

# 1. Oracle Database Administration

## 1.1. Starting with the Virtual Machine

### 1.1.1. The tool

- Name : ORA\_LIN\_10gR1\_v2.3
- OS version : Redhat Enterprise Edition Linux 3
- Oracle Version : Oracle Database 10gR1
- OS credentials : root / rootoracle  
oracle / oracle
- Oracle Credentials : sys/oracle as sysdba  
system / oracle

### 1.1.2. Configuration (mandatory):

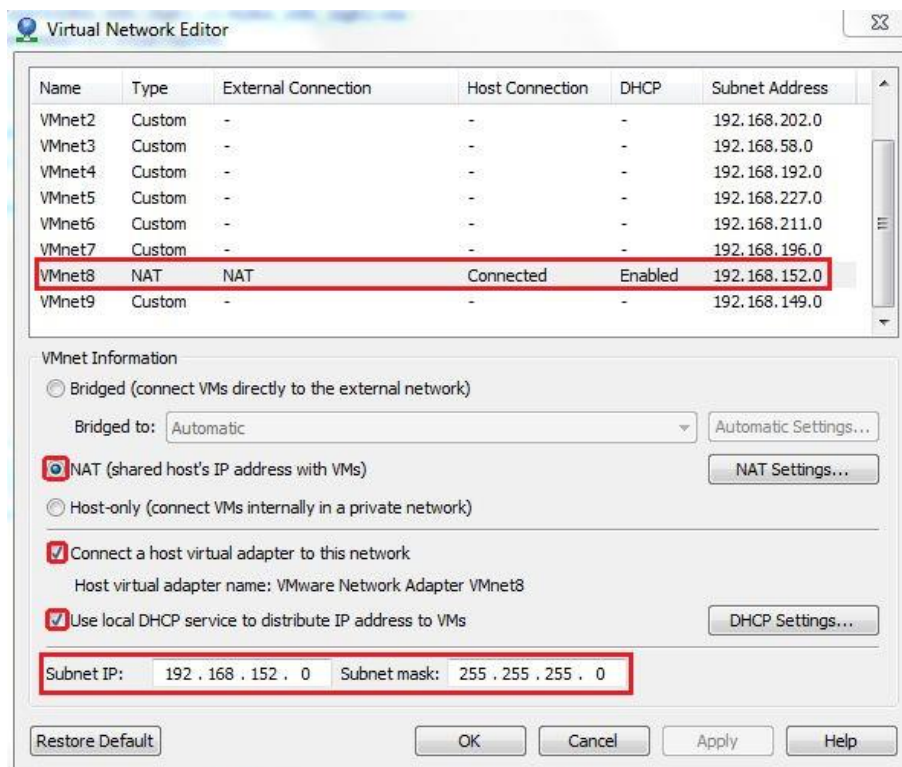
Download and extract ORA\_LIN\_10gR1\_v2.3.rar.

BEFORE starting the VM, you have to configure Virtual Network.

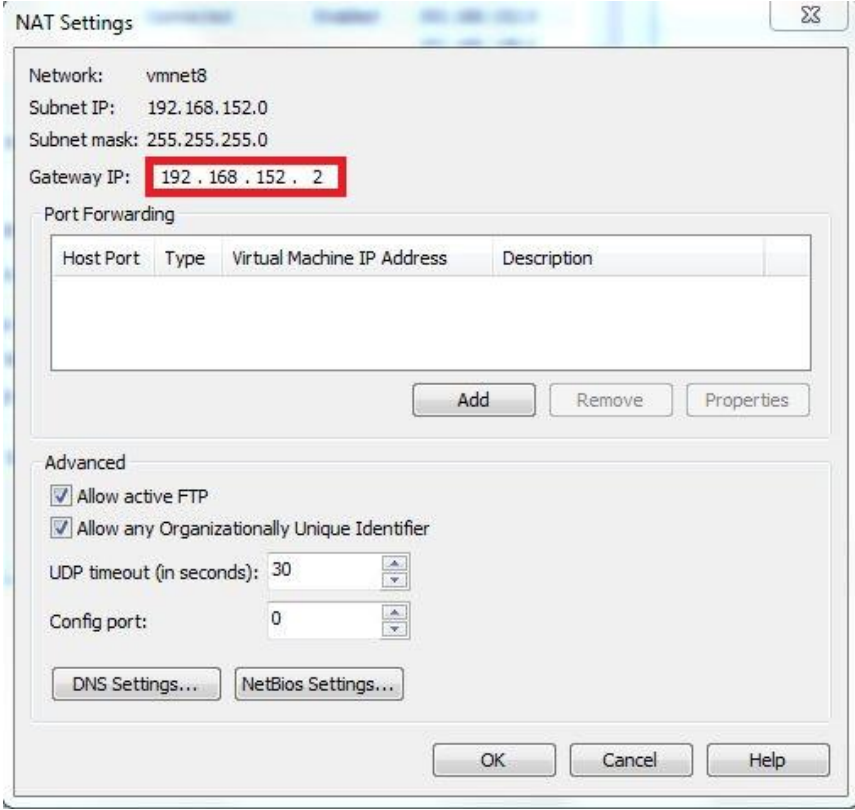
Launch VMware Workstation and browse to the Virtual Network Editor in Edit menu.

Choose VMnet8 and change the Subnet IP to 192.168.152.0 and mask to 255.255.255.0.

Be sure that other options are configured like below and click Apply.



Verify in NAT Settings... that changes have been applied:



The NAT Settings dialog box is shown. It has a title bar with a close button. The main area contains the following fields:

- Network: vmnet8
- Subnet IP: 192.168.152.0
- Subnet mask: 255.255.255.0
- Gateway IP: 192.168.152.2 (highlighted with a red box)

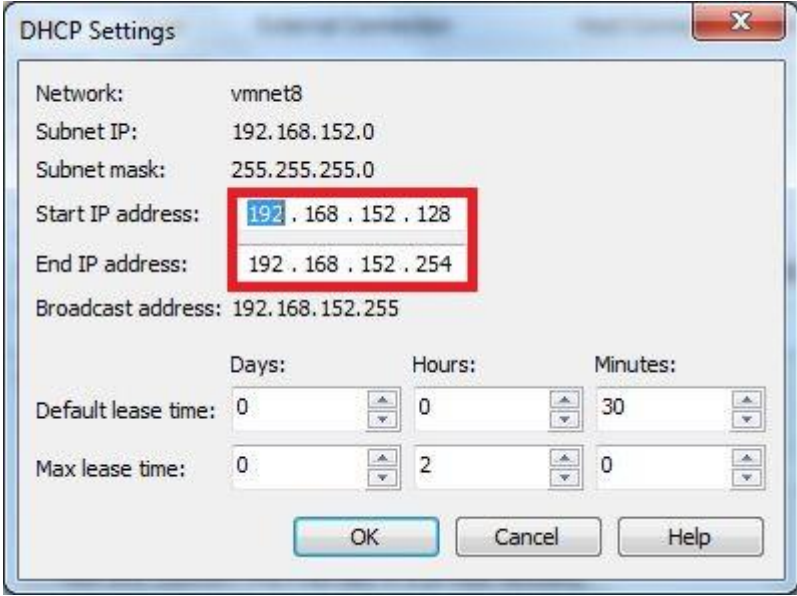
Below these fields is a section titled "Port Forwarding" which contains a table with the following headers: Host Port, Type, Virtual Machine IP Address, and Description. The table is currently empty. Below the table are three buttons: Add, Remove, and Properties.

Below the Port Forwarding section is a section titled "Advanced" which contains the following options:

- ☒ Allow active FTP
- ☒ Allow any Organizationally Unique Identifier
- UDP timeout (in seconds): 30 (with up/down arrows)
- Config port: 0 (with up/down arrows)

At the bottom of the Advanced section are two buttons: DNS Settings... and NetBios Settings... At the very bottom of the dialog are three buttons: OK, Cancel, and Help.

Then check changes in DHCP settings....:



The DHCP Settings dialog box is shown. It has a title bar with a close button. The main area contains the following fields:

- Network: vmnet8
- Subnet IP: 192.168.152.0
- Subnet mask: 255.255.255.0
- Start IP address: 192.168.152.128 (highlighted with a red box)
- End IP address: 192.168.152.254 (highlighted with a red box)
- Broadcast address: 192.168.152.255

Below these fields are three columns of spin boxes for lease time:

|                     | Days: | Hours: | Minutes: |
|---------------------|-------|--------|----------|
| Default lease time: | 0     | 0      | 30       |
| Max lease time:     | 0     | 2      | 0        |

At the bottom of the dialog are three buttons: OK, Cancel, and Help.

Now browse to your local hosts file (WIN+r then %WINDIR%\system32\drivers\etc) and open it with administrative privilege to add the following line:

**192.168.152.3**                      **vmware.labo-oracle.com**

Then add the .vmx file to VMware. Be sure to have at least 512Mo memory allowed (768 or 1024 are recommended).

You can now launch the VM, but when asked, choose **KEEP** or **I MOVED IT**.

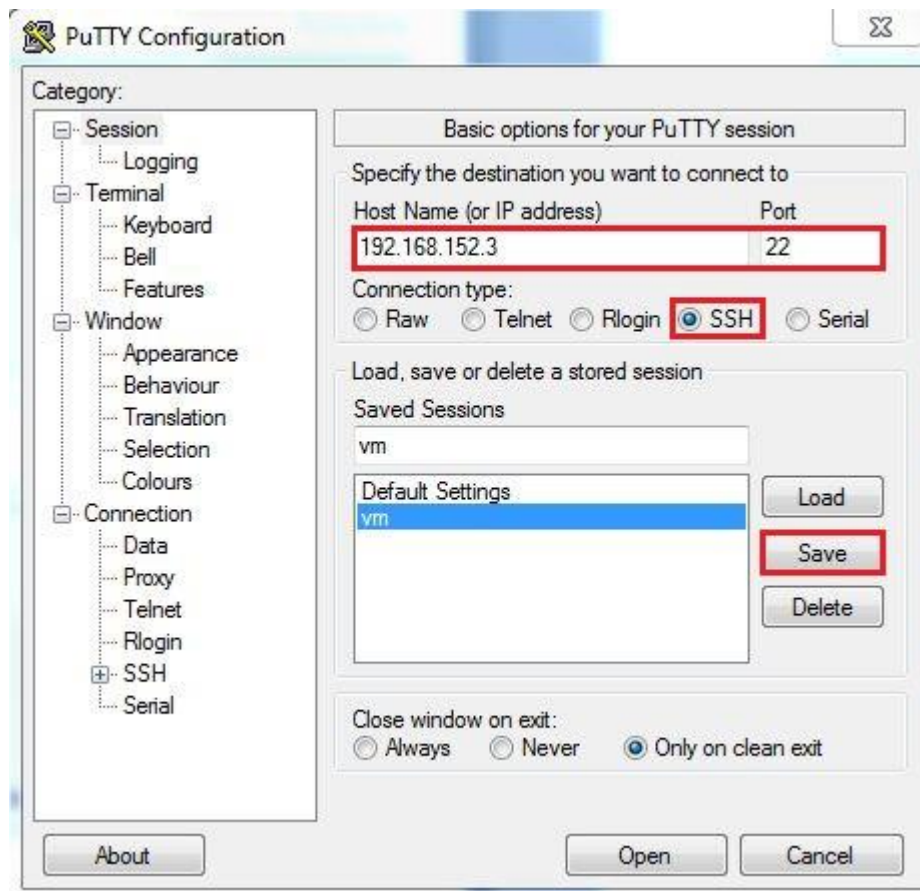
Be sure to respect above indications, else your VM won't work.

Then log in with oracle OS account (password: oracle) and execute the following command in this order:

1. Isnrctl start
2. sqlplus / as sysdba then startup and exit in sql prompt
3. emctl start dbconsole
4. isqlplusctl start

Your tool is now fully functional.

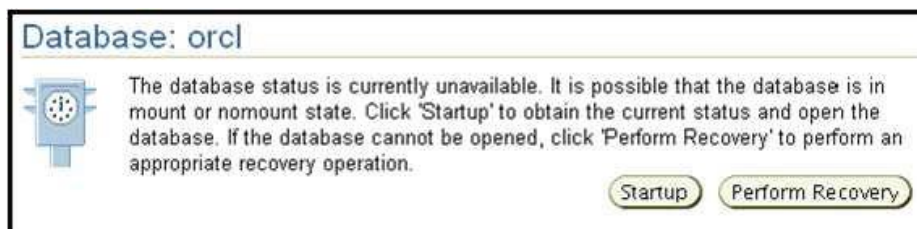
For more easiness (copy/paste from host OS,...) you can connect to the VM with putty configured as below:



## 2. Database Management

*Background:* Your system administrator asks that you stop all Oracle services in preparation for system maintenance. After maintenance is completed, restart all Oracle services.

1. Start the Oracle Listener using command-line tools.
2. Start Database Control.
3. Start iSQL\*Plus process.
4. Connect to Database Control, with the following URL : <http://vmware.labo-oracle.com:5500/em>. When prompted, log in with the following information:  
username: sys AS SYSDBA  
password: oracle
5. Start the Oracle Database 10g instance.



Enter host credentials (username *oracle*, password *oracle*).

Enter database credentials (username *sys*, password *oracle*, connect as SYSDBA). Click OK.

When prompted to confirm startup/shutdown, click Yes.

6. View information in the instance's alert log. Click Alert Log Content from the Related Links region of Database Control. From this page, you can see the most recent entries in the instance's alert log. Included in the alert contents are any initialization parameters that are set to a nondefault value when the instance is started. Locate the nondefault initialisation parameters for your instance.

```
Starting up ORACLE RDBMS Version: 10.1.0.2.0.  
processes = 250  
shared_pool_size = 100663296  
large_pool_size = 8388608  
java_pool_size = 50331648  
...
```

7. View initialization parameters. Navigate to the Administration properties page by clicking the Administration link near the top of the page.



Click All Initialization Parameters in the Instance region of the Administration properties page. Do not change any of the parameters (you will customize the instance by changing parameters in later lessons).

8. Stop the Oracle Listener using Database Control.
9. Shut down the database instance using Database Control.
10. Stop iSQL\*Plus.
11. Stop Database Control.