

6 GHz Wi-Fi®

Fueling innovation and opportunity in India



Param Puri | Wi-Fi Alliance®

June 2025





"The future of healthcare, enterprise, or even other Wi-Fi innovation lies in full access to the entire 1200 MHz of the 6 GHz band."

Gaurav Jain

VP Technology, Wi-Fi Alliance



Full band 6 GHz Wi-Fi fuels next-generation connectivity



Efficacy

Wi-Fi in 6 GHz supports advanced and immersive use cases



Innovation

Advancements will continue to emerge thanks to the uncongested channels of unlicensed spectrum



Confidence

6 GHz Wi-Fi provides reliable connectivity consumers trust - essential for widespread adoption of new technology



Scalability

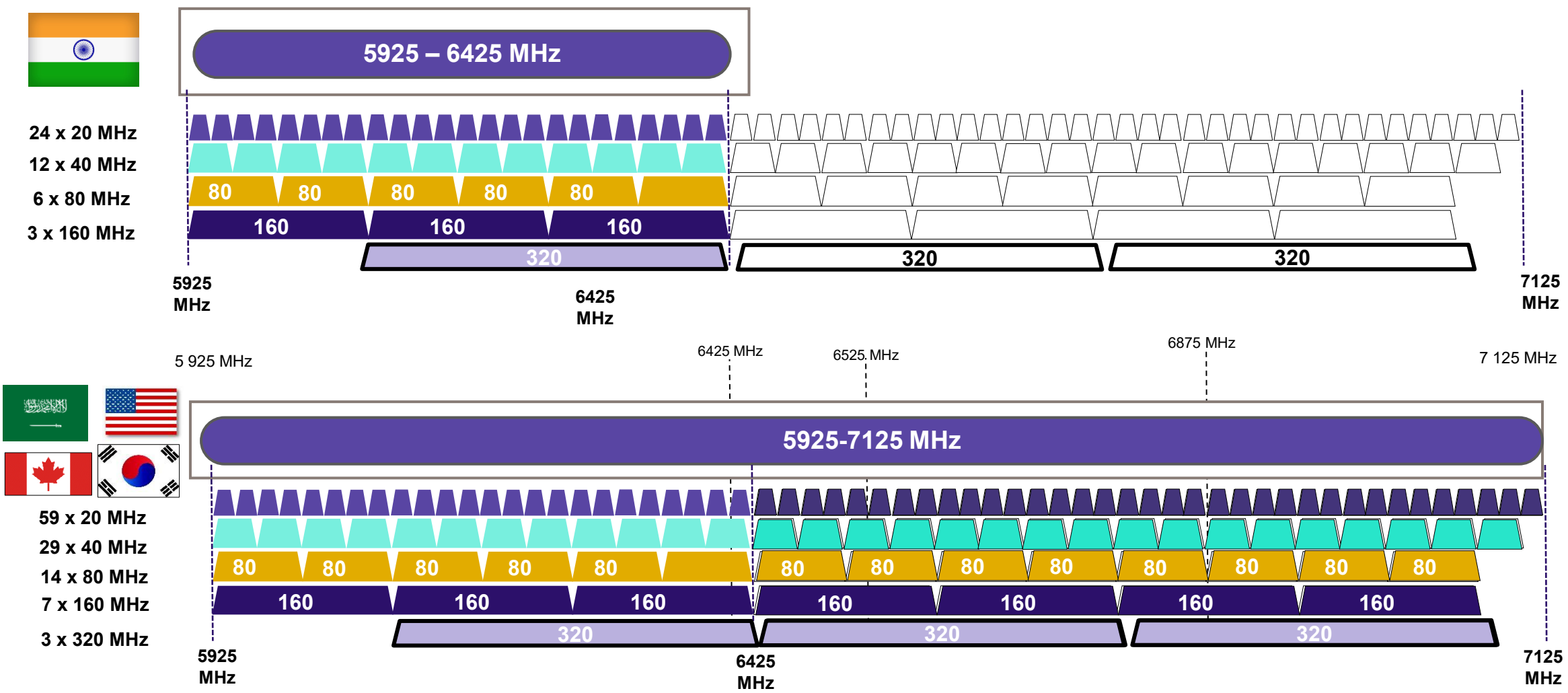
Supports future technology advancements and allows enterprises to maintain a cutting-edge



Equal access

Full access to 6 GHz delivers the best Wi-Fi experience for all users

Optimal Wi-Fi performance requires full access to 6 GHz



6 GHz regulatory momentum

<u>Adopted the full 6 GHz band</u>	
Argentina	Guatemala
Canada	Kazakhstan
Colombia	Peru
Costa Rica	Saudi Arabia
Dominican Republic	South Korea
El Salvador	United States

Recent regulatory news:

- 80+ countries have at least partial access to the band, including Japan, Australia, and most European countries
- United Kingdom Regulator Ofcom proposed expanding 6 GHz Wi-Fi access in Feb 2025

UK Ofcom Proposal for Upper 6 GHz

Phase 1:

Authorize low power indoor Wi-Fi (up to 250 milliwatts) across the whole band on a license-exempt basis.

“We intend to do this as early as feasible, ideally before end 2025.”

Permitted deployment	Indoor only
Frequency band	6425–6645 MHz, 6685–7125 MHz
Bandwidth	Channel bandwidths up to 320 MHz are permitted
Maximum mean EIRP	250mW (24 dBm)
Maximum mean EIRP density	12.6mW/MHz (11 dBm/MHz) in any 1 MHz band



The Ofcom logo, consisting of the word "Ofcom" in a bold, sans-serif font with a horizontal line underneath.

Expanding access to the 6 GHz band for mobile and Wi-Fi services

Proposals for AFC in Lower 6 GHz and mobile / Wi-Fi sharing in Upper 6 GHz

Consultation
Published: 13 February 2025
Closing date for responses: 8 May 2025

For more information on this publication, please visit [ofcom.org.uk](https://www.ofcom.org.uk)

A row of five vertical bars in blue, purple, pink, orange, and green.

UK Ofcom Proposal for Upper 6 GHz

Phase 2:

Intend to propose the specific sharing mechanism between mobile and Wi-Fi, once the European harmonization is clear.

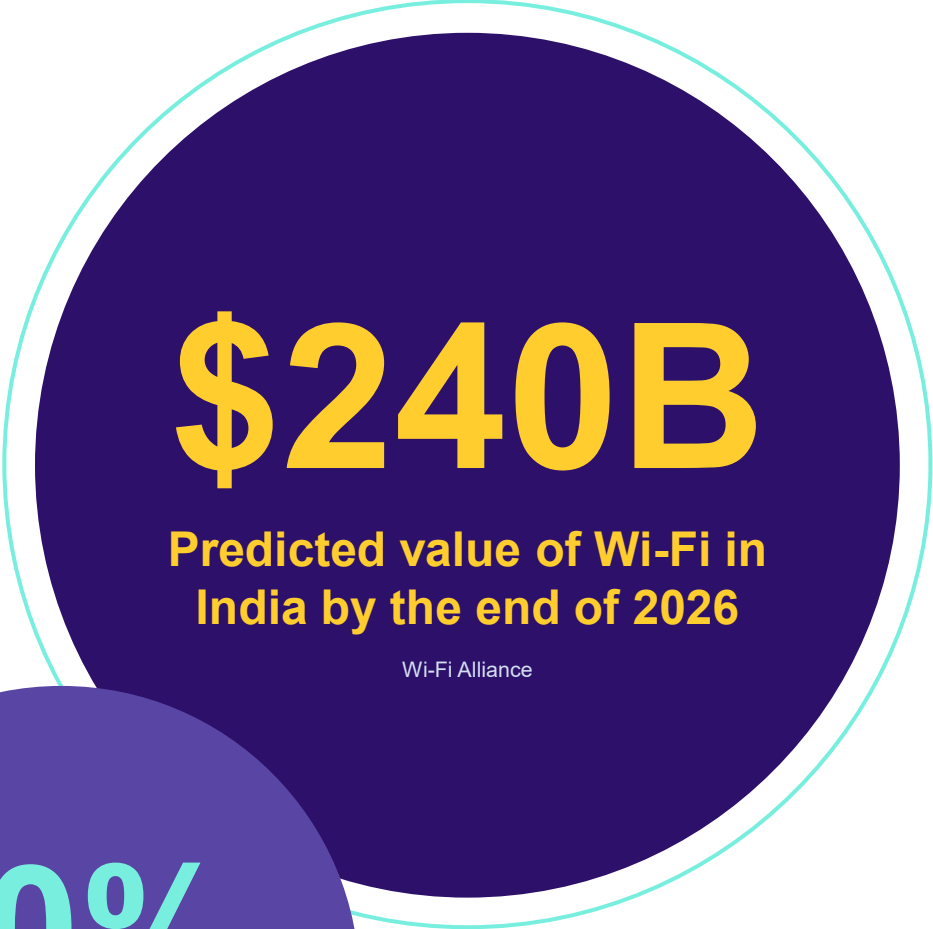
Mobile coexistence with Upper 6 GHz incumbents unresolved (further studies)

- Over 500 Fixed links mostly in London and the southeast of England, used by financial services
- Fixed Satellite Service in the Earth-to-space direction
- Program Making and Special Events (PMSE) in 7110–7250 MHz

Economic value of Wi-Fi in India

In recent years, Wi-Fi has become a pervasive feature in the Indian telecommunications landscape

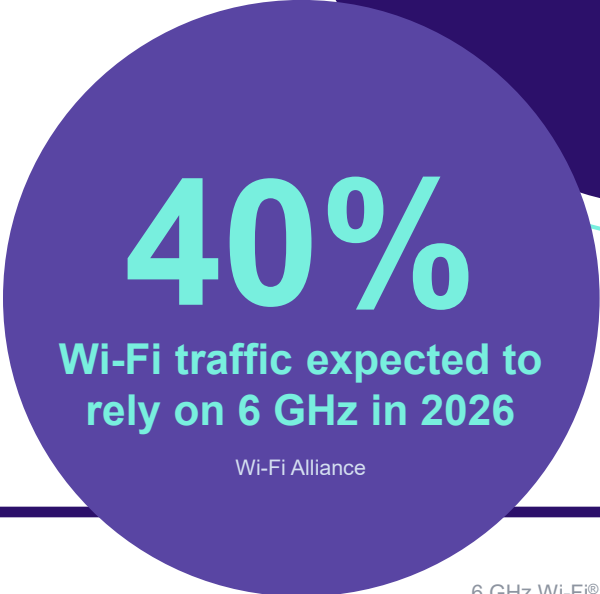
- 6 GHz spectrum will continue to fuel economic growth
- Economic value of Wi-Fi in 2021 was estimated at \$131.3 billion



\$240B

Predicted value of Wi-Fi in India by the end of 2026

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40%

Wi-Fi traffic expected to rely on 6 GHz in 2026

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6 GHz Wi-Fi: transforming the future of healthcare

- Wi-Fi Alliance and Ramathibodi Hospital completed a seven-month trial of 6 GHz Wi-Fi in Thailand
- Successfully showcased 6 GHz Wi-Fi's ability to support medical training and education
- Confirmed that full band 6 GHz is needed for optimal performance and gigabit connectivity in dense environments



6 GHz Wi-Fi is vital to healthcare

The trial illustrated that advanced medical training and devices demand superior performance

Full band 6 GHz enables countless benefits in healthcare:

- Reduced congestion
- Heightened experiences
- Leadership in medical education and care
- Unlocked innovation

2X

Increase in network data throughput during the trial

5X

Reduction in network latency during the trial

3X

Increase in user experience satisfaction during the trial

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6 GHz Wi-Fi brings esports to life

- Participants competed in The Nokia Apex Legends event over Wi-Fi
- Event showcased Wi-Fi's "near-deterministic latency and ethernet-like performance" in esports
- Underscored 6 GHz Wi-Fi's ability to change the game in esports – bringing ultra low latency and heightened speeds.

“Running an esports event like this targeting specifically pro-players playing over Wi-Fi was long thought to be impossible. Today, we’re showing it can be done.”

*– Gino Dion, Head of
Innovation Solutions at
Nokia*

6 GHz Wi-Fi: empowering innovation and opportunity

Only full band 6 GHz can support the next generation of wireless innovation

- 6 GHz Wi-Fi has transformed global connectivity and delivered immense economic growth
- The next wave of 6 GHz innovation is on the horizon, unlocking even greater capacity, speed, and reliability
- Full access to 6 GHz promotes equal connectivity for all



Thank you!

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