

## Linux: Add routing from different class network A (192.168.1.x) to network B (192.168.10.x) with ip route command

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I had a Linux router which does NAT for a local network located behind a *CISCO router* receiving internet via its *WAN interface* routing traffic to Linux with IP *192.168.1.235*. The Linux router has few network interfaces and routes traffic for networks; *192.168.1.0/24* and *192.168.10.0/24*. Another Linux with IP *192.168.1.8* had to talk to *192.168.10.0/24* (because it was necessary to be able access *ISCO's* router web interface accessible via a local network interface with IP (*192.168.10.1*). Access to *192.168.10.1* wasn't possible from *192.168.1.8* because routing on NAT-ting Linux (*192.168.1.235*) to *192.168.10.0/24* network was missing. To make *192.168.1.8* Linux communicate with *192.168.10.1*, had to add following routing rules with **ip** command on both the Linux with IP *192.168.1.235* and Linux host behind NAT (*192.168.1.8*).

### 1. On Server (192.168.1.235) run in root shell and add to */etc/rc.local*

```
# /sbin/ip r add 192.168.10.0/24 via 192.168.1.235
```

And then copy paste same line before **exit 0** in */etc/rc.local*

Its good idea always to check routing, after adding anything new, here is mine:

```
# ip r show
```

```
192.168.5.0/24 dev eth0 proto kernel scope link src 192.168.5.1
192.168.4.0/24 dev eth0 proto kernel scope link src 192.168.4.1
192.168.3.0/24 dev eth0 proto kernel scope link src 192.168.3.1
192.168.2.0/24 dev eth0 proto kernel scope link src 192.168.2.1
192.168.1.0/24 dev eth0 proto kernel scope link src 192.168.1.235
192.168.0.0/24 dev eth0 proto kernel scope link src 192.168.0.1
192.168.10.0/24 dev eth1 proto kernel scope link src 192.168.10.2
default via 192.168.10.1 dev eth1
```

## 2. And also on Second Linux host (192.168.1.8)

```
# /sbin/ip r add 192.168.10.0/24 via 192.168.1.235
```

To make routing permanent again paste in **/etc/rc.local** before **exit 0**

After above rules, I can normally ping and access hosts on class C network *192.168.10.1-255* from *192.168.1.8*.