

## Setting up a Server

First there are two ip addresses mention here, a local ip allocated to each device on the network by the router this ip address is used to differentiate the devices on a network but are not visible to devices outside the network. Second is a public ip this ip is a public ip the is assigned to your router by ISP.

Your local ip is subject to change by your router every time you connect to it and is thus difficult to work with as it may change at any moment. To avoid this you can make it a static ip by requesting from your router that a specific ip address be reserved for this device only. To do this you will need to do the following:

First acquire your current local ip:

Open a terminal and run "ip a"

Search for your internet connection(avoid Lo: as this is your loopback address)

```
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default
qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc mq state UP group default
qlen 1000
    link/ether 00:50:56:af:d9:bb brd ff:ff:ff:ff:ff:ff
    inet 192.168.0.15/24 brd 192.255.255.255 scope global eth0
        valid_lft forever preferred_lft forever
    inet6 fe80::250:56ff:feaf:d9bb/64 scope link
        valid_lft forever preferred_lft forever
```

In this case it's 192.168.0.15

Now edit your network setting folder using the following command

sudo nano /etc/netplan/01-netcfg.yaml

Copy and paste the following while paying attention to spaces (dont include the -----)

```
network:
  version: 2
  renderer: networkd
  ethernets:
    ens3:
      dhcp4: no
      addresses:
        - 192.168.0.221/24
```

```
gateway4: 192.168.0.1
nameservers:
  addresses: [8.8.8.8, 1.1.1.1]
```

---

In this case we assigned 192.169.0.221 to this computer, you can put the address you found in the previous step here and change the last three digits representing your unique ip(In our case we chose 221 as that isn't used by anything on the network). The gateway is the router it is in most cases the same ip found earlier but ending with .1 unless changed by the user

Finally to apply the settings run

```
sudo netplan apply
```

This will restart your connection

To check run "ip a" and ensure that your new address is the one you selected