



RJIL/TRAI/2026-27/57

13th May 2026

To,

Shri Akhilesh Kumar Trivedi,
Advisor (Networks, Spectrum and Licensing),
Telecom Regulatory Authority of India,
Tower-F, World Trade Centre,
Nauroji Nagar, New Delhi – 110029.

Subject: RJIL's comments on TRAI's "Consultation Paper on the Framework for Satellite Communication Network Authorisation, and Assignment of Spectrum to Satellite Communication Network Providers".

Dear Sir,

Please find enclosed the comments of Reliance Jio Infocomm Limited (RJIL) on the TRAI's "Consultation Paper on the Framework for Satellite Communication Network Authorisation, and Assignment of Spectrum to Satellite Communication Network Providers" dated 08.04.2026.

Thanking you,

Yours Sincerely,
For **Reliance Jio Infocomm Limited**

Kapoor Singh Guliani
Authorized Signatory

Enclosure: As above

**Reliance Jio Infocomm Limited's comments on TRAI's Consultation Paper on the
"Framework for Satellite Communication Network Authorisation, and Assignment
of Spectrum to Satellite Communication Network Providers.**

Preface:

1. Reliance Jio Infocomm Limited (RJIL) thanks the Authority for giving us an opportunity to offer comments on the important Consultation Paper on the **Framework for Satellite Communication Network Authorisation, and Assignment of Spectrum to Satellite Communication Network Providers.**

Satellite Communication Network Authorisation (SCN Authorisation)

2. At the very outset, we submit that this new authorization is not required in the fledgling non terrestrial network-based communication sector in the country. The sector is at a stage where all new entrants are in the process of obtaining various approvals to be followed with spectrum assignment.
3. We submit that in the initial phase of the sector it is imperative that incentives are given to boost investments in infrastructure creation to deliver an infrastructure backbone to the sector and not to curtail direct investments by supporting shared infrastructure as is being envisaged under the SCN Authorization.
4. Further, the separation of service and network layers is already in place. On the pure play infrastructure side, the rules for Satellite Earth Station Gateway (SESG) provider authorisation are already under finalization with the Government and on the service side Virtual Network Operator (VNO) authorisation is already available and can be extended to non-terrestrial network services.
5. In this scenario, the introduction of a network service provider that can offer both passive and active parts of the network and can also seek assignment of spectrum will be detrimental to orderly growth of sector as it creates regulatory imbalance and various level playing field related issues, especially when the discussion in the Consultation Paper revolves around regulating its commercial arrangements and keeping its obligations towards regulatory levies like license fee to the minimum by providing a nominal license fee.
6. Evidently the only justification for SCN authorization is the desire to increase sharing of infrastructure between TSPs, by providing incentives to the proposed authorized entities, however, such proposals have never benefitted a sector and have created multiple level playing field and arbitrage related issues.

7. Further, such proposals are inherently anti-competitive to the shareable infrastructure available with existing Licensees that are investing heavily in developing long-term satellite communication backbone for the country as they are burdened with License fee and spectrum charges related financial obligations and do not get the benefit of pass through charges while the purportedly independent entities get lop-sided cost and regulatory compliance advantage.
8. Allowing such authorizations leads to regulatory arbitrage and will result in many TSPs obtaining SCN authorization and creating their network under such authorization instead of their service authorization and also obtain additional spectrum resources. This will lead to a chaotic regulatory environment in which the network creator will have a light license without license fee and compliance requirement, and actual service provider will have all compliance requirement without actually owning/controlling the network.
9. Another level playing field issue in such a scenario is the difference in the security requirements between service and network authorizations and the continuous clamor for light touch regulations for such network authorizations. While the exemptions from security requirements can lead to major parts of active network elements being unsecure as per current licensing requirements (or proposed authorization requirements) and creating imbalance in cost of procurement of equipment from vendors.
10. Additionally, we feel that the absence of rigors of security conditions and other license requirements, there will always be concerns about SCN network stability, which can become a single point of failure for many networks. When an SCN is serving multiple TSPs and any failure at its end would mean downtime for all TSPs simultaneously, which may metamorphose into affecting QoS of millions of subscribers belonging to different sets of service providers at one go for indefinite time.
11. We further submit that new investments through SCN authorization may be the intention, however, widespread adoption of the same will pose new challenges in the form of external control over Quality of Service (QoS) and pricing as these will depend on the services and cost of SCN services. Further, the possibility of a third-party influence on launch of services or new technology cannot be ruled out as these decisions will depend on the availability of corresponding network.
12. Another key concern is that this will discourage innovation and lead to India lagging behind in technological development as SCNs would be unwilling to keep shifting to

new technologies before the existing ones are sufficiently monetized. It may also lead to unwanted externalities like exclusivity. Thus, we reiterate that with VNO and SESG authorizations, there is sufficient separation of layers in the Satellite based (as well as NTN) communication sector and a new and separate SCN Authorization will be detrimental to the orderly growth of telecom sector due to non-level playing field, competition issues and unnecessary confusion in the sector.

13. It is pertinent to mention here that there is no gap in the regulatory framework for provisioning telecommunication services in areas uncovered through terrestrial network as in the initial stage of a service, it is critical to ensure that sufficient CAPEX and OPEX are invested to ensure reliability and continuity of services. The provisions for third party entity providing network resources for provision of service is a secondary step once the services have stabilized and become self-sustaining.
14. To ensure comprehensive delivery of service, it is imperative that the Unified service or access service authorised entities should establish parallel networks and obtain own spectrum resources to provision the supplemental coverage services.
15. Nevertheless, in case the Government is intent on introducing this authorization, we submit that sufficient precautions should be taken to avoid all the aforementioned issues and all efforts should be made to ensure that facility providers like SCN do not become bottlenecks for this critical communication service.
16. However, if implemented, the proposed SCN entity should not be permitted to acquire the right to use spectrum in any band be it FSS, MSS or IMT bands. The right to use spectrum is inalienable from the provision of services to the end-users and that can only be done under access services authorization under Unified License and/or section 3(1)(a) of Telecommunication Act 2023. The entities desirous of acquiring right to use spectrum should opt for such an authorization instead of using licensing arbitrage to avoid the financial levies and compliance obligations.
17. Further, the proposed SCN entity should not be permitted to own or maintain baseband, as this is most critical network element in Satellite based communications and the control should remain completely with the entity that is providing services to end user. Further still, if the proposed SCN entity is permitted to own or maintain baseband, it should be mandated to provide full control, visibility, resource allocation capability, and management interfaces to the partnering service authorised entity. This will be critical for authorised entity for discharging its obligations on QoS, LIM etc.

18. It is crucial to understand here that as the dynamic resource allocation is fundamental to satellite network operations this control is required for service provider. For instance, LEO constellations involve continuous satellite handovers, beam switching, and capacity reallocation and to effectively control the same, the service provider entity must have visibility into beam allocation, bandwidth utilisation, and coverage status to manage its service delivery effectively.

Scope of Service, Financial Obligations and other authorization conditions for SCN

19. If implemented, the scope of service of the proposed SCN authorised entity should be limited to facility service provider only. It should not be permitted to offer services to end customers. However, it should be permitted to aggregate capacity from multiple satellite operators (across GSO, MEO, and NGSO orbits) to deliver a unified SCNaas offering, enabling multi-orbit redundancy.

20. The terms and conditions of the service should be analogous to the similar SESG authorization under discussion. Further, in order to prevent any arbitrage, the license fee and other financial obligations should be same as authorized access service providers. The security conditions and data privacy requirements should also be analogous to other network service authorizations.

21. Further, the existing authorized access service providers should also be permitted to offer GSaaS (ground station-as-a-service) and resell capacity on mutually agreed commercial terms to facilitate other service providers to further enable the proliferation of services.

Direct to Device D2D Services

22. Direct-to-device (D2D) services, i.e. telecom connectivity directly between satellites and mobile handsets, is seen as the holy grail of connecting the unconnected in unreachable and remote geographies for terrestrial networks. The GSA September 2025¹ report highlights the accelerating integration of NTN and satellite connectivity and notes over 170 publicly announced operator-satellite partnerships in 80 countries, of these Satellite-to-cellphone services are expanding quickly, with 12 launches and 24 trials or licensed projects, driven by players like SpaceX, AST SpaceMobile and Lynk, enabling unmodified smartphones to connect in remote areas.

¹ <https://gsacom.com/paper/5g-satellite-connectivity-september-2025-summary/#:~:text=The%20September%202025%20report%20highlights,X>

23. With growing number of smartphones supporting satellite connectivity, D2D service is poised to be the key enabler of connectivity. As per GSMA², The D2D infrastructure can also provide an added layer of network resilience: signals from satellites can still be received in the event of a terrestrial network outage, including support for emergency services where terrestrial networks fail.
24. We all have seen the role that can be played by D2D services during natural calamities, **thus, the regulators across the globe are working on the policy aspects of this technology and India should also start the work on developing the regulatory regime for this service as it will be key to connecting the last 1% of India's population spread across the remote villages, forests and mountains and other areas not covered by terrestrial networks.**
25. We submit that the use of MSS spectrum in L and S bands could be the solution for D2D using satellite spectrum. Further, the time is not yet ripe for implementing D2D with IMT spectrum. The outcome of WRC-2027 will help to evolve a policy framework around interference mitigation and would be useful for global harmonization of IMT bands thereby enabling device interoperability and harmonizing PFD (Power Flux Density) limits. Besides the pending WRC 2027 discussions, the obvious need for extensive and deep India specific testing will be required to offer a service with reasonable quality assurance. In any case, the D2D service needs to comply with the associated security, lawful interception. Subscriber KYC requirements.
26. We further submit that D2D will be an access service and the FSS and MSS spectrum assignment for D2D services in the mentioned bands should also be done to Unified License holders with access and GMPCS authorization and Service Authorised entities under Section 3(1)(a) of the Telecommunications Act, 2023, through auction process. This will also obviate any need for discussion on spectrum charges, as there will be no spectrum usage charge (SUC) applicable on auctioned spectrum.
27. Furthermore, as and when the D2D service with IMT spectrum is implemented, post WRC 2027 decision and India specific trials, the spectrum assignment would obviously be only through auction. We further submit that considering the importance of ensuring optimum spectrum efficiency for IMT spectrum, the minimum roll-out obligations through terrestrial networks should continue to be applicable.

Spectrum assignment methodology

² <https://www.gsma.com/solutions-and-impact/connectivity-for-good/public-policy/mobile-policy-handbook/spectrum-management-and-licensing/satellite-direct-to-device-d2d/>

28. We submit that any discussion on a new telecom service is incomplete without a policy position on spectrum assignment. In this context, we reiterate our submissions during previous consultative exercises on satellite-based communication services, that only legally tenable and technically suitable mode of spectrum assignment for satellite and NTN based communication services are through spectrum auction.
29. Any administrative assignment, generally, rely on the First come First Serve, which has been rejected by Hon'ble Supreme Court in its 2G judgment and Presidential Reference, a position that has not been revised till date. **The Telecom Act does not overrule or fundamentally alter the basis of these judgments. Any assignment of spectrum by a means other than auction is susceptible to challenge under Article 14 of the Constitution (right to equality), which mandates that the state must follow transparent, fair, and non-arbitrary procedures in alienating natural resources and there is no other option to meet this criterion but the auction.**
30. It is critical that the spectrum assignment framework promotes fair competition, transparency, and innovation and brings more and more investments in the sector. This remains the most critical ingredient of level playing field and its absence can lead to utter chaos causing favoritism, regulatory arbitrage and a pathway to legal entangles, which is enormously detrimental to the sector as well as national economy. We reiterate our submission that spectrum assignment for both terrestrial and satellite-based access services should follow the principle of "Same Service, Same Rules." Therefore, ensuring parity in regulatory levies, including spectrum charges, is essential to prevent regulatory arbitrage and to ensure level playing field.
31. **The Spectrum assignment policies must remain aligned with established legal mandates, especially the Supreme Court's directive on fair, transparent and non-discriminatory market-based methodology and Section 4 of Telecommunications Act, 2023 for transparent assignment of spectrum.** Any, discriminatory assignment of resources would distort competition and undermine India's objective of fostering a robust domestic satellite ecosystem. The assignment of spectrum without auction could lead to the process being challenged as discriminatory and unconstitutional.
32. The requirements of level playing field are not limited to NGSO and IMT/terrestrial access services but are equally relevant for GSO-based Fixed Satellite Services (FSS) that provide data communication and internet services. Thus, auction is the only way for assigning FSS and MSS spectrum for D2D services.

The Imperative of an Indian NGSO Constellation

33. This is another key policy position that needs Authority's attention to secure national interests. The current international framework for satellite spectrum is based on a strict first-come, first-served (FCFS) principle: priority is determined by the date of ITU filing alone. At present, hundreds of NGSO constellations comprising potentially hundreds of thousands of satellites have been filed with the ITU by foreign administrations. There is no Indian-owned NGSO constellation in the ITU register. **Any Indian constellation filed today will therefore find itself at the very end of this queue and will be legally obligated to protect every prior-filed foreign constellation in every relevant frequency band, while itself receiving no guaranteed protection from any of them.**
34. Under ITU Radio Regulation No. 22.2 and Article 9, a later-filed NGSO system must protect all earlier-filed systems and has no right to protection from them. With the queue for commercially attractive bands (Ku, Ka, V) already crowded, a new Indian constellation would face a near-impossible task in securing operationally meaningful spectrum rights across the globe.
35. Thus, consistent with the vision of Atmanirbhar Bharat, India urgently needs a sovereign Indian NGSO constellation that fulfils a dual mandate: (a) assured strategic and defence communications, free from foreign supply-chain dependencies; and (b) broadband connectivity for the hundreds of millions of Indians beyond the reach of terrestrial networks.
36. Such a constellation must serve both dedicated satellite-terminal users and ordinary citizens on standard, unmodified mobile handsets. It must support 3GPP NTN/Direct-to-Device (D2D) standards so that emergency and Public Protection and Disaster Relief (PPDR) services can be delivered to any mobile subscriber anywhere in India, even in the complete absence of terrestrial network coverage.

Global Character of NGSO Satellite Systems

37. The rights and obligations of an NGSO operator in interference coordination and spectrum use are governed by the ITU Radio Regulations. The domestic spectrum assignment, in isolation from this international framework, may allow a satellite constellation to operate in India, but it does not by itself guarantee an operator's ability to operate globally.
38. NGSO constellations providing FSS, MSS, and NTN services are global constellations. Their satellites traverse all national territories at LEO/MEO altitudes;

their interference footprint cannot be confined to any single jurisdiction. No constellation can be planned to operate exclusively within India, since such a constellation would be unable to generate the revenues required to sustain a multi-billion-dollar deployment and would therefore be an economically unviable proposition.

39. The Authority must recommend immediate regulatory action to ensure that any Indian NGSO constellation, whether operated by ISRO/NSIL or a licensed Indian private operator, is accorded equal coordination rights in the global NGSO framework. This requires a domestic regulatory framework that leverages India's market power to secure reciprocal coordination rights for Indian constellations, specifically, **by making the assignment of spectrum to any foreign NGSO constellation conditional on that operator extending equal coordination rights to Indian operators within the global ITU framework.**

India's Spectrum Assignment and Market Access Policy

40. India must craft its own domestic market access and spectrum assignment policy. The bedrock principle must be **non-discrimination and parity of rights**. No spectrum rights or market access authorisation granted by India to any foreign-owned NGSO constellation shall be on terms more favourable than, or superior to, those available to an Indian-owned NGSO constellation operating globally. Indian operators must be treated no worse anywhere in the world than foreign operators are treated in India.
41. India is the world's most populous nation and one of the largest telecommunications markets. Every major foreign NGSO operator seeks access to this market. Therefore, we respectfully submit that the Government must adopt the following as a mandatory policy instrument, an **Equal Rights Coordination Agreement (ERCA)** i.e. any foreign NGSO operator seeking Indian market access and spectrum assignment shall, as a non-negotiable precondition, execute an ERCA with the Government of India committing to afford any authorised Indian NGSO constellation the same coordination rights, interference protection, spectrum access, operational standing that the foreign constellation enjoys in its home jurisdiction and under its ITU priority. **The ERCA shall be fully reciprocal: India grants market access; the foreign operator guarantees equal rights for the Indian constellation globally.** This requirement shall be an express, non-waivable condition in both the Spectrum Assignment Rules by DoT/WPC and IN-SPACe's Coordination Policy.
42. Since the Government of India has **not yet assigned spectrum or market access rights to any NGSO constellation**, the regulatory canvas is entirely unencumbered.

This is a rare and time limited strategic window. The ERCA and equal-rights conditions must be inserted in the rules **before the first licence is issued** to any operator, domestic or foreign. Once rights are granted without these conditions, they cannot be retrospectively imposed.

43. Conclusions

1. There is no need to create a new Satellite Communication Network (SCN) authorization to offer SCN as a service.
2. All such authorization that offers active and passive network elements on sharable basis with differential licensing conditions create arbitrage in the system.
3. These authorizations are inherently anti-competitive to sharable infrastructure available with access service providers.
4. If implemented
 - a. such an SCN entity should not be assigned spectrum and should not be allowed to own or establish baseband equipment.
 - b. The scope of service and technical conditions of proposed SCN authorization should in analogous to draft SESG authorization.
 - c. The financial obligations of proposed SCN authorization should be analogous to access services authorization to avoid arbitrage.
 - d. The access service providers should be permitted to offer GSaaS (ground station-as-a-service) and resell capacity on mutually agreed commercial terms to facilitate other service providers.
5. Authority should recommend for developing the policy framework for implementation of D2D services with MSS and FSS spectrum, post India specific field testing and ensuring compliance with the security conditions.
6. Spectrum assignment for all satellite-based services should be through auction only.
7. India should take pre-emptive regulatory steps to ensure protection of its sovereign rights and parity for Indian NGSO constellations.

Issue wise response

Q1. 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.**

RJIL Response:

1. We reiterate our submission that there is no need for a SCN authorization due to various concerns including and not limited to level playing field issues, arbitrage etc. as discussed in detail in the preface and the same should be taken under consideration.
2. However, in case the Government still feels that there is need for such a facility provider, the eligibility conditions for SCN authorisation should be analogous to those prescribed for the Satellite Earth Station Gateway (SESG) provider authorisation, given that the SCN authorisation is envisaged as a superset of SESG. Specifically, the applicant should be an Indian company registered under the Companies Act, 2013, consistent with the FDI norms applicable to the telecom sector.
3. The area of operation should be national service area, as satellite communication networks are inherently national/global in coverage and cannot be meaningfully restricted to individual Licensed Service Areas (LSAs). The orbital footprint of LEO/MEO/GEO satellites does not conform to terrestrial LSA boundaries, and any attempt to restrict SCN operations to specific LSAs would be technically impractical and unviable.
4. The validity period of the authorization should be 20 years, aligned with the prevailing Unified Licence framework, with provisions for renewals. In case a higher duration is proposed for all authorized entities under the Telecommunication Act 2023, the same should be applicable for this entity as well. Satellite has the long investment cycles, a shorter validity period would create uncertainty for the substantial capital investments required in ground station infrastructure, satellite capacity procurement, and spectrum coordination and should be avoided.
5. The scope of services should encompass the establishment, space segment operation, maintenance, and expansion of satellite communication networks, including gateway earth stations, tracking and telemetry infrastructure and associated network elements. As mentioned above the proposed SCN entity should not be permitted to own right to use spectrum or to own or maintain baseband, as this is most critical network element in Satellite based communications and the control should remain completely with the entity that is

providing services to end user. **The scope of this infrastructure provider entity should be applicable for all the use cases such as fixed satellite broadband, backhaul connectivity, enterprise services, mobility applications (aeronautical, maritime, and land), and Direct-to-Device (D2D) services using MSS spectrum.**

6. Notwithstanding the above, if the proposed SCN entity is permitted to own or maintain baseband, it should be limited to monitor and control of satellite related parameters and mandated to provide full control, visibility, resource allocation capability, and management interfaces to the partnering service authorised entity. The framework should also require SCN entities to establish network control and monitoring facilities within India to ensure effective oversight and operational control. This will be critical for authorised entity for discharging its obligations on QoS, LIM etc.
7. Further, dynamic resource allocation is fundamental to satellite network operations. For instance, LEO constellations involve continuous satellite handovers, beam switching, and capacity reallocation. Therefore, the partnering entity must have visibility into beam allocation, bandwidth utilisation, and coverage status to manage its service delivery effectively.
8. The SCN authorised entity should be permitted to provide SCNaas to all categories of service authorised entities authorized to provide satellite-based communication services under the Unified Licence or to the service authorised entity for the provision of satellite-based communication services under Section 3(1)(a) of the Telecommunications Act, 2023. **However, the SCN entity should not be permitted to provide telecommunication services directly to end users, maintaining a clear separation between network provision and service delivery.**

Q2. 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.

RJIL Response:

1. The terms and conditions should be drawn from three existing frameworks: (a) the SESG provider authorisation conditions for ground infrastructure and gateway operations; (b) Chapter 7 of DoT's draft rules dated 05.09.2025 for network-related technical and operating conditions, with modifications appropriate to

satellite networks; and (c) Chapter XII of the UL Agreement (DoT OM dated 05.05.2025) for GMPCS security conditions.

2. Technical conditions should include compliance with ITU Radio Regulations for coordination and interference management; adherence to 3GPP standards for NTN interoperability where applicable; mandatory implementation of Doppler compensation and timing advance mechanisms for LEO constellations; and compliance with IN-SPACe authorisation requirements for space segment operations.
3. Operating conditions should mandate 24x7 network operations centre (NOC) capability; defined SLAs for uptime, latency, and throughput; reporting obligations to DoT/TRAI on network performance and utilisation metrics; and disaster recovery and business continuity provisions, given the critical role of satellite communications in emergency and remote connectivity scenarios.
4. Security conditions should include data localisation requirements with all gateway traffic landing on Indian soil; lawful interception capability compliant with DoT's security directives; Remote Access permissions; encryption and access control standards for TT&C operations; and protection against jamming, spoofing, and cyber threats. The security framework in Chapter XII of the UL Agreement should be made applicable with modifications to address satellite-specific concerns such as ground station security, orbital debris mitigation, and cross-border signal management.

Q3. 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.

RJIL Response:

1. All categories of service authorised entities holding access and/or GMPCS authorization under the Unified License and those holding authorisations under Section 3(1)(a) of the Telecommunications Act, 2023 should be permitted to seek SCNaaS from the SCN entities.
2. However, VNOs should not be permitted to directly seek SCNaaS from SCN authorised entities at this stage. Permitting VNOs to directly avail SCNaaS would create a parallel service delivery path that bypasses the parent NSO's network,

undermining the fundamental VNO-NSO relationship envisaged under the licensing framework. A VNO, by definition, provides services by using the network of its parent NSO. If a VNO requires satellite-based connectivity, it should obtain the same through its parent NSO, who in turn may avail SCNaas from the SCN authorised entity.

3. Permitting VNOs direct access to SCNaas would also create regulatory arbitrage, as VNOs operate under lighter regulatory obligations (lower entry fees, networth requirements, and compliance burdens) compared to NSOs. Allowing them to directly access satellite capacity would effectively enable them to operate as de facto NSOs without corresponding obligations, creating an uneven playing field.

Q4. 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.

RJIL Response:

1. At the very outset, we are opposed to permitting the proposed SCN entity to own, establish, or maintain baseband, as this is most critical network element in Satellite based communications and the control should remain completely with the entity that is providing services to end user.
2. Nevertheless, if the same is permitted, it is essential to mandate the SCN authorised entity to provide full control, visibility, resource allocation capability, and management interfaces to the partnering service authorised entity. This is critical for several reasons, as listed below:
 - a. The service authorised entity bears the regulatory obligation for quality of service, security compliances, lawful interception, and subscriber management. Without adequate control and visibility over the satellite network resources being used to deliver services to its subscribers, the service entity cannot fulfil these regulatory obligations.
 - b. Dynamic resource allocation is fundamental to satellite network operations. LEO constellations involve continuous satellite handovers, beam switching, and capacity reallocation. The partnering entity must have visibility into beam

allocation, bandwidth utilisation, and coverage status to manage its service delivery effectively.

- c. This mandate aligns with the principle that the SCN authorised entity is a network provider, not a service provider. The service intelligence, subscriber management, billing, and regulatory compliance must remain with the service authorised entity, while the SCN entity provides the network infrastructure and capacity.
3. While these requirements of controls and visibility should be mandated for SCN entity, the terms of such control and visibility should be mutually agreed between the parties and documented in the agreement, to ensure that the service entity retains meaningful operational control over the services delivered through the SCN.

Q5. 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.

RJIL Response:

1. It is imperative that all policy initiatives for the space-based communication services are aligned and work cohesively for the upliftment of the sector and users. Therefore, it is submitted that the SCN authorisation should incorporate the following provisions, wherever applicable, aligned with India's space sector policies:
 - a. Mandatory IN-SPACE authorisation for all space segment activities, including satellite spectrum coordination, orbital slot management, satellite control facilities, and launch operations.
 - b. Compliance with the Indian Space Policy 2023 and any rules framed thereunder.
 - c. Coordination with ISRO for spectrum management in frequency bands shared with ISRO's operational satellites; and
 - d. Adherence to debris mitigation guidelines, including post-mission disposal requirements.

2. Establishment of gateway earth stations and network control centres should be subject to appropriate approvals from DoT, to ensure compliance including security and monitoring considerations.
3. The SCN authorised entity should also be required to ensure that any foreign satellite operator whose capacity it utilises has obtained the necessary IN-SPACE authorisation for operations over Indian territory.
4. Additionally, provisions should require that all ground segment infrastructure (gateway stations, NOC, baseband systems) is located within Indian territory, and that satellite control operations relevant to Indian coverage are accessible to Indian regulatory authorities as required for security and compliance purposes.
5. The framework should further encourage development of indigenous satellite capabilities and ecosystem, including manufacturing, launch services, and ground infrastructure, in alignment with national space policy objectives. This may include provisions that promote use of domestic infrastructure, where feasible, and support long-term development of India's satellite communication capabilities, including emerging areas such as Direct-to-Device (D2D) and next-generation broadband systems.

Q6. 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.

RJIL Response:

1. No there is no need for a reference agreement at this stage, and the commercial and technical arrangements between the entities holding the proposed Satellite Communication Network authorisation and the authorised entities providing telecommunication service shall suffice.
2. Irrespective of our views, if SCNaas is permitted, it represents a new category of wholesale network service provision and there is a need to foster the growth of market driven practices instead of mandates, therefore the reference agreement at this time is not required.
3. In line with prevailing Government policy for network service providers, the SCN entities should be explicitly prohibited from following any discriminatory

practices, unreasonable terms, or refusal to deal and should be required to offer capacity to all service providers on non-discriminatory basis.

4. The Authority may recommend guidelines for the commercial agreement between the two set of entities to can include the following salient features: (a) transparent and non-discriminatory terms for provision of SCNaaS; (b) defined SLA parameters including uptime, latency, throughput, and coverage commitments; (c) capacity allocation and resource management mechanisms; (d) pricing principles (cost-plus or market-based, with transparency requirements); (e) dispute resolution mechanisms; (f) provisions for network upgrades, capacity expansion, and technology migration; (g) security and compliance obligations of each party; and (h) termination and transition provisions.
5. The guidelines should also include provisions on pricing and charging principles, ensuring that access to SCN services is offered on a fair, reasonable, and non-discriminatory basis. While detailed pricing should remain commercially negotiated, the framework should discourage anti-competitive practices such as discriminatory pricing or denial of access.

Q7. 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.

RJIL Response:

1. As submitted in our comments to the TRAI’s consultation paper on ‘Review of existing TRAI Regulations on Interconnection matters’ dated 10.11.2025, the Satellite based communication services will be offered by the service providers only under access services authorization and therefore there is no need for a separate interconnection regime for these service providers, and they should establish interconnection as per the existing regime.
2. The SCN will only be interconnecting with the authorised service provider and would be required to focus on seamless handover protocols between satellite and terrestrial network segments to ensure uninterrupted service during satellite-to-satellite and satellite-to-terrestrial transitions and ensure the required QoS parameters specific to satellite-based services.

3. Requirement of Interoperability and standardisation need attention. Given the diversity of satellite technologies (GSO, NGSO, different frequency bands, proprietary systems), there is a risk of fragmentation if common standards are not encouraged. The framework should promote adherence to globally accepted standards (such as 3GPP NTN specifications where applicable) to ensure interoperability between satellite and terrestrial networks, and to enable scalable deployment of services.
4. There is a need to consider cross-border and international interconnection aspects, as satellite networks inherently involve global coverage and may require connecting to networks outside India. The regulatory framework should clarify how such interconnections are to be governed, including compliance with domestic regulations, security requirements, and international coordination obligations.

Q8. Any other inputs or suggestions relevant to the proposed Satellite Communication Network authorisation may kindly provided with detailed justification.

RJIL Response:

1. RJIL submits the following additional inputs:
 - a. The SCN authorisation framework should explicitly recognise the Ground Stations as a Service (GSaaS) model, wherein the SCN authorised entity builds and operates ground station infrastructure and commercially leases it to deliver end-to-end SCNaaS. This dual-role model (ground infrastructure provider + capacity aggregator) should be accommodated within the authorisation scope;
 - b. The framework should permit the SCN authorised entity to aggregate capacity from multiple satellite operators (across GSO, MEO, and NGSO orbits) to deliver a unified SCNaaS offering, enabling multi-orbit redundancy and optimal capacity utilisation.
 - c. The framework should emphasis on domestic ecosystem development, including satellite manufacturing, ground segment infrastructure, and associated technologies. Policy support may be considered to encourage local participation across the value chain, including incentives for use of indigenous infrastructure where feasible. This will contribute to strategic

autonomy, economic growth, and development of technical expertise within the country.

- d. It is important to address spectrum coexistence and interference management in a comprehensive manner. Clear guidelines and coordination mechanisms should be established to ensure efficient spectrum utilisation while minimising interference risks. This is especially relevant for emerging use cases such as D2D, where satellite systems may operate in or adjacent to terrestrial bands.
- e. The framework should recognise that the SCN authorised entity and the service authorised entity can be affiliated entities or part of the same corporate group and should not impose artificial restrictions on such arrangements provided they comply with non-discrimination and transparency requirements.

Q9. 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.

RJIL Response:

1. The policy framework should be developed for all three categories of services - FSS, MSS and D2D via MSS spectrum to be permitted to be offered by the authorized access service providers using the facilities provided by SCNs and on their own. Currently, there is a need to restrict the use of SCNs facility to only FSS or MSS based D2D services, till the global position around D2D with IMT spectrum settles.
2. FSS and MSS are well-established service categories with clear regulatory precedent and there is no need to further expand on the same at this moment and an optimum policy framework should be developed for these services and D2D via MSS spectrum (L-band and S-band) should also be permitted, as these are internationally recognised satellite bands with established coordination frameworks.

Q10. 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.

RJIL Response:

1. No, D2D service via satellite using IMT spectrum should not be permitted at this stage itself for two reasons. The need to wait for outcome of WRC-2027 as the outcome of WRC-2027 will help evolve a policy framework around interference mitigation and would be useful for global harmonization of IMT bands thereby enabling device interoperability. The outcome will also help decide PFD (Power Flux Density) limits.
2. Further the fact remains that there is a need for extensive and immersive India specific trials of D2D with IMT services before implementing the same. Thus, **it will be important to wait for outcome of WRC-2027 (November 2027) for a proven technology pathway.**
3. Furthermore, as and when the D2D service with IMT spectrum is implemented, post WRC 2027 decision and India specific trials, the spectrum assignment would obviously be only through auction. We further submit that considering the importance of ensuring optimum spectrum efficiency for IMT spectrum, the minimum roll-out obligations through terrestrial networks should continue to be applicable.

Q11. 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?

Combination No.	Spectrum for feeder link held by-	Spectrum for the user link held by-
1	SCN authorised entity	SCN authorised entity
2	SCN authorised entity	Partnering entity (service provider)
3	Partnering entity (service provider)	SCN authorised entity
4	Partnering entity (service provider)	Partnering entity (service provider)

Kindly provide a detailed response with justification.

And

Q12. 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
- Any other?

Kindly provide a detailed response with justification.

RJIL Response:

1. **We reiterate our submissions that the spectrum should be assigned only to authorized access service providers and no other entity, including the proposed SCN entity should hold any right to use spectrum.** This is also in line with the TRAI position in its previous recommendations on the subject, as also mentioned in the consultation. Further, all spectrum assignment should be through auction for the reasons detailed in the preface.
2. In view of the above submissions, evidently, only Combination 4 (partnering entity holds both feeder and user link spectrum) is the relevant option.
3. The authorized access service providers should be eligible for acquiring right to use both FSS and MSS spectrum through auction. Specifically: (a) FSS spectrum in C band, Ka-band, Ku-band, Q/V-band, and E-band for feeder links and user links; and (b) MSS spectrum in L-band and S-band for D2D user links.
4. Additionally, the authorized access service providers should be eligible for spectrum in any other bands that may be identified for satellite-based communication services in the future, including bands that may be identified at WRC-2027.

Q13. 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?

(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 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?

(b) GSO-based FSS: 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?

Kindly provide a detailed response with justification.

RJIL Response:

1. We reiterate our submissions that no spectrum should be assigned to entities other than authorized access service providers, including and not limited to the proposed SCN entity and that the assignment methodology should be auction only.
2. For NGSO-based FSS and GSO/NGSO-based MSS, the spectrum assignment should be specific to the satellite constellation(s) whose capacity the authorised access service provider entity or its associate SCN entity has contracted, ensuring that spectrum is linked to actual deployed capacity rather than speculative filings. Further, the assignment tenure should be 20 years, in line with prevailing practices.
3. Coordination obligations with other satellite operators and terrestrial services should be clearly defined, with the spectrum holder entity bearing responsibility for coordination within Indian territory.
4. For GSO-based FSS, the framework should be analogous to that for NGSO-based FSS, with adjustments for the different orbital characteristics (fixed beam coverage, longer propagation delay, different interference profiles). The fundamental principles of auction based exclusive assignment and coordination-based access should remain consistent across GSO and NGSO.
5. In addition to the above, RJIL submits that the spectrum assignment framework for NGSO-based FSS and MSS must address India’s structural disadvantage in the global ITU coordination framework. Specifically, the Authority should recommend that the Spectrum Assignment Rules for NGSO services incorporate a mandatory Equal Rights Coordination Agreement (ERCA) requirement. Any foreign NGSO operator seeking Indian market access and spectrum assignment

must, as a non-negotiable precondition, execute an ERCA with the Government of India, committing to afford any authorised Indian NGSO constellation the same coordination rights, interference protection, spectrum access, and operational standing that the foreign constellation enjoys in its home jurisdiction and under its ITU priority.

6. The ERCA shall be fully reciprocal: India grants market access and spectrum rights; the foreign operator guarantees equal coordination rights for the Indian constellation globally. This requirement shall be an express, non-waivable condition in both the Spectrum Assignment Rules framed by DoT/WPC and IN-SPACE's Coordination Policy.

Q14. 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.

RJIL Response:

1. We reiterate our submissions that no spectrum should be assigned to entities other than authorized access service providers and that no spectrum should be assigned to proposed SCN entity. Furthermore, the spectrum assignment should be through auction.
2. Notwithstanding our position on administrative assignment of satellite spectrum, as submitted under previous consultation papers, the eligibility conditions for seeking administrative assignment of FSS spectrum and/or MSS spectrum by authorized access entities is already well defined and there is no need for further iterations.
3. However, the eligibility conditions should not include requirements that would effectively preclude new entrants or create barriers to competition, such as excessively high networth requirements or mandatory prior operational experience in satellite communications.

Q15. 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.

RJIL Response:

We submit that only auction-based spectrum assignment can provide for expedited spectrum assignment processes for eligible entities. In all other scenarios, even the entities that have already contracted satellite capacity from entities having IN-SPACe authorisation, the multi-phase regulatory pathway (IN-SPACe - WPC - DoT) will be required that will increase the time to deliver services, which is incompatible with the commercial timelines of LEO constellation operators.

Furthermore, the Spectrum Assignment Rules for NGSO services shall incorporate the non-discrimination principle and the mandatory Equal Rights Coordination Agreement (ERCA) requirement as a condition precedent to any market access or spectrum assignment for foreign NGSO operators. Specifically, no foreign NGSO operator shall receive spectrum assignment or market access authorisation in India until such operator executes an ERCA with the Government of India, undertaking to afford any authorised Indian NGSO constellation the same coordination rights, interference protection, and spectrum access that the foreign operator enjoys in any foreign jurisdiction.

Q16. 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

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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?

- (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.

RJIL Response:

1. We submit that the market forces should govern the framework for such arrangements. However, the guiding principles for the framework can be provided that should establish:
 - a. The principle that the partnering entity retains primary responsibility for spectrum compliance and interference management.
 - b. Mandatory provisions to be included in the agreement, including scope of spectrum use, geographic and temporal limitations, interference management protocols, and termination provisions; and
 - c. A notification/approval mechanism whereby such agreements are filed with DoT/WPC for record.
2. The framework should not require prior regulatory approval for each individual agreement (which would create delays) but may require filing within a specified period (e.g., 30 days) after execution, with regulatory review on an ex-post basis.

Q17. 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 FSS and/or MSS spectrum assigned to such partnering entities? Kindly provide a detailed response with justification

RJIL Response:

1. The framework should clarify that when an authorised access service provider permits the SCN entity to utilise its assigned spectrum for SCNaas, this does not constitute spectrum trading or spectrum sharing as defined under the existing telecom regulations.
2. It is a network provisioning arrangement wherein the spectrum remains assigned to the service entity, and the SCN entity operates the satellite network infrastructure on behalf of the service entity.
3. This distinction is important to avoid triggering the spectrum sharing/trading provisions that are designed for terrestrial spectrum arrangements and may not be appropriate for satellite network configurations.

Q18. 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.

RJIL Response:

Yes, a dedicated framework is needed for D2D via MSS spectrum, addressing the unique characteristics of this service. The key elements should include:

- a. **Spectrum assignment:** L-band (1525–1559 / 1610-1626.5/ 1626.5–1660.5 MHz) and S-band (1980–2010 / 2170–2200/ 2483.5-2500 MHz) should be available for assignment to access service providers for D2D services, consistent with the 3GPP NR-NTN band definitions (n254, n255, n256).
- b. **Device compatibility:** The framework should recognise that D2D via L/S-band requires either native device support (currently limited to select Samsung and Pixel models) or companion devices. The framework should encourage chipset manufacturers to include L/S-band support in future handsets sold in India.
- c. **Service scope:** D2D via MSS spectrum should be permitted for messaging, voice, and low-bandwidth data services initially, with broadband data enabled as constellation capacity and device ecosystem matures.
- d. **Coordination:** The framework should define coordination requirements with existing L/S-band users, including ISRO’s satellite systems and other MSS operators.
- e. The GMPCS licence requirements and IN-SPACE authorisation should be prerequisites for D2D service provision via MSS spectrum.

Q19. 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 Allocation Plan (NFAP) should be modified to include MSS on a secondary basis? If yes, kindly furnish your suggestion for the proposed modification(s).

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?

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:

(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

(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

(iii) Any other method?

Kindly provide a detailed response with justification.

RJIL Response:

We reiterate our submissions that the time is not opportune for D2D services via satellite using IMT spectrum and these issues may be considered post outcome of WRC 2027 and India specific trials.

Q20. 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.

RJIL Response:

RJIL recommends that the D2D policy framework should include following provisions:

- a. It is essential to adopt a TSP-led service delivery model, wherein D2D services are anchored with licensed TSPs. This will ensure continuity with the existing telecom regulatory framework, including obligations relating to lawful interception, quality of service, and consumer protection.
- b. A phased rollout approach, starting with messaging and emergency SOS services, progressing to voice, and ultimately broadband data as constellation capacity and 3GPP NTN standards mature.
- c. Integration with existing core network, ensuring that satellite D2D subscribers are authenticated, billed, and managed through the same IMS and core infrastructure as terrestrial subscribers.
- d. The framework should prioritise interoperability and adherence to global standards (like 3GPP). As, ensuring compatibility between satellite and terrestrial networks will be critical for seamless user experience, device ecosystem development, and international roaming capabilities.
- e. QoS differentiation, recognising that satellite D2D will deliver lower throughput and higher latency than terrestrial services, and therefore excluding them from the current terrestrial services QoS benchmarks; at least for the initial period before deciding separate appropriate benchmarks for this service and
- f. Consumer awareness obligations, requiring service providers to clearly communicate the capabilities and limitations of satellite D2D services to subscribers.

Q21. 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.

RJIL Response:

1. RJIL recommends that the spectrum framework should explicitly address inter-satellite links (ISLs) in optical and RF bands, which are essential for LEO constellation operations.
2. ISL spectrum (typically in V-band or optical frequencies) should be treated as exempt from domestic spectrum charges, as these links operate entirely in space with no terrestrial interference implications. Additionally, the framework should accommodate the use of Q/V-band and E-band for feeder links, recognising these as critical for preventing IP backhaul bottlenecks in high-capacity LEO constellations.

Q22. 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.

RJIL Response:

1. No, there is no need to regulate the charges exchanged between the SCN authorised entity and the service authorised entity for FSS/MSS SCNaaS. These are Business to Business (B2B) commercial arrangements between two commercial entities, and market forces should determine pricing.
2. On the contrary, any pricing intervention at this stage would:
 - a. Discourage investment in satellite ground infrastructure by creating cost recovery uncertainty.
 - b. Introduce regulatory complexity disproportionate to the nascent stage of the satellite services market in India; and
 - c. Be inconsistent with the treatment of comparable arrangements in the terrestrial domain (e.g., infrastructure sharing charges between IP-1 providers and telecom operators are not regulated).

3. However, TRAI should mandate transparency and non-discrimination obligations on SCN authorised entities to prevent anti-competitive behaviour, particularly where an SCN entity and a service entity are not affiliated. There should be sufficient safeguard to ensure compliance in the authorization document.

Q23. 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.

RJIL Response:

No, for the same reasons as stated in response to Q22. The D2D MSS market is nascent and highly capital-intensive. Premature price regulation would deter investment and delay service deployment. Market-based pricing, subject to non-discrimination and transparency obligations, is the appropriate approach at this stage.

Q24. 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.

RJIL Response:

1. Not required in view of our submissions that the D2D service with IMT should be implemented only after WRC 2027 and outcome of India specific trials. Nevertheless, as and when it is implemented, this will be a fundamentally commercial arrangement between the spectrum holder and the satellite network operator. The spectrum holder retains full control over whether, where, and when

to activate satellite D2D, and the pricing should reflect the commercial value of extending coverage to previously unserved areas.

2. Regulating these charges would be particularly inappropriate because the value proposition of D2D via IMT is highly asymmetric: the service entity gains coverage extension and subscriber retention in areas where it has no terrestrial infrastructure, while the SCN entity provides the satellite capacity and ground infrastructure. The pricing should reflect these commercial dynamics and cannot be effectively determined by regulatory fiat.

Q25. 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.

RJIL Response:

1. Yes, the charges paid by the service authorised entity to the SCN authorised entity for SCNaaS should be permitted as a deduction from ApGR for the purpose of arriving at AGR. This is essential to avoid double taxation of the same revenue stream.
2. The rationale is simple. The service authorised entity pays the SCN entity for network services, and this payment constitutes revenue for the SCN entity, on which the SCN entity will pay its own authorisation fees and spectrum charges. If the same amount is also included in the AGR of the service entity, it would be taxed twice - once at the service entity level and once at the SCN entity level.
3. This principle of avoiding double levy on pass-through network costs is well-established in the existing licensing framework, where VNOs are permitted to deduct payments to parent NSOs from their AGR. However, for permitting such deductions, it is important to ensure that the Authorization fee regime should be uniform at the service entity level and SCN entity level.

Q26. 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.

RJIL Response:

Not Applicable in view of the above submission.

Q27. 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.

RJIL Response:

1. There is no need to have authorization specific definitions of GR, AGR, and ApGR for SCN Authorisation. These definitions should be consistent with the extant framework for similar authorisations, with the following satellite-specific provisions.
2. Gross Revenue (GR) for SCN authorised entities should include all revenue earned from SCNaas provision, including capacity lease charges, gateway hosting fees, and managed network service charges received from partnering service entities.
3. ApGR should be derived from GR after excluding revenue from non-telecom activities (if any), interest income, capital gains, dividend income, insurance claims, and foreign exchange gains - consistent with existing definitions.
4. AGR should be derived from ApGR after deducting: (a) capacity lease payments made to foreign satellite operators for transponder bandwidth and orbital capacity (these are pass-through costs for satellite resources not available domestically); (b) applicable taxes paid to the Government; and (c) bad debts, consistent with existing AGR deduction principles.
5. This framework will ensure that the AGR of the SCN entity reflects the actual value addition performed within Indian territory (ground infrastructure, capacity management, service aggregation), rather than pass-through payments to foreign satellite operators.

Q28. 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?

And

Q29. 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.

RJIL Response:

We reiterate our submissions that the spectrum should not be assigned to SCN entities. Accordingly, the broad financial terms for spectrum assignment and spectrum usage charges are not applicable.

Q30. 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.

And

Q31. 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.

RJIL Response:

As mentioned above, the spectrum charges are not applicable as no spectrum should be assigned to SCN entities.

Q32. 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.

RJIL Response:

As the spectrum assignment will be through auction-based mechanism, there is no scope for subsequent spectrum charging in view of cabinet reforms. Accordingly, no spectrum charging when MSS bands are used for D2D.

Q33. 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.

RJIL Response:

1. Not applicable in our view to wait for outcome of WRC 2027 and India specific trials before implementing D2D with IMT spectrum. Nevertheless, no additional spectrum charges would be applicable on the service authorised entity for use of its IMT spectrum in satellite-based D2D services.
2. The IMT spectrum is assigned on a market discovered price through auction and as per Cabinet Reforms of 15.09.2021, no SUC is applicable on the spectrum auctioned in auctions subsequent to these reforms and TSPs are already paying SUC on spectrum obtained prior to this decision. Levying additional charges for the same spectrum used via satellite would constitute double charging and would create a financial disincentive against deploying satellite D2D coverage.

Q34. 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.

RJIL Response:

There is no spectrum charge payment by the SCN entities as we recommend that no spectrum should be assigned to these entities. Further there exists a well-defined SUC payment methodology for authorized access service provider entities and there is no need to change the same.

Q35. 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.

RJIL Response:

There is no minimum spectrum charge payment by the SCN entities as we recommend that no spectrum should be assigned to these entities.

Q36. 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.

RJIL Response:

1. The minimum equity requirement should be INR 10 crore (paid-up) and the minimum networth requirement should be INR 25 crore. These levels are consistent with the SESG provider authorisation requirements and are appropriate for the capital-intensive nature of satellite ground infrastructure deployment.
2. Requirements significantly higher than these levels would create unnecessary barriers to entry and would be disproportionate to the SCN entity's role as a network provider (as opposed to a service provider with subscriber-facing obligations).

Q37. What should be the entry fee for proposed Satellite Communication Network (SCN) authorisation? Please provide detailed justification in support of your response.

RJIL Response:

1. The entry fee should be nominal, set at INR 1 crore. The SCN authorised entity does not directly serve end consumers and operates as a wholesale network provider to service authorised entities.
2. A high entry fee would deter investment in satellite ground infrastructure, which India urgently needs to bridge its connectivity gaps. The SESG recommendations

precedent of minimal entry barriers for ground infrastructure providers should be followed.

Q38. 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.

RJIL Response:

The Authorization fee should be same as the license fee for the competing and collaborating authorized access service providers i.e. at 8% of AGR. This will address the level playing field and arbitrage related issues to some extent.

Q39. 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

RJIL Response:

As submitted above, the regulatory levies, including minimum authorisation fee, should be same as that for access services authorizations.

Q40. What should be the appropriate payment terms & conditions for Authorisation Fees? Please provide detailed justification in support of your response.

RJIL Response:

The prevailing license fee payment terms and conditions may be replicated for the Authorisation fee payments by the SCN entity.

Q41. 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.

RJIL Response:

We have a consistent position that Bank Guarantees are an unnecessary financial burden on the entities that are investing in India's digital backbone and should be completely abolished. The same is also applicable in the case of SCN entities.

Q42. What should be the application processing fee for Satellite Communication Network (SCN) authorised entity? Please provide detailed justification in support of your response.

RJIL Response:

The application processing fee should be INR 1 lakh, consistent with the fee prescribed for Unified Service Authorisation under Schedule A of the draft rules. This is a one-time administrative charge and should be set at a level that covers processing costs without creating an entry barrier.

Q43. 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?

RJIL Response:

1. We recommend the following additional financial provisions.
2. The framework should provide for a regulatory moratorium of 24 months on all financial obligations (other than entry fee and processing fee) from the date of grant of SCN authorisation, to allow for ground infrastructure deployment and commercial service commencement.
3. Investment in satellite ground infrastructure (gateway earth stations, NOCs, baseband systems) should be eligible for accelerated depreciation under the Income Tax Act, consistent with the treatment of telecom infrastructure.