

Ex - 18

Assigning Static IP Address

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

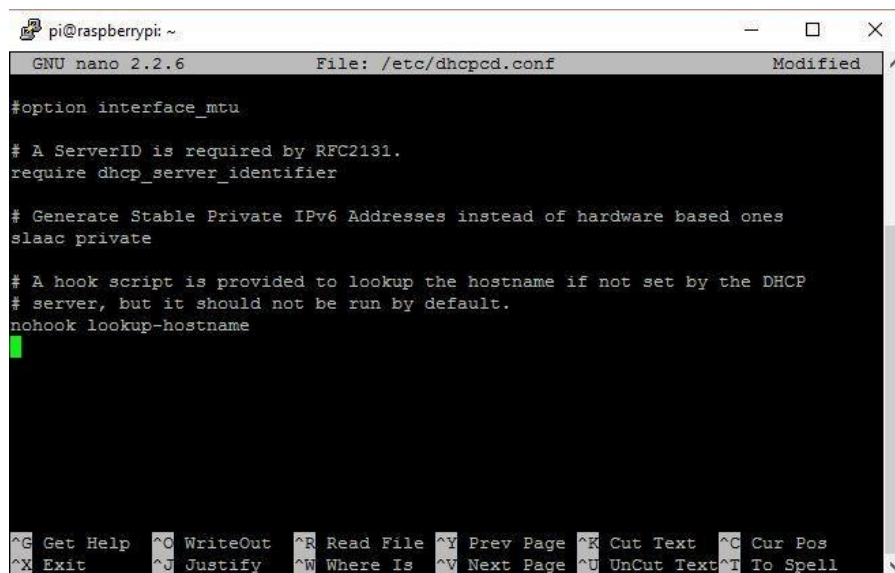
I recommend doing this on a fresh install, however if you have attempted to set a static IP address already, you may have found yourself editing the interfaces file (/etc/network/interfaces). I hope you made a backup, because you'll need to remove any edits you have made, and revert it back to its original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

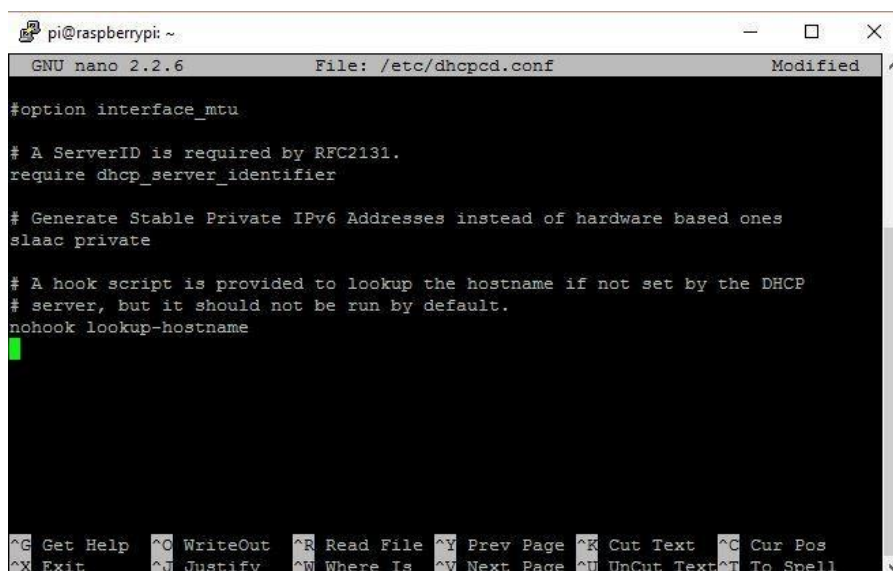
`static ip_address` = This is the IP address that you want to set your device to. (Make sure you leave the /24 at the end)

`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: ~  
Last login: Wed Apr 20 07:56:08 2016  
pi@raspberrypi:~$ sudo nano /etc/dhcp3.conf  
pi@raspberrypi:~$ sudo nano /etc/dhcp3.conf  
pi@raspberrypi:~$ ifconfig  
eth0      Link encap:Ethernet  HWaddr b8:27:eb:f3:63:7e  
          inet6 addr: fe80::214a:1361:51f:a1b4/64 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:388 errors:0 dropped:0 overruns:0 carrier:0  
          collisions:0 txqueuelen:0  
          RX bytes:33600 (32.0 KiB)  TX bytes:33600 (32.0 KiB)  
  
wlan0     Link encap:Ethernet  HWaddr d4:7a:b0:14:88:ce  
          inet addr:192.160.0.200  Bcast:192.160.0.255  Mask:255.255.255.0  
          inet6 addr: fe80::d4:b0:14:88ce/64 Scope:Link  
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1  
          RX packets:1098 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:~$
```