Wireless Standards (Wi-Fi 6E Video)

IEEE Standard	Wi-Fi Alliance Name	Year Released	Frequency	Maximum Data Rate
802.11a	Wi-Fi 1	1999	5GHz	54Mbps
802.11b	Wi-Fi 2	1999	2.4GHz	11Mbps
802.11g	Wi-Fi 3	2003	2.4GHz	54Mbps
802.11n	Wi-Fi 4	2009	2.4GHz & 5GHz	600Mbps
802.11ac	Wi-Fi 5	2014	2.4GHz & 5GHz	1.3Gbps
802.11ax	Wi-Fi 6	2019	2.4GHz & 5GHz	10-12Gbps
802.11ax-2021	Wi-Fi 6E	2021	2.4GHz, 5GHz, & 6GHz	10-12Gbps
801.11be	Wi-Fi 7	2024/2025	2.4GHz, 5GHz, & 6GHz	40Gbps

- 1. Wi-Fi standards are constantly changing and evolving, with updates bringing faster internet speeds, better connections, and more simultaneous connections.
- 2. The most commonly used Wi-Fi standard at present is **802.11ac**, while the next generation standard, **Wi-Fi 6 (802.11ax)**, is being rolled out.
- 3. Wi-Fi 6E is an extension of Wi-Fi 6 that allows for broadcasting over a new 6GHz band, increasing available network capacity and reducing interference. Wi-Fi 7 and Wi-Fi 8 are also on the horizon, with even faster speeds and improved features.
- 4. Your router and devices using 802.11ac can communicate happily.
- 5. Devices using 802.11b, g, and n can communicate with an ac router.
- 6. 11b cannot communicate with a, and vice versa.
- 7. 11g cannot communicate with b, and vice versa.