

Regulatory Framework applicable to NGSO satellite systems for broadband service provision

TELESATTM

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Telesat connectivity service provision model

- ▲ The satellite industry is currently undergoing an evolution from traditional GSO satellites to NGSO LEO constellations. Telesat, a GSO operator with a deep tradition of innovation, is developing a technologically advanced LEO satellite constellation, **Telesat Lightspeed**
- ▲ Telesat Lightspeed is designed specifically to meet the demanding needs of telecom, enterprise and government customers with secure, high broadband data links with low latency, high resiliency and committed Service Level Agreements
- ▲ The Telesat Lightspeed network will allow seamless integration with terrestrial networks. It will also ensure reliable, high-performing connectivity, as well as backhaul services for the latest terrestrial mobile technologies
- ▲ **Telesat will partner with mobile network operators and/or internet service providers as opposed to offering direct-to-consumer services.** The local operators will in turn provide a wide range of affordable service plans, as well as last-mile connectivity and installation to individual homes, businesses and institutions, billing and local customer support. Using this service delivery model, **Telesat Lightspeed will adopt a sustainable win-win approach for the extended ecosystem** and play a vital role in bridging the digital divide

NGSO Regulatory Framework for high speed broadband connectivity (1/2)

- ▲ *"Landing Rights"*: authorization from IN-SPACe for use of the space segment as per Indian Space Policy 2023 and associated guidelines from 2024
- ▲ *Service Provision license*:
 - The general framework is covered under the Unified License and the Global Mobile Personal Communication by Satellite (GMPCS) license is currently required
 - In Flight Maritime Connectivity (IFMC) policy applies for aeronautical and maritime applications
- ▲ *Spectrum License*:
 - License by the Wireless Planning & Coordination (WPC) wing of the DoT
 - Draft Telecommunications (Spectrum Assignment by Administrative Process) Rules, 2026 issues 17th June 2026
 - These rules prescribe the terms and conditions of spectrum assignment by administrative process for GSO networks
 - It is essential that a similar framework is finalized and approved also for NGSO systems to keep up with the pace of technology and to benefit from it**

NGSO Regulatory Framework for high-speed broadband connectivity (2/2)

- ▲ *User Terminals Type Approval:* compliance with TEC standard 42032:2024
- ▲ *Security clearance:*
 - Various requirements apply (monitoring, interception, routing via local gateway, etc.)
 - DoT memorandum of 5/5/2025 with additional security measures for GMPCS license holders
- ▲ *Gateway Earth Station License:*
 - Originally linked to the service provision license (i.e. each service provider would need to have its own gateway)
 - **TRAI recommended a separate license (SESG - Satellite Earth Station Gateway), but with some conditions, e.g. spectrum to be assigned only to the service provider and not the SESG license holder**
 - **This is quite unusual as typically a gateway license allows the right to use the spectrum needed for the gateway operation**
 - DoT included the SESG license in the draft of the Telecommunications (Authorisation for Telecommunication Network) Rules, 2025

New Satellite Communication Network Authorisation (SCN Authorisation)

- ▲ *SCN Authorisation*: service providers would be able to provide satellite-based communication services by utilizing the satellite communication network established by SCN licensees
- ▲ SCN licensees may potentially:
 - obtain the necessary satellite resources from an IN-SPACe authorised satellite operator
 - establish gateway earth stations
 - seek assignment of spectrum for establishing gateway and user links (TBD)
- ▲ SCN licensees may not provide telecommunication services directly to users
- ▲ TRAI had carried out a consultation on the matter of the various applicable conditions
- ▲ In Telesat view, this license, at least in relation to non-D2D services:
 - **is quite unusual as typically the network aspect is fully covered by the Landing Rights and the gateway license**
 - **can be avoided by allowing SESG licensees spectrum use for the gateway operation, as it is normal practice**
- ▲ The overall Indian licensing framework is already quite complex. The actual need for any additional license should be carefully considered