**Class A N.H.H.H**

**Class B N.N.H.H**

**Class C N.N.N.H**

**7 departments 7 Lan ~300 host/department**

**148.40.0.0 —> 1 network 2^16-2=65534 Host**

**10010100.00101000.00000000.00000000 148.40.0.0**

**10010100.00101000.00010000.00000000 148.40.16.0**

**10010100.00101000.00100000.00000000 148.40.32.0**

**10010100.00101000.00110000.00000000 148.40.48.0**

**10010100.00101000.01000000.00000000 148.40.64.0**

**10010100.00101000.01010000.00000000 148.40.80.0**

**10010100.00101000.01100000.00000000 148.40.96.0**

**10010100.00101000.01110000.00000000 148.40.112.0**

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**10010100.00101000.11100000.00000000 148.40.224.0**

**10010100.00101000.11110000.00000000 148.40.240.0**

**LAN-1 SALES**

**10010100.00101000.00010000.00000000 148.40.16.0 NetworkID**

**10010100.00101000.00010000.00000001 148.40.16.1 First IP**

**10010100.00101000.00010000.00000010 148.40.16.2**

**10010100.00101000.00010000.00000011 148.40.16.3**

**10010100.00101000.00010000.00000100 148.40.16.4**

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**10010100.00101000.00011111.11111110 148.40.31.254**

**10010100.00101000.00011111.11111111 148.40.31.255 B/C IP**

**LAN-2 HUMAN RESOURCES**

**10010100.00101000.00100000.00000000 148.40.32.0 NetworkID**

**10010100.00101000.00100000.00000001 148.40.32.1 First IP**

**10010100.00101000.00100000.00000010 148.40.32.2**

**10010100.00101000.00100000.00000011 148.40.32.3**

**10010100.00101000.00100000.00000100 148.40.32.4**

**10010100.00101000.00100000.00000101 148.40.32.5**

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**10010100.00101000.00100000.11111111 148.40.32.255**

**.**

**10010100.00101000.00101111.11111111 148.40.47.255 B/C IP**

**148.40.57.119/24 - 255.255.240.0**

**Classless InterDomain Routing**

**10010100.00101000.00111001.01110111**

**11111111.11111111.11110000.00000000**

**—-----------------------------------**

**10010100.00101000.00110000.00000000**

**148.40.48.0**

**128 64 32 16 8 4 2 1**

**128 192 224 240 248 252 254 255**

**/25 /26 /27 /28 /29 /30 /31 /32**

**/17 /18 /19 /20 /21 /22 /23 /24**

**/9 /10 /11 /12 /13 /14 /15 /16**

**158.11.30.232/27**

**255.255.255.224 Subnet Mask**

**32**

**64**

**96**

**128**

**160**

**192**

**224 158.11.30.224 network id**

**225 first ip 254 last 255 b/c ip**

**256**

**158.11.31.0 next network**

**158.11.80.114/30**

**255.255.255.252**

**158.11.80.112 network id.**

**158.11.80.113 first**

**158.11.80.114 last**

**158.11.80.115 broadcast id**

**158.11.80.116 next network id**