

19<sup>th</sup> November 2024

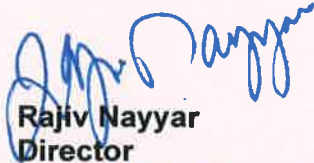
**Mr. Akhilesh Kumar Trivedi**  
**Advisor (NSL)**  
Telecom Regulatory Authority of India  
World Trade Centre  
G/90, Naurojni Nagar Market, Block G, Block F,  
Nauroji Nagar, New Delhi-110029

**Ref: Lightstorm Response to TRAI's The Consultation Paper on The Terms and Conditions of Network Authorisations to be Granted Under the Telecommunications Act, 2023 (No. 16/2024).**

Dear Sir,

With reference to the Consultation Paper on The Terms and Conditions of Network Authorisations to be Granted Under the Telecommunications Act, 2023 (No. 16/2024) by Hon'ble Authority, Lightstorm, is pleased to provide comments. We hope that our comments (as enclosed below) will enable the Hon'ble Authority in forming its recommendations.

Thanking you,  
Yours sincerely,  
For **Lightstorm Telecom Connectivity Private Limited**



**Rajiv Nayyar**  
**Director**

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**Inputs on the consultation paper on The Terms and Conditions of Network Authorisations to be Granted Under the Telecommunications Act, 2023 (No. 16/2024)**

## Background

The background note annexed with the DoT's reference dated 26.07.2024 mentions that :-

*7. While formulating recommendations, TRAI may also consider following:*

*i. Type, scope, and terms & conditions of each authorization to be granted under section 3(1)(a) and 3(1)(b) respectively.*

*ii. Some of the recommendations of TRAI, which are under consideration presently, like recommendations on 'DCIP', 'IXP', 'CDN', 'SESG', 'IBS (In-Building Solutions)' etc., which primarily relate to establishing telecommunication networks, and these authorised entities would provide telecommunication networks as a service to authorized entities under section 3(1)(a) only.*

The Authority has clearly explained in para 2.4 'A few subtle differences between the licensing regime under the Indian Telegraph Act, 1885 and the authorisation regime under the Telecommunications Act, 2023'.

*(b) Under the Telecommunications Act, 2023, a person intending to provide telecommunication services will have to obtain an authorisation under Section 3(1)(a) of the Telecommunications Act, 2023, while a person intending to establish, operate, maintain, or expand telecommunication networks will have to obtain an authorisation under Section 3(1)(b) of the Telecommunications Act, 2023. Essentially, the Telecommunication Act, 2023 makes a distinction between service authorisations and network authorisations. On the other hand, the Indian Telegraph Act, 1885 made no such distinction. It had a singular provision viz. "the Central Government may grant a license ... to any person to establish, maintain or work telegraph within any part of India" under Section 4 of the Indian Telegraph Act, 1885.*

The consultation paper clearly explains in para 2.10 that :-

*If an entity intends to provide telecommunication services to end consumers by using its telecommunication network, it will require a service authorisation under Section 3(1)(a) of the Telecommunications Act, 2023. A corollary to this statement is that under the authorisation to establish, operate, maintain, or expand telecommunication network, obtained under Section 3(1)(b) of the telecommunications Act 2023, an entity cannot provide telecommunication services to end consumers; it can only provide the telecommunication-network-as-a-service to eligible entities, which are authorised under Section 3(1) of the Telecommunications Act, 2023.*

In view of the above, we submit that the Section 4 licensees under the existing regime have made considerable investments in terms of entry fee and bank guarantees in procuring the license and thereafter large investments in rolling out networks. The investments made by hitherto existing regime licenses should be protected while framing the terms and conditions of Network Authorisations under the Section 3(1)(b) of the Telecommunications Act, 2023.



We note the understanding and explanation by the Authority under para 2.4 that the provision of service to end users does not fall under the scope of service of Network Authorisations. The *Section 3(1)(b) authorisations* are distinct and mandated to provide services to *Section 3(1)(a) only*.

In furtherance of the above, we submit that the Authority should clarify that *Section 3(1)(b)* should also be permitted to provide network services to exiting Section 4 licensees **also**. The terms and conditions of new Network Authorisation should not foreclose the existing license entities from active and passive infrastructure sharing.

We, Lightstorm Telecom Connectivity Private Limited (Lightstorm) provide our issue wise response to specific issues under consultation in the following section.



**Lightstorm comments on the issues for consultation (No. 16/2024) –****Issues for consultation:**

**Q1. Whether there is a need to merge the scopes of the extant Infrastructure Provider-I (IP-I) and Digital Connectivity Infrastructure Provider (DCIP) authorization (as recommended by TRAI in August 2023), into a single authorisation under Section 3(1)(b) of the Telecommunications Act, 2023? Kindly provide a detailed response with justifications.**

**Lightstorm response:****IP-1**

The scope of Infrastructure Provider-1 (IP-1) registration is limited to fibre, tower and right of way. The DoT has already taken a legal opinion, the details from page 18-19 of the consultation paper is reproduced below.

*2. The aforesaid recommendations have been examined in the Department and legal advice from AS & LA (T) DoT was also taken on this issue who inter-alia opined that:*

- "Active Infrastructure can be provided only by Telecom Licensees.
- IP-I registration holders cannot be allowed to provide active infrastructure under their IP-I registration, unless they are shifted to licensing regime."

*3. After detailed deliberations/ examination, it has been decided by DoT that the aforesaid TRAI Recommendations **can't be accepted**.*

The DoT has clarified the scope of IP-1 registration holder through its letter No. 10-51/2008-CS-III dated 09.03.2009, and through the letter No. 10-40/2007-CS-III dated 28.11.2016.

In line with the clarifications and legal opinion referenced above, we submit that the IP-1 registration should be a mirror authorisation under the new regime.

- Authorisations under Section 3(1)(b) of the Telecommunications Act, 2023. IP-I authorisation (a mirror authorisation of the extant IP-I registration).

**DCIP**

As such there is no need for a Digital Communication Infrastructure Provider for all types of network, at best there may be a case for Access network.

*The TRAI recommendation in the context of DCIP covers the following network elements Wireline Access Network, Radio Access Network (RAN), Wi-Fi systems, and transmission links. The scope of the DCIP license should also include Right of Way, Duct Space, Dark Fiber, Poles, Tower, Feeder cable, Antenna, Base Station, In-Building Solution (IBS), Distributed Antenna System (DAS), etc.*

*The scope of DCIP authorization should not include the provisioning of end-to-end bandwidth using transmission systems to any customer or for its own use. However, DCIP should be allowed to install wired transmission link (but not wireless) to connect to its own Baseband Unit (BBU) / Radio unit (RU)/ Antenna.*

A close examination of the TRAI recommendation establishes that the scope of service and network elements pertain to Access Services. Hence, this DCIP authorisation (proposed) should be limited to Access Network.

**We submit the following in support of NOT merging of IP-1 and DCIP authorisations: -**

- Firstly the IP-1 registration is an existing regime and there are large number of registration holders successfully serving the NSOs. In contrast the DCIP is at recommendation stage, there are no existing DCIP holders as on date, as the policy does not exist.
- The extant IP-1 registration should be a mirror authorisation under the new regime to provide policy stability
- The (proposed) DCIP authorisation should be suitably clarified as an Access Network catering to the needs of Access Service Providers



- The existing licenses permits active and passive infrastructure with other licensees, any introduction of new Network Authorisation may jeopardize their investments
- The compliance regime under the IP-1 is minimal as it is passive infrastructure. The DCIP in contrast has relatively heavy compliances as applicable to active infrastructure. Hence, any merging of the IP-1 (extant) and DCIP (proposed) shall be erroneous on the IP-1 registration holders
- The simplification/ reduction of count of authorisations may have the unintended consequence of adding complexities on a passive infrastructure business viz. IP-1
- The potential takers for active infrastructure business is yet to be ascertained, in anticipation we may complicate a simple passive infrastructure business

**Q3. In case your response to the Q1 is in the negative, -**

**(a) What changes (additions, deletions or modifications) are required to be incorporated in the eligibility conditions, area of operation, validity period of authorisation, scope, and terms & conditions (general, technical, operational, security etc.) of the IP-I authorisation under Section 3(1)(b) of the Telecommunications Act, 2023 as compared to the extant IP-I registration?**

**(b) Whether there is a need to make certain changes in the eligibility conditions, area of operation, validity period of authorisation, scope, and terms & conditions (general, technical, operational, security etc.) of the DCIP authorisation (as recommended by TRAI in August 2023)? If yes, kindly provide a detailed response with justifications.**

**Lightstorm response:**

**IP-1**

No change is required in the existing IP-1 registration regime. And any new IP-1 Authorisation it should be a mirror authorisation of the existing IP-1 guidelines.

**DCIP**

The scope of network elements should specifically mention Access Network as the network elements in the recommendation pertain to Access Network.

The condition of sharing of active infrastructure should cover existing Section 4 licensees as well as new Section 3.1.a authorisations to be issued under the new Act.

The IP-1 and DCIP should not be subsumed under a single authorisation, the detailed justification provided in our response to Q1.

**Q5. Whether there is a need to make any changes in the eligibility conditions, area of operation, validity period of authorisation, scope, and terms & conditions (general, technical, operational, security etc.) of the Content Delivery Network (CDN) authorisation, as recommended by TRAI on 18.11.2022? If yes, what changes should be made in the eligibility conditions, area of operation, validity period of authorisation, scope, and terms & conditions (general, technical, operational, security etc.) of the CDN authorisation? Kindly provide a detailed response with justification.**

**Lightstorm response:**

The content delivery networks (CDNs) are Edge servers at PoPs may prefetch content in advance for downstream distribution. The CDN ecosystem is growing, and any regulatory oversight may in all likely hood stifle innovation in its evolution stage. The CDNs are storage servers that cache content basis the predictable behaviour of a user group. The users procure access to internet from TSP/ISP which are regulated entities under their respective license.



In this context it is crucial to note, Content Delivery Networks (CDNs) are integral to the efficient delivery of internet content, but regulatory approaches vary significantly across countries. No countries have specific telecom regulations for CDNs, however there are data privacy and consumer interest protection regulations in EU, USA, China etc. whereas countries like Australia do not have any stringent restrictions on CDNs. The international regulatory approach towards CDNs can broadly be summarised to be light touch and forward looking with safety checks in place from a data privacy standpoint. In India all IT companies are subject to IT rules as mandated by MeITY and reporting to CERT-In guidelines. Beyond that, any further telecom restrictions could inhibit growth of the upcoming industry.

In view of the above, we recommend that **CDNs should be kept out of the preview of telecom regulations.**

**Q6. Whether there is a need to make any changes in the eligibility conditions, area of operation, validity period of authorisation, scope, and terms & conditions (general, technical, operational, security etc.) of the Internet Exchange Point (IXP) authorisation, as recommended by TRAI on 18.11.2022? If yes, what changes should be made in the eligibility conditions, area of operation, validity period of authorisation, scope, and terms & conditions (general, technical, operational, security etc.) of the IXP authorisation? Kindly provide a detailed response with justification.**

**Lightstorm response:**

The internet exchange points (IXPs) allow networks to exchange internet traffic with each other. In both EU and USA, IXPs are recognized as key internet infrastructure and often benefit from forward looking policies promoting competition and interoperability. There are no stringent telecom regulations in place internationally. IXPs are market-driven, with no specific regulations. They fall under general competition, anti-trust laws, data privacy laws and consumer protection laws. Countries like the UAE and Saudi Arabia lack direct IXP regulations but encourage IXP development to reduce international routing dependence.

In summary, even internationally IXPs are recognized for bringing great advantage to the internet ecosystem and users alike, some of which are enumerated below:-

- IXPs bring down the bandwidth requirement for ISPs by local routing of traffic, thus providing a better experience to users
- IXPs are instrumental in saving of costs towards expensive international bandwidth, thus bringing down the cost of delivery of services
- IXPs aid to overall internet resilience, by introducing a multi-peering environment

Presently there is dire need of Internet Exchange in Tier-II and Tier-III cities, in fact the IXPs should be incentivised to establish PoPs in local areas at state headquarters and medium to large cities. This shall bring down the latency and help bridge the Digital divide in hitherto under-served areas. Given the prominent role of IXPs in bridging the gaps between the digital haves and have-nots, they should be kept outside the purview of stringent telecom regulations. They take network resources from licensed TSPs and ISPs (as applicable), these are licensed entities and subject to security monitoring guidelines. In that sense the IXPs do not provide network services, rather they are pure play IT companies governed under the MeITY jurisdictions

In view of the above, we recommend that **IXPs should be kept out of the preview of telecom regulations.**



**Q10. Whether there is a need to introduce an authorisation under Section 3(1)(b) of the Telecommunications Act, 2023 for establishing, operating, maintaining or expanding cloud-hosted telecommunication networks, which may be used to provide telecommunication network as a service to the authorised entities under Section 3(1)(a) of the Telecommunications Act, 2023? If yes, what should be the eligibility conditions, area of operation, validity period of authorisation, scope, and terms & conditions (general, technical, operational, security etc.) of such an authorisation? Kindly provide a detailed response with justifications.**

**Lightstorm response:**

The cloud service providers offer various types of network configuration basis the customer needs, this includes private cloud, public cloud, hybrid cloud and Sovereign cloud for government. The service offerings vary basis the customer needs viz. Infrastructure as a Service, Network as a Service, Cloud as a Service, Software as a Service etc.

This sector involves rapidly evolving technology, thus should not be bound by the shakes of a straight jacket regulation. All cloud entities are under the ambit of IT rules issued by MeITY.

In case they wish to provide Cloud Hosted Telecommunication Network or in other words they wish to provide cloud services to telecom entities, then the Cloud service company should get empanelled with MeITY as per TRAI recommendations dated 18.09.2024.

No other registration/regulation should apply on Cloud service providers, as it would hamper innovation and growth in a sunrise sector.

In view of the above, we recommend that **the Cloud Services should continue to be governed by IT Rules under the MeITY jurisdiction.**

**Q21. Whether there is a need for mandating a reference agreement between authorised entities establishing, operating, maintaining or expanding the telecommunication network, and authorised entities providing telecommunication services? If yes, -**

**(a) Between which type of entities, reference agreements are required to be mandated?**

**(b) What should be the salient features of the reference agreements between such entities?**

**Kindly provide a detailed response with justifications.**

**Lightstorm response:**

The sharing of active and passive infrastructure should be left to mutual negotiations of the terms and conditions between Licensee / Authorisation holders.

Presently there is no need to mandate reference agreements. However, the Authority should monitor the market structure in infrastructure sharing space, and in case of market failure the Authority may prescribe a 'reference agreement' in future.

**\*\*end of document\*\***

