

# **ISpA Response to Consultation Paper on “The Terms and Conditions of Network Authorisations to be Granted Under the Telecommunications Act, 2023”**

## **A. Executive Summary**

The Indian Space Association (ISpA) appreciates the opportunity to respond to TRAI's consultation paper on network authorizations under the Telecommunications Act, 2023, particularly its focus on space-based communication services. Our response focuses on establishing an appropriate regulatory framework that supports the growth of India's space sector while ensuring effective oversight.

The evolving landscape of space-based communications requires a forward-looking regulatory framework that balances innovation with oversight. Currently, satellite operators intending only to establish and operate gateway infrastructure are required to obtain a full Unified License with stringent conditions. This requirement creates unnecessary barriers for space sector participants, particularly new entrants and global operators. We advocate for a simplified, light-touch registration framework for Satellite Earth Station Gateway (SESG) operators and satellite network providers, aligned with international best practices and India's space sector ambitions.

For the satellite sector to fulfil its potential in bridging India's digital divide, operators need regulatory certainty and operational flexibility. This includes the ability to establish multiple gateways, deploy advanced technologies, and implement efficient network architectures. The authorization framework should support both GEO and NGSO systems, enable infrastructure sharing, and provide clear paths for technology evolution.

The success of India's space sector depends significantly on creating an enabling environment for private participation while ensuring appropriate oversight.

As India positions itself as a global space industry hub, the regulatory framework must enable innovation while ensuring national security and public interest. ISpA remains committed to working with TRAI and other stakeholders to develop and implement regulations that serve these objectives while fostering industry growth and global competitiveness.

**B. Response to Issue of Consultation**

**Q.7 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.**

**Q.8 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?**
- (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? Kindly provide a detailed response with justification.**

**Q.9 Whether there is a need to introduce an authorisation under Section 3(1) of the Telecommunications Act, 2023 for establishing, operating, maintaining or expanding ground stations, which may be used to provide ground station as a service (GSaaS)? If yes, what should be the eligibility conditions, area of operation, validity period of authorisation, scope, and terms & conditions (general, technical, operational, security etc.) for the authorisation to establish, operate, maintain, or expand ground stations, which may be used to provide GSaaS? Kindly provide a detailed response with justifications.**

**Response:**

The SatCom regime in India has not evolved to keep pace with the developments in technology. There is no separate registration for SESG or Satellite Communication Network operators in India, forcing even satellite operators – who only wish to set up Satellite Earth Station Gateways

(SESGs)/Satellite Network Portals (SNPs) and acquire satellite spectrum to operate the SESG/SNP to provide satellite bandwidth to TSPs and do not intend to provide any retail services to end customers directly – to take a Unified License, which comes with strict conditions like security compliance etc.

For Ground Station as Service (GSaaS), the regulatory framework must acknowledge its unique operational characteristics. GSaaS operations involve complex orbital mechanics requiring global network access, with satellites typically orbiting Earth every 90 minutes on varying ground paths. This operational reality necessitates flexible access to ground stations worldwide for efficient satellite operations and data handling. The framework should support various commercial models including pay-per-use and fixed time slot arrangements, enabling economic efficiency through shared infrastructure utilization.

Data security and handling mechanisms form a fundamental pillar of these services. All satellite communications carry robust encryption, with ground station operators relaying data between mission control centers and satellites without decryption capabilities. This operational model enables secure services while maintaining data sovereignty. The framework should support autonomous operations and integration with global ground station networks, recognizing the evolving nature of space operations.

While TRAI recognized the issue, and recommended for a separate SESG license; however, the issue was not addressed holistically. TRAI followed the same approach as IP-I, recommending that SESG licensees should not be allowed to use spectrum or install baseband equipment – without acknowledging the unique requirements of global-level NGSO operators.

We submit that there should be a separate light-touch registration for SESG/Satellite Communication Network operators, they should not be required to obtain any license/ authorisation.

Further, the SESG/Satellite Communication Network operator should be allowed to acquire/ use spectrum required for the operation of SESGs/SNPs (for establishing the feeder link with the satellite) and to install baseband equipment at the SESGs/SNPs. Without these, the separate SESG/Satellite Communication Network registration would be of no use to NGSO satellite operators.

Furthermore, the spectrum required for the operation of UTs should be allocated to service licensees.

Lastly, the SESG/Satellite Communication Network operator should also be allowed to connect their SESGs with their Points-of-Presence (where the respective traffic is handed back over to different partners/service providers) – through a fibre/leased line, without having to acquire any separate license/authorisation.

**Q.12 What provisions should be included in the terms and conditions of various network authorisations under Section 3(1)(b) of the Telecommunications Act, 2023 considering the various sections including Sections 4 to 9, 19 to 24, 32 to 42, 44, 45, 49, and 55 of the Telecommunications Act, 2023 and technological/market developments in the telecommunication sector? Kindly provide a detailed response with justifications.**

**Response:**

Any specific terms and conditions proposed to be included in authorisations under the provisions of the Telecom Act should be deliberated with the industry before being proposed.

Additionally, the authorization framework must achieve seamless integration between Telecommunications and Space Sector regulations. This requires careful harmonization with the Indian Space Policy 2023 and establishment of clear coordination mechanisms between DoT and IN-SPACe. The framework should enable streamlined processes through single-window clearance while maintaining appropriate security protocols and oversight mechanisms.

Security considerations should adopt a risk-based approach, recognizing the inherent security features of satellite operations including encrypted communications and secure network architectures. The framework must balance national security requirements with operational efficiency, enabling integration with global networks while protecting critical infrastructure.

**Q.13 What provisions should be included in the terms and conditions of various network authorisations under Section 3(1)(b) of the Telecommunications Act, 2023 considering the policy/Act in the Space Sector and other relevant policies/Acts in the related sectors? Kindly provide a detailed response with justifications.**

**Response:**

No comments.

**Q.15 What conditions should be made applicable for the migration of existing network licenses, registrations etc. to the new network authorisation regime under Section 3(1)(b) of the Telecommunications Act, 2023? Kindly provide a detailed response with justifications.**

**Q.16 What procedure should be followed for the migration of existing network licenses, registrations etc. to the new network authorisation regime under Section 3(1)(b) of the Telecommunications Act, 2023? Kindly provide a detailed response with justifications.**

**Response:**

We believe that the process of migration to the new regime will be voluntary, in line with the provisions of the Telecom Act. Further, we recommend the following:

- (i) Migration to the new regime should not create a disparity between the licenses and the principles of fairness and equity should be maintained. The terms and conditions applicable to the existing licensees who choose not to migrate should be no worse-off than those applicable to such licensees who choose to migrate as well as to new entrants who obtain an authorisation under the new regime.
- (ii) Migration should not be conditional upon withdrawal of sub-judice matters or upon submission of BGs/undertakings regarding payment of dues in respect of such matters.

**Q.27 Whether there is a need to change/modify any of the financial conditions of the Satellite Earth Station Gateway (SESG) authorization from those recommended by TRAI on 29.11.2022? If yes, please provide a detailed response with justification(s).**

**Q.28 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?**

**Q.29 In case it is decided to introduce an authorisation under Section 3(1) of the Telecommunications Act, 2023 for establishing, operating, maintaining or expanding ground stations, which may be used to provide Ground Station as a Service (GSaaS), then:**

**(a) Whether there is a need to have financial conditions associated with such an authorisation?**

**(b) In case your response to the above is in the affirmative, then what should be financial conditions for such an authorisation? Please provide detailed response with justification.**

**Response:**

The financial structure for space-based authorizations must reflect the unique characteristics and challenges of space operations. The framework should adopt a progressive approach that encourages investment while ensuring sustainable industry growth.

For SESG authorizations, we recommend maintaining nominal entry fees and administrative charges while eliminating burdensome requirements like bank guarantees. This approach recognizes the capital-intensive nature of satellite infrastructure and the need to encourage private sector participation. The financial framework should support various business models, including infrastructure sharing and pay-per-use arrangements, enhancing the economic efficiency of space infrastructure utilization.

Ground Station as Service operations warrant particular consideration in the financial framework. These services represent a new paradigm in space operations, enabling more efficient utilization of ground infrastructure through shared access. The charging mechanism should reflect this operational model, potentially incorporating flexible payment structures that align with actual infrastructure usage patterns.

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