Special IPv4 Addresses

Local Host	127.0.0.0 – 127.255.255.255
APIPA	169.254.0.0 – 169.254.255.255

Classification of IP Addresses	Range	Number of Blocks	Representation in the subnet mask
Class A	0.0.0.0-127.255.255.255	128	255.0.0.0/8
Class B	128.0.0.0-191.255.255.255	16,384	255.255.0.0/16
Class C	192.0.0.0-223.255.255.255	2,097,152	255.255.255.0/24
Class D	224.0.0.0-239.255.255.255	n/a	n/a
Class E	240.0.0.0-255.255.255.255	n/a	n/a

Reserved IP Addresses

0.0.0.0/8	This network
10.0.0.0/8	Private IPv4 Address Block
100.64.0.0/10	Carrier-grade NAT
127.0.0.0/8	Loopback
127.0.53.53	Name collision occurrence
169.254.0.0/16	Link local
172.16.0.0/12	Private IPv4 Address Block
192.0.0.0/24	IETF protocol assignments
192.0.2.0/24	TEST-NET-1
192.168.0.0/16	Private IPv4 Address Block
198.18.0.0/15	Network benchmark testing
198.51.100.0/24	TEST-NET-2

Bogon IPv4 Addresses

Bogon IPv4 Address Range	Description
0.0.0.0/8	Reserved address space
10.0.0.0/8	Private network (RFC 1918)
100.64.0.0/10	Shared address space (CGN)
127.0.0.0/8	Loopback address
169.254.0.0/16	Link-local address (Autoconfiguration)
172.16.0.0/12	Private network (RFC 1918)
192.0.0.0/24	Reserved address space used for documentation
192.0.2.0/24	Reserved address space used for documentation
192.168.0.0/16	Private network (RFC 1918)
198.51.100.0/24	Reserved address space used for documentation
203.0.113.0/24	Reserved address space used for documentation
240.0.0.0/4	Reserved for future use or experimental purposes

IPv4 Subnets (w/ Wildcard Mask Values)

CIDR	SUBNET MASK	WILDCARD MASK	# OF IP ADDRESSES	# OF USABLE IP ADDRESSES
/32	255.255.255.255	0.0.0.0	1	1
/31	255.255.255.254	0.0.0.1	2	2*
/30	255.255.255.252	0.0.0.3	4	2
/29	255.255.255.248	0.0.0.7	8	6
/28	255.255.255.240	0.0.0.15	16	14
/27	255.255.255.224	0.0.0.31	32	30
/26	255.255.255.192	0.0.0.63	64	62
/25	255.255.255.128	0.0.0.127	128	126
/24	255.255.255.0	0.0.0.255	256	254
/23	255.255.254.0	0.0.1.255	512	510
/22	255.255.252.0	0.0.3.255	1024	1022
/21	255.255.248.0	0.0.7.255	2048	2046
/20	255.255.240.0	0.0.15.255	4096	4094

/19	255.255.224.0	0.0.31.255	8192	8190
/18	255.255.192.0	0.0.63.255	16,384	16382
/17	255.255.128.0	0.0.127.255	32,768	32766
/16	255.255.0.0	0.0.255.255	65,536	65534
/15	255.254.0.0	0.1.255.255	131,072	131070
/14	255.252.0.0	0.3.255.255	262,144	262,142
/13	255.248.0.0	0.7.255.255	524,288	524,286
/12	255.240.0.0	0.15.255.255	1,048,576	1,048,574
/11	255.224.0.0	0.31.255.255	2,097,152	2,097,150
/10	255.192.0.0	0.63.255.255	4,194,304	4,194,302
/9	255.128.0.0	0.127.255.255	8,388,608	8,388,606
/8	255.0.0.0	0.255.255.255	16,777,216	16,777,214
/7	254.0.0.0	1.255.255.255	33,554,432	33,554,430
/6	252.0.0.0	3.255.255.255	67,108,864	67,108,862
/5	248.0.0.0	7.255.255.255	134,217,728	134,217,726
/4	240.0.0.0	15.255.255.255	268,435,456	268,435,454
/3	224.0.0.0	31.255.255.255	536,870,912	536,870,910
/2	192.0.0.0	63.255.255.255	1,073,741,824	1,073,741,822
/1	128.0.0.0	127.255.255.255	2,147,483,648	2,147,483,646