

## Installing Oracle 8i for Linux on the Cobalt RaQ 3i Server

### 1 About Oracle 8i on the RaQ 3i

Running Oracle 8i on the RaQ 3i is a win-win opportunity for both Oracle 8i and RaQ developers and users. Oracle 8i is one of the products making the Internet the great enabler of business processes. Databases play a central role in e-business and e-commerce infrastructures making Oracle 8i a key platform for many companies.

#### 1.1 Requirements

The following are required for installing Oracle 8i on the RaQ 3i:

- A Cobalt RaQ 3i with a minimum of 256 megabytes of RAM
- A local console machine, which is a desktop or laptop computer running an X-Window Server. You could use a Unix computer or a Linux desktop or laptop running Enlightenment, KDE, or FVWM; Cobalt has not yet tested Macintosh or Windows machine running MI/X<sup>1</sup>.
- You must have experience operating X Windows and telnet sessions.

#### 1.2 Before You Begin

Installing Oracle 8i on the RaQ 3i takes about 45 minutes after you have copied all the necessary files to the target RaQ 3. The files you must copy are very large and can take a long time to copy.

#### 1.3 Installation Overview

To run Oracle 8i on the Cobalt RaQ 3i, you must replace the standard RaQ 3i kernel with one that has been modified to accommodate Oracle; go to `ftp://ftp.cobaltnet/pub/developer/oracle`<sup>2</sup>.

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#### Note

Installing this kernel voids your software warranty. Cobalt Networks' technical support cannot help you if you experience difficulties after installing the modified kernel.

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You must download the latest Java JDK from Sun Microsystems. You transfer Oracle files to the RaQ, telnet into the RaQ, and issue commands at the Linux command line. You must then reboot the machine, bring up X windows on your local console machine, and then run the Oracle installation procedures. Once you have installed Oracle, you then perform standard Oracle database setup to create and use Oracle databases.

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1. MI/X is a product from Microimages, Inc., <http://www.microimages.com>. Be aware that installation with Windows might cause fonts to display incorrectly.

2. Kernel changes include the following modifications to `shmparam.h`:

```
#define SHMMAX 0x10000000          /* ORACLE change */
#define SHMMNI 100                /* ORACLE change */
#define SHMSEG 10                 /* ORACLE change */
#define SEMMSL 60                 /* ORACLE change */
#define SEMMNI 100               /* ORACLE change */
#define SEMOPM 100               /* ORACLE change */
#define SEMVMX 32767             /* ORACLE change */
```

## 2 Installing Oracle 8i on the Cobalt RaQ 3i

- 1) Go to <http://www.javasoft.com> and download the latest JDK for Linux from the site; Cobalt used JDK version 1.2.2.
- 2) Use `ftp` to login to your RaQ 3i as the administrator. Transfer the following files to it from <http://www.oracle.com>:

```
vmlinux.gz
xfree-3.3.5-3-test.tar.gz
xpm-3.4k-test.tar.gz
jre_1.1.6-v5-glibc-x86.tar.gz
```

- 3) Exit `ftp` and `telnet` into the RaQ3, then log in as `su root`.
- 4) Copy `vmlinux.gz` to `/boot`
- 5) Copy `xfree-3.3.5-3-test.tar.gz` to the root directory (`/`) and unzip and untar the file.
- 6) Copy `xpm-3.4k-test.tar.gz` to the root directory (`/`) and unzip and untar the file.
- 7) Unzip and untar `jre_1.1.6-v5-glibc-x86.tar.gz` and move the resulting directory to `/usr/local/jre`.
- 8) Unzip and untar the Sun JDK for Linux and move the resulting directory to `/usr/local/<resulting directory name>`.
- 9) Type the following commands:

```
/usr/sbin/groupadd dba
/usr/sbin/groupadd oinstall
/usr/sbin/useradd -g oinstall oracle
```

```
mkdir /home/OraHome1
chown oracle /home/OraHome1
chgrp oinstall /home/OraHome1
```

```
mkdir /home/oracledb
chown oracle /home/oracledb
chgrp oinstall /home/oracledb
```

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**Note**

The above commands assume that you are creating a directory `/home/oracledb` for your Oracle database. If you want another name for your Oracle database, change the above commands accordingly.

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- 10) Reboot the RaQ 3.
- 11) While the machine is rebooting, type the following command on your local console:

```
xhost +<RaQ3 Address>
```

Replace `<RaQ3 Address>` with the actual address of the machine in which you are going to install Oracle, for example:

```
xhost +10.9.20.66
```

12) Once the RaQ3 has finished rebooting, telnet into it. Type `su root` and press **Enter**.

13) Login to Oracle. Type `su oracle` and press **Enter**.

14) Type the following command:

```
export DISPLAY=<Address of your workstation>:0.0
```

For example:

```
export DISPLAY=10.9.23.216:0.0
```

15) Finally, unzip and untar the Oracle 8i distribution tar file. Change to the directory that you created. Type:

```
/runInstaller
```

A window should appear on your local machine within 30 seconds.

16) When prompted, make the `ORACLE_BASE /home/OraHome1` your default directory and make the database location the `/home/oracle1db` directory.

After a few minutes, Oracle 8i should complete installation.

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**Note**

The utilities with Oracle 8i are Java-based; you must either type the `export DISPLAY=<address>` command every time you open a new telnet session or else provide a script to enter the command. Also, you must re-execute the `xhost` command every time you restart X Windows on your own workstation.

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