

Question:

- 1) What is private IP address? What is public IP address? How do they work together to solve problem of not enough IP address?**



Private IP Addresses:

Private IP addresses are used within private networks and are not routable on the public internet. They are designated for use within local area networks (LANs) and are defined by the Internet Engineering Task Force (IETF).

IPv4 Private Address Ranges:

Class A: 10.0.0.0 to 10.255.255.255

Class B: 172.16.0.0 to 172.31.255.255

Class C: 192.168.0.0 to 192.168.255.255

Public IP Addresses

Public IP addresses are routable on the global internet and are assigned by the Internet Assigned Numbers Authority (IANA) and distributed by Regional Internet Registries (RIRs). These addresses are unique across the entire internet.

How do they work together?

- ➔ Private and public IP addresses work together using a technology NAT(Network Address Translation) that allows multiple devices on a private network to share a single public IP address for accessing the internet. This mechanism helps to solve the problem of IPv4 address exhaustion by enabling private IP address reuse within different networks.