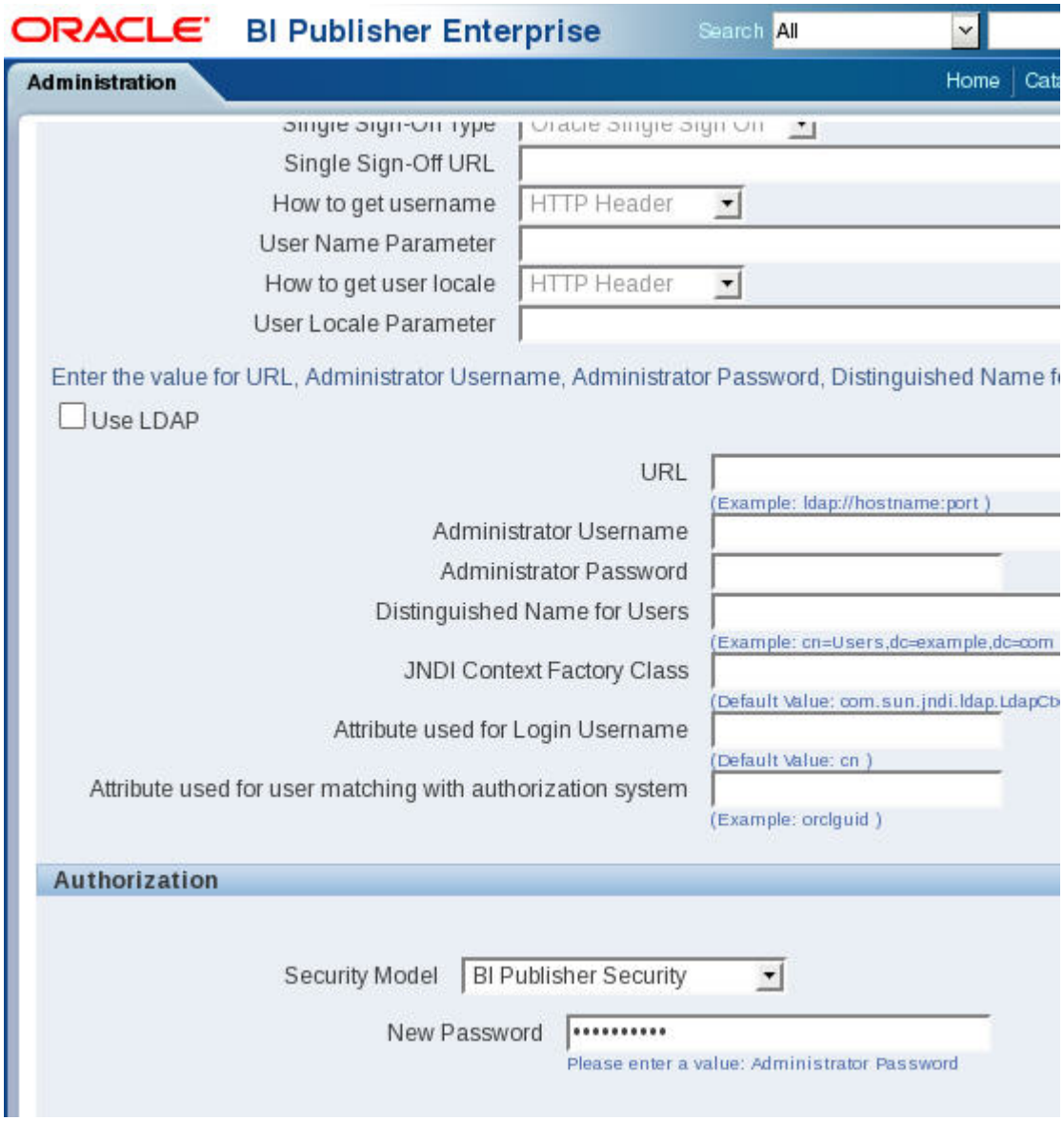
1. Sign in to BI Publisher as the administrator.
2. Click on **Administration** in the top right corner.

3. Click on **Security Configuration**.

4. Under Authorization, select **BI Publisher Security** from the Security Model drop-down list.



5. Enter an administrator password in the text field that appeared.
   This can be, but does not have to be, the same password you used when setting up BI Publisher.



6. Click **Apply** in the top right corner.
7. Restart the WebLogic server.

Note: See the Troubleshooting section for information about restarting the WebLogic server.

Note: After restarting the WebLogic server, the WebLogic account is disabled. Administrative actions must be performed with the administrator account.

Setting Boot Properties for Local Clusters

For local cluster installations, a boot.properties file needs to be created as part of the post-installation process.

To create the boot.properties file:

1. Change directories to the BI Publisher domain.

   In the examples in this guide, the BI Publisher domain is `/app/OracleMiddleWare/user_projects/domains/bifoundation_domain/`.

   ```
   cd /app/OracleMiddleWare/user_projects/domains/bifoundation_domain/
   ```

2. If the following path does not exist on your system, create it with the mkdir command. Otherwise, change directories from the BI Publisher domain to `servers/AdminServer/security`.

```
cd servers/AdminServer/security
```

3. Create a file called boot.properties.
4. Add the following two lines:

```
username=<username>
password=<password>
```

Use the user name and password which you created when installing BI Publisher.

7

Registering BI Publisher

Preparing SDM and BIP for HTTPS Mode

Oracle recommends you register BIP in HTTPS mode.

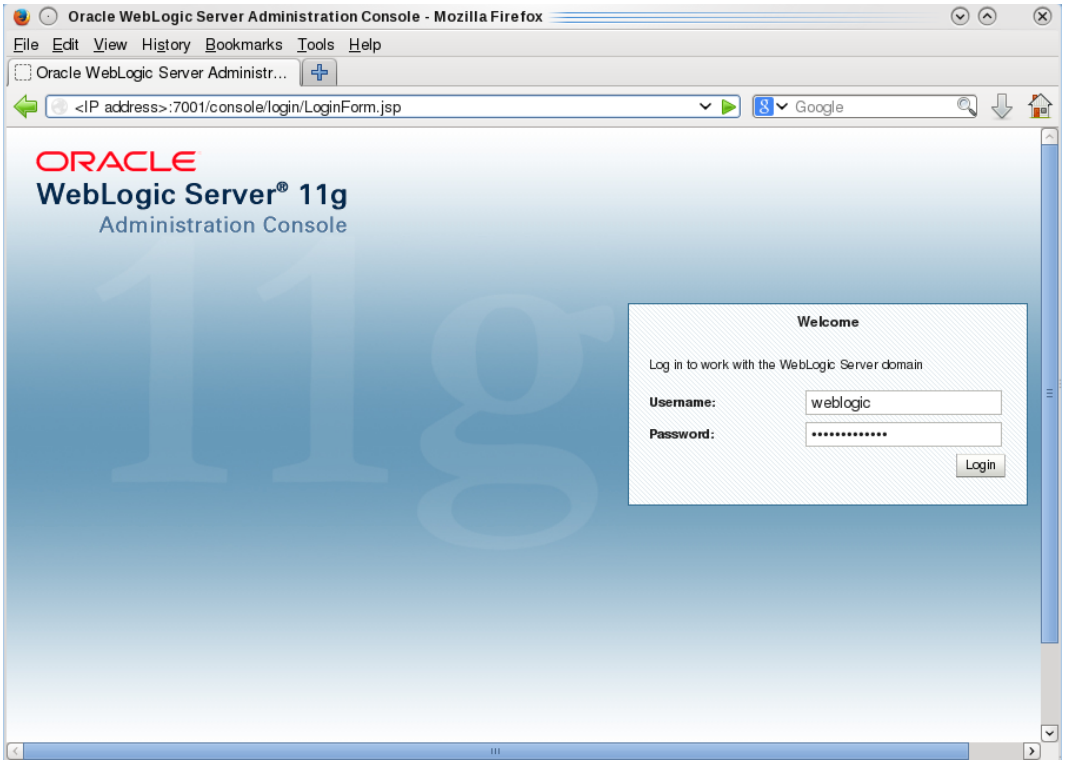
Registering BIP in HTTPS mode encrypts the communication between the Session Delivery Manager and BI Publisher.

Enabling HTTPS in the BIP Console

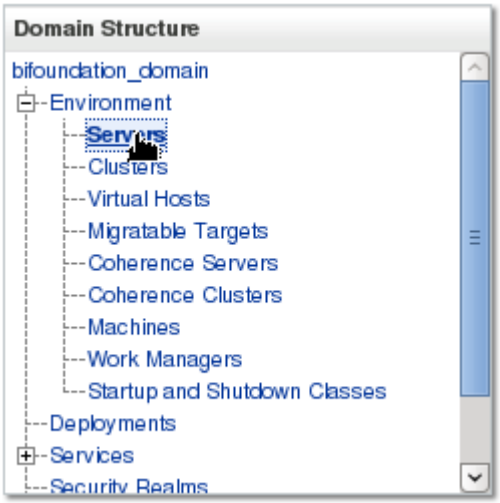
To encrypt the communication between BIP and SDM, first enable HTTPS on the WebLogic server.

1. Login to the administrative console of your WebLogic server. Use the username and password you created when installing BI Publisher.

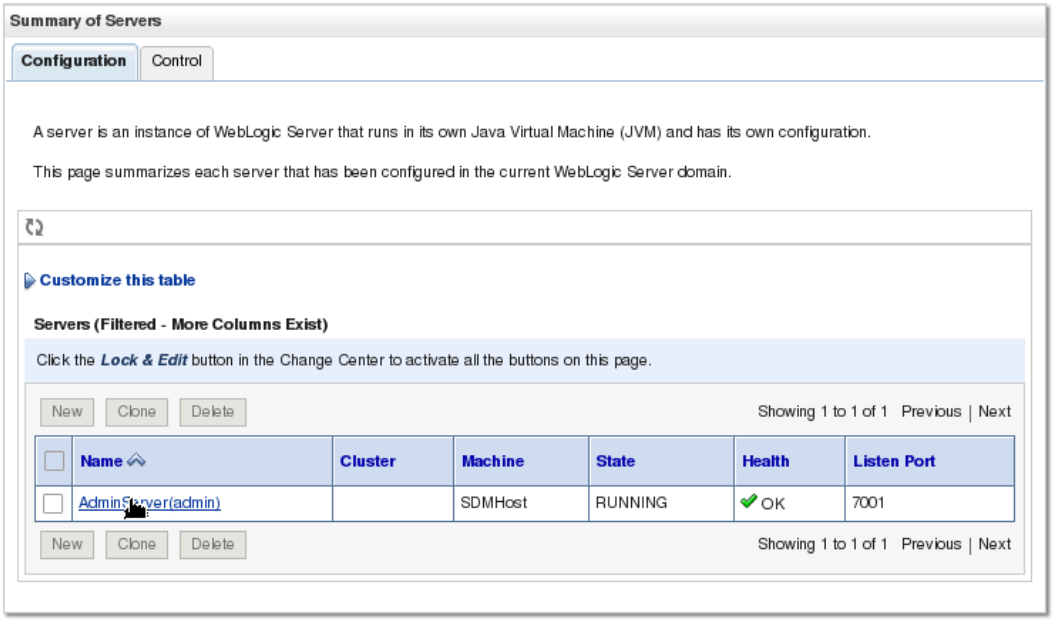
   In the default installation, the administrative console can be reached at `http://<IP address>:7001/console`.



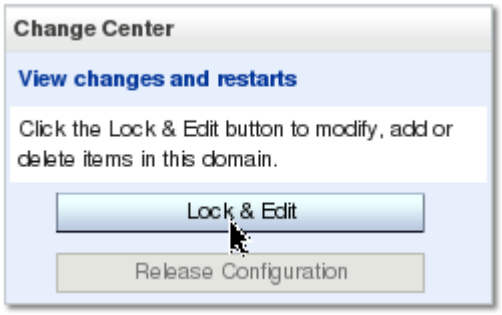
2. Under Domain Structure in the left panel, click **Environment** > **Servers**.



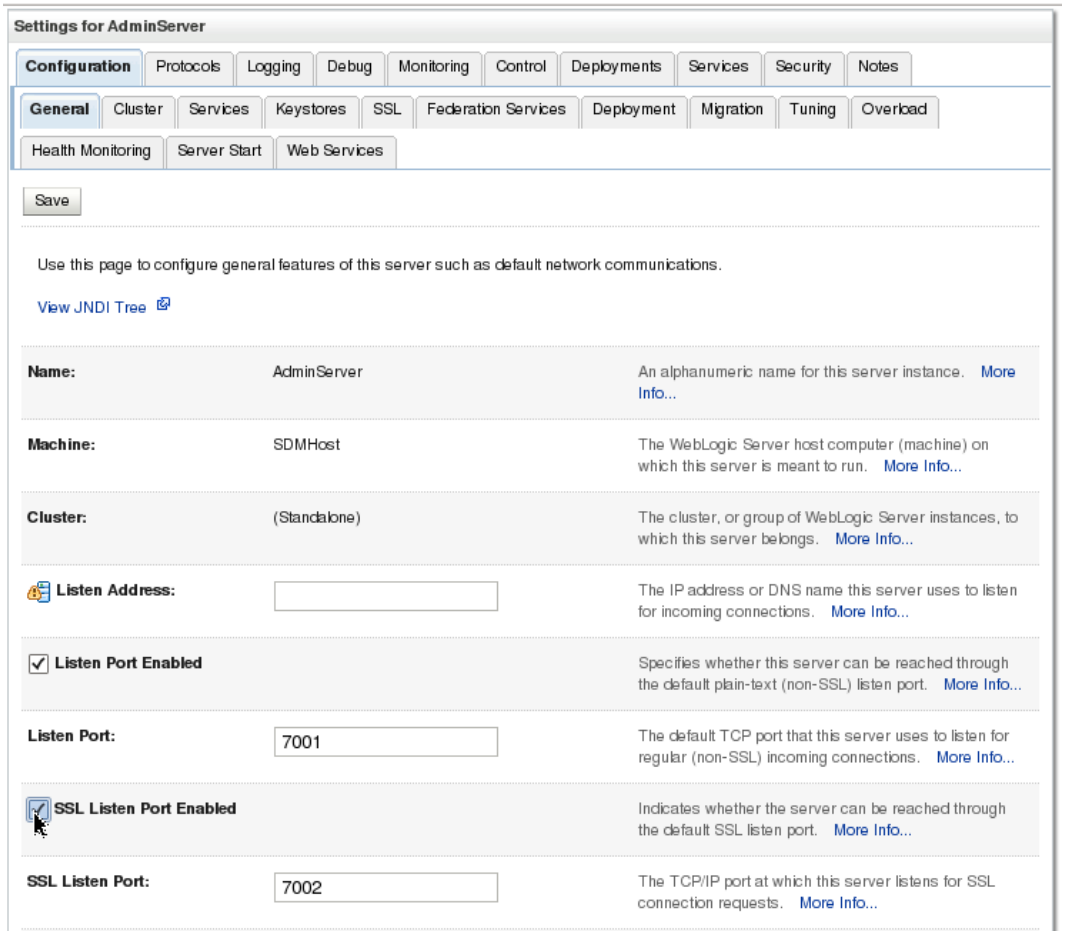
3. In the main tab under Summary of Servers, select **AdminServer(admin)**.



4. In the Change Center, click **Lock & Edit**.



5. In the **Configurations** > **General** tab, click **SSL Listen Port Enabled** and set the port number.



6. Click **Save**.
7. In the Change Center, click **Activate Changes**.

In a cluster setup, repeat this task for each BIP server.

Transferring BIP Certificate to SDM

Save BIP's certificate and transfer it to your SDM server.

1. Open Firefox and connect to BIP using the address `https://<hostname>:7002/xmlpserver`.

   Note: Do not forget to add the s in `https://`.

2. Click **I Understand the Risks** > **Add Exception** > **Confirm Security Exception**.
3. Click **Edit** > **Preferences** > **Advanced** > **Certificates** > **View Certificates** > **Servers**
4. Select the certificate you added and click **Export**.
5. Save the file with the .cer extension in one of these formats:
   - X.509 PEM (Linux)
   - Base-64 (Windows)
6. FTP the saved certificate to your SDM server, and copy the certificate into your `<install dir>/AcmePacket/Transport/tls/` directory.

Adding BIP's Certificate to SDM's Keystore

After transferring it to your SDM server, add your BIP certificate to SDM's keystore.

If your SDM server is running, run the `shutdownnnc.sh` script in `<install dir>/AcmePacket/<release>/bin` before continuing with this task.

1. From the `<install dir>/AcmePacket/<release>/bin` directory, run `setup.sh` as root.
2. Select option **2 - Custom** and press Enter to continue.

```
Please select an option [1] 2


[ ]  1 - Typical   : Runs through most common set up options.
(Recommended)   [Default]
[X]  2 - Custom    : Allows manual customization.             (Advanced
users)
[ ]  3 - Quit      : Finish and quit setup.


Do you want to continue Yes/No?
```

3. Select option **10 - SBI TLS configuration** and press Enter to continue.

```
Please select an option [1] 10


[ ]  1 - Enter Passwords for default user accounts that will be created
[Default]
[ ]  2 - OC SDM global identifier configuration
[ ]  3 - HTTP/HTTPS configuration
[ ]  4 - Fault Management configuration
[ ]  5 - Mail Server configuration
[ ]  6 - OC SDM cluster management.
[ ]  7 - Route Manager Central configuration
[ ]  8 - SAML Single sign on configuration
[ ]  9 - Trunk manager configuration
[X]  10 - SBI TLS configuration
[ ]  11 - Quit setup


Do you want to continue Yes/No?
```

4. Select option **1 - Keystore Selection** and press Enter to continue.

```
Please select an option [1]


[X]  1 - Keystore Selection - Choose a Keystore to explore   [Default]


Do you want to continue Yes/No?
```

5. Select option **3 - Reporting Manager Keystore** and press Enter to continue.

```
Please select an option [4] 3


[ ]  1 - ACP TLS Keystore
[ ]  2 - Elasticity Manager Keystore
[X]  3 - Reporting Manager Keystore
[ ]  4 - Finished   [Default]


Do you want to continue Yes/No?
```

6. Select option **2 - Trusted Certificate** and press Enter to continue.

```
Please select an option [3] 2
```

```
[ ]  1 - Entity Certificate
[X]  2 - Trusted Certificate
[ ]  3 - Finished   [Default]


Do you want to continue Yes/No?
```

7. Select the default option **1 - Import Trusted Certificate** and press Enter to continue.

```
Please select an option [1]


[X]  1 - Import Trusted Certificate   [Default]
[ ]  2 - Quit and back to Main Menu


Do you want to continue Yes/No?
```

8. Enter an alias for this certificate.

```
Create unique alias name for the certificate to be imported:  [] bip-cert
```

9. Enter the absolute path of the certificate.

```
Enter full path of the certificate to be imported: [ ] /opt/AcmePacket/
Transport/tls/biptest.acmepacket.cer


Operation successful!

Certificate was added to keystore
[Storing /opt/AcmePacket/Transport/tls/bipKeyAndCertStore]
```

10. To exit the script, follow the path **Quit and back to Main Menu** > **Finished** > **Finished** > **Quit setup**.

In a cluster setup, repeat this task for each BIP server.

Listing Contents of the SDM Keystore

After adding a certificate to SDM's keystore, verify the certificate is in the keystore.

1. At the command line prompt, `cd` to the `<install dir>/AcmePacket/<version>/jre/bin` directory.

```
user@host:~$ cd /opt/AcmePacket/NNCMainN151/jre/bin/
user@host:/opt/AcmePacket/NNCMainN151/jre/bin$
```

2. Run the `keytool` command with the list and keystore options.

   The keystore option takes a filepath to a keystore object as its argument.

```
keytool -list -keystore /opt/AcmePacket/Transport/tls/bipKeyAndCertStore
```

   Note: Because we are only verifying the certificate is in the keystore, and not editing the keystore, this command does not require a password. You may leave the password field blank and ignore the error message.

3. Verify the keystore contains the certificate

```
Keystore type: JKS
Keystore provider: SUN

Your keystore contains 1 entry

bip-cert, Jan 30, 2015, trustedCertEntry,
Certificate fingerprint (MD5): 1A:24:2B:06:84:AA:D4:FA:FE:B7:31:79:FF:
50:33:51
```

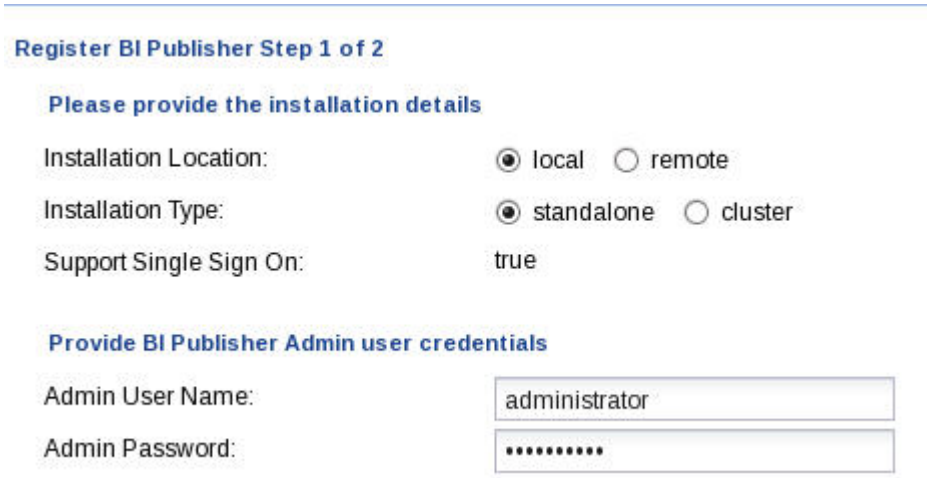
You are now ready to register BIP in HTTPS mode.

Registering BI Publisher

After installation, BI Publisher must be registered from within SDM. Follow the procedure below for Step 1 of 2.

1. Navigate to your SDM server's IP address on port 8080.
2. Click **Dashboard Manager** > **Report Manager** > **Register BI Publisher**.
3. For Installation Location, select **local** or **remote**.
   - Select **local** if Report Manager and BI Publisher are installed on the same machine.
   - Select **remote** if Report Manager and BI Publisher are installed on separate machines.
4. For Installation Type, select **standalone** or **cluster**.
   - Select **standalone** if one instance of BI Publisher is running.
   - Select **cluster** if you have a high availability system.
5. For Support Single Sign On, click **enable** if you want to enable SSO.
   When SSO is enabled, SDM manages the users and roles for BI Publisher. When users click on Operational Reports, they are logged in automatically. If disabled, the customer will have to manage the users and roles through BIP manually. And the user will have to log in twice when accessing reports.

   Note: If enabling SSO, make sure the BIP security model is set to BI Publisher Security. See the Troubleshooting section for more details.
6. In the Admin User Name field, enter administrator.
7. In the Admin Password field, enter password you created when you changed BI Publisher's security model to **BI Publisher Security**.



8. Click **Next**.

The available configuration parameters for Step 2 of 2 depend on your selections in Step 1 of 2.

Registering a Local Standalone BI Publisher

If you entered local standalone in the previous step:

1. For Server Protocol, select **https**.
2. For Server Location, enter the host name.

   Note: This value should be the same host name used when creating the certificate (e.g., server1.oracle.com).
3. Enter the BI Publisher Home Folder.

For the installation previously documented, the path is `/app/OracleMiddleWare/user_projects/domains/bifoundation_domain`. The path for your installation may differ if you selected a different location for the OracleMiddleWare directory.

4. Enter the repository location.

   This can be found by logging into BI Publisher and navigating to **Administration** > **Server Configuration** > **Catalog** > **Path**. For the installation previously documented, the repository location is `/app/OracleMiddleWare/user_projects/domains/bifoundation_domain/config/bipublisher/repository`.

   Note: The 'nncentral' user must have write privileges for the BIP home folder and repository location.

5. Enter the prefix schema for BI Publisher.

   The default prefix is DEV.

6. Enter the user name and password for your Oracle database.
7. Enter the Oracle database service name.

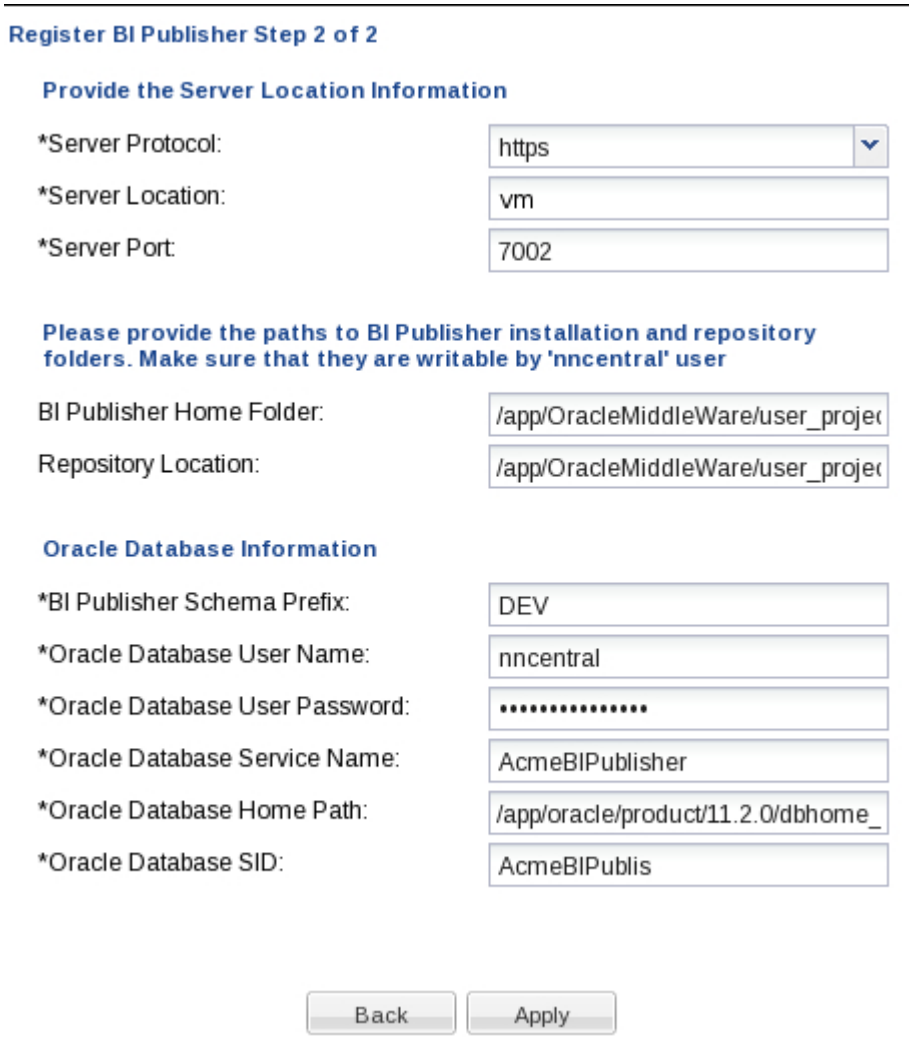
   Unless you previously selected a different name, this will be AcmeBIPublisher.

8. Enter the Oracle database home path.

   For the installation previously documented, the Oracle database home path is `/app/oracle/product/11.2.0/dbhome_1`.

9. Enter the Oracle database's SID.

   The SID is the first 12 characters of the global database name. If AcmeBIPublisher is the global database name, the SID is AcmeBIPublis.



10. Click **Apply**.

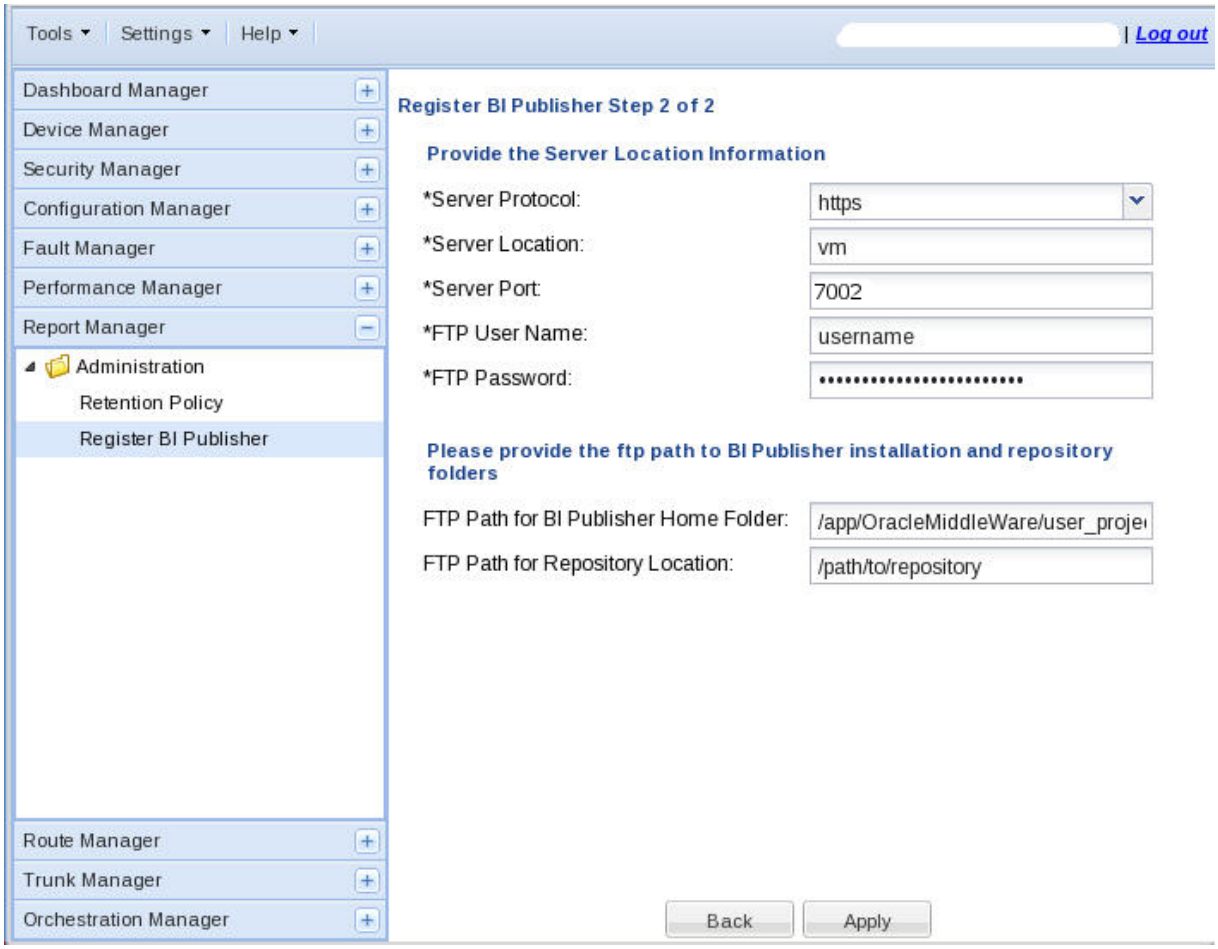
Registering a Remote Standalone BI Publisher

If you entered remote standalone in the previous step:

1. Next to Server Protocol, select https.
2. In the Server Location field, enter the host name of the server on which BI Publisher is installed.
3. Enter 7002 in the Server Port field.
4. Enter your FTP user name and password.
5. Enter the FTP path for the BI Publisher home folder.

   For the installation previously documented, the path is `/app/OracleMiddleWare/user_projects/domains/bifoundation_domain`. The path for your installation may differ if you selected a different location for the OracleMiddleWare directory.
6. Enter the FTP path for the repository location.

This can be found by navigating to **Administration** > **Server Configuration** > **Configuration Folder settings** in BI Publisher.



Registering a BI Publisher Cluster

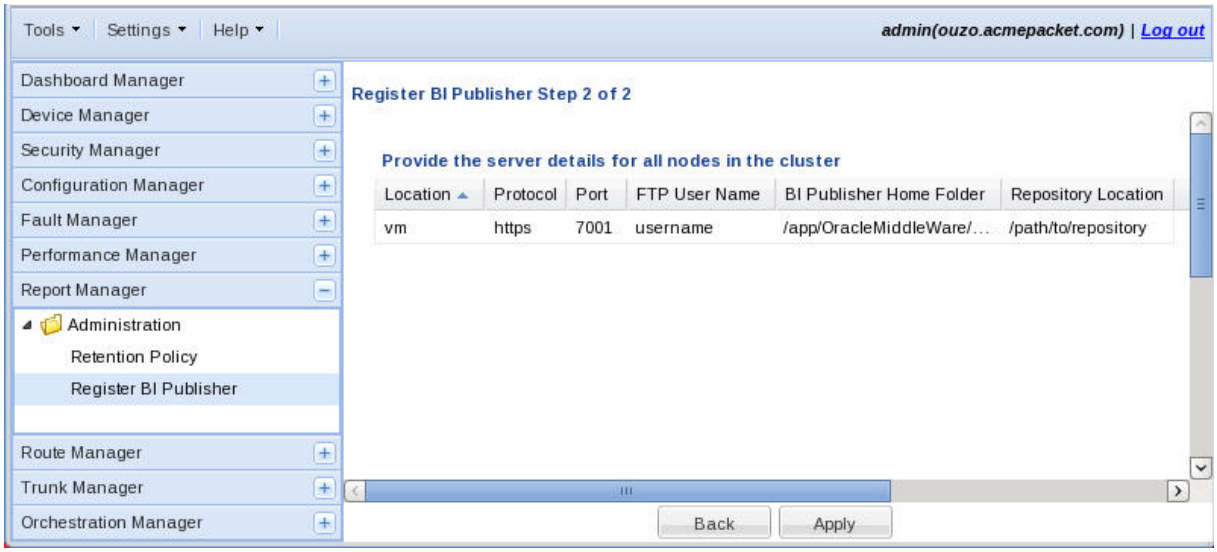
If you entered either remote or local cluster in step 1:

1. Select a node and click **Edit**.
2. In the BI Publisher Cluster Member window, enter the server details about every node in the cluster.

   For remote clusters, enter the protocol, IP address, port, FTP user name, FTP password, the BI Publisher home folder, and the repository location for each node in the cluster.

   For local clusters, enter the protocol, IP address, port, FTP user name, FTP password, BI Publisher home folder, repository location, and Oracle database information for each node in the cluster.

Note: If setting up a local cluster, the BI Publisher server information will be pre-populated.



3. Click **Apply** to save and close the BI Publisher Cluster Member window.
4. Click **Apply**.

Remote Cluster Configuration

To configure BI Publisher in a remote cluster, run the Node Manager and then start the Managed Servers.

Repeat steps 1 through 3 for each node in the cluster before moving on to step 4.

1. SSH to your BI Publisher server.
2. Navigate to the `/app/OracleMiddleWare/wlserver_10.3/server/bin` directory.

   ```
   cd /app/OracleMiddleWare/wlserver_10.3/server/bin
   ```

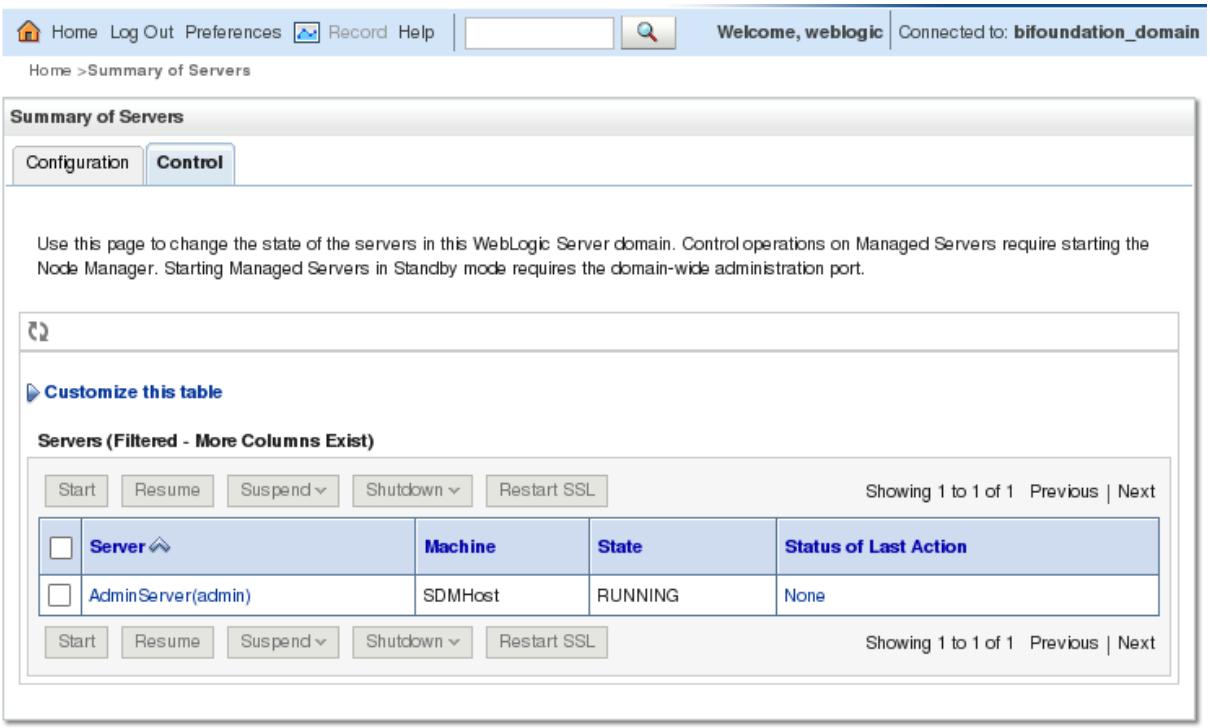
3. Run the startNodeManager script with an appended ampersand.

   ```
   ./startNodeManager.sh &
   ```

   Warning: Repeat steps 1 through 3 for each node in the cluster before continuing.

4. Navigate your browser to BI Publisher's Admin Console at http://<IP address>:7001/console.
5. In the left column, click **Environment** > **Servers**.

6. On the Control tab, start the managed WebLogic server by selecting the nodes and clicking **Start**.



Restarting the WebLogic Server

After registering with SDM, enabling SSL or changing the BIP security model, the WebLogic server must be restarted for reports to run properly.

1. If you set up a standalone, restart the WebLogic server.
2. If you set up a cluster, restart all WebLogic servers in the cluster.

See the Troubleshooting section for instructions on restarting the WebLogic server.

8

Troubleshooting

Starting and Stopping the Oracle Database

If you just created an Oracle database, the database starts automatically. Otherwise, to start the Oracle database:

1. If they have not been defined, set the ORACLE_HOME and ORACLE_SID variables and add these lines to the `.bash_profile` file in the home directory.

```
export ORACLE_HOME=/app/oracle/product/11.2.0/dbhome_1
export ORACLE_SID=AcmeBIPublis
```

2. Execute the ORACLE_HOME/bin/sqlplus script.

```
[oracle@vm bin]$ ./sqlplus '/ as sysdba'

SQL*Plus: Release 11.2.0.1.0 Production on Mon Mar 24 14:45:44 2014

Copyright (c) 1982, 2009, Oracle.  All rights reserved.

Connected to an idle instance.

SQL>
```

3. Start the Oracle database.

```
SQL> startup
```

Note: For more information, see *Oracle Database Startup and Shutdown Procedure*.

4. To shutdown the database, type the **shutdown immediate** command.

```
SQL> shutdown immediate;
```

Restarting the WebLogic Server

Follow these steps to restart the WebLogic Server.

This task assumes you have an SSH connection to your BI Publisher server. If prompted for a password, use the password you set up when installing BI Publisher.

1. Stop the WebLogic server by running the stopWeblogic.sh script.

```
cd /app/OracleMiddleWare/user_projects/domains/bifoundation_domain/bin/
./stopWebLogic.sh
```

The default user name is weblogic.

2. To start the WebLogic server not in background mode, run the startWeblogic.sh script:

```
cd /app/OracleMiddleWare/user_projects/domains/bifoundation_domain/bin/
./startWebLogic.sh
```

Warning: If you start the Administration Server from a Windows or UNIX command-line window, then do not close the window later on, or the server terminates (unless the server is started as a background process from the command line).

Warning: If your BI Publisher server went down, make sure you start the Oracle database and restart the listener before restarting the WebLogic server.

Note: For more information, see this article about *Starting and Stopping Oracle Business Intelligence Components*.

3. To start the WebLogic server in background mode, run the following command:

```
nohup ./startWebLogic.sh -Dweblogic.management.username=weblogic -
Dweblogic.management.password=YvUYM8QiuK31bMl &
```

Note: Press Enter to the shell.

Restarting the BI Publisher Server

If for any reason the BI Publisher server goes down, follow these steps to restart BI Publisher.

To restart BI Publisher:

1. Start the Oracle database instance from the ORACLE_HOME/bin directory.

```
[oracle@vm bin]$ ./sqlplus '/ as sysdba'

SQL*Plus: Release 11.2.0.1.0 Production on Mon Mar 24 14:45:44 2014

Copyright (c) 1982, 2009, Oracle.  All rights reserved.

Connected to an idle instance.

SQL> startup
```

2. Start the listener from the ORACLE_HOME/bin directory.

```
./lsnrctl start
```

3. Restart the WebLogic server.

   For instructions on this, see the "Restarting the WebLogic Server" section in the Troubleshooting chapter of this guide.

X11 Forwarding

If the xorg-x11-xauth program is not installed, you will see this error when trying to use X11 forwarding over SSH:

```
X11 forwarding request failed on channel 0
```

If you see this error, install the package xorg-x11-xauth.

```
yum install xorg-x11-xauth
```

xdpyinfo Errors

The following error messages indicate that xdpyinfo is not installed:

- Checking monitor: must be configured to display at least 256 colors
- Could not execute auto check for display colors using command /usr/bin/xdpyinfo. Check if the DISPLAY variable is set. Failed.

The xdpyinfo program must be installed.

1. Type the following command.

```
yum install xorg-x11-utils-7.4-8.e16.x86_64
```

2. If the program is already installed, check whether the oracle user has execute privileges.

```
[oracle@ouzo ~]$ cd /usr/bin
[oracle@ouzo bin]$ ls -al | grep xdpyinfo
-rwxr-xr-x   1 root root      38112 Feb 23  2013 xdpyinfo
```

Note: In this example, the oracle user has execute privileges.

3. If the oracle user does not have executable privileges, login as root and execute this command:

```
xhost +SI:localuser:oracle
```

4. Login as the oracle user and run the installer.

```
./runInstaller
```

Browser Path error

After the installation, the Oracle installer attempts to reach the BIP login screen by first searching for your default browser. If the default browser is not set on your operating system, the following image will be displayed.

If this occurs, click **Cancel**, open a browser, and navigate to <hostname>:7001/xmlpserver.

Data Pump Directory

Follow these steps if the expdp command in the backup script fails.

1. Connect to your Oracle database as sysdba.

```
cd $ORACLE_HOME/bin
./sqlplus / as sysdba
```

2. Change the streams pool size to generate data pump files.

```
ALTER SYSTEM SET streams_pool_size=128M;
```

3. Shutdown the Oracle database.

```
SHUTDOWN IMMEDIATE;
```

4. Restart the Oracle database.

```
STARTUP;
```

5. Verify the change took place with the following command:

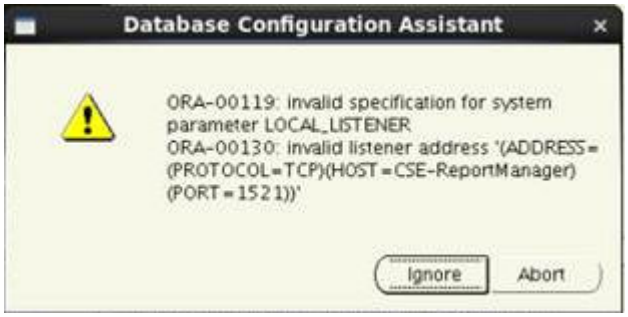
```
SHOW PARAMETER streams_pool_size;
```

Oracle Database Installer Errors

If you see either of these two errors, make sure your `/etc/hosts` file contains a valid hostname besides "localhost."

- Oracle Net Configuration Assistant failed.

- Invalid specification for system parameter LOCAL_LISTENER ORA-00130.



FTP Errors

Connection errors may occur when registering BI Publisher.

1. If you get a "Unknown service vsftpd" error message, install the FTP server on each BI Publisher node.

```
yum install vsftpd
```

2. If you get an "Unable to connect to hosts via ftp protocol" error message, make sure the FTP server has been started on each BI Publisher node.

```
service vsftpd start
```

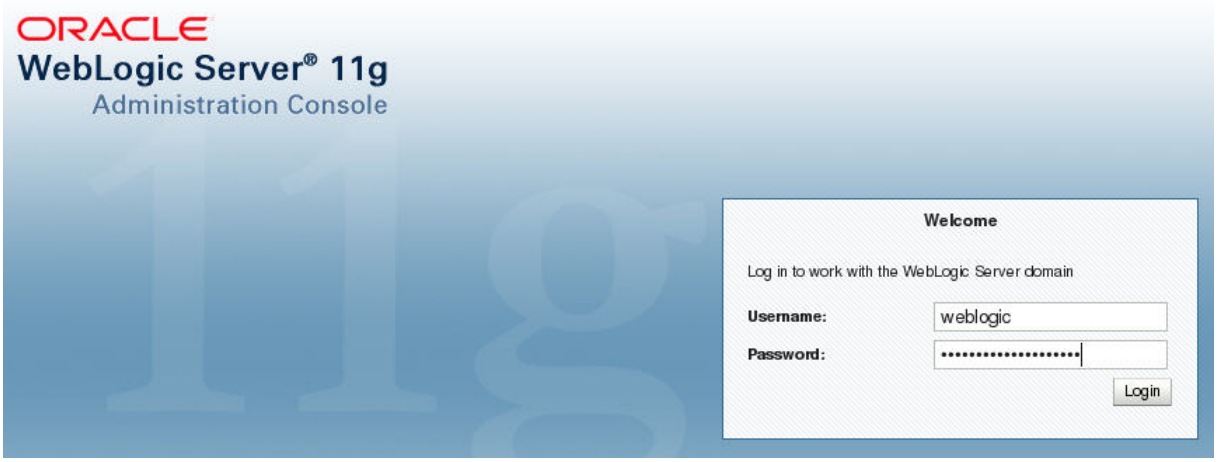
Migrate JMS Service on BIP Cluster

In a BIP cluster, scheduled reports will fail if the active server is down. If the server running the JMS service fails, migrate the JMS service to restore BIP scheduling.

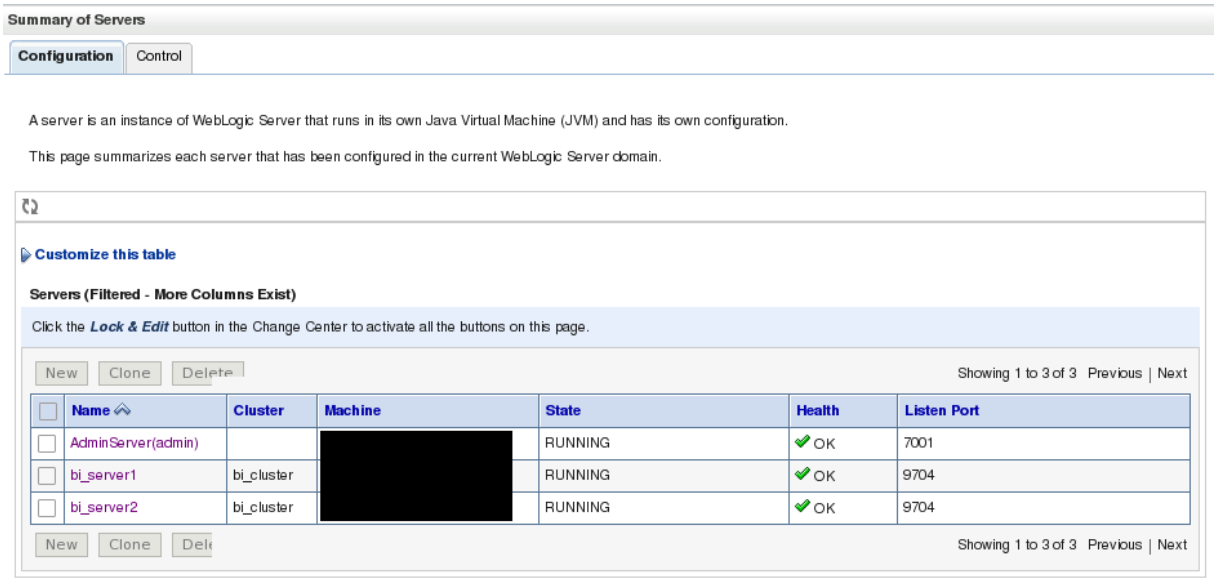
The following examples assume BI Publisher has been installed as a cluster using the Enterprise Install option on the first node and the Scale Out option on subsequent nodes.

Warning: The JMS must not be running during this migration.

Log into the WebLogic Server Administration Console at the URL http://<host>:7001/console/.



In this basic BIP Cluster example, we have two host machines and by default one machine has both an AdminServer and a Managed Server called bi_server1, and another machine has a scaled out Managed Server called bi_server2.

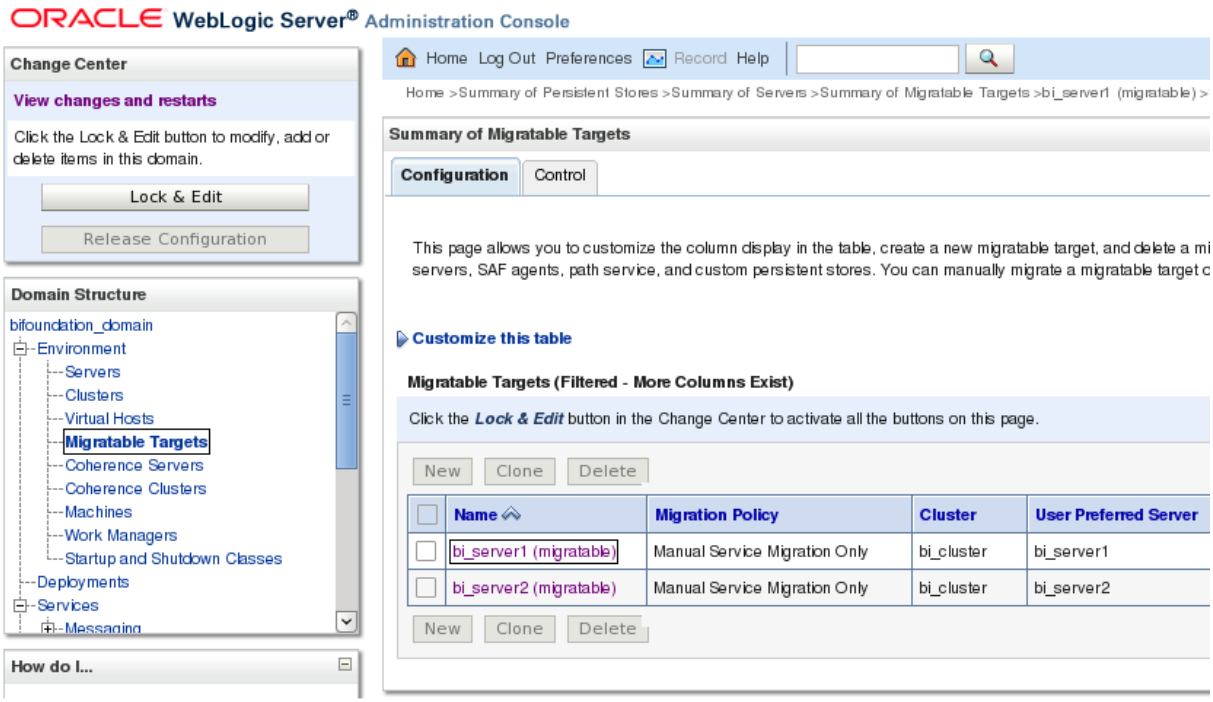


For this example, assume the JMS server is hosted on the Managed Server bi_server1, which is running on the same machine as the AdminServer.

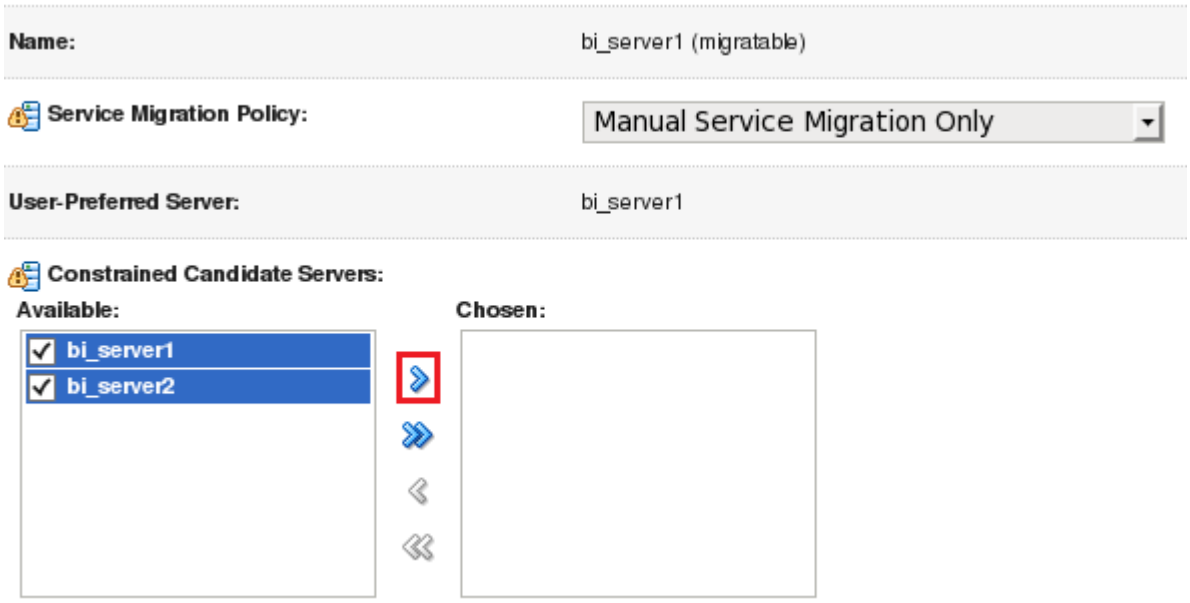
Configure a Migratable Target

When installing a BIP cluster, the system automatically generates migratable targets of "<servername> (migratable)" for each running server in the cluster.

1. If you have not already done so, in the Change Center of the Administration Console, click **Lock & Edit**.
2. In the Domain Structure tree, click **Environment** > **Migratable Targets**.
3. Click on the corresponding Migratable Target (e.g. bi_server1 (migratable)).



4. Select the Migration tab.
5. Under Constrained Candidate Servers, select the servers you want to use as a JMS Server backup and move them to the Chosen list. Move the Candidate Servers from the Available box to the Chosen box by checking the boxes and clicking on the right arrow.



6. Click on Save.
7. To activate these changes, in the Change Center of the Administration Console, click **Activate Changes**.

Note: If a message says that some items must be restarted, then please restart the required Servers.

Create New Persistent Stores

JMS-related services require you to configure a custom persistent store that is also targeted to the same migratable targets as the JMS services. For our migratable solution, we will create a file-based custom store and point the JMS Server to the same Migratable Target as the custom store.

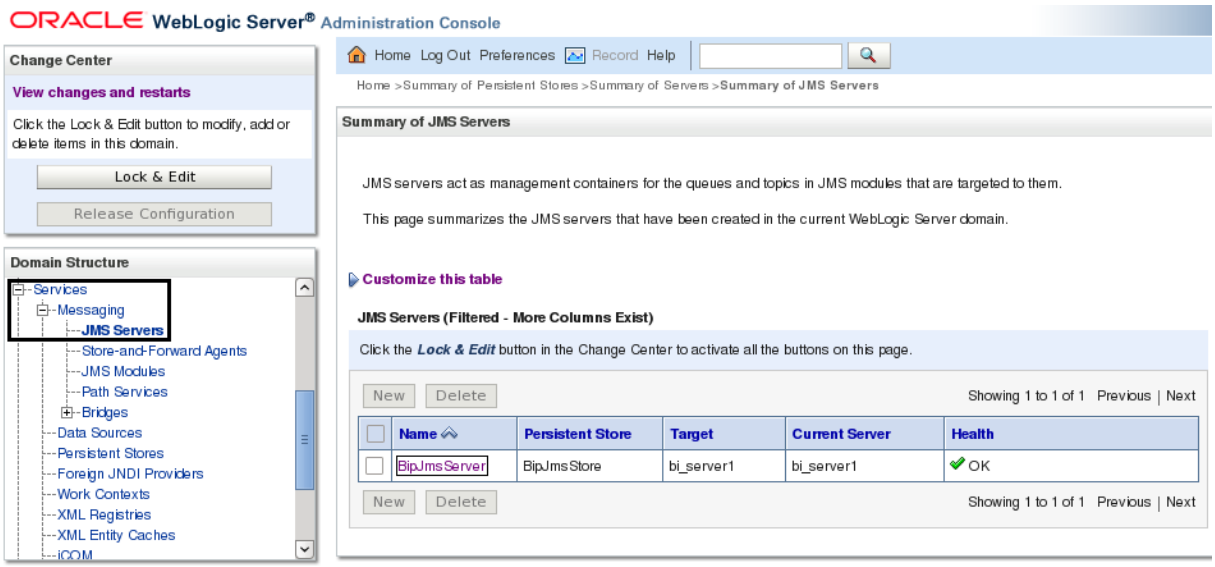
1. Login to the Administration Console.
2. In the Domain Structure tree, expand Services, and then select **Persistent Stores**.
3. Under Change Center, click on **Lock & Edit**.
4. In the Summary of Persistent Stores table click on **New** > **Create FileStore**.
5. Name the new file store and for the Target drop-down select bi_server1 (migratable).
6. The Directory field must be a pathname that is accessible from every node that was declared a Candidate Server when modifying the bi_server1 (migratable) target. Whether you decide to use NFS, a storage area network (SAN), or a dual-ported SCSI disk, make sure this pathname set for the Directory exists and can be accessed from every Candidate Server node.
7. Click **Activate Changes** under the Change Center.

Migrate JMS Services

The following steps are for the actual migration of the JMS Services running on the BIP Cluster. Target the JMS Services to the same Migratable Target as the custom persistent store created earlier.

Warning: In order for this migration step to work, the JMS Services that are being migrated cannot be running. This example assumes that the JMS Services hosted on bi_server1 are not running because this Managed Server is down, which causes the BIP Scheduler to start failing.

1. In the Administration Console, under the Domain Structure tree, click **Services** > **Messaging** > **JMS Servers**.
2. Click on the default BipJmsServer if no other JMS Servers were created.



3. Click on **Lock & Edit**.
4. Under the Persistent Store drop-down, select the new custom persistent that was created on the previous step.
5. Click on **Save**.

Note: You will see some error message about JMS Server or SAF agent: "BipJmsServer is not targeted to the same target as its persistent store." This can be ignored because we still need to change the Target for the JMS Server.

6. Click on the **Targets** tab and under the Target drop-down select bi_server1 (migratable).
7. Click on **Save**.
8. Click on **Activate Changes**.

Note: If there are other JMS Services besides the JMS Server that need to be migrated, such as SAF Agents and Path Services, refer to the Oracle documentation for their migration process.

Manually Migrate the JMS Server

The JMS Server needs to be manually migrated using the Administration Console.

1. If you have not already done so, in the Change Center of the Administration Console, click **Lock & Edit**.
2. In the Domain Structure tree, click **Environment** > **Migratable Targets**.
3. Click on the Control tab within the Summary of Migratable Targets page.
4. Use the check boxes to select the Migratable Target to migrate.
5. Click **Migrate**.
6. Use the New hosting server drop-down to select a new Managed Server that is healthy (in this example, bi_server2).
7. Click **OK**.
8. Click **Activate Changes**.

9

Uninstallation

Uninstall Oracle Database

To uninstall Oracle database:

1. Run the deinstall script in the $ORACLE_HOME/deinstall folder.

```
[oracle@vm ~]$ cd $ORACLE_HOME/deinstall/
[oracle@vm deinstall]$ ./deinstall
```

2. Select the default options unless you need to drop or delete schemas and listeners.
3. Type y to continue.
4. After the script finishes, remove the oracle folder.

```
rm -rf /app/oracle
```

Uninstall BI Publisher

To uninstall BI Publisher:

1. Login to the server over VNC or SSH.

```
ssh -Y oracle@vm
```

2. If you installed a Simple Install, stop the WebLogic server by running the stopWebLogic.sh script.

```
[oracle@vm ~]$ cd app/OracleMiddleWare/user_projects/domains/
bifoundation_domain/bin/
[oracle@vm bin]$ ./stopWebLogic.sh
```

3. If you installed the Enterprise Install, stop the managed server's WebLogic server and the running Node Manager process.

   This script uses the syntax:

```
stopManagedWebLogic.sh {SERVER_NAME} {ADMIN_URL} {USER_NAME} {PASSWORD}
```

   For example:

```
[oracle@vm ~]$ cd app/OracleMiddleWare/user_projects/domains/
bifoundation_domain/bin/
[oracle@vm ~]$ ./stopManagedWebLogic.sh bi_server1 t3://vm.acmepacket.com:
9704 weblogic testPassword5
```

4. If it's still running, kill the Node Manager's process ID.

```
ps -ef | grep weblogic
kill <node manager process id>
```

5. Run the uninstallation scripts for BI Publisher .

```
[oracle@vm bin]$ cd ~/app/OracleMiddleWare/utils/uninstall/
[oracle@vm uninstall]$ ./uninstall.sh
```

Click **Next**, **Next**, and **Done** to uninstall all the components.

6. Run RCU and drop the MDS and BIPLATFORM schemas from Oracle database.

```
[oracle@vm ~]$ cd ~/rcuHome/bin
[oracle@vm bin]$ ./rcu
```

7. Delete the OracleMiddleWare directory.

```
rm -rf ~/app/OracleMiddleWare/
```

Glossary