Static network IP on Ubuntu server

Configuring IP address on Ubuntu server without using any tools other than a text editor

Version 18.04

The new interfaces configuration file now lives in the /etc/netplan directory. There are two renderers: NetworkManager and networkd.

NetworkManager renderer is mostly used on desktop computers and **networkd** on servers. If you want NetworkManager to control the network interfaces, use NetworkManager as the renderer, otherwise use networkd.

When you use NetworkManager as the renderer, you will use the NetworkManager GUI to manage the interfaces.

DHCP sample file using networkd

```
# This file describes the network interfaces available on your system
# For more information, see netplan(5).
network:
 version: 2
 renderer: networkd
 ethernets:
   ens33:
     dhcp4: yes
     dhcp6: yes
```

Static configuration

```
# This file describes the network interfaces available on your system
# For more information, see netplan(5).
network:
 version: 2
 renderer: networkd
 ethernets:
   ens33:
     dhcp4: no
     dhcp6: no
     addresses: [192.168.1.2/24]
     gateway4: 192.168.1.1
     nameservers:
       addresses: [8.8.8.8,8.8.4.4]
```

Apply changes

```
sudo netplan apply
```

Examples

Multiple IP addresses and multiple gateways

```
network:
  version: 2
  renderer: networkd
  ethernets:
    enp3s0:
     addresses:
       - 9.0.0.9/24
       - 10.0.0.10/24
       - 11.0.0.11/24
     #gateway4:    # unset, since we configure routes below
     routes:
       - to: 0.0.0.0/0
         via: 9.0.0.1
         metric: 100
       - to: 0.0.0.0/0
         via: 10.0.0.1
         metric: 100
       - to: 0.0.0.0/0
         via: 11.0.0.1
         metric: 100
```

Wireless

```
network:
  version: 2
  renderer: networkd
  wifis:
    wlp2s0b1:
      dhcp4: no
      dhcp6: no
      addresses: [192.168.0.21/24]
      gateway4: 192.168.0.1
      nameservers:
        addresses: [192.168.0.1, 8.8.8.8]
      access-points:
        "network_ssid_name":
          password: "**********"
```

Static

```
network:
  version: 2
  renderer: networkd
  ethernets:
    enp3s0:
      addresses:
        - 10.10.10.2/24
      gateway4: 10.10.10.1
      nameservers:
          search: [mydomain, otherdomain]
          addresses: [10.10.10.1, 1.1.1.1]
```

Version 16.04 and earlier

Edit network configuration file

```
sudo vim /etc/network/interfaces
```

You fill find configuration something like this

```
# The primary network interface -- use DHCP to find our address
auto eth0
iface eth0 inet dhcp
```

Change it to this

```
# The primary network interface
auto eth0
iface eth0 inet static
address 192.168.1.2
gateway 192.168.1.1
netmask 255.255.255.0
network 192.168.1.0
broadcast 192.168.1.255
dns-nameservers 8.8.8.8 8.8.4.4
```

And finally restart networking service

```
sudo /etc/init.d/networking restart
```

You should be able to ping the host on the new IP address

If you need to add static routes, you can do it here by adding the lines

```
up route add -net 192.168.10.0 netmask 255.255.255.0 gw 192.168.180.1 dev
```

```
eth0
```

And delete them

```
down route del -net 192.168.10.0 netmask 255.255.255.0 gw 192.168.180.1 dev
eth0
```

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