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The authorisation regime:

TRAI releases recommendations on Network Authorisations under the Telecommunications Act 2023

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Introduction

Earlier this year, the Telecom Regulatory Authority of India (TRAI) issued "Recommendations on the Framework for Network Authorisations under the Telecommunications Act, 2023" (Recommendations). Although several months have elapsed since the release of the Recommendations, the Department of Telecommunications (DoT) has not indicated its views on the Recommendations, and the sector awaits clarity on what the regime will look like under the Telecommunications Act, 2023 (Act).

Under the Act, an 'authorisation' is required among other things to 'establish, operate, maintain or expand a telecommunication network' and possess radio equipment. The Act defines 'telecommunication network' as a system or series of systems of telecommunication equipment or infrastructure, including terrestrial or satellite or submarine networks, or any combination thereof, used or intended to be used for providing telecommunication services. While the Act preserves foundation elements of the previous regime under the Indian Telegraph Act, 1885 and the Wireless Telegraphy Act, 1933 (collectively, the "Prevailing Regime"), it also introduces key reforms that establish a more contemporary and flexible framework for the regulation of telecommunications in India (New Regime). In essence, the Act seeks to create a clear demarcation between the service and infrastructure layers, and entities that operate in them. Since the 'authorisation' framework is set to replace the licensing framework under the Prevailing Regime, it is critical to carefully wade through the proposed changes and get a sense of the new position as it evolves.

In this update, we highlight the key aspects of the Recommendations, though the document also address several other significant changes.

Key Changes Proposed by TRAI

1. Revised Approach for Granting Authorisations:

Aligning with the international best practices, TRAI seeks to simplify and streamline the process of granting authorisations under the Act. The long-standing practice of issuing licenses in the form of comprehensive agreements, comprising of several sections and annexures, is proposed to be replaced with more streamlined 'permission' based model. Further, TRAI has proposed to prescribe detailed terms and conditions applicable to each type of network authorisation through separate, clearly defined rules under the Act.

2. Introduction of New Authorisations:

a. Authorisation for Infrastructure Providers: Under the Prevailing Regime, Infrastructure Provider Category-I (IP-I) entities are registered with the DoT and are not required to obtain a license. However, under the Act, entities intending to establish and operate dark fibres, duct space, and towers should obtain an IP-1 authorisation. Additionally, TRAI has recommended that passive in-building solution (IBS) be exempted from network authorisation, allowing IP-1 entities to offer IBS as well.

TRAI has suggested aligning the validity of IP-1 authorization with the standard 20-year duration typically applied under the broader telecom licensing framework.

In addition to the above, TRAI has proposed the introduction of a new 'Digital Connectivity Infrastructure Provider' (DCIP) authorisation, governed by a light-touch regulatory framework, aimed at accelerating the development of access network infrastructure in India, similar to the catalytic role played by the IP-1 registration in earlier years. DCIP entities would be permitted to offer all the services currently allowed under the IP-1 framework and in addition, be authorised to deploy and operate wireline access network, radio access network, transmission links and Wi-Fi systems.

However, DCIP entities would not be permitted to (a) establish or maintain core network elements like Mobile Switching Centre, Home Location Register; (b) provide bandwidth services; or (c) be assigned any spectrum as these would be akin to providing telecommunication services, which require a separate 'service authorisation' under the Act.

b. Internet Exchange Points: Internet exchange points (IXP) facilitate the exchange of internet traffic between internet Service Providers (ISPs) and Content Delivery Networks (CDNs) without using international bandwidth. IXPs help reduce latency of domestic internet traffic. TRAI has noted that network switches of IXPs, along with network elements of ISPs, are used to provide telecom service to end users, thereby making IXPs an integral part of the 'telecom network'. Furthermore, while ISPs offer internet access services to end users, IXPs are network providers for ISPs and CDNs. Accordingly, the requirement to obtain an authorisation should not be distinguished solely on grounds of the entity to which network connectivity is provided. Therefore, in line with TRAI's earlier recommendation from 2022, it has once again proposed introduction of a separate authorization for IXPs, with terms that are less onerous than those applicable to ISPs.

c. Satellite Earth Station Gateways: In 2022, TRAI had recommended that entities establishing Satellite Earth Station Gateways (SESGs) should be treated as licensed entities under the Prevailing Regime. Such entities would be eligible to provide satellite-based resources and use satellite media for the provision of services under its license / permission. Under the Recommendations, TRAI proposed that (i) an authorisation be required for the establishment of SESGs, and (ii) baseband equipment (which enables control, management and visibility of satellite communication) be owned and installed at SESGs only by service-authorised entities only. However, an SESG authorised entity may be permitted to install the baseband equipment to SESGs on behalf of eligible service-authorised entities. TRAI has noted that the allocation of frequency and timeslot to individual users occurs in the baseband equipment, and therefore, both gateway-side and user-side spectrum should be assigned to the eligible service licensees and not to SESG operators. Additionally, TRAI has recommended that SESG entities be permitted to connect its SESG to their points of presence, where traffic is handed over to partnering telecom service providers, through an optical fibre cable system.

d. Captive Non-Public Network: The Captive Non-Public Network (CNPN) Provider Authorisation is proposed to facilitate enterprises to establish private telecom networks dedicated to internal communications and operational requirements. These networks such as private 5G or LTE deployments can significantly enhance the security, reliability, and latency-sensitive connectivity required in industrial, manufacturing, or campus environments. This proposal aligns with the growing global shift towards enterprise-driven network deployment to support Industry 4.0 applications.

e. Cable Landing Station: TRAI has recommended the introduction of Cable Landing Station (CLS) provider authorisation to regulate entities managing submarine cable landing stations. This authorisation would encompass the facilitation of access to essential CLS infrastructure and the provision of co-location services to licensed operators, provided the government deems it appropriate. Given the strategic importance of international bandwidth and the imperative for neutral and transparent access to submarine cable infrastructure, such a move could foster competition, reduce costs, and enhance bandwidth accessibility for ISPs and enterprise consumers alike.

f. Cloud-Hosted Telecom Network: At present, cloud infrastructure offers a range of capabilities such as storage, networking, databases, analytics, software and intelligence. Typically delivered through "as a service" models, cloud infrastructure eliminates the need for physical software installations, and integrates hardware, software, storage, networking, etc. Third-party cloud-hosted telecom networks have the potential to significantly contribute to the virtualisation of telecom infrastructure, reducing costs, improving network resilience, etc. However, DoT has historically not adopted a definitive position on cloud-hosted networks. In practice, this has resulted in regulatory ambiguity surrounding the deployment of telecom functions over third-party cloud infrastructure. Further complicating the

landscape, TRAI had previously recommended, the use of cloud service providers empanelled by the Ministry of Electronics and Information Technology. Under the present Recommendations, TRAI has suggested that a light touch network authorisation should be introduced for establishing, operating, maintaining and expanding cloud hosted telecom networks. Such authorised entities will be, in turn, permitted to provide cloud- hosted telecom network as a service to eligible service authorised entities.

g. Mobile Number Portability Authorisation: Aligning with the government's broader objective of digitising and simplifying telecom compliance, TRAI has proposed the introduction of a dedicated Mobile Number Portability (MNP) Provider Authorisation under the Act. As part of this framework, MNP providers will be responsible for updating the Location Routing Number for all entities authorised to provide Access Services, National Long Distance, and International Long-Distance services. Entities authorised under this category will be required to submit a self-certification, digitally signed by an authorised representative of the company, in a standardised format to be prescribed under the authorisation framework. It is recommended that the entire country will be divided into two operational zones MNP Zone 1 and MNP Zone 2, mirroring the existing structure. The authorisation will be granted for a period of 10 years. Additionally, TRAI has recommended that the current definitions of Gross Revenue, Applicable Gross Revenue, and Adjusted Gross Revenue should continue to apply under the MNP Provider Authorisation to ensure consistency in financial reporting.

3. Exemptions for Certain Telecom Network Providers:

a. In-Building Solution: Under the Recommendations, TRAI noted that In-Building Solution (IBS) refers to a system of equipment deployed to provide telecom services within the confines of a single building, compound, or estate—without traversing public roads or areas. As per the framework under the Act, such deployments would typically require an authorisation under Section 3(1)(b), unless specifically exempted under Section 3(3) of the Act.

TRAI further noted that the development of Common Telecom Infrastructure (CTI) within premises such as multi-storey residential complexes and commercial buildings has been recognised as a key public policy objective in India. Accordingly, TRAI has recommended the establishment of an enabling regulatory framework to permit property managers to deploy IBS, including Distributed Antenna Systems (DAS), without the requirement of a telecom authorisation within the confines of a single building or estate. TRAI has kept in mind that such IBS is generally deployed at the stage of development of the property along with the wireline telecommunication infrastructure. IBS and DAS together constitute integral components of CTI and their widespread deployment is essential for ensuring robust and seamless digital connectivity within the buildings.

The recommendation represents a significant departure from the current regulatory framework, wherein IBS and DAS, by virtue of containing active elements, may not be deployed by licensed telecom service providers in future. Active elements such as signal boosters, repeaters, and powered antenna systems perform signal processing and transmission functions, which have traditionally fallen within the exclusive domain of license holders under the existing telecom licensing regime. By proposing to liberalise the scope of IBS deployment, TRAI acknowledges both the evolving technical landscape and the urgent need for high-quality, reliable indoor connectivity.

To safeguard quality and interoperability, TRAI recommended that property managers be mandated to provide access to IBS infrastructure to all eligible telecom service providers and DCIPs on a fair and non-discriminatory basis, with a strict prohibition on entering into exclusive right-of-way arrangements. Additionally, property managers may also incorporate DAS, telecom cables, and optical fibre equipment as part of the IBS framework. All such equipment must adhere to the guidelines prescribed by the Telecom Engineering Centre and be certified under the Mandatory Testing and Certification of Telecommunication Equipment framework.

b. Content Delivery Networks: Content Delivery Networks (CDNs) are networks of servers located closer to end users to enable fast, cost-effective and secure delivery content, and have thus far remained unregulated in India. CDNs employ techniques such as caching, load balancing, and optimisation to enhance page load speeds, reduce bandwidth consumption, localise content delivery, minimize latency, and improve overall performance. Since CDN equipment, when integrated with telecom service providers' networks, facilitates the delivery of telecom services to end users, such CDN are considered part of the 'telecom network' and would ordinarily require an authorisation under the Act. However, recognising the Central Government's policy intent, under the National Digital Communication Policy, 2018, to provide CDNs and position India as a global hub for cloud computing, data hosting and delivery,

TRAI has recommended that the establishment, operation, maintenance and expansion of CDNs be exempt from authorization requirements in the public interest. That said, CDN providers must operate in a fair and a non-discriminatory manner and remain compliant with net neutrality principles. TRAI has previously acknowledged that CDNs can influence the routing and delivery of internet traffic, with potentially implications for net neutrality. Accordingly, it has underscored that CDNs must not be leveraged to provide preferential access or enhanced speeds to certain content providers in a manner that violates the principles of net neutrality. Additionally, DoT / TRAI may require authorised entities to furnish information relating to CDN agreements, as and when necessary.

c. Ground Station as a Service: Ground stations facilitate communication between space objects and their operators on Earth including as satellite control, remote sensing, data receptions, etc. Consequently, TRAI has noted that Ground Station as a Service (GSaaS) is distinct from typical telecom services (that is for providing connectivity to people). Through GSaaS stakeholders can access ground stations on a pay-per-use or subscription basis, eliminating the need for upfront investment infrastructure. TRAI has noted that GSaaS is already regulated under the authorisation framework of IN-SPACe and therefore, there is no need to bring GSaaS under the authorisation regime of the Act.

4. Migration to the Authorisation Regime:

TRAI has provided clarity on the migration of existing licensees and registrants to the new network authorisation framework under the Act. It has proposed that while the new eligibility conditions should apply uniformly to both fresh applicants and migrating entities, the net-worth requirement should be waived at the time of migration. This reflects a calibrated approach that ensures regulatory consistency without imposing retrospective financial thresholds on legacy players.

Importantly, TRAI has recommended that no entity should be permitted to hold more than one network authorisation of the same type under either the new or the existing regime. Furthermore, where an entity holding a current license or registration obtains a new network authorisation whose scope fully overlaps with the existing one, the earlier license or registration should be deemed subsumed and automatically cease to operate.

With respect to validity, TRAI has proposed that on migration:

- IP-I entities transitioning to the new IP Authorisation or DCIP Authorisation should be granted a fresh 20-year validity from the effective date of the new authorisation;
- MNP Service Licensees shifting to the MNP Provider Authorisation should retain only the balance validity period of their existing license.

This approach balances administrative efficiency with fairness. It also incentivises licensees to voluntarily align with the new modular and activity-based authorisation regime, which is regarded as a major regulatory reform aimed at fostering clarity, innovation, and specialisation within the telecom sector.

Comments

TRAI's recommendations signal a decisive shift toward a more agile and innovation-friendly telecom regulatory regime. By introducing modular authorisations for niche and emerging service areas—such as CNPNs, cloud-hosted networks, and submarine cable operations—and by simplifying migration and financial requirements, and extending exemptions to providers of IBS, CDNs and GSaaS, TRAI is laying the foundation for a forward-looking telecom framework. These proposals are particularly timely as India accelerates the development of its digital public infrastructure and private digital transformation initiatives. As DoT considers these recommendations for implementation, stakeholders should proactively assess how their operations, partnerships, and compliance mechanisms will align with the structure and expectations of the new authorisation regime.

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