



Variable Length Subnetting Mask (VLSM)

Requirements:	Assigned IP: 192.168.10.0/24
SN1: 60 Hosts	192.168.10. 0000 0000 /26 ($2^6 = 64 - 2 = \text{max. 62 Hosts}$)
SN2: 28 Hosts	-> 192.168.10.0/26 => SN1 (60 Hosts)
SN3: 12 Hosts	192.168.10. 0100 0000 /26 ($2^6 = 64 - 2 = \text{max. 62 Hosts}$)
SN4: 12 Hosts	-> 192.168.10.64/26
SN5: 2 Hosts	-> 192.168.10. 0100 0000 /27 ($2^5 = 32 - 2 = \text{max. 30 Hosts}$)
SN6: 2 Hosts	-> 192.168.10.64/27 => SN2 (28 Hosts)
SN7: 2 Hosts	-> 192.168.10. 0110 0000 /27 ($2^5 = 32 - 2 = \text{max. 30 Hosts}$)
	-> 192.168.10.96/27
	-> 192.168.10. 0110 0000 /28 ($2^4 = 16 - 2 = \text{max. 14 Hosts}$)
	-> 192.168.10.96/28 => SN3 (12 Hosts)
	-> 192.168.10. 0111 0000 /27 ($2^4 = 16 - 2 = \text{max. 14 Hosts}$)
	-> 192.168.10.112/28 => SN4 (12 Hosts)
	192.168.10. 1000 0000 /26 ($2^6 = 64 - 2 = \text{max. 62 Hosts}$)
	-> 192.168.10.128/27
	-> 192.168.10. 1000 0000 /30 ($2^2 = 4 - 2 = \text{max. 2 Hosts}$)
	-> 192.168.10.128/30 => SN5 (2 Hosts)
	-> 192.168.10. 1000 0100 /30 ($2^2 = 4 - 2 = \text{max. 2 Hosts}$)
	-> 192.168.10.132/30 => SN6 (2 Hosts)
	-> 192.168.10. 1000 1000 /30 ($2^2 = 4 - 2 = \text{max. 2 Hosts}$)
	-> 192.168.10.136/30 => SN7 (2 Hosts)