

May 6th, 2026

Telecom Regulatory Authority of India
Advisor (Networks, Spectrum and Licensing)
advmn@traai.go.in

Attention: Shri Akhilesh Kumar Trivedi

Subject: Comments from Globalstar, Inc. on Consultation Paper No. 06/2026 on the Framework for Satellite Communication Network Authorization, and Assignment of Spectrum to Satellite Communication Network Providers

Dear Sir,

We have enclosed comments from Globalstar, Inc. on Consultation Paper No. 06/2026 on the Framework for Satellite Communication Network Authorization, and Assignment of Spectrum to Satellite Communication Network Providers in Annex 1 below.

Thank you for giving us the opportunity to provide comments on this consultation paper.

Sincerely,

L Barbee Ponder IV
General Counsel and Vice President of Regulatory Affairs
Globalstar, Inc.

Annex 1

Comments by Globalstar, Inc. on Consultation Paper 06/2026 on the Framework for Satellite Communication Network Authorization, and Assignment of Spectrum to Satellite Communication Network Providers

1. Introduction and Overview

Globalstar is a leading provider of global mobile satellite services (“MSS”). Operating continuously in the S-Band and L-Band for nearly three decades, our low-Earth orbit (“LEO”) non-Geostationary orbit (“NGSO”) system supports the delivery of reliable MSS to consumers, public safety personnel, and enterprise customers globally. Our network uses a ‘bent-pipe’ architecture with satellites that receive and transmit traffic between an expanding eco-system of mobile Earth terminals and a global network of Gateway Earth Stations (“GES”).

In addition to providing affordable, high-quality MSS to 780,000 of our own end user customers worldwide, Globalstar’s MSS network supports a revolutionary, direct-to-handset “Emergency SOS via Satellite” feature that is currently available in supported regions on iPhone 14 and newer as well as Apple Watch 3. This feature allows users to initiate emergency communications using these devices when terrestrial networks are unavailable. Most recently, Globalstar announced an additional USD 1.7 Billion investment in an expanded mobile satellite network and additional new ground station antennas.

A key factor in allowing Globalstar to bring such innovative direct-to-device features to the market is the regulatory certainty that has existed for mobile satellite services globally for many decades. In addition to well-established rules for MSS operations and systems at the ITU level, most administrations have harmonized their regulations for such services to ensure reach and usability. We hope that, as India and the TRAI consider adopting rules that will regulate direct-to-device services, it maintains these long-established rules that have enabled important investments into and innovations of satellite communications.

2. Globalstar’s Responses to Specific Questions in the Consultation Paper

Question 1 – What should be the eligibility conditions, area of operation, validity period of authorization and the scope of the proposed Satellite Communication Network (SCN) authorization under Section 3(1)(b) of the Telecommunications Act, 2023? Kindly provide a detailed response with justification.

Globalstar would like to propose that the TRAI provide some additional clarity on the rights and responsibilities a Satellite Communication Network (SCN) authorization would confer upon the licensee. It is our opinion that an SCN should allow for all of a) service provision; b) gateway licensing; and c) spectrum utilization. Additionally, an SCN authorization holder should be permitted to provide its services on both a wholesale and a retail basis, allowing for multiple business models to evolve over time.

Question 2 - What should be the terms and conditions (general, technical, operating, security related etc.) that should be made applicable for the proposed Satellite Communication Network authorization? Kindly provide a detailed response with justification.

Generally speaking, Globalstar believes in light-touch regulations that bring more options to consumers whilst ensuring a safe wireless operating environment. Accordingly, ensuring that different satellite systems and services can exist within the market in India should be the TRAI's main priority when developing its rules on the SCN authorizations. In particular:

- Consider reducing or eliminating the physical gateway requirements and allowing for software-based solutions to satisfy lawful interception and data retention requirements.
- Ensure continued harmonization to global service allocations in satellite frequency bands.
- Defer coordination considerations to the ITU process, which is well-established and which ensures a safe global operating environment for all satellite systems and services.
- Allowing for more flexibility in the business models and the manners in which service providers are able to engage with their client base.

Question 3 - Which type of authorized entities should be permitted to seek Satellite Communication Network as a Service (SCNaaS) from the entities holding the proposed Satellite Communication Network authorization? Whether virtual network operators (VNOs) should also be permitted to seek SCNaaS? Kindly provide a detailed response with justification.

Globalstar believes that any duly incorporated entities in India that satisfy the requisite technical, financial, and management capabilities should be eligible to apply for and hold an authorization to provide Satellite Communication Network as a Service.

Question 4 - Whether the SCN authorized entity establishing, operating, maintaining, or expanding the baseband system along with SCN should be mandated to extend control, visibility, resource allocation and management of the telecommunication services, being provisioned using SCN to users, to the partnering entity on mutually agreed terms and conditions? Please provide a detailed response with justification.

Globalstar does not believe that extended controls should be imposed on the SCN authorized entity. In many instances, a satellite system will be operated as a single global network, and imposing onerous additional infrastructure and network and system management rules will restrict market entry and increase the cost of operating that system. This will hurt the competitiveness of new systems and in turn reduce options and technologies for Indian consumers.

Question 5 - What provisions should be included in the terms and conditions of Satellite Communication Network (SCN) authorization considering the policy/Act in the Space sector? Kindly provide a detailed response with justification.

Globalstar has no comment or response to this question.

Question 6 - Whether there is any need for mandating a reference agreement between the entities holding the proposed Satellite Communication Network authorization and the authorized entities providing telecommunication service? If yes, what should be the salient features of the reference agreement between such entities? Kindly provide a detailed response with justification.

Globalstar does not believe that there should be a mandated reference agreement for entities wishing to collaborate to provide satellite services in India. As new technologies evolve, different commercial engagements will develop to meet demand and satisfy varying business models. Maintaining flexibility will be critical in supporting the proliferation of different services and technologies for consumers in India.

The TRAI may consider adopting guidelines as to what should be included in such an agreement, but we do not believe that these should be specific mandated or enforced conditions.

Question 7 - *With respect to the interconnection with the proposed Satellite Communication Network Authorized Entities, whether there are any other issues in addition to those raised in TRAI's consultation paper on "Review of existing TRAI Regulations on Interconnection matters" dated 10.11.2025, which require to be addressed in this consultation process? Please provide a detailed response with justification.*

Globalstar has no comment or response to this question.

Question 8 - *Any other inputs or suggestions relevant to the proposed Satellite Communication Network authorization may kindly be provided with detailed justification.*

Globalstar has no comment or response to this question.

Question 9 - *Which of the following services should be permitted to be provided by using the SCNs established by the proposed SCN authorized entities:*

- a) *Fixed Satellite Service (FSS)*
- b) *Mobile Satellite Service (MSS)*
- c) *Direct-to-Device service via satellite using MSS spectrum*
- d) *Direct-to-Device service via satellite using IMT spectrum*

Kindly provide a detailed response with justification.

Globalstar believes that any of the above services should be permitted under an SCN authorization, given the applicant for the authorization is able to demonstrate their ability to provide such a service.

Question 10 - *Whether D2D Service via satellite by using IMT spectrum should be permitted at this stage itself, or should this matter be examined after considering the outcome of WRC-2027? Kindly provide a detailed response with justification.*

Globalstar does not have an opinion on the timing of permitting D2D services via satellite by using IMT spectrum in India. However, it suggests that the TRAI ensures that if and when international operational rules are adopted, that it aligns with such rules to maintain global harmonization of rules for global systems and services. In particular, any such D2D operating in IMT bands should ensure the continued protection of all incumbent services, both in-band and in adjacent bands, inclusive of important MSS such as Globalstar's services.

Question 11 - *From the perspective of holding spectrum for the feeder link and the user link on SCNs, which of the following combinations should be permitted at the SCNs established by the proposed SCN authorized entities:*

<i>Combination Number</i>	<i>Spectrum for the feeder link held by</i>	<i>Spectrum for the user link held by</i>
<i>1</i>	<i>SCN authorized entity</i>	<i>SCN authorized entity</i>
<i>2</i>	<i>SCN authorized entity</i>	<i>Partnering entity (service provider)</i>
<i>3</i>	<i>Partnering entity (service provider)</i>	<i>SCN authorized entity</i>
<i>4</i>	<i>Partnering entity (service provider)</i>	<i>Partnering entity (service provider)</i>

Kindly provide a detailed response with justification.

Globalstar does not believe that the rules should dictate the SCN authorized entity that holds the spectrum licenses. Rather, the regulations should allow for capable entities to apply for and hold the combination of licenses that allow it to operate in accordance with its business model. This allows different system operators to develop varying commercial models and ensure that their licensing is obtained to ensure compliance.

Question 12 - *Which of the following types of spectrum should be assigned to the proposed SCN authorized entities: (a) Spectrum in the frequency bands allocated for FSS (b) Spectrum in the frequency bands allocated for MSS (c) Any other? Kindly provide a detailed response with justification.*

Globalstar believes that spectrum in the frequency bands allocated for MSS should be assigned to MSS system operators who apply for and obtain an SCN authorization in India. Additionally, such assignments should follow international coordination rules and respect system incumbency and operational parameters.

Question 13 - *What should be the broad policy and regulatory framework for the assignment of FSS spectrum and/or MSS spectrum to the proposed SCN authorized entities? Specifically:*

- a) NGSO-based FSS and GSO/ NGSO-based MSS: Whether in respect of NGSO-based FSS and GSO/ NGSO-based MSS, TRAI's recommendations dated 09.05.2025 on 'Terms and Conditions for the Assignment of Spectrum for Certain Satellite-Based Commercial Communication Services' to DoT (read with the TRAI's response dated 08.12.2025 to DoT's back-reference dated 12.11.2025) should be made applicable to SCN authorized entities with necessary modifications? If yes, what modifications would be required in the terms and conditions for the assignment of spectrum for NGSO-based FSS and GSO/ NGSO-based MSS? If no, what should be the terms and conditions for this purpose?*
- b) GSO-based FSS: Whether the terms and conditions for the assignment of spectrum to SCN authorized entities for GSO-based FSS should be analogous to those recommended by TRAI for NGSO-based FSS and GSO/ NGSO-based MSS through its recommendations on 'Terms and Conditions for the Assignment of Spectrum for Certain Satellite-Based Commercial Communication Services' dated 09.05.2025 (read with the TRAI's response dated 08.12.2025 to DoT's back-reference dated 12.11.2025) with necessary modifications? If yes, what modifications would be required for GSO-based FSS? If no, what should be the terms and conditions for this purpose? Kindly provide a detailed response with justification.*

Globalstar believes that the assignment of MSS spectrum should be undertaken on an administrative processing basis only, and not follow complex spectrum auctioning processes.

Question 14 - *What should be the eligibility conditions for seeking administrative assignment of FSS spectrum and/or MSS spectrum by the proposed SCN authorized entities? Kindly provide a detailed response with justification.*

Applicants seeking administrative assignments of MSS spectrum should be able to evidence their technical, financial, and commercial capabilities. Additionally, such spectrum should only be assigned to entities that operate systems that are duly notified to the ITU and have following international coordination procedures.

Question 15 - *Whether there are any other inputs or suggestions relevant to the assignment of FSS spectrum and/ or MSS spectrum to the entities holding the proposed SCN authorization? Kindly provide a detailed response with justification.*

Globalstar has no comment or response to this question.

Question 16 - *In case it is decided to permit the proposed SCN authorized entity to utilize the FSS spectrum and/or MSS spectrum assigned to a service authorized entity (“partnering entity”) for the purpose of providing SCNaas to the partnering entity, whether there is a need to establish a policy and regulatory framework for enabling the SCN authorized entity to enter into an agreement/arrangement with the partnering entity to utilize FSS spectrum and/or MSS spectrum assigned to such partnering entity for the purpose of providing SCNaas to the partnering entity?*

- i) *If yes, what should be the terms and conditions under such a framework?*
- ii) *If no, in what manner such agreements/arrangements should be enabled and regulated? Kindly provide a detailed response with justification.*

Globalstar has no comment or response to this question.

Question 17 - *Whether there are any other inputs or suggestions relevant to the agreement/arrangement between the proposed SCN authorized entities and service authorized entities (“partnering entities”) to utilize the FSS spectrum and/or MSS spectrum assigned to such partnering entities? Kindly provide a detailed response with justification.*

Globalstar has no comment or response to this question.

Question 18 - *In case it is decided to permit D2D service via satellite by using the spectrum in the frequency bands allocated for MSS such as L-band and S-band, whether there is a need to establish a policy and regulatory framework for enabling and regulating such a service? If yes, kindly suggest a broad framework for this purpose and the key terms and conditions to be included under such a framework? Kindly provide a detailed response with justification.*

Globalstar does not believe that any new policies or rules should be adopted for D2D services via satellite operating in MSS bands and that operate within the established MSS parameters. The international rules and regulations for MSS are well-established and globally harmonized, and have enabled global service provision for many years.

Question 19 - *In case with a view to enable D2D service via satellite using IMT spectrum, it is decided to permit the proposed SCN authorized entity to utilize IMT spectrum assigned to a service authorized entity (“partnering entity”) for the purpose of providing SCNaas to the partnering entity, -*

- a) *whether there is a need to establish a policy and regulatory framework for enabling the SCN authorized entity to enter into an agreement/arrangement with the partnering entity to utilize IMT spectrum assigned to such partnering entity for the purpose of providing SCNaas to the partnering entity? If yes, what should be the terms and conditions under such a framework? If no, in what manner such arrangements should be enabled and regulated?*
- b) *Which frequency bands identified for IMT should be considered for this purpose? Specifically, whether only FDD-based frequency bands should be considered?*
- c) *For the frequency bands identified for IMT where D2D is decided to be permitted, whether the National Frequency?*

Globalstar has no comment or response to this question.

Question 20 - *Whether there are any other inputs or suggestions with respect to the delivery of D2D services via satellite through SCNs established by the proposed SCN authorized entities? Kindly provide a detailed response with justification.*

Globalstar has no comment or response to this question.

Question 21 - *Any other inputs or suggestions related to the use of spectrum on SCNs established by the proposed SCN authorized entities may be submitted with proper explanation and justification.*

Globalstar has no comment or response to this question.

Question 22 - *Regarding the agreement between SCN Authorized entity and a Service Authorized entity providing FSS/MSS to the end user, for provision of SCNaas to the Service Authorized entity, which may or may not include provisions for utilization of FSS/MSS spectrum assigned to the Service entity, is there a need to regulate charges exchanged between the two entities under such an agreement? If yes, what would be the possible parameters, including SLA parameters, Spectrum utilization etc., which would form the basis of regulation? Please provide your response with justification.*

Globalstar does not believe that the charges between licensed operators should be subjected to overly-onerous regulations. The TRAI may reserve the right to review these agreements to ensure that such charges are compliant, but any such review process should be streamlined and the regulations should not mandate difficult or complex fee rules between the licensed parties.

Question 23 - *In case of an agreement between an SCN Authorized entity and a Service Authorized entity providing D2D services using MSS spectrum, for provision of SCNaas to the Service Authorized entity, which may or may not include provisions for utilization of MSS spectrum assigned to the Service entity amongst other possible spectrum utilization arrangements, is there a need to regulate charges exchanged between the two entities under such an agreement? If yes, what would be the possible parameters,*

including SLA parameters, Spectrum utilization etc., which would form the basis of regulation? Please provide your response with justification.

Globalstar has no comment or response to this question.

Question 24 - In case of an agreement between an SCN Authorized entity and a Service Authorized entity providing D2D services using IMT spectrum, for provision of SCNaas to the Service Authorized entity, which may or may not include utilizing spectrum for feeder link assigned to the service entity, besides utilizing IMT spectrum assigned to the Service Authorized entity, is there a need to regulate charges exchanged between the two entities under such an agreement? If yes, what would be the possible parameters, including SLA parameters, Spectrum utilization etc., which would form the basis of such regulation? Please provide your response with detailed justification.

Globalstar has no comment or response to this question.

Question 25 - Should the charges paid by the Service Authorized entity (providing either FSS, MSS or D2D service to the end user) to SCN Authorized entity for provisioning of Satellite Communication Network as a Service (SCNaas), be permitted to be deducted from ApGR of the Service Authorized entity for the purpose of arriving at AGR for levy of License/ Authorization Fees and Spectrum charges? Please provide your response with justification.

Globalstar has no comment or response to this question.

Question 26 - If the answer to the above question is no, please suggest the methodology for considering such charges in determination of AGR of both the service authorized and SCN authorized entities, for purposes of levying Authorization/ License fees & Spectrum Charges? Please provide your response with justification.

Globalstar has no comment or response to this question.

Question 27 - What should be the appropriate definition of GR, AGR, and ApGR for SCN Authorization, including the relevant items of revenue, exclusions and deductions? Additionally, are there any operational or non-operational revenue elements specific to SCN Authorized entities that should be considered within the scope of definitions of GR, AGR and ApGR? Please provide detailed response with specific line items of revenue, exemptions and deductions, and specific definitions for GR/ApGR/AGR.

Globalstar believes that all revenue metrics associated to SCN licensees should be based only on those revenues generated from specifically licensed activities within India. Such figures should not include:

- Non-licensed activities
- Any revenues generated from activities outside of India

The new regulations should take into account that most satellite system operators are global or regional operators. Understanding that compliance to domestic rules are important, these should be limited in scope to the activities subject to the licensing and within the reach of the domestic regulations.

Question 28 – *In case FSS/MSS or any other spectrum is assigned to the Satellite Communication Network (SCN) authorized entities for provisioning of SCNaas to Service authorized entities, what should be the broad financial terms & conditions of such an assignment?*

Generally speaking, the regulations that apply to SCN authorizations should follow global standards. In particular as applies to the financial terms and conditions, cost-recovery models should be adopted rather than revenue-based percentages or other mechanisms to calculate taxes. In practice, such models ultimately pass on costs to the consumer, driving higher prices and reducing competitiveness for new and important technologies and services.

Question 29 - *Should the spectrum charges for Satellite Communication Network (SCN) authorized entities be based on the spectrum charging framework as per the Recommendations dated 09.05.2025 applicable for Satellite based commercial communications services? Accordingly, what should be the appropriate spectrum charging framework and spectrum charges applicable for a SCN Authorized entity? Please provide your response with detailed justification.*

Globalstar suggests that the new regulations consider eliminating the urban device surcharges applicable to two-way MSS terminals that only operate outside of terrestrial network coverage. Taking into account that the Globalstar MSS network, and the D2D features it enables, are specifically designed to support critical communications if and when a terrestrial network is not available, urban environments are essentially eliminated from the service area unless in cases of emergencies.

Additionally, Globalstar believes in a cost-recovery model instead of a tax on revenue. Accordingly, we propose that the new regulations consider adopting such a model for regulatory fees for SCN authorized entities.

Question 30 - *If spectrum charges are to be levied on the basis of AGR of the SCN Authorized entity, are there any specific operational/ non-operational revenue items that should be excluded from AGR for the purpose of determination of spectrum charges? Please provide your response with detailed justification.*

Globalstar has no comment or response to this question.

Question 31 - *If the spectrum charges are not to be levied on basis of AGR of the SCN authorized entity, what should be the appropriate spectrum charging mechanism and the corresponding level of spectrum charges applicable to Satellite Communication Network (SCN) authorized entities? Please provide your response with detailed justification.*

Globalstar has no comment or response to this question.

Question 32 - *In case D2D services are permitted to be provided using the MSS frequency bands such as L & S bands, what should be the appropriate spectrum charging framework for such bands when utilized for provision of D2D satellite-based services? Please provide detailed justification for your response, including the methodology for determination of such spectrum charges, if required.*

Globalstar proposes that the new regulations adopt a cost-recover model for D2D services permitted to be provided using the MSS frequency bands. Such a model is in line with

international standards and will ensure the continued proliferation of important satellite services in India.

Question 33 - In case D2D services are permitted to be provided using the IMT spectrum assigned to the Service Authorized entity ('partnering entity') providing D2D satellite-based telecommunication services, should any additional spectrum charges be levied on the Service Authorized entity ('partnering entity') for use of IMT spectrum in the provision of satellite based D2D services? If yes, what should be the basis and quantum of such additional spectrum charges payable by the Service Authorized entity to the Government? In either case, please provide detailed justification for your response, including the detailed methodology for determination of such spectrum charges.

Globalstar has no comment or response to this question.

Question 34 - In case spectrum is assigned to Satellite Communication Network (SCN) authorized entities, what should be the appropriate payment terms for spectrum charges payable by Satellite Communication Network (SCN) authorized entities? Please provide your response with justification.

Globalstar has no comment or response to this question.

Question 35 - In case Minimum Spectrum Charges are to be applicable for SCN authorized entities, what should be the payment terms for the minimum spectrum charges for SCN authorized entities? Please provide your response with detailed justification.

Globalstar has no comment or response to this question.

Question 36 – What should be the minimum equity and minimum net worth requirements for a Satellite Communication Network (SCN) authorized entity? Please provide detailed justification in support of your response.

Globalstar does not believe that the new regulations should establish minimum net worth thresholds for eligibility to apply for and obtain SCN authorizations. Instead, a suitable mechanism by which to critically assess the financial, technical, and management abilities of an applicant would yield greater benefits to the competitive landscape.

Question 37 - What should be the entry fee for proposed Satellite Communication Network (SCN) authorization? Please provide detailed justification in support of your response.

Globalstar proposes that the new regulations adopt a cost recover model, including for the entry fees. Imposing inordinately high fees would create significant barriers to entry in the market, thereby reducing the number of systems and service made available to consumers in India.

Question 38 – What should be the rate of Authorization Fee for a Satellite Communication Network (SCN) authorized entity? Please provide detailed justification in support of your response.

Globalstar has no comment or response to this question.

Question 39 - *Should a Minimum Authorization Fee be applicable for the proposed SCN Authorization? If yes, what should be the Minimum Authorization Fee be for the proposed SCN Authorization? Please provide detailed justification in support of your response.*

Globalstar has no comment or response to this question.

Question 40 – *What should be the appropriate payment terms and conditions for Authorization Fees? Please provide detailed justification in support of your response.*

Globalstar has no comment or response to this question.

Question 41 - *What should be the terms and conditions for Bank Guarantees, including both Performance Bank Guarantee (PBG) and Financial Bank Guarantee (FBG), for SCN authorized entities? Please provide detailed justification in support of your response.*

Globalstar has no comment or response to this question.

Question 42 – *What should be the application processing fee for Satellite Communication Network (SCN) authorized entity? Please provide detailed justification in support of your response.*

Globalstar has no comment or response to this question.

Question 43 - *Apart from the financial provisions discussed earlier, are there any other financial terms and conditions that should be made applicable for the proposed Satellite Communication Network authorization? Kindly provide a detailed response with justifications.*

Globalstar has no comment or response to this question.

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