

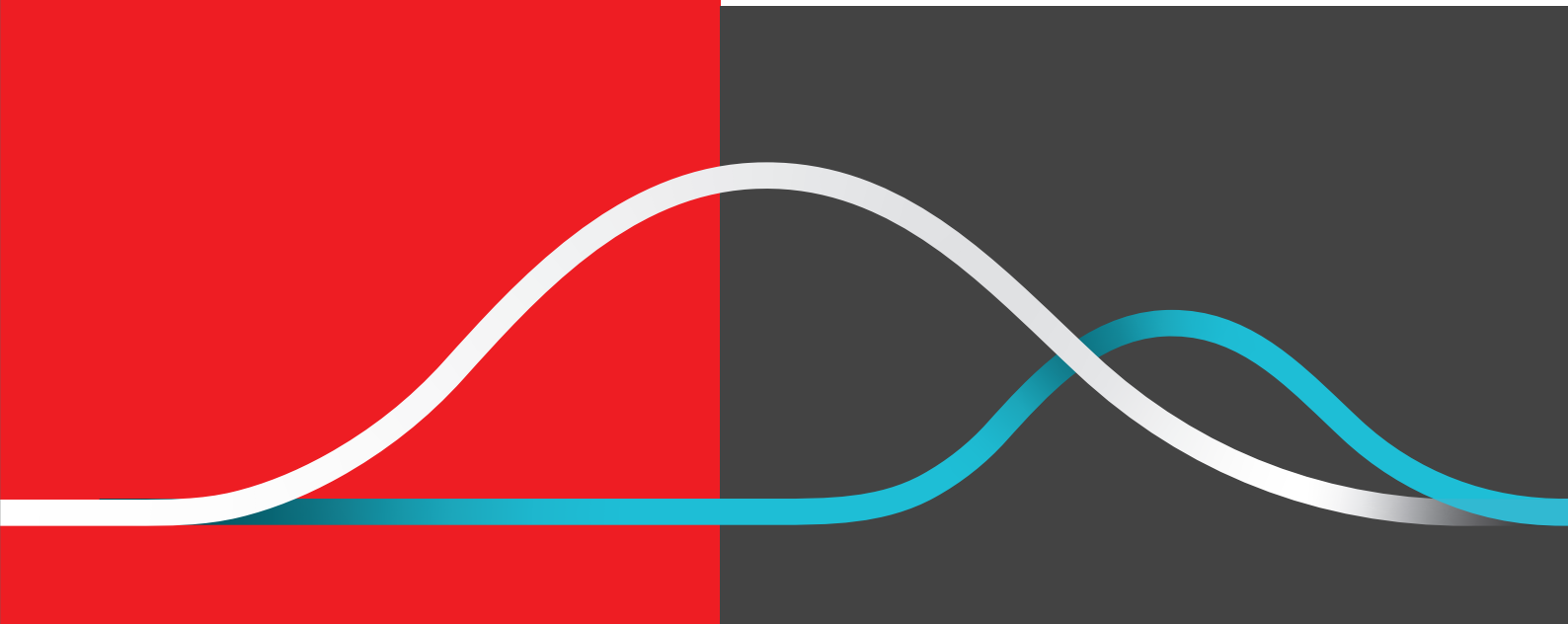


The 6th gen Wi-Fi delivers Enterprises more connections, less interference and faster speeds

Most every business has become reliant on mobility to keep up with the increasing demands of customer expectations. For example, warehouse operations need to perform at the peak of efficiency and in search of the perfect order fulfillment every time. Retailers need to enable associates where the customer is, even at the curb. Similar performance demands can be found in healthcare, manufacturing, and hospitality. All of these use cases are undergoing a transformative shift, driven by technological advancements and changing consumer expectations.

The connective tissue is the mobile computer and its dependence on the wireless network. In this paper, we explore the advantages of Wi-Fi 6E technology for enterprise customers utilizing mobile computers in both warehouse and retail settings. By embracing the capabilities of Wi-Fi 6E, businesses can improve operational efficiency, exceed customer expectations, and gain a competitive edge in their respective dynamic landscapes.

Wi-Fi 6E delivers Enterprises improved operational efficiencies



The changing landscape of Wi-Fi

Enterprise operations are increasingly looking at data to squeeze even more efficiency out of their operations to gain a differentiated competitive edge. As a result, mobile applications have a growing appetite for more information resulting in consumption of greater bandwidth causing legacy Wi-Fi networks to increasingly become more congested and taxed. With the increasing desire to put a mobile device in the hands of every worker, the adoption of push-to-talk voice, and proliferation of IoT devices, Wi-Fi network needs to be able to accommodate more traffic, more connections and more devices, often in areas not previously supported by Wi-Fi. The capabilities of Wi-Fi 6E will meet these evolving demands head on.

What is Wi-Fi 6E

Also known as 802.11ax, Wi-Fi 6E addresses everything from the need for speed to the need to accommodate more devices and improved security. Compared to Wi-Fi 5, Wi-Fi 6E quadruples bandwidth and capacity, reducing congestion and interference. And with as much as a 75% reduction in latency, a substantial increase in devices and traffic won't impact application performance.

The advent of Wi-Fi 6E allows users to gain even more speed, more bandwidth and more capacity with the additional Wi-Fi frequency band — 6 GHz. The 6 GHz band offers an additional 1200 MHz of Wi-Fi spectrum, compared to the maximum 560 MHz for prior Wi-Fi generations, boosting the total available spectrum to 1600 MHz — quadrupling the available space. The result is a Wi-Fi network that offers the highest possible reliability and capacity, plus the lowest possible latency, capable of supporting sensitive applications such as autonomous mobile robots, and offering enterprises maximum relief for Wi-Fi network congestion.

Reliability and increased device density are paramount in any operation. Retail operations facing downtime can result in lost sales and lasting damage to customer relationships. The proliferation of IoT sensors, smart shelves, and beacon technology in retail, and throughout the supply chain to track critical metrics can be met with Wi-Fi 6E. Wi-Fi 6E's optimized channel access and latency-reducing features enable retailers to deliver responsive, interactive experiences that delight customers and drive engagement. Warehouse operations are measured in seconds, and anything that can improve productivity along with accuracy are impactful. Wi-Fi 6E advanced features, including improved beamforming and interference mitigation techniques, ensure consistent connectivity even in crowded retail environments and constantly changing warehouse inventory configurations.

More connections, devices, users mean more Security

Security remains a top priority for all enterprises, especially in an era of increasing cyber threats and data breaches. Wi-Fi 6E incorporates robust security protocols such as WPA3 encryption and OWE (Opportunistic Wireless Encryption) to protect sensitive customer data and prevent unauthorized access to the network. By implementing these security measures, enterprises can safeguard customer privacy, build trust, and mitigate the risk of costly security breaches.

To take advantage of Wi-Fi 6E capabilities, it will require updating legacy access points to those enabled with Wi-Fi 6E capability and mobile computers supporting 6 GHz. Askey Computer Corporation recently released the [Askey RC40](#) - the affordable rugged high performance mobile computer alternative that supports Wi-Fi 6E, integrated barcode scanning and rugged features well suited for Enterprise customers.

In summary, Wi-Fi 6E technology offers significant advantages for enterprise customers operating in both warehousing, retail environments and other indoor use cases. By leveraging its increased throughput, enhanced reliability, reduced latency, improved device density, and advanced security protocols, businesses can optimize their operations, enhance customer experiences, and drive growth in an increasingly competitive market. As the adoption of Wi-Fi 6E continues to accelerate, enterprises stand to benefit from a more agile, efficient, and secure wireless infrastructure that lays the foundation for innovation and success in the digital age.





Communication for the future



About Askey

[Askey Computer Corporation](#) is headquartered in Taipei, Taiwan with offices across the globe and within North America. Founded in 1989, Askey Computer Corporation is a member of AsusTEK (Asus) Computer Inc., and leveraging 35 years of telecommunication development has created an industry leading portfolio of global 5G and private 5G end-to-end network solutions for modern business environments to enhance their digital transformations. As a manufacturer of rugged mobile computing solutions since 2001, Askey has produced over 20M mobile devices to date and has helped shape Enterprise mobile computing.

