

TCP/IP

IP addressing

***Internet Assigned Number
Authority(IANA)**

***Internet Engineering
Task Force (IETF)**

GNS Technologies



Registry	Area Covered
AFRINIC	Africa Region
APNIC	Asia/Pacific Region
ARIN	Canada, USA, and some Caribbean Islands
LACNIC	Latin America and some Caribbean Islands
RIPE NCC	Europe, the Middle East, and Central Asia

Internet Engineering Task force (IETF)

**It is the governing body which
defines the IP address types, its
classes and Research.**

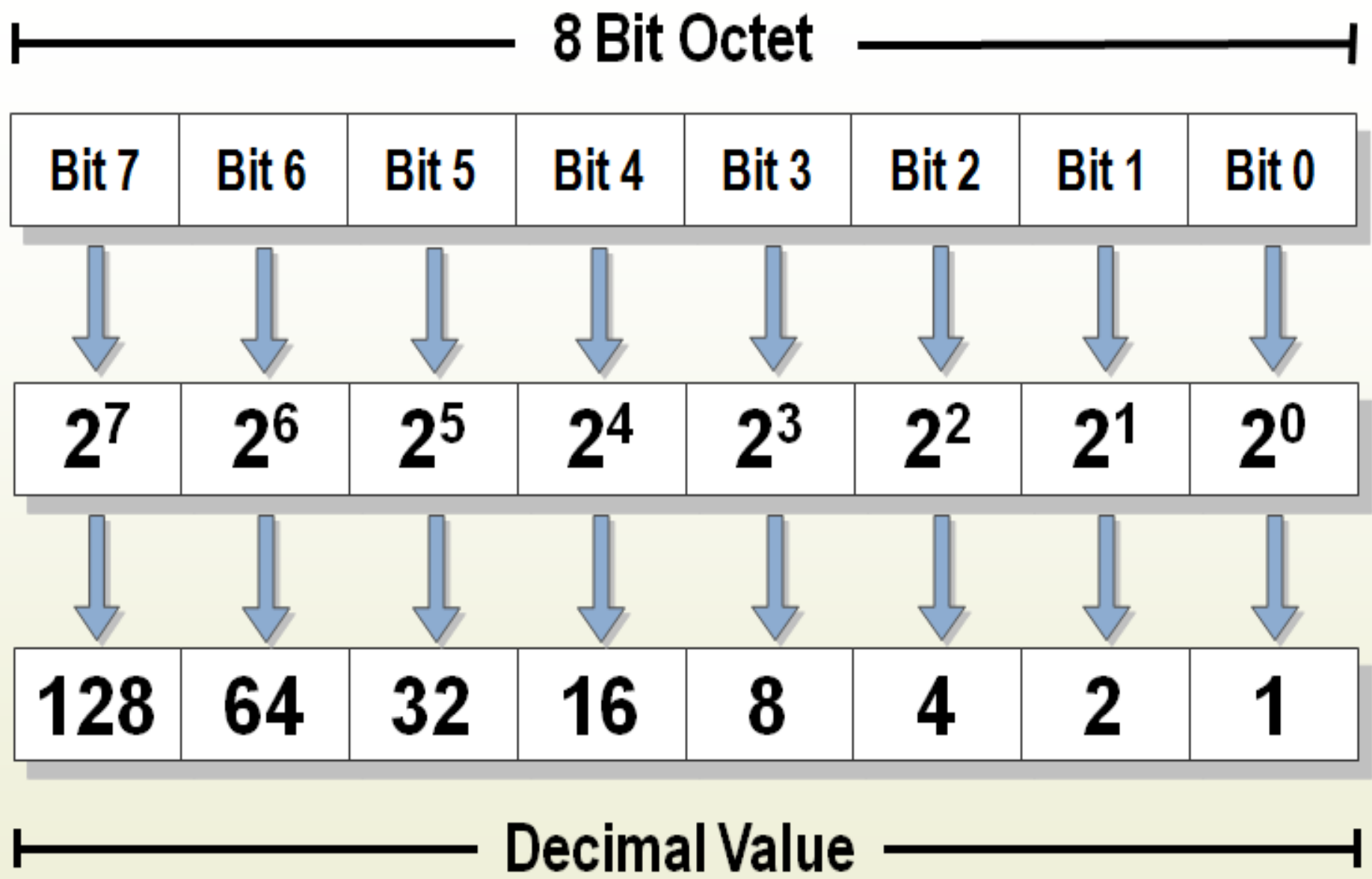
Routing Protocol and Routed Protocol

RIP, IGRP, EIGRP, OSPF, BGP are Routing Protocols which searches for the shortest path.

IP, IPX, Appletalk are routed protocols which carries the data packets and travels through the shortest path searched by routing protocol

IP-V4 32 (bit binary)

IP-V6 128 bit (hexadecimal)



8 bits 8 bits 8 bits 8 bits

Class A:



Class B:



Class C:



Class D:

Multicast

Class E:

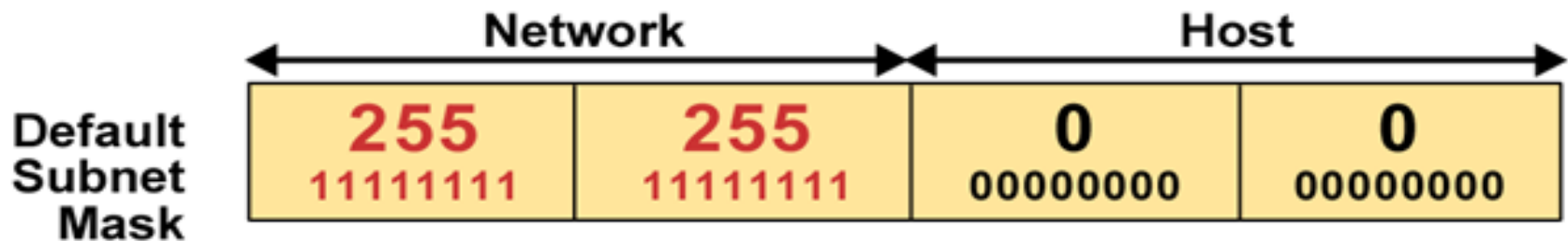
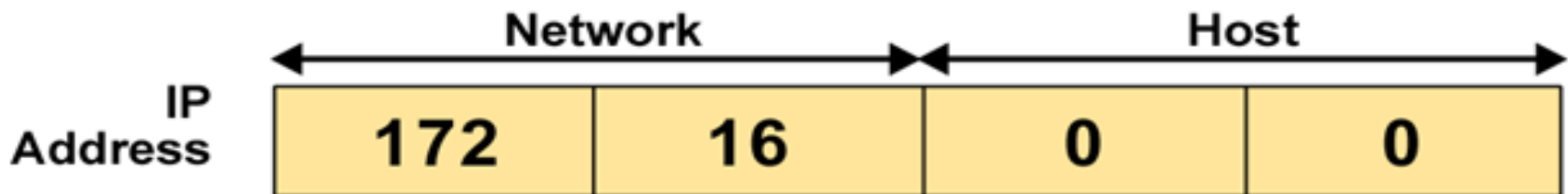
Research

III) Class-C -> 192 - 223
192.0.0.1 - 223.255.255.255
(**1,67,77,216** Network and **256** Host)

Example:- 192.168.10.1 192.168.10.1/24
 255.255.255.0



Subnet Mask



- Also written as **"/16,** where 16 represents the number of 1s in the mask



- Also written as **"/24,** where 24 represents the number of 1s in the mask

IV) Class-D -> 224 – 239

224.0.0.0 – 239.255.255.255

This class is reserved for Multicasting.

V) Class-E -> 240 - 255
240.0.0.0 - 240.255.255.255

This class is reserved for Research.

Reserved Private Address

- I) Class-A ---> 10.0.0.0 - 10.255.255.255
- II) Class-B ---> 172.16.0.0 - 172.31.255.255
- III) Class-C ----> 192.168.0.0 - 192.168.255.255