Lecture No: 08
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Class full IP Addresses

5 classes of IP Addresses A,B,C,D and E.

Class A reserved for governments.

Class B reserved for medium companies.

Class C is reserved for small organizations.

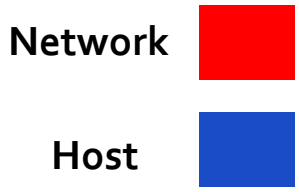
Class D reserved for multicasting.

Class E reserved for future use.

Class A begins 1 to 126.

Class B begins 128 to 191.

Class C begins 192 to 223.



Class A: 35.0.0.0

Class B: 128.5.0.0

Class C: 192.33.33.0

How large is the network part in an IP Address?

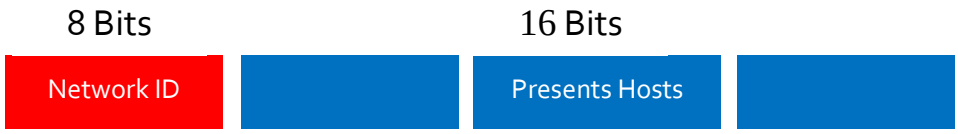
Today we use network masks to tell.

Originally, IP had address classes with fixed numbers of bits in the network part.

- Class A : 8 bits (24 bits in host part)
- Class B : 16 bits (16 bits in host part)
- Class C : 24 bits (8 bits in host part)

Class A IP Address

- IP address begins with 0.
- 7 remaining bits in network part - Only 128 possible Class A Networks 24 bits in local part.
- Over 16 million hosts per class A Network.
- All class A Network Parts assigned are reserved.



0nnnnnnn.hhhhhhhh.hhhhhhhh.hhhhhhhh

TO

01111111.11111111.11111111.11111111

Class B IP Address

- 16 bits for network address and 16 bits for hosts
- A balance between number of networks and hosts per network
- IP address begins with 10 (1st 0 in second position)
- 14 remaining bits in network part
- Over 16000 possible class B networks
- 16 bits in local part
- Over 65000 possible hosts