Instructions for Raspberry Pi Setup

Required Equipment:

- Raspberry Pi
- Raspberry Power Cord
- HDMI Cord
- HDMI Compatible Monitor
- Mouse
- Keyboard

Steps:

Booting Up

1. Plug in power, HDMI, and turn on monitor.
2. Plug in HDMI, mouse, and keyboard into the Raspberry Pi.
3. Plug in power to the Raspberry Pi and wait for it to boot up.

4. If prompted for login information the information is: **User: pi Password: raspberry**
5. If defaulted to the command line then skip to step 7 otherwise continue.

6. Open the command line terminal. The icon is a black rectangle or a monitor with a blank screen. Figure 1 contains an example of this.

Figure 1. Terminal Icons

Update and Upgrade the System

7. Next type into the command line following commands to update system and accept the permission to save:
    1) sudo apt-get update
    2) sudo apt-get upgrade
    3) sudo rpi-udate

Static IP Address

8. First information regarding the network is needed. Type in the following command: *ifconfig*
9. Figure 2 is an image of information given and the circled information are the ones needed. Also this information will be different for all devices.

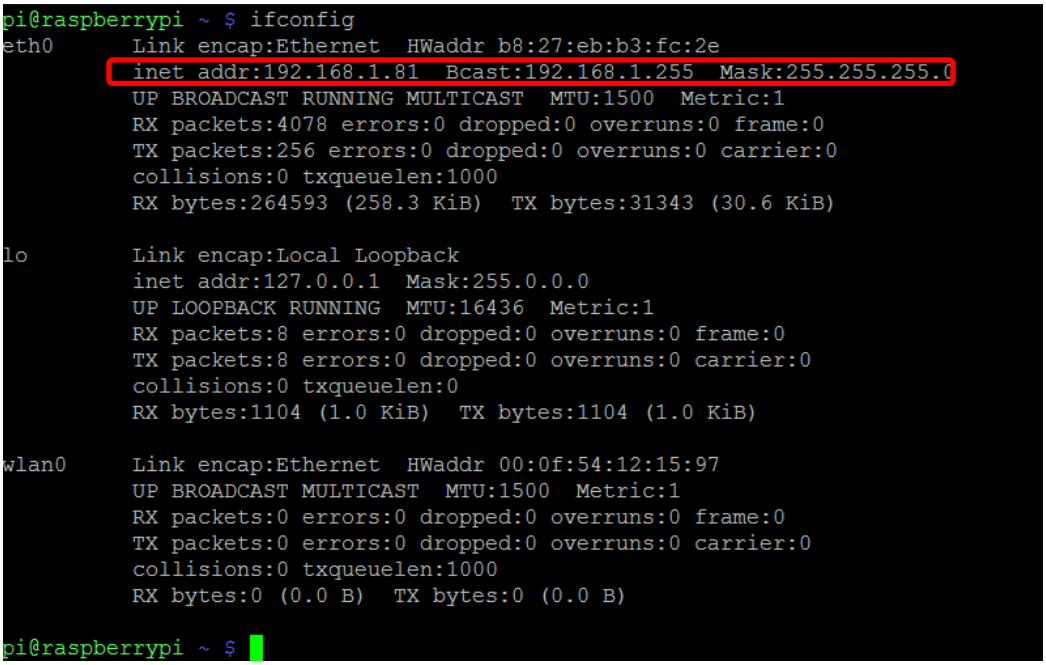

Figure 2. Information Given by *ifconfig*

10. More information is needed so the Type in the following command: *netstat -nr*
11. Figure 3 is an image of information given and the circled information are the ones needed. Also this information will be different for all devices.

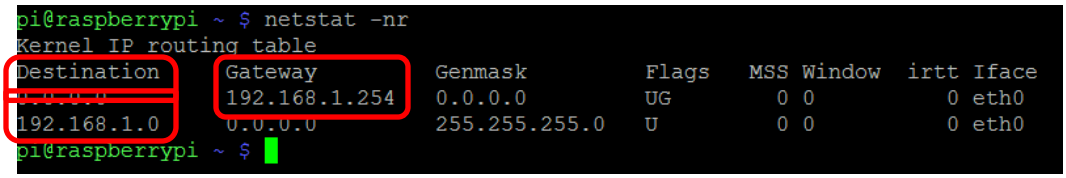

Figure 3. Information Given by *netstat -nr*

12. Plug this information into the Pi's network configuration file using the command: *sudo nano /etc/network/interfaces*
    This open a configuration file, “interfaces”, in a text editor.
13. Figure 4 shows what the file looks like before the information is entered.

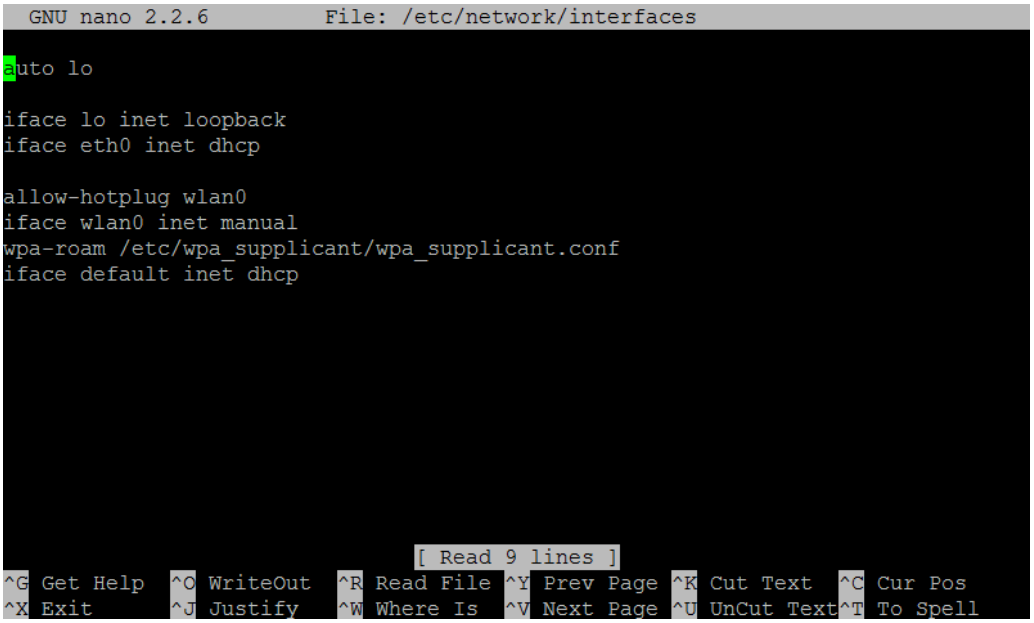

Figure 4. Interfaces File before Edits

14. Type in the information from previous steps in-between iface eth0 inet dhcp and allow-hotplug wlan0. Also the dhcp to static. Figure 5 shows an example of this.

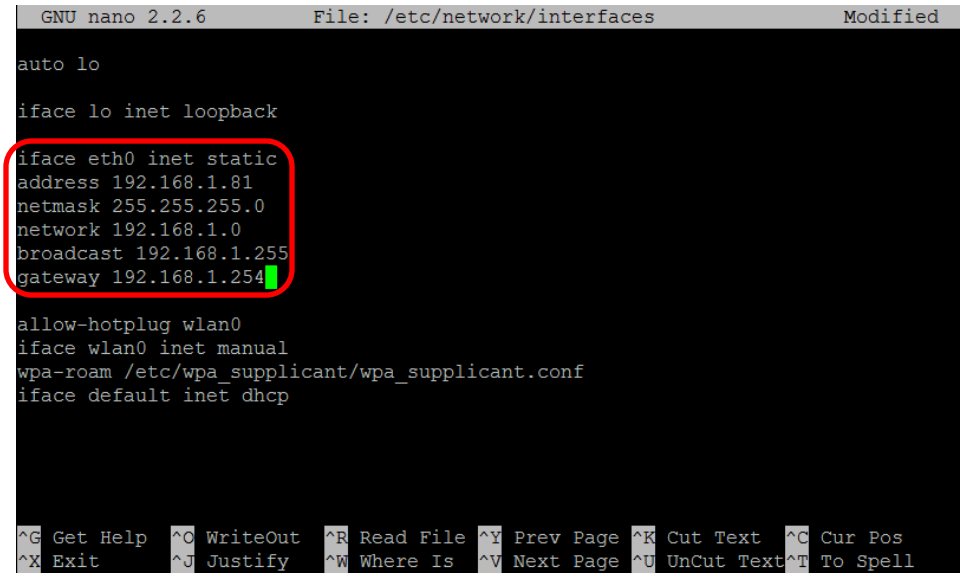

Figure 5. Interfaces File after Edits

15. Save and exit the editor with control X and saving when prompt.
16. Remove any existing leases with the command: *sudo rm /var/lib/dhcp/**

Remote Desktop

17. For Remote Desktop control enter the command: *sudo apt-get install xrdp*
    Refer to Windows-Remote-Control for additional steps for setup.

Settings

18. To change the default settings for the Raspberry Pi enter the command: *sudo raspi-config*
19. Expand the memory partition to allow more memory.
20. Enable Camera.
21. Enable SSH for remote command line control.
22. The keyboard is set to United Kingdom settings. It can be changed be going to keyboard settings and selecting United States. When selecting keyboard brand any will work so select the initial one.
23. Optionally the booting sequence can be set for command line only to save some resources when the Raspberry Pi running without a screen.
24. When finished with changing the settings exit the settings screen and reboot.