

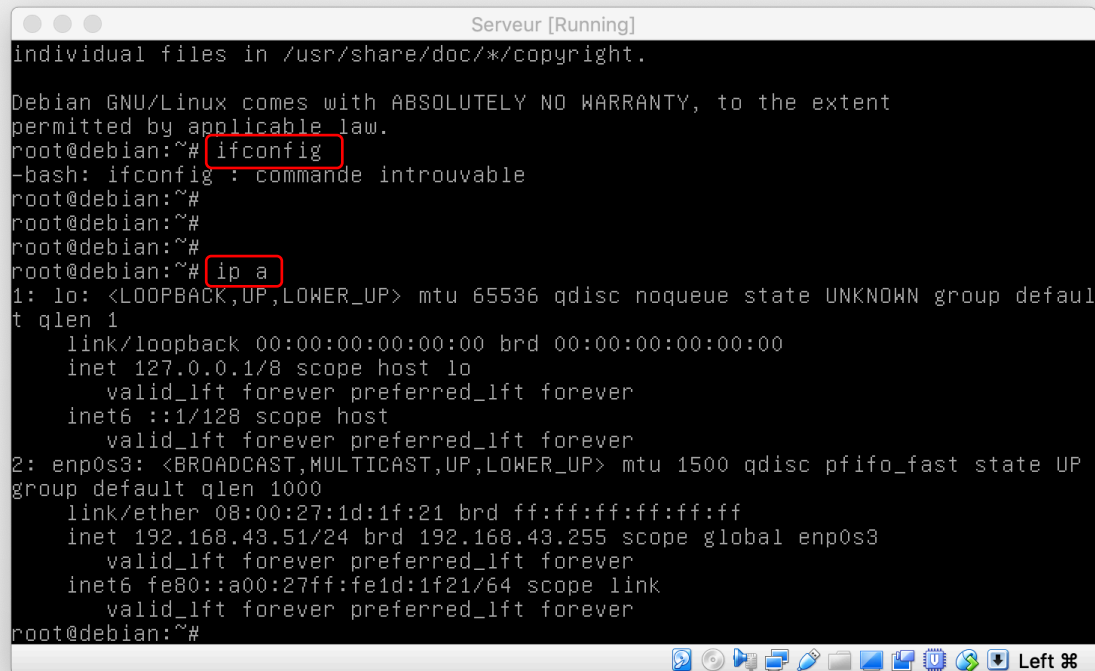
# Connaître les informations du réseau

# PRÉAMBULE

- Auparavant on utilisait la commande **ifconfig** pour connaître les informations de sa carte réseau (adresse ip notamment).
  - Les outils de réseau contenant notamment la commande **ifconfig** ne sont plus maintenus ou plus guère maintenus.
- Il est conseillé d'utiliser maintenant la commande **ip** qui fait tout.

La commande **ifconfig** n'est plus utilisé. →

On utilise **ip a** →  
(ou: ip address).



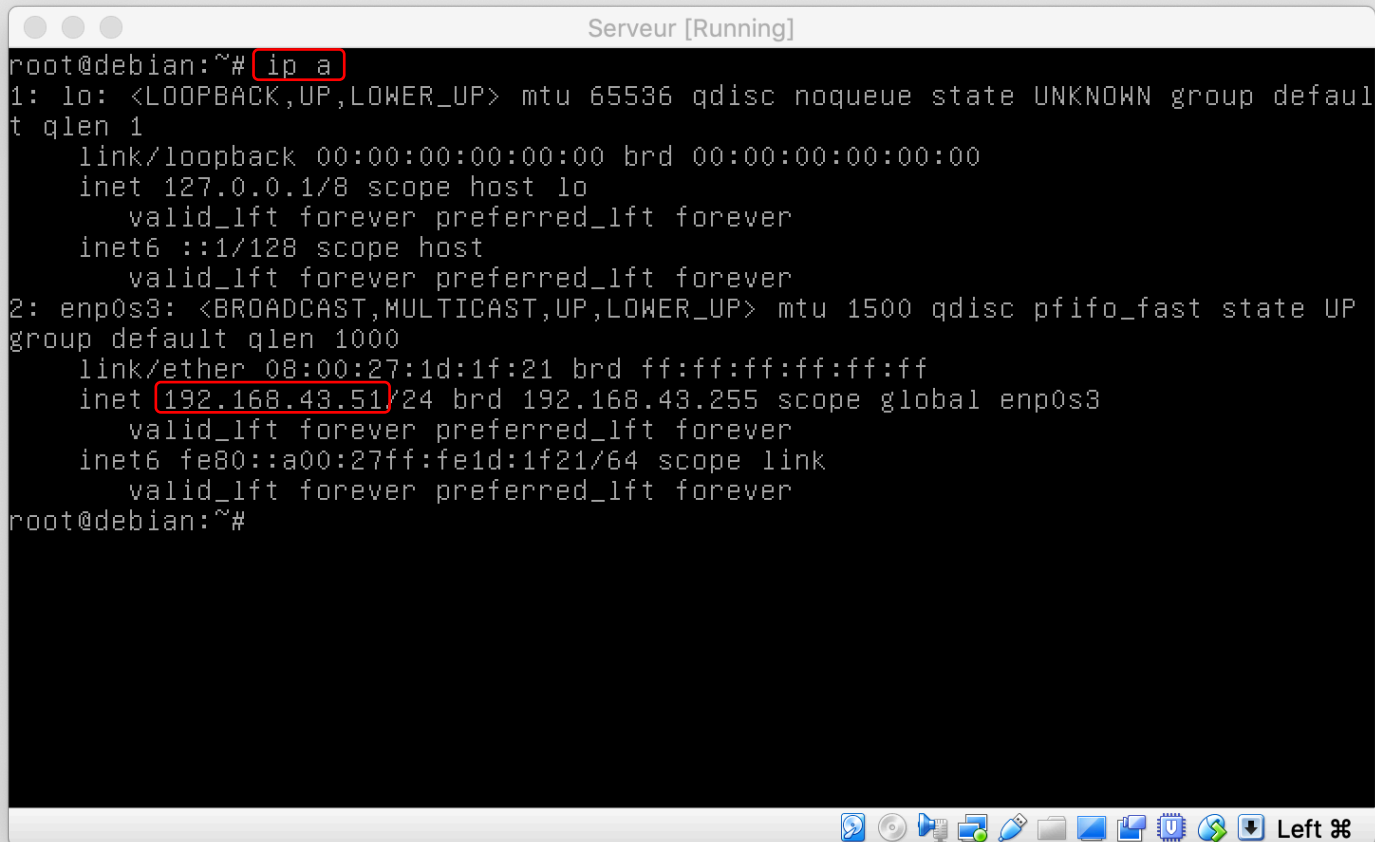
```

Serveur [Running]
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
root@debian:~# ifconfig
-bash: ifconfig : commande introuvable
root@debian:~#
root@debian:~#
root@debian:~#
root@debian:~# ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1
    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 pfifo_fast state UP group default qlen 1000
    link/ether 08:00:27:1d:1f:21 brd ff:ff:ff:ff:ff:ff
    inet 192.168.43.51/24 brd 192.168.43.255 scope global enp0s3
        valid_lft forever preferred_lft forever
    inet6 fe80::a00:27ff:fe1d:1f21/64 scope link
        valid_lft forever preferred_lft forever
root@debian:~#
```

# LISTER TOUTES LES INTERFACES RÉSEAUX

- `ip a` pour lister toutes les interfaces réseaux.

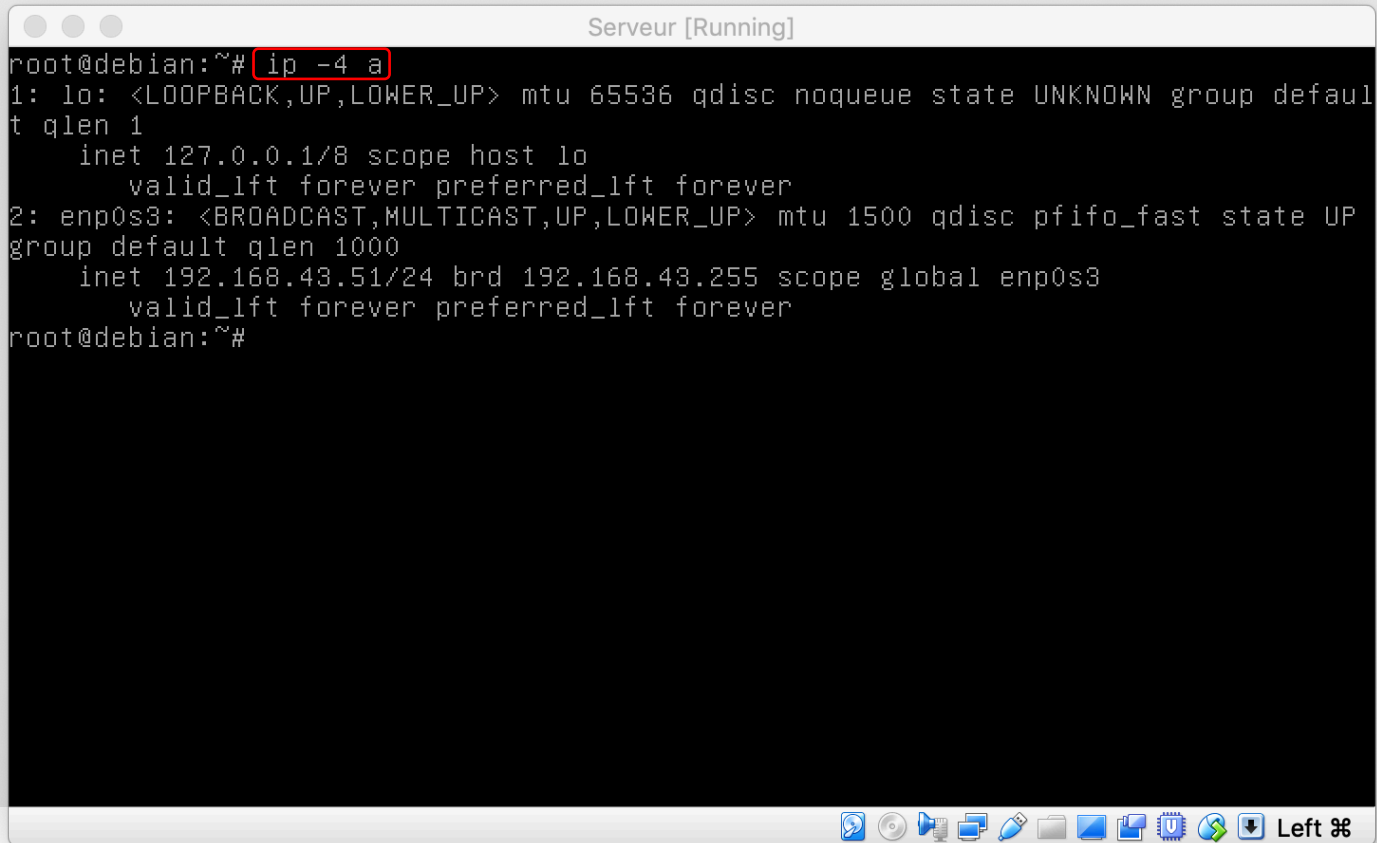


```
root@debian:~# ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP group default qlen 1000
    link/ether 08:00:27:1d:1f:21 brd ff:ff:ff:ff:ff:ff
    inet 192.168.43.51/24 brd 192.168.43.255 scope global enp0s3
        valid_lft forever preferred_lft forever
    inet6 fe80::a00:27ff:fe1d:1f21/64 scope link
        valid_lft forever preferred_lft forever
root@debian:~#
```

L'adresse  
ip de notre  
serveur.

# LISTER LES INTERFACES RÉSEAUX IPV4

- **ip** a pour lister toutes les interfaces réseaux IPv4.
  - L'IPv4 utilise un espace d'adressage 32 bits équivalant à 4 octets.
    - Exemple d'adresse: 172.16.254.1
    - Source: <https://www.it-connect.fr/chapitres/utilisation-de-lipv4/>

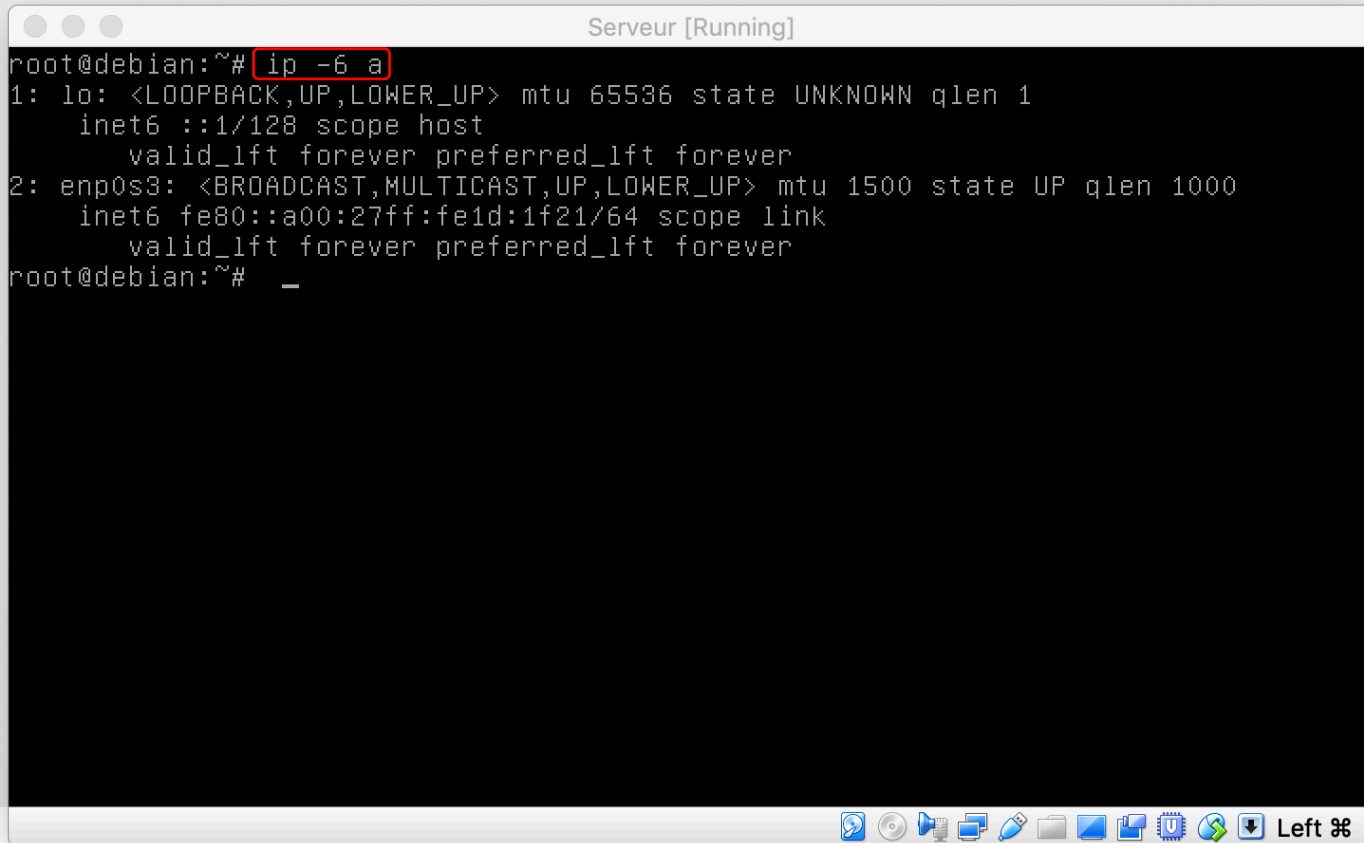


```
root@debian:~# ip -4 a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP group default qlen 1000
    inet 192.168.43.51/24 brd 192.168.43.255 scope global enp0s3
        valid_lft forever preferred_lft forever
root@debian:~#
```

The image shows a terminal window titled "Serveur [Running]" with a dark background. The command "ip -4 a" is entered and highlighted with a red box. The output lists two network interfaces: the loopback interface "lo" with IP 127.0.0.1 and the ethernet interface "enp0s3" with IP 192.168.43.51. The terminal window has standard macOS window controls at the top and a dock with various system icons at the bottom.

# LISTER LES INTERFACES RÉSEAUX IPV6

- **ip a** pour lister toutes les interfaces réseaux IPv6.
  - L'IPv6 utilise un espace d'adressage 128 bits équivalant à 16 octets
    - Exemple d'adresse : 1987:0c02:0000:84c2:0000:0000:cf2a:9077
    - Source: <https://www.it-connect.fr/chapitres/ipv6-normes-et-definitions/>

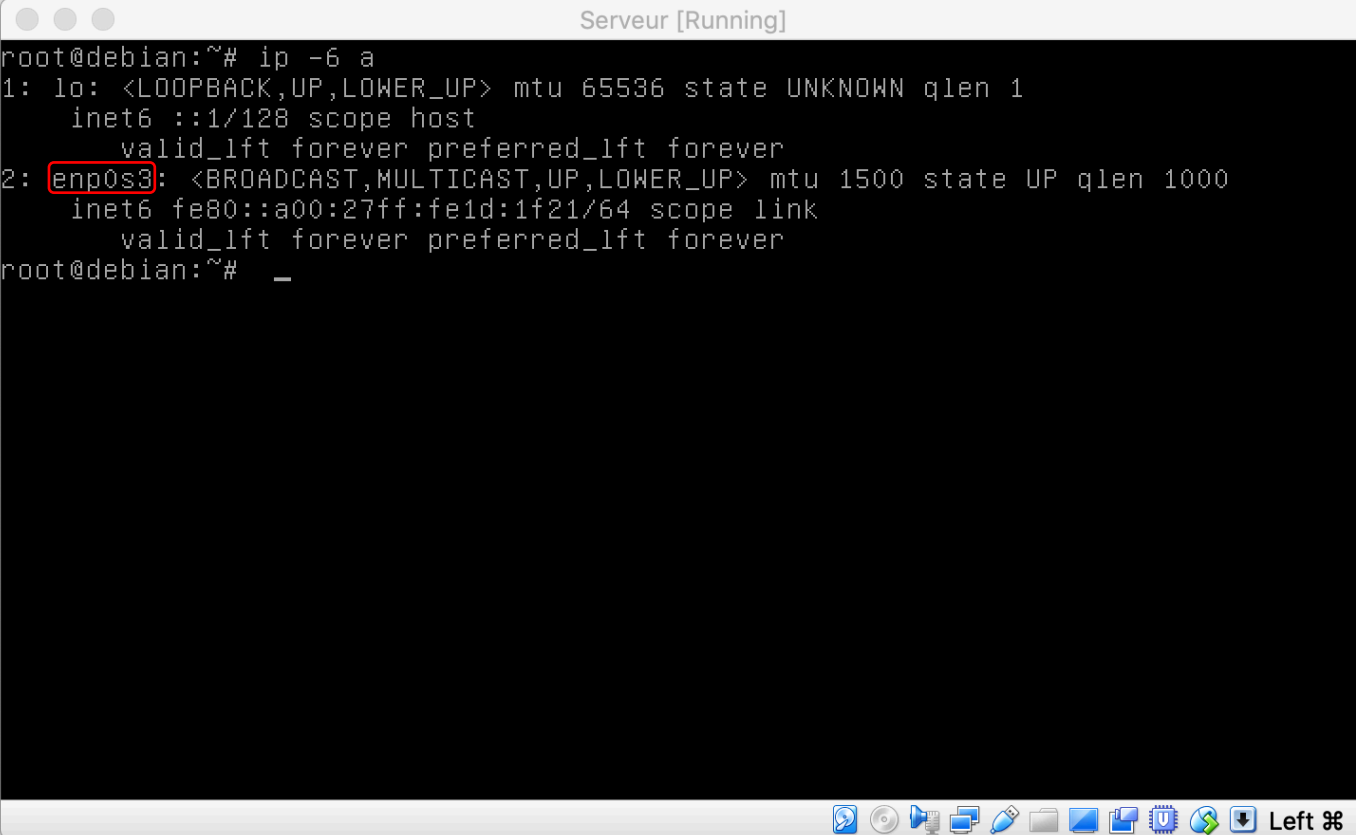


```
root@debian:~# ip -6 a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 state UNKNOWN qlen 1
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 state UP qlen 1000
    inet6 fe80::a00:27ff:fe1d:1f21/64 scope link
        valid_lft forever preferred_lft forever
root@debian:~# _
```

The image shows a terminal window titled "Serveur [Running]" with a black background and white text. The command "ip -6 a" is entered and executed, showing details for the loopback interface 'lo' and the ethernet interface 'enp0s3'. The 'lo' interface has an IPv6 address of '::1' and is in a state of 'UNKNOWN'. The 'enp0s3' interface has an IPv6 address of 'fe80::a00:27ff:fe1d:1f21' and is in a state of 'UP'. The terminal window has a standard Linux desktop environment with a taskbar at the bottom showing various icons and the text "Left ⌘".

# ARRETER L'INTERFACE RÉSEAU

## ■ ifdown enp0s3

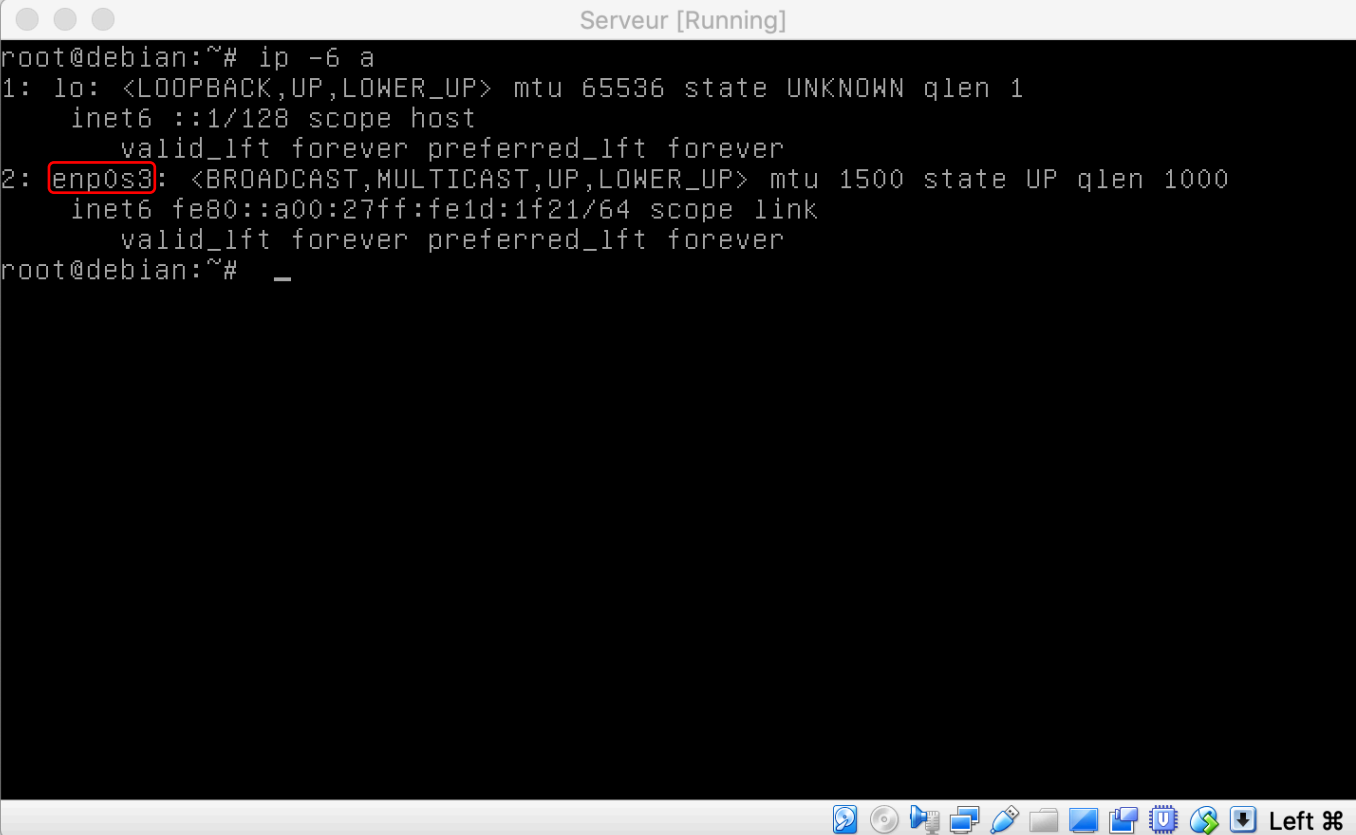


A terminal window titled "Serveur [Running]" showing the output of the command `ip -6 a`. The output lists two network interfaces: `lo` (loopback) and `enp0s3` (Ethernet). The `enp0s3` interface is highlighted with a red box. The terminal shows the state of each interface, including MTU, state, and IP addresses.

```
root@debian:~# ip -6 a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 state UNKNOWN qlen 1
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 state UP qlen 1000
    inet6 fe80::a00:27ff:fe1d:1f21/64 scope link
        valid_lft forever preferred_lft forever
root@debian:~# _
```

# DÉMARRER L'INTERFACE RÉSEAU

## ■ ifup enp0s3

A terminal window titled "Serveur [Running]" with a black background and white text. It shows the output of the command "ip -6 a". The output lists two network interfaces: "lo" (loopback) and "enp0s3" (Ethernet). The "enp0s3" interface is highlighted with a red box. The terminal window has a standard macOS-style title bar with three colored buttons (red, yellow, green) on the left. At the bottom of the window is a dock with various system icons, including a blue square icon, a CD icon, a printer icon, a folder icon, a USB icon, a mail icon, a calendar icon, a clock icon, a network icon, a power icon, and a "Left ⌘" button.

```
root@debian:~# ip -6 a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 state UNKNOWN qlen 1
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 state UP qlen 1000
    inet6 fe80::a00:27ff:fe1d:1f21/64 scope link
        valid_lft forever preferred_lft forever
root@debian:~# _
```

# **INSTALLER LA COMMANDE IFCONFIG**



# INSTALLER LA COMMANDE IFCONFIG

- Si vous souhaitez utiliser l'ancienne commande `ipconfig` vous pouvez installer le paquet suivant:
  - Debian:`apt-get install net-tools`
  - Centos/Redhat/Fedora:`yum install net-tools`