Subnetting Chart

FIGURES

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Subnetting a class C network

Máscara 255.255.255.0 /24

Slash format	/25	/26	/27	/28	/29	/30	N/A	N/A
Mask	128	192	224	240	248	252	254	255
Total Subnets	**2**	4	8	16	32	64		
Total Hosts	**128**	64	32	16	8	4		
Usable Hosts	**126**	62	30	14	6	2		

A Class C address with a /25 mask only borrows one bit as shown in the chart above. However, a Class B address with a /25 mask borrows nine bits.

Example:
Subnetting the class C 192.168.10.0 network with a /27 mask
(255.225.255.224)

Subnet Scheme

FIGURES

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Subnetwork #	Subnetwork ID	Host Range	Broadcast ID
0	192.168.10.0	.1--.30	192.168.10.31
1	192.168.10.32	.33--.62	192.168.10.63
2	192.168.10.64	.65--.94	192.168.10.95
3	192.168.10.96	.97--.126	192.168.10.127
4	192.168.10.128	.129--.158	192.168.10.159
5	192.168.10.160	.161--.190	192.168.10.191
6	192.168.10.192	.193--.222	192.168.10.223
7	192.168.10.224	.225--.254	192.168.10.255

Qual a mascara para a rede 192.168.32.0 que proporciona 254 hosts por subrede?

255.255.0.0
255.255.255.0
255.255.254.0
255.255.248.0

Qual o endereco de broadcast para o endereco Class C of 192.168.32.0 com a mascara de rede de defeito?

192.168.0.0
192.168.0.255
192.168.32.0
192.168.32.254
192.168.32.255

Considera a rede classe C 192.136.224.0 netmask 255.255.255.0

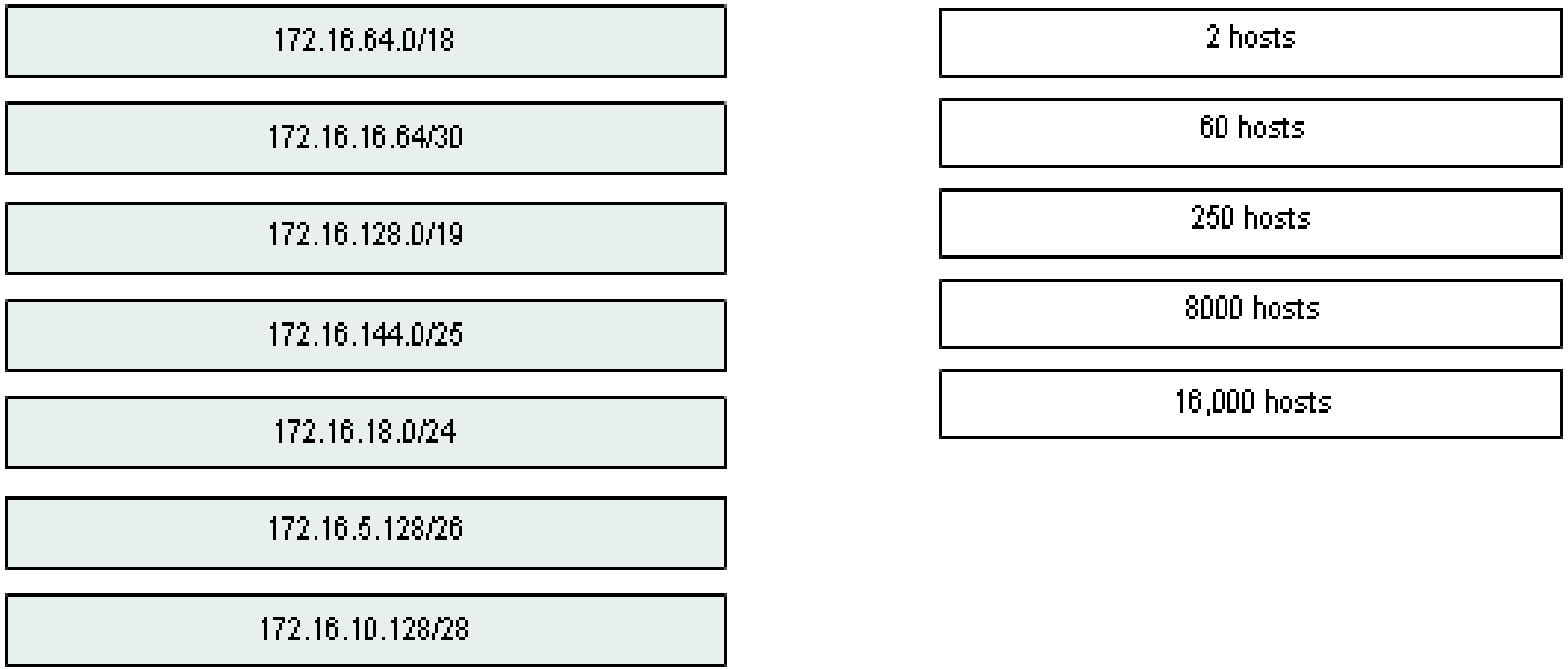
Quantas são as sub-redes e quantos hosts ha em cada sub-rede se a netmask for 255.255.255.128?

Quantas são as sub-redes e quantos hosts ha em cada sub-rede se a netmask for 255.255.255.192?

Quantas são as sub-redes e quantos hosts ha em cada sub-rede se a netmask for 255.255.255.252?

Quantas são as sub-redes e quantos hosts ha em cada sub-rede se a netmask for 255.255.255.240?

Identifica quais as sub-redes que proporcionam o número de hosts à direita



Considera o IP 192.136.224.36 e a mascara 255.255.255.248

Qual é o IP de rede e o IP de broadcast para esta sub-rede?

Dado um PC com o IP 172.32.65.13 e uma mascar por defeito para esta classe, qual o endereco de rede a que este PC pertence?

172.32.65.0
172.32.65.32
172.32.0.0
172.32.32.0

Uma empresa tem uma licenca para uma rede classe C e precisa de criar cinco subredes, com 20 PCs. Qual a mascara apropriada?

255.255.255.0
255.255.255.192
255.255.255.224
255.255.255.240

Qual a mascara que o network administrador deve utilizar na rede 10.10.20.0 para criar uma sub-rede com 1000 hosts?

255.255.0.0
255.255.248.0
255.255.252.0
255.255.254.0

255.255.255.0

Que tipo de endereco e’ 192.168.17.111/28?

host address

network address

broadcast address

multicast address

The following subnet masks have been chosen for use with the 192.168.16.0 network:

255.255.255.252
255.255.255.240
255.255.255.192

Which of the following identify the most efficient use for each of these masks? (Choose three.)

- [ ] Use the /30 mask for point-to-point links, such as WAN connections.
- [ ] Use the /30 mask for subnetworks of four or more hosts.
- [ ] Use the /28 mask for small subnetworks with up to 14 hosts.
- [ ] Use the /26 mask for larger subnetworks with up to 62 hosts.
- [ ] Use the /25 mask for subnetworks with up to 30 hosts.
- [ ] Use the /24 mask for point-to-point links, such as WAN connections.

Routing Tables

FIGURE

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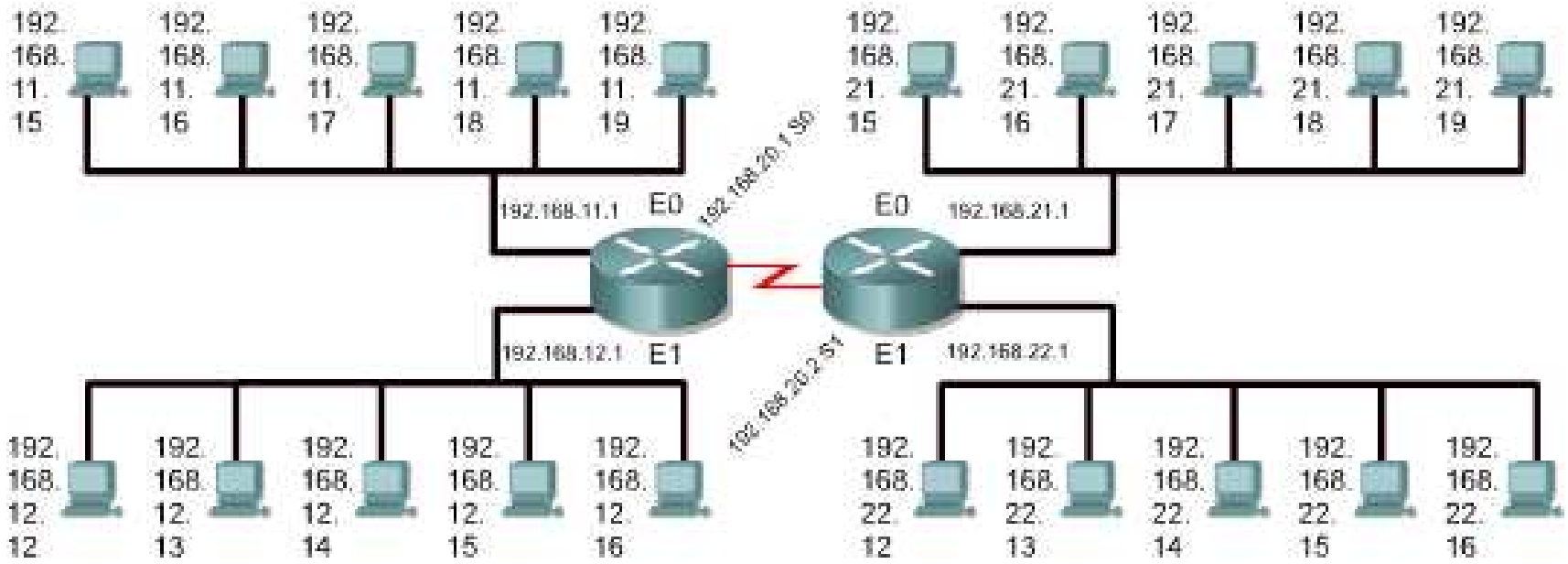
Toolbar: Maximize



Routing Table				
Learned		Network Address	Hop	Interface
C	-	192.168.11.0	0	E0
C	-	192.168.12.0	0	E1
C	-	192.168.20.0	0	S0
R	-	192.168.21.0	1	S0
R	-	192.168.22.0	1	S0

Routing Table				
Learned		Network Address	Hop	Interface
C	-	192.168.21.0	0	E0
C	-	192.168.22.0	0	E1
C	-	192.168.20.0	0	S1
R	-	192.168.11.0	1	S1
R	-	192.168.12.0	1	S1