

# Network

## Why can't I reach my server in the same subnet ? (Linux)

To ensure the quality of service of our network, we have made changes that require you to also make changes to your network configuration if you want to continue to reach other servers in your network segment.

This change in the network does not affect the Internet connection, but only the connectivity of your server with the local network segment.

There are two different configuration variants:

- Manually create the route to the network segment via the router
- Change IP configuration to /32 netmask (recommended)

As an example, the following IP configuration has been used in this article:

```
networkinterface:      p5p1
Main-IP-Adresse:      192.0.2.42/24
Gateway:               192.0.2.1
```

Before you make the changes according to one of the two variants, you should check how the network is currently configured, this is done in Linux as follows:

```
$ ip addr
1: lo: <loopback,up,lower_up> mtu 65536 qdisc noqueue state UNKNOWN group
default</loopback,up,lower_up>
   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: p5p1: <broadcast,multicast,up,lower_up> mtu 1500 qdisc pfifo_fast state UP group
default qlen 1000
   link/ether 6c:62:6d:xx:xx:xx brd ff:ff:ff:ff:ff:ff
   inet 192.0.2.42/24 brd 192.0.2.255 scope global p5p1
       valid_lft forever preferred_lft forever
   inet6 fe80::6e62:6dff:fexx:xxxx/64 scope link
       valid_lft forever preferred_lft forever
3: eth1: <no-carrier,broadcast,multicast,up> mtu 1500 qdisc pfifo_fast state DOWN
group default qlen 1000
   link/ether 00:0a:5e:xx:xx:xx brd ff:ff:ff:ff:ff:ff</no-
carrier,broadcast,multicast,up></broadcast,multicast,up,lower_up>

$ ip route
default via 192.0.2.1 dev p5p1 proto static
192.0.2.0/24 dev p5p1 proto kernel scope link src 192.0.2.42 metric 1
```

The output should not differ greatly from your output.

The network interface names may vary depending on the Linux distribution you are using. Identify the network interface that is the connection to the public network. In this case, it is p5p1.

If you want to use the /32 IP configuration, proceed as follows:

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Please note that if the configuration is incorrect, the server will become inaccessible and will remain so after a reboot! In this case you have to boot the server into the rescue system and correct the configuration manually!

We recommend, if iLO/IPMI/RMM is available, the configuration via the integrated KVM, instead of via SSH!

For this variant, under Debian (or related distribution), you need to change `/etc/network/interfaces` as follows:

```
auto p5p1
iface p5p1 inet static
    address 192.0.2.42
    netmask 255.255.255.255
    broadcast 192.0.2.42
    pointopoint 192.0.2.1
    gateway 192.0.2.1
```

On CentOS6, modify `/etc/sysconfig/network-scripts/ifcfg-p5p1` as follows:

```
DEVICE=p5p1
BOOTPROTO=static
ONBOOT=yes
NETMASK=255.255.255.255
IPADDR=192.0.2.42
USERCTL=no
SCOPE="peer 192.0.2.1"
GATEWAY=192.0.2.1
Und die Datei /etc/sysconfig/network-scripts/route-p5p1
ADDRESS0=0.0.0.0
NETMASK0=0.0.0.0
GATEWAY0=192.0.2.1
```

If you want to configure the variant in which only the route to the local network is set manually and the actual IP configuration remains untouched, proceed as follows:

Switch to the root user:

```
$ sudo -i
[sudo] password for user:
```

Add a route to the gateway via the interface:

```
# ip route add 192.0.2.1 dev p5p1
Delete the route to the local network segment:
# ip route del 192.0.2.0/24 dev p5p1
```

Now you can reach all servers in your segment again. To reapply the settings on reboot, if you are using Debian (or related distribution), modify `/etc/network/interfaces` as follows:

```
auto p5p1
iface p5p1 inet static
    address 192.0.2.42
    netmask 255.255.255.255
    broadcast 192.0.2.42
    pointopoint 192.0.2.1
    gateway 192.0.2.1
```

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Unique solution ID: #1528

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Last update: 2021-04-15 11:44