

Non Public IP Addresses

We will cover 3 types of IP addresses:

Special : Special purpose IP address
(loopback, broadcast)

Private: These are non Internet Routable IP addresses, which are used for private networks.

Public: These are Internet Routable IP addresses

Are there others?

- Yes, but we wont cover them in detail. Some are:
- Link-Local Addressing (169.254.0.0/16) – Stateless, internal IP assigned by host.
- Multicast Addressing (224.0.0.0/4)
- Reserved (240.0.0.0/4)

SPECIAL IP Addresses

- LOCAL LOOPBACK: 127.0.0.0/8, though 127.0.0.1 is typically used
- Local Broadcast: 0.0.0.0/8 (for 'this' network)
- Limited Broadcast: 255.255.255.255/32

Private Networks

Private Networks are a range of IP addresses, which are NOT used to route internet traffic. They are reserved for use in private networks.

They are the primary reason the internet has not run out of IPv4 addresses yet!

Private IP ranges

- 10.0.0.0/8 – Range of 10.0.0.0 to 10.255.255.255
- 172.16.0.0/12 – Range of 172.16.0.0 to 172.31.255.255
- 192.168.0.0/16 – Range of 192.168.0.0 to 192.168.255.255

Which Private IP Range is Best?

Doesn't matter. In general, you choose the smallest range of IP's, which meet your needs.

If your network includes one range of Private IP's, it is best to use a different set, to avoid IP collisions.