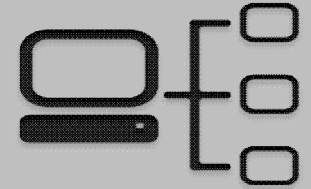


# Class C Example #3



- **Details & Requirements**
  - Network Address: 192.168.1.0
  - Default Subnet Mask: 255.255.255.0 or /24
  - Requires 22 hosts / Subnet
- **How many host bit do we need to borrow?**
  - 3 host bits,  $2^3 = 8$  Subnets
- **How many addresses hosts per subnet?**
  - 5 host bits left,  $2^5 = 32$  Addresses / Subnet
  - $2^5 - 2 = 30$  Addresses / Subnet
- **What are the valid subnets?**
  - .0, .32, .64, .96..... .224
- **New Subnet Mask?**
  - 11111111.11111111.11111111.11100000
  - 255.255.255.224 or /27

| Subnet | Network Address | Host IP Addresses | Broadcast Address |
|--------|-----------------|-------------------|-------------------|
| 1      | 192.168.1.0     | 1 thru 30         | 192.168.1.31      |
| 2      | 192.168.1.32    | 33 thru 62        | 192.168.1.63      |
| 3      | 192.168.1.64    | 65 thru 94        | 192.168.1.95      |
| 4      | 192.168.1.96    | 97 thru 126       | 192.168.1.127     |
| 5      | 192.168.1.128   | 129 thru 158      | 192.168.1.159     |
| 6      | 192.168.1.160   | 161 thru 190      | 192.168.1.191     |
| 7      | 192.168.1.192   | 193 thru 222      | 192.168.1.223     |
| 8      | 192.168.1.224   | 225 thru 254      | 192.168.1.255     |