

How to configure manually static IP address on Debian GNU/Linux / How to fix eth0 interface not brought up with error (networking restart is deprecated)

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I've recently had to manually assign a static IP address on one of the servers I manage, here is how I did it:

```
debian:~# vim /etc/network/interfaces
```

Inside the file I placed:

```
# The primary network interface
allow-hotplug eth0
auto eth0
iface eth0 inet static
    address 192.168.0.2
    netmask 255.255.255.0
    broadcast 192.168.0.0
    gateway 192.168.0.1
    dns-nameservers 8.8.8.8 8.8.4.4 208.67.222.222 208.67.220.220
```

The **broadcast** and **gateway** configuration lines are not obligatory.
dns-nameservers would re-create */etc/resolv.conf* file with the nameserver values specified which in these case are Google Public DNS servers and OpenDNS servers.

Very important variable is **allow-hotplug eth0**

If these variable with *eth0* lan interface is omitted or missing (due to some some weird reason), the result would be the output you see from the command below:

```
debian:~# /etc/init.d/networking restart
Running /etc/init.d/networking restart is deprecated because it may not enable again some interfaces ...
(warning).
Reconfiguring network interfaces...
```

Besides the **/etc/init.d/networking restart is deprecated because it may not enable again some interfaces ... (warning).**, if the **allow-hotplug eth0** variable is omitted the eth0 interface would not be brought up on next server boot or via the networking start/stop/restart init script.

My first reaction when I saw the message was that probably I'll have to use **invoke-rc.d**, e.g.:

```
debian:~# invoke-rc.d networking restart
```

Running `invoke-rc.d networking restart` is deprecated because it may not enable again some interfaces ... (warning).

However as you see from above's command output, running `invoke-rc.d` helped neither.

I was quite surprised with the inability to bring my network up for a while with the **networking** init script.

Interestingly using the command:

```
debian:~# ifup eth0
```

was able to successfully bring up the network interface, whether still **invoke-rc.d networking start** failed.

After some wondering I finally figured out that the `eth0` was not brought up by *networking init script*, because **auto eth0** or **allow-hotplug eth0** (which by the way are completely interchangeable variables) were missing.

I added **allow-hotplug eth0** and afterwards the networking script worked like a charm ;)