Wireless Broadband Alliance Sets Out Requirements to Shape Wi-Fi and 6G Convergence

Practical framework sets out how Wi-Fi and 6G convergence can help reduce network costs, improve customer experience, unlock new services and commercial models



Logo of the Wireless Broadband Alliance

LONDON, UNITED KINGDOM, October 7, 2026 /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 advanced its work on the role of Wi-Fi within the emerging 6G ecosystem. The WBA's new report: 6G & Wi-Fi Requirements– Enabling Seamless Connectivity Across 6G and Wi-Fi, includes certain business and technical requirements to help deliver more seamless connectivity across Wi-Fi and future cellular networks. It also examines the lessons from previous convergence efforts, sets out WBA's vision for a more flexible approach and defines critical requirements to help guide future architecture and standards development.

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> *Tiago Rodrigues, President and CEO, Wireless Broadband Alliance*

According to the WBA, Wi-Fi is essential to delivering the 6G vision, and should be considered in the design of the connectivity framework from the beginning. To be successful, future convergence should consider different network ownership and deployment models, rather than relying on a single cellular-centric architecture.

Achieving the IMT-2030 ambition for ubiquitous connectivity means that a consistent user experience and deep indoor coverage will require Wi-Fi and cellular networks to work together more effectively. As Wi-Fi is already a common technology for indoor and other connectivity, an objective is to create a more flexible, modular and access-agnostic model that reflects how

networks are deployed and operated, while making better use of the complementary strengths of Wi-Fi and cellular connectivity.



Tiago Rodrigues, President and CEO of the Wireless Broadband Alliance



6G and Wi-Fi image

Delivering business value from Wi-Fi and 6G convergence

The report asserts that greater convergence is not simply a technical objective. As such, it proposes requirements designed around outcomes that can help improve the economics of future networks, simplify how they are operated, and create more valuable connectivity services for customers. According to the WBA, this report links the requirements to commercial and operational outcomes that future convergence architectures should enable, including:

- Lower network costs through simplification, consolidation and better use of existing infrastructure
- Better customer experience through more seamless mobility, improved indoor coverage and consistent QoS
- Greater automation and lower operational complexity through AI-enabled network selection, resource management and improved visibility across networks
- New commercial opportunities including traffic offload, federated access, commercial partnerships and service level-based services across mobile, fixed and Wi-Fi networks
- New service opportunities across industrial automation, smart cities, connected vehicles, intelligent transport, mission-critical communications and sensing

For operators, this creates opportunities to help make better use of existing Wi-Fi and cellular

capacity, simplify infrastructure and management, and develop new commercial relationships across different network owners. Device manufacturers are more likely to benefit from greater interoperability and more consistent approaches to authentication, mobility and network selection, while enterprises can help lower their costs and simplify networks. For consumers, successful implementations may help deliver simpler and more reliable connectivity through a more consistent experience as devices move more seamlessly between Wi-Fi and cellular networks.

Learning from the connectivity barriers of the past
The critical requirements for convergence aim to help reduce the cost, complexity and fragmented responsibilities that have limited commercial adoption of previous convergence approaches. These requirements help support more flexible deployment models, including architectures where Wi-Fi traffic can be anchored inside or outside the cellular core.

A few examples of the technical areas covered in the requirements include multi-vendor interoperability, authentication and authorization, simpler signaling and enhanced security, AI-enabled network recommendations, QoS-aware traffic steering and switching, user-centric mobility, energy efficiency and sensing.

These capabilities can help address services needs ranging from autonomous industrial systems and emergency communications to connected vehicles, transport networks, immersive applications, smart cities and next-generation sensing.

For more information on WBA’s requirements for Wi-Fi and 6G convergence, including the challenges identified from previous generations, download the 6G & Wi-Fi Requirements – Enabling Seamless Connectivity Across 6G and Wi-Fi report: https://wballiance.com/6g-wi-fi-requirements-seamless-connectivity

Tiago Rodrigues, President and CEO of the Wireless Broadband Alliance, said: “6G must deliver ubiquitous connectivity across technologies, not simply a new cellular generation, and Wi-Fi will be fundamental to achieving that, particularly indoors. These requirements turn WBA’s vision into a practical framework that can reduce cost and complexity, improve customer experience, coverage and enable new commercial opportunities as the industry shapes future 6G architectures.”

Reza Rehmana MD, Mobile Networks of BT, added: “BT welcomes the WBA's work in identifying requirements for the effective interworking of future Wi-Fi and 6G networks. We believe the best customer experiences will come from enabling seamless connectivity across different access technologies, building on the complementary strengths of mobile and Wi-Fi networks. The WBA's continued focus on customer experience and network simplification is an important contribution to that objective."

Mark Grayson, Cisco Fellow, said: "By learning from previous efforts to integrate Wi-Fi into 4G

and 5G that have historically encountered challenges with achieving broader market adoption, this latest WBA framework helps provide a modular, access-agnostic roadmap for 6G convergence. This approach leverages Wi-Fi's strength as the de facto in-building wireless standard alongside cellular infrastructure to deliver the seamless, high-performance connectivity essential for the 6G era."

Assoc. Prof. Mehmet Özdem, Network Architecture and Service Management Director and Head of R&D Centers, Turk Telekom, concluded: "Through our role on the WBA Board and our leadership of the 6G & Wi-Fi Requirements and Convergence work, we are proud to contribute to defining the requirements that will shape the convergence of Wi-Fi and 6G and the future connectivity ecosystem.

"As Turk Telekom, a pioneer in R&D and digital transformation delivering integrated fixed and mobile connectivity services, we see seamless Wi-Fi and 6G convergence, together with the identification of emerging use cases and connectivity requirements, as a critical foundation for the future of connectivity. As we stand at the threshold of the 6G era, we believe that combining the unique strengths of Wi-Fi and 6G will pave the way for ubiquitous connectivity, enabling seamless, flexible, and intelligent experiences across networks, making this work a critical step toward shaping the next generation of connectivity."

Join us in shaping the next phase of 6G

The requirements provide a benchmark for the next stage of WBA's work, which will include evaluating emerging 6G convergence proposals against them, identifying architectural gaps and engaging with standards organizations to help include Wi-Fi requirements as a consideration as future 6G architectures develop.

WBA invites operators, vendors, device makers, enterprises and standards bodies to engage now and help turn these requirements into deployable solutions, technical evaluations and future 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 Seamless, Secure and Interoperable Wireless Experiences. The WBA's mission is to bring together global industry leaders, collaborating to accelerate the development, integration and adoption of next-generation Wi-Fi and other network technologies to deliver business growth, superior experience through innovation, end to end solutions enablement, standards development, and practical real-world deployment programs. Its key programs include NextGen Wi-Fi, OpenRoaming, 5G, 6G, IoT, Smart Cities, Testing & Interoperability and Policy & Regulatory Affairs.

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, Charter Communications, Cisco Systems, Comcast, HFCL, HPE, Intel, Reliance Jio, RUCKUS Networks, Telecom Deutschland and Turk Telekom.

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