

Different networks and Usable IP's can be generated from them.

/32 - 255.255.255.255 → used by the DHCP protocol to broadcast availability packets.

/31 - 255.255.255.254	→ $2^1 - 2 = 0$ usable IP's
/30 - 255.255.255.252	→ $2^2 - 2 = 2$ usable IP's
/29 - 255.255.255.248	→ $2^3 - 2 = 6$ usable IP's
/28 - 255.255.255.240	→ $2^4 - 2 = 14$ usable IP's
/27 - 255.255.255.224	→ $2^5 - 2 = 30$ usable IP's
/26 - 255.255.255.192	→ $2^6 - 2 = 62$ usable IP's
/25 - 255.255.255.128	→ $2^7 - 2 = 126$ usable IP's
/24 - 255.255.255.0	→ $2^8 - 2 = 254$ usable IP's
/23 - 255.255.254.0	→ $2^9 - 2 = 510$ usable IP's
/22 - 255.255.252.0	→ $2^{10} - 2 = 1,022$ usable IP's
/21 - 255.255.248.0	→ $2^{11} - 2 = 2,046$ usable IP's
/20 - 255.255.240.0	→ $2^{12} - 2 = 4,094$ usable IP's
/19 - 255.255.224.0	→ $2^{13} - 2 = 8,190$ usable IP's
/18 - 255.255.192.0	→ $2^{14} - 2 = 16,382$ usable IP's
/17 - 255.255.128.0	→ $2^{15} - 2 = 32,766$ usable IP's
/16 - 255.255.0.0	→ $2^{16} - 2 = 65,534$ usable IP's
/15 - 255.254.0.0	→ $2^{17} - 2 = 131,070$ usable IP's
/14 - 255.252.0.0	→ $2^{18} - 2 = 262,142$ usable IP's
/13 - 255.248.0.0	→ $2^{19} - 2 = 524,286$ usable IP's
/12 - 255.240.0.0	→ $2^{20} - 2 = 1,048,574$ usable IP's
/11 - 255.224.0.0	→ $2^{21} - 2 = 2,097,150$ usable IP's
/10 - 255.192.0.0	→ $2^{22} - 2 = 4,194,302$ usable IP's
/9 - 255.128.0.0	→ $2^{23} - 2 = 8,388,606$ usable IP's
/8 - 255.0.0.0	→ $2^{24} - 2 = 16,777,214$ usable IP's
/7 - 254.0.0.0	→ $2^{25} - 2 = 33,554,430$ usable IP's
/6 - 252.0.0.0	→ $2^{26} - 2 = 67,108,862$ usable IP's
/5 - 248.0.0.0	→ $2^{27} - 2 = 134,217,726$ usable IP's
/4 - 240.0.0.0	→ $2^{28} - 2 = 268,435,454$ usable IP's
/3 - 224.0.0.0	→ $2^{29} - 2 = 536,870,910$ usable IP's
/2 - 192.0.0.0	→ $2^{30} - 2 = 1,073,741,822$ usable IP's
/1 - 128.0.0.0	→ $2^{31} - 2 = 2,147,483,646$ usable IP's
/0 - 0.0.0.0	→ Wildcard Address