



RJIL/TRAI/2021-22/460  
January 24, 2022

To,  
**Shri Syed Tausif Abbas**  
**Advisor (NSL)**  
**Telecom Regulatory Authority of India**  
**Mahanagar Doorsanchar Bhawan**  
**Jawaharlal Nehru Marg, New Delhi 110002**

**Subject: Counter Comments on Consultation Paper on 'Auction of Spectrum in frequency bands identified for IMT/5G' dated 30<sup>th</sup> November 2021.**

Dear Sir,

In addition to RJIL's comments already submitted on consultation paper on the subject, please find enclosed RJIL's counter comments on Consultation Paper on Auction of Spectrum in frequency bands identified for IMT/5G' dated 30th November 2021.

Thanking you,

For **Reliance Jio Infocomm Ltd.**

**Kapoor Singh Guliani**  
Authorised Signatory

Enclosure: as above.

**Reliance Jio Infocomm Limited's counter comments on TRAI's consultation paper on  
"Auction of Spectrum in frequency bands identified for IMT/5G"  
(Consultation Paper No. 8/2021 dated 30<sup>th</sup> November 2021)**

1. We have had the opportunity to go through the comments submitted by the various stakeholders to the TRAI's Consultation Paper on "Auction of Spectrum in frequency bands identified for IMT/5G" dated 30<sup>th</sup> November 2021. We note that some of the stakeholders have commented that parts of spectrum referred for auction in C-Band and mmWave should not be auctioned and some other stakeholders have recommended reserving spectrum for private captive networks.
2. We submit that our counter comments are restricted to these limited points only and **we take this opportunity to reiterate that all available and identified IMT spectrum should be put to auction and that auction is the only legally tenable mode for alienating spectrum that can be used for public/private communication networks for Indian customers. Our issue wise counter comments are as below.**

**C-Band Spectrum**

3. Many stakeholders have submitted that part of this band is already being utilized for broadcasting services and therefore should not be auctioned for IMT services. We understand that **the issues related to broadcasting use have already been recognized by Group of Secretaries and that spectrum from 3300 MHz to 3670 MHz has been proposed for auction only post inter-ministerial consideration of these issues and need no reconsideration. We submit that on the contrary, there is a need to enlarge the IMT spectrum allocation in this band and entire C-Band (3300-4200 MHz) should be auctioned.**
4. We submit that this spectrum has key role to play in meeting India's aspiration to lead in 5G deployment in the world and to use ICT technology based solutions to propel growth and equitable economic growth across sectors like healthcare, manufacturing, industry 4.0, transportation and logistics, among others. Hence it is critical that quantum of 200 MHz spectrum per operator should be ensured in the long term.
5. As you are aware, globally, the telecom experts are of the opinion that to offer efficient and scalable 5G services, **a TSP should have at least 80-100 MHz spectrum in the mid-band initially. However, basis experience, it is evident that with increased usage more spectrum will be required for better quality, reliability, and throughput.**

6. We submit that from international experience also, it is evident that the spectrum for 3300 MHz to 3670 MHz may not be adequate for competitive wireless Broadband services by existing 4 operators in the country and we will need to vacate remaining spectrum in C-Band for IMT usage.
7. **United States has already taken a lead in this by auctioning the 280 MHz of additional spectrum (3.7 – 3.98 GHz) in C-Band for flexible use licenses, under the FCC’s 5G FAST plan. The strategy adopted was to incentivize Broadcasters to expeditiously shift to upper ends of the C-Band and a guard band of only 20 MHz has been created.**
8. Other Regulatory bodies in countries like China, South Korea, and the United Kingdom have also been mulling similar plans for bandwidth reallocation. The German Federal Network Agency (Bundesnetzagentur) has proposed that the band 3.4–3.7 GHz would be allocated for mobile broadband providers. Hong Kong, Singapore, and Malaysia, with climates similar to India have gone for limited allocation without any major disruption for Broadcasters.
9. International experience indicates that most value can be derived from this spectrum is through IMT allocation. Thus, it is inevitable that the Broadcasters should be asked to vacate parts of the band, however, as Broadcasting is also a critical service, therefore adopting a least disruptive solution is imperative. **In this context, US use case of moving and accommodating the broadcasting services in the upper 200 megahertz of the band (4.0–4.2 GHz) with 20 MHz Guardband is worth consideration. Of course, this would require more efficient use and developing hybrid models.** We further submit that the sharing model like possible European model for 3.7 to 3.8 GHz spectrum may not be feasible for commercial 5G network.

#### mmWave Spectrum

10. We submit that many stakeholders have mentioned that the spectrum in 27.5 GHz to 28.5 GHz should not be auctioned as it is being used or useful for satellite based communication services. In this regard we reiterate our submissions made earlier that **there cannot be a separate treatment for communication services to be offered by satellite based service providers under Indian laws and prevailing regulatory oversight for spectrum allocation, as settled by Hon’ble Supreme Court judgement dated 2<sup>nd</sup> February 2012 in CWP 423 of 2010 and subsequent reiteration under Special Reference no 1 of 2012.**
11. We further reiterate that satellite based communication service providers should be informed that **they will be required to participate in open and transparent auction of spectrum to avail the right to use spectrum under Indian jurisprudence and there will be no disparity in statutory and regulatory charges for using the spectrum frequencies. Further, as with opening of the**

space segment more and more players, domestic as well as international, will be keen to enter the sector, it is imperative that the spectrum allocation policies for space segment are kept on even keel with the same for terrestrial networks.

12. We also reiterate that within mmWave band – n257 band is more important than n258 for 5G. **n257 has relatively better device ecosystem compared to n258 primarily driven by US market.** In future n257 will also be driven by Asian markets (South Korea, Japan etc.). n258 ecosystem development is relatively slower and is primarily led by Europe.

Spectrum	Device Ecosystem	Global Deployment
n257(26.50-29.50) GHz	~35 Phones, 3 Tablets	Planned/in progress: South Korea (26.5-28.9) GHz, Japan (27-28 GHz/ 29.1-29.5 GHz) Taiwan, Singapore
N258 (24.25-27.50) GHz	~7 Phones	Planned/in progress: Thailand, Finland, Italy, Germany, France

13. We have already submitted the **details of spectrum allocation for IMT in 28 GHz band (n257 band) (i.e., 26.5 GHz – 29.5 GHz) in many countries across the world. Further, it may be noted that the HLF set up by the Government has already considered 24.25 – 27.5 GHz and 27.5 – 29.5 GHz as part of Announce Tier for IMT services. Any non-allocation of complete spectrum bands identified by 3GPP as n258 and n257 band for 5G services will prove to be severely counterproductive for growth of affordable, globally acceptable and globally competitive user experience. We therefore reiterate our submissions that for spectrum in mmWave (24.25 GHz to 28.5 GHz) should be auctioned for terrestrial 5G networks in line with the decision of Committee of Secretaries (CoS) and remaining 1 GHz (28.5 GHz – 29.5 GHz) should be assigned through auction for the flexible use/mixed use by TSPs for both terrestrial and satellite networks so as to get the true market value.**

**Reservation of spectrum for Captive use**

14. A few of the enterprises and stakeholders have requested for administrative allocation of spectrum of captive use by industries at nominal charges. A few others have sought spectrum from 3550-3700 MHz and a few more have sought spectrum from 27.5-28.5 GHz without providing any mode of allocation. One of the stakeholders has suggested First come First Serve policy basis the unsubstantiated justification that there is no competitive demand.

15. Evidently, **all these submissions are bereft of any valid or legally tenable basis and are oblivious to Hon'ble Supreme Court in its judgement dated 2nd February 2012 in CWP 423 of 2010 mandating that right to use spectrum, which is a scarce natural resource can only be alienated by a well-publicized transparent auction and the First come First serve policy of spectrum allocation was summarily rejected under this judgement.**
16. We reiterate our submissions that **there is no valid justification in providing auctioned spectrum for free to certain enterprises for availing captive licensed services. This proposal is neither legally tenable nor suitable for orderly growth of telecom sector. We also reiterate that proposed captive networks would essentially be commercial networks in nature and would be used to enhance profitability of the industries, thus assigning the valuable national resource free of cost or at an administrative price to these industries would be travesty of Hon'ble Supreme Court judgement.**
17. Further, we do not agree with the suggestions that there is no demand for spectrum as the same can only be determined through an open auction. Nor do we agree with the suggestion that spectrum leasing would not be a suitable option for industries. **We submit that spectrum leasing by TSPs to licensed entities for setting up captive networks is an option worth exploring.**
18. We further reiterate that, **TSPs have been serving the captive networks over the years and would continue to do same and enterprise business contributes substantial revenue of TSPs that is also factored in at the time of valuation of spectrum and bidding in the auctions, and any such regime that alienates this revenue will adversely affect TSP's viability and should be avoided at all cost.**
19. Further, as submitted earlier, in case certain industries are not willing to avail TSPs services, then **they should be given the option of setting up their own captive network under an appropriate Unified License authorization post acquiring spectrum in the auction. We submit that post implementation of Cabinet decision of AGR definition, in letter and spirit, there will be no constraint for any non-core telecom enterprises to obtain the Unified license.**