



CALCULO DE REDES

Telecomunicaciones



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des Disponibles

$$2^{24} = 16.777.216$$

$$(2^{24}) - 2 = 16.777.214$$

RFC 1918

10.0.0.0/8

IP: 00001010 00000000 00000000 00000000

Mask: 255.0.0.0

11111111 00000000 00000000 00000000

ID

00001010 00000000 00000000 00000000

Word

00000000 11111111 11111111 11111111

Broadcast

00001010 11111111 11111111 11111111

1er IP utilisable

00001010 00000000 00000000 00000001

Ultima IP utilisable

00001010 11111111 11111111 11111110

IP: 10.0.0.0

Finale: 10.0.0.1

Mask: 255.0.0.0

Ultima: 10.255.255.254

ID: 10.0.0.0/8

Word: 0.255.255.255

Broadcast: 10.255.255.255





172.16.0.0 / 12

IP:

10101100 00010000 00000000 00000000

Mask: 255.240.0.0

11111111 11110000 00000000 00000000

Network ID

10101100 00010000 00000000 00000000

Wcard

00000000 00001111 11111111 11111111

Broadcast

10101100 00011111 11111111 11111111

1st IP

10101100 00010000 00000000 00000001

Ultimate IP

10101100 00011111 11111111 11111110

#IPS Disponibles

$$2^{20} = 1,048,576$$

$$(2^{20}) - 2 = 1,048,574$$

IP = 172.16.0.0,

Mask = 255.240.0.0,

Network ID = 172.16.0.0 / 12,

Wcard = 0.15.255.255,

Broadcast = 172.31.255.255,

1st IP = 172.16.0.1,

Ultimate IP = 172.31.255.254,



192.168.0.0/16

IP

11000000 10101000 00000000 00000000

Mask 255.255.0.0

11111111 11111111 00000000 00000000

Network IP

11000000 10101000 00000000 00000000

Wildcard

00000000 00000000 11111111 11111111

Broadcast

11000000 10101000 11111111 11111111

1era IP

11000000 10101000 00000000 00000001

La ultima IP

11000000 10101000 11111111 11111110

IPS Disponibles

$$2^{16} = 65,536$$

$$(2^{16}) - 2 = 65,534$$

IP = 192.168.0.0,

Mask = 255.255.0.0,

Network IP = 192.168.0.0 / 16,

Wildcard = 0.0.255.255,

Broadcast = 192.168.255.255,

1ra IP = 192.168.0.1,

La ultima IP = 192.168.255.254,