# WBA predicts transformative developments in Wi-Fi technology by 2025



The Wireless Broadband Alliance (WBA) has recently released an annual industry report delineating its predictions for the evolution of Wi-Fi technology by the year 2025. This announcement was made by WBA President and CEO, Tiago Rodrigues, who articulated the current critical juncture for the Wi-Fi sector. Speaking to IT Brief New Zealand, Rodrigues stated, "The Wi-Fi industry has reached a pivotal moment. As demand for improved Wi-Fi user experience with seamless, secure, and high-performance connectivity continues to surge across homes, enterprises, and cities, collaboration within our ecosystem is more critical than ever."

The report offers an in-depth look at expected trends that will shape the future landscape of Wi-Fi. A prominent projection is the early adoption of Wi-Fi 7, particularly by tech-focused industries and smart cities. These entities are expected to harness Wi-Fi 7's enhanced capabilities for applications requiring robust connectivity, such as high-definition video conferencing and real-time data collection through Internet of Things (IoT) devices.

In terms of frequency management, the WBA anticipates that regions including the United States, Canada, and certain parts of Asia will implement Automated Frequency Coordination (AFC) systems, provided they receive the necessary regulatory approvals. The Federal Communications Commission (FCC) in the United States is set to lead the charge on AFC implementation, ensuring that devices can effectively operate at standard power levels while not disrupting existing communications.

In addition to these advancements, the integration of artificial intelligence (AI) in network management is expected to rise. AI-driven routers will have the capacity to optimise bandwidth allocation and device management, particularly in environments that rely heavily on smart home technologies and IoT devices. This innovation will enable infrastructure vendors to distinguish their products in a marketplace increasingly characterised by commoditised hardware.

The forthcoming convergence of Wi-Fi with 5G and 6G technologies will facilitate seamless connectivity experiences. Dynamic network switching is expected to enable uninterrupted service as users transition between different locations, which will prove advantageous for smart city applications, including real-time gaming and augmented/virtual reality (AR/VR) services.

The initiative known as OpenRoaming is projected to gain momentum, enhancing public and guest Wi-Fi user experiences by streamlining connectivity procedures. The planned expansion of OpenRoaming into the IoT sphere is expected to elevate functionalities such as zero-touch provisioning for IoT devices and enhanced emergency calling capabilities. This, in turn, will present opportunities for mobile network operators to weave Wi-Fi into their service offerings.

The WBA's report also suggests that the TIP OpenWiFi initiative will likely see an expansion; however, its growth may vary significantly across different regions and sectors. The success of this initiative will hinge on overcoming scalability challenges and building trust with consumers and businesses against more established wireless LAN providers.

Amid the burgeoning IoT landscape, the ability of Wi-Fi technologies to efficiently manage numerous connected devices is regarded as crucial. Standards like Wi-Fi 6 and Wi-Fi 7 are anticipated to play a central role, while Wi-Fi HaLow is emerging as a promising technology for sectors such as agriculture and manufacturing, primarily due to its extended range capabilities and improved battery efficiency.

The report further highlights the importance of adopting an API-first framework in Wi-Fi solutions to foster agile and scalable digital architectures. Driven by smart city projects, the expansion of public Wi-Fi networks is expected to bolster urban connectivity.

Finally, an increased focus on energy efficiency within Wi-Fi networks is anticipated, with the incorporation of technologies like Target Wake Time (TWT) expected to particularly benefit IoT devices that require extended battery life.

The WBA's detailed predictions for 2025 portray a transformative phase in the Wi-Fi industry that is set to redefine connectivity across various sectors worldwide.

Source: [Noah Wire Services](https://www.noahwire.com)

## Bibliography

1. <https://wballiance.com/wi-fi-predictions-for-2025/> - Corroborates the WBA's predictions for Wi-Fi in 2025, including the adoption of Wi-Fi 7, Automated Frequency Coordination (AFC) systems, and the integration of AI in network management.
2. <https://wballiance.com/wi-fi-predictions-for-2025/> - Details the role of AFC systems in regions like the United States, Canada, and parts of Asia, and the FCC's lead in AFC implementation.
3. <https://wballiance.com/wi-fi-predictions-for-2025/> - Explains the convergence of Wi-Fi with 5G and 6G technologies for seamless connectivity and its benefits for smart city applications.
4. <https://wballiance.com/wi-fi-predictions-for-2025/> - Discusses the growth of OpenRoaming and its expansion into the IoT space, including zero-touch provisioning and enhanced emergency calling capabilities.
5. <https://wballiance.com/wi-fi-predictions-for-2025/> - Highlights the TIP OpenWiFi initiative and its potential growth, as well as the importance of Wi-Fi HaLow for IoT applications.
6. <https://wballiance.com/wireless-broadband-alliance-10-wi-fi-predictions-for-2024/> - Provides context on the rapid adoption of Wi-Fi 6E and Wi-Fi 7, driven by their ability to access additional spectrum in the 6GHz band.
7. <https://wballiance.com/wireless-broadband-alliance-10-wi-fi-predictions-for-2024/> - Mentions the role of AI in speeding up troubleshooting, streamlining monitoring, and anticipating outages in network management.
8. <https://wballiance.com/wi-fi-predictions-for-2025/> - Emphasizes the importance of Wi-Fi technologies in managing numerous connected devices, particularly through standards like Wi-Fi 6 and Wi-Fi 7.
9. <https://wballiance.com/wi-fi-predictions-for-2025/> - Discusses the adoption of an API-first framework in Wi-Fi solutions to support agile and scalable digital architectures, especially in smart city projects.
10. <https://wballiance.com/wi-fi-predictions-for-2025/> - Highlights the increased focus on energy efficiency in Wi-Fi networks, including the use of technologies like Target Wake Time (TWT) for IoT devices.
11. <https://news.google.com/rss/articles/CBMijgFBVV95cUxNZTlhdWFkemlaa2c2b2hPdFJyNWFIbEh4ZVNXWnh3M2dQc29KeE5KNHJwSzRZdUlzYmtiMGhaR0REOTZUZ1pnS2xTSkgydElDcThrSnJPQjNMTFBqa0lnandDdE1ZYkJYTGU4YnhCRC1QVVhVQXpJSmRMQUQ4WGFzNkFpclFOd2RUX3JBU0pB?oc=5&hl=en-US&gl=US&ceid=US:en> - Please view link - unable to able to access data