Date: 01.06.2023

To,
Shri Akhilesh Kumar Trivedi,
Advisor (Networks, Spectrum and Licensing)
Telecom Regulatory Authority of India
Mahanagar Doorsanchar Bhawan
Jawaharlal Nehru Marg, New Delhi - 110002

Subject: Comments on TRAI's Consultation Paper on "Assignment of Spectrum for Space-based Communication Services".

Sir,

Please find enclosed my comments on the consultation paper dated 06.04.2023 on "Assignment of Spectrum for Space-based Communication Services" for consideration of the Authority.

Yours Sincerely,

R. Ashok

R Ashok 1/6/23
Ex Member TRAI
Mobile: 7011306730

Enclosure: As above

Subject: Consultation Paper dated 06.04.2023 on Assignment of Spectrum for Space-based Communication Services

As a former Member of TRAI, I have endeavored to keep in touch with significant issues being dealt with by TRAI during these years to both satisfy my curiosity as well as educate myself in the evolving areas of Telecommunications.

It is in this context that I went through the recent consultation paper on 'Assignment of spectrum for Space-based communication services'.

I must place on record my deep appreciation of the thoroughly professional manner in which TRAI has gone through the gamut of literature, technology and practices in this field worldwide to compile this paper for eliciting all the required answers from competing entities, which will enable it to arrive at a comprehensive recommendation to the Government.

Broadly, the paper elicits references in the following areas:

I. Appropriate frequency band for gateway and user links and the type of services.
II. Quantity of spectrum for gateway & link
III. Exclusive/Non-exclusive assignment in higher bands (C, Ku, Ka)
IV. Intra band sharing with others and related areas
V. Validity, sharing and trading of spectrum
VI. Enabling provisions for existing 'conditional spectrum holders', in case they are successful in Auction
VII. Non Exclusive assignment of spectrum
VIII. Flexible usage of spectrum for IMT as well as space based services and conditions thereof.
IX. Classification of space based communication into different classes.
X. Methodology of spectrum assignment for user links.
XI. Spectrum allocation- National, telecom Circle or Metro
XII. Methodology for assignment of spectrum
XIII. eligibility conditions for bidders
XIV. Auction methods

The most critical issue to be decided upfront is the methodology for allocation of spectrum-through Auction or any other method.

Pursuant to the Hon'ble Supreme Court's Judgment in the 2G case and its aftermath in which the auction process was streamlined to discover the market price without favor or bias, the need for counter thinking on this well settled issue would be redundant and infructuous.

The Auction Methodology is nonpartisan, unbiased and well executed through established computerized protocols and the country has now adequate experience to conduct auctions of the highest international standards.

It is well settled that spectrum is a valuable national resource and its price is best discovered through an auction. Besides, the spectrum whether terrestrial or space is a natural resource owned by the country and its allocation would require the most unbiased price discovery and allocation method. Auction satisfies all these criteria admirably and therefore any move to

counter this method is fraught with problems of bias and malfeasance. Therefore,I am of the considered view, that Auction should be the only method for price discovery and consequent allocation of spectrum.

Appropriate frequency bands for gateway/user links, quantity of spectrum are areas where I would not like to venture and is best left to technical experts.

In so far as sharing, trading, validity and eligibility conditions for bidders is concerned, it is worth while taking a leaf out of our regular terrestrial spectrum auction and apply the same principles as those have stood the test of time over the past decade.

As regards, 'conditional spectrum holders', it would be most practical to allot the newly obtained spectrum in the auction on successful bidding and take back the conditional spectrum on earlier allotment since there is already such a provision available.

Practicality suggests that flexible usage of spectrum for IMT as well as Space-based services would be appropriate.

While in the past, spectrum has been allocated at various circle levels based on experience and the current level of technology, it is necessary now to rethink the earlier approach and consider 'National level' allotment for its efficacy, efficiency and simplicity.