

Utilizing the Ethernet Connection of Atom Board

Ravi Jaglal, Gerard Spivey, and Dr. Charles Kim

Electrical and Computer Engineering, Howard University, Washington, DC 20059

How to connect to Ethernet?

Basically when you receive your Tunnel Creek Board it is basically already configured to connect to the Ethernet and join the network. So now power on your Atom Board and login to the inforce account.

1. Check for the auto connect to the network after plugging the ethernet cable to the ethernet port on the Atom Board by opening one of the web browsers and going to www.google.com. If you did not connect to Google then follow the rest of this guide to connect the Internet.

2. Click on the inforce button on the top right corner of the screen, then click on system preferences.

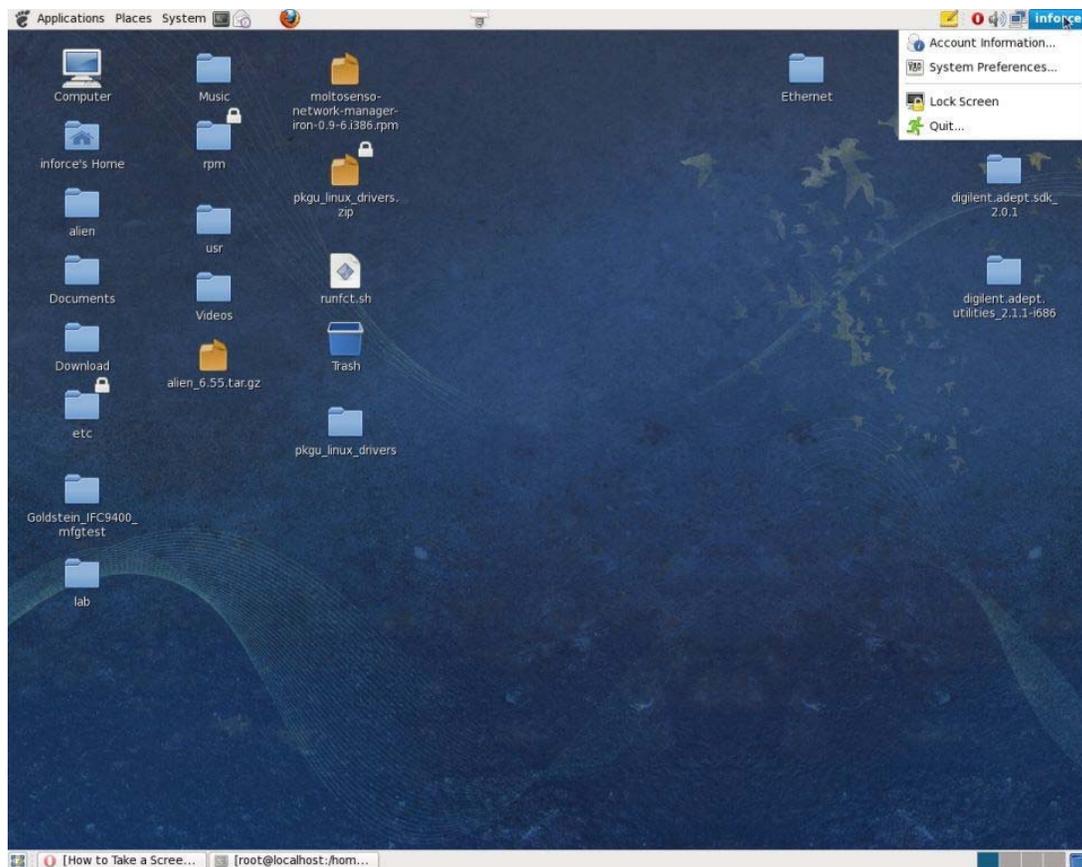


Figure 1

3. The Control Center window should pop up. Then click on Network which is located in the system section.

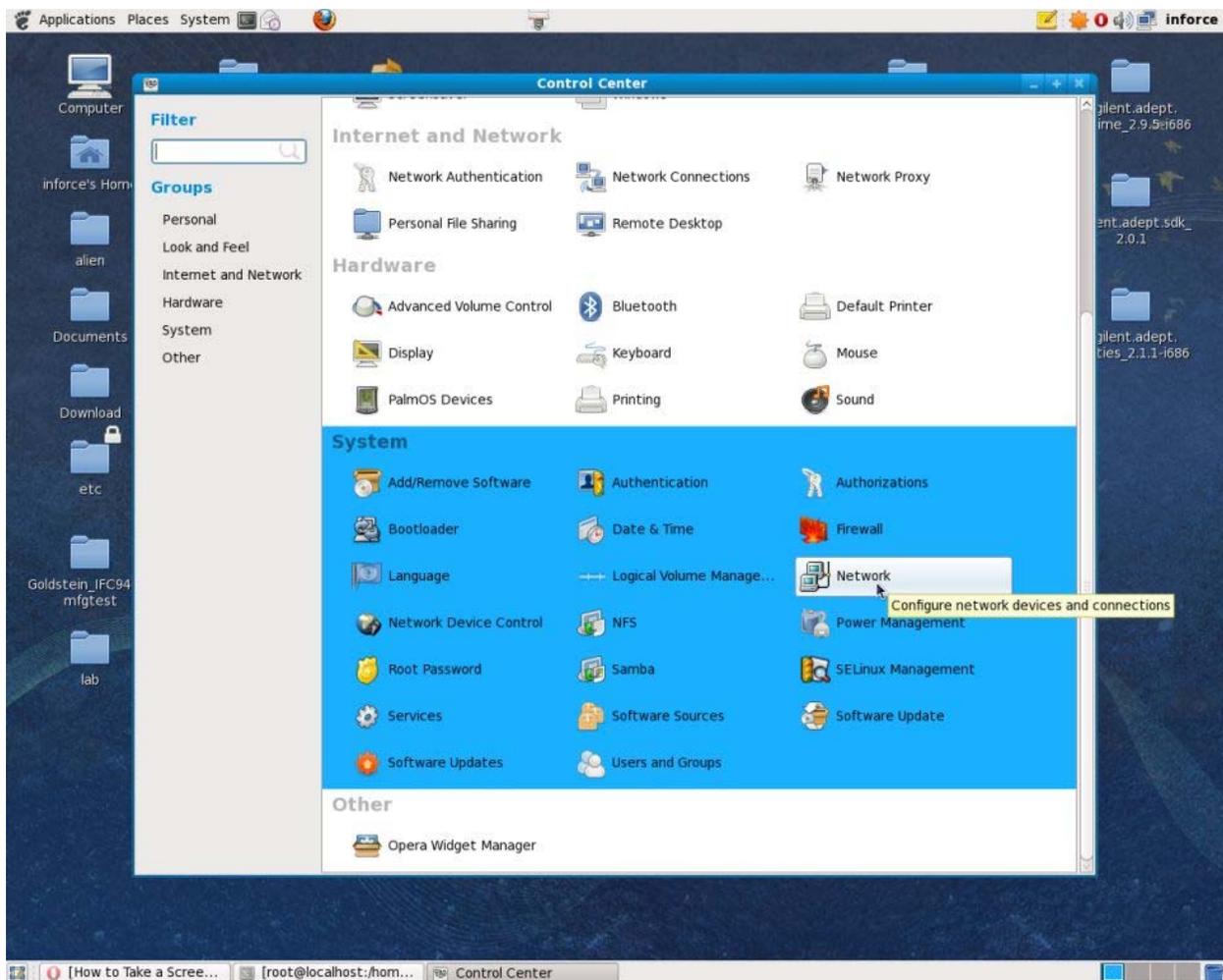


Figure 2

4. The Query window should pop up. Please type the password which is inforce123 and click on OK.

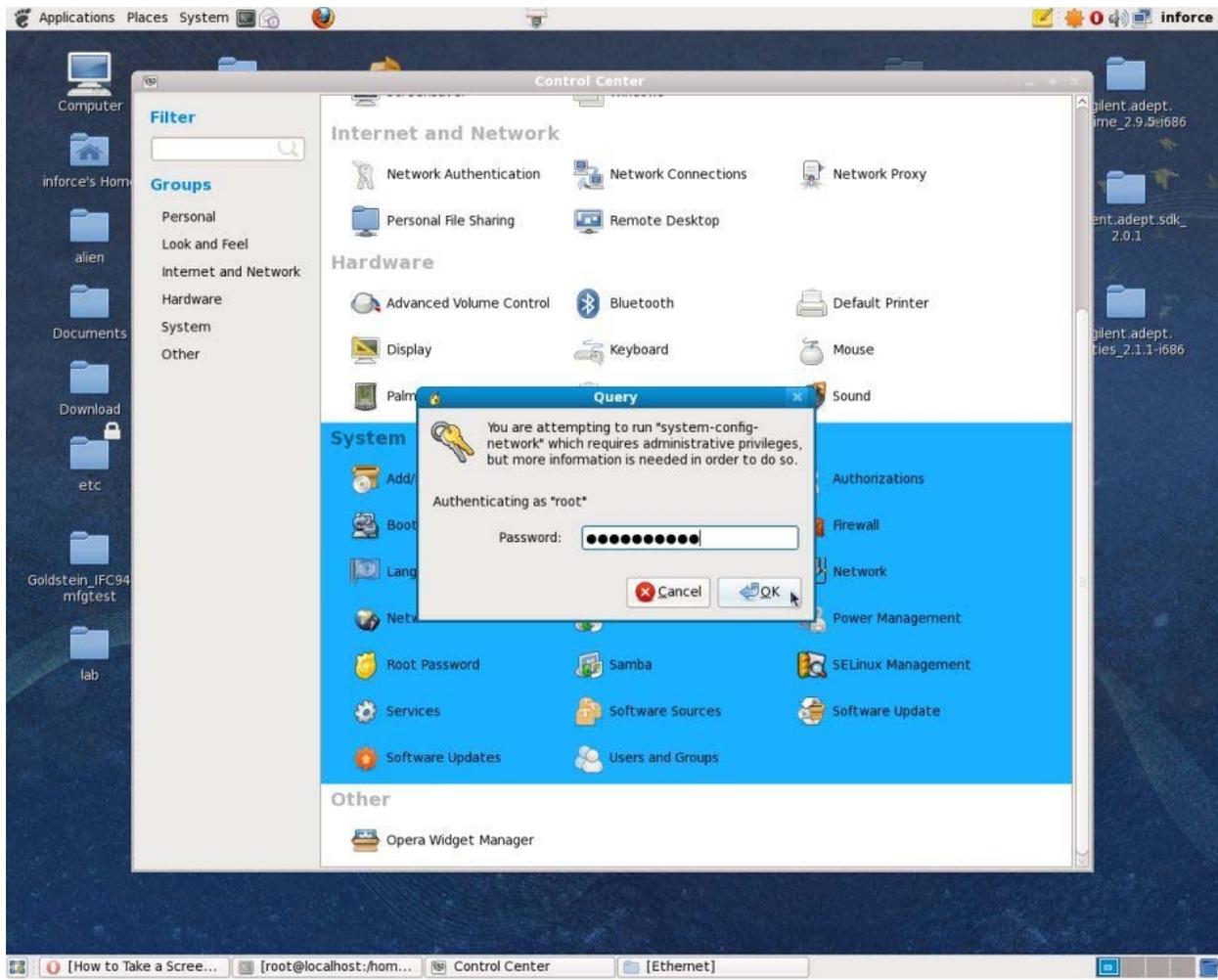


Figure 3

5. The Network Configuration window would pop up. This window allows you to see a list of devices that are currently configurable on your system.

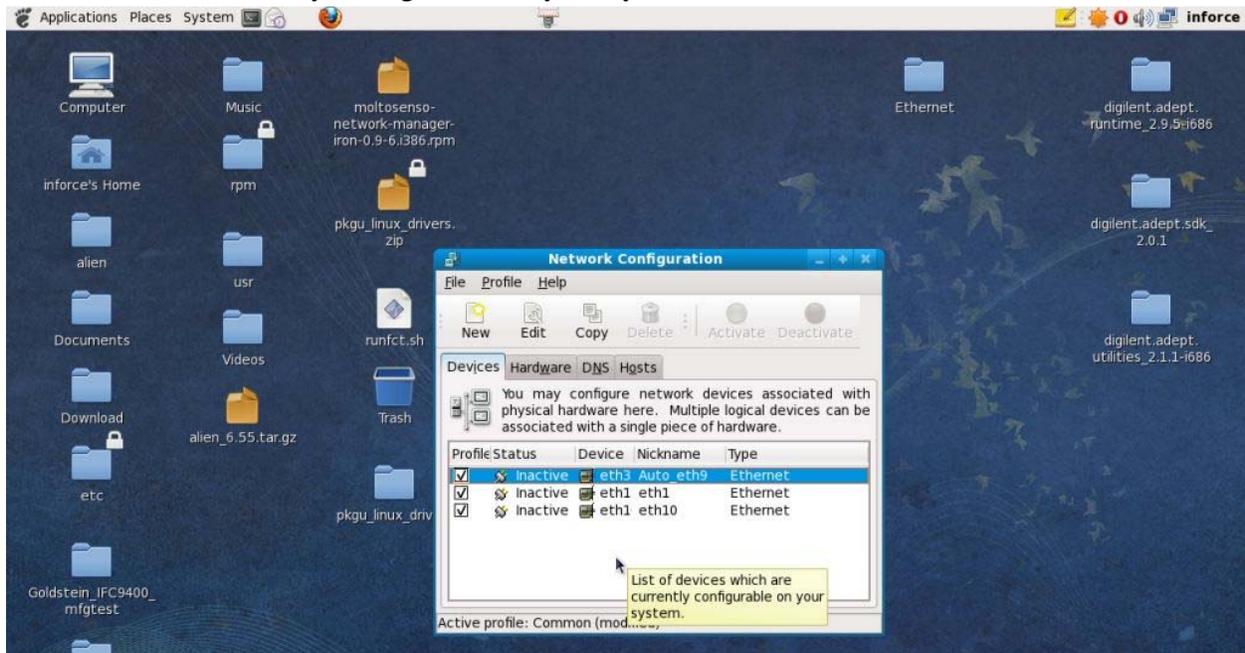


Figure 4

6. As you can see in the screen shot there are three device profiles. In this situation we are going to make the device nicknamed "Auto_eth9" active and useable.

7. First double click on the another device profile other than "Auto_eth9" and the Ethernet Device window for that device would pop up. We are going to "disable" the device.

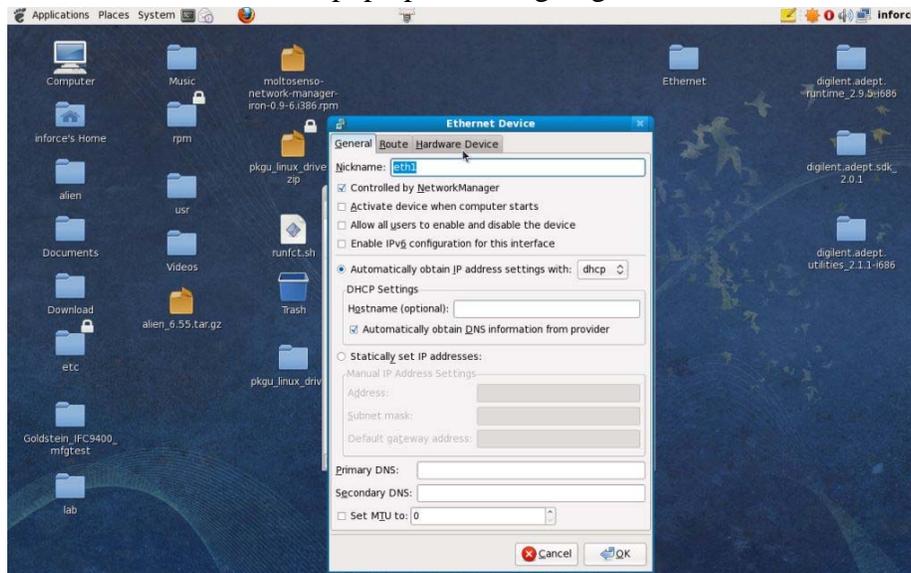


Figure 5

8. Please ensure that the settings are the same on your Ethernet Device General tab as it is on the screenshot above. Also, do not change the nickname of the device this is very important!!! Then click on the Hardware Device tab after changing settings.

9. After clicking on the Hardware Device tab your Ethernet Device window should be like the one on the screenshot below. Please uncheck device alias number and bind to MAC address.

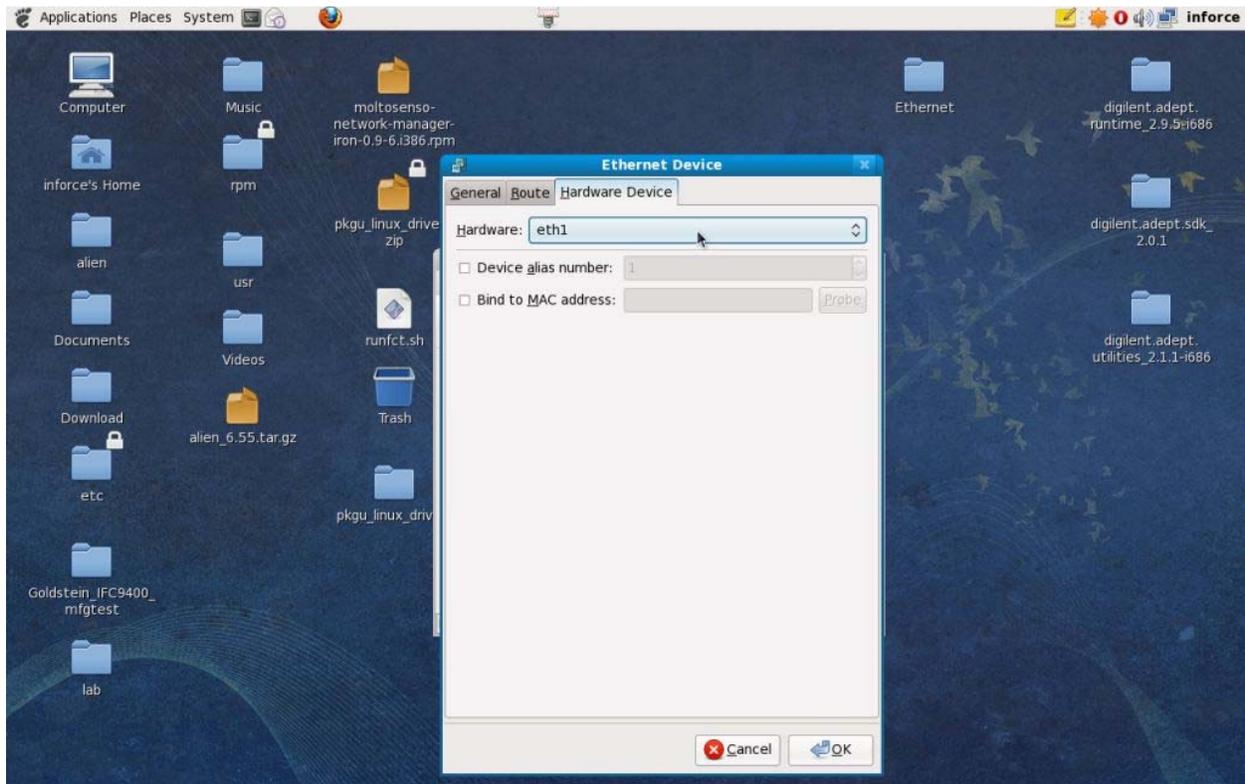


Figure 6

10. Then click on the any non-existing device eg. eth1. Do not click on Intel Corporation Unknown or iohgbe.

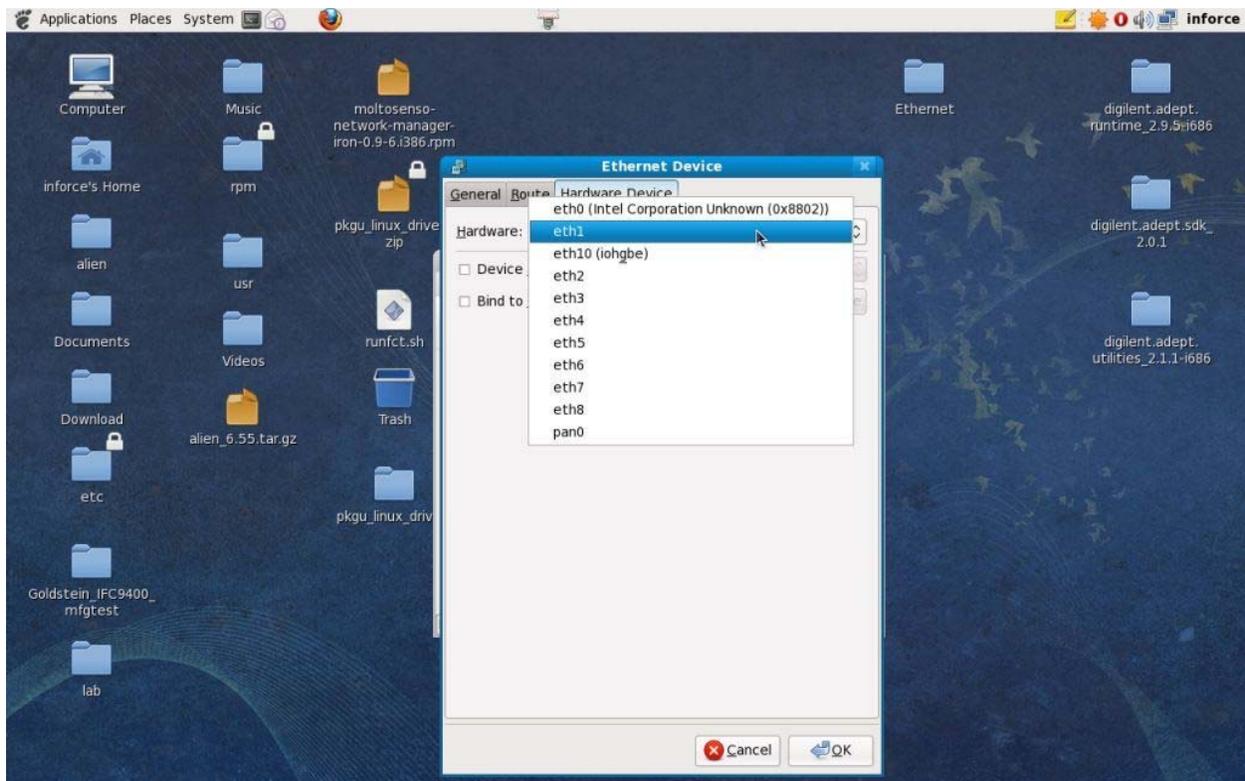


Figure 7

11. Then click on OK which is located at the bottom of the current window in the screen shot above.

*NOTE: Please repeat the above steps for each device profile other than the one nicknamed "Auto_eth9".

Now we are going to activate "Auto_eth9".

12. Double click on "Auto_eth9" profile and ensure the settings are the same as the one in the screenshot below.

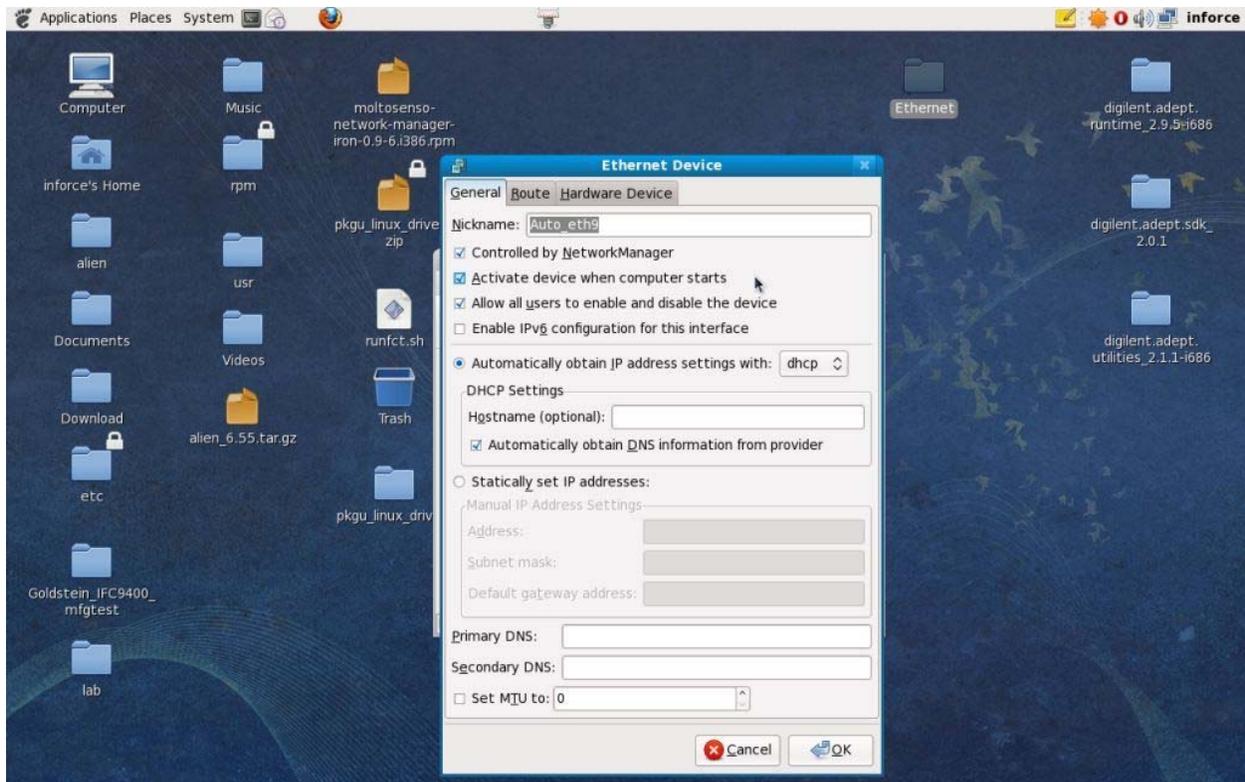


Figure 8

13. Then click on the Hardware Device. After, click on the Hardware Device List and choose Intel Corporation Unknown. Then check Bind to MAC address and click on Probe then OK as shown in the screenshot below.

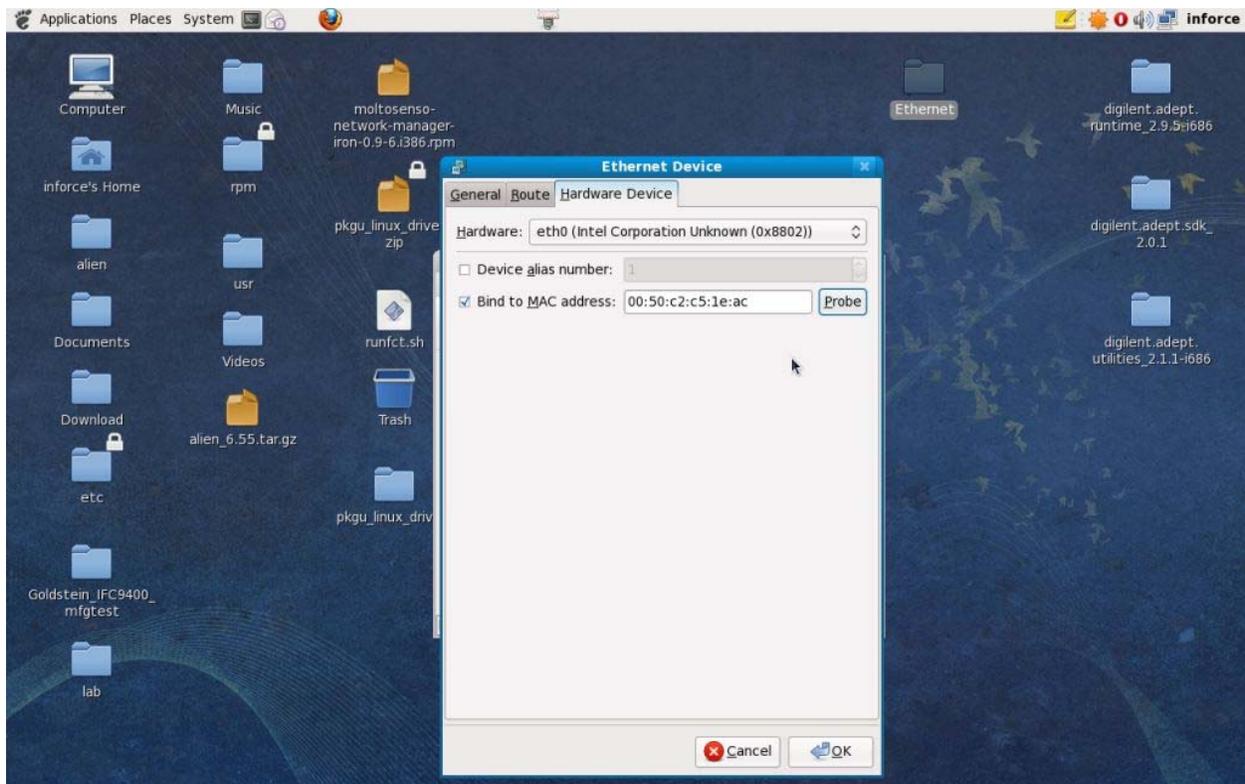


Figure 9

14. Then click on File and then Save and OK. Close the Network Configuration window.

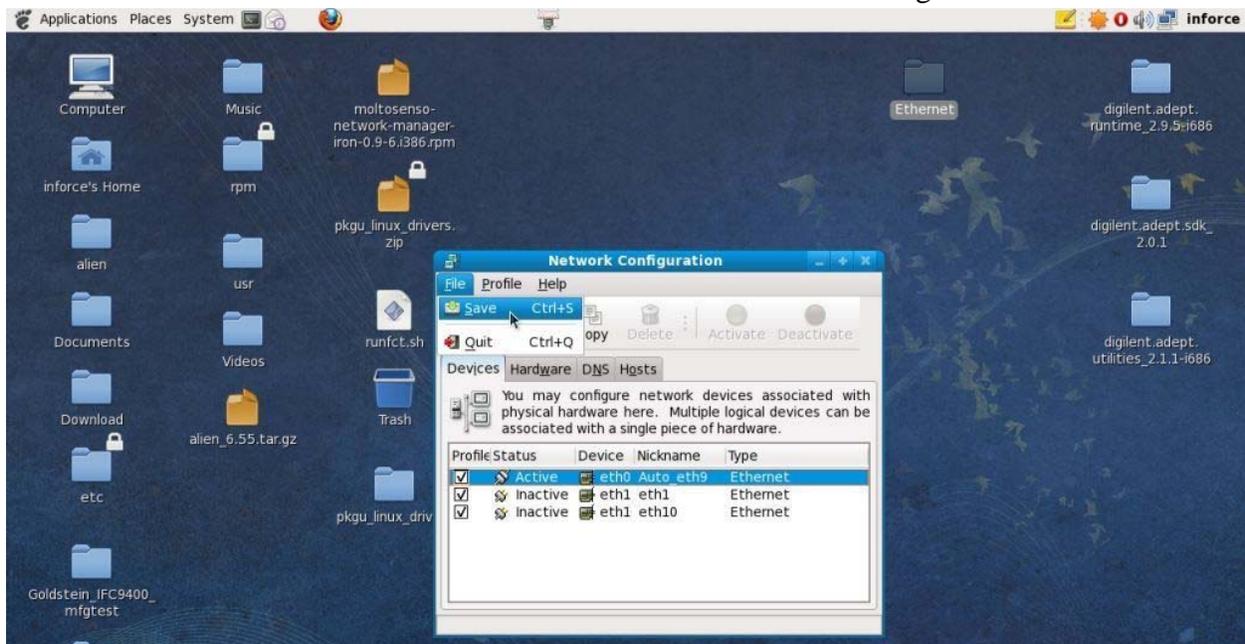


Figure 10

15. Click on the Terminal as shown

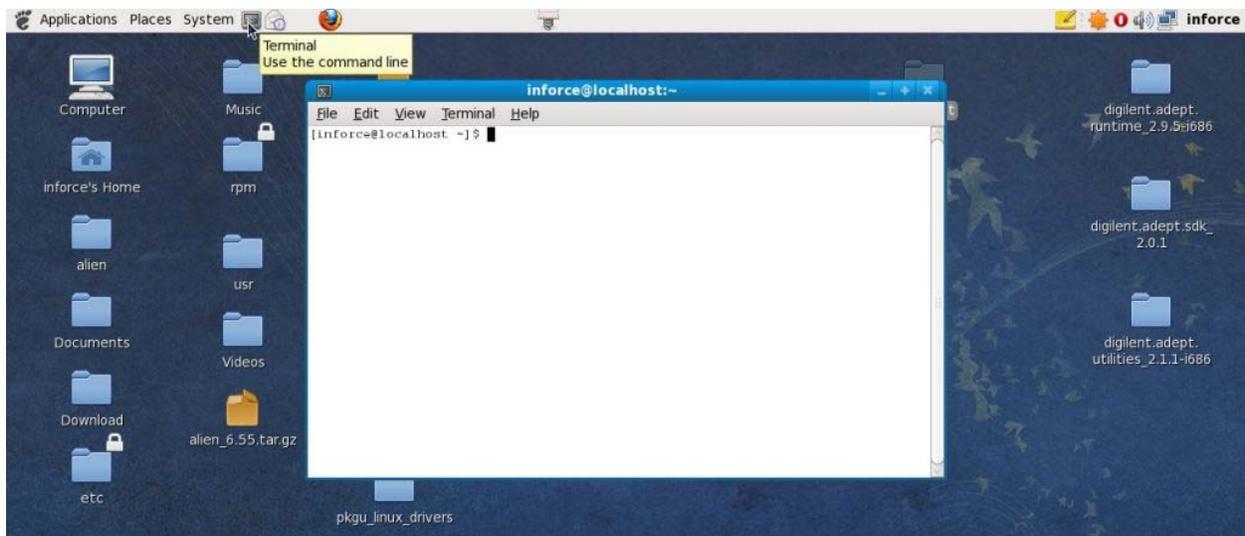


Figure 11

16. In terminal now:

Change to root

type: su -

Then type the password for root which is

type: inforce123

Now restart the network service.

type: service network restart

17. Now check if you are connected to the network.

type: ping google.com

18. Now you should see a response similar to the one in the screenshot which is below the "ping google.com" command.

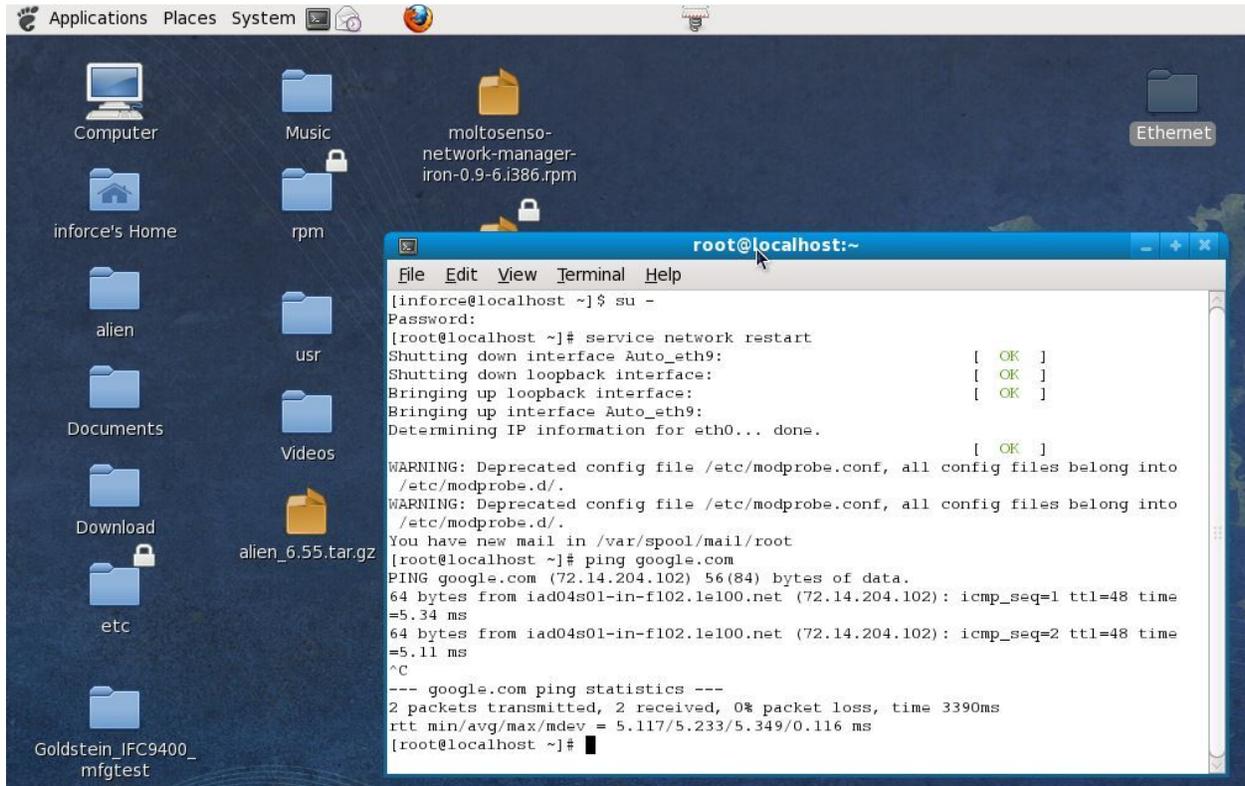


Figure 12

19. Now press Ctrl+C on your keyboard to stop the ping.

20. Now click on the computer icon on the top right corner of the screen and choose "Auto_eth9".

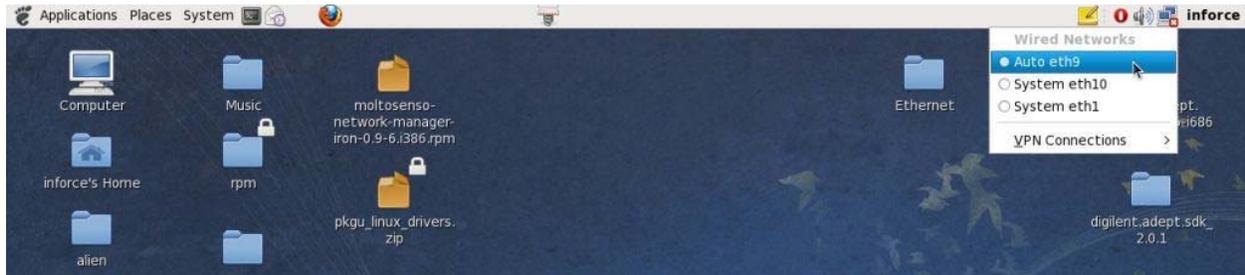


Figure 13

21. You are now connected to the Internet!!! Enjoy!!!