VLSM SUBNETTING

139.0.0.0/16

Each network has it's own size (variable).

1. We punt in order from higher hosts to less.
2. For each line in the table we calculate the eqcuation 'x', the block size and the mask.
3. Equation: min(x) 2^x ≥ hosts + 2
4. Block size: 2^x
5. Mask: 32 - x
6. Fill the table with the results

139.0.xxxxxxxx.xxxxxxxx

139.0.0.0 - 139.0.255.255

	SIZE	X	BLOCK	MASK
hotel2	2000	11	2048	/21 (255.255.248.0)
parking	400	9	512	/23 (255.255.254.0)
bedroom	400	9	512	/23 (255.255.254.0)
piscina	400	9	512	/23 (255.255.254.0)
conferencia	400	9	512	/23 (255.255.254.0)
restaurant	400	9	512	/23 (255.255.254.0)
videojuegos	400	9	512	/23 (255.255.254.0)
data center	60	6	64	/26 (255.255.255.192)
wan1	2	2	4	/30 (255.255.255.252)
wan2	2	2	4	/30 (255.255.255.252)
wan3	2	2	4	/30 (255.255.255.252)
manage	2	2	4	/30 (255.255.255.252)

Calculate network and broadcast address

	IP FORMAT	NETWORK ADD.	BROADCAST ADD.
hotel2	139.0.00000xxx.xxxxxxxx	139.0.0.0	139.0.7.255
parking	139.0.0000100x.xxxxxxxx	139.0.8.0	139.0.9.255
bedroom	139.0.0000101x.xxxxxxxx	139.0.10.0	139.0.11.255
piscina	139.0.0000110x.xxxxxxxx	139.0.12.0	139.0.13.255
conferencia	139.0.0000111x.xxxxxxxx	139.0.14.0	139.0.15.255
restaurant	139.0.0001000x.xxxxxxxx	139.0.16.0	139.0.17.255

videojuegos	139.0.0001001x.xxxxxxxx	139.0.18.0	139.0.19.255
data center	139.0.00010100.00xxxxxx	139.0.20.0	139.0.20.63
wan1	139.0.00010100.010000xx	139.0.20.64	139.0.20.67
wan2	139.0.00010100.010001xx	139.0.20.68	139.0.20.71
wan3	139.0.00010100.010010xx	139.0.20.72	139.0.20.75
manage	139.0.00010100.010011xx	139.0.20.76	139.0.20.79