

Auctioning V Band against well-established international best practices in over 80 countries and TRAI Recommendations: BIF

- *Will deprive India of significant progress in the fields of Wi-Fi, and a host of SRDs and Short-range wireless technologies*
- *Fair and rational solution available for both backhaul and secondary broadband access use*

New Delhi, 28th June 2022: Broadband India Forum, the leading independent Think-Tank and Policy Forum for Digital Communications in the country, has observed from recent media reports that the Department of Telecommunications (DoT) has supposedly decided to auction the spectrum in E&V bands. While BIF respects DoT's much awaited decision to open up these highly efficient bands for the proliferation of digital connectivity in the country, it is disappointing to note that both the bands are being treated similarly despite significant differences in their use cases and technical characteristics. Auctioning of V band would mean that India would not only be going against all well-established international best practices followed over a decade, but also against our own independent Regulator's prudent recommendations made in this regard through the much acclaimed process of open public consultation.

Well-established international best practices followed in over 80 countries, as well as several TRAI recommendations have suggested that the V band be delicensed in India. The lower portion of the V Band (57-66 GHz) is simply not suitable for backhaul as the oxygen attenuation is 100 times more than the adjacent frequencies and the signals die out much faster (100 times faster) - making the band unusable for access and backhaul. Nonetheless, this feature makes this lower V band extremely useful for technologies like Wi-Fi, Short Range Devices (SRDs) and other innovative applications. At the same time, the extended V band (66-71 GHz) that lies on the higher end of the spectrum and is not attenuated by oxygen absorption, can optimally enable medium and long haul backhaul capabilities.

BIF has always maintained that in order to make optimum use of the unique potential of the entire V band, the lower part of the V band (57-66 GHz) should be delicensed for a number of consumer welfare applications & services viz. secondary broadband access via Wi-Fi, Short Range Devices (SRDs) and other innovative applications, while the upper part (66-71 GHz) may be licensed for backhaul purposes for TSPs/ISPs. This would ensure a fair and rational distribution of the V band amongst all stakeholders.

If V band is assigned through auctions for exclusive use, it will force most of the spectrum to remain fallow (unused) because the higher attenuation of radio waves will make the band operationally unviable. They would need at least 100 times more towers to ensure comparable coverage for other assigned spectrum bands. Moreover, the regulatory and administrative cost of maintaining and monitoring the huge number of point to point links of much shorter length (few meters), would be prohibitive.

Auctioning of the lower V band (57 - 66 GHz – which is prone to oxygen attenuation) would also deprive India of making significant progress in the various efficient use cases and applications of this band, such as:

- a. In-building and in-campus Wi-Fi solutions
- b. SRDs (Short Range Devices) used in medical diagnostics, RFID, telemetry, radar, etc.

- c. Short-range wireless technologies including Wi-Fi, Bluetooth, Near-Field Communication (NFC), Ultra-wideband (UWB); and IEEE 802.15.4.

BIF President, Mr. TV Ramachandran, shared, *“As has been done in advanced and developed economies viz. Japan, Korea, Taiwan, Singapore, etc., India should consider delicensing of the 57-66 GHz part of the V band. It is imperative that we make optimum use of such highly potent available resources to augment capacities and nurture the existing ecosystem of digital connectivity based services.”*

“It must be understood that delicensing the lower portion of the V band (57 – 66 GHz) in no way means that the TSPs are excluded from its usage. Every aspirant (including the TSPs) can use the entire delicensed portion of the band in a non-interference and non-protection manner,” he added.

In India, Wi-Fi spectrum in 2.4 GHz and 5 GHz is delicensed, and hence, the throughput of the Wi-Fi band is limited by the carrier size of 20/40 MHz available on the 2.4/5 GHz bands. Delicensed V band will expand this carrier bandwidth to 2.16 GHz (50 to 100 times) - making sure that Wi-Fi link does not become a bottleneck for us to leverage the full carrying capacity of the optical fiber cable at the fiber nodes from where end user connectivity will be through Wi-Fi to connect to the last mile (for applications such as the Government’s own flagship project - Bharat Net and many others). It would also afford the availability of 4 carriers of 2.16 GHz (8.64 GHz or approximately 9 GHz – 57 to 66 GHz). This would enable full flexibility of usage by all stakeholders for a number of consumer centric applications, thereby maximizing consumer benefit.

The NTP-2018 also calls for providing 1 Gbps data connectivity to Gram Panchayats by 2020, and 10 Gbps by 2022 (10 to 100 times more than the current termination rate of 100 Mbps). This can only be made possible if sufficient bandwidth is made possible through the delicensing of the lower V band. It has been established via several credible reports, recommendations and prevalent global practices, that the spectrum in the lower V band can significantly aid proliferation of Wi-Fi services and PM WANI across India and boost the socio-economic welfare of the common man.

About Broadband India Forum

Broadband India Forum (BIF) functions as an independent policy forum and knowledge-based think-tank that works for the development and enhancement of the entire broadband ecosystem in a holistic, technology-neutral and service-neutral manner. BIF has established itself as a thought leader and a credible and effective voice, to help propel the nation to achieve the country’s ambitious vision of creating a Digital India. To achieve this, BIF works to promote the rapid development of policies, so as to facilitate affordable and high-speed ubiquitous broadband throughout the country.

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