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CS2750

* 802.11
* BSS
  + Base Service Set
* ESS
  + Extended Service Set
  + One or more BSS
* Stations
  + No-transition
  + BSS transition
  + ESS-Transition
* Listen before talk
  + RTS - Request to send
    - How Long
  + CTS - Clear to send
    - Says that we are ok to send
* Hidden Station
  + computer a can’t actually see computer b, but they are both hitting the access point
* Exposed Station
* Frame Control | Duration ID | Add.1 | Add. 2 | Add. 3 | Sea cont | Add. 4|
* 2-bytes 2 bytes 6 bytes 6 bytes 6 bytes 6 bytes
  + version
  + type
  + retry flag
  + wep
  + to ds
  + from ds
* Bluetooth (802.15)
  + Piconet
    - Max of 8 active devices
    - 1 Primary Device
      * The rest are secondary
    - 8 parked stations
  + Scatternet
    - take one secondary device and turn it into a primary connection for more devices
  + 1 Mbps 2.4GHz
* WAN - point to point
  + 56-k modem
  + A-DSL
    - Channel 0-6 for voice
    - Channel 6-30 for upstream
      * 1.4Mbps
    - Channel 30-355 for downstream
      * 13Mbps
  + Cable Modem
    - 27 Mbps down
    - 12 Mbps up
  + T-Lines
    - Used to be backbone of the internet
    - Used to be fast, now really slow
    - T-1
      * 1.54 Mbps
    - T-3
      * 44 Mbps
  + SONET
    - 50 Mbps - 10 Gbps
* WAN - Switched Network
  + X.25
    - Like shipping a car on a truck
    - Put one network technology in another
  + ATM
    - Connection - oriented
    - Virtual Circuits
* Devices
  + Repeater
  + Hub
  + Bridge
    - Like a hub, but only sends to the place it needs to go
    - Software
    - Layer 2
  + Layer 2 switch
    - Like a bridge, but hardware
  + Router
  + Layer 3 switch