

Subnets				Classful Ranges		
<b>CIDR</b>	<b>Subnet Mask</b>	<b># of Addresses</b>	<b>Wildcard</b>	<b>A</b>	0.0.0.0 - 127.255.255.255	
/0	0.0.0.0	4,294,967,296	255.255.255.255	<b>B</b>	128.0.0.0 - 191.255.255.255	
/1	128.0.0.0	2,147,483,648	127.255.255.255	<b>C</b>	192.0.0.0 - 223.255.255.255	
/2	192.0.0.0	1,073,741,824	63.255.255.255	<b>D</b>	224.0.0.0 - 239.255.255.255	
/3	224.0.0.0	536,870,912	31.255.255.255	<b>E</b>	240.0.0.0 - 255.255.255.255	
/4	240.0.0.0	268,435,456	15.255.255.255			
/5	248.0.0.0	134,217,728	7.255.255.255			
/6	252.0.0.0	67,108,864	3.255.255.255			
/7	254.0.0.0	33,554,432	1.255.255.255			
/8	255.0.0.0	16,777,216	0.255.255.255			
/9	255.128.0.0	8,388,608	0.127.255.255			
/10	255.192.0.0	4,194,304	0.63.255.255			
/11	255.224.0.0	2,097,152	0.31.255.255			
/12	255.240.0.0	1,048,576	0.15.255.255			
/13	255.248.0.0	524,288	0.7.255.255			
/14	255.252.0.0	262,144	0.3.255.255			
/15	255.254.0.0	131,072	0.1.255.255			
/16	255.255.0.0	65,536	0.0.255.255			
/17	255.255.128.0	32,768	0.0.127.255			
/18	255.255.192.0	16,384	0.0.63.255			
/19	255.255.224.0	8,192	0.0.31.255			
/20	255.255.240.0	4,096	0.0.15.255			
/21	255.255.248.0	2,048	0.0.7.255			
/22	255.255.252.0	1,024	0.0.3.255			
/23	255.255.254.0	512	0.0.1.255			
/24	255.255.255.0	256	0.0.0.255			
/25	255.255.255.128	128	0.0.0.127			
/26	255.255.255.192	64	0.0.0.63			
/27	255.255.255.224	32	0.0.0.31			
/28	255.255.255.240	16	0.0.0.15			
/29	255.255.255.248	8	0.0.0.7			
/30	255.255.255.252	4	0.0.0.3			
/31	255.255.255.254	2	0.0.0.1			
/32	255.255.255.255	1	0.0.0.0			

  

Reserved Ranges		
<b>RFC 1918</b>	10.0.0.0 - 10.255.255.255	
<b>Localhost</b>	127.0.0.0 - 127.255.255.255	
<b>RFC 1918</b>	172.16.0.0 - 172.31.255.255	
<b>RFC 1918</b>	192.168.0.0 - 192.168.255.255	

  

CIDR notation	
Classless interdomain routing (CIDR) notation is a compact representation of an IP address and its associated routing prefix. It's expressed as a / followed by a number (e.g. /0 or /10).	

  

VLSM		
CIDR is based on the variable-length subnet masking (VLSM) technique, which allows the specification of arbitrary-length prefixes.		

  

Decimal to Binary					
Subnet Mask			Wildcard		
<b>0</b>	0000	0000	<b>255</b>	1111	1111
<b>128</b>	1000	0000	<b>127</b>	0111	1111
<b>192</b>	1100	0000	<b>63</b>	0011	1111
<b>224</b>	1110	0000	<b>31</b>	0001	1111
<b>240</b>	1111	0000	<b>15</b>	0000	1111
<b>248</b>	1111	1000	<b>7</b>	0000	0111
<b>252</b>	1111	1100	<b>3</b>	0000	0011
<b>254</b>	1111	1110	<b>1</b>	0000	0001
<b>255</b>	1111	1111	<b>0</b>	0000	0000