



SATELLITE COMMUNICATION REFORMS 2022



“

**India's space programme has
been the biggest identity of
Aatmnirbhar Bharat Abhiyan**

”

**Shri Narendra Modi
Prime Minister**





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THE REFORM

To propel growth and to accelerate provisioning of affordable services to the citizens, Government has taken the following steps for Ease of Doing Business in the fast emerging area of satellite-based services.

- NOCC charges of Rs 21 Lakh per transponder per year removed for Satellite TV Broadcasters w.e.f. 1st Oct, 2022. This reform shall result in savings of about Rs 34 crore every year for the broadcast industry.
- Mandatory Performance Verification Testing (MPVT) charges of Rs. 6000/- per antenna for testing of satellite antenna(s) also removed.
- Enhanced the scope of the satellite licenses including Commercial VSAT authorisation to enable the provisioning of:
 - ◆ User terminal stations on moving platform(s).
 - ◆ Satellite-based M2M/ IoT devices.
- Guidelines framed for establishing satellite-based communication network for ease of understanding of users/applicants.
- Automated and contactless online processing of all the applications through 'SaralSanchar' portal.

THE CHALLENGE

SATCOM regulation is a complex task and involves multiple Ministries/agencies like:



Department of Space – Approval/regulation of space segment



DoT – License to provide telecom services (which in certain cases includes clearance from security angle)



WPC, DoT – assignment of spectrum



NOCC, DoT – responsible for resolving interference and set-up of centralized monitoring system.

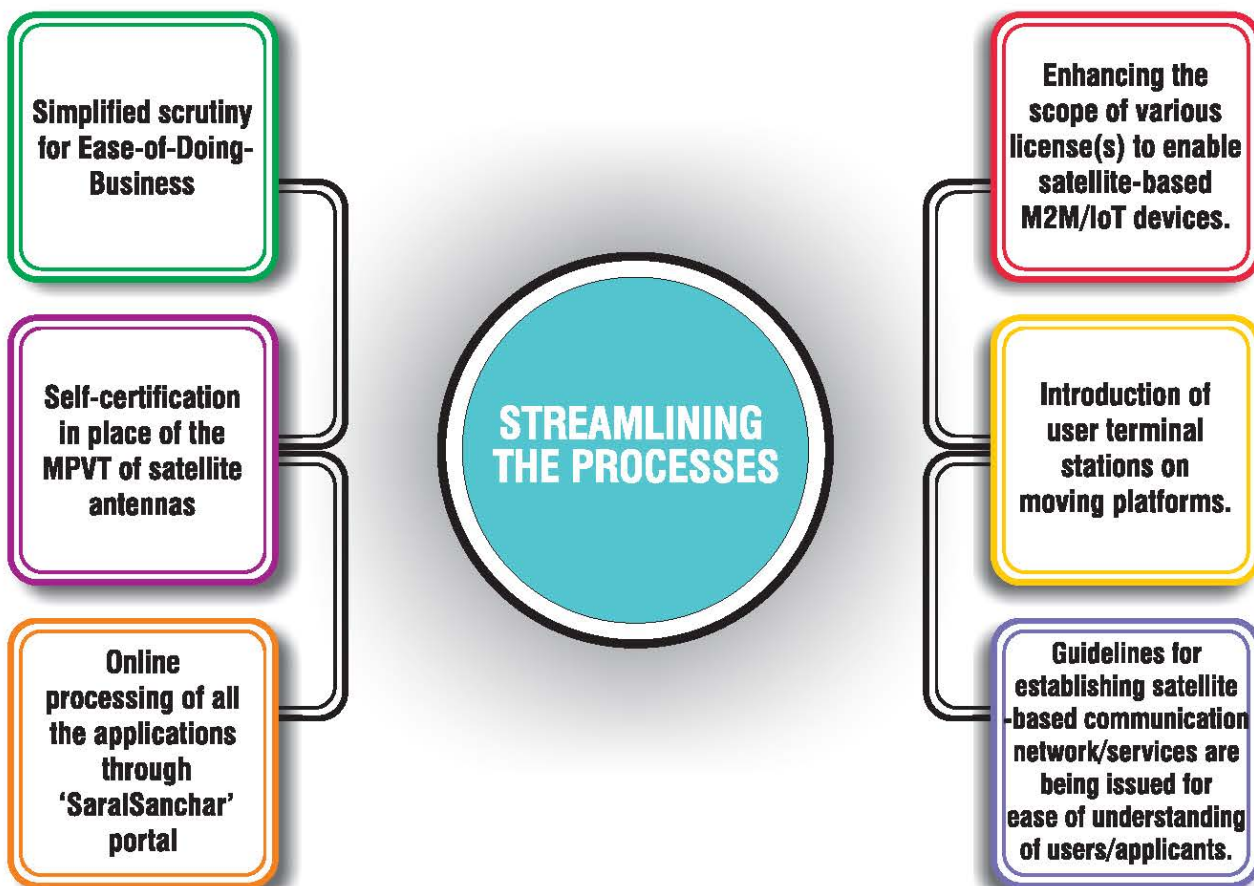


PROCEDURE SIMPLIFICATION

To simplify the existing processes, vital changes have been made for streamlining satellite-related clearance processes.

- Apex committee → Renamed as Inter-Ministerial Committee for Satellite Network Clearance (IMC-SNC) → Single platform to issue in-principle clearance for satellite-based network(s) → to expedite the clearances, it consists of all the relevant Departments/Units.
- Application filed with Satellite Division of DoT → DoS/NSIL to carry out allocation of space segment → NOCC to grant carrier plan approval → WPC issues spectrum assignment.
- Existing process takes about 6 to 8 months → Proposed to do it in 6 weeks.
- Instead of multiple-level scrutiny by NOCC and WPC, single scrutiny by each unit is envisaged for Ease-of-Doing-Business.
- Clear timelines prescribed
 - ◆ DoS → space segment allocation letter → 1 week
 - ◆ NOCC → carrier plan approval → 1 week
 - ◆ WPC → Frequency assignment including LoI, decision letter, SACFA clearance and WOL → 4 weeks
- These reforms by the DoT are likely to pave way for enhanced use of satellite-based services in logistics and other sectors and attract more investment thereby creating more job opportunities.
- This booklet outlines the importance of Satcom, explains the associated terms and outlines the reforms undertaken by DoT





REDUCTION IN CHARGES

No	Name of the Charge(s)/Fee	Amount charged	
		Earlier	Now
1.	NOCC charges for use of space segment	₹21 lakhs per transponder (36 MHz) per annum	None
2.	MPVT charges	₹6000/- per antenna	None
3.	Annual license fee for M2M/IoT devices for Captive VSAT License	₹10,000/- per terminal per year	None



BENEFICIARY SECTORS

LOGISTICS



EDUCATION



AGRICULTURE



HEALTH



AUTOMATION



INDUSTRIAL



RAILWAYS



DISASTER MANAGEMENT





Explaining Satellite Communication (SATCOM)

1. What is satellite-based communication?



Satellite-based communication is a method of sending information from one place to another using a communication satellite orbiting around the Earth.

2. What is the advantage of satellite-based communication and the Government's role for furthering it?



Many far-flung, sparsely populated areas may not have terrestrial coverage. Satellites can help bridge this gap by providing connectivity to the most remote areas. In other words, satellites can be used to connect remote and inaccessible places where it is difficult to lay cables and erect telecom towers.

The liberal policy framework by Government will pave way for the introduction of satellite-based services to the users in sectors like logistics, industrial automation, railways, agriculture, disaster management etc. This will aid economic growth and job creation in remote areas.

3. What is a VSAT?



VSAT stands for Very Small Aperture Terminal. It is a device with an antenna typically having a diameter of about one meter. VSAT is capable of transmitting/receiving data, voice, & video signals. Generally used by rural ATM/Banking, distant educational institutes, railway reservation customer service centre especially in difficult to reach area(s) etc.

4. What is a Captive VSAT network?



A Captive VSAT network is used to provide data connectivity for internal communication of an organisation and is for non-commercial purpose.

5. Can I avail of 'sat-phone' service in India? What steps have been taken by the Government to facilitate the same?



Yes, Government has licensed BSNL to provide handheld satellite phone services. The Global Satellite Phone Service enables connectivity and communication using satellite(s).

An important step has been taken by the Government by relaxing the Spectrum Usage Charges charging methodology from a formula-based system to a percentage-based system. BSNL is now required pay only 1% of revenue generated by providing the service(s) to consumers- thus making the service more affordable to the users.



6. What is IoT/M2M?



IoT stands for Internet of Things, while M2M is the acronym for Machine-to-Machine. International Telecommunications Union defines IoT as a global infrastructure for the information society, enabling advanced services by interconnecting (physical and virtual) things based on existing and evolving interoperable information and communication technologies. Machine-to-Machine (M2M) means no human intervention, whilst devices are communicating end-to-end.

7. What steps are being taken to enable the IoT/M2M?



DoT has enhanced the scope of license(s) to enable satellite-based M2M/IoT devices. These amendments pave way for the introduction of satellite-based IoT devices in sectors like logistics, industrial automation, railways, agriculture, disaster management etc. The changes are likely to open up a large potential of IoT/M2M applications for the citizens.

8. Is there a role of satellites in expanding 4G/5G mobile services?




Satellite-based communication are helpful in extension of 4G/5G networks to rural and inaccessible areas. Connectivity can also be provided on the movable platforms like boats, trains, airplanes, and other such vehicles. By virtue of being nearer to the earth, the newer generation of satellites in the Low Earth Orbit (LEO) overcome the limitation of latency faced in the Geosynchronous Earth Orbit satellite-based network(s). These satellites can also provide much higher bandwidth required for backhauling 4G/5G mobile services

9. How the processes involved are sought to be streamlined the reform?



Instead of multiple level scrutiny, single scrutiny by NOCC and WPC is envisaged for Ease-of-Doing-Business. Only self-certification in place of the Mandatory Performance Verification Testing (MPVT) of satellite antennas has been prescribed.

For ease of applicants, contactless online processing of all the applications shall be carried out through 'SaraSanchar' portal.



10. What is the relief provided in respect of reducing the financial burden on the service providers?



NOCC charges of ₹21 lakhs per transponder (36 MHz) per annum for use of space segment have been removed for telecom service licensees providing satellite-based communication service. Further, the Mandatory Performance Verification Testing (MPVT) charges of Rs. 6000/- per antenna have also been removed.

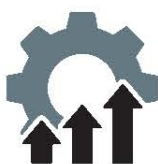
Further, the license fee of Rs. 10,000/- per terminal per year for M2M/IoT devices for Captive VSAT licensees has been exempted.

11. What will be its implications for the citizens?



Lower financial burden will enable service providers to offer more affordable services and they will invest more in improving their networks. This will enable service providers to provide better service quality. This is likely to help in extending the connectivity to the uncovered and difficult-terrain areas using satellites.

12. What will be the impact of the reforms on the sector?



With the proposed simplified procedure and time-bound online application processing, the Service Providers will be able to roll out satellite-based communication networks in a relatively shorter time. Removing multiple charges will help in Ease-of-Doing-Business and lower the compliance burden on the service providers. This is likely to enable additional investment in the network capacity and introduction of state-of-the-art technologies.

The healthier sector will help generate more jobs. It would give the required boost to Industry 4.0.

13. How can one subscribe to satellite-based communication services?

Satellite-based communication services can be availed from companies licensed by Department of Telecommunication (DoT). Presently, the licensees providing satellite-based VSAT communication services are:

- (i) M/s Bharat Sanchar Nigam Ltd. (BSNL)
- (ii) M/s Hughes Communications India Pvt. Ltd.
- (iii) M/s Nelco Ltd.
- (iv) M/s Reliance Jio Infocomm Limited
- (v) M/s Cloudcast Digital Limited



- (vi) M/s Infotel Satcom Pvt. Ltd.
 - (vii) M/s HCL Comnet systems & service Ltd.
- With a simplified regulatory regime, more Satcom players are likely to come in the sector.

14. How a company can provide satellite-based communication service to citizens?



Satellite-based communication services can be provided by a company after obtaining a service license from DoT. The applicant can visit www.saralsanchar.gov.in portal for applying for the license and getting familiarized with the necessary guidelines and the process.

15. Where can one get full technical details about the provisioning of satellite-based communication services?



For ease of understanding, DoT has issued guidelines for:

- o Establishing satellite-based communication network/ service(s)
- o Obtaining Captive VSAT CUG license

The applicant can refer to the guidelines on DoT website(s) i.e. www.saralsanchar.gov.in or www.dot.gov.in.

16. What other departments of Government are doing in the area of satellite reforms?



Besides DoT, Department of Space is paving way for larger participation of non-government entities in space activities. The new policy and reforms aim to unleash the space sector for larger participation of space industry and start-ups to achieve greater social, economic and technological progress for the country and humanity.

Government of India has constituted the Indian National Space Promotion and Authorization Centre (IN-SPACe), an autonomous agency for enabling space-related activities and opened up usage of ISRO-owned facilities by Non-Government Entities. The non-government entities will be able to plan, build, launch, own and operate satellites for various services.





Simplifying the SatCom Clearances

a) What is the reform?

- Instead of multiple level scrutiny by NOCC and WPC, single scrutiny is envisaged for Ease-of-Doing-Business.
- The procedure of the Mandatory Performance Verification Testing (MPVT) of satellite antennas is done away with. Only self-certification from applicants would be required.
- Automated and contactless online processing of all the applications through 'SaralSanchar' portal for ease of applicants.

b) What will be its implications for the citizens?

A liberal simplified framework is likely to lead to expansion of the satellite-based services especially in hitherto uncovered and difficult-terrain areas.

c) What will be the impact on the sector?

- TSPs will be able to roll out satellite-based communication networks in a relatively shorter time.
- Lower compliance burden to TSPs to enable them to make more investment in the network. This will enable TSPs to provide better service quality.

d) How will it be implemented?

- For ease of understanding, DoT has issued Guidelines - 2022 for:
 - o Establishing satellite-based communication network
 - o Obtaining Captive VSAT CUG license
- Simultaneously, the 'Saral Sanchar' portal is being upgraded for granting all approvals online.

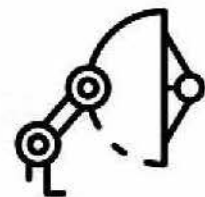






Guidelines – 2022

Guidelines for establishing satellite-based communication network(s)





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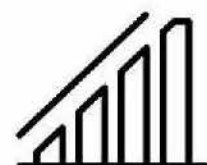
Gateway Switch is established separately in India for each Satellite System. The licensee may also provide satellite-based data connectivity to the IoT devices/Aggregator devices.

- 1.3.2 All calls originating or terminating from Mobile Terminals in India shall pass through the GMPCS Gateway Switch located in India. Such calls will not be routed through any other Gateway located outside India.
- 1.3.3 The issuance of Letter of Intent (LoI) for GMPCS authorization shall be subject to security clearance of the proposal by an Inter-Ministerial Committee.
- 1.3.4 The licensee is to make available the adequate monitoring facility at the GMPCS gateway in India to monitor all traffic (traffic originating/terminating in India) passing through the applicable system.
- 1.3.5 The Licensee shall disclose complete details of terms and conditions of the contracts/licenses entered into with its parent/associate company and/or space-segment/ satellite-system owner/operator including those contained in contracts/ licenses issued by the Governments/Authorities of the country where the parent/associate company is registered and/or carries on its business prior to grant of license and before security clearance for the service in India.

1.4. VSAT CUG Service authorization under Unfiled License for commercial service

- 1.4.1 The scope of this service is to provide, inter-alia, data connectivity between various sites scattered within territorial boundary of India using VSATs. The users of the service should belong to a Closed User Group (CUG).

Commercial VSAT CUG license can be used to provide backhaul connectivity to the Access





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Service providers for cellular mobile services and for establishing Wi-Fi hotspots.

The licensee may also use the VSAT terminal to aggregate the traffic from M2M/IoT devices/aggregator devices of the CUG and also to provide backhaul connectivity to service providers having license/ Authorization/ Registration for M2M services.

However, PSTN/PLMN connectivity is not permitted except the backhaul connectivity mentioned above.

User terminal stations on moving platform(s) are also permitted for provisioning of connectivity subject to compliance to relevant TEC standard(s) and conditions mentioned therein.

1.4.2 Definition of Closed User Group (CUG):

A Closed User Group is permissible for following categories of business association:

- (i) Producer of goods and his trader/agent;
- (ii) Provider of service and his trader/agent;
- (iii) Producer of same category of goods (e.g. manufactures of petroleum products); and
- (iv) Provider of the same category of service (e.g. bank).

Provided that ultimate consumer of a service or a product shall not be a part of the Closed User Group.

A Closed User Group can also be formed among a holding company and its subsidiaries, these terms being defined as per the Companies Act 2013. Provided that such Closed User Group shall be only for the purposes of legitimate internal business communications of the group.



1.5. In-flight and Maritime Connectivity (IFMC) Service Authorization

- 1.5.1 A company can obtain In-flight and Maritime Connectivity (IFMC) Authorization to provide wireless voice or data or both type of telegraph messages on ships within Indian territorial waters and on aircraft within or above India or Indian territorial waters. The IFMC Service Provider so authorised may provide such services in geographical areas such as Exclusive Economic Zones (EEZ), High Seas, etc. in accordance with the rights granted to State under the international laws¹.
- 1.5.2. A licensee shall be eligible to apply for authorisation to provide IFMC service if it:
- (a) holds a license for access service or an ISP category A license; and
 - (b) holds an NLD license or a Commercial VSAT CUG service license, and has satellite gateway earth station within the service area of the license as specified in clause (a), in case connectivity through satellite is used.
- 1.5.3 The following companies shall also be eligible to apply for authorisation to provide IFMC service by entering into commercial agreements as referred to in clause 1.5.6 and 1.5.7, namely:
- (a) any Indian airlines company or foreign airlines company having permission to enter Indian airspace by the Directorate General of Civil Aviation;
 - (b) any Indian shipping company or foreign shipping company whose vessels or ships call Indian ports or transit Indian territorial waters and intend to carry out communication for non-GMDSS (Global Maritime Distress and Safety System) [routine] or for commercial purpose; and

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¹ As per DoT clarification No. 20-504/2016 AS-I, Vol.-11 dated 21st May 2019



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- (c) any company incorporated under the Companies Act, 2013 (18 of 2013) or under any previous company law.
- 1.5.4 A licensee referred to in clause 1.5.2, may provide voice or data or both services in accordance with the scope of the license, held by it.
- 1.5.5 Data service may be provided by the IFMC service provider through Wi-Fi.
- 1.5.6 For providing data service, the companies referred to in clause 1.5.3, shall enter into a commercial agreement with at least one licensee of–
- (a) access service or ISP category A; and
 - (b) commercial VSAT CUG service or NLD service, having satellite gateway earth station within the service area of partnering licensee as referred to in clause (a), in case connectivity through satellite is used.
- 1.5.7 For providing voice and data service, the companies referred to in clause 1.5.3, shall enter into a commercial agreement with at least one licensee of–
- (a) access service; and
 - (b) commercial VSAT CUG service or NLD service, having satellite gateway earth station within the service area of partnering licensee of access service, in case connectivity through satellite is used.
- 1.5.8 The applicant shall carry out lawful interception and monitoring. For establishing connectivity to a Centralised Monitoring System, the IFMC service provider at its own cost shall arrange either itself or through its partnering licensee, appropriately dimensioned hardware and bandwidth or dark fibre upto a designated point as required by the DoT.
- 1.5.9 Gazette notification dated 14.12.2018² “Flight and Maritime Connectivity Rules, 2018”, as modified from time to time, may be referred for more details.

²<https://dot.gov.in/actrules/gazette-notification-flight-and-maritime-connectivity-rules-2018>



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1.6 Captive VSAT CUG license:

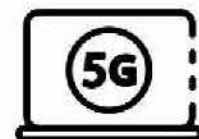
- 1.6.1 License for Captive VSAT Closed User Group domestic data network using INSAT satellite system is to provide, inter-alia, data connectivity for internal communication of an organisation and is for non-commercial purpose. The sites connected using VSATs should form part of a Closed User Group (CUG) as defined above.
- 1.6.2 The licensee can set up more than one CUG for their own use.
- 1.6.3 VSAT terminal may be used to aggregate the traffic from M2M/IoT devices as long as the CUG nature of the network is not violated.
- 1.6.4 User terminal stations on moving platform(s) are also permitted for provisioning of connectivity subject to compliance to relevant TEC standards and conditions mentioned therein.

1.7 National Long Distance (NLD) Service authorization under Unified License

- 1.7.1 The NLD Service licensee shall, inter-alia, have the right to carry inter-circle switched bearer telecommunication traffic over its national long distance network. The licensee may also carry intra-circle switched traffic where such carriage is with mutual agreement with originating access service provider.

The licensee can provide Leased Circuit / Virtual Private Network (VPN) Services.

The licensee can provide bandwidth to other telecom service licensee also. Further, the licensee can also provide connectivity to service providers which have obtained registration for M2M service.





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2. In case of provision of services by the licensee through the satellite media or use of satellite media through owned/leased satellite connectivity, the licensee shall abide by the prevalent Government guidelines, policy, orders, regulation or direction on the subject like Space Policy.
3. Before putting in operation the network for satellite based services, the required clearance(s) will be taken by the licensee as described in Chapter-II of these guidelines.
4. **How to apply for the license(s) / authorization(s) under the Unified License:**
 - 4.1 Online application can be made on the web portal www.saralsanchar.gov.in. 'SARALSANCHAR' (Simplified Application for Registration and Licenses) is a unified portal to issue various types of Licenses and registrations in a digitized manner which ensures transparency and makes the process more efficient, paperless and secure for applicants.
 - 4.2 Applicants can fill-up the prescribed application form and upload the documents and application form with digital signature. The processing and all the communication to/from the applicants is online. The portal envisages that applicant gets prompts and alerts at various stages of application processing so that all necessary requirements are able to be fulfilled in a friction-less manner.



4.3 Fee payable for various service licenses has been compiled as below for ready reference:

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	Commercial VSAT CUG License	Captive VSAT CUG License	GMPCS License	IFMC Service
Application Processing Fee	50 Thousand	25 Thousand	50 Thousand	Nil
Entry Fee	Rs. 30 lakh	Rs. 15 lakh	Rs. 1 Crore	Nil
Licence Fee p.a. (w.e.f. 01.04.2013)	8% of AGR	Rs. 10,000/- per VSAT	8% of AGR	Rs. 1
FBG ³ amount	Rs. 6 Lakh	Rs. 3 Lakh ⁴	Rs. 20 lakh	Nil
PBG ⁵ amount	Rs. 10 Lakh	NIL	Rs. 50 lakh	Nil

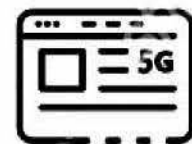
4.4 Applications for satellite-related experimental and technology-trial license(s)

4.4.1 The online applications can be made to WPC wing of DoT on the Saral Sanchar portal for satellite-related experimental and technology-trial license categories [excluding demonstration license] as detailed in the WPC OM No. R-14016/01/2019-NT(Pt.) dated 23.07.2019 (as modified from time to time).

5. Spectrum allotment and use

5.1 Right to use the spectrum: The in-principle clearance/letter of intent/ the License Agreement for service authorization does not confer any right to assignment and use of spectrum for which separate specific Frequency Assignment is required from WPC Wing of DoT.

5.2 Frequency Assignment: The applicant need to separately apply for Frequency Assignment from the Wireless Planning and Coordination (WPC) Wing of DoT which permits utilization of



³ Financial Bank Guarantee

⁴ Financial Bank Guarantee is not applicable in the case of Central Government Departments for Captive VSAT CUG license.

⁵ Performance Bank Guarantee



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appropriate frequencies under specified procedure, instructions, terms and conditions including payment for said assignment and right to use of spectrum prescribed by WPC Wing from time to time.

- 5.3 Service Providers are allowed to use any of the satellite frequency bands permitted by WPC for providing satellite-based low bit-rate connectivity.
- 5.4 The Licensor/ WPC Wing of DoT reserves the right to modify the procedure for allotment of spectrum and/or rates for payment for said allotment and use of spectrum at any time.

6. Use of space segment:

- 6.1 The required satellite capacity (space segment) shall be obtained by the Licensee from Department of Space (DoS)/NSIL or space segment provider duly authorized by DoS/IN-SPACE on terms and conditions as applicable.
- 6.2 The space segment charges will be payable to DoS/NSIL or space segment provider as applicable.
- 6.3 It must be ensured that the land earth station (gateway), corresponding to the chosen foreign satellite/satellite system is established in India. The service may be provided using one or more Satellite Systems provided that the Land Earth Station Gateway Switch is established separately in India for each Satellite System.
- 6.4 All types of satellite viz. Geo Stationary Orbit (GSO) and Non-GSO (NGSO) satellites are permitted to be used for providing satellite-based low bit-rate connectivity.

7. Establishing a satellite based communication network after obtaining the license:

- 7.1 The license/authorization can be obtained as per details mentioned above in this chapter. After obtaining the license/authorization, the required clearance(s) and necessary procedure for establishing the satellite-based communication network are described in the following chapter.



Process for seeking In-principle clearance and other approvals for establishing satellite-based communication network by a licensee

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1. Providing any satellite-based communication service to the public or setting up a satellite-based network is a multi-stakeholder process that requires close coordination among the Department of Space (DoS), Ministry of Information & Broadcasting (MoI&B), Department of Telecommunications (DoT) Satellite Licensing division, Wireless Planning & Coordination (WPC) Wing, Network Operations & Control Center (NOCC) and seeking separate authorisation/permissions by respective entity broadly indicated below:
 - a) Service license or appropriate authorisation from DoT under the Indian Telegraph Act as described in previous chapter.
 - b) Space segment assignment to render the services through DoS/NSIL or space segment provider duly authorized by DoS/IN-SPACE,
 - c) Frequency assignment [Decision Letter (DL), SACFA clearance, & Wireless Operating License] from WPC.
 - d) Carrier plan approval and up-linking permission from NOCC.
 - e) Security clearance (wherever applicable)
In addition, Telecommunication Engineering Centre (TEC) issues/modifies the relevant standards including the Interface Requirements from time to time. NOCC is responsible for monitoring the Satellite systems & resolving interference issues.
2. To bring these entities together, an Inter-Ministerial Committee for Satellite Network Clearance (IMC-SNC), hitherto known as Apex Committee, having representatives from these units has been authorized to provide a single platform to enable the issuance of “in-principle clearance” to the proposed network. If the application is in order, on the recommendation of IMC-SNC, Satellite Licensing division of DoT issues in-principle clearance to the applicant for establishing the satellite based network.





- (ii) For starting totally new service/network or change in the service/network.
 - (iii) For use of new technology for the first time, change of technology.
 - (iv) For setting up of additional hub /gateway station.
 - (v) For change of frequency band.
 - (vi) Any proposal that is not exactly similar to a previously cleared proposal or not scrutinised and approved by the IMC-SNC for any other licensee.
- 6.2 Proposals relating minor changes like expansion in the same frequency band with the same hub or reconfiguration/shifting of the networks due to contingencies would not attract the scrutiny of IMC-SNC. In such cases, Satellite Licensing Division may issue in-principle clearance on the applicant's proposal.

7. How to apply for in-principle clearance:

The applicant is required to submit following documents along with their application/proposal on the online SaralSanchar portal:

- (i) Brief write up of the proposed network & services along with schematic diagram.
- (ii) Link engineering for all types of carriers in the enclosed standard format with approved satellite parameters.
- (iii) Carrier power & bandwidth summary showing total space segment & satellite power requirements.
- (iv) Clause-by-clause compliance to applicable mandatory TEC GR/IR.
- (v) List of model & make of all the equipment proposed in the network along with their specifications/data sheets.
- (vi) Exact locations of hub/central site and tentative locations of other earth stations/VSATs.
- (vii) Comparative statement highlighting modifications/ changes in the network in case of existing service providers.
- (viii) If the satellite/constellation on which service is proposed is other than INSAT/GSAT, additional

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details about the satellite/constellation, user terminals and security related aspects like geo-fencing capabilities etc. are also required.

- (ix) Any other information, as required by IMC-SNC for consideration of the application
8. The proposal will be examined by Satellite Licensing Division and presented to IMC-SNC, if required⁶. After consideration of the proposal, in-principle clearance for setting up or modifications as proposed by the applicant will be issued. All applicants should be holders of license/authorisation under the Indian Telegraph Act.
 9. The applicant would then apply to DoS/NSIL or space segment provider duly authorized by DoS/IN-SPACE for assignment of satellite capacity (space segment).
 10. After obtaining the space segment, the applicant shall get carrier plan approval from NOCC on the online system. The carrier plan thus captured on the SaralSanchar portal along with the equipment details, antenna parameters etc. may subsequently be utilised by NOCC and WPC for interference monitoring purposes.
 11. The applicant would thereafter apply online for frequency assignment & related clearances from WPC. In this regard:
 - (i) The entire application process for frequency assignment including LoI, DL, SACFA & WOL⁷ shall be online and based on single scrutiny. After scrutiny, wherever required, LoI is generated by WPC. The Decision Letter is generated instantly after payment by the applicant.
 - (ii) SACFA clearance has been simplified wherein the SaralSanchar portal clears the cases in a time-bound manner after capturing the location

⁶ As per the scope and procedure of IMC-SNC as per DoT, proposals relating minor changes like expansion in the same frequency band with the same hub or reconfiguration/shifting of the networks due to contingencies would not attract the scrutiny of IMC-SNC. Also, any proposal which is broadly similar and cleared by IMC-SNC for any operator earlier would not attract the scrutiny of IMC-SNC. In such cases, Satellite Licensing Division may issue in-principle clearance on the applicant's proposal.

⁷ LoI=Letter of Intent, DL=Decision Letter, WOL=Wireless Operating License, SACFA= Standing Advisory Committee on Frequency Allocation.



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address & other necessary details of equipment.

(iii) After the SACFA clearance:

a) **For the satellite gateway hub equipment**, the WOL will be generated automatically after submission of the requisite document(s) like equipment details by the applicant on the SaralSanchar portal.

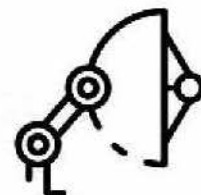
b) **For remote stations / user-side terminals/ VSATs**

After clearance of the gateway hub equipment as described in para (a) above, to enable faster deployment of user terminals and accelerate roll-out of the services by the licensee, there shall not be a requirement to apply for any clearance on a per-site basis for the remote side customer-equipment & the user terminals. i.e. For installing/addition of remote-stations/satellite terminals/VSATs on the subscriber end, no clearance like WOL shall be required. The relevant information like the address & type of the user terminal(s), if required, for the purpose of analysis by the WPC, shall be captured on the online portal on the basis of self-certification in case the same is not already available on the portal.

12. After obtaining the WOL/frequency assignment from WPC, the licensee shall upload the self-certified details of requisite antenna parameters⁹ for generating up-linking permission online, which will be validated on the online portal by NOCC within three days. **The applicant will then be able to download the up-linking permission and start operations of the satellite network.**

13. Henceforth, the erstwhile Mandatory Performance Verification Testing (MPVT) procedure is not required to be carried out by NOCC before start of the antenna operation(s) i.e. the MPVT procedure is dispensed with. **Instead of MPVT by NOCC**

⁹ The details of the relevant antenna parameters along with radiation pattern results for all antenna above 3.8 m and on one antenna for each make/model for smaller antennas.





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prescribed earlier, the details of the relevant antenna parameters shall be furnished online by the applicant on the basis of self-declaration along with radiation pattern results. Radiation Pattern testing should be conducted by the licensee after installation of antenna for all antenna above 3.8 m and on one antenna for each make/model for smaller antennas.

Since the MPVT shall be on self-certification basis, henceforth there would not be any MPVT charges (testing charge) payable to NOCC for such self-certification.

Later, for interference monitoring and mitigation, NOCC may, however, call for additional details and conduct tests, if required. In case of material deviation in the actually installed equipment vis-a-vis approved parameters, suitable remedial action may be ordered by the NOCC.

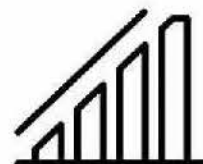
14. NOCC charges of ₹21 lakhs per transponder (36 MHz) per annum for use of space segment have been removed.⁹
15. The prescribed time frame for the various assignments/clearances will be as under:
 - (i) DoS/NSIL will issue space segment assignment letter within seven working days of submission of the application.
 - (ii) NOCC will issue carrier plan (or change in carrier plan) approval within seven working days. Also, the self-certified details of requisite antenna parameters uploaded by the applicants will be validated by NOCC within three days so that the up-linking permission can be downloaded from the portal.
 - (iii) The frequency assignment including issue of Lol/Decision Letter/SACFA clearance/WOL will be completed by WPC within a period of one month.

⁹ Vide DoT order No. 824-201/TRAI/2020-SAT (Vol-III) dated 06.05.2022 for telecom licensees



CHAPTER-II

16. The coordination, monitoring and interference resolution of space segment shall be carried out by NOCC. All the contingency operation due to failure of transponder/satellite or RF interference, monitoring and operational control of space segment usage is handled by NOCC.
17. The Licensee(s) are permitted to use any technology, conforming to the TEC IR/GR, to provide the services. The technical parameters such as radiation pattern of antenna, maximum permissible off-axis EIRP, antenna size and PSD limits shall follow the relevant TEC Interface Requirements/ ITU-R Recommendations.
18. Applicable TEC standards: For providing the services, the Licensee shall install equipment complying with the technical parameters mentioned in the applicable Standard(s)/Interface Requirement issued by TEC, as modified from time to time. Applicants are advised to check the applicable documents on TEC website (www.tec.gov.in) from where these can be downloaded for free. At present, TEC has issued the following Interface Requirement (IR) documents for technical compliance of a satellite based communication network, as applicable:
 - a) Standard for Interface Requirements for Communication and Broadcast Networks for FSS/BSS- Mandatory Technical Requirements bearing no. TEC 42012:2021 (as modified from time to time).
 - b) Interface Requirements for VSAT based Mobility Services- Mandatory Technical Requirements bearing No. TEC/IR/SS/SCB-109/01/MAR-19 (as modified from time to time).
19. The LICENSOR reserves the right to modify at any time these guidelines and terms and conditions of the LICENSE, if in the opinion of the LICENSOR it is necessary or expedient to do so in public interest or in the interest of the security of the State or for the proper conduct of the telegraphs. The decision of the LICENSOR shall be final and binding in this regard.
20. Any queries with regard to these guidelines may be sent to Director(Satellite) at dirtsat1-dot@gov.in.






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SDSC SHAR
SRIHARIKOTA



Guidelines – 2022

Guidelines for obtaining Captive VSAT CUG License





CHAPTER-I

Guidelines for obtaining Captive VSAT CUG License

(License for Captive VSAT Closed User Group domestic data network using INSAT satellite system)

- 1.** Department of Telecommunications grants license on a non-exclusive basis for establishment of Captive Very Small Aperture Terminal (VSAT) CUG domestic data network using INSAT satellite system. The objective of these guidelines is to equip the applicant with information on relevant licensing and administrative framework and guide them regarding processes involved in obtaining a Captive VSAT CUG license and further clearances for operationalizing the network¹. For complete details about terms and conditions of the license agreement, the applicants are advised to refer to a draft Captive VSAT CUG license document available on DoT website and www.saralsanchar.gov.in.
- 2.** The applicant organization shall submit an application in the prescribed application form for Captive VSAT CUG license.
- 3. Scope of license:**
 - 3.1** The scope of the license is to provide data connectivity between various sites scattered throughout India using VSATs. However, these sites should form part of a CUG.
 - 3.2** The Captive VSAT licensee can set more than one CUG for their own use. VSAT terminal may be used to aggregate the traffic from M2M/IoT devices as long as the CUG nature of the network is not violated.
 - 3.3** User terminal station on moving platform are also permitted for provisioning of connectivity subject to compliance to relevant TEC standard and conditions mentioned therein.
- 4. Period of license:**
 - 4.1** Captive VSAT CUG license will be granted for a period of 20 years from the effective date

¹ Guidelines-2022 for the Service Providers to establish satellite-based communication network(s)



extendable by 10 years at a time upon request of the licensee.

5. Eligibility criteria:

5.1 The applicant organization must be an Indian company, registered under the Indian Companies Act 2013/ Government department/ Government organizations. The total composite foreign holding of the registered company shall be governed by Foreign Direct Investment (FDI) policy of the Government of India as announced by Department of Industrial Policy and Promotion from time to time.

6. Entry fee:

6.1 The entry fee for the license is Rs. Fifteen lakhs (15 lakhs) only and is non-refundable/ non-adjustable.

7. License fee:

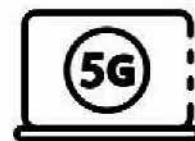
7.1 The annual license fee for Captive VSAT CUG license is Rs. 10,000/- per annum per VSAT multiplied by total number of VSATs installed. Total No. of VSATs shall include all types of VSATs (receive only/transmit only/ receive & transmit both etc.). The M2M/IoT devices, used in any architecture (including Direct-to-satellite or in aggregator mode), shall not be treated as VSAT for the purpose of levy of license fee.

7.2 In case of the captive VSAT licensee, if an under-reporting of VSAT is detected, the license shall be terminated immediately and other appropriate penalty will be imposed.

8. Financial conditions:

8.1 At the time of signing the license agreement a Financial Bank Guarantee (FBG) for Rs. 3 lakhs, valid for six months is to be submitted. Thereafter, the VSAT licensee shall submit a FBG, valid for one year, for an amount equivalent to the highest estimated sum payable for two quarters towards license fee.

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The amount of FBG shall be subject to periodical review by the Licensor.

8.2 Financial Bank Guarantee is not applicable in the case of Central Government Departments.

8.3 The licensee shall, on its own, extend validity period of bank guarantees for similar terms at least one month prior to the date of its expiry without any demand or notice from the Licensor, on a year to year basis. Any failure to do so, shall amount to violation of the terms of the license and entitle the Licensor to encash the bank guarantee and to convert into a cash security without any reference to the licensee at his risk and cost. No interest or compensation, whatsoever, shall be payable by the Licensor on such encashment.

9. Technical parameters:

9.1 The Licensee(s) are permitted to use any technology, conforming to the TEC IR/GR, to provide the services. The technical parameters mentioned in the relevant Interface Requirement for VSAT Network(s) issued by TEC (FSS/BSS or mobility based, as applicable) are to be complied with. Any other notification or modification thereof issued from time to time in this regard shall be binding.

10. Interconnection with other networks:

10.1 Interconnection with PSTN is not permitted

10.2 Internet: The hub of VSAT licensee shall be allowed to be connected to an internet node of his choice through a lease line taken from Telecom service provider who is authorized to sell bandwidth/ leased line.

10.3 Interconnection of CUGs: Interconnection between CUGs, where the CUG nature of the network is not violated, will be permitted on a case to case basis.

10.4 Other media to provide for redundancy: Switchover between a terrestrial CUG network and a VSAT based CUG network belonging to



the same licensee shall be permitted for redundancy purpose.

11. Security conditions:

- 11.1 The applicant organization must comply with the security conditions as enumerated in the license agreement. The conditions related to trusted source are mentioned in the following paragraphs.
- 11.2 The Government through the Designated Authority will have the right to impose conditions for procurement of Telecommunication Equipment on grounds of Defence of India, or matters directly or indirectly related thereto, for national security. Designated Authority for this purpose shall be National Cyber Security Coordinator. In this regard, the licensee shall provide any information as and when sought by the Designated Authority.
- 11.3 Designated Authority shall notify the categories of equipment for which the security requirement related to Trusted Sources are applicable. For the said categories of equipment, Designated Authority shall notify the Trusted Sources along with the associated Telecommunication Equipment (Trusted Products). The Designated Authority may also notify a list of Designated Sources from whom no procurement can be done. Procedure for inclusion of Telecommunication Equipment in the list of Trusted Sources will be issued by the Designated Authority.
- 11.4 With effect from 15th June 2021, the licensee, shall only connect Trusted Products in its network and also seek permission from Designated Authority for upgradation of existing Network utilizing the Telecommunication Equipment not designated as Trusted Products. However, these directions will not affect ongoing Annual Maintenance Contracts (AMC) or updates to existing

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equipment already inducted in the network as on date of effect.

- 11.5 The licensees shall comply with the Guidance for Enhanced Supervision and Effective Control of Telecommunication Networks, as per guidelines to be issued by the licensor.

12. Spectrum allotment and use:

- 12.1 Right to use the spectrum: The in-principle clearance/letter of intent/ the License Agreement for service authorization does not confer any right to assignment and use of spectrum for which separate specific Frequency Assignment is required from WPC Wing.
- 12.2 Frequency Assignment: The applicant need to separately apply for Frequency Assignment from the Wireless Planning and Coordination (WPC) Wing of DoT which permits utilization of appropriate frequencies under specified procedure, instructions, terms and conditions including payment for said assignment and right to use of spectrum prescribed by WPC Wing from time to time.
- 12.3 The Licensor/ WPC Wing of DoT reserves the right to modify the procedure for allotment of spectrum and/or rates for payment for said allotment and use of spectrum at any time.

13. Use of space segment:

- 13.1 The required space segment shall be obtained by the Licensee from Department of Space (DoS) or space segment provider duly authorized by DoS/IN-SPACE on terms and conditions as applicable.
- 13.2 The space segment charges will be payable to DoS/space segment provider as applicable.

14. Definition of Closed User Group (CUG):

- 14.1 A Closed User Group is permissible for following categories of business association:
- (i) Producer of goods and his trader/agent;
 - (ii) Provider of service and his trader/agent;
 - (iii) Producer of same category of goods



- (e.g. manufactures of petroleum products); and
- (iv) Provider of the same category of service (e.g. bank).

Provided that ultimate consumer of a service or a product shall not be a part of the Closed User Group.

- 14.2 A Closed User Group can also be formed among a holding company and its subsidiaries, these terms being defined as per the Companies Act 2013. Provided that such Closed User Group shall be only for the purposes of legitimate internal business communications of the group.

15. Submission of application:

- 15.1 The application shall be made online on SaralSanchar portal². The processing fee for the application is Rs. 25,000/- (non-refundable), which is also payable online.

16. Establishing a satellite based network after obtaining the license:

- 16.1 After obtaining the license, for establishing the satellite network, the required clearance(s) and necessary procedure are described in the "Guidelines for establishing satellite-based communication network(s)"³.

- 16.2 If required, the applicant may also approach the Satellite Licensing Division of DoT to seek in-principle clearance of its proposed satellite-based network before obtaining the license first. Such cases may also be taken up by IMC-SNC, if required. In such cases, the in-principle clearance for the network and grant of Lol for the license application may be processed on recommendation of the IMC-SNC.

- 17.** Any queries with regard to these guidelines may be sent to Director(Satellite) at [dirtsat1-dot@gov.in](mailto:dirsat1-dot@gov.in).

² www.saralsanchar.gov.in

³ Guidelines-2022 for the Service Providers to establish satellite-based communication network(s)

CHAPTER-I





**The GSAT-31 satellite undergoing the exhaustive “vibration tests”
In the Space Application Centre, Ahmedabad**



Reduction in charges pertaining to satellite-based communication services.

a) What is the reform?

- Removal of NOCC charges of ₹21 lakhs per transponder (36 MHz) per annum for use of space segment.
- Removal of Mandatory Performance Verification Testing (MPVT) charges for testing of satellite antennas.
- Exempting the license fee for M2M/IoT devices for Captive VSAT licensees.

b) What will be its implications for the citizens?

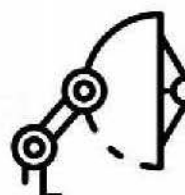
- Lower financial burden will enable TSPs to offer more affordable services to the citizens and they will be able to invest more in improving their networks.
- Removal of the license fee for M2M/IoT devices for captive VSAT CUG licensees would result in the expansion of M2M/IoT devices in various use cases like providing location-tracking IoT devices on Indian Railways locomotives to enhance safety & logistical efficiency.

c) What will be the impact on the sector?

- This will help in Ease-of-Doing-Business by limiting multiplicity of charges at different stages of rolling out satellite-based communication services.
- Healthier sector with stronger balance sheet would enable additional investment and create job opportunities.

d) How will it be implemented?

- NOCC charges have been removed vide DoT order No. 824-201/TRAI/2020-SAT (Vol-III) dated 6th May 2022.
- MPVT charges have been removed vide DoT Guidelines - 2022 for establishing satellite-based communication network.
- License fee for M2M/IoT devices exempted vide license amendments dated 6th May 2022.





File No. 824-201/TRAI/2020-SAT (Vol-III)
Government of India
Ministry of Communications
Department of Telecommunications
(Satellite Division)
20, Ashoka Road, New Delhi – 110001

Date: 06.05.2022

ORDER

Subject: NOCC charges for use of space segment -regarding

In partial modification of DoT letter No. 59-146(2)/2003-SAT dated 29.10.2003 (enclosed as Annexure), the competent authority has decided to remove the NOCC charges for the telecom service licensees, for the use of space segment.

2. Accordingly, there shall be no NOCC charges for use of space segment for all DoT licensees for Commercial/ Captive VSAT Services, GMPCS, NLD and other telecom licensees having Unified License/standalone license. This order shall be effective from 1st April 2022.

3. All the other terms and conditions of the DoT letter No. 59-146(2)/2003-SAT dated 29.10.2003 will remain unchanged.

Enclosed: As above


(Ashish Kumär)
Director (Satellite)
Tel. No.011-23372129
Email- dirsat1-dot@gov.in

Copy to:

1. Secretary, TRAI
2. DGT/CGCA/Sr. DDG TEC/Wireless Advisor, WPC
3. DDG(AS)/DDG(DS)/DDG(CS)/DDG(LFP)/DDG(WPF)
4. DDG(NOCC)
5. Heads of LSAs/CCAs



**No. 824-201/TRAI/2020-SAT (Vol-III)
Government of India
Ministry of Communications
Department of Telecommunications
Sanchar Bhawan
20, Ashoka Road, New Delhi
(Satellite Division)

Date: 06.05.2022

To

All Captive VSAT licencees

Subject: Amendment to Captive VSAT Licence Agreement -regarding

As per the condition 6(ii) of Section-I of License Agreement for provision of Captive VSAT service, the Licensor reserves the right to modify at any time the terms and conditions of the License, if in the opinion of the Licensor it is necessary or expedient to do so in the interest of the general public or for the proper conduct of telegraphs or on national security consideration. In pursuance of this condition, the Licensor hereby amends/appends the following in the License Agreement for provision of Captive VSAT service:

S.N.	Existing Clause	Amended Clause
1.	SECTION-II, Scope of Service This License is for captive VSAT service. 1. The captive VSAT Closed User Group Domestic Data Network via INSAT Satellite System shall be restricted to geographical boundaries of India. 2. Network will be used only for internal communication & non-commercial purposes of Licensee. 3. Neither users other than Licensee shall be given access to the network, nor third party traffic shall be carried on the network. 4. The intent of this License is not to grant long distance carrier rights.	SECTION-II, Scope of Service This License is for captive VSAT service. 1. The captive VSAT Closed User Group Domestic Data Network via INSAT Satellite System shall be restricted to geographical boundaries of India. 2. Network will be used only for internal communication & non-commercial purposes of Licensee. 3. Neither users other than Licensee shall be given access to the network, nor third party traffic shall be carried on the network. 4. The intent of this License is not to grant long distance carrier rights.

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Manshori



<p>5. The scope of the service is to provide data connectivity between various sites scattered throughout India using Very Small Aperture Terminals (VSATs). However, these sites should form part of a Closed User Group (CUG) as defined in Section-V.</p> <p>6. Captive VSAT service licensees can set up only one CUG for their own use.</p> <p>7. The licensee may provide data rate as per his network capabilities subject to compliances to technical parameters mentioned in the relevant Interface Requirement for VSAT Network(s), as modified from time to time, issued by TEC.</p>	<p>5. The scope of the service is to provide data connectivity between various sites scattered throughout India using Very Small Aperture Terminals (VSATs). However, these sites should form part of a Closed User Group (CUG) as defined in Section-V.</p> <p>6. Captive VSAT CUG service licensees can set up more than one CUG for their own use.</p> <p>7. The licensee may provide data rate as per his network capabilities subject to compliances to technical parameters mentioned in the relevant Interface Requirement for VSAT Network(s), as modified from time to time, issued by TEC.</p> <p>8. VSAT terminal may be used to aggregate the traffic from M2M/IoT devices as long as the CUG nature of the network is not violated.</p> <p>9. User terminal stations on moving platforms are also permitted for provisioning of connectivity subject to compliance to relevant TEC standards and conditions mentioned therein.</p>
<p>2. Section – III, Financial Conditions 1.2 License fee:</p> <p>In addition to the Entry Fee, the Licensee shall also pay License fee annually @ Rs. 10,000/- per annum per VSAT installed. The total number of VSATs shall include all types of VSATs (receive only/transmit only/receive & transmit both etc.). The License fee shall be based on total number of VSAT terminals irrespective of number of hubs in the network and without levy of any minimum license fee.</p>	<p>Section–III, Financial Conditions 1.2 License fee:</p> <p>In addition to the Entry Fee, the Licensee shall also pay License fee annually @ Rs. 10,000/- per annum per VSAT installed. The total number of VSATs shall include all types of VSATs (receive only/transmit only/receive & transmit both etc.). The License fee shall be based on total number of VSAT terminals irrespective of number of hubs in the network and without levy of any minimum license fee.</p>

Manish



**SATELLITE
COMMUNICATION
REFORMS
2022**

		M2M/IoT devices, used in any architecture (including Direct-to-Satellite or in aggregator mode), shall not be treated as VSAT for the purpose of levy of license fee.
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2. These amendments shall be applicable in the Captive VSAT license agreement w.e.f. the date of issue of this letter.

This issues with the approval of Competent Authority.

Manish Kumar Singh
06/05/2022

(Manish Kumar Singh)
Asst. Director General (Satellite-I)
Satellite Division, DoT HQ
Tel. No. +91 11 23310167

Copy to:

1. Secretary, TRAI
2. DG (T) HQ, DoT HQ/ CGCA
3. Advisor (Economics)/ Sr. DDG (TEC)/ Wireless Advisor/ DDG (LFP)/ DDG (LFA)/ DDG (WPF)/ DDG (SA)/ DDG (SPPI), DoT
4. DDG (CS)/ DDG (DS)/ DDG (AS)/DDG (A/C) DoT HQ
5. Heads of LSAs/CCAs





Enhancing the scope of Satellite Licenses to include user terminal stations on moving platform(s) and IoT/M2M

a) What is the reform?

- Enhanced the scope of the satellite licenses including Commercial VSAT authorisation to enable the provisioning of:
 - o User terminal stations on moving platform(s).
 - o Satellite-based M2M/ IoT devices.

b) What will be its Implications for the citizens?

- The enhanced scope of services and the liberal licensing framework will pave way for the introduction of satellite-based user terminals on moving platform(s) and IoT devices in sectors like logistics, industrial automation, railways, agriculture, disaster management etc. This will aid economic growth and help in creating more job opportunities.

c) What will be the impact on the sector?

- In addition to the static services prevalent till now, licensees shall be able to offer Vehicle mounted satellite terminals as well.
- The reforms would result in the expansion of M2M/IoT devices in various use cases.
- Boost to Industry 4.0

d) How it has been implemented?

- TEC has issued the addendum in the relevant interface requirement in September, 2022. Standard for Interface Requirements for Communication and Broadcast Networks for FSS/BSS- Mandatory Technical Requirements bearing no. TEC 42012:2021
- DoT has issued amendments in the Unified License and Captive VSAT network license to include provisioning of satellite-based IoT devices vide letters dated 5th May 2022 to implement this reform.



No.20-271/2010 AS-I (Vol.-III)
 Government of India
 Ministry of Communications
 Department of Telecommunications
 (Access Services Wing)
 20, Ashoka Road, New Delhi – 110001

Dated 06th May, 2022

To,

All Unified Licensees

Subject: Amendment in Unified License Agreement for satellite-based connectivity for low bit-rate application - reg.

As per the Condition 5.1 of Chapter-I of Unified License (UL) Agreement, the Licensor reserves the right to modify at any time the terms and conditions of the License, if in the opinion of the Licensor it is necessary or expedient to do so in public interest or in the interest of the security of the State or for the proper conduct of the telegraphs. In pursuance of this condition, the Licensor hereby amends/ appends the following in the UL Agreement:

S. N.	Existing Clause	Amended Clause
1	PART-I, CHAPTER-III FINANCIAL CONDITIONS 18.4 Space Segment Charges: 18.4.1 In case of Satellite based service, the space segment charges will be payable to Department of Space (DoS) as applicable and/or as may be specified from time to time.	PART-I, CHAPTER-III FINANCIAL CONDITIONS 18.4 Space Segment Charges: 18.4.1 In case of Satellite based service, the space segment charges will be payable to Department of Space (DoS)/space segment provider as applicable.
2	PART-II, CHAPTER-X, NATIONAL LONG DISTANCE SERVICE 2. Scope of the NLD Services 2.2(i) The Licensee can provide bandwidth to other telecom service licensee also.	PART-II, CHAPTER-X, NATIONAL LONG DISTANCE SERVICE 2. Scope of the NLD Services 2.2(i) The Licensee can provide bandwidth to other telecom service licensees also. Further, the licensee can also provide connectivity to the service providers which have obtained registration for M2M service.

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	<p>2.2(ii) The Licensee may share "passive" infrastructure namely building, tower, dark fibre, duct space, Right of Way owned, established and operated by it under the scope of this Authorization with other Licensees.</p>	<p>2.2(ii) The Licensee may share "passive" infrastructure namely building, tower, dark fibre, duct space, Right of Way owned, established and operated by it under the scope of this Authorization with other Licensees.</p>
<p>3</p>	<p>PART-II, CHAPTER-XII, GMPCS SERVICE</p> <p>2. Scope of the GMPCS Service: Scope of this Authorization covers the following:</p> <p>2.1 The licensee may provide, in its area of operation, all types of mobile services including voice and non-voice messages, data services by establishing GMPCS Gateway utilizing any type of network equipment including circuit and/or packet switches.</p> <p>2.2 The Licensee shall establish Land Earth Station Gateway in India for the purpose of providing Global Mobile Personal Communication by Satellite (GMPCS) Service. GMPCS Service may be provided using one or more Satellite Systems provided that the Land Earth Station Gateway Switch is established separately in India for each Satellite System.</p> <p>6. Operating Conditions:</p> <p>6.1 Use of space segment</p> <p>(i) As mentioned in Chapter VII of the license agreement, separate clearances/ License shall be obtained by the Licensee directly from the WPC Wing of</p>	<p>PART-II, CHAPTER-XII, GMPCS SERVICE</p> <p>2. Scope of the GMPCS Service: Scope of this Authorization covers the following:</p> <p>2.1 The licensee may provide, in its area of operation, all types of mobile services, including voice and non-voice messages, data services by establishing GMPCS Gateway utilizing any type of network equipment including circuit and/or packet switches. The licensee may also provide satellite-based data connectivity to the IoT devices/ Aggregator devices.</p> <p>2.2 The Licensee shall establish Land Earth Station Gateway in India for the purpose of providing Global Mobile Personal Communication by Satellite (GMPCS) Service. GMPCS Service may be provided using one or more Satellite Systems provided that the Land Earth Station Gateway Switch is established separately in India for each Satellite System.</p> <p>6. Operating Conditions:</p> <p>6.1 Use of space segment</p> <p>(i) As mentioned in Chapter VII of the license agreement, separate clearances/ License shall be obtained by the Licensee directly from the WPC Wing of</p>

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DoT.

(ii) The operation of space segment will be governed by instructions and procedures of Network Operations Control Center (NOCC).

(iii) The space segment monitoring charges shall be payable to NOCC by Licensee as per the rates decided by Licensor.

7. Security conditions:

7.4 The designated Authority of the Central/State Government as conveyed by the Licensor from time to time shall have the right to monitor the telecommunication traffic in every Gateway set up in India. The Licensee shall make arrangement for monitoring of calls as given below:

Total Subscriber Base	Calls to be monitored upto
Upto1000	50
1000-2000	100
2000-3000	150
3000-5000	200

The above will be the total number of target subscribers to be monitored at any given time by either one or more of the security agencies. The monitoring requirement including the figures mentioned above may be modified from time to time by issuing separate

DoT.

(ii) The operation of space segment will be governed by instructions and procedures of Network Operations Control Center (NOCC).

(iii) The space segment monitoring charges shall be payable to NOCC by Licensee as per the rates decided by Licensor.

(iv) The required space segment shall be obtained by the Licensee from Department of Space (DoS) or space segment provider duly authorized by DoS on terms and conditions as specified by DoS or space segment provider from time to time.

7. Security conditions:

7.4 The designated person of the Central/ State Government as conveyed to the Licensor from time to time in addition to the Licensor or its nominee shall have the right to monitor the telecommunication traffic in every Gateway /Sub-Gateway/ Routers or any other technically feasible point in the network set up by the Licensee in India. The Licensee shall make arrangements for monitoring simultaneous calls by Government security agencies. The Interface requirements as well as features and facilities as defined by the Licensor should be implemented by the Licensee for both data and speech.

The Licensee should ensure suitable redundancy in the complete chain of Lawful Interception and Monitoring equipment for trouble free operations of monitoring of at least 480 simultaneous calls as per requirement

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	<p>instructions/directions.</p>	<p>with at least 30 simultaneous calls for each of the designated security/ law enforcement agencies. Each Satellite Gateway of the Licensee shall have the capacity for provisioning of at least 3000 numbers for monitoring. Presently there are ten (10) designated security/ law enforcement agencies. The above capacity provisions and no. of designated security/ law enforcement agencies may be amended by the Licensor separately by issuing instructions at any time.</p> <p>For establishing connectivity to Centralized Monitoring System, the Licensee at its own cost shall provide appropriately dimensioned hardware and bandwidth/dark fibre upto a designated point as required by Licensor from time to time. However, the respective Government instrumentality shall bear the cost at its end hardware and leased line circuits from the Gateway or from the designated point as the case may be, to its monitoring centre to be located as per its choice in its premises or in the premises of the Licensee. In case the security agencies intend to locate the equipment at Licensee's premises for facilitating monitoring, the Licensee should extend all support in this regard including Space and Entry of the authorized security personnel.</p>
4	<p>PART-II, CHAPTER-XIV, COMMERCIAL VSAT CUG SERVICE</p> <p>2. Scope of VSAT CUG Service: Scope of this Authorization is to provide the following: 2.1 (i): (a) Data connectivity between various sites scattered within territorial boundary of India using VSATs. The users of the service should belong to a</p>	<p>PART-II, CHAPTER-XIV, COMMERCIAL VSAT CUG SERVICE</p> <p>2. Scope of VSAT CUG Service: Scope of this Authorization is to provide the following: 2.1 (i): (a) Data connectivity between various sites scattered within territorial boundary of India using VSATs. The users of the service should belong to a</p>

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<p>Closed User Group (CUG).</p> <p>(b) VSAT licensee after obtaining ISP license may use same Hub station and VSAT (remote station) to provide Internet service directly to the subscribers, and in this case VSAT (remote station) may be used as a distribution point to provide Internet service to multiple independent subscribers.</p> <p>(c) Backhaul connectivity for cellular mobile services through satellite using VSAT to the Access Service providers.</p> <p>(d) Backhaul connectivity using VSAT to Access Service Providers for establishing Wi-Fi hotspots.</p> <p>(e) The VSAT terminal of the Commercial VSAT CUG Service provider, which is used to provide cellular mobile backhaul link or Wi-Fi hotspot backhaul link, is to be located in the service area of the Access service provider, where the backhaul link is used. However, the VSAT hub can be located anywhere in the country. The link from the hub station to the respective network element of the cellular mobile network can be provided through the terrestrial connectivity obtained from an authorized service provider.</p>	<p>Closed User Group (CUG).</p> <p>(b) VSAT licensee after obtaining ISP license may use same Hub station and VSAT (remote station) to provide Internet service directly to the subscribers, and in this case VSAT (remote station) may be used as a distribution point to provide Internet service to multiple independent subscribers.</p> <p>(c) Backhaul connectivity for cellular mobile services through satellite using VSAT to the Access Service providers.</p> <p>(d) Backhaul connectivity using VSAT to Access Service Providers for establishing Wi-Fi hotspots.</p> <p>(e) The VSAT terminal of the Commercial VSAT CUG Service provider, which is used to provide cellular mobile backhaul link or Wi-Fi hotspot backhaul link, is to be located in the service area of the Access service provider, where the backhaul link is used. However, the VSAT hub can be located anywhere in the country. The link from the hub station to the respective network element of the cellular mobile network can be provided through the terrestrial connectivity obtained from an authorized service provider.</p> <p>(f) VSAT terminal may also be used to aggregate the traffic from M2M/ IoT devices/aggregator devices.</p> <p>(g) VSAT licensee may use VSAT to provide backhaul connectivity to service providers having license/ Authorization/ Registration for M2M services.</p> <p>(h) User terminal stations on moving platforms are also permitted for provisioning of connectivity subject to compliance to relevant TEC standard(s)</p>
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<p>4. Technical Conditions:</p> <p>4.2 Use of space segment on INSAT satellite:</p> <p>(i) The required space segment shall be obtained by the Licensee from Department of Space (DOS) on INSAT satellite on terms and conditions as specified by Department of Space (DOS) from time to time.</p> <p>(ii) The space segment charges will be payable to DOS as applicable from time to time.</p> <p>(iii) As mentioned in Chapter VII of the license agreement, separate clearances/ license shall be obtained by the Licensee directly from the WPC Wing of DoT.</p> <p>(iv) The space segment monitoring charges shall be payable to NOCC by Licensee as per the rates decided by Licensor.</p> <p>4.3 (v) The hub station shall have the auto tracking facility to access all the satellites in INSAT Geo stationary arc. The hub station shall have 4 Port feed and motorized polarization adjustment facility.</p> <p>5. Roll out Obligation:</p> <p>5.1 The Licensee shall roll out the network by installing and commissioning a HUB Station for Star Network configuration or at least two VSAT Terminals in case of Mesh Network configuration within 12 months from the date of frequency allotment by WPC. The Licensee shall</p>	<p>and conditions mentioned therein.</p> <p>4. Technical Conditions:</p> <p>4.2 Use of space segment:</p> <p>(i) The required space segment shall be obtained by the Licensee from Department of Space (DoS) or space segment provider duly authorized by DoS on terms and conditions as specified by DoS or space segment provider from time to time.</p> <p>(ii) The space segment charges will be payable to DoS/space segment provider as applicable from time to time.</p> <p>(iii) As mentioned in Chapter VII of the license agreement, separate clearances/license shall be obtained by the Licensee directly from the WPC Wing of DoT.</p> <p>(iv) The space segment monitoring charges shall be payable to NOCC by Licensee as per the rates decided by Licensor.</p> <p>4.3 (v) Stands deleted.</p> <p>5. Roll out Obligation:</p> <p>5.1 The Licensee shall roll out the network by installing and commissioning a HUB Station for Star Network configuration or at least two VSAT Terminals in case of Mesh Network configuration within 12 months from the date of frequency allotment by WPC. The Licensee shall</p>
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	approach WPC for frequency allotment within 1 month of date of allocation of transponder bandwidth by Department of Space.	approach WPC for frequency allotment within 1 month of obtaining transponder bandwidth from Department of Space (DoS) or space segment provider duly authorized by DoS.
5	<p>PART-II CHAPTER-XV, INSAT MOBILE SATELLITE SYSTEM-REPORTING (MSS-R) SERVICE</p> <p>1. Service Area: to 8. Security Conditions:</p>	<p>PART-II CHAPTER-XV, INSAT MOBILE SATELLITE SYSTEM-REPORTING (MSS-R) SERVICE</p> <p>Whole Chapter-XV on INSAT MOBILE SATELLITE SYSTEM-REPORTING (MSS-R) SERVICE stands deleted.</p> <p>(This authorization shall not be issued henceforth. However, the existing authorizations of INSAT MSS-R shall continue till their validity date.)</p>

2. This amendment shall be effective with immediate effect.
3. This amendment shall be part and parcel of the Unified License Agreement, and all other Terms & Conditions shall remain unchanged.

(Anil Kumar Gehlot)
Director (AS-I)

For and on behalf of the President of India
Ph. No. 23036864

Copy to:

1. Secretary (TRAI).
2. DGT, DoT (HQ).
3. Advisor (Economics)/ Wireless Advisor/ Sr. DDG (TEC).
4. DDG (CS)/DDG (DS)/DDG (Satellite)/DDG (LFP)/ DDG (LFA)/ DDG (SPPI)/ DDG (SA)/ DDG (WPF)/ DDG (A/C) for kind information please.
5. All Directors of AS Wing.
6. Director (IT) may kindly arrange to upload this letter on the website of DoT.



**File No. 824-201/TRAI/2020-SAT(Vol-III)
Government of India
Ministry of Communications
Department of Telecommunications
(Satellite Division)
20, Ashoka Road, New Delhi – 110001**

Date: 06.05.2022

To,

All Commercial Service Licensees

< having the license "VSAT SERVICE USING INSAT SYSTEM" >

Subject: Amendment in License Agreement for provision of VSAT service using INSAT system for Satellite based connectivity for low bit-rate applications- reg.

As per the Condition 12.1 of License Agreement for provision of VSAT service using INSAT system, the Licensor reserves the right to modify at any time the License, if in the opinion of the Licensor it is necessary or expedient to do so in public interest or in the interest of the security of the State or for the proper conduct of telegraphs. In pursuance of this condition, the Licensor hereby amends/appends the following in the License Agreement for provision of VSAT service using INSAT system:

Existing Clause	Amended Clause
SCHEDULE-TERMS AND CONDITIONS 2. SCOPE OF THE LICENSE 2.1 The LICENCE is granted to provide service as defined in Para 2.2 of this LICENCE AGREEMENT, on a non-exclusive basis. Provided further that the LICENSOR, of its own or through a DESIGNATED AUTHORITY, shall always have a right to operate the SERVICE anywhere in India. 2.2 (i) The Closed User Group Domestic Data Network via INSAT Satellite System using VSAT shall be restricted to geographical boundaries of India. (ii) The intent of this LICENCE is not to grant long distance carrier rights, except the backhaul connectivity mentioned in para 2.2(iii) (c) & (d) below. (iii) The scope of service is to provide the	SCHEDULE-TERMS AND CONDITIONS 2. SCOPE OF THE LICENSE 2.1 The LICENCE is granted to provide service as defined in Para 2.2 of this LICENCE AGREEMENT, on a non-exclusive basis. Provided further that the LICENSOR, of its own or through a DESIGNATED AUTHORITY, shall always have a right to operate the SERVICE anywhere in India. 2.2 (i) The Closed User Group Domestic Data Network via INSAT Satellite System using VSAT shall be restricted to geographical boundaries of India. (ii) The intent of this LICENCE is not to grant long distance carrier rights, except the backhaul connectivity mentioned in para 2.2(iii) (c) & (d) below. (iii) The scope of service is to provide the

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**SATELLITE
COMMUNICATION
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2022**

	<p>(h) User terminal stations on moving platforms are also permitted for provisioning of connectivity subject to compliance to relevant TEC standard(s) and conditions mentioned therein.</p>
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2. This amendment shall be effective with immediate effect.
3. This amendment shall be part and parcel of the above mentioned license agreement and all others terms & conditions shall remain unchanged.

Manish
06/05/2022
(Manish Kumar Singh)
Asst. Director General (Satellite-I)
Satellite Division, DoT HQ
Ph. No. +91 11 23310167

Copy to:

1. Secretary, TRAI
2. DG (T) HQ, DoT HQ/ CGCA
3. Advisor (Economics)/ Sr. DDG (TEC)/ Wireless Advisor/ DDG (LFP)/ DDG (LFA)/ DDG (WPF)/ DDG (SA)/ DDG (SPPI), DoT
4. DDG (CS)/ DDG (DS)/ DDG (AS)/ DDG (A/C) DoT HQ
5. Heads of LSAs/CCAs



File No. 824-201/TRAI/2020-SAT(Vol-III)
Government of India
Ministry of Communications
Department of Telecommunications
(Satellite Division)
20, Ashoka Road, New Delhi – 110001

Date: 06.05.2022

To,

The Chairman & Managing Director
Bharat Sanchar Nigam Limited
Harish Chand Mathur Lane
Janpath, New Delhi

Subject: Amendment in the “sui-generis” category license granted to BSNL for provision and operation of Satellite based services using gateway installed in India– regarding

As per the Condition 5.1, Chapter-I of License Agreement for provision and operation of Satellite based services using gateway installed in India under “sui-generis” category, the Licensor reserves the right to modify at any time the License, if in the opinion of the Licensor it is necessary or expedient to do so in public interest or in the interest of the security of the State or for the proper conduct of telegraphs. In pursuance of this condition, the Licensor hereby amends/appends the following in the “sui-generis” category license granted to BSNL for provision and operation of Satellite based services using gateway installed in India:

Existing Clause	Amended Clause
<p>Chapter-VIII</p> <p>44. SCOPE OF THE SERVICE: Scope of this authorization covers the following:</p> <p>44.1 The licensee may provide, in its area of operation, all types of mobile satellite services such as INMARSAT services. These may include voice and non-voice messages, data services by establishing Gateway in India utilizing any type of network equipment including circuit and/or packet switches. This shall also include broadcasting of distress messages in India or outside the territorial boundaries of India subject to applicable rules and laws.</p>	<p>Chapter-VIII</p> <p>44. SCOPE OF THE SERVICE: Scope of this authorization covers the following:</p> <p>44.1 The licensee may provide, in its area of operation, all types of mobile satellite services such as INMARSAT services. These may include voice and non-voice messages, data services by establishing Gateway in India utilizing any type of network equipment including circuit and/or packet switches. This shall also include broadcasting of distress messages in India or outside the territorial boundaries of India subject to applicable rules and laws.</p>

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Manish Kumar



**SATELLITE
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2022**

	The licensee may also provide satellite-based data connectivity to the IoT devices/Aggregator devices.
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2. This amendment shall be part and parcel of the above mentioned license agreement and all others terms & conditions shall remain unchanged.

Manish Kumar Singh
06/05/2022

(Manish Kumar Singh)
Asst. Director General (Satellite-I)
Satellite Division, DoT HQ
Ph. No. +91 11 23310167

Copy to:

1. Secretary, TRAI
2. DG (T) HQ, DoT HQ/ CGCA
3. Advisor (Economics)/ Sr. DDG (TEC)/ Wireless Advisor/ DDG (LFP)/ DDG (LFA)/ DDG (WPF)/ DDG (SA)/ DDG (SPPI), DoT
4. DDG (CS)/ DDG (DS)/ DDG (AS)/ DDG (A/C) DoT HQ
5. Heads of LSAs/CCAs



Government of India
Ministry of Communications
Department of Telecommunications
Sanchar Bhawan, Ashoka Road, New Delhi-110001
(Carrier Services-III Cell)

No. 10-54/2010-CS-III (Vol. II)

Dated:10.05.2022

To

All the NLD Licensees (Other than UL)

Subject: Amendment to the NLD License (Other than UL) for Satellite-based connectivity for Low Bit Rate Applications- regarding

In pursuance to Condition 12.1 of the NLD license, the Licensor hereby amends the NLD license agreement as under:

Existing Clause	Amended Clause
<p>2. SCOPE OF THE LICENCE</p> <p>(d) NLD service Licensee shall be required to make own suitable arrangements / agreements for leased lines with the Access Providers for last mile. Further, NLD Service Providers can access the subscribers directly only for provision of Leased Circuits/Close User Groups (CUGs) and also for provision of national long distance voice service only through Calling Cards, falling within the scope of, and, in accordance with clauses 2.2 (a) and 2.2(b) above. Leased circuit is defined as virtual private network (VPN) using circuit or packet switched (IP Protocol) technology apart from point to point non-switched physical connections/transmission bandwidth. Public network is not to be connected with leased circuits/CUGs. It is clarified that NLD service Licensee can provide bandwidth to other telecom service licensee also.</p>	<p>2. SCOPE OF THE LICENCE</p> <p>(d) NLD service Licensee shall be required to make own suitable arrangements / agreements for leased lines with the Access Providers for last mile. Further, NLD Service Providers can access the subscribers directly only for provision of Leased Circuits/Close User Groups (CUGs) and also for provision of national long distance voice service only through Calling Cards, falling within the scope of, and, in accordance with clauses 2.2 (a) and 2.2(b) above. Leased circuit is defined as virtual private network (VPN) using circuit or packet switched (IP Protocol) technology apart from point to point non-switched physical connections/transmission bandwidth. Public network is not to be connected with leased circuits/CUGs. It is clarified that NLD service Licensee can provide bandwidth to other telecom service licensee also. Further, the licensee can also provide connectivity to the service</p>

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**SATELLITE
COMMUNICATION
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2022**

	providers which have obtained registration for M2M service.
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2. This amendment shall be part and parcel of the NLD License Agreement and all others Terms & Conditions shall remain unchanged.

Pradeep
10/05/22

**(Pradeep Kumar)
Director (CS-III)**

**For and on behalf of the President of India
Ph. No. 23036348**

Copy to:

1. Secretary (TRAI).
2. DGT, DoT (HQ)/CGCA.
3. Advisor (Economics)/ Wireless Advisor/ Sr. DDG (TEC).
4. DDG(AS)/DDG(DS)/DDG(Satellite)/DDG (LFP)/ DDG (LFA)/ DDG (SPPI)/ DDG(SA)/ DDG(WPF)/ DDG(A/C) for kind information please.
5. Director (IT) may kindly arrange to upload this letter on the website of DoT.





सत्यमेव जयते

Department of Telecommunications
Ministry of Communications
Government of India