

Class A N.H.H.H

Class B N.N.H.H

Class C N.N.N.H

IANA

7 departments 7 LAN ~300 host/dep.

148.37.0.0 ---> 1 Network 2^{16} 65536 host

Subnetting

10010100.00100101.00000000.00000000	148.37.0.0
10010100.00100101.00010000.00000000	148.37.16.0
10010100.00100101.00100000.00000000	148.37.32.0
10010100.00100101.00110000.00000000	148.37.48.0
10010100.00100101.01000000.00000000	148.37.64.0
10010100.00100101.01010000.00000000	148.37.80.0
10010100.00100101.01100000.00000000	148.37.96.0

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10010100.00100101.11100000.00000000 148.37.224.0
10010100.00100101.11110000.00000000 148.37.240.0

LAN-1 Marketing

10010100.00100101.00010000.00000000 148.37.16.0 1/b
10010100.00100101.00010000.00000001 148.37.16.1
10010100.00100101.00010000.00000010 148.37.16.2
10010100.00100101.00010000.00000011 148.37.16.3
10010100.00100101.00010000.00000100 148.37.16.4

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10010100.00100101.00010000.11111111 148.37.16.255
10010100.00100101.00010001.00000000 148.37.17.0
10010100.00100101.00010001.00000001 148.37.17.1
10010100.00100101.00010001.00000010 148.37.17.2
10010100.00100101.00010001.00000011 148.37.17.3

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10010100.00100101.00010001.00101101 148.37.17.45

10010100.00100101.00011111.11111111 148.37.31.255 b/c

LAN-2 Sales

10010100.00100101.00100000.00000000 148.37.32.0 loopback

10010100.00100101.00100000.00000001 148.37.32.1

10010100.00100101.00100000.00000010 148.37.32.2

10010100.00100101.00100000.00000011 148.37.32.3

10010100.00100101.00100000.00000100 148.37.32.4

10010100.00100101.00100000.00000101 148.37.32.5

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10010100.00100101.00100000.11111111 148.37.32.255

10010100.00100101.00100001.00000000 148.37.33.0

10010100.00100101.00100001.00000001 148.37.33.0

10010100.00100101.00100001.00000010 148.37.33.0

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10010100.00100101.00100001.00101101 148.37.33.45

10010100.00100101.00011111.11111111 148.37.47.255

148.37.56.25 - 255.255.240.0

Subnet mask

11111111.11111111.11110000.00000000

Logical AND

10010100.00100101.00111000.00011001	148.37.56.25
11111111.11111111.11110000.00000000	255.255.240.0

10010100.00100101.00110000.00000000	148.37.48.0

148.37.56.25 - 255.255.240.0

CIDR: Classless Inter Domain Routing
148.37.56.25 /20

101.254.45.3 /27 255.255.255.224

11111111.11111111.11111111.11100000

T T : T

T F : F

F T : F

F F : F