



**Dr. Ranjeet Mehta**  
CEO & Secretary General

Ind-ICT-  
25<sup>th</sup> October 2024

**Shri Akhilesh Kumar Trivedi ji,**

**Subject: Response to TRAI Consultation Paper on “Terms and Conditions for the Assignment of Spectrum for Certain Satellite-Based Commercial Communication Services” dated 27th September 2024.**

We are writing once again regarding the recent consultation paper on the Assignment of Spectrum for Satellite based communication services, as our previous letter dated 09<sup>th</sup> October 2024 addressed to The Chairman, TRAI highlighting the industry concerns regarding the consultation paper remains unanswered. Our concern persists that the consultation paper has not addressed the critical issue of ensuring a level playing field between satellite-based and terrestrial communication services. In our view, this issue is essential to consider while determining the terms and conditions for spectrum assignment. The absence of questions on level playing field prevents many stakeholders from considering these concerns and providing crucial inputs to TRAI.

In our present submission, we would like to emphasize the approach required for different satellite communication services, which TRAI should consider while framing the terms and conditions for spectrum assignment. We believe that satellite services play a dual role: they are both competing with terrestrial services in certain contexts and complementary in others. For example, satellite-based broadband and mobile services can directly compete with terrestrial networks in delivering internet access and voice services to consumers, especially in areas where terrestrial networks already operational. However, satellite services also provide essential complementary functions, such as enabling niche communications which are not competing in nature to terrestrial service providers. A balanced approach towards spectrum assignment for these two nature of services will promote healthy competition while supporting critical communication services that do not directly threaten existing telecom players.

#### **Need for Addressing Level Playing Field Issues between Indian Terrestrial Telecom Players and the Capacities Generated by massive Satellite Constellations**

As global players like SpaceX (Starlink) and Amazon (Kuiper) deploy large satellite constellations, the competitive environment in India's communication sector is bound to shift dramatically.

- SpaceX's Starlink Gen 1 constellation consists of 4,400 satellites, each with a capacity of 20 Gbps. It is learnt that these capacities are also regularly updated with new satellites enhancing to improve overall system capacities. The Starlink Gen 2 constellation will further include 30,000 satellites, comprising 7,500 satellites with 80 Gbps capacity each, and additional planned 22,500 satellites, each would have an improved satellites delivering capacity of up to 200 Gbps each.
- Similarly, Amazon's Kuiper constellation plans to deploy 3,236 satellites, with each satellite providing a capacity of 1,000 Gbps.

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The satellite capacities generated by these massive foreign satellite constellations, aimed at providing Fixed Satellite Services (FSS) and Mobile Satellite Services (MSS), will far surpass the capacities of most domestic terrestrial telecom operators. The total capacity of these constellations will not only exceed players like Airtel but will also be comparable to the network capacity of Jio. Moreover, such satellite constellations are set to offer many times the capacity of Vodafone Idea and will significantly outpace the capacities of BSNL.

Such considerable capacities position the satellite operators to compete aggressively in the Indian market, potentially disrupting the competitive balance and creating challenges for terrestrial Indian telecom providers to maintain their market share, especially in the high-capacity segments as they directly compete providing similar services such as voice, broadband internet, messaging etc. Without appropriate regulatory intervention, this could result in an uneven competitive landscape that puts huge investment of Indian operators at a disadvantage. Therefore, it is imperative that the level playing field issues are thoroughly examined and addressed.

One key mechanism to ensure fairness is the adoption of market-determined prices for spectrum through the auction method. This approach will ensure a transparent, fair, and equitable assignment of spectrum to all players, whether satellite-based or terrestrial. Auctions serve as an effective means of reflecting the real value of the spectrum based on demand and supply dynamics, preventing any undue advantage to large satellite operators at the expense of Indian stakeholders.

By aligning the spectrum assignment process with market-driven pricing, TRAI can facilitate healthy competition while safeguarding the interests of domestic operators. This, in turn, will create a more balanced ecosystem, where innovation, investment, and growth are encouraged across all segments of the telecommunications sector.

#### **Protection for Non-Competing Niche Satellite Communication Services**

It is important to ensure that satellite communication services, particularly those providing niche solutions such as VPNs, government functions, point-to-point links, and backhaul, are adequately supported. These services often do not directly compete with terrestrial networks but play a crucial role in ensuring connectivity in specific segments, including remote and underserved areas.

As per the prevailing laws and historical precedents, such services have traditionally been assigned spectrum on an administrative basis since they are not in direct competition with or pose a threat to existing telecom players. For these non-competing services, TRAI may continue to explore assigning the spectrum on an administrative basis. This approach ensures that these critical functions, including government services, are supported without facing the competitive pressures meant for more commercially-driven sectors. Furthermore, spectrum for these services could be charged based on a Spectrum Usage Charge (SUC) or a revenue-sharing model, providing a fair and sustainable framework for their continued operation. This method ensures that essential services remain accessible while maintaining the balance within the telecom ecosystem.

#### **The Need for considering Level Playing Field Issues**

We would like to once again emphasize that the omission of questions addressing the level playing field in the consultation paper could lead to arbitrary discrimination and violate Article 14 of the Indian Constitution. This gap could result in long-term negative impacts on India's telecommunications sector, including diminished investment prospects, potential legal disputes, and the destabilization of Indian operators in the face of overwhelming global competition.



Given the large-scale satellite constellation deployments being introduced by international players and ability to directly compete against the services provided by Indian terrestrial operators in providing similar communication services to the customers, TRAI has a responsibility to ensure same service same rule so that Indian operators are not unfairly disadvantaged in their own market. Any administrative methods if adopted can be construed as a predatory in nature. Any administrative methods, if adopted, could severely create market imbalances, as they might give certain players an unfair advantage over others on account of regulatory arbitrage. By circumventing market-driven mechanisms such as auctions, administrative allocations may artificially lower the cost of spectrum for some operators, creating an uneven playing field.

In view of above submission, we respectfully urge TRAI to consider the following:

- 1. Introducing questions in the consultation paper focused on ensuring a level playing field between satellite-based and terrestrial communication services.**
- 2. Evaluating the competitive impact of massive satellite constellations on the Indian telecom sector.**
- 3. Ensuring that spectrum pricing and assignment mechanisms are designed to provide fair and equitable access to all stakeholders, without unduly favoring large satellite operators over domestic ones. Specifically, adopting auction-based spectrum assignment mechanisms for assignment of spectrum will enable fair competition and ensure transparency in the process.**

By addressing these concerns, we believe that TRAI can create a transparent and balanced regulatory framework that promotes healthy competition, protects Indian interests, avoid loss to exchequer and fosters long-term growth in the Indian Telecommunications Sector.

We trust that our submission will receive your kind consideration.

With best regards,

Yours sincerely,

  
(Dr. Ranjeet Mehta)

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