

14. Classful Networks

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NETWORK CLASSES

CLASS	FIRST OCTET	NET + HOST BITS	MASK	HOSTS EACH	PURPOSE
A	1-126	8 + 24	255.0.0.0	$2^{24}-2$	Unicast
B	128-191	16 + 16	255.255.0.0	65,534	Unicast
C	192-223	24 + 8	255.255.255.0	254	Unicast
D	224-239				Multicast
E	240-255				Reserved

By definition, addresses in the same network will have a matching value in the network part of their address.

Given an address, be able to determine its classful network, and from that, the

- Mask
- Network Address
- Network Broadcast Address
- First Usable Address in the net
- Last Usable Address

Don't be fooled by things like 191.255.255.255. It's a class B broadcast address for the network 191.255.0.0.