/Mask	Mask	Zeroes	Hosts	Subnets
16	255.255.0.0	16	65534	1
17	255.255.128.0	15	32766	2
18	255.255.192.0	14	16382	4
19	255.255.224.0	13	8190	8
20	255.255.240.0	12	4094	16
21	255.255.248.0	11	2046	32
22	255.255.252.0	10	1022	64
23	255.255.254.0	9	510	128
24	255.255.255.0	8	254	256
25	255.255.255.128	7	126	512
26	255.255.255.192	6	62	1024
27	255.255.255.224	5	30	2048
28	255.255.255.240	4	14	4096
29	255.255.255.248	3	6	8192
30	255.255.255.252	2	2	16384

Application	BGP DHCP DNS FTP HTTP IMAP LDAP MGCP MQTT NNTP NTP POP ONC/RPC RTP RTSP RIP SIP SMTP SNMP SSH Telnet TLS/SSL XMPP
Transport	TCP UDP DCCP SCTP RSVP
Internet	IP IPv4 IPv6 ICMP ICMPv6 ECN IGMP IPsec
Link	ARP NDP OSPF Tunnels L2TP PPP MAC Ethernet DSL ISDN FDDI

## **IP Address Classes**

Class	First Bits	First Byte Values	Network ID Bits	Host ID Bits	Number of Networks	Number of Hosts
Α	0	1 - 126	7	24	126	16,777,214
В	10	128 -191	14	16	16,384	65,534
С	110	192 - 223	21	8	2,097,152	254

## Private IP Address Range – Special purpose

Class	Network Address		
Α	10.0.0.0 through 10.255.255.255		
В	172.16.0.0 through 172.31.255.255		
c	192.168.0.0 through 192.168.255.255		

**NOT PRIVATE** 

Multicasting: 224.0.0.0-239.255.255.255

Research: 240.0.0.0-255.255.255.255

Loopback: 127.0.0.0-127.255.255.255