

Índice:

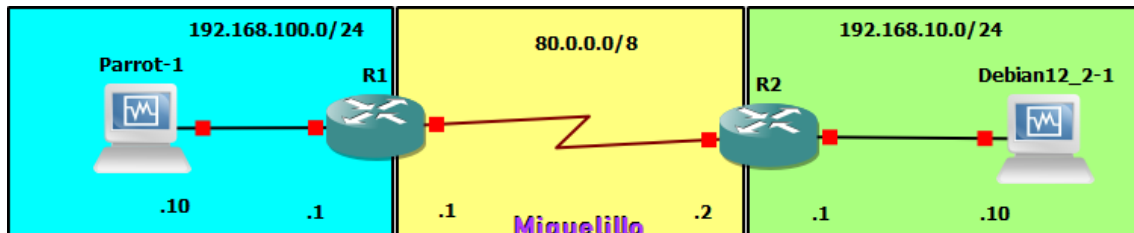
Ejercicio 1	2
a) PPP	2
b) PAP	4
c) CHAP	6

Ejercicio 1

a) PPP

Solución:

Escenario para los PPP, PAP, CHAP



Configuramos la IP de los routers

R1

Configuramos los interfaces

```

R1#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
R1(config)#hostname miguel1
miguel1(config)#interface FastEthernet 0/0
miguel1(config-if)#ip address 192.168.100.1 255.255.255.0
miguel1(config-if)#no shutdown
miguel1(config-if)#exit
miguel1(config)#interface Se 1/0
miguel1(config-if)#ip address 80.0.0.1 255.0.0.0
miguel1(config-if)#no shutdown
miguel1(config-if)#exit

```

Realizo la encapsulación PPP en el Router 1

```

miguel1(config)#interface Se 1/0
miguel1(config-if)#encapsulation ppp
miguel1(config-if)#no shutdown

```

R2

Configuramos el R2

```

R2#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
R2(config)#hostname miguel2
miguel2(config)#interface FastEthernet 0/0
miguel2(config-if)#ip address 192.168.10.1 255.255.255.0
miguel2(config-if)#no shutdown
miguel2(config-if)#exit
miguel2(config)#interface Se 1/0
miguel2(config-if)#ip address 80.0.0.2 255.0.0.0
miguel2(config-if)#no shutdown
miguel2(config-if)#exit
miguel2(config)#ip route 192.168.100.0 255.255.255.0 80.0.0.1
miguel2(config)#do wr
Warning: Attempting to overwrite an NVRAM configuration previously written
by a different version of the system image.
Overwrite the previous NVRAM configuration?[confirm]
Building configuration...
[OK]
miguel2(config)#interface Se 1/0
miguel2(config-if)#encapsulation ppp
miguel2(config-if)#no shutdown
miguel2(config-if)#

```

Pruebo la comunicación

```

Debian12_2 (Autenticacion y otras cosas hats la 10) [Corriendo] - Oracle VM VirtualBox
Archivo  Máquina  Ver  Entrada  Dispositivos  Ayuda
Actividades  Terminal  16 de ene 20:52  100 %
miguel@debian-SRI: ~

miguel@debian-SRI:~$ ip a
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 noprefixroute
        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 08:00:27:9e:b4:ba brd ff:ff:ff:ff:ff:ff
    inet 192.168.10.10/24 brd 192.168.10.255 scope global noprefixroute enp0s3
        valid_lft forever preferred_lft forever
    inet6 fe80::a00:27ff:fe9e:b4ba/64 scope link noprefixroute
        valid_lft forever preferred_lft forever

miguel@debian-SRI:~$ ping 192.168.100.101
PING 192.168.100.101 (192.168.100.101) 56(84) bytes of data.
64 bytes from 192.168.100.101: icmp_seq=1 ttl=62 time=208 ms
64 bytes from 192.168.100.101: icmp_seq=2 ttl=62 time=27.6 ms

```

Pruebo la comunicación

```

Parrot [Corriendo] - Oracle VM VirtualBox
Archivo  Máquina  Ver  Entrada  Dispositivos  Ayuda
Applications  Places  System  Tue Jan 16, 20:54
Parrot Terminal

[miguel@parrot]-[~]
$ ip a
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:d9:c0:93 brd ff:ff:ff:ff:ff:ff
    inet 192.168.100.101/24 brd 192.168.100.255 scope global noprefixroute enp0s3
        valid_lft forever preferred_lft forever
    inet6 fe80::ff8e:3367:ae37:ca43/64 scope link noprefixroute
        valid_lft forever preferred_lft forever

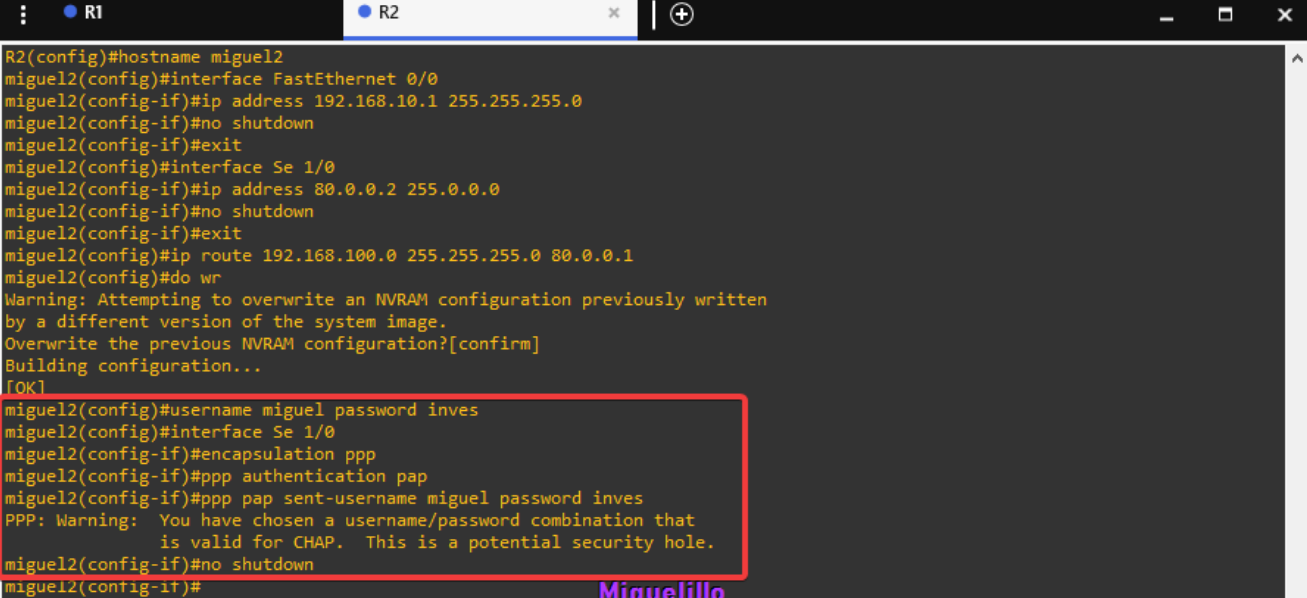
[miguel@parrot]-[~]
$ ping 192.168.10.10
PING 192.168.10.10 (192.168.10.10) 56(84) bytes of data.
64 bytes from 192.168.10.10: icmp seq=1 ttl=62 time=31.1 ms
64 bytes from 192.168.10.10: icmp seq=2 ttl=62 time=22.4 ms

```

b) PAP

Solución:

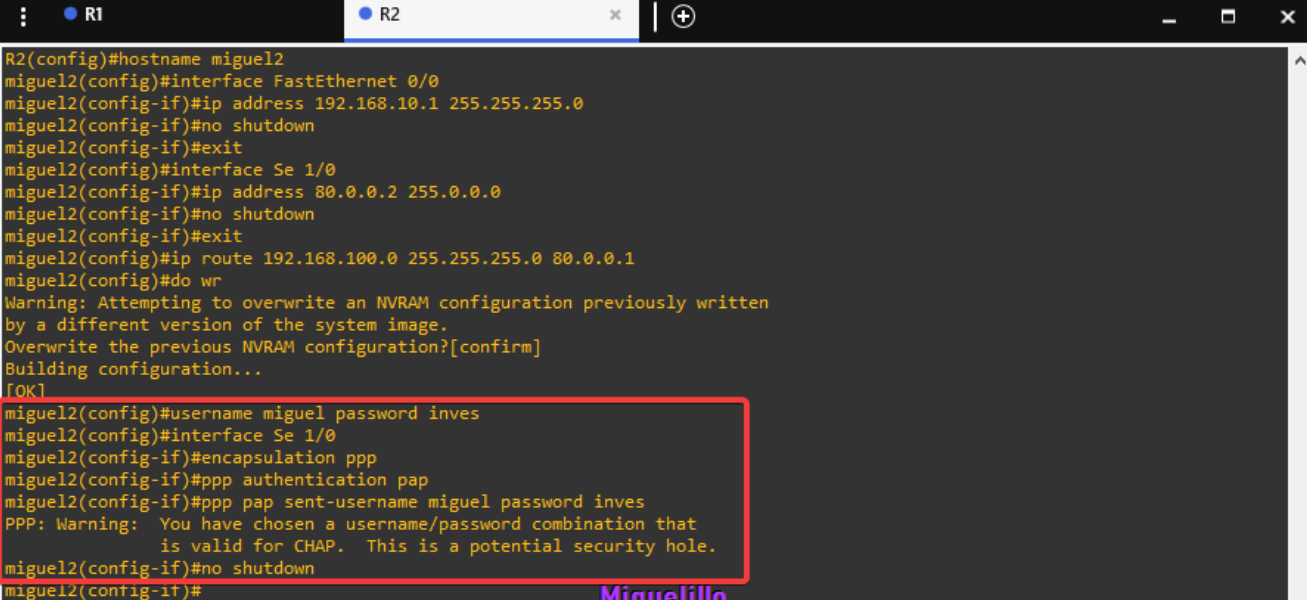
Configuro la encapsulación con PAP en el Router 1 configuro interfaces de red, el usuario que voy a utilizar, la autenticación y la encapsulación.



```

R1(config)#hostname miguel2
miguel2(config)#interface FastEthernet 0/0
miguel2(config-if)#ip address 192.168.10.1 255.255.255.0
miguel2(config-if)#no shutdown
miguel2(config-if)#exit
miguel2(config)#interface Se 1/0
miguel2(config-if)#ip address 80.0.0.2 255.0.0.0
miguel2(config-if)#no shutdown
miguel2(config-if)#exit
miguel2(config)#ip route 192.168.100.0 255.255.255.0 80.0.0.1
miguel2(config)#do wr
Warning: Attempting to overwrite an NVRAM configuration previously written
by a different version of the system image.
Overwrite the previous NVRAM configuration?[confirm]
Building configuration...
[OK]
miguel2(config)#username miguel password inves
miguel2(config)#interface Se 1/0
miguel2(config-if)#encapsulation ppp
miguel2(config-if)#ppp authentication pap
miguel2(config-if)#ppp pap sent-username miguel password inves
PPP: Warning: You have chosen a username/password combination that
is valid for CHAP. This is a potential security hole.
miguel2(config-if)#no shutdown
miguel2(config-if)#
  
```

Configuro la encapsulación con PAP en el Router 2 configuro interfaces de red, el usuario que voy a utilizar, la autenticación y la encapsulación.



```

R2(config)#hostname miguel2
miguel2(config)#interface FastEthernet 0/0
miguel2(config-if)#ip address 192.168.10.1 255.255.255.0
miguel2(config-if)#no shutdown
miguel2(config-if)#exit
miguel2(config)#interface Se 1/0
miguel2(config-if)#ip address 80.0.0.2 255.0.0.0
miguel2(config-if)#no shutdown
miguel2(config-if)#exit
miguel2(config)#ip route 192.168.100.0 255.255.255.0 80.0.0.1
miguel2(config)#do wr
Warning: Attempting to overwrite an NVRAM configuration previously written
by a different version of the system image.
Overwrite the previous NVRAM configuration?[confirm]
Building configuration...
[OK]
miguel2(config)#username miguel password inves
miguel2(config)#interface Se 1/0
miguel2(config-if)#encapsulation ppp
miguel2(config-if)#ppp authentication pap
miguel2(config-if)#ppp pap sent-username miguel password inves
PPP: Warning: You have chosen a username/password combination that
is valid for CHAP. This is a potential security hole.
miguel2(config-if)#no shutdown
miguel2(config-if)#
  
```

Pruebo la comunicación

```

Debian12_2 (Autenticacion y otras cosas hats la 10) [Corriendo] - Oracle VM VirtualBox
Archivo  Máquina  Ver  Entrada  Dispositivos  Ayuda
Actividades  Terminal  16 de ene 21:37  100 %
miguel@debian-SRI: ~

miguel@debian-SRI:~$ ip a
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 noprefixroute
        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 08:00:27:9e:b4:ba brd ff:ff:ff:ff:ff:ff
    inet 192.168.10.10/24 brd 192.168.10.255 scope global noprefixroute enp0s3
        valid_lft forever preferred_lft forever
    inet6 fe80::a00:27ff:fe9e:b4ba/64 scope link noprefixroute
        valid_lft forever preferred_lft forever
miguel@debian-SRI:~$ ping 192.168.100.101
PING 192.168.100.101 (192.168.100.101) 56(84) bytes of data.
64 bytes from 192.168.100.101: icmp_seq=1 ttl=62 time=26.8 ms
64 bytes from 192.168.100.101: icmp_seq=2 ttl=62 time=22.8 ms

```

Pruebo la comunicación

```

Parrot [Corriendo] - Oracle VM VirtualBox
Archivo  Máquina  Ver  Entrada  Dispositivos  Ayuda
Applications  Places  System  Tue Jan 16, 21:38
Parrot Terminal
File Edit View Search Terminal Help

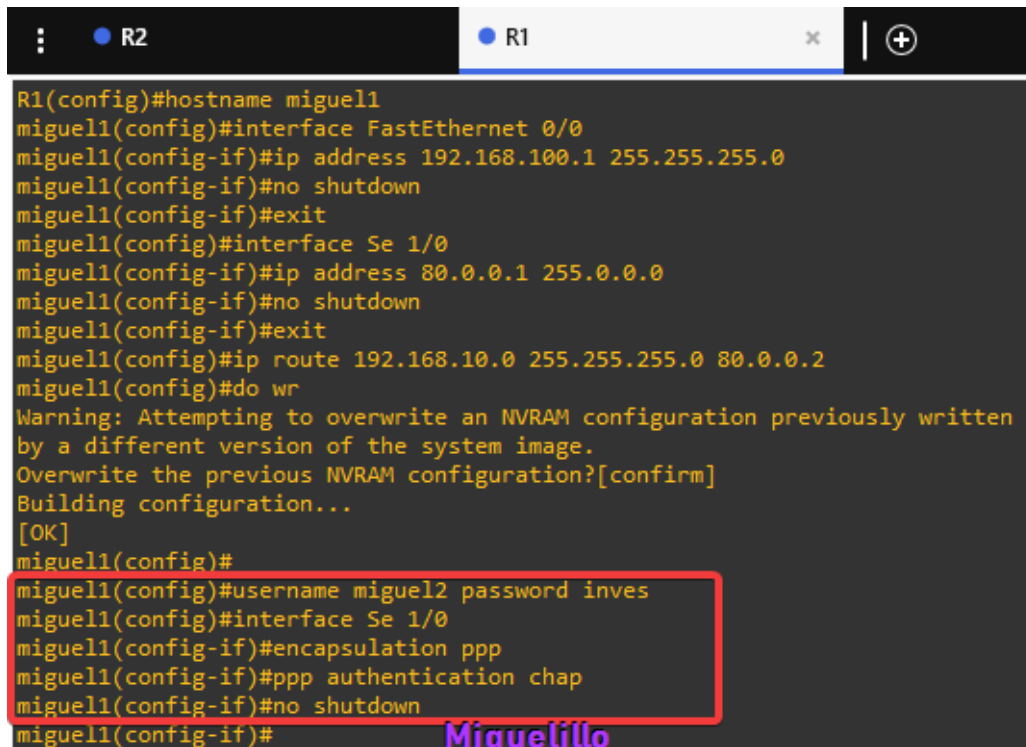
[miguel@parrot]-[~]
$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft 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:d9:c0:93 brd ff:ff:ff:ff:ff:ff
    inet 192.168.100.101/24 brd 192.168.100.255 scope global noprefixroute enp0s3
        valid_lft forever preferred_lft forever
    inet6 fe80::ff8e:3367:ae37:ca43/64 scope link noprefixroute
        valid_lft forever preferred_lft forever
[miguel@parrot]-[~]
$ ping 192.168.10.10
PING 192.168.10.10 (192.168.10.10) 56(84) bytes of data.
64 bytes from 192.168.10.10: icmp_seq=1 ttl=62 time=30.4 ms
64 bytes from 192.168.10.10: icmp_seq=2 ttl=62 time=23.5 ms
^C

```

c) CHAP

Solución:

Configuro la encapsulación CHAP en el Router 1 configuro interfaces de red, el usuario que voy a utilizar, la autenticación y la encapsulación



```
R1(config)#hostname miguel1
miguel1(config)#interface FastEthernet 0/0
miguel1(config-if)#ip address 192.168.100.1 255.255.255.0
miguel1(config-if)#no shutdown
miguel1(config-if)#exit
miguel1(config)#interface Se 1/0
miguel1(config-if)#ip address 80.0.0.1 255.0.0.0
miguel1(config-if)#no shutdown
miguel1(config-if)#exit
miguel1(config)#ip route 192.168.10.0 255.255.255.0 80.0.0.2
miguel1(config)#do wr
Warning: Attempting to overwrite an NVRAM configuration previously written
by a different version of the system image.
Overwrite the previous NVRAM configuration?[confirm]
Building configuration...
[OK]
miguel1(config)#
miguel1(config)#username miguel2 password inves
miguel1(config)#interface Se 1/0
miguel1(config-if)#encapsulation ppp
miguel1(config-if)#ppp authentication chap
miguel1(config-if)#no shutdown
miguel1(config-if)#
```

Configuro la encapsulación CHAP en el Router 2 configuro interfaces de red, el usuario que voy a utilizar, la autenticación y la encapsulación

```

R2
R2(config)#hostname miguel2
miguel2(config)#interface FastEthernet 0/0
miguel2(config-if)#ip address 192.168.10.1 255.255.255.0
miguel2(config-if)#no shutdown
miguel2(config-if)#exit
miguel2(config)#interface Se 1/0
miguel2(config-if)#ip address 80.0.0.2 255.0.0.0
miguel2(config-if)#no shutdown
miguel2(config-if)#exit
miguel2(config)#ip route 192.168.100.0 255.255.255.0 80.0.0.1
miguel2(config)#do wr
Warning: Attempting to overwrite an NVRAM configuration previously written
by a different version of the system image.
Overwrite the previous NVRAM configuration?[confirm]
Building configuration...
[OK]
miguel2(config)#
miguel2(config)#
miguel2(config)#username miguel1 password inves
miguel2(config)#interface Se 1/0
miguel2(config-if)#encapsulation ppp
miguel2(config-if)#ppp authentication chap
miguel2(config-if)#no shutdown
miguel2(config-if)#

```

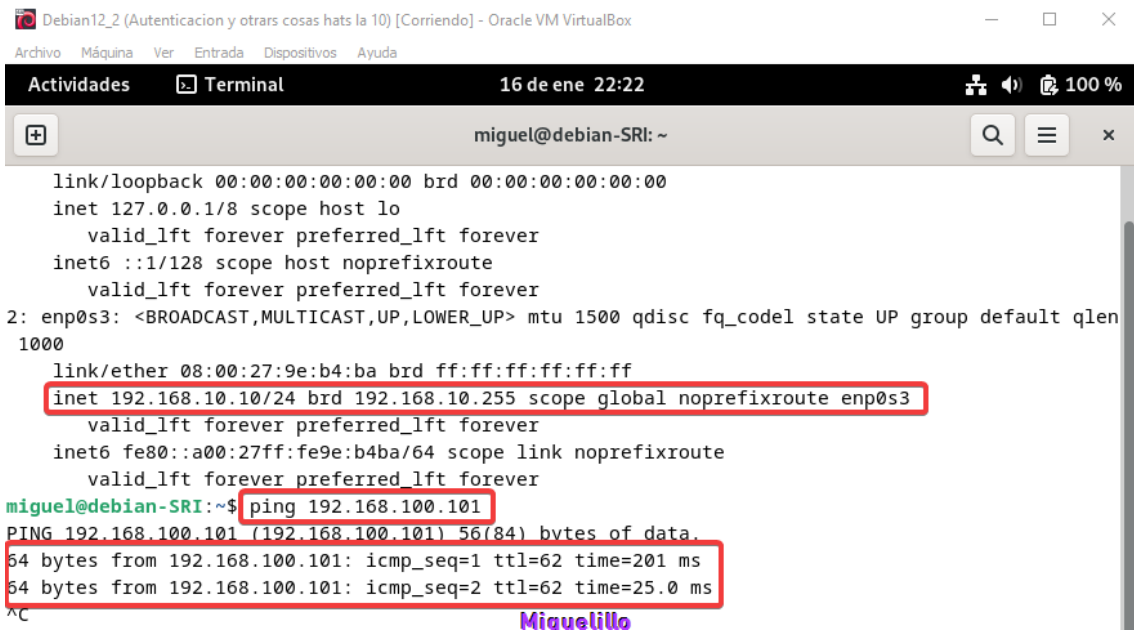
Miguelillo

```

Parrot [Corriendo] - Oracle VM VirtualBox
Archivo  Máquina  Ver  Entrada  Dispositivos  Ayuda
Applications  Places  System
Parrot Terminal
File  Edit  View  Search  Terminal  Help
[miguel@parrot]~$ ip a
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:d9:c0:93 brd ff:ff:ff:ff:ff:ff
    inet 192.168.100.101/24 brd 192.168.100.255 scope global noprefixroute enp0s3
        valid_lft forever preferred_lft forever
    inet6 fe80::ff8e:3367:ae37:ca43/64 scope link noprefixroute
        valid_lft forever preferred_lft forever
[miguel@parrot]~$ ping 192.168.10.10
PING 192.168.10.10 (192.168.10.10) 56(84) bytes of data.
64 bytes from 192.168.10.10: icmp_seq=1 ttl=62 time=30.0 ms
64 bytes from 192.168.10.10: icmp_seq=2 ttl=62 time=28.5 ms
^C

```

Miguelillo



The screenshot shows a terminal window titled "Debian12_2 (Autenticacion y otras cosas hats la 10) [Corriendo] - Oracle VM VirtualBox". The terminal output displays network configuration commands and their results. The configuration includes setting up a loopback interface 'lo' and an ethernet interface 'enp0s3'. The 'enp0s3' interface is configured with a MAC address of 08:00:27:9e:b4:ba and an IP address of 192.168.10.10. A ping test is performed from the host to the IP 192.168.10.101, showing successful results with a time of 25.0 ms.

```
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 noprefixroute
    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 08:00:27:9e:b4:ba brd ff:ff:ff:ff:ff:ff
inet 192.168.10.10/24 brd 192.168.10.255 scope global noprefixroute enp0s3
    valid_lft forever preferred_lft forever
inet6 fe80::a00:27ff:fe9e:b4ba/64 scope link noprefixroute
    valid_lft forever preferred_lft forever
miguel@debian-SRI:~$ ping 192.168.10.101
PING 192.168.10.101 (192.168.10.101) 56(84) bytes of data:
64 bytes from 192.168.10.101: icmp_seq=1 ttl=62 time=201 ms
64 bytes from 192.168.10.101: icmp_seq=2 ttl=62 time=25.0 ms
^C
```

Miguelillo