Introduction to Wi-Fi 6 and 7

Following the introduction of Wi-Fi 5 (802.11ac) in 2014, we had to wait 7 years for Wi-Fi 6 (802.11ax). Now, just 3 years later, we have Wi-Fi 7 (802.11be). Wi-Fi 6 and 7 have brought several technological developments which have the potential to significantly improve throughput and latency. These improvements are required to support emerging applications such as VR/AR and the ever growing number of Wi-Fi devices.

The major technological developments in Wi-Fi 6 and 7 are as follows:

Wi-Fi 6 (known as High Efficiency)

- Orthogonal Frequency Division Multiple Access (OFDMA)
- Multi-User, Multiple-Input, Multiple-Output (MU-MIMO)
- Basic Service Set Colouring (BSS Colouring)
- Target Wake Time (TWT)
- 1024 Quadrature Amplitude Modulation (1024-QAM)
- 6GHz frequency band (Wi-Fi 6E)
- Wi-Fi Protected Access 3 (WPA3) This is a separate but complementary technology.

Wi-Fi 7 (known as Extremely High Throughput)

- 4096 Quadrature Amplitude Modulation (4096-QAM or 4KQAM)
- Multi-Link Operation (MLO)
- 320MHz channels

Simple Guides

Over the next few weeks, we are going to publish a series of simple guides to explain the above developments in 'lay terms' so that everyone can get a better understanding of how they work and the benefits they can deliver.

Who is Saytelco?

Saytelco is an independent consultancy that specialises in Wi-Fi. We help our clients to devise Wi-Fi strategies, build business cases, procure products/services and project manage implementations. We can also survey sites and advise on equipment and security configurations. To arrange a no obligation discussion on how we can help you to address your Wi-Fi challenges, please email Mark Sayers via msayers@saytelco.com or call 07970 573428.