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Via Electronic Filing: dvmn@trai.gov.in

Re: Telecom Regulatory Authority of India Consultation Paper on the Auction of Radio Frequency Spectrum in the Frequency Bands Identified for International Mobile Telecommunications (IMT)

Dear Mr. Shri Akhilesh Kumar Trivedi,

As a global industry association representing more than 900 leading technology companies across the wireless connectivity ecosystem, Wi-Fi Alliance appreciates the opportunity to provide counter-comments to the Telecom Regulatory Authority of India (TRAI) on the above-referenced consultation.

While noting mobile network operators repeated demands for additional mid-band spectrum, Wi-Fi Alliance respectfully urges TRAI to preserve the 6 GHz frequency band for Wi-Fi and other license-exempt technologies that already deliver tangible public benefits.

Unlike hypothetical and nonexistent 6 GHz IMT networks, Wi-Fi in the 6 GHz band is proven, standardized, and commercially deployed—delivering substantial economic, educational, and social value globally. It enables affordable last-mile broadband, supports digital inclusion, and coexists effectively with the 6 GHz incumbent fixed and satellite operations. Allocating the upper 6 GHz (6425–7125 MHz) band to IMT would undermine these benefits and deprive India of enhanced capabilities of next-generation Wi-Fi (e.g., Wi-Fi 7) technologies that are vital for smart manufacturing, education, healthcare, and public Wi-Fi ecosystems.

Wi-Fi Alliance respectfully submits counter comments to the select set of questions posed in the Consultation.

Question 14. Whether the spectrum in 6425-6725 MHz and 7025-7125 MHz ranges in the upper 6 GHz band should be put to auction for IMT in the forthcoming auction?

Wi-Fi Alliance Counter Comment: Mobile stakeholders such as GSMA, Reliance Jio, and Bharti Airtel have urged the Authority to allocate the entire 1200 MHz of the 6 GHz band (5925–7125 MHz) for IMT use. Wi-Fi Alliance disagrees. These recommendations disregard the global momentum and proven success of license-exempt access in the 6 GHz band, where Wi-Fi has been deployed at scale in numerous markets. In contrast, the 6 GHz IMT remains nascent at best, with underdeveloped

standards, no commercial equipment availability, and unresolved coexistence and interference protection challenges vis-à-vis incumbent fixed and satellite services.

Under these circumstances, auctioning the upper 6 GHz let alone the entire 1200 MHz to IMT would jeopardize India's competitive and affordable connectivity options. In the Consultation Paper, TRAI notes only 400 MHz in fragmented chunks is *immediately available* in the 6 GHz band (6425-6725 MHz: ~300 MHz; 7025-7125 MHz: ~100 MHz), while the remaining ~300 MHz (6725-7025 MHz) will become available only by December 2030. Given this fragmentation and delayed availability, an immediate auction is impractical and will lead to inefficient use or underutilization of the 6 GHz spectrum resource.

Therefore, Wi-Fi Alliance recommends the following:

- Enable advanced Wi-Fi connectivity now by maintaining Wi-Fi access to the lower 6 GHz band (5925-6425 MHz) band and opening a contiguous portion of the upper 6 GHz band for license-exempt access (i.e., 6425–6745 MHz) to facilitate Wi-Fi 7 deployments using wide (80/160/320 MHz) channels in India.
- Defer any licensed-IMT auction in the upper 6 GHz band until ecosystem readiness, coexistence frameworks, and device/terminal availability are sufficiently established and validated through technical studies and trials.

Question 15. In case you are of the opinion that the spectrum in 6425-6725 MHz and 7025-7125 MHz ranges should not be put to auction in the forthcoming auction, what should be the timelines for auctioning of this spectrum for IMT?

Wi-Fi Alliance Counter Comment: The Dynamic Spectrum Alliance rightly observes that:

"*The 6 GHz band plays a critical role in broadband connectivity through Wi-Fi and should remain available for license-exempt use to support India's digital inclusion and innovation objectives*."

Wi-Fi Alliance fully concurs. The global evidence base supports early release of the 6 GHz band for Wi-Fi, as already implemented in numerous countries. These markets have confirmed 6 GHz Wi-Fi coexistence with the incumbent terrestrial and satellite services and significant broadband and economic gains.

By contrast, GSMA, Reliance Jio, and Bharti Airtel urge TRAI to auction the entire 1200 MHz (5925–7125 MHz) for IMT as soon as possible.

- GSMA asserts that "global harmonization for IMT is necessary to support 5G/6G evolution," while ignoring that the ITU has not yet identified the upper 6 GHz band for IMT in Region 2 and 3.
- Reliance Jio's submission warns that sharing the band with Wi-Fi would be "counter-productive and irreversible," but provides **no coexistence studies or ecosystem evidence** to substantiate that claim.
- Airtel similarly calls for an "immediate auction," disregarding TRAI's own finding that only fragmented 400 MHz is available now and the remainder will not be vacated until 2030.

These positions rely on speculative IMT use cases with questionable commercial viability. Wi-Fi Alliance therefore respectfully recommends that, before initiating any consideration of 6 GHz spectrum auctions, the Authority should conduct detailed coexistence and commercial feasibility assessments to evaluate realistic deployment conditions for 6 GHz IMT.

A measured, evidence-based approach is essential — one that avoids premature designation of the upper 6 GHz band to IMT. Also, Wi-Fi Alliance asks TRAI to consider that preserving this spectrum for license-exempt access at this stage will yield greater long-term socio-economic returns, advance India's digital transformation goals, and align the country with the global regulatory momentum toward enabling next-generation Wi-Fi connectivity.

Question 16. Considering that the satellite-based service (uplink) will coexist with IMT-based services in the upper 6 GHz band, - whether pilot trials should be conducted to ascertain the keep-out distance of the IMT base stations for satellite uplink stations before the auction of the upper 6 GHz band, or should it be left to the telecom service providers to ascertain the keep-out distance of the IMT base stations for satellite uplink stations at the time of commercial deployment after the auction?

Wi-Fi Alliance Counter Comment: Pro-IMT stakeholders (GSMA, Reliance Jio, Bharti Airtel and others) advocate rapid IMT access to the 6 GHz band and favor prompt auctioning and commercial deployment. Wi-Fi Alliance disagrees with this rush to auction for the reasons set out below.

• Asymmetric incentives. Mobile operators have a commercial incentive to minimize keep-out distances in order to maximize coverage and capacity. That incentive is not aligned with the public interest in protecting incumbent satellite uplinks. TRAI should not allow parties with conflicting incentives to unilaterally determine keep-out distances and coexistence parameters.

• Technical complexity. Aggregate interference, elevation-angle effects, antenna patterns, clutter and cumulative deployment scenarios make keep-out distance estimation technically complex and highly environment-specific. These cannot be reliably resolved by ad-hoc, post-auction commercial testing alone — independent field trials are required to validate models and to derive defensible protection criteria.

• Economic risk. Post-auction remediation (relocating high-value satellite earth stations, modifying licenses or imposing severe operational constraints) would impose substantial public and private costs and risk stranded assets. Pre-auction trials mitigate these risks by providing predictable, evidence-based constraints that auction participants can factor into bids and network plans.

• Precedent and best practice. Other administrations and expert bodies have required technical studies and trials before making significant policy changes affecting the 6 GHz band. The Dynamic Spectrum Alliance (DSA) and Broadband India Forum (BIF) have urged TRAI to adopt a similar, evidence-based approach; Wi-Fi Alliance supports those recommendations.

In light of the above, Wi-Fi Alliance recommends that before any auction of the upper 6 GHz band, TRAI should mandate independent, India-specific pilot trials and coexistence feasibility assessments

to derive keep-out distances and other coexistence measures. Trials should be multi-stakeholder, transparent, and designed to measure aggregate interference across representative Indian geographies and incumbent station types. Trial outcomes should be published for public comment and adopted as binding technical parameters for any future auction and license conditions.

***Question* 20. Are there any other inputs/ issues related to the auction of spectrum in the upper 6 GHz band for the forthcoming auction?**

Wi-Fi Alliance Counter Comment: The responses make clear that TRAI must evaluate the upper 6 GHz band within the broader context of India's mid-band spectrum portfolio (including 3.3–3.67 GHz, 4.8–4.99 GHz and prospective 7–8 GHz allocations). Current 5G assignments provide substantial capacity for growth in mobile services for the foreseeable future, while Wi-Fi faces an acute shortage of *contiguous* spectrum necessary for wide-channel deployments. Preserving a meaningful contiguous portion of the 6 GHz band for licence-exempt use will *complement* IMT networks by enabling cost-effective broadband offload and last-mile connectivity, supporting Digital India and BharatNet goals and maximizing long-term socio-economic value.

Conclusion

Wi-Fi Alliance appreciates the opportunity to provide TRAI with these counter-comments. We also would welcome the chance to support TRAI's efforts with detailed technical studies, economic modelling, and coexistence analyses tailored to the Indian context. We believe that a balanced spectrum policy—preserving the 6 GHz Wi-Fi technology—will deliver the greatest long-term value for India's connectivity aspirations, innovation ecosystem and digital inclusion objectives.

Respectfully submitted,

/s/ Alex Roytblat

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