

To,
Shri Akhilesh Kumar Trivedi,
Advisor (Networks, Spectrum and Licensing),
Telecom Regulatory Authority of India

Subject: Counter Comments on behalf of Hathway Cable and Datacom Limited on the TRAI Consultation Paper titled “Assignment of Spectrum for Space-based Communication Services” dated 4th April, 2023 (“CP”).

Dear Sir,

We would like to express our gratitude for providing us with the opportunity to share our counter comments on this consultation paper. The consultation paper is a timely effort that recognizes the need to adapt to evolving technological and market developments and **presents an excellent opportunity to transition from the current administrative assignment of spectrum to an auction-based assignment regime for space based communication services.**

Such a shift would boost investments in this highly promising sector by offering long-term certainty to investors. Additionally, it would enhance transparency in spectrum assignments and ensure equal opportunities for all stakeholders, be it incumbents or newcomers, to acquire spectrum.

However, we have noted that some stakeholders, in their responses to the Consultation Paper, have raised concerns about auctioning spectrum for space-based communication services. Hence, we would like to take this opportunity to present our counter comments in response to these viewpoints, as they seem to be based on certain misconceptions, such as:

- a. Spectrum for satellite services is a shared resource and does not require exclusive assignments like terrestrial services.
- b. Spectrum assignments for satellite services are solely governed by the ITU Radio Regulations
- c. The judgments of the Honorable Supreme Court in the 2G case do not apply to satellite spectrum.

We aim to address these misconceptions and provide an accurate perspective on the matter. Furthermore, it is concerning that, there is no mention of the impact of advancements in satellite services on existing service providers, especially smaller ISPs if there is an administrative assignment of spectrum. These new-age satellite service providers have positioned themselves as direct competitors to terrestrial

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service providers. However, it is evident from their responses that these satellite providers aim to exploit benefits from a first-come, first-serve regime, which will create an uneven playing field as these satellite operators will build up a pan country network without paying market-determined price for spectrum. Such actions neglect the fair competition and disrupt the equilibrium among different players in the industry.

Counter comments to key points raised by the stakeholders in their response to consultation paper are detailed below:-

1. Exclusivity in Spectrum Assignment and shared use of spectrum:

Counter comments:

Firstly, as stated above, we disagree with the viewpoints expressed by stakeholders regarding spectrum for satellite-based services being considered a shared resource. The exclusive assignment is intrinsic to satellite-based communication services for both NSGO and GSO systems. Even the existing assignments to satellite communication services are exclusive in nature. It is to be recognized that spectrum is a finite resource and limited capacity. No technology can be employed to make shared use of spectrum without imposing any limitation. The limitation imposed results into exclusivity in spectrum assignment. The only case where there is no exclusive assignment of spectrum is the delicensed or unlicensed spectrum where the system performance cannot be guaranteed.

Even the current assignments to service providers for satellite-based services are exclusive in nature wherein two service providers who use GSO satellites are assigned different frequencies. However, two GSO satellites can use the same frequency only if they are positioned sufficiently apart in terms of angular separation. In such case also, two satellites that use the same frequency are assigned spectrum in an exclusive manner and it cannot be termed as spectrum sharing between satellites.

NGSO systems also need exclusive assignment in form of frequency blocks to avoid interference between thousands of satellites and there is no concept of angular separation in the NGSO systems. Even in case technology is employed to assign the same frequency to multiple NGSO systems, the number of such NGSO systems using the same frequency are severely limited. In USA also, in first round of assignment, FCC has allowed only four NGSO systems to use the same frequency. This is also an exclusive assignment of spectrum as no NGSO operator, other than the ones allowed by FCC can use the same frequency.

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Based on the above facts, we reiterate our disagreement to views expressed that satellite systems do not need exclusive assignment of spectrum. Further, we also disagree with the views of stakeholders that exclusive assignments would result in inefficient usage. The exclusive spectrum assignments through auctions provide a more inclusive approach to spectrum assignment. Under such arrangements, operators have the flexibility to enter into sharing agreements with each other based on market forces. This enables NGSO operators to enhance spectrum bandwidth through sharing arrangements, resulting in efficient spectrum utilization and desired system performance. In addition, new entrants or entities that have been unable to acquire spectrum through auctions can also enter into arrangements with successful bidders to deploy their services. This further illustrates the inclusive nature of spectrum assignment through auctions

Spectrum sharing based on mutual arrangements between service providers is a highly efficient approach, as it enables service providers to directly coordinate with one another to share their spectrum resources. This method mirrors the prevailing practice in terrestrial services, where service providers coordinate directly to share spectrum based on their specific needs, benefits, and technical feasibility. This is in consonance with the dynamic nature of all wireless networks, whether terrestrial or satellite, emphasizing the need for close collaboration between service providers when sharing spectrum resources

Therefore, it is incorrect to argue that exclusive spectrum assignments hinder efficiency and spectrum sharing. In reality, they promote a collaborative and market-driven approach that allows operators to optimize spectrum utilization through voluntary sharing arrangements.

2. Applicability of Supreme Court judgement in 2G case on Satellite Spectrum

Counter Comments:

We have emphasized that the exclusive assignment of spectrum is currently in practice and essential for space-based communication services. In India, the legal position, as established by the Judgment of the Honourable Supreme Court in the 2G case, is clear and unequivocal: the allocation of scarce natural resources like spectrum can only be carried out through auctions. Auctions are regarded as the sole transparent, fair, and inclusive method for assigning limited national resources.

Moreover, it is important to note that the presidential reference specifically addressed the methods for the alienation or allotment of natural resources other than spectrum.

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No mention was made of satellite spectrum. Therefore, the Supreme Court's ruling in the 2G case applies equally to spectrum for satellite services, affirming the necessity of exclusively assigning spectrum to service providers to ensure interference-free operations in space-based communication services.

Therefore, in order to maintain transparency, fairness and level playing field, we reiterate that spectrum for all space based communication services (except spectrum within C-Band that serves the current teleport/broadcasting operations) needs to be assigned through auctions.

3. Applicability of ITU framework on spectrum assignment:

Counter Comments:

The ITU Constitution and Radio Regulations **do not govern the assignment of spectrum to service providers**. It is a right of administration/countries to assign spectrum in their respective countries. The definition of assignment provided in the Radio Regulation clarifies this fact:

1.18 assignment (of a radio frequency or radio frequency channel): Authorization given by an administration for a radio station to use a radio frequency or radio frequency channel under specified conditions.

The role of ITU is to mitigate interference between the services of various countries, enforcing this objective through the Articles of the Radio Regulations. In line with this, Article 4 of the Radio Regulations states the following

4.2 Member States undertake that in assigning frequencies to stations which are capable of causing harmful interference to the services rendered by the stations of another country, such assignments are to be made in accordance with the Table of Frequency Allocations and other provisions of these Regulations.

Even in the current regime, all spectrum assignments are made by DoT and charges for the same, are paid by service providers to DoT. Therefore, it is amply clear that ITU has no role in spectrum assignment and all such contents (that state that ITU assigns spectrum) are ought to be rejected.

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4. Impact of auctions on investments, prices and growth of space-based communication services:

Counter Comments:

Some stakeholders have expressed that auctions will result into no investments and uncertainty and consequently inhibit the growth of satellite services. They have also contended that auctions will result into higher prices and impact economies of scale.

We strongly disagree with the aforementioned views and wish to emphasize that auctions play a pivotal role in ensuring certainty and attracting investments. By employing a transparent and fair assignment method, auctions provide assurance of stable and long-term spectrum allocation. This approach helps to mitigate litigations and concerns regarding bias, which can severely impact the stability of the first come first serve method. Therefore, contrary to the opinions expressed by stakeholders, the administrative assignment based on the first come first serve method leads to uncertainty.

Consequently, auctions contribute to the proliferation of satellite services in rural and remote areas, aligning with the objective of promoting social welfare. Moreover, the implementation of auction-based regime in terrestrial services has resulted low tariffs for terrestrial mobile services, thereby promoting their widespread use. The substantial investments made in terrestrial services, facilitated by the promise of certainty offered by auctions, have led to economies of scale and enhanced the availability of mobile services.

The auctions facilitate the discovery of market prices for a scarce and highly sought-after resource. During the auction process, reasonable reserve prices and rational bidding allow for the determination of the fair price of spectrum. Moreover, auctions foster competition and inclusivity by providing everyone with an opportunity to participate in the spectrum allocation process, thereby contributing to overall growth.

Auctions also serve the purpose of ensuring that any entity aspiring to provide wireless communication services, including those competing with terrestrial services, pays the market value for the spectrum. This mechanism guarantees a level playing field between satellite and terrestrial services. By requiring fair and competitive bidding, auctions promote transparency and prevent any unfair advantages in spectrum allocation.

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5. Impact of auctions on market structure and hoarding of spectrum

Counter Comments:

Some stakeholders state that auctions lead to hoarding of spectrum, and distort market structure by creating middle entry (intermediary) between licensor and satellite operator. Auctions lead to risks by creating gatekeepers.

We strongly disagree with the aforementioned comments, as they seem to lack business sense and understanding of the current regulatory framework in India. Firstly, the assertion that spectrum auctions lead to hoarding of spectrum is baseless and lacks common sense. Service providers do not bid for spectrum with the intention of hoarding it, as it would result in wastage of valuable capital. Additionally, the imposition of rollout obligations further discourages such behaviour and imposes consequences on service providers who fail to utilize the assigned spectrum effectively.

Secondly, it is important to clarify that auctions do not give rise to the creation of intermediaries or middle entry. Even in the existing regime, spectrum is assigned directly to service providers, not satellite operators. A satellite operator can only bid for spectrum if it obtains the relevant service license and becomes a service provider itself. Therefore, there is no validity to the claim that auctions lead to the introduction of intermediaries or middle entry in the spectrum allocation process.

Thanking You.

For Hathway Cable and Datacom Limited



Ajay Singh

Head Corporate Legal, Company Secretary and Chief Compliance Officer

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