

# TOPOLOGIA IPV4, IPV6

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# Subneteo IPv4

## 172.16.0.0/16

### **20,000 hosts - 255.255.128.0**

11111111.11111111.00000000.00000000 (255.255.0.0)

11111111.11111111.10000000.00000000

*32,768 host en total*

1 bits para subred: 2 subredes

7 bits para hosts: 128 host por subred

### **1000 hosts - 255.255.252.0**

11111111.11111111.00000000.00000000 (255.255.0.0)

11111111.11111111.11111100.00000000

*1024 hosts en total*

6 bits para subred: 64 subredes

2 bits para host: 4 host por subred

### **100 hosts - 255.255.255.128**

11111111.11111111.00000000.00000000 (255.255.0.0)

11111111.11111111.11111111.10000000

*128 hosts en total*

1 bit para subred: 2 subredes

7 bits para host: 128 host por subred

**40 hosts - 255.255.255.192**

11111111.11111111.00000000.00000000 (255.255.0.0)

11111111.11111111.11111111.11000000

*64 hosts en total*

2 bits para subred: 4 subredes

6 bits para host: 64 hosts por subred

**2 hosts - 255.255.255.252**

11111111.00000000.00000000.00000000 (255.0.0.0)

11111111.11111111.11111110.11111100

*4 hosts en total*

6 bits para subred: 64 subredes

2 bits para host: 4 hosts por subred

## Tabla de Rangos

**20,000 hosts - 255.255.128.0**

172.16.132.127

172.16.0.0

172.16.127.255

**40 hosts - 255.255.255.128**

172.16.132.128

**1000 hosts - 255.255.252.0**

172.16.132.191

172.16.128.0

172.16.131.255

**2 hosts - 255.255.255.252**

172.16.132.192

**100 hosts - 255.255.255.128**

172.16.132.195

172.16.132.0

**2 hosts - 255.255.255.252**

172.16.132.196

172.16.132.199

**2 hosts - 255.255.255.252**

172.16.132.200

172.16.132.203

## Tabla de Asignación de Direcciones

Dispositivo	Interfaz	IPv4	IPv6
R1	Gigabit0/0	172.16.132.129/26	2001:1234:abcd:4::1/64
	Se0/0/0	172.16.132.194/30	2001:1234:abcd:5::2/64
	Se0/0/1	172.16.132.197/30	2001:1234:abcd:7::1/64
R2	Gigabit0/0	172.16.128.1/22	2001:1234:abcd:3::1/64
	Se0/0/1	172.16.132.193/30	2001:1234:abcd:5::1/64
	Se0/1/0	172.16.132.202/30	2001:1234:abcd:6::2/64
R3	Gigabit0/0	172.16.132.1/25	2001:1234:abcd:1::1/64
	Gigabit0/1	172.16.0.1/17	2001:1234:abcd:2::1/64
	Se0/0/0	172.16.132.198/30	2001:1234:abcd:7::2/64
	Se0/1/0	172.16.132.201/30	2001:1234:abcd:6::1/64

Dispositivo	Interfaz	IPv4	IPv6
S0	Vlan1	172.16.132.2/25	no aplica
S1	Vlan1	172.16.0.2/17	no aplica
S3	Vlan1	172.16.128.2/22	no aplica
S4	Vlan1	172.16.132.130/26	no aplica
PC0	FastEthernet	172.16.132.3/25	2001:1234:abcd:1::3/64
PC1	FastEthernet	172.16.0.3/17	2001:1234:abcd:2::3/64
PC3	FastEthernet	172.16.128.3/22	2001:1234:abcd:3::3/64
PC4	FastEthernet	172.16.132.131/26	2001:1234:abcd:4::3/64