

INDIAN SATCOM REGULATORY FRAMEWORK



Arun Agarwal
DDG(Satellite)
DoT



SATCOM in India

- India has a liberal, dynamic and forward looking regulatory framework for providing telecom services including Satcom services.
- Department of Telecommunications (DoT) grants license for providing telecom services under Section 4 of the Indian Telegraph Act, 1885.
- Satcom started in the country in 1982-83 with INSAT-1A and 1B Satellites.
- An enabling and synergistic Regulatory Framework in both Sectors-Telecom and Space-propel growth and accelerate the provision of Satcom services.

Satellite-based Telecom Services: Regulatory framework

Governing Bodies for Indian Satellite Communication Sector

Department of
Telecommunications

01

Licenses to provide communication services

Assignment of spectrum for Satellite Constellations
(Telecom, Broadcasting Service Providers & others)

Co-ordination & Interference Management for GSO
& setting-up of Centralized Monitoring System.

**GMPCS, Commercial VSAT CUG Service,
Captive VSAT CUG Service,
NLD**

Indian National
Space Promotion
& Authorization
Centre (IN-SPACe)

02

Approvals/ Regulations of Space Segment

Single window agency for the authorization of
space activities by government entities as well
as NGE (Non-Governmental Entities).

**Space segment /
Satellite Authorization**

Ministry of
Information &
Broadcasting

03

Broadcasting Wing- Up linking/ Downlinking license

**DTH, Teleport,
HITS**

DoT's Licenses for Providing Satcom Services

Description	Commercial VSAT CUG licensees	Captive VSAT CUG Licensees	Global Mobile Personal Communication by Satellite (GMPCS) Licensees	Sui Generis (GSPS)
Scope	i. Data connectivity using VSATs in a CUG Network. ii. Internet service (after obtaining ISP license)	Data connectivity using VSATs in a CUG Network for an entity's own needs.	All types of mobile services including voice and non-voice messages, data services.	i. All types of mobile services including voice and non-voice messages, data services. ii. Also includes GMDSS (Global Maritime Distress and Safety System) services.
Number of Licensees	11	24	3	1
Satellite BW/ Space Segment	Department of Space /IN-SPACe authorization of a satellite is mandatory for providing its capacity/Bandwidth over India.			

Recent Reforms in Telecom Sector

- The new Indian Telecommunications Act 2023 has given an impetus to the Telecom sector as a whole and particularly to the SatCom segment by providing ample clarity on the assignment of the spectrum administratively.
- 100% Foreign Direct Investment (FDI) is allowed in the Telecom Sector through automatic route, subject to certain applicable provisions as contained in Press Note 3 of 2020.
- For promoting satellite-based communication, the Government unveiled major **SATCOM Reforms in Oct 2022** as part of Ease-of-doing Business. The reforms streamlined a number of processes and rationalized various charges. The Government has taken the following steps:
 - SMC/NOCC charges of Rs. 21 lakh per transponder per year removed for Telecom Operators and Satellite TV Broadcasters.
 - Mandatory Performance Verification Testing (MPVT) charges of Rs. 6000/- per antenna for testing of satellite antenna(s) removed.
 - For Captive VSAT licensees, the Entry Fee has been halved to Rs. 15 lakh and license fee provisions simplified for captive licensees.
 - For Commercial VSAT, Performance Bank Guarantee (PBG) reduced to Rs. 10 lakh (from Rs. 50 lakh) and Financial Bank Guarantee (FBG) reduced to Rs. 6 lakh (from 30 lakh) in October 2021.

Recent Reforms in Telecom Sector - Cont.

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

- Instead of multiple-level scrutiny by SMC and WPC, single scrutiny by each unit is envisaged for Ease-of-Doing-Business.
- The per-site clearance of WOL for user side VSATs has been done away with for VSAT operators.
- Instead of physical testing of satellite antenna(s) by SMC, provision has been made for self-certification of antennas and generation of automatic up-linking permission online.
- For ease of understanding of stakeholders, DoT has issued Guidelines – Oct 2022 for Establishing satellite-based communication network.

Recent Reforms in Telecom Sector - Cont.

- Enhanced the scope of license(s) to enable satellite-based M2M/IoT devices:
 - ✓ 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.
 - ✓ 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.
 - ✓ The enablement paves way for the introduction of satellite-based IoT devices in the sectors like logistics, industrial automation, railways, agriculture, disaster management etc.
- Scope of the Commercial VSAT license enhanced to enable the provisioning of User terminal station(s) on moving platform(s). These terminals can be:
 - Vehicle-mounted “**Communication on the move**” or
 - or simply - briefcase size portable “**Communication on the pause**” use.

The Telecommunications Act 2023

- The Telecommunications Act 2023, published on 24th December 2023, is envisaged as a **major reform towards simplification of the regulatory framework**. The rules are under formulation.
- Section 3 of the Telecommunications Act, 2023 (Annexure 2.1) gives the Central Government the power of authorisation.
 - “3. (1) Any person intending to—
 - (a) provide telecommunication services;
 - (b) establish, operate, maintain or expand telecommunication network; or
 - (c) possess radio equipment,shall obtain an authorisation from the Central Government, subject to such terms and conditions, including fees or charges, as may be prescribed.”

Indian Space Reforms

Government notified the Indian Space Policy-2023 as an overarching, composite and dynamic framework to implement the vision for unlocking India's potential in Space sector.

- **Non-Government Enterprises (NGEs)** would be encouraged to:
 - **offer national and international space-based communication services**, through self-owned or procured or leased GSO/NGSO communication satellites.
 - use Indian Orbital Resources and/or Non-Indian Orbital Resources to establish space objects for communication services over India and outside India.
 - make new ITU filings through the WPC/DoT to acquire Orbital Resources. NGEs are free to make ITU filings through non-Indian Administrations also.
 - establish and operate ground facilities for space objects operations, such as TT&C Earth Stations and Satellite Control Centres (SCCs).

Alignment of DoT Framework with Space Policy-2023

- **For making new ITU filings through the WPC/DoT to acquire Orbital Resources**, DoT in November 2024 issued a document titled “Guidelines and Procedures for Submission of Satellite Network Filings to International Telecommunication Union (ITU) by Indian Entities“, which provide:
 - an insight into the procedures to be followed for processing such satellite network filing applications for onward submission to ITU, and identify the coordination requirements at the national level to effect coordination by the Indian Entity with satellite network filings already approved by the Government and satellite operators.
 - information related to procedures that are required to be followed with ITU for recording of the frequency assignments in Master International Frequency Register.

Alignment of DoT Framework with Space Policy-2023

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- For establishing and operating ground facilities for space objects operations, such as TT&C, SCCs, etc., i.e. **Ground Station as a Service (GSaaS)** which is used mainly for data collection and is already regulated by IN-SPACe; TRAI in Para 2.184 of its Recommendation dated 17.02.2025 on “Network Authorisations” has recommended the following:
 - The establishment, operation, maintenance, and expansion of the SCC; TT&C; MCC; Remote Sensing Data Reception Station, Ground Station for supporting operation of the space-based services such as Space Situational Awareness (SSA), Astronomical, space science or navigation missions etc. categories of ground stations should be authorisation-exempt in the public interest in terms of Section 3(3) of the Telecommunications Act, 2023.
 - The Central Government should examine the security conditions imposed under the authorizations granted by IN-SPACe for the establishment and operation of ground stations, and if deemed necessary, consider strengthening the security requirements under the authorization.

Enabling Provisions for Introducing New Services-NTN/D2D

Indian Telecom Act-2023

- Section 6 of the Act emphasises the technologically neutral use of spectrum and reads as follows:
“The Central Government may enable the utilisation of the spectrum in a flexible, liberalised and technologically neutral manner, subject to such terms and conditions, including applicable fees and charges, as may be prescribed.”

TRAI Recommendations dated 18.09.2024 on the Framework for Service Authorisations to be Granted Under the Telecommunications Act, 2023

- For providing the service, use of Non-Terrestrial Network (NTN) shall be permitted to the Access Service authorized entity and Unified Service authorized entity.[Recommendation Para 4.18 (a)]

Thank You