



18 November 2024

Subject: Plan-S response to TRAI's Consultation Paper on the Terms and Conditions of Network Authorisations to be Granted Under the Telecommunications Act, 2023

Dear Mr. Trivedi,

We appreciate the opportunity to contribute to TRAI's consultation on the terms and conditions of network authorisations to be granted under the Telecommunications Act, 2023. We commend TRAI's efforts in developing a comprehensive regulatory framework, reflecting a proactive approach to modernizing India's telecommunications landscape and addressing the sector's evolving needs. Implementing a robust licensing mechanism will deliver substantial benefits across the telecommunications ecosystem, particularly considering India's vast geographical expanse and diverse connectivity challenges.

A clear and predictable licensing regime enhances regulatory transparency and strengthens investor confidence by creating a stable environment that attracts new investments and supports existing players in securing capital for expansion and innovation. Also, TRAI's approach promotes fair competition, fostering an environment where new entrants can participate and drive efficiency across the market. The resulting competition is expected to reduce operational costs, which in turn can lower telecom service prices. More affordable services will enhance customer satisfaction, especially in economically disadvantaged regions, and contribute to India's mission of universal connectivity.

Finally, this licensing approach enables operators and stakeholders to align with regulatory expectations, supporting effective compliance and long-term strategic planning. Besides, it provides an environment conducive to growth and technological advancements, empowering operators to introduce new services, adapt to changing market demands, and respond more effectively to consumer needs. These developments may be a solid base for a dynamic, competitive telecommunications industry in India, ultimately benefiting consumers through improved service quality, innovation, and affordability.

Here we have provided answers to the questions, relevant to Plan-S, in the public consultation document:

Q7. Whether there is a need to make any changes in the eligibility conditions, area of operation, validity period of authorisation, scope, and terms & conditions (general, technical, operational, security etc.) of the Satellite Earth Station Gateway (SESG) authorisation, as recommended by TRAI on 29.11.2022? If yes, what changes should be made in the eligibility conditions, area of operation, validity period of authorisation, scope, and terms & conditions (general, technical, operational, security etc.) of the SESG authorisation? Kindly provide a detailed response with justification.

The SESG license framework outlined by TRAI on 29.11.2022 provides a comprehensive basis for regulating Satellite Earth Station Gateway operations. However, integrating SESG licenses into the existing unified licensing regime rather than creating a separate authorization may better support network integrity and streamline regulatory oversight. We believe that administrative processes could be simplified, facilitating faster service deployment through treating SESG as part of satellite-based telecommunication services.



Additionally, the current recommendation of a 20-year validity period for SESG licenses, with an option for renewal, appears well-suited to support service stability and long-term planning. This timeframe provides a solid foundation for SESG operators to invest and plan for sustainable service delivery, aligning well with the unified licensing structure.

Q8. Whether there is a need to introduce a new authorisation for establishing, operating, maintaining or expanding satellite communication network, which may be used to provide network as a service to the entities authorised under Section 3(1)(a) of the Telecommunications Act, 2023? If yes-

(a) What should be the eligibility conditions, area of operation, validity period of authorisation, scope, and terms & conditions (general, technical, operational, security etc.) of such authorisation?

Considering the large geographical landscape of India, it is challenging for a single telecommunications operator to independently reach every area and provide nationwide service. Thus, a cooperative approach such as partnerships with entities may help enhancing the service. Regarding collaborative efforts, the Satellite-based Telecommunication Service authorization under Section 3(1)(a) of the Telecommunications Act, 2023, provides a suitable framework yet could be evaluating alternative approaches to simplify processes and avoid limiting potential partnerships.

For example, in one approach, giving permission to the NSO entity holding a Satellite-based Telecommunication Service authorization, hereinafter referred to as the “SNO”, to enter into partnership agreements with local partners without a specific authorization could be evaluated by the authority. Alternatively, determining a list of certain authorizations are designated to provide satellite communication services without needing an additional authorization could be evaluated as another approach. These operators might include categories as you outlined such as Virtual Network Operators (VNO), Internet Service providers (Category-A/B/C), Satellite-based Telecommunication Service providers, or Machine-to-Machine (M2M) WAN Service providers (Category-A/B/C). SNOs could submit a notification to the authority under either approach as well. We believe that adding a clause within the existing regulation to address these points may be evaluated rather than a separate authorization mechanism, due to the considerations stated above.

Collaborating with SNOs enables local telecom operators to extend satellite services to remote and underserved areas, eliminating CAPEX requirements for local service providers and enhancing service reliability. This partnership also accelerates market development, improves customer satisfaction through partner support, and facilitates IoT services that require extensive service coverage. These benefits collectively strengthen the competitiveness and profitability of local operators.

For instance, Plan-S, as an IoT service provider, leverages this capability through its CONNECTA IoT Satellite Network. Partnerships herein plays an important role in terms of application and device development. Through agreements between solution providers and operators, CONNECTA IoT Satellite Network fosters application and device development, creating new opportunities for application developers, IoT providers, and network operators.



This collaboration drives innovation, job creation, and improved quality of life through advanced applications and services.

In addition, the flexibility for the Machine-to-Machine (M2M) services matters to support the diverse applications of IoT, particularly across sectors like agriculture, energy, and urban management. Thus, we believe that the SNOs should provide IoT services either solely or in collaboration with entities.

To provide further clarity on the suggested approaches, the following sections offer a more detailed explanation and outline specific examples to illustrate how these partnerships might be structured in practice. We believe that each approach allows SNOs to collaborate with partners, though practical considerations may vary; for instance, an authorization mechanism could extend timelines and limit short-term partnerships. Thus, adding a clause to allow SNOs to begin service upon notifying the authority of an agreement with operators could expedite partnership formation and enhance service delivery.

If each approach allows SNOs to enter partnership agreements with operators without a specific authorization, the SNOs would gain the flexibility to define terms aligned with operational and regulatory requirements. This structure would also place rights of use and associated liabilities with the SNO, ensuring clear accountability, which could be highly beneficial.

Liability of the SNOs in all cases may be considered for ensuring accountability on the part of the IoT service provider overseeing satellite-based IoT operations, particularly in spectrum management and monitoring. We believe that rights of use for frequency resources responsibilities should remain solely with the licensed satellite network operator to ensure optimal network performance and regulatory compliance. This arrangement may enable SNOs to maintain operational efficiency while meeting regulatory and technical standards. Besides, partners, such as virtual network operators, would act as the primary contact for customer needs, promoting clarity and efficiency in service management under this structure.

(b) Whether an entity holding such authorisation should be made eligible for the assignment of spectrum for both feeder link as well as user link?

We support the position that the assignment of spectrum, both on the gateway side (feeder link) and the user terminal side, should be left exclusively to SNOs, as the network is operated and controlled by them. Assigning spectrum to other entities without any coordination may lead to interference issues, and the responsibilities regarding spectrum usage could become unclear, potentially complicating the coordination and operation of the system.

Q28. In case it is decided to introduce a new authorisation for establishing, operating, maintaining or expanding satellite communication network under Section 3(1)(b) of the Telecommunications Act, 2023, then, what should be the financial conditions for such authorisation?

We believe that financial conditions should be designed to facilitate more entities to obtain such authorization. Setting fees at a reasonable level will encourage a diverse range of participants to invest and innovate within the satellite communication sector and promote operators' abilities to allocate resources towards service expansion and technological



advancements. Additionally, spectrum fee and authorization regime should not create any financial burden on entities, particularly smaller companies and startups. By avoiding this requirement, the framework would enable more inclusive participation, supporting competition and innovation in the sector.

We greatly appreciate TRAI's efforts in developing this new regulatory framework for network authorisations under the Telecommunications Act, 2023. This initiative marks a crucial advancement in enhancing market competitiveness, encouraging investment, and improving service accessibility for consumers across India. We are grateful for the opportunity to contribute our insights to this important consultation and remain dedicated to supporting TRAI's ongoing efforts in strengthening India's telecommunications landscape.

Respectfully submitted,

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About Plan-S:

Plan-S, established in 2021, is the major private initiative in Türkiye's satellite and space technology sector, aiming to become a leading global company in the "new space" field by assembling top talents and conducting R&D in satellite and subsystem development, as well as ground and user segment hardware and software in IoT, Earth Observation, and Space-as-a-Solution (SpaaS) business fields.

Plan-S aims to provide IoT connectivity and Earth Observation services across sectors such as agriculture, oil & gas, maritime, transportation, energy, and finance. The company is also focused on the design and manufacture of satellite systems, including satellites, ground stations, ground devices, and the network software needed for seamless operation.

Plan-S launched its first satellite in less than 8 months, starting from scratch while simultaneously assembling its team, establishing technical infrastructure, and developing engineering processes. Additionally, Plan-S has been operating 5 test satellites in orbit, all launched before the company's second anniversary.

Now, as Plan-S steps into its third year, it will commence commercial IoT services with its satellite network, CONNECTA IoT, this year after the first set of commercial satellites (4 additional satellites) was put into orbit on 16th of August 2024. In the short term, twelve additional IoT satellites will be launched within a year. The company's long-term vision includes deploying a constellation of over 100 satellites by 2029, to be completed in three major phases based on market demands and requirements.

For more details about Plan-S, please visit <https://www.plan.space/>