

## ***Inetsim/Virtual Lab installation and configuration guide:***

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Files needed for virtual lab setup:

Download VirtualBox for your respective operating system: <https://www.virtualbox.org/wiki/Downloads>

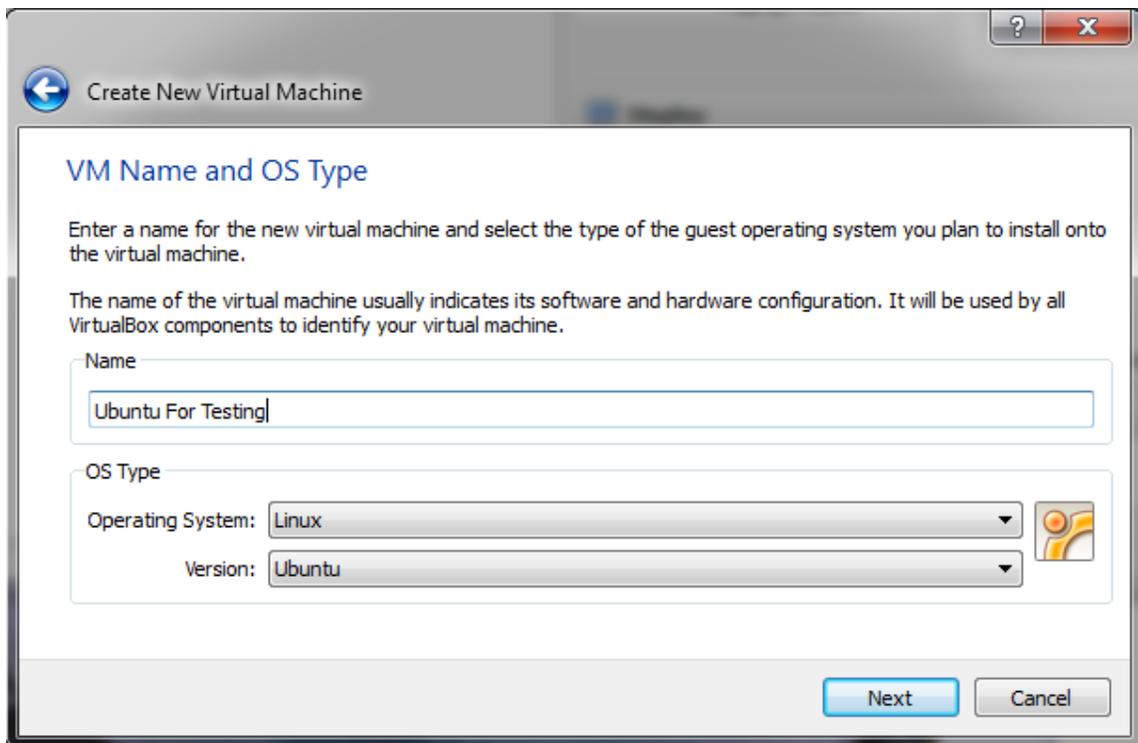
Get the ISO for Ubuntu 11.04: <http://releases.ubuntu.com/natty/>

From MSDN/Dreamspark Premium: Download the ISO for Windows XP Professional SP3

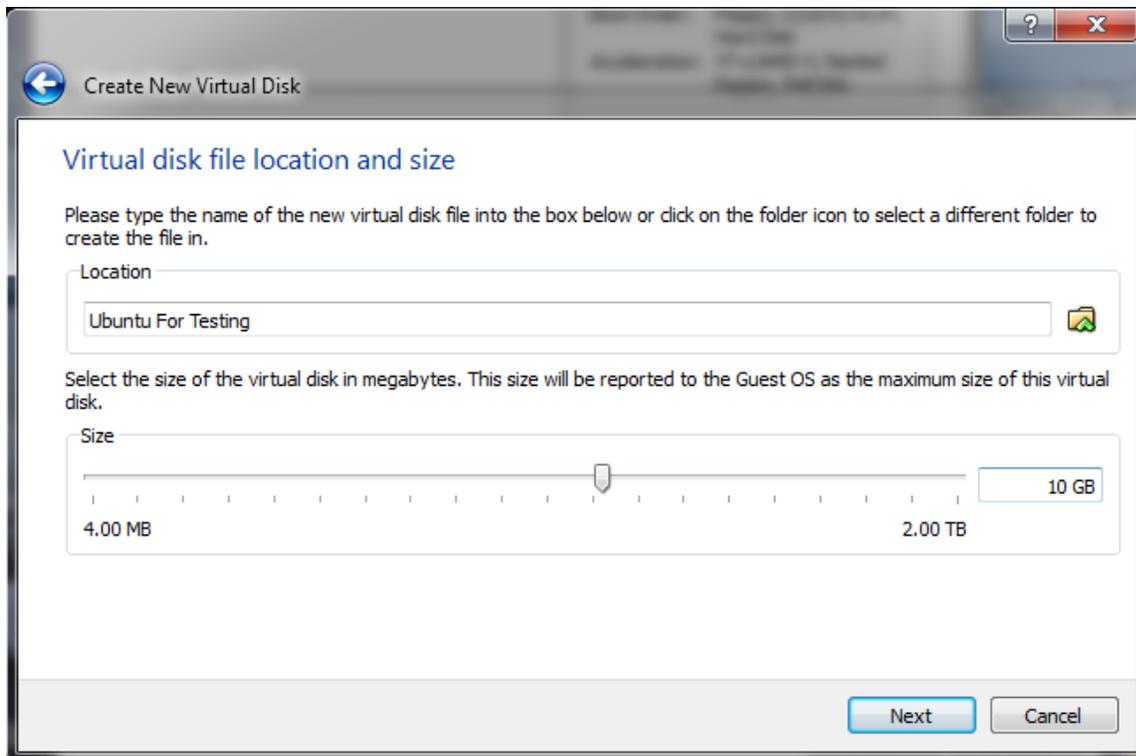
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### **Ubuntu Virtual Machine Setup:**

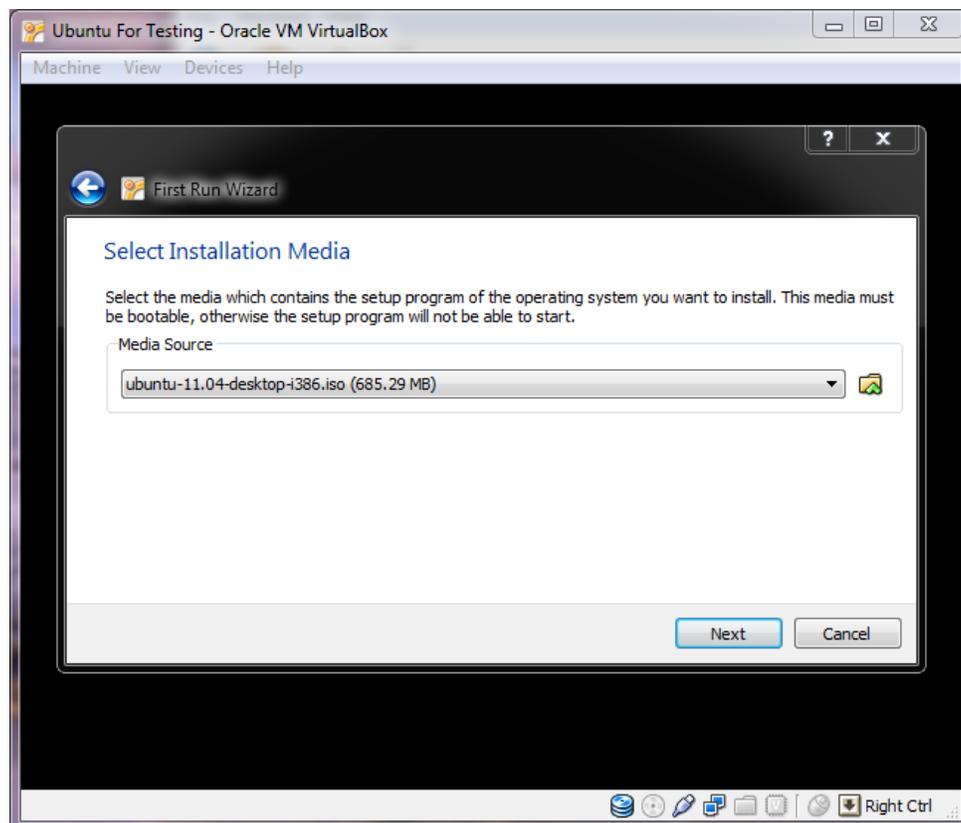
- 1.) First create a new virtual machine in Virtual Box:



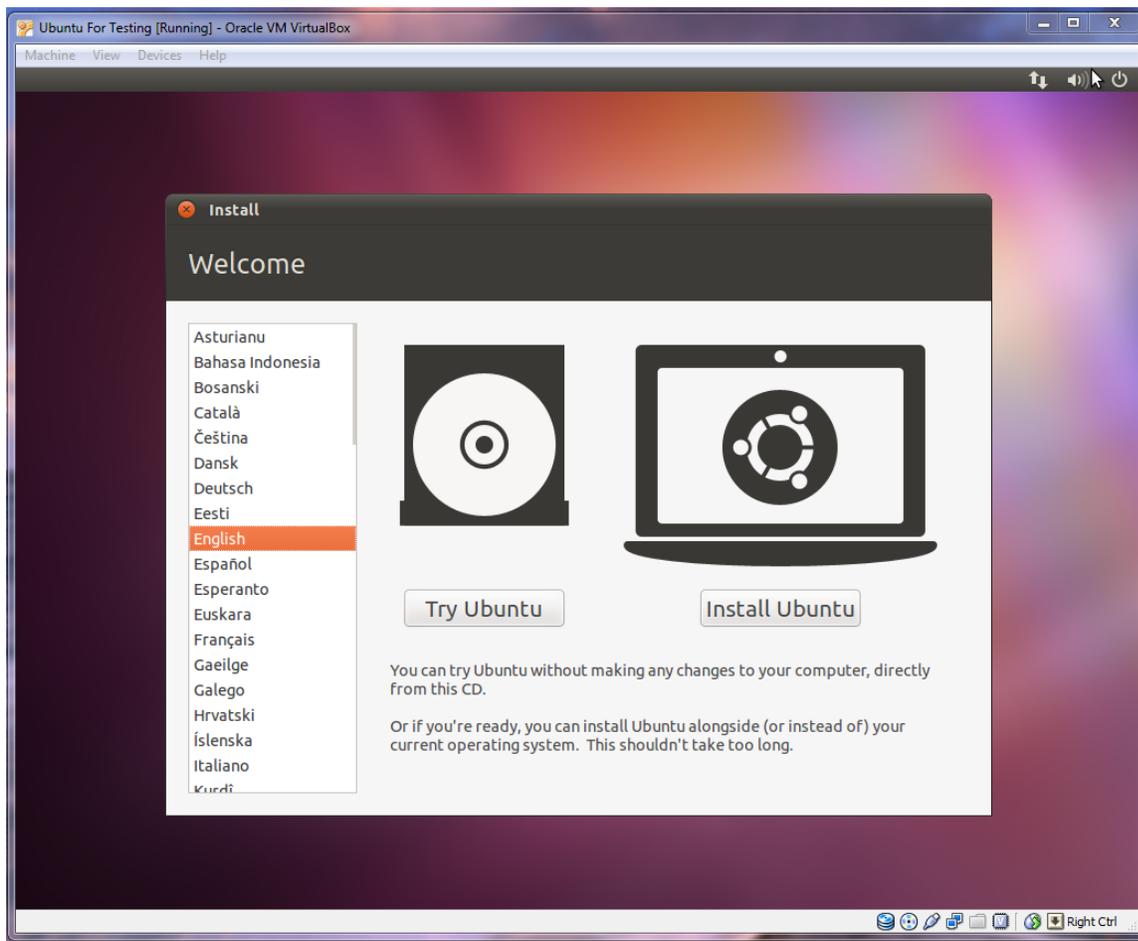
- 2.) Choose the VMDK Virtual Machine Disk Image, and create you're virtual machines harddrive. I personally split the files, but perhaps one individual file would run a little faster. This is all preference.
- 3.) Create a virtual machine with approximately 10 Gb's of space on it.



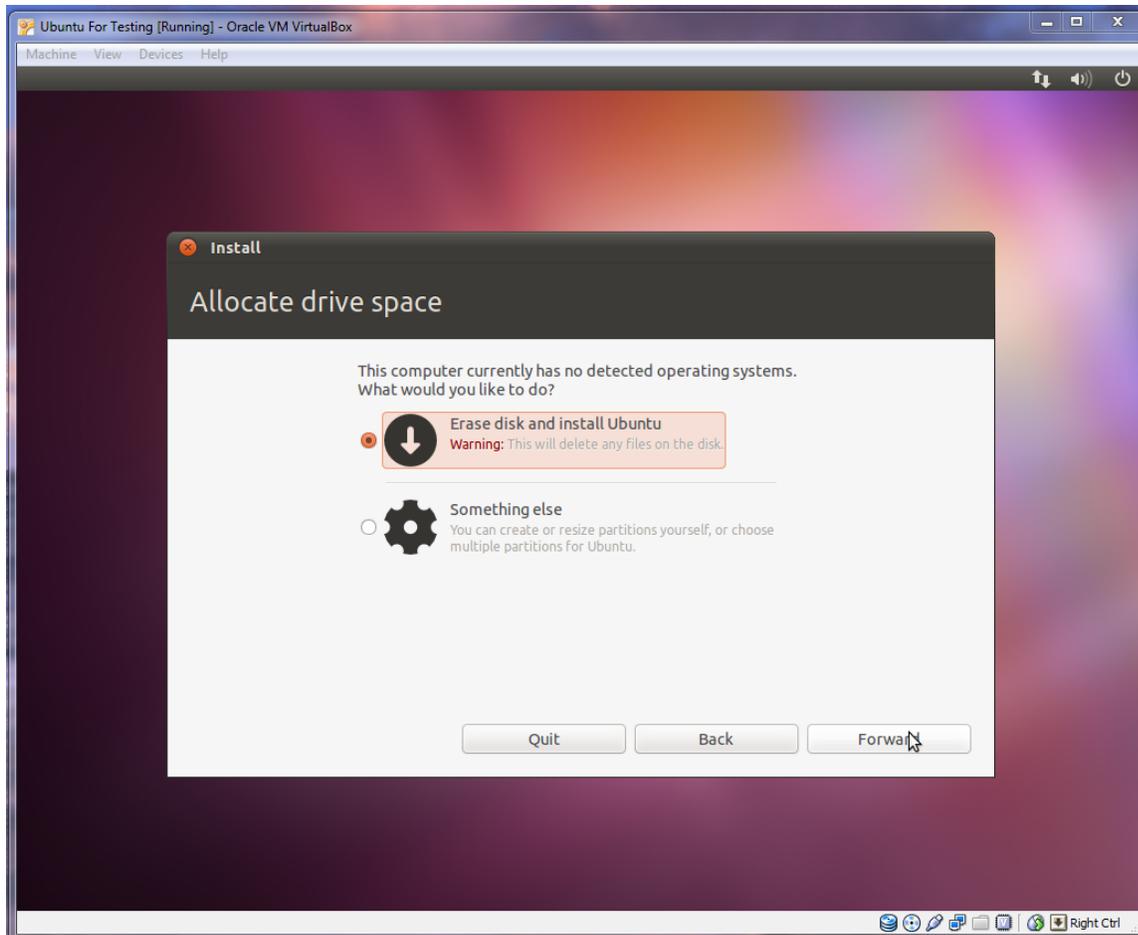
- 4.) Now we're going to do the first installation of the Ubuntu machine that will act as our network controller. Upon initial installation VirtualBox will prompt the user to specify the ISO/Install Disk, brose to find your copy of Ubuntu 11.04.



Now we will follow the Ubuntu installer.

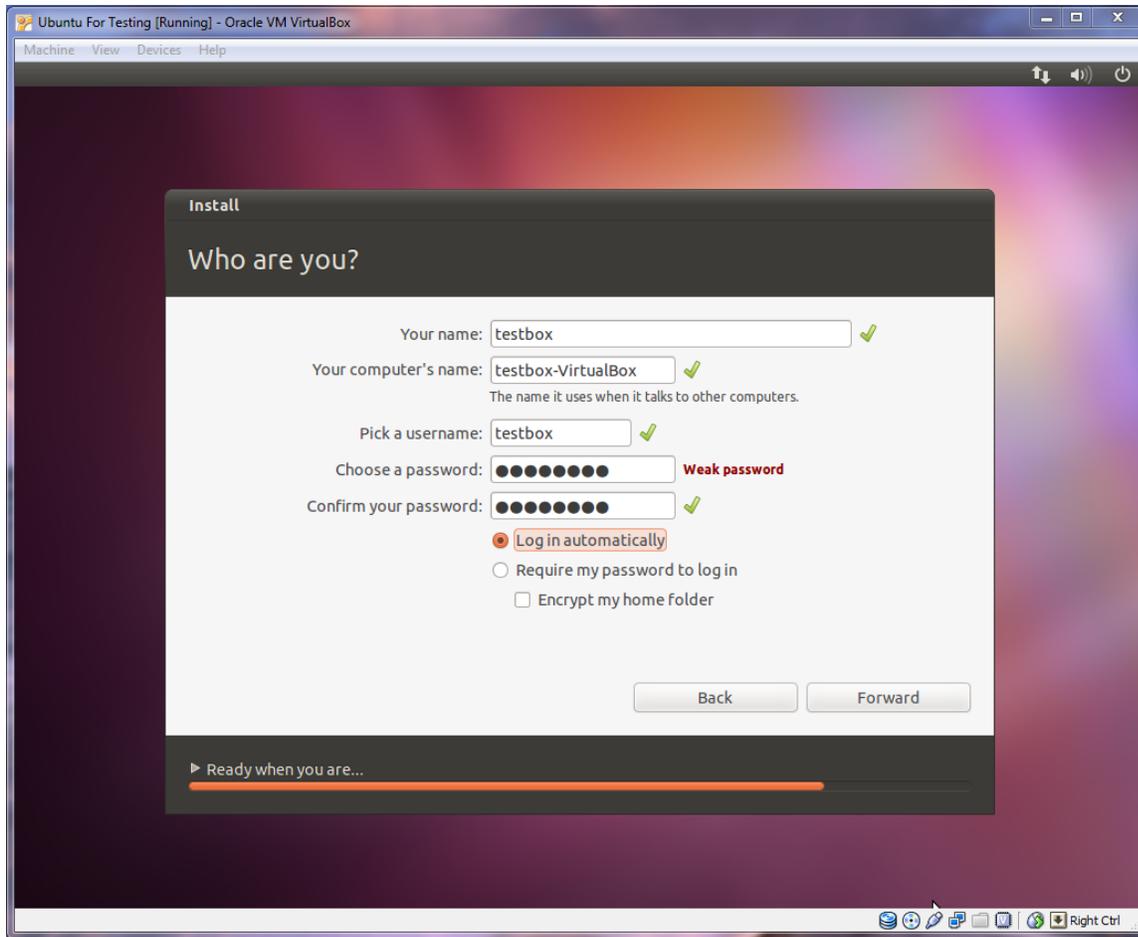


Click the install Ubuntu option, and choose to not download updates as the installation process proceeds.



We want to commit the entire virtual disk to our Ubuntu installation.

There will be a few installation options that individuals should choose for themselves. Options like timezone, keyboard layout, and username and password.



Generic options and weak passwords are acceptable as these virtual machines are to assist you with testing on a closed network. This should conclude the installation process, and you should now have Ubuntu installed on your virtual machine.

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## ***Installation of INETSIM on Ubuntu VM:***

We will install inetsim using the apt-get package manager.

- 1.) First we need to add the debian repository “`deb http://www.inetsim.org/debian/ binary/`” to the `/etc/apt/sources.list` file.
- 2.) To enable the use of this debian repository we must add the InetSim key to our apt keyring. To add this we must first download the signing key. This may be downloaded using the command “`wget http://www.inetsim.org/debian/binary/inetsim-archive-keyring_2008.10.12_all.deb.`”
- 3.) Once you have downloaded the `.deb` key use the command “`sudo dpkg -i inetsim-archive-keyring_2008.10.12_all.deb`” to add that key to your apt keyring.
- 4.) After you have added the keyring you must update your repository list using the command

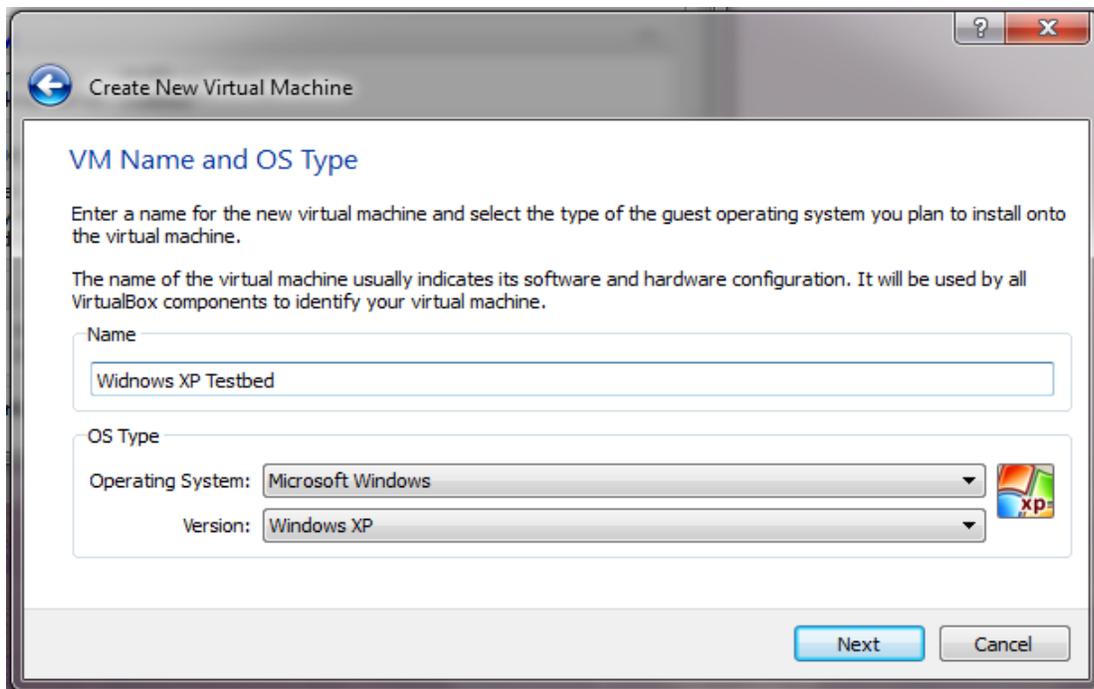
“sudo apt-get update”

- 5.) After your Ubuntu VM has updated its repositories you may use the command “sudo apt-get install inetsim” to install inetsim.
- 6.) After this succeeds you should have INetSim installed on your computer. The way to test this is to run the command “sudo inetsim” and see if your Ubuntu machine enumerates and tells you whether or not the protocols that it is spoofing have successfully been started.

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## ***Installation of XP VM:***

Create a new Virtual Machine:

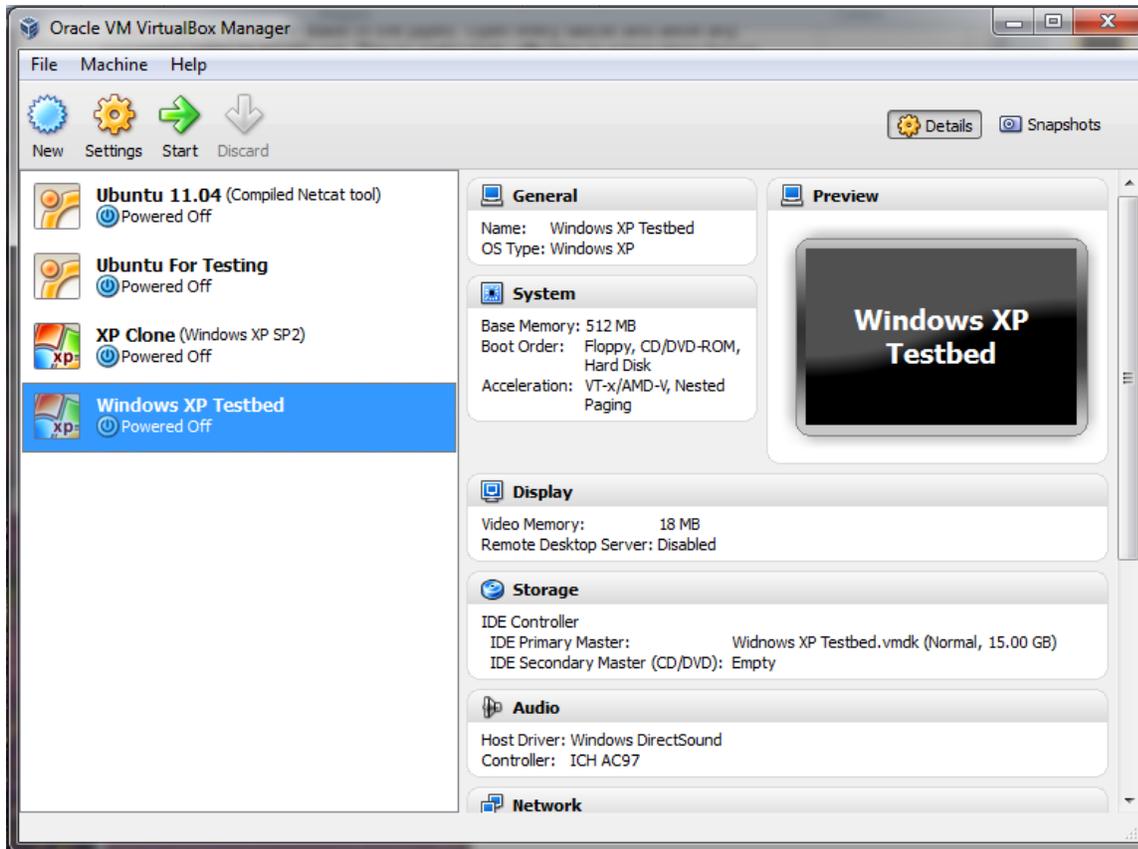


Set the ram to 256MB or 512MB of ram

Create a new virtual disk of type VMDK, and split that into files of less than 2 GB.

Make that disk approximately 15GBs, and create the virtual disk.

You should now see the virtual machine in the Virtual Box main screen.



Turn on that VM, and the first run wizard should start up. We want to choose the pre downloaded Windows XP w/ SP3 ISO (downloaded from dreamspark premium). And then start the machine.

Now proceed to install windows, using the entire virtual drive as the primary partition. Format with the NTFS file system. Much of the rest of this processes boils down to clicking next. Choose a user name, choose a password, enter your license key, and click through to finish installing Windows Xp.

After you've installed and activated Windows XP. Be sure to take a snapshot of your base VM.

## ***Install Virtualbox Additions for Windows XP***

Now we should before we go much longer set up a method of moving files onto and off of the VM you've set up from your host computer.

On your XP machine make sure to install "Virtualbox Guest Additions"

Then go to "Devices" and press "Shared Folders"

Press "Add Share", choose a folder path and name the folder.

Click the auto-mount and read-only items.

Restarting the computer will automate the drive mapping process, otherwise you can directly map the

drive from windows explorer.

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## ***How to configure the network of VM's for inetsim:***

On the "Oracle VM VirtualBox Manager" choose the VM you want to configure. Then press the yellow settings button. This opens a window that lets you specify the machine configurations. Then choose "network" from the panel on the left of the window. Now you see multiple virtual adapters, you'll only use adapter 1. Change the "attached to" field from "NAT" to "Internal Network." You may then name your network something different from intnet if you choose. Be sure to do this for both VM's, and to connect them to the same network. The network is specified in the "name" parameter under the "attached to" field.

Next you will need to choose an IP Address for each machine, below are what was used in the demo.

Ubuntu machine: 192.168.0.1

Windows XP machine: 192.168.0.2

### **Windows XP Network Configuration:**

Press start,control panel,network &internet connections,network connections.

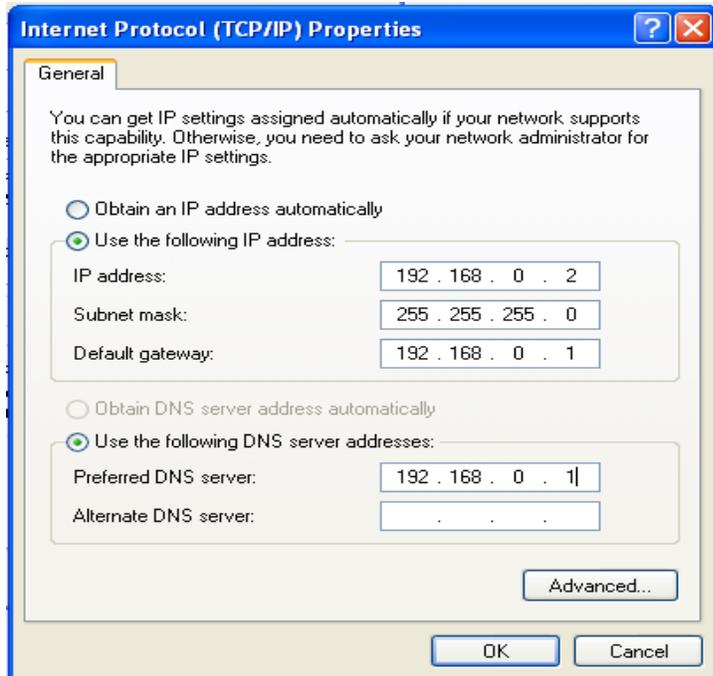
On the network interface installed right click and click properties.

Double click the TCP/IP item.

Click the dialog box of use the following IP address.

Set both the dns server of the windows machine and the gateway at the ubuntu machine.

Below is an image of the correct network configurations based on the ip addressing scheme mentioned above.



### **Ubuntu Network Configuration:**

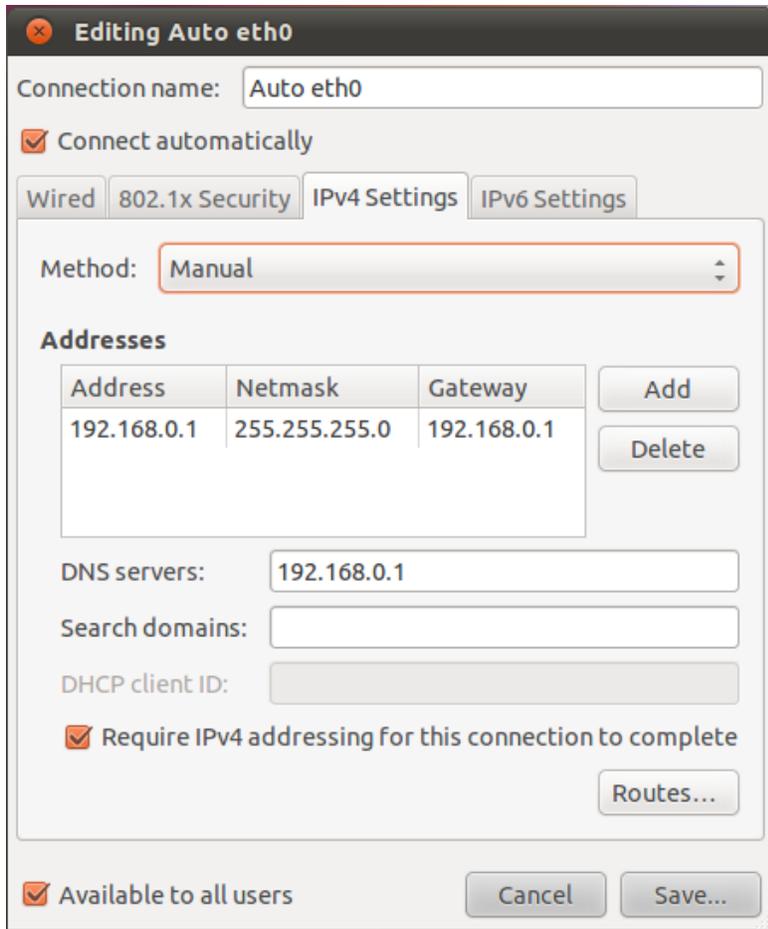
On the Ubuntu PC, click system/preferences/networkconnections. This should pull up a window that controls the network connections within the Ubuntu machine.

Then double click on the "auto eth0" option and IPV4 settings

Change the method to "Manual."

Enter the address decided upon, the netmask, and the computers own ip for the gateway.

Below is an image of the proper configurations.



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## ***Configure INetSim:***

In your Ubuntu 11.04 VM, use a text editor to open `/etc/inetsim/inetsim.conf`

Change the "service bind address" to 192.168.0.1

Then change the "dns\_default\_ip" 192.168.0.1

You should now be able to call out to any http page and get back the inetsim default page.

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## ***Reconfigure Network Connection for Normal Operations:***

To allow contact with the internet again, do essentially the opposite of what your custom network configurations have been. Make the adapter connected to NAT again and set all your TCP/IP settings to auto/dhcp.