**Setting the Kali Linux VM to NAT Networking**

In the VMware Player window showing your Kali Linux desktop, on the top left, click **Player**, **Manage**, "**Virtual Machine Settings**".

In the "Virtual Machine Settings" box, on the left side, click "**Network Adapter**".

On the right side, click "**NAT**". Click **OK**.

At the top left of the Kali Linux desktop, find these items:

* "Applications" menu
* "Places" menu
* A blue icon that opens IceWeasel, a free version of FireFox
* A rectangular black icon that opens a Terminal window
* The date and time

At the top left of the Kali Linux desktop, click the rectangular black icon to open a Terminal window.

In the Terminal window, type in this command to get a new IP address, and then press the Enter key:

**dhclient -v**

**Finding the Kali Machine's IP Address**

On your Kali Linux machine, in a Terminal window, execute this command:

**ifconfig**

Find your IP address and make a note of it. In the example below, it is 192.168.119.169.



**Checking for a Web server**

On your Linux machine, in a Terminal window, execute this command:

**lsof -i :80**

This command shows processes listening on port 80. If you see apache2 processes, as shown below, execute this command to stop apache:

**service apache2 stop**



**Installing INetSim**

On your Linux machine, in a Terminal window, execute this command:

**nano /etc/apt/sources.list**

Add this line to the end of the file, as shown below:

**deb http://www.inetsim.org/debian/ binary/**

Save the file with **Ctrl+X**, **Y**, **Enter**.



This tells your Linux machine where to find inetsim on the Internet.

On your Linux machine, in a Terminal window, execute these commands:

**wget -O - http://www.inetsim.org/inetsim.org-archive-signing-key.asc | apt-key add -**

**apt-get update**

**apt-get install inetsim -y**

These commands add the archive's signing key, update the list of archive contents, and install inetsim.

When I did it, I got an error message saying "Errors were encountered while processing: xplico". It seems to be OK to just ignore this message and keep going.

On your Linux machine, in a Terminal window, execute these commands:

**cp /etc/inetsim/inetsim.conf /etc/inetsim/inetsim.conf.orig**

**nano /etc/inetsim/inetsim.conf**

Scroll down about 3 screens. Find the **service\_bind\_address** section shown below. All these lines are comments because they start with the # character.



Change this line:

**#service\_bind\_address 10.10.10.1**

to this

**service\_bind\_address 0.0.0.0**

as shown below.



**Don't forget to delete the # at the start of the line!**

Scroll down another several screens to find the **dns\_default\_ip** section shown below. Find this line:

**#dns\_default\_ip 10.10.10.1**

Remove the # at the start of the line, and replace the IP address with the IP address of your Kali Linux machine, as shown below:

**dns\_default\_ip 192.168.1.132**



Use your correct IP address instead of "192.168.1.132"

Save the file with **Ctrl+X**, **Y**, **Enter**.

To start inetsim, on your Linux machine, in a Terminal window, execute this command:

**inetsim**

**Start Your Windows VM**

Start your Windows XP SP3 virtual machine, and set it to NAT networking.

Log in as Student with no password.

**Installing Nmap**

In your Windows XP SP3 virtual machine, open a Web browser and go to

<http://nmap.org/>

On the upper left, click **Download**.

Scroll down to the "Microsoft Windows binaries" section, as shown below.



Click the link labelled "Latest release self-installer".

Install the software with the default options.

**Setting the DNS Server**

On your Windows VM, in Control Panel, open "Network Connections". Right-click "**Local Area Connection**" and click **Properties**.

Double-click "**Internet Protocol (TCP/IP)**".

Set your DNS server to the Kali Linux machine's IP address, as show below:



**Viewing an HTTP Web Page**

Open a Web browser on the Windows VM and go to this URL: **http://YOURNAME.com**, replacing "YOURNAME" with your real name.

You see the INetSim default HTML page, as shown below:



**Saving a Screen Image**

Make sure the Web browser shows these two things:

* **YOUR NAME** in the URL
* The "**INetSim HTTP server**" message

Click the taskbar at the bottom of your host Windows 7 desktop, to make the host machine listen to the keyboard, instead of the virtual machine.

Press the **PrintScrn** key in the upper-right portion of the keyboard. That will copy the whole desktop to the clipboard.

**YOU MUST SUBMIT A FULL-SCREEN IMAGE FOR FULL CREDIT!**

On the host machine, not the virtual machine, click **Start**.

Type **mspaint** into the Search box and press the Enter key.

Click in the untitled - Paint window, and press **Ctrl+V** on the keyboard. The desktop appears in the Paint window.

Save the document with the filename "**YOUR NAME Proj 3a**", replacing "YOUR NAME" with your real name.

**Scanning YOURNAME.com**

Start Nmap. Enter a Target of **YOURNAME.com**, replacing "YOURNAME" with your own name.

Click the **Scan** button.

You should see a lot of open ports, as shown below.



**Saving a Screen Image**

Make sure the Nmap window shows these two things:

* A long list of open ports is visible in the Nmap window, as shown above.

*Note: If you wait too long, the scan will complete and scroll to the bottom. Drag the scroll bar back to the top to capture the image shown above.*

* **YOUR NAME** in the Target field

Click the taskbar at the bottom of your host Windows 7 desktop, to make the host machine listen to the keyboard, instead of the virtual machine.

Press the **PrintScrn** key to copy the whole desktop to the clipboard.

**YOU MUST SUBMIT A FULL-SCREEN IMAGE FOR FULL CREDIT!**

Paste the image into Paint.

Save the document with the filename "**YOUR NAME Proj 3b**", replacing "YOUR NAME" with your real name.