

Networking



WiFi Standards

802.11 Standards

- Frequencies
 - 2.4 GHz
 - Lower speeds than 5 GHz
 - Longer distances than 5 GHz
 - 5 GHz
 - Faster speeds than 2.4 GHz
 - Shorter distances than 2.4 GHz



802.11 Standards

802.11 Standard	Frequency	Max Data Rate	Range
802.11a	5 GHz	54 Mbps	100 ft
802.11b	2.4 GHz	11 Mbps	100 ft
802.11g	2.4 GHz	54 Mbps	125 ft
802.11n	2.4 and 5 GHz	600 Mbps	225 ft
802.11ac	5 GHz	6.8 Gbps	90 ft
802.11ax	2.4 and 5 GHz	10 Gbps	90 ft



802.11 Standards

- Channels
 - 2.4 GHz
 - Channels 1 – 11
 - Channels 1, 6, and 11 are the only three that can run simultaneously and not overlap
 - 5 GHz
 - Channels 1 – 45
 - Lower numbered channels have lower frequencies
- Channel Bonding
 - Combining multiple channels
 - Increases how much traffic can be supported

