



APPENDIX **A**

Installing and Patching Oracle

This section provides supporting information to assist you with the Oracle 11g installation.



Note

- Oracle 11g is available only for a 64-bit architecture.
 - Use the information in this section in conjunction with the Oracle documentation available on the Oracle website.
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A.1 Oracle Prerequisites

Before you install Oracle 11g, verify that:

- Oracle is not running
- The oracle UNIX user exists and is configured correctly
- One of the following DVDs is in the disk drive:
 - Cisco Prime Optical Server installation DVD—Linux
 - Cisco Prime Optical Server installation DVD—Solaris

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- Step 1** Enter the following command to create a UNIX group for database administrators:
- ```
groupadd -g 3303 dba
```
- Step 2** Enter the following command to create a UNIX group for installation of the Oracle software:
- ```
groupadd oinstall
```
- Step 3** Enter the following command to create a UNIX account to own the Oracle software:
- ```
useradd -g oinstall -G dba -m -s /bin/csh -d /oracle oracle
```
- Step 4** Enter the following command to change the Oracle user password:
- ```
passwd oracle
```
- Step 5** Enter the new password and then re-enter it to confirm it.
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A.2 Installing the Oracle 11g Software with the Response File (*.rsp) Provided by Cisco

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- Step 1** Enter the following command to copy the default profile to the Oracle home directory:
- ```
cp DVD-mount-point/Disk1/oracle.cshrc /oracle/.cshrc
```
- Step 2** Enter the following command for 64-bit Oracle Enterprise Edition:
- For Solaris, enter:
 

```
cp DVD-mount-point/Disk1/oracle11_2_0_3_solaris.rsp /oracle
```
  - For Linux, enter:
 

```
cp DVD-mount-point/Disk1/oracle11_2_0_3_linux.rsp /oracle
```
- Step 3** Enter the following commands to change ownership of the Oracle software directories:
- ```
chown -R oracle:dba /oracle
chown -R oracle:dba /db01
chown -R oracle:dba /db02
chown -R oracle:dba /db03
chown -R oracle:dba /db04
chown -R oracle:dba /db05
chown -R oracle:dba /ctm_backup
```
- Step 4** If you are using db01_rd or db02_rd, enter the following commands to change ownership of the Oracle software directories:
- ```
chown -R oracle:dba /db01_rd
chown -R oracle:dba /db02_rd
```
- Step 5** Enter the following command to add read-write permissions:
- ```
chmod +rw /oracle/.cshrc
```
- Step 6** Follow the preinstallation steps in the *Oracle 11g Installation Guide for Solaris or Linux*, available on the Oracle website. Note the following constraints:
- No RAC configuration
 - No ASM configuration
 - Linux 64-bit
 - No Oracle application server
- Step 7** Enter the following command to log in as the oracle user:
- ```
su - oracle
```
- Step 8** Depending on the distribution media of the Oracle software, change to the directory where the runInstaller application is located. For example, if you are using a DVD, enter:
- ```
cd /dvd/dvd0
```
- Step 9** Enter the following command to set the display on your terminal:
- ```
setenv DISPLAY hostname-or-IP-address:0.0
```
- Step 10** Enter the following command to verify that the display is set correctly:

```
echo $DISPLAY
```

In the command output, you should see:

```
hostname-or-IP-address:0.0
```

If you are using an xterm window or a remote host, as a root user enter the following command to enable the xterm connection from clients:

```
xhost +
```

The default path is one of the following:

- (Solaris) /usr/openwin/bin
- (Linux) /usr/bin

**Step 11** Enter the following command to start the Oracle installer:

- For Solaris, enter:

```
./runInstaller -silent -responseFile /oracle11_2_0_3_solaris.rsp &
```

- For Linux, enter:

```
./runInstaller -silent -responseFile /oracle/oracle11_2_0_3_linux.rsp &
```

When this step is complete, you will be prompted to run several shell scripts as root. Instead, press the **Enter** key to return to the prompt.



**Note**

- If you do not have a DVD, see your Oracle documentation for instructions on how to download and extract the correct software for the installation.
- When carrying out the steps in this section, see the *Oracle Content Database Installation Guide* on the Oracle website.

**Step 12** Enter the following commands to create the local/bin directory:

```
cd /oracle/product/11.2.0
mkdir -p local/bin
```

If you were prompted to run the /oracle/product/11.2.0/root.sh script, log into another terminal window as the root user and do the following:

- a. Enter the following command:

```
cd /oracle/product/11.2.0
```

- b. Enter the following command to run the root.sh script:

```
./root.sh
```

**Step 13** Because the client static library is not generated during installation, you must do the following to generate and link your applications to the client static library:

- a. Go back to the terminal window where you are logged in as the Oracle user.

- b. Enter the following command to generate the client static library:

```
$ORACLE_HOME/bin/genclntst
```

**Step 14** As an Oracle user, enter the following commands to relink Oracle:

```
> setenv ORACLE_HOME /oracle/product/11.2.0
> $ORACLE_HOME/bin/relink all
```

## A.3 Downloading and Installing the Required Oracle 11g Patches for 64-Bit Solaris or Linux Platforms

See the Oracle installation documentation to install the patches listed in [Table A-1](#). You must install the Oracle patches in the exact order shown.

**Table A-1** Oracle 11g Patches for Solaris and Linux

| Installation Order | Patch Number | Package Name                           | Description               |
|--------------------|--------------|----------------------------------------|---------------------------|
| <b>Solaris</b>     |              |                                        |                           |
| 1                  | 10404530     | p10404530_112030_SOLARIS64_1of7.zip    | Installs Oracle 11.2.0.3. |
| 2                  |              | p10404530_112030_SOLARIS64_2of7.zip    |                           |
| 3                  |              | p10404530_112030_SOLARIS64_3of7.zip    |                           |
| 4                  |              | p10404530_112030_SOLARIS64_4of7.zip    |                           |
| 5                  |              | p10404530_112030_SOLARIS64_5of7.zip    |                           |
| 6                  |              | p10404530_112030_SOLARIS64_6of7.zip    |                           |
| 7                  |              | p10404530_112030_SOLARIS64_7of7.zip    |                           |
| <b>Linux</b>       |              |                                        |                           |
| 1                  | 10404530     | p10404530_112030_Linux-x86-64_1of7.zip | Installs Oracle 11.2.0.3. |
| 2                  |              | p10404530_112030_Linux-x86-64_2of7.zip |                           |
| 3                  |              | p10404530_112030_Linux-x86-64_3of7.zip |                           |
| 4                  |              | p10404530_112030_Linux-x86-64_4of7.zip |                           |
| 5                  |              | p10404530_112030_Linux-x86-64_5of7.zip |                           |
| 6                  |              | p10404530_112030_Linux-x86-64_6of7.zip |                           |
| 7                  |              | p10404530_112030_Linux-x86-64_7of7.zip |                           |


## A.4 Installing the Oracle Client on the Prime Optical Server Workstation

Complete the following steps to install the Oracle client software on a Solaris or Linux server to meet the Prime Optical server requirements for a remote database configuration.



**Note**

You must be a root user to complete this procedure.

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- Step 1** Depending on your configuration, insert one of the following DVDs into the DVD drive:
- Cisco Prime Optical Server installation DVD—Linux
  - Cisco Prime Optical Server installation DVD—Solaris
- Step 2** Enter the following command to copy the default profile to the Oracle home directory:
- ```
cp DVD-mount-point/Disk1/oracle.cshrc /oracle/.cshrc
```
- Step 3** Choose a value for the Oracle SID. The default value for the Oracle SID is *CTM*.
- If you want to keep *CTM* as the Oracle SID, proceed to [Step 4](#).
 - If you want to use a different Oracle SID, use a text editor to edit the */oracle/.cshrc* file. In the following line, replace *CTM* with the desired Oracle SID value:
- ```
setenv ORACLE_SID CTM
```
- Step 4** Enter the following command to copy the response files to your workstation:
- For Solaris, enter:
- ```
cp DVD-mount-point/Disk1/oracle11_2_0_3_solaris_client.rsp /oracle
```
- For Linux, enter:
- ```
cp DVD-mount-point/Disk1/oracle11_2_0_3_linux_client.rsp /oracle
```
- Step 5** Enter the following commands to eject the Prime Optical installation DVD:
- ```
cd /  
eject cdrom
```
- Step 6** Enter the following command to change ownership of the Oracle software directories:
- ```
chown -R oracle:dba /oracle
```
- Step 7** Enter the following command to add read-write permissions:
- ```
chmod +rw /oracle/.cshrc
```
- Step 8** Enter the following command to log in as the oracle user:
- ```
su - oracle
```
-  **Tip** To verify the username, enter the **id** command.
- 
- Step 9** Insert the disk for the Oracle Database 11g Client release 2 (11.2) installation.
- Step 10** Enter the following command to set the display on your terminal:
- ```
setenv DISPLAY hostname-or-IP-address:0.0
```
- Step 11** Enter the following command to verify that the display is set correctly:
- ```
echo $DISPLAY
```
- In the command output, you should see:
- ```
hostname-or-IP-address:0.0
```
- Step 12** If you are using an xterm window or a remote host, as a root user enter the following command to enable the xterm connection from the clients:
- ```
xhost +
```

The default path is one of the following:

- (Solaris) /usr/openwin/bin
- (Linux) /usr/bin

**Step 13** Depending on the distribution media of the Oracle software, insert the DVD or use the image provided on the Oracle website.



**Note** If you do not have a DVD, see your Oracle documentation for instructions on how to download and extract the correct software for the installation.

**Step 14** Depending on the distribution media of the Oracle software, change to the directory where the application runInstaller is located. For example, if you are using a DVD, enter:

```
cd /dvd/dvd0
```

**Step 15** Enter the following command to install the Oracle client:

- For Solaris:
 

```
./runInstaller -silent -responseFile /oracle/oracle11_2_0_3_solaris_client.rsp
```
- For Linux:
 

```
./runInstaller -silent -responseFile /oracle/oracle11_2_0_3_linux_client.rsp
```

**Step 16** If you are prompted to run the /oracle/oraInventory/orainstRoot.sh script, log into another terminal window as the root user and enter the following commands:

```
cd /oracle/oraInventory
./orainstRoot.sh
```



**Note** The Installer does not prompt you to run the orainstRoot.sh script if you have a previous version of Oracle installed on your workstation or if the oratab file already exists on your workstation. In a Solaris setup, the oratab file is located in the /var/opt/oracle directory. In a Linux setup, the oratab file is located in the /etc directory.

**Step 17** If you are prompted to run /oracle/product/11.2.0/root.sh from another window, log into another terminal window as the root user and enter the following command:

```
cd /oracle/product/11.2.0
```

**Step 18** Enter the following command to run the root.sh script:

```
./root.sh
```

**Step 19** At the prompt for the local bin directory, enter the following command in the root.sh script:

```
/oracle/product/11.2.0/local/bin
```

**Step 20** Return to the Oracle Setup Privileges screen and click **OK**.

**Step 21** Enter the following command to change permissions for sqlplus:

```
chmod 755 /oracle/product/11.2.0/bin/sqlplus
```

**Step 22** For Solaris operating systems, edit the /var/opt/oracle/oratab file by adding the following line as the first line in the file:

```
Oracle-SID:/oracle/product/11.2.0:Y
```

For example, if the *Oracle-SID* is CTM, add the following line:

```
CTM:/oracle/product/11.2.0:Y
```

- Step 23** For Linux operating systems, edit the `/etc/oratab` file by adding the following line as the first line in the file:

```
Oracle-SID:/oracle/product/11.2.0:Y
```

- Step 24** For example, if the Oracle-SID is CTM, add the following line:

```
CTM:/oracle/product/11.2.0:Y
```

- Step 25** Enter the following command to create the `network/admin` directory:

```
cd /oracle/product/11.2.0
mkdir -p network/admin
```

- Step 26** Enter the following command to change folder ownership:

```
chown -R oracle:dba network
```

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