

## Lab - 18

### Assigning Static IP Address

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#### Problem

This tutorial will show you how to set a static IP address on your Pi with the release of Raspbian Jessie. At the time of writing, the latest release date of Raspbian Jessie is 18-03-2016 with Kernal version 4.1.

#### Solution

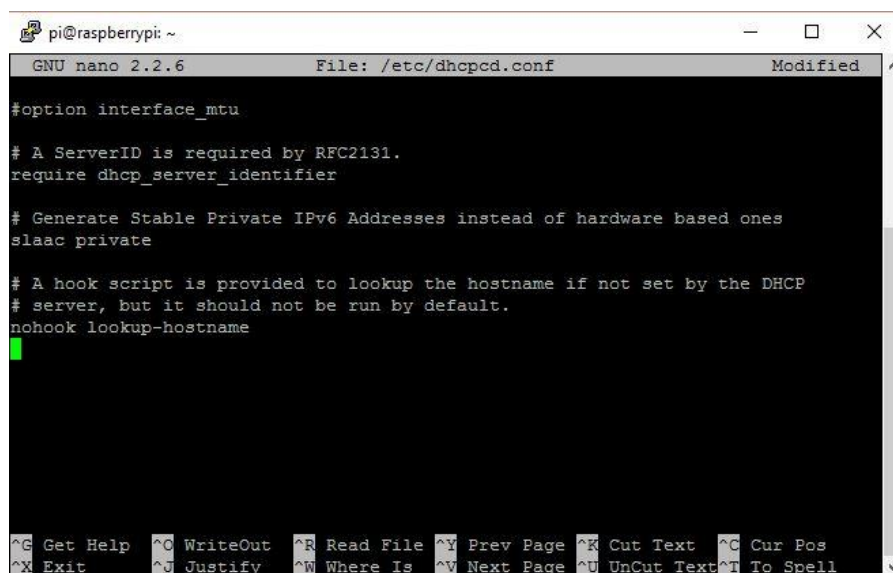
I recommend doing this on a fresh install, however if you have attempted to set a static IP address already, you may have found yourself editing the interfaces file (/etc/network/interfaces). I hope you made a backup, because you'll need to remove any edits you have made, and revert it back to its original state!

#### Discussion

The following is done over SSH, but you could just as well plug your Pi into a monitor, hook up a keyboard and mouse, and use the Terminal instead.

Start by editing the dhcpd.conf file

```
sudo nano /etc/dhcpd.conf
```



```
pi@raspberrypi: ~
GNU nano 2.2.6 File: /etc/dhcpd.conf Modified
#option interface_mtu

# A ServerID is required by RFC2131.
require dhcp_server_identifier

# Generate Stable Private IPv6 Addresses instead of hardware based ones
slaac private

# A hook script is provided to lookup the hostname if not set by the DHCP
# server, but it should not be run by default.
nohook lookup-hostname

^G Get Help ^O WriteOut ^R Read File ^Y Prev Page ^K Cut Text ^C Cur Pos
^X Exit ^J Justify ^W Where Is ^V Next Page ^U UnCut Text ^T To Spell
```

Scroll all the way to the bottom of the file and add one, or both of the following snippets. Depending on whether you want to set a static IP address for a wired connection or a wireless connection `eth0` = wired, `wlan0` = wireless.

You'll need to edit the numbers in the snippet so they match your network configuration.

## CODE

```
interface eth0

static ip_address=192.168.0.10/24
static routers=192.168.0.1
static domain_name_servers=192.168.0.1

interface wlan0

static ip_address=192.168.0.200/24
static routers=192.168.0.1
static domain_name_servers=192.168.0.1
```

interface = This defines which network interface you are setting the configuration for.

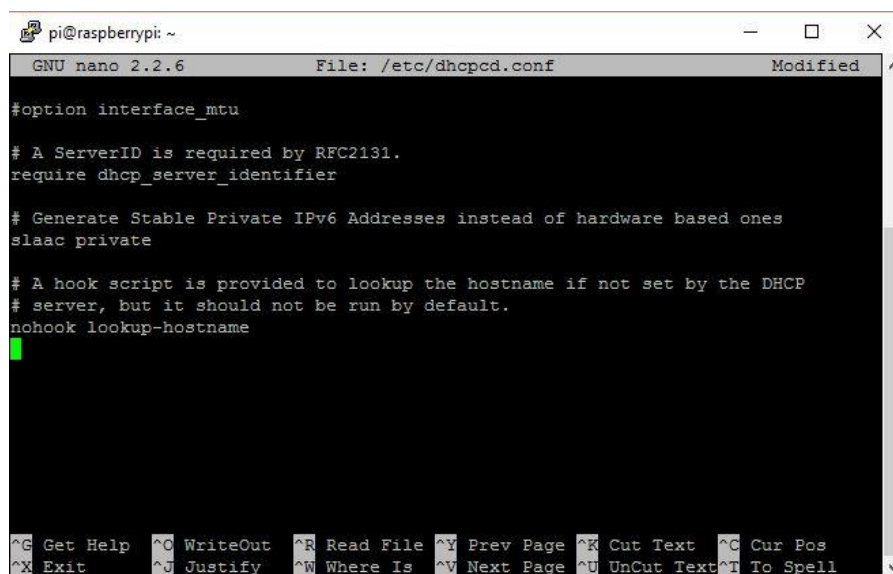
static ip\_address = This is the IP address that you want to set your device to. (Make sure you leave the /24 at the end)

static routers = This is the IP address of your gateway (probably the IP address of your router)

static domain\_name\_servers = This is the IP address of your DNS (probably the IP address of your router). You can add multiple IP addresses here separated with a single space.

To exit the editor, press ctrl+x

To save your changes press the letter “Y” then hit enter



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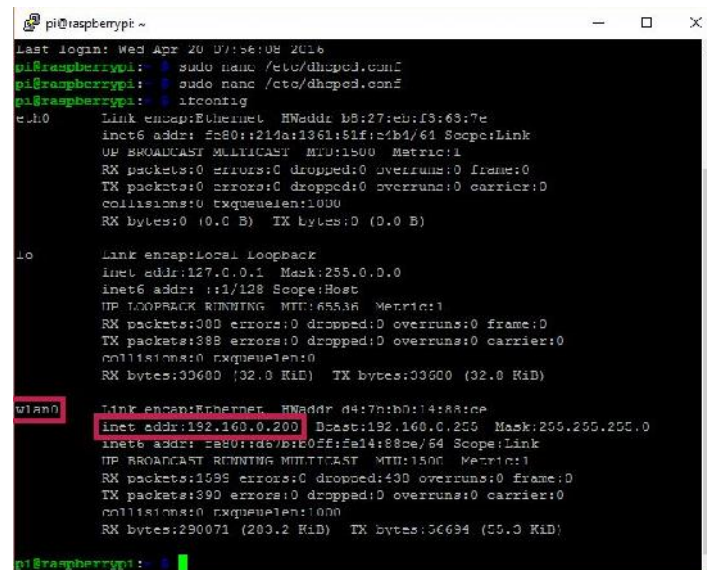
Now all you need to do is reboot, and everything should be set!

reboot

You can double check by typing

ifconfig

And checking the interfaces IP address



```
pi@raspberrypi:~$ ifconfig
eth0: Link encap:Ethernet HWaddr b8:27:eb:f3:63:7e
      inet6 addr: fe80::214a:1361:51f:a4b4/64 Scope:Link
      UP BROADCAST MULTICAST MTU:1500 Metric:1
      RX packets:0 errors:0 dropped:0 overruns:0 frame:0
      TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
      collisions:0 txqueuelen:1000
      RX bytes:0 (0.0 B) TX bytes:0 (0.0 B)

lo: Link encap:Local Loopback
      inet addr: 127.0.0.1 Mask:255.0.0.0
      inet6 addr: ::1/128 Scope:Host
      UP LOOPBACK RUNNING MTU:65536 Metric:1
      RX packets:300 errors:0 dropped:0 overruns:0 frame:0
      TX packets:300 errors:0 dropped:0 overruns:0 carrier:0
      collisions:0 txqueuelen:0
      RX bytes:30600 (32.0 KiB) TX bytes:30600 (32.0 KiB)

wlan0: Link encap:Ethernet HWaddr d4:7b:b0:14:88:de
      inet addr: 192.168.0.200 Bcast:192.168.0.255 Mask:255.255.255.0
      inet6 addr: fe80::d5:b:e0ff:fa14:88de/64 Scope:Link
      UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
      RX packets:1598 errors:0 dropped:430 overruns:0 frame:0
      TX packets:390 errors:0 dropped:0 overruns:0 carrier:0
      collisions:0 txqueuelen:1000
      RX bytes:290071 (283.2 KiB) TX bytes:56694 (55.0 KiB)

pi@raspberrypi:~$
```