

Atividade Guiada 1:

```
gustavo@gustavo-VirtualBox: ~/Desktop/workspace/ServicosRedes
gustavo@gustavo-VirtualBox:~/Desktop/workspace/ServicosRedes$ ip address
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
        valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 08:00:27:8a:09:64 brd ff:ff:ff:ff:ff:ff
    inet 10.0.2.15/24 brd 10.0.2.255 scope global dynamic noprefixroute enp0s3
        valid_lft 86278sec preferred_lft 86278sec
    inet6 fe80::d8a6:83fe:c33e:83c5/64 scope link noprefixroute
        valid_lft forever preferred_lft forever
gustavo@gustavo-VirtualBox:~/Desktop/workspace/ServicosRedes$
```

- 1- Foram listadas duas interfaces de rede.
- 2- Os seus endereços de IP são respectivamente: 127.0.0.1/8 e 10.0.2.15/24.

Atividade Guiada 2:

```
root@gustavo-VirtualBox: /home/gustavo/Desktop/workspace/ServicosRedes
root@gustavo-VirtualBox:/home/gustavo/Desktop/workspace/ServicosRedes# lshw -class network
*-network
   description: Ethernet interface
   product: 82540EM Gigabit Ethernet Controller
   vendor: Intel Corporation
   physical id: 3
   bus info: pci@0000:00:03.0
   logical name: enp0s3
   version: 02
   serial: 08:00:27:8a:09:64
   size: 1Gbit/s
   capacity: 1Gbit/s
   width: 32 bits
   clock: 66MHz
   capabilities: pm pcix bus_master cap_list ethernet physical tp 10bt 10bt-fd 100bt 100bt-fd 1000bt-fd autonegotiation
   configuration: autonegotiation=on broadcast=yes driver=e1000 driverversion=7.3.21-k8-NAPI duplex=full ip=10.0.2.15 latency=64 link=yes mii-negot=255 multicast=yes port=twisted pair speed=1Gbit/s
   resources: irq:19 memory:f8200000-f821ffff ioport:d020(size=8)
root@gustavo-VirtualBox:/home/gustavo/Desktop/workspace/ServicosRedes#
```

- 1- Fabricante: Intel Corporation
- 2- Taxa de transferencia atual: 1Gbit/s
- 3- Modo Duplex: full

Atividade Guiada 3:

1-

Adapter 1Adapter 2Adapter 3Adapter 4

☒ Enable Network Adapter

Attached to: Bridged Adapter

Name: Intel(R) Dual Band Wireless-AC 8260

▶ Advanced

2-

```
root@gh-VirtualBox:/home/gustavo# ip address add 192.168.0.200/24 dev enp0s3
root@gh-VirtualBox:/home/gustavo# ip address
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
        valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 08:00:27:a1:48:3b brd ff:ff:ff:ff:ff:ff
    inet 192.168.15.36/24 brd 192.168.15.255 scope global dynamic noprefixroute enp0s3
        valid_lft 41960sec preferred_lft 41960sec
    inet 192.168.0.200/24 scope global enp0s3
        valid_lft forever preferred_lft forever
    inet6 fe80::1404:4712:9883:5dea/64 scope link noprefixroute
        valid_lft forever preferred_lft forever
root@gh-VirtualBox:/home/gustavo#
```

3-

```
root@gh-VirtualBox:/home/gustavo# ping 192.168.15.1
PING 192.168.15.1 (192.168.15.1) 56(84) bytes of data.
64 bytes from 192.168.15.1: icmp_seq=1 ttl=64 time=28.8 ms
64 bytes from 192.168.15.1: icmp_seq=2 ttl=64 time=3.88 ms
64 bytes from 192.168.15.1: icmp_seq=3 ttl=64 time=3.12 ms
64 bytes from 192.168.15.1: icmp_seq=4 ttl=64 time=3.10 ms
64 bytes from 192.168.15.1: icmp_seq=5 ttl=64 time=3.33 ms
^C
--- 192.168.15.1 ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4026ms
rtt min/avg/max/mdev = 3.096/8.443/28.794/10.179 ms
root@gh-VirtualBox:/home/gustavo#
```

Atividade Guiada 4:

1-

```
root@gh-VirtualBox:/home/gustavo# ip address del 192.168.0.200/24 dev enp0s3
root@gh-VirtualBox:/home/gustavo# ip address
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
        valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 08:00:27:a1:48:3b brd ff:ff:ff:ff:ff:ff
    inet 192.168.15.36/24 brd 192.168.15.255 scope global dynamic noprefixroute enp0s3
        valid_lft 41775sec preferred_lft 41775sec
    inet6 fe80::1404:4712:9883:5dea/64 scope link noprefixroute
        valid_lft forever preferred_lft forever
root@gh-VirtualBox:/home/gustavo#
```

2-

```
root@gh-VirtualBox: /home/gustavo
root@gh-VirtualBox:/home/gustavo# ip address add 192.168.0.201/24 dev enp0s3
root@gh-VirtualBox:/home/gustavo# ip address
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
        valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 08:00:27:a1:48:3b brd ff:ff:ff:ff:ff:ff
    inet 192.168.15.36/24 brd 192.168.15.255 scope global dynamic noprefixroute enp0s3
        valid_lft 41502sec preferred_lft 41502sec
    inet 192.168.0.201/24 scope global enp0s3
        valid_lft forever preferred_lft forever
    inet6 fe80::1404:4712:9883:5dea/64 scope link noprefixroute
        valid_lft forever preferred_lft forever
root@gh-VirtualBox:/home/gustavo#
```

Atividade Guiada 5:

1-

```
root@gh-VirtualBox: /home/gustavo
root@gh-VirtualBox:/home/gustavo# ip link set enp0s3 down
root@gh-VirtualBox:/home/gustavo# ip address
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
        valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST> mtu 1500 qdisc fq_codel state DOWN group default qlen 1000
    link/ether 08:00:27:a1:48:3b brd ff:ff:ff:ff:ff:ff
root@gh-VirtualBox:/home/gustavo#
```

2- Rede está inacessível:

```
root@gh-VirtualBox:/home/gustavo# ping 192.168.15.1
ping: connect: Network is unreachable
root@gh-VirtualBox:/home/gustavo#
```

3-

```
root@gh-VirtualBox:/home/gustavo# ip link set enp0s3 up
root@gh-VirtualBox:/home/gustavo# ip address
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
        valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 08:00:27:a1:48:3b brd ff:ff:ff:ff:ff:ff
    inet 192.168.15.36/24 brd 192.168.15.255 scope global dynamic noprefixroute enp0s3
        valid_lft 43196sec preferred_lft 43196sec
    inet6 fe80::1404:4712:9883:5dea/64 scope link noprefixroute
        valid_lft forever preferred_lft forever
```

- 4- O ping conseguiu sair para rede e acessar o server:

```
root@gh-V
root@gh-VirtualBox:/home/gustavo# ping 192.168.15.1
PING 192.168.15.1 (192.168.15.1) 56(84) bytes of data.
64 bytes from 192.168.15.1: icmp_seq=1 ttl=64 time=3.39 ms
64 bytes from 192.168.15.1: icmp_seq=2 ttl=64 time=3.10 ms
64 bytes from 192.168.15.1: icmp_seq=3 ttl=64 time=3.85 ms
64 bytes from 192.168.15.1: icmp_seq=4 ttl=64 time=3.83 ms
^C
--- 192.168.15.1 ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3056ms
rtt min/avg/max/mdev = 3.103/3.542/3.848/0.311 ms
root@gh-VirtualBox:/home/gustavo#
```

Atividade Guiada 6:

- 1-

```
root@gh-VirtualBox:/home/gustavo# ip route add default via 192.168.15.1 dev enp0s3
root@gh-VirtualBox:/home/gustavo# ip address
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
        valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 08:00:27:a1:48:3b brd ff:ff:ff:ff:ff:ff
    inet 192.168.15.36/24 brd 192.168.15.255 scope global dynamic noprefixroute enp0s3
        valid_lft 42704sec preferred_lft 42704sec
    inet6 fe80::1404:4712:9883:5dea/64 scope link noprefixroute
        valid_lft forever preferred_lft forever
root@gh-VirtualBox:/home/gustavo#
```

- 2- Funcionou ... 😞

```
root@gh-VirtualBox:/home/gustavo# ping 8.8.8.8
PING 8.8.8.8 (8.8.8.8) 56(84) bytes of data.
64 bytes from 8.8.8.8: icmp_seq=1 ttl=118 time=8.85 ms
64 bytes from 8.8.8.8: icmp_seq=2 ttl=118 time=8.94 ms
64 bytes from 8.8.8.8: icmp_seq=3 ttl=118 time=20.1 ms
^C
--- 8.8.8.8 ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 2075ms
rtt min/avg/max/mdev = 8.854/12.639/20.122/5.290 ms
root@gh-VirtualBox:/home/gustavo#
```

- 3- Também funcionou ... 😞

```
root@gh-VirtualBox:/home/gustavo# ping www.google.com.br
PING www.google.com.br (172.217.173.99) 56(84) bytes of data.
64 bytes from www.google.com.br (172.217.173.99): icmp_seq=1 ttl=116 time=11.5 ms
64 bytes from www.google.com.br (172.217.173.99): icmp_seq=2 ttl=116 time=11.2 ms
64 bytes from www.google.com.br (172.217.173.99): icmp_seq=3 ttl=116 time=11.3 ms
64 bytes from www.google.com.br (172.217.173.99): icmp_seq=4 ttl=116 time=11.9 ms
^C
--- www.google.com.br ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3003ms
rtt min/avg/max/mdev = 11.167/11.470/11.922/0.280 ms
root@gh-VirtualBox:/home/gustavo#
```

Atividade Guiada 7:

1-

```
root@gh-VirtualBox:/home/gustavo# echo "nameserver 8.8.8.8" >/etc/resolv.conf
root@gh-VirtualBox:/home/gustavo# nano /etc/resolv.conf
root@gh-VirtualBox:/home/gustavo# ping www.google.com.br
PING www.google.com.br (172.217.28.3) 56(84) bytes of data.
64 bytes from eze03s15-in-f3.1e100.net (172.217.28.3): icmp_seq=1 ttl=118 time=9.16 ms
64 bytes from eze03s15-in-f3.1e100.net (172.217.28.3): icmp_seq=2 ttl=118 time=8.57 ms
64 bytes from eze03s15-in-f3.1e100.net (172.217.28.3): icmp_seq=3 ttl=118 time=8.52 ms
64 bytes from eze03s15-in-f3.1e100.net (172.217.28.3): icmp_seq=4 ttl=118 time=8.56 ms
^C
--- www.google.com.br ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3244ms
rtt min/avg/max/mdev = 8.523/8.702/9.156/0.262 ms
root@gh-VirtualBox:/home/gustavo#
```

2- Também funcionou ... 😊