



India Cellular & Electronics Association  
7th Floor, Le-Meridien Commercial Tower,  
Windsor Place, New Delhi-110001

Tel +91 11 4934 9900  
Email [icea@icea.org.in](mailto:icea@icea.org.in) Website [www.icea.org.in](http://www.icea.org.in)  
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**Shri Akhilesh Kumar Trivedi**  
**Advisor (Networks, Spectrum & Licensing)**  
**Telecom Regulatory Authority of India (TRAI)**  
**New Delhi**

**Subject: ICEA's submission on TRAI Consultation Paper on Satellite Communication Network Authorisation and Spectrum Assignment**

**Dear Shri Akhilesh Kumar Trivedi,**

Greetings from the India Cellular & Electronics Association (**ICEA**).

This is with reference to the consultation paper titled "*Framework for Satellite Communication Network Authorisation, and Assignment of Spectrum to Satellite Communication Network Providers*" dated 8 April 2026, issued by TRAI.

At the outset, we would like to commend TRAI for initiating this timely consultation on a critical and emerging segment of the telecommunications ecosystem. The development of a robust, transparent, and forward-looking regulatory framework for satellite communications will be instrumental in enhancing connectivity, promoting innovation, and supporting India's digital growth objectives.

ICEA, as the apex industry body representing the mobile and electronics manufacturing ecosystem in India, has undertaken consultations with its member companies and relevant stakeholders to examine the issues raised in the consultation paper. Based on these deliberations, we are pleased to submit our detailed comments and recommendations (enclosed) for TRAI's kind consideration.

Our submission seeks to support the creation of a balanced regulatory framework that ensures efficient and fair spectrum assignment, provides regulatory certainty to encourage investments, promotes technological neutrality and innovation, and aligns with global best practices while addressing India-specific requirements.

We hope our submission will contribute constructively to the ongoing consultation process and support decision discussions that TRAI may consider appropriate in this regard.

We look forward to continued engagement with TRAI on this important subject.

**With my best regards,**

A handwritten signature in black ink, appearing to read "Rajesh Sharma", with a long, sweeping horizontal stroke extending to the right.

**Rajesh Sharma**  
**Executive Director & Principal Advisor**

**Enclosure:** ICEA\_Comments\_Consultation Paper on the Framework for SCN Authorisation and Assignment of Spectrum to SCN Providers

Q.No	Questions	Comments
1	What should be the eligibility conditions, area of operation, validity period of authorisation and the scope of the proposed Satellite Communication Network (SCN) authorisation under Section 3(1)(b) of the Telecommunications Act, 2023? Kindly provide a detailed response with justification.	Please clarify if the SCN is the holder authorized only to provide service on a wholesale basis or also retail? SCN should be able to hold Gateway, spectrum and UT authorizations.
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 authorisation? Kindly provide a detailed response with justification.	Existing terms and conditions are OK, but a bit onerous regarding local gateway and traffic localization. Would request that there be some flexibility regarding localization.
3	Which type of authorised entities should be permitted to seek Satellite Communication Network as a Service (SCNaaS) from the entities holding the proposed Satellite Communication Network authorisation? Whether virtual network operators (VNOs) should also be permitted to seek SCNaaS? Kindly provide a detailed response with justification.	Any duly constituted indian entity that satisfies the technical, financial and legal qualifications and can show it can legally access a satellite network.
4	Whether the SCN authorised entity establishing, operating, maintaining, or expanding the baseband system alongwith 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.	Mandating that control of a satellite network be extended to the partnering entity is not possible. Control of the satellite network may lie outside of India and the satellite operator is under an obligation to its filing administration to retain control of its network.
5	What provisions should be included in the terms and conditions of Satellite Communication Network (SCN) authorisation considering the policy/ Act in the Space sector? Kindly provide a detailed response with justification.	It is unclear what the purpose of IN-SPACE approval is. Seems unnecessary for foreign satellites.  The burden for not providing a satellite service in a country should be on the satellite operator, not the UE manufacturer, since the satellite operator must obtain authorization to provide service. (WRC-27 Agenda Item 1.5)

6	<p>Whether there is any need for mandating a reference agreement between the entities holding the proposed Satellite Communication Network authorisation and the authorised 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.</p>	<p>Yes. See Notifications that the FCC requires -- SCS International Partner Letter, and National authorization (with expiry date, and whether the authorization is commercial or experimental). Additionally, content should be left to the parties, but just include a clear indication of authority to provide service and scope of envisioned services.</p>
7	<p>With respect to the interconnection with the proposed Satellite Communication Network Authorised 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.</p>	
8	<p>Any other inputs or suggestions relevant to the proposed Satellite Communication Network authorisation may kindly provided with detailed justification.</p>	<p>The expiry date of the authorization and whether the authorization is a test or commercial authorization should be made available publicly, particularly if the specifics of the authorization is not published. UE manufacturers rely on these authorizations to ensure their devices are operating in accordance with valid authorizations. These are not always easy to obtain from carriers or satellite provider</p>
9	<p>Which of the following services should be permitted to be provided by using the SCNs established by the proposed SCN authorised entities: (a) Fixed Satellite Service (FSS); (b) Mobile Satellite Service (MSS); (c) Direct-to-Device (D2D) Service via satellite by using MSS spectrum; (d) Direct-to-Device (D2D) Service via satellite by using IMT spectrum? Kindly provide a detailed response with justification.</p>	<p>All/any of the listed services, assuming the licensee demonstrates that it is qualified to do so.</p>

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.	If so, align with existing frameworks (e.g. FCC and Canada) and condition any IMT authorization on revision after WRC-27
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 authorised entities:	All options should be allowed, but SCN must choose just one to be licensed under.
12	Which of the following types of spectrum should be assigned to the proposed SCN authorised 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.	MSS spectrum should go to the MSS SCN

13	<p>What should be the broad policy and regulatory framework for the assignment of FSS spectrum and/ or MSS spectrum to the proposed SCN authorised entities? Specifically, -</p> <p>(a) <u>NGSO-based FSS and GSO/ NGSO-based MSS</u>: 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 authorised 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?</p> <p>(b) <u>GSO-based FSS</u>: Whether the terms and conditions for the assignment of spectrum to SCN authorised 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?</p> <p>Kindly provide a detailed response with justification.</p>	<p>The question seems to be asking if MSS spectrum should be authorized on an administrative basis or not. Given past efforts by some entities to have satellite spectrum auctioned, it would be good to say administrative assignment based on ITU filing and demonstrated qualification of applicant is the best way to go. Administrative spectrum allocation is clearly laid out in the the First Schedule of the Telecom Act 2023. No auctions.</p>
14	<p>What should be the eligibility conditions for seeking administrative assignment of FSS spectrum and/or MSS spectrum by the proposed SCN authorised entities? Kindly provide a detailed response with justification.</p>	<p>Eligibility should include demonstrated financial and technical qualifications, access to ITU filing, sound business plan.</p>
15	<p>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 authorisation? Kindly provide a detailed response with justification.</p>	

16	<p>In case it is decided to permit the proposed SCN authorised entity to utilize the FSS spectrum and/ or MSS spectrum assigned to a service authorised 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 authorised 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?</p> <p>(i) If yes, what should be the terms and conditions under such a framework?</p> <p>(ii) If no, in what manner such agreements/ arrangements should be enabled and regulated? Kindly provide a detailed response with justification.</p>	No further requirements beyond those listed above.
17	<p>Whether there are any other inputs or suggestions relevant to the agreement/ arrangement between the proposed SCN authorised entities and service authorised entities (“partnering entities”) to utilize the FSS spectrum and/ or MSS spectrum assigned to such partnering entities? Kindly provide a detailed response with justification.</p>	
18	<p><b>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.</b></p>	<p>The policy and regulatory framework already exists at the international level. Various MSS bands are available for different operators and new MSS spectrum is being proposed for adoption by WRC27. No further rules are needed other than memorializing international rules and recognizing ITU filing priority in India. Authorizations should be national.</p>

In case with a view to enable D2D service via satellite using IMT spectrum, it is decided to permit the proposed SCN authorised entity to utilize IMT spectrum assigned to a service authorised 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 authorised 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

19	<p>Allocation Plan (NFAP) should be modified to include MSS on a secondary basis? If yes, kindly furnish your suggestion for the proposed modification(s).</p> <p>(d) To mitigate the issues related to cross-border interference, whether any other condition in addition to Article 4.4 of the ITU-Radio Regulations is required to be made applicable?</p> <p>(e) What regulatory framework should be established for ensuring interference-free operation of D2D service via satellite by using IMT spectrum within the country? Specifically, which of the following methods should be followed:</p> <p>(i) The SCNs established by SCN authorised entities should be permitted to be used to provide D2D service via satellite by using IMT spectrum only if a single partnering entity (access service provider) holds the relevant IMT frequency channel in all the 22 LSAs of the country and agrees to permit the usage of its IMT frequency channel by the SCN authorised entity at its SCN for the purpose of providing SCNaas; or</p> <p>(ii) The SCNs established by SCN authorised entities should be permitted to be used to provide D2D service via satellite by using IMT spectrum if one or more access service providers – together holding the assignment of the relevant IMT frequency channel across all 22 licensed service areas of the country – agree to allow the usage of their IMT frequency channel by the SCN authorised entity at its SCN for the purpose of providing SCNaas; or</p> <p>(iii) Any other method?</p> <p>Kindly provide a detailed response with justification.</p>	
20	<p>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 authorised entities? Kindly provide a detailed response with justification.</p>	
21	<p>Any other inputs or suggestions related to the use of spectrum on SCNs established by the proposed SCN authorised entities may be submitted with proper explanation and justification.</p>	

22	Regarding the agreement between SCN Authorised entity and a Service Authorised entity providing FSS/ MSS to the end user, for provision of SCNaaS to the Service Authorised entity, which may or may not include provisions for utilisation 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 utilisation etc., which would form the basis of regulation? Please provide your response with justification.	Likely no need for regulation.
23	In case of an agreement between an SCN Authorised entity and a Service Authorised entity providing D2D services using MSS spectrum, for provision of SCNaaS to the Service Authorised entity, which may or may not include provisions for utilisation of MSS spectrum assigned to the Service entity amongst other possible spectrum utilisation 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 utilisation etc., which would form the basis of regulation? Please provide your response with justification.	Likely no need for regulation.
24	In case of an agreement between an SCN Authorised entity and a Service Authorised entity providing D2D services using IMT spectrum, for provision of SCNaaS to the Service Authorised entity, which may or may not include utilising spectrum for feeder link assigned to the service entity, besides utilising IMT spectrum assigned to the Service Authorised 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 utilisation etc., which would form the basis of such regulation? Please provide your response with detailed justification.	Likely no need for regulation.

25	Should the charges paid by the Service Authorised entity (providing either FSS, MSS or D2D service to the end user) to SCN Authorised entity for provisioning of Satellite Communication Network as a Service (SCNaaS), be permitted to be deducted from ApGR of the Service Authorised entity for the purpose of arriving at AGR for levy of License/ Authorisation Fees and Spectrum charges? Please provide your response with justification.	Likely no need for regulation.
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 authorised and SCN authorised entities, for purposes of levying Authorisation/ License fees & Spectrum Charges? Please provide your response with justification.	
27	What should be the appropriate definition of GR, AGR, and ApGR for SCN Authorisation, including the relevant items of revenue, exclusions and deductions? Additionally, are there any operational or non-operational revenue elements specific to SCN Authorised 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.	Gross revenue should be limited to revenue from service provided in India under the license - NOT worldwide revenue. Existing definition of "gross revenue" (bottom of p.149) seems to include worldwide income.
28	In case FSS/MSS or any other spectrum is assigned to the Satellite Communication Network (SCN) authorised entities for provisioning of SCNaaS to Service authorised entities, what should be the broad financial terms & conditions of such an assignment?	Fees should be based on cost recovery, which is the worldwide norm. Fees based on revenue are a tax on the end user.
29	Should the spectrum charges for Satellite Communication Network (SCN) authorised 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 Authorised entity? Please provide your response with detailed justification.	Recommended charge for urban areas of 500 Rs. Should not be applied to dual-mode terminals that only use the MSS service when outside of urban areas. 4% is OK if based on India-based revenue, but it would be better to calculate fees based on cost-recovery. MSS for rural areas is providing a public service by extending connectivity to rural areas. The Government should encourage this through low fees, rather than discourage it by charging fees similar to urban areas.

30	If spectrum charges are to be levied on the basis of AGR of the SCN Authorised 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.	
31	If the spectrum charges are not to be levied on basis of AGR of the SCN Authorised entity, what should be the appropriate spectrum charging mechanism and the corresponding level of spectrum charges applicable to Satellite Communication Network (SCN) authorised entities? Please provide your response with detailed justification.	See response to Question 28
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 utilised 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.	See response to Question 28
33	In case D2D services are permitted to be provided using the IMT spectrum assigned to the Service Authorised entity ('partnering entity') providing D2D satellite-based telecommunication services, should any additional spectrum charges be levied on the Service Authorised 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 Authorised entity to the Government? In either case, please provide detailed justification for your response, including the detailed methodology for determination of such spectrum charges.	
34	In case spectrum is assigned to Satellite Communication Network (SCN) authorised entities, what should be the appropriate payment terms for spectrum charges payable by Satellite Communication Network (SCN) authorised entities? Please provide your response with justification.	

35	In case Minimum Spectrum Charges are to be applicable for SCN authorised entities, what should be the payment terms for the minimum spectrum charges for SCN authorised entities? Please provide your response with detailed justification.	
36	What should be the minimum equity and minimum networth requirements for a Satellite Communication Network (SCN) authorised entity? Please provide detailed justification in support of your response.	Should be based on business plan and ability to fund the proposed plan, not net worth.
37	What should be the entry fee for proposed Satellite Communication Network (SCN) authorisation? Please provide detailed justification in support of your response.	See response to Question 28
38	What should be the rate of Authorisation Fee for a Satellite Communication Network (SCN) authorised entity? Please provide detailed justification in support of your response.	See response to Question 28
39	Should a Minimum Authorisation Fee be applicable for the proposed SCN Authorisation? If yes, what should be the Minimum Authorisation Fee be for the proposed SCN Authorisation? Please provide detailed justification in support of your response.	See response to Question 28
40	What should be the appropriate payment terms & conditions for Authorisation Fees? Please provide detailed justification in support of your response.	
41	What should be the terms and conditions for Bank Guarantees, including both Performance Bank Guarantee (PBG) and Financial Bank Guarantee (FBG), for SCN authorised entities? Please provide detailed justification in support of your response.	
42	What should be the application processing fee for Satellite Communication Network (SCN) authorised entity? Please provide detailed justification in support of your response.	See response to Question 28
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 authorisation? Kindly provide a detailed response with justifications.	