

Wireless Broadband Alliance Wi-Fi 7 Trials Demonstrate Significant Performance Gains for Real-World Enterprise Environments

Wi-Fi 7 delivers increased throughput, lower latency, and enhanced efficiency for high-demand applications, setting a new standard for enterprise connectivity

LONDON, UNITED KINGDOM, May 7, 2025 /EINPresswire.com/ -- [The Wireless Broadband Alliance](#) (WBA), the global industry body dedicated to driving the seamless and interoperable service experience of Wi-Fi across the

global wireless ecosystem, has today announced the results of [Wi-Fi 7 industry trials in Enterprise Scenarios](#), conducted in collaboration with AT&T, CommScope (RUCKUS Networks), and Intel. The trials, designed to evaluate Wi-Fi 7's real-world performance, demonstrated



significant improvements in throughput, efficiency and latency, highlighting Wi-Fi 7's ability to support mission-critical enterprise applications such as XR, AI, cloud computing, and industrial IoT.

The WBA Wi-Fi 7 trials focused on assessing rate vs. range performance in enterprise settings, comparing Wi-Fi 7 with Wi-Fi 6E across the 5 GHz and 6 GHz bands. The tests which were conducted in live enterprise environments, revealed that Wi-Fi 7 delivers:

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These trials prove that Wi-Fi 7 offers real-world improvements in speed, reliability, and efficiency that businesses need to support the next generation of applications.”
Tiago Rodrigues, President and CEO, Wireless Broadband Alliance

- Nearly double the throughput of Wi-Fi 6E at 5 GHz using 40 MHz channels
- Sustained 1 Gbps+ throughput up to 40 feet away from the access point (AP) in the 6 GHz band with 160 MHz channels
- Lower latency and improved efficiency, supporting next-gen applications such as AR/VR, video conferencing, and automation
- Greater network reliability, helping enterprises manage high-density environments with

thousands of connected devices

Downlink of 2 Gbps and reduced congestion with MLO
The trials assessed Wi-Fi 7's capabilities in both controlled and real-world enterprise environments, focusing on throughput, latency, and signal range across different frequencies and channel widths. At 6 GHz with 160 MHz channels, Wi-Fi 7 achieved nearly 2 Gbps downlink throughput at close range, maintaining over 1 Gbps up to 40 feet away. In high-density enterprise settings, where APs must support thousands of simultaneous connections, Wi-Fi 7's enhanced spectral efficiency and Multi-Link Operation (MLO) provided more stable, reliable connectivity, mitigating network congestion even in heavily loaded conditions.

Addressing enterprise connectivity challenges for new and legacy devices

These findings demonstrate Wi-Fi 7's ability to address key connectivity challenges in smart offices, manufacturing, healthcare, and immersive digital environments. Enterprises that rely on real-time collaboration, video conferencing, AI-driven automation, and AR/VR applications will benefit from Wi-Fi 7's lower latency and higher throughput, ensuring seamless user experiences without performance bottlenecks. The trials also confirmed that Wi-Fi 7 delivers significant improvements in 5 GHz networks, where many legacy devices still operate, ensuring backward compatibility and an easier transition for enterprises upgrading their infrastructure.

While This trial focused on 160 MHz channels in the 6 GHz band which would be typical for high-density commercial Wi-Fi 7 network deployments requiring many access points. However, most of today's Wi-Fi 7 devices also support 320 MHz channels which would be more common for smaller networks, and enable even higher levels of performance for hybrid work and consumer experiences as documented in our recent [WBA Wi-Fi 7 Trial report](#) for residential settings.

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

"Wi-Fi 7 is not just an evolution, it's a game changer for enterprise connectivity. These trials prove that Wi-Fi 7 offers real-world improvements in speed, reliability, and efficiency that businesses need to support the next generation of applications. As adoption accelerates, enterprises will see tangible benefits in everything from hybrid work and immersive experiences to AI-driven automation. The WBA is committed to ensuring the industry has the data and insights needed to maximize Wi-Fi 7's potential."

JR Wilson, VP, Tower Strategy & Roaming at AT&T, commented:



Tiago Rodrigues, President and CEO of the Wireless Broadband Alliance

"Enterprises are demanding more from their Wi-Fi networks than ever before. These trials confirm that Wi-Fi 7 can deliver the high-performance, low-latency connectivity required for modern digital environments. At AT&T, we see Wi-Fi 7 as a key enabler for businesses looking to optimize their operations and embrace the future of connectivity."

Mittal Parekh, Senior Director, Business Development RUCKUS Networks at CommScope, added:

"Wi-Fi 7 introduces groundbreaking features like Multi-Link Operation (MLO) and 4K QAM, which significantly enhance network efficiency and throughput. Our participation in these trials has demonstrated how enterprises can leverage these advancements to enable the most demanding applications in the most challenging environment in a variety of industry verticals."

Eric A. McLaughlin, VP & GM Connectivity Solutions Group, Intel Corporation, stated:

"6 GHz Wi-Fi 7 marks a major leap forward in wireless technology, and the results of our collaboration in these trials reinforce its real-world benefits. Business PC users can enjoy enhanced productivity and collaboration experiences in the office or in hybrid work scenarios as 160 MHz channel use scales broadly across corporate networks and 320 MHz channels become mainstream at home. With improved spectrum utilization and dramatic performance improvements, the findings of the trial help underscore Wi-Fi 7's ability to meet the needs of next-gen applications in enterprise, industrial, and residential settings."

Driving Wi-Fi 7 adoption

Following these successful trials, the WBA will continue to collaborate with industry leaders to accelerate Wi-Fi 7 adoption, refine implementation strategies, and support enterprises in leveraging Wi-Fi 7's full potential.

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

Download the "Wi-Fi 7 industry trials in Enterprise Scenarios" to learn about key observations and takeaways from the trials for enterprise (<https://wballiance.com/wi-fi-7-trials-for-enterprise-scenarios-att-commscope-and-intel>).

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, HFCL, Intel, Reliance Jio, Telecom Deutschland and Turk Telekom.

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