Wireless Broadband Alliance 'Wi-Fi Experience for Moving Networks' Report Highlights Solutions for Seamless Connectivity

Global wireless ecosystem invited to join trials as new report details how today's Wi-Fi standards can be used to enhance commutes, travel & daily errands with reliable & secure Wi-Fi

Logo of the Wireless Broadband Alliance

LONDON, UNITED KINGDOM, October 23, 2024 /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 released its "Wi-Fi Experience for Moving Networks Report", which demonstrates how the latest Wi-Fi standards can enhance moving networks, which they say have often been neglected.

> "...This paper demonstrates how existing Wi-Fi standards can enhance these networks, engage more users and revolutionise the experience."
>
> *Tiago Rodrigues, CEO, Wireless Broadband Alliance*

The WBA aims to enhance Wi-Fi connectivity in moving scenarios - buses, trains, planes, and ships - ensuring reliability for daily commutes and travel. The WBA is also inviting members and industry stakeholders to join its moving network trials to either provide a testing environment or gain a competitive edge by applying the latest technology when deploying a moving network solution.

The report outlines unique challenges in dynamic Wi-Fi networks and describes use cases that demonstrate how current standards, although not specifically designed for moving networks, can be adapted to improve user experiences and operational efficiency.

The benefits of reliable moving networks

The report offers industry stakeholders significant benefits by helping them enhance passenger experience and service reliability, reducing operational costs, and opening new revenue

opportunities. High-quality Wi-Fi services can attract more customers, increase engagement, and provide a competitive edge. Improved security protocols protect user data, while standardized practices foster industry collaboration.

Deploying technologies such as WBA OpenRoaming™ can address many of the challenges experienced by users when joining and hopping between moving networks. OpenRoaming facilitates seamless connectivity between various Wi-Fi and cellular networks via a credential, ensuring automatic authentication and the highest levels of security and data privacy.

Tiago Rodrigues, CEO of the Wireless Broadband Alliance

Innovative solutions for moving networks

This project led by GlobalReach and Viasat, and supported by CableLabs, Cityroam, General Motors, HPE Aruba Networks and other WBA members, has tackled the technical and logistical challenges of moving networks. Solutions include:

- Dynamic Environments: Addressing inconsistent backhaul connectivity with advanced standards like Passpoint® for seamless connections and combining multiple connectivity sources for enhanced stability.
- Handover Issues: Ensuring continuous service and preventing unnecessary network switching with intelligent network selection and enhanced roaming capabilities.
- Security Concerns: Bolstering network security through robust authentication methods like WPA2/WPA3 Enterprise and per-user encryption to protect data in transient environments.
- Service Continuity: Maintaining uninterrupted service with strategies like local caching and authentication to ensure connectivity without backhaul access.
- Complex Deployments: Simplifying the installation and maintenance of network equipment on

moving vehicles with modular components and remote management tools.

Tiago Rodrigues, CEO of the Wireless Broadband Alliance, said: “The challenges of delivering reliable and secure Wi-Fi on moving networks, are greater than fixed networks. This paper demonstrates how existing Wi-Fi standards can enhance these networks, engage more users and revolutionise the experience. Our vision is to create a seamless and interoperable service experience of Wi-Fi across the wireless ecosystem, that spans both fixed and moving networks.”

Thomas Locke, Chief Technology Officer at GlobalReach added: “With the market adoption of technologies like Passpoint, users are now increasingly connecting seamlessly and securely onto shared public Wi-Fi networks. This can be challenging for non fixed networks which are commonly found in Aviation and Maritime. This report outlines the unique challenges for dynamic Wi-Fi networks and demonstrates how current Wi-Fi standards can be adapted to improve the user experience and increase operational efficiency.“

Ed Kyte, Airline Propositions at Viasat, concluded: “As Wi-Fi becomes progressively mobile and proliferates into new areas, solving problems that exist in Moving Networks is increasingly central to further develop high quality and seamless experiences. This paper continues the WBA’s focus in this important area, utilising the latest tried and tested Wi-Fi standards to enhance the user experience.”

Call to action
The WBA invites its members and industry stakeholders, including infrastructure providers, mobile device manufacturers, airlines, train and bus operators, cruise lines, civil transport providers, automotive OEMs, identity providers, ecosystem brokers, and hub providers, to join trials aimed at addressing Wi-Fi challenges in moving networks and exploring next-generation technologies.

Download the “Wi-Fi Experience for Moving Networks Report” or visit the WBA Resources pages of the Wireless Broadband Alliance website to learn more. Companies interested in providing a testing environment or deploying competitive network solutions are encouraged to contact the Wireless Broadband Alliance at pmo@wballiance.com.

About the Wireless Broadband Alliance
Wireless Broadband Alliance (WBA) is the global organization dedicated to improving Wi-Fi standards and services, with a vision for a seamless and interoperable service experience of Wi-Fi across the global wireless ecosystem. 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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