Vitor Samuel Miranda de Souza

**IFCONFIG:**

```
usuario@pc08:~$ ifconfig
enp3s0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 192.168.15.244  netmask 255.255.255.0  broadcast 192.168.15.255
        inet6 fe80::f348:bd80:8de3:cf45  prefixlen 64  scopeid 0x20<link>
        ether fc:aa:14:1a:fc:48  txqueuelen 1000  (Ethernet)
        RX packets 1376  bytes 406193 (406.1 KB)
        RX errors 0  dropped 550  overruns 0  frame 0
        TX packets 270  bytes 33711 (33.7 KB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

enp5s0: flags=4099<UP,BROADCAST,MULTICAST>  mtu 1500
        ether 00:50:bf:a8:2e:c0  txqueuelen 1000  (Ethernet)
        RX packets 0  bytes 0 (0.0 B)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 0  bytes 0 (0.0 B)
        TX errors 9  dropped 0 overruns 0  carrier 18  collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING>  mtu 65536
        inet 127.0.0.1  netmask 255.0.0.0
        inet6 ::1  prefixlen 128  scopeid 0x10<host>
        loop  txqueuelen 1000  (Bucle local)
        RX packets 247  bytes 21286 (21.2 KB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 247  bytes 21286 (21.2 KB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

wlp5s1: flags=4099<UP,BROADCAST,MULTICAST>  mtu 1500
        ether 14:cc:20:86:de:3d  txqueuelen 1000  (Ethernet)
        RX packets 0  bytes 0 (0.0 B)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 0  bytes 0 (0.0 B)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0
```

**MTU:** tamaño máximo de los paquete de datos que un dispositivo conectado a una red aceptará.

```
enp5s0: flags=4099<UP,BROADCAST,MULTICAST>  mtu 1500
```

```
enp3s0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
```

**NSLOOKUP:**

```
105.170.214.150.in-addr.arpa    name = estudiante.ujaen.es.
105.170.214.150.in-addr.arpa    name = red.ujaen.es.
105.170.214.150.in-addr.arpa    name = sabiote.ujaen.es.
105.170.214.150.in-addr.arpa    name = ujaen2g.ujaen.es.

Authoritative answers can be found from:
170.214.150.in-addr.arpa        nameserver = dns2.cica.es.
170.214.150.in-addr.arpa        nameserver = dns1.cica.es.
170.214.150.in-addr.arpa        nameserver = jabalcuz.ujaen.es.
170.214.150.in-addr.arpa        nameserver = dns2.ujaen.es.
170.214.150.in-addr.arpa        nameserver = dns1.ujaen.es.
dns2.cica.es    internet address = 150.214.5.84
dns2.cica.es    has AAAA address 2a00:9ac0:c1ca:5::84
dns1.ujaen.es   internet address = 150.214.170.21
jabalcuz.ujaen.es       internet address = 150.214.170.15
dns2.ujaen.es   internet address = 150.214.170.22
dns1.cica.es    has AAAA address 2a00:9ac0:c1ca:5::83
```

HOST:

```
usuario@pc08:~$ host www.ediris.es
www.ediris.es is an alias for ediris.es.
ediris.es has address 81.88.48.71
ediris.es mail is handled by 10 mail.nominalia.com.
```

```
usuario@pc08:~$ host www.ujaen.es
www.ujaen.es is an alias for sabiote.ujaen.es.
sabiote.ujaen.es has address 150.214.170.105
```

```
usuario@pc08:~$ host platea.ujaen.es
platea.ujaen.es is an alias for pro-e-Publi-JIR60QETOBWI-1935413078.eu-west-1.el
b.amazonaws.com.
pro-e-Publi-JIR60QETOBWI-1935413078.eu-west-1.elb.amazonaws.com has address 52.2
10.224.120
pro-e-Publi-JIR60QETOBWI-1935413078.eu-west-1.elb.amazonaws.com has address 52.2
08.62.68
```

```
usuario@pc08:~$ host ftp.ujaen.es
ftp.ujaen.es has address 150.214.170.29
```

```
usuario@pc08:~$ host www.google.es
www.google.es has address 142.250.200.99
www.google.es has IPv6 address 2a00:1450:4003:80e::2003
```

**ETHTOOL:** consulta y modifica los parámetros de las interfaces de red ethernet.

```
usuario@pc08:~$ ethtool enp3s0
Settings for enp3s0:
        Supported ports: [ TP    MII ]
        Supported link modes:   10baseT/Half 10baseT/Full
                                100baseT/Half 100baseT/Full
                                1000baseT/Half 1000baseT/Full
        Supported pause frame use: Symmetric Receive-only
        Supports auto-negotiation: Yes
        Supported FEC modes: Not reported
        Advertised link modes:  10baseT/Half 10baseT/Full
                                100baseT/Half 100baseT/Full
                                1000baseT/Half 1000baseT/Full
        Advertised pause frame use: Symmetric Receive-only
        Advertised auto-negotiation: Yes
        Advertised FEC modes: Not reported
        Link partner advertised link modes:  10baseT/Half 10baseT/Full
                                             100baseT/Half 100baseT/Fu
        Link partner advertised pause frame use: No
        Link partner advertised auto-negotiation: Yes
        Link partner advertised FEC modes: Not reported
        Speed: 100Mb/s
        Duplex: Full
        Auto-negotiation: on
        master-slave cfg: preferred slave
        master-slave status: slave
        Port: Twisted Pair
        PHYAD: 0
        Transceiver: external
        MDI-X: Unknown
netlink error: Operation not permitted
        Link detected: yes
```

PING:

```
usuario@pc08:~$ ping 192.168.15.249
PING 192.168.15.249 (192.168.15.249) 56(84) bytes of data.
64 bytes from 192.168.15.249: icmp_seq=1 ttl=128 time=0.410 ms
64 bytes from 192.168.15.249: icmp_seq=2 ttl=128 time=0.237 ms
64 bytes from 192.168.15.249: icmp_seq=3 ttl=128 time=0.255 ms
64 bytes from 192.168.15.249: icmp_seq=4 ttl=128 time=0.282 ms
64 bytes from 192.168.15.249: icmp_seq=5 ttl=128 time=0.421 ms
64 bytes from 192.168.15.249: icmp_seq=6 ttl=128 time=0.249 ms
64 bytes from 192.168.15.249: icmp_seq=7 ttl=128 time=0.271 ms
64 bytes from 192.168.15.249: icmp_seq=8 ttl=128 time=0.270 ms
64 bytes from 192.168.15.249: icmp_seq=9 ttl=128 time=0.251 ms
```

ROUTE: muestra el GATEWAY (porta de enlace)

```
usuario@pc08:~$ route
Tabla de rutas IP del núcleo
Destino         Pasarela        Genmask         Indic Métric Ref    Uso Interfaz
default         _gateway        0.0.0.0         UG    101    0        0 enp3s0
link-local      0.0.0.0         255.255.0.0     U     1000   0        0 enp3s0
192.168.15.0    0.0.0.0         255.255.255.0   U     101    0        0 enp3s0
```

PING 127.0.0.1 Y LOCALHOST:

```
usuario@pc08:~$ ping 127.0.0.1
PING 127.0.0.1 (127.0.0.1) 56(84) bytes of data.
64 bytes from 127.0.0.1: icmp_seq=1 ttl=64 time=0.016 ms
64 bytes from 127.0.0.1: icmp_seq=2 ttl=64 time=0.020 ms
64 bytes from 127.0.0.1: icmp_seq=3 ttl=64 time=0.024 ms
```

```
usuario@pc08:~$ ping 192.168.15.244
PING 192.168.15.244 (192.168.15.244) 56(84) bytes of data.
64 bytes from 192.168.15.244: icmp_seq=1 ttl=64 time=0.025 ms
64 bytes from 192.168.15.244: icmp_seq=2 ttl=64 time=0.021 ms
64 bytes from 192.168.15.244: icmp_seq=3 ttl=64 time=0.022 ms
```

PING -s **N** XXX.X.X.X : el comando ping con -s determina el tamaño del paquete (**N**)

```
usuario@pc08:~$ ping -s 128 192.168.15.244
PING 192.168.15.244 (192.168.15.244) 128(156) bytes of data.
136 bytes from 192.168.15.244: icmp_seq=1 ttl=64 time=0.026 ms
136 bytes from 192.168.15.244: icmp_seq=2 ttl=64 time=0.022 ms
136 bytes from 192.168.15.244: icmp_seq=3 ttl=64 time=0.024 ms
136 bytes from 192.168.15.244: icmp_seq=4 ttl=64 time=0.031 ms
^C
--- 192.168.15.244 ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3064ms
```

**TTL:** es el tiempo de vida, determina el tiempo que los datos son válidos y están disponibles en una red.

PING -c **N** XXX.X.X.X: el comando ping con -c establece un número de envíos (**N**)

```
usuario@pc08:~$ ping -c 5 192.168.15.244
PING 192.168.15.244 (192.168.15.244) 56(84) bytes of data.
64 bytes from 192.168.15.244: icmp_seq=1 ttl=64 time=0.018 ms
64 bytes from 192.168.15.244: icmp_seq=2 ttl=64 time=0.025 ms
64 bytes from 192.168.15.244: icmp_seq=3 ttl=64 time=0.025 ms
64 bytes from 192.168.15.244: icmp_seq=4 ttl=64 time=0.035 ms
64 bytes from 192.168.15.244: icmp_seq=5 ttl=64 time=0.037 ms

--- 192.168.15.244 ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4092ms
rtt min/avg/max/mdev = 0.018/0.028/0.037/0.007 ms
```