

Debian: Static IP Address Set Up

Debian uses different network management systems. In this article, I'll show you how to set a static IP address using all these methods.

? Find your Network Manager

To check which network management system your Debian is using, you have to check if some files exist that are used by either of your manager:

1. **networking:** `/etc/network/interfaces`
2. **dhcpcd:** `/etc/dhcpcd.conf`
3. **systemd-networkd:** `/etc/systemd/network/*`

If neither of these files exist, your Debian uses **NetworkManager** to configure your network.

? Configure your Static IP

Firstly, you need to find the name of your local ethernet interface. To get this information, run the `ip a` command. The output should look something like this:

```
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 noprefixroute
        valid_lft forever preferred_lft forever

### ETHERNET INTERFACE

2: eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc mq state UP group default qlen 1000
    link/ether dc:a6:32:cc:b4:ec brd ff:ff:ff:ff:ff:ff
    inet 192.168.1.200/24 brd 192.168.1.255 scope global eth0
        valid_lft forever preferred_lft forever
```

```
inet6 2a02:a03f:a190:d700:dea6:32ff:fecc:b4ec/64 scope global dynamic mngtmpaddr
    valid_lft 86364sec preferred_lft 71964sec
inet6 fe80::dea6:32ff:fecc:b4ec/64 scope link
    valid_lft forever preferred_lft forever
```

```
###
```

```
3: wlan0: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500 qdisc pfifo_fast state DOWN group
default qlen 1000
    link/ether dc:a6:32:cc:b4:ee brd ff:ff:ff:ff:ff:ff
```

Find the group with your IP address. In my case, it is the group `2:`. From here, the interface name is `eth0`

networking

To assign a static IP address using the `networking` service, edit the `/etc/network/interfaces` file:

```
auto eth0
iface eth0 inet static
    address 192.168.1.100
    netmask 255.255.255.0
    gateway 192.168.1.1
    dns-nameservers 8.8.8.8 1.1.1.1
```

Description line by line:

1. `auto eth0`: add the `eth0` interface to the list of interfaces that you want brought up at boot time.
2. `iface eth0 inet static`: tells Debian to set the IPv4 (`inet`) `eth0` interface in `static` mode.
3. `address`: the static address you want.
4. `netmask`: the netmask of your network.
5. `gateway`: the gateway of your network.
6. `dns-nameservers`: your DNS IP addresses separate by a space.

Next, brought `up` and `down` your network interface:

```
sudo ifdown eth0
sudo ifup eth0
```

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