

Class A N.H.H.H

Class B N.N.H.H

Class C N.N.N.H

7 departments 500 hosts/dep.

7 networks (LANs)

148.37.0.0 --> 1 Network/ $2^{16-2} \sim 65534$

10010100.00100101.00000000.00000000	148.37.0.0
10010100.00100101.00100000.00000000	148.37.32.0
10010100.00100101.01000000.00000000	148.37.64.0
10010100.00100101.01100000.00000000	148.37.96.0
10010100.00100101.10000000.00000000	148.37.128.0
10010100.00100101.10100000.00000000	148.37.160.0
10010100.00100101.11000000.00000000	148.37.192.0
10010100.00100101.11100000.00000000	148.37.224.0

LAN-1

10010100.00100101.00000000.00000000	reserved, loopback
10010100.00100101.00000000.00000001	148.37.0.1
10010100.00100101.00000000.00000010	148.37.0.2
10010100.00100101.00000000.00000011	148.37.0.3
10010100.00100101.00000000.00000100	148.37.0.4
.	
.	
.	
10010100.00100101.00000000.11111111	148.37.0.255
10010100.00100101.00000001.00000000	148.37.1.0
10010100.00100101.00000001.00000001	148.37.1.1
10010100.00100101.00000001.00000010	148.37.1.2
10010100.00100101.00000001.00000011	148.37.1.3
.	
.	
.	
10010100.00100101.00000001.11110101	148.37.1.245

10010100.00100101.00011111.11111111 148.37.31.255 b/c

LAN-2

10010100.00100101.00100000.00000000 148.37.32.0

10010100.00100101.00100000.00000001 148.37.32.1

10010100.00100101.00100000.00000010 148.37.32.2

10010100.00100101.00100000.00000011 148.37.32.3

.

10010100.00100101.00100000.11111111 148.37.32.255

10010100.00100101.00100001.00000000 148.37.33.0

10010100.00100101.00100001.00000001 148.37.33.1

.

10010100.00100101.00100001.11110101 148.37.33.245

10010100.00100101.00111111.11111111 148.37.63.255 b/c

148.37.52.45 - 255.255.224.0 subnet mask

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10010100.00100101.01000000.00000000
11111111.11111111.11100000.00000000  subnet mask

10010100.00100101.00110100.00101101  ip address
11111111.11111111.11100000.00000000  subnet mask
----- Logical AND
10010100.00100101.00100000.00000000  148.37.32.0

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CIDR - Classless InterDomain Routing

148.37.52.45 /19

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T T : T
F T : F
T F : F
F F : F

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