ECCS-3631
Networks and Data Communications

Module 1-3
Classless InterDomain Routing (CIDR)

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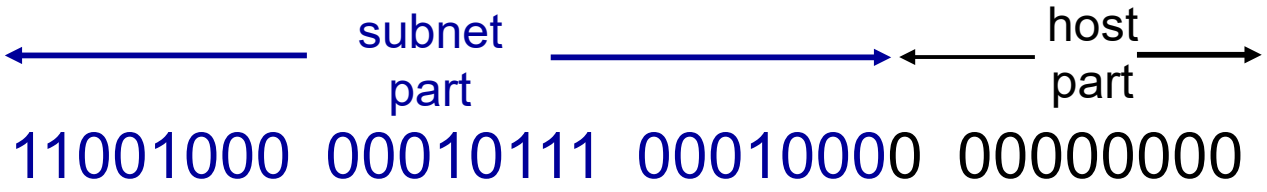
IP Addressing: CIDR

CIDR: Classless InterDomain Routing

- subnet portion of address of arbitrary length
- address format: a.b.c.d/x, where x is # bits in subnet portion of address



200.23.16.0/23

IP Addressing and Subnetting

Let n = No. of Bits for Host Part

m = No. of Bits for subnet Part

Total No. of subnets: 2^m

No. of Hosts in a subnet : $2^n - 2$

-2 's because all 0's in host part represents the subnetwork address and all 1's in host part represents the Broadcast address for the subnetwork.

IP Addressing and Subnetting

A small company has network address of 222.16.32.0 and needs to create 8 subnets. Answer the following questions:

(a) Write the "major network address" for the company?

_____

(b) How many bits will be needed for the subnetting? _____

(c) How many bits will be left for the host addresses? _____

(d) Write the subnet mask? _____

(e) Write any subnetwork address for this company?

_____

(f) Write the broadcast address for one of the above three subnetwork address?

_____