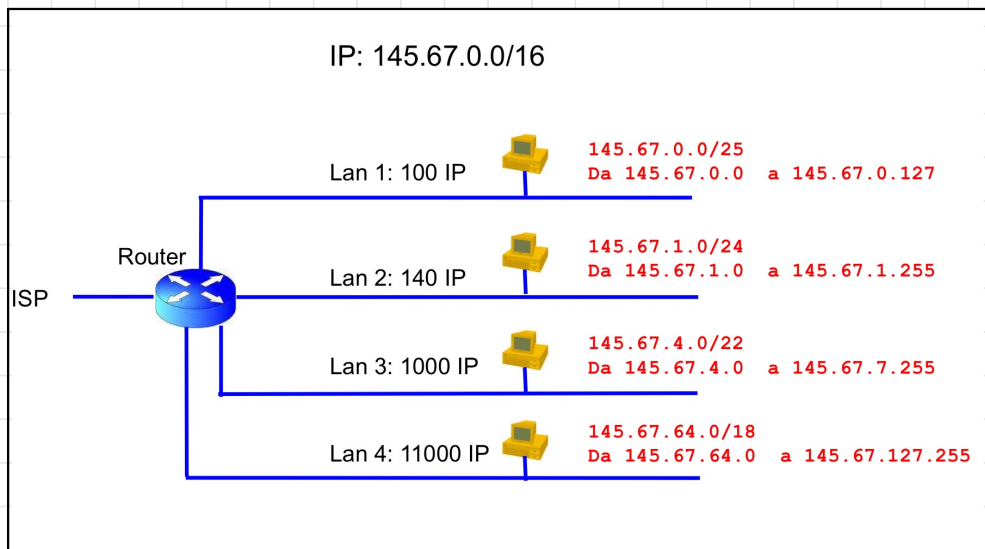


- 1) Abilitare le schede di rete come “rete interna”.
- 2) Rinominare gli host con **nano /etc/hostname** e riavviare
- 3) Decomentare **net.ipv4.conf.ip_forward = 1** con **nano /etc/sysctl.conf** nel router e riavviare



- 4) Aggiungere gli indirizzi IP desiderati nelle schede di rete manualmente con **ip addr add 192.168.1.1/24 dev enp0s3** (del) oppure in modo permanente andando a modificare **nano /etc/networks/interfaces**
- 5) Abilitare le schede di rete nel router con **ip link set enp0s3 up**
- 6) Aggiungere le regole di routing nei vari client con **ip route add default via 1.1.1.254 dev enp0s3**

LAN 1

```
Config1 (Base collegata per Config1 e Config2) [in esecuzione] - Oracle VM VirtualBox
GNU nano 5.4 /etc/network/interfaces
This file describes the network interfaces available on your system
and how to activate them. For more information, see interfaces(5).

source /etc/network/interfaces.d/*

# The loopback network interface
auto lo
iface lo inet loopback

# The primary network interface
auto enp0s3
iface enp0s3 inet static
    address 192.168.1.2
    netmask 255.255.255.0
    gateway 192.168.1.1
```

LAN 2

```
GNU nano 5.4 /etc/network/interfaces
This file describes the network interfaces available on your system
and how to activate them. For more information, see interfaces(5).

source /etc/network/interfaces.d/*

# The loopback network interface
auto lo
iface lo inet loopback

# The primary network interface
auto enp0s3
iface enp0s3 inet static
    address 192.168.2.2
    netmask 255.255.255.0
    gateway 192.168.2.1
```

Router

```
GNU nano 5.4
# This file describes the network inter
# and how to activate them. For more i

source /etc/network/interfaces.d/*

# The loopback network interface
auto lo
iface lo inet loopback

# LAN1 network interface
auto enp0s3
iface enp0s3 inet static
    address 192.168.1.1
    netmask 255.255.255.0

# LAN2 network interface
col auto enp0s8
iface enp0s8 inet static
    address 192.168.2.1
col netmask 255.255.255.0
```

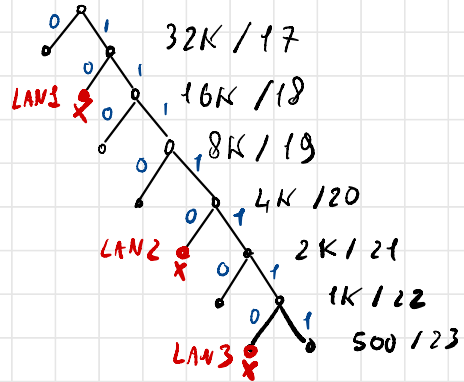
$$128.216.0.0 / 16 \Rightarrow 2^{16} - 2 \text{ HOST} \approx 65K$$

- LAN 1 10.000

- LAN 2 2000

- LAN 3 500

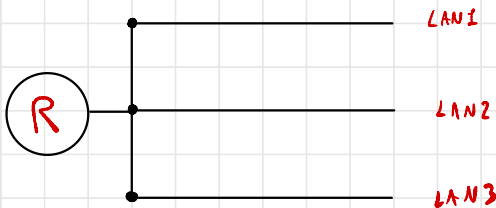
65K / 16



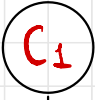
$$\text{LAN 1} \Rightarrow \begin{cases} 128.216.128.0 / 18 \\ 128.216.192.0 / 18 \end{cases}$$

$$\text{LAN 2} \Rightarrow \begin{cases} 128.216.240.0 / 21 \\ 128.216.247.0 / 21 \end{cases}$$

$$\text{LAN 3} \Rightarrow \begin{cases} 128.216.252.0 / 23 \\ 128.216.253.0 / 23 \end{cases}$$



192.168.192.2/19
DGW → R



192.168.192.1/19
DGW → R

LAN1

192.168.192.255/19

192.168.224.2/20
DGW → R



192.168.224.1/20
DGW → R

LAN2

192.168.224.255/20

192.168.0.0 /16

LAN1 = 4800

LAN2 = 2400

LAN1 { 192.168.192.0 /19
192.168.223.255 /19

LAN2 { 192.168.224.0 /20
192.168.239.255 /20

65 K /16

