



IBM Tivoli Training Netcool/Proviso 4.4.3

Highlights of installing the Oracle server on a Solaris system

Tivoli. software



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Welcome to the IBM Education Assistant module for Netcool/Proviso® 4.4.3 entitled *Highlights of installing the Oracle server on a Solaris system.*

Objectives

Upon completion of this module you will be able to:

- ▶ Describe the installation of an Oracle server for the Proviso application
- ▶ Use the Oracle server installation instructions more effectively

Upon completion of this module you will be able to:

Describe the installation of an Oracle server for the Proviso application

Use the Oracle server installation instructions more effectively

Assumptions

- The base operating system that hosts the Oracle server software is Solaris 9.
- The version of Oracle server is 9i.
- Both the Proviso and Oracle server software packages have appropriate licensing.
- You have a solid working knowledge of the Solaris operating environment and UNIX® commands.

The major assumptions for this module are:

- The base operating system that hosts the Oracle server software is Solaris 9.
- The version of the Oracle server is 9i.
- Both the Proviso software and Oracle server software packages have appropriate licensing.
- You have a solid working knowledge of the Solaris operating environment and UNIX commands.

Preinstallation recommendations

- Read the following Netcool/Proviso 4.4.3 online documents to plan your Proviso environment before you install the Oracle or Proviso software
 - ▶ Configuration recommendations:
http://publib.boulder.ibm.com/infocenter/tivihelp/v8r1/topic/com.ibm.netcool_proviso.doc/NetcoolProviso-ConfigurationRecommendations-443.pdf
 - ▶ Installation guide:
http://publib.boulder.ibm.com/infocenter/tivihelp/v8r1/topic/com.ibm.netcool_proviso.doc/NetcoolProviso-InstallationGuide-443.pdf
- This IBM Education Assistant module is based on Chapter 2 of the **Netcool/Proviso 4.4.3 Installation Guide**. The module highlights important points that some users miss when they follow the guide

Read the Netcool/Proviso 4.4.3 Configuration Recommendations and Installation Guide. You can find these documents online at the addresses listed on the slide. Use these documents to plan your Proviso environment before you install the Oracle or Proviso software.

This IBM Education Assistant module is based on Chapter 2 of the **Netcool/Proviso 4.4.3 Installation Guide**. The module highlights important points that some users miss when they follow the guide.

Staging Oracle and Proviso software (Steps 2 and 3)

- Stage the Oracle and Proviso software together on the Solaris system that hosts the Oracle server.
- The Proviso software contains scripts that install the Oracle software, which eliminates the need for a deep knowledge of Oracle.
- Create a staging directory for each product. The staging directory can be in any file system that has adequate space. A suggested location is in the **/export** directory.
- The staging directories are temporary. You can remove these directories after you install Oracle and Proviso.

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The staging directories are temporary. You can remove these directories after you install Oracle and Proviso.

Database user identifiers (IDs)

- Installation process creates several database users with predetermined user IDs
- Each user requires a password
 - ▶ Default password is PV
 - ▶ You can change the password if your local policies require you to do so. However, you must use the same password for all of the database user IDs

The installation process creates several database users with predetermined user IDs. Each user requires a password which, by default, is **PV**. You can change the password if your local policies require you to do so. However, you must use the same password for all the database user IDs.

Proviso administrator (pvuser) account

- Create the user account **pvuser** on every system that hosts a Netcool/Proviso component. To avoid confusion during future administration of a distributed deployment, keep the same password, home directory, user ID and group ID on each system.
- Create the **pvuser** account in the operating system before starting the Oracle installation.
- You can create the **pvuser** account in the Network Information Service (NIS). Consult your NIS administrator for assistance and refer to the Proviso installation guide.

The user account, **pvuser**, is the primary account for most Proviso application-related operations. The user account controls most of the functions within Proviso, including data collection, aggregation and presentation, and other functions.

Create the user account **pvuser** on every system that hosts a Netcool/Proviso component. To avoid confusion during future administration of a distributed deployment, keep the same password, home directory, user ID and group ID on each system.

Create the **pvuser** account in the operating system before starting the Oracle installation.

You can create the **pvuser** account in the Network Information Service, or NIS. Consult your NIS administrator for assistance and refer to the Proviso installation guide.

Recommendations for the Oracle installation

- Do not create the **oracle** user ID. A preinstallation script performs this task.
- Ensure that an existing oracle user is not in NIS. The preinstallation scripts do not work if an oracle user account is already in NIS.
- Maintain the default Oracle user and group names throughout the preinstallation and installation processes.
- Maintain the default Oracle installation path, which is **/opt/oracle**.

This slide has a list of common recommendations for the Oracle installation.

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Maintain the default Oracle user and group names throughout the preinstallation and installation processes.

Maintain the default Oracle installation path, which is **/opt/oracle**.

Oracle installation scripts (Steps 6 – 9)

Two preinstallation scripts for the Oracle server run as the root user:

- ▶ `configure_ora`
- ▶ `pre_install_as_root`

Before running the script to install the Oracle server, you run two preinstallation scripts. These scripts prepare the login session for the Oracle server installation and verify readiness to install the software. These scripts are **configure_ora** and **pre_install_as_root**.

The `configure_ora` preinstallation script

- The **configure_ora** script prepares and verifies the environment for an Oracle installation on a host where Oracle is not installed. The script is located under the Proviso staging directory in the **SOLARIS/DataBase/SOL9/instance** (or **SOL10** if using Solaris10) subdirectory
Example: `/export/Proviso443/proviso/SOLARIS/DataBase/SOL9/instance`
- The script:
 - ▶ Adds the **dba** and **oinstall** groups to the **/etc/group** file
 - ▶ Adds the login name **oracle** with appropriate group memberships. The primary group membership is **dba** and secondary group membership is **oinstall**
 - ▶ Creates the Oracle directory structure
 - ▶ Creates startup and shutdown scripts for Oracle server processes
 - ▶ Verifies that the host is ready to have the Oracle server installed
- After the script runs, set the password for the **oracle** user

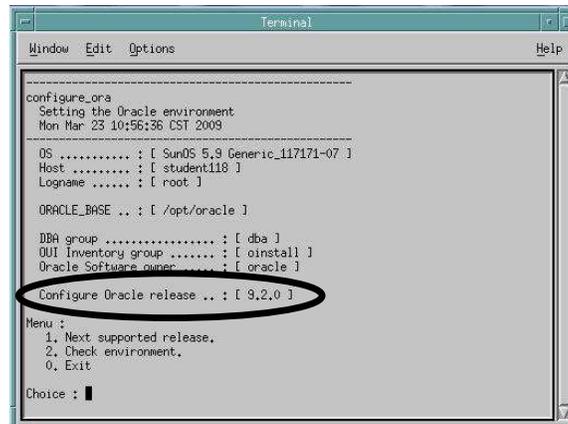
The **configure_ora** preinstallation script prepares and verifies the environment for an Oracle installation on a host where Oracle is not installed. The script is located under the Proviso staging directory in the **SOLARIS/DataBase/SOL9/instance** subdirectory. If the base operating system is Solaris 10 then substitute *SOL9* with *SOL10* in the staging directory path.

The **configure_ora** script adds the **dba** and **oinstall** groups to the **/etc/group** file and adds the **oracle** user account with appropriate group memberships. The primary group membership is **dba** and the secondary group membership is **oinstall**. The script creates the Oracle directory structure and the Oracle server startup and shutdown scripts. The script also verifies that the host is ready to have the Oracle server installed.

Before running the script, set the **ORACLE_BASE** environment variable that is in the directory where you are installing the Oracle software. The recommended location is **/opt/oracle**.

After the script runs, set the password for the **oracle** user.

Running the `configure_ora` preinstallation script



```
Terminal
-----
configure_ora
Setting the Oracle environment
Mon Mar 23 10:56:36 CST 2009
-----
OS ..... : [ SunOS 5.9 Generic_117171-07 ]
Host ..... : [ student118 ]
Logname ..... : [ root ]

ORACLE_BASE .. : [ /opt/oracle ]

DBA group ..... : [ dba ]
OUI Inventory group ..... : [ oinstall ]
Oracle Software owner ..... : [ oracle ]

Configure Oracle release .. : [ 9.2.0 ]

Menu :
  1. Next supported release.
  2. Check environment.
  0. Exit

Choice : █
```

When the `configure_ora` window is displayed, many of the values are already filled in. You do not typically need to change these values. The only value that you can change at this time is *Configure Oracle release*. If the release version shown is incorrect, enter the number **1** to change to the next supported release. Only supported releases are displayed in this field.

When all of the values are correct, enter the number **2** to run the **Check environment** routine. When the routine is finished, you can exit the window and set the password for the **oracle** user.

Run the `pre_install_as_root` script

- The `pre_install_as_root` script is located in the `ora_installer` subdirectory.
- The script performs some background tasks and a final verification of readiness for installation.

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Running the Oracle installation script (Step 10)

- The `perform_oracle_inst` script installs the Oracle server software.
- Run the `perform_oracle_inst` script from the staging directory as the **oracle** user to install the Oracle server:

```
<staging_directory>/SOLARIS/DataBase/SOL#/instance/  
ora_installer/perform_oracle_inst
```

The **perform_oracle_inst** script installs the Oracle server software.

Run the script from the staging directory as the **oracle** user to install the Oracle server.

An example of the path is shown on this slide.

Be attentive

- When viewing the `perform_oracle_inst` window, be attentive to the values displayed in the various fields, particularly in the **Install Oracle release** field and the **Installation type** field.
- In addition, specify the location of the Oracle software by editing item **f**. Press the **f** key and type the directory or device where the **Disk1**, **Disk2** and **Disk3** subdirectories are located.

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In addition, specify the location of the Oracle software by editing item **f**. Press the **f** key and type the directory or device where the **Disk1**, **Disk2** and **Disk3** subdirectories are located.

X Window system tip

- Some users have difficulty setting up the X Window system environment correctly. You must have this environment for the `perform_oracle_inst` script.
- The most common causes of X or display-related errors are:

- ▶ The `xhost` command is not run correctly as the **login** user
- ▶ The **DISPLAY** variable is not set correctly for the **oracle** user

Ensure the **DISPLAY** variable for the **oracle** user matches the **DISPLAY** variable for the **login** user. To verify the **DISPLAY** setting for the **login** user, open a new terminal window and run the command **"echo \$DISPLAY"**. The output from this command is the **oracle** user **DISPLAY** variable.

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The most common causes of X or display-related errors are:

The **xhost** command is not run correctly as the **login** user.

The **DISPLAY** variable is not set correctly for the **oracle** user.

Ensure the **DISPLAY** variable for the **oracle** user matches the **DISPLAY** variable for the **login** user. To verify the **DISPLAY** setting for the **login** user, open a new terminal window and run the command **"echo \$DISPLAY"** with the word **DISPLAY** in capital letters. The output from this command is the **oracle** user **DISPLAY** variable.

A helpful tip

Do not exit the `perform_oracle_inst` script after the script has completed.

Return to the main installation menu and open a separate terminal window to perform the **root** user tasks.

Reuse the `perform_oracle_inst` window to perform the Oracle patch installation.

Do not recheck the `DISPLAY` variable settings or the `xhost` setting because the window is already open.

As a helpful tip, do not exit the **perform_oracle_inst** script after the script has completed. Return to the main installation menu and open a separate terminal window to perform the **root** user tasks. Then, you can reuse the **perform_oracle_inst** window to perform the Oracle patch installation. You do not need to recheck the *DISPLAY* variable settings or the *xhost* setting because the window is already open.

Common mistakes

- After you complete the Oracle installation, run the **\$ORACLE_HOME/root.sh** script as the user **root**. Information about this step is in Chapter 2, Step 11 in the installation guide. Some users miss the requirement to run the script as the root user.
- Check the **DISPLAY** variable for user **root**. If you exit the **perform_oracle_inst** script and then use the **su** command to change to user **root**, the variable is incorrect. This variable must be correct to successfully run the **root.sh** script.
- Run the **root.sh** script after you install the Oracle patch. Open a separate terminal window to run the script as **root** user rather than terminate the **perform_oracle_inst** window.

After you complete the Oracle installation, run the **\$ORACLE_HOME/root.sh** script as the user **root**. Information about this step is in Chapter 2, Step 11 in the installation guide. Some users miss the requirement to run the script as the **root** user.

Check the **DISPLAY** variable for user **root**. If you exit the **perform_oracle_inst** script and then use the **su** command to change to user **root**, the variable is incorrect. This variable must be correct to successfully run the **root.sh** script.

Also run the **root.sh** script after you install the Oracle patch. Open a separate terminal window to run the script as **root** user rather than terminate the **perform_oracle_inst** window.

Installing the Oracle patch (Step 12)

- Use the `perform_oracle_inst` window to install the Oracle patch by changing two options:
 - ▶ Set the installation type to **Patch**
 - ▶ Set the location of the patch media with option `f`
- The patch installation proceeds like the Oracle server installation
- Run the **`root.sh`** script as user **`root`** again after you install the patch.

If you keep the `perform_oracle_inst` window open, you can use it to install the Oracle patch by changing two options: set the installation type to *Patch*, and set the location of the patch media with option *f*.

The patch installation proceeds much like the Oracle server installation.

Run the **`root.sh`** script as user **`root`** again after you install the patch.

Creating the Oracle network support files (Steps 15 and 16)

- Configure the **listener.ora**, **sqlnet.ora**, and **tnsnames.ora** files to enable Oracle network support.
- Obtain working copies of these files from another host running an Oracle server and modify them for your host. An incorrect space or tab in the file might make the file nonfunctional.

Steps 15 and 16 of Chapter 2 in the installation guide contain information about configuring the **listener.ora**, **sqlnet.ora**, and **tnsnames.ora** files to enable Oracle network support. Obtain working copies of these files from another host running an Oracle server and modify them for your host. An incorrect space or tab in the file might make the file nonfunctional.

Oracle client installation

The Oracle client installation is essentially the same as the Oracle server installation except that you perform the installation on a separate host.

All of the same recommendations and tips apply.

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Summary

With the completion of this module you should now be able to:

- ▶ Describe the installation of an Oracle server for the Proviso application
- ▶ Use the Oracle server installation instructions more effectively

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This concludes the IBM Education Assistant module for Netcool/Proviso 4.4.3 entitled *Highlights of installing the Oracle server on a Solaris system*.

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