Calculo de redes

DOCENTE: JIMÉNEZ SÁNCHEZ ISMAEL

IBARRA SABIDO JOSE MARIA | **Fundamentos de Telecomunicaciones** | 19-1-2021

IP: 10.0.0.0/8					
IP	00001010	00000000	00000000	00000000	10.0.0.0
Mask	11111111	00000000	00000000	00000000	255.0.0.0
ID	00001010	00000000	00000000	00000000	10.0.0.0/8
Wcard	00000000	11111111	11111111	11111111	0.255.255.255
Bcast	00001010	11111111	11111111	11111111	10.255.255.255
1ra IP	00001010	00000000	00000000	00000001	10.0.0.1
Ultima IP	00001010	11111111	11111111	11111111	10.255.255.254
		Total, de IPs	IPs disponibles		
		$(2^{32}-n) = (2^{32}-8)$	$(2^{32}-n)-2 = (2^{32}-8)-2$		
		2^{24}	$(2^{24})-2$		
		16,777,216	16,777,214		

IP: 172.16.0.0/12					
IP	10101100	00010000	00000000	00000000	172.16.0.0
Mask	11111111	11110000	00000000	00000000	255.240.0.0
ID	10101100	00010000	00000000	00000000	172.16.0.0/12
Wcard	00000000	00001111	11111111	11111111	0.15.255.255
Bcast	10101100	00011111	11111111	11111111	172.31.255.255
1ra IP	10101100	00010000	00000000	00000001	172.16.0.1
Ultima IP	10101100	00011111	11111111	11111110	172.31.255.254
		Total, de IPs	IPs disponibles		
		$(2^{32}-n) = (2^{32}-12)$	$(2^{32}-n)-2 = (2^{32}-12)-2$		
		2^{20}	$(2^{20})-2$		

		1,048,576	1,048,574		
IP: 192.168.0.0/16					
IP	11000000	10101000	00000000	00000000	192.168.0.0
Mask	11111111	11111111	00000000	00000000	255.255.0.0
ID	11000000	10101000	00000000	00000000	192.168.0.0/16
Wcard	00000000	00000000	11111111	11111111	0.0.255.255
Bcast	11000000	10101000	11111111	11111111	192.168.255.255
1ra IP	11000000	10101000	00000000	00000001	192.168.0.1
Ultima IP	11000000	10101000	11111111	11111110	192.168.255.254
		Total, de IPs	IPs Disponibles		
		$(2^{32-n}) = (2^{32-16})$	$(2^{32-n})-2 = (2^{32-16})-2$		

		2^16	(2^16)-2		
		65,536	65,534		