NATILIK

Wi-Fi 6E the future of Wi-Fi

The release of Wi-Fi 6E marks the future of Wi-Fi and is an exciting development not just for network managers but for facilities managers, CSOs and the everyday Wi-Fi user!

What is Wi-Fi 6E and how is it different to Wi-Fi 6?

It's the latest innovation in Wi-Fi that extends the Wi-Fi 6 standard (802.11ax) into the 6GHz spectrum. So unlike Wi-Fi 6, which uses the legacy 2.4GHz and 5GHz spectrums, Wi-Fi 6E is a greenfield opportunity that opens an interference and DFS-free spectrum.

Why? Why is it important?

With no legacy clients and double the channels of 5GHz, the 6GHz band means Wi-Fi 6E offers benefits such as:

| Reduced co-channel interference | Lower latency and jitter | Increased bandwidth, leading to faster speeds | More efficient use of the spectrum (OFDMA) | Additional security |

These benefits mean that businesses like yours can run applications and devices that require a large bandwidth effectively over your wireless network with a more reliable user experience.

New capabilities and enhancements

Additional Security

New security is required for Wi-Fi 6 devices operating in 6GHz, known as WPA3. This mandates that Management Frame Protection (MFP) is required and that Simultaneous Authentication of Equals (SAE) replaces Pre-Shared Key (PSK) security. SAE is an important security update as it is resistant to the dictionary attacks that PSK are vulnerable to. Wi-Fi 6E also requires Enhanced Open certification support and will mandate support for Opportunistic Wireless Encryption (OWE) in 6 GHz. This means there will be no more 'open' networks and encryption will always be used to protect user data even if guests aren't required to use a passphrase to access the WLAN.
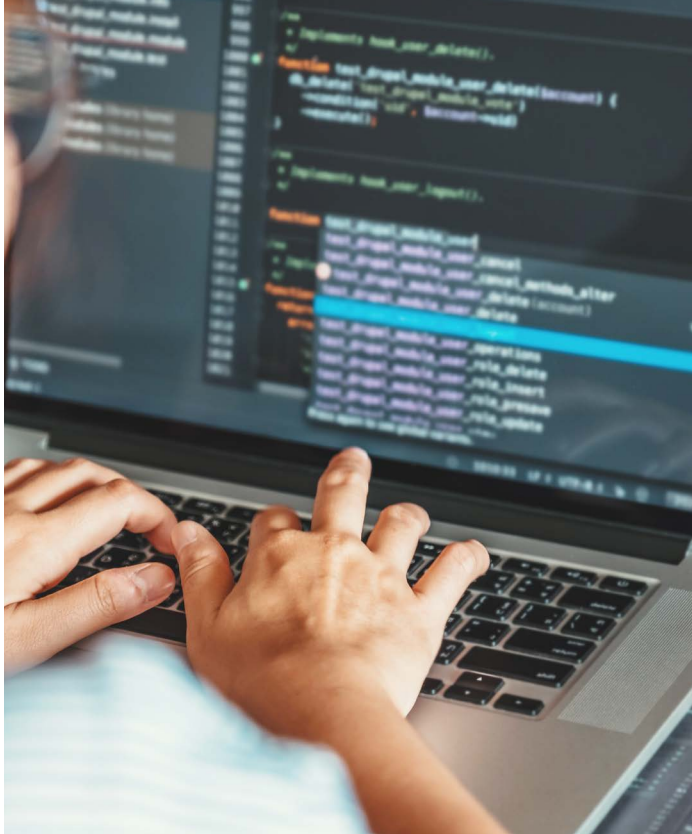
No DFS scanning

Devices operating in 6 GHz don't share the spectrum with radar devices or TV stations, which opens the entire 500MHz of spectrum to businesses that operate near places like airports, docks and weather stations.

Environmental Sensors

Cisco has added new sensor capabilities to their Wi-Fi 6E APs. These sensors monitor the environment in which they are placed, tracking room temperature, humidity and air quality. This capability eliminates the need for overlay systems and enables businesses to track how healthy the environment is for their teams and visitors. The estate team benefit from having quick and easy-to-access environmental data without any IT complexity.
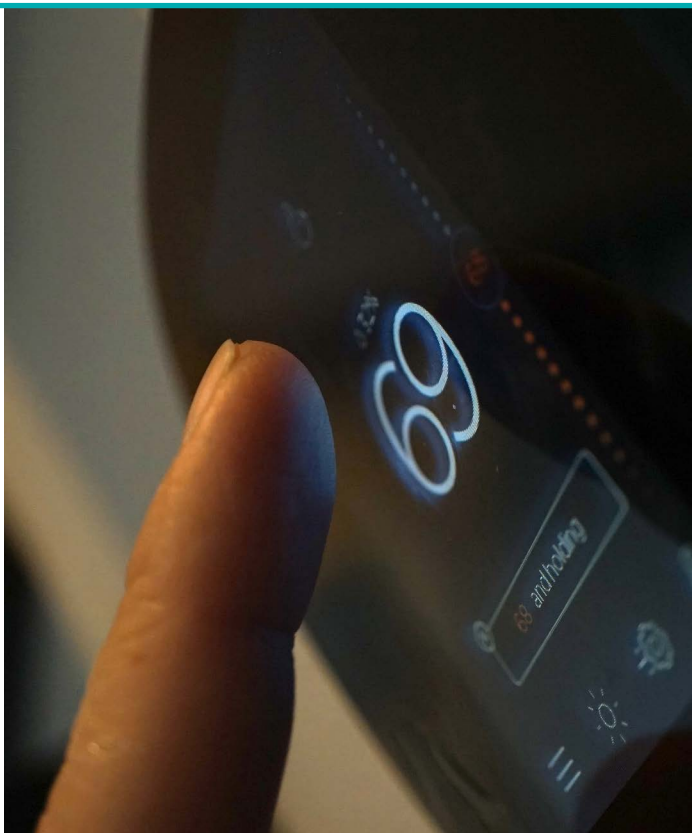
Strengthens Wi-Fi 6 features

Features of Wi-Fi 6 including orthogonal frequency-division multiple access (OFDMA), basic service set (BSS) and multi-user, multiple input, multiple output (MU-MIMO), will work better over the 'cleaner' 6GHz spectrum, enabling networks to get the full benefit of what Wi-Fi 6 promised. In addition to this, features such as preamble puncturing will be viable as there are no legacy clients to contend with. This will allow better channel use even if neighbouring WLANs are using different channel widths.

How can Wi-Fi 6E support your business outcomes?

| Enables the smooth running of applications that require different levels of bandwidth | Reduces co-channel interference meaning your wireless is more reliable | Provides Wi-Fi that is fast and reliable enough to deliver the performance you need at all times |

All of which can improve your user experience and improve the level of services to your customers.

If you would like to find out more about how Wi-Fi 6E can support your business, get started by booking a free 'Future of Networking Assessment' today.

Book your free assessment: