Oracle® Communications Report Manager

Installation Guide Release 7.5

October 2017



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About This Guide

This document and other product-related documents are described in the Related Documentation table.

Related Documentation

Document Name	Document Description
Release Notes	Contains information about the administration and software configuration of the Oracle Communications Session Delivery Manager feature support new to this release.
Installation Guide	The Installation guide describes the process to install the Session Delivery Manager including both the typical installation process as well as the custom installation options.
Administration Guide	Contains information about security administration, which lets you create new users and new user groups, and set group-based authorization.
Security Guide	 Provides the following security guidelines and topics: Guidelines for performing a secure installation of Oracle Communications Session Delivery Manager on your server, which includes methods for securing the server, firewall settings, system support for encryption and random number generators (RNG), using HTTPS, and password guidelines. An overview of the Security Manager features that are used to configure groups, users, operations, privileges, and manage access to the system. Security maintenance, which includes a checklist to securely deploy Oracle Communications Session Delivery Manager on your network, maintaining security updates, and security considerations for developers.

Table 2: Oracle Communications Session Element Manager Documentation Library

Document Name	Document Description
User Guide	Contains detailed information pertaining to the Session Element Manager application and describes the dashboard summary view, audit log, fault, and performance views.

About This Guide

Document Name	Document Description
	Contains a full description of the individual interface definitions that make up the Application Programming Interface (API).

Table 3: Oracle Communications Report Manager Documentation Library

Document Name	Description
User Guide	Contains information about configuring Report Manager to interoperate with Oracle BI Publisher as well as creating reports on network devices.
Installation Guide	Contains instructions for installing Oracle Communications Report Manager as an Add-on to the Session Delivery Manager including the database and BI Publisher components.

Table 4: Oracle Communications Session Route Manager Documentation Library

Document Name	Description
User Guide	Contains documentation and about using the Session Route Manager with Oracle Communications Session Delivery Products.

Revision History

Date	Description
August 2015	Initial release
January 2016	 The organization of the content was improved, missing sections and information were added, incorrect information was fixed, and the content has been improved overall. The chapter, <i>Create a Report Manager Database Instance</i> was added for the creation of the Oracle database instance for Oracle Communications Report Manager (OCSDMDW), the Oracle database user (OCSREMDW), and the LISTENER2 instance.
April 2016	 The Oracle Legal Notices section was updated. The title of this guide changed from the Oracle Communications Session Delivery Manager Report Manager Installation Guide Release 7.5 to Oracle Communications Report Manager Installation Guide Release 7.5.

About This Guide

Date	Description
August 2016	 The proper cross-reference was added to the <i>Restart the WebLogic Server to Run Reports</i> section in the <i>Register Oracle BI Publisher</i> chapter. An additional step was added to the <i>Start or Stop the Oracle Database</i> chapter to start or stop the database listeners. Added the <i>Prepare for a Report Manager Upgrade</i> section to the Pre-Installation Tasks chapter and added a note to this chapter's introduction that informs that the BI Publisher and Oracle database (Listener and Listener 2) need to be running and properly connected when the Oracle Communications Session Delivery Manager setup installation process is initiated during an upgrade of Oracle Communications Report Manager.
February 2017	• The Restart the WebLogic Server for Running Reports section in the Register Oracle BI Publisher chapter was updated with the information in the Restart the WebLogic Server section in the Report Manager Administrator Operations chapter. The Restart the WebLogic Server section in the Report Manager Administrator Operations chapter was removed.
October 2017	 The Shutdown Report Manager and Start Report Manager sections were added to the Report Manager Administrator Operations chapter. The Start or Stop the Oracle Database section was removed from the Report Manager Administrator Operations chapter.

Pre-Installation Tasks

Read and understand the summary of pre-installation steps that need to be done before installing Oracle Communications Report Manager on your Oracle Communications Session Delivery Manager system.



Warning: In Oracle Communications Session Delivery Manager, Release 7.4 and later, the Oracle Communications Report Manager product uses Oracle BI Publisher to manage, customize, schedule, print, and render reports to multiple formats. The Postgres reporting database and reporting tool used in prior releases cannot be imported when upgrading Report Manager.

- 1. If you are installing the Oracle Communications Session Delivery Manager product software for the first time or upgrading from a previous version, complete the instructions in the Oracle Communications Session Delivery Manager Installation Guide before installing Oracle Communications Report Manager.
- 2. Check Linux server requirements before installing the Oracle Business Intelligence (BI) Publisher software.
- **3.** Decide if you are going to implement Oracle Communications Report Manager in a local or remote configuration.
- 4. Create an Oracle group and user account on your Linux system(s).
- **5.** Select either X11 forwarding using secure shell (SSH) or the virtual network computing (VNC) to install the Oracle database and BI Publisher software with a graphical user interface (GUI) installer on your Linux system.

Check System Requirements

Overall, we recommend that your Linux server system have a minimum of 300 GB of disk space to install Oracle Communications Report Manager. The storage capacity of your server also depends on how much data and the number of devices that are being used.



Note: For more information about Oracle Communications Session Delivery Manager system requirements, see the *Oracle Communications Session Delivery Manager Installation Guide* for more information.

Your Linux server system must meet the following minimum requirements to install the Oracle Business Intelligence (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

Decide How You Want to Implement Report Manager

The information in this section is used to determine which Report Manager implementation is appropriate for your organization before doing any installations.

Oracle Communications Report Manager is an optional application within Oracle Communications Session Delivery Manager that is used to centrally manage the following database functions, display functions, and applications:

- Use Oracle Business Intelligence Publisher (Oracle BI Publisher) application to render reports.
- Report Manager uses Oracle BI Publisher to render reports based on metrics collected from Historical Data Recording (HDR). HDR is a group of management features used to configure a managed device in order to collect statistics about system operation and function. The Report Manager collects raw data in CSV files from designated devices to aggregate it into time granularities (raw, hourly, daily, monthly, yearly), and make this data available for running reports.
- **Note:** With the introduction of Oracle Communications Session Delivery Manager, Release 7.5, both the Oracle Communications Session Delivery Manager and Oracle database software, must be installed together on the same server if you are using Report Manager. The Oracle Communications Session Delivery Manager Data Warehouse (OSCDMDW) database software that is used to store collected data from devices that are managed by Oracle Communications Session Delivery Manager.

You can do a simple or Oracle BI Publisher cluster installation for Report Manager:

- Simple installation—A local standalone installation, local cluster installation, or a remote standalone installation. See the *Simple Implementation of Report Manager* section for more information.
- Oracle BI Publisher Cluster Installation and scale-out installation—A remote cluster installation, in which multiple instances of Oracle BI Publisher and Oracle Communications Session Delivery Manager are installed on separate servers. See the *Oracle BI Publisher Cluster Implementation of Report Manager* section for more information.



Note: You can select this installation option (Enterprise Install) later when you are installing Oracle BI Publisher and creating an Oracle BI Publisher cluster. See the *Create a BI Publisher Cluster* section in this document for more information.



Note: In a remote cluster installation (Enterprise Install), the Oracle BI Publisher is not on the same server as the Oracle Communications Session Delivery Manager. Ensure that the Oracle database application is installed on one of the servers on which Oracle BI Publisher is installed and on both servers on which Oracle Communications Session Delivery Manager is installed.

Simple Implementation of Report Manager

A simple implementation of Report Manager can include the following types of installations:

• Local standalone installation—A single local server that has Oracle Communications Session Delivery Manager, Oracle BI Publisher, and their respective databases that work together to generate reports.

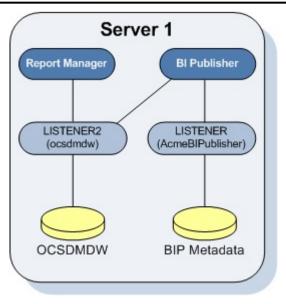


Figure 1: Local standalone installation of Report Manager

- Local cluster installation—A cluster of local servers that generate reports and provide high availability in case one system experiences a sudden failure. On each local server that is part of the same cluster, Oracle BI Publisher and Oracle Communications Session Delivery Manager are installed with their respective databases. Once installed, the Oracle BI Publisher application is local to the Oracle Communications Session Delivery Manager application.
 - **Note:** In a local cluster, the databases synchronize every night. The database content of all nonmaster cluster nodes is synchronized with the master cluster node. All identifying information for one host, such as a username, password, and database prefix, should be identical to the identifying information of another host in the same cluster.

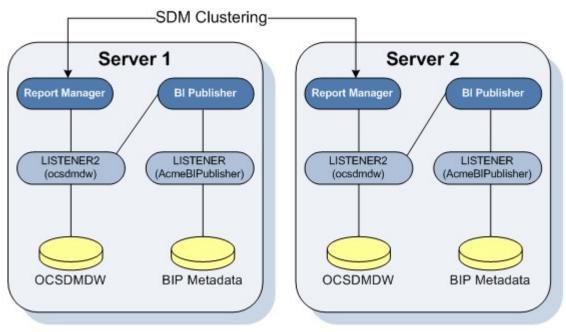


Figure 2: Local cluster installation of Report Manager

• **Remote standalone installation**—A single remote server that has Oracle Communications Session Delivery Manager, Oracle BI Publisher, and their respective databases.

Pre-Installation Tasks

1

Note: If you select this type of installation, install Oracle Communications Session Delivery Manager on its server first on Server 1, and next install the Oracle BI Publisher software on Server 2.

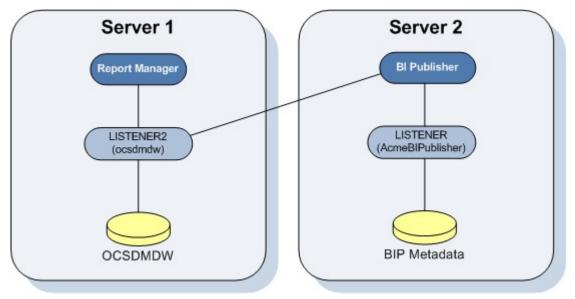


Figure 3: Remote standalone installation of Report Manager

The distinct databases in the illustration above function in the following ways for Oracle Communications Session Delivery Manager, Oracle BI Publisher, and Oracle Communications Report Manager:

- The Berkeley (SDM) XML database is embedded into the Oracle Communications Session Delivery Manager infrastructure, and provides database storage for Oracle Communications Session Delivery Manager user name and user group variables. It is initiated by the database service.
- The AcmeBIPublisher database is maintained and used by the Oracle database to hold the schemas and configuration required by the Oracle BI Publisher application.
- The Oracle Communications Session Delivery Manager Data Warehouse (ocsdmdw) database is maintained by Oracle Communications Session Delivery Manager and it is used to store data that is collected from devices for which collection is enabled is OCSDM.

Oracle BI Publisher Installation for Report Manager

An Oracle BI Publisher installation for Report Manager remote cluster installation, in which multiple instances of Oracle BI Publisher and Oracle Communications Session Delivery Manager are installed on separate servers.

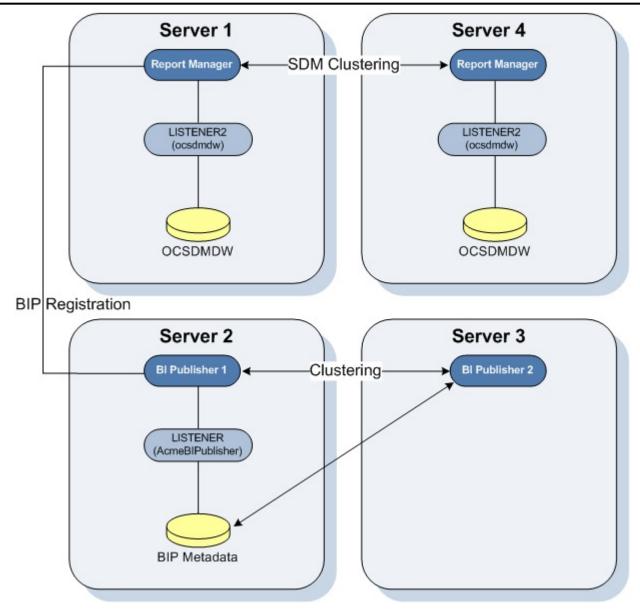


Figure 4: Remote cluster installation of Report Manager

The OCSDMDW database on the replica node is synchronized with the master node every night. When the user signs into Oracle BI Publisher from Oracle Communications Session Delivery Manager, the log in is attempted on the Oracle BI Publisher nodes (Server 2 and Server 3) in a round-robin fashion.

If this describes the architecture of your system, first install Oracle Communications Session Delivery Manager on Server 1 and Server 4. Then use this guide to install Oracle BI Publisher on all the Oracle BI Publisher server nodes (That is, Server 2 and Server 3 as shown in the example above).



Note: You must set up the shared repository according to the security policies of your company.

Create an Oracle User Account

Create an Oracle group and user account on your Linux system(s).

1. Create a new group called **oracle**.

```
groupadd oracle
```

- 2. Create a new user account called **oracle** that belongs to the **oracle** group.
- useradd -m -g oracle -d /home/oracle -s /bin/bash oracle
- 3. Set the password for the oracle user account.

```
passwd oracle <my-oracle-password>
```

Select the GUI Installer Method

Select either X11 forwarding using secure shell (SSH) or the virtual network computing (VNC) to do installations with a graphical user interface (GUI) installer on your Linux system.

Configure SSH with X11 Forwarding

1. You can use either the -X or -Y flag to enable X11 forwarding through SSH when you log in as the root user. For example:

ssh -Y root@server-name



Note: If you do not have DNS on your server or the server name does not work, enter the IP address of the server.

2. (Optional) Install the xorg-x11-xauth package (if it is not already installed). For example:

yum install xorg-x11-xauth

3. You can use either the -X or -Y flag to enable X11 forwarding through SSH when you disconnect and log in as the oracle user. For example:

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

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.

Configure VNC

1. You can use either the -X or -Y flag to enable X11 forwarding through SSH when you log in as root. For example:

ssh -Y root@server-name

2. Install the Desktop package group, which includes X11 and gnome-desktop. For example:

yum install @desktop

3. Install a VNC server. For example:

yum install tigervnc-server

- Reboot the server.
- 5. Log in as root.
- 6. Start the VNC server.

vncserver :1

Prepare for a Report Manager Upgrade

Use this task if you are upgrading Oracle Communications Report Manager from a previous version. The BI Publisher database, and Oracle database and its listeners (LISTENER and LISTENER2) need to be running and properly connected when you use the Oracle Communications Session Delivery Manager setup installation application. Doing this verification ensures that the BI Publisher database and Oracle

Communications Session Delivery Manager Data Warehouse (ocsdmdw) databases are migrated to the upgraded version of Oracle Communications Report Manager.

- **1.** From your Linux system, run the following commands to check if the BI Publisher database, Oracle database, and the listeners are running:
 - Verify that the BI Publisher database is running:
 - ps -ef|grep <my-bi-publiser-db-name>
 - Verify that the ocsdmdw databases are running:
 - ps -ef|grep ocsdmdw
 - Verify that the listeners (LISTENER and LISTENER2) are running:

ps -ef | grep lsnr

- 2. Use the following options to start the BI Publisher database, Oracle database, or the listeners if one or more of these processes are not running:
 - **Note:** Ensure that the Oracle home path (ORACLE_HOME) is specified to the correct directory path for each option.
 - Start the BI Publisher database:

```
export ORACLE_SID=AcmeBIPublis
cd $ORACLE_HOME/bin
./sqlplus / as sysdba
SQL> startup;
```

• Start the ocsdmdw database:

```
export ORACLE_SID=ocsdmdw
cd $ORACLE_HOME/bin
./sqlplus / as sysdba
SQL> startup;
```

• Start the listeners (LISTENER and LISTENER2):

cd \$ORACLE_HOME/bin ./lsnrctl_start ./lsnrctl_start_LISTENER2



Note: You must wait a minute for the listener process to start listening to their respective database services.

3. Use the following commands to check the status of the listeners (LISTENER and LISTENER2):

./lsnrctl status LISTENER
./lsnrctl status LISTENER2

The following output displays:

LSNRCTL for Linux: Version 11.2.0.1.0 - Production on 18-AUG-2016 16:32:38 Copyright (c) 1991, 2009, Oracle. All rights reserved. Connecting to (DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=nms-vm14) (PORT=1522))) STATUS of the LISTENER _____ Alias LISTENER2 TNSLSNR for Linux: Version 11.2.0.1.0 - Production Version 16-AUG-2016 14:52:46 Start Date 2 days 1 hr. 39 min. 52 sec Uptime Trace Level off Security ON: Local OS Authentication SNMP OFF Listener Parameter File /app/oracle/product/11.2.0/dbhome 1/network/admin/ listener.ora Listener Log File /app/oracle/diag/tnslsnr/nms-vm14/listener2/alert/ log.xml Listening Endpoints Summary... (DESCRIPTION=(ADDRESS=(PROTOCOL=tcp)(HOST=nms-vm14)(PORT=1522))) Services Summary... Service "ocsdmdw" has 1 instance(s). Instance "ocsdmdw", status READY, has 1 handler(s) for this service... Service "ocsdmdwXDB" has 1 instance(s). Instance "ocsdmdw", status READY, has 1 handler(s) for this service... The command completed successfully

Install the Oracle Database Software

Install the Oracle database software on your Linux server for Oracle Communications Report Manager by downloading and running the Oracle database installer, and editing and restarting the Oracle database listener (Listener 1).

Install Dependencies for the Oracle Database Software

You must install software packages that the Oracle database software depends on for its proper operation.

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

- 1. Log in to the server as the root user.
- 2. Navigate to the /etc/yum.repos.d/ directory and 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 and verify the enabled parameter is set to 1 in the [ol6_latest] section and the [ol6_UEK_latest] section.
- 4. Install the oracle-rdbms-server-11gR2-preinstall package.

yum -y 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. Install additional required packages:

```
yum -y install 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
```

Download the Oracle Database Software Installer

1. As root, create an /app/oracle directory that is owned by the oracle user.

```
[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
```

- 2. Navigate your browser to the Oracle Database Software Downloads page: http://www.oracle.com/technetwork/database/enterprise-edition/downloads/index.html
- 3. Under the "Oracle Database Software Downloads" heading, select Accept License Agreement.
- **4.** Download the Oracle Database 11g Release 2 for your particular system by clicking the File 1 and File 2 links.
- 5. Copy the files to the /app/oracle directory.

Start the Oracle Database Software Installer

1. Log in as the oracle user with the -Y flag.

ssh -Y oracle@vm

2. Navigate to the /app/oracle directory.

cd /app/oracle

3. Unzip the Oracle database software installer.

Note: If necessary, install unzip with the command yum install unzip.

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

4. Set the TMP, TMPDIR, and ORACLE_BASE variables and unset the ORACLE_HOME variable.

```
export TMP=/tmp
export TMPDIR=/tmp
export ORACLE_BASE=/app/oracle
unset ORACLE HOME
```

5. Navigate to the /app/oracle/database directory.

cd /app/oracle/database/

6. Run the Oracle database software installer.

./runInstaller

```
6
```

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

Install the Oracle Database Software

- **1.** Leave the **My Oracle Support Password** field blank and provide an e-mail address in the **Email** field if you want to receive security updates from Oracle.
- 2. Click Next.
- 3. Click Yes to confirm.
- 4. Select Create and configure a database and click Next.
- 5. Select **Desktop Class** and click **Next**.

- **Note:** The Desktop Class is sufficient for Report Manager and BI Publisher's use of Oracle DB.
- 6. In the Database edition drop-down list, select Standard Edition One.

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

X 💿 Oracle Database 11g Ro Typical Install Configurati	elease 2 Installer - Installi on		© ⊗ ⊗ RACLE 11 ^g
Configure Security Updates Installation Option System Class Typical Installation Prerequisite Checks Summary Install Product Finish	Perform full Database inst Oracle ba <u>s</u> e: Software <u>location:</u> <u>D</u> atabase file location: Database <u>e</u> dition: Character Se <u>t</u> : OSDB <u>A</u> Group: <u>G</u> lobal database name: Administrative <u>p</u> assword: <u>C</u> onfirm Password:	Default (WE8MSWIN1252) - oracle - orcl	Browse B
Help		< <u>B</u> ack <u>N</u> ext	> Einish Cancel

Table 5: Typical Install Configuration 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)
Character Set	Default
OSDBA Group	oracle Note: If the OSDBA Group is specified with another group by default, you must change it to oracle.
Global database name	orcl
Administrative password	

7. Enter the administrative password and click Next.

8. If the Create Inventory window appears, accept the default values.

🕺 💽 Oracle Database 11g Re	elease 2 Installer - Installing database - Step 5 of 9 🛛 😔 🛇 🛞
Create Inventory	
Configure Security Updates Installation Option System Class Typical Installation Create Inventory Prerequisite Checks Summary Install Product Finish	You are starting your first installation on this host. Specify a directory for installation files. This directory is called the "inventory directory". The installer automatically sets up subdirectories for each product to contain inventory data. The subdirectory for each product typically requires 150 kilobytes of disk space. Inventory Directory: /app/oralnventory Browse Specify an operating system group whose members have write permission to the inventory directory (oralnventory). oralnventory <u>G</u> roup Name: oracle •
<u>H</u> elp	< <u>B</u> ack <u>N</u> ext > Einish Cancel

Table 6: Default values

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

9. Examine the error messages, take the appropriate actions, check Ignore All, and click Next.

If necessary, install missing packages with the yum command and then click Check Again.

If you are installing the Oracle database on a 64-bit system:

- Ignore the error message for other architectures (e.g., i386).
- Ignore the error message about pdksh.

If your display shows OS Kernel Parameter errors:

- Follow the directions in the *Kernel Requirements* section of the Oracle Database documentation.
 - **Warning:** Two OS Kernel Parameter errors are exceptions and may be safely ignored:

Table 7: OS Kernel Parameters Safe to Ignore

Parameter	Value
kernel.shmmax	68719476736
kernel.shmall	4294967296

X 💽 Oracle Database 11g Re Perform Prerequisite Checl			⊙ (1 ^g
Configure Security Updates Installation Option System Class Typical Installation Prerequisite Checks	Some of the minimum requirements for installation are not completed. Re the following table, and recheck the system. Check Again Eix & Check Again Show Failed Checks Checks		s listed in Ignore All Fixable
Summary Install Product Finish	Packages Package: Iibaio-0.3.105 Package: glibc-2.3.4-2.41 Package: compat-libstdc++-33-3.2.3 Package: libaio-devel-0.3.105 Package: libstoc-43.4.6 Package: libstdc++-3.4.6 Package: unixODBC-2.2.11 Package: unixODBC-devel-2.2.11 Package: pdksh-5.2.14	Ignored Ignored Ignored Ignored Ignored Ignored Ignored Ignored	
Help	This is a prerequisite condition to test whether the package "libaio-0.3.10 system. <u>(more details)</u> Expected Value : libaio-0.3.105 (i386) Actual Value : missing	5" is available on the	Cancel

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.

Execute Configuration Scripts to Access the Oracle Database Software

In some circumstances, the **Execute Configuration scripts** dialog box opens to display the location of scripts that must be run by the root user before continuing.

- 1. Ensure that you are logged into the server as the root user.
- 2. In the Execute Configuration scripts dialog box, click OK to execute the listed scripts.

	ecute Configuration scripts 🥏 🔗	0
he follow	ving configuration scripts need to be executed as the "root" user.	
cripts to	be executed:	
Number	Script Location	
1	/app/oracle/product/11.2.0/dbhome_1/root.sh	
2	/app/oralnventory/orainstRoot.sh	
10	265965	
•		
• o execut	e the configuration scripts:	•
1. Ope	e the configuration scripts: n a terminal window	•
1. Ope 2. Log	n a terminal window in as "root"	•
1. Ope 2. Log 3. Run	n a terminal window in as "root" the scripts	•
1. Ope 2. Log 3. Run	n a terminal window in as "root"	•

3. In the Database Configuration Assistant dialog box, click OK.

🕼 💮 Database Configuration Assistant <2>	$\odot \odot $
Database creation complete. For details check the logfiles a /app/oracle/cfgtoollogs/dbca/orcl.	at:
Database Information: Global Database Name: orcl System Identifier(SID): orcl Server Parameter File name: /app/oracle/product/11.2.	0/dbhome_1/dbs/spfileorcl.ora
The Database Control URL is https://localhost:1158/em	
Management Repository has been placed in secure mode w data will be encrypted. The encryption key has been place /app/oracle/product/11.2.0/dbhome_1/localhost_orcl/sys Please ensure this file is backed up as the encrypted data is lost.	ed in the file: man/config/emkey.ora.
Note: All database accounts except SYS, SYSTEM, DBSNMP, the Password Management button to view a complete list of the database accounts (except DBSNMP and SYSMAN). Fron window, unlock only the accounts you will use. Oracle Corpo changing the default passwords immediately after unlocking	f locked accounts or to manage n the Password Management oration strongly recommends
	Password Management)
OK)	

The Oracle database software can now be reached at https://<host name>:1158/em.

Configure BI Publisher Access to the Oracle Database Software

Edit the Listener to ensure the Oracle database software is accessible remotely by BI Publisher, edit the listener.ora file.

1. Change directories to the admin directory.

[oracle@vm ~]\$ cd /app/oracle/product/11.2.0/dbhome 1/network/admin/

2. Change the value of the HOST parameter from "localhost" to the hostname of your server.

[oracle@vm admin]\$ sed -i s/localhost/`hostname`/ listener.ora

3. Use the export ORACLE_HOME variable to restart the listener. Ensure that this variable identifies (set to equal) the directory path on which you installed the Oracle database software. For example:

export ORACLE_HOME=/app/oracle/product/11.2.0/dbhome_1

4. To restart the listener and check its status, enter the following commands:

/app/oracle/product/11.2.0/dbhome_1/bin/lsnrctl stop /app/oracle/product/11.2.0/dbhome_1/bin/lsnrctl start /app/oracle/product/11.2.0/dbhome_1/bin/lsnrctl status

Create an Oracle Database Instance for BI Publisher

- **1.** Log in as the oracle user.
- **2.** Run the Database Creation Assistant.

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

- 3. After the Welcome screen, select Create a Database and click Next.
- 4. Select General Purpose or Transaction Processing and click Next.

atabase Configuration Assistant	Template new data	es that include datafiles contain pre-created database: base in minutes, as opposed to an hour or more. Use n necessary, such as when you need to change attribut	templates without datafiles
		e altered after database creation.	
	Select	Template	Includes Datafiles
	9	General Purpose or Transaction Processing	Yes
	0	Custom Database	No
Y Name and Address of the Address of	0	Data Warehouse	Yes
AVERATIVE Very Opportunities Averation of the second secon			
			Show Details
Cancel Help)	G Back	<u>N</u> ext ≫_)

- 5. Enter "AcmeBIPublisher" in the Global Database Name field and click Next.
 - The SID will be filled in automatically and truncated after 12 characters.

Database Configuration Assistant,	Step 3 of 12 : Database Ident	ification
	"name.domain". Global Database Name: A database is referenced	iquely identified by a Global Database Name, typically of the form AcmeBIPublisher by at least one Oracle instance which is uniquely identified from computer by an Oracle System Identifier (SID). AcmeBIPublis
Cancel Help		G Back Next ≫)

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

Create an Oracle Database Instance for BI Publisher

For security reasons, you database. O Use Different Admini:		for the following user accounts in the nev
User Name	Password	Confirm Password
ราร		
 SYSTEM		
DBSNMP		
SYSMAN		
Password: Confirm Password:		

- 8. Click Next to accept the default settings for the following screens:
 - Database File Locations
 - Recovery Configuration
 - Database Content
 - Initialization Parameters
 - Database Storage
- 9. On the Creation Options screen, click Finish.

10. 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.

0: •	Databa	se Configuration Assistant : Warning	\odot	\otimes
2	£	Enterprise manager configuration failed due to the foll Listener is not up or database service is not registered the Listener and register database service and run EM Assistant again . Refer to the log file at /app/oracle/cfgtoollogs/dbca/AcmeBIPublisher/emCo more details. You can retry configuring this database with Enterprise by manually running /app/oracle/product/11.2.0 /dbhome_1/bin/emca script.	l with it. Star Configuration nfig.log for	rt on
			0	

Specify Oracle Database Software Variables

Use the following steps to specify the variable for the oracle database (ORACLE_HOME), and the system identifier (SID) variable that identifies the BI Publisher database.

1. Append the following lines to /home/oracle/.bash_profile.

```
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.

2. Switch to the nncentral user.

su nncentral

.

3. Append the following line to /home/nncentral/.bash_profile.

export ORACLE HOME=/app/oracle/product/11.2.0/dbhome 1

Note: The ORACLE_HOME variable must be set when restarting either the listener or Oracle Communications Session Delivery Manager.

- 4. Press Ctrl + D to exit the nncentral user and return to the oracle user.
- 5. Start a new bash shell as the "oracle" Linux user. For example:

```
ssh oracle@<my server>
```

Add an Oracle Database User that Connects to BI Publisher for Backup and Restore Functions

Add an Oracle database user called nncentral to connect BI Publisher database for backup and restore functions work properly. This task needs to be done for local installations only.

1. Log into the Oracle database.

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

2. Create a user called nncentral and the user password.

Note: The password that you configure expires after 180 days. Seven days before the password expires, a password expiry trap warns you through SDM that your password needs to be reset. If you need to reset this user password later, see the *Reset the Password for the Oracle Database User* section in the *Oracle Communications Report Manager User Guide* for more information.

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

Run the Repository Creation Utility

The repository creation utility (RCU) creates a set of table spaces and schemas required for BI Publisher.

Download the Repository Creation Utility

- Navigate to the Oracle Software Delivery Cloud and sign in: https://edelivery.oracle.com/
- 2. Read the Terms and Restrictions, check the two check boxes, and click Continue.
- 3. In the Select a Product Pack drop-down list, select Oracle Business Intelligence Suite Enterprise Edition Plus.
- 4. Click Select Platform, and check the Linux x86-64 check box.
- 5. Click Continue.
- 6. Click Continue again.
- 7. In the license agreement pop-up dialog box, scroll to read the full license agreement, and check the checkbox that confirms that you have read the license.
- 8. Uncheck the checkbox next to the **Oracle Business Intelligence** application (all software packages are selected by default).
- **9.** Click the arrow icon to the left of the **Oracle Business Intelligence** application to expand all the software packages in the suite.
- 10. Check the Oracle Fusion Middleware Repository Creation Utility checkbox.



Note: This should be the only checkbox that is selected.

- 11. Click Continue.
- **12.** In the license agreement pop-up dialog box, scroll to read the full license agreement, and check the checkbox that confirms that you have read the license.
- 13. Click Continue.
- 14. Click **Download All** to copy all the Oracle Fusion Middleware Repository Creation Utility files to your server.
- 15. Log into your server and unzip the RCU files.

```
unzip <filename>.zip
```

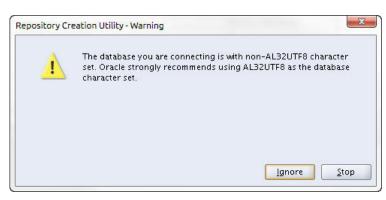
Run the Repository Creation Utility

- **1.** Log in to your server with the -Y flag.
 - ssh -Y oracle@vm
- 2. Start the installation.
 - [oracle@vm ~]\$ cd rcuHome/bin/ [oracle@vm bin]\$./rcu
- 3. On the Welcome screen, click Next.
- 4. Select Create and click Next.
- **5.** 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
Role	SYSDBA

pository Creation Utility - Step 2 of 7 Patabase Connection Detail		cion Details
Welcome Create Repository	<u>D</u> atabase Type:	Oracle Database 🗸 🗸
Database Connection Details	Hos <u>t</u> Name:	
Schema Passwords		L For RAC database, specify VIP name or one of the Node name as Host name. For SCAN enabled RAC database, specify SCAN host as Host name.
Map Tablespaces	P <u>o</u> rt:	1521
Summary	<u>S</u> ervice Name:	AcmeBIPublisher
Completion Summary		
	<u>U</u> sername:	sys User with DBA or SYSDBA privileges. Example:sys
	<u>P</u> assword:	•••••
	<u>R</u> ole:	SYSDBA -
	<u>M</u> essages:	One or more components may require SYSDBA role for the operation to succeed.
Help		< Back Next > Finish Cancel

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



- 6. Click OK to close the Checking Prerequisites window.
- 7. In the Create a new Prefix field, enter a prefix.
 - **Note:** The default prefix is DEV.

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

Select Components			118
 Welcome Create Repository Database Connection Details Select Components Schema Passwords Map Tablespaces Summary Completion Summary 	A Prefix groups the components a Select an existing Prefix Component Compo	DEV Prefix can contain only start with a number and omponents is r OES uler Service iecurity Services t or lligence nce Platform cation Services	
	Messages:		

- 9. On the Password Schema screen, enter the password and click Next.
 - Note: The password that you configure expires after 180 days. Seven days before the password expires, a password expiry trap warns you through SDM that your password needs to be reset. If you need to reset this user password later, see the *Reset the Password for BI Publisher Users* section in the *Oracle Communications Report Manager User Guide* for more information.

- 10. On the Map Tablespaces screen, click Next.
- 11. On the Confirmation window, click OK.
- 12. On the Creating Tablespaces window, click **OK** after the operation has completed.
- 13. On the Summary screen, click Create.

Gummary				
	Database details: Host Name: vm Port: 1521 Service Name: ACMEBIPUBLISHE Connected As: sys Operation: Create Prefix for (prefixable) Schema Ow			
Summary	Component	Schema Owner	Tablespace Type	Tablespace Name
Completion Summary	Metadata Services Business Intelligence Platform	DEV_MDS	Default Temp Additional Default Temp Additional	DEV_MDS DEV_IAS_TEMP None DEV_BIPLATFORM DEV_IAS_TEMP None
Help	1 :1		< Back Next >	Create Cancel

14. 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 LISTENER

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 localhost6
localhost6.localdomain6 localhost
```

3. Restart the listener.

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

4. Double check the status.

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

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.

Install Oracle BI Publisher

- 1. Start the Oracle BI Publisher installer.
- **2.** If setting up a local or remote standalone, follow the directions in the *Creating a Standalone BI Publisher* section.
- **3.** If you are setting up a local cluster, follow the directions in the *Creating a Standalone BI Publisher Cluster* section.
- 4. If you are setting up a remote cluster, follow the directions in the *Creating a BI Publisher Cluster* section.
- 5. Verify your access to BI Publisher.
- 6. Configure privileges for the nncentral user and oracle user.
- 7. 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.

Download and 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. Copy the files to your server.
- 3. Log in to your server as the oracle user with the -Y flag.

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

4. To ensure the files were not corrupted during transfer, match the checksum of the file to checksum that Oracle publishes for each file. Checksums display next to the download link on the right.

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

The following example shows checksum output:

```
[oracle@vm ~]$ cksum bi_linux_x86_111170_64_disk*
413369417 1828186782 bi_linux_x86_111170_64_disk1_lof2.zip
2568284489 1562917161 bi_linux_x86_111170_64_disk1_2of2.zip
579025974 1855356149 bi_linux_x86_111170_64_disk2_lof2.zip
107813693 755328883 bi_linux_x86_111170_64_disk2_2of2.zip
3702413188 1702929424 bi_linux_x86_111170_64_disk3.zip
[oracle@vm ~]$
```

5. Unzip the files.

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

Unzipping these files creates the bishiphome directory.

6. Unset the ORACLE_HOME variable.

- unset ORACLE_HOME
- 7. Create an OracleMiddleWare directory.

mkdir /app/OracleMiddleWare

8. Run the BI Publisher installer.

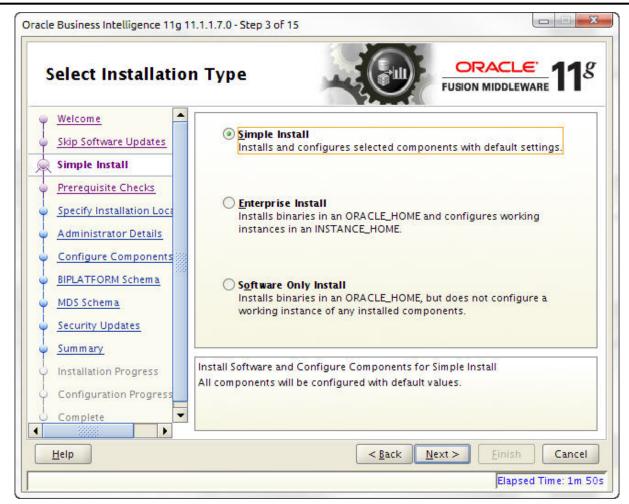
```
cd ~/bishiphome/Disk1/
./runInstaller
```

Create a Standalone BI Publisher

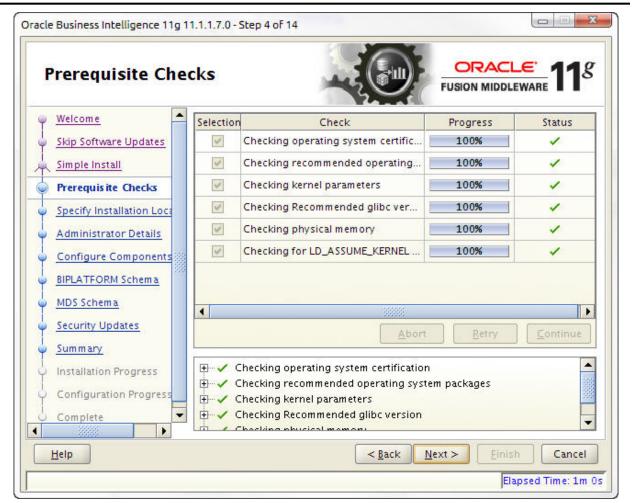
1. If the Specify Inventory Directory window appears, accept the default values.

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.

Selection	Check	Progress	Status
>	Checking operating system certific	100%	1
~	Checking recommended operating	100%	8
 Image: A start of the start of	Checking kernel parameters	100%	8
 Image: A start of the start of	Checking Recommended glibc ver	100%	8
1	Checking physical memory	100%	 Image: A second s
1	Checking for LD_ASSUME_KERNEL	100%	 Image: A second s

6. Browse to the OracleMiddleWare directory you created.

Welcome Skip Software Updates Simple Install Prerequisite Checks		
Specify Installation Lo Administrator Details Configure Components BIPLATFORM Schema MDS Schema Security Updates Summary	<u>M</u> iddleware Home:	/app/OracleMiddleWare B <u>r</u> owse
Configuration Progress		is can be an existing directory (you can select the e button) or you can enter a new location and the rectory.

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

Administrator De	tails		
Welcome Skip Software Updates Simple Install Prerequisite Checks Specify Installation Loca Administrator Details Configure Components BIPLATFORM Schema MDS Schema Security Updates Summary	<u>U</u> sername <u>P</u> assword <u>C</u> onfirm Password	weblogic	
Installation Progress Configuration Progress Complete	characters. It must begin	v entering it again. minimum of 8 and not exceed 30 alphanu with an alphabetic character, use only alp or pound (#) characters and include at le	bhanumeric,

Note: The user name and password provided is used after installation to register and to sign in to BI Publisher at the URL: <server_name_or_ip>:7001/xmlpserver.

8. Select only Business Intelligence Publisher.

C-

Configure Comp	onents		
	Image: Control of the components to conf Image: Control of the components to conf	e Enterprise Edition	n process.
Configuration Progress		< Back Next >	Finish Cancel

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)</service_name></port></server_name>
BIPLATFORM Schema Username MDS Schema Username	<prefix>_BIPLATFORM <prefix>_MDS</prefix></prefix>
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.

BIPLATFORM Sch	ema			
<u>Welcome</u> <u>Skip Software Updates</u> <u>Simple Install</u>	<u>D</u> atabase Type	Oracle	Database	•
Prerequisite Checks Specify Installation Loca	<u>C</u> onnect String	vm:1521	L:AcmeBIPublisher	
Administrator Details Configure Components BIPLATFORM Schema	BIPLATFORM Schema <u>I</u>	<u>J</u> sername	DEV_BIPLATFORM	
<u>MDS Schema</u> <u>Security Updates</u>	BIPLATFORM Schema	<u>P</u> assword	•••••	••••
Summary Installation Progress Configuration Progress	Enter the BIPLATFORM	schema passv	vord.	
Complete			Back Next >	Finish Cance

10. In the Specify Security Updates screen, enter your email address and click Next.

11. On the Summary screen, click Install.

Note: You may see error pop-up messages appear during the installation because software updates were skipped in a previous step. Click **OK** in these messages to continue the installation.

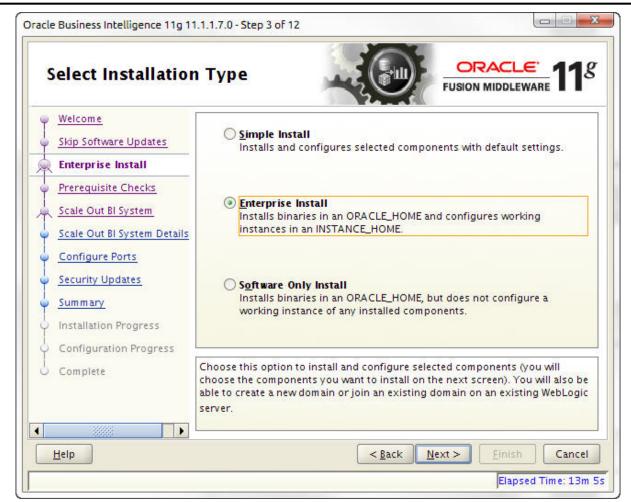
12. After the Configuration Progress screen is complete, click Next.

13. Click Finish.

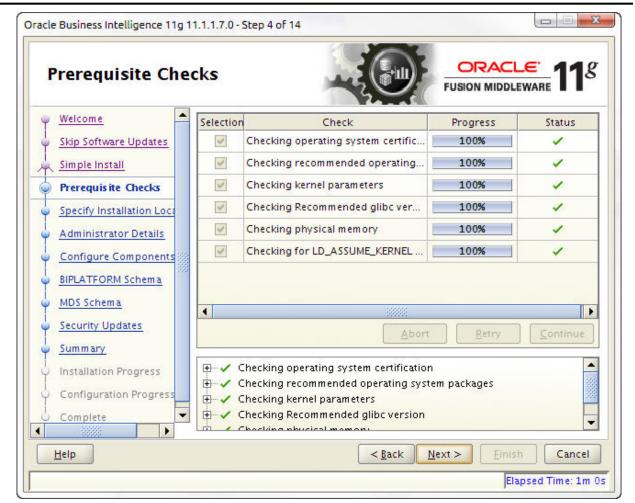
Create a BI Publisher Cluster

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

- 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.

Create or Scale Out I	BI System		
Skip Software Updates Enterprise Install Prerequisite Checks Create New BI System) Create Ne<u>w</u> BI System <u>U</u> ser Name: User <u>P</u> assword: <u>C</u> onfirm Password: <u>D</u> omain Name:) <u>S</u> cale Out BI System	weblogic •••••• ••••••• bifoundation_domain	
Junnary	r a username for the Sys username cannot be blai	tem Administrator. nk or exceed 30 characters. < <u>B</u> ack <u>N</u> ext > <u>Einis</u>	h Cance

C)

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

Welcome Skip Software Updates Enterprise Install Prerequisite Checks Scale Out BI System Scale Out BI System Details Configure Ports Security Updates Summary Installation Progress	 Create New BI System Scale Out BI System Host Name: Port: User Name: User Password: 	vm 7001 weblogic
Configuration Progress	Enter the password for the ex	sting domain.

6. Browse to the OracleMiddleWare directory you created.

Specify Installatio	n Location		e ware 11
<u>Welcome</u>			
<u>Skip Software Updates</u> <u>Enterprise Install</u>	Oracle Middleware Home Loca <u>t</u> ion:	/app/OracleMiddleWare	B <u>r</u> owse
Prerequisite Checks	<u>O</u> racle Home Directory:	Oracle_812	
Create New BI System Specify Installation Log	Weblogic Server Directory:	iracleMiddleWare/wiserver_10.3	
Configure Components	Domain Home Location:	/domains/bifoundation_domain	Brows <u>e</u>
BIPLATFORM Schema	Oracle Instance Location:	liddleWare/instances/instance1	Brow <u>s</u> e
Configure Ports	Or <u>a</u> cle Instance Name:	instance1	
Security Updates Summary Installation Progress Configuration Progress		n be an existing directory (you can se ton) or you can enter a new location a pry.	
Help		< <u>Back</u> Next > Finish	Canc

7. Select only Business Intelligence Publisher.

Configure Comp	onents	FUSION MIDDLEWARE
Welcome Skip Software Updates Simple Install Prerequisite Checks Specify Installation Loca Administrator Details Oconfigure Component BIPLATFORM Schema MDS Schema Security Updates Summary Installation Progress Configuration Progress	Oracle Business Intelligence Business Intelligence Enterprise Business Intelligence Publisher Real-Time Decisions Essbase Suite	
Complete	< <u>B</u> ack	<u>Next ></u> <u>Finish</u> Cancel Elapsed Time: 29m 5

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

Parameter	Value
Database Type drop-down list	Oracle Database
Connect String field	host:port:instance For example: vm:1521:AcmeBIPublisher
BIPLATFORM Schema Username field	<prefix>_BIPLATFORM <prefix>_MDS The Oracle Communications BI Publisher MDS Schema Username</prefix></prefix>
BIPLATFORM schema password field	The Oracle Communications BI Publisher platform schema password.



Note: The default schema prefix is DEV.

BIPLATFORM Scl	nema			
<u>Welcome</u> <u>Skip Software Updates</u> <u>Enterprise Install</u>	Database Type	Oracle	Database	•
Prerequisite Checks	<u>C</u> onnect String	vm:152	21:AcmeBiPublisher	
Specify Installation Loca Configure Components BIPLATFORM Schema	BIPLATFORM Schema	<u>U</u> sername	DEV_BIPLATFORM	
<u>MDS Schema</u> <u>Configure Ports</u>	BIPLATFORM Schema	<u>P</u> assword	•••••	
Security Updates Summary Installation Progress	Enter the BIPLATFORM	schema passv	word.	
Configuration Progress		<	Back Next > En	nish Cance

Oracle Business Intel	lligence 11g 11.1.1.7.0 - Step 9 of 15 🛛 📀 😣
MDS Schema	
🤍 <u>Welcome</u>	
Skip Software Updates	Database Type Oracle Database 🗸 🗸
🔶 Enterprise Install	
Prerequisite Checks	Connect String vm:1521:AcmeBIPublisher
Create New BI System	
Specify Installation Loca	
Configure Components	MDS Schema Username DEV_MDS
BIPLATFORM Schema	
MDS Schema	MDS Schema Password
Configure Ports	
 <u>Security Updates</u> 	
• <u>Summary</u>	Enter the connect string in the format hostname:port:servicename for the Oracle database where you installed the Oracle Business Intelligence Enterprise
 Installation Progress 	Edition metadata schema using the Repository Creation Utility (RCU).
Help	< <u>Back</u> <u>Pext</u> <u>Finish</u> Cancel
	Elapsed Time: 18m 49s

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.

Access the BI Publisher and WebLogic Admin Console

- 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 and oinstall group, add the oracle user to the nncentral group and oinstall group, and add both the oracle and nncentral users to the dba group.

The following procedure is necessary only when Oracle BI Publisher and Oracle Session Delivery Manager are installed on the same server.

- 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 and oinstall. Add **nncentral** to the end of the line that begins with oracle and oinstall. Add the **oracle** and **nncentral** to the end of the line that begins with dba.

For example:

```
nncentral:x:<###>:oracle
oracle:x:<###>:nncentral
oinstall:x:<###>:oracle,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. Switch to the nncentral user and use the shutdownnnc and startnnc scripts to restart Oracle Communications Session Delivery Manager.



Note: If Oracle Communications Session Delivery Manager is not currently running use the startnnc script only.

The following example assumes Oracle Communications Session Delivery Manager is running:

```
[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 ~]$
```

Configure 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.

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';
```

Configure BI Publisher Security

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

- 1. Log into BI Publisher.
- 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.

Authorization	
Security Model	BI Publisher Security
	BI Publisher Security
	LDAP
	Oracle E-Business Suite
	Oracle BI Server
	Siebel Security
	Oracle Database
	- Constant Constant & Sidellarowsee

5. Enter the administrator user name and password that you configured earlier for the BI Publisher login in the text field that appears.

This can be, but does not have to be, the same password you used when setting up BI Publisher. The password provided here is used when registering BI Publisher.

ORACLE BI Publisher Ente			Home Cat
			Home Cal
Single Sign-On Type	U aue single si	yn on 🔄	
Single Sign-Off URL			
How to get username	HTTP Header	<u> </u>	
User Name Parameter			
How to get user locale	HTTP Header	_	
User Locale Parameter			
Enter the value for URL, Administrator Usern	ame, Administrato	or Password, Distin	guished Name f
Use LDAP			
	URL	Example: Idap://host	name.port)
Adminis	strator Username	Contraction of the second second	inanic, porc /
Admini	istrator Password		
Distinguished	d Name for Users	İ	
		(Example: cn=Users,	dc=example,dc=com
JNDI Cont	ext Factory Class	(Default Value: com.s	un indi Idan I danCi
Attribute used for	Login Username	Delaute varue, com.s	un.mun.map.map.ci
	-	(Default Value: cn.)	
Attribute used for user matching with auth	norization system	(Europeles and and and a	
		(Example: orclguid)	
Authorization			
Security Model BIP	ublisher Security	-1	
Security model Thir	ublisher Security		
New Passw			
	Please enter a v	value: Administrator Pa	assword

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

C)

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.

Create the Boot Properties File for Local Clusters

The post-installation process involves the creation of a boot.properties file for local cluster installations.

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.

Create a Report Manager Database Instance

If you are using Oracle Communications Report Manager with Oracle Communications Session Delivery Manager, you must create a Report Manager database instance on the external Oracle database.

When you complete the Report Manager database instance (OCSDMDW) configuration on Oracle Communications Session Delivery Manager, the following items are created on the external Oracle database:

- Oracle database instance for Oracle Communications Report Manager (OCSDMDW).
- Oracle database user (OCSREMDW)
- LISTENER2 instance, which listens on its designated port 1522 (for the Report Manager application) on the Oracle database.

Create a Report Manager Database Instance on the External Oracle Database

From Oracle Communications Session Delivery Manager application, specify the Oracle home path (ORACLE_HOME) and the credentials of the Oracle database user instance (OCSREMDW) in the setup program.

Pre-requisites: You must complete the following tasks:

- Install or upgrade Oracle Communications Session Delivery Manager. See the Oracle Communications Session Delivery Manager Installation Guide for more information.
- Install the Oracle database software. See the *Install the Oracle Database Software* chapter in this guide for more information.
- Install the Oracle database for BI Publisher. See the *Create an Oracle Database for BI Publisher* chapter in this guide for more information.
- Run the repository creation utility (RCU). See the *Run the Repository Creation Utility* chapter in this guide for more information.
- Install Oracle BI Publisher. See the Install Oracle BI Publisher chapter in this guide for more information.
- **1.** Log in as the nncental user.
- 2. Navigate to the bin directory.

For example:

```
cd /opt/AcmePacket/NNC80/bin
```

Create a Report Manager Database Instance

3. Execute the shutdownnnc.sh script. By default, the shutdownnnc.sh script detects whether the existing installation is a standalone or clustered system and prompts you with the option to shut down the entire cluster if no flag options are provided.



Note: However, You can script an option ahead of time by adding -local for single nodes and - cluster to shutdown an entire cluster.

```
Shutdown back-end server
Do you wish to shut down the entire cluster (Yes/No)? Yes
Shutting down cluster....
```

- 4. Enter Yes to continue and shut down the cluster.
- 5. Switch to the root user.
- 6. Run setup.sh.

./setup.sh

7. Select option 2, Custom. Press Enter to continue.

```
[] 1 - Typical
[X] 2 - Custom
[] 3 - Quit
```

- 8. Select option 10, Oracle DB OCSREMDW configuration. Press Enter to continue.
- **9.** Enter the password for the Report Manager user (OCSREMDW), and then confirm the password. For example:

```
Password for user OCSREMDW [] <mypassword>
```

Note: The password that you configure expires after 180 days. Seven days before the password expires, a password expiry trap warns you through SDM that your password needs to be reset. If you need to reset this user password later, see the *Reset the Password for the Oracle Database User* section in the *Oracle Communications Report Manager User Guide* for more information.

10. Enter the path of the ORACLE_HOME variable. For example:

```
Oracle home path (ORACLE HOME)
Enter Oracle home path (ORACLE HOME) [] /app/oracle/product/11.2.0/dbhome 1
```

Verify the Report Manager Database Instance

You must verify that the Report Manager database instance (OCSDMDW) is created.

1. From your Linux system, query the Oracle database to verify if the OCSDMDW database is active:

```
ssh -Y oracle @vm
export ORACLE_SID=ocsdmdw
cd $ORACLE HOME/bin
```

2. Enter the path to the OCSDMDW database:

./sqlplus ocsremdw/<OCSDMDW password>@ocsdmdw

If a success message appears, it indicates that the OCSDMDW database is active and installed correctly. If a failure message appears, either the database is not installed or not configured. Continue to step three if you get a failure message.

3. Check the logs directory to discover why a failure happened (if a failure has happened).

/home/nncentral/AcmePacket/NNC75/logs/SetupApplication.log

4. Look for any error messages in the setup application log. We suggest filtering your search with the words LISTENER2 and OCSDMDW. If you are unable to determine what is wrong, contact your Oracle Communications support representative.

Verify LISTENER2 is Created on the Oracle Database

You must verify that LISTENER2 on port 1522 is created on the Oracle database.

1. From your Linux system, query the NNC report LISTENER2 status to see if it is active:

```
Get$ORACLE_HOME/bin
./lsnrctl_status_LISTENER2
```

2. If there is a failure message, manually try activating LISTENER2:

```
./snrctl start LISTENER2
```

3. Check the status of LISTENER2 again:

```
./lsnrctl status LISTENER2
```

If a success message appears, it indicates that LISTENER2 is active and the Oracle database is installed correctly. If a failure message appears again, either the database is not installed or the listener is not configured. Continue to step four if you get a failure message.

4. Check the logs directory to discover why a failure happened (if a failure has happened).

/home/nncentral/AcmePacket/NNC75/logs/SetupApplication.log

5. Look for any error messages in the setup application log. We suggest filtering your search with the words LISTENER2 and OCSDMDW. If you are unable to determine what is wrong, contact your Oracle Communications support representative.

Register Oracle BI Publisher

Register BI Publisher in HTTPS Mode

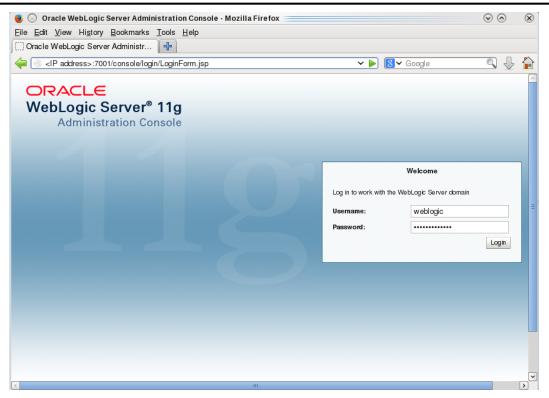
Oracle recommends you register BI Publisher in HTTPS mode to encrypt any communication between Oracle Communications Session Delivery Manager and BI Publisher.

Enable HTTPS on the WebLogic Server

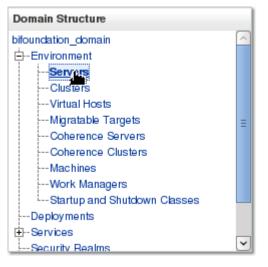
To encrypt the communication between BIP and SDM, first enable HTTPS on the WebLogic server.

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).

Summary of Servers						
Configuration Control						
A server is an instance of WebLogic Server that runs in its own Java Virtual Machine (JVM) and has its own configuration. This page summarizes each server that has been configured in the current WebLogic Server domain.						
<u>(</u> 5						
Customize this table	-					
Click the Lock & Edit button in the Change	Center to activat	e all the buttons on	this page.			
New Clone Delete Showing 1 to 1 of 1 Previous Next						
🔲 Name 🗞	Cluster	Machine	State	Health	Listen Port	
AdminSterver(admin)		SDMHost	RUNNING	🖋 ок	7001	
New Clone Delete Showing 1 to 1 of 1 Previous Next						

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

Change Center
View changes and restarts
Click the Lock & Edit button to modify, add or delete items in this domain.
Lock & Edit Release Configuration

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

ettings for AdminServer		
Configuration Protocols	Logging Debug Monitoring Contro	Deployments Services Security Notes
General Cluster Services	Keystores SSL Federation Servi	ces Deployment Migration Tuning Overload
Health Monitoring Server Sta	art Web Services	
Save		
Use this page to configure gen View JNDI Tree @	eral features of this server such as default	network communications.
Name:	AdminServer	An alphanumeric name for this server instance. More Info
Machine:	SDMHost	The WebLogic Server host computer (machine) on which this server is meant to run. More Info
Cluster:	(Standalone)	The cluster, or group of WebLogic Server instances, to which this server belongs. More Info
街 Listen Address:		The IP address or DNS name this server uses to listen for incoming connections. More Info
✓ Listen Port Enabled		Specifies whether this server can be reached through the default plain-text (non-SSL) listen port. More Info
Listen Port:	7001	The default TCP port that this server uses to listen for regular (non-SSL) incoming connections. More Info
SSL Listen Port Enabled		Indicates whether the server can be reached through the default SSL listen port. More Info
SSL Listen Port:	7002	The TCP/IP port at which this server listens for SSL connection requests. More Info

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

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

Save and Transfer the BI Publisher Certificate to Session Delivery Manager

1. Open your web browser and connect to BI Publisher. For example:



Note: You must use secure HTTPS.

https://<myhostname>:7002/xmlpserver

- 2. Confirm that you understand the risks.
- 3. View and add the server certificate.
- 4. Select the server certificate you that you added and click Export.
- 5. Save the file with the .cer extension in one of the following formats:
 - X.509 PEM (Linux)
 - Base-64 (Windows)
- **6.** Use the secure file transport protocol (SFTP) to send the saved BI Publisher certificate to a directory on your Oracle Communications Session Delivery Manager server.

Add the BI Publisher Certificate to the Session Delivery Manager Keystore

After transferring BI Publisher Certificate to your Oracle Communications Session Delivery manager server, you must add your BI Publisher certificate to the Oracle Communications Session Delivery Manager keystore.

Pre-requisite:

If your Oracle Communications Session Delivery manager 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.

```
[ ] 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?

Please select an option [1] 2

- 3. Select the SBI TLS configuration option and press Enter to continue.
- 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]

Register Oracle BI Publisher

[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.

 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.

Register BI Publisher in Session Delivery Manager

After installation, Oracle BI Publisher must be registered from within Oracle Communications Session Delivery Manager to allow communication between Oracle Communications

1. Start the Oracle Communications Session Delivery Manager server as the nncentral user:

```
cd /opt/AcmePacket/NNC75/bin/
./startnnc.sh
```

2. Navigate to your Oracle Communications Session Delivery Manager server IP address on port 8080.

- 3. Click Report Manager > Register BI Publisher.
- 4. In the **Registered BI Publisher** pane click **Configure Registration**.
- **5.** In the Register BI Publisher Step 1 of 2 pane, complete the following installation details fields to register a BI Publisher server:

Name	Description
Installation Location radio buttons	 Select the following location type: local—The Report Manager and BI Publisher software is installed on the same server. remote—The Report Manager and BI Publisher software is installed on separate servers. Mote: If you are registering BI Publisher with SSL on a local server, a domain name server (DNS) is required.
Installation Type radio buttons	 Select the following installation type: standalone—A single or remote installation of Oracle Communications Session Delivery Manager, Oracle BI Publisher, and their respective databases that work together to generate reports. cluster—A cluster of servers (local or remote) that generate reports and provide high availability in case one system experiences a sudden failure. On each server that is part of the same cluster, Oracle BI Publisher and Oracle Communications Session Delivery Manager are installed with their respective databases.
Support Single Sign On check box	 Check the enable check box if you want to enable single sign-on (SSO). SSO is a session and user authentication process that permits a user to enter one name and password in order to access multiple applications. When SSO is enabled, Oracle Communications Session Delivery Manager manages the users and roles for BI Publisher. When users click on Operational Reports, they are logged in automatically. If disabled, customers must manage users and roles through BI Publisher manually and the user must log in twice when accessing reports. Mote: SSO is enabled by default (true) to ensure Oracle BI Publisher security.
Weblogic Admin User Name field	Enter the Weblogic administrator user name that you created when you installed Oracle BI Publisher.
Weblogic Admin Password field	Enter the Weblogic administrator password that you created when you installed Oracle BI Publisher.

Name	Description
Admin User Name field	Enter the Oracle BI Publisher administrator user name that you created when you installed Oracle BI Publisher.
Admin Password field	Enter the Oracle BI Publisher administrator password that you created when you installed Oracle BI Publisher.

6. Click Next.

The Oracle Communications Session Delivery Manager and Oracle BI Publisher systems connect.

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

Register a Local Standalone Installation of BI Publisher for Report Manager

If you entered local standalone in the previous section, use this additional task to register a local standalone installation of Oracle BI Publisher for Report Manager:

1. In the Register BI Publisher Step 2 of 2 pane, complete the following installation details fields to register a local standalone installation of Oracle BI Publisher for Report Manager:

Name	Description	
Server Protocol drop-down list	Select https for the secure hypertext transfer protocol.	
Server Location field	The host name. Note: This value should be the same host name used when creating the certificate (For example, server1.oracle.com).	
Server Port field	The Oracle BI Publisher server port number. For example, 7002.	
BI Publisher Home Folder field	The BI Publisher Home Folder. For the installat previously documented, the path is /app/ OracleMiddleWare/user_projects/ domains/bifoundation_domain. The path your installation may differ if you selected a different location for the OracleMiddleWare directory.	
Repository Location field	The repository location that 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.	

Name	Description	
BI Publisher Schema Prefix field	The prefix schema for BI Publisher. The default prefix is DEV.	
Oracle Database User Name field	The nncentral user name for your Oracle database. See the <i>Add an Oracle Database User that</i> <i>Connects to BI Publisher for Backup and Restore</i> <i>Functions</i> section for more information.	
Oracle Database User Password	The password for your Oracle database.	
Oracle Database Service Name	The Oracle database service name. Unless you previously selected a different name, enter AcmeBIPublisher .	
Oracle Database Home Path	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.	
Oracle Database SID	Enter the Oracle database SID. The SID is the first 12 characters of the global database name. If AcmeBIPublisher is the global database name, enter AcmeBIPublis .	

2. 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.

Tools ▼ Settings ▼ Help ▼				<u>Log</u> o
Dashboard Manager Device Manager Security Manager Configuration Manager Fault Manager Performance Manager Report Manager 4 Ø Administration Retention Policy	+ + + + + + + + + + + + + + + + + + + +	Register BI Publisher Step 2 of 2 Provide the Server Location Information *Server Protocol: *Server Location: *Server Port: *FTP User Name: *FTP Password:	on https vm 7002 username	·
Register BI Publisher		Please provide the ftp path to BI Publi folders FTP Path for BI Publisher Home Folder: FTP Path for Repository Location:	sher installation and re /app/OracleMiddleWa /path/to/repository	
Route Manager	+			
Trunk Manager	(+)			
Orchestration Manager	(+)	Back	Apply	

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

Register a Local BI Publisher Cluster

If you entered a local cluster in step 1:

- 1. Select the local cluster node and click Edit.
- 2. In the BI Publisher Cluster Member window, 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 is pre-populated.
- 3. Click **Apply** to save and close the BI Publisher Cluster Member window.
- 4. Click Apply.

Register a Remote BI Publisher Cluster

If you entered remote cluster in step 1:

- 1. Select the remote cluster node and click Edit.
- **2.** In the BI Publisher Cluster Member window, 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.
- 3. Click Apply to save and close the BI Publisher Cluster Member window.

4. Click Apply.

4

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**.

ORACLE WebLogic Server®

Change Center			
View changes and restarts			
Click the Lock & Edit button to modify, add o delete items in this domain.	or		
Lock & Edit			
Release Configuration			
Domain Structure			
bifoundation domain	^		
ĖEnvironment			
Servers			
Clusters			
Virtual Hosts			
Migratable Targets	=		
Coherence Servers			
Coherence Clusters			
Machines			
Work Managers			
Startup and Shutdown Classes			
Deployments			
+-Services			
Security Bealms	~		

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

Home >Summary of Servers Configuration Control Configuration Control Use this page to change the state of the servers in this WebLogic Server domain. Control operations on Managed Servers require startint Node Manager. Starting Managed Servers in Standby mode requires the domain-wide administration port. Customize this table Servers (Filtered - More Columns Exist) Start Resume Suspend < Shutdown	Home Log Out Preferences 🟊 Record H	əlp	Q Welcor	ne, weblogic Connecta	ed to: bifoundation_d
Configuration Control Use this page to change the state of the servers in this WebLogic Server domain. Control operations on Managed Servers require startin Node Manager. Starting Managed Servers in Standby mode requires the domain-wide administration port. Customize this table Servers (Filtered - More Columns Exist) Start Resume Suspend ~ Shutdown ~ Restart SSL Showing 1 to 1 of 1 Previous	ome >Summary of Servers				
Use this page to change the state of the servers in this WebLogic Server domain. Control operations on Managed Servers require startin Node Manager. Starting Managed Servers in Standby mode requires the domain-wide administration port.	nmary of Servers				
Node Manager. Starting Managed Servers in Standby mode requires the domain-wide administration port.	onfiguration Control				
	Node Manager. Starting Managed Servers in Sta Customize this table Servers (Filtered - More Columns Exist)	andby mode requires t	he domain-wide adminis	tration port.	
AdminServer(admin) SDMHost RUNNING None	Server 💫	Machine	State	Status of Last Action	
	AdminServer(admin)	SDMHost	RUNNING	None	
Start Resume Suspend ~ Shutdown ~ Restart SSL Showing 1 to 1 of 1 Previous	Start Resume Suspend - Shutd	own ∽ Restart SSI	L	Showing 1 to	1 of 1 Previous Nex

Restart the WebLogic Server to Run Reports

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

Pre-requisite:You must have an SSH connection to your BI Publisher server. When you are prompted for a password, use the password you set up when installing BI Publisher.



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

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=<password>



Note: Press Enter to the shell.

4. If you want to configure the Oracle user .bash_profile, enter the following parameters:

export WLS_USER=weblogic export WLS_PW=<my-secure_password>

5. Login again as the Oracle user and start BI Publisher.

nohup ./startWeblogic.sh &

Troubleshoot Installation Problems

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-<version-number>
```

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 2015 xdpyinfo
```

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

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

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

4. Log in as the oracle user and run the installer.

```
./runInstaller
```

Browser Path error

After the installation, the Oracle installer attempts to reach the BIP log in 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.

0	Browser Path	-	+	×
i	Default browser is not found. the browser location	Ente	r	
	ОК	C	ance	1

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.

- **Note:** You must shut down the SDM server before you complete the steps in this section.
- 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.

-	D	Database Configuration Assistant	×
4	<u>î</u>	ORA-00119: invalid specification for syst parameter LOCAL_LISTENER ORA-00130: invalid listener address '(AE (PROTOCOL=TCP)(HOST=CSE-ReportMar (PORT=1521))'	DRESS =
			vbort)

FTP Errors

Connection errors may occur when registering BI Publisher.

- 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/.

VebLogic Ser Administrati			
		Log in to work with t	Welcome
		Username:	weblogic
		Password:	•••••
			Logir

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.

ummary of Servers						
Configuration Control						
A server is an instance of WebLogic Server that runs in its own Java Virtual Machine (JVM) and has its own configuration. This page summarizes each server that has been configured in the current WebLogic Server domain.						
2						
Customize this table Servers (Filtered - More Columns Exist) Click the <i>Lock & Edit</i> button in the Change Center to activate all the buttons on this page.						
Servers (Filt	ered - More (enter to activate all the buttons o	n this page.		
Servers (Filt Click the Loc	ered - More (ck & Edit butt		enter to activate all the buttons or	n this page.		Showing 1 to 3 of 3 Previous Nex
Servers (Filt Click the Loc	ered - More (ok & Edit butt Clone	on in the Change C	enter to activate all the buttons or Machine	n this page.	Health	Showing 1 to 3 of 3 Previous Nex
Servers (Filt Click the Loc New	ered - More (ok & Edit butt Clone	elete			Health ✔OK	
Servers (Filt Click the Loc New	ered - More (ck & Edit butt Clone D Server(admin)	elete		State		Listen Port

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

New Clone Dele

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)).

Showing 1 to 3 of 3 Previous | Next

	Administration Console				
Change Center	🟦 Home Log Out Preferences 🔤 Record Help				
View changes and restarts	Home >Summary of Persistent Stores >Summary of Servers >Summary of Migratable Targets >bi_servert (migrata	ıble) >			
Click the Lock & Edit button to modify, add or delete items in this domain.	Summary of Migratable Targets Configuration Control				
Lock & Edit Release Configuration Domain Structure	This page allows you to customize the column display in the table, create a new migratable target, and delet servers, SAF agents, path service, and custom persistent stores. You can manually migrate a migratable ta				
bifoundation_domain bifoundation_domain b-Environment bServers bClusters e=	Customize this table Migratable Targets (Filtered - More Columns Exist)				
Virtual Hosts Migratable Targets Coherence Servers Coherence Clusters	Click the Lock & Edit button in the Change Center to activate all the buttons on this page. New Clone Delete				
Machines	Name 🖘 Migration Policy Cluster User Preferred Se	rver			
Work Managers Startup and Shutdown Classes	bi_server1 (migratable) Manual Service Migration Only bi_cluster bi_server1				
ÈDeployments ÈServices ÈMessaging	bi_server2 (migratable) Manual Service Migration Only bi_cluster bi_server2 New Clone Delete				
How do I	New Clone Delete				

- 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.

Name:		bi_server1 (migratable)
Evice Migration Policy:		Manual Service Migration Only
User-Preferred Server:		bi_server1
Constrained Candidate Servers: Available: bi_server1 bi_server2	Chosen:	

- 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. Log in 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

<u>/!</u>`

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.

- 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.

ORACLE WebLogic Server® Administration Console						
Change Center	🚹 Home Log Out Preferences 🔤 Record Help					
View changes and restarts	Home >Summary of Persistent Stores >Summary of Servers >Summary of JMS Servers					
Click the Lock & Edit button to modify, add or delete items in this domain.	Summary of JMS Servers					
Lock & Edit Release Configuration	JMS servers act as management containers for the queues and topics in JMS modules that are targeted to them					
Domain Structure	Customize this table					
JMS Servers Store-and-Forward Agents JMS Modules	Click the Lock & Edit button in the Change Center to activate all the buttons on this page.					
JMS Modules Path Services Bridges	New Delete	Showing 1 to 1 of 1 Previous Next				
Data Sources	Name 🔅 Persistent Store Target Current Serv	er Health				
Persistent Stores Foreign JNDI Providers	BipJmsServer BipJmsStore bi_server1 bi_server1	🖋 ок				
Work Contexts XML Registries XML Entity Caches	New Delete	Showing 1 to 1 of 1 Previous Next				
COM						

- 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.

Report Manager Administrator Operations

Shutdown Report Manager

- 1. Log in as the nncentral user.
- **2.** Change the directory to the bin directory. For example:

cd /home/nncentral/AcmePacket/NNC<version>/bin

3. Execute the **shutdownnnc.sh** script. By default, the shutdownnnc.sh script detects whether the existing installation is a standalone or clustered system and prompts you with the option to shutdown the entire cluster if no flag options are provided.



Note: However, you can script an option ahead of time by adding -local for single nodes and - cluster to shutdown an entire cluster.

```
./shutdownnnc.sh
Shutdown back-end server
Do you wish to shut down the entire cluster (Yes/No)? Yes
```

- 4. On the SDM server, login as the Oracle user.
- 5. Change to the WebLogic server directory:

```
[oracle@vm ~]$ cd app/OracleMiddleWare/user_projects/domains/
bifoundation domain/bin/
```

6. Stop the WebLogic server by running the stopWebLogic.sh script.

[oracle@vm bin]\$./stopWebLogic.sh

7. Stop the BI Publisher database instance listener.

./lsnrctl stop

8. Stop the OCSDMDW database instance listener (LISTENER2):

./lsnrctl stop LISTENER2

9. If undefined, set the ORACLE_HOME variable in the .bash_profile of both the oracle user and the nncentral user.

```
export ORACLE HOME=/app/oracle/product/11.2.0/dbhome 1
```

10. Specify the ORACLE_SID variable for the AcmeBIPublisher database.

export ORACLE_SID=AcmeBIPublis

Report Manager Administrator Operations

11. Execute the ORACLE_HOME/bin/sqlplus script.

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

12. Use the following option to shutdown the Oracle database instance and exit:

```
SQL> shutdown immediate;
SQL> exit
```

Specify the ORACLE_SID variable for the Report Manager database instance (OCSDMDW).

export ORACLE SID=ocsdmdw

14. Execute the ORACLE_HOME/bin/sqlplus script.

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

15. Use the following option to shutdown the Oracle database instance and exit:

SQL> shutdown immediate; SQL> exit

Start Report Manager

- 1. On the SDM server, login as the Oracle user.
- 2. If undefined, set the ORACLE_HOME variable in the .bash_profile of both the oracle user and the nncentral user.

export ORACLE_HOME=/app/oracle/product/11.2.0/dbhome_1

3. Specify the ORACLE_SID variable for the AcmeBIPublisher database.

export ORACLE_SID=AcmeBIPublis

4. Execute the ORACLE_HOME/bin/sqlplus script.

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

5. Use the following option to start the Oracle database instance and exit:

```
SQL> startup
SQL> exit
```

6. Specify the ORACLE_SID variable for the Report Manager database instance (OCSDMDW).

export ORACLE SID=ocsdmdw

7. Execute the ORACLE_HOME/bin/sqlplus script.

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

8. Use the following option to start the Oracle database instance and exit:

```
SQL> startup
SQL> exit
```

9. Start the BI Publisher database instance listener.

```
./lsnrctl start
```

10. Start the OCSDMDW database instance listener (LISTENER2).

./lsnrctl start LISTENER2

11. Change to the WebLogic server directory:

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

12. Enter the following parameters to configure the Oracle user .bash_profile:

export WLS_USER=weblogic export WLS_PW=<my-secure password>

13. Start the WebLogic server by running the startWebLogic.sh & script.

```
[oracle@vm bin]$ ./startWebLogic.sh &
```

14. Log in as the nncentral user.

15. Change the directory to the bin directory.

For example:

```
cd /home/nncentral/AcmePacket/NNC<version>/bin
```

16. Execute the startnnc.sh script.

./startnnc.sh



Note: The console displays the number of services started. After all services have started, the system is ready for use. Do not attempt to log in until the console has indicated that the web servers are up.

Reset the OCSREMDW User Password

The password for the Oracle Communications OCSREMDW User who connects to the Oracle Communications Session Delivery Manager Data Warehouse (ocsdmdw) database expires every 180 days. Use this task to reset the expired password with a new password.

1. Shutdown SDM as the nncentral user.

```
cd /opt/AcmePacket/NNC80/bin
./shutdownnnc.sh
```

- 2. Run setup.sh as root.
- 3. Select Custom > Oracle DB OCSDMDW Configuration
- 4. Enter and then confirm the OCSDMDW password.
- Enter the ORACLE_HOME path. The error message should say "OCSDMDW Oracle DB already exists. Please drop this DB and try again."
- 6. Exit setup.sh.
- 7. Set the ORACLE_HOME and ORACLE_SID variables as the nncentral user.

```
su nncentral
export ORACLE_HOME=/app/oracle/product/11.2.0/dbhome_1
export ORACLE_SID=ocsdmdw
```

8. Log in to the Oracle database.

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

9. If the database user accounts are locked because of multiple failed logins with the wrong password, unlock the nncentral and oscremdw accounts.

alter user nncentral account unlock; alter user ocsremdw account unlock;

10. Change passwords for the nncentral user and the ocsremdw user. The new ocsdmdw password must be the same as the one specified in step 4.

alter user nncentral identified by <new_password>;
alter user ocsremdw identified by <new password>;

11. Exit

exit;

12. Confirm the password changes by looking for a successful log in to the following commands:

./sqlplus nncentral/<new_password>@ocsdmdw

```
./sqlplus ocsremdw/<new_password>@ocsdmdw
```

13. Start SDM as the nncentral user.

Report Manager Administrator Operations

```
cd /opt/AcmePacket/NNC75/bin/
./startnnc.sh
```

Free Up Disk Space

In local clusters, dump files may be deleted if the server runs low on disk space.

Note: Do not run this command if a backup or restore is in progress.

- **1.** Log in as the oracle user.
- 2. Find and remove the dump files.

```
find . -name OCSDMDW_Dump*.dmp | xargs rm -rf
```

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

1. Log in 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/