

10000, 8000 y 1000

# 1er Subneteo

Dirección IP pública

ULAN/S

ventas

Accounting

Administración

Dirección IP privada

172.16.0.0 /13

128 192 224 240 248 252 254 255  
128 64 32 16 8 4 2 1

10,000

172.00010000.00000000.00000000

172.16.0.0 /18

$2^n = 2^{14} = 16384$

1 000.01

172.16.64.0

$2^n = 2^5 = 32$

2 000.10

172.16.128.0

30 111.10

172.23.128.0

31 111.11

172.23.192.0 /18

(10,000)

8,000

172.23.128.0 /18

requiendo

172.00010111.10100000.00000000

172.23.128.0 /19

$2^n = 2^{13} = 8192$

1 11

172.23.160.0 /19

$2^n = 2^7 = 128$

2 3

(8,000)

Derecho

7,000

172.23.128.0 /19

$2^n = 2^{10} = 1024$

$2^n = 2^3 = 8$

172.00010111.10000000.00000000

172.23.137.0 /22

1 001

172.23.136.0

2 010

172.23.132.0

6 110

172.23.156.0 /22

7 111

(7,000)

Farm Server





4000  
3000  
2 de 4

255  
-32  
223

segmento izquierdo

128 147 224 240 248 252 254 255  
128 64 32 16 8 4 2 1

172.23.192.0 /18

172.23.172.0 00000000

$$2^m = 2^7 = 4096$$

$$2^n = 2^2 = 4$$

1 01 -  
2 10  
3 11

172.23.192.0 /20

172.23.208.0

DHCP

172.23.224.0 /20 (3000)

172.23.240.0 /20 (4000)

LAN

172.23.208.0 /20

$$2^m = 2^7 = 4096$$

$$2^n = 2^{10} = 1024$$

172.23.116.0 00000000

1 0000.000001  
2 0000.000010  
1021 1111.111101  
1022 1111.111110  
1023 1111.111111

172.23.208.0 /30

172.23.208.4

172.23.208.8

172.23.223.244 /30

172.23.223.248 /30 (2)

172.23.223.252 /30 (1)

2 dir para WAN

3000  
2000  
100

172.23.160.0 /19

segmento Derecho

172.23.101.0 00000000

2 de 4

1 1

172.23.160.0 /20

172.23.176.0 /20

(3000)

LAN

$$2^m = 2^7 = 4096$$

$$2^n = 2^1 = 2$$

172.23.101.0 00000000

1 1

172.23.166.0 /21

172.23.168.0 /21

(2000)

DHCP

$$2^m = 2^{11} = 2048$$

$$2^n = 2^1 = 2$$

172.23.101.0 00000000

1 1

172.23.160.0 /22

172.23.164.0 /22

(100)

Admin

$$2^m = 2^7 = 128$$

$$2^n = 2^1 = 2$$

172.23.101.0 00000000

1 1

172.23.160.0 /30

172.23.160.4

172.23.160.8

172.23.163.248 /30 (2)

172.23.163.252 /30 (1)

$$2^m = 2^7 = 128$$

$$2^n = 2^6 = 64$$

254

11.111111

Norma



128	192	224	240	248	252
128	64	32	16	8	4

$2^M = 2^7 = 128$	172.23.10100	000.0	0000000	172.23.160.0 / 25
$2^N = 2^4 = 16$	7	000.1		172.23.160.128
	7	001.0		172.23.161.0
	14	111.0		172.23.167.0
	15	111.1		172.23.167.128 / 25

(100)  
Admin

172.23.167.0 / 25

$2^M = 2^2 = 4$	172.23.167.0	0000100
$2^N = 2^4 = 16$	7	0001
	2	0010
	14	1110
	15	1111

172.23.167.0 / 30
172.23.167.4
172.23.167.8
172.23.167.248 / 30 (2)
172.23.167.252 / 30 (1)

2 dir para WAN



# Subneteo VLANs lado izquierdo

128	192	224	240	248	252	254	255
128	64	32	16	8	4	2	1

Sales	7200	1	7200
Account	450	1	450
HR	200	1	400
Production	400	1	200
Managag	20	1	45
Nat	45	1	20

172.23.240.0 /20

172.23.11110000.00000000

$$2^m = 2^n = 2048$$

$$2^m = 2^n = 4$$

172.23.240.0 /21

172.23.248.0 /21

(7200)

SALES

172.23.240/21

172.23.11110000.00000000

$$2^m = 2^n = 512$$

$$2^m = 2^n = 4$$

172.23.240.0 /23

172.23.242.0

172.23.244.0 (400) Production

172.23.246.0 /23

(450)

Accounting

172.23.242.0 /23

172.23.11110010.00000000

$$2^m = 2^n = 256$$

$$2^m = 2^n = 2$$

172.23.242.0 /24

172.23.243.0 /24 (200)

HR

172.23.242.0 /24

172.23.11110010.00000000

$$2^m = 2^n = 64$$

$$2^m = 2^n = 4$$

172.23.242.0 /26

172.23.242.64

172.23.242.128

172.23.242.192 (45) /26

Native

172.23.242.128 /26

172.23.242.101000000

$$2^m = 2^n = 32$$

172.23.242.128 /27

172.23.242.160 /27 (20)

Management



# Subneteo ULANS lado derecho

198	197	224	240	248	252	254	255
178	64	32	16	8	4	2	1

Salas	1000	1000 ✓
AC	600	600 ✓
HR	300	300 ✓
Prod	250	250 ✓
Mang	20	60
Nat	60	20 ✓

172.23.176.0 /20

172.23.1011 | 0000 . 00000000

$$2^m = 2^{10} = 1024$$

$$2^n = 2^2 = 4$$

1	01
2	10
3	11

172.23.176.0 /22

172.23.180.0

172.23.184.0 /22 (600)

172.23.188.0 /22 (1000)

SALES

172.23.180.0 /22

172.23.101101 | 010 . 00000000

$$2^m = 2^9 = 512$$

$$2^n = 2^1 = 2$$

1	1
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172.23.180.0 /23

172.23.182.0 /23 (300)

HR

172.23.180.0 /23

172.23.10110101 | 0100000000

$$2^m = 2^8 = 256$$

$$2^n = 2^1 = 2$$

1	1
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172.23.180.0 /24

172.23.181.0 /24 (250)

PROD

172.23.180.0 /24

172.23.180.0010000000

$$2^m = 2^6 = 64$$

$$2^n = 2^2 = 4$$

1	01
2	10
3	11

172.23.180.0 /26

172.23.180.64

172.23.180.128

172.23.180.192 /26 (60)

NAT

172.23.180.128 /26

172.23.180.1011000000

$$2^m = 2^5 = 32$$

$$2^n = 2^1 = 2$$

1	1
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172.23.180.128 /27

172.23.180.160 /27 (20)

MAN