

DIPA's response to TRAI Consultation Paper on "The Terms and Conditions of Network Authorisations to be Granted Under the Telecommunications Act, 2023"

PREAMBLE

1. At the outset, we would like to thank TRAI to bring out this Consultation paper on "**The Terms and Conditions of Network Authorisations to be Granted Under the Telecommunications Act, 2023**" on 22nd October 2024 and giving us an opportunity to provide our response / comments on the same. We appreciate the Authority for its constant efforts for the growth of digital infrastructure in the Country which carries utmost importance in a fast-digitizing nation like ours.
2. The rapid evolution of technology and the dynamic nature of the telecom industry necessitate a regulatory framework that is robust, transparent, and conducive to innovation. The current regulatory landscape under the Telecommunications Act, 2023, provides the foundation for granting authorizations and licenses for various telecom services. However, there is a need to periodically review and update these regulations to align with technological advancements, market dynamics, and consumer expectations.
3. In this consultation paper, the DoT through the letter No. 20-1350/2024-AS-I (Vol.-II) dated 26.07.2024 Sought recommendations of TRAI on terms and conditions, including fees or charges, for authorisation to establish, operate, maintain or expand telecommunication network as per the provisions of the Telecommunications Act 2023'
4. The consultation paper proposes merging existing authorizations into unified categories like **combining the existing infrastructure provider-I (IP-I) and TRAI- Recommended digital connectivity infrastructure provider (DCIP) authorizations into a single authorization.**
5. The consultation paper explores the scope of in-building solutions (IBS) and seeks input on which specific telecommunications equipment or elements should fall under the category of IBS.
6. The consultation paper also discusses the Authorizations for CDNs (Content Delivery Networks) and IXPs (Internet Exchange Points), SESG (Satellite Earth Station Gateway), and MNP (Mobile Number Portability) Service.

Our Question-wise response to TRAI Consultation Paper is as follows:

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.

DIPA's response:

Infrastructure Providers (IP-1) are essential to the telecom sector, offering vital passive resources like towers, dark fiber, ducts, physical structures, and other passive elements. By allowing telecom operators to share infrastructure, IP-1 significantly reduces the capital expenditure needed for network expansion, easing financial burdens and mitigating investment risks. This enables TSPs to focus more on service quality (QoS) and coverage / reach, particularly in rural and unserved areas.

The collaboration facilitated by IP-1s enhances the affordability of telecom services. Lower operational costs translate into competitive tariffs, making mobile and broadband access more widespread and promoting digital inclusion and economic growth in India. The shared risk model also contributes to a more stable telecom ecosystem.

Moreover, IP-1s have been crucial in the swift rollout of 5G in India. By leveraging shared resources, telecom operators have deployed networks more efficiently, positioning India as a leader in global 5G adoption. This advancement improves connectivity across healthcare, agriculture, industry, education, etc. IP-1s are vital for creating a cost-effective and technologically advanced telecom sector.

The present IP1 Registration framework is working very efficiently. The IP1 industry has supported the world's fastest 5G network rollout in India in a short time. The IP1 industry shares the financial burden and risk of the TSPs, enabling the telecom sector to become a key enabler of Digital India, digital infrastructure for financial inclusion and a contributor to the country's GDP growth.

It has supported cost-sharing among the TSPs, resulting in the world's one of the lowest telecom tariffs and the highest network service usage. Therefore, it is respectfully submitted that--If something is working well, it should not be changed: "If it is not broken, there is no need to fix it."

IP-I (Infrastructure providers) are entities that establish, maintain, and lease out passive infrastructure such as towers, dark fiber, ducts, Poles and other physical structures to telecom service providers (TSPs). However, IP-I companies are not permitted to offer or operate active telecom equipment (e.g., switches, routers). IP-I entities are exempted from paying license fees as they are only involved in leasing passive infrastructure and do not operate active networks. The IP-I registration does not have a defined validity period. It remains valid until revoked or modified by the DoT.

Under this scenario **clause no B 1.5 3 6(b) of The Telecommunications Act, 2023** "*where a definite validity period is not given, shall be entitled to continue to operate on the terms and conditions of such licence or registration or permission for a period of five years from the appointed day, or to migrate to such terms and conditions of the relevant authorisation, as may be prescribed*" is not tenable.

We would like to submit humbly that the creation of the infrastructure by IP-1 is capital intensive and time consuming. It is created for our clients who are Section 4 licensees, and this infrastructure is created for forever / lifetime. Therefore, no validity period needs to be defined. **Hence, it is suggested that the validity period of 5 years, as per above clause, should be deleted by concerned authority.**

Although DCIP providers include a broader range of infrastructure services, potentially encompassing both passive and active elements, DCIP providers and IP Providers are two different entities. **Therefore, it is submitted that IP and DCIP should not be merged into single authorization and IP should continue in its present form.**

IP1s core job is to manage Power & Space which requires a unique skill set. Take the example of the Power Sector where, to bring in the focus & efficiency, unbundling of GenCo, TransCo & Discom has been done. Bundling has its own cost of inefficiency & lack of focus. **Therefore, the merger of the two entities is not a viable solution, as each requires distinct domain expertise and skill sets to preserve its unique identity.**

While we are moving towards 5G, 6G onwards, the densification of Telecom infra is resulting in shift from sharing with TSPs to sharing with other utility providers i.e. sharing of Street

Furniture. **Therefore, IP1 needs to closely & jointly work with other utility infra providers to create integrated, aesthetically better skyline infrastructure & remain focused over it.**

We note that the purpose of the DoT's reference dated 26 July 2024 as to examine the possibility of reducing the number of authorisations and simplifying, merging, or rationalising the terms and conditions to improve the ease of doing business. **Whereas TRAI's proposals / questions under the Consultation Paper seem to be increasing the number of authorisations so we request to relook into it.**

Also, TRAI's previous recommendations, including those for DCIP or IBS, were made under the UL regime / old Act, which has been changed due to the enactment of the new Telecommunications Act 2023. **The latest act stipulates that the new regulatory framework should be consistent with section 3 of the Telecommunications Act.**

In view of the above, it is strongly emphasized that

- 1. IP-1 permission should continue in its present form and we, as IP strongly recommend not to pursue any proposals of merger of DCIP and IP. We request TRAI to retain the current licensing framework (i.e., Registration) in its recommendations.**
- 2. IP-I should remain under the Registration type of authorisation in the new Telecommunications Act, 2023, maintaining existing terms and conditions, including no restriction of validity period for the registration type authorisation.**

Q2. In case your response to the Q1 is in the affirmative, kindly provide a detailed response with justifications on –

(a) Eligibility conditions for the grant of the merged authorisation; and

(b) Area of operation, validity period of authorisation, scope, and terms & conditions (general, technical, operational, security etc.) of the merged authorisation.

DIPA's Response: No comment as we are not in favour of merger of scope of IP-1 and DCIP and emphasized that IP-1 should continue in its present form.

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.

DIPA's response:

- (a) Retaining the IP-I framework ensures specialized focus on passive infrastructure development, which is critical for supporting active telecom networks. Merging with DCIP risks creating overlaps in responsibilities and diluting the focus on large-scale deployment of passive assets. Distinct authorization allows clear accountability for implementing sustainable practices like renewable energy adoption in infrastructure.

As a representative of Telecom infrastructure providers, our few recommendations are listed below to ensure the IP-I framework remains robust, efficient, and reflective of the evolving telecom ecosystem.

1. Expand scope of 1P-1s to allow for the leasing of infrastructure to not just TSPs but also to OTT (Over-The-Top) players, data centre operators, and other emerging digital service providers.
2. Establish a central grievance redressal mechanism for disputes involving IP-I infrastructure, especially in ROW clearances.

(b) No comment.

Q4. (a) Which telecommunication equipment/ elements should be included in the ambit of 'in-building solution' (IBS)?

(b) Whether there is a need to introduce a new authorisation under Section 3(1)(b) of the Telecommunications Act, 2023 for establishing, operating, maintaining or expanding in-building solution (IBS) by any property manager within the limits of a single building, compound or estate controlled, owned, or managed by it? 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? Please provide a detailed response with justifications.

DIPA's response:

Data shows that indoor data usage now exceeds outdoor usage by 70-80%, underscoring the essential need for robust digital connectivity within building compounds. The creation of the digitalized ecosystem within the building will enable the lives of the residents with a connected and technologically advanced society.

The authority understanding the importance of the connectivity for the access to various services (Universal Connectivity, E-healthcare, E-education, Augmented Reality, Virtual Reality, etc. Smart factories etc.), notified consultation paper and recommendation on "Rating of Buildings or Areas for Digital Connectivity" in 2022 and 2023 respectively.

Ensuring continuous coverage throughout a building is essential for optimizing its value. Also, we need to categorize IBS equipment into Outdoor and Indoor categories, allowing flexibility to add or remove items as technology evolves, without being restricted by specific equipment names.

This can only be achieved with specialized telecommunication equipment designed for in-building connectivity solutions. The specified equipment should be included within the scope of in-building solutions to ensure comprehensive and reliable indoor coverage.

1. **Distributed Antenna Systems (DAS):** Scalable for high-density populated areas and capable of delivering excellent coverage, this telecommunication equipment stands as one of the most effective solutions for enhancing in-building connectivity. By utilizing low radiation centres and lower output power, it significantly reduces interference.

Distributed Antenna Systems (DAS) further enhance data throughput by improving signal strength and maintaining proximity of transmission points to user devices.

2. **Base Transceiver Station (BTS):** The system provides reliable signal coverage within buildings and integrates seamlessly with the macro/mobile network core, making it ideal for accommodating a large number of users indoors.
3. **Small Cells:** These technologies harness the full potential of 5G networks, utilizing low-power cellular radio access points like femtocells, picocells, and microcells to enhance coverage and capacity, especially in dense indoor environments.
4. **Cables:**
 - i. **Coaxial Cables:** Utilized in passive Distributed Antenna Systems (DAS) for distributing RF signals effectively.
 - ii. **Fiber Optic Cables:** Employed in active DAS to facilitate long-distance signal transmission with minimal loss.
 - iii. **Cat6/Cat7 Ethernet Cables:** Used in IP-based systems and for connecting small cells, providing robust data transmission.
5. **Antennas:**
 - i. **Indoor Antennas:** Includes panel antennas, ceiling-mounted omnidirectional antennas, and wall-mounted directional antennas to distribute signals within the building.
 - ii. **Outdoor Antennas:** Captures signals from nearby cellular towers and feeds them into the in-building system for enhanced indoor coverage.
6. **Remote Radio Units (RRUs):** Commonly used with DAS, RRUs convert digital signals from the core network into RF signals, which are then transmitted via the antennas.
7. **Power Supply Units (PSUs) and Backup Systems:** Provide reliable power to the IBS, maintaining system operation even during power failures.
8. **Network Controllers:** Manages and controls DAS operations, including frequency allocation and power level adjustments.
9. **R F Splitters, Combiners, and Taps:** Essential components in DAS for dividing and combining RF signals, ensuring efficient distribution throughout the building.

Incorporating these components into an In-Building System (IBS) significantly enhances indoor mobile coverage, improves call quality, and supports high-speed data services across multiple network operators. This comprehensive setup ensures reliable connectivity and seamless performance, even in densely populated environments such as office buildings, shopping malls, hospitals, hotels and stadiums.

(b) IP-1s are registered long time back have stood the test of time and created a huge infra structure with minimum regulatory and light touch intervention and compliance framework. **As a result, the IP1s have created the benchmark by creating a huge infrastructure and brought sharing model which is being emulated globally.** This approach has worked as a key enabler towards the success of the telecom infrastructure sector.

First and foremost, prohibiting IP-1s from entering into an exclusive contract with property owners / managers / CAAs will defeat the very concept of Infrastructure sharing. Creating multiple sharable Infrastructure at same place will result in wastage of resources. Same goes for in-building solutions too. Please note that exclusivity allows systematic layout and plan. Therefore, we recommend to have seamless sharing clauses for each IBS site so that the end user's don't suffer and all the buildings have all possible options at their doorstep for them to choose.

At the same time IP1 should not enter an infeasible Right of Use (IRUs) with service providers and should offer the created infra on a sharable basis to all, subject to the available capacity of the infra. **This shall also make the building / property / premises financially lucrative for IP-1 to create digital infrastructure.**

According to the guidelines set by the Ministry of Housing and Urban Affairs (MoHUA) in the *Model Building Bye-Laws (MBBL) 2016*, there are standard regulations to ensure the quality and safety of building construction. These guidelines emphasize incorporating advanced construction technologies, such as in-building solutions, to enhance digital connectivity across the country. By integrating these modern systems, the framework aims to provide robust mobile coverage, improve connectivity, and support high-speed data services, contributing to the digitalization of infrastructure in both urban and rural areas.

Understanding the importance of enhanced coverage is critical for property managers, as it directly impacts the quality of mobile and data services within the building. Moreover, these managers must be aware of the regulatory requirements, as adherence to such standards is essential for maintaining network consistency and avoiding interference. This awareness fosters a more streamlined process for both property managers and infrastructure providers, promoting better collaboration and mutual understanding.

It is strongly emphasized that access to the building should be granted to infrastructure providers on an exclusive, fair, transparent, and non-discriminatory basis. There is no need for separate IBS authorisations.

Q23. In case it is decided for merging the scopes of the extant Infrastructure Provider-I (IP-I) and the Digital Connectivity Infrastructure Provider (DCIP) authorization into a single authorization under the Section 3(1)(b) of the Telecommunications Act, 2023, what should be the: -

(a) Minimum equity and networth of the Authorised entity.

(b) Amount of application processing fees

(c) Amount of entry fees

(d) Any other Fees/Charge Please support your response with proper justification.

DIPA's Response: No comment as we are certainly not in favour to merge the scopes of the existing Infrastructure Provider-I (IP-I) Registration and the Digital Connectivity Infrastructure Provider (DCIP) authorization into a single authorization.