

Wireless Broadband Alliance Wi-Fi 7 Trials Showcase 2.5x Performance Leap for Cloud Gaming and Connected Homes With 4.2 Gbps Bi-Directional Throughput

Türk Telekom, HPE Aruba Networking, and Intel validate breakthroughs in speed, latency and real-world performance for residential settings

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EINPresswire.com/ -- The [Wireless Broadband Alliance \(WBA\)](#), the global industry body dedicated to driving seamless and interoperable Wi-Fi

experiences across the global wireless ecosystem, today announced the results of Wi-Fi 7 residential trials conducted in collaboration with Türk Telekom, HPE Aruba Networking, and Intel. Designed to assess Wi-Fi 7's impact on next-generation digital experiences in real-world home

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and CEO of the Wireless
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**Wireless
Broadband
Alliance**

Logo of the Wireless Broadband Alliance

environments, the trials revealed dramatic improvements in throughput, latency, and reliability compared to Wi-Fi 6E and Wi-Fi 5.

These [WBA Wi-Fi 7 trials](#) focused on residential use cases such as cloud gaming and immersive digital applications, with side-by-side comparisons against previous Wi-Fi standards. The results of the field trials demonstrated that Wi-Fi 7 delivers:

- Peak throughput: Over 4.2 Gbps in both uplink and downlink - 2.5x faster than Wi-Fi 6E and 6x faster than Wi-Fi 5
- Reliable coverage: Consistent 3+ Gbps performance sustained up to 6 meters from the access point, ensuring robust multi-room connectivity
- Ultra-low latency: Under 1ms in cloud gaming scenarios, enabling faster responsiveness and

smoother real-time interactions

- Stable gameplay: Consistent 60 fps framerates with minimal jitter, ensuring seamless AAA gaming, VR/AR content, and live streaming. Wi-Fi 6E framerates dropped to 55 fps
- Resilience under load: Superior performance during heavy traffic (up to 2Gb simulated), maintaining stability for multiple simultaneous users and devices

Transforming digital lifestyles

These results underscore Wi-Fi 7's ability to revolutionize connected home experiences, addressing growing demands from cloud gaming, streaming, remote work, and smart home ecosystems. Consumers can expect seamless 4K/8K video streaming, ultra-responsive online gaming, more stable video conferencing, and smoother AR/VR applications, even in environments with multiple users and devices competing for bandwidth.

Beyond residential use, the trials demonstrate Wi-Fi 7's scalability to enterprise and public-sector environments. With the ability to support dense device deployments, cloud-based workflows, and AI-driven IoT applications, Wi-Fi 7 is poised to become a key enabler for future-ready workplaces, healthcare, education, and smart cities.

Industry leadership commentary

Mr. Tiago Rodrigues, President and CEO of the Wireless Broadband Alliance, said:

"Wi-Fi 7 is setting a new benchmark for home connectivity. These trials prove that it can deliver the ultra-fast, low-latency, and reliable performance needed to unlock immersive gaming, streaming, and smart home applications. WBA will continue working with operators and technology leaders to accelerate Wi-Fi 7 adoption and deliver world-class digital experiences to consumers."

Dr. Eldad Perahia, Fellow, HPE Aruba Networking, stated:

"These trials demonstrate the tangible benefits Wi-Fi 7 brings to consumers with faster, smarter, and more seamless home connectivity. They also demonstrate the technology's scalability across enterprise and public-sector environments. With the ability to support dense device deployments, cloud-driven workflows, and AI-powered IoT applications, Wi-Fi 7 is set to become a foundational technology for future-ready workplaces, healthcare, education, and smart cities."

Dr. Necati Canpolat, Project Leader at Intel, added:



Tiago Rodrigues, President and CEO of the Wireless Broadband Alliance

“These residential trials confirm the remarkable gains that Wi-Fi 7 brings to user experiences. From reduced latency to stable high frame rates, Intel-powered devices with Wi-Fi 7 capabilities are ready to support the most demanding real-time applications in homes worldwide.”

Dr. Mehmet Özdem, Innovation & Product and Services Director at Türk Telekom, commented: “At Türk Telekom, we are committed to shaping the digital future of Türkiye. These Wi-Fi 7 trials show how we can transform everyday experiences for our customers, from flawless cloud gaming to high-quality streaming and reliable connectivity across modern homes. Wi-Fi 7 is not just a technology upgrade — it’s the foundation of tomorrow’s connected lifestyle.”

Driving Wi-Fi 7 adoption across industries

Building on the success of these trials, the WBA will continue working with global operators, device manufacturers, and ecosystem partners to accelerate Wi-Fi 7 adoption, optimize spectrum usage in the 6 GHz band, and refine deployment strategies for both residential and enterprise environments.

To learn more about the WBA’s Wi-Fi 7 initiatives and other trial findings, visit the Road to Wi-Fi 7. (<https://wballiance.com/road-to-wi-fi-7/>)

[Download the “Wi-Fi 7 Trials for Residential Settings” report](#) to learn about key observations and takeaways from the trials.

About the Wireless Broadband Alliance

Wireless Broadband Alliance (WBA) is the global organization that connects people with the latest Wi-Fi initiatives. Founded in 2003, the vision of the WBA is to drive seamless, interoperable service experiences via Wi-Fi within the global wireless ecosystem. WBA’s mission is to enable collaboration between service providers, technology companies, cities, regulators and organizations to achieve that vision.

WBA undertakes programs and activities to address business and technical challenges, while exploring opportunities for its member companies. These initiatives encompass standards development, industry guidelines, trials, certification, and advocacy. Its key programs include NextGen Wi-Fi, OpenRoaming, 5G, IoT, Smart Cities, Testing & Interoperability and Policy & Regulatory Affairs, with Member-led Work Groups dedicated to resolving standards and technical issues to promote end-to-end services and accelerate business opportunities.

Membership in the WBA includes major operators, service providers, enterprises, hardware and software vendors, and other prominent companies that support the ecosystems from around the world. The WBA Board comprises influential organizations such as Airties, AT&T, Boingo Wireless, Boldyn Networks Broadcom, BT, Charter Communications, Cisco Systems, Comcast, CommScope, HFCL, Intel, Reliance Jio, Telecom Deutschland and Turk Telekom.

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