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9/21/15

CS2750

* Special Addresses
  + 0.0.0.0 - (This Network)
  + 255.255.255.255 - (Local Broadcast)
  + 127.0.0.0/8 - (Loopback Address)
  + 127.0.0.1 (local Host)
  + Private address
    - Can only talk to on an internal or local network
    - 10.0.0.0/8
      * Organization IP range
      * /8 block can accomidate a lot more hosts than a /16
      * /8 = Class A = 16 million Hosts
      * /16= Class B = 65 thousand hosts
    - 172.16.0.0/16
    - 192.168.0.0/16
      * Home network
    - 169.254.0.0/16
  + Network Address
    - Prefix followed by 0’s
  + Direct broadcast
    - Prefix followed by 1’s
    - ex) 192.168.255.255
  + See Notes
* NAT
  + Network Address Translation
    - One IP Address
    - Pool of IP Addresses
    - IP and Port - Coming/Going
* CGN
  + Carrier Grade NAT
    - Give you an internal IP address
    - Hard to host behind this
* Delivery and Forwarding
  + Delivery (lower Layers)
    - Direct
      * Same network Address
    - Indirect
      * Next outer hop
      * Next hop lookup (routing table)
        + Dest IP

Routing IP

* + - * + Next hop IP

ARP

* + - * + MAC
  + Forwarding (layer 3)
    - Delivery to next station